



# 2016

Industrial & Embedded Computers



EMBEDDED SYSTEM  
INDUSTRIAL PC  
DIGITAL SIGNAGE  
TRANSPORTATION EMBEDDED SYSTEM  
INDUSTRIAL FIREWALL SYSTEM

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# Industrial & Embedded Computers

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## Total Solution

With over twenty years of experience in the industrial computing field, Axiomtek has been devoted to providing computing systems that deliver features such as flexible CPU types offering low power consumption, fanless designs, friendly mechanisms, improved expansion capability, scalable storage interfaces, wide range operating temperature, and fast time-to-market. To fulfill customers' diverse needs, Axiomtek offers an extensive line of Embedded Systems (eBOX series), MicroBox series, Embedded Field Controllers (rBOX series), Industrial Barebone Systems (IPC series), industrial chassis (AX & MicroBox series), backplanes as well as other peripherals and accessories.

## Ruggedized Embedded System - eBOX series

Axiomtek offers a wide range of embedded box computers ideal for harsh industrial environments. Our ruggedized embedded system series with fanless design offers an excellent thermal solution that operates without making any noise and are guaranteed reliable under critical environments at temperatures of -10°C to +50°C or above (-20°C to +70°C).

## Transportation-Centric Embedded System - tBOX series

Axiomtek presents tBOX series especially designed for transportation applications such as marine, vehicle, railway or any station use. Its stability and reliability earned an IEC60945 certificated for marine application, ISO-7637 rating and e-Mark certification for vehicle applications, and EN50155/ EN50121/ EN45545-2 certifications for railway applications. This series features anti-vibration design and isolation capability. The tBOX series provides seamless communication when used with GPS, Wi-Fi, 3G/4G and Bluetooth systems.

## DIN-rail Embedded Field Controller - rBOX series

Axiomtek's DIN-rail fanless embedded systems are suitable for communications control and for protocol converter applications that work under critical environments such as power plant automation, facility monitoring systems, transportation systems, and more. The rBOX series features industrial operating temperature range of -40°C to +70°C and front accessible I/O cabling for easy wiring and maintenance. Its compact size with DIN-rail mounting allows for easy installation into control cabinet.

## All-in-one Industrial Barebone System - IPC Series

Axiomtek has a full range of 19" rackmount barebone systems and fanless barebone systems, suitable for different environments and applications. Our industrial barebone systems deliver powerful computing performance, expansibility, high storage capacity, reliability, solid design, and most importantly, are cost-effective. Our systems are equipped with some of the most popular interfaces such as Ethernet ports, USB ports, PCI/PCIe expansion slots, PS/2 ports and COM ports to fit different application needs.

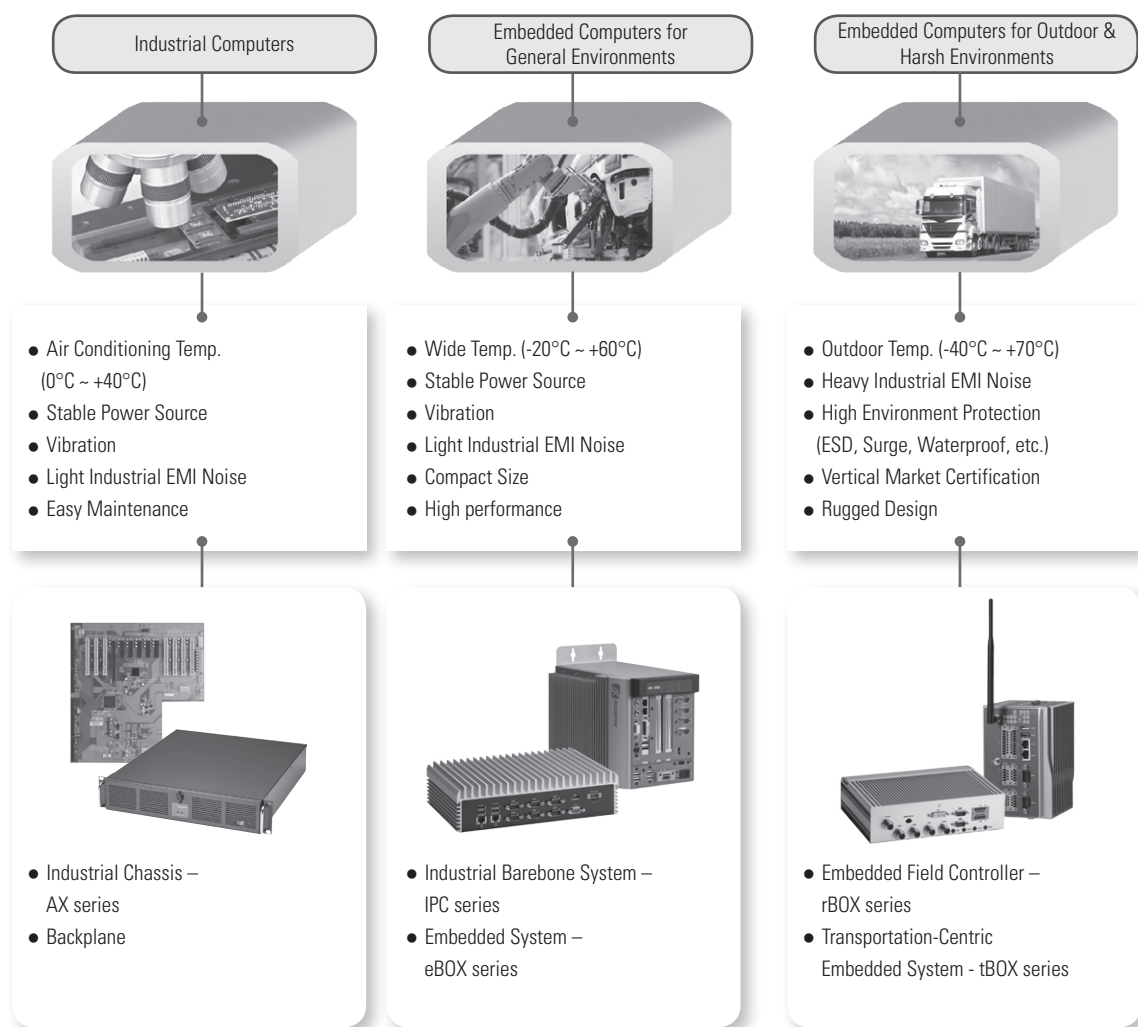
## Industrial Chassis - AX & MicroBox series

From 1U to 6U form factor, Axiomtek's industrial rackmount chassis support an ATX motherboard or PICMG single board computer and provide flexible expandability, solid design and easy configuration. We also offer a series of industrial grade desktop and wallmount computer chassis for embedded boards or Mini ITX motherboards that are outfitted with front I/O interfaces, expansion slots, flexible power supply alternatives, and for added convenience we can pre-install an operating system for a complete embedded solution.

## Backplane

Axiomtek offers a wide range of PICMG 1.3/PICMG 1.0 full & half size backplanes that provide not only the highest compatibility with its power supply unit but also provide the best extension slot selection for industrial computing platforms.






### Segment vs. Product Line








# 1

## Embedded Systems

Axiomtek delivers a wide range of embedded eBOX systems using low power, high performance long production life embedded components. These systems offer flexibility with a wide variety of accessories & peripherals for commercial and industrial applications. Operating system support includes: Win 10 IoT, WES7, WE8S, WinCE, Linux and others. Available features include fanless operation, extended operating temperature, backup battery, mobile compatible power supplies, expandable I/O, wall and DIN mounting in a variety of enclosure sizes with special ergonomics. The eBOX series is ideal for various embedded applications such as transportation, surveillance, industrial automation, factory automation, home automation, digital signage and more.

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| Introduction   |  | 243 |
| Selection Guide  |  | 245 |
| eBOX530-830-FL   | Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz, VGA or DisplayPort, GbE LAN, 4 USB and 2 COM  | 254 |
| eBOX530-840-FL   | Fanless Embedded System with Intel® Atom™ Processor E3825 1.33 GHz, VGA or HDMI, GbE LAN, 2 COM and 4 USB  | 255 |
| eBOX532-100-FL   | Fanless Embedded System with AMD G-Series APU T40R 1.0 GHz E3825 1.33 GHz, VGA/HDMI, 2 GbE LAN, 4 USB and 2 COM  | 256 |
|  eBOX560-300-FL     | Fanless EtherCAT Master Controller with Intel® Pentium® N3710 1.6 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card                              | 257 |
| eBOX560-880-FL   | Fanless Embedded System with Intel® Celeron® 2980U/ Core™ i3 5010U/ i5 4300U ULT SoC, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card     | 258 |
|  eBOX560-880-FL-ECM | Fanless Embedded System with Intel® Celeron® 2980U/ Core™ i5 4300U ULT SoC, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card               | 259 |
|  eBOX565-500-FL     | Fanless Embedded System with 6th Generation Intel® Core™ i5-6300U 2.4 GHz or Celeron® 3955U 2.0 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and 9~36VDC input | 260 |
| eBOX620-841-FL   | Fanless Embedded System with Intel® Atom™ Processor E3845 1.91 GHz, VGA/HDMI, 2 GbE LAN, 4 USB, CFast™ and 4 COM   | 261 |
| eBOX625-841-FL/<br>eBOX625-842-FL  | Fanless Embedded System with Intel® Atom™ Processor E3826 1.46 GHz or Intel® Celeron® J1900 2.0 GHz, VGA/HDMI 2 GbE LAN, 4 USB and 2 COM                   | 262 |
| eBOX626-841-FL/<br>eBOX626-842-FL  | Fanless Embedded System with Intel® Atom™ E3826 or Intel® Celeron® J1900, VGA/HDMI, 2 GbE LAN, 4 USB, 3 COM and 10~34VDC Input                             | 263 |
|  eBOX625-853-FL     | Fanless Embedded System with Intel® Celeron® N3160 1.6 GHz, VGA/HDMI, 4 COM, 2 GbE LAN, 4 USB, and 2 Mini PCIe   | 264 |
|  eBOX626-853-FL     | Fanless Embedded System with Intel® Celeron® N3160 1.6 GHz, VGA/HDMI, 4 COM, 2 GbE, LAN, 4 USB, 2 Mini PCIe and 9 ~36VDC Wide Range Input                  | 265 |
| eBOX623-831-FL   | Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz or D2550 1.86 GHz, VGA / DisplayPort, 2 GbE LAN, 6 USB and 4 COM                         | 266 |

|   |                    |  |     |
|---|--------------------|--|-----|
|   | eBOX620-110-FL     | Fanless Embedded System with AMD G-Series APU and DualView Support   | 267 |
|   | eBOX622-830-FL     | Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz or D2550 1.86 GHz, VGA/HDMI, 2 GbE LAN, 6 USB and 6 COM  | 268 |
|   | eBOX730-860-FL     | Fanless Embedded System with Intel® Core™ i7/i3 & Celeron® Processor, Isolated COM and Digital I/O   | 269 |
|    | eBOX660-872-FL     | Fanless Embedded System with Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor and 4 GbE LAN  | 270 |
|   | eBOX660-872-FL-DH  | Fanless Embedded System with Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor Dual HDD, 8 USB and 4 GbE LAN  | 271 |
|   | eBOX670-883-FL     | Fanless Embedded System with LGA1150 Socket Intel® Core™ i7/i5/i3 & Celeron® Processor, Intel® Q87, HDMIx2/VGA/DisplayPort, 4 GbE LAN, 6 USB 3.0, CFast™ and PCIe Mini Card    | 272 |
|    | eBOX670-891-FL     | Fanless Embedded System with LGA1151 Socket Intel® Core™ i7/i5/i3 & Celeron® Processor, Intel® Q170, HDMIx2/DisplayPort, 4 GbE LAN, 6 USB 3.0, CFast™ and 9 to 36VDC PWR input | 273 |
|    | eBOX671-885-FL     | Fanless Embedded System with LGA1150 Socket Intel® Core™ i7/i5/i3 and Celeron® Processor, Intel® Q87, 4 PoE Ports, 6 USB 3.0 Ports, HDMI/DVI/ DisplayPort and PCIe Mini Card   | 274 |
|  | eBOX671-885-FL-ECM | Fanless EtherCAT Master Controller Embedded System with LGA1150 Socket 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor   | 275 |
|   | eBOX640-860-FL     | Fanless Embedded System Featuring Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor TDP under 35W, Dual HDD and Multi-display   | 276 |
|   | eBOX635-881-FL     | Fanless Embedded System with LGA1150 Socket Intel® Core™ i7/i5/i3 & Celeron® Processor, HDMIx2/VGA/Displayport, 2GbE LAN, USB 3.0, CFast™ and PCIe Mini Card                   | 277 |
|   | eBOX630-100-FL     | Fanless Embedded System with AMD G-Series APU T56N 1.65 GHz, VGA/Dual DisplayPort for Dual Independent Display   | 278 |
|   | eBOX550-100-FL     | Fanless Embedded System with AMD G-Series APU T40E 1.0 GHz and VGA / DisplayPort for Dual Display  | 279 |
|   | eBOX646-FL         | Fanless Embedded System with AMD Geode™ LX800 500 MHz Processor for Gaming Management System   | 280 |
|   | eBOX745-FL500      | Fanless Embedded System with AMD Geode™ LX800 500 MHz Processor  | 281 |
|   | eBOX639-825-FL     | Fanless Embedded System with Intel® Atom™ Processor D525 1.8 GHz and 2 PCI Slots   | 282 |
|   | eBOX639-830-FL     | Fanless Embedded System with Intel® Atom™ Processor D2550 1.86 GHz and 2 PCI Slots   | 283 |
|   | eBOX638-840-FL     | Fanless Embedded System with Intel® Celeron® J1900 2.0 GHz and 2 PCI/ 2 PCIe x1 Slots  | 284 |
|  | eBOX311-841-FL     | Rugged IP67-rated Fanless Embedded System with Intel® Atom™ Processor E3845 1.91 GHz, VGA, 2 GbE LAN, 2 USB, 2 COM and 9~36VDC input   | 285 |

# Embedded eBOX Systems

## Embedded eBOX Systems

To improve the system reliability for extreme temperature environments and to extend the MTBF, Axiomtek's embedded solutions have adapted a fanless system by improving the board design and enhancing quality screening during production.

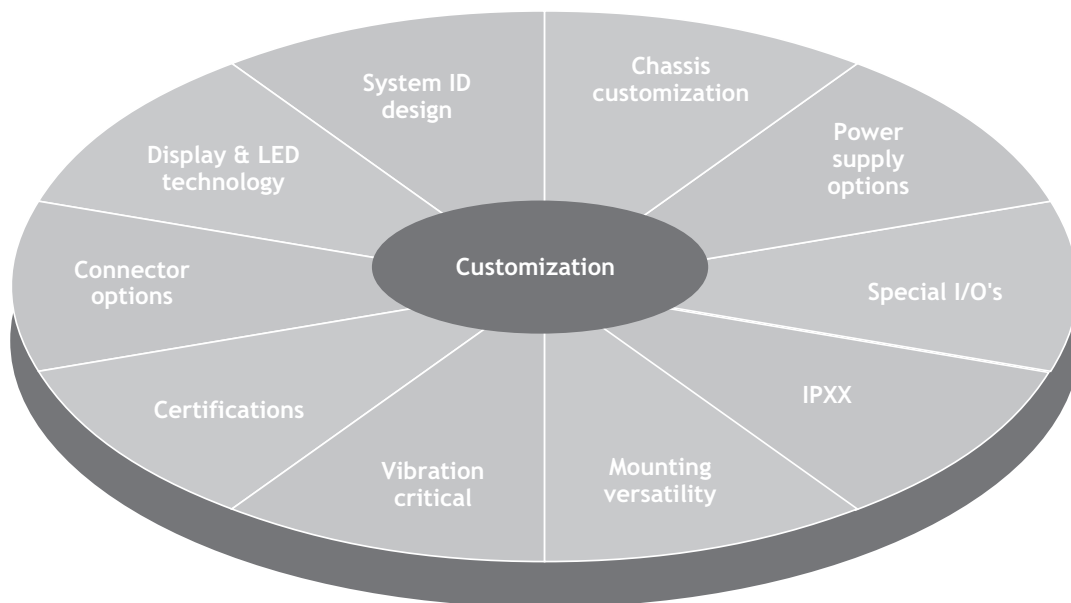
Axiomtek has developed a series of fanless and extended temperature products, the eBOX series. Supporting a fanless design, the eBOX series can operate silently with high reliability and many models operate in wide- temperature environments from -40°C to +70°C or more. Axiomtek's eBOX series is suitable for a wide range of industrial applications such as POS, kiosk, ATM, smart factory, thin servers, diskless workstations, building automation, digital signage in department stores, supermarkets, transportation and much more.

Integrated with high quality long production life components and passing rigorous development tests, Axiomtek's SBC's utilized in Axiomtek's eBOX's is guaranteed to work in a wide range temperature of environments. Axiomtek's SBC's employ high performance Intel® Core™ i processors and low-power core logic computing engines: including Intel® Atom™, Intel® Core™ i7/i5/i3 & Celeron®, Intel® ULT, AMD G-Series and Geode LX800 processors, all providing x86 PC compatible architectures. Axiomtek has embedded PC solutions for almost any application. Elimination of cooling fans offers new possibilities in many applications that mandate no moving parts, or silent operations. Axiomtek's SBC's provide cost effective solutions with low power consumption processors to eliminate the need for fans to provide superior system reliability.

Axiomtek's series of fanless and extended temperature products can be bundled with a variety of embedded OS solutions such as: Microsoft Windows® and Embedded Linux family-based products. OS options include Windows® CE.NET, Windows® 10 IoT, Windows® Embedded Standard, Windows® 7 Embedded, Windows® 8 Embedded and a variety of Linux and embedded Linux operating systems. All of Axiomtek's fanless and extended temperature hardware platforms support CompactFlash™ mSATA and 2.5" HDD drive bays too, providing configuration flexibility and long-term migration options. The Watchdog Timer function included in all eBOX platforms will automatically reset the system if software should hang, minimizing the need for costly monitoring and maintenance. Axiomtek's embedded platform solutions offer the flexibility, reliability, expandability to help OEMs become more advanced system providers and be more competitive.

Try Our Service to 100% Customize Your Unique System

Whether your requirement dictates a full custom eBOX solution or one of our fast time-to-market solution, Axiomtek's engineering team is standing by to custom-build an embedded platform solution specifically for your need.



# eBOX Segmentation

Category:

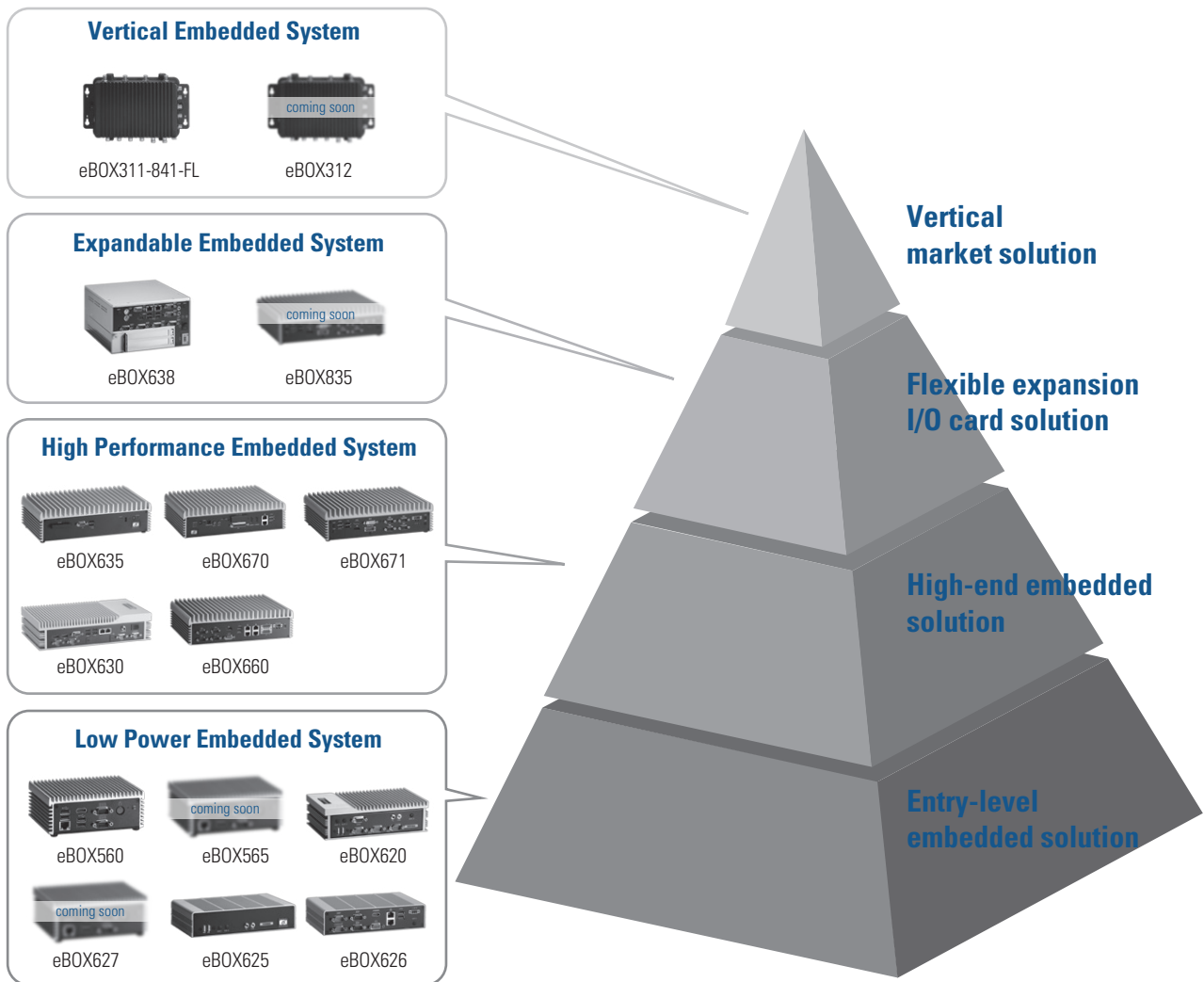
1. Vertical Embedded System

2. Expandable System

3. High Performance Embedded System

4. Ultra Low Power Embedded System

These systems offer many options such as CPU performance, fanless operation, wide range operating temperature, low power consumption, high reliability and ruggedness, scalability, flexible I/O, and long product life support.



Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories



# Embedded Systems

## Selection Guide



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| Features/Models               | eBOX530-830-FL                                   | eBOX530-840-FL  | eBOX532-100-FL   |
|-------------------------------|--|---|--|
| <b>CPU Level</b>              | Intel® Atom™ N2600 1.6 GHz                       | Intel® Atom™ E3825 1.33 GHz                           | AMD G-Series APU T40R 1.0 GHz  |
| <b>System Memory</b>          | 2 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB      | 1 x 204-pin DDR3L-1066/1333 SO-DIMM<br>max. up to 8GB | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB  |
| <b>Chipset</b>                | Intel® NM10                                      | SoC integrated  | AMD A50M FCH   |
| <b>Serial</b>                 | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2) | 2 x RS-232/422/485 (COM 1 /2)                         | 2 x RS-232 (COM 1/2)   |
| <b>Display</b>                | 1 x VGA or 1 x DisplayPort                       | VGA or HDMI   | 1 x VGA or 1 x DisplayPort   |
| <b>Audio</b>                  | Yes  | Yes   | Yes  |
| <b>LPT</b>                    | N/A  | N/A   | N/A  |
| <b>PS/2</b>                   | N/A  | N/A   | Yes  |
| <b>Ethernet</b>               | 1 x 10/100/1000Mbps Ethernet                     | 1 x 10/100/1000 Mbps Ethernet                         | 1 x 10/100/1000Mbps Ethernet   |
| <b>USB</b>                    | 4 x USB 2.0                                      | 4 x USB 2.0   | 4 x USB 2.0  |
| <b>Expansion Interface</b>    | N/A  | 1 x Full-size PCI Express Mini Card slot              | N/A  |
| <b>Storage</b>                | 1 x 2.5" HDD/SSD<br>1 x CFast™                   | 1 x 2.5" SSD/HDD<br>1 x mSATA                         | 1 x 2.5" HDD/SSD<br>1 x CompactFlash™  |
| <b>Watchdog Timer</b>         | 255 levels, 1 ~ 255 sec.                         | 255 levels, 1 ~ 255sec.                               | 255 levels, 1 ~ 255 sec.   |
| <b>Power Supply</b>           | 40W 100~ 240VAC adapter                          | 36W 100 ~240VAC adapter                               | 40W 100 ~ 240VAC adapter   |
| <b>Operating Temperature</b>  | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. SSD)  | -20 ~ +60°C (-4°F ~ +140°F)<br>(with W.T. SSD & DRAM) | 0° ~ +45°C (32°F ~ 113°F)<br>(with W.T. HDD)<br>0° ~ +50°C (32°F ~ 122°F)<br>(with W.T. SSD & W.T. CF) |
| <b>Wall Mount</b>             | Yes  | Yes   | Yes  |
| <b>DIN-rail</b>               | Yes  | Yes   | Yes  |
| <b>Dimensions (W x D x H)</b> | 132 x 95.4 x 47.5 mm<br>(5.19" x 3.75" x 1.85")  | 132 x 95.4 x 47.5 mm<br>(5.19" x 3.75" x 1.87")       | 132 x 95.4 x 47.5 mm<br>(5.19" x 3.75" x 1.85")  |
| <b>Weight (net/gross)</b>     | 0.5 kg (1.1 lb)/0.6 kg (1.32 lb)                 | 0.5 kg (1.1 lb)/0.6 kg (1.32 lb)                      | 0.5 kg (1.1 lb)/0.6 kg (1.32 lb)   |
| <b>Certificate</b>            | CE   | CE  | CE   |
| <b>EOS Support</b>            | WES7, WE8S, Linux                                | WES7, WE8S, WinCE, Linux                              | WES, WES7, XPE, Linux  |





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| Features/Models                   | eBOX560-300-FL                                  | eBOX560-880-FL                                       | eBOX560-880-FL-ECM  |
|-----------------------------------|---|--|---|
| <b>CPU Level</b>                  | Intel® Pentium® N3710 Q.C SoC                   | 5th/4th generation Intel® Core™ i5/i3 & Celeron® ULT | 4th generation Intel® Core™ i5-4300U & Celeron® 2980U ULT |
| <b>System Memory</b>              | 1 x 260-pin DDR4<br>max. up to 16 GB            | 1 x 204-pin DDR3L<br>max. up to 8 GB                 | 1 x 204-pin DDR3L<br>max. up to 8 GB                      |
| <b>Chipset</b>                    | SoC integrated                                  | SoC integrated                                       | SoC integrated  |
| <b>Serial</b>                     | 1x RS-232/422/485(COM 1)<br>1x RS-232(COM 2)    | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2)     | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2)          |
| <b>Display</b>                    | 2 x HDMI  | 1 x DisplayPort<br>1 x HDMI                          | 1 x DisplayPort<br>1 x HDMI                               |
| <b>Audio</b>                      | N/A   | N/A  | N/A   |
| <b>LPT</b>                        | N/A   | N/A  | N/A   |
| <b>PS/2</b>                       | N/A   | N/A  | N/A   |
| <b>Ethernet</b>                   | 2 x 10/100/1000Mbps Ethernet                    | 2 x 10/100/1000Mbps Ethernet                         | 1 x EtherCAT Master<br>1 x 10/100/1000 Mbps Ethernet      |
| <b>USB</b>                        | 4 x USB 3.0                                     | 4 x USB 3.0  | 4 x USB 3.0   |
| <b>Expansion Interface</b>        | 1 x PCI Express Mini Card<br>(USB+PCIe)         | 1 x PCI Express Mini Card<br>(USB+PCIe)              | 1 x PCI Express Mini Card<br>(USB+PCIe)                   |
| <b>Storage</b>                    | 1 x 2.5" HDD/SSD<br>1 x mSATA                   | 1 x 2.5" HDD/SSD<br>1 x mSATA                        | 1 x 2.5" HDD/SSD<br>1 x mSATA                             |
| <b>Watchdog Timer</b>             | 255 levels, 1~255 sec.                          | 255 levels, 1 ~ 255 sec.                             | 255 levels, 1 ~ 255 sec.                                  |
| <b>Power Supply</b>               | 60W 90~264VAC adapter                           | 60W 90 ~ 264VAC adapter                              | 60W 90 ~ 264VAC adapter                                   |
| <b>Operating Temperature</b>      | -20°C ~ +50°C (-4°F ~ 122°F)<br>(with W.T. SSD) | -20°C ~ +50°C (-4°F ~ 122°F)<br>(with W.T. SSD)      | -20°C ~ +50°C (-4°F ~ 122°F)<br>(with W.T. SSD)           |
| <b>Wall Mount</b>                 | Yes   | Yes  | Yes   |
| <b>DIN-rail</b>                   | Yes   | Yes  | Yes   |
| <b>Dimensions<br/>(W x D x H)</b> | 141.5 x 106 x 55 mm<br>(5.57" x 4.17" x 2.17")  | 141.5 x 106 x 55 mm<br>(5.57" x 4.17" x 2.17")       | 141.5 x 106 x 55 mm<br>(5.57" x 4.17" x 2.17")            |
| <b>Weight (net/gross)</b>         | 8 kg (1.76 lb)/1.5 kg (3.31 lb)                 | 0.8 kg (1.76 lb)/1.5 kg (3.31 lb)                    | 0.8 kg (1.76 lb)/1.5 kg (3.31 lb)                         |
| <b>Certificate</b>                | CE  | CE, UL, FCC & VCCI                                   | CE  |
| <b>EOS Support</b>                | WES7, WES8, CE, Win10 IoT                       | WES7, WES8, Linux                                    | WES7, WES8, Linux   |

\* All specifications and photos are subject to change without notice.



# Embedded Systems

## Selection Guide



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| Features/Models              | eBOX565-500-FL                                   | eBOX620-841-FL                                       | eBOX625-841-FL   | eBOX626-841-FL   |
|------------------------------|--|--|--|--|
| <b>CPU Level</b>             | 6th generation Intel® Core™ & Celeron® ULT       | Intel® Atom™ E3845 1.91 GHz                          | Intel® Atom™ E3826 1.46 GHz/<br>Celeron® J1900 2.0GHz  | Intel® Atom™ E3826 1.46 GHz/<br>Celeron® J1900 2.0GHz  |
| <b>System Memory</b>         | 1 x 260-pin DDR4<br>max. up to 16 GB             | 1 x 204-pin DDR3L SO-DIMM<br>max. up to 8 GB         | 1 x 204-pin DDR3L-1066/1333<br>SO-DIMM<br>max. up to 8 GB  | 1 x 204-pin DDR3L-1066/1333<br>SO-DIMM<br>max. up to 8 GB  |
| <b>Chipset</b>               | SoC integrated                                   | SoC integrated                                       | SoC integrated   | SoC integrated   |
| <b>Serial</b>                | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2) | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4) | 2 x RS-232/422/485 (COM 1 /2)  | 2 x RS-232/422/485 (COM 1 /2)<br>1 x RS-232 (COM3)   |
| <b>Display</b>               | 2 x HDMI   | 1 x VGA<br>1 x HDMI                                  | 1 x VGA<br>1 x HDMI  | 1 x VGA<br>1 x HDMI  |
| <b>Audio</b>                 | N/A  | Yes  | Yes  | Yes  |
| <b>LPT</b>                   | N/A  | N/A  | N/A  | N/A  |
| <b>PS/2</b>                  | N/A  | N/A  | N/A  | N/A  |
| <b>Ethernet</b>              | 2 x 10/100/1000Mbps Ethernet                     | 2 x 10/100/1000Mbps Ethernet                         | 2 x 10/100/1000 Mbps Ethernet  | 2 x 10/100/1000 Mbps Ethernet  |
| <b>USB</b>                   | 4 x USB 3.0                                      | 4 x USB 2.0  | 4 x USB 2.0  | 4 x USB 2.0  |
| <b>Expansion Interface</b>   | 1 x PCI Express Mini Card<br>(USB+PCIe)          | 2 x PCI Express Mini Card<br>(USB+PCIe)              | 1 x Full-size PCI Express Mini Card<br>1 x Half-size PCI Express<br>Mini Card                          | 1 x Full-size PCI Express Mini Card<br>1 x Half-size PCI Express<br>Mini Card                          |
| <b>Storage</b>               | 1 x 2.5" HDD/SSD<br>1 x mSATA                    | 1 x 2.5" HDD/SSD<br>1 x CFast™<br>1 x mSATA          | 1 x 2.5" SSD/HDD<br>1 x mSATA  | 1 x 2.5" SSD/HDD<br>1 x mSATA  |
| <b>Watchdog Timer</b>        | 255 levels, 1~255 sec.                           | 255 levels, 1 ~ 255 sec.                             | 255 levels, 1 ~ 255sec.  | 255 levels, 1 ~ 255sec.  |
| <b>Power Supply</b>          | 9~36VDC  | 60W 90 ~ 264VAC adapter                              | 36W 100 ~240VAC adapter  | 42.5W 10~34VDC-in  |
| <b>Operating Temperature</b> | -20°C ~ +50°C (-4°F ~ 122°F)<br>(with W.T. SSD)  | -40°C ~ +60°C (-40°F ~ 140°F)<br>(with W.T. SSD)     | -20 ~ +60°C (-4°F ~ +140°F) by E3826<br>-20 ~ +50°C (-4°F ~ +122°F) by J1900<br>(with W.T. SSD & DRAM) | -20 ~ +60°C (-4°F ~ +140°F) by E3826<br>-20 ~ +50°C (-4°F ~ +122°F) by J1900<br>(with W.T. SSD & DRAM) |
| <b>Wall Mount</b>            | Yes  | Yes  | Yes  | Yes  |
| <b>DIN-rail</b>              | Yes  | Yes  | Yes  | Yes  |
| <b>Dimensions</b>            | 141.5 x 106 x 76.2 mm<br>(5.57" x 4.17" x 3")    | 200 x 120 x 56 mm<br>(7.87" x 4.72" x 2.2")          | 200 x 120 x 46 mm<br>(7.87" x 4.72" x 1.81")   | 200 x 120 x 46 mm<br>(7.87" x 4.72" x 1.81")   |
| <b>Weight (net/gross)</b>    | 1.3 kg(2.87 lb)/1.8 kg(3.97 lb)                  | 2 kg (4.41 lb)/2.7 kg (5.95 lb)                      | 1.1 kg (2.43 lb)/1.8 kg (3.97 lb)  | 1.1kg (2.43 lb)/1.8 kg (3.97 lb)   |
| <b>Certificate</b>           | CE   | CE   | CE   | CE   |
| <b>EOS Support</b>           | WES7, WES8, Win10 IOT & CE                       | WES7, WES8, WinCE, Linux                             | WES7, WE8S, WinCE, Linux   | WES7, WE8S, WinCE, Linux   |



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| Features/Models                   | eBOX625-853-FL   | eBOX626-853-FL   | eBOX623-831-FL   |
|-----------------------------------|--|--|--|
| <b>CPU Level</b>                  | Intel® Celeron® N3160 2.24 GHz                         | Intel® Celeron® N3160 2.24 GHz                         | Intel® Atom™ D2550 1.86 GHz                            |
| <b>System Memory</b>              | 1 x 204-pin DDR3L<br>max. up to 8 GB                   | 1 x 204-pin DDR3L<br>max. up to 8 GB                   | 2 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB            |
| <b>Chipset</b>                    | SoC integrated   | SoC integrated   | Intel® NM10  |
| <b>Serial</b>                     | 1 x RS-232/422/485(COM 1)<br>3 x RS-232(COM 2-4)       | 1 x RS-232/422/485(COM 1)<br>3 x RS-232(COM 2-4)       | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)   |
| <b>Display</b>                    | 1 x VGA<br>1 x HDMI                                    | 1 x VGA<br>1 x HDMI                                    | 1 x VGA<br>1 x DisplayPort                             |
| <b>Audio</b>                      | Yes  | Yes  | Yes  |
| <b>LPT</b>                        | N/A  | N/A  | N/A  |
| <b>PS/2</b>                       | N/A  | N/A  | N/A  |
| <b>Ethernet</b>                   | 2 x 10/100/1000Mbps Ethernet                           | 2 x 10/100/1000Mbps Ethernet                           | 2 x 10/100/1000Mbps Ethernet                           |
| <b>USB</b>                        | 3 x USB 3.0<br>1 x USB 2.0                             | 3 x USB 3.0<br>1 x USB 2.0                             | 6 x USB 2.0  |
| <b>Expansion Interface</b>        | 2 x Full-size PCI Express<br>Mini Card                 | 2 x Full-size PCI Express<br>Mini Card                 | 1 x PCI Express Mini Card<br>(USB+PCIe)                |
| <b>Storage</b>                    | 1 x 2.5" HDD/SSD<br>1 x mSATA                          | 1 x 2.5" HDD/SSD<br>1 x mSATA                          | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™<br>1 x mSATA |
| <b>Watchdog Timer</b>             | 255 levels, 1-255 sec.                                 | 255 levels, 1-255 sec.                                 | 255 levels, 1 ~ 255 sec.                               |
| <b>Power Supply</b>               | 36W 100-240VAC adapter                                 | 9-36VDC  | 60W 115-230VAC adapter                                 |
| <b>Operating Temperature</b>      | -20°C ~ +60°C (-4°F ~ 140°F)<br>(with W.T. SSD & DRAM) | -20°C ~ +60°C (-4°F ~ 140°F)<br>(with W.T. SSD & DRAM) | -10°C ~ +55°C (14°F ~ 131°F)<br>(with W.T. SSD)        |
| <b>Wall Mount</b>                 | Yes  | Yes  | Yes  |
| <b>DIN-rail</b>                   | Yes  | Yes  | Yes  |
| <b>Dimensions<br/>(W x D x H)</b> | 200 x 120 x 46 mm<br>(7.87" x 4.72" x 1.81")           | 200 x 120 x 46 mm<br>(7.87" x 4.72" x 1.81")           | 200 x 120 x 56 mm<br>(7.87" x 4.72" x 2.2")            |
| <b>Weight (net/gross)</b>         | 1.1kg (2.43 lb)/1.8 kg (3.97 lb)                       | 1.1kg (2.43 lb)/1.8 kg (3.97 lb)                       | 1.98 kg (4.36 lb)/2.6 kg (5.73 lb)                     |
| <b>Certificate</b>                | CE   | CE   | CE   |
| <b>EOS Support</b>                | WES7, WE8S, Win10 IoT & CE                             | WES7, WE8S, Win10 IoT & CE                             | WES7, WE8S   |

\* All specifications and photos are subject to change without notice.



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| Features/Models               | eBOX620-110-FL                                       | eBOX622-830-FL   | eBOX730-860-FL  |
|-------------------------------|--|--|---|
| <b>CPU Level</b>              | AMD G-Series APU T56N 1.65 GHz                       | Intel® Atom™ N2600 1.6GHz/D2550 1.8GHz                       | Socket G2 for Intel® Core™ i7/i3 & Celeron®           |
| <b>System Memory</b>          | 1 x 204-pin DDR3 SO-DIMM max. up to 4 GB             | 1 x 204-pin DDR3 SO-DIMM max. up to 4 GB                     | 2 x 204-pin DDR3 SO-DIMM max. up to 16 GB             |
| <b>Chipset</b>                | AMD A50M FCH   | Intel® NM10  | Intel® QM67   |
| <b>Serial</b>                 | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1) | 3 x RS-232/422/485 (COM1/3/4)<br>3 x RS-232 (COM2/5/6)       | 8 x RS-232/422/485 (COM 1-8)                          |
| <b>Display</b>                | 1 x VGA<br>1 x DisplayPort                           | 1 x VGA<br>1 x HDMI  | 1 x DVI-I<br>2 x DisplayPort                          |
| <b>Audio</b>                  | Yes  | Yes  | 1 x Audio (Mic-in/Line-out)                           |
| <b>LPT</b>                    | N/A  | N/A  | N/A   |
| <b>PS/2</b>                   | N/A  | N/A  | N/A   |
| <b>Ethernet</b>               | 2 x 10/100/1000Mbps Ethernet                         | 2 x 10/100/1000Mbps Ethernet                                 | 2 x 10/100/1000Mbps Ethernet                          |
| <b>USB</b>                    | 6 x USB 2.0  | 6 x USB 2.0  | 2 x USB 3.0<br>4 x USB 2.0                            |
| <b>Expansion Interface</b>    | 1 x PCI Express Mini Card (USB+PCIe)                 | 2 x PCI Express Mini Card slots (USB + PCIe)<br>1 x SIM slot | 2 x PCI Express Mini Card (USB+PCIe)<br>2 x SIM slots |
| <b>Storage</b>                | 1 x 2.5" HDD/SSD<br>1 x CompactFlash™                | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™<br>1 x mSATA       | 1 x 2.5" HDD/SSD<br>1 x CFast™                        |
| <b>Watchdog Timer</b>         | 255 levels, 1~255 sec.                               | 255 levels, 1~255 sec.                                       | 255 levels, 1~255 sec.                                |
| <b>Power Supply</b>           | 60W 115 ~ 230VAC adapter                             | 42.5W 9 ~ 34VDC  | 10~30VDC  |
| <b>Operating Temperature</b>  | -10°C ~ +45°C (14°F ~113°F)<br>(with W.T. HDD)       | -20°C ~ 60°C (-4°F ~ 140°F)<br>(with W.T. HDD)               | -20°C ~ +70°C (-4°F ~ 176°F)<br>(with W.T. SSD)       |
| <b>Wall Mount</b>             | Yes  | Yes  | Yes   |
| <b>DIN-rail</b>               | Yes  | Yes  | N/A   |
| <b>Dimensions (W x D x H)</b> | 200 x 120 x 56 mm<br>(7.87" x 4.72" x 2.2")          | 200 x 120 x 75 mm<br>(7.87" x 4.72" x 2.95")                 | 250 x 150 x 60 mm<br>(9.84" x 5.9" x 2.36")           |
| <b>Weight (net/gross)</b>     | 1.8 kg (3.97 lb)/2.6 kg (5.73 lb)                    | 1.9 kg (4.19 lb)/2.7 kg (5.95 lb)                            | 3.8 kg (8.37 lb)/4.6 kg (10.14 lb)                    |
| <b>Certificate</b>            | CE   | CE   | CE  |
| <b>EOS Support</b>            | WES, WES7, XPE, Linux                                | WES7, WE8S   | WE8S, WES7, Linux                                     |



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| Features/Models               | eBOX660-872-FL   | eBOX660-872-FL-DH  | eBOX670-883-FL  | eBOX670-891-FL   |
|-------------------------------|--|--|---|--|
| <b>CPU Level</b>              | Socket G2 3rd generation i7/i5/i3 & Celeron®                 | Socket G2 3rd generation Intel® Core™ i7/i5/i3 & Celeron®    | LGA1150 4th generation Intel® Core™ i7/i5/i3 & Celeron® | LGA1151 6th generation Intel® Core™ i7/i5/i3 & Celeron®        |
| <b>System Memory</b>          | 2 x 204-pin DDR3 SO-DIMM max. up to 16 GB                    | 2 x 204-pin DDR3 SO-DIMM max. up to 16 GB                    | 2 x 204-pin DDR3 1333/1600 SO-DIMM max. up to 16GB      | 2 x 260-pin DDR4 2133 SO-DIMM max. up to 32GB                  |
| <b>Chipset</b>                | Intel® HM76  | Intel® HM76  | Intel® Q87  | Intel® Q170  |
| <b>Serial</b>                 | 4 x RS-232/422/485 (COM 1/2/3/4)                             | 4 x RS-232/422/485 (COM 1/2/3/4)                             | 6 x RS-232/422/485 (COM1 – 6)                           | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232(COM 3/4)            |
| <b>Display</b>                | 1 x VGA<br>1 x DisplayPort                                   | 1 x VGA<br>1 x DisplayPort                                   | 2 x HDMI<br>1 x VGA<br>1 x DisplayPort                  | 2 x HDMI<br>1 x DP   |
| <b>Audio</b>                  | 1 x Audio (Mic-in/Line-out)                                  | 2 x Audio (Mic-in/Line-out)                                  | Yes   | Yes  |
| <b>LPT</b>                    | N/A  | N/A  | N/A   | N/A  |
| <b>PS/2</b>                   | N/A  | N/A  | N/A   | N/A  |
| <b>Ethernet</b>               | 4 x 10/100/1000Mbps Ethernet                                 | 4 x 10/100/1000Mbps Ethernet                                 | 4 x 10/100/1000Mbps Ethernet                            | 4 x 10/100/1000Mbps Ethernet                                   |
| <b>USB</b>                    | 4 x USB 3.0  | 4 x USB 3.0<br>4 x USB 2.0                                   | 6 x USB 3.0   | 2 x USB 2.0<br>6 x USB 3.0                                     |
| <b>Expansion Interface</b>    | 2 x PCI Express Mini Card (USB+PCIe)<br>2 x SIM slots        | 2 x PCI Express Mini Card (USB+PCIe)<br>2 x SIM slots        | 2 x PCI Express Mini Card (USB+PCIe)<br>1 x SIM slot    | 2 x Full-size PCI Express Mini Card (USB+PCIe)<br>1 x SIM slot |
| <b>Storage</b>                | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™<br>1 x mSATA       | 2 x 2.5" HDD/SSD<br>1 x CFast™ slot<br>1 x mSATA             | 2 x 2.5" SATA HDD drive bay<br>1 x CFast™<br>1 x mSATA  | 2 x 2.5" SATA HDD bay<br>1 x CFast™<br>1 x mSATA               |
| <b>Watchdog Timer</b>         | 255 levels, 1~255 sec.                                       | 255 levels, 1 ~ 255 sec.                                     | 255 levels, 1 ~ 255 sec.                                | 255 levels, 1~255 sec.   |
| <b>Power Supply</b>           | 10~35VDC   | 10 ~ 30VDC   | DC input 9~36V  | DC input 9~36V   |
| <b>Operating Temperature</b>  | -40°C ~ +70°C (-4°F ~ 176°F)<br>(with W.T. SSD, CPU TDP 35W) | -20°C ~ +70°C (-4°F ~ 158°F)<br>(with W.T. SSD, CPU TDP 35W) | -40°C ~ +55°C (-40°F ~ 131°F)<br>(with W.T. SSD)        | -40°C ~ +55°C (-40°F ~ 131°F)<br>(with W.T. SSD)               |
| <b>Wall Mount</b>             | Yes  | Yes  | Yes   | Yes  |
| <b>DIN-rail</b>               | Yes  | Yes  | N/A   | Yes  |
| <b>Dimensions (W x D x H)</b> | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.75")                | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.75")                | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.75")           | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.75")                  |
| <b>Weight (net/gross)</b>     | 3.8 kg (8.37 lb)/4.6 kg (10.14 lb)                           | 3.8 kg (8.37 lb)/4.6 kg (10.14 lb)                           | 3.8 kg (8.37 lb)/4.6 kg (10.14 lb)                      | 3.8 kg (8.37 lb)/4.6 kg (10.14 lb)                             |
| <b>Certificate</b>            | CE   | CE   | CE  | CE   |
| <b>EOS Support</b>            | WE8S, WE57, Linux  | WE8S, WE57, Linux  | WE57, WE8S, Linux,                                      | WE57, WE8S, Win10 IoT & Linux                                  |

Overview

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Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

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Industrial Chassis

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Power Supplies

Peripherals & Accessories

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| Features/Models               | eBOX671-885-FL   | eBOX671-885-FL-ECM  | eBOX640-860-FL                               | eBOX635-881-FL  |
|-------------------------------|--|---|--|---|
| <b>CPU Level</b>              | LGA1150 Socket for 4th generation Intel® Core™ i7/i5/i3 & Celeron®               | LGA1150 Socket for 4th generation Intel® Core™ i7/i5/i3 & Celeron®                        | Socket G2 Intel® Core™ i7/i5/i3 & Celeron®   | LGA1150 4th generation Intel® Core™ i7/i5/i3 & Celeron® |
| <b>System Memory</b>          | 2 x 204-pin DDR3-1333/1600 SO-DIMM max. up to 16GB                               | 2 x 204-pin DDR3-1333/1600 SO-DIMM max. up to 16GB  | 2 x 204-pin DDR3 SO-DIMM max. up to 16 GB    | 1 x 204-pin DDR3 1333/1600 MHz SO-DIMM max. up to 8 GB  |
| <b>Chipset</b>                | Intel® Q87   | Intel® Q87  | Intel® QM67                                  | Intel® H81  |
| <b>Serial</b>                 | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)                             | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)                                      | 4 x RS-232 (COM 1-4)                         | 6 x RS-232/422/485 (COM 1 ~ 6)                          |
| <b>Display</b>                | 1 x DVI-I<br>1 x HDMI<br>1 x DisplayPort   | 1 x DVI-I<br>1 x HDMI<br>1 x DisplayPort  | 1 x VGA<br>1 x DisplayPort<br>1 x HDMI       | 2 x HDMI<br>1 x VGA<br>1 x DisplayPort                  |
| <b>Audio</b>                  | Yes  | Yes   | Yes  | Yes   |
| <b>LPT</b>                    | N/A  | N/A   | N/A  | N/A   |
| <b>PS/2</b>                   | N/A  | N/A   | Yes  | N/A   |
| <b>Ethernet</b>               | 2 x 10/100/1000Mbps Ethernet<br>4 x 10/100/1000Mbps Power over Ethernet, PoE 30W | 1 x EtherCAT port<br>1 x GbE LAN port<br>4 x 10/100/1000Mbps Power over Ethernet, PoE 30W | 2 x 10/100/1000Mbps Ethernet                 | 2 x 10/100/1000Mbps Ethernet                            |
| <b>USB</b>                    | 6 x USB 3.0<br>2 x USB 2.0   | 6 x USB 3.0<br>2 x USB 2.0  | 6 x USB 2.0                                  | 2 x USB 3.0<br>4 x USB 2.0                              |
| <b>Expansion Interface</b>    | 2 x Full-size PCI Express Mini Card (USB+PCIe)<br>1 x SIM slot                   | 2 x Full-size PCI Express Mini Card (USB+PCIe)<br>1 x SIM slot                            | 1 x PCI Express Mini Card (USB+PCIe)         | 2 x PCI Express Mini Card (USB+PCIe)<br>1 x SIM slot    |
| <b>Storage</b>                | 2 x 2.5" SATA HDD bay<br>1 x CFast™<br>2 x mSATA                                 | 2 x 2.5" SATA HDD bay<br>1 x CFast™<br>2 x mSATA  | 2 x 2.5" HDD/SSD<br>1 x CFast™               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™<br>1 x mSATA  |
| <b>Watchdog Timer</b>         | 255 levels, 1 ~ 255sec.  | 255 levels, 1 ~ 255sec.   | 255 levels, 1 ~ 255 sec.                     | 255 levels, 1~255 sec.                                  |
| <b>Power Supply</b>           | DC 24V input   | DC 24V input  | 150W ATX 10 ~ 30VDC                          | DC input 19/12V   |
| <b>Operating Temperature</b>  | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. SSD & DRAM, CPU TDP 35W)                | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. SSD & DRAM, CPU TDP 35W)                         | -5°C ~ +50°C (23°F ~ 122°F) (with W.T. HDD)  | -20°C ~ +50°C (-4°F ~ 122°F) (with W.T. SSD)            |
| <b>Wall Mount</b>             | Yes  | Yes   | Yes  | Yes   |
| <b>DIN-rail</b>               | Yes  | Yes   | N/A  | Yes   |
| <b>Dimensions (W x D x H)</b> | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.76")                                    | 280 x 190 x 70 mm<br>(11.02" x 7.48" x 2.76")   | 193 x 231 x 111 mm<br>(7.6" x 9.09" x 4.37") | 280 x 150 x 67 mm<br>(11.02" x 5.91" x 2.64")           |
| <b>Weight (net/gross)</b>     | TBD  | TBD   | 3.8 kg (8.38 lb)/4.5 kg (9.92 lb)            | 2.5 kg (5.51 lb)/4.5 kg (9.92 lb)                       |
| <b>Certificate</b>            | CE   | CE  | CE   | CE  |
| <b>EOS Support</b>            | WES7, WE8S, Linux  | WES7, WE8S, Linux   | WES7   | WES7, WE8S, Linux                                       |



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| Features/Models                   | eBOX630-100-FL  | eBOX550-100-FL                                   | eBOX646-FL   | eBOX745-FL500  |
|-----------------------------------|---|--|--|--|
| <b>CPU Level</b>                  | AMD G-Series APU T56N 1.65 GHz                          | AMD G-Series APU T40E 1.0 GHz                    | AMD LX800 500 MHz                                    | AMD Geode LX800 500 MHz                              |
| <b>System Memory</b>              | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB             | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB      | 1 x 200-pin DDR SO-DIMM<br>max. up to 1 GB           | 1 x 200-pin DDR SO-DIMM<br>max. up to 1 GB           |
| <b>Chipset</b>                    | AMD A50M  | AMD A50M FCH                                     | AMD LX800 + CS5536                                   | AMD LX800 + CS5536                                   |
| <b>Serial</b>                     | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1)    | N/A  | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1) | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1) |
| <b>Display</b>                    | 1 x VGA<br>2 x DisplayPort                              | 1 x VGA<br>1 x DisplayPort                       | 1 x VGA  | 1 x VGA  |
| <b>Audio</b>                      | Yes   | Yes  | Yes  | N/A  |
| <b>LPT</b>                        | N/A   | N/A  | Yes  | Yes  |
| <b>PS/2</b>                       | N/A   | N/A  | Yes  | Yes  |
| <b>Ethernet</b>                   | 2 x 10/100/1000Mbps Ethernet                            | 2 x 10/100/1000Mbps Ethernet                     | 2 x 10/100Mbps Ethernet                              | 2 x 10/100Mbps Ethernet                              |
| <b>USB</b>                        | 6 x USB 2.0   | 4 x USB 2.0                                      | 3 x USB 2.0  | 3 x USB 2.0  |
| <b>Expansion Interface</b>        | 2 x PCI Express Mini Card<br>(USB+PCIe)<br>1 x SIM slot | 1 x PCI Express Mini Card<br>(USB+PCIe)          | N/A  | N/A  |
| <b>Storage</b>                    | 1 x 2.5" HDD/SSD<br>1 x CFast™                          | 1 x 2.5" HDD/SSD<br>1 x CFast™                   | 1 x CompactFlash™                                    | 1 x 2.5" HDD/SSD<br>1 x CompactFlash™                |
| <b>Watchdog Timer</b>             | 255 levels, 1~255 sec.                                  | 255 levels, 1 ~ 255 sec.                         | 255 levels, 1 ~ 255 sec.                             | 255 levels, 1 ~ 255 sec.                             |
| <b>Power Supply</b>               | 60W 115~230VAC adapter                                  | 60W 115 ~ 230VAC adapter                         | 20W 90 ~ 264VAC adapter                              | 72W AT 85 ~ 270VAC<br>72W AT 18 ~ 36VDC              |
| <b>Operating Temperature</b>      | -10°C ~ +55°C (14°F ~131°F)<br>(with W.T. HDD)          | -10°C ~ +45°C (13°F ~113°F)<br>(with W.T. HDD)   | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. CF)       | -20°C ~ +50°C (-4°F ~ +122°F)<br>(with W.T. HDD)     |
| <b>Wall Mount</b>                 | Yes   | Yes  | Yes  | Yes  |
| <b>DIN-rail</b>                   | Yes   | N/A  | N/A  | Yes  |
| <b>Dimensions<br/>(W x D x H)</b> | 280 x 150 x 67 mm<br>(2.64" x 11.02" x 5.91")           | 160.4 x 135.4 x 60 mm<br>(6.31" x 5.33" x 2.36") | 200 x 150 x 44 mm<br>(7.8" x 5.9" x 1.73")           | 225 x 225 x 51 mm<br>(8.86" x 8.86" x 2.01")         |
| <b>Weight (net/gross)</b>         | 2.5 kg (5.51 lb)/4.5 kg (9.92 lb)                       | 1.8 kg (3.97 lb)/2.6 kg (5.73 lb)                | 1.3 kg (2.86 lb)/1.8 kg (3.97 lb)                    | 2.15 kg (4.74 lb)/2.9 kg (6.39 lb)                   |
| <b>Certificate</b>                | CE  | CE   | CE   | CE   |
| <b>EOS Support</b>                | WES, WES7, XPE, Linux                                   | WES, XPE, Linux                                  | WES, XPE, WinCE, Linux                               | WES, XPE, WinCE, Linux                               |





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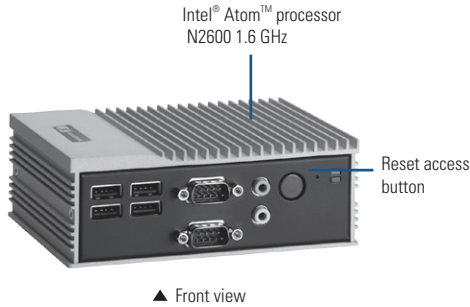


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| Features/Models                   | eBOX639-825-FL                                     | eBOX639-830-FL                                     | eBOX638-840-FL   | eBOX311-841-FL   |
|-----------------------------------|--|--|--|--|
| <b>CPU Level</b>                  | Intel® Atom™ N455 1.66 GHz/<br>D525 1.8 GHz        | Intel® Atom™ D2550 1.86 GHz                        | Intel® Celeron® Quad-Core<br>J1900 2.0GHz                    | Intel® Atom™ E3845 1.91GHz                             |
| <b>System Memory</b>              | 2 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB        | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 4 GB        | 1 x 204-pin DDR3L-1066/1333<br>SO-DIMM<br>max. up to 8 GB    | 1 x 204-pin DDR3L<br>max. up to 8 GB                   |
| <b>Chipset</b>                    | Intel® NM10  | Intel® NM10  | SoC integrated   | SoC integrated   |
| <b>Serial</b>                     | 6 x RS-232 (COM 1-6)                               | 4 x RS-232   | 6 x RS-232   | 2 x RS-232/422/485(COM 1/2),<br>M12 type               |
| <b>Display</b>                    | 1 x VGA  | 1 x VGA<br>1 x HDMI                                | 1 x VGA & 1 x HDMI   | 1 x VGA  |
| <b>Audio</b>                      | Yes  | Yes  | Yes  | N/A  |
| <b>LPT</b>                        | N/A  | Yes  | N/A  | N/A  |
| <b>PS/2</b>                       | Yes  | Yes  | Yes  | N/A  |
| <b>Ethernet</b>                   | 2 x 10/100/1000Mbps Ethernet                       | 2 x 10/100/1000Mbps Ethernet                       | 2 x 10/100/1000Mbps Ethernet                                 | 2 x 10/100/1000Mbps Ethernet,<br>M12 type              |
| <b>USB</b>                        | 6 x USB 2.0  | 6 x USB 2.0  | 1 x Internal USB 3.0<br>4 x USB 2.0                          | 2 x USB 2.0, M12 type                                  |
| <b>Expansion Interface</b>        | 2 x PCI<br>1 x PCI Express Mini Card<br>(USB+PCIe) | 2 x PCI<br>1 x PCI Express Mini Card<br>(USB+PCIe) | 1 x Full-size PCI Express<br>Mini Card<br>2 x PCI or PCIe x1 | 2 x Full-size PCI Express Mini Card                    |
| <b>Storage</b>                    | 1 x 2.5" HDD/SSD                                   | 1 x 2.5" HDD/SSD<br>1 x mSATA                      | 1 x 2.5" SSD/HDD<br>1 x mSATA                                | 1 x 2.5" HDD/SSD<br>1 x CFast™<br>1 x mSATA            |
| <b>Watchdog Timer</b>             | 255 levels, 1 ~ 255 sec.                           | 255 levels, 1 ~ 255 sec.                           | 255 levels, 1 ~ 255sec.                                      | 255 levels, 1-255 sec.                                 |
| <b>Power Supply</b>               | 107W ATX 16~ 28VDC                                 | 107W ATX 16 ~ 28VDC                                | 72W 16~28VDC-in  | 9~36VDC, M12 type                                      |
| <b>Operating Temperature</b>      | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. HDD)    | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. SSD)    | -10°C ~ +55°C (14°F ~ +131°F)<br>(with W.T. SSD & DRAM)      | -20°C ~ +60°C (-4°F ~ 140°F)<br>(with W.T. SSD & DRAM) |
| <b>Wall Mount</b>                 | Yes  | Yes  | Yes  | Yes  |
| <b>DIN-rail</b>                   | N/A  | N/A  | N/A  | N/A  |
| <b>Dimensions<br/>(W x D x H)</b> | 192x230x115.8<br>(7.48" x 9.05" x 4.56")           | 192x230x115.8<br>(7.48" x 9.05" x 4.56")           | 192 x 230 x 230 mm<br>(7.48" x 9.05" x 5.14")                | 210 x 366.83 x 83 mm<br>(8.27" x 14.44" x 3.27")       |
| <b>Weight (net/gross)</b>         | 4.2 kg (9.26 lb)/4.9 kg(10.8 lb)                   | 4.1 kg (9.03 lb)/4.8 kg (10.58 lb)                 | 4.1kg (9.03 lb)/4.8 kg(10.58 lb)                             | TBD  |
| <b>Certificate</b>                | CE   | CE   | CE   | CE   |
| <b>EOS Support</b>                | WES, XPE, CE, Linux                                | WES7, Linux  | WES7, WE8S, Linux  | WES7,WES8, Win10 IoT & CE                              |

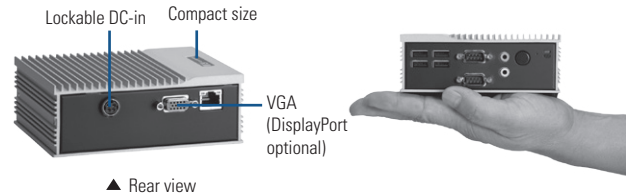
# eBOX530-830-FL

Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz, VGA or DisplayPort, GbE LAN, 4 USB and 2 COM



## Features

- Intel® Atom™ Cedarview processor N2600 1.6 GHz dual core
- Fanless operation design with full feature I/O
- 204-pin DDR3-800 SO-DIMM max. up to 2 GB
- One 2.5" SATA drive bay and 1 CFast™ slot
- Supports Jumbo Frame (9k), WoL, PXE Remote Boot



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Atom™ processor N2600 1.6 GHz   |
| System Memory         | 1 x 204-pin DDR3-800 SO-DIMM max. up to 2 GB   |
| Chipset               | Intel® NM10  |
| BIOS                  | AMI  |
| System I/O Outlet     | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2)<br>1 x VGA or 1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>1 x 10/100/1000Mbps Ethernet (Intel® 82583V)<br>4 x USB 2.0<br>1 x VDC 5V power input connector |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot   |
| Expansion Interface   | N/A  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Input AC 100-240V, AC 40W adapter with lock<br>Output: DC 5V @ 8A  |
| Operating Temperature | -10°C ~ +50°C (14°F ~ 122°F) (with W.T. SSD)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10% ~ 90% , non-condensing   |
| Vibration Endurance   | 3 Grms with CFast™ (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 132 mm (5.19") (W) x 95.4 mm (3.75") (D) x 47.5 mm (1.87") (H)   |
| Weight (net/gross)    | 0.5 kg (1.1 lb)/ 0.6 kg (1.32 lb)  |
| Certificate           | CE   |
| EOS Support           | WES7, WE8S, Linux  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 1 x wall mount kit
- 1 x power cord
- 1 x HDD mylar

## Power Protection

### AC Version

- OVP (over voltage protection)
- SCP (short circuit protection)
- OPP (over power protection)

## Ordering Information

### Standard

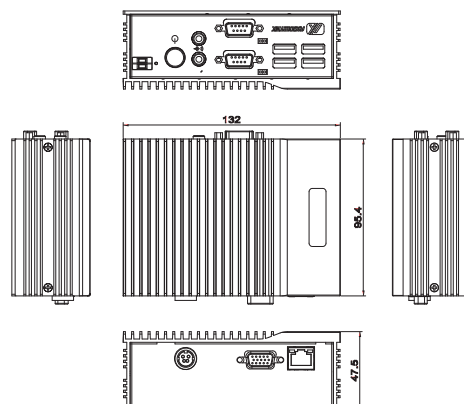
|                                |  |
|--------------------------------|--|
| eBOX530-830-FL-N2600-VGA-RC-US | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, VGA, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and US power cord         |
| eBOX530-830-FL-N2600-VGA-RC-EU | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, VGA, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and EU power cord         |
| eBOX530-830-FL-N2600-DP-RC-US  | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, DisplayPort, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and US power cord |
| eBOX530-830-FL-N2600-DP-RC-EU  | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, DisplayPort, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and EU power cord |

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 40 GB or above  |
| 2.5" SATA SSD  | 4 GB or above   |
| DDR3 SO-DIMM   | 1 GB ~ 2 GB     |
| CFast™         | 512 MB or above |
| Din-rail kit   |                 |
| VESA mount kit |                 |
| Power cord     |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

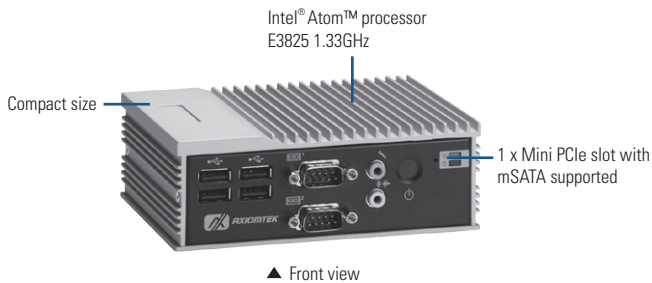
Power Supplies

Peripherals & Accessories



# eBOX530-840-FL

Fanless Embedded System with Intel® Atom™ Processor E3825 1.33 GHz, VGA or HDMI, GbE LAN, 2 COM and 4 USB



## Specifications

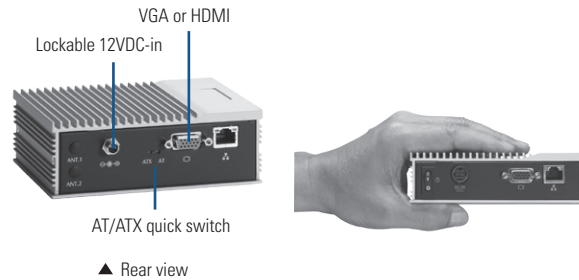
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Intel® Atom™ Processor E3825 1.33 GHz dual core on board  |
| System Memory         | 1 x 204-pin DDR3L-1066/1333, max. up to 8 GB  |
| Chipset               | SoC integrated  |
| BIOS                  | AMI   |
| System I/O Outlet     | 2 x RS-232/422/485<br>1 x 10/100/1000Mbps Ethernet (Intel® i210IT)<br>4 x USB 2.0<br>1 x Audio (MIC_in/Line_out)<br>1 x HDMI or 1 x VGA<br>1 x VDC 12V power input connector<br>1 x AT/ATX switch<br>2 x SMA type connector opening for antenna |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.  |
| Storage               | 1 x 2.5" SATA HDD bay, max. height 9.5mm<br>1 x mSATA   |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot with mSATA supported (PCI Express + USB signal)  |
| System Indicator      | 1 x green for system power<br>1 x red LED for HDD active  |
| Power Supply          | Input: AC100-240V, AC 36W adapter with lock<br>Output: +12VDC@3A  |
| Operating Temperature | -20°C ~ +60°C (-4°F ~ +140°F) (with W.T. HDD, DRAM)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing   |
| Vibration Endurance   | 3 Grms with SSD(5-500 Hz, X, Y, Z directions)   |
| Dimensions            | 132 mm (5.19") (W) x 95.4 mm (3.75") (D) x 47.5 mm (1.87") (H)  |
| Weight (net/gross)    | 0.5 kg (1.1 lb)/ 0.6 kg (1.32 lb)   |
| Certificate           | CE  |
| EOS Support           | WES7, WE8S  |

## Power Protection

OPP (over power protection)  
OVP (over voltage protection)  
SCP (short circuit protection)

## Features

- Intel® Atom™ Bay Trail-I E3825 1.33 GHz dual core
- Fanless operation design with full feature I/O
- High performance 204-pin DDR3L-1333/1600 SO-DIMM max. up to 8 GB
- Supports 2 COM ports, 1 GbE LAN and 1 Mini PCIe slot
- Supports one AT/ATX mode quick switch
- Supports Jumbo Frame (9k), WoL, PXE Remote Boot



## Ordering Information

### Standard

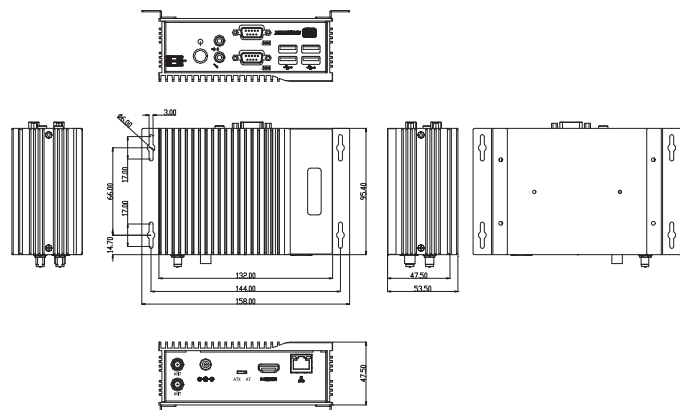
|                              |  |
|------------------------------|--|
| eBOX530-840-FL-E3825-VGA-US  | Fanless embedded system with Intel® Atom™ E3825 1.33 GHz, VGA, GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and US power cord  |
| eBOX530-840-FL-E3825-VGA-EU  | Fanless embedded system with Intel® Atom™ E3825 1.33 GHz, VGA, GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and EU power cord  |
| eBOX530-840-FL-E3825-HDMI-US | Fanless embedded system with Intel® Atom™ E3825 1.33 GHz, HDMI, GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and US power cord |
| eBOX530-840-FL-E3825-HDMI-EU | Fanless embedded system with Intel® Atom™ E3825 1.33 GHz, HDMI, GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and EU power cord |

### Optional

|               |                 |
|---------------|-----------------|
| 2.5" SATA HDD | 80 GB or above  |
| 2.5" SATA SSD | 40 GB or above  |
| DDR3L SO-DIMM | 1 GB ~ 4 GB     |
| mSATA         | 512 MB or above |
| Din-rail Kit  | 88160530000E    |
| VESA ARM Kit  | 88160530040E    |
| Power cord    |                 |
| Wi-Fi Module  |                 |
| 3G Module     |                 |

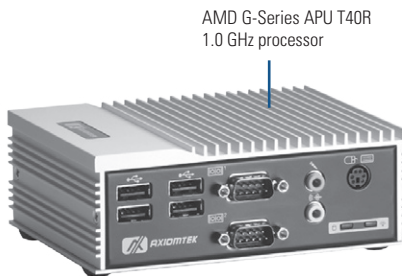
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX532-100-FL

Fanless Embedded System with AMD G-Series APU T40R 1.0 GHz



▲ Front view



## Specifications

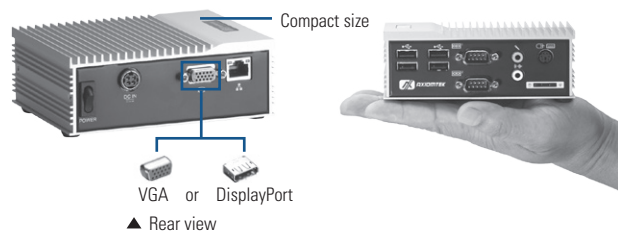
|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | AMD G-Series APU T40R 1.0 GHz onboard  |
| System Memory         | 1 x 204-pin DDR3 SO-DIMM max. up to 4 GB   |
| Chipset               | AMD A50M FCH   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x RS-232 (COM 1/2)<br>1 x VGA or 1 x DisplayPort<br>1 x Audio (Line-out/Mic-in)<br>1 x PS/2 keyboard/mouse<br>1 x 10/100/1000Mbps Ethernet (Realtek RTL8111E)<br>4 x USB 2.0<br>1 x VDC 5V power input connector |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CompactFlash™ slot  |
| Expansion Interface   | N/A  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Input: AC 100 ~ 240V, AC 40W adapter with lock<br>Output: DC 5V @ 8A   |
| Operating Temperature | 0°C ~ +45°C (32°F ~ 113°F) (with W.T. HDD)<br>0°C ~ +50°C (32°F ~ 122°F) (with W.T. SSD & W.T. CF)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing  |
| Dimensions            | 132 mm (5.19") (W) x 95.4 mm (3.75") (D) x 47.5 mm (1.87") (H)   |
| Weight (net/gross)    | 0.5 kg (1.1 lb)/ 0.6 kg (1.32 lb)  |
| Certificate           | CE   |
| EOS Support           | XPE, Linux, WES, WES7  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x Y cable for PS/2 keyboard/mouse
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 1 x wall mount kit
- 1 x power cord
- 1 x HDD mylar

## Features

- AMD G-Series APU T40R 1.0 GHz onboard
- AMD A50M FCH
- Ultra slim and compact design
- Supports 4 USB 2.0 ports and 2 COM ports
- Supports 1 GbE LAN port
- One 2.5" SATA HDD drive bay, 1 CompactFlash™
- Supports VGA or DisplayPort



▲ Rear view

## Power Protection

### AC Version

- OVP (over voltage protection)
- SCP (short circuit protection)
- OPP (over power protection)

## Ordering Information

### Standard

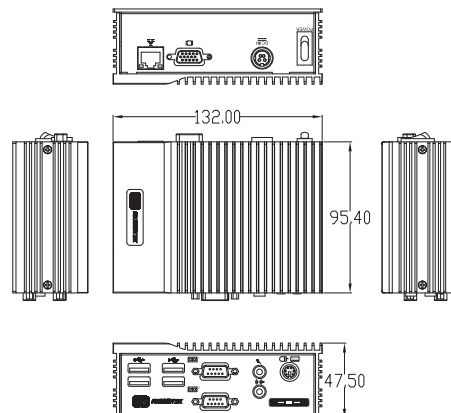
- eBOX532-100-FL1.0G-VGA Fanless embedded system with AMD G-Series APU T40R 1.0 GHz, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and VGA
- eBOX532-100-FL1.0G-PGA Fanless embedded system with AMD G-Series APU T40R 1.0 GHz, 1 GbE LAN, 4 USB, 2 COM, 40W AC/DC adapter and DisplayPort

### Optional

- 2.5" SATA HDD 40 GB or above
- 2.5" SATA SSD 4 GB or above
- DDR3 SO-DIMM 512 MB ~ 4 GB
- CompactFlash™ 1 GB or above
- Din-rail kit
- VESA mount kit
- Power cord

\*Specifications and certifications are based on options and may vary.

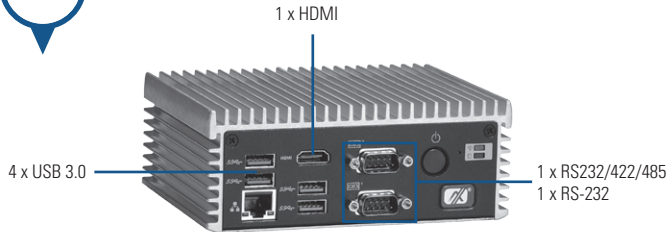
## Dimensions



# eBOX560-300-FL

Fanless Embedded System with Intel® Pentium® N3710 1.6 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card

NEW



▲ Front view



## Specifications

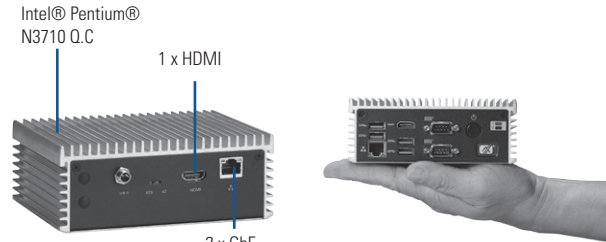
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Intel® Pentium® N3710 1.6 GHz Braswell quad-core SoC  |
| System Memory         | 1 x 204-pin DDR3L-1600 SO-DIMM, max. up to 8 GB   |
| Chipset               | N/A   |
| BIOS                  | AMI   |
| System I/O Outlet     | 1 x RS-232/422/485<br>1 x RS-232<br>2 x HDMI<br>2 x 10/100/1000Mbps Ethernet<br>4 x USB 3.0<br>2 x Antenna opening<br>1 x VDC 12V power input connector<br>1 x ATX power switch<br>1 x Reset<br>1 x ATX/AT quick switch |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)   |
| System Indicator      | 1 x green LED for system power-on<br>1 x red LED for HDD active   |
| Power Supply          | Input: AC 90-264V, AC 60W adapter with lock<br>Output: DC 12V @ 5A  |
| Operating Temperature | -20°C ~ +50°C (-4°F ~ +122°F) (w/ W.T. SSD/DRAM)<br>- non-boost mode  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 10%~95% , non-condensing  |
| Vibration Endurance   | 3 Grms w/ SSD™(5-500Hz, X, Y, Z directions)   |
| Dimensions            | 141.5 mm (5.57") (W) x 106 mm (4.17") (D) x 55 mm (2.17") (H)   |
| Weight (net/gross)    | 0.8 kg (1.76 lb)/1.5 kg (3.31 lb)   |
| Certification         | CE  |
| EOS Support           | WEBS, WES7, Linux, Win10 IoT  |

## Packing List

- 1 x Quick manual
- 1 x Driver CD
- 1 x Screw pack
- 1 x Power adaptor
- 1 x Power cord
- 4 x Foot pad

## Features

- Intel® Pentium® N3710 1.6 GHz Braswell quad-core SoC
- Ultra-compact size with fanless operation design
- Supports 2 HDMI independent display, up to 4K resolution
- Supports 2 COM and 4 USB ports
- Dual GbE ports support WoL, Teaming and PXE
- One PCI Express Mini Card for WLAN/WWAN/mSATA



▲ Rear view

## Power Protection

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

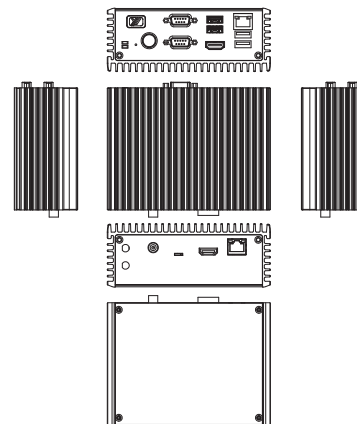
|                         |   |
|-------------------------|---|
| eBOX560-300-FL-N3710-US | Fanless embedded system with Intel® Pentium® N3710 1.6 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card, 60W AC/DC adapter and US power cord |
| eBOX560-300-FL-N3710-EU | Fanless embedded system with Intel® Pentium® N3710 1.6 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card, 60W AC/DC adapter and EU power cord |

### Optional

|                  |                |
|------------------|----------------|
| 2.5" SATA HDD    | 40 GB or above |
| 2.5" SATA SSD    | 16 GB or above |
| DDR3L SO-DIMM    | 1 GB ~ 8 GB    |
| Wallmount Kit    | 826K5600000E   |
| Din-rail Kit     | 826K56000050E  |
| VESA mount kit   | 826K5600010E   |
| WLAN/WWAN module |                |
| Power cord       |                |

\*Specifications and certifications are based on options and may vary.

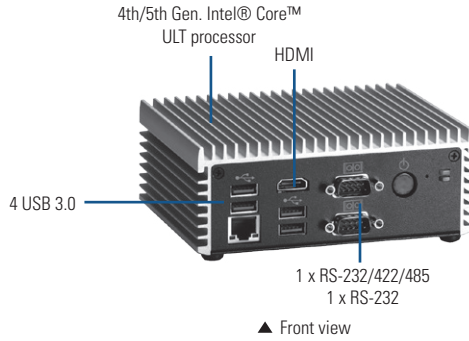
## Dimensions





# eBOX560-880-FL

Fanless Embedded System with Intel® Celeron® 2980U/ Core™ i3 5010U/ i5 4300U ULT SoC, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Intel® Celeron® 2980U 1.6 GHz / Core™ i5 4300U 1.9 GHz Haswell ULT/ Core™ i3 5010U 2.1 GHz Broadwell ULT SoC  |
| System Memory         | 1 x 204-pin DDR3L-1600 SO-DIMM max. up to 8 GB  |
| Chipset               | Single Chip Design  |
| BIOS                  | AMI   |
| System I/O Outlet     | 1 x RS-232/422/485<br>1 x RS-232<br>1 x DisplayPort<br>1 x HDMI<br>2 x 10/100/1000Mbps Ethernet (Intel® i218LM, i210AT)<br>4 x USB 3.0<br>2 x SMA type connector opening for antenna<br>1 x VDC 12V power input connector<br>1 x ATX power switch<br>1 x Reset button |
| Watchdog Timer        | 255 levels, 1-255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | Input AC 90-264V, AC 60W adapter with lock<br>Output: DC 12V @ 5A   |
| Operating Temperature | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. SSD)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing   |
| Vibration Endurance   | 3 Grms with SSD™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 141.5 mm (5.57") (W) x 106 mm (4.17") (D) x 55 mm (2.17") (H)   |
| Weight (net/gross)    | 0.8 kg (1.76lb)/ 1.5kg (3.31lb)   |
| Certificate           | CE, UL, FCC & VCCI  |
| EOS Support           | WE8S, WES7, Linux   |

## Packing List

|                  |                   |
|------------------|-------------------|
| 1 x quick manual | 1 x power adaptor |
| 1 x driver cd    | 1 x power cord    |
| 1 x screw pack   | 4 x foot pad      |

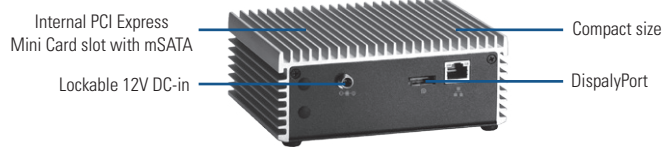
## Power Protection

OVP (over voltage protection)  
OCP (over current protection)  
SCP (short circuit protection)

\* All specifications and photos are subject to change without notice.

## Features

- Intel® Celeron® 2980U/Core™ i5 4300U Haswell & Core™ i3 5010U Broadwell ULT SoC
- High performance 204-pin DDR3L SO-DIMM max. up to 8 GB
- Fanless operation design with compact size
- 1 RS-232/422/485 and 1 RS-232 ports
- One 2.5" SATA HDD drive bay and mSATA interface
- Supports 1 PCI Express Mini Card slot and 4 USB 3.0 ports
- Supports DisplayPort and HDMI dual view



## Ordering Information

### Standard

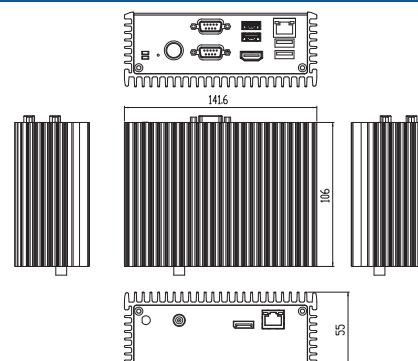
|                         |  |
|-------------------------|--|
| eBOX560-880-FL-2980U-US | Fanless embedded system with Intel® Celeron® 2980U Haswell ULT Processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and US power cord   |
| eBOX560-880-FL-2980U-EU | Fanless embedded system with Intel® Celeron® 2980U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and EU power cord   |
| eBOX560-880-FL-4300U-US | Fanless embedded system with Intel® Core™ i5-4300U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and US power cord   |
| eBOX560-880-FL-4300U-EU | Fanless embedded system with Intel® Core™ i5-4300U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and EU power cord   |
| eBOX560-880-FL-5010U-US | Fanless embedded system with Intel® Core™ i3-5010U Broadwell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and US power cord |
| eBOX560-880-FL-5010U-EU | Fanless embedded system with Intel® Core™ i3-5010U Broadwell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and EU power cord |

### Optional

|               |                |
|---------------|----------------|
| 2.5" SATA HDD | 40 GB or above |
| 2.5" SATA SSD | 4 GB or above  |
| DDR3L SO-DIMM | 1 GB - 8 GB    |
| Wallmount Kit | 826K560000E    |
| VESA ARM Kit  | 826K5600010E   |
| Din-rail Kit  | 826K5600050E   |
| Wi-Fi module  |                |
| Power cord    |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

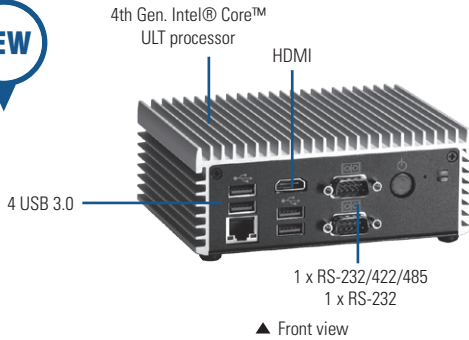
Backplanes

Power Supplies

Peripherals & Accessories

# eBOX560-880-FL-ECM

Fanless EtherCAT Master Controller with Intel® Core™ i5 & Celeron® Processor



## Introduction

The eBOX560-880-FL-ECM EtherCAT controller is verified with IntervalZero EtherCAT Master middleware KingStar which is based on Acontis EtherCAT Master Stack and IntervalZero realtime extension RTX. With well-known Acontis EC-Master, it not only supports CoE, EoE, FoE and SoE enabling seamless integration with servo drives, but also offers Distributed Clocks function support for synchronization of all slave devices.

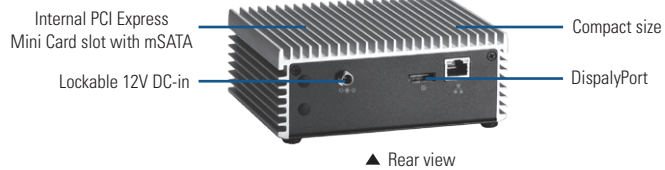
With IntervalZero Windows real-time extension RTX that through a separate real-time scheduler transforms Windows® 7 the general-purpose operating system into a fully functional RTOS that runs on multicore hardware, delivering deterministic time control to allow Master controller and Slave device communicating cycle time of 100/125µs, depends on servo motor.

## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Celeron® 2980U 1.6 GHz / Core™ i5 4300U 1.9 GHz Haswell ULT SoC onboard   |
| System Memory         | 1 x 204-pin DDR3L-1600 SO-DIMM max. up to 8 GB   |
| Chipset               | Single Chip Design   |
| BIOS                  | AMI  |
| System I/O Outlet     | 1 x RS-232/422/485<br>1 x RS-232<br>1 x DisplayPort<br>1 x HDMI<br>1x EtherCAT port (Intel® i210)<br>1x GbE port (Intel® i218)<br>4 x USB 3.0<br>2 x SMA type connector opening for antenna<br>1 x VDC 12V power input connector<br>1 x ATX power switch<br>1 x Reset button |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA   |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Input AC 90-264V, AC 60W adapter with lock<br>Output: DC 12V @ 5A  |
| Operating Temperature | -20°C ~ +50°C (-4°F~+122°F) (with W.T. SSD)  |
| Storage Temperature   | -40°C ~ +80°C (-40°F~+176°F)   |
| Humidity              | 10% ~ 90% , non-condensing   |
| Vibration Endurance   | 3 Grms with SSD™ (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 141.5 mm (5.57") (W) x 106 mm (4.17") (D) x 55 mm (2.17") (H)  |
| Weight (net/gross)    | 0.8 kg (1.76lb)/ 1.5kg (3.31lb)  |
| Certificate           | CE   |
| EOS Support           | WE8S, WES7, Linux  |

## Features

- Intel® Celeron® 2980U/Core™ i5 4300U Haswell ULT SoC
- High performance 204-pin DDR3L SO-DIMM max. up to 8 GB
- 1 EtherCAT port and 1 GbE LAN port
- Verified with IntervalZero EtherCAT solution KingStarI032
- Supports Acontis EtherCAT master stack
- Supports IntervalZero Windows real-time extension RTX2012
- EtherCAT communication cycle 100/125µs
- 1 RS-232/422/485 and 1 RS-232 port
- One 2.5" SATA HDD drive bay and mSATA interface
- Supports 1 PCI Express Mini Card slot and 4 USB 3.0 ports
- Supports DisplayPort and HDMI dual view



## Verified with software

### Standard

|                       |   |
|-----------------------|---|
| Operating System      | Windows Embedded Standard 7 32 bit              |
| Windows Extension     | IntervalZero Windows realtime extension RTX2012 |
| Test Middleware       | IntervalZero KingStarI0 32 bit                  |
| EtherCAT Master       | Acontis EtherCAT Master Stack 32 bit            |
| EtherCAT Configurator | IntervalZero EtherCAT Configurator              |

\*Specifications and certifications are based on options and may vary.

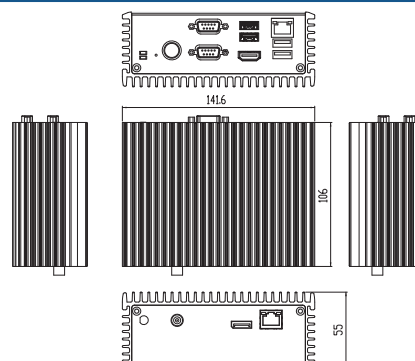
## Ordering Information

### Standard

|                             |   |
|-----------------------------|---|
| eBOX560-880-FL-ECM-2980U-US | Fanless embedded system with Intel® Celeron® 2980U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM and PCIe Mini Card, 60W AC/DC adapter and US power cord |
| eBOX560-880-FL-ECM-2980U-EU | Fanless embedded system with Intel® Celeron® 2980U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and EU power cord    |
| eBOX560-880-FL-ECM-4300U-US | Fanless embedded system with Intel® Core™ i5-4300U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and US power cord    |
| eBOX560-880-FL-ECM-4300U-EU | Fanless embedded system with Intel® Core™ i5-4300U Haswell ULT processor, HDMI/DisplayPort, 2 GbE LAN, 4 USB 3.0, 2 COM, PCIe Mini Card, 60W AC/DC adapter and EU power cord    |

\*Specifications and certifications are based on options and may vary.

## Dimensions



\* All specifications and photos are subject to change without notice.



# eBOX565-500-FL

Fanless Embedded System 6th Generation Intel® Core™ i5-6300U 2.4 GHz/ Celeron® 3955U 2.0 GHz, 2 HDMI, 2 GbE LAN, 4 USB 3.0, 2 COM and 9~36VDC input

NEW



▲ Front view



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | 6th generation Intel® Core™ i5-6300U 2.4 GHz/ Celeron® 3955U 2.0 GHz, Skylake ULT SoC   |
| System Memory         | 1 x 204-pin DDR4 SO-DIMM max. up to 8 GB  |
| Chipset               | Single Chip Design  |
| BIOS                  | AMI   |
| System I/O Outlet     | 1 x 260-pin DDR4-2133 SO-DIMM max. up to 16 GB<br>1 x RS-232/422/485<br>1 x RS-232<br>2 x HDMI<br>2 x 10/100/1000Mbps Ethernet<br>4 x USB 3.0<br>2 x SMA type connector opening for antenna<br>1 x AT/ATX Quick switch<br>1 x ATX power switch<br>1 x Reset button<br>1 x 9~36VDC Power input |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | 9~36VDC   |
| Operating Temperature | -20°C ~ +50°C (-4°F~+122°F) (with W.T. SSD)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F~+176°F)  |
| Humidity              | 10% ~ 95% , non-condensing  |
| Vibration Endurance   | 3 Grms with SSD™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | TBD   |
| Weight (net/gross)    | TBD   |
| Certificate           | CE  |
| EOS Support           | Win10 IoT, WEBS, WES7, Linux  |

## Features

- 6th generation Intel® Core™ i5-6300U 2.4 GHz/ Celeron® 3955U 2.0 GHz Skylake ULT SoC
- High performance 260-pin DDR4 SO-DIMM max. up to 16 GB
- Compact size with 9~36VDC wide range input
- Supports 2 HDMI, 2 COM and 4 USB 3.0
- Supports Jumbo Frame (9.5K), WoL, PXE and Teaming
- Supports AX option I/O function door

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad

## Power Protection

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)
- Reverse protection

## Ordering Information

### Standard

|                      |  |
|----------------------|--|
| eBOX565-500-FL-6300U | Fanless embedded system with 6th generation Intel® Core™ i5-6300U Skylake ULT processor, 2 HDMI, 2 GbE, 4 USB 3.0, 2 COM, PCIe Mini Card and 9~36VDC PWR input |
| eBOX565-500-FL-3955U | Fanless embedded system with Intel® Celeron® 3955U Skylake ULT processor, 2 HDMI, 2 GbE, 4 USB 3.0, 2 COM, PCIe Mini Card and 9~36VDC PWR input                |

### Optional

|                  |                |
|------------------|----------------|
| 2.5" SATA HDD    | 40 GB or above |
| 2.5" SATA SSD    | 4 GB or above  |
| DDR4 SO-DIMM     | 2G~16G         |
| Wallmount Kit    | 826K5600000E   |
| VESA ARM Kit     | 826K5600010E   |
| Din-rail Kit     | 826K5600050E   |
| WLAN/WWAN module |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions

Coming soon

Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

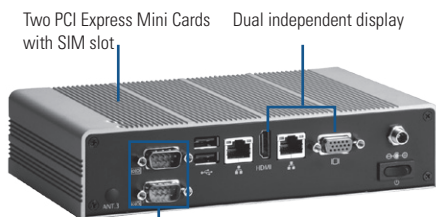
Peripherals & Accessories





# eBOX625-841-FL/eBOX625-842-FL

Fanless Embedded System with Intel® Atom™ Processor E3826 1.46 GHz or Intel® Celeron® J1900 2.0 GHz, HDMI, VGA, 2 GbE LAN, 4 USB and 2 COM



Two RS-232/422/485  
▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Atom™ processor E3826 1.46 GHz /Intel® Celeron® J1900 2.0 GHz   |
| System Memory         | 1 x 204-pin DDR3L-1066/1333 SO-DIMM max. up to 8 GB  |
| Chipset               | SoC integrated   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x RS-232/422/485 (COM1/2)<br>1 x VGA<br>1 x HDMI<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet<br>4 x USB 2.0<br>3 x SMA type connector opening for antenna<br>1 x VDC 12V power input connector<br>1 x ATX power switch<br>8 channel programmable digital I/O (J1900 version only) |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA   |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x Half-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x SIM slot   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Input AC 90-264V, AC 36W adapter with lock<br>Output: DC 12V @ 3A  |
| Operating Temperature | -20°C ~ +60°C (with E3826, W.T. SSD/CAPA841)<br>-20°C ~ +55°C (with J1900, W.T. SSD/CAPA842)   |
| Storage Temperature   | -40°C~80°C (-40°F~+176°F)  |
| Humidity              | 10%~90% , non-condensing   |
| Vibration Endurance   | 3 Grms with SSD (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 46 mm (1.81") (H)  |
| Weight (net/gross)    | 1.1 kg (2.43lb) / 1.8 kg (3.97lb)  |
| Certificate           | CE   |
| EOS Support           | WE8S, WE57   |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad

## Power Protection

### DC Version

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)

## Features

- Intel® Atom™ E3826 1.46 GHz dual-core or Intel® Celeron® J1900 2.0 GHz quad-core SoC
- High performance 204-pin DDR3L-1066/1333 SO-DIMM max. up to 8 GB
- Fanless operation design with full feature I/O
- 2 RS-232/422/485 and 4 USB 2.0 ports
- One 2.5" SATA drive bay and mSATA supported
- 2 PCI Express Mini Card slots and 1 SIM slot
- Supports VGA and HDMI dual display
- Wide range operating temperature supported

Intel® Atom™ E3826 /  
Intel® Celeron® J1900  
SoC onboard



Three Antenna Opening

▲ Rear view

## Ordering Information

### Standard

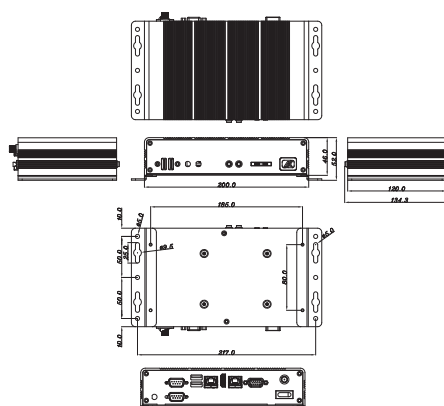
|                         |   |
|-------------------------|---|
| eBOX625-841-FL-E3826-US | Fanless embedded system with Intel® Atom™ E3826 1.46 GHz dual-core SoC, VGA, HDMI, 2 GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and US power cord   |
| eBOX625-841-FL-E3826-EU | Fanless embedded system with Intel® Atom™ E3826 1.46 GHz dual-core SoC, VGA, HDMI, 2 GbE LAN, 4 USB, 2 COM, 36W AC/DC adapter and EU power cord   |
| eBOX625-842-FL-J1900-US | Fanless embedded system with Intel® Celeron® J1900 2.0 GHz quad-core SoC, 2GbE LAN, 4 USB, 2 COM, 8 CH DI/DO, 36W AC/DC adapter and US power cord |
| eBOX625-842-FL-J1900-EU | Fanless embedded system with Intel® Celeron® J1900 2.0 GHz quad-core SoC, 2GbE LAN, 4 USB, 2 COM, 8 CH DI/DO, 36W AC/DC adapter and EU power cord |

### Optional

|                |                |
|----------------|----------------|
| 2.5" SATA HDD  | 40 GB or above |
| 2.5" SATA SSD  | 4 GB or above  |
| DDR3L SO-DIMM  | 1 GB ~ 8 GB    |
| VESA mount kit | 82606200020E   |
| Din-rail kit   | 82606200030E   |
| Wall mount kit | 82606200010E   |
| Wi-Fi module   |                |
| Power cord     |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX625-853-FL

Fanless Embedded System with Intel® Celeron® N3160 1.6 GHz, VGA/HDMI, 4 COM, 2 GbE, 4 USB, and 2 Mini PCIe

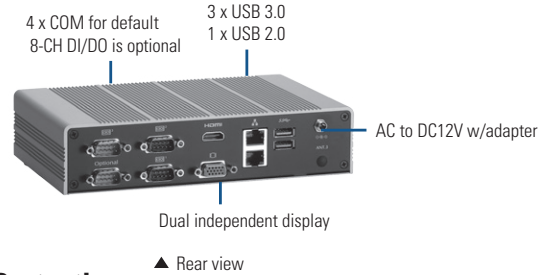


## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Celeron® processor N3160 1.6 GHz Braswell quad-core SoC (2M Cache, up to 2.24GHz)   |
| System Memory         | 1 x 204-pin DDR3L-1333/1600 SO-DIMM, max. up to 8 GB   |
| Chipset               | SoC integrated   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x 10/100/1000Mbps Ethernet (Intel® i211AT)<br>1 x RS-232/422/485 (COM1)<br>3 x RS-232 (COM2/3/4, option default: COM4)<br>3 x USB 3.0<br>1 x USB 2.0<br>1 x Audio (MIC-in/Line-out)<br>1 x HDMI (4K supported)<br>1 x VGA<br>1 x VDC power input connector<br>1 x ATX power switch<br>1 x Remote PWR switch<br>1 x Reset<br>1 x AT/ATX quick switch<br>3 x Antenna opening<br>Optional 8-CH programmable DIO |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD bay, max. height 15 mm<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (PCI Express + USB signal)<br>1 x Full-size PCI Express Mini Card slot (PCI Express + SATA signal)<br>1 x SIM Card slot   |
| System Indicator      | 1 x green LED for system power<br>1 x yellow LED for HDD active  |
| Power Supply          | 42.5W 9~36VDC  |
| Operating Temperature | -20°C ~ +60°C (-4°F ~ +140°F) Standard<br>-20°C ~ +55°C (-4°F ~ +131°F) Boost mode (with W.T. SSD/DRAM, N3160)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |
| Humidity              | 10% ~ 95%, non-condensing  |
| Vibration Endurance   | 3 Grms with SSD (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 46 mm (1.81") (H)  |
| Weight (net/gross)    | 1.2 kg (2.65 lb)/1.9 kg (4.19 lb)  |
| Certification         | CE   |
| EOS support           | WES7, WE8S, Linux  |

## Features

- Intel® Celeron® N3160 1.6 GHz Braswell quad-core SoC onboard
- Supports HDMI and VGA dual independent display
- Supports 4 COM and 4 USB ports
- Dual GbE ports support WoL, Teaming and PXE
- Dual PCI Express Mini Card for WLAN/WWAN/mSATA modules
- 9 ~ 36VDC wide range power input
- -20°C to 60°C wide range operating temperature



## Power Protection

### DC Version

OVP (over voltage protection)  
UVP (under voltage protection)  
OCP (over current protection)  
Reverse protection

## Ordering Information

### Standard

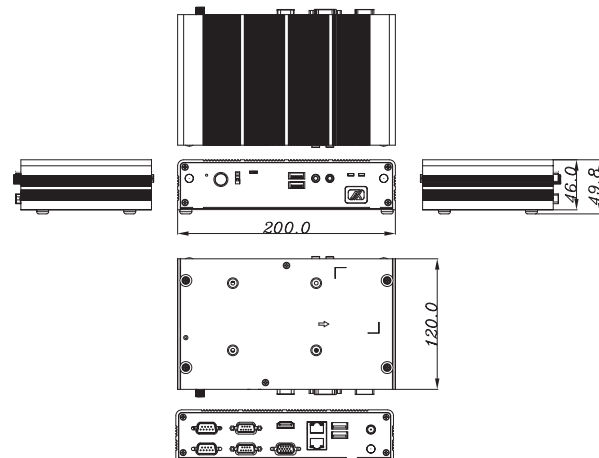
|                         |   |
|-------------------------|---|
| eBOX625-853-FL-N3160-US | Fanless embedded system with Intel® Celeron® N3160, VGA/HDMI, 4 COM, 2 GbE, 4 USB, 2 Mini PCIe, AC/DC adapter and US power cord |
| eBOX625-853-FL-N3160-EU | Fanless embedded system with Intel® Celeron® N3160, VGA/HDMI, 4 COM, 2 GbE, 4 USB, 2 Mini PCIe, AC/DC adapter and EU power cord |

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3L SO-DIMM  | 1 GB ~ 8 GB     |
| mSATA          | 512 MB or above |
| Wall mount Kit | 82606200010E    |
| VESA mount kit | 82606200020E    |
| Din-rail kit   | 82606200030E    |
| WLAN module    |                 |
| WWAN module    |                 |

\*Specifications and certifications are based on options and may vary.

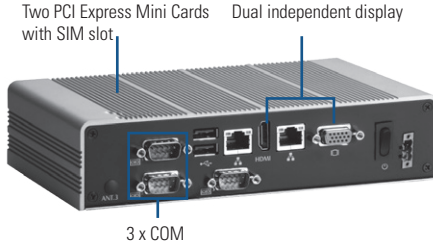
## Dimensions



\* All specifications and photos are subject to change without notice.

# eBOX626-841-FL/eBOX626-842-FL

Fanless Embedded System with Intel® Atom™ E3826 or Intel® Celeron® J1900, HDMI, VGA, 2 GbE LAN, 4 USB, 3 COM and 10~34VDC input



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Atom™ E3826 1.46 GHz<br>Intel® Celeron® J1900 2.0 GHz   |
| System Memory         | 1 x 204-pin DDR3L-1066/1333 SO-DIMM max. up to 8 GB  |
| Chipset               | SoC integrated   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x RS-232/422/485 (COM1/2)<br>1 x RS-232 (COM3)<br>1 x VGA<br>1 x HDMI<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet<br>4 x USB 2.0<br>3 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA   |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x Half-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x SIM slot   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | 42.5W 10~34VDC   |
| Operating Temperature | -20°C ~ +60°C (with E3826, W.T. SSD&DRAM/CAPA841)<br>-20°C ~ +55°C (with J1900, W.T. SSD&DRAM/CAPA842)   |
| Storage Temperature   | -40°C~80°C (-40°F~+176°F)  |
| Humidity              | 10%~90% , non-condensing   |
| Vibration Endurance   | 3 Grms with SSD (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200mm (7.87") (W) x 120mm (4.72") (D) x 46mm(1.81") (H)  |
| Weight (net/gross)    | 1.1kg (2.43lb)/ 1.8kg (3.97)   |
| Certificate           | CE   |
| EOS Support           | WE8S, WES7   |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad

## Features

- Intel® Atom™ E3826 1.46 GHz dual-core or Intel® Celeron® J1900 2.0 GHz quad-core SoC
- 204-pin DDR3L-1066/1333 SO-DIMM max. up to 8 GB
- Fanless operation design with full feature I/O
- 2 RS-232/422/485, 1 RS-232 and 4 USB 2.0 ports
- One 2.5" SATA drive bay and mSATA supported
- 2 PCI Express Mini Card slots and 1 SIM slot
- Supports VGA and HDMI dual display
- 10~34VDC wide range DC input

Intel® Atom™ E3826 /Intel® Celeron® J1900 SoC onboard



Three Antenna Opening

▲ Rear view

## Power Protection

### DC Version

- OVP (over voltage protection)
- OCP (over current protection)
- UVP (under voltage protection)
- Reserve protection

## Ordering Information

### Standard

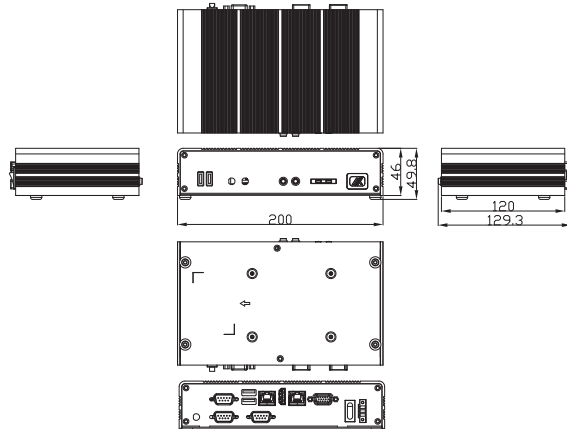
|                   |   |
|-------------------|---|
| eBOX626-841-FL-DC | Fanless embedded system with Intel® Atom™ E3826 1.46 GHz dual-core SoC, VGA, HDMI, 2 GbE LAN, 4 USB, 3 COM and 10~34VDC input   |
| eBOX626-842-FL-DC | Fanless embedded system with Intel® Celeron® J1900 2.0 GHz quad-core SoC, VGA, HDMI, 2 GbE LAN, 4 USB, 3 COM and 10~34VDC input |

### Optional

|                |                |
|----------------|----------------|
| 2.5" SATA HDD  | 80 GB or above |
| 2.5" SATA SSD  | 40 GB or above |
| DDR3L SO-DIMM  | 1 GB ~ 8 GB    |
| VESA mount kit | 82606200020E   |
| Din-rail kit   | 82606200030E   |
| wall mount     | 82606200010E   |
| Wi-Fi module   |                |
| Power cord     |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

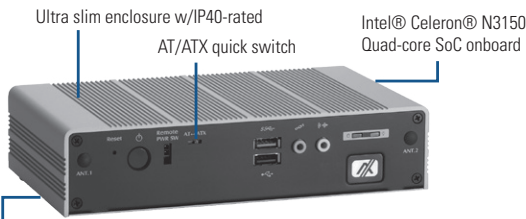
Peripherals & Accessories





# eBOX626-853-FL

Fanless Embedded System with Intel® Celeron® N3150 1.6 GHz, VGA/HDMI, 4 COM, 2 GbE, 4 USB, 2 Mini PCIe and 9 ~36VDC Wide Range Input



Two PCI Express Mini Cards w/SIM for WLAN & WWAN

▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Celeron® processor N3160 1.6 GHz Braswell quad-core SoC (2M up to 2.24 GHz)   |
| System Memory         | 1 x 204-pin DDR3L-1333/1600 SO-DIMM, max. up to 8 GB   |
| Chipset               | SoC integrated   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x 10/100/1000Mbps Ethernet (Intel® i211AT)<br>1 x RS-232/422/485 (COM1)<br>3 x RS-232 (COM2/3/4, option default: COM4)<br>3 x USB 3.0<br>1 x USB 2.0<br>1 x Audio (MIC-in/Line-out)<br>1 x HDMI (4K supported)<br>1 x VGA<br>1 x VDC power input connector<br>1 x ATX power switch<br>1 x Remote PWR switch<br>1 x Reset<br>1 x AT/ATX quick switch<br>3 x Antenna opening<br>Optional 8-CH programmable DIO |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD bay, max. height 15 mm<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (PCI Express + USB signal)<br>1 x Full-size PCI Express Mini Card slot (PCI Express + SATA signal)<br>1 x SIM Card slot   |
| System Indicator      | 1 x green LED for system power<br>1 x yellow LED for HDD active  |
| Power Supply          | 42.5W 9-36VDC  |
| Operating Temperature | -20°C ~ +60°C (-4°F ~ +140°F) Standard<br>-20°C ~ +55°C (-4°F ~ +131°F) Boost mode (with W.T. SSD/DRAM, N3160)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |
| Humidity              | 10% ~ 95%, non-condensing  |
| Vibration Endurance   | 3 Grms with SSD (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 46 mm (1.81") (H)  |
| Weight (net/gross)    | 1.2 kg (2.65 lb)/1.9 kg (4.19 lb)  |
| Certification         | CE   |
| EOS support           | WES7, WE8S, Linux  |

## Features

- Intel® Celeron® N3150 1.6 GHz Braswell quad-core SoC onboard
- Supports HDMI and VGA dual independent display
- Supports 4 COM and 4 USB ports
- Dual GbE ports support WoL, Teaming and PXE
- Dual PCI Express Mini Card for WLAN/WWAN/mSATA modules
- 9 ~ 36VDC wide range power input
- -20°C to 60°C wide range operating temperature



▲ Rear view

## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (under voltage protection)
- OCP (over current protection)
- Reverse protection

## Ordering Information

### Standard

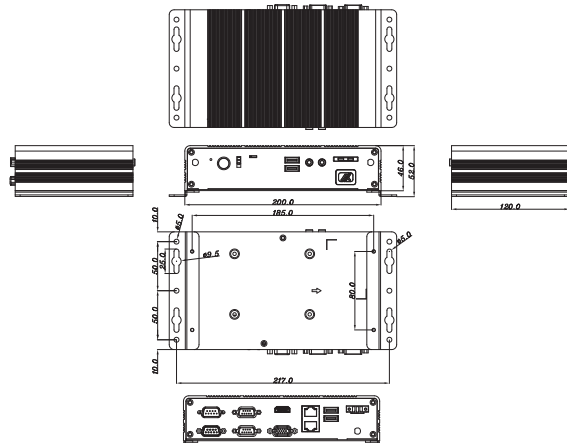
eBOX626-853-FL-N3150-DC Fanless embedded system with Intel® Celeron® N3150, VGA/HDMI, 4 COM, 2 GbE, 4 USB, 2 Mini PCIe and 9 ~36VDC wide range input

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3L SO-DIMM  | 1 GB ~ 8 GB     |
| mSATA          | 512 MB or above |
| Wall mount Kit | 82606200010E    |
| VESA mount kit | 82606200020E    |
| Din-rail kit   | 82606200030E    |
| WLAN module    |                 |
| WWAN module    |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX623-831-FL

Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz or D2550 1.86 GHz, VGA and DisplayPort, 2 GbE LAN, 6 USB and 4 COM



Intel® Atom™ processor D2550/N2600  
Internal Mini Card and dual antenna

▲ Front view



## Specifications

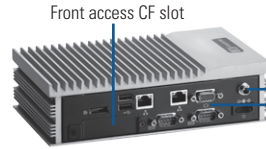
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Intel® Atom™ processor N2600 1.6 GHz dual core/ D2550 1.86 GHz dual core  |
| System Memory         | 1 x 204-pin DDR3 SO-DIMM (N2600 supports DDR3 800MHz max. up to 2 GB; D2550 supports DDR3 1066/1333MHz max. up to 4 GB)   |
| Chipset               | Intel® NM10   |
| BIOS                  | AMI   |
| System I/O Outlet     | 2 x RS-232/422/485 (COM 1/2)<br>1 x RS-232 (COM 3/4)<br>1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Intel® 82583V)<br>6 x USB 2.0<br>2 x SMA type connector opening for antenna<br>1 x VDC 12V power input connector |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot<br>1 x mSATA   |
| Expansion Interface   | 1 x PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x internal USB Wifi mounting space   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | Input AC 90-264V, AC 60W adapter with lock<br>Output: DC 12V @ 5A   |
| Operating Temperature | -10 °C ~ +55 °C (14 °F ~ 131 °F)<br>(With W.T. SSD/DRAM, D2550)   |
| Storage Temperature   | -20 °C ~ +80 °C (-4 °F ~ +176 °F)   |
| Humidity              | 10% ~ 90% , non-condensing  |
| Vibration Endurance   | 3 Grms with CFast™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 56 mm (2.2") (H)  |
| Weight (net/gross)    | 1.98 kg (4.36 lb)/ 2.6 kg (5.73 lb)   |
| Certificate           | CE  |
| EOS Support           | WES7, WE8S  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 1 x power cord
- 2 x CFast™ mylar
- 1 x HDD mylar

## Features

- Intel® Atom™ Cedarview processor N2600 1.6 GHz dual core/D2550 1.86 GHz dual core
- Intel® NM10 chipset
- Supports Jumbo Frame(9k), WoL, PXE Remote Boot
- High performance 204-pin DDR3-1066/1333 SO-DIMM max. up to 4 GB
- One 2.5" SATA drive bay and 1 CFast™ slot ,mSATA
- Supports VGA and DisplayPort dual display



▲ Rear view

## Power Protection

### AC Version

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

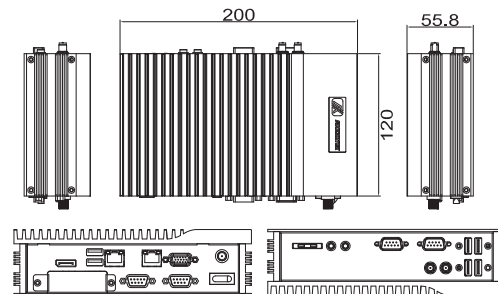
|                         |  |
|-------------------------|--|
| eBOX623-831-FL-D2550-US | Fanless embedded system with Intel® Atom™ processor D2550 1.86 GHz, VGA, DisplayPort, 2 GbE LAN, 6 USB, 4 COM, 60W AC/DC adapter and US power cord |
| eBOX623-831-FL-D2550-EU | Fanless embedded system with Intel® Atom™ processor D2550 1.86 GHz, VGA, DisplayPort, 2 GbE LAN, 6 USB, 4 COM, 60W AC/DC adapter and EU power cord |
| eBOX623-831-FL-N2600-US | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, VGA, DisplayPort, 2 GbE LAN, 6 USB, 4 COM, 60W AC/DC adapter and US power cord  |
| eBOX623-831-FL-N2600-EU | Fanless embedded system with Intel® Atom™ processor N2600 1.6 GHz, VGA, DisplayPort, 2 GbE LAN, 6 USB, 4 COM, 60W AC/DC adapter and EU power cord  |

### Optional

|                 |                                      |
|-----------------|--------------------------------------|
| 2.5" SATA HDD   | 40 GB or above                       |
| 2.5" SATA SSD   | 4 GB or above                        |
| DDR3 SODIMM     | 1 GB ~ 4 GB (regarding to CPU model) |
| CFast™          | 512 MB or above                      |
| Wi-Fi module    |                                      |
| USB wifi module |                                      |
| GPS module      |                                      |
| Wall mount kit  |                                      |
| Din rail kit    |                                      |
| VESA mount kit  |                                      |
| Power cord      |                                      |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX620-110-FL

Fanless Embedded System with AMD G-Series APU and Dual Display Support



## Specifications

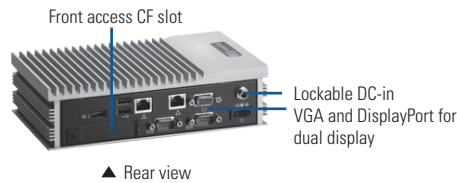
|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | AMD G-Series APU T40R 1.0 GHz or T56N 1.65 GHz   |
| System Memory         | 1 x 204-pin DDR3-1066/1333 SO-DIMM max. up to 4 GB   |
| Chipset               | AMD A50M FCH   |
| BIOS                  | AMI  |
| System I/O Outlet     | 1 x RS-232/422/485 (COM 1)<br>3 x RS-232 (COM 2/ 3/ 4)<br>1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Realtek RTL8111E)<br>6 x USB 2.0<br>1 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1-255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CompactFlash™ slot  |
| Expansion Interface   | 1 x PCI Express Mini Card slot (USB+PCI Express signal)<br>1 x internal USB Wi-Fi mounting space   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Screw type AC 60W adapter<br>Input: AC 90-264V<br>Output: DC12V@5A   |
| Operating Temperature | -10°C ~ +45°C (14°F ~ 113°F) (with W.T. HDD)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10%-90% , non-condensing   |
| Vibration Endurance   | 2 Grms with CompactFlash™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 56 mm (2.2") (H)   |
| Weight (net/gross)    | 1.98 kg (4.36 lb)/ 2.6 kg (5.73 lb)  |
| Certificate           | CE   |
| EOS Support           | XPE, Linux, WES7, WES  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 2 x CFast™ mylar
- 1 x HDD mylar
- 1 x power cord

## Features

- AMD G-Series APU T40R 1.0 GHz or T56N 1.65 GHz onboard
- AMD A50M FCH
- DDR3-1066/1333 SO-DIMM max. up to 4 GB
- 1 DisplayPort and 1 VGA port
- 1 RS-232/422/485 and 3 RS-232 ports
- Supports Jumbo Frame
- One 2.5" SATA drive bay and one CompactFlash™ 2.0 slot
- 1 internal PCI Express Mini Card slot



## Power Protection

### AC Version

- OVP (over voltage protection)
- OCV (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

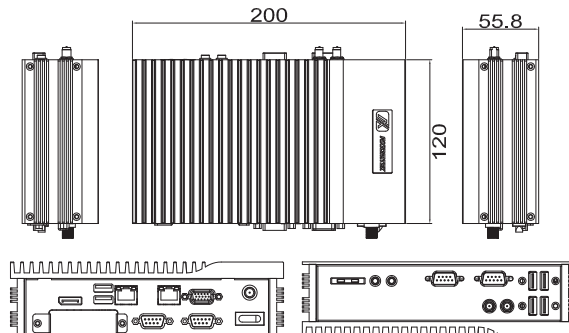
|                          |   |
|--------------------------|---|
| eBOX620-110-FL-T56N-1.6G | Fanless embedded system with AMD dual core T56N 1.65 GHz, VGA, DisplayPort, 2 GbE LAN, 4 COM, 6 USB, AC-DC 60W adapter, CF and HDD  |
| eBOX620-110-FL-T40R-1.0G | Fanless embedded system with AMD single core T40R 1.0 GHz, VGA, DisplayPort, 2 GbE LAN, 4 COM, 6 USB, AC-DC 60W adapter, CF and HDD |

### Optional

|                           |                 |
|---------------------------|-----------------|
| 2.5" SATA HDD             | 40 GB or above  |
| 2.5" SATA SSD             | 4 GB or above   |
| DDR3 SO-DIMM              | Max. up to 2 GB |
| CompactFlash™             | 1 GB or above   |
| Power adapter bracket kit |                 |
| Wi-Fi module              |                 |
| GPS module                |                 |
| Din-rail kit              |                 |
| Wall mount kit            |                 |
| VESA mount kit            |                 |
| Power cord                |                 |

\*Specifications and certifications are based on options and may vary.

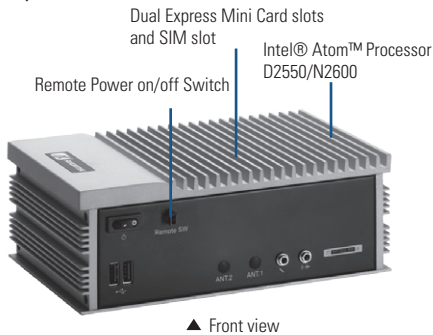
## Dimensions





# eBOX622-830-FL

Fanless Embedded System with Intel® Atom™ Processor N2600 1.6 GHz or D2550 1.86 GHz, HDMI, VGA, 2 GbE LAN, 6 USB, 6 COM ports



▲ Front view



## Specifications

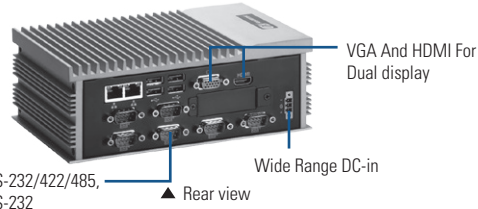
|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Intel® Atom™ processor N2600 1.6 GHz dual core/ D2550 1.86 GHz dual core   |
| System Memory         | 1 x 204-pin DDR3 SO-DIMM<br>N2600 supports DDR3-800 MHz max. up to 2 GB<br>D2550 supports DDR3-800/1066 MHz max. up to 4 GB  |
| Chipset               | Intel® NM10  |
| BIOS                  | AMI  |
| System I/O Outlet     | 3 x RS-232/422/485 (COM1/3/4)<br>3 x RS-232 (COM2/5/6)<br>1 x VGA<br>1 x HDMI<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Intel® 82583V)<br>6 x USB 2.0<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot<br>1 x mSATA  |
| Expansion Interface   | 2 x PCI Express Mini Card slots (USB + PCI Express signal)<br>1 x SIM slot   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | 42.5W 9~34VDC  |
| Operating Temperature | -20°C ~ +60°C (-4°F ~ +140°F) (with 1.86 GHz CPU, W.T. HDD)  |
| Storage Temperature   | -30°C ~ +80°C (-22°F ~ +176°F)   |
| Humidity              | 10%~90% , non-condensing   |
| Vibration Endurance   | 3 Grms with CF (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 200 mm (7.87") (W) x 120 mm (4.72") (D) x 75 mm (2.95") (H)  |
| Weight (net/gross)    | 1.9 kg (4.19 lb)/ 2.7 kg (5.95 lb)   |
| Certification         | CE   |
| EOS Support           | WES7   |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 2 x CF Mylar
- 1 x HDD Mylar
- 4 x foot pad

## Features

- Intel® Atom™ D2550 1.86 GHz or Intel® Atom™ N2600 1.6 GHz
- 204-pin DDR3-800/1066 SO-DIMM max. up to 4 GB
- Supports Jumbo Frame (9k), WoL, PXE Remote Boot
- 3 RS-232/422/485, 3 RS-232 ports
- One 2.5" SATA drive bay, CFast™, mSATA supported
- Supports VGA and HDMI dual display



VGA And HDMI For Dual display

3 x RS-232/422/485,  
3 x RS-232

Wide Range DC-in

▲ Rear view

## Power Protection

- OVP (over voltage protection)
- OCV (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

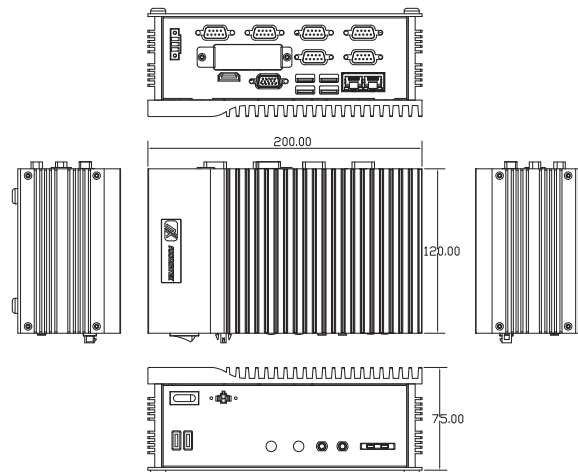
- eBOX622-830-FL-D2550- NP Fanless embedded system with Intel® Atom™ D2550 1.86 GHz dual core processor, VGA, HDMI, 2 GbE LAN, 6 USB, 6 COM ports and wide-range DC-in
- eBOX622-830-FL-N2600- NP Fanless embedded system with Intel® Atom™ N2600 1.6 GHz dual core processor, VGA, HDMI, 2 GbE LAN, 6 USB, 6 COM ports and wide-range DC-in

### Optional

- 2.5" SATA HDD 40 GB or above
- DDR3 SO-DIMM 1 GB ~ 4 GB (regarding to CPU model)
- CFast™ 512 MB or above
- Wi-Fi module
- 3G module
- GPS module
- Wall mount kit
- Din-rail kit
- VESA mount kit

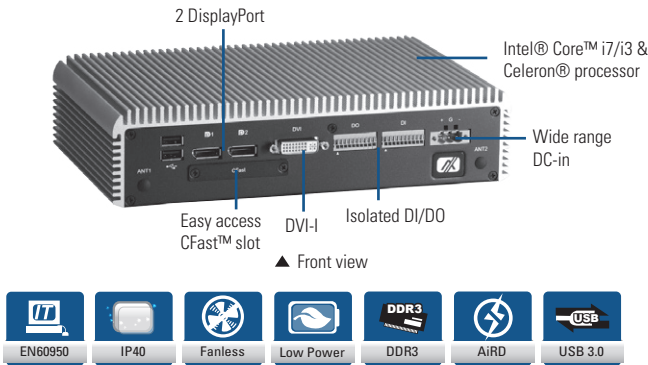
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX730-860-FL

Fanless Embedded System with Intel® Core™ i7/i3 & Celeron® Processor, Isolated COM and Digital I/O



▲ Front view

## Specifications

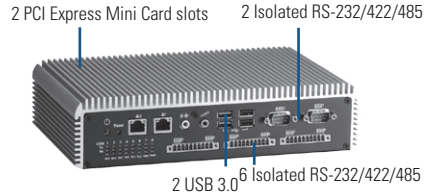
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Intel® Core™ i7-2610UE/ i3-2340UE/ Celeron® B810 processor  |
| System Memory         | 2 x 204-pin DDR3-1066/1333 SO-DIMM max. up to 16 GB   |
| Chipset               | Intel® QM67   |
| BIOS                  | AMI UEFI BIOS   |
| System I/O Outlet     | 8 x isolated RS-232/422/485 (COM1 ~ 8)<br>1 x DVI-I<br>2 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Intel® 82574IT & 82579LM)<br>4 x USB 2.0<br>2 x USB 3.0<br>16 Isolated DI/DO (8 IN & 8 OUT)<br>2 x SMA type connector opening for antenna<br>1 x V <sub>oc</sub> power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA3 HDD drive bay<br>1 x CFast™ slot   |
| Expansion Interface   | 2 x PCI Express Mini Card slots (USB+PCI Express signal)<br>2 x SIM slots   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active<br>2 x WWAN LED for status<br>8 x COM LED for status<br>2 x programmable LED   |
| Power Supply          | 10 - 35VDC  |
| Operating Temperature | -20°C ~ +70°C (-4°F ~ +158°F) (with W.T. SSD)   |
| Storage Temperature   | -30°C ~ +80°C (-22°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing   |
| Vibration Endurance   | 3 Grms w/ CFast™ (5 - 500Hz, X, Y, Z directions)  |
| Dimensions            | 250 mm (9.84") (W) x 150 mm (5.9") (D) x 60 mm (2.36") (H)  |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)   |
| Certificate           | CE  |
| EOS Support           | WE8S, WES7, Linux   |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x CF mylar
- 1 x DVI to VGA Connector
- 3 x DI/O connectors
- 1 x DC-in connector

## Features

- 2nd generation Intel® Core™ i7/i3 & Celeron® B810 processor
- Intel® QM67 chipset
- 204-pin DDR3-1066/1333 SO-DIMM max. up to 16 GB
- 8 isolated RS-232/422/485 ports
- Supports Jumbo Frame (9k), WoL, PXE Remote Boot, vPRO, iAMT, Teaming
- One 2.5" SATA3 drive bay, CFast™
- 2 internal PCI Express Mini Card slots



▲ Rear view

## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (under voltage protection)
- OCP (over current protection)
- OTP (over temperature protection)
- Reverse protection

## Ordering Information

### Standard

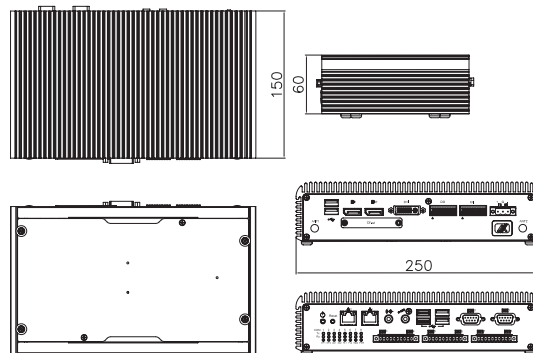
|                          |   |
|--------------------------|---|
| eBOX730-860-FL-2610UE-DC | Fanless embedded system with Intel® Core™ i7-2610UE 2.4 GHz processor, DVI-I, 2 DisplayPort, 2 GbE LAN, 6 USB, 8 isolated RS-232/422/485 and wide-range DC-in |
| eBOX730-860-FL-2340UE-DC | Fanless embedded system with Intel® Core™ i3-2340UE 1.3 GHz processor, DVI-I, 2 DisplayPort, 2 GbE LAN, 6 USB, 8 isolated RS-232/422/485 and wide-range DC-in |
| eBOX730-860-FL-B810E-DC  | Fanless embedded system with Intel® Celeron® B810E 1.6 GHz processor, DVI-I, 2 DisplayPort, 2 GbE LAN, 6 USB, 8 isolated RS-232/422/485 and wide-range DC-in  |

### Optional

|                      |                 |
|----------------------|-----------------|
| 2.5" SATA HDD        | 40 GB or above  |
| 2.5" SATA SSD        | 4 GB or above   |
| DDR3 SO-DIMM         | 1 GB ~ 16 GB    |
| CFast™               | 512 MB or above |
| Wi-Fi module         |                 |
| 3G module            |                 |
| GPS module           |                 |
| Graphic codec module |                 |
| Wall mount kit       |                 |
| AC power kit         |                 |

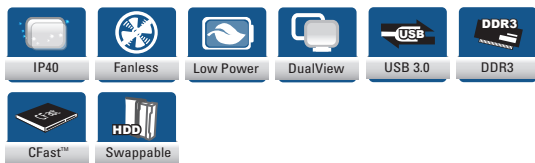
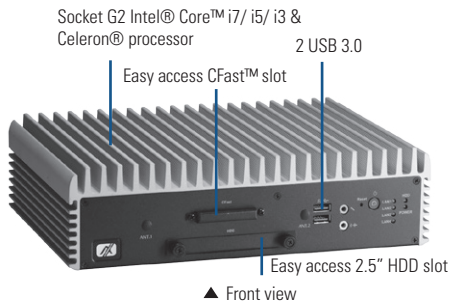
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX660-872-FL

Fanless Embedded System with Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor and 4 GbE LAN



## Specifications

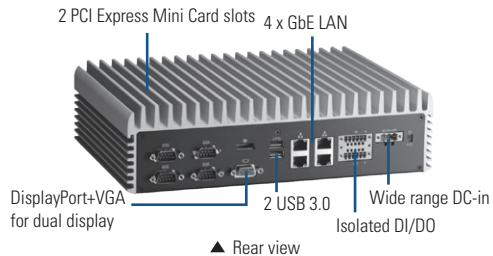
|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | Socket G2 (rPGB 988B) for 3rd generation Intel® Core™ i7/i5/i3 & Celeron® processor, TDP under 45W   |
| System Memory         | 2 x 204-pin DDR3 1333/1600MHz SO-DIMM max. up to 16 GB   |
| Chipset               | Intel® HM76  |
| BIOS                  | AMI UEFI BIOS with OA 3.0 built  |
| System I/O Outlet     | 4 x RS-232/422/485 (COM 1 - 4)<br>1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>4 x 10/100/1000Mbps Ethernet (Intel® i210-IT)<br>4 x USB 3.0<br>8 Isolated DI/DO (4 IN & 4 OUT)<br>2 x SMA type connector opening for antenna<br>1 x V <sub>oc</sub> 10 ~ 35V power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot<br>1 x mSATA  |
| Expansion Interface   | 2 x PCI Express Mini Card slots (USB+PCI Express signal)<br>2 x SIM slots  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active<br>4 x green LED for LAN link status  |
| Power Supply          | DC input 10-30VDC  |
| Operating Temperature | -40°C ~ +70°C (with W.T. SSD, CPU TDP 35W)<br>-40°C ~ +60°C (with W.T. SSD, CPU TDP 45W)   |
| Storage Temperature   | -45°C ~ +80°C (-49°F ~ +176°F)   |
| Humidity              | 10% ~ 90% , non-condensing   |
| Vibration Endurance   | 3 Grms with CFast™ (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 280 mm (11.02") (W) x 190 mm (7.48") (D) x 70 mm (2.75") (H)   |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)  |
| Certificate           | CE   |
| EOS Support           | WEBS, WEST, Linux  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x DC-in connector

## Features

- Socket G2 3rd generation Intel® Core™ i7/i5/i3 & Celeron® processor
- Intel® HM76 chipset
- 204-pin DDR3-1333/1600 SO-DIMM max. up to 16 GB
- One 2.5" SATA drive bay, 1 CFast™ slot and 1 mSATA
- 2 internal PCI Express Mini Card slots
- Supports VGA and DisplayPort for dual display
- Supports Jumbo Frame (9.5k), WoL, PXE Remote Boot



## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (under voltage protection)
- OC (over current protection)
- OTP (over temperature protection)
- Reverse protection

## Ordering Information

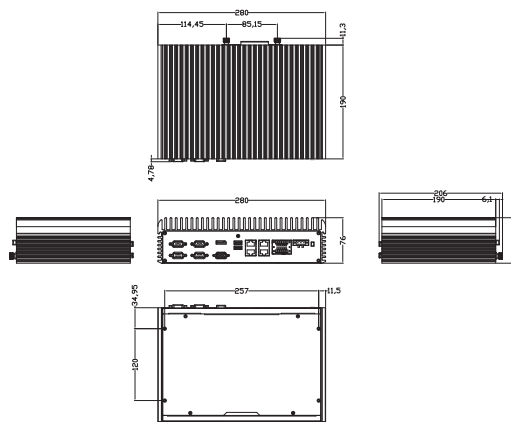
| Standard                    |   |
|-----------------------------|---|
| eBOX660-872-FL-i7-3610QE-DC | Fanless embedded system with socket G2 Intel® Core™ i7-3610QE processor, VGA, DisplayPort, 4 GbE LAN, 4 USB 3.0, 4 COM ports and 10-30VDC |
| eBOX660-872-FL-i5-3610ME-DC | Fanless embedded system with socket G2 Intel® Core™ i5-3610ME processor, VGA, DisplayPort, 4 GbE LAN, 4 USB 3.0, 4 COM ports and 10-30VDC |

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 40 GB or above  |
| DDR3 SO-DIMM   | 1 GB ~ 16 GB    |
| CFast™         | 512 MB or above |
| Wi-Fi module   |                 |
| 3G module      |                 |
| GPS module     |                 |
| Wall mount kit | 8816K635010E    |
| Din-rail kit   | 8816K671030E    |
| AC power kit   |                 |

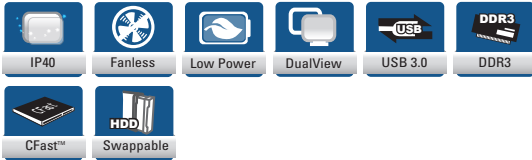
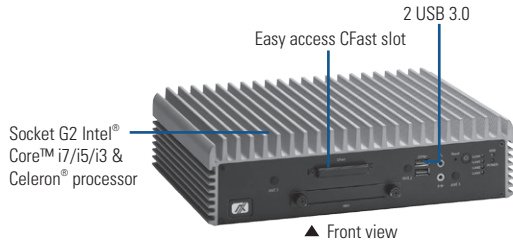
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX660-872-FL-DH

Fanless Embedded System with Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor, 4 GbE LAN, CFast™ and Dual HDD



## Specifications

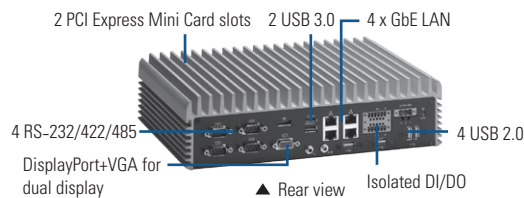
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | Socket G2 (rPGB 988B) for 3rd generation Intel® Core™ i7/i5/i3 & Celeron® processor, TDP under 45W  |
| System Memory         | 2 x 204-pin DDR3-1333/1600MHz SO-DIMM max. up to 16 GB  |
| Chipset               | Intel® HM76   |
| BIOS                  | AMI UEFI BIOS with OA 3.0 built   |
| System I/O Outlet     | 4 x RS-232/422/485 (COM 1 ~ 4)<br>1 x VGA<br>1 x DisplayPort<br>2 x Audio (Mic-in/Line-out)<br>(Both front and rear sides are supported)<br>4 x 10/100/1000Mbps Ethernet (Intel® i210-IT)<br>4 x USB 3.0 & 4 x USB 2.0<br>8 Isolated DI/DO (4 IN & 4 OUT)<br>2 x SMA type connector opening for antenna<br>1 x Vdc 10~30V power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" swappable SATA HDD drive bay<br>1 x 2.5" internal SATA HDD drive bay<br>1 x CFast™ slot<br>1 x mSATA   |
| Expansion Interface   | 2 x Full-size PCI Express Mini Card slots (USB+PCI Express signal)<br>2 x SIM slots   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active<br>4 x green LED for LAN link status   |
| Power Supply          | DC input 10-30VDC   |
| Operating Temperature | -20°C ~ +70°C (-4°F ~ +158°F), with TDP 35W<br>(with W.T. SSD, CPU TDP 35W)<br>-20°C ~ +60°C (-4°F ~ +140°F), with TDP 45W<br>(with W.T. SSD, CPU TDP 45W)  |
| Storage Temperature   | -45°C ~ +80°C (-49°F ~ +176°F)  |
| Humidity              | 10% ~ 90% , non-condensing  |
| Vibration Endurance   | 3 Grms with CFast™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 280 mm (11.02") (W) x 190 mm (7.48") (D) x 70 mm (2.75") (H)  |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)   |
| Certificate           | CE  |
| EOS Support           | WEBS, WES7, Linux   |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x DC-in connector

## Features

- Socket G2 3rd generation Intel® Core™ i7/i5/i3 & Celeron® processor
- Intel® HM76 chipset
- 204-pin DDR3-1333/1600 SO-DIMM max. up to 16 GB
- Two 2.5" SATA drive bay, 1 CFast™ slot and 1 mSATA
- 4 USB 3.0 & 4 USB 2.0 ports
- 2 internal PCI Express Mini Card slots
- Supports VGA and DisplayPort for dual display
- Supports Jumbo Frame (9.5k), WoL, PXE Remote Boot



## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (under voltage protection)
- OC (over current protection)
- OTP (over temperature protection)
- Reverse protection

## Ordering Information

### Standard

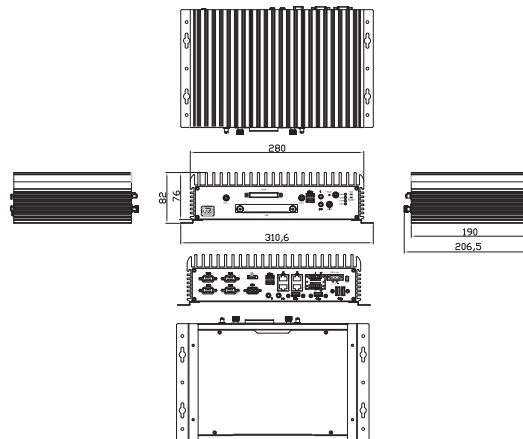
|                      |  |
|----------------------|--|
| eBOX660-872-FL-DH-DC | Fanless embedded system with 3rd generation Intel® Core™ i7/i5/i3 & Celeron® processor, VGA, DisplayPort, Dual HDD, 4 GbE LAN, 4 USB 3.0, 4 USB 2.0, audio, 4 isolated RS-232/422/485, 8 isolated DI/DO and 10~30VDC |
|----------------------|--|

### Optional

|                |                           |
|----------------|---------------------------|
| 2.5" SATA HDD  | 40 GB or above            |
| DDR3 SO-DIMM   | 1 GB ~ 16 GB              |
| CFast™         | 512 MB or above           |
| Wi-Fi module   |                           |
| 3G module      |                           |
| GPS module     |                           |
| Wall mount kit | 8816K635010E              |
| Din-rail kit   | Din-rail kit 8816K671030E |
| AC power kit   |                           |

\*Specifications and certifications are based on options and may vary.

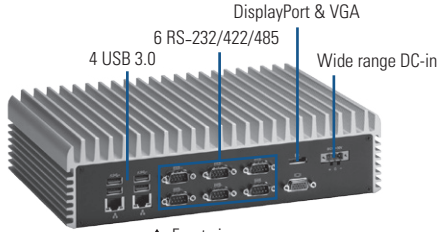
## Dimensions



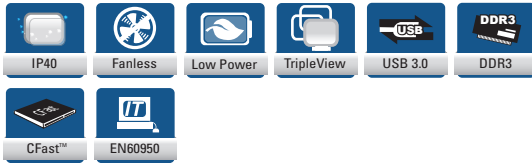
\* All specifications and photos are subject to change without notice.

# eBOX670-883-FL

Fanless Embedded System with LGA1150 Socket Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q87, HDMIx2/VGA/DisplayPort, 4 GbE LAN, 6 USB 3.0, Wide Range DC-in and PCIe Mini Card



▲ Front view



## Specifications

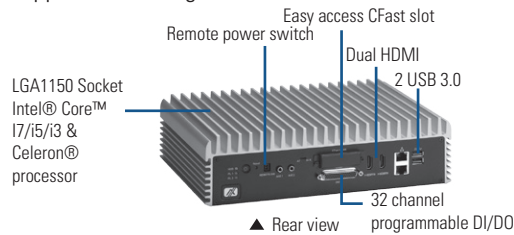
|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (CPU TDP max. up to 45W)  |
| System Memory         | 2 x 204-pin DDR3-1333/1600MHz SO-DIMM max. up to 16 GB   |
| Chipset               | Intel® Q87   |
| BIOS                  | AMI  |
| System I/O Outlet     | 6 x RS-232/422/485 (COM1 ~ 6)<br>2 x HDMI<br>1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>4 x 10/100/1000Mbps Ethernet (Intel® i210-IT, I217LM)<br>6 x USB 3.0<br>32 channel programmable DI/DO<br>3 x SMA type connector opening for antenna<br>1 x VDC 9~36V power input connector<br>1 x ATX power switch with status indicator |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 2 x 2.5" SATA HDD drive bay (Supports RAID 0 & 1)<br>1 x CFast™ slot<br>1 x mSATA  |
| Expansion Interface   | 2 x Full-size PCI Express Mini Card slots (USB+PCI Express signal)<br>1 x SIM slot   |
| System Indicator      | 1 x orange LED for HDD active<br>2 x green LED for programmable<br>1 x orange/blue LED for system status (in ATX switch)   |
| Power Supply          | DC input 9~36V   |
| Operating Temperature | -40°C ~ +55°C (-40°F~131°F) (with W.T. SSD, CPU TDP 35W)<br>-40°C ~ +50°C (-40°F~122°F) (with W.T. SSD, CPU TDP 45W)   |
| Storage Temperature   | -45°C ~ +80°C (-49°F ~ +176°F)   |
| Humidity              | 10% ~ 90% , non-condensing   |
| Vibration Endurance   | 3 Grms with CFast™ (5 - 500Hz, X, Y, Z directions)   |
| Dimensions            | 280 mm (11.02") (W) x 190 mm (7.48") (D) x 70 mm (2.75") (H)   |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)  |
| Certificate           | CE, EN60950 Compliance   |
| EOS Support           | WEBS, WES7, Linux  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad

## Features

- LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell) with Intel® Q87
- Fanless operation design with full feature I/O
- 204-pin DDR3-1333/1600 SO-DIMM max. up to 16 GB
- Two 2.5" SATA drive bay, 1 CFast™ slot and mSATA
- Two internal PCI Express Mini Card slots, 1 SIM slot
- Supports 2 HDMI, VGA and DisplayPort for triple independent display
- Supports Jumbo Frame (9.5k), WoL, PXE Remote Boot, Teaming
- Supports wide range 9-36VDC



▲ Rear view

## Power Protection

- DC Version**
- OVP (over voltage protection)
  - UVP (under voltage protection)
  - OCP (over current protection)
  - SCP
  - Reverse protection

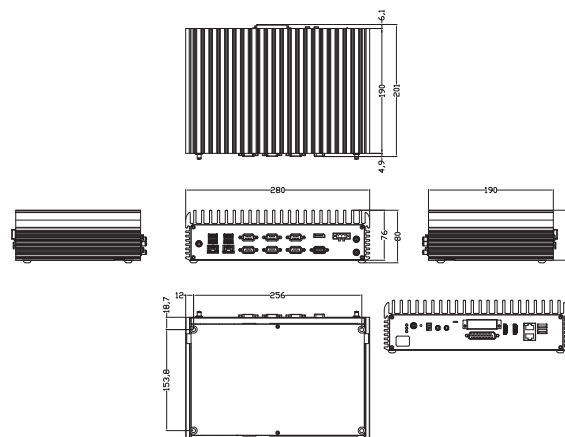
## Ordering Information

| Standard          |   |
|-------------------|---|
| eBOX670-883-FL-DC | Fanless embedded system with LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q87, HDMI x 2/VGA/Display, 4 GbE LAN, 6 USB 3.0, CFast™, PCIe Mini Card and 9~36VDC |

| Optional       |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3 SO-DIMM   | 1 GB ~ 16 GB    |
| CFast™         | 512 MB or above |
| Wi-Fi module   |                 |
| 3G module      |                 |
| GPS module     |                 |
| Wall mount kit |                 |
| AC power kit   |                 |
| Power Cord     |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions





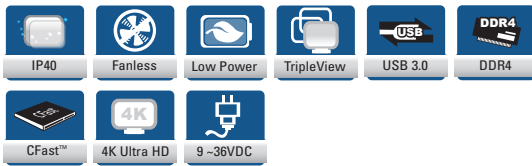
# eBOX670-891-FL

Fanless Embedded System with LGA1151 Socket 6th Generation Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q170, 2 HDMI/DisplayPort, 4 GbE LAN, 6 USB 3.0, dual Mini PCIe and Wide Range DC-in

NEW



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | LGA1151 socket 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor (CPU TDP max. up to 35W)  |
| System Memory         | 2x 260-pin DDR4-2133MHz SO-DIMM max. up to 32GB  |
| Chipset               | Intel® Q170  |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x RS-232/422/485 (COM1/2)<br>COM 3/4<br>2 x HDMI (1 x HDMI 2.0 & 1 x HDMI 1.4a)<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>4 x 10/100/1000Mbps Ethernet<br>6 x USB 3.0<br>2 x USB 2.0<br>32 channel programmable DI/DO<br>4 x SMA type connector opening for antenna<br>1 x VDC 9-36V power input connector<br>1 x ATX power switch<br>1 x Remote PWR switch<br>1 x AT/ATX Quick switch<br>1 x Reset |
| Watchdog Timer        | 255 levels, 1 ~255 sec.  |
| Storage               | 2 x 2.5" SATA HDD drive bay (Supports RAID 0&1)<br>1 x CFast<br>1 x mSATA  |
| Expansion Interface   | 2 x Full-size PCI Express Mini Card slots (USB+PCI Express signal)<br>1 x SIM slot   |
| System Indicator      | 1 x green LED for PWR status<br>1 x orange LED for HDD active<br>4 x green LED for programmable  |
| Power Supply          | DC input 9-36V   |
| Operating Temperature | -40°C ~ +55°C (-40°F~131°F) (with W.T. SSD, CPU TDP 35W)   |
| Storage Temperature   | -45°C ~ +80°C (-49°F ~ +176°F)   |
| Humidity              | 10% ~ 95% , non-condensing   |
| Vibration Endurance   | 3 Grms with CFast™ (5 - 500Hz, X, Y, Z directions)   |
| Dimensions            | 280 mm (11.02") (W) x 190 mm (7.48") (D) x 70 mm (2.75") (H)   |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)  |
| Certificate           | CE   |
| EOS Support           | WEBS, WES7, Win10 IoT, Linux   |

## Packing List

1 x quick manual  
1 x driver cd  
1 x screw pack  
4 x foot pad

## Features

- LGA1151 socket 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Skylake) with Intel® Q170
- Fanless operation design with full feature I/O
- Dual DDR4-2133 SO-DIMM max. up to 32 GB
- Two internal PCI Express Mini Cards & one SIM slot for WLAN/WWAN/mSATA
- Supports 2 HDMI (1 x HDMI 2.0) and DisplayPort for triple independent display
- Supports Jumbo Frame (9.5k), WoL, PXE Remote Boot, Teaming
- Supports wide range 9-36VDC

## Power Protection

### DC Version

OVP (over voltage protection)  
UVP (under voltage protection)  
OCP (over current protection)  
SCP  
Reverse protection

## Ordering Information

### Standard

|                |   |
|----------------|---|
| eBOX670-891-FL | Fanless embedded system with LGA1151 socket 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q170, 2 HDMI/DisplayPort, 4 GbE LAN, 6 USB 3.0, CFast™, dual PCIe Mini Card and 9-36VDC |
|----------------|---|

### Optional

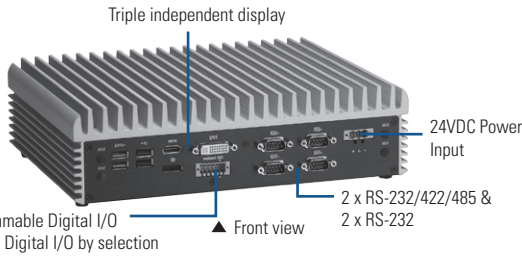
|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR4 2-16GB    | 1 GB ~ 16 GB    |
| CFast™         | 512 MB or above |
| Wi-Fi module   |                 |
| 3G module      |                 |
| Wall mount kit |                 |
| Din-rail kit   |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions

# eBOX671-885-FL

Intelligent Fanless Embedded System with LGA1150 Socket 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor, Intel® Q87, 4 PoE, 6 USB 3.0 ports, HDMI/DVI/DisplayPort and 2 PCIe Mini Card

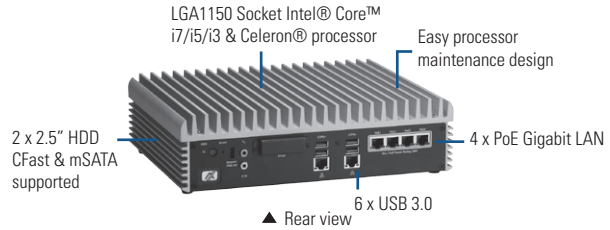


## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor with TDP max. up to 45W  |
| System Memory         | 2 x 204-pin DDR3 1333/1600 SO-DIMM, max. up to 16 GB   |
| Chipset               | Intel® Q87   |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x 10/100/1000Mbps Ethernet (Intel® i211)<br>4 x 10/100/1000Mbps Power over Ethernet, PoE<br>- 4 port full-load, IEEE802.3af Class 3 (7Watt)<br>- 2 port full-load, IEEE802.3af Class 3 (15.4Watt)<br>- 1 port full-load, IEEE802.3at Class 4 (30Watt)<br>2 x RS-232/422/485 & 2 x RS-232<br>8 channel programmable DI/DO (Default)<br>8 Isolated DI/DO (4 IN & 4 OUT) (Option)<br>6 x USB 3.0<br>2 x USB 2.0<br>1 x Audio (MIC_in/Line_out)<br>1 x DVI-I<br>1 x HDMI<br>1 x DisplayPort<br>1 x 24VDC Power input connector<br>1 x Power switch<br>1 x Reset switch<br>1 x Remote Power Switch<br>3 x Antenna opening |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 2 x 2.5" SATA HDD bay, max. height 9.5mm(RAID 0 & 1 supported)<br>1 x CFast™ (front access)<br>2 x mSATA   |
| Expansion Interface   | 2 x Full-size PCI Express Mini Card slots (USB+PCIe signal)<br>1 x SIM Card slot   |
| System Indicator      | 1 x blue LED for system power<br>1 x orange LED for HDD active   |
| Power Supply          | DC Input 24V   |
| Operating Temperature | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. SSD or CFast™, CPU TDP 35W)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing  |
| Dimensions            | 280 mm (11.02") (W) x 210 mm (8.27") (D) x 76 mm (2.99") (H)   |
| Weight (net/gross)    | 4.31 kg (9.5 lb)/ 5.1 kg (11.24 lb)  |
| Certificate           | CE   |
| EOS Support           | WES7, WE8S, Linux  |

## Features

- LGA1150 4th generation Intel® Core™ i7/i5/i3 & Celeron® (Haswell and Haswell Refresh) processor with Intel® Q87
- Fanless operation design with 4CH GbE PoE
- Two 2.5" SATA HDD drive bay, mSATA and CFast™ slot
- Two internal PCI Express Mini Card slots, 1 x SIM Card slot
- Supports HDMI, DVI-I and DisplayPort for triple independent display
- Supports RAID 0 & 1, Jumbo Frame (9.5K), WoL, PXE and Teaming



## Power Protection

### DC Version

OVP (over voltage protection)  
UVP (under voltage protection)  
OCP (over current protection)  
SCP (short circuit protection)  
Reserve protection

## Ordering Information

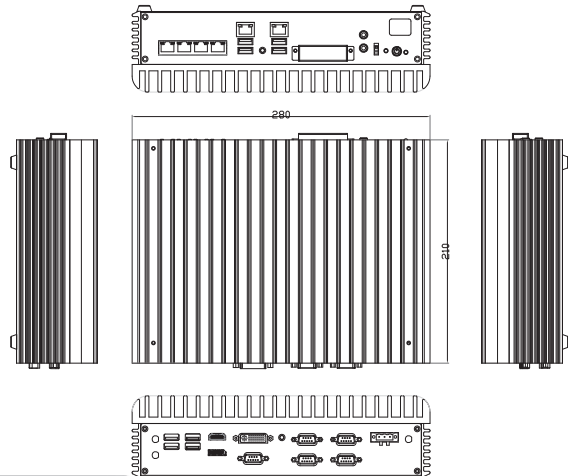
### Standard

|                     |  |
|---------------------|--|
| eBOX671-885-FL-DC   | Fanless embedded system with Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q87, DVI-I/HDMI/DisplayPort, Dual HDD, 4 PoE, 2 GbE LAN, 8 USB, audio, 4 COM and 8-CH TTL digital I/O and 24VDC      |
| eBOX671-885-FL-DC-I | Fanless embedded system with Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q87, DVI-I/HDMI/DisplayPort, Dual HDD, 4 PoE, 2 GbE LAN, 8 USB, audio, 4 COM and 8-CH isolated digital I/O and 24VDC |

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3 SO-DIMM   | 1 GB ~ 8 GB     |
| CFast™         | 512 MB or above |
| Wall Mount Kit | 8816K635010E    |
| Din-rail kit   | 8816K671030E    |
| Wi-Fi Module   |                 |
| 3G Module      |                 |

## Dimensions



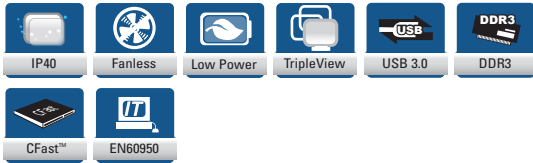
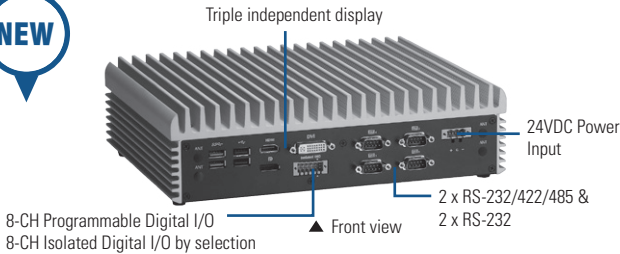
\* All specifications and photos are subject to change without notice.



# eBOX671-885-FL-ECM

Fanless EtherCAT Master Controller  
Embedded System with LGA1150 Socket  
4th Generation Intel® Core™ i7/i5 &  
Celeron® Processor

NEW



## Introduction

The eBOX671-885-FL-ECM EtherCAT controller is verified with IntervalZero EtherCAT Master middleware KingStar which is based on Acontis EtherCAT Master Stack and IntervalZero real-time extension RTX. With well-known Acontis EC-Master, it not only supports CoE, EoE, FoE and SoE enabling seamless integration with servo drives, but also offers Distributed Clocks function support for synchronization of all slave devices.

With IntervalZero Windows real-time extension RTX that through a separate real-time scheduler transforms Windows® 7 the general-purpose operating system into a fully functional RTOS that runs on multicore hardware, delivering deterministic time control to allow Master controller and Slave device communicating cycle time of 250 s.

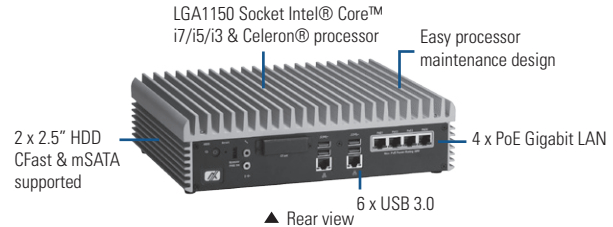
In a practice of robotic arm, IP Camera is widely used as eye to guide robotic arm to pick up object on conveyor. The eBOX671-885-FL-ECM with 4 GbE PoE is an ideal choice.

## Specifications

|                   |  |
|-------------------|--|
| Standard Color    | Silver-Black   |
| Construction      | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU               | 4th generation Intel® Core™ i7/i5 & Celeron® processor with TDP max. up to 45W   |
| System Memory     | 8 GB recommended   |
| Chipset           | Intel® Q87   |
| BIOS              | AMI  |
| System I/O Outlet | 1 x EtherCAT port (Intel® i210)<br>1 x GbE LAN port (Intel® i210)<br>4 x 10/100/1000Mbps Power over Ethernet, PoE<br>- 4 ports full-load, IEEE802.3af Class 2 (7Watt)<br>- 2 ports full-load, IEEE802.3af Class 3 (15.4Watt)<br>- 1 ports full-load, IEEE802.3at Class 4 (30Watt)<br>2 x RS-232/422/485 & 2 x RS-232<br>8 channel programmable DI/DO (Default)<br>8 Isolated DI/DO (4 IN & 4 OUT) (Option)<br>6 x USB 3.0<br>2 x USB 2.0<br>1 x Audio (MIC_in/Line_out)<br>1 x DVI-I<br>1 x HDMI<br>1 x DisplayPort<br>1 x 24VDC Power input connector<br>1 x Power switch<br>1 x Reset switch<br>1 x Remote Power Switch<br>3 x Antenna opening |

## Features

- LGA1150 4th generation Intel® Core™ i7/i5/i3 & Celeron® (Haswell and Haswell Refresh) processor with Intel® Q87
- Fanless operation design with 4CH GbE PoE
- Two 2.5" SATA HDD drive bay, mSATA and CFast™ slot
- Two internal PCI Express Mini Card slots, 1 x SIM Card slot
- Supports HDMI, DVI-I and DisplayPort for triple independent display
- Supports RAID 0 & 1, Jumbo Frame (9.5K), WoL, PXE and Teaming



|                       |  |
|-----------------------|--|
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 2 x 2.5" SATA HDD bay, max. height 9.5 mm (RAID 0 & 1 supported)<br>1 x CFast™ (front access)<br>2 x mSATA |
| Expansion Interface   | 2 x Full-size PCI Express Mini Card slot (USB+PCIe signal)<br>1 x SIM Card slot                            |
| System Indicator      | 1 x Blue LED for system power<br>1 x Orange LED for HDD active   |
| Power Supply          | DC Input 24V   |
| Operating Temperature | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. SSD or CFast™, CPU TDP 35W)                                       |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing  |
| Dimensions            | 280 mm (11.02") (W) x 210 mm (8.27") (D) x 76 mm (2.99") (H)   |
| Weight (net/gross)    | 4.31 kg (9.5 lb)/ 3.2 kg (7.05lb)  |
| Certificate           | CE   |

## Verified with Software

|                       |  |
|-----------------------|--|
| Operating System      | Windows® Embedded Standard 7 32 bit              |
| Windows Extension     | IntervalZero Windows real-time extension RTX2012 |
| Test Middleware       | IntervalZero KingStarIO 32 bit                   |
| EtherCAT Master       | Acontis EtherCAT Master stack 32 bit             |
| EtherCAT Configurator | IntervalZero EtherCAT configurato                |

## Ordering Information

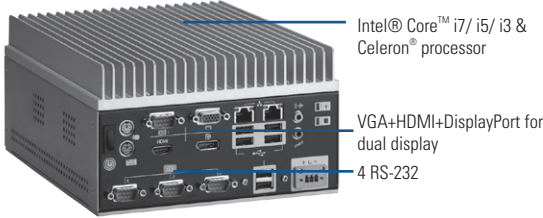
### Standard

|                       |   |
|-----------------------|---|
| eBox671-885-FL-ECM-DC | Fanless EtherCAT master controller embedded system with Intel® Core™ i7/i5/i3 & Celeron® processor, Intel® Q87, dual HDD, 4 PoE, 2 GbE LAN, 8 USB, audio, 4 COM, 8-CH TTL digital I/O and 24VDC |
|-----------------------|---|



# eBOX640-860-FL

Fanless Embedded System Featuring Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processor TDP under 35W, Dual HDD and Multi-display



▲ Front view



## Specifications

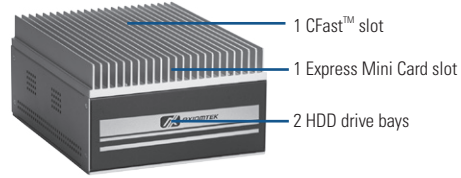
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel   |
| CPU                   | Socket G2 (rPGA 988B) for 2nd generation Intel® Core™ i7/ i5/i3 (Sandy Bridge) & Celeron® processors, TDP under 35W   |
| System Memory         | 2 x 204-pin DDR3-1066/1333 SO-DIMM max. up to 16 GB   |
| Chipset               | Intel® QM67   |
| BIOS                  | AMI UEFI BIOS   |
| System I/O Outlet     | 4 x RS-232 (COM 1-4)<br>1 x VGA<br>1 x HDMI<br>1 x DP<br>1 x Audio (Mic-in/Line-out)<br>1 x PS/2 keyboard<br>1 x PS/2 mouse<br>2 x 10/100/1000Mbps Ethernet (Intel® 82579LM & 82583V)<br>6 x USB 2.0<br>1 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.  |
| Storage               | Supports 2 x 2.5" SATA HDD drive bay (RAID 0 & 1 supported)<br>Supports 1 x CFast™ slot   |
| Expansion Interface   | 1 x PCI Express Mini Card slot (USB+PCI Express signal)   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | DC ATX 150W<br>Input: Input 10-30VDC  |
| Operating Temperature | -5°C ~ +50°C (23°F ~ 122°F) (with W.T. HDD)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10% ~ 90% , non-condensing  |
| Vibration Endurance   | 3 Grms with CFast™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 193 mm (7.6") (W) x 231 mm (9.09") (D) x 111 mm (4.37") (H)   |
| Weight (net/gross)    | 3.8 kg (8.37 lb)/ 4.6 kg (10.14 lb)   |
| Certificate           | CE  |
| EOS Support           | WES7  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screws pack
- 4 x foot pad
- 8 x HDD anti-vibration damper
- 1 x power kit or 1 x DC-in connector

## Features

- Socket G2 (rPGA 988B) for 2nd generation Intel® Core™ i7/i5/i3 & Celeron® processor TDP under 35W
- Intel® QM67 chipset
- DDR3-1066/1333 SO-DIMM max. up to 16 GB
- Two 2.5" SATA drive bays and 1 CFast™ slot
- 1 internal PCI Express Mini Card slot
- Supports Jumbo Frame (9k), WoL, PXE Remote Boot



▲ Rear view

## Power Protection

### DC Version

- OCP (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

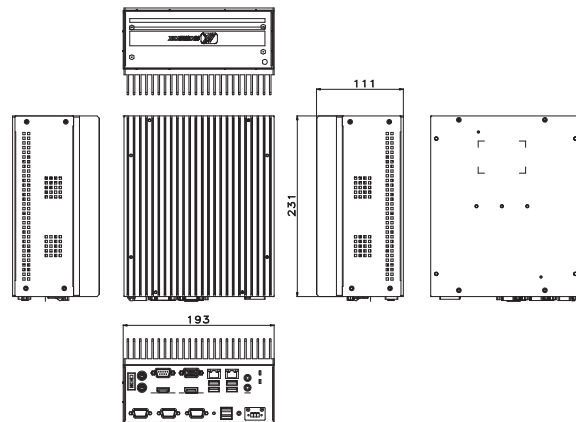
|                   |  |
|-------------------|--|
| eBOX640-860-FL-DC | Fanless embedded system with socket G2 Intel® Core™ i7/ i5/i3 & Celeron® processor, VGA, HDMI, DisplayPort, 2 GbE LAN, 4 RS-232, 6 USB, dual HDD and DC-in                     |
| eBOX640-860-FL-US | Fanless embedded system with socket G2 Intel® Core™ i7/ i5/i3 & Celeron® processor, VGA, HDMI, DisplayPort, 2 GbE LAN, 4 RS-232, 6 USB, dual HDD, AC adapter and US power cord |
| eBOX640-860-FL-EU | Fanless embedded system with socket G2 Intel® Core™ i7/ i5/i3 & Celeron® processor, VGA, HDMI, DisplayPort, 2 GbE LAN, 4 RS-232, 6 USB, dual HDD, AC adapter and EU power cord |

### Optional

|                      |                 |
|----------------------|-----------------|
| 2.5" SATA HDD        | 40 GB or above  |
| 2.5" SATA SSD        | 4 GB or above   |
| DDR3 SO-DIMM         | 1 GB ~ 8 GB     |
| CFast™               | 512 MB or above |
| Wi-Fi module         |                 |
| GPS module           |                 |
| Graphic codec module |                 |
| Wall mount kit       |                 |
| Power cord           |                 |

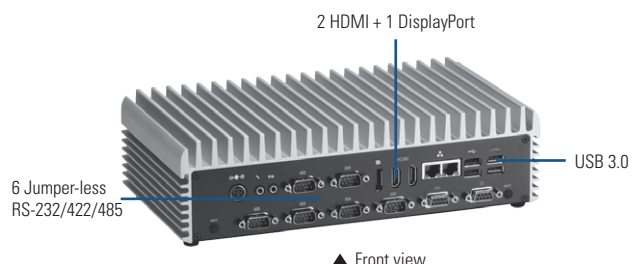
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX635-881-FL

Fanless Embedded System with LGA1150 Socket 4th Generation Intel® Core™ i7/ i5/i3 & Celeron® Processor, Intel® H81, 2 HDMI/ VGA/ DisplayPort, 2 GbE LAN, USB 3.0, CFast™ and PCIe Mini Card



## Specifications

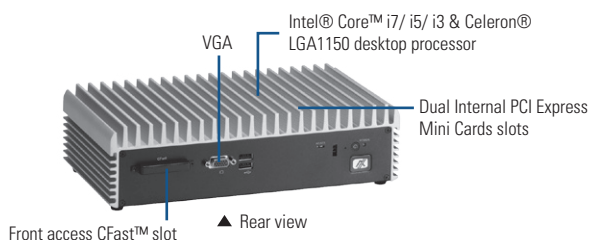
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (CPU TDP max. up to 45W)   |
| System Memory         | 1 x 204-pin DDR3-1333/1600MHz SO-DIMM max. up to 8 GB   |
| Chipset               | Intel® H81  |
| BIOS                  | AMI   |
| System I/O Outlet     | 6 x RS-232/422/485 (COM1 ~ 6)<br>2 x HDMI<br>1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Intel® i210-AT, i217-LM)<br>2 x USB 3.0<br>4 x USB 2.0<br>16 x DI/DO (8 IN & 8 OUT)<br>3 x SMA type connector opening for antenna<br>1 x VDC 19/12VDC power input connector<br>1 x ATX power switch with status indicator |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB and PCI Express signal)<br>1 x Half-size PCI Express Mini Card slot (USB and PCI Express signal)<br>1 x SIM slot  |
| System Indicator      | 1 x orange LED for HDD active<br>1 x orange/blue LED for system status (in ATX switch)  |
| Power Supply          | Input: AC 90-264V, AC 150W<br>Output: DC 19V @ 7.89A or<br>Input: AC 90-264V, AC 102W<br>Output: DC 12V @ 8.5A  |
| Operating Temperature | -20°C ~ +50°C (with W.T. SSD, CPU TDP 35/45W)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 10% ~ 90% , non-condensing  |
| Vibration Endurance   | 3 Grms with CFast™ (5 - 500Hz, X, Y, Z directions)  |
| Dimensions            | 280 mm (11.02") (W) x 150 mm (5.91") (D) x 67 mm (2.64") (H)  |
| Weight (net/gross)    | 2.5 kg (5.51 lb)/ 4.5 kg (9.92 lb)  |
| Certificate           | CE, EN60950 compliance  |
| EOS Support           | WEBS, WES7, Linux   |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad
- 1 x power cord
- 1 x Adapter

## Features

- LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell/ Haswell-Refresh) with Intel® H81
- 204-pin DDR3-1333/1600 MHz SO-DIMM max. up to 8 GB
- One 2.5" SATA drive bay and 1 CFast™ slot
- 2 internal PCI Express Mini Card slots, 1 SIM slot
- Supports 2 HDMI, VGA and DisplayPort for dual independent display (H81) or triple independent display (Q87)
- Supports Jumbo Frame (9.5k), WoL, PXE Remote Boot, Teaming



## Power Protection

### AC Version

- OVP (over voltage protection)
- OCV (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

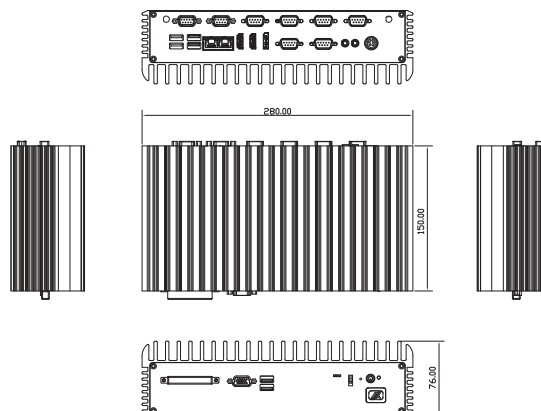
|                |   |
|----------------|---|
| eBOX635-881-FL | Fanless embedded system with LGA1150 socket 4th generation Intel® i7/i5/i3 & Celeron® processor, 2 HDMI, VGA, DisplayPort, 2 GbE LAN, 2 USB 3.0, 6 COM ports and 19/12VDC adapter |
|----------------|---|

### Optional

|                |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3 SO-DIMM   | 1 GB ~ 8 GB     |
| CFast™         | 512 MB or above |
| Wi-Fi module   |                 |
| 3G Module      |                 |
| GPS module     |                 |
| Wall mount kit | 8816K635010E    |
| Din-rail kit   | 8816K671030E    |
| Power Cord     |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions



\* All specifications and photos are subject to change without notice.

# eBOX630-100-FL

Fanless Embedded System with AMD G-Series APU T56N 1.65 GHz, VGA and Dual DisplayPort for Dual Independent Display



## Specifications

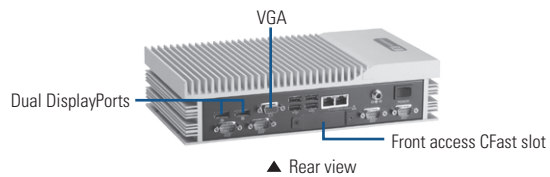
|                       |   |
|-----------------------|---|
| Standard Color        | Silver-Black  |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |
| CPU                   | AMD G-Series APU T56N 1.65 GHz onboard  |
| System Memory         | 1 x 204-pin DDR3-1066/1333 SO-DIMM max. up to 4 GB  |
| Chipset               | AMD FCH Hudson-M1   |
| BIOS                  | AMI   |
| System I/O Outlet     | 1 x RS-232/422/485 (COM 1)<br>3 x RS232 (COM 2/COM 3)<br>1 x VGA<br>2 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Realtek RTL8111E)<br>6 x USB 2.0<br>3 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot  |
| Expansion Interface   | 2 x PCI Express Mini Card slots (USB+PCI Express signal)<br>1 x SIM slot  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | Screw type AC 60W adapter<br>Input: AC 90-264V<br>Output: DC12V@5A  |
| Operating Temperature | -10°C ~ +55°C (14°F ~ 131°F)(with 1.6 GHz CPU, W.T. HDD)  |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10%~90% , non-condensing  |
| Vibration Endurance   | 2 Grms with CFast™ (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 280 mm (11.02") (W) x 150 mm (5.91") (D) x 67 mm (2.64") (H)  |
| Weight (net/gross)    | 2.5 kg (5.51 lb)/ 4.5 kg (9.92 lb)  |
| Certificate           | CE  |
| EOS Support           | XPE, WinCE, Linux, WES, WES7  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 4 x HDD anti-vibration damper
- 1 x power cord

## Features

- AMD G-Series APU T56N 1.65 GHz onboard
- Supports VGA and dual DisplayPort
- 1 RS-232/422/485 and 3 RS-232 ports
- DDR3-1066/1333 SO-DIMM max. up to 4 GB
- One 2.5" SATA drive bay and 1 CFast™ slot
- 2 internal PCI Express Mini Card slots and 1 SIM slot
- Supports Jumbo Frame



## Power Protection

### AC Version

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

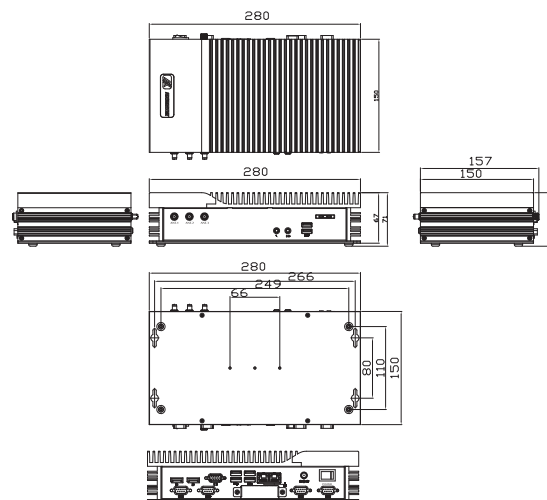
|                           |   |
|---------------------------|---|
| eBOX630-100-FL-T56N-1.65G | Fanless embedded system with AMD G-Series AP T56N 1.65G<br>1.65 GHz, VGA, 2 DisplayPort, 2 GbE LAN, 4 COM, 6 USB, AC-DC 60W adapter, CFast™ and HDD |
|---------------------------|---|

### Optional

|                           |                 |
|---------------------------|-----------------|
| 2.5" SATA HDD             | 40 GB or above  |
| 2.5" SATA SSD             | 4 GB or above   |
| DDR3 SO-DIMM              | 512 MB or above |
| CFast™                    | 1 GB or above   |
| Power adapter bracket kit |                 |
| Wi-Fi module              |                 |
| 3G module                 |                 |
| GPS module                |                 |
| Power cord                |                 |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX550-100-FL

Fanless Embedded System with AMD G-Series APU T40E 1.0 GHz and VGA & DisplayPort for Dual Display



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40  |
| CPU                   | AMD G-Series APU T40E 1.0 GHz  |
| System Memory         | 1 x 204-pin DDR3-1066/1333 SO-DIMM max. up to 4 GB   |
| Chipset               | AMD A50M FCH   |
| BIOS                  | AMI  |
| System I/O Outlet     | 1 x VGA<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>2 x 10/100/1000Mbps Ethernet (Realtek RTL8111E)<br>4 x USB 2.0<br>1 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CFast™ slot   |
| Expansion Interface   | 1 x PCI Express Mini Card slot (USB+PCI Express signal)  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | Screw type AC 60W adapter<br>Input: AC 90~264V<br>Output: DC12V@5A   |
| Operating Temperature | -10°C ~ +45°C (14°F ~ 113°F) (with W.T. HDD)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10%~90% , non-condensing   |
| Vibration Endurance   | 2 Grms with CFast™ (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 160.4 mm (6.31") (W) x 135.4 mm(5.33") (D) x 60 mm (2.36") (H)   |
| Weight (net/gross)    | 2.5 kg (5.51 lb)/ 4.5 kg (9.92 lb)   |
| Certificate           | CE, EN60950 compliance   |
| EOS Support           | XPE, Linux, WES  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter
- 2 x CFast™ mylar
- 1 x HDD mylar
- 1 x power cord

## Features

- AMD G-series APU T40E 1.0 GHz onboard
- Supports VGA+DisplayPort dual view
- DDR3-1066/1333 SO-DIMM max. up to 4 GB
- One 2.5" SATA drive bay and 1 CFast™ slot
- 1 internal PCI Express Mini Card slot
- Supports Jumbo Frame



▲ Rear view

## Power Protection

### AC Version

- OVP (over voltage protection)
- OCV (over current protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

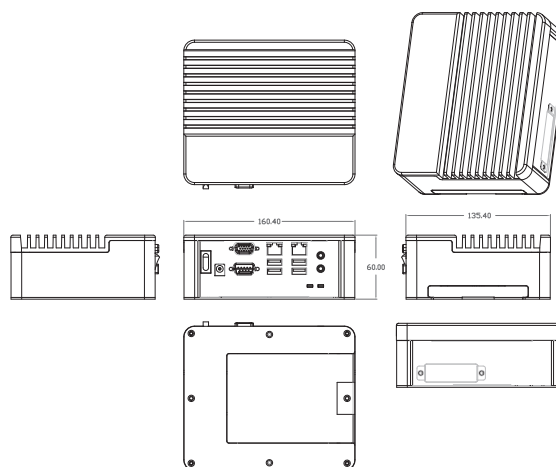
|                          |   |
|--------------------------|---|
| eBOX550-100-FL-T40E-1.0G | Fanless embedded system with AMD G-Series APU T40E 1.0 GHz, VGA, DisplayPort, 2 GbE LAN, 4 USB, AC-DC 60W adapter, CFast™ and HDD |
|--------------------------|---|

### Optional

|                |                |
|----------------|----------------|
| 2.5" SATA HDD  | 40 GB or above |
| 2.5" SATA SSD  | 4 GB or above  |
| DDR3 SO-DIMM   | Max. 4 GB      |
| CFast™         | 1 GB or above  |
| Din-rail kit   |                |
| Wall mount kit |                |
| Power cord     |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX646-FL

Fanless Embedded System with AMD Geode™ LX800 500 MHz Processor for Gaming Management System



▲ Front view



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Black   |
| Construction          | Heavy-duty cold-rolled steel, IP30  |
| CPU                   | AMD Geode™ LX800 500 MHz onboard  |
| System Memory         | 1 x 200-pin DDR SO-DIMM max. up to 1 GB   |
| Chipset               | AMD LX800 + CS5536  |
| BIOS                  | Phoenix-Award 4Mbit with RPL/PXE LAN Boot ROM, SmartView and Customer CMOS backup   |
| System I/O Outlet     | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1)<br>1 x VGA<br>1 x PS/2 keyboard/mouse through Y-type cable<br>2 x 10/100Mbps Ethernet (Realtek RTL8139DL)<br>3 x USB 2.0<br>1 x optional expansion slot for audio (Mic-in/Line-in/Line-out) or LPT or digital I/O<br>1 x dummy-proof reset button<br>1 x VDC power input connector |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.  |
| Storage               | 1 x CompactFlash™ slot  |
| Expansion Interface   | N/A   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply          | Screw type AC 20W adapter<br>Input: AC 90 ~ 264V<br>Output: DC 5V @ 4A  |
| Operating Temperature | -10°C ~ +50°C (14°F ~ 122°C) (with W.T. CF)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing   |
| Vibration Endurance   | 2 Grms with CF (5 ~ 500 Hz, X, Y, Z directions)   |
| Dimensions            | 200 mm (7.8") (W) x 150 mm (5.9") (D) x 44 mm (1.73") (H)   |
| Weight (net/gross)    | 1.3 kg (2.86 lb)/ 1.8 kg (3.97 lb)  |
| Certificate           | CE  |
| EOS Support           | XPE, WinCE, Linux, WES  |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x Y cable for PS/2 keyboard/mouse
- 1 x screw pack
- 4 x foot pad
- 1 x power adapter

## Features

- Fanless operation
- Low voltage AMD Geode™ LX800 500 MHz processor onboard
- AMD LX + CS5536
- Screw type 20W AC/DC power adapter
- Easy access via bottom side
- Operating temperature range of -10°C ~ +50°C
- Supports CompactFlash™
- Best suit for gaming management system



▲ Rear view

## Power Protection

### AC Version

- OLD (over load protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

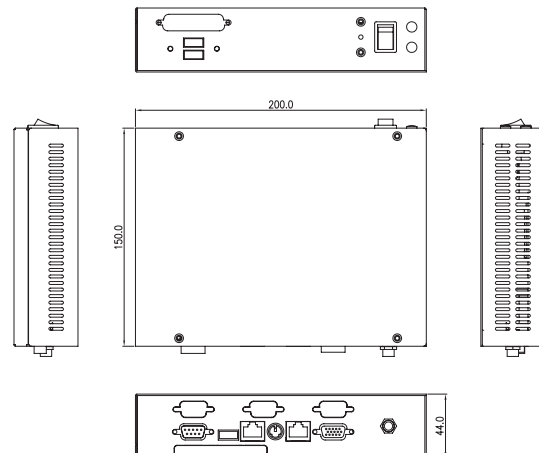
|                  |   |
|------------------|---|
| eBOX646-FL AC    | Fanless embedded system with AMD Geode™ LX800 500 MHz processor, wall mount kit and 20W AC/DC adapter                                 |
| eBOX646-FL-IO AC | Fanless embedded system with AMD Geode™ LX800 500 MHz processor, wall mount kit, 20W AC/DC adapter, optional for 1 LPT, audio or D/IO |

### Optional

|                    |                                |
|--------------------|--------------------------------|
| DDR SO-DIMM        | 256 MB ~ 1 GB                  |
| CompactFlash™      | 256 MB or above                |
| Cable kit          | Digital I/O cable, print cable |
| Wall mount bracket |                                |
| Power cord         |                                |

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

1

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories





# eBOX745-FL500

Fanless Embedded System with AMD Geode™ LX800 500 MHz Processor



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver   |
| Construction          | Aluminum extrusion and heavy-duty cold-rolled steel, IP40  |
| CPU                   | AMD Geode LX800 500 MHz onboard  |
| System Memory         | 1 x 200-pin DDR SO-DIMM max. up to 1 GB  |
| Chipset               | AMD LX800 + CS5536   |
| BIOS                  | Phoenix-Award 4Mbit with RPL/PXE LAN Boot ROM, SmartView and Customer CMOS backup  |
| System I/O Outlet     | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1)<br>1 x VGA<br>1 x LPT<br>1 x PS/2 keyboard/mouse<br>2 x 10/100Mbps Ethernet (Realtek RTL8139DL)<br>3 x USB 2.0<br>1 x VDC power input terminal block (DC version)<br>1 x VAC power input connector (AC version) |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" IDE HDD drive bay<br>1 x CompactFlash™ slot   |
| Expansion Interface   | N/A  |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | * AC AT 72W<br>Input: 85 ~ 270VAC<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A<br>* DC AT 72W<br>Input: 18 ~ 36VDC<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A  |
| Operating Temperature | -20°C ~ +50°C (-4°F ~ +122°F) (with W.T. HDD, AC PSU)  |
| Storage Temperature   | -30°C ~ +80°C (-22°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing  |
| Vibration Endurance   | 2 Grms with CF (5 ~ 500 Hz, X, Y, Z directions)<br>0.5 Grms with HDD (5 ~ 500 Hz, X, Y, Z directions)  |
| Dimensions            | 225 mm (8.86") (W) x 225 mm (8.86") (D) x 51 mm (2.01") (H)  |
| Weight (net/gross)    | 2.15 kg (4.74 lb)/2.9 kg (6.39 lb)   |
| Certificate           | CE   |
| EOS Support           | XPE, WinCE, Linux, WES   |

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x Y cable for PS/2 keyboard/mouse
- 1 x screw pack
- 4 x HDD anti-vibration damper
- 1 x wall mount kit

## Features

- Fanless operation
- AMD Geode LX800 500 MHz low voltage processor onboard
- AMD LX + CS5536
- Extremely low power consumption
- Supports CompactFlash™
- 70 watt AC-in or DC-in power supply



▲ Rear view

## Power Protection

### AC & DC Version

- OVP (over voltage protection)
- OLD (over load protection)
- SCP (short circuit protection)

## Ordering Information

### Standard

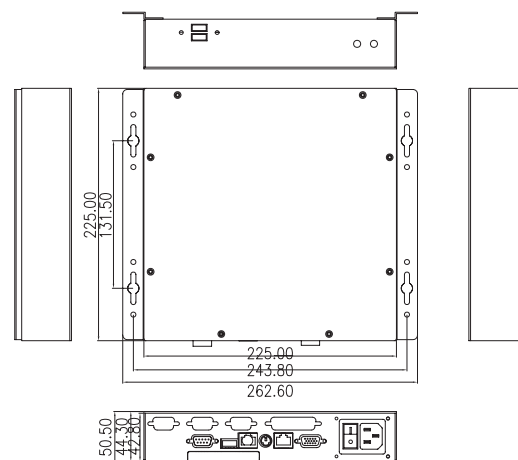
|                  |  |
|------------------|--|
| eBOX745-FL500 AC | Fanless embedded system with AMD Geode™ LX800 500 MHz processor, 256 MB DDR SO-DIMM and AC-in 70W P/S    |
| eBOX745-FL500 DC | Fanless embedded system with AMD Geode™ LX800 500 MHz processor, 256 MB DDR SO-DIMM and 24VDC-in 70W P/S |

### Optional

|              |                    |
|--------------|--------------------|
| 2.5 IDE HDD  | 40 GB or above     |
| DDR SO-DIMM  | 256 MB ~ 1 GB      |
| CompactFlash | 256 MB or above    |
| Power supply | 24VDC-in, 12VDC-in |
| Power cord   |                    |
| Din-rail kit |                    |

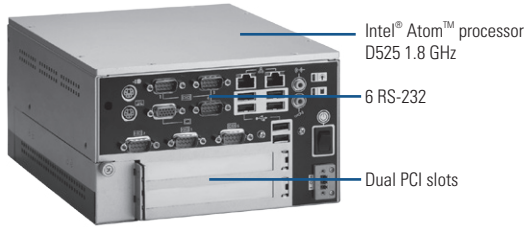
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX639-825-FL

Fanless Embedded System with Intel® Atom™ Processor D525 1.8 GHz and 2 PCI Slots



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP30  |
| CPU                   | Intel® Atom™ processor D525 1.8 GHz dual core  |
| System Memory         | 2 x 240-pin DDR3-800 DIMM max. up to 4 GB  |
| Chipset               | Intel® NM10  |
| BIOS                  | AMI  |
| System I/O Outlet     | 6 x RS-232<br>1 x VGA<br>1 x Audio (Mic-in/Line-out)<br>1 x PS/2 keyboard<br>1 x PS/2 mouse<br>2 x 10/100/1000Mbps Ethernet (Realtek RTL8111E)<br>6 x USB 2.0<br>1 x SMA type connector opening for antenna<br>1 x VDC power input connector<br>1 x ATX power switch |
| Watchdog Timer        | 255 levels, 1~255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay  |
| Expansion Interface   | 2 x 32bit /33MHz PCI slots, support max. length of 200 mm of PCB boards expansion<br>1 x PCI Express Mini Card slot (USB+PCI Express signal)   |
| System Indicator      | 1 x green LED for system power-on<br>1 x orange LED for HDD active   |
| Power Supply          | DC ATX 107W<br>Input: DC 16~28VDC<br>Output: +3.3VDC @ 6A, +5VDC @ 9A, +12VDC @ 3A, -12VDC @ 0.1A, +5Vsb @ 1A  |
| Operating Temperature | -10°C ~ +50°C (14°F ~ 122°F) (with W.T. HDD)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing  |
| Vibration Endurance   | 2 Grms with SSD (5-500Hz, X, Y, Z directions)  |
| Dimensions            | 192 mm (7.56") (W) x 230 mm (9.05") (D) x 115.8 mm (4.56") (H)   |
| Weight (net/gross)    | 4.1 kg (9.03 lb)/ 4.8 kg (10.58 lb)  |
| Certificate           | CE   |
| EOS Support           | XPE, WinCE, Linux, WES   |

## Packing List

- 1 x quick Manual
- 1 x driver CD
- 1 x screws pack
- 4 x foot pad
- 4 x HDD anti-vibration damper
- 1 x DC-in connector

## Features

- Intel® Atom™ processor D525 1.8 GHz dual core onboard
- Fanless operation design with full feature I/O
- High performance DDR3-800 DIMM max. up to 4 GB
- 1 swappable 2.5" SATA drive bay
- 2 PCI slots and 1 internal PCI Express Mini Card slot
- Supports Jumbo Frame



▲ Rear view

## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (Under voltage protection)
- OCP (over current protection)

## Ordering Information

### Standard

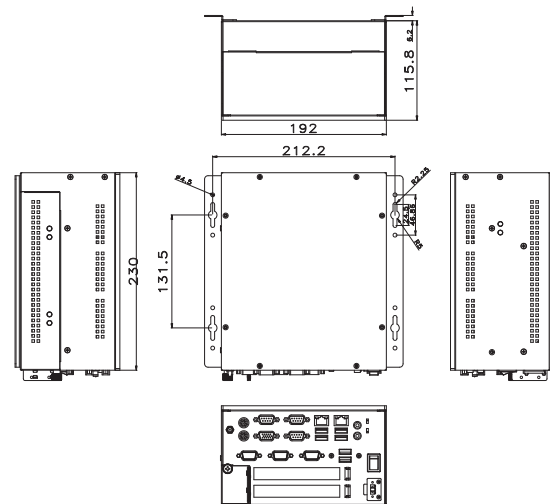
|                             |   |
|-----------------------------|---|
| eBOX639-825-FL-D525-1.8G-DC | Fanless embedded system with Intel® Atom™ processor D525, VGA, 2 GbE LAN, 6 USB, 2 PCI slots, HDD and DC-in |
|-----------------------------|---|

### Optional

|                      |                |
|----------------------|----------------|
| 2.5" SATA HDD        | 40 GB or above |
| 2.5" SATA SSD        | 4 GB or above  |
| DDR3 SO-DIMM         | 1 GB - 4 GB    |
| Wi-Fi module         |                |
| GPS module           |                |
| Graphic codec module |                |
| Wall mount kit       |                |
| Power cord           |                |
| AC power kit         |                |

\*Specifications and certifications are based on options and may vary.

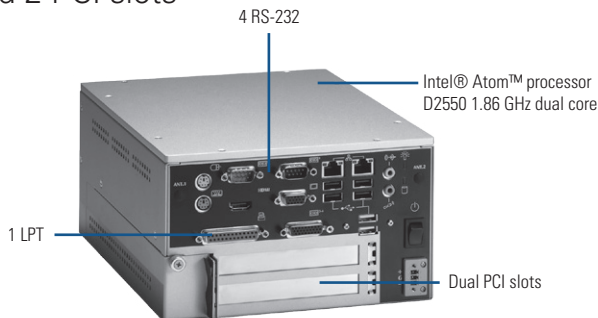
## Dimensions





# eBOX639-830-FL

Fanless Embedded System with Intel® Atom™ Processor D2550 1.86 GHz, 1 LPT and 2 PCI slots



▲ Front view



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP30  |
| CPU                   | Intel® Atom™ processor D2550 1.86 GHz dual core  |
| System Memory         | 1x 204-pin DDR3 1066 SO-DIMM, max. up to 4 GB  |
| Chipset               | Intel® NM10  |
| BIOS                  | AMI  |
| System I/O Outlet     | 2 x 10/100/1000Mbps Ethernet<br>4 x RS-232<br>6 x USB 2.0<br>1 x Audio (MIC_in/Line_out)<br>1 x PS/2 for Keyboard<br>1 x PS/2 for Mouse<br>1 x VGA<br>1 x HDMI<br>1 x LPT<br>1 x VDC power input connector<br>1 x ATX Power Switch<br>2 x SMA type connector opening for antenna |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD drive bay  |
| Expansion Interface   | 2 x 32bit/33MHz PCI slots, support max. length of 200 mm of PCB boards expansion<br>1 x Full Size PCI Express Mini Card (mSATA or PCIe Mini Card by jumper selection)  |
| System Indicator      | 1 x orange LED for HDD active<br>1 x green LED for system power  |
| Power Supply          | DC ATX 107W<br>Input: DC 16~28VDC<br>Output: +3.3VDC @ 6A, +5VDC @ 9A, +12VDC @ 3A, -12VDC @ 0.1A, +5Vsb @ 1A  |
| Operating Temperature | -10°C ~ +50°C (14°F ~ 122°F) (With W.T. SSD/DRAM)  |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing  |
| Dimensions            | 192 mm (7.56") (W) x 230 mm (9.05") (D) x 115.8 mm (4.56") (H)   |
| Vibration Endurance   | 2 Grms with SSD (5 - 500 Hz, X,Y, Z directions)  |
| Weight (net/gross)    | 3.2 kg (7.05 lb)/ 4.5 kg (9.92 lb)   |
| Certificate           | CE (Class A)   |
| EOS support           | WES7, Linux  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad
- 1 x Adapter with power cord or DC-in connector

## Features

- Intel® Atom™ processor D2550 1.86 GHz dual core onboard
- Fanless operation design with full feature I/O
- High performance DDR3-1066 SO-DIMM max. up to 4 GB
- One 2.5" SATA drive bay
- 2 PCI slots and 1 internal PCI Express Mini Card slot
- Supports Jumbo Frame



▲ Rear view

## Power Protection

### DC Version

OVP (over voltage protection)  
 UVP (under voltage protection)  
 OCP (over current protection)  
 SCP (over temperature protection)  
 Reverse protection

## Ordering Information

### Standard

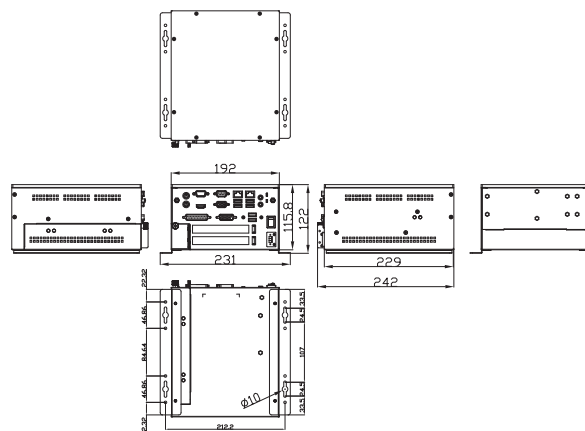
eBOX639-830-FL-DC Fanless embedded system with Intel® Atom™ processor D2550, VGA, 2 GbE LAN, 6 USB, 2 PCI slots, HDD support and DC-in

### Optional

2.5" SATA HDD 80 GB or above  
 2.5" SATA SSD 40 GB or above  
 DDR3 SO-DIMM 1 GB ~ 4 GB  
 Wall mount kit  
 Wi-Fi Module  
 GPS module  
 AC/DC adaptor  
 Power Cord

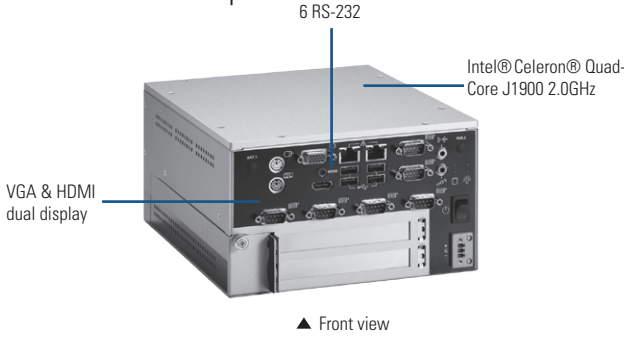
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX638-840-FL

Fanless Embedded System with Intel® Celeron® Processor J1900 2.0 GHz, VGA/HDMI, 6 COM, 2 PCI/PCIe slots and 16~28VDC Input



## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Silver-Black   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP30  |
| CPU                   | Intel® Celeron® Quad-Core J1900 2.0 GHz  |
| System Memory         | 1 x 204-pin DDR3L-1066/1333 SO-DIMM, max. up to 8 GB   |
| Chipset               | SoC integrated   |
| BIOS                  | AMI  |
| System I/O Outlet     | 6 x RS-232<br>2 x 10/100/1000Mbps Ethernet (Realtek RTL8111G)<br>4 x USB 2.0<br>1 x Internal USB 3.0<br>1 x Audio (MIC_in/Line_out)<br>1 x PS/2 keyboard<br>1 x PS/2 mouse<br>1 x HDMI<br>1 x VGA<br>1 x VDC power input connector<br>1 x ATX power switch<br>2 x SMA type connector opening for antenna |
| Watchdog Timer        | 255 levels, 1 ~ 255 sec.   |
| Storage               | 1 x 2.5" SATA HDD bay, max. height 9.5mm<br>1 x mSATA  |
| Expansion Interface   | 1x Full-size PCI Express Mini Card slot with mSATA supported (PCI Express + USB signal)<br>2 x 32bit/33MHz PCI slots, support max. length of 200 mm of PCB boards or 2 PCIe x1 for expansion max. up to 10W  |
| System Indicator      | 1 x green for system power<br>1 x orange LED for HDD active  |
| Power Supply          | DC ATX 72W<br>Input: 16~28VDC, Output: +12V@6A   |
| Operating Temperature | -10°C ~ +55°C (14°F ~ +131 F) (with W.T. DRAM & SSD)   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing  |
| Vibration Endurance   | 2 Grms with SSD(5-500 Hz, X, Y, Z directions)  |
| Dimensions            | 192mm (7.56") (W) x 230 mm (9.05") (D) x 115.8 mm (4.56") (H)  |
| Weight (net/gross)    | 4.1 kg (9.03 lb) /4.8 kg (10.58 lb)  |
| Certificate           | CE   |
| EOS support           | WES7, WE8S, Linux  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x screw pack
- 4 x foot pad
- 1 x DC-in connector

## Features

- Intel® Celeron® J1900 2.0 GHz quad core (Bay Trail)
- Fanless operation design with full feature I/O
- Dual Independent Display from HDMI and VGA
- Supports 6 COM ports, 2 GbE LAN and 1 Mini PCIe slot
- Supports dual PCI or PCIe x1 expansion slots
- ATX 72W 16~28VDC wide range power input



## Power Protection

- OCP (over current protection)
- OVP (over voltage protection)
- UVP (under voltage protection)

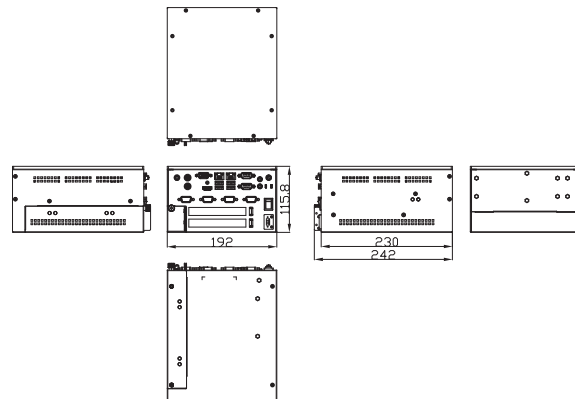
## Ordering Information

| Standard                |  |
|-------------------------|--|
| eBOX638-840-FL-2PCI-DC  | Fanless embedded system with Intel® Celeron® J1900 2.0 GHz, VGA/HDMI, 6 COM, 2 GbE LAN, 2 PCI slots and 16~28VDC input     |
| eBOX638-840-FL-2PCIe-DC | Fanless embedded system with Intel® Celeron® J1900 2.0 GHz, VGA/HDMI, 6 COM, 2 GbE LAN, 2 PCIe x1 slots and 16~28VDC input |

| Optional       |                 |
|----------------|-----------------|
| 2.5" SATA HDD  | 80 GB or above  |
| 2.5" SATA SSD  | 40 GB or above  |
| DDR3L SO-DIMM  | 1GB ~ 8GB       |
| mSATA          | 512 MB or above |
| Wall Mount Kit | 88160639010E    |
| Wi-Fi Module   |                 |
| 3G Module      |                 |

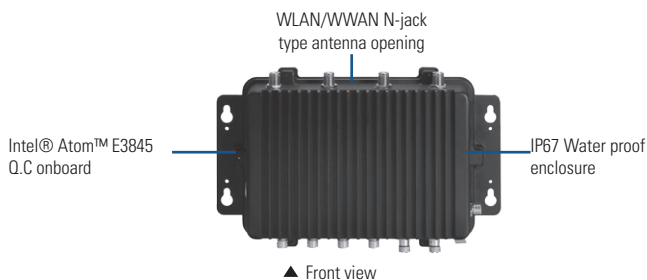
\*Specifications and certifications are based on options and may vary.

## Dimensions



# eBOX311-841-FL

Rugged IP67-rated Fanless Embedded System with Intel® Atom™ Processor E3845 1.91 GHz, VGA, 2 GbE LAN, 2 USB, 2 COM and 9~36VDC input



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Black   |
| Construction          | Aluminum die-casting and heavy-duty steel, IP67   |
| CPU                   | Intel® Atom™ processor E3845 1.91 GHz   |
| System Memory         | 1 x 204-pin DDR3L-1066/1333 SO-DIMM max. up to 8 GB   |
| Chipset               | SoC integrated  |
| BIOS                  | AMI   |
| System I/O Outlet     | 2 x RS-232/422/485 (COM1/2, M12)<br>1 x VGA ( M12)<br>2 x 10/100/1000Mbps Ethernet ( M12)<br>2 x USB 2.0 ( M12)<br>1 x 9~36VDC power input (M12)<br>1 x ATX power switch w/indicator<br>4 x Antenna opening N Jack type w/ water proof design |
| Watchdog Timer        | 255 levels, 1~255 sec.  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x mSATA  |
| Expansion Interface   | 1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x Half-size PCI Express Mini Card slot (USB + PCI Express signal)<br>1 x SIM slot  |
| System Indicator      | 1 x green LED for system power-on   |
| Power Supply          | Input 9~36VDC   |
| Operating Temperature | -30~+60 (-4°F ~ 140°F) (with E3845, W.T. SSD/DRAM)  |
| Storage Temperature   | -40°C~80°C (-40°F~+176°F)   |
| Humidity              | 10%~95% , non-condensing  |
| Vibration Endurance   | 3 Grms with SSD (5-500Hz, X, Y, Z directions)   |
| Dimensions            | 210mm (8.27") x 366.83mm(14.44") x 83 mm(3.27")   |
| Weight (net/gross)    | TBD   |
| Certificate           | CE  |
| EOS                   | WES7, Win 10 IoT  |

## Packing List

- 1 x quick manual
- 1 x driver cd
- 1 x PWR M12 cable

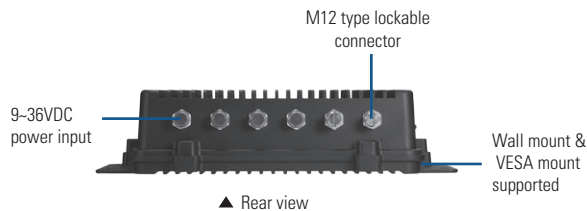
## Power Protection

### DC Version

- OVP (over voltage protection)
- OCP (over current protection)
- SCP (short circuit protection)
- Reverse Polarity Protection

## Features

- Fanless design with IP67-rated
- Intel® Atom™ E3845 quad-core onboard
- 4 Antenna opening with water proof design for WLAN & WWAN usage
- Wide range operating temperature and 9~36VDC power input supported
- Flexible I/O for customized designs and mission-critical projects



## Ordering Information

### Standard

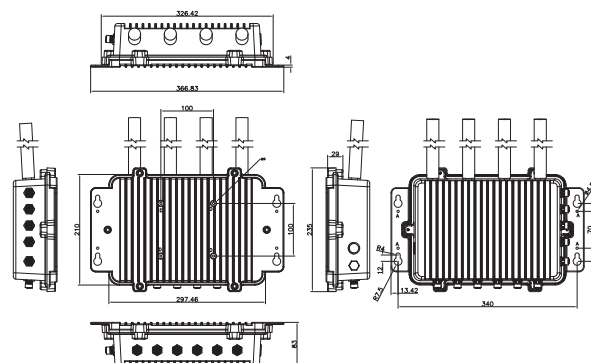
|                   |  |
|-------------------|--|
| eBOX311-841-FL-DC | Rugged IP67-rated fanless embedded system with Intel® Atom™ processor E3845 1.91 GHz, VGA, 2 GbE LAN, 2 COM, 2 USB and 9~36VDC input |
|-------------------|--|

### Optional

|               |                |
|---------------|----------------|
| 2.5" SATA HDD | 40 GB or above |
| 2.5" SATA SSD | 4 GB or above  |
| DDR3L SO-DIMM | 1 GB ~ 8 GB    |
| WLAN module   |                |
| WWAN module   |                |
| LAN M12 cable |                |
| COM M12 cable |                |
| VGA M12 cable |                |
| USB M12 cable |                |

\*Specifications and certifications are based on options and may vary.

## Dimensions








\* All specifications and photos are subject to change without notice.

# 2 Transportation Embedded Systems

Axiomtek announces its tBOX series especially designed for transportation applications such as vehicle, railway, marine or other station and facility usage. Its stability and reliability of products that have earned an ISO7637 rating and eMark certification for vehicle applications, also qualified for EN50155, EN50121 and EN45545 certifications for railway applications, otherwise applied for IEC60945, DVN2.4 for marine applications recently. Transportation series products featured anti-vibration design and isolation capability.

The Transportation-Centric Embedded System - tBOX series provides seamless communication with GPS, Wi-Fi, 3G/4G and Bluetooth.

|   |   |     |
|---|---|-----|
|   | Introduction  | 287 |
|   | Selection Guide   | 288 |
|    |  tBOX810-838-FL Fanless Embedded System with Intel® Atom™ Processor E3845/E3827 for Vehicle, Railway and Marine PC | 293 |
|   | tBOX323-835-FL Fanless Embedded System with Intel® Atom™ Bay Trail Processor 1.91 GHz for Railway PC  | 295 |
|   | tBOX322-882-FL Fanless Embedded System with 4th Generation Intel® Core™ Processor for Railway PC  | 297 |
|  | tBOX321-870-FL Fanless Embedded System with 3rd Generation Intel® Core™ Processor and Intel® QM77 Chipset for Railway PC  | 299 |
|   | tBOX320-852-FL Fanless Embedded System with Intel® Core™2 Duo Processor 2.26 GHz and Intel® GM45 Chipset for Railway PC   | 301 |
|  | tBOX230-890-FL Fanless Embedded System with 6th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor for Vehicle PC  | 303 |
|   | tBOX313-835-FL Fanless Embedded System with Intel® Atom™ Bay Trail Processor 1.91 GHz for Vehicle PC  | 305 |
|   | tBOX312-870-FL Fanless Embedded System with Intel® Core™ Processor up to 2.8 GHz and Intel® QM77 Chipset for Vehicle PC   | 307 |
|   | tBOX311-820-FL Fanless Embedded System with Intel® Atom™ Processor Z520PT 1.33 GHz for Vehicle PC   | 309 |
|   | tBOX330-870-FL Fanless Embedded System with 3rd Generation Intel® Core™ Processor and Intel® QM77 Chipset for Marine PC   | 311 |

# Transportation-Centric Embedded tBOX Systems

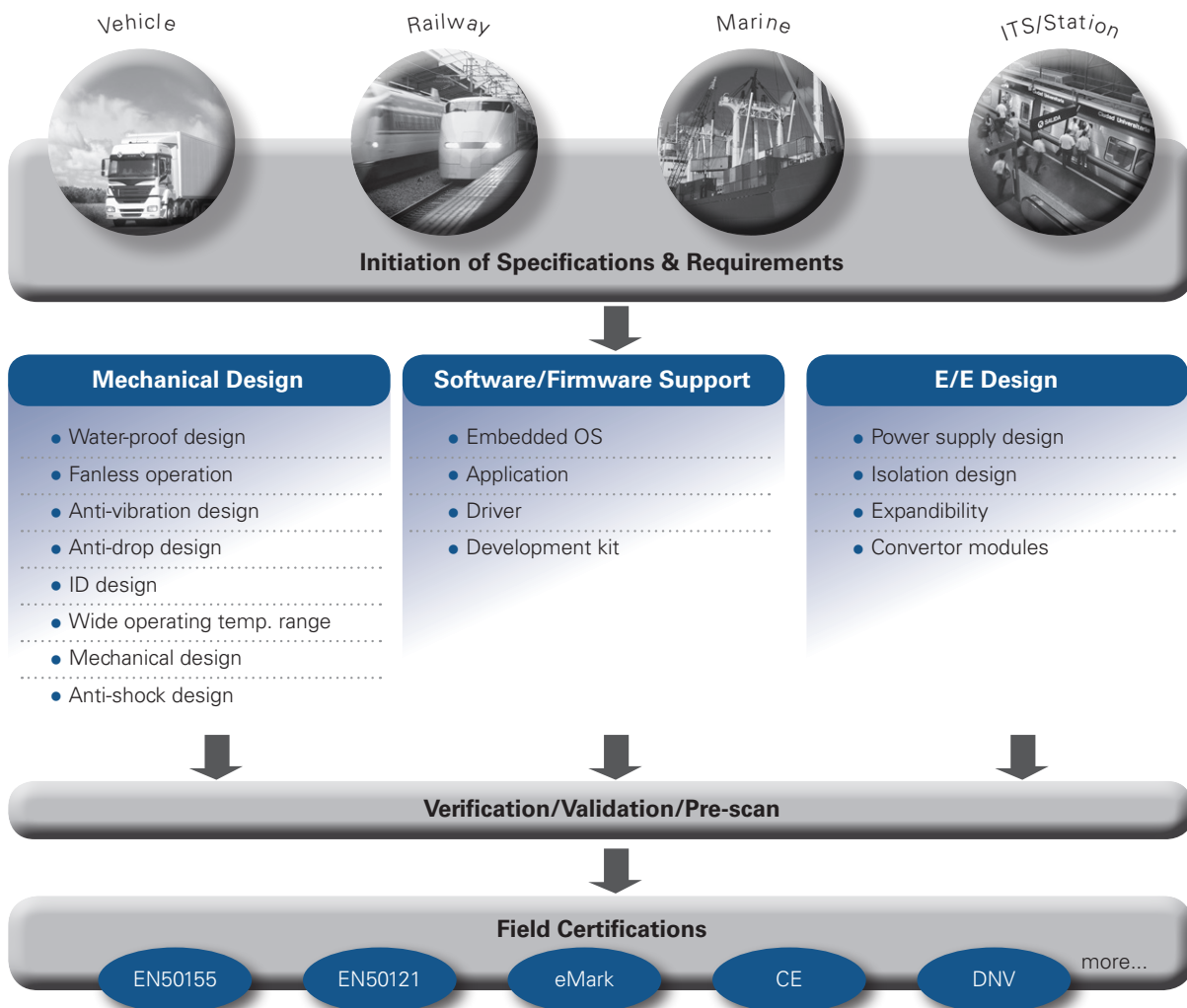
Transportation system is one of basic constructions for countries and areas economy development, it is getting more important and various in modern society. Axiomtek develops fanless embedded transportation systems with reliable, stable and durable factors that in order to resist harsh, rough environment in vehicle, railway and marine applications. The rugged industrial design provides you an ideal and efficient solution such as fleet management, gateway, toll management and much more.

## Design Capability

tBOX series integrates durable components with low power x86 CPU/chipset, along with its unique mechanical construction and anti-vibration design, our tBOX products have been put through several rigorous tests such as being drop, shock, vibration, wide temperature and HIPOT. This series meets vehicle ISO7637, eMark certification and railway EN50121, EN50155, EN45545 and marine IEC 60945 certification, apply ideally in every commercial truck, bus, train and even maritime applications.

In addition to tBOX series providing seamless communication with GPS, Wi-Fi, 3G/4G and Bluetooth, we also offer various compact modules that can easily be integrated into other systems such as CAN bus and RS-422/485 modules. There is a variety of OS and embedded OS solution available as well, such as Windows® XP, Windows® Vista, Windows® 7, Windows® CE, Windows® XP embedded and embedded Linux.

Axiomtek provides a vehicle power monitoring tool which helps the user monitor or debug the system easily within different working environments.



# Embedded Systems for Transportation

## Selection Guide



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| Features/Models                     | tBOX810-838-FL   | tBOX323-835-FL                                    |
|-------------------------------------|--|---|
| <b>CPU Level</b>                    | Intel® Atom™ E3845 4C@1.91 GHz<br>Intel® Atom™ E3827 2C@1.75 GHz   | Intel® Atom™ E3845 4C@1.91 GHz                    |
| <b>System Memory</b>                | DDR3L-1333 4 GB DRAM   | DDR3L-1333 4 GB DRAM                              |
| <b>Chipset</b>                      | N/A  | N/A   |
| <b>Serial</b>                       | 2x RS-232/422/485  | 1 x RS-232<br>4 x isolated RS-422/485             |
| <b>CAN bus</b>                      | N/A (Optiona by module)  | N/A   |
| <b>Display</b>                      | 1x VGA   | 1 x VGA<br>1 x HDMI                               |
| <b>Audio</b>                        | N/A (Optiona by module)  | Yes   |
| <b>PS/2</b>                         | N/A  | N/A   |
| <b>Ethernet</b>                     | 2x GbE LAN (M12/RJ-45 optional)                                    | 2 x GbE LAN (8pin M12 female A-coded)             |
| <b>USB</b>                          | 2x USB 2.0   | 2 x USB 2.0                                       |
| <b>DIO</b>                          | 1x 8bit DB9 programmable DIO                                       | 1 x isolated DIO (6-IN & 2-OUT)                   |
| <b>Expansion Interface</b>          | 2x full-size mini PCIe card slots<br>1x SIM card socket            | 3 x mini PCIe card slots<br>2 x SIM card sockets  |
| <b>Storage</b>                      | 1x 2.5" SATA HDD/SSD<br>1x mSATA                                   | 1 x 2.5" SATA HDD/SSD<br>1 x CFast™<br>1 x mSATA  |
| <b>Watchdog Timer</b>               | 255 levels, 1-255 sec./min.  | 255 levels, 1 - 255 sec./min.                     |
| <b>Power Supply</b>                 | 9 - 36VDC<br>Typical 12/24VDC                                      | 12 - 32VDC<br>Typical 24VDC                       |
| <b>Operating Temperature</b>        | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD                     | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD    |
| <b>Extended Temperature Sorting</b> | N/A  | N/A   |
| <b>Wall Mount</b>                   | Yes  | Yes   |
| <b>Din-rail</b>                     | Yes  | N/A   |
| <b>Dimensions</b>                   | 163.8 x 108 x 44mm<br>(6.44" x 4.25" x 1.73")                      | 244 x 180.5 x 65.1 mm<br>(9.6" x 7.11" x 2.56")   |
| <b>Weight (net/gross)</b>           | 0.77 kg (1.69 lb)/ TBD   | 3 kg (6.61 lb)/ 3.8 kg (8.38 lb)                  |
| <b>Certificate</b>                  | CE (Class A), EN50155, EN50121, eMark, ISO7637, IEC60945 certified | CE, EN50155, EN50121, EN45545, EN60950 compliance |
| <b>EOS Support</b>                  | WE8S, WES 7, Linux   | WE8S, WES 7, Linux                                |

Overview

Embedded Systems

2 Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories



# Embedded Systems for Transportation

## Selection Guide



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| Features/Models                     | tBOX322-882-FL  | tBOX321-870-FL   |
|-------------------------------------|---|--|
| <b>CPU Level</b>                    | 4th Generation Intel® Core™ i7-4650U 4C@1.7GHz, up to 3.3 GHz/<br>4th Generation Intel® Core™ i3-4010U 2C@1.7 GHz | 3rd Generation Intel® Core™ i7-3517UE 4C@1.7 GHz, up to 2.8 GHz/<br>3rd Generation Intel® Core™ i3-3217UE 2C@1.6 GHz |
| <b>System Memory</b>                | DDR3L-1600 4 GB/ 8 GB DRAM  | DDR3-1600 4 GB DRAM  |
| <b>Chipset</b>                      | N/A   | Intel® QM77  |
| <b>Serial</b>                       | 2 x isolated RS-232/422/485   | 4 x isolated RS-232/422/485  |
| <b>CAN bus</b>                      | N/A   | N/A  |
| <b>Display</b>                      | 1 x DVI-I<br>1 x HDMI   | 1 x VGA<br>1 x DVI-D   |
| <b>Audio</b>                        | Yes (M12 and screw-type conn.)  | Yes (M12 and screw-type conn.)   |
| <b>PS/2</b>                         | N/A   | N/A  |
| <b>Ethernet</b>                     | 2 x GbE LAN (8pin M12 female A-coded)   | 4 x GbE LAN (8pin M12 female A-coded)  |
| <b>USB</b>                          | 2 x USB 3.0<br>1 x USB 2.0 (M12 conn.)  | 2 x USB 3.0<br>1 x USB 2.0 (M12 conn.)   |
| <b>DIO</b>                          | 1 x isolated DIO (6-IN & 2-OUT)   | 1 x isolated DIO (4-IN & 4-OUT)  |
| <b>Expansion Interface</b>          | 3 x mini PCIe card slots<br>2 x SIM card sockets  | 3 x mini PCIe card slots<br>1 x SIM card sockets   |
| <b>Storage</b>                      | 1 x 2.5" SATA HDD/SSD<br>1 x CFast™<br>1 x mSATA  | 2 x 2.5" SATA HDD/SSD<br>1 x CFast™  |
| <b>Watchdog Timer</b>               | 255 levels, 1 - 255 sec./min.   | 255 levels, 1 - 255 sec./min.  |
| <b>Power Supply</b>                 | 14 - 32VDC<br>Typical 24VDC   | 14 - 32VDC, 77 - 137.5VDC<br>Typical 24VDC, 110VDC   |
| <b>Operating Temperature</b>        | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD  | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD   |
| <b>Extended Temperature Sorting</b> | N/A   | N/A  |
| <b>Wall Mount</b>                   | Yes   | Yes  |
| <b>Din-rail</b>                     | N/A   | N/A  |
| <b>Dimensions</b>                   | 244 x 180.5 x 65.1 mm<br>(9.6" x 7.11" x 2.56")   | 288.5 x 211.3 x 85.75 mm<br>(11.36" x 8.32" x 3.38")   |
| <b>Weight (net/gross)</b>           | 2.94 kg (6.48 lb)/ 3.94 kg (8.68 lb)  | 5.5 kg (12.12 lb)/ 6.5 kg (14.33 lb)   |
| <b>Certificate</b>                  | CE, EN50155, EN50121, EN45545, EN60950 compliance   | CE, EN50155, EN50121, EN45545, EN60950 compliance  |
| <b>EOS Support</b>                  | WE8S, WES 7, Linux  | WE8S, WES 7, Linux   |





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| Features/Models                     | tBOX320-852-FL   | tBOX230-890-FL   |
|-------------------------------------|--|--|
| <b>CPU Level</b>                    | Intel® Core™ 2 Duo SP9300 2C@2.26 GHz/<br>Intel® Celeron™ M 723 @1.2 GHz | 6th generation Intel® Core™ i7-6600U 4C@2.6 GHz, up to 3.4 GHz<br>6th generation Intel® Core™ i5-6300U 2C@2.4 GHz, up to 3.0 GHz<br>Intel® Celeron® 3955U 2C@2.0 GHz |
| <b>System Memory</b>                | DDR3-1333 2 GB DRAM  | DDR4 SO-DIMM slot x2, up to 16GB   |
| <b>Chipset</b>                      | Intel® GM45 + ICH9M  | N/A  |
| <b>Serial</b>                       | 4 x isolated RS-232/422/485  | 1x RS-232<br>up to 8x isolated RS-232/422/485 (Option by 2x I/O card)  |
| <b>CAN bus</b>                      | N/A  | up to 4x CANbus (Option by 2x I/O card)  |
| <b>Display</b>                      | 1 x VGA<br>1 x DVI-D   | 1x DVI-I   |
| <b>Audio</b>                        | Yes  | N/A (Option by module)   |
| <b>PS/2</b>                         | N/A  | N/A  |
| <b>Ethernet</b>                     | 2 x GbE LAN (8pin M12 female A-coded, 4pin M12 for 10/100Mbps)           | 1x RJ-45 GbE LAN<br>up to 8x M12 PoE GbE LAN, 15.4W per port (Option by 2x I/O card)<br>up to 8x RJ-45 GbE LAN<br>(Option by 2x I/O card)                            |
| <b>USB</b>                          | 4 x USB 2.0  | 4x USB 3.0   |
| <b>DIO</b>                          | 1 x isolated DIO (6-IN & 2-OUT)  | up to 16-in/16-out isolated DIO(Option by 2x I/O card)   |
| <b>Expansion Interface</b>          | 2 x mini PCIe card slots<br>1 x SIM card socket                          | 2x full-size + 1x half-size mini PCIe card slot<br>1x SIM card socket  |
| <b>Storage</b>                      | 2 x 2.5" SATA HDD/SSD<br>1 x CompactFlash™                               | 2x 2.5" SATA HDD/SSD<br>1x mSATA   |
| <b>Watchdog Timer</b>               | 255 levels, 1 - 255 sec./min.  | 255 levels, 1-255 sec./min.  |
| <b>Power Supply</b>                 | 12 - 32VDC<br>Typical 24VDC  | 9 - 36VDC<br>Typical 12/24VDC  |
| <b>Operating Temperature</b>        | -25°C ~ +55°C (-13°F ~ +131°F)<br>with W/T SSD                           | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD   |
| <b>Extended Temperature Sorting</b> | N/A  | N/A  |
| <b>Wall Mount</b>                   | Yes  | Yes  |
| <b>Din-rail</b>                     | N/A  | Yes  |
| <b>Dimensions</b>                   | 288.5 x 211.3 x 85.75 mm<br>(11.36" x 8.32" x 3.38")                     | TBD  |
| <b>Weight (net/gross)</b>           | 5.5 kg (12.12 lb)/ 6.5 kg (14.33 lb)                                     | TBD  |
| <b>Certificate</b>                  | CE, EN50155, EN50121, EN45545, EN60950 compliance                        | CE (Class A), eMark,<br>ISO7637 certificated   |
| <b>EOS Support</b>                  | XPE, WinCE, Linux  | WE8S, WES 7, Linux   |

Overview

Embedded Systems

2 Embedded Systems for Transportation

Embedded Field Controllers

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| Features/Models                     | tBOX313-835-FL   | tBOX312-870-FL  |
|-------------------------------------|--|---|
| <b>CPU Level</b>                    | Intel® Atom™ E3845 4C@1.91 GHz                                 | 3rd Generation Intel® Core™ i7-3517UE<br>4C@1.7 GHz, up to 2.8 GHz/<br>3rd Generation Intel® Core™ i3-3217UE 2C@1.6 GHz |
| <b>System Memory</b>                | DDR3L-1333 4 GB DRAM   | DDR3-1600 4 GB DRAM   |
| <b>Chipset</b>                      | N/A  | Intel® QM77   |
| <b>Serial</b>                       | 1x RS-232<br>4x isolated RS-422/485                            | 3 x isolated RS-232/422/485   |
| <b>CAN bus</b>                      | 1x isolated CAN Bus  | 1x isolated CAN Bus   |
| <b>Display</b>                      | 1 x VGA<br>1 x HDMI  | 1 x VGA<br>1 x DVI-D  |
| <b>Audio</b>                        | Yes  | Yes   |
| <b>PS/2</b>                         | N/A  | N/A   |
| <b>Ethernet</b>                     | 2 x GbE LAN (8pin M12 female A-coded, RJ-45 conn. is optional) | 4 x GbE LAN (IEEE 802.3 at PoE, Max. 30W)   |
| <b>USB</b>                          | 2 x USB 2.0  | 2 x USB 3.0<br>2 x USB 2.0  |
| <b>DIO</b>                          | 1 x isolated DIO (6-IN & 2-OUT)                                | 1 x isolated DIO (4-IN & 4-OUT)   |
| <b>Expansion Interface</b>          | 3 x mini PCIe card slots<br>2 x SIM card sockets               | 3 x mini PCIe card slots<br>1 x SIM card socket   |
| <b>Storage</b>                      | 1 x 2.5" SATA HDD/SSD<br>1 x CFast™<br>1 x mSATA               | 2 x 2.5" SATA HDD/SSD<br>1 x CFast™   |
| <b>Watchdog Timer</b>               | 255 levels, 1 - 255 sec./min.                                  | 255 levels, 1 - 255 sec./min.   |
| <b>Power Supply</b>                 | 9 - 36VDC<br>Typical 12/24VDC                                  | 9 - 36VDC<br>Typical 12/24VDC   |
| <b>Operating Temperature</b>        | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD                 | -40°C ~ +70°C (-40°F ~ +158°F)<br>with W/T SSD  |
| <b>Extended Temperature Sorting</b> | N/A  | N/A   |
| <b>Wall Mount</b>                   | Yes  | Yes   |
| <b>Din-rail</b>                     | N/A  | N/A   |
| <b>Dimensions</b>                   | 244 x 180.5 x 65.1 mm<br>(9.6" x 7.11" x 2.56")                | 288.5 x 211.3 x 85.75 mm<br>(11.36" x 8.32" x 3.38")  |
| <b>Weight (net/gross)</b>           | TBC  | 5.5 kg (12.12 lb)/ 6.5 kg (14.33 lb)  |
| <b>Certificate</b>                  | CE, e13, ISO7637, EN60950 compliance                           | CE, e13, ISO7637, EN60950 compliance  |
| <b>EOS Support</b>                  | WE8S, WES 7, Linux   | WE8S, WES 7, Linux  |



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| Features/Models                     | tBOX311-820-FL                                  | tBOX330-870-FL   |
|-------------------------------------|---|--|
| <b>CPU Level</b>                    | Intel® Atom™ Z520PT @1.33 GHz                   | 3rd Generation Intel® Core™ i7-3517UE<br>4C@1.7 GHz, up to 2.8 GHz/<br>3rd Generation Intel® Core™ i3-3217UE<br>2C@1.6 GHz |
| <b>System Memory</b>                | 1 x 200-pin DR2 SO-DIMM<br>(up to 2 GB)         | DDR3-1600 4 GB DRAM  |
| <b>Chipset</b>                      | Intel® US15WPT core logic                       | Intel® QM77  |
| <b>Serial</b>                       | 1 x isolated RS-232/422/485                     | 3 x isolated RS-232/422/485  |
| <b>CAN bus</b>                      | 1 x isolated CAN Bus                            | 1 x isolated CAN Bus   |
| <b>Display</b>                      | 2 x VGA   | 1 x VGA<br>1 x DVI-D   |
| <b>Audio</b>                        | Yes   | Yes (screw-type conn.)   |
| <b>PS/2</b>                         | N/A   | N/A  |
| <b>Ethernet</b>                     | 2 x GbE LAN                                     | 4 x GbE LAN  |
| <b>USB</b>                          | 4 x USB 2.0                                     | 2 x USB 3.0<br>2 x USB 2.0   |
| <b>DIO</b>                          | 1x isolated DIO (4-IN & 4-OUT)                  | 1x isolated DIO (4-IN & 4-OUT)   |
| <b>Expansion Interface</b>          | 3 x mini PCIe card slots<br>1 x SIM card socket | 3 x mini PCIe card slots<br>1 x SIM card socket  |
| <b>Storage</b>                      | 1 x 2.5" SATA HDD/SSD<br>1 x CompactFlash™      | 1 x 2.5" SATA HDD/SSD<br>1 x CompactFlash™   |
| <b>Watchdog Timer</b>               | 255 levels, 1 - 255 sec./min.                   | 255 levels, 1 - 255 sec./min.  |
| <b>Power Supply</b>                 | 12/24VDC  | 14 - 32VDC<br>Typical 24VDC  |
| <b>Operating Temperature</b>        | -40°C ~ +65°C (-40°F ~ +139°F) with W/T SSD     | -40°C ~ +70°C (-40°F ~ +158°F) with W/T SSD  |
| <b>Extended Temperature Sorting</b> | N/A   | N/A  |
| <b>Wall Mount</b>                   | Yes   | Yes  |
| <b>Din-rail</b>                     | N/A   | N/A  |
| <b>Dimensions</b>                   | 244 x 180.5 x 65.1 mm<br>(9.6" x 7.11" x 2.56") | 288.5 x 211.3 x 85.75 mm<br>(11.36" x 8.32" x 3.38")   |
| <b>Weight (net/gross)</b>           | 2.5 kg (5.5 lb)/ 3.5 kg (7.7 lb)                | 5.5 kg (12.12 lb)/ 6.5 kg (14.33 lb)   |
| <b>Certificate</b>                  | CE, e13, ISO7637, EN60950 compliance            | CE, IEC60945, DNV 2.4 compliance   |
| <b>EOS Support</b>                  | XPE, WinCE, Linux                               | WE8S, WES 7, Linux   |

Overview

Embedded Systems

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Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories

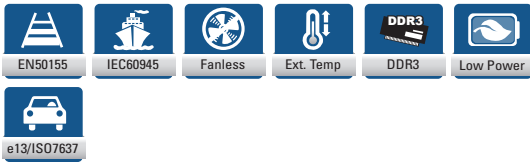


# tBOX810-838-FL

Fanless Embedded System with Intel® Atom™ Processor E3845/E3827 for Vehicle, Railway and Marine PC



▲ Front view



## Specifications

|                       |  |           |   |            |   |
|-----------------------|--|-----------|---|------------|---|
| Standard Color        | Silver-Black   |           |   |            |   |
| Construction          | Aluminum extrusion and heavy-duty steel  |           |   |            |   |
| CPU                   | Intel® Atom™ processor E3845 (4C@1.91 GHz)<br>Intel® Atom™ processor E3827 (2C@1.75 GHz)   |           |   |            |   |
| System Memory         | DDR3L-1333, 4 GB memory onboard  |           |   |            |   |
| Chipset               | SoC integrated   |           |   |            |   |
| BIOS                  | AMI  |           |   |            |   |
| System I/O Outlet     | <table border="0"> <tr> <td>Rear Side</td> <td>Option #1: 2 x M12 A-coded GbE LAN + 1x M12 A-coded DC power input<br/>Option #2: 2 x RJ-45 GbE LAN + 1 x Phoenix DC power input (Intel® i210 LAN chip x2)<br/>2 x audio (mic-in/line-out) (optional)</td> </tr> <tr> <td>Front Side</td> <td>2 x RS-232/422/485<br/>1 x DI/DO (8bit programmable)<br/>1 x VGA<br/>2 x USB 2.0<br/>1 x remote switch<br/>1 x reset button<br/>4 x antenna opening</td> </tr> </table> | Rear Side | Option #1: 2 x M12 A-coded GbE LAN + 1x M12 A-coded DC power input<br>Option #2: 2 x RJ-45 GbE LAN + 1 x Phoenix DC power input (Intel® i210 LAN chip x2)<br>2 x audio (mic-in/line-out) (optional) | Front Side | 2 x RS-232/422/485<br>1 x DI/DO (8bit programmable)<br>1 x VGA<br>2 x USB 2.0<br>1 x remote switch<br>1 x reset button<br>4 x antenna opening |
| Rear Side             | Option #1: 2 x M12 A-coded GbE LAN + 1x M12 A-coded DC power input<br>Option #2: 2 x RJ-45 GbE LAN + 1 x Phoenix DC power input (Intel® i210 LAN chip x2)<br>2 x audio (mic-in/line-out) (optional)  |           |   |            |   |
| Front Side            | 2 x RS-232/422/485<br>1 x DI/DO (8bit programmable)<br>1 x VGA<br>2 x USB 2.0<br>1 x remote switch<br>1 x reset button<br>4 x antenna opening  |           |   |            |   |
| Watchdog Timer        | 255 levels, 0 ~ 255 seconds/minutes  |           |   |            |   |
| Storage               | 1 x 2.5" 9.5 mm SATA drive<br>1 x mSATA  |           |   |            |   |
| Expansion Interface   | 2 x full-size mini PCIe card slots, 1x supported mSATA<br>1 x SIM card socket  |           |   |            |   |
| System Indicator      | 1 x green LED indicator for system power<br>1 x green LED indicator for programmable #1<br>1 x green LED indicator for programmable #2<br>1 x yellow LED indicator for HDD active<br>1 x green LED indicator for LAN #1 active<br>1 x green LED indicator for LAN #2 active  |           |   |            |   |
| Power Supply          | Power input: 9 ~ 36VDC typical: 12/24VDC   |           |   |            |   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) with W.T. SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) with W.T. HDD   |           |   |            |   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)   |           |   |            |   |
| Humidity              | 5% ~ 95%, non-condensing   |           |   |            |   |
| Vibration Endurance   | 3 Grms w/ SSD (5-500Hz, X, Y, Z direction; random)<br>1 Grms w/ HDD (5-500Hz, X, Y, Z direction; random)   |           |   |            |   |

## Features

- eMark, ISO7637, EN50155, EN50121 and IEC60945 certificated
- Intel® Atom™ Bay Trail-I E3845 4C@1.91 GHz or E3827 2C@1.75GHz
- DDR3L-1333 4 GB system memory onboard
- Fanless with operating temperature range of -40°C ~ +70°C (EN50155 class TX)
- Intelligent power management solution
- Compact size with rich multiple I/Os, DIN rail and wall mount supported
- 2 full size mini PCIe card slots and 1 SIM card socket



▲ Rear view

|                    |  |
|--------------------|--|
| Shock              | Comply EN 61373 section 10 table 3 category 1 class A and class B up to 5Grms (30ms, ±X/Y/Z direction) |
| Dimensions         | 163.8 mm (6.44") (W) x 108 mm (4.25") (D) x 44 mm (1.73") (H)  |
| Weight (net/gross) | 0.77 kg (1.69 lb)/ TBC   |
| Certificate        | CE (Class A), EN50155, EN50121, eMark, ISO7637, IEC60945 certificated                                  |
| EOS support        | WEBS, WES 7, Linux   |

## Ordering Information

| Standard                        |   |
|---------------------------------|---|
| tBOX810-838-FL-E3827-M12-DC     | Fanless Vehicle/Railway/Marine embedded system, with Intel® Atom™ E3827 1.75GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN (M12), M12 DC-in, 2 COM, DIO (8bit programmable)   |
| tBOX810-838-FL-E3827-RJ-DC      | Fanless Vehicle/Railway/Marine Grade embedded system with Intel® Atom™ E3827 1.75GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN, Phoenix DC-in, 2 COM, DIO (8bit programmable)  |
| tBOX810-838-FL-E3827-M12-ACC-DC | Fanless Vehicle/Railway/Marine Grade embedded system with Intel® Atom™ E3827 1.75GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN (M12), M12 DC-in, 2 COM, DIO, DIO(8bit programmable) with ACC power setting for vehicle |
| tBOX810-838-FL-E3845-M12-DC     | Fanless Vehicle/Railway/Marine Grade embedded system with Intel® Atom™ E3845 1.91GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN (M12), M12 DC-in, 2 COM, DIO (8bit programmable)  |
| tBOX810-838-FL-E3845-RJ-DC      | Fanless Vehicle/Railway/Marine Grade embedded system with Intel® Atom™ E3845 1.91GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN, Phoenix DC-in, 2 COM, DIO (8bit programmable)  |
| tBOX810-838-FL-E3845-M12-ACC-DC | Fanless Vehicle/Railway/Marine Grade embedded system with Intel® Atom™ E3845 1.91GHz processor, 4GB DRAM, 2 USB, VGA, 2 GbE LAN (M12), M12 DC-in, 2 COM, DIO (8bit programmable) with ACC power setting for vehicle     |

### Optional

- 2.5" SATA HDD/SSD
- mSATA SSD
- 3G/4G module
- Wi-Fi module
- Wi-Fi & bluetooth
- GPS module
- CANbus module
- Video card module

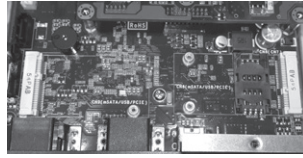
\*Specifications and certifications are based on options and may vary.

\* All specifications and photos are subject to change without notice.

## Expansion & Installation



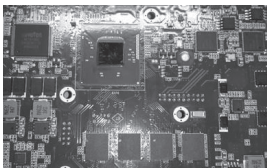
Compact size 163.8 x 108 x 44 mm, such thin and light as palm size



2 x mini PCIe card slots + 1x SIM card socket  
Excellent extensibility in such compact size



Optional I/O ports Option for audio, LAN jack type and DC-in jack type



Onboard processor and system memory  
Comes with great reliability and stability



Simple storage maintenance



DIN rail, wall mount supported  
For various application, without space limitation

## Packing List

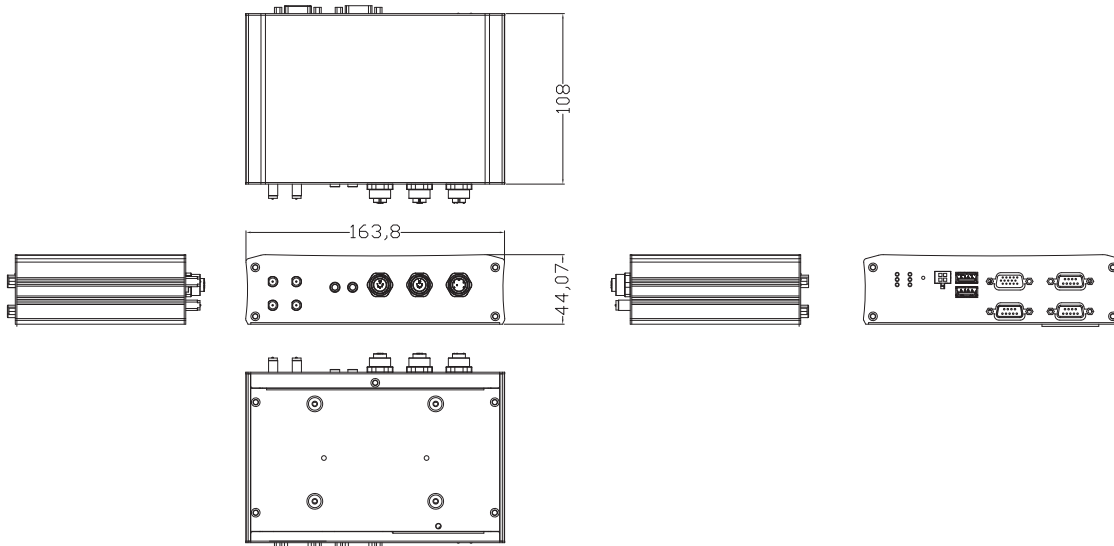
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit
- 1 x DIN rail kit

## Power Protection

### DC Version

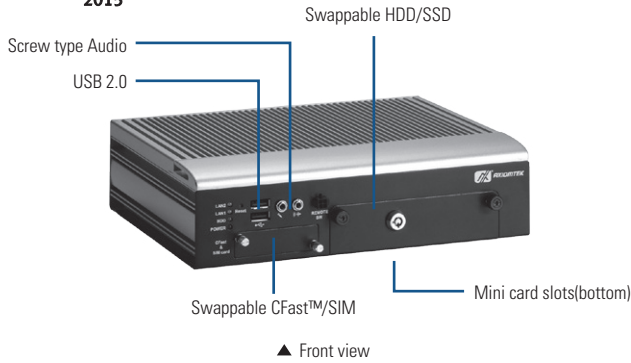
- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)
- ISO7637 pulse 1/2/3/4/5a
- Battery protection setting: Low voltage, Very low voltage
- Ignition control setting: Low voltage counter, ACC-ON delay, Shut down delay

## Dimensions



# tBOX323-835-FL

Fanless Embedded System with Intel® Atom™ Processor E3845 Quad Core™ (1.91 GHz) for Railway PC



▲ Front view



## Specifications

|                       |   |           |  |            |   |
|-----------------------|---|-----------|--|------------|---|
| Standard Color        | Silver-Black  |           |  |            |   |
| Construction          | Aluminum extrusion and heavy-duty steel   |           |  |            |   |
| CPU                   | Intel® Atom™ processor E3845 (4C@1.91GHz)   |           |  |            |   |
| System Memory         | DDR3L-1333, 4 GB memory   |           |  |            |   |
| Chipset               | SoC integrated  |           |  |            |   |
| BIOS                  | AMI   |           |  |            |   |
| System I/O Outlet     | <table border="0"> <tr> <td>Rear Side</td> <td>                     2 x GbE LAN (M12 A-coded)<br/>                     4 x isolated RS-422/485 (terminal)<br/>                     1 x RS-232 (DB9)<br/>                     1 x isolated DI/DO (6-in/2-out)<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x HDMI<br/>                     1 x VGA<br/>                     1 x VDC power input (M12 A-coded)<br/>                     4 x antenna opening<br/>                     1 x fuse                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 2.0<br/>                     1 x audio (mic-in/line-out, screw type)<br/>                     1 x reset switch<br/>                     1 x remote power switch<br/>                     1 x 2.5" SATA drive tray<br/>                     1 x CFast™ slot + 2 x SIM card sockets                 </td> </tr> </table> | Rear Side | 2 x GbE LAN (M12 A-coded)<br>4 x isolated RS-422/485 (terminal)<br>1 x RS-232 (DB9)<br>1 x isolated DI/DO (6-in/2-out)<br>2 x audio (mic-in/line-out, screw type)<br>1 x HDMI<br>1 x VGA<br>1 x VDC power input (M12 A-coded)<br>4 x antenna opening<br>1 x fuse | Front Side | 2 x USB 2.0<br>1 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>1 x remote power switch<br>1 x 2.5" SATA drive tray<br>1 x CFast™ slot + 2 x SIM card sockets |
| Rear Side             | 2 x GbE LAN (M12 A-coded)<br>4 x isolated RS-422/485 (terminal)<br>1 x RS-232 (DB9)<br>1 x isolated DI/DO (6-in/2-out)<br>2 x audio (mic-in/line-out, screw type)<br>1 x HDMI<br>1 x VGA<br>1 x VDC power input (M12 A-coded)<br>4 x antenna opening<br>1 x fuse  |           |  |            |   |
| Front Side            | 2 x USB 2.0<br>1 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>1 x remote power switch<br>1 x 2.5" SATA drive tray<br>1 x CFast™ slot + 2 x SIM card sockets   |           |  |            |   |
| Watchdog Timer        | 255 levels, 0 ~ 255 seconds/minutes   |           |  |            |   |
| Storage               | 1 x 2.5" SATA HDD(Suspension designed, HDD height support 7/9.5/12.5/15mm)<br>1 x CFast™ (front accessible)   |           |  |            |   |
| Expansion Interface   | 3 x PCI Express Mini Card with 2 x SIM card slots (two front accessible)<br>One PCIe mini card support mSATA  |           |  |            |   |
| System Indicator      | 1 x green LED for HDD active<br>1 x yellow LED for LAN1 active<br>1 x yellow LED for LAN2 active<br>1 x red LED for Power   |           |  |            |   |
| Power Supply          | Power input : 12 ~ 32 Vdc (typical 24Vdc)   |           |  |            |   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) with W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) with W/T HDD  |           |  |            |   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |           |  |            |   |
| Humidity              | 5% ~ 95%, non-condensing  |           |  |            |   |

## Features

- EN50155, EN50121 certified, EN45545-2 complied
- Fanless operating temperature range of -40°C ~ +70°C (EN50155 class TX)
- Intel® Atom™ Bay Trail-I E3845 4C@1.91GHz
- High performance DDR3L-1333 4 GB memory onboard
- Isolated RS-422/485 and DIO
- Lockable I/O interface and M12 LAN, power connector
- Supports USB 2.0 and SATA2
- Instant fuse repair design
- Suspension 2.5" SATA HDD and one CFast™
- Internal PCI Express Mini Card slot and SIM socket



▲ Rear view

|                     |   |
|---------------------|---|
| Vibration Endurance | 3 Grms with SSD & CFast™ (5-500Hz, X, Y, Z direction; Random) (IEC60068-2-34)<br>2 Grms with HDD (5-500Hz, X, Y, Z direction; Random) |
| Shock               | Comply EN 61373 section 10 table 3 category 1 class A and class B up to 5Grms (30ms, ±X/Y/Z direction)                                |
| Dimensions          | 244 mm (9.6") (W) x 180.5 mm (7.1") (D) x 65.1 mm (2.56") (H)   |
| Weight (net/gross)  | 3 kg (6.61 lb)/ 3.8 kg (8.38 lb)  |
| Certificate         | CE, EN50155, EN50121, EN45545-2 compliance  |
| EOS support         | WES7/8, Compac2013, Linux   |

## Ordering Information

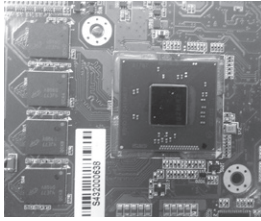
| Standard          |   |
|-------------------|---|
| tBOX323-835-FL-DC | Fanless railway embedded system with Intel® Atom™ E3845 (4C@1.91 GHz), 4 GB DDR3-1333, 2 GbE LAN (M12), 1 RS-232, 4 isolated RS-422/485, and CFast™ |

| Optional              |                |
|-----------------------|----------------|
| 2.5" SATA HDD/SSD     | 16 GB or above |
| CFast™                | 1 GB or above  |
| 3G module             |                |
| Wi-Fi module          |                |
| Wi-Fi & bluetooth     |                |
| GPS module            |                |
| M12 Gigabit LAN cable |                |
| M12 power cable       |                |
| Remote switch cable   |                |

\*Specifications and certifications are based on options and may vary.



## Expansion & Installation



On board Intel® Atom™ Bay Trail-I (E3845, 4C@ 1.91GHz) processor and 4GB DDR3L-1333 DRAM



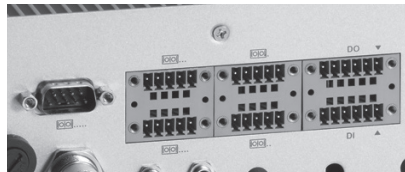
Removable CFast™, SIM slot and suspension 2.5"SATA HDD/SSD



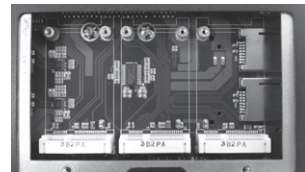
M12 railway power input and two Gigabit LAN connectors



HDMI and VGA display



Isolated RS-422/485 and DIO



3 x Mini Card with 2 x SIM slot

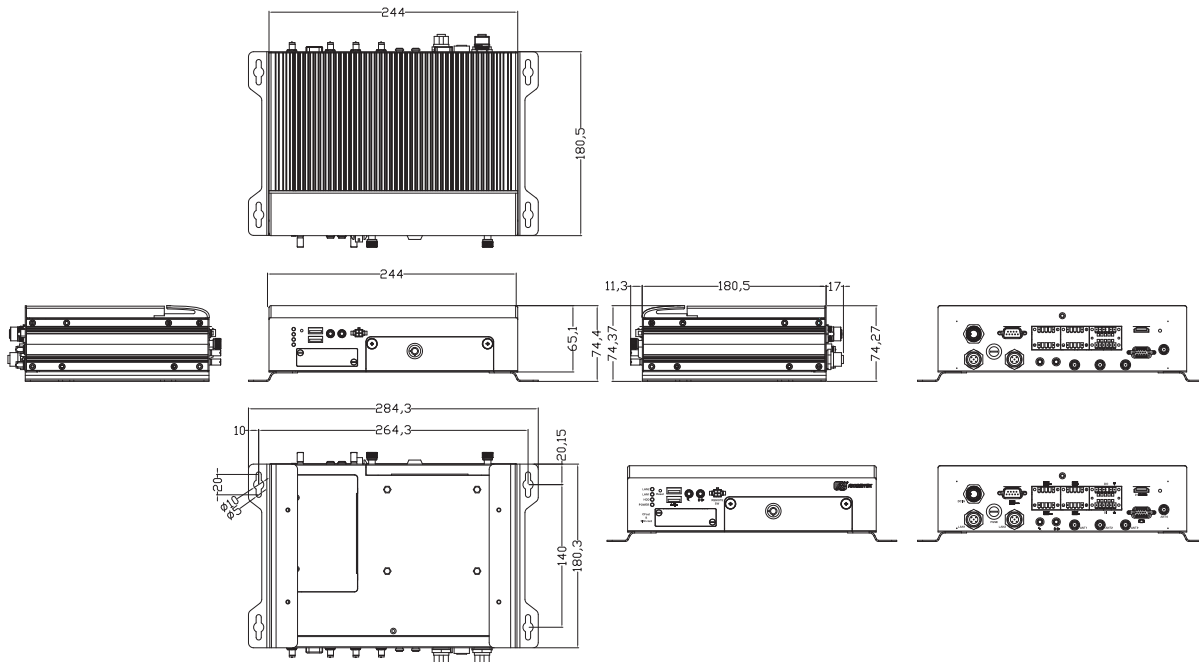
## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

## Power Protection

- DC Version**
- SCP (short circuit protection)
  - OVP (over voltage protection)
  - UVP (under voltage protection)

## Dimensions



Overview

Embedded Systems

2

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

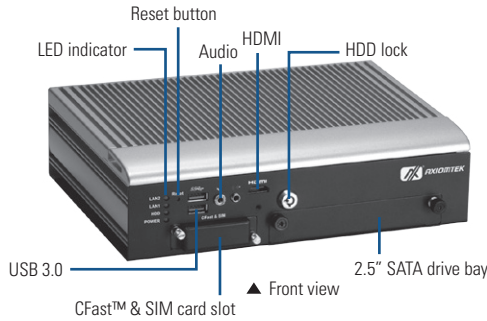
Power Supplies

Peripherals & Accessories



# tBOX322-882-FL

Fanless Embedded System with 4th Generation Intel® Core™ Processor for Railway PC

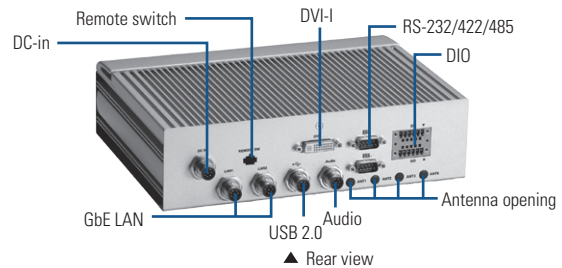


## Specifications

|                       |   |           |  |            |   |
|-----------------------|---|-----------|--|------------|---|
| Standard Color        | Silver-Black  |           |  |            |   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |           |  |            |   |
| CPU                   | 4th Generation Intel® Core™ processor ;<br>4th generation Intel® Core™ i7-4650U (1.7 GHz up to 3.3 GHz)<br>or 4th generation Intel® Core™ i3-4010U (1.7 GHz)  |           |  |            |   |
| System Memory         | DDR3L-1600 4 GB or 8 GB DRAM  |           |  |            |   |
| Chipset               | SoC integrated  |           |  |            |   |
| BIOS                  | AMI UEFI BIOS with OA 3.0 built   |           |  |            |   |
| System I/O Outlet     | <table border="0"> <tr> <td>Rear Side</td> <td> <ul style="list-style-type: none"> <li>2 x GbE LAN (M12 A-coded)</li> <li>2 x isolated RS-232/422/485</li> <li>1 x isolated DI/DO (6-in/2-out)</li> <li>1 x USB 2.0 (M12 A-coded)</li> <li>1 x audio (mic-in/line-out, M12 D-coded)</li> <li>1 x DVI-I</li> <li>1 x VDC power input (M12 A-coded)</li> <li>1 x remote power switch</li> <li>4 x antenna opening</li> <li>1 x power switch</li> </ul> </td> </tr> <tr> <td>Front Side</td> <td> <ul style="list-style-type: none"> <li>2 x USB 3.0</li> <li>2 x audio (mic-in/line-out, screw type)</li> <li>1 x HDMI</li> <li>1 x reset switch</li> <li>1 x 2.5" SATA drive tray</li> <li>1 x CFast™ slot + 2x SIM card sockets</li> </ul> </td> </tr> </table> | Rear Side | <ul style="list-style-type: none"> <li>2 x GbE LAN (M12 A-coded)</li> <li>2 x isolated RS-232/422/485</li> <li>1 x isolated DI/DO (6-in/2-out)</li> <li>1 x USB 2.0 (M12 A-coded)</li> <li>1 x audio (mic-in/line-out, M12 D-coded)</li> <li>1 x DVI-I</li> <li>1 x VDC power input (M12 A-coded)</li> <li>1 x remote power switch</li> <li>4 x antenna opening</li> <li>1 x power switch</li> </ul> | Front Side | <ul style="list-style-type: none"> <li>2 x USB 3.0</li> <li>2 x audio (mic-in/line-out, screw type)</li> <li>1 x HDMI</li> <li>1 x reset switch</li> <li>1 x 2.5" SATA drive tray</li> <li>1 x CFast™ slot + 2x SIM card sockets</li> </ul> |
| Rear Side             | <ul style="list-style-type: none"> <li>2 x GbE LAN (M12 A-coded)</li> <li>2 x isolated RS-232/422/485</li> <li>1 x isolated DI/DO (6-in/2-out)</li> <li>1 x USB 2.0 (M12 A-coded)</li> <li>1 x audio (mic-in/line-out, M12 D-coded)</li> <li>1 x DVI-I</li> <li>1 x VDC power input (M12 A-coded)</li> <li>1 x remote power switch</li> <li>4 x antenna opening</li> <li>1 x power switch</li> </ul>  |           |  |            |   |
| Front Side            | <ul style="list-style-type: none"> <li>2 x USB 3.0</li> <li>2 x audio (mic-in/line-out, screw type)</li> <li>1 x HDMI</li> <li>1 x reset switch</li> <li>1 x 2.5" SATA drive tray</li> <li>1 x CFast™ slot + 2x SIM card sockets</li> </ul>   |           |  |            |   |
| Watchdog Timer        | 255 levels, 0 ~ 255 sec./min.   |           |  |            |   |
| Storage               | 1 x 2.5" SATA HDD (Removable and with lock protection)<br>1 x CFast™  |           |  |            |   |
| Expansion Interface   | 3 x PCI Express Mini Card<br>2 x SIM card slots   |           |  |            |   |
| System Indicator      | 1 x green LED for system power on<br>1 x green LED for HDD active<br>1 x green LED for LAN1 link<br>1 x green LED for LAN2 link   |           |  |            |   |
| Power Supply          | Power input : 14VDC ~ 32VDC (isolation)<br>Typical : 24VDC  |           |  |            |   |
| Power Consumption     | 1.8A @ 24V  |           |  |            |   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) W/T HDD  |           |  |            |   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |           |  |            |   |
| Humidity              | 5% ~ 95%, non-condensing  |           |  |            |   |

## Features

- EN50155, EN50121 certificates
- Fanless with operating temperature range of -40°C ~ +70°C (EN50155 class TX)
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- 4th generation Intel® Core™ i7 or Core™ i3 processor
- High performance DDR3L 4 GB or 8 GB memory onboard
- Isolated RS-232/422/485 and DIO ports
- Supports USB 3.0 and SATA3 interface
- 1 removable & lockable 2.5" SATA HDD and 1 CFast™
- 3 internal PCI Express Mini Card slot and 2 SIM slots
- Lockable I/O interface and M12 type LAN, audio, power and USB connector
- Suspension designed for HDD



|                     |  |
|---------------------|--|
| Vibration Endurance | 3 Grms with SSD or CFast™ (5-500Hz, X, Y, Z directions)<br>2 Grms with HDD (5-500Hz, X, Y, Z directions) |
| Dimensions          | 244 mm (9.6") (W) x 180.5 mm (7.1") (D) x 65.1 mm (2.56") (H)  |
| Weight (net/gross)  | 2.94 kg (6.48 lb)/ 3.94 kg (8.68 lb)   |
| Certificate         | CE (Class A), EN50155, EN50121, EN45545-2, EN60950-1 compliance  |
| EOS Support         | WEBS, WES 7, Linux   |

## Ordering Information

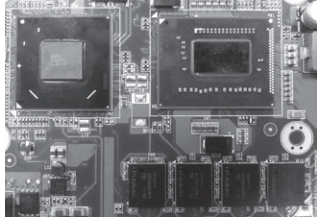
| Standard                 |   |
|--------------------------|---|
| tBOX322-882-FL-i7-DC     | Fanless railway embedded system with 4th generation Intel® Core™ i7-4650U, 4 GB DDR3L, 2 GbE LAN (M12), 2 isolated COM and CFast™ |
| tBOX322-882-FL-i3-DC     | Fanless railway embedded system with 4th generation Intel® Core™ i3-4010U, 4 GB DDR3L, 2 GbE LAN (M12), 2 isolated COM and CFast™ |
| tBOX322-882-FL-8GB-i7-DC | Fanless railway embedded system with 4th generation Intel® Core™ i7-4650U, 8 GB DDR3L, 2 GbE LAN (M12), 2 isolated COM and CFast™ |
| tBOX322-882-FL-8GB-i3-DC | Fanless railway embedded system with 4th generation Intel® Core™ i3-4010U, 8 GB DDR3L, 2 GbE LAN (M12), 2 isolated COM and CFast™ |

| Optional              |                |
|-----------------------|----------------|
| 2.5" SATA HDD/SSD     | 16 GB or above |
| CFast™                | 1 GB or above  |
| 3G module             |                |
| Wi-Fi module          |                |
| Wi-Fi Bluetooth       |                |
| GPS module            |                |
| M12 Gigabit LAN cable |                |
| M12 power cable       |                |
| M12 USB cable         |                |
| M12 audio cable       |                |
| Remote switch cable   |                |

\*Specifications and certifications are based on options and may vary.

\* All specifications and photos are subject to change without notice.

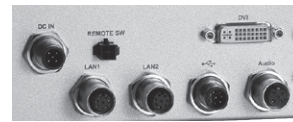
## Expansion & Installation



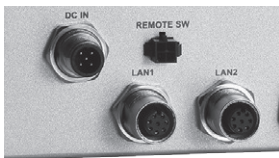
Onboard 4th generation Intel® Core™ CPU and 4 GB/ 8 GB DDR3L DRAM



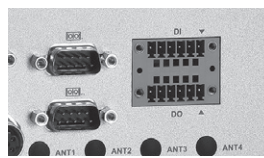
Swappable and lockable SATA3 HDD/SSD, Audio jack, USB 3.0 and CFast™



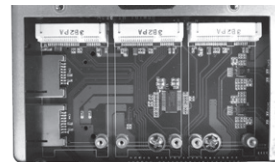
M12 type for Gigabit LAN, USB 2.0 and audio ports



M12 type power connector and remote switch connector



Isolated RS-232/422/485 and DIO ports

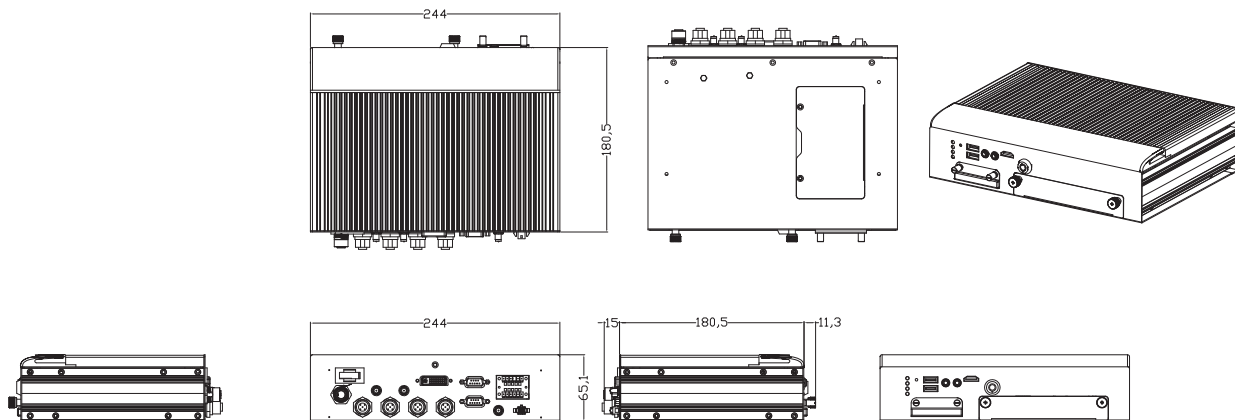


3 x Mini Card slots with 2 x SIM slot

## Packing List

- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

## Dimensions



## Power Protection

### DC Version

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)

Overview

Embedded Systems

2

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

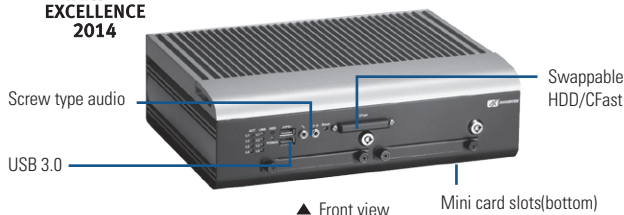
Power Supplies

Peripherals & Accessories



# tBOX321-870-FL

Fanless Embedded System with 3rd Generation Intel® Core™ Processor and Intel® QM77 for Railway PC

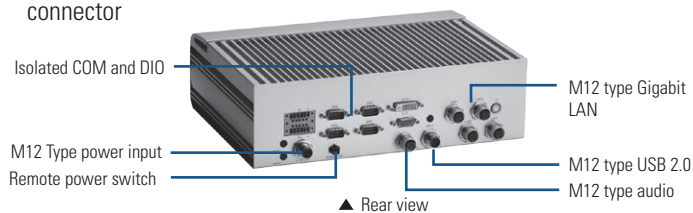


## Specifications

|                     |   |           |   |            |  |
|---------------------|---|-----------|---|------------|--|
| Standard Color      | Silver-Black  |           |   |            |  |
| Construction        | Aluminum extrusion and heavy-duty steel, IP40   |           |   |            |  |
| CPU                 | 3rd Generation Intel® Core™ i processor ;<br>3rd generation Intel® Core™ i7-3517UE (1.7 GHz up to 2.8 GHz) or 3rd generation Intel® Core™ i3-3217UE (1.6 GHz)   |           |   |            |  |
| System Memory       | DDR3-1600 4 GB DRAM   |           |   |            |  |
| Chipset             | Intel® QM77   |           |   |            |  |
| BIOS                | AMI UEFI BIOS with OA 3.0 built   |           |   |            |  |
| System I/O Outlet   | <table border="0"> <tr> <td>Rear Side</td> <td>                     4 x GbE LAN (M12 A-coded)<br/>                     4 x isolated RS-232/422/485<br/>                     1 x isolated DI/DO (4-in/4-out)<br/>                     1 x USB 2.0 (M12 A-coded)<br/>                     1 x audio (mic-in/line-out, M12 D-coded)<br/>                     1 x VGA<br/>                     1 x DVI-D<br/>                     1 x VDC power input (M12 A-coded)<br/>                     1 x remote power switch<br/>                     1 x power button<br/>                     3 x antenna opening                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 3.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x reset switch<br/>                     2 x 2.5" SATA drive trays<br/>                     1 x CFAST™ slot                 </td> </tr> </table> | Rear Side | 4 x GbE LAN (M12 A-coded)<br>4 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x USB 2.0 (M12 A-coded)<br>1 x audio (mic-in/line-out, M12 D-coded)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input (M12 A-coded)<br>1 x remote power switch<br>1 x power button<br>3 x antenna opening | Front Side | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFAST™ slot |
| Rear Side           | 4 x GbE LAN (M12 A-coded)<br>4 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x USB 2.0 (M12 A-coded)<br>1 x audio (mic-in/line-out, M12 D-coded)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input (M12 A-coded)<br>1 x remote power switch<br>1 x power button<br>3 x antenna opening   |           |   |            |  |
| Front Side          | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFAST™ slot  |           |   |            |  |
| Watchdog Timer      | 255 levels, 0 ~ 255 sec./min.   |           |   |            |  |
| Storage             | 2 x 2.5" SATA HDD (Removable and with lock protection)<br>Supports RAID 0/1<br>1 x CFAST™   |           |   |            |  |
| Expansion Interface | 3 x PCI Express Mini Card<br>1 x SIM card slot  |           |   |            |  |
| System Indicator    | 1 x green LED for system power on<br>1 x blue LED for HDD active<br>1 x green LED for LAN1 link<br>1 x green/yellow LED for LAN 1 speed<br>1 x green LED for LAN2 link<br>1 x green/yellow LED for LAN 2 speed<br>1 x green LED for LAN3 link<br>1 x green/yellow LED for LAN 3 speed<br>1 x green LED for LAN4 link<br>1 x green/yellow LED for LAN 4 speed  |           |   |            |  |
| Power Supply        | Power input : 14VDC ~ 32VDC, 77 ~ 137.5VDC (isolation)<br>Typical : 24, 110VDC  |           |   |            |  |
| Power Consumption   | 1.8A @ 24V, 0.5A @ 110V   |           |   |            |  |

## Features

- EN50155, EN50121 certificates
- Fanless with operating temperature range of -40°C ~ +70°C (EN50155 class TX)
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- 3rd generation Intel® Core™ i7 1.7 GHz up to 2.8 GHz or Intel® Core™ i3 1.6 GHz processor
- High performance DDR3-1600 4 GB memory onboard
- Isolated RS-232/422/485 and DIO ports
- Supports USB 3.0 and SATA3 interface
- 2 removable & lockable 2.5" SATA HDD and 1 CFAST™
- 3 internal PCI Express Mini Card slot and 1 SIM slot
- Lockable I/O interface and M12 type LAN, audio, power and USB connector



|                       |   |
|-----------------------|---|
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) W/T HDD  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 5% ~ 95%, non-condensing  |
| Vibration Endurance   | Certificated by EN50155 standard<br>3 Grms with SSD & CFAST™ (5-500Hz, X, Y, Z direction; Random)<br>1 Grms with HDD (5-500Hz, X, Y, Z direction; Random) |
| Dimensions            | 288 mm (11.33") (W) x 211 mm (8.3") (D)<br>x 85.7 mm (3.37") (H)  |
| Weight (net/gross)    | 5.5 kg (12.12 lb)/6.5 kg (14.33 lb)   |
| Certificate           | CE (Class A), EN50155, EN50121, EN45545, EN60950 compliance   |
| EOS Support           | WEBS, WES 7, Linux  |

## Ordering Information

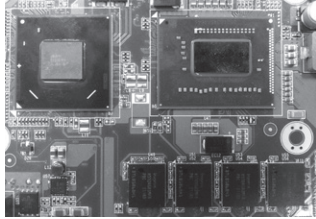
| Standard                 |  |
|--------------------------|--|
| tBOX321-870-FL-i7-DC     | Fanless railway embedded system with 3rd generation Intel® Core™ i7-3517UE, 4 GB DDR3-1600, 4 GbE LAN (M12), 4 isolated COM and CFAST™                     |
| tBOX321-870-FL-i3-DC     | Fanless railway embedded system with 3rd generation Intel® Core™ i3-3217UE, 4 GB DDR3-1600, 4 GbE LAN (M12), 4 isolated COM and CFAST™                     |
| tBOX321-870-FL-i7-110VDC | Fanless railway embedded system with 3rd generation Intel® Core™ i7-3517UE, 4 GB DDR3-1600, 4 GbE LAN (M12), 4 isolated COM and CFAST™, 110VDC power input |
| tBOX321-870-FL-i3-110VDC | Fanless railway embedded system with 3rd generation Intel® Core™ i3-3217UE, 4 GB DDR3-1600, 4 GbE LAN (M12), 4 isolated COM and CFAST™, 110VDC power input |

| Optional              |                |
|-----------------------|----------------|
| 2.5" SATA HDD/SSD     | 16 GB or above |
| CFAST™                | 1 GB or above  |
| 3G module             |                |
| Wi-Fi module          |                |
| Wi-Fi Bluetooth       |                |
| GPS module            |                |
| M12 Gigabit LAN cable |                |
| M12 power cable       |                |
| M12 USB cable         |                |
| M12 audio cable       |                |
| Remote switch cable   |                |
| Power input voltage   | 24/110VDC      |

\*Specifications and certifications are based on options and may vary.

\* All specifications and photos are subject to change without notice.

## Expansion & Installation



Onboard 3rd generation Intel® Core™ i7 or i3 processor and 4 GB DDR3-1600 DRAM



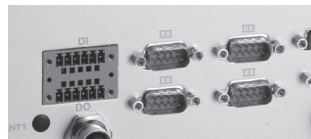
Swappable and lockable SATA3 HDD/SSD, audio jack, USB 3.0 & CFast™



M12 type for Gigabit LAN, USB 2.0 & audio port



M12 type power connector and remote switch connector



Isolated RS-232/422/485 & DIO ports



3 PCIe Mini Card slots with 1 SIM slot

## Packing List

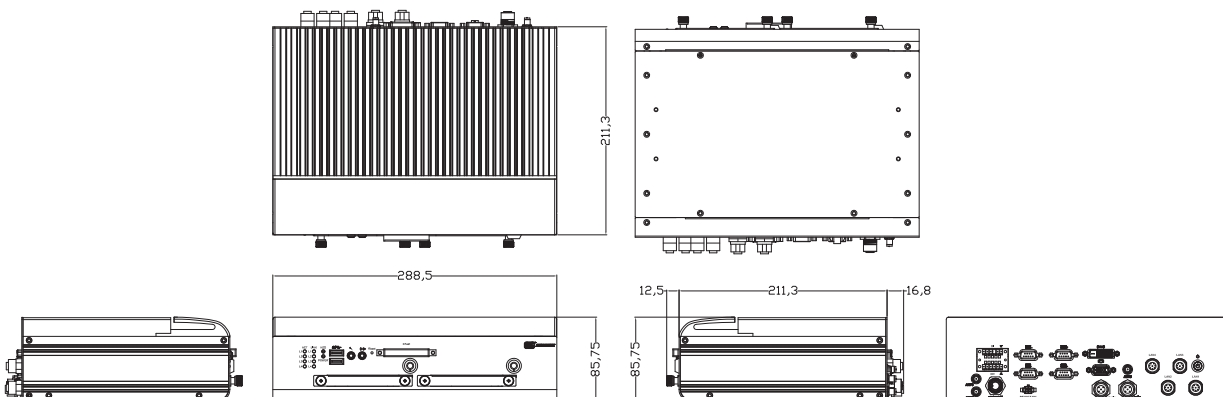
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

## Power Protection

### DC Version

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)

## Dimensions





# tBOX320-852-FL

Fanless Embedded System with Intel® Core™ 2 Duo Processor 2.26 GHz and Intel® GM45 for Railway PC

Intel® Core™2 Duo SP9300 2.26 GHz  
or Intel® Celeron® M 723



Swappable HDD/CF

▲ Front view

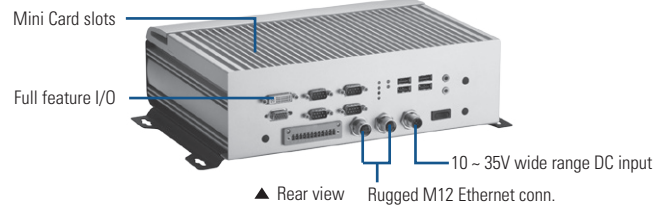


## Specifications

|                       |   |   |
|-----------------------|---|---|
| Standard Color        | Silver-Black  |   |
| Construction          | Aluminum extrusion and heavy-duty steel, IP40   |   |
| CPU                   | Intel® Core™ 2 Duo SP9300 2.26 GHz processor or Intel® Celeron® M 723 1.2 GHz processor   |   |
| System Memory         | DDR3-1333 2 GB DRAM   |   |
| Chipset               | Intel® GM45 + ICH9M   |   |
| BIOS                  | AMI   |   |
| System I/O Outlet     | Rear Side   | 2 x GbE LAN (M12 D-coded)<br>4 x isolated RS-232/422/485<br>1 x isolated DI/DO (6-in/2-out)<br>4 x USB 2.0<br>2 x audio (mic-in/line-out)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input (M12 A-coded)<br>1 x power switch<br>3 x antenna opening |
|                       | Front Side  | 2 x 2.5" SATA drive trays<br>1 x CFast™ slot<br>1 x SIM card socket   |
| Watchdog Timer        | 255 levels, 1~255 sec.  |   |
| Storage               | 2 x 2.5" SATA HDD drive bay<br>1 x CompactFlash™  |   |
| Expansion Interface   | 2 x PCI Express Mini Card<br>1 x SIM card   |   |
| System Indicator      | 1 x green LED for system power-on<br>1 x red LED for HDD active<br>1 x green LED for LAN1 link<br>1 x green/yellow LED for LAN1 speed<br>1 x green LED for LAN2 link<br>1 x green/yellow LED for LAN2 speed |   |
| Power Supply          | DC 12~32V input with isolation support<br>Default rating: DC24V<br>M12 5-pin connector  |   |
| Power Consumption     | 6.7A @ 12V<br>3.4A @ 24V<br>2.5A @ 32V  |   |
| Operating Temperature | -25°C ~ +55°C (77°F ~ 130°F) (with W.T. HDD)  |   |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |   |
| Humidity              | 10% ~ 90%, non-condensing   |   |
| Vibration Endurance   | 2 Grms (5-500Hz, X, Y, Z directions)  |   |

## Features

- EN50155, EN50121 certificates
- Fanless with operation temperature range of -25°C ~ +55°C
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- Supports onboard Intel® Core™ 2 Duo SP9300 2.26 GHz or Intel® Celeron® M 723 1.2 GHz processor
- Intel® GM45 + ICH9M
- 4 isolated RS-232/422/485 ports
- High performance DDR3-1333 2 GB DRAM
- One 2.5" swappable SATA drive bay, 1 internal SATA drive bay and one CompactFlash™
- 2 internal PCI Express Mini Card slots with 1 SIM slot
- Lockable I/O interface and M12 LAN connector



▲ Rear view Rugged M12 Ethernet conn.

|                    |  |
|--------------------|--|
| Dimensions         | 288 mm (11.33") (W) x 211 mm (8.3") (D)<br>x 85.7 mm (3.37") (H) |
| Weight (net/gross) | 5.06 kg (11.15 lb)/6.5 kg (14.33 lb)                             |
| Certificate        | CE, EN50155, EN50121, EN45545, EN60950 compliance                |
| EOS Support        | XPE, WinCE, Linux  |

\*XPE: Windows® XP Embedded

## Ordering Information

### Standard

|                           |   |
|---------------------------|---|
| tBOX320-852-FL-2.26G-DC   | Fanless railway embedded system with Intel® Core™ 2 Duo SP9300 2.26 GHz processor, 4 COM, 4 USB, CFast™, 2 HDD support, onboard 2 GB DDR3-1333 DRAM and 4-pin GbE LAN M12                               |
| tBOX320-852-FL-1.2G-DC    | Fanless railway embedded system with Intel® Celeron® M 723 1.2 GHz processor, 4 COM, 4 USB, CFast™, 2 HDD support, onboard 2 GB DRAM and 4-pin GbE LAN M12  |
| tBOX320-852-FL-2.26G-DC-G | Fanless railway embedded system with Intel® Core™ 2 Duo SP9300 2.26 GHz processor, 4 COM, 4 USB, CFast™, 2 HDD support, onboard 2 GB DDR3-1333 DRAM and 8-pin GbE LAN M12 (optional lockable HDD cover) |
| tBOX320-852-FL-1.2G-DC-G  | Fanless railway embedded system with Intel® Celeron® M 723 1.2 GHz processor, 4 COM, 4 USB, CFast™, 2 HDD support, onboard 2 GB DDR3-1333 DRAM and 8-pin GbE LAN M12 (optional lockable HDD cover)      |

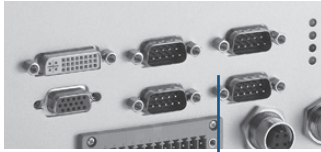
### Optional

|                           |                |
|---------------------------|----------------|
| 2.5" SATA HDD/SSD         | 40 GB or above |
| CompactFlash™             | 1 GB or above  |
| 3G module                 |                |
| Wi-Fi module              |                |
| Wi-Fi Bluetooth           |                |
| GPS module                |                |
| Graphic accelerator codec |                |
| M12 LAN cable             | 594N3202710E   |
| M12 power cable           | 594B8120B30E   |
| M12 Gigabit LAN cable     | 594N3202730E   |

\*Specifications and certifications are based on options and may vary.



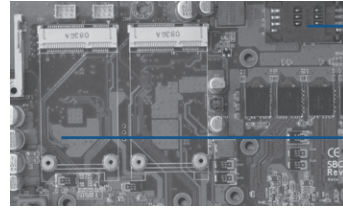
## Expansion & Installation



Lockable I/O connector



Easy access opening for HDD & CF

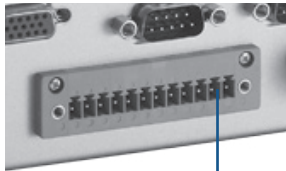


SIM slot

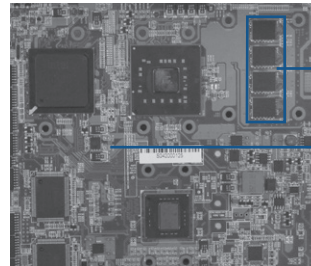
2 x Mini Card



M12 type connector



Isolated digital I/O



2 GB DDR3-1333 DRAM onboard

BGA type CPU & chipset

## Packing List

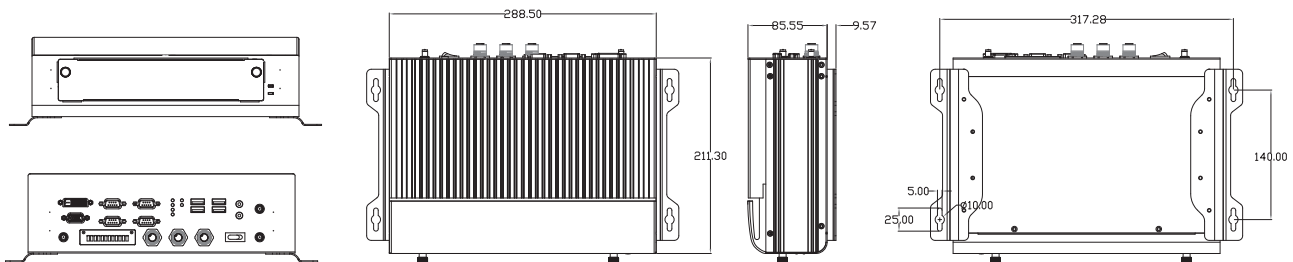
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 8 x HDD anti-vibration damper
- 1 x wallmount Kit

## Power Protection

### DC Version

- OVP (over voltage protection)
- UVP (under voltage protection)
- SCP (short circuit protection)

## Dimensions



# tBOX230-890-FL

Fanless Embedded System with 6th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor for Vehicle PC



▲ Front view



## Specifications

|                       |   |           |   |            |  |
|-----------------------|---|-----------|---|------------|--|
| Standard Color        | Silver-Black  |           |   |            |  |
| Construction          | Aluminum extrusion and heavy-duty steel   |           |   |            |  |
| CPU                   | 6th generation Intel® Core™ i7-6600U 4C@2.6-3.4GHz<br>6th generation Intel® Core™ i5-6300U 2C@2.4-3.0GHz<br>6th generation Intel® Core™ i3-6100U 2C@2.3GHz<br>Intel® Celeron® 3955U 2C@2.0GHz   |           |   |            |  |
| System memory         | 2 x DDR4 SO-DIMM slot, up to 16 GB  |           |   |            |  |
| Chipset               | SoC integrated  |           |   |            |  |
| BIOS                  | AMI   |           |   |            |  |
| System I/O Outlet     | <table border="0"> <tr> <td>Rear Side</td> <td>1 x RS-232/422/485<br/>1 x DVI-I<br/>1 x RJ-45 GbE LAN<br/>4 x USB 3.0<br/>1 x PoE power-in<br/>1 x DC-in power<br/>1 x remote switch</td> </tr> <tr> <td>Front Side</td> <td>2 x module card<br/>4 x M12 PoE GbE LAN<br/>4 x RJ-45 GbE LAN<br/>4 x isolated RS-232/422/485<br/>8-in/8-out isolated DIO<br/>4 x CANbus<br/>1 x full-size mini PCIe card slot</td> </tr> </table> | Rear Side | 1 x RS-232/422/485<br>1 x DVI-I<br>1 x RJ-45 GbE LAN<br>4 x USB 3.0<br>1 x PoE power-in<br>1 x DC-in power<br>1 x remote switch | Front Side | 2 x module card<br>4 x M12 PoE GbE LAN<br>4 x RJ-45 GbE LAN<br>4 x isolated RS-232/422/485<br>8-in/8-out isolated DIO<br>4 x CANbus<br>1 x full-size mini PCIe card slot |
| Rear Side             | 1 x RS-232/422/485<br>1 x DVI-I<br>1 x RJ-45 GbE LAN<br>4 x USB 3.0<br>1 x PoE power-in<br>1 x DC-in power<br>1 x remote switch   |           |   |            |  |
| Front Side            | 2 x module card<br>4 x M12 PoE GbE LAN<br>4 x RJ-45 GbE LAN<br>4 x isolated RS-232/422/485<br>8-in/8-out isolated DIO<br>4 x CANbus<br>1 x full-size mini PCIe card slot  |           |   |            |  |
| Watchdog Timer        | 255 levels, 0 ~ 255 seconds/minutes   |           |   |            |  |
| Storage               | 2 x 2.5" 7/9.5mm SATA drive<br>1 x mSATA  |           |   |            |  |
| Expansion Interface   | 2 x full-size mini PCIe card slot, 1x supported mSATA<br>1 x half-size mini PCIe card slot<br>1 x SIM card socket   |           |   |            |  |
| System Indicator      | 1x green LED indicator for system power<br>1x green LED indicator for HDD active  |           |   |            |  |
| Power Supply          | Power input: 9 ~ 36VDC, typical: 12/24VDC   |           |   |            |  |
| Power Consumption     | PoE power output max 120W, 802.3af 15.4W per port   |           |   |            |  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) with W.T. SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) with W.T. HDD  |           |   |            |  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |           |   |            |  |
| Humidity              | 5% ~ 95%, non-condensing  |           |   |            |  |
| Vibration Endurance   | 3 Grms w/ SSD (5-500Hz, X/Y/Z direction; random)<br>2 Grms w/ HDD (5-500Hz, X/Y/Z direction; random)  |           |   |            |  |

## Features

- eMark and ISO7637 certificated
- 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Skylake SoC)
- Modularize I/O ports design, up to 8 M12 PoE GbE LAN, 8 RJ-45 GbE LAN, 8 isolated COM, 16-in/16-out isolated DIO
- Supports up to DDR4 16 GB system memory
- Fanless with operating temperature range of -40°C to +70°C
- Intelligent vehicle power management solution
- 2 swappable, suspended and power protect design 2.5" SATA drive
- 2 full-size and 1 half-size mini PCIe card slots
- 1 SIM card socket



▲ Rear view

|             |                                 |
|-------------|---------------------------------|
| Dimensions  | TBC                             |
| Weight      | TBC                             |
| Certificate | CE, eMark, ISO7637 certificated |
| EOS support | WES7, WEBS, Linux               |

## Ordering Information

### Standard

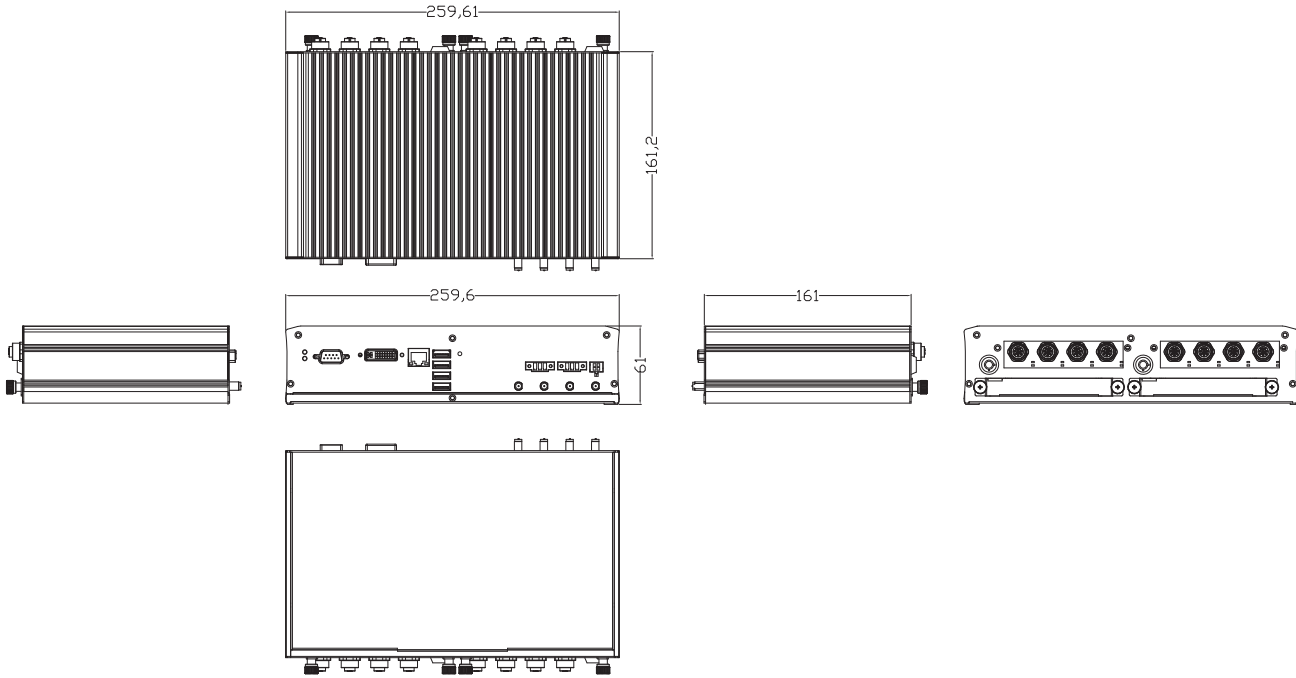
TBD

### Optional

2.5" SATA HDD/SSD  
mSATA SSD  
3G/4G/GPS module  
Wi-Fi/Bluetooth module  
Audio module  
CANbus module  
Capture card module  
I/O module card

\*Specification and certifications are based on options and may vary.

## Dimensions



Overview



Embedded Systems



Embedded Systems for Transportation



Embedded Field Controllers



Industrial Firewall



Digital Signage Solutions



Embedded MicroBoxes



Industrial Barebone Systems



Industrial Chassis



Backplanes



Power Supplies



Peripherals & Accessories



# tBOX313-835-FL

Fanless Embedded System with Intel® Atom™ Processor E3845 Quad Core™ (1.91 GHz) for Vehicle PC



▲ Front view

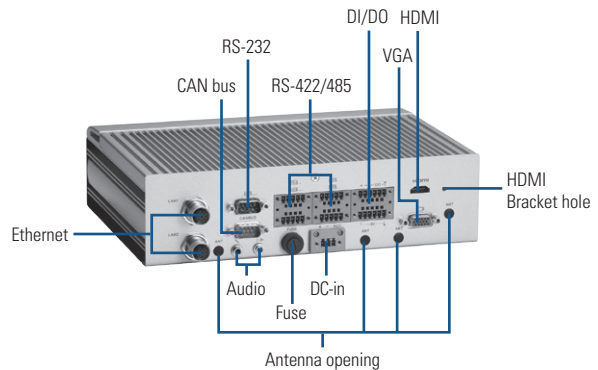


## Specifications

|                     |   |           |  |            |   |
|---------------------|---|-----------|--|------------|---|
| Standard Color      | Silver-Black  |           |  |            |   |
| Construction        | Aluminum extrusion and heavy-duty steel   |           |  |            |   |
| CPU                 | Intel® Atom™ processor E3845 (4C@1.91 GHz)  |           |  |            |   |
| System Memory       | DDR3L-1333, 4 GB memory onboard   |           |  |            |   |
| Chipset             | SoC integrated  |           |  |            |   |
| BIOS                | AMI   |           |  |            |   |
| System I/O Outlet   | <table border="0"> <tr> <td>Rear Side</td> <td>                     2 x GbE LAN (M12 D-coded)(RJ-45, PoE is optional)<br/>                     4 x isolated RS-422/485<br/>                     1 x RS-232<br/>                     1 x isolated DI/DO (6-in/2-out)<br/>                     1 x isolated CAN Bus<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x VGA<br/>                     1 x HDMI<br/>                     1 x HDMI bracket hole<br/>                     1 x VDC power input<br/>                     1 x fuse<br/>                     4 x antenna opening                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 2.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x reset switch<br/>                     1 x remote power switch<br/>                     1 x 2.5" SATA drive tray<br/>                     1 x CFast™ slot + 2 x SIM card sockets                 </td> </tr> </table> | Rear Side | 2 x GbE LAN (M12 D-coded)(RJ-45, PoE is optional)<br>4 x isolated RS-422/485<br>1 x RS-232<br>1 x isolated DI/DO (6-in/2-out)<br>1 x isolated CAN Bus<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x HDMI<br>1 x HDMI bracket hole<br>1 x VDC power input<br>1 x fuse<br>4 x antenna opening | Front Side | 2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>1 x remote power switch<br>1 x 2.5" SATA drive tray<br>1 x CFast™ slot + 2 x SIM card sockets |
| Rear Side           | 2 x GbE LAN (M12 D-coded)(RJ-45, PoE is optional)<br>4 x isolated RS-422/485<br>1 x RS-232<br>1 x isolated DI/DO (6-in/2-out)<br>1 x isolated CAN Bus<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x HDMI<br>1 x HDMI bracket hole<br>1 x VDC power input<br>1 x fuse<br>4 x antenna opening  |           |  |            |   |
| Front Side          | 2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>1 x remote power switch<br>1 x 2.5" SATA drive tray<br>1 x CFast™ slot + 2 x SIM card sockets   |           |  |            |   |
| Instant Fuse Repair | Current Rating 15A, Voltage Rating: 125V  |           |  |            |   |
| Watchdog Timer      | 255 levels, 0 ~ 255 seconds/minutes   |           |  |            |   |
| Storage             | 1 x 2.5" SATA HDD (suspension designed, HDD height supports 7/9.5/12.5/15 mm)<br>1 x CFast™ (front accessible)  |           |  |            |   |
| Expansion Interface | 3 x PCI Express Mini Card with 2 x SIM card slot (two front accessible) 1x PCIe mini card supports mSATA  |           |  |            |   |
| System Indicator    | 1 x green LED for HDD active<br>1 x yellow LED for LAN1 active<br>1 x yellow LED for LAN2 active<br>1 x red LED for power   |           |  |            |   |

## Features

- eMark, ISO7637 certificated, EN45545-2 complied
- Intel® Atom™ Bay Trail-I E3845 4C@1.91 GHz
- High performance DDR-1333 4 GB memory onboard
- Fanless operation with IP40
- Operating temperature range of -40°C ~ +70°C
- Isolated RS-422/485, CANbus 2.0A/B and DIO ports
- Supports USB 2.0 and SATA2
- Suspension one 2.5" SATA HDD and 1 CFast™ socket
- Instant fuse repair design
- Internal mini PCIe slots and SIM socket



▲ Rear view

|                       |   |
|-----------------------|---|
| Power Supply          | Power input : Typical 12/24vdc (9 ~ 36 Vdc)   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) with W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) with W/T HDD  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 5% ~ 95%, non-condensing  |
| Vibration Endurance   | 3 Grms with SSD & CFast™ (5-500Hz, X, Y, Z direction; Random) (IEC60068-2-34)<br>2 Grms with HDD (5-500Hz, X, Y, Z direction; Random) |
| Dimensions            | 244 mm (9.6") (W) x 180.5 mm (7.1") (D) x 65.1 mm (2.56") (H)   |
| Weight (net/gross)    | 3 kg (6.61 lb)/ 4 kg (8.82 lb)  |
| Certificate           | CE, eMark, ISO 7637, EN45545-2 compliance   |
| EOS support           | WES7/8, Compac2013, Linux   |

## Ordering Information

### Standard

|                           |  |
|---------------------------|--|
| tBOX313-835-FL-M12-DC     | Fanless vehicle embedded system, with Intel® Atom™ E3845 1.91 GHz processor, 4 GB DRAM, 2 USB, 1 CAN bus, 2 M12 GbE LAN, 4 RS-422/485, 1 RS-232 and DIO (6-in/2-out)       |
| tBOX313-835-FL-M12-POE-DC | Fanless vehicle embedded system, with Intel® Atom™ E3845 1.91 GHz processor, 4 GB DRAM, 2 USB, 1 CAN bus, 2 PoE M12 GbE LAN, 4 RS-422/485, 1 RS-232 and DIO (6-in/2-out)   |
| tBOX313-835-FL-RJ-DC      | Fanless vehicle embedded system, with Intel® Atom™ E3845 1.91 GHz processor, 4 GB DRAM, 2 USB, 1 CAN bus, 2 RJ-45 GbE LAN, 4 RS-422/485, 1 RS-232 and DIO (6-in/2-out)     |
| tBOX313-835-FL-RJ-POE-DC  | Fanless vehicle embedded system, with Intel® Atom™ E3845 1.91 GHz processor, 4 GB DRAM, 2 USB, 1 CAN bus, 2 PoE RJ-45 GbE LAN, 4 RS-422/485, 1 RS-232 and DIO (6-in/2-out) |

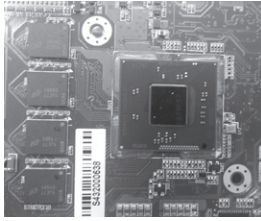
### Optional

2.5" SATA HDD/SSD  
CFast™  
3G module  
Wi-Fi module  
Wi-Fi & bluetooth  
GPS module

\*Specifications and certifications are based on options and may vary.

\* All specifications and photos are subject to change without notice.

## Expansion & Installation



Onboard Intel® Atom™ Bay Trail-I E3845, 4C@ 1.91 GHz processor and 4 GB DDR3L-1333 DRAM



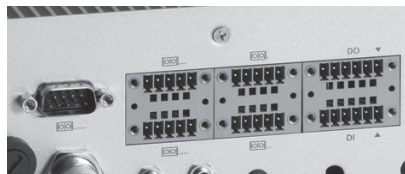
Removable CFast™, SIM slot and suspension 2.5" SATA HDD/SSD



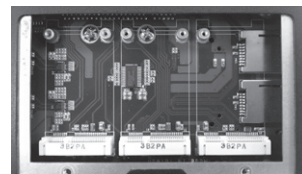
M12 railway power input and two Gigabit LAN connectors



HDMI and VGA display



Isolated RS-422/485 and DIO ports



3 x Mini Card with 2 x SIM slot

## Packing List

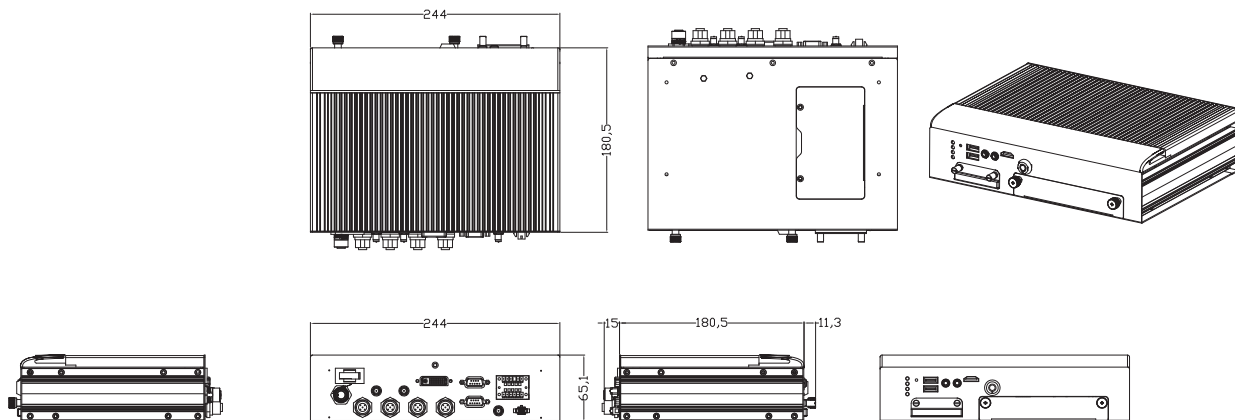
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

## Power Protection

### DC Version

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)
- ISO7637 pulse 1/29/39/3b/4/5a
- Battery protection setting: Low voltage, Very low voltage
- Ignition control setting: Low voltage counter, ACC-ON delay, Shut down delay

## Dimensions



Overview

Embedded Systems

2

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

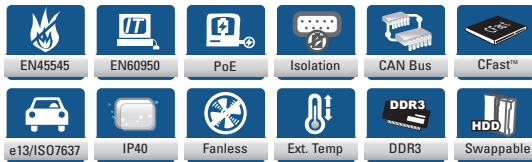
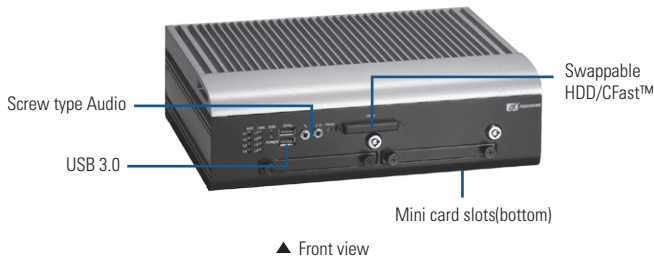
Power Supplies

Peripherals & Accessories



# tBOX312-870-FL

Fanless Embedded System with 3rd Generation Intel® Core™ Processor and Intel® QM77 for Vehicle PC

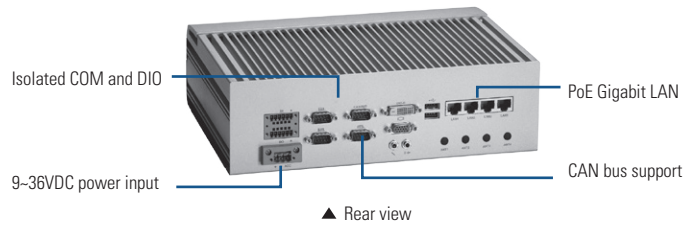


## Specifications

|                     |  |           |  |            |  |
|---------------------|--|-----------|--|------------|--|
| Standard Color      | Silver-Black   |           |  |            |  |
| Construction        | Aluminum extrusion and heavy-duty steel, IP40  |           |  |            |  |
| CPU                 | 3rd generation Intel® Core™ processor ;<br>3rd generation Intel® Core™ i7-3517UE (1.7 GHz up to 2.8 GHz) or 3rd generation Intel® Core™ i3-3217UE (1.6 GHz)  |           |  |            |  |
| System Memory       | DDR3-1600 4 GB DRAM onboard  |           |  |            |  |
| Chipset             | Intel® QM77  |           |  |            |  |
| BIOS                | AMI UEFI BIOS with OA 3.0 built  |           |  |            |  |
| System I/O Outlet   | <table border="0"> <tr> <td>Rear Side</td> <td>                     4 x GbE LAN<br/>                     3 x isolated RS-232/422/485<br/>                     1 x isolated DI/DO (4-in/4-out)<br/>                     1 x isolated CAN Bus<br/>                     2 x USB 2.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x VGA<br/>                     1 x DVI-D<br/>                     1 x VDC power input<br/>                     1 x remote power switch<br/>                     4 x antenna opening                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 3.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x reset switch<br/>                     2 x 2.5" SATA drive trays<br/>                     1 x CFast™ slot                 </td> </tr> </table> | Rear Side | 4 x GbE LAN<br>3 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x isolated CAN Bus<br>2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input<br>1 x remote power switch<br>4 x antenna opening | Front Side | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFast™ slot |
| Rear Side           | 4 x GbE LAN<br>3 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x isolated CAN Bus<br>2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input<br>1 x remote power switch<br>4 x antenna opening   |           |  |            |  |
| Front Side          | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFast™ slot   |           |  |            |  |
| Watchdog Timer      | 255 levels, 0 ~ 255 sec./min.  |           |  |            |  |
| Storage             | 2 x 2.5" SATA HDD (Removable and with lock protection) supports RAID 0/1<br>1 x CFast™   |           |  |            |  |
| Expansion Interface | 3 x PCI Express Mini Card<br>1 x SIM card slot   |           |  |            |  |
| System Indicator    | 1 x green LED for system power on<br>1 x blue LED for HDD active<br>1 x green LED for LAN1 link<br>1 x green/yellow LED for LAN 1 speed<br>1 x green LED for LAN2 link<br>1 x green/yellow LED for LAN 2 speed<br>1 x green LED for LAN3 link<br>1 x green/yellow LED for LAN 3 speed<br>1 x green LED for LAN4 link<br>1 x green/yellow LED for LAN 4 speed   |           |  |            |  |

## Features

- eMark, ISO7637 certificates
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- 3rd generation Intel® Core™ i7 1.7 GHz up to 2.8 GHz or Intel® Core™ i3 1.6 GHz processor
- High performance DDR3-1600 4 GB memory
- Fanless with operating temperature range of -40°C ~ +70°C
- Isolated RS-232/422/485, CAN bus and DIO
- Supports USB 3.0 and SATA3
- 2 removable & lockable 2.5" SATA HDD and 1 CFast™
- 3 internal PCI Express Mini Card slot and 1 SIM slot
- IEEE802.3at PoE Gigabit LAN



|                       |   |
|-----------------------|---|
| Power Supply          | Power input : 9 ~ 36VDC, typical 12/24VDC   |
| Power Consumption     | 1.8A @ 24V (without PoE)<br>PoE power output max 30W  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) W/T HDD                  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 5% ~ 95%, non-condensing  |
| Vibration Endurance   | 5 Grms with CFast™ (5-500Hz, X, Y, Z directions)<br>1 Grms with HDD (5-500Hz, X, Y, Z directions) |
| Dimensions            | 288 mm (11.33") (W) x 211 mm (8.3") (D)<br>x 85.7 mm (3.37") (H)                                  |
| Weight (net/gross)    | 5.5 kg (12.12 lb)/6.5 kg (14.33 lb)   |
| Certificate           | CE (Class A), e13, ISO7637, EN60950 compliance  |
| EOS Support           | WEBS, WES 7, Linux  |

## Ordering Information

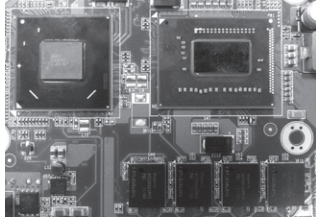
| Standard             |   |
|----------------------|---|
| tBOX312-870-FL-i7-DC | Fanless vehicle embedded system with 3rd generation Intel® Core™ i7 processor, 4GB DDR3-1600, 4 GbE PoE Ethernet, 3 isolated COM, CFast™ and isolated CAN bus |
| tBOX312-870-FL-i3-DC | Fanless vehicle embedded system with 3rd generation Intel® Core™ i3 processor, 4GB DDR3-1600, 4 GbE PoE Ethernet, 3 isolated COM, CFast™ and isolated CAN bus |

| Optional          |                |
|-------------------|----------------|
| 2.5" SATA HDD/SSD | 16 GB or above |
| CFast™            | 1 GB or above  |
| 3G module         |                |
| Wi-Fi module      |                |
| Wi-Fi Bluetooth   |                |
| GPS module        |                |

\*Specifications and certifications are based on options and may vary.



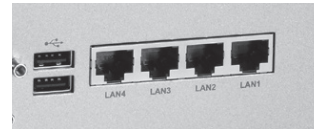
## Expansion & Installation



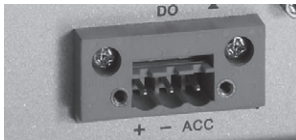
Onboard 3rd generation Intel® Core™ i7 or i3 processor and 4 GB DDR3-1600 DRAM



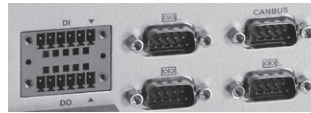
Swappable and Lockable SATA3 HDD/SSD, Audio jack, USB 3.0 and CFast



IEEE802.3at PoE Gigabit LAN



Vehicle power input with ACC support



Isolated RS-232/422/485, CAN bus and DIO



3 PCIe Mini Card slots with 1 SIM slot

### Packing List

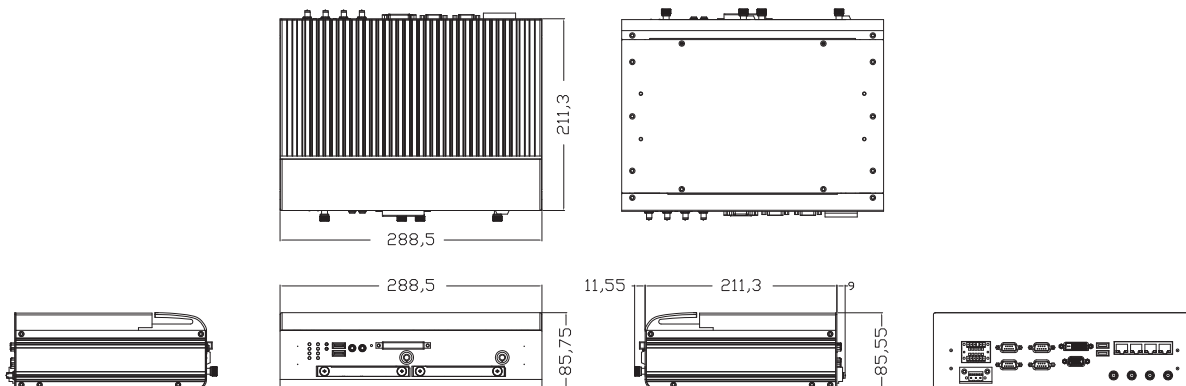
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

### Power Protection

#### DC Version

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)
- ISO7637 pulse 1/29/39/3b/4/5a

### Dimensions

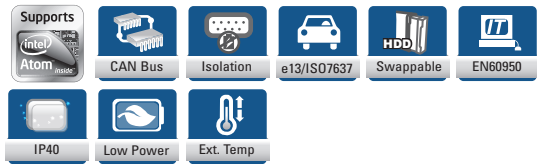
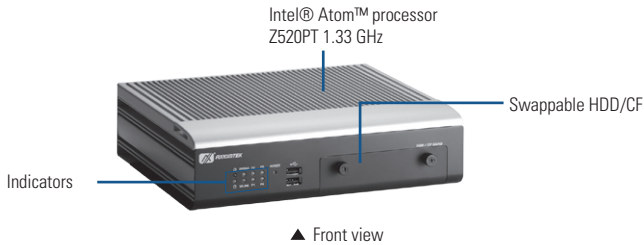


\* All specifications and photos are subject to change without notice.



# tBOX311-820-FL

Fanless Embedded System with Intel® Atom™ Processor Z520PT 1.33 GHz for Vehicle PC

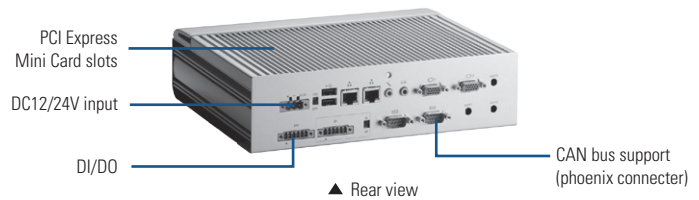


## Specifications

|                       |   |           |   |            |  |
|-----------------------|---|-----------|---|------------|--|
| Standard Color        | Silver-Black  |           |   |            |  |
| Construction          | Aluminum extrusion and heavy-duty steel   |           |   |            |  |
| CPU                   | Intel® Atom™ processor Z520PT 1.33 GHz onboard  |           |   |            |  |
| System Memory         | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB  |           |   |            |  |
| Chipset               | Intel® US15WPT  |           |   |            |  |
| BIOS                  | AMI   |           |   |            |  |
| System I/O Outlet     | <table border="0"> <tr> <td>Rear Side</td> <td>                     2 x GbE LAN<br/>                     1 x isolated RS-232/422/485<br/>                     1 x isolated DI/DO (4-in/4-out)<br/>                     1 isolated CAN Bus (optional RS-232/422/485)<br/>                     2 x USB 2.0<br/>                     2 x audio (mic-in/line-out)<br/>                     2 x VGA<br/>                     1 x VDC power input<br/>                     1 x 12V/24V DC input switch<br/>                     3 x antenna opening                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 2.0<br/>                     1 x reset switch<br/>                     1 x 2.5" SATA drive trays                 </td> </tr> </table> | Rear Side | 2 x GbE LAN<br>1 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 isolated CAN Bus (optional RS-232/422/485)<br>2 x USB 2.0<br>2 x audio (mic-in/line-out)<br>2 x VGA<br>1 x VDC power input<br>1 x 12V/24V DC input switch<br>3 x antenna opening | Front Side | 2 x USB 2.0<br>1 x reset switch<br>1 x 2.5" SATA drive trays |
| Rear Side             | 2 x GbE LAN<br>1 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 isolated CAN Bus (optional RS-232/422/485)<br>2 x USB 2.0<br>2 x audio (mic-in/line-out)<br>2 x VGA<br>1 x VDC power input<br>1 x 12V/24V DC input switch<br>3 x antenna opening   |           |   |            |  |
| Front Side            | 2 x USB 2.0<br>1 x reset switch<br>1 x 2.5" SATA drive trays  |           |   |            |  |
| Watchdog Timer        | 255 levels, 0 ~ 255 sec./min.   |           |   |            |  |
| Storage               | 1 x 2.5" SATA HDD drive bay<br>1 x CompactFlash™  |           |   |            |  |
| Expansion Interface   | 3 x PCI Express Mini Card<br>1 x SIM card slot  |           |   |            |  |
| System Indicator      | 1 x green LED for system power-on<br>1 x red LED for HDD active<br>1 x green LED for WWAN<br>1 x programmable LED (P1-P4)   |           |   |            |  |
| Power Supply          | DC12V mode:<br>Operating voltage: DC9 ~ 16V<br>Start voltage: DC12V or higher<br>DC24V mode:<br>Operating voltage: DC18 ~ 32V<br>Start voltage: DC24V or higher   |           |   |            |  |
| Power Consumption     | 1.7A @ 12V<br>0.9A @ 24V  |           |   |            |  |
| Operating Temperature | -40°C ~ +65°C (-40°F ~ +149°F) (with 1.33 GHz CPU, W.T. HDD)  |           |   |            |  |
| Storage Temperature   | -40°C ~ +80°C (-4°F ~ +176°F)   |           |   |            |  |
| Humidity              | 10% ~ 90% , non-condensing  |           |   |            |  |
| Vibration Endurance   | 2 Grms with CF (5-500Hz, X, Y, Z directions)  |           |   |            |  |

## Features

- eMark, ISO7637 certificates
- Intel® Atom™ processor Z520PT 1.33 GHz
- Intel® US15WPT
- Fanless with operating temperature range of -40°C ~ +65°C
- 1 isolated RS-232/422/485 and 1 isolated CAN bus (optional for RS-232/422/485)
- High performance DDR2-667 SODIMM max. up to 2 GB
- One 2.5" swappable SATA drive bay and 1 CompactFlash™ slot
- 3 internal PCI Express Mini Card slots with 1 SIM slot



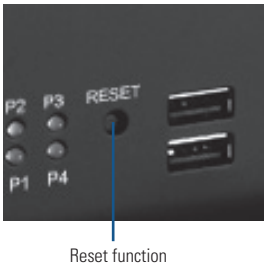
|                    |   |
|--------------------|---|
| Dimensions         | 244 mm (9.6") (W) x 185.4 mm (7.3") (D) x 70.4 mm (2.77") (H) |
| Weight (net/gross) | 2.5 kg (5.5 lb)/3.5 kg (7.7 lb)                               |
| Certificate        | CE, e13, ISO7637, EN60950 compliance                          |
| EOS Support        | XPE, WinCE, Linux   |

## Ordering Information

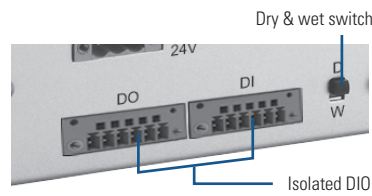
| Standard                  |   |
|---------------------------|---|
| tBOX311-820-FL1.33G-CAN   | Fanless vehicle embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CFast & HDD support, 2 GbE LAN, 1 RS-232/422/485, 1 CAN and 4 USB |
| tBOX311-820-FL1.33G-COM   | Fanless vehicle embedded system with Intel® Atom™ Z520PT 1.33 GHz processor, 2 VGA, CFast & HDD support, 2 GbE LAN, 2 RS-232/422/485 and 4 USB        |
| Optional                  |   |
| 2.5" SATA HDD             | 40 GB or above  |
| DDR2 SODIMM               | 512 MB or above   |
| CompactFlash™             | 1 GB or above   |
| 3G module                 |   |
| Wi-Fi module              |   |
| Wi-Fi Bluetooth           |   |
| GPS module                |   |
| Graphic accelerator codec |   |

\*Specifications and certifications are based on options and may vary.

## Expansion & Installation

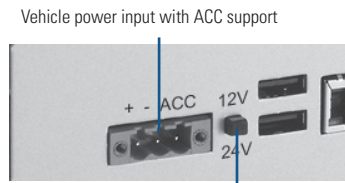


Reset function



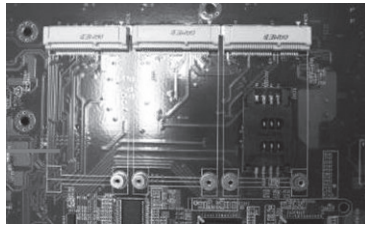
Dry & wet switch

Isolated DIO



Vehicle power input with ACC support

12 & 24V input switch



3 x Mini Card with SIM



Intel® Z520PT with US15WPT supports wide temperature of -40°C ~ +70°C

## Ordering Information

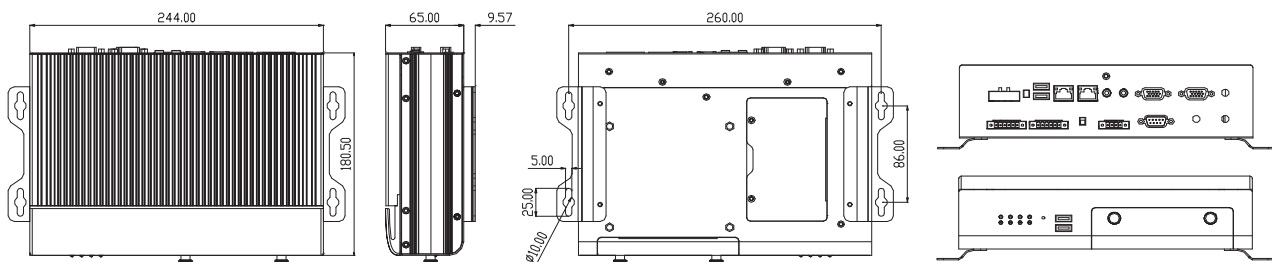
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 4 x HDD anti-vibration damper
- 1 x wallmount Kit

## Power Protection

### DC Version

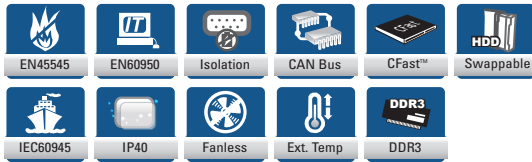
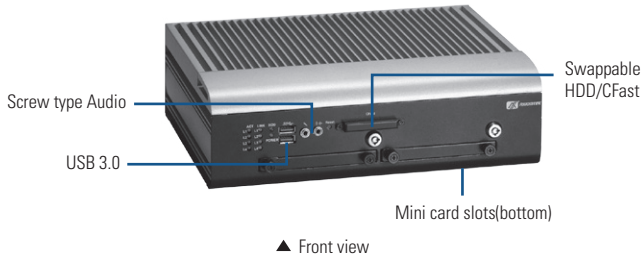
- ISO7637 pulse1/2a/3a/3b/4/5a
- OVP (over voltage protection)
- UVP (under voltage protection)
- OCP (over current protection)
- OTP (over temperature protection)
- OPP (over power protection)
- OLD (over load protection)
- SCP (short circuit protection)
- Reverse protection
- Battery-low protection

## Dimensions



# tBOX330-870-FL

Fanless Embedded System with 3rd Generation Intel® Core™ Processor and Intel® QM77 for Marine PC

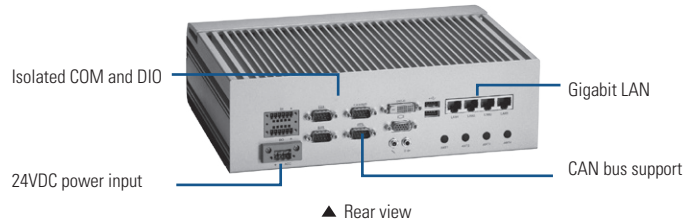


## Specifications

|                     |  |           |  |            |  |
|---------------------|--|-----------|--|------------|--|
| Standard Color      | Silver-Black   |           |  |            |  |
| Construction        | Aluminum extrusion and heavy-duty steel, IP40  |           |  |            |  |
| CPU                 | 3rd generation Intel® Core™ i processor ;<br>3rd generation Intel® Core™ i7-3517UE (1.7 GHz up to 2.8 GHz) or 3rd generation Intel® Core™ i3-3217UE (1.6 GHz)  |           |  |            |  |
| System Memory       | DDR3-1600 4 GB DRAM  |           |  |            |  |
| Chipset             | Intel® QM77  |           |  |            |  |
| BIOS                | AMI UEFI BIOS with OA 3.0 built  |           |  |            |  |
| System I/O Outlet   | <table border="0"> <tr> <td>Rear Side</td> <td>                     4 x GbE<br/>                     3 x isolated RS-232/422/485<br/>                     1 x isolated DI/DO (4-in/4-out)<br/>                     1 x isolated CAN Bus<br/>                     2 x USB 2.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x VGA<br/>                     1 x DVI-D<br/>                     1 x VDC power input<br/>                     1 x remote power switch<br/>                     4 x antenna opening                 </td> </tr> <tr> <td>Front Side</td> <td>                     2 x USB 3.0<br/>                     2 x audio (mic-in/line-out, screw type)<br/>                     1 x reset switch<br/>                     2 x 2.5" SATA drive trays<br/>                     1 x CFast™ slot                 </td> </tr> </table> | Rear Side | 4 x GbE<br>3 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x isolated CAN Bus<br>2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input<br>1 x remote power switch<br>4 x antenna opening | Front Side | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFast™ slot |
| Rear Side           | 4 x GbE<br>3 x isolated RS-232/422/485<br>1 x isolated DI/DO (4-in/4-out)<br>1 x isolated CAN Bus<br>2 x USB 2.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x VGA<br>1 x DVI-D<br>1 x VDC power input<br>1 x remote power switch<br>4 x antenna opening   |           |  |            |  |
| Front Side          | 2 x USB 3.0<br>2 x audio (mic-in/line-out, screw type)<br>1 x reset switch<br>2 x 2.5" SATA drive trays<br>1 x CFast™ slot   |           |  |            |  |
| Watchdog Timer      | 255 levels, 0 ~ 255 sec./min.  |           |  |            |  |
| Storage             | 2 x 2.5" SATA HDD (Removable and with lock protection) supports RAID 0/1<br>1 x CFast™   |           |  |            |  |
| Expansion Interface | 3 x PCI Express Mini Card<br>1 x SIM card slot   |           |  |            |  |
| System Indicator    | 1 x green LED for system power on<br>1 x blue LED for HDD active<br>1 x green LED for LAN1 link<br>1 x green/yellow LED for LAN 1 speed<br>1 x green LED for LAN2 link<br>1 x green/yellow LED for LAN 2 speed<br>1 x green LED for LAN3 link<br>1 x green/yellow LED for LAN 3 speed<br>1 x green LED for LAN4 link<br>1 x green/yellow LED for LAN 4 speed   |           |  |            |  |

## Features

- IEC60945 certificate
- Comply to fire protection of railway vehicles Europe standard PrCEN TS 45545-2
- 3rd generation Intel® Core™ i7 1.7 GHz up to 2.8 GHz or Intel® Core™ i3 1.6 GHz processor
- High performance DDR3-1600 4 GB memory onboard
- Fanless with operating temperature range of -40°C ~ +70°C
- Isolated RS-232/422/485, CAN bus and DIO ports
- Supports USB 3.0 and SATA3 interface
- 2 removable & lockable 2.5" SATA HDD and 1 CFast™
- 3 internal PCI Express Mini Card slot and 1 SIM slot



|                       |   |
|-----------------------|---|
| Power Supply          | Power input : 14~32VDC, Typical 24VDC   |
| Power Consumption     | 1.8A @ 24V  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F) W/T SSD<br>-25°C ~ +55°C (-13°F ~ +131°F) W/T HDD                  |
| Storage Temperature   | -40°C ~ +80°C (-40°F ~ +176°F)  |
| Humidity              | 5% ~ 95%, non-condensing  |
| Vibration Endurance   | 5 Grms with CFast™ (5-500Hz, X, Y, Z directions)<br>1 Grms with HDD (5-500Hz, X, Y, Z directions) |
| Dimensions            | 288 mm (11.33") (W) x 211 mm (8.3") (D)<br>x 85.7 mm (3.37") (H)                                  |
| Weight (net/gross)    | 5.5 kg (12.12 lb)/6.5 kg (14.33 lb)   |
| Certificate           | CE (Class A), IEC60945 certificate, EN45545-2 compliance  |
| EOS Support           | WEBS, WES 7, Linux  |

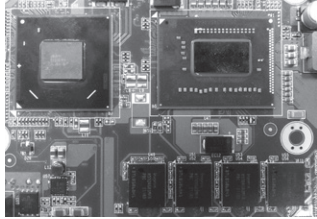
## Ordering Information

| Standard             |   |
|----------------------|---|
| tBOX330-870-FL-i7-DC | Fanless marine embedded system with 3rd generation Intel® Core™ i7 processor, 4GB DDR3-1600, 4 GbE LAN, 3 isolated COM, CFast™ and isolated CAN bus |
| tBOX330-870-FL-i3-DC | Fanless marine embedded system with 3rd generation Intel® Core™ i3 processor, 4GB DDR3-1600, 4 GbE LAN, 3 isolated COM, CFast™ and isolated CAN bus |

| Optional          |                |
|-------------------|----------------|
| 2.5" SATA HDD/SSD | 16 GB or above |
| CFast™            | 1 GB or above  |
| 3G module         |                |
| Wi-Fi module      |                |
| Wi-Fi Bluetooth   |                |
| GPS module        |                |

\*Specifications and certifications are based on options and may vary.

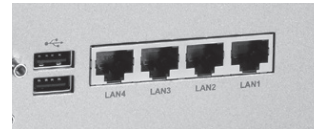
## Expansion & Installation



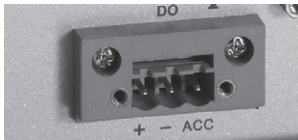
Onboard 3rd generation Intel® Core™ i7 or i3 processor and 4 GB DDR3-1600 DRAM



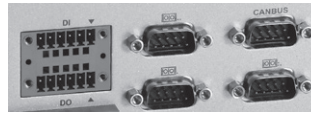
Swappable and Lockable SATA3 HDD/SSD, Audio jack, USB 3.0 and CFast



Four Gigabit LAN ports



24VDC power input



Isolated RS-232/422/485, CAN bus and DIO



3 PCIe Mini Card slots with 1 SIM slot

### Packing List

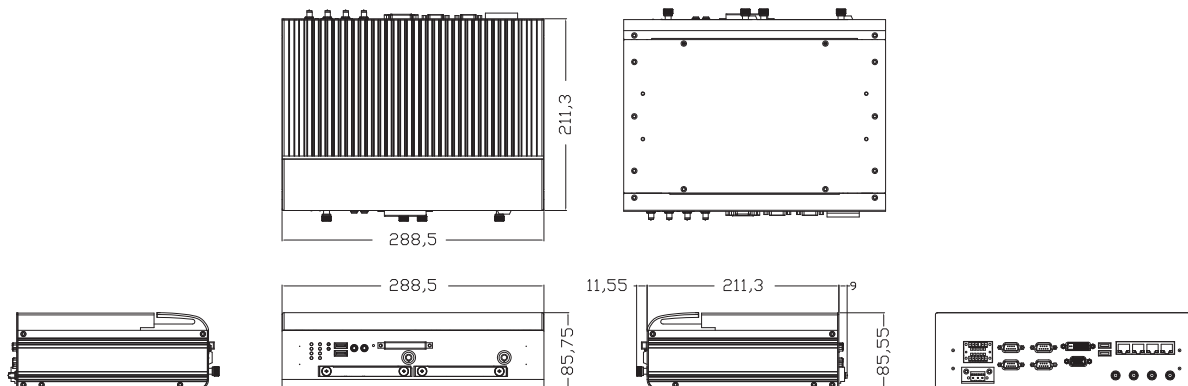
- 1 x quick manual
- 1 x driver CD
- 1 x screw pack
- 4 x foot pad
- 1 x wall-mount kit

### Power Protection

#### DC Version

- SCP (short circuit protection)
- OVP (over voltage protection)
- UVP (under voltage protection)

### Dimensions



\* All specifications and photos are subject to change without notice.



# 3




## Embedded Field Controllers

Axiomtek's rBOX series and ICO series are fanless embedded field controller solutions, specifically designed for intelligent computing and communication applications like power plant automation, intelligent transportation systems, unmanned control room and more. The rBOX series meets Safety Agency requirements and passed heavy EMI/EMS testing. Furthermore, to streamline implementation of management applications, the "AXView" monitoring software package has been launched along with rBOX series for customers to build their own management systems easily and quickly.

|                     |   |     |
|---------------------|---|-----|
| Selection Guide     |   | 315 |
| rBOX100             | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and Isolated DIO (8-IN/8-OUT)   | 323 |
| rBOX101-4COM        | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 4 Isolated COM  | 325 |
| rBOX101-6COM        | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 6 Isolated COM and Isolated DIO (4-IN/4-OUT)                               | 327 |
| rBOX101-6COM (ATEX) | ATEX Anti-Explosive Certified Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 6 Isolated COM and Isolated DIO (4-IN/4-OUT) | 329 |
| rBOX103             | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 2 Isolated CAN Bus  | 331 |
| rBOX104             | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 4-port PoE  | 333 |
| rBOX111-4COM        | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 4 Isolated COM, SATA SSD, Audio and RTC                                    | 335 |
| rBOX120-2COM        | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 2 Isolated COM, SATA SSD, 3 LANs and RTC                                   | 337 |
| rBOX200             | Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and Isolated DIO (8-IN/8-OUT)   | 339 |
| rBOX201-4COM        | Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and 4 Isolated COM  | 341 |
| rBOX201-6COM        | Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF, 6 Isolated COM and Isolated DIO (4-IN/4-OUT)   | 343 |
| rBOX204             | Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and 4-port PoE  | 345 |





|   |                          |  |     |
|---|--------------------------|--|-----|
|   | rBOX310-4COM             | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor N2800 (1.86 GHz) with Intel® NM10 and 4 COM, SATA SSD, Audio and RTC                         | 347 |
|   | rBOX510-6COM             | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3827 1.75 GHz, 6 COM, SATA SSD, DIO, 2 GbE LANs and RTC                                     | 349 |
|  | rBOX510-6COM (ATEX/C1D2) | ATEX & CID2 Anti-Explosive Certified Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3827 1.75 GHz 6 COM, SATA SSD, DIO, 2 GbE LANs and RTC | 351 |
|  | rBOX630                  | Robust Din-rail Fanless Embedded System with RISC-based (i.MX 6) Processor 4 COM, 2 CAN Bus and DIO  | 353 |
|   | rBOX610                  | Robust Din-rail Fanless Embedded System with RISC-based (iMX-287) Processor 4 COM, 2 CAN Bus and DIO   | 355 |
|  | ICO310                   | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor N3060/N3160 2 COM, 4 USB, 1 LAN, 1 PD+LAN, DIO and RTC                                       | 357 |
|   | ICO300                   | Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3815/E3827, 4 COM, 2 LANs and RTC   | 359 |
|   | ICO300-MI                | Robust Din Rail Fanless Embedded System with Intel® Atom™ Processor E3815 as an Intel® IoT Gateway Solution  | 361 |
|   | ICO200                   | Embedded Field Controller with AMD Geode™ LX800 Onboard and Front Cabling  | 363 |

# Embedded Field Controllers

## Selection Guide



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Page 327

| Features/Models                                     | rBOX100  | rBOX101-4COM  | rBOX101-6COM  |
|---|--|---|---|
| <b>CPU Level</b>                                    | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                                   | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                                   |
| <b>System Memory</b>                                | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                    | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                                       | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                                       |
| <b>Chipset</b>                                      | Intel® US15WPT   | Intel® US15WPT  | Intel® US15WPT  |
| <b>Serial</b>                                       | 2 x RS-232/422/485 (COM 1/2)                                   | 4 x isolated RS-232/422/485 (COM 1 ~ 4)   | 6 x isolated RS-232/422/485 (COM 1 ~ 6)   |
| <b>CAN Bus</b>                                      | N/A  | N/A   | N/A   |
| <b>Display</b>                                      | 1 x VGA  | 1 x VGA   | 1 x VGA   |
| <b>Ethernet</b>                                     | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet        | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet                           | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet                           |
| <b>PoE</b>  | N/A  | N/A   | N/A   |
| <b>DIO</b>  | 1 x isolated DIO (8-IN/8-OUT)                                  | N/A   | 1 x isolated DIO (4-IN/4-OUT)   |
| <b>USB</b>  | 2 x USB 2.0  | 2 x USB 2.0   | 2 x USB 2.0   |
| <b>Storage</b>                                      | 1 x CompactFlash™<br>1 x SD card (optional)                    | 1 x CompactFlash™<br>1 x SD card (optional)                                       | 1 x CompactFlash™<br>1 x SD card (optional)                                       |
| <b>Watchdog Timer</b>                               | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels                    | 2 WDT<br>WDT 1: 1sec, 255 levels<br>WDT 2: 250 ms, 255 levels                     |
| <b>Power Input</b>                                  | 2 power paths 12-48VDC (terminal block)                        | 2 power paths 12-48VDC (terminal block)   | 2 power paths 12-48VDC (terminal block)   |
| <b>Operating Temperature</b>                        | -40°C ~ +70°C (-40°F ~ +158°F)                                 | -40°C ~ +70°C (-40°F ~ +158°F)  | -40°C ~ +70°C (-40°F ~ +158°F)  |
| <b>Dimensions</b>                                   | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                   | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                                      | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                                   |
| <b>Weight (net/gross)</b>                           | 1.38 kg (3 lb)/1.72 kg (3.78 lb)                               | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)   |
| <b>Certificate</b>                                  | UL508, Heavy Industrial CE,<br>FCC Part 18                     | N/A   | N/A   |
| <b>Compliance</b>                                   | UL/cUL60950-1, IEC60068  | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068,<br>EN50121-4 | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068,<br>EN50121-4 |
| <b>EOS Support</b>                                  | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded      | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded                         | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded                         |
| <b>AXView Monitoring Software Package Supported</b> | Yes  | Yes   | Yes   |



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| Features/Models                                     | rBOX101-6COM (ATEX)   | rBOX103  | rBOX104  |
|---|---|--|--|
| <b>CPU Level</b>                                    | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                                   | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                      | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                |
| <b>System Memory</b>                                | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                                       | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                          | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                    |
| <b>Chipset</b>                                      | Intel® US15WPT  | Intel® US15WPT   | Intel® US15WPT   |
| <b>Serial</b>                                       | 6 x isolated RS-232/422/485 (COM 1 ~ 6)   | 2 x RS-232/422/485 (COM 1/2)   | 2 x RS-232/422/485 (COM1/2)                                    |
| <b>CAN Bus</b>                                      | N/A   | 2 x isolated CAN 2.0 A/B   | N/A  |
| <b>Display</b>                                      | 1 x VGA   | 1 x VGA  | 1 x VGA  |
| <b>Ethernet</b>                                     | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet                           | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet              | 1 x 10/100/1000Mbps Ethernet                                   |
| <b>PoE</b>  | N/A   | N/A  | 4 x PoE (IEEE802.3af)  |
| <b>DIO</b>  | 1 x isolated DIO (4-IN/4-OUT)   | N/A  | N/A  |
| <b>USB</b>  | 2 x USB 2.0   | 2 x USB 2.0  | 2 x USB 2.0  |
| <b>Storage</b>                                      | 1 x CompactFlash™<br>1 x SD card (optional)                                       | 1 x CompactFlash™<br>1 x SD card (optional)                          | 1 x CompactFlash™<br>1 x SD card (optional)                    |
| <b>Watchdog Timer</b>                               | 2 WDT<br>WDT 1: 1sec, 255 levels<br>WDT 2: 250 ms, 255 levels                     | 2 WDT<br>WDT 1: 1sec, 255 levels<br>WDT 2: 250 ms, 255 levels        | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels |
| <b>Power Input</b>                                  | 2 power paths 12-48VDC (terminal block)   | 2 power paths 12-48VDC(terminal block)                               | 2 power paths 48VDC(terminal block)                            |
| <b>Operating Temperature</b>                        | -40°C ~ +70°C (-40°F ~ +158°F)  | -40°C ~ +70°C (-40°F ~ +158°F)                                       | -40°C ~ +70°C (-40°F ~ +158°F)                                 |
| <b>Dimensions</b>                                   | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                                   | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                         | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                   |
| <b>Weight (net/gross)</b>                           | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)   | 1.38 kg (3 lb)/1.72 kg (3.78 lb)                                     | 1.38 kg (3 lb)/1.72 kg (3.78 lb)                               |
| <b>Certificate</b>                                  | ATEX Anti-Explosive Certificate   | N/A  | Heavy Industrial CE,<br>FCC Part 18                            |
| <b>Compliance</b>                                   | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068,<br>EN50121-4 | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068, | UL508, UL/cUL60950-1, IEC60068                                 |
| <b>EOS Support</b>                                  | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded                         | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded            | XPE, WinCE, Linux support package,<br>Windows® 7 Embedded      |
| <b>AXView Monitoring Software Package Supported</b> | Yes   | Yes  | Yes  |

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| Features\Models                                     | rBOX111-4COM   | rBOX120-2COM   | rBOX200  |
|---|--|--|--|
| <b>CPU Level</b>                                    | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                                | Intel® Atom™ Z510PT 1.1 GHz/<br>Z520PT 1.33 GHz                                | AMD LX800  |
| <b>System Memory</b>                                | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                                    | 1 x 200-pin DDR2 SO-DIMM<br>max. up to 2 GB                                    | 1 x 200-pin DDR400 SO-DIMM<br>max. up to 1 GB                  |
| <b>Chipset</b>                                      | Intel® US15WPT   | Intel® US15WPT   | AMD CS5536AF   |
| <b>Serial</b>                                       | 4 x isolated RS-232/422/485 (COM 1 - 4)  | 2 x isolated RS-232/422/485 (COM 1/2)  | 2 x RS-232/422/485 (COM1/2)                                    |
| <b>CAN Bus</b>                                      | N/A  | N/A  | N/A  |
| <b>Display</b>                                      | 1 x VGA  | 1 x VGA  | 1 x VGA  |
| <b>Ethernet</b>                                     | 2 x 10/100/1000Mbps Ethernet   | 3 x 10/100/1000Mbps Ethernet   | 2 x 10/100Mbps Ethernet  |
| <b>PoE</b>  | N/A  | N/A  | N/A  |
| <b>DIO</b>  | N/A  | 1 x isolated DIO (8-IN/ 8-OUT)   | 1 x isolated DIO (8-IN/8-OUT)                                  |
| <b>USB</b>  | 2 x USB 2.0  | 2 x USB 2.0  | 2 x USB 2.0  |
| <b>Storage</b>                                      | 1 x CompactFlash™<br>1 x 2.5" SATA SSD/HDD drive bay<br>1 x SD card (optional) | 1 x CompactFlash™<br>1 x 2.5" SATA SSD/HDD drive bay<br>1 x SD card (optional) | 1 x CompactFlash™  |
| <b>Watchdog Timer</b>                               | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels                 | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels                 | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels |
| <b>Power Input</b>                                  | 2 power paths 12-48VDC<br>(terminal block)                                     | 2 power paths 12-48VDC<br>(terminal block)                                     | 2 power paths 12-48VDC<br>(terminal block)                     |
| <b>Operating Temperature</b>                        | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)                                 |
| <b>Dimensions</b>                                   | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                                | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                                | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                   |
| <b>Weight (net/gross)</b>                           | 1.5 kg (3.3 lb)/1.88 kg (4.14 lb)  | 1.5 kg (3.3 lb)/1.88 kg (4.14 lb)  | 1.38 kg (3 lb)/1.72 kg (3.78 lb)                               |
| <b>Certificate</b>                                  | Heavy Industrial CE,<br>FCC Part 18  | Heavy Industrial CE,<br>FCC Part 18  | Heavy Industrial CE  |
| <b>Compliance</b>                                   | UL508, UL/cUL60950-1, IEC60068, EN50121-4                                      | UL508, UL/Cul60950-1, IEC60068, EN50121-4                                      | UL508, UL/cUL60950-1, IEC60068, FCC Part 18                    |
| <b>EOS Support</b>                                  | XPE, WinCE, Linux Support Package, Windows® 7 Embedded                         | XPE, WinCE, Linux Support Package, Windows® 7 Embedded                         | XPE, WinCE, Linux Support Package                              |
| <b>AXView Monitoring Software Package Supported</b> | Yes  | Yes  | Yes  |



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| Features/Models                                     | rBOX201-4COM   | rBOX201-6COM   | rBOX204   |
|---|--|--|---|
| <b>CPU Level</b>                                    | AMD LX800  | AMD LX800  | AMD LX800   |
| <b>System Memory</b>                                | 1 x 200-pin DDR400 SO-DIMM<br>max. up to 1 GB                                  | 1 x 200-pin DDR400 SO-DIMM<br>max. up to 1 GB                                  | 1 x 200-pin DDR400 SO-DIMM<br>max. up to 1 GB                       |
| <b>Chipset</b>                                      | AMD CS5536AF   | AMD CS5536AF   | AMD CS5536AF  |
| <b>Serial</b>                                       | 4 x isolated RS-232/422/485<br>(COM 1 ~ 4)                                     | 6 x isolated RS-232/422/485<br>(COM 1 ~ 6)                                     | 2 x RS-232/422/485<br>(COM 1/2)                                     |
| <b>CAN Bus</b>                                      | N/A  | N/A  | N/A   |
| <b>Display</b>                                      | 1 x VGA  | 1 x VGA  | 1 x VGA   |
| <b>Ethernet</b>                                     | 2 x 10/100Mbps Ethernet  | 2 x 10/100Mbps Ethernet  | 1 x 10/100Mbps Ethernet   |
| <b>PoE</b>  | N/A  | N/A  | 4 x PoE (IEEE802.3af)   |
| <b>DIO</b>  | N/A  | 1 x isolated DIO (4-IN/4-OUT)  | N/A   |
| <b>USB</b>  | 2 x USB 2.0  | 2 x USB 2.0  | 2 x USB 2.0   |
| <b>Storage</b>                                      | 1 x CompactFlash™  | 1 x CompactFlash™  | 1 x CompactFlash™   |
| <b>Watchdog Timer</b>                               | 2 WDT<br>WDT 1: 1sec, 255 levels<br>WDT 2: 250 ms, 255 levels                  | 2 WDT<br>WDT 1: 1sec, 255 levels<br>WDT 2: 250 ms, 255 levels                  | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels      |
| <b>Power Input</b>                                  | 2 power paths 12-48VDC<br>(terminal block)                                     | 2 power paths 12-48VDC<br>(terminal block)                                     | 2 power paths 48VDC<br>(terminal block)                             |
| <b>Operating Temperature</b>                        | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)                                      |
| <b>Dimensions</b>                                   | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                                   | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                                | 81 x 110 x 135 mm<br>(3.18" x 4.33" x 5.31")                        |
| <b>Weight (net/gross)</b>                           | 1.38 kg (3 lb)/1.72 kg (3.78 lb)   | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)  | 1.38 kg (3 lb)/1.72 kg (3.78 lb)                                    |
| <b>Certificate</b>                                  | N/A  | N/A  | N/A   |
| <b>Compliance</b>                                   | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068, EN50121-4 | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068, EN50121-4 | UL508, Heavy Industrial CE,<br>FCC Part 18, UL/cUL60950-1, IEC60068 |
| <b>EOS Support</b>                                  | XPE, WinCE, Linux Support Package  | XPE, WinCE, Linux Support Package  | XPE, WinCE, Linux Support Package                                   |
| <b>AXView Monitoring Software Package Supported</b> | Yes  | Yes  | Yes   |

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| Features/Models                                     | rBOX310-4COM   | rBOX510-6COM   | rBOX510-6COM (ATEX/CID2)  |
|---|--|--|---|
| <b>CPU Level</b>                                    | Intel® Atom™ N2800 1.86GHz                                     | Intel® Atom™ E3827 1.75GHz   | Intel® Atom™ E3827 1.75GHz  |
| <b>System Memory</b>                                | 1 x DDR3 SO-DIMM 800/1066MHz max. up to 4 GB                   | 4 GB DDR3L Onboard   | 4 GB DDR3L Onboard  |
| <b>Chipset</b>                                      | Intel® NM10  | SoC integrated   | SoC integrated  |
| <b>Serial</b>                                       | 4 x RS-232/422/485 (COM 1-4)                                   | 2 x RS-232/422/485 (COM 1-2)<br>4 x isolated RS-232/422/485 (COM 3-6)      | 2 x RS-232/422/485 (COM 1-2)<br>4 x isolated RS-232/422/485 (COM 3-6)                           |
| <b>CAN Bus</b>                                      | N/A  | N/A  | N/A   |
| <b>Display</b>                                      | 1 x VGA  | 1 x VGA  | 1 x VGA   |
| <b>Ethernet</b>                                     | 2 x 10/100/1000Mbps Ethernet                                   | 2 x 10/100/1000Mbps Ethernet   | 2 x 10/100/1000Mbps Ethernet  |
| <b>PoE</b>  | N/A  | N/A  | N/A   |
| <b>DIO</b>  | N/A  | 1 x isolated DIO (8-IN/8-OUT)  | 1 x isolated DIO (8-IN/8-OUT)   |
| <b>USB</b>  | 2 x USB 2.0  | 1 x USB 3.0<br>1 x USB 2.0   | 1 x USB 3.0<br>1 x USB 2.0  |
| <b>Storage</b>                                      | 1 x CompactFlash™<br>1 x 2.5" SATA SSD/HDD drive bay           | 1 x CompactFlash™<br>1 x 2.5" SATA SSD/HDD drive bay<br>or 1 x m-SATA slot | 1 x CompactFlash™<br>1 x 2.5" SATA SSD/HDD drive bay<br>or 1 x m-SATA slot                      |
| <b>Watchdog Timer</b>                               | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels             | 2 WDT<br>WDT 1: 1 sec, 255 levels<br>WDT 2: 250 ms, 255 levels                                  |
| <b>Power Input</b>                                  | 2 power paths 12-48VDC (terminal block)                        | 1 power path 12-48VDC (terminal block)                                     | 1 power path 12-48VDC (terminal block)  |
| <b>Operating Temperature</b>                        | -40°C ~ +70°C (-40°F ~ +158°F)                                 | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)  |
| <b>Dimensions</b>                                   | 100.6 x 110 x 135 mm<br>(3.96" x 4.33" x 5.31")                | 85.6 x 110 x 155 mm<br>(3.37" x 4.33" x 6.1")                              | 85.6 x 110 x 155 mm<br>(3.37" x 4.33" x 6.1")   |
| <b>Weight (net/gross)</b>                           | 1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)                             | 1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)   | 1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)  |
| <b>Certificate</b>                                  | Heavy Industrial CE,<br>FCC Part 18                            | Heavy Industrial CE,<br>FCC Part 18<br>UL/CuI60950-1                       | Heavy Industrial CE,<br>FCC Part 18, UL/CuI60950-1,<br>ATEX & C1D2 Anti-Explosive Certification |
| <b>Compliance</b>                                   | UL/CuI60950-1, IEC60068  | IEC60068, EN50121-4  | IEC60068, EN50121-4   |
| <b>EOS Support</b>                                  | XPE, Windows® 7 Embedded,<br>Linux support package             | Windows® 7 Embedded, Linux support package,<br>Windows® 8 Embedded         | Windows® 7 Embedded, Linux support package,<br>Windows® 8 Embedded                              |
| <b>AXView Monitoring Software Package Supported</b> | Yes  | Yes  | Yes   |



# ARM Embedded System

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| Features/Models              | rBOX610  | rBOX630   |
|------------------------------|--|---|
| <b>CPU Level</b>             | Freescle ARM9, i.MX287, 454 MHz  | Freescle Cortex™-A9, i.MX6 Cortex™-A9, DualLite, 800MHz   |
| <b>System Memory</b>         | 1 x DDR2 128 MB onboard  | 1 x DDR3 1 GB onboard   |
| <b>Serial</b>                | 4 x RS232/422/485 (COM 1 ~ 4) COM 1~3 with TX/RX/RTS/CTS signals RS-232/422/485 interface select by software       | 4 x RS232/422/485 (COM 1 ~ 4) COM 1~3 with TX/RX/RTS/CTS signals RS-232/422/485 interface select by software  |
| <b>CAN Bus</b>               | 2 x CAN (non-isolation) Phoenix connector  | 2 x CAN (non-isolation) Phoeni connector  |
| <b>HDMI</b>                  | 2 x CAN (non-isolation), Phoenix connector   | 2 x CAN (non-isolation), Phoeni connector   |
| <b>Console Port</b>          | DB9 connector for user setting with debug  | DB9 connector for user setting with debug   |
| <b>Ethernet</b>              | 2 x 10/100Mbps Ethernet  | 1 x 10/100Mbps Ethernet<br>1 x 10/100/1000Mbps Ethernet   |
| <b>Wireless</b>              | 1 x Mini card socket (supports USB interface on 3G/GPRS)<br>1 x SIM socket by outside access and is easy plug/pull | 1 x Mini card socket (supports USB interface) with 1 x SIM socket by outside accedss and is easy plug/pull<br>1 x Mini card socket (supports USB & PCIE interface) with 1 x SIMs socket by inside |
| <b>DIO</b>                   | 1 x DIO (4-IN/4-OUT)   | 1 x DIO (8-IN/8-OUT)  |
| <b>USB</b>                   | 1 x USB 2.0  | 1 x USB 2.0 OTG   |
| <b>Storage</b>               | 1 x eMMC 4 GB onboard<br>1 x SDHC card   | 1 x eMMC 4 GB onboard<br>1 x SDHC card  |
| <b>Watchdog Timer</b>        | 1 WDT: 1 sec, 255 levels   | 1 WDT: 1 sec, 255 levels  |
| <b>Power Input</b>           | 2 power paths 12-48VDC (terminal block)  | 2 power paths 12-48VDC (terminal block)   |
| <b>Operating Temperature</b> | -40°C ~ +70°C (-40°F ~ +158°F)   | -40°C ~ +70°C (-40°F ~ +158°F)  |
| <b>Dimensions</b>            | 55 x 155 x 110 mm (2.16" x 6.10" x 4.33")  | 55 x 155 x 110 mm (2.16" x 6.10" x 4.33")   |
| <b>Weight (net/gross)</b>    | 1.0 kg (2.2lb)/1.50 kg (3.3 lb)  | 0.9 kg (2.0 lb)/1.3kg (2.87 lb)   |
| <b>Certificate</b>           | Heavy Industrial CE, FCC Part 18   | Heavy Industrial CE, FCC Part 18  |
| <b>OS Support</b>            | Linux Kernel 2.6.35  | Linux kernel 3.0.35   |

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| Features/Models                                     | ICO310   | ICO300   | ICO300-MI  |
|---|--|--|--|
| <b>CPU Level</b>                                    | Intel® Atom™ N3060/N3160   | Intel® Atom™ E3815/E3827   | Intel® Atom™ E3815/E3827   |
| <b>System Memory</b>                                | DDR3L SODIMM up to 8 GB  | DDR3L-1066 MHz SO-DIMM up to 4 GB (E3815), max. up to 8 GB (E3827) | DDR3L-1066 MHz SO-DIMM up to 4 GB (E3815), max. up to 8 GB (E3827) |
| <b>Chipset</b>                                      | SoC integrated   | SoC integrated   | SoC integrated   |
| <b>Serial</b>                                       | 2 x RS-232/422/485 (COM 1-2)   | 4 x RS-232/422/485 (COM 1-4)                                       | 4 x RS-232/422/485 (COM 1-4)                                       |
| <b>CAN Bus</b>                                      | N/A  | N/A  | N/A  |
| <b>Display</b>                                      | 1 x VGA  | 1 x VGA  | 1 x VGA  |
| <b>Ethernet</b>                                     | 1 x 10/100/1000Mbps Ethernet   | 2 x 10/100/1000Mbps Ethernet                                       | 2 x 10/100/1000Mbps Ethernet                                       |
| <b>PoE</b>  | 1 x PD (and also can support 10/100/1000 Ethernet)                               | N/A  | N/A  |
| <b>DIO</b>  | 1 x DIO (8bit Programming)   | 1 x DIO (8bit Programming)   | N/A  |
| <b>USB</b>  | 2 x USB 3.0, 2 x USB 2.0   | 2 x USB 2.0  | 2 x USB 2.0  |
| <b>Storage</b>                                      | 1 x mSATA<br>1 x 2.5" SATA SSD/HDD drive bay                                     | 1 x CompactFlash™ (or mSATA)<br>1 x SATA SSD                       | 1 x CompactFlash™ (or mSATA)<br>1 x SATA SSD                       |
| <b>Watchdog Timer</b>                               | 1 WDT<br>One step is 1 sec, 255 levels   | 1 WDT<br>One step is 1 sec, 255 levels                             | 1 WDT<br>One step is 1 sec, 255 levels                             |
| <b>Power Input</b>                                  | 12-24VDC (terminal block)  | 12-24VDC (terminal block)  | 12-24VDC (terminal block)  |
| <b>Operating Temperature</b>                        | -20°C ~ +60°C (-4°F ~ +140°F)  | -20°C ~ +70°C (-4°F ~ +158°F)                                      | -20°C ~ +70°C (-4°F ~ +158°F)                                      |
| <b>Dimensions</b>                                   | 48 x 110 x 155 mm<br>(1.88" x 4.33" x 6.1")                                      | 48 x 110 x 155 mm<br>(1.88" x 4.33" x 6.1")                        | 48 x 110 x 155 mm<br>(1.88" x 4.33" x 6.1")                        |
| <b>Weight (net/gross)</b>                           | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)   | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)                                   | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)                                   |
| <b>Certificate</b>                                  | CE, FCC  | CE, FCC  | CE, FCC  |
| <b>Compliance</b>                                   | IEC60068   | IEC60068   | IEC60068   |
| <b>EOS Support</b>                                  | Windows® 7 Embedded, Windows® 8 Embedded, Windows® 10 IoT, Linux support package | Windows® 7 Embedded, Windows 8 Embedded, Linux support package     | Intel® IoT Gateway Solution  |
| <b>AXView Monitoring Software Package Supported</b> | Yes  | N/A  | N/A  |



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| Features/Models                                     | ICO200  |
|---|---|
| <b>CPU Level</b>                                    | AMD LX800   |
| <b>System Memory</b>                                | 1 x 200-pin DDR400 SO-DIMM<br>max. up to 1 GB       |
| <b>Chipset</b>                                      | AMD CS5536AD  |
| <b>Serial</b>                                       | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2)    |
| <b>CAN Bus</b>                                      | N/A   |
| <b>Display</b>                                      | 1 x VGA   |
| <b>Ethernet</b>                                     | 2 x 10/100Mbps Ethernet                             |
| <b>PoE</b>  | N/A   |
| <b>DIO</b>  | N/A   |
| <b>USB</b>  | 2 x USB 2.0   |
| <b>Storage</b>                                      | 1 x CompactFlash™                                   |
| <b>Watchdog Timer</b>                               | 1 WDT<br>Reset supported, 255 levels                |
| <b>Power Input</b>                                  | 24VDC (DC jack)                                     |
| <b>Operating Temperature</b>                        | 0°C~ +50°C (32°F ~ 122°F)                           |
| <b>Dimensions</b>                                   | 160.5 x 111.8 x 53.35 mm<br>(6.32" x 4.40" x 2.10") |
| <b>Weight (net/gross)</b>                           | 1.2 kg (2.64 lb)/1.92 kg (4.23 lb)                  |
| <b>Certificate</b>                                  | CE  |
| <b>Compliance</b>                                   | N/A   |
| <b>EOS Support</b>                                  | XPE, WinCE, Linux support package                   |
| <b>AXView Monitoring Software Package Supported</b> | N/A   |

Overview

Embedded Systems

Embedded Systems for Transportation

3

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

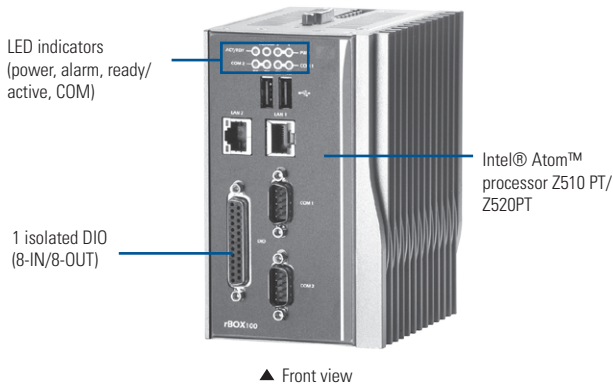
Power Supplies

Peripherals & Accessories



# rBOX100

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 1 Isolated DIO (8-IN/8-OUT)



## Introduction

The rBOX100 din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

Its 8-IN/8-OUT DIO port provides users with the digital devices connection, and its redundant Ethernet connection provides greater availability and reliability. Two power paths input minimizes the risk of data loss in the event of a single power failure. Besides, rBOX100 is also specifically built for rugged work environments, has met Safety Agency requirements and passed heavy industrial EMI/EMS testing. The robust rBOX100 is specifically built for remote control/ monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

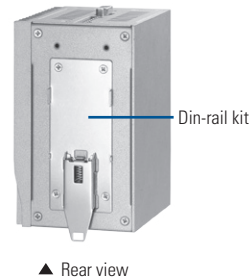
The ready-to-run rBOX100 equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black   |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30             |   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz |   |
| System Board      | RM820  |   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB                 |   |
| System I/O Outlet | Serial Port  | 2 x RS-232/422/485 (COM 1/2) (isolated COM as option)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Serial port speed up to 115.2kbps |
|                   | LAN  | 1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB  | 2 x USB 2.0<br>USB power distribution control by software   |

## Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 1 isolated DIO (8-IN/8-OUT)
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™, 1 SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package

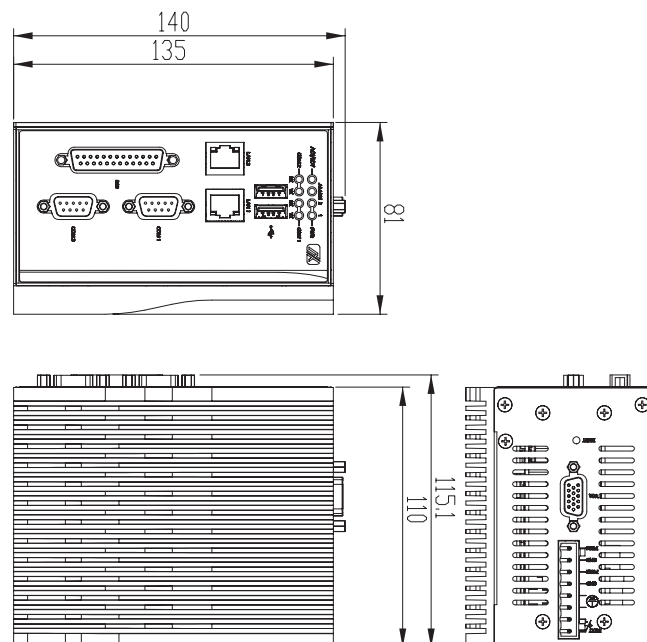


|                       |   |   |
|-----------------------|---|---|
| System I/O Outlet     | DIO   | 1 x DIO (8-IN/8-OUT)<br>DI:<br>Input range : 0-30 VDC<br>Logic level 0 : +/- 3V max.<br>Logic level 1 : +/- 10V min. (COM to DI)<br>DO:<br>Max. 200 mA per channel, current sink type<br>24VDC normal, open collector to 30V<br>Optical isolation protection 2 KV |
|                       | VGA   | 1 x DB15 connector  |
|                       | Power Input   | 2 x DC power input with terminal block  |
|                       | Alarm Contact   | One relay output with current<br>0.5A @30VDC  |
|                       | Watchdog Timer  | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels   |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |
|                       | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage               | Supports 1 x CompactFlash™<br>Supports 1 x SD card up to 32 GB (optional) |   |
| Installation          | Din-rail, wall mount  |   |
| Power Supply          | 2 power paths   |   |
|                       | Power Input Range   | 12-48VDC  |
|                       | Power Input Rating  | 12-48VDC, 1.3-0.3A  |
|                       | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |   |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |   |
| Humidity              | 10% ~ 95%   |   |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |   |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)               |   |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded                    |   |

## Specifications

|                    |   |
|--------------------|---|
| ISO                | Manufactured in an ISO9001 facility   |
| Safety             | UL508<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| Safety Compliance  | UL60950-1   |
| EMI                | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS                | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation);<br>50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)  |

## Dimensions



## Ordering Information

| Standard            |   |
|---------------------|---|
| rBOX100-FL 1.1G-DC  | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 1 isolated DIO (8-IN/8-OUT) (-40°C ~ +70°C)  |
| rBOX100-FL 1.33G-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 1 isolated DIO (8-IN/8-OUT) (-40°C ~ +70°C) |
| Optional            |   |
| DDR2 SO-DIMM        | 1 GB ~ 2 GB (with W.T. memory)<br>2 GB or above (with W.T. CF)  |
| DDR2 SO-DIMM        | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)   |
| CompactFlash        |   |
| Wall mount kit      |   |

\*Specifications and certifications are based on options and may vary.

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Embedded Systems

Embedded Systems for Transportation

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Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

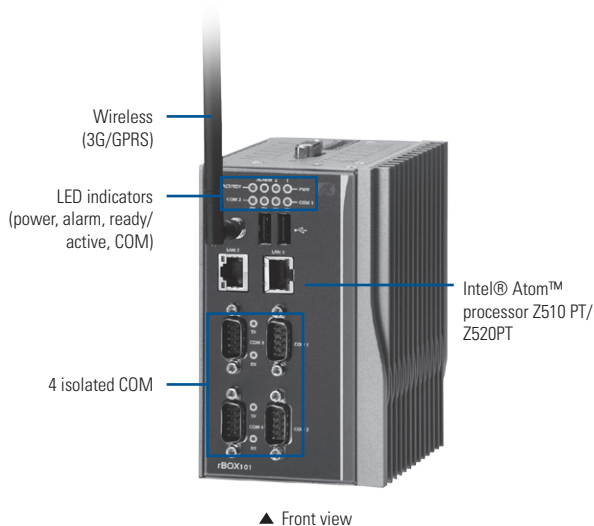
Power Supplies

Peripherals & Accessories



# rBOX101-4COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 4 Isolated COM



▲ Front view



## Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- 1 wireless (3G/GPRS)
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



Din-rail kit ▲ Rear view

## Introduction

The rBOX101-4COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX101-4COM is equipped with four isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Featuring IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX101-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-4COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB   |
| System I/O Outlet | Serial Port 4 x Isolated RS-232/422/485 (COM 1-4)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2 KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 & COM 4 serial port speed up to 921.6kbps |
|                   | LAN 1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |
|                   | USB 2 x USB 2.0<br>USB power distribution control by software  |

|                       |  |  |
|-----------------------|--|--|
| System I/O Outlet     | VGA  | 1 x DB15 connector   |
|                       | Power Input  | 2 x DC power input with terminal block   |
|                       | Alarm Contact  | One relay output with current 0.5A @30VDC  |
| Watchdog Timer        | Wireless   | 1 x MiniCard (Full size, supports USB only)<br>1 x SIM socket onboard<br>Supports 3G/GPRS            |
|                       | 2 WDT  | WDT 1 : one step is 1 sec, 255 levels<br>WDT 2 : one step is 250ms, 255 levels                       |
| LEDs                  | System   | Power, Alarm, Ready/Active, COM (TXD,RXD)  |
|                       | Alarm  | DC PWR1 or PWR2 is lost (default)<br>User define event   |
| Storage               | Supports 1 x CompactFlash™<br>1 x SD card up to 32 GB (optional)             |  |
| Installation          | Din-rail, wall mount   |  |
| Power Supply          | 2 power paths  |  |
|                       | Power Input Range  | 12-48VDC   |
|                       | Power Input Rating   | 12-48VDC, 1.5-0.4A   |
|                       | Power Protection   | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)   |  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)   |  |
| Humidity              | 10% ~ 95%  |  |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)   |  |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)                  |  |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded                       |  |
| ISO                   | Manufactured in an ISO9001 facility  |  |
| Safety Compliance     | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1 |  |



## Specifications

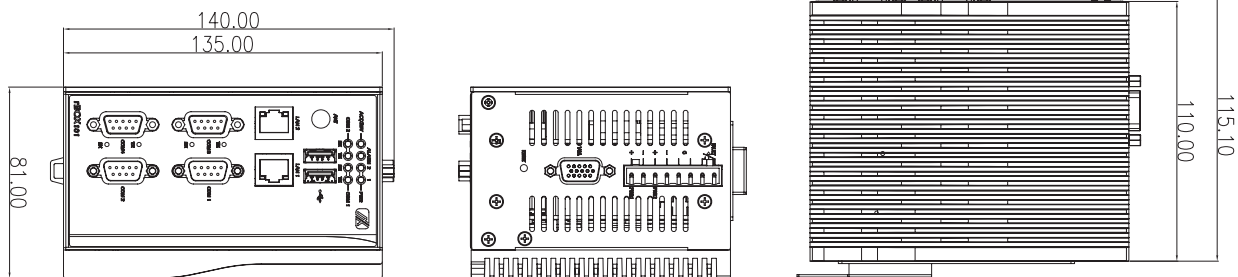
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|--------------------|--|
| EMI Compliance     | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3  |
| EMS Compliance     | EN50121-4 (Railway application)<br>Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.28ft)   |

## Ordering Information

| Standard                                  |  |
|---|--|
| rBOX101-4COM-FL1.1G-DC                    | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 4 isolated COM ports (-40°C ~ +70°C)  |
| rBOX101-4COM-FL1.33G-DC                   | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 4 isolated COM ports (-40°C ~ +70°C) |
| Optional                                  |  |
| DDR2 SO-DIMM                              | 1 GB ~ 2 GB (with W.T. memory)   |
| DDR2 SO-DIMM                              | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)  |
| CompactFlash™                             | 2 GB or above (with W.T. CF)   |
| Wall mount kit                            |  |
| Wireless (3G/GPRS) module for rBOX series |  |

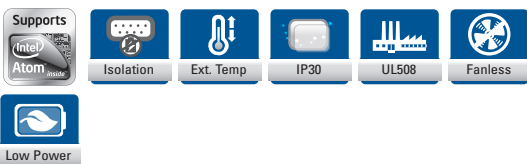
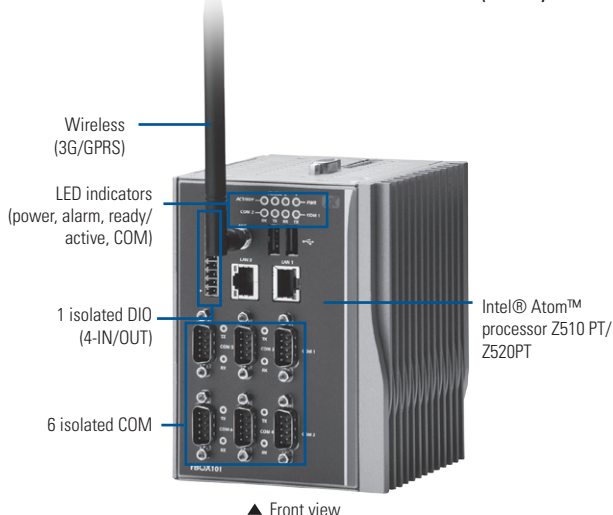
\*Specifications and certifications are based on options and may vary.

## Dimensions



# rBOX101-6COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 6 Isolated COM and 1 Isolated DIO (4-IN/4-OUT)



## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 6 isolated COM ports, 1 isolation DIO (4-IN/4-OUT)
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- 1 wireless (3G/GPRS)
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX101-6COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX101-6COM is equipped with six isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet and one isolated DIO port for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX101-6COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-6COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB   |
| System I/O Outlet | Serial Port<br>6 x Isolated RS-232/422/485 (COM 1-6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 - COM 6 serial port speed up to 921.6kbps |
|                   | LAN<br>1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB<br>2 x USB 2.0<br>USB power distribution control by software   |

|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | DIO   | 1 x DIO (4-IN/4-OUT)<br>DI :<br>Input channels : 4, source type<br>Input voltage : 0 to 30VDC<br>Digital input levels for dry contacts :<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts :<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO :<br>Output channels : 4, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 2 KV |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
|                   | Wireless  | 1 x Mini Card (Full size, supports USB only)<br>1 x SIM socket onboard<br>Supports 3G/GPRS  |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           |   | Supports 1 x CompactFlash™<br>Supports 1 x SD card up to 32 GB (optional)   |
| Installation      |   | Din-rail, wall mount  |

## Specifications

|                       |  |
|-----------------------|--|
| Power Supply          | 2 power paths  |
|                       | Power Input Range 12-48VDC   |
|                       | Power Input Rating 12-48VDC, 1.5-0.4A  |
|                       | Power Protection DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)   |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)   |
| Humidity              | 10% ~ 95%  |
| Weight (net/gross)    | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)  |
| Dimensions            | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)   |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded   |
| ISO                   | Manufactured in an ISO9001 facility  |
| Safety Compliance     | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| EMI Compliance        | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3  |
| EMS Compliance        | EN50121-4 (Railway application)<br>Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

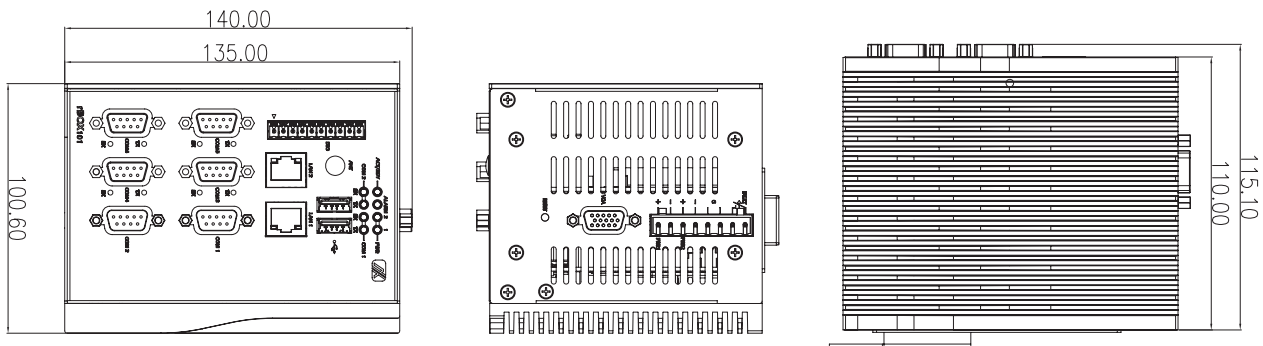
|                    |   |
|--------------------|---|
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)  |
|                    | 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)  |
|                    | IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport) |
|                    | IEC60068-2-32 Ed (free fall) 1 M (3.281ft)  |

## Ordering Information

| Standard                                  |  |
|---|--|
| rBOX101-6COM-FL1.1G-DC                    | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 6 isolated COM ports (-40°C ~ +70°C)  |
| rBOX101-6COM-FL1.33G-DC                   | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 6 isolated COM ports (-40°C ~ +70°C) |
| Optional                                  |  |
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with W.T. memory)   |
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)  |
| CompactFlash                              | 2 GB or above (with W.T. CF)   |
| Wall mount kit                            |  |
| Wireless (3G/GPRS) module for rBOX series |  |

\*Specifications and certifications are based on options and may vary.

## Dimensions



# rBOX101-6COM(ATEX)

ATEX Anti-Explosion Certified Robust Din-rail Fanless Embedded System



LED indicators  
(power, alarm,  
ready/active, COM)

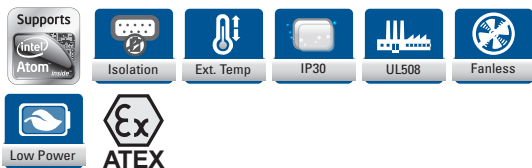
1 isolated DIO  
(4-IN/4-OUT)

6 isolated COM



Intel® Atom™  
processor Z510 PT/  
Z520PT

▲ Front view



## Features

- ATEX anti-explosion type "nA" zone 2 group II Certification
- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 6 isolated COM ports, 1 isolation DIO (4-IN/4-OUT)
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



Din-rail kit ▲ Rear view

## Introduction

The rBOX101-6COM(ATEX) din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX101-6COM(ATEX) is equipped with six isolated RS-232/422/485, one isolated 10/100/1000Mbps Ethernet & one isolated 10/100Mbps Ethernet and one isolated DIO port for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX101-6COM(ATEX) is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The ready-to-run rBOX101-6COM(ATEX) equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

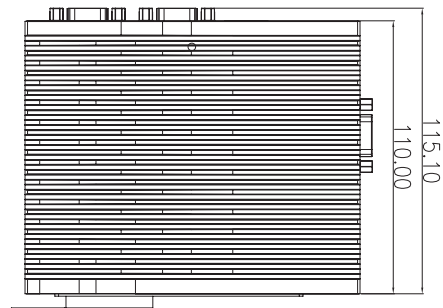
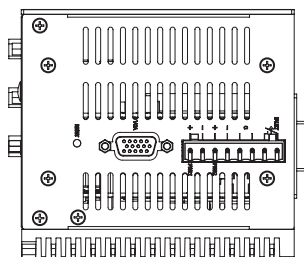
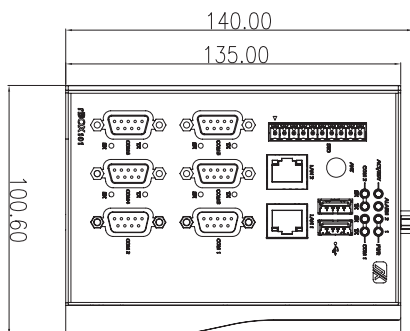
|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB   |
| System I/O Outlet | Serial Port<br>6 x Isolated RS-232/422/485 (COM 1-6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 - COM 6 serial port speed up to 921.6kbps |
|                   | LAN<br>1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB<br>2 x USB 2.0<br>USB power distribution control by software   |

|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | DIO   | 1 x DIO (4-IN/4-OUT)<br>DI :<br>Input channels : 4, source type<br>Input voltage : 0 to 30VDC<br>Digital input levels for dry contacts :<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts :<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO :<br>Output channels : 4, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 3 KV |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |

## Specifications

|  |   |
|--|---|
| Storage  | Supports 1 x CompactFlash™<br>Supports 1 x SD card up to 32 GB (optional)   |
| Installation   | Din-rail, wall mount  |
| Power Supply   | 2 power paths<br>Power Input Range 12-48VDC<br>Power Input Rating 12-48VDC, 1.5-0.4A<br>Power Protection DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection   |
| Operating Temperature  | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature  | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity   | 10% ~ 95%   |
| Weight (net/gross)   | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)   |
| Dimensions   | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |
| EOS Support  | XPE, WinCE, Linux support package, Windows® 7 Embedded  |
| ISO  | Manufactured in an ISO9001 facility   |
| Anti-Explosive  | ATEX Anti-Explosive Type "nA" Zone 2 Group II Certification<br>Ex Marking :<br>Certificate No.: TUV 14 ATEX 7480 X  |
| Safety Compliance  | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| EMI Compliance   | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance   | EN50121-4 (Railway application)<br>Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B |

## Dimensions



|                    |   |
|--------------------|---|
|                    | EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A   |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft) |

## Ordering Information

### Standard

|                                |   |
|--------------------------------|---|
| rBOX101-6COM-FL1.1G-DC (ATEX)  | ATEX anti-explosion certified robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz, ATEX and 6 isolated COM ports (-40°C ~ +70°C) |
| rBOX101-6COM-FL1.33G-DC (ATEX) | ATEX anti-explosion certified robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 6 isolated COM ports (-40°C +70°C)        |

### Optional

|                |   |
|----------------|---|
| DDR2 SODIMM    | 1 GB ~ 2 GB (with W.T. memory)  |
| DDR2 SODIMM    | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C) |
| CompactFlash   | 2 GB or above (with W.T. CF)  |
| Wall mount kit |   |

\*Specifications and certifications are based on options and may vary.

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Embedded Systems

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Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

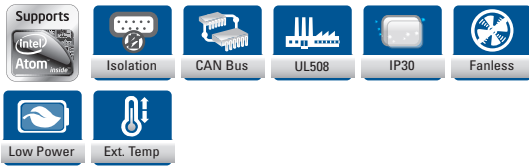
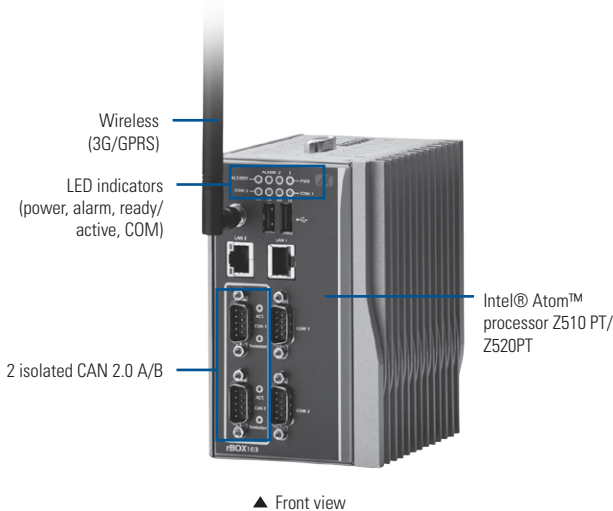
Power Supplies

Peripherals & Accessories



# rBOX103

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT and 2 Isolated CAN Bus



## Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 2 isolated CAN 2.0 A/B
- 2 isolated Ethernet ports
- 2 watchdog timer
- LED indicators
- 1 wireless (3G/GPRS)
- SNMP V1/V2c
- Supports one CompactFlash™, one SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX103 din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to +70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact rBOX103 is equipped with two isolated CAN 2.0 A/B, two isolated Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. rBOX103 is powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance. Besides, it is also specially designed for remote control/monitoring management applications like automatic parking lot, traffic cabinet and more.

The rBOX103 features rich expansion for communication such as CAN bus in-vehicle network. The ready-to-run rBOX103 equipped with AXView remote monitoring software is a total solution for facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB   |
| System I/O Outlet | Serial Port<br>2 x RS-232/422/485 (COM 1/2) (isolated COM as option)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Serial port speed up to 115.2kbps |
| LAN               | 1 x 10/100/1000Mbps Ethernet<br>1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |
| USB               | 2 x USB 2.0<br>USB power distribution control by software  |
| CAN               | 2 CAN 2.0 A/B (DB9 connector)<br>Meets ISO 11898 standard  |

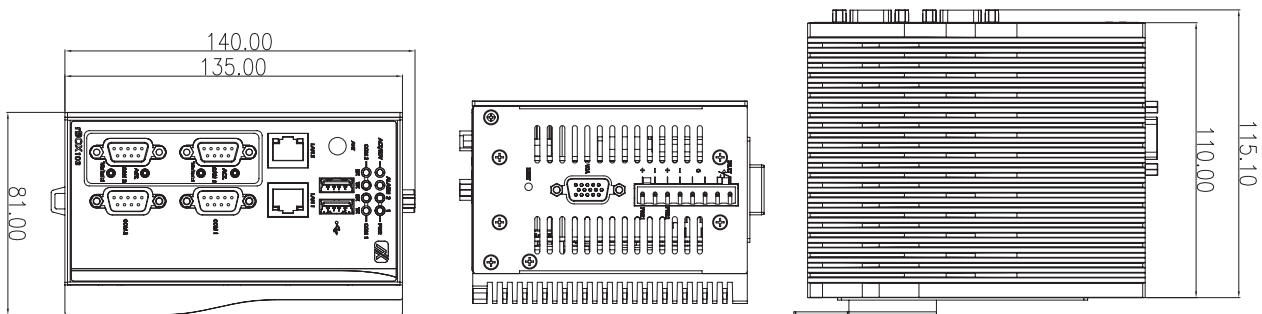
|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | CAN   | Software control termination resistor 120 ohm<br>Magnetic isolation protection 2.5KV<br>Transmitter baud rate from 5kb/s to 1Mb/s |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
|                   | Wireless  | 1 x Mini Card (Full size, supports USB only)<br>1 x SIM socket onboard<br>Supports 3G/GPRS  |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD,RXD), CAN (Act,Termination Indicator)  |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           | Supports 1 x CompactFlash<br>Supports 1 x SD card up to 32 GB (optional)              |   |
| Installation      | Din-rail, wall mount  |   |
| Power Supply      | 2 power paths   |   |
|                   | Power Input Range   | 12-48VDC  |
|                   | Power Input Rating  | 12-48VDC, 1.4-0.4A  |
|                   | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection                              |
| Power Supply      | Power   | 0.7A @ 24V, 17W   |
|                   | Consumption (COM port link up)  | 0.47A @ 36V, 17.24W<br>0.36A @ 48V, 17.48W  |



## Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity              | 10% ~ 95%   |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)   |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded  |
| ISO                   | Manufactured in an ISO9001 facility   |
| Safety                | UL508, UL60950-1  |
| Compliance            | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| EMI Compliance        | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance        | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test    | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)   |

## Dimensions



## Ordering Information

### Standard

|                    |  |
|--------------------|--|
| rBOX103-FL1.1G-DC  | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 2 isolated CAN 2.0 (-40°C ~ +70°C)  |
| rBOX103-FL1.33G-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 2 isolated CAN 2.0 (-40°C ~ +70°C) |

### Optional

|   |   |
|---|---|
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with W.T. memory)  |
| DDR2 SODIMM                               | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C) |
| CompactFlash                              | 2 GB or above (with W.T. CF)  |
| Wall mount kit                            |   |
| Wireless (3G/GPRS) module for rBOX series |   |

\*Specifications and certifications are based on options and may vary.

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Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

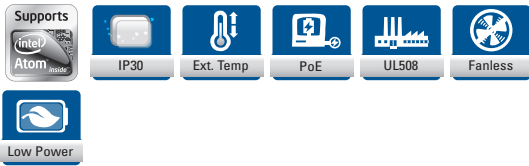
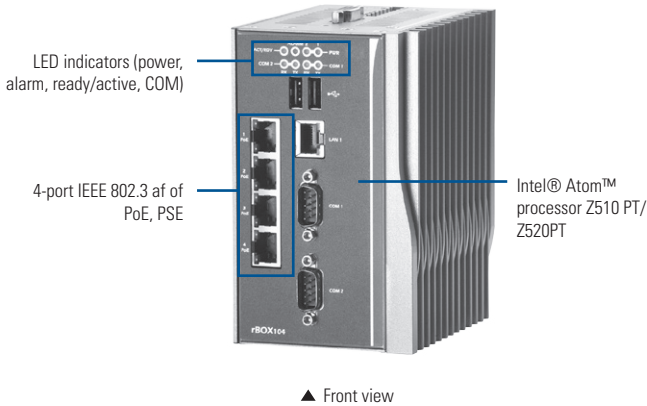
Power Supplies

Peripherals & Accessories



# rBOX104

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPPT and 4-port PoE



## Introduction

The rBOX104 din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

The fanless design increases reliability, extends MTTR, and ultimately reduces maintenance efforts. Front accessible I/O cabling is very convenient for wiring and maintenance. The rBOX104 Din-rail computer features a redundant Ethernet LAN connection for greater availability and reliability. Supporting Power-over-Ethernet on ports 1 to 4, the rBOX104 Din-rail computer can power IEEE802.3af compliant devices and transmit data simultaneously, which helps save wiring costs and makes it ideally suited for outdoor applications such as PoE IP camera, PoE Access Point and intercoms. Two power paths input minimize the risk of data loss in the event of a single power failure. The rBOX104 Din-rail computer meets Safety Agency requirements and has passed heavy industrial EMI/EMS testing.

The ready-to-run rBOX104 equipped with AXView remote monitoring software is a total solution for intelligent transportation systems, power plant automation, intelligent transportation systems, facility monitoring systems, IP video surveillance, APs, intercoms, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black   |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30             |   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz |   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB                 |   |
| System I/O Outlet | Serial Port  | 2 x RS-232/422/485 (COM 1/2) (isolated COM as option)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Serial port speed up to 115.2kbps |
|                   | LAN  | 1 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |
|                   | PoE  | 4 x PoE (IEEE802.3af)<br>Magnetic isolation protection 1.5 KV   |

## Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 4-port IEEE802.3af Power over Ethernet (PoE) Power Sourcing Equipment (PSE)
- 1 isolated 10/100/1000Mbps Ethernet port
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™, 1 SD card (optional)
- 2 power paths with terminal block and 48VDC
- Supports AXView remote monitoring software package

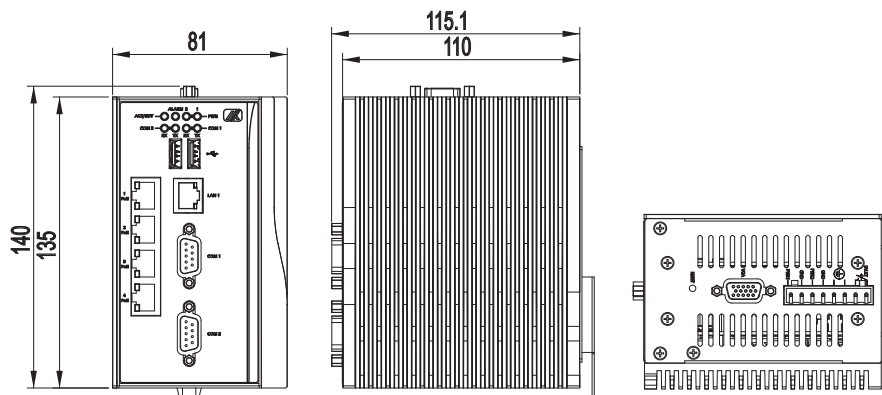


|                       |   |  |
|-----------------------|---|--|
| System I/O Outlet     | USB   | 2 x USB 2.0<br>USB power distribution control by software  |
|                       | VGA   | 1 x DB15 connector   |
|                       | Power Input   | 2 x DC power input with terminal block   |
|                       | Alarm Contact   | One relay output with current 0.5A @30VDC  |
| Watchdog Timer        | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |  |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM(TXD,RXD)   |
|                       | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event   |
| Storage               | Supports 1 x CompactFlash™<br>Supports 1 x SD card up to 32 GB (optional)             |  |
| Installation          | Din-rail, wall mount  |  |
| Power Supply          | 2 power paths   |  |
|                       | Power Input Range   | 48VDC  |
|                       | Power Input Rating  | 48VDC, 1.8A  |
|                       | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection)<br>Reverse protection |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |  |
| Humidity              | 10% ~ 95%   |  |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |  |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D)<br>x 135 mm (5.31") (H)                        |  |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded                                |  |
| ISO                   | Manufactured in an ISO9001 facility   |  |
| Safety Compliance     | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1          |  |

## Specifications

|                    |   |
|--------------------|---|
| EMI Compliance     | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance     | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft.)  |

## Dimensions



## Ordering Information

| Standard            |   |
|---------------------|---|
| rBOX104-FL 1.1G-DC  | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 4 PoE (-40°C ~ +70°C)  |
| rBOX104-FL 1.33G-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 4 PoE (-40°C ~ +70°C) |
| Optional            |   |
| DDR2 SODIMM         | 1 GB ~ 2 GB (with W.T. memory)  |
| DDR2 SODIMM         | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)                                     |
| CompactFlash™       | 2 GB or above (with W.T. CF)  |
| Wall mount kit      |   |

\*Specifications and certifications are based on options and may vary.

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Embedded Systems

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Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

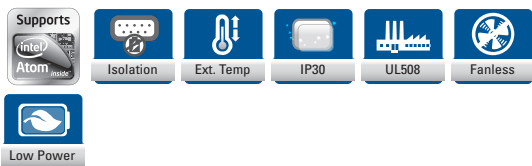
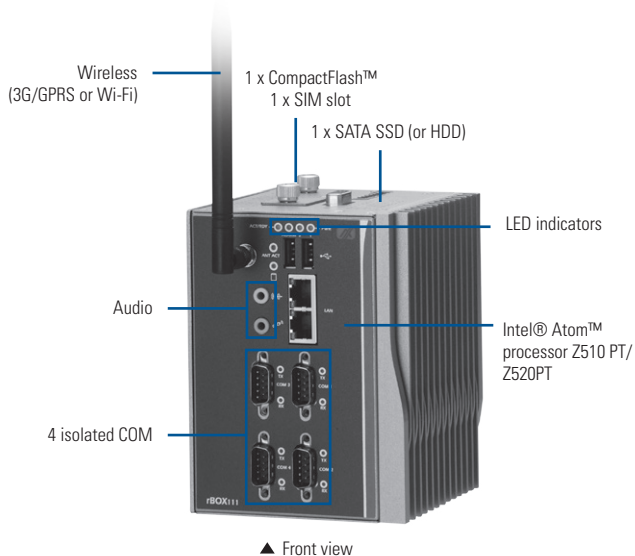
Power Supplies

Peripherals & Accessories



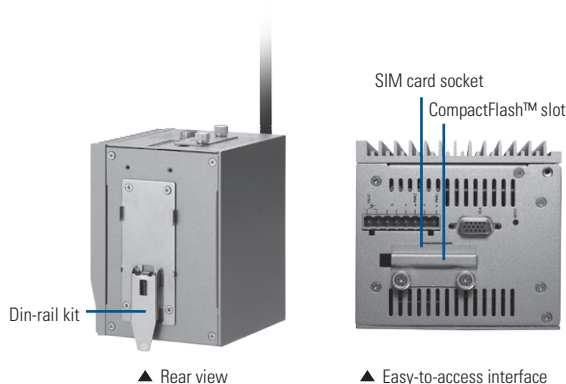
# rBOX111-4COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 4 Isolated COM, SATA SSD, Audio and RTC



## Features

- Fanless and cableless design
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 2 isolated 10/100/1000Mbps Ethernet port
- Supports one x 2.5" SATA SSD (or HDD) & one x CompactFlash
- R&TTE wireless certification
- EN50121-4 compliance for railway application
- SNMP V1/V2c
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX111-4COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX111-4COM is equipped with 4 isolated RS-232/422/485, 2 isolated 10/100/1000Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. In addition, the RTC battery (battery onboard & gold-capacity onboard) reduces maintenance efforts and is ideally suited to vibration environment. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX111-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

The rBOX111-4COM has passed heavy industrial CE and FCC part-18 testing and obtained R&TTE wireless certification, besides, also pre-test ok EN50121-4 to provide high operational reliability and stability.

The ready-to-run rBOX111-4COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

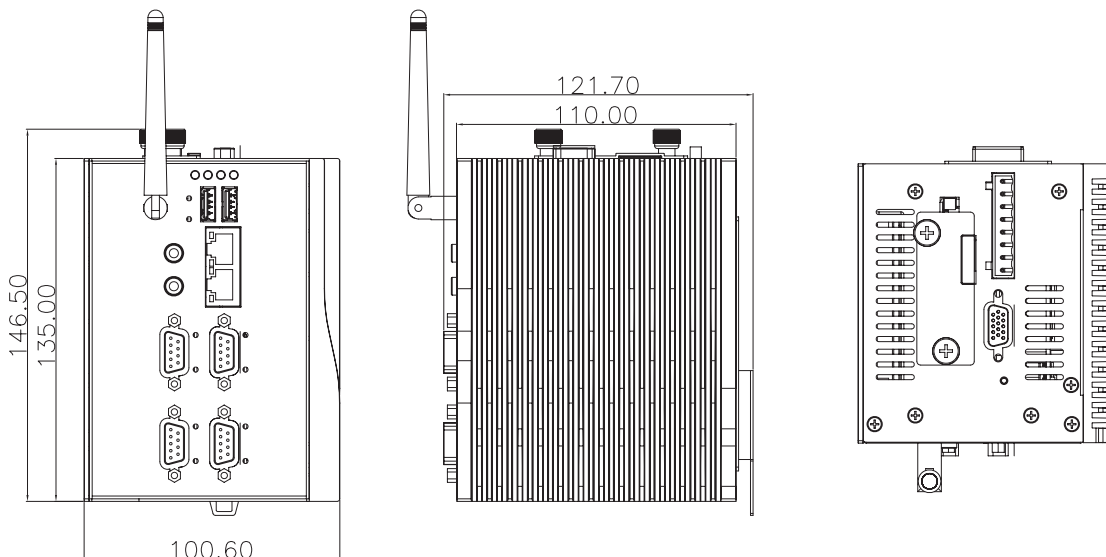
|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30   |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz   |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB   |
| System I/O Outlet | Serial Port<br>4 x Isolated RS-232/422/485 (COM 1-4)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 - COM 4 serial port speed up to 921.6kbps |

|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | LAN   | 2 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |
|                   | USB   | 2 x USB 2.0<br>USB power distribution control by software   |
|                   | Audio   | 1 x Audio (Line-in/Line-out)  |
|                   | RTC   | Battery onboard &<br>Gold capacity onboard (1st backup battery when power shut-down)  |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
| Watchdog Timer    | Wireless  | 1 x Mini Card<br>- 3G/GPRS or Wi-Fi<br>- Supports USB interface on 3G/GPRS<br>- supports PCIe interface on Wi-Fi<br>1 x SIM socket (Easy-to-access) |
|                   | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD, RXD)  |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           |   | Supports 1 x 2.5" SATA SSD or HDD<br>Supports 1 x CompactFlash™ (Easy-to-access)<br>Supports 1 x SD card up to 32 GB (optional)                     |
| Installation      |   | Din-rail, wall mount  |
| Power Supply      |   | 2 power paths   |
|                   | Power Input Range   | 12-48VDC  |
|                   | Power Input Rating  | 12-48VDC, 1.99-0.52A  |

## Specifications

|                       |   |
|-----------------------|---|
| Power Protection      | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity              | 10% ~ 95%   |
| Weight (net/gross)    | 1.5 kg (3.3 lb)/1.88 kg (1.14 lb)   |
| Dimensions            | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |
| EOS Support           | XPE, WinCE, Linux support package, Windows® 7 Embedded  |
| ISO                   | Manufactured in an ISO9001 facility   |
| Safety                | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| Safety Compliance     | UL60950-1, UL508  |
| EMI                   | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance        | EN50121-4 (Railway application)   |
| EMS                   | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

## Dimensions



|                            |  |
|----------------------------|--|
| Environmental Test         | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)  |
| R&TTE Wireless Certificate | rBOX111 with PHS8-P 3G module obtain R&TTE Wireless Certification, including:<br>ETSI EN 301 489-1 V1.9.2:2011-09<br>ETSI EN 301 489-7 V1.3.1:2005-11<br>ETSI EN 301 489-24 V1.5.1:2010-10<br>EN 55022:2010, Class B<br>EN 61000-3-2:2006+A1:2009+A2:2009 and<br>EN 61000-3-3:2008<br>EN 61000-4-2:2009 / EN 61000-4-3:2006+A1:2008+A2:2010 / EN 61000-4-4:2004:A1:2010 / EN 61000-4-6:2009 / EN 61000-4-5:2006 / EN 61000-4-11:2004<br>ETSI EN 301 511 V9.0.2:2003-03<br>TS 151 010-1<br>ETSI EN 301 908-1 V5.2.1:2011-05<br>ETSI EN 301 908-2 V5.2.1:2011-07 |

## Ordering Information

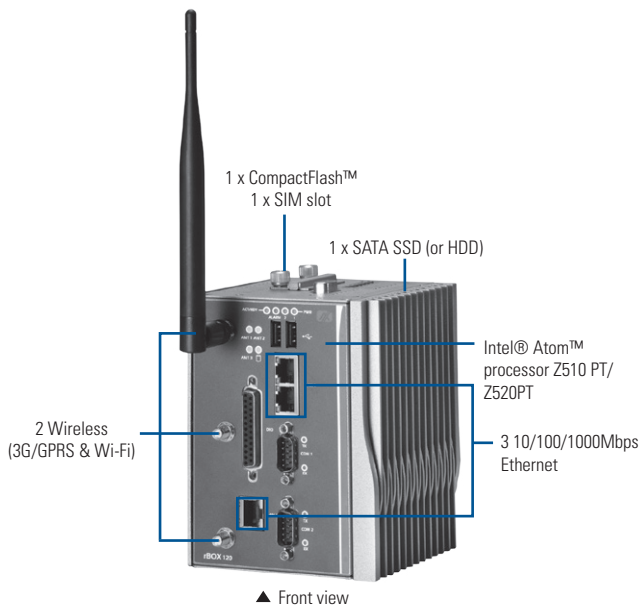
| Standard   |  |
|--|--|
| rBOX111-4COM-FL1.1G-DC                             | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 4 isolated COM ports (-40°C ~ +70°C)  |
| rBOX111-4COM-FL1.33G-DC                            | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 4 isolated COM ports (-40°C ~ +70°C) |
| Optional   |  |
| DDR2 SODIMM  | 1 GB ~ 2 GB (with W.T. memory)   |
| DDR2 SODIMM  | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)  |
| CompactFlash™                                      | 2 GB or above (with W.T. CF)   |
| 2.5" SATA SSD or HDD                               |  |
| Wall mount kit                                     |  |
| Wireless (3G/GPRS or Wi-Fi) module for rBOX series |  |

\*Specifications and certifications are based on options and may vary.

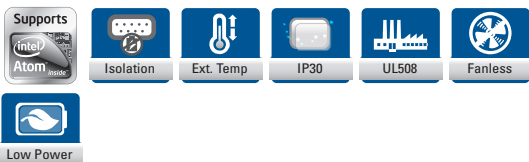


# rBOX120-2COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor Z510PT/ Z520PT up to 1.33 GHz, Intel® US15WPT, 2 Isolated COM, SATA SSD, LANs and RTC



▲ Front view



## Introduction

The rBOX120-2COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors Z510PT and Z520PT with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX120-2COM is equipped with 2 isolated RS-232/422/485, 3 isolated 10/100/1000Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimize the risk of data loss in the event of a single power failure. In addition, the RTC battery (battery onboard & gold-capacity onboard) reduces maintenance efforts and is ideally suited to vibration environment. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX120-2COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

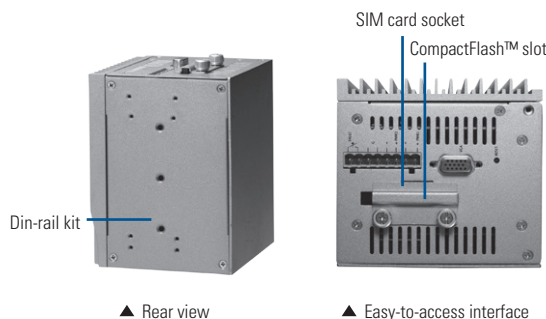
The ready-to-run rBOX120-2COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |  |
|-------------------|--|--|
| Standard Color    | Sliver-Black   |  |
| Construction      | Extruded aluminum and heavy-duty steel, IP30             |  |
| CPU               | Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz |  |
| System Memory     | 1 x 200-pin DDR2 SO-DIMM max. up to 2 GB                 |  |
| System I/O Outlet | Serial Port  | 2 x Isolated RS-232/422/485 (COM 1~2)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps |

## Features

- Fanless and cableless design
- Intel® Atom™ processor Z510PT 1.1 GHz or Z520PT 1.33 GHz
- Wide temperature operation of -40°C ~ +70°C
- 2 isolated COM ports
- 3 isolated 10/100/1000Mbps Ethernet ports
- 1 isolated DIO (8-In/ 8-Out)
- 2 watchdog timer
- RTC Battery function
- LED indicators
- 2 wireless (3G/GPRS & Wi-Fi)
- SNMP V1/V2c
- Supports 1 x 2.5" SATA SSD (or HDD)
- Supports 1 CompactFlash™, 1 SD card (optional)
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



▲ Rear view

▲ Easy-to-access interface

|                   |             |  |
|-------------------|-------------|--|
| System I/O Outlet | LAN         | 3 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB         | 2 x USB 2.0<br>USB power distribution control by software  |
| DIO               |             | 1 x DIO (8-In/8-Out)<br>DI :<br>Input channels : 8 source type<br>Input voltage : 0 to 24VDC<br>Digital input level for dry contacts :<br>-Logic level 0 : close to GND<br>-Logic level 1 : open<br>Digital input levels for wet contacts :<br>-Logic level 0 : +10V to +24V (DI to XIN_ COM-)<br>-Logic level 1 : +3V max.<br>DO :<br>Output channels : 8 sink type<br>Output current : Max. 200mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 2KV |
|                   | RTC         | Battery onboard &<br>Gold capacity onboard (1st backup battery when power shut-down)   |
|                   | VGA         | 1 x DB15 connector   |
|                   | Power Input | 2 x DC power input with terminal block   |
| Alarm Contact     |             | One relay output with current 0.5A @30VDC  |
| Wireless          |             | 2 x Mini Card<br>- 3G/GPRS and Wi-Fi<br>- Supports USB interface on 3G/GPRS and supports PCIe interface on Wi-Fi   |
|                   |             | 1 x SIM socket (Easy-to-access)  |

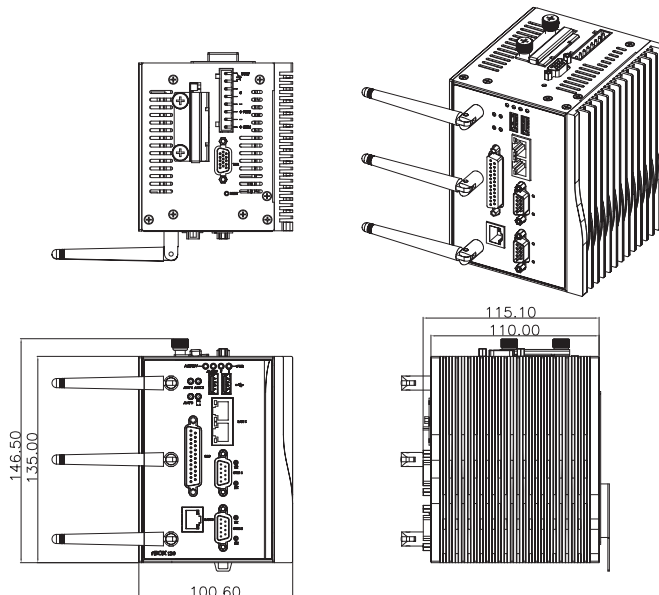
\* All specifications and photos are subject to change without notice.



## Specifications

|                    |   |  |
|--------------------|---|--|
| Watchdog Timer     | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels   |  |
| LEDs               | System  | Power, Alarm, Ready/Active, COM (TXD, RXD), wireless (3G/GPRS/Wi-Fi) |
|                    | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event               |
| Storage            | Supports 1 x 2.5" SATA SSD or HDD<br>Supports 1 x CompactFlash™ (Easy-to-access)<br>Supports 1 x SD card up to 32 GB (optional)   |  |
| Installation       | Din-rail, wall mount  |  |
| Power Supply       | 2 power paths   |  |
|                    | Power Input Range   | 12-48VDC   |
|                    | Power Input Rating  | 12-48VDC, 1.51-0.41A   |
| Power Protection   | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection   |  |
|                    | Operating Temperature   | -40°C ~ +70°C (-40°F ~ +158°F)                                       |
|                    | Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)                                       |
| Humidity           | 10% ~ 95%   |  |
| Weight (net/gross) | 1.5 kg (3.3 lb)/1.88 kg (1.14 lb)   |  |
| Dimensions         | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |  |
| EOS Support        | XPE, WinCE, Linux support package, Windows® 7 Embedded  |  |
| ISO                | Manufactured in an ISO9001 facility   |  |
| Safety             | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |  |
|                    | Safety Compliance   | UL60950-1, UL508   |
| EMI                | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |  |
|                    | EMS Compliance  | EN50121-4 (Railway application)                                      |
| EMS                | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A |  |

## Dimensions



|                    |  |  |
|--------------------|--|--|
| Environmental Test | EN61000-4-4 (burst standards)          | * Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B   |
|                    | EN61000-4-5 (surge standards)          | * Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B              |
|                    | EN61000-4-6 (induced RFI standards)    | * Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A |
|                    | EN61000-4-8 (magnetic field standards) | * 30 A/m @ 50, 60 Hz; criteria A   |
|                    | IEC60068-2-6 Fc (vibration resistance) | 5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)   |
|                    | IEC60068-2-27 Ea (shock)               | 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)                   |
|                    | IEC60068-2-32 Ed (free fall)           | 1 M (3.281ft)  |

## Ordering Information

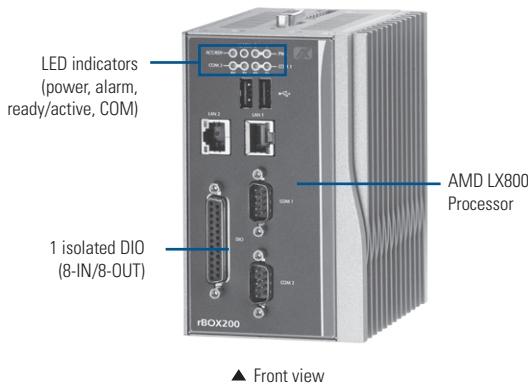
| Standard   |  |
|--|--|
| rBOX120-2COM-FL1.1G-DC                             | Robust din-rail fanless embedded system with Intel® Atom™ processor Z510PT 1.1 GHz and 2 isolated COM ports (-40°C ~ +70°C)  |
| rBOX120-2COM-FL1.33G-DC                            | Robust din-rail fanless embedded system with Intel® Atom™ processor Z520PT 1.33 GHz and 2 isolated COM ports (-40°C ~ +70°C) |
| Optional   |  |
| DDR2 SODIMM  | 1 GB ~ 2 GB (with W.T. memory)   |
| DDR2 SODIMM  | 1 GB ~ 2 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C)  |
| CompactFlash™                                      | 2 GB or above (with W.T. CF)   |
| 2.5" SATA SSD or HDD                               |  |
| Wall mount kit                                     |  |
| Wireless (3G/GPRS or Wi-Fi) module for rBOX series |  |

\*Specifications and certifications are based on options and may vary.



# rBOX200

Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and 1 Isolated DIO (8-IN/8-OUT)



## Features

- Fanless and cableless design
- Supports AMD LX800 processor
- Wide temperature operation of -40°C ~ +70°C
- 1 isolated DIO (8-IN/8-OUT)
- 2 isolated 10/100Mbps Ethernet ports
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports one CompactFlash™
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX200 cost-effective din-rail fanless embedded system utilizes the low power AMD LX800 processor and is designed to withstand temperatures ranging from -40°C to +70°C for use in extreme operating environments.

Its 8-IN/8-OUT DIO port provides users with the digital devices connection, and its redundant Ethernet connection provides greater availability and reliability. Two power paths input minimizes the risk of data loss in the event of a single power failure. With its built-in VGA output interface, the rBOX200 is suitable for use with SCADA systems. The robust rBOX200 is specifically designed for remote control/ monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

The ready-to-run rBOX200 equipped with AXView remote monitoring software is a total solution for intelligent transportation systems, power plant automation, intelligent transportation systems, facility monitoring systems, IP video surveillance, APs, intercoms, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black                                 |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30 |   |
| CPU               | AMD LX800 processor                          |   |
| System Memory     | 1 x 200-pin DDR400 SO-DIMM max. up to 1 GB   |   |
| System I/O Outlet | Serial Port                                  | 2 x RS-232/422/485 (COM 1/2) (isolated COM as option)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Serial port speed up to 115.2kbps |
|                   | LAN  | 2 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |

|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | USB   | 2 x USB 2.0<br>USB power distribution control by software   |
|                   | DIO   | 1 x DIO (8-IN/8-OUT)<br>DI:<br>Input range : 0-30 VDC<br>Logic level 0 : +/- 3V max.<br>Logic level 1 : +/- 10V min. (COM to DI)<br>DO:<br>Max. 200 mA per channel, current sink type 24VDC normal, open collector to 30V<br>Optical isolation protection 2KV |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A@30VDC  |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           | Supports 1 x CompactFlash™  |   |
| Installation      | Din-rail, wall mount  |   |
| Power Supply      | 2 power paths   |   |
|                   | Power Input Range   | 12-48VDC  |
|                   | Power Input Rating  | 12-48VDC, 1.3-0.3A  |
|                   | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection   |

## Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity              | 10% ~ 95%   |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)   |
| EOS Support           | XPE, WinCE, Linux support package   |
| ISO                   | Manufactured in an ISO9001 facility   |
| Safety                | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| Safety Compliance     | UL508, UL60950-1  |
| EMI                   | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS                   | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

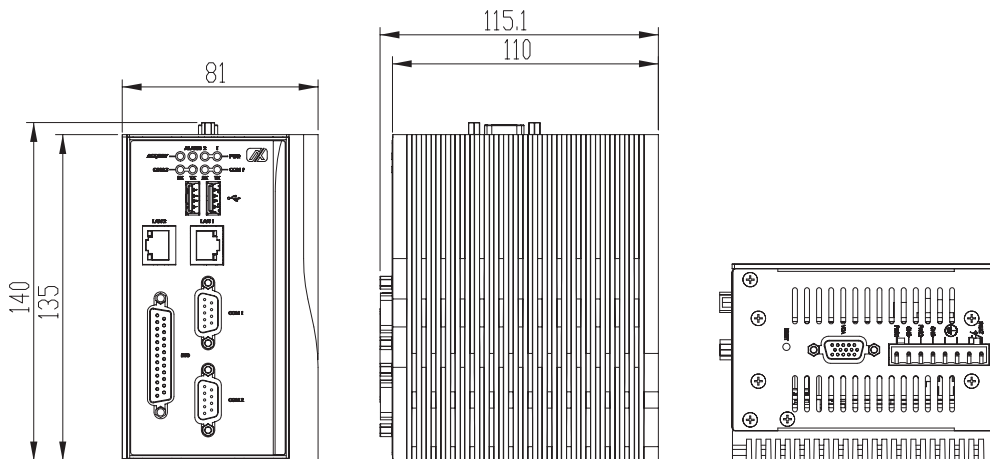
|                    |   |
|--------------------|---|
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft) |
|--------------------|---|

## Ordering Information

| Standard       |  |
|----------------|--|
| rBOX200-FL-DC  | Robust din-rail fanless embedded system with AMD LX800 proceor and 1 isolated DIO (8-IN/8-OUT) (-40°C ~ +70°C) |
| Optional       |  |
| DDR SO-DIMM    | 512 MB ~ 1 GB (with W.T. memory)   |
| CompactFlash™  | 2 GB or above (with W.T. CF)   |
| Wall mount kit |  |

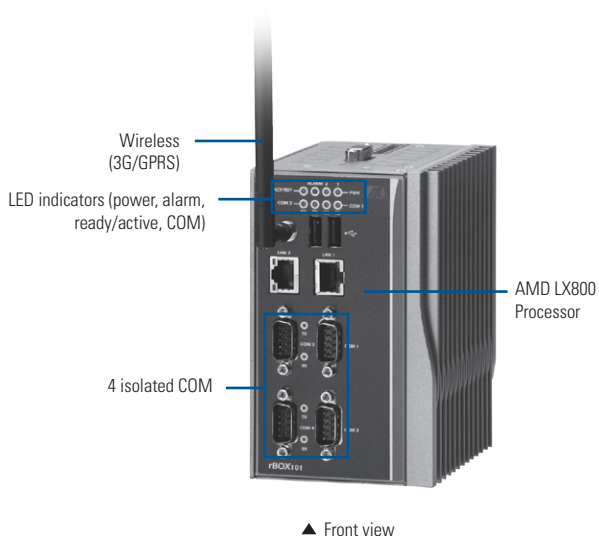
\*Specifications and certifications are based on options and may vary.

## Dimensions



# rBOX201-4COM

Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and 4 Isolated COM



## Features

- Fanless and cableless design
- Supports AMD LX800 processor
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated COM ports
- 2 isolated 10/100Mbps Ethernet ports
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX201-4COM cost-effective din-rail fanless embedded system utilizes the low power AMD LX800 processor and is designed to withstand temperatures ranging from -40°C to +70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX201-4COM is equipped with four isolated RS-232/422/485, two isolated 10/100Mbps Ethernet for offering magnetic isolation protection. Two power paths input minimizes the risk of data loss in the event of a single power failure. IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX201-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more. Besides, the rBOX201-4COM is also specially designed for remote control/monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

The ready-to-run rBOX201-4COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

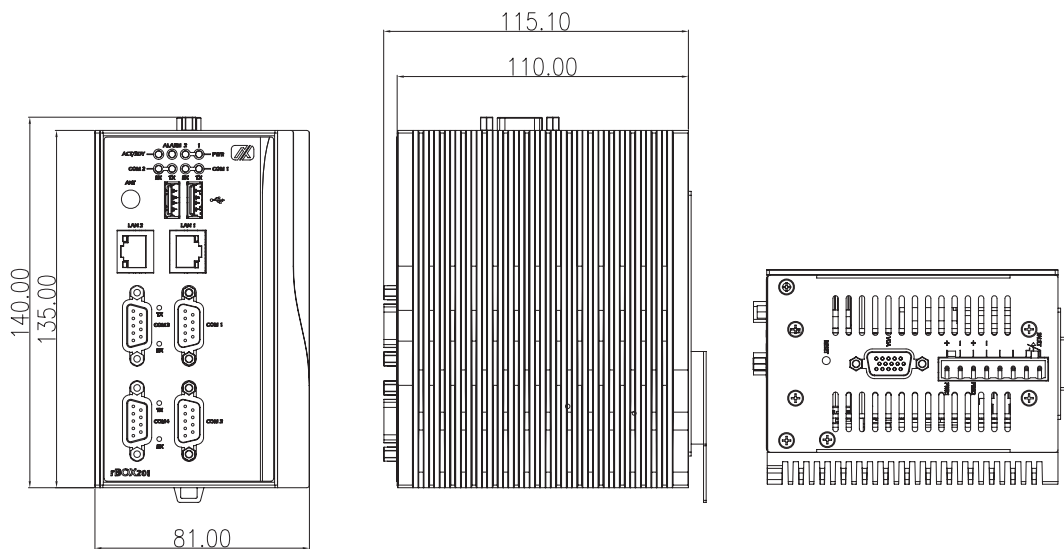
|                   |  |  |
|-------------------|--|--|
| Standard Color    | Sliver-Black                                 |  |
| Construction      | Extruded aluminum and heavy-duty steel, IP30 |  |
| CPU               | AMD LX800 processor                          |  |
| System Memory     | 1 x 200-pin DDR400 SO-DIMM max. up to 1 GB   |  |
| System I/O Outlet | Serial Port                                  | 4 x Isolated RS-232/422/485 (COM 1-4)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2 KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 & COM 4 serial port speed up to 921.6kbps |
|                   | LAN  | 2 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |

|                       |   |   |
|-----------------------|---|---|
| System I/O Outlet     | USB   | 2 x USB 2.0<br>USB power distribution control by software   |
|                       | VGA   | 1 x DB15 connector  |
|                       | Power Input   | 2 x DC power input with terminal block  |
|                       | Alarm Contact   | one relay output with current 0.5A @30VDC   |
|                       | Wireless  | 1 x Mini Card (Full size, supports USB only)<br>1 x SIM card socket onboard<br>Supports 3G/GPRS   |
| Watchdog Timer        | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |
|                       | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage               | Supports 1 x CompactFlash™  |   |
| Installation          | Din-rail, wall mount  |   |
| Power Supply          | 2 power paths   |   |
|                       | Power Input Range   | 12-48VDC  |
|                       | Power Input Rating  | 12-48VDC, 1.5-0.4A  |
|                       | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |   |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |   |
| Humidity              | 10% ~ 95%   |   |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |   |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)                           |   |
| EOS Support           | XPE, WinCE, Linux support package   |   |

## Specifications

|                    |  |
|--------------------|--|
| ISO                | Manufactured in an ISO9001 facility  |
| Safety Compliance  | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| EMI Compliance     | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3  |
| EMS Compliance     | EN50121-4 (Railway application)<br>Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)  |

## Dimensions



## Ordering Information

|   |   |
|---|---|
| <b>Standard</b>   |   |
| rBOX201-4COM-FL-DC  | Robust din-rail fanless embedded system with AMD LX800 processor and 4 isolated COM ports (-40°C ~ +70°C) |
| <b>Optional</b>   |   |
| DDR SO-DIMM   | 512 MB ~ 1 GB (with W.T. memory)  |
| CompactFlash™   | 2 GB or above (with W.T. CF)  |
| Wall mount kit  |   |
| Wireless (3G/GPRS) module for rBOX seriesit                           |   |
| *Specifications and certifications are based on options and may vary. |   |

Overview

Embedded Systems

Embedded Systems for Transportation

3

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

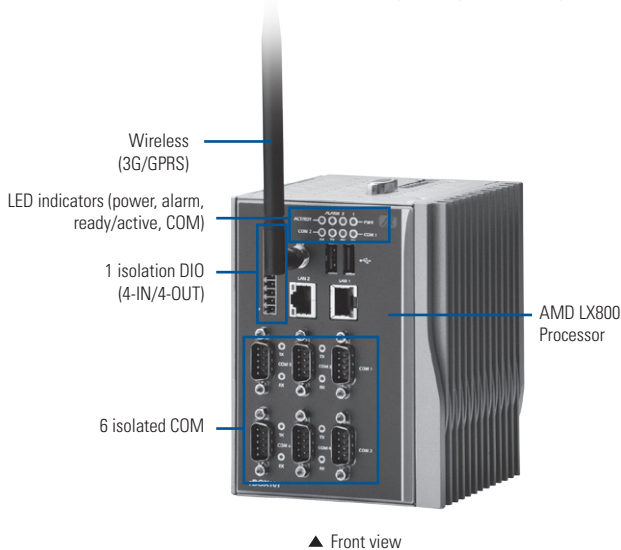
Power Supplies

Peripherals & Accessories



# rBOX201-6COM

Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF, 6 Isolated COM and 1 Isolated DIO (4-IN/4-OUT)



## Introduction

The rBOX201-6COM cost-effective din-rail fanless embedded system utilizes the low power AMD LX800 processor and is designed to withstand temperatures ranging from -40°C to +70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX201-6COM is equipped with six isolated RS-232/422/485, two isolated 10/100Mbps Ethernet and one isolated DIO port for offering magnetic isolation protection. Two power paths input minimizes the risk of data loss in the event of a single power failure. IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX201-6COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more. Besides, the rBOX201-6COM is also specially designed for remote control/ monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

The ready-to-run rBOX201-6COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black                                 |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30 |   |
| CPU               | AMD LX800 processor                          |   |
| System Memory     | 1 x 200-pin DDR400 SO-DIMM max. up to 1 GB   |   |
| System I/O Outlet | Serial Port                                  | 6 x Isolated RS-232/422/485 (COM 1-6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 ~ COM 6 serial port speed up to 921.6kbps |
|                   | LAN  | 2 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |
|                   | USB  | 2 x USB 2.0<br>USB power distribution control by software   |

## Features

- Fanless and cableless design
- Supports AMD LX800 processor
- Wide temperature operation of -40°C ~ +70°C
- 1 isolated DIO (4-IN/4-OUT)
- 6 isolated COM ports
- 2 isolated 10/100Mbps Ethernet ports
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™
- 2 power paths with terminal block and 12-48VDC
- Supports AXView monitoring software package



|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | DIO   | 1 x DIO (4-IN/4-OUT)<br>DI :<br>Input channels : 4, source type<br>Input voltage : 0 to 30VDC<br>Digital input levels for dry contacts :<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts :<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO :<br>Output channels : 4, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 2 KV |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
|                   | Wireless  | 1 x Mini Card (Full size, supports USB only)<br>1 x SIM card socket onboard<br>Supports 3G/GPRS   |
| Watchdog Timer    | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD, RXD)  |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           | Supports 1 x CompactFlash™  |   |
| Installation      | Din-rail, wall mount  |   |
| Power Supply      | 2 power paths   |   |
|                   | Power Input Range   | 12 - 48VDC  |
|                   | Power Input Rating  | 12-48VDC, 1.5-0.4A  |
|                   | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection   |

\* All specifications and photos are subject to change without notice.



## Specifications

|                       |   |
|-----------------------|---|
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity              | 10% ~ 95%   |
| Weight (net/gross)    | 1.9 kg (4.18 lb)/ 2.24 kg (4.93 lb)   |
| Dimensions            | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |
| EOS Support           | XPE, WinCE, Linux support package   |
| ISO                   | Manufactured in an ISO9001 facility   |
| Safety                | UL508, UL60950-1  |
| Compliance            | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| EMI                   | FCC Part 18   |
| Compliance            | Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3  |
| EMS                   | EN50121-4 (Railway application)   |
| Compliance            | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

|                    |  |
|--------------------|--|
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation);<br>50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft) |
|--------------------|--|

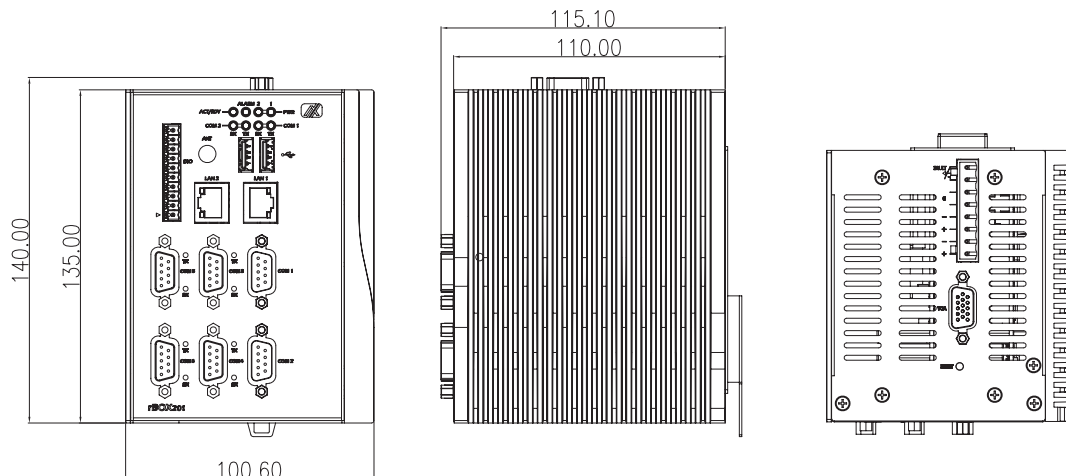
## Ordering Information

| Standard           |   |
|--------------------|---|
| rBOX201-6COM-FL-DC | Robust din-rail fanless embedded system with AMD LX800 processor and 6 isolated COM ports (-40°C ~ +70°C) |

| Optional                                    |                                  |
|---|----------------------------------|
| DDR SO-DIMM                                 | 512 MB ~ 1 GB (with W.T. memory) |
| CompactFlash™                               | 2 GB or above (with W.T. CF)     |
| Wall mount kit                              |                                  |
| Wireless (3G/GPRS) module for rBOX seriesit |                                  |

\*Specifications and certifications are based on options and may vary.

## Dimensions

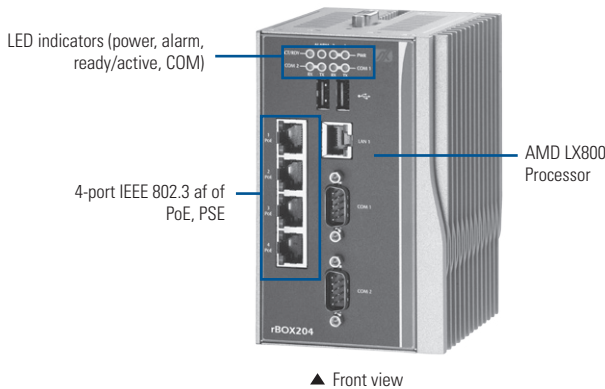


# rBOX204

Robust Din-rail Fanless Embedded System with AMD LX800 + CS5536AF and 4-port PoE

## Features

- Fanless and cableless design
- Supports AMD LX800 processor
- Wide temperature operation of -40°C ~ +70°C
- 4-port IEEE802.3af Power over Ethernet (PoE) Power Sourcing Equipment (PSE)
- 1 isolated Ethernet port
- 2 watchdog timer
- LED indicators
- SNMP V1/V2c
- Supports 1 CompactFlash™
- 2 power paths with terminal block and 48VDC
- Supports AXView remote monitoring software package



## Introduction

The rBOX204 cost-effective din-rail fanless embedded system utilizes the low power AMD LX800 processor and is designed to withstand temperatures ranging from -40°C to +70°C for use in extreme operating environments.

The fanless design increases reliability, extends MTTR, and ultimately reduces maintenance efforts. Front accessible I/O cabling is very convenient for wiring and maintenance. The rBOX204 Din-rail computer features a redundant Ethernet LAN connection for greater availability and reliability. Supporting Power-over-Ethernet on ports 1 to 4, the rBOX204 Din-rail computer can power IEEE802.3af compliant devices and transmit data simultaneously, which helps save wiring costs and makes it ideally suited for outdoor applications such as PoE IP camera, PoE Access Point and intercoms. Two power paths input minimizes the risk of data loss in the event of a single power failure. The rBOX204 Din-rail computer meets Safety Agency requirements and has passed heavy industrial EMI/EMS testing

The ready-to-run rBOX204 equipped with AXView remote monitoring software is a total solution for intelligent transportation systems, power plant automation, intelligent transportation systems, facility monitoring systems, IP video surveillance, APs, intercoms, and more.

## Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black                                 |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30 |   |
| CPU               | AMD LX800 processor                          |   |
| System Memory     | 1 x 200-pin DDR400 SO-DIMM max. up to 1 GB   |   |
| System I/O Outlet | Serial Port                                  | 2 x RS-232/422/485 (COM 1/2) (isolated COM as option)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Serial port speed up to 115.2kbps |
|                   | LAN  | 1 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5 KV   |

|                       |   |   |  |
|-----------------------|---|---|--|
| System I/O Outlet     | PoE   | 4 x PoE (IEEE802.3af)<br>Magnetic isolation protection 1.5 KV                                     |  |
|                       | USB   | 2 x USB 2.0<br>USB power distribution control by software   |  |
|                       | VGA   | 1 x DB15 connector  |  |
|                       | Power Input   | 2 x DC power input with terminal block  |  |
|                       | Alarm Contact   | One relay output with current 0.5A @30VDC   |  |
| Watchdog Timer        | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |  |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM (TXD,RXD)   |  |
|                       | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |  |
| Storage               | Supports 1 x CompactFlash™  |   |  |
| Installation          | Din-rail, wall mount  |   |  |
| Power Supply          | 2 power paths   |   |  |
|                       | Power Input Range   | 48VDC   |  |
|                       | Power Input Rating  | 48VDC, 1.8A   |  |
|                       | Power Protection  | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection |  |
|                       |   |   |  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |   |  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |   |  |
| Humidity              | 10% ~ 95%   |   |  |
| Weight (net/gross)    | 1.38 kg (3 lb)/1.72 kg (3.78 lb)  |   |  |
| Dimensions            | 81 mm (3.18") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)                           |   |  |
| EOS Support           | XPE, WinCE, Linux support package   |   |  |
| ISO                   | Manufactured in an ISO9001 facility   |   |  |

## Specifications

|                   |   |
|-------------------|---|
| Safety Compliance | UL508, UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1  |
| EMI Compliance    | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| EMS Compliance    | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |

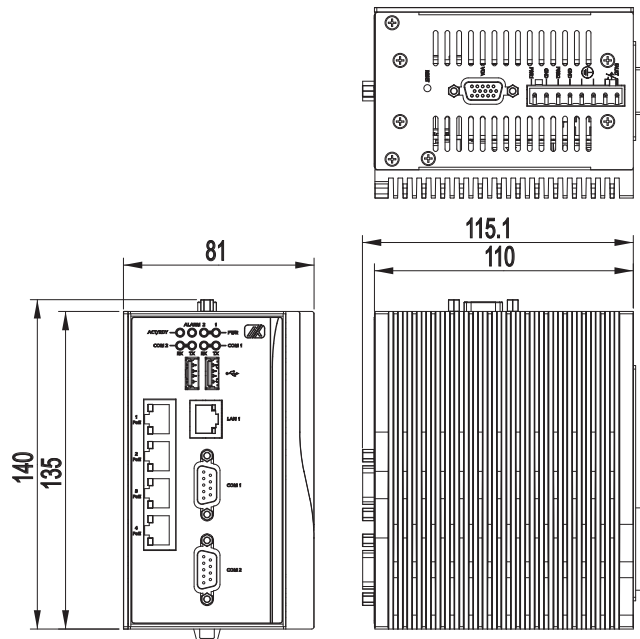
|                    |  |
|--------------------|--|
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft.) |
|--------------------|--|

## Ordering Information

| Standard       |   |
|----------------|---|
| rBOX204-FL-DC  | Robust din-rail fanless embedded system with AMD LX800 processor and 4-port PoE (-40°C ~ +70°C) |
| Optional       |   |
| DDR SO-DIMM    | 512 MB ~ 1 GB (with W.T. memory)  |
| CompactFlash™  | 2 GB or above (with W.T. CF)  |
| Wall mount kit |   |

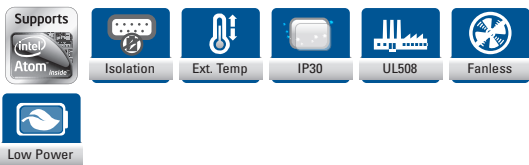
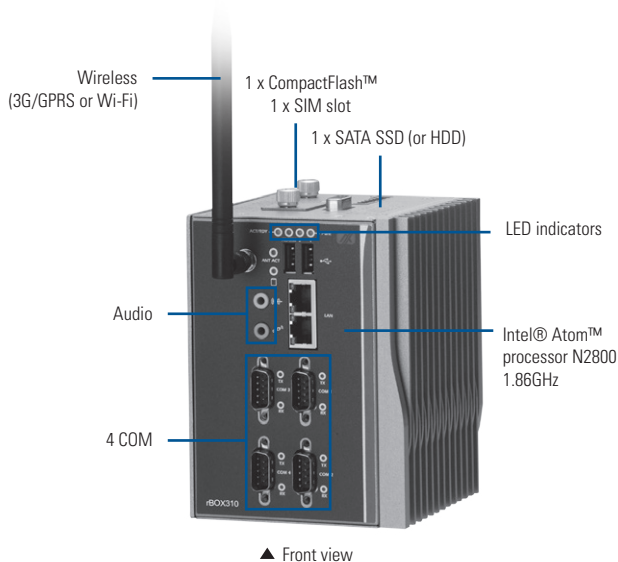
\*Specifications and certifications are based on options and may vary.

## Dimensions



# rBOX310-4COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor N2800 1.86GHz, Intel® NM10, 4 COM, SATA SSD, Audio and RTC



## Introduction

The rBOX310-4COM din-rail fanless embedded field controller supports extra low power Intel® Atom™ processors N2800 1.86GHz with extended temperature range of -40°C to 70°C for use in extreme operating environments.

To prevent ESD and over-voltage, this super compact-size rBOX310-4COM is equipped with 4 RS-232/422/485, 2 isolated 10/100/1000Mbps Ethernet for rugged work environment. Two power paths input minimize the risk of data loss in the event of a single power failure. In addition, the RTC battery (battery onboard & gold-capacity onboard) reduces maintenance efforts and is ideally suited to vibration environment. Powered by IP30 housing, wide operating temperature range and Safety/EMI/EMS compliance, the rBOX310-4COM is ideal for intelligent computing and communication solutions in critical environments such as power utility, transportation and more.

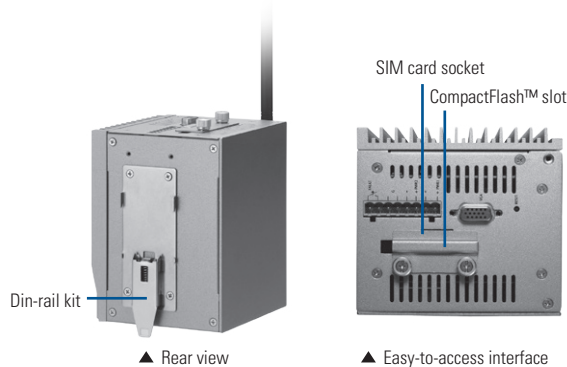
The ready-to-run rBOX310-4COM equipped with AXView remote monitoring software is a total solution for power plant automation, facility monitoring systems, intelligent transportation systems, and more.

## Specifications

|                   |   |
|-------------------|---|
| Standard Color    | Sliver-Black  |
| Construction      | Extruded aluminum and heavy-duty steel, IP30  |
| CPU               | Intel® Atom™ processor N2800 1.86GHz Dual Core  |
| System Memory     | 1 x DDR3 SO-DIMM 800/1066MHz up to 4 GB   |
| System I/O Outlet | Serial Port 4 x RS-232/422/485 (COM 1-4)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 - COM 4 serial port speed up to 921.6kbps |

## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor N2800 1.86GHz dual core
- Wide temperature operation of -40°C ~ +70°C
- 4 COM ports
- 2 isolated 10/100/1000Mbps Ethernet ports
- 2 watchdog timer
- RTC Battery function
- LED indicators
- 1 wireless (3G/GPRS or Wi-Fi)
- SNMP V1/V2c
- Supports one 2.5" SATA SSD (or HDD)
- Supports 1 CompactFlash™
- 2 power paths with terminal block and 12-48VDC
- Supports AXView remote monitoring software package



|                   |   |   |
|-------------------|---|---|
| System I/O Outlet | LAN   | 2 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection 1.5 KV  |
|                   | USB   | 2 x USB 2.0<br>USB power distribution control by software   |
|                   | Audio   | 1 x Audio (Line-in/Line-out)  |
|                   | RTC   | Battery onboard &<br>Gold capacity onboard (1st backup battery when power shut-down)  |
|                   | VGA   | 1 x DB15 connector  |
|                   | Power Input   | 2 x DC power input with terminal block  |
|                   | Alarm Contact   | One relay output with current 0.5A @30VDC   |
| Watchdog Timer    | Wireless  | 1 x Mini Card<br>- 3G/GPRS or Wi-Fi<br>- Supports USB interface on 3G/GPRS or supports PCIe interface on Wi-Fi<br>1 x SIM socket (Easy-to-access) |
|                   | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 250ms, 255 levels |   |
| LEDs              | System  | Power, Alarm, Ready/Active, COM (TXD, RXD)  |
|                   | Alarm   | DC PWR1 or PWR2 is lost (default)<br>User define event  |
| Storage           |   | Supports 1 x 2.5" SATA SSD or HDD<br>Supports 1 x CompactFlash™ (Easy-to-access)  |
| Installation      |   | Din-rail, wall mount  |
| Power Supply      |   | 2 power paths   |
|                   |   | Power Input Range 12-48VDC  |
|                   |   | Power Input Rating 12-48VDC, 1.88-0.47A   |

## Specifications

|                       |  |
|-----------------------|--|
| Power Protection      | DC Version:<br>OVP (over voltage protection)<br>UVP (under voltage protection) Reverse protection  |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)   |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)   |
| Humidity              | 10% ~ 95%  |
| Weight (net/gross)    | 1.5 kg (3.3 lb)/1.88 kg (1.14 lb)  |
| Dimensions            | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)   |
| EOS Support           | XPE, Linux support package, Windows® 7 Embedded  |
| ISO                   | Manufactured in an ISO9001 facility  |
| Safety                | Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| Safety Compliance     | UL60950-1, UL508   |
| EMI                   | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3  |
| EMS                   | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B |

|                    |   |
|--------------------|---|
|                    | EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A   |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft) |

## Ordering Information

### Standard

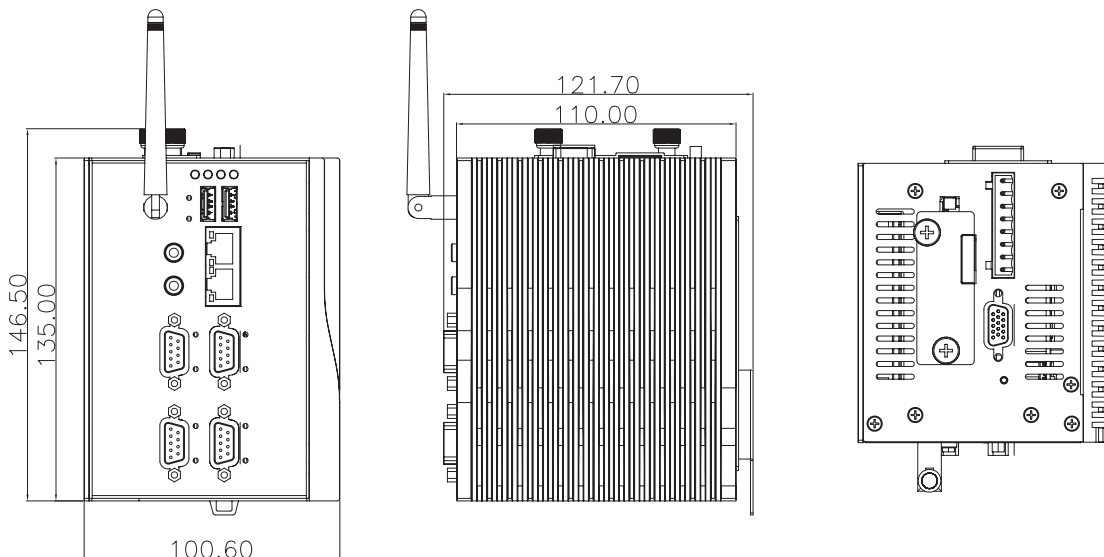
|                     |   |
|---------------------|---|
| rBOX310-4COM-FLL-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor N2800 1.86GHz dual core and 4 COM ports (-40°C ~ +70°C) |
|---------------------|---|

### Optional

|  |   |
|--|---|
| DDR3 SODIMM  | 1 GB ~ 4 GB (with W.T. memory)  |
| DDR3 SODIMM  | 1 GB ~ 4 GB (with 0°C ~ +85°C memory; operating temperature: 0°C ~ +70°C) |
| CompactFlash™                                      | 2 GB or above (with W.T. CF)  |
| 2.5" SATA SSD or HDD                               |   |
| Wall mount kit                                     |   |
| Wireless (3G/GPRS or Wi-Fi) module for rBOX series |   |

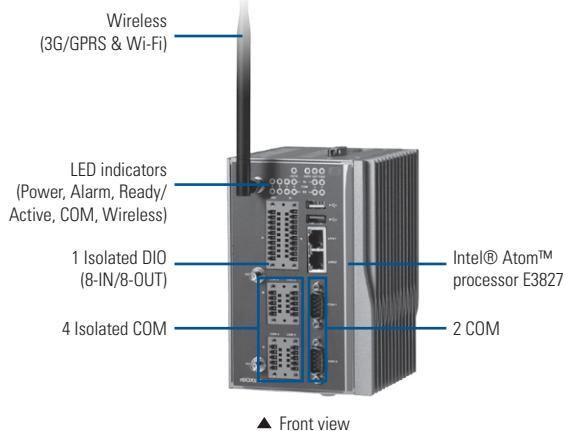
\*Specifications and certifications are based on options and may vary.

## Dimensions



# rBOX510-6COM

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3827 (1.75 GHz), 6 COM, SATA SSD, DIO, 2 GbE LANs and RTC

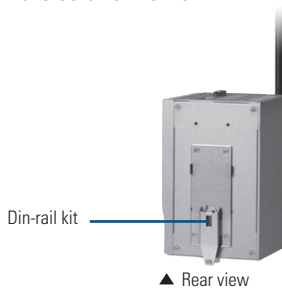


## Specifications

|                   |  |  |
|-------------------|--|--|
| Standard Color    | Sliver-Black                                     |  |
| Construction      | Extruded aluminum and heavy-duty steel, IP30     |  |
| CPU               | Intel® Atom™ Processor E3827 (1.75GHz) Dual Core |  |
| System Board      | CEM840   |  |
| System Memory     | DDR3L 4GB onboard                                |  |
| BIOS              | AMI UEFI BIOS                                    |  |
| System I/O Outlet | Serial Port                                      | 2 x RS232/422/485 (COM1~2)<br>4 x Isolation RS232/422/485 (COM3~6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 ~ COM 6 serial port speed up to 921.6kbps |
|                   | USB  | 1 x USB 3.0 & 1 x USB 2.0<br>USB power distribution control by software  |
|                   | RTC  | Battery onboard & Gold capacity onboard (1st backup battery when power shut-down)  |
|                   | Storage  | Supports<br>1 x 2.5" SATA SSD/HDD (default) or 1 x mSATA (by BIOS selectable)<br>Supports<br>1 x CompactFlash™ (easy-to-access)  |
|                   | LAN  | 2 10/100/1000 Ethernet<br>Magnetic isolation protection 1.5KV  |
|                   | VGA  | 1 x DB15 connector   |
|                   | Power Input                                      | 1 x DC power input with terminal block   |

## Features

- Fanless and cableless design
- Supports Intel® Atom™ processor E3827 (1.75GHz) dual core
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated RS-232/422/485 COM ports & 2 RS-232/422/485 COM ports
- 2 isolated 10/100/1000Mbps Ethernet ports
- 2 watchdog timer
- RTC Battery function
- LED indicators
- 3 wireless (3G/GPRS & Wi-Fi)
- Supports 1 x 2.5" SATA SSD/HDD (or mSATA), 1 CompactFlash™
- Wide range 12-48 VDC-In with terminal block
- Supports AXView 2.0 intelligent remote monitoring software solution for IoT



|                            |  |   |
|----------------------------|--|---|
| System I/O Outlet          | Wireless   | 3 x Full size Mini Card slot supports 3G/GPRS and Wi-Fi<br>2 x SIM card socket<br>3 x Antenna<br>3 x LED  |
|                            | DIO  | 1 isolated DIO (8-IN/ 8-OUT) , DI :<br>Input channels : 8 source type<br>Input voltage : 0 to 30VDC Digital input<br>Digital input levels for dry/wet contacts<br>DO :<br>Output channels : 8 sink type<br>Output current : Max. 200mA per channel<br>External Voltage:10 to 30 VDC<br>Open Collector to 30V<br>Optical isolation protection 3 KV |
| Watchdog Timer             | 2 WDT  | WDT 1 : one step is 1 sec, 255 levels<br>WDT 2 : one step is 1 sec/1 min, 255 levels  |
| System Indicator           | Power, Alarm, Ready/Active, COM, Wireless  |   |
| Power Supply               | Power Input Range : 12-48VDC<br>Power Input Rating : 12-48VDC, 1.36-0.45A<br>Power Protection : DC version, OVP, UVP, Reserve Protection   |   |
| Operating Temperature      | -40°C ~ +70°C (-40°F ~ +158°F)   |   |
| Storage Temperature        | -45°C ~ +85°C (-49°F ~ +185°F)   |   |
| Humidity                   | 10% ~ 95%  |   |
| Vibration Endurance        | 5g@10~150Hz, amplitude 0.35mm (operation/storage/transport)  |   |
| Weight (net/gross)         | 1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)   |   |
| Dimensions                 | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)   |   |
| EOS Support                | Windows 7 Embedded ,Windows 8 Embedded<br>Linux support package  |   |
| Remote Management Software | AXView 2.0<br>Intelligent Embedded Solution for IoT<br>-Local Hardware Monitoring<br>-Local SRAM Backup<br>-Remote Management<br>-Store Apps<br>-Service Cloud<br>-SNMP, MQTT, MODBUS, SNMP Trap & Email |   |

\* W.T.: Wide Temperature. All W.T. supported products have to be sorted by AXIOMTEK.

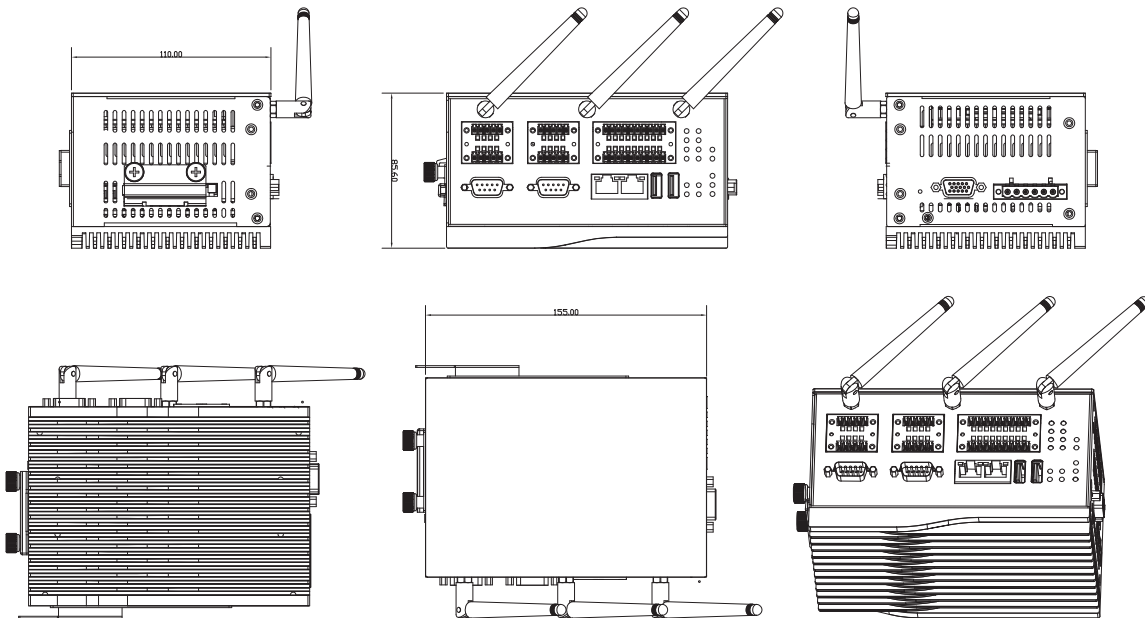
\* All specifications and photos are subject to change without notice.



## Specifications

|                    |   |
|--------------------|---|
| ISO                | Manufactured in an ISO9001 facility   |
| Safety             | UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| EMI                | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| Compliance         | EN50121-4 (Railway application)   |
| EMS                | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>* Contact: +/- 6 KV; criteria B<br>* Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>* 10V/m, 80 to 1000 MHz; 80% AM criteria A<br>* 1400~2000 MHz, 3 V/m, 80% AM (1 kHz)<br>* 2000~2700 MHz, 1 V/m, 80% AM (1 kHz)<br>EN61000-4-4 (burst standards)<br>* Signal ports: +/- 2 KV; criteria B<br>* DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>* Signal ports: +/- 1 KV; line-to-line; criteria B<br>* DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>* Signal ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>* DC power ports: 10 Vrms @ 0.15 ~ 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>* 30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 ~ 150 Hz, amplitude 0.35 mm (operation/storage/transport)  |
| Compliance         | IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shock pulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)   |

## Dimensions



## Ordering Information

|                 |   |  |
|-----------------|---|--|
| <b>Standard</b> | rBOX510-6COM-FL-DC  | Robust din-rail fanless embedded system with Intel® Atom™ processor E3827 1.75 GHz dual core and 6 COM ports (-40°C ~ +70°C) |
| <b>Optional</b> | CompactFlash™   | 8 GB or above (with W.T. CF)   |
|                 | 2.5" SATA SSD or HDD  |  |
|                 | m-SATA WT   |  |
|                 | Wall Mounting Kit   |  |
|                 | Wireless (3G/GPRS or Wi-Fi) module for rBOX series                    |  |
|                 | *Specifications and certifications are based on options and may vary. |  |

Overview

Embedded Systems

Embedded Systems for Transportation

3

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories



# rBOX510-6COM(ATEX/C1D2)

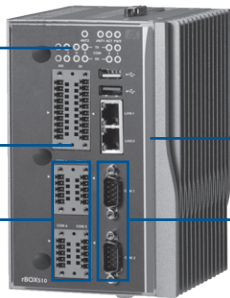
ATEX & CID2 Anti-Explosion Certified Robust  
Din-rail Fanless Embedded System with  
Intel® Atom™ Processor E3827 (1.75GHz)



LED indicators  
(Power, Alarm, Ready/  
Active, COM, Wireless)

1 Isolated DIO  
(8-IN/8-OUT)

4 Isolated COM



▲ Front view

Intel® Atom™  
processor E3827

2 COM



## Specifications

|                   |  |  |
|-------------------|--|--|
| Standard Color    | Sliver-Black                                     |  |
| Construction      | Extruded aluminum and heavy-duty steel, IP30     |  |
| CPU               | Intel® Atom™ processor E3827 (1.75GHz) dual core |  |
| System Board      | CEM840   |  |
| System Memory     | DDR3L 4 GB onboard                               |  |
| BIOS              | AMI UEFI BIOS                                    |  |
| System I/O Outlet | Serial Port                                      | 2 x RS232/422/485 (COM1~2)<br>4 x Isolation RS232/422/485 (COM3~6)<br>Interface select by software or BIOS<br>Supports Auto Flow Control in RS-485 mode<br>ESD protection 15 KV<br>Magnetic isolation protection 2KV<br>COM 1 & COM 2 speed up to 115.2kbps<br>COM 3 ~ COM 6 serial port speed up to 921.6kbps |
|                   | USB  | 1 x USB 3.0 & 1 x USB 2.0<br>USB power distribution control by software  |
|                   | RTC  | Battery onboard &<br>Gold capacity onboard (1st backup battery when power shut-down)   |
|                   | Storage  | Supports<br>1 x 2.5" SATA SSD<br>1 x CompactFlash™ (easy-to-access)  |
|                   | LAN  | 2 10/100/1000 Ethernet Intel® i210IT<br>Magnetic isolation protection 1.5KV  |
|                   | VGA  | 1 x DB15 connector   |
|                   | Power Input                                      | 1 x DC power input with terminal block   |

## Features

- ATEX & CID2 anti-explosion certification
- Fanless and cableless design
- Supports Intel® Atom™ processor E3827 (1.75 GHz) dual core
- Wide temperature operation of -40°C ~ +70°C
- 4 isolated RS-232/422/485 COM ports & 2 RS-232/422/485 COM ports
- 2 isolated 10/100/1000Mbps Ethernet ports
- 2 watchdog timer
- RTC Battery function
- LED indicators
- Supports one 2.5" SATA SSD, 1 CompactFlash™
- Wide range 12-48 VDC-In with terminal block
- Supports AXView 2.0 intelligent remote monitoring & management software solution for IoT application



▲ Rear view

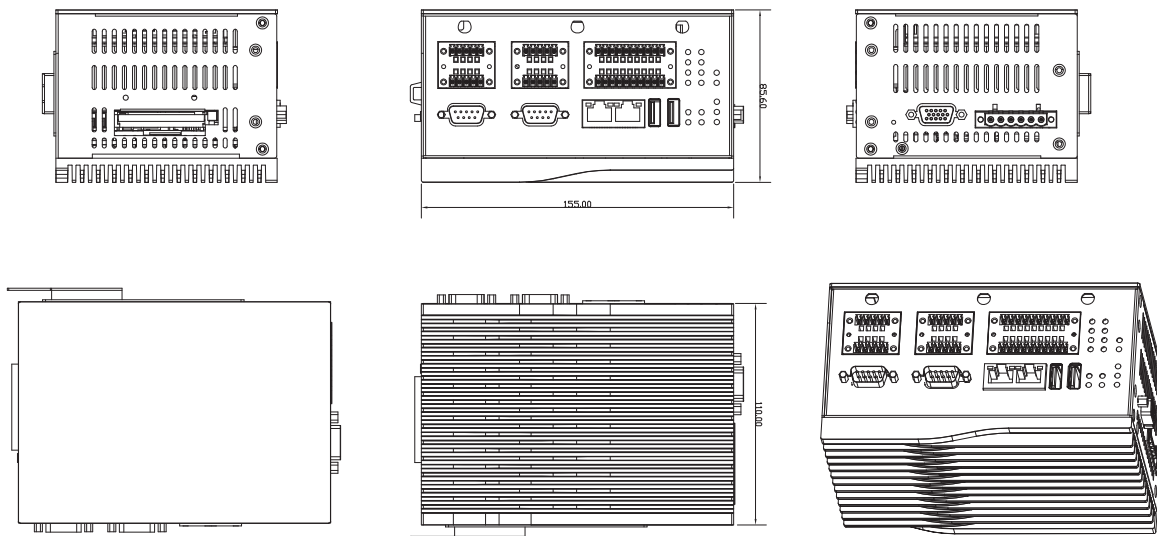
|                            |   |  |
|----------------------------|---|--|
| System I/O Outlet          | DIO   | 1 isolated DIO (8-IN/ 8-OUT) ,<br>DI:<br>Input channels: 8 source type<br>Input voltage: 0 to 30VDC Digital input<br>Digital input levels for dry/wet contacts DO:<br>Output channels: 8 sink type<br>Output current: Max. 200mA per channel<br>External Voltage: 10 to 30 VDC<br>Open Collector to 30V<br>Optical isolation protection 3 KV |
| Watchdog Timer             | 2 WDT<br>WDT 1: one step is 1 sec, 255 levels<br>WDT 2: one step is 1 sec/1 min, 255 levels   |  |
| System Indicator           | Power, Alarm, Ready/Active, COM, Wireless   |  |
| Power Supply               | Power Input Range : 12-48VDC<br>Power Input Rating : 12-48VDC, 1.36-0.45A<br>Power Protection : DC version, OVP, UVP, Reserve Protection  |  |
| Operating Temperature      | -40°C ~ +70°C (-40°F ~ +158°F)  |  |
| Storage Temperature        | -45°C ~ +85°C (-49°F ~ +185°F)  |  |
| Humidity                   | 10% ~ 95%   |  |
| Vibration Endurance        | 5g@10~150Hz, amplitude 0.35mm (operation/storage/<br>transport)   |  |
| Weight (net/gross)         | 1.5 kg (3.3 lb)/ 1.88 kg (4.14 lb)  |  |
| Dimensions                 | 100.6 mm (3.96") (W) x 110 mm (4.33") (D) x 135 mm (5.31") (H)  |  |
| EOS Support                | Windows 7 Embedded, Windows 8 Embedded<br>Linux support package   |  |
| Remote Management Software | AXView 2.0<br>Intelligent Remote Management Solution for IoT<br>-Local Hardware Monitoring<br>-Local SRAM Backup<br>-Remote Management<br>-Store Apps<br>-Service Cloud<br>-SNMP, MQTT, MODBUS, SNMP Trap & Email |  |

\* W.T.: Wide Temperature. All W.T. supported products have to be sorted by Axiomtek.

## Specifications

|                               |   |
|-------------------------------|---|
| ISO                           | Manufactured in an ISO9001 facility   |
| Anti-Explosive                | ATEX & C1D2 Anti-Explosive Type "nA" Zone 2 Group II & class I, Division 2 Certification  |
| Safety                        | UL60950-1<br>Heavy Industrial CE, including:<br>EN60950-1, IEC60950-1   |
| EMI                           | FCC Part 18<br>Heavy Industrial CE, including:<br>EN61000-6-4, EN61000-3-2, EN61000-3-3   |
| Compliance                    | EN50121-4 (Railway application)   |
| EMS                           | Heavy Industrial CE, including:<br>EN61000-6-2<br>EN61000-4-2 (ESD standards)<br>*Contact: +/- 6 KV; criteria B<br>*Air: +/- 8 KV; criteria B<br>EN61000-4-3 (radiated RFI standards)<br>*10V/m, 80 to 1000 MHz; 80% AM criteria A<br>*1400-2000 MHz, 3 V/m, 80% AM (1 kHz)<br>*2000-2700 MHz, 1 V/m, 80% AM (1 kHz)<br>EN61000-4-4 (burst standards)<br>*Signal ports: +/- 2 KV; criteria B<br>*DC power ports: +/- 2 KV; criteria B<br>EN61000-4-5 (surge standards)<br>*Signal ports: +/- 1 KV; line-to-line; criteria B<br>*DC power ports: +/- 0.5 KV; line-to-earth; criteria B<br>EN61000-4-6 (induced RFI standards)<br>*Signal ports: 10 Vrms @ 0.15 - 80 MHz; 80% AM criteria A<br>*DC power ports: 10 Vrms @ 0.15 - 80 MHz; 80% AM criteria A<br>EN61000-4-8 (magnetic field standards)<br>*30 A/m @ 50, 60 Hz; criteria A |
| Environmental Test Compliance | IEC60068-2-6 Fc (vibration resistance)<br>5 g @ 10 - 150 Hz, amplitude 0.35 mm (operation/storage/transport)<br>IEC60068-2-27 Ea (shock) 25 g @ 11 ms (half-sine shockpulse; operation); 50 g @ 11 ms (half-sine shock pulse; storage/transport)<br>IEC60068-2-32 Ed (free fall) 1 M (3.281ft)  |

## Dimensions



## Ordering Information

|   |                    |  |
|---|--------------------|--|
| <b>Standard</b>   | rBOX510-6COM-FL-DC | Robust ATEX/C1D2 din-rail fanless embedded system with Intel® Atom™ processor E3827 1.75 GHz dual core and 6 COM ports (-40°C ~ +70°C) |
| <b>Optional</b>   | CompactFlash™      | 8 GB or above (with W.T. CF)   |
|   | 2.5" SATA SSD      |  |
|   | Wall Mounting Kit  |  |
| *Specifications and certifications are based on options and may vary. |                    |  |

Overview

Embedded Systems

Embedded Systems for Transportation

3

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

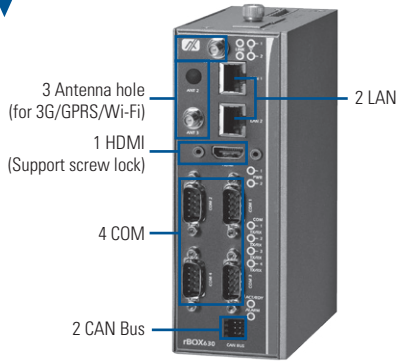
Power Supplies

Peripherals & Accessories

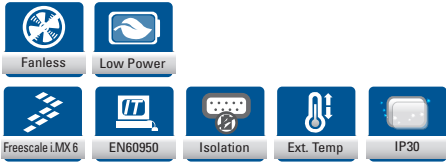


# rBOX630

Robust Din-rail Fanless Embedded System with RISC-based (i.MX 6) Processor  
4 COM, 2 CAN Bus and DIO

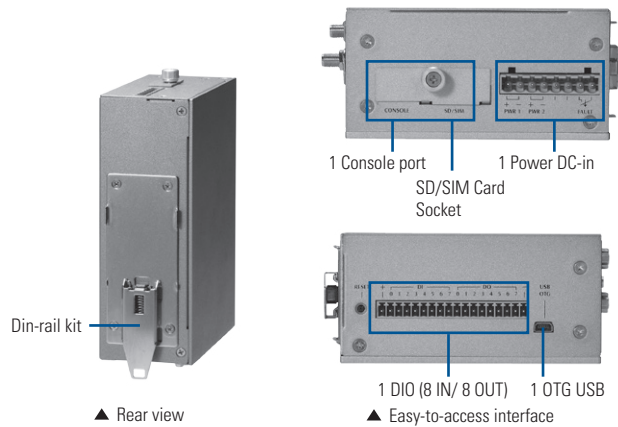


▲ Front view



## Features

- Fanless design
- RISC-based module (i.MX 6) processor
- 1 GB DDR3 SDRAM onboard
- 4 GB eMMC onboard
- Completed industrial AP development software
- Wide range DC power input (12 - 48V) with terminal block
- Ready-to-run embedded Linux operating system
- Wide temperature operation of -40°C ~ +70°C



▲ Rear view

▲ Easy-to-access interface

## Introduction

The rBOX630 cost-effective din-rail fanless embedded system utilizes the low power RISC-based module (i.MX 6) processor and is designed to withstand temperatures ranging from -40°C to +70°C for using in harsh environment and industrial automation applications.

The rBOX630 features 4 RS-232/422/485 serial ports, dual LANs, 8 digital input channels, 8 digital output channels, 2 CAN bus and 1 eMMC onboard 4 GB & 1 x SDHC socket for storage expansion (easy to access) in a compact, IP30 protected, industrial-strength robust case. Two power paths input minimize the risk of data loss in the event of a single power failure. Its vertical din-rail form factor makes it easy to install the system in a small cabinet. Because of ARM's low power consumption architecture, rBOX630 generate little heat while being operated. The ready-to-run rBOX630 is specially designed for industrial machine, automatic parking lot, traffic cabinet and more.

## Hardware Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black                                 |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP30 |   |
| CPU               | i.MX 6, Cortex-A9 RISC CPU, 800MHz           |   |
| System Board      | Q7M120                                       |   |
| System Memory     | 1 GB DDR3 Onboard                            |   |
| System I/O Outlet | Serial Port                                  | 4 x RS-232/422/485 (COM 1 ~ 4)<br>COM 1-4 with TX/RX/RTS/CTS signals<br>RS-232/422/485 interface select by software |
|                   | LAN  | 1 x 10/100/1000Mbps, 1 x 10/100Mbps<br>Ethernet<br>Magnetic isolation protection 1.5KV                              |
|                   |  |   |

|                   |   |  |
|-------------------|---|--|
| System I/O Outlet | HDMI  | 1 x HDMI (Support screw lock)  |
|                   | USB   | 1 x USB 2.0 OTG  |
|                   | CAN   | 2 CAN 2.0 B (Phoenix connector, non-isolation)<br>Meets ISO 11898 standard<br>Software control termination resistor<br>120 ohm can high speed up to 1Mbit/s for transmit/receive |
| DIO               | 1 x DIO ( 8 IN/ 8 OUT ) with Isolation 2KV<br>DI : Wet/Dry<br>DO : Wet<br>DI :<br>Input channels : 8, source type<br>Input voltage : 0 to 30VDC<br>Digital input levels for dry contacts :<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts :<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO :<br>Output channels : 8, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 2 KV |  |
| Console Port      | DB9 connector<br>For user setting with debug  |  |
| RTC               | Battery onboard<br>Provides power for the internal real time clock & calendar<br>Ideal for vibration environment & reduces maintenance efforts  |  |
| Alarm Contact     | One relay output with current<br>0.5A@30VDC   |  |

## Hardware Specifications

|                       |   |  |
|-----------------------|---|--|
| System I/O Outlet     | Wireless  | 1 x Mini card socket (supports USB interface) with 1 x SIM Socket by outside access and is easy plug/pull.<br>1 x Mini card socket (supports USB&PCIE interface) with 1 x SIM Socket by inside |
| Watchdog Timer        | WDT 1: one step is 1 sec, 255 levels  |  |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM (TX, RX), Wireless   |
|                       | Alarm   | DC PWR1 or PWR2  |
| Storage               | 1 x eMMC 4 GB onboard (for boot disk)<br>Supports 1 x SDHC Card (easy-to-access, for store only.) |  |
| Installation          | Din-rail<br>Wall mount  |  |
| Power Supply          | Power Input   | 2 power paths with terminal block  |
|                       | Power Input Range   | 12-48VDC   |
|                       | Power Input Rating  | 12-48VDC, 0.74-0.23A   |
|                       | Power Protection  | DC Version:<br>OVP (Over voltage protection)<br>UVP (Under voltage protection)<br>Reverse protection   |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |  |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |  |
| Humidity              | 10% ~ 95%   |  |
| Vibration Endurance   | 5G @ 10-150Hz, amplitude 0.35ms   |  |
| Weight (net/gross)    | 0.9 kg (2 lb)/1.3kg (2.87 lb)   |  |
| Dimensions            | 55 mm (2.16") (W) x 155 mm (6.10") (D) x 110 mm (4.33") (H)                                       |  |
| EOS Support           | Linux   |  |
|                       | Host OS/ Development OS : Ubuntu 12.04 Yocto Dora LTS   |  |
|                       | Toolchain/ Cross compiler : Freescale LTIB  |  |
|                       | Kernel : 3.0.35 (with Freescale and Axiomtek hardware modified patch)                             |  |
| Certification         | FCC Part 18   |  |
|                       | Heavy Industrial CE   |  |

## Ordering Information

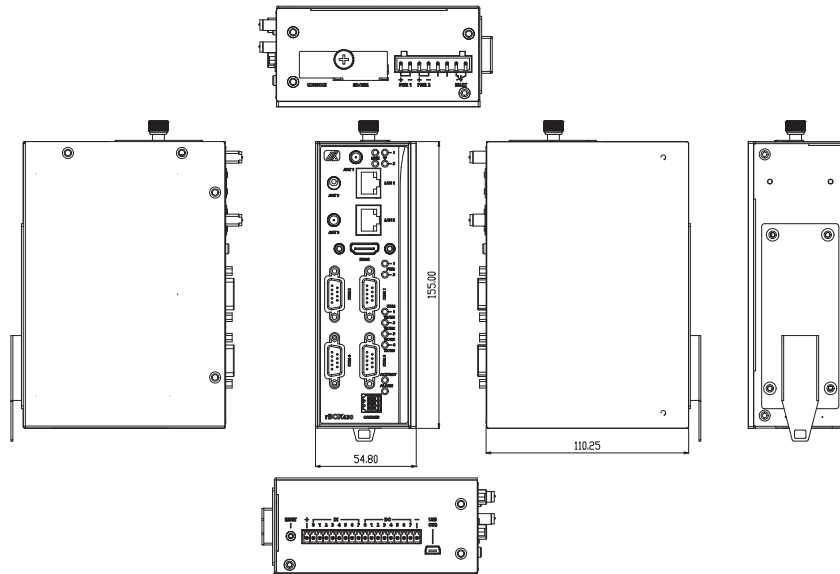
### Standard

|               |  |
|---------------|--|
| rBOX630-FL-DC | Robust din-rail fanless embedded system with Q7-RISC module (i.MX 6), 4 COM, 2 CAN and DIO (-40°C ~ +70°C) |
|---------------|--|

### Optional

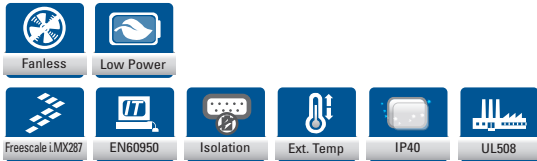
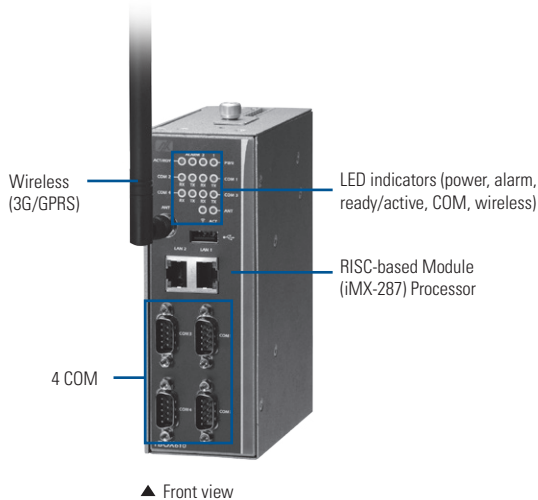
|                                   |
|-----------------------------------|
| Wall mount kit                    |
| Wireless (3G/GPS or Wi-Fi) module |

## Dimensions



# rBOX610

Robust Din-rail Fanless Embedded System with RISC-based (iMX-287) Processor  
4 COM, 2 CAN Bus and DIO



## Introduction

The rBOX610 cost-effective din-rail fanless embedded system utilizes the low power RISC-based module (iMX-287) processor and is designed to withstand temperatures ranging from -40°C to +70°C for using in extreme operating environment and industrial automation applications.

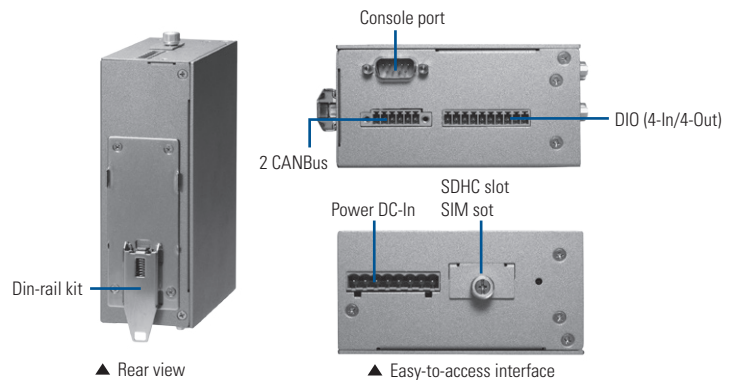
The rBOX610 features 4 RS-232/422/485 serial ports, dual LANs, 4 digital input channels, 4 digital output channels, 2 CAN bus and 1 eMMC onboard 4 GB & 1 x SDHC socket for storage expansion (easy to access) in a compact, IP40 protected, industrial-strength robust case. Two power paths input minimize the risk of data loss in the event of a single power failure. Its vertical din-rail form factor makes it easy to install the system in a small cabinet. Due to the RISC-based architecture, rBOX610 will not generate a lot of heat while being operated. The ready-to-run the rBOX610 is specially designed for remote control/monitoring management applications like unmanned control room, industrial machine, automatic parking lot, traffic cabinet and more.

## Hardware Specifications

|                   |  |   |
|-------------------|--|---|
| Standard Color    | Sliver-Black                                 |   |
| Construction      | Extruded aluminum and heavy-duty steel, IP40 |   |
| CPU               | i.MX287, ARM926EJ-S™ processor, 454MHz       |   |
| System Board      | Q7M100                                       |   |
| System Memory     | 1 x DDR2 128 MB SDRAM onboard                |   |
| System I/O Outlet | Serial Port                                  | 4 x RS-232/422/485 (COM 1 ~ 4)<br>COM 1-3 with TX/RX/RTS/CTS signals<br>RS-232/422/485 interface select by software |
|                   | LAN  | 2 x 10/100Mbps Ethernet<br>Magnetic isolation protection 1.5KV  |

## Features

- Fanless design
- RISC-based module (iMX-287) processor
- 128MB DDR2 SDRAM onboard
- 4GB eMMC onboard
- Completed Industrial AP development software (Serial server, Modbus gateway, SNMP, Remote manager)
- Wide range DC power input (12 - 48V) with terminal block
- Ready-to-run embedded Linux operating system
- Wide temperature operation of -40°C ~ +70°C



| System I/O Outlet | USB           | 1 x USB 2.0<br>USB power distribution control by software   |
|-------------------|---------------|---|
|                   | CAN           | 2 CAN 2.0 B (Phoenix connector, non-isolation)<br>Meets ISO 11898 standard<br>Software control termination resistor<br>120 ohm can high speed up to 1Mbit/s for transmit/receive  |
|                   | DIO           | 1 x DIO (4-IN/4-OUT)<br>DI :<br>Input channels : 4, source type<br>Input voltage : 0 to 30VDC<br>Digital input levels for dry contacts :<br>-Logic level 0: close to GND<br>-Logic level 1: open<br>Digital input levels for wet contacts :<br>-Logic level 0: +10V to +24V (DI to COM-)<br>-Logic level 1: +3V max.<br>DO :<br>Output channels : 4, sink type<br>Output current: Max. 200 mA per channel<br>On-state voltage : 24VDC nominal, open collector to 30V<br>Optical isolation protection 2 KV |
|                   | Console Port  | DB9 connector<br>For user setting with debug  |
|                   | RTC           | Battery onboard<br>Provides power for the internal real time clock & calendar<br>Ideal for vibration environment & reduces maintenance efforts  |
|                   | Alarm Contact | One relay output with current<br>0.5A@30VDC   |



## Hardware Specifications

|                       |   |   |
|-----------------------|---|---|
| System I/O Outlet     | Wireless  | 1 x Mini Card (supports USB interface on 3G/GPRS)<br>1 x SIM socket by outside access and is easy plug/pull |
| Watchdog Timer        | WDT 1: one step is 1 sec, 255 levels  |   |
| LEDs                  | System  | Power, Alarm, Ready/Active, COM (TX, RX), Wireless  |
|                       | Alarm   | DC PWR1 or PWR2 is lost   |
| Storage               | 1 x eMMC 4 GB onboard (for boot disk)<br>Supports 1 x SDHC Card (easy-to-access, for store only.) |   |
| Installation          | Din-rail  |   |
|                       | Wall mount  |   |
| Power Supply          | Power Input   | 2 power paths with terminal block   |
|                       | Power Input Range   | 12-48VDC  |
|                       | Power Input Rating  | 12-48VDC, 0.68-0.19A  |
|                       | Power Protection  | DC Version:<br>OVP (Over voltage protection)<br>UVP (Under voltage protection)<br>Reverse protection        |
| Operating Temperature | -40°C ~ +70°C (-40°F ~ +158°F)  |   |
| Storage Temperature   | -45°C ~ +85°C (-49°F ~ +185°F)  |   |
| Humidity              | 5% ~ 95%  |   |
| Vibration Endurance   | 5G @ 10-150Hz, amplitude 0.35ms   |   |
| Weight (net/gross)    | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)  |   |
| Dimensions            | 55 mm (2.16") (W) x 155 mm (6.10") (D) x 110 mm (4.33") (H)                                       |   |
| EOS Support           | Linux (Pre-installed)   |   |
| Certification         | FCC Part 18   |   |
|                       | Heavy Industrial CE   |   |

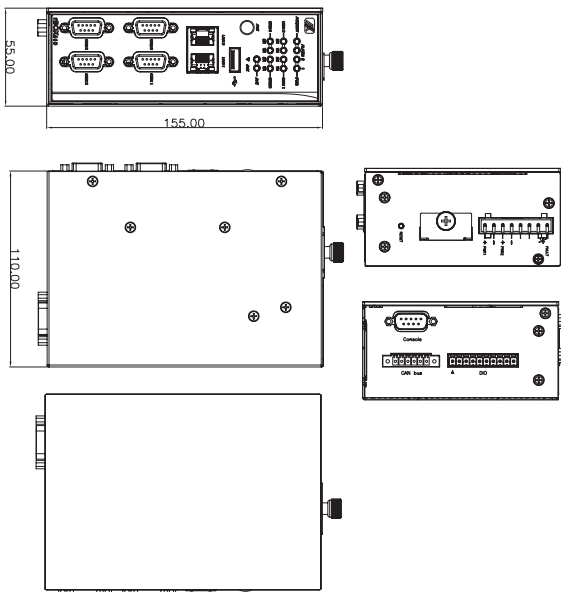
## Ordering Information

| Standard      |   |
|---------------|---|
| rBOX610-FL-DC | Robust din-rail fanless embedded system with Q7-RISC module (iMX-287), 4 COM, 2 CAN and DIO (-40°C ~ +70°C) |

### Optional

Wall mount kit  
Wireless (3G/GPS or Wi-Fi) module for rBOX series

## Dimensions



## Software Specifications

|                                   |   |
|-----------------------------------|---|
| OS: Linux                         | Host OS/ Development OS : Ubuntu 10.04 LTS<br>Toolchain/ Cross compiler : Freescale LTIB<br>Kernel : 2.6.35.3 (with Freescale and Axiomtek hardware modified patch)   |
| Support protocol types            | ICMP,<br>TCP/IP,<br>UDP,DHCP,Telnet,SNMP,HTTP,HTTPS,SSL,SMTP,ARP,<br>NTP,DNS,PPP,PPPOE,FTP,TFTP   |
| Support software types            | Serial Server:<br>Supports TCP Server/TCP Client/UDP/Pair/VC<br>Supports IP filter<br>Supports 32 TCP connections<br>Supports QOS<br>Modbus gateway:<br>Supports Modbus TCP/Modbus RTU/Modbus ASCII<br>Supports IP filter<br>Supports 32 connections<br>Supports TCP for multiple com port<br>Supports QOS  |
| Setting configuration             | SNMP:<br>Supports V1/V2C/V3<br>Supports SNMP Private MIB<br>Supports read/write<br><br>http/https:<br>Supports SSL<br>Supports Import/export<br>Supports FW update  |
| Remote Manager                    | Remote Log<br>Email<br>SNMP<br>Supports Trap  |
| Serial Port Redirector for window | XP/2003 32-64/Win7 32-64/Vista 32-64/2008 32-64<br>Real com (visual com)<br>Centralized management<br>Import/Export for real com  |
| HW's lib                          | DI/DO:<br>Supports Read-DI/write DO<br><br>CAN:<br>Supports Open/write /read/Close<br>3G:<br>Supports setting number connection<br>Supports User name/password<br>Supports detecting signal strength<br><br>GPS:<br>Supports detecting signal strength<br>Supports satellite positioning<br><br>Watch Dog Timer:<br>Supports setting enable<br>Supports setting clean<br>Supports setting timer<br><br>COM:<br>Supports setting RS-232/422/485<br>Default Reading:<br>Supports default reading for MAC, IP, Model |

Overview

Embedded Systems

Embedded Systems for Transportation

3

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

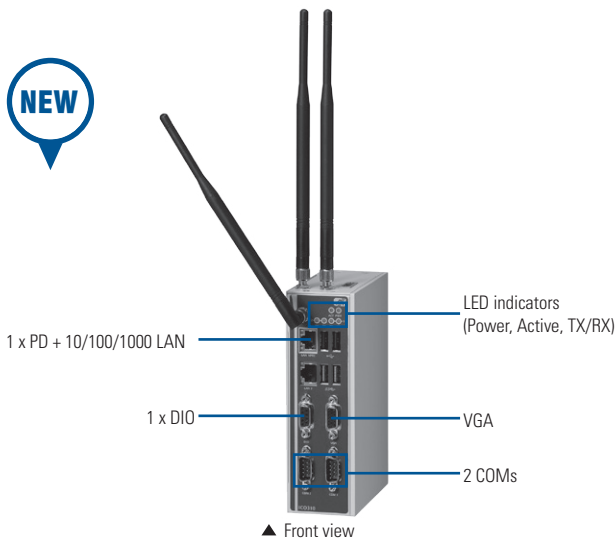
Power Supplies

Peripherals & Accessories



# ICO310

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor N3060/ N3160, 2COM, 4 USB, 2 Gigabit Ethernet (1 PD), DIO and RTC



## Specifications

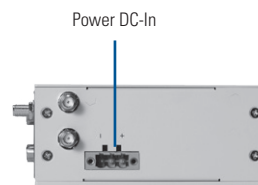
|                   |   |
|-------------------|---|
| Standard Color    | White   |
| Construction      | Extruded aluminum and heavy-duty steel, IP40 Fanless  |
| CPU               | Intel® Atom™ processor, N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core)  |
| System Board      | SBC87887  |
| System Memory     | DDR3L SO-DIMM up to 8GB   |
| BIOS              | AMI UEFI BIOS   |
| System I/O Outlet | 2 x RS-232/422/485 (COM1-2) with DB9 connectors<br>Interface select by BIOS<br>Supports Auto Flow Control in RS-485 mode<br>LED indicator(TX/RX) for COM1-2   |
| USB               | 2 x USB 3.0<br>2 x USB 2.0  |
| RTC               | Battery onboard   |
| Storage           | 1 x m-SATA<br>1 x SATA SSD (or HDD)   |
| LAN               | 2 x 10/100/1000 Ethernet  |
| PD                | Compliant with IEEE 802.3at standard through LAN 1  |
| Display           | VGA   |
| Power Input       | 1 x DC power input<br>12-24VDC-In<br>Connector:Terminal block   |
| Wireless          | 2 x full-size Mini Card slot<br>Supports wireless (3G/GPRS & Wi-Fi)<br>1 x SIM socket<br>3 x Antenna<br>(PS: 1 x full-size Mini Card slot co-lay mSATA, so mSATA with wireless can be either one)   |
| DIO               | 1 x DIO<br>- DB9 8bit programming connector<br>- The voltage of TTL is 5V.<br>- Without isolation function<br>- The programming is as follow:<br>1. I/O sink current is 8-10mA.<br>(Output drive current ±50 mA)<br>2. Input/Output can programming |

## Features

- Fanless design
- Supports Intel® Atom™ processor N3060 (1.6 GHz/2-core) or N3160 (1.6 GHz/4-core)
- 2 RS-232/422/485 COM ports
- 4 USB ports
- 2 isolated 10/100/1000Mbps Ethernet ports
- 1 PD is compliant with IEEE 802.3at standard through LAN 1
- 1 DIO port
- 2 wireless (3G/GPRS & Wi-Fi)
- Supports 1 mSATA & SATA SSD (or HDD)
- Wide range 12-24V DC-In



▲ Rear view



▲ Top view

|                            |   |
|----------------------------|---|
| Watchdog Timer             | 255 levels, 1-255 sec   |
| System Indicator           | Power, active, COMs (TX/RX)   |
| Power Supply               | Power Input Range:12-24VDC-In<br>Power Input Rating:12-24VDC, 2.09-1.09A<br>Power Protection:DC Version<br>OVP, Reverse protection  |
| Operating Temperature      | -20°C ~ +60°C (-4°F ~ +140°F)<br>*The CPU will be frequency down when system operation temperature over 55°C (ICO310-N3060, ICO310-N3060-PD, ICO310-N3160) or over 50°C (ICO310-N3160-PD) |
| Storage Temperature        | -40°C ~ +85°C (-49°F ~ +185°F)  |
| Humidity                   | 10% ~ 95%   |
| Vibration Endurance        | 2g@5-500Hz, amplitude 0.35 mm (operation/storage/transport)   |
| Weight                     | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)  |
| Certification              | CE, FCC   |
| Dimensions                 | 48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)  |
| Mounting                   | Din-rail mounting<br>Wall mounting  |
| OS Support                 | Windows® 7 Embedded<br>Windows® 8 Embedded<br>Windows® 8, Windows® 10<br>Windows® 10 Embedded<br>Linux support package  |
| Remote Management Software | AXView 2.0<br>Intelligent Remote Management Solution for IoT  |

\* mSATA and wireless can be either one.

## Ordering Information

### Standard

|                    |   |
|--------------------|---|
| IC0310-N3060-DC    | Robust din-rail fanless embedded system with Intel® Atom™ Processor N3060 (1.6GHz/2-core), 2 COM, 2 LAN (-20°C ~ +60°C)           |
| IC0310-N3060-PD-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor N3060 (1.6GHz/2 core), 2 COM, 1 LAN, 1 PD+LAN (-20°C ~ +60°C) |
| IC0300-N3160-DC    | Robust Din-rail fanless embedded system with Intel® Atom™ processor N3160 (1.6GHz/4-core), 4 COM, 2 LAN (-20°C ~ +60°C)           |
| IC0310-N3160-PD-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor N3160 (1.6GHz/4 core), 2 COM, 1 LAN, 1 PD+LAN (-20°C ~ +60°C) |

### Optional

2.5" SATA SSD or HDD (with W.T. SSD or HDD)

mSATA 16 GB ~ 512 GB (with W.T. mSATA)

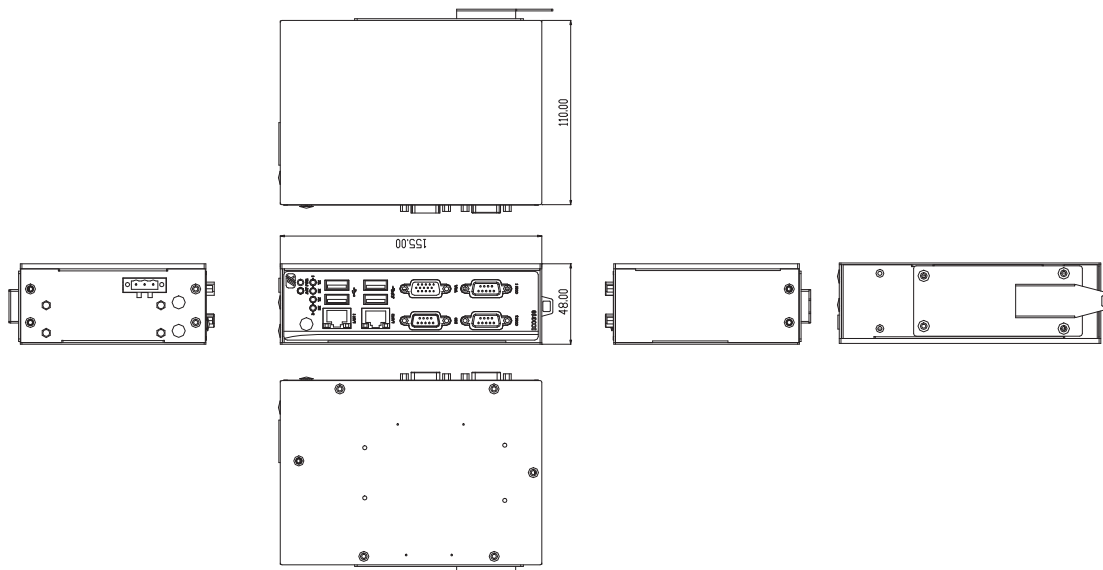
DDR3L SODIMM 2 GB ~ 8 GB (with W.T. memory)

Wall mounting kit

Wireless (3G/GPRS or Wi-Fi) module

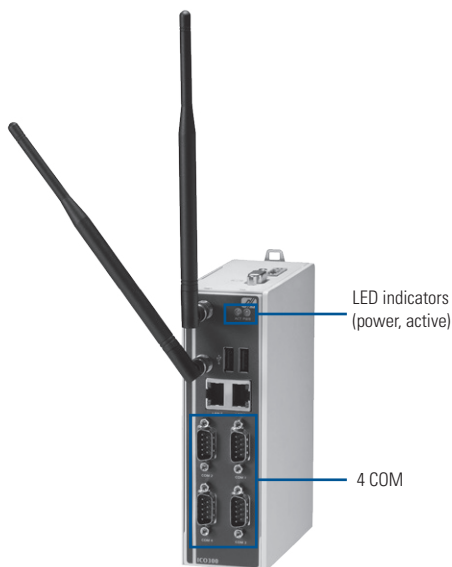
\*Specifications and certifications are based on options and may vary.

## Dimensions



# ICO300

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3815/E3827  
4 COM, 2 LANs, DIO and RTC



▲ Front view

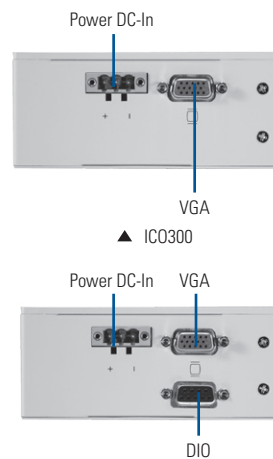


## Features

- Fanless design
- Supports Intel® Atom™ processor E3815 (1.46GHz) or E3827 (1.75GHz)
- 4 RS-232/422/485 COM ports
- Supports Windows® 10 IoT Solution
- 2 isolated 10/100/1000Mbps Ethernet ports
- 1 DIO port
- 1 wireless (3G/GPRS or Wi-Fi)
- Supports 1 CompactFlash™ (or mSATA) and SATA SSD (or HDD)
- Wide range 12 - 24V DC-In



▲ Rear view



▲ ICO300-DIO

## Specifications

|                   |   |
|-------------------|---|
| Standard Color    | White   |
| Construction      | Extruded aluminum and heavy-duty steel, IP40  |
| CPU               | Intel® Atom™ Processor E3815 (1.46GHz) or E3827 (1.75GHz)   |
| System Board      | SBC87842  |
| System Memory     | DDR3L-1066 MHz SO-DIMM up to 4 GB (E3815), up to 8 GB (E3827)   |
| BIOS              | AMI UEFI BIOS   |
| System I/O Outlet | Serial Port 4 x RS-232/422/485 (COM 1-4)<br>Interface select by BIOS<br>Supports Auto Flow Control in RS-485 mode   |
|                   | USB 2 x USB 2.0   |
|                   | RTC Battery onboard   |
| Storage           | Supports 1 x CF* (or mSATA*)<br>Supports 1 x SATA SSD (or HDD)  |
| LAN               | 2 x 10/100/1000 Ethernet  |
| VGA               | 1 x DB15 connector  |
| DIO (ICO300-DIO)  | 1 x DI/DO (8 bit programmable, DB9 female connector)<br>Voltage is 5V TTL-level<br>ESD protection corresponds to IEC6100-4-2 (± 8KV (Air); ± 4KV (contact))<br>Programming:<br>I/O sink current is 10mA (max.)<br>Input/output can be programming |
| Power Input       | 1 x DC power input with terminal block  |
| Wireless          | 1 x full size Mini Card slot<br>Supports wireless* (3G/GPRS or Wi-Fi)<br>1 x SIM socket<br>2 x Antenna  |

|                       |   |
|-----------------------|---|
| Watchdog Timer        | 255 levels, 1-255 sec   |
| System Indicator      | Power, Active   |
| Power Supply          | Power Input Range : 12-24VDC<br>Power Input Rating : 12-24VDC, 1.21-0.66A<br>Power Protection : DC Version, OVP, Reverse protection |
| Operating Temperature | -20°C ~ +70°C (-4°F ~ +158°F)   |
| Storage Temperature   | -40°C ~ +85°C (-40°F ~ +185°F)  |
| Humidity              | 10% ~ 95%   |
| Vibration Endurance   | 2g@5-500Hz, amplitude 0.35 mm (operation/storage/transport)   |
| Weight (net/gross)    | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)  |
| Certificate           | CE, FCC   |
| Dimensions            | 48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)  |
| EOS Support           | Windows® 7 Embedded<br>Windows® 8 Embedded<br>Linux support package<br>Windows® 10 IoT  |

\* mSATA and wireless can be either one.

\* mSATA and CF can be either one.

## Ordering Information

### Standard

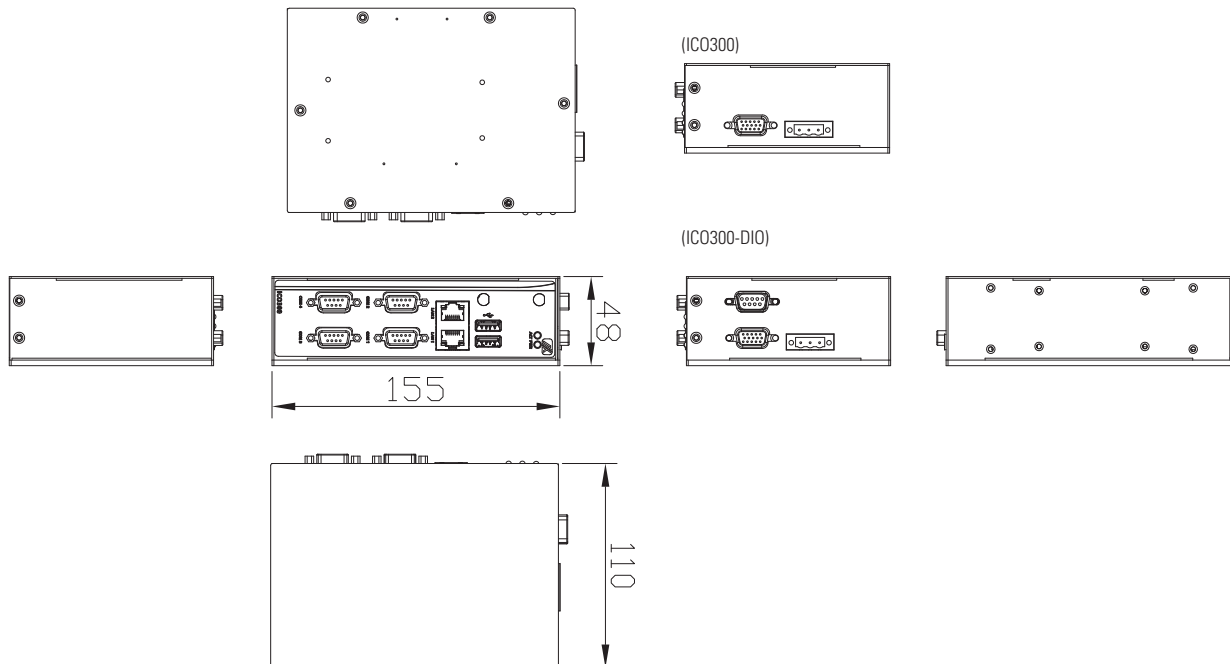
|                     |   |
|---------------------|---|
| IC0300-E3815-DC     | Robust din-rail fanless embedded system with Intel® Atom™ Processor E3815 1.46 GHz and 4 COM ports (-20°C ~ +70°C)      |
| IC0300-E3827-DC     | Robust din-rail fanless embedded system with Intel® Atom™ Processor E3827 1.75 GHz and 4 COM ports (-20°C ~ +70°C)      |
| IC0300-E3815-DIO-DC | Robust din-rail fanless embedded system with Intel® Atom™ Processor E3815 1.46 GHz, 4 COM ports and DIO (-20°C ~ +70°C) |
| IC0300-E3827-DIO-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor E3827 1.75GHz, 4 COM ports and DIO (-20°C ~ +70°C)  |

### Optional

|   |                                |
|---|--------------------------------|
| CompactFlash™                               | 4 GB or above (with W.T. CF)   |
| 2.5" SATA SSD or HDD (with W.T. SSD or HDD) |                                |
| DDR3L SODIMM                                | 2 GB ~ 8 GB (with W.T. memory) |
| Wall Mounting Kit                           |                                |
| Wireless (3G/GPRS or Wi-Fi) module          |                                |

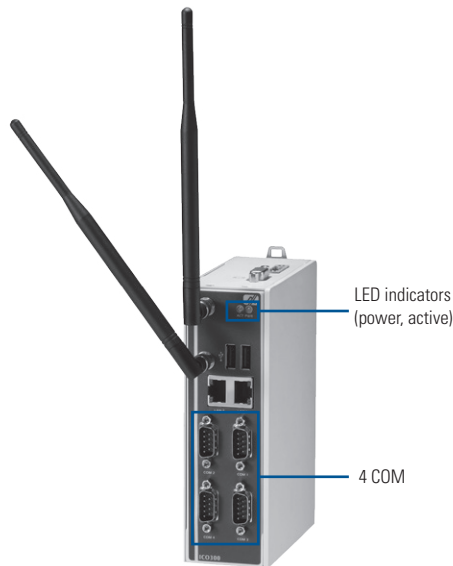
\*Specifications and certifications are based on options and may vary.

## Dimensions



# ICO300-MI

Robust Din-rail Fanless Embedded System with Intel® Atom™ Processor E3815 as an Intel® IoT Gateway Solution



▲ Front view

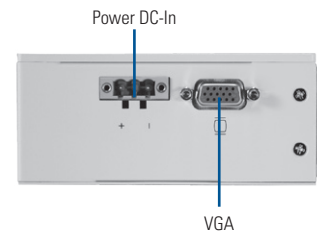


## Features

- Supports Intel® IoT gateway solution
- Fanless and robust design
- Supports Intel® Atom™ processor E3815 (1.46GHz)
- 4 RS-232/422/485 COM ports
- 2 isolated 10/100/1000Mbps Ethernet ports
- 1 wireless (3G/GPRS)
- Supports 1 CompactFlash™ (or mSATA) and SATA SSD (or HDD)
- Extended temperature range from -20°C to +70°C
- Wide range 12 - 24V DC-In
- RTC battery support



▲ Rear view



## Introduction

The ICO300-MI, an intelligent industrial Intel® Atom-based IoT (Internet of Things) gateway solution. With din-rail, fanless and rugged design, delivering high performance at competitive price. The reliable ICO300-MI is a perfect embedded solution for IoT, industrial and embedded applications such as power plant automation, facility monitoring systems, intelligent transportation systems and other harsh environment.

The application-ready machine to machine platform ICO300-MI supports Intel® IoT Gateway Solution. Customers could connect their widely distributed systems via wireless network such as 3G/GPRS. It also avails users to manage a variety of systems effortlessly with a wide range of industrial interfaces for both new and existing installation into the Internet of Things environment. It simplifies the development process and deployment of IoT gateways and achieves accelerated business transformation.

## Specifications

|                |  |
|----------------|--|
| Standard Color | White  |
| Construction   | Extruded aluminum and heavy-duty steel, IP40 |
| CPU            | Intel® Atom™ processor E3815 (1.46GHz)       |
| System Board   | SBC87842                                     |
| System Memory  | DDR3L-1066 MHz SO-DIMM up to 4 GB (E3815)    |
| BIOS           | AMI UEFI BIOS                                |

|                       |   |  |
|-----------------------|---|--|
| System I/O Outlet     | Serial Port   | 4 x RS-232/422/485 (COM 1-4)<br>Interface select by BIOS<br>Supports Auto Flow Control in RS-485 mode                                |
|                       | USB   | 2 x USB 2.0  |
|                       | RTC   | Battery onboard  |
|                       | Storage   | Supports 1 x CF* (or mSATA*)<br>Supports 1 x SATA SSD (or HDD)   |
|                       | LAN   | 2 x 10/100/1000 Ethernet   |
|                       | VGA   | 1 x DB15 connector   |
|                       | Power Input   | 1 x DC power input with terminal block   |
| Wireless              |   | 1 x full size Mini Card slot<br>Supports wireless* (3G/GPRS)<br>1 x SIM socket<br>2 x Antenna  |
|                       | Watchdog Timer  | 255 levels, 1~255 sec  |
|                       | System Indicator  | Power, Active  |
| Power Supply          |   | Power Input Range : 12-24VDC<br>Power Input Rating : 12-24VDC, 1.21-0.66A<br>Power Protection : DC Version , OVP, Reverse protection |
| Operating Temperature | -20°C ~ +70°C (-4°F ~ +158°F)                               |  |
| Storage Temperature   | -40°C ~ +85°C (-40°F ~ +185°F)                              |  |
| Humidity              | 10% ~ 95%   |  |
| Vibration Endurance   | 2g@5~500Hz, amplitude 0.35 mm (operation/storage/transport) |  |
| Weight (net/gross)    | 1.0 kg (2.2 lb)/1.50 kg (3.3 lb)                            |  |
| Certificate           | CE, FCC   |  |
| Dimensions            | 48 mm (1.88") (W) x 110 mm (4.33") (D) x 155 mm (6.1") (H)  |  |

\* mSATA and wireless can be either one.

\* mSATA and CF can be either one.



## EOS Support

Intel® IoT Gateway Solution  
 Software components content:  
 Wind River Linux OS  
 Wind River IDP & Workbench Tools  
 MACfee Embedded Control

## Benefit of ICO300-MI

### Connectivity

- Pre-integrated connected capabilities enable rich network options to save development time and costs.
- Provides an extensive network of connectivity.

### Security

- Protect devices for trust and control
- Protect the Device
- Product the application
- Protect the data at rest and in flight.

### Manageability

- Enable common provisioning frameworks
- Enable remote secure upgrades
- Provide web-based configuration utilities

## Ordering Information

### Standard

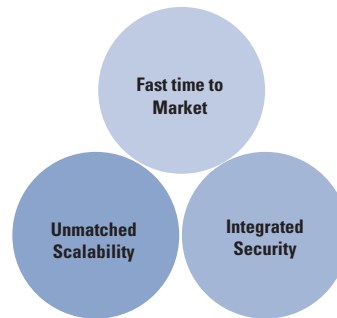
|                    |   |
|--------------------|---|
| ICO300-E3815-MI-DC | Robust din-rail fanless embedded system with Intel® Atom™ processor E3815 1.46 GHz, 4 COM ports and Intel® IoT gateway solution (-20°C ~ +70°C) |
|--------------------|---|

### Optional

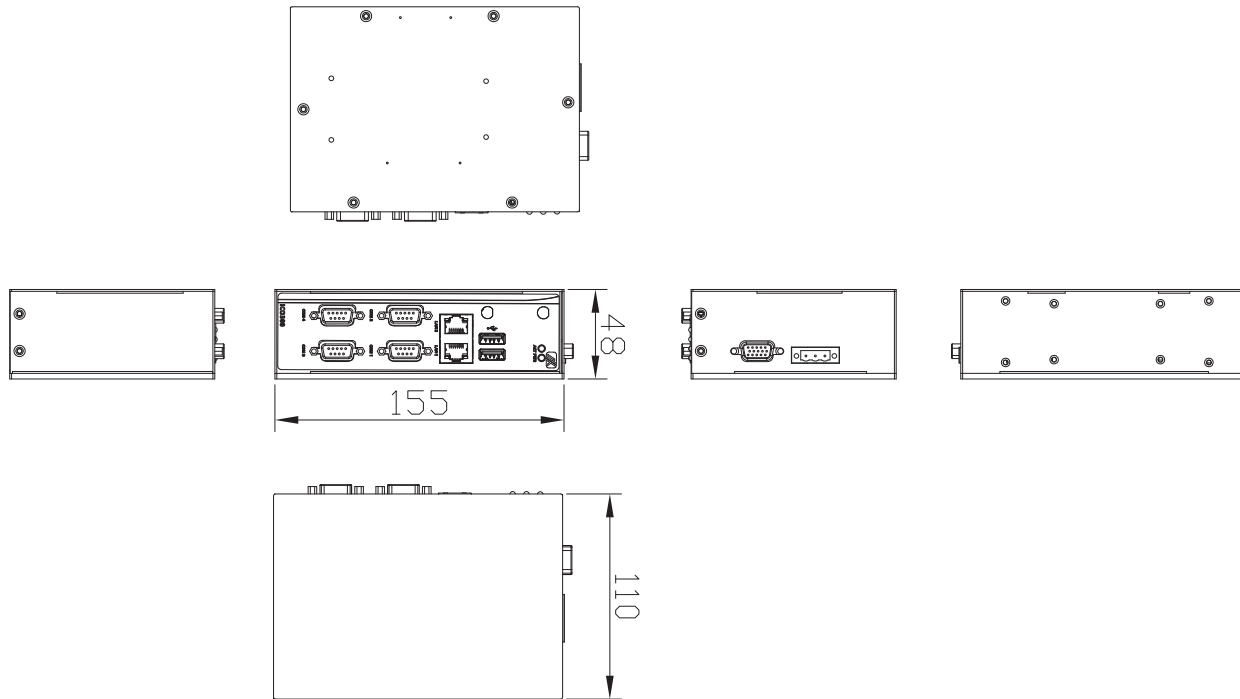
|   |                                |
|---|--------------------------------|
| CompactFlash™                               | 4 GB or above (with W.T. CF)   |
| 2.5" SATA SSD or HDD (with W.T. SSD or HDD) |                                |
| DDR3L SODIMM                                | 2 GB ~ 4 GB (with W.T. memory) |
| Wall Mounting Kit                           |                                |
| Wireless (3G/GPRS) module                   |                                |

\*Specifications and certifications are based on options and may vary.

## ICO300-MI for IoT value proposition

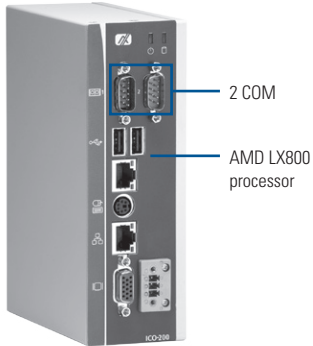


## Dimensions



# ICO200

Embedded Field Controller with AMD Geode™ LX800 Onboard and Front Cabling



▲ Front view



▲ Din-rail mounting



## Specifications

|                    |   |
|--------------------|---|
| Standard Color     | White   |
| Construction       | Aluminum & heavy-duty steel, IP40   |
| CPU                | AMD Geode™ LX800 500 MHz processor onboard  |
| System Board       | SBC84620  |
| System Memory      | 1 x 200-pin DDR SO-DIMM max. up to 1 GB   |
| BIOS               | Phoenix-Award 4Mbit with RPL/PXE LAN Boot ROM<br>SmartView and customer CMOS backup   |
| System I/O Outlet  | 1 x RS-232/422/485 (COM 1)<br>1 x RS-232 (COM 2) (default is RS-232)<br>1 x VGA<br>1 x PS/2 keyboard/mouse<br>2 x 10/100Mbps Ethernet<br>2 x USB 2.0<br>1 x VDC power input connector   |
| Watchdog Timer     | Reset supported; 255 level  |
| Storage            | Supports 1 x CompactFlash™  |
| Installation       | Din-rail  |
| System Indicator   | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Power Supply       | 24VDC   |
| Dimensions         | 160.5 mm (6.32") (W) x 111.8 mm (4.40") (D) x 53.35 mm (2.10") (H)  |
| Weight (net/gross) | 1.2 kg (2.64 lb)/1.92 kg (4.23 lb)  |
| EOS Support        | XPE, WinCE, Linux support package   |
| ISO                | Manufactured in an ISO9001 facility   |
| Environment        | Operation temperature:<br>0°C ~ +50°C (+32°F ~ +122°F),<br>Relative humidity:<br>10% ~ 95% @ 40°C ; non-condensing<br>Operation vibration:<br>2 G, 5 ~ 500 Hz, random for CompactFlash™ |
| Certificate        | CE  |

## Power Protection

### DC Version

OVP (over voltage protection)  
UVP (under voltage protection)  
Reverse protection

## Features

- Fanless cooling system: AMD Geode™ LX800 onboard
- Ultra slim and compact design
- Easy-to-maintain design: CF card, memory, mini-PCI
- Supports 1 CompactFlash™

## Ordering Information

### Standard

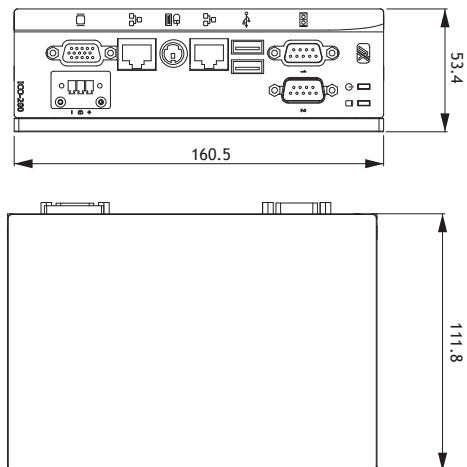
|           |   |
|-----------|---|
| ICO200-DC | Embedded field controller with AMD Geode™ LX800 CPU onboard and front cabling |
|-----------|---|

### Optional

|               |               |
|---------------|---------------|
| DDR SODIMM    | 256 MB ~ 1 GB |
| CompactFlash™ | 1 GB or above |

\*Specifications and certifications are based on options and may vary.


## Dimensions



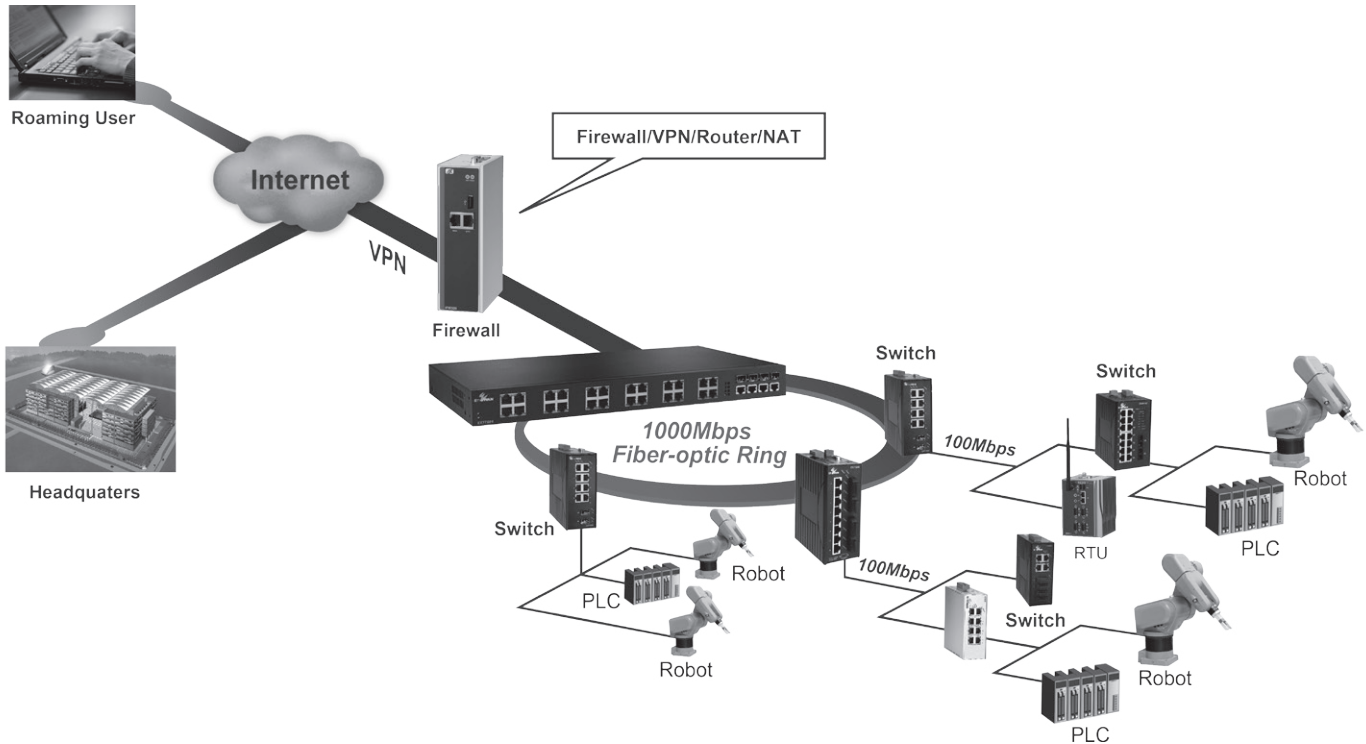
# 4

## Industrial Firewall System

Industrial automation industries adopt TCP/IP protocol to simplify development and maintenance. However, this exposes equipment to cyber attacks, spam, and malware. Axiomtek's Firewall Appliance coming with Firewall and VPN features is an ideal industrial firewall appliance. Equipped with Firewall features such as stateful packet inspection, Denial of Service (DoS), and Intrusion Detection & Prevention (IDP), the Firewall appliance could be used to protect machine and equipment connecting to un-trusted internet. Built in with IPsec VPN that provides site to site secure tunnel, PPTP VPN that offers point to point connection for employee at home, and SSL VPN that offers you an easy VPN access to your headquarters simply through a web browser, the Firewall router device provide system integrator and machine maker a secure way to configure and maintain their device. It is suitable for Ethernet security application in sensitive remote control or monitoring networks, such as in oil, gas, water & wastewater, power or factory automation system.

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| IFW320   | Robust Industrial Firewall Appliance               | 367 |
|  IFW330 | Industrial Firewall Appliance with 2 WAN and 1 LAN | 369 |

# What Role Can IFW Play in Business?



## IoT

Interconnection means advanced connectivity of smart devices and systems.

Services that goes beyond machine-to-machine requires more proven security solutions implanted to cover a variety of protocols, domains and apps.

## Cloud

Integrated IFW security with cloud supports consistent service to highly detect various threats.

In addition to physical and virtual, robots running behind IFWs at different spots can be secured across cloud environments.

## Remote Management

Centralized Management System (CMS) not only allows you to view in the same screen IFW320 equipments located in different places over the Intranet and Internet, but also allows you to backup each configure setting or update firmware from head office. Thus, it is ideal for remote management.

## IoT replaced with BigData

Big Data Center for data mining and analyzing will be massively established in the near future. Firewall appliance can play an important role to prevent it from cyber attacks.

# Industrial Firewall System

## Selection Guide



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| Hardware                                  | IFW320   | IFW 330  |
|---|--|--|
| <b>CPU</b>                                | Intel® Atom™ processor E3815 (1.4 GHz)   | Intel® Atom™ processor E3815 (1.4 GHz)   |
| <b>Network Interface</b>                  | 1 x WAN (10/100/1000 Mbps Ethernet)<br>1 x LAN (10/100/1000 Mbps Ethernet)   | 2 x WAN (10/100/1000 Mbps Ethernet)<br>1 x LAN (10/100/1000 Mbps Ethernet)<br>4DI,4DO,1 x RS232(enclosure)   |
| <b>I/O interface</b>                      | 1 x VGA<br>1 x USB 2.0   | 1 x VGA<br>1 x USB 2.0   |
| <b>Memory</b>                             | DRAM 2 GB, Compact Flash Storage 2 GB  | DRAM 2 GB, Compact Flash Storage 2 GB  |
| <b>Power supply</b>                       | 12Vdc-24Vdc power input (Single path)  | 12Vdc-24Vdc power input (Single path)  |
| <b>Temperature range</b>                  | 0° ~ +60°C (+32°F ~ +140°F) (IFW320),<br>-40° ~ +75°C (-40°F ~ +167°F) (IFW320-T)  | 0° ~ +60°C (+32°F ~ +140°F) (IFW320),<br>-40° ~ +75°C (-40°F ~ +167°F) (IFW320-T)  |
| <b>Air humidity range</b>                 | 5% ~ 95%   | 5% ~ 95%   |
| <b>Dimension</b>                          | 46 x 110 x 155 mm<br>(1.81" x 4.33" x 6.10")   | 46 x 110 x 155 mm<br>(1.81" x 4.33" x 6.10")   |
| <b>Weight (net/gross)</b>                 | 1.0 kg (2.20 lb)/1.2 kg (2.64 lb)  | 1.0 kg (2.20 lb)/1.2 kg (2.64 lb)  |
| <b>Certificate</b>                        | Heavy Industrial CE, FCC Part 18, UL60950-1/UL508 (compliance)   | Heavy Industrial CE, FCC Part 18, UL60950-1/UL508 (compliance)   |
| <b>Security Function Firewall</b>         | Stateful inspection<br>Filter: IP and MAC address, ports, ICMP, DDoS, Ethernet Protocols<br>Bridge mode firewall<br>Deep Packet Inspection on Modbus TCP | Stateful inspection<br>Filter: IP and MAC address, ports, ICMP, DDoS, Ethernet Protocols<br>Bridge mode firewall<br>Deep Packet Inspection on Modbus TCP |
| <b>VPN</b>                                | IPSec (client/server) Max.100 tunnel, PPTP (client/server) Max. 50 tunnels,<br>SSL VPN Max.50 tunnels  | IPSec (client/server) Max.100 tunnel, PPTP (client/server) Max. 50 tunnels,<br>SSL VPN Max.50 tunnels  |
| <b>Encryption</b>                         | DES, 3DES, AES (128/196/256)   | DES, 3DES, AES (128/196/256)   |
| <b>Authentication</b>                     | Pre-Shared Key(PSK), SHA, MD5  | Pre-Shared Key(PSK), SHA, MD5  |
| <b>NAT</b>                                | 1-1 NAT, Port forwarding   | 1-1 NAT, Port forwarding   |
| <b>Data Throughput</b>                    | 500 Mbps   | 500 Mbps   |
| <b>VPN throughput</b>                     | 3DES: 50 Mbps<br>DES: 78 Mbps<br>AES: 85 Mbps  | 3DES: 50 Mbps<br>DES: 78 Mbps<br>AES: 85 Mbps  |
| <b>Industrial Protocol management</b>     | EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, IEC, DNP  | EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, IEC, DNP  |
| <b>Intrusion Detection and Prevention</b> | IDP (Intrusion Detection and Prevention)<br>BotNet prevention  | IDP (Intrusion Detection and Prevention)<br>BotNet prevention  |
| <b>Network features</b>                   | Quality of Service (QoS)<br>IPv4/IPv6  | Quality of Service (QoS)<br>IPv4/IPv6  |
| <b>Load balance</b>                       | N/A  | Inbound/Outbound   |
| <b>Alarming</b>                           | N/A  | DI alarming as trigger<br>DO as action   |
| <b>Redundancy</b>                         | N/A  | Network redundancy   |

Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

4  
Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories



# IFW320

Robust Industrial Firewall Appliance



▲ Front view

## Introduction

Industrial automation industries adopt TCP/IP protocol to simplify development and maintenance. However, this exposes equipment to cyber attacks and malware. The IFW320 coming with Firewall and VPN features is an ideal industrial firewall appliance. It is suitable for Ethernet security application in sensitive remote control or monitoring networks, such as in oil, gas, water & wastewater, power or factory automation system.

Equipped with Firewall features such as stateful packet inspection, Denial of Service (DoS), and Intrusion Detection & Prevention (IDP), the Firewall appliance could be used to protect machine and equipment connecting to un-trusted internet.

Built in with IPsec VPN that provides site to site secure tunnel, PPTP VPN that offers point to point connection for employee at home, and SSL VPN that offers you an easy VPN access to your headquarters simply through a web browser, the Firewall router device provide system integrator and machine maker a secure way to configure and maintain their device.

The Firewall appliance also have Industrial Protocol management including EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, DNP that pave a way to secure fieldbus network. Additionally, we offer wide temperature models for use in hazardous, -40~75°C environments, economic-friendly model 0~60 °C for non-temperature-sensitive use.

## Specifications

|                   |  |
|-------------------|--|
| Interface         | LAN: 1 RJ-45 port,<br>WAN: 1 RJ-45 port  |
| Network features  | Quality of Service QoS<br>Support IPv4/IPv6  |
| Routing           | Static routing, RIP v1/v2  |
| Firewall features | Stateful inspection<br>Filter: MAC, IP, port, protocol<br>Bridge mode firewall<br>Denial of Service DoS protection:<br>TCP (SYN), ICMP (ping), ARP, Port scan<br>NAT: 1-1 NAT, Port forwarding<br>Application software management: VoIP, P2P, SMS, Web, Web Mail, and Entertainment software.<br>Industrial Protocol management: EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, DNP<br>URL white list<br>Virtual server<br>System status: system performance, connecting status, data flow analysis<br>Whitelist: user group, existing IP white list<br>Router/Firewall Redundancy |

## Features

- Firewall/NAT/VPN all-in-one
- Security protection: Firewall, IDP, Botnet
- Secure connection: VPN, SSL VPN, WAN connection checking
- IPv4/IPv6 dual mode
- Easy network setup with Network Address Translation (NAT)
- Quick installation, USB restore
- Centralized management
- Wide temperature range operation -40°C ~ 75°C



▲ Rear view

|                                    |   |
|------------------------------------|---|
| Intrusion Detection and Prevention | IDP (Intrusion Detection and Prevention)<br>BotNet prevention<br>Abnormal IP analysis<br>Switch management  |
| VPN features                       | Protocol: IPsec, PPTP, SSL VPN<br>Encryption: DES, 3DES, AES<br>Authentication: Pre-Shared Key(PSK), SHA, MD5<br>IPSec Dead Peer Detection<br>Show remote Network Neighborhood<br>SSL VPN: server setting, certificate setting<br>SSL concurrent VPN channels: Max. 50<br>SSL VPN user number: Max. 300<br>VPN channel number:<br>- IPsec channels: Max. 100<br>- PPTP client: Max. 50<br>- PPTP server: Max. 50<br>VPN control<br>Stateful packet inspection<br>NAT Traversal                                |
| Data throughput                    | 500 Mbps  |
| VPN throughput                     | 3Des: 50 Mbps<br>Des: 78 Mbps<br>Aes: 85 Mbps   |
| Management                         | Support Network Time Protocol NTP<br>Web management: HTTP, HTTPS<br>System file backup and upgrade<br>Interface(WAN/LAN) flow statistics<br>System configuration: system configuration default restoration, message notification, export/import, Network Service:<br>Routing table, 802.1Q, DDNS, DNS Proxy, SNMP, DHCP client/server<br>Centralized Management System CMS client/server<br>Networking test:<br>Ping, Traceroute, DNS Query, Server Link<br>IP route,<br>Interface Information, Wake Up, IPv6 |



## Hardware

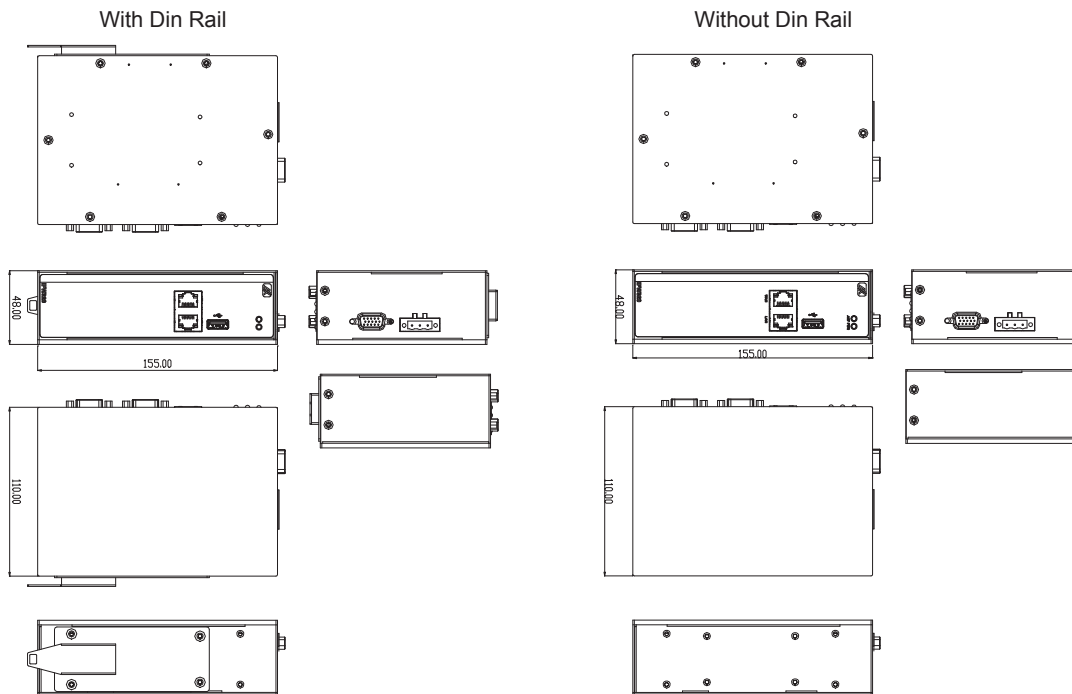
|                       |   |
|-----------------------|---|
| Standard Color        | Sliver-Black  |
| Construction          | Extruded aluminum and heavy-duty steel, IP40  |
| CPU                   | Intel® Atom™ processor E3815 (1.4 GHz)  |
| System I/O Outlet     | - VGA :<br>1 x DB15 connector<br>- USB :<br>1 x USB 2.0<br>- LAN :<br>2 x 10/100/1000 Ethernet<br>Magnetic isolation protection 1.5KV<br>-Power Input :<br>1 x DC power input with terminal block |
| Memory/Storage        | 2 GB DRAM, 2 GB CompactFlash™   |
| System Indicator      | System : Power, Ready/Active  |
| Power Supply          | Wide range 12Vdc-24Vdc power input with terminal block.<br>DC Version: OVP, UVP, Reverse protection   |
| Operating Temperature | -40°C ~ +75°C (-40°F ~ +167°F)  |
| Storage Temperature   | -40°C ~ +85°C (-40°F ~ +185°F)  |
| Humidity              | 5% ~ 95%  |

|                     |  |
|---------------------|--|
| Vibration Endurance | 2G @ 5-500Hz, amplitude 0.35mm (operation/storage/transport)                       |
| Weight (net/gross)  | 1.0 kg (2.20 lb)/1.2 kg (2.64 lb)  |
| Certificate         | Heavy Industrial CE<br>FCC Part 18<br>UL60950-1 (compliance)<br>UL508 (compliance) |
| Dimensions          | 46 mm (1.81") (W) x 110 mm (4.33") (D) x 155 mm (6.10") (H)<br>46 x 110 x 155 mm   |

## Ordering Information

| Standard |  |
|----------|--|
| IFW320   | Robust din-rail industrial firewall appliance with wide operating temperature -40°C ~ +75°C (-40°F ~ +167°F) |

## Dimensions



# IFW330

Industrial Firewall Appliance with  
2 WAN and 1 LAN



▲ Front view

## Introduction

Industrial automation industries adopt TCP/IP protocol to simplify development and maintenance. However, this exposes equipment to cyber attacks, spam, and malware.

The IFW330 coming with Firewall and VPN features is an ideal industrial firewall appliance. It is suitable for Ethernet security application in sensitive remote control or monitoring networks, such as in oil, gas, water & wastewater, power or factory automation system.

Equipped with Firewall features such as stateful packet inspection, Denial of Service (DoS), and Intrusion Detection & Prevention (IDP), the Firewall appliance could be used to protect machine and equipment connecting to un-trusted internet.

Built in with IPsec VPN that provides site to site secure tunnel, PPTP VPN that offers point to point connection for employee at home, and SSL VPN that offers you an easy VPN access to your headquarters simply through a web browser, the Firewall router device provide system integrator and machine maker a secure way to configure and maintain their device.

The Firewall appliance also has Industrial Protocol management including EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, DNP that pave a way to secure fieldbus network.. Additionally, we offer wide temperature models for use in hazardous, -40~75°C environments.

It has 1 WAN, 1 LAN and 1 configurable WAN/DMZ interface providing flexible configuration for different application.

4 DI can be used to connect to sensor or equipment to monitor status change, which data could be used to trigger alarm or sent to remote central database for further analysis, 4 DO could be pre-set to reflect that change.

## Specifications

|                   |  |
|-------------------|--|
| Interface         | LAN: 1 RJ-45 port,<br>WAN: 2 RJ-45 ports   |
| Network features  | Quality of Service (QoS)<br>Support IPv4/IPv6<br>Dual WAN redundant interfaces through internet.   |
| Routing           | Static routing, RIP v1/v2  |
| Firewall features | Stateful inspection<br>Filter: MAC, IP, port, protocol<br>Bridge mode firewall<br>Denial of Service (DoS) protection:<br>TCP (SYN), ICMP (ping), ARP (Bridge mode), Port scan<br>NAT: 1-1 NAT, Port forwarding<br>Application software management: VoIP, P2P, SMS, Web, Web Mail, and Entertainment software.<br>Industrial Protocol management: EtherCAT, Ethernet/IP, Lonworks, Profinet, Modbus, ICE, DNP<br>URL white list |

## Features

- Firewall/NAT/Router all in one
- Security protection: Firewall, IDP, Botnet
- Secure connection: VPN, SSL VPN, WAN connection checking
- IPv4/IPv6 dual mode
- Easy network setup with Network Address Translation (NAT)
- Quick installation, USB restore
- Centralized management
- Dual WAN redundant interface
- Wide temperature operation -40°C ~ 75°C



▲ Rear view

|                                    |   |
|------------------------------------|---|
| Firewall features                  | Virtual proxy server<br>System status: system performance, connecting status, data flow analysis<br>Whitelist: user group, existing IP white list<br>Router/Firewall Redundancy   |
| Intrusion Detection and Prevention | IDP (Intrusion Detection and Prevention)<br>BotNet prevention<br>Abnormal IP analysis<br>Switch management  |
| VPN features                       | Protocol: IPsec, PPTP, SSL VPN<br>Encryption: DES, 3DES, AES<br>Authentication: Pre-Shared Key(PSK), SHA, MD5<br>IPSec Dead Peer Detection<br>Show remote Network Neighborhood<br>SSL VPN: server setting, certificate setting<br>SSL concurrent VPN channels: max. 50<br>SSL VPN user number: max. 50<br>VPN channel number:<br>- IPsec channels: max. 500<br>- PPTP client: max. 200<br>- PPTP server: max. 200<br>VPN control<br>Stateful packet inspection<br>NAT Traversal                             |
| NAT throughput                     | 500 Mbps  |
| VPN throughput                     | 3Des: 50 Mbps<br>Des: 78 Mbps<br>Aes: 85 Mbps   |
| Load Balance                       | Inbound load balance<br>Outbound load balance<br>WAN connecting test (ICMP, DNS)  |
| Management                         | Support Network Time Protocol NTP<br>Web management: HTTP, HTTPS<br>System file backup and upgrade<br>Interface(WAN/LAN) flow statistics<br>System configuration: system configuration default restoration, message notification, export/import, Network Service:<br>Routing table, 802.1Q, DDNS, DNS server, SNMP, DHCP client/server<br>Centralized Management System CMS client/server<br>Networking test:<br>Ping, Traceroute, DNS Query, Server Link<br>IP route, Interface Information, Wake Up, IPv6 |
| Alarming                           | Digital Input (DI) provide Alarming, accordingly Digital Output (DO) provide Controlling  |

## Hardware

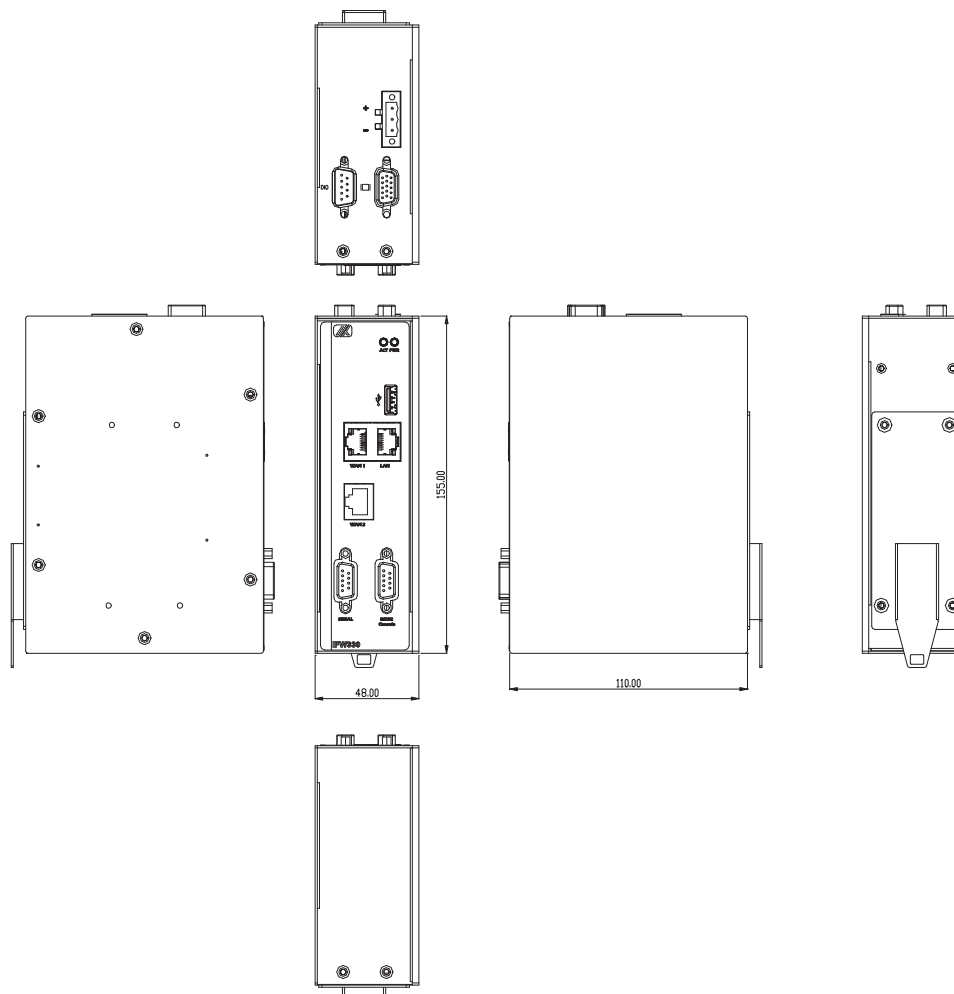
|                   |  |
|-------------------|--|
| Standard Color    | Sliver-Black   |
| Construction      | Extruded aluminum and heavy-duty steel, IP40   |
| CPU               | Intel® Atom™ processor E3815 (1.4 GHz)   |
| System I/O Outlet | <ul style="list-style-type: none"> <li>- VGA :</li> <li>1 x DB15 connector</li> <li>- USB :</li> <li>1 x USB2.0</li> <li>- LAN :</li> <li>3 10/100/1000 Ethernet</li> <li>Magnetic isolation protection 1.5KV</li> <li>-Power Input :</li> <li>1 x DC power input with terminal block</li> <li>-Serial port :</li> <li>1 console port (RS232),</li> <li>1 serial port (RS232/422/485) (reserved)</li> <li>-Digital Input/Output :</li> <li>1 DB9 female connector</li> <li>4 DI, 4 DO</li> <li>5V TTL-level</li> <li>ESD protection corresponding to IEC6100-4-2 (±8 kv (Air); ± 4KV (contact)</li> <li>I/O sink current is 10mA (max.)</li> </ul> |
| Memory/Storage    | 2 GB DRAM, 2 GB CompactFlash™  |
| System Indicator  | System : Power, Ready/Active   |

|                       |   |
|-----------------------|---|
| Power Supply          | Wide range 12Vdc-24Vdc power input with terminal block.<br>DC Version: OVP, UVP, Reverse protection |
| Operating Temperature | -40°C ~ +75°C (-40°F ~ +167°F)  |
| Storage Temperature   | -40°C ~ +85°C (-40°F ~ +185°F)  |
| Humidity              | 5% ~ 95%  |
| Vibration Endurance   | 2G@5-500Hz, amplitude 0.35mm (operation/storage/transport)  |
| Weight                | 1 kg  |
| Certification         | Heavy Industrial CE<br>FCC Part 18<br>UL60950-1 (compliance)<br>UL508 (compliance)                  |
| Dimensions            | 48 mm (1.89") (W) x 110 mm (4.33") (D) x 155 mm (17.9") (H)   |

## Ordering Information

| Standard |   |
|----------|---|
| IFW330   | Robust din-rail industrial firewall appliance with 2 WAM & 1 LAN with wide operating temperature -40°C ~ +75°C (-40°F ~ +167°F) |

## Dimensions



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## Digital Signage Solutions




Axiomtek's total digital signage solution can meet any mission-critical deployment for 24 hours/365 days operation. Compliant with standard Open Pluggable Specification (OPS) architecture and OPS series (player) deliver greater interoperability, lower total installation cost, and ease of maintenance without dismantling an entire signage system. The digital signage media player, DSB series, offers high performance, dust-free IP40-rated protection and compact size for each kind of signage player applications.


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### Digital Signage Players

|            |  |     |
|------------|--|-----|
| DSB550-880 | High Performance Digital Signage Player Supports 4th Generation Intel® Core™ i5/i3 Processor     | 379 |
| DSB500-860 | High Performance Digital Signage Player Supports Socket G2 2nd Generation Intel® Core™ Processor | 380 |
| DSB320-842 | Fanless Digital Signage Player Supports Intel® Celeron® Processor J1900 (up to 2.42 GHz)         | 381 |

### Digital Signage Systems with Intel® OPS

|   |              |   |     |
|---|--------------|---|-----|
|  | OPS500-501-H | 6th Generation Intel® Core™ i7/i5/i3 & Celeron® Open Pluggable Specification (OPS) Digital Signage Player with Intel® H110                  | 382 |
|  | OPS500-501   | 6th Generation Intel® Core™ i7/i5/i3 & Celeron® Open Pluggable Specification (OPS) Digital Signage Player with Intel® Q170 and iAMT11.0     | 383 |
|  | OPS885       | 4th Generation Intel® Core™ i5 Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM87, ATM9.0 and TPM 1.2               | 384 |
|   | OPS883-H     | 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Open Pluggable Specification (OPS) Digital Signage Player with Intel® H81 and TPM 1.2       | 385 |
|   | OPS883       | 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Open Pluggable Specification (OPS) Digital Signage Player with Intel® Q87, iAMT and TPM 1.2 | 386 |
|   | OPS882-HM    | 4th Generation Intel® Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM86, 4K2K and AVB 802.1 AS                     | 387 |
|   | OPS880       | 4th Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM87 and TPM 1.2                          | 388 |
|   | OPS880-HM    | 4th Generation Intel® Core™ i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM87 and TPM 1.2                    | 389 |

|  |  |     |
|--|--|-----|
|  OPS875 | Socket G2 Intel® Core™ i7/i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM76 and HDMI              | 390 |
| OPS871   | Socket G2 Intel® Core™ i7/i5/i3 processor Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM77 and TPM 1.2 | 391 |
| OPS871-HM  | Intel® Core™ i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM76                                    | 392 |
| OPS870   | Socket G2 3rd Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM77                 | 393 |
| OPS870-HM  | Socket G2 3rd Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM76                 | 394 |
| OPS860   | Socket G2 2nd Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM67                 | 395 |
| OPS860-HM  | Socket G2 2nd Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM65                 | 396 |
| OPS830   | Intel® Atom™ D2550/N2600 Open Pluggable Specification (OPS) Digital Signage Player   | 397 |

# Digital Signage Solutions

Axiomtek operates based on the business philosophy to deliver simple solutions for complex problems of digital signage applications by using our own expertise in hardware and firmware. The expertise we possess provides our customers with valuable tools and high satisfaction. We offer a full range of supports such as technical support, RMA service to help ensure that our customers are well taken care of.

Axiomtek presents a full range of digital signage product lines: OPS, and DSB series. OPS series player is engineered to be installed into any Intel® OPS-compliant digital signage platform to enable faster and easy upgrading/maintenance. Axiomtek's DSB500/320 series is the digital signage media player, offering high performance, dust-free IP40-rated protection and compact size. In addition, it features Intel® Mobile/Desktop Core™ i7/i5/i3 or Atom™ processor, wireless LAN module (optional) and wall mount & VESA mount supported.

## OPS500-501-H

The latest design of Open Pluggable Specification (OPS) compliant signage player-OPS500-501-H, offering the new 14nm LGA1151 6th generation Intel® Core™ i7/i5/i3 & Celeron® processors onboard with Intel® H110 Express chipset to support high computing and graphics performance. No doubt, the CPU performance of desktop type always higher than mobile, and the price competitiveness also more aggressive for the commercial market. The OPS500-501-H supports 4K resolution with 60fps and enables digital signage manufacturers to deploy systems faster with lower costs and simplify the installation and maintenance.

- Open Pluggable Specification (OPS) compliant
- 6th Generation Intel® Desktop Core™ i7/i5/i3 & Celeron® processors
- Supports 4K/60Hz resolution

## DSB Series

Axiomtek's DSB series, the digital signage media player, offers high performance, dust-free IP40-rated protection and compact size. DSB series is an industrial-grade digital signage player. With up-to-date technology, the unit is capable of supporting outstanding graphics performance with multiple displays. The compact and slim ID of this player makes "fit into the environment" easy. The DSB550-880 supports the most advanced 4th generation Intel® Core™ processor. It is with 50% graphics performance enhancement compared to 3rd generation Intel® Core™ processor.

### DSB550-880

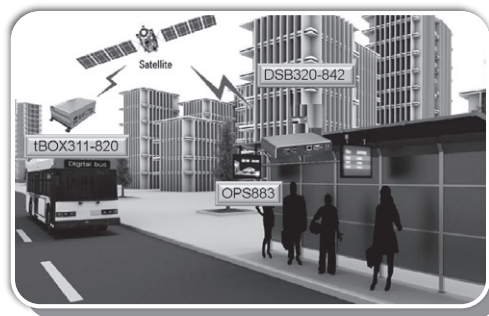
- 4th generation Intel® Core™ processor
- Supports Intel® AMT 9.0
- Supports triple independent display

### DSB320-842

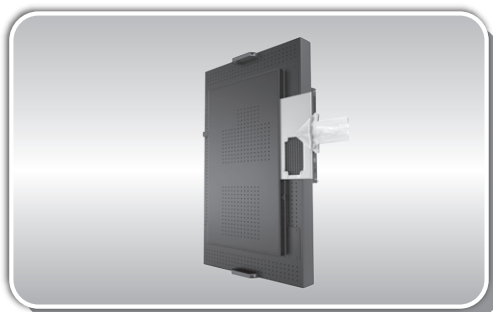
- Intel® Celeron® J1900 2.42 GHz quad-core onboard
- Compact & slim size with dual display
- Support 3G/LTE/Wi-Fi modules by dual Mini PCI Express interfaces



▲ Universal OPS signage module & display



▲ Outdoor digital signage player



▲ Intel® OPS (Open Pluggable Specification) compliance player



▲ Interactive white board application

# Digital Signage Solutions

## Selection Guide



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| Features/Models               | DSB550-880   | DSB500-860  | DSB320-842   |
|-------------------------------|--|---|--|
| <b>CPU Level</b>              | 4th generation Intel® Core™ i5/i3 processor  | Socket rPGA988B 2nd generation Intel® Core™ i7/i5/i3 processor  | Intel® Celeron® 4-core J1900 processor   |
| <b>Chipset</b>                | Intel® QM87  | Intel® QM67   | SoC Integrated   |
| <b>System Memory</b>          | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 8 GB  | 1 x 204-pin DDR3 SO-DIMM<br>max. up to 8 GB   | 1 x 204-pin DDR3L SO-DIMM<br>max. up to 8 GB   |
| <b>Pluggable Engine Box</b>   | N/A  | N/A   | N/A  |
| <b>Intel AMT</b>              | AMT 9.0  | AMT 7.0   | N/A  |
| <b>I/O</b>                    | 1 x 10/100/1000 Mbps Ethernet<br>2 x USB 3.0<br>2 x USB 2.0<br>1 x DisplayPort<br>2 x HDMI<br>1 x Audio(Mic in/Line out)<br>1 x Mini PCIe slot<br>1 x RS-232 | 1 x 10/100/1000 Mbps Ethernet<br>4 x USB 2.0<br>1 x VGA<br>1 x HDMI<br>1 x DisplayPort<br>1 x Audio (Mic-in/Line-out)<br>1 x Mini PCIe slot | 1 x 10/100/1000Mbps Ethernet<br>4 x USB 2.0<br>1 x DIO (DB9 connector)<br>1 x HDMI<br>1 x VGA<br>1 x RS-232 (COM1)<br>1 x power on/off button<br>1 x Audio (Mic-in/Line out) |
| <b>Storage</b>                | 1 x 2.5" SATA HDD  | 1 x 2.5" SATA HDD tray  | 1 x mSATA  |
| <b>Touchscreen</b>            | N/A  | N/A   | N/A  |
| <b>Power Supply</b>           | 19VDC with AC-DC adapter   | 19VDC with AC-DC adapter  | 12VDC, with AC-DC Adapter  |
| <b>Dimensions (W x D x H)</b> | 210 x 165 x 35 mm<br>(8.26" x 6.49" x 1.38")   | 210 x 165 x 35 mm<br>(8.26" x 6.49" x 1.38")  | 180 x 128 x 34.7 mm<br>(7.11" x 5.04" x 1.37")   |
| <b>Weight (net/gross)</b>     | 1.9 kg (4.2lb)/ 2.9 kg (6.4 lb)  | 1.5 kg (3.3 lb)/ 2.5 kg (5.51 lb)   | 1 kg (2.21 lb)/ 1.5 kg (3.3 lb)  |
| <b>Operating Temperature</b>  | 0°C ~ +40°C (+32°F ~ +104°F)   | 0°C ~ +40°C (+32°F ~ +104°F)  | 0°C ~ +40°C (+32°F ~ +104°F)   |
| <b>Certificate</b>            | CE   | CE  | CE   |

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# Digital Signage Solutions

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| Features/Models               | OPS500-501-H   | OPS500-501   | OPS885  | OPS883-H   |
|-------------------------------|--|--|---|--|
| <b>CPU Level</b>              | 6th generation Intel® Core™ i7/i5/i3 processor   | 6th generation Intel® Core™ i7/i5/i3 processor   | 4th generation Intel® Core™ i5 processor  | 4th generation Intel® Core™ i7/i5/i3 processor   |
| <b>Chipset</b>                | Intel® H110  | Intel® Q170  | Intel® QM87   | Intel® H81   |
| <b>System Memory</b>          | 1 x 260 pin DDR4-2133 SO-DIMM max. up to 16 GB   | 1 x 260 pin DDR4-2133 SO-DIMM max. up to 16 GB   | 1 x 204 pin DDR3L SO-DIMM max. up to 8 GB   | 1 x 204 pin DDR3-1600 SO-DIMM max. up to 8 GB  |
| <b>Pluggable Engine Box</b>   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)  | Yes (OPS compliance)   |
| <b>LCD Size</b>               | N/A  | N/A  | N/A   | N/A  |
| <b>Intel AMT</b>              | N/A  | iAMT 11  | AMT 9.0   | N/A  |
| <b>I/O</b>                    | 2 x USB 3.0<br>1 x USB 1.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI with 4K Resolution<br>1 x RS-232 (COM2)<br>1 x Audio (Mic-in/Line-out)<br>1 x JAE TX-25 | 2 x USB 3.0<br>1 x USB 1.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI with 4K Resolution<br>1 x RS-232 (COM2)<br>1 x Audio (Mic-in/Line-out)<br>1 x JAE TX-25 | 2 x USB 3.0<br>1 x USB 2.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25<br>1 x RS-232 | 2 x USB 2.0<br>1 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI with 4K Resolution<br>1 x RS-232 (COM2)<br>1 x Audio (Mic-in/Line-out)<br>1 x JAE TX-25 |
| <b>Storage</b>                | 1 x 2.5" SATA HDD tray<br>1 x mSATA  | 1 x 2.5" SATA HDD tray<br>1 x mSATA  | 1 x mSATA   | 1 x 2.5" SATA HDD tray<br>1 x mSATA  |
| <b>Touchscreen</b>            | N/A  | N/A  | N/A   | N/A  |
| <b>Power Supply</b>           | 12VDC ~19VDC   | 12VDC ~19VDC   | 12VDC ~19VDC  | 12VDC ~19VDC   |
| <b>Dimensions (W x D x H)</b> | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")   | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")   | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")  | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")   |
| <b>Weight (net/gross)</b>     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)   | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  |
| <b>Operating Temperature</b>  | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)  | 0°C ~ +45°C (+32°F ~ +113°F)   |
| <b>Certificate</b>            | CE   | CE   | CE  | CE   |



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| Features/Models               | OPS883   | OPS882-HM  | OPS880  | OPS880-HM   |
|-------------------------------|--|--|---|---|
| <b>CPU Level</b>              | 4th generation Intel® Core™ i7/i5/i3 processor   | 4th generation Intel® Core™ i5/i3 processor  | 4th generation Intel® Core™ i7/i5/i3 processor  | 4th generation Intel® Core™ i5/i3 processor   |
| <b>Chipset</b>                | Intel® Q87   | Intel® HM86  | Intel® QM87   | Intel® HM86   |
| <b>System Memory</b>          | 1 x 204 pin DDR3-1600 SO-DIMM max. up to 8 GB  | 2 x 204 pin DDR3L-1600 SO-DIMM max. up to 16 GB  | 1 x 204 pin DDR3L SO-DIMM max. up to 8 GB   | 1 x 204 pin DDR3L SO-DIMM max. up to 8 GB   |
| <b>Pluggable Engine Box</b>   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)  | Yes (OPS compliance)  |
| <b>Intel AMT</b>              | AMT 9.0  | N/A  | AMT 9.0   | N/A   |
| <b>I/O</b>                    | 2 x USB 2.0<br>1 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI with 4K Resolution<br>1 x RS-232 (COM2)<br>1 x Audio (Mic-in/Line-out)<br>1 x JAE TX-25 | 3 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25<br>1 x RS-232 | 2 x USB 3.0<br>1 x USB 2.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25<br>1 x RS-232 | 2 x USB 3.0<br>1 x USB 2.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25<br>1 x RS-232 |
| <b>Storage</b>                | 1 x 2.5" SATA HDD tray<br>1 x mSATA  | 1 x 2.5" SATA HDD tray<br>1 x mSATA  | 1 x mSATA   | 1 x mSATA   |
| <b>Touchscreen</b>            | N/A  | N/A  | N/A   | N/A   |
| <b>Power Supply</b>           | 12VDC ~19VDC   | 12VDC ~19VDC   | 12VDC ~19VDC  | 12VDC ~19VDC  |
| <b>Dimensions (W x D x H)</b> | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")   | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")   | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")  | 200 x 119 x 30 mm<br>(7.87" x 4.68" x 1.18")  |
| <b>Weight (net/gross)</b>     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)   | 1 kg (2.2 lb)/1.5 kg (3.3 lb)   |
| <b>Operating Temperature</b>  | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ 45°C (+32°F ~ +113°F)   | 0°C ~ 45°C (+32°F ~ +113°F)   |
| <b>Certificate</b>            | CE   | CE   | CE  | CE  |

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| Features/Models               | OPS875   | OPS871   | OPS871-HM  | OPS870   |
|-------------------------------|--|--|--|--|
| <b>CPU Level</b>              | Socket rPGA988B 3rd generation Intel® Core™ i7/i5/i3                     | Socket rPGA988B 3rd generation Intel® Core™ i7/i5/i3                     | Socket rPGA988B 3rd generation Core™ i5/i3 processor                     | Socket rPGA988B 3rd generation Intel® Core™ i7/i5/i3 processor             |
| <b>Chipset</b>                | Intel® QM77  | Intel® QM77  | Intel® HM76  | Intel® QM77  |
| <b>System Memory</b>          | 1 x 204-pin DDR3 SO-DIMM max. up to 8 GB                                 | 1 x 204-pin DDR3 SO-DIMM max. up to 8 GB                                 | 1 x 204 pin DDR3 SO-DIMM max. up to 8 GB                                 | 1 x 204-pin DDR3 SO-DIMM max. up to 8 GB                                   |
| <b>Pluggable Engine Box</b>   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)   |
| <b>Intel AMT</b>              | AMT 8.0  | AMT 8.0  | N/A  | AMT 8.0  |
| <b>I/O</b>                    | 2 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25 | 2 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25 | 2 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25 | 2 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25   |
| <b>Storage</b>                | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray   |
| <b>Touchscreen</b>            | N/A  | N/A  | N/A  | N/A  |
| <b>Power Supply</b>           | 12VDC ~ 19VDC  | 12VDC ~ 19VDC  | 12VDC ~ 19VDC  | 12VDC ~ 19VDC  |
| <b>Dimensions (W x D x H)</b> | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                  |
| <b>Weight (net/gross)</b>     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  |
| <b>Operating Temperature</b>  | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +54°C (+32°F ~ +130°F) (i3/ i5)<br>0°C ~ +45°C (+32°F ~ +113°F) (i7) |
| <b>Certificate</b>            | CE   | CE   | CE   | CE   |



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| Features/Models               | OPS870-HM  | OPS860   | OPS860-HM  | OPS830  |
|-------------------------------|--|--|--|---|
| <b>CPU Level</b>              | Socket rPGA988B 3rd generation Intel® Core™ i5/i3 processor              | Socket rPGA988B 2nd generation Intel® Core™ i7/i5/i3 processor           | Socket rPGA988B 2nd generation Intel® Core™ i5/i3 processor              | Intel® Atom™ D2550 1.86 GHz   |
| <b>Chipset</b>                | Intel® HM76  | Intel® QM67  | Intel® HM65  | Intel® NM10   |
| <b>System Memory</b>          | 1 x 204-pin DDR3 SO-DIMM max. up to 8 GB                                 | 1 x 204-pin DDR3 SO-DIMM max. up to 8 GB                                 | 1 x 204-pin DDR3 SO-DIMM max. up to 4 GB                                 | 1 x 204-pin DDR3 SO-DIMM max. up to 4 GB                                |
| <b>Pluggable Engine Box</b>   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)   | Yes (OPS compliance)  |
| <b>Intel AMT</b>              | N/A  | AMT 7.0  | N/A  | N/A   |
| <b>I/O</b>                    | 2 x USB 3.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x HDMI<br>1 x JAE TX-25 | 2 x USB 2.0<br>1 x 10/100/1000 Mbps Ethernet<br>1 x VGA<br>1 x JAE TX-25 | 2 x USB 2.0<br>1 x 10/100/1000 Mbps Ethernet<br>1 x VGA<br>1 x JAE TX-25 | 2 x USB 2.0<br>1 x 10/100/1000Mbps Ethernet<br>1 x VGA<br>1 x JAE TX-25 |
| <b>Storage</b>                | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray   | 1 x 2.5" SATA HDD tray  |
| <b>Touchscreen</b>            | N/A  | N/A  | N/A  | N/A   |
| <b>Power Supply</b>           | 12VDC ~ 19VDC  | 12VDC ~ 19VDC  | 12VDC ~ 19VDC  | 12VDC ~ 19VDC   |
| <b>Dimensions (W x D x H)</b> | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                                | 200 x 119 x 30 mm (7.87" x 4.68" x 1.18")                               |
| <b>Weight (net/gross)</b>     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)  | 1 kg (2.2 lb)/1.5 kg (3.3 lb)   |
| <b>Operating Temperature</b>  | 0°C ~ +54°C (+32°F ~ +130°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)   | 0°C ~ +45°C (+32°F ~ +113°F)  |
| <b>Certificate</b>            | CE   | CE   | CE   | CE  |

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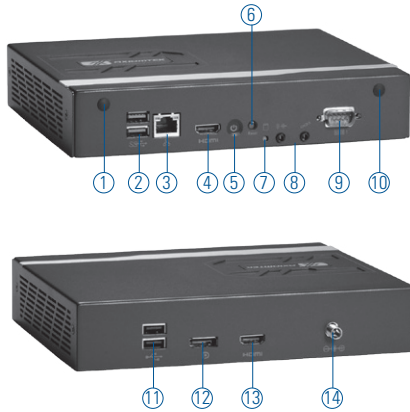
Power Supplies

Peripherals & Accessories



# DSB550-880

High Performance Digital Signage Player  
Supports 4th Generation Intel® Core™ i5/i3  
Processor



- |                            |                                 |                 |
|----------------------------|---------------------------------|-----------------|
| 1. WiFi antenna (optional) | 6. Reset button                 | 11. USB 2.0 x 2 |
| 2. USB 3.0 x 2             | 7. HDD LED                      | 12. DisplayPort |
| 3. Ethernet                | 8. Audio (Line-out/Mic-in)      | 13. HDMI        |
| 4. 4K HDMI                 | 9. RS-232 (COM 2)               | 14. 19V DC in   |
| 5. Power button            | 10. 3G & WiFi module (optional) |                 |



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Black/Grey  |
| Construction          | Heavy-duty steel  |
| CPU                   | Supports 4th generation Intel® Core™ i5/i3 processor (Haswell)  |
| Chipset               | Intel® QM87   |
| System Memory         | 1 x 204-pin DDR3L-1066/1333/1600 SO-DIMM max. up to 8 GB  |
| Storage               | 1 x 2.5" SATA HDD<br>1 x mSATA  |
| BIOS                  | AMI UEFI BIOS   |
| System I/O Outlet     | 1 x DisplayPort<br>2 x USB 3.0<br>2 x USB 2.0<br>1 x Audio (Line-out/Mic-in)<br>2 x HDMI (Front HDMI port: support 4K2K)<br>1 x 10/100/1000Mbps Ethernet<br>1 x RS-232 (COM 2)<br>1 x power on/off button<br>1 x reset button |
| Indicator             | 1 x LED for system power ON, 1 x LED for HDD  |
| WiFi                  | Optional 802.11 b/g/n   |
| Expansion Slot)       | 2 x PCI Express Mini Card   |
| Power Supply          | Input: AC 90V ~264V<br>Output: DC 19VDC @4.74 A   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)  |
| Dimensions            | 210 mm (8.26") (W) x 164 mm (6.46") (D) x 40 mm (1.57") (H)   |
| Packing Dimensions    | 277mm (10.90") (W) x 212 mm (8.35") (D) x 147 mm (5.79") (H)  |
| Weight (net/gross)    | 1.9 kg (4.2lb)/ 2.9 kg (6.4 lb)   |
| Certificate           | CE  |

## Features

- Supports 4th generation Intel® Core™ i5 processor onboard (Haswell)
- Intel® QM87 chipset
- DDR3L-1066/1333/1600 SO-DIMM max. up to 8 GB
- Optional 3G & wireless LAN module
- 1 DisplayPort, 2 HDMI ports
- One 2.5" SATA HDD
- Supports Intel® AMT (Active Management Technology) 9.0
- Supports wall mount and VESA mount
- Supports 2 USB 3.0 ports
- One mSATA

## Optional EOS Installation

WE87 and WE8S

## Optional OS Installation

Windows® 7, Windows® Embedded 8

## Ordering Information

### Standard

DSB550-880 High performance digital signage player supports 4th generation Intel® Core™ i5/i3 processor

### Optional

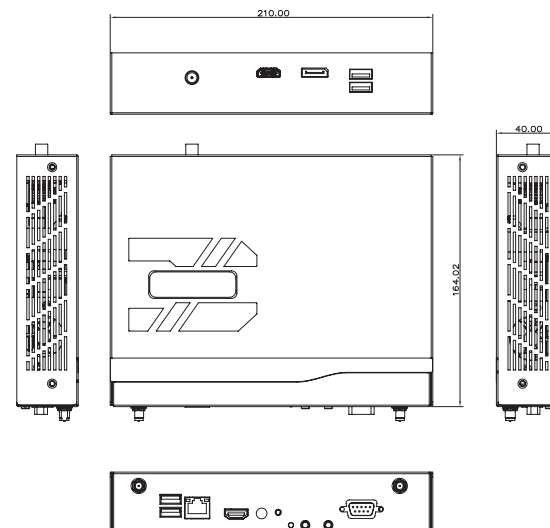
Wireless Lan kit Wi-Fi module and antenna

VESA mount kit

Wall mount kit

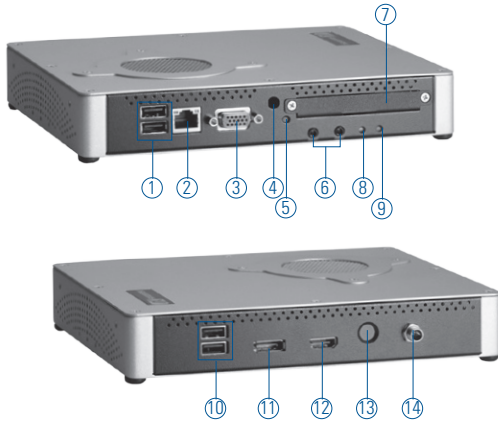
\* Specification and certifications are based on options and may vary.

## Dimensions



# DSB500-860

High Performance Digital Signage Player  
Supports Socket G2 2nd Generation Intel®  
Core™ Processor



- |                            |                            |                  |
|----------------------------|----------------------------|------------------|
| 1. USB 2.0 x 2             | 6. Audio (Line-out/Mic-in) | 11. DisplayPort  |
| 2. Ethernet                | 7. 2.5" HDD tray           | 12. HDMI         |
| 3. VGA                     | 8. Power LED               | 13. Power button |
| 4. WiFi antenna (optional) | 9. HDD LED                 | 14. 19V DC in    |
| 5. Reset button            | 10. USB 2.0 x 2            |                  |



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Black/Grey  |
| Construction          | Heavy-duty steel  |
| CPU                   | Socket G2 (rPGA988B) for 2nd generation Intel® Core™ i7/i5/i3 processor (Sandy Bridge)  |
| Chipset               | Intel® QM67   |
| System Memory         | 1 x 204-pin DDR3-1066/1333/1600 SO-DIMM max. up to 8 GB   |
| Storage               | 1 x 2.5" SATA HDD   |
| BIOS                  | AMI   |
| System I/O Outlet     | 1 x DisplayPort<br>1 x VGA<br>4 x USB 2.0<br>1 x Audio (Line-out/Mic-in)<br>1 x HDMI<br>1 x 10/100/1000Mbps Ethernet<br>1 x power on/off button<br>1 x reset button |
| Indicator             | 1 x LED for system power ON, 1 x LED for HDD  |
| WiFi                  | Optional 802.11 b/g/n   |
| Expansion Slot        | 1 x PCI Express Mini Card   |
| Power Supply          | 19VDC   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)  |
| Dimensions            | 210 mm (8.26") (W) x 165 mm (6.49") (D) x 35 mm (1.37") (H)   |
| Packing Dimensions    | 277 mm (10.91") (W) x 212 mm (8.35") (D) x 147 mm (5.79") (H)   |
| Weight (net/gross)    | 1.5 kg (3.3 lb)/ 2.5 kg (5.51 lb)   |
| Certificate           | CE  |

## Packing

- 1 x driver CD
- 1 x adapter 19V 90W
- 1 x power cord
- 2 x M3 screw

## Features

- Supports Socket G2 (rPGA988B) 2nd generation Intel® Core™ i7/i5/i3 processor
- Intel® QM67 chipset
- DDR3-1066/1333/1600 SO-DIMM max. up to 8 GB
- HDMI & DisplayPort & VGA
- One 2.5" SATA drive bay
- Supports Intel® AMT (Active Management Technology) 7.0
- Optional wireless LAN module
- Supports wall mount and VESA mount

## Optional EOS Installation

Windows® XP Embedded, WES7

## Optional OS Installation

Windows® 7

## Ordering Information

### Standard

DSB500-860 High performance digital signage player supports socket G2 2nd generation Intel® Core™ processor

### Optional

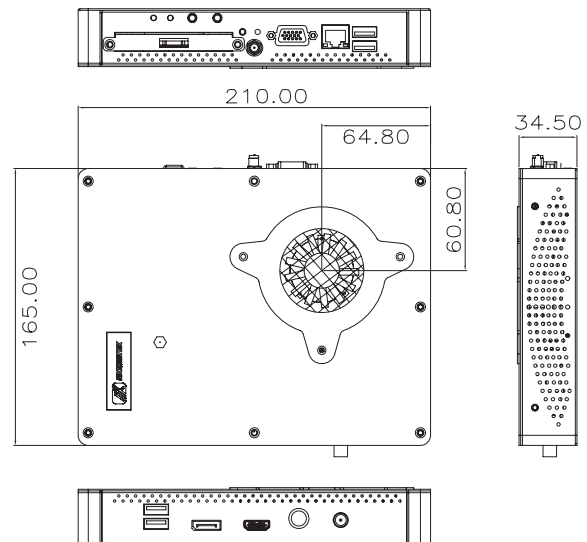
Wireless Lan kit Wi-Fi module and antenna

VESA mount kit

Wall mount kit

\* Specification and certifications are based on options and may vary.

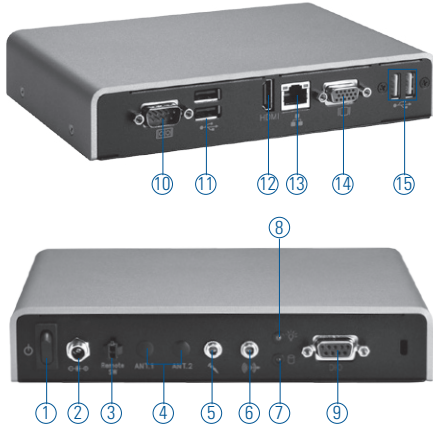
## Dimensions



# DSB320-842

Fanless Digital Signage Player Supports Intel® Celeron® Processor J1900 (up to 2.42 GHz)

NEW



- |                         |                      |                 |
|-------------------------|----------------------|-----------------|
| 1. Power on/off button  | 6. Audio (Line-out)  | 11. USB 2.0 x 2 |
| 2. 12Vdc in             | 7. Storage indicator | 12. HDMI output |
| 3. Remote button switch | 8. Power indicator   | 13. RJ45        |
| 4. Antenna(optional)    | 9. Digital I/O (DIO) | 14. VGA output  |
| 5. Audio (Mic -in)      | 10. RS-232 (COM)     | 15. USB 2.0 x 2 |



## Specifications

|                                  |  |  |
|----------------------------------|--|--|
| Main System                      | CPU  | Intel® Celeron® processor J1900 (up to 2.42 GHz) (Bay Trail) |
|                                  | System Memory  | 1 x 204-pin DDR3L-1333 SO-DIMM max. up to 8 GB               |
|                                  | Storage  | 1 x mSATA supported  |
|                                  | Watchdog Timer   | 255 levels, 1-255 sec.                                       |
|                                  | I/O  | 4 x USB 2.0  |
| 1 x 10/100/1000Mbps Ethernet     |  |  |
| 1 x 8-CH TTL DIO (DB9 connector) |  |  |
| 1 x HDMI                         |  |  |
| 1 x VGA                          |  |  |
| 1 x RS-232 (COM)                 |  |  |
| 1 x power on/off button          |  |  |
| 1 x Audio (Line out)             |  |  |
| 1 x Audio (Mic-in)               |  |  |
| 1 x Remote button switch         |  |  |
| 1 x Kensington lock              |  |  |
| Indicator                        | 1 x LED for system power on                                    |  |
|                                  | 1 x LED for HDD active   |  |
| WiFi                             | Optional 802.11 b/g/n  |  |
| Expansion Slot                   | 1 x full-size PCI Express Mini card (for mSATA)                |  |
|                                  | 1 x half-size PCI Express Mini card with SIM slot              |  |
| Power Supply                     | 12VDC, with AC-DC 12/36W Adapter                               |  |
| Dimensions                       | 180.7 mm (7.11") (W) x 128 mm (5.04") x 34.7 mm (1.37")        |  |
| Packing Dimension                | 309 mm (12.17") (W) x 275 mm (10.83") (D) x 106 mm (4.17") (H) |  |
| Weight (net/gross)               | 1 kg (2.21 lb)/ 1.5 kg (3.3 lb)                                |  |
| Environmental                    | 0°C ~ +40°C (+32°F ~ +104°F)                                   |  |

## Packing

- 1 x driver CD
- 1 x adapter 12V 36W
- 1 x power cord
- 1 x remote button cable (1Meter)

## Features

- Fanless operation
- Low power consumption
- Supports Intel® Celeron® 4-core J1900 onboard (Bay Trail-D)
- Supports DDR3L-1333 SO-DIMM max. up to 8 GB
- 1 HDMI & 1 VGA for dual independent display
- 1 mSATA supported
- Supports AVB (Audio Video Bridging) feature
- Supports TV rack, wall mount and VESA mount

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

DSB320-842 Fanless digital signage player supports Intel® Celeron® processor J1900 (up to 2.42 GHz)

### Optional

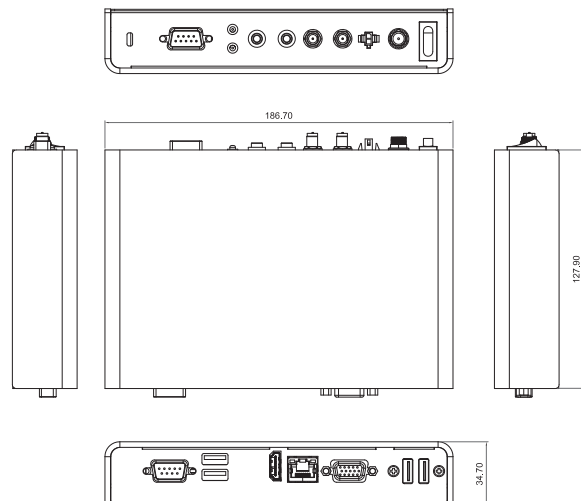
VESA Mount kit

Wall Mount kit

TV Rack Kit

\* Specification and certifications are based on options and may vary.

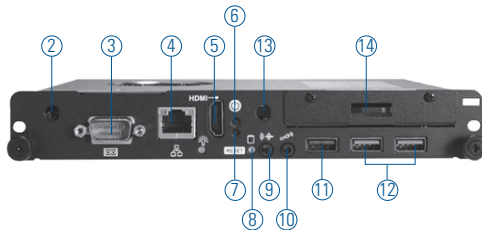
## Dimensions





# OPS500-501-H

6th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor Open Pluggable Specification (OPS) Digital Signage Player with Intel® H110



- |                     |                    |                       |
|---------------------|--------------------|-----------------------|
| 1. JAE TX-25        | 6. Power Switch    | 11. 1 x USB 2.0       |
| 2. Optional Antenna | 7. Reset           | 12. 2 x USB 3.0       |
| 3. RS-232           | 8. HDD indicator   | 13. Optional Antenna  |
| 4. Ethernet         | 9. Audio(Line-out) | 14. 2.5" SATA HDD     |
| 5. HDMI Output      | 10. Audio(Mic.-in) | 15. 12VDC power input |



## Specifications

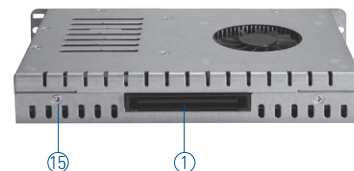
|   |   |  |
|---|---|--|
| Main System   | CPU   | LGA1151 socket 6th generation Intel® Core™ processor (Skylake) |
|   | Chipset   | Intel® H110  |
|   | System Memory   | 1 x 260 pin DDR4-2133 SO-DIMM max. up to 16 GB                 |
|   | Storage   | 1 x 2.5" SATA HDD tray<br>1 x mSATA (Option)                   |
|   | Watchdog Timer  | 255 levels, 1-255 sec.   |
| I/O   | 2 x USB 3.0   |  |
|   | 1 x USB 2.0   |  |
|   | 1 x 10/100/1000Mbps Ethernet (Intel® i219LM)                      |  |
|   | 1 x HDMI with 4K Resolution                                       |  |
|   | 1 x RS-232 (COM2)   |  |
|   | 1 x power on/off button   |  |
|   | 1 x reset button  |  |
|   | 1 x Audio (Line-out)  |  |
|   | 1 x Audio (Mic-in)  |  |
|   | 1 x Display Port (4K@60Hz via OPS JAE interconnector)             |  |
|   | 1 x HDMI 2.0 (4K@60Hz via OPS JAE interconnector)                 |  |
|   | 2 x USB 2.0 (via OPS JAE interconnector)                          |  |
|   | 1 x USB 3.0 (via OPS JAE interconnector)                          |  |
| 1 x Audio (Line out, via OPS JAE interconnector)    |   |  |
| 1 x UART (TX/RX, via OPS JAE interconnector) (COM1) |   |  |
| 1 x 12VDC PWR Input by adapter option               |   |  |
| Indicator   | 1 x LED for system power ON                                       |  |
|   | 1 x LED for HDD active  |  |
| WiFi  | Optional 802.11 b/g/n   |  |
| Expansion Slot                                      | 1 x full-size PCI Express Mini card (USB+PCI Express+SATA Signal) |  |
| Dimensions  | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")               |  |
| Packing Dimension                                   | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")               |  |
| Weight (net/gross)                                  | 1 kg (2.21lb)/ 1.5 kg (3.3 lb)                                    |  |
| Environmental                                       | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)                |  |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Intel® Open Pluggable Specification (OPS compliance)
- 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Skylake)
- Supports DDR4 SO-DIMM 2133 max. up to 16 GB
- Supports 1 PCI Express Mini Card
- Supports 4K@60Hz resolution
- Easy Installation and maintenance
- HDMI for 2nd Ultra HD display



## Optional OS Installation

Windows® 7, Windows® 8.1, Windows® 10

## Ordering Information

### Standard

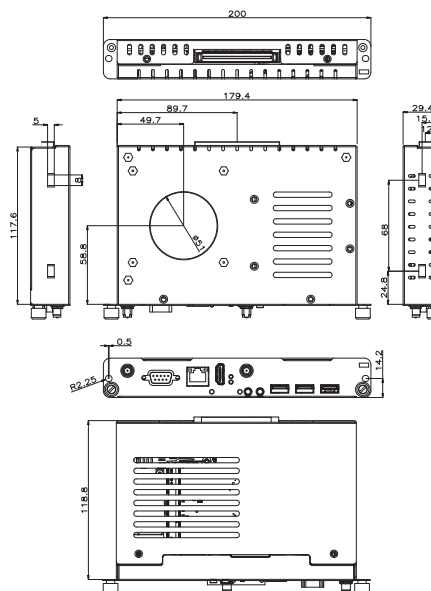
OPS500-501-H OPS digital signage player supports LGA1151 socket Intel® Core™ i7/i5/i3 & Celeron® processor

### Optional

AX93167 OPS docking board with 4K solution  
AX93190 OPS docking board with 4K/60Hz solution

\* Specifications and photos are based on options and may vary

## Dimensions



Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

5

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

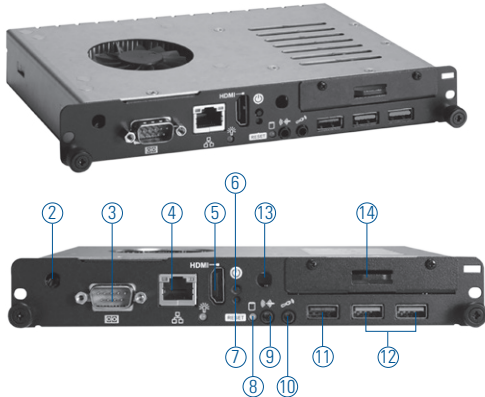
Power Supplies

Peripherals & Accessories



# OPS500-501

6th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor Open Pluggable Specification (OPS) Digital Signage Player with Intel® Q170 and iAMT 11.0



- |                     |                    |                       |
|---------------------|--------------------|-----------------------|
| 1. JAE TX-25        | 6. Power Switch    | 11. 1 x USB 2.0       |
| 2. Optional Antenna | 7. Reset           | 12. 2 x USB 3.0       |
| 3. RS-232           | 8. HDD indicator   | 13. Optional Antenna  |
| 4. Ethernet         | 9. Audio(Line-out) | 14. 2.5" SATA HDD     |
| 5. HDMI Output      | 10. Audio(Mic.-in) | 15. 12VDC power input |



## Specifications

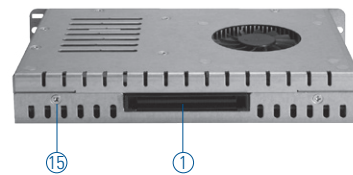
|                                       |   |  |
|---------------------------------------|---|--|
| Main System                           | CPU   | LGA1151 socket L 6th generation Intel® Core™ processor (Skylake) |
|                                       | Chipset   | Intel®Q170   |
|                                       | System Memory   | 1 x 260 pin DDR4-2133 SO-DIMM max. up to 16 GB                   |
|                                       | Storage   | 1 x 2.5" SATA HDD tray<br>1 x mSATA (Option)                     |
|                                       | Watchdog Timer  | 255 levels, 1-255 sec.   |
| I/O                                   | 2 x USB 3.0   |  |
|                                       | 1 x USB 2.0   |  |
|                                       | 1 x 10/100/1000Mbps Ethernet (Intel® i219LM)                      |  |
|                                       | 1 x HDMI with 4K Resolution                                       |  |
|                                       | 1 x RS-232 (COM2)   |  |
|                                       | 1 x power on/off button   |  |
|                                       | 1 x reset button  |  |
|                                       | 1 x Audio (Line-out)  |  |
|                                       | 1 x Audio (Mic-in)  |  |
|                                       | 1 x Display Port (4K@60Hz via OPS JAE interconnector)             |  |
|                                       | 1 x HDMI 2.0 (4K@60Hz via OPS JAE interconnector)                 |  |
|                                       | 2 x USB 2.0 (via OPS JAE interconnector)                          |  |
|                                       | 1 x USB 3.0 (via OPS JAE interconnector)                          |  |
|                                       | 1 x Audio (Line out, via OPS JAE interconnector)                  |  |
|                                       | 1 x UART (TX/RX, via OPS JAE interconnector) (COM1)               |  |
| 1 x 12VDC PWR Input by adapter option |   |  |
| Indicator                             | 1 x LED for system power ON                                       |  |
|                                       | 1 x LED for HDD active  |  |
| WiFi                                  | Optional 802.11 b/g/n   |  |
| Expansion Slot                        | 1 x full-size PCI Express Mini card (USB+PCI Express+SATA Signal) |  |
| Dimensions                            | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")               |  |
| Packing Dimension                     | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")               |  |
| Weight (net/gross)                    | 1 kg (2.21lb)/ 1.5 kg (3.3 lb)                                    |  |
| Environmental                         | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)                |  |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Intel® Open Pluggable Specification (OPS compliance)
- 6th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Skylake)
- Supports DDR4-2133 SO-DIMM max. up to 16 GB
- Supports 1 PCI Express Mini Card
- Supports 4K@60Hz resolution
- Easy installation and maintenance
- HDMI for 2nd Ultra HD display
- Intel® AMT (Active Management Technology) 11.0



## Optional OS Installation

Windows® 7, Windows® 8.1, Windows® 10

## Ordering Information

### Standard

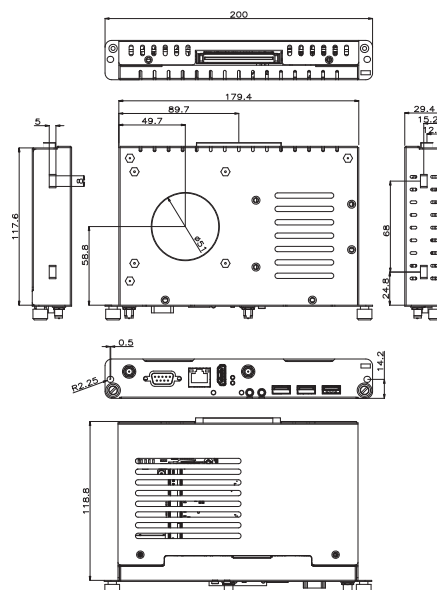
OPS500-501 OPS digital signage player supports LGA1151 socket Intel® Core™ i7/i5/i3 & Celeron® processor with iAMT 11.0

### Optional

AX93167 OPS docking board with 4K solution  
AX93190 OPS docking board with 4K/60Hz solution

\* Specifications and photos are based on options and may vary

## Dimensions



\* All specifications and photos are subject to change without notice.

# OPS885

4th Generation Intel® Core™ i5 Intelligent Pluggable System Specification (IPSS) Digital Signage Player with Intel® QM87, AMT 9.0 and TPM 1.2



- |                 |                     |                             |
|-----------------|---------------------|-----------------------------|
| 1. USB 3.0 x 2  | 5. Reset            | 9. RS-232                   |
| 2. Ethernet     | 6. HDD indicator    | 10. USB 2.0                 |
| 3. HDMI         | 7. Audio (Line-out) | 11. WiFi antenna (optional) |
| 4. Power switch | 8. Audio (Mic-in)   | 12. JAE TX-25               |



## Specifications

|  |  |  |
|--|--|--|
| Main System  | CPU  | 4th generation Intel® Core™ (Haswell) i5-4400E processor onboard |
|  | Chipset  | Intel® QM87  |
|  | System Memory  | 1 x 204 pin DDR3L-1600 SO-DIMM max. up to 8 GB                   |
|  | Storage  | 1 x mSATA  |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built                                  |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
| I/O  | 2 x USB 3.0  |  |
|  | 1 x USB 2.0  |  |
|  | 1 x 10/100/1000Mbps Ethernet                           |  |
|  | 1 x HDMI   |  |
|  | 1 x RS-232 (COM 2)                                     |  |
|  | 1 x power on/off button                                |  |
|  | 1 x reset button                                       |  |
|  | 1 x Audio (Line-out)                                   |  |
|  | 1 x Audio (Mic-in)                                     |  |
|  | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|  | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|  | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|  | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
| 1 x Audio (Line-out, via OPS JAE interconnector)     |  |  |
| 1 x UART (TX/RX, via OPS JAE interconnector) (COM 1) |  |  |
| Indicator  | 1 x LED for system power ON                            |  |
| WiFi   | Optional 802.11 b/g/n                                  |  |
| Expansion Slot                                       | 2 x full-size PCI Express Mini Card<br>1 x SIM slot    |  |
| Dimensions   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |  |
| Packing Dimensions                                   | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")   |  |
| Weight (net/gross)                                   | 1 kg (2.21lb)/1.5kg (3.3 lb)                           |  |
| Environmental  | 0° ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)      |  |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 3 screw
- 2 x M3 x 4 screw
- 2 x M4 x 10 screw
- 2 x thermal Pad

## Features

- Open Pluggable Specification (OPS) compliance
- Supports 4th generation Intel® Core™ (Haswell) i5-4400E processor onboard
- Intel® QM87 chipset
- Supports DDR3L-1600 SO-DIMM 1600 max. up to 8 GB
- Supports 2 USB 3.0 ports, 2 PCI Express Mini Card slots
- Intel® AMT (Active Management Technology) 9.0
- HDMI for 2nd display
- Supports 4K resolution
- Supports TPM 1.2
- Supports Intel® RCM (Retail Client Manager)



## Optional OS Installation

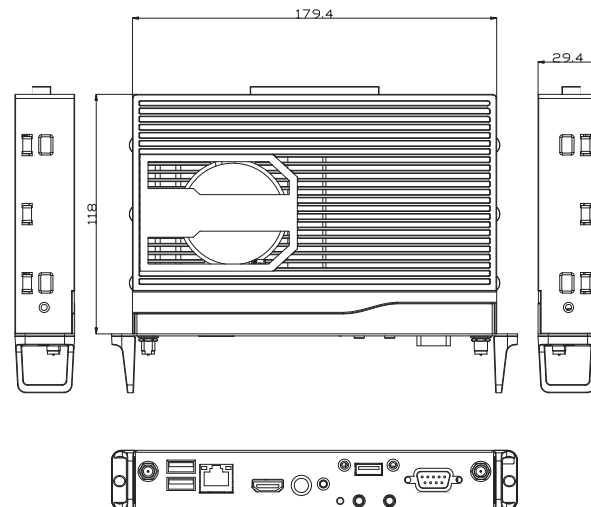
Windows® 7, Windows® 8.1

## Ordering Information

| Standard |   |
|----------|---|
| OPS885   | IPSS/OPS digital signage player with 4th generation Intel® (P/N:E22M885100) Core™ i5-4400E (3M Cache, up to 3.30 GHz) processor onboard |
| Optional |   |
| AX93157  | OPS docking board   |
| AX93167  | OPS docking board with 4K resolution support  |

\* Specifications and photos are based on options and may vary.

## Dimensions



Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

5

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

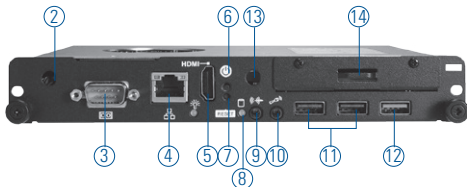
Power Supplies

Peripherals & Accessories



# OPS883-H

4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor Open Pluggable Specification (OPS) Digital Signage Player with Intel® H81 and TPM 1.2



- |                     |                    |                      |
|---------------------|--------------------|----------------------|
| 1. JAE TX-25        | 6. Power Switch    | 11. 2 x USB 2.0      |
| 2. Optional Antenna | 7. Reset           | 12. 1 x USB 3.0      |
| 3. RS-232           | 8. HDD indicator   | 13. Optional Antenna |
| 4. Ethernet         | 9. Audio(Line-out) | 14. 2.5" SATA HDD    |
| 5. HDMI Output      | 10. Audio(Mic-in)  |                      |



## Specifications

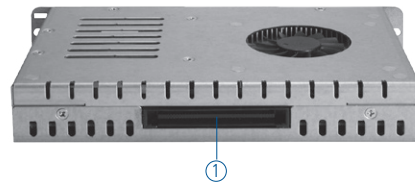
|                    |   |  |
|--------------------|---|--|
| Main System        | CPU   | LGA1150 socket 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell Refresh) |
|                    | Chipset   | Intel® H81   |
|                    | System Memory                                       | 1 x 204 pin DDR3-1600 SO-DIMM max. up to 8 GB  |
|                    | Storage   | 1 x 2.5" SATA HDD tray   |
| I/O                | Watchdog Timer                                      | 255 levels, 1-255 sec.   |
|                    |   | 2 x USB 2.0  |
|                    |   | 1 x USB 3.0  |
|                    |   | 1 x 10/100/1000Mbps Ethernet   |
|                    |   | 1 x HDMI with 4K Resolution  |
|                    |   | 1 x RS-232 (COM2)  |
|                    |   | 1 x power on/off button  |
|                    |   | 1 x reset button   |
|                    |   | 1 x Audio (Line-out)   |
|                    |   | 1 x Audio (Mic-in)   |
|                    |   | 1 x Display Port (via OPS JAE interconnector)  |
|                    |   | 2 x USB 2.0 (via OPS JAE interconnector)   |
|                    | 1 x USB 3.0 (via OPS JAE interconnector)            |  |
|                    | 1 x Audio (Line out, via OPS JAE interconnector)    |  |
|                    | 1 x UART (TX/RX, via OPS JAE interconnector) (COM1) |  |
| Indicator          |   | 1 x LED for system power ON<br>1 x LED for HDD active                                      |
| WiFi               |   | Optional 802.11 b/g/n  |
| Expansion Slot     |   | 1 x full-size PCI Express Mini card (USB+PCI Express Signal)                               |
| Dimensions         |   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")  |
| Packing Dimension  |   | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")  |
| Weight (net/gross) |   | 1 kg (2.21lb)/ 1.5 kg (3.3 lb)   |
| Environmental      |   | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)   |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Intel® Open Pluggable Specification (OPS) compliance
- 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell Refresh)
- Supports DDR3-1600 SO-DIMM 1600 max. up to 8 GB
- Supports 1 PCI Express Mini Card
- Supports 4K resolution
- Supports TPM 1.2
- Easy Installation and maintenance
- HDMI for 2nd display



## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

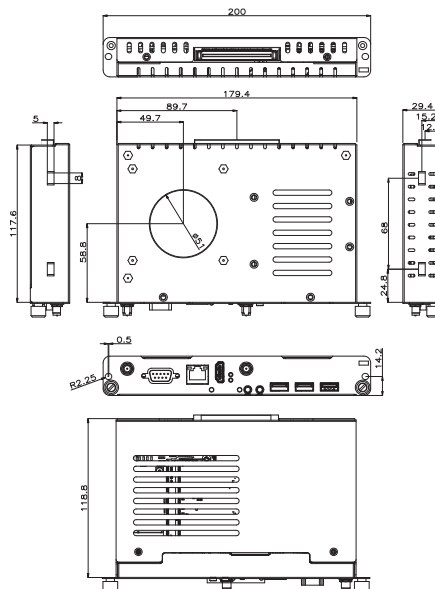
OPS883-H OPS digital signage player supports LGA1150 socket Intel® Core™ i7/i5/i3 & Celeron® processor

### Optional

AX93167 OPS docking board with 4K solution

\* Specifications and photos are based on options and may vary

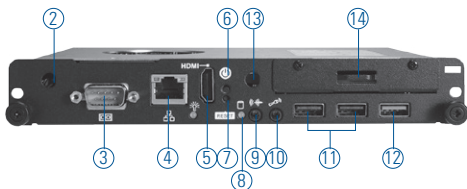
## Dimensions



\* All specifications and photos are subject to change without notice.

# OPS883

4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor Open Pluggable Specification (OPS) Digital Signage Player with Intel® Q87 Chipset and TPM 1.2



- |                     |                    |                      |
|---------------------|--------------------|----------------------|
| 1. JAE TX-25        | 6. Power Switch    | 11. 2 x USB 2.0      |
| 2. Optional Antenna | 7. Reset           | 12. 1 x USB 3.0      |
| 3. RS-232           | 8. HDD indicator   | 13. Optional Antenna |
| 4. Ethernet         | 9. Audio(Line-out) | 14. 2.5" SATA HDD    |
| 5. HDMI Output      | 10. Audio(Mic-in)  |                      |



## Specifications

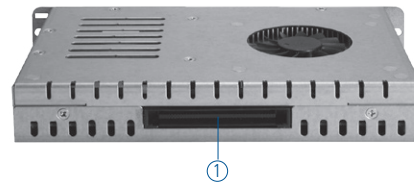
|   |  |  |
|---|--|--|
| Main System   | CPU  | LGA1150 socket 4th generation Intel® Core™ processor (Haswell Refresh) |
|   | Chipset  | Intel® Q87   |
|   | System Memory  | 1 x 204 pin DDR3-1600 SO-DIMM max. up to 8 GB                          |
|   | Storage  | 1 x 2.5" SATA HDD tray<br>1 x mSATA (Option)                           |
|   | Watchdog Timer   | 255 levels, 1-255 sec.   |
| I/O   | 2 x USB 2.0  |  |
|   | 1 x USB 3.0  |  |
|   | 1 x 10/100/1000Mbps Ethernet                                 |  |
|   | 1 x HDMI with 4K Resolution                                  |  |
|   | 1 x RS-232 (COM2)  |  |
|   | 1 x power on/off button                                      |  |
|   | 1 x reset button   |  |
|   | 1 x Audio (Line-out)   |  |
|   | 1 x Audio (Mic-in)   |  |
|   | 1 x Display Port (via OPS JAE interconnector)                |  |
|   | 2 x USB 2.0 (via OPS JAE interconnector)                     |  |
|   | 1 x USB 3.0 (via OPS JAE interconnector)                     |  |
|   | 1 x Audio (Line out, via OPS JAE interconnector)             |  |
| 1 x UART (TX/RX, via OPS JAE interconnector) (COM1) |  |  |
| Indicator   | 1 x LED for system power ON                                  |  |
|   | 1 x LED for HDD active                                       |  |
| WiFi  | Optional Wi-Fi module  |  |
| Expansion Slot                                      | 1 x full-size PCI Express Mini card (USB+PCI Express Signal) |  |
| Dimensions  | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")          |  |
| Packing Dimension                                   | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")          |  |
| Weight (net/gross)                                  | 1 kg (2.21lb) / 1.5 kg (3.3 lb)                              |  |
| Environmental                                       | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)           |  |

## Packing

|                    |
|--------------------|
| 1 x driver CD      |
| 1 x thermal grease |
| 2 x M2 x 5 screw   |
| 2 x M4 x 6 screw   |

## Features

- Intel® Open Pluggable Specification (OPS) compliance
- 4th Generation Intel® Core™ i7/i5/i3 & Celeron® processor (Haswell Refresh)
- Supports DDR3-1600 SO-DIMM max. up to 8 GB
- Supports 1 PCI Express Mini Card
- Supports TPM 1.2
- Easy installation and maintenance
- HDMI for 2nd display w/4K resolution
- Intel®AMT 9.0 supported



## Optional OS Installation

Windows® 7, Windows® 8.1

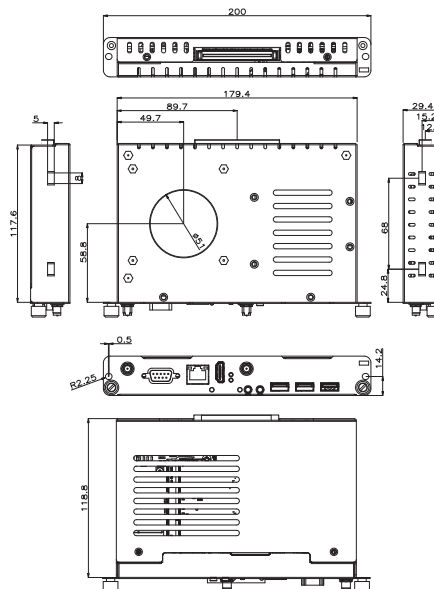
## Ordering Information

| Standard |   |
|----------|---|
| OPS883   | OPS digital signage player supports LGA1150 socket Intel® Core™ i7/i5/i3 & Celeron® processor with iAMT feature |

| Optional |                                    |
|----------|------------------------------------|
| AX93167  | OPS docking board with 4K solution |

\* Specifications and photos are based on options and may vary

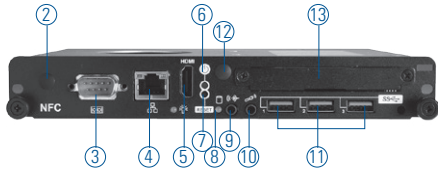
## Dimensions





# OPS882-HM

4th Generation Intel® Core™ i5 Processor  
IPSS/OPS Digital Signage Player with  
Intel® HM86, 4K2K and AVB (Audio Video  
Bridging) 802.1AS



- |                 |                     |                        |
|-----------------|---------------------|------------------------|
| 1. JAE TX-25    | 6. Power Switch     | 11. 3 x USB 3.0        |
| 2. Optional NFC | 7. Reset            | 12. Optional Antenna   |
| 3. RS-232       | 8. HDD indicator    | 13. 2.5" SATA HDD tray |
| 4. Ethernet     | 9. Audio (Line-out) |                        |
| 5. HDMI Output  | 10. Audio (Mic.-in) |                        |



## Specifications

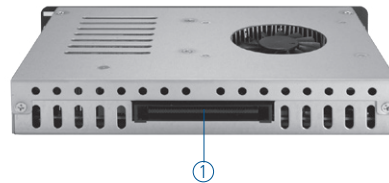
|  |  |  |
|--|--|--|
| Main System  | CPU  | 4th generation Intel® Core™ i5 processor (Haswell Refresh) |
|  | Chipset  | Intel® HM86  |
|  | System Memory  | 2 x 204-pin DDR3L-1600 SO-DIMM max. up to 16 GB            |
|  | Storage  | 1 x 2.5" SATA HDD tray                                     |
|  | Watchdog Timer   | 255 levels, 1-255 sec.                                     |
| I/O  | 3 x USB 3.0  |  |
|  | 1 x 10/100/1000Mbps Ethernet (Intel® I210, supports AVB feature)     |  |
|  | 1 x HDMI   |  |
|  | 1 x RS-232 (COM2)  |  |
|  | 1 x power on/off button  |  |
|  | 1 x reset button   |  |
|  | 1 x Audio Line-out   |  |
|  | 1 x Audio Mic-in   |  |
|  | 1 x Display Port (via OPS JAE interconnector) (Pure DP)              |  |
|  | 2 x USB 2.0 (via OPS JAE interconnector)                             |  |
|  | 1 x USB 3.0 (via OPS JAE interconnector)                             |  |
|  | 1 x Audio (Line out, via OPS JAE interconnector)                     |  |
| 1 x UART (TX/RX, via OPS JAE interconnector)(COM1) |  |  |
| Indicator  | 1 x LED for system power ON  |  |
|  | 1 x LED for HDD active   |  |
| WiFi   | Optional 802.11 b/g/n  |  |
| Expansion Slot                                     | 1 x full-size PCI Express Mini card (Optional for mSATA or SIM slot) |  |
|  | 1 x half-size PCI Express Mini card                                  |  |
| Dimensions   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")                  |  |
| Packing Dimension                                  | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")                 |  |
| Weight (net/gross)                                 | 1 kg (2.21lb)/ 1.5 kg (3.3 lb)                                       |  |
| Environmental                                      | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2 m/s)                  |  |

## Packing

- 1 x Driver CD
- 1 x Thermal Grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports 4th Generation Intel® Core™ i5 processor (Haswell Refresh)
- Intel® HM86 chipset
- 2 DDR3L-1600 SO-DIMM 1600 max. up to 16 GB
- Supports 3 USB 3.0 ports, 2 PCI Express Mini Card
- HDMI for 2nd display
- Supports 4K resolution
- Supports TPM 1.2
- Supports AVB (Audio Video Bridging) feature
- NFC feature (optional)



## Optional OS Installation

- Windows® 7
- Windows® 8.1

## Ordering Information

### Standard

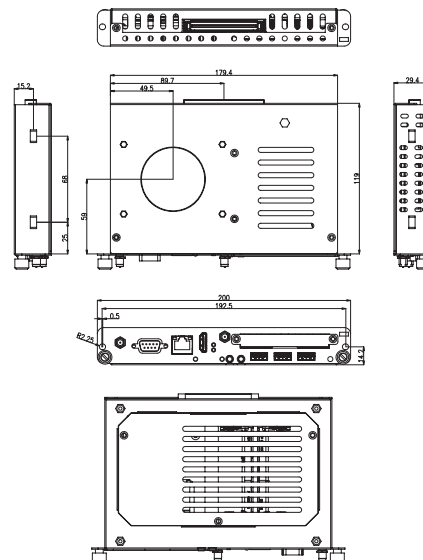
|              |  |
|--------------|--|
| OPS882-HM-i5 | OPS digital signage player 4th generation Intel® Core™ i5 processor onboard (i5-4410E) |
|--------------|--|

### Optional

|            |                                    |
|------------|------------------------------------|
| AX93157    | OPS docking board                  |
| AX93167    | OPS docking board with 4K solution |
| NFC module | NFC Antenna module kit             |

\* Specifications and photos are based on options and may vary.

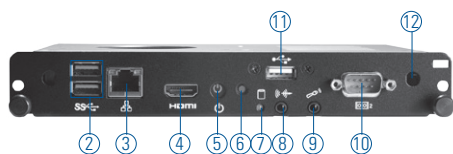
## Dimensions



\* All specifications and photos are subject to change without notice.

# OPS880

4th Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM87 and TPM 1.2



- |                 |                      |
|-----------------|----------------------|
| 1. JAE TX-25    | 7. HDD indicator     |
| 2. USB 3.0 x 2  | 8. Audio (Line-out)  |
| 3. Ethernet     | 9. Audio (Mic.-in)   |
| 4. HDMI         | 10. RS-232           |
| 5. Power switch | 11. USB 2.0          |
| 6. Reset        | 12. Optional antenna |



## Specifications

|   |  |  |
|---|--|--|
| Main System   | CPU  | 4th generation Intel® Core™ i7/i5/i3 processor (Haswell) |
|   | Chipset  | Intel® QM87  |
|   | System Memory  | 1 x 204 pin DDR3L-1600 SO-DIMM max. up to 8 GB           |
|   | Storage  | 1 x mSATA supported                                      |
|   | BIOS   | AMI UEFI BIOS with OA 3.0 built                          |
|   | Watchdog Timer   | 255 levels, 1 ~ 255 sec.                                 |
| I/O   | 2 x USB 3.0  |  |
|   | 1 x USB 2.0  |  |
|   | 1 x 10/100/1000Mbps Ethernet                           |  |
|   | 1 x HDMI   |  |
|   | 1 x RS-232 (COM 2)                                     |  |
|   | 1 x power on/off button                                |  |
|   | 1 x reset button                                       |  |
|   | 1 x Audio (Line-out)                                   |  |
|   | 1 x Audio (Mic-in)                                     |  |
|   | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|   | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|   | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|   | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
|   | 1 x Audio (Line-out, via OPS JAE interconnector)       |  |
| 1 x UART (TX/RX, via OPS JAE interconnector) (COM1) |  |  |
| Indicator   | 1 x LED for system power ON                            |  |
| WiFi  | Optional 802.11 b/g/n                                  |  |
| Expansion Slot                                      | 2 x full-size PCI Express Mini Card                    |  |
|   | 1 x SIM slot   |  |
| Dimensions  | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |  |
| Packing Dimensions                                  | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")    |  |
| Weight (net/gross)                                  | 1 kg (2.21 lb)/1.5 kg (3.3 lb)                         |  |
| Environmental                                       | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)     |  |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports 4th generation Intel® Core™ i7/i5/i3 processor (Haswell)
- Intel® QM87 chipset
- Supports DDR3L-1600 SO-DIMM 1600 max. up to 8 GB
- Supports 2 USB 3.0 ports
- 2 PCI Express Mini Card
- Remote management: Intel® AMT (Active Management Technology) 9.0
- HDMI interface for 2nd display
- Supports 4K resolution
- Supports TPM 1.2



▲ Rear view

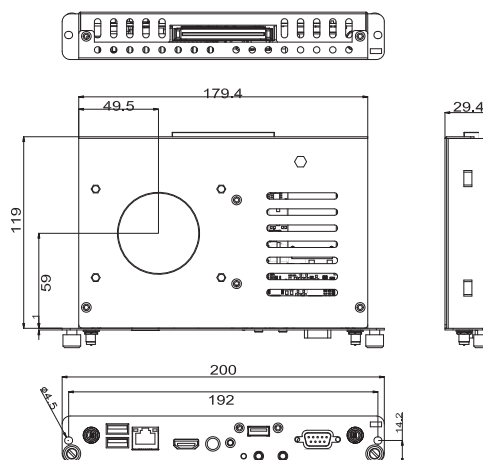
## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

| Standard                   |  |
|----------------------------|--|
| OPS880-i3 (P/N:E22M880102) | OPS digital signage player supports 4th generation Intel® Core™ i3 processor onboard (i3-4100E)  |
| OPS880-i5 (P/N:E22M880101) | OPS digital signage player supports 4th generation Intel® Core™ i5 processor onboard (i5-4400E)  |
| OPS880-i7 (P/N:E22M880100) | OPS digital signage player supports 4th generation Intel® Core™ i7 processor onboard (i7-4700EQ) |
| Optional                   |  |
| AX93157                    | OPS docking board  |
| AX93167                    | OPS docking board with 4K solution   |

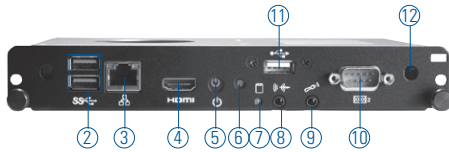
## Dimensions





# OPS880-HM

4th Generation Intel® Core™ Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM86 and TPM 1.2



- |                 |                      |
|-----------------|----------------------|
| 1. JAE TX-25    | 7. HDD indicator     |
| 2. USB 3.0 x 2  | 8. Audio (Line-out)  |
| 3. Ethernet     | 9. Audio (Mic.-in)   |
| 4. HDMI         | 10. RS-232           |
| 5. Power switch | 11. USB 2.0          |
| 6. Reset        | 12. Optional antenna |



## Specifications

|  |  |   |
|--|--|---|
| Main System  | CPU  | 4th generation Intel® Core™ i5/i3 processor (Haswell) |
|  | Chipset  | Intel® HM86   |
|  | System Memory  | 1 x 204-pin DDR3L-1600 SO-DIMM max. up to 8 GB        |
|  | Storage  | 1 x mSATA supported                                   |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built                       |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.                              |
|  | I/O  | 2 x USB 3.0   |
| 1 x USB 2.0  |  |   |
| 1 x 10/100/1000Mbps Ethernet                           |  |   |
| 1 x HDMI   |  |   |
| 1 x RS-232 (COM 2)                                     |  |   |
| 1 x power on/off button                                |  |   |
| 1 x reset button                                       |  |   |
| 1 x Audio (Line-out)                                   |  |   |
| 1 x Audio (Mic in)                                     |  |   |
| 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |   |
| 2 x USB 2.0 (via OPS JAE interconnector)               |  |   |
| 1 x USB 3.0 (via OPS JAE interconnector)               |  |   |
| 1 x HDMI/DVI (via OPS JAE interconnector)              |  |   |
| 1 x Audio (Line-out, via OPS JAE interconnector)       |  |   |
| 1 x UART (TX/RX, via OPS JAE interconnector) (COM1)    |  |   |
| Indicator  | 1 x LED for system power ON                              |   |
| WiFi   | Optional 802.11 b/g/n                                    |   |
| Expansion Slot   | 2 x full-size Mini PCI Express Mini Card<br>1 x SIM slot |   |
| Dimensions   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")      |   |
| Packing Dimension                                      | 270 mm (10.63") (W) x 197 mm (7.76") x 70mm (2.76")      |   |
| Weight (net/gross)                                     | 1 kg (2.21 lb)/1.5 kg (3.3 lb)                           |   |
| Environmental  | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)       |   |

## Packing

- 1 x driver CD
- 1 x thermal grease
- 2 x M2 x 5 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports 4th generation Intel® Core™ i5/i3 processor (Haswell)
- Intel® HM86 chipset
- DDR3L-1600 SO-DIMM max. up to 8 GB
- Supports 2 USB 3.0 ports
- 2 PCI Express Mini Card
- HDMI interface for 2nd display
- Supports 4K resolution
- Supports TPM 1.2



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

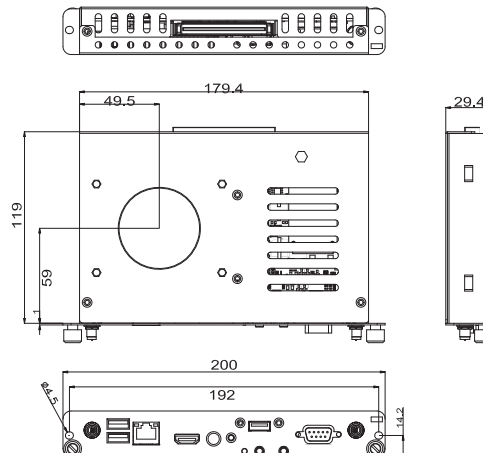
### Standard

|                               |  |
|-------------------------------|--|
| OPS880-HM-i3 (P/N:E22M880104) | OPS digital signage player supports 4th generation. Intel® Core™ i3 processor onboard (i3-4100E) |
| OPS880-HM-i5 (P/N:E22M880103) | OPS digital signage player supports 4th generation. Intel® Core™ i5 processor onboard (i5-4400E) |

### Optional

|         |                                    |
|---------|------------------------------------|
| AX93157 | OPS docking board                  |
| AX93167 | OPS docking board with 4K solution |

## Dimensions

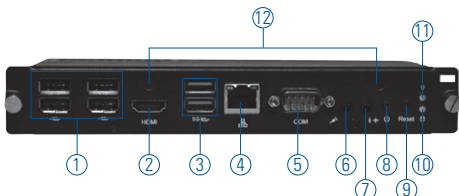


\* All specifications and photos are subject to change without notice.

# OPS875

Intel® Core™ i7/i5/i3 Open Pluggable Specification (OPS) Digital Signage Player

NEW



- |                |                     |                              |
|----------------|---------------------|------------------------------|
| 1. USB 2.0 x 4 | 5. RS-232           | 9. Reset button              |
| 2. HDMI        | 6. Audio (Mic-in)   | 10. HDD indicator            |
| 3. USB 3.0 x 2 | 7. Audio (Line-out) | 11. Power indicator          |
| 4. Ethernet    | 8. Power Switch     | 12. Wi-Fi antenna (optional) |



## Specifications

|  |  |  |
|--|--|--|
| Main System                                  | CPU  | Supports socket G2 (rPGA988B) for 3rd generation Intel® Core™ i7/i5/i3 processor |
|  | Chipset  | Intel® HM76  |
|  | System Memory  | 1 x 204-pin DDR3-1600 SO-DIMM max. up to 8 GB                                    |
|  | Storage  | 1 x 2.5" SATA HDD tray   |
|  | BIOS   | AMI UEFI BIOS  |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
| I/O  | 2 x USB 3.0  |  |
|  | 4 x USB 2.0  |  |
|  | 1 x 100/1000Mbps Ethernet                              |  |
|  | 1 x Power on/off button                                |  |
|  | 1 x Reset button                                       |  |
|  | 1 x HDMI   |  |
|  | 1 x RS-232   |  |
|  | 1 x Audio (Line-out/Mic-in)                            |  |
|  | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|  | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|  | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|  | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
|  | 1 x Audio (Line-out, via OPS JAE interconnector)       |  |
| 1 x UART (TX/RX, via OPS JAE interconnector) |  |  |
| Indicator                                    | 1 x LED for system power ON                            |  |
|  | 1 x LED for HDD active                                 |  |
| WiFi   | Supports 802.11 b/g/n (optional)                       |  |
| Expansion Slot                               | 1 x PCI Express Mini Card or mSATA                     |  |
| Dimensions                                   | 200 mm (7.87") (W) x 119 mm (4.68") (D)                |  |
|  | x 30 mm (1.18") (H)                                    |  |
| Packing Dimensions                           | 270 mm (10.63") (W) x 197 mm (7.76") (D)               |  |
|  | x 70 mm (2.76") (H)                                    |  |
| Weight (net/gross)                           | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                          |  |
| Environmental                                | 0°C ~ +45°C (32°F ~ 113°F) (With airflow 0.5m/s)       |  |

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 3rd generation Intel® Core™ i7/i5/i3 processor
- Intel® HM76 chipset
- DDR3-1600 SO-DIMM max. up to 8 GB
- USB 3.0, PCI Express Mini Card
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- HDMI interface for 2nd display



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8

## Ordering Information

### Standard

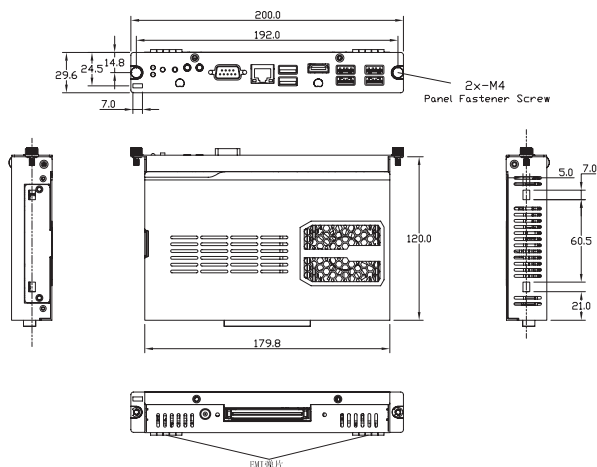
OPS875 OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor

### Optional

AX93169 OPS docking board

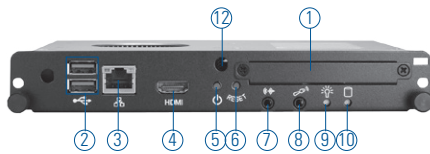
\* Specification and certifications are based on options and may vary.

## Dimensions



# OPS871

Socket G2 Intel® Core™ i7/i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® QM77 and TPM 1.2



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD slot | 7. Audio (Line-out)         |
| 2. USB 3.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. HDMI          | 10. HDD indicator           |
| 5. Power Switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|                    |  |  |
|--------------------|--|--|
| Main System        | CPU  | Socket G2 (rPGA988B) for 3rd generation Intel® Core™ i7/i5/i3 processor (Ivy Bridge) |
|                    | Chipset  | Intel® QM77  |
|                    | System Memory  | 1 x 204-pin DDR3-1600 SO-DIMM max. up to 8 GB  |
|                    | Storage  | 1 x 2.5" SATA HDD tray   |
|                    | BIOS   | AMI UEFI BIOS with OA 3.0 built  |
|                    | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
| IO                 | 2 x USB 3.0  |  |
|                    | 1 x 10/100/1000Mbps Ethernet                           |  |
|                    | 1 x Power on/off button                                |  |
|                    | 1 x Reset button                                       |  |
|                    | 1 x HDMI   |  |
|                    | 1 x Audio (Line-out/Mic-in)                            |  |
|                    | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|                    | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|                    | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|                    | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
| Indicator          | 1 x LED for system power ON                            |  |
|                    | 1 x LED for HDD active                                 |  |
| WiFi               | Supports 802.11 b/g/n (optional)                       |  |
| Expansion Slot     | 1 x PCI Express Mini Card                              |  |
| Dimensions         | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |  |
| Packing Dimensions | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")   |  |
| Weight (net/gross) | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                          |  |
| Environmental      | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)     |  |

## Packing

|                                 |
|---------------------------------|
| 1 x driver CD                   |
| 1 x HDD mylar x 1               |
| 1 x thermal grease (syringe 1G) |
| 2 x M3 x 4 screw                |
| 2 x M4 x 6 screw                |

391

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 3rd generation Intel® Core™ i7/i5/i3 processor (Ivy Bridge)
- Intel® QM77 chipset
- DDR3-1600 SO-DIMM max. up to 8 GB
- Remote management: Intel® AMT (Active Management Technology) 8.0
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- HDMI interface for 2nd display
- Supports TPM 1.2



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

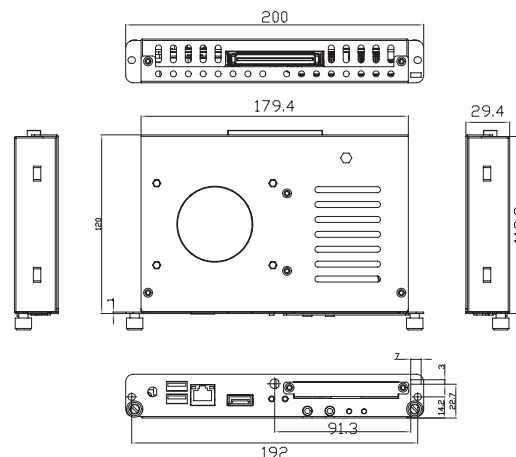
OPS871 Intel® OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor (P/N:E22M871100)

### Optional

AX93157 OPS docking board

\* Specification and certifications are based on options and may vary.

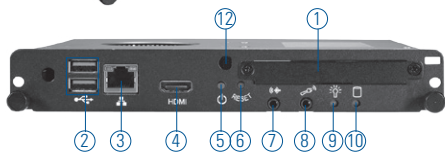
## Dimensions



\* All specifications and photos are subject to change without notice.

# OPS871-HM

3rd Generation Intel® Core™ i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM76 and TPM 1.2



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD slot | 7. Audio (Line-out)         |
| 2. USB 3.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. HDMI          | 10. HDD indicator           |
| 5. Power Switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|  |  |  |
|--|--|--|
| Main System                                      | CPU  | Socket G2 (rPGA988B) for 3rd generation Intel® Core™ i5/i3 processors (Ivy Bridge) |
|  | Chipset  | Intel® HM76  |
|  | System Memory  | 1 x 204-pin DDR3-1600 SO-DIMM max. up to 8 GB                                      |
|  | Storage  | 1 x 2.5" SATA HDD tray   |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built  |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
| IO   | 2 x USB 3.0  |  |
|  | 1 x 10/100/1000Mbps Ethernet                           |  |
|  | 1 x Power on/off button                                |  |
|  | 1 x Reset button                                       |  |
|  | 1 x HDMI   |  |
|  | 1 x Audio (Line-out/Mic-in)                            |  |
|  | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|  | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|  | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|  | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
| 1 x Audio (Line-out, via OPS JAE interconnector) |  |  |
| 1 x UART (TX/RX, via OPS JAE interconnector)     |  |  |
| Indicator  | 1 x LED for system power ON                            |  |
|  | 1 x LED for HDD active                                 |  |
| WiFi   | Supports 802.11 b/g/n (optional)                       |  |
| Expansion Slot                                   | 1 x PCI Express Mini Card                              |  |
| Dimensions                                       | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |  |
| Packing Dimensions                               | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")   |  |
| Weight (net/gross)                               | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                          |  |
| Environmental                                    | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)     |  |

## Packing

- 1 x driver CD
- 1 x HDD mylar x 1
- 1 x thermal grease (syringe 1G)
- 2 x M3 x 4 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 3rd generation Intel® Core™ i5/i3 processor (Ivy Bridge)
- Intel® HM76 chipset
- DDR3-1600 SO-DIMM max. up to 8 GB
- USB 3.0, PCI Express Mini Card
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- HDMI interface for 2nd display
- Supports TPM 1.2



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

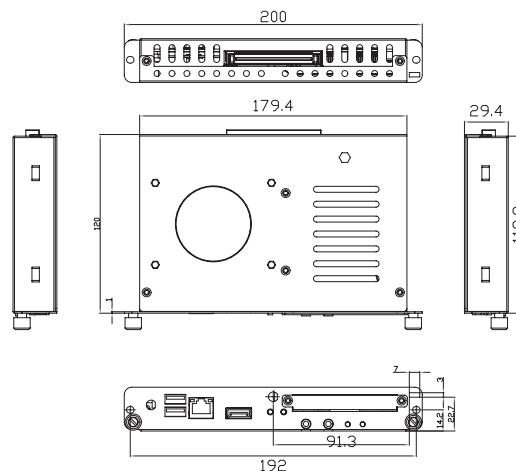
|                               |  |
|-------------------------------|--|
| OPS871-HM (P/N:E22M871101)    | OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor                |
| OPS871-HM-SF (P/N:E22M871102) | OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor with smart fan |

### Optional

|         |                   |
|---------|-------------------|
| AX93157 | OPS docking board |
|---------|-------------------|

\* Specification and certifications are based on options and may vary.

## Dimensions

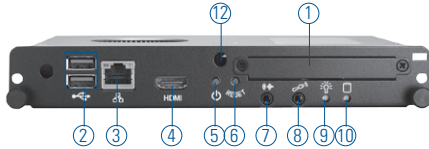


\* All specifications and photos are subject to change without notice.



# OPS870

Socket G2 Intel® Core™ i7/i5/i3 processor  
Open Pluggable Specification (OPS) Digital  
Signage Player with Intel® QM77



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD slot | 7. Audio (Line-out)         |
| 2. USB 3.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. HDMI          | 10. HDD indicator           |
| 5. Power Switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|  |  |  |
|--|--|--|
| Main System  | CPU  | Socket G2 (rPGA988B) for 3rd generation Intel® Core™ i7/i5/i3 processor (Ivy Bridge) |
|  | Chipset  | Intel® QM77  |
|  | System Memory  | 1 x 204-pin DDR3-1600 SO-DIMM max. up to 8 GB  |
|  | Storage  | 1 x 2.5" SATA HDD tray   |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built  |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
|  | IO   | 2 x USB 3.0  |
| 1 x 10/100/1000Mbps Ethernet                           |  |  |
| 1 x Power on/off button                                |  |  |
| 1 x Reset button                                       |  |  |
| 1 x HDMI   |  |  |
| 1 x Audio (Line-out/Mic-in)                            |  |  |
| 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |  |
| 2 x USB 2.0 (via OPS JAE interconnector)               |  |  |
| 1 x USB 3.0 (via OPS JAE interconnector)               |  |  |
| 1 x HDMI/DVI (via OPS JAE interconnector)              |  |  |
| 1 x Audio (Line-out, via OPS JAE interconnector)       |  |  |
| 1 x UART (TX/RX, via OPS JAE interconnector)           |  |  |
| Indicator  | 1 x LED for system power ON                                |  |
|  | 1 x LED for HDD active                                     |  |
| WiFi   | Supports 802.11 b/g/n (optional)                           |  |
| Expansion Slot   | 1 x PCI Express Mini Card (Optional for mSATA)             |  |
| Dimensions   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")        |  |
| Packing Dimensions                                     | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")       |  |
| Weight (net/gross)                                     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                              |  |
| Environmental  | 0°C ~ +54°C (+32°F ~ +130°F) (with airflow 0.7m/s) (i5/i3) |  |
|  | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s) (i7)    |  |

## Packing

- 1 x driver CD
- 1 x HDD mylar x 1
- 1 x thermal grease (syringe 1G)
- 2 x M3 x 4 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 3rd Generation Intel® Core™ i7/i5/i3 processor (Ivy Bridge)
- Intel® QM77 chipset
- DDR3-1600 SO-DIMM max. up to 8 GB
- Remote management: Intel® AMT (Active Management Technology) 8.0
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- HDMI interface for 2nd display



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

OPS870 Intel® OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor (P/N: E22M870101)

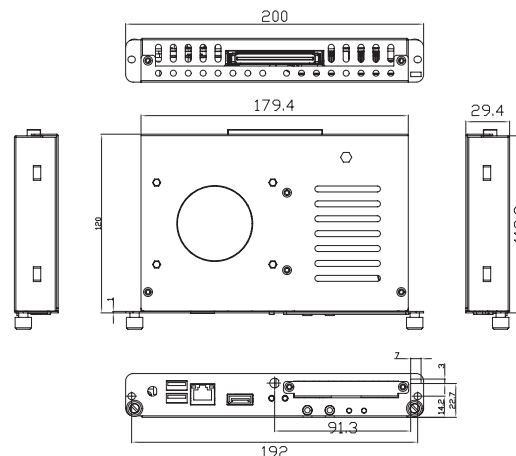
OPS870-B Intel® OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor (Black) (P/N: E22M870102)

### Optional

AX93157 OPS docking board

\* Specification and certifications are based on options and may vary.

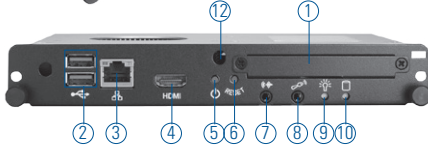
## Dimensions



\* All specifications and photos are subject to change without notice.

# OPS870-HM

Socket G2 Intel® Core™ i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM76



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD slot | 7. Audio (Line-out)         |
| 2. USB 3.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. HDMI          | 10. HDD indicator           |
| 5. Power Switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|  |  |  |
|--|--|--|
| Main System                                      | CPU  | Socket G2 ( rPGA988B) for 3rd generation Intel® Core™ i5/i3 processor (Ivy Bridge) |
|  | Chipset  | Intel® HM76  |
|  | System Memory  | 1 x 204-pin DDR3-1600 SO-DIMM max. up to 8 GB                                      |
|  | Storage  | 1 x 2.5" SATA HDD tray<br>Supports 1 x mSATA (optional)                            |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built  |
|  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.   |
| IO   | 2 x USB 3.0  |  |
|  | 1 x 10/100/1000Mbps Ethernet                           |  |
|  | 1 x Power on/off button                                |  |
|  | 1 x Reset button                                       |  |
|  | 1 x HDMI   |  |
|  | 1 x Audio (Line-out/Mic-in)                            |  |
|  | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |
|  | 2 x USB 2.0 (via OPS JAE interconnector)               |  |
|  | 1 x USB 3.0 (via OPS JAE interconnector)               |  |
|  | 1 x HDMI/DVI (via OPS JAE interconnector)              |  |
| 1 x Audio (Line-out, via OPS JAE interconnector) |  |  |
| 1 x UART (TX/RX, via OPS JAE interconnector)     |  |  |
| Indicator  | 1 x LED for system power ON                            |  |
|  | 1 x LED for HDD active                                 |  |
| WiFi   | Supports 802.11 b/g/n (optional)                       |  |
| Expansion Slot                                   | 1 x PCI Express Mini Card (optional for mSATA)         |  |
| Dimensions                                       | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |  |
| Packing Dimensions                               | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")   |  |
| Weight (net/gross)                               | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                          |  |
| Environmental                                    | 0°C ~ +54°C (+32°F ~ +130°F) (with airflow 0.7m/s)     |  |

## Packing

- 1 x driver CD
- 1 x HDD mylar x 1
- 1 x thermal grease (syringe 1G)
- 2 x M3 x 4 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 3rd generation Intel® Core™ i5/i3 processor (Ivy Bridge)
- Intel® HM76 chipset
- DDR3-1600 SO-DIMM max. up to 8 GB
- USB 3.0, PCI Express Mini Card
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- HDMI interface for 2<sup>nd</sup> display



▲ Rear view

## Optional OS Installation

Windows® 7, Windows® 8.1

## Ordering Information

### Standard

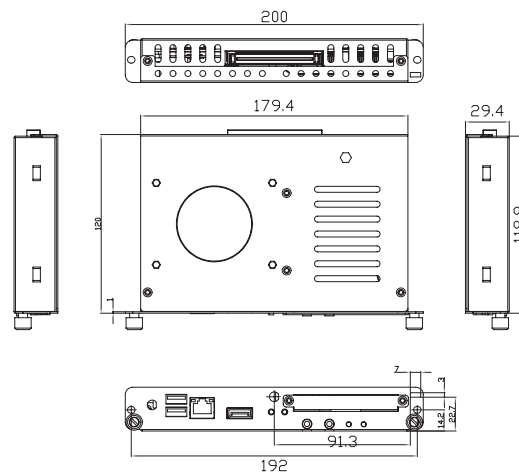
OPS870-HM OPS digital signage player supports socket G2 3rd generation Intel® Core™ processor (P/N: E22M870100)

### Optional

AX93157 OPS docking board

\* Specification and certifications are based on options and may vary.

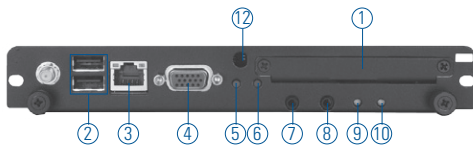
## Dimensions





# OPS860

Socket G2 Intel® Core™ i7/i5/i3 processor  
Open Pluggable Specification (OPS) Digital  
Signage Player with Intel® QM67



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD Slot | 7. Audio (Line-out)         |
| 2. USB 2.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. VGA           | 10. HDD indicator           |
| 5. Power switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|   |  |   |
|---|--|---|
| Main System                                 | CPU  | Socket G2 (rPGA988B) 2nd generation Intel® Core™ i7/i5/i3 processor (Sandy Bridge) (optional) |
|   | Chipset  | Intel® QM67   |
|   | System Memory  | 1 x DDR3-1333 SO-DIMM max. up to 8 GB   |
|   | Storage  | 1 x 2.5" SATA HDD tray  |
|   | BIOS   | AMI UEFI BIOS with OA 3.0 built   |
|   | Watchdog Timer   | 255 levels, 1 ~ 255 sec.  |
| IO  | 2 x USB 2.0  |   |
|   | 1 x 10/100/1000Mbps Ethernet                           |   |
|   | 1 x VGA  |   |
|   | 1 x power on/off button                                |   |
|   | 1 x reset button                                       |   |
|   | 1 x Audio (Line-out/ Mic-in)                           |   |
|   | 1 x DVI/HDMI (via OPS JAE interconnector)              |   |
|   | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |   |
|   | 3 x USB 2.0 (via OPS JAE interconnector)               |   |
|   | 1 x Audio (Line-out, via OPS JAE interconnector)       |   |
| 1 x UART (TX/RX via OPS JAE interconnector) |  |   |
| Indicator                                   | 1 x LED for system power ON                            |   |
|   | 1 x LED for HDD active                                 |   |
| WiFi  | Supports 802.11 b/g/n (optional)                       |   |
| Expansion Slot                              | 1 x PCI Express Mini Card                              |   |
| Dimensions                                  | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")    |   |
| Packing Dimensions                          | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")   |   |
| Weight (net/gross)                          | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                          |   |
| Environmental                               | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)     |   |

## Packing

|                                 |
|---------------------------------|
| 1 x driver CD                   |
| 1 x HDD mylar x 1               |
| 1 x thermal grease (syringe 1G) |
| 2 x M3 x 4 screw                |
| 2 x M4 x 6 screw                |

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 2nd Generation Intel® Core™ i7/i5/i3 processor
- Intel® QM67 chipset
- DDR3-1333 SO-DIMM max. up to 8 GB
- PCIe Express Mini Card
- Supports Intel® AMT (Active Management Technology) 7.0
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- VGA connector



▲ Rear view

## Optional EOS Installation

Windows® 7 Embedded

## Optional OS Installation

Windows® XP, Windows® 7

## Ordering Information

### Standard

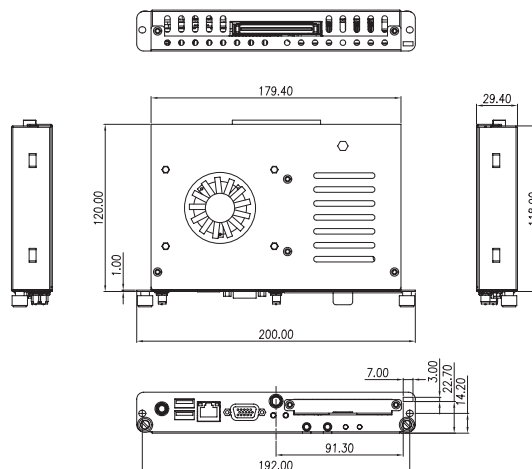
OPS860 OPS digital signage player supports socket G2 2nd generation Intel® Core™ processor (P/N: E22M860100)

### Optional

AX93157 OPS docking board

\* Specification and certifications are based on options and may vary.

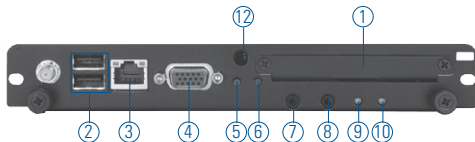
## Dimensions





# OPS860-HM

Socket G2 Intel® Core™ i5/i3 Open Pluggable Specification (OPS) Digital Signage Player with Intel® HM65



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD Slot | 7. Audio (Line-out)         |
| 2. USB 2.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. VGA           | 10. HDD indicator           |
| 5. Power switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|  |  |  |
|--|--|--|
| Main System  | CPU  | Socket G2 (rPGA988B) 2nd generation Intel® Core™ i5/i3 processor |
|  | Chipset  | Intel® HM65  |
|  | System Memory  | 1 x DDR3-1333 SO-DIMM max. up to 4 GB                            |
|  | Storage  | 1 x 2.5" SATA HDD tray   |
|  | BIOS   | AMI UEFI BIOS with OA 3.0 built                                  |
|  | Watchdog Timer                                       | 255 levels, 1 ~ 255 sec.   |
|  | IO   | 2 x USB 2.0  |
| 1 x 10/100/1000Mbps Ethernet                           |  |  |
| 1 x VGA  |  |  |
| 1 x power on/off button                                |  |  |
| 1 x reset button                                       |  |  |
| 1 x Audio (Line-out/ Mic-in)                           |  |  |
| 1 x DVI/HDMI (via OPS JAE interconnector)              |  |  |
| 1 x DisplayPort (via OPS JAE interconnector) (Pure DP) |  |  |
| 3 x USB 2.0 (via OPS JAE interconnector)               |  |  |
| 1 x Audio (Line-out, via OPS JAE interconnector)       |  |  |
| 1 x UART (TX/RX via OPS JAE interconnector)            |  |  |
| Indicator  | 1 x LED for system power ON                          |  |
|  | 1 x LED for HDD active                               |  |
| WiFi   | Supports 802.11 b/g/n (optional)                     |  |
| Expansion Slot   | 1 x PCI Express Mini Card                            |  |
| Dimensions   | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")  |  |
| Packing Dimensions                                     | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76") |  |
| Weight (net/gross)                                     | 1 kg (2.2 lb)/1.5 kg (3.3 lb)                        |  |
| Environmental  | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 1.2m/s)   |  |

## Packing

- 1 x driver CD
- 1 x HDD mylar x 1
- 1 x thermal grease (syringe 1G)
- 2 x M3 x 4 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Supports socket G2 (rPGA988B) 2nd generation Intel® Core™ i5/i3 processor
- Intel® HM65 chipset
- DDR3-1333 SO-DIMM max. up to 4 GB
- PCIe Mini Card supported
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- VGA connector



▲ Rear view

## Optional EOS Installation

Windows® 7 Embedded

## Optional OS Installation

Windows® XP, Windows® 7

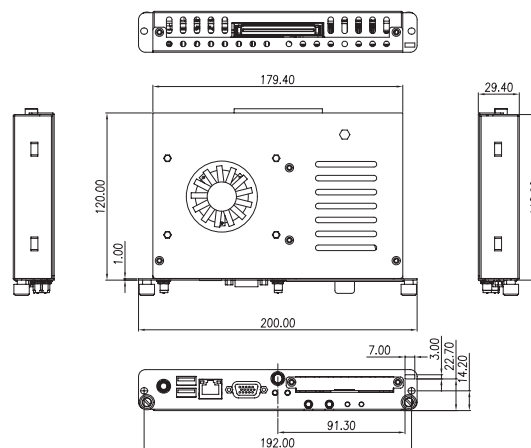
## Ordering Information

| Standard          |   |
|-------------------|---|
| OPS860-HM         | OPS digital signage player supports socket G2 2nd generation Intel® Core™ processor |
| (P/N: E22M860101) |   |

| Optional |                   |
|----------|-------------------|
| AX93157  | OPS docking board |

\* Specification and certifications are based on options and may vary.

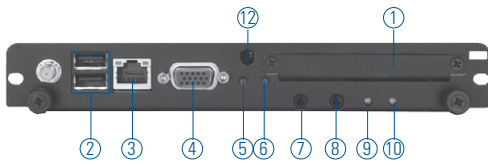
## Dimensions



# OPS830

Intel® Atom™ Cedarview Open Pluggable Specification (OPS) Digital Signage Player

OPS830-D2550



- |                  |                             |
|------------------|-----------------------------|
| 1. 2.5" HDD Slot | 7. Audio (Line-out)         |
| 2. USB 2.0 x 2   | 8. Audio (Mic-in)           |
| 3. Ethernet      | 9. Power indicator          |
| 4. VGA           | 10. HDD indicator           |
| 5. Power switch  | 11. JAE TX-25               |
| 6. Reset         | 12. WiFi antenna (optional) |



## Specifications

|  |  |   |
|--|--|---|
| Main System                                      | CPU  | Intel® Atom™ D2550/N2600 processor                    |
|  | Chipset  | Intel® NM10   |
|  | System Memory  | 1 x 204-pin DDR3-1066 SO-DIMM max. up to 4 GB (D2550) |
|  | Storage  | 1 x 2.5" SATA HDD tray                                |
|  | BIOS   | AMI UEFI BIOS   |
| I/O  | Watchdog Timer   | 255 levels, 1 ~ 255 sec.                              |
|  | 2 x USB 2.0  |   |
|  | 1 x 10/100/1000Mbps Ethernet                                       |   |
|  | 1 x VGA  |   |
|  | 1 x power on/off button  |   |
|  | 1 x reset button   |   |
|  | 1 x Audio (Line-out/ Mic-in)                                       |   |
|  | 1 x DVI/HDMI (via OPS JAE interconnector)                          |   |
|  | 1 x DisplayPort (via OPS JAE interconnector) (Pure DP)             |   |
|  | 3 x USB 2.0 (via OPS JAE interconnector)                           |   |
| 1 x Audio (Line-out, via OPS JAE interconnector) |  |   |
| 1 x UART (TX/RX, via OPS JAE interconnector)     |  |   |
| Indicator  | 1 x LED for system power ON  |   |
|  | 1 x LED for HDD active   |   |
| WiFi   | Supports 802.11 b/g/n (optional)                                   |   |
| Expansion Slot                                   | 1 x PCI Express Mini Card  |   |
| Dimensions                                       | 200 mm (7.87") (W) x 119 mm (4.68") x 30 mm (1.18")                |   |
| Packing Dimensions                               | 270 mm (10.63") (W) x 197 mm (7.76") x 70 mm (2.76")               |   |
| Weight (net/gross)                               | 1 kg (2.21lb)/1.5 kg (3.31lb)                                      |   |
| Environmental                                    | 0°C ~ +45°C (+32°F ~ +113°F) (with airflow 0.7 m/s) (OPS830-D2550) |   |
|  | 0°C ~ +40°C (+32°F ~ +104°F) (with airflow 1.2 m/s) (OPS830-N2600) |   |

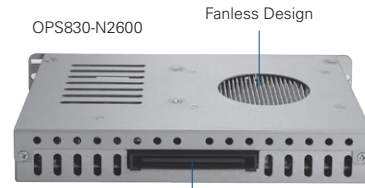
## Packing

- 1 x driver CD
- 1 x HDD mylar x 1
- 1 x thermal grease
- 1 x thermal pad
- 2 x M3 x 4 screw
- 2 x M4 x 6 screw

## Features

- Open Pluggable Specification (OPS) compliance
- Built-in Intel® Atom™ processor D2550/N2600 (fanless)
- DDR3-1066 SO-DIMM max. up to 4 GB by D2550
- PCIe Mini Card supported
- Easy maintenance: pluggable HDD and easy-to-change DRAM
- VGA connector

OPS830-N2600



▲ Rear view

## Optional EOS Installation

Windows® 7 Embedded

## Optional OS Installation

Windows® 7

## Ordering Information

### Standard

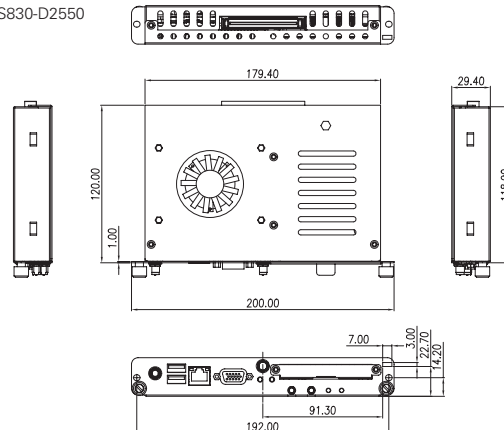
|              |  |
|--------------|--|
| OPS830-D2550 | OPS digital signage player supports Intel® Atom™ processor D2550         |
| OPS830-N2600 | Fanless OPS digital signage player supports Intel® Atom™ processor N2600 |

### Optional

|         |                   |
|---------|-------------------|
| AX93157 | OPS docking board |
|---------|-------------------|

## Dimensions

OPS830-D2550



\* All specifications and photos are subject to change without notice.



# 6




## Embedded MicroBoxes

Axiomtek's MicroBoxes are perfect for industrial automation, medical, POS, gaming, digital signage and security market applications. Specific I/O's and pre-installed embedded operating systems makes executing embedded solutions easier, reducing time to market.

|                 |                                       |     |
|-----------------|---------------------------------------|-----|
| Selection Guide |                                       | 399 |
| EM60323         | Embedded MicroBox for Mini ITX SBC    | 400 |
| EM1611S         | Embedded MicroBox for 3.5" Capa Board | 401 |
| EM60320I        | Embedded MicroBox for Mini ITX SBC    | 402 |

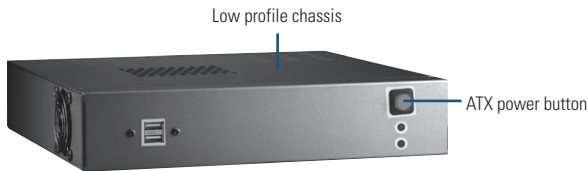
# Embedded MicroBoxes

## Selection Guide

| Model<br>(W x D x H)   | Drive Bay | Expansion Slot            | Accessory Specifications  |                 | SBC Selections   |  |
|--|-----------|---------------------------|---|-----------------|--|--|
|  |           |                           | Power Supply  | 3.5" Capa       | Mini ITX   |  |
| <br><b>EM60323</b><br>270 x 260 x 55 mm   | 1 x 2.5"  | N/A                       | ATX 180 W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 3A, +5V @ 16A, +12V @ 5.86A,<br>-12V @ 0.8A, +5Vsb @ 2A  |                 | MAN0825<br>MAN0830<br>MAN0842<br>MAN0861<br>MAN0871<br>MAN0881 |  |
| <br><b>EM1611S</b><br>225 x 225 x 51 mm   | 1 x 2.5"  | 1 x PC104                 | ATX 72 W<br>Input: AC 90 ~ 260V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A<br>ATX 72 W<br>Input: DC 9 ~ 18V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A<br>ATX 72 W<br>Input: DC 18 ~ 36V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A | 3.5" CAPA Board |  |  |
| <br><b>EM60320I</b><br>335 x 250 x 88 mm | 1 x 3.5"  | 2 x PCI<br>or<br>2 x PCIe | ATX 180 W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 3A, +5V @ 16A, +12V @ 5.86A,<br>-12V @ 0.8A, +5Vsb @ 2A<br>ATX 250 W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 4A, +5V @ 6A, +12V @ 16.5A, -12V<br>@ 0.4A, +5Vsb @ 1A                     |                 | MAN0861<br>MAN0871   |  |

# EM60323

Embedded MicroBox for Mini ITX SBC



▲ Front view

## Features

- Designed for Mini ITX SBC
- One 2.5" HDD supported
- Optional 180W or 250W AC-in power supply
- Wall mount
- Slim design with 1 system fan
- Quick customization project supported



▲ Rear view

## Specifications

|                     |   |
|---------------------|---|
| Standard Color      | Black   |
| Construction        | Heavy-duty cold-rolled steel  |
| Indicator           | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Front Panel I/O     | 1 x ATX power button<br>2 x USB 2.0   |
| Rear Panel I/O      | 1 x Standard Mini ITX I/O bracket space   |
| Expansion Interface | N/A   |
| Drive Capacity      | 1 x 2.5" HDD  |
| Cooling             | 1 x 40 x 40 mm system fan   |
| Power Supply        | ATX 180W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 3A, +5V @ 16A, +12V @ 5.86A, -12V @ 0.8A, +5Vsb @ 2A<br>ATX 250W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 4A, +5V @ 6A, +12V @ 16.5A, -12V @ 0.4A, +5Vsb @ 1A |
| Dimensions          | 270 mm (10.63") (W) x 260 mm (10.24") (D) x 55 mm (2.17") (H)   |
| Environment         | EMI pre-scan meets EN55022 Class A  |

## Applications

Wallmount PC controller  
Embedded PC controller  
Unattended controller  
Compact industrial PC

## Packing List

1 x 2.5" HDD cable, 1 x AC power cord

## Ordering Information

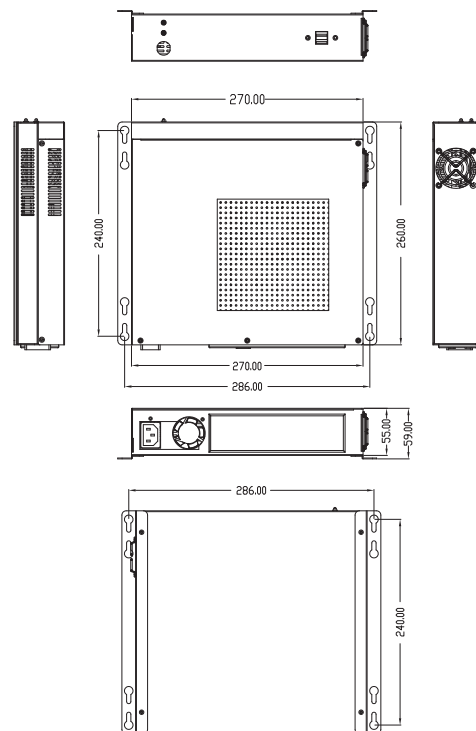
| Standard |                                    |
|----------|------------------------------------|
| EM60323  | Embedded MicroBox for Mini ITX SBC |

| SBC Options                                     |  |
|---|--|
| MAN0861/MAN0871/MAN0881/MAN0825/MAN0830/MAN0842 |  |

| Optional                                     |  |
|--|--|
| 250W AC power supply<br>180W AC power supply |  |

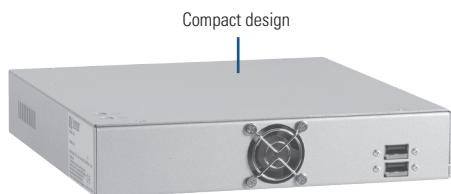
\*Specifications and certifications are based on options and may vary.

## Dimensions



# EM1611S

Embedded MicroBox for 3.5" Capa Board



▲ Front view



Rich I/O outlet ▲ Rear view

## Features

- Designed for 3.5" Capa board
- Full I/O function
- Slim compact design
- One 2.5" HDD drive bay
- 4 COM port outlet
- Optional 2 Ethernet (SBC84620)
- 1 system cooling fan
- Quick customization project supported

## Specifications

|                     |   |
|---------------------|---|
| Standard Color      | Silver  |
| Construction        | Heavy-duty cold-rolled steel  |
| Indicator           | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Front Panel I/O     | 2 x USB 2.0   |
| Rear Panel I/O      | 1 x AT power button<br>4 x 9-pin D-sub connector<br>1 x VGA<br>1 x PS/2 keyboard/mouse through Y-type cable<br>1 x 10/100Mbps Ethernet (optional 2)<br>1 x USB 2.0<br>1 x LPT   |
| Expansion Interface | N/A   |
| Drive Capacity      | 1 x 2.5" HDD<br>1 x CompactFlash™   |
| Cooling             | 1 x 40 x 40 x 20 mm system fan  |
| Power Supply        | AT 72W<br>Input: AC 90 ~ 260V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A<br>AT 72W<br>Input: DC 9 ~ 18V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A<br>AT 72W<br>Input: DC 18 ~ 36V<br>Output: +5V @ 10A, +12V @ 1.5A, -12V @ 0.3A |
| Dimensions          | 225 mm (8.86") (W) x 225 mm (8.86") (D) x 51 mm (2.0") (H)  |
| Environment         | EMI pre-scan meets EN55022 Class A  |

## Applications

Wallmount PC controller  
Embedded PC controller  
Unattended controller  
Compact industrial PC

## Packing List

1 x AC power cord (for AC version), 1 x wall mount bracket

## Ordering Information

### Standard

EM1611S Embedded MicroBox for 3.5" capa board

### Option main board

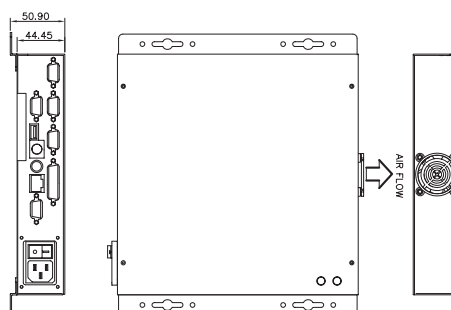
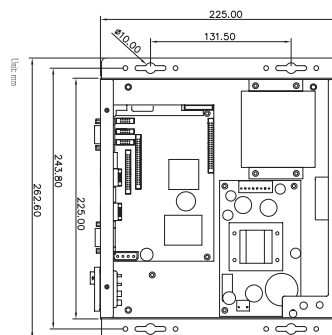
3.5" CAPA Boards

### Optional

72W AC AT power supply  
72W DC AT power supply

\*Specifications and certifications are based on options and may vary.

## Dimensions



# EM60320I

Embedded MicroBox for Mini ITX SBC



▲ Front view

## Features

- Designed for Mini ITX SBC
- Flexible I/O bracket for high performance embedded system via industrial P4 Mini ITX board
- One 3.5" HDD drive bay
- 2 PCI slots and 2 add-on card brackets for rich I/O expansion
- 1 system fan
- Supports optional CompactFlash™ opening
- Quick customization project supported



▲ Rear view

2 PCI slots

## Specifications

|                     |   |
|---------------------|---|
| Standard Color      | Silver  |
| Construction        | Heavy-duty cold-rolled steel  |
| Indicator           | 1 x green LED for system power-on<br>1 x orange LED for HDD active  |
| Front Panel I/O     | 1 x ATX power button<br>2 x USB 2.0   |
| Rear Panel I/O      | 1 x Standard Mini ITX I/O bracket space   |
| Expansion Interface | 2 x PCI slot  |
| Drive Capacity      | 1 x 3.5" HDD<br>1 x CompactFlash™ (optional SBC support)  |
| Cooling             | 1 x 80 x 80 mm system fan   |
| Power Supply        | ATX 180W<br>Input: AC 115 ~ 230V<br>Output: +3.3V @ 3A, +5V @ 16A, +12V @ 5.86A, -12V @ 0.8A, +5Vsb @ 2A<br>ATX 200W<br>Input: DC 18 ~ 36V<br>Output: 3.3V @ 12A, 5V @ 12A, +12V @ 15.4A, -12V @ 0.5A, 5Vsb @ 2A<br>ATX 250 W<br>Input: AC 115 ~ 230 V<br>Output: +3.3V @ 4A, +5V @ 6A, +12V @ 16.5A, -12V @ 0.4A, +5Vsb @ 1A |
| Dimensions          | 335 mm (13.2") (W) x 250 mm (9.8") (D) x 88 mm (3.5") (H)   |
| Environment         | EMI pre-scan meets EN55022 Class A  |

## Applications

Wallmount PC controller  
Embedded PC controller  
Unattended controller  
Compact industrial PC

## Packing List

1 x system unit with riser card  
1 x power cord (optional)

## Ordering Information

### Standard

EM60320I Embedded MicroBox for Mini ITX SBC  
EM60320I-CF Embedded MicroBox for Mini ITX SBC

### Standard

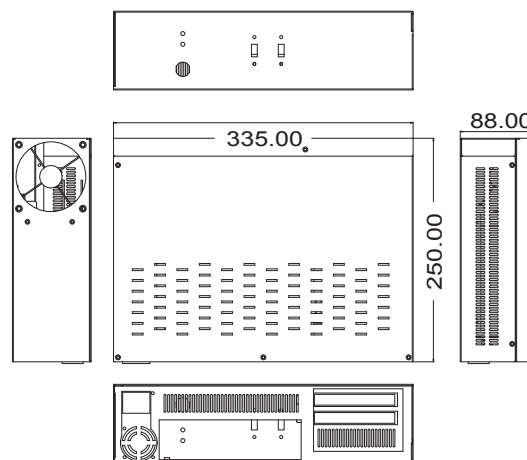
MAN0861/MAN0871/MAN0881/MAN0825/MAN0842

### Optional

AX96125 (2 PCI)  
AX96140 (2 PCI)  
AX96145 (2 PCIe)  
AX96147 (2 PCIe)  
remove M/B name

\*Specifications and certifications are based on options and may vary.

## Dimensions



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# 7

## Industrial Barebone Systems

As a leading industrial barebone system provider, Axiomtek has released a series of industrial grade Intel® Core™2 Duo and Core™2 Quad systems from 1U to 4U rackmount barebone systems and fanless barebone systems. The barebone systems are flexibly and easily to be managed with high reliability and compatibility for a variety of industrial & embedded applications.

|   |   |     |
|---|---|-----|
| Selection Guide   |   | 404 |
| IPC122-833-FL   | IEC 61850-3/IEEE 1613 Certificated 1U Rackmount Fanless Embedded Computer with Intel® Atom™ N2800, Multiple Isolated LAN, Isolated COM, CAN Bus and DIO                                 | 407 |
| IPC912-213-FL   | 2-slot Fanless System with Intel® Core™ i7/i5/i3 Processor (up to 2.33 GHz), Intel® HM65, PCIe and PCI Slots  | 409 |
| IPC914-213-FL   | 4-slot Fanless System with Socket G2 Intel® Core™ i7/i5/i3 Processor (up to 2.5 GHz), Intel® HM65 Chipset, PCIe and PCI Slots   | 411 |
|  IPC922-215-FL     | 2-slot Fanless System with Intel® Celeron® Processor J1900 (up to 2.42 GHz), PCIe and PCI Slots   | 413 |
| IPC932-230-FL   | 2-slot Fanless Barebone System with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor up to 3.3 GHz, Intel® Q87 Chipset, PCIe and PCI Slots                                     | 415 |
|  IPC932-230-FL-ECM | 2-slot Fanless EtherCAT Master Controller System with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor up to 3.3 GHz (Haswell/Haswell Refresh), Intel® Q87, PCIe and PCI Slots | 417 |
| IPC934-230-FL   | 4-slot Fanless Barebone System with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor (up to 3.3 GHz), Intel® Q87 Chipset, PCIe and PCI Slots                                   | 419 |



# Industrial Barebone Systems

Selection Guide



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| Features/Models                             |                       | IPC122-833-FL   |
|---|-----------------------|---|
| <b>Form Factor</b>                          |                       | 1U  |
| <b>System</b>                               | <b>CPU Level</b>      | Intel® Atom™ N2800 1.86 GHz   |
|   | <b>Max. Speed</b>     | 1.86 GHz  |
|   | <b>Front Side Bus</b> | N/A   |
|   | <b>Chipset</b>        | Intel® NM10   |
| <b>Expansion Interface (via riser card)</b> | <b>PCI</b>            | N/A   |
|   | <b>PCIe</b>           | N/A   |
| <b>Memory</b>                               | <b>Technology</b>     | 1 x 204-pin DDR3-800/1066 MHz                                       |
|   | <b>Max. Capacity</b>  | Up to 4 GB  |
|   | <b>Socket</b>         | 1 x 204-pin SO-DIMM   |
| <b>Graphics</b>                             | <b>Controller</b>     | Integrated in Intel® Atom™ N2800                                    |
|   | <b>VRAM</b>           | N/A   |
| <b>Storage</b>                              | <b>Drive Capacity</b> | 1 x CFast™<br>1 x 2.5" HDD  |
|   | <b>Interface</b>      | 10/100/1000Mbps   |
| <b>Ethernet</b>                             | <b>Controller</b>     | Intel® i210IT   |
|   | <b>Connector</b>      | 4 x RJ-45   |
|   | <b>Serial</b>         | 2 x isolated RS-232<br>8 x isolated RS-232/422/485                  |
| <b>I/O</b>                                  | <b>LPT</b>            | N/A   |
|   | <b>Audio</b>          | N/A   |
|   | <b>USB</b>            | 6 x USB 2.0   |
|   | <b>Display</b>        | 1 x VGA   |
|   | <b>PS/2</b>           | N/A   |
| <b>Power Supply</b>                         |                       | Single power input (terminal block)<br>130 ~ 370 VDC & 85 ~ 264 VAC |
| <b>Operating Temperature</b>                |                       | -10°C ~ +55°C (14°F ~ 131°F)<br>(with W.T. HDD)                     |
| <b>Dimensions (W x D x H)</b>               |                       | 427 x 301 x 44 mm<br>(16.81" x 11.85" x 1.73")                      |
| <b>Weight (net/gross)</b>                   |                       | 5.02 kg (11.07 lb)/ 6.02 kg (13.27 lb)                              |
| <b>Certification</b>                        |                       | CE, IEC61850 (Compliance)   |

Overview

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Industrial Barebone Systems

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# Industrial Barebone Systems

## Selection Guide



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| Features/Models                   | IPC912-213-FL  | IPC914-213-FL  |
|-----------------------------------|--|--|
| <b>CPU Level</b>                  | Socket G2 Intel® Core™ i7/i5/i3 & Celeron®           | Socket G2 Intel® Core™ i7/i5/i3 & Celeron®           |
| <b>System Memory</b>              | 2 x 204-pin DDR3 SO-DIMM max. up to 8 GB             | 2 x 204-pin DDR3 SO-DIMM max. up to 8 GB             |
| <b>Chipset</b>                    | Intel® HM65  | Intel® HM65  |
| <b>Serial</b>                     | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1) | 3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1) |
| <b>Display</b>                    | 1 x VGA  | 1 x VGA  |
| <b>Audio</b>                      | N/A  | N/A  |
| <b>PS/2</b>                       | N/A  | N/A  |
| <b>Ethernet</b>                   | 2 x 10/100/1000Mbps Ethernet                         | 2 x 10/100/1000Mbps Ethernet                         |
| <b>USB</b>                        | 6 x USB 2.0  | 6 x USB 2.0  |
| <b>Expansion Interface</b>        | 1 PCIe x1 & 1 PCIe x4 or<br>1 PCI & 1 PCIe x4        | 4 PCI or 2 PCI & 1 PCIe x1 & 1 PCIe x16              |
| <b>Storage</b>                    | 1 x 2.5" HDD<br>1 x CFast™                           | 1 x 2.5" HDD<br>1 x CFast™                           |
| <b>Watchdog Timer</b>             | 255 levels, 1~255 sec.                               | 255 levels, 1 ~ 255 sec.                             |
| <b>Power Supply</b>               | 150W ATX 10 ~ 30VDC                                  | 150W ATX 10 ~ 30VDC                                  |
| <b>Operating Temperature</b>      | 0°C ~ +50°C (32°F ~ 122°F)<br>(with W.T. HDD)        | 0°C ~ +50°C (32°F ~ 122°F)<br>(with W.T. HDD)        |
| <b>Wall Mount</b>                 | Yes  | Yes  |
| <b>Dimensions<br/>(W x D x H)</b> | 142 x 248 x 185 mm<br>(5.6" x 9.8" x 7.3")           | 182 x 248 x 185 mm<br>(7.2" x 9.8" x 7.3")           |
| <b>Weight (net/gross)</b>         | 4.22 kg(9.28 lb)/5.3 kg(11.68 lb)                    | 5kg (11.02 lb)/6.4 kg(14.1 lb)                       |
| <b>Certification</b>              | CE   | CE   |
| <b>EOS Support</b>                | XPE  | XPE  |



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| Features/Models               | IPC922-215-FL                                     | IPC932-230-FL  | IPC932-230-FL-ECM  | IPC934-230-FL  |
|-------------------------------|---|--|--|--|
| <b>CPU Level</b>              | Intel® Atom™ J1900                                | 4th generation Intel® Core™ i7/i5/i3 & Celeron®                  | 4th generation Intel® Core™ i7/i5/i3 & Celeron®                  | 4th generation Intel® Core™ i7/i5/i3 & Celeron® Processor        |
| <b>System Memory</b>          | 1 x 204-pin DDR3L 1333 SO-DIMM socket, up to 8 GB | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max.up to 16GB               | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max.up to 16GB               | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max.up to 16GB               |
| <b>Chipset</b>                | SoC   | Intel® Q87   | Intel® Q87   | Intel® Q87   |
| <b>Serial</b>                 | 4 x RS-232-422-485 (COM 1/2/3/4)                  | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)             | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)             | 2 x RS-232/422/485 (COM 1/2)<br>2 x RS-232 (COM 3/4)             |
| <b>Display</b>                | 1 x VGA   | 1 x DVI-I  | 1 x DVI-I  | 1 x DVI-I  |
| <b>Audio</b>                  | N/A   | 1 x Audio (Mic-in/Line out)                                      | 1 x Audio (Mic-in/Line out)                                      | 1 x Audio (Mic-in/Line out)                                      |
| <b>PS/2</b>                   | N/A   | Yes  | Yes  | Yes  |
| <b>Ethernet</b>               | 1 x 10/100/1000Mbps Ethernet                      | 2 x 10/100/1000Mbps Ethernet                                     | 2 x 10/100/1000Mbps Ethernet                                     | 2 x 10/100/1000Mbps Ethernet                                     |
| <b>USB</b>                    | 4 x USB 2.0                                       | 2 x USB 3.0<br>4 x USB 2.0                                       | 2 x USB 3.0<br>4 x USB 2.0                                       | 2 x USB 3.0<br>4 x USB 2.0                                       |
| <b>Expansion Interface</b>    | 2 PCI or<br>1 PCI & 1 PCIe x4                     | 1 PCIe x1 & 1 PCIe x4 or<br>1 PCI & 1 PCIe x4                    | 1 PCIe x1 & 1 PCIe x4  | 4 PCI or 2 PCI & 1 PCIe x1 &<br>1 PCIe x16                       |
| <b>Storage</b>                | 1 x 2.5" HDD<br>1 x CompactFlash™                 | 2 x 2.5" HDD<br>1 x CFast™                                       | 2 x 2.5" HDD<br>1 x CFast™                                       | 2 x 2.5" HDD<br>1 x CFast™                                       |
| <b>Watchdog Timer</b>         | 255 levels, 1 ~ 255 sec.                          | 255 levels, 1 ~ 255 sec.   | 255 levels, 1 ~ 255 sec.   | 255 levels, 1 ~ 255 sec.   |
| <b>Power Supply</b>           | 120W ATX 18 ~ 28VDC                               | 150W ATX 10-30VDC  | 150W ATX 10-30VDC  | 150W ATX 10-30VDC  |
| <b>Operating Temperature</b>  | 0°C ~ +45°C (32°F ~ 113°F)<br>(with W.T. HDD)     | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. HDD or CFast™ or SSD) | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. HDD or CFast™ or SSD) | -10°C ~ +50°C (14°F ~ 122°F)<br>(with W.T. HDD or CFast™ or SSD) |
| <b>Wall Mount</b>             | Yes   | Yes  | Yes  | Yes  |
| <b>Dimensions (W x D x H)</b> | 118 x 248 x 185 mm<br>(4.6" x 9.8" x 7.3")        | 164 x 245.6 x 185 mm<br>(6.45" x 9.65" x 7.27")                  | 164 x 245.6 x 185 mm<br>(6.45" x 9.65" x 7.27")                  | 200.54 x 251.8 x 185 mm<br>(7.96" x 251.8 x 7.3")                |
| <b>Weight (net/gross)</b>     | 4.22 kg (9.28 lb)/5.3 kg (11.68 lb)               | 6.2 kg (13.67 lb)/7.2 kg (15.87 lb)                              | 6.2 kg (13.67 lb)/7.2 kg (15.87 lb)                              | 5.9 kg (12.98 lb)/6.9 kg (15.18 lb)                              |
| <b>Certification</b>          | CE  | CE compliance  | CE compliance  | CE compliance  |
| <b>EOS Support</b>            | XPE   | WES7   | WES7   | WES7   |

Overview

Embedded Systems

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Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

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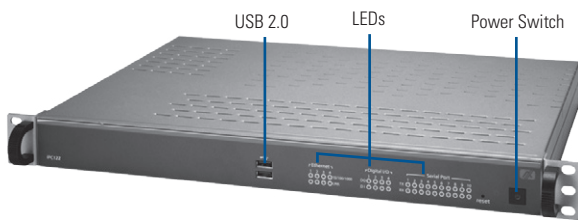


# IPC122-833-FL

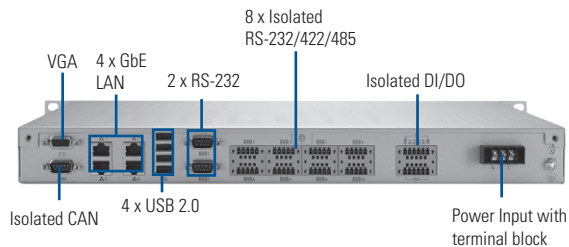
IEC 61850-3/IEEE 1613 Certificated  
 1U Rackmount Fanless Embedded Computer  
 with Intel® Atom™ Processor N2800 Multiple  
 Isolated LAN, Isolated COM, CAN Bus and  
 DIO

## Features

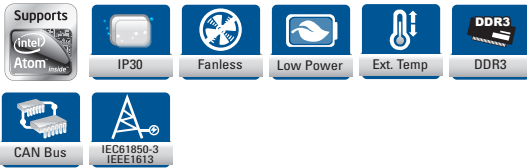
- IEC 61850-3 and IEEE 1613 certified for substation automation
- Highly efficient heat conduction with fanless design
- Intel® Atom™ processor N2800 (1.86 GHz)
- DDR3-800/1066 SO-DIMM supports up to 4 GB memory
- Isolated COM, LAN, CANBus and DIO ports
- One 2.5" SATA HDD and one CFast™ socket
- Wide temperature -10°C ~ +55°C for hash environment
- 100 ~ 240VAC and 134 ~ 370VDC wide range power input



▲ Front view



▲ Rear view



## Specifications

|                     |  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
|---------------------|--|-------------|--|-----|--|-----|-------------|-----|---|-----|--------------------|-------------|-------------------------------------|---------|---|
| Standard Color      | Silver   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| Construction        | Heavy-duty cold-rolled steel, IP30   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| CPU                 | Intel® Atom™ processor N2800 (1.86 GHz) onboard  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| System Board        | SBC87833   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| BIOS                | AMI UEFI BIOS  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| System Memory       | 1 x 204-pin DDR3-800/1066 SO-DIMM, max. up to 4 GB   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| I/O Interface-Front | 1 x Power on/off, 1 x Reset, 2 x USB 2.0   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| I/O Interface-Rear  | <table border="0"> <tr> <td>Serial Port</td> <td>2 x RS-232<br/>8 x isolated RS-232/422/485<br/>ESD protection: 2.5KV</td> </tr> <tr> <td>LAN</td> <td>4 x 10/100/1000Mbps Ethernet<br/>Magnetic isolation protection: 1.5KV</td> </tr> <tr> <td>USB</td> <td>4 x USB 2.0</td> </tr> <tr> <td>DIO</td> <td>1 x isolated DI/DO (4-IN/4-OUT)<br/>DI:<br/>Input range: 0-30VDC at 25Hz<br/>Logic level 0: Close to GND<br/>Logic level 1: Open<br/>DO:<br/>Logic level 0: +/-12VDC min to +/-30V max. (source to DI)<br/>Logic level 1: 0 min. to +/-3VDC max.</td> </tr> <tr> <td>VGA</td> <td>1 x DB15 connector</td> </tr> <tr> <td>Power Input</td> <td>1 x power input with terminal block</td> </tr> <tr> <td>CAN Bus</td> <td>1 x CAN Bus (DB9 Connector)<br/>Magnetic isolation protection: 2.5KV</td> </tr> </table> | Serial Port | 2 x RS-232<br>8 x isolated RS-232/422/485<br>ESD protection: 2.5KV | LAN | 4 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection: 1.5KV | USB | 4 x USB 2.0 | DIO | 1 x isolated DI/DO (4-IN/4-OUT)<br>DI:<br>Input range: 0-30VDC at 25Hz<br>Logic level 0: Close to GND<br>Logic level 1: Open<br>DO:<br>Logic level 0: +/-12VDC min to +/-30V max. (source to DI)<br>Logic level 1: 0 min. to +/-3VDC max. | VGA | 1 x DB15 connector | Power Input | 1 x power input with terminal block | CAN Bus | 1 x CAN Bus (DB9 Connector)<br>Magnetic isolation protection: 2.5KV |
| Serial Port         | 2 x RS-232<br>8 x isolated RS-232/422/485<br>ESD protection: 2.5KV   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| LAN                 | 4 x 10/100/1000Mbps Ethernet<br>Magnetic isolation protection: 1.5KV   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| USB                 | 4 x USB 2.0  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| DIO                 | 1 x isolated DI/DO (4-IN/4-OUT)<br>DI:<br>Input range: 0-30VDC at 25Hz<br>Logic level 0: Close to GND<br>Logic level 1: Open<br>DO:<br>Logic level 0: +/-12VDC min to +/-30V max. (source to DI)<br>Logic level 1: 0 min. to +/-3VDC max.  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| VGA                 | 1 x DB15 connector   |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| Power Input         | 1 x power input with terminal block  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |
| CAN Bus             | 1 x CAN Bus (DB9 Connector)<br>Magnetic isolation protection: 2.5KV  |             |  |     |  |     |             |     |   |     |                    |             |                                     |         |   |

|                       |  |             |   |                  |   |
|-----------------------|--|-------------|---|------------------|---|
| Watchdog timer        | 1 sec, 255 levels  |             |   |                  |   |
| LEDs                  | System : 1 x Power, 1 x HDD<br>Gigabit LAN : 4 x Active, 4 x Link<br>Serial : 10 x TX, 10 x RX<br>Digital I/O : 4 x DI, 4 x DO   |             |   |                  |   |
| Storage               | 1 x on board CFast™ socket<br>1 x 2.5" SATA HDD drive bay  |             |   |                  |   |
| Installation          | Rack mount   |             |   |                  |   |
| Power Supply          | <table border="0"> <tr> <td>Power Input</td> <td>AC: 100 ~ 240VAC, 2.5A, 50/60Hz<br/>DC: 134 ~ 370VDC, 2.5A</td> </tr> <tr> <td>Power Protection</td> <td>SCP (Short Circuit Protection)<br/>OVP (Over Voltage Protection)</td> </tr> </table> | Power Input | AC: 100 ~ 240VAC, 2.5A, 50/60Hz<br>DC: 134 ~ 370VDC, 2.5A | Power Protection | SCP (Short Circuit Protection)<br>OVP (Over Voltage Protection) |
| Power Input           | AC: 100 ~ 240VAC, 2.5A, 50/60Hz<br>DC: 134 ~ 370VDC, 2.5A  |             |   |                  |   |
| Power Protection      | SCP (Short Circuit Protection)<br>OVP (Over Voltage Protection)  |             |   |                  |   |
| Power Consumption     | 45W  |             |   |                  |   |
| Operating Temperature | -10°C ~ +55°C (14°F ~ 131°F) (with W.T. HDD)   |             |   |                  |   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |             |   |                  |   |
| Humidity              | 10% ~ 90%, non-condensing  |             |   |                  |   |
| Dimensions            | 427 mm (16.81") (W) x 301 mm (11.85") (D)<br>x 44 mm (1.73") (H)   |             |   |                  |   |
| Weight (net/gross)    | 5.02 kg (11.07 lb)/ 6.02 kg (13.27 lb)   |             |   |                  |   |
| Certification         | IEC 61850-3, IEEE 1613, CE   |             |   |                  |   |

## Ordering Information

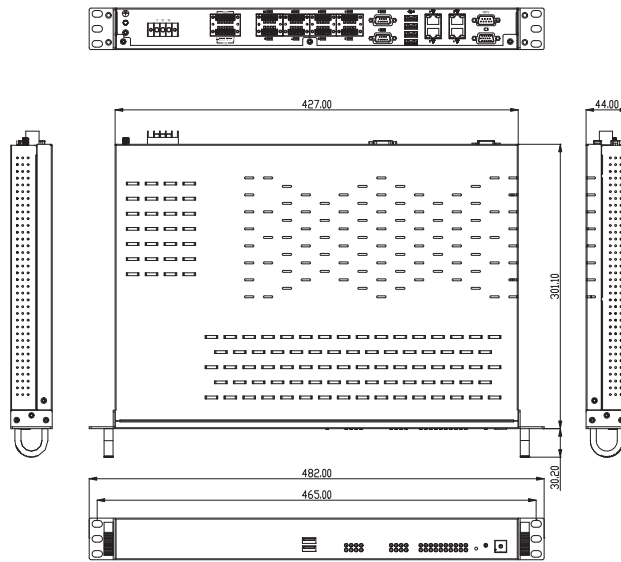
|                                    |   |
|------------------------------------|---|
| IPC122-833-FL<br>(P/N: E26G122100) | IEC61850-3 and IEEE1613 certified 1U fanless barebone system with Intel® Atom™ processor N2800, multiple LAN and multiple COM |
|------------------------------------|---|

\*Specifications and certifications are based on options and may vary.

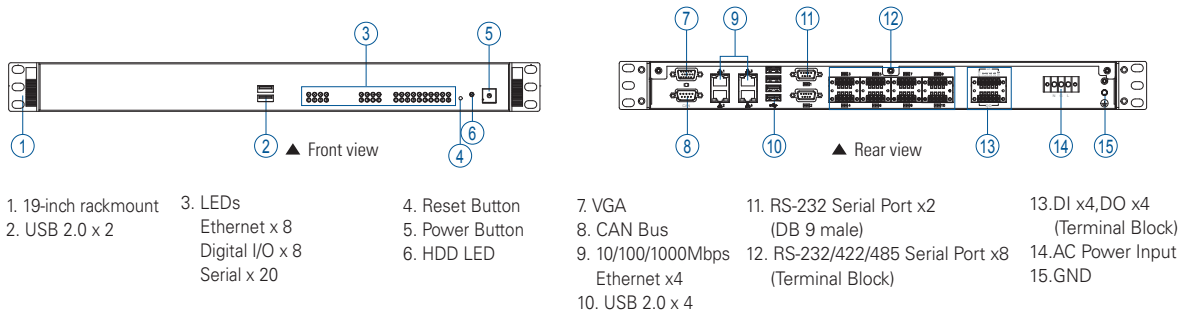
## Packing List

- 1 x IPC122-833-FL unit
- 1 x utility CD
- 1 x screw pack
- 4 x Foot pad
- 2 x thermal pad for DRAM
- 2 x Rack mount handle
- 2 x Rack mount Ear
- 1 x HDD Mylar
- 8 x 5-Pin Phoenix connector
- 2 x 6-Pin Phoenix connector

## Dimensions



## Front & Rear Metal Panel I/O Layout



- |                      |                 |                 |                                   |   |                                      |
|----------------------|-----------------|-----------------|-----------------------------------|---|--------------------------------------|
| 1. 19-inch rackmount | 3. LEDs         | 4. Reset Button | 7. VGA                            | 11. RS-232 Serial Port x2<br>(DB 9 male)              | 13. DI x4, DO x4<br>(Terminal Block) |
| 2. USB 2.0 x 2       | Ethernet x 8    | 5. Power Button | 8. CAN Bus                        | 12. RS-232/422/485 Serial Port x8<br>(Terminal Block) | 14. AC Power Input                   |
|                      | Digital I/O x 8 | 6. HDD LED      | 9. 10/100/1000Mbps<br>Ethernet x4 |   | 15. GND                              |
|                      | Serial x 20     |                 | 10. USB 2.0 x 4                   |   |                                      |



# IPC912-213-FL

2-slot Fanless System with Intel® Core™ i7/i5/i3 & Celeron® Processor (up to 2.5 GHz), Intel® HM65 chipset, PCIe & PCI Slots

Wall mount bracket supported



Phoenix plug for DC version

Din-jack for AC version

## Features

- Socket G2 for Intel® Core™ i7/i5/i3 & Celeron® processor up to 45W
- Fanless operation
- Intel® HM65 chipset
- Supports 2 expansion slots
- DC to DC power supply supports 10V ~ 30V
- Compact & front I/O design



▲ Rear view



## Specifications

|                       |   |   |
|-----------------------|---|---|
| Standard Color        | Sliver  |   |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel, IP30 |   |
| System Board          | SHB213VGG   |   |
| BIOS                  | AMI UEFI BIOS   |   |
| Processor System      | CPU Level   | Socket G2 2nd generation for Intel® Core™ i7/i5/i3 & Celeron® processors, up to 45W |
|                       | Max. Speed  | 2.5 GHz   |
|                       | Front Side Bus  | N/A   |
|                       | Chipset   | Intel® HM65   |
| System Memory         | 2 x 204-pin DDR3 1066/1333 SO-DIMM socket, up to 8 GB |   |
| I/O Interface (Front) | ATX power on/off switch                               |   |
|                       | 1 x Remote power on/off switch                        |   |
|                       | 6 x USB 2.0   |   |
|                       | 3 x RS-232 (COM 2/3/4)                                |   |
|                       | 1 x RS-232/422/485 (COM 1)                            |   |
|                       | 2 x 10/100/1000Mbps Ethernet<br>1 x VGA               |   |
| Expansion Interface   | HAB103: 1 PCIe x4 & 1 PCI                             |   |
|                       | HAB100: 1 PCIe x1 & 1 PCIe x4                         |   |

|                       |   |
|-----------------------|---|
| Storage               | 1 x 2.5" SATA HDD<br>1 x onboard CFast™ socket  |
| System Indicators     | 1 x Power on/off, 1 x HDD   |
| Power Supply          | DC ATX150W:<br>Input : 10 ~ 30VDC<br>Output : +5V @ 11A, +3.3V @ 5A, +12V @ 9A,<br>-12V @ -150mA, 5Vsb @ 2A |
|                       | AC-DC power adapter:<br>Input: 90 ~ 240VAC<br>Output: 19V @ 7.89A   |
|                       | Certification   |
| Operation Temperature | 0°C ~ +45°C (32°F ~ 113°F) (with W.T HDD)   |
| Storage Temperature   | -20°C ~ 80°C (-4°F ~ 176°F) (with W.T HDD)  |
| Humidity              | 10% ~ 90%, non-condensing   |
| Dimensions            | 142 mm (5.6") (W) x 248 mm (9.8") (D) x 185 mm (7.3") (H)   |
| Weight (net/gross)    | 4.22 kg (9.28 lb)/5.3 kg (11.68 lb)   |

\*Note: The maximum power rating for expansion slots at 45°C can not be exceeded the following values :

The maximum loading of 3.3V + 5Vsb + 5V is <49W.

The maximum loading of 3.3V + 5V+ 12V is <74W.



## Ordering Information

### PCIe Version

|  |  |
|--|--|
| IPC912-213-FL-HAB100 DC<br>(P/N: E26G912113) | 2-slot fanless system with Intel® Core™ i7/i5/i3 processor, PCIe slots and DC-in ATX 150W P/S  |
| IPC912-213-FL-HAB100 AC<br>(P/N: E26G912112) | 2-slot fanless system with Intel® Core™ i7/i5/i3 processor, PCIe slots, DC-in ATX 150W P/S, AC-DC 150W power adapter and US power cord |

### PCI+PCIe Version

|  |  |
|--|--|
| IPC912-213-FL-HAB103 DC<br>(P/N: E26G912117) | 2-slot fanless system with Intel® Core™ i7/i5/i3 processor, PCI & PCIe slots and DC-in ATX 150W P/S  |
| IPC912-213-FL-HAB103 AC<br>(P/N: E26G912116) | 2-slot fanless system with Intel® Core™ i7/i5/i3 processor, PCI & PCIe slots, DC-in ATX 150W P/S, AC-DC 150W power adapter and US power cord |

\*Specifications and certifications are based on options and may vary.

## Power Protection

### AC Version

OVP (over voltage protection)  
 OTP (over temperature protection)  
 OPP (over power protection)  
 SCP (short circuit protection)

### DC Version

OVP (over voltage protection)  
 SCP (short circuit protection)  
 OCP (over current protection)

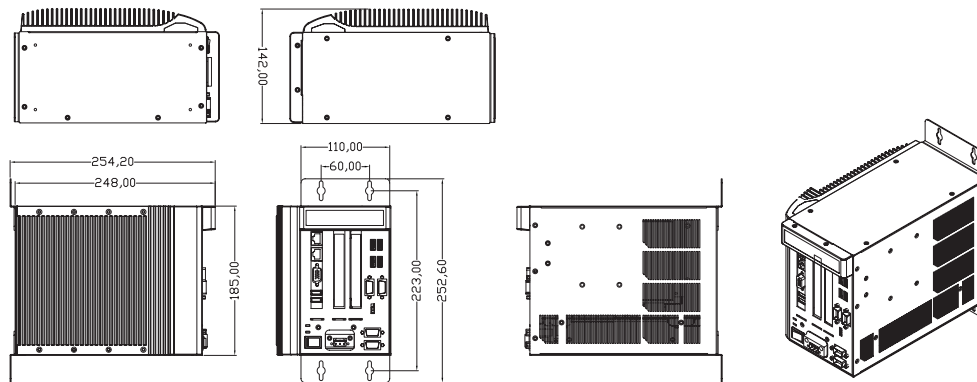
## Optional Items

DDR3 SO-DIMM: 2 GB, 4 GB, 8 GB  
 CFast™: 2 GB, 4 GB, 8 GB  
 Embedded OS: XPE-SP3 OS image and license  
 2.5" SATA HDD: 250 GB, 320 GB, 500 GB

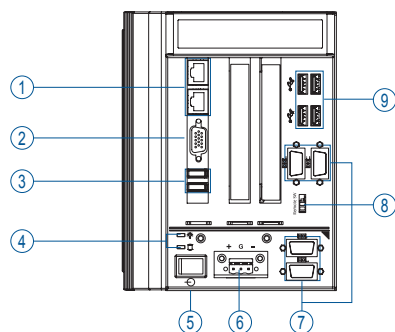
## Packing List

19V 150W adapter and US power cord (for AC version)  
 Driver CD  
 Quick manual  
 Wall mount bracket x 2  
 Foot pad x 4  
 HDD bracket x 1  
 Screw pack x 1  
 Thermal Pad for RAM x 1  
 Terminal block x 1 (for DC version)  
 Remote power switch cable x 1

## Dimensions



## Front & Rear Metal Panel I/O Layout

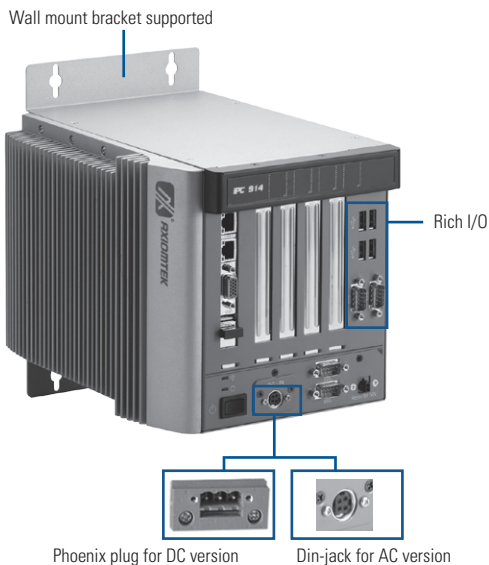


1. Ethernet x 2
2. VGA port
3. USB 2.0 x 2
4. LED for power & HDD
5. ATX power switch
6. Power connector (Din-jack or Phoenix plug)
7. RS-232/422/485 (COM 1)  
RS-232 (COM 2/3/4)
8. Remote power switch
9. USB 2.0 x 4



# IPC914-213-FL

4-slot Fanless System with Socket G2 Intel® Core™ i7/i5/i3 & Celeron® Processors (up to 2.5 GHz), Intel® HM65 chipset, PCIe and PCI Slots



## Features

- Socket G2 (rPGA 988B) for Intel® Core™ i7/i5/i3 & Celeron® processor up to 35W
- Fanless operation
- Intel® HM65 chipset
- Supports 4 expansion slots
- DC to DC power supply supports 10~30V
- Compact & front I/O design



▲ Rear view



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Sliver  |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel, IP30   |
| System Board          | SHB213VGG   |
| BIOS                  | AMI UEFI BIOS   |
| Processor System      | CPU Level Socket G2 (rPGA 988B) 2nd generation Intel® Core™ i7/i5/i3 & Celeron® processor up to 35W   |
|                       | Max. Speed 2.5 GHz  |
|                       | Front Side Bus N/A  |
|                       | Chipset Intel® HM65   |
| System Memory         | 2 x 204-pin DDR3 800/1066 SODIMM socket, up to 8 GB   |
| I/O Interface (Front) | ATX power on/off switch<br>1 x remote on/off switch<br>6 x USB 2.0<br>3 x RS-232 (COM 2/3/4)<br>1 x RS-232/422/485 (COM 1)<br>2 x 10/100/1000Mbps Ethernet<br>1 x VGA |

|                       |   |
|-----------------------|---|
| Expansion Interface   | HAB104: 4 PCI<br>HAB105: 2 PCI & 1 PCIe x1 & 1 PCIe x16   |
| Storage               | 1 x 2.5" SATA HDD, 1 x onboard CFast™ socket  |
| System Indicators     | 1 x power on/off, 1 x HDD   |
| Power Supply          | DC ATX150W:<br>Input: 10~30VDC<br>Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A<br>AC-DC power adapter:<br>Input: 90~264VAC<br>Output: 19V@7.89A |
| Operation Temperature | 0°C ~ +55°C (+32°F ~ +113°F)  |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing   |
| Dimensions            | 182 mm (7.2") (W) x 248 mm (9.8") (D) x 185 mm (7.3") (H)   |
| Weight (net/gross)    | 5 kg (11.02 lb)/6.4 kg (14.1 lb)  |
| Certification         | CE  |

\*Note: The maximum power rating for expansion slots at 45°C can not be exceeded the following values :  
The maximum loading of 3.3V + 5Vsb + 5V is <49W.  
The maximum loading of 3.3V + 5V+ 12V is <74W.



# IPC922-215-FL

2-slot Fanless System with Intel® Celeron® Processor J1900 (up to 2.42 GHz), PCIe & PCI Slots

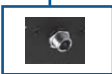
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Rich I/O



Phoenix plug for DC version



Din-jack (screw type) for AC version

## Features

- Intel® Celeron® processor J1900 (up to 2.42 GHz)
- Fanless & ventilation-free
- Supports 2 expansion slots
- DC to DC power supply supports 18 ~ 28V
- Compact & front I/O design



▲ Rear view



## Specifications

|                       |   |
|-----------------------|---|
| Standard Color        | Sliver  |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel   |
| System Board          | SHB215  |
| Processor             | Intel® Celeron® processor J1900   |
| System                | Max. Speed 2.42 GHz   |
|                       | Front Side Bus N/A  |
|                       | Chipset SoC   |
| System Memory         | 1 x 204-pin DDR3L 1333 SO-DIMM socket, up to 8 GB   |
| I/O Interface (Front) | 4 x USB 2.0<br>4 x RS-232-422-485 (COM 1/2/3/4)<br>2 x RJ-45<br>1 x VGA<br>1 x Remote switch<br>1 x Power on/off switch<br>1 x ATX/AT mode SW<br>1 x PS/2 key board and mouse |

|                       |  |
|-----------------------|--|
| Expansion Interface   | HAB108: 2 PCI<br>HAB103: 1 PCI & 1 PCIe x4   |
| Storage               | 1 x 2.5" SATA HDD<br>1 x onboard CompactFlash™ socket  |
| System Indicators     | 1 x power on/off, 1 x HDD  |
| Power Supply          | DC ATX 120W:<br>Input : 18~28VDC<br>Output: +5V @ 6A, +3.3V @ 5A, +12V @ 5A, -12V @ 0.1A, 5Vsb @ 2.5A<br>AC-DC power adapter:<br>Input: 100~240VAC<br>Output: +19V @ 4.74A |
| Operation Temperature | -10°C ~ +50°C (14°F~122°F)   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)  |
| Humidity              | 10% ~ 90%, non-condensing  |
| Dimensions            | 118 mm (4.6") (W) x 248 mm (9.8") (D) x 185 mm (7.3") (H)  |
| Weight (net/gross)    | 4.22 kg (9.28 lb)/5.3 kg (11.68 lb)  |
| Certification         | CE   |

## Ordering Information

|                                       |  |
|---------------------------------------|--|
| IPC922-215-FL-HAB103-AC<br>(P/N: TBD) | 2-slot fanless system with Intel® Celeron® processor J1900, PCI & PCIe slots, DC-in ATX 120W P/S and AC-DC 90W power adaptor and US power cord |
| IPC922-215-FL-HAB103-DC<br>(P/N: TBD) | 2-slot fanless system with Intel® Celeron® processor J1900, PCI & PCIe slots, DC-in ATX 120W P/S   |
| IPC922-215-FL-HAB108-AC<br>(P/N: TBD) | 2-slot fanless system with Intel® Celeron® processor J1900, PCI slots, DC-in ATX 120W P/S and AC-DC 90W power adaptor and US power cord        |
| IPC922-215-FL-HAB108-DC<br>(P/N: TBD) | 2-slot fanless system with Intel® Celeron® processor J1900, PCI slots, DC-in ATX 120W P/S  |

\*Specifications and certifications are based on options and may vary.

## Power Protection

### AC Version

OVP (over voltage protection)

OCP (over current protection)

SCP (short circuit protection)

### DC Version

SCP (short circuit protection)

OVP (over voltage protection)

OLP (over load protection)

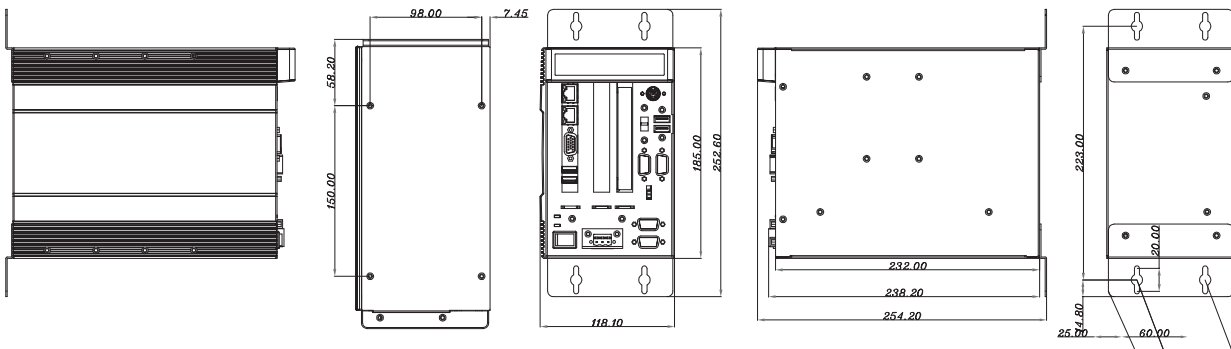
## Optional Items

AX93221-18/36: DVI card  
 40P-40P LVDS cable  
 DVI bracket for AX93221  
 2.5" SATA HDD: 250 GB, 320 GB, 500 GB  
 DDR3 SO-DIMM: 2 GB, 4 GB, 8 GB

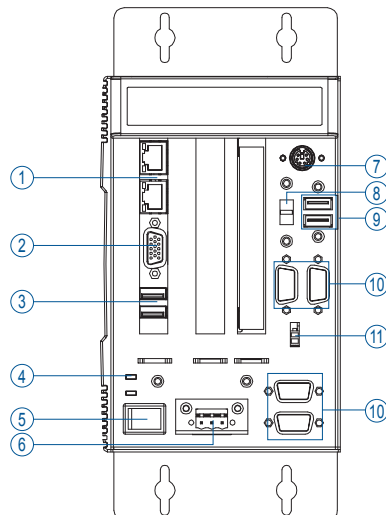
## Packing List

19V 90W adaptor and US power cord (for AC version)  
 Drive CD  
 Quick manual  
 Wall mount bracket x 2  
 Foot pad x 4  
 HDD bracket x 1  
 Screw pack x 1  
 Terminal Block x 1 (for DC version)  
 Remote power switch cable x 1

## Dimensions



## Front & Rear Metal Panel I/O Layout

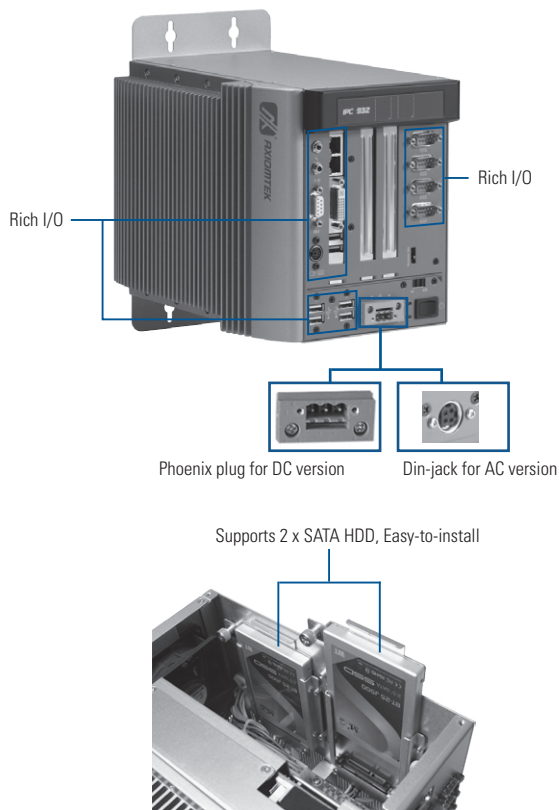


1. Ethernet x 2
2. VGA port
3. USB 2.0 x 2
4. LED for power & HDD
5. ATX power switch
6. Power connector (Din-jack or Phoenix plug)
7. PS/2 connector
8. AT/ATX Mode switch
9. USB 2.0 x 2
10. 4 x RS-232/422/485(COM 1/2/3/4)
11. Remote power switch



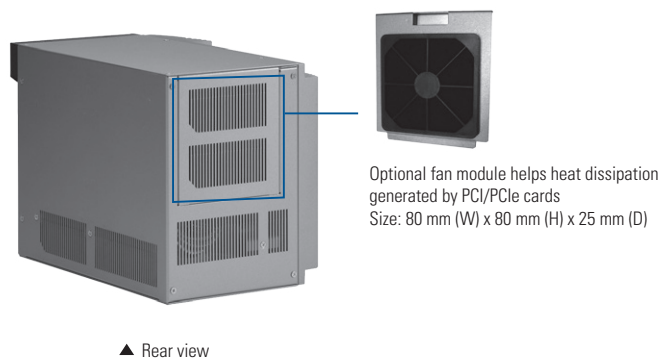
# IPC932-230-FL

2-slot Fanless Barebone System with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® processor (up to 3.3 GHz), Intel® Q87 Chipset, PCIe and PCI Slots



## Features

- 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor, up to 45W (Codename Haswell/Haswell Refresh)
- Intel® Q87 chipset
- Supports two expansion slots
- DC to DC power supply supports 10~30V
- Compact & front I/O design
- Rugged, up to -10°C ~ +50°C fanless operation with W.T. SSD or W.T. CFast™
- Supports Intel® AMT 9.0
- Supports two 2.5" SATA HDD
- Supports SATA 6Gbs with RAID 0,1



## Specifications

|                       |  |        |
|-----------------------|--|--------|
| Standard Color        | Sliver   |        |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel, IP30  |        |
| System Board          | SHB230DGGA   |        |
| Processor             | 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor up to 45W (Codename Haswell/Haswell Refresh)   |        |
| System                | CPU Level  |        |
|                       | Max. Speed   | 3.3GHz |
|                       | Front Side Bus   | N/A    |
| Chipset               | Intel® Q87   |        |
| System Memory         | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max. up to 16 GB   |        |
| I/O Interface (Front) | ATX power on/off switch<br>1 x 2-pin connector output for remote on/off switch<br>2 x USB 3.0<br>4 x USB 2.0<br>2 x RS-232 (COM 3/4)<br>2 x RS-232/422/485 (COM 1/2)<br>2 x 10/100/1000Mbps Ethernet<br>1 x DVI-I<br>1 x DIO (Female DB9 Connector) (4 IN and 4 OUT)<br>1 x PS/2 keyboard/mouse<br>1 x Audio (MIC-in/Line-out)<br>1 x AT/ATX Mode switch |        |

|                       |   |
|-----------------------|---|
| Expansion Interface   | HAB100: 1 PCIe x1 & 1 PCIe x4<br>HAB103: 1 PCIe x4 & 1 PCI<br>HAB108: 2 PCI<br>HAB110: 1 PCIe x4 & 1 PCIe x16   |
| Storage               | 2 x 2.5" SATA HDD, 1 x CFast™ socket  |
| System Indicators     | 1 x power on/off, 1 x HDD   |
| Power Supply          | DC ATX 150W:<br>Input : 10~30VDC<br>Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A<br>AC-DC power adapter:<br>Input: 90~264VAC<br>Output: 19V@7.89A |
| Operation Temperature | -10°C ~ +50°C (+14°F ~ +122°F) with W.T. HDD or W.T. SSD or W.T. CFast™   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing   |
| Dimensions            | 159.9 mm (6.36") (W) x 251.8 mm (10.02") (D) x 185 mm (7.2") (H)  |
| Weight (net/gross)    | 6.2 kg (13.67 lb)/7.2 kg (15.87 lb)   |
| Certification         | CE compliance   |

\*\*The maximum power rating for expansion slots at 50°C can not be exceeded the following values: The maximum loading of +3.3V /1A and +5V/5A and +12V /3A <60W

## Ordering Information

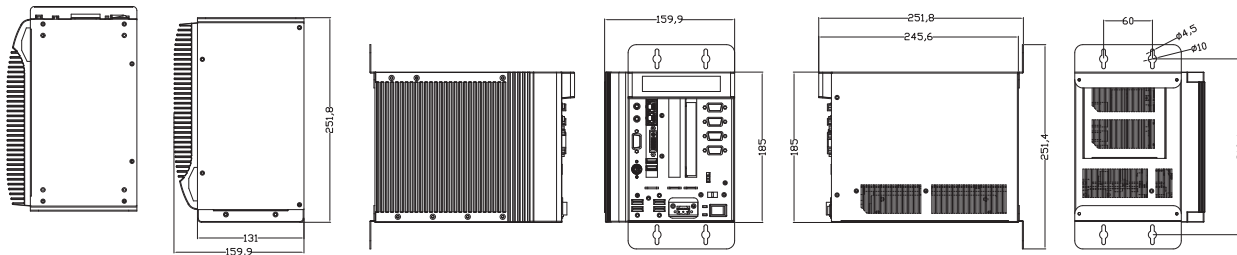
| PCIe Version                                |  |
|---|--|
| IPC932-230-FL-HAB100-DC<br>(PN: E26G932107) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCIe slots and DC-in ATX 150W P/S   |
| IPC932-230-FL-HAB100-AC<br>(PN: E26G932106) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCIe slots , DC-in ATX 150W P/S, AC-DC 150W power adaptor and US power cord |
| IPC932-230-FL-HAB110-DC<br>(PN: E26G932116) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCIe slots and DC-in ATX 150W P/S   |
| IPC932-230-FL-HAB110-AC<br>(PN: E26G932115) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCIe slots and DC-in ATX 150W P/S   |

| PCI Version                                 |   |
|---|---|
| IPC932-230-FL-HAB108-DC<br>(PN: E26G932114) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCI slots and DC-in ATX 150W P/S |
| IPC932-230-FL-HAB108-AC<br>(PN: E26G932113) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCI slots and DC-in ATX 150W P/S |

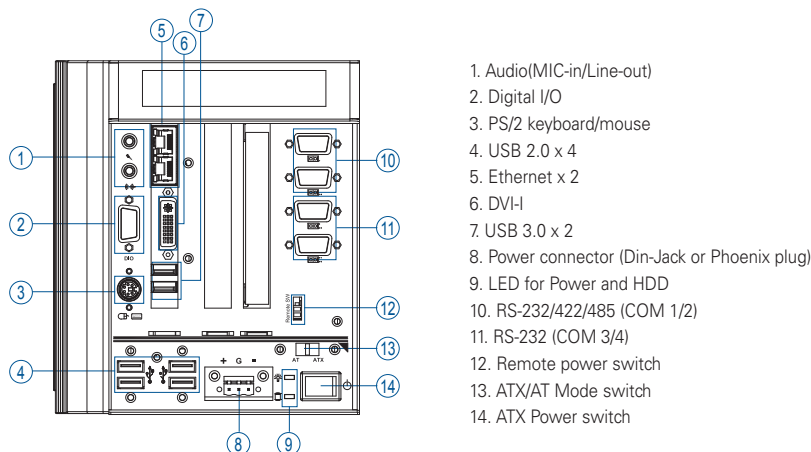
| PCI+PCIe Version                            |  |
|---|--|
| IPC932-230-FL-HAB103-DC<br>(PN: E26G932103) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCI & PCIe slots and DC-in ATX 150W P/S   |
| IPC932-230-FL-HAB103-AC<br>(PN: E26G932102) | 2-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor PCI & PCIe slots, DC-in ATX 150W P/S, AC-DC150W power adaptor and US power cord |

\*Specifications and certifications are based on options and may vary.

## Dimensions



## Front & Rear Metal Panel I/O Layout



## Power Protection

| AC Version                        |
|-----------------------------------|
| OVP (over voltage protection)     |
| OTP (over temperature protection) |
| OPP (over power protection)       |
| SCP (over circuit protection)     |

| DC Version                     |
|--------------------------------|
| OVP (over voltage protection)  |
| SCP (short circuit protection) |
| OCP (over current protection)  |

## Optional Items

DDR3 SO-DIMM: 2 GB, 4 GB, 8 GB  
 CFast™: 2 GB, 4 GB, 8 GB  
 2.5" SATA HDD: 320 GB, 500 GB  
 IPC932-230-FL Fan module kit (E26G932104)  
 Y-Cable for CRT and DVI 150 mm (594826A0010E)  
 6P PS/2 KB+Mouse cable (59381560000E)

## Packing List

IPC932-230-FL Series Unit x 1  
 19V 150W Adapter (for AC Version)  
 Driver CD  
 Quick Manual  
 Wall Mount Bracket x 2  
 Screw pack x 1  
 Foot pad x 4  
 CPU Thermal Pad x 1  
 HDD Bracket x 2  
 HDD Mylar x 2  
 Terminal block x 1 (for DC version)  
 Remote power switch cable x 1

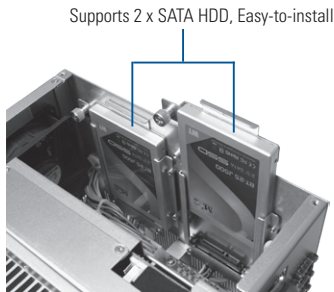
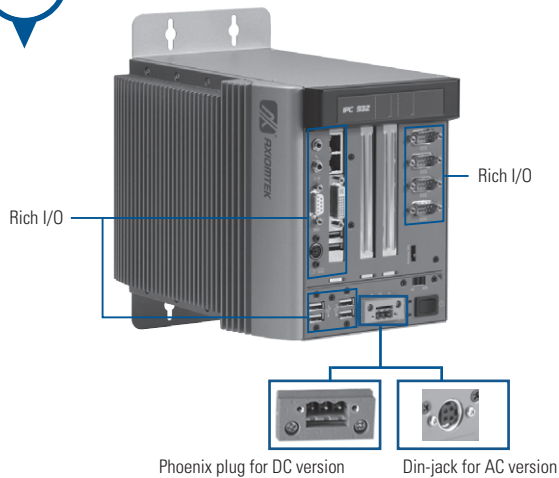




# IPC932-230-FL-ECM

2-slot Fanless EtherCAT Master Controller with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® processor (up to 3.3 GHz), Intel® Q87 Chipset, PCIe and PCI Slots

NEW

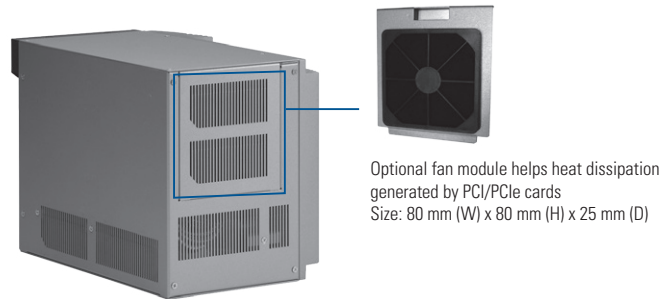


## Specifications

|                       |  |
|-----------------------|--|
| Standard Color        | Sliver   |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel, IP30  |
| System Board          | SHB230DGGA   |
| Processor System      | CPU Level 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor up to 45W (Codename Haswell/Haswell Refresh)   |
|                       | Max. Speed 3.3GHz  |
|                       | Front Side Bus N/A   |
|                       | Chipset Intel® Q87   |
| System Memory         | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max. up to 16 GB   |
| I/O Interface (Front) | ATX power on/off switch<br>1 x 2-pin connector output for remote on/off switch<br>2 x USB 3.0<br>4 x USB 2.0<br>2 x RS-232 (COM 3/4)<br>2 x RS-232/422/485 (COM 1/2)<br>2 x 10/100/1000Mbps Ethernet<br>1 x DVI-I<br>1 x DIO (Female DB9 Connector) (4 IN and 4 OUT)<br>1 x PS/2 keyboard/mouse<br>1 x Audio (MIC-in/Line-out)<br>1 x AT/ATX Mode switch |

## Features

- 4th generation Intel® Core™ i7/i5/i3 & Celeron® processor, up to 45W (Codename Haswell/Haswell Refresh)
- Intel® Q87 chipset
- Supports two expansion slots
- DC to DC power supply supports 10~30V
- Compact & front I/O design
- Rugged, up to -10°C ~ +50°C fanless operation with W.T. SSD or W.T. CFast™
- Supports Intel® AMT 9.0
- Supports two 2.5" SATA HDD
- Supports SATA 6Gbs with RAID 0,1
- Support IntervalZero Windows real-time extension RTX2012
- 1 EtherCAT port, 1 GbE LAN port
- Verified with IntervalZero EtherCAT solution KingStarI032
- EtherCAT communication cycle 100/125µs
- Support Acontics EtherCAT master stack



▲ Rear view

|                       |   |
|-----------------------|---|
| Expansion Interface   | HAB100: 1 PCIe x1 & 1 PCIe x4   |
| Storage               | 2 x 2.5" SATA HDD, 1 x CFast™ socket  |
| System Indicators     | 1 x power on/off, 1 x HDD   |
| Power Supply          | DC ATX 150W:<br>Input : 10~30VDC<br>Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A<br>AC-DC power adapter:<br>Input: 90~264VAC<br>Output: 19V@7.89A |
| Operation Temperature | -10°C ~ +50°C (+14°F ~ +122°F) with W.T. HDD or W.T. SSD or W.T. CFast™   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ +176°F)   |
| Humidity              | 10% ~ 90%, non-condensing   |
| Dimensions            | 159.9 mm (6.36") (W) x 251.8 mm (10.02") (D) x 185 mm (7.2") (H)  |
| Weight (net/gross)    | 6.2 kg (13.67 lb)/7.2 kg (15.87 lb)   |
| Certification         | CE compliance   |

\*\*The maximum power rating for expansion slots at 50°C can not be exceeded the following values: The maximum loading of +3.3V /1A and +5V/5A and +12V /3A <60W

## Ordering Information

### PCIe Version

IPC932-230-FL-ECM-DC  
SYS w/HAB100  
(PN: E26G932107)

2-slot fanless EtherCAT master controller embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCIe slots and DC-in ATX 150W P/S

IPC932-230-FL-ECM-AC  
SYS w/HAB100  
(PN: E26G932106)

2-slot fanless EtherCAT master controller embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCIe slots, DC-in ATX 150W P/S and AC-DC 150W power adaptor and US power cord

\*Specifications and certifications are based on options and may vary.

## Power Protection

### AC Version

OVP (over voltage protection)

OTP (over temperature protection)

OPP (over power protection)

SCP (over circuit protection)

### DC Version

OVP (over voltage protection)

SCP (short circuit protection)

OCP (over current protection)

## Optional Items

DDR3 SO-DIMM: 2 GB, 4 GB, 8 GB

CFast™: 2 GB, 4 GB, 8 GB

2.5" SATA HDD: 320 GB, 500 GB

IPC932-230-FL Fan module kit (E26G932104)

Y-Cable for CRT and DVI 150 mm (594826A0010E)

6P PS/2 KB+Mouse cable (59381560000E)

## Packing List

IPC932-230-FL Series Unit x 1

19V 150W Adapter (for AC Version)

Driver CD

Quick Manual

Wall Mount Bracket x 2

Screw pack x 1

Foot pad x 4

CPU Thermal Pad x 1

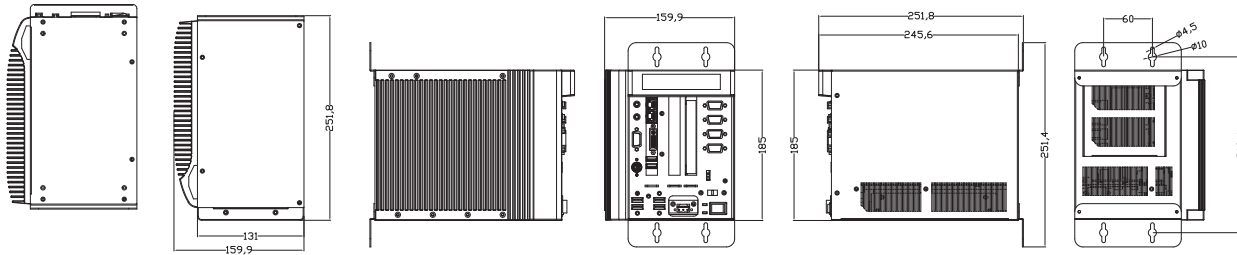
HDD Bracket x 2

HDD Mylar x 2

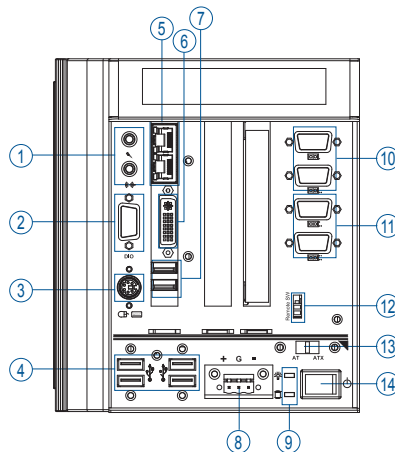
Terminal block x 1 (for DC version)

Remote power switch cable x 1

## Dimensions



## Front & Rear Metal Panel I/O Layout

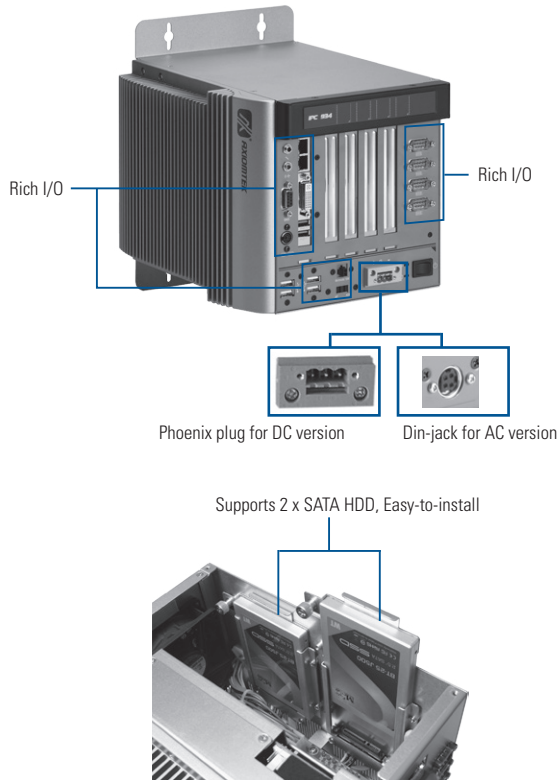


1. Audio(MIC-in/Line-out)
2. Digital I/O
3. PS/2 keyboard/mouse
4. USB 2.0 x 4
5. Ethernet x 2
6. DVI-I
7. USB 3.0 x 2
8. Power connector (Din-Jack or Phoenix plug)
9. LED for Power and HDD
10. RS-232/422/485 (COM 1/2)
11. RS-232 (COM 3/4)
12. Remote power switch
13. ATX/AT Mode switch
14. ATX Power switch



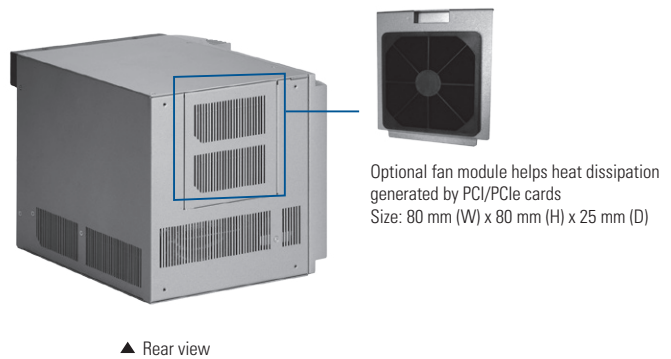
# IPC934-230-FL

4-slot Fanless Barebone System with 4th Generation Intel® Core™ i7/i5/i3 & Celeron® Processor (up to 3.3 GHz) Intel® Q87, PCIe and PCI Slots



## Features

- Fanless operation
- 4th Generation Intel® Core™ i7/i5/i3 & Celeron® processor up to 45W (Codename Haswell/Haswell Refresh)
- Intel® Q87 chipset
- Supports 4-slot expansion slots
- DC to DC power supply supports 10~30V
- Compact & front I/O design
- Rugged, up to -10°C ~ +50°C operation with W.T. SSD or W.T. CFast™
- Supports iAMT 9.0
- Support SATA 6Gbs with RAID 0,1



## Specifications

|                       |   |  |
|-----------------------|---|--|
| Standard Color        | Sliver  |  |
| Construction          | Aluminum extrusion heavy-duty cold-rolled steel, IP30 |  |
| System Board          | SHB230DGGGA   |  |
| Processor System      | CPU Level   | 4th Generation for Intel® Core™ i7/i5/i3 & Celeron® processor, up to 45W (Codename Haswell/ Haswell Refresh) |
|                       | Max. Speed  | 3.3 GHz  |
|                       | Front Side Bus  | N/A  |
|                       | Chipset   | Intel® Q87   |
| System Memory         | 2 x 204-pin DDR3-1333/1600 SO-DIMM, max. up to 16 GB  |  |
| I/O Interface (Front) | ATX power on/off switch                               |  |
|                       | 1 x 2-pin connector output for remote on/off switch   |  |
|                       | 2 x USB 3.0   |  |
|                       | 4 x USB 2.0   |  |
|                       | 2 x RS-232/422/485(COM 1/2)                           |  |
|                       | 2 x RS-232(COM 3/4)                                   |  |
|                       | 2 x 10/100/1000Mbps Ethernet                          |  |
|                       | 1 x DVI-I   |  |
|                       | 1 x DIO (Female DB9 Connector) (4 IN and 4 OUT)       |  |
|                       | 1 x PS/2 keyboard/mouse                               |  |
|                       | 1 x Audio (MIC-in/Line-out)                           |  |
| 1 x AT/ATX Mode SW    |   |  |

|                       |   |
|-----------------------|---|
| Expansion Interface   | HAB104: 4 PCI   |
|                       | HAB105: 2 PCI & 1 PCIe x1 & 1 PCIe x16                          |
| Storage               | 2 x 2.5" SATA HDD, 1 x CFast™ socket                            |
| System Indicators     | 1 x power on/off, 1 x HDD                                       |
| Power Supply          | DC ATX150W :  |
|                       | Input : 10~30Vac  |
|                       | Output: +5V@11A, +3.3V@5A, +12V@9A, -12V@-150mA, 5Vsb@2A        |
| AC-DC power adapter : | Input : 90 ~ 264Vac   |
|                       | Output : 19V@7.89A  |
|                       | Operation Temperature   |
| Storage Temperature   | -20°C ~ +80°C (-4°F ~ 176°F)                                    |
| Humidity              | 10% ~ 90%, non-condensing                                       |
| Dimensions            | 200.54 mm (7.96") (W) x 251.8mm (9.99") (D) x 185 mm (7.3") (H) |
| Weight (net/gross)    | 5.9 kg (12.98 lb)/6.9 kg (15.18 lb)                             |
| Certification         | CE Compliance   |

\*\*The maximum power rating for expansion slots at 50°C can not be exceeded the following values: The maximum loading of +3.3V /1A and +5V/5A and +12V /3A <60W

## Ordering Information

### PCI Version

|  |  |
|--|--|
| IPC934-230-FL-HAB104 DC<br>(P/N: E26G934101) | 4-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCI slots and DC-in ATX 150W P/S   |
| IPC934-230-FL-HAB104 AC<br>(P/N: E26G934100) | 4-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCI slots, DC-in ATX 150W P/S and AC-DC 150W power adaptor and US power cord |

### PCI+PCIe Version

|  |   |
|--|---|
| IPC934-230-FL-HAB105 DC<br>(P/N: E26G934103) | 4-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCI & PCIe slots and DC-in ATX 150W P/S   |
| IPC934-230-FL-HAB105 AC<br>(P/N: E26G934102) | 4-slot fanless embedded system with 4th generation Intel® Core™ i7/i5/i3 processor, PCI & PCIe slots, DC-in ATX 150W P/S and AC-DC 150W power adaptor and US power cord |

\*Specifications and certifications are based on options and may vary.

## Power Protection

### AC Version

OVP (Over voltage protection)  
 OTP (over temperature protection)  
 OPP (over power protection)  
 SCP (over circuit protection)

### DC Version

OVP (Over voltage protection)  
 SCP (short circuit protection)  
 OCP (Over current protection)

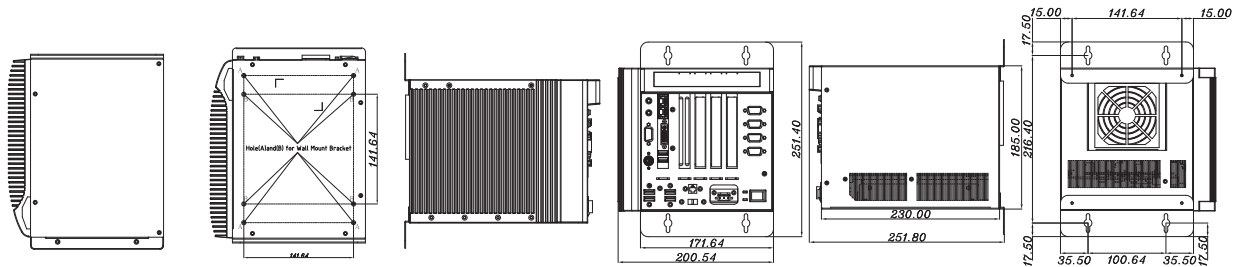
## Optional Items

DDR3 SODIMM: 2 GB, 4 GB, 8 GB  
 CFast : 2 GB, 4 GB, 8 GB  
 Embedded OS: WIN7 OS Image and License  
 2.5" SATA HDD: 320 GB, 500 GB  
 IPC932-230-FL Fan module kit (E26G932104)  
 Y-Cable for CRT and DVI 150 mm (594826A0010E)  
 6P PS/2 KB+Mouse cable (59381560000E)

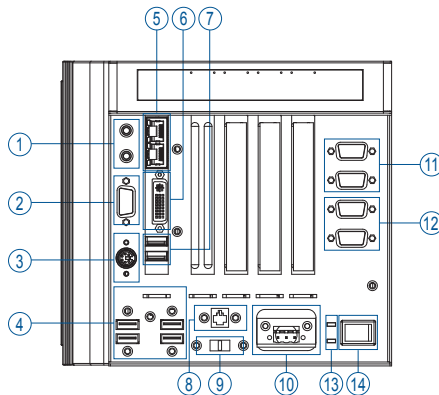
## Packing List

19V 150W adapter and US Power cord (for AC Version)  
 Driver CD  
 Quick Manual  
 Wall mount bracket x 2  
 Foot Pad x 4  
 HDD bracket x 2  
 HDD Mylar x 2  
 Screw pack x 1  
 Thermal Pad for RAM x 1  
 CPU thermal Pad x 1  
 Terminal block x 1 ( for DC version)  
 Remote power switch cable x 1

## Dimensions



## Front & Rear Metal Panel I/O Layout



1. Audio (Mic-in/Line out)
2. Digital I/O
3. PS/2 Keyboard/Mouse
4. USB 2.0 x 4
5. Ethernet x 2
6. DVI-I
7. USB 3.0 x 2
8. Remote power switch
9. ATX/AT Mode switch
10. Power connector (Din-Jack or Phoenix plug)
11. RS-232/422/485 (COM 1/2)
12. RS-232 (COM 3/4)
13. LED for Power and HDD
14. ATX Power switch





## ***Industrial & Embedded Computers***

[www.axiomtek.com](http://www.axiomtek.com)

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## Industrial Chassis



Axiomtek's industrial chassis are flexible, easily managed, and feature solid designs. Backplane and motherboard-type chassis form factors are available according to specific customer needs. Backplane chassis are used with traditional CPU boards, and come in rackmount or tower form factors, with different heights and space configurations. Axiomtek also provides a customized ID program in which a motherboard modification sample is supplied to the customer in a short amount of time. Axiomtek satisfies various customers' need by supplying the right type of chassis designed for the right applications.

|                 |  |     |
|-----------------|--|-----|
| Selection Guide |  | 423 |
| AX61120TP       | 1U Rackmount Chassis for full-size SBC                                   | 425 |
| AX61131TM       | 1U Cost-effective Rackmount Chassis for ATX Motherboard                  | 427 |
| AX61132TM       | 1U Rackmount Chassis for ATX Motherboard                                 | 429 |
| AX61133TM       | 1U Dual Hot swapping SATA HDD Tray Rackmount chassis for ATX Motherboard | 431 |
| AX61222TP       | 2U Compact Rackmount Chassis   | 433 |
| AX61220TP       | 2U Compact Rackmount Chassis   | 433 |
| AX61221TM       | 2U Rackmount Chassis for ATX Motherboard                                 | 435 |
| AX61400         | 4U 14-slot Rackmount Chassis   | 437 |
| AX6145          | 4U 14-slot Rackmount Chassis   | 439 |
| AX6156LE        | 4U 14-slot Rackmount Chassis   | 441 |
| AX61492         | 4U 20-slot Extended Rackmount Chassis                                    | 443 |
| AX60552         | 8-slot ShoeBox Chassis   | 445 |
| AX60551         | 8-slot ShoeBox Chassis   | 447 |
| AX60501         | 6-slot ShoeBox Chassis   | 448 |
| AX60530         | 6-slot ShoeBox Chassis   | 449 |

# Industrial Chassis

## Selection Guide



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| Features/Models               | AX61120TP                                    | AX61131TM                                   | AX61132TM                                   | AX61133TM                                     |
|-------------------------------|--|---|---|---|
| <b>Height</b>                 | 1U   | 1U  | 1U  | 1U  |
| <b>Number of Slots</b>        | 2  | 1   | 1   | 1   |
| <b>Backplane Selection</b>    | FAB102, FAB209, ATX6022/3VP2                 | N/A   | N/A   | N/A   |
| <b>MB Support</b>             | N/A  | Yes, 12" x 9.6" (ATX)                       | Yes, 12" x 9.6" (ATX)                       | Yes, 12" x 9.6" (ATX)                         |
| <b>Drive Capacity</b>         | 5.25"  | 1 (slim)                                    | N/A   | N/A   |
|                               | 3.5"   | 2 (1 internal)                              | 2 (internal)                                | 2 (hot-swappable tray)                        |
| <b>Cooling System</b>         | 3 x 4 cm                                     | 2 x 4 cm                                    | 2 x 4 cm                                    | 2 x 4 cm                                      |
| <b>Fault Detection</b>        | N/A  | N/A   | N/A   | N/A   |
| <b>Power Supply</b>           | 1U type                                      | 1U type                                     | 1U type                                     | 1U type                                       |
| <b>Dimensions (W x D x H)</b> | 482.6 x 500 x 44 mm<br>(19" x 19.7" x 1.75") | 440 x 428 x 44mm<br>(17.3" x 16.8" x 1.73") | 482 x 430 x 44 mm<br>(19" x 16.93" x 1.73") | 473.5 x 440 x 44 mm<br>(19" x 17.32" x 1.73") |
| <b>Weight (net/gross)</b>     | 9.8 kg (21.6 lb)/10.5 kg (23.15 lb)          | 9.8 kg (21.6 lb)/10.8 kg (23.81 lb)         | 9.8 kg (21.6 lb)/10.8 kg (23.81 lb)         | 9.8 kg (21.6 lb)/10.8 kg (23.81 lb)           |



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| Features/Models               | AX61222TP/AX61220TP  | AX61221TM                                   | AX61400   | AX6145  |
|-------------------------------|--|---|---|---|
| <b>Height</b>                 | 2U   | 2U  | 4U  | 4U  |
| <b>Number of Slots</b>        | 5  | 3   | 14  | 14  |
| <b>Backplane Selection</b>    | FAB105-V1, FAB210, ATX6022/6VP4  | N/A   | FAB100, FAB101, FAB112, FAB113, FAB114, FAB118, FAB119, ATX6022/14, ATX6022/14G, ATX6022/13L, ATX6022/14GP7 | FAB100, FAB101, FAB112, FAB113, FAB114, FAB118, FAB119, ATX6022/14, ATX6022/14G, ATX6022/13L, ATX6022/14GP7 |
| <b>MB Support</b>             | N/A  | Yes, 12" x 9.6" (ATX)                       | Yes, 12" x 9.6" (ATX)   | Yes, 12" x 9.6" (ATX)   |
| <b>Drive Capacity</b>         | 5.25"  | 2 (1 slim)                                  | 3   | 2   |
|                               | 3.5"   | 2 (1 internal)                              | 2 (1 internal)  | 2 (1 internal)  |
| <b>Cooling System</b>         | 2 x 8 cm   | 1 x 8 cm                                    | 1 x 12 cm   | 2 x 8 cm  |
| <b>Fault Detection</b>        | N/A  | N/A   | N/A   | N/A   |
| <b>Power Supply</b>           | PS/2 type (optional HRP for AX61220TP)   | PS/2 type                                   | PS/2 type   | PS/2 type   |
| <b>Dimensions (W x D x H)</b> | 450 x 88.9 mm<br>(18.95" x 17.7" x 3.5") (AX61222TP)<br>481.4 x 475 x 88.9 mm<br>(18.95" x 18.7" x 3.5") (AX61220TP) | 482.6 x 450 x 88 mm<br>(19" x 17.7" x 3.5") | 482.6 x 450 x 177 mm<br>(19" x 17.7" x 7")  | 482.6 x 427 x 177 mm<br>(19" x 16.8" x 7")  |
| <b>Weight (net/gross)</b>     | 8.22 kg (18.12 lb)/<br>10.26 kg (22.62 lb) (AX61222TP)<br>8.6 kg (18.96 lb)/<br>12.02 kg (26.49 lb) (AX61220TP)      | 12 kg (26.45 lb)/13.5 kg (29.77 lb)         | 15 kg (33.07 lb)/16.3 kg (35.94 lb)   | 15 kg (33.07 lb)/16.3 kg (35.94 lb)   |





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| Features/Models               | AX6156LE   | AX61492                                 | AX60552   | AX60551   |
|-------------------------------|--|---|---|---|
| <b>Height</b>                 | 4U   | 4U                                      | -   | -   |
| <b>Number of Slots</b>        | 14   | 20                                      | 8   | 8   |
| <b>Backplane Selection</b>    | FAB100, FAB101, FAB112, FAB113, FAB114, FAB118, FAB119, ATX6022/14, ATX6022/14G, ATX6022/14G, ATX6022/13 | ATX6022/20GP18                          | FAB111, FAB116, FAB208, HAB208, ATX6022/8, ATX6022/8GP7 | FAB111, FAB116, FAB208, HAB208, ATX6022/8, ATX6022/8GP7 |
| <b>MB Support</b>             | Yes, 12" x 9.6" (ATX)  | N/A                                     | N/A   | N/A   |
| <b>Drive Capacity</b>         | 5.25"  | 3                                       | 2   | 1   |
|                               | 3.5"   | 1                                       | 2 (1 internal)  | 2 (1 internal)  |
| <b>Cooling System</b>         | 1 x 12 cm  | 3 x 12 cm                               | 1 x 9 cm  | 1 x 9 cm  |
| <b>Fault Detection</b>        | N/A  | N/A                                     | N/A   | N/A   |
| <b>Power Supply</b>           | PS/2 type (optional HRP)   | HRP type (optional PS/2)                | PS/2 type   | PS/2 type   |
| <b>Dimensions (W x D x H)</b> | 484.7 x 537.6 x 176.7 mm (19" x 21.2" x 7")  | 482.6 x 680 x 177 mm (19" x 26.8" x 7") | 368.8 x 407.5 x 177.3 mm (4.52" x 16.04" x 6.98")       | 275 x 414 x 193 mm (10.8" x 16.3" x 7.6")               |
| <b>Weight (net/gross)</b>     | 18 kg (39.68 lb)/19.5 kg (43 lb)   | 2.3 kg (5.07 lb)/24.6 kg (54.24 lb)     | 10.5 kg (23.15 lb)/11.3 kg (24.92 lb)                   | 10.9 kg (24.03 lb)/11.2 kg (24.67 lb)                   |



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| Features/Models               | AX60501                                     | AX60530                                    |
|-------------------------------|---|--|
| <b>Height</b>                 | -   | -  |
| <b>Number of Slots</b>        | 6   | 4  |
| <b>Backplane Selection</b>    | FAB105, FAB109, FAB110, HAB206, ATX6022/6   | HAB206, ATX6022/6                          |
| <b>MB Support</b>             | N/A   | N/A  |
| <b>Drive Capacity</b>         | 5.25"                                       | 1  |
|                               | 3.5"  | 2 (1 internal)                             |
| <b>Cooling System</b>         | 1 x 9 cm                                    | 1 x 8 cm                                   |
| <b>Fault Detection</b>        | N/A   | N/A  |
| <b>Power Supply</b>           | PS/2 type                                   | 1U type                                    |
| <b>Dimensions (W x D x H)</b> | 235 x 400 x 154.7 mm (9.25" x 15.8" x 6.1") | 191 x 273 x 195.7 mm (7.5" x 10.8" x 7.7") |
| <b>Weight (net/gross)</b>     | 9 kg (19.84 lb)/10.3 kg (22.7 lb)           | 5.4 kg (11.9 lb)/6.8 kg (15 lb)            |

Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

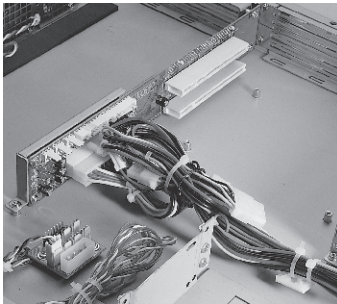
Peripherals & Accessories

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# AX61120TP

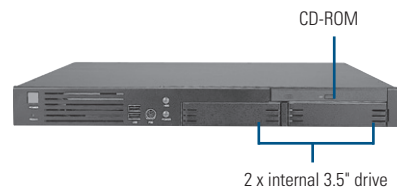
1U Rackmount Chassis for full-size SBC



▲ Built-in a butterfly backplane with 2 expansion slots

## Features

- PICMG 1.3 SBC structure with 2 expansion slots
- Internal two 3.5" HDD drive bays
- Slim-line CD-ROM disk bay for ease of system installation
- Special cooling system design for supporting Intel® Pentium® 4 processor
- ATX 270W power supply (with PFC) for Intel® Pentium® 4 SBCs



▲ Front view



▲ Rear view

## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Black   |
| Construction           | Heavy-duty steel  |
| Drive Capacity         | Exposed 1 x slim-line CD-ROM<br>Internal 2 x 3.5" HDD drive bay |
| Cooling                | 3 x 4 cm ball bearing fan                                       |
| Front Panel Indicators | 1 x power on/off, 1 x HDD                                       |
| Front Panel Controls   | 1 x power on/off and 1 x system reset                           |
| Front Panel Connectors | 2 x USB, 1 x PS/2 6-pin   |
| Pre-punched Panel      | Rear 1 x 9-pin, 1 x 25-pin                                      |
| System Board           | Full-size SBCs  |

|                       |  |
|-----------------------|--|
| Expansion Interface   | 2 x PCI card (half-size)   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                     |
| Dimensions            | 482.6 mm (19") (W) x 500 mm (19.7") (D) x<br>44.3 mm (1.75") (H) |
| Weight (net/gross)    | 9.8 kg (21.6 lb)/10.5 kg (23.15 lb)                              |

- Overview
- Embedded Systems
- Embedded Systems for Transportation
- Embedded Field Controllers
- Industrial Firewall
- Digital Signage Solutions
- Embedded MicroBoxes
- Industrial Barebone Systems
- 8** Industrial Chassis
- Backplanes
- Power Supplies
- Peripherals & Accessories

## Power Supply Specifications

| Items        | Watt           | Input             | Specifications |               |
|--------------|----------------|-------------------|----------------|---------------|
|              |                |                   | Output         | MTBF          |
| PS270-1U     | ATX 270W (PFC) | AC 90-264V (Auto) | +5V @ 18A      | 100,000 hours |
|              |                |                   | +12V 1 @ 16A   |               |
|              |                |                   | +12V 2 @ 10A   |               |
|              |                |                   | +3.3V @ 16A    |               |
|              |                |                   | -12V @ 0.8A    |               |
| +5VSB @ 2.5A |                |                   |                |               |
| PS200-1U     | ATX 200W (PFC) | AC 90-264V (Auto) | +5V @ 17A      | 100,000 hours |
|              |                |                   | +12V 1 @ 6A    |               |
|              |                |                   | +12V 2 @ 12A   |               |
|              |                |                   | +3.3V @ 14A    |               |
|              |                |                   | -12V @ 0.8A    |               |
| +5VSB @ 2A   |                |                   |                |               |

## Ordering Information

|                |                            |
|----------------|----------------------------|
| AX61120TP/X200 | With ATX 200W power supply |
| AX61120TP/X270 | With ATX 270W power supply |

\*Specifications and certifications are based on options and may vary.

## Recommended SBC Selections

SBC81203 series w/ LGA775 heatsink  
 SBC81205 series w/ LGA775 heatsink  
 SBC81206 series w/ LGA775 heatsink  
 SHB100 series w/ LGA775 heatsink (manufacture option)  
 SHB103 w/ LGA1156 heatsink (manufacture option)  
 SHB110 series w/ LGA775 heatsink (manufacture option)  
 SHB106 series w/ LGA1156 heatsink (manufacture option)  
 SHB120 series w/ LGA1155 heatsink (manufacture option)  
 SHB130 series w/ LGA1150 heatsink (manufacture option)

## Backplane Options

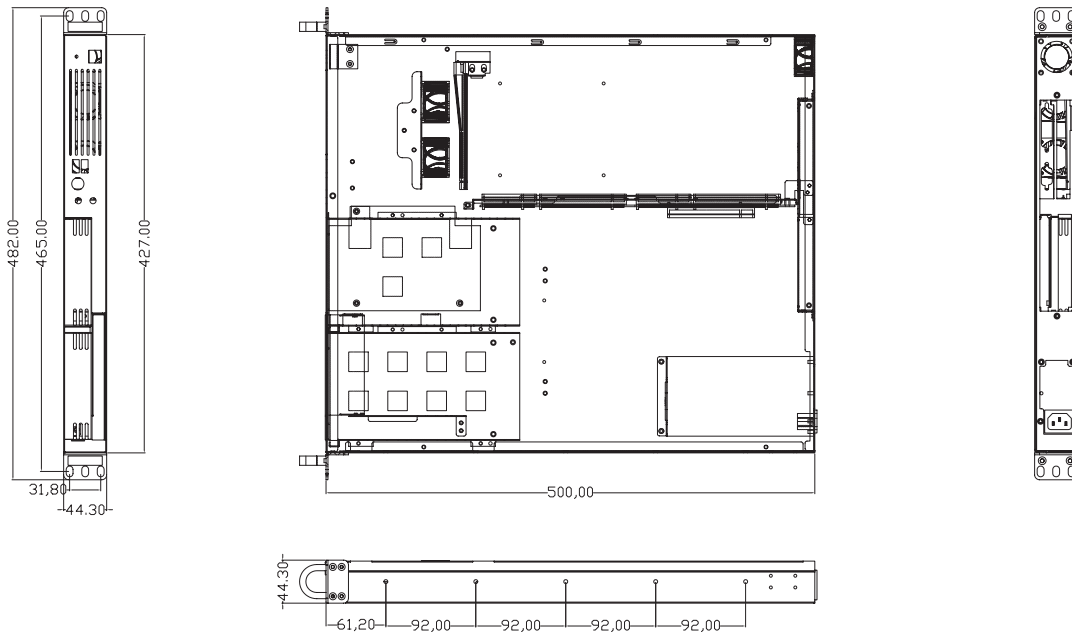
### PICMG 1.0

| Models       | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------------|--------------------------------------|---------|
| ATX6022/3VP2 | 0/2/0/1                              | Single  |

### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB102 | 0/0/1/1                              | Single  |
| FAB209 | 0/0/2/1                              | Single  |

## Dimensions

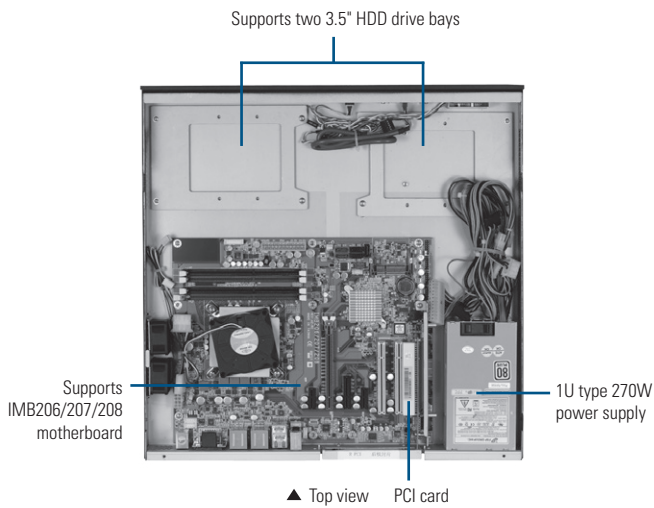


# AX61131TM

1U Cost-effective Rackmount Chassis for ATX Motherboard

## Features

- Supports 12" x 9.6" standard ATX MB (IMB206/IMB207/IMB208)
- Two 4 cm system fan
- Supports 1U Flex ATX 270W power supply
- Internal two 3.5 HDD drive bays



▲ Front view



▲ Rear view

## Specifications

|                        |                                 |
|------------------------|---------------------------------|
| Standard Color         | Black                           |
| Construction           | heavy-duty steel                |
| Drive Capacity         | Internal 2 x 3.5" HDD drive bay |
| Cooling                | 2 x 4 cm ball-bearing fan       |
| Front Panel Indicators | 1 x power on/off , 1 x HDD      |
| Front Panel Controls   | 1 x power on/off                |
| Front Panel Connectors | 2 x USB                         |
| Rear-Punched Panel     | Rear 1 x 9-pin, 1 x 25-pin      |
| System Board           | IMB206, IMB207, IMB208          |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 1 x PCI slot (32 bits/33 MHz)                               |
| Operation Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                |
| Dimensions            | 440 mm (17.3") (W) x 428 mm (16.8") (D) x 44 mm (1.73") (H) |
| Weight (net/gross)    | 9.8 kg (21.6 lb)/10.8 kg (23.81 lb)                         |

## Power Supply Specifications

| Items      | Watt           | Input             | Specifications |               |
|------------|----------------|-------------------|----------------|---------------|
|            |                |                   | Output         | MTBF          |
| PS270-1U   | ATX 270W (FPC) | AC 90-264V (Auto) | +5V@18A        | 100,000 hours |
|            |                |                   | +12V1@16A      |               |
|            |                |                   | +12V2@10A      |               |
|            |                |                   | +3.3V@16A      |               |
|            |                |                   | 12V@0.8A       |               |
| +5VSb@2.5A |                |                   |                |               |

## Ordering Information

AX61131TM/X270 With ATX 270W power supply

\*Specifications and certifications are based on options and may vary.

## Recommended MB Selections

IMB206 with LGA1156 Heatsink (manufacture option)  
 IMB207 with LGA1156 Heatsink (manufacture option)  
 IMB208 with LGA1156 Heatsink (manufacture option)

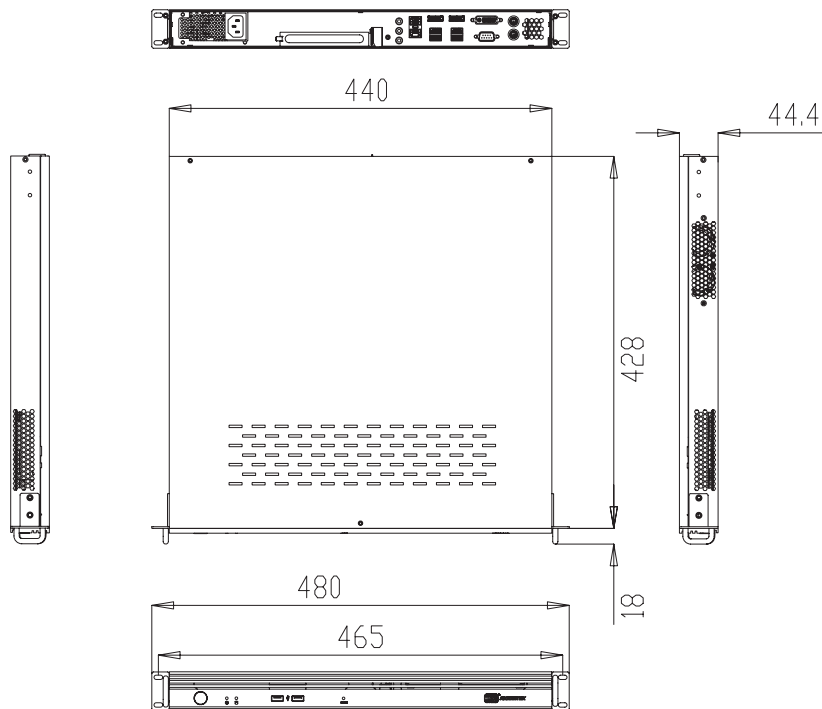
## Packing List

AX61131TM chassis x 1  
 CPU cooler x 1  
 PCI riser card bracket x 1  
 Screw pack x 1

## Optional Item

E296200100 AX96200-RC 1-slot 32-bit PCI riser card

## Dimensions



# AX61132TM

1U Rackmount Chassis for ATX Motherboard

## Features

- Supports 12" x 9.6" standard ATX MB (IMB206/IMB207/IMB208/IMB211)
- Internal two SATA HDD drive bays
- Supports one PCI riser card
- Supports ATX 270W power supply



▲ Front view



▲ Rear view

## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Black                                      |
| Construction           | Heavy-duty steel                           |
| Drive Capacity         | Internal 2 x SATA HDD drive bay            |
| Cooling                | 2 x 4 cm ball bearing fans (15.3 CFM/each) |
| Front Panel Indicators | 1 x power on/off, 1 x HDD                  |
| Front Panel Controls   | 1 x power on/off                           |
| Front Panel Connectors | N/A  |
| Pre-punched Panel      | N/A  |
| System Board           | IMB206/IMB207/IMB208/IMB211                |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 1 x PCI slot (32 bits/33 MHz)                             |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                              |
| Dimensions            | 482 mm (19") (W) x 430 mm (16.9") (D) x 44 mm (1.73") (H) |
| Weight (net/gross)    | 9.8 kg (21.6 lb)/10.5 kg (23.15 lb)                       |

## Power Supply Specifications

| Items    | Watt              | Input                | Specifications | MTBF             |
|----------|-------------------|----------------------|----------------|------------------|
|          |                   |                      | Output         |                  |
| PS270-1U | ATX 270W<br>(PFC) | AC 90-264V<br>(Auto) | +5V @ 18A      | 100,000<br>hours |
|          |                   |                      | +12V 1 @ 16A   |                  |
|          |                   |                      | +12V 2 @ 10A   |                  |
|          |                   |                      | +3.3V @ 16A    |                  |
|          |                   |                      | -12V @ 0.8A    |                  |
|          |                   |                      | +5VSB @ 2.5A   |                  |

## Recommended MB Selections

IMB206 with LGA1156 heatsink (manufacture option)  
 IMB207 with LGA1156 heatsink (manufacture option)  
 IMB208 with LGA1156 heatsink (manufacture option)  
 IMB211 with LGA1156 heatsink (manufacture option)

## Optional Items

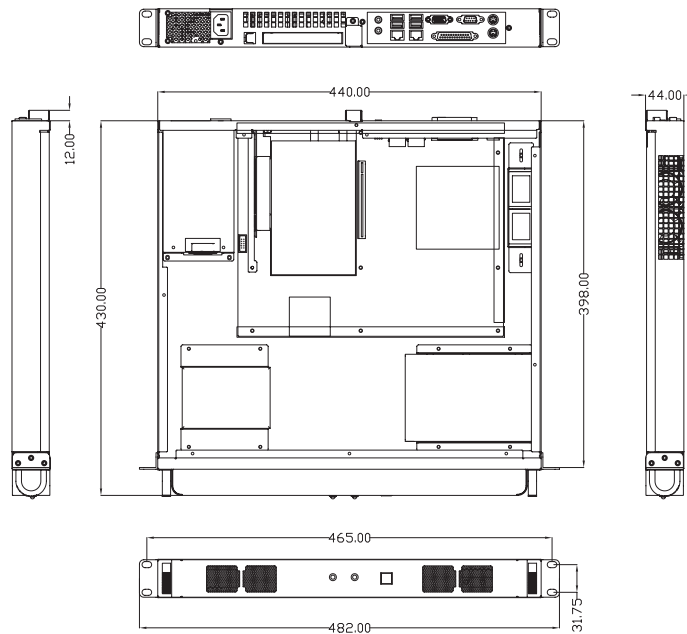
|              |                                      |
|--------------|--------------------------------------|
| E296200100   | AX96200 1-slot 32-bit PCI riser card |
| 50761133100E | LGA1156 1U passive CPU cooler        |

## Ordering Information

AX61132TM/X270 With ATX 270W power supply

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories





# AX61133TM

1U Dual Hot swapping SATA HDD Tray  
Rackmount classis for ATX Motherboard



Supports 2 x 3.5" hot-swappable SATA HDD tray  
Easy-to-maintain tray design

## Features

- Supports 12" x 9.6" standard ATX Motherboard (IMB206/IMB207/IMB208)
- Supports two 3.5" SATA HDD (hot-swappable tray)
- Supports one PCI or PCIe riser card
- Supports ATX 270W power supply



▲ Front view



▲ Rear view



DDR3

## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Black   |
| Construction           | Heavy-duty steel                                    |
| Drive Capacity         | Exposed 2 x SATA HDD drive bay (hot swappable tray) |
| Cooling                | 2 x 4 cm ball bearing fans (15.3 CFM/each)          |
| Front Panel Indicators | 1 x power on/off, 1 x HDD                           |
| Front Panel Controls   | 1 x power on/off                                    |
| Front Panel Connectors | N/A   |
| Pre-punched Panel      | N/A   |
| System Board           | IMB206/IMB207/IMB208                                |

|                       |  |
|-----------------------|--|
| Expansion Interface   | 1 x PCI slot (32 bits/33 MHz)<br>or<br>1 x PCIe slot         |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                 |
| Dimensions            | 473.5 mm (19") (W) x 440 mm (17.32") (D) x 44 mm (1.73") (H) |
| Weight (net/gross)    | 9.8 kg (21.6 lb)/10.8 kg (23.8 lb)                           |

## Power Supply Specifications

| Items        | Watt              | Input                | Specifications | MTBF             |
|--------------|-------------------|----------------------|----------------|------------------|
|              |                   |                      | Output         |                  |
| PS270-1U     | ATX 270W<br>(PFC) | AC 90-264V<br>(Auto) | +5V @ 18A      | 100,000<br>hours |
|              |                   |                      | +12V 1 @ 16A   |                  |
|              |                   |                      | +12V 2 @ 10A   |                  |
|              |                   |                      | +3.3V @ 16A    |                  |
|              |                   |                      | -12V @ 0.8A    |                  |
| +5VSB @ 2.5A |                   |                      |                |                  |

## Ordering Information

|                |   |
|----------------|---|
| AX61133TM/X270 | With ATX270W Power supply, PCI version  |
| AX61133TM/X270 | With ATX270W Power supply, PCIe version |

\*Specifications and certifications are based on options and may vary.

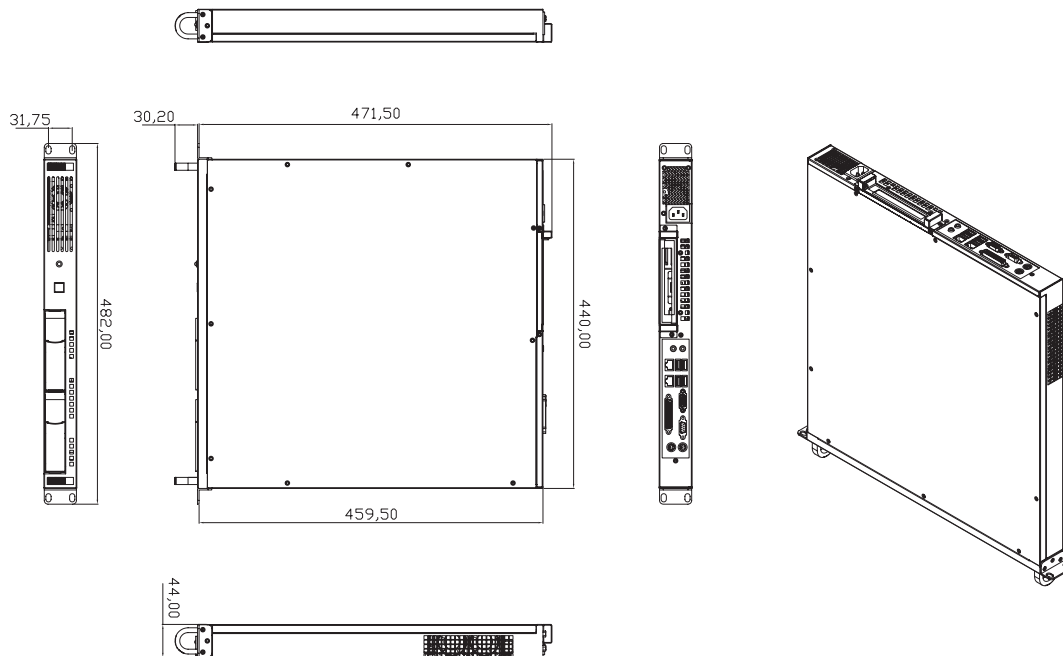
## Recommended MB Selections

IMB206 with LGA1156 heatsink (manufacture option)  
 IMB207 with LGA1156 heatsink (manufacture option)  
 IMB208 with LGA1156 heatsink (manufacture option)

## Optional Items

|              |                                      |
|--------------|--------------------------------------|
| E296200100   | AX96200 1-slot 32-bit PCI riser card |
| 84306113300E | PCIe x16 riser card L: 3250 mm       |
| 50761133100E | LGA1156 1U passive CPU cooler        |

## Dimensions



# AX61222TP/AX61220TP

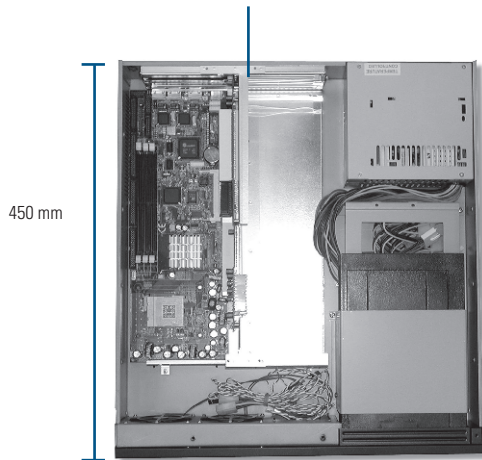
2U Compact Rackmount Chassis

## Features

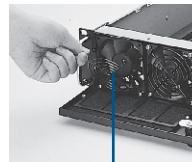
- 2U rackmount design in depth of 450 mm (AX61222TP)/ 475 mm (AX61220TP)
- PICMG SBC structure with 5 free slots for expansion
- Front-accessible one 5.25" HDD drive bay, one slim-line CD-ROM, one 3.5" HDD drive bay, and one internal HDD drive bay



ATX6022/6VP4 backplane (up to 4 x PCI, 1 x ISA, 1 x PICMG)



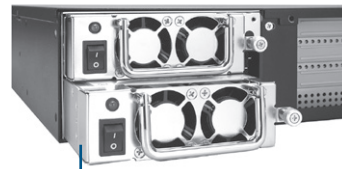
▲ Top view



Removable fan filter on the front panel



Flexible combination of drive bays for removable HDD CD-ROM, FDD, tape drive and hidden HDDs



Optional hot-swap redundant power supply (only for AX61220TP)

## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Black  |
| Construction           | Heavy-duty steel   |
| Drive Capacity         | Exposed 1 x slim-line CD-ROM; 1 x 3.5" HDD drive bay; 1 x 5.25" HDD drive bay; internal 1 x 3.5" HDD drive bay |
| Cooling                | 2 x 8 cm ball-bearing fans (42.5 CFM/each) with a removable filter   |
| Front Panel Indicators | Power on/off; HDD  |
| Front Panel Controls   | 1 x power on/off, 1 x system reset   |
| Front Panel Connectors | 2 x USB ; 1 x PS/2 6-pin   |
| Pre-punched Panel      | Rear: 1 x 9-pin  |
| System Board           | PICMG 1.0 & PICMG 1.3 SBCs   |

|                       |  |
|-----------------------|--|
| Expansion Interface   | ATX6022/6VP4 or FAB105-V1 or FAB205  |
| Operating Temperature | 0° ~ +40°C (+32°F ~ +104°F)  |
| RangeDimensions       | 481.4 mm (18.95") (W) x 450 mm (17.7") (D) x 88.9 mm (3.5") (H) (AX61222TP)<br>481.4 mm (18.95") (W) x 475 mm (18.7") (D) x 88.9 mm (3.5") (H) (AX61220TP) |
| Weight (net/gross)    | 8.22 kg (18.12 lb)/10.26 kg (22.62 lb) (AX61222TP)<br>8.6 kg (18.96 lb)/12.02 kg (26.49 lb) (AX61220TP)  |

## Power Supply Specifications

| Items     | Watt               | Input              | Specifications  |               |
|-----------|--------------------|--------------------|---|---------------|
|           |                    |                    | Output  | MTBF          |
| PS300-HRP | ATX 300WHRP (PFC)  | AC 90-264V (Auto)  | +5V @ 25A<br>+12V @ 16A<br>-5V @ 0.5A<br>-12V @ 0.5A<br>+3.3V @ 18A<br>+5VSB @ 2A                 | 100,000 hours |
| PS302-XP2 | ATX 300W (PFC)     | AC 100-240V (Auto) | +5V @ 16A<br>+12V @ 17A<br>-12V1 @ 0.7A<br>+3.3V @ 19A<br>+5VSB @ 2.5A<br>+12V2 @ 17A             | 100,000 hours |
| PS400-XP2 | ATX 400W (PFC)     | AC 90-264V (Auto)  | +5V @ 20A<br>+12V1 @ 16A<br>+12V2 @ 16A<br>-12 @ 0.5A<br>+3.3 @ 20A<br>+5VSB @ 2.5A               | 100,000 hours |
| PS500-XP2 | ATX 500W (PFC)     | AC 90-264V (Auto)  | +5V @ 24A<br>+12V @ 34A<br>+12V1 @ 17A<br>+12V2 @ 17A<br>-12 @ 0.8A<br>+3.3 @ 24A<br>+5VSB @ 2.5A | 100,000 hours |
| PS400-HRP | ATX 400W HRP (PFC) | AC 90-264V (Auto)  | +5V @ 35A<br>+12V @ 28A<br>-5V @ 0.5A<br>-12 @ 1.2A<br>+3.3 @ 25A<br>+5VSB @ 2A                   | 100,000 hours |
| PS501-HRP | ATX 500W HRP (PFC) | AC 90-264V (Auto)  | +5V @ 25A<br>+12V @ 41A<br>-12 @ 0.8A<br>+3.3 @ 25A<br>+5VSB @ 3.5A                               | 100,000 hours |

## Ordering Information

|                          |                            |
|--------------------------|----------------------------|
| AX61222TP(AX61220TP)/300 | With ATX 300W power supply |
| AX61222TP(AX61220TP)/400 | With ATX 400W power supply |
| AX61222TP(AX61220TP)/500 | With ATX 500W power supply |

\*Specifications and certifications are based on options and may vary.

## Optional Items

**AX61220TP**  
 ATX500W redundant power supply with PFC  
 ATX300W redundant power supply with PFC  
 ATX400W redundant power supply with PFC

## Backplane Options

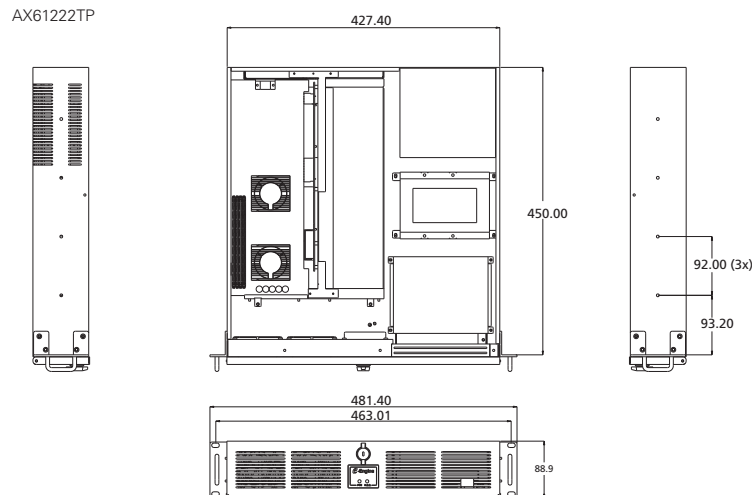
### PICMG 1.0

| Models       | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------------|--------------------------------------|---------|
| ATX6022/6VP4 | 1/4/0/1                              | Single  |

### PICMG 1.3

| Models    | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|-----------|--------------------------------------|---------|
| FAB105-V1 | 0/3/1/1                              | Single  |
| FAB205    | 0/5/0/1                              | Single  |
| FAB210    | 0/2/3/1                              | Single  |

## Dimensions

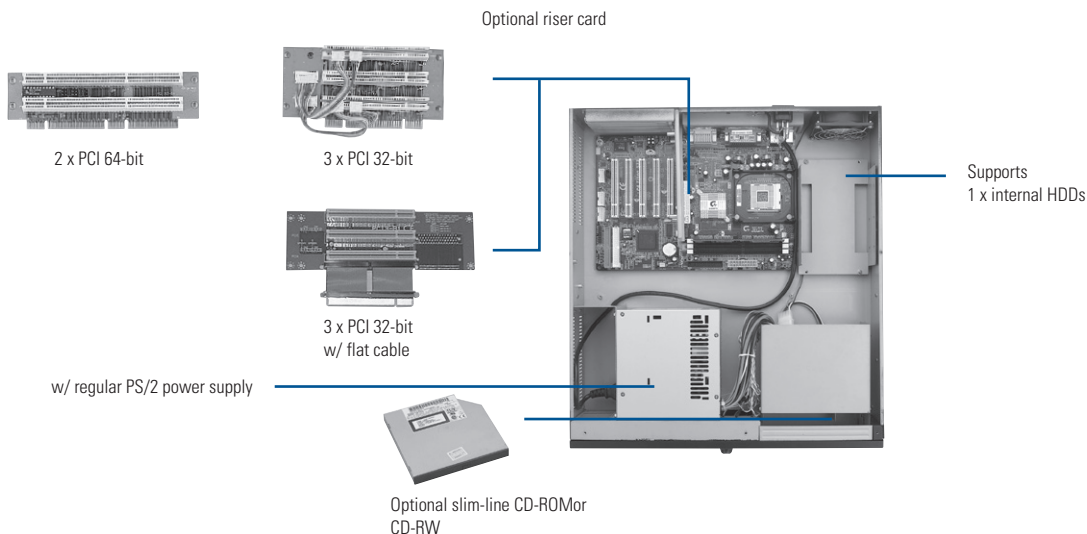


# AX61221TM

2U Rackmount Chassis for ATX Motherboard

## Features

- Supports 12" x 9.6" standard ATX Motherboard
- Internal one 3.5" HDD drive bays Front-accessible one 3.5", one 5.25" and one slim CD-ROM



## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Black   |
| Construction           | Heavy-duty steel  |
| Form Factor            | 12" x 9.6" ATX MB   |
| Drive Capacity         | Exposed 1 x slim-line CD-ROM, 1 x 3.5" HDD drive bay & 1 x 5.25" HDD drive bay; internal 1 x 3.5" HDD drive bay |
| Cooling                | 1 x 8 cm ball-bearing fan (38.6 CFM/each)   |
| Front Panel Indicators | 1 x power on/off; 1 x HDD   |
| Front Panel Controls   | 1 x power on/off; 1 x system reset  |
| Front Panel Connectors | 2 x USB   |

|                       |  |
|-----------------------|--|
| Expansion Interface   | PCI riser card with 3-slot 32-bit (optional)                 |
| Speaker               | 1 x 0.3W speaker   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                 |
| RangeDimensions       | 482.6 mm (19") (W) x 450 mm (17.7") (D) x 88.9 mm (3.5") (H) |
| Weight (net/gross)    | 12 kg (26.45 lb)/13.5 kg (29.77 lb)                          |

## Power Supply Specifications

| Items        | Watt           | Input              | Specifications |               | MTBF |
|--------------|----------------|--------------------|----------------|---------------|------|
|              |                |                    | Output         |               |      |
| PS302-XP2    | ATX 300W (PFC) | AC 100-240V (Auto) | +3.3V @ 19A    | 100,000 hours |      |
|              |                |                    | +5V @ 16A      |               |      |
|              |                |                    | +12V1 @ 17A    |               |      |
|              |                |                    | +12V2 @ 17A    |               |      |
|              |                |                    | -12V @ 0.3A    |               |      |
| +5VSB @ 2.5A |                |                    |                |               |      |
| PS400-XP2    | ATX 400W (PFC) | AC 90-264V (Auto)  | +5V @ 20A      | 100,000 hours |      |
|              |                |                    | +12V1 @ 16A    |               |      |
|              |                |                    | +12V2 @ 16A    |               |      |
|              |                |                    | -12V @ 0.5A    |               |      |
|              |                |                    | +3.3V @ 20A    |               |      |
| +5VSB @ 2.5A |                |                    |                |               |      |
| PS500-XP2    | ATX 500W (PFC) | AC 90-264V (Auto)  | +5V @ 24A      | 100,000 hours |      |
|              |                |                    | +12V @ 34A     |               |      |
|              |                |                    | +12V1 @ 17A    |               |      |
|              |                |                    | +12V2 @ 17A    |               |      |
|              |                |                    | -12V @ 0.8A    |               |      |
| +3.3V @ 24A  |                |                    |                |               |      |
| +5VSB @ 2.5A |                |                    |                |               |      |

## Optional Items

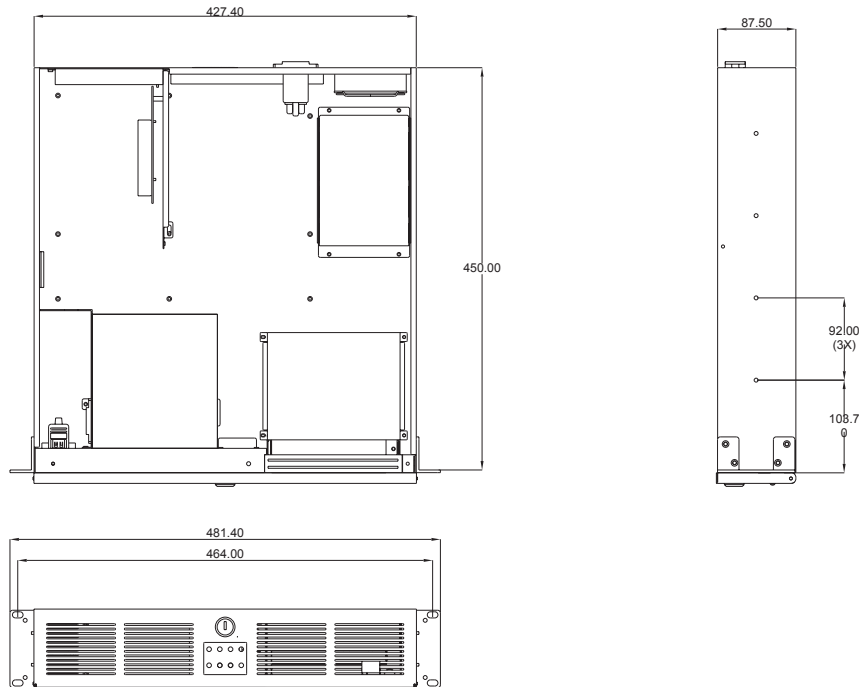
|         |  |
|---------|--|
| PCI 3   | 3-slot PCI 32-bit riser card               |
| AX96114 | 3-slot PCI 32-bit riser card w/ flat cable |
| AX96118 | 2-slot PCI 64-bit riser card               |

## Ordering Information

|                |                            |
|----------------|----------------------------|
| AX61221TM/X300 | With ATX 300W power supply |
| AX61221TM/X400 | With ATX 400W power supply |
| AX61221TM/X500 | With ATX 500W power supply |

\*Specifications and certifications are based on options and may vary.

## Dimensions



Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

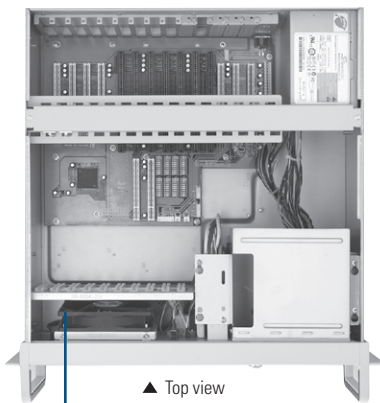
Power Supplies

Peripherals & Accessories



# AX61400

4U 14-slot Rackmount Chassis



▲ Top view

Default 1 x 12 cm fan

## Features

- Three 5.25" and max. two 3.5" HDD drive bays
- One 12cm ball-bearing fan
- Supports 14-slot backplane or ATX MB
- Single PS/2 size power supply supported



## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Beige   |
| Construction           | Heavy-duty steel  |
| Drive Capacity         | Exposed 3 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay; internal 1 x 3.5" HDD drive bay |
| Cooling                | 1 x 12 cm ball-bearing fan (78 CFM/each) with a removable filter                            |
| Front Panel Indicators | 1 x power on/off; 1 x HDD   |
| Front Panel Controls   | 1 x power on/off; 1 x system reset  |
| Front Panel Connectors | 2 x USB; 1 x PS2 mini-DIN keyboard  |
| Pre-punched Panel      | 1 x 25-pin; 1 x DIN 5-pin keyboard  |
| Hold-down Clamp        | height adjustable clamps with rubber cushions   |
| System Board           | SBCs or 12" x 9.6" ATX MB or IMB series   |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 14-slot backplane   |
| Speaker               | 1 x 0.4W speaker  |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                              |
| RangeDimensions       | 482.6 mm (19") (W) x 450 mm (17.7") (D) x 177 mm (7") (H) |
| Weight (net/gross)    | 15 kg (33.07 lb)/16.3 kg (35.94 lb)                       |



## Power Supply Specifications

| Items        | Watt           | Input              | Specifications |               |
|--------------|----------------|--------------------|----------------|---------------|
|              |                |                    | Output         | MTBF          |
| PS302-XP2    | ATX 300W (PFC) | AC 100-340V (Auto) | +5V @ 16A      | 100,000 hours |
|              |                |                    | +12V1 @ 17A    |               |
|              |                |                    | +12V2 @ 17A    |               |
|              |                |                    | -12V @ 0.3A    |               |
|              |                |                    | +5VSB @ 2.5A   |               |
| PS400-XP2    | ATX 400W (PFC) | AC 90-264V (Auto)  | +5V @ 20A      | 100,000 hours |
|              |                |                    | +12V1 @ 16A    |               |
|              |                |                    | +12V2 @ 16A    |               |
|              |                |                    | -12V @ 0.5A    |               |
|              |                |                    | +3.3V @ 20A    |               |
| PS500-XP2    | ATX 500W (PFC) | AC 90-264V (Auto)  | +5V @ 24A      | 100,000 hours |
|              |                |                    | +12V @ 34A     |               |
|              |                |                    | +12V1 @ 17A    |               |
|              |                |                    | +12V2 @ 17A    |               |
|              |                |                    | -12V @ 0.8A    |               |
| +3.3V @ 24A  |                |                    |                |               |
| +5VSB @ 2.5A |                |                    |                |               |

## Ordering Information

|                   |  |
|-------------------|--|
| AX61400T(W)B/X400 | 14-slot version, with one 12 cm fan, ATX 400W power supply |
| AX61400T(W)B/X300 | 14-slot version, with one 12 cm fan, ATX 300W power supply |
| AX61400T(W)M/X400 | MB version, with one 12 cm fan, ATX 400W power supply      |
| AX61400T(W)M/X300 | MB version, with one 12 cm fan, ATX 300W power supply      |

\*Specifications and certifications are based on options and may vary.

\*\* T-Black color; W-Beige color

## Backplane Options

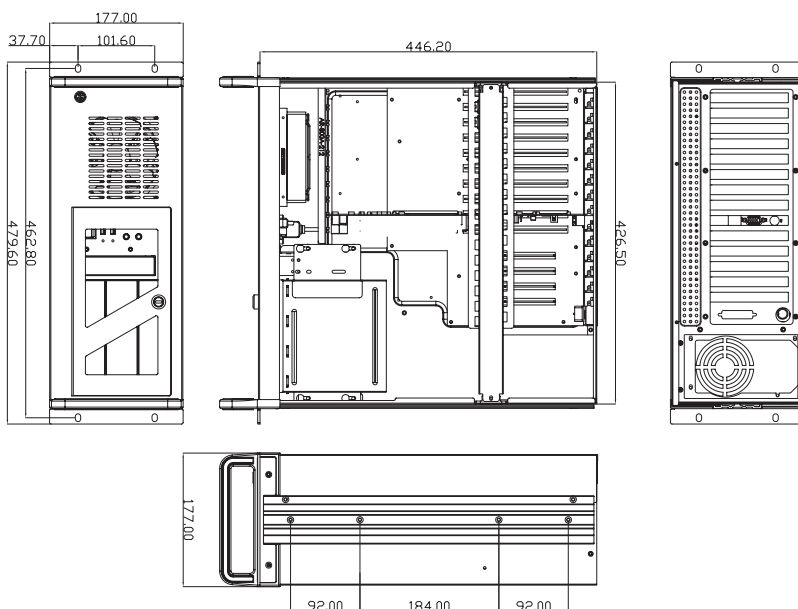
### PICMG 1.0

| Models        | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|---------------|--------------------------------------|---------|
| ATX6022/13L   | 8/4/0/1                              | Single  |
| ATX6022/14G   | 1/12/0/1                             | Single  |
| ATX6022/14GP7 | 6/7/0/1                              | Single  |
| ATX6022/14    | 9/4/0/1                              | Single  |

### PICMG 1.3

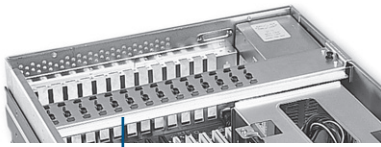
| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB100 | 4/4/5/1                              | Single  |
| FAB101 | 0/13/0/1                             | Single  |
| FAB112 | 0/10/2/1                             | Single  |
| FAB113 | 0/4/8/1                              | Single  |
| FAB114 | 0/8/4/1                              | Single  |
| FAB118 | 0/7/6/1                              | Single  |
| FAB119 | 0/10/2/1                             | Single  |

## Dimensions

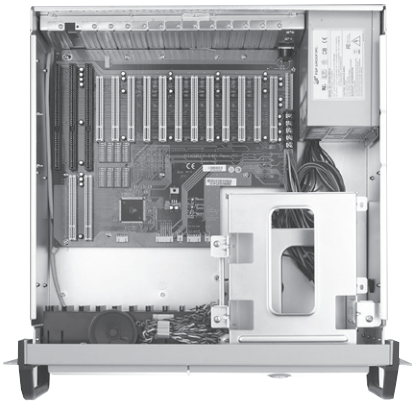


# AX6145

4U 14-slot Rackmount Chassis



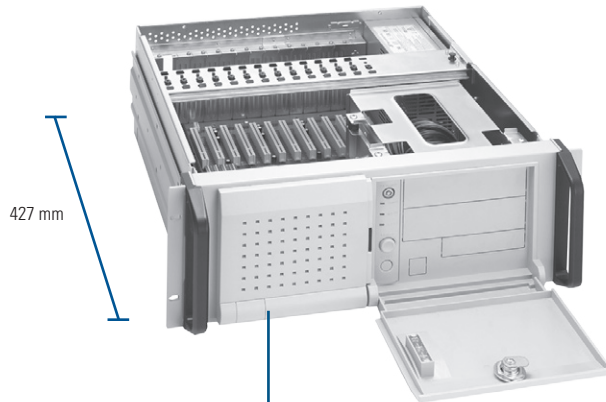
Hold-on clamp bar with adjustable clips to secure add-on cards in different height



▲ Top view

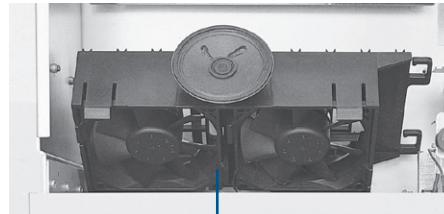
## Features

- Two 5.25" and two 3.5" HDD drive bays
- Two 8 cm ball-bearing fans
- Supports 14-slot backplane or ATX MB
- 427 mm (16.8") depth suitable for undersized rack cabinet



427 mm

Designed for undersized rack



Two 8 cm ball-bearing fans equipped

## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Beige  |
| Construction           | Heavy-duty steel   |
| Drive Capacity         | Exposed 2 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay;<br>Internal 1 x 3.5" HDD drive bay |
| Cooling                | 2 x 8 cm ball-bearing fans (42.5 CFM/each)<br>with a removable filter                          |
| Front Panel Indicators | 1 x power on/off; 1 x HDD  |
| Front Panel Controls   | 1 x power on/off; 1 x system reset   |
| Front Panel Connectors | 1 x DIN 5-pin keyboard   |
| Pre-punched Rear Panel | 2 x 9-pin; 1 x DIN 5-pin keyboard  |
| System Board           | SBCs or 12" x 9.6" ATX MB or IMB series  |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 14-slot backplane   |
| Speaker               | 1 x 0.25W speaker   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                              |
| RangeDimensions       | 482.6 mm (19") (W) x 427 mm (16.8") (D) x 177 mm (7") (H) |
| Weight (net/gross)    | 15 kg (33.07 lb)/16.3 kg (35.94 lb)                       |

## Power Supply Specifications

| Items         | Watt           | Input             | Specifications |               |
|---------------|----------------|-------------------|----------------|---------------|
|               |                |                   | Output         | MTBF          |
| PS302-XP2     | ATX 300W (PFC) | AC100-240V (Auto) | +5V @ 16A      | 100,000 hours |
|               |                |                   | +12V1 @ 17A    |               |
|               |                |                   | +12V2 @ 17A    |               |
|               |                |                   | +3.3V @ 19A    |               |
|               |                |                   | +5VSB @ 2.5A   |               |
| -12V @ 0.3A   |                |                   |                |               |
| PS400-XP2     | ATX 400W (PFC) | AC 90-264V (Auto) | +5V @ 20 A     | 100,000 hours |
|               |                |                   | +12V1 @ 16 A   |               |
|               |                |                   | +12V2 @ 16 A   |               |
|               |                |                   | -12V @ 0.5 A   |               |
|               |                |                   | +3.3V @ 20 A   |               |
| +5VSB @ 2.5 A |                |                   |                |               |
| PS500-XP2     | ATX 500W (PFC) | AC 90-264V (Auto) | +5 V @ 24A     | 100,000 hours |
|               |                |                   | +12 V @ 34A    |               |
|               |                |                   | +12 V1 @ 17A   |               |
|               |                |                   | +12 V2 @ 17A   |               |
|               |                |                   | -12 V @ 0.8A   |               |
| +3.3 V @ 24A  |                |                   |                |               |
| +5 VSB @ 2.5A |                |                   |                |               |

## Backplane Options

### PICMG 1.0

| Models        | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|---------------|--------------------------------------|---------|
| ATX6022/13L   | 8/4/1                                | Single  |
| ATX6022/14G   | 1/12/1                               | Single  |
| ATX6022/14GP7 | 6/7/1                                | Single  |
| ATX6022/14    | 9/4/1                                | Single  |

### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB100 | 4/4/5/1                              | Single  |
| FAB101 | 0/13/0/1                             | Single  |
| FAB112 | 0/10/2/1                             | Single  |
| FAB113 | 0/4/8/1                              | Single  |
| FAB114 | 0/8/4/1                              | Single  |
| FAB118 | 0/7/6/1                              | Single  |
| FAB119 | 0/10/2/1                             | Single  |

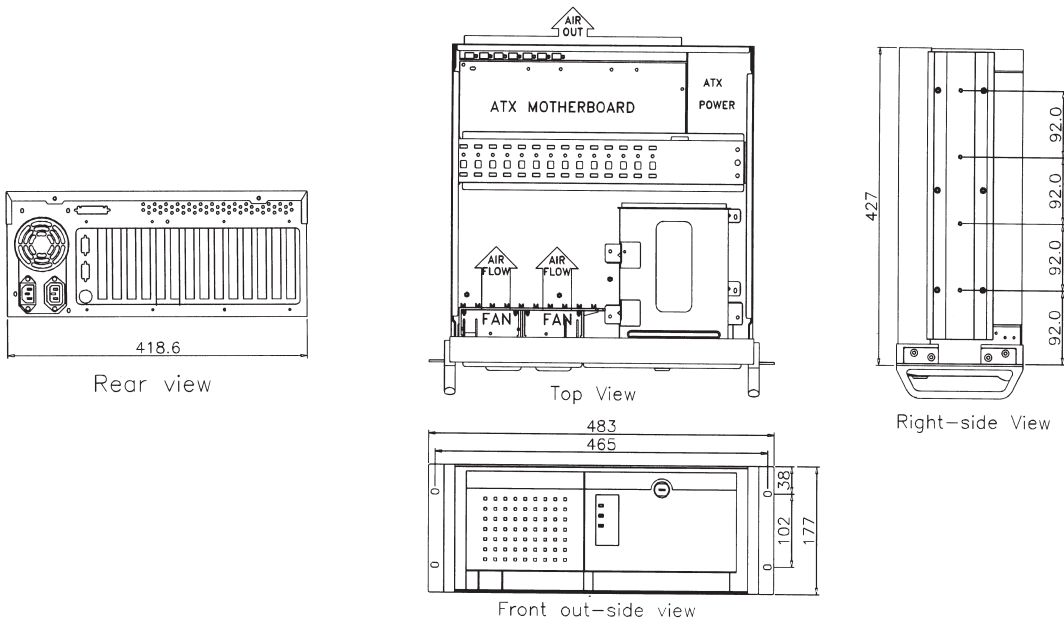
## Ordering Information

|                  |   |
|------------------|---|
| AX6145T(W)B/X400 | 14-slot version, with ATX 400W power supply |
| AX6145T(W)B/X300 | 14-slot version, with ATX 300W power supply |
| AX6145T(W)M/X400 | MB version, with ATX 400W power supply      |
| AX6145T(W)M/X300 | MB version, with ATX 300W power supply      |

\*Specifications and certifications are based on options and may vary.

\*\* T-Black color; W-Beige color

## Dimensions

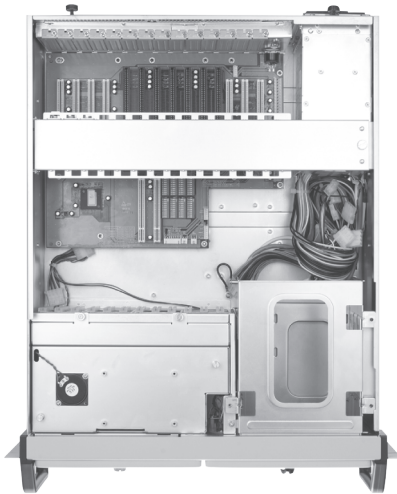


# AX6156LE

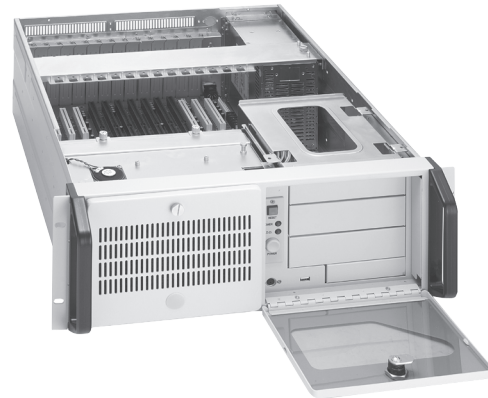
4U 14-slot Rackmount Chassis

## Features

- Three 5.25" and one 3.5" HDD drive bays
- One 12 cm ball-bearing fan (optional two 12 cm fans)
- Supports 14-slot backplane or ATX MB
- Hot-swap redundant power supply supported



▲ Top view



## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Beige  |
| Construction           | Heavy-duty steel   |
| Drive Capacity         | Exposed 3 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay   |
| Cooling                | 1 x 12 cm ball-bearing fan (88 CFM/each) with a removable filter (optional two fans)Front Panel Indicators 1 x power on/off; 1 x HDD |
| Front Panel Controls   | 1 x power on/off; 1 x system reset   |
| Front Panel Connectors | 1 x USB, 1x PS/2 5-pin keyboard  |
| Pre-punched Panel      | 2 x 9-pin; 1 x DIN 5-pin keyboard  |
| System Board           | SBCs, ATX MB or IMB series   |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 14-slot backplane   |
| Speaker               | 1 x 0.3W speaker  |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                  |
| Dimensions            | 484.7 mm (19") (W) x 537.6 mm (21.2") (D) x 176.7 mm (7") (H) |
| Weight (net/gross)    | 18 kg (39.68 lb)/19.5 kg (43 lb)                              |

## Power Supply Specifications

| Items      | Watt               | Input             | Specifications  |               |
|------------|--------------------|-------------------|---|---------------|
|            |                    |                   | Output  | MTBF          |
| PS302-XP2  | ATX 300W (PFC)     | AC100-240V (Auto) | +5V @ 16A<br>+12V1 @ 17A<br>+12V2 @ 17A<br>+3.3V @ 19A<br>+5VSB @ 2.5A<br>-12V @ 0.3A | 100,000 hours |
| RPS400-HRP | ATX 400W HRP (PFC) | AC 90-264V (Auto) | +5V @ 35A<br>+12V @ 28A<br>-5V @ 0.5A<br>-12V @ 1.2A<br>+3.3V @ 25A<br>+5VSB @ 2.0A   | 100,000 hours |
| PS400-XP2  | ATX 400W (PFC)     | AC 90-264V (Auto) | +5V @ 25A<br>+12 @ 41A<br>-12V @ 0.8A<br>+3.3V @ 25A<br>+5VSB @ 3.5A                  | 100,000 hours |
| PS501-HRP  | ATX 500W HRP (PFC) | AC 90-264V (Auto) | +5V @ 25A<br>+12 @ 41A<br>-12V @ 0.8A<br>+3.3V @ 25A<br>+5VSB @ 3.5A                  | 100,000 hours |

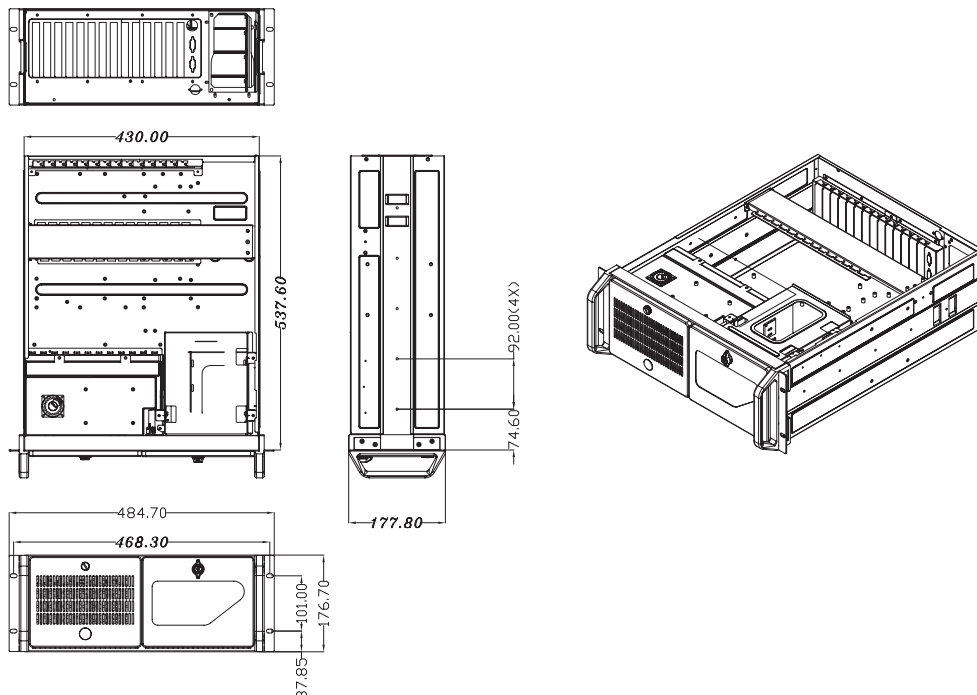
## Ordering Information

|                     |   |
|---------------------|---|
| AX6156LET(W)B/X300  | 14-slot version, with ATX 300W power supply           |
| AX6156LET(W)B/X400  | 14-slot version, with ATX 400W power supply           |
| AX6156LET(W)B/X300R | 14-slot version, with ATX 300W redundant power supply |
| AX6156LET(W)M/X300  | MB version, with ATX 300W power supply                |
| AX6156LET(W)M/X400  | MB version, with ATX 400W power supply                |
| AX6156LET(W)M/X300R | MB version, with ATX 300W redundant power supply      |

\*Specifications and certifications are based on options and may vary.

\*\* T-Black color; W-Beige color

## Dimensions



## Backplane Options

### PICMG 1.0

| Models        | Slots per Segment (ISA/PCI/PCle/CPU) | Segment |
|---------------|--------------------------------------|---------|
| ATX6022/13L   | 8/4/0/1                              | Single  |
| ATX6022/14    | 9/4/0/1                              | Single  |
| ATX6022/14G   | 1/12/0/1                             | Single  |
| ATX6022/14GP7 | 6/7/0/1                              | Single  |

### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCle/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB100 | 4/4/5/1                              | Single  |
| FAB101 | 0/13/0/1                             | Single  |
| FAB112 | 0/10/2/1                             | Single  |
| FAB113 | 0/4/8/1                              | Single  |
| FAB114 | 0/8/4/1                              | Single  |
| FAB118 | 0/7/6/1                              | Single  |
| FAB119 | 0/10/2/1                             | Single  |

## Optional Items

ATX 500W power supply with PFC

ATX 300W redundant power supply with PFC

ATX 500W redundant power supply with PFC

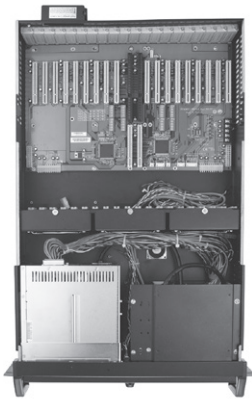


# AX61492

4U 20-slot Extended Rackmount Chassis

## Features

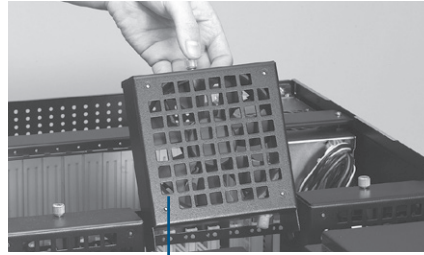
- Three 5.25" and two 3.5" HDD drive bays
- Three 12 cm hot-swap ball-bearing fans
- Supports 20-slot backplane
- Hot-swap redundant or PS/2 power supply supported



▲ Top view



▲ Rear view



Built-in hot-swap fans



Dual top cover design for easy maintenance

## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Black  |
| Construction           | Heavy-duty steel   |
| Drive Capacity         | Exposed 3 x 5.25" HDD drive bay, 2 x 3.5" HDD drive bay                    |
| Cooling                | 3 x 12 cm hot-swap ball-bearing fans (88 CFM/each) with a removable filter |
| Front Panel Indicators | 1 x power on/off; 3 x HDD  |
| Front Panel Controls   | 1 x power on/off; 4 x system reset; 1 x alarm reset                        |
| Front Panel Connectors | 2 x USB, 1 x PS/2 6-pin keyboard/mouse                                     |
| System Board           | SBCs   |

|                       |   |
|-----------------------|---|
| Expansion Interface   | 20-slot backplane   |
| Speaker               | 1 x 0.4W speaker  |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)                                  |
| Dimensions            | 482.6 mm (19") (W) x 678.5 mm (26.8") (D) x 176.4 mm (7") (H) |
| Weight (net/gross)    | 2.3 kg (5.07 lb)/24.6 kg (54.24 lb)                           |

## Power Supply Specifications

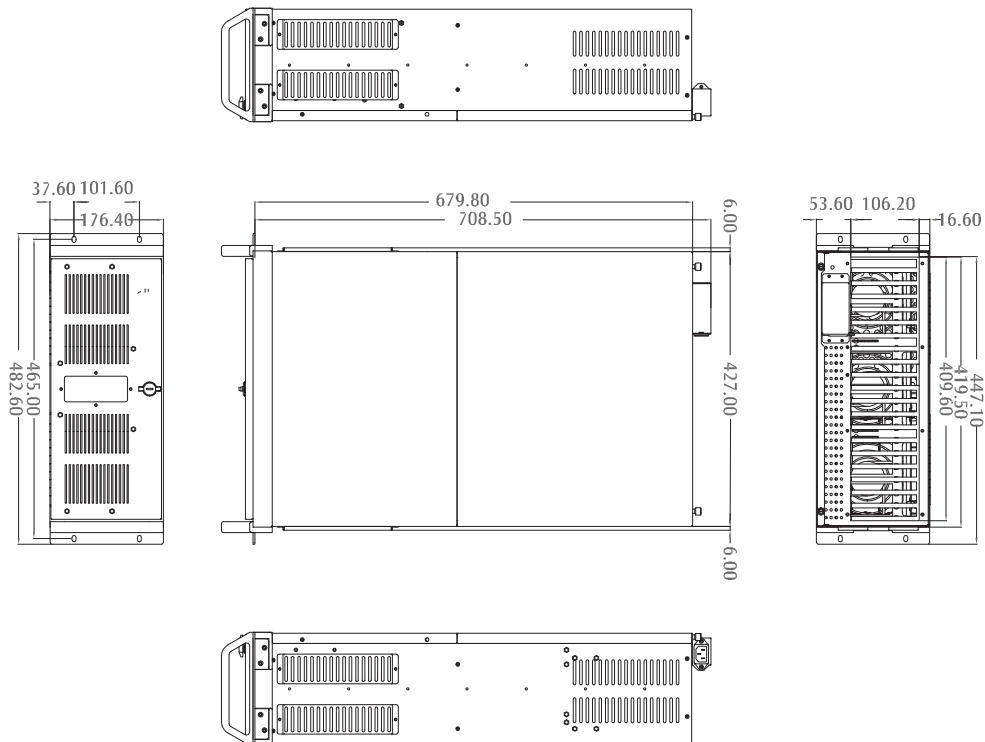
| Items     | Watt               | Input              | Specifications | MTBF          |
|-----------|--------------------|--------------------|----------------|---------------|
|           |                    |                    | Output         |               |
| PS401-HRP | ATX 400W HRP (PFC) | AC 100-240V (Auto) | +5V @ 35A      | 100,000 hours |
|           |                    |                    | +12V @ 20A     |               |
| PS500-XP2 | ATX 500W (PFC)     | AC 90-264V (Auto)  | -5V @ 0.8A     | 100,000 hours |
|           |                    |                    | -12V @ 1A      |               |
| PS500-HRP | ATX 500W HRP (PFC) | AC 90-264V (Auto)  | +3.3V @ 28A    | 100,000 hours |
|           |                    |                    | +5VSB @ 2A     |               |
| PS500-XP2 | ATX 500W (PFC)     | AC 90-264V (Auto)  | +5V @ 24A      | 100,000 hours |
|           |                    |                    | +3.3V @ 24A    |               |
| PS500-HRP | ATX 500W HRP (PFC) | AC 90-264V (Auto)  | +12V @ 34A     | 100,000 hours |
|           |                    |                    | +12V1 @ 17A    |               |
| PS500-XP2 | ATX 500W (PFC)     | AC 90-264V (Auto)  | +12V2 @ 17A    | 100,000 hours |
|           |                    |                    | -12V @ 0.8A    |               |
| PS500-HRP | ATX 500W HRP (PFC) | AC 90-264V (Auto)  | +5VSB @ 2.5A   | 100,000 hours |
|           |                    |                    | +5V @ 25A      |               |
| PS500-XP2 | ATX 500W (PFC)     | AC 90-264V (Auto)  | +3.3V @ 25A    | 100,000 hours |
|           |                    |                    | +12V @ 41A     |               |
| PS500-HRP | ATX 500W HRP (PFC) | AC 90-264V (Auto)  | -12V @ 0.8A    | 100,000 hours |
|           |                    |                    | +5VSB @ 3.5A   |               |

## Ordering Information

|                 |  |
|-----------------|--|
| AX61492TB/X400R | 4U rackmount extended chassis, 20-slot version, with ATX 400W redundant power supply |
| AX61492TB/X500R | 4U rackmount extended chassis, 20-slot version, with ATX 500W redundant power supply |

\*Specifications and certifications are based on options and may vary.

## Dimensions



## Backplane Options

| Models         | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|----------------|--------------------------------------|---------|
| ATX6022/20GP18 | 1/18/0/1                             | Single  |

Overview

Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

Peripherals & Accessories





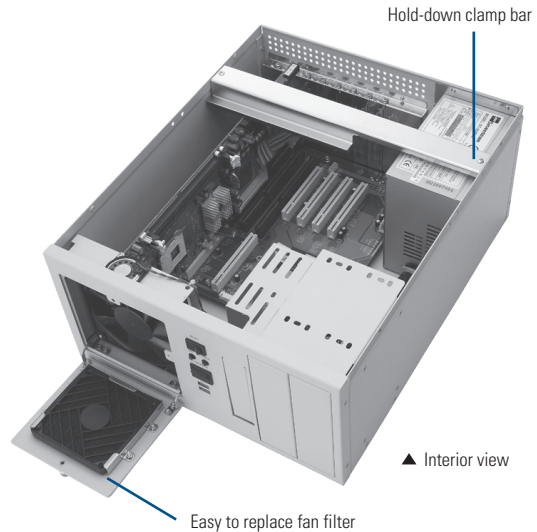
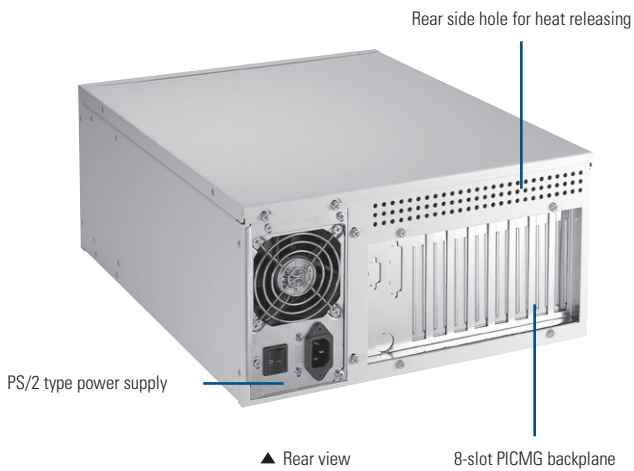
# AX60552

8-Slot ShoeBox Chassis



## Features

- Two 5.25" and one 3.5" HDD drive bays
- Desktop or wallmount industrial computer chassis
- Equipped with PS/2 type power supply



## Specifications

|                        |  |
|------------------------|--|
| Standard Color         | Beige color  |
| Construction           | Heavy-duty steel   |
| Drive Capacity         | Exposed 2 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay       |
| Cooling                | 1 x 12 cm ball-bearing fan (88 CFM/each) with a removable filter |
| Front Panel Indicators | 1 x power on/off; 1 x HDD  |
| Front Panel Controls   | 1 x power on/off; 1 x system reset                               |
| Front Panel Connectors | 2 x USB  |
| Pre-punched Panel Rear | 1 x 9-pin ; 1 x 25-pin   |
| System Board           | Full-size SBCs   |

|                       |  |
|-----------------------|--|
| Expansion Interface   | 8-slot backplane   |
| Power Supply          | PS/2 power supply  |
| Speaker               | 1 x 0.4W speaker   |
| Operating Temperature | 0°C ~ +40°C (+32°F ~ +104°F)   |
| Dimensions            | 368.8 mm (14.52") (W) x 407.5 mm (16.04") (D) x 177.3 mm (6.98") (H) |
| Weight (net/gross)    | 10.5 kg (23.15 lb)/11.3 kg (24.92 lb)                                |

## Power Supply Specifications

| Items     | Watt           | Input              | Specifications | MTBF          |
|-----------|----------------|--------------------|----------------|---------------|
|           |                |                    | Output         |               |
| PS302-XP2 | ATX 300W (PFC) | AC 100~240V (Auto) | +5V @ 16A      | 100,000 hours |
|           |                |                    | +12V1 @ 17A    |               |
|           |                |                    | +12V2 @ 17A    |               |
|           |                |                    | +5VSB @ 2.5A   |               |
| PS400-XP2 | ATX 400W (PFC) | AC 90~264V (Auto)  | +3.3V @ 19A    | 100,000 hours |
|           |                |                    | -12V @ 0.3A    |               |
|           |                |                    | +5V @ 20A      |               |
|           |                |                    | +3.3V @ 20A    |               |
|           |                |                    | +12V1 @ 16A    |               |
|           |                |                    | +12V2 @ 16A    |               |
| PS500-XP2 | ATX 500W (PFC) | AC 90~264V (Auto)  | -12V @ 0.5A    | 100,000 hours |
|           |                |                    | +5VSB @ 2.5A   |               |
|           |                |                    | +5V @ 24A      |               |
|           |                |                    | +3.3V @ 24A    |               |
|           |                |                    | +12V @ 34A     |               |
|           |                |                    | +12V1 @ 17A    |               |
|           |                |                    | +12V2 @ 17A    |               |
|           |                |                    | -12V @ 0.8A    |               |
|           |                |                    | +5VSB @ 2.5A   |               |

## Ordering Information

|                |                            |
|----------------|----------------------------|
| AX60552WB/X300 | With ATX 300W power supply |
| AX60552WB/X400 | With ATX 400W power supply |
| AX60552WB/X500 | With ATX 500W power supply |

\*Specifications and certifications are based on options and may vary.

## Backplane Options

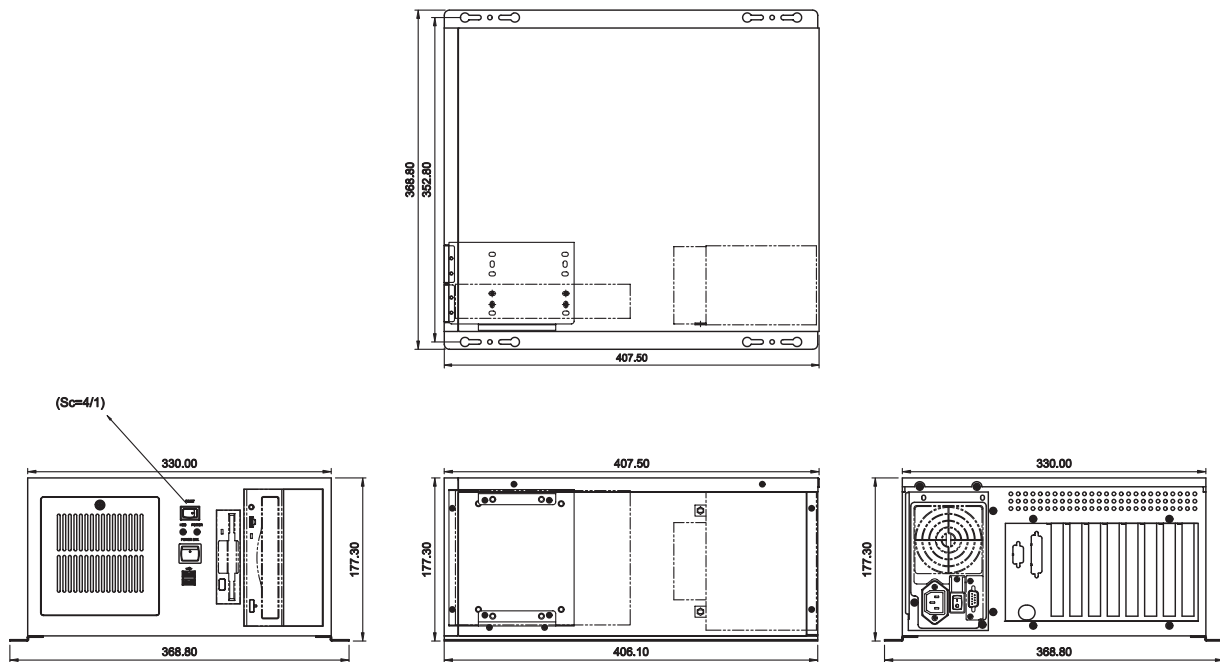
### PICMG 1.0

| Models       | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------------|--------------------------------------|---------|
| ATX6022/8GP7 | 0/7/0/1                              | Single  |
| ATX6022/8    | 3/4/0/1                              | Single  |

### PICMG 1.3

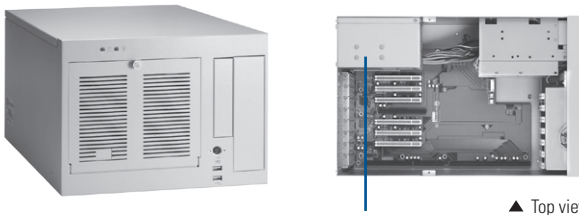
| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB111 | 0/4/2/1                              | Single  |
| FAB208 | 0/6/1/1                              | Single  |
| HAB208 | 0/6/1/1                              | Single  |
| FAB116 | 0/3/4/1                              | Single  |

## Dimensions



# AX60551

## 8-slot ShoeBox Chassis



▲ Top view

Equipped with a power supply bracket securing the power supply better when the chassis is positioned in 90° orientation

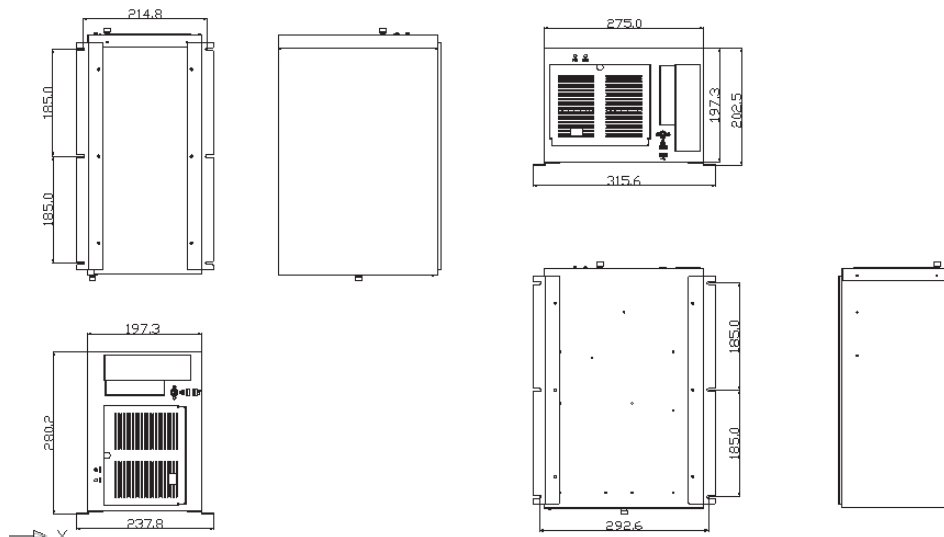
### Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Beige   |
| Construction           | Heavy-duty steel  |
| Drive Capacity         | Exposed 1 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay; internal 1 x 3.5" HDD drive bay |
| Cooling                | 1 x 9 cm ball-bearing fan (51 CFM/each) with a removable filter                             |
| Front Panel Indicators | 1 x power on/off; 1 x HDD   |
| Front Panel Controls   | 1 x power on/off; 1 x system reset  |
| Front Panel Connector  | 1 x PS/2 6-pin keyboard & mouse, 2 x USB  |
| Pre-punched Panel Rear | 1 x 9-pin; 1 x 25-pin; 2 x USB (optional)   |
| System Board           | SBCs  |
| Expansion Interface    | 8-slot backplane  |
| Operating Temperature  | 0°C ~ 40°C (32°F ~ 104°F)   |
| Dimensions             | 280.2 mm (11") (W) x 415.8 mm (16.37") (D) x 197.3 mm (7.77") (H)                           |
| Weight (net/gross)     | 10.9 kg (24.03 lb)/11.2 kg (24.67 lb)   |

### Power Supply Specifications

| Items       | Watt           | Input               | Specifications |               | MTBF |
|-------------|----------------|---------------------|----------------|---------------|------|
|             |                |                     | Output         |               |      |
| PS300-XP2   | ATX 300W (PFC) | AC100 ~ 240V (Auto) | +5V @ 16A      | 100,000 hours |      |
|             |                |                     | +12V1 @ 17A    |               |      |
|             |                |                     | +12V2 @ 17A    |               |      |
|             |                |                     | +5VSB @ 2.5A   |               |      |
|             |                |                     | +3.3V @ 19A    |               |      |
| -12V @ 0.3A |                |                     |                |               |      |

### Dimensions



## Features

- Desktop or wallmount industrial computer chassis
- One 5.25" and two 3.5" HDD drive bays
- Equipped with a PS/2 type power supply

### Ordering Information

|                |                            |
|----------------|----------------------------|
| AX60551WB/X300 | With ATX 300W power supply |
| AX60551WB/X400 | With ATX 400W power supply |
| AX60551WB/X500 | With ATX 500W power supply |

\*Specifications and certifications are based on options and may vary.

### Backplane Options

#### PICMG 1.0

| Models       | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------------|--------------------------------------|---------|
| ATX6022/8    | 3/4/0/1                              | Single  |
| ATX6022/8GP7 | 0/7/0/1                              | Single  |

#### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB111 | 0/4/2/1                              | Single  |
| FAB116 | 0/3/4/1                              | Single  |
| FAB208 | 0/6/1/1                              | Single  |
| HAB208 | 0/6/1/1                              | Single  |

### Optional Items

ATX 400W power supply with PFC  
ATX 500W power supply with PFC

# AX60501

6-slot ShoeBox Chassis



▲ Top view

Equipped with a power supply bracket securing the power supply better when the chassis is positioned in 90° orientation

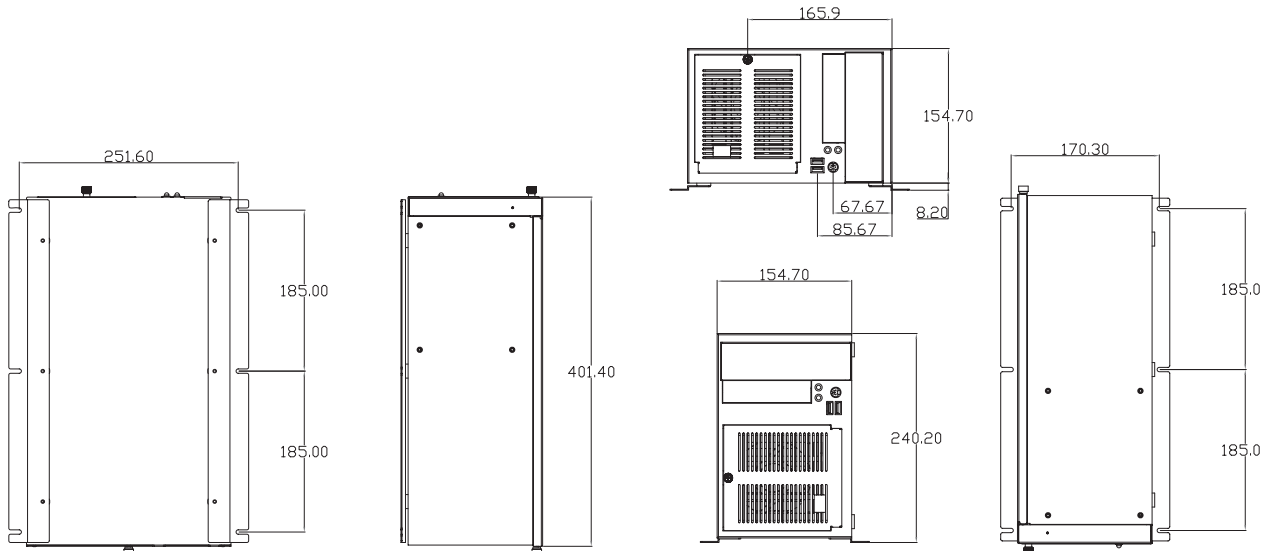
## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Beige   |
| Construction           | Heavy-duty steel  |
| Drive Capacity         | Exposed 1 x 5.25" HDD drive bay and 1 x 3.5" HDD drive bay; Internal 1 x 3.5" HDD drive bay |
| Cooling                | 1 x 9 cm ball-bearing fan (51 CFM/each) with a removable filter                             |
| Front Panel Indicators | 1 x power on/off  |
| Front Panel Controls   | 1 x power on/off; 1 x system reset  |
| Front Panel Connector  | 1 x PS/2 6-pin keyboard & mouse, 2 x USB  |
| System Board           | SBCs  |
| Expansion Interface    | 6-slot backplane  |
| Operating Temperature  | 0°C ~ +40°C (+32°F ~ +104°F)  |
| Dimensions             | 240.2 mm (9.45") (W) x 401.4 mm (15.8") (D) x 154.7 mm (6.1") (H)                           |
| Weight (net/gross)     | 9 kg (19.84 lb)/10.3 kg (22.7 lb)   |

## Power Supply Specifications

| Items     | Watt           | Input              | Specifications Output   | MTBF          |
|-----------|----------------|--------------------|---|---------------|
| PS302-XP2 | ATX 300W (PFC) | AC 100~240V (Auto) | +5V @ 16A<br>+12V1 @ 17A<br>+12V2 @ 17A<br>-12V @ 0.3A<br>+3.3V @ 19A<br>+5VSB @ 2.5A | 100,000 hours |

## Dimensions



\* All specifications and photos are subject to change without notice.

## Features

- Desktop or wallmount industrial computer chassis
- One 5.25" and two 3.5" HDD drive bays
- Equipped with a PS/2 type power supply

## Ordering Information

|                |                            |
|----------------|----------------------------|
| AX60501WB/X300 | With ATX 300W power supply |
| AX60501WB/X400 | With ATX 400W power supply |
| AX60501WB/X500 | With ATX 500W power supply |

\*Specifications and certifications are based on options and may vary.

## Backplane Options

### PICMG 1.0

| Models    | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|-----------|--------------------------------------|---------|
| ATX6022/6 | 1/4/0/1                              | Single  |

### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| FAB105 | 0/3/1/1                              | Single  |
| FAB109 | 0/0/4/1                              | Single  |
| FAB110 | 0/2/2/1                              | Single  |
| HAB206 | 0/3/1/1                              | Single  |

## Optional Items

ATX 400W power supply with PFC  
ATX 500W power supply with PFC

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Embedded Systems

Embedded Systems for Transportation

Embedded Field Controllers

Industrial Firewall

Digital Signage Solutions

Embedded MicroBoxes

Industrial Barebone Systems

Industrial Chassis

Backplanes

Power Supplies

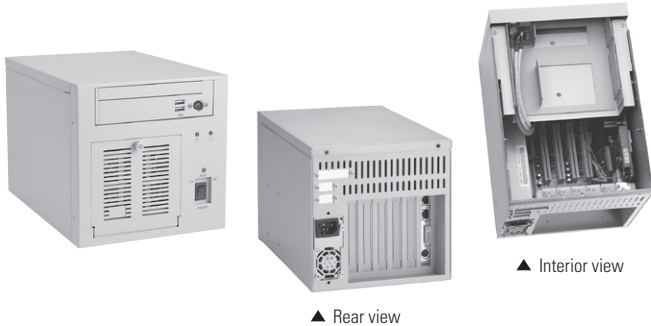
Peripherals & Accessories

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# AX60530

6-slot ShoeBox Chassis



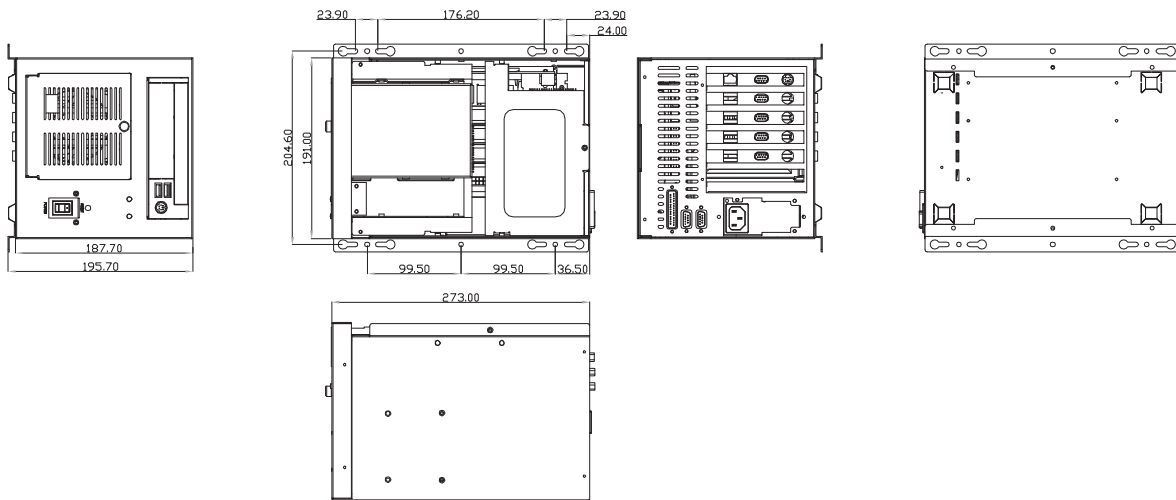
## Specifications

|                        |   |
|------------------------|---|
| Standard Color         | Beige (PANTONE 414C)  |
| Construction           | Heavy-duty steel  |
| Drive Capacity         | Exposed 1 x slim CD-ROM and 1 x 3.5" HDD drive bay, internal 1 x 3.5" HDD drive bay |
| Cooling                | 1 x 8 cm ball-bearing fan (38.6 CFM/each) with a removable filter                   |
| Front Panel Indicators | 1 x power, 1 x HDD Front  |
| Panel Controls         | 1 x system reset; 1 x power on/off  |
| Front Panel Connectors | 2 x USB & 1 x PS/2  |
| Pre-punched Panel      | 2 x 9-pin & 1 x 25-pin  |
| System Board           | Half-size SBCs  |
| Expansion Interface    | 6-slot ISA or PCI backplane   |
| Hold-down Clamp        | Rubber cushion  |
| Operating Temperature  | 0°C ~ +40°C (+32°F ~ +113°F)  |
| Dimensions             | 191 mm (7.5") (W) x 273 mm (10.8") (D) x 195.7 mm (7.7") (H)                        |
| Weight (net/gross)     | 5.4 kg (11.9 lb)/6.8 kg (15 lb)   |

## Power Supply Specifications

| Items    | Watt           | Input            | Specifications  |               |
|----------|----------------|------------------|---|---------------|
|          |                |                  | Output  | MTBF          |
| PS200-1U | ATX 200W (PFC) | AC90-264V (Auto) | +5V @ 17A<br>+12V1 @ 6A<br>+12V2 @ 12A<br>-12V @ 0.8A<br>+3.3 @ 14A<br>+5VSB @ 2A | 100,000 hours |

## Dimensions



## Features

- Compact design for embedded applications
- Supports half-size SBCs
- Exposed one slim CD-ROM & one 3.5" HDD drive bay; internal one 3.5" HDD drive bay
- Equipped with ATX 200W power supply Easy-removable cooling fan

## Ordering Information

AX60530WB/X200P With ATX 200W power supply

AX60530WB/X270P With ATX 270W power supply

\*Specifications and certifications are based on options and may vary.

## Backplane Options

### PICMG 1.3

| Models | Slots per Segment (ISA/PCI/PCIe/CPU) | Segment |
|--------|--------------------------------------|---------|
| HAB206 | 0/3/1/1                              | Single  |

## Optional Items

ATX 270W power supply with PFC

59460530030E USB cable 2.54 to 2.0 Dupont 400 mm (SBC82810 only)

59460530040E USB cable 2.54 Dupont to 2.0 housing 400 mm (SBC82820, SBC82702, SBC82700, SHB210 only)

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## Backplanes

Axiomtek offers various kinds of backplanes for industrial computing platforms, including PICMG 1.0 PCI, PICMG 1.0 ISA, PICMG 1.3 full-size, and PICMG 1.3 half-size backplane. Axiomtek's backplane product line provides not only the highest compatibility with power supply unit but also the best choice of slot expansion.

### PICMG 1.3 SHB Express Full-size Backplanes

|           |   |     |
|-----------|---|-----|
| FAB100    | 14-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 451 |
| FAB101    | 14-slot ATX-supported Bridged PICMG 1.3 Bus Passive Backplane     | 451 |
| FAB102    | 2-slot ATX-supported 1U Butterfly PICMG 1.3 Bus Passive Backplane | 451 |
| FAB105    | 5-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 451 |
| FAB105-V1 | 5-slot ATX-supported 2U Butterfly PICMG 1.3 Bus Passive Backplane | 451 |
| FAB109    | 5-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 451 |
| FAB110    | 5-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 452 |
| FAB111    | 7-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 452 |
| FAB112    | 13-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 452 |
| FAB113    | 13-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 452 |
| FAB114    | 13-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 452 |
| FAB116    | 8-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 452 |
| FAB118    | 14-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 453 |
| FAB119    | 13-slot ATX-supported PICMG 1.3 Bus Passive Backplane             | 453 |
| FAB205    | 6-slot ATX-supported 2U Butterfly PICMG 1.3 Bus Passive Backplane | 453 |
| FAB208    | 8-slot ATX-supported PICMG 1.3 Bus Passive Backplane              | 453 |
| FAB209    | 3-slot ATX-supported 1U Butterfly PICMG 1.3 Bus Passive Backplane | 453 |
| FAB210    | 6-slot ATX-supported 2U Butterfly PICMG 1.3 Bus Passive Backplane | 453 |

### PICMG 1.3 SHB Express Half-size Backplanes

|        |  |     |
|--------|--|-----|
| HAB206 | 5-slot ATX-supported PICMG 1.3 Bus Half-size Backplane | 454 |
| HAB208 | 8-slot ATX-supported PICMG 1.3 Bus Half-size Backplane | 454 |

### PICMG 1.0 Full-size Backplanes

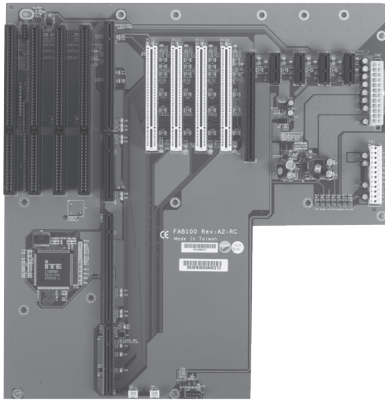
|              |   |     |
|--------------|---|-----|
| ATX6022/3VP2 | 3-slot ATX-supported PICMG Bus Passive Backplane (vertical) | 455 |
| ATX6022/6VP4 | 6-slot ATX-supported PICMG Bus Passive Backplane (vertical) | 455 |
| ATX6022/6    | 6-slot ATX-supported PICMG Bus Passive Backplane            | 455 |
| ATX6022/13L  | 13-slot ATX-supported PICMG Bus Passive Backplane           | 456 |
| ATX6022/8    | 8-slot ATX-supported PICMG Bus Passive Backplane            | 456 |
| ATX6022/14   | 14-slot ATX-supported PICMG Bus Passive Backplane           | 456 |

### PICMG 1.0 Full-size Bridged Backplanes

|                |  |     |
|----------------|--|-----|
| ATX6022/14G    | 14-slot ATX-supported Bridged PICMG Bus Active Backplane | 457 |
| ATX6022/14GP7  | 14-slot ATX-supported Bridged PICMG Bus Active Backplane | 457 |
| ATX6022/20GP18 | 20-slot ATX-supported Bridged PICMG Bus Active Backplane | 457 |
| ATX6022/8GP7   | 8-slot ATX-supported Bridged PCI Bus Active Backplane    | 457 |

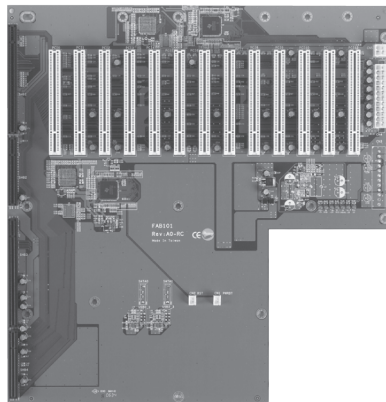
# PICMG 1.3 SHB Express Full-size Backplanes

**FAB100**



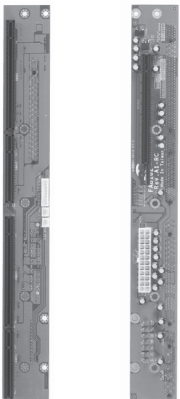
- PICMG 1.3 ①
- PCI ④
- ISA ④
- PCIe x1 ④
- PCIe x16 ①

**FAB101**



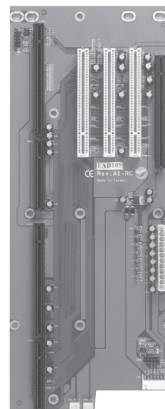
- PICMG 1.3 ①
- PCI ⑬

**FAB102**



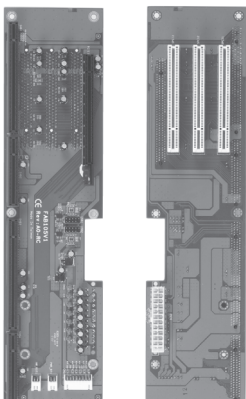
- PICMG 1.3 ①
- PCIe x16 ①

**FAB105**



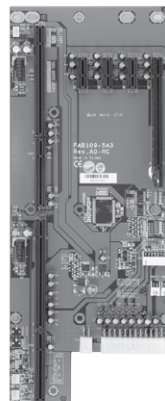
- PICMG 1.3 ①
- PCI ③
- PCIe x16 ①

**FAB105-V1**



- PICMG 1.3 ①
- PCI ③
- PCIe x16 ①

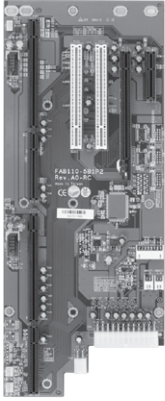
**FAB109**



- PICMG 1.3 ①
- PCIe x1 ③
- PCIe x16 ①

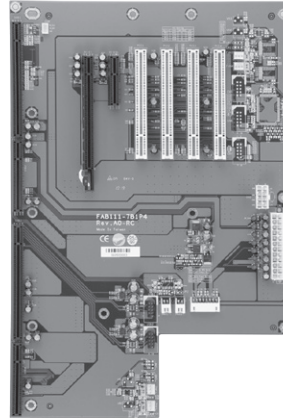


### FAB110



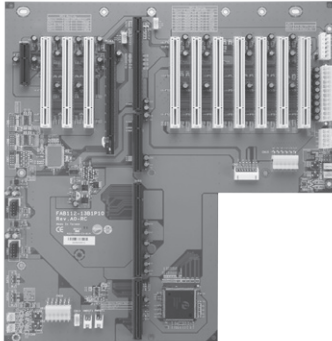
- PICMG 1.3 ①
- PCI ②
- PCIe x4 ①
- PCIe x16 ①

### FAB111



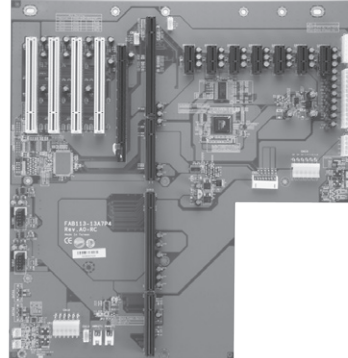
- PICMG 1.3 ①
- PCI ④
- PCIe x4 ①
- PCIe x16 ①

### FAB112



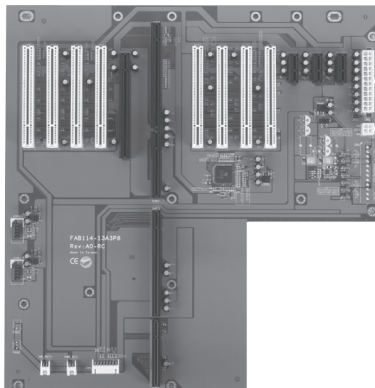
- PICMG 1.3 ①
- PCI ⑩
- PCIe x4 ①
- PCIe x16 ①

### FAB113



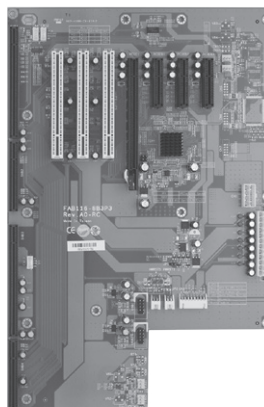
- PICMG 1.3 ①
- PCI ④
- PCIe x1 ⑦
- PCIe x16 ①

### FAB114



- PICMG 1.3 ①
- PCI ⑧
- PCIe x1 ③
- PCIe x16 ①

### FAB116

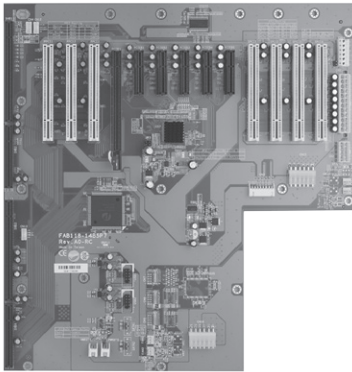


- PICMG 1.3 ①
- PCI ③
- PCIe x4 ③
- PCIe x16 ①



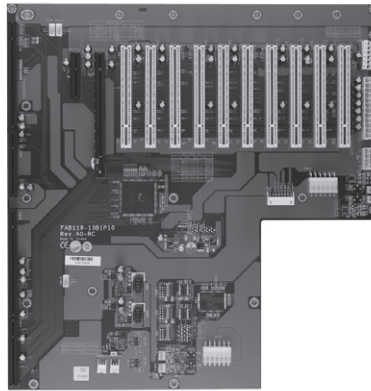
# PICMG 1.3 SHB Express Full-size Backplanes

**FAB118**



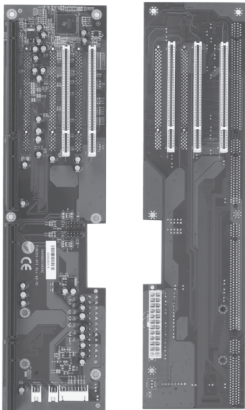
- PICMG 1.3 ①
- PCI ⑦
- PCIe x4 ⑤
- PCIe x16 ①

**FAB119**



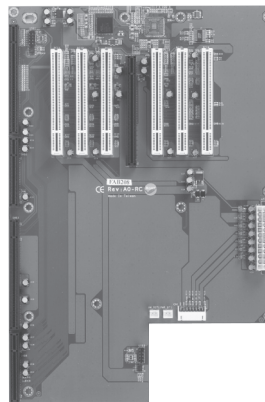
- PICMG 1.3 ①
- PCI ⑩
- PCIe x4 ①
- PCIe x16 ①

**FAB205**



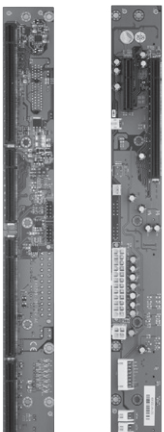
- PICMG 1.3 ①
- PCI ⑤

**FAB208**



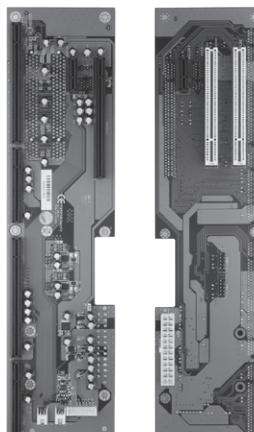
- PICMG 1.3 ①
- PCI ⑥
- PCIe x16 ①

**FAB209**



- PICMG 1.3 ①
- PCIe x4 ①
- PCIe x16 ①

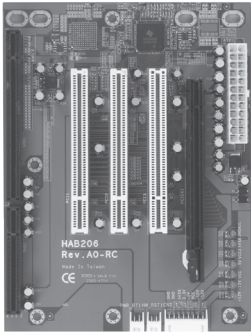
**FAB210**



- PICMG 1.3 ①
- PCI ②
- PCIe x1 ②
- PCIe x16 ①

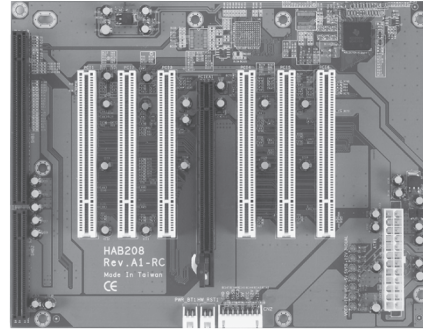
# PICMG 1.3 SHB Express Half-size Backplanes

## HAB206



PICMG 1.3 ①  
 PCI ③  
 PCIe x16 ①

## HAB208



PICMG 1.3 ①  
 PCI ⑥  
 PCIe x16 ①

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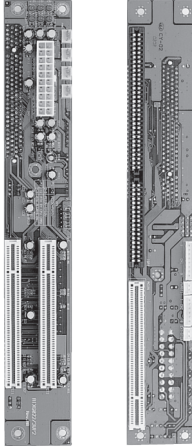
Peripherals & Accessories



# PICMG 1.0 Full-size Backplanes

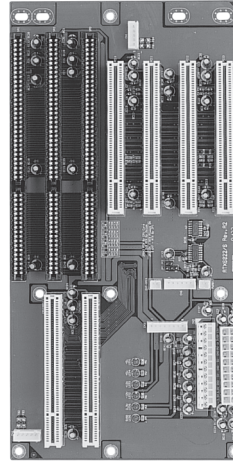
## ATX6022/3VP2

PICMG ①  
PCI ②



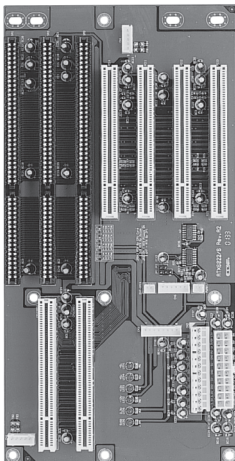
## ATX6022/4

PICMG ①  
PCI ④  
ISA ①



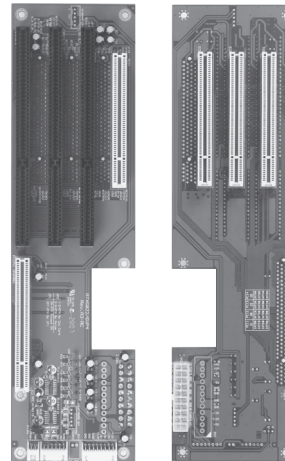
## ATX6022/6

PICMG ①  
PCI ④  
ISA ①



## ATX6022/6VP4

PICMG ①  
PCI ④  
ISA ①

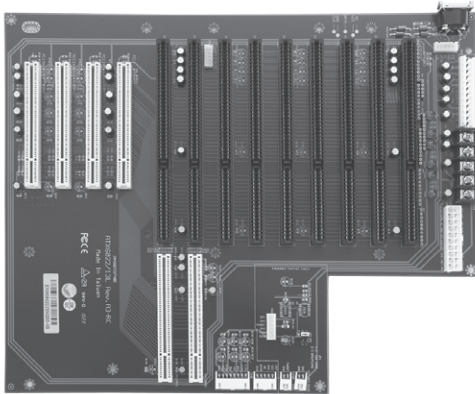




# PICMG 1.0 Full-size Backplanes

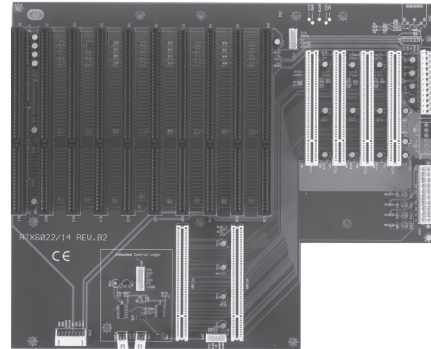
## ATX6022/13L

PICMG ①  
 PCI ④  
 ISA ⑧



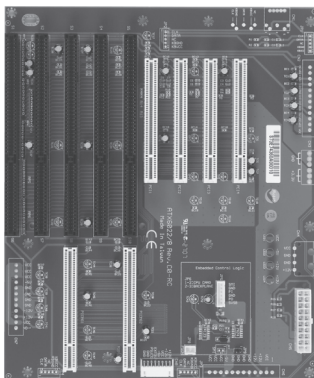
## ATX6022/14

PICMG ①  
 PCI ④  
 ISA ⑨



## ATX6022/8

PICMG ①  
 PCI ④  
 ISA ③



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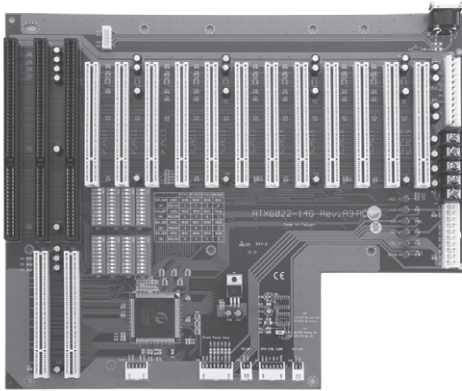




# PICMG 1.0 Full-size Bridged Backplanes

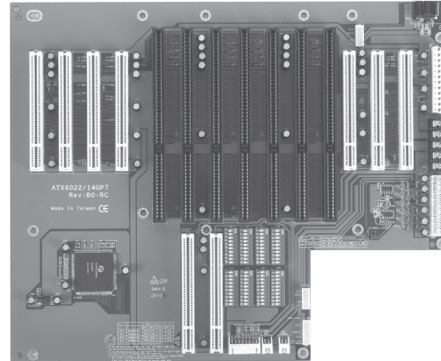
**ATX6022/14G**

PICMG ①  
 PCI ⑫  
 ISA ①



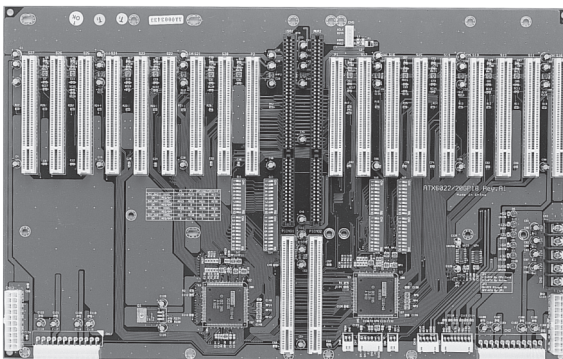
**ATX6022/14GP7**

PICMG ①  
 PCI ⑦  
 ISA ⑥



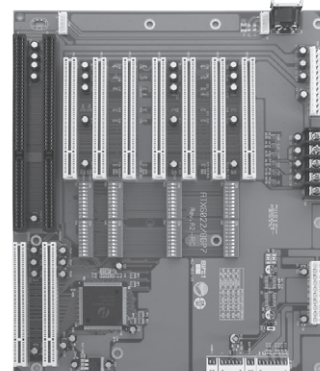
**ATX6022/20GP18**

PICMG ①  
 PCI ⑮  
 ISA ①



**ATX6022/8GP7**

PICMG ①  
 PCI ⑦



# 10

## Power Supplies

Axiomtek prepared the complete line of popular industrial power supplies, single or redundant, AT or ATX, slim or normal type, for Axiomtek's industrial computer chassis.

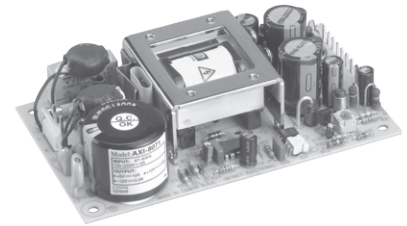
|           |                                   |     |
|-----------|-----------------------------------|-----|
| APS-530   | Open Frame AC 70W                 | 459 |
| APS-536   | Open Frame DC 72W                 | 459 |
| APS-534   | Open Frame DC 72W                 | 459 |
| APS-532   | Open Frame DC 72W                 | 460 |
| PS200-1U  | 1U Type ATX 200W                  | 461 |
| PS270-1U  | 1U Type ATX 270W                  | 461 |
| PS302-XP2 | PS/2 Type ATX 300W                | 462 |
| PS400-XP2 | PS/2 Type ATX 400W                | 462 |
| PS500-XP2 | PS/2 Type ATX 500W                | 462 |
| PS300-HRP | Mini Redundant Power ATX 300W     | 463 |
| PS400-HRP | Mini Redundant Power ATX 400W     | 463 |
| PS501-HRP | Mini Redundant Power ATX 500W     | 463 |
| PS500-HRP | Mini Redundant Power ATX 500W     | 464 |
| PS401-HRP | PS/2 x 2 Redundant Power ATX 400W | 465 |



# Power Supplies - Open Frame

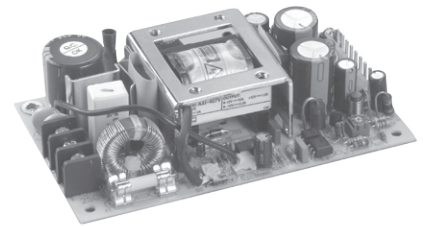
## APS-530

|                           |                                   |  |             |             |
|---------------------------|-----------------------------------|--|-------------|-------------|
| Model Name                | P/N: 50966911000E                 |  |             |             |
| APS-530 Open Frame AC 70W | Input Range                       | 90 ~ 260V <sub>AC</sub> Full Range                     |             |             |
|                           | Output Voltage                    | +5V  | +12V        | -12V        |
|                           |                                   | 10A 0A min   | 1.5A 0A min | 0.3A 0A min |
|                           | MTBF (hours)                      | 50,000h  |             |             |
|                           | Safety                            | Meets UL1950, CSA C22.2 NO.234,CE                      |             |             |
|                           | Dimensions                        | 127 x 76.2 x 29 mm                                     |             |             |
|                           | Compatible with Axiomtek Products | EM1610/EM1611/EM60321/EM60321C/eBOX745-EFL/eBOX746-EFL |             |             |



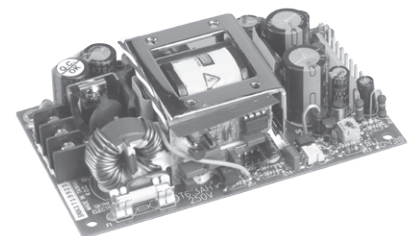
## APS-536

|                           |                                   |  |             |             |
|---------------------------|-----------------------------------|--|-------------|-------------|
| Model Name                | P/N: 50966911000E                 |  |             |             |
| APS-536 Open Frame DC 72W | Input Range                       | 36 ~ 72V <sub>DC</sub>                         |             |             |
|                           | Output Voltage                    | +5V  | +12V        | -12V        |
|                           |                                   | 10A 0A min                                     | 1.5A 0A min | 0.3A 0A min |
|                           | MTBF (hours)                      | 50,000h  |             |             |
|                           | Safety                            | Meets UL1950, CSA C22.2 NO.234,CE              |             |             |
|                           | Dimensions                        | 127 x 76.2 x 29 mm                             |             |             |
|                           | Compatible with Axiomtek Products | EM1610/EM1611/EM60321C/eBOX745-EFL/eBOX746-EFL |             |             |



## APS-534

|                           |                                   |  |             |             |
|---------------------------|-----------------------------------|--|-------------|-------------|
| Model Name                | P/N: 50967911000E                 |  |             |             |
| APS-534 Open Frame DC 72W | Input Range                       | 18 ~ 36V <sub>DC</sub>                                 |             |             |
|                           | Output Voltage                    | +5V  | +12V        | -12V        |
|                           |                                   | 10A 0A min   | 1.5A 0A min | 0.3A 0A min |
|                           | MTBF (hours)                      | 50,000h  |             |             |
|                           | Safety                            | Meets UL1950, CSA C22.2 NO.234,CE                      |             |             |
|                           | Dimensions                        | 127 x 76.2 x 29 mm                                     |             |             |
|                           | Compatible with Axiomtek Products | EM1610/EM1611/EM60321/EM60321C/eBOX745-EFL/eBOX746-EFL |             |             |



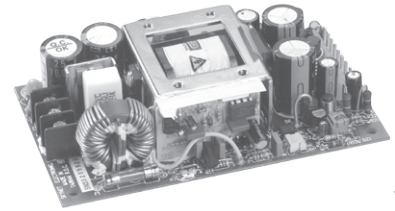


# Power Supplies - Open Frame

## APS-532

|                                   |  |                |                |
|-----------------------------------|--|----------------|----------------|
| Model Name                        | P/N: 50968911000E                                      |                |                |
| Input Range                       | 9 ~ 18V <sub>DC</sub>                                  |                |                |
| Output Voltage                    | +5V  | +12V           | -12V           |
|                                   | 10A<br>0A min  | 1.5A<br>0A min | 0.3A<br>0A min |
| MTBF (hours)                      | 50,000h  |                |                |
| Safety                            | Meets UL1950, CSA C22.2 NO.234,CE                      |                |                |
| Dimensions                        | 127 x 76.2 x 29 mm                                     |                |                |
| Compatible with Axiomtek Products | EM1610/EM1611/EM60321/EM60321C/eBOX745-EFL/eBOX746-EFL |                |                |

APS-532 Open Frame  
DC 72W



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# Power Supplies - 1U Type

## PS200-1U

|                      |                                      |  |       |       |       |      |       |
|----------------------|--------------------------------------|--|-------|-------|-------|------|-------|
| Model Name           | P/N: 50914506010E                    |  |       |       |       |      |       |
| PS200-1U<br>ATX 200W | Input Range                          | 90 – 260V <sub>AC</sub> Full Range     |       |       |       |      |       |
|                      | Output Voltage                       | +5V                                    | +3.3V | +12V1 | +12V2 | -12V | +5Vsb |
|                      |                                      | 17A                                    | 14A   | 6A    | 12A   | 0.8A | 2A    |
|                      | MTBF (hours)                         | AT 25°C 100,000h                       |       |       |       |      |       |
|                      | Safety                               | CB, TUV, CE, FCC, C-TICK, CUL, UL, CCC |       |       |       |      |       |
|                      | Dimensions                           | 150 x 81.5 x 40.5 mm                   |       |       |       |      |       |
|                      | Compatible with<br>Axiomtek Products | AX61120, AX60530                       |       |       |       |      |       |



## PS270-1U

|                   |                                      |   |                   |                 |                 |      |      |
|-------------------|--------------------------------------|---|-------------------|-----------------|-----------------|------|------|
| Model Name        | P/N: 50954A24110E                    |   |                   |                 |                 |      |      |
| PS270-1U ATX 270W | Input Range                          | 90 – 264V <sub>AC</sub> Full Range          |                   |                 |                 |      |      |
|                   | Output Voltage                       | +5V   | +3.3V             | +12V1           | +12V2           | -12V | -12V |
|                   |                                      | 18A<br>(0.5A min)                           | 16A<br>(0.5A min) | 16A<br>(1A min) | 10A<br>(1A min) | 0.8A | 0.8A |
|                   | MTBF (hours)                         | AT 25°C 100,000h                            |                   |                 |                 |      |      |
|                   | Safety                               | TUV, CSA22.2 NO.60950-1, IEC, UL, NEMKO, CE |                   |                 |                 |      |      |
|                   | Dimensions                           | 150 x 81.5 x 40.5 mm                        |                   |                 |                 |      |      |
|                   | Compatible with<br>Axiomtek Products | AX61120/AX60530                             |                   |                 |                 |      |      |



# Power Supplies - PS/2 Type

## PS302-XP2

|                                   |  |       |       |      |       |       |  |
|-----------------------------------|--|-------|-------|------|-------|-------|--|
| Model Name                        | P/N : 50903724010E   |       |       |      |       |       |  |
| Input Range                       | 100-240Vac Full Range  |       |       |      |       |       |  |
| Output Voltage                    | +5V  | +12V1 | +12V2 | -12V | +5Vsb | +3.3A |  |
|                                   | 16A  | 17A   | 17A   | 0.3A | 2.5A  | 19A   |  |
| MTBF (hours)                      | AT 25°C 100,000h   |       |       |      |       |       |  |
| Safety                            | UL, CSA, CE, FCC   |       |       |      |       |       |  |
| Dimensions                        | 150 x 140 x 86 mm  |       |       |      |       |       |  |
| Compatible with Axiomtek Products | AX61221, AX61222, AX61220, AX61400, AX6156LE, AX60552, AX60501, AX60551, AX61492 |       |       |      |       |       |  |



## PS400-XP2

|                                   |  |                   |                 |                 |      |                  |  |
|-----------------------------------|--|-------------------|-----------------|-----------------|------|------------------|--|
| Model Name                        | P/N: 50904B24000E  |                   |                 |                 |      |                  |  |
| Input Range                       | 90 - 264Vac Full Range   |                   |                 |                 |      |                  |  |
| Output Voltage                    | +5V  | +3.3V             | +12V1           | +12V2           | -12V | +5Vsb            |  |
|                                   | 20A<br>(0.5A min)  | 20A<br>(0.3A min) | 16A<br>(1A min) | 16A<br>(1A min) | 0.5A | 2.5A<br>(1A min) |  |
| MTBF (hours)                      | AT 25°C 100,000h   |                   |                 |                 |      |                  |  |
| Safety                            | TUV, CSA22.2 NO.60950-1, IEC, UL, NEMKO+CB,CE  |                   |                 |                 |      |                  |  |
| Dimensions                        | 150 x 140 x 74 mm  |                   |                 |                 |      |                  |  |
| Compatible with Axiomtek Products | AX61221, AX61222, AX60501, AX60551, AX60552, AX61400, AX6145, AX6156, AX61492, AX61220 |                   |                 |                 |      |                  |  |



## PS500-XP2

|                                   |  |                   |                 |                 |                 |      |       |
|-----------------------------------|--|-------------------|-----------------|-----------------|-----------------|------|-------|
| Model Name                        | P/N: 50904C06000E  |                   |                 |                 |                 |      |       |
| Input Range                       | 90 - 265VAC Full Range   |                   |                 |                 |                 |      |       |
| Output Voltage                    | +5V  | +3.3V             | +12V            | +12V1           | +12V2           | -12V | +5Vsb |
|                                   | 24A<br>(0.3A min)  | 24A<br>(0.5A min) | 34A<br>(1A min) | 17A<br>(1A min) | 17A<br>(1A min) | 0.8A | 2.5A  |
| MTBF (hours)                      | AT 25°C 100,000h   |                   |                 |                 |                 |      |       |
| Safety                            | TUV, CUL, CB, IEC60950-1, GB4943-2001, UL60950-1, EN60950-1                            |                   |                 |                 |                 |      |       |
| Dimensions                        | 150 x 140 x 86 mm  |                   |                 |                 |                 |      |       |
| Compatible with Axiomtek Products | AX61221, AX61222, AX60501, AX60551, AX60552, AX61400, AX6145, AX6156, AX61492, AX61220 |                   |                 |                 |                 |      |       |



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# Power Supplies

## - Mini Redundant Power

### PS300-HRP

|   |                                      |                        |                 |                 |      |      |                  |
|---|--------------------------------------|------------------------|-----------------|-----------------|------|------|------------------|
| Model Name                                  | P/N: 50914709620E                    |                        |                 |                 |      |      |                  |
| PS300-HRP<br>Redundant<br>Power<br>ATX 300W | Input Range                          | 90 ~ 264Vac Full Range |                 |                 |      |      |                  |
|   | Output Voltage                       | +5V                    | +3.3V           | +12V            | -12V | -5V  | +5Vsb            |
|   |                                      | 25A<br>(3A min)        | 18A<br>(1A min) | 16A<br>(2A min) | 0.5A | 0.5A | 2A<br>(0.1A min) |
|   | MTBF (hours)                         | 100,000h               |                 |                 |      |      |                  |
|   | Safety                               | UL, UL+C, TUV, CB, CE  |                 |                 |      |      |                  |
|   | Dimensions                           | 185 x 150 x 86 mm      |                 |                 |      |      |                  |
|   | Compatible with<br>Axiomtek Products | AX61220                |                 |                 |      |      |                  |



### PS400-HRP

|   |                                      |                        |                 |                 |      |      |                  |
|---|--------------------------------------|------------------------|-----------------|-----------------|------|------|------------------|
| Model Name                                  | P/N: 50914B09620E                    |                        |                 |                 |      |      |                  |
| PS400-HRP<br>Redundant<br>Power<br>ATX 400W | Input Range                          | 90 ~ 264Vac Full Range |                 |                 |      |      |                  |
|   | Output Voltage                       | +5V                    | +3.3V           | +12V            | -12V | -5V  | +5Vsb            |
|   |                                      | 35A<br>(3A min)        | 25A<br>(1A min) | 28A<br>(2A min) | 1.2A | 0.5A | 2A<br>(0.1A min) |
|   | MTBF (hours)                         | 100,000h               |                 |                 |      |      |                  |
|   | Safety                               | UL, UL+C, TUV, CB, CE  |                 |                 |      |      |                  |
|   | Dimensions                           | 185 x 150 x 86 mm      |                 |                 |      |      |                  |
|   | Compatible with<br>Axiomtek Products | AX6156LE               |                 |                 |      |      |                  |



### PS501-HRP (AC inlet in front)

|  |                                      |                           |       |      |      |       |  |
|--|--------------------------------------|---------------------------|-------|------|------|-------|--|
| Model Name                                 | P/N: 50904C09010E                    |                           |       |      |      |       |  |
| PS501-HRP<br>Redundant<br>Power<br>ATX500W | Input Range                          | 100 ~ 240Vac Full Range   |       |      |      |       |  |
|  | Output Voltage                       | +5V                       | +3.3V | +12V | -12V | +5Vsb |  |
|  |                                      | 25A                       | 25A   | 41A  | 0.8A | 3.5A  |  |
|  | MTBF (hours)                         | AT 25°C 100,000h          |       |      |      |       |  |
|  | Safety                               | CB, CCC, UL, TUV, CE, FCC |       |      |      |       |  |
|  | Dimensions                           | 185 x 150 x 86 mm         |       |      |      |       |  |
|  | Compatible with<br>Axiomtek Products | AX6156LE, AX61220         |       |      |      |       |  |



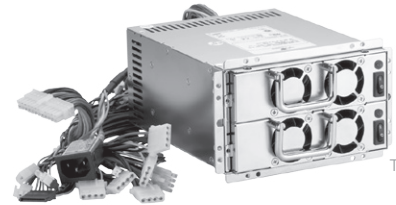
# Power Supplies

## - Mini Redundant Power

### PS500-HRP

|                                   |   |                 |                 |      |                    |
|-----------------------------------|---|-----------------|-----------------|------|--------------------|
| Model Name                        | P/N: 50904C09000E   |                 |                 |      |                    |
| Input Range                       | 100 ~ 240Vac Full Range   |                 |                 |      |                    |
| Output Voltage                    | +5V   | +3.3V           | +12V            | -12V | +5Vsb              |
|                                   | 25A<br>(1A min)   | 25A<br>(1A min) | 41A<br>(1A min) | 0.8A | 3.5A<br>(0.1A min) |
| MTBF (hours)                      | AT 25°C 100,000h  |                 |                 |      |                    |
| Safety                            | UL, TUV, CB, CCC, RFI/EMI Standards, FCC Class B, CISPR22 Class B |                 |                 |      |                    |
| Dimensions                        | 185 x 150 x 86 mm   |                 |                 |      |                    |
| Compatible with Axiomtek Products | AX61492   |                 |                 |      |                    |

PS500-HRP  
Redundant  
Power  
ATX 500W



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# Power Supplies - PS/2 x 2 Redundant Power

## PS401-HRP

|   |                                      |                        |                 |                   |      |      |                  |
|---|--------------------------------------|------------------------|-----------------|-------------------|------|------|------------------|
| Model Name                                  | P/N: 50914B09300E                    |                        |                 |                   |      |      |                  |
| PS401-HRP<br>Redundant<br>Power<br>ATX 400W | Input Range                          | 90 – 264Vac Full Range |                 |                   |      |      |                  |
|   | Output Voltage                       | +5V                    | +3.3V           | +12V              | -12V | -5V  | +5Vsb            |
|   |                                      | 35A<br>(5A min)        | 28A<br>(1A min) | 20A<br>(2.5A min) | 1A   | 0.8A | 2A<br>(0.1A min) |
|   | MTBF (hours)                         | 100,000h               |                 |                   |      |      |                  |
|   | Safety                               | UL, CSA, TUV, CE       |                 |                   |      |      |                  |
|   | Dimensions                           | 183 x 167 x 187.8 mm   |                 |                   |      |      |                  |
|   | Compatible with<br>Axiomtek Products | AX61492                |                 |                   |      |      |                  |





# 11

## Peripherals & Accessories

Axiomtek provides a one-stop shopping solution for peripherals and accessories, such as KVM solutions for centralized management, keyboard drawers, keyboards, track balls, slide rails, CD-ROM's and much more.

|              |   |     |
|--------------|---|-----|
| AX69178      | 1U 17" LCD Rackmount Monitor/Keyboard Drawer with 8-port KVM      | 467 |
| AX69158      | 1U 15" LCD Rackmount Monitor/Keyboard Drawer with 8-port KVM      | 468 |
| AX7042       | 1U Keyboard Drawer with Touch Pad                                 | 469 |
| AX7300T      | 5.25" Multiple Drives with USB, K/B and M/S Ports                 | 470 |
| 59386831020E | SATA2 HDD Lockable Cable  | 471 |
| 59461560040E | SATA2 HDD Lockable Cable  | 471 |
| 593836A0030E | 4-pin Power Cable to SATA   | 471 |
| 5938A808010E | 2-port USB Cable  | 472 |
| 59383600000E | Audio Cable   | 472 |
| 59380000290E | PS/2 Keyboard & Mouse Cable with Bracket                          | 472 |
| iCON-101CU   | 1-port CAN to USB Industrial Converter (-40°C ~ +70°C)            | 473 |
| iCON-101CS   | 1-port CAN to RS-232/422/485 Industrial Converter (-40°C ~ +70°C) | 475 |

# AX69178

1U 17" LCD Rackmount Monitor/Keyboard  
Drawer with 8-port KVM



## Specifications

|                            |  |
|----------------------------|--|
| Housing                    | Meets EIA RS-310C standard 1U 19" (482.6 mm) rackmount, black color or RAL 7035  |
| Construction               | SECC   |
| Standard Color             | Black (M0050 for white)  |
| LCD                        | 17" TFT LCD panel display with built-in power saving and back light protection functions   |
| Display Size               | 17" diagonal   |
| Pixel Pitch (H x V)        | 0.264 x 0.264 mm   |
| Maximum Resolution         | SXGA (1280 x 1024)   |
| Contrast Ratio             | 400:1 (typical)  |
| Brightness                 | 260 nits   |
| Response Time              | Tr: 12 ms; Tf: 4 ms  |
| Interface                  | Analog RGB input   |
| LCD Controller             | Genesis gm5120 LCD controller  |
| Scanning Frequencies       | Vsync: 57 ~ 75 Hz<br>Hsync: 80 KHz   |
| Backlight                  | Backlight automatically shuts off when display is closed   |
| Display Colors             | 16.2 million (RGB 6-bit)   |
| LCD panel protection       | Tempered glass to protect LCD panel  |
| Viewing Angle              | Horizontal: 70/70 degrees (typical)<br>Vertical: 70/70 degrees (typical)   |
| Signal Connector           | AX69178: DB25  |
| KVM Switch AX69178         | KVM switch control: Front panel switch, hotkey & OSD control<br>KVM support: Up to eight systems; cascade to three levels, up to 512 systems |
| Monitor Control Type       | Digital microprocessor OSD control   |
| Screen Adjustment Controls | Menu, auto adjustment, brightness, contrast, phase, H/V position pitch, zoom, color, language and OSD position                               |
| Plug & Play                | DDC1/2 B   |
| Keyboard                   | PS/2, 83-key   |
| MTBF                       | 40,000hrs  |
| Power Supply               | Input: 115 to 230VAC, 1.8A, 50/60 Hz, 2/1A<br>Output: 12VDC @ 3A, 2.5W per channel<br>Type: AC PSU auto-switching                            |
| Power Consumption          | 26.25W (typical), 36W (max)  |
| Viewing Area (W x H)       | 13.3" x 10.64" (337.92 x 270.34 mm)  |
| Dimensions                 | 440 mm (17.34") (W) x 44 mm (1.73") (H)<br>x 550 mm (21.65") (D)   |
| Weight (net weight)        | 30.8 lb (14 kg)  |

## Features

- Industrial grade input device for space-critical environments
- 17" TFT LCD display/supports SXGA (1280 x 1024) resolution
- Compact design, only 550 mm depth
- LED display for status indicating grade
- Integrated keyboard/touchpad
- OSD (On Screen Display) function for LCD display
- Built-in power supply
- Knob lock and slide rail lock
- Tempered glass to protect LCD panel

|                           |   |
|---------------------------|---|
| Operating Environment     | Temperature: 0° to 45°C (32°F to 113°F)<br>Humidity: 20 to 90% @ 40°C (104°F), non-condensing<br>Vibration: 10 to 58 Hz, ±0.075 mm; 58 to 500 Hz, 1 g |
| Non-Operating Environment | Temperature: -20° to 60°C (-4° to 158°F)<br>Humidity: 5 to 95% @ 40°C (104°F), non-condensing<br>Vibration: 10 to 58 Hz, ±0.15 mm; 58 to 500 Hz, 2 g  |

## Ordering Information

|                         |  |
|-------------------------|--|
| <b>Standard</b>         |  |
| AX69178                 | 1U 17" TFT monitor/keyboard drawer with 8-port KVM, notebook keyboard and touchpad |
| <b>KVM Cable Option</b> |  |
| 59069178000E            | 1-port KVM cable   |

## Packing List

1U monitor/keyboard drawer  
AC power cord  
One set KVM cable only  
Utility CD containing user's manual

# AX69158

1U 15" LCD Rackmount Monitor/Keyboard Drawer with 8-port KVM



## Specifications

|                       |   |
|-----------------------|---|
| Housing               | Meets EIA RS-310C standard 1U 19" (482.6 mm) rackmount, black color or RAL 7035   |
| Construction          | SECC  |
| Standard Color        | Black (M0050 for white)   |
| LCD                   | 15" TFT LCD panel display with built-in power saving and back light protection functions  |
| Display Size          | 15" (381 mm) diagonal   |
| Pixel Pitch (H x V)   | 0.297 x 0.297 mm  |
| Maximum Resolution    | XGA (1024 x 768)  |
| Contrast Ratio        | 500:1 (typical)   |
| Brightness            | 250 nits  |
| Response Time         | Tr: 10 ms; Tf: 30ms   |
| Scanning Frequencies  | Vsync: 58 ~ 75 Hz<br>Hsync: 46.8 ~ 60.2 kHz   |
| Display Colors        | 16.77 million   |
| LCD panel protection  | Anti-glare glass with hard coating to protect LCD panel (2 x 249 x 333 mm)  |
| Viewing Angle         | Horizontal: 60/60 degrees from center<br>Vertical: 45/55 degrees from center  |
| Signal Connector      | DB25  |
| Monitor Control Type  | Digital microprocessor OSD control  |
| Screen Adjustment     | Menu, auto adjustment, brightness, contrast, phase, H/V   |
| Controls              | position pitch, zoom, color, language and OSD position  |
| Plug & Play           | DDC1/2 B  |
| Keyboard              | PS/2, 83-key plus numeric keypad  |
| MTBF                  | 30,000hrs   |
| Power Supply          | 90 ~ 264 VAC, 47 ~ 63 Hz<br>AC PSU auto-switching   |
| Power Consumption     | 26.25W  |
| Viewing Area (W x H)  | 11.98" x 8.99" (304.1 x 228.1 mm)   |
| Dimensions            | 440 mm (17.34") (W) x 44 mm (1.73") (H)<br>x 492 mm (19.38") (D)  |
| Weight (net weight)   | 24.2 lb (11 kg)   |
| Operating Environment | Temperature: 0° to 45°C (32°F to 113°F)<br>Humidity: 20 to 90% @ 40°C (104°F), non-condensing<br>Altitude: 10,000-feet (3048-meters)<br>Shock: 10 g, 11 ms duration, half sine/six axis<br>Vibration: 10 to 58 Hz, ±0.075 mm; 58 to 500 Hz, 1 g |

## Features

- Industrial level input device for space-critical environments
- 15" TFT LCD display supports XGA (1024 x 768) resolution
- Compact design, only 492 mm depth
- LED display for status indicating grade
- Integrated keyboard/touchpad
- OSD (On Screen Display) function for LCD display
- Built-in power supply
- Knob lock and slide rail lock
- Tempered glass to protect LCD panel

|                           |   |
|---------------------------|---|
| Non-Operating Environment | Temperature: -40° to 70°C (-13°F to 158°F)<br>Humidity: 5 to 95% @ 40°C (104°F), non-condensing<br>Altitude: 50,000-feet (15,240-meter)<br>Shock: 15 g, 11 ms duration, half sine/six axis<br>Vibration: 10 to 58 Hz, ±0.15 mm; 58 to 500 Hz, 2 g |
|---------------------------|---|

## Ordering Information

| Standard         |  |
|------------------|--|
| AX69158          | 1U 15" TFT monitor/keyboard drawer with 8-port KVM, notebook keyboard and touchpad |
| KVM Cable Option |  |
| 59069178000E     | 1-port KVM cable   |

## Packing List

1U monitor/keyboard drawer  
Two sets of L-brackets for rear mount (screws included)  
AC power cord  
Utility CD  
One set KVM cable only

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# AX7042

1U Keyboard Drawer with Touch Pad



## Features

- 19" rackmount drawer meets the EIA RS-310C standard
- Integrated keyboard and designed touch pad for ease of operation
- Compact and slim size design with 119-key layout
- High quality rubber-membrane key switch
- Drawer standard color: beige or black
- Keyboard standard color: black (English only)
- Rugged slide rail and USB cable for Keyboard & touch pad

## Specifications

|                       |  | Min    | Average | Max      | Conditions           |
|-----------------------|--|--------|---------|----------|----------------------|
| Active Area           | 59 mm x 42 mm  |        |         |          |                      |
| Mass                  |  |        | 15 g    |          |                      |
| Mouse Buttons Inputs  | 2 debounced active low switch inputs provided on connector   |        |         |          |                      |
| Resolution            | 170+/-10%  | 153DPI | 170DPI  | 187DPI   |                      |
| Max. Tracking Speed   |  |        |         | 250 cm/s |                      |
| Linearity             |  | +10%   |         | +10%     |                      |
| Interface Protocol    | USB  |        |         |          |                      |
| Host Interface        | 8-pin FFC, Horizontal  |        |         |          |                      |
| Supply Voltage        | 5VDC +/-10%  | 4.5V   | 5V      | 5.5V     | White Noise          |
| Supply Ripple         | 100 mV rms   |        |         |          | V <sub>CC</sub> = 5V |
| Power Consumption     |  |        | 7mA     | 10mA     | IEC801-2             |
| ESD                   | 8kV, No Error  |        |         | 8kV      | IEC801-2             |
| ESD                   | 15kV, No Damage  |        |         | 15kV     |                      |
| Operating Temperature |  | 0°C    |         | 45°C     |                      |
| Storage Temperature   |  | -40°C  |         | 70°C     | Non-Condensing       |
| Relative Humidity     |  | 5%     |         | 95%      |                      |
| Shock Resistance      | 80 g/11 ms   |        |         |          |                      |
| Vibrations            | 5 ~ 500 MHz  |        |         |          |                      |
| Static Load           |  |        |         | 9.8N     | 2.5N                 |
| Tapping               | 1 million cycles   |        |         |          | 0.5N                 |
| Abrasion              | 1 million cycles   |        |         |          |                      |
| RFI Immunity          | LCD, CRTs, Fluorescent Lights, Cellular Phones               |        |         |          |                      |
| Dimensions            | 482.6 mm (19") (W) x 350 mm (13.78") (D) x 44 mm (1.75") (H) |        |         |          |                      |

## Ordering Information

|             |   |
|-------------|---|
| AX7042W     | 1U beige color keyboard drawer                |
| AX7042W-PAD | 1U beige color keyboard drawer with touch pad |
| AX7042T     | 1U black color keyboard drawer                |
| AX7042T-PAD | 1U black color keyboard drawer with touch pad |

# AX7300T

## AX7300T

5.25" Multiple Drives with USB, K/B and M/S Ports

### Specifications

- Combinations for 1 x slim CD-ROM & 1 x standard FDD or 1 x slim CD-ROM & 1 x 3.5" HDD (Storage devices are not included)
- Dimensions (W x D x H): 5.87" (149 mm) x 5.51" (140 mm) x 1.66" (42.1 mm) (Storage devices are not included)

### Ordering Information

AX7300T 5.25" multiple drives w/ USB, KB & MS ports (color: Black)



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# Accessories

## 59386831020E

SATA2 HDD lockable cable, 180D to 180D, L: 500 mm



## 59461560040E

SATA2 HDD lockable cable, 90D to 180D, L: 650 mm



## 593836A0030E

4-pin power cable to SATA x 2 L=150 m (RC)



## 5938A808010E

2-port USB cable (190 mm)



## 59383600000E

Audio cable



## 59380000290E

PS/2 keyboard & mouse cable with bracket



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# iCON-101CU

1-port CAN to USB Industrial Converter  
(-40°C ~ +70°C)



## Features

- Full compliance with USB 1.1/2.0 (fully speed)
- Full compliance with CAN 2.0A and CAN 2.0B
- D-sub DB9 CAN port supports 3KV isolation
- Easily setup to CAN terminator by software configuring
- CAN transmission speed up to 1Mbps
- Powered by the USB bus
- USB type B connector Complies with Class 1, DIV II minimum withdrawal requirement of 15N
- Provides DIN-Rail mounting, Status LED indicators
- Driver supports Windows Server 2008; 2003/Vista/2000/XP/7 and Linux OS
- -40°C ~ +70°C wide temperature operating suitable for industrial automation and power automation field applications



## Introduction

The CAN (Controller Area Network) is a serial bus system and is usually used in structuring intelligent industrial device networks and building smart automatic control systems. The iCON-101CU is a cost-efficient industrial converter for pairs to PC using the standard USB interface. It supports CAN monitor tool and displays the CAN message received in Decimal or HEX mode. This converter shows the time stamp of each receiving message. The GUI management program and programming guide both are ready for use. The CAN host, monitor or HMI can access & control CAN device through iCON-101CU. Operating systems support includes Windows® 98/ME/2000/XP.

## Specifications

| CAN Interface       |   |
|---------------------|---|
| Connector           | 9-pin male D-Sub  |
| Isolation           | 3 KVrms for DC-DC and photocoupler  |
| Receive Buffer      | 1000 data frames  |
| NVRAM               | 64Kbyte for users define  |
| Max Data Flow       | 10000 fps (CAN bus)   |
| Support Protocol    | CAN 2.0A/2.0B   |
| Terminator Resistor | Software configurable   |
| Baud Rate           | 5k,10k, 20k, 40k, 50k, 80k, 100k,125k, 200k, 250k, 400k, 500k, 600k, 800k ,1Mbps and user defined |

### USB Interface

|                  |                  |
|------------------|------------------|
| Support Protocol | USB 1.1/2.0      |
| Connector        | USB type B       |
| Receiver Buffer  | 1000 data frames |

### Power

|                   |           |
|-------------------|-----------|
| Power Consumption | 0.7W max. |
|-------------------|-----------|

### LED

Power/firmware updating, CAN TX/RCV, CAN status for normal and error, USB TX/RCV, terminator status

### OS Driver Support

Windows® Server 2008; 2003/Vista/2000/XP/7 and Linux OS

### Mechanical

|              |   |
|--------------|---|
| Casing       | Aluminum case   |
| Dimension    | 70 mm (W) x 110 mm (D) x 30 mm (H)<br>(2.75" (W) x 4.33" (D) x 1.18" (H)) |
| Weight       | 0.25 kg (0.55 lb)   |
| Installation | DIN-rail and panel mount  |

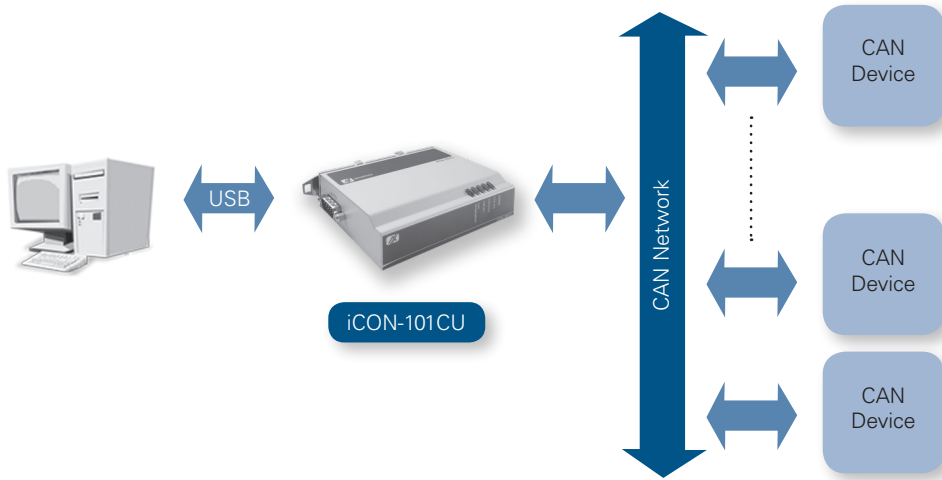
### Environment

|                       |                                      |
|-----------------------|--------------------------------------|
| Operating Temperature | -40° C to +70° C (-40° F to +167° F) |
| Storage Temperature   | -40° C to +85° C (-40° F to 185° F)  |
| Humidity              | 5% ~ 95% (non-condensing)            |
| Emission Compliance   | CE class A, FCC class A              |

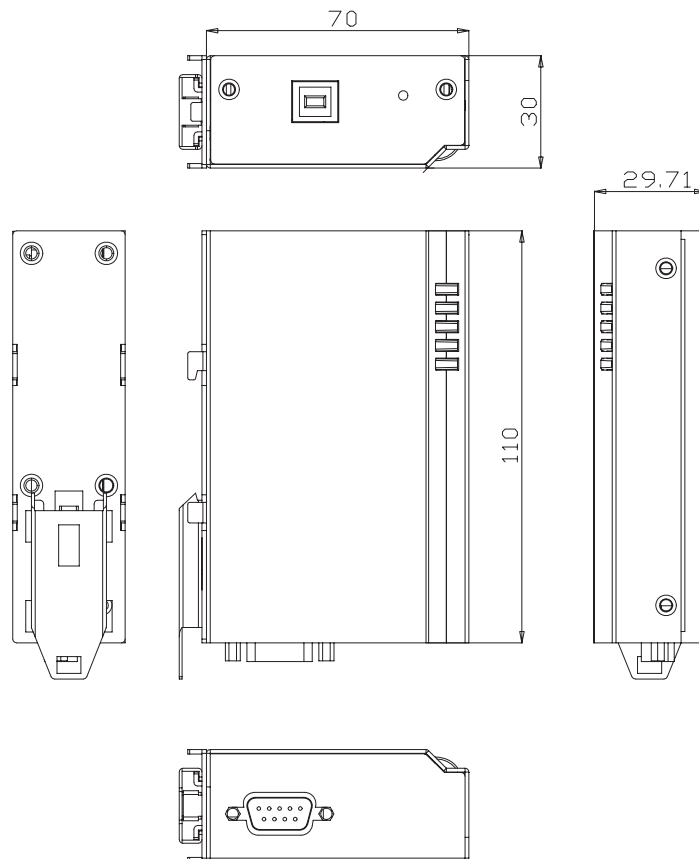
## Ordering Information

iCON-101CU

1-port CAN to USB industrial converter



## Dimensions



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# iCON-101CS

1-port CAN to RS-232/422/485 Industrial Converter (-40°C ~ +70°C)



## Features

- Software configurable CAN and RS-232/422/485 communication parameters
- Fully compliance with CAN 2.0A and CAN 2.0B
- D-sub DB9 CAN port supports 3KV isolation
- Easily setup to CAN and RS-485 terminator by software configurable
- Powered by 10~30V wide-range DC
- Transmission speed up to 1Mbps for CAN and RS-232
- Clear LED indicators to converter status in progressing
- Provides DIN-rail mounting
- -40°C ~ +70°C wide temperature operating suitable for industrial automation and power automation field applications



## Introduction

The CAN (Controller Area Network) is a serial bus system and is usually used in structuring intelligent industrial device networks and building smart automatic control systems. The iCON-101CS is an industrial converter ideally suitable for CAN network using traditional RS-232/422/485 devices. It precisely converts messages between CAN and RS-232/422/485 networks, allowing any PC or devices with RS-232/422/485 interface to communicate with CAN devices easily. This converter supports CAN monitor tool and displays the CAN message received in Decimal or HEX mode. The iCON-101CS shows the time stamp of each receiving message. The GUI management program and programming guide both are ready for use.

## Specifications

| CAN Interface       |   |
|---------------------|---|
| Connector           | 9-pin male D-Sub  |
| Isolation           | 3 KVrms DC-DC converter & photocoupler  |
| Receive Buffer      | 1000 data frames  |
| NVRAM               | 64Kbyte for users define  |
| Max Data Flow       | 10000 fps (CAN bus)   |
| Support Protocol    | CAN 2.0A/2.0B   |
| Terminator Resistor | Software configurable   |
| Baud Rate           | 5k,10k, 20k, 40k, 50k, 80k, 100k,125k, 200k, 250k, 400k, 500k, 600k, 800k ,1Mbps and user defined |

## Serial Interface

|                 |                  |
|-----------------|------------------|
| Connector       | 9-pin D-Sub      |
| Baud Rate       | up to 921600bps  |
| Data Rate       | 8                |
| Stop Rate       | 1                |
| Parity          | None             |
| Receiver Buffer | 1000 data frames |

## Power

|                   |   |
|-------------------|---|
| Power Input       | Input voltage: 10 to 30VDC (Terminal Block) |
| Power Consumption | 0.9W max. 0.08A @ 10VDC, 0.03A @ 30VDC      |

## LED

Power/firmware updating, CAN TX/RCV, CAN status for normal and error, UART TX/RCV, terminator status

## Mechanical

|              |   |
|--------------|---|
| Casing       | Aluminum case   |
| Dimension    | 70 mm (W) x 110 mm (D) x 30 mm (H)<br>(2.75" (W) x 4.33" (D) x 1.18" (H)) |
| Weight       | 0.25 kg (0.55 lb)   |
| Installation | DIN-rail and panel mount  |

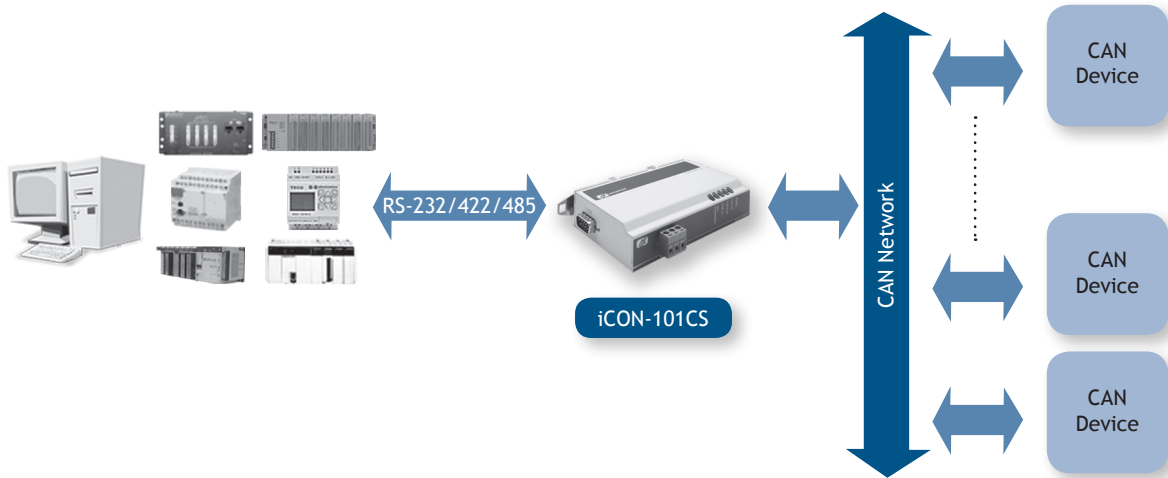
## Environment

|                       |                                      |
|-----------------------|--------------------------------------|
| Operating Temperature | -40° C to +70° C (-40° F to +167° F) |
| Storage Temperature   | -40° C to +85° C (-40° F to 185° F)  |
| Humidity              | 5% ~ 95% (non-condensing)            |
| Emission Compliance   | CE class A, FCC class A              |

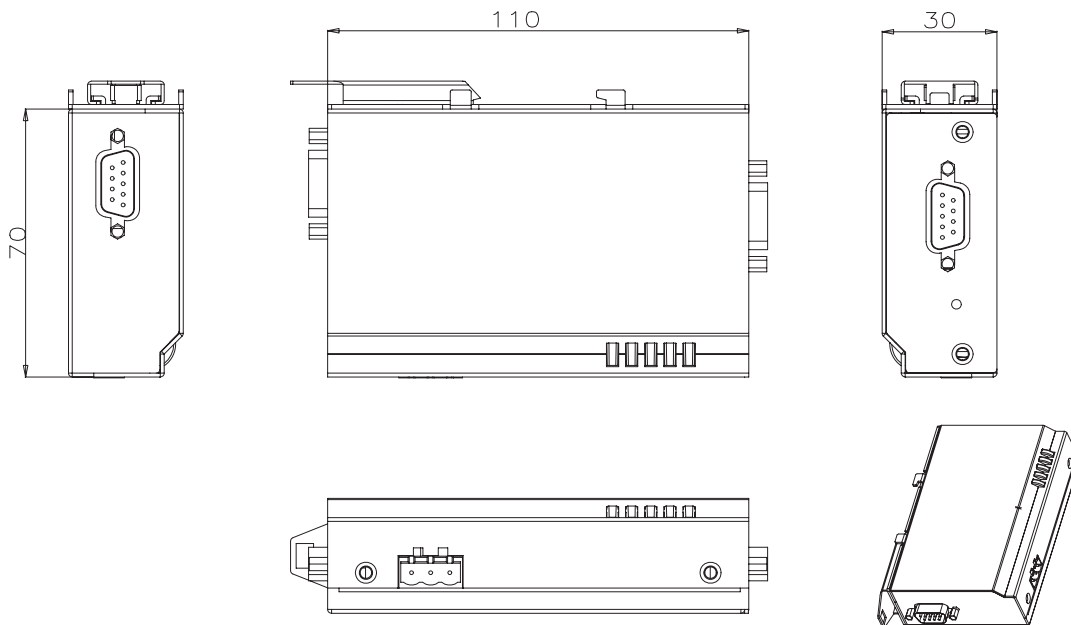
## Ordering Information

iCON-101CS

1-port CAN to RS-232/422/485 industrial converter



## Dimensions



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