IoT Device Catalogue

Teltonika

Sierra Wireless

MobiIoT

Maestro (Lantronix)

TRINITY

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Teltonika Devices

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INTRODUCING

RUT950

TRINITY APPROVED & SMART™ COMPATIBLE

RUT950 is a highly reliable and secure LTE router for professional applications. Router delivers high performance, mission-critical cellular communication. RUT950 is equipped with connectivity redundancy through dual SIM failover. External antenna connectors make it possible to attach desired antennas and to easily find the best signal location.

LTE Cat4

LTE Cat 4 with speeds up to 150 Mps

WAN failover

Automatic switch to available backup connection

Wireless Access Point with Hotspot functionality

Dual SIM – significantly reduce roaming costs

4 X

4x Ethernet ports with VLAN functionality

Linux Powered

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware

Weight	256 g
CPU	Atheros Wasp, MIPS 74Kc, 550 MHz
Memory	16 MBytes Flash, 128 MBytes DDR2 RAM
Ethernet	4 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN ports
Power supply	9 – 30 VDC, 4 pin DC connector
Inputs/Outputs	1 x Digital Input, 1 x Digital Open Collector Output on power connector
Connectors	1 x 4 pin DC, 4 x Ethernet, 2 x Mobile SMA, 2 x WiFi RP-SMA
SIM	2 x external SIM holders
Status LEDs	1 x bi-color connection status, 5 x connection strength, 4 x LAN status, 1 x Power
Operating temperature	-40 ˚C to 75 ˚C
Housing	Aluminium housing, plastic panels
Dimensions	100 mm x 110 mm x 50 mm
Mobile	4G (LTE) – Cat 4 DL 150 Mbps, UL 50 Mbps; DC-HSPA+; UMTS; TD-SCDMA; EDGE; GPRS

Software

Operating system	RutOS (OpenWrt based Linux OS)
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Connection monitoring	Ping Reboot, Periodic Reboot, Wget Reboot, LCP and ICMP for link inspection
Authetication	Pre-shared key, digital certificates, X.509 certificates
Keep settings	Update FW without losing current configuration
Monitoring & Management	WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet, SNMP
SIM switch	2 SIM cards, auto-switch cases: weak signal, data limit, SMS limit, roaming, no network, network denied, dataconnection fail
Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPsec, H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Unique networking features	VLAN, Load balancing, Mobile quota control, WEB Filter, Load Balancing, Network Backup, Auto Failover

INTRODUCING

RUTX09

TRINITY APPROVED & SMART™ COMPATIBLE

This powerful LTE router is designed as Main/Backup Internet source where steady connection and high data throughput is required. Equipped with Dual-SIM and 4 x Gigabit Ethernet ports. RUTX09 has all advanced RutOS software and security features.

LTE Cat 6

LTE Cat 6 with speeds up to 300Mbps

4x 1Gb/s

Gigabit Ethernet with speeds up to 1000Mbps

Dual-SIM with auto Failover, Backup WAN and other SW features

Trinity IoT Platform compatible

VPN

Multiple secure VPN services

RutOS

Easy to use, secure and feature rich OpenWrt based Operating System

Simply order, and we'll take care of the rest

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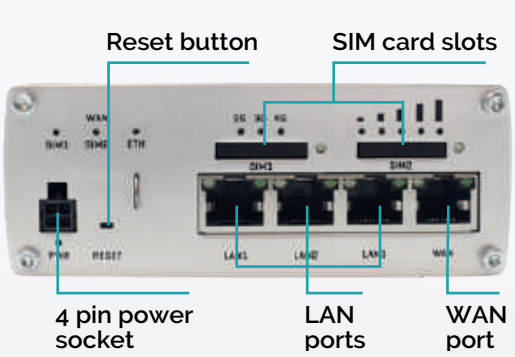

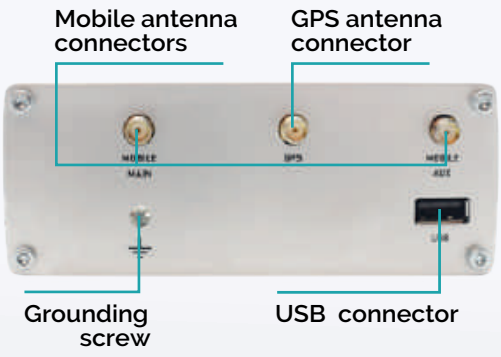

Hardware

Mobile	4G (LTE) – Cat 6 DL up to 300 Mbps, UL up to 50Mbps; DC-HSDPA; HSUPA; WCDMA
CPU	Quad Core ARM Cortex A7 717 MHz CPU
Memory	256 MBytes Flash, 256 MBytes DDR3 RAM
Ethernet	4 x 1Gbit Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
Power supply	9 - 50 VDC, 4 pin DC connector
Connectors	1 x 4 pin DC, 4 x Ethernet, 2 x Mobile SMA, 1 x GPS SMA
SIM	2 x external SIM holders
Status LEDs	1 x Power, 2 x SIM, 3 x Mobile network type, 5 x Signal Strength
Operating temperature	-40 ˚C to 75 ˚C
Housing	Full aluminium with grounding terminal
Dimensions	115 mm x 95 mm x 44 mm
Weight	456 g

Software

Operating system	RutOS (OpenWrt based Linux OS)
SIM switch	2 SIM cards, auto-switch cases: data limit, roaming, no network, network denied, data connection fail
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SMTP, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet
Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPSec, H.232 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Unique networking features	VLAN, Mobile quota control, WEB Filter, Load Balancing, Network Backup, Auto Failover
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection
Authetication	Pre-shared key, digital certificates, X.509 certificates
Keep settings	Update FW without loosing current configuration
Monitoring & Management	WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided

INTRODUCING

RUTX11

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The most powerful and feature-rich device within the Teltonika Networking products range. Equipped with Dual-SIM, 4 x Gigabit Ethernet ports, Dual-Band AC WiFi, Bluetooth LE and USB interfaces. RUTX11 comes with all RutOS software and security features. This device is perfect for advanced Industrial and Enterprise applications.

LTE Cat 6

LTE Cat 6 with speeds up to 300 Mbps

Wave-2 802.11ac Dual Band WiFi with speeds up to 867 Mbps

Dual-SIM with auto Failover. Backup WAN and other SW features

4 x 1Gb/s

Gigabit Ethernet with speeds up to 1000 Mbps

Trinity Remote Management System compatible

RutOS

Easy to use, secure and feature rich Operating System

Simply order, and we'll take care of the rest

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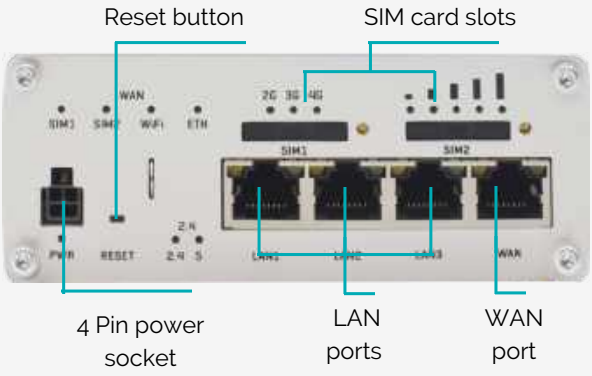

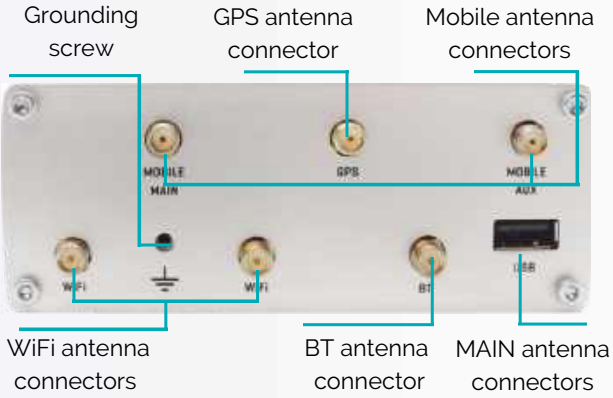

Hardware

Mobile	4G (LTE) – Cat 6 DL up to 300 Mbps, UL up to 50Mbps; DC-HSDPA; HSUPA; WCDMA
CPU	Quad Core ARM Cortex A7 717 MHz CPU
Memory	256 MB SPI Flash, 256 MB of DDR3 RAM
WiFi	802.11ac (WiFi 5) with data transmission rates up to 867 Mbps (Dual Band, MU-MIMO)
Power supply	9 - 50 VDC, 4 pin DC connector
SIM	2 x external SIM holders
Operating temperature	-40 °C to 75 °C
Housing	Full aluminium with grounding screw
Dimensions	115 mm x 95 mm x 44 mm
Ethernet	3 x LAN ports 10/100/1000 Mbps, 1 x WAN port (can be configured to LAN) 10/100/1000 Mbps
PoE (passive)	Passive PoE. Possibility to power up through LAN port, not compatible with IEEE 802.3af and 802.3 at standards
Connectors	1 x 4 pin DC, 4 x Ethernet, 2 x SMA for LTE, 2 x WiFi RP-SMA, 1 x SMA for GNNS, 1 x RP-SMA for Bluetooth
Status LEDs	1 x Power, 3 x Mobile connection type, 5 x Mobile connection signal strength LEDs, 2 x WiFi band, 8 x Ethernet status, 4 x WAN type LEDs

Software

Operating system	RutOS (OpenWrt based Linux OS)
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Unique networking features	VLAN, Mobile quota control, WEB Filter, Load Balancing, Network Backup, Auto Failover
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection
Authentication	Pre-shared key, digital certificates, X.509 certificates
Keep settings	Update FW without losing current configuration
Monitoring and Management	WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided
SIM switch	2 SIM cards, auto-switch cases: data limit, roaming, no network, network denied, data connection fail
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SMTP, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet
Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPSec, H.232 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets

INTRODUCING

RUT900

TRINITY CERTIFIED & PLATFORM COMPATIBLE

This router is equipped with Dual-SIM, 4 x Ethernet interfaces and WiFi. RUT900 is a robust and powerful device tailored for Industrial M2M/IoT applications where no high data throughput is needed. RUT900 comes with core RutOS software and security features such as OpenVPN, IPsec, Firewall, Auto Failover, SMS control and RMS support.

3G
Worldwide 3G network coverage

WAN failover
Automatic switch to available backup connection

Wireless Access Point with Hotspot functionality

Dual SIM – significantly reduce roaming costs

4 x 1Gb/s
4x Ethernet ports with VLAN functionality

Trinity Remote Management System compatible

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware

Mobile	3G HSPA+ Up to 14.4 Mbps; UMTS; EDGE; GPRS; CSD
CPU	Atheros Wasp, MIPS 74Kc, 550 MHz
Memory	16 MB Flash, 128 MB DDR2 RAM
Ethernet	4 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN ports
Power supply	9 – 30 VDC, 4 pin DC connector
PoE (passive)	Passive PoE over spare pairs. Possibility to power up through LAN port, not compatible with IEEE802.3af and 802.3at standards
Inputs/Outputs	1 x Digital Input, 1 x Digital Open Collector Output on power connector
Connectors	1 x 4 pin DC, 4 x Ethernet, 2 x Mobile SMA, 2 x WiFi RP-SMA
SIM	2 x external SIM holders
Status LEDs	1 x bi-color connection status, 5 x connection strength, 4 x LAN status, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing, plastic panels
Dimensions	100 mm x 110 mm x 50 mm
Weight	256 g

Software

Operating system	RutOS (OpenWrt based Linux OS)
SIM switch	2 SIM cards, auto-switch cases: weak signal, data limit, SMS limit, roaming, no network, network denied, data connection fail
Multiple PDN	Possibility to use different PDNs for multiple network access and services
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Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPsec, H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Unique networking features	VLAN, Load balancing, Mobile quota control, WEB Filter, Load Balancing, Network Backup, Auto Failover
Connection monitoring	Ping Reboot, Periodic Reboot, Wget Reboot, LCP and ICMP for link inspection
Authetication	Pre-shared key, digital certificates, X.509 certificates
Keep settings	Update FW without losing current configuration
Monitoring & Management	WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided

INTRODUCING

GH5200

TRINITY CERTIFIED & PLATFORM COMPATIBLE

GH5200 is an autonomous personal tracker with GNSS, GSM and Bluetooth connectivity. Designed for Lone Worker protection, for everyone who performs activity without close or direct supervision of others: in example healthcare visitors, maintenance workers, self-employed or employees working out of standard work hours. The device has high quality voice, programmable LED indications and 1050mAh battery to meet latest legislation for lone workers safety and protection.

Two way voice communication

Slim design for everyday use

Bluetooth for external devices & low energy sensors

Man-down & no movement events

5 configurable buttons

Alarm button feature

Simply order, and we'll take care of the rest

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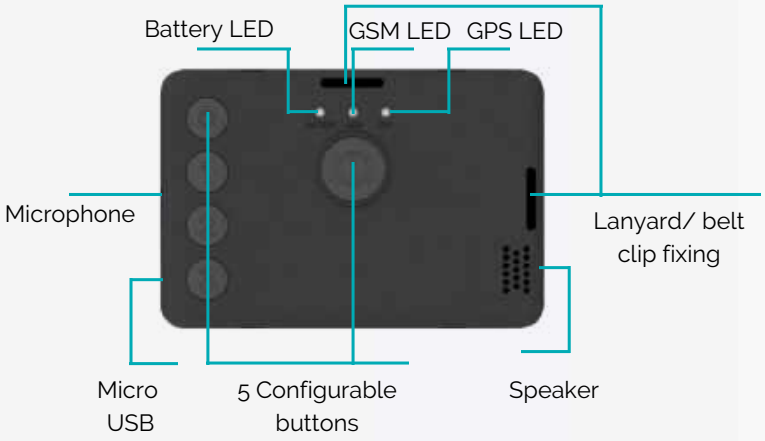

Technical Specifications

Mobile	4G (LTE) – Cat 4 DL up to 150 Mbps, UL up to 50Mbps; DC-HSPA+; UMTS; TD-SCDMA; EDGE; GPRS
Technology	GSM/GPRS/GPS/BLUETOOTH
Memory	128MB internal flash memory
Power supply	5 V DC with over-voltage protection. 1050 mAh Li-Ion battery
USB	2.0 Micro-USB
SIM	Micro-SIM + eSIM possibility
GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS
Status LEDs	3 LEDs
Operating temperature	-25 °C to +65 °C
Dimensions	93 x 64 x 10 mm
Weight	80g
Bluetooth	4.0 + LE
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration)
Time synchronization	GNSS, NITZ, NTP
Certifications	CE/RED, SAR

INTRODUCING

TRB141

TRINITY APPROVED & SMART™ COMPATIBLE

Industrial LTE Cat 1 Gateway Board TRB141 is equipped with multiple Inputs/Outputs and MicroUSB port. TRB141 compact design makes this Gateway perfect for an application where a sole gadget must be remotely managed using I/O's. TRB141 is engineered to be used in Industrial applications therefore it has a wide range of software features such as SMS control, Firewall, RMS and FOTA support.

Multiple Inputs/Outputs for remote monitoring and control

LTE Cat 1 for M2M/IoT communications

Compact size, easy integration

9-30V

Wide range of power supply voltages

Trinity IoT Platform compatible

RutOS

Easy to use, secure and feature rich

Simply order, and we'll take care of the rest

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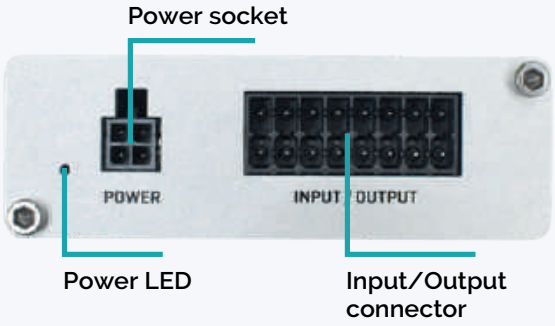

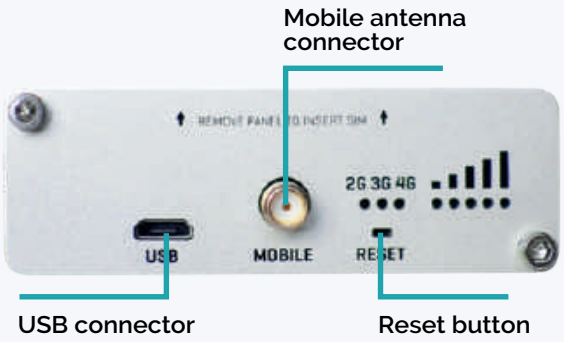

Hardware

Mobile	LTE(Cat1)/3G/2GS
SIM Slot	Mini SIM (2FF)
Antenna connector	1 x SMA for LTE
Inputs/Outputs	2 x Digital inputs, 2 x Relay outputs, 1 x Analog input, 1 x Isolated input, 2 x Digital Inputs/Outputs on power.connector
CPU	ARM Cortex-A7 1.2 GHz CPU
RAM	128 MBytes (50 Mbytes available for userspace)
Flash	512 MBytes (70 Mbytes available for userspace)
Input voltage range	9 - 30 VDC
Power connector	4 pin industrial DC power socket
Configuration interface	Virtual NIC via Micro-USB connector
LED Indicators	Power, signal, network and data status LEDs
Operating temperature	-40˚ C to 75˚ C
Dimensions	60 mm x 70 mm x 18 mm

Software

Operating system	Linux OS with Yocto SDK (offering high software customisation)
Network	NAT, Firewall (port forward, traffic rules, custom rules), DDNS (>25 service providers supported)
Remote management	RMS Support, FOTA support, SSH, CLI, SMS Utilities (status/configuration)
Status watchdogs	Ping reboot, periodic reboot
Additional features	Internet connectivity over USB virtual network interface

INTRODUCING

TRB245

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRB245 is an industrial LTE Cat 4 gateway packing all essential features for any industry: fast and reliable internet connection, combination of Ethernet and serial communication, secure power connector, I/O ports, and time synchronisation services. A wide range of software features like SMS control, Firewall, OpenVPN, IPSec, RMS ensures that data can be reached securely. Dual SIM functionality with auto-failover and a backup WAN ensure stable connectivity even if the primary connection is lost.

Compatible with 4G/LTE (Cat 4), 3G, 2G

Multiple Inputs and Outputs for remote monitoring and control

Dual-SIM with auto failover, backup WAN and other switching scenarios

Global Navigation Satellite System for location services with geofencing functionality

Trinity Remote Management System compatible

Wide range of power supply voltages (9-30V)

Simply order, and we'll take care of the rest

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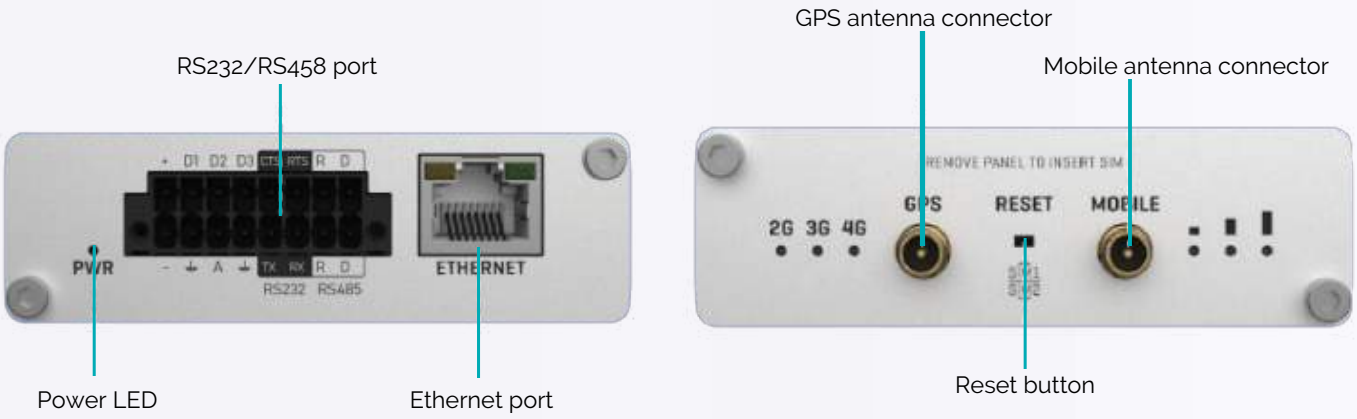

Hardware

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Qualcomm, MIPS 24Kc, 650 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	16 pin terminal, 9-30 VDC
SIM	2 x Internal SIM holders (2FF)
Antenna connectors	1 x SMA for mobile, 1 x SMA for GPS
Ethernet	1 x 10/100 Ethernet port
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Inputs/Outputs	On 16 pin socket: 3 x Digital input/Digital open collector output (configurable), 1 x Analog input
Serial	1 x RS232, 1 x RS485
Status LEDs	3 x Connection type, 3 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	83 x 25 x 74 mm
Weight	165 g

Software

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet

INTRODUCING

TSW100

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TSW100 is the first industrial unmanaged switch from Teltonika Networks. It is equipped with five Gigabit Ethernet ports, four of which support IEEE802.3af and IEEE802.3at Power-over-Ethernet standards (PoE). Classified as power source equipment (PSE), it enables centralisation of the power supply, providing up to 30 watts per port and reducing the effort for installing power. The TSW100 is ideal for professional high bandwidth applications to provide both: reliable data connection and power supply.

Rugged, durable alluminum housing.

DIN rail and surface mounting options

4 x PoE ports with 802.3af and 802.3at support

5 x Gigabit Ethernet with speeds up to 1000 Mbps

Trinity Remote Management System compatible

Total power budget at PSE up to 120 W

Simply order, and we'll take care of the rest

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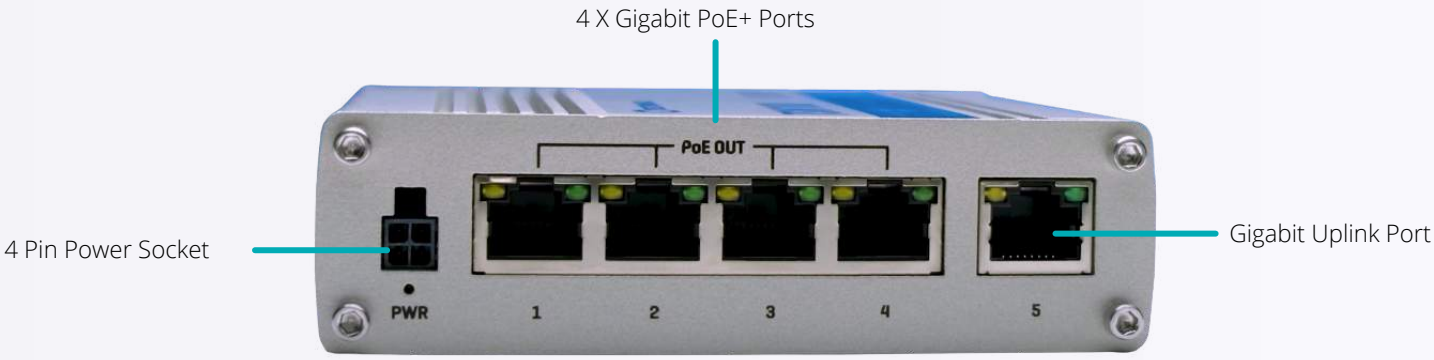


Hardware Specifications

Power Supply	4 pin power socket, 7-58 VDC
Power Consumption	Idle: < 2 W, Max: < 9 W (no PoE device connected)
PoE Standard	802.3af/at (max 30 W per port, total power budget 120 W)
Ethernet	5 x 10/100/1000 Ethernet ports: 4 x PoE, 1 x Uplink
Connectors	1 x 4 pin DC, 5 x Ethernet
Status LEDs	10 x Ethernet, 1 x Power
Ingress Protection Rating	IP30
Operating Temperature	-40 °C to 75 °C
Housing	Aluminium housing with wall or DIN rail mounting option and grounding capability
Dimensions	115 x 32 x 95 mm
Weight	340 g
Installation	Desktop, wall or DIN Rail mountable (additional kit needed)

Performance Specifications

Bandwidth	Bandwidth 10 Gbps
Packet Buffer	128 KB
Jumbo frame support	9216 bytes
MAC address table size	2K entries
Auto MDI/MDI-X Cable Detection	Yes

INTRODUCING

TSW110

TRINITY CERTIFIED & PLATFORM COMPATIBLE

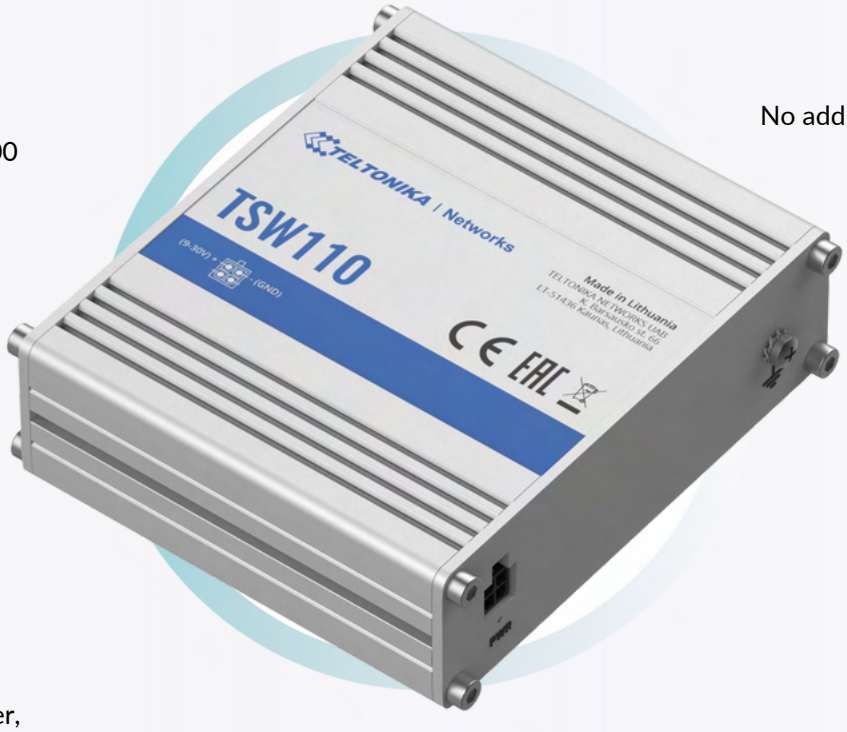
The TSW110 is a layer 2 unmanaged switch, which is a simplified version of our earlier product. Possible to power up through the first LAN port. It has five 10/100/1000 Mbps Ethernet ports for an economical high-bandwidth solution. The TSW110 offers a wide range of supported power supply voltages (9-30 V) and is ideal for professional high bandwidth applications to provide reliable data connection.

5 x Gigabit Ethernet with speeds up to 1000 Mbps

9 - 30V

Wide range of supported power supply voltages

Status LEDs (1 x Power, 10 x Ethernet)



No additional configuration needed

DIN rail and surface mounting options

Rugged aluminium housing

Simply order, and we'll take care of the rest

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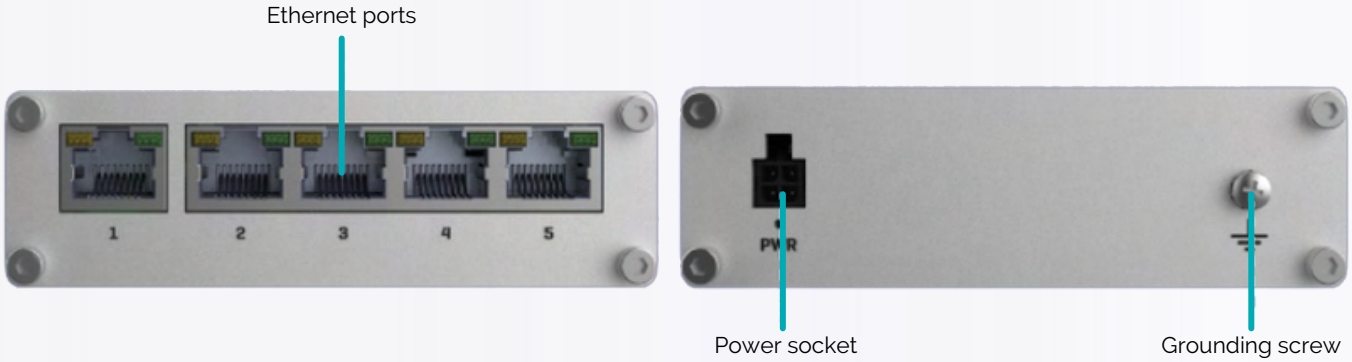

ETHERNET

LAN	5 x LAN ports, 10/100/1000 Mbps, compliance with IEEE 802.3, IEEE 802.3u, 802.3az standards, supports auto MDI/MDIX crossover

PERFORMANCE SPECIFICATIONS

Bandwidth (Non-blocking)	10 Gbps
Packet buffer	128 KB
Jumbo frame support	9216 bytes
MAC address table size	2K entries
Connector	4 pin industrial DC power socket
Input voltage range	9 - 30 VDC, reverse polarity protection, voltage surge/transient protection
PoE (passive)	Passive PoE. Possibility to power up through LAN port, not compatible with IEEE802.3af, 802.3at and 802.3bt standards <
Power consumption (idle/max)	0.4 W/ <1.8 W

PHYSICAL INTERFACES (PORTS, LEDS)

Ethernet	5 x RJ45 ports, 10/100/1000 Mbps
Status	1 x Power LED, 10 x LAN status LED's
LEDs	1 x 4 pin DC connector
Power	1 x Grounding screw
Ground	

PHYSICAL SPECIFICATION

Casing material	Full aluminum housing
Dimensions (W x H x D)	100 x 30 x 85 mm
Weight	227 g
Mounting options	DIN rail or wall mounting (additional kit needed), flat surface placement

OPERATING ENVIRONMENT

Operating	-40 C to 75 C
temperature	10 % to 90 % non-condensing
Operating humidity	

INTRODUCING

TRB140

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRB140 is an ultra-small, lightweight, and energy-efficient industrial gateway equipped with mission-critical LTE Cat 4 capabilities, Gigabit Ethernet interface, digital Inputs/Outputs, and micro-USB port. Because of its compact design, this product is perfect for projects and applications where a sole gadget requires reliable internet connectivity. TRB140 is specially engineered to be used in the industrial sector and has a wide range of software security features, such as SMS control, Firewall, Open VPN, IPsec, Remote Management System (RMS), and FOTA support.

LTE Cat 4

4G/LTE (Cat 4), 3G, 2G

Ethernet interface

Small size, easy installation

RMS

Trinity Remote Management System compatible

9 - 30V

Wide range of supported power supply voltages

RutOS

Easy to use, secure and feature rich OpenWRT based operating system

Simply order, and we'll take care of the rest

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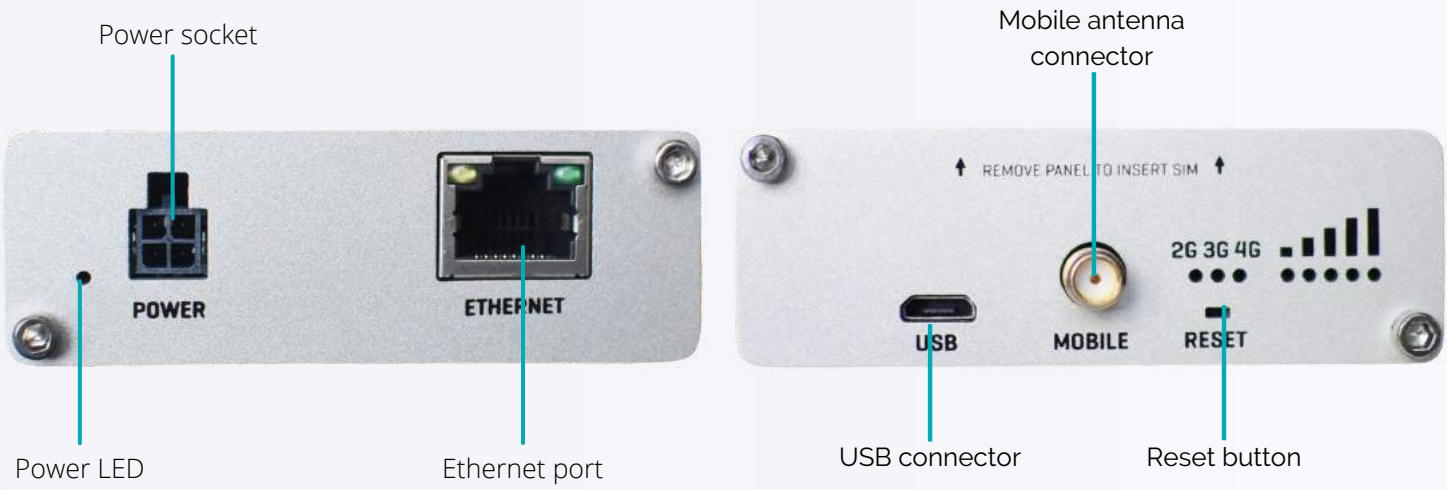


Hardware Specifications

Mobile	4G/LTE (Cat 4), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4 pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Ethernet	1 x 10/100/1000 Ethernet port
Intputs/Outputs	On 4 pin socket: 2 x Digital input/Digital open collector output (configurable)
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	134 g

Software Specifications

Operating system	RutOS
Mobile features	Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Firewall	Port forward, Traffic rules, Custom rules, Pre-configured firewall rules, DMZ, NAT, NAT-T, NAT helpers, Unlimited firewall configuration via CLI
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
SMS features	SMS status, SMS configuration, Send/Read SMS via HTTP POST/GET, EMAIL to SMS, SMS to Email, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Traffic Logging

INTRODUCING

TRB142

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRB142 is a rugged industrial gateway that comes with a widely used RS232 interface for remote device management. It is equipped with mission-critical LTE Cat 1 capabilities and software based on OpenWRT, hence offering a high degree of customisation. Just like the other TRB series products, it provides a wide range of software features such as SMS control, VPN, IPsec, Firewall, and FOTA support. This gateway is durable, and offers a wide range of power supply voltages.

RS232

Serial ports quipped with RS232 for serial communication

Compact size, easy installation

Rugged, durable alluminum housing.

LTE Cat 1

4G/LTE (Cat 1), 3G, 2G

RMS

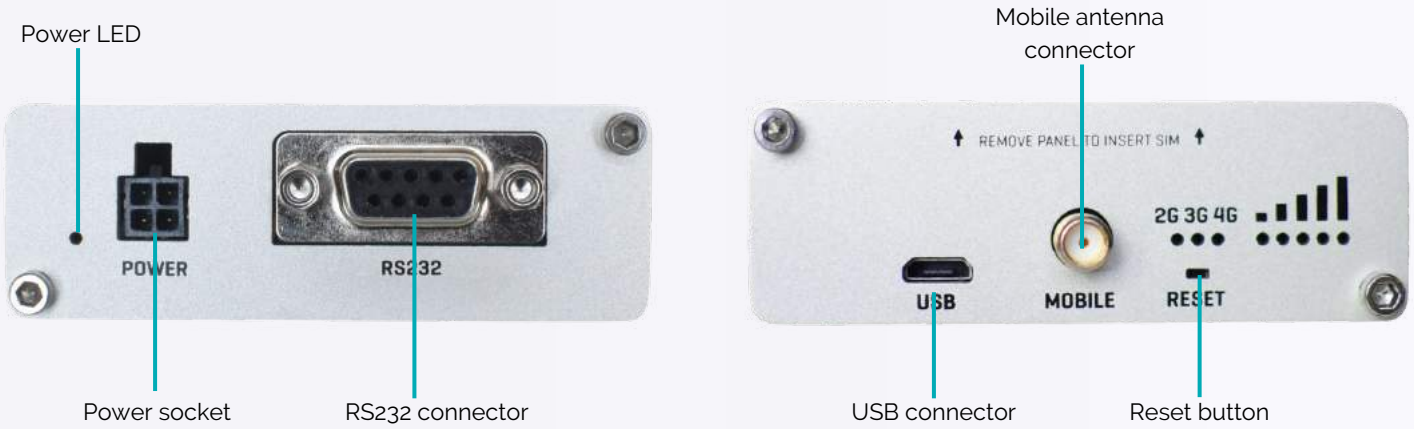
Compatible with Trinity Remote Management System

9 - 30V

Wide range of supported power supply voltages

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Technical Specifications

Mobile	4G/LTE (Cat 1), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4 pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Inputs/Outputs	On 4 pin socket: 2 x Digital input/Digital open collector output (configurable)
Serial	1 x RS232
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	135 g

Software Specifications

Operating system	RutOS
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet

INTRODUCING

TRB145

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRB145 is a mission-critical LTE Cat 1 gateway, equipped with RS485 interface. Compact design and easy installation make this gateway perfect for applications, where a sole gadget must be remotely controlled over the RS485 serial interface. Just like the rest of TRB products, TRB145 is engineered to be used in industrial applications. Therefore, it has a wide range of software features, such as SMS control, Firewall, Open VPN, IPsec, Trinity Networks Remote Management System (RMS), and FOTA support.

LTE Cat 1

4G/LTE (Cat 1), 3G, 2G

RS232

Equipped with RS485 for serial communication

Small size, easy installation

Rugged aluminum housing

9 -30 V

Wide range of supported power supply voltages

Compatible with Trinity Remote Management System

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware Specifications

Mobile	4G/LTE (Cat 1), 3G, 2G
CPU	Qualcomm, ARM Cortex A7, 1.2 GHz
Memory	512 MBytes Flash (70 MBytes for userspace), 128 MBytes RAM (50 MBytes for userspace)
Powering option	4 pin power socket, 9-30 VDC
SIM	1 x Internal SIM holder (2FF)
Antenna connectors	1 x SMA for mobile
Intputs/Outputs	On 4 pin socket: 2 x Digital input/Digital open collector output (configurable)
Serial	1 x RS485
Other	1 x Micro USB slave
Status LEDs	3 x Connection type, 5 x Signal strength, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	75 x 25 x 65 mm
Weight	130 g

Software Specifications

Operating system	RutOS
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus

INTRODUCING

TRM240

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The TRM240 is an industrial grade cellular LTE Cat 1 modem with rugged aluminium housing. It is a compact and easy to use connectivity device that can provide cellular capabilities to equipment across all market segments. The TRM240 is backward compatible with 3G and 2G, and is an optimal choice when it comes to large scale connectivity upgrades for Industrial or Public infrastructures. It offers a long and stable lifecycle and low power consumption important for IIoT projects.

4G LTE Cat 6

Connectivity including 4G/LTE (Cat 1), 3G, 2G

Low power consumption for efficiency.

Small size - easy integration anywhere

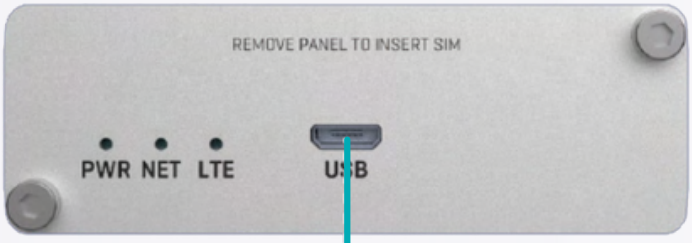
USB interface for easy internet access

Compatible with the Trinity Cloud System

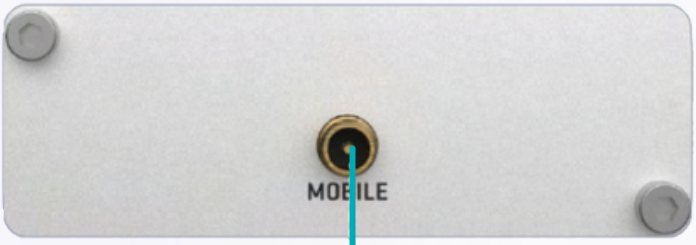
Rugged aluminium housing

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



USB port



Mobile antenna connector

HARDWARE

Mobile	LTE (Cat1) / 3G / 2G
SIM slot	Mini SIM (2FF)
Antenna connector	1 x SMA for LTE
Operating Voltage	5V - powered via microUSB
Power consumption	3.2 W Max
Configuration interface	microUSB
LED indicators	Power, Network and LTE status LEDs
Operating temperature	-40 °C to 75 °C
Operating humidity	10 % to 90 % non-condensing
Casing material	Aluminium housing
Ingress Protection	IP30
Rating Dimensions (W x H x D) Weight	74.5 x 25 x 64.5 mm 131 g

SOFTWARE

Management software	Windows Connection Manager (NDIS driver)
USB Serial Driver	Windows 7/8/8.1/10, Windows CE 5.0/6.0, Linux 2.6/3.x/4.1~4.14, Android 4.x/5.x/6.x/7.x/8.x
RIL Driver	Android 4.x/5.x/6.x/7.x/8.x
NDIS Driver	Windows 7/8/8.1/10
Gobinet Driver	Linux 2.6/3.x/4.1~4.14
Linux qmi wwan	3.x (3.4 and later)/4.1~4.14
Driver Protocols	TCP/UDP/PPP/FTP(S)/HTTP(S)/NTP/PING/QMI/SSL

INTERFACES

Management interface	AT Commands (3GPP TS27.007, 3GPP TS27.005) Hayes AT Command set Enhanced AT Commands

INTRODUCING

RUTX10

TRINITY CERTIFIED & PLATFORM COMPATIBLE

We created RUTX10 Enterprise router specially for small to mid-size office applications. It comes with Dual Band Wi-Fi 5 802.11ac, which is very suitable for high data transmission and robust wireless performance. It has all the latest security features and allows remote monitoring and control. RUTX10 comes with highly functional & customisable RutOS based on OpenWRT. Synergy between hardware and software makes this device an amazing performer in Enterprise solutions.

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

Multiple protocols supported including MQTT

Digital Input / Output for remote monitoring and control

4 x Gigabit Ethernet ports with up to 128 port

Compatible with Trinity Remote Management System

Firewall and numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware Specifications

CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
Antenna connectors	2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
WiFi	IEEE 802.11b/g/n 2.4GHz, IEEE 802.11ac/n/a 5GHz, Access point (AP), Station (STA)
Bluetooth	4.0 (Low energy)
Intputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	2 x WiFi, 8 x Etherner, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	115 x 32 x 95 mm
Weight	355 g

Software Specifications

Operating system	RutOS (OpenWrt based Linux OS)
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging

INTRODUCING

RUTX12

TRINITY CERTIFIED & PLATFORM COMPATIBLE

RUTX12 is the most powerful Dual LTE Cat 6 router in our portfolio. Two simultaneously operational LTE Cat 6 modems provide speeds up to 600 Mbps with load balancing feature. 5 x Gigabit Ethernet ports, Wave-2 802.11ac Dual-Band Wi-Fi, Bluetooth LE, and USB interfaces and dual SIM make this device irreplaceable in applications where losing connection is not an option. Packed with advanced security features like VPN, IPsec, PPTP, L2TP Stunnel and GNSS tracking.

Wave-2 802.11ac Dual Band WIFI and Bluetooth LE

Instant failover switching

Allows to use multiple WAN sources to increase throughput

6 x 1Gb/s

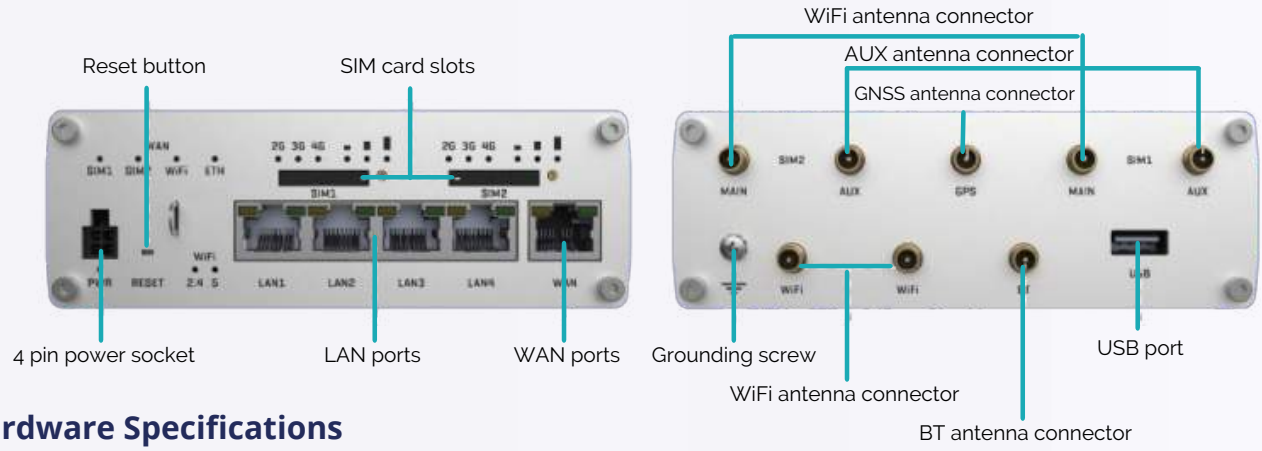
Cellular speeds up to 600Mbps with dual simultaneous LTE CAT 6 connections

Compatible with Trinity Remote Management System

Global Navigation Satellite System for location services and time synchronization

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Hardware Specifications

Mobile	2 X 4G/LTE (Cat 6), 3G
CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4 pin power socket, 9-50 VDC
SIM	2 x External SIM holders (2FF)
Antenna connectors	4 x SMA for mobile, 2 x RP-SMA for WiFi, 1 x RP-SMA for Bluetooth, 1 x SMA for GPS
Ethernet	5 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 4 x LAN
WiFi	IEEE 802.11b/g/n 2.4GHz, IEEE 802.11ac/n/a 5GHz, Access point (AP), Station (STA)
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Connectors	1 x 4 pin DC, 5 x Ethernet, 4 x SMA for LTE, 2 x WiFi RP-SMA, 1 x SMA for GNSS, 1 x RP-SMA for Bluetooth
Bluetooth	4.0 (Low energy)
Intputs/Outputs	On 4 pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB host
Status LEDs	4 x WAN type, 6 x Connection type, 6 x Signal strength, 2 x WiFi, 10 x Ethernet, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	132 x 44 x 95 mm
Weight	540 g

Software Specifications

Operating system	RutOS (OpenWrt based Linux OS)
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list (planned), Data/SMS limits
Network	Failover (Network backup), VLAN, QoS, Load Balancing
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Hotspot	External/Internal Radius, MAC authentication, Walled Garden
Supported Hotspot platforms	IronWiFi, HotspotSystem, Cloud4Wi, SAI + WiFi, MugiCloud, Purple.ai

INTRODUCING

RUTX08

TRINITY CERTIFIED & PLATFORM COMPATIBLE

RUTX08 is a durable and powerful Ethernet-to-Ethernet industrial VPN router that runs on RutOS - an advanced OpenWRT based operating system. It has four Gigabit Ethernet ports with speeds up to 1000 Mbps. A rugged aluminium housing and industrial networking protocol support make RUTX08 a perfect choice for professional applications. These powerful specifications combined with RutOS software features, such as multiple supported VPN services, advanced Firewall, and Remote Management System (RMS) make this device a superb performer, where no cellular or Wi-Fi connectivity is required

Digital Input / Output for remote monitoring and control and USB 2.0 interface

Multiple protocols supported including MQTT

Firewall and numerous VPN services including OpenVPN, IPsec, PPTP, L2TP & DMVPN

4 x Gigabit Ethernet ports with up to 128 port/tag-based VLANs supported

Compatible with Trinity Remote Management System

Wide range of power supply voltage for versatile integration

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware Specifications

CPU	Qualcomm, 4 x ARM Cortex A7, 717 MHz
Memory	256 MBytes Flash, 256 MBytes RAM
Powering option	4pin power socket, 9-50 VDC
Ethernet	4 x 10/100/1000 Ethernet ports: 1 x WAN (configurable as LAN), 3 x LAN
Inputs/Outputs	On 4pin socket: 1 x Digital input, 1 x Digital open collector output
Other	1 x USB Host
Status LEDs	8 x Ethernet, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing with DIN rail mounting option and grounding capability
Dimensions (W x H x D)	115 x 32 x 95 mm
Weight	345 g

Software Specifications

Operating system	RutOS (OpenWrt based Linux OS)
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, PPPoE, DHCP, Telnet
Routing	Static routes, Dynamic routes (BGP, OSPFv2, RIPv1/v2, EIGRP, NHRP), Routing rules
Firewall	Port forward, Traffic rules, Custom rules, Pre-configured firewall rules, DMZ, NAT, NAT-T, NAT helpers, Unlimited firewall configuration via CLI
Security	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), Port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VPN and tunneling	OpenVPN, IPsec, GRE, PPTP, L2TP, Stunnel, DMVPN, SSTP, WireGuard, ZeroTier
Monitoring and management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
Services	DDNS, VRRP, Wake On Lan (WOL), WEB filter, UPNP, Network shares (Samba), Traffic Logging
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

INTRODUCING

TRM250

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRM250 is an industrial grade cellular modem with multiple LPWAN connectivity options. It features NB-IoT, LTE Cat-M1, and is backward compatible with EGPRS (2G). It offers an extremely long lifecycle, low power consumption, and is the most flexible option when upgrading the connectivity of existing industrial equipment. TRM250 has a USB interface, a durable aluminum housing, and an external antenna for better signal coverage. It is perfect for providing cost-efficient internet connectivity in remote monitoring applications.

4G LTE Cat 6

Connectivity including 4G/LTE (Cat M1), NB-IoT, 2G

Low power consumption for efficiency.

Small size - easy integration anywhere

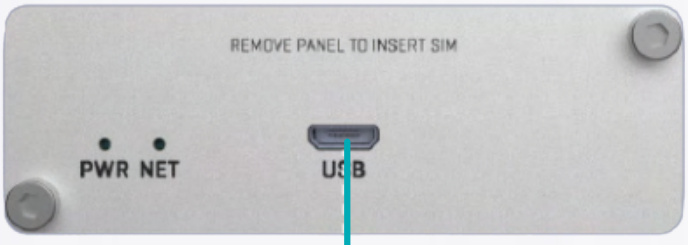
USB interface for easy internet access

Compatible with the Trinity Cloud System

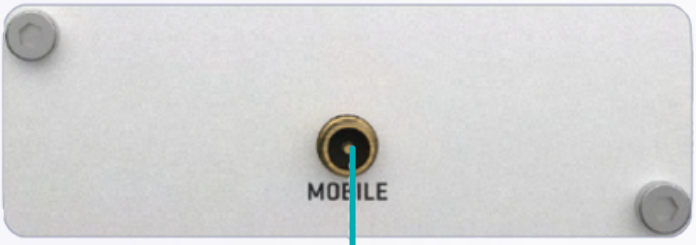
Rugged aluminium housing

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



USB port



Mobile antenna connector

HARDWARE

Mobile	LTE (Cat-M1) / NB-IoT / EGPRS
SIM slot	Mini SIM (2FF)
Antenna connector	1 x SMA
Operating Voltage	5 V - powered via microUSB
Power consumption	3.6 W Max
Configuration interface	microUSB
LED indicators	Power and Network status LEDs
Operating temperature	-40 °C to 75 °C
Operating humidity	10 % to 90 % non-condensing
Casing material	Aluminium housing
Ingress Protection	IP30
Rating Dimensions (W x H x D) Weight	74.5 x 25 x 64.5 mm 130 g

SOFTWARE

Management software	Windows Connection Manager (NDIS driver)
USB Serial Driver	Windows 7/8/8.1/10, Linux 2.6/3.x/4.1~4.14, Android 4.x/5.x/6.x/7.x/8.x
RIL Driver	Android 4.x/5.x/6.x/7.x/8.x
NDIS Driver	Windows 7/8/8.1/10
Gobinet Driver	Linux 2.6/3.x/4.1~4.14
Linux qmi wwan Driver	3.x (3.4 and later)/4.1~4.14
Protocols	TCP/UDP/PPP/FTP(S)/HTTP(S)/NTP/PING/QMI/SSL

INTERFACES

Management interface	AT Commands (3GPP TS27.007, 3GPP TS27.005) Hayes AT Command set Enhanced AT Commands

INTRODUCING

TRB255

TRINITY CERTIFIED & PLATFORM COMPATIBLE

TRB255 can be used to integrate modern and legacy industrial equipment into one solution via RS232, RS485 & Ethernet interfaces. This industrial LTE Cat M1 & NB-IoT gateway is backward compatible to EGPRS (2G) networks. It can still be used with 2G network, however in case it gets shut down, there is a possibility to switch to LPWAN connectivity options. TRB255 has a wide range of industrial and networking features such as Modbus, SMS control, Firewall, OpenVPN and more. This product is compatible with the Trinity Network Remote Management System (RMS).

LTE Cat 1

4G/LTE (Cat M1), NB-IoT, 2G

RS232

RS232/RS485 serial communication interfaces

Multiple Inputs and Outputs for remote monitoring and control

With auto failover, backup WAN and other switching scenarios

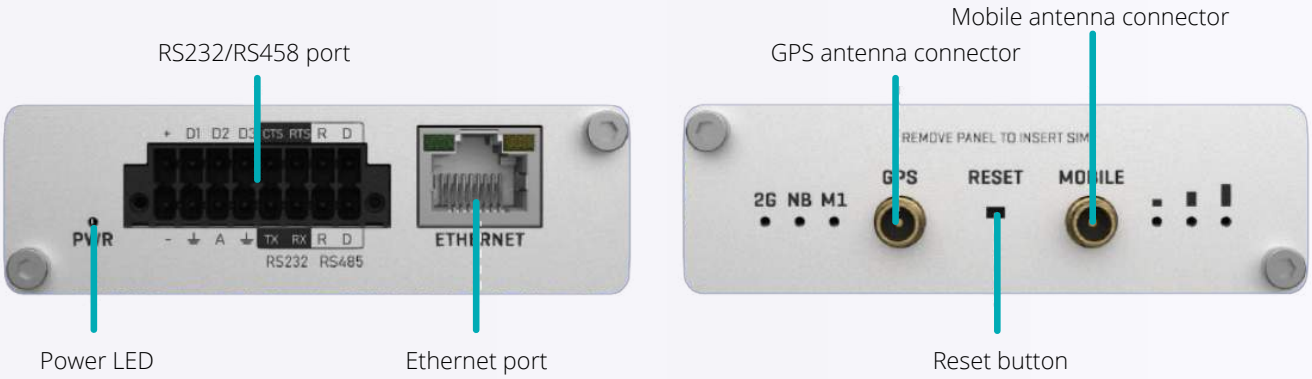
9 -30 V

Wide range of power supply voltages

Global Navigation Satellite System for location services with geofencing functionality

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Hardware Specifications

Mobile	4G/LTE (Cat M1), NB-IoT, 2G
CPU	Qualcomm, MIPS 24Kc, 650 MHz
Memory	16 MBytes Flash, 64 MBytes RAM
Powering option	16 pin terminal, 9-30 VDC
SIM	2 x Internal SIM holders (2FF)
Antenna connectors	1 x SMA for mobile, 1 x SMA for GPS
Ethernet	1 x 10/100 Ethernet port
GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS
Intputs/Outputs	On 16 pin socket: 3 x Digital input/Digital open collector output (configurable), 1 x Analog input
Serial	1 x RS232, 1 x RS485
Status LEDs	3 x Connection type, 3 x Signal strength, 2 x Ethernet, 1 x Power
Operating temperature	-40° C to 75° C
Housing	Aluminium housing with DIN rail mounting option
Dimensions (W x H x D)	83 x 25 x 74 mm
Weight	165 g

Software Specifications

Operating system	RutOS
Mobile features	Multiple PDN, Auto APN, Band lock, SIM switch, Operator black/white list, Data/SMS limits
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, FTP, SMTP, SSLv3, TLS 1.3, ARP, PPP, DHCP, Telnet
Monitoring and Management	WEB UI, CLI, SSH, SMS, TR-069, SNMP, JSON-RPC, MQTT, RMS
Connection monitoring	Ping Reboot, Wget reboot, Periodic Reboot, LCP and ICMP for link inspection
Cloud solutions	RMS, FOTA, Telenor, Azure IoT Hub, Cloud of Things, Cumulocity, ThingWorx
NTP	NTP Server, NTP Client, Sync with: External NTP server, GNSS, Mobile operator
GNSS	NMEA forwarding, AVL, Geofencing
Modbus	TCP slave, TCP master, RTU master, RTU gateway, Modbus over MQTT
Serial	Console, Over IP, Modem, NTRIP, Modbus
Administration	Multi user, Configuration profiles, Diagnostics, logs, Configuration backup

INTRODUCING

FMB120

TRINITY CERTIFIED & PLATFORM COMPATIBLE

FMB120 small and professional tracker with internal high gain GSM and GNSS antennas, which is able to collect device coordinates and other useful data and transfer them via GSM network to server. This device is perfectly suitable for applications where location acquirement of remote objects is needed: fleet management, car rental companies, taxi companies, public transport, logistics companies, personal cars and so on. FMB120 can perform tasks on remote objects, such as monitoring engine status, controlling truck's door etc.

Digital Input/Output for remote monitoring and control

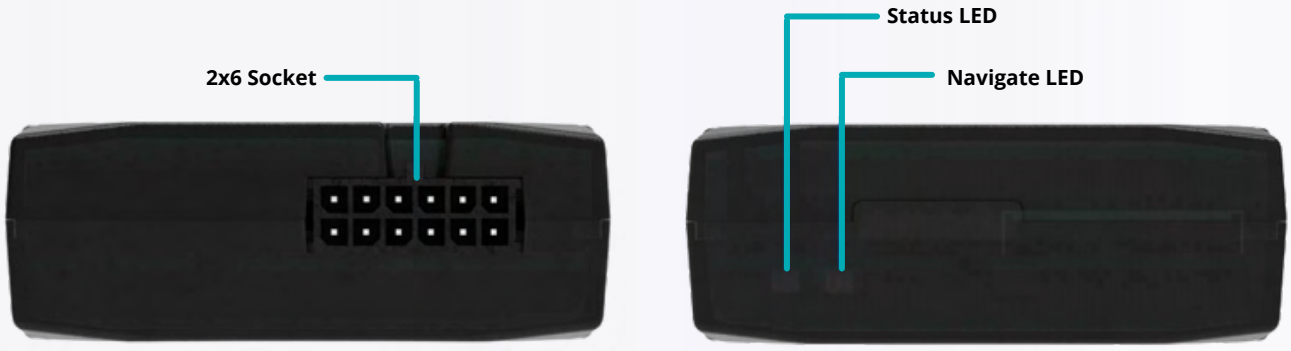
Allows device to work without external power source

1-Wire® interface to monitor temperature data and RFID/iButton tags

Bluetooth for external devices and Low Energy sensors

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Module

Name	Teltonika TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS 33
Receiver	channel
Tracking sensitivity	-165 dBM
Position accuracy	< 2.5 CEP
Velocity accuracy	< 0.1m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B SMS
Data support	(text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage protection 170
Back-up battery	mAh Li-Ion battery 3.7 V (0.63 Wh)

Power Consumption

At 12V < 6mA	Ultra Deep Sleep
At 12V < 8mA	Deep Sleep
At 12V < 11mA	Online Deep Sleep GPS
At 12V < 20mA	Sleep
At 12V < 35 mA	Nominal with no load

Bluetooth

Specification	4.0 + LE
Supported peripherals	Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support

Physical specification

Dimensions	65 x 56.6 x 20.6 mm (L x W x H)
Weight	55 g

Interface

Digital Inputs	3
Digital Outputs	2
Analog Inputs	2
CAN Adapter inputs	1
1-Wire	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM + eSIM
Memory	128MB internal flash memory

Operating environment

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP41
Battery charge temperature	-0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration) Configuration, Events,
SMS	DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	LLS (Analog), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)

Certification & Approvals

Regulatory	CE/RED, E-Mark, EAC, RoHS, REACH

INTRODUCING

FMB920

TRINITY CERTIFIED & PLATFORM COMPATIBLE

FMB920 is a slim design easily fitted tracker with GNSS/GPS internal antennas, flash memory, integrated backup battery, accelerometer, inputs/output and various BLE 4.0 connectivity sensors and beacons support. Thanks to a rich feature set, this EASY category tracker delivers unquestionable value for the GPS telematics service providers and end-users. The model has been designed for light commercial vehicles and passenger cars tracking in insurance telematics, rental and cars sharing, recovery of stolen cars, public safety and courier delivery services, taxi, corporate fleets, etc. The true bestseller FMB920 is compact, reliable, accurate, and affordable – the qualities appreciated by our clients throughout the world.

Bluetooth for external devices and Low Energy sensors

Crash detection functionality working according accelerometer data

Allows device to work without external power source

CAN bus

Allows reading CAN bus data from vehicle ECU via Bluetooth

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware Specifications

Technology	GSM/GPRS/GNSS/BLUETOOTH
GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
Receiver	33 channel
Tracking sensitivity	-165 dBM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B
Data support	SMS (text/data)
Input voltage range	6 - 30 V DC with overvoltage protection
Back-up battery	170 mAh Li-Ion battery (0.63 Wh)
Bluetooth	4.0 + LE Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support

Product Features

Sensors	Accelerometer
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
SMS	Configuration, Events, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	LLS (Analog), OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (OBDII dongle)
Bluetooth	4.0 + LE Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration)
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip

GPRS/GNSS TRACKER WITH FLEXIBLE INPUTS CONFIGURATION

FMB130 Tracker

TRINITY CERTIFIED & PLATFORM COMPATIBLE

FMB130 is an advanced tracker with internal GNSS, GSM antennas, configurable digital, analogue inputs and digital outputs, negative input, impulse inputs, Bluetooth connectivity and backup battery. FMB130 is designed for light vehicle tracking but is also suitable for advanced applications like logistics, delivery services, utility transport and more. It is excellent for refrigerated transport, because it has extended input/output set and 1-wire interface for temperature monitoring.

Bluetooth for external devices & low energy sensors

1-Wire® interface to monitor temperature data and RFID/iButton tags

No external power source required

Impulse inputs for fuel flow meters data reading

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Module

Name	Teltonika TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, QZSS, AGPS
Receiver	Tracking: 33
Tracking sensitivity	-165 dBM
Accuracy	< 3 m
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B
Data support	SMS (text/data)

Power

Input Voltage Range	10 - 30 V DC with overvoltage protection
Internal Back-Up Battery	170 mAh Li-Ion battery 3.7 V (0.63 Wh)

Bluetooth

Specification	4.0 + LE
Supported peripherals	Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support

Physical Specification

Dimensions	65 x 56,6 x 20,6 mm (L x W x H)
Weight	55 g

Operating Evironment

Operating temperature	-40 °C to +85 °C (without battery)
Storage temperature	-40 °C to +85 °C (without battery)
Operating humidity	5% to 95% non-condensing
Ingress protection rating	IP41
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

Interface

Digital & analog inputs	3
Negative inputs	1 (Digital Input 2)
Impulse inputs	2 (Digital Input 1, Digital Input 2)
Digital outputs	3
Analog Inputs	2
CAN adapter inputs	1
1-Wire	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM + eSIM
Memory	128MB internal flash memory

Features

Sensors	Accelerometer
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
SMS	Configuration, Events, DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time synchronization	GNSS, NITZ, NTP
Fuel monitoring	LLS (Analog), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)
Configuration & Updates	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration)
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip

INTRODUCING

FMB125

TRINITY CERTIFIED & PLATFORM COMPATIBLE

FMB125 small and professional tracker with internal high gain GSM and external GNSS antennas, which is able to collect device coordinates and other useful data and transfer them via GSM network to server. This device is perfectly suitable for applications where location acquirement of remote objects is needed: fleet management, car rental companies, taxi companies, public transport, logistics companies, personal cars and so on. FMB125 can perform tasks on remote objects, such as monitoring engine status, controlling truck's door etc.

External GNSS antenna extends mounting options

Dual SIM – significantly reduce roaming costs

1-Wire® interface to monitor temperature data and RFID/iButton tags

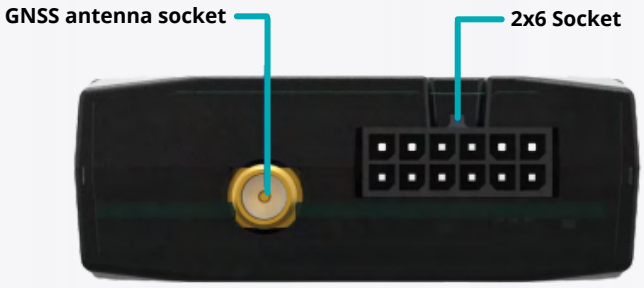
Allows device to work without external power source

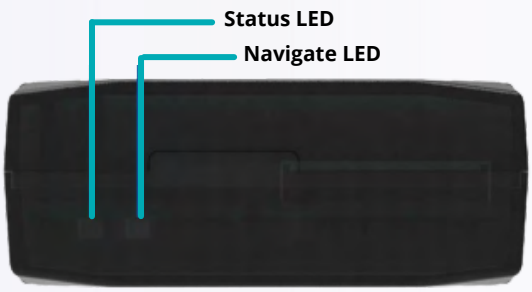
RS232/RS485 serial communication interfaces

Bluetooth for external devices and Low Energy sensors

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





Module

Name	Teltonika TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS 33
Receiver	channel
Tracking sensitivity	-165 dBM
Position accuracy	< 2.5 CEP
Velocity accuracy	< 0.1m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B SMS
Data support	(text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage protection 170
Internal Back-up battery	mAh Li-Ion battery 3.7 V (0.63 Wh)

Power Consumption

At 12V < 6mA	Ultra Deep Sleep
At 12V < 6.5mA	Deep Sleep
At 12V < 7mA	Online Deep Sleep GPS
At 12V < 12mA	Sleep
At 12V < 38 mA	Nominal with no load

Bluetooth

Specification	4.0 + LE
Supported peripherals	Temperature and Humidity sensor, Headset, OBDII dongle, Inateck Barcode Scanner, Universal BLE sensors support

Physical specification

Dimensions	65 x 56.6 x 20.6 mm (L x W x H) 52
Weight	g

INTRODUCING

FMC640

TRINITY CERTIFIED & PLATFORM COMPATIBLE

FMB640 is a GNSS, GSM terminal for professional applications. FMB640 is designed for complex solutions, where one device can do multiple tasks. FMB640 features like FMS CAN data (J1939), fuel CAN data (J1708), tachograph live data (K-line), remote tachograph file download, various third party RS232 or RS485 devices support and Dual-SIM will maximise your fleet efficiency. Terminal is suitable for applications like international logistics, refrigerated transport, agriculture, construction & mining, security & emergency services and even more.

Dual SIM – significantly reduce roaming costs

Allows device to work without external power source

CAN data reading from vehicles and specialised transport

Tachograph files and data remote download

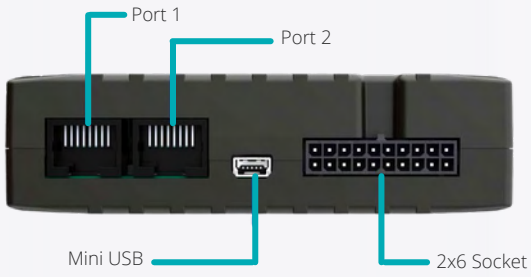
Accurate fuel level and temperature monitoring via LLS sensors

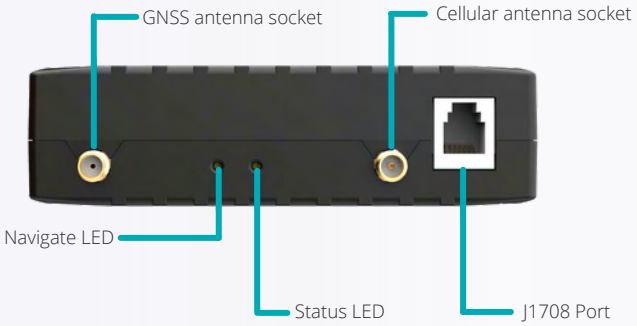
RS

RS232/RS485 serial communication interfaces

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS 33
Receiver	channel
Tracking sensitivity	-165 dBM
Position accuracy	< 2.5 CEP
Velocity accuracy	< 0.1m/s (within +/- 15% error)

Cellular

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps), GPRS Mobile Station Class B SMS
Data support	(text/data)

Power

Input voltage range	10 - 30 V DC with overvoltage protection 170
Back-up battery	mAh Li-Ion battery 3.7 V (0.63 Wh)

Features

Sensors	Accelerometer
Scenarios	Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter, DOUT Control Via Call, Excessive Idling detection, Immobilizer, iButton Read Notification, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip
Sleep modes	GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep
Configuration and firmware update	FOTA Web, FOTA, Teltonika Configurator (USB, Bluetooth), FMBT mobile application (Configuration) Configuration, Events,
SMS	DOUT control, Debug
GPRS commands	Configuration, DOUT control, Debug
Time Synchronization	GPS, NITZ, NTP
Fuel monitoring	LLS (Analog), LV-CAN200, ALL-CAN300, CAN-CONTROL, OBDII dongle
Ignition detection	Digital Input 1, Accelerometer, External Power Voltage, Engine RPM (CAN Adapters, OBDII dongle)

Interface

Digital Inputs	3
Digital Outputs	2
Analog Inputs	2
CAN Adapter inputs	1
1-Wire	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB
LED indication	2 status LED lights
SIM	Micro-SIM + eSIM
Memory	128MB internal flash memory

Operating Environment

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP41
Battery charge temperature	-0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

INTRODUCING

RUTXR1

TRINITY CERTIFIED & PLATFORM COMPATIBLE

RUTXR1 is our first-ever rack-mounted LTE Cat6 router with redundant power supplies and WAN interfaces, which can be conveniently placed in a server cabinet. It is equipped with dual SIM, USB, and Wave-2 802.11ac Dual Band WIFI. But what makes this product stand out from the rest of Teltonika Networks products are the SFP WAN and dedicated console ports. The unique feature set of this product allows using it as a primary product in a small or home office with LTE backup capabilities, powerful WiFi, and no need for an additional SFP to Ethernet converter. This feature-rich device is powered by RutOS and is a perfect choice, where a speedy and ultra-reliable connection is required (e.g. enterprise environment).

5 x Gigabit Ethernet ports

With auto failover, backup WAN and other switching scenarios

SFP port for long-range Fiber-optic communication

Compatible with Trinity Remote Management System

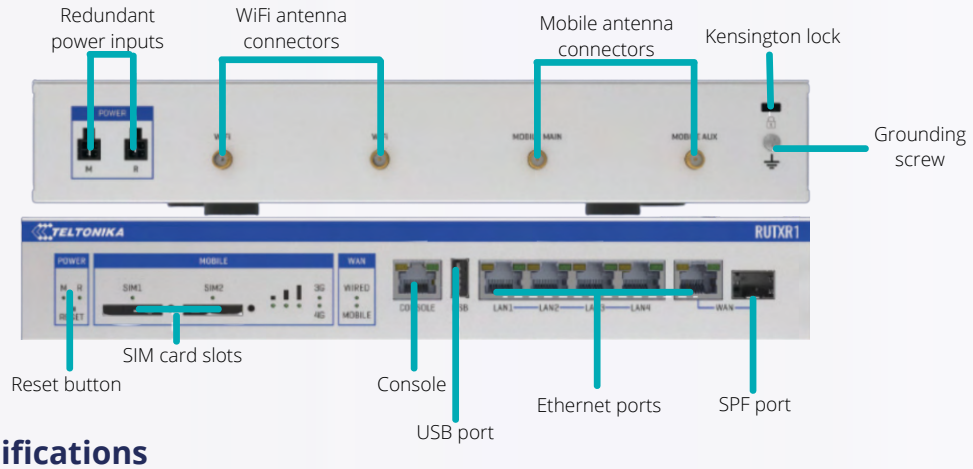
Wave-2 802.11ac Dual Band WIFI

3 x 1Gb/s

Cellular speeds up to 300Mbps with Carrier Aggregation

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Hardware Specifications

Mobile	4G (LTE) – Cat 6 DL up to 300 Mbps, UL up to 50Mbps; DC-HSDPA; HSUPA; WCDMA
CPU	Quad Core ARM Cortex A7 717 MHz CPU
Memory	256 MB SPI Flash, 256 MB of DDR3 RAM
Ethernet	4 x LAN ports 10/100/1000 Mbps, 1 x WAN port (can be used as LAN) 10/100/1000 Mbps
SFP	1 x SFP port for Optical interface
WiFi	802.11ac (WiFi 5) with data transmission rates up to 867 Mbps (Dual Band, MU-MIMO)
Power supply	Dual 9 - 50 VDC, 4 pin DC connectors
Connectors	2 x 4 pin DC, 5 x Ethernet, 1 x SFP, 2 x SMA for LTE, 2 x RP-SMA for WiFi, 1 x RJ45 console, 1 x USB, Grounding terminal
SIM	2 x external SIM holders
Status LEDs	2 x Power, 2 x SIM status, 2 x Mobile connection type, 3 x Mobile connection signal strength LEDs, 2 x WAN connection type, 4 x Ethernet status
Operating temperature	-40° C to 75° C
Housing	Full aluminium Rack Unit housing, 1U height
Dimensions (W x H x D)	272 mm x 123 mm x 43.66 mm

Software Specifications

Operating system	RutOS (OpenWrt based Linux OS)
SIM switch	2 SIM cards, auto-switch cases: data limit, no network, network denied, data connection fail
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SMTP, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet
Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPSec, H.232 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Unique networking features	VLAN, Mobile quota control, WEB Filter, Load Balancing, Network Backup, Auto Failover
Connection monitoring	Ping Reboot, Periodic Reboot, LCP and ICMP for link inspection. WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Authetication	Pre-shared key, digital certificates, X.509 certificates. Busybox shell, Lua, C, C++
Keep settings	Update FW without losing current configuration. SDK package with build environment provided.

INTRODUCING

RUT360

TRINITY CERTIFIED & PLATFORM COMPATIBLE

RUT360 is an updated version of our all-time best-seller RUT240. This compact industrial cellular router offers a possibility to connect to the internet using cellular, Wi-Fi, and wired networks. RUT360 is equipped with two Ethernet interfaces, 802.11 b/g/n WiFi, and 4G LTE Cat 6 cellular module, offering data speeds up to 300 Mbps. Unique programming, remote monitoring, and security features make RUT360 perfect for IoT and M2M applications, where secure and reliable connectivity is a must.

4G LTE Cat 6

Cellular speeds up to 300Mbps with Carrier Aggregation

802.11 b/g/n WiFi

Small size - easy integration anywhere

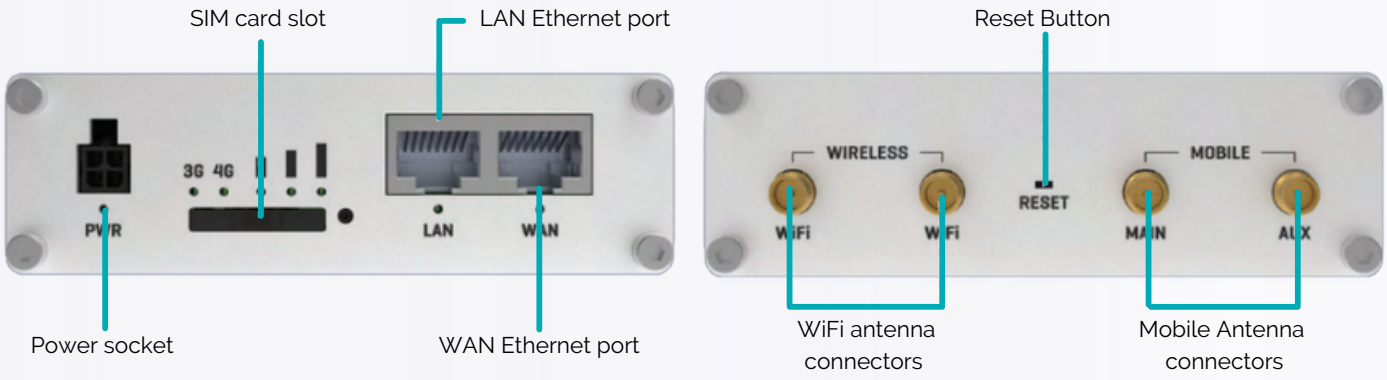
Firewall and numerous VPN services, including OpenVPN, IPsec, PPTP, L2TP & SSTP

Trinity Remote Management System compatible

Rugged aluminium housing

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



HARDWARE

Mobile	4G (LTE) – Cat 6 DL; DC-HSDPA; HSUPA; WCDMA
CPU	Qualcom MIPS 24Kc; 650 MHz
Memory	128 MB, DDR2 RAM
Storage	16 MB, SPI Flash (Optional up to 256 MB)
Ethernet	2 x 10/100 Ethernet ports: 1 x WAN (configurable as LAN), 1 x LAN
Power supply	9 – 30 VDC, 4 pin DC connector
Inputs/Outputs	1 x Digital Input, 1 x Digital Open Collector Output on power connector
Connectors	1 x 4 pin DC, 2 x Ethernet, 2 x Mobile SMA, 2 x WiFi RP-SMA
SIM	1 x external SIM holder
Status LEDs	2 x connection type status, 3 x connection strength, 2 x LAN status, 1 x Power
Operating temperature	-40 °C to 75 °C
Housing	Aluminium housing and panels
Dimensions	100 mm x 30 mm x 85 mm

SOFTWARE

Operating system	RutOS (OpenWrt based Linux OS)
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Network protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DHCP, DNS, HTTP, HTTPS, SSL v3, TLS, ARP, PPPoE, UPNP, SSH, Telnet, SNMP
Networking features	NAT, Static/Dynamic routing, Firewall, OpenVPN, IPsec, H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Unique networking features	VLAN, Load balancing, Mobile quota control, WEB Filter, Network Backup, Auto Failover
Connection monitoring	Ping Reboot, Periodic Reboot, Wget Reboot, LCP and ICMP for link inspection
Authetication	Pre-shared key, digital certificates, X.509 certificates
Keep settings	Update FW without losing current configuration
Monitoring & Management	WEB UI, SSH, SMS, SNMP, JSON-RPC, FOTA, RMS
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided

INTRODUCING

BLUE SLIM ID

TRINITY CERTIFIED & PLATFORM COMPATIBLE

Teltonika is always focused on innovation and constantly offers new solutions to customers. Latest addition of BLE beacons extends covered business cases. Ultra-small case is perfect for employees, passengers and authentication solutions. Bluetooth beacons are small signal transmitters with configurable signal strength and data send intervals. Beacon can work from one battery up to 2 years.

This vehicle tracker supports up to 100 beacons at a time (white list), up to 25 beacons in authorized list.

Very Long Range
(Up to 300m in open field)

Ultra Slim Format
(2.4mm)

Long Life Cycle
(Up to 2 years)

Compatible with Trinity Remote Management System

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Hardware Specifications

Battery	Lifecycle up to 2 years
Bluetooth	2,4 GHz - Bluetooth Low Energy 4.0/4.2
NFC	Supported
Dimensions (W x H x D)	ABS Material 56 x 30,6 x 2,4 mm - 2 housing 4 mm holes, spaced of 43 mm
Weight	6 g
Operating temperature	-20°C to +55°C
Transmission range	Up to 300 meters (open field)
Transmission period	0,1 to 10 second (programmable)

BLUETOOTH 4.0 LE MAGNET SENSOR

Blue COIN MAG

TRINITY CERTIFIED & PLATFORM COMPATIBLE

Extend device limits with new Bluetooth 4.0 LE magnet contact sensor! Bluetooth magnet sensors are small signal transmitters with configurable signal strength and data send intervals. The sensor uses advanced Bluetooth 4.0 LE technology to retrieve data over a long distance and can work from one battery up to 2.5 years.

Long transmission range, up to 200 meters (open field)

Long battery life time, up to 2.5 years

IP68

Robust industrial casing - IP68 waterproof

NFC

Easy configuration via NFC chipset

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Trinity Compatible Sensors - Advantages

Manage your sensors securley via a customized platform tailored to your business model.
Real-time visibility and remote managment of your entire IoT estate, including assets, sensors, devices and SIMs.
Set up custom alerts & workflows for critical 'in field' data.
Retrieve live data securley from a stable, highly advanced, and geographically redundant IOT platform.

Blue Coin Mag - Technical Data

Battery	Lifecycle up to 2.5 years
Bluetooth	2,4 GHz - Bluetooth Low Energy 4.0/4.2
NFC	Supported: Integrated NFC chipset
Dimensions	ø 36 mm base - Thickness 11.5 mm
Weight	13 g
Operating Temperature	-30°C to +70°C
Ingress Protection Rating	IP68 (Waterproof)
Transmission Range	Up to 200 meters (open field)
Transmission Period	0,1 to 10 second (programmable)
Regulatory	CE (Europe): EN 300 328/EN 300 330, EN 301 489, EN 62311, EN 62368; FCC (USA): FCC PART 15; ISED (Canada): RSS-247/ICES-003 RoHS certified

BLUETOOTH 4.0 LE TEMPERATURE SENSOR

Blue COIN T

TRINITY CERTIFIED & PLATFORM COMPATIBLE

Perfect monitoring solution for a wide use in the cold chain logistics, freezers, refrigerators and other temperature sensitive cases. Sensor uses advanced Bluetooth 4.0 LE technology to get data from long distance, it can work from internal battery up to 5 years! Collected temperature information of the surrounding environment is transferred to FMB device which has possibility to support up to four temperature sensors at the same time.

Long transmission range, up to 200 meters (open field)

Long battery life time, up to 5 years

IP68

Robust industrial casing - IP68 waterproof

NFC

Easy configuration via NFC chipset

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Trinity Compatible Sensors - Advantages

Manage your sensors securley via a customized platform tailored to your business model.
Real-time visibility and remote managment of your entire IoT estate, including assets, sensors, devices and SIMs.
Set up custom alerts & workflows for critical 'in field' data.
Retrieve live data securley from a stable, highly advanced, and geographically redundant IOT platform.

Blue Coin T - Technical Data

Battery	Lifecycle up to 5 years
Bluetooth	2,4 GHz - Bluetooth Low Energy 4.0/4.2
NFC	Supported: Integrated NFC chipset
Dimensions	ø 36 mm base - Thickness 11.5 mm
Weight	13 g
Operating Temperature	-30˚C to +70˚C
Ingress Protection Rating	IP68 (Waterproof)
Measuring Range	-40˚C to +85˚C
Accuracy	±0,25˚C from -0˚C to -65˚C, ±0.5˚C from -40˚C to 85˚C
Transmission Range	Up to 200 meters (open field)
Transmission Period	0,1 to 10 second (programmable)
Regulatory	CE (Europe): EN 300 328/EN 300 330, EN 301 489, EN 62311, EN 62368; FCC (USA): FCC PART 15; ISED (Canada): RSS-247/ICES-003 RoHS certified

BLUETOOTH 4.0 LTE IDENTIFICATION SENSOR

Blue COIN ID

TRINITY CERTIFIED & PLATFORM COMPATIBLE

Latest addition of BLE beacons extends covered business cases: now you can monitor assets, trailers and various equipment, simplify driver authentication solution. Additionally, beacons enable indoor tracking where GPS is not available. Bluetooth beacons are small signal transmitters with configurable signal strength and data send intervals. Beacon can work from one battery up to 5 years.

Long transmission range, up to 200 meters (open field)

Long battery life time, up to 5 years

IP68

Robust industrial casing - IP68 waterproof

NFC

Easy configuration via NFC chipset

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Trinity Compatible Sensors - Advantages

Manage your sensors securley via a customized platform tailored to your business model.
Real-time visibility and remote managment of your entire IoT estate, including assets, sensors, devices and SIMs.
Set up custom alerts & workflows for critical 'in field' data.
Retrieve live data securley from a stable, highly advanced, and geographically redundant IOT platform.

Blue Coin T - Technical Data

Battery	Lifecycle up to 5 years
Bluetooth	2,4 GHz - Bluetooth Low Energy 4.0/4.2
NFC	Supported: Integrated NFC chipset
Dimensions	36 mm base - Thickness 11.5 mm
Weight	13 g
Operating Temperature	-30˚C to +70˚C
Ingress Protection Rating	IP68 (Waterproof)
Transmission Range	Up to 200 meters (open field)
Transmission Period	0,1 to 10 second (programmable)
Regulatory	CE (Europe): EN 300 328/EN 300 330, EN 301 489, EN 62311, EN 62368 FCC (USA): FCC PART 15 ISED (Canada): RSS-247/ICES-003 RoHS certified

MobiloT Devices

TRINITY

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INTRODUCING

MOBIDRIVE

TRINITY CERTIFIED & PLATFORM COMPATIBLE

MobiDrive™ is a telematics box specially designed for the needs of insurance companies and fleet management specialists. Its 6 axis motion sensors offer integrated monitoring of driver behaviour, and crash and impact detection capabilities. Thanks to the flexibility of its Android™ Operating System, MobiDrive™is the first telematic box built directly around a 2G and 3G cellular chipset offering an Android™ interface allowing the embedding of multiple business applications that are easy to develop, integrate, update and maintain over the years. The use of a single processor for the management of the cellular communications and the business application(s), allows a better optimisation of the energy consumption and significantly improves the reliability of the telematics box compared to the usual modular approach. The unique mounting concept of MobiDrive™ allows professionals to harmonize their telematics fleet by using a single type of device with different supports perfectly adapted to each working environment.

- Android compatible
- 2G/ 3G Connection
- Embedded SIM

- Bluetooth telematics
- Compatible with Trinity Remote Management System
- Autonomy for 21 days

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Description

Software	OS: Android 4.4.2 Full compatibility with Accessor platform
Memory	Flash 512 MB RAM 256 MB
Sensors	6 axis motion sensors - 3D accelerometer and Gyroscope Tamper detection – hardware
Positioning	High Senitivity GPS/Glonass/Galileo, GPS/Beidou Time-To-First-Fix Hot start: 1s / Cold start: 24s
Power	Internal battery 2,600 mAh – 21 days autonomy – 2 hours charging time Charging input 3.5mm jack, 5v to 24v
Interfaces	Power ON/OFF button Low power indicator 3 colors LED – customizable threshold Network connection indicator 3 colors LED Buzzer
Connectivity	Cellular 2G 850/900/1800/1900 MHz, and 3G 850/900/1900/2100 MHz Embedded SIM: eSIM or 3FF SIM Bluetooth 4.2 low energy
Mechanical	Dimensions 74.5 mm x 64.5 mm x 23.6 mm Weight 150 gr Dustproof and waterproof IP54 Operating temperature -20°C / +70°C – overheat protection
Certifications	CE, ICASA, UN38.3, 2006/66/EC, IEC62133, MSDS, RoHS, WEEE FCC ready; Others: On Demand
Options	Windshield mounting support ① Cigarette lighter adapter to USB 5V/1A, USB to 3.5mm jack charging cable (5v-24v), 3m length ② Windshield solar charger ③

INTRODUCING

MobiGo

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The MobiGo is a shockproof, water resistant device which is easily connected to and used. It includes a large memory, dual SIM functions and a capacitative 4" touch screen. This lightweight device boasts an impressive camera, removable battery and includes a custom API for powerful Android apps. These features allow users to provide multiple financial services with easy development and maintenance.

Make payments safely

Pay by QR code

Compatible with Trinity Remote Management System

Pay by NSDT to make safe payments

Built in 'Know Your Customer' capabilites

Manage and control oin reral-time

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Operating System	Android 8.1 Go edition. SDK and custom API for powerful Android apps. Deployment tools. Application Lock-in Tools
Mobile Networks	GSM; GPRS; EDGE B2/B3/B5/B8; WCDMA; HSPA+B1/B2/B5/B8
NFC	ISO14443A&B, incl.Mifare Ultralight, Ultralight C and Classic. NXP Secure element
Connectors	Micro USB
CPU	1.3GHz Quad Core; Cortex A7
Display	Capacitive Touch Screen; 4" WVGA
Location	GPS; A-GPS
WiFi	IEEE 802.11 b/g/n
Camera	5MP Auto-Focus
Battery	1750mAh - 3.8V Li-ion; Removable
Card Reader	Dual SIM 2FF / Single SIM 2FF + Smart card 2FF ISO7816 Micro SD card
Bluetooth	4.2 Low energy
Weight	137g
Dimensions	129 x 65 x 11.5mm
Charger	Input:100 ~ 240V 50/60Hz 0.2A. Output: 5V 1A
Memory	4GB ROM + 512MB RAM
Operating Conditions	0℃-45℃; Drop up to 0.8m
Ingress Protection	IP54: Protection against water splashing and from dust ingress
Other	Lanyard. Shockproof case. Tempered glass

INTRODUCING

MobiGo+

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The MobiGo+ is a shockproof, water resistant device which is easily connected to and used. It includes a large memory, dual SIM functions and a capacitative 4" touch screen. This lightweight device boasts an impressive camera, removable battery and includes a custom API for powerful Android apps. These features allow users to provide multiple financial services with easy development and maintenance.

Memory: 1GB RAM, 8GB ROM

Custom API for powerful Android apps

Dual SIM

Built-in NFC feature

5MP Auto-Focus Camera

4" Touch Screen

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Operating System	Android 8.1 Go edition. SDK and custom API for powerful Android apps. Deployment tools. Application Lock-in Tools
Mobile Networks	GSM; GPRS; EDGE B2/B3/B5/B8; WCDMA; HSPA+B1/B2/B5/B8
NFC	ISO14443A&B, incl.Mifare Ultralight, Ultralight C and Classic. NXP Secure element
Connectors	Micro USB
CPU	1.3GHz Quad Core; Cortex A7
Display	Capacitive Touch Screen; 4" WVGA
Location	GPS; A-GPS
WiFi	IEEE 802.11 b/g/n
Camera	5MP Auto-Focus; White LED flash; Barcode/QR code scan
Battery	1750mAh - 3.8V Li-ion; Removable
Card Reader	Dual SIM 2FF / Single SIM 2FF + Smart card 2FF ISO7816 Micro SD card
Bluetooth	4.2 Low energy
Weight	137g
Dimensions	129 x 65 x 11.5mm
Charger	Input:100 ~ 240V 50/60Hz 0.2A. Output: 5V 1A
Memory	1GB RAM + 8 GB ROM; USB OTG Supported
Operating Conditions	0℃-45℃; Drop up to 0.8m
Ingress Protection	IP54: Protection against water splashing and from dust ingress
Other	Lanyard. Shockproof case. Tempered glass

INTRODUCING

MOBIGO 2

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The 4G full-screen terminal for a seamless PoS experience. The combination of a true NFC reader, high resolution cameras and efficient power management in a compact and stylish design. Take out the benefit from the latest generation of Android and their associated security features to protect your applications, your business and your investments.

Runs on AndroidTM 10 to assure you the best Google services.

The NFC function allows you to make instant payments.

Customisable Action key

In order to guarantee exclusively professional use, voice services are disabled on MobiGo 2 .

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Description

OS	Android 10 SDK and custom API, custom firmware
Networks	2G/3G/4G
Security	Hardware eFuse at chipset level Lock firmware with custom signature
Memory	2GB RAM + 16GB ROM Avg user ROM 10.6 GB
Wifi	IEEE 802.11 b/g/n - 2.4GHz IEEE 802.11 a/n - 5GHz
Connectors	USB type C, OTG 2.0
CPU	Mediatek MT8765 Quad Core Cortex A53 @ 1.3 GHz.
Bluetooth	Blue Tooth 5
Power	3 500mAh - 3.8V Li-ion, 2.8h charging time Input: 100-240V 0.5A - Output: 5V 2A
Display	Capacitive Touch Screen 5" FWVGA+ TN (480 x 960)
NFC	NXP chipset, ISO A4443 A&B, incl. Mifare Ultralight C and Classic, FeliCa
Dimensions and weight	170x 70 x 14.7 mm 200 g
Camera	Fr 8MP-FF/Bck 13MP-AF, White LED flash Barcode & QR Code reading
Location	GPS/Glonass?Beidou?QZSS
Operating conditions	Temp. -20°C / +60°C; Humidity < 75% IP54; Drop up to 0.8
Keys	3 Programmable Keys
Cards	Dual SIM 3FF, SAM 2FF ISO7816 Micro SD Card
Accessories	Shock proof silicone case

INTRODUCING

MOBIGO 2S

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The 4G full-screen terminal for a seamless PoS experience. Designed to meet the growing needs for reading barcodes and QR codes on the go, MobiGo2S can easily be integrated into any existing data management system.

- Mobile Wallet features via agent network Customer due diligence
- (KYC - Know Your Customer) Bar code reading and,
- reporting NFC tag reader

Runs on AndroidTM 10 to assure you the best Google services.

The NFC function allows you to make instant payments.

Barcode and QR scanner

In order to guarantee exclusively professional use, voice services are disabled on MobiGo 2 .

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Description

OS	Android 10 SDK and custom API, custom firmware
Networks	2G/3G/4G
Security	Hardware eFuse at chipset level Lock firmware with custom signature
Memory	2GB RAM + 16GB ROM Avg user ROM 10.6 GB
Wifi	IEEE 802.11 b/g/n - 2.4GHz IEEE 802.11 a/n - 5GHz
Connectors	USB type C, OTG 2.0
CPU	Mediatek MT8765 Quad Core Cortex A53 @ 1.3 GHz.
Bluetooth	Blue Tooth 5
Power	3 500mAh - 3.8V Li-ion, 2.8h charging time Input: 100-240V 0.5A - Output: 5V 2A
Display	Capacitive Touch Screen 5" FWVGA+ TN (480 x 960)
NFC	NXP chipset, ISO A4443 A&B, incl. Mifare Ultralight C and Classic, FeliCa
Dimensions and weight	170x 70 x 14.7 mm 212 g
Camera and scanner	Back 13MP-AF, White LED flash Barcode scanner 1D/2D & QR Code reading
Location	GPS/Glonass?Beidou?QZSS
Operating conditions	Temp. -20°C / +60°C; Humidity < 75% IP54; Drop up to 0.8
Keys	3 Programmable Keys
Cards	Dual SIM 3FF, SAM 2FF ISO7816 Micro SD Card
Accessories	Shock proof silicone case

INTRODUCING

MOBIGO 2F

TRINITY CERTIFIED & PLATFORM COMPATIBLE

A mobile PoS with a scanner dedicated for professional services.

- Mobile Wallet features via agent network
- Customer due diligence (KYC - Know Your Customer)
- Biometric fingerprint reading
- NFC tag reader

Runs on AndroidTM 10 to assure you the best Google services.

The NFC function allows you to make instant payments.

Includes biometric fingerprint by IDEMIA in order to allow a secured identification.

In order to guarantee exclusively professional use, voice services are disabled on MobiGo 2F .

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Description

OS	Android 10 Go edition SDK and custome API for powerful Android apps Deployment Tools Application Lock-in Tools
Camera	13MP Rear + 8MP Front Focus: Auto Rear - Fix Front White LED Flash
Mobile Networks	GSM, GPRS, EDGE : B2/B3/B5/B8 WCDMA, HSPA+ : B1/B2/B5/B8 LTE Cat 4. : B1/B3/B7/B8/B20 FDD B38/B40/B41TDD
Operating Conditions	0° C to 45° C Drop up to 1.2m
Accessories	Silicon Case
CPU	1.3HGZ Quad Core Cortex A53
Battery	3500mAh 3.8V Li-Ion Removable
Wifi	IEEE 802.11 a/b/g/n
Ingress Protection	IP54: Protection against water splashing and dust ingress
Connectors	USB type C OTG supported
Memory	2GBRAM + 16GB ROM
Card Reader	SIM: Dual SIM 3FF + 3FF SAM: 2FF ISO7816
Bluetooth	5.0
Dimensions	170*70*14.7mm TBC
Charger	Input: 100 - 240V 50/60Hz 0.5A Output: 5V 2A
Display	4.95" FWVGA+
Location	GPS and A - GPS
NFC	ISO14443A&B, incl. Mifare Ultralight, Ultralight C and Classic
Weight	TBC

INTRODUCING

MobiPrint3+

TRINITY CERTIFIED & PLATFORM COMPATIBLE

MobiPrint 3+ is a connected POS terminal with a dual keypad (physical and virtual), a camera and contactless capability. Other standout features include its high power charger, a numerical 12 keys Keypad with 4 programmable keys and a state of the art printer. These features allow users to provide multiple financial services with easy development and maintenance.

Memory: 1GB RAM, 8GB ROM

3G with Edge and Wifi failover

Dual SIM and SAM

3.5" Touch Screen

5MP Auto-Focus Camera

Extremely fast printing: 90mm/second

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Operating System	Android 8.1 Go edition. SDK and custom API for powerful Android apps. Deployment tools. Application Lock-in Tools
Printer	Up to 90mm/s - 18/lined/s; Paper width 58mm; Paper roll diameter: 40mm. ASCII, Unicode, French, Spanish, Arabic, Hindi, Cyrillic, Thai, Turkish, Greek
Mobile Networks	GSM; GPRS; EDGE B2/B3/B5/B8; WCDMA; HSPA+B1/B2/B5/B8
NFC	ISO14443A&B, incl.Mifare Ultralight, Ultralight C and Classic. NXP Secure element
Connectors	Micro USB; Audio Jack 3.5mm; Jack DC-in
CPU	1.3GHz Quad Core; Cortex A7
Display	Capacitive Touch Screen; 3.5" QVGA
Location	GPS; A-GPS
WiFi	IEEE 802.11 b/g/n
Camera	5MP Auto-Focus; White LED flash; Barcode/QR code scan
Battery	2600 mAh - 7.2V Li-ion; Removable
Card Reader	Dual SIM 2FF; Smart card 2FF ISO7816
Bluetooth	4.2 Low energy
Weight	470g
Dimensions	183 x 76 x 65mm
Adapter	Input:110-230V 1.5A - Multi plug; Output: 9V 5A
Memory	1GB RAM + 8 GB ROM; USB OTG Supported
Operating Conditions	0℃-45℃; Drop up to 0.8m
Keys	Numerical 12 keys Keypad. 4 Programmable keys
Other	*External antenna connector. Smart Card1FF ISO7816

INTRODUCING

MobiPrint E

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The MobiPrint E is an essential mobile PoS for any business. With a 2.4" QVGA screen, thermal printing and an easily operated keyboard, the MobiPrint E is reliable and robust. It boasts dual SIM functionality, GPS tracking, bluetooth options and a USB port, suited for all operations. The MobiPrint range operates in urban and non-urban areas, combining real time wireless transactions and embedded printing capabilities to allow enterprises, service companies and agents to run their application and services in the most optimized way.

My OS
Andriod™ 10 based

Wifi avaliablility

Dual SIM function

High performing GPS tracker

Battery: 2500mAh, 7.6V

Thermal printer

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Operating System	MyOS Android™ 10. 4G capabilities
Printer	Thermal printing
Memory	512MB RAM + 4GB ROM
Connectors	USB port
Display	2.4" QVGA
Keys	Easily programmable keyboard
Location	GPS
Battery	2500 mAh - 7.6V
Card Reader	Dual SIM
Bluetooth	BT/ BLE
Wifi	Wifi operational

The essential PoS for your business


Top up


Ticketing


Betting


Parking


Mobility

INTRODUCING

MOBIPRINT 4+

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The 4G full-screen terminal for a seamless PoS experience.

- High power charger
- Extremely fast printer
- Large and comfortable touch screen
- Customizable experience with advanced API

Runs on AndroidTM 10 to assure you the best Google services.

The NFC function allows you to make instant payments.

Includes biometric fingerprint by IDEMIA in order to allow a secured identification.

In order to guarantee exclusively professional use, voice services are disabled on MobiGo 2F .

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Description

OS	Android 10 SDK and custom API for powerful Android apps Deployment Tools Applicatipn Lock-in Tools	
Camera	13MP Auto-Focus White LED ash Barcode/QR Code scan	
Mobile Networks	GSM, GPRS, EDGE B2/B3/B5/B8 WCDMA, HSPA+ B1/B2/B5/B8 LTE Cat 4 B1/B3/B7/B8/B20 FDD B40 TDD	
Printer	Up to 100mm/s Paper width 58mm Paper roll diameter 40mm	ASCII, Unicode, French, Spanish, Arabic, Hindi, Thai, Turkish,Greek
Others	Docking and charging station Lanyard compliant Secure mounting solution	
CPU	1.3HGZ Quad Core Cortex A7	
Battery	2600mAh - 7.2V Li-ion	
Wifi	IEEE 802.11 b/g/n - 2.4GHz IEEE 802.11 a/n - 5GHz	
Operating Conditions	-10°C - 42°C Drop up to 0.8m	
Connectors	USB type C	
Memory	2GB RAM + 16GB ROM USB OTG supported	
Card Reader	Dual SIM 4FF + 4FF Smart card 2FF ISO7816 Micro SD card	
Bluetooth	5.0	
Dimensions	195*84*55mm TBC	
Charger	Input: 110~230V 1.5A - Multi plug Output: 9V 5A	
Display	Capacitive Touch Screen 5.45" HD+IPS	
Location	GPS and A - GPS	
NFC	ISOA4443A&B, incl. Mifare Ultralight, Ultralight C and Classic FeliCa	
Weight	450g TBC	

Sierra Wireless Devices

TRINITY

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INTRODUCING

AirLink LX60

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The AirLink® LX60 is designed for Commercial and Enterprise LTE network connectivity. It provides purpose-built, secure, reliable, managed Cellular LTE networking, Dual Gigabit Ethernet and serial ports and is available with optional Wi-Fi + GNSS and rated for shock, vibration and vehicle power supplies. The LX60 comes in LTE Cat 4 regional variants, and a Global LPWA (Low-Power Wide Area) variant offering LTE-M/NB-IoT for applications where low data rates, enhanced cellular coverage and global deployment is required.

LTE cat 4
Cellular LTE networking

Dual band 2.4/5Gh WiFi

Remote authentication & secure firmware update

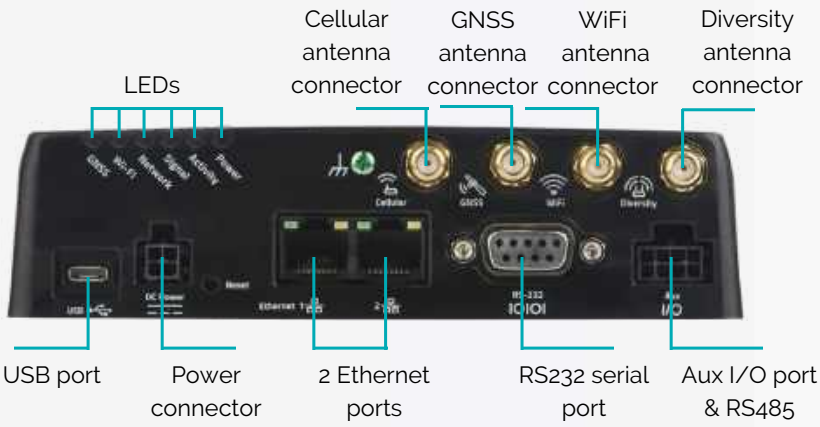
RS232 port

5 Configurable I/O pins

RutOS
Precision Geo-Location via GNSS & Intertial Navitation System

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Technical Specifications

Weight	250g
Serial	TCP/UDP PAD Mode. Modbus (ASCII, RTU, Variable). PPP. DNP3 Interoperability
LAN (Ethernet/USB)	DHCP Server. IP Passthrough. VLAN. Host Interface Watchdog. PPPoE
Dimensions	146 mm x 42 mm x 100 mm (106 mm including connectors). 5.74 in x 1.65 in x 3.93 in (4.17 in including connectors)
VPN	IPsec, GRE, and OpenVPN Client. Up to 5 concurrent tunnels. Split Tunnel. Dead Peer Detection (DPD)
Network and Routing	Network Address Translation (NAT). Port Forwarding. NEMO/DMNR. VRRP. Reliable Static Route. Ethernet WAN. Verizon PNTM. IPv6 Gateway. Policy Routing. Dynamic DNS
Security	Remote Authentication (LDAP, RADIUS, TACACS+) DMZ. Inbound and Outbound Port filtering. Inbound and Outbound Trusted IP. MAC Address Filtering. PCI compatible. Secure Firmware Update
Satelite Navigation	Dedicated GNSS Receiver supporting GPS, GLONASS,. BeiDou, Galileo. Tracking Sensitivity: -162 dBm. Accuracy: < 1.5m (50%), < 3.15m (95%). Acquisition Time: 1s Hot Start. Reports: NMEA 0183 V3.0, TAIP, RAP, XORA. Multiple Redundant Servers. Reliable Store and Forward
Power	Input Voltage: 7 to 36 VDC. Low voltage disconnect to prevent battery drain. Built-in protection against voltage transients including 5. VDC engine cranking. Ignition Sense with time delay shutdown
Environmental	Operating Temperature: -30˚C to +65˚C / -22˚F to +149˚F Storage Temperature: -40˚C to +85˚C / -40˚F to +185˚F Humidity: 90% RH @ 60˚C Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP20 rated ingress protection
Input/Output	Configurable I/O (5 pins total). 5 Digital Inputs: ON Voltage: 2.7 to 36 VDC. 1 Digital Open Collector Output > sinking 300 mA. 3 Analog Inputs: 0.5-5/0.5-10 VDC (range selectable) Configurable Pull-ups for dry contact input
WiFi (Optional)	Dual Band 2.4/5GHz Wi-Fi. 802.11 b/g/n/ac (Wave2 Client Mode). Support for 10 clients, WPA2 Enterprise. Output power 16dBm. Access Point or Client Mode (Wi-Fi as WAN) Single SSID Support. Captive Portal
Host Interfaces	Gi2 Gigabit RJ-45 Ethernet ports. RS-232 serial port (DB-9). USB 2.0 Micro-B Connector. 3 SMA antenna connectors (cellular, diversity, GNSS). 1 RP SMA antenna connector (1x1 MIMO Wi-Fi) Active GNSS antenna support. Aux Port (RS-485/GPIO)
Router Management Interfaces	Local web user interface. AT Command Line Interface (Telnet/SSH/Serial) SNMP. SMS Commands
Application Framework	ALEOS Application Framework (AAF). LUA Scripting Language
Industry Certifications	Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950. Vehicle Usage: ISO7637-2, SAE J1455 (Shock, Vibration,Electrical) Environmental: RoHS2, REACH, WEEE Environmental: RoHS2, REACH, WEEE

INTRODUCING

AirLink MP70

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The AirLink® MP70 is a high performance, LTE-Advanced vehicle router developed specifically for mission critical applications in public safety, transit and field services. Offering high power, long range Gigabit Wi-Fi and Gigabit Ethernet, and up to 300 Mbps downlink speeds over LTE-Advanced, the AirLink MP70 unites the fleet with the enterprise network and enables multiple field applications to work simultaneously, further and faster from the vehicle than ever before. Purpose built for the vehicle, the MP70 delivers superior reliability and uninterrupted operation in harsh mobile environments..

LTE Cat 6

LTE-Advanced WAN (up to 600mps downlink speed)

High power Wi-Fi with Vehicle Area Network (VAN)

Dual-SIM with auto Failover. Backup WAN and other SW features

4 x 1Gb/s

Gigabit Ethernet with speeds up to 1000 Mbps

I/O

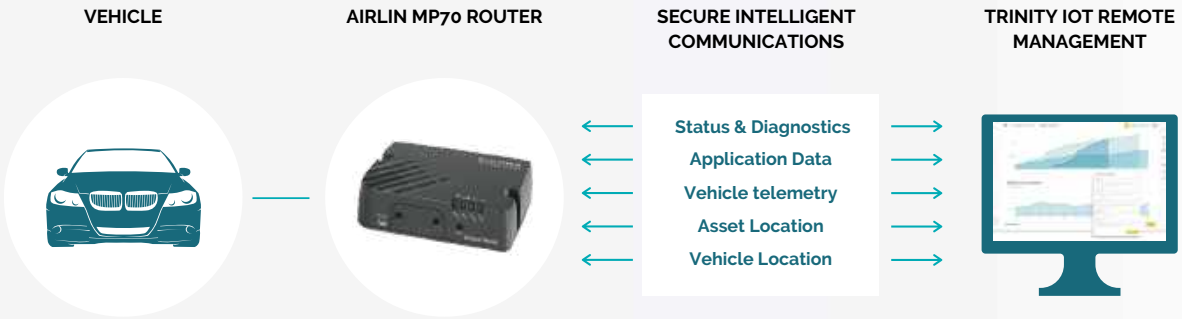
5 Configurable I/O pins

RutOS

Precision Geo-Location via GNSS & Intertial Navitation System

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Technical Specifications

Weight	0.76kg / 1.68 lb
Serial	TCP/UDP PAD Mode; Modbus (ASCII, RTU, Variable); PPP; DNP3 Interoperability
LAN (Ethernet/USB)	DHCP Server; IP Passthrough; ;VLAN; Host Interface Watchdog; PPPoE
Dimensions	190mm x 45mm x 105mm (112mm including connectors); 7.5in x 1.75 in x 4.1 in (4.4 in including connectors)
VPN	IPsec, GRE, and OpenVPN Client; Up to 5 concurrent tunnels; Split Tunnel; Dead Peer Detection (DPD); Remote Subnets
Network and Routing	Network Address Translation (NAT; Port Forwarding; Host Port Routing; NEMO/DMNR; VRRP; Reliable Static Route; Dynamic DNS
Security	Remote Authentication (LDAP, RADIUS, TACACS+); DMZ;Inbound and Outbound Port filtering; Inbound and Outbound Trusted IP; MAC Address Filtering; PCI compatible Secure Firmware Update
Satelite Navigation	Dedicated GNSS Receiver supporting GPS, GLONASS, BeiDou, Galileo; -162 dBm tracking sensitivity; Multiple Redundant Servers; Reliable Store and Forward; Inertial Navigation Sensors (Accelerometer and Gyro); NMEA 0183 V3.0, TAIP, RAP, XORA reports
Power	Input Voltage: 7 to 36 VDC; Low voltage disconnect to prevent battery drain; Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dump Ignition Sense with time delay shutdown
Environmental	Operating Temperature: -30˚C to +70˚C / -22˚F to +158˚F Storage Temperature: -40˚C to +85˚C / -40˚F to +185˚F Humidity: 90% RH @ 60˚C Military Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP64 rated ingress protection
Input/Output	Configurable I/O (5 pins total): 5 Digital Inputs: ON Voltage: 2.7 to 36 VDC; 1 Digital Open Collector Output > sinking 500 mA; 3 Analog Inputs: 0.5-36 VDC; Configurable Pull-ups for dry contact input
WiFi (Optional)	Dual Band 2.4/5GHz Wi-Fi; 802.11 b/g/n/ac with support for 128 clients; WPA2 Enterprise; High output power 21 dBm (per chan); 3x3 MIMO (Reverse Polarity SMA Connectors); Simultaneous AP/Client Mode (2.4 GHz); WiFi as WAN Mode
Host Interfaces	Gigabit 4-Port Ethernet; RS-232 serial port (DB-9); USB 2.0 Micro-B Connector 6 SMA antenna connectors (cellular, diversity, GNSS, 3x3 Wi-Fi); Active GNSS antenna support
Router Management Interfaces	Local web user interface; AT Command Line Interface (Telnet/SSH/Serial); SNMP SMS Commands
Application Framework	ALEOS Application Framework (AAF); LUA Scripting Language
Industry Certifications	Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950; Vehicle Usage: E-Mark (UN ECE Regulation 10.04); ISO7637-2, SAE J1455 (Shock, Vibration, Electrical); Environmental: RoHS2, REACH, WEEE

INTRODUCING

AirLink RV50X

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The AirLink RV50X is the industry's lowest power and most rugged LTE gateway. The device supports an extensive range of LTE bands worldwide, and its LTE- Advanced capabilities deliver up to 300 Mbps downlink speeds and provides fallback to 3G networks in LTE limited areas. The RV50X provides real-time remote connectivity for SCADA, distribution management systems and metering and has the lowest power consumption available on the market.

LTE Cat 6

LTE cat 6 with speeds up to 300 Mbps

Dual SIM functionality

Network connectivity via Ethernet, Serial and USB

VPN

Supports up to 5 VPN tunnels

RS-232 serial port

GPS for tracking equipment

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Serial	TCP/UDP PAD Mode. Modbus (ASCII, RTU, Variable) PPPDNP3 Interoperability
LAN (Ethernet/USB)	DNS, DNS Proxy DHCP Server IP Passthrough VLANHost Interface Watchdog PPPoE
Dimensions	119 mm x 34 mm x 85 mm (94 mm including connectors) 4.69 in x 1.34 in x 3.35 in (3.70 in including connectors)
VPN	IPsec, GRE, and OpenVPN Client. Up to 5 concurrent tunnels. Split Tunnel. Dead Peer Detection (DPD). Multiple Subnets
Network and Routing	Network Address Translation (NAT) Port Forwarding. Host Port Routing. NEMO/DMNR. VRRP. Reliable Static Route. Dynamic DNS. Policy Routing. Verizon ANTM. IPv6 Gateway
Security	Remote Authentication (LDAP, RADIUS, TACACS+) DM. Inbound and Outbound Port filtering. Inbound and. Outbound Trusted IP. MAC Address Filtering. PCI compatible
Satelite Navigation	12 Channel GPS and GLONASS Receiver Acquisition Time: 1 s Hot Start Accuracy: <2 m (50%), <5 m (90%) Tracking Sensitivity: -145 dBmReports: NMEA 0183 V3.0, TAIP, RAP, XORA Multiple Redundant Servers. Reliable Store and Forward
Power	Input Voltage: 7 to 36 VDC. LTE Idle Power: 900mW (75 mA @ 12VDC)Standby Mode Power: 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer. Low voltage disconnect to prevent battery drain. Built-in protection against voltage transients including 5 VDC engine cranking and +200 VDC load dumpIgnition Sense with time delay shutdown. Configurable features and ports to optimize power consumption
Environmental	Operating Temperature: -40˚C to +70˚C / -40˚F to +158˚F Storage Temperature: -40˚C to +85˚C / -40˚F to +185˚F Humidity: 90% RH @ 60˚CMilitary Spec MIL-STD-810G conformance to shock, vibration, thermal shock, and humidity IP64 rated ingress protection
Input/Output	Configurable I/O pin on power connector Digital Input ON Voltage: 2.7 to 36 VDC. Configurable Pull-up for dry contact input Digital Open Collector Output > sinking 500 mA Analog Input: 0.5-36 VDC
Events Engine	Custom event triggers and reports Configurable interface, no programmingEvent Types: Digital Input, Network Parameters, Data Usage, Timer, Power, Device Temperature and Voltage Report Types: RAP, SMS, Email, SNMP Trap, TCP (Binary, XML, CSV)Event Actions: Drive Relay Output
Host Interfaces	10/100/1000 Ethernet (RJ45). RS-232 serial port (DB-9). USB 2.0 Micro-B Connector. 3 SMA antenna connectors (primary, diversity, GPS) Active GPS antenna support
Gateway Management Interfaces	ALMS Local web user interfaceAT Command Line Interface (Telnet/SSH/Serial) SMS Commands. SNMP
Application Framework	ALEOS Application Framework (AAF). LUA Scripting Language. Eclipse-based IDE Integrated with AirVantage®. Dual-Core Processing
Industry Certifications	Safety: IECEE Certification Bodies Scheme (CB Scheme), UL 60950 Vehicle Usage: E-Mark (UN ECE Regulation 10.04), ISO7637-2, SAE J1455 (Shock & Vibration)Hazardous. Environments: Class 1 Div 2 Environmental: RoHS, REACH, WEEE

Maestro (Lantronix) Devices

TRINITY

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INTRODUCING

Maestro E210

TRINITY CERTIFIED & PLATFORM COMPATIBLE

Cost-effective, rugged LTE routers with WAN, LAN, WiFi and serial connectivity, the E210 Series of M2M routers is designed for mission-critical industrial applications. With LTE cat4, LTE cat1 and dual mode LTE M-1/NB-IoT the device is resiliant and reliable. The E210 also features state-of-the-art load balancing, multiple VPN tunnelling schemes including IPsec, cellular /WAN and a Wi-Fi failover scheme.

LTE cat4, LTE cat1 and dual mode

Two digital I/Os

RS-232 Port

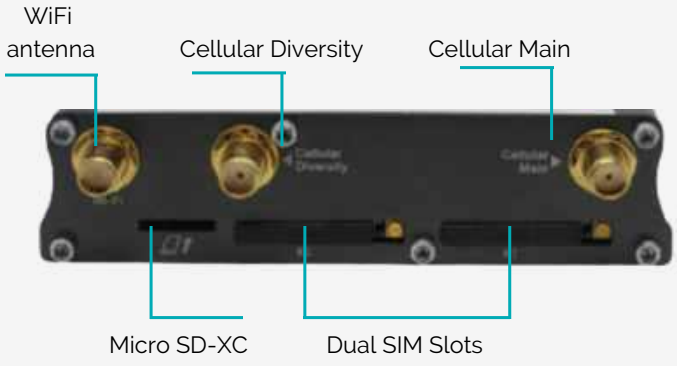
Trinity remote management system compatible

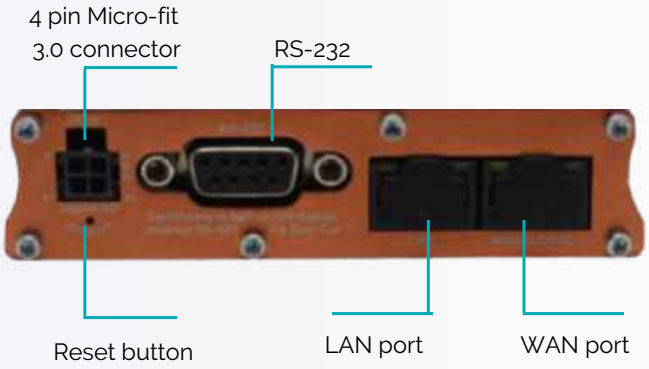
Dual SIM

Ethernet, Cellular and Wi-Fi configurable

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





Hardware

Weight	150g
CPU	MIPS32□ 24KEcä CPU running at 580 MHz. Built-in 64 KB [resp. 32 KB] instruction [resp. data] cache
Memory	32MB Flash. 128MBDDR$_2$ SDRAM
Power supply	8 V dc ~ 32 V dc with slow start. 4-pin, Micro-FitTM 3.0 header
Inputs/Outputs	Two isolated digital I/Os; via the lower row of the same header. INPUT:0Vdc~1Vdc→ZERO;1.4 V~36Vdc→ONE. OUTPUT: open collector; 100 mA max.; 36 V dc max.
RS232 Port	Full implementation; via a 9-pin sub-D connector
SIM	Dual SIM / Single standby ("DSSS"); via two mini-SIM held in trays
WiFi	IEEE 802.11b/g/n; via an RP-SMA antenna connector
Operating temperature	-20 °C ~ +60 °C
Housing	Brushed aluminium alloy
Dimensions	92.5 x 57.2 x 22.5 mm without connectors
Ethernet	One LAN port and one WAN port, user-reconfigurable as second LAN port; via RJ-45 connectors fitted with two LEDs
Status LEDs	Seven as (i) green for power; blue for (ii) SIM; (iii) Wi-Fi; amber for (iv) Activity; (v) Network; (vi) Signal; (vii) red for alert

Software

Connection monitoring	Network connectivity watchdog (configurable), internal application watchdog
Security	Zone-based firewall, VLAN, DMZ, HTTPS local and remote connection, SIM PIN
Monitoring and Managment	Trinity IoT Platform
Redundancy	Ethernet, Cellular, Wi-Fi – configurable as failover or load balancing
VPN	PPTP client, L2TP, OpenVPN client / server / passthrough, GRE, IPsec
Location services	Concurrent GPS and GLONASS (E215G, E213G); IZatTM gen. 8C gpsOne (E214G, E218G); via a dedicated SMA antenna connector
Routing	DHCP, static routing, port forwarding, traffic routing, static /dynamic DNS, DNS proxy, NAT, STP
Network Protocols	Web-based user interface, setup wizard, console log viewer, save / load configuration, NTP, SMS / OTA remote configuration, TR-069 capable

INTRODUCING

Maestro E220

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The E220 series of M2M routers is designed for mission-critical enterprise applications with 3G and LTE and with WAN, LAN, Wi-Fi and serial connectivity. Other features include an RS-485 operation to provide seamless connectivity, multiple tunnelling schemes to secure your data, an advanced failover and state-of-the-art load balancing to spread your data traic seamlessly.

3G and LTE

2 isolated digital I/Os

Dual SIM

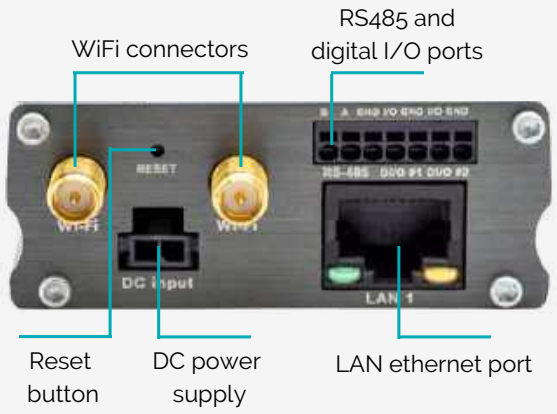
Trinity remote management system compatible

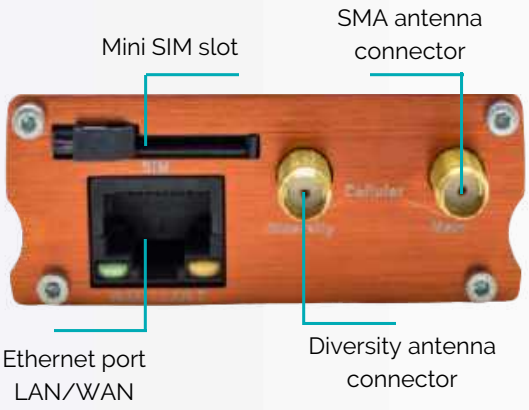
RS-485 port

Ethernet, Cellular and Wi-Fi configurable

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





Hardware

Weight	approx. 165g
CPU	MIPS32® 24KEc™CPURunningat580MHz. Built-in 64 KB [resp. 32 KB] instruction [resp. data] cache
Memory	Either 32 MB (E225 Lite models) or 64 MB (all other models Flash.)Either 64 MB (E225 Lite models) or 128 MB (all other models) SDRAM
Power supply	10.8 V dc ~ 60 V dc
Inouts/Outputs	Two isolated digital I/Os with common ground; via the three leftmost pins of an 8-pin, 2.5 mm pitch, plug-less, COMBICON header
RS485 Port	6 kV- (contact) and 8 kV- (air) isolated, either half-duplex (factory setting) or full-duplex (user-selectable via a slide switch), operation
SIM	the standard mini-SIM holder. Dual SIM / Single standby (“DSSS”) operation in the latter case
WiFi	Client or Access point (approx. 40-user), multiple SSID, WEP, WPA, WPA-PSK / WPA2-PSK security modes
Operating temperature	-20 °C ~ +60 °C (E225 Lite models) or -30 °C ~ +70 °C (all other models)
Housing	Brushed aluminium alloy
Dimensions	61.25mm x 85.75mm x 24.6mm without connectors
Mobile	3G, LTE
Ethernet	One LAN port and one WAN port, user-reconfigurable as second LAN port; via RJ-45 headers fitted with two LEDs
Status LEDs	Six as green for (i) POWER; blue for (ii) Wi-Fi; amber for (iii) Activity;(iv) Network; (v) Signal; red for (vi) ALERT

Software

Connection monitoring	Network connectivity watchdog (configurable), internal application watchdog
Security	Zone-based firewall, VLAN, DMZ, HTTPS local and remote connection, SIM PIN
Monitoring and Managment	Trinity IoT Platform
Redundancy	Ethernet, Cellular, Wi-Fi – configurable as failover or load balancing
VPN	PPTP client, L2TP, OpenVPN client / server / passthrough, GRE, IPsec
Location services	via an SMA antenna connector, either dedicated (E225 models) orshared with Diversity (all other models)
Routing	DHCP, static routing, port forwarding, traffic routing, static / dynamic DNS, DNS proxy, NAT, STP
Network Protocols	Web-based user interface, setup wizard, console log viewer, save / load configuration, NTP, SMS / OTA remote configuration, TR-069- capable

INTRODUCING

Maestro E215

TRINITY APPROVED & SMART™ COMPATIBLE

With high-speed 3G/HDSPA serial connectivity, Maestro E215 is designed for IoT applications that require faultless connectivity, including industrial automatisation, point-of-sale payments, infrastucture and transportation . The robust industrial router provides state-of-the-art load balancing and multiple VPN tunneling schemes, such as IPsec, cellular / WAN / Wi-Fi failover scheme.

3G

3G with 2G, Ethermet and WiFi failover

RS232 Interface for point to point connection

Wireless Access Point with Hotspot functionality

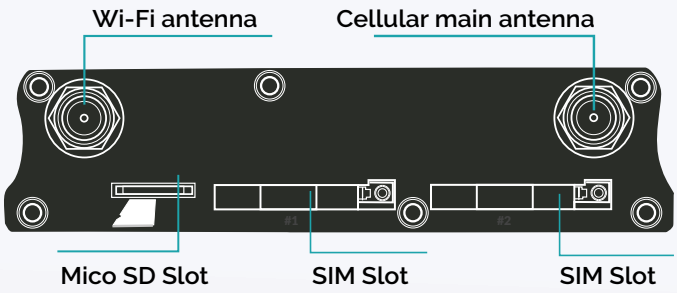
Dual SIM – significantly reduce roaming costs

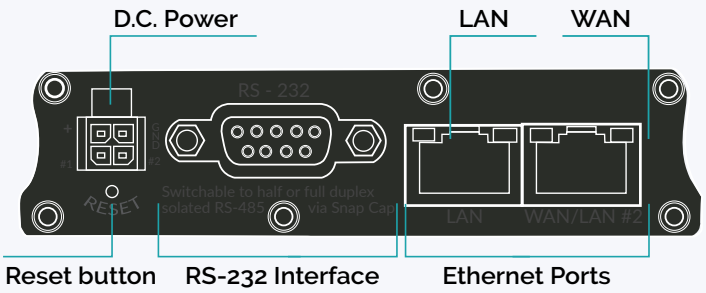
1X Ethernet port (LAN / WAN)

Micro SD card external storage

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





Hardware

Weight	Approx. 150
CPU	MIPS32â 24KEcä, 580 MHz
Memory	32 MB Flash ; 128 DDR2 SDRAM
Power supply	8 VDC - 32 VDC with Slow Start; 4-pin, Micro-Fit™ 3.0 header
Inputs/Outputs	Two isolated digital I/Os; via the lower row of the same header
RS232 Port	Full implementation; via a 9-pin sub-D header
SIM	Dual SIM / Single standby ("DSSS"); via two mini-SIM held in trays
WiFi	1T1R Wi-Fi 4; via an RP-SMA antenna connector
Operating temperature	-20 ˚C +60 ˚C
Housing	Brushed aluminium alloy
Dimensions	92.5x 57.2x 22.5without connectors
Mobile	3G; DL 7.2 Mbps, UL 5.76 Mbps, DC-HSPA
Ethernet	X1 LAN port, X1 WAN port, user-reconfigurable as second LAN port; via RJ-45 headers fitted with two LEDs
Status LEDs	Seven as green for (i) Power; blue for (ii) SIM; (iii) Wi-Fi; amber for (iv) Activity; (v) Network; (vi) Signal; red for (vii) Alert

Software

Operating system	RutOS (OpenWrt based Linux OS)
Connection monitoring	Network connectivity watchdog (configurable), internal application watchdog
Security	Zone-based firewall, VLAN, DMZ, HTTPS local and remoteconnection, SIM PIN
Monitoring & Management	Lantronix & TrinitySMART
Redundancy	Ethernet, Cellular, Wi-Fi – configurable as failover or load balancing+
VPN	PPTP client, L2TP, OpenVPN client / server / passthrough, GRE,IPsec
Location services	Concurrent GPS and GLONASS
Routing	DHCP, static routing, port forwarding, traffic routing, static / dynamic DNS, DNS proxy, NAT, STP
Network protocols	Web-based user interface, setup wizard, console log viewer, save / load configuration, NTP, SMS / OTA remote configuration, TR-069-capable

THE S40 SERIES

Low Power Radio Nodes

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The s40 series features a range ruggedized low-power radio nodes for metering and environment monitoring. This series provide pulse counting, light pulse counting, temperature, and relative humidity nodes and offers customers the benefits of durability with its IP68-rated non-potted design. Additionally, these nodes feature multiple radio types with LoRaWAN™ and Wireless M-Bus options, and ultra-long battery life ideally suited to the business of Energy consumption optimization.

Over-the-air activation method

Ultra long battery life of up to 15 years!

IP68

Rugged IP68-rated, tropicalised, non-potted design

Wireless M-bus & LoRaWAN Radios

Trinity Remote Management System compatible

RutOS

Ideal for smart metering, environmental monitoring and irrigation

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Pulse counter's termination of the wire harness

Surface temperature probe (waterproof)

Relative humidity/ ambient temperature proble

Light pulse counting probe

Technical Specifications

Dimensions (mm)	44 x 73.3 x 44 mm without connectors
Weight and SPQ	Approx. 150 g; commercial flight-friendly 15-piece SPQ (< 5 kg)
Temperature Range	Operating: -20 °C ~ +70 °C. Storage: -40 °C ~ +85 °C
Power	30.6 Wh, non-rechargeable, lithium thionyl chloride C battery
Time Stamping	Yes, courtesy of a network-adjustable RTC with a less than three (3) seconds per month drift
Data history	4 [resp. 48] records, in case of S41 [resp. S47]
Encryption	Hardware-assisted AES128, in case of S41 only
Material	(f1) UV-resistant per UL 746C, HB non-flammable per UL 94, poly- carbonate plus polybutylene terephthalate (“PBT+PC”)
MCCU	32-bit ARM CortexTM-M3 architecture; running at 40 MHz. Built-in *128 KB* Flash memory and 32 KB RAM. Built-in cryptographic engine supporting (i) AES 128- and 256- bit keys; and (ii) ECC B/K163, B/K233, P192, P224, P256; and (iii) SHA-1 and SHA-2 (SHA-224 and SHA-256)
TUV-Certified IP68 Rating	Immersion at up to, per IEC 60529 standard: 1.0 metre for up to forty minutes (external antenna models); or 1.2 metre for up to one hour (internal antenna models)PCB/A conformally coated against condensation, if the case arises
Estimated Lifespan	Fifteen [resp. twenty] years with a 15- [resp. 60-] minute transmis- sion cycle, in case of S41 [resp. S47]
Magnetic Switch	ON / OFF; Reset
Operating Status LEDs	One, white
Transmission Cycle	15- [resp. 60-] minute, in case of S41 [resp. S47]. Network-adjustable in both cases
S47's Activation Method	Over-the-air activation (OTAA). Activation by personalisation (ABP)
S41's Wireless M-Bus Radio	Either LoRa (factory setting) or FSK / GFSK modulation; user- selectable. Full compliance with the Open Metering System (“OMS”) specif cation http://oms-group.org/. Bubble-Up operation with Listen Before Talk (“LBT”). Very fine granularity, perfectly suited to the business of Energy consumption optimisation
S47's LoRaWan Radio	Class A, with a -140 dBm receiving sensitivity and a max. EIRP of: 12.15 dBm in ‘EU433’ and China @779 ~ 787 MHz; and 14 dBm in South Korea (10 dBm only in parts of the band); and 16 dBm in ‘EU868’ 1, Russia and ‘AS923’ 2

A probe for every need...

Pulse Counting

Three AWG24 naked wires:
✓ 219 µA current
✓ 0.2 mW max. power
✓ 670 µF capacitance
✓ 330 mH inductance
✓ 25 ms max. pulse duration
✓ 15 Hz max. frequency

Surface Temp. Measurement

✓ via a stainless-steel, 10 mm-wide, waterproof probe
✓ -50 °C ~ +150 °C range; ±0.3 °C accuracy from +10 °C to +90 °C, ±0.6 °C from -20 °C to +110 °C, ±1 .2 °C otherwise

Humidity/ Ambient Temp. Measurement

✓ via stainless-steel, 10 mm-wide probe
✓ Huimidity: 0 % RH ~ 100 % RH range; ±2 % RH accuracy
✓ Temperature: -40 °C ~ +125 °C range; ±0.5 °C accuracy from +5 °C to +50 °C

Other:

✓ Any Current Loop Sensor Reading: Two AWG24 naked wires to connect to any current loop (aka 4 mA ~ 20 mA) sensor
✓ Light Pulse Counting

INTRODUCING

M110 Modems

TRINITY CERTIFIED & PLATFORM COMPATIBLE

M110 modems are designed to provide connectivity across a broad range of M2M and IoT applications. They allow Internet connectivity via serial port to PLCs, Meters, Vending Machines. They help transporting data from any industrial device to data control servers, allowing businesses to benefit from real-time data monitoring, management and control.

2G, 3G, LTE Cat. 1 and more via SMA connector

Two Versatile I/Os

RS-232 Port

Trinity remote management system compatible

512 KB Flash Memory

Dual SIM operation

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support

Technical Specifications

Material	Brushed aluminium alloy
Dimensions (mm)	60 x 66 x 21.7 without connectors
Weight (g)	Approx. 95g
Operating Temperature	-30 °C ~ +70 °C, class A
SPI Flash Memory	2 MB
DoTA	via user's HTTP server or D2SPHERE
Configuration	via Workbench through RS-232 or USB;also via SMS, Telnet or D2SPHERE
Reset Button	Short / Long press for Reset / Reset to factory settings
RS-232	Full implementation; via a 9-pin sub-D header
USB 2.0	via a Type-C header
SIM	mini-SIM held in a tray and/or MFF SIM for dual SIM operation
Operating Status LEDs	X2 Power / Cellular signal
Flash Memory	Doubled to 512 KB
Power	8 V dc ~ 32 V dc with SLOW START; via the upper row of a dual row,4-pin, Micro-FitTM 3.0 header
Cellular	2G M111; 3G M115; NB-IoT M112; dual mode LTE-M1 / NB-IoT M113; via an SMA antenna connector; or LTE cat. 1 M114; via two SMA antenna connectors
Last Gasp	Allows for sending at least five 30-character SMS at one-second intervals; courtesy of two industrial-grade super caps
Miscelaneous Features	Support for concatenated SMS; Conversion between Modbus RTU and Modbus TCP; Configurable text and recipient(s) upon Last Gasp
Connectivity	Dial-up; TCP / UDP permanent client / server or on-demand client with two TCP / UDP sockets for failover; Network connectivity watchdog
MCU	STMicroelectronics' STM32F446; 32-bit ARM Cortex™-M4 architecture running at 168 MHz; Built-in 256 KB *Flash memory* and 128 KB RAM
Power-Off Timekeeping	RTC with an approx. 100-day data retention period; courtesy of a 15 mWh lithium manganese battery (not functional below -20 °C)
Power Consumption (w)	Idle: 0.96 (M111); 1.10 (M113); 1.10 (M114);Standby: 2.31 (M111); 2.63 (M113); 2.63 (M114); Communication (Tx max.):5.54 (M111); 6.18 (M113); 6.18 (M114)
I/Os	Two 2-way versatile I/Os, i.e. user-configurable, each one independently from the other, as either (i) analogue input or (ii) digital output; via the lower row of the same header ✓ ANALOGUE INPUT: 0 V dc ~ 48 V dc range; 12-bit resolution ✓ DIGITAL OUTPUT: open collector; 200 mA max.; 50 V dc max.
3-Way I/Os	Third possible configuration as (iii) analogue input suited to current loop sensors

INTRODUCING

M100 3G

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The M100 is the perfect solution for M2M applications facing tough environmental conditions and extended lifetime requirements. This compact and intelligent modem running Open AT ® Application Framework supports specific protocols and accessories specifically developed by Maestro to ease integration with industrial equipment such as electricity meters, programmable logic controllers, lifts and vending machines. The M100 is fully type approved in 2G, CDMA or 3G and ready for global deployment.

Remote status checking and monitoring

RS232 auto-online mode (power saving)

5-32V

5-32 Voltage range

I/O Monitoring

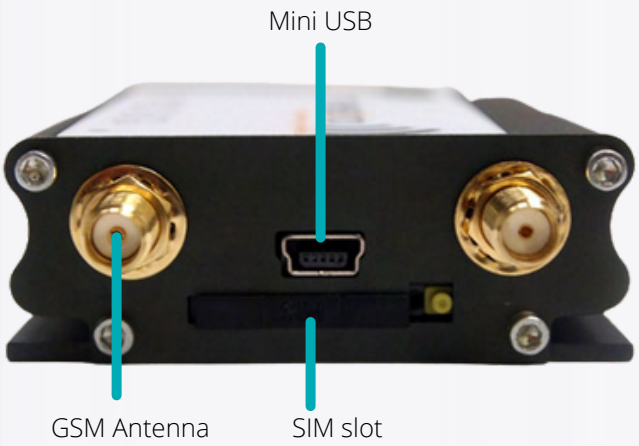
3G

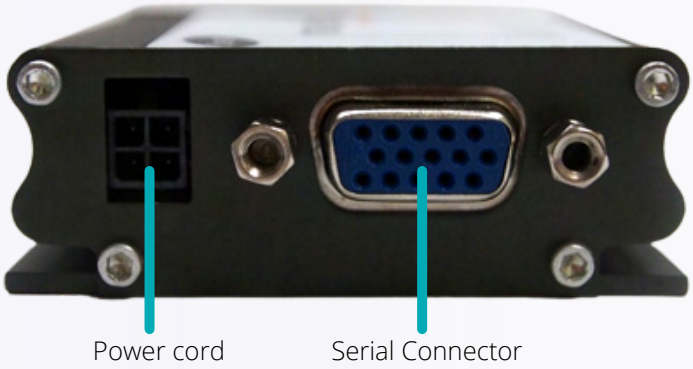
3G GSM ready

GPRS and IP configuration

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support





Hardware Specifications

Quad bands	SM/GPRS/EDGE 850/900/1800/1900MHz
M1003G SKU's	• M1003GXT00: WCDMA 850/1900MHz (SL8080T) with USB connector and GPS. • M1003GXT02: WCDMA 900/2100MHz (SL8082T) with USB connector and GPS. • M1003GXT04: WCDMA 800/850/2100MHz (SL8084T) with USB connector and GPS
Memory size	64Mbits Flash and 16Mbits RAM
Administration	AT command set via Sierra Wireless Open AT™
Support Data	SMS, Voice and Fax
SIM Tool Kit	Class 2
AT command set	(GSM 07.05, GSM 07.07 and Sierra Wireless proprietary)
Power supply requirement	Input voltage range: 5-32V Rated current: 650mA
Interfaces	SIM Holder 15 pin sub-D connector 4 pin power supply connector SMA Cellular antenna connector (50 mini-USB Female port SMA GPS antenna connector (50Ω)
Physical Dimensions	Overall size: 74.3mm x 60mm x 21.7mm Weight: 90g
Temperature Range	Operating: -40°C to +85°C with relative humidity below 95% Storage: -40°C to +85°C

INTRODUCING

M114

TRINITY CERTIFIED & PLATFORM COMPATIBLE

The M114 modem, part of the M100 series, is the perfect solution for M2M applications facing tough environmental conditions and extended lifetime requirements. Maestro M114 LTE modems are compact with serial connections that provide reliable connection for all kinds of machines and processes within M2M and IoT. The modem provides a stable and reliable Internet connection via serial port to equipment such as PLCs, control systems, electricity and water meters, ticket systems or vending machines.

I/O Monitoring

RS-232 auto-online mode (power saving)

8-32 Voltage range

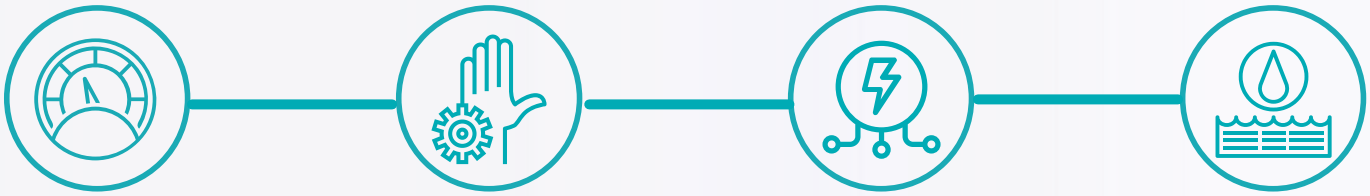
Rugged base with industrial casing.

Cat 1, 3G Connectivity compatible for GSM

USB port for ease of access and configuration.

Simply order, and we'll take care of the rest

Source | Import | Test | ICASA | Management Platform | Onboarding | 24/7 Support



Metering | **Monitoring & Control** | **Power Distribution** | **Irrigation and Water**

Technical Specifications

LTE frequency band	B3 (1800 MHz) / B7 (2600 MHz) / B20 (800 MHz)
Frequency band (GSM / GPRS)	B3 (1800 MHz) / B8 (900 MHz)
Transmission speed	10/5 Mbit / s
Protocol	TCP, UDP, FTP, HTTP, SMTP, POP3, SNMP, SSL
Commands	AT commands
Status indication	LEDs
Enclosure	Aluminum
YOUR	Mount for DIN rail (optional)
Connection	RS-232, 9-pin D-sub female
Voltage supply	Micro-Fit ™ 4-pin connector
Measure	60 x 60 x 21.7 mm
Weight	80g
Temperature range	30 ° - + 70 ° C (default) -40 ° - + 85 ° C (optional)
Supply voltage	8 - 32 VDC

Customer Use Cases

TRINITY

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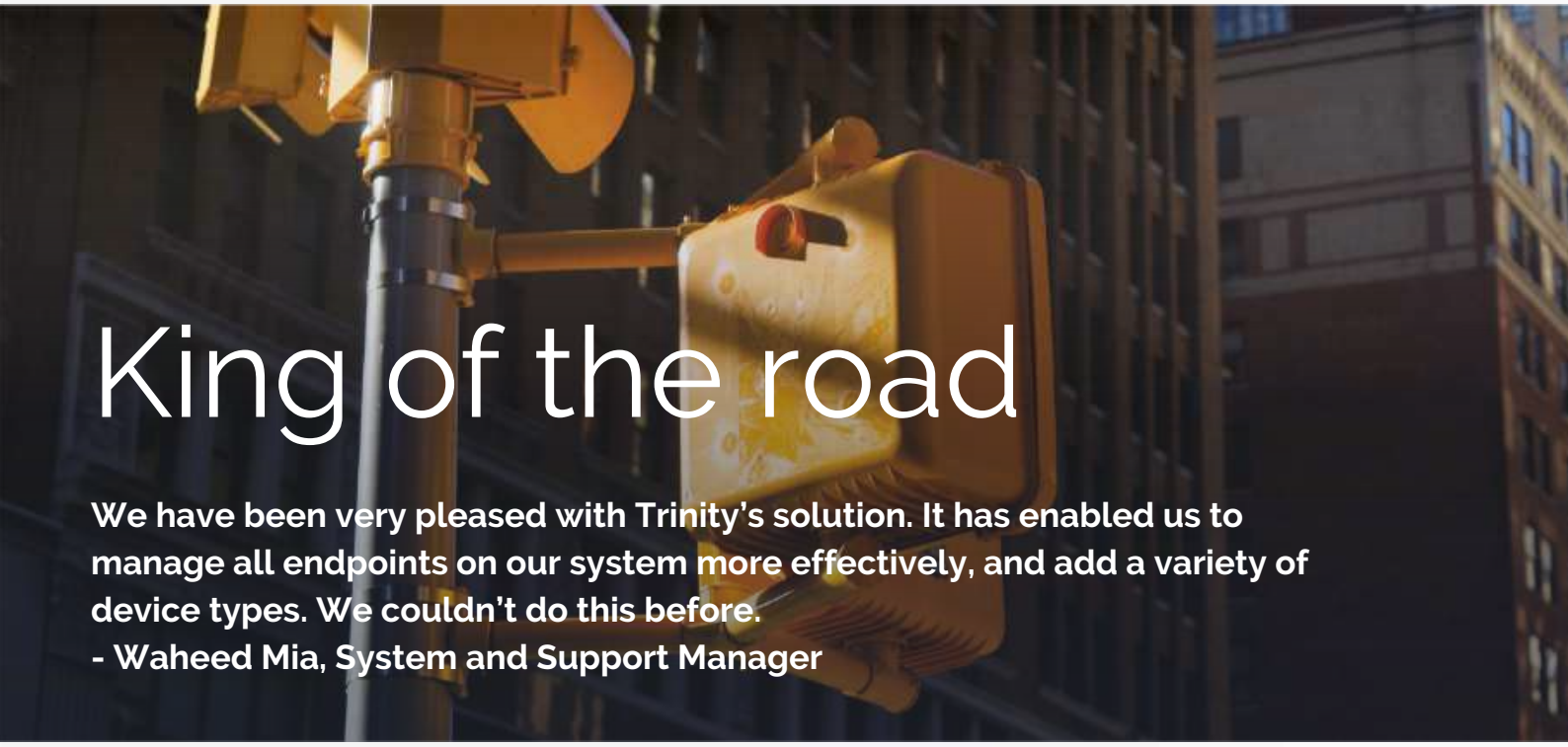


King of the road

We have been very pleased with Trinity's solution. It has enabled us to manage all endpoints on our system more effectively, and add a variety of device types. We couldn't do this before.
- Waheed Mia, System and Support Manager

EDGE DEVICE USE CASE

EDGE Devices in action, powered by Trinity

Syntell is a leading South African technology company. One of its key projects is the running and management of ⅓ of Johannesburg's traffic lights. Syntell's system is a full traffic management and monitoring system, and the connectivity of all end points is enabled by Trinity's 4G enabled routers.

Syntell has deployed 380 Edge Devices to date, with plans for a further 400 in the near future.

The Need

Knowing the precise location of each Edge Device is critical to the traffic management solution.

Before moving to Trinity's technology, Syntell's system used standard serial modems, which were unable to scale with network speeds or handle an increase in variety of devices, such as cameras which needed to be added.

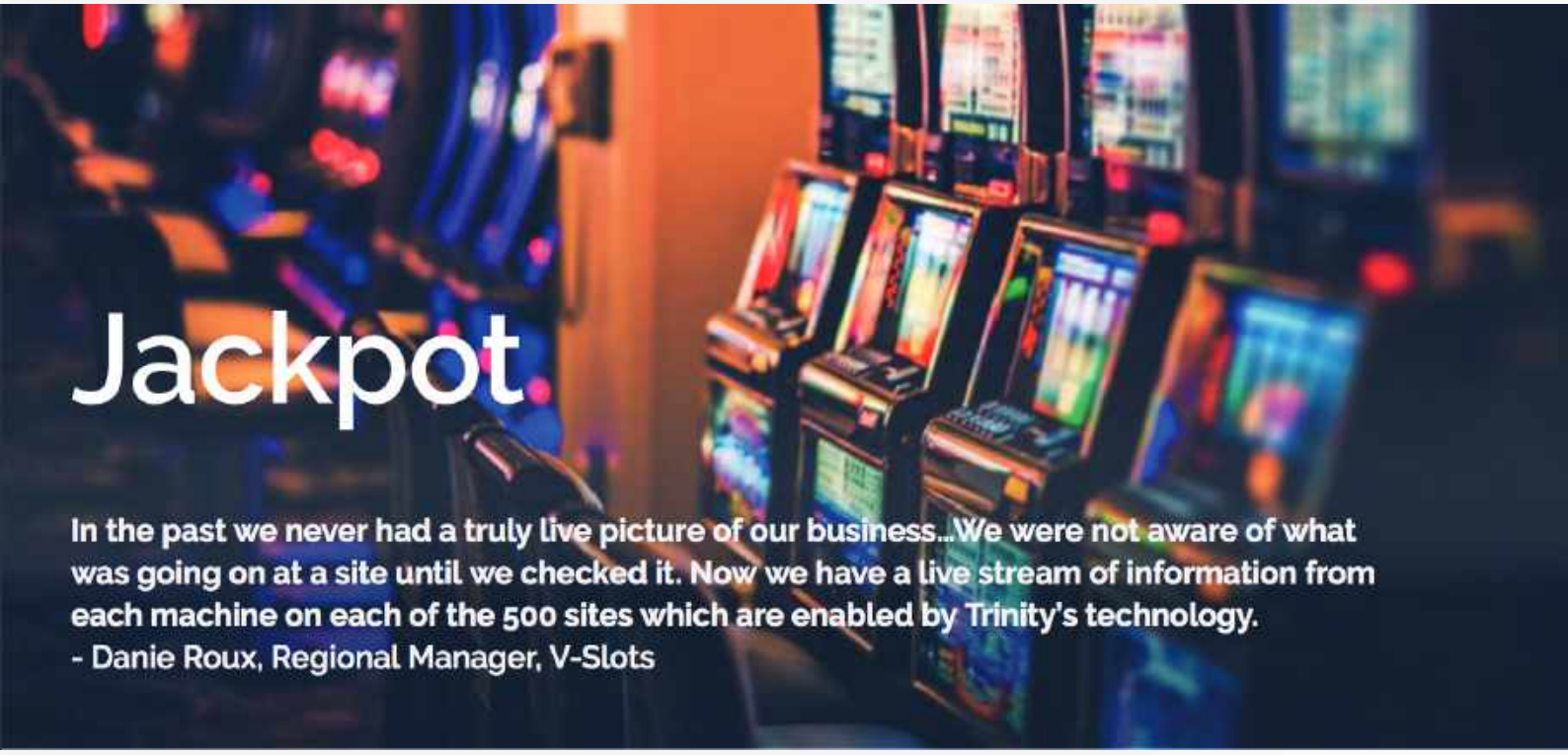
The increase in the complexity of the system also required a solution which improved visibility of activity and enabled remote management of devices.

The Solution

A custom agent embedded in the Edge Device firmware allows Syntell to access the SMART platform, providing remote visibility of each device on the network.

Trinity IoT Advantages

- Manage your Device Estate securely via a customized platform tailored to your business model.
- Real-time visibility and remote management of your entire IoT estate, including assets, devices and SIMs.
- Set up custom alerts & workflows for critical 'in field' data:
- Retrieve live data securely from a stable, highly advanced, and geographically redundant IOT platform.



EDGE DEVICE USE CASE

The RUT devices in action, powered by SMART™

V-Slots' business is built around providing & managing a large number of geographically distributed slot machines to a large number of customers.

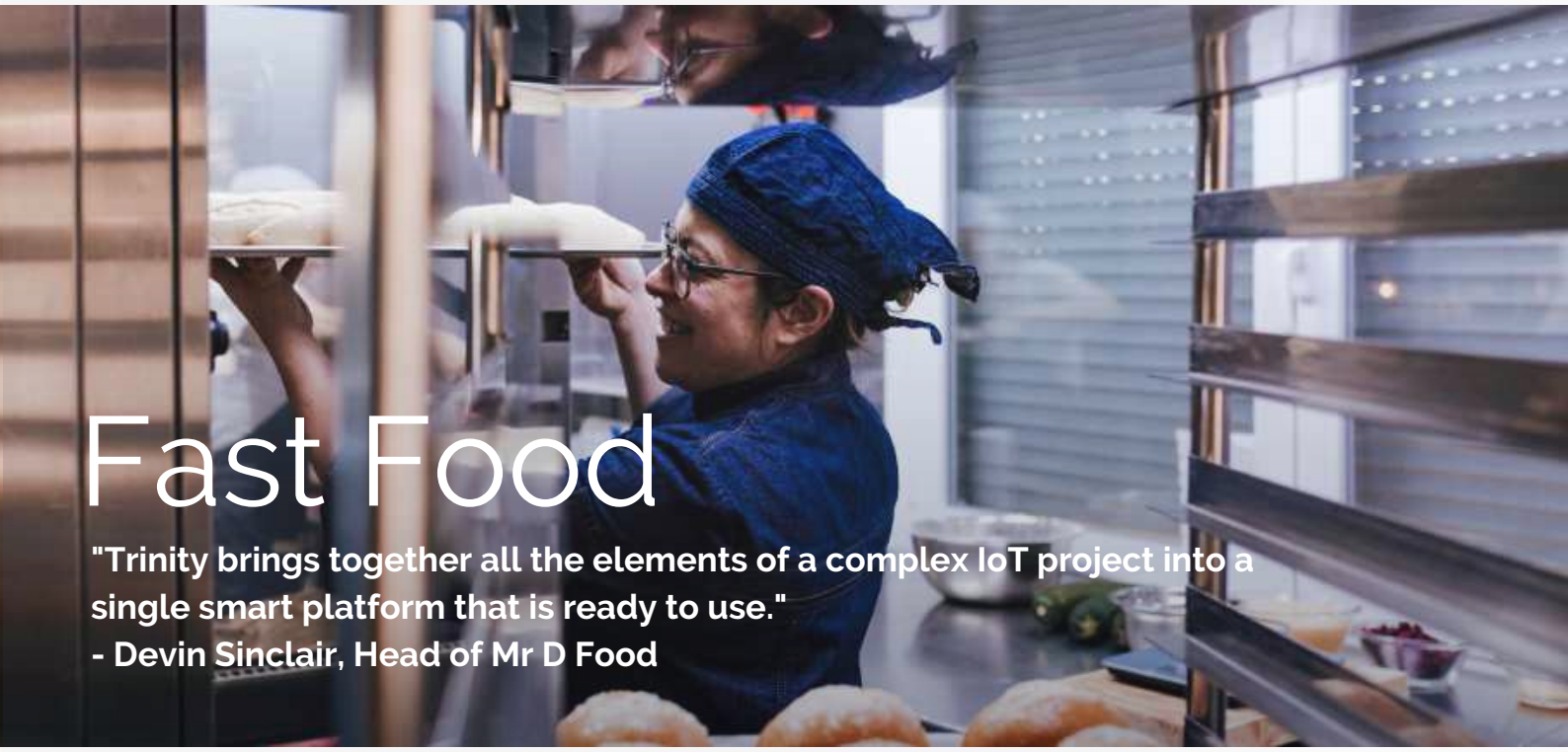
The need -When V-Slots approached Trinity , they asked us to to find a solution which could give them real time data feeds from each of their 1,200 customer sites.

The solution – First, Trinity provided V-Slots with industrial grade RUT950 dual SIM routers for each of their sites, delivering redundant mobile NETWORK access.

But then we took it further... We connected the RUT950 to our SMARTTM platform in order to give V-Slots a live view of what is happening in the field, across both MTN and Vodacom connected locations.

Trinity IoT Advantages

- Manage your Device Estate securely via a customized platform tailored to your business model.
- Real-time visibility and remote management of your entire IoT estate, including assets, devices and SIMs.
- Set up custom alerts & workflows for critical 'in field' data:
- Retrieve live data securely from a stable, highly advanced, and geographically redundant IOT platform.



Fast Food

"Trinity brings together all the elements of a complex IoT project into a single smart platform that is ready to use."
- Devin Sinclair, Head of Mr D Food

MR D FOOD USE CASE

The MobiPrint 4 in action, powered by Trinity

Mr D Food (previously Mr Delivery) has blown the lid off South Africa's fast food industry by capitalising on the demand for good (and quick) cuisine, the surge in Internet penetration and a formidable partnership with Trinity.

Mr D Food has deployed over 5000 MobiPrint devices to date, with plans for a further 1000 in the near future.

The Need

When a global rise in demand for food delivery services hit South Africa in 2014, Mr D Food found itself uniquely suited to give people what they want: Fast Food!

Mr D Food already already had the domain expertise, delivery infrastructure and App to boot. There were just two things missing: A system that could process and route thousands upon thousands of orders every second and devices that could receive and print orders in real time.

On top of that, the window of opportunity was small: 6 months (to be exact) until the market would be saturated. Needless to say, when Mr D Food approached us, we jumped straight to work!

The Solution

First our team collaborated with Mr D Food stakeholders to determine the best holistic solution and hardware for their business needs.

We then tested and provisioned MobiPrint devices for Mr D Food on the Trinity platform. This process included embedding a custom agent in the MobiPrint series firmware that provides Mr D Food with remote visibility and control of each device on the network via the Trinity Platform.

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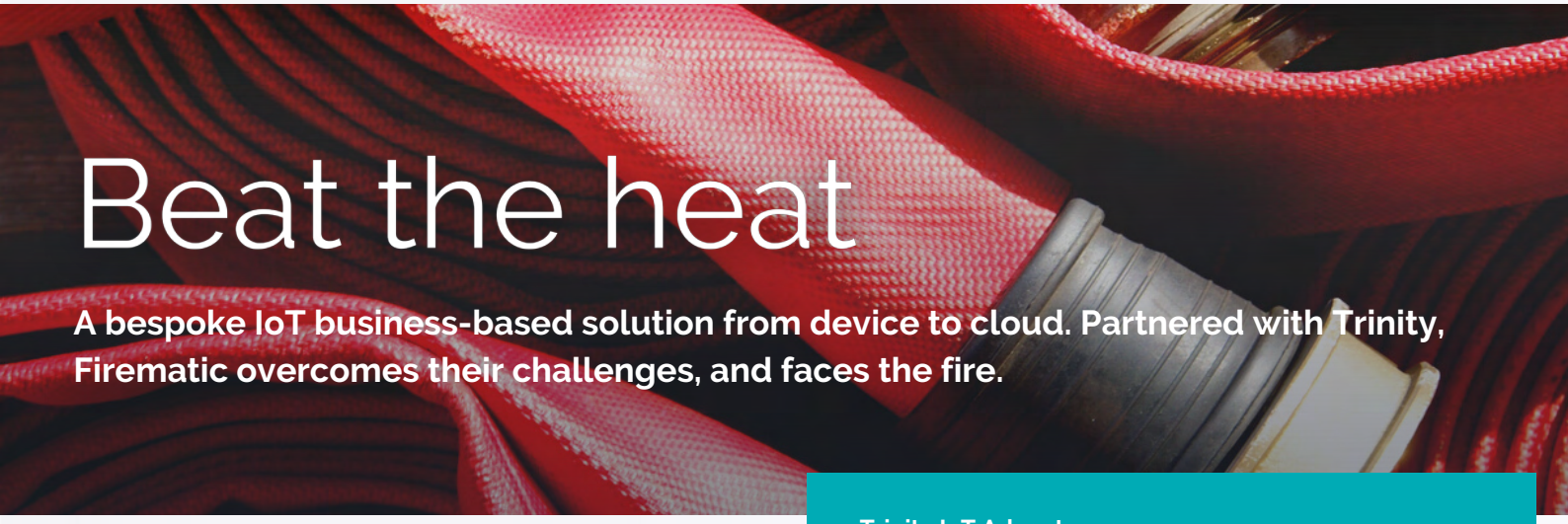

Beat the heat

A bespoke IoT business-based solution from device to cloud. Partnered with Trinity, Firematic overcomes their challenges, and faces the fire.

FIREMATIC USE CASE

The **TRB141**, powered by Trinity

Mining trucks carry highly flammable materials, putting drivers and assets at risk. Firematic products are designed to tackle this threat by manufacturing and installing automatic fire suppression systems for vehicles in the mining industry.

Firematic's system is powered by the Trinity IoT online platform, allowing for remote management and monitoring of devices in the field. The connectivity of all endpoints is enabled by Trinity's **4G enabled TRB 141 modems**. Firematic has deployed 46 modems to date, with plans for further expansion in the near future.

The Need

Firematic's systems are installed with high-pressure nitrogen tanks that need to be monitored to ensure driver and vehicle safety. To do this, they needed:

1. Retrieve data from nitrogen gas chamber pressure transmitters
2. Always-on, reliable connectivity to transfer data
3. A system to view data online, in real-time
4. Automatic alerts that could notify operators if there is a problem (for instance, if pressure in the tanks became too high or low).

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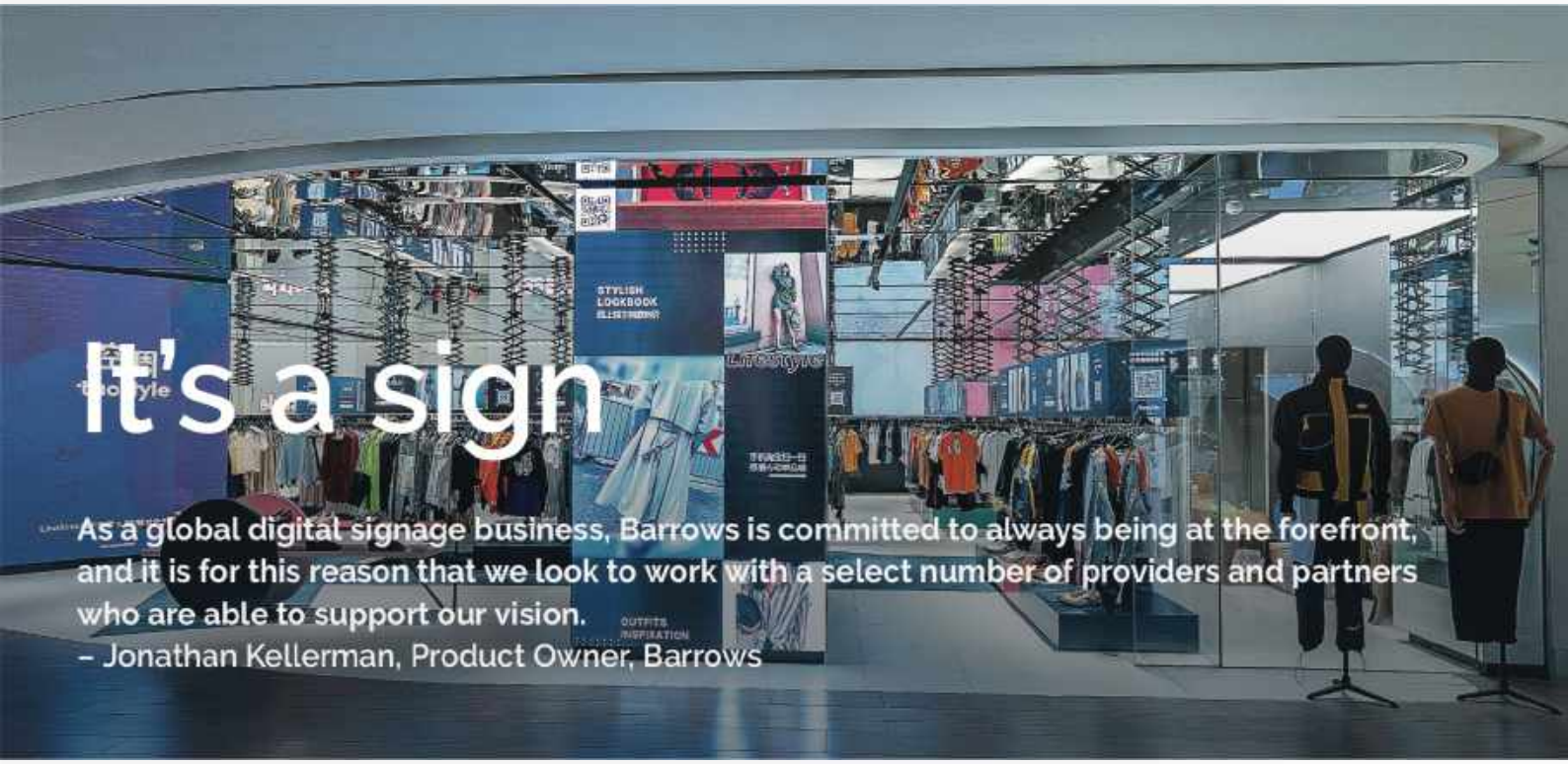
The Solution

First, our development team collaborated with Firematic stakeholders to find the best holistic solution and most suitable hardware for their business needs.

To transfer data from transmitters to an online system, Industrial-grade GSM devices would need to be installed within vehicles as well. The TRB141 was selected as the ideal modem for the job.

We then tested and enrolled TRB141 modems on the Trinity platform. This process included providing each modem with an m2m SIM, which provides 'always-on' connectivity via Trinity's managed APN.

Firematic now has instant access to the critical data of their nitrogen tanks. They can alert drivers when the pressure is too high or too low, monitor their maintenance schedules to reduce operating costs, and troubleshoot possible failures and inefficiencies - all remotely from the Trinity Connect Platform.



EDGE DEVICE USE CASE

EDGE Devices in action, powered by Trinity

Barrows provide their customers with a broad range of in-store displays and systems, so that retailers can compete in the increasingly tech- nology driven environment.

The need:
Barrows realised it was critical to gain access, control and visibility over their digital assets. As such, they requested that Trinity a) connect their systems to a secure, private network and b) provide a management platform from which they could control and view their devices.

The solution:
a) Trinity connected Barrows devices to a secure network via E210 routers, and
b) vetted SIMS from national and global roam- ing mobile networks.
b) Then, we connected the E210 to our SMARTTM platform.

The result:
A live view of the operational state of all devices in the field, connected via a secure private network.

Trinity IoT Advantages

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