ASUS Servers and Workstations with Intel® Platforms

PRODUCT PORTFOLIO

intel.

intel. XEON

ABOUT /SUS

In Search of Incredible

ASUS is a multinational company known for the world's best motherboards, PCs, monitors, graphics cards, routers and servers, and is ranked by Laptop Mag as the best laptop brand in 2020. Along with an expanding range of superior gaming, content-creation and AIoT solutions, ASUS leads the industry through cutting-edge design and innovations made to create the most ubiquitous, intelligent, heartfelt and joyful smart life for everyone. With a global workforce that includes more than 5,000 R&D professionals, ASUS is driven to become the world's most admired innovative leading technology enterprise. Inspired by the In Search of Incredible brand spirit, ASUS won more than 11 awards every day in 2020 and ranks as one of Forbes' World's Best Regarded Companies and Fortune's World's Most Admired Companies.

Over 14,500	5,000$^+$	200$^+$	57,156	72,477
Employees worldwide	World-class R&D team	Countries	Awards won since 2001	Green Certifications won in 2019 alone

ASUS has been selected to Clarivate Top 100 Global Innovator.

We have been ranked as Taiwan's most valuable brand for 7 years.

Forbes has named ASUS among the Top Regarded Companies annual survey.

ASUS has been named as a Top 100 Global Technology Leader by Thomson Reuters.

Why ASUS Servers and Workstations

Simply – we're a trusted, world-class brand with an enviable reputation for performance, quality and reliability. In slightly more detail, we have over a quarter of a century's experience of building high-quality servers and workstations. The core values of ASUS servers and workstations are to deliver exceptional performance, green computing and easy management to ensure the perfect mix of solutions for customer success.

- Achieved over 900+ world-record benchmarks with SPEC CPU, and still growing
- World's most power-efficient servers on SPEC Power
- No.1 2P server on SPECjbb-Composite and SPECjbb-MultiJVM performance
- Ranked Top 20 on the TOP500 list of the world's most powerful supercomputers and Top 10 on the Green500 list in 2018 by supporting TAIWANIA 2
- Ranked No.1 on the Green500 list of energy-efficient supercomputers in 2014

Our Milestones

1995
Tier 1 OEM/ODM

2000
Datacenter OEM/ODM

2005
ASUS white-label solution

2008
First delivery of server products to leading cloud-service provider

2014
- Achieved Green500 Top 1 with ESC4000-G2S
- Launched ASUS System Web-based Management (ASWM)
- Launched BMC solution – ASMB8-iKVM

2012
- Released supercomputing, big data and storage server solutions
- Launched BMC solution – ASMB7-iKVM

2011
- Launched BMC solution – ASMB6-iKVM
- Joined VMware technology partnership

2010
Joined Open Compute Project 1.0 development

2016
Released GPU servers for deep learning, AI and VDI

2017
- Won 2017 Taiwan Excellence Award for server products
- Launched datacenter-level management utility – ASUS Control Center
- Performance tuning and No. 1 performance record in 2P solution
- Launched BMC solution – ASMB9-iKVM
- Joined Microsoft technology partnership

2018
- First delivery of server products to medical provider
- Ranked Top 20 in Taiwania 2 and ranked Top 10 in Green500
- Joined RedHat technology partnership

2021
- Launched BMC solution – ASMB10-iKVM
- First deliver to EEMEA cloud-service provider
- Jointly developed 5G edge server with 5G provider

2020
Joined Ubuntu technology partnership

2019
Joined Open Compute Project

Partnered with

ami

CANONICAL

citrix

inwinstack

Microsoft

milestone

NVIDIA

Red Hat

SUSE

vmware

Meet the industry's highest environmental certifications

In 2020 alone, ASUS earned 69,965 green certification from some of the most prestigious international organizations around the world.

69,965

Green Certifications

Green ASUS

Keeping Environment

We at ASUS are fully committed to creating a sustainable future. We believe in adopting an eco-friendly approach towards every aspect of our business. This is where the Green ASUS philosophy comes in - from our internal practices to our production processes - we remain focused on safeguarding our planet. ASUS is focused on safeguarding our planet with responsible products, and ASUS products succeed in combining a lower total cost of ownership (TCO) with the highest environmental standards.

Green Design

Good design extends beyond mere aesthetics, products should use modular components for simple repairs and prolonged life spans, and be easily recyclable at the end of their life cycle.

Green Manufacturing

Good product cant't be made without greener manufacturing processes, that's why ASUS adheres to strict guidelines to ensure that hazardous substances like lead and halogens are eliminated during production.

Green Procurement

ASUS is not only committed to reducing its own environmental impact. By ensuring a greener supply chain, it is helping to packaging follow greener principles too.

Servers and Workstations Care

ASUS guarantees quality, service and reliability. That's why we offer an exclusive one-day advanced replacement and return merchandise authorization service – known as 1-Day ARS. In addition to rapid replacement, all ASUS barebone servers, server motherboards and workstations carry a 3-year limited warranty in most territories – with satisfaction guaranteed.

1-Day ARS

ASUS 1-Day ARS allows for convenient return and replacement of defective products (barebone servers, server motherboards and workstations) via system integrators (SI) and value-added resellers (VAR) throughout the United States, Canada within one day.

3-Year Warranty

The ASUS 3-year limited warranty protects all ASUS server products that means barebone servers, server motherboards and workstations are all covered. During the 3-year warranty period ASUS will repair or replace defective components, allowing your business or organization to continue with minimal disruption.

Global Presence

ASUS has a very strong global presence. Our products are recognized throughout the world and are sold in 113 countries through more than 70 branch offices worldwide. ASUS also has more than 1,400 support center across the globe that are ready to assist our customers anytime, anywhere.

113	70	1,400
Countries	Branches Offices	Support Centers

NO.1 BENCHMARK
WORLD RECORDS

ASUS holds the most amount of records on the SPEC CPU® 2017 benchmark in single-socket (1P) and dual-socket (2P). These world records are set by servers running across Intel platforms, including the 3rd Gen Intel® Xeon® Scalable processors and workloads ranging from general business infrastructure, software-defined deployment, data analytics, AI, and HPC (High Performance Computing).

900+

Benchmark World Records

* SPEC is a corporation formed to establish and endorse standardized benchmarks and tools to evaluate performance and energy efficiency of computer systems.

Performance Boost Technology

ASUS servers feature exclusive Performance Boost technology to achieve the best server performance and agility by tuning servers to match the requirements of workloads, letting you gain greater control of your server environment. This technology improves workload throughput by maximizing processor frequency and boost power, ideal for time-sensitive applications such as financial services or data center operations. In the BIOS you can choose from pre-configured server profiles optimized for specific workloads, maximizing overall performance and reducing server-configuration time.
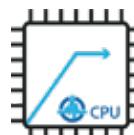
Core Optimizer

Maximizes the processor frequency in multi-core operations, avoiding frequency shifting for reduced latency.
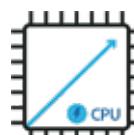
Engine Boost

Automatic power acceleration with an innovative voltage design to increase server overall performance.
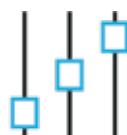
Workload Presets

Preconfigured BIOS server profiles based on workloads and benchmarks for improved performance and efficiency.

## Performance Enhancement with Workload Presets

Peak Frequency Optimized

5.8% performance improvement

330 Disable
349 Enable
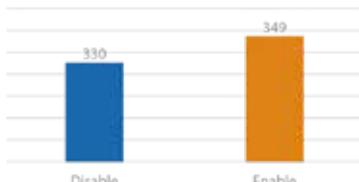
CPU: Intel Xeon Platinum 8280L processor
Benchmark: SPECrate2017_int base

HPC

25% performance improvement

3140 Disable
3881 Enable
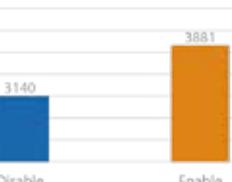
CPU: Intel Xeon Platinum 8280L processor
Benchmark: HPL

Power Balancer Technology

ASUS Power Balancer is an exclusive technology that enables ASUS servers to adjust overall loading automatically based on real-time monitoring in order to decrease overall power consumption for improved efficiency and cost/performance optimization.

Dynamic Monitoring

Monitor and feedback CPU loading to have more accurate management on the system.

Auto Frequency Adjustment

Adjust CPU frequency dynamically and automatically based on current utilization to reduce power consumption.

Enhanced Power Efficiency

Optimize performance per watt for a better power efficiency system.

Thermal Radar 2.0

Featuring two innovative intelligent detection technologies and multi-fan zone design, ASUS Thermal Radar 2.0 places different sensors on the CPU, GPU and in other areas to collect localized heating information to designate dedicated fan flow automatically to reduce consumption of overall fan capacity. Additionally, the multi-fan zone design enables multiple fan curves for different zones to reduce operating time and cost required for manual adjustments and effectively enhances system reliability and thermal efficiency.

More Sensors

Sensors are embedded on front panel, CPU, NVMe SSD, OCP card, PSU and memory. Up to 56 ambient sensors on selected models.
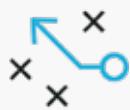
Intelligent Adjustment

Fans are grouped for dynamic fan curve adjustment in different fan zones to achieve more precise thermal monitoring.

Economic and Eco-friendly

More precise thermal information can reduce power consumption and lower down TCO.

4% power saving

130W — Disable
124.8W — Enable
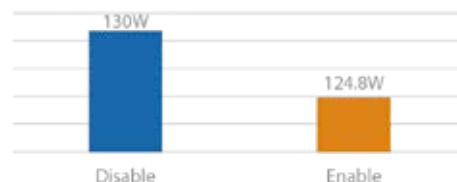
*In a condition when a server's CPU runs at an 80% workload

ASUS INNOVATIONS ON
SERVER DESIGN

CPU-balanced Architecture

ASUS offers a CPU-balanced architecture* to enable secure and optimal CPU-performance efficiency. This architecture extends the full bandwidth to either dual- or single-CPU configurations, enabling more computing capability and much-improved overall power efficiency for compute-intensive workloads. This architecture allows customers to take full advantage of bandwidth capabilities of the dual-CPU architecture with a single CPU, while offering the flexibility to upgrade later with the addition of a second CPU.
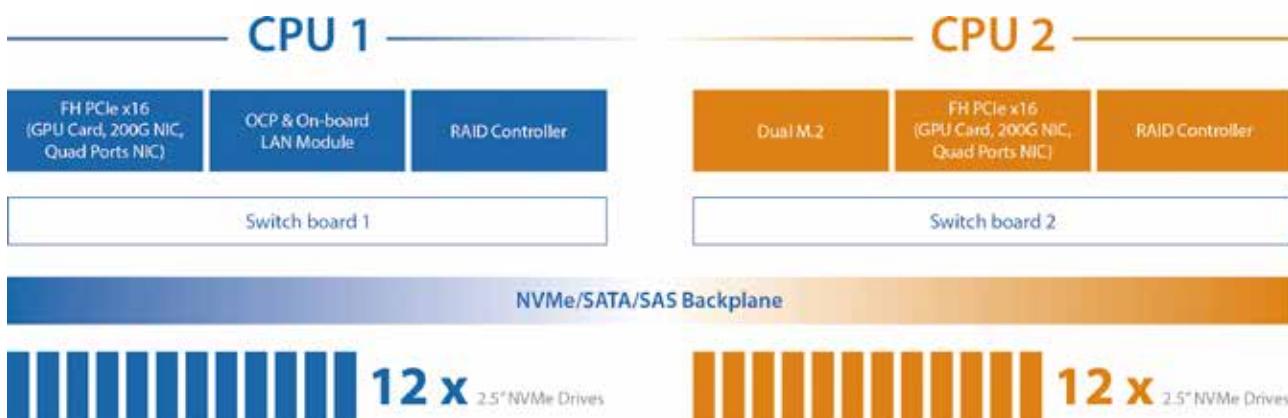
* This is an architecture for RS720-E10-RS24U. The architecture varies by model. Please contact your local representative for more information.

Modular Design

ASUS servers offer a flexible, modular design to enable easy scale-up of configurations to meet increasing data-center workloads.

Switchable Design

The system-switchable design enables PCI Express® (PCIe®) lanes to be direction to M.2, PCIe 4.0 slots or NVMe drives as required, maximizing performance and capabilities.
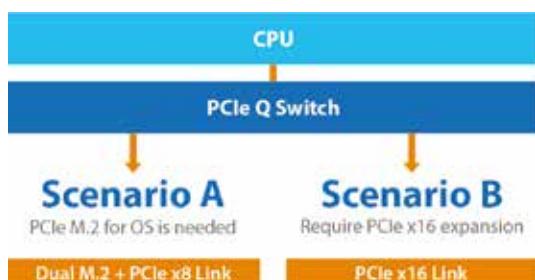
Customizable Ports

1. The onboard LAN module design allows the default rear-panel LAN port to be replaced with either up to four 1 Gb or two 10 Gb LAN ports, enabling large-scale networking bandwidth for enterprise or data centers.
2. One PCIe slot in rear panel is replaceable with an OCP 3.0 module for extended network bandwidth.

*This is a design for RS720-E10-RS24U. The architecture varies by model. Please contact your local representative for more information.

Water-cooling Solutions for Data Centers

ASUS collaborates with the leading vendor to deliver optimized liquid-cooling solutions for data-center and advanced enterprise use cases, including AI, HPC, cloud or GPU rendering – along with many other heavy-load scenarios. This provides tangible real-world benefits of increased performance and quieter operation in a reliable, proven package to improve whole-server performance.

Maximized Server Performance

Our water-cooling solutions lower overall power consumption and increase overall system performance, keeping servers running at higher performance levels compared to traditional air-cooled solutions – especially when workloads are heavy and more complicated.

Decreased Power Consumption

With huge data-center demand for cloud services, our liquid-cooled server solutions strikes the right balance between cost and efficiency, for optimal green credentials.

Minimized Noise

With liquid cooling efficiently dissipating heat the need for fan cooling is reduced, this lowering overall noise for quieter, calmer data-center environments.

Tried-and-tested Compatibility

ASUS servers are designed for the best compatibility with liquid-cooling solutions, pass strict tests to ensure the quality and reliability the design.

CDU installed in top of rack

ASUS rack servers

Manifold installed inside rail of rack

Water hookups can be on the top or bottom of the rack
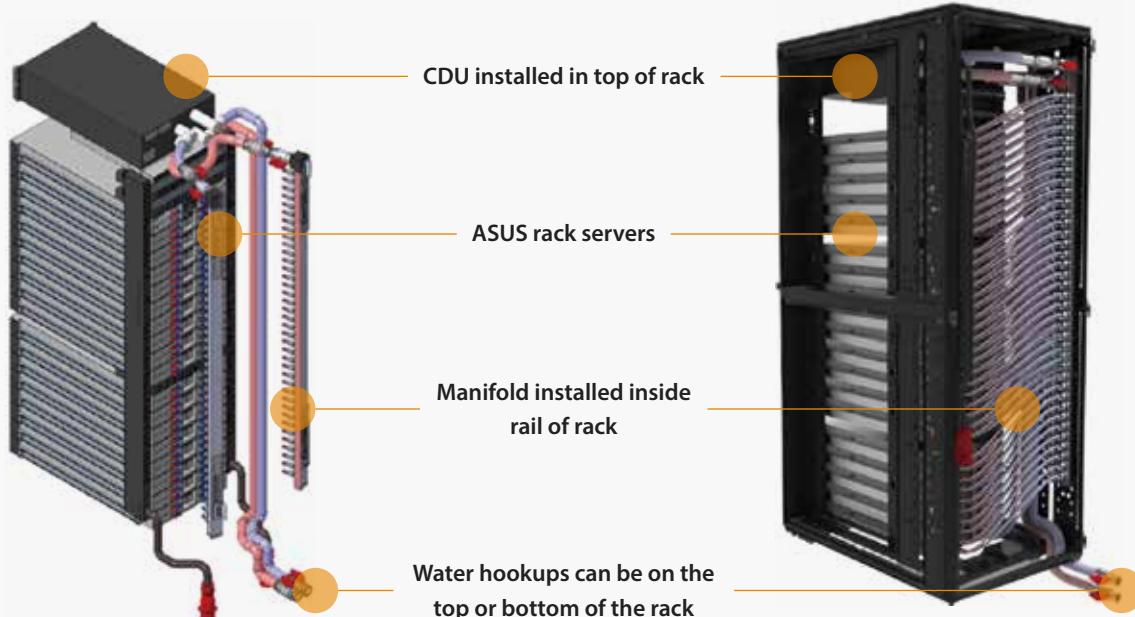
ASUS INNOVATIONS ON
SERVER SOFTWARE

ASUS Control Center

ASUS Control Center (ACC) for Enterprise is an excellent centralized management tool for servers and client devices. It is tailored for efficient IT management, including both hardware- and software-inventory management, and the remote dispatch of both software and firmware updates. It also allows for simple remote device configurations and health checks, plus rapid deployment of latest security policies and patches. In short, ACC Enterprise is a one-stop portal for IT management, and has been embraced by industries and businesses globally to minimize administration and maximize uptime.

Design for Enterprise

BIOS Flash Update	Software Inventory	Hardware Inventory	Real-time System Monitor	Software Dispatch Task	Power and Security Control

Medical	Enterprise	Manufacturing	Education

- BMC IPMI/Redfish Integration
- Hardware Utilization Record

- Integrated Hotfix Report
- NVIDIA Graphic Cards Monitoring

Modern
Graphical dashboard based on responsive HTML5, enabling fast, simple and intuitive navigation from almost any modern device.

Remote
Remote-management capabilities enhance work flexibility, reducing resources for minimized total cost of ownership (TCO).

Centralization
Single console-style interfaces allows IT managers to manage and configure devices collectively, from a central location.

ASUS ASMB10-iKVM

What ASMB10-iKVM offers

- System Inventory Management
- FRU Information
- Sensor Management
- Log Management
- Intrusion Detection

- System Settings
- Remote Access
- Power Control
- Firmware Maintenance
- Intel ASD/ACD

- Intel Memory Failure Prediction
- Remote Update (BMC, BIOS, NICs, NVMe)
- Remote BIOS Configuration

The latest ASUS server management solution – ASMB10-iKVM is built upon the ASPEED 2600 chipset running on the latest AMI MegaRAC SP-X. The module provides various interfaces to enable out-of-band server management through WebGUI, Intelligent Platform Management Interface (IPMI) and Redfish® API.

ASUS ASMB10-iKVM is an Intelligent Platform Management Interface (IPMI) 2.0-compliant module that allows you to monitor, control and manage a remote server from a local or central server attached to your network. ASMB10-iKVM also supports Redfish protocol for fast, efficient device management.

ASUS servers integrate PFR FPGA as the platform Root-of-Trust solution for firmware resiliency to prevent hackers from gaining access to infrastructure. ASUS PFR solution provides authentication check in firmware to ensure firmware free of malicious attack and offer recovery, protection to systems with ease of mind.

3rd Gen Intel® Xeon® Scalable Processors

Full Spectrum Performance

ASUS-series servers with 3rd Gen Intel® Xeon® Scalable processors help customers reduce the time to solution for a wide range of applications, add enhanced security features, and allow all workloads to be run in the cloud, on-premises or as a private cloud. The offerings includes servers that incorporate dual-socket, single-socket and multi-node solutions for specific workloads in databases, HPC, hypervisors and AI to maximize the benefits of the new platform. These include Intel® Optane™ persistent memory 200 series, PCIe 4.0 and Intel® Ethernet 800-series network adapters.
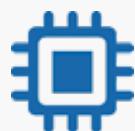
3rd Gen Intel Xeon Scalable CPU	Customer-center Design	ASMB10-iKVM with ASPEED 2600	ASUS Performance Boost Technology	ASUS Power Balancer

SPEC CPU 2017 Benchmark

Intel Rates | Floating Point Rates

■ Intel Xeon Platinum 8280 ■ Intel Xeon Platinum 8368Q

Source:https://www.spec.org

NAMD Benchmark

Intel Xeon Platinum 8280 on ASUS RS700-E9 | Intel Xeon Platinum 8368Q on ASUS RS700-E10

Source:https://www.spec.org
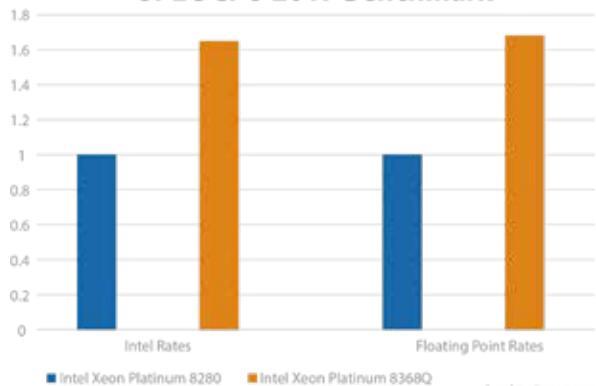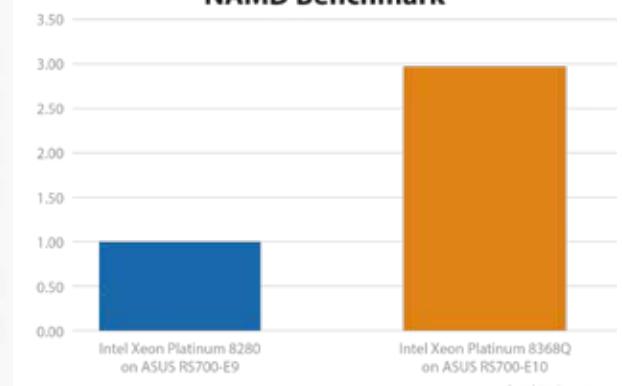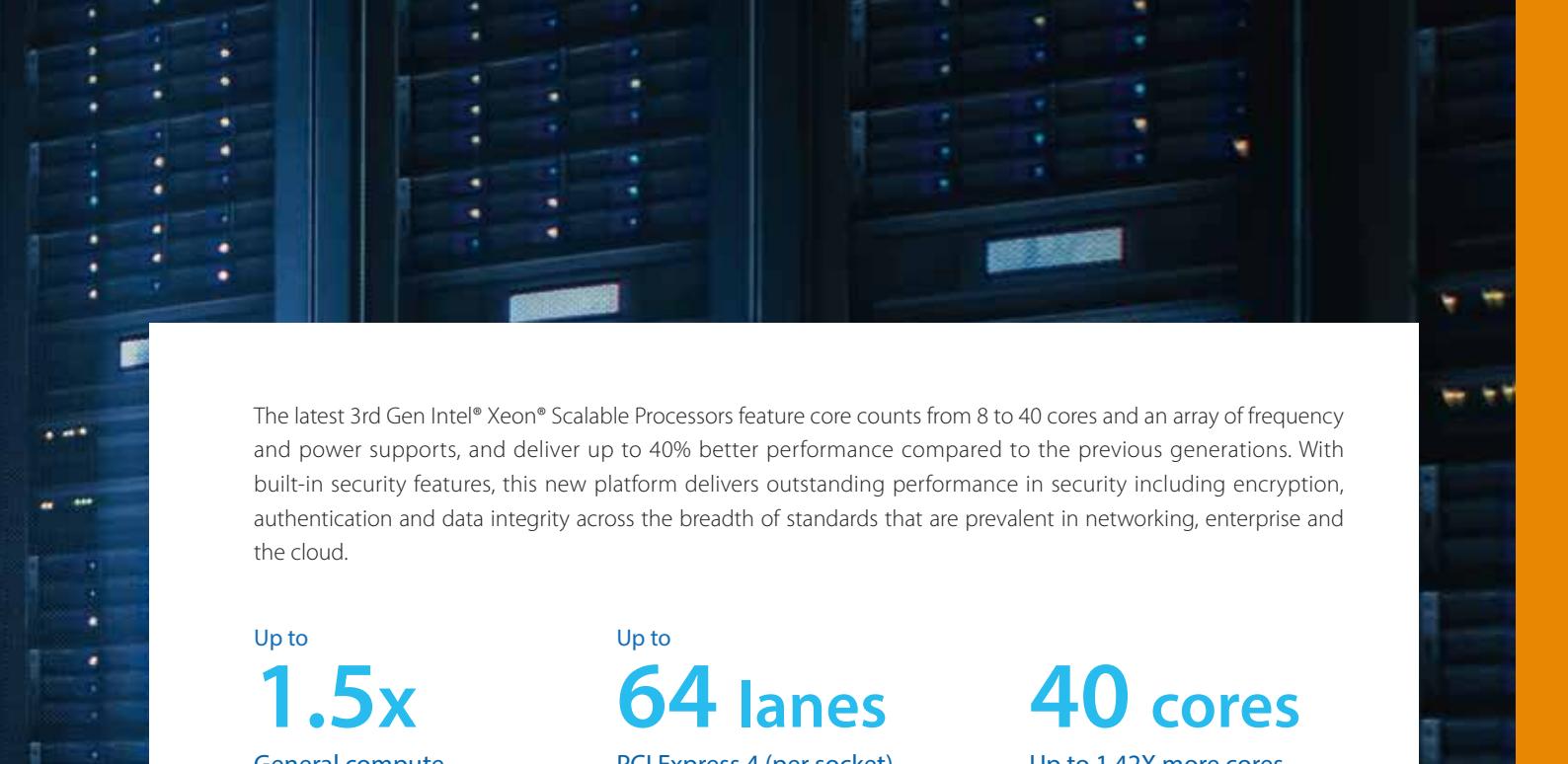
The latest 3rd Gen Intel® Xeon® Scalable Processors feature core counts from 8 to 40 cores and an array of frequency and power supports, and deliver up to 40% better performance compared to the previous generations. With built-in security features, this new platform delivers outstanding performance in security including encryption, authentication and data integrity across the breadth of standards that are prevalent in networking, enterprise and the cloud.

Up to
1.5x
General compute
performance gain

Up to
64 lanes
PCI Express 4 (per socket)

40 cores
Up to 1.42X more cores

Customer-focused ASUS Design

ASUS servers are designed with our customers in mind, offering flexibility to enable easy scale-up of configurations to meet increasing data-center workloads.
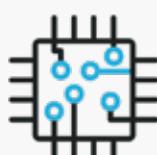
CPU-balanced Architecture

· Enables secure, optimal CPU performance efficiency between CPUs
· Extends I/O availability for more computing capability and improved power efficiency

Modular Design

· Flexible modular LAN design
· PCIe 4.0 slot can be switched for OCP 3.0 module
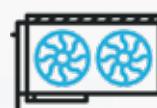
Multiple GPU and FPGA Support

· More dual-slot GPU support than previous generation
· Flexible design to configure x16 slots for specific workloads

Scalable Storage Options

· All-flash NVMe drives are available in front bay
· More scalable options in middle and rear bays

3rd Gen Intel® Xeon® Scalable Processors

Full Spectrum Performance

RS720-E10-RS24U

Features hybrid storage of 24 NVMe/SATA/SAS with more exanpdability and high performance

2U dual-socket server powered by 3rd Gen Intel® Xeon® Scalable processors that supports up to 32 DIMM, 24 NVMe, nine PCIe 4.0 slots, OCP 3.0, M.2 and ASUS ASMB10-iKVM.

| Form Factor | CPU Number | PCIe Gen4x16 Link |
| 2U | 2 | 5 |

| Memory Number | NVMe |
| 32 | 24 |

CPU	3rd Gen Intel® Xeon® Scalable processors (LGA 4189)
UPI Speeds	11.2 GT/s
Chipset	Intel® C621A
Memory Type	DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM)
Drive Bays	24
Additional OS Drive	2 x M.2
Networking	Optional 4 x 1GbE RJ45 or 2 x 10GbE RJ45 Optional 1 x OCP 3.0 socket

RS700-E10-RS12U

High-performance Intel® 1U server with high scalability and computing performance for dense compute environment

1U dual-socket server powered by 3rd Gen Intel® Xeon® Scalable processors that supports up to 32 DIMM, one dual-slot GPU, 12 NVMe, four PCIe slots, OCP 3.0, dual M.2 and ASUS ASMB10-iKVM.

| Form Factor | CPU Number | PCIe Gen4x16 Link |
| 1U | 2 | 3 |

| Memory Number | NVMe | Graphic Card |
| 32 | 12 | 1 Dual-Slot |

CPU	3rd Gen Intel® Xeon® Scalable processors (LGA 4189)
UPI Speeds	11.2 GT/s
Chipset	Intel® C621A
Memory Type	DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM)
Drive Bays	12
Additional OS Drive	2 X M.2
Networking	Optional 4 x 1GbE RJ45 or 2 x 10GbE RJ45 Optional 1 x OCP 3.0 socket

RS720Q-E10-RS8U

High-density 2U4N server with great scalability for high performance computing (HPC) workloads

2U4N server powered by 3rd Gen Intel® Xeon® Scalable processors, with each node supporting up to 16 DIMM, one PCIe® 4.0 slot, one OCP 3.0 and two M.2, and a total of eight NVMe/SAS/SATA drives.

Form Factor	2U
CPU Number	8
PCIe Gen4x16 Link	4
Memory Number	64
NVMe	8

CPU	3rd Gen Intel® Xeon® Scalable processors (LGA 4189)
UPI Speeds	11.2 GT/s
Chipset	Intel® C621A
Memory Type	DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM)
Drive Bays	8
Additional OS Drive	2 x M.2 (per node)
Networking	1 x 1GbE RJ45 Optional 1 x OCP 3.0 socket

ESC4000-E10

GPU-optimized design allows four dual-slot GPUs for AI and remote rendering workloads

2U dual-socket GPU server powered 3rd Gen Intel® Xeon® Scalable processors that supports up to 16 DIMM, four dual-slot GPUs, 1 M.2, eight NVMe (by SKU), total eleven PCIe 4.0 slots, one OCP 3.0 (by SKU) and ASUS ASMB10-iKVM.

Form Factor	2U
CPU Number	2
PCIe Gen4x16 Link	6
Memory Number	16
NVMe	8
Graphic Card	4 Dual-Slot or 8 Single-Slot

CPU	3rd Gen Intel® Xeon® Scalable processors (LGA 4189)
UPI Speeds	11.2GT/s
Chipset	Intel® C621A
Memory Type	DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM)
Drive Bays	8
Additional OS Drive	1 x M.2
Networking	2 x 1GbE RJ45 on board Optinoal 1 x OCP 3.0 socket

Intel® Xeon® E-2300 Processors
Unprecedented Edge Cloud Performance

Small businesses require reliability and security to support their critical business and customer data needs. That's why ASUS offers business-ready servers and server motherboards fueled by Intel® Xeon® E-2300 processors. Built with the consistent, compatible and reliable Intel architecture, and available in many different form factors and power supplies, they deliver essential performance to help small- and medium-sized (SMBs) run smoothly and more securely.
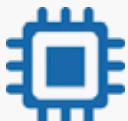
| Intel Xeon E-2300 CPU | ASUS ASMB10-iKVM ASPEED 2600 | Dual 10G/1G Ethernet | Different From Factor | PCIe 4.0 |

RS300-E11-RS4

GPU-optimized 1U server with flexible storage and expandability

This server delivers high performance combined with storage and expansion flexibility for multiple workloads, making it the perfect choice for a firewall, gateway or business server. It also supports one graphics card for graphics-intensive applications.

CPU	Intel® Xeon® E processors (LGA1200)
Chipset	Intel® C252
Power Supply	1+1 Redundant 450W 80 PLUS Platinum Power Supply
Dimension	497mm x 439.5mm x 44mm

Form Factor	CPU Number	Storage Bay
1U	**1**	**4**

Intel® Xeon® E-2300 processors deliver essential server performance, expandability and reliability small businesses to support critical business and customer data needs.

8
Max. core count

3.7GHz
Max. base frequency

95 W
Max. TDP

2
Memory channels

3200 MT/s
Memory frequency

Up to
20 Lanes
PCIe 4.0

P12R-M/10G-2T

Intel® Xeon® E-2300 Series Micro ATX motherboard with M.2, dual LAN, 6 SATA and two USB 3.2 Gen2 connectors

P12R-M Series supports Intel® Xeon® E-2300 Series processors with two LAN ports, with 6 native SATA 6G ports, 2 x PCIe Gen4 slots and dual Intel® X710 Gigabit Ethernet with teaming support.

CPU	Intel® Xeon® E processors (LGA1200)
Chipset	Intel® C252
Memory Type	DDR4 up to 3200 ECC UDIMM
Expansion Slots	2
LAN Ports	2
Form Factor	Micro ATX, 9.6" x 9.6"
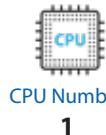
CPU Number
1

Memory Number
4

SATA 6Gb/s ports
6

P12R-M

Intel® Xeon® E-2300 Series Micro ATX motherboard with M.2, dual LAN, 6 SATA and two USB 3.2 Gen2 connectors

P12R-M Series supports Intel® Xeon® E-2300 Series processors with two LAN ports, with 6 native SATA 6G ports, 2 x PCIe Gen4 slots and dual Intel® Gigabit Ethernet with teaming support.

CPU Number	Memory Number	SATA 6Gb/s ports
1	4	6

CPU	Intel® Xeon® E processors (LGA1200)
Chipset	Intel® C252
Memory Type	DDR4 up to 3200 ECC UDIMM
Expansion Slots	2
LAN Ports	2
Form Factor	Micro ATX, 9.6" x 9.6"

P12R-E

Intel® Xeon® E-2300 Series ATX motherboard with dual M.2, dual LAN, 8 SATA and two USB 3.2 Gen2 connectors

P12R-E Series supports Intel® Xeon® E-2300 Series processors with two LAN ports, with 8 native SATA 6G ports, two PCIe Gen4 slots and dual Intel® Gigabit Ethernet with teaming support.

CPU Number	Memory Number	SATA 6Gb/s ports
1	4	8

CPU	Intel® Xeon® E processors (LGA1200)
Chipset	Intel® C256
Memory Type	DDR4 up to 3200 ECC UDIMM
Expansion Slots	4
LAN Ports	2
Form Factor	ATX, 12" x 9.6"
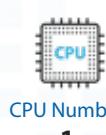
P12R-I

Intel® Xeon® E-2300 Series Mini-ITX motherboard with M.2, dual LAN, 6 SATA

P12R-I supports Intel® Xeon® E-2300 Series processors with two LAN ports. Rack-optimized design maximizes. Designed with rack-optimized and space-saving in mind. ASMB10-iKVM bundled.

CPU Number	Memory Number	SATA 6Gb/s ports
1	2	6

CPU	Intel® Xeon® E processors (LGA1200)
Chipset	Intel® C252
Memory Type	DDR4 up to 3200 ECC UDIMM
Expansion Slot	1
LAN Ports	2
Form Factor	Mini-ITX, 6.7" x 6.7"

Workstation for Professional Content Creators

Fully Optimized Certified

Media and Entertainment

Ai	ADOBE ILLUSTRATOR CC		3DS MAX
Ps	ADOBE PHOTOSHOP CC	M	MAYA
Pr	ADOBE PREMIERE PRO CC		
Ae	ADOBE AFTER EFFECTS CC		

AEC-Architecture, Engineering, and Construction

R	REVIT
	3DS MAX
A	AUTOCAD
V-ray	

Product Design and Manufacturing

A	AUTOCAD
F	AUTOCAD
I	INVENTOR

Multiple-GPU Support

ASUS workstations are built for creative professionals and delivers superior performance for real-time rendering, complex simulations and data-intensive workloads with support up to four NVIDIA or AMD professional graphics cards.

ISV Certifications

ASUS works in close partnership with numerous independent software vendors to test and verify compatibility with our hardware. These ISV certifications provide the peace of mind your organization needs to be assured that ASUS workstations will perform reliably and effectively for your needs.

VR Ready

Virtual Reality (VR) is bringing more convenient, cost effective, and time-saving way for professional across different industries. ASUS workstations help designers and engineers to experience a 360-degree view of their designs before production.

Workstation Solutions
Power to drive your creativity

E900 G4

Monster performance, the ultimate workstation

E900 G4 Supports up to 56 processing cores on the Intel® Xeon® Scalable processor. Featuring up to 4-way multi-graphic supported with genuine four PCIe Gen3 x16 link, E900 G4 uses new ID design on front bezel with ASUS branding which is user friendly, tool-less case design for hassle-free maintenance.

CPU	1st and 2nd Gen Intel® Xeon® Scalable processors (LGA 3647)
Chipset	Intel® C621
Power Supply	1+1 2000W 80 PLUS Titanium Power Supply
Dimension	532mm x 243mm x 582mm

CPU Number
2

Memory Number
12

Pro E800 G4

Native 64 PCIe Gen 3 Lanes, high performance workstation for heavy workload

Pro E800 G4 is the latest Intel® Xeon® W3200 Processor family to support up to 4 GPUs, which is ideal for content creation workloads to increase overall productivity. Pro E800 G4 is also equipped with dual 10GB LAN to boost overall data transfer speed and internet connectivity for collaborative workflows.

CPU	Intel® Xeon® W-3200 Processor Family (LGA 3647)
Chipset	Intel® C621
Power Supply	Single 750W 80 PLUS Gold Power Supply Single 2000W 80 PLUS Platinum Power Supply
Dimension	532mm x 243mm x 582mm

CPU Number
1

Memory Number
12

ESC700 G4

Multiple GPU support, onboard BMC and ACC management

ESC700 G4 with Intel® Xeon® W processors, 8 DIMM, dual LAN, dual M.2, support for up to two graphics cards, and ASUS Control Center.
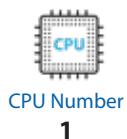
CPU	Intel® Xeon® W Series Processors (LGA2066)
Chipset	Intel® C422
Power Supply	Single 550W/750W 80 PLUS Gold Power Supply Single 1300W 80 PLUS Platinum Power Supply
Dimension	423mm x 190mm x 435mm

CPU Number
1

Memory Number
8

Pro E500 G6

Powerful, full-featured workstation

Essential workstation with Intel® Xeon® W processors, 128GB ECC memory, dual LAN, dual M.2, support for up to three display, PCIe 3.0 and, one graphics card, and ASUS Control Center.

CPU	Intel® Xeon® W processors (LGA1200)
Chipset	Intel® W480
Power Supply	Single 300W 80 PLUS Bronze Power Supply Single 450W/550W/750W 80 PLUS Gold Power Supply
Dimension	423mm x 190mm x 435mm

CPU Number
1

Memory Number
4

Pro E500 G7

New Generation Powerful, full-featured workstation

Essential workstation with Intel® Xeon® W-1300 processors, 128GB ECC memory, dual LAN, dual M.2, supports for up to three display, PCIe 4.0 and, one graphics card, and ASUS Control Center.

CPU	Intel® Xeon® W processors (LGA1200)
Chipset	Intel® W580
Power Supply	Single 300W 80 PLUS Bronze Power Supply Single 550W/750W 80 PLUS Gold Power Supply
Dimension	423mm x 190mm x 435mm

CPU Number
1

Memory Number
4

Rack Servers

	2U4N, HPC, **8 NVMe/SATA/SAS** ### RS720Q-E10-RS8U	**2U4N, HPC,** **8 NVMe/SATA/SAS + 16 SATA/SAS** ### RS720Q-E10-RS24	**2U, 6TB DDR4,** **8 NVMe/SATA/SAS + 16 SATA/SAS, 2 M.2** ### RS720-E10-RS24E
Motherboard	Z12PH-D16	Z12PH-D16	Z12PP-D32
Processor	Per Node: 2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 205W)	Per Node: 2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)
Chipset	Intel® C621A	Intel® C621A	Intel® C621A
Memory	Per Node: 16 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 8192GB	Per Node: 16 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 8192GB	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	N/A	N/A	N/A
Expansion Slots	Per Node: Up to 1 slot, 1 OCP 3.0 socket 1 x PCIe x16 slot (Gen4 x16 link), FH, HL 1 x OCP 3.0 NIC socket	Per Node: Up to 1 slot, 1 OCP 3.0 socket 1 x PCIe x16 slot (Gen4 x16 link), FH, HL 1 x OCP 3.0 NIC socket	Up to 9 slots 6 x PCIe x16 slots (Gen4 x8 link) or 3 x PCIe x16 slots (Gen4 x16 link), FH, HL 1 x PCIe x16 slot (Gen4 x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 or x8 link), LP, HL
Storage Controller	Per Node: Support RAID 0, 1 Onboard Broadcom SAS3008 12G Controller	Per Node: Support RAID 0, 1 Onboard Broadcom SAS3008 12G Controller	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card
Storage Bays	8 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link)	24 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS + 16x SATA/SAS) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link)	24 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS + 16x SATA/SAS)* 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	Per Node: 1 x 1GbE LAN port (Intel® I210-AT) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	Per Node: 1 x 1GbE LAN port (Intel® I210-AT) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter
Optical Drive	N/A	N/A	1 x External USB Optical Drive (optional)
Front I/O Ports	N/A	N/A	2 x USB 3.2 Gen1 ports 1 x RJ-45 Mgmt LAN port
Rear I/O Ports	Per Node: 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 port 1 x RJ-45 Management port	Per Node: 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 port 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM
Dimension	800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"	800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"	840mm x 447mm x 88mm (2U) 33.07" x 17.60" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	34.5 kg	34.5 kg	21.69 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	40.49 kg	40.49 kg	27.88 kg
Power Supply (Following different configuration by region)	1+1 Redundant 3000W 80 PLUS Titanium Power Supply	1+1 Redundant 3000W 80 PLUS Titanium Power Supply	1+1 Redundant 1200W/1600W/2000W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W/2400W 80 PLUS Titanium Power Supply

	2U, 6TB DDR4, 12 NVMe + 12 NVMe/SATA/SAS, 2 M.2 **RS720-E10-RS24U**	2U, 6TB DDR4, 8 NVMe/SATA/SAS+ 4 SATA/SAS, 2 M.2 **RS720-E10-RS12**	2U, 6TB DDR4, 8 NVMe/SATA/SAS+ 4 SATA/SAS, 2 M.2 **RS720-E10-RS12E**
Motherboard	Z12PP-D32	Z12PP-D32	Z12PP-D32
Processor	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)
Chipset	Intel® C621A	Intel® C621A	Intel® C621A
Memory	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	N/A	Up to 4 dual-slot GPU cards	Up to 4 dual-slot GPU cards
Expansion Slots	Up to 9 slots 6 x PCIe x16 slots (Gen4 x8 link) or 3 x PCIe x16 slots (Gen4 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 or x8 link), LP, HL	Up to 9 slots 6 x PCIe x16 slots (Gen4 x8 link) or 3 x PCIe x16 slots (Gen4 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 or x8 link), LP, HL	Up to 9 slots 6 x PCIe x16 slots (Gen4 x8 link) or 3 x PCIe x16 slots (Gen4 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 or x8 link), LP, HL
Storage Controller	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card
Storage Bays	24 x 2.5" Front Hot-swap Storage Bays (Up to 12x NVMe + 12x NVMe/SATA/SAS)* 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to support SAS hard drives	12 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS+ 4x SATA/SAS)* Optional 2 x 2.5" Rear Hot-swap Storage Bays (Up to 2x NVMe/SATA) 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays	12 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS+ 4x SATA/SAS)* Optional 2 x 2.5" Rear Hot-swap Storage Bays (Up to 2x NVMe/SATA) 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter
Optical Drive	1 x External USB Optical Drive (optional)	1 x External USB Optical Drive (optional)	1 x External USB Optical Drive (optional)
Front I/O Ports	2 x USB3.2 Gen1 ports	2 x USB3.2 Gen1 ports	2 x USB3.2 Gen1 ports
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM
Dimension	840mm x 447mm x 88mm (2U) 33.07" x 17.60" x 3.46"	840mm x 447mm x 88mm (2U) 33.07" x 17.60" x 3.46"	840mm x 447mm x 88mm (2U) 33.07" x 17.60" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	21.69 kg	21.69 kg	21.69 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	27.88 kg	27.88 kg	27.88 kg
Power Supply (Following different configuration by region)	1+1 Redundant 1200W/1600W/2000W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W/2400W 80 PLUS Titanium Power Supply	1+1 Redundant 1200W/1600W/2000W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W/2400W 80 PLUS Titanium Power Supply	1+1 Redundant 1200W/1600W/2000W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W/2400W 80 PLUS Titanium Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Rack Servers   22

Rack Servers

	1U, 6TB DDR4, 12 NVMe/SATA, 2 M.2 **RS700-E10-RS12U**	**1U, 6TB DDR4, 4 NVMe/SATA, 2 M.2** **RS700-E10-RS4U**	**2U, 4GPU, 8 3.5" Storage** **ESC4000-E10**
Motherboard	Z12PP-D32	Z12PP-D32	Z12PG-D16
Processor	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)	2 x Socket P (LGA 4189) 3rd Gen Intel® Xeon® Scalable processors (Up to 270W)	2 x Socket P (LGA 4189) Intel® 3rd Gen Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621A	Intel® C621A	Intel® C621A
Memory	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB	32 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 6TB	16 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 2048GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 1 dual-slot GPU card	Up to 1 dual-slot GPU card	Up to 4 dual-slot GPU or 8 single-slot GPU cards
Expansion Slots	Up to 3 slots, 1 proprietary slot 1 x PCIe x16 slot (Gen4 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 link), LP, HL 1 x PCIe x8 slot (Gen4 x8 link), proprietary	Up to 3 slots, 1 proprietary slot 1 x PCIe x16 slot (Gen4 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x16 link), FH, FL or OCP 3.0 NIC socket 1 x PCIe x16 slot (Gen4 x16 link), LP, HL 1 x PCIe x8 slot (Gen4 x8 link), proprietary	Up to 11 slots 8 x PCIe x16 slots (Gen4 x8 link) or 4 x PCIe x16 slots (Gen4 x16 link), FH, FL 2 x PCIe x16 slots (Gen4 x16 link), LP, HL 1 x PCIe x8 slot (Gen4 x8 link), LP, HL
Storage Controller	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card	Support RAID 0, 1, 10 & 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Optional kits for PCIe RAID Support Intel® VROC Software RAID Support tri-mode card	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	12 x 2.5" Front Hot-swap Storage Bays (Up to 12x NVMe/SATA/SAS)* 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays	4 x 3.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS)* 2 x M.2 (Up to 2280, PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays	8 x 3.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS)* 1 x M.2 (Up to 2280, SATA or PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	Optional 4 x 1GbE LAN ports (Intel® I350-AM4) or 2 x 10GbE LAN ports (Intel® X710-AT2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter
Optical Drive	1 x External USB Optical Drive (optional)	1 x Slim-type Optical Drive Bay (optional)	N/A
Front I/O Ports	N/A	2 x USB 3.2 Gen1 ports 1 x VGA port	4 x USB 3.2 Gen1 ports
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 or 4 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 2 x RJ-45 ports 1 x RJ-45 Management port 1 x VGA port
Security Solution	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module	Optional TPM Module Optional PFR Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM
Dimension	842.5mm x 439.5mm x 44mm (1U) 33.17" x 17.3" x 1.73"	842.5mm x 439.5mm x 44mm (1U) 33.17" x 17.3" x 1.73"	800mm x 440mm x 88mm (2U) 31.50" x 17.22" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	17.02 kg	17.02 kg	34 Kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	21.5 kg	21.5 kg	44 Kg
Power Supply (Following different configuration by region)	1+1 Redundant 800W/850W/1200W/1600W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W 80 PLUS Titanium Power Supply	1+1 Redundant 800W/850W/1200W/1600W 80 PLUS Platinum Power Supply 1+1 Redundant 1600W 80 PLUS Titanium Power Supply	1+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

	2U, 4GPU, 8 2.5" Storage **ESC4000-E10S**	**4U, 8GPU, 8 2.5" Storage** **ESC8000 G4**	**4U, 8GPU, 8 2.5" Storage, 2 10GbE** **ESC8000 G4/10G**
Motherboard	Z12PG-D16	Z11PG-D24	Z11PG-D24
Processor	2 x Socket P (LGA 4189) Intel® 3rd Gen Xeon® Scalable processors (Up to 240W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621A	Intel® C621	Intel® C621
Memory	16 x DIMM slots DDR4 up to 3200 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 2048GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 3072GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 3072GB
VGA	Aspeed AST2600 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	Up to 4 dual-slot GPU or 8 single-slot GPU cards	Up to 8 dual-slot GPU or 16 single-slot GPU cards	Up to 8 dual-slot GPU or 16 single-slot GPU cards
Expansion Slots	Up to 11 slots 8 x PCIe x16 slots (Gen4 x8 link) or 4 x PCIe x16 slots (Gen4 x16 link), FH, FL 2 x PCIe x16 slots (Gen4 x16 link), LP, HL 1 x PCIe x8 slot (Gen4 x8 link), LP, HL	Up to 18 slots 16 x PCIe x16 slots (Gen3 x8 link) or 8 x PCIe x16 slots (Gen3 x16 link), FH, FL 2 x PCIe x16 slots (Gen3 x 16 link), LP, HL	Up to 18 slots 16 x PCIe x16 slots (Gen3 x8 link) or 8 x PCIe x16 slots (Gen3 x16 link), FH, FL 2 x PCIe x16 slots (Gen3 x16 link), LP, HL
Storage Controller	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	8 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS)* 1 x M.2 (Up to 2280, SATA or PCIe Gen4 x4 link) *PIKE/RAID card is required to enable the driver bays	8 x 2.5" Front Hot-swap Storage Bays (UP to 2x NVMe/SATA/SAS + 6x SATA/SAS)* 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays	8 x 2.5" Front Hot-swap Storage Bays (UP to 2x NVMe/SATA/SAS + 6x SATA/SAS)* 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 3.0 socket: Up to 200GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port	2 x 10GbE LAN ports (Intel® X550-AT2) 1 x Management port
Optical Drive	N/A	N/A	N/A
Front I/O Ports	4 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports 1 x VGA port 1 x COM port	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports 1 x VGA port 1 x COM port
Rear I/O Ports	2 x USB 3.2 Gen1 ports 2 x RJ-45 ports 1 x RJ-45 Management port 1 x VGA port	2 x RJ-45 ports 1 x RJ-45 Management port	2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module Optional PFR Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	800mm x 440mm x 88mm (2U) 31.50" x 17.22" x 3.46"	798mm x 439mm x 175.6mm (4U) 31.42" x 17.22" x 6.92"	798mm x 439mm x 175.6mm (4U) 31.42" x 17.22" x 6.92"
Net Weight kg (CPU, DRAM & HDD not included)	34 Kg	33.5 kg	33.5 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	44 Kg	40.925 kg	40.925 kg
Power Supply (Following different configuration by region)	1+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply	2+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply	2+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Rack Servers   24

Rack Servers

	1U, 4GPU, 2TB DDR4, 8 NVMe Storage **ESC4000 DHD G4**	**2U, 4GPU, 8 3.5" Storage** **ESC4000 G4**	**2U, 4GPU, 8 2.5" Storage** **ESC4000 G4S**
Motherboard	Z11PG-D16/HD	Z11PG-D16	Z11PG-D16
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 150W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 150W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 3072GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 2048GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 2048GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	Up to 4 dual-slot GPU Cards	Up to 4 dual-slot GPU or 8 single-slot GPU cards	Up to 4 dual-slot GPU or 8 single-slot GPU cards
Expansion Slots	Up to 6 slots 4 x PCIe x16 slots (Gen3 x16 link), FH, FL 2 x PCIe x16 slots (Gen3 x16 link), LP, HL	Up to 11 slots 8 x PCIe x16 slots (Gen4 x8 link) or 4 x PCIe x16 slots (Gen4 x16 link), FH, FL 2 x PCIe x16 slots (Gen4 x16 link), LP, HL 1 x PCIe x8 slot (Gen4 x8 link), LP, HL	Up to 11 slots 8 x PCIe x16 slots (Gen3 x8 link) or 3 x PCIe x16 slots (Gen3 x16 link), FH, FL 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 2 x PCIe x8 slots (Gen3 x8 link), LP, HL
Storage Controller	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Intel® PCH integrated 8 x SATA 6Gb/s ports Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	4 x 2.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS)* 4 x M.2 (Up to 22110, PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays	8 x 3.5" Front Hot-swap Storage Bays (UP to 2x NVMe/SATA/SAS + 6x SATA/SAS)* 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays	8 x 2.5" Front Hot-swap Storage Bays (UP to 2x NVMe/SATA/SAS + 6x SATA/SAS)* 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	2 x 10GbE LAN ports (Intel® X550-AT2) 1 x Management port	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port
Optical Drive	N/A	N/A	N/A
Front I/O Ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports
Rear I/O Ports	2 x RJ-45 ports 1 x RJ-45 Management port 2 x USB 3.2 Gen1 port 1 x VGA port	2 x RJ-45 ports 1 x RJ-45 Management port 2 x USB 3.2 Gen1 port 1 x VGA port	2 x RJ-45 ports 1 x RJ-45 Management port 2 x USB 3.2 Gen1 port 1 x VGA port
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	998mm x 439.5mm x 43.6mm (1U) 39.29" x 17.30" x 1.72"	800mm x 440mm x 88mm (2U) 31.50" x 17.22" x 3.46"	800mm x 440mm x 88mm (2U) 31.50" x 17.22" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	20.1 kg	34 kg	34 Kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	23.5 kg	44 kg	44 Kg
Power Supply (Following different configuration by region)	1+1 Redundant 2200W 80 PLUS Platiunm Power Supply	1+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply	1+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply

	ESC4000 G4X	**RS720Q-E9-RS24-S**	**RS720Q-E9-RS8-S**
	2U, 4GPU, 2 Internal Storage Cage	2U4N, HPC, 8 NVMe/SATA/SAS +16 SATA/SAS	2U4N, HPC, 8 NVMe/SATA/SAS
Motherboard	Z11PG-D16	Z11PH-D12	Z11PH-D12
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)	Per Node: 2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)	Per Node: 2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 2048GB	Per Node: 12 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1536GB	Per Node: 12 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1536GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	Up to 4 dual-slot GPU or 8 single-slot GPU cards	N/A	N/A
Expansion Slots	Up to 10 slots 8 x PCIe x16 slots (Gen3 x8 link) or 4 x PCIe x16 slots (Gen3 x16 link), FH, FL 1 x PCIe x16 slot (Gen3 x16 link), LP,HL 1 x PCIe x8 slot (Gen3 x8 link), LP, HL	Per Node: Up to 1 slot, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket	Per Node: Up to 1 slot, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket
Storage Controller	Intel® PCH integrated 2 x SATA 6Gb/s ports	Per Node: Support RAID 0, 1 Onboard Broadcom SAS3008 12G Controller	Per Node: Support RAID 0, 1 Onboard Broadcom SAS3008 12G Controller
Storage Bays	2 x 3.5" or 2.5" Middle Storage Cages 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link)	24 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS+ 16x SATA/SAS)	8 x 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS)
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port	Per Node: 2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100GbE/ InfiniBand Adapter	Per Node: 2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100GbE/ InfiniBand Adapter
Optical Drive	N/A	N/A	N/A
Front I/O Ports	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports	N/A	N/A
Rear I/O Ports	2 x RJ-45 ports 1 x RJ-45 Management port 2 x USB 3.2 Gen1 port 1 x VGA port	Per Node: 2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	Per Node: 2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module	N/A	N/A
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	800mm x 440mm x 88mm (2U) 31.50" x 17.22" x 3.46"	800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"	800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	33 kg	37.5 kg	32.5 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	43 kg	46.5 kg	41.5 kg
Power Supply (Following different configuration by region)	1+1 Redundant 1600W/2200W 80 PLUS Platinum Power Supply	1+1 1600W/2200W 80 PLUS Platinum Power Supply	1+1 1600W/2200W 80 PLUS Platinum Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Rack Servers   26

Rack Servers

	2U, 3TB DDR4, 24 SATA/SAS, 2M.2 **RS720-E9-RS24-E**	2U, 3TB DDR4, 24 NVMe/SATA/SAS **RS720-E9-RS24-U**	2U, 3TB DDR4, 4 SATA/SAS/NVMe + 8 SATA/SAS **RS720-E9-RS12-E**
Motherboard	Z11PP-D24	Z11PP-D24	Z11PP-D24
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	N/A	N/A	N/A
Expansion Slots	Up to 8 slots, 1 OCP 2.0 socket 7 x PCIe x16 slots (Gen3 x8 link), FH, HL 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 8 slots, 1 OCP 2.0 socket 7 x PCIe x16 slots (Gen3 x8 link), FH, HL 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 8 slots, 1 OCP 2.0 socket 7 x PCIe x16 slots (Gen3 x8 link), FH, HL 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	24 x 2.5" Front Hot-swap Storage Bays (Up to 24x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays	24 x 2.5" Front Hot-swap Storage Bays (Up to 24x NVMe/SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays	12 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS + 8x SATA/SAS)* Optional 2 x 2.5" Rear Hot-swap Storage Bays (Up 2x NVMe/SATA) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to enable the driver bays
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter
Optical Drive	1 x External USB Optical Drive (optional)	1 x External USB Optical Drive (optional)	1 x External USB Optical Drive (optional)
Front I/O Ports	2 x USB 2.0 ports	2 x USB 2.0 ports	2 x USB 2.0 ports
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	750mm x 444mm x 88mm (2U) 29.52" x 17.48" x 3.46"	750mm x 444mm x 88mm (2U) 29.52" x 17.48" x 3.46"	750mm x 444mm x 88mm (2U) 29.52" x 17.48" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	18 kg	18 kg	17.55 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	25.37 kg	25.37 kg	24.92 kg
Power Supply (Following different configuration by region)	1+1 Redundant 800W 80 PLUS Platinum Power Supply (for under 165W CPU) 1+1 Redundant 1200W 80 PLUS Platinum Power Supply	1+1 Redundant 1600W 80 PLUS Platinum Power Supply	1+1 Redundant 800W 80 PLUS Platinum Power Supply 1+1 Redundant 850W 80 PLUS Titanium Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

	2U, 3TB DDR4, 2 GPU **RS720-E9-RS8-G**	**2U, 3TB DDR4,** **4 NVMe/SATA/SAS + 4 SATA/SAS** **RS720-E9-RS8**	**1U, 3TB DDR4, 12 Multi-Storage Bays** **RS700-E9-RS12**
Motherboard	Z11PP-D24	Z11PP-D24	Z11PP-D24
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	Up to 2 dual-slot GPU cards	N/A	N/A
Expansion Slots	Up to 6 slots, 1 OCP 2.0 socket 2 x PCIe x16 slots (Gen3 x16 link), FH, FL 3 x PCIe x16 slots (Gen3 x8 link), FH, HL 1 x PCIe x16 slot (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 8 slots, 1 OCP 2.0 socket 7 x PCIe x16 slots (Gen3 x8 link), FH, HL 1 x PCIe x16 slots (Gen3 x16 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 3 slots, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), FH, HL 1 x PCIe x16 slot (Gen3 x8 link), LP, HL 1 x PCIe x8 slot (Gen3 x8 link), LP, HL 1 x OCP 2.0 Mezz. socket
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	8 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS + 4x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	8 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS + 4x SATA/SAS)* Optional 2 x 2.5" Rear Hot-swap Storage Bays (Up to 2 x NVMe/SATA) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	12 x 2.5" Front Hot-swap Storage Bays (Up to 2x NVMe + 2x NVMe/SATA + 8x SATA)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter
Optical Drive	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay	N/A
Front I/O Ports	2 x USB 2.0 ports 1 x VGA port	2 x USB 2.0 ports Gen1 1 x VGA port	N/A
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	750mm x 444mm x 88mm (2U) 29.52" x 17.48" x 3.46"	750mm x 444mm x 88mm (2U) 29.52" x 17.48" x 3.46"	686mm x 444mm x 44mm (1U) 27" x 17.48" x 1.73"
Net Weight kg (CPU, DRAM & HDD not included)	15.98 kg	15.98 kg	16.8 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	23.25 kg	23.25 kg	18.35 kg
Power Supply (Following different configuration by region)	1+1 Redundant 1200W 80 PLUS Platinum Power Supply (for under 165W CPU) 1+1 Redundant 1300W 80 PLUS Platinum Power Supply	1+1 Redundant 800W 80 PLUS Platinum Power Supply 1+1 Redundant 850W 80 PLUS Titanium Power Supply	1+1 Redundant 800W 80 PLUS Platinum Power Supply

Rack Servers

	RS700-E9-RS4	RS540-E9-RS36-E	RS520-E9-RS12UV2
	1U, 3TB DDR4, 2 M.2 slots	**4U, 36 Storage Bays, Data Center**	**2U, 2 M.2, 8 NVMe/SATA/SAS + 4 SATA/SAS**
Motherboard	Z11PP-D24	Z11PR-D16	Z11PR-D16
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 150W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	24 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Intel® Optane™ DC persistent memory (DCPMM) Max. 9216GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 4096GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 4096GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	N/A	N/A	N/A
Expansion Slots	Up to 3 slots, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), FH, HL 1 x PCIe x16 slot (Gen3 x8 link), LP, HL 1 x PCIe x8 slot (Gen3 x8 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 6 slots, 1 OCP 2.0 socket 2 x PCIe x16 slots (Gen3 x16 link), LP, HL 4 x PCIe x8 slots (Gen3 x8 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 6 slots, 1 OCP 2.0 socket 2 x PCIe x16 slots (Gen3 x16 link), LP, HL 4 x PCIe x8 slots (Gen3 x8 link), LP, HL 1 x OCP 2.0 Mezz. socket
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	24 x 3.5" or 2.5" Front Hot-Swap Storage Bays (Up to 24x SATA/SAS)* 12 x 3.5" or 2.5" Rear Hot-Swap Storage Bays (Up to 12x SATA/SAS)* 2 x 2.5" Rear Hot-Swap Storage Bays (Up to 2x SATA) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	12 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 8x NVMe/SATA/SAS + 4x SATA/SAS)* 2 x 2.5" Rear Hot-Swap Storage Bays (Up to 2x SATA) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter
Optical Drive	1 x Slim-type Optical Drive Bay	N/A	1 x External USB Optical Drive (Optional)
Front I/O Ports	2 x USB 2.0 ports Gen1 1 x VGA port	2 x USB 2.0 ports	2 x USB 2.0 ports
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	686mm x 444mm x 44mm (1U) 27" x 17.48" x 1.73"	615mm x 447mm x 176mm (4U) 24.21" x 17.6" x 6.92"	615mm x 444mm x 88mm (2U) 24.21" x 17.48" x 3.46"
Net Weight kg (CPU, DRAM & HDD not included)	16.5 kg	27.73 kg	24.55 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	18.05 kg	36.1 kg	30.1 kg
Power Supply (Following different configuration by region)	1+1 Redundant 550/800W 80 PLUS Platinum Power Supply	1+1 Redundant 800W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 800W 80 PLUS Platinum Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

	2U, 2 M.2, 4 NVMe/SATA/SAS + 4 SATA/SAS **RS520-E9-RS8 V2**	**1U, 2 M.2, 2TB DDR4, 4 NVMe/SATA/SAS** **RS500-E9-RS4-U**	**1U, 2 M.2, 2TB DDR4, 4 SATA/SAS** **RS500-E9-RS4**
Motherboard	Z11PR-D16	Z11PR-D16-DC	Z11PR-D16-DC
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)
Chipset	Intel® C621	Intel® C621	Intel® C621
Memory	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 4096GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 2048GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 2048GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Graphic	N/A	N/A	N/A
Expansion Slots	Up to 6 slots, 1 OCP 2.0 socket 2 x PCIe x16 slots (Gen3 x16 link), LP, HL 4 x PCIe x8 slots (Gen3 x8 link), LP, HL 1 x OCP 2.0 Mezz. socket	Up to 2 slots, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), FH, HL 1 x PCIe x8 slot (Gen3 x8 link), FH, HL 1 x OCP 2.0 Mezz. socket	Up to 2 slots, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), FH, HL 1 x PCIe x8 slot (Gen3 x8 link), FH, HL 1 x OCP 2.0 Mezz. socket
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for PCIe RAID: Support Intel® VROC Software RAID Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	8 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4 NVMe/SATA/SAS + 4 SATA/SAS)* 2 x 2.5" Rear Hot-Swap Storage Bays (Up to 2x SATA) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x NVMe/SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter
Optical Drive	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay
Front I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port	2 x USB 3.2 Gen1 ports 1 x VGA port	2 x USB 3.2 Gen1 ports 1 x VGA port
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	615mm x 444mm x 88mm (2U) 24.21" x 17.48" x 3.46"	616 x 444 x 44mm (1U) 24.21" x 17.48" x 1.73"	616 x 444 x 44mm (1U) 24.21" x 17.48" x 1.73"
Net Weight kg (CPU, DRAM & HDD not included)	19.7 kg	11 kg	11 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	27.97 kg	17 kg	17 kg
Power Supply (Following different configuration by region)	1+1 Redundant 800W 80 PLUS Platinum Power Supply	1+1 Redundant 770W 80 PLUS Platinum Power Supply	1+1 Redundant 770W 80 PLUS Platinum Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Rack Servers   30

Rack Servers

	1U, 2 M.2, 2TB DDR4, 4 SATA/SAS **RS500-E9-PS4**	1U, Xeon® E processors, 1+1 RPSU Power supply **RS300-E11-RS4**	1U, Xeon® E processors **RS300-E11-PS4**
Motherboard	Z11PR-D16-DC	P12R-M/SYS	P12R-M/SYS
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)	1 x Socket H5 (LGA1200) Intel® Xeon® E processors (Up to 95W) Intel® Pentium™ processors	1 x Socket H5 (LGA1200) Intel® Xeon® E processors (Up to 95W) Intel® Pentium™ processors
Chipset	Intel® C621	Intel® C252	Intel® C252
Memory	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 2048GB	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB
VGA	Aspeed AST2500 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	N/A	IGPU HDMI 1.4	IGPU HDMI 1.4
Expansion Slots	Up to 2 slots, 1 OCP 2.0 socket 1 x PCIe x16 slot (Gen3 x16 link), FH, HL 1 x PCIe x8 slot (Gen3 x8 link), FH,HL 1 x OCP 2.0 Mezz. socket	Up to 2 slots, 1 proprietary slot 1 x PCIe x16 slot (Gen4 x16 Link), FH, HL 1 x PCIe x8 slot (Gen4 x8 Link), HH, HL 1 x PCIe x8 slot (Gen3 x4 Link), proprietary	Up to 2 slots, 1 proprietary slot 1 x PCIe x16 slot (Gen4 x16 Link), FH, HL 1 x PCIe x8 slot (Gen4 x8 Link), HH, HL 1 x PCIe x8 slot (Gen3 x4 Link), proprietary
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card
Storage Bays	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 2x NVMe/SATA/SAS + 2x SATA/SAS)* 1 x M.2 (Up to 2280, PCIe Gen3 x4 link) *RAID card/NVMe upgrade kit is required to support NVMe/SAS hard drives	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 2x NVMe/SATA/SAS + 2x SATA/SAS)* 1 x M.2 (Up to 2280, PCIe Gen3 x4 link) *RAID card/NVMe upgrade kit is required to support NVMe/SAS hard drives
Networking	2 x 1GbE LAN ports (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100 GbE/ InfiniBand Adapter	2 x 1 GbE LAN ports (Intel® I210-AT) 1 x Management port	2 x 1 GbE LAN ports (Intel® I210-AT) 1 x Management port
Optical Drive	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay
Front I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port	1 x VGA port 2 x USB 3.2 Gen1 ports	1 x VGA port 2 x USB 3.2 Gen1 ports
Rear I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 ports 1 x RJ-45 Management port	2 x USB 3.2 Gen2 ports 1 x VGA port* 1 x HDMI port from CPU 1 x COM port 2 x RJ-45 ports 1 x RJ-45 Management port (optional) *It is required to work with ASMB10-iKVM	2 x USB 3.2 Gen2 ports 1 x VGA port* 1 x HDMI port from CPU 1 x COM port 2 x RJ-45 ports 1 x RJ-45 Management port (optional) *It is required to work with ASMB10-iKVM
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM
Dimension	616 x 444 x 44mm (1U) 24.21" x 17.48" x 1.73"	497mm x 439.5mm x 44mm (1U) 19.57" x 17.28" x 1.73"	497mm x 439.5mm x 44mm (1U) 19.57" x 17.28" x 1.73"
Net Weight kg (CPU, DRAM & HDD not included)	10 kg	10.3 Kg	8.47 Kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	16 kg	15.3 Kg	13.47 Kg
Power Supply (Following different configuration by region)	Single 650W 80 PLUS Platinum Power Supply	1+1 Redundant 450W 80 PLUS Platinum Power Supply	Single 350W 80 PLUS Gold Power Supply

	1U, Xeon® E processors, 1+1 RPSU Power supply **RS300-E10-RS4**	1U, Xeon® E processors **RS300-E10-PS4**	1U, Xeon® E processors, 2 Internal Storage + 2 M.2 **RS100-E10-PI2**
Motherboard	P11C-C/4L/SYS	P11C-C/4L/SYS	P11C-M/4L
Processor	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W)	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W)	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W)
Chipset	Intel® C242	Intel® C242	Intel® C242
Memory	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB
VGA	Aspeed AST2500 32MB	Aspeed AST2500 32MB	Aspeed AST2500 32MB
Graphic	N/A	N/A	N/A
Expansion Slots	Up to 2 slots 1 x PCIe x16 slot (Gen3 x8 Link), FH, HL 1 x PCIe x8 slot (Gen3 x8 Link), FH, HL	Up to 2 slots 1 x PCIe x16 slot (Gen3 x8 Link), FH, HL 1 x PCIe x8 slot (Gen3 x8 Link), FH, HL	Up to 1 slot 1 x PCIe x16 slot (Gen3 x16 Link), FH, HL
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card	Support RAID 0, 1, 10, 5
Storage Bays	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x SATA/SAS)* 2 x 2.5" Middle Storage Bays (Up to 2x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	4 x 3.5" or 2.5" Front Hot-swap Storage Bays (Up to 4x SATA/SAS)* 2 x 2.5" Middle Storage Bays (Up to 2x SATA/SAS)* 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE/RAID card is required to support SAS hard drives	2 x 3.5" Middle Storage Cages or 1 x 3.5" Middle Storage Cage + 4 x 2.5" Middle Storage Cages 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link)
Networking	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port
Optical Drive	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay	1 x Slim-type Optical Drive Bay (optional)
Front I/O Ports	2 x USB 3.2 Gen1 ports 1 x VGA port	2 x USB 3.2 Gen1 ports 1 x VGA port	2 x USB 3.2 Gen1 ports 1 x VGA port
Rear I/O Ports	2 x USB 3.2 Gen2 ports 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x External COM port 4 x RJ-45 ports 1 x RJ-45 Management port (optional)	2 x USB 3.2 Gen2 ports 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x External COM port 4 x RJ-45 ports 1 x RJ-45 Management port (optional)	2 x USB 3.2 Gen2 ports 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x External COM port 4 x RJ-45 ports 1 x RJ-45 Management port (optional)
Security Solution	Optional TPM Module	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise Optional ASMB9-iKVM	Optional ASUS Control Center Enterprise Optional ASMB9-iKVM	Optional ASUS Control Center Enterprise Optional ASMB9-iKVM
Dimension	615mm x 444mm x 44mm (1U) 24.21" x 17.48" x 1.73"	615mm x 444mm x 44mm (1U) 24.21" x 17.48" x 1.73"	380mm x 430mm x 44mm (1U) 14.96" x 16.93" x 1.73"
Net Weight kg (CPU, DRAM & HDD not included)	12.87 kg	11.04 kg	7.5 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	18.99 kg	17.16 kg	11.72 kg
Power Supply (Following different configuration by region)	1+1 Redundant 450W 80 PLUS Gold Power Supply	Single 350W 80 PLUS Gold Power Supply	Single 250W 80 PLUS Gold Power Supply Single 350W 80 PLUS Gold Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Rack Servers   32

Workstations

	Tower, 4 GPU, 1+1 CRPS Power Supply **E900 G4**	Tower, 4 GPU, ATX Power Supply **Pro E800 G4**	Tower, 2 GPU, ATX Power Supply **ESC700 G4**
Motherboard	WS C621E SAGE	Pro WS C621-64L SAGE/10G	WS C422 PRO/SE
Processor	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 205W)	1 x Socket P (LGA 3647) Intel® Xeon® W-3200 processors (Up to 205W)	1 x Socket R4 (LGA2066) Intel® Xeon W Series processors (Up to 165W)
Chipset	Intel® C621	Intel® C621	Intel® C422
Memory	12 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1536GB	12 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1536GB	8 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM Max. 512GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	N/A
Graphic	Up to 4 dual-slot GPU cards	Up to 4 dual-slot GPU cards	Up to 2 dual-slot GPU cards
Expansion Slots	Up to 7 slots 3 x PCIe x16 slots (Gen3 x16 link), FH, FL 2 x PCIe x16 slots (Gen3 x8 link), FH, FL 1 x PCIe x16 slot (Gen3 x16/x8 link), FH, FL 1 x PCIe x16 slot (Gen3 x0/x8 link), FH, FL	Up to 5 slots 4 x PCIe x16 slots (Gen3 x16 link), FH, FL 1 x PCIe x16 slot (Gen3 x4 link), FH, FL	Up to 5 slots 2 x PCIe x16 slots (Gen3 x16 link),FH, FL 1 x PCIe x4 slot (Gen3 x4 link), FH, FL 1 x PCIe x16 slot (Gen3 x16/x8 link), FH, FL 1 x PCIe x16 slot (Gen3 x0/x8 link), FH, FL
Storage Controller	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12G/s HBA card ASUS PIKE II 3108 8-port SAS HW 12G/s RAID card	Support RAID 0, 1, 10, 5 Optional kits for SAS: ASUS PIKE II 3008 8-port SAS 12G/s HBA card ASUS PIKE II 3108 8-port SAS HW 12G/s RAID card	Support RAID 0, 1, 10, 5
Storage Bays	8 x 3.5" or 2.5" Tool-less Middle Storage Bays (Up to 4x NVMe/SATA/SAS+ 4x SATA/SAS)* 1 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *PIKE card is required to support SAS hard drives, which will occupy 2 NVMe	8 x 3.5" or 2.5" Tool-less Middle Storage Bays (Up to 4x NVMe/SATA/SAS + 4x SATA/SAS)* 1 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) *NVMe RISER/PIKE card is required to support NVMe/SAS hard drives	3 x 3.5" Middle Storage Cages 1 x 2.5" Middle Storage Cage 1 x M.2 (Up to 22110, PCIe Gen3 x4 link) 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) 1 x U.2
Networking	2 x 1GbE LAN ports (Intel® I210-AT)	2 x 10GbE LAN ports (Intel® X550-AT2)	2 x 1GbE LAN ports (Intel® I210-AT)
Audio	Realtek® ALC S1220A 7.1-Channel HD Audio	Realtek® ALC S1220A 7.1-Channel HD Audio	Realtek® ALC S1220A 7.1-Channel HD Audio
Optical Drive	2 x 5.25" media bays	2 x 5.25" media bays	2 x 5.25" media bays
Front I/O Ports	4 x USB 3.2 Gen1 ports 1 x Headphone port 1 x Microphone port	4 x USB 3.2 Gen1 ports 1 x Headphone port 1 x Microphone port	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports 1 x Headphone port 1 x Microphone port
Rear I/O Ports	2 x USB 3.2 Gen2 ports (1 x Type-A, 1 x Type-C™) 4 x USB 3.2 Gen1 ports 2 x USB 2.0 ports (1 for USB BIOS Flashback) 1 x PS/2 and keyboard Mouse port 2 x RJ-45 ports 5 x Audio Jacks 1 x Optical S/PDIF output 1 x Com port (optional) 1 x VGA port (optional)	2 x USB 3.2 Gen2 ports (1 x Type-A, 1 x Type-C™) 4 x USB 3.2 Gen1 ports 2 x RJ-45 ports 5 x Audio Jacks 1 x Optical S/PDIF output 1 x Com port (optional) 1 x VGA port (optional)	1 x USB BIOS Flashback Button 2 x USB 3.2 Gen2 ports (1 x USB Type-C™) 4 x USB 3.2 Gen1 ports 4 x USB 2.0 ports (1 for USB BIOS Flashback) 2 x RJ-45 ports 5 x Audio Jacks 1 x Optical S/PDIF output
Security Solution	Optional TPM Module Chassis Intrusion Switch	Optional TPM Module Chassis Intrusion Switch	Optional TPM Module Chassis Intrusion Switch
Management Solution	Optional ASUS Control Center Enterprise Optional ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Dimension	532mm x 243mm x 582mm 21.0" x 9.5" x 22.9"	532mm x 243mm x 582mm 21.0" x 9.5" x 22.9"	423mm x 190mm x 435mm 16.7" x 7.48" x 17.1"
Net Weight kg (CPU, DRAM & HDD not included)	18.33 kg	18 Kg	14 kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	23.15 kg	23 Kg	16.2 kg
Power Supply (Following different configuration by region)	1+1 Redundant 2000W 80 PLUS Titanium Power Supply	Single 750W 80 PLUS Gold Power Supply Single 2000W 80 PLUS Platinum Power Supply	Single 550W/750W 80 PLUS Gold Power Supply Single 1300W 80 PLUS Platinum Power Supply

	Tower, HDMI/Displayport/DVI-D/VGA, 7.1 HD Audio **Pro E500 G6**	**Tower, HDMI/Displayport/DVI-D/VGA, 7.1 HD Audio** **Pro E500 G7**
Motherboard	W480/SYS	W580/SYS
Processor	1 x Socket H5 (LGA1200) Intel® Core™ i9/i7/i5/i3 processors Intel® Xeon® W Series processors (Up to 125W)	1 x Socket H5 (LGA1200) Intel® Core™ i9/i7/i5/i3 processors Intel® Xeon® W Series Processors (Up to 125W)
Chipset	Intel® W480	Intel® W580
Memory	4 x DIMM slots DDR4 up to 2933 ECC/non-ECC UDIMM Max. 128GB	4 x DIMM slots DDR4 3200 ECC/non-ECC UDIMM Max. 128GB
VGA	N/A	N/A
Graphic	Up to 1 dual-slot GPU card	Up to 1 dual-slot GPU card
Expansion Slots	Up to 6 slots 1 x PCIe x16 slot (Gen3 x16 link), FH, FL 1 x PCIe x16 slot (Gen4 x0/x8 link), FH, FL 2 x PCIe x16 slots (Gen3 x4 link), FH, FL 2 x PCIe x1 slots (Gen3 x1 link), FH, FL	Up to 5 slots 1 x PCIe x16 slot (Gen4 x16/x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x0/x8 link), FH, FL 1 x PCIe x16 slot (Gen4 x4 link), FH, FL 1 x PCIe x16 slot (Gen3 x4 link), FH, FL 1 x PCIe x1 slot (Gen3 x1 link), FH, FL
Storage Controller	Support RAID 0, 1, 10, 5	Support RAID 0, 1, 10, 5
Storage Bays	3 x 3.5" Middle Storage Cages 1 x 2.5" Middle Storage Cage 1 x M.2 (Up to 22110, PCIe Gen3 x4 link) 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link)	3 x 3.5" Middle Storage Cages 1 x 2.5" Middle Storage Cage 1 x M.2 (Up to 22110, PCIe Gen4 x4 link) 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link)
Networking	1 x 2.5 GbE LAN port (Intel® I225-LM) 1 x 1 GbE LAN port (Intel® I219-LM)	2 x 2.5 GbE LAN ports (Intel® I225-LM)
Audio	Realtek® ALC 800 Series 7.1-Channel HD Audio	Realtek® ALC 888 7.1-Channel HD Audio
Optical Drive	2 x 5.25" media bays	2 x 5.25" media bays
Front I/O Ports	2 x USB 3.2 Gen1 ports 2 x USB 2.0 ports 1 x Headphone port 1 x Microphone port	1 x USB 3.2 Gen2 x2 port 2 x USB 3.2 Gen1 ports 1 x USB 2.0 port 1 x Headphone port 1 x Microphone port
Rear I/O Ports	2 x USB 3.2 Gen2 ports (1 x Type-A, 1 x Type-C™) 4 x USB 3.2 Gen1 ports 1 x HDMI 1 x Displayport 1 x DVI-D 1 x VGA 2 x RJ-45 ports 5 x Audio Jacks 1 x Optical S/PDIF output	2 x USB 3.2 Gen2 ports (1 x Type-A, 1 x Type-C™) 4 x USB 3.2 Gen1 ports 1 x HDMI 1 x Displayport 1 x DVI-D 1 x VGA 2 x RJ-45 ports 5 x Audio Jacks 1 x Optical S/PDIF output
Security Solution	Optional TPM Module	Optional TPM Module
Management Solution	Optional ASUS Control Center Enterprise	Optional ASUS Control Center Enterprise
Dimension	423mm x 190mm x 435mm 16.65" x 7.48" x 17.13"	423mm x 190mm x 435mm 16.65" x 7.48" x 17.13"
Net Weight kg (CPU, DRAM & HDD not included)	12.1 Kg	12.1 Kg
Gross Weight kg (GPU, DRAM & HDD not included, Packing included)	9.9 Kg	9.9 Kg
Power Supply (Following different configuration by region)	Single 300W 80 PLUS Bronze Power Supply Single 450W/550W/750W 80 PLUS Gold Power Supply	Single 300W 80 PLUS Bronze Power Supply Single 550W/750W 80 PLUS Gold Power Supply

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Workstations   34

Server Boards

	P12R-M	**P12R-M/10G-2T**	**P12R-E**
Processor	1 x Socket H5 (LGA1200) Intel® Xeon® E processors Intel® Pentium™ processors (Up to 95W)	1 x Socket H5 (LGA1200) Intel® Xeon® E processors Intel® Pentium™ processors (Up to 95W)	1 x Socket H5 (LGA1200) Intel® Xeon® E processors Intel® Pentium™ processors (Up to 95W)
Chipset	Intel® C252	Intel® C252	Intel® C256
Memory	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Expansion Slots	Up to 2 slots 1 x PCIe x16 slot (Gen4 x16 Link) 1 x PCIe x8 slot (Gen4 x4 Link)	Up to 2 slots 1 x PCIe x16 slot (Gen4 x16 Link) 1 x PCIe x8 slot (Gen4 x4 Link)	Up to 4 slots 1 x PCIe x16 slot (Gen4 x16 Link)* 1 x PCIe x8 slot (Gen4 x8 Link) 2 x PCIe x4 slots (Gen3 x4 Link) *it will auto switch to x8 link when PCIe x8 slot is occupied
Storage	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 1 x M.2 (Up to 2280, PCIe Gen3 x4 link)	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 1 x M.2 (Up to 2280, PCIe Gen3 x4 link)	8 x SATA 6Gb/s ports (4 by miniSAS HD) 1 x M.2 (Up to 22110, SATA or PCIe Gen4 x4 link) 1 x M.2 (Up to 22110, SATA or PCIe Gen3 x2 link) (Support software RAID 0, 1, 10 & 5)
Networking	2 x 1 GbE LAN ports (Intel® I210-AT) 1 x Management port	2 x 10 GbE LAN ports (Intel® X710-AT2) 1 x Management port	2 x 1 GbE LAN ports (Intel® I210-AT) 1 x Management port
Audio	N/A	N/A	N/A
Other Onboard I/O Devices	2 x USB 3.2 Gen2 ports at rear 1 x USB 3.2 Gen2 header at mid-board 1 x USB 2.0 header at mid-board	2 x USB 3.2 Gen2 ports at rear 1 x USB 3.2 Gen2 header at mid-board 1 x USB 2.0 header at mid-board	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 3.2 Gen1 at mid-board (Type-A Vertical)
Management Solution	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM
Form Factor	Micro ATX, 9.6" x 9.6"	Micro ATX, 9.6" x 9.6"	ATX, 12" x 9.6"

	P12R-E/10G-2T	**P12R-I**	**P11C-C/4L**
Processor	1 x Socket H5 (LGA1200) Intel® Xeon® E processors Intel® Pentium™ processors (Up to 95W)	1 x Socket H5 (LGA1200) Intel® Xeon® E processors Intel® Pentium™ processors (Up to 95W)	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors
Chipset	Intel® C256	Intel® C252	Intel® C242
Memory	4 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 128GB	2 x DIMM slots DDR4 up to 3200 ECC UDIMM Max. 64GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2500 32MB
Expansion Slots	Up to 4 slots 1 x PCIe x16 slot (Gen4 x16 Link)* 1 x PCIe x8 slot (Gen4 x8 Link) 2 x PCIe x4 slots (Gen3 x4 Link) *it will auto switch to x8 link when PCIe x8 slot is occupied	Up to 1 slot 1 x PCIe x16 slot (Gen4 x16 Link)	Up to 4 slots 1 x PCIe x16 slot (Gen3 x16 link)* 1 x PCIe x8 slot (Gen3 x8 link) 1 x MIO slot 1 x PCI 32bit/33 MHz *it will auto switch to x8 link when PCIe x8 slot is occupied
Storage	8 x SATA 6Gb/s ports (4 by miniSAS HD) 1 x M.2 (Up to 22110, SATA or PCIe Gen4 x4 link) 1 x M.2 (Up to 22110, SATA or PCIe Gen3 x2 link) (Support software RAID 0, 1, 10 & 5)	6 x SATA 6Gb/s ports (4 by mini-SAS HD) 1 x M.2 (Up to 2280, PCIe Gen4 x4 link) (Support software RAID 0, 1, 10 & 5)	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) Optional kits for SAS upgrade
Networking	2 x 10 GbE LAN ports (Intel® X710-AT2) 1 x Management port	2 x 1 GbE LAN ports (Intel® I210-AT) 1 x Management port	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port
Audio	N/A	N/A	N/A
Other Onboard I/O Devices	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 3.2 Gen1 header at mid-board (Type-A Vertical)	4 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x USB 2.0 connector at mid-board (Type-A USB socket) 1 x VGA header at mid-board 1 x VGA port 1 x TPM header 2 x COM port headers
Management Solution	Optional ASUS Control Center Enterprise Optional ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB10-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Form Factor	ATX, 12" x 9.6"	Mini-ITX, 6.7" x 6.7"	ATX, 12" x 9.6"

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Server Boards   36

Server Boards

	P11C-I	**P11C-M/4L**	**P11C-M/10G-2T**
Processor	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors
Chipset	Intel® C242	Intel® C242	Intel® C242
Memory	2 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 32GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 64GB
VGA	Aspeed AST2500 32MB	Aspeed AST2500 32MB	Aspeed AST2500 32MB
Expansion Slots	Up to 1 slot 1 x PCIe x16 slot (Gen3 x16 Link)	Up to 2 slots 1 x PCIe x16 slot (Gen3 x16 link)* 1 x PCIe x8 slot (Gen3 x8 Link) *it will auto switch to x8 link when PCIe x8 slot is occupied	Up to 2 slots 1 x PCIe x16 slot (Gen3 x16 link) 1 x PCIe x8 slot (Gen3 x8 Link)
Storage	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 1 x M.2 (Up to 2242, SATA or PCIe Gen3 x2 link) Optional kits for SAS upgrade	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x2 link) Optional kits for SAS upgrade	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x2 link) Optional kits for SAS upgrade
Networking	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port	2 x 10GbE LAN ports (Intel® X550-AT2) 1 x Management port
Audio	N/A	N/A	N/A
Other Onboard I/O Devices	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x USB 2.0 connector at mid-board (Type-A USB socket) 1 x VGA port 1 x COM port header 1 x TPM header	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x USB 2.0 connector at mid-board (Type-A USB socket) 1 x VGA header 1 x VGA port 1 x COM port header 1 x TPM header	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x USB 2.0 connector at mid-board (Type-A USB socket) 1 x VGA header 1 x VGA port 1 x COM port header 1 x TPM header
Management Solution	Optional ASUS Control Center Enterprise Optional ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Form Factor	Mini-ITX, 6.7" x 6.7"	Micro ATX, 9.6" x 9.6"	Micro ATX, 9.6" x 9.6"

	P11C-X	**P11C-X/Audio**	**Z11PA-U12**
Processor	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors	1 x Socket H4 (LGA1151) Intel® Xeon® E processors (Up to 95W) Intel® Core™ i3 processors Intel® Pentium™ processors Intel® Celeron™ processors	1 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)
Chipset	Intel® C242	Intel® C242	Intel® C621
Memory	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 128GB	4 x DIMM slots DDR4 up to 2666 ECC/non-ECC UDIMM Max. 128GB	12 x DIMM slots DDR4 up to 2933(1DPC)/2666 RDIMM/LR-DIMM/ LR-DIMM 3DS Max. 1536GB
VGA	Aspeed AST2510 64MB	Aspeed AST2510 64MB	Aspeed AST2500 64MB
Expansion Slots	Up to 4 slots 1 x PCIe x16 slot (Gen3 x16 link) 1 x PCIe x8 slot (Gen3 x4 link) 2 x PCI 32bit/33 MHz	Up to 4 slots 1 x PCIe x16 slot (Gen3 x16 link) 1 x PCIe x8 slot (Gen3 x4 link) 2 x PCI 32bit/33 MHz	Up to 4 slots 1 x PCIe x16 slot (Gen3 x16 link) 1 x PCIe x16 slot (Gen3 x16 link)* 1 x PCIe x8 slot (Gen3 x8 link) 1 x PCIe x8 slot (Gen3 x4 link) *it will auto switch to x8 link when PCIe x8 slot is occupied
Storage	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) Optional kits for SAS upgrade	6 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 22110, SATA) Optional kits for SAS upgrade	13 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x2 link) Optional kits for Intel® VROC Software RAID support Optional kits for SAS upgrade
Networking	1 x 1GbE LAN port (Intel® I210-AT) 1 x 1GbE LAN port (Intel® I219-LM)	1 x 1GbE LAN port (Intel® I210-AT) 1 x 1GbE LAN port (Intel® I219-LM)	2 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port
Audio	N/A	Realtek ALC800 Series 7.1 HD Audio	N/A
Other Onboard I/O Devices	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 2 x USB 2.0 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x VGA port 1 x COM port header 1 x PS/2 KB/Mouse 1 x TPM header	2 x USB 3.2 Gen2 ports at rear 2 x USB 3.2 Gen1 ports at rear 2 x USB 2.0 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x VGA port 1 x COM port header 1 x PS/2 KB/Mouse 1 x TPM header	2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x VGA port 1 x TPM header 1 x COM port header
Management Solution	Optional ASUS Control Center Enterprise	Optional ASUS Control Center Enterprise	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Form Factor	ATX, 12" x 9.6"	ATX, 12" x 9.6"	ATX, 12" x 9.6" (EEB Mounting Hole Locations)

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Server Boards　38

Server Boards

	Z11PA-U12/10G-2S	**Z11PA-D8**	**Z11PR-D16**
Processor	1 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 165W)	2 x Socket P (LGA 3647) 1st and 2nd Gen Intel® Xeon® Scalable processors (Up to 150W)
Chipset	Intel® C622	Intel® C621	Intel® C621
Memory	12 x DIMM slots DDR4 up to 2933(1DPC)/2666 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1536GB	8 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 1024GB	16 x DIMM slots DDR4 up to 2933 RDIMM/LR-DIMM/LR-DIMM 3DS Max. 4096GB
VGA	Aspeed AST2500 64MB	Aspeed AST2500 64MB	Aspeed AST2500 64MB
Expansion Slots	Up to 4 slots 1 x PCIe x16 slot (Gen3 x16 link) 1 x PCIe x16 slot (Gen3 x16 link)* 1 x PCIe x8 slot (Gen3 x8 link) 1 x PCIe x8 slot (Gen3 x4 link) *it will auto switch to x8 link when PCIe x8 slot is occupied	Up to 3 slots 2 x PCIe x16 slots (Gen3 x16 link) 1 x PCIe x8 slot (Gen3 x8 link)	Up to 6 slots, 1 OCP 2.0 socket 2 x PCIe 3.0 x16 slots (Gen3 x16 link) 4 x PCIe 3.0 x8 slots (Gen3 x8 link) 1 x OCP 2.0 Mezz. socket
Storage	13 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 1 x M.2 (Up to 2280, SATA or PCIe Gen3 x2 link) Optional kits for Intel® VROC Software RAID support Optional kits for SAS upgrade	12 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 4 x SATA 6Gb/s ports 2 x M.2 (Up to 22110, SATA or PCIe Gen3 x4 link) Optional kits for Intel® VROC Software RAID support Optional kits for SAS upgrade	11 x SATA 6Gb/s ports (RAID 0, 1, 10, 5) 2 x M.2 (Up to 2280, SATA or PCIe Gen3 x4 link) Optional kits for Intel® VROC Software RAID support Optional kits for SAS upgrade
Networking	2 x 1GbE LAN ports (Intel® I210-AT) 2 x 10GbE LAN ports (Intel® X722) 1 x Management port	4 x 1GbE LAN ports (Intel® I210-AT) 1 x Management port	1 x 1GbE LAN port (Intel® I350-AM2) 1 x Management port Optional OCP 2.0 socket: Up to 100GbE/ InfiniBand Adapter
Audio	N/A	N/A	N/A
Other Onboard I/O Devices	2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x VGA port 1 x TPM header 1 x COM port header	4 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 1 x USB 2.0 header at mid-board 1 x VGA port 1 x TPM header 1 x COM port header	2 x USB 3.2 Gen1 ports at rear 1 x USB 3.2 Gen1 header at mid-board 2 x USB 2.0 headers at mid-board 1 x VGA port 1 x TPM header 1 x COM port header 1 x Micro SD card slot
Management Solution	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM	Optional ASUS Control Center Enterprise On-Board ASMB9-iKVM
Form Factor	ATX, 12" x 9.6" (EEB Mounting Hole Locations)	CEB, 12" x 10.5"	SSI EEB, 12" x 13"

Accessory PIKE II

	PIKE II 3108-8i/240PD/2G	PIKE II 3108-8i/240PD	PIKE II 3108-8i/16PD/2G
Controller	Broadcom (LSI) SAS3108	Broadcom (LSI) SAS3108	Broadcom (LSI) SAS3108
Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 3.0 x8
Ports	8 internal ports (by 2 Mini-SAS HD SFF-8643)	8 internal ports (by 2 Mini-SAS HD SFF-8643)	8 internal ports (by 2 Mini-SAS HD SFF-8643)
Supported Device	SAS/SATA Devices	SAS/SATA Devices	SAS/SATA Devices
Data Transfer Rate	Max SAS 12Gb/s Max SATA 6Gb/s	Max SAS 12Gb/s Max SATA 6Gb/s	Max SAS 12Gb/s Max SATA 6Gb/s
RAID Level Supported	0, 1, 10, 5, 6, 50, 60 (Max. Physical Devices for RAID: 240)	0, 1, 10, 5, 6, 50, 60 (Max. Physical Devices for RAID: 240)	0, 1, 10, 5, 6, 50, 60 (Max. Physical Devices for RAID: 16)
JBOD Mode	Yes	Yes	Yes
Embeded Memory	2GB DDR3	1GB DDR3	2GB DDR3
Cache Protection	CacheVault Module (Optional)	CacheVault Module (Optional)	CacheVault Module (Optional)
Board Form Factor	Low prole MD2 card	Low prole MD2 card	Low prole MD2 card
Dimension	6.6" x 2.71"	6.6" x 2.71"	6.6" x 2.71"

	PIKE II 3108-8i/16PD	PIKE II 3008-8i
Controller	Broadcom (LSI) SAS3108	Broadcom (LSI) SAS3008
Interface	PCIe 3.0 x8	PCIe 3.0 x8
Ports	8 internal ports (by 2 Mini-SAS HD SFF-8643)	8 internal ports (by 2 Mini-SAS HD SFF-8643)
Supported Device	SAS/SATA Devices	SAS/SATA Devices
Data Transfer Rate	Max SAS 12Gb/s Max SATA 6Gb/s	Max SAS 12Gb/s Max SATA 6Gb/s
RAID Level Supported	0, 1, 10, 5, 6, 50, 60 (Max. Physical Devices for RAID: 16)	0, 1, 10, 1E
JBOD Mode	Yes	Yes
Embeded Memory	1GB DDR3	N/A
Cache Protection	CacheVault Module (Optional)	N/A
Board Form Factor	Low prole MD2 card	Low prole MD2 card
Dimension	6.6" x 2.71"	5.81" x 2.71"

For details, please visit our website.
All specs are subject to change without any prior notice.

Accessory PIKE II   40

Accessory LAN

	MCC-25G/41202-2S	MCB-10G-2S	MCI-10G/82599-2S
Controller	Cavium QL41202	BCM 57840S	Intel® 82599
Data Transfer Rate	25Gbps Ethernet	10Gbps Ethernet	10Gbps Ethernet
Connection Port	SFP28, Dual Port	SFP+, Dual Port	SFP+, Dual Port
Host Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 2.0 x8
Board Form Factor	OCP Mezzanine Card	OCP Mezzanine Card	OCP Mezzanine Card
Dimension	2.68" x 4.33"	2.68" x 4.33"	2.68" x 4.33"
Feature	RDMA SR-IOV iSCSI Boot PXE	SR-IOV FCoE Boot iSCSI Boot PXE	SR-IOV FCoE Boot iSCSI Boot PXE

	MCI-10G/X550-2T	MCI-1G/350-4T	MCI-1G/350-2T
Controller	Intel® X550-AT2	Intel® I350-AM4	Intel® I350-AM2
Data Transfer Rate	10Gbps Ethernet	1Gbps Ethernet	1Gbps Ethernet
Connection Port	RJ45, Dual Port	RJ45, Dual Port	RJ45, Dual Port
Host Interface	PCIe 3.0 x8	PCIe 2.0 x8	PCIe 2.0 x8
Board Form Factor	OCP Mezzanine Card	OCP Mezzanine Card	OCP Mezzanine Card
Dimension	2.68" x 4.33"	2.68" x 4.33"	2.68" x 4.33"
Feature	SR-IOV FCoE Boot iSCSI Boot PXE	SR-IOV PXE	SR-IOV PXE

	PEB-10G/57840-2S	PEB-10G/57840-2T	PEI-10G/82599-2S
Controller	BCM 57840S	BCM 57840S BCM 84833 (PHY)	Intel® 82599
Data Transfer Rate	10Gbps Ethernet	10Gbps Ethernet	10Gbps Ethernet
Connection Port	SFP+, Dual Port	RJ45, Dual Port	SFP+, Dual Port
Host Interface	PCIe 3.0 x8	PCIe 3.0 x8	PCIe 2.0 x8
Board Form Factor	Low Prole Card	Low Prole Card	Low Prole Card
Dimension	4.72" x 1.77"	4.72" x 1.77"	4.72" x 1.77"
Feature	SR-IOV FCoE Boot iSCSI Boot PXE	SR-IOV FCoE Boot iSCSI Boot PXE	SR-IOV FCoE Boot iSCSI Boot PXE

For details, please visit our website.
All specs are subject to change without any prior notice.

Specifications Accessory LAN   42

NO.1
World Records
Leading computing performance
Dual- and single-socket servers

Achieved over 900+ world-record benchmarks with SPEC CPU, and still growing

World's most power-efficient servers on SPEC Power

No.1 2P server on SPECjbb-Composite and SPECjbb-Multi-JVM performance

Ranked Top 20 on the TOP500 list of the world's most powerful supercomputers and Top 10 on the Green500 list in 2018 by supporting TAIWANIA 2

Ranked No.1 on the Green500 list of energy-efficient supercomputers in 2014

* SPEC is a corporation formed to establish and endorse standardized benchmarks and tools to evaluate performance and energy efficiency of computer systems.