ASUS
IN SEARCH OF INCREDIBLE

Inventing the Future of Infrastructure

Infrastructure Solution Product Portfolio

Mission

ASUS is part of the global RE100 initiative, and strives for 100% renewable energy for all that we do. We're building on that ambition with our latest data center innovations, spearheading digital transformation across diverse applications from telecoms and finance to transportation and mission-critical medical systems.

EMBRACE THE INCREDIBLE FUTURE WITH ASUS INFRASTRUCTURE SOLUTION

ASUS stands at the forefront of the AI revolution. With seamlessly integrated solutions tailored for enterprises, we're here to guide you on your AI journey with confidence, innovation and endless possibilities.

EXTENSIVE IN-HOUSE DESIGN CAPABILITIES

ASUS has substantial resources on tap to respond quickly to fulfill almost any customization requirement, employing top-tier components, fostering strong ecosystem partnerships, implementing feature -rich designs and utilizing superior in-house design expertise for tailored solutions.

WORLD-CLASS CUSTOMIZATION ABILITY

ASUS retains a dedicated global R&D team refining servers in 113 countries through 70+ branches, supported by 1,400+ customer assistance centers. Our talent pool includes hardware, thermal, testing engineers, and software specialists, ensuring top-quality products worldwide.

TCO-OPTIMIZED DESIGNS

ASUS is dedicated to reducing the total cost of ownership (TCO) to business, through more environmentally sustainable and higher-performance designs. In 2020 alone, ASUS received 69,965 green certifications from leading global organizations.

Milestone

1995 OEM/ODM

2010 Server Business

Data Center Solutions

2024 Infrastructure Solutions

1995 Tier 1 OEM/ODM

2000 Data center OEM/ODM

2005 ASUS white-label solution

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

2010 Joined Open Compute Project 1.0 development

2011 Launched BMC solution – ASMB6-iKVM

Joined VMware technology partnership

2012 Released supercomputing, big data and storage server solutions

Launched BMC solution – ASMB7- iKVM

2014 Achieved Green500 Top 1 with ESC4000-G2S

Launched ASUS System Web-based Management (ASWM)

Launched BMC solution – ASMB8-iKVM

2016 Released GPU servers for deep learning, AI and VDI

2017 Won 2017 Taiwan Excellence Award for server products

Launched data center-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

2019 Joined Open Compute Project

2020 Joined Ubuntu technology partnership

2021 Launched BMC solution – ASMB10-iKVM

First delivery to EEMEA cloud-service provider

Jointly developed 5G edge server with 5G provider

Acquired MLCommons membership

2022 World records on MLPerf training and inference

2023 Won project for FORERUNNER 1 supercomputer to accelerate AI 2.0 era

2024 Unleash comprehensive AI Infrastructure Solutions

Partner with Ublink to built the largest supercomputing facility in Taiwan

Supercomputer ranked top 31 on the global TOP500 list and 44th on Green500 list

Build Your AI Factory with

NVIDIA-Certified Systems

NVIDIA Grace Blackwell

XA GB721-E2

ESC NM2N721-E1

XA GB721-E2

ASUS AI POD with NVIDIA GB300 NVL72

Built for the age of AI reasoning

Form Factor	L11 Rack Level
GPU	72 x NVIDIA Blackwell Ultra GPUs (B300)
CPU	36 x NVIDIA Grace CPUs
Memory Type	LDPPR5X + HBM3e
Drive Bays	144 x E1.S
Networking	72 x CX8 2P 800G 18 x B3240 2P 400G

ESC NM2N721-E1

ASUS AI POD with NVIDIA GB200 NVL72

Real-Time Trillion-Parameter Models LLM & MoE

Form Factor	L11 Rack Level
GPU	72 x NVIDIA Blackwell GPUs (B200)
CPU	36 x NVIDIA Grace CPUs
Memory Type	LDPPR5X + HBM3e
Drive Bays	144 x E1.S
Networking	72 x CX7 2P 400G 18 x B3240 2P 400G

NVIDIA MGX™ Systems

ESC8000-E12P
ESC8000A-E13P

PCIe Ready for AI and HPC workloads

Form Factor	4U
GPU	NVIDIA H200 NVL PCIe, NVIDIA L40s PCIe, NVIDIA RTX PRO™ 6000 Blackwell Server Edition
CPU	Intel® Xeon® 6 Processors AMD EPYC™ 9005 Series Processors
Memory Type	32 x DIMM slots Maximum up to 4TB (Intel Platform) 24 x DIMM slots Maximum up to 3TB (AMD Platform)
Drive Bays	8 x 2.5″
Networking	2 x 10GbE LAN ports (RJ45, X710-AT2) 1 x Management Port (RJ45)

NVIDIA HGX™ Systems

ESC NB8-E11

Blackwell Platform for Unmatched AI Performance

Form Factor	10U
GPU	NVIDIA HGX™ B200
CPU	4th Intel® Xeon® Processor Scalable Family 5th Intel® Xeon® Processor Scalable Family
Memory Type	32 x DIMM slots Maximum up to 4TB per CPU socket
Drive Bays	10 x 2.5″
Networking	2 x 10GbE LAN ports (RJ45, X710-AT2) 1 x Management Port (RJ45)

ESC N8-E11V

Top Choice for Heavy AI Workloads

Form Factor	7U
GPU	NVIDIA HGX™ H200
CPU	4th Intel® Xeon® Processor Scalable Family 5th Intel® Xeon® Processor Scalable Family
Memory Type	32 x DIMM slots Maximum up to 4TB per CPU socket
Drive Bays	10x2.5″
Networking	2 x 10GbE LAN ports (RJ45, X710-AT2) 1 x Management Port (RJ45)

XA NB3I-E12

Latest Blackwell platform for heavy AI workloads

Form Factor	9U
GPU	NVIDIA HGX™ B300
CPU	Intel® Xeon® 6 Processors
Memory Type	32 x DIMM slots Maximum up to 4TB
Drive Bays	10 x 2.5″
Networking	2 x 10Gb base-T 8 x 800Gb OSFP 1 x Management Port

XA NB3I-E12L

Latest Blackwell platform for heavy AI workloads

Form Factor	5U
GPU	NVIDIA HGX™ B300
CPU	Intel® Xeon® 6 Processors
Memory Type	32 x DIMM slots Maximum up to 4TB
Drive Bays	10 x 2.5″
Networking	2 x 10Gb base-T 8 x 800Gb OSFP 1 x Management Port

Accelerate HPC with

Intel-based Solutions

Intel® Gaudi® 3 AI accelerator

ESC I8-E11

Dedicated deep-learning training and inference

Form Factor	7U
CPU	5th Gen Intel® Xeon® Scalable processors
Memory Type	32 x DDR5 DIMM slots, up to 5600MHz(1DPC) & 4400MHz(2DPC) Minimum up to 4TB
Drive Bays	10 x 2.5"
Networking	2 x Intel X710-AT2 Gigabit LAN Controller 1 x Management Port

Intel® Xeon® 6 processors

RS720-E12

GPU-accelerator optimization for maximum efficiency

Form Factor	2U
CPU	Intel® Xeon® 6 Processors
Memory Type	32 x DDR5 DIMM slots, up to 5200MHz (2DPC) & 6400(1DPC) MRDIMM up to 8000MHz (1DPC) Minimum up to 4TB
Drive Bays	24 x 2.5"/12 x 3.5"/8 x 2.5"
Networking	1 x Management Port

RS920Q-E12

Unleash peak performance

Form Factor	2U4N
CPU	Intel® Xeon® 6 Processors
Memory Type	24 x DDR5 DIMM slots, up to 6400(1DPC) MRDIMM up to 8800MHz (1DPC)
Drive Bays	16 x 2.5"
Networking	Per Node : 2 x Intel X710-AT2 Gigabit LAN Controller (option) 1 x Management Port

RS700-E12

Effortless deployment and exceptional value

Form Factor	1U
CPU	Intel® Xeon® 6 Processors
Memory Type	32 x DDR5 DIMM slots, up to 5200MHz (2DPC) & 6400(1DPC) MRDIMM up to 8000MHz (1DPC) Minimum up to 4TB
Drive Bays	12 x 2.5" / 4 x 3.5"
Networking	1 x Management Port

RS720Q-E12

Scalable high performance computing

Form Factor	2U4N
CPU	Intel® Xeon® 6 Processors
Memory Type	16 x DDR5 DIMM slots, up to 6400(1DPC) MRDIMM up to 8000MHz (1DPC)
Drive Bays	8 x 2.5"
Networking	Per Node : 1 x Intel i210 Gigabit LAN Controller 1 x Management Port

Scalable modular architecture for seamless integration

DC-MHS Architecture

ASUS server powered by Intel® Xeon® 6 processors features DC-MHS architecture. It aims to transition from traditional monolithic server architectures to more flexible and efficient modular designs. This design reduces the need for excess components, thereby minimizing waste and energy consumption. By allowing for more efficient use of hardware resources, DC-MHS streamlines the transition from one generation to the next, significantly reducing the carbon footprint through precise scalability. DC-MHS architecture also extends the lifecycle of servers, reducing the environmental impact associated with manufacturing and disposing of hardware.

Modularity **Interoperability** **Cost efficiency** **Scalability** **Flexibility**

Elevating AI Infrastructure with

AMD-based Solutions

AMD Instinct™ MI325X/MI350 series GPUs

ESC A8A-E12

Empowering AI and HPC with excellent performance

Form Factor	7U
CPU	AMD EPYC™ 9005 Series Processors AMD EPYC™ 9004 Series Processor
Memory Type	24 x DDR5 DIMM slots, up to 6400MHz Maximum up to 3TB
Drive Bays	10 x 2.5″ 8 x NVMe + 2 x NVMe / SATA
Networking	2 x 10Gbe LAN port

AMD EPYC™ 9005 processors

RS720A-E13

Performance, efficiency and manageability with multi-tasking

Form Factor	2U
CPU	AMD EPYC™ 9005 Series Processor
Memory Type	24 x DDR5 DIMM slots, up to 6400MHz Maximum 3TB
Drive Bays	24 x 2.5″ / 12 x 3.5″ / 8 x 2.5″
Networking	1 x Management Port

RS520QA-E13

Maximizing efficiency for HPC workloads

Form Factor	2U4N
CPU	AMD EPYC™ 9005 Turin Processors
Memory Type	Per node: 12 x DDR5 DIMM slots, up to 6400 MHz 1DPC CXL module DIMM Expansion: up to 8 x DIMMs Maximun up to 2.56TB per system
Drive Bays	2 x 2.5″ (NVMe / SATA) drives
Networking	Per Node : 1 x Management Port

AMD EPYC™ 9005 /9004 processors

RS521A-E12

Optimized performance and storage for scale-out workloads

Form Factor	2U
CPU	AMD EPYC™ 9005 Series Processor AMD EPYC™ 9004 Series Processor
Memory Type	24 x DDR5 DIMM slots, up to 5200MHz Maximum up to 3,072GB
Drive Bays	12 x 2.5″ / 12 x 3.5″ / 12 x 2.5″
Networking	1 x Management Port+2 x 1GbE LAN port

RS501A-E12

Optimized performance and storage for scale-out workloads

Form Factor	1U
CPU	AMD EPYC™ 9005 Series Processor AMD EPYC™ 9004 Series Processor
Memory Type	24 x DDR5 DIMM slots, up to 5200MHz Maximum up to 3,072GB
Drive Bays	12 x 2.5″ / 4 x 2.5″ / 4 x 3.5″
Networking	1 x Management Port+2 x 1GbE LAN port

RS700A-E13

Performance, efficiency and manageability with multi-tasking

Form Factor	1U
CPU	AMD EPYC™ 9005 Series Processor
Memory Type	24 x DDR5 DIMM slots, up to 6400MHz Maximum 3TB
Drive Bays	12 x 2.5″ / 4 x 3.5″
Networking	1 x Management Port

ASUS INNOVATION

NO.1 BENCHMARK

SPEC.CPU

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 and AMD platforms and workloads ranging from general business infrastructure, software-defined deployment, data analytics, AI, and HPC.

1956+

All results can be verified on SPEC.org on Jan, 2025

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

TOP RECORDS

MLPerf

ASUS is focused on creating complete, optimized solutions and strives to cultivate strong industry partnerships to enhance AI developments in diverse fields to push technology to its limits. As an integrated-solutions partner, we deliver leading hardware for the fields of supercomputing and data centers, supported by an extensive AI portal and AI software stack.

233+

MLPerf Training & Inference

*MLCommons is an open engineering consortium, built on a philosophy of open collaboration and accelerate machine learning innovation.

Performance Boost

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.

Top records on MLPerf training and inference

ESC N8-E11

ASUS 1st NVIDIA HGX™ Architecture: The Best Choice for Heavy AI Workloads

12 PCIe GPU Server
NVIDIA HGX™ H100

6

ESC N8A-E12

ASUS 1st NVIDIA HGX™ 8-GPU Architecture: The Best Choice for Heavy AI Workloads

12 PCIe GPU Server
NVIDIA HGX™ H100

2

ESC8000-E11P

New generation and high performance 4U GPU server powered by 5th Gen Intel® Xeon® Scalable processors

12 PCIe GPU Server
NVIDIA L4 x 8

36

ESC8000A-E12

An 4U dual-socket server powered by AMD EPYC™ 9004 processors built for the demands of enterprise AI infrastructure

11 PCIe GPU Server
NVIDIA A30 x 4

17

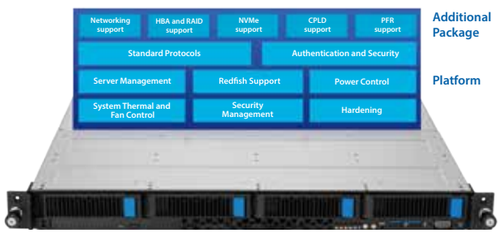
Software Solution

Complete AI Software Services

ASUS AI infrastructure solutions deliver end-to-end lifecycle support with software platforms tailored to your customized needs. From deployment in a few weeks to verification and optimization, ASUS ensures seamless integration, reliability, and scalability. Our solutions cover every stage of the process—including firmware, verification and deployment, application, cloud services, maintenance and management, and after-sales support. We adapt to evolving AI demands, providing future-proof infrastructure and effortless management for all workloads.

ASUS ASMB12-iKVM

Optimized for firmware management, this tool is equipped with IPMI and Redfish protocols to monitor hardware status, sensors, and updates. Its out-of-band management reduces redundant IT tasks remotely, seamlessly connecting BIOS, server data and components to enhance IT operational efficiency through multiple deployment routes.



ASUS Infrastructure Deployment Center (AIDC)

Ensures reliable IT infrastructure management with automation, centralized control and accelerated rack-scale deployment, including OS image installation and configuration.

ASUS Control Center (ACC)

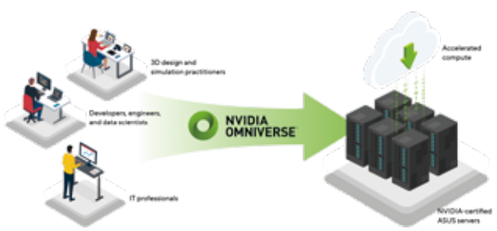
An enterprise-grade centralized management tool for servers and client devices. It is tailored for efficient IT management, including both hardware- and software-inventory management, and the remote dispatch of both software and firmware updates. It also allows for simple remote device configurations and health checks, plus rapid deployment of latest security policies and patches.

TWSC AI Foundry Service

Designed specifically for cloud-service providers in the generative AI space, this comprehensive offering simplifies deployment with a scalable, secure platform optimized for AI workloads, offering user-friendly access and real-time monitoring.

Ready-to-go generative AI cloud service

Customize features and workflows to align with specific operational processes, ensuring that our cloud service integrates seamlessly with your existing systems. Can choose from flexible billing models, including Pay-by-Reserved, Pay-by-Duration, Pay-by-Subscription, Pay-by-Token (LLM) or Pay-by-API-Call.



Compatible with NVIDIA AI solutions

ASUS GPU servers combined with NVIDIA Omniverse Enterprise offer an unmatched solution for industries looking to enhance all kinds of workflows. Real-time collaboration, enhanced processing power and integrated tools unlock new levels of productivity and innovation.

Cooling Solutions

A comprehensive liquid-cooling solution

Deploying high-TDP CPU and GPU servers for demanding workloads poses challenges in building energy-efficient data centers. Liquid-cooling solutions offer optimized space design, reduced power-usage effectiveness (PUE) and lower operating expenditures (OpEx), addressing the need to balance power consumption with green energy initiatives. By working with our partners, we're able to deliver a total solution — from liquid-cooling modules to ready-to-go servers, and even data center floor plans and suggested infrastructure.

The top four reasons to choose liquid cooling

Denser Computational Power

While a server rack with conventional air cooling can manage up to 30 kW of heat dissipation, direct liquid cooling can scale much more. This increase in thermal capacity allows more computational density for servers, upgrading the scale of a data center to accelerate and optimize complex workloads.

Much-improved PUE

The thermal efficiency of liquid cooling dramatically improves the PUE of a data center by reducing the demand for CRAC and cooling fans, and liquid coolant is a more efficient medium of heat exchange than air.

Long-term OpEx savings

A data center with liquid cooling is customarily designed for heat recirculation. The hot coolant exiting a server is directed though a heat exchanger system that recycles heat into more energy, further reducing OpEx for utilities. Thanks to this system, the initial cost of most direct liquid cooling servers can be recovered within the first 12 months of operation, providing potentially significant savings over time.

A much-quieter environment

In addition to saving energy through the reduction of CRAC systems and fans, liquid cooling can also reduce fan noise, leading to a healthier work environment for data center personnel. The average acoustic impact of air cooling is between 75 and 95 dBA, whereas liquid cooling averages below 75 dBA. Enterprise, office and military data centers can particularly benefit.

Advanced cooling portfolio

Our solutions optimize cooling efficiency from the single-cabinet ASUS AI POD, through the entire data center and finally to the cooling water tower – completing the water cycle. We offer the choice of either liquid-to-air or liquid-to-liquid cooling solutions to ensure effective heat dissipation.

Liquid-to-air

ASUS liquid-to-air cooling solutions utilize liquid as the cooling medium, with sidecar leveraging fans for efficient heat dissipation. This method enhances cooling for high-density servers, lowers energy consumption, and minimizes installation costs for existing infrastructures.

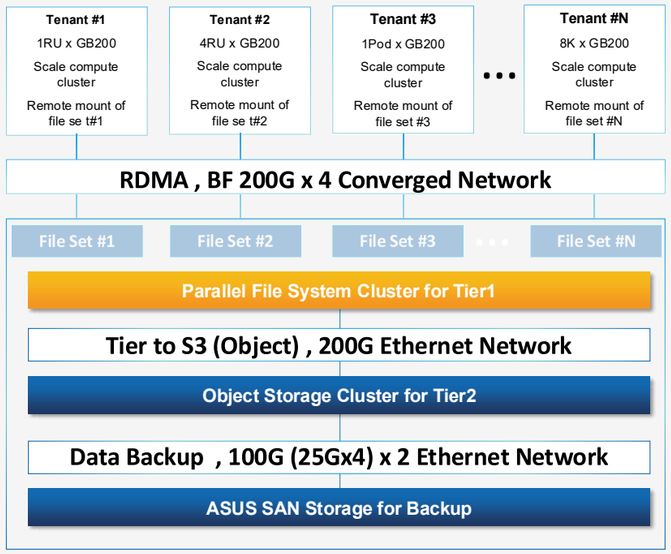
Liquid-to-liquid

ASUS liquid-to-liquid cooling solutions circulate coolant directly between chillers and servers, achieving superior cooling performance for high thermal loads. With in-row coolant-distribution units (CDUs), these systems ensure up to 95% heat dissipation, lower operational temperatures and enhanced server stability, ideal for large server clusters.

Storage Solutions

Key Advantage

ASUS collaborates with industry-leading SDS partners to redefine storage solutions with a tiering approach and software-defined architecture to unified storage system delivering unmatched performance, adaptability and scalability.



1st Tier :
Parallel Files SDS
AI/HPC Storage Performance

2st Tier :
Object Storage SDS
AI/HPC Storage Capacity

3st Tier :
SAN SolutionVS320D-RS series + JBOD
Fast Backup & Recovery

ASUS Storage Solution

Feature	SAN Storage	Software-defined Storage (SDS)
Architecture	Active-active dual controller	Parallel file and Object storage cluster
Protocol	FC and iSCSI	GDS , POSIX , S3 , HDFS , NFS , SMB
Management	Web base management console	Managed through software automation
Scalability	Expand with JBOD up to 10PB capacity	Scale-out storage cluster
Networking	16G/32G FC and 10G/25G Ethernet	100G / 200G / 400G IB or Ethernet
Devices	SAS SSD / HDD (Hybrid)	All flash NVMe SSD for Tier1 / Hybrid for Tier2
Data Services	Auto-Tiering , SSD Cache	Tiering to S3 , Object storage
Data Services	Snapshots, Remote replication	Snapshots , Backup / DR
Availability	99.9999%	Zero downtime
Cost	No lock-in devices , lower cost	No lock-in HBA & devices, lower cost

ASUS AI all-flash storage cluster

Cluster

- Start with a minimum of eight servers
- Scale-out to hundreds of servers
- Start with 2.2PB usable capacity storage cluster of eight servers
- Erasures coding redundancy
- 16 x 400G IB / Ethernet NIC

Performance

- 640 GB/s read bandwidth*
- 160 GB/s read bandwidth*
- 14 million IOPS *

* Based on configuration with eight servers.

Data Services

- Supports GDS, POSIX, NFS, SMB and S3
- Supports Snapshoot and DR for data protection
- Tiering to S3 for object storage cluster

Certified for WEKA Data Platform

ASUS AI Backup Storage Appliance

VS320D-RS26

VS320D-RS12

Availability	Dual-active controller	
Performance	Support SSD R/W cache and auto tiering	
Device	26 Bay SAS 3.0 Hot swap	12 Bay SAS 3.0 Hot swap
Connection	10G/25G Ethernet and 16Gb/32Gb FC	
Data Protection	Support snapshot and remote replication	

Successful Stories

Largest Supercomputing Facility in Taiwan

Project Background

In a groundbreaking move to advance the Taiwan AI revolution, Foxlink Group has joined forces with Ubitus to lead its subsidiary, Shinfox Energy, in founding a new company – Ubilink. Together, they are creating Taiwan's largest computing power center with an impressive overall performance of 45.82 PFLOPS, surpassing NVIDIA's estimated theoretical value of 40 PFLOPS. It ranks in the top 31 on the global TOP500 list of supercomputers and has secured a prestigious 44th ranking on the Green500 list that announced in November, 2024. The supercomputing center will offer public cloud services, AI-computing-power rentals and subscription-based cloud services, including PaaS and SaaS, for training large language models. This new data center is also remarkable for handing customers the freedom to choose packages that draw only on renewable energy.

Challenge

Building such a vast and high-performance infrastructure from scratch posed significant challenges. Ensuring the seamless operation and maintenance of this AI supercomputing center was no small feat. Any instability could result in frequent interruptions, driving up operating costs and affecting overall efficiency.

Our Solution

ASUS is fully committed to supporting Ubilink in constructing a global top AI computing center from the ground up. The center will house 128 NVIDIA® H100 servers, equipped with 1,024 GPU cards, making it the largest green-energy-powered, AI-computing service center in Taiwan. Remarkably, this ambitious project was completed in just three months.

Why ASUS

- The strategic partnership with ASUS has transformed our vision into reality, allowing Ubilink to build a world-class supercomputing facility that empowers the next wave of AI innovation in Taiwan and beyond. The company's advanced software solutions and comprehensive services have facilitated extraordinary performance achievements in are markable timeframe of just three months.

Pioneering the Gen AI Future with ASUS ESC-N8-E11 on Yotta's Shakti Cloud

Project Background

The data center industry in India is currently growing at a significant pace. In 2024, the data center market size is estimated to reach $1926M with 2.01 thousand MW and is expected to grow at $4,597.3M with 4.77 thousand MW by 2029, growing at a CAGR of 18.79% during the forecast period 2024-2029. Yotta Data Services, a leading end-to-end digital transformation provider, launched Shakti Cloud in early 2024 boasting the distinction of being India's first AI-centric cloud. This case study explores the key features of Shakti Cloud and its potential impact on the Indian AI landscape.

Challenge

The emergence of AI presents immense opportunities but challenges data centers like Yotta's Shakti Cloud to keep pace. Yotta optimizes NVIDIA H100 Tensor Core GPUs for deep learning and complex AI workloads, ensuring exceptional performance. Its modular design enables seamless scalability, allowing infrastructure expansion as the user base grows without major overhauls. Prioritizing reliability and uptime, Yotta delivers a dependable platform for critical AI applications, positioning itself to drive AI innovation in India effectively.

Our Solution

ASUS ESC N8-E11 offers a compelling package for building a high-performance and reliable AI cloud platform which focus on "Performance Focused Design, Scalability & Efficiency, Reliability & Uptime" making it a strong contender for Yotta's Shakti Cloud needs. ESC N8-E11, a 7U dual-socket server is powered by eight NVIDIA H100 Tensor Core GPUs. Its perfectly designed which will help Yotta's Shakti Cloud to accelerate the development of AI workload. The ASUS ESC N8-E11 is engineered to provide effective cooling and innovative components that deliver thermal efficiency, scalability, and unprecedented performance, resulting in reduced operation cost.

Why ASUS

- The ASUS ESC N8-E11 server emerged as a strong contender for Yotta Shakti Cloud's infrastructure due to its perfect synergy with AI-focused platform. Equipped with the latest NVIDIA HGX H100 GPUs, the ESC N8-E11 delivers exceptional processing power, ideal for the demanding workloads that a user will encounter.
- Faster training times for complex AI models and smoother handling of large datasets. Furthermore, the ESC N8-E11's modular design allows for effortless scaling for user base growth, ensuring the cloud infrastructure can keep pace with increasing demands without needing a complete overhaul.

Successful Stories

ASUS Establishes National-Level Supercomputing Center, FORERUNNER 1

Project Background

The National Center for High-performance computing (NCHC) plays a leading role in Taiwan's cloud technology services by integrating high performance computing (HPC), storage, and networking to provide cloud services in storage, big data analysis, and scientific and engineering simulation. Forerunner 1 is the latest high-performance computing (HPC) system built by NCHC. The overall optimal performance is approximately 3.5 PFlops (#92 in the Green 500, November 2023). This platform delivers real-time and convenient computing services to industries, universities, and widely applicable to various research fields such as physics, chemistry, mathematics, atmospheric sciences, engineering applications, and life sciences.

Challenge

ASUS won the FORERUNNER 1 project to be responsible for this ambitious project, but starting from scratch presented numerous challenges. FORERUNNER 1 is designed as a replacement for TAIWANIA 1, and is intended to provide the resources needed by all walks of life for supercomputing workloads. These include research topics such as climate prediction, astrophysics simulation, molecular model simulation, engineering design and simulation – and many more applications besides.

Our Solution

ASUS managed the construction of the supercomputing infrastructure, which involved data center construction, cabinet installation, testing and onboarding. Rigorous testing ensured optimal performance. Additionally, ASUS meticulously designed the HPC portal architecture. To create a greener FORERUNNER 1 supercomputing system, ASUS refined the liquid-cooling setup, achieving a remarkable PUE of 1.17, surpassing the 1.28 acceptance standard. Despite the hurdles, the project reached completion within a mere four months.

Why ASUS

- ASUS has comprehensive technological capabilities from hardware servers to software platforms and shows how it is actively exploring and leveraging AI and computing power.
- The dedication and hard work of the ASUS team always response in real-time to provide valuable insights and support and ensure the successful realization of Taiwan's most advanced supercomputer center.

ASUS ESC N8-E11 Servers Integrated into the FPT AI Factory in Vietnam

Project Background

FPT Corporation, a leading technology and IT services provider in Vietnam, sought to establish a state-of-the-art AI Factory to support its growing demand for AI-driven solutions. The AI Factory aims to accelerate AI research, development, and deployment across diverse industries such as healthcare, finance, and transportation, positioning FPT as a leader in AI innovation in Southeast Asia.

Challenge

To build an AI Factory capable of handling the immense computational demands of training and deploying large-scale AI models, FPT required a server solution that delivered exceptional performance, scalability, and reliability. The infrastructure needed to support high-performance GPUs, optimize energy consumption, and ensure seamless operation even during peak workloads. Additionally, FPT sought a trusted partner to provide expertise in deployment and integration.

Our Solution

ASUS ESC N8-E11 servers equipped with NVIDIA HGX H100 GPUs and powered by 5th Gen Intel Xeon Scalable processors are designed to handle complex AI workloads with high efficiency, offering advanced cooling systems, superior scalability, and support for demanding AI tasks such as LLM training and generative AI. ASUS also provided tailored deployment and validation services to ensure the infrastructure integrated seamlessly into FPT's AI Factory.

Why ASUS

- ASUS's ESC N8-E11 servers offered unparalleled performance, scalability, and energy efficiency, meeting FPT's high computational demands and allows for effortless scaling for user base growth, ensuring the cloud infrastructure can keep pace with increasing demands without needing a complete overhaul.
- ASUS's commitment to providing end-to-end solutions, from hardware to deployment support, ensured a smooth and reliable integration process. This partnership enabled FPT to accelerate its AI initiatives, positioning the AI Factory as a hub for innovation and growth in Vietnam and beyond. Faster training times for complex AI models and smoother handling of large datasets.

Scan to read more success stories

Rack Server




Sample	RS521A-E12-RS24U	RS521A-E12-RS12U	RS501A-E12-RS12U	RS501A-E12-RS4U
Processor	1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 series (up to 360W)	1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 series (up to 400W)	1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 series (up to 360W)	1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 series (up to 450W)
Chipset	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)
Memory	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM(1DPC) Maximum 3,072GB	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM(1DPC) Maximum 3,072GB	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM(1DPC) Maximum 3,072GB	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM(1DPC) Maximum 3,072GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 4 single-slot or 2 double-slot GPU card (24x NVMe can't support)	Up to 4 single-slot or 2 double-slot GPU card	up to 2 single-wide GPU card	up to 2 single-wide GPU card
Expansion Slots	Up to 5 PCIe Gen5 slots + 1 OCP3.0 2 x PCIe Gen5 x16, FHFL or 4 x PCIe Gen5 x8 (FHFL) 1 x PCIe Gen5 x8 (LP) 1 x OCP 3.0 [24x NVMe] 1 x Pcie Gen5 x8, LP + 1 x OCP3.0 (can't support GPU) [16x NVMe or 12x NVMe] 2 x PCIe Gen5 x16, FHFL or 4 x PCIe Gen5 x8, FHFL 1 x PCIe Gen5 x8, LP 1 x OCP 3.0	Up to 5 PCIe Gen5 slots + 1 OCP3.0 2 x PCIe Gen5 x16, FHFL or 4 x PCIe Gen5 x8 (FHFL) 1 x PCIe Gen5 x8 (LP) 1 x OCP 3.0	Up to 3 PCIe Gen5 slots + 1 OCP3.0 1 x PCIe Gen5 x16, FHHL 1 x PCIe Gen5 x16 (LP) 1 x PCIe Gen5 x8 (LP) 1 x OCP3.0	Up to 3 PCIe Gen5 slots + 1 OCP3.0 1 x PCIe Gen5 x16 (FHHL) 1 x PCIe Gen5 x16 (LP) 1 x PCIe Gen5 x8 (LP) 1 x OCP3.0"
Storage Bays	24 x 2.5"Front Hot-Swap drive bays (Up to 24 NVMe or 16x NVMe + 8 SATA/SAS) 2 x 2.5 Rear SATA Hot-Swap drive bays *SAS support only from optional SAS HBA/RAID card	12 x 3.5"Front Hot-Swap drive bays (Up to 12 NVMe/SATA/SAS) 2 x 2.5 Rear SATA Hot-Swap drive bays *SAS support only from optional SAS HBA/RAID card	12 x 2.5"Front Hot-Swap drive bays (Up to 12 x NVMe/SATA/SAS) Optional 4 x 2.5" Internal Storage Bays (Up to 4 x NVMe/SATA)	4 x 2.5"Front Hot-swap Storage Bays (Up to 4 x NVMe/SATA/SAS)
Networking	2 x 1GbE LAN ports 1 x Management Port	2 x 1GbE LAN ports 1 x Management Port	2 x 1GbE LAN ports 1 x Management Port	2 x 1GbE LAN ports 1 x Management Port
Front I/O ports	2 x USB 3.2 Gen1 ports 1 x Power Botton	2 x USB 3.2 Gen1 ports 1 x Power Botton	1 x Power Botton	1 x Power Botton
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 2 x RJ-45 1GbE LAN ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 2 x RJ-45 1GbE LAN ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 2 x RJ-45 1GbE LAN ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 2 x RJ-45 1GbE LAN ports
Security Options	TPM-SPI Module PFR Module	TPM-SPI Module PFR Module	TPM-SPI Module PFR Module	TPM-SPI Module PFR Module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"
Power Supply (following different configuration by region)	1+1 Redundant 2000W/1600W 80 PLUS Titanium Power Supply	1+1 Redundant 2000W/1600W 80 PLUS Titanium Power Supply	1+1 Redundant 1600W 80 PLUS Titanium Power Supply 1+1 Redundant 1200W 80 PLUS Platinum Power Supply	1+1 Redundant 1600W 80 PLUS Titanium Power Supply 1+1 Redundant 1200W 80 PLUS Platinum Power Supply




Sample	RS501A-E12-RS4	RS720A-E13-RS24G	RS720A-E13-RS24U	RS720A-E13-RS12U
Processor	1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 series (up to 360W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (Up to 360W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (Up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (Up to 400W)
Chipset	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)
Memory	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM(1DPC) Maximum 3,072GB	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	up to 2 single-wide GPU card	Up to 6 single-slot or 3 double-slot GPU cards	N/A	N/A
Expansion Slots	Up to 3 PCIe Gen5 slots + 1 OCP3.0 1 x PCIe Gen5 x16 (FHHL) 1 x PCIe Gen5 x16 (LP) 1 x OCP3.0	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots(Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots(Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 xPCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)
Storage Bays	4 x 3.5"/2.5"Front Hot-swap Storage Bays (Up to 4 x SATA/SAS)	24 x 2.5" Front Hot-swap drive bays (Up to 8 x NVMe + 16 x NVMe/ SATA/SAS*) (with 2 switch boards) *HBA/ RAID card is required to support SAS hard drives	24 x 2.5" Front Hot-swap drive bays (Up to 8 x NVMe + 16 x NVMe/ SATA/SAS*) (with 2 switch boards) *HBA/ RAID card is required to support SAS hard drives	12 x 3.5"/2.5" Front Hot-swap drive bays (Config 1: 12NVMe) (Config 2: 4SATA/SAS* + 8NVME/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives
Networking	2 x 1GbE LAN ports 1 x Management Port	1 x Management port	1 x Management port	1 x Management port
Front I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Power Botton"	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 2 x RJ-45 1GbE LAN ports	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port
Security Options	TPM-SPI Module PFR Module"	Dual BMC Module	Dual BMC Module	Dual BMC Module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM
Dimension	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"	822.16mm x 484.65mm x 87.3mm (2U) 32.37" x 19.08" x 3.44"	822.16mm x 484.65mm x 87.3mm (2U) 32.37" x 19.08" x 3.44"	822.16mm x 484.65mm x 87.3mm (2U) 32.37" x 19.08" x 3.44"
Power Supply (following different configuration by region)	1+1 Redundant 1600W 80 PLUS Titanium Power Supply 1+1 Redundant 1200W 80 PLUS Platinum Power Supply	1+1 Redundant 3200W 80 PLUS Titanium Power Supply	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply

SPECIFICATIONS




Sample	RS720A-E13-RS8G	RS720A-E13-RS8U	RS700A-E13-RS12U	RS700A-E13-RS4U
Processor	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (up to 500W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 processors (up to 400W)
Chipset	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)
Memory	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB"	24 x DIMM slots DDR5 5600/6400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 6 single-slot or 3 double-slot GPU cards	N/A	N/A	N/A
Expansion Slots	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)	"Up to 2 PCIe Gen5 slots + 2 OCP3.0 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)	Up to 2 PCIe Gen5 slots + 2 OCP3.0 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x16 slots (Gen5 x16 link, SFF)
Storage Bays	8 x 2.5" Front Hot-swap drive bays (Up to 8 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	8 x 2.5" Front Hot-swap drive bays (Up to 8 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	12 x 2.5" Front Hot-swap drive bays (Config 1: 12 NVMe) (Config 2: 4 SATA/SAS* + 8 NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	4 x 3.5"/2.5" Front Hot-swap drive bays (Up to 4 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives
Networking	1 x Management port	1 x Management port	1 x Management port	1 x Management port
Front I/O ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports	N/A	2 x USB 3.2 Gen1 ports
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port"	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port
Security Options	Dual BMC Module	Dual BMC Module	Dual BMC Module	Dual BMC Module
Management Solution	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM
Dimension	822.16mm x 484.65mm x 87.3mm (2U) 32.37" x 19.08" x 3.44"	822.16mm x 484.65mm x 87.3mm (2U) 32.37" x 19.08" x 3.44"	821.7mm x 483mm x 43.2mm (1U) 32.35" x 19" x 1.7"	821.7mm x 483mm x 43.2mm (1U) 32.35" x 19" x 1.7"
Power Supply (following different configuration by region)	1+1 Redundant 3200W 80 PLUS Titanium Power Supply	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply	1+1 Redundant 2000W 80 PLUS Titanium/Platinum Power Supply	1+1 Redundant 2000W 80 PLUS Titanium/Platinum Power Supply

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Sample	RS720A-E12-RS24U	RS720A-E12-RS24	RS720A-E12-RS12U	RS700A-E12-RS12U
Processor	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 320W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)
Chipset	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)
Memory	24 x DIMM slots DDR5 4800/4400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 4800/4400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 4800/4400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	24 x DIMM slots DDR5 4800/4400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 8 single-slot or 4 double-slot GPU cards	Up to 6 single-slot or 3 double-slot GPU cards	Up to 8 single-slot or 4 double-slot GPU cards	Up to 2 single-slot or 1 double-slot GPU cards
Expansion Slots	Up to 9 PCIe Gen5 slots + 1 x internal RAID slot 6 x PCIe x 8 slots or 3 x PCIe x 16 slots (Gen5 x16 link, FHFL) 2 x PCIe x 8 slots or 1 x PCIe x 16 slots or 1 x OCP3.0 x16 slots (Gen5 x16 link, FHFL) 1 x PCIe x16 slots (Gen5 x16 link, LP)	Up to 9 PCIe Gen5 slots + 1 x internal RAID slot 6 x PCIe x8 slot or 3 x PCIe x16 slot (Gen5 x16 link, FH, FL) 2 x PCIe x8 slot or 1 x PCIe x16 slot or 1 x OCP3.0 x16 slot (Gen5 x16 link, FH, FL) 1 x PCIe x16 slot (Gen5 x16 link, LP) 1 x PCIe x8 slot (Gen4 x8 link, LP, internal)	Up to 9 PCIe Gen5 slots + 1 x internal RAID slot 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x8 slots or 1 x PCIe x 16 slots or 1 x OCP3.0 x16 slots (Gen5 x16 link, FHFL) 1 x PCIe x16 slots (Gen5 x16 link, LP) 1 x PCIe x8 slots (Gen4 x8 link, LP, internal)	Up to 3 x PCIe Gen5 slots + 1 x internal RAID slot 1 x PCIe x 16 slots(Gen5 x16 link, FHFL) 1 x PCIe x 16 slots or 1 x OCP3.0 x16 slots (Gen5 x16 link, FHFL) 1 x PCIe x 16 slots (Gen5 x16 link, LP) 1 x PCIe x 8 slots (Gen4 x8 link, LP, internal)
Storage Bays	24 x 2.5" Front Hot-swap drive bays (Up to 16 x NVMe + 8 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	24 x 2.5" Front Hot-swap drive bays (Up to 16 x NVMe + 8 x SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	12 x 3.5"/2.5" Front Hot-swap drive bays (Up to 4NVMe/SAS* + 4NVMe/SATA/SAS* + 4SATA/SAS*) 2 x 2.5"" Rear Hot-Swap drive bays (Optional) (Up to 2 x NVMe**) *HBA/ RAID card is required to support SAS hard drives **Will occupied 2 PCIe slots	12 x 2.5" Front Hot-Swap drive bays (Up to 12 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives
Networking	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port
Front I/O ports	2 x USB 3.2 Gen1 ports 1 x Power Botton	2 x USB 3.2 Gen1 ports 1 x Power Botton	2 x USB 3.2 Gen1 ports 1 x Power Botton	N/A
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port
Security Options	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"
Power Supply (following different configuration by region)	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply

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SPECIFICATIONS




Sample	RS700A-E12-RS4U	RS720-E12-RS24G	RS720-E12-RS24U	RS720-E12-RS12U
Processor	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)	Dual Intel® Xeon® 6 Processors Family (Up to 350W)	Dual Intel® Xeon® 6 Processors Family (Up to 350W)	Dual Intel® Xeon® 6 Processors Family (Up to 350W)
Chipset	System on Chip (SoC)	N/A	N/A	N/A
Memory	24 x DIMM slots DDR5 4800/4400 RDIMM/ 3DS RDIMM(1DPC) Maximum 3072GB	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 2 single-slot or 1 double-slot GPU cards	Up to 6 single-slot or 3 double-slot GPU cards	N/A	N/A
Expansion Slots	Up to 3 x PCIe Gen5 slots + 1 x internal RAID slot 1 x PCIe x16 slots (Gen5 x16 link, FHFL) 1 x PCIe x16 slots or 1 x OCP3.0 x16 slot (Gen5 x16 link, FHFL) 1 x PCIe x16 slots (Gen5 x16 link, LPH 1 x PCIe x8 slots (Gen4 x8 link, LP, internal)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x 16 link, FHFL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)
Storage Bays	4 x 3.5/2.5" Front Hot-Swap drive bays (Up to 4 x NVMe/SATA/SAS*) *HBA/ RAID card is required to support SAS hard drives	24 x 2.5" Front Hot-swap drive bays Support to 24 x NVMe or 24SATA*/SAS* (NVMe support though 2pcs switch boards) *HBA/ RAID card is required to support SATA and SAS hard drives	24 x 2.5" Front Hot-swap drive bays Support to 24 x NVMe or 24SATA*/SAS* (NVMe support though 2pcs switch boards) *HBA/ RAID card is required to support SATA and SAS hard drives	12 x 2.5"/3.5" Front bays hot-swap bay Support to 12 x NVMe or 12SATA*/SAS* *: HBA/ RAID card is required to support SATA and SAS hard drives
Networking	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	1 x Management port	1 x Management port	1 x Management port
Front I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port
Security Options	Optional TPM module Optional PFR module	Dual BMC Module	Dual BMC Module	Dual BMC Module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM
Dimension	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"	822.16 x 484.65 x 87.3 mm (2U) 32.37" x 19.08" x 3.44"	822.16 x 484.65 x 87.3 mm (2U) 32.37" x 19.08" x 3.44"	822.16 x 484.65 x 87.3 mm (2U) 32.37" x 19.08" x 3.44"
Power Supply (following different configuration by region)	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 3200W 80 PLUS Titanium Power Supply	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply

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Sample	RS720-E12-RS8G	RS700-E12-RS12U	RS700-E12-RS4U	RS720-E11-RS24U
Processor	Dual Intel® Xeon® 6 Processors Family (Up to 350W)	Dual Intel® Xeon® 6 Processors Family (Up to 350W)	Dual Intel® Xeon® 6 Processors Family (Up to 350W)	2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (Up to 350w)
Chipset	N/A	N/A	N/A	Intel® C741
Memory	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB	32 x DIMM slots DDR5 5600/6400 RDIMM/3DS Maximum 4TB	32 x DIMM slots 4th: 4800 MHz (1DPC)/ 4400 MHz (2DPC) 5th: 5600/4800 MHz (1DPC)/4400(2DPC) Maximum 4 TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 6 single-slot or 3 double-slot GPU cards	N/A	N/A	Up to 2 single-slot or 1 double-slot GPU cards
Expansion Slots	Up to 8 PCIe Gen5 slots + 2 OCP3.0 6 x PCIe x8 slots or 3 x PCIe x16 slots (Gen5 x16 link, FHFL) 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)	Up to 2 PCIe Gen5 slots + 2 OCP3.0 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)	Up to 2 PCIe Gen5 slots + 2 OCP3.0 2 x PCIe x16 slots (Gen5 x16 link, FHHL) 2 x OCP3.0 x8 slots (Gen5 x16 link, SFF)	Up to 4 slots 1 x PCIe x16 slot (Gen5 x 16 link, FHFL) or 2 x PCIe x8 slot (Gen5 x8 link , FHHL) 1 x OCP 3.0 1 x PCIe G5 x16 (LP)
Storage Bays	8 x 2.5" Front Hot-swap drive bays Support to 8 x NVMe or 8SATA*/ SAS* *: HBA/ RAID card is required to support SATA and SAS hard drives	12 x 3.5" Front Hot-swap drive bays Support to 12 x NVMe/SATA*/ SAS* *: HBA/ RAID card is required to support SATA and SAS hard drives	4 x 3.5" Front Hot-swap drive bays Support to 4 x NVMe/SATA*/ SAS* *: HBA/ RAID card is required to support SATA and SAS hard drives	24 x 2.5" Front Hot-Swap drive bays (Up to 12x NVMe + 12x NVMe/ SATA/SAS*) *RAID card is required to support SAS hard drives
Networking	1 x Management port	1 x Management port	1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port
Front I/O ports	2 x USB 3.2 Gen1 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 Power Botton
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x Mini-DP port 1 x RJ-45 Management LAN port 1 x Debug port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port
Security Options	Dual BMC Module	Dual BMC Module	Dual BMC Module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB12-iKVM	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	822.16 x 484.65x 87.3 mm (2U) 32.37" x 19.08" x 3.44"	821.7 x 483 x 43.2 mm (1U) 32.35" x 19" x 1.7"	821.7 x 483 x 43.2 mm (1U) 32.35" x 19" x 1.7"	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"
Power Supply (following different configuration by region)	1+1 Redundant 3200W 80 PLUS Titanium Power Supply	1+1 Redundant 2000W 80 PLUS Titanium/Platinum Power Supply	1+1 Redundant 2000W 80 PLUS Titanium/Platinum Power Supply	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply

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SPECIFICATIONS




Sample	RS720-E11-RS12U	RS700-E11-RS12U	RS700-E11-RS4U	RS300-E12-RS4
Processor	2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (Up to 350w)	2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (Up to 350w)	2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (Up to 350w)	1 x Socket V (LGA 1700) Intel® Xeon® E-2400 processor Intel® Xeon® 6300-series processor (Up to 95W)
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C262
Memory	32 x DIMM slots 4th: 4800 MHz (1DPC)/ 4400 MHz (2DPC) 5th: 5600/4800 MHz (1DPC)/4400(2DPC) Maximum 4 TB	32 x DIMM slots 4th: 4800 MHz (1DPC)/ 4400 MHz (2DPC) 5th: 5600/4800 MHz (1DPC)/4400(2DPC) Maximum 4 TB	32 x DIMM slots 4th: 4800 MHz (1DPC)/ 4400 MHz (2DPC) 5th: 5600/4800 MHz (1DPC)/4400(2DPC) Maximum 4 TB	4 x DIMM slots DDR5 4400/4000/3600 ECC/ ECC UDIMM Maximum 128GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 8 single-wide GPU or 4 double-wide GPU	Up to 2 single-slot or 1 double-slot GPU cards	Up to 2 single-slot or 1 double-slot GPU cards	-
Expansion Slots	Up to 9 slots 6 x PCIe Gen5 x8 link or 3 x PCIe Gen5 x16 link (FHFL or FHHL) 1 x PCIe Gen5 x16 link (FHHL) 1 x OCP 3.0 or PCIe Gen5 x16 link (FHHL)* 1 x PCIe Gen5 x16 (LP) *maximum support 3 double-wide GPU if using OCP3.0	Up to 3 x PCIe Gen5 slots + 1 x internal slot 1 x PCIe Gen5 x16 (FHFL) 1 x PCIe Gen5 x16 or OCP3.0 1 x PCIe Gen5 x16 (LP) 1 x PCIe Gen5 x8 (LP, internal)	Up to 3 x PCIe Gen5 slots + 1 x internal slot 1 x PCIe Gen5 x16 (FHFL) 1 x PCIe Gen5 x16 or OCP3.0 1 x PCIe Gen5 x16 (LP) 1 x PCIe Gen5 x8 (LP, internal)	Up to 3 slots 1 x PCIe x16 (Gen5 x16 link) 1 x PCIe x8 (Gen5 x8 link) 1 x PCI-E x 4 (Gen4 x4 Link), Proprietary R/A slot
Storage Bays	12 x 3.5" Hot-swap drive bays (Up to 8 x NVMe/SATA/SAS* + 4 NVMe/SATA) Optional: 2 x 2.5" Rear Hot-swap Storage Bays (Up to 2x NVMe/SATA) *RAID card is required to support SAS hard drives	12 x 3.5" Hot-Swap drive bays 12 x NVMe/SATA/SAS* *RAID card is required to support SAS hard drives	4 x 3.5" Front Hot-Swap drive bays (Up to 4 x NVMe/SATA/SAS*) *RAID card is required to support SAS hard drives	4 x 3.5" Hot-Swap HDD Bays (Up to 4 x NVMe/SATA/SAS) *SAS support only from optional SAS HBA/RAID card *NVMe support only from optional NVMe upgrade kit
Networking	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	4 x 1GbE or 2 x 10GbE LAN port 1 x Management port	2 x 1GbE LAN port(Intel® I210AT) 1 x Management Port
Front I/O ports	2 x USB 3.2 Gen1 ports	N/A	N/A	1 x VGA port 2 x USB 3.2 Gen2 ports
Rear I/O ports	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Management port	3 x USB 3.2 Gen 2 ports 1 x VGA port 1 x COM port 2 x RJ-45 ports 1 x RJ-45 ports (One for ASMB11-iKVM)
Security Options	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	-
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (Optional)
Dimension	840mm x 449mm x 88.1mm (2U) 33.07" x 17.68" x 3.47"	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"	842.5mm x 449mm x 43.85mm (1U) 33.17" x 17.68" x 1.73"	497mm x 439.5mm x 44mm (1U)
Power Supply (following different configuration by region)	1+1 Redundant 2600W/1600W 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W 80 PLUS Platinum Power Supply	1+1 Redundant 1600W/800 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W/1200W 80 PLUS Platinum Power Supply	1+1 Redundant 1600W/800 80 PLUS Titanium Power Supply 1+1 Redundant 2000W/1600W/1200W 80 PLUS Platinum Power Supply	1+1 Redundant 450W 80 PLUS PLATINUM Power Supply

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High Density Servers




TT Norms Pro	RS300-E12-PS4	RS520QA-E13-RS8U	RS720QA-E12-RS8U	RS720Q-E11-RS8U
Processor	1 x Socket V (LGA 1700) Intel® Xeon® E-2400 processor Intel® Xeon® 6300-series processor (Up to 95W)	Per node: 1 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 Series Processors (Up to 500W)	Per node: 2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 240W)	Per node: 2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (with Air cool up to 205W, with Liquid cool up to 350W)
Chipset	Intel® C262	System on Chip (SoC)	System on Chip (SoC)	Intel® C741
Memory	4 x DIMM slots DDR5 4400/4000/3600 ECC/ ECC UDIMM Maximum 128GB	Per node: 12+8 x DIMM slots DDR5 up to 6400 RDIMM (1DPC) CXL Module DIMM Expansion: 4 x or 8 x RDIMMs 2DPC (DDR5 up to 5600 in 1DPC mode) Maximum 2560GB	Per node: 24 x DIMM slots DDR5 up to 4800 RDIMM/ RDIMM 3DS(1DPC) Maximum 6144GB	Per node: 16 x DIMM slots 4th: DDR5 4800 MHz RDIMM/3DS RDIMM (1DPC) 5th: DDR5 5600/4800 MHz RDIMM/3DS RDIMM (1DPC) Maximum 4TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	-	N/A	N/A	N/A
Expansion Slots	Up to 3 slots 1 x PCIe x16 (Gen5 x16 link) 1 x PCIe x8 (Gen5 x8 link) 1 x PCI-E x 4 (Gen4 x4 Link), Proprietary R/A slot	Per node : Up to 2 slots 1 x PCIe x16 slot (Gen5 x16 link, LP) 1 x OCP 3.0 NIC socket (Gen5 x16 link, SFF)	Per node : Up to 2 slots 2 x PCIe Gen5 x16 (LP)	Per node : Up to 2 slots 2 x PCIe x16 slot (Gen5 x16 link, HHHL)
Storage Bays	4 x 3.5" Hot-Swap HDD Bays (Up to 4 x NVMe/SATA/SAS) *SAS support only from optional SAS HBA/RAID card *NVMe support only from optional NVMe upgrade kit	8 x 2.5" Front Hot-Swap drive bays (Up to 8x NVMe/SATA/SAS*) 8 x M.2 (Up to 2280, PCIe Gen5x4) *Raid card is required to support SAS hard drives	8 x 2.5" Front Hot-Swap drive bays (Up to 8x NVMe/SATA*/SAS*) 8 x M.2 (Up to 2280, SATA & PCIe mode) *SATA/SAS support from optional CB board	8 x 2.5" Front Hot-Swap drive bays (Up to 8 x NVMe/SATA*/ SAS*) 8 x M.2 (Up to 22110, SATA & PCIe mode) *SATA/SAS support from optional CB board
Networking	2 x 1GbE LAN port(Intel® I210AT) 1 x Management Port	Per node : 1 x Management port	Per node : 2 x 10GbE LAN port 1 x Management port	Per node : 2 x 10GbE LAN ports 1 x Management port
Front I/O ports	1 x VGA port 2 x USB 3.2 Gen2 ports	N/A		N/A
Rear I/O ports	3 x USB 3.2 Gen 2 ports 1 x VGA port 1 x COM port 2 x RJ-45 ports 1 x RJ-45 ports (One for ASMB11-iKVM)	Per node : 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port	Per node : 2 x USB 3.2 Gen1 ports 1 x VGA port 1 x Mini-DP port 1 x Management port	Per node : 2 x USB 3.2 Gen1 ports 1 x VGA port 2 x 10GbE ports 1 x Management port
Security Options	-	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (Optional)	ASUS Control Center ASUS ASMB12-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	497mm x 439.5mm x 44mm (1U)	900mm x 446mm x 87.2mm (2U) 35.43" x 17.56" x 3.43"	847mm x 444mm x 87.3mm (2U) 33.35" x 17.48" x 3.43"	800mm x 444mm x 88mm (2U) 31.5" x 17.48" x 3.46"
Power Supply (following different configuration by region)	Single 350W 80 PLUS Gold Power Supply	2+Spare 3200W 80 PLUS Titanium Power Supply	1+1 Redundant 2600W 80 PLUS Titanium Power Supply 1+1 Redundant 3200W 80 PLUS Platinum Power Supply	1+1 Redundant 3000W 80 PLUS Titanium Power Supply 1+1 Redundant 3600W 80 PLUS Titanium Power Supply

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SPECIFICATIONS

GPU Servers




Sample	RS723Q-E11-RS24	ESC8000A-E13P	ESC8000A-E13	ESC8000-E12P
Processor	Per node: 2 x Socket E(LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (with Liquid cool up to 350W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 Series Processors (Up to 500W, TDP support varies by configuration)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005 Series Processors (Up to 500W, TDP support varies by configuration)	2 x LGA4710 sockets for Intel®Xeon® 6 processors* (Up to 350W)
Chipset	Intel® C741	System on Chip (SoC)	System on Chip (SoC)	System on Chip (SoC)
Memory	Per node: 16 x DIMM slots 4th : DDR5 4800 MHz RDIMM/3DS RDIMM (1DPC) 5th : DDR5 5600/4800 MHz RDIMM/3DS RDIMM (1DPC) Maximum 4TB	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM Maximum 3TB	24 x DIMM slots DDR5 6400/5600 RDIMM/ 3DS RDIMM Maximum 3TB	32 x DIMM slots DDR5 6400 (1DPC) / 5200 (2DPC) RDIMM Maximum up to 4TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	N/A	Up to 8 double-slot GPU cards	Up to 8 double-slot GPU cards	Up to 8 double-slot GPU cards
Expansion Slots	Per node : Up to 2 slots + 1 OCP 3.0 socket 1 x PCIe x16 slot (Gen5 x16 link, HHHL) 1 x PCIe x16 slot (Gen5 x8 link, HHHL) 1 x OCP 3.0 NIC socket (Gen5 x16 link)	Front : 1 x PCIe x16 (Gen5 x8 link, FHHL) Rear : 8 x PCIe x16 for dual-slot GPU cards up to 600W(Gen5 x16 link, FHFL) 5 x PCIe x16 for NIC/BlueField-3 cards (Gen5 x16 link, FHHL)	Front : 1 x PCIe x16 (Gen5 x8 link, FHHL) for RAID/HBA card Rear : 8 x PCIe x16 (Gen5 x16 link, FHFL) for dual-slot GPU card (up to 600W) 1 x PCIe x16 (Gen5 x8 link, FHHL) for NIC card 1 x PCIe x16 (Gen5 x16 link, FHHL) for NIC card	Front : 1 x PCIe x16 (Gen5 x8 link, FHHL) Rear : 8 x PCIe x16 for dual-slot GPU cards up to 600W(Gen5 x16 link, FHFL) 5 x PCIe x16 for NIC/BlueField-3 cards (Gen5 x16 link, FHHL)
Storage Bays	24 x 2.5" Hot-Swap drive bays (Up to 8 x SATA/SAS/NVMe + 16 x SATA*/SAS*) 8 x M.2 (Up to 22110, SATA & PCIe mode) *SATA/SAS support from optional CB board	8 x 2.5" Front Hot-Swap drive bays (backplane supports up to 8 x NVMe) 2 x M.2 support (Gen5 x4 link)	Up to 6 x 2.5" Front Hot-Swap drive bays (Default with RAID/HBA card to support NVMe)	8 x 2.5" Front Hot-Swap drive bays (backplane supports up to 8 x NVMe) 2 x M.2 support (Gen5 x4 link)
Networking	Per node: 1 x 1GbE LAN ports 1 x Management port	2 x 10GbE LAN ports 1 x Management port	1 x Management port	2 x 10GbE LAN ports 1 x Management port
Front I/O ports	N/A	1 x Mini DisplayPort 2 x USB 5Gbps ports 1 x Debug port	1 x Mini DisplayPort 2 x USB 5Gbps ports 1 x Debug port	1 x Mini DisplayPort 2 x USB 5Gbps ports 1 x Debug port
Rear I/O ports	Per node: 1 x USB 3.2 Gen1 ports 1 x mini Display port 1 x RJ-45 1GbE LAN ports 1 x RJ-45 Mgmt LAN port	1 x USB 5Gbps port 2 x RJ-45 LAN ports 1 x Management port	1 x USB 5Gbps port 1 x Management port	1 x USB 5Gbps port 2 x RJ-45 LAN ports 1 x Management port
Security Options	Optional TPM module Optional PFR module	Optional TPM module	Optional TPM module	Optional TPM module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB12-iKVM (on-board)	ASUS Control Center ASUS ASMB12-iKVM (on-board)	ASUS Control Center ASUS ASMB12-iKVM (on-board)
Dimension	890mm x 444mm x 88mm (2U) 35.04" x 17.48" x 3.46"	800mm x 439.5mm x 175 mm (4U) 31.5" x17.3"x 6.9"	800mm x 439.5mm x 175 mm (4U) 31.5" x17.3" x 6.9"	800mm x 439.5mm x 175 mm (4U) 31.5" x17.3" x 6.9"
Power Supply (following different configuration by region)	1+1 Redundant 3600W 80 PLUS Titanium Power Supply	3+1 Redundant 3200W 80 PLUS Titanium Power Supply	3+1 Redundant 3200W 80 PLUS Titanium Power Supply	3+1 redundant 3200W 80 PLUS Titanium power supply




Sample	ESC8000-E12	ESC A8A-E12U	ESC N8-E11V	ESC4000A-E12
Processor	2 x LGA4710 sockets for Intel® Xeon® 6 processors* (Up to 350W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 Series Processors (Up to 400W)	2 x Socket E (LGA4677) 4th Gen Intel® Xeon® Scalable processors 5th Gen Intel® Xeon® Scalable processors (up to 350W)	1 x Socket SP5/SP6 (LGA 6096) AMD EPYC™ 9004/9005 Series Processors (Up to 400W)
Chipset	System on Chip (SoC)	"System on Chip (SoC)	Intel® C741	System on Chip (SoC)
Memory	32 x DIMM slots DDR5 6400 (1DPC) / 5200 (2DPC) RDIMM Maximum up to 4TB	24 x DIMM slots AMD EPYC™ 9005: DDR5 6400 RDIMM (1DPC) AMD EPYC™ 9004: DDR5 4800 RDIMM (1DPC) Maximum 3TB per socket	32 x DIMM slots 4th: 4800 (1DPC)/ 4400 RDIMM (2DPC) 5th: 5600/4800 (1DPC)/4400 RDIMM(2DPC) Maximum 4 TB per CPU socket	12 x DIMM slots DDR5 4800/4400 RDIMM/3DS RDIMM (1DPC) Maximum 3TB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 8 double-slot GPU cards	8 x AMD Instinct™ MI325X accelators	HGX H200 NVL 141GB 8-GPU BASEBOARD	Up to 4 double-slot GPU cards
Expansion Slots	Front : 1 x PCIe x16 for HBA/RAID cards (Gen5 x8 link, FHHL) Rear: 8 x PCIe x16 for dual-slot GPU cards up to 600W(Gen5 x16 link, FHFL) 1 x PCIe x16 for NIC/BlueField-3 cards (Gen5 x16 link, FHHL) 1 x PCIe x16 for NIC cards (Gen5 x8 link, FHHL)	11x PCIe Gen5 slots [89104 PCIe Switch directly] 8 x PCIe Gen5 x16 (LP,) - GPU group [89048 PCIe Switch directly] 1 x PCIe Gen5 x16 (FHHL) - CPU 1 extension 1 x PCIe Gen5 x8 (FHHL) - CPU 1 extension [CPU directly] 1 x PCIe Gen5x16 (FHHL) (CPU2)	10+1 x PCIe Gen5 slots [PCIe Switch directly] 8 x PCIe Gen5 x16 link (LP) [CPU directly] 1 x PCIe Gen5 x16 link (FH, HL)* + 1 x PCIe Gen5 x16 link (FHHL)* 1 x PCIe Gen4 x8 link from CPU2 DMI (FHHL)** *Support PCIe x16 link for DPU **For Raid card to connect storage	Front: 1 x PCIe x8 slot (Gen5 x8 link, LP) Only for SKU1 Rear: 4 x PCIe x16 slots (Gen5 x16 link, FHFL) for dual-slot GPU cards or 8 x PCIe x16 slots (Gen5 x8 link, FHFL) for single-slot GPU cards 1 x PCIe x16 slots (Gen5 x16 link, FHHL) 1 x PCIe x16 slot (Gen5 x16/ x8 link, FHHL) or OCP socket option 1 x PCIe x8 slot (Gen5 x0/x8 link, LP)
Storage Bays	8 x 2.5" Front Hot-Swap drive bays (Optional HBA/RAID card for up to 6 additional NVMe devices) 2 x M.2 support (Gen5 x4 link)	8 x 2.5" Front Hot-Swap drive bays (Up to 8 NVMe) 2 x 2.5"" Rear Hot-Swap drive bays (2 x NVMe/SATA*/SAS*) *HBA/ RAID card is required to support SATA/SAS hard drives	8 x 2.5" Front Hot-Swap drive bays (Up to 8 NVMe) 2 x 2.5"" Rear Hot-Swap drive bays (2 x NVMe/SATA*/SAS*) *HBA/ RAID card is required to support SATA/SAS hard drives	2 x 2.5"" & 4 x 3.5"" Front Hot-Swap drive bays SKU1: 2 x 2.5"" NVMe/SATA/ SAS*+ 2 x 3.5"" NVMe/SATA/ SAS* + 2 x 3.5 "" SATA/SAS* SKU2: 2 x 2.5"" NVMe/SATA/ SAS* + 4 x 3.5"" NVMe/SATA/ SAS* (Occupy 1 x PCIe x8 link) **RAID card is required to support SAS hard drives **For SKU1 additional 2 x NVMe support required a RAID card
Networking	1 x Management port	2 x 10GbE LAN ports 1 x Management port	2 x 10GbE LAN ports 1 x Management port	2 x 1GbE LAN ports 1 x Management port
Front I/O ports	1 x Mini DisplayPort 2 x USB 5Gbps ports 1 x Debug port	4 x USB3.2 Gen1 ports 1 x VGA port 1 x Power Button 1 x Locate Button	4 x USB3.2 Gen1 ports 1 x VGA port 1 x power button 1 x locate button	4 x USB 3.2 Gen1 ports
Rear I/O ports	1 x USB 5Gbps port 1 x Management port	1 x Power Button 1 x Locate Button	1 x locate button 1 x power button	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x 1GbE LAN ports 1 x Management port
Security Options	Optional TPM module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB12-iKVM (on-board)	"ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	800mm x 439.5mm x 175 mm (4U) 31.5""x17.3""x 6.9"	885mm x 447mm x 306.65mm (7U) 34.84" x 17.60" x 12.07"	885mm x 447mm x 306.65mm (7U) 34.84" x 17.60" x 12.07"	800mm x 439.5mm x 88.9mm (2U) 31.5" x 17.3" x 3.5"
Power Supply (following different configuration by region)	3+1 redundant 3200W 80 PLUS Titanium power supply	5+1 Redundant 80 PLUS 3000W Titanium PSU	4+2 Redundant 80 PLUS 3000W Titanium PSU	1+1 Redundant 3200W/2700W 80 PLUS Titanium Power Supply

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Sample	ESC8000A-E12P	ESC8000A-E12	ESC8000-E11P	ESC8000-E11
Processor	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)	2 x Socket SP5 (LGA 6096) AMD EPYC™ 9004 Series Processors (Up to 400W)	2 x Socket P (LGA 4677) 4th Intel® Xeon® Processor Scalable Family 5th Intel® Xeon® Processor Scalable Family (Up to 350W)	2 x Socket P (LGA 4677) 4th Intel® Xeon® Processor Scalable Family (Up to 350W) 5th Intel® Xeon® Processor Scalable Family (Up to 350W)
Chipset	System on Chip (SoC)	System on Chip (SoC)	Intel® C741	Intel® C741
Memory	24 x DIMM slots DDR5 4800 (1DPC)/4400 RDIMM/ 3DS RDIMM (2DPC) Maximum 3TB per socket"	24 x DIMM slots DDR5 4800 (1DPC)/4400 RDIMM/ 3DS RDIMM (2DPC) Maximum 3TB per socket	32x DIMM slots DDR5 DDR5 5600/5200/4800(1 DPC)/4400 RDIMM/ 3DS RDIMM (2DPC) Maximum up to 4TB per CPU	32x DIMM slots DDR5 DDR5 5600/5200/4800(1 DPC)/4400 RDIMM/ 3DS RDIMM (2DPC) Maximum up to 4TB per CPU
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 8 double-slot GPU cards	Up to 8 double-slot GPU cards	Up to 8 double-slot GPU cards	Up to 8 double-slot GPU cards
Expansion Slots	8 x PCIe slots (Gen5 x16 link, FH,FL) for dual-slot GPU cards SKU-1 (5PCIe + 4NVMe) Front : 1 x PCIe slot (Gen5 x16 link ,LP,HL) for HBA/RAID cards Rear: 4 x PCIe slot (Gen5 x16 link) for NIC SKU-2 (4PCIe + 1OCP3.0) (optional) Front : 1 x PCIe slot (Gen5 x16 link ,LP,HL) for HBA/ RAID cards Rear : 3 x PCIe slot (Gen5 x16 link) for NIC 1 x OCP3.0 NIC socket (Gen5 x16 link)	8 x PCIe x16 slot (Gen5, FHFL) for dual-slot GPU card SKU-1 : Front : 1 x PCIe x8 slot (Gen5,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for NIC card Rear : 1 x PCIe x8 slot (Gen5) for NIC card SKU-2 : Front: 1 x PCIe x16 slot (Gen5 ,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for NIC card SKU-3 : Front: 1 x PCIe x16 slot (Gen5,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for OCP socket	8x PCIe x16 slot (Gen5, FHFL) for dual-slot GPU card SKU-1 : Front: 1 x PCIe x16 slot (Gen5 ,LPHL) for HBA/RAID cards Rear: 4 x PCIe x16 slot (Gen5 for NIC card SKU-2 : Front: 1 x PCIe x16 slot (Gen5 ,LPHL) for HBA/RAID cards Rear : 3 x PCIe x16 slot (Gen5 ,FHFL) for NIC card 1 x PCIe x16 slot (Gen5) for OCP socket"	8x PCIe x16 slot (Gen5, FHFL) for dual-slot GPU card SKU-1 : Front: 1 x PCIe x8 slot (Gen5 ,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for NIC card Rear : 1 x PCIe x8 slot (Gen5) for NIC card SKU-2 : Front: 1 x PCIe x16 slot (Gen5 ,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for NIC card SKU-3 : Front : 1 x PCIe x16 slot (Gen5 ,LPHL) for HBA/RAID cards Rear : 1 x PCIe x16 slot (Gen5) for OCP socket
Storage Bays	8 x 3.5"/2.5" Front Hot-swap Storage Bays (Backplane supports up to 8 x NVMe*/SATA/SAS**) *NVMe support on selected SKUs **SAS support requires an optional HBA/RAID card 1 x M.2 Socket, supports up to 22110 type (PCIe Gen3 x4 link)	8 x 3.5"/2.5" Front Hot-swap Storage Bays (Backplane supports up to 8 x NVMe*/SATA/SAS**) *NVMe support on selected SKUs **SAS support requires an optional HBA/RAID card 1 x M.2 Socket, supports up to 22110 type (PCIe Gen3 x4 link)	8 x 3.5"/2.5" Front Hot-swap Storage Bays (Backplane supports up to 8 x NVMe*/SATA/SAS**) *NVMe support on selected SKUs **SAS support requires an optional HBA/RAID card 1 x M.2 Socket, supports up to 22110 type (PCIe Gen3 x4 link)	8 x 3.5"/2.5" Front Hot-swap Storage Bays (Backplane supports up to 8 x NVMe*/SATA/SAS**) *NVMe support on selected SKUs **SAS support requires an optional HBA/RAID card 1 x M.2 Socket, supports up to 22110 type (PCIe Gen3 x4 link)
Networking	2 x 1GbE or 10GbE LAN ports 1 x Management port"	2 x 1GbE or 10GbE LAN ports 1 x Management port"	2 x GbE or 10GbE LAN ports 1 x Management port"	2 x 1GbE or 10GbE LAN ports 1 x Management port"
Front I/O ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports
Rear I/O ports	1 x VGA port 1 x COM port 2 x 1GbE or 10 GbE LAN ports 1 x Management port	1 x VGA port 1 x COM port 2 x 1GbE or 10 GbE LAN ports 1 x Management port	1 x VGA port 1 x COM port 2 x 1GbE or 10GbE LAN ports 1 x Management port	1 x VGA port 1 x COM port 2 x 1GbE or 10 GbE LAN ports 1 x Management port
Security Options	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	800mm x 440mm x 174.5mm (4U) 31.5"x 17.32"x 6.87"	800mm x 440mm x 174.5mm (4U) 31.5"x 17.32"x 6.87"	800mm x 440mm x 174.5mm (4U) 31.5"x 17.32"x 6.87"	800mm x 440mm x 174.5mm (4U) 31.5"x 17.32"x 6.87"
Power Supply (following different configuration by region)	2+2 Redundant 3000W/2600W 80 PLUS Titanium Power Supply 2+1 Redundant 3000W 80 PLUS Titanium Power Supply	2+2 Redundant 3000W/2600W 80 PLUS Titanium Power Supply 2+1 Redundant 3000W 80 PLUS Titanium Power Supply	2+2 Redundant 3000W/2600W 80 PLUS Titanium Power Supply 2+1 Redundant 3000W 80 PLUS Titanium Power Supply	2+2 Redundant 3000W/2600W 80 PLUS Titanium Power Supply 2+1 Redundant 3000W 80 PLUS Titanium Power Supply

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Edge Servers




Sample	ESC4000-E11	ESR1-511-X4TF	EG520-E11-RS10-R	EG520-E11-RS6-R
Processor	2 x Socket P (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 350W)	1 x Socket E (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 205W)	1 x Socket E (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 350W)	1 x Socket E (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 350W)
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
Memory	16 x DIMM slots DDR5 4800/4400/5600 RDIMM/3DS RDIMM(2DPC) Maximum 4TB	8 x DIMM slots 4th : DDR5 4800RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) 5th : DDR5 5600RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) Maximum 2048GB	8 x DIMM slots 4th : DDR5 4800RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) 5th : DDR5 5600RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) Maximum 2048GB	8 x DIMM slots 4th : DDR5 4800RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) 5th : DDR5 5600RDIMM/ LRDIMM/LRDIMM 3DS(1DPC) Maximum 2048GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 4 double-slot GPU cards	Up to 2 single-slot GPU cards *0–35°C for GPU-equipped SKUs	Up to 3 single-slot GPU cards *0–35°C for GPU-equipped SKUs	Up to 2 double-slot GPU cards and 1 single-slot GPU card *0–35°C for GPU-equipped SKUs
Expansion Slots	Front : 1 x PCIe x8 slot (Gen4 x8 link, LPHL) Only for SKU1 Rear : 4 x PCIe x16 slots (Gen5 x16 link, FHFL) for dual-slot GPU cards or 8 x PCIe x16 slots (Gen5 x8 link, FHFL) for single-slot GPU cards 2 x PCIe x16 slots (Gen5 x16 link, FHHL)	Up to 3 PCIe slots Integrated 8 ports SKU: 1 x PCIe G5 x16 link (FHHL) Integrated 4 ports SKU: 1 x PCIe G5 x16 link (FHHL) + 1 x PCIe G5 x8 link (FHHL) PCIe SKU: 1 x PCIe G5 x16 link (FHHL) + 2 x PCIe G5 x16 link (FH3/4L) Up to 1 OCP 3.0 slot	Up to 5 PCIe slots 3 x PCIe G5 x16 link (FHHL) or 3 x PCIe G5 x16/x8/x8 link (FHHL) +2 x PCIe G5 x8 link (FHHL)	Up to 5 PCIe slots 1 x PCIe G5 x16 link (FHHL) +2 x PCIe G5 x16 link (FHFL) or 2 x PCIe G5 x8 link (FHHL) +3 x PCIe G5 x16/x8/x8 link (FHFL)
Storage Bays	SKU-1:2 x 2.5" NVMe/SATA/SAS* + 2 x3.5" SATA/SAS*/NVMe + 2 x 3.5" SATA/ SAS* SKU-2:2 x 2.5" NVMe/SATA/ SAS* + 4 x3.5" NVMe/SATA/SAS* (Occupy 1 x PCIe x8 link), 1 x M.2 socket (Gen3 x4 link PCIe mode, up to 2280) *RAID card is required to support SAS hard drives **For SKU1 additional 2 x NVMe support required a RAID card	2 x E1.S Front Hot-Swap drive bays (PCIe Gen5 x4 link) 2 x M.2 22110/2280 (PCIe Gen3 x4 Link)	6 x 2.5" Front Hot-Swap drive bays (NVMe/SATA) 4 x 2.5" Rear Hot-Swap drive bays (SATA) 2 x M.2 22110/2280 (PCIe Gen4 x4 Link)	2 x 2.5" Front Hot-Swap drive bays (NVMe/SATA) 4 x 2.5" Rear Hot-Swap drive bays (SATA) 2 x M.2 22110/2280 (PCIe Gen4 x4 Link)
Networking	2 x 1GbE LAN ports 1 x Management port	1 x Management port Up to 8 x 25GbE LAN Ports (Integrated 8 ports SKU) Up to 4 x 25GbE LAN Ports (Integrated 4 ports SKU)	2 x 10GbE LAN port 1x Management port	2 x 10GbE LAN port 1x Management port
Front I/O ports	4 x USB 3.2 Gen1 ports	2 x USB 3.2 Gen1 ports 1 x Mini USB 2.0 port 1 x Display port 2 x SMA-1PPS (Intergrater SKU only) 1 x SMA-Antena(Intergrater SKU only) 1 x Management port 1 x RJ45 port for G.703 (Integrated 8 ports SKU only) Up to 8 x 25GbE LAN ports (Integrated SKU only)	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 1GbE LAN ports		2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 10G LAN ports 1 x RJ-45 Management LAN port 1 x RJ-45 Console port	2 x USB 3.2 Gen1 ports 1 x VGA port 2 x RJ-45 10G LAN ports 1 x RJ-45 Management LAN port 1 x RJ-45 Console port
Security Options	Optional TPM module Optional PFR module		Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)			
Dimension	800mm x 439.5mm x 88.9mm (2U) 31.5" x 17.3" x 3.5"	440mm x 430mm x 43.7mm(1U) 17.32" x 16.93" x 1.73"	430mm x 438.5mm x 87mm(2U) 16.93" x 17.26" x 3.43	430mm x 438.5mm x 87mm(2U) 16.93" x 17.26" x 3.43
Power Supply (following different configuration by region)	1+1 Redundant 2600W 80 PLUS Titanium Power Supply	1+1 Redundant 1300W 50.5MM SLIM Platinum Power Supply	1+1 Redundant 2000W 54.5MM SLIM Titanium Power Supply 1+1 Redundant 1300W 50.5MM SLIM Platinum Power Supply	1+1 Redundant 2000W 54.5MM SLI Titanium Power Supply 1+1 Redundant 1300W 50.5MM SLIM Platinum Power Supply

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SPECIFICATIONS

Sample	EG500-E11-RS4-R	EG500-E11-RS2-R
Processor	1 x Socket E (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 350W)	1 x Socket E (LGA 4677) 4th Gen Intel® Xeon® Scalable Processors Family 5th Gen Intel® Xeon® Scalable Processors Family (Up to 350W)
Chipset	Intel® C741	Intel® C741
Memory	8 x DIMM slots 4th:DDR5 4800RDIMM/LRDIMM/LRDIMM 3DS(1DPC) 5th:DDR5 5600RDIMM/LRDIMM/LRDIMM 3DS(1DPC) Maximum 2048GB	8 x DIMM slots 4th:DDR5 4800RDIMM/LRDIMM/LRDIMM 3DS(1DPC) 5th:DDR5 5600RDIMM/LRDIMM/LRDIMM 3DS(1DPC) Maximum 2048GB
VGA	Aspeed AST2600 64MB	Aspeed AST2600 64MB
Graphic	Up to 3 single-slot GPU cards *0~35°C for GPU-equipped SKUs	Up to 1 double-slot GPU card and 1 single-slot GPU card *0~35°C for GPU-equipped SKUs
Expansion Slots	Up to 3 PCIe Gen5 slots 3 x PCIe G5 x16 link (FHHL)	Up to 3 PCIe Gen5 slots 1 x PCIe G5 x16 link (FHHL)+2 x PCIe G5 x16 link (FHFL)
Storage Bays	2 x Front 2.5" ext. hot-swap drive bays(SATA/NVME) + 2 x Rear E1.S hot-swap drive bays(optional) + 2 x 2.5" Int. SATA (optional) for Short PSU (800W/650W) 2 x Front 2.5" ext. hot-swap drive bays(SATA/NVME) + 2 x Rear E1.S hot-swap drive bays(optional) for Long PSU (1300W) 2 x M.2 22110/2280 (PCIe Gen4 x4 Link) *E1.S only supported for E1.S SKU, cannot be purchased separately	2 x Rear E1.S hot-swap drive bays(optional) + 2 x 2.5" Int. SATA (optional) for Short PSU (800W/650W) 2 x E1.S hot-swap drive bays(optional) for Long PSU (1300W) 2 x M.2 22110/2280 (PCIe Gen4 x4 Link) *E1.S only supported for E1.S SKU, cannot be purchased separately
Networking	2 x 10GbE LAN port 1 x Management port	2 x 10GbE LAN port 1 x Management port
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
Rear I/O ports	1 x VGA port 2 x USB 3.2 Gen1 ports 2 x RJ-45 10G LAN port 1 x RJ-45 Mgmt LAN port 1 x RJ-45 Console port	1 x VGA port 2 x USB 3.2 Gen1 ports 2 x RJ-45 10G LAN port 1 x RJ-45 Mgmt LAN port 1 x RJ-45 Console port
Securit Options	Optional TPM module Optional PFR module	Optional TPM module Optional PFR module
Management Solution	ASUS Control Center ASUS ASMB11-iKVM (on-board)	ASUS Control Center ASUS ASMB11-iKVM (on-board)
Dimension	430mm x 438.5mm x 43.7mm(1U) 16.93" x 17.26" x 1.72"	430mm x 438.5mm x 43.7mm(1U) 16.93" x 17.26" x 1.72"
Power Supply (following different configuration by region)	1+1 Redundant 1300W 50.5MM SLIM Platinum Power Supply 1+1 Redundant 800W 50.5MM SLIM Titanium Power Supply 1+1 Redundant 650W 50.5MM SLIM Platinum Power Supply	1+1 Redundant 1300W 50.5MM SLIM Platinum Power Supply 1+1 Redundant 800W 50.5MM SLIM Titanium Power Supply 1+1 Redundant 650W 50.5MM SLIM Platinum Power Supply

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Storage Solutions

Sample	VS320D-RS12	VS320D-RS26
Processor	Intel®Xeon® 64-bit 4-core	Intel®Xeon® 64-bit 4-core
Memory	Per Controller : 4 x DIMM slots DDR4 3200 ECC UDIMM Maximum 256GB	Per Controller : 4 x DIMM slots DDR4 3200 ECC UDIMM Maximum 256GB
Storage Bays	12 x 3.5"/2.5" Hot-swap drive bays Drive Interface: SAS 12Gb/s Maximum Drive Bays with Expansion Unit : 420 Bays Maximum Internal Raw Capacity : 288 TB (calculate 24 TB HDD) Maximum Raw Capacity with Expansion Units: 10,080 TB (calculate 24 TB HDD)	6 x 2.5" Hot-swap drive bays Drive Interface: SAS 12Gb/s Maximum Drive Bays with Expansion Uni t: 434 Bays Maximum Internal Raw Capacity : 399.36 TB (calculate 15.36 TB SSD) Maximum Raw Capacity with Expansion Units: 10,191.36 TB (calculate 24 TB HDD)
Front I/O ports	1 x Enclosure Status LED 1 x Enclosure Access LED 1 x Enclosure PowerButton/LED 1 x USB Port 1 x UID(UniqueIdentifier)Button/LED	1 x Enclosure Status LED 1 x Enclosure Access LED 1 x Enclosure PowerButton/LED 1 x USB Port 1 x UID(UniqueIdentifier)Button/LED
Rear I/O ports	1 x Master/Slave LED 1 x Controller Status LED 1 x Dirty Cache LED 1 x UID(Unique Identifier) LED [Per node] 2 x 12Gb/s SAS Wide Port 4 x 10GbE iSCSI (SFP+) Port 1 x Management Port 1 x Service Port 1 x Console Port 1 x USB Port 1 x Resetto Factory Default Button 1 x Buzzer Mute Button	1 x Master/Slave LED 1 x Controller Status LED 1 x Dirty Cache LED 1 x UID(Unique Identifier) LED [Per node] 2 x 12Gb/s SAS Wide Port 4 x 10GbE iSCSI (SFP+) Port 1 x Management Port 1 x Service Port 1 x Console Port 1 x USB Port 1 x Resetto Factory Default Button 1 x Buzzer Mute Button
Dimension	515mm x 438mm x 88mm (2U)	515mm x 438mm x 88mm (2U)
Power Supply (following different configuration by region)	1+1 Redundant 850W 80 PLUS Platinum Power Supply	1+1 Redundant 850W 80 PLUS Platinum Power Supply

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