

# RS700-E10-RS12U

## Scalable, High Performance 1U Server



1U

CPU  
Number

2

Memory  
Number

32

ASUS RS700-E10-RS12U is a server powered by 3rd Gen Intel Xeon Scalable processors that supports up to 32 DIMMs, one dual-slot GPU, 12 NVMe, three plus one PCIe slots, optional OCP 3.0 slot, dual M.2 and ASUS ASMB10-iKVM.

### FEATURE

- Powered by dual-socket 3rd Gen Intel Scalable processors
- CPU maximum TDP of up to 270W with 32 DIMMs and support
- GPU-optimized design allows one dual-slot GPU for AI workloads
- Up to 12 all-flash NVMe
- Up to 3+1 PCIe® 4.0 slots
- Flexible onboard LAN-module design
- Flexible air- and liquid-cooling solution

### 3<sup>rd</sup> Gen Intel Xeon Scalable processors

The latest Intel Xeon scalable processors offer up to 1.42x more cores per CPU and 1.52x computing performance increase. ASUS RS700-E10-RS12U supports dual Intel Scalable processors to enable up to 32 DIMM slots, all flash and PCIe Gen 4.0.

### PCIe 4.0 Ready

PCI Express® (PCIe®) 4.0 delivers 16 GT/s bandwidth, which is double the speed of PCIe 3.0, offering lower power consumption, better lane scalability and backwards compatibility.

### GPU and FPGA Support

Up to one dual-slot GPU card such as NVIDIA A100 in one 1U system and optimized acceleration for workloads across cloud, data center and for hybrid cloud environment

### Cooling Solutions

Air or liquid-cooled solutions. Asetek's Direct-to-Chip (D2C) liquid-cooling technology achieving lower power-usage effectiveness (PUE) and optimized TCO for data centers.

### Enhanced Security

PFR FPGA as the platform Root-of-Trust solution for firmware resiliency Trusted Platform Module 2.0 (TPM 2.0) to secure hardware through integrated cryptographic keys and offer regular firmware update for vulnerabilities.

## RS700-E10-RS12U

<b>Processor Support.</b>		2 x Socket P+ (LGA 4189)  3rd Gen Intel® Xeon® Scalable Processors Family(270w) UPI (11.2 GT/s)
<b>Core Logic</b>		Intel® C621A Chipset
<b>Memory</b>	<b>Total Slots</b>	32 (8-channel per CPU, 16 DIMM per CPU)
	<b>Capacity</b>	Maximum up to 6TB
	<b>Memory Type</b>	DDR4 3200/2933 RDIMM/LR-DIMM/LR-DIMM 3DS with ECC *Refer to ASUS server AVL for the latest update
	<b>Memory Size</b>	64GB, 32GB, 16GB, 8GB RDIMM 256GB, 128GB, 64GB RDIMM 3DS 128GB, 64GB LRDIMM 128GB LR-DIMM 3DS 512GB, 256GB, 128GB Intel® Optane™ DC persistent memory 200 Series (DCPMM)
<b>Expansion Slots</b>	<b>Total PCI-E/PIKE Slots</b>	3+1
	<b>Slot Type</b>	1 x PCIe x16 slot(Gen4 x16 link), FH, HL (CPU1) 1 x PCIe x16 slot(Gen4 x16 link), FH, HL or OCP3.0 Mezzanine slot (CPU2) 1 x PCIe x16 slot (Gen4 x16 link), LP (CPU2) (if PCIe M.2 is in use, it will operate at x8 link) Proprietary Slot: 1 x PCIe x8 slot (Gen4 x8 link), LP (Internal Slot for PIKE) (CPU1)
<b>Disk Controller</b>	<b>SATA Controller</b>	Intel® PCH C621A - Intel® RSTe: Support software RAID 0, 1, 10 & 5 - Intel® VROC: Support software RAID 0, 1, 10 & 5, 50
	<b>SAS Controller</b>	Optional kits: ASUS PIKE II 3008 8-port SAS 12Gb/s HBA card ASUS PIKE II 3108 8-port SAS HW 12Gb/s RAID card Broadcom MegaRAID 9560-16i
<b>Storage Bays</b>	<b>I = internal A or S will be hot-swappable</b>	Front bays 12 x 2.5" hot-swap bays (12 x NVMe/SAS*/SATA) *SAS support only from SAS HBA/RAID card
		2 x M.2 connector (NGFF 2280/2260. PCIe Gen4x4 link)(CPU2)
<b>Networking</b>	<b>LAN</b>	Optional 1 x Quad Port Intel I350-AM4 1G LAN Controller* or 1 x Dual Port Intel X710-AT2 Gigabit 10G LAN Controller Default Management Port * Only for non-GPU SKU
<b>Graphic</b>	<b>VGA</b>	Aspeed AST2600 64MB
<b>Front I/O Ports</b>		N/A
<b>Rear I/O Ports</b>		2 x USB 3.2 Gen1 ports 1 x VGA port 1 x RJ-45 Mgmt LAN port 4/2 x NIC ports* * The number of NIC ports available depends on the LAN Controller card installed.
<b>Switch/LED</b>		Front Switch/LED: 1 x Power Switch (w/ LED) 1 x Reset Switch 1 x Location Switch (w/ LED) 1 x HDD Access LED* 1 x Message LED, LAN 1/3 and 2/4 LED (on NIC module)** * The HDD Access LED is only functional when an ASUS PIKE II card is installed and connected. ** The number of LAN LEDs available depends on the LAN Controller card installed. Rear Switch/LED: 1 x Port 80 LED (Q-Code) 1 x Power Switch w/ LED 1 x Location Switch w/ LED
<b>OS Support</b>		Please find the latest OS support from <a href="http://www.asus.com/">http://www.asus.com/</a>

## RS700-E10-RS12U

<b>Management Solution</b>	<b>Software</b>	ASUS Control Center (Classic)
	<b>Out of Band Remote Management</b>	On-Board ASMB10-iKVM for KVM-over-IP
<b>Dimension</b>		842.5mm x 439.5mm x 44mm (1U)
<b>Net Weight Kg (CPU, DRAM &amp; HDD not included)</b>		13.7 kg
<b>Gross Weight Kg (CPU, DRAM &amp; HDD not included, Packing include)</b>		22.56 kg
<b>Power Supply (following different configuration by region)</b>		1+1 Redundant 1200W 80 PLUS Platinum Power Supply 1600W 80 PLUS Titanium Power Supply 1600W 80 PLUS Platinum Power Supply
<b>Environment</b>		Operation temperature: 10°C ~ 35°C Non operation temperature: -40°C ~ 60°C Non operation humidity: 20% ~ 90% ( Non condensing)
<b>BIOS</b>		ASUS BIOS in Flash Memory non-volatile and electrically reprogrammable memory, UEFI technology.