ESC4000A-E12 is a four-GPU server built for the demands of enterprise AI and high-performance computing. With AMD EPYC™ 9004 single-processor 2U GPU server that supports four dual-slot GPUs, liquid PCIe 5.0 slots, six NVMe, OCP 3.0 and ASMB11-iKVM. cooling solution, up to 12 DIMM, 8 PCIe 5.0 slots, six NVMe, OCP 3.0 and ASMB11-iKVM

FEATURE
- AMD EPYC™ 9004 series with AMD 3D V-Cache technology
- PCIe Gen5.0 Ready
- AI and HPC workloads ready
- Comprehensive cooling solutions
- Enhanced IT-infrastructure management

Target market
- Streaming Media
- Cloud Computing
- Virtualized & VDI Application
- Enterprise & HPC Application

**AMD EPYC™ 9004 series with AMD 3D V-Cache technology**
Powered by AMD EPYC 9004 processors with AMD 3D V-Cache technology with 96 Zen 4 cores, 12-channel, up to 4800 MHz DDR5 and support for a maximum TDP of up to 400 watts per socket

**PCIe Gen5.0 Ready**
PCI Express® (PCIe®) 5.0 delivers 64 GT/s bandwidth, which is twice the speed of PCIe 4.0, and offers lower power consumption, better lane scalability and backwards compatibility

**AI and HPC workloads ready**
Up to four dual-slot active or passive GPUs, NVIDIA NVLink® bridge, and NVIDIA Bluefield DPU support to enable performance scaling

**Comprehensive cooling solutions**
Designed for both liquid cooling and enhanced air cooling based on CPU TDP for versatile workloads

**Enhanced IT-infrastructure management**
ASUS ASMB11-iKVM remote control with ASPEED AST2600, ASUS Control Center IT management software and hardware-level Root-of-Trust solution

1. Asset Tag
2. 12 x DIMM, DDR5 4800/4400 RDIMM/ RDIMM 3DS
3. AMD EPYC™ 9004 Series
4. 1 x PCI-E x8 (Gen5 x8 link)
5. 4 x PCI-E x16 (Gen5 x16 link)
6. 2 x PCI-E x16 (Gen5 x16/8 link) or OCP socket and 1 x PCI-E x8 (Gen5 x8 link)
7. 1+1 Redundant 2600W 80 PLUS Titanium CRPS-R Power Supply
8. 2 x 2.5” & 4 x 3.5” Hot-swap HDD Bays
### Processor Support
1 x Socket SP5 (LGA 6096)
AMD EPYC™ 9004 series (up to 400W)
4th Generation AMD EPYC Processors with AMD 3D V-Cache technology

### Memory
<table>
<thead>
<tr>
<th>Total Slots</th>
<th>12 (12-channel per CPU, 12 DIMM per CPU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>Maximum up to 3TB per CPU socket</td>
</tr>
<tr>
<td>Memory Type</td>
<td>DDR5 4800/4400 RDIMM/ 3DS RDIMM</td>
</tr>
<tr>
<td>Memory Size</td>
<td>64GB, 32GB, 16GB RDIMM</td>
</tr>
<tr>
<td></td>
<td>256GB, 128GB 3DS RDIMM</td>
</tr>
</tbody>
</table>

*Please refer to www.asus.com for latest memory AVL update

* Refer to www.asus.com/support for more information

### Expansion Slots
<table>
<thead>
<tr>
<th>Total PCI/PCI-X/PCI-E/PIKE Slots</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rear:</td>
<td></td>
</tr>
<tr>
<td>-4 x PCIe x16 slots (Gen5 x16 link, FH, FL) for dual-slot GPU cards or 8 x PCIe x16 slots (Gen5 x8 link, FH, FL) for single-slot GPU cards</td>
<td></td>
</tr>
<tr>
<td>-1 x PCIe x16 slots (Gen5 x16 link, FH, HL)</td>
<td></td>
</tr>
<tr>
<td>-1 x PCIe x16 slot (Gen5 x16/x8 link, FH, HL) or OCP socket option</td>
<td></td>
</tr>
<tr>
<td>-1 x PCIe x8 slot (Gen5 x0/x8 link, LP, HL)</td>
<td></td>
</tr>
<tr>
<td>Front: 1 x PCIe x8 slot (Gen5 x8 link, LP, HL) Only for SKU1</td>
<td></td>
</tr>
</tbody>
</table>

### Disk Controller
<table>
<thead>
<tr>
<th>SATA Controller</th>
<th>6 x SATA 6Gb/s ports</th>
</tr>
</thead>
</table>

**SAS Controller**
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 9540-8i
- Broadcom MegaRAID 9560-16i

### Storage Bays
<table>
<thead>
<tr>
<th>SATA/SAS*/NVMe</th>
<th>2 x 2.5&quot; &amp; 4 x 3.5&quot; Hot-swap Storage Bays</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKU1:</td>
<td>2 x 2.5&quot; SATA/SAS*/NVMe + 2 x 3.5&quot; SATA/SAS*</td>
</tr>
<tr>
<td>SKU2: Build to order</td>
<td>2 x 2.5&quot; SATA/SAS*/NVMe + 4 x 3.5&quot; SATA/SAS*/NVMe ( Occupy 1 x PCIe x8 link )</td>
</tr>
</tbody>
</table>

*SAS support required a HBA/RAID card.
**For SKU1 additional 2 x NVMe support required a RAID card.

### Networking
<table>
<thead>
<tr>
<th>LAN</th>
<th>2 x Gigabit LAN ports (Intel I350 Controller)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic</td>
<td>Aspeed AST2600 64MB</td>
</tr>
<tr>
<td>Front I/O Ports</td>
<td>4 x USB 3.2 Gen1 ports</td>
</tr>
<tr>
<td>Rear I/O Ports</td>
<td>2 x USB 3.2 Gen1 ports</td>
</tr>
<tr>
<td></td>
<td>2 x Gigabit LAN ports (RJ45)</td>
</tr>
<tr>
<td></td>
<td>1 x Management port (RJ45)</td>
</tr>
<tr>
<td></td>
<td>1 x VGA port</td>
</tr>
</tbody>
</table>

### Switch/LED
Front:
- 1 x Power Button/LED
- 1 x Location Button/LED
- 1 x Message LED
- 1 x Q-Code/Port 80 LED
- 2 x LAN LED

Rear:
- 1 x Power Button/LED
- 1 x Location LED
- 1 x Message LED

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## OS Support
- Windows Server
- RedHat® Enterprise Linux
- SuSE® Linux Enterprise Server
- CentOS
- Ubuntu
- Vmware

*Please find the latest OS support from [https://www.asus.com/event/Server/OS_support_list/OS.html](https://www.asus.com/event/Server/OS_support_list/OS.html)

## Management Solution
- **Software**
  - ASUS Control Center (Classic)
- **Out of Band Remote Management**
  - On-Board ASMB11-iKVM

## Dimension
- 800mm x 439.5mm x 88.9mm (2U)
- 845.45mm x 439.5mm x 88.9mm (2U) for immersion cooling

## Net Weight Kg (CPU, DRAM & HDD not included)
- 24 kg

## Gross Weight Kg (CPU, DRAM & HDD not included, Packing include)
- 34.8 kg

## Power Supply (following different configuration by region)
- 1+1 Redundant 2600W 80 PLUS Titanium CRPS-R Power Supply

## Environment
- **Operation temperature:** 10°C ~ 35°C
- **Non operation temperature:** -40°C ~ 70°C
- **Non operation humidity:** 20% ~ 90% (Non condensing)