7U NVIDIA HGX H100 8-GPU server with dual 4th Gen Intel Xeon Scalable processors that designed for large scale of AI and HPC, 10+1 or 12 PCIe slots, 32 DiMM, 10 NVMe, dual 10G LAN and optional OCP 3.0 socket (SKU2 only). NIC and storage are placed close to the GPUs, use a ratio of up to 1:1 GPUs to network interface card and have GPU Direct Storage design could reduce read/write latency. ESC N8-E11 is optimal for cultivating AI advancements for enterprise applications.

**FEATURE**
- 4th/5th Gen Intel® Xeon® Scalable Processors
- PCIe 5.0 Ready
- Powerful Performance
- Enhanced IT-infrastructure management

**Target market**
- High Performance Computing
- Generative AI
- Deep Learning/Machine Learning
- Data Analysis
- Scientific Research

**5th Gen Intel® Xeon® Scalable Processors**
Powered by 5th Gen Intel® Xeon® Scalable Processors with 8-channel, up to 4400 MHz DDR5 and support for a maximum TDP of up to 350 watts per socket

**PCIe Gen5.0 Ready**
PCI Express® (PCIe®) 5.0 delivers 32 GT/s bandwidth, which is double the speed of PCIe 4.0, offering lower power consumption, better lane scalability and backwards compatibility.

**Powerful Performance**
Support NVIDIA HGX H100 8-GPUs and connected with latest NVSwitch design. NIC and storage are placed close to the GPUs, use a ratio of up to 1:1 GPUs to network interface card and have GPU Direct Storage design could reduce read/write latency.

**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

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# ESC N8-E11

## Processor Support
- **Total**: 2 x Socket
- 4th Gen Intel® Xeon® Scalable Processors
- 5th Gen Intel® Xeon® Scalable Processors

## Memory
- **Total Slots**: 32 (8-channel per CPU, 16 DIMM per CPU)
- **Capacity**: Maximum up to 4 + 8 TB (DDR5 + Crow Pass)
- **Type**: DDR5 4400 RDIMM/RDIMM 3DS (2DIMM per Channel)
- *Please refer to www.asus.com for latest memory AVL update
- **Memory Size**: 512GB, 256GB, 128GB Intel® Optane™ persistent memory 300 series
  * Refer to www.asus.com/support for more information

## Expansion Slots
- **Total PCI/PCI-X/PCI-E/PIKE Slots**: 11 or 12
- **Slot Type**

  **SKU1**
  - 10 + 1 x PCIe Gen5 slots (1 x internal RAID card)
  
  [PCle Switch directly]
  - 8 x PCIe Gen5 x16 link (LP, HL)
  [CPU directly]
  - 1 x PCIe Gen5 x16 link (FH, HL)* + 1 x PCIe Gen5 x16 link (FH, HL)*

  *Support DPU please choose SKU2

  **SKU2** (Launch in Dec. 2023)
  - 12 x PCIe Gen5 slots
  
  [PCle Switch directly]
  - 8 x PCIe Gen5 x16 link (LP, HL)
  [CPU directly]
  - 1 x PCIe Gen5 x16 link (FH, HL)** + 1 x PCIe Gen5 x16 link (FH, HL)**
  - 1 x PCIe Gen5 x8 link (FH, HL) + 1 x PCIe Gen5 x8 link (FH, HL)

  **Support PCIe x16 link for DPU

- **M.2**: 2 x M.2 Gen5x4 (CPU1) & 2 x M.2 Gen3x2 (PCH)

## Disk Controller
- **SATA Controller**: Intel PCH Integrated
- **SAS Controller**: Optional Kits:
  - Broadcom MegaRAID 9560-16i
  - Broadcom RAID CARD 9540-8i
  - ASUS PIKE II 3008 8-port HBA Card
  - ASUS PIKE II 3108 8-port HW RAID Card

## Storage Bays
- **I = internal**
- **A or S will be hot-swappable**
  - 10 x 2.5" hot-swap drive bays (8 NVMe, 2 NVMe/SATA/SAS*)

  [PCie Switch directly
  Front: 8 NVMe
  [CPU directly
  Rear: 2 NVMe(CPU2)/SATA(PCH)/SAS*

  *SAS support required an HBA/RAID card.

## Networking
- **LAN**: 2 x 10 Gigabit LAN ports (Intel X710-AT2 Controller)
  - 1 x Management Port

## Graphic
- **VGA**: Aspeed AST2600 64MB

## Front I/O Ports
- 4 x USB3.2 Gen1 ports
- 1 x VGA port
- 2 x 10Gb RJ45 LAN module (Intel-x710 Based)
- 1 x Mgmt LAN
- 1 x locate button
- 1 x power button

## Rear I/O Ports
- 1 x locate button
- 1 x power button
## SPECIFICATION

### Switch/LED

**Front:**
- 1 x Power Button/LED
- 1 x Location Button/LED
- 1 x Message LED
- 1 x Q-Code/Port 80 LED

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

### OS Support

- Windows Server
- RedHat® Enterprise Linux
- Rocky
- 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

<table>
<thead>
<tr>
<th>Software</th>
<th>Out of Band Remote Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASUS Control Center</td>
<td>On-Board ASMB11-iKVM</td>
</tr>
</tbody>
</table>

### Dimension

| 885mm x 447mm x 306.65mm |

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

99 kg

### Gross Weight Kg

(CPU, DRAM & HDD not included, Packing include)

154 kg

### Power Supply

(4+2 or 3+3) 3000W 80 PLUS Titanium Power Supply

### Environment

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

**ESC N8-E11 with Front Bezel (Optional)**