

# MINISFORUM MS-02-Ultra

## Specification

### CPU

#### Intel® Core™ Ultra 9 285HX

24 Cores (8 P-Cores + 16 E-Cores), 24 Threads  
Max Clock: 5.5 GHz

### TDP

Without dGPU: 100W PL1 / 140W PL2  
With dGPU: 90W PL1 / 110W PL2

### GPU

#### Intel® Graphics(Internal)

Max GPU Clock: 2 GHz

### AI Engine Performance

#### Intel® AI

NPU Computing Power: Up to 13 TOPS

### RAM

4 x DDR5 SODIMM slots (ECC supported; XMP overclocking not supported).  
Max frequency support: 4800MHz  
Max capacity support: 256GB

### SSD

#### 2 × M.2 2280 NVMe SSD slots

(PCIe 4.0 x4, Up to 8TB each)

#### 2 × M.2 2280 NVMe SSD slots

(Inside 25GbE NIC, up to 8 TB/slot PCIe 3.0 x4) or 4 TB/slot PCIe 4.0 x4)

### Heat Dissipation

Six-heatpipe radiator with Phase Change Material (PCM)  
Max CPU Fan Speed: 5000 RPM

### Wireless Connectivity

Wi-Fi 7 | Bluetooth® 5.4

### Ethernet Controller

2 × 25 GbE SFP+

1 × 10 GbE LAN RJ45

1 × 2.5 GbE LAN RJ45

### Video Output

1 x HDMI™ 2.1 FRL (8K@60Hz, 4K@120Hz)

1 x USB4 with DP Alt Mode (8K@60Hz, 4K@120Hz)

2 x USB4 V2 with DP Alt Mode (8K@60Hz, 4K@120Hz)



## **Audio Output**

1 x HDMI™  
1 x USB4  
2 x USB4 V2  
1 x 3.5mm Audio Jack

## **Audio Input**

3.5mm Combo Jack (TRRS) x 1

## **I/O Ports (Front)**

2 x USB4 V2 Type-C Ports(80 Gbps, DP 2.0 Alt Mode, 15W PD)  
1 x USB 10Gbps Type-A Port(USB 3.2 Gen 2)  
1 x 3.5mm Audio Jack  
1 x Power Button

## **I/O Ports (Rear)**

2 x 25GbE SFP+ Ports (Intel E810)  
1 x 10GbE RJ45 Port (Realtek RTL8127)  
1 x 2.5GbE RJ45 Port (Intel I226-LM, vPro Enabled)  
1 x HDMI™ 2.1 FRL  
1 x USB4 Type-C Port(40 Gbps, DP 2.0 Alt Mode, 15W PD)  
3 x USB-A 10Gbps(USB 3.2 Gen 2)

## **I/O Ports (Internal)**

1 x PCIe 5.0 x16 Slot (bifurcation support )  
1 x PCIe 4.0 x16 Slot (PCIe 4.0 x4+x4+x4) **with Pre-installed 25GbE NIC**  
1 x PCIe 4.0 x4 Slot

## **Button/Hole**

Clear CMOS Button x 1

## **Pre-installed OSOS Support**

Windows 11 Pro

## **Power**

AC input (100-240V ~6A 50-60Hz, 1U 350W MAX)

## **VESA Mount & Dimensions**

N/A

## **Weight**

3.45 kg