



LAND



SEA



AIR

# HORUS440

Intel 4/5th XEON SP 2U Military Rugged HPC



- Dual Intel® 4/5th XEON® SP Processor Sliver, Gold, Platinum CPUs
- Up to 3 selection PCIe 5.0 slot
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  - 1x PCIe 5.0 x16 FHFL slot(s), 2x PCIe5.0x8 HHHL slot(s)
- 4x 2.5" Swappable SATA SSD (RAID 0,1,5,10)
- 2x 10G LAN, 1x IPMI LAN, 2x USB2.0, 1x VGA
- 2x 25G (Option)
- MIL-STD-810G Thermal, Shock, Vibration
- DC 18V~36V / 100/240V VAC (Option)



## Product Highlight



### Technical Specification

5<sup>th</sup>/4<sup>th</sup> Gen Intel® Xeon® Scalable processors, Dual Socket LGA-4677 (Socket E)

Up to 64 Cores per Processor

Up to 4TB memory with 8+8 DIMM slots

Nvidia RTX 6000 ADA, 18176 CUDA cores, 48GB GDDR6

### Management and Operating System

Windows®, Linux, VMWARE, SLES

AMI UEFI BIOS type

IPMI v2.0 Redfish option available

TPM 2.0 support

### Expansion

PCIe 5.0 Card Options:

4x 2.5" Swappable SSD, support SATAIII (6Gbps)

### Input/Output Versatility

1x Power Button

1x SSD Status LED

1x DC-IN

1x IPMI 2.0 +2x USB2.0

2x 25G SFP28 (Option)

1x VGA display port

2x USB3.1 (Option)

### Power Supply Options

DC-IN 18V~36V

MIL-STD 461(Option)

### Environmental

#### Operating

Temperature: -20°C to 55°C

Humidity: 5%to 95%, non-condensing

Shock: 3 axis, 25g

Vibration: 5Grms

#### Non-Operating

Temperature: -40°C to 80°C

Humidity: 5%to 95%, non-condensing

#### MIL-STD-810 Test

Method 500.5, Procedures I and II (Altitude, Operation):

12,192M, (40,000 ft) for the initial cabin altitude (18.8Kpa or 2.73 Psia)

Method 500.5, Procedures III and IV (Altitude, Non-Operation):

15,240, (50,000 ft) for the initial cabin altitude (14.9Kpa or 2.16 Psia)

Method 501.5, Procedure I (Storage/High Temperature)

Method 501.5, Procedure II (Operation/High Temperature)

Method 502.5, Procedure I (Storage/Low Temperature)

Method 502.5, Procedure II (Operation/Low Temperature)

Method 503.5, Procedure I (Temperature shock)

Method 507.5, Procedure II (Temperature & Humidity)

Method 509.7 Salt Spray (50±5)g/L(Optional for Conformal Coating)

Method 514.6, Vibration Category 24/Non-Operating (Category 20 & 24,Vibration)

Method 514.6, Vibration Category 20/Operating (Category 20 & 24,Vibration)

Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock)

Method 516.6, Shock-Procedure I Operating (Mechanical Shock)

### Mechanical

Height: 88.9mm

Width: 17.3 inches (440.0mm)

Depth: 19.7 inches (500.0mm) Weight: 25 pounds (11.3kg)

# Specifications

## SYSTEM

Processor	5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors, Dual Socket E (LGA-4677)
CPU Core Count	Up to 64C/128T; Up to 112.5MB Cache
Memory type	DDR5-5600MT/s RDIMM ECC , Up to 4TB in 8+8 DIMM slot
Graphic	PCIe 5.0 x16 dual-width, full-height, full-length (FHFL)
TPM	Chipset: Infineon, Type: TPM 2.0
IPMI	ASPEED AST2500 IPMI 2.0
BIOS	AMI UEFI BIOS
USB	2x USB2.0 ports: rear I/O Type-A 2x USB3.2 (option)
Ethernet	2x10G 1x RJ45 Dedicated IPMI 2x SFP28 (Option)
Power Type	18V~36V DC IN
Storage	4x 2.5" Swappable SATA SSD
COM Port	1x RS232 (option)
Operating Temp.	-20°C to +55°C
Dimension	440mm(W) x 500mm(D)x88mm(H)

## FRONT I/O

Power Button	1x
SSD LED indicator	1x
Swappable SSD Tray	8x

## REAR I/O

DC-IN	1x
IPMI LAN	1x
USB2.0	2x
10G LAN	2x
VGA	1x

**ENVIRONMENTAL**

MIL-STD-810 Test	<p>Method 500.5, Procedures I and II (Altitude, Operation): 12,192M, (40,000 ft) for the initial cabin altitude (18.8Kpa or 2.73 Psia)</p> <p>Method 500.5, Procedures III and IV (Altitude, Non-Operation): 15,240, (50,000 ft) for the initial cabin altitude (14.9Kpa or 2.16 Psia)</p> <p>Method 501.5, Procedure I (Storage/High Temperature)</p> <p>Method 501.5, Procedure II (Operation/High Temperature)</p> <p>Method 502.5, Procedure I (Storage/Low Temperature)</p> <p>Method 502.5, Procedure II (Operation/Low Temperature)</p> <p>Method 503.5, Procedure I (Temperature shock)</p> <p>Method 507.5, Procedure II (Temperature &amp; Humidity)</p> <p>Method 509.7 Salt Spray (50±5)g/L(Optional for Conformal Coating)</p> <p>Method 514.6, Vibration Category 24/Non-Operating (Category 20 &amp; 24,Vibration)</p> <p>Method 514.6, Vibration Category 20/Operating (Category 20 &amp; 24,Vibration)</p> <p>Method 516.6, Shock-Procedure V Non-Operating (Mechanical Shock)</p> <p>Method 516.6, Shock-Procedure I Operating (Mechanical Shock)</p>
Reliability	<p>Rugged Air Cooling.</p> <p>Designed &amp; Manufactured using ISO 9001 Certified Quality Program.</p>
CE / FCC	Compliance
Operating Temp	-20°C to +55°C
Storage Temp.	-40°C to +80°C
Relative Humidity	5% to 95%, non-condensing.

**Ordering Information:**

HORUS440-A:

19" 2U Military Rugged Server with Intel® Xeon Gold 5420 Processor (Up to 205W), C741, DDR5 3DS ECC RDIMM up to 2TB, NVIDIA RTX A4500 GPU, 4x SATAIII or 4x Rugged Tray with U.2 SSD up to 64TB, 110~240V AC-IN or 18~36V DC-IN Single Power supply, Operating Temp. -20~+55°C

HORUS440-B:

19" 2U Military Rugged Server with Intel® Xeon Platinum 8558 Processor (Up to 330W), C741, DDR5 3DS ECC RDIMM up to 2TB, NVIDIA RTX A4500 GPU, 4x SATAIII or 4x Rugged Tray with U.2 SSD up to 64TB, 110~240V AC-IN or 18~36V DC-IN Single Power supply, Operating Temp. -20~+55°C

## Appearance



## Dimension

