HORUS770-M

Intel 4/5th XEON SP Rugged Server

Features

- Intel® 4/5th XEON® SP Processor Sliver, Gold, Platinum CPUs
- Intel® Data Center GPU Flex 170(32 Xe-cores, 16GB GDDR6)
- Nvidia RTX 6000 ADA, 48GB GDDR6, 18176 CUDA® cores
- Up to 2TB DDR5- 5600MT/s RDIMM ECC
- 8 pins programmable GPIO
- 8x U.2 NVMe PCIe Gen 4 (Up to 128TB)
- 2x M.2 NVMe (OS)
- I/O: 1xIPMI , 2x10G , 4x1G
- 3 x HHHL Slot Available
- DC 16V-72V (1000W)
- MIL-STD: 810, 461

OPTIONAL

- 6x GMSL 2.0 inputs
- RAID PCIe Gen 4.0 Tri-Mode Support RAID 0, 00, 1, 5, 6, 10, 50 and 60

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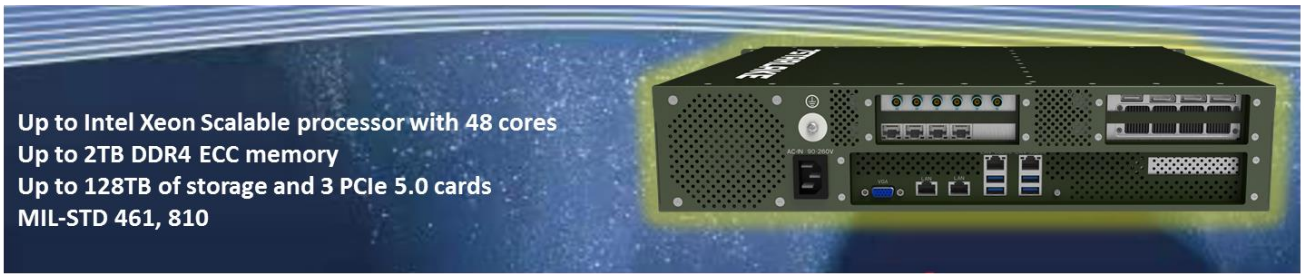
Product Highlight



Technical Specification

1x Intel® Xeon® Scalable Silver, Gold, Platinum CPUs
Up to 48 Cores per Processor
Up to 2TB memory with 8 DIMM slots
Nvidia RTX 6000 ADA, 18176 CUDA cores, 48GB GDDR6 or
Intel® Data Center GPU Flex 170, 32 Xe-cores, 16GB GDDR6

Management and Operating System

Windows®, Linux, VMWARE, SLES
AMI UEFI BIOS type
IPMI v2.0 Redfish option available
TPM 2.0 support

Expansion and Modular Maintability

PCIe 5.0 Card Options:
- Up to 3 vertical HH card (2x PCIe 5.0 x16 +1x PCIe5.0 x8)
- Up to 4 Horizontal FH card (4x PCIe 5.0 x8 MCIO connector)

3 removable fans
2x M.2 NVMe slot
8x 2.5” Swappable SSD, support U.2, NVMe, up to 128TB

Input/Output Versatility

1x Power Button
1x IPMI 2.0
4x 1GBase T Ethernet ports
2x 10GBase T Ethernet ports
4x USB3.2
1x VGA display port
1x DC-IN jack

Power Supply Options

Single or Redundant 16~72V DC
Single or Redundant 100/240V VAC
MIL-STD 461

Environmental

Operating
- Temperature: 0˚C to 50˚C
- Extended Temperature: -20˚C to 60˚C
- Humidity: 5%to 95%, non-condensing
- Shock: 3 axis, 25g
- Vibration: 5Grms

Non-Operating
- Temperature: -40˚C to 85˚C
- Humidity: 5%to 95%, non-condensing

Mechanical

Height: 2U or 88.9mm
Width: 17.3 inches (440.0mm)
Depth: 15.75 inches (400.0mm)
Weight: 25 pounds (11.3kg)
19” rackmountable

Specifications

SYSTEM

Processor	Intel® 4th Xeon SP Platinum 8468, 2.1GHz, 105MB, 350W, 48 cores/96 Threads Intel® 4th Xeon SP Gold 6421N, 1.8GHz, 60MB, 185W, 32 cores/64 Threads Intel® 4th Xeon SP Silver 4410T, 2.7GHz, 26.25MB, 150W, 10 cores/20 Threads
Memory type	128GB DDR5-5600MT/s RDIMM ECC , Up to 2TB in 8 DIMM slot
Graphic	Nvidia RTX 6000 ADA Generation 18176 CUDA cores 48GB GDDR6 Intel® Data Center GPU Flex 170(32 Xe-cores, 16GB GDDR6)
TPM	Chipset: Infineon, Type: TPM 2.0
IPMI	ASPEED AST2500 IPMI 2.0
BIOS	AMI UEFI BIOS
USB	6 USB3.2 Gen1 ports: 4 rear Type-A, 2 via 19-pin header
Ethernet	2x 10G Ethernet Ports 4x 1G Ethernet Ports 1x RJ45 Dedicated IPMI
Power Type	16V ~ 72V DC IN 1000W MIL-STD 461 (option)
Storage	8x 2.5” Swappable SSD, support U.2 NVMe PCIe Gen4 x 4, up to 128TB (Data) 2x M.2 NVMe (OS)
COM Port	1x RS232
Operating Temp.	-20°C to +60°C
Dimension	440mm(W) x 400mm(D)x88mm(H)

FRONT I/O

Power Button	1
SSD LED indicator	1
Swappable SSD Tray	8

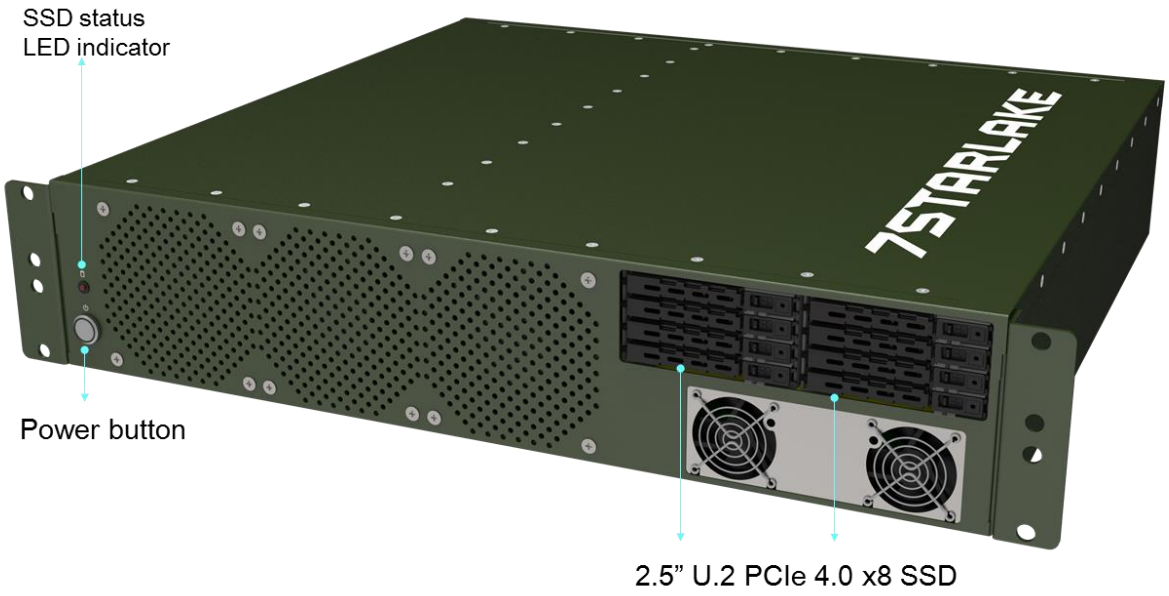
REAR I/O

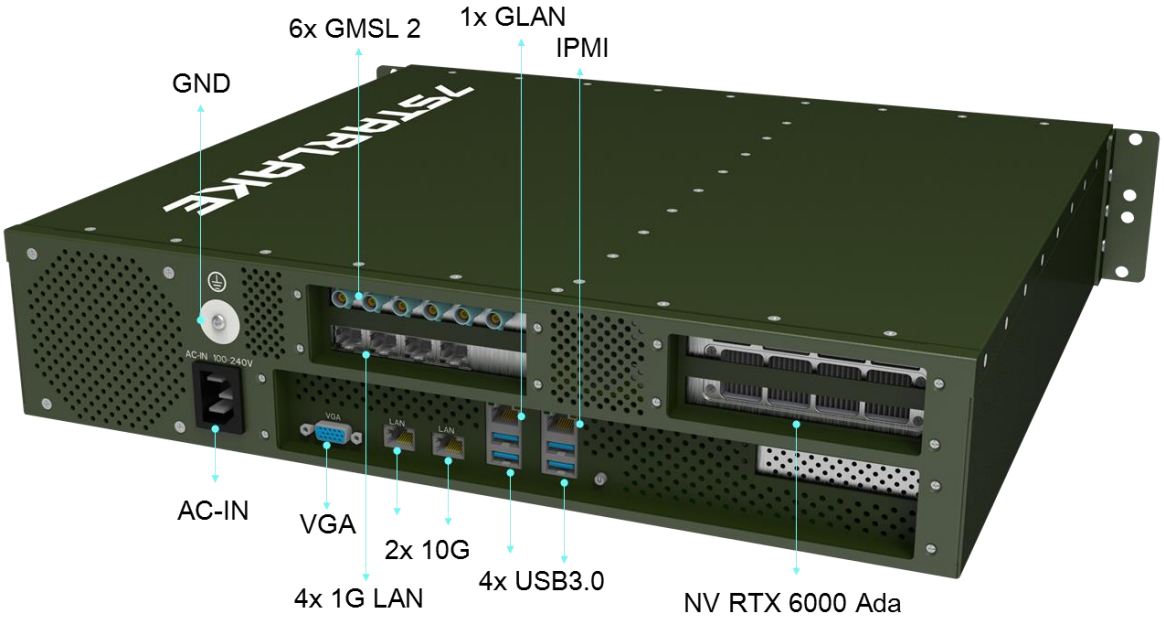
IPMI LAN	1
1G LAN	4
10G LAN	2
VGA	1
USB 3.0	4
DC-IN	1

ENVIRONMENTAL

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 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)
Reliability	No Moving Parts; Passive Cooling. Designed & Manufactured using ISO 9001 Certified Quality Program.
MIL-STD-461	CE102 basic curve, 10kHz - 30 MHz RE102-4, (1.5 MHz) -30 MHz - 5 GHz RS103, 200 MHz - 3.2 GHz, 50 V/m equal for all frequencies CE and FCC (option)
MIL-STD-1275 (Option)	Steady State –20V~33V, Surge Low – 18V/500ms, Surge High – 100V/500ms Emitted spikes Injected Voltage surges Emitted voltage surges Voltage ripple (2V) Voltage spikes Starting Operation Reverse polarity
Operating Temp	-20°C to +60°C
Storage Temp.	-40°C to +85°C
Relative Humidity	5% to 95%, non-condensing.

Appearance


SSD status
LED indicator
Power button
2.5” U.2 PCIe 4.0 x8 SSD


6x GMSL 2
1x GLAN
IPMI
GND
AC-IN
VGA
2x 10G
4x 1G LAN
4x USB3.0
NV RTX 6000 Ada

Dimension