ROC770

5TH GEN XEON® SP 2U RUGGED HPC

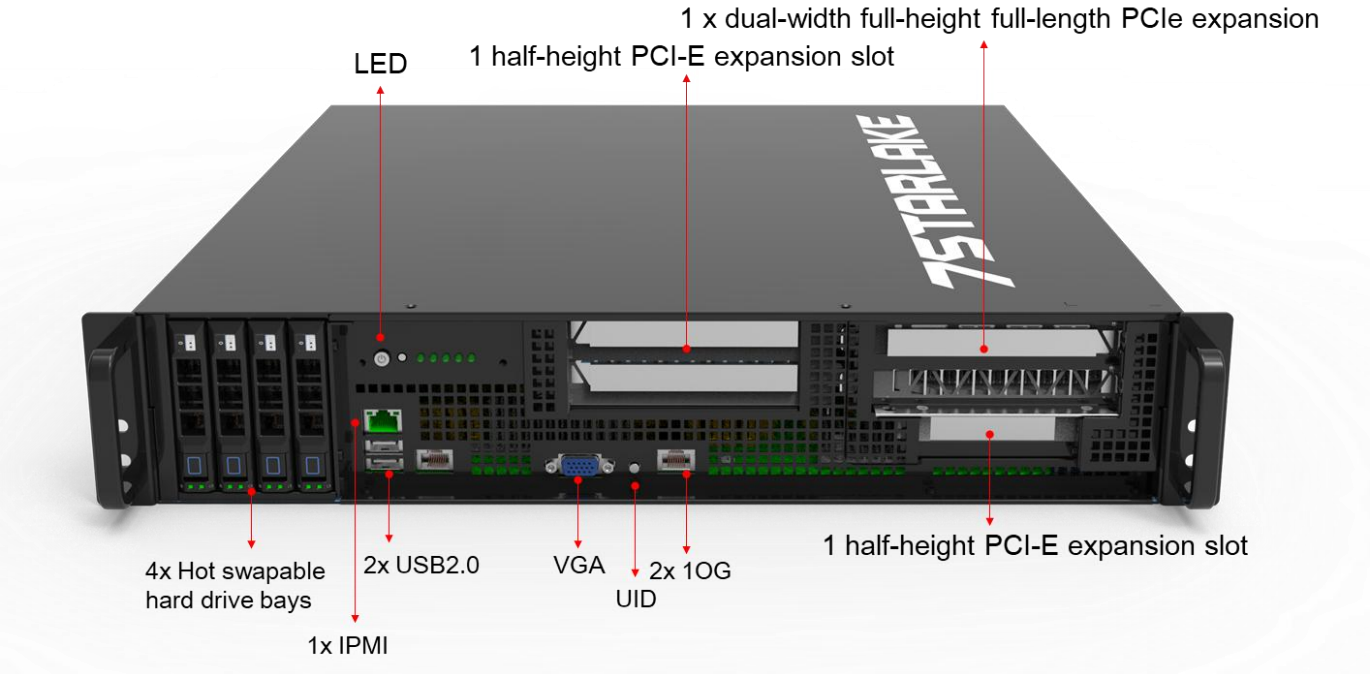
- Dual Intel® 5 Xeon® SP Processor Sliver, Gold, CPUs
- Up to 3 Selection PCIe 5.0 Slot
  - 1 x PCIe 5.0 x16 FHFL Slot
  - 2 x PCIe5.0x8 HHHL Slot
- 4 x 2.5" Swappable NVMe U.2 SSD (RAID 0,1,5,10)
- 2 x 10G LAN, 1x IPMI LAN, 2 x USB2.0, 1 x VGA
- Redundant Power AC100/240V AC
- MIL-STD-810G Thermal, Shock, Vibration

Introduction

The ROC440 2U Military Rugged HPC is engineered to deliver uncompromising performance in the most demanding environments. Powered by dual Intel® 5th generation Xeon® SP processors, it provides exceptional computing power for mission-critical applications such as defense, aerospace, and industrial automation. Designed with flexibility in mind, the ROC440 supports up to **three PCIe 5.0 expansion slots — including dual PCIe 5.0 x16 FHFL and one PCIe 5.0 x8 HHHL slot** — ensuring compatibility with the latest high-performance GPUs, FPGAs, and networking cards.

Built to meet MIL-STD-810G standards, the ROC440 guarantees reliable operation under extreme temperatures, shock, and vibration. Its rugged 2U chassis houses four swappable 2.5" SATA SSD bays supporting RAID 0, 1, 5, and 10 configurations for enhanced data redundancy and performance. Connectivity is robust, featuring dual 10G LAN ports, an IPMI management LAN, USB 2.0, and VGA interfaces, with optional dual 25G LAN for enhanced throughput. The ROC440 delivers the perfect balance of rugged durability, high-speed processing, and flexible expansion — making it an ideal solution for field-deployed high-performance computing.

Appearance



Specifications

System

Processor	5th Gen Intel® Xeon® Scalable Processors, Dual Socket E (LGA-4677)
CPU Core Count	Up to 64C/128T; Up to 320MB Cache
Memory Type	DDR5-5600MT/s RDIMM ECC , Up to 4TB in 8+8 DIMM Slot
Expansion	1 x PCIe 5.0 x16 Dual-width, Full-height, Full-length (FHFL) 2 x PCIe 5.0 x8 Half-height, Half-length (HHHL)
TPM	Chipset: Infineon, Type: TPM 2.0
IPMI	ASPEED AST2500 IPMI 2.0
BIOS	AMI UEFI BIOS
USB	2 x USB2.0 Type-A 2 x USB3.2 (optional)
Ethernet	2 x10G 1 x RJ45 Dedicated IPMI 2 x SFP28 (optional)
Power Type	Rear-mounted with 1+1 Redundancy Support AC100-240V , 2x 1200W
Storage	4 x 2.5" Swappable SATA SSD
COM Port	1 x RS232 (optional)
Operating Temp.	-10°C to +35°C
Dimensions	447 x 473.1 x 87 mm (W x D x H)

Front I/O

Power Button	1 x
SSD LED Indicator	1 x SSD LED
	1 x Alarm LED
	2 x LAN LEDs
Swappable SSD Tray	4
IPMI LAN	1
USB2.0	2
10G LAN	2
VGA	1

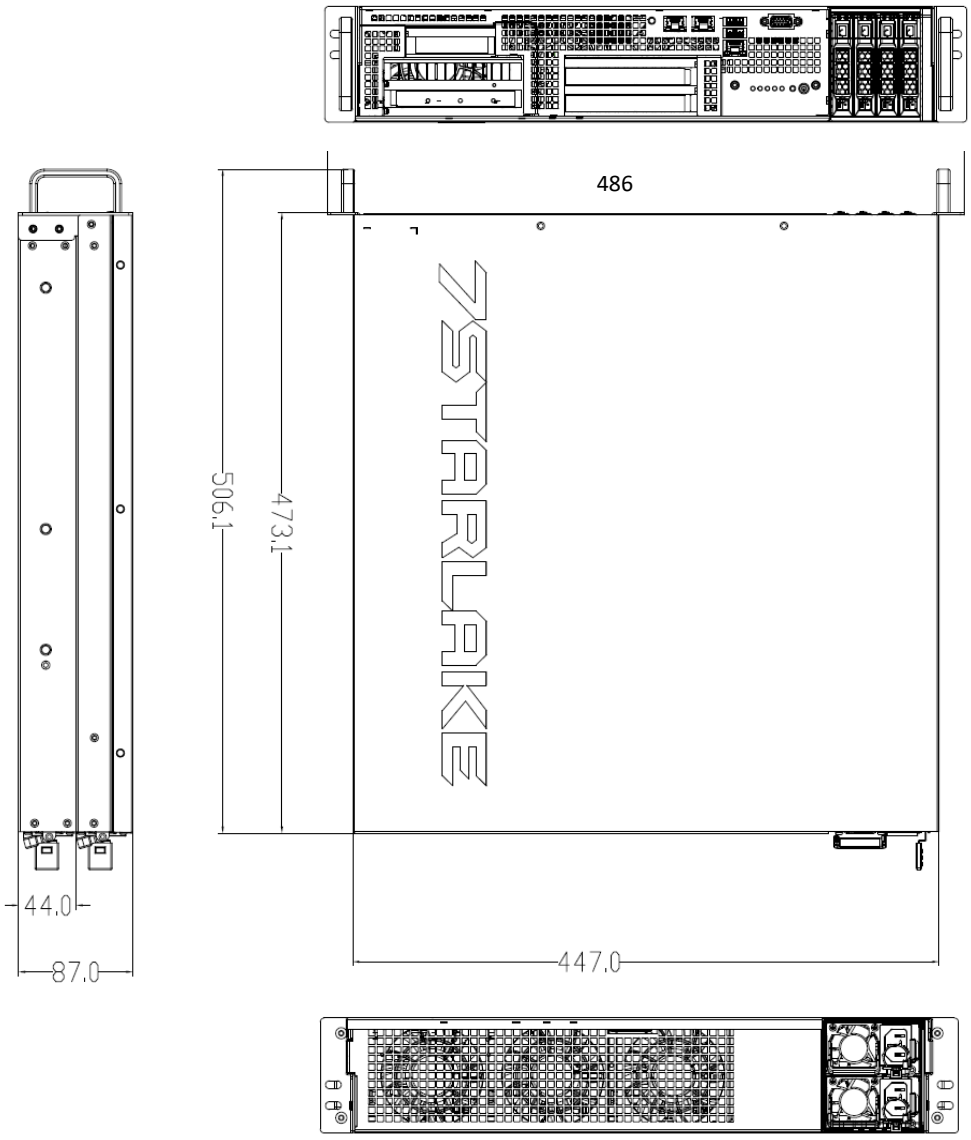
Rear I/O

AC-IN	1+1 Redundancy

MIL-STD-810 Environment Testing Standards

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)
Reliability	Rugged Air Cooling. Designed & Manufactured using ISO 9001 Certified Quality Program.
CE / FCC	Compliance
Operating Temp	-10°C to +35°C
Storage Temp.	-40°C to +80°C
Relative Humidity	5% to 95%, non-condensing

Dimension



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