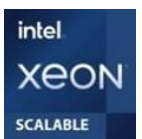




# ROC640-80

INTEL® 6<sup>TH</sup> XEON® SP 8XGPU HPC



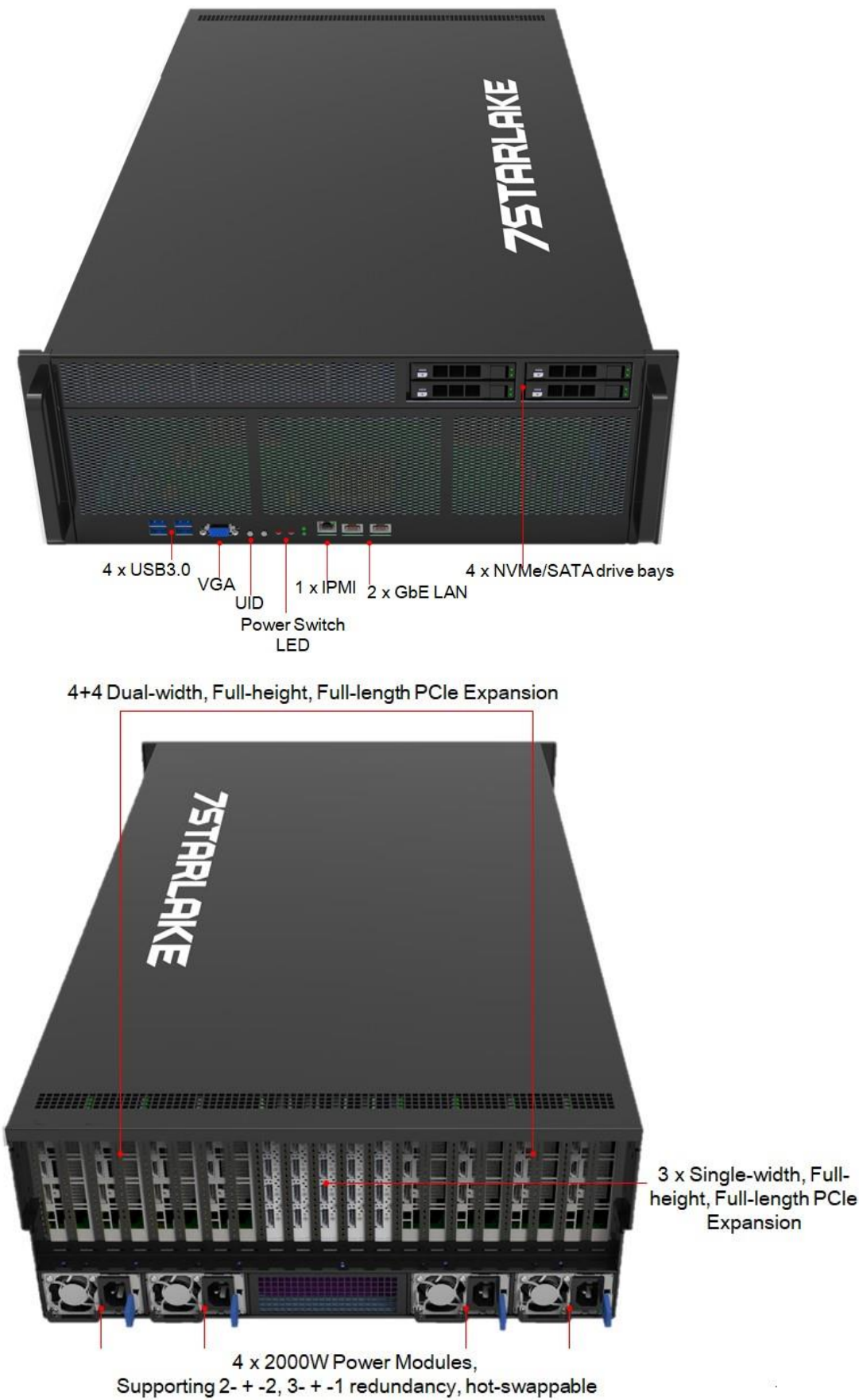
- Dual Intel® 6th Xeon® 6700P/E Series Processor
- 8 x 350W Double Width GPU Cards
- 8 x PCIe5.0 x16 FHFL slots + 3 x PCIe5.0 x8 FHFL Slots
- 4 x NVMe PCIe U.2
- 2 x 1GLAN, 1x IPMI LAN, 4 x USB3.2, 1 x VGA
- 4 x 2000W Power Modules, Supporting 2- + -2, 3- + -1 Redundancy, Hot-swappable
- MIL-STD-810G Thermal, Shock, Vibration

## Introduction

The ROC640 4U Military Rugged HPC is engineered to deliver uncompromising performance in the most demanding environments. Powered by dual Intel® 6th 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 ROC640 supports up to 8 dual width PCIe5.0 x16 +3 Single width PCIe5.0x8 expansion slots — ensuring compatibility with the latest high-performance GPUs, FPGAs, and networking cards.

Built to meet MIL-STD-810G standards, the ROC640 guarantees reliable operation under extreme temperatures, shock, and vibration. Its rugged 4U chassis houses support 4 swappable 2.5" SATA/NVMe SSD drive bays. Connectivity is robust, featuring dual 1G LAN ports, an IPMI management LAN, USB 3.2., and VGA interfaces. The ROC640 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	6th Gen Intel® Xeon® Scalable Processors, Dual Socket E (LGA-4710)
CPU Core Count	Up to 86C/172T; Up to 336MB Cache
Memory Type	DDR5-6400MT/s RDIMM ECC , Up to 4TB in 16+16 DIMM Slot
Expansion	8 x PCIe5.0 x16 dual-width, full-height, full-length (FHFL) 3 x PCIe5.0 x8 single-width, full-height, full-length (FHFL)
TPM	Chipset: Infineon, Type: TPM 2.0
IPMI	ASPEED AST2600 IPMI 2.0
BIOS	AMI UEFI BIOS
USB	4 x USB3.2 Type-A
Ethernet	2 x GLAN RJ45 1 x RJ45 Dedicated IPMI
Power Type	AC 100V-240V, 4 x 2000W power modules, supporting 2- + -2, 3- + -1 redundancy, with hot-swappable support.
Storage	4 x 2.5" Swappable SATA/NVMe drive bays
Display Port	1 x VGA
Operating Temp.	-10°C to +35°C
Dimensions	447 x 800 x 175 mm (W x D x H)

## FRONT I/O

USB	4 x USB3.2 Type-A
Display	1x VGA
UID	1 x UID switch
Power switch	1 x with LED
Reset Button	1
NMI Button	1
SSD/System LED	1+1
IPMI LAN	1
LAN	2 x RJ45

## REAR I/O

Power In	4 x 2000W power modules, redundancy, with hot-swappable support.
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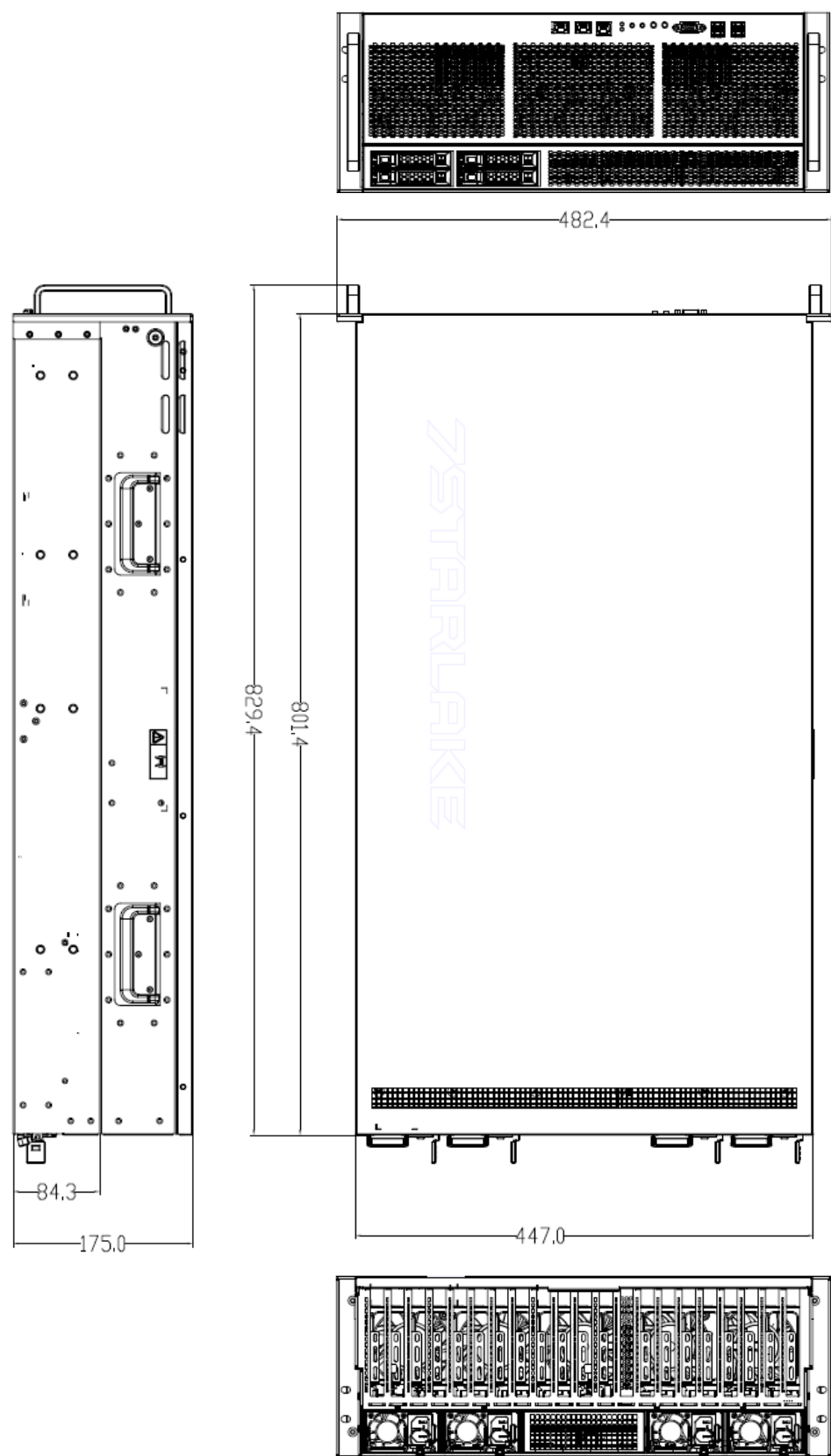
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#### MIL-STD-810 ENVIRONMENT TESTING STANDARDS

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

# Dimension



This datasheet is for marketing purposes only and does not constitute a warranty. All specifications, dimensions, and data are subject to change without notice. For the latest specifications and updates, please contact your 7STARLAKE representatives.