

myOPALE-RS



Rugged 2U AI Server with Dual High-Performance GPUs

EDGE AI RUGGED SERVER

The myOPALE-RS is a high-performance rugged 2U AI server designed to deliver extreme computing power for demanding data-intensive and artificial intelligence applications. Engineered with a milled aluminum chassis, stainless steel front panel, and advanced thermal architecture, the myOPALE-RS combines industrial robustness with cutting-edge GPU acceleration to support next-generation AI workloads.

Built around dual 6th Gen Intel® Xeon® Scalable processors and capable of hosting two high-performance dual-slot GPUs such as the NVIDIA RTX PRO 6000 Blackwell Server Edition, the platform provides exceptional parallel computing capabilities for AI training, inference, data analytics, and HPC applications.

The system integrates high-bandwidth DDR5 ECC memory, ultra-fast NVMe storage, and a PCIe Gen4/Gen5 architecture, ensuring optimal data throughput and scalability for compute-intensive environments. Its redundant 2400W CRPS power supplies, advanced cooling with five high-efficiency fans, and passive GPU thermal design enable reliable operation even under heavy workloads.

Designed for mission-critical deployments, the myOPALE-RS meets demanding environmental and reliability requirements, including MIL-STD-810 environmental conditions and CE certification, making it suitable for AI edge computing, defense systems, industrial analytics, and high-performance data processing infrastructures.

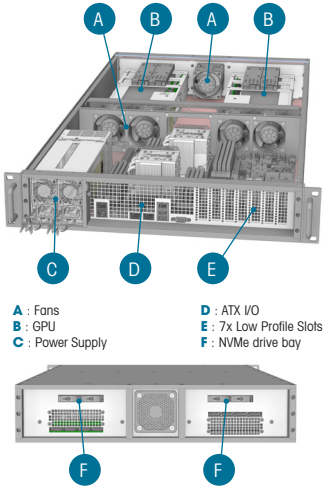
Combining performance, scalability, and rugged engineering, the myOPALE-RS provides a powerful and reliable platform for organizations deploying next-generation AI and data-driven applications.

- Extreme AI computing power in a rugged 2U server platform
- Dual high-end GPU architecture supporting up to 600W accelerators
- Powered by dual 6th Gen Intel® Xeon® Scalable processors
- Massive memory capacity with up to 4TB DDR5 ECC
- High-bandwidth PCIe Gen5 architecture for next-generation accelerators
- Ultra-fast NVMe storage for AI datasets and high-speed workloads
- Redundant 2400W power supplies for maximum system availability
- Advanced thermal design optimized for GPU-intensive processing
- Integrated remote management with BMC and IPMI monitoring
- Rugged industrial design for demanding operational environments
- High-speed networking with 2.5GbE and 10GbE connectivity
- Ideal platform for AI, HPC, edge computing, and mission-critical systems

myOPALE-RS

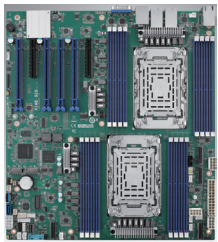
RACK SPECIFICATIONS

Construction	Milled Aluminum chassis with surface passivation treatment, black anodized. Stainless steel front panel.
Dimensions	19" / 2U depth 830mm
Weight	<30 Kg (depending on configuration)
Color	Black
Cooling	Five 60x76 mm ball bearing fans, 70.6 CFM. Fan speed regulation and monitoring
Power Supply	2U Power supply for CRPS (common redundant power supply) modules
Drive Bays	4x M.2 2280 NVMe SSD rear accessible drive bay.
Front panel	Redundant Power supply (hot swap) ATX motherboard I/O 7x low profile slots System power on/off
Rear panel	GPU outputs Drive bay



MOTHERBOARD SPECIFICATIONS

Form factor	Industrial EATX Server Board, 304.8 x 330.2 mm (12" x 13")
Processor	Dual 6th Gen Intel® Xeon® Scalable (socket LGA4710, TDP up to 350W)
Memory	DDR5 ECC-REG 6400 MHz 16x RDIMM, up to 4TB.
Video	1x VGA (BMC Aspeed AST2600)
Networking	LAN1 / LAN 2 : 2.5GbE via RJ45 (Intel® I226LM) LAN3 / LAN 4 : 10GbE via RJ45 (Intel® X710-AT2) BMC_LAN : 10/100M via RJ45
Storage	5x SATA 6 Gb/s (Asmedia ASM1165) 2 x M.2 2280 B+M key (PCIe x4 gen5)
USB	External : 2x USB 3.2 Gen1 Internal : 2x USB 3.2 Gen1 + 1 x USB 3.2 Gen1 (Type A)
Watchdog Timer	1~255 sec software programmable, system reset
Monitoring	CPU temperature, System Monitoring, IPMI support
TPM	TPM 2.0, Infineon SLB9670VQ2
I/O	Serial port : 1x RS232 via onboard header SMBus, GPIO
Expansion	CPU 0 : 2x PCIe x16 gen5, 1x PCIe x8 gen 5, 2x MCIO x8 gen5 CPU 1 : 2x PCIe x16 gen5, 1x PCIe x8 gen 5, 2x MCIO x8 gen5



GPU SPECIFICATIONS

Dual GPU	Support Dual-Slot FHFL GPU GPU mechanical retention Backplane: PCIe x16 Gen4, TDP up to 600W, passive thermal design Ex. NVIDIA RTX PRO 6000 Blackwell Server Edition
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ENVIRONMENTAL SPECIFICATIONS

Temperature	Operating: 0~40°C (MIL STD 810 G, method 502.5 / 501.5) - Storage: -40~71°C
Humidity	Operating : 5 à 90% non condensing
Altitude	0-3000m (0-10,000ft) operating (MIL STD 810G, method 500.5), 0-12000m (0-40,000ft) non operating
Shock & Vibration	Operating: 20G, 18ms 6 axis (MIL STD 810 G, method. 516.6) Operating: 5~2000 Hz 2Grms (MIL STD 810 G, method. 514.6)
Noise	TBD
CE Certification	EMC : NF EN IEC 61000-3-2 :2019/A1 :2021/A2 :2024, NF EN 61000-3-3 :2014/A1 :2019/A2 :2021, NF EN IEC 61000-6-4 : 2019, NF EN 55032 :2015/A1 :2020, NF EN IEC 61000-6-2 :2019, NF EN 55035 : 2017/A11 : 2020. SAFETY : NF EN IEC 62368-1: 2024 / A11 :2024

SYSTEM MONITORING AND MANAGEMENT

- IPMI 2.0 support: AST2600 BMC chip, Redfish API support
- iKVM over IP: KVM over IP function allows BIOS level remote control

SERVICES

Modified COTS customization:

- Specific I/O on front panel / special connectors on rear panel
- Specific H/W configurations
- Specific S/W functionality

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STANDARD CONFIGURATION

Power Supply Unit	2400W 1+1 redundant PSU 80+ Titanium CRPS module 200 ~ 240 VAC / 47~63 Hz 5V@24A, 12V@196A, 3.3V@12A, -12V@0.3A, 5VSB@5A
GPU	NVIDIA RTX PRO 6000 Blackwell Server Edition, 24064x CUDA Cores, 752x Tensor Cores, 188x RT Core, 96 GB GDDR7 with ECC - Outputs 4x DP 2.1b - TDP 600W (passive)
Drives	4x M.2 2280 NVMe SSD rear accessible drive bay. 2x M.2 2280 NVMe SSD internal
Front I/O	VGA, 2x 10GbE, 2x GbE, 1x IPMI LAN, 2x USB 3.2 gen 1

OPTIONS

Processor	<ul style="list-style-type: none"> • Intel® Xeon® 6530P (32C/64T, 2.3~3.7GHz, 144MB Cache, TDP 225W) • Intel® Xeon® 6515P (16C/32T, 2.3~3.8GHz, 72MB Cache, TDP 150W) • Other SKU on demand (6th Gen Intel® Xeon® Scalable)
Memory	• DDR5-6400, ECC Registered: 16GB, 32GB, 64GB, 128GB, 256GB
Disk	• 3D TLC Solid State Drive (32 Go ~ 8TB)
OS	<ul style="list-style-type: none"> • Microsoft® Windows 11 64-bit • Linux (Kernel 5.8 and up)