GOMA
RUGGED SOLUTIONS



XRS 2U
S8 Series

EXTREME RUGGED
EDGE SERVERS

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XRS 2U S8 Series

Extreme Rugged Edge Servers

The **XRS Series** is a family of Extreme Rugged Servers optimized for Edge applications, where they offer superior robustness and high-performance computing technology.

The **XRS 2U S8 Series** is powered by dual socket 5th/4th Gen Intel® Xeon® Scalable Processors that bring significant advancements in core counts, memory capacities, AI and machine learning acceleration, advanced security features, and PCIe 4.0/5.0 support, establishing the series as a foundational element for the future of high-performance and AI-driven Edge applications.
The integrated IPMI services enhance Edge operations by supporting monitoring, control, and management functions, sending alarm notifications in case of critical events.
This series features a 2U milled aluminium chassis providing unmatched resistance and torsional strength essential for Edge computing sites, which often face extreme operational demands.
It offers configurations with depths of 450mm or 530mm for standard or round MIL-grade I/O connectors, respectively, catering to the specific needs of Edge infrastructure. Capable of accommodating up to six full-length low profile PCIe boards, including GPUs and FPGA modules, and designed for high-density storage with the capacity for up to six removable SSDs, the **XRS 2U S8 Series** is robust and versatile. It also includes air filters and protective double-door front panel with optional door-less variants, ensuring secure and reliable operation.

Qualified according to MIL-STD-810G for temperature, shocks, and vibrations, and conforming to MIL-STD-461G for EMI/EMC, the **XRS Series** Extreme Rugged Servers are robustly built to meet the stringent requirements of Edge computing environments.

- **High Performance Dual 5th / 4th Gen Intel® Xeon® Scalable Processors Platform**
- **IPMI Based Management**
- **Extreme Rugged Aluminum Chassis**
- **Up to 6x 2.5” SSD**
- **Optional round MIL connectors**
- **MIL Grade Qualifications**



Technical Specifications

System	
CPU	5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable Processors, Dual Socket LGA-4677 (Socket E) up to 270W TDP
Memory	Up to 4TB ECC RDIMM, DDR5-4800MHz, 16 DIMM slots
Chipset	Intel® C741
Network Connectivity	1x Dedicated IPMI LAN port 2x 10GbE with RJ45 connectors
Serial	1x COM port
USB	3x USB 2.0 ports (2 via header; 1 Type A) 6x USB 3.0 ports (4 rear; 2 via header)
Storage	On board: 2x M.2 NVMe PCIe 4.0 x2; M-Key, 2280/22110 2x SATA Disk on Module (RAID 0,1) Removable: Up to 3x 2.5" SAS SSD or Up to 6x U.2 NVMe SSD or Up to 6x 2.5" SATA SSD
TPM	TPM Header
I/O connectors	2x 10 GbE LAN, 1x BMC LAN, 4x USB 3.0, 1x VGA, 1x COM (available on the rear panel)
Expansion slots	2x PCIe 5.0 x8, 4x PCIe 5.0 x16 low profile slots
Operative Systems	Windows® 11 IoT Enterprise; Windows® 10 IoT Enterprise LTSC; Windows® Server 2022; Windows® Server 2019; RHEL 8.5 64bit; Ubuntu 20.04.6 LTS 64bit; CentOS 8.5 64bit
IPMI	IPMI2.0, SPM, Watchdog; SNMP and e-mail alarms and notifications
Remote Monitoring	Monitoring, control and management functions (fan speed, temperature, voltage, redundant power failure, power consumption, disk health, raid health, and memory health)

Power Section	
Power Input	AC or DC input, redundant PSU. Optional EMC Filter and MIL D38999 connector with single power supplies.

Mechanical Features	
Dimensions (W x D x H)	Width 483mm Depth 450mm – standard I/O ports and industrial / MIL grade power input Depth 530mm – MIL grade connectors on I/O ports and power input Height 88mm – 2U rack
Material	Milled Aluminum chassis with surface passivation treatment; AISI316L Stainless steel rear panel.
Weight	<= 15 Kg (depending on configuration)
Colour	Black / RAL 9005 - Powder Coating
Mounting	2U 19" rackmount chassis with bridge handles
Front Panel	IP30 double-door front panel with air filters. Optional door-less front panel. Power ON with led; 2 x USB 3.0; Remote Battery Holder.
Rear Panel	Standard connectors. Optional D38999 MIL type connectors for Power Input. Optional D38999 MIL type connectors for Power Input and I/O.
Fan Unit	Removable 6x 40mm fans

Environmental Features	
Operating Temperature	Standard: -5°C to +55°C according to MIL-STD-810G Change 1 (501.6 & 502.6) Extended: -20°C to +60°C (depending on configuration)
Storage Temperature	-40°C to +71°C according to MIL-STD-810G Change 1 (501.6 & 502.6)
Humidity	5% to 95% non-condensed according to MIL-STD-810G Change 1 (506.7 Procedure II)
Fungus	Conformal coating on request
Shock	40g, 11ms functional shock on each direction, according to MIL-STD-810G Change 1 (516.7 Procedure I)
Vibrations	Functional: MIL-STD-810G Change 1 (514.7, Category 20 Procedure I – Wheeled vehicle) Transportation: MIL-STD-810G Change 1 (514.7, Category 7 Procedure I – General exposure)
EMC / Electromagnetic Compatibility	According to MIL-STD-461G with EMI Filter and MIL type connectors on power input

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