GOMA
RUGGED SOLUTIONS

XRS 2U
S7 Series

EXTREME RUGGED
EDGE SERVERS

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XRS 2U S7 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 S7 Series** features a powerful single or dual socket 3rd Gen Intel® Xeon® Scalable Processors Platform, suitable for the most intense workloads and supporting a generous number of PCIe 4.0 lanes available as PCIe, M.2, and NVMe slots. The integrated IPMI services enhance Edge operations by supporting monitoring, control, and management functions, sending alarm notifications in case of critical events.
These servers have a 2U milled aluminium chassis designed for superior resistance and torsional strength, ideal for the physical demands of Edge computing. The **XRS 2U S7 Series** offers a depth of 450 mm with standard I/O connectors and 475 mm when equipped with round MIL-grade connectors for enhanced durability in the I/O ports and power input. They can host up to four low-profile PCIe boards, including GPUs, FPGA modules, and other powerful PCI Express boards. The front panel includes air filters and features two horizontal doors with thumbscrews to protect access to removable drives, USB connectors, and the power button, with an optional key lock for additional security. The **XRS 2U S7 Series** also includes three 3.5" drive bays that can accommodate up to nine removable SSDs.

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

- **High Performance Dual 3rd Gen Intel® Xeon® Scalable Processors Platform**
- **IPMI Based Management**
- **Extreme Rugged Aluminum Chassis**
- **Up to 9x SSD Drives**
- **Optional round MIL connectors**
- **MIL Grade Qualifications**

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Technical Specifications

System	
CPU	3rd Gen Intel® Xeon® Scalable Processors, Dual Socket LGA-4189 supported, max 270W TDP
Memory	Up to 2TB RDIMM, DDR4-3200MHz; in 8 DIMM slots
Chipset	Intel® C621A
Network Connectivity	2x RJ45 10 Gigabit Ethernet LAN ports 1x RJ45 Dedicated IPMI LAN port
Serial	1x COM port (1 header)
USB	5x USB 3.2 Gen1 ports (2 via header + 2 rear + 1 type A)
Storage	On board: 2x M.2 PCIe 4.0 x4; M.2 Form Factor: 2280/22110, 2280; M-Key 2x SATA DOM Removable: 3x 2.5" SAS SSD or 6x U.2 NVMe SATA SSD or 9x 2.5" SATA SSD
TPM	TPM Header
I/O connectors	2x 10GbE, 1x IPMI, 2x USB 3.2, VGA
Expansion slots	4x PCIe 4.0x16 low profile
Operative Systems	Windows® 11 IoT Enterprise; Windows® 10 IoT Enterprise LTSC; Windows Server 2022; Windows Server 2019; Windows Server 2016; RHEL 8.2 64bit; Ubuntu 20.04.2 LTS SVR 64bit; CentOS 7.9 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 Standard rear I/O and MIL grade power input stay in 450mm depth

Mechanical	
Dimensions (W x D x H)	Width 483mm Depth 450mm - standard I/O ports and industrial / MIL grade power input Depth 475mm - MIL grade connectors 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 Coatingw
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; 2x USB 3.0; Remote Battery Holder
Rear Panel	Standard I/O connectors: 450mm depth Optional D38999 MIL type connectors on I/O and Power Input: 475mm depth

Environmental - (Design to meet)	
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

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