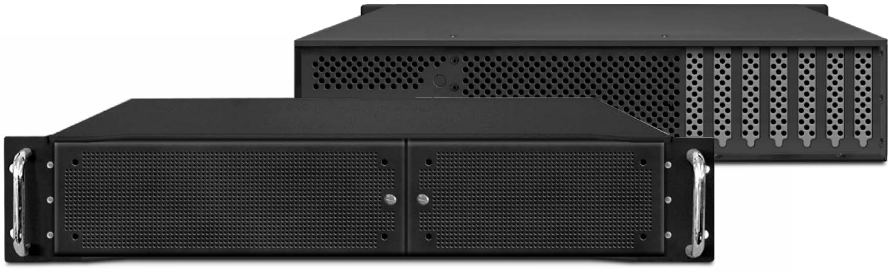
GOMA
RUGGED SOLUTIONS



XRS 2U S7 SERIES

EXTREME RUGGED SERVERS

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XRS 2U S7 Series

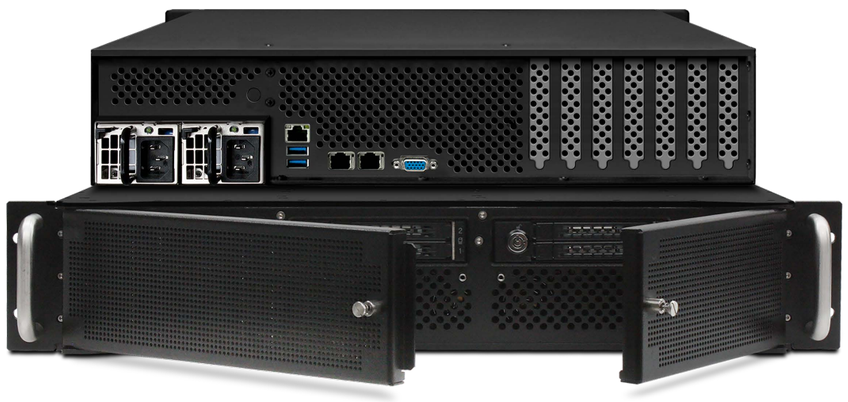
EXTREME RUGGED SERVERS

XRS Series is a product family of Extreme Rugged Servers that distinguish themself for the superior robustness and the high performance computing technology. XRS Series Rugged Servers are designed for applications that require a MIL-grade qualified equipment, suitable for operations in very critical environment.

The XRS 2U S7 Series features a powerful single or dual socket 3rd Gen Intel® Xeon® 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 support monitoring, control, and management functions sending alarm notifications in case of critical events.

The XRS S7 Series Extreme Rugged Servers has a 2U milled aluminum chassis designed to provide for superior resistance and torsional strength. The XRS 2U S7 Series has a reduced 450mm depth in the version with standard I/O connectors and a 475mm depth when equipped with round MIL-grade connectors for the I/O ports and the power input. The XRS 2U S7 Rugged Servers can host up to four low profile PCIe boards including GPU, FPGA modules and any other powerful PCI Express board. The front panel is provided with a air filters and consists of two horizontal doors with thumbscrew to protect the access to the removable drives, to the USB connectors and to the power button. Optionally a key lock closing can be mounted. XRS 2U S7 Series comes with three 3.5" drive bays that can host up to nine removable SSDs.

XRS Series Extreme Rugged Servers are qualified according to MIL-STD-810G for temperature, shocks and vibrations, and conforms to MIL-STD-461 for EMI/EMC. Specific customer's configurations can be delivered fully integrated and tested.



Product Features

- High Performance Dual Processors Architecture
- IPMI Based Management
- Extreme Rugged Aluminum Chassis
- Up to 9x 2.5" SSD
- Optional round MIL connectors
- MIL Grade Qualifications

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
LAN	2x RJ45 10 Gigabit Ethernet LAN ports 1x RJ45 Dedicated IPMI LAN port
Serial	1x COM Port (1 header)
USB	5x USB 3.2 ports (2 rear + 2 via headers + 1 type A)
Storage	2x SATA DOM 12x SATA 3 ports (6GbE) - RAID 0,1,5,10
TPM	TPM Header
I/O Ports	2x 10GbE, 1x IPMI, 2x USB 3.2, VGA
I/O Expansion	4x PCIe 4.0x16 low profile M.2 Interface: 2 PCIe 4.0 x4; M.2 Form Factor: 2280/22110, 2280; M.2 Key: M-Key
Software	Windows® 10 IoT Enterprise 64bit, Windows® Server 2016 64bit; Windows® Server 2019 64bit; RHEL 8.4 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 supply.

Mechanical Features	
Dimensions (W x D x H)	Width 483mm Depth 450mm - standard I/O ports and power input Depth 475mm - MIL grade connectors Height 88mm - 2U rack
Material	Aluminum with surface passivation treatment
Weight	<= 13 Kg (depending on configuration)
Color	Black / RAL 9005 - Powder Coating
Mounting	2U 19" rackmount chassis with bridge handles.
Front Panel	Double-door front panel with air filters. Power ON with led; Power Fail; 2 x USB 3.0
Drive Bay	3x 3.5" drive bays hosting up to 9 x SATA SSD and up to 6 x NVMe SSD
Rear Panel	Standard connectors, Optional D38999 MIL type connectors

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 (depending on the configuration)
Fungus	Conformal coating on request
Shock	20g, 11ms functional shock on each direction, according to MIL-STD-810G Change 1, Method 516.7, Procedure I 40g, 11ms crash hazard shock on each direction, according to MIL-STD-810G Change 1, Method 516.7, Procedure V
Vibrations	MIL-STD-810G, Method 514.7
Electromagnetic Compatibility	According to MIL-STD-461G (on request, with EMI Filter and MIL type connectors)

RUGGED SOLUTIONS

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