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XRS 1U S8 SOLO Series

EXTREME RUGGED
EDGE SERVERS

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Extreme Rugged Edge Servers

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The **XRS Series** is a family of Extreme Rugged Servers optimized for Edge applications, offering exceptional robustness and high-performance computing capabilities.

The **XRS 1U S8 SOLO** delivers Rugged performance with a single 5th/4th Gen Intel® Xeon® Scalable Processor, featuring advanced security, PCIe 4.0/5.0 support, and AI acceleration.
The integrated IPMI services enhance Edge operations by supporting monitoring, control, and management functions, sending alarm notifications in case of critical events.
The **XRS 1U S8 SOLO** features a 1U milled aluminium chassis providing unmatched resistance and torsional strength essential for Edge computing sites, which often face extreme operational demands.
It is available in a 450mm depth configuration with standard I/O connectors, or in a 475mm version when equipped with MIL-grade power input, addressing the specific requirements of rugged Edge applications.

The chassis supports one full-length PCIe x16 card and up to two removable 2.5" SSDs, with options for SAS, SATA, or U.2 NVMe drives. Internal storage includes 2x M.2 NVMe slots.
The system features a double-door front panel with an optional door-less variant, front-accessible USB 3.0 ports, and a removable battery holder for enhanced serviceability.

Qualified to MIL-STD-810G for temperature, shock, and vibration, and compliant with MIL-STD-461G for EMI/EMC, the **XRS Series** Extreme Rugged Servers are built to meet the most stringent requirements of Edge computing environments.

- **High Performance Single 5th / 4th Gen Intel® Xeon® Scalable Processors Platform**
- **IPMI Based Management**
- **Extreme Rugged Aluminum Chassis**
- **Up to 2x 2.5" SSD**
- **Optional round MIL connectors**
- **MIL Grade Qualifications**



Technical Specifications

System	
CPU	5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable Processors, Single Socket LGA-4677 (Socket E) supported, CPU TDP Up to 205W
Memory	Up to 2TB ECC RDIMM, DDR5-5600MT/s in 8 DIMM slots
Chipset	Intel® C741
Network Connectivity	1x Dedicated IPMI LAN port 2x 10GbE with RJ45 connectors
Serial	1x COM port
USB	2x USB 2.0 ports (2 rear) 5x USB 3.2 Gen1 ports (2 via header; 2 rear; 1 type A)
Storage	Internal: 2x M.2 NVMe; M-Key, 2280/22110 2x SATA Disk on Module (depending on the additional board) Removable: Up to 2x 2.5" SAS SSD or Up to 2x U.2 NVMe SSD or Up to 2x 2.5" SATA SSD
TPM	TPM Header
I/O connectors	1x COM, 1x BMC LAN, 2x USB 3.2, 2x USB 2.0, 2x 10GbE, 1x VGA (available on the rear panel)
Expansion slots	1x PCIe 5.0 x16 slot
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, single 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 Depth 475mm - MIL grade Power Input Height 44mm – 1U rack
Material	Milled Aluminum chassis with surface passivation treatment; AISI316L Stainless steel rear panel
Weight	>= 7,7 Kg (depending on configuration)
Colour	Black / RAL 9005 - Powder Coating
Mounting	1U 19" rackmount chassis with bridge handles
Front Panel	IP30 double-door front panel. 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
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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