RES XR6 1U

20 INCH DEPTH, 8 DRIVE, REAR IO

THEMIS

CLOUD COMPUTING ON THE MOVE

Featuring up to two **Intel® Xeon® Gold** Scalable processors with AVX512, **1.5TB DDR4** ECC memory, expansion slots, and enhanced reliability features, the **RES XR6 1U** accelerates **compute intensive** workloads for applications such as signal intelligence, cryptography, AI, surveillance, sensor fusion, analytics, communications, and audio/video processing.

Designed for mission critical applications outside the datacenter, the system incorporates advanced thermal and mechanical design features to provide **superior resilience** to shock, vibration, dust, sand, and temperature extremes.

SPACE OPTIMIZED, MAXIMUM STORAGE

Optimized for size, weight, and power (SWaP), the system weighs **only 22lbs**, is **20” deep**, and meets military environmental specifications. A robust array of high speed I/O, storage options, enhanced **security features**, and expansion choices allow users maximum flexibility for current and future system requirements.

RELY ON US

Trusted worldwide, Themis has a **30-year track record** of providing enhanced-reliability computing platforms for mission-critical applications. Our robust product lines are known for their high-performance, **long life cycles**, **thermal resiliency**, compatibility with industry standards, and **SWaP** optimization. We listen, understand, and work closely with our customers to design computing solutions that are easy to integrate, inexpensive to own and operate, and reliable for years to come.

SYSTEM

- Up to two Intel® Xeon® Gold Scalable processors with twenty-four cores per socket
- Up to 1.5TB DDR4 ECC 2666MHz
- Expansion with (3) PCIe 3.0x16
- Enhanced security features

MANAGEMENT AND OPERATING SYSTEMS

- Windows®, Linux®, VMWARE® application support
- IPMI v2.0, Redfish option available

ENVIRONMENTAL RESILIENCY

- Operating temperature range: 0°C to 50°C
- Extended temperature range: -15°C – 65°C **
- Operating shock: 3 axis, 35g, 25ms
- Operating vibration: 4.76 Grms, 8Hz to 2000Hz (SSD)
- Operating humidity: 8% to 95% non-condensing*
- MIL-STD-810G, MIL-STD-901D, MIL-STD-167-1*
- MIL-STD-461 options available

MECHANICAL

- Height: 1U or 1.75 inches (44.45 mm)
- Width: 17.06 inches (433.3 mm)
- Depth: 20 inches (508 mm)
- Weight (typical*): 22 pounds (9.9 kg)

MODULAR MAINTAINABILITY

- Fans: 6
- Power supply options
  - Single or redundant 100/240 VAC (47/63Hz, 400Hz)
  - Single or redundant 18-36 VDC, 32 Amp
  - Single or redundant 36-72 VDC, 18 Amp
- Removable disk drives: 8

---

* Themis designs all products to meet or exceed listed data sheet specifications. Some specifications are configuration dependent.

** Extended temperature range is dependent on system configuration, components, and application thermal profile. Please contact Themis for information specific to your desired configuration requirements.

SYSTEM

Parameter	Quantity	Description
Processor	2	Up to two Intel® Xeon® processors with twenty four cores per socket
Memory		Up to 1.5TB DDR4 ECC 2666MHz
Expansion Slots	3	Up to (3) PCIe 3.0 x16
Removable 2.5” SATA or SAS disk drives	8	Front access HDD (up to 2TB) or SSD drives (up to 8TB each)
Disk on Module	2	Up to 128GB per DOM
Internal Drives	1	M.2 NVME Drive
Network	2	1GbaseT Ethernet (or optional 10GbaseT Ethernet)
RAID Controller	1	On board. Additional RAID features available through PCIe.

FRONT AND REAR PANEL I/O ACCESS

I/O	Quantity	Access
Status LEDs	3	Front
Drive Activity LEDs	8	Front
Gigabit Ethernet ports (RJ45)	2	Rear
USB 3.0 ports	4	Rear
IPMI 2.0 port	1	Rear
Power connector	1 or 2	Rear
Power switch	1	Front
VGA port	1	Rear (additional VGA, HDMi, DVI options available)

ENVIRONMENTAL*

Parameter	Non-operating	Operating
Temperature range	-40°C to 70°C	0°C to 50°C
Extended temperature range	-40°C to 70°C	-15°C – 65°C, Note 2
Humidity (non-condensing	5% to 95%	8% to 95%
Shock	3 axis, 35g at 25 ms	3 axis, 35g at 25 ms
Vibration	4.76 Grms, 5Hz to 2000Hz (SSD)	4.76Grms, 10Hz to 2000Hz MIL-STD-810F, Method 514.5 Figure 514.5C-3

MECHANICAL

Parameter	Description
Dimensions	Height: 1U or 1.75 inches (44.45 mm) Width: 17.06 inches (433.3 mm) Depth: 20 inches (508 mm)
Weight (typical), Note 3	22 lbs (9.9 kg)
Chassis features	Coated aluminum for light weight and corrosion resistance, stainless steel in selected areas to add strength and stiffness, modular design for easy upgrade and service, optional rack-mount slides and shock pins, and front to rear airflow
Filter	Front Filter Option
Security Features	Optional tamper-resistance and tamper-evidence features

MODULAR MAINTAINABILITY

Parameter	Description
Fans	6
Power Supply	Single or redundant 100/240 VAC (47/63Hz, 400Hz) Single or redundant 18-36 VDC, 32 Amp Single or redundant 36-72 VDC
Hot pluggable disk drives	8

*Notes

1. Themis designs all products to meet or exceed listed data sheet specifications. Some specifications are configuration dependent. I/O options are configuration dependent
2. Extended temperature range is dependent on system configuration, components, and application thermal profile. Contact Themis for information specific to your configuration requirements.
3. Weights are provided for typical configurations. Weight may vary depending on configuration. Contact your Themis sales representatives for more information.

Corporate Headquarters
47200 Bayside Parkway
Fremont, CA 94538
Tel: 510-252-0870
Fax: 510-490-5529

International Office
5 rue Irène Joliot-Curie
38320 Eybens, France
Tel: +33.476.14.77.86
Fax: +33.476.14.77.89

Learn More
For more information about Themis and our products visit www.themis.com.