



FEATURES

MECHANICAL INTEGRITY

- ▶ Rack-optimized design for unique user requirements
- ▶ Designed for high reliability in harsh operating environments
- ▶ Specially coated aluminum for light weight and corrosion resistance
- ▶ Stainless steel reinforcement for strength and stiffness
- ▶ Modular design for easy upgrade and service
- ▶ Optional rack-mount slides
- ▶ Front-to-rear airflow direction
- ▶ Optional dust filter

MANAGEMENT AND OPERATING SYSTEM

- ▶ Windows® and Linux® application support
- ▶ Suspend to RAM and Wake-on-LAN system management
- ▶ IPMI v2.0 support

ENVIRONMENTAL RESILIENCY*

- ▶ Operating shock: 3 axis, 35G, 25ms
- ▶ Operating vibration: 3.0 Grms, 8 Hz to 2000 Hz
- ▶ Operating temperature: 0°C – Up to 55°C
- ▶ Operating Humidity: 8% to 90% non-condensing

* Environmental specifications are configuration dependent.

MODULAR MAINTAINABILITY

- ▶ Hot swappable fans
- ▶ Power supply options
 - Single or redundant 110/220 VAC (50/60Hz, 400Hz)
 - Single or redundant 18-36 VDC, 32 Amp
 - Single or redundant 36-72 VDC, 18 Amp
- ▶ Hot swappable disk drives

MILSPEC

- ▶ MIL-STD-810G (Shock and Vibration)
- ▶ MIL-STD-740 (Quiet Operation, 54dB or less)

RES-31XR3

3U Single Socket 17 Inch Depth Rack Mountable Server

OVERVIEW

The Themis RES-31XR3 server is a three rack unit with 17 inch depth that combines the robust design of the Rugged Enterprise Server (RES) family with the latest 5500 and 5600 series Intel® Xeon® processors.

Themis extensive thermal and kinetic management expertise makes these high performance systems suitable for mission-critical applications in demanding environments.

The RES-31XR3 is configured with one Intel Xeon 5500 or 5600 series processors and features multiple expansion slots, extensive high-speed I/O, and multiple storage options that provide users with configuration versatility and system expansion to meet current and future system requirements.



FIGURE 1: Themis RES-31XR3 Rack Mountable Server

UNMATCHED FLEXIBILITY

The RES-31XR3 is configured with one 5500 or 5600 series four and six core Intel Xeon processors.

Featuring multiple expansion slots, extensive high-speed I/O, and multiple storage options, RES-31XR3 systems offer users versatile configuration and system expansion options.

The addition of commercially available, off-the-shelf networking cards, graphics, I/O, peripherals, and other value-added options provides users even greater flexibility to meet current and future system requirements.

Designed for operation use in harsh operating environments, Themis RES systems incorporate advanced thermal and mechanical design features including: dual, redundant, hot swappable AC and DC power supply options.

Aluminum die cast front and rear panels, and a 17-inch deep chassis constructed from strong, lightweight aluminum, improve system resistance to corrosion, and makes Themis systems attractive candidates for use in programs where Size, Weight, and Power (SWAP) are essential considerations.

TECHNICAL SPECIFICATIONS

Processor and CPU

PARAMETER	DESCRIPTION
Processor	One or Two 5500 or 5600 series Intel Xeon processors
Memory	Up to 24GB ECC DDR3

On-Board Expansion

PARAMETER	OPTIONS
Expansion slot (varies with configuration)	Up to six (6) PCI-E, PCI-X, and PCI

Front Panel and Rear Panel Access I/O *Note 1*

I/O	QUANTITY	ACCESS
Removable 2.5 inch SATA or SAS disk drives	Up to 8	Front panel
CD-RW/DVD-RW drive	1	Front panel
Status LEDs		Front panel
Gigabit Ethernet ports (RJ45)	2	Rear panel
USB 2.0 ports	Up to 4	Rear panel
RS-232 serial ports (DB9)	1 or 2	Rear panel
PS/2 keyboard and mouse ports		Rear panel
Power connector	1	Rear panel
Power switch	1	Rear panel

Environmental

PARAMETER	NON-OPERATING	OPERATING
Temperature range	-40° C – 70° C	0° C – 55° C <i>Note 2</i>
Humidity (non-condensing)	5% to 95%	8% to 90%
Shock	25G @ 12-40 ms	25G @ 12-40 ms
Vibration (10-2000Hz)	3.0 Grms, 8 Hz to 2000 Hz	3.0 Grms, 8 Hz to 2000 Hz
Safety	UL 1950, CSA 950	UL 1950, CSA 950
RFI/EMI	FCC class B ⁱⁱⁱ	FCC class B ⁱⁱⁱ

Modular Maintainability

PARAMETER	DESCRIPTION
Hot swappable fans	
Power supply options	Single or redundant 110/220 VAC, 750 Watt (50/60Hz, 400Hz) Single or redundant 18-36 VDC, 500 Watt, 32 Amp Single or redundant 36-72 VDC, 650 Watt, 18 Amp
Hot swappable disk drives	

Mechanical

PARAMETER	NON-OPERATING
Dimensions	Height: 3RU or 5.25 inches (133.35 mm) Width: 17.06 inches (433.3 mm) Depth: 17 inches (431.8 mm)
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 Front to rear airflow

Notes

1. I/O options are configuration dependent.
2. Up to 65° C in specially configured systems.

THE RES-XR3 SERVER FAMILY

The Themis family of XR3 Rugged Enterprise Servers (RES) feature the latest Intel® four- and six-core Xeon® processors to provide reliability and superior server performance in the most demanding environments.

The Themis rugged server design keeps mission-critical applications available, improves life-cycle management, at a substantially lower total cost of ownership. When the environment is tough and your data is critical, rely on Themis to protect it and keep it available.

THEMIS VALUE

Themis provides systems manufacturers and end-users with the most modern, best-of-breed computing resources available. Package and performance scale from small form factor embedded servers to bladed servers.

Themis listens, understands, and works closely with our customers to optimize computing solutions that are easy to integrate, yet inexpensive to own and operate. Our solutions achieve the right balance between standard commercial technology and requirements for rugged environments, optimizing space, weight, and performance. For more information on Themis products, visit www.themis.com



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

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

For More Information
Please visit www.themis.com
or contact Themis sales at
510-252-0870.



©2012 Themis Computer. All rights reserved. Themis Computer, Themis and the Themis logo are trademarks or registered trademarks of Themis Computer. All other trademarks are the property of their respective owners. Themis reserves the right to change the specifications in this document without notice. All rights reserved. To ensure that you have the latest version of this document, visit www.themis.com.