RES-XR4 Rack Mountable Servers Data Sheet

INDUSTRY-LEADING PERFORMANCE, ENHANCED RELIABILITY, AND SUPERIOR RESILIENCE TO SHOCK, VIBRATION, AND TEMPERATURE EXTREMES

Featuring two E5-2600 V2 Series Intel® Xeon® processors with up to twelve cores each, 512 GB DDR3 ECC memory, three expansion slots, extensive high-speed I/O, and multiple storage options, the RES-XR4-1U-3SLOT server provides industry-leading performance and superior resilience to shock, vibration, and temperature extremes.

CONFIGURATION FLEXIBILITY

The RES-XR4-1U-3SLOT server provides configuration versatility and system expansion to meet your current and future system requirements. The RES-XR4-1U rack mounted servers can be mounted in standard commercial racks or mobile rugged transit cases.

ENHANCED RELIABILITY

Designed for operation in demanding environmental conditions, the RES-XR4-1U-3SLOT server incorporates advanced thermal and mechanical design features that include dual, redundant, hot swappable AC and DC power supply options.

Aluminum die cast front and rear panels, and a chassis constructed from strong, light-weight aluminum, improve system resistance to corrosion.

Designed for military, industrial, or rugged commercial use, the RES-XR4-1U server keep mission-critical applications available in demanding environments where Size, Weight, and Power (SWAP) is an important consideration.

PROCESSOR AND CPU

- Two E5-2600 V2 Series Intel® Xeon® processors with up to twelve cores per processor
- Up to 512 GB DDR3 ECC

MANAGEMENT AND OPERATING SYSTEM

- Windows® and Linux® application support
- IPMI v2.0 support

ENVIRONMENTAL RESILIENCY*

- Operating temperature range: 0°C to 55°C
- Extended temperature range: -15°C – 65°C **
- Operating shock: 3 axis, 35g, 25ms
- Operating vibration: 4.76 Grms, 5Hz to 2000Hz (SSD)
- Operating humidity: 8% to 95% non-condensing

MECHANICAL

- Height: 1RU or 1.75 inches (44.45 mm)
- Width: 17 inches (432 mm)
- Depth: 21 inches (533.40 mm)
- Weight (typical)*: 38.38 pounds (17.4 kg)

MODULAR MAINTAINABILITY

- Power supply options
  - Single or redundant 110/220 VAC, 750 Watt (50/60Hz, 400Hz)
  - Single or redundant 18-36 VDC, 32 Amp (500 W)
  - Single or redundant 36-72 VDC, 18 Amp (500 W)
- Hot pluggable disk drives (3)

* 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.
### Processor and CPU

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Two E5-2600 V2 Series Intel® Xeon® processors with up to twelve cores</td>
</tr>
<tr>
<td>Memory</td>
<td>Up to 512 GB DDR3 ECC</td>
</tr>
</tbody>
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### On-Board Expansion

<table>
<thead>
<tr>
<th>PARAMETER</th>
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</tr>
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<tbody>
<tr>
<td>Expansion slots (3)</td>
<td>1 PCIe 3.0 x 16, full length, full height</td>
</tr>
<tr>
<td></td>
<td>1 PCIe 3.0 x 8, half length, full height</td>
</tr>
<tr>
<td></td>
<td>1 PCIe 3.0 x 8, half length, half height</td>
</tr>
</tbody>
</table>

### Front Panel and Rear Panel Access I/O, Note 1

<table>
<thead>
<tr>
<th>I/O</th>
<th>QUANTITY</th>
<th>ACCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removable 2.5 SATA or SAS disk drives</td>
<td>Up to 3</td>
<td>Front panel</td>
</tr>
<tr>
<td>10 Gigabit Ethernet Ports (SFP+)</td>
<td>2</td>
<td>Front panel</td>
</tr>
<tr>
<td>Status LEDs</td>
<td>7</td>
<td>Front panel</td>
</tr>
<tr>
<td>Gigabit Ethernet ports (RJ45)</td>
<td>2</td>
<td>Rear panel</td>
</tr>
<tr>
<td>USB 2.0 ports</td>
<td>2 standard</td>
<td>Rear panel</td>
</tr>
<tr>
<td>RS-232 serial ports (DB9)</td>
<td>1 standard</td>
<td>Rear panel</td>
</tr>
<tr>
<td>Power connector</td>
<td>1 or 2</td>
<td>Rear panel</td>
</tr>
<tr>
<td>Power switch</td>
<td>1</td>
<td>Rear panel</td>
</tr>
<tr>
<td>VGA graphics</td>
<td>1</td>
<td>Rear panel</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>NON-OPERATING</th>
<th>OPERATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature range</td>
<td>-40°C to 70°C</td>
<td>0°C to 55°C</td>
</tr>
<tr>
<td>Humidity (non-condensing)</td>
<td>5% to 95%</td>
<td>8% to 95%</td>
</tr>
<tr>
<td>Shock</td>
<td>3 axis, 35g at 25 ms</td>
<td>3 axis, 35g at 25 ms</td>
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<tr>
<td>Vibration (10-2000Hz)</td>
<td>4.76 Grms, 5Hz to 2000Hz (SSD)</td>
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### Mechanical

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<tr>
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<td>Width: 17 inches (432 mm)</td>
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<td></td>
<td>Depth: 21 inches (533.40 mm)</td>
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<td>Weight (typical), Note 3</td>
<td>38.38 pounds (17.4 kg)</td>
</tr>
<tr>
<td>Chassis features</td>
<td>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.</td>
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</tbody>
</table>

### Modular Maintainability

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<td></td>
<td>Single or redundant 18-36 VDC, 32 Amp</td>
</tr>
<tr>
<td>Hot pluggable disk drives</td>
<td>2</td>
</tr>
</tbody>
</table>

### 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. Please contact Themis for information specific to your desired configuration requirements.
3. Weights are provided for typical configurations. Weight may vary depending on configuration. Contact your Themis sales representatives for more information.

### Themis Value

Themis provides systems integrators and end-users with the best-of-breed computing resources available, and works closely with them to optimize computing solutions that are easy to integrate, yet inexpensive to own and operate. For the most current information on Themis products, visit www.themis.com.