

ENHANCED RELIABILITY AND SCALABILITY FOR HIGH DENSITY COMPUTING ENVIRONMENTS

Designed for virtualization, ISR, Big Data Analytics, radar processing, image processing, and large Hadoop cluster applications, Themis RES HD systems can be used in a multitude of applications that require high-compute density and low latency access to large-data storage. Suited for computing environments where server Size, Weight, and Power (SWAP) is important, Themis RES High Density (HD) servers:

- ▶ Deliver high performance processing power
- ▶ Double compute density
- ▶ Enable a 50% rack space savings with per module weights as low as six pounds
- ▶ Reduce total system weight by nearly 50%

THE HIGH DENSITY CHASSIS AND SYSTEM

Themis offers a 2RU chassis with four slots or a 3RU chassis with six slots. The RES-HD chassis is built with enhanced reliability features and houses the following HD modules:

- ▶ RES-HDC-XR5 Processor Module (E5-2600 v3 Series)
- ▶ RES-HDC-XR4 Processor Module (E5-2600 v2 Series)
- ▶ RES-HDS Storage Module
- ▶ RES-HDFS Storage Module
- ▶ RES-HDS8 Storage and Storage Expansion Modules
- ▶ RES-HDS8 Storage and Storage Expansion Modules
- ▶ RES-SWITCH module
- ▶ RES-TRM System Management Module

Customers can combine different module types to meet their specific computing and storage requirements. Designed with enhanced reliability features for military, industrial, or rugged commercial use, RES HD servers can be mounted in standard commercial racks or mobile rugged transit cases, and incorporate thermal and kinetic management design capabilities for shock, vibration, and extended temperature.

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.



HD SYSTEM ENVIRONMENTAL SPECIFICATIONS*

- ▶ 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
- ▶ MIL-STD-810G, MIL-STD-901D, and MIL-STD-167-1*
- ▶ MIL-STD-461 options available

HD SYSTEM AND MODULE MECHANICAL SPECIFICATIONS

- ▶ Height
 - ▶ 4 chassis slot, 2RU or 3.5 inches (88.9 mm)
 - ▶ 6 chassis slot, 3RU or 5.25 inches (133.35 mm)
- ▶ Width: 17.06 inches (433.3 mm)
- ▶ Depth: 20 inches (508 mm)
- ▶ Typical System Weight*
 - ▶ 2RU chassis: 40 pounds
 - ▶ 3RU chassis: 55 pounds
- ▶ RES-XR5-HDC Module Weight: 6.88 lbs.

HD SYSTEM MODULAR MAINTAINABILITY

- ▶ Removable fans (3)
- ▶ 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 pluggable disk drives (8)

* Themis HD modules are implemented in a 2RU or 3RU system chassis. The environmental specifications provided herein reflect HD system temperatures. 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.



RES HD SYSTEM SPECIFICATIONS

HD SYSTEM ENVIRONMENTAL SPECIFICATIONS, NOTE 1		
PARAMETER	NON-OPERATING	OPERATING
Temperature range	-40°C to 70°C	0°C to 55°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
Safety	EN60000	EN60000
RFI/EMI	EN55022/24	EN55022/24
Compliance	CE Mark	CE Mark

RES-HD SYSTEM MECHANICAL SPECIFICATIONS, NOTE	
PARAMETER	NON-OPERATING
HD System Dimensions	Height: 4 chassis slot, 2RU or 3.5 inches (88.9 mm), 6 chassis slot, 3RU or 5.25 inches (133.35 mm) Width: 17.06 inches (433.3 mm) Depth: 20 inches (508 mm)
Typical System Weight	2RU chassis: 40 pounds 3RU chassis: 55 pounds
HD-Chassis Power Supply Options	Single or redundant 110/220 VAC (1200W) Single or redundant 28 VDC (500W, 750W DC)
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 Front to rear airflow

RES-HD SYSTEM FAN AND POWER SPECIFICATIONS	
PARAMETER	DESCRIPTION
Removable fans	3
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 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 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.

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

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
For more information, product
specifications, and contact
information, go to www.themis.com

THEMIS

www.themis.com