

# Themis RES-22DCO Rugged Enterprise Server



## New AMD Dual-Core Opteron based 2U Server with 1000MHz Hyper Transport Bus

Themis' new RES-22DCO, a 2 Rack Unit (2U) Dual-Processor server, combines the robust design of its Rugged Enterprise Server (RES) family with the latest, fastest multiple dual core 64-bit processing power. The rugged RES-22DCO reflects Themis' extensive expertise designing high performance systems for use in harsh, demanding environments. This new system combines the newest AMD Dual-Core Opteron architecture, the latest nVidia chipset, along with Themis' advanced thermal and mechanical design techniques to achieve I/O configuration flexibility and high reliability in shock and vibration environments of up to 25G.

The RES-22DCO can be configured with one or two AMD Dual-Core Opteron Series 2000 processors running at up to 2.4GHz. Featuring multiple expansion slots, extensive high speed I/O, and multiple storage options the RES-22DCO allows users versatile configurability and system expansion. The RES-22DCO is easily expanded through the addition of commercially available, off the shelf networking cards, I/O, peripherals and other value-added options to meet current and future system requirements.

### AMD Dual-Core Opteron and nVidia Server Chipset offers Extensive I/O and Unmatched 64-bit Performance!

The RES-22DCO's fast AMD Dual-Core Opteron F-Series processor provides innovative technologies such as AMD's exclusive Direct Connect Architecture, Hyper Transport™ technology, Simultaneous 32- and 64-bit computing, and AMD PowerNow!™ technology. The RES-22DCO offers outstanding system compute and I/O performance, dependability, and value. Its expansion versatility provides ample headroom for integration with current and future server platforms.

The new nVidia MCP55-Pro and NEC 720400 chipset represents the latest in server architecture, providing the highest possible performance and scalability by using Hyper Transport Technology. The MCP55-Pro is the central hub for all data passing through the core system elements and delivers high bandwidth across a 1000MHz Hyper Transport bus. The NEC 720400 is a PCI-Express to PCI-X bridge.

### Themis RES-22DCO Features:

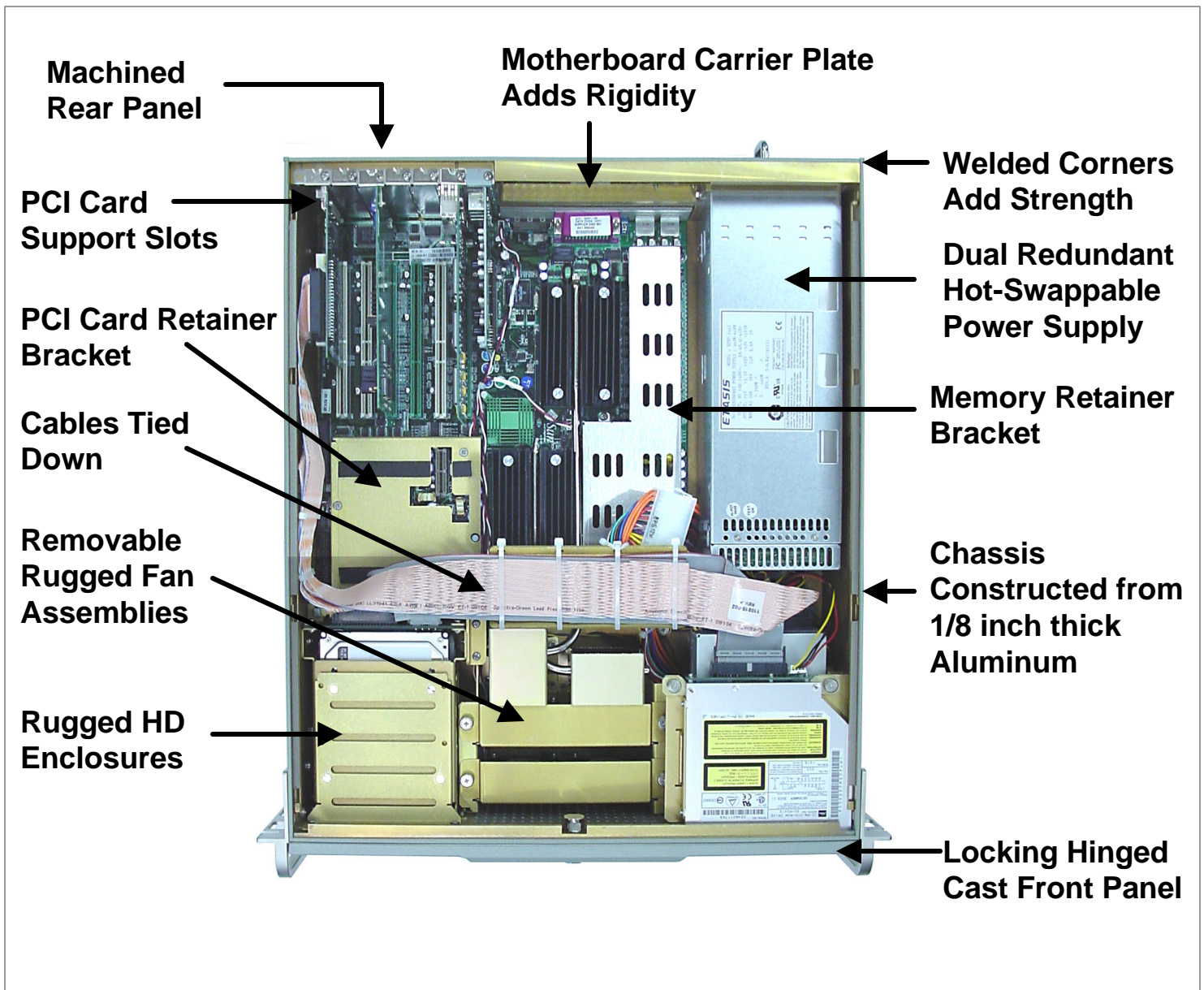
- Designed for High Reliability in harsh operating environments
- Rack-optimized design for unique user requirements
- Hard Disk/CD-RW/DVD-RW storage options
- Extensive use of Specially Coated Aluminum and Stainless Steel fasteners provide for Light Weight, Excellent Corrosion Resistance, and Durability
- Suspend to RAM and Wake-on-LAN system management
- Modular design for easy upgrade and service
- Optional rack-mount slides
- Zero-Channel RAID Support
- Linux, Windows®, and Solaris® Support
- High Definition 7.1 Channel Audio
- IPMI v2.0 support

### RES-22DCO Specifications:

- One or two Dual-Core AMD Opteron Socket F processors up to 2.4GHz with 2MB L2 Cache
- Up to 64GB ECC registered DDR2 400 SDRAM memory or
- Up to 32GB ECC registered DDR2 667 SDRAM memory
- nVidia MCP55 Pro and NEC 720400 Chipset
- ATI ES1000 16MByte PCI Color Graphics Controller
- Rear panel access and I/O:
  - Two (2) Gigabit Ethernet Port (RJ45)
  - One (1) RS-232 Serial Port (DB9)
  - One (1) Parallel Port (ECP/EEP)
  - One HD15 XGA Port
  - PS/2 Keyboard and Mouse Ports
  - Two (2) USB 2.0 Ports
  - Power connector and switch
  - Line In/Out, Microphone In (3.5mm Jacks)
- PCI Expansion Slots:
  - Two (2) 64-bit 100/133MHz PCI-X Slots (3.3V)
  - One (1) x8 PCI-Express Slot
- Front panel incorporates the following:
  - Up to Three (3) Removable Ultra320 SCSI or SATA2 Drives
  - CD-RW/DVD-RW Drive (optional)
  - Status LEDs, reset switch
- Airflow direction: Front to Rear
- Operating Shock: up to 25G @ 20 ms (MIL-901D)<sup>1</sup>
- Operating Vibration: 0.9G (rms) from 10 – 2000Hz<sup>1</sup>
- Operating Temperature: 0°C - 50°C
- Humidity: up to 90% non-condensing
- Dual redundant system fans
- Power Supply: Dual redundant, N+1 hot swappable 110/220 VAC (460 Watt) autoranging power supplies (50/60Hz, 400Hz)
- Safety: UL 1950, CSA 950
- RFI/EMI: FCC class B
- Dimensions (HWD): 2U (89 mm) x 17" (431.8 mm) x 20" (508 mm)

<sup>1</sup>when using optional solid state HDD

## RES Internals – What Makes Them So Rugged?



**Themis**  
47200 Bayside Parkway  
Fremont, CA 94538  
Tel: 510-252-0870  
Fax: 510-490-5529  
Email: [info@themis.com](mailto:info@themis.com)  
[www.themis.com](http://www.themis.com)

**Themis Europe Sales Office**  
5 rue Irène Joliot-Curie  
38320 Eybens, France  
Tel: +33.476.14.77.86  
Fax: +33.476.14.77.89  
Email: [europe\\_sales@themis.com](mailto:europe_sales@themis.com)



Themis, the Themis logo and RES-22DCO are trademarks or registered trademarks of Themis Computer. AMD, Opteron, the AMD 64 Opteron logo, are trademarks or registered trademarks of AMD Corporation. Windows is a registered trademark of Microsoft Corporation. All trademarks and registered trademarks are the property of their respective owners.