

# Themis RES-22DCX Rugged Enterprise Server



## Intel Quad Core Xeon based 2U Server

Themis' RES-22DCX, a 2 Rack Unit (2U) dual-processor server, combines the robust design of its Rugged Enterprise Server (RES) family with the latest low-power, low-voltage, dual and quad core 64-bit processing power. The rugged RES-22DCX reflects Themis' extensive expertise designing high performance systems for use in demanding environments. This new system combines the Intel® Quad-Core Xeon® processors and the Intel 5000X (Greencreek) chipset, with Themis' advanced thermal and mechanical design techniques. The RES-22DCX achieves I/O configuration flexibility and provides high reliability in shock and vibration environments of up to 25G.

The RES-22DCX can be configured with one or two Intel Quad-Core Xeon 5400 series processors. Featuring multiple expansion slots, extensive high speed I/O, and multiple storage options the RES-22DCX allows users versatile configurability and system expansion. The RES-22DCX 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.

### Intel Dual and Quad Core Xeon and Server Chipset Technology offer Expandability and Outstanding Performance

The RES-22DCX's Intel Multiple Core Xeon processors provide innovative technologies such as Execution Trace Cache, Advanced Dynamic Execution, Advanced Transfer Cache, Streaming SIMD Extensions, Extended Memory 64 Technology (EM64T), and PCI-Express for graphics. The RES-22DCX offers outstanding platform performance, dependability, and value. Its expansion versatility provides ample headroom for integration with current and future server platforms. The Intel 5000X and ESB2 chipset represents the latest in Intel server architecture, providing the highest possible performance and scalability.

### Themis Rugged Enterprise Server Features

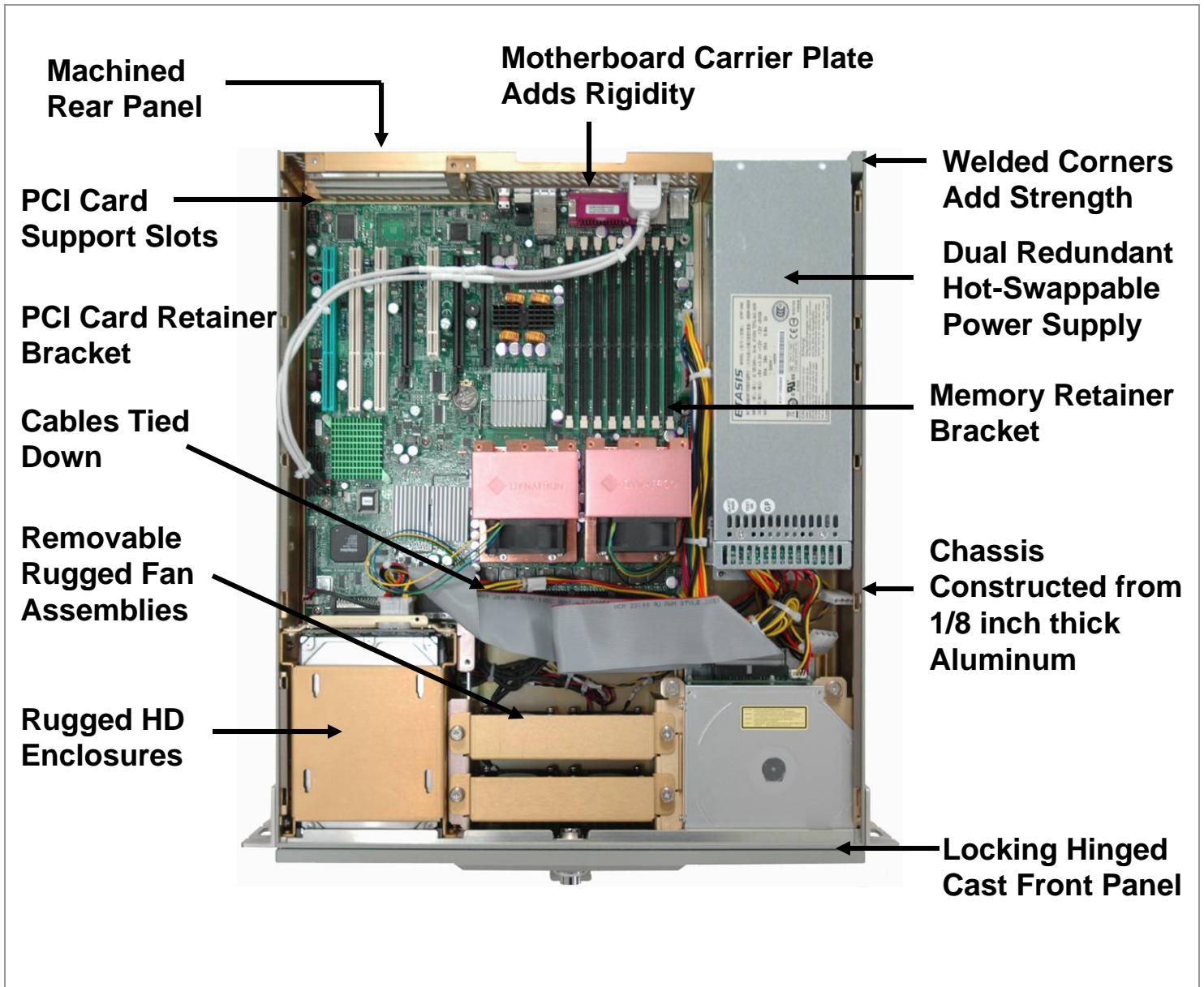
- Designed for high reliability in harsh operating environments
- Rack-optimized design for unique user requirements
- Extensive use of specially coated light-weight aluminum
- Excellent corrosion resistance, and durability
- Modular I/O design for easy upgrade and service
- Optional rack-mount slides
- Airflow direction: front to rear
- Operating Shock: up to 25G @ 12-40 ms (MIL-901D)
- Operating Vibration: 0.9G (rms) from 10 – 2000Hz
- Operating Temperature: 0°C - 50°C
- Humidity: up to 90% non-condensing
- Safety: UL 1950, CSA 950
- RF/EMI: FCC class B
- Linux® and Windows® OS support

### RES-22DCX Specifications

- One or two Quad-Core 5400 Series Intel Xeon processors up to 3.0GHz, 1333 FSB
- Up to 32GB ECC registered DDRII memory
- Intel 5000X (Greencreek) chipset
- Rear panel access and I/O:
  - Two (2) Gigabit Ethernet ports (RJ45)
  - One (1) RS-232 Serial port (DB9)
  - One (1) Parallel port (ECP/EEP)
  - PS/2 Keyboard and mouse ports
  - Four (4) USB 2.0 ports
  - Optional two (2) additional USB 2.0 ports
  - Power connector and switch
  - Line In/Out, microphone In (3.5mm Jacks)
- Expansion slots:
  - Two (2) 64-bit PCI-X slots
  - One (1) x16 PCI-Express slot
- Front panel Storage and I/O:
  - Up to three (3) Ultra320 SCSI, SAS or SATA-2 drives - two (2) removable, one fixed
  - CD-RW/DVD-RW drive (optional)
  - Status LEDs, reset switch
- Functional Features
  - Suspend to RAM and Wake-on-LAN system management
  - IPMI v2.0 support
- Dual redundant fans
- Dual redundant, N+1 hot swappable 110/220 VAC (460 Watt) autoranging power supplies (50/60Hz, 400Hz)
- Optional 300 Watt 24 or 48V DC power supply
- Dimensions (HWD): 2U (89 mm) x 17" (431.8 mm) x 20.0" (508 mm)



# RES 22DCX Internals – What Makes Them So Rugged?



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