

# Themis RES-32DCX Rugged Enterprise Server



## New Intel Dual-Core Xeon based 3U Server with 1.33GHz Front Side Bus Support

Themis' new RES-32DCX, a 3 Rack Unit (3U) Dual-Processor server, combines the robust design of its Rugged Enterprise Server (RES) family with the latest Xeon dual core 64-bit processors. The rugged RES-32DCX reflects Themis' extensive expertise designing high performance systems for use in demanding environments. This new system combines the newest Intel Dual-Core Xeon™ NetBurst processor microarchitecture, the Intel 5000X (Greencreek) 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-32DCX can be configured with one or two Intel Dual-Core Xeon processors running at up to 3.73GHz. Featuring multiple expansion slots, extensive high speed I/O, and multiple storage options the RES-32DCX allows users versatile configurability and system expansion. The RES-32DCX 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-Core Xeon and Server Chipset Technology offer Expandability and Outstanding Performance

The RES-32DCX's fast Intel Dual-Core Xeon processor provides innovative technologies such as Virtualization Technology (VT), Hyper Pipelined Technology, Execution Trace Cache, Advanced Dynamic Execution, Advanced Transfer Cache, Streaming SIMD Extensions 3 (SSE3) and Extended Memory 64 Technology (EM64T) and next generation PCI-Express for graphics. The RES-32DCX offers outstanding platform performance, dependability, and value. Its expansion versatility provides ample headroom for integration with current and future server platforms.

The new Intel 5000X and ESB2 chipset represents the latest in Intel server architecture, providing the highest possible performance and scalability. The 5000X is the central hub for all data passing through the core system elements; such as the two Dual-Core Xeon processors, and delivers up to 19.2GBytes per second of bandwidth across a 1333MHz system bus and up to 17GBytes per second of bandwidth across dual high performance DDRII-667 SDRAM memory channels.

### Themis RES-32DCX Features:

- Designed for High Reliability in harsh operating environments
- Rack-optimized design for unique user requirements
- HDD/CD-RW/DVD-RW/Floppy 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 5.1 Channel Audio
- IPMI v2.0 support

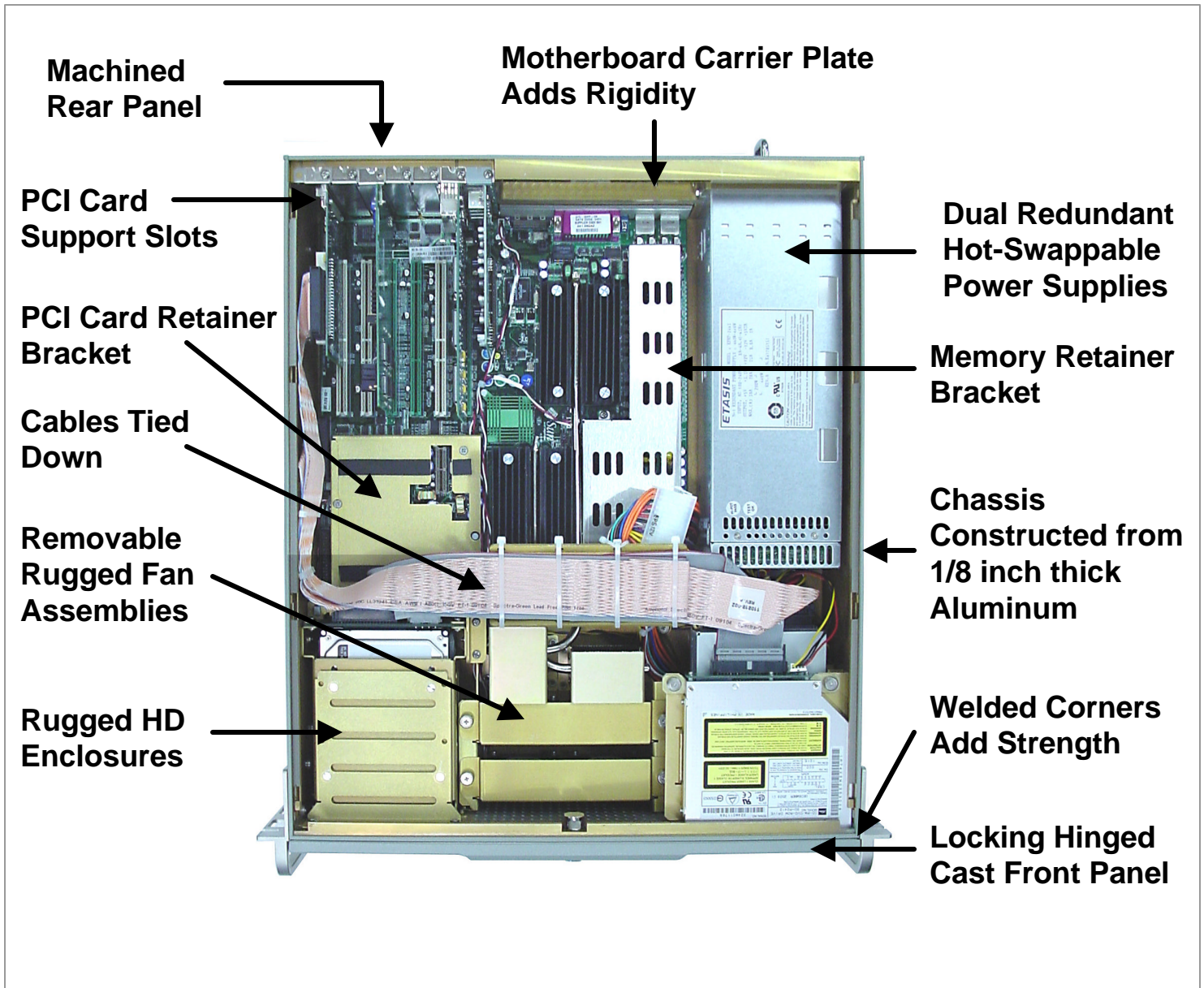
### RES-32DCX Specifications:

- One or two Dual-Core Intel Xeon processors – up to 3.73GHz with 4MB L2 Cache
- Up to 32GB ECC registered DDRII-667 SDRAM memory
- Intel 5000X (Greencreek) and ESB2 Chipset
- Rear panel access and I/O:
  - Two (2) Gigabit Ethernet port (RJ45)
  - One (1) RS-232 Serial port (DB9)
  - One (1) Parallel Port (ECP/EPP)
  - PS/2 Keyboard and Mouse ports
  - Four (4) USB 2.0 Ports
  - Power connector and switch
  - Line In, Line Out, Microphone In (3.5mm Jacks)
- PCI Expansion slots:
  - Two (2) 64-bit 133 MHz PCI-X Slots
  - One (1) 64-bit/100 MHz PCI-X ZCR Slot
  - One (1) 32-bit/33 MHz PCI Slot
- Two PCI-Express slots - One (1) x16, One (1) x4
- Front panel incorporates the following:
  - Up to Five (5) Removable Ultra320 SCSI or SATA-2 Drives
  - CD-RW/DVD-RW Drive (optional)
  - DAT/DDS Tape Drive (optional)
  - Floppy 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 cooling 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): 3U (133 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?



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