

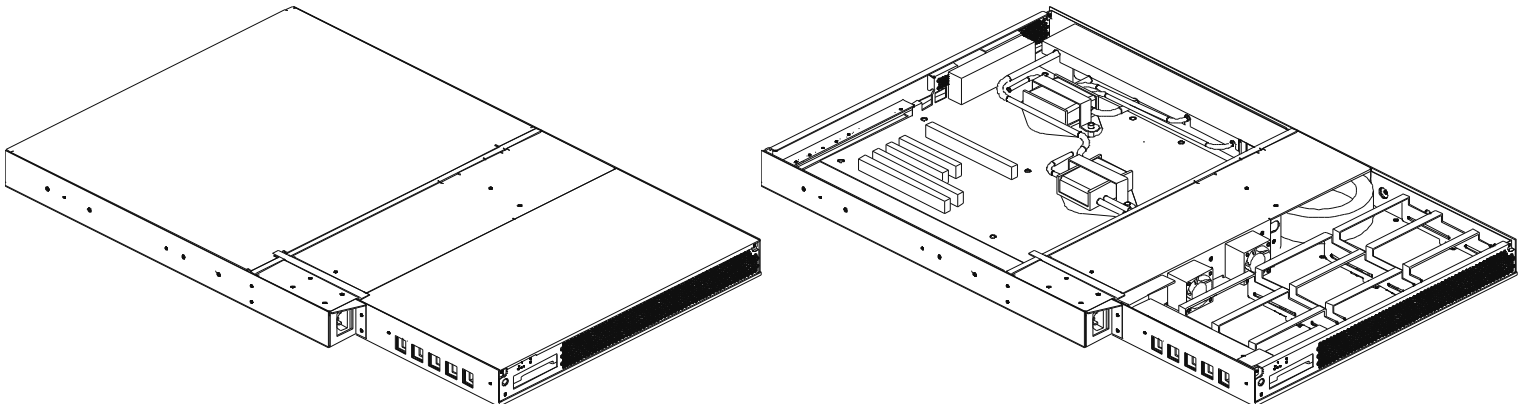
# TD-44 SERIES RACK-MOUNTABLE SERVERS



## KEY BENEFITS

- **Advanced cooling system (US Patent 7231961):**
  - Separates airflow path for CPUs and other components on the motherboard, improving cooling of components placed around CPUs.
  - Reduces the amount of airflow compared to traditional 1u design, produces higher temperature of exhaust air from CPU heat exchanger, increasing cooling efficiency.
  - Reduces the number of internal fans, decreasing energy use and amount of heat produced.
  - Reduces noise. \*
  - Increases reliability, prevents CPU overheating.
- **Server case layout provides space for one full-length full-height plus half-length reduced height boards, or one oversized (PCB protrudes above bracket) boards with PCI, PCI-X and PCIe bus interfaces.**
- **Front and rear case covers can be opened by removing two front or two rear thumbscrews, providing easy access for installation and maintenance.**
- **Front niche-mounted connectors allow server installation without access to the back of the rack, simplifying installation and maintenance. Together with reduced airflow requirements they allow higher density of racks in a data center. Computer rooms with insufficient ventilation can be equipped with additional air ducts in the rear of the racks without interference from the cables.**
- Can be installed into two-pole (center-mounted on brackets) or four-pole racks (mounted on rails).
- Serial console interface for remote management with access to BIOS setup and boot options.
- Networked Lights Out Management board for remote management with access to serial console, remote boot-up, configuration and monitoring. \*
- HTX to Infiniband interface board provides low-latency interface between nodes in clusters, leaving enough space for one additional peripheral board for specialized components or storage interface (on HTX-equipped model) \*
- Standard Extended ATX motherboard form factor, wide selection of motherboards supported with minimal set of motherboard-specific components.
- Wide range of models supporting dual-core and quad-core CPUs from Intel and AMD CPUs. \*
- Up to 16 DDR or DDR2 modules provide up to 64G of RAM. \*
- Up to three PATA, SATA, SCSI or SAS 3.5" hard drives in 1u. \*
- Up to 8 SATA or SAS 2.5" hard drives in 1u. \*
- Two Gigabit Ethernet ports with front or rear access.
- Low-wattage CPU option.
- Hot-swappable drives option (up to 2x3.5" or up to 6x2.5"). \*
- Hot-swappable fans option. \*
- **Fallback flash boot image, selectable from Lights Out Management board. \***
- **Consistent design and large percentage of parts interchangeable between various models. \***
- Manufacturer-supported configurations with Linux, FreeBSD, Windows and VMWare.
- Network boot, installation and monitoring software for supported configurations and cross-platform disk image management. \*
- **Preinstalled hardware configurations with various storage and telecommunications boards installed.**
- **Server appliance configurations with preconfigured and installed software for various applications.**

\*) Features of models not yet in production.



## GENERAL-PURPOSE SERVERS

	Base model: TD-S448664A-G2-001	AMD minimal: TD-S448664A-G2-002	AMD general-purpose: TD-S448664A-G2-003	AMD SCSI-based: TD-S448664A-G2-004	AMD SAS-based: TD-S448664A-G2-005	Intel minimal: TD-S448664I-G2-002	Intel general-purpose: TD-S448664I-G2-003	Intel SCSI-based: TD-S448664I-G2-004	Intel SAS-based: TD-S448664I-G2-005	
<b>Typical use (with original local storage configuration)</b>	General-purpose server, cluster node, web front-end server, server for virtual environment, telephony server, base for appliance configurations.	General-purpose server, cluster node, web front-end server, server for virtual environment, telephony server, base for appliance configurations.	General-purpose server, web (front-end or back-end), mail, application, small database server, server for virtual environment, telephony server, base for appliance configurations.	General-purpose server, web back-end, mail, application, database server, server for virtual environment.	General-purpose server, web back-end, mail, application, database server, server for virtual environment.	General-purpose server, cluster node, web front-end server, server for virtual environment, telephony server, base for appliance configurations.	General-purpose server, web (front-end or back-end), mail, application, small database server, server for virtual environment, telephony server, base for appliance configurations.	General-purpose server, web back-end, mail, application, database server, server for virtual environment.	General-purpose server, web back-end, mail, application, database server, server for virtual environment.	
<b>Chassis</b>	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	1u (1.75" or 44mm) rack-mountable chassis for 2-pole and 4-pole 19" racks, 1.75"x28"x17"	
<b>Motherboard</b>	MSI MS-9161	TYAN S3970G2NR	TYAN S3992	TYAN S3992 with SCSI card	TYAN S3992 with SAS card	TYAN S5370	TYAN S5380	TYAN S5372-LC with SCSI card	TYAN S5383	
<b>CPU</b>	2x Opteron 2xx	2x Dual Core Opteron 2xxx	2x Dual Core Opteron 2xxx	2x Dual Core Opteron 2xxx	2x Dual Core Opteron 2xxx	2x Dual or Quad Core Xeon	2x Dual or Quad Core Xeon	2x Dual or Quad Core Xeon	2x Dual or Quad Core Xeon	
<b>RAM</b>	DDR, up to 24G	DDR2 up to 32G	DDR2 up to 64G	DDR2 up to 64G	DDR2 up to 64G	DDR2 up to 16G	DDR2 up to 32G	DDR2 up to 24G	DDR2 up to 64G	
<b>Hard Drives</b>	3xIDE ATA100	3xSATA2	2xSATA2, flash ROM	2xSCSI, flash ROM	6xSAS 2.5", flash ROM	3xSATA2	2xSATA2, flash ROM	2xSCSI, flash ROM	6xSAS 2.5", flash ROM	
<b>Expansion Cards</b>	Two 64-bit, 66/100/133 MHz PCI-X slots, 32-bit, 33 MHz PCI slot.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	64-bit, 100/133 MHz PCI-X slot, two 32-bit, 33 MHz PCI slots.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	Two 64-bit, 100/133 MHz PCI-X slots, 64-bit, 100 MHz PCI-X slot, 32-bit, 33 MHz PCI slot, two x16PCIe slots.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	Two 64-bit, 100/133 MHz PCI-X slots, 64-bit, 100 MHz PCI-X slot, 32-bit, 33 MHz PCI slot, two x16PCIe slots.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	Two 64-bit, 100/133 MHz PCI-X slots, 64-bit, 100 MHz PCI-X slot, 32-bit, 33 MHz PCI slot, two x16PCIe slots.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	Two 64-bit, 100/133 MHz PCI-X slots, 64-bit, 100 MHz PCI-X slot, 32-bit, 33 MHz PCI slot, two x8PCIe slots.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	64-bit, 100/133 MHz PCI-X slot, two 32-bit, 33 MHz PCI slots, two x8PCIe slots, two x16 PCIe slots, x4 PCIe slot.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	Two 64-bit, 133 MHz PCI-X slots, x8 PCIe slot, two x16 PCIe slots, x4 PCIe slot.  One full-length full height card with full-height bracket plus one half-length, half-height card with full-height bracket, or one full-length oversize height card with full-height bracket.	64-bit, 133 MHz PCI-X slot, 32-bit, 33 MHz PCI slot, x8PCIe slot, x4PCIe slot.  One full-length full height card with full-height bracket or one full-length oversize height card with full-height bracket.	x8PCIe  One full-length full height card with full-height bracket or one full-length oversize height card with full-height bracket.
<b>Network</b>	2xGbE	2xGbE	2xGbE, 1x100M	2xGbE, 1x100M	2xGbE, 1x100M	2xGbE	2xGbE	2xGbE	2xGbE or 4xGbE	
<b>Management</b>	Serial console	Serial console	Serial console, LOM board	Serial console, LOM board	Serial console, LOM board	Serial console	Serial console, LOM board	Serial console, LOM board	Serial console, LOM board	
<b>Power Supply</b>	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	Single EPS12V 500W	

## OPTIONS FOR SPECIAL-PURPOSE SERVERS

1. Motherboard with HTX connector (TYAN S2912) for low-latency cluster interlinks – **TD-S448664A-H1-001** model.
2. Mounting hardware for telephony (analog lines, T1/E1/PRI) and media cards – all models with an option to install those cards.

## APPLIANCE SERVERS

1. Telephony server (with analog and T1/E1/PRI interfaces) – **TD-A448664n-Tn-nnn** series.
2. Media server (with encoder boards) – **TD-A48664n-Mn-nnn** series.
3. Office appliance servers (general-purpose setup, document management systems, virtual desktops servers) – **TD-A448664n-O2-nnn** series.

