Dell Precision T7500

The workstation superhero

Our most powerful workstation delivers the multi-core processing punch you've been waiting for — with levels of performance you've only dreamed about. Developed in close collaboration with hardware and software partners, the next-generation Dell Precision™ T7500 workstation helps you create, design, render and analyze without compromise. Designed to deliver groundbreaking performance, blistering speed and scalability for compute and graphics-intensive environments, the Dell Precision T7500 helps you power through the most complex tasks and complete projects even faster with up to 50% more system memory than its predecessor.

- Next-generation 32nm six-Core Intel® Xeon® 5600 series processors ignite stunning levels of performance unleashed by Intel Quick Path Technology that provides high-speed interconnects per independent processing core
- Outstanding performance for memory-intensive applications delivered with the help of an integrated memory controller on the processor with dedicated three-channel high-speed memory architecture, multi-level shared cache and high-speed point-to-point interconnects
- Memory scalability up to 192GB[1] with DDR3 ECC Registered DIMMs
- Dual-native PCIe x16 Gen 2 graphics slots for outstanding graphics performance, cost-effective quad-monitor support and GPU-based personal "supercomputing"
- Designed to deliver increased performance for single and multi-threaded applications with advanced engineering and thermal design enabling extended use of Intel Turbo Boost Technology
- Proven chassis design for physical security, ease of access and exceptional flexibility[2]

Outstanding graphics performance

Dell understands that exceptional graphics performance and high-end visualization capabilities are requirements for many complex applications. The Dell Precision T7500 offers a great selection of graphics options from entry 2D to top-end 3D OpenGL® solutions with up to a staggering 6GB[3] of graphics memory.

New heights of scalability

Imagine having the freedom to work the way you've always wanted. Now you can. If you're ready to optimize efficiency and power usage with a platform that can scale to high-performing, multi-core processors, the Dell Precision T7500 is an ideal choice. With up to 12 DIMM slots to expand memory capacity up to 192GB[1] and a chassis designed for flexible configuration options, the Dell Precision T7500 provides a highly scalable architecture that enables you to manage massive data sets with outstanding performance and reliability. Independent Software Vendor (ISV) application certification helps ensure that your applications will run efficiently on Dell Precision workstations today and tomorrow.

Peace of mind through ISV application certification

Dell partners with over 35 leading ISVs to test and certify system and application compatibility for 90 applications. This helps ensure optimized performance in demanding workstation environments. In addition, to ensure access to the latest productivity-enhancing technology solutions, Dell invests in the workstation ISV community by providing the hardware platforms needed to further multi-threaded and 64-bit application development. By maintaining strong relationships with ISV application developers, Dell engineers can provide ongoing optimization and support should you need it.

Dell Precision T7500

The Dell Precision T7500 workstation, a powerhouse of productivity, unites lightning-fast 64-bit multi-core Intel Xeon processors, outstanding graphics technology and exceptional memory capacity in an innovative chassis to deliver superb performance, flexibility, scalability and reliability. It's not just designed to meet your needs — it's designed to exceed your expectations

Features	Dell Precision T7500 Workstation Technical Specifications
Processors	Intel® Xeon® 5600 series processors up to six-cores with up to 6.4GT/s (Intel QuickPath Interconnect) and up to 12MB shared cache. Turbo Mode and HyperThreading technology on select processors. All processors are 64-bit, support Intel DBS (demand-based switching) and Intel VT (Intel Virtualization Technology) Note: Intel TXT is not supported
Operating Systems	• Genuine Windows® 7 Professional 32-Bit; Genuine Windows 7 Pressional 64-Bit • Genuine Windeows 7 Ultimate 32-bit; Genuine Winows 7 Ultimate 64-Bit • Genuine Windows Vista® Ultimate 32-Bit; Genuine Windows Vista Ultimate 64-Bit • Genuine Windows Vista Business 32-Bit; Genuine Windows Vista Business 64-Bit • Red Hat® Enterprise Linux WS v.5
Chipset	Intel 5520 chipset
Memory[3]	Up to 192GB[1] with dual processors installed and Red Hat Enterprise Linux. Three-channel memory architecture per processor with up to 1333MHz DDR3 ECC Registered DIMM memory.[3] Up to 12 DIMM slots; 6 slots (2 per channel) on motherboard and additional 6 slots on optional 2nd processor riser card. The 2nd processor has an integrated memory controller, which provides an additional 3 channels of memory bandwidth
Flash BIOS	BIOS 8MB flash memory for system BIOS; SMBIOS 2.5 support
Graphics[3]	Support for 2 PCI Express® x16 Gen 2 graphics cards up to 225W. 2 to 8 monitor configurations depending on card(s) chosen. **High End 3D** NVIDIA® Quadro® 6000 NVIDIA Quadro 5000 NVIDIA Quadro FX 5800 NVIDIA Quadro FX 4800 **Mid-range 3D** ATI FirePro V7800 ATI FirePro V5800 NVIDIA Quadro 4000 NVIDIA Quadro FX 3800 NVIDIA Quadro 2000 NVIDIA Quadro FX 1800 **Entry 3D** ATI FirePro V4800 NVIDIA Quadro 600 NVIDIA Quadro FX 580 **Professional 2D** ATI FireMV™ V2260 NVIDIA Quadro NVS 420 NVIDIA Quadro NVS 295
GPU	NVIDIA Tesla™ C1060; NVIDIA Tesla C2050 (Graphics Processing Unit used for high-performance computing, limited or no graphics output)
Hard Drives	Chassis supports up to five internal SATA drives or four SAS drives (10.0 TB[4] maximum storage capacity); Single RAID 0 data volumes greater than 2TB are available as factory-installed option with the optional PERC6 RAID adapter (not supported on Linux operating system) **SATA 3.0GB/s 7200RPM** Up to 2TB[4] with 16MB DataBurst™ Cache Up to 250GB[4] with 8MB DataBurst Cache **SATA 3.0GB/s 10K RPM** Up to 600GB[4] with 16MB DataBurst™ Cache **SAS 15K RPM** Up to 600GB[4] **SSD** 256GB[4]
Hard Drive Controller	Integrated LSI 1068e SAS/SATA 3.0GB/s controller supports host-based RAID 0 or 1. Optional PERC 6/i PCIe SAS/SATA/SSD hardware RAID card supports RAID 0, 1, 5, 10
Communications	**Networking:** Integrated Broadcom® 5761 Gigabit Ethernet controller. 2nd Gigabit port is available with the optional PCIe Broadcom Gigabit controller card **Modem:** Optional Dell 56K v.92 Data/Fax PCI modem
Audio Controller	Integrated high-definition audio (Rev 1.0 Specification) implemented with a two-chip audio solution comprising the ADI 1984a high-definition audio CODEC and the ICH10's integrated AC97/high-definition digital controller
Standard I/O Ports	Eleven USB 2.0: two on front panel, six on back panel, three internal; two IEEE 1394a: one front, one rear; one serial; one parallel; two PS/2; one RJ-45; one stereo line-in and one headphone line-out on back panel; one microphone and one headphone connector on front panel; one ESATA port on back panel
Chassis	**Dimensions:** (WxHxD) 8.5" x 22.26" x 22.3", 21.59cm x 56.54cm x 56.6cm; 12.8" x 22.26" x 22.3", 32.5cm x 56.54cm x 56.6cm with feet **Bays:** Four internal 3.5" hard disk drive bays; three external 5.25" optical bays, one of which can accommodate a fifth SATA HDD; one external 3.5" flex bay for floppy drive or media card reader **Slots:** All full length except for slot 1; one PCI-e x16 Gen 2 wired as x4, two PCIe x16 Gen 2 slots wired as x8; two PCIe x16 Gen 2 graphics slots; one PCI-X 64bit/100MHz slots with support for 3.3V or universal cards, one PCI 32bit/33MHz 5V slot **Power Supply:** 1100 watt 85PLUS Power Factor Correcting (PFC) power supply[5]
Monitor Compatability	Performance flat-panel displays, Dell UltraSharp™ widescreen and standard flat-panel displays from 17" to 30" viewable; analog flat-panel displays and CRT monitors also available
Keyboard	Dell-Enhanced Quietkey™ USB; optional Enhanced Multimedia USB or Smart Card keyboard USB
Mouse	Dell USB two-button mouse or optional Dell USB optical two-button scroll mouse
Optional Speakers	Internal chassis speaker; Dell two- and three-piece stereo system; Dell sound bar for all flat-panel displays
Storage Devices	CD-RW/DVD Combo; DVD-ROM; DVD+/-RW; Blu-ray; USB Floppy Drive; USB media card reader
Security Options	**Software:** Trusted Platform Module 1.2 (TPM 1.2); chassis intrusion switch; setup/BIOS password; I/O interface security **Hardware:** Kensington® lock slot, padlock ring, internal front-panel chassis lock
Environmental and Regulatory	Please refer to safety best practices information on the Regulatory Compliance homepage on www.dell.com at the following location: www.dell.com/regulatory_compliance
Service and Support	**Base:** 3-Year Limited Hardware Warranty[6] with 3-year standard Next-Business-Day (NBD) on-site after remote diagnosis[7] parts replacement and 3-year NBD on-site service after remote diagnosis[7] **Recommended:** Dell ProSupport[8] is designed to rapidly respond to your business' needs, protect your investment and sensitive data, and provide enhanced proactive support services to help reduce risk and complexity within your IT environment

Simplify your workstation at dell.com/Precision

[1] Maximum memory with dual processors installed, requires RedHat Enterprise Linux. A 64-bit operating system is required to support 4GB or more of system memory.

[2] Based on testing by Dell Labs in January 2009.

[3] Significant system memory may be used to support graphics, depending on system memory size and other factors.

[4] GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less. With Dell Factory Image Restore installed, Windows Vista users will have 10GB of their hard drive capacity set aside for a recovery image.

[5] The T7500 uses a very efficient Active Power Factor Correction (APFC) power supply. Dell recommends only Universal Power Supplies (UPS) based on Sine Wave output for APFC PSUs, not an approximation of a Sine Wave, Square Wave or quasi-Square Wave (see UPS Technical Specifications). If you have questions, please contact the manufacturer to confirm the output type.

[6] For a copy of Ltd. hardware warranty, please write Dell U.S.A. L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see www.dell.com/warranty.

[7] Remote Diagnosis is determination by online/phone technician of cause of issue; may involve customer access to inside of unit and multiple or extended sessions. If issue is covered by Limited Hardware Warranty www.dell.com/warranty and not resolved remotely, technician and/or part will be dispatched, usually in 1 or 2 business days following completion of Remote Diagnosis. Availability varies. Other conditions apply.

[8] Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.