Dell Precision Tower 7000 Series (7810)

Powerful ideas need powerful machines

Experience the evolution of productivity

Power through compute and graphics-intensive workloads with the advanced dual processor Dell Precision Tower 7810:

- Single or dual Intel® Xeon® Processor E5-2600 v4 Series have the frequency and cores to process multiple complex tasks quickly.

- With 2nd CPU installed, the Tower 7810 delivers 2X the memory bandwidth and CPU cores to quickly process compute intensive multi-threaded applications

- Easily handle large data sets with up to 256GB[1,2] of quad- channel 2400MHz DDR4 ECC RDIMM memory

- Dell Precision Optimizer, enhances application performance by optimizing settings, for up to 121 percent application performance improvement

- Intel CAS-W storage option enables performance that is near solid state drive speeds at a significantly reduced cost versus a full SSD storage solution[3]

- Choose from a broad selection of new professional grade AMD FirePro™ or NVIDIA® Quadro® graphics

- Optional Intel PCIe SSD drives and M.2 PCIe NVMe SSDs on the actively cooled Dell Precision Ultra-Speed Drive Duo and Ultra-Speed Drive Quad deliver superb read/write throughput, combined with exceptional reliability.

- Optional 12Gb/s PCIe SATA/SAS RAID controllers facilitate data striping and mirroring for increased performance & reliability

Reliability you can count on

- Exclusive Reliable Memory Technology (RMT) PRO maximizes uptime by eliminating virtually all memory errors for more stability

- The result of hundreds of rigorous testing, Independent Software Vendor (ISV) certifications ensure your high performance applications run smoothly

Best-in-class chassis design

- Straightforward, clutter-free interior provides superb air flow, easy access to components for serviceability and modifications, and improved acoustics

- The only mainstream tower workstation family to offer an externally accessible tool-less (lockable) power supply for superior serviceability

- The Tower 7810 is up to 34% quieter than its' predecessor

- Handles for easy deployment and moves

- Easy access to front-mounted USB port & rack mounting via 0U rail shelf kit[4]

Exceptional Service & Support

- Rest assured that your Dell Precision workstation will be well protected should an issue arise, with a standard 3 year limited hardware warranty[5,6,7]

Feature	Precision Tower 7000 Series (7810) Technical Specification				
Processor Options	One or two Intel® Xeon® processor E5-2600 v4 Series with up to 22 cores and Intel Advanced Vector Extensions, Intel Trusted Execution Technology, Intel AES New instructions, Optimized Intel Turbo Boost and optional Intel vPro™ technology				
Operating System Options	Windows® 10 Professional (64 bit) Windows® 8.1 Professional (64-Bit) Windows® 7 Professional (64-Bit)		Red Hat® Enterprise Linux® 7.0 and 7.2 (required for Xeon E5-2600 v4 CPUs), RHEL 6.5 supported – RHEL 6.8 for E5-2600 v4 Ubuntu 14.04 NeoKylin 6.0 (China only)		
Chipset	Intel® C612				
Memory Options	Quad channel memory up to 256GB 2400MHz DDR4 RDIMM ECC memory with dual CPUs, 8 DIMM Slots (4 DIMMs per CPU). Note: memory speed is dependent on specific Intel Xeon E5-2600 v4 Series processor installed				
Graphics[4] Options	Support for 2 PCI Express® x16 Gen 2/Gen 3 graphics cards up to 300W (total graphics in 2 slots, (with 825W PSU)				
	High end 3D cards: AMD FirePro W8100 NVIDIA Quadro M6000 NVIDIA Quadro K6000 NVIDIA Quadro M5000	**Mid-range 3D cards:** AMD FirePro W7100 AMD FirePro W5100 NVIDIA Quadro M4000 NVIDIA Quadro M2000 NVIDIA Quadro K2200	**Entry 3D cards:** AMD FirePro W4100 AMD FirePro W2100 NVIDIA Quadro K620 NVIDIA Quadro K420	**Professional 2D cards:** NVIDIA NVS 510 NVIDIA NVS 315 NVIDIA NVS 310	
Storage Options	Support for up to (4) M.2 PCIe SSDs and up to (3) 3.5" SATA or (4) 2.5" SATA/SAS drives. Optional controller required for SAS.				
	M.2 PCIe SSD (NVMe) Up to (4) 1TB drives on Dell Precision Ultra-Speed Drive Quad. **PCIe SSD HH/HL card** Up to (2) Intel 1.2TB PCIe SSD NVMe drives	**2.5" SATA SSD** Up to (4) 1TB drives **2.5" SAS SSD** Up to (4) 400GB drives	**2.5" SATA 7200 RPM** Up to (4) 512GB 7200 RPM	**3.5" SATA** Up to (3) 4TB 5400 RPM	**2.5" SAS 10K RPM 12Gb/s** Up to (4) 1.8TB **2.5" SAS 15K RPM 12Gb/s** Up to (4) 600GB	**2.5" Self Encrypting Drives** 512GB 2.5" FIPS SED (OPAL 2.0) SSD
Storage Controller	**Integrated: Intel** AHCI 6Gb/s SATA controller with six ports, two reserved for optical drives, Intel RSTe supports host based software RAID 0,1,5,10 **Optional:** LSI MegaRAID® SAS 9341-8i 12Gb/s SAS (6Gb/s SATA) PCIe controller supports software RAID 0,1,5,10. LSI MegaRAID® SAS 9361-8i 12Gb/s SAS (6Gb/s SATA)) PCIe controller (1GB cache with Flash module/Super Cap backup) supports hardware RAID 0,1,5,10				
Communications	**Integrated:** Intel® i217 Gigabit Ethernet LAN 10/100/1000 **Optional:** Intel® i210 10/100/1000 single port PCIe (x1) Gigabit network card, Intel® X540-T2 10GbE dual port PCIe (x8) network card,				
Audio Controller	Integrated Realtek ALC3861 High Definition Audio Codec (2 Channel)				
Speakers	Internal Speaker; Optional Dell 2.0 stereo speaker systems available and Dell sound bar for select flat-panel displays				
Add-in cards	Optional: Dell Precision Ultra-Speed Drive Duo (HH/HL,x8) & Ultra-Speed drive Quad (FH/FL,x16) with active cooling. Support for up to 2 and 4 M.2 PCIe NVMe SSDs respectively. Optional 1394 a/b PCIe Card (3 Ports – 2x 1394b + 1x 1394a)		Optional dual & quad display Teradici PCoIP remote workstation host PCIe cards Optional Thunderbolt 2 PCIe Card Optional Serial Port PCIe Card		
I/O Ports	**Front** 3 – USB 2.0 1 – USB 3.0 1 – Microphone 1 – Headphone	**Internal** 1 – USB 2.0 1 2x5 USB 2.0 header. (Requires 3rd party splitter cable to support 2 x USB 2.0 Type A ports) 4 – SATA 6Gb/s	**Rear** 3 – USB 2.0 3 – USB 3.0 2 – PS2	1 – RJ45 Network Connector 1 – Serial 1 – Audio Line in/Microphone 1 – Audio Line out	
Chassis	**HxWxD:** 16.30 x 6.79 x 18.54"; 41.40cm x 17.25cm x 47.09cm **Bays:** (1) external slimline optical bay; (2) internal 3.5" bays (support total of (2) 3.5" or 2.5" drives); (1) external 5.25" bay **Slots:** (2) PCIe x16 Gen 3; (1) PCIe x16 Gen 3 (wired x8) half length; (1) PCIe x4 Gen 2; (1) PCIe x1 Gen 2; (1) PCI 32 **Power Supply:** 825W, 685W 90% efficient (80PLUS Gold Certified) Externally accessible/removable				
Storage devices	**Slimline** options: DVD-ROM; DVD+/-RW, Optional **5.25" bay** devices: BD, DVD+/-RW; 19-in-1 media reader, 2 x 2.5" HDD/SSD kit				
Monitors	Dell UltraSharp Monitors – Award-winning high-performance monitors with PremierColor (on select models) and ultra-wide viewing, from 21.5"- 34" Dell Monitors (P models) available from 19" – 28".				
Security Options	Trusted Platform Module (TPM 2.0 with Win 10, TPM 1.2 with Win 7/8.1); Chassis Intrusion switch; Setup/BIOS Password; I/O Interface Security; Kensington® lock slot, Padlock ring, lockable power supply; Dell Data Protection (DDP): DDP	Security Tools for authentication; DDP	Protected Workspace for malware; DDP	Encryption for data protection				
Regulatory & Environmental	Energy Star® configurations available including 80 PLUS® registered Gold power supplies; EPEAT® registered (see epeat.net for specific registration rating/status by country); China CECP; GS Mark. For a complete listing of declarations & certifications, see Dell's regulatory & compliance homepage at dell.com/regulatory_compliance				
Warranty & Support Services	3-Year Limited Hardware Warranty and 3-year NBD On-Site Service after Remote Diagnosis Optional: Dell ProSupport is designed to rapidly respond to your business's needs, help protect your investment and sensitive data, and provide enhanced proactive support services to help reduce risk and complexity within your IT environment				
TAA Configurations	Yes				