



PRECISION 7820 XL TOWER

Dual processor performance in an innovative compact design.



WHEN STABILITY MATTERS

When you choose an OEM XL product, you get the stability, visibility and longevity you need from the #1 Worldwide OEM provider. You can focus your time more on innovation for competitive differentiation and less on hardware development churn. Leverage our highly controlled parallel supply chain to help ensure stability.

Plan and allocate your budget more effectively with long-term visibility to product roadmaps and in advance notification of hardware changes. And take that additional time you require to validate and certify your solution with an 18-month transition period after the launch of the next generation products.

The Dell EMC OEM products were designed 100% with OEMs in mind.



POWERFUL PERFORMANCE

Power through the most complex, demanding applications more quickly with a new generation of dual-socket performance with the Intel Xeon Scalable Processor family featuring up to 28 cores per processor. System memory is expandable up to 768GB @2933MHz with select processors. In addition, every Dell Precision comes with the exclusive Dell Precision Optimizer (DPO) software, which automatically tunes your workstation to run some of the most popular (ISV) applications at the fastest speeds possible. DPO Premium is an AI-based software that uses machine learning to optimize the workstation based on how the user uses it.



INNOVATIVE DESIGN

Front FlexBay design supports a range of modules from scalable storage to security options, you can build the workstation designed for your creative expertise. Secure your data with the optional Smart Card (CAC/PIV) reader, hot swap NVMe SSDs and lockable hard drive carriers. The best-in-class smart design includes integrated front and rear handles for easy deployment and moves and an externally accessible tool-less (lockable) power supply for superior serviceability.



LATEST TECHNOLOGY

Ready for complex projects, including artificial intelligence and virtual reality workflows, with next generation Radeon™ Pro and highest performing NVIDIA Quadro® professional graphics with support for up to 600W of graphics power. No project is too big with up to 60TB of total storage in front FlexBays provide maximum storage expandability with SATA, SAS and PCIe M.2/U.2 NVMe solid state drives featuring hot swap access, so you never have to stop creating.



MISSION-CRITICAL RELIABILITY

All Dell Precision workstations are Independent Software Vendor (ISV) certified to ensure the high-performance applications you rely on every day run smoothly. Also, with Xeon processors you can get Error Correcting Code (ECC) memory which identifies and corrects single bit memory errors. Our exclusive Reliable Memory Pro software works on top of ECC memory to identify and map out bad memory sectors and will alert you when the memory is at a critical level and needs replaced - providing layers of protection against memory related errors.

Essential Accessories

PRECISION 7820 XL TOWER



Dell Canvas

Bring your ideas to life with a 27-inch workspace that empowers natural digital creation. Featuring a precise EMR pen, totem, and touch surface.



Dell Wireless Premium Keyboard & Mouse Combo | KM717

Enhance productivity and enjoy its elegant design that will fit into virtually any workspace. For increased productivity you can simultaneously pair up to two compatible devices with Bluetooth LE.



Dell UltraSharp Ultra HD 8K Monitor with PremierColor | UP3218K

Experience realistic images like never before on the award-winning, world's first 31.5" 8K monitor featuring Dell PremierColor.



Jabra Evolve 75

With the ambient noise cancellation feature of this wireless headset you can hear every word clearly on your next call. This easy to carry device is certified for Microsoft Skype for Business.



3Dconnexion SpaceMouse Wireless

SpaceMouse Pro Wireless handles 3D navigation for a revolutionary two-handed work style preferred by the world's top 3D professionals. Intuitively examine and analyze your designs from every angle.



X-Rite Colorimeter i1Display Pro

The i1Display Pro ensures a perfectly calibrated and profiled display while delivering the speed, options and flexibility needed to maintain color accuracy.

Built for business

Dell Technologies Unified Workspace

Dell Technologies Unified Workspace is the most comprehensive solution to deploy, secure, manage and support virtually all devices from the cloud. We designed this revolutionary solution with intelligence and automation providing you with visibility across the entire endpoint environment. We help you save time, improve user experience, optimize resources and strengthen security.



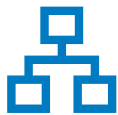
DEPLOY

Our modern deployment solution, ProDeploy in the Unified Workspace allows you to revolutionize the way deployment gets done. By spending just one hour for set up, IT can then hand deployment to Dell and have preconfigured systems shipped directly to the end users--wherever they are.



SECURE

Dell Endpoint Security for the Unified Workspace helps you manage growing cyber risks while embracing workforce transformation. With Dell SafeGuard and Response powered by Secureworks, you gain actionable insight to help you quickly and efficiently prevent, detect and respond to cyber-attacks - keeping your environment free from harm.



MANAGE

We integrated our hardware management solution Dell Client Command Suite with VMware Workspace ONE, allowing you to take advantage of unified endpoint management (UEM) and manage the firmware, operating system and applications for all devices from the Workspace ONE console. UEM simplifies the management of the entire environment saving IT time from having to work between separate consoles for PCs and phones.



SUPPORT

ProSupport Plus continues to be the only predictive and proactive support in the market. When compared to key competitors, ProSupport Plus with SupportAssist reduced time to resolve a failed hard drive with up to 11x faster time to resolution*

*Based on a Principled Technologies test report, "Spend Less Time and Effort Troubleshooting Laptop Hardware Failures" dated April 2018. Testing omitted by Dell, conducted in the United States. Actual results will vary. Full report: <http://facts.pt/L52XKM>

Features & Technical Specifications

PRECISION 7820 XL TOWER

Feature	Precision 7820 XL Tower Technical Specifications	Feature	Precision 7820 XL Tower Technical Specifications
Processor Options	One or Two Intel Xeon Scalable Processor family CPUs (1 st and 2 nd generation) with up to 28 cores per processor and Intel Advanced Vector Extensions, Intel Trusted Execution Technology, Intel AES New instructions, Optimized Intel Turbo Boost and optional Intel vPro™ technology	Storage Options ²	NVMe PCIe SSDs are supported in FlexBay 1 on enabled PCIe backplane chassis with integrated Intel controller and up to 4 with MegaRAID 9460 NVMe hardware RAID controller option - see controller section. Note Precision PCIe FlexBay backplane and single M.2 Module (incl. 1 M.2 PCIe NVMe carrier) kits are available for customers to convert standard FlexBays to support Intel and new MegaRAID NVMe controller options. (different kits) NVMe RAID 0,1 option (Intel RSTe vROC). NVMe HW RAID 0,1,5,10 (MegaRAID 9460 NVMe controller) Up to 4 x M.2 NVMe PCIe SSDs via 1 x Dell Ultra-Speed Drive Quad x16 card. NVMe RAID 0,1,10 option (Intel RSTe vROC) M.2 NVMe PCIe SSDs Up to 4 x 2TB drives on 1 Dell Precision Ultra-Speed Drive Quad x16 card. U.2 Intel® Optane™905P SSDs Up to 4 x 960GB drives Front FlexBay M.2/U.2 NVMe PCIe SSDs Up to 4 x 2TB M.2 drives 2.5" SATA 7200 RPM. Up to 6 x 1TB drives 2.5" SATA SSD Up to 6 x 1TB drives Up to 6 x 800GB drives 3.5" SATA 7200 RPM Hard Drives 2.5" SAS SSD Up to 5 x 12TB Enterprise Drives 3.5" SAS 7200 RPM 12Gb/s Up to 5 x 4TB 2.5" SAS 10K RPM 12Gb/s Up to 6 x 1.8TB 2.5" SAS 15K RPM 12Gb/s Up to 6 x 600GB M.2 PCIe SED SSD 512GB and 1TB
Operating System Options	Windows 10 Pro for Workstations (up to 4 Cores) Windows 10 Pro for Workstations (4 Cores Plus) Red Hat® Enterprise Linux® 7.5 Red Hat Enterprise Linux 8.0 (Sept. 2019) is required for 2 nd Generation Xeon SP (Cascade Lake) CPUs Ubuntu Linux 16.04 Ubuntu Linux 18.04 NeoKylin 6.0 SP3 (China only - select options supported) Windows 7 Pro for Embedded Systems 64 bit (Skylake), Win10 IoT Enterprise 2016 LTSC, and Win 10 IoT Enterprise 2019 LTSC	Storage Controller	Integrated: Intel® chipset SATA controller (6Gb/s) with 6 SATA ports plus 2 dedicated ports for optical drives. Intel RSTe software RAID 0,1,5,10 Intel RSTe (vROC) software RAID 0,1,10 option (motherboard activation key) for M.2 NVMe PCIe SSDs on Dell Ultra-Speed Drive Quad card, Duo x8 card (RAID 0,1) and for 2 x front FlexBay M.2/U.2 NVMe PCIe SSDs (RAID 0,1) or front FlexBay NVMe PCIe SSDs (RAID 0,1) Customer kit available for Intel RSTe (vROC) motherboard activation key for NVMe RAID support. Optional: Broadcom MegaRAID® SAS 9440-8i 12Gb/s SAS (6Gb/s SATA) PCIe controller, 8 ports, Software RAID 0,1,5,10. MegaRAID® SAS 9460-16i 12Gb/s SAS (6Gb/s SATA)) PCIe controller (4GB cache with Flash module/Super Cap backup) Hardware RAID 0,1,5,10. MegaRAID 9460 controller NVMe option supports up to 4 front FlexBay M.2/U.2 NVMe PCIe SSDs with Hardware RAID 0,1,5,10
Chipset	Intel® C621 (Lewisburg)		
Memory Options ¹	Six channel memory up to 768GB 2933MHz DDR4 DDR4 ECC memory with dual CPUs, 12 DIMM Slots (6 DIMMs per CPU). Note: Memory speed is dependent on specific Intel Xeon Scalable Processor CPU installed.		
Graphics Options ¹	Support for 2 PCI Express® x16 Gen 3 graphics cards - up to 600W with maximum of 2 x 300W double width graphics cards on single CPU configurations. Up to 2 x 160W single width graphics cards on dual CPU configurations. High end 3D cards: Radeon™ Pro WX 9100 Radeon™ Pro SSG NVIDIA Quadro GV100 NVIDIA Quadro P6000 NVIDIA Quadro P5000 NVIDIA Quadro RTX 8000 (future) NVIDIA Quadro RTX 6000 NVIDIA Quadro RTX 5000 Mid-range 3D cards: Radeon™ Pro WX 7100 Radeon™ Pro WX 5100 Radeon™ Pro WX 4100 NVIDIA Quadro P4000 NVIDIA Quadro P2000 NVIDIA Quadro RTX 4000 Entry 3D cards: Radeon™ Pro WX 3100 Radeon™ Pro WX 2100 NVIDIA Quadro P1000 NVIDIA Quadro P620 NVIDIA Quadro P400 Professional 2D cards: NVIDIA NVS 310		
Storage Options ²	Front accessible FlexBays support up to 4 x 2.5"/3.5" SATA HDD/SSDs and up to 6 x 2.5" and 5 x 3.5" drives with 5.25" bay populated. Up to 2 front accessible (hot plug) M.2/U.2		

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PRECISION 7820 XL TOWER

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Communications	Integrated: Intel® i219 Gigabit Ethernet controller with Intel Remote Wake UP, PXE and Jumbo frames support Optional: Intel® i210 10/100/1000 single port PCIe (Gen 3 x1) gigabit network card, Intel® X550-T2 10GbE dual port PCIe (Gen 3 x4) network card, Intel Dual Band Wireless AC 8265 (802.11ac) 2x2 + Bluetooth module,	Storage devices	Slimline Bay Options: DVD-ROM; DVD+/-RW, CAC/PIV card reader. 5.25" Bay Options: BD, DVD+/-RW; Standard: SD slot UHS II Class 3 with read only support
Audio Controller	Integrated Realtek ALC3234 High Definition Audio Codec (2 Channel)	Security Options (Check regional availability)	Trusted Platform Module (TPM 2.0); Optional CAC/PIV card reader for slimline bay, chassis Intrusion switch; Setup/BIOS Password; I/O Interface Security; Kensington® lock slot, Padlock ring, lockable power supply; Optional hard drive locking sleds (key lock), Dell Data Guardian, Dell Endpoint Security Suite Enterprise Lockable front bezel (covers FlexBays), Front FlexBay NVMe drives are removable (hot swap).
Speakers	Internal Speaker; Optional Dell 2.0 stereo speaker systems available and Dell sound bar for select flat-panel displays	Manageability ³	AMT or vPro with DASH support Dell vPro Enhancements (Grasslake) SNMT/CIM vis OMCI Dell Command Suite
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 USB 3.1 (Gen 2) 10Gb/s Type C card (2 ports) 1 DP pass-through port Optional dual & quad display Teradici PCoIP remote workstation host PCIe cards Optional Thunderbolt 3 PCIe Card (2 ports) 1 DP pass-through port Optional Serial Port PCIe Card	Regulatory and 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
I/O Ports	Front 2 – USB 3.1 Gen 1 Type A 2 – USB 3.1 Type C 1 – Universal Audio Jack Internal 1 – USB 2.0 Type A 1 - 2 x 5 USB 2.0 header. (requires 3rd party splitter cable to support 2 x USB 2.0 Type A ports) 6 - SATA @6Gb/s plus 2 for optical Rear 6 – USB 3.1 Gen 1 Type A 1 – Serial 1 – RJ45 Network 2 – PS2 1 –Audio Line out 1– Audio Line in/Microphone	Warranty & Support Services ⁴	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
Chassis	HxWxD: 16.45" (417.9 mm) Width: 6.95" (176.5 mm) Depth: 20.4" (518.2 mm) Starting at Weight: 34lb/15.4kg Bays: (2) FlexBays can support up to 2x 3.5" or 2.5" drives each and (1) 5.25" FlexBay (can support 1 x 3.5" or 2 x 2.5" HDD/SSD drives as factory option or customer kit) (1) Slimline optical bay; (1) SD slot UHS II Class 3 with read only support (SW enabled) Available PCIe backplane FlexBay chassis supporting 1 - 4 x M.2/U.2 PCIe NVMe SSDs. Slots: All slots PCIe Gen 3: (2) PCIe x16, (1) PCIe x16 wired as x8, (1) PCIe x16 wired as x4, (1) PCIe x16 wired as x1, 1 PCI 32/33 Power Supply: 950W (input voltage 100VAC - 240VAC) –90% efficient (80PLUS Gold Certified) Externally accessible/removable/lockable		



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ISV certification applies to select configurations:

1 System memory may be used to support graphics, depending on system memory size and other factors.

2 Hard Drive capacity varies with preloaded material and will be less.

3 Systems Management Options: Intel® vPro Technology - Fully vPro-capable at point of purchase; the vPro systems management option requires vPro processors. Includes support for Intel Advanced Management Technology (AMT) 9.x. Intel® Standard Manageability - Fully enabled at point of purchase, the Intel Standard Management option is a subset of the AMT features. ISM is not upgradeable to vPro technology post-purchase. No Out-of-Band Systems Management - This option entirely removes Intel out of band systems (OOB) management features. The system can still support in band management. OOB management support through AMT cannot be upgraded post-purchase.

4 Availability and terms of Dell Services vary by region. For more information, visit Dell.com/servicecontracts/global; Limited Hardware Warranty available by writing Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see www.dell.com/warranty; Onsite Service after Remote Diagnosis: Remote Diagnosis is determination by online/phone technician of cause of issue; may involve customer access to inside of system 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 within 1 business day following completion of Remote Diagnosis. Availability varies. Other conditions apply.

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