

Dell recommends Windows®



Dell Precision T1650

Entry-level tower workstation designed for demanding workloads

Dell Precision™ Workstations

Precision is the key element that separates greatness from everything else. Dell Precision is your key tool for editing photos, drawing CAD images, working with web development tools architectural drawings or wringing the most from any performance intensive application. Our revolutionary workstation-class products offer voracious productivity, Independent Software Vender (ISV) certification¹, superb reliability, and harmonious manageability to maximize your productivity and dependability.

Built to work for you

Whether you're working with 2D or entry-level 3D designs you want a workstation that enables you to get the job done without breaking the budget. Dell Precision T1650 offers a variety of ISV-certified applications and system configurations, so you can rest easy knowing your professional-grade system can handle your workstation-class applications.

Evolve beyond the desktop

Tackle tough jobs that are beyond the capability of a standard desktop and take on your resource-consuming applications with powerful hardware options including:

- 3rd Generation Intel® Core™ Processors and Intel® Xeon® Processor E3-1200v2 Family with optional Intel vPro™ Technology
- Up to 32GB² of dual-channel ECC or 16GB of non-ECC memory⁴
- Intel Turbo Boost Technology⁵ offering outstanding performance for complex applications
- Speedy access to your data with integrated SATA 6Gb/s ports and RAID 0/1/5/10 options to facilitate data mirroring and data striping
- Intel Smart Response Technology⁸ for low-cost, high-performance storage
- Four USB 3.0 ports, two in front and two in back, for fast data transfer between external devices
- Integrated Intel HD graphics⁵, or choose from a broad selection of high-powered AMD FirePro® or NVIDIA® Quadro® professional-grade graphics options.

Reduce environmental impact

T1650 is EPEAT®-registered⁵ and offers ENERGY STAR® 5.2 configurations, including 80 PLUS®-registered Gold power supplies. This can help lower your impact on the environment and can also help reduce your operating energy costs.

Designed with growth in mind

A new industrial design and tool-less features enable you to perform service and upgrades with ease. Dell Precision T1650 chassis incorporates an array of features to make it a versatile addition to your infrastructure, offering:

- Tool-less chassis and a straightforward, clutter-free interior providing easy access to components
- Conveniently placed handholds to aid in moves and deployments
- Up to two 3.5" or four 2.5" tool-less hard drives enabling you to process large amounts of data with ease

Maintain security

Help keep your critical data safe with the Dell Precision T1650. Optional Dell Data Protection | Encryption utilizes either hardware-based Full Volume Encryption via a hardware encryption accelerator or software-based data-centric encryption. Alternatively, you can safe house your data with self-encrypting drives.

Beyond-Your-Expectations Service

If your Dell Precision workstation has an issue, rest assured that it is covered by one of our optional service options. Dell can get you up and running quickly and help you stay productive with responsive service and technicians.

- Dell Configuration Services¹¹ incorporates hardware, images, applications, peripherals and documents with your system as it's built to help simplify and speed up deployment, while improving consistency and compatibility.
- Our premium support service, Dell ProSupport™¹¹, features 24/7 direct telephone access to advanced-level technicians based in your region to end downtime and resolve problems quickly.
- The Dell ProSupport Collaborative Support¹¹ feature provides assistance even if you have a problem with non-Dell hardware or software. We will leverage our relationships with select third-party vendors and act as your single point of contact to help resolve your issue.

Dell Precision T1650 Workstation Technical Specifications					
Processors	Intel® Xeon® Processor E3-1200v2 Family; 3rd generation Intel® Core™ i7 and i5; 2nd generation Intel Core i3; Turbo Boost Technology 2.0 ⁵ and Intel Integrated HD Graphics on select processors; optional Intel vPro™ technology				
Operating Systems	<ul style="list-style-type: none"> Windows® 8 Pro (64-Bit) Genuine Windows® 7 Ultimate 32-Bit; Genuine Windows® 7 Ultimate 64-Bit Genuine Windows® 7 Professional 32-Bit; Genuine Windows® 7 Professional 64-Bit Red Hat® Enterprise Linux® WS v.6.2 EM64T (Also certified to run Red Hat Enterprise Linux Version 5.8 64-Bit) Ubuntu 11.10 Linux (China only) 				
Chipset	Intel® C216				
Memory ^{2, 4}	Up to 32GB 1600MHz ECC or 16GB non-ECC DDR3 memory; 4 DIMM slots				
Graphics ⁴	Support for one PCI Express® x16 Gen 3 graphic card up to 75W (total for graphics): <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; vertical-align: top;">High End 3D N/A</td> <td style="width: 25%; vertical-align: top;">Mid-range 3D NVIDIA® Quadro® 2000</td> <td style="width: 25%; vertical-align: top;">Entry 3D AMD FirePro V4900 NVIDIA Quadro K600 NVIDIA Quadro 600 NVIDIA Quadro 410</td> <td style="width: 25%; vertical-align: top;">Professional 2D (not ISV certified) AMD FirePro 2270 Intel HD Graphics P4000/4000⁵ Intel HD Graphics 2500⁵ NVIDIA Quadro NVS™ 510 NVIDIA Quadro NVS™ 310 NVIDIA Quadro NVS™ 300</td> </tr> </table>	High End 3D N/A	Mid-range 3D NVIDIA® Quadro® 2000	Entry 3D AMD FirePro V4900 NVIDIA Quadro K600 NVIDIA Quadro 600 NVIDIA Quadro 410	Professional 2D (not ISV certified) AMD FirePro 2270 Intel HD Graphics P4000/4000 ⁵ Intel HD Graphics 2500 ⁵ NVIDIA Quadro NVS™ 510 NVIDIA Quadro NVS™ 310 NVIDIA Quadro NVS™ 300
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Storage Options ⁶	Up to two 3.5" or four 2.5" SATA hard drives. Intel Smart Response Technology (SRT) ⁸ supported with select hard drives: <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;">SATA 3.0Gb/s 7200RPM Up to 2.0TB</td> <td style="width: 33%; vertical-align: top;">SATA 6.0Gb/s SSD 256GB</td> <td style="width: 33%; vertical-align: top;">Self Encrypting Drive (SED) 320GB</td> </tr> </table>	SATA 3.0Gb/s 7200RPM Up to 2.0TB	SATA 6.0Gb/s SSD 256GB	Self Encrypting Drive (SED) 320GB	
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Storage Controller	Integrated: Intel Rapid Storage Controller 11.0 supporting SATA 6Gb/s and host based RAID 0/1/5/10				
Communications	Integrated: Integrated Intel 82579 Gigabit Ethernet controller with Remote Wake UP, PXE and Jumbo frames support Optional: Broadcom NetXtreme 10/100/1000 Gigabit Ethernet controller (PCI Express card)				
Audio Controller	Integrated Realtek ALC269VB High Definition Audio				
I/O Ports	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;">Front 2 - USB 2.0 2 - USB 3.0 1 - Microphone 1 - Headphone</td> <td style="width: 33%; vertical-align: top;">Internal 1 - USB 2.0 2 - SATA 6.0Gb/s 2 - SATA 3.0Gb/s</td> <td style="width: 33%; vertical-align: top;">Rear 4 - USB 2.0 2 - USB 3.0 2 - PS2 2 - DisplayPort 1 - VGA 1 - RJ45 1 - Serial 1 - Audio line-in / microphone 1 - Audio line-out</td> </tr> </table>	Front 2 - USB 2.0 2 - USB 3.0 1 - Microphone 1 - Headphone	Internal 1 - USB 2.0 2 - SATA 6.0Gb/s 2 - SATA 3.0Gb/s	Rear 4 - USB 2.0 2 - USB 3.0 2 - PS2 2 - DisplayPort 1 - VGA 1 - RJ45 1 - Serial 1 - Audio line-in / microphone 1 - Audio line-out	
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Mid-Tower Chassis	Dimensions: (HxWxD) 14.17" x 6.89" x 17.13"; 360mm x 175mm x 435mm Bays: Two internal 3.5" hard drive bays; two external 5.25" optical bays Slots: One PCIe x16 Gen 3; one PCIe x16 Gen 2 wired x4; one PCIe x1; One PCI 32bit/33MHz Power Supply: 320W 90% efficient (80 Plus® Gold Certified); 275W 65% efficient				
Monitor Compatibility	Recommended with high-performance Dell UltraSharp™ widescreen displays from 22" to 30" viewable. Also compatible with Dell Professional and E Series widescreen & standard displays from 17" to 24" viewable; analog flat-panel displays also available				
Keyboard	Dell Entry keyboard; or optional Dell KB522 Wired Business Multimedia Keyboard (good); Dell NY606 SmartCard USB Keyboard (better); Logitech MK710 Wireless Keyboard and Mouse Combo (best)				
Mouse	Dell USB Optical Mouse or optional Dell WM311 3-Button Wireless Mouse (good); Microsoft Corporation U5K-00001 Explorer Touch Mouse – Black (better); Logitech 910-001105 MX Performance Wireless Mouse (best).				
Speakers	Optional Speakers: Internal speaker; Dell soundbar; two- and three-piece stereo system				
Storage Devices	Up to two optional optical drives: DVD-ROM; DVD+/-RW; BD-RE Optional 19-in-1 media card reader (installed in 5.25" bay)				
Security	Trusted Platform Module 1.2 (TPM 1.2) ⁷ ; Optional intrusion switch; Setup/BIOS Password; I/O Interface Security; Kensington® lock slot, Padlock ring, lockable power supply; Dell Data Protection Encryption solution ⁷				
Environmental and Regulatory	Energy Star® 5.2 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 and certifications, see Dell's regulatory and compliance homepage at dell.com/regulatory_compliance				
Warranty and Support Services	Limited Hardware Warranty⁹: Standard 1-year Next Business Day On Site Service after Remote Diagnosis ¹⁰ Optional: Optional Dell ProSupport and Dell ProSupport with Mission Critical offers premium support from expert technicians and 24x7 global availability and same day business response options for mission critical situations.				

Learn more at dell.com/precision

1. ISV certification applies to select configurations

2. A 64-bit operating system is required to support 4GB or more of system memory.

3. See epeat.net for specific registration rating/status by country.

4. GB means 1 billion bytes and TB equals 1 trillion bytes; significant system memory may be used to support graphics, depending on system memory size and other factors.

5. Intel Turbo Boost mode only available on Xeon, Core i7 and Core i5 processors. Intel Integrated HD graphics only available with select processors.

6. GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

7. Available in select regions.

8. Intel Smart Response Technology requires proper storage configuration of one or more hard drives and 32GB SSD. Depending on system configuration, your results may vary.

9. For copy of Ltd Hardware Warranty, write Dell USA LP, Attn: Warranties, One Dell Way, Round Rock, TX 78682 or see www.dell.com/warranty

10. 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.

11. Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicesdescriptions.

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and Windows Vista are trademarks or registered trademarks of Microsoft Corporation in the U.S. and other countries.

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