



Precision 3680 Tower

Precision 3680 is the world's fastest workstation for single-threaded performance.*

Amazing single-threaded performance in a scalable tower design

Precision 3680 Tower



Intelligent performance

The Precision 3680 is the world's fastest workstation for single-threaded applications. Experience blistering power with Unlimited Turbo Duration for 125W processors or take advantage of enhanced power levels for 65W CPUs. Configure up to 450W professional graphics from NVIDIA or AMD, with dual graphics options available. Our new Premium Cooling Solution and enhanced side panel venting keeps the system cool and quiet, even at maximum performance.

Immersive productivity and design

The Precision 3680 tool-less chassis and large motherboard make accessing and upgrading components a breeze. The tower offers scalability with support for up to 128GB memory, 28TB total storage, and 3 PCIe slots. Connect your entire ecosystem with a wide variety of ports and slots and support for 4K and 8K monitors. Experience seamless productivity with native 1GbE Ethernet, WiFi 6E and Bluetooth 5.3.

Mission critical reliability and security

All Precision workstations are tested and certified by leading software vendors, so you can rest easy knowing your system will perform the way you expect it to. Take full advantage of all your application's latest features, including AI. To further reliability we offer ECC memory and Dell Reliable Memory Technology Pro, reducing the chance for the "blue screen of death". Also, with the industry's most secure commercial PCs* you are protected with unique built-in security features that our competitors cannot match. Layer on advanced threat protection with industry-leading partner software.

Smart performance that scales.

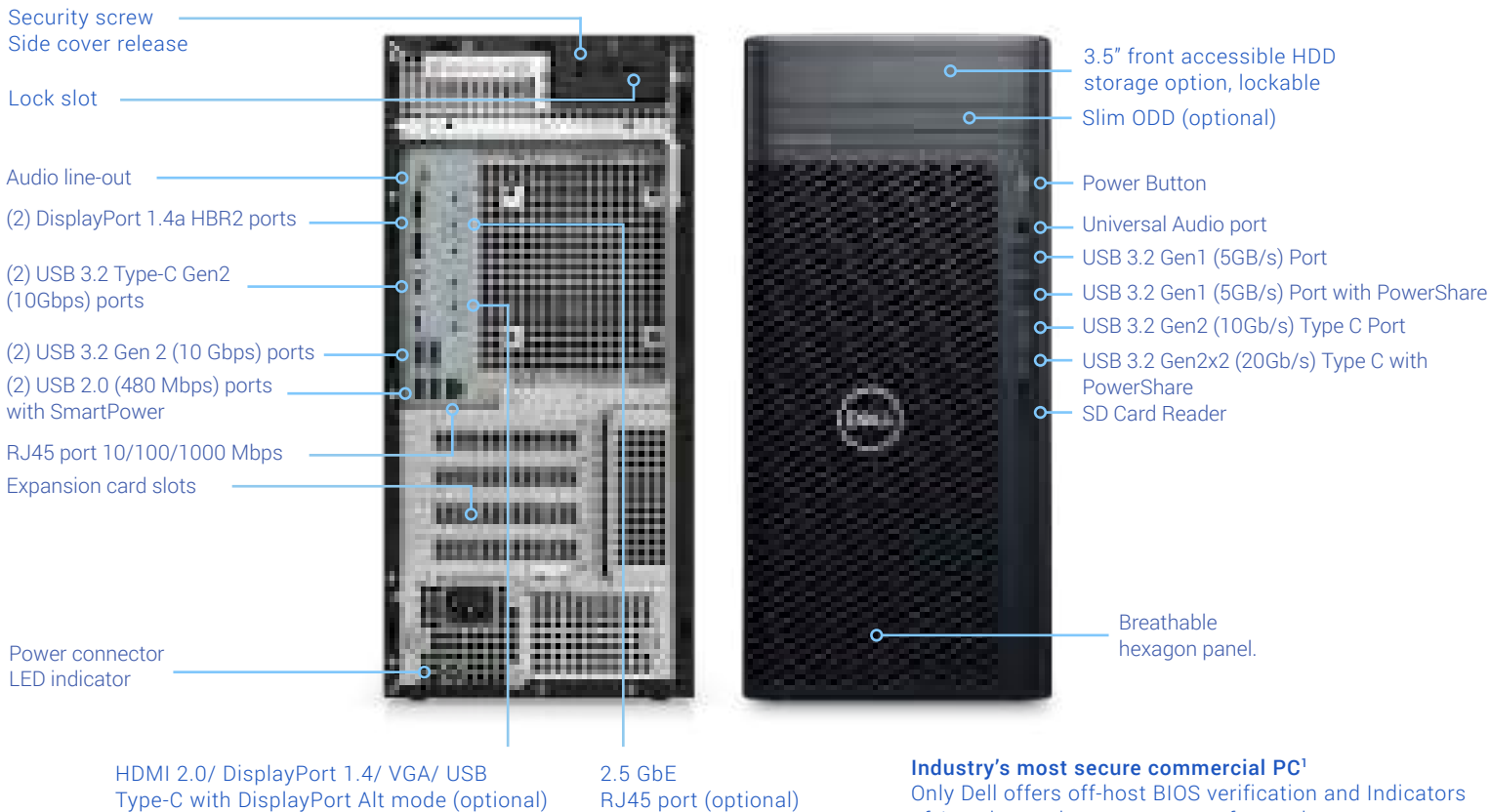
A cost-efficient tower design featuring outstanding performance, scalability, improved cooling and built-in AI responsiveness.

Intelligent Performance

Up to 14th Gen Intel® Core™ i9K Core (8P+16E) Processors (125W), Up to 450W Professional Graphics from NVIDIA or AMD, up to 28TB storage, RAID support, up to 128GB or up to 4400MT/s ECC and non-ECC DDR5 memory

Reliability

ISV Certified
ECC Memory
Reliable Memory Technology Pro



Industry's most secure commercial PC¹

Only Dell offers off-host BIOS verification and Indicators of Attack to reduce exposure to future threats.

Secured Component Verification, offered only by Dell, helps ensure PCs are secure from factory to first boot.

Dell and Intel reduce the attack surface. The latest Intel vPro-based PCs provide an estimated 70% attack surface reduction.²

Sustainability

This workstation has achieved the EPEAT Gold Climate+ designation, meeting industry best practices for decarbonization.

[Click here to see the 3D Product Viewer](#)

¹ Based on Dell internal analysis, September 2023. Applicable to PCs on Intel processors. Not all features available with all PCs. Additional purchase required for some features.

² The latest Intel vPro based PCs provide an estimated 70% attack surface reduction compared to four-year-old devices. Based on IOActive's "Intel vPro 13th Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13th Gen Intel Core processors against four-year-old Intel-based PCs on Windows OS. Details at www.intel.com/performance-vpro. Results may vary.

Dell Optimizer for Precision

Dell Optimizer is our AI-based optimization software that learns and responds to the way you work, designed to automatically improve application and device performance, PC and accessory battery run-time, audio/video settings and privacy – all in the background while you're working.



Get up to 18% in power savings¹

Save energy without sacrificing performance for ultimate efficiency with Power Optimization. Achieve power savings when you set your PC to Quiet Mode on your thermal management settings – giving you up to 2.4 watts of power savings compared to default mode.¹

Enhance application speed

Experience a boost in performance of your foreground application when running multiple programs simultaneously with Application Optimization.

Experience 2x faster network performance²

Network Optimization provides the world's first simultaneous multi-network connection for faster data and video downloads³, and joins the best network⁴ available.

Up-level audio for a better collaboration experience

Intelligent Audio senses your surroundings and improves the conferencing experience by removing unwanted sounds, alerts you when your voice quality is poor, and provides a better collaboration experience for you and all call participants.

Access personalized insights

Our Analytics feature monitors the utilization of your PC by analyzing your system's battery, storage, CPU and memory behavior to review your system's reliability and problem history, so you can identify bottlenecks quickly.

An intelligent ecosystem

Enjoy easy pairing and management of your Dell monitors and accessories with the integration of Dell Display Manager and Dell Peripheral Manager.

▶ [Click here to learn more about Dell Optimizer](#)

1. This is based on a Dell internal study, testing power and performance within our Dell Optimizer power module. White paper published November 2022 <https://www.delltechnologies.com/asset/en-us/solutions/business-solutions/industry-market/maximizing-power-efficiency-with-dell-optimizer-a-case-study.pdf>

2. Based on A Principled Technologies Report commissioned by Dell that ran PC performance benchmarks on Dell Latitude 9430 laptops and OptiPlex 7400 all-in-one desktop PCs: Improve PC app performance, battery charging, and end-user experiences with Dell Optimizer, June 2023

3. Simultaneous multi-network connection (or Connection based teaming) is a new connectivity feature under ExpressConnect. It simultaneously sends and receives data and video traffic using two wired or wireless connections. Based on Dell internal analysis

4. Best network selection based on signal strength, channel congestion, router type and others. Network suggestions based on user credentials.

Simplify IT

Our secure¹ and simple to manage offerings make IT management a breeze

Improve fleet-wide security with Dell Trusted Workspace

Reduce the attack surface with the industry's most secure commercial PCs¹ with protections competitors cannot match:

Be secure from first boot

Rigorous, state-of-the-art supply chain controls and Dell-unique Secured Component Verification reduce the risk of product tampering.

Spot ticking timebombs

Early-alert feature Indicators of Attack, offered only by Dell, scans for behavior-based threats.

Stay protected from evolving threats

Only Dell offers off-host BIOS and firmware verification, providing greater security than other PCs.¹ Comprehensive security support further minimizes the risk of attack in-use.

Layer on advanced threat protection with software from our ecosystem of best-of-breed partners (e.g., CrowdStrike, Absolute).

[Learn More >](#)

Manage your fleet of PCs - reliably and easily

Help secure and optimize your endpoints and deliver end-user productivity with Dell Manageability Solutions

Dell Trusted Update Experience makes it simple to update endpoints with the latest BIOS, driver, and firmware versions.

Dell is the only Top-5 PC vendor that:



Publishes² a device drivers and downloads release schedule: IT Admins can deploy fleet-wide device updates on a predictable timeline.



Performs³ integrated validation of all driver and BIOS modules in an update: IT Admins can expect a trusted, system compatible update deployment, across a fleet of devices.

[Learn More >](#)

DELL Technologies

A P E X

Experience the flexibility to transform your IT and deploy the latest technologies at predictable costs



Dell APEX Managed Device Service

Designed for small and medium business with limited or no in-house IT, this fully managed subscription includes a team of IT experts that keep business devices up-to-date and secure, with no year-long commitment required (US only.)



Dell APEX PC-as-a-Service

Designed to meet the specific IT needs of larger companies, this fully customizable subscription covers everything – devices, software and services available from one-to-five-year terms.

[Learn More >](#)

Fixed Workstation Solution

Create your ideal workspace with these recommended accessories.



Dell 27 Monitor - P2723D

Stay focused on a 27-inch QHD monitor optimized to deliver high performance details and clarity.



Dell Slim Soundbar - SB521A

World's slimmest and lightest soundbar offers exceptional audio clarity and easy magnetic attachment to your Dell monitors, ensuring a clutter-free desk.



3Dconnexion SpaceMouse Wireless - 3DX-700066

3Dconnexion's patented 6-Degrees-of-Freedom (6DoF) sensor is specifically designed to manipulate digital content or camera positions in industry-leading CAD applications.



Dell Webcam - WB3023

Collaborate confidently with this 2K QHD webcam that's essential for everyday use.



Dell Pro Wireless ANC Headset - WL5024

Experience enhanced communication with this wireless AI-based microphone and Hybrid Active Noise Cancellation headset, designed to reduce background noise and ensuring comfort to bring your productivity to the next level.

▶ [Learn more about our Workspace Solutions](#)



Sustainability on Dell Precision 3680 Tower

Built with sustainable materials

Your Precision 3680 tower is designed with 38% recycled plastic including post-consumer recycled plastic and closed loop ITE-derived plastic.¹

Post-consumer recycled plastic: 36%

Closed loop ITE derived plastic: 2.7%

ITE derived post-consumer recycled plastic: Materials that are derived from discarded products listed under IT and Telecommunications Equipment category in Annex II, Part 3 of EU Directive 2012/19/EU (the WEEE Directive)⁴ and televisions.

Packaging innovation

This workstation ships in packaging made with at least 92.7% recycled or renewable content.²

Excluding EMEA, CCC(alternates). Contains 91% recycled content and 1.7% renewable materials. Renewable materials in the form of sustainably forested fibers. Percentages may vary slightly by region. Excludes optional items added to order and included in box

Environmental Certifications & Registrations

Meeting environmental standards demonstrates how our products adhere to energy-efficiency specifications and other extensive climate-related standards. This workstation is Certified ENERGY STAR[®] 8.0, TCO certified, generation 9 and EPEAT gold registered with Climate+ designation.⁴



See how we are reducing the impact of our products and solutions
Dell.com/Sustainable-Devices

¹48.3 % recycled content and 47.5% renewable materials in the form of sustainably sourced fibers. Percentages may vary slightly by region. Excludes optional items added to order and included in box.

²**Based on internal analysis, November 2023. Percentage based on plastic weight.

³1 Percentage is based on system plastic weight and may vary by model. Based on internal analysis, January 2024.

⁴Based on internal analysis, January 2024. Based on EPEAT Climate+ Designations achieved in all applicable countries. EPEAT registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status and tier levels

FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 3680 Tower
PROCESSOR ¹	<p>14th Gen Intel® Core™ i9-14900K vPro® (36 MB cache, 24 cores, 32 threads, 3.2 GHz to 6.0 GHz Turbo, 125W) 14th Gen Intel® Core™ i9-14900 vPro® (36 MB cache, 24 cores, 32 threads, 2.0 GHz to 5.8 GHz Turbo, 65W) 14th Gen Intel® Core™ i7-14700K vPro® (33 MB cache, 20 cores, 28 threads, 3.4 GHz to 5.6 GHz Turbo, 125W) 14th Gen Intel® Core™ i7-14700 vPro® (33 MB cache, 20 cores, 28 threads, 2.1 GHz to 5.4 GHz Turbo, 65W) 14th Gen Intel® Core™ i5-14600K vPro® (24 MB cache, 14 cores, 20 threads, 3.5 GHz to 5.3 GHz Turbo, 125W) 14th Gen Intel® Core™ i5-14600 vPro® (24 MB cache, 14 cores, 20 threads, 2.7 GHz to 5.2 GHz Turbo, 65W) 14th Gen Intel® Core™ i5-14500 vPro® (24 MB cache, 14 cores, 20 threads, 2.6 GHz to 5.0 GHz Turbo, 65W) 14th Gen Intel® Core™ i3-14100 (12 MB cache, 4 cores, 8 threads, 3.5 GHz to 4.7 GHz Turbo, 60W)</p> <p>Processor Cooling Options: 1. Standard CPU Air Cooler (for up to 65W CPUs) 2. Premium CPU Air Cooler with Air Shroud (for all CPUs) 3. Enhanced Performance for 65W CPUs requires Premium CPU Air Cooler with Air Shroud</p>
OPERATING SYSTEM ¹	<p>Windows 11 Home Windows 11 Pro Windows 11 Pro National Education Windows 11 Pro for Workstations Ubuntu® Linux® 22.04 LTS</p>
MEMORY ^{1,2,3}	<p>4 DIMM Slots: Up to 128 GB or up to 4400 MT/s ECC and Non-ECC DDR5 Maximum speed: 4400 MT/s Maximum capacity: 128 GB</p> <p>8 GB: 1 x 8 GB, DDR5, 4400 MT/s, Non-ECC 16 GB: 2 x 8 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 16 GB: 1 x 16 GB, DDR5, 4400 MT/s, Non-ECC 32 GB: 2 x 16 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 32 GB: 4 x 8 GB, DDR5, 4000 MT/s, Non-ECC, dual-channel 64 GB: 2 x 32 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 64 GB: 4 x 16 GB, DDR5, 4000 MT/s, Non-ECC, dual-channel 128 GB: 4 x 32 GB, DDR5, 3600 MT/s, Non-ECC, dual-channel</p> <p>16 GB: 1 x 16 GB, DDR5, 4400 MT/s, ECC 32 GB: 2 x 16 GB, DDR5, 4400 MT/s, ECC, dual-channel 64 GB: 2 x 32 GB, DDR5, 4400 MT/s, ECC, dual-channel 64 GB: 4 x 16 GB, DDR5, 4000 MT/s, ECC, dual-channel 128 GB: 4 x 32 GB, DDR5, 3600 MT/s, ECC, dual-channel</p> <p>Note: Actual memory speed depends on the memory configuration. Maximum memory speed varies by the following configuration on each channel. If the 2 DIMM configuration is not symmetrical, the maximum speed may drop. 4400 MT/s: 1 DIMM-1R/2R 4000 MT/s: 2 DIMM-1R 3600 MT/s: 2 DIMM-2R</p>
PRIMARY HARD DISK DRIVE ^{1,5}	<p>Support for up to (3) M.2 2280 PCIe NVMe SSD on motherboard and up to (3) 3.5-inch SATA HDDs Front accessible 3.5-inch SATA HDD (with lockable door and key) available with specific storage configurations Support for Intel® Ready Mode™ technology Support for up to (1) additional PCIe SSD on Dell Precision Ultra-Speed Duo drive with active cooling RAID 0/1/5 available</p> <p>1 TB, 7200 RPM, 3.5-inch, SATA, HDD 2 TB, 7200 RPM, 3.5-inch, SATA, HDD 4 TB, 5400 RPM, 3.5-inch, SATA, HDD 4 TB, 7200 RPM, 3.5-inch, SATA, Enterprise HDD Customer Kit Only 8 TB, 7200 RPM, 3.5-inch, SATA, Enterprise HDD Customer Kit Only</p> <p>256 GB, M.2 2230, Gen 4 PCIe NVMe, SSD, Class 35 512 GB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 1 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 2 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 4 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 512 GB, M.2 2280, Gen 4 PCIe NVMe, SSD, Self-Encrypting 1 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Self-Encrypting</p>
VIDEO CARD	<p>Intel® UHD Graphics 730 supported for 14th Gen Intel® Core™ i3-14100 processor Intel® UHD Graphics 770 supported for remaining processors</p> <p>NVIDIA® RTX™ 6000 Ada Generation, 48 GB GDDR6 NVIDIA® RTX™ 5000 Ada Generation, 32 GB GDDR6 NVIDIA® RTX™ 4500 Ada Generation, 24 GB GDDR6 NVIDIA® RTX™ 4000 Ada Generation, 20 GB GDDR6 NVIDIA® RTX™ 2000 Ada Generation, 12GB GDDR6</p> <p>NVIDIA® T1000, 8 GB GDDR6 NVIDIA® T1000, 4 GB GDDR6 NVIDIA® T400, 4 GB GDDR6</p> <p>AMD Radeon™ Pro W7900, 48 GB GDDR6 AMD Radeon™ Pro W7600, 8 GB GDDR6 AMD Radeon™ Pro W7500, 8 GB GDDR6 AMD Radeon™ Pro W6400, 4 GB GDDR6 AMD Radeon™ Pro W6300, 2 GB GDDR6</p> <p>Note: One PCI Express x16 Gen5 slot supporting graphics cards up to 450 W (Total power available for Discrete Graphics cards) Some cards are available in Dual configurations</p>
CASE COLOR	Dell Standard Black

FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 3680 Tower
PRODUCTIVITY SW ¹	Microsoft Office 30-day Trial Microsoft Office Home and Business 2021 Microsoft Office Professional 2021 Dell Optimizer for Precision Premier Color Dell Support Assist (Exaclibur) DDRE (Dell Developed Recovery Environment) Intel WiFi Direct Dell Support Center Teradici Soft Host (Cloud) and Client Validation (CAS+)
SECURITY SW	McAfee® Small Business Security 30-day Trial McAfee® Small Business Security 12-month Subscription McAfee® Small Business Security 36-month Subscription Security software per software functional plan/cycle list Dell Data Protection Personal Edition (DDP E PE) or Dell Encryption Personal (Future Name) Dell Data Protection Enterprise Edition (DDP E EE) or Dell Encryption Enterprise (Future Name) Dell Data Protection External Media Edition (DDP E EME) or Dell Encryption External Media (Future Name) Data Leakage Protection (DLP) or Dell Data Guardian (new name) Dell Data Protection Bitlocker Manager (DDP BLM) VMWare Airwatch Dell Data Protection Endpoint Security Suite or Dell Endpoint Security Suite Pro Dell Data Protection Endpoint Security Suite Enterprise or Dell Endpoint Security Suite Enterprise Mozy (Cloud Backup) Dell Threat Defense RSA SecureID RSA NetWitness Endpoint Absolute Data and Device Security D-Pedigree (Secure Supply Chain Functionality) Microsoft Windows Bitlocker Manager Support for Encryption SED HDD's (Opal FIPS and non FIPS, SATA, PCIe) Support eDRIVE Storage including RAID Support UEFI-Preboot Authentication (PBA) solution for Windows 10 Local HDD data wipe via BIOS ("Secure Erase") BIOS Administrative Password BIOS Password BIOS HDD password option (default off) Windows 10 Device Guard and Credential Guard BIOS Data Port On/Off - Data Port disablement Intel Secure Boot (TXT + TPM) - Launch control policy Intel's Identity Protection (IPT) Intel Guard Technologies & Secure Key Secure update of pre-boot password(s) via remote BIOS update
WARRANTY ^{8,9}	1Y Basic Hardware Warranty Service with Onsite Service after Remote Diagnosis 2Y Basic Warranty Extension 3Y Basic Warranty Extension 4Y Basic Warranty Extension 5Y Basic Warranty Extension 1Y ProSupport with Next Business Day Onsite service 2Y ProSupport with Next Business Day Onsite service 3Y ProSupport with Next Business Day Onsite service 4Y ProSupport with Next Business Day Onsite service 5Y ProSupport with Next Business Day Onsite service 1Y ProSupport Plus for Client with Next Business Day Onsite service 2Y ProSupport Plus for Client with Next Business Day Onsite service 3Y ProSupport Plus for Client with Next Business Day Onsite service 4Y ProSupport Plus for Client with Next Business Day Onsite service 5Y ProSupport Plus for Client with Next Business Day Onsite service
ACCIDENTAL DAMAGE SERVICES	1-year Accidental Damage Service 2-year Accidental Damage Service 3-year Accidental Damage Service 4-year Accidental Damage Service 5-year Accidental Damage Service
KEYBOARD ¹	N/A
PORTS	Front: USB 3.2 Gen 1 (5 Gbps) port USB 3.2 Gen 1 (5 Gbps) port with PowerShare USB 3.2 Gen 2 (10 Gbps) Type-C® port USB 3.2 Gen 2x2 (20 Gbps) Type-C® port with PowerShare Universal Audio port Rear: (2) DisplayPort 1.4a HBR2 ports (2) USB 2.0 (480 Mbps) ports with SmartPower RJ45 (1 GbE) Ethernet port (2) USB 3.2 Gen 2 (10 Gbps) ports (2) USB 3.2 Gen 2 (10 Gbps) Type-C® ports Audio line-out Optional Port (VGA, HDMI 2.0, DP++ 1.4a HB3, USB 3.2 Gen 2 (10 Gbps) Type-C® with DP-Alt mode) RJ45 (2.5 GbE) Ethernet port (optional)
OPTICAL DRIVE OPTIONS	8x DVD-ROM, 9.5 mm 8x DVD+/-RW, 9.5 mm Integrated Smart Card Reader with Contact and Contactless Support (CAC/PIV)

FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 3680 Tower
SLOTS	Front: SD-card slot Rear: Full-height Gen5 PCIe x16 slot Full-height Gen3 PCIe x4 slot Full-height Gen4 PCIe x4 open-ended slot
DIMENSIONS	US Height: 14.68 in. (372.90 mm) Width: 6.81 in. (173.00 mm) Depth: 16.54 in. (420.20 mm) Weight (minimum): 16.71 lb (7.58kg) Weight (maximum): 35.38 lb (16.05 kg) Rest of the world Height: 372.90 mm (14.68 in.) Width: 173.00 mm (6.81 in.) Depth: 420.20 mm (16.54 in.) Weight (minimum): 7.58kg (16.71 lb) Weight (maximum): 16.05 kg (35.38 lb)
AUDIO N SPEAKERS¹	Stereo speakers with Realtek ALC3246-CG Audio Controller Internal speakers (optional)
CHASSIS	Performance Tower
WIRELESS	Qualcomm® Wi-Fi 6E WCN6856-DBS, 2x2, 802.11ax, MU-MIMO, Bluetooth® 5.3 wireless card Intel® Wi-Fi 6E AX211, 2x2, 802.11ax, MU-MIMO, Bluetooth® 5.3 wireless card
POWER	300W Platinum internal power supply unit (80PLUS Platinum Certified) 500W Platinum internal power supply unit (80PLUS Platinum Certified) 1000W Platinum internal power supply unit (80PLUS Platinum Certified) Note: 300W Power Supply chassis can only support the Standard CPU Air Cooler
REGULATORY^{2,11}	Product Safety, EMC and Environmental Datasheets Dell Regulatory Compliance Home Page Responsible Business Alliance Policy
CHIPSET	Intel® W680
HARDWARE SECURITY	Security-cable slot Padlock loop Lockable Cable Cover (optional) Lockable Bezel and Key for Front Accessible SATA HDD (optional) Chassis intrusion switch Trusted Platform Module TPM 2.0 Intel Integrated TPM
RECOMMENDED ACCESSORIES	Mouse : 3Dconnexion SpaceMouse Wireless - 3DX-700066 Audio and Speakers : Dell Slim Soundbar - SB521A Dell Pro Wireless ANC Headset - WL5024 Display: Dell 27 Monitor - P2723D Keyboards: Dell Pro Wireless Keyboard and Mouse - KM5221W Stands and Mounts: Dell Single Monitor Arm - MSA20 Webcam: Dell UltraSharp Webcam - WB7022 Dell Webcam - WB3023 Security Devices: Precision Tower Cable Cover
SYSTEM MANAGEMENT	Intel vPro® Intel vPro® over wireless Intel Standard Manageability (ISM) No OOB Management / ME Disabled DASH (through AMT and ISM) OOB Diags Error Code Push Dell Command Integration Suite for SCCM (DCIS) Dell Command Intel® vPro® Out of Band (DCIV) Dell Command Monitor (DCM) - Asset Inventory and Alerts Management Configuration Management: support hardware configuration management including: - BIOS Configuration via Dell Command Configure and Dell Command PowerShell Provider - AMT Configuration - Dell Command Monitor configuration features - CIM configuration features
CONFIGURATION SERVICES	Factory image load BIOS customization Hardware customization Asset Tagging and Reporting
ADD-IN CARDS	Serial Port PCIe Card i226 PCIe x1 2.5 GbE NIC Card Thunderbolt 4 PCIe Card Zoom Ultra-speed Card WLAN External Antenna AIC

FEATURE	TECHNICAL SPECIFICATION	DESCRIPTION
MODEL NUMBER ¹	Precision 3680	
HARDWARE & FIRMWARE SECURITY (INCLUDED)	Dell Trusted Device	Generates insights into the security state of a platform, monitoring changes to BIOS attributes, detecting possible tampering of BIOS firmware, and more.
	Dell SafeBIOS	Verify the integrity of the BIOS with tamper detection and secure, off-host BIOS image capture.
	Dell SafeBIOS Indicators of Attack	Scan for behavior-based threats for early detection by enabling telemetry integration with popular third-party security and endpoint management solutions. <i>Includes Microsoft Intune, Carbon Black Cloud, CrowdStrike, Splunk.</i>
	Dell SafeBIOS Common Vulnerabilities & Exposures (CVE) Detection	Identify and address known BIOS vulnerabilities and patch devices swiftly. <i>*Available early 2024.</i>
HARDWARE & FIRMWARE SECURITY (OPTIONAL)	Dell SafeID	<p>*Secure end-user credentials. This unique hardware-based security solution provides a hardened and secure bank for storing and processing user credentials. Dependent on model. Credential security options may include:</p> <ul style="list-style-type: none"> Secure interaction with Imprivada for authenticating credentials on multi-user devices Finger Print Reader in Power Button tied to ControlVault 3 ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification Contacted Smart Card and ControlVault 3 Contactless Smart Card, NFC, and ControlVault 3 SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL FIPS 201 Full Scan Finger Print Reader and ControlVault Trusted Platform Module (TPM) 2.0 discrete FIPS 140-2 certification for TPM*
	Dell Secured Component Verification	Provides assurance that the device and its components remain secure from factory to first boot. On-device and cloud-based options available. Availability varies by region.
	Tamper-evident packaging	Detect tampering with this supply chain assurance offering. Availability varies by region.
	Hard drive wipes	Sanitize the hard drive in accordance with National Institute of Standards and Technology (NIST) guidelines with this supply chain assurance offering. Availability varies by region.
	Dell SafeShutter	Ensure user privacy with webcam shutter.
	Intel ME Verification	Verify the integrity of critical firmware using a secure off-host source. Requires Intel vPro.
	Chassis intrusion switch	Remotely detects hardware tampering and is integrated with Dell SafeBIOS Indicators of Attack.
	Kensington Security Slot™	<p>*Device locking option helps reduce the risk of a data breach. Standard slot that can be paired with a standard security cable lock. Spec varies by model:</p> <ul style="list-style-type: none"> Dell Fixed Workstations (Desktops): Kensington Security Slot™ (T-bar) Dell Laptops: Kensington Security Slot™ (Wedge)*
	Fingerprint reader	Fingerprint reader in Power button tied to ControlVault 3+ secures end-user credentials.
	OPAL drive / Self-encrypting drive (SED)	Hardware-based full disk encryption that protects user data without storing encryption keys in RAM where it can be accessed by malicious parties.
	SPI Flash Tamper Detection Circuit	Detects and prevents tampering with BIOS SPI flash chips on the motherboard.
	SOFTWARE SECURITY (OPTIONAL)	Dell SafeGuard & Response: CrowdStrike, Carbon Black, Secureworks
Dell SafeData: Absolute		Self-healing for applications and networks
Dell SafeData: Netskope		Cloud and network data protection
McAfee Business Protection		Simple, automated, all-in-one security made for small businesses

1. Offering may vary by region. Some items may be available after product introduction. For complete details, refer to the Owner's Manual published on www.dell.com/support.

2. System Memory and Graphics: Significant system memory may be used to support graphics, depending on system memory size and other factors.

3. 4GB or Greater System Memory Capability: A 64-bit operating system is required to support 4GB or more of system memory

4. Particular versions of Microsoft Windows may not support the full Bluetooth 4.2 functionality

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

6. TPM is available in selected regions.

7. Please refer to www.epeat.net for specific country registration rating and participation.

8. Limited Hardware Warranty: 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.

9. 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.

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

11. For complete listing of declarations and certifications, refer to the Dell Regulatory and Environmental Datasheet found in the Manuals section of Product Support information www.dell.com/support/home/us/en/19.