

Built for Power Users and light design work

Precision 3590

# Work anywhere with a light, powerful workstation.

An ultra-mobile workstation that is great for multi-tasking across collaboration, business, and office applications.

# Privacy Shutter, Fast Sign-in

Up to FHD HDR IR camera with Al-based proximity sensors, intelligent noise canceling microphone.

# 4G LTE, 5G FirstNet Certified

WiFi 6E, 4G LTE, 5G LTE with FirstNet Certification, Bluetooth 5.3

# Advanced thermal management

Dual Opposing Output (DOO) fan and User Selectable Thermal Tables

# Wide variety of ports and input connections:

(2) Thunderbolt 4 Type C
(2) USB-A 3.2 Gen 1
(1x power enabled)
HDMI 2.1
RJ-45
microSD-card slot Smart Card
Reader (optional)
Nano-SIM card slot

# Spill-proof Pro2 keyboard with backlit option

Universal Audio

## Reliability

ISV Certified MIL STD tested Long Lifecycle Battery options

# Up to FHD, 100% sRGB, 400nits.

PremierColor.
Touch, ComfortView
Plus, and Low-blue-light
(LBL) panel options
available

# **Optional Fingerprint Reader**

Integrated with power button Windows Hello capable

Titan gray

# Industry's most secure commercial PC\*

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.\*\*

# Large glass-like, multi-touch clickpad

# **Dell Optimizer for Precision**

See Dell Optimizer page for more details

# Starting weight is 3.58 lbs / 1.62 kg

Up to 130W Type-C adapter Up to 3-cell 54Whr battery

# Simplified PC updates

Get the latest BIOS, drivers and firmware versions, validated and delivered seamlessly from Dell.

# Sustainability

EPEAT Gold Registered Recycled carbon fiber 100% recycled plastics & cardboard contained in packaging

Click here to see the 360 degree view of the Precision 3590

<sup>\*</sup>Not all features available with all PCs. Additional purchase required for some features.

<sup>\*\*</sup>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.







# Intelligent performance

This thin and light, cost-effective workstation packs intelligent performance, based on the new Intel® Core™ Ultra processors that feature fast, integrated Intel® Arc graphics and AI Accelerators featuring NPU for Intel® AI Boost. There are also vPro options and Copilot in Windows 11; taking advantage of advancing AI technologies to improve user productivity across business and industry applications.



# Immersive productivity and design

This 15" workstation delivers an exceptional user experience.

Jumpstart your workflow with the Copilot Hardware Key, which provides quick access to the tools you need to start your workday. Revolutionize your meetings with Windows Studio Effects. Keep your audience engaged with video auto-framing and maintain eye contact effortlessly, even while referencing your notes, thanks to Al-eye tracking technology.

Elevate your experience with Al-powered tools from Windows 11. Easily make use of the **Snipping Tool, voice access,** and **smart recommendations** within File Explorer and your Start menu.





# Mission critical reliability and Security

All Dell Precision workstations are tested and certified by independent software vendors to ensure reliably performance. Secure your workstation in this data-driven world with the industry's most secure commercial PCs¹ with robust features from the most secure Windows ever. Plus, they are MIL STD tested. Be secure in the office or on the road with features like an optional Smart Card Reader, optional Fingerprint Reader, and HDR IR Camera with Windows Hello and proximity sensor.

Layer on advanced threat protection with industry-leading partner software. Truly embrace hybrid work with secure and reliable 4G and 5G connectivity.







# Dell Optimizer for Precision

Dell Optimizer is our Al-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 savings<sup>1</sup>

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.<sup>1</sup>

# **Enhance application speed**

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

# Experience 2x faster network performance<sup>2</sup>

Network Optimization provides the world's first simultaneous multi-network connection for faster data and video downloads<sup>3</sup>, and joins the best network<sup>4</sup> 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 reliably 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



# Mobile Workstation Solution

Create your ideal workspace with these recommended accessories.



# Dell UltraSharp 34 Curved Thunderbolt™ Hub Monitor - U3425WE

A revolutionary 34-inch dual QHD curved monitor with ultra-wide views, multitasking features and seamless connectivity for an immersive work experience.



# Dell EcoLoop Pro Backpack - CP5723

Designed for on-the-go productivity and protection, the Dell EcoLoop Pro Backpack 15 is made of eco-conscious material to complement busy lifestyles.



# Dell Thunderbolt™ 4 Dock - WD22TB4

Experience lightning fast charging and Thunderbolt<sup>TM</sup> 4 connectivity with this flexible and powerful modular dock.



# Dell Wireless Headset - WL3024

Experience clear communication with this wireless Al-based noise cancellation headset, designed with a focus on productivity and comfort for all-day conferencing.



# Dell Premier Wireless Keyboard and Mouse - KM7321W

Experience superior multitasking features with a stylish and comfortable premium keyboard and mouse combo. Complete your tasks powered by one of the industry's leading battery lives at up to 36 months.\*



# Dell UltraSharp Webcam - WB7022

Experience best image quality in its class with the world's most intelligent 4K webcam.\*\*



Click here to learn more about our Workspace Solutions

<sup>\*</sup>Based on Dell analysis of battery life usage model calculations, Nov. 2020. Results vary depending on use, operating conditions and other factors.

<sup>\*\*</sup>Based on internal analysis of external 4K personal conferencing webcams, April 2021

# Simplify IT

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



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:



Publishes<sup>2</sup> a device drivers and downloads release schedule: IT Admins can deploy fleet-wide device updates on a predictable timeline.



Performs<sup>3</sup> 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 >

**D¢LL**Technologies







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 Learn More >



# Sustainability on Dell Precision 3590

Delivering innovative technology and solutions to collectively lower our environmental impact.

# **Built with Sustainable Materials**

Your Precision workstation is crafted with a variety of sustainable materials including post-consumer recycled plastic, ocean-bound plastic, bio-based plastic and reclaimed carbon fiber. This year, this workstation will start shipping with 50% recycled cobalt in the battery. This workstation also ships with an adapter that is designed with 90% recycled plastic in the case and 50% recycled copper in the adapter. cable. 2

# **Low-impact Packaging**

Your Precision 3590 workstation ships in packaging made with 100% recycled or renewable content, that is also 100% recyclable.<sup>3</sup> This workstation is also eligible for multipack shipping which helps reduce packaging and transportation waste.<sup>4</sup>

# **Environmental Certifications & Registrations**

Meeting environmental standards demonstrate 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.<sup>5</sup>

# Recycled plastic

30% in LCD cover lid, 30% in LCD antenna window, 50% in LCD bezel, 50% in palm-rest, 50% in inner frame, 30% in bottom door, 35% in battery filler, 50% in battery housing, 30% in speaker enclosure ,28% ocean bound plastic in fan housing, 21% bio-based plastic in LCD cover lid, 21% bio-based plastic in the bottom door, 42% bio-based plastic in the feet at the bottom of the device. Reclaimed carbon fiber including 20% in the lid and 20% in the bottom door. Recycled cobalt:Shipping timelines may vary based on region and laptop configuration.







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

- 1 Based on internal analysis, January 2024.
- 2 Based on internal analysis, November 2023. 95% recycled plastic in the case and AC inlet and 98% recycled aluminum in the adapter shielding and thermal module
- 3 Contains 39.5% recycled content and 60.5% 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.

  Paper packaging materials can be recycled via municipal recycling, where available. System bag is made from recycled plastic and can be recycled along with other thin plastics. See local recycling guidelines.
- 4 Based on internal analysis, January 2024
- 5 Based 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 registratio status and tier levels.



FEATURE	TECHNICAL SPECIFICATION	FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER <sup>1</sup>	Precision 3590		
PROCESSOR <sup>1</sup>	Intel® Core™ Ultra 5 125U vPro® Essentials (12 MB cache, 12 cores, up to 4.30 GHz) Intel® Core™ Ultra 7 155U vPro® Essentials (12 MB cache, 12 cores, up to 4.80 GHz) Intel® Core™ Ultra 5 125H vPro® Essentials (18 MB cache, 14 cores, up to 4.50 GHz) Intel® Core™ Ultra 5 135H vPro® Enterprise (18 MB cache, 14 cores, up to 4.60 GHz) Intel® Core™ Ultra 7 155H vPro® Essentials (24 MB cache, 16 cores, up to 4.80 GHz) Intel® Core™ Ultra 7 165H vPro® Enterprise (24 MB cache, 16 cores, up to 5 GHz)	PRODUCTIVITY SW <sup>1</sup>	Dell Command   Update (DCU) Dell Digital Delivery - Cirrus Client Dell Optimizer Excalibur MS Office MS Office - single language MS Office - Home Business Non-Premium (Japan) MS Office Personal Non-Premium (Japan) MS Office Pro Non-Premium (Japan) SupportAssist
OPERATING SYSTEM <sup>1</sup>	Windows 11 Home Windows 11 Pro Ubuntu® 22.04 LTS		
MEMORY <sup>1,2,3</sup>	8 GB: 1 x 8 GB, DDR5, 5600 MT/s, single-channel 16 GB: 1 x 16 GB, DDR5, 5600 MT/s, single-channel 16 GB: 2 x 8 GB, DDR5, 5600 MT/s, dual-channel 32 GB: 1 x 32 GB, DDR5, 5600 MT/s, single-channel 32 GB: 2 x 16 GB, DDR5, 5600 MT/s, dual-channel 64 GB: 2 x 32 GB, DDR5, 5600 MT/s, dual-channel	WARRANTY <sup>9,10</sup>	1Y hardware warranty with on-site/in-home service after remote diagnosis 2Y hardware warranty with on-site/in-home service after remote diagnosis 3Y hardware warranty with on-site/in-home service after remote diagnosis 4Y hardware warranty with on-site/in-home service after remote diagnosis 5Y hardware warranty with on-site/in-home service after remote diagnosis 1Y ProSupport Suite 2Y ProSupport Suite 3Y ProSupport Suite 4Y ProSupport Suite 4Y ProSupport Suite 5Y ProSupport Suite 6Y ProSupport Suite 6Y ProSupport Suite 6Y ProSupport Suite 7Y Data and Protective Services Extended Battery Services (EBS) - FRU Batteries Only 7Y Data and Protective Services Extended Battery Services (EBS) - FRU Batteries Only
PRIMARY HARD DISK DRIVE <sup>1,5</sup>	256 GB, M.2 2230, Gen 4 PCIe NVMe, SSD, Class 35 512 GB, M.2 2230, Gen 4 PCIe NVMe, SSD, Class 35 512 GB, M.2 2230, Gen 4 PCIe NVMe, SED, Class 35 512 GB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 1 TB, M.2 2230, Gen 4 PCIe NVMe, SSD, Class 35 1 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 2 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40	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 1-year Accidental Damage Service 1-year Accidental Damage with Theft Service 2-year Accidental Damage with Theft Service 3-year Accidental Damage with Theft Service 4-year Accidental Damage with Theft Service 5-year Accidental Damage with Theft Service 1-year Accidental Damage Protection 2-year Accidental Damage Protection 3-year Accidental Damage Protection 5-year Accidental Damage Protection 5-year Accidental Damage Protection 5-year Accidental Damage Protection
VIDEO CARD	Integrated Graphics: Intel® Arc™ Graphics (for Intel® Core™ H processors and requires 128-bit (dual-channel) memory with minimum of 16 GB memory) Intel® Graphics: Discrete Graphics: NVIDIA® RTX™ 500 Ada Generation, 4 GB, GDDR6	KEYBOARD <sup>1</sup>	English US non-backlit keyboard with numeric keypad, 99-key English International non-backlit keyboard with numeric keypad, 99-key English International non-backlit keyboard with numeric keypad, 99-key English UK backlit keyboard with numeric keypad, 103-key Japanese backlit keyboard with numeric keypad, 103-key Canada (Bilingual) (MUI) backlit keyboard with numeric keypad, 99-key French (Canadian) non-backlit keyboard with numeric keypad, 100-key Spanish (Latin America) non-backlit keyboard with numeric keypad, 100-key Arabic backlit keyboard with numeric keypad, 99-key Chinese (Traditional) backlit keyboard with numeric keypad, 99-key English International backlit keyboard with numeric keypad, 99-key Greek backlit keyboard with numeric keypad, 99-key Greek backlit keyboard with numeric keypad, 99-key Korean backlit keyboard with numeric keypad, 99-key Korean backlit keyboard with numeric keypad, 99-key Russian backlit keyboard with numeric keypad, 99-key Ukrainian backlit keyboard with numeric keypad, 99-key Ukrainian backlit keyboard with numeric keypad, 99-key Portuguese (Brazil) backlit keyboard with numeric keypad, 100-key Belgian backlit keyboard with numeric keypad, 100-key Sudanian backlit keyboard with numeric keypad, 100-key Czech/Slovak (MUI) backlit keyboard with numeric keypad, 100-key Estonian backlit keyboard with numeric keypad, 100-key French (European) backlit keyboard with numeric keypad, 100-key Hungarian backlit keyboard with numeric keypad, 100-key Italian backlit keyboard with numeric keypad, 100-key Sovenian backlit keyboard with numeric keypad, 100-key S



FEATURE	TECHNICAL SPECIFICATION	FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER <sup>1</sup>	Precision 3590		
DISPLAY	15.6", FHD 1920x1080, 60Hz, IPS, Non-touch, Anti-Glare, 250 nit, 45% NTSC 15.6", FHD 1920x1080, 60Hz, IPS, Touch, Anti-Glare, 250 nit, 45% NTSC 15.6", FHD 1920x1080, 60Hz, IPS, Non-touch, Anti-Glare, 400 nit, 100% sRGB, Low Blue Light, super low power	TOUCHPAD	Multi-touch gesture-enabled precision touchpad, seamless glass-integrated button
CASE COLOR	Titan Gray	PORTS	(2) Thunderbolt™ 4 (40 Gbps) with DisplayPort™ Alt Mode/USB Type-C/USB4/Power Delivery USB 3.2 Gen 1 port with PowerShare HDMI 2.1 port Universal audio port RJ45 Ethernet port
OPTICAL DRIVE	No optical drive	SLOTS	MicroSD-card slot Wedge-shaped lock slot Nano-SIM card slot (optional) Smart card reader slot (optional)
DIMENSIONS	US Height (rear): 0.90 in. (22.80 mm) Height (front): 0.82 in. (20.80 mm) Width: 14.09 in. (357.80 mm) Depth: 9.19 in. (233.30 mm) Starting weight (minimum): 3.58 lb (1.62 kg)  Rest of the world Height (rear): 22.80 mm (0.90 in.) Height (front): 20.80 mm (0.82 in.) Width: 357.80 mm (14.09 in.) Depth: 233.30 mm (9.19 in.) Starting weight (minimum): 1.62 kg (3.58 lb)	CAMERA	1080p at 30 fps, FHD RGB HDR camera, Dual-array microphones 1080p at 30 fps, FHD RGB-IR HDR camera camera, Dual-array microphones 1080p at 30 fps, FHD RGB-IR HDR camera camera, Dual-array microphones, Ambient light sensor, Express Sign-In™ with Presence Detection and Intelligent Privacy
AUDIO N SPEAKERS <sup>1</sup>	Stereo speakers with Realtek Waves MaxxAudio® 13.0, 2W x 2 = 4W total	OPTICAL DRIVE OPTIONS	External options only
WIRELESS	WLAN: Realtek Wi-Fi 6 RTL8852BE, 2x2, MIMO, 802.11ax, Bluetooth® 5.3 wireless card Intel® Wi-Fi 6E AX211, 2x2, MIMO, 802.11ax, Bluetooth® 5.3 wireless card WWAN: 4G CAT12 - Qualcomm® Snapdragon™ SDX12 Global LTE-Advanced (DW5825e), eSIM 5G - Qualcomm® Snapdragon™ X62 Global 5G (DW5932e), eSIM capable 5G - Qualcomm® Snapdragon™ X62 Global 5G (DW5932e), no eSIM	PRIMARY BATTERY	3-cell, 42 Wh, ExpressCharge™, ExpressCharge™ Boost capable 3-cell, 42 Wh, Long Life Cycle, ExpressCharge™ 3-cell, 54 Wh, ExpressCharge™, ExpressCharge™ Boost capable 3-cell, 54 Wh, Long Life Cycle, ExpressCharge™
POWER	Integrated Graphics only: 65W AC adapter, USB Type-C, EPEAT, E5 Integrated/Discrete Graphics: 100W AC adapter, USB Type-C, EPEAT, E5 130W AC adapter, USB Type-C, EPEAT, E5	REGULATORY 8,12	Product Safety, EMC and Environmental Datasheets Dell Regulatory Compliance Home Page Responsible Business Alliance policy



FEATURE	TECHNICAL SPECIFICATION	FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER <sup>1</sup>	Precision 3590		
INTEL RESPONSIVENESS TECHNOLOGIES	Intel® Rapid Storage Technology	CHIPSET	14th Generation Intel MTL-H 14th Generation Intel MTL-U
DOCKING	Dell Thunderbolt Dock – WD22TB4	INPUT	3Dconnexion SpaceMouse Pro Wireless - 3DX-700075 Dell Premier Multi Device Wireless Keyboard and Mouse KM7321W Dell Premier Rechargeable Wireless Mouse MS7421W Wacom Cintiq Pro 24 Creative Pen Display Touch - DTH-2420
MULTIMEDIA	Dell 24 Monitor - P2423D Dell EcoLoop Pro Backpack - CP5723 Dell Premier Multi Device Wireless Keyboard and Mouse KM7321W Dell Premier Rechargeable Wireless Mouse MS7421W Dell U3423WE Dell Webcam WB7022 Dell Webcam WB3023 Dell Wireless Headset - WL3024	SENSORS	Ambient Light Sensor Accelerometer in the base: ST Micro LIS2DW12TR Accelerometer in the hinge-up (Upsell config with Emza/ALS/IR camera): ST Micro LNG2DMTR
SYSTEMS MANAGEMENT	Dell Client Command Suite: Streamline how you deploy drivers, configure BIOS, monitor devices and manage updates.  Dell Trusted Update Experience: Simplify how you update your endpoints with the latest BIOS, drivers and firmware versions.		



FEATURE	TECHNICAL SPECIFICATION	DESCRIPTION
MODEL NUMBER <sup>1</sup>	Precision 3590	
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. *Available early 2024.
HARDWARE & FIRMWARE SECURITY (OPTIONAL)	Dell SafeID	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:  Secure interaction with Imprivada for authenticating credentials on multi-user devices  Finger Print Reader in Power Button tied to Control/Vault 3  Control/Vault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification  Contacted Smart Card and Control/Vault 3  Contactless Smart Card, NFC, and Control/Vault 3  SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL  FIPS 201 Full Scan Finger Print Reader and Control/Vault  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	$\label{thm:control_equation} \textbf{Remotely detects hardware tampering and is integrated with Dell SafeBIOS Indicators of Attack.}$
	Kensington Security Slot™	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:  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	Threat detection and response/remediation.
	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.



## PRODUCT DISCLAIMERS:

- \* Castor oil-based material rubber in the feet Tall oil-based bioplastic in the lid Ocean bound plastic in the fan housing Carbon fiber in the lid Recycled copper in AC adapter cable Recycled plastic in lid, AC adapter exterior, palm rest, inner frame, bezel, battery frame, SSD frame, speaker housing, LCD cover antenna window Packaging is made from 100% recycled or renewable content and is 100% recyclable.
- \*\* Based on internal analysis, January 2023. Select Precision Mobile Workstations (3490, 3580, 3581).15P-H battery pack housing variants do not contain PCR.
- \*\*\*Up to 38.8 % recycled content and 61.2 % renewable materials in the form of FSC fibers. Excludes optional items added to order and included in box. Paper packaging materials can be recycled via municipal recycling, where available. System bag is made from recycled plastic and can be recycled along with other thin plastics. See local recycling guidelines.
- 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/servicedescriptions.
- 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.