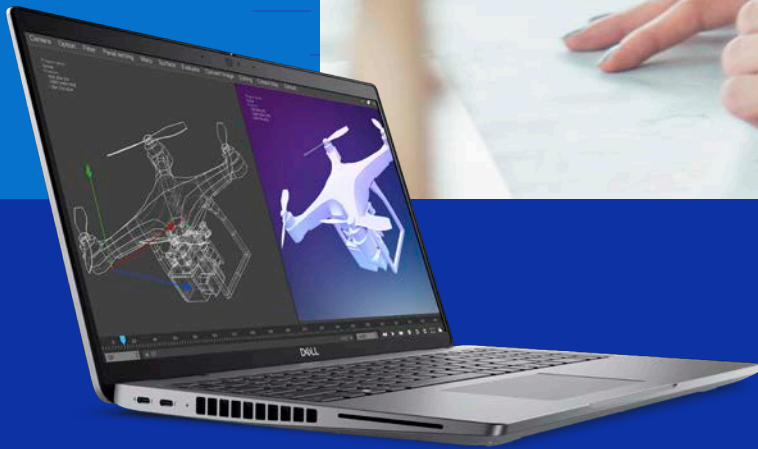


DELL Technologies



Create your next great project with outstanding performance in an entry level mobile workstation



Precision 3591

# Work anywhere with a light, powerful workstation.

An ultra-mobile device that is great for those wanting to take the next step in performance in an entry workstation.

## Intelligent performance

Intel Core Ultra processors, 45W (H Series), up to 16 cores with vPro Enterprise options

Up to NVIDIA RTX 2000 Ada graphics

Up to 64GB of 5600 MT/s DDR5 memory  
Up to 4TB Gen4 M.2 SSD

## 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  
Universal Audio Jack  
Smart Card Reader (optional)  
MicroSD-card slot  
Nano-SIM card slot (optional)

## Spill-proof Pro2 keyboard with backlit option

## Advanced thermal management

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

## 4G LTE, 5G FirstNet Certified

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

## 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.\*\*

## Privacy Shutter, Fast Sign-in

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

## 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

## Large glass-like, multi-touch clickpad

## Dell Optimizer for Precision

See Dell Optimizer page for more details

## Starting weight is 3.96 lbs / 1.79 kgs

Up to 130W Type-C adapter  
Up to 6-cell, 97Whr battery

## Simplified PC updates

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

## Sustainability

This workstation has achieved the EPEAT Gold Climate+ designation, meeting industry best practices for decarbonization.<sup>1</sup>

[Click here](#) to see the 360 degree view of the Precision 3591

\*Not all features available with all PCs. Additional purchase required for some features.

\*\*Based on IOActive's "Intel vPro 13<sup>th</sup> Gen Attack Surface Study" published March 2023 (commissioned by Intel), which evaluates Intel vPro devices powered by 13<sup>th</sup> Gen Intel Core processors against four-year-old Intel-based PCs on Windows OS. Details at [www.intel.com/performance-vpro](http://www.intel.com/performance-vpro). Results may vary.

<sup>1</sup>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](http://www.epeat.net) for registration status and tier levels.



**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 **AI-eye tracking technology**. Elevate your experience with AI-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 PCs<sup>1</sup> 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.



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.

# 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 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 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.

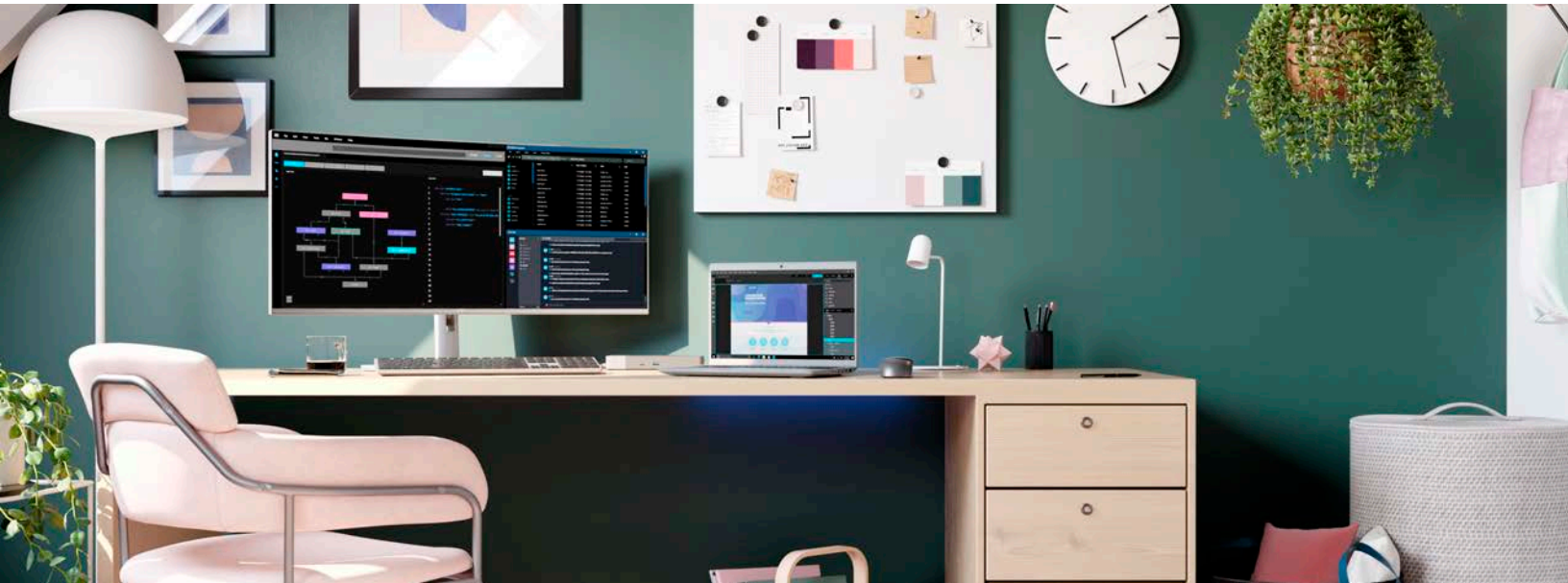
▶ [Click here to learn more about Dell Optimizer](#)

<sup>1</sup>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/businesssolutions/industry-market/maximizing-power-efficiency-with-dell-optimizer-a-case-study.pdf>

<sup>2</sup>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

<sup>3</sup>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

<sup>4</sup>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.

As the world's #1 monitor company<sup>1</sup>, Dell knows that the modern workplace requires more than PCs. We offer 200+ branded accessories to keep you connected and collaborative no matter your work style.



A



B



C

A. Dell UltraSharp 34 Curved Thunderbolt™ Hub Monitor - U3425WE

B. Dell 24 Monitor - P2423D

C. Dell Thunderbolt™ 4 Dock - WD22TB4



D



E



F

D. Dell Premier Wireless Keyboard and Mouse - KM7321W

E. Dell EcoLoop Pro Backpack - CP5723

F. Dell EcoLoop Pro Backpack - CP5723



Customize your workspace, simplify management and enhance privacy with [Dell Display Manager](#) and [Dell Peripheral Manager](#).

▶ Discover more solutions for the modern workplace

<sup>1</sup> IDC Worldwide Quarterly PC Monitor Tracker, Q3 2023



# Sustainability on Dell Precision 3591

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.<sup>1</sup> This workstation ships with an adapter designed with 90% recycled plastic in the case and 50% recycled copper in the adapter cable.<sup>2</sup>

## 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<sup>®</sup> 8.0, TCO certified, generation 9 and EPEAT gold registered with Climate+ designation.<sup>4</sup>

## Lifecycle Management

Lifecycle Management Dell APEX offerings and Asset Recovery Services make it easier for our customers to modernize responsibly, and reduce over-provisioning and e-waste, on schedule and within budget. Dell makes it easy to access and replace parts to get the most life out of our products.

## Lifecycle Management

Dell APEX offerings and Asset Recovery Services make it easier for our customers to modernize responsibly, and reduce over-provisioning and e-waste, on schedule and within budget. Dell makes it easy to access and replace parts to get the most life out of our products.

[Learn more>](#)

## Low-impact Packaging

Your Precision 3591 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>



See how we are reducing the impact of our products and solutions [Dell.com/Sustainable-Devices](https://www.dell.com/Sustainable-Devices)

<sup>1</sup>Based on internal analysis, January 2024. 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, 30% in speaker enclosure, 28% ocean bound plastic in fan housing, 21% bio-based plastic in LCD cover lid, 21% bio-based plastic in 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

<sup>2</sup>Based on internal analysis, January 2024.

<sup>3</sup>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.

<sup>4</sup>Based on internal analysis, January 2024.

<sup>5</sup>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](https://www.epeat.net) for registration status and tier levels

FEATURE	TECHNICAL SPECIFICATION	FEATURE	TECHNICAL SPECIFICATION
<b>MODEL NUMBER<sup>1</sup></b>	Precision 3591		
<b>PROCESSOR<sup>1</sup></b>	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) Intel® Core™ Ultra 9 185H vPro® Enterprise (24 MB cache, 16 cores, up to 5.10 GHz)	<b>WARRANTY<sup>9,10</sup></b>	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 5Y ProSupport Suite 2Y Data and Protective Services Extended Battery Services (EBS) - FRU Batteries Only 3Y Data and Protective Services Extended Battery Services (EBS) - FRU Batteries Only
<b>OPERATING SYSTEM<sup>1</sup></b>	Windows 11 Home Windows 11 Pro Ubuntu® 22.04 LTS Red Hat 9.4 (validation only)	<b>ACCIDENTAL DAMAGE SERVICES</b>	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 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 4-year Accidental Damage Protection 5-year Accidental Damage Protection
<b>MEMORY<sup>1,2,3</sup></b>	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	<b>SYSTEMS MANAGEMENT</b>	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.
<b>PRIMARY HARD DISK DRIVE<sup>1,5</sup></b>	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	<b>TOUCHPAD</b>	Multi-touch gesture-enabled precision touchpad, seamless glass-integrated button
<b>VIDEO CARD</b>	<b>Integrated Graphics:</b> Intel® Arc™ Graphics (for Intel® Core™ H processors and requires 128-bit (dual-channel) memory with minimum of 16 GB memory) Intel® Graphics <b>Discrete Graphics:</b> NVIDIA® RTX™ 500 Ada Generation, 4 GB GDDR6 NVIDIA® RTX™ 1000 Ada Generation, 6 GB GDDR6 NVIDIA® RTX™ 2000 Ada Generation, 8 GB GDDR6	<b>PORTS</b>	2 Thunderbolt™ 4 (40 Gbps) with DisplayPort™ Alt Mode/USB Type-C/USB4/Power Delivery USB 3.2 Gen 1 port with PowerShare USB 3.2 Gen 1 port HDMI 2.1 port Universal audio port RJ45 Ethernet port
<b>DISPLAY</b>	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	<b>OPTICAL DRIVE</b>	No optical drive
<b>CASE COLOR</b>	Titan Gray	<b>SLOTS</b>	MicroSD-card slot Wedge-shaped lock slot Nano-SIM card slot (optional) Smart card reader slot (optional)
<b>PRIMARY BATTERY</b>	4-cell, 64 Whr, ExpressCharge™ 4-cell, 64 Whr, Long Life Cycle, ExpressCharge™, 3-year warranty 6-cell, 97 Whr, ExpressCharge™	<b>CAMERA</b>	1080p at 30 fps, FHD RGB HDR camera HDR, Temporal Noise Reduction, Dual-array microphones 1080p at 30 fps, FHD RGB-IR HDR camera camera, Temporal Noise Reduction, Dual-array microphones 1080p at 30 fps, FHD RGB-IR HDR camera, Temporal Noise Reduction, Dual-array microphones, Ambient light sensor, Express Sign-In™ with Presence Detection and Intelligent Privacy

FEATURE	TECHNICAL SPECIFICATION	FEATURE	TECHNICAL SPECIFICATION
<b>MODEL NUMBER<sup>1</sup></b>	Precision 3591		
<b>PRODUCTIVITY SW<sup>1</sup></b>	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	<b>DIMENSIONS</b>	<b>US</b> Height (rear): 0.97 in. (24.70 mm) Height (front): 0.89 in. (22.70 mm) Width: 14.09 in. (357.80 mm) Depth: 9.19 in. (233.30 mm) Starting weight (minimum): 3.96 lb (1.79 kg)  <b>Rest of the world</b> Height (rear): 24.70 mm(0.97 in.) Height (front): 22.70 mm (0.89 in.) Width: 357.80 mm (14.09 in.) Depth: 233.30 mm (9.19 in.) Starting weight (minimum): 1.79 kg (3.96 lb)
<b>AUDIO SPEAKERS<sup>1</sup></b>	Stereo speakers with Realtek Waves MaxxAudio <sup>®</sup> 13.0, 2W x 2 = 4W total	<b>OPTICAL DRIVE OPTIONS</b>	External options only
<b>WIRELESS</b>	<b>WLAN:</b> Realtek Wi-Fi 6 RTL8852BE, 2x2, MIMO, 802.11ax, Bluetooth <sup>®</sup> 5.3 wireless card Intel <sup>®</sup> Wi-Fi 6E AX211, 2x2, MIMO, 802.11ax, Bluetooth <sup>®</sup> 5.3 wireless card <b>WWAN:</b> 4G CAT12 - Qualcomm <sup>®</sup> Snapdragon <sup>™</sup> SDX12 Global LTE-Advanced (DW5825e), eSIM 5G - Qualcomm <sup>®</sup> Snapdragon <sup>™</sup> X62 Global 5G (DW5932e), eSIM capable 5G - Qualcomm <sup>®</sup> Snapdragon <sup>™</sup> X62 Global 5G (DW5932e), no eSIM	<b>KEYBOARD<sup>1</sup></b>	English US non-backlit keyboard with numeric keypad, 99-key English US backlit keyboard with numeric keypad, 99-key English International non-backlit keyboard with numeric keypad, 99-key English UK backlit keyboard with numeric keypad, 100-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 French (Canadian) backlit keyboard with numeric keypad, 99-key Greek backlit keyboard with numeric keypad, 99-key Hebrew backlit keyboard with numeric keypad, 99-key Korean backlit keyboard with numeric keypad, 99-key Russian backlit keyboard with numeric keypad, 99-key Thai 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 Bulgarian backlit keyboard with numeric keypad, 100-key Czech/Slovak (MUI) backlit keyboard with numeric keypad, 100-key Danish backlit keyboard with numeric keypad, 100-key Estonian backlit keyboard with numeric keypad, 100-key French (European) backlit keyboard with numeric keypad, 100-key German backlit keyboard with numeric keypad, 100-key Hungarian backlit keyboard with numeric keypad, 100-key Italian backlit keyboard with numeric keypad, 100-key Nordic (MUI) backlit keyboard with numeric keypad, 100-key Norwegian backlit keyboard with numeric keypad, 100-key Portuguese Iberian backlit keyboard with numeric keypad, 100-key Slovenian backlit keyboard with numeric keypad, 100-key Spanish (Castilian) backlit keyboard with numeric keypad, 100-key Spanish (Latin America) backlit keyboard with numeric keypad, 100-key Swedish/Finnish backlit keyboard with numeric keypad, 100-key Swiss/European (MUI) backlit keyboard with numeric keypad, 100-key Turkish backlit keyboard with numeric keypad, 100-key Turkish (F) backlit keyboard with numeric keypad, 100-key



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<b>MODEL NUMBER<sup>1</sup></b>	Precision 3591		
<b>POWER</b>	<b>Integrated Graphics only:</b> 100W AC adapter, USB Type-C, EPEAT, E5 <b>Integrated/Discrete Graphics:</b> 130W AC adapter, USB Type-C, EPEAT, E5	<b>REGULATORY</b> <sup>8,12</sup>	<a href="#">Product Safety, EMC and Environmental Datasheets</a> <a href="#">Dell Regulatory Compliance Home Page</a> <a href="#">Responsible Business Alliance policy</a>
<b>INTEL RESPONSIVENESS TECHNOLOGIES</b>	Intel® Rapid Storage Technology	<b>CHIPSET</b>	14th Generation Intel MTL-H
<b>DOCKING</b>	Dell Thunderbolt Dock – WD22TB4	<b>INPUT</b>	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
<b>MULTIMEDIA</b>	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	<b>SENSORS</b>	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

FEATURE	TECHNICAL SPECIFICATION	DESCRIPTION
<b>MODEL NUMBER<sup>1</sup></b>	Precision 3591	
<b>HARDWARE &amp; FIRMWARE SECURITY (INCLUDED)</b>	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>
<b>HARDWARE &amp; FIRMWARE SECURITY (OPTIONAL)</b>	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: <ul style="list-style-type: none"> <li>Secure interaction with Imprivada for authenticating credentials on multi-user devices</li> <li>Finger Print Reader in Power Button tied to ControlVault 3</li> <li>ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification</li> <li>Contacted Smart Card and ControlVault 3</li> <li>Contactless Smart Card, NFC, and ControlVault 3</li> <li>SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL</li> <li>FIPS 201 Full Scan Finger Print Reader and ControlVault</li> <li>Trusted Platform Module (TPM) 2.0 discrete FIPS 140-2 certification for TPM</li> </ul>
	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.
	Detect tampering with this supply chain assurance offering. Availability varies by region.	Dell Secured Component Verification.
	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™	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: <ul style="list-style-type: none"> <li>Dell Fixed Workstations (Desktops): Kensington Security Slot™ (T-bar)</li> <li>Dell Laptops: Kensington Security Slot™ (Wedge)</li> </ul>
	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.
	<b>SOFTWARE SECURITY (OPTIONAL)</b>	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.

FEATURE	TECHNICAL SPECIFICATION	DESCRIPTION
<b>SUSTAINABLE MATERIALS<sup>1</sup></b>	<p><b>Post-consumer recycled plastic (PCR) and closed loop ITE derived plastic - chasses</b>                      Post-consumer 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</p> <p><b>Post-consumer recycled plastic (PCR) - power adapter</b>                      (65-Watt): 95% in adapter case and AC inlet                      (100-Watt): 90% in adapter case                      (60-Watt): 95% in adapter case</p> <p><b>Recycled aluminum - power adapter</b>                      (65-Watt): 98% recycled aluminum in thermal shielding</p> <p><b>Recycled and low emissions aluminum:</b>                      N/A</p> <p><b>Recycled copper - power adapter</b>                      (100-watt): 50% recycled copper in adapter cable</p> <p><b>Recycled ocean-bound plastic:</b>                      28% ocean bound plastic in fan housing</p> <p><b>Post-industrial recycled steel:</b>                      N/A</p> <p><b>Bio-based plastic:</b>                      21% bio-based material in LCD cover lid, 21% bio-based material in bottom door                      42% bio-based material in the feet at the bottom of the device</p> <p><b>Reclaimed carbon fiber:</b>                      20% in LCD cover lid; 20% in bottom door</p> <p><b>Recycled cobalt:</b>                      50% in battery</p> <p><b>Recycled or renewable packaging materials:</b>                      100% recycled, renewable and recyclable packaging</p>	<p>Post-consumer recycled plastic is plastic waste generated by households, industrial, commercial or institutions repurposed in the desktop design. Closed loop plastic is reclaimed plastic from any disposed IT product repurposed in the desktop design.</p> <p>Recycling aluminum helps divert material from landfills, where it would otherwise contribute to the growing problem of waste disposal. Aluminum is durable and does not degrade during the recycling process, making it a material that can be recycled repeatedly.</p> <p>The combination of using low emissions aluminum which is aluminum derived from a hydropower source and recycled aluminum helps reduce the carbon footprint of the material by up to 90%</p> <p>Recycling copper helps preserve finite natural resources because it reduces the need for extensive mining and extraction of copper ore that is a more energy intensive process</p> <p>Ocean-bound plastic is collected within 50km (30mi) distance of an ocean coastline or major waterway that feeds into the ocean. Using ocean-bound plastic reduces the risk of endangering marine life and ecosystem with plastic waste.</p> <p>Incorporating recycled steel helps minimize the usage of virgin material and related mining activities, while re-purposing waste that would have ended up in landfills (Available for select OptiPlex tower configurations).</p> <p>Bio-based materials that are derived from non-petroleum-based biological resources. The bio-based plastic used in the lid and door is derived from tall-oil, a byproduct in the paper making process.</p> <p>Reclaimed carbon fiber is derived from waste generated in the production of carbon fiber for the aerospace industry. It is considered to be a pre-consumer recycled material.</p> <p>Majority of recycled cobalt used in PC batteries is sourced from the EV batteries and the remainder is sourced from consumer electronics. Virgin cobalt resources are fast depleting and using recycled cobalt helps build a circular economy. Using recycled cobalt is a less energy intensive process and produces lesser waste than mining virgin cobalt</p> <p>Using recycled or renewable materials lowers waste and helps lower environmental impact. Materials may include recycled content and/or</p>
<b>ECO-LABELS<sup>1</sup></b>	<p><b>EPEAT Climate+(™)</b>                      Yes</p> <p><b>EPEAT GOLD</b></p> <p><b>TCO Certified, Gen 9</b>                      Yes</p> <p><b>Energy Star 8.0</b>                      Yes</p>	<p>This is a product level designation for EPEAT-registered products which meet the industry's best climate criteria.</p> <p>Meeting globally recognized eco-label certifications for sustainable IT, our customers can trust that Dell products adhere to the highest energy-efficiency specifications and other climate-related standards.</p> <p>Product registry: <a href="https://www.epeat.net/">https://www.epeat.net/</a></p> <p>TCO Certified is a leading sustainability certification for IT products, with a comprehensive system of up-to-date criteria and independent verification.</p> <p>Product registry: <a href="https://tcocertified.com/product-finder/">https://tcocertified.com/product-finder/</a></p> <p>Energy Star 8.0 is a specification recognizing the most energy-efficient PC's, backed by Environmental Protection Agency (US).</p>
<b>MULTI-PACK SHIPPING<sup>1</sup></b>	<b>Dell Multi-pack:</b> Yes	Dell Multi-pack offers a simpler, more efficient unboxing experience vs. single pack products, with less packaging waste and better pallet optimization for transportation.
<b>ASSET RECOVERY SERVICES<sup>6</sup></b>	<b>Asset Recovery Services:</b> Yes	Asset Recovery Services helps our customers resell, recycle or return-to-lease legacy IT equipment in a secure and sustainable manner, while unlocking value that can be put towards future innovation.
<b>GLOBAL COMPLIANCE</b>	<p>US CEC MEPS                      compliant configurations available                      Australia and New Zealand MEPS                      compliant configurations available                      CEL                      WEEE                      Japan Energy Law                      South Korea E-standby                      EU RoHS                      China RoHS                      (available for all OptiPlex All-in-One configurations)</p>	
<b>REGULATORY<sup>4,6</sup></b>	<p><a href="#">Product Safety, EMC and Environmental Datasheets</a>  <a href="#">Dell Regulatory Compliance Home Page</a>  <a href="#">Dell and the Environment</a>                      Arsenic free, halogen free</p>	

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**PRODUCT DISCLAIMERS:**

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 \[www.dell.com/support\]\(http://www.dell.com/support\).](#)
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](http://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](http://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](http://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](http://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](http://www.dell.com/support/home/us/en/19).