PRECISION
7680

Dell's most powerful 16" workstation just got stronger.

7680

Customized to your needs

Power your purpose with a scalable 16" mobile workstation that is available in a thin or performance chassis.

FHD IR Camera, Windows Hello compliance, Integrated Camera Shutter, Proximity, Contextual Privacy and Ambient Light Sensors

Dual array mics with noise suppression technology

16:10 aspect ratio (up to HDR500 OLED), display with narrower bezel, 500nits, PremierColor, 100% DCI-P3, Touch and ComfortView Plus (LBL) options

Up to 12TB of storage, with 3 Gen 4 M.2 slots

Easy access storage with optional door on the bottom of the based

Pro 2.5 keyboard

Optional Smart Card Reader

Chassis intrusion sensor

Large click pad with optional NFC reader

Up to WiFi 6E

Bluetooth 5.3

Optional 5G Mobile Broadband
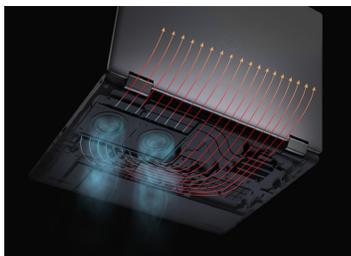
Advanced Thermals
User Selectable Thermals Tables (USTT) Dual Opposing Output (DOO) fan with liquid polymer bladesDual intake venting Thermal insulated material, GORE™.

Flexible design
Two chassis size available, determine by performance requirement.

Up to 240W adapter

Up to 93Whr battery

Dell Optimizer for Precision
ExpressSign-in
ExpressConnect
ExpressCharge
ExpressDischarge
ExpressResponse
Intelligent Audio
Reporting & Analytics

Sustainability
EPEAT Gold Registered 100% recycled plastics & cardboard contained in packaging.

See important information on last page

Intelligent performance

Intel® Core™ i5-i9, up to 24 core (8P + 16E) (55W), up to 16GB NVIDIA RTX 5000 Ada Generation, (3) M.2 slots PCIe Gen 4 SSD (12TB)/RAID 5 support, up to 128GB of memory, (2) Thunderbolt™ 4 / USB 4, (2) USB 3.2 Type A and (1) Type C Display Port

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Dell Optimizer for Precision

Immersive productivity and design

Pro keyboard, large click pad, camera shutter, proximity and ambient light sensors, chassis intrusion sensor

...

Up to 16:10, 4K (HDR500) OLED 60Hz display with narrower bezel, 500nits,PremierColor, 100% DCI-P3, Touch and ComfortView Plus (Low Blue Light) options

...

Intel WiFi 6E 6GHz/BT5.3/vPro, 5G LTE WWANn

Mission critical reliability and security

ISV Certifications

...

Long life battery option

...

MIL-STD tested

...

ECC and RMT Pro options

...

Advanced thermals (vapor chambers, DOO fans, GORE™)
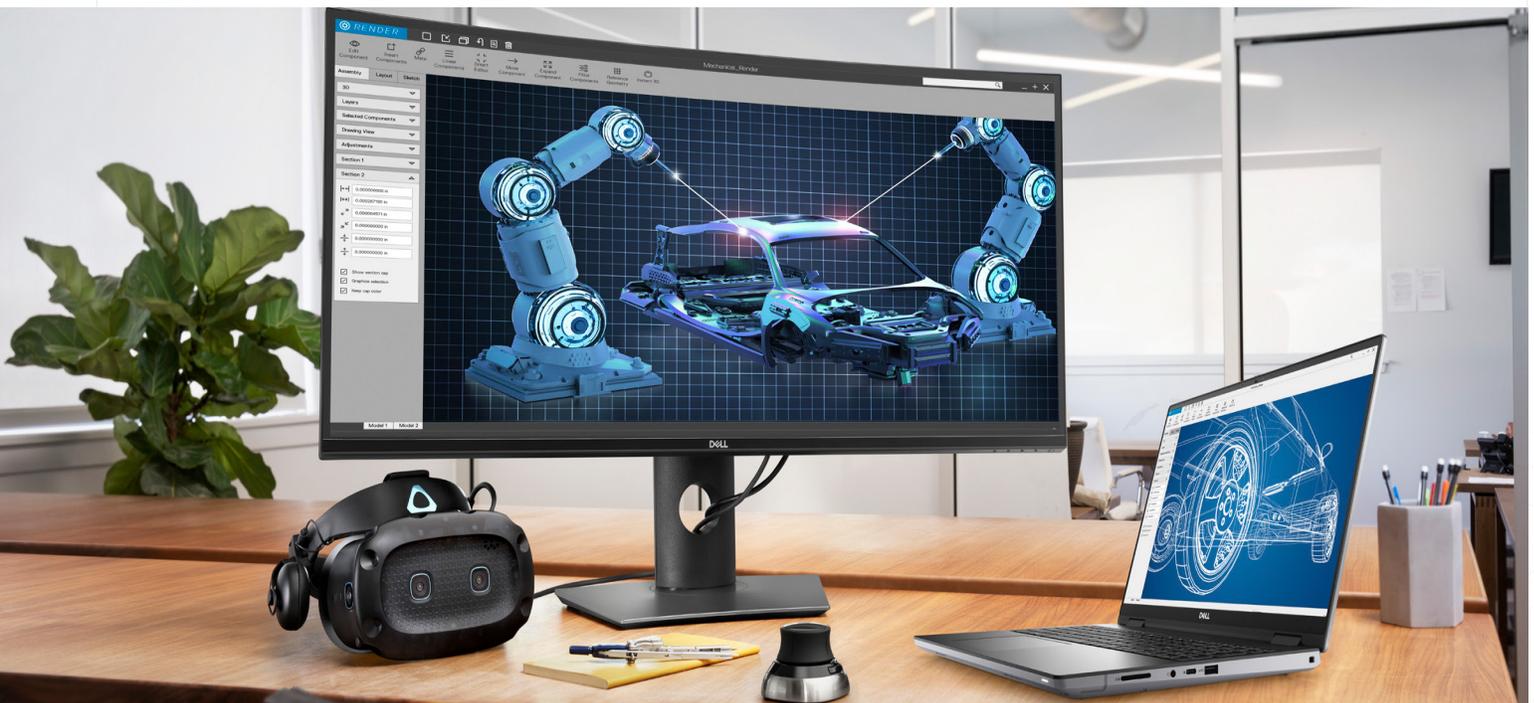
7680

Dell Optimizer for Precision
We make it intelligent. You make it yours.

Dell Optimizer revolutionizes the way you work by fueling the world's most intelligent PCs[13].
It is the only AI-based optimization software that learns and responds to the way you work and designed to automatically improve application performance, battery run-time, audio settings and privacy – all in the background while you're working.

Personalized performance made for hybrid work
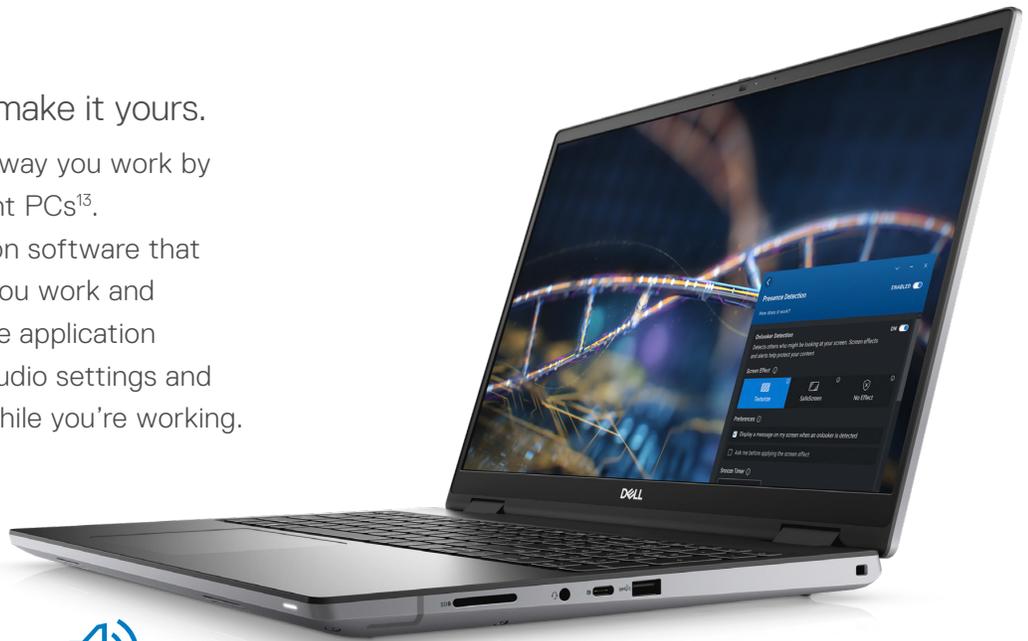
Power to the creators
Dell Optimizer for Precision empowers high-end users with Express Response[18] for performance optimization of storage heavy apps. If you're a Precision user, you also have an exclusive Analytics feature for workload and system insights that help create personalized performance. You can also generate reports within Analytics to get system diagnostics and productivity gains.

Enhanced audio
Intelligent Audio delivers audio and mic enhancements and reduces background noise so you can fully engage in meetings with confidence, wherever you collaborate. Neural noise cancellation enables advanced artificial intelligent techniques to distinguish human speech from any unwanted noise.

Improved performance
ExpressResponse[18] analyzes how you use your preferred apps[7] to boost performance.

Intelligent privacy anywhere
Privacy and security are a major concern – help keep sensitive data private with the world's most comprehensive suite of Intelligent Privacy features[13]. Onlooker detection lets you texturize or turn on Safe Screen when an intruder is detected and Look Away Detect darkens the PC screen based on user behavior.

Faster sign-in
Get to work faster with ExpressSignin– the proximity sensor detects your presence to wake on approach before Windows Hello logs you in via facial recognition.

Simplified manageability
Elevate work experience with an easy-to-manage application that provides a seamless experience for both end-users and IT decision makers. Set up individual features and modules from Dell Optimizer that fit your work environment with the modular installation feature. Deployment updates and optimization of multiple PCs remotely can be done simultaneously via centralized management.

Extended power
ExpressCharge analyzes your power usage habits to improve PC battery utilization. It extends run times and charges your system faster when you need a boost in power.

Unmatched connectivity
Optimized for the best connectivity, ExpressConnect[15] provides the world's first simultaneous multi-network connection for faster data and video downloads[4]. It also enables joining the best network[5] available and prioritizes traffic for conferencing apps, wherever you work.

ENGINEERING WITH PERFORMANCE SOLUTION

(2x) UltraSharp 27 4K Monitors - U2723QEW

Be your most productive on a 27 inch monitor with brilliant color and contrast that features the industry's first IPS Black technology and a connectivity hub.

Dell Premier Collaboration Keyboard and Mouse – KM900

World's first collaboration keyboard with dedicated Zoom hotkeys for effortless one-touch controls on Zoom calls.

Dell Performance Dock - WD19DCSW

Dell's most powerful dock* delivers the ultimate productivity experience. Charge your system faster, support up to three displays and connect to your peripherals via a single cable with dual USB-C connectors.

Dell Premier Wireless ANC Headset - WL7022

Collaborate with ease anywhere with this Teams certified wireless headset which offers active noise cancellation and smart sensors that automatically mute and unmute your call.

EcoLoop Pro Backpack - CP5723

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

Dell UltraSharp Webcam Acadia – WB7022

Elevate your video conferencing experience with the world's best image quality 4K webcam* that optimizes your visuals with a large 4K Sony STARVIS™ CMOS sensor and AI Auto-Framing.

3Dconnexion SpaceMouse Wireless - 3DX-7000762

3Dconnexion's patented 6-Degrees-of-Freedom (6DoF) sensor is specifically designed to manipulate digital content or camera positions in industry-leading CAD applications. Simply push, pull, twist or tilt the 3Dconnexion controller cap to intuitively pan, zoom and rotate your 3D drawing.

*Based on Dell analysis of publicly available data, July 2020.

StarTech USB-C to DP Adapter

This USB-C to DisplayPort adapter lets you connect your USB Type-C or Thunderbolt 3 device to a DisplayPort monitor or display, providing you with a convenient, high-performance solution.

HTC VIVE Pro 2 - Virtual Reality Headset - MFG# : 99HASW001-00 Dell Part# : AB645501

Dive into virtual reality experiences with this HTC VIVE Pro 2 virtual reality headset. A simple design eliminates the need for a base station, while the flip-up display lets you quickly escape to answer calls and texts.

Precision workstations

Dell Precision fixed and mobile workstations are designed with the environment in mind, using sustainable materials in our products and packaging wherever possible.

Design

1st

Workstations made with reclaimed carbon fiber and renewable bioplastic[21]. in the fan [24].

Sustainable Materials

up to 61%

Recycled plastic in fixed workstations and up to 21% in mobile workstations[20]. Oceanbound plastic is also used in the components of select Precisions.

Packaging Innovation

100%

Precision mobile workstations ship in packaging made from 100% recycled or renewable materials and is 100% recyclable[21].

ECOLABELS

35+

EPEAT registered products[25]

→ EPEAT

8.0

ENERGY STAR®

throughout the portfolio

→ ENERGY STAR®

PRECISION
7680

FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 7680
PROCESSOR OPTIONS[1]	13th Generation Intel® Core™ i5-13600HX, 24 MB cache, 20 threads, 14 cores (6 P cores & 8 E cores), P cores 2.60 GHz to 4.80 GHz, E cores 1.90 GHz to 3.60 GHz, 55 W
	13th Generation Intel® Core™ i7-13850HX, 30 MB cache, 28 threads, 20 cores (8 P cores & 12 E cores), P cores 2.20 GHz to 5.30 GHz, E cores 1.50 GHz to 3.80 GHz, 55 W
	13th Generation Intel® Core™ i9-13950HX, 36 MB cache, 32 threads, 24 cores (8 P cores & 16 E cores), P cores 2.20 GHz to 5.50 GHz, E cores 1.60 GHz to 4.00 GHz, 55 W
OPERATING SYSTEM[1]	Windows 10 Home with Windows 11 License, 64-bit Windows 10 Pro with Windows 11 License, 64-bit Windows 10 Enterprise with Windows 11 License,64bit Windows 10 Pro Education with Windows 11 License, 64-bit Windows 11 Pro, 64-bit Windows 11 Pro National Education, 64-bit Windows 11 Home, 64-bit Ubuntu® 22.04 LTS, 64-bit RedHat Enterprise Linux 9.2 (RHEL via downloadable image only)
MEMORY OPTIONS[1,2,3]	16 GB, 1 x 16 GB, DDR5, 4800 MHz, non-ECC, CAMM module
	32 GB, 1 x 32 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5600 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module
	64 GB, 1 x 64 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5200 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module
	128 GB, 1 x
	128 GB, DDR5, 3600 MHz, non-ECC, CAMM module
	8 GB, 1 x 8 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5600 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM
	16 GB, 1 x 16 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5600 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM
	32 GB, 2 x 16 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5600 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel
	64 GB, 2 x 32 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5200 MHz for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel
	16 GB, 1 x 16 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5600 MHz for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM
	32 GB, 1 x 32 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5200 MHz for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM
	64 GB, 2 x 32 GB, DDR5, 4800 MHz for 13th Generation Intel® Core™ i5 processors, 5200 MHz for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM, dual-channel
STORAGE[1,3]	256 GB, M.2 2230, PCIe NVMe Gen4 x4, Class 35 SSD 512 GB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD 1 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD 2 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD 4 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD 512 GB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD, self-encrypting drive 1 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD, self-encrypting drive 16" Thin (max 2 drives, RAID 0,1) 16" Performance (max 3 drives, RAID 0,1,5) 16" Thin (max 2 drives, RAID 0,1) 16" Performance (max 3 drives, RAID 0,1,5)
GRAPHICS	**Integrated:** Intel® UHD Graphics **Discrete: (optional)** NVIDIA RTX™ A1000, 6 GB GDDR6 NVIDIA RTX™ 2000 Ada Generation, 8 GB GDDR6 NVIDIA RTX™ 3500 Ada Generation, 12 GB GDDR6 NVIDIA RTX™ 4000 Ada Generation, 12 GB GDDR6 NVIDIA RTX™ 5000 Ada Generation, 16 GB GDDR6

FEATURE	TECHNICAL SPECIFICATION
SECURITY SOFTWARE	Dell Client Command Suite Optional Dell Data Security and Management Software Dell BIOS Verification Optional Dell Endpoint Security and Management Software VMware Carbon Black Endpoint Standard VMware Carbon Black Endpoint Standard + Secureworks Threat Detection and Response Dell Encryption Enterprise Dell Encryption Personal Carbonite VMware Workspace ONE Absolute® Endpoint Visibility and Control Netskope Dell Supply Chain Defense
WARRANTYS[9,10]	3-year hardware warranty with on-site/in-home service after remote diagnosis 4-year hardware warranty with on-site/in-home service after remote diagnosis 5-year hardware warranty with on-site/in-home service after remote diagnosis 3-year ProSupport with Next Business Day on-site service 4-year ProSupport with Next Business Day on-site service 5-year ProSupport with Next Business Day on-site service 3-year ProSupport Plus with Same Business Day on-site service 4-year ProSupport Plus with Same Business Day on-site service 5-year ProSupport Plus with Same Business Day on-site servicee
ACCIDENTAL DAMAGE SERVICES	3-year Accidental Damage Service 4-year Accidental Damage Service 5-year Accidental Damage Service
KEYBOARD[1]	English US and Canada, Standard, backlit keyboard with 10-key numeric keypad, 99 keys English UK, Standard, backlit keyboard with 10-key numeric keypad, 103 keys Additional languages available
PORTS	(2) ThunderBolt™ 4 / USB 4.0 Type-C ports USB 3.2 Gen 2 Type-C port with DisplayPort alt mode USB 3.2 Gen 1 port with PowerShare USB 3.2 Gen 1 port HDMI 2.0a port (UMA)/1 HDMI 2.1 port (DGPU) RJ45 Ethernet port headset (headphone and microphone combo) port
SLOTS	SmartCard Reader Nano-SIM-card slot MicroSD-card slot wedge-shaped lock slot
DIMENSIONS	**Thin:** Height (peak): 0.98 in. (24.70 mm) Height (rear): 0.92 in. (23.20 mm) Height (front): 0.88 in. (22.30 mm) Width: 14.02 in. (356.00 mm) Depth: 10.18 in. (258.34 mm) Weight: 5.75 lb (2.60 kg) **Performance:** Height (peak): 1.09 in. (27.45 mm) Height (rear): 1.03 in. (25.95 mm) Height (front): 0.99 in. (25.05 mm) Width: 14.02 in. (356.00 mm) Depth: 10.18 in. (258.34 mm) Weight: starting at 5.90 lb (2.67 kg)
CAMERA	1080p at 30fps, FHD, RGB, with Omni-directional digital Microphone 1080p at 30fps, FHD, IR, with Omni-directional digital Microphone +Proximity sensor
AUDIO & SPEAKERS	Stereo speakers with Dialog, 2W x 4 = 8W total
WIRELESS	**Wireless:** Intel® AX211, 2x2 MIMO, 2400 Mbps, 2.40 GHz/5 GHz/6GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth® 5.3, socketed **Mobile broadband:** Qualcomm SDX55 5G, Up to 3 Gbps, 7x20 MHz

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FEATURE TECHNICAL SPECIFICATION

DISPLAY OPTIONS[1]
16-inch, FHD+ 1920 x 1200, 60 Hz, anti-glare, non-touch, 45% NTSC, 250 nits, wide-viewing angle

16-inch, FHD+ 1920 x 1200, 60 Hz, anti-glare, non-touch, 100% DCIP3, 500 nits, wide-viewing angle, WLED

16-inch, UHD+ 3840 x 2400, 60 Hz, touch, 100% DCIP3, 400 nits, wide-viewing angle, OLED

CASE COLOR
Aluminum Titan Grey

PRODUCTIVITY SOFTWARE[1]
Dell Support Assist
DDRE (Dell Developed Recovery Environment)
Dell Optimizer for Precision
Dell Support Center
Intel® WiFi Direct

PRIMARY BATTERY
6-cell, 83 Wh, Lithium-ion, ExpressCharge™ 2.0
6-cell, 93 Wh, Lithium-ion, ExpressCharge™ and ExpressCharge Boost
Long life-cycle batteries with up to 3 year warranty available

POWER
180 W AC adapter, 7.40 mm barrel
240 W AC adapter, 7.40 mm barrel

REGULATORY[8,12]
Product Safety, EMC and Environmental Datasheets:
https://www.dell.com/learn/sg/en/sgcorp1/product-info-datasheets-safety-emc-environmental
Dell Regulatory Compliance Home Page:
https://www.dell.com/learn/sg/en/sgcorp1/regulatory-compliance
Dell and the Environment:
https://www.dell.com/en-sg/dt/corporate/social-impact/advancing-sustainability/sustainable-supplychain/environment.htm

CHIPSET
Intel® RPL-BGA PCH

INTEL RESPONSIVENESS TECHNOLOGIES
Intel® Rapid Storage Technology

HARDWARE SECURITY
Trusted Platform Module (TPM) 2.0 discrete
FIPS 140-2 certification for TPM
TCG Certificatication for TPM (Trusted Computing Group)
Contacted Smart Card and Control Vault 3
Contactless Smart Card, NFC, and ControlVault 3
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
Finger Print Reader in Power Button tied to Control vault 3
SED (Opal 2.0 only - PCIe Interface)
Chassis Intrusion Detection
Battery Removal Detection
RPMC SPI flash
SPI Flash Tamper Detection / Prevention Shunt Circuit

SENSORS
Ambient Light Sensor
Windows Auto Brightness
Accelerometer
Adaptive Thermal Performance (Lap vs. Desk mode) requires Accelerometer
(NOTE: This is for thermal only.) Hall Effect Sensor
Sensor Hub
Proximity for SAR compliance (for the WWAN module) Near Field Proximity Sensor

SYSTEMS MANAGEMENT
BIOS complies to Dell SMBIOS implementation spec (DSIS)
SW and Drivers MUP/DUP compliant per spec Agile S01310
Dell Power Manager (DPM)
Dell Command | Configure Version 4.0
Dell Command | Monitor 10.0
Dell Command | Update 3.0
Dell Command | Update Catalog (DCUC)
Dell Command | Deploy (DCP)
Dell Command | Integration Suite for System Center 5.0 (DCIS) with vPro®
Dell Command | Intel® vPro ™ Out of Band (DCIV)
Dell Command | PowerShell Provider 2.0
Dell Command | Deploy Driver Pack Catalog 1.0

Product Disclosures:

1. Offering may vary by region. Some items may be available after product introduction. For complete details, refer to the Setup and Specifications 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. Computrace: Not a Dell offer. Certain conditions apply. For full details, see terms and conditions at www.lojackforlaptops.com.

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

9. 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.

10. on-site 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.

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

12. 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.

13. Based on Dell internal analysis of competitive PC performance software and applications. September 2021. Intelligent Privacy is available on select Dell systems and devices.

14. Available on Latitude 9000 and select 7000 series; Precision mobile workstations 7000 and select 5000 series. See product details for availability.

15. ExpressConnect available with Dell Optimizer software version 2.0 and onwards. Download the latest at https://www.dell.com/support/home.

16. Disclaimer: 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 or more wired or wireless connections. Based on Dell internal analysis.

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

18. ExpressResponse must be enabled in the Applications feature. DO learns how user uses the selected application(s) over several hours. Based on Dell testing using Sysmark 2018 benchmark on a Latitude system running productivity applications; and using performance evaluation benchmarks on Precision mobile workstations running ISV applications, March 2020. Improvement will vary based on product configuration, use, application and other factors

19. User must input preferred apps first in order for them to be analyzed.

20. Based on Dell analysis, Jan 2022. 21% bioplastics in LCD coverlid.

21. Based on internal analysis, April 2022.

22. Ocean-bound plastic used in the fan and fan housing (13%) on Precision 3260 CFF and the fan housing (28%) on Precision mobile workstations 3580 & 3581.

D&LL Technologies