

PRECISION 7680

FEATURE TECHNICAL SPECIFICATION

MODEL NUMBER	Precision 7680
PROCESSOR OPTIONS¹	<p>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</p> <p>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</p> <p>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</p>
OPERATING SYSTEM¹	<p>Windows 10 Home with Windows 11 License, 64-bit</p> <p>Windows 10 Pro with Windows 11 License, 64-bit</p> <p>Windows 10 Enterprise with Windows 11 License, 64-bit</p> <p>Windows 10 Pro Education with Windows 11 License, 64-bit</p> <p>Windows 11 Pro, 64-bit</p> <p>Windows 11 Pro National Education, 64-bit</p> <p>Windows 11 Home, 64-bit</p> <p>Ubuntu® 22.04 LTS, 64-bit</p> <p>RedHat Enterprise Linux 9.2 (RHEL via downloadable image only)</p>
MEMORY OPTIONS^{1,2,3}	<p>16 GB, 1 x 16 GB, DDR5, 4800 MT/s, non-ECC, CAMM module</p> <p>32 GB, 1 x 32 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5600 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module</p> <p>64 GB, 1 x 64 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5200 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module</p> <p>128 GB, DDR5, 3600 MT/s, non-ECC, CAMM module</p> <p>8 GB, 1 x 8 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5600 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM</p> <p>16 GB, 1 x 16 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5600 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM</p> <p>32 GB, 2 x 16 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5600 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel</p> <p>64 GB, 2 x 32 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5200 MT/s for 13th Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel</p> <p>16 GB, 1 x 16 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5600 MT/s for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM</p> <p>32 GB, 1 x 32 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5200 MT/s for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM</p> <p>64 GB, 2 x 32 GB, DDR5, 4800 MT/s for 13th Generation Intel® Core™ i5 processors, 5200 MT/s for 13th Generation Intel® Core™ i7/i9 processors, ECC, SODIMM, dual-channel</p>
STORAGE^{1,3}	<p>256 GB, M.2 2230, PCIe NVMe Gen4 x4, Class 35 SSD</p> <p>512 GB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD</p> <p>1 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD</p> <p>2 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD</p> <p>4 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD</p> <p>512 GB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD, self-encrypting drive</p> <p>1 TB, M.2 2280, PCIe NVMe Gen4 x4, Class 40 SSD, self-encrypting drive</p> <p>16" Thin (max 2 drives, RAID 0,1)</p> <p>16" Performance (max 3 drives, RAID 0,1,5)</p> <p>16" Thin (max 2 drives, RAID 0,1)</p> <p>16" Performance (max 3 drives, RAID 0,1,5)</p>
GRAPHICS	<p>Integrated:</p> <p>Intel® UHD Graphics</p> <p>Discrete: (optional)</p> <p>NVIDIA RTX™ A1000, 6 GB GDDR6</p> <p>NVIDIA RTX™ 2000 Ada Generation, 8 GB GDDR6</p> <p>NVIDIA RTX™ 3500 Ada Generation, 12 GB GDDR6</p> <p>NVIDIA RTX™ 4000 Ada Generation, 12 GB GDDR6</p> <p>NVIDIA RTX™ 5000 Ada Generation, 16 GB GDDR6</p>

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SECURITY SOFTWARE	<p>Dell Client Command Suite</p> <p>Optional Dell Data Security and Management Software</p> <p>Dell BIOS Verification</p> <p>Optional Dell Endpoint Security and Management Software</p> <p>VMware Carbon Black Endpoint Standard</p> <p>VMware Carbon Black Endpoint Standard + Secureworks Threat Detection and Response</p> <p>Dell Encryption Enterprise</p> <p>Dell Encryption Personal Carbonite</p> <p>VMware Workspace ONE</p> <p>Absolute® Endpoint Visibility and Control</p> <p>Netskope</p> <p>Dell Supply Chain Defense</p>
WARRANTY^{9,10}	<p>3-year hardware warranty with on-site/in-home service after remote diagnosis</p> <p>4-year hardware warranty with on-site/in-home service after remote diagnosis</p> <p>5-year hardware warranty with on-site/in-home service after remote diagnosis</p> <p>3-year ProSupport with Next Business Day on-site service</p> <p>4-year ProSupport with Next Business Day on-site service</p> <p>5-year ProSupport with Next Business Day on-site service</p> <p>3-year ProSupport Plus with Same Business Day on-site service</p> <p>4-year ProSupport Plus with Same Business Day on-site service</p> <p>5-year ProSupport Plus with Same Business Day on-site service</p>
ACCIDENTAL DAMAGE SERVICES	<p>3-year Accidental Damage Service</p> <p>4-year Accidental Damage Service</p> <p>5-year Accidental Damage Service</p>
KEYBOARD¹	<p>English US and Canada, Standard, backlit keyboard with 10-key numeric keypad, 99 keys, spill resistant</p> <p>English UK, Standard, backlit keyboard with 10-key numeric keypad, 103 keys, spill resistant</p> <p>Additional languages available</p>
PORTS	<p>(2) ThunderBolt™ 4 / USB 4.0 Type-C ports</p> <p>USB 3.2 Gen 2 Type-C port with DisplayPort alt mode</p> <p>USB 3.2 Gen 1 port with PowerShare</p> <p>USB 3.2 Gen 1 port</p> <p>HDMI 2.0a port (UMA)/1 HDMI 2.1 port (DGPU)</p> <p>RJ45 Ethernet port</p> <p>headset (headphone and microphone combo) port</p>
SLOTS	<p>SmartCard Reader</p> <p>Nano-SIM-card slot</p> <p>SD-card slot</p> <p>wedge-shaped lock slot</p>
DIMENSIONS	<p>Thin:</p> <p>Height (peak): 0.98 in. (24.70 mm)</p> <p>Height (rear): 0.92 in. (23.20 mm)</p> <p>Height (front): 0.88 in. (22.30 mm)</p> <p>Width: 14.02 in. (356.00 mm)</p> <p>Depth: 10.18 in. (258.34 mm)</p> <p>Weight: 5.75 lb (2.60 kg)</p>
CAMERA	<p>Performance:</p> <p>Height (peak): 1.09 in. (27.45 mm)</p> <p>Height (rear): 1.03 in. (25.95 mm)</p> <p>Height (front): 0.99 in. (25.05 mm)</p> <p>Width: 14.02 in. (356.00 mm)</p> <p>Depth: 10.18 in. (258.34 mm)</p> <p>Weight: starting at 5.90 lb (2.67 kg)</p>
AUDIO & SPEAKERS	<p>1080p at 30fps, FHD, RGB, with Omni-directional digital Microphone 1080p at 30fps, FHD, IR, with Omni-directional digital Microphone +Proximity sensor</p> <p>Stereo speakers with Dialog, 2W x 4 = 8W total</p>
WIRELESS	<p>Wireless:</p> <p>Intel® AX211, 2x2 MIMO, 2400 Mbps, 2.40 GHz/5 GHz/6GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth® 5.3, socketed</p> <p>Mobile broadband:</p> <p>Qualcomm SDX55 5G, Up to 3 Gbps, 7x20 MHz</p>

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DISPLAY OPTIONS¹	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 SOFTWARE¹	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 Certification 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