

# PRECISION 7780

## FEATURE TECHNICAL SPECIFICATION

**MODEL NUMBER** Precision 7780

### PROCESSOR OPTIONS<sup>1</sup>

13<sup>th</sup> 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  
 13<sup>th</sup> 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  
 13<sup>th</sup> 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<sup>1</sup>

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, 64-bit  
 Windows 10 Pro Education with Windows 11 License, 64-bit  
 Windows 10 Pro China 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<sup>16</sup>

16 GB, 1 x 16 GB, DDR5, 4800 MT/s, non-ECC, CAMM module  
 32 GB, 1 x 32 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5600 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module  
 64 GB, 1 x 64 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5200 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, CAMM module  
 128 GB, 1 x 128 GB, DDR5, 3600 MT/s, non-ECC, CAMM module  
 8 GB, 1 x 8 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5600 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM  
 16 GB, 1 x 16 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5600 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM  
 32 GB, 2 x 16 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5600 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel  
 64 GB, 2 x 32 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5200 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, non-ECC, SODIMM, dual-channel  
 16 GB, 1 x 16 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5600 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, ECC, SODIMM  
 32 GB, 1 x 32 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5200 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, ECC, SODIMM  
 64 GB, 2 x 32 GB, DDR5, 4800 MT/s for 13<sup>th</sup> Generation Intel® Core™ i5 processors, 5200 MT/s for 13<sup>th</sup> Generation Intel® Core™ i7/i9 processors, ECC, SODIMM, dual-channel

### STORAGE<sup>17</sup>

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  
 Max 4 drives, RAID 0,1,5,10

### GRAPHICS

**Integrated:**  
 Intel® UHD Graphics

**Discrete: (optional)**  
 NVIDIA RTX™ A1000 laptop, 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

### DISPLAY OPTIONS<sup>18</sup>

17.3-inch, FHD 1920 x 1080, 60 Hz, anti-glare, non-touch, 99% DCIP3, 500 nits, wide-viewing angle  
 17.3-inch, UHD 3840 x 2160, 120 Hz, anti-glare, non-touch, 99% DCIP3, 500 nits, wide-viewing angle, WLED

### CASE COLOR

Aluminum Titan Grey

## FEATURE TECHNICAL SPECIFICATION

### PRODUCTIVITY SOFTWARE<sup>14,21</sup>

Dell Support Assist  
 DDRE (Dell Developed Recovery Environment)  
 Dell Optimizer for Precision  
 Dell Support Center  
 Intel® WiFi Direct

### SECURITY SOFTWARE

Dell Client Command Suite  
 Optional Dell Data Security and Management Software

### 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

### WARRANTY<sup>20,21</sup>

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 service

### ACCIDENTAL DAMAGE SERVICES

3-year Accidental Damage Service  
 4-year Accidental Damage Service  
 5-year Accidental Damage Service

### KEYBOARD<sup>14</sup>

English US and Canada, Standard, backlit keyboard with 10-key numeric keypad, 99 keys, spill resistant  
 English UK, Standard, backlit keyboard with 10-key numeric keypad, 103 keys, spill resistant  
 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  
 SD-card slot  
 Wedge-shaped lock slot

### DIMENSIONS

Height (peak): 1.13 in. (28.50 mm)  
 Height (rear): 1.06 in. (26.70 mm)  
 Height (front): 1.03 in. (25.95 mm)  
 Width: 15.67 in. (398.00 mm)  
 Depth: 10.44 in. (265.02 mm)  
 Weight: Starting at 6.73 lb (3.05 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/6 GHz, 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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<b>PRIMARY BATTERY</b>	6-cell, 83 Wh, Lithium-ion, ExpressCharge™ 2.0 6-cell, 93 Wh, Lithium-ion, ExpressCharge™ and ExpressChargeBoost Long life-cycle batteries with up to 3 year warranty available
<b>POWER</b>	180 W AC adapter, 7.40 mm barrel 240 W AC adapter, 7.40 mm barrel
<b>REGULATORY<sup>22</sup></b>	<b>Product Safety, EMC and Environmental Datasheets:</b> <a href="https://www.dell.com/learn/sg/en/sgcorp1/product-info-datasheets-safety-emc-environmental">https://www.dell.com/learn/sg/en/sgcorp1/product-info-datasheets-safety-emc-environmental</a> <b>Dell Regulatory Compliance Home Page:</b> <a href="https://www.dell.com/learn/sg/en/sgcorp1/regulatory-compliance">https://www.dell.com/learn/sg/en/sgcorp1/regulatory-compliance</a> <b>Dell and the Environment:</b> <a href="https://www.dell.com/en-sg/dt/corporate/social-impact/advancing-sustainability/sustainable-supplychain/environment.htm">https://www.dell.com/en-sg/dt/corporate/social-impact/advancing-sustainability/sustainable-supplychain/environment.htm</a>
<b>CHIPSET</b>	Intel® RPL-BGA PCH
<b>INTEL RESPONSIVENESS TECHNOLOGIES</b>	Intel® Rapid Storage Technology
<b>HARDWARE SECURITY</b>	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
<b>SENSORS</b>	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
<b>SYSTEMS MANAGEMENT</b>	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