



# DELL Precision 7680 Intel® Core™ i9 i9-13950HX Mobile workstation 40.6 cm (16") Full HD+ 32 GB DDR5-SDRAM 1 TB SSD NVIDIA RTX 3500 Ada Wi-Fi 6E (802.11ax) Windows 11 Pro Grey

Brand : DELL

Product family: Precision

Product code: 0PD50

Product name : 7680

DELL Precision 7680. Product type: Mobile workstation, Form factor: Clamshell. Processor family: Intel® Core™ i9, Processor model: i9-13950HX. Display diagonal: 40.6 cm (16"), HD type: Full HD+, Display resolution: 1920 x 1200 pixels. Internal memory: 32 GB, Internal memory type: DDR5-SDRAM. Total storage capacity: 1 TB, Storage media: SSD. On-board graphics card model: Intel® UHD Graphics, Discrete graphics card model: NVIDIA RTX 3500 Ada. Operating system installed: Windows 11 Pro. Product colour: Grey



Design		Ports & interfaces	
Product type *	Mobile workstation	USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1
Product colour *	Grey	Ethernet LAN (RJ-45) ports	1
Form factor *	Clamshell	HDMI ports quantity *	1
Market positioning	Business	Thunderbolt 4 ports quantity	2
Introduction year	2023	Intel® Thunderbolt 4	✓
Intel® vPro™ Platform Eligibility	✓	Combo headphone/mic port	✓
<b>Display</b>		Power adapter barrel connector	7.4 mm
Display diagonal *	40.6 cm (16")	<b>Performance</b>	
Display resolution *	1920 x 1200 pixels	Ambient light sensor	✓
Touchscreen *	✗	Accelerometer	✓
HD type	Full HD+	Hall sensor	✓
Panel type	WLED	<b>Keyboard</b>	
LED backlight	✓	Pointing device	Touchpad
Native aspect ratio	16:10	Keyboard language	Nordic
Anti-glare screen	✓	Numeric keypad *	✓
Display brightness	500 cd/m <sup>2</sup>	Keyboard backlit	✓
Pixel density	142 ppi	Keyboard number of keys	100
RGB colour space	DCI-P3	<b>Software</b>	
Colour gamut	100%	Operating system architecture	64-bit
Maximum refresh rate	60 Hz	Operating system language	Multilingual
Contrast ratio (typical)	1300:1	Trial software	No Microsoft Office License Included 30 day Trial Offer Only
<b>Processor</b>		Operating system installed *	Windows 11 Pro
Processor manufacturer *	Intel	<b>Processor special features</b>	
Processor family *	Intel® Core™ i9	Intel Flex Memory Access	✓
Processor generation	13th gen Intel® Core™ i9	Intel VT-x with Extended Page Tables (EPT)	✓
Processor model *	i9-13950HX	CPU configuration (max)	1
Processor cores	24	Embedded options available	✗
Processor boost frequency	5.5 GHz	Intel Virtualization Technology for Directed I/O (VT-d)	✓
Efficient-core boost frequency	4 GHz	Intel Virtualization Technology (VT-x)	✓
Processor cache	36 MB		
Processor cache type	Smart Cache		
Bus type	DMI4		
Configurable TDP-down	45 W		

<b>Memory</b>		<b>Battery</b>	
Internal memory *	32 GB	Battery technology	Lithium-Ion (Li-Ion)
Internal memory type	DDR5-SDRAM	Number of battery cells	6
Memory clock speed	5600 MHz	Battery capacity *	93 Wh
Memory form factor	CAMM module	Battery voltage	11.55 V
Memory layout (slots x size)	1 x 32 GB	Battery recharge time	3 h
Maximum internal memory *	128 GB	Fast charging	✓
Memory channels	Dual-channel	Battery weight	410 g
Non-ECC	✓	<b>Power</b>	
<b>Storage</b>		AC adapter power	240 W
Total storage capacity *	1 TB	AC adapter frequency	50 - 60 Hz
Storage media *	SSD	AC adapter input voltage	100 - 240 V
Total SSDs capacity	1 TB	AC adapter output current	12.3 A
Number of SSDs installed	1	AC adapter output voltage	19.5 V
SSD capacity	1 TB	DC-in jack	✓
SSD interface	PCI Express 4.0	<b>Security</b>	
NVMe	✓	Cable lock slot	✓
SSD form factor	M.2	Cable lock slot type	Wedge
Optical drive type *	✗	Smart card reader	✓
Card reader integrated	✓	Trusted Platform Module (TPM)	✓
Compatible memory cards	SD, SDHC, SDXC	Trusted Platform Module (TPM) version	2.0
<b>Graphics</b>		Password protection	✓
Discrete graphics card model *	NVIDIA RTX 3500 Ada	<b>Operational conditions</b>	
Discrete graphics card memory	12 GB	Operating temperature (T-T)	0 - 35 °C
Discrete graphics memory type	GDDR6	Storage temperature (T-T)	-40 - 65 °C
On-board graphics card *	✓	Operating relative humidity (H-H)	10 - 90%
On-board GPU manufacturer	Intel	Storage relative humidity (H-H)	0 - 95%
Discrete graphics card *	✓	Operating altitude	-15.2 - 3048 m
On-board graphics card model *	Intel® UHD Graphics	Non-operating altitude	-15.2 - 10668 m
<b>Audio</b>		Operating shock	110 G
Audio chip	Realtek ALC3281	Non-operating shock	160 G
Number of built-in speakers	2	Operating vibration	0.66 G
Speaker power	2 W	Non-operating vibration	1.3 G
Built-in microphone	✓	<b>Weight &amp; dimensions</b>	
Number of microphones	2	Width	356 mm
<b>Camera</b>		Depth	258.3 mm
Front camera	✓	Height (front)	2.23 cm
Front camera resolution (numeric)	0.92 MP	Height (rear)	2.32 cm
Front camera resolution	1920 x 1080 pixels	Weight *	2.6 kg
Front camera HD type	Full HD	<b>Carbon footprint</b>	
Video capturing speed	30 fps	Total carbon footprint (kg of CO2e)	471
Infrared (IR) camera	✓	Total carbon emissions, standard deviation (kg of CO2e)	93
<b>Network</b>		Carbon emissions, manufacturing (kg of CO2e)	386
Top Wi-Fi standard *	Wi-Fi 6E (802.11ax)	Carbon emissions, logistics (kg of CO2e)	16
Wi-Fi standards	802.11a, 802.11b, 802.11g, Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac), Wi-Fi 6E (802.11ax)	Carbon emissions, energy usage (kg of CO2e)	66
Mobile network connection *	✗	Carbon emissions, end-of-life (kg of CO2e)	2
Wi-Fi data rate (max)	2400 Mbit/s	Total carbon emissions, w/o use phase (kg of CO2e)	405
Antenna type	2x2	PAIA version	1.3.2
WLAN controller model	Intel Wi-Fi 6E AX211	<b>Packaging content</b>	
WLAN controller manufacturer	Intel	Cables included	AC
Ethernet LAN	✓		
Ethernet LAN data rates	10,100,1000 Mbit/s		
Bluetooth	✓		
<b>Ports &amp; interfaces</b>			
USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2		



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