DELL

DELL Precision 7780 Intel® Core™ i7 i7-13850HX Mobile workstation 43.9 cm (17.3") Full HD 16 GB DDR5-SDRAM 512 GB SSD NVIDIA RTX 2000 Ada Wi-Fi 6E (802.11ax) Windows 11 Pro Belgian Grey

Brand : DELL   **Product family:** Precision   **Product code:** R9N19

Product name : 7780

DELL Precision 7780. Product type: Mobile workstation, Form factor: Clamshell. Processor family: Intel® Core™ i7, Processor model: i7-13850HX. Display diagonal: 43.9 cm (17.3"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 16 GB, Internal memory type: DDR5-SDRAM. Total storage capacity: 512 GB, Storage media: SSD. On-board graphics card model: Intel® UHD Graphics, Discrete graphics card model: NVIDIA RTX 2000 Ada. Operating system installed: Windows 11 Pro. Product colour: Grey

Design

Product type *	Mobile workstation
Product colour *	Grey
Form factor *	Clamshell
Market positioning	Business
Intel® vPro™ Platform Eligibility	✔

Display

Display diagonal *	43.9 cm (17.3")
Display resolution *	1920 x 1080 pixels
Touchscreen *	✘
HD type	Full HD
Panel type	WVA
LED backlight	✔
Native aspect ratio	16:9
Anti-glare screen	✔
Display brightness	500 cd/m²
Pixel density	127 ppi
RGB colour space	DCI-P3
Colour gamut	99%
Maximum refresh rate	60 Hz
Contrast ratio (typical)	1000:1

Processor

Processor manufacturer *	Intel
Processor family *	Intel® Core™ i7
Processor generation	13th gen Intel® Core™ i7
Processor model *	i7-13850HX
Processor cores	20
Processor threads	28
Performance-core Max Turbo Frequency	5.3 GHz
Efficient-core Max Turbo Frequency	3.8 GHz
Processor cache	30 MB
Processor cache type	Smart Cache
Bus type	DMI4
Configurable TDP-down	45 W

Ports & interfaces

HDMI ports quantity *	1
Thunderbolt 4 ports quantity	2
Intel® Thunderbolt 4	✔
Combo headphone/mic port	✔
Power adapter barrel connector	7.4 mm
USB Type-C DisplayPort Alternate Mode	✔
PowerShare	✔
Number of USB ports with PowerShare support	1

Performance

Ambient light sensor	✔
Accelerometer	✔
Hall sensor	✔

Keyboard

Pointing device	Touchpad
Numeric keypad *	✔
Keyboard backlit	✔
Keyboard number of keys	100
Keyboard language	Belgian

Software

Operating system architecture	64-bit
Operating system language	Multilingual
Trial software	Activate Your Microsoft 365 For A 30 Day Trial
Operating system installed *	Windows 11 Pro

Processor special features

Intel Flex Memory Access	✔
Intel VT-x with Extended Page Tables (EPT)	✔
CPU configuration (max)	1
Embedded options available	✘
Intel Virtualization Technology for Directed I/O (VT-d)	✔

Memory

Internal memory *	16 GB
Internal memory type	DDR5-SDRAM
Memory clock speed	4800 MHz
Memory form factor	CAMM module
Memory layout (slots x size)	1 x 16 GB
Maximum internal memory *	128 GB
Non-ECC	✔

Storage

Total storage capacity *	512 GB
Storage media *	SSD
Total SSDs capacity	512 GB
Number of SSDs installed	1
SSD capacity	512 GB
SSD interface	PCI Express
NVMe	✔
SSD form factor	M.2
Optical drive type *	✖
Card reader integrated	✔
Compatible memory cards	SD, SDHC, SDXC

Graphics

Discrete graphics card model *	NVIDIA RTX 2000 Ada
Discrete graphics card memory	8 GB
Discrete graphics memory type	GDDR6
On-board graphics card *	✔
On-board GPU manufacturer	Intel
Discrete graphics card *	✔
On-board graphics card model *	Intel® UHD Graphics

Audio

Audio chip	Realtek ALC3281
Number of built-in speakers	2
Speaker power	2 W
Built-in microphone	✔
Number of microphones	2

Camera

Front camera	✔
Front camera resolution (numeric)	0.92 MP
Front camera resolution	1920 x 1080 pixels
Front camera HD type	Full HD
Video capturing speed	30 fps
Infrared (IR) camera	✔

Network

Top Wi-Fi standard *	Wi-Fi 6E (802.11ax)
Wi-Fi standards	802.11a, 802.11b, 802.11g, Wi-Fi 4 (802.11n), Wi-Fi 5 (802.11ac), Wi-Fi 6E (802.11ax)
Mobile network connection *	✖
Wi-Fi data rate (max)	2400 Mbit/s
Antenna type	2x2
WLAN controller model	Intel Wi-Fi 6E AX211
WLAN controller manufacturer	Intel
Ethernet LAN	✔
Ethernet LAN data rates	10,100,1000 Mbit/s
Bluetooth	✔

Ports & interfaces

USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity *	2

Processor special features

Intel Virtualization Technology (VT-x)	✔

Battery

Battery technology	Lithium-Ion (Li-Ion)
Number of battery cells	6
Battery capacity *	93 Wh
Battery voltage	11.55 V
Battery recharge time	3 h
Fast charging	✔
Battery charge indicator	✔
Battery weight	410 g

Power

AC adapter power	240 W
AC adapter frequency	50 - 60 Hz
AC adapter input voltage	100 - 240 V
AC adapter output current	12.3 A
DC-in jack	✔

Security

Cable lock slot	✔
Cable lock slot type	Wedge
Smart card reader	✔
Trusted Platform Module (TPM)	✔
Trusted Platform Module (TPM) version	2.0
Password protection	✔

Operational conditions

Operating temperature (T-T)	0 - 35 °C
Storage temperature (T-T)	-40 - 65 °C
Operating relative humidity (H-H)	10 - 90%
Storage relative humidity (H-H)	0 - 95%
Operating altitude	-15.2 - 3048 m
Non-operating altitude	-15.2 - 10668 m
Operating shock	110 G
Non-operating shock	160 G
Operating vibration	0.66 G
Non-operating vibration	1.3 G

Weight & dimensions

Width	398 mm
Depth	265 mm
Height (front)	2.6 cm
Height (rear)	2.67 cm
Weight *	3.02 kg

Carbon footprint

Total carbon footprint (kg of CO2e)	510
Total carbon emissions, standard deviation (kg of CO2e)	104
Carbon emissions, manufacturing (kg of CO2e)	404
Carbon emissions, logistics (kg of CO2e)	19
Carbon emissions, energy usage (kg of CO2e)	85
Carbon emissions, end-of-life (kg of CO2e)	2
Total carbon emissions, w/o use phase (kg of CO2e)	425
PAIA version	1.3.2

Ports & interfaces		Packaging content	
USB 3.2 Gen 2 (3.1 Gen 2) Type-C ports quantity	1	Cables included	AC
Ethernet LAN (RJ-45) ports	1		

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