

Precision 5770

Technical Guidebook

Notes, cautions, and warnings

 **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Views of Precision 5770

Right



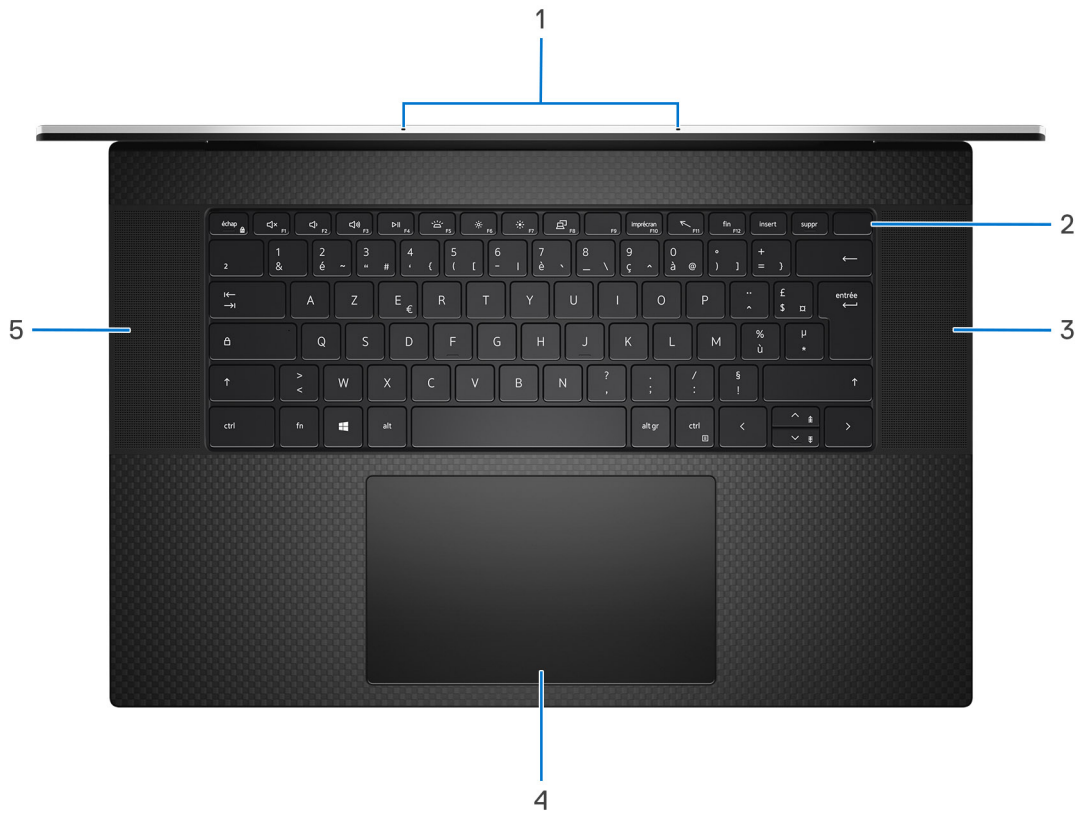
1. Two Thunderbolt 4 Type-C ports with DisplayPort Alt Mode and Power Delivery
2. SD-card slot
3. Universal audio jack

Left



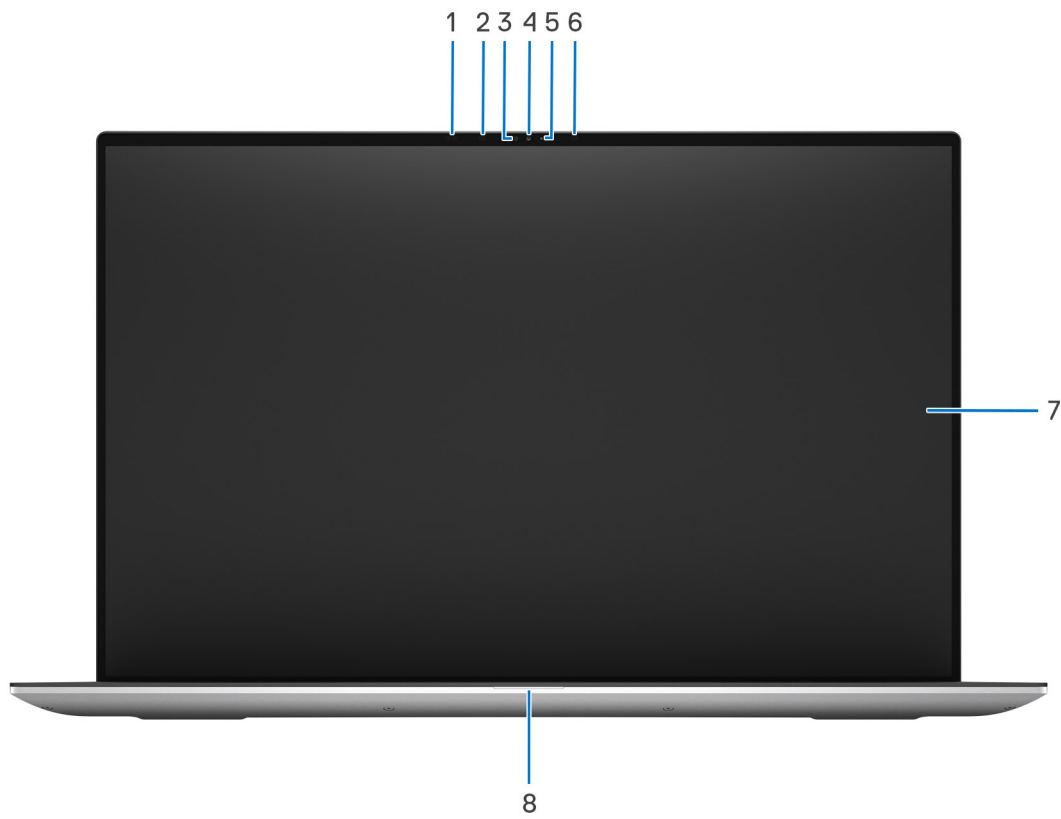
1. Wedge-shaped lock slot
2. Two Thunderbolt 4 Type-C ports with DisplayPort Alt Mode and Power Delivery

Top



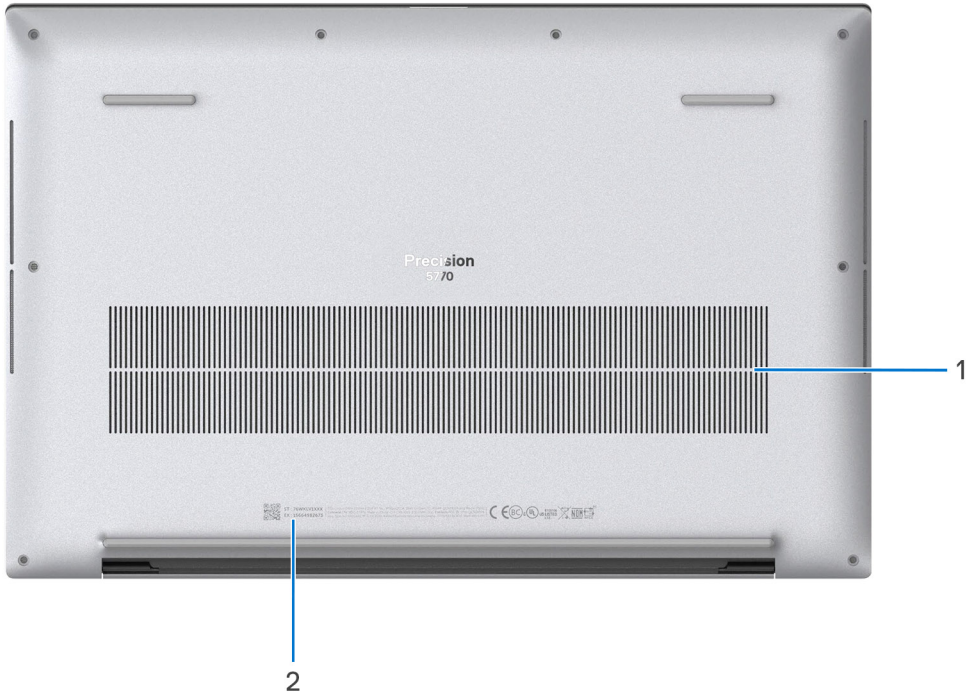
1. Dual digital-array microphones
2. Power button
3. Right speaker
4. Trackpad
5. Left speaker

Front



1. Proximity sensors
2. IR LED
3. Ambient Light Sensor (ALS)
4. Camera (RGB/IR)
5. Camera status light
6. IR LED
7. Display panel
8. Power LED indicator

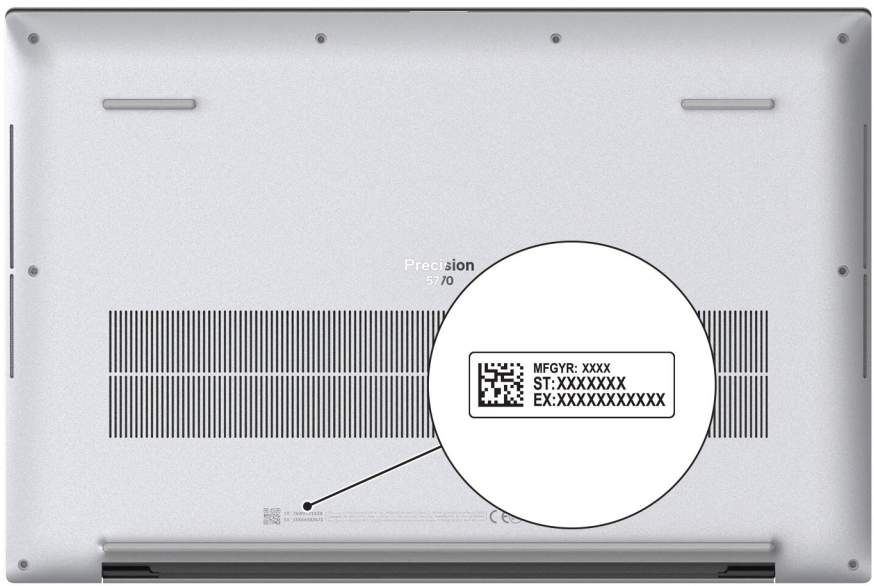
Bottom



- 1. Air vents
- 2. Service tag label

Service Tag

The service tag is a unique alphanumeric identifier that allows Dell service technicians to identify the hardware components in your computer and access warranty information.



Battery charge and status light

The following table lists the battery charge and status light behavior of your Precision 5770.

Table 1. Battery charge and status light behavior

Power Source	LED Behavior	System Power State	Battery Charge Level
AC Adapter	Off	S0 - S5	Fully Charged
AC Adapter	Solid White	S0 - S5	< Fully Charged
Battery	Off	S0 - S5	11-100%
Battery	Solid Amber (590+/-3 nm)	S0 - S5	< 10%


- S0 (ON) - System is turned on.
- S4 (Hibernate) - The system consumes the least power compared to all other sleep states. The system is almost at an OFF state, expect for a trickle power. The context data is written to hard drive.
- S5 (OFF) - The system is in a shutdown state.

Specifications of Precision 5770

Dimensions and weight

The following table lists the height, width, depth, and weight of your Precision 5770.

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	8.67 mm (0.34 in.)
Rear height	13.15 mm (0.51 in.)
Width	374.48 mm (14.74 in.)
Depth	248.08 mm (9.76 in.)
Weight  NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.	<ul style="list-style-type: none"> • Minimum: 2.17 kg (4.79 lb) • Maximum: 2.57 kg (5.67 lb)

Processor

The following table lists the details of the processors supported by your Precision 5770.

Table 3. Processor

Description	Option one	Option two	Option three	Option four
Processor type	12 th Generation Intel Core i5-12600H	12 th Generation Intel Core i7-12700H	12 th Generation Intel Core i7-12800H	12 th Generation Intel Core i9-12900H
Processor wattage	45 W	45 W	45 W	45 W
Processor core count	12	14	14	14
Processor thread count	16	20	20	20
Processor speed	2.70 Ghz to 4.50 GHz	2.30 GHz to 4.70 GHz	2.40 GHz to 4.80 GHz	2.50 GHz to 5.00 GHz
Processor cache	18 MB	24 MB	24 MB	24 MB
Integrated graphics	Intel Iris X ^e Graphics OR Intel UHD Graphics	Intel Iris X ^e Graphics OR Intel UHD Graphics	Intel Iris X ^e Graphics OR Intel UHD Graphics	Intel Iris X ^e Graphics OR Intel UHD Graphics

Chipset

The following table lists the details of the chipset supported by your Precision 5770.

Table 4. Chipset

Description	Values
Chipset	Intel Alder Lake H45
Processor	12 th Generation Intel Core i5/i7/i9
DRAM bus width	128 bit
Flash EPROM	64 MB
PCIe bus	Up to Gen 4.0

Operating system

Your Precision 5770 supports the following operating systems:

- Windows 10 Pro, 64-bit
- Windows 10 Pro National Academic, 64-bit
- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Ubuntu 20.04 LTS, 64-bit
- RedHat v8.6

Memory

The following table lists the memory specifications of your Precision 5770.

Table 5. Memory specifications

Description	Values
Memory slots	Two-SODIMM slots
Memory type	Dual-channel DDR5
Memory speed	4800 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none">• 8 GB, 1 x 8 GB, DDR5, 4800 MHz, Non-ECC, single channel• 16 GB, 2 x 8 GB, DDR5, 4800 MHz, Non-ECC, dual channel• 32 GB, 2 x 16 GB, DDR5, 4800 MHz, Non-ECC, dual channel• 64 GB, 2 x 32 GB, DDR5, 4800 MHz, Non-ECC, dual channel

External ports

The following table lists the external ports on your Precision 5770.


Table 6. External ports

Description	Values
USB ports	<ul style="list-style-type: none">Four Thunderbolt 4 (USB Type-C) with DisplayPort Alt Mode and Power Delivery
Audio port	One universal audio jack
Video port/ports	Via Thunderbolt 4 (USB Type-C) ports
Media-card reader	One SD 4.0 card slot
Power-adaptor port	USB Type-C
Security-cable slot	One Wedge-shaped lock slot

Internal slots

The following table lists the internal slots of your Precision 5770.

Table 7. Internal slots

Description	Values
M.2	<ul style="list-style-type: none">Two M.2 2230/2280 slot for solid-state drive <p> NOTE: To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at www.dell.com/support.</p>

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Precision 5770.

Table 8. Wireless module specifications

Description	Values
Model number	Intel Wi-Fi 6 AX211 (onboard)
Transfer rate	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none">Wi-Fi 802.11a/b/gWi-Fi 4 (WiFi 802.11n)Wi-Fi 5 (WiFi 802.11ac)Wi-Fi 6 (WiFi 802.11ax)
Encryption	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP

Table 8. Wireless module specifications (continued)

Description	Values
Bluetooth	Bluetooth 5.2

Audio

The following table lists the audio specifications of your Precision 5770.

Table 9. Audio specifications

Description	Values
Audio controller	Realtek ALC711-CG
Stereo conversion	Supported
Internal audio interface	SoundWire
External audio interface	Universal audio jack
Number of speakers	<ul style="list-style-type: none"> • 2 x Woofers • 2 x Tweeters
Internal-speaker amplifier	Realtek ALC1319D
External volume controls	Keyboard shortcut controls
Speaker output:	
Average speaker output	<ul style="list-style-type: none"> • Woofer: 2 x 2 W • Tweeters: 2 x 2 W
Peak speaker output	<ul style="list-style-type: none"> • Woofer: 2 x 2.5 W • Tweeters: 2 x 2.5 W
Subwoofer output	Not supported
Microphone	Dual-array microphones

Storage

This section lists the storage options on your Precision 5770.

Your computer supports one of the following configurations:

- M.2 2230, solid-state drive
- M.2 2280, solid-state drive
- M.2 2280, Opal Self-Encrypting solid-state drive

The primary drive of your computer varies with the storage configuration.

Table 10. Storage specifications

Storage type	Interface type	Capacity
M.2 2230, Class 35 solid-state drive	PCIe NVMe Gen3 x4	256 GB
M.2 2230, Class 35 solid-state drive	PCIe NVMe Gen4 x4	256 GB

Table 10. Storage specifications (continued)

Storage type	Interface type	Capacity
M.2 2280, Class 40 solid-state drive	PCIe NVMe Gen4 x4	Up to 4 TB i NOTE: 4 TB SSD is only supported on systems configured with discrete graphics.
M.2 2280, Class 40 solid-state drive, Opal Self-Encrypting solid-state drive	PCIe NVMe Gen3 x4	Up to 1 TB

Media-card reader

The following table lists the media cards supported by your Precision 5770.

Table 11. Media-card reader specifications

Description	Values
Media-card type	One SD 4.0 card slot
Media-cards supported	<ul style="list-style-type: none"> Secure Digital (SD) Secure Digital High Capacity (SDHC) Secure Digital Extended Capacity (SDXC)
i NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

Keyboard

The following table lists the keyboard specifications of your Precision 5770.

Table 12. Keyboard specifications

Description	Values
Keyboard type	<ul style="list-style-type: none"> Backlit
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"> United States and Canada: 79 keys United Kingdom: 80 keys Japan: 83 keys
Keyboard size	X=19.05 mm key pitch Y=18.05 mm key pitch
Keyboard shortcuts	<p>Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.</p> <p>i NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program.</p>

Camera

The following table lists the camera specifications of your Precision 5770.

Table 13. Camera specifications

Description		Values
Number of cameras		One
Camera type		RGB-Ir camera with dual digital-array microphones
Camera location		Front camera
Camera sensor type		CMOS RGB-Ir hybrid technology
Camera resolution:		
	Still image	0.90 megapixel
	Video	1280 x 720 (HD) at 30 fps
Infrared camera resolution:		
	Still image	0.92 megapixel
	Video	640 x 360 at 30 fps
Diagonal viewing angle:		
	Camera	78.5 degrees
	Infrared camera	78.5 degrees

Touchpad

The following table lists the touchpad specifications of your Precision 5770.


Table 14. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	4655
	Vertical	2731
Touchpad dimensions:		
	Horizontal	149.90 mm (5.90 in.)
	Vertical	89 mm (3.50 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article at support.microsoft.com .

Power adapter

The following table lists the power adapter specifications of your Precision 5770.

Table 15. Power adapter specifications

Description	Option one	Option two
Type	90 W USB Type-C	130 W Type-C
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC
Input frequency	50 to 60 Hz	50 to 60 Hz
Input current (maximum)	1.50 A	1.80 A
Output current (continuous)	<ul style="list-style-type: none"> ● 20 V/4.5 A ● 15 V/3 A ● 9 V/3 A ● 5 V/3 A 	<ul style="list-style-type: none"> ● 20 V/6.5 A ● 5.0 V/1 A
Rated output voltage	<ul style="list-style-type: none"> ● 20 VDC ● 15 VDC ● 9 VDC ● 5 VDC 	<ul style="list-style-type: none"> ● 20 VDC ● 5 VDC
Temperature range:		
Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
 CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.		

Battery

The following table lists the battery specifications of your Precision 5770.

Table 16. Battery specifications

Description	Option one	Option two
Battery type	3-cell, 56 WHr ExpressCharge	6-cell, 97 WHr ExpressCharge
Battery voltage	11.40 VDC	11.40 VDC
Battery weight (maximum)	0.27 kg (0.60 lb)	0.385 kg (0.85 lb)
Battery dimensions:		
Height	8.45 mm (0.33 in.)	8.45 mm (0.33 in.)
Width	69.70 mm (2.74 in.)	69.70 mm (2.74 in.)
Depth	330.65 mm (13.02 in.)	330.65 mm (13.02 in.)
Temperature range:		

Table 16. Battery specifications (continued)

Description		Option one	Option two
	Operating	<ul style="list-style-type: none"> Charge: 0°C to 50°C (32°F to 122°F) Discharge: 0°C to 60°C (32°F to 140°F) 	<ul style="list-style-type: none"> Charge: 0°C to 50°C (32°F to 122°F) Discharge: 0°C to 60°C (32°F to 140°F)
	Storage	-40°C to 60°C (-4°F to 140°F)	-40°C to 60°C (-4°F to 140°F)
Battery operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Battery charging time (approximate) ⓘ NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on www.dell.com .		<ul style="list-style-type: none"> Standard charge, 0°C to 50°C (32°F to 122°F): 4 hours ExpressCharge, 0°C to 15°C (32°F to 59°F): 4 hours ExpressCharge, 16°C to 45°C (60.80°F to 113°F): 2 hours ExpressCharge, 46°C to 50°C (114.80°F to 122°F): 3 hours ⓘ NOTE: Control the charging time, duration, start and end time, and so on, using the Dell Power Manager application. For more information about the Dell Power Manager, see, <i>Me and My Dell</i> on www.dell.com/ .	<ul style="list-style-type: none"> Standard charge, 0°C to 50°C (32°F to 122°F): 4 hours ExpressCharge, 0°C to 15°C (32°F to 59°F): 4 hours ExpressCharge, 16°C to 45°C (60.80°F to 113°F): 2 hours ExpressCharge, 46°C to 50°C (114.80°F to 122°F): 3 hours ⓘ NOTE: Control the charging time, duration, start and end time, and so on, using the Dell Power Manager application. For more information about the Dell Power Manager, see, <i>Me and My Dell</i> on www.dell.com/ .
Coin-cell battery		Not supported	Not supported
⚠ CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.			
⚠ CAUTION: Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.			

Display

The following table lists the display specifications of your Precision 5770.

Table 17. Display specifications

Description		Option one	Option two
Display type		Full High Definition Plus (FHD+)	Ultra High Definition Plus (UHD+)
Display-panel technology		Wide Viewing Angle (WVA) with Low Blue Light	Wide Viewing Angle (WVA) with Low Blue Light
Display-panel dimensions (active area):			
	Height	366.34 mm (14.42 in.)	366.34 mm (14.42 in.)
	Width	228.96 mm (9.01 in.)	228.96 mm (9.01 in.)
	Diagonal	432.00 mm (17 in.)	432.00 mm (17 in.)

Table 17. Display specifications (continued)

Description	Option one	Option two
Display-panel native resolution	1920 x 1200	3840 x 2400
Luminance (typical)	500 nits	500 nits
Megapixels	2.3	9.2
Color gamut	sRGB 100% min	Adobe 100% min; DCI-P3 99% typ, 95% min
Pixels Per Inch (PPI)	133	266
Contrast ratio (min.)	1650:1 typical	1600:1 typical
Response time (max.)	35 ms	35 ms
Refresh rate	60 Hz	60 Hz
Horizontal view angle	+/- 85 degrees typical	+/- 85 degrees typical
Vertical view angle	+/- 85 degrees typical	+/- 85 degrees typical
Pixel pitch	0.1908 mm	0.0954 mm
Power consumption (maximum)	5.06 W	13.73 W
Anti-glare vs glossy finish	Anti-glare	Anti-reflective
Touch options	No	Yes, 10 finger touch

Fingerprint reader

The following table lists the fingerprint-reader specifications of your Precision 5770.


 **NOTE:** The fingerprint reader is located on the power button.

Table 18. Fingerprint reader specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	500 dpi
Fingerprint-reader sensor pixel size	108 x 88

Sensor

The following table lists the sensor of your Precision 5770.

Table 19. Sensor

Sensor support
Accelerometer (ST Micro LIS2DW12TR): on the base (system board)
ALS for Panel Backlight Control

Table 19. Sensor (continued)

Sensor support
Single Proximity sensor - on upper bezel

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Precision 5770.

Table 20. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics (Single-channel memory)	Shared system memory	12 th Generation Intel Core i5/i7/i9 processors
Intel Iris X ^e Graphics (Dual-channel memory)	Shared system memory	12 th Generation Intel Core i5/i7/i9 processors

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Precision 5770.

Table 21. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce RTX A3000	12 GB	GDDR6
NVIDIA GeForce RTX A2000	8 GB	GDDR6

Multiple display support matrix

The following table lists the multiple display support matrix for your Precision 5770.

Table 22. Multiple display support matrix

Graphics Card	Direct Graphics Controller Direct Output Mode	Supported external displays with computer internal display on	Supported external displays with computer internal display off
NVIDIA GeForce RTX A2000	No	No	No
NVIDIA GeForce RTX A3000	Yes	Yes	Yes
Intel UHD Graphics	Not applicable	3	4
Intel Iris Xe Graphics	Not applicable	3	4

Hardware security

The following table lists the hardware security of your Precision 5770.

Table 23. Hardware security

Hardware security
Trusted Platform Module (TPM) 2.0 FIPS 140-2 Certified
Chassis Intrusion Detection
1 wedge-shaped lock slot

Operating and storage environment

This table lists the operating and storage specifications of your Precision 5770.

Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 24. Computer environment

Description	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	110 G†	160 G†
Altitude range	-15.2 m to 3048 m (4.64 ft to 5518.4 ft)	-15.2 m to 10668 m (4.64 ft to 19234.4 ft)

CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.

* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse.

Engineering specifications

Wireless module

Intel AX211, 2x2 MIMO, 2400 Mbps, 2.4/5/6 GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth 5.2

The following table lists the Intel AX211 specifications.

Table 25. Intel AX211 specifications


Host interface	CNVi3 (Connectivity Integration 3 rd generation)
Network standard	IEEE 802.11a/b/g/n/ac/ax, 160MHz channel use, MU-MIMO, new 6GHz band
Wi-Fi Alliance certifications	Wi-Fi CERTIFIED 6, Wi-Fi CERTIFIED a/b/g/n/ac,WMM, WMM-Power Save, WPA2, WPA3, WPS, PMF,Wi-Fi Direct, Wi-Fi Agile Multiband  NOTE: Other names and brands may be claimed as the property of others.
Operating frequency bands	<ul style="list-style-type: none"> • 2.4 GHz • 5 GHz • 6 GHz
Data rate	<ul style="list-style-type: none"> • 2.4 GHz 40M: Up to 574 Mbps • 5/6 GHz 80M: Up to 1.2 Gbps • 5/6 GHz 160M: Up to 2.4 Gbps
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security methods	<ul style="list-style-type: none"> • WPA2 Personal and Enterprise • WPA3
Authentication protocols	<ul style="list-style-type: none"> • 802.1X EAP-TLS • EAP-TTLS/MSCHAPv2 • PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)
Encryption	<ul style="list-style-type: none"> • 64-bit and 128-bit WEP • TKIP • 128-bit AES-CCMP • 256-bit AES-GCMP
Product safety	<ul style="list-style-type: none"> • UL • C-UL • CB (IEC60950-1)
Management capabilities alerting	Support for Intel AMT
Government compliance	<ul style="list-style-type: none"> • FIPS 140-2 • FISMA
Client utility	Intel PRO/Set wireless software v22 and later

Table 25. Intel AX211 specifications (continued)


Antenna diversity	Supported
Radio On/Off	Supported
Roaming	Support seamless roaming between access points
Wake on wireless	Supported
Wireless display	Native Miracast support by Windows
Wireless PAN standard	<ul style="list-style-type: none">• Dual Mode Bluetooth 5.2• BLE
Bluetooth data rates	Up to 3 Mbps
Bluetooth operating frequency bands	2.4 GHz
Bluetooth profiles supported	Support for Microsoft Inbox Bluetooth profiles in Windows
Bluetooth data encryption	128-bit encryption
Bluetooth output power	Power class 1
Operating temperature	0°C to + 50°C (Full performance at shield temperatures up to 80°C)
Storage temperature	-40°C to +70°C
Humidity	Up to 90% RH non-condensing (at temperatures of 25° C to 35° C)

GPU—Integrated

Intel UHD Graphics

The following table lists the Intel UHD Graphics specifications.

Table 26. Intel UHD Graphics specifications

Bus type	Integrated graphics
Memory type	UMA
Graphics level	i5/i7/i9: GT2 (UHD)
Estimated maximum power consumption (TDP)	12 W-28 W, included in the CPU power
Overlay planes	Yes
Operating systems graphics/ video API support	DirectX 12, OpenGL (4.5 from Intel CML POR)
Maximum vertical refresh rate	Up to 120 Hz  NOTE: The refresh rate depends on the resolution.
External ports	Thunderbolt 4
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

Intel Iris X^e Graphics

The following table lists the Intel Iris X^e Graphics specifications.

Table 27. Intel Iris X^e Graphics specifications

Bus type	Integrated graphics i NOTE: Intel Iris X ^e Graphics uses the computers memory as video memory.
Memory type	Dual channel DDR5
Memory interface	N/A (Unified Memory Architecture)
Estimated maximum power consumption (TDP)	12 W-28 W, included in the CPU power
Maximum color depth	10 bits
Maximum vertical refresh rate	Up to 120 Hz i NOTE: The refresh rate depends on the resolution.
External ports	Thunderbolt 4
Multiple display support	Up to 4 displays including laptop display

GPU—Discrete

NVIDIA RTX A2000, 8 GB, GDDR6

The following table lists the NVIDIA RTX A2000 specifications.

Table 28. NVIDIA RTX A2000 specifications

Feature	Values
GPU	QN20-P3-R-A1
Marketing name	NVIDIA RTX A2000 8 GB Laptop GPU
TGP	60 W
Dell PN	CROJ5
Base clock	1117 MHz
Boost clock	1612 MHz
FBVDD Voltage	
P0	1.35 V
P3/P5/P8	1.20 V
Memory bandwidth	128 bit
Size	8 GB

NVIDIA RTX A3000, 12 GB, GDDR6

The following table lists the NVIDIA RTX A3000 specifications.

Table 29. NVIDIA RTX A3000 specifications

Feature	Values
GPU	QN20-E1-R-Q KD Max-Q
Marketing name	NVIDIA RTX A3000 12GB Laptop GPU
TGP	60 W
Dell PN	598GX
Base clock	495 MHz
Boost clock	1170 MHz
FBVDD Voltage	
P0	1.25 V
P3/P5/P8	1.20 V
Memory bandwidth	192 bit
Size	12 GB

Video port and resolution matrix

The following table lists the Video port and resolution matrix of your Precision 5770.

Table 30. Video port and resolution matrix

Port type	Thunderbolt 4 USB Type-C ports
Maximum resolution—single display	3840 x 2160 @ 60 Hz via WD19S / 7680 x 4320 @ 30 Hz (UP3218K via DP dongle)
Maximum resolution—dual MST	3840 x 2160 @ 60 Hz, 3840 x 2160 @ 60 Hz via WD19S
Maximum resolution—triple MST	3840 x 2160 @ 60 Hz, 2560 x 1440 @ 60 Hz, 720 x 576 @ 50 Hz or 2560 X 1440 @ 60 Hz, 2560 X 1440 @ 60 Hz, 2560 X 1440 @ 60 Hz via WD19S

Storage

M.2 2230, 256 GB, PCIe NVMe Gen3 x4, Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD specifications.

Table 31. 256 GB SSD specifications

Capacity	256 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours

Table 31. 256 GB SSD specifications (continued)

Logical blocks	500,118,192
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4) • Active: 3.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2230, 256 GB, PCIe NVMe Gen4 x4, Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD specifications.

Table 32. 256 GB SSD specifications

Capacity	256 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	30.00 mm (1.18 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4) • Active: 4 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 512 GB SSD specifications.

Table 33. 512 GB SSD specifications

Capacity	512 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> ● Idle: 5 mW (PS4 - L1.2) ● Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 1 TB SSD specifications.

Table 34. 1 TB SSD specifications

Capacity	1 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> ● Idle: 5 mW (PS4 - L1.2) ● Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C

Table 34. 1 TB SSD specifications (continued)

Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 2 TB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 2 TB SSD specifications.

Table 35. 2 TB SSD specifications

Capacity	2 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	4,000,797,360
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4 - L1.2) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 4 TB, PCIe NVMe Gen4 x4, Class 40 SSD

The following table lists the M.2 2280, 4 TB SSD specifications

Table 36. 4 TB SSD specifications

Capacity	4 TB
Height (approximate)	3.73 mm (0.15 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen4
Speed (maximum)	64 Gb/s (up to 4 lanes)

Table 36. 4 TB SSD specifications (continued)

MTBF	1.4M hours
Logical blocks	8,001,573,552
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4 - L1.2) • Active: 5 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 512 GB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive

The following table lists the M.2 2280, 512 GB SSD, self-encrypting drive specifications

Table 37. 512 GB SSD, self-encrypting drive specifications

Capacity	512 GB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4 - L1.2) • Active: 4.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

M.2 2280, 1 TB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive

The following table lists the M.2 2280, 1 TB SSD, self-encrypting drive specifications

Table 38. 1 TB SSD, self-encrypting drive specifications

Capacity	1 TB
Height (approximate)	2.38 mm (0.09 in.)
Width (approximate)	22.00 mm (0.87 in.)
Depth (approximate)	80.00 mm (3.15 in.)
Interface type	PCIe Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
Power source	
Power consumption (reference only)	<ul style="list-style-type: none"> • Idle: 5 mW (PS4 - L1.2) • Active: 4.50 W
Environmental operating conditions (non-condensing)	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
Environmental non-operating conditions (non-condensing)	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

Power adapter

The following table lists the power adapter specifications of your Precision 5770.

Table 39. Power adapter specifications

Description	Values	
Type	90 W USB Type-C	130 W Type-C
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC
Input frequency	50 to 60 Hz	50 to 60 Hz
Input current (maximum)	1.50 A	1.80 A
Output current (continuous)	<ul style="list-style-type: none"> • 20 V/4.5 A • 15 V/3 A • 9 V/3 A • 5 V/3 A 	<ul style="list-style-type: none"> • 20 V/6.5 A • 5.0 V/1 A
Rated output voltage	<ul style="list-style-type: none"> • 20 VDC 	<ul style="list-style-type: none"> • 20 VDC

Table 39. Power adapter specifications (continued)

Description	Values	
	<ul style="list-style-type: none"> • 15 VDC • 9 VDC • 5 VDC 	<ul style="list-style-type: none"> • 5 VDC
BTUs/h (based on PSU max wattage)	888	888
Temperature range		
Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
Compliance		
Erp Lot6 Tier 2 requirement	Yes	Yes
80Plus compliant	Yes	Yes
Energy Star 8.0 compliant	Yes	Yes
GS mark compliant	Yes	Yes
NCTC Anti Power Surge certification	Yes	Yes
NCTC Anti Lightning Strike certification	Yes	Yes

Media-card reader

The following table lists the media-card reader specifications of your Precision 5770.

Table 40. Media-card reader (standard offering)

Media supported (Maximum capacity supported will vary by Flash Media Types)	
Media Supported	<ul style="list-style-type: none"> • Secure Digital (SD) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC)
Support Specification Versions	One SD 4.0 card slot
Power source	
Max Power Requirements	1.2 A
Supply Voltage Range	3.3 V
Power Consumption	MS 0.08 mA
Environmental operating conditions (Non-condensing)	
Operating Temperature Range	0°C to 70°C
Relative Humidity Range	N/A
Environmental non-operating conditions (Non-condensing)	

Table 40. Media-card reader (standard offering) (continued)

Operating Temperature Range	N/A
Relative Humidity Range	N/A

Accessories

The following table lists the supported accessories on your Precision 5770.

Table 41. Accessories

Accessories
Dell Thunderbolt Dock - WD19TBS
Dell Thunderbolt 4 Dock - WD22TB4
Dell 7-in-1 USB-C Multiport Adapter - DA310
Dell Mobile Adapter Speakerphone - MH3021P
Dell Premier Wireless ANC Headset - WL7022
Dell Mobile Adapter Speakerphone - MH3021P
HTC VIVE Cosmos 3D VR Headset
3Dconnexion SpaceMouse Wireless - 3DX-700066
Dell Premier Multi-Device Wireless Keyboard and Mouse - KM7321W
Dell Premier Rechargeable Wireless Mouse - MS7421W
Dell UltraSharp 27 USB-C HUB Monitor - U2722DE
Dell UltraSharp 38 Curved USB-C HUB Monitor - U3821DW
Wacom Cintiq Pro 24 Creative Pen Display Touch - DTH-2420

Security

Software security

The following table lists the software security details of your Precision 5770.

Table 42. Software security

Security options
McAfee Small Business Security 30 Day Free Trial
McAfee Small Business Security 12-month subscription
McAfee Small Business Security 36 month Subscription

Fingerprint reader

The following table lists the fingerprint reader specifications of your Precision 5770.

Table 43. Fingerprint reader specifications

Category	Goodix—GF5288WNC
Sensor technology	Capacitive sensing
Sensor resolution	500 dpi
Sensor size	5.48 mm x 4.47 mm
Sensor pixel size	108 x 88 pixels
Dell ControlVault support	Yes
Dell ControlVault 3.0 support	Yes
Anti-spoofing	Yes
Template storage	Dell ControlVault HW protected and encrypted
Match on chip	Yes
FIPS 201 certified	No

Trusted Platform Module

The following table lists the Trusted Platform Module (TPM) of your Precision 5770.

Table 44. Trusted Platform Module (TPM)

TPM: ST/ST33 HTPH2X32AHD8
SPI interface
TPM 2.0
FIPs 140-2 certificate

System management features

Dell commercial systems come with a number of systems management options that are include by default for In-Band management with our Dell Client Command Suite. In-Band management meaning that the Operating System is functional and the device is connected to a network so that it can be managed. The Dell Client Command Suite of tools can be leveraged individually or with a systems management console like SCCM, LANDESK, KACE, etc.

We also offer Out-of-Band management as an option. Out-of-band management is when the system does not have a functional operating system or is turned off and you still want to be able to manage the system in that state.

Dell Client Command Suite for In-Band systems management

Dell Client Command Suite is a free toolkit available for download, for all Latitude Rugged tablets at dell.com/support, that automates and streamlines systems management tasks, saving time, money, and resources. It consists of the following modules that can be used independently, or with a variety of systems management consoles such as SCCM.

Dell Client Command Suite's integration with VMware Workspace ONE Powered by AirWatch, now allows customers to manage their Dell client hardware from the cloud, using a single Workspace ONE console.

Dell Command | Deploy enables easy operating system (OS) deployment across all major OS deployment methodologies and provides numerous system-specific drivers that have been extracted and reduced to an OS-consumable state.

Dell Command | Configure is a graphical user interface (GUI) admin tool for configuring and deploying hardware settings in a pre-OS or post-OS environment, and it operates seamlessly with SCCM and Airwatch and can be self-integrated into LANDesk

and KACE. Simply, this is all about the BIOS. Command I Configure allows you to remotely automate and configure over 150+ BIOS settings for a personalized user experience.

Dell Command I PowerShell Provider can do the same things as Command I Configure, but with a different method. PowerShell is a scripting language that allows customers to create a customized and dynamic configuration process.

Dell Command I Monitor is a Windows Management Instrumentation (WMI) agent that provides IT admins with an extensive inventory of the hardware and health-state data. Admins can also configure hardware remotely by using command line and scripting.

Dell Command I Power Manager (end-user tool) is a GUI-based factory-installed battery management tool that allows end users to choose the battery management methods that meet their personal preferences or work schedule without sacrificing IT's capability to control those settings with Group Policy.

Dell Command | Update (end-user tool) is factory-installed and allows admins to individually manage and automatically present and install Dell updates to the BIOS, drivers, and software. Command I Update eliminates the time-consuming hunting and pecking process of update installation.

Dell Command I Update Catalog provides searchable metadata that allows the management console to retrieve the latest system-specific updates (driver, firmware or BIOS). The updates are then delivered seamlessly to end-users using the customer's systems management infrastructure that is consuming the catalog (like SCCM).


Dell Command | vPro Out of Band console extends hardware management to systems that are offline or have an unreachable OS (Dell exclusive features).

Dell Command | Integration Suite for System Center - This suite integrates all the key components of the Client Command Suite into Microsoft System Center Configuration Manager 2012 and Current Branch versions.

Out of Band Systems Management

Intel Standard Manageability option **must be configured in our factory at the time of purchase, as it is NOT field upgradable**. It offers out-of-band management and DASH compliance (https://registry.dmtf.org/registry/results/field_initiative_name%3A%22DASH%201.0%22).

ComfortView Plus

 **WARNING: Prolonged exposure to blue light from the display may lead to long-term effects such as eye strain, eye fatigue, or damage to the eyes.**

Blue light is a color in the light spectrum which has a short wavelength and high energy. Chronic exposure to blue light, particularly from digital sources, may disrupt sleep patterns and cause long-term effects such as eye strain, eye fatigue, or damage to the eyes.

The display on this computer is designed to minimize blue light and complies with TÜV Rheinland's requirement for low blue light displays.

Low blue light mode is enabled at the factory, so no further configuration is necessary.

To reduce the risk of eye strain, it is also recommended that you:

- Position the display at a comfortable viewing distance between 20 and 28 inches (50 and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break.
- Take an extended break for 20 minutes every two hours.

Dell Optimizer

This section details the Dell Optimizer specifications of your Precision 5770.

On Precision 5770 with Dell Optimizer, the following features are supported:

- **Express Connect**—Automatically joins the access point with the strongest signal, and directs bandwidth to conferencing applications when in use.
- **Express Sign-in**—The Intel Context Sensing Technology's proximity sensor detects your presence to instantly wake up the computer and login using the IR camera and Windows Hello feature. Windows locks when you walk away.
- **ExpressResponse**—Prioritizes the most important applications. Applications open faster and perform better.
- **ExpressCharge**—Extends the battery runtime and improves battery performance by adapting to your patterns.

For more information about configuring and using these features, see [Dell Optimizer User Guide](#).

Keyboard shortcuts of Precision 5770

NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys used for shortcuts remain the same across all language configurations.

Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol shown on the upper part of the key is typed out. For example, if you press **2**, **2** is typed out; if you press **Shift + 2**, **@** is typed out.

The keys F1-F12 at the top row of the keyboard are function keys for multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).

However, if the function keys F1-F12 are needed for specific software applications, multi-media functionality can be disabled by pressing **Fn + Esc**. Subsequently, multi-media control can be invoked by pressing **Fn** and the respective function key. For example, mute audio by pressing **Fn + F1**.

NOTE: You can also define the primary behavior of the function keys (F1–F12) by changing **Function Key Behavior** in BIOS setup program.

Table 45. List of keyboard shortcuts

Function key	Primary behavior
F1	Mute audio
F2	Decrease volume
F3	Increase volume
F4	Play/Pause
F5	Click keyboard backlight NOTE: Non-backlight keyboards have F5 function key without the backlight icon and do not support toggle keyboard backlight function. NOTE: Toggle to cycle the keyboard backlight status through off, low-backlight, and high-backlight
F6	Decrease brightness
F7	Increase brightness
F8	Switch to external display
F9	
F10	Print Screen
F11	Home
F12	End

The **Fn** key is also used with selected keys on the keyboard to invoke other secondary functions.

Table 46. Secondary behavior

Function key	Secondary behavior
Fn + F1	Operating system and application specific F1 behavior
Fn + F2	Operating system and application specific F2 behavior
Fn + F3	Operating system and application specific F3 behavior

Table 46. Secondary behavior (continued)



Function key	Secondary behavior
Fn + F4	Operating system and application specific F4 behavior
Fn + F5	Operating system and application specific F5 behavior
Fn + F6	Operating system and application specific F6 behavior
Fn + F8	Operating system and application specific F8 behavior
Fn + F9	Operating system and application specific F9 behavior
Fn + F10	Operating system and application specific F10 behavior
Fn + F11	Operating system and application specific F11 behavior
Fn + F12	Operating system and application specific F12 behavior
Fn + PrtScr	Turn off/on wireless
Fn + B	Pause/Break
Fn + Insert	Sleep
Fn + S	Toggle scroll lock
Fn + H	Toggle between power and battery-status light/hard-drive activity light
Fn + R	System request
Fn + Ctrl	Open application menu
Fn + Esc	Toggle Fn-key lock
Fn + PgUp	Page up
Fn + PgDn	Page down
Fn + Home	Home
Fn + End	End

Getting help and contacting Dell

Self-help resources


You can get information and help on Dell products and services using these self-help resources:


Table 47. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support . For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> 1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select Support > Knowledge Base. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

 **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

 **NOTE:** If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog.