Latitude 9330

Technical Guidebook

D≪LL Technologies

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.**

Contents

Views of Latitude 9330

Right

1. WWAN antenna (optional, only with WWAN config)
2. Nano-SIM slot (optional, only with WWAN config)
3. Universal audio port
4. USB 3.2 Gen 2 Type-C port with DisplayPort Alt Mode and Power Delivery
5. Wedge-shaped lock slot

Left

1. Thunderbolt 4 (USB Type-C) ports with DisplayPort Alt Mode / USB4 / Power Delivery
2. WWAN antenna (optional, only with WWAN config)

Top

1. Quad-array microphones
2. Power button with optional fingerprint reader
3. Right speaker
4. Keyboard
5. Collaboration Touchpad
6. Left speaker

Display
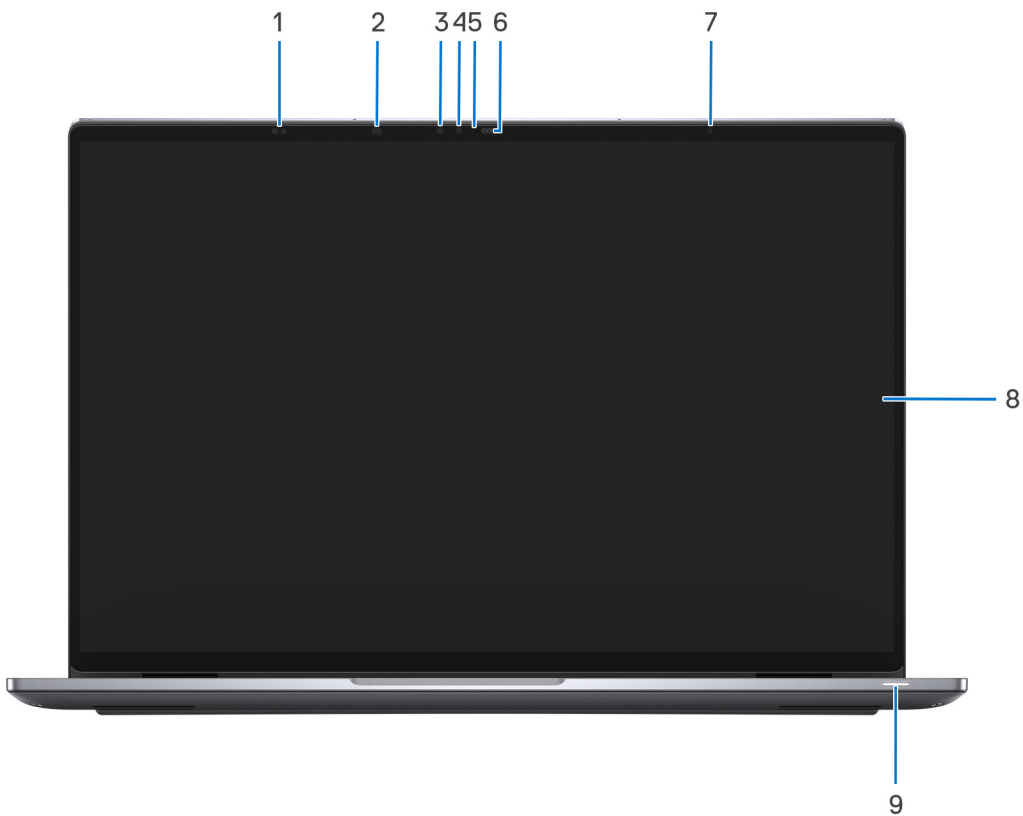
1. Proximity sensors
2. IR LED
3. IR camera
4. IR LED
5. Camera-status light
6. RGB camera
7. Ambient-light sensor
8. Display
9. Battery-status light/Diagnostic-status light

Bottom

1. Speakers (Bottom firing)
2. Service Tag Label
3. Air vents

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.

Modes

The following modes are applicable for your 2-in-1 computers.

Notebook

Tablet

Stand

Tent

Battery charge and status light

The following table lists the battery charge and status light behavior of your Latitude 9330.

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 Latitude 9330

Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 9330.

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	8.30 mm (0.32 in.)
Rear height	14.12 mm (0.55 in.)
Width	296.35 mm (11.66 in.)
Depth	208.39 mm (8.20 in.)
Weight (maximum)	● Minimum: 1.27 kg (2.80 lb) ⓘ **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.

Processor

The following table lists the details of the processors supported by your Latitude 9330.

Table 3. Processor

Description	Option one	Option two	Option three
Processor type	12th Generation Intel Core i5-1230U	12th Generation Intel Core i5-1240U	12th Generation Intel Core i7-1260U
Processor wattage	12 W	12 W	12 W
Processor core count	10	10	10
Processor thread count	12	12	12
Processor speed	1.00 Ghz to 4.40 GHz	1.10 GHz to 4.40 GHz	1.10 GHz to 4.70 GHz
Processor cache	12 MB	12 MB	12 MB
Integrated graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics

Chipset

The following table lists the details of the chipset supported by your Latitude 9330.

Table 4. Chipset

Description	Values
Chipset	Intel P-PCH
Processor	12th Generation Intel Core i5/i7
DRAM bus width	64-bit
Flash EPROM	64 MB
PCIe bus	Up to Gen 4.0

Operating system

Your Latitude 9330 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Downgrade (Windows 10 image)

Memory

The following table lists the memory specifications of your Latitude 9330.

Table 5. Memory specifications

Description	Values
Memory slots	On-board
Memory type	Dual-channel LPDDR5
Memory speed	5200 MHz
Maximum memory configuration	32 GB
Minimum memory configuration	8 GB
Memory configurations supported	8 GB, 2 x 4 GB, LPDDR5, 5200 MHz, dual-channel 16 GB, 2 x 8 GB, LPDDR5, 5200 MHz, dual-channel 32 GB, 2 x 16 GB, LPDDR5, 5200 MHz, dual-channel

External ports

The following table lists the external ports on your Latitude 9330.

Table 6. External ports

Description	Values
USB ports	- Two Thunderbolt 4 (USB Type-C) ports with DisplayPort Alt Mode and Power Delivery - One USB 3.2 Gen 2 Type-C port with DisplayPort Alt Mode and Power Delivery
Audio port	One universal audio jack
Video port/ports	Via Thunderbolt 4 (USB Type-C) ports or USB 3.2 Gen 2 Type-C port
Media-card reader	Not supported
SIM-card slot	One Nano-SIM card slot (optional, only with WWAN config)
Power-adapter port	USB Type-C
Security-cable slot	One Wedge-shaped lock slot

Internal slots

The following table lists the internal slots of your Latitude 9330.

Table 7. Internal slots

Description	Values
M.2	- One M.2 2230 slot for solid-state drive - One M.2 3042/3052 slot for WWAN module **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.

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module supported on your Latitude 9330.

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/6 GHz
Wireless standards	- Wi-Fi 802.11a/b/g - Wi-Fi 4 (WiFi 802.11n) - Wi-Fi 5 (WiFi 802.11ac)

Table 8. Wireless module specifications (continued)

Description	Values
	• Wi-Fi 6E (WiFi 802.11ax)
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.2

WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module supported on your Latitude 9330.

Table 9. WWAN module specifications

Description	Option one	Option two
Module	DW5821e. Qualcomm Snapdragon X20 Global Gigabit LTE, CAT16	DW5931e, Intel 5G 5000 Global Gigabit NR/LTE, 3GPP
Form Factor	M.2 3042 Key-B	M.2 3052 Key-B
Host interface	USB 3.0/2.0	PCIe Gen3
Network standard	LTE FDD/TDD, WCDMA/HSPA+, GPS/GLONASS/Beidou/Galileo	NR FR1(Sub6) FDD/TDD, LTE FDD/TDD, WCDMA/HSPA+, GPS/GLONASS/Galileo/BDS/QZSS
Transfer data rate	Up to 1 Gbps DL (CAT16) Up 150 Mbps UL	SA: DL 4.67Gbps / UL 1.25Gbps NSA: DL 3.74Gbps / UL 700Mbps LTE: DL 1.6Gbps (CAT19) / UL 150Mbps UMTS: DL 384 kbps / UL 384 kbps DL DC-HSPA+: 42 Mbps (CAT24) / UL 11.5 Mbps (CAT7)
Operating Frequency Bands	LTE(B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B42, B43, B46, B66) HSPA+ (1, 2, 4, 5, 6, 8, 9, 19)	NR(n1, n2, n3, n5, n7, n8, n20, n25, n28, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79) LTE (B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71*) WCDMA/HSPA+ (1, 2, 4, 5, 8) ⓘ NOTE: Modem hardware supports but currently disabled.
Power supply	DC 3.135 V to 4.4 V, Typical 3.3 V	DC 3.135 V to 4.4 V, typical 3.3 V
SIM card	Supported through external SIM slot	Supported through external SIM slot
eSIM with Dual SIM (DSSA)	Supported (the availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements)	Supported (The availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements)
Antenna Diversity	Supported	Supported

Table 9. WWAN module specifications (continued)

Description	Option one	Option two
Radio On/Off	Supported	Supported
Wake On Wireless	Supported	Supported
Temperature	Normal operating temperature: -30°C to + 70°C Extended Operating temperature: -40°C to +85°C	Normal operating temperature: -10°C to +55°C Extended operating temperature: -30°C to +75°C Storage temperature: -40°C to +85°C
Antenna connector	- One WWAN Main Antenna - One WWAN Diversity Antenna - Two 4 x 4 MIMO Antenna	- Four WWAN Antenna - Supported 4 x 4 MIMO Antenna
ⓘ **NOTE:** For instructions on how to find your computer's IMEI (International Mobile Station Equipment Identity) number, search in the Knowledge Base Resource at www.dell.com/support.		

Audio

The following table lists the audio specifications of your Latitude 9330.

Table 10. 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		Four - Two front-firing - Two bottom-firing
Internal-speaker amplifier		Realtek ALC1319D
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	4 x 2 W
	Peak speaker output	4 x 2.5 W
Subwoofer output		Not supported
Microphone		Quad-array microphones

Storage

This section lists the storage options on your Latitude 9330.

Your computer supports one of the following configurations:

● M.2 2230, solid-state drive

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

Table 11. Storage specifications

Storage type	Interface type	Capacity
M.2 2230, Class 35 solid-state drive	PCIe NVMe Gen4 x4	Up to 1 TB
M.2 2230, Class 35 solid-state drive, Opal self-encrypting	PCIe NVMe Gen4 x4	256 GB

Keyboard

The following table lists the keyboard specifications of your Latitude 9330.

Table 12. Keyboard specifications

Description	Values
Keyboard type	● Backlit
Keyboard layout	QWERTY
Number of keys	● United States and Canada: 79 keys ● United Kingdom: 80 keys ● Japan: 83 keys
Keyboard size	X=18.05 mm key pitch Y=18.05 mm key pitch
Keyboard shortcuts	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. ⓘ **NOTE:** You can define the primary behavior of the function keys (F1–F12) changing **Function Key Behavior** in BIOS setup program.

Camera

The following table lists the camera specifications of your Latitude 9330.

Table 13. Camera specifications

Description		Values
Number of cameras		Two
Camera type		FHD RGB + IR camera with dual digital-array microphones
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	2.07 megapixel

Table 13. Camera specifications (continued)

Description		Values
	Video	1920 x 1080 at 30 fps
Infrared camera resolution:		
	Still image	0.25 megapixel
	Video	640 x 400 at 30 fps
Diagonal viewing angle:		
	Camera	82.0 degrees
	Infrared camera	75.8 degrees

Touchpad

The following table lists the touchpad specifications of your Latitude 9330.

Table 14. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	4655
	Vertical	2731
Touchpad dimensions:		
	Horizontal	115.00 mm (4.52 in.)
	Vertical	67.00 mm (2.63 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article at support.microsoft.com.

Collaboration touchpad

The Collaboration Touchpad enables faster access to meeting controls when using Zoom. The controls for the mic, webcam, screen sharing, and chat are placed conveniently on the touchpad. The icons light up white or red based on the status of the controls.

Collaboration touchpad for Zoom requires you to install the below items for full functionality:

1. Dell Optimizer version 3.1 and above
   ● In-app Collaboration module in Dell Optimizer
2. Zoom Client version 5.9.3 and above

Also, enable the Collaboration Touchpad in the BIOS.

During Zoom meetings, the touchpad illuminates the collaboration shortcuts and they disappear when you leave the meeting. The shortcuts are not available when attending meetings from a browser or when you are on more than one Zoom meeting.

ⓘ **NOTE:** The first iteration of Collaboration Touchpad only supports Zoom desktop application. We are continuously working to expand it to support other online meeting applications like Microsoft Teams, Cisco WebEx etc.
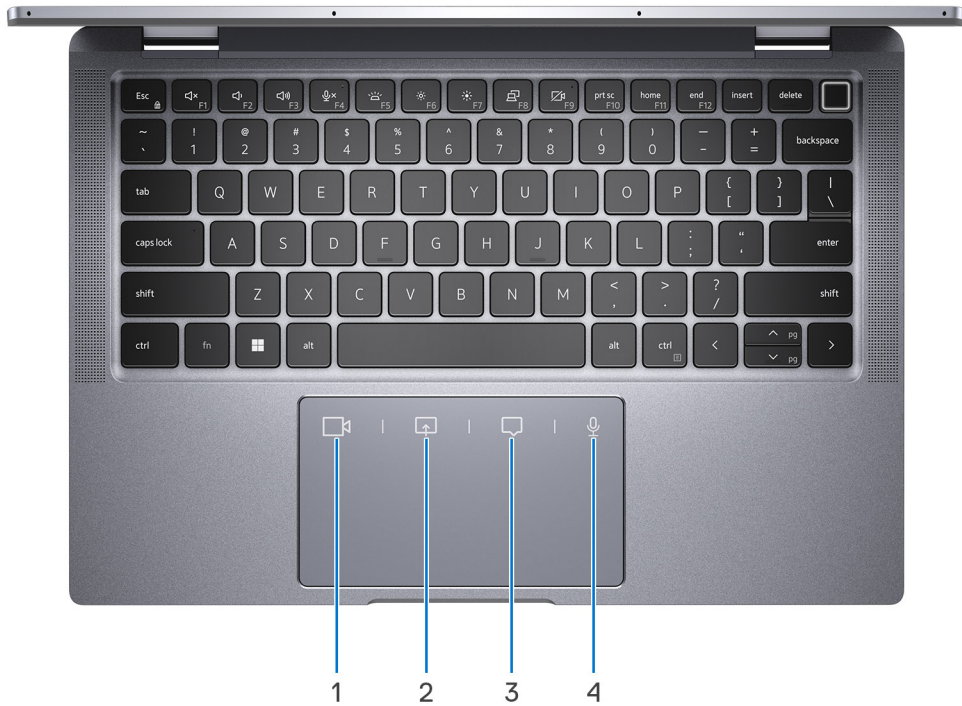
Table 15. Collaboration Touchpad

Feature	White icon	Red icon
Webcam	Sharing video stream	Not streaming
Share screen	Start/stop sharing desktop	NA
Chat	Open or close chat window	NA
Microphone	Mic active and sharing	Mic inactive or disabled

Power adapter

The following table lists the power adapter specifications of your Latitude 9330.

Table 16. Power adapter specifications

Description	Option one	Option two	Option three
Type	60 W USB Type-C Small Form Factor	65 W USB Type-C	90 W USB Type-C
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC	100 VAC to 240 VAC
Input frequency	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
Input current (maximum)	1.70 A	1.70 A	1.70 A
Output current (continuous)	20 V/3 A 15 V/3 A 9 V/3 A 5 V/3 A	20 V/3.25 A 15 V/3 A 9 V/3 A 5 V/3 A	20 V/3.25 A 15 V/3 A 9 V/3 A 5 V/3 A
Rated output voltage	20 VDC	20 VDC	20 VDC

Table 16. Power adapter specifications (continued)

Description		Option one	Option two	Option three
		● 15 VDC ● 9 VDC ● 5 VDC	● 15 VDC ● 9 VDC ● 5 VDC	● 15 VDC ● 9 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)	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)	-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 Latitude 9330.

Table 17. Battery specifications

Description		Values
Battery type		3-cell, 50 WHr Lithium-ion, ExpressCharge 2.0, ExpressCharge Boost, Long Cycle Life capable, integrated
Battery voltage		11.55 VDC
Battery weight (maximum)		0.21 kg (0.46 lb)
Battery dimensions:		
	Height	5.10 mm (0.20 in.)
	Width	76.00 mm (2.99 in.)
	Depth	252.85 mm (9.95 in.)
Temperature range:		
	Operating	● 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)
Battery operating time		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, *Me and My Dell* on www.dell.com.		● **Express Charge Method:** ● 0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours ● 16 - 45°C maximum allowable charge time from 0 to 100% RSOC is 2 hours ● 46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours

Table 17. Battery specifications (continued)

Description	Values
	Express Charge Boost Charge Method (Fast Charge for Initial 35%): ● 16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge ⓘ **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, *Me and My Dell* on www.dell.com/.
Coin-cell battery	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.**	

Display

The following table lists the display specifications of your Latitude 9330.

Table 18. Display specifications

Description		Values
Display type		Quad High Definition Plus (QHD+)
Display-panel technology		Wide Viewing Angle (WVA) with Low Blue Light
Display-panel dimensions (active area):		
	Height	178.80 mm (7.03 in.)
	Width	286.08 mm (11.26 in.)
	Diagonal	337.35 mm (13.28 in.)
Display-panel native resolution		2560 x 1600
Luminance (typical)		500 nits
Megapixels		4.096
Color gamut		sRGB 100% typical
Pixels Per Inch (PPI)		227
Contrast ratio (min)		1200:1 min
Response time (max)		35 ms
Refresh rate		60 Hz
Horizontal view angle		+/- 80 degrees min, +/- 85 degrees typical
Vertical view angle		+/- 80 degrees min, +/- 85 degrees typical

Table 18. Display specifications (continued)

Description	Values
Pixel pitch	0.11175 mm
Power consumption (maximum)	3.62 W
Anti-glare vs glossy finish	Glossy finish with Anti Reflection coating
Touch options	Yes

Fingerprint reader

The following table lists the fingerprint-reader specifications of your Latitude 9330.

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

Table 19. 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 Latitude 9330.

Table 20. Sensor

Sensor support
Accelerometer (ST Micro LIS2DW12TR): On the base (system board)
Accelerometer+Gyroscope (ST Micro LSM6DSOUSTR): On Panel Side
E-Compass (ST Micro LIS2MDLTR): On Panel Side
P-sensor (ST Micro VL53L1X): On Panel Side
ALS for Panel Backlight Control

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 9330.

Table 21. GPU—Integrated

Controller	Memory size	Processor
Intel Iris Xe Graphics	Shared system memory	12th Generation Intel Core i5/i7 processors

Multiple display support matrix

The following table lists the multiple display support matrix for your Latitude 9330.

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
Intel Iris Xe Graphics	Not applicable	● One 8K (7680 x 4320) @ 60Hz 30bpp ● Three 4K (4096 x 2304) @ 60Hz 36bpp ● Three 2K (2048 x 1080) @ 60Hz 36bpp	● One 8K (7680 x 4320) @ 60Hz 30bpp ● Four 4K (4096 x 2304) @ 60Hz 36bpp ● Four 2K (2048 x 1080) @ 60Hz 36bpp

Hardware security

The following table lists the hardware security of your Latitude 9330.

Table 23. Hardware security

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

Operating and storage environment

This table lists the operating and storage specifications of your Latitude 9330.

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 3rd 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	2.4 GHz 5 GHz 6 GHz
Data rate	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	- WPA2 Personal and Enterprise - WPA3
Authentication protocols	802.1X EAP-TLS - EAP-TTLS/MSCHAPv2 - PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)
Encryption	64-bit and 128-bit WEP - TKIP 128-bit AES-CCMP 256-bit AES-GCMP
Product safety	- UL - C-UL - CB (IEC60950-1)
Management capabilities alerting	Support for Intel AMT
Government compliance	- 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	• 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)

WWAN module

Qualcomm Snapdragon X20 Global Gigabit LTE

The following table lists the Qualcomm Snapdragon X20 Global Gigabit LTE specifications.

Table 26. Qualcomm Snapdragon X20 specifications

Form factor	M.2 3042 Key.B single side
Host interface	USB 3.0/2.0
Network standard	• LTE FDD/TDD • WCDMA/HSPA+ • GPS/GLONASS/ Beidou /Galileo
Transfer rate	Up to 1 Gbps DL/150 Mbps UL (Cat 16)
Operating frequency bands	• LTE (1,2,3,4,5,7,8,12,13,14,17,18,19,20,25,26,28,29,30,32,38,39,40,41,42,43,46,66) • HSPA+ (1, 2, 4, 5, 6, 8, 9, 19)
Power supply	DC 3.135 V to 4.4 V, Typical 3.3 V
SIM card	Supported through external SIM slot
eSIM with Duak SIM (DSSA)	Supported ⓘ **NOTE:** The availability of eSIM functionality embedded on the module is dependent on the region and carrier requirements.
Antenna diversity	Supported
Radio On/Off	Supported

Table 26. Qualcomm Snapdragon X20 specifications (continued)

Wake on wireless	Supported
Normal operating temperature	-30°C to + 70°C
Extended operating temperature	-40°C to +85°C
Antenna connector	- WWAN Main Antenna X 1 - WWAN Diversity Antenna X 1 4 x 4 MIMO Antenna x 2

Intel 5000 Global 5G Modem

The following table lists the Intel 5000 Global 5G Modem specifications.

Table 27. Intel 5000 Global 5G Modem specifications

Form factor	M.2 3052 Key-B
Host interface	PCIe Gen3
Network standard	- NR FR1(Sub6) FDD/TDD - LTE FDD/TDD - WCDMA/HSPA+ - GPS/GLONASS/Galileo/BDS/QZSS
Transfer rate	Up to 3Gbps DL/250 Mbps UL (3GPP Release15 NR/LTE CAT19)
Operating frequency bands	- NR(n1, n2, n3, n5, n7, n8, n20, n25, n28, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79) - LTE (B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66) - WCDMA/HSPA+ (1, 2, 4, 5, 8)
Power supply	DC 3.135 V to 4.4 V, Typical 3.3 V
SIM card	Supported through external SIM slot
eSIM with Dual SIM (DSSA)	Supported (i) **NOTE:** The availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements.
Antenna diversity	Supported
Radio On/Off	Supported
Wake on wireless	Supported
Normal operating temperature	-10°C to +55°C
Extended operating temperature	-30°C to +75°C
Storage temperature	-40°C to +85°C
Antenna connector	- WWAN Antenna x 4 - Supports 4x4 MIMO

GPU—Integrated

Intel Iris Xe Graphics

The following table lists the Intel Iris Xe Graphics specifications.

Table 28. Intel Iris Xe Graphics specifications

Bus type	Integrated graphics
	(i) **NOTE:** Intel Iris Xe Graphics uses the computers memory as video memory.
Memory type	Unified Memory Architecture (UMA)
	(i) **NOTE:** Requires 128-bit dual-channel memory
Memory interface	Not applicable
Processor graphics	i5/i7
Estimated maximum power consumption (TDP)	12 W, included in the CPU power
Maximum vertical refresh rate	4096 x 2304 @ 60 Hz, 36bpp
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

Video port and resolution matrix

The following table lists the Video port and resolution matrix of your Latitude 9330.

Table 29. 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 Dell Thunderbolt Docks
Maximum resolution—triple MST	3840 x 2160 @ 60 Hz, 2560 x 1440 @ 60 Hz, 720 x 576 @ 50 Hz or 2560 X 1440 @ 60Hz, 2560 X 1440 @ 60 Hz, 2560 X 1440 @ 60 Hz via Dell Thunderbolt Docks

Storage

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 30. 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)

Table 30. 256 GB SSD specifications (continued)

MTBF	1.4M hours
Logical blocks	500,118,192
Power source	
Power consumption (reference only)	• 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 2230, 512 GB, PCIe NVMe Gen4 x4, Class 35 SSD

The following table lists the M.2 2230, 512 GB SSD specifications.

Table 31. 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)	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	1,000,215,216
Power source	
Power consumption (reference only)	• 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 2230, 1 TB, PCIe NVMe Gen4 x4, Class 35 SSD

The following table lists the M.2 2230, 1 TB SSD specifications.

Table 32. 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)	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	2,000,409,264
Power source	
Power consumption (reference only)	• 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 2230, 256 GB, PCIe NVMe Gen4 x4, Opal Self-Encrypting, Class 35 SSD

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

Table 33. 256 GB SSD, self-encrypting drive 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)	• Idle: 5 mW (PS4) • Active: 4 W
Environmental operating conditions (non-condensing)	

Table 33. 256 GB SSD, self-encrypting drive specifications (continued)

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 Latitude 9330.

Table 34. Power adapter specifications

Description	Values		
Type	60 W USB Type-C Small Form Factor	65 W USB Type-C	90 W USB Type-C
Input voltage	100 VAC to 240 VAC	100 VAC to 240 VAC	100 VAC to 240 VAC
Input frequency	50 to 60 Hz	50 to 60 Hz	50 to 60 Hz
Input current (maximum)	1.70 A	1.70 A	1.50 A
Output current (continuous)	20 V/3 A 15 V/3 A 9 V/3 A 5 V/3 A	20 V/3.25 A 15 V/3 A 9 V/3 A 5 V/3 A	20 V/4.50 A 15 V/3 A 9 V/3 A 5 V/3 A
Rated output voltage	20 VDC 15 VDC 9 VDC 5 VDC	20 VDC 15 VDC 9 VDC 5 VDC	20 VDC 15 VDC 9 VDC 5 VDC
BTUs/h (based on PSU max wattage)	888	888	1229
Temperature range			
Operating	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-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	Yes
80Plus compliant	Yes	Yes	Yes
Energy Star 8.0 compliant	Yes	Yes	Yes
GS mark compliant	Yes	Yes	Yes

Table 34. Power adapter specifications (continued)

Description	Values		
NCTC Anti Power Surge certification	Yes	Yes	Yes
NCTC Anti Lightning Strike certification	Yes	Yes	Yes

Accessories

The following table lists the supported accessories on your Latitude 9330.

Table 35. Accessories

Input devices: ● Dell Premier Rechargeable Wireless Mouse - MS7421W ● Dell Premier Multi-Device Wireless Keyboard and Mouse - KM7321W ● Dell Premier Rechargeable Active Pen - PN7522W
Audio and Speakers : ● Dell Premier Wireless ANC Headset - WL7022 ● Dell Mobile Adapter Speakerphone - MH3021P
Audio Headsets : ● Dell Pro Stereo Headset - WH3022 ● Jabra 85t earbuds
Docking: ● Dell Dual Charge Dock - HD22Q ● Dell Thunderbolt 4 Dock - WD22TB4 - WD22TB4
Multimedia: ● Dell USB-C Mobile Adapt er - DA310
Webcam: ● Dell UltraSharp Webcam - WB7022
Misc: ● Dell Notebook Power Bank Plus USB C, 65Wh - PW7018LC ● Dell Pinnacle Backpack - CP9522 ● Dell Premier Backpack 15 - PE1520P

Security

Software security

The following table lists the software security details of your Latitude 9330.

Table 36. Software security

Security options
Microsoft Office 365 (Word, Excel, Powerpoint, Outlook and more)
Microsoft Office 2019
Foxit® PhantomPDF™ Standard
Foxit® PhantomPDF™ 30-Day Trial

Table 36. Software security (continued)

Security options
CyberLink® PowerDirector® 17 Ultra
CyberLink® PhotoDirector® 10 Ultra
Dell Endpoint Security
My Dell (Fusion)
Dell Digital Delivery
Dell Cinema Experience
Color Profiles v2.0
Dolby Vision
Waves
Killer v3.0
Dell Premier Color
Amazon Alexa

Fingerprint reader

The following table lists the fingerprint reader specifications of your Latitude 9330.

Table 37. Fingerprint reader specifications

Category	Goodix—GF5288WNC
Sensor technology	Capacitive
Sensor resolution	500 dpi
Sensor size	
Sensor pixel size	108 x 88
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

Dell ControlVault 3.0

The following table lists the Dell ControlVault 3.0 specifications of your Latitude 9330.

Table 38. Dell ControlVault 3.0 specifications

Title	Description	Dell ControlVault 3.0
CPU technology	N/A	1 GHz ARM Cortex A7
RAM	N/A	1 MB
ROM	N/A	16 MB

Table 38. Dell ControlVault 3.0 specifications (continued)

Title	Description	Dell ControlVault 3.0
TPM included	TPM enumeration included within ControlVault	No
Host Interface	N/A	USB 2.0
Fingerprint procession on chip	Fingerprint processing occurs within secure boundary of ControlVault	Yes
Windows WBF support	Support for Windows biometric framework when Fingerprint reader is attached	Yes
FIPS 140-2 level 3 complaint	Device complaint with FIPS 140-2 level 3 requirements	Yes
FIPS 140-2 level 3 certified	Device certified with FIPS 140-2 level 3 requirements	Yes

Trusted Platform Module

The following table lists the Trusted Platform Module (TPM) of your Latitude 9330.

Table 39. Trusted Platform Module (TPM)

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

Mil-SPEC

The Latitude 9330 meets military specifications for the following MIL-STD 810G tests:

Table 40. Tower - Military specifications

Test Category	Test Method	Test Parameters
Non-operating altitude test	Method 500.6 Procedure I	Test specification: ● Altitude: 15,000 ft ● Temperature: 21ºC
Operating altitude test	Method 500.6 Procedure II	Test specification: ● Altitude: 15,000 ft ● Temperature: 21ºC
Non-operating high temperature test	Method 501.7 Procedure I	Test specification: ● High temperature cycles, climatic category A1 - Hot dry ● Duration: 7 cycles, Non-Operating
Operating high temperature test	Method 501.7 Procedure II	Test specification: ● Temperature: 60ºC ● Duration: 120 hours constant
Non-operating low temperature test	Method 502.7 Procedure I - Storage	Test specification: ● Temperature: -51ºC ● Duration: 24 hours

Table 40. Tower - Military specifications (continued)

Test Category	Test Method	Test Parameters
Operating low temperature test	Method 502.7 Procedure II - Operation	Test specification: ● Temperature: -29°C ● Duration: 24 hours
Humidity test	Method 507.6 Procedure I	Induced B3 ● Duration: Hot-humid, 15 days exposure Induced B3, Non-operating
Shock material to be packaged	Method 516.8 Procedure II	Test specification: ● On-road shock - 5.1 g/11 m ● Off-road shock - 15.2 g/5 m
Mechanical shock test - I Bench handling	Method 516.8 Procedure VI	Test specification: ● Rise test units at one edge 100 mm (4-inch) or an angle of 45°about a solid wooden bench top.
Sand and dust Blowing dust	Method 510.7 Procedure I	Test specification: ● Relative humidity: 30% ● Dust concentration: (10.6±7) g/m³ ● Air flow velocity: 1.5 m/s to 8.9 m/s

Chemical information

The Latitude 9330 meets chemical information for the following MIL-STD 810H tests:

Table 41. Chemical information

Chemical	Source document	Possible uses
Cleaning compound, solvent (Rifle bore cleaner)	MIL-PRF-372	Small arms, textiles, general
Degreasing Solvent Naphtha or Stoddard, dry cleaning, or D-Limonene solvent	MIL=PRF-680 (NATO #S-752, S-753, S-760)	Small arms, textiles, general, helicopters (parts)
Engine oil	MIL=PRF-2140, (NATO #)-1236/15W40), 40, 30 (NATO O-238), 10 W, 10 W (NATO-O-237,SCPL (equipment specific)	Small arms, textiles, general
Lubricant, semi-fluid, automatic weapons	MIL-L-46000 (NATO #O-158)	Small arms, textiles, general
Lubricating oil, general purpose, preservative (water displacing, low temperature)	MIL=PRF-32033 (NATO #O-190)	Small arms, textiles, general
Lubricant, cleaner, and preservative	MIL=PRF-63460 (CLP), (NATO #S-758)	Small arms, textiles, general
Gasoline, commercial, or combat	ASTM D910, Aviation Gasoline; ASTM D4814, Automatic spark ignition engine (Commercial and MOGAS) and others as indicated by test requirements.	Small arms, textiles, general

Table 41. Chemical information (continued)

Chemical	Source document	Possible uses
Aviation Turbine fuels, kerosene types	Aviation turbine fuel JP-8 (NATO F-34); NATO Grade F-24, ASTM D1655; Commercial fuel, Jet A, Jet A-1 and others as indicated by test requirements.	Small arms, textiles, general, helicopters (parts)
Diesel Fuel, (DL-1, DL-2, other Grades)	A-A-52557, ASTM D975, (NATO #F-54)	Small arms, textiles, general
Insect repellent, personal application	NSN 6840-01-284-3982, Creme, approx 32%	Small arms, textiles, general
Dexron III	NSN 9150-00-698-2382, Automatic Transmission Fluid, Commercial	Small arms, textiles, general
Antifreeze, Multi Engine Type, ethylene (I) or propylene glycol (II)	A-A-52624, ASTM D6210 Type I, ASTM D6211 Type II, (NATO #s-750)	Small arms, textiles, general
Water	Water (distilled). Used as baseline where applicable.	Small arms, textiles, general
Simulated sea water or 5% NaCl	ASTM D1141 or ASTM B117	Small arms, textiles, general
Decontamination agent STB	MIL-DTL-12468	Small arms, textiles, general
Lubricating oil, weapons, low temperature	MIL-PRF-14107 (LAW), (NATO #O-157)	Small arms, textiles, general
Hydraulic fluid, synthetic hydrocarbon base, aircraft, missile and ordnance (OHA), others as indicated by test requirements.	MIL-PRF-87257 (NATO #H-538) or MIL-PRF-83282 (NATO #H-537)	Small arms, textiles, general, helicopters (parts)
Hydraulic fluid, rust inhibited, phosphate based synthetic hydrocardon, fire-resistant	MIL-PRF-46170 (FRH, (NATO #H-544)	Small arms, textiles, general
Hydraulic fluid, petroleum based for preservation and operation (OHT)	MIL-PRF-6083, (NATO #635)	Small arms, textiles, general
DS-200 Decontaminating agent	NSN 6850-01-501-1044, Peroxide based	Small arms, textiles, general
Lubricating oils synthetic, Aircraft turbine engines, transmissions	MIL-PRF-23699, NATO #O-156; MIL-PRF-7808 (NATO O-152, O-154, O-156, O-167)	Aircraft (parts)
De-icers, Anti-Icing	Deicers-Aircraft: Ethylene or propylene glycol mixtures; US antifreeze: AA-52624A (NATO S-750), and others as indicated by test requirements.	Aircraft
Silicone based damping fluid (various viscosities, csts)	Dimethyl silicone (NATO S-1714)	Aircraft (parts)
Aircraft cleaners, aerospace, ground equipment/aircraft interior/exterior	MIL-PRF 87937, MIL-PRF-85570, MIL-C-87936, MIL-PRF-85704 or others as indicated	Small arms, textiles, general, aircraft (parts)
Other solvents	Denatured or Isopropyl alcohol (2-propanol), acetone, etc.	Aircraft (parts)

Table 41. Chemical information (continued)

Chemical	Source document	Possible uses
Deicing and antifreeze fluids	Deicers-Aircraft: Ethylene or propylene glycol mixtures; US antifreeze: AA-52624 (NATO S-750), and others as indicated by test requirements.	Aircraft (parts)
Runway deicers	Potassium-acetate based solution (Cryotech E-36 or other as indicated by test requirements).	Aircraft (parts)
Insecticides	Insecticides (Malathion or pyrethrin as indicated by test requirements).	Aircraft (parts)
Disinfectant (Heavy duty phenolics)	● Clear, soluble phenolics, e.g., phenol or its derivatives dissolved in a surfactant and diluted with water to give a clear solution. ● Parachlorometaxylenol (EcoTru-1453, Aircraft Disinfectant or others as indicated by test requirements.	Aircraft (parts)
Coolant dielectric fluid	Polyalphaolefin (PAO) dielectric	Aircraft (parts)

Table 42. Rugged specific testing

Test Name	Test procedure	Semi-Rugged specifications	Fully-Rugged specifications
Vehicle vibration	ASTM D4169-09, Schedule E, Truck Assurance Level II	● 1 Hz - 200 Hz ● 0.52 gm in all three axis ● 90 minutes per axis	● 1 Hz - 200 Hz ● 0.52 gm in all three axis ● 90 minutes per axis ● Operational test
Cold boot test	Custom - Cold Boot	● Cold soak for 8 hours (unit off), One cycle ● Cold soak for 8 hours at varying temperatures (-18°C, -20°C, -23°C, -29°C) ● System boot: Remove system from cold environment and begin boot process immediately.	● Cold soak for 8 hours (unit off), One cycle ● Cold soak for 8 hours at varying temperatures (-18°C, -20°C, -23°C, -29°C) ● System boot: Remove system from cold environment and begin boot process immediately.
Dust ingress protection	IEC 60529, IP-Xx	IP-5x ● Complete protection against contact ● Non-operating	IP-6x ● No ingress of dust ● Complete protection against contact ● Non-operating

Thermal and acoustic improvements

The following table lists the thermal and acoustic improvements of your Latitude 9330.

Table 43. Thermal and acoustic improvements

100% dual heat pipe	Increase the heat capacity to improve thermal dissipation
Better system tuning/setting	Get higher performance and good user experience

Table 43. Thermal and acoustic improvements (continued)

Pro-OS enhanced thermal setting (Dynamic PL1)	Increases boot-up time
Linear fan control	Fan speed ramp more smoothly for better user experience, no more significant acoustic changing
DDT SSD setting	Protecting the SSD device in high temperature and worse cases to prevent blue screen of death (BSOD)
IEC 60529 ingress protection: IP-54	● Dust protected ● Protected against dripping water
Better acoustic experience	Enhance acoustic to 0.6 sone during daily working conditions and fan off when system is idle

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 I 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 un-reachable 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 Latitude 9330.

On Latitude 9330 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.

What is new with Dell Optimizer 3.1?

Modular Installation

The ability to install each of the features separately.

Intelligent Privacy Look Away Detect

Detects your gaze to control screen dimming for greater privacy and better battery life.

Onlooker Detection

Alerts, texturizes screen or turns on SafeScreen when an onlooker is detected.

Device ExpressResponse (Concurrent App Optimization)

Improve app performance for applications running concurrently and prioritizes foreground app optimization.

Intelligent Audio v3

Removes unwanted background noise for the end user as well as other participants on their call. Automated tuning delivers optimized sound quality driven by data from system sensors.

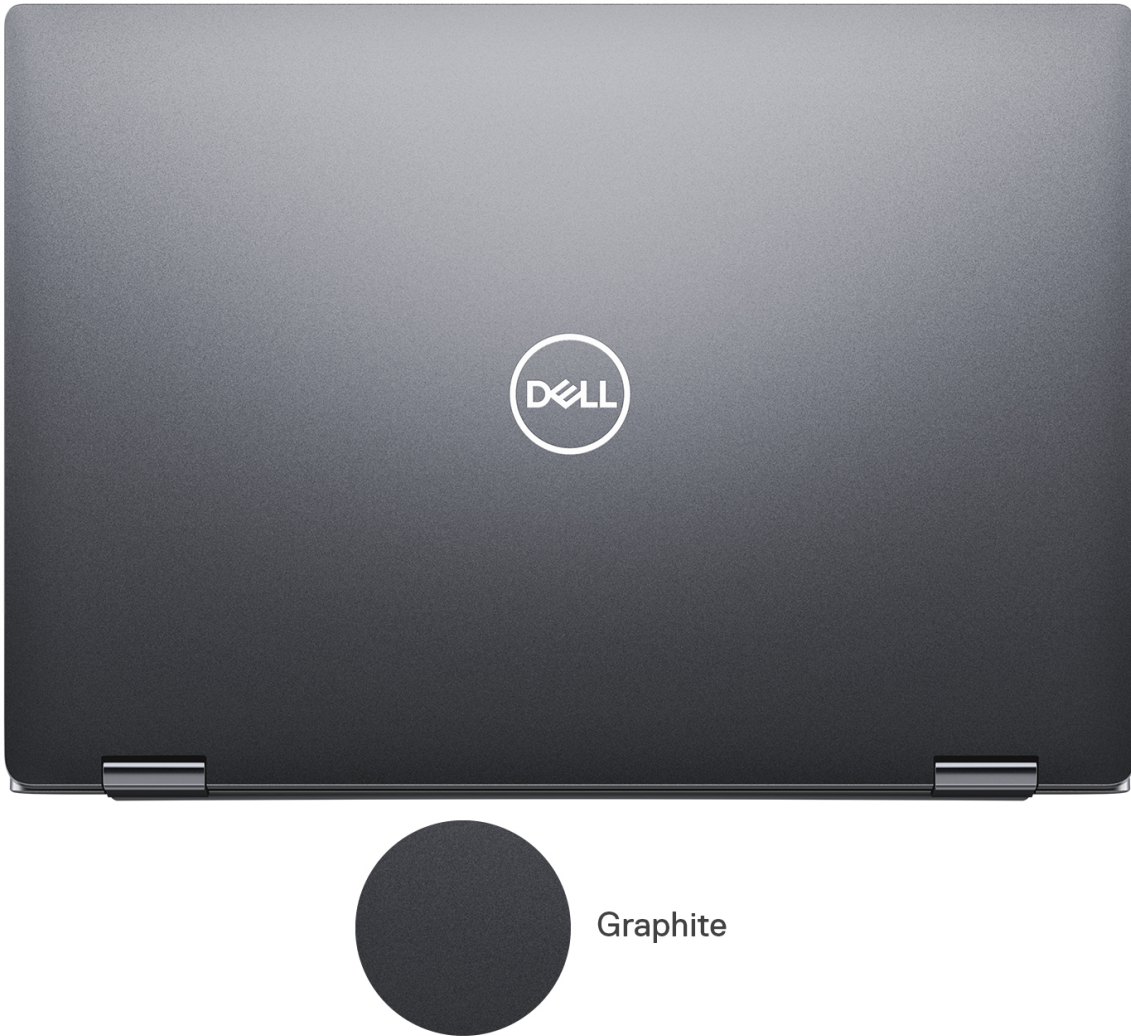### ExpressConnect (Network) – Simultaneous Data Transfer

Connects to two networks to send and receiving traffic concurrently.

Optimization Gains

Highlights the benefits/gains of using DO.

Color, material, and finish

This section details the color, material, and finish (CMF) specifications of your Latitude 9330.

Graphite

Table 44. CMF specifications

A Cover (Top)	Cover:
	● Material: Aluminum
	● Process: CNC + Beadblast + Anodize + CNC + Diamond Cut + 2nd Anodize
	● Color: Ano Magnetite Dull BB Nano
	● Finish: Beadblast 10+/-3 GU 100 +/-20GU Diamond Cut (Surrounded sidewalls)
B Cover (Display & Bezel)	Display:
	● Material: Corning Corilla Glass

	● Process: Ion Exchange Chemical Hardening, Perimeter Cut/ Ground to Shape ● Color: Ano Magnetite Dull BB Nano Backside Mask PMS Black 6C + Anti-Reflective Anti-Smudge Coating (ARAS) ● Finish: >90 GU; High Polish Bottom Bezel: ● Material: Plastic ● Process: WB Painted ● Color: Apollo Dull WUVM ● Finish: 5+/-15 GU
C Cover (Palmrest)	Palmrest: ● Material: Aluminum ● Process: CNC + Beadblast + Anodize + CNC + Diamond Cut + 2nd Anodize ● Color: Ano Magnetite Dull BB Nano ● Finish: Beadblast 10+/-3 GU 100 +/-20GU Diamond Cut (Surrounded sidewalls) Clickpad: ● Material: Glass ● Process: Perimeter Cut/ Groun to Shape + Chemical Etch For Texture + Anti Fingerprint Coating (AFP) + Backprint Icon + Backprint Mask ● Color: Magnetite TP Dull ● Finish: 8+/-1.5 GU
D Cover (Bottom)	Cover: ● Material: Magnesium + Insert Molded Plastic (Antenna Window) ● Process: WB Primer + WB Basecoat + WB Soft Touch Topcoat ● Color: Magnetite Velvet WPUST ● Finish: 5+/-1.5 GU

Keyboard shortcuts of Latitude 9330

(i) **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**.

(i) **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	Mute microphone
F5	Click keyboard backlight (optional). (i) **NOTE:** Non-backlight keyboards have F10 function key without the backlight icon and do not support toggle keyboard backlight function. (i) **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	SafeShutter control
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
Tips	
Contact Support	In Windows search, type `Contact Support`, 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	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.

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

(i) **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.