


# Latitude 5530

## 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.

<b>Chapter 1: Views of Latitude 5530.....</b>	<b>6</b>
Right.....	6
Left.....	6
Top.....	7
Front.....	7
Bottom.....	8
Back.....	8
Service Tag.....	8
Battery charge and status light .....	9
<b>Chapter 2: Specifications of Latitude 5530.....</b>	<b>10</b>
Dimensions and weight.....	10
Processor.....	10
Chipset.....	11
Operating system.....	11
Memory.....	12
External ports.....	12
Internal slots.....	13
Ethernet.....	13
Wireless module.....	13
WWAN module.....	14
Audio.....	14
Storage.....	15
Media-card reader .....	15
Keyboard.....	16
Camera.....	16
Clickpad.....	17
Power adapter.....	17
Battery.....	18
Display.....	20
Fingerprint reader (optional).....	21
Sensor .....	21
GPU—Integrated.....	21
GPU—Discrete.....	21
Hardware security.....	22
Smart-card reader.....	22
Contactless smart-card reader.....	22
Contacted smart-card reader.....	24
Operating and storage environment.....	24
<b>Chapter 3: Engineering specifications.....</b>	<b>26</b>
Ethernet.....	26
Integrated Connection I219-LM/I219-V.....	26
Wireless module.....	27

Realtek RTL8822CE, 1x1, Wi-Fi 5 (WiFi 802.11ac), Bluetooth 5.0.....	27
Intel AX211, 2x2 MIMO, 2400 Mbps, 2.4/5/6 GHz, Wi-Fi 6E (WiFi 802.11ax), Bluetooth 5.2.....	28
Intel AX201, 2x2 MIMO, 2400 Mbps, 2.40 GHz /5 GHz, Wi-Fi 6 (WiFi 802.11ax), Bluetooth 5.2.....	29
MediaTek MT7921, 2x2, Wi-Fi 6 (WiFi 802.11ax), Bluetooth 5.2.....	30
WWAN module.....	31
Intel XMM 7360 Global LTE-Advanced .....	31
GPU—Integrated.....	32
Intel Iris X <sup>e</sup> Graphics.....	32
Intel UHD Graphics.....	33
GPU—Discrete.....	33
NVIDIA GeForce MX550, 2 GB, GDDR6.....	33
Video port and resolution matrix.....	34
Storage.....	34
M.2 2230, 256 GB, PCIe NVMe Gen3 x4, Class 35 SSD.....	34
M.2 2230, 512 GB, PCIe NVMe Gen3 x4, Class 35 SSD.....	34
M.2 2230, 1 TB, PCIe NVMe Gen3 x4, Class 35 SSD.....	35
M.2 2230, 256 GB, PCIe NVMe Gen4 x4, Class 35 SSD.....	36
M.2 2230, 512 GB, PCIe NVMe Gen4 x4, Class 35 SSD.....	36
M.2 2230, 1 TB, PCIe NVMe Gen4 x4, Class 35 SSD.....	37
M.2 2230, 256 GB, PCIe NVMe Gen3 x4, Opal Self-Encrypting Class 35 SSD.....	37
M.2 2230, 256 GB, PCIe NVMe Gen4 x4, Opal Self-Encrypting, Class 35 SSD.....	38
M.2 2280, 256 GB, PCIe NVMe Gen3 x4, Class 40 SSD.....	39
M.2 2280, 512 GB, PCIe NVMe Gen3 x4, Class 40 SSD.....	39
M.2 2280, 1 TB, PCIe NVMe Gen3 x4, Class 40 SSD.....	40
M.2 2280, 512 GB, PCIe NVMe Gen4 x4, Class 40 SSD.....	40
M.2 2280, 1 TB, PCIe NVMe Gen4 x4, Class 40 SSD.....	41
M.2 2280, 2 TB, PCIe NVMe Gen4 x4, Class 40 SSD.....	42
M.2 2280, 256 GB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive.....	42
M.2 2280, 512 GB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive.....	43
M.2 2280, 1 TB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive.....	43
M.2 2280, 512 GB, QLC PCIe NVMe Gen3 x4, SSD.....	44
Power adapter.....	45
Accessories.....	45
Security.....	46
Software security.....	46
Fingerprint reader.....	47
Dell ControlVault 3.0 .....	47
Trusted Platform Module.....	48
Thermal and acoustic improvements.....	48
System management features.....	48
Dell Client Command Suite for In-Band systems management .....	48
Out of Band Systems Management.....	49

**Chapter 4: ComfortView Plus..... 50**

**Chapter 5: Using the privacy shutter..... 51**

**Chapter 6: Dell Optimizer..... 52**

<b>Chapter 7: Color, material, and finish .....</b>	<b>53</b>
<b>Chapter 8: Keyboard shortcuts of Latitude 5530.....</b>	<b>54</b>
<b>Chapter 9: Getting help and contacting Dell.....</b>	<b>56</b>

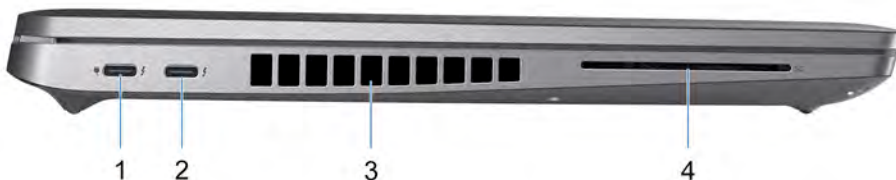
# Views of Latitude 5530

## Right



1. microSD-card slot
2. Universal audio port
3. USB 3.2 Gen 1 port
4. USB 3.2 Gen 1 port with PowerShare
5. HDMI 2.0 port
6. RJ45 Ethernet port (flip-down)
7. Wedge-shaped lock slot

## Left



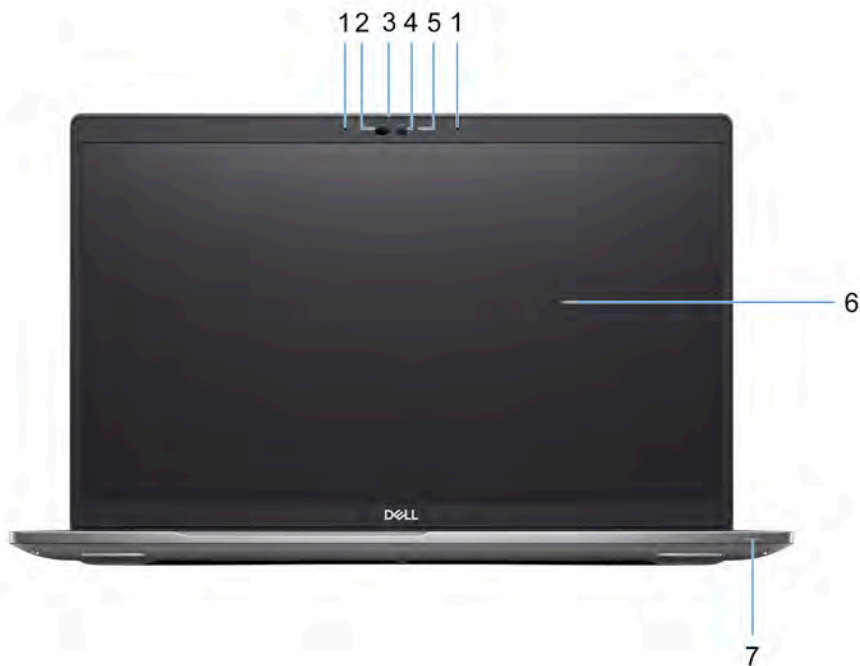
1. Thunderbolt 4 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery
2. Thunderbolt 4 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery
3. Fan vents
4. Smart-card reader slot (optional)

## Top



1. Power button with fingerprint reader (optional)
2. Keyboard
3. FIPS fingerprint reader (optional)
4. NFC/Contactless smart card reader (optional)
5. Clickpad

## Front



1. Dual array microphone

2. IR emitter/Ambient Light Sensor (ALS) (optional)
3. Camera shutter
4. HD RGB camera / FHD IR camera / FHD IR camera with Proximity Sensor (optional)
5. Camera status LED
6. LCD panel
7. Battery indicator LED

## Bottom



1. Speaker
2. Service tag label
3. Fan vents

## Back

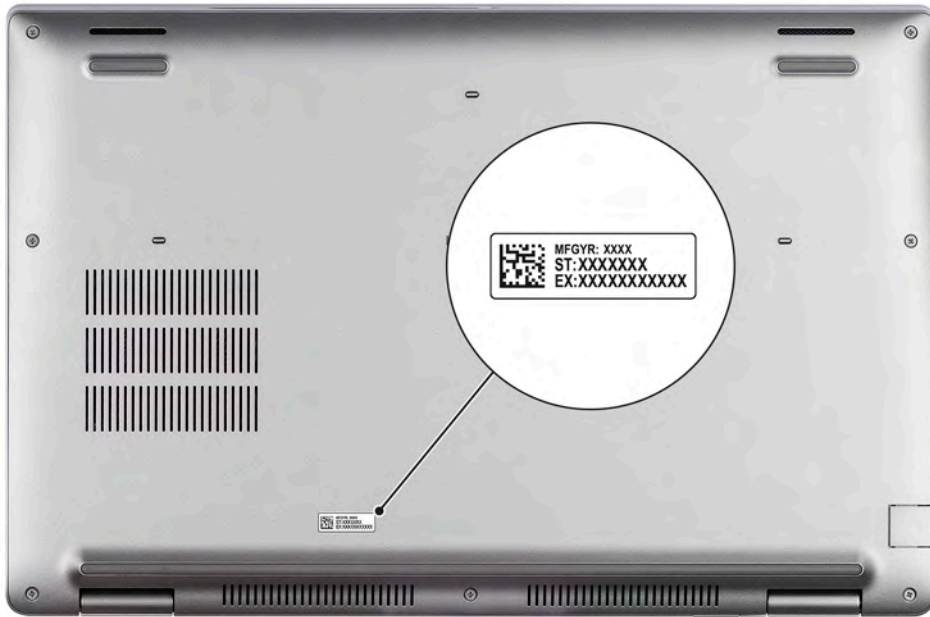


1. microSIM-card slot (optional)

## 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 Latitude 5530.

**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 5530

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 5530.

**Table 2. Dimensions and weight**

Description	Values
Height:	
Front height	20.77 mm (0.82 in.)
Rear height	22.15 mm (0.87 in.)
Width	357.80 mm (14.09 in.)
Depth	233.30 mm (9.19 in.)
Weight	1.59 kg (3.50 lb) (starting weight)
 <b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.	

## Processor

The following table lists the details of the processors that are supported by your Latitude 5530 .

**Table 3. Processor**

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight	Option nine
Processor type	11 <sup>th</sup> Generation Intel Core i5-1145G7, vPro	Intel vPro Enterprise with Intel Core i3-1215U	Intel vPro Essentials with Intel Core i5-1235U	Intel vPro Enterprise with Intel Core i5-1245U	Intel vPro Essentials with Intel Core i7-1255U	Intel vPro Enterprise with Intel Core i7-1265U	Intel vPro Essentials with Intel Core i5-1240P	Intel vPro Enterprise with Intel Core i5-1250P	Intel vPro Enterprise with Intel Core i7-1270P
Processor wattage	15 W	15 W	15 W	15 W	15 W	15 W	28 W	28 W	28 W
Processor core count	4	2+4	2+8	2+8	2+8	2+8	4+8	4+8	4+8
Processor thread count	8	8	12	12	12	12	16	16	16
Processor speed	2.60 GHz to 4.40 GHz	1.20 GHz to 4.40 GHz	1.30 GHz to 4.40 GHz	1.60 GHz to 4.40 GHz	1.70 GHz to 4.70 GHz	1.80 GHz to 4.80 GHz	1.70 GHz to 4.40 GHz	1.70 GHz to 4.40 GHz	2.20 GHz to 4.80 GHz
Processor cache	8 MB	10 MB	12 MB	12 MB	12 MB	12 MB	12 MB	12 MB	18 MB

**Table 3. Processor (continued)**

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight	Option nine
Integrated graphics	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel UHD Graphics	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).	Intel Iris Xe Graphics <b>(i) NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center(IGCC).

## Chipset

The following table lists the details of the chipset supported by your Latitude 5530.

**Table 4. Chipset**

Description	Values
Chipset	Intel PCH-LP
Processor	<ul style="list-style-type: none"> <li>12<sup>th</sup> Generation Intel Core i3/i5/i7 processors</li> <li>11<sup>th</sup> Generation Intel Core i5 processor</li> </ul>
DRAM bus width	64-bit (for dual-channel)
Flash EPROM	<ul style="list-style-type: none"> <li>vPro: 16 MB + 32 MB</li> <li>Non-vPro: 32 MB</li> </ul>
PCIe bus	Up to Gen 4.0

## Operating system

Your Latitude 5530 supports the following operating systems:

- Windows 11 Home

- Windows 11 Pro
- Windows 11 Pro Downgrade (Windows 10 Pro Image-factory installed)
- Ubuntu Linux 20.04 LTS

## Memory

The following table lists the memory specifications of your Latitude 5530.

**Table 5. Memory specifications**

Description	Values
Memory slots	Two-SoDIMM
Memory type	DDR4
Memory speed	3200 MHz
Maximum memory configuration	64 GB
Minimum memory configuration	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> <li>• 4 GB, 1 x 4 GB, DDR4, 3200 MHz</li> <li>• 8 GB, 2 x 4 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 8 GB, 1 x 8 GB, DDR4, 3200 MHz</li> <li>• 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 16 GB, 1 x 16 GB, DDR4, 3200 MHz</li> <li>• 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel</li> <li>• 64 GB, 2 x 32 GB, DDR4, 3200 MHz, dual-channel</li> </ul>

## External ports

The following table lists the external ports of your Latitude 5530.

**Table 6. External ports**

Description	Values
Network port	One RJ45 Ethernet port
USB ports	<ul style="list-style-type: none"> <li>• One USB 3.2 Gen 1 port</li> <li>• One USB 3.2 Gen 1 port with PowerShare</li> <li>• Two Thunderbolt 4 ports with DisplayPort Alt Mode/USB-C/USB4/Power Delivery</li> </ul>
Audio port	One Universal audio port
Video port	One HDMI 2.0 port
Media-card reader	One microSD-card slot
Power-adapter port	USB Type-C power input
Security-cable slot	One wedge-shaped lock slot

## Internal slots

The following table lists the internal slots of your Latitude 5530.

**Table 7. Internal slots**

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

## Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Latitude 5530.

**Table 8. Ethernet specifications**

Description	Values
Model number	Intel I219-V/Intel I219-LM
Transfer rate	10/100/1000 Mbps

## Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Latitude 5530.


**Table 9. Wireless module specifications**

Description	Option one	Option two	Option Three	Option Four
Model number	Realtek RTL8822CE	Intel AX211	Intel AX201	MediaTek MT7921
Transfer rate	Up to 867 Mbps	Up to 2400 Mbps	Up to 2400 Mbps	Up to 1200 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> </ul>	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6E (WiFi 802.11ax)</li> </ul>	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6E (WiFi 802.11ax)</li> </ul>	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6E (WiFi 802.11ax)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>64-bit/128-bit WEP</li> <li>AES-CCMP</li> <li>TKIP</li> </ul>	<ul style="list-style-type: none"> <li>64-bit/128-bit WEP</li> <li>AES-CCMP</li> <li>TKIP</li> </ul>	<ul style="list-style-type: none"> <li>64-bit/128-bit WEP</li> <li>AES-CCMP</li> <li>TKIP</li> </ul>	<ul style="list-style-type: none"> <li>64-bit/128-bit WEP</li> <li>AES-CCMP</li> <li>TKIP</li> </ul>
Bluetooth	Bluetooth 5.0	Bluetooth 5.2	Bluetooth 5.2	Bluetooth 5.2

# WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module supported on your Latitude 5530.

**Table 10. WWAN module specifications**

Description	Values
Model number	Intel 7360 (DW5820e)
Transfer rate	Up to 450 Mbps DL/50 Mbps UL (Cat 9)
Frequency bands supported	<ul style="list-style-type: none"> <li>• LTE FDD: 450 Mbps DL/50 Mbps UL (Cat 9)</li> <li>• LTE TDD: B347 Mbps DL/30 Mbps UL (Cat 9)</li> <li>• UMTS/HSPA+: UMTS 384 Kbps DL/384 Kbps UL</li> </ul>
Wireless standards	<ul style="list-style-type: none"> <li>• LTE Category 9</li> <li>• UMTS/HSPA+</li> </ul>
Encryption	Not supported
Global Navigation Satellite System (GNSS)	Supports GPS, BDS, and GLONASS
 <b>NOTE:</b> For instructions on how to find your computer's IMEI (International Mobile Station Equipment Identity) number, see the knowledge base article <a href="https://www.dell.com/support">000143678</a> at <a href="https://www.dell.com/support">www.dell.com/support</a> .	

# Audio

The following table lists the audio specifications of your Latitude 5530.

**Table 11. Audio specifications**

Description	Values	
Audio controller	Realtek ALC3204 with Waves MaxxAudio Pro	
Stereo conversion	24-bit Digital-to-Analog (DAC) and Analog-to-Digital (ADC)	
Internal audio interface	High definition audio interface	
External audio interface	Universal audio jack	
Number of speakers	Two	
Internal-speaker amplifier	Supported (audio codec integrated)	
External volume controls	Keyboard shortcut controls	
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output	Not supported	
Microphone	Dual-array microphones	

# Storage

This section lists the storage options on your Latitude 5530.

**Table 12. Storage matrix**

Storage	SSD Slot 1	SSD Slot 2
M.2 2230, Gen 3 PCIe x4 NVMe	Yes	No
M.2 2230, Gen 3 PCIe x4 NVMe	M.2 2280, Gen 4 PCIe x4 NVMe	Yes (speed limited to Gen 3)
M.2 2280, Gen 3 PCIe x4 NVMe	Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe	M.2 2280, Gen 4 PCIe x4 NVMe	Yes (speed limited to Gen 3)
M.2 2280, Gen 4 PCIe x4 NVMe	Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe, SED	Yes	No
M.2 2280, Gen 3 PCIe x4 NVMe, SED	M.2 2280, Gen 4 PCIe x4 NVMe	Yes (speed limited to Gen 3)

The primary drive of your Latitude 5530 varies with the storage configuration.

**Table 13. Storage specifications**

Storage type	Interface type	Capacity
M.2 2230, Class 35 SSD	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2230, Class 35 SSD	PCIe NVMe Gen4 x4	Up to 1 TB
M.2 2230, Class 35 SSD, self-encrypting drive	PCIe NVMe Gen3 x4	256 GB
M.2 2230, Class 35 SSD, self-encrypting drive	PCIe NVMe Gen4 x4	256 GB
M.2 2280, Class 40 SSD	PCIe NVMe Gen3x4	Up to 1 TB
M.2 2280, Class 40 SSD	PCIe NVMe Gen4 x4	Up to 2 TB
M.2 2280, Class 40 SSD, self-encrypting drive	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2280, QLC PCIe NVMe	PCIe NVMe	512 GB

# Media-card reader

The following table lists the media-card reader specifications of your Latitude 5530.

**Table 14. Media-card reader (standard offering)**

Media supported (Maximum capacity supported will vary by Flash Media Types)	
Media Supported	Micro Secure Digital (mSD) Micro Secure Digital High Capacity (mSDHC) Micro Secure Digital Extended Capacity (mSDXC)
Support Specification Versions	microSD 4.0 card

# Keyboard

The following table lists the keyboard specifications of your Latitude 5530.

**Table 15. Keyboard specifications**

Description	Values
Keyboard type	<ul style="list-style-type: none"> <li>Standard backlit keyboard</li> <li>Standard non-backlit keyboard</li> </ul>
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"> <li>United States and Canada: 99 keys</li> <li>United Kingdom: 100 keys</li> <li>Japan: 103 keys</li> </ul>
Keyboard size	X=18.05 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><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) changing <b>Function Key Behavior</b> in BIOS setup program.</p>

# Camera

The following table lists the camera specifications of your Latitude 5530.

**Table 16. Camera specifications**

Description	Option one	Option two	Option three
Number of cameras	One	One	One
Camera type	Integrated 6 mm HD RGB Webcam	Integrated 6 mm FHD RGB + IR Webcam	Integrated 6 mm FHD RGB + IR Webcam with proximity sensor and ALS (Optional)
Camera location	Front camera	Front camera	Front camera
Camera sensor type	CMOS sensor technology	CMOS sensor technology	CMOS sensor technology
Camera resolution:			
Still image	0.92 megapixel	0.92 megapixels	0.92 megapixels
Video	1280 x 720 (HD) at 30 fps	1920 x 1080 (FHD) at 30 fps	1920 x 1080 (FHD) at 30 fps
Infrared camera resolution:			
Still image	NA	0.23	0.23
Video	NA	640 x 360	640 x 360
Diagonal viewing angle:			



**Table 16. Camera specifications (continued)**

Description	Option one	Option two	Option three
Camera	78.60 degrees	87 degrees	87.60 degrees
Infrared camera	NA	87 degrees	87.60 degrees

## Clickpad

The following table lists the touchpad specifications of your Latitude 5530.

**Table 17. Clickpad specifications**

Description	Values
Clickpad resolution:	>300 dpi
Clickpad dimensions:	
Horizontal	115 mm (4.53 in.)
Vertical	67 mm (2.64 in.)
Clickpad gestures	For more information about clickpad gestures available on Windows, see the Microsoft knowledge base article <a href="https://support.microsoft.com/4027871">4027871</a> at <a href="https://support.microsoft.com">support.microsoft.com</a> .


## Power adapter

The following table lists the power adapter specifications of your Latitude 5530.

**Table 18. Power adapter specifications**

Description	Option one	Option two	Option three	Option four
Type	60 W AC adapter, USB-C	60 W AC adapter, USB-C, 2-pin	65 W AC adapter, USB-C	90 W AC adapter, USB-C
Power-adapter dimensions:				
Height	22 mm (0.87 in.)	22 mm (0.87 in.)	28 mm (1.10 in.)	22 mm (0.87 in.)
Width	55 mm (2.16 in.)	55 mm (2.16 in.)	51 mm (2.01 in.)	66 mm (2.60 in.)
Depth	66 mm (2.60 in.)	66 mm (2.60 in.)	112 mm (4.41 in.)	130 mm (5.12 in.)
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC x 240 VAC	100 VAC x 240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz to 60 Hz	50 Hz to 60 Hz
Input current (maximum)	1.70 A	1.70 A	1.70 A	1.50 A
Output current (continuous)	<ul style="list-style-type: none"> <li>20 V/3 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9 V/3 A (Continuous)</li> <li>5 V/3 A (Continuous)</li> </ul>	<ul style="list-style-type: none"> <li>20 V/3 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9 V/3 A (Continuous)</li> <li>5 V/3 A (Continuous)</li> </ul>	<ul style="list-style-type: none"> <li>20 V/3.25 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9 V/3 A (Continuous)</li> <li>5 V/3 A (Continuous)</li> </ul>	<ul style="list-style-type: none"> <li>20 V/4.5 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9 V/3 A (Continuous)</li> <li>5 V/3 A (Continuous)</li> </ul>

**Table 18. Power adapter specifications (continued)**

Description	Option one	Option two	Option three	Option four
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	20 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)	0°C to 40°C (32°F to 104°F)
Storage	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)
 <b>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.</b>				

## Battery

The following table lists the battery specifications of your Latitude 5530.

**Table 19. Battery specifications**

Description	Option one	Option two	Option three	Option four
Battery type	3 cell, 41 WHr, lithium-ion, ExpressCharge Boost	3 cell, 41 WHr, lithium-ion, Long Cycle Life	4 cell, 58 WHr, lithium-ion, ExpressCharge Boost	4 cell, 58 WHr, lithium-ion, Long Cycle Life
Battery voltage	11.25 VDC	11.25 VDC	7.6 VDC	7.6 VDC
Battery weight (minimum)	0.177 kg (0.38 lbs)	0.177 kg (0.38 lbs)	0.23 kg (0.51 lbs)	0.23 kg (0.51 lbs)
Battery dimensions:				
	Height	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)
	Width	206.4 mm (8.12 in.)	206.4 mm (8.12 in.)	242.0 mm (9.52 in.)
	Depth	89.4 mm (3.51 in.)	89.4 mm (3.51 in.)	89.4 mm (3.51 in.)
Temperature range:				
	Operating	<ul style="list-style-type: none"> <li>Charge: 0 °C to 45 °C (32 °F to 113 °F)</li> <li>Discharge: 0 °C to 70 °C (32 °F to 158 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Charge: 0 °C to 45 °C (32 °F to 113 °F)</li> <li>Discharge: 0 °C to 70 °C (32 °F to 158 °F)</li> </ul>	<ul style="list-style-type: none"> <li>Charge: 0 °C to 45 °C (32 °F to 113 °F)</li> <li>Discharge: 0 °C to 70 °C (32 °F to 158 °F)</li> </ul>
	Storage	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °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.	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.

**Table 19. Battery specifications (continued)**

Description	Option one	Option two	Option three	Option four
<p>Battery charging time (approximate)</p> <p><b>i</b> <b>NOTE:</b> 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 <a href="http://www.dell.com">www.dell.com</a>.</p>	<p><b>Express Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <p><b>Standard Charge/ Predominately AC User Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <p><b>Express Charge Boost Charge Method (Fast Charge for Initial 35%):</b></p> <ul style="list-style-type: none"> <li>16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge</li> </ul>	<p><b>Standard Charge/ Predominately AC User Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul>	<p><b>Express Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 45°C normal express charge</li> <li>46 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <p><b>Standard Charge/ Predominately AC User Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul> <p><b>Express Charge Boost Charge Method (Fast Charge for Initial 35%):</b></p> <ul style="list-style-type: none"> <li>16 - 45°C target charge time from 0 to 35% RSOC is 20 mins for Accelerated Charge</li> </ul>	<p><b>Standard Charge/ Predominately AC User Charge Method:</b></p> <ul style="list-style-type: none"> <li>0 - 15°C maximum allowable charge time from 0 to 100% RSOC is 4 hours</li> <li>16 - 50°C maximum allowable charge time from 0 to 100% RSOC is 3 hours</li> </ul>
Coin-cell battery	Yes	Yes	Yes	Yes
<p><b>⚠ CAUTION:</b> 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.</p> <p><b>⚠ CAUTION:</b> 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.</p>				

# Display

The following table lists the display specifications of your Latitude 5530.

**Table 20. Display specifications**

Description		Option one	Option two	Option three	Option four	Option five
Display type		High Definition (HD)	Full High Definition (FHD)	Full High Definition (FHD)	Full High Definition (FHD), Low Blue Light	Ultra High Definition (UHD), Low Blue Light
Display-panel technology		Twisted Nematic (TN)	Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)	Wide Viewing Angle (WVA)	Wide-Viewing Angle (WVA)
Display-panel dimensions (active area):						
	Height	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)
	Width	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)
	Diagonal	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)	394.91 mm (15.55 in.)
Display-panel native resolution		1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160
Luminance (typical)		220 nits	250 nits	250 nits	400 nits	400 nits
Megapixels		1.05	2.07	2.07	2.07	8.3
Color gamut		45% NTSC	45% NTSC	45% NTSC	100% sRGB	100% sRGB
Pixels Per Inch (PPI)		100	141	141	141	283
Contrast ratio (typical)		500:1	700:1	700:1	700:1	1000:1
Response time (max)		25 ms	25 ms	35 ms	35 ms	35 ms
Refresh rate		60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
Horizontal view angle		40/40 +/- degrees	85/85 +/- degrees	85/85 +/- degrees	85/85 +/- degrees	85/85 +/- degrees
Vertical view angle		10(U)/30(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees	80(U)/80(D) +/- degrees
Pixel pitch		0.252 x 0.252 mm	0.179 x 0.179 mm	0.179 x 0.179 mm	0.179 x 0.179 mm	0.0896 x 0.0896 mm
Power consumption (maximum)		4.20 W	4.60 W	4.60 W	4.50 W	4.50 W
Anti-glare vs glossy finish		Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options		No	No	Yes	No	No

## Fingerprint reader (optional)

**Table 21. Fingerprint reader specifications**

Description	Power button option	FIPS option
Sensor technology	Capacitive	Capacitive
Sensor resolution	500 dpi	508 dpi
Sensor pixel size, X	108	256
Sensor pixel size, Y	88	360

## Sensor

The following table lists the sensor of your Latitude 5530.

**Table 22. Sensor**

Sensor support
Ambient Light Sensor on the hinge-up (optional)
P-sensor on the hinge-up (optional)
1 Accelerometer in the base (system board)
1 Accelerometer (Accelerometer + Gyro) in the hinge- up sensor board (Upsell config. with Proximity/ALS/IR camera)

## GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 5530.

**Table 23. GPU—Integrated**

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	12 <sup>th</sup> Generation Intel i3 processor
Intel Iris Xe Graphics	Shared system memory	11 <sup>th</sup> /12 <sup>th</sup> Generation Intel Core i5/i7 processors with dual-channel memory <i>i</i> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)

## GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Latitude 5530.

**Table 24. GPU—Discrete**

Controller	Memory size	Memory type
NVIDIA GeForce MX550	2 GB	GDDR6

# Hardware security

The following table lists the hardware security of your Latitude 5530.

**Table 25. Hardware security**

Windows Hello - Fingerprint Reader (optional)
Trusted Platform Module (TPM) 2.0 FIPS 140-2 Certified
TCG Certification for TPM (Trusted Computing Group)
One wedge-shaped lock slot
Fingerprint Reader in Power Button tied to ControlVault 3
ControlVault 3 Advanced Authentication (optional) FIPS 140-2 Level 3 Certified
Contacted Smartcard reader with Control Vault 3 (optional) FIPS 201 Certified
Contactless Smartcard, NFC/FPR with CV3 (optional)
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
FIPS 201 Full Scan FPR and ControlVault 3

## Smart-card reader

### Contactless smart-card reader


This section lists the contactless smart-card reader specifications of your Latitude 5530.

**Table 26. Contactless smart-card reader specifications**

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
Felica Card Support	Reader and software capable of supporting Felica contactless cards	Yes
ISO 14443 Type A Card Support	Reader and software capable of supporting ISO 14443 Type A contactless cards	Yes
ISO 14443 Type B Card Support	Reader and software capable of supporting ISO 14443 Type B contactless cards	Yes
ISO/IEC 21481	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO/IEC 18092	Reader and software capable of supporting ISO/IEC 21481 compliant contactless cards and tokens	Yes
ISO 15693 Card Support	Reader and software capable of supporting ISO15693 contactless cards	Yes
NFC Tag Support	Supports reading and processing of NFC compliant tag information	Yes
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes
NFC Writer Mode	Support for NFC Forum Defined Writer mode	Yes

**Table 26. Contactless smart-card reader specifications (continued)**

Title	Description	Dell ControlVault 3 contactless smart-card reader with NFC
NFC Peer-to-Peer Mode	Support for NFC Forum Defined Peer to Peer mode	Yes
EMVCo Compliant	Compliant with EMVCO smart card standards as posted to www.emvco.com	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
NFC Proximity OS Interface	Enumerates NFP (Near Field Proximity) device for OS to utilize	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers	Yes
Windows Certified	Device certified by Microsoft WHCK	Yes
Dell ControlVault support	Device connects to Dell ControlVault for usage and processing	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

 **NOTE:** 125 Khz proximity cards are not supported.

**Table 27. Supported cards**

Manufacturer	Card
HID	jCOP readertest3 A card (14443a)
	1430 1L
	DESFire D8H
	iClass (Legacy)
	iClass SEOS
NXP/Mifare	Mifare DESFire 8K White PVC Cards
	Mifare Classic 1K White PVC Cards
	NXP Mifare Classic S50 ISO Card
G&D	idOnDemand - SCE3.2 144K
	SCE6.0 FIPS 80K Dual+ 1 K Mifare
	SCE6.0 nonFIPS 80K Dual+ 1 K Mifare
	SCE6.0 FIPS 144K Dual + 1K Mifare
	SCE6.0 nonFIPS 144K Dual + 1 K Mifare
	SCE7.0 FIPS 144K
Oberthur	idOnDemand - OCS5.2 80K
	ID-One Cosmo 64 RSA D V5.4 T=0 card

## Contacted smart-card reader

The following table lists the contacted smart-card reader specifications of your Latitude 5530.

**Table 28. Contacted smart-card reader specifications**

Title	Description	Dell ControlVault 3 smart-card reader
ISO 7816 -3 Class A Card Support	Reader capable of reading 5V powered smart mcard	Yes
ISO 7816 -3 Class B Card Support	Reader capable of reading 3V powered smart card	Yes
ISO 7816 -3 Class C Card support	Reader capable of reading 1.8V powered smart card	Yes
ISO 7816-1 Compliant	Specification for the reader	Yes
ISO 7816 -2 Compliant	Specification for smart card device physical characteristics (size, location of connection points, etc.)	Yes
T=0 support	Cards support character level transmission	Yes
T=1 support	Cards support block level transmission	Yes
EMVCo Compliant	Compliant with EMVCo (for electronic payment standards) smart card standards as posted to <a href="http://www.emvco.com">www.emvco.com</a>	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes
PC/SC OS interface	Personal Computer/Smart Card specification for integration of hardware readers into personal computer environments	Yes
CCID driver compliance	Common driver support for Integrated Circuit Card Interface Device for OS level drivers.	Yes
Windows Certified	Device certified by WHCK	Yes
FIPS 201 (PIV/HSPD-12) Compliant via GSA	Device compliant with FIPS 201/PIV/HSPD-12 requirements	Yes
FIDO2 compliance	Dell ControlVault 3 Smart-card reader is compliant with the FIDO SPEC	Yes

## Operating and storage environment

This table lists the operating and storage specifications of your Latitude 5530.


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

**Table 29. Computer environment**

Description	Operating	Storage
Temperature range	0°C to 40°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



**Table 29. Computer environment (continued)**

Description	Operating	Storage
Shock (maximum)	140 G†	160 G†
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10000 ft)	-15.2 m to 10668 m (-49.87 ft to 35000 ft)
 <b>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.</b>		

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

† Measured using a 2 ms half-sine pulse.

# Engineering specifications

## Ethernet

### Integrated Connection I219-LM/I219-V

**Table 30. Integrated Connection I219-LM/I219-V**

Data Rates supported	10/100/1000 Mbps
<b>Controller Details</b>	
Controller Bus Architecture	PCIe-based interface for S0 state, SMBus for Sx low power state
Wake On LAN	Wake-on-LAN and remote wake-up support (Magic Packet and Pattern Match)
Integrated Memory	N/A
Interface/BUS	PCIe x1
Data Transfer Mode (example: Bus-Master DMA)	N/A
Power Consumption (full operation per data rate connection speed)	542 mW (Max.)
Power Consumption (standby operation)	1000Mb/S Idle 439mW
IEEE Standards Compliance	802.3
Hardware Certifications	N/A
Boot ROM Support	EEPROM (located in SPI)
<b>Network Transfer Mode</b>	
10BASE-T (half-duplex)	10 Mb (full/half-duplex)
100BASE-TX (half-duplex)	100 Mb (full/half-duplex)
1000BASE-T (full-duplex)	1000 Mb (full-duplex)
<b>Environmental</b>	
Operating Temperature	0° C to 85° C (32° F to 185° F)
Operating Humidity	20% to 80% (non-condensing)
Operating System Driver Support	Win7 32/64 bit, Win 8.1/10 64 bit, Linux
Manageability	WOL, PXE
Management Capabilities Alerting	Intel vPro support with appropriate Intel chipset components

This term does not connote an actual operating speed of 1 Gb per sec. For high speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

# Wireless module

## Realtek RTL8822CE, 1x1, Wi-Fi 5 (WiFi 802.11ac), Bluetooth 5.0

The following table lists the Realtek RTL8822CE specifications.


**Table 31. Realtek RTL8822CE specifications**

Host interface	<ul style="list-style-type: none"> <li>• Wi-Fi - PCIe</li> <li>• Bluetooth - USB</li> </ul>
Network standard	IEEE 802.11a/b/g/n/ac, MU-MIMO
Wi-Fi Alliance certifications	<ul style="list-style-type: none"> <li>• Wi-Fi certified a/b/g/n/ac</li> <li>• WMM</li> <li>• WPA</li> <li>• WPA2</li> <li>• Wi-Fi Direct (Windows only)</li> </ul>
Operating frequency bands	<ul style="list-style-type: none"> <li>• 2.4 Ghz</li> <li>• 5 Ghz</li> </ul>
Data rate	<ul style="list-style-type: none"> <li>• 2.4 GHz 40M: Up to 300 Mbps</li> <li>• 5 GHz 80M: Up to 867 Mbps</li> </ul>
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Authentication	<ul style="list-style-type: none"> <li>• Open</li> <li>• Shared</li> <li>• WPA</li> <li>• WPA-PSK</li> <li>• WPA2</li> <li>• WPA2-PSK</li> </ul>
Client utility	Native Wi-Fi and Bluetooth Microsoft UI support
Software support	<ul style="list-style-type: none"> <li>• Microsoft WHQL certified for Windows</li> <li>• Linux</li> <li>• Chrome</li> </ul>
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"> <li>• Dual Mode Bluetooth 5.0</li> <li>• BLE</li> </ul>
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
Operating temperature	0°C to + 70°C
Storage temperature	-40°C to +85°C

# 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 32. Intel AX211 specifications**

Host interface	CNVi3 (Connectivity Integration 3 <sup>rd</sup> 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   <b>NOTE:</b> Other names and brands may be claimed as the property of others.
Operating frequency bands	<ul style="list-style-type: none"> <li>● 2.4 GHz</li> <li>● 5 GHz</li> <li>● 6 GHz</li> </ul>
Data rate	<ul style="list-style-type: none"> <li>● 2.4 GHz 40M: Up to 574 Mbps</li> <li>● 5/6 GHz 80M: Up to 1.2 Gbps</li> <li>● 5/6 GHz 160M: Up to 2.4 Gbps</li> </ul>
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security methods	<ul style="list-style-type: none"> <li>● WPA2 Personal and Enterprise</li> <li>● WPA3</li> </ul>
Authentication protocols	<ul style="list-style-type: none"> <li>● 802.1X EAP-TLS</li> <li>● EAP-TTLS/MSCHAPv2</li> <li>● PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>● 64-bit and 128-bit WEP</li> <li>● TKIP</li> <li>● 128-bit AES-CCMP</li> <li>● 256-bit AES-GCMP</li> </ul>
Product safety	<ul style="list-style-type: none"> <li>● UL</li> <li>● C-UL</li> <li>● CB (IEC60950-1)</li> </ul>
Management capabilities alerting	Support for Intel AMT
Government compliance	<ul style="list-style-type: none"> <li>● FIPS 140-2</li> <li>● FISMA</li> </ul>
Client utility	Intel PRO/Set wireless software v22 and later
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"> <li>● Dual Mode Bluetooth 5.2</li> <li>● BLE</li> </ul>
Bluetooth data rates	Up to 3 Mbps

**Table 32. Intel AX211 specifications (continued)**

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)

## Intel AX201, 2x2 MIMO, 2400 Mbps, 2.40 GHz /5 GHz, Wi-Fi 6 (WiFi 802.11ax), Bluetooth 5.2

The following table lists the Intel Intel AX201 specifications.

**Table 33. Intel AX201 specifications**

Host interface	CNVi2 (Connectivity Integration 2 <sup>nd</sup> generation)
Network standard	IEEE 802.11a/b/g/n/ac/ax, 160 MHz channel use, MU-MIMO
Wi-Fi Alliance certifications	<ul style="list-style-type: none"> <li>● Wi-Fi CERTIFIED 6</li> <li>● Wi-Fi CERTIFIED a/b/g/n/ac</li> <li>● WMM</li> <li>● WMM-Power Save</li> <li>● WPA2</li> <li>● WPA3</li> <li>● WPS</li> <li>● Protected Management Frames</li> <li>● Wi-Fi Direct</li> <li>● Wi-Fi Agile Multiband</li> </ul>
Operating frequency bands	<ul style="list-style-type: none"> <li>● 2.4 GHz</li> <li>● 5 GHz</li> </ul>
Data rate	<ul style="list-style-type: none"> <li>● 2.4 GHz 40M: Up to 574 Mbps</li> <li>● 5 GHz 80M: Up to 1.2 Gbps</li> <li>● 5 GHz 160M: Up to 2.4 Gbps</li> </ul>
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Security methods	<ul style="list-style-type: none"> <li>● WPA2 Personal and Enterprise</li> <li>● WPA3</li> </ul>
Authentication protocols	<ul style="list-style-type: none"> <li>● 802.1X EAP-TLS</li> <li>● EAP-TTLS/MSCHAPv2</li> <li>● PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>● 64-bit and 128-bit WEP</li> <li>● TKIP</li> <li>● 128-bit AES-CCMP</li> <li>● 256-bit AES-GCMP</li> </ul>
Product safety	<ul style="list-style-type: none"> <li>● UL</li> <li>● C-UL</li> </ul>

**Table 33. Intel AX201 specifications (continued)**

	<ul style="list-style-type: none"> <li>● CB (IEC60950-1)</li> </ul>
Management capabilities alerting	Support for Intel AMT
Government compliance	<ul style="list-style-type: none"> <li>● FIPS 140-2</li> <li>● FISMA</li> </ul>
Client utility	Intel PRO/Set wireless software v21 and later
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"> <li>● Dual Mode Bluetooth 5.2</li> <li>● BLE</li> </ul>
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)

## MediaTek MT7921, 2x2, Wi-Fi 6 (WiFi 802.11ax), Bluetooth 5.2

The following table lists the MediaTek MT7921 specifications.

**Table 34. MediaTek MT7921 specifications**

Host interface	<ul style="list-style-type: none"> <li>● Wi-Fi - PCIe</li> <li>● Bluetooth - USB</li> </ul>
Network standard	IEEE 802.11a/b/g/n/ac/ax, MU-MIMO
Wi-Fi Alliance certifications	<ul style="list-style-type: none"> <li>● 802.11 a/b/g/n/ac R2/ax R2</li> <li>● WMM</li> <li>● WMM-PS</li> <li>● WPA3</li> <li>● WPS2</li> <li>● PMF</li> <li>● WFD</li> <li>● Miracast</li> <li>● Passpoint R2</li> <li>● Voice Personal</li> </ul>
Operating frequency bands	<ul style="list-style-type: none"> <li>● 2.4 Ghz</li> <li>● 5 Ghz</li> </ul>

**Table 34. MediaTek MT7921 specifications (continued)**

Data rate	<ul style="list-style-type: none"> <li>• 2.4 GHz 40M: Up to 576 Mbps</li> <li>• 5 GHz 160M: Up to 1.2 Gbps</li> </ul>
Power consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Authentication	<ul style="list-style-type: none"> <li>• WPA and WPA2 Personal and Enterprise</li> <li>• WPA3 Personal and Enterprise</li> </ul>
Authentication protocols	<ul style="list-style-type: none"> <li>• 802.1X EAP-TLS</li> <li>• EAP-TTLS/MSCHAPv2</li> <li>• PEAPv0 -MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>• 64-bit and 128-bit WEP</li> <li>• TKIP</li> <li>• 128-bit AES-CCMP</li> <li>• 256-bit AES-GCMP</li> </ul>
Product safety	<ul style="list-style-type: none"> <li>• UL</li> <li>• C-UL</li> <li>• CB (IEC60950-1)</li> </ul>
Government compliance	<ul style="list-style-type: none"> <li>• FIPS 140-2</li> <li>• FISMA</li> </ul>
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"> <li>• Dual Mode Bluetooth 5.2</li> <li>• BLE</li> </ul>
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° 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

### Intel XMM 7360 Global LTE-Advanced

The following table lists the Intel XMM 7360 Global LTE-Advanced specifications.

**Table 35. Intel XMM 7360 Global LTE-Advanced specifications**

Form factor	M.2 3042 Key-B
-------------	----------------

**Table 35. Intel XMM 7360 Global LTE-Advanced specifications (continued)**




Host interface	<ul style="list-style-type: none"> <li>Windows - PCIe Gen1</li> <li>Chrome/Linux - USB 3.0/2.0</li> </ul>
Network standard	<ul style="list-style-type: none"> <li>LTE FDD/TDD</li> <li>WCDMA/HSPA+</li> <li>GNSS/Beidou</li> </ul>
Transfer rate	<ul style="list-style-type: none"> <li>CAT9 - Up to 450 Mbps</li> <li>UL - Up to 50 Mbps</li> </ul>
Operating frequency bands	<ul style="list-style-type: none"> <li>LTE (B1, B2, B3, B4, B5, B7, B8, B11, B12, B13, B17, B18, B19, B20, B21, B26, B28, B29, B30, B38, B39, B40, B41, B66)</li> <li>HSPA+ (1, 2, 4,5, 8)</li> </ul>
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)	Not supported
Antenna diversity	Supported
Radio On/Off	Supported
Wake on wireless	Supported
Normal operating temperature	-10°C to +55°C
Extended operating temperature	-20°C to +65°C
Antenna connector	<ul style="list-style-type: none"> <li>WWAN Main Antenna X 1</li> <li>WWAN Diversity Antenna X 1</li> </ul>

## GPU—Integrated

### Intel Iris X<sup>e</sup> Graphics

The following table lists the Intel Iris X<sup>e</sup> Graphics specifications.

**Table 36. Intel Iris X<sup>e</sup> Graphics specifications**

Bus type	<p>Integrated graphics</p> <p> <b>NOTE:</b> Intel Iris X<sup>e</sup> Graphics uses the computers memory as video memory.</p> <p> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Centre (IGCC)</p>
Memory type	Shared with system memory
Memory interface	N/A (Unified Memory Architecture)
Estimated maximum power consumption (TDP)	15 W, included in the CPU power
Maximum color depth	10 bits
Maximum vertical refresh rate	<p>Up to 120 Hz</p> <p> <b>NOTE:</b> The refresh rate depends on the resolution.</p>
External ports	HDMI 2.0 port, DisplayPort over USB Type-C
Multiple display support	Up to 4 displays including laptop display



## Intel UHD Graphics

The following table lists the Intel UHD Graphics specifications.

**Table 37. Intel UHD Graphics specifications**

Bus type	Integrated graphics
Memory type	Shared with system memory
Graphics level	i5/i7: GT2 (UHD)
Estimated maximum power consumption (TDP)	15 W
Overlay planes	Yes
Operating systems graphics/ video API support	DirectX 12, OpenGL (4.5 from Intel CML POR)
Maximum vertical refresh rate	<ul style="list-style-type: none"> <li>HDMI 2.0: 4096 x 2160 @ 60 Hz, 24bpp (HDMI or optional USB Type-C to HDMI dongle)</li> <li>Max Digital: 4096 x 2304 @ 60 Hz, 24bpp (mDP or DP 1.4 over Type-C Port)</li> </ul>
External ports	<ul style="list-style-type: none"> <li>HDMI 2.0 port</li> <li>DisplayPort over USB Type-C</li> </ul>
Multiple display support	Up to 4 displays via DisplayPort Multi-Streaming Technology (MST)

## GPU—Discrete

### NVIDIA GeForce MX550, 2 GB, GDDR6

The following table lists the NVIDIA GeForce MX550 specifications.

**Table 38. NVIDIA GeForce MX550 specifications**

Feature	Values
GPU	Nvidia GeForce MX550
Cores	2G
Memory bandwidth	96 Gbps
Memory type	GDDR6
Memory size	2 GB
Memory interface	64-bit
TGP	30 W
GPU base clock	1065 MHz
GPU boost clock	1320 MHz
Vram clock	<ul style="list-style-type: none"> <li>P0 - 6001 MHz</li> <li>P3 - 5501 MHz</li> <li>P5 - 810 MHz</li> <li>P8 - 405 MHz</li> </ul>
PCIe	Gen 3 x 8

# Video port and resolution matrix

The following table lists the Video port and resolution matrix of your Latitude 5530.

**Table 39. Video port and resolution matrix**

Port type	HDMI 2.0 port
Maximum resolution—single display	4096 x 2160 @ 60 Hz
Maximum resolution—dual MST	Not applicable
Maximum resolution—triple MST	Not applicable

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

## M.2 2230, 512 GB, PCIe NVMe Gen3 x4, Class 35 SSD

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

**Table 41. 512 GB SSD specifications**

Capacity	512 GB
Height (approximate)	2.38 mm (0.09 in.)

**Table 41. 512 GB SSD specifications (continued)**

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
Logical blocks	1,000,215,216
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW (PS4)</li> <li>• Active: 3.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

## M.2 2230, 1 TB, PCIe NVMe Gen3 x4, Class 35 SSD

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

**Table 42. 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 Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW (PS4)</li> <li>• Active: 3.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 43. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"><li>● Idle: 5 mW (PS4)</li><li>● Active: 4 W</li></ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 44. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"><li>● Idle: 5 mW (PS4)</li><li>● Active: 4 W</li></ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C

**Table 44. 512 GB SSD specifications (continued)**

Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 45. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW (PS4)</li> <li>• Active: 4 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

## M.2 2230, 256 GB, PCIe NVMe Gen3 x4, Opal Self-Encrypting Class 35 SSD

The following table lists the M.2 2230, 256 GB SSD, self-encrypting drive specifications.

**Table 46. 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 Gen3

**Table 46. 256 GB SSD, self-encrypting drive specifications (continued)**

Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	500,118,192
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW (PS4)</li> <li>• Active: 3.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 47. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW (PS4)</li> <li>• Active: 4 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

## M.2 2280, 256 GB, PCIe NVMe Gen3 x4, Class 40 SSD

The following table lists the M.2 2280, 256 GB SSD specifications

**Table 48. 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)	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	500,118,192
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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

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

**Table 49. 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 Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C

**Table 49. 512 GB SSD specifications (continued)**

Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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

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

**Table 50. 1 TB SSD specifications**

Capacity	1 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 Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	2,000,409,264
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW ( PS4 - L1.2)</li> <li>• Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 51. 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)



**Table 51. 512 GB SSD specifications (continued)**

MTBF	1.4M hours
Logical blocks	1,000,215,216
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW ( PS4 - L1.2)</li> <li>• Active: 5 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 52. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW ( PS4 - L1.2)</li> <li>• Active: 5 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 53. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 5 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

## M.2 2280, 256 GB, PCIe NVMe Gen3 x4, Class 40 SSD, self-encrypting drive

The following table lists the M.2 2280, 256 GB SSD, self-encrypting drive specifications

**Table 54. 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)	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	500,118,192
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	

**Table 54. 256 GB SSD, self-encrypting drive specifications (continued)**

Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 55. 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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>• Idle: 5 mW ( PS4 - L1.2)</li> <li>• Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 56. 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.)

**Table 56. 1 TB SSD, self-encrypting drive specifications (continued)**

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
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
Temperature range	-40°C to 70°C
Relative humidity range	5% to 95%

## M.2 2280, 512 GB, QLC PCIe NVMe Gen3 x4, SSD

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

**Table 57. 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 Gen3
Speed (maximum)	32 Gb/s (up to 4 lanes)
MTBF	1.4M hours
Logical blocks	1,000,215,216
<b>Power source</b>	
Power consumption (reference only)	<ul style="list-style-type: none"> <li>● Idle: 5 mW ( PS4 - L1.2)</li> <li>● Active: 4.50 W</li> </ul>
<b>Environmental operating conditions (non-condensing)</b>	
Temperature range	0°C to 70°C
Relative humidity range	10% to 90%
Op shock	1500G
<b>Environmental non-operating conditions (non-condensing)</b>	
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 5530.

**Table 58. Power adapter specifications**

Description	Values			
Type	60 W AC adapter, USB-C	60 W AC adapter, USB-C, 2-pin	65 W AC adapter, USB-C	90 W AC adapter, USB-C
Diameter (connector)	Not supported	Not supported	Not supported	Not supported
Input voltage	100 VAC-240 VAC	100 VAC-240 VAC	100 VAC-240 VAC	100 VAC-240 VAC
Input frequency	50 Hz-60 Hz	50 Hz-60 Hz	50 Hz-60 Hz	50 Hz-60 Hz
Input current (maximum)	1.60 A	1.60 A	1.70 A	1.50 A
Output current (continuous)	<ul style="list-style-type: none"> <li>● 20 V/4.50 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/4.50 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/4.50 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>	<ul style="list-style-type: none"> <li>● 20 V/4.50 A</li> <li>● 15 V/3 A</li> <li>● 9 V/3 A</li> <li>● 5 V/3 A</li> </ul>
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	20 VDC/15 VDC/9 VDC/5 VDC
<b>Temperature range</b>				
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)	0°C to 40°C (32°F to 104°F)
Storage	40°C to -40°C (104°F to -40°F)	40°C to -40°C (104°F to -40°F)	40°C to -40°C (104°F to -40°F)	40°C to -40°C (104°F to -40°F)
<b>Compliance</b>				
Erp Lot3 Tier 2 requirement	Yes	Yes	Yes	Yes
Energy Star 8.0 compliant	Yes	Yes	Yes	Yes
GS mark compliant	NA	NA	NA	NA
NCTC Anti Power Surge certification	NA	NA	NA	NA
NCTC Anti Lightning Strike certification	NA	NA	NA	NA

# Accessories

The following table lists the supported accessories on your Latitude 5530.

**Table 59. Accessories**

Accessories
<b>Audio:</b>

**Table 59. Accessories (continued)**

<b>Accessories</b>
Dell Pro Wireless Headset - WL5022
<b>Adapters:</b>
<ul style="list-style-type: none"> <li>• Dell USB-C Mobile Adapter - MH3021P</li> <li>• Dell Mobile Adapter Speaker phone - DA310</li> </ul>
<b>Carrying case:</b>
<ul style="list-style-type: none"> <li>• Dell Pro Hybrid Briefcase Backpack 15 - PO1521HB</li> </ul>
<b>Dock:</b>
Dell Thunderbolt 4 Dock - WD22TB4
<b>Mouse:</b>
Dell Mobile Pro Wireless Mice - MS5120W
<b>Keyboard:</b>
Dell Pro Wireless Keyboard and Mouse - KM5221W
<b>Monitor:</b>
<ul style="list-style-type: none"> <li>• Dell 24 Monitor - P2422H</li> <li>• Dell 27 Monitor - P2722H</li> </ul>
<b>Webcam:</b>
Dell Pro Webcam

## Security

### Software security

The following table lists the software security details of your Latitude 5530.

**Table 60. Software security**

<b>Security options</b>
Latitude Security software per software functional plan/cycle list
McAfee Small Business Security 30-day trial
McAfee Small Business Security 12-month subscription, digitally delivered
McAfee Small Business Security 24-month subscription, digitally delivered
McAfee Small Business Security 36-month subscription, digitally delivered
Dell Digital Device ID: TPM Platform Root Key provisioning
BIOS complies to Dell SMBIOS implementation spec (DSIS)
SW and Drivers MUP/DUP compliant per spec Agile S01310
Dell Power Manager 3.0 or later version (DPM)
Dell Command   Configure 4.0 or later (DCC) with Remote BIOS configuration
Dell Command   Monitor 10.0 or later (DCM)
Dell Command   Update 3.0 or later (DCU)

**Table 60. Software security (continued)**

Security options
Dell Command   Update Catalog (DCUC)
Dell Command   Deploy (DCP)
Dell Command   Integration Suite for System Center 5.0 (DCIS)
Dell Command   Intel® vPro™ Out of Band (DCIV)
Dell Command   PowerShell Provider 2.0 or later
Dell Command   Deploy Driver Pack Catalog 1.0 or later
Dell Client System Repository Manager (RM) - client support
Dell SCOM Managability Pack (SCOM MP) - client support

## Fingerprint reader

The following table lists the fingerprint reader specifications of your Latitude 5530.

**Table 61. Fingerprint reader specifications**

<b>Category</b>	Goodix—GF5288WNC
<b>Sensor technology</b>	Capacitive sensing
<b>Sensor resolution</b>	508 dpi
<b>Sensor size</b>	5.48 mm x 4.47 mm
<b>Sensor pixel size</b>	256 x 360 pixels
<b>Dell ControlVault support</b>	Yes
<b>Dell ControlVault 3.0 support</b>	Yes
<b>Anti-spoofing</b>	Yes
<b>Template storage</b>	Dell ControlVault HW protected and encrypted
<b>Match on chip</b>	Yes
<b>FIPS 201 certified</b>	No

## Dell ControlVault 3.0

The following table lists the Dell ControlVault 3.0 specifications of your Latitude 5530.

**Table 62. 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
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

**Table 62. Dell ControlVault 3.0 specifications (continued)**

Title	Description	Dell ControlVault 3.0
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 5530.

**Table 63. Trusted Platform Module (TPM)**

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

## Thermal and acoustic improvements

The following table lists the thermal and acoustic improvements of your Latitude 5530.

**Table 64. Thermal and acoustic improvements**

New larger single heat pipe	Increase the heat capacity to improve thermal dissipation
Better system tuning/setting	Get higher performance and good user experience
Pro-OS enhanced thermal setting (Dynamic PL1)	Optimized boot-up time to balance thermals at start-up
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	<ul style="list-style-type: none"><li>• Dust protected</li><li>• Protected against dripping water</li></ul>
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](http://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 | Configure allows you to remotely automate and configure over 150+ BIOS settings for a personalized user experience.

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

**Dell Command | 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 | 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 | Update eliminates the time-consuming hunting and pecking process of update installation.

**Dell Command | 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](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.

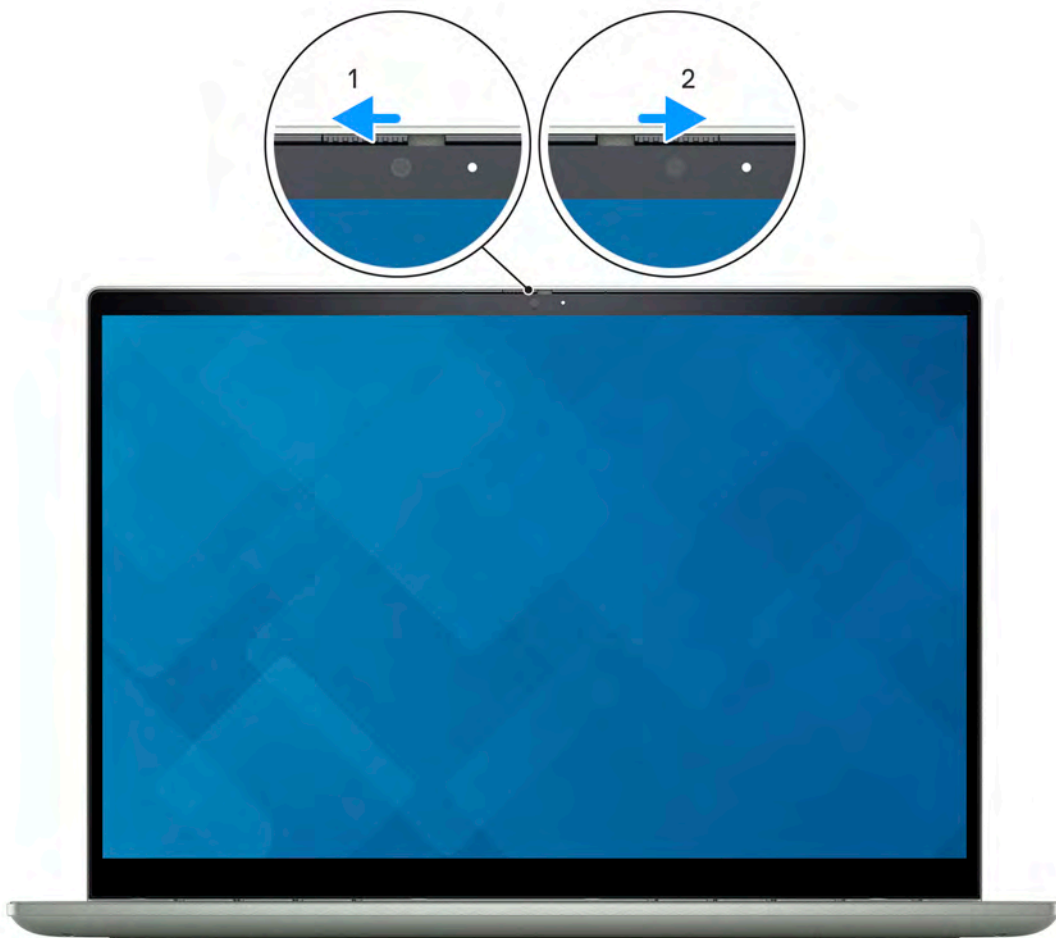
Low blue light mode is enabled at the factory, so no further configuration is necessary.

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.

## Using the privacy shutter

1. Slide the privacy shutter to the left to access the camera lens.
2. Slide the privacy shutter to the right to cover the camera lens.



## Dell Optimizer

This section details the Dell Optimizer specifications of your Latitude 5530.

On Latitude 5530 with Dell Optimizer, the following features are supported:

- **ExpressConnect**—Automatically joins the access point with the strongest signal, and directs bandwidth to conferencing applications when in use.
- **ExpressSign-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.
- **Intelligent Audio**—Collaborate like you're in the same room. Intelligent Audio enhances your audio quality and reduces background noises, so you can hear and be heard, creating a better conference experience for all.

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

## Color, material, and finish

This section details the color, material, and finish (CMF) specifications of your Latitude 5530.



Titan Gray

**Table 65. CMF specifications**

A Cover (Top)	<ul style="list-style-type: none"> <li>• CFRP + Bi-Injection Antenna Cover</li> <li>• Titan Gray WUVM</li> <li>• 10+/-2 GU</li> </ul>
B Cover (Bezel)	<ul style="list-style-type: none"> <li>• PC/ ABS + Elastomer</li> <li>• Apollo, Resin</li> <li>• Bezel: MT11520, 4+/-1 GU and Bumper: MT 11510, 3+/-1 GU</li> </ul>
C Cover (Palmrest)	<ul style="list-style-type: none"> <li>• Plastic (Rustic Pewter, Resin)</li> <li>• Titan Gray WUVM</li> <li>• 10+/-2 GU</li> </ul>
D Cover (Bottom)	<ul style="list-style-type: none"> <li>• Black CFRP</li> <li>• Titan Gray WUVM</li> <li>• 10+/-2 GU</li> </ul>

**NOTE:** Titan Gray, Cool Gray 9C = RGB 117 120 123 HEX/HTML 75787B CMYK 30 22 17 57

# Keyboard shortcuts of Latitude 5530

**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 66. List of keyboard shortcuts**

Function key	Primary behavior
F1	Mute audio
F2	Decrease volume
F3	Increase volume
F4	Mic mute
F5	Keyboard backlight <b>NOTE:</b> Non-backlight keyboards have F5 function key without the backlight icon and do not support toggle keyboard backlight function. <b>NOTE:</b> Toggle to cycle the keyboard backlight status through off, low-backlight, and high-backlight
F6	Decrease screen brightness
F7	Increase screen brightness
F8	Switch to external display
F9	Operating system and application specific F9 behavior
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 67. 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 67. Secondary behavior (continued)**



<b>Function key</b>	<b>Secondary behavior</b>
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 + Left Arrow	Home
Fn + Right Arrow	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 68. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a>
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 <a href="http://www.dell.com/support">www.dell.com/support</a> .  For more information on how to find the Service Tag for your computer, see <a href="#">Locate the Service Tag on your computer</a> .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> <li>1. Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2. On the menu bar at the top of the Support page, select <b>Support &gt; Knowledge Base</b>.</li> <li>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.</li> </ol>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://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.