

# Precision 3560

## Setup and Specifications



## Notes, cautions, and warnings

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

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

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

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# Set up your Precision 3560

**NOTE:** The images in this document may differ from your computer depending on the configuration you ordered.

1. Connect the power adapter and press the power button.



**NOTE:** The battery may go into power-saving mode during shipment to conserve charge on the battery. Ensure that the power adapter is connected to your computer when it is turned on for the first time.


2. Finish Windows setup.

Follow the on-screen instructions to complete the setup. When setting up, Dell recommends that you:



- Connect to a network for Windows updates.
  - NOTE:** If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the Internet, sign in with or create a Microsoft account. If not connected to the Internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.

3. Locate and use Dell apps from the Windows Start menu—Recommended.

**Table 1. Locate Dell apps**

Resources	Description
	<p><b>SupportAssist</b></p> <p>Proactively checks the health of your computer's hardware and software. The SupportAssist OS Recovery tool troubleshoots issues with the operating system. For more information, see the SupportAssist documentation at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p> <p><b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>

**Table 1. Locate Dell apps (continued)**

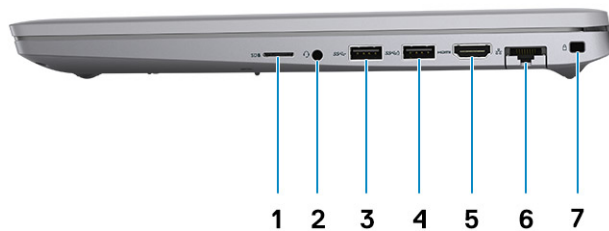
Resources	Description
	<p><b>Dell Update</b></p> <p>Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article <a href="https://www.dell.com/support">SLN305843</a> at <a href="https://www.dell.com/support">www.dell.com/support</a>.</p>
	<p><b>Dell Digital Delivery</b></p> <p>Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article <a href="https://www.dell.com/support">153764</a> at <a href="https://www.dell.com/support">www.dell.com/support</a>.</p>

## Views of Precision 3560

### Topics:

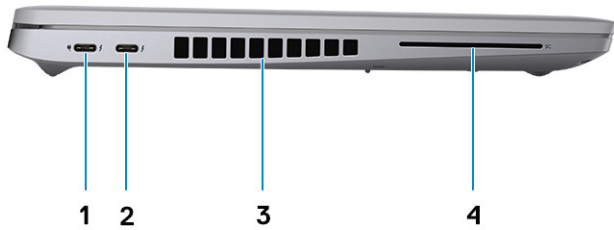
- [Right view](#)
- [Left view](#)
- [Palm-rest view](#)
- [Display view](#)
- [Bottom view](#)
- [Keyboard shortcuts](#)
- [Battery charge and status LED](#)

### Right view



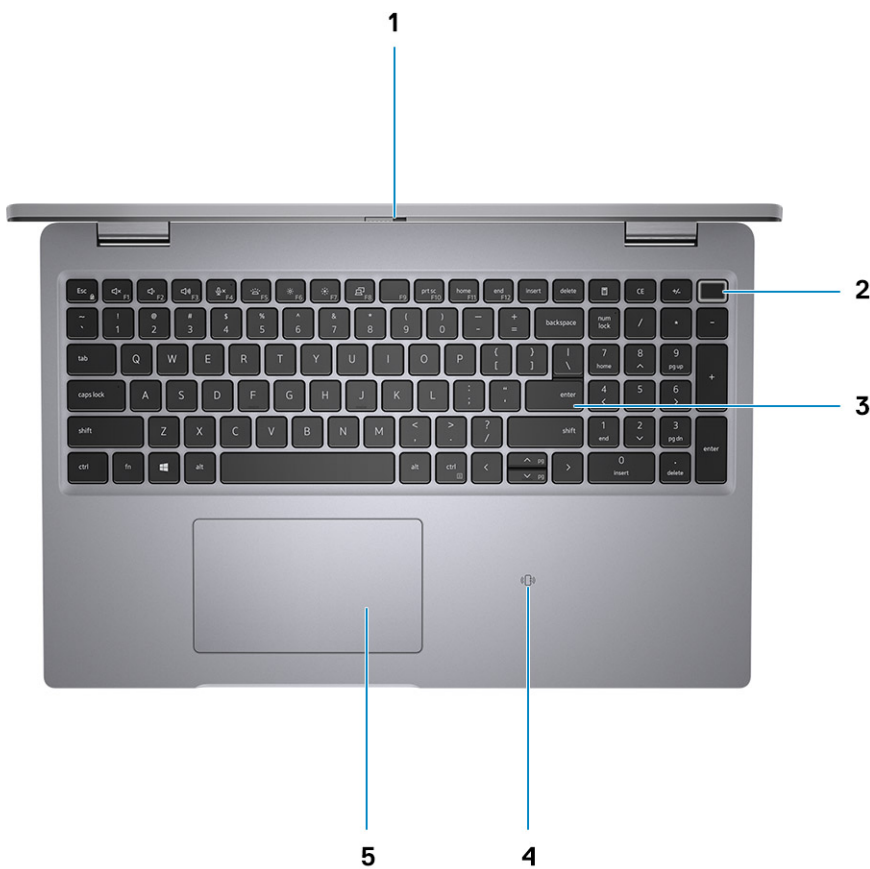
1. micro-SD card slot
2. Universal audio port
3. USB 3.2 Gen 1 port
4. USB 3.2 Gen 1 port with PowerShare
5. HDMI 2.0 port
6. RJ-45 Ethernet port
7. Wedge-shaped lock slot

## Left view



1. Thunderbolt 4 port with DisplayPort Alt Mode/USB4/Power Delivery
2. Thunderbolt 4 port with DisplayPort Alt Mode/USB4/Power Delivery
3. Air vents
4. Smart card reader slot (optional)

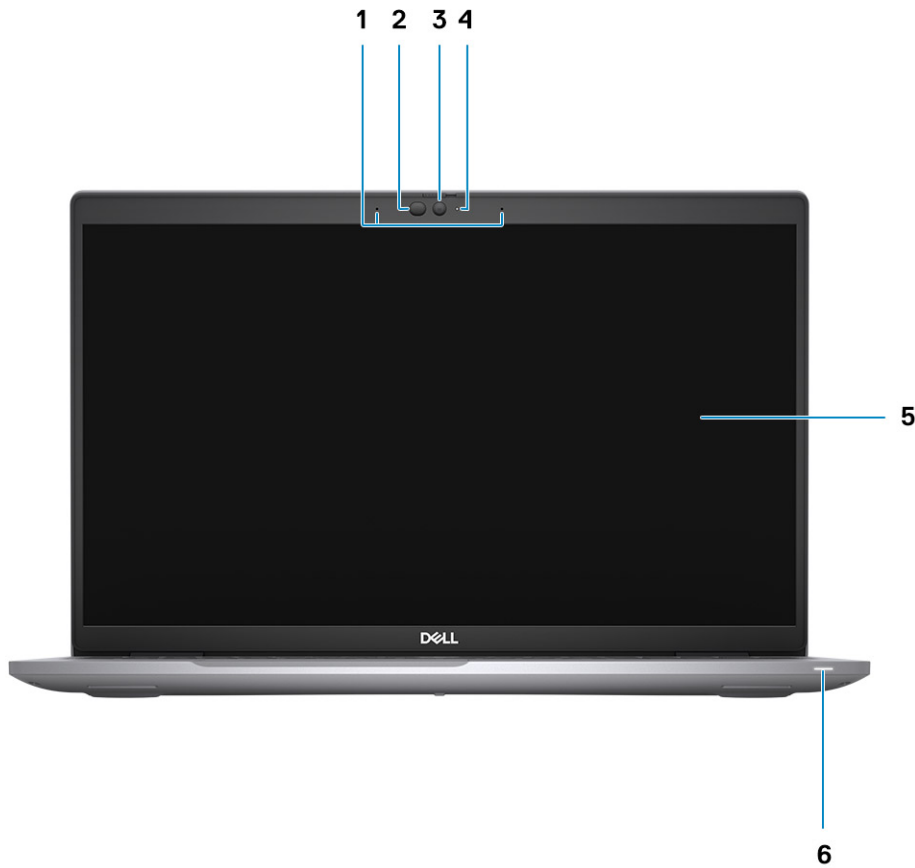
## Palm-rest view



1. Privacy shutter
3. Keyboard
5. Clickpad

2. Power button with fingerprint reader—(optional)
4. NFC/Contactless smart card reader—(optional)

## Display view

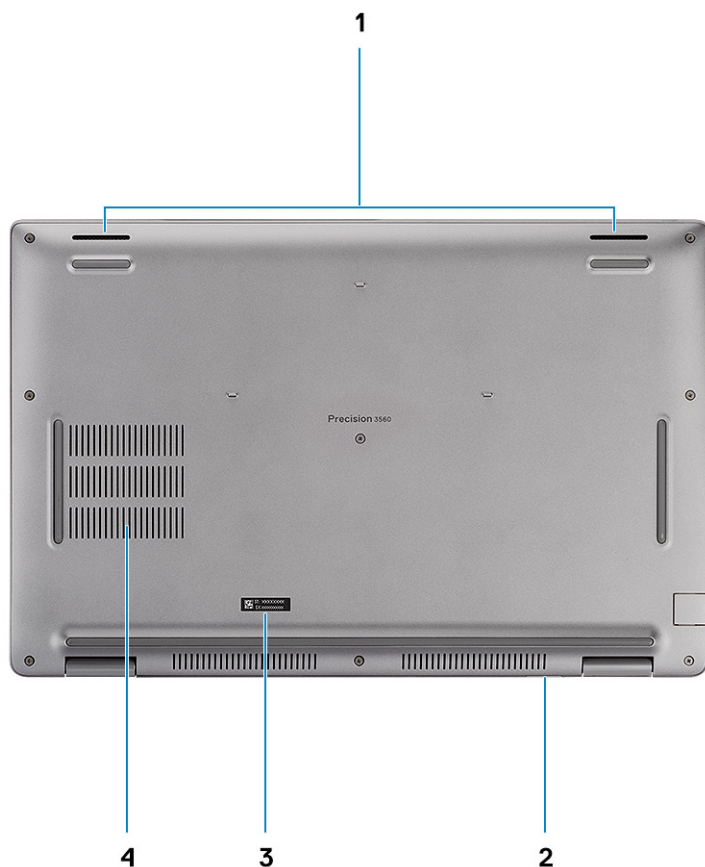


1. Dual-array microphones
3. Camera (IR/RGB)
5. Display panel

2. IR emitter/Ambient Light Sensor (ALS)—(optional)
4. Camera status LED
6. Battery indicator LED



## Bottom view



- 1. Speakers
- 2. microSIM-card slot (optional)
- 3. Service tag label
- 4. Air vent


## Keyboard shortcuts

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

**Table 2. List of keyboard shortcuts**

Keys	Primary Behavior	Secondary Behavior (Fn + Key)
Fn + Esc	Escape	Toggle Fn-key lock
Fn + F1	Mute audio	F1 behavior
Fn + F2	Decrease volume	F2 behavior
Fn + F3	Increase volume	F3 behavior
Fn + F4	Mic Mute	F4 behavior
Fn + F5	Keyboard backlight	F5 behavior

**Table 2. List of keyboard shortcuts (continued)**

Keys	Primary Behavior	Secondary Behavior (Fn + Key)
	 <b>NOTE:</b> Not applicable for non-backlight keyboard.	
Fn + F6	Decrease screen brightness	F6 behavior
Fn + F7	Increase screen brightness	F7 behavior
Fn + F8	Switch to external display	F8 behavior
Fn + F9	Disable camera	F9 behavior
Fn + F10	Print Screen	F10 behavior
Fn + F11	Home	F11 behavior
Fn + F12	End	F12 behavior
Fn + Right Ctrl	Emulates right click	--

## Battery charge and status LED

**Table 3. Battery charge and status LED Indicator**

Power Source	LED Behavior	computer 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) - Computer is turned on.
- S4 (Hibernate) - The computer consumes the least power compared to all other sleep states. The computer is almost at an OFF state, expect for a trickle power. The context data is written to hard drive.
- S5 (OFF) - The computer is in a shutdown state.

# Specifications of Precision 3560

## Topics:

- Dimensions and weight
- Processors
- Chipset
- Operating system
- Memory
- Ports and connectors
- Communications
- Audio
- Storage
- Media-card reader
- Keyboard
- Camera
- Clickpad
- Power adapter
- Battery
- Display
- Fingerprint reader (optional)
- Video
- Security
- Computer environment
- Sensor and control

## Dimensions and weight

**Table 4. Dimensions and weight**

Description	Values
Height:	
Front	0.78 in. (19.87 mm)
Rear	0.87 in. (22.15 mm)
Width	14.08 in. (357.80 mm)
Depth	9.29 in. (236.20 mm)
Weight (Minimum)	3.50 lb (1.59 kg)

# Processors

**Table 5. Processors**

Description	Values			
Processors	11 <sup>th</sup> Generation Intel Core i5-1135G7	11 <sup>th</sup> Generation Intel Core i5-1145G7	11 <sup>th</sup> Generation Intel Core i7-1165G7	11 <sup>th</sup> Generation Intel Core i7-1185G7
Wattage	17.50 W	17.50 W	17.50 W	17.50 W
Core count	4	4	4	4
Thread count	8	8	8	8
Speed	2.40 GHz to 4.20 GHz	2.60 GHz to 4.40 GHz	2.80 GHz to 4.70 GHz	3 GHz to 4.80 GHz
Cache	8 MB	8 MB	12 MB	12 MB
Integrated graphics	Intel Iris X <sup>e</sup> Graphics <i>i</i> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris X <sup>e</sup> Graphics <i>i</i> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris X <sup>e</sup> Graphics <i>i</i> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)	Intel Iris X <sup>e</sup> Graphics <i>i</i> <b>NOTE:</b> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC)

# Chipset

**Table 6. Chipset**

Description	Values
Chipset	Intel PCH-LP
Processor	11th Generation Intel Core i5/i7 processors
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Upto Gen 4

# Operating system

- Windows 10 Pro, 64-bit
- Windows 10 Home, 64-bit
- Ubuntu Linux 20.04 LTS, 64-bit

# Memory

**Table 7. Memory specifications**

Description	Values
Slots	Two SO-DIMM slots
Type	DDR4, Dual-channel
Speed	3200 MHz
Maximum memory	64 GB
Minimum memory	4 GB
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</li> <li>• 8 GB, 1 x 8 GB, DDR4, 3200 MHz</li> <li>• 16 GB, 2 x 8 GB, DDR4, 3200 MHz</li> <li>• 16 GB, 1 x 16 GB, DDR4, 3200 MHz</li> <li>• 32 GB, 2 x 16 GB, DDR4, 3200 MHz</li> <li>• 64 GB, 2 x 32 GB, DDR4, 3200 MHz</li> </ul>

# Ports and connectors

**Table 8. External ports and connectors**

Description	Values
Network	One RJ-45 port
USB	<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/USB4/Power Delivery</li> </ul>
Audio	One universal audio port
Video	One HDMI 2.0 port
Power adapter port	USB Type-C power input
Security	One wedge-shaped lock slot
Card slot	<ul style="list-style-type: none"> <li>• One microSD-card slot</li> <li>• One Smart card reader slot (optional)</li> <li>• One microSIM-card slot (optional)</li> </ul>

**Table 9. Internal ports and connectors**

Description	Values
<b>Internal:</b>	
M.2	<ul style="list-style-type: none"> <li>• M.2 2230 slot for WiFi and Bluetooth combo card</li> <li>• M.2 3042 for WWAN</li> <li>• One M.2 2280 slot for solid-state drive (computer shipped with discrete graphics card)</li> </ul>

**Table 9. Internal ports and connectors (continued)**

Description	Values
	<ul style="list-style-type: none"> <li>Two M.2 2280 slots for solid-state drive (computer shipped with UMA graphics card)</li> </ul> <p><b>NOTE:</b> To learn more about the features of different types of M.2 cards, see the knowledge base article <a href="#">SLN301626</a>.</p>

## Communications

### Ethernet

**Table 10. Ethernet specifications**

Description	Values
Model number	<ul style="list-style-type: none"> <li>Intel I219-LM</li> <li>Intel I219-V</li> </ul>
Transfer rate	10/100/1000 Mbps

### Wireless module

**Table 11. Wireless module specifications**

Description	Values		
Model number	Intel Wi-Fi 6 AX201	Intel AX210	Qualcomm QCA61x4A
Transfer rate	Up to 2400 Mbps	Up to 2400 Mbps	Up to 867 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> <li>Wi-Fi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6 (WiFi 802.11ax)</li> </ul>	<ul style="list-style-type: none"> <li>Wi-Fi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6 (WiFi 802.11ax)</li> </ul>	<ul style="list-style-type: none"> <li>Wi-Fi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</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>
Bluetooth	Bluetooth 5.1	Bluetooth 5.2	Bluetooth 5.0

### WWAN module

**Table 12. Wireless module specifications**

Description	Values
Model number	Intel XMM 7360 Global LTE-Advanced, CAT9
Transfer rate	Up to 450 Mbps DL/50 Mbps UL (Cat 9)

**Table 12. Wireless module specifications (continued)**

Description	Values
Frequency bands supported	(1,2,3,4,5,7,8,11,12,13,17,18,19,20,21,26,28,29,30,38,39,40,41,66), HSPA+ (1, 2, 4,5, 8)
Wireless standards	Not Applicable
Encryption	Not Applicable
Bluetooth	Not Applicable

## Audio

**Table 13. Audio specifications**

Description	Values
Controller	REALTEK ALC3204
Stereo conversion	Supported
Internal interface	High definition audio interface
External interface	Universal audio port
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

Your computer supports one of the following configurations:

- One M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 SSD (slot 1)
- One M.2 2230, Gen 3 PCIe x4 NVMe, Class 35 SSD (slot 1) with one M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD (slot 1)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD (slot 1) with M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD, Self-encrypting drive (slot 1)
- One M.2 2280, Gen 3 PCIe x4 NVMe, Class 40 SSD, Self-encrypting drive (slot 1) with one M.2 2280, Gen 4 PCIe x4 NVMe, Class 40 SSD (slot 2)

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

**Table 14. Storage specifications**

Form factor	Interface type	Capacity
M.2 2230, Class 35 solid-state drive	Gen 3 PCIe x4 NVMe	Up to 512 GB
M.2 2280, Class 40 solid-state drive	Gen 3 PCIe x4 NVMe	Up to 1 TB
M.2 2280, Class 40 solid-state drive	Gen 4 PCIe x4 NVMe	2 TB
M.2 2280, Class 40 solid-state drive, Self-encrypting drive	Gen 3 PCIe x4 NVMe	Up to 512

## Media-card reader

**Table 15. Media-card reader specifications**

Description	Values
Type	One microSD-card
Cards supported	<ul style="list-style-type: none"> <li>Secure Digital (SD 4.0)</li> <li>Secure Digital High Capacity (SDHC)</li> <li>Secure Digital Extended Capacity (SDXC)</li> </ul>

## Keyboard

**Table 16. Keyboard specifications**

Description	Values
Type	<ul style="list-style-type: none"> <li>US/UK/JP layout, single point, non-backlit keyboard</li> <li>US/UK/JP layout, single point, backlit keyboard</li> </ul>
Layout	QWERTY
Number of keys	<ul style="list-style-type: none"> <li>United States and Canada: 79 keys</li> <li>United Kingdom: 80 keys</li> <li>Japan: 83 keys</li> </ul>
Size	X=18.05 mm key pitch Y=18.05 mm key pitch
Shortcut keys	<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) by changing the <b>Function Key Behavior</b> in system setup program. <a href="#">Keyboard shortcuts</a></p>



# Camera

**Table 17. Camera specifications**

Description		Values
Number of cameras		Two
Type		FHD RGB Infrared camera or HD RGB Infrared camera
Location		Front camera
Sensor type		CMOS sensor technology
Resolution		
	Camera	
	Still image	0.92 megapixel
	Video	1280 x 720 (HD/FHD) at 30 fps
	Infrared camera	
	Still image	0.23 megapixel
	Video	640 x 480 (VGA) at 30 fps
Diagonal viewing angle		
	Camera	<ul style="list-style-type: none"> <li>FHD: 87.6 degrees</li> <li>HD: 87 degrees</li> </ul>
	Infrared camera	<ul style="list-style-type: none"> <li>FHD: 87.6 degrees</li> <li>HD: 87 degrees</li> </ul>

# Clickpad

**Table 18. Clickpad specifications**

Description		Values
Resolution		>=300 dpi
Dimensions:		
	Horizontal	115 mm (4.53 inch)
	Vertical	67 mm (2.64 inch)

# Power adapter

**Table 19. Power adapter specifications**

Description	Values		
Type	65 W AC adapter, USB-C	90 W AC adapter, USB-C	130 W AC adapter, USB-C
Input voltage	100 VAC x 240 VAC	100 VAC x 240 VAC	100 VAC x 240 VAC

**Table 19. Power adapter specifications (continued)**

Description		Values		
Input frequency		50 Hz to 60 Hz	50 Hz to 60 Hz	50 Hz to 60 Hz
Input current (maximum)		1.7 A	1.5 A	1.8 A
Output current (continuous)		<ul style="list-style-type: none"> <li>20 V/3.25 A (Continuous)</li> <li>15 V/3 A (Continuous)</li> <li>9.0 V/3 A (Continuous)</li> <li>5.0 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>9.0 V/3 A (Continuous)</li> <li>5.0 V/3 A (Continuous)</li> </ul>	<ul style="list-style-type: none"> <li>20 V/6.5 A (Continuous)</li> <li>5.0 V/1 A (Continuous)</li> </ul>
Rated output voltage		20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/15 VDC/9 VDC/5 VDC	20 VDC/5 VDC
Temperature range:				
	Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	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)

## Battery

**NOTE:** 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.

**Table 20. Battery specifications**

Description		Values			
Type		3-cell lithium-ion, 42 WHr, ExpressChargeBoost	3-cell lithium-ion 42 WHr, LCL	4-cell lithium-ion, 63 WHr, ExpressChargeBoost	4-cell lithium-ion 63 WHr, LCL
Voltage		11.40 VDC	11.40 VDC	15.20 VDC	15.20 VDC
Weight (maximum)		0.18 kg ( 0.40 lb)	0.18 kg ( 0.40 lb)	0.25 kg ( 0.55 lb)	0.25 kg ( 0.55 lb)
Dimensions:					
	Height	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)	5.70 mm (0.22 in.)
	Width	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)	95.90 mm (3.78 in.)
	Depth	207.90 mm (8.19 in.)	207.90 mm (8.19 in.)	238.00 mm (9.37 in.)	238.00 mm (9.37 in.)
Temperature range:					
	Operating	<ul style="list-style-type: none"> <li>Charge: 0°C to 50°C (32°F to 122°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 50°C (32°F to 122°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 50°C (32°F to 122°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 50°C (32°F to 122°F)</li> <li>Discharge: 0°C to 70°C (32°F to 158°F)</li> </ul>

**Table 20. Battery specifications (continued)**

Description		Values			
	Storage	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
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.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Charging time (approximate)	From 0% up to 35% in 20 minutes (ExpressCharge Boost), 2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	2hr ( Express charge), 3hr (Standard charge) hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	From 0% up to 35% in 20 minutes (ExpressCharge Boost), 2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	From 0% up to 35% in 20 minutes (ExpressCharge Boost), 2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.	2hr (Express charge), 3hr (Standard charge) hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application.
Life span (approximate)	1 year	1 year	3 years	3 years	3 years
Coin-cell battery	CR-2032	CR-2032	CR-2032	CR-2032	CR-2032
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.	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.

## Display

**Table 21. Display specifications**

Description	Values				
Type	High Definition (HD)	Full High Definition (FHD)	Full High Definition (FHD)	Full High Definition (FHD)	Ultra High Definition (UHD)
Panel technology	TFT, TN (Twisted Nematic )	TFT, Wide Viewing Angle (WVA)	TFT, Wide Viewing Angle (WVA)	TFT, Wide Viewing Angle (WVA), Low Blue Light (LBL)	TFT, Wide Viewing Angle (WVA), Low Blue Light (LBL)
Luminance (typical)	220 nits	250 nits	250 nits	400 nits	400 nits

**Table 21. Display specifications (continued)**

Description		Values				
<b>Dimensions</b>						
	Height	344.16 mm	344.16 mm	344.16 mm	344.16 mm	344.16 mm
	Width	193.59 mm	193.59 mm	193.59 mm	193.59 mm	193.59 mm
	Diagonal	396.24 mm	396.24 mm	396.24 mm	396.24 mm	396.24 mm
Native resolution		1366 x 768	1920 x 1080	1920 x 1080	1920 x 1080	3840 x 2160
Megapixels		1.05	2.07	2.07	2.07	8.29
Color gamut		NTSC 45%	NTSC 45%	NTSC 45%	sRGB 100%	sRGB 100%
Pixels per inch (PPI)		100	141	141	141	283
Contrast ratio (min)		500:1	700:1	700:1	700:1	1000:1
Response time (max)		25 ms	25 ms	25 ms	25 ms	19 ms
Refresh rate		60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
Horizontal view angle		40 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees
Vertical view angle		10 (U) / 30 (D) +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees	80 +/-degrees
Pixel pitch		0.252 mm	0.17925 mm	0.17925 mm	0.17925 mm	0.08964 mm
Power consumption (maximum)		4.2 W	4.6 W	4.5 W	4.5 W	4.5 W
Anti-reflective vs Anti-smudge		Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options		No	Yes	No	No	No
Stylus support		No	No	No	No	No

## Fingerprint reader (optional)

**Table 22. 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

# Video

**Table 23. Discrete graphics specifications**

Discrete graphics			
Controller	External display support	Memory size	Memory Type
NVIDIA T500	NA	2 GB	GDDR6

**Table 24. Integrated graphics specifications**

Integrated graphics			
Controller	External display support	Memory size	Processor
Intel Iris X <sup>e</sup> Graphics	HDMI 2.0, DisplayPort over USB Type-C	Shared system memory	11 <sup>th</sup> Generation Intel Core i5/i7 processors <i>NOTE:</i> System with single-channel memory is shown as Intel UHD Graphics in Intel Graphics Command Center (IGCC).

# Security

**Table 25. Hardware Security**

Hardware security options
Trusted Platform Module (TPM) 2.0 discrete
FIPS 140-2 certification for TPM
TCG (Trusted Computing Group) Certification for TPM
Fingerprint reader in power button tied to ControlVault 3
ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification
Contacted Smart Card and ControlVault 3
Contactless Smart Card, NFC, and ControlVault 3
SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL
FIPS 201 Full Scan FPR and ControlVault 3

**Table 26. Data Security**

Data security options
McAfee Small Business Security 30-day trial
McAfee Small Business Security 12-months subscription, digitally delivered
McAfee Small Business Security 24-months subscription, digitally delivered
McAfee Small Business Security 36-months subscription, digitally delivered

# Computer environment

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

**Table 27. Computer environment**

Description	Operating	Storage
Temperature range	0°C to 40°C (32°F to 104°F)	-40°C to 60°C (-40°F to 140°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude (maximum)	-15.2 m to 3048 m (-50 ft to 10000 ft)	-15.2 m to 10668 m (-50 ft to 35000 ft)

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


† Measured using a 2 ms half-sine pulse when the hard drive is in use.

# Sensor and control

**Table 28. Sensor and control**

Sensor support	
Sensor	Ambient Light Sensor on the hinge-up (optional)
	P-sensor on the hinge-up (optional)
	Accelerometer (G sensor): One on the base (system board) and another on the hinge-up (optional)

## Dell low blue light display

 **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.

# 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 29. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
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> <a href="http://www.dell.com/support/linux">www.dell.com/support/linux</a>
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.	<a href="http://www.dell.com/support">www.dell.com/support</a>
Dell knowledge base articles for a variety of computer concerns.	<ol style="list-style-type: none"> <li>1. Go to <a href="https://www.dell.com/support/home/?app=knowledgebase">https://www.dell.com/support/home/?app=knowledgebase</a>.</li> <li>2. Type the subject or keyword in the <b>Search</b> box.</li> <li>3. Click <b>Search</b> to retrieve 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 and product, and some services may not be available in your country.

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