

Dell Pro Max 16

MC16250

Owner's Manual

Notes, cautions, and warnings

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

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

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

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Views of Dell Pro Max 16 MC16250

Right



Figure 1. Right view

1. nano-SIM card slot (optional)

Insert a nano-SIM card to connect to a mobile broadband network.

i **NOTE:** Availability of the nano-SIM card slot depends on the region and configuration ordered.

2. Global headset port

Connect headphones or a headset (headphone and microphone combo).

3. USB 3.2 Gen 1 (5 Gbps) port with PowerShare

Connect devices such as external storage devices and printers.

Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge your USB devices even when your computer is turned off.

i **NOTE:** If your computer is turned off or in a hibernation state, you must connect the power adapter to charge your devices using the PowerShare port. You must enable this feature in the BIOS setup program.

i **NOTE:** Certain USB devices may not charge when the computer is turned off or in a sleep state. In such cases, turn on the computer to charge the device.

4. RJ45 ethernet port (1 Gbps)

Connect an RJ45 ethernet cable from a router or a broadband modem for network or Internet access, with a transfer rate of 10/100/1000 Mbps (maximum 1 Gbps).

5. Security-cable slot (wedge-shaped)

Connect a security cable to prevent unauthorized movement of your computer.

Left

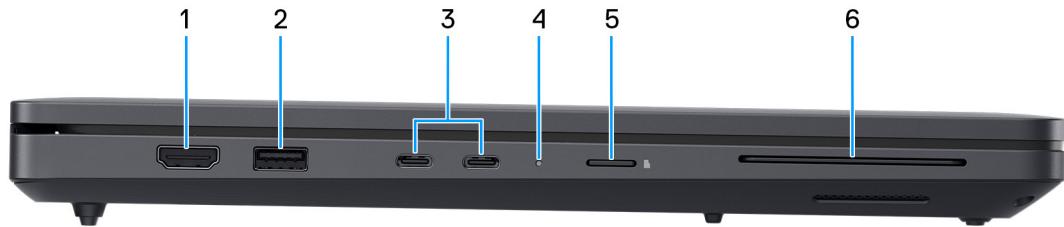


Figure 2. Left view

1. HDMI 2.1 port

Connect to a TV, external display, or another HDMI-in enabled device. Provides video and audio output.

2. USB 3.2 Gen 1 (5 Gbps) port

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps.

3. Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort

Supports USB4, DisplayPort 2.1, Thunderbolt 4 and also enables you to connect to an external display using a display adapter. Provides data transfer rates of up to 40 Gbps for USB4 and Thunderbolt 4.

(i) NOTE: The power adapter is to be connected to one of these Thunderbolt 4 ports.

(i) NOTE: You can connect a Dell Docking Station to the Thunderbolt 4 ports. For more information, search in the Knowledge Base Resource at [Dell Support Site](#).

(i) NOTE: A USB Type-C to DisplayPort adapter (sold separately) is required to connect a DisplayPort device.

(i) NOTE: USB4 is backward compatible with USB 3.2, USB 2.0, and Thunderbolt 3.

(i) NOTE: Thunderbolt 4 supports two 4K displays or one 8K display.

4. Power and battery-status light

Indicates the power state and battery state of the computer.

Solid white—Power adapter is connected and the battery is charging.

Solid amber—Computer is running on battery and the battery charge is low or critical.

Off—Power adapter is disconnected or the battery is fully charged.

(i) NOTE: On certain computer models, the power and battery-status light are also used for diagnostics. For more information, see the *Troubleshooting* section in this document.

5. microSD-card slot

Reads from and writes to the microSD-card.

6. Smart-card reader slot (optional)

Reads information from a smart card with a built-in-chip.

Top



Figure 3. Top view

1. Power button with optional fingerprint reader

Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for ten seconds to force shut-down the computer.

If the power button has a fingerprint reader, place your finger on the power button to log in.

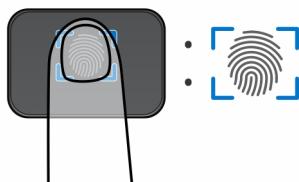


Figure 4. Active area of the fingerprint reader

NOTE: The highlighted area indicates the actual active fingerprint reader area, and the image is for illustration purposes only.

NOTE: You can customize power-button behavior in Windows. For more information, see [Manuals at Dell Support Site](#).

2. Precision touchpad

Move your finger on the touchpad to move the mouse pointer. Tap to left-click and two fingers tap to right-click.

Front

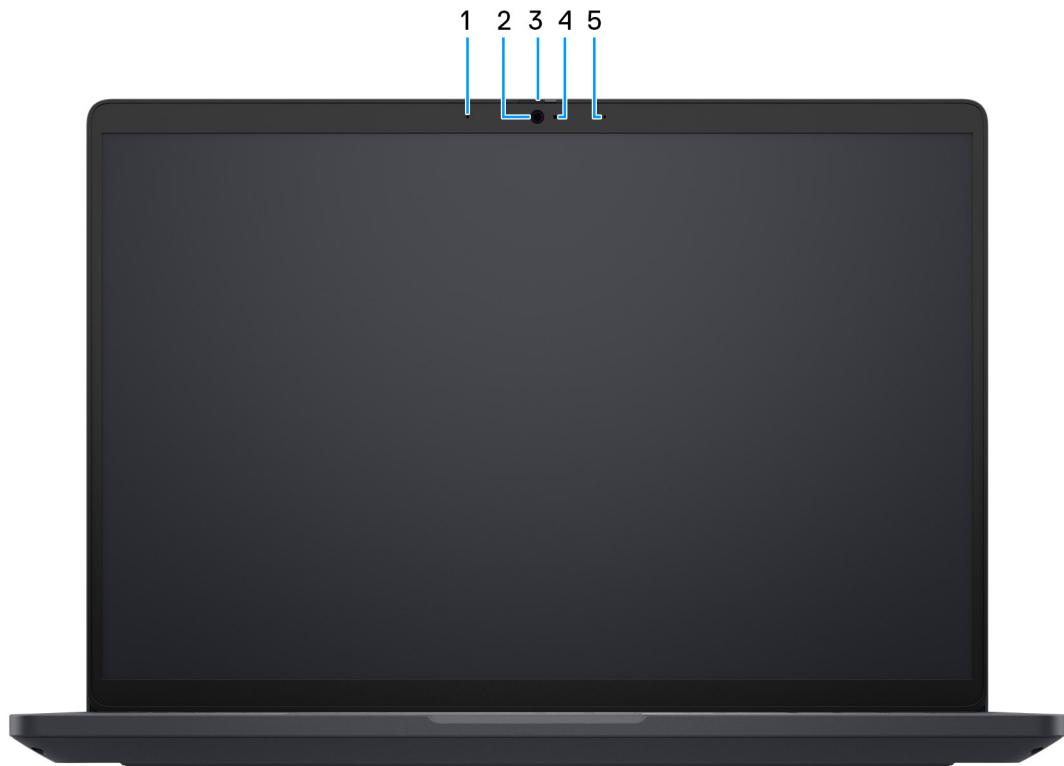


Figure 5. Front view

1. Left microphone

Provides digital sound input for audio recording and voice calls.

2. Camera

A camera enables you to video chat, capture photos, and record videos.

3. Privacy shutter

Slide the privacy shutter to cover the camera lens and protect your privacy when the camera is not in use.

4. Camera-status light

Turns on when the camera is in use.

5. Right microphone

Provides digital sound input for audio recording and voice calls.

Bottom

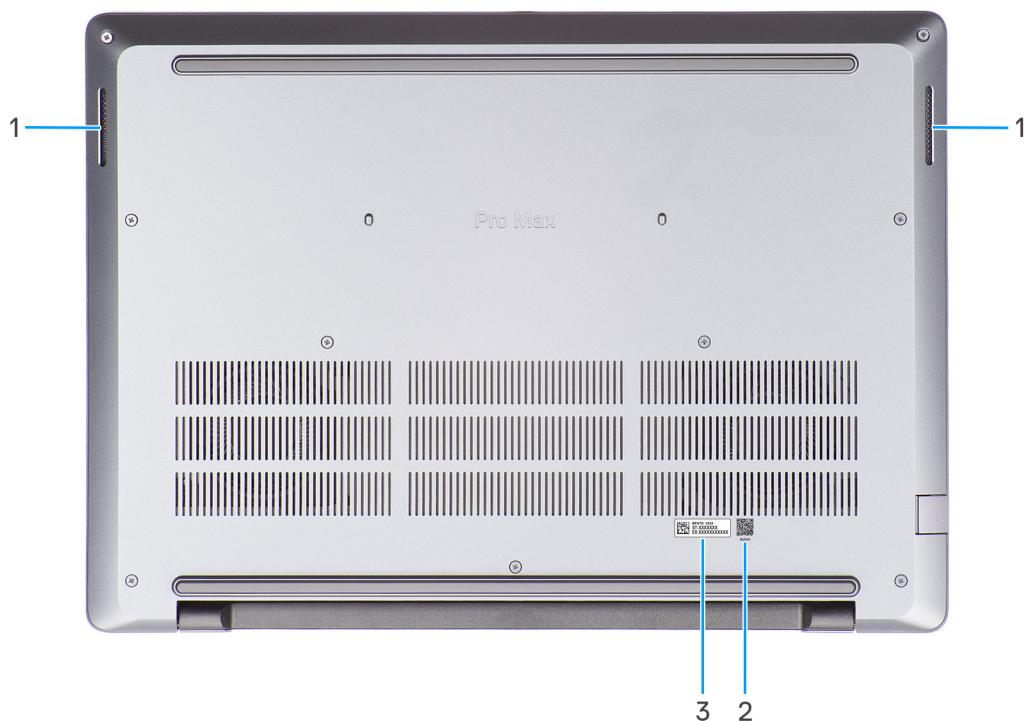


Figure 6. Bottom view

1. Speakers

Provide audio output.

2. MyDell QR code

MyDell is your hub for content that is personalized for your Dell Pro Max 16 MC16250, including videos, articles, manuals, and access to support.

3. Service Tag/Express Service Code label

The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your computer and access warranty information. The Express Service Code is a numeric version of the Service Tag.

Locate the Service Tag or Express Service Code label of your computer

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. The Express Service Code is a numeric version of the Service Tag.

For more information about how to find the Service Tag of your computer, search in the Knowledge Base Resource at the [Dell Support Site](#).

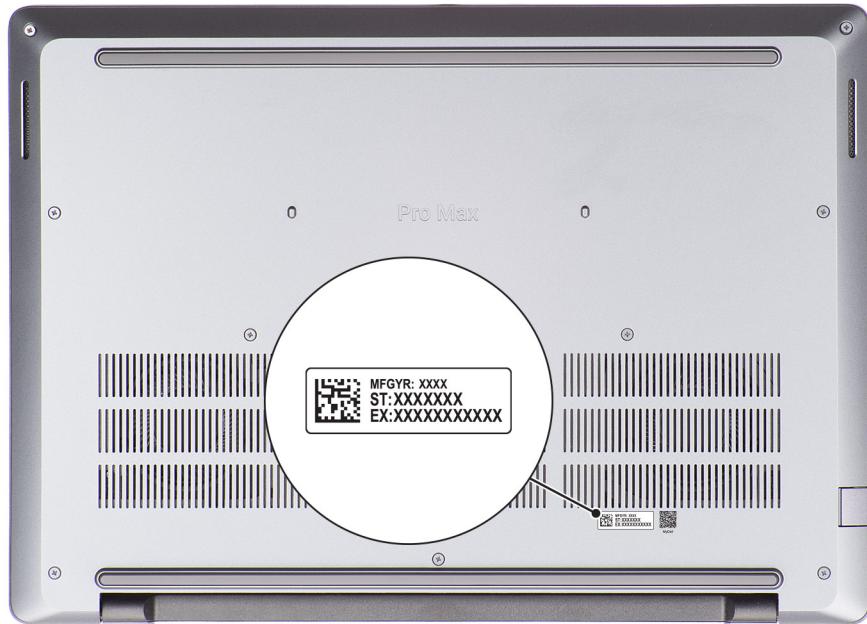


Figure 7. Service Tag/Express Service Code location

Battery-status light

The following table lists the battery-status light of your Dell Pro Max 16 MC16250.

Table 1. Battery-status light behavior

Power source	LED behavior	System power state	Battery charge level
AC adapter	Off	S0 or S5	100%
AC adapter	Solid white	S0 or S5	< 100%
Battery	Off	S0 or S5	11-100%
Battery	Solid amber	S0 or S5	< 10%

- S0 (ON): The computer is turned on.
- S3 (Sleep): Screen is off and computer is in sleep mode.
- S4 (Hibernate): The computer consumes the least power in the Hibernate state than in the ON or OFF state. The computer is almost in the OFF state. The context data is written to a storage device, allowing you to resume from where you left after the computer is turned on.
- S5 (OFF): The computer is in a shutdown state.

Set up your Dell Pro Max 16 MC16250

About this task

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

Steps

1. Connect the power adapter to one of the Thunderbolt 4 ports and press the power button.



Figure 8. Connect the power adapter and press the power button

i **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 the operating system setup.

For Ubuntu:

Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, search in the Knowledge Base Resource at [Dell Support Site](#).

For Windows:

Follow the on-screen instructions to complete the setup. When setting up, it is recommended that you:

- Connect to a network for Windows updates.
- i** **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 an existing Microsoft account or create a new account.
 - On the **Support and Protection** screen, enter your contact details.

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

Table 2. Locate Dell apps

Resources	Description
	<p>Dell Product Registration Register your computer with Dell.</p>
	<p>Dell Help & Support Access help and support for your computer.</p>
	<p>SupportAssist SupportAssist keeps your computer running at its best by optimizing settings, detecting issue, and removing viruses. It also notifies when updates are available for your computer. SupportAssist proactively checks the health of your computer hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running the Windows operating system. For more information, see Support Assist documentation at Dell Support Site. i NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>
	<p>Dell Update Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the product guides and third-party license documents at Dell Support Site.</p>
	<p>Dell Optimizer Dell Optimizer is an AI-based software application that allows you to customize your computer settings for power and battery, and more. For Dell Pro Max 16 MC16250 with Dell Optimizer, you can:<ul style="list-style-type: none">● Tune the performance, power consumption, cooling, and fan noise with selectable thermal modes.● Download and redeem the apps that are purchased with your computer.For more information about configuring and using these features, search for <i>Dell Optimizer</i> at Dell Support Site.</p>

Specifications of Dell Pro Max 16 MC16250

Dimensions and weight

The following table lists the height, width, depth, and weight of your Dell Pro Max 16 MC16250.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	15.08 mm (0.59 in.)
Rear height	19.08 mm (0.75 in.)
Width	358 mm (14.09 in.)
Depth	256 mm (10.08 in.)
Weight NOTE: The weight of your computer depends on the configuration that you ordered.	Minimum: 2.10 kg (4.65 lb)

Processor

The following table lists the details of the processors that are supported by your Dell Pro Max 16 MC16250.

Table 4. Processor

Description	Option one	Option two	Option three	Option four
Processor type	Intel Core Ultra 5 235H vPro	Intel Core Ultra 7 255H	Intel Core Ultra 7 265H vPro	Intel Core Ultra 9 285H vPro
Processor wattage	45 W	45 W	45 W	45 W
Processor total core count	14	16	16	16
Performance-cores	4	6	6	6
Efficient-cores	10	10	10	10
Processor total thread count	14	16	16	16
NOTE: Intel Hyper-Threading Technology is only available on Performance-cores.				
Processor speed	Up to 5.00 GHz	Up to 5.10 GHz	Up to 5.30 GHz	Up to 5.40 GHz

Table 4. Processor (continued)

Description	Option one	Option two	Option three	Option four
Performance-cores frequency				
Processor base frequency	2.40 GHz	2.00 GHz	2.20 GHz	2.90 GHz
Maximum turbo frequency	5.00 GHz	5.10 GHz	5.30 GHz	5.40 GHz
Efficient-cores frequency				
Processor base frequency	1.80 GHz	1.50 GHz	1.70 GHz	2.70 GHz
Maximum turbo frequency	4.40 GHz	4.40 GHz	4.50 GHz	4.50 GHz
Processor cache	18 MB	24 MB	24 MB	24 MB
Integrated graphics	Intel Graphics	Intel Graphics	Intel Graphics	Intel Graphics

Chipset

The following table lists the details of the chipset that is supported by your Dell Pro Max 16 MC16250.

Table 5. Chipset

Description	Values
Chipset	Integrated with the processor
Processor	Intel Core Ultra 5/7/9 non-vPro/vPro processors
DRAM bus width	64-bit
Flash EPROM	Up to 64 MB
PCIe bus	Up to Gen5

Operating system

Your Dell Pro Max 16 MC16250 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro
- Ubuntu Linux 22.04 LTS, 64-bit

Memory

The following table lists the memory specifications that are supported by your Dell Pro Max 16 MC16250.

Table 6. Memory specifications

Description	Values
Memory slots	Two SoDIMM/CSoDIMM slots
Memory type	DDR5

Table 6. Memory specifications (continued)

Description	Values
Memory speed	<ul style="list-style-type: none">• 5600 MT/s• 6400 MT/s
Maximum memory configuration	64 GB
Minimum memory configuration	16 GB
Memory size per slot	8 GB, 16 GB or 32 GB
Memory configurations supported	<ul style="list-style-type: none">• 16 GB: 2 x 8 GB, DDR5, 5600 MT/s, SoDIMM, dual-channel• 32 GB: 2 x 16 GB, DDR5, 5600 MT/s, SoDIMM, dual-channel• 32 GB: 2 x 16 GB, DDR5, 6400 MT/s, CSoDIMM, dual-channel• 64 GB: 2 x 32 GB, DDR5, 6400 MT/s, CSoDIMM, dual-channel

External ports and slots

The following table lists the external ports and slots on your Dell Pro Max 16 MC16250.

Table 7. External ports and slots

Description	Values
Network port	One RJ45 ethernet port (1 Gbps)
USB ports	<ul style="list-style-type: none">• Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort• One USB 3.2 Gen 1 (5 Gbps) port with PowerShare• One USB 3.2 Gen 1 (5 Gbps) port
Audio port	One global headset port
Video port(s)	<ul style="list-style-type: none">• Two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort• One HDMI 2.1 port
Media-card reader	<ul style="list-style-type: none">• One microSD-card slot• One optional smart-card reader slot
Power-adapter port	Supported via two Thunderbolt 4 (40 Gbps) ports with Power Delivery and DisplayPort
Security-cable slot	One wedge-shaped lock slot
SIM-card slot	One optional nano-SIM card slot

Internal slots

The following table lists the internal slots of your Dell Pro Max 16 MC16250.

Table 8. Internal slots

Description	Values
M.2	<ul style="list-style-type: none">Two M.2 Key-M (2230/2280) slot for solid-state driveOne M.2 2230 Key-E slot for Wi-Fi and Bluetooth combo cardOne M.2 3042 slot for WWAN card <p>NOTE: To learn more about the features of different types of M.2 cards, search Dell Support Site.</p>

Ethernet

The following table lists the wired ethernet Local Area Network (LAN) specifications of your Dell Pro Max 16 MC16250.

Table 9. Ethernet specifications

Description	Values
Model	<ul style="list-style-type: none">Intel I219-LM for vPro configurationsIntel I219-V for non-vPro configurations
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules that are supported on your Dell Pro Max 16 MC16250.

Table 10. Wireless module specifications

Description	Option one	Option two
Model number	Intel Wi-Fi 6E AX211	Intel Wi-Fi 7 BE201
Transfer rate	Up to 2400 Mbps	Up to 5760 Mbps
Frequency bands supported	2.4 GHz/5 GHz/6 GHz	2.4 GHz/5 GHz/6 GHz
Wireless standards	<ul style="list-style-type: none">Wi-Fi 802.11 a/b/gWi-Fi 4 (WiFi 802.11n)Wi-Fi 5 (WiFi 802.11ac)Wi-Fi 6E (WiFi 802.11ax)	<ul style="list-style-type: none">Wi-Fi 802.11 a/b/gWi-Fi 4 (WiFi 802.11n)Wi-Fi 5 (WiFi 802.11ac)Wi-Fi 6E (WiFi 802.11ax)Wi-Fi 7 (WiFi 802.11be)
Encryption	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP	<ul style="list-style-type: none">64-bit/128-bit WEPAES-CCMPTKIP
Bluetooth wireless card NOTE: The functionality of the Bluetooth wireless card may vary based on the operating system.	Bluetooth 5.3	Bluetooth 5.4

WWAN module

The following table lists the Wireless Wide Area Network (WWAN) module that is supported in your Dell Pro Max 16 MC16250.

(i) NOTE: The WWAN module is available only on certain configurations and in certain regions.

(i) NOTE: Availability of the eSIM feature on this module may vary depending on your region and the support that is offered by your mobile carrier.

(i) NOTE: For instructions on how to setup SIM or eSIM connections on your computer, see the *SIM/eSIM Setup Guide for Windows* available with your product documentation at [Dell Support Site](#).

Table 11. WWAN module specifications

Description	Values
Model number	MediaTek T700 (DW5933e)
Form factor	M.2 3052 Key-B
Host interface	PCIe Gen3
Network standard	<ul style="list-style-type: none">NR FR1(Sub6) FDD/TDDLTE FDD/TDDWCDMA/HSPA+GPS/GLONASS/Galileo/BDS/QZSS
Transfer data rate	<ul style="list-style-type: none">SA: Download 4.67 Gbps/Upload 1.25 GbpsNSA: Download 3.74 Gbps/Upload 835 MbpsLTE: Download 1.6 Gbps (CAT19)/Upload 211 MbpsUMTS: Download 384 kbps/Upload 384 kbpsDC-HSPA+: Download 42 Mbps (CAT24)/Upload 11.5 Mbps (CAT7)
Operating frequency bands	<ul style="list-style-type: none">NR (n1, n2, n3, n5, n7, n8, n20, n25, n28, n30, n38, n40, n41, n48, n66, n71, n77, n78, n79)LTE (B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71)WCDMA/HSPA+ (1, 2, 4, 5, 8)
Power supply	DC 3.135 V to 4.40 V, typical 3.30 V
SIM card	Supported through external SIM slot
eSIM with dual SIM (DSSA)	Supported (i) NOTE: Availability of eSIM functionality embedded on this module is dependent on your region and specific carrier requirements.
Antenna diversity	Supported
Radio on/off	Supported
Wake On Wireless WAN	Supported
Operating temperature	<ul style="list-style-type: none">Normal operating temperature: -10°C to 55°CExtended operating temperature: -40°C to 85°CStorage temperature: -60°C to 100°C

Table 11. WWAN module specifications (continued)

Description	Values
Antenna connector	<ul style="list-style-type: none"> One WWAN TX0 and PRX connector One WWAN DRX combined GPS connector One WWAN MIMO PRX connector One WWAN TX1 and MIMO DRX connector
<p>(i) NOTE: For instructions to find your computer's International Mobile Equipment Identity (IMEI) number, search Dell Support Site.</p>	

Audio

The following table lists the audio specifications of your Dell Pro Max 16 MC16250.

Table 12. Audio specifications

Description	Values
Audio controller	Realtek ALC3329
Stereo conversion	Supported with Waves MaxxAudio Pro
Internal audio interface	Soundwire interface
External audio interface	One global headset port
Number of speakers	Two
Internal-speaker amplifier	Supported via Realtek ALC1708
External volume controls	Keyboard shortcut controls
Speaker output:	
Average	2 W x 2 = 4 W
Peak	2.5 W x 2 = 5 W
Microphone	Dual-array digital microphones

Storage

This section lists the storage options on your Dell Pro Max 16 MC16250.

Your Dell Pro Max 16 MC16250 supports the following storage configurations -

Table 13. Storage matrix

Storage	Slot	
	SSD2 (Primary M.2 PCIe for boot function)	SSD1 (Secondary M.2 PCIe)
One M.2 2230/2280 solid state drive	M.2 2230/2280 solid state drive	Not applicable
One M.2 2230/2280 solid state drive and	M.2 2230/2280 solid state drive	M.2 2230 solid state drive only

Table 13. Storage matrix (continued)

Storage	Slot	
	SSD2 (Primary M.2 PCIe for boot function)	SSD1 (Secondary M.2 PCIe)
One M.2 2230 solid state drive i NOTE: For computers shipped with a WWAN card installed, only M.2 2230 solid state drive can be installed in slot SSD1 (secondary slot).		
One M.2 2230/2280 solid state drive and One M.2 2230/2280 solid state drive i NOTE: For computers shipped without a WWAN card installed, either M.2 2230 or M.2 2280 solid state drive can be installed in slot SSD1 (secondary slot).	M.2 2230/2280 solid state drive	M.2 2230/2280 solid state drive

Table 14. Storage specifications

Storage type	Interface type	Capacity
M.2 2230 solid state drive	Gen 4 x4 PCIe NVMe	256 GB or 512 GB
M.2 2280 solid state drive, Self-Encrypting	Gen 4 x4 PCIe NVMe	1 TB or 2 TB

Media-card reader

The following table provides the specification of media cards that are supported by your Dell Pro Max 16 MC16250.

Table 15. Media-card reader specifications

Description	Values
Media-card slot type	microSD 4.0 card
Media-cards supported	<ul style="list-style-type: none"> • microSecure Digital (mSD) • microSecure Digital High Capacity (mSDHC) • microSecure Digital Extended Capacity (mSDXC)
i NOTE: The maximum capacity of the media-card reader varies depending on the standard of the media card that is inserted in your computer.	

Keyboard

The following table lists the keyboard specifications of your Dell Pro Max 16 MC16250.

Table 16. Keyboard specifications

Description	Values
Keyboard type	<ul style="list-style-type: none"> • Magnetite, Standard AI hotkey backlit keyboard • Magnetite, Standard AI hotkey non-backlit keyboard
Keyboard layout	QWERTY

Table 16. Keyboard specifications (continued)

Description	Values
Number of keys	<ul style="list-style-type: none"> United States and Canada: 99 keys United Kingdom: 100 keys Japan: 103 keys
Key pitch	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>i NOTE: You can define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.</p> <p>For more information, see Keyboard shortcuts.</p>

Keyboard shortcuts of Dell Pro Max 16 MC16250

i | NOTE: Keyboard characters may differ depending on the keyboard language configuration. Keys that are 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 that is 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 that is 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 multimedia control, as indicated by the icon on the key. Press the function key to enable the task represented by the icon. For example, pressing F1 mutes the audio (see the table below).

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

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

Table 17. Function key primary behavior

Function key	Primary behavior
F1	Mute or unmute audio
F2	Decrease volume
F3	Increase volume
F4	Microphone Mute
F5	Keyboard Illumination/Backlight
F6	Decrease brightness
F7	Increase brightness
F8	Switch to external display
F10	Print screen
F11	Home

Table 17. Function key primary behavior (continued)

Function key	Primary behavior
F12	End

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

Table 18. 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
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 + F7	Operating system and application-specific F7 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 + Ctrl	Open the application menu
Fn + Esc	Toggle between multimedia and function key behavior
Fn + PgUp	Scroll up the document or page
Fn + PgDn	Scroll down the document or page
Fn + Home	Move to the beginning of the document
Fn + End	Move to the end of the document
Copilot	Launch Copilot in Windows  NOTE: If Copilot in Windows is not available on your computer, the Copilot key launches Recall. If both Recall and Copilot in Windows are not available on your computer, the Copilot key launches Windows Search. For more information about Copilot in Windows and Recall, search in the Knowledge Base Resource at the Dell Support Site .

Camera

The following table lists the camera specifications of your Dell Pro Max 16 MC16250.

Table 19. Camera specifications

Description	Option one	Option two	Option three
Number of cameras	One	Two	Two
Camera type	FHD RGB camera	FHD RGB and IR camera	8M MIPI RGB and IR camera

Table 19. Camera specifications (continued)

Description	Option one	Option two	Option three
Camera location	Front camera	Front camera	Front camera
Camera sensor type	CMOS sensor technology	CMOS sensor technology	CMOS sensor technology
Camera resolution:			
Still image	2.07 megapixel	2.07 megapixel	8.0 megapixel
Video	1920 x 1080 (FHD) at 30 fps	1920 x 1080 (FHD) at 30 fps	2560 x 1440 at 30 fps NOTE: The default resolution for video is set at 1080p. For more information about changing the camera resolution, search for information about changing the camera resolution in Windows 11 at the Microsoft Support Site .
Infrared camera resolution:			
Still image	N/A	0.23 megapixel	0.23 megapixel
Video	N/A	640 x 360 at 15 fps	640 x 360 at 15 fps
Diagonal viewing angle:			
Camera	80.20 degrees	80.20 degrees	88.10 degrees
Infrared camera	N/A	86.60 degrees	86.60 degrees

Touchpad

The following table lists the touchpad specifications of your Dell Pro Max 16 MC16250.

Table 20. Touchpad specifications

Description	Values
Touchpad resolution:	
Horizontal	>= 300 dpi
Vertical	>= 300 dpi
Touchpad dimensions:	
Horizontal	125 mm (4.92 in.)
Vertical	88 mm (3.46 in.)
Touchpad gestures	For more information about the touchpad gestures that are available on: <ul style="list-style-type: none">• Windows, search Microsoft Support Site.• Ubuntu, search Ubuntu Support Site.

Power adapter

The following table lists the power adapter specifications of your Dell Pro Max 16 MC16250.

Table 21. Power-adapter specifications

Description	Option one	Option two
Type	100 W AC adapter, USB Type-C	130 W AC adapter, USB Type-C
Power-adapter dimensions:		
Height	26.50 mm (1.04 in.)	22 mm (0.87 in.)
Width	60 mm (2.36 in.)	66 mm (2.60 in.)
Depth	122 mm (4.80 in.)	143 mm (5.63 in.)
Input voltage	100 VAC - 240 VAC	100 VAC - 240 VAC
Input frequency	50 Hz - 60 Hz	50 Hz - 60 Hz
Input current (maximum)	1.70 A	1.80 A
Output current (continuous)	<ul style="list-style-type: none">• 20 V/5 A• 15 V/3 A• 9 V/3 A• 5 V/3 A	<ul style="list-style-type: none">• 20 V/6.50 A• 5 V/1 A
Rated output voltage	<ul style="list-style-type: none">• 20 VDC• 15 VDC• 9 VDC• 5 VDC	<ul style="list-style-type: none">• 20 VDC• 5 VDC
Temperature range:		
Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

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

Power adapter requirements of Dell Pro Max 16 MC16250

 **NOTE:** If you did not purchase the Dell-branded power adapter that is recommended for your computer, ensure that the power adapter you use meets the following requirements.

The following table lists the power adapter requirements for your Dell Pro Max 16 MC16250.

Table 22. Power adapter requirements

Description	Value
Power that is required from a power adapter to achieve optimal performance	100 W
Power that charges the computer at a slower speed	Less than 100 W

Table 22. Power adapter requirements (continued)

Description	Value
(i) NOTE: A warning message may appear informing you about the use of a lower-powered adapter and slower charging speed.	
Minimum power that is required from a power adapter to operate the computer and charge the battery (i) NOTE: A warning message appears informing you about the use of a lower-powered adapter and slower charging speed.	45 W
USB Power Delivery (PD) fast charging	Supported
ExpressCharge mode	Supported (i) NOTE: Ensure that the computer with a 64 Wh battery is connected to a 100 W power adapter for this feature to be supported. (i) NOTE: Ensure that the computer with a 96 Wh battery is connected to a 130 W power adapter for this feature to be supported. (i) NOTE: ExpressCharge mode must also be enabled in the BIOS Setup screen. Select Power > Battery Configuration > ExpressCharge , then press Enter .

Battery

The following table lists the battery specifications of your Dell Pro Max 16 MC16250.

Table 23. Battery specifications

Description	Option one	Option two	Option three	Option four
Battery type	4-cell, 64 Wh, Lithium Ion Polymer, Standard Life, ExpressCharge, ExpressCharge Boost	4-cell, 64 Wh, Lithium Ion Polymer, Long Cycle Life, ExpressCharge, ExpressCharge Boost	6-cell, 96 Wh, Lithium Ion Polymer, Standard Life, ExpressCharge, ExpressCharge Boost	6-cell, 96 Wh, Lithium Ion Polymer, Long Cycle Life, ExpressCharge, ExpressCharge Boost
Battery voltage	15.60 VDC	15.60 VDC	11.70 VDC	11.70 VDC
Battery weight (maximum)	0.255 kg (0.56 lb)	0.255 kg (0.56 lb)	0.351 kg (0.77 lb)	0.351 kg (0.77 lb)
Battery dimensions:				
Height	7.71 mm (0.30 in.)			
Width	294.90 mm (11.61 in.)			
Depth	77.50 mm (3.05 in.)			
Temperature range:				
Operating	<ul style="list-style-type: none"> • Charge: 0°C to 50°C (32°F to 122°F) • Discharge: 0°C to 60°C (32°F to 140°F) 	<ul style="list-style-type: none"> • Charge: 0°C to 50°C (32°F to 122°F) • Discharge: 0°C to 60°C (32°F to 140°F) 	<ul style="list-style-type: none"> • Charge: 0°C to 50°C (32°F to 122°F) • Discharge: 0°C to 60°C (32°F to 140°F) 	<ul style="list-style-type: none"> • Charge: 0°C to 50°C (32°F to 122°F) • Discharge: 0°C to 60°C (32°F to 140°F)

Table 23. Battery specifications (continued)

Description		Option one	Option two	Option three	Option four
	Storage	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (-4°F to 149°F)	-20°C to 65°C (-4°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.
Battery charging time (approximate)	<ul style="list-style-type: none"> ● ExpressCharge Boost - From 0% to 35% in almost 20 minutes ● ExpressCharge - 2 hours ● Standard charge - 3 hours 	<ul style="list-style-type: none"> ● ExpressCharge Boost - From 0% to 35% in almost 20 minutes ● ExpressCharge - 2 hours ● Standard charge - 3 hours 	<ul style="list-style-type: none"> ● ExpressCharge Boost - From 0% to 35% in almost 20 minutes ● ExpressCharge - 2 hours ● Standard charge - 3 hours 	<ul style="list-style-type: none"> ● ExpressCharge Boost - From 0% to 35% in almost 20 minutes ● ExpressCharge - 2 hours ● Standard charge - 3 hours 	
Coin-cell battery	Not supported	Not supported	Not supported	Not supported	Not supported
<p>⚠ 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.</p> <p>⚠ CAUTION: Dell Technologies recommends that you charge the battery regularly for optimal power consumption.</p>					

Power requirements (for computers shipped with 4-cell, 64 Wh battery)

(i) NOTE: The information in this section is applicable to the European Union (EU) countries.

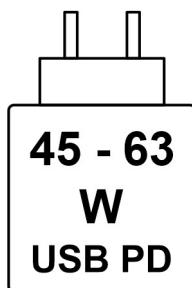


Figure 9. Pictogram for 64 Wh battery

The power that is delivered by the charger must be between a minimum of 45 Watts that is required by the radio equipment, and a maximum of 63 Watts in order to achieve the maximum charging speed.

This computer supports USB Power Delivery (PD) fast charging.

Power requirements (for computers shipped with 6-cell, 96 Wh battery)

(i) NOTE: The information in this section is applicable to the European Union (EU) countries.

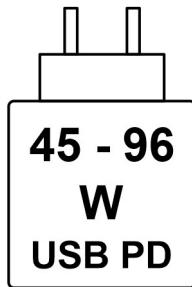


Figure 10. Pictogram for 96 Wh battery

The power that is delivered by the charger must be between a minimum of 45 Watts that is required by the radio equipment, and a maximum of 96 Watts in order to achieve the maximum charging speed.

This computer supports USB Power Delivery (PD) fast charging.

Display

The following table lists the display specifications of your Dell Pro Max 16 MC16250.

Table 24. Display specifications

Description	Option one	Option two	Option three	Option four	Option five
Display type	16" Full High Definition Plus (FHD+)	16" Full High Definition Plus (FHD+)	16" Quad High Definition Plus (QHD+), ComfortView Plus	16" Full High Definition Plus (FHD+)	16" Quad High Definition Plus (QHD+)
Display-panel technology	Wide-Viewing Angle (WVA)	Wide-Viewing Angle (WVA)	Wide-viewing Angle (WVA)	Wide-viewing Angle (WVA)	Wide-viewing Angle (WVA)
Display-panel dimensions (active area):					
Height	215.42 mm (8.48 in.)	215.42 mm (8.48 in.)	215.42 mm (8.48 in.)	215.42 mm (8.48 in.)	215.42 mm (8.48 in.)
Width	344.68 mm (13.57 in.)	344.68 mm (13.57 in.)	344.68 mm (13.57 in.)	344.68 mm (13.57 in.)	344.68 mm (13.57 in.)
Diagonal	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)
Display-panel native resolution	1920 x 1200	1920 x 1200	2560 x 1600	1920 x 1200	2560 x 1600
Luminance (typical)	300 nits	300 nits	300 nits	400 nits	400 nits
Megapixels	2.3	2.3	4.1	2.3	4.1

Table 24. Display specifications (continued)

Description	Option one	Option two	Option three	Option four	Option five
Color gamut	45% NTSC	45% NTSC	100% sRGB	45% NTSC	100% sRGB
Pixels Per Inch (PPI)	142	142	189	142	189
Contrast ratio (typical)	1000:1	1000:1	1000:1	1000:1	1000:1
Response time (maximum)	35 ms				
Refresh rate	60 Hz	60 Hz	120 Hz	60 Hz	120 Hz
Horizontal view angle	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 89 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 89 +/- degrees
Vertical view angle	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 85 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 89 +/- degrees 	<ul style="list-style-type: none"> • Minimum: 80 +/- degrees • Typical: 89 +/- degrees
Pixel pitch	0.18 x 0.18	0.18 x 0.18	0.13 x 0.13	0.18 x 0.18	0.13 x 0.13
Power consumption (maximum)	4.45 W	5.60 W	4.80 W	5.65 W	5.97 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare	Anti-glare	Anti-glare	Anti-glare
Touch options	Not supported	Supported	Not supported	Not Supported	Not supported
					(i) NOTE: Display option to be released.

Fingerprint reader (optional)

The following table lists the specifications of the optional fingerprint reader of your Dell Pro Max 16 MC16250.

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

Table 25. Fingerprint reader specifications

Description	Values
Sensor technology	Capacitive sensing
Sensor resolution	500 dpi
Sensor pixel size	108 x 88 pixels

Sensors

The following table lists the sensors of your Dell Pro Max 16 MC16250.

Table 26. Sensor

Sensor support
Accelerometer (for positional sensing)
Hall Effect Sensor

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Dell Pro Max 16 MC16250.

Table 27. GPU—Integrated

Controller	Memory size	Processor
Intel Arc/Arc Pro Graphics	Shared system memory	Intel Core Ultra 5/7/9 non-vPro/vPro processors

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Dell Pro Max 16 MC16250.

Table 28. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA RTX Pro 500 Blackwell	6 GB	GDDR7
NVIDIA RTX Pro 1000 Blackwell	8 GB	GDDR7
NVIDIA RTX Pro 2000 Blackwell	8 GB	GDDR7

Multiple display support matrix

The following table lists the multiple display support matrix for your Dell Pro Max 16 MC16250.

Table 29. Multiple display support matrix

Graphics Card	Direct Graphics Controller Direct Output Mode	Supported external displays with computer internal display on	Supported external displays with computer internal display off
Intel Graphics	Not supported	3	4
NVIDIA Graphics	Not supported	3	4

Hardware security

The following table lists the hardware security of your Dell Pro Max 16 MC16250.

Table 30. Hardware security

Hardware security
One wedge-shaped lock slot
Windows Hello - Fingerprint Reader (optional)
Trusted Platform Module (TPM) 2.0 discrete
FIPS 140-2 certification for TPM
TCG Certification for TPM (Trusted Computing Group)
Finger Print Reader in Power Button available with and without ControlVault 3 Plus
ControlVault 3 Plus Advanced Authentication with FIPS 140-3 Level 3 Certification
Contacted Smart Card and ControlVault 3 Plus
Contactless Smart Card, NFC, and ControlVault 3 Plus
SED SSD NVMe, SSD per SDL

Smart-card reader

Contactless smart-card reader

This section lists the contactless smart-card reader specifications of your Dell Pro Max 16 MC16250.

Table 31. Contactless smart-card reader specifications

Title	Description	Dell ControlVault 3 Plus Contactless smart-card reader with NFC
Felica Card Support	Reader and software capable of supporting Felica contactless cards	Yes
Prox (Proximity) (125kHz) Card support	Reader and software capable of supporting Prox /Proximity/125 kHz contactless cards	No
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

Table 31. Contactless smart-card reader specifications (continued)

Title	Description	Dell ControlVault 3 Plus Contactless smart-card reader with NFC
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes
NFC Writer Mode	Support for NFC Forum Defined Writer mode	Yes
NFC Peer-to-Peer Mode	Support for NFC Forum Defined Peer to Peer mode	Yes
NFC Proximity OS Interface	Enumerates NFP (Near Field Proximity) device for operating system to utilize	Yes
PC/SC operating system 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 operating system level drivers	Yes
Dell ControlVault support	The device connects to Dell ControlVault for usage and processing	Yes

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

Table 32. Supported cards

Manufacturer	Card
HID	jCOP readertest3 A card (14443a) 1430 1L DESFire D8H DESFIRE 4K Standard - 1450NGGNN iClass 16K/16 - 2002PGGMN iClass SR 16K/16 - 2002HPGGMN iCLASS 2K tag iCLASS GP - 2003 PGGMN iClass Clamshell - 2080PMSMV iClass Prox 16K/16 - 2022BGGMNN Mifare M1P 1430 NGGNN iclass Prox 2020BGGMNM DesFire D8P 1456CSGMN iCLASS MIFARE Px GM49Y 2623BNPGGBNAB iCLASS MIFARE Px 8M1L iClass SEOS JW 5006PGGMN Crescendo iCLASS Px G8H iCLASS Seos IY SEOS JMC4 J1Y 5806VNG1NNN4 SEOS Key FOB 5266PNNA

Table 32. Supported cards (continued)

Manufacturer	Card
	SEOS Clamshell 5656PMSAV
	SEOS + Prox 5106RGGMNN
	SEOS + DESFire 5906PNG1ANN7
	SEOS iClass 5006PGGMN7
	Seos Essential + Prox 551PPGGANN
	iCLASS 2K 2000PGGMN
	iCLASS 2K 3000PGGMN
	MIFARE DESFire 3700CPGGAN
	iCLASS DP
	DESFire 1Y
NXP/Mifare	Mifare DESFire 8K White PVC card
	Mifare Classic 1K White PVC card
	NXP Mifare Classic S50 ISO card
	Mifare DESFire 2K
	Mifare Plus S 2K/4K
	Mifare Plus X 4K
G&D	idOnDemand - SCE3.2 144K
	SCE6.0 FIPS 80K Dual + 1K Mifare
	SCE6.0 nonFIPS 80K Dual + 1K Mifare
	SCE6.0 FIPS 144K Dual + 1K Mifare
	SCE6.0 nonFIPS 144K Dual + 1K Mifare
	SCE7.0 FIPS 144K
Oberthur	idOnDemand - OCS5.2 80K
	ID-One Cosmo 64 RSA D V5.4 T = 0 card
	ID-One Cosmo 128K V5.5 card
Gemalto	TOP DL GX4 144K card
Sony	Felica RC-S962
	Felica RC-S965
	Felica RC-S966
PIVKey	C910 PKI
NIST	PIV1
IDENTIV	PIV programmed cards
	uTrust
Transport cards	Oyster (London) MIFARE DESFire
	T-Money (Korea)
	Octopus Card (Hong Kong)
	SUICA (Japan)

Table 33. Qualified NFC tags

NFC tag	Supported
Tap and do - NFC Forum Type 1 Tag - Topaz 512 (BCM920203)	Yes
Tap and do - NFC Forum Type 1 Tag - Topaz 512 (BCM20203T512)	Yes
Tap and do - NFC Forum Type 1 Tag - Topaz (BCM20203T96)	Yes
Tap and do - NFC Forum Type 2 Tag - Mifare UltraLight	Yes
Tap and do - NFC Forum Type 2 Tag - Mifare UltraLight C	Yes
Tap and do - NFC Forum Type 2 Tag - NTAG203	Yes
Tap and do - NFC Forum Type 3 Tag - FeliCa Lite RC-S965	Yes
Tap and do - NFC Forum Type 3 Tag - FeliCa RC-S962	Yes
Tap and do - NFC Forum Type 4 Tag - Mifare DESFire EV1Card 2K	Yes
Tap and do - NFC Forum Type 4 Tag - Mifare DESFire EV1Card 4K	Yes
Tap and do - NFC Forum Type 4 Tag - Mifare DESFire EV1Card 8K	Yes
Tap and do - ISO 15693 - Tag-it Plus	Yes
HID I-code ISO card	Yes

Contacted smart-card reader

The following table lists the contacted smart-card reader specifications of your Dell Pro Max 16 MC16250.

Table 34. 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 www.emvco.com	Yes
EMVCo Certified	Formally certified based on EMVCO smart card standards	Yes

Table 34. Contacted smart-card reader specifications (continued)

Title	Description	Dell ControlVault 3 smart-card reader
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 Dell Pro Max 16 MC16250.

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

Table 35. Computer environment

Description	Operating	Storage
Temperature range	0°C to 35°C (32°F to 95°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	110 G†	160 G†
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10,000 ft)	-15.2 m to 10,668 m (-49.87 ft to 35,000 ft)

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

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

† Measured using a 2 ms half-sine pulse.

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 cm and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Take an extended break for 20 minutes every two hours.
- 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.

Working inside your computer

Safety instructions

Use the following safety guidelines to protect your computer from potential damage and to ensure your personal safety. Unless otherwise noted, each procedure in this document assumes that you have read the safety information that shipped with your computer.

- ⚠ WARNING:** Before working inside your computer, read the safety information that is shipped with your computer. For more safety best practices, see [Dell Regulatory Compliance Home Page](#).
- ⚠ WARNING:** Disconnect your computer from all power sources before opening the computer cover or panels. After you finish working inside the computer, replace all covers, panels, and screws before connecting your computer to an electrical outlet.
- ⚠ WARNING:** For laptops, discharge the battery completely before removing it. Disconnect the AC power adapter from the computer and operate the computer solely on battery power—the battery is fully discharged when the computer no longer turns on when the power button is pressed.
- ⚠ CAUTION:** To avoid damaging the computer, ensure that the work surface is flat, dry, and clean.
- ⚠ CAUTION:** You should only perform troubleshooting and repairs as authorized or directed by the Dell technical support team. Damage due to servicing that is not authorized by Dell is not covered by your warranty.
- ⚠ CAUTION:** Before touching anything inside your computer, ground yourself by touching an unpainted metal surface, such as the metal at the back of the computer. While you work, periodically touch an unpainted metal surface to dissipate static electricity which could harm internal components.
- ⚠ CAUTION:** To avoid damaging the components and cards, handle them by their edges, and avoid touching the pins and the contacts.
- ⚠ CAUTION:** When you disconnect a cable, pull it by its connector or its pull tab, not the cable itself. Some cables have connectors with locking tabs or thumbscrews that you must disengage before disconnecting the cable. When disconnecting cables, keep them evenly aligned to avoid bending the connector pins. When connecting cables, ensure that the connector on the cable is correctly oriented and aligned with the port.
- ⚠ CAUTION:** Press and eject any installed card from the media-card reader.
- ⚠ CAUTION:** Exercise caution when handling rechargeable Li-ion batteries in laptops. Swollen batteries should not be used and should be replaced and disposed properly.

Before working inside your computer

About this task

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

Steps

1. Save and close all open files and exit all open applications.
2. Shut down your computer. For Windows operating system, click **Start > ⏪ Power > Shut down**.

- i NOTE:** If you are using a different operating system, see the documentation of your operating system for instructions.

3. Turn off all the attached peripherals.
4. Disconnect your computer from the electrical outlet.
5. Disconnect all attached network devices and peripherals, such as keyboard, mouse, and monitor from your computer.
6. Remove any media card and optical drive from your computer, if applicable.
7. To clean the air vents, use a soft brush and move vertically.

 **NOTE:** Do not remove the base cover or use any blower to clean the vents.

8. Enter the Service Mode.

Service Mode

Service Mode is used to cut off power without disconnecting the battery cable from the system board before conducting repairs in the computer.

 **CAUTION:** If you are unable to turn on the computer to put it into Service Mode, disconnect the battery cable. To disconnect the battery cable, follow the steps in [Removing the battery](#).

 **NOTE:** Ensure that your computer is shut down and the power adapter is disconnected.

- a. Press and hold the B key and the power button for 3 seconds, or until the Dell logo appears on the screen.
- b. If the **Owner Tag** is set, it is displayed on the screen. Press any key to continue.
 -  **NOTE:** If the **Owner Tag** information is not already set, the computer automatically skips this step and proceeds to enter Service Mode.
- c. If the power adapter is still connected, a message appears on the screen prompting you to disconnect it. Disconnect the power adapter, then press any key to continue.
- d. When the **System Ready For Service** message appears on the screen, press any key to proceed. The computer emits three short beeps and shuts down immediately.
The computer shuts down and enters the Service Mode.

Safety precautions

This section details the primary steps to be followed before disassembling any device or component.

Observe the following safety precautions before any installation or break-fix procedures involving disassembly or reassembly:

- Turn off the computer and all attached peripherals.
- Disconnect the computer from AC power.
- Disconnect all network cables and peripherals from the computer.
- Use an ESD field service kit when working inside your computer to avoid electrostatic discharge (ESD) damage.
- Place the removed component on an anti-static mat after removing it from the computer.
- Press and hold the power button for 15 seconds to discharge the residual power in the system board.

Bonding

Bonding is a method for connecting two or more grounding conductors to the same electrical potential. This is done by using a field service electrostatic discharge (ESD) kit. When connecting a bonding wire, ensure that it is connected to bare metal and never to a painted or nonmetal surface. Ensure that the wrist strap is secure and in full contact with your skin. Remove all jewelry, watches, bracelets, or rings before grounding yourself and the equipment.

Electrostatic discharge—ESD protection

ESD is a major concern when you handle electronic components, especially sensitive components such as expansion cards, processors, memory modules, and system boards. A slight charge can damage circuits in ways that may not be obvious, such as intermittent problems or a shortened product life span. As the industry pushes for lower power requirements and increased density, ESD protection is an increasing concern.

Two recognized types of ESD damage are catastrophic and intermittent failures.

- **Catastrophic** – Catastrophic failures represent approximately 20 percent of ESD-related failures. The damage causes an immediate and complete loss of device functionality. An example of catastrophic failure is a memory module that has

received a static shock and immediately generates a "No POST/No Video" symptom with a beep code that is emitted for missing or nonfunctional memory.

- **Intermittent** – Intermittent failures represent approximately 80 percent of ESD-related failures. The high rate of intermittent failures means that most of the time when damage occurs, it is not immediately recognizable. The memory module receives a static shock, but the tracing is merely weakened and does not immediately produce outward symptoms that are related to the damage. The weakened trace may take weeks or months to melt, and in the meantime may cause degradation of memory integrity, intermittent memory errors, and so on.

Intermittent failures that are also called latent or "walking wounded" are difficult to detect and troubleshoot.

Perform the following steps to prevent ESD damage:

- Use a wired ESD wrist strap that is properly grounded. Wireless anti-static straps do not provide adequate protection. Touching the chassis before handling parts does not ensure adequate ESD protection on parts with increased sensitivity to ESD damage.
- Handle all static-sensitive components in a static-safe area. If possible, use anti-static floor pads and workbench pads.
- When unpacking a static-sensitive component from its shipping carton, do not remove the component from the anti-static packing material until you are ready to install the component. Before unwrapping the anti-static packaging, use the anti-static wrist strap to discharge the static electricity from your body.

 **NOTE:** You can protect against ESD and discharge static electricity from your body by touching a metal-grounded object before you interact with anything electronic, for example, an unpainted metal surface on your computer's I/O panel. When connecting a peripheral (including handheld digital assistants) to your computer, you should always ground both yourself and the peripheral before connecting it to the computer. In addition, as you work inside the computer, periodically touch a metal-grounded object to remove any static charge that your body may have accumulated.

For more information about the wrist strap and ESD wrist strap tester, see [Components of an ESD Field Service Kit](#).

- Before transporting a static-sensitive component, place it in an anti-static container or packaging.

ESD Field Service kit

The unmonitored field service kit is the most commonly used service kit. Each Field Service kit includes three main components: anti-static mat, wrist strap, and bonding wire.

 **CAUTION:** It is critical to keep ESD-sensitive devices away from internal parts that are insulated and often highly charged, such as plastic heat sink casings.

Working environment

Before the ESD Field Service kit is deployed, conduct an evaluation of the site to ensure proper setup and readiness. For example, deploying the kit for a server environment is different than for a desktop or laptop environment. Servers are typically installed in a rack within a data center; desktops or laptops are typically placed on office desks or cubicles. Always look for a large open flat work area that is free of clutter and large enough to deploy the ESD kit with additional space to accommodate the type of computer that is being repaired. The workspace should also be free of insulators that can cause an ESD event. On the work area, insulators such as styrofoam and other plastics should always be moved at least 12 inches or 30 centimeters away from sensitive parts before physically handling any hardware components.

ESD packaging

All ESD-sensitive devices must be shipped and received in static-safe packaging. Metal, static-shielded bags are preferred. However, you should always return the damaged component using the same ESD bag and packaging that the new part arrived in. The ESD bag should be folded over and taped shut and all the same foam packing material should be used in the original box that the new part arrived in. ESD-sensitive devices should be removed from packaging only at an ESD-protected work surface, and parts should never be placed on top of the ESD bag because only the inside of the bag is shielded. Always place parts in your hand, on the anti-static mat, in the computer, or inside an ESD bag.

Components of an ESD Field Service kit

The components of an ESD Field Service kit are:

- **Anti-Static Mat** – The anti-static mat is dissipative and parts can be placed on it during service procedures. When using an anti-static mat, your wrist strap should be snug and the bonding wire should be connected to the anti-static mat and to any bare metal on the computer being worked on. Once deployed properly, service parts can be removed from the ESD bag and placed directly on the anti-static mat. ESD-sensitive items are safe in your hand, on the anti-static mat, in the computer, or inside an ESD bag.
- **Wrist Strap and Bonding Wire** – If an anti-static mat is not being used, the wrist strap and bonding wire should be connected directly between your wrist and an exposed metal part of the hardware. If you are using an anti-static mat, connect the wrist strap and bonding wire to the anti-static mat to ensure protection for any hardware placed on the mat. The physical connection of the wrist strap and bonding wire between your skin, the anti-static mat, and the hardware is known as bonding. Use only Field Service kits with a wrist strap, anti-static mat, and bonding wire. Never use wireless wrist straps. Always be cautious that the internal wires of a wrist strap are prone to damage from normal wear and tear, and must be checked regularly with a wrist strap tester in order to avoid accidental ESD hardware damage. It is recommended to test the wrist strap and bonding wire at least once per week.
- **ESD Wrist Strap Tester** – The wires inside an ESD strap are prone to damage over time. When using an unmonitored ESD kit, it is recommended to test the wrist strap regularly—ideally before each service session, and at a minimum, once per week. The most reliable method for testing is with a wrist strap tester. To perform the test, connect the bonding wire of the wrist strap to the tester while wearing the strap. Press the test button to initiate the check. A green LED indicates a successful test, while a red LED and audible alarm signal a failure.

 **NOTE:** It is recommended to always use the traditional wired ESD grounding wrist strap and protective anti-static mat when servicing Dell products. In addition, it is critical to keep sensitive parts separate from all insulator parts while servicing the computer.

Transporting sensitive components

When transporting ESD sensitive components such as replacement parts or parts to be returned to Dell, it is critical to place these parts in anti-static bags for safe transport.

After working inside your computer

About this task

 **CAUTION:** Leaving stray or loose screws inside your computer may severely damage your computer.

Steps

1. Replace all screws and ensure that no stray screws remain inside your computer.
 2. Connect any external devices, peripherals, or cables you removed before working on your computer.
 3. Replace any media cards, disks, or any other parts that you removed before working on your computer.
 4. Connect your computer to their electrical outlets.
-  **NOTE:** To exit service mode, ensure to connect the AC adapter to the power-adapter port on your computer.
5. Press the power button to turn on the computer.

BitLocker

When updating the BIOS on a computer with BitLocker enabled, consider the following precautions.

 **CAUTION:** If BitLocker is not suspended before updating the BIOS, the BitLocker key will not be recognized the next time that you reboot the computer. You are prompted to enter the recovery key to progress, and the computer displays a prompt for the recovery key on each reboot. If the recovery key is not known, this can result in data loss or an operating system reinstall. For more information, see Knowledge Article: [updating the BIOS on Dell computers with BitLocker enabled](#).

The installation of the following components triggers BitLocker:

- Hard disk drive or solid state drive
- System board

Recommended tools

The procedures in this document may require the following tools:

- Phillips screwdriver #0
- Flat-headed screwdriver (maximum width: 4 mm)
- Plastic scribe

Screw list

- i** **NOTE:** When removing screws from a component, it is recommended to note the screw type and the quantity of screws, and then place them in a screw storage box. This is to ensure that the correct number of screws and correct screw type is restored when the component is replaced.
- i** **NOTE:** Some computers have magnetic surfaces. Ensure that the screws are not left attached to such surfaces when replacing a component.
- i** **NOTE:** Screw color may vary depending on the configuration ordered.

Table 36. Screw list

Component	Screw type	Quantity	Screw image
Base cover	Captive screw i NOTE: Screws are part of the base cover.	9	
Battery	M2x4	8	
Solid state drive	M2x4	1	
Wireless-card bracket	M2x3	1	
WWAN-module shield	M2x3	2	
WWAN-module bracket	M2x3	1	
Darwin-cable bracket	M2x3	1	
Speakers	M1.6x3	4	
Right/Processor fan	M2x4	2	
Left/Video fan	M2x4	2	
Heat sink	Captive screw i NOTE: Screws are part of the heat sink.	4	
GPU filler	M2x3	2	

Table 36. Screw list (continued)

Component	Screw type	Quantity	Screw image
Battery frame	M2x3	10	
USH board	M2x2	2	
Smart-card reader	M2x2	3	
Display-cable bracket	M2x3	3	
Display assembly	M2.5x5	6	
Display panel	M2x3	4	
Display hinges	M2.5x3.5	6	
Fingerprint-reader bracket	M2x3	1	
System board	M2x4	2	
	M2x3	3 or 4	
USB Type-C module	M2x5	3	
Power button	M2x2	2	
Keyboard	M2x2.2	20	
Keyboard bracket	M2x2.2	9	

Major components of Dell Pro Max 16 MC16250

The following image shows the major components of Dell Pro Max 16 MC16250.

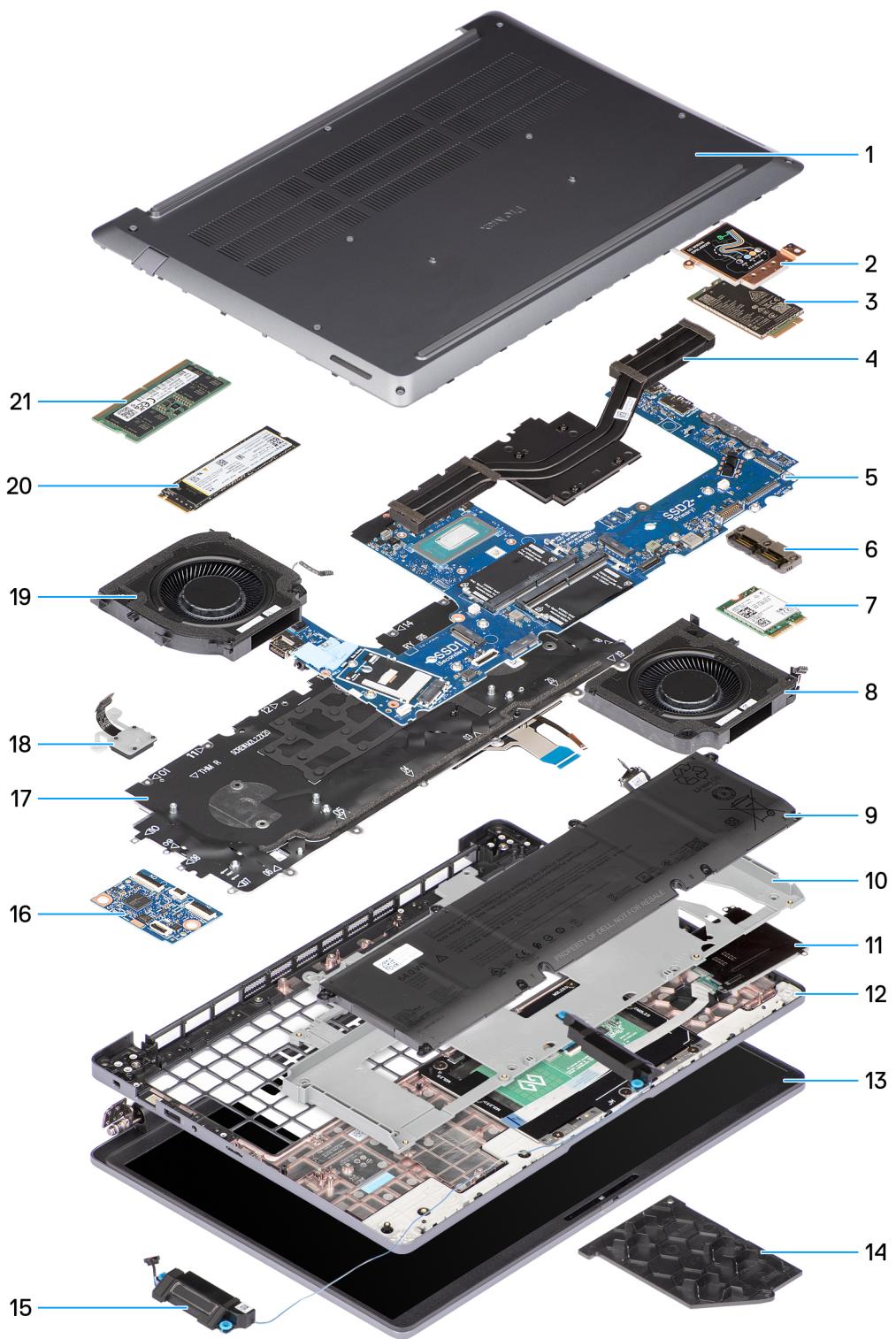


Figure 11. Major components of your Dell Pro Max 16 MC16250

1. Base cover
2. WWAN-module shield
3. WWAN module
4. Heat sink
5. System board
6. USB Type-C module
7. Wireless card

8. Left/Video fan
9. Battery
10. Battery frame
11. Smart-card reader
12. Palm-rest assembly
13. Display assembly
14. GPU filler
15. Speakers
16. USH board
17. Keyboard assembly
18. Power button with optional fingerprint reader
19. Right/Processor fan
20. Solid state drive
21. Memory module

 **NOTE:** Dell Technologies provides a list of components and their part numbers for the original system configuration purchased. These parts are available according to warranty coverages purchased by the customer. Contact your Dell sales representative for purchase options.