

Dell Pro 16

PC16255

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.

Contents

Chapter 1: Views of Dell Pro 16 PC16255.....	7
Right.....	7
Left.....	7
Top.....	8
Front.....	9
Bottom.....	10
Locate the Service Tag or Express Service Code label of your computer.....	11
Battery-charge status light.....	11
Chapter 2: Set up your Dell Pro 16 PC16255.....	13
Chapter 3: Specifications of Dell Pro 16 PC16255.....	15
Dimensions and weight.....	15
Processor.....	15
Chipset.....	16
Operating system.....	16
Memory.....	17
External ports and slots.....	17
Internal slots.....	18
Ethernet.....	18
Wireless module.....	18
Audio.....	19
Storage.....	19
Keyboard.....	20
Keyboard shortcuts of Dell Pro 16 PC16255.....	20
Camera.....	22
Touchpad.....	22
Power adapter.....	23
Power adapter requirements (for computers that are shipped with a 3-cell, 45 Wh battery).....	24
Power adapter requirements (for computers that are shipped with a 3-cell, 55 Wh battery).....	24
Battery.....	25
Power requirements (for computers that are shipped with a 3-cell, 45 Wh battery)	26
Power requirements (for computers that are shipped with a 3-cell, 55 Wh battery)	27
Display.....	27
Fingerprint reader (optional).....	28
Sensor	28
GPU—Integrated.....	28
Multiple display support matrix.....	29
Hardware security.....	29
Operating and storage environment.....	29
Dell support policy.....	30
Dell Optimizer.....	30
Chapter 4: Working inside your computer.....	31

Safety instructions.....	31
Before working inside your computer.....	31
Safety precautions.....	32
Electrostatic discharge—ESD protection.....	32
ESD Field Service kit	33
Transporting sensitive components.....	34
After working inside your computer.....	34
BitLocker.....	34
Recommended tools.....	34
Screw list.....	35
Major components of Dell Pro 16 PC16255.....	36
Chapter 5: Removing and installing Customer Replaceable Units (CRUs).....	39
Base cover.....	39
Removing the base cover.....	39
Installing the base cover.....	42
Battery.....	44
Rechargeable Li-ion battery precautions.....	44
Removing the battery.....	45
Installing the battery.....	46
Battery cable.....	48
Removing the battery cable.....	48
Installing the battery cable.....	48
Memory module.....	49
Removing the memory module.....	49
Installing the memory module.....	50
Solid state drive (SSD).....	51
Removing the solid state Drive (SSD).....	51
Installing the solid state drive (SSD).....	52
Wireless Local Area Network (WLAN) card.....	53
Removing the wireless card.....	53
Installing the wireless card.....	54
Speakers.....	56
Removing the speakers.....	56
Installing the speakers.....	57
Fan.....	58
Removing the fan.....	58
Installing the fan.....	59
Chapter 6: Removing and installing Field Replaceable Units (FRUs).....	61
Power-adapter port.....	61
Removing the power-adapter port.....	61
Installing the power-adapter port.....	62
Heat sink.....	63
Removing the heat sink.....	63
Installing the heat sink.....	64
I/O board.....	65
Removing the I/O board.....	65
Installing the I/O board.....	66

I/O-board FPC cable.....	67
Removing the I/O-board FPC cable	67
Installing the I/O board FPC cable.....	68
Power button with fingerprint reader.....	69
Removing the power button with fingerprint reader.....	69
Installing the power button with a fingerprint reader.....	70
System board.....	71
Removing the system board.....	71
Installing the system board.....	74
USB Type-C module.....	78
Removing the USB Type-C module.....	78
Installing the USB Type-C module.....	79
Keyboard.....	80
Removing the keyboard.....	80
Installing the keyboard.....	83
Keyboard support plate.....	86
Removing the keyboard support plate.....	86
Installing the keyboard support plate.....	87
Palm-rest assembly.....	89
Removing the palm-rest assembly.....	89
Installing the palm-rest assembly	90
Display assembly.....	92
Removing the display assembly.....	92
Installing the display assembly.....	95
Display bezel.....	96
Removing the display bezel.....	96
Installing the display bezel.....	101
Display-panel assembly.....	103
Removing the display-panel assembly.....	103
Installing the display-panel assembly.....	107
Camera.....	110
Removing the camera.....	110
Installing the camera.....	111
eDP cable.....	112
Removing the eDP cable.....	112
Installing the eDP cable.....	113
Display back-cover assembly.....	114
Removing the display back-cover assembly.....	114
Installing the display back-cover assembly.....	115
Chapter 7: Software.....	117
Operating system.....	117
Drivers and downloads.....	117
Chapter 8: BIOS Setup.....	118
Entering BIOS Setup program.....	118
Navigation keys.....	118
F12 One Time Boot menu.....	118
View Advanced Setup options.....	119

View Service options.....	119
BIOS Setup options.....	119
Updating the BIOS.....	134
Updating the BIOS in Windows.....	134
Updating the BIOS in Linux and Ubuntu.....	135
Updating the BIOS using the USB drive in Windows.....	135
Updating the BIOS from the One-Time boot menu.....	135
System and setup password.....	136
Assigning a System Setup password.....	136
Deleting or changing an existing system password or setup password.....	137
Clearing system and setup passwords.....	137
Chapter 9: Troubleshooting.....	138
Handling swollen rechargeable Li-ion batteries.....	138
Dell SupportAssist Pre-boot System Performance Check diagnostics.....	138
Running the SupportAssist Pre-Boot System Performance Check.....	139
Built-in self-test (BIST).....	139
(Motherboard Built-In Self-Test) M-BIST.....	139
Logic Built-in Self-test (L-BIST).....	140
LCD Built-in Self-Test (LCD-BIST).....	140
System-diagnostic lights.....	140
Recovering the operating system.....	141
Real-Time Clock (RTC Reset).....	142
Backup media and recovery options.....	142
Network power cycle.....	142
Drain flea power (perform hard reset).....	142
Chapter 10: Getting help and contacting Dell Technologies.....	144

Views of Dell Pro 16 PC16255

Right



Figure 1. Right View

1. USB 3.2 Gen 1 port

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

2. USB 3.2 Gen 1 port with PowerShare

Connect devices such as external storage devices and printers.

Supports 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 hibernate 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.

3. 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).

4. Ethernet status LED

Indicates the connectivity status and network activity.

5. Security-cable slot

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

Left



Figure 2. Left view

1. Power-adapter port

Connect a power adapter to provide power to your computer.

2. Battery-status light

Indicates the battery-charge status.

Solid white—Battery is charging.

Solid amber—Battery charge is low.

Off—Battery is fully charged.

3. HDMI 2.1 Transition-minimized differential signaling (TMDS) port

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

4. USB 40 Gbps port with Power Delivery and DisplayPort

Connect devices, such as external storage devices and printers. Supports USB and DisplayPort which enables you to connect to an external display using a display adapter. Supports data transfer rates of up to 40 Gbps.

- For computers shipped with AMD Ryzen AI 300 Series processors: Supports DisplayPort 2.1
- For computers shipped with AMD Ryzen 200 Series processors: Supports DisplayPort 1.4a

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

i **NOTE:** A 40 Gbps-certified cable is required to achieve the maximum performance of 40 Gbps.

i **NOTE:** The USB port is backward compatible with USB 3.2, USB 2.0.

5. Global headset port

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

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 a sleep state; press and hold the power button for 10 seconds to force shut-down the computer.

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

i | NOTE: The power-status light on the power button is available only on computers without the fingerprint reader.

Computers that are shipped with the fingerprint reader that is integrated on the power button will not have the power-status light on the power button.

i | NOTE: You can customize the power-button behavior in Windows.

2. Touchpad

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

Front

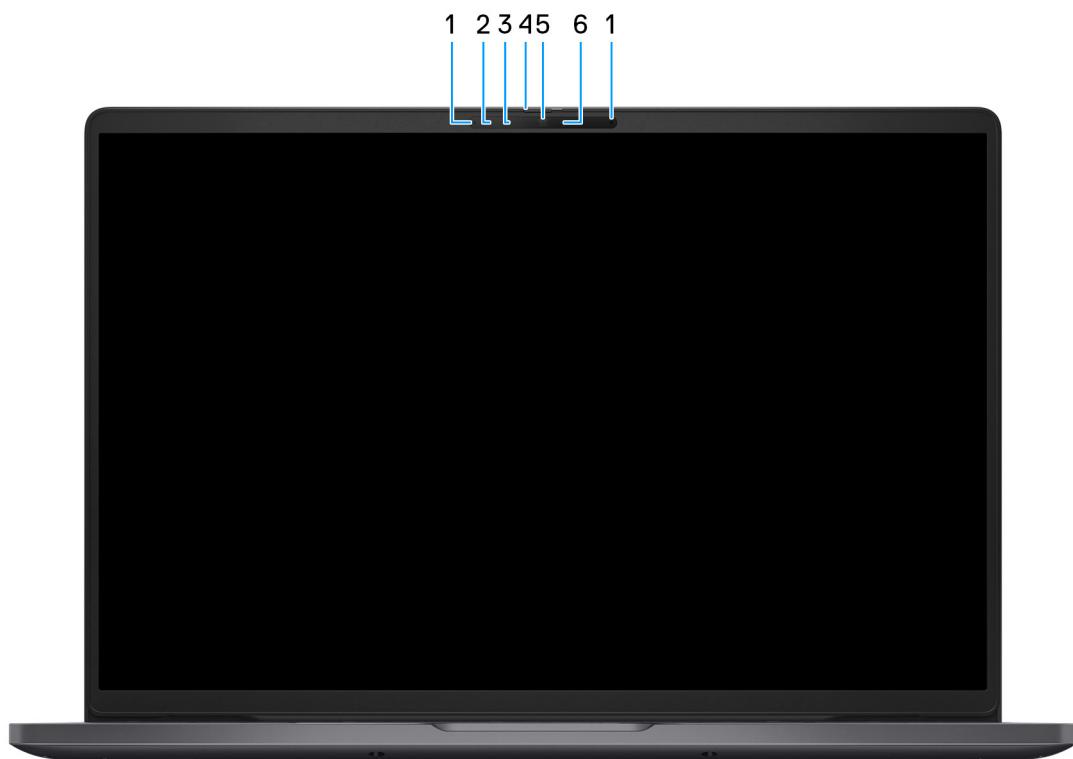


Figure 4. Front view

1. Microphones (2)

Provides digital sound input for audio recording and voice calls.

2. Infrared camera (optional)

Enhances security when paired with Windows Hello face authentication.

3. Infrared emitter (optional)

Emits infrared light, which enables the infrared camera to sense and track motion.

4. Privacy shutter

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

5. Camera

Enables you to video chat, capture photos, and record videos.

6. Camera-status light

Turns on when the camera is in use.

Bottom

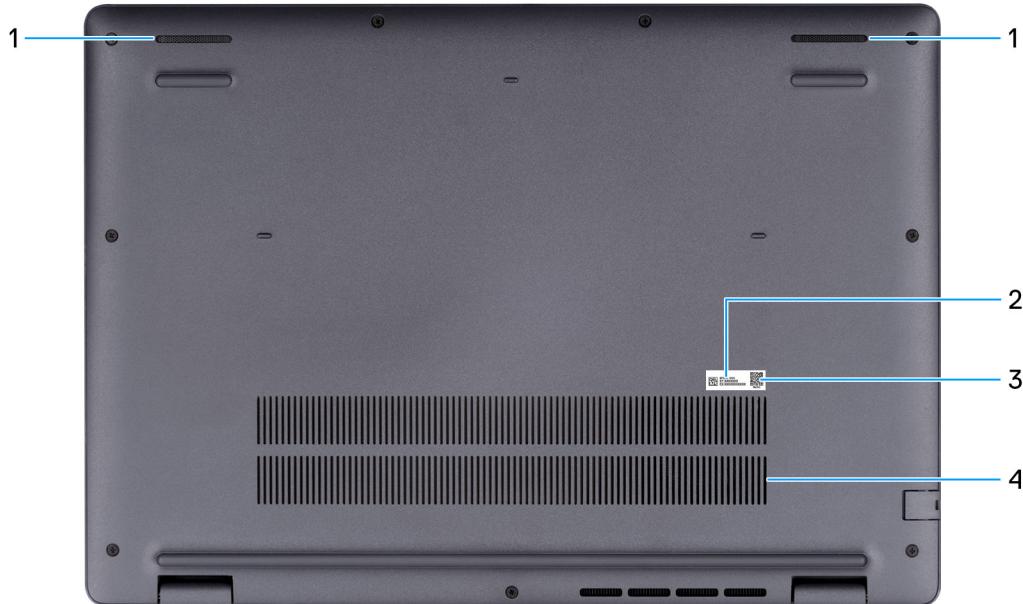


Figure 5. Bottom view

1. Speakers

Provide audio output.

2. 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.

3. MyDell QR code

MyDell is your hub for content that is personalized to your Dell Pro 16 PC16255, including videos, articles, manuals, and easy access to support.

4. Air vents

Air vents provide ventilation for your computer. Clogged air vents can cause overheating and can affect the performance of your computer and potentially cause hardware issues. Keep the air vents clear of obstructions and clean them regularly to prevent the build-up of dust and dirt. For more information about cleaning air vents, search for articles in the Knowledge Base Resource at [Dell Support Site](#).

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 6. Service Tag/Express Service Code location

Battery-charge status light

The following table lists the battery-charge and status light behavior of your Dell Pro 16 PC16255.

Table 1. Battery charge and status light behavior

Power source	LED behavior	System power state	Battery charge level
AC adapter	Off	S0 or S5	Fully charged
AC adapter	Solid white	S0 or S5	< Fully charged
Battery	Off	S0 or S5	11-100%
Battery	Solid amber (590+/-3 nm)	S0 or S5	< 10%

- S0 (ON): The computer is turned on.
- S4 (Hibernate): The computer consumes the least power in the Hibernated 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 when the computer is turned on.
- S5 (OFF): The computer is in a shutdown state.

Table 2. Ethernet (RJ45) status LED

LED Behavior	Connection status
Solid Amber	The RJ45 cable is connected properly from the router or switch to the computer. The connection is active.

Table 2. Ethernet (RJ45) status LED (continued)

LED Behavior	Connection status
Blinking Amber	Data transfer is in progress.

Set up your Dell Pro 16 PC16255

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 and press the power button.



Figure 7. 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 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 or create a Microsoft account.

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

Table 3. Locate Dell apps

Resources	Description
 Dell Optimizer	Dell Optimizer is an application designed to enhance computer performance and productivity by optimizing settings for power, battery, display, collaboration touchpad, and presence detection. It also provides access to applications purchased with your new computer. For more information, see Dell Optimizer User's Guide at Dell Support Site .
	Dell Product Registration Register your computer with Dell.
	Dell Help & Support Access help and support for your computer.
	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 . NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.

Specifications of Dell Pro 16 PC16255

Dimensions and weight

The following table lists the height, width, depth, and weight of your Dell Pro 16 PC16255.

Table 4. Dimensions and weight

Description	Values
Height:	
Front height	18.89 mm (0.74 in.)
Rear height	20.85 mm (0.82 in.)
Width	358.00mm (14.09 in.)
Depth	251.82 mm (9.91 in.)
Weight NOTE: The weight of your computer depends on the configuration that is ordered.	Minimum - 1.94 kg (4.27 lb)

Processor

The following table lists the details of the processors that are supported in your Dell Pro 16 PC16255.

Table 5. Processor (For computers shipped with AMD Ryzen AI 300 series)

Description	Option one	Option two	Option three
Processor type	AMD Ryzen AI 5 PRO 340	AMD Ryzen AI 7 350	AMD Ryzen AI 7 PRO 350
Configurable Thermal Design Power (cTDP)	15 W–54 W	15 W–54 W	15 W–54 W
Thermal Mode/Thermal Design Power (TDP)			
Optimized	15 W	15 W	15 W
Performance	18 W	18 W	18 W
Processor core count	6	8	8
Processor thread count	12	16	16
Processor speed	Up to 4.8 GHz	Up to 5.0 GHz	Up to 5.0 GHz
Processor cache L2	6 MB	8 MB	8 MB
Processor cache L3	16 MB	16 MB	16 MB
Integrated graphics	AMD Radeon 840M Graphics	AMD Radeon 860M Graphics	AMD Radeon 860M Graphics
Neural Processing Units (NPU) Performance	Up to 50 TOPS	Up to 50 TOPS	Up to 50 TOPS

Table 6. Processor (For computers shipped with AMD Ryzen 200 series)

Description	Option one	Option two	Option three	Option four	Option five	Option six
Processor type	AMD Ryzen 3 210	AMD Ryzen 3 PRO 210	AMD Ryzen 5 220	AMD Ryzen 5 PRO 215	AMD Ryzen 5 PRO 220	AMD Ryzen 5 PRO 230
Configurable Thermal Design Power (cTDP)	15 W–30 W					
Thermal Mode/Thermal Design Power (TDP)						
Optimized	15 W					
Performance	18 W					
Processor core count	4	4	6	6	6	6
Processor thread count	8	8	12	12	12	12
Processor speed	Up to 4.7 GHz	Up to 4.7 GHz	Up to 4.9 GHz	Up to 4.7 GHz	Up to 4.9 GHz	Up to 4.9 GHz
Processor cache L2	4 MB	4 MB	6 MB	6 MB	6 MB	6 MB
Processor cache L3	8 MB	8 MB	16 MB	16 MB	16 MB	16 MB
Integrated graphics	AMD Radeon 740M Graphics	AMD Radeon 740M Graphics	AMD Radeon 740M Graphics	AMD Radeon 740M Graphics	AMD Radeon 740M Graphics	AMD Radeon 760M Graphics
Neural Processing Units (NPU) Performance	Not applicable	Up to 16 TOPS				

Chipset

The following table lists the details of the chipset that is supported by your Dell Pro 16 PC16255.

Table 7. Chipset

Description	Values
Chipset	Integrated in the processor
Processor	<ul style="list-style-type: none"> • AMD Ryzen AI 7 PRO 350 • AMD Ryzen AI 7 350 • AMD Ryzen AI 5 PRO 340 • AMD Ryzen 5 PRO 230 • AMD Ryzen 5 PRO 220 • AMD Ryzen 5 PRO 215 • AMD Ryzen 5 220 • AMD Ryzen 3 PRO 210 • AMD Ryzen 3 210
DRAM bus width	64-bit
Flash EPROM	64 MB
PCIe bus	Up to Gen4

Operating system

Your Dell Pro 16 PC16255 supports the following operating systems:

For computers shipped with AMD Ryzen AI 300 Series processors:

- Windows 11 Home
- Windows 11 Professional

For computers shipped with AMD Ryzen 200 Series processors:

- Windows 11 Home
- Windows 11 Professional
- Windows 10 Home
- Windows 10 Professional

 **NOTE:** If you downgrade your computer from Windows 11 to Windows 10 22H2, Dell Technologies support will follow the Microsoft Windows 10 End of Support plan.

Memory

The following table lists the memory specifications that are supported by your Dell Pro 16 PC16255.

Table 8. Memory specifications

Description	Values
Memory slots	Two SODIMM slots
Memory type	DDR5
Memory speed	5600 MT/s
Maximum memory configuration	64 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> • 8 GB: 1 x 8 GB, DDR5, 5600 MT/s, single-channel • 16 GB: 2 x 8 GB, DDR5, 5600 MT/s, dual-channel • 16 GB: 1 x 16 GB, DDR5, 5600 MT/s, single-channel • 32 GB: 1 x 32 GB, DDR5, 5600 MT/s, single-channel • 32 GB: 2 x 16 GB, DDR5, 5600 MT/s, dual-channel • 64 GB: 2 x 32 GB, DDR5, 5600 MT/s, dual-channel

External ports and slots

The following table lists the external ports and slots of your Dell Pro 16 PC16255.

Table 9. External ports and slots

Description	Values
Network port	One RJ45 ethernet port (1 Gbps)
USB ports	<ul style="list-style-type: none"> • One USB 3.2 Gen 1 (5 Gbps) port • One USB 3.2 Gen 1 (5 Gbps) port with PowerShare • Two USB (40 Gbps) port with Power Delivery and DisplayPort <ul style="list-style-type: none"> ◦ For computers shipped with AMD Ryzen AI 300 Series processors: Supports DisplayPort 2.1 ◦ For computers shipped with AMD Ryzen 200 Series processors: Supports DisplayPort 1.4a

Table 9. External ports and slots (continued)

Description	Values
	 NOTE: You can connect a Dell Docking Station to this port. For more information, search in the Knowledge Base Resource at Dell Support Site .
Audio port	One global headset port
Video port(s)	One HDMI 2.1 Transition-minimized differential signaling (TMDS) port
Media-card reader	Not applicable
Power-adapter port	One 4.5 mm x 2.9 mm DC-in
Security-cable slot	One security-cable slot (wedge-shaped)

Internal slots

The following table lists the internal slots of your Dell Pro 16 PC16255.

Table 10. Internal slots

Description	Values
M.2	<ul style="list-style-type: none"> One M.2 2230 slot for solid state drive One M.2 2230 slot for WLAN card, Wi-Fi/Bluetooth  NOTE: To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at Dell Support Site .

Ethernet

The following table lists the wired ethernet Local Area Network (LAN) specifications of your Dell Pro 16 PC16255.

Table 11. Ethernet specifications

Description	Values
Model	Integrated Realtek RTL811H-CG
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module that is supported on your Dell Pro 16 PC16255.

Table 12. Wireless module specifications

Description	Values
Model number	MediaTek MT7922
Transfer rate	2400 Mbps

Table 12. Wireless module specifications (continued)

Description	Values
Frequency bands supported	2.4 GHz/5 GHz/6 GHz
Wireless standards	<ul style="list-style-type: none"> • WiFi 802.11a/b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (WiFi 802.11ac) • Wi-Fi 6E (WiFi 802.11ax)
Encryption	<ul style="list-style-type: none"> • 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth wireless card	Bluetooth 5.3

Audio

The following table lists the audio specifications of your Dell Pro 16 PC16255.

Table 13. Audio specifications

Description	Values
Audio controller	Realtek ALC3204
Stereo conversion	Supported
Internal audio interface	High definition audio
External audio interface	One global headset (headphone and microphone combo) port
Number of speakers	Two
Internal-speaker amplifier	Supported (audio codec integrated)
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 microphone

Storage

This section lists the storage options on your Dell Pro 16 PC16255.

Your Dell Pro 16 PC16255 supports the following storage configuration:

- One M.2 2230 solid state drive

Table 14. Storage specifications

Storage type	Interface type	Capacity
M.2 2230 solid state drive	PCIe Gen4 NVMe, up to 64 Gbps	256 GB/512 GB/1 TB/2 TB

Keyboard

The following table lists the keyboard specifications of your Dell Pro 16 PC16255.

Table 15. Keyboard specifications

Description	Values
Keyboard type	<ul style="list-style-type: none">Backlit keyboard with Copilot key and fingerprint readerBacklit keyboard with Copilot keyNon-backlit keyboard with Copilot key and fingerprint readerNon-backlit keyboard with Copilot key
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none">Arabic, Chinese (Traditional), English International, English US, Hebrew, Ukrainian: 99 keys with numeric keypadBelgian, Bulgarian, Czech and Slovakian (MUI), English UK, French (European), French (European), German, Hungarian, Greek, Hebrew, Italian, Nordic (MUI), Portuguese Iberian, Portuguese Brazil, Russian, Spanish (Castilian), Spanish (Latin America), Swiss European (MUI), Turkish: 100 keys with numeric keypadJapanese: 103 keys with numeric keypad
Keyboard size	Horizontal= 18.05 mm (Numeric keypad: 17.05 mm) Vertical= 18.05 mm
Keyboard shortcuts	<p>Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.</p> <p>i NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in the BIOS setup program.</p> <p>i NOTE: If Copilot in Windows is not available on your computer, pressing the Copilot key launches Windows search. For more information about Copilot in Windows, search in the Knowledge Base Resource at the Dell Support site.</p>

Keyboard shortcuts of Dell Pro 16 PC16255

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 16. 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 screen brightness
F7	Increase screen brightness
F8	Switch to external display
F10	Print screen
F11	Home
F12	End

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

Table 17. 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 (i) 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

Table 17. Secondary behavior (continued)

Function key	Secondary behavior
	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 16 PC16255.

Table 18. Camera specifications

Description	Values
Number of cameras	Two (i) NOTE: The second camera is optional and may not be included in all configurations.
Camera type	<ul style="list-style-type: none"> • HD RGB • FHD RGB • FHD RGB + IR
Camera location	Front camera
Camera sensor type	CMOS sensor technology
Camera resolution:	
Still image	<ul style="list-style-type: none"> • 0.92 megapixels (HD) • 2.07 megapixels (FHD)
Video	<ul style="list-style-type: none"> • 1280 x 720 (HD) at 30 fps • 1920 x 1080 (FHD) at 30 fps
Infrared camera resolution:	
Still image	0.23 megapixel
Video	640 x 360 at 15 fps
Diagonal viewing angle:	
Camera	<ul style="list-style-type: none"> • 75.0 degrees (HD) • 80.2 degrees (FHD)
Infrared camera	86.6 degrees

Touchpad

The following table lists the touchpad specifications of your Dell Pro 16 PC16255.

Table 19. Touchpad specifications

Description	Values
Touchpad resolution:	>300 DPI

Table 19. Touchpad specifications (continued)

Description	Values
Touchpad dimensions:	
Horizontal	115.00 mm (4.52 in.)
Vertical	80.00 mm (4.52 in.)
Touchpad gestures	For more information about the touchpad gestures available on Windows, see the Microsoft Knowledge Base article at Microsoft Support Site .

Power adapter

The following table lists the power adapter specifications of your Dell Pro 16 PC16255.

Table 20. Power-adapter specifications

Description	Option one	Option two	Option three
Type	65W AC adapter, 4.5 mm barrel, E4	65W AC adapter, USB Type-C, PECOS	60W AC adapter, USB Type-C, 2-pin (Japan)
Connector dimensions:			
External diameter	4.50 mm	Not applicable	Not applicable
Internal diameter	2.90 mm	N/A	N/A
Power-adapter dimensions:			
Height	29.5 mm	28 mm	22 mm
Width	46.0 mm	51 mm	55 mm
Depth	108.0 mm	112 mm	66 mm
Input voltage	100 VAC - 240 VAC	100 VAC - 240 VAC	100 VAC - 240 VAC
Input frequency	50 Hz - 60 Hz	50 Hz - 60 Hz	50 Hz - 60 Hz
Input current (maximum)	1.7 A	1.7 A	1.7 A
Output current (continuous)	3.34 A	<ul style="list-style-type: none"> • 20 V/3.25 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous) 	<ul style="list-style-type: none"> • 20 V/3 A (Continuous) • 15 V/3 A (Continuous) • 9 V/3 A (Continuous) • 5 V/3 A (Continuous)
Rated output voltage	19.5 VDC	<ul style="list-style-type: none"> • 20 VDC • 15 VDC • 9 VDC • 5 VDC 	<ul style="list-style-type: none"> • 20 VDC • 15 VDC • 9 VDC • 5 VDC
Temperature range:			
Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
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)

Table 20. Power-adapter specifications (continued)

Description	Option one	Option two	Option three
 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 (for computers that are shipped with a 3-cell, 45 Wh battery)

 **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 16 PC16255.

Table 21. Power adapter requirements

Description	Value
Power that is required from a power adapter to achieve optimal performance.	65 W
Power that charges the computer at a slower speed.  NOTE: A warning message may appear informing you about the use of a lower-powered adapter and slower charging speed.	Less than 60 W
Minimum power that is required from a power adapter to operate the computer and charge the battery.  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  NOTE: Ensure that the computer with a 45 Wh battery is connected to a 65 W power adapter for this feature to be supported.  NOTE: ExpressCharge mode must also be enabled in the BIOS Setup screen. Select Power > Battery Configuration > ExpressCharge , then press Enter .

Power adapter requirements (for computers that are shipped with a 3-cell, 55 Wh battery)

 **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 16 PC16255.

Table 22. Power adapter requirements

Description	Value
Power that is required from a power adapter to achieve optimal performance.	65 W
Power that charges the computer at a slower speed.	Less than 60 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 55 Wh battery is connected to a 90 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 16 PC16255.

Table 23. Battery specifications

Description	Option one	Option two	Option three	Option four	
Battery type	3-cell, 45 Wh, ExpressCharge 1.0, ExpressCharge Boost	3-cell, 45 Wh, ExpressCharge 1.0, ExpressCharge Boost, Long Life Cycle	3-cell, 55 Wh, ExpressCharge 1.0, ExpressCharge Boost Capable	3-cell, 55 Wh, ExpressCharge 1.0, ExpressCharge Boost, Long Life Cycle	
Battery voltage	11.25 VDC	11.25 VDC	11.70 VDC	11.70 VDC	
Battery weight (maximum)	0.20 kg (0.44 lb)	0.20 kg (0.44 lb)	0.21 kg (0.48 lb)	0.21 kg (0.48 lb)	
Battery dimensions:					
	Height	6.30 mm (0.25 in.)	6.30 mm (0.25 in.)	6.30 mm (0.25 in.)	
	Width	255.05 mm (10.04 in.)	255.05 mm (10.04 in.)	255.05 mm (10.04 in.)	
	Depth	73.00 mm (2.87 in.)	73.00 mm (2.87 in.)	73.00 mm (2.87 in.)	
Temperature range:					
	Operating	<ul style="list-style-type: none"> Charge: 0°C to 45°C (32°F to 113°F) Discharge: 0°C to 70°C (32°F to 158°F) 	<ul style="list-style-type: none"> Charge: 0°C to 45°C (32°F to 113°F) Discharge: 0°C to 70°C (32°F to 158°F) 	<ul style="list-style-type: none"> Charge: 0°C to 45°C (32°F to 113°F) Discharge: 0°C to 70°C (32°F to 158°F) 	<ul style="list-style-type: none"> Charge: 0°C to 45°C (32°F to 113°F) Discharge: 0°C to 70°C (32°F to 158°F)
	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)	

Table 23. Battery specifications (continued)

Description	Option one	Option two	Option three	Option four
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) ① NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on dell support .	<ul style="list-style-type: none"> • 0°C to 15°C—4 hours (when the computer is off) • 16°C to 45°C—2 hours (when the computer is off) • 46°C to 50°C—3 hours (when the computer is off) 	<ul style="list-style-type: none"> • 0°C to 15°C—4 hours (when the computer is off) • 16°C to 45°C—2 hours (when the computer is off) • 46°C to 50°C—3 hours (when the computer is off) 	<ul style="list-style-type: none"> • 0°C to 15°C—4 hours (when the computer is off) • 16°C to 45°C—2 hours (when the computer is off) • 46°C to 50°C—3 hours (when the computer is off) 	<ul style="list-style-type: none"> • 0°C to 15°C—4 hours (when the computer is off) • 16°C to 45°C—2 hours (when the computer is off) • 46°C to 50°C—3 hours (when the computer is off)
Coin-cell battery	Not supported	Not supported	Not supported	Not supported

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

⚠ CAUTION: Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.

Power requirements (for computers that are shipped with a 3-cell, 45 Wh battery)

① **NOTE:** The information in this section is applicable to the European Union (EU) countries.

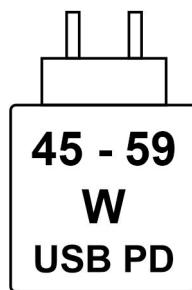


Figure 8. Pictogram for power charging requirements

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 59 Watts in order to achieve the maximum charging speed.

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

Power requirements (for computers that are shipped with a 3-cell, 55 Wh battery)

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

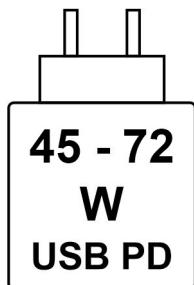


Figure 9. Pictogram for power charging requirements

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 72 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 16 PC16255.

Table 24. Display specifications

Description	Option one	Option two
Display type	16-inch, Full High Definition Plus (FHD+)	16-inch, Full High Definition Plus (FHD+)
Touch options	Non-Touch	Touch
Display-panel technology	In-Plane Switching (IPS)	In-Plane Switching (IPS)
Display-panel dimensions (active area):		
Height	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.)
Diagonal	406.46 mm (16.00 in.)	406.46 mm (16.00 in.)
Display-panel native resolution	1920 x 1200	1920 x 1200
Luminance (typical)	300 nits	300 nits
Megapixels	2.30	2.30
Color gamut	45% NTSC (typical)	45% NTSC (typical)
Pixels Per Inch (PPI)	141	141
Contrast ratio (minimum)	<ul style="list-style-type: none">● 800:1 (minimum)● 1000:1 (typical)	<ul style="list-style-type: none">● 800:1 (minimum)● 1000:1 (typical)
Response time (maximum)	35 milliseconds	35 milliseconds

Table 24. Display specifications (continued)

Description	Option one	Option two
Refresh rate	60 Hz	60 Hz
Horizontal view angle	<ul style="list-style-type: none"> • +/- 80 degrees (minimum) • +/- 85 degrees (typical) 	<ul style="list-style-type: none"> • +/- 80 degrees (minimum) • +/- 85 degrees (typical)
Vertical view angle	<ul style="list-style-type: none"> • +/- 80 degrees (minimum) • +/- 85 degrees (typical) 	<ul style="list-style-type: none"> • +/- 80 degrees (minimum) • +/- 85 degrees (typical)
Pixel pitch	0.1795 mm	0.1795 mm
Power consumption (maximum)	4.40 W	5.60 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare

Fingerprint reader (optional)

The following table lists the specifications of the optional fingerprint-reader of your Dell Pro 16 PC16255.

Table 25. Fingerprint reader specifications

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

Sensor

The following table lists the sensor of your Dell Pro 16 PC16255.

Table 26. Sensor

Sensor support
Hall Effect sensor

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Dell Pro 16 PC16255.

Table 27. GPU—Integrated

Controller	Memory size	Processor
AMD Radeon 740M Graphics	Shared system memory	<ul style="list-style-type: none"> • AMD Ryzen 3 210 • AMD Ryzen 3 PRO 210 • AMD Ryzen 5 220 • AMD Ryzen 5 PRO 215 • AMD Ryzen 5 PRO 220
AMD Radeon 760M Graphics	Shared system memory	<ul style="list-style-type: none"> • AMD Ryzen 5 PRO 230

Table 27. GPU—Integrated (continued)

Controller	Memory size	Processor
AMD Radeon 840M Graphics	Shared system memory	<ul style="list-style-type: none"> • AMD Ryzen AI 5 PRO 340
AMD Radeon 860M Graphics	Shared system memory	<ul style="list-style-type: none"> • AMD Ryzen AI 7 350 • AMD Ryzen AI 7 PRO 350

Multiple display support matrix

The following table lists the multiple display support matrix for your Dell Pro 16 PC16255.

Table 28. 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
AMD Radeon 740M Graphics	Integrated	3	4
AMD Radeon 760M Graphics	Integrated	3	4
AMD Radeon 840M Graphics	Integrated	3	4
AMD Radeon 860M Graphics	Integrated	3	4

Hardware security

The following table lists the hardware security of your Dell Pro 16 PC16255.

Table 29. Hardware security

Hardware security
One wedge-shaped lock slot
Trusted Platform Module (TPM) 2.0 discrete
Mechanical camera privacy shutter
FIPS (Federal Information Processing Standards) 140-2 certification for Trusted Platform Module (TPM)
Trusted Computing Group (TCG) Certification for TPM
Chassis Intrusion Detection
BIOS - TPM clear and/or system boot lock after chassis intrusion detection

Operating and storage environment

This table lists the operating and storage specifications of your Dell Pro 16 PC16255.

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

Table 30. Computer environment

Description	Operating	Storage
Temperature range	0°C to 40°C (32 °F to 104°F)	-40°C to 65°C (-40°F to 149°F)
Relative humidity (maximum)	90% (non-condensing)	95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	Not applicable

Table 30. Computer environment (continued)

Description	Operating	Storage
Shock (maximum)	140 G†	Not applicable
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.

Dell support policy

For information about Dell support policy, search in the Knowledge Base Resource at [Dell Support Site](#).

Dell Optimizer

Dell Optimizer is an application that is designed to enhance computer performance and productivity by optimizing settings for power, battery, display, and presence detection. It also provides access to applications purchased with your new computer.

For more information, see *Dell Optimizer User's Guide* at [Dell Support Site](#).

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.
- ⚠ 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. See the safety instructions that are shipped with the product or at [Dell Regulatory Compliance Home Page](#).
- ⚠ 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

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, proceed to 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. Press any key to continue.
- c. If the power adapter is not disconnected, a message prompting you to disconnect the power adapter appears on the screen. Disconnect the power adapter and then press any key to enter into the Service Mode. The Service Mode process automatically skips the following step if the **Owner Tag** of the computer is not set up in advance by the user.
- d. When the **ready-to-proceed** 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.
- Wear shoes with nonconductive rubber soles to reduce the chance of getting electrocuted.
- Press and hold the power button for 15 seconds to discharge the residual power in the system board.

Standby power

Dell products with standby power must be unplugged before you open the back cover. Systems that are equipped with standby power are powered while turned off. The internal power enables the computer to be remotely turned on (Wake-on-LAN) and suspended into a sleep mode and has other advanced power management features.

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. 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 deploying the ESD Field Service kit, assess the situation at the customer location. 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** – The wrist strap and bonding wire can be either directly connected between your wrist and bare metal on the hardware if the anti-static mat is not required, or connect to the anti-static mat to protect hardware that is temporarily 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 kit, it is a best practice to regularly test the strap before each service, and at a minimum, test once per week. A wrist strap tester is the best method for doing this test. To perform the test, plug the bonding-wire of the wrist-strap into the tester while it is strapped to your wrist and push the button to test. A green LED is lit if the test is successful; a red LED is lit and an alarm sounds if the test fails.

 **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

 **CAUTION:** If BitLocker is not suspended before updating the BIOS, the BitLocker key is not recognized the next time that you reboot the computer. You will be 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
- Phillips screwdriver #1
- Flat-head slotted screwdriver (less than 4mm)
- 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 31. Screw list

Component	Screw type	Quantity	Screw torque strength	Screw image
Base cover	M2.5x6 (Captive)	9	2.55 kgf-cm to 3.45 kgf-cm	
Battery	M2x3 (Captive)	4	1.36 Kgf-cm to 1.84 Kgf-cm	
	M2x4	1	1.98 Kgf-cm to 2.42 Kgf-cm	
Solid state drive	M2x3	1	1.36 Kgf-cm to 1.84 Kgf-cm	
Wireless card	M2x3	1	1.36 Kgf-cm to 1.84 Kgf-cm	
Fan	M2x3	2	1.36 Kgf-cm to 1.84 Kgf-cm	
Power-adapter port	M2.5x5	3	2.55 kgf-cm to 3.45 kgf-cm	
Heat sink	M2x5.4 (Captive)	4	1.36 Kgf-cm to 1.84 Kgf-cm	
I/O board	M2.5x5	3	2.55 kgf-cm to 3.45 kgf-cm	
	M2x3	3	1.36 Kgf-cm to 1.84 Kgf-cm	
System board	M2.5x5	3	2.55 kgf-cm to 3.45 kgf-cm	
	M2x3	3	1.36 Kgf-cm to 1.84 Kgf-cm	

Table 31. Screw list (continued)

Component	Screw type	Quantity	Screw torque strength	Screw image
	M2x5	2	1.36 Kgf-cm to 1.84 Kgf-cm	
USB Type-C module	M2x5	3	1.36 Kgf-cm to 1.84 Kgf-cm	
Keyboard	M2x2.2	22	1.36 Kgf-cm to 1.84 Kgf-cm	
Keyboard support plate	M2x2.2		1.36 Kgf-cm to 1.84 Kgf-cm	
Display assembly	M2.5x5	6	2.55 kgf-cm to 3.45 kgf-cm	
Display panel assembly	M2.5x2.5	6	2.55 kgf-cm to 3.45 kgf-cm	
	M2.5x3.5	4	2.55 kgf-cm to 3.45 kgf-cm	

Major components of Dell Pro 16 PC16255

The following image shows the major components of Dell Pro 16 PC16255.

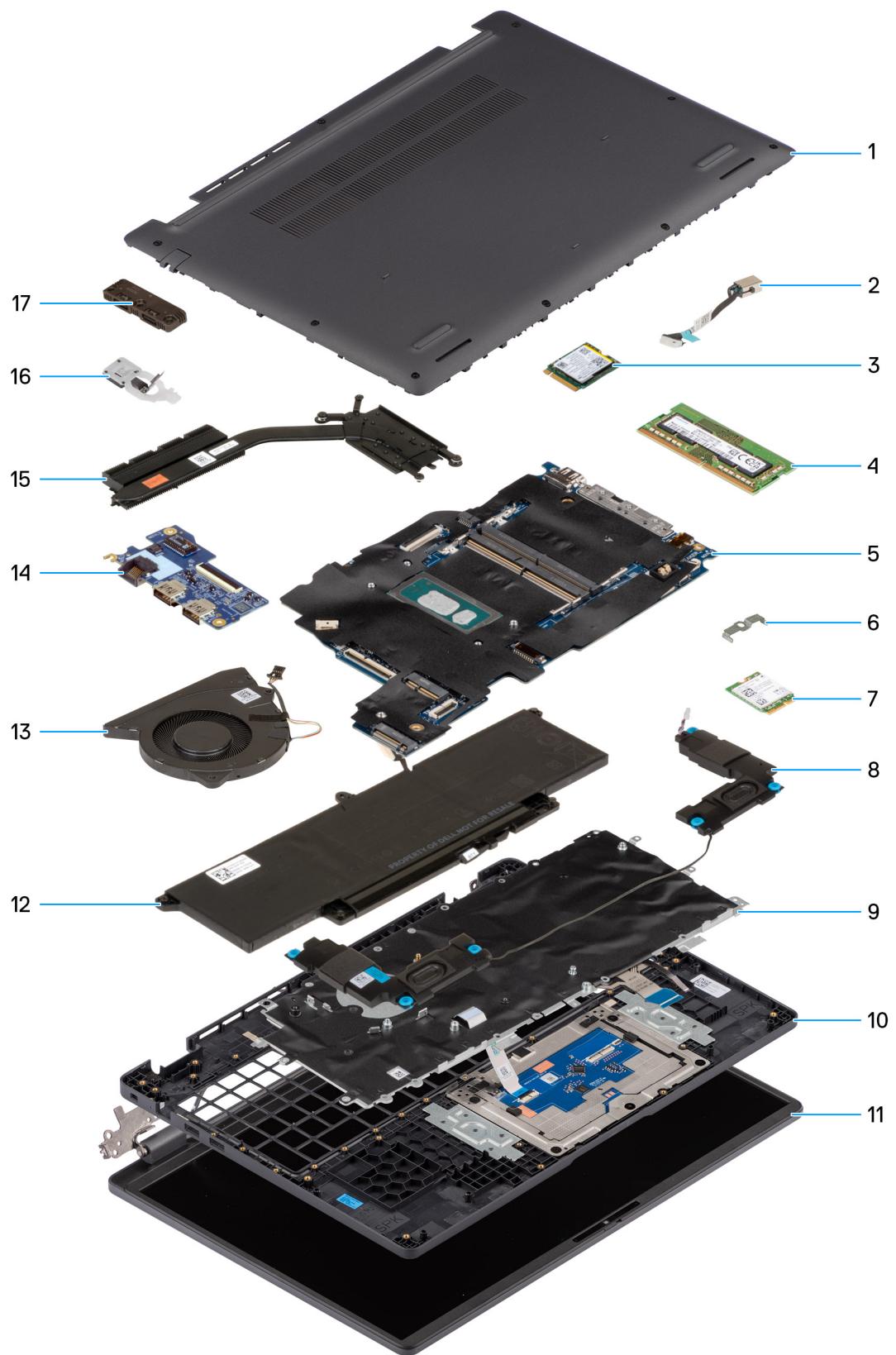


Figure 10. Major Components of your system/Exploded View

1. Base cover
2. Power-adapter port

3. Solid state drive
4. Memory module
5. System board
6. Wireless-card bracket
7. Wireless card
8. Speakers
9. Keyboard
10. Palmrest assembly
11. Display assembly
12. Battery
13. Fan
14. I/O board
15. Heat sink
16. Power button with fingerprint reader (optional)
17. USB Type-C module

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