


Latitude 5450

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.

Chapter 1: Set up your Latitude 5450	7
Chapter 2: Views of Latitude 5450	9
Right	9
Left	9
Top	11
Front	12
Bottom	13
Locate the Service Tag or Express Service Code label of your computer	13
Battery charge and status light	14
Chapter 3: Specifications of Latitude 5450	15
Dimensions and weight	15
Processor	15
Chipset	18
Operating system	19
Memory	19
External ports and slots	20
Internal slots	20
Ethernet	21
Wireless module	21
WWAN module	21
Audio	23
Storage	23
Keyboard	23
Keyboard function keys	24
Camera	25
Touchpad	26
Power adapter	27
Power adapter requirements (for computers that are shipped with 3-cell, 42 Wh battery)	27
Power adapter requirements (for computers that are shipped with 3-cell, 54 Wh battery and integrated graphics)	28
Power adapter requirements (for computers that are shipped with 3-cell, 54 Wh battery and discrete graphics)	29
Battery	29
Display	31
Fingerprint reader (optional)	32
Sensor	32
GPU—Integrated	33
GPU—Discrete	33
External display support	33
Hardware security	34
Smart-card reader	34
Contactless smart-card reader	34
Contacted smart-card reader	38

Operating and storage environment.....	38
Dell support policy.....	39
ComfortView Plus.....	39
Using the privacy shutter.....	39
Dell Optimizer.....	40
Chapter 4: Working inside your computer.....	41
Safety instructions.....	41
Before working inside your computer.....	41
Safety precautions.....	42
Electrostatic discharge—ESD protection.....	42
ESD Field Service kit	43
Transporting sensitive components.....	44
After working inside your computer.....	44
BitLocker.....	44
Recommended tools.....	44
Screw list.....	45
Major components of Latitude 5450.....	46
Chapter 5: Removing and installing Customer Replaceable Units (CRUs).....	49
SIM card tray.....	49
Removing the SIM card tray.....	49
Installing the SIM card tray.....	50
Base cover.....	51
Removing the base cover.....	51
Installing the base cover.....	53
Memory module.....	54
Removing the memory module.....	54
Installing the memory module.....	55
Solid-state drive.....	56
Removing the M.2 2230 solid-state drive.....	56
Installing the M.2 2230 solid-state drive.....	56
Wireless card.....	57
Removing the wireless card.....	57
Installing the wireless card.....	58
Wireless Wide Area Network (WWAN) card.....	60
Removing the WWAN card.....	60
Installing the WWAN card.....	62
Fan.....	65
Removing the fan.....	65
Installing the fan.....	66
Chapter 6: Removing and installing Field Replaceable Units (FRUs).....	68
Battery.....	68
Rechargeable Li-ion battery precautions.....	68
Removing the battery.....	68
Installing the battery.....	70
Coin-cell battery.....	71
Removing the coin-cell battery.....	71

Installing the coin-cell battery.....	72
Heat sink.....	73
Removing the heat sink - for computers shipped with integrated graphics card.....	73
Installing the heat sink - for computers shipped with integrated graphics card.....	76
Removing the heat sink - for computers shipped with discrete graphics card.....	79
Installing the heat sink - for computers shipped with discrete graphics card.....	80
Speakers.....	81
Removing the speakers.....	81
Installing the speakers.....	82
Assembly-inner frame.....	84
Removing the assembly inner frame.....	84
Installing the assembly inner frame.....	85
Display assembly.....	86
Removing the display assembly - for computers shipped with integrated graphics card.....	86
Installing the display assembly - for computers shipped with integrated graphics card.....	89
Removing the display assembly - for computers shipped with discrete graphics card	93
Installing the display assembly - for computers shipped with discrete graphics card.....	95
Display bezel.....	97
Removing the display bezel.....	97
Installing the display bezel.....	98
Display panel.....	99
Removing the display panel.....	99
Installing the display panel.....	101
Camera module.....	103
Removing the camera module.....	103
Installing the camera module.....	104
Display hinges.....	105
Removing the display hinges.....	105
Installing the display hinges.....	105
Display cable.....	106
Removing the display cable.....	106
Installing the display cable.....	108
Display back cover.....	110
Removing the display back cover.....	110
Installing the display back cover.....	111
System board.....	112
Removing the system board.....	112
Installing the system board.....	115
Smart card reader.....	119
Removing the smart card reader.....	119
Installing the smart card reader.....	120
Power-button board.....	121
Removing the power-button board.....	121
Installing the power-button board.....	122
Keyboard.....	124
Removing the keyboard.....	124
Installing the keyboard.....	126
Palm-rest assembly.....	128
Removing the palm-rest assembly.....	128
Installing the palm-rest assembly.....	130

Dummy SIM-card slot filler.....	131
Removing the dummy SIM-card slot filler.....	131
Installing the dummy SIM-card slot filler.....	132
Chapter 7: Software.....	134
Operating system.....	134
Drivers and downloads.....	134
Chapter 8: BIOS Setup.....	135
Entering BIOS Setup program.....	135
Navigation keys.....	135
F12 One Time Boot menu.....	135
View Advanced Setup options.....	136
View Service options.....	136
System Setup options.....	136
Updating the BIOS.....	157
Updating the BIOS in Windows.....	157
Updating the BIOS in Linux and Ubuntu.....	158
Updating the BIOS using the USB drive in Windows.....	158
Updating the BIOS from the F12 One-Time boot menu.....	158
System and setup password.....	159
Assigning a System Setup password.....	159
Deleting or changing an existing system password or setup password.....	159
Clearing CMOS settings.....	160
Clearing system and setup passwords.....	160
Clearing Chassis Intrusion Alert.....	160
Chapter 9: Troubleshooting.....	163
Handling swollen rechargeable Li-ion batteries.....	163
LCD Power rail test (L-BIST).....	163
Dell SupportAssist Pre-boot System Performance Check diagnostics.....	164
Running the SupportAssist Pre-Boot System Performance Check.....	164
Built-in self-test (BIST).....	164
M-BIST.....	164
Logical Built-in Self-test (L-BIST).....	165
LCD Built-in Self-Test (LCD-BIST).....	165
System-diagnostic lights.....	166
Recovering the operating system.....	167
Real-Time Clock (RTC Reset).....	167
Backup media and recovery options.....	167
Network power cycle.....	167
Drain residual flea power (perform hard reset).....	167
Chapter 10: Getting help and contacting Dell.....	169

Set up your Latitude 5450

About this task

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 1. Connect power adapter and press the power button

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

2. Finish 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, Dell Technologies recommends that you:






- Connect to a network for Windows updates.

NOTE: If connecting to a secured wireless network, enter the password for the wireless network access when prompted.

- If connected to the Internet, sign-in with or create a Microsoft account.

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

Table 1. 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 is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you must make computer updates. 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 <i>SupportAssist for Business PCs manuals</i> at Dell support site.</p> <p>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 Digital Delivery Download software applications, which are purchased but not preinstalled on your computer. For more information about using Dell Digital Delivery, search in the Knowledge Base Resource at Dell support site.</p>

Views of Latitude 5450

Right



Figure 2. Right view

1. Universal audio jack

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

2. USB 3.2 Gen 1 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.

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.

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. HDMI 2.1 TMDS port

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

4. Security-cable slot (wedge-shaped)

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

Left

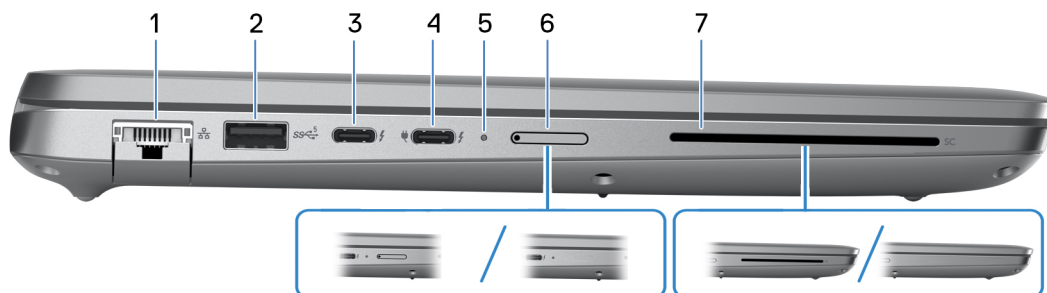


Figure 3. Left view

1. Network port

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

2. USB 3.2 Gen 1 port

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

3. Thunderbolt 4.0 with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery

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.

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](#).

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

NOTE: The Thunderbolt 4.0 port supports Power Delivery that enables two-way power supply between devices.

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

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

4. Thunderbolt 4.0 with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery

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.

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](#).

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

NOTE: The Thunderbolt 4.0 port supports Power Delivery that enables two-way power supply between devices.

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

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

5. 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—Battery charge is low or critical.

Off—Battery is fully charged.

NOTE: On certain computer models, the power and battery-status light are also used for diagnostics. For more information, see the [Troubleshooting](#) section.

6. nano-SIM slot (optional)

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

7. Smart-card reader slot (optional)

Using smart card provides authentication in corporate networks.

Top



Figure 4. Top view

1. Touchpad

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

2. NFC or Contactless smart card reader (optional)

Provides contactless access of cards in corporate networks.

3. Power button with optional fingerprint reader

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

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

Front



Figure 5. Front view

1. Left microphone

Provides digital sound input for audio recording and voice calls.

2. Infrared emitter (optional)

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

3. Infrared camera (optional)

Enhances security when paired with Windows Hello face authentication.

4. Camera shutter

Slide the privacy shutter to the left to access the camera lens.

5. Camera

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

6. Camera-status light

Turns on when the camera is in use.

7. Ambient-light sensor (optional)

The sensor detects the ambient light and automatically adjusts the display brightness.

8. Right microphone

Provides digital sound input for audio recording and voice calls.

Bottom

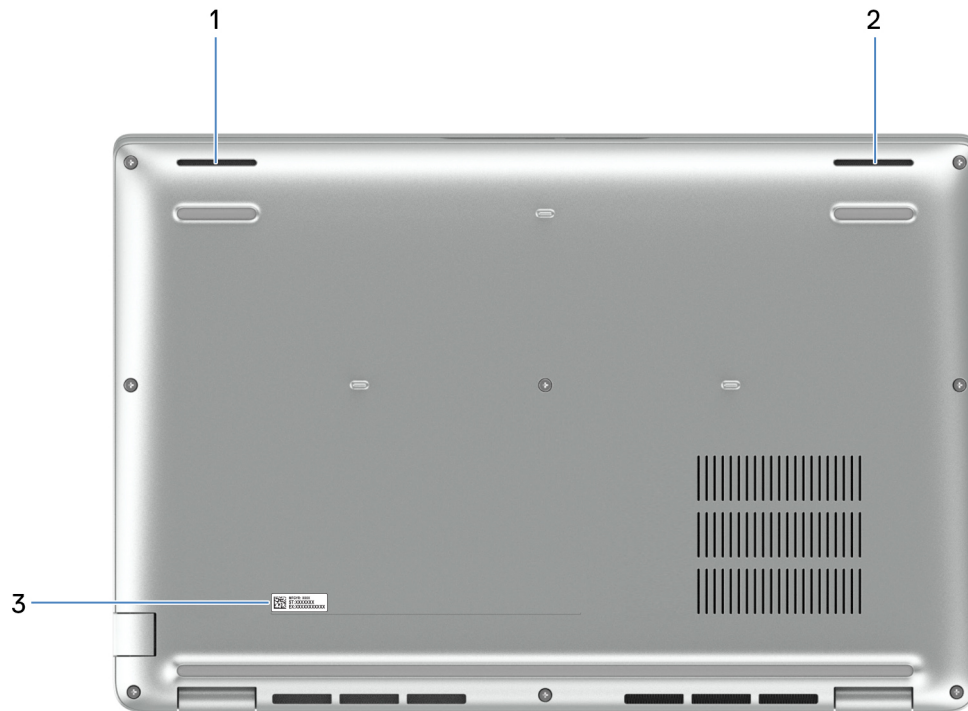


Figure 6. Bottom view

1. Left speaker

Provides audio output.

2. Right speaker

Provides audio output.

3. Service Tag 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.

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](#).

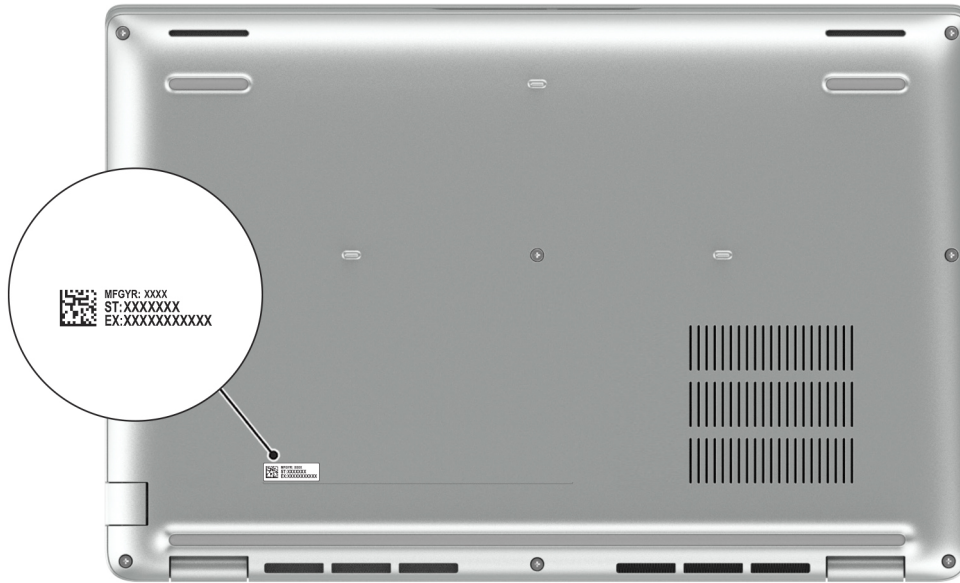


Figure 7. Service Tag location

Battery charge and status light

The following table lists the battery charge and status light behavior of your Latitude 5450.

Table 2. Battery charge and status light behavior

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


- S0 (ON) - Computer is turned on.
- S4 (Hibernate) - The system consumes the least power compared to all other sleep states. The system is almost at an OFF state, except for a trickle power. The context data is written to a hard drive.
- S5 (OFF) - The system is in a shutdown state.

Specifications of Latitude 5450

Dimensions and weight

The following table lists the height, width, depth, and weight of your Latitude 5450.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	19.06 mm (0.75 in.)
Rear height	21.04 mm (0.83 in.)
Width	321.35 mm (12.65 in.)
Depth	212.00 mm (8.35 in.)
Weight  NOTE: The weight of your computer depends on the configuration that is offered.	1.40 kg (3.09 lb) - minimum

Processor

The following table lists the details of the processors that are supported for your Latitude 5450.


Table 4. Processor

Description	Option one	Option two	Option three	Option four
Processor type	13th Gen Intel Core i3-1315U	13th Gen Intel Core i5-1335U	13th Gen Intel Core i5-1345U vPro	13th Gen Intel Core i7-1355U
Processor wattage	15 W	15 W	15 W	15 W
Processor total core count	6	10	10	10
Performance-cores	2	2	2	2
Efficient-cores	4	8	8	8
Processor total thread counts <i>i</i> NOTE: Intel Hyper-Threading Technology is only available on Performance-cores.	8	12	12	12
Processor speed	Up to 4.50 GHz	Up to 4.60 GHz	Up to 4.70 GHz	Up to 5 GHz
Performance-cores frequency				
Processor base frequency	1.20 GHz	1.30 GHz	1.60 GHz	1.70 GHz
Maximum turbo frequency	4.50 GHz	4.60 GHz	4.70 GHz	5 GHz
Efficient-cores frequency				
Processor base frequency	0.90 GHz	0.90 GHz	1.20 GHz	1.20 GHz
Maximum turbo frequency	3.30 GHz	3.40 GHz	3.50 GHz	3.70 GHz
Processor cache	10 MB	12 MB	12 MB	12 MB
Integrated graphics	Intel UHD Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics

Table 5. Processor

Description	Option five	Option six	Option seven	Option eight
Processor type	13th Gen Intel Core i7-1365U vPro	Intel Core Ultra 5 125U	Intel Core Ultra 5 135U vPro	Intel Core Ultra 5 125H
Processor wattage	15 W	15 W	15 W	28 W
Processor total core count	10	12	12	14
Performance-cores	2	2	2	4
Efficient-cores	8	<ul style="list-style-type: none"> • E-cores: 8 • LPE-cores: 2 	<ul style="list-style-type: none"> • E-cores: 8 • LPE-cores: 2 	<ul style="list-style-type: none"> • E-cores: 8 • LPE-cores: 2
Processor total thread counts <i>i</i> NOTE: Intel Hyper-Threading Technology is only available on Performance-cores.	12	14	14	18
Processor speed	Up to 5.20 GHz	Up to 4.30 GHz	Up to 4.40 GHz	Up to 4.50 GHz
Performance-cores frequency				
Processor base frequency	1.80 GHz	1.30 GHz	1.60 GHz	1.20 GHz
Maximum turbo frequency	5.20 GHz	4.30 GHz	4.40 GHz	4.50 GHz
Efficient-cores frequency				
Processor base frequency	1.30 GHz	0.80 GHz	1.10 GHz	0.70 GHz
Maximum turbo frequency	3.90 GHz	3.60 GHz	3.60 GHz	3.60 GHz
Processor cache	12 MB	12 MB	12 MB	18 MB
Integrated graphics	Intel Iris Xe Graphics	Intel Graphics	Intel Graphics	Intel Arc Graphics

Table 6. Processor

Description	Option nine	Option ten	Option eleven	Option twelve
Processor type	Intel Core Ultra 5 135H vPro	Intel Core Ultra 7 155U	Intel Core Ultra 7 165U vPro	Intel Core Ultra 7 165H vPro
Processor wattage	28 W	15 W	15 W	28 W
Processor total core count	14	12	12	16
Performance-cores	4	2	2	6
Efficient-cores	<ul style="list-style-type: none"> E-cores: 8 LPE-cores: 2 	<ul style="list-style-type: none"> E-cores: 8 LPE-cores: 2 	<ul style="list-style-type: none"> E-cores: 8 LPE-cores: 2 	<ul style="list-style-type: none"> E-cores: 8 LPE-cores: 2
Processor total thread counts	18	14	14	22
 NOTE: Intel Hyper-Threading Technology is only available on Performance-cores.				
Processor speed	Up to 4.60 GHz	Up to 4.80 GHz	Up to 4.90 GHz	Up to 5.00 GHz
Performance-cores frequency				
Processor base frequency	1.70 GHz	1.70 GHz	1.70 GHz	1.40 GHz
Maximum turbo frequency	4.60 GHz	4.80 GHz	4.90 GHz	5.00 GHz
Efficient-cores frequency				
Processor base frequency	1.20 GHz	1.20 GHz	1.20 GHz	0.90 GHz
Maximum turbo frequency	3.60 GHz	3.80 GHz	3.80 GHz	3.80 GHz
Processor cache	18 MB	12 MB	12 MB	24 MB
Integrated graphics	Intel Arc Graphics	Intel Graphics	Intel Graphics	Intel Arc Graphics

Chipset

The following table lists the details of the chipset that is supported in your Latitude 5450.

Table 7. Chipset

Description	Values
Chipset	Integrated in the processor
Processor	<ul style="list-style-type: none"> 13th Gen Intel Core i3/i5/i7 Intel Core Ultra 5/7
DRAM bus width	64-bit

Table 7. Chipset (continued)

Description	Values
Flash EPROM	<ul style="list-style-type: none"> • 32 MB for 13th Gen Intel Core i3 processor • 32 MB + 16 MB for 13th Gen Intel Core i5/i7 processors • 64 MB for Intel Core Ultra 5/7 processors
PCIe bus	Up to Gen4

Operating system

Your Latitude 5450 supports the following operating systems:

- Windows 11 Home
- Windows 11 Pro
- Ubuntu Linux 22.04 LTS

Memory

The following table lists the memory specifications that are supported by your Latitude 5450.

Table 8. Memory specifications

Description	Values
Memory slots	Two-SODIMM slots
Memory type	DDR5
Memory speed	<ul style="list-style-type: none"> • For computers shipped with 13th Gen Intel Core i3/i5/i7 processors: 5200 MT/s • For computers shipped with Intel Core Ultra 5/7 processors: 5600 MT/s
Maximum memory configuration	64 GB
Minimum memory configuration	8 GB
Memory size per slot	8 GB, 16 GB, or 32 GB
Memory configurations supported	<p>For computers shipped with 13th Gen Intel Core i3/i5/i7 processors:</p> <ul style="list-style-type: none"> • 8 GB, 1 x 8 GB, DDR5, 5200 MT/s, single-channel • 16 GB, 1 x 16 GB, DDR5, 5200 MT/s, single-channel • 16 GB, 2 x 8 GB, DDR5, 5200 MT/s, dual-channel • 32 GB, 2 x 16 GB, DDR5, 5200 MT/s, dual-channel • 32 GB, 1 x 32 GB, DDR5, 5200 MT/s, single-channel • 64 GB, 2 x 32 GB, DDR5, 5200 MT/s, dual-channel <p>For computers shipped with Intel Core Ultra 5/7 processors:</p> <ul style="list-style-type: none"> • 8 GB, 1 x 8 GB, DDR5, 5600 MT/s, single-channel • 16 GB, 1 x 16 GB, DDR5, 5600 MT/s, single-channel • 16 GB, 2 x 8 GB, DDR5, 5600 MT/s, dual-channel • 32 GB, 2 x 16 GB, DDR5, 5600 MT/s, dual-channel • 32 GB, 1 x 32 GB, DDR5, 5600 MT/s, single-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 Latitude 5450.

Table 9. External ports and slots

Description	Values
Network port	One RJ45 Ethernet port
USB ports	<ul style="list-style-type: none"> • One USB 3.2 Gen 1 port • One USB 3.2 Gen 1 port with PowerShare • Two Thunderbolt 4.0 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery <p>NOTE: Thunderbolt 4.0 ports with DisplayPort Alt Mode/USB Type-C/USB4/Power Delivery support Power Delivery that enables two-way power supply between devices.</p> <p>NOTE: You can connect a power adapter or the Dell Docking Station to this port for charging your computer. For more information, search in the Knowledge Base Resource at Dell support site.</p>
Audio port	One universal audio port
Video port(s)	One HDMI 2.1 TMDS port
Media-card reader	Not supported
Power-adapter port	Supported through the Thunderbolt 4 ports available on your computer.
Security-cable slot	Security-cable slot (wedge-shaped)
SIM-card slot	nano-SIM card slot (optional)

Internal slots

The following table lists the internal slots of your Latitude 5450.

Table 10. Internal slots

Description	Values
M.2	<ul style="list-style-type: none"> • One M.2 2230 slot for WiFi and Bluetooth combo card • One M.2 2230 slot for solid state drive • One M.2 3042 slot for WWAN card (optional) <p>NOTE: To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at Dell Support Site.</p>

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Latitude 5450.

Table 11. Ethernet specifications

Description	Values
Model	<ul style="list-style-type: none"> Intel Jacksonville I219-LM 10/100/Gb (1000BASE-T) for vPRO configurations Intel Jacksonville I219-V 10/100/Gb (1000BASE-T) 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 Latitude 5450.

Table 12. Wireless module specifications




Description	Option one	Option two
Model number	Realtek RTL8852BE	Intel AX211
Transfer rate	Up to 1201 Mbps	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz	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 6 (WiFi 802.11ax) 	<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) <p>NOTE: Wi-Fi 6 is supported in regions where Wi-Fi 6E is unavailable.</p>
Encryption	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP
Bluetooth wireless card	Bluetooth 5.3	Bluetooth 5.3
	<p>NOTE: The functionality of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer.</p>	

WWAN module

The following table lists the Wireless Wide Area Network (WWAN) modules that are supported in your Latitude 5450.

- NOTE:** The WWAN module is available only on certain configurations and in certain regions.
- NOTE:** Availability of the eSIM feature on this module depends on your region and your mobile carrier's requirements.
- 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 13. WWAN module specifications

Description	Option one	Option two
Model number	Qualcomm Snapdragon SDX12 Advanced (DW5825e), CAT 12	Qualcomm Snapdragon X62 Global 5G Modem (DW5932e)
Form factor	M.2 3042 Key-B	M.2 3042 Key-B
Host interface	USB 3.0/2.0	PCIe Gen3
Network standard	LTE FDD/TDD, WCDMA/HSPA+, GNSS/Beidou, GPS/GLONASS/Galileo	NR FR1 (Sub6) FDD/TDD, LTE FDD/TDD, WCDMA/HSPA+, GPS/GLONASS/Galileo/Beidou
Transfer data rate	<ul style="list-style-type: none"> Up to 600 Mbps DL (CAT12) Up to 150 Mbps UL 	<ul style="list-style-type: none"> 5G NR: DL 3.5 Gbps/UL 900 Mbps LTE: DL 1.6 Gbps (CAT19)/UL 211 Mbps (CAT18) UMTS: DL DC-HSPA+ Rel8:42 Mbps/UL 5.76 Mbps
Operating frequency bands	<ul style="list-style-type: none"> LTE (B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B42, B43, B48, B66, B71) HSPA+ (1, 2, 4, 5, 6, 8, 19) 	<ul style="list-style-type: none"> NR (n1, n2, n3, n5, n7, n8, n12, n13, n14, 18, n20, n25, n26, n28, n30, n38, n40, n41, n48, n53, n66, n70, n71, n75, n76, 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) <p>*Modem hardware supports but currently disabled.</p>
Power supply	DC 3.135 V to 4.400 V, Typical 3.300 V	DC 3.135 V to 3.630 V, Typical 3.300 V
SIM card	Supported through external SIM slot	Supported through external SIM slot
eSIM with dual SIM (DSSA)	Supported  NOTE: The availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements.	Supported  NOTE: The availability of eSIM functionality embedded on the module is dependent on the region and specific carrier requirements.
Antenna diversity	Supported	Supported
Radio On/Off	Supported	Supported
Wake on wireless	Supported	Supported
Temperature	<ul style="list-style-type: none"> Normal operating temperature: -10°C to +55°C (15°F to +131°F) Extended Operating temperature: -30°C to +75°C (-22°F to +167°F) 	<ul style="list-style-type: none"> Normal operating temperature: -10°C to +55°C (15°F to +131°F) Extended Operating temperature: -40°C to +85°C (-40°F to +185°F)
Antenna connector	<ul style="list-style-type: none"> WWAN Main Antenna x 1 WWAN Diversity Antenna x 1 	<ul style="list-style-type: none"> WWAN Main Antenna x 1 WWAN Diversity Antenna x 1 4x4 MIMO Antenna x 2
 NOTE: For instructions on how to find your computer's International Mobile Equipment Identity (IMEI) number, search in the Knowledge Base Resource at the Dell Support Site .		

Audio

The following table lists the audio specifications of your Latitude 5450.

Table 14. Audio specifications

Description		Values
Audio controller		Waves MaxxAudio Pro 13.0
Stereo conversion		Supported
Internal audio interface		High definition audio interface
External audio interface		Universal Audio Jack/HDMI 2.1 TMDS port
Number of speakers		2
Internal-speaker amplifier		Not supported
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average	2 W
	Peak	2 W
Microphone		Digital-array microphones in camera assembly

Storage

This section lists the storage options on your Latitude 5450.

Your Latitude 5450 supports one M.2 2230 solid state drive.

Table 15. Storage specifications

Storage type	Interface type	Capacity
M.2 2230 solid state drive	PCIe Gen4 NVMe, up to 64 Gbps	Up to 2 TB
M.2 2230 Self-Encrypting solid state drive	PCIe Gen4 NVMe, up to 64 Gbps	512 GB

Keyboard

The following table lists the keyboard specifications of your Latitude 5450.

Table 16. Keyboard specifications




Description	Values
Keyboard type	<ul style="list-style-type: none"> Standard backlit AI hotkey keyboard Standard non-backlit AI hotkey keyboard <p> NOTE: Copilot in Windows is available only in approved markets.</p>
Keyboard layout	QWERTY

Table 16. Keyboard specifications (continued)

Description	Values
Number of keys	<ul style="list-style-type: none"> English US, English International, Arabic, Canada bilingual (MUI), Chinese traditional, French-Canadian, Greek, Hebrew, Korean, Russian, Thai, Ukrainian: 79 keys French-Canadian Quebec, Portuguese Brazilian, Belgian, Bulgarian, Czech & Slovakian (MUI), Danish, English UK, Estonian, French European, German, Hungarian, Icelandic, Italian, Nordic (MUI), Norwegian, Portugese Iberian, Slovenian, Spanish (Castillian), Spanish (Latin America), Swedish/Finnish, Swiss European (MUI), Turkish, Turkish (F): 80 keys Japanese: 83 keys
Keyboard size	X=19.05 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> NOTE: You can define the primary behavior of function keys in the Function Key Behavior menu of the BIOS setup program.</p> <p> 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 function keys

The **F1-F12** keys at the top of the keyboard are function keys. By default, these keys are used to perform specific functions defined by the software application in use.

Table 17. List of keyboard shortcuts


Key	Primary behavior
F1	Mute audio
F2	Decrease volume
F3	Increase volume
F4	Mute microphone
F5	Keyboard backlight  NOTE: Toggle to cycle the keyboard backlight status through off, low-backlight, and high-backlight.
F6	Decrease brightness
F7	Increase brightness
F8	Switch to external display
F10	Print Screen
F11	Home

Table 17. List of keyboard shortcuts (continued)

Key	Primary behavior
F12	End
Copilot	Launch Copilot in Windows NOTE: If Copilot in Windows is not available on your computer, the CoPilot key launches Windows Search. For more information about Copilot in Windows, search in the Knowledge Base Resource at Dell Support Site .

You can run the secondary tasks that are indicated by the symbols on the function keys by pressing the function key with **fn**, for example, **fn** and **F1**. See the table below for the list of secondary tasks and the key combinations to run them.

i **NOTE:** Keyboard characters may differ depending on the keyboard language configuration. Keys that are used for tasks remain the same, regardless of the keyboard language.

i **NOTE:** You can define the primary behavior of function keys in the **Function Key Behavior** menu of the BIOS setup program.

Table 18. Secondary tasks of keyboard keys

Key combination for task	What the task does
fn and F1	Operating system and application-specific F1 behavior
fn and F2	Operating system and application-specific F2 behavior
fn and F3	Operating system and application-specific F3 behavior
fn and F4	Operating system and application-specific F4 behavior
fn and F5	Operating system and application-specific F5 behavior
fn and F6	Operating system and application-specific F6 behavior
fn and F7	Operating system and application-specific F7 behavior
fn and F8	Operating system and application-specific F8 behavior
fn and F9	Operating system and application-specific F9 behavior
fn and F10	Operating system and application-specific F10 behavior
fn and F11	Operating system and application-specific F11 behavior
fn and F12	Operating system and application-specific F12 behavior

Keys with alternate characters

There are other keys on your keyboard with alternate characters. The symbols that are shown at the bottom of these keys are the main characters that are displayed when the key is pressed; the symbols that are shown at the top of these keys are displayed when the key is pressed with the shift key. For example, if you press **2**, **2** is displayed; if you press **Shift** and **2**, **@** is displayed.

Camera

The following table lists the camera specifications of your Latitude 5450.

Table 19. Camera specifications

Description	Values
Number of cameras	One

Table 19. Camera specifications (continued)

Description		Values
Camera type		<ul style="list-style-type: none"> FHD RGB HDR camera FHD RGB+IR HDR camera FHD RGB+IR HDR camera with Ambient Light Sensor, Express Sign-In with Presence Detection and Intelligent Privacy
Camera location		Front camera
Camera sensor type		CMOS sensor technology
Camera resolution:		
	Still image	2.07 megapixel
	Video	1920 x 1080 (FHD) at 30 fps
Infrared camera resolution:		
	Still image	0.23 megapixels
	Video	640 x 360 at 30 fps
Diagonal viewing angle:		
	Camera	80 degrees
	Infrared camera	86.60 degrees

Touchpad

The following table lists the touchpad specifications of your Latitude 5450.


Table 20. Touchpad specifications

Description		Values
Touchpad resolution:		> 300 DPI
Touchpad dimensions:		
	Horizontal	115 mm (4.52 in.)
	Vertical	67 mm (2.64 in.)
Touchpad gestures		<p>For more information about the touchpad gestures that are available on:</p> <ul style="list-style-type: none"> Windows, see the Microsoft Knowledge Base article at Microsoft Support Site. Ubuntu, see Ubuntu Support Site.

Power adapter

The following table lists the power adapter specifications of your Latitude 5450.

Table 21. Power adapter specifications

Description	Option one	Option two	Option three	Option four
Type	60 W Ultralight Mini adapter, USB-C	60 W Ultralight Mini adapter, USB-C, 2-pin	65 W adapter, USB-C	100 W adapter, USB-C
Power-adapter dimensions:				
Height	22.00 mm (0.86 in.)	22.00 mm (0.86 in.)	28.00 mm (1.10 in.)	26.50 mm (1.04 in.)
Width	55.00 mm (2.16 in.)	55.00 mm (2.16 in.)	51.00 mm (2.01 in.)	60.00 mm (2.36 in.)
Depth	66.00 mm (2.59 in.)	66.00 mm (2.59 in.)	112.00 mm (4.41 in.)	122.00 mm (4.80 in.)
Input voltage	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC–240 VAC	100 VAC–240 VAC
Input frequency	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)	1.70 A	1.70 A	1.70 A	1.70 A
Output current (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) 	<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) 	<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/5 A (continuous) 15 V/3 A (continuous) 9 V/3 A (continuous) 5 V/3 A (continuous)
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 15 VDC 9 VDC 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)	0°C to 40°C (32°F to 104°F)
Storage	-20°C to 70°C (-4°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)	-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 (for computers that are shipped with 3-cell, 42 Wh battery)

The following table lists the power adapter for your Latitude 5450


 **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:

Table 22. Power adapter requirements for yourLatitude 5450

Description	Value
Power that is required from a power adapter to achieve optimal performance.	60 W
Power that charges the computer at a slower speed. <i>i</i> 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. <i>i</i> NOTE: A warning message appears informing you about the use of a lower-powered adapter and slower charging speed.	27 W
USB Power Delivery (PD) fast charging	Supported
ExpressCharge mode	Supported <i>i</i> NOTE: Ensure that the computer with a 42 Wh battery is connected to a 65 W power adapter for this feature to be supported. <i>i</i> NOTE: ExpressCharge mode must also be enabled in the BIOS Setup screen by selecting Power>Battery Configuration>ExpressCharge , then press Enter.

Power adapter requirements (for computers that are shipped with 3-cell, 54 Wh battery and integrated graphics)


The following table lists theLatitude 5450

i **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:

Table 23. Power adapter requirements for yourLatitude 5450

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. <i>i</i> 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. <i>i</i> NOTE: A warning message appears informing you about the use of a lower-powered adapter and slower charging speed.	27 W
USB Power Delivery (PD) fast charging	Supported
ExpressCharge mode	Supported <i>i</i> NOTE: Ensure that the computer with a 54 Wh battery is connected to a 100 W power adapter for this feature to be supported.

Table 23. Power adapter requirements for your Latitude 5450 (continued)

Description	Value
	 NOTE: ExpressCharge mode must also be enabled in the BIOS Setup screen by selecting Power>Battery Configuration>ExpressCharge , then press Enter.

Power adapter requirements (for computers that are shipped with 3-cell, 54 Wh battery and discrete graphics)

The following table lists the power adapter for your Latitude 5450






 **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:

Table 24. Power adapter requirements for your Latitude 5450

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.  NOTE: A warning message may appear informing you about the use of a lower-powered adapter and slower charging speed.	Less than 100 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 54 Wh battery is connected to a 100 W power adapter for this feature to be supported.  NOTE: ExpressCharge mode must also be enabled in the BIOS Setup screen by selecting Power>Battery Configuration>ExpressCharge , then press Enter.

Battery

The following table lists the battery specifications of your Latitude 5450.

Table 25. Battery specifications

Description	Option one	Option two	Option three	Option four
Battery type	3 cell, 42 Wh, ExpressCharge, ExpressCharge Boost	3 cell, 42 Wh, Long Cycle Life, ExpressCharge	3 cell, 54 Wh, ExpressCharge, ExpressCharge Boost	3 cell, 54 Wh, Long Cycle Life, ExpressCharge
Battery voltage	11.40 VDC	11.40 VDC	11.40 VDC	11.40 VDC
Battery weight (minimum)	0.19 kg (0.41 lb)	0.19 kg (0.41 lb)	0.22 kg (0.48 lb)	0.22 kg (0.48 lb)

Table 25. Battery specifications (continued)

Description	Option one	Option two	Option three	Option four
Battery dimensions:				
Height	5.73 mm (0.22 in.)	5.73 mm (0.22 in.)	5.73 mm (0.22 in.)	5.73 mm (0.22 in.)
Width	263.00 mm (10.35 in.)	263.00 mm (10.35 in.)	263.00 mm (10.35 in.)	263.00 mm (10.35 in.)
Depth	68.90 mm (2.71 in.)	68.90 mm (2.71 in.)	68.90 mm (2.71 in.)	68.90 mm (2.71 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 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) ⓘ NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information about Dell Power Manager, search in the Knowledge Base Resource at Dell Support Site .	Express Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 45°C normal express charge. 46°C to 50°C maximum allowable charge time from 0% to 100% RSOC is 3 hours. Standard Charge/ Predominately AC User Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 50°C maximum allowable charge time from 0% to 	Express Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 45°C normal express charge. 46°C to 50°C maximum allowable charge time from 0% to 100% RSOC is 3 hours. Standard Charge/ Predominately AC User Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 50°C maximum allowable charge time from 0% to 100% RSOC is 3 hours. 	Express Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 45°C normal express charge. 46°C to 50°C maximum allowable charge time from 0% to 100% RSOC is 3 hours. Standard Charge/ Predominately AC User Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 50°C maximum allowable charge time from 0% to 	Express Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 45°C normal express charge. 46°C to 50°C maximum allowable charge time from 0% to 100% RSOC is 3 hours. Standard Charge/ Predominately AC User Charge Method: <ul style="list-style-type: none"> 0°C to 15°C maximum allowable charge time from 0% to 100% RSOC is 4 hours. 16°C to 50°C maximum allowable charge time from 0% to

Table 25. Battery specifications (continued)

Description	Option one	Option two	Option three	Option four
	100% RSOC is 3 hours. Express Charge Boost Charge Method (Fast Charge for Initial 35%): <ul style="list-style-type: none"> 16°C to 45°C target charge time from 0% to 35% RSOC is 20 minutes for Accelerated Charge. 		100% RSOC is 3 hours. Express Charge Boost Charge Method (Fast Charge for Initial 35%): <ul style="list-style-type: none"> 16°C to 45°C target charge time from 0% to 35% RSOC is 20 minutes for Accelerated Charge. 	100% RSOC is 3 hours.
Coin-cell battery	CR2032	CR2032	CR2032	CR2032
<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 recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart your computer to reduce the power consumption.</p>				

Display

The following table lists the display specifications of your Latitude 5450.

Table 26. Display specifications

Description	Option one	Option two	Option three
Display type	14-inch Full High Definition (FHD)	14-inch Full High Definition (FHD), ComfortView Plus, Low Blue Light, Battery Saving	14-inch Full High Definition (FHD)
Touch options	Yes	No	No
Display-panel technology	In-Plane Switching (IPS)	In-Plane Switching (IPS)	In-Plane Switching (IPS)
Display-panel dimensions (active area):			
Height	173.95 mm (6.84 in.)	173.95 mm (6.84 in.)	173.95 mm (6.84 in.)
Width	309.40 mm (12.18 in.)	309.40 mm (12.18 in.)	309.40 mm (12.18 in.)
Diagonal	355.60 mm (14.00 in.)	355.60 mm (14.00 in.)	355.60 mm (14.00 in.)
Display-panel native resolution	1920 x 1080	1920 x 1080	1920 x 1080
Luminance (typical)	250 nits	400 nits	300 nits
Megapixels	2.07	2.07	2.07
Color gamut	45% NTSC	100% sRGB	72% NTSC

Table 26. Display specifications (continued)

Description	Option one	Option two	Option three
Pixels Per Inch (PPI)	157	157	157
Contrast ratio (minimum)	600:1	1000:1	600:1
Response time (maximum)	35 millisecond	35 millisecond	35 millisecond
Refresh rate	60 Hz	60 Hz	60 Hz
Horizontal view angle	85 +/- degrees	85 +/- degrees	85 +/- degrees
Vertical view angle	85 +/- degrees	85 +/- degrees	85 +/- degrees
Pixel pitch	0.161 x 0.161 mm	0.161 x 0.161 mm	0.161 x 0.161 mm
Power consumption (maximum)	3.10 W	2.50 W	4.60 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare	Anti-glare

Fingerprint reader (optional)

The following table lists the specifications of the optional fingerprint-reader of your Latitude 5450.

Table 27. Fingerprint reader specifications

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

Sensor

The following table lists the sensor of your Latitude 5450.

Table 28. Sensor

Sensor support
Ambient Light Sensor
Accelerometer in the base: ST Micro LIS2DW12TR
Accelerometer in the hinge-up (Upsell config with Emza/ALS/IR camera): ST Micro LNG2DMTR

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Latitude 5450.

Table 29. GPU—Integrated

Controller	Memory size	Processor
Intel Arc Graphics	Shared system memory	Intel Core H processors configured with a minimum of 16 GB dual-channel (128-bit) memory
Intel Graphics	Shared system memory	Intel Core Ultra 5/7
Intel Iris Xe Graphics	Shared system memory	13th Gen Intel Core i5/i7 with a minimum of 16 GB dual-channel (128-bit) memory
Intel UHD Graphics	Shared system memory	13th Gen Intel Core i3/i5/i7

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Latitude 5450.

Table 30. GPU—Discrete

Controller	Memory size	Memory type
NVIDIA GeForce RTX 2050	4 GB	GDDR6

External display support

The following table lists the external display support for your Latitude 5450.

Table 31. External display support

Graphics card	Supported external displays with laptop display enabled	Supported external displays with laptop display disabled
Intel Arc Graphics	3	4
Intel Graphics	3	4
Intel Iris Xe Graphics	3	4
Intel UHD Graphics	3	4

NOTE: For more information about external display support, see the External Display Connection Guide on [Dell support site](#).

Hardware security

The following table lists the hardware security of your Latitude 5450.

Table 32. Hardware security

Hardware security
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 (Opal and non-Opal) per SDL

Smart-card reader

Contactless smart-card reader

This section lists the contactless smart-card reader specifications of your Latitude 5450. This module is only available in computers shipped with Smart-card readers.

Table 33. 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
NFC Reader Mode	Support for NFC Forum Defined Reader mode	Yes

Table 33. Contactless smart-card reader specifications (continued)

Title	Description	Dell ControlVault 3 Plus Contactless smart-card reader with NFC
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 34. Contactless card types supported

Interface	Card type	Supported functionality
NFC Forum (Microsoft Proximity Device)	Type 1 tag	Read/Write NDEF
	Type 2 tag	Read/Write NDEF
	Type 3 tag	Read/Write NDEF
	Type 4 tag	Read/Write NDEF
	Type 5 tag	Read/Write NDEF
	P2P	Exchange NDEF
RFID (Microsoft Smartcard Device)	ISO14443A	Read UUID and APDU Exchange (ISO7816)
	ISO14443B	Read UUID and APDU Exchange (ISO7816)
	Sony FeliCa	Read UUID only
	Legacy iClass (ISO15693)	Read UUID only
	Mifare Classic	Read UUID only
	Low Frequency (125 KHz)	Not supported

Table 35. 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

Table 35. Supported cards (continued)

Manufacturer	Card
	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
	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

Table 35. Supported cards (continued)

Manufacturer	Card
	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 36. 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 Latitude 5450.

Table 37. Contacted smart-card reader specifications

Title	Description	Dell ControlVault 3 Plus Contacted smart-card reader
ISO 7816-3 Class A Card Support	Reader capable of reading 5 V powered smart card	Yes
ISO 7816-3 Class B Card Support	Reader capable of reading 3 V powered smart card	Yes
ISO 7816-3 Class C Card support	Reader capable of reading 1.8 V powered smart card	Yes
T = 0 support	Cards support character level transmission	Yes
T = 1 support	Cards support block level transmission	Yes
EMVCo Certified	Formally certified based on EMVCo smart card standards	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
Windows Certified	Certified by the Windows Hardware Certification program	Yes
FIPS 201 (PIV/HSPD-12) Compliant	Device compliant with FIPS 201/PIV/HSPD-12 requirements	Yes
ISO 7816-1 Compliant	Specification for the physical characteristics of integrated circuit cards with contacts	Yes
ISO 7816-2 Compliant	Specification for the dimensions and location of the contacts	Yes
ISO 7816-3 Compliant	Specification for electrical interface and transmission protocols	Yes
ISO 7816-4 Compliant	Specification for organization, security and commands for interchange	Yes
Dell ControlVault support	Device connects to Dell ControlVault for usage and processing	Yes

Operating and storage environment


This table lists the operating and storage specifications of your Latitude 5450.

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

Table 38. 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)

Table 38. Computer environment (continued)

Description	Operating	Storage
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.

Dell support policy

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

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.

Using the privacy shutter

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