

Vostro 15 3510

Setup and specifications

Notes, cautions, and warnings

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

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

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

Contents

Chapter 1: Set up your Vostro 15 3510.....	4
Chapter 2: Views of Vostro 15 3510.....	6
Right.....	6
Left (Integrated graphics).....	6
Left (Discrete graphics).....	7
Top.....	8
Front.....	9
Bottom.....	10
Battery Charge and Status LED	10
Chapter 3: Specifications of Vostro 15 3510.....	11
Dimensions and weight.....	11
Processor.....	11
Chipset.....	12
Operating system.....	12
Memory.....	12
External ports.....	13
Internal slots.....	13
Ethernet.....	14
Wireless module.....	14
Audio.....	14
Storage.....	15
Media-card reader.....	15
Keyboard.....	16
Camera.....	16
Touchpad.....	17
Power adapter.....	17
Battery.....	18
Display.....	19
Fingerprint reader.....	19
GPU—Integrated.....	20
GPU—Discrete.....	20
Operating and storage environment.....	20
Chapter 4: Technology and components.....	22
ComfortView.....	22
Chapter 5: Keyboard shortcuts.....	23
Chapter 6: Getting help and contacting Dell.....	24

Set up your Vostro 15 3510

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

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



NOTE: To conserve battery power, the battery might enter power saving mode. Connect the power adapter and press the power button to turn on the computer.

2. Finish operating system setup.

For Ubuntu:

Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, see the knowledge base articles [SLN151664](#) and [SLN151748](#) at www.dell.com/support.

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

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

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

Table 1. Locate Dell apps






Resources	Description
	<p>Dell Product Registration</p> <p>Register your computer with Dell.</p>

Table 1. Locate Dell apps (continued)

Resources	Description
	<p>Dell Help & Support</p> <p>Access help and support for your computer.</p>
	<p>SupportAssist</p> <p>SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you need to make system updates. SupportAssist proactively checks the health of your system's 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 Windows operating system. For more information, see SupportAssist for Home PCs User's Guide on www.dell.com/serviceabilitytools.</p> <p>NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>
	<p>Dell Update</p> <p>Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article 000149088 at www.dell.com/support.</p>
	<p>Dell Digital Delivery</p> <p>Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 000129837 at www.dell.com/support.</p>

Views of Vostro 15 3510

Right



1. SD-card reader slot (Optional)

Reads from and writes to the SD card. The computer supports the following card types:

- Secure Digital (SD)
- Secure Digital High Capacity (SDHC)
- Secure Digital Extended Capacity (SDXC)

2. USB 2.0 port

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 480 Mbps.

3. Network Port

Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access.

4. Headset jack

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

5. Wedge-shaped security slot

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

Left (Integrated graphics)

NOTE: The types of USB ports may vary based on systems configured with integrated and discrete graphics.



1. Power-adaptor port

Connect a power adapter to provide power to your computer and charge the battery.

2. Diagnostic LED

Provides diagnostics information and is used for troubleshooting.

3. HDMI 1.4 port

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

Display output supports up to 1920x1080 @ 60Hz. No 4K/2K output supported.

4. USB 3.2 Gen 1 port

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps. The number of ports may vary on systems configured with integrated and discrete graphics.

5. USB 3.2 Gen 1 port

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps. The number of ports may vary on systems configured with integrated and discrete graphics.

Left (Discrete graphics)

NOTE: The types of USB ports may vary on systems configured with discrete graphics.



1. Power-adapter port

Connect a power adapter to provide power to your computer and charge the battery.

2. Diagnostic LED

Provides diagnostics information and is used for troubleshooting.

3. HDMI 1.4 port

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

Display output supports up to 1920x1080 @ 60Hz. No 4K/2K output supported.

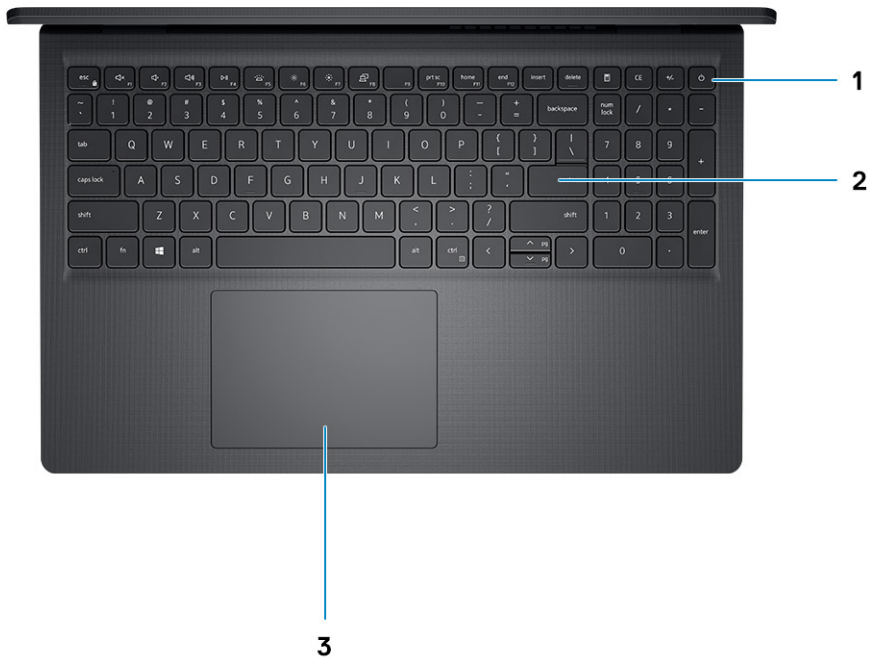
4. USB 3.2 Gen 1 port

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

5. USB 3.2 Gen 1 port / USB 3.2 Gen 1 Type-C port(optional)

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

Top



1. Power button with optional fingerprint reader

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

When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for 10 seconds to force shut-down the computer.

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

2. Keyboard

3. Touchpad

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

i NOTE:

You can customize power-button behavior in Windows. For more information, see *Me and my Dell* at www.dell.com/support/manuals.

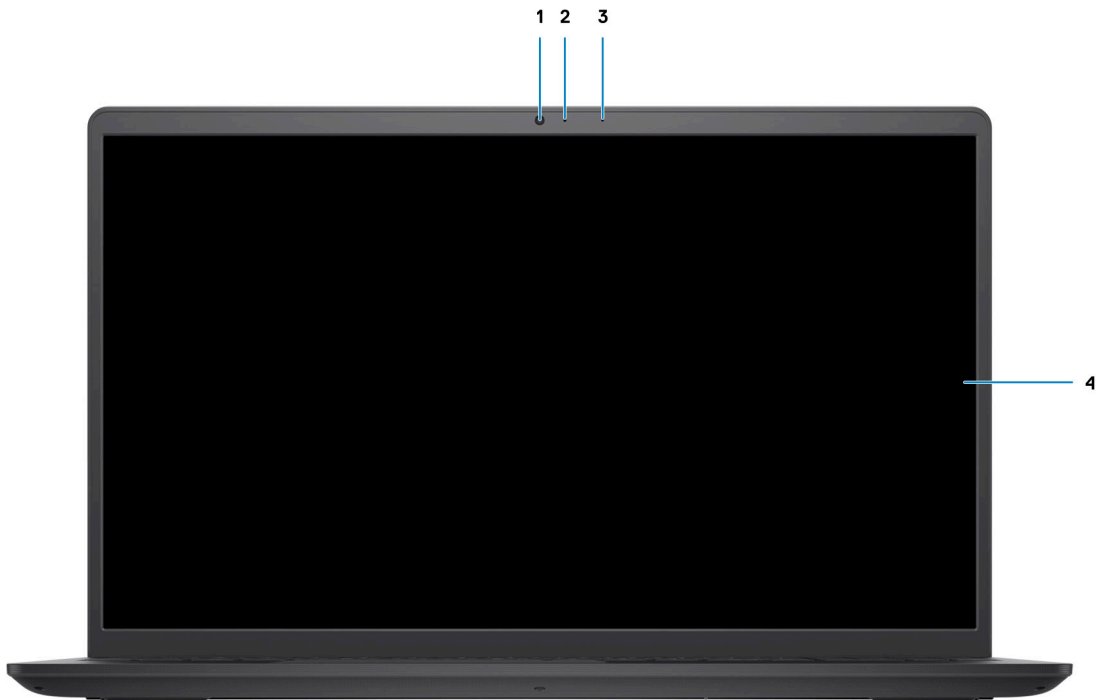
i NOTE:

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:

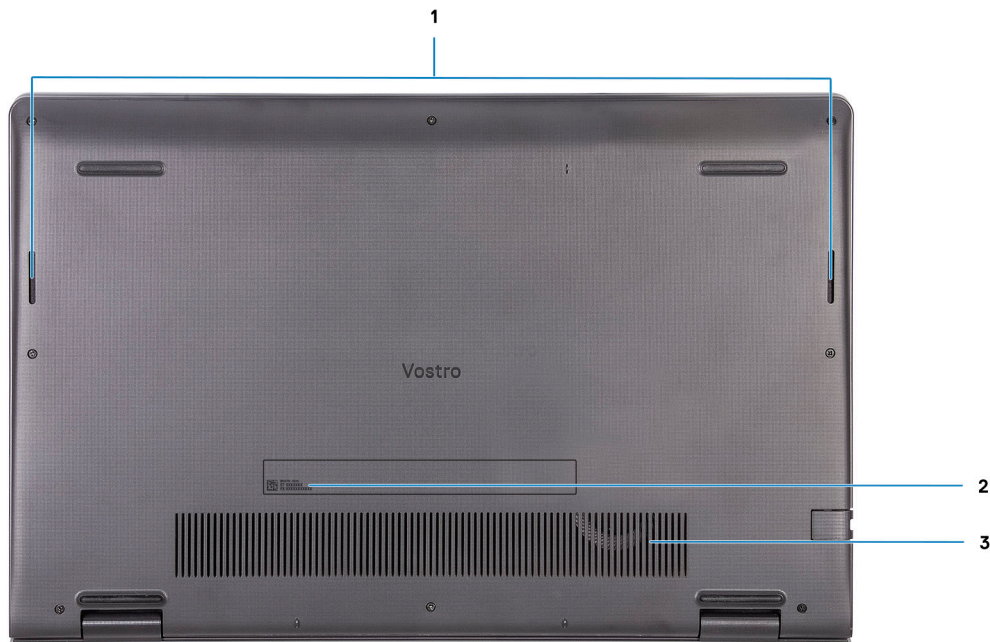
To reset the battery, press and hold the power button for 25 seconds.

Front



- 1. Camera**
Enables you to video chat, capture photos, and record videos.
- 2. Camera-status light**
Turns on when the camera is in use.
- 3. Microphone**
Provides digital sound input for audio recording, voice calls, and so on.
- 4. LCD Panel**

Bottom



1. Speakers

Provides audio output.

2. Service Tag

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.

3. Air vents

Battery Charge and Status LED

Table 2. Battery Charge and Status LED Indicator

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	< 10%


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

Specifications of Vostro 15 3510

Dimensions and weight

The following table lists the height, width, depth, and weight of your Vostro 15 3510.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	17.50 mm (0.68 in.)
Rear height	18.90 mm (0.74 in.)
Width	358.50 mm (14.11 in.)
Depth	235.56 mm (9.27 in.)
Starting weight	1.69 kg (3.72 lb)
 NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.	

Processor

The following table lists the details of the processors that are supported by your Vostro 15 3510 .

Table 4. Processor

Description	Option one	Option two	Option three	Option four	Option five	Option six	Option seven	Option eight
Processor type	Intel Celeron 6305	Intel Pentium 7505	10 th Generation Intel Core i3-1005G1	10 th Generation Intel Core i5-1035G1	11 th Generation Intel Core i3-1115G4	11 th Generation Intel Core i3-1125G4	11 th Generation Intel Core i5-1135G7	11 th Generation Intel Core i7-1165G7
Processor wattage	15 W	15 W	15 W	15 W	15 W	15 W	15 W	15 W
Processor core count	2	2	2	4	2	4	4	4
Processor thread count	2	4	4	8	4	8	8	8
Processor speed	Up to 1.8 GHz	2.00 GHz to 3.5 GHz	1.20 GHz to 3.40 GHz	1.00 GHz to 3.60 GHz	3.00 GHz to 4.10 GHz	2.00 GHz to 3.70 GHz	2.40 GHz to 4.20 GHz	2.80 GHz to 4.70 GHz
Processor cache	4 MB	4 MB	4 MB	6 MB	6 MB	8 MB	8 MB	12 MB
Integrated graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics	Intel UHD Graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics

Chipset

The following table lists the details of the chipset supported by your Vostro 15 3510

Table 5. Chipset

Description	Option one	Option two
Processors	<ul style="list-style-type: none">Intel Core i3/i5/i7Intel Celeron / Pentium	Intel Core i3 / i5
Chipset	Intel Tiger Lake (Integrated in the processor)	Intel Ice Lake (Integrated in the processor)
DRAM bus width	64-bit	64-bit
Flash EPROM	16 MB + 8 MB	16 MB + 8 MB
PCIe bus	Up to Gen 3	Up to Gen 3

Operating system

Your Vostro 15 3510 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Home National Academic, 64-bit
- Windows 11 Home in S-mode, 64-bit
- Windows 11 Pro, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Windows 10 Pro, 64-bit
- Windows 10 Home in S-mode, 64-bit
- Ubuntu 20.04 LTS, 64-bit

Memory

The following table lists the memory specifications of your Vostro 15 3510.

Table 6. Memory specifications

Description	Values
Memory slots	Two SODIMM slots
Memory type	DDR4
Memory speed	<ul style="list-style-type: none">2666 MHz (With Integrated Graphics)3200 Mhz (With Discrete Graphics)
Maximum memory configuration	16 GB
Minimum memory configuration	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB
Memory configurations supported	<ul style="list-style-type: none">4 GB, 1 x 4 GB, DDR4, 2666 MHz/3200 MHz8 GB, 1 x 8 GB, DDR4, 2666 MHz/3200 MHz


Table 6. Memory specifications (continued)

Description	Values
	<ul style="list-style-type: none">• 8 GB, 2 x 4 GB, DDR4, 2666 MHz/3200 MHz• 12 GB, 1 x 4 GB + 1 x 8 GB, DDR4, 2666 MHz/3200 MHz• 16 GB, 2 x 8 GB, DDR4, 2666 MHz/3200 MHz• 16 GB, 1 x 16 GB, DDR4, 2666 MHz/3200 MHz

External ports

The following table lists the external ports of your Vostro 15 3510.


Table 7. External ports

Description	Values
Network port	One Flip-down RJ 45 10/100/1000 Mbps
USB ports	<ul style="list-style-type: none">• Two USB 3.2 Gen 1 ports• One USB 3.2 Gen 1 Type-C port (optional with discrete graphics)• One USB 2.0 port
Audio port	One Headset jack
Video port	One HDMI 1.4 port  NOTE: HDMI output supports up to 1920x1080 @ 60Hz. No 4K/2K output supported.
Media-card reader	One SD-card slot
Power-adaptor port	4.5 mm barrel-type
Security-cable slot	One wedge-shaped lock slot

Internal slots

The following table lists the internal slots of your Vostro 15 3510.

Table 8. Internal slots

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

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Vostro 15 3510.

Table 9. Ethernet specifications

Description	Values
Model number	Integrated Realtek RTL8111H
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Vostro 15 3510.

Table 10. Wireless module specifications

Description	Option one	Option two	Option Three	Option Four
Model number	Intel 9462	Qualcomm QCNFA435 (DW1810)	Realtek RTL8821CE	Intel AX201
Transfer rate	Up to 433 Mbps	Up to 433 Mbps	Up to 433 Mbps	Up to 2400 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> • WiFi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) 	<ul style="list-style-type: none"> • WiFi 802.11a/b/g • Wi-Fi 4 (Wi-Fi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) 	<ul style="list-style-type: none"> • Wi-Fi 802.11 b/g • Wi-Fi 4 (WiFi 802.11n) • Wi-Fi 5 (Wi-Fi 802.11ac) 	<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)
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 	<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	Bluetooth 5.0	Bluetooth 4.1	Bluetooth 5.0	Bluetooth 5.1

Audio

Table 11. Audio specifications


Description	Values
Controller	Realtek ALC3204 Cirrus CS8409 (CS42L42 + TI SN005825)
Stereo conversion	Supported
Internal interface	High definition audio HDA bridge + CS42L42 audio codec
External interface	One Headset jack Headset jack  NOTE: 3.5mm headset jack functionality varies by model

Table 11. Audio specifications (continued)

Description	Values	
		<i>configuration. For best results, use Dell recommended audio accessories</i>
Speakers	Two	Two
Internal-speaker amplifier	Supported	Supported
External volume controls	Keyboard shortcut controls	Keyboard shortcut controls
Speaker Output Average	2 W	2 W
Speaker Output Peak	2.5 W	2.5 W
Subwoofer output	Not supported	Not supported
Microphone	Single digital microphone	Single digital microphone

Storage

This section lists the storage options on your Vostro 15 3510.

Your computer supports one of the following configurations:

- One 2.5-inch SATA hard drive
- One M.2 2230/2280 for solid-state drive
- One 2.5-inch hard-drive and one M.2 2230/2280 solid-state drive

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

- with a 2.5-inch hard-drive, the 2.5-inch hard-drive is the primary drive
- with a M.2 2230/2280 drive, the M.2 2230/2280 drive is the primary drive
- with a 2.5-inch hard-drive and one M.2 2230/2280 solid-state drive, the M.2 2230/2280 solid-state drive is the primary drive

Table 12. Storage specifications

Storage type	Interface type	Capacity
2.5-inch 5400 rpm, hard drive i NOTE: Systems configured with a 54 Whr battery would not support a 2.5-inch hard drive.	SATA	upto 2 TB
M.2 2230 solid-state drive	PCIe NVMe 3x4	upto 1 TB
M.2 2280 solid-state drive	PCIe NVMe 3x4	upto 2 TB

Media-card reader

The following table lists the media cards supported by your Vostro 15 3510.

Table 13. Media-card reader specifications

Description	Values
Media-card type	One SD 3.0 card

Table 13. Media-card reader specifications (continued)

Description	Values
Media-cards supported	<ul style="list-style-type: none"> Secure Digital (SD) Secure Digital High Capacity (SDHC) Secure Digital Extended Capacity (SDXC)
<p>i NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.</p>	

Keyboard

The following table lists the keyboard specifications of your Vostro 15 3510.

Table 14. Keyboard specifications

Description	Values
Keyboard type	<ul style="list-style-type: none"> Standard keyboard White backlight keyboard
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"> United States and Canada: 99 keys United Kingdom: 100 keys Japan: 103 keys
Keyboard size	X=18.70 mm key pitch Y=18.05 mm key pitch
Keyboard shortcuts	<p>Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.</p> <p>i NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program.</p>

Camera

The following table lists the camera specifications of your Vostro 15 3510.

Table 15. Camera specifications

Description	Values
Number of cameras	One
Camera type	RGB HD camera
Camera location	Front
Camera sensor type	CMOS sensor technology
Camera resolution:	
Still image	0.92 megapixel

Table 15. Camera specifications (continued)

Description		Values
	Video	1280 x 720 (HD @ 30 fps)
Diagonal viewing angle:		78.6 degrees

Touchpad

The following table lists the touchpad specifications of your Vostro 15 3510.

Table 16. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	> 300 DPI
	Vertical	> 300 DPI
Touchpad dimensions:		
	Horizontal	115 mm (4.52 in.)
	Vertical	80 mm (3.14 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article at support.microsoft.com .


Power adapter

The following table lists the power adapter specifications of your Vostro 15 3510.

Table 17. Power adapter specifications

Description		Values
Type		65 W
Connector dimensions:		<ul style="list-style-type: none"> External diameter: 4.50 mm Internal diameter: 2.90 mm
Input voltage		100 VAC x 240 VAC
Input frequency		50 Hz x 60 Hz
Input current (maximum)		1.70 A
Output current (continuous)		3.34 A
Rated output voltage		19.50 VDC
Temperature range:		
	Operating	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)





Table 17. Power adapter specifications (continued)

Description	Values
 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.	

Battery

The following table lists the battery specifications of your Vostro 15 3510.

Table 18. Battery specifications

Description	Option one	Option two	
Battery type	3-cell, 41 Wh, lithium-polymer	4-cell, 54 Wh, lithium-polymer  NOTE: Systems configured with a 54 Whr battery would not support a 2.5-inch hard drive.	
Battery voltage	11.25 VDC	15.0 VDC	
Battery weight (maximum)	0.19 kg (0.41 lb)	0.24 kg (0.55 lbs)	
Battery dimensions:			
	Height	206.4 mm (8.12 in.)	271.90 mm (10.70 in.)
	Width	82 mm (3.22 in.)	82 mm (3.22 in.)
	Depth	5.75 mm (0.22 in.)	5.75 mm (0.22 in.)
Temperature range:			
	Operating	0°C to 35°C (32°F to 95°F)	0°C to 35°C (32°F to 95°F)
	Storage	-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.	
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 on the Dell Power Manager see, <i>Me and My Dell</i> on www.dell.com .	4 hours (when the computer is off)	4 hours (when the computer is off)	
Coin-cell battery	N/A	N/A	
 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.			
 NOTE: Dell recommends that you charge the battery regularly for optimal power consumption. If your battery charge is completely depleted, connect the power adapter, turn on your computer, and then restart you computer to reduce the power consumption.			

Display

The following table lists the display specifications of your Vostro 15 3510.

Table 19. Display specifications

Description		Option one	Option two
Display type		High Definition (HD)	Full High Definition (FHD)
Display-panel technology		TN (Twisted Nematic)	WVA (wide view angle)
Display-panel dimensions (active area):			
	Height	193.54 mm (7.62 in.)	193.54 mm (7.62 in.)
	Width	344.23 mm (13.55 in.)	344.23 mm (13.55 in.)
	Diagonal	394.90 mm (15.54 in.)	394.90 mm (15.54 in.)
Display-panel native resolution		1366 x 768	1920 x 1080
Luminance (typical)		220 nits	220 nits
Megapixels		1.05	2.07
Color gamut		NTSC 45% Typ.	NTSC 45% Typ.
Pixels Per Inch (PPI)		100	141
Contrast ratio (min.)		400:1	400:1
Response time (max.)		25 ms	35 ms
Refresh rate		60 Hz	60 Hz
Horizontal view angle (min.)		40 +/- degrees	80 +/- degrees
Vertical view angle (min.)		10(Top)/30(Bottom) degrees	80 +/- degrees
Pixel pitch		0.252 mm	0.179 mm
Power consumption (maximum)		4.2 W	4.2 W
Anti-glare vs glossy finish		Anti-glare	Anti-glare
Touch options		No	No

Fingerprint reader

The following table lists the fingerprint-reader specifications of your Vostro 15 3510.

NOTE: The fingerprint reader is located on the power button.

NOTE: The fingerprint reader is an optional offering.

Table 20. Fingerprint reader specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	500 dpi
Fingerprint-reader sensor pixel size	108 x 88

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Vostro 15 3510.

Table 21. GPU—Integrated

Controller	Memory size	Processor
Intel UHD Graphics	Shared system memory	<ul style="list-style-type: none"> Intel 10th Generation Core i3/i5 processors Intel 11th Generation Core i3 processors Intel 11th Generation Celeron processors Intel 11th Generation Pentium processors
Intel Iris Xe Graphics	Shared system memory	<ul style="list-style-type: none"> Intel 11th Generation Core i5 / i7 processors

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Vostro 15 3510.

Table 22. GPU—Discrete

Controller	External display support	Memory size	Memory type
Nvidia GeForce MX350 Graphics	Not Supported	2 GB	GDDR5

Operating and storage environment


This table lists the operating and storage specifications of your Vostro 15 3510.

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

Table 23. 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)	10% to 90% (non-condensing)	0% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†


Table 23. Computer environment (continued)

Description	Operating	Storage
Altitude range	0 m to 3048 m (0 ft to 10000 ft)	0 m to 10668 m (0 ft to 35000 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 user environment.

† Measured using a 2 ms half-sine pulse.

Technology and components

 **NOTE:** Instructions provided in this section are applicable on computers shipped with Windows operating system. Windows is factory-installed with this computer.

ComfortView

 **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.

ComfortView mode can be enabled and configured using the Dell CinemaColor application.

ComfortView mode complies with TÜV Rheinland's requirement for low blue light displays.

Low blue light: Dell ComfortView software technology reduces harmful blue light emissions to make extended screen time easy on your eyes.

To reduce the risk of eye strain, it is also recommended that you:

- Position the display at a comfortable viewing distance between 20 and 28 inches (50 and 70 cm) from your eyes.
- Blink frequently to moisten your eyes, wet your eyes with water, or apply suitable eye drops.
- Look away from your display, and gaze at a distant object at 20 ft (609.60 cm) away for at least 20 seconds during each break.
- Take an extended break for 20 minutes every two hours.

Keyboard shortcuts



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

Table 24. List of keyboard shortcuts



Keys	Primary Behavior	Secondary Behavior (fn + Key)
fn + Esc	Escape	Toggle fn-key lock
fn + F1	Mute audio	F1 behavior
fn + F2	Decrease volume	F2 behavior
fn + F3	Increase volume	F3 behavior
fn + F4	Play/Pause	F4 behavior
fn + F5	Keyboard backlight  NOTE: Not applicable for non-backlight keyboard.	F5 behavior
fn + F6	Decrease screen brightness	F6 behavior
fn + F7	Increase screen brightness	F7 behavior
fn + F8	Switch to external display	F8 behavior
fn + F10	Print Screen	F10 behavior
fn + F11	Home	F11 behavior
fn + F12	End	F12 behavior
fn + ctrl	Open application menu	Control
fn + page up	Scroll up	Page up
fn + page down	Scroll down	Page down

Getting help and contacting Dell

Self-help resources


You can get information and help on Dell products and services using these self-help resources:


Table 25. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	www.dell.com/support/windows
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support . For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> 1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select Support > Knowledge Base. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see www.dell.com/contactdell.

 **NOTE:** Availability varies by country/region and product, and some services may not be available in your country/region.

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