

# Vostro 15 5510

## Setup and Specifications

## Notes, cautions, and warnings

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

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

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

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# Set up your Vostro 15 5510

**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, search in the Knowledge Base Resource at [www.dell.com/support](http://www.dell.com/support).






## For Windows:

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
	<b>Dell Product Registration</b> Register your computer with Dell.
	<b>Dell Help &amp; Support</b> Access help and support for your computer.
	<b>SupportAssist</b> 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 <a href="http://www.dell.com/serviceabilitytools">www.dell.com/serviceabilitytools</a> . <b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
	<b>Dell Update</b> Updates your computer with critical fixes and latest device drivers as they become available. For more information on using Dell Update, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a> .
	<b>Dell Digital Delivery</b> Download software applications, which are purchased but not preinstalled on your computer. For more information on using Dell Digital Delivery, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a> .

# Views of Vostro 15 5510

## Topics:

- [Right](#)
- [Left](#)
- [Top](#)
- [Front](#)
- [Bottom](#)
- [Battery charge and status LED](#)

## Right



### 1. SD-card slot

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 3.2 Gen 1 port

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

### 3. RJ-45 Ethernet 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.

### 4. Global headset jack

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

### 5. Security-cable slot (wedge-shaped)

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

# Left



## 1. Power-adapter port

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

## 2. 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 in your computer's *Service Manual*.

## 3. HDMI 1.4 port

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

## 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 2 Type C port with DisplayPort 1.4 and Power Delivery

Connect devices such as external storage devices, printers, and external displays. Provides data transfer rate of up to 10 Gbps.

Supports Power Delivery that enables two-way power supply between devices. Provides up to 15 W power output that enables faster charging.

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

## 6. Thunderbolt 4.0 port with Power Delivery

Supports USB4, DisplayPort 1.4, 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.

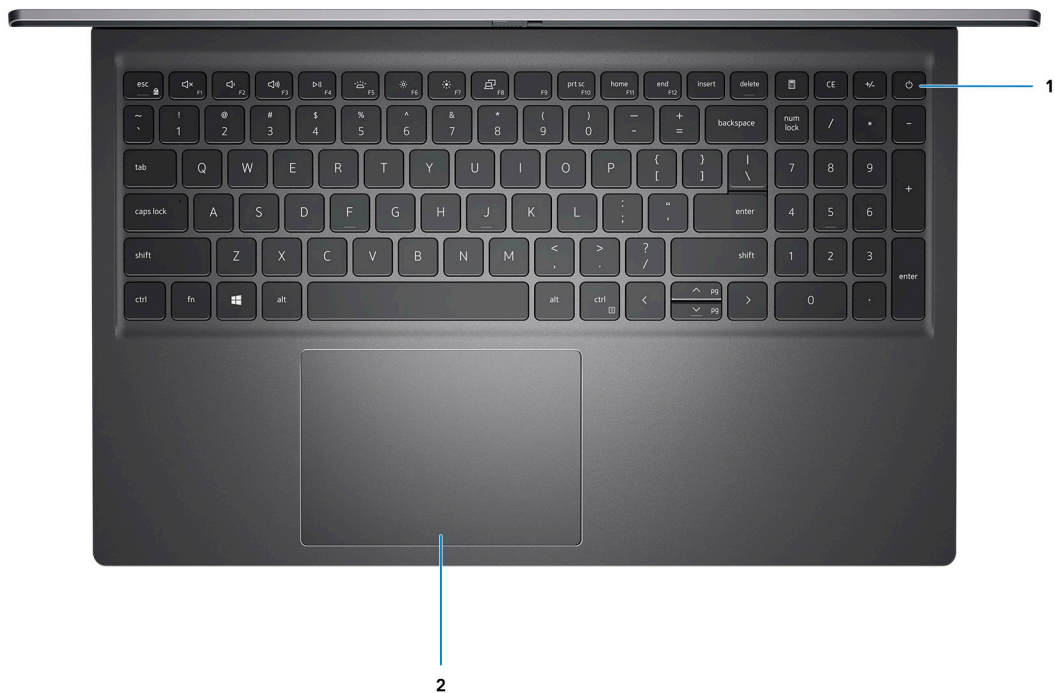
**NOTE:** You can connect a Dell Docking Station to the Thunderbolt 4 ports. For more information, see the knowledge base article SLN286158 at [www.dell.com/support](http://www.dell.com/support).

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

**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.

# 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 4 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.

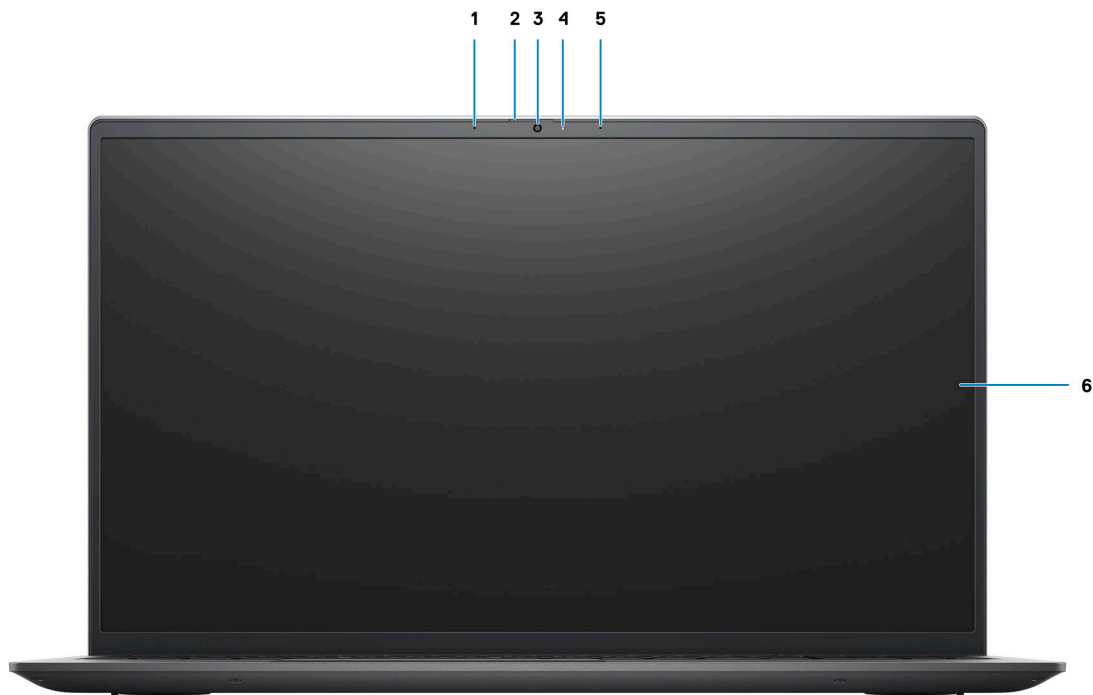
**NOTE:** You can customize power-button behavior in Windows. For more information, see *Me and My Dell* at [www.dell.com/support/manuals](http://www.dell.com/support/manuals).

## 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



**1. Left microphone**

Provides digital sound input for audio recording and voice calls.

**2. Privacy shutter**

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

**3. Camera**

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

**4. Camera-status light**

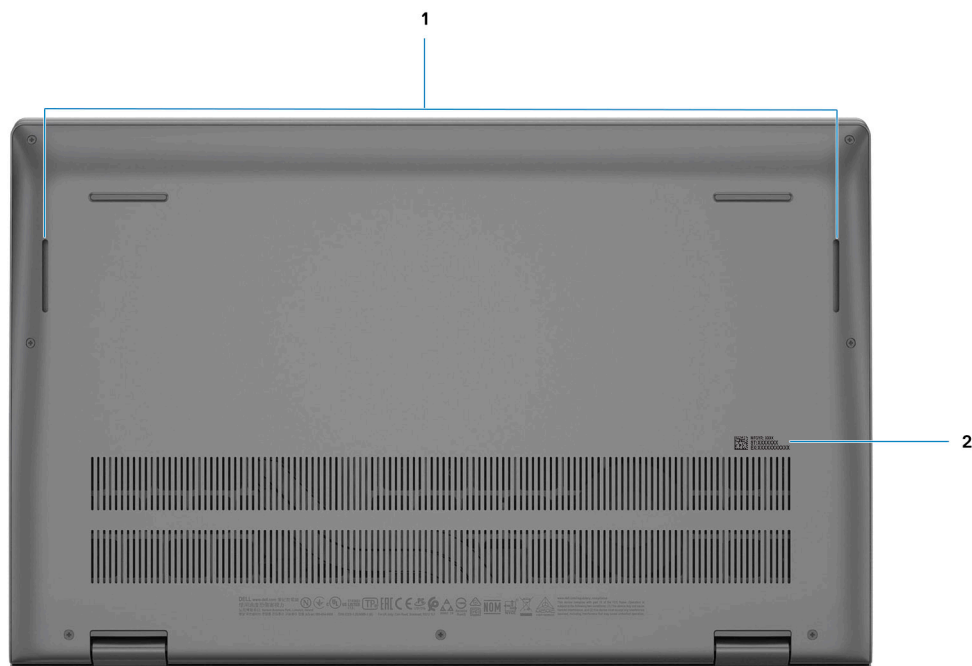
Turns on when the camera is in use.

**5. Right microphone**

Provides digital sound input for audio recording and voice calls.

**6. LCD panel**

# Bottom



## 1. Left and right speakers

Provides audio output.

## 2. 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.

# Battery charge and status LED

Table 2. Battery charge and status LED Indicator

Power Source	LED Behavior	computer Power State	Battery Charge Level
AC Adapter	Off	S0 - S5	Fully Charged
AC Adapter	Solid White	S0 - S5	< Fully Charged
Battery	Off	S0 - S5	11-100%
Battery	Solid Amber (590+/-3 nm)	S0 - S5	< 10%

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

# Specifications of Vostro 15 5510


## Topics:

- Dimensions and weight
- Processor
- Chipset
- Operating system
- Memory
- Intel Optane Memory H20 with Solid-State Storage (optional)
- External ports
- Internal slots
- Communications
- Audio
- Storage
- Media-card reader
- Keyboard
- Camera
- Touchpad
- Power adapter
- Battery
- Display
- Fingerprint reader (optional)
- GPU—Integrated
- GPU—Discrete
- Operating and storage environment

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Vostro 15 5510.

**Table 3. Dimensions and weight**

Description	Values
Height:	
Front height	14.16 mm (0.55 in.)
Rear height	17.99 mm (0.70 in.)
Width	356.06 mm (14.01 in.)
Depth	228.82 mm (9 in.)
Weight (minimum)	1.64 kg (3.61 lb)
Weight (maximum)	1.75 kg (3.85 lb)
	 <b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.

# Processor

The following table lists the details of the processors supported by your Vostro 15 5510.

**Table 4. Processor**

Description	Option one	Option two
Processor type	11 <sup>th</sup> Generation Intel Core i5-11300H	11 <sup>th</sup> Generation Intel Core i7-11370H
Processor wattage	35 W	35 W
Processor core count	4	4
Processor thread count	8	8
Processor speed	Up to 4.40 GHz	Up to 4.80 GHz
Processor cache	8 MB	12 MB
Integrated graphics	Intel Iris X <sup>e</sup> Graphics	Intel Iris X <sup>e</sup> Graphics

# Chipset

The following table lists the details of the chipset supported by your Vostro 15 5510.

**Table 5. Chipset**

Description	Values
Chipset	Integrated
Processor	11 <sup>th</sup> Generation Intel Core i5/i7
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen4

# Operating system

Your Vostro 15 5510 supports the following operating systems:

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

# Memory

The following table lists the memory specifications of your Vostro 15 5510.

**Table 6. Memory specifications**

Description	Values
Memory slots	Two-SODIMM slots
Memory type	DDR4
Memory speed	3200 MHz
Maximum memory configuration	32 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"><li>• 4 GB, 1 x 4 GB, DDR4, 3200 MHz</li><li>• 8 GB, 1 x 8 GB, DDR4, 3200 MHz</li><li>• 8 GB, 2 x 4 GB, DDR4, 3200 MHz, dual-channel</li><li>• 12 GB, 1 x 4 GB + 1 x 8 GB, DDR4, 3200 MHz, dual-channel</li><li>• 16 GB, 1 x 16 GB, DDR4, 3200 MHz</li><li>• 16 GB, 2 x 8 GB, DDR4, 3200 MHz, dual-channel</li><li>• 24 GB, 1 x 8 GB + 1 x 16 GB, DDR4, 3200 MHz, dual-channel</li><li>• 32 GB, 2 x 16 GB, DDR4, 3200 MHz, dual-channel</li></ul>

## Intel Optane Memory H20 with Solid-State Storage (optional)

Intel Optane Memory technology uses 3D XPoint memory technology and functions as a nonvolatile storage cache/accelerator and/or storage device depending on the Intel Optane Memory that is installed in your system.

Intel Optane Memory H20 with Solid-State Storage functions as both a nonvolatile storage cache/accelerator (enabling enhanced read/write speeds for hard drive storage) and a solid-state storage solution. It neither replaces nor adds to the memory (RAM) installed on your system.

**Table 7. Intel Optane Memory H20 with Solid-State Storage specifications**

Description	Values
Interface	PCIe NVMe Gen3 x4
Connector	M.2 2280
Form factor	2280
Capacity (Intel Optane memory)	Up to 32 GB
Capacity (solid-state storage)	Up to 512 GB



**NOTE:** Intel Optane Memory H20 with Solid-State Storage is supported on systems that meet the following requirements:

- 11<sup>th</sup> Generation or higher Intel Core i3/i5/i7 processors
- Windows 10 64-bit version or higher
- Intel Rapid Storage Technology driver version 18.1.0.1027 or higher

## External ports

The following table lists the external ports of your Vostro 15 5510.


**Table 8. External ports**

Description	Values
Network port	One RJ-45 Ethernet port
USB ports	<ul style="list-style-type: none"><li>Two USB 3.2 Gen 1 ports</li><li>One USB 3.2 Gen 2 Type-C port with DisplayPort 1.4 and Power Delivery</li><li> <b>NOTE:</b> This port is only available on computers shipped with 11<sup>th</sup> Generation Intel Core i5 processors.</li><li>One Thunderbolt 4 port with Power Delivery</li><li> <b>NOTE:</b> This port is only available on computers shipped with 11<sup>th</sup> Generation Intel Core i7 processors.</li></ul>
Audio port	One global headset jack
Video port	One HDMI 1.4 port
Media-card reader	One SD card reader
Power-adaptor port	One DC-in port (4.50 mm barrel type)
Security-cable slot	One wedge-shaped lock slot

## Internal slots

The following table lists the internal slots of your Vostro 15 5510.

**Table 9. Internal slots**

Description	Values
M.2	<ul style="list-style-type: none"><li>One M.2 2230 slot for WiFi and Bluetooth combo card</li><li>One M.2 2230/2280/2242 slot for solid-state drive/Intel Optane</li><li>One M.2 2280 slot for solid-state drive/Intel Optane</li></ul> <p> <b>NOTE:</b> To learn more about the features of different types of M.2 cards, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>

## Communications

### Ethernet

**Table 10. Ethernet specifications**

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

## Wireless module

**Table 11. Wireless module specifications**

Description	Values		
Model number	Intel 9462	Qualcomm QCA61x4A	Intel AX201
Transfer rate	Up to 433 Mbps	Up to 867 Mbps	Up to 2.40 Gbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"><li>• WiFi 802.11a/b/g</li><li>• Wi-Fi 4 (Wi-Fi 802.11n)</li><li>• Wi-Fi 5 (Wi-Fi 802.11ac)</li></ul>	<ul style="list-style-type: none"><li>• WiFi 802.11a/b/g</li><li>• WiFi 802.11n</li><li>• WiFi 802.11ac</li></ul>	<ul style="list-style-type: none"><li>• WiFi 802.11a/b/g</li><li>• Wi-Fi 4 (Wi-Fi 802.11n)</li><li>• Wi-Fi 5 (Wi-Fi 802.11ac)</li><li>• Wi-Fi 6 (Wi-Fi 802.11ax)</li></ul>
Encryption	<ul style="list-style-type: none"><li>• 64-bit/128-bit WEP</li><li>• AES-CCMP</li><li>• TKIP</li></ul>	<ul style="list-style-type: none"><li>• 64-bit/128-bit WEP</li><li>• AES-CCMP</li><li>• TKIP</li></ul>	<ul style="list-style-type: none"><li>• 64-bit/128-bit WEP</li><li>• AES-CCMP</li><li>• TKIP</li></ul>
Bluetooth	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 5.1

## Audio

The following table lists the audio specifications of your Vostro 15 5510.

**Table 12. Audio specifications**

Description		Values
Audio controller		<ul style="list-style-type: none"><li>• Realtek</li><li>• Cirrus Logic</li></ul>
Stereo conversion		Supported
Internal audio interface		High definition audio
External audio interface		Global headset jack
Number of speakers		Two
Internal-speaker amplifier		Supported (audio codec integrated)
External volume controls		Keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output		Not supported
Microphone		Dual-array microphones

# Storage

This section lists the storage options on your Vostro 15 5510.

Your computer supports one of the following configurations:

- M.2 drive x1
- M.2 drive x2

The primary drive of your computer varies with the storage configuration. For systems with a M.2 drive, the M.2 drive is the primary drive.


**Table 13. Storage specifications**

Storage type	Interface type	Capacity
M.2 2230, Class 35 solid-state drive	PCIe NVMe 3x4	Up to 1 TB
M.2 2280, Class 40 solid-state drive	PCIe NVMe 3x4	Up to 1 TB
M.2 2280, Class 40 solid-state drive	PCIe NVMe 4x4	2 TB
M.2 2280, QLC solid-state drive	PCIe NVMe 3x4	Up to 1 TB

## Media-card reader

The following table lists the media cards supported by your Vostro 15 5510.

**Table 14. Media-card reader specifications**

Description	Values
Media-card type	One SD card reader
Media-cards supported	Secure Digital (SD)
 <b>NOTE:</b> The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

## Keyboard

The following table lists the keyboard specifications of your Vostro 15 5510.

**Table 15. Keyboard specifications**

Description	Values
Keyboard type	<ul style="list-style-type: none"><li>• Standard keyboard</li><li>• Backlit keyboard</li></ul>
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none"><li>• United States and Canada: 99 keys</li><li>• United Kingdom: 100 keys</li><li>• Japan: 103 keys</li></ul>
Keyboard size	X=18.70 mm key pitch Y=18.05 mm key pitch



**Table 15. Keyboard specifications (continued)**

Description	Values
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><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) changing <b>Function Key Behavior</b> in BIOS setup program.</p>

## Camera

The following table lists the camera specifications of your Vostro 15 5510.

**Table 16. Camera specifications**

Description	Values
Number of cameras	One
Camera type	HD RGB camera
Camera location	Front camera
Camera sensor type	CMOS sensor technology
Camera resolution:	
Still image	0.92 megapixel
Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle:	74.90 degrees

## Touchpad

The following table lists the touchpad specifications of your Vostro 15 5510.

**Table 17. Touchpad specifications**

Description	Touchpad (Elan)	Touchpad (Goodix)
Touchpad resolution:		
Horizontal	3512	1920
Vertical	2442	1080
Touchpad dimensions:		
Horizontal	115 mm (4.53 in.)	115 mm (4.53 in.)
Vertical	80 mm (3.15 in.)	80 mm (3.15 in.)
Touchpad gestures	For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article <a href="https://support.microsoft.com/4027871">4027871</a> at <a href="https://support.microsoft.com">support.microsoft.com</a> .	

## Power adapter

The following table lists the power adapter specifications of your Vostro 15 5510.


**Table 18. Power adapter specifications**

Description		Values
Type		65 W, Barrel type
Connector dimensions:		
	External diameter	4.50 mm
	Internal diameter	2.90 mm
Input voltage		100 VAC-240 VAC
Input frequency		50 Hz-60 Hz
Input current (maximum)		1.60 A/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)

## Battery

The following table lists the battery specifications of your Vostro 15 5510.

**Table 19. Battery specifications**

Description		Option one	Option two
Battery type		3-Cell, 41 Wh Polymer	4-cell, 54 Wh Polymer
		 <b>NOTE:</b> Battery is a Field Replaceable Unit (FRU).	
Battery voltage		11.25 VDC	15 VDC
Battery weight (maximum)		0.176 kg (0.38 lb)	0.231 kg (0.50 lb)
Battery dimensions:			
	Height	206.40 mm (8.12 in.)	271.90 mm (10.70 in.)
	Width	82.00 mm (3.22 in.)	82.00 mm (3.22 in.)
	Depth	5.75 mm (0.22 in.)	5.75 mm (0.22 in.)
Temperature range:			
	Operating	0°C (32°F) to 35°C (95°F)	0°C (32°F) to 35°C (95°F)
	Storage	-20°C (-4°F) to 65°C (149°F)	-20°C (-4°F) to 65°C (149°F)

**Table 19. Battery specifications (continued)**

Description	Option one	Option two
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) <b>i</b> <b>NOTE:</b> 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 <a href="http://www.dell.com">www.dell.com</a> .	4 hours hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on <a href="http://www.dell.com/">www.dell.com/</a>	4 hours hours (when the computer is off) <b>i</b> <b>NOTE:</b> Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on <a href="http://www.dell.com/">www.dell.com/</a>
Approximate life span (discharge/charge cycles)	300 cycles at room temperature	300 cycles at room temperature
ExpressCharge	Supported	Supported
Coin-cell battery	CR2032	CR2032

## Display

The following table lists the display specifications of your Vostro 15 5510.

**Table 20. Display specifications**

Description	Option one	Option two
Display type	Full High Definition (FHD)	Full High Definition (FHD)
Display-panel technology	Wide-Viewing Angle (WVA), ComfortView Plus	Wide-Viewing Angle (WVA), ComfortView
Display-panel dimensions (active area):		
Height	193.60 mm (7.62 in.)	193.60 mm (7.62 in.)
Width	344.20 mm (13.55 in.)	344.20 mm (13.55 in.)
Diagonal	394.90 mm (15.6 in.)	394.90 mm (15.6 in.)
Display-panel native resolution	1920x1080	1920x1080
Luminance (typical)	300 nits	250 nits
Megapixels	2.0736	2.0736
Color gamut	sRGB 100% typical	NTSC 45% typical
Pixels Per Inch (PPI)	141 ppi	141 ppi
Contrast ratio (min.)	600:1	600:1
Response time (max.)	35 ms	35 ms
Refresh rate	60 Hz	60 Hz

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

Description	Option one	Option two
Horizontal view angle	80 minimum	80 minimum
Vertical view angle	80 minimum	80 minimum
Pixel pitch	0.179 mm x 0.179 mm	0.179 mm x 0.179 mm
Power consumption (maximum)	4.40 W	4.60 W
Anti-glare vs glossy finish	Anti-glare	Anti-glare
Touch options	No	No

## Fingerprint reader (optional)

The following table lists the specifications of the optional fingerprint-reader of your Vostro 15 5510.

**Table 21. 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 5510.

**Table 22. GPU—Integrated**

Controller	External display support	Memory size	Processor
Intel Iris X <sup>e</sup> Graphics	One HDMI 1.4	Shared system memory	11 <sup>th</sup> Generation Intel Core i5/i7

## GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Vostro 15 5510.

**Table 23. GPU—Discrete**


Controller	External display support	Memory size	Memory type
NVIDIA GeForce MX450	N/A	2 GB	GDDR5

## Operating and storage environment

This table lists the operating and storage specifications of your Vostro 15 5510.

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


**Table 24. 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	NA
Shock (maximum)	110 G†	NA
Altitude range	NA	NA
 <b>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.</b>		

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

† Measured using a 2 ms half-sine pulse.

## Dell ComfortView

 **CAUTION:** Prolonged 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.

Blue light is a color in the white light spectrum which has a short wavelength and high frequency. Chronic exposure to blue light, particularly from digital sources, may disrupt sleep patterns and change our body's Circadian rhythm. Using the computer for an extended period may also cause fatigue in other body parts such as the neck, arm, back, and shoulder.


Dell low blue light displays optimize eye comfort with a flicker-free screen. The ComfortView feature reduces the amount of blue light emitted from the monitor to optimize eye comfort. ComfortView mode can be enabled and configured using the **Dell CinemaColor** (DCC) application. Dell ComfortView is certified by TÜV.

## Dell CinemaColor

Dell CinemaColor (DCC) combines the hardware and software to deliver clear visuals that appear every bit as vibrant as the world around you. The DCC has four color profiles that optimize these settings depending on the content and your surroundings.


When you open DCC, you can choose **Movie (default)**, **ComfortView**, **Sports**, or **Animation** from the list. The ComfortView Profile optimizes eye comfort with a Low Blue Light software solution that meets TÜV standards to reduce harmful blue light emissions to make extended screen time easy on your eyes compared to standard digital panels while still retaining the vibrant colors.

ComfortView mode is certified by TÜV for the effective reduction of hazardous blue light by adjusting display parameters. You can adjust the Saturation, Temperature, and Contrast values to create your custom setting in the ComfortView mode.

 **NOTE:** For more information on DellCinema components see KB article [000178241](https://www.dell.com/support) at <https://www.dell.com/support>.

## ComfortView Plus


ComfortView Plus is a built-in, always-on, and virtually unnoticeable low blue light solution for Dell displays. ComfortView Plus employs a hardware-based design that allows for a wider blue spectrum, with a much lower peak and reduced intensity. Dell ComfortView Plus is certified by TÜV certified - low blue light hardware solution.

 **NOTE:** ComfortView Plus is an optional hardware feature to be configured at the point of sale.

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

- Position the display at a comfortable viewing distance between 20 in. to 28 in. (50 cm 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 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 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 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 multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).

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

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

**Table 25. List of keyboard shortcuts**

Function key	Re-defined key (for multi-media control)	Behavior
F1	fn + F1	Mute audio
F2	fn + F2	Decrease volume
F3	fn + F3	Increase volume
F4	fn + F4	Play/Pause
F5	fn + F5	Toggle keyboard backlight (optional)
F6	fn + F6	Decrease brightness
F7	fn + F7	Increase brightness
F8	fn + F8	Switch to external display
F10	fn + F10	Print screen
F11	fn + F11	Home
F12	fn + F12	End

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

**Table 26. List of keyboard shortcuts**

Function key	Behavior
fn + B	Pause/Break
fn + H	Toggle between power light and battery-status light
fn + S	Toggle scroll lock
fn + R	System request
fn + ctrl	Open application menu
fn + esc	Toggle fn-key lock
fn + page up	Page up

**Table 26. List of keyboard shortcuts (continued)**

<b>Function key</b>	<b>Behavior</b>
fn + page 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 27. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a>
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	<p>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 <a href="http://www.dell.com/support">www.dell.com/support</a>.</p> <p>For more information on how to find the Service Tag for your computer, see <a href="#">Locate the Service Tag on your computer</a>.</p>
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> <li>1. Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2. On the menu bar at the top of the Support page, select <b>Support &gt; Knowledge Base</b>.</li> <li>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.</li> </ol>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

 **NOTE:** Availability varies by country/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.