

Vostro 15 3515

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 3515

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.

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
	Dell Product Registration Register your computer with Dell.

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 SLN305843 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 153764 at www.dell.com/support.</p>

Views of Vostro 15 3515

Topics:

- [Right](#)
- [Left](#)
- [Top](#)
- [Front](#)
- [Bottom](#)
- [Battery Charge and Status LED](#)

Right



1. SD-card reader 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. One 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



1. DC-in 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.

NOTE: Maximum resolution supported over HDMI port is 1920 x 1080 @60 Hz. (No 4K/2K output).

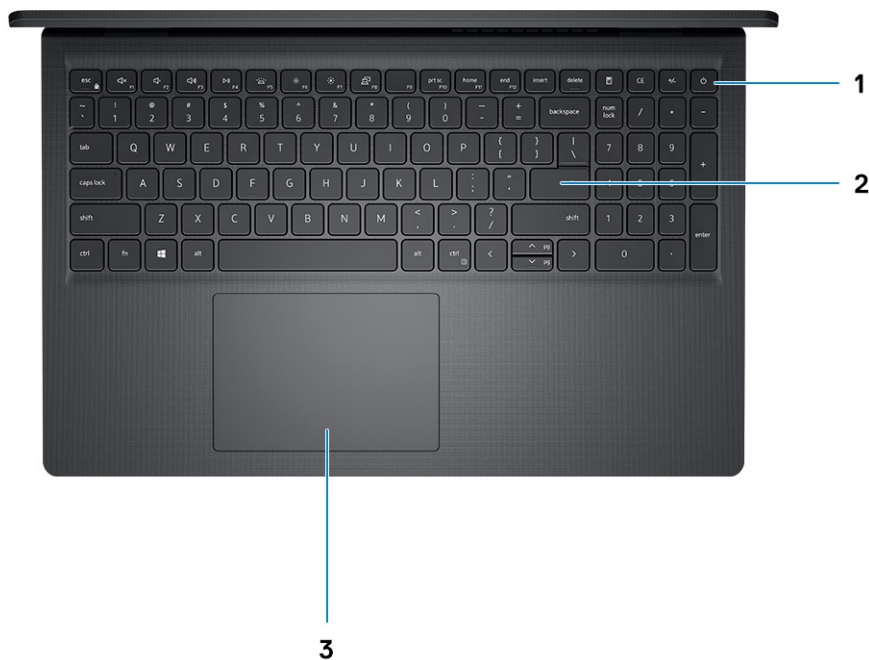
4. One USB 3.2 Gen 1 port

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. One 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.

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.

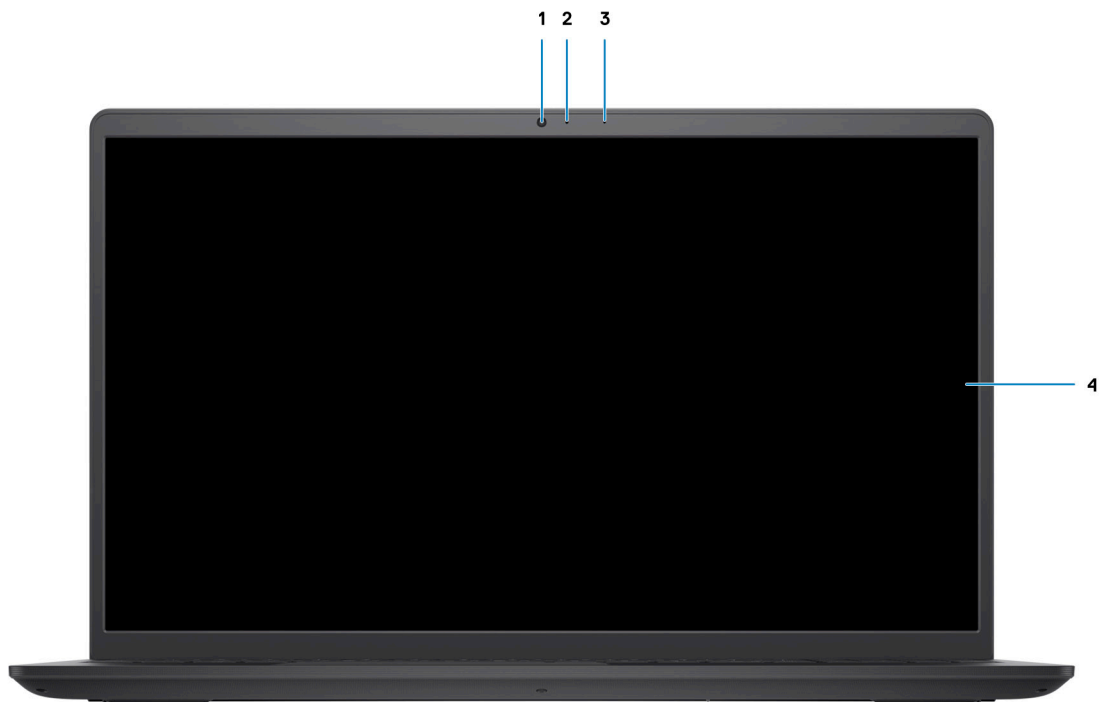
If the power button has a fingerprint reader, place your finger on the power button to log in.

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.

Front



1. Camera

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

2. Camera Status LED

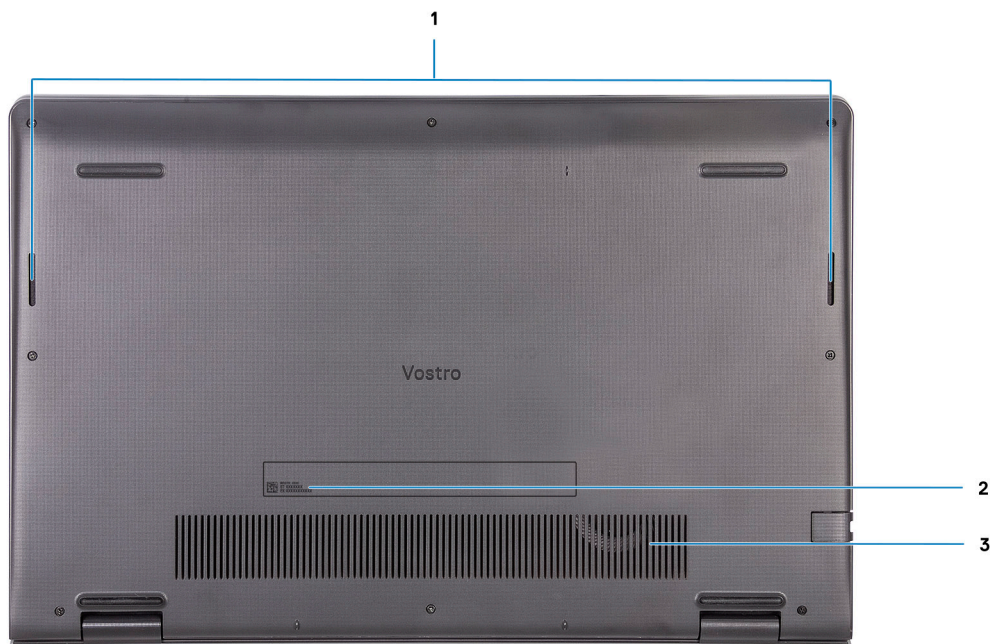
Turns on when the camera is in use.

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 3515


Topics:

- Dimensions and weight
- Processor
- Chipset
- Operating system
- Memory
- External ports
- Internal slots
- Ethernet
- Wireless module
- Audio
- Storage
- Media-card reader
- Keyboard
- Camera
- Touchpad
- Power adapter
- Battery
- Display
- Fingerprint reader
- GPU—Integrated
- Sensor and control specifications
- Operating and storage environment

Dimensions and weight

The following table lists the height, width, depth, and weight of your Vostro 15 3515.

Table 3. Dimensions and weight

Description	Values
Height:	
Front height	17.50 mm (0.66 in.)
Rear height	17.50 mm (0.66 in.)
Width	358.50 mm (14.11 in.)
Depth	235.56 mm (9.27 in.)
Starting weight	1.70 kg (3.75 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 supported by your Vostro 15 3515.

Table 4. Processor

Description	Option one	Option two	Option three	Option Four	Option Five
Processor type	AMD Athlon Silver 3050U	AMD Ryzen 3 3250U	AMD Ryzen 5 3450U	AMD Ryzen 5 3500U	AMD Ryzen 7 3700U
Processor wattage	15 W	15 W	15 W	15 W	15 W
Processor core count	2	2	4	4	4
Processor thread count	2	4	8	8	8
Processor speed	2.3 GHz to 3.2 GHz	2.6 GHz to 3.5 GHz	2.1 GHz to 3.5 GHz	2.1 GHz to 3.7 GHz	2.3 GHz to 4.0 GHz
Processor cache	4 MB	4 MB	4 MB	4 MB	4 MB
Integrated graphics	AMD Radeon Graphics	AMD Radeon Graphics	AMD Radeon Graphics	AMD Radeon Graphics	AMD Radeon Graphics

Chipset

The following table lists the details of the chipset supported by your Vostro 15 3515

Table 5. Chipset

Description	Option one	Option two
Processors	AMD Athlon series	AMD Ryzen series
Chipset	Integrated	Integrated
DRAM bus width	Two channels, 64-bit	Two channels, 64-bit
Flash EPROM	16 MB	16 MB
PCIe bus	Up to Gen 3	Up to Gen 3

Operating system

Your Vostro 15 3515 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 Linux 20.04 LTS, 64-bit

Memory

The following table lists the memory specifications of your Vostro 15 3515.

Table 6. Memory specifications

Description	Values
Memory slots	Two SODIMM
Memory type	DDR4
Memory speed	2400 MHz
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, 2400MHz• 8 GB, 2 x 4 GB, DDR4, 2400MHz• 8 GB, 1 x 8 GB, DDR4, 2400MHz• 16 GB, 2 x 8 GB, DDR4, 2400MHz• 16 GB, 1 x 16 GB, DDR4, 2400MHz

External ports

The following table lists the external ports of your Vostro 15 3515.

Table 7. External ports

Description	Values
Network port	One RJ 45 10/100/1000 Mbps
USB ports	<ul style="list-style-type: none">• Two USB 3.2 Gen1 Type-A ports• One USB 2.0 Type-A port
Audio port	Headset jack
Video port	One HDMI 1.4 port
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 3515.

Table 8. Internal slots

Description	Values
M.2	<ul style="list-style-type: none">• One M.2 2230 slot for Wi-Fi

Table 8. Internal slots

Description	Values
	<ul style="list-style-type: none"> One M.2 slot for 2230/2280 solid-state drive <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article 000144170 at www.dell.com/support.</p>

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Vostro 15 3515.

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) modules supported on your Vostro 15 3515.

Table 10. Wireless module specifications

Description	Option one	Option two
Model number	Qualcomm QCNFA435	Realtek RTL8821CE
Transfer rate	Up to 433 Mbps	Up to 433 Mbps
Frequency bands supported	2.4 GHz/5 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 Wave 2) 	<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)
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	Bluetooth 4.1	Bluetooth 5.0

Audio

Table 11. Audio specifications

Description	Values
Controller	Realtek ALC3204 <ul style="list-style-type: none"> Cirrus CS8409 Cirrus (CS42L42 + TI SN005825)
Stereo conversion	Supported

Table 11. Audio specifications (continued)

Description	Values	
Internal interface	HDA (High definition audio)	HDA bridge + CS42L42 audio codec
External interface	Headset jack	Headset jack i NOTE: 3.5 mm Headset jack functionality varies by model configuration. For best results, use Dell recommended audio accessories
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 3515.

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-in. 5400 rpm, hard drive	SATA	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 3515.


Table 13. Media-card reader specifications

Description	Values
Media-card type	One SD card
Media-cards supported	<ul style="list-style-type: none">Secure Digital (SD)Secure Digital High Capacity(SDHC)Secure Digital Extended Capacity(SDXC)
 NOTE: 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 3515.

Table 14. Keyboard specifications

Description	Values
Keyboard type	<ul style="list-style-type: none">Standard keyboardWhite Backlight keyboard
Keyboard layout	QWERTY
Number of keys	<ul style="list-style-type: none">United States and Canada: 101 keysUnited Kingdom: 102 keysJapan: 105 keys
Keyboard size	X=18.7 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>  NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program.

Camera

The following table lists the camera specifications of your Vostro 15 3515.

Table 15. Camera specifications

Description	Values
Number of cameras	One
Camera type	HD RGB camera

Table 15. Camera specifications (continued)

Description		Values
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:		78.6 degrees

Touchpad

The following table lists the touchpad specifications of your Vostro 15 3515.

Table 16. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	305
	Vertical	305
Touchpad dimensions:		
	Horizontal	115 mm (4.52 in.)
	Vertical	80 mm (3.15 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article 4027871 at support.microsoft.com .


Power adapter

The following table lists the power adapter specifications of your Vostro 15 3515.

Table 17. Power adapter specifications

Description		Values
Type		65 W
Connector dimensions:		
	External diameter	<ul style="list-style-type: none"> 2.9 mm x 4.5 mm
	Internal diameter	<ul style="list-style-type: none"> 2.9 mm x 4.5 mm
Input voltage		100 VAC x 240 VAC
Input frequency		50 Hz x 60 Hz
Input current (maximum)		1.70 A



Table 17. Power adapter specifications (continued)

Description		Values
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)
 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 3515.

Table 18. Battery specifications

Description	Option one	Option two
Battery type	3-cell, 41 Whr, lithium-polymer battery	4-cell, 54 Whr, lithium-polymer battery
Battery voltage	11.25 VDC	15.0 VDC
Battery weight (maximum)	0.19 kg (0.41 lb)	0.24 kg (0.54 lb)
Battery dimensions:		
	Height	206.40 mm (8.12 in.)
	Width	82.00 mm (3.22 in.)
	Depth	5.75 mm (0.22 in.)
Temperature range:		
	Operating	0°C to 35°C (32°F to 95°F)
	Storage	-40°C to 65°C (-40°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)	4 hours (when the computer is off)	4 hours (when the computer is off)
 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 .		
Coin-cell battery	NA	NA
 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.		

Display

The following table lists the display specifications of your Vostro 15 3515.

Table 19. Display specifications

Description		Option one	Option two
Display type		High Definition (HD)	Full High Definition (FHD)
Display-panel technology		Twisted Nematic (TN)	Wide Viewing angle (WVA)
Display-panel dimensions (active area):			
	Height	193.54 mm (7.62 in.)	193.54 mm (7.62 in.)
	Width	344.23 mm (13.60 in.)	344.23 mm (13.60 in.)
	Diagonal	394.90 mm (15.50 in.)	394.90 mm (15.50 in.)
Display-panel native resolution		1366 x 768	1920 x 1080
Luminance (typical)		220 nits	220 nits
Megapixels		1.05 M	2.07 M
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 (Left/Right)	80 degrees (Left/Right)
Vertical view angle (min.)		10 degrees (Up) / 30 degrees (Down)	80 degrees (Up/Down)
Pixel pitch		0.252 x 0.252 mm	0.17925 x 0.17925 mm
Power consumption (max.)		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 3515.

Table 20. Fingerprint reader specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	500 dpi

Table 20. Fingerprint reader specifications (continued)

Description	Values
Fingerprint-reader sensor pixel size	80 x 64

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Vostro 15 3515.

Table 21. GPU—Integrated

Controller	External display support	Memory size	Processor
AMD Radeon Graphics	<ul style="list-style-type: none"> One HDMI port 	Shared system memory	<ul style="list-style-type: none"> AMD Athlon Gold/Silver AMD Ryzen 3 AMD Ryzen 5 AMD Ryzen 7

Sensor and control specifications

Table 22. Sensor and control specifications

Specifications
1. Hall Effect Sensor (Detects when the lid is closed)

Operating and storage environment

This table lists the operating and storage specifications of your Vostro 15 3515.

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

Table 23. Computer environment

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

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.

Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol that is shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol 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 24. List of keyboard shortcuts

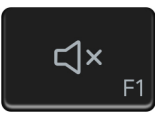
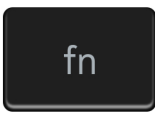
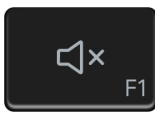
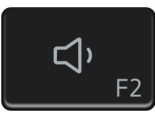
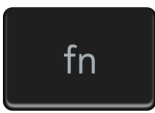
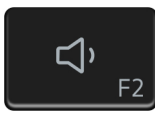
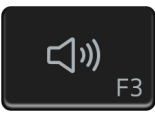
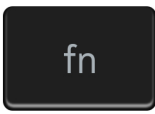
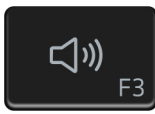
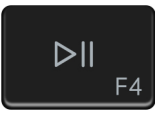
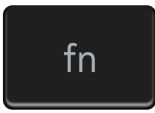
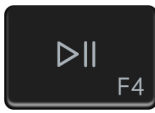

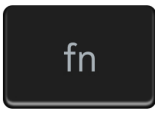
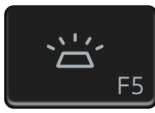
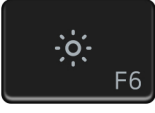
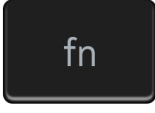
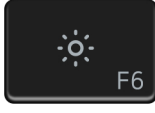


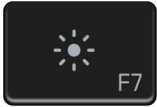
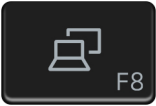

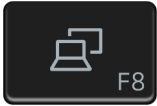



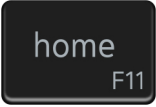
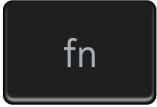
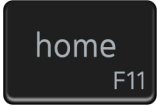
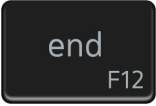
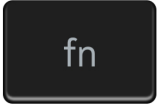
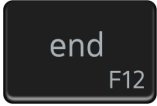









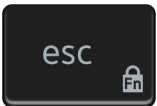
Function key	Redefined key (for multimedia control)	Behavior
	 + 	Mute audio
	 + 	Decrease volume
	 + 	Increase volume
	 + 	Play/Pause
	 + 	Toggle keyboard backlight (optional) NOTE: Non-backlight keyboards have F5 function key without the backlight icon and does not support toggle keyboard backlight function.
	 + 	Decrease brightness

Table 24. List of keyboard shortcuts (continued)

Function key	Redefined key (for multimedia control)	Behavior
	 + 	Increase brightness
	 + 	Switch to external display
	 + 	Print screen
	 + 	Home
	 + 	End

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

Table 25. List of keyboard shortcuts

Function key	Behavior
 + 	Pause/Break
 + 	Toggle scroll lock
 + 	System request
 + 	Open application menu
 + 	Toggle Fn-key lock

System setup

CAUTION: Unless you are an expert computer user, do not change the settings in the BIOS Setup program. Certain changes can make your computer work incorrectly.

NOTE: Before you change BIOS Setup program, it is recommended that you write down the BIOS Setup program screen information for future reference.

Use the BIOS Setup program for the following purposes:

- Get information about the hardware installed in your computer, such as the amount of RAM and the size of the hard drive.
- Change the system configuration information.
- Set or change a user-selectable option, such as the user password, type of hard drive installed, and enabling or disabling base devices.

Topics:

- [Boot menu](#)
- [Navigation keys](#)
- [Boot Sequence](#)
- [System setup options](#)
- [Updating the BIOS](#)
- [System and setup password](#)

Boot menu

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. Diagnostics and BIOS Setup options are also included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

The options are:

- **UEFI Boot Devices:**
 - Windows Boot Manager
 - UEFI Hard Drive
 - Onboard NIC (IPV4)
 - Onboard NIC (IPV6)
- **Pre-Boot Tasks:**
 - BIOS Setup
 - Diagnostics
 - BIOS Update
 - SupportAssist OS Recovery
 - BIOS Flash Update - Remote
 - Device Configuration

Navigation keys

NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.

Keys

Up arrow

Navigation

Moves to the previous field.

Keys	Navigation
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follow the link in the field.
Spacebar	Expands or collapses a drop-down list, if applicable.
Tab	Moves to the next focus area.
Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restarts the system.

Boot Sequence

Boot Sequence allows you to bypass the System Setup–defined boot device order and boot directly to a specific device (for example: optical drive or hard drive). During the Power-on Self Test (POST), when the Dell logo appears, you can:

- Access System Setup by pressing F2 key
- Bring up the one-time boot menu by pressing F12 key

The one-time boot menu displays the devices that you can boot from including the diagnostic option. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive (if available)
 - **NOTE:** XXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

The boot sequence screen also displays the option to access the System Setup screen.

System setup options

NOTE: Depending on your computer and its installed devices, the items listed in this section may or may not appear.

Table 26. System setup options—Main menu

Main	
System Time	Displays the current time in hh:mm:ss format.
System Date	Displays the current date in mm/dd/yyyy format.
BIOS Version	Displays the BIOS version.
Product Name	Displays the model number of your computer.
Service Tag	Displays the service tag of your computer.
Asset Tag	Displays the asset tag of your computer.
CPU Type	Displays the processor type.
CPU Speed	Displays the processor speed.
CPU ID	Displays the processor identification code.
CPU Cache	
L1 Cache	Displays the processor L1 cache size.
L2 Cache	Displays the processor L2 cache size.
L3 Cache	Displays the processor L3 cache size.
First HDD	Displays the type of hard drive installed.

Table 26. System setup options—Main menu (continued)

Main

AC Adapter Type	Displays the type of AC adapter.
System Memory	Displays the size of memory installed.
Memory Speed	Displays the speed of memory.
Keyboard Type	Displays the type of keyboard installed on the computer.

Table 27. System setup options—Advanced menu

Advanced

Virtualization	Enables or disables the Virtualization technology. Default: Enabled
VI for Direct I/O	Enables or disables the Virtualization technology for Direct I/O. Default: Enabled
Integrated NIC	Enables or disables the on-board LAN controller. Default: Enabled
USB Emulation	Enables or disables the USB emulation feature. This feature defines how the BIOS, in the absence of a USB-aware operating system, handles USB devices. USB emulation is always enabled during POST. i NOTE: You cannot boot any type of USB device (floppy, hard drive, or memory key) when this option is off. Default: Enabled
USB Wake Support	Allows you to enable USB devices to wake the computer from standby or to disable the USB wake support feature. i NOTE: If USB PowerShare is enabled, a device connected to the USB PowerShare connector may not wake the computer. i NOTE: To enable wake support for the fingerprint reader the USB Wake Support needs to be enabled in the BIOS. To enable USB wake support, complete the steps in the knowledge base article SLN321473 . Default: Disabled
SATA Operation	Allows you to configure the operating mode of the integrated SATA hard drive controller. Default: AHCI
Adapter Warnings	Allows you to choose if the computer should display warning messages when you use AC adapters that are not supported by your computer. Default: Enabled
Function Key Behavior	Allows you to set function key or multimedia key as the default function key behavior. Default: Multimedia key
Keyboard Illumination	Selects the operating mode of the keyboard illumination feature. Default: Bright

Table 27. System setup options—Advanced menu (continued)

Advanced	
Keyboard Backlight with AC	Selects the timeout value for the keyboard backlight when an AC adapter is plugged into the computer. Default: 1 minute
Keyboard Backlight with Battery	Selects the timeout value for the keyboard backlight when the computer is running on battery power. Default: 1 minute
Battery Health	Displays the battery health.
Camera	Enables or disables the camera. Default: Disabled
Battery Charge Configuration	Set the battery charge settings with a preselected custom charge start and stop. Default: Adaptive
Advanced Battery Charge Configuration	Enable Advanced Battery Charge Configuration from the beginning of the day to a specified work period. Default: Disabled
Maintenance	
Data Wipe on next boot	Enables or disables data wipe on the next boot. Default: Disabled
BIOS Recovery from Hard Drive	Enables the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.
BIOS Auto-Recovery	Enables BIOS to automatically recover BIOS without user actions. Default: Disabled
SupportAssist System Resolution	
Auto OS Recovery Threshold	Controls the automatic boot flow for SupportAssist System Resolution Console and for the Dell OS Recovery tool. Default: 2
SupportAssist OS Recovery	Enables or disables the boot flow for the SupportAssist OS Recovery tool in the even of certain system errors. Default: Disabled

Table 28. System setup options—Security menu

Security	
Admin Password Status	Displays if the administrator password is clear or set. Default: Not Set
System Password Status	Displays if the system password is clear or set. Default: Not Set
HDD Password	Displays if the system password is clear or set. Default: Not Set
Service Tag	Set your system's Service Tag.
Asset Tag	Set your system's Asset Tag.

Table 28. System setup options—Security menu (continued)

Security	
Admin Password	Allows you to set the administrator password. The administrator password controls access to the system setup utility.
System Password	Allows you to set the system password. The system password controls access to the computer at boot.
HDD Password	Allows you to set the HDD password. The HDD password controls access to the computers HDD.
Password Change	Allows you to permit or deny system password or HDD password changes. Default: Permitted
Absolute®	Allows you to track your computer Default: enabled
Absolute® Status	Allows you to activate or deactivate the Absolute® feature Displays if the system password is clear or set. Default: Deactivate
WINDOWS SMM SECURITY MITIGATIONS TABLE (WSMT)	Enables or disables configuration of platform features on Dell Client Systems with WSMT-enabled BIOS. Default: Enabled
Firmware TPM	Enable or disable the firmware TPM. Default: Enabled
PPI Bypass for Clear Command	Allows you to control the TPM Physical Presence Interface (PPI). When enabled, this setting will allow the OS to skip BIOS PPI user prompts when issuing the Clear command. Changes to this setting take effect immediately. Default: Disabled
TPM Security	TPM 2.0 Security options.
UEFI Firmware Capsule Updates	Enables or disables BIOS updates through UEFI capsule update packages. Default: Enabled
Secure Boot	Enables or disables Secure Boot. Default: Enabled

Table 29. System setup options—Boot menu

Boot	
File Browser Add Boot Option	Allows you to add boot options.

Table 30. System setup options—Exit menu

Exit	
Exit Saving Changes	Allows you to exit system setup and save your changes.
Save Change Without Exit	Allows you to save your changes without exiting the BIOS setup.
Exit Discarding Changes	Allows you to exit the BIOS setup without saving the changes.
Load Optimal Defaults	Allows you to restore default values for all system setup options.

Table 30. System setup options—Exit menu (continued)

Exit	
Discard Changes	Allows you to load previous values for all system setup options.

Updating the BIOS

Updating the BIOS in Windows

CAUTION: If BitLocker is not suspended before updating the BIOS, the next time you reboot the system it will not recognize the BitLocker key. You will then be prompted to enter the recovery key to progress and the system will ask for this on each reboot. If the recovery key is not known this can result in data loss or an unnecessary operating system re-install. For more information on this subject, see Knowledge Article: <https://www.dell.com/support/article/sln153694>

1. Go to www.dell.com/support.
2. Click **Product support**. In the **Search support** box, enter the Service Tag of your computer, and then click **Search**.
NOTE: If you do not have the Service Tag, use the SupportAssist feature to automatically identify your computer. You can also use the product ID or manually browse for your computer model.
3. Click **Drivers & Downloads**. Expand **Find drivers**.
4. Select the operating system installed on your computer.
5. In the **Category** drop-down list, select **BIOS**.
6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
7. After the download is complete, browse the folder where you saved the BIOS update file.
8. Double-click the BIOS update file icon and follow the on-screen instructions.
For more information, see knowledge base article [000124211](https://www.dell.com/support/article/000124211) at www.dell.com/support.

Updating the BIOS in Linux and Ubuntu

To update the system BIOS on a computer that is installed with Linux or Ubuntu, see the knowledge base article [000131486](https://www.dell.com/support/article/000131486) at www.dell.com/support.

Updating the BIOS using the USB drive in Windows

CAUTION: If BitLocker is not suspended before updating the BIOS, the next time you reboot the system it will not recognize the BitLocker key. You will then be prompted to enter the recovery key to progress and the system will ask for this on each reboot. If the recovery key is not known this can result in data loss or an unnecessary operating system re-install. For more information on this subject, see Knowledge Article: <https://www.dell.com/support/article/sln153694>

1. Follow the procedure from step 1 to step 6 in [Updating the BIOS in Windows](#) to download the latest BIOS setup program file.
2. Create a bootable USB drive. For more information, see the knowledge base article [000145519](https://www.dell.com/support/article/000145519) at www.dell.com/support.
3. Copy the BIOS setup program file to the bootable USB drive.
4. Connect the bootable USB drive to the computer that needs the BIOS update.
5. Restart the computer and press **F12**.
6. Select the USB drive from the **One Time Boot Menu**.
7. Type the BIOS setup program filename and press **Enter**.
The **BIOS Update Utility** appears.
8. Follow the on-screen instructions to complete the BIOS update.

Updating the BIOS from the F12 One-Time boot menu

Update your computer BIOS using the BIOS update.exe file that is copied to a FAT32 USB drive and booting from the F12 One-Time boot menu.

CAUTION: If BitLocker is not suspended before updating the BIOS, the next time you reboot the system it will not recognize the BitLocker key. You will then be prompted to enter the recovery key to progress and the system will ask for this on each reboot. If the recovery key is not known this can result in data loss or an unnecessary operating system re-install. For more information on this subject, see Knowledge Article: <https://www.dell.com/support/article/sln153694>

BIOS Update

You can run the BIOS update file from Windows using a bootable USB drive or you can also update the BIOS from the F12 One-Time boot menu on the computer.

Most of the Dell computers built after 2012 have this capability, and you can confirm by booting your computer to the F12 One-Time Boot Menu to see if BIOS FLASH UPDATE is listed as a boot option for your computer. If the option is listed, then the BIOS supports this BIOS update option.

NOTE: Only computers with BIOS Flash Update option in the F12 One-Time boot menu can use this function.

Updating from the One-Time boot menu

To update your BIOS from the F12 One-Time boot menu, you need the following:

- USB drive formatted to the FAT32 file system (key does not have to be bootable)
- BIOS executable file that you downloaded from the Dell Support website and copied to the root of the USB drive
- AC power adapter that is connected to the computer
- Functional computer battery to flash the BIOS

Perform the following steps to perform the BIOS update flash process from the F12 menu:

CAUTION: Do not turn off the computer during the BIOS update process. The computer may not boot if you turn off your computer.

1. From a turn off state, insert the USB drive where you copied the flash into a USB port of the computer.
2. Turn on the computer and press F12 to access the One-Time Boot Menu, select BIOS Update using the mouse or arrow keys then press Enter.
The flash BIOS menu is displayed.
3. Click **Flash from file**.
4. Select external USB device.
5. Select the file and double-click the flash target file, and then click **Submit**.
6. Click **Update BIOS**. The computer restarts to flash the BIOS.
7. The computer will restart after the BIOS update is completed.

System and setup password

Table 31. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.
Setup password	Password that you must enter to access and make changes to the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

CAUTION: The password features provide a basic level of security for the data on your computer.

CAUTION: Anyone can access the data stored on your computer if it is not locked and left unattended.

 **NOTE:** System and setup password feature is disabled.

Assigning a system setup password

You can assign a new **System or Admin Password** only when the status is in **Not Set**.


To enter the system setup, press F12 immediately after a power-on or reboot.

1. In the **System BIOS** or **System Setup** screen, select **Security** and press Enter.
The **Security** screen is displayed.
2. Select **System/Admin Password** and create a password in the **Enter the new password** field.
Use the following guidelines to assign the system password:
 - A password can have up to 32 characters.
 - The password can contain the numbers 0 through 9.
 - Only lower case letters are valid, upper case letters are not valid.
 - Only the following special characters are valid: Space, ("), (+), (,), (-), (.), (/), (:), ([), (\), (]), (`).
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press F10 to save the changes.
The computer restarts.

Deleting or changing an existing system setup password


Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System password. You cannot delete or change an existing System password, if the **Password Status** is Locked.

To enter the System Setup, press F12 immediately after a power-on or reboot.

1. In the **System BIOS** or **System Setup** screen, select **System Security** and press Enter.
The **System Security** screen is displayed.
2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.
3. Select **System Password**, update, or delete the existing system password, and press Enter or Tab.
 **NOTE:** If you change the System password, reenter the new password when prompted. To delete the System and/or Setup password, key in a blank entry into the password window and hit enter.
4. Press F10 to save the changes.
The computer restarts.

Clearing BIOS (System Setup) and System passwords

To clear the system or BIOS passwords, contact Dell technical support as described at www.dell.com/contactdell.



 **NOTE:** For information on how to reset Windows or application passwords, refer to the documentation accompanying Windows or your application.

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 32. 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 www.dell.com/support/linux
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.