Vostro 3501

Setup and specifications guide



Notes, cautions, and warnings

(i) 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.

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

© 2020-2021 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Notes, cautions, and warnings

i 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.

© 2020-2021 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Contents

Chapter 2: Create a USB recovery drive for Windows	
Chapter 3: Chassis overview	
Display view	
Left view	
Right view	
Palmrest view	
Bottom view	
Keyboard shortcuts	
Chapter 4: Technical specifications	
Processors	
Chipset	
Operating system	
Memory	
Storage	
Ports and connectors	
Audio	
Video	
Camera	
Communications	
Keyboard	
Touchpad	
Media-card reader	
Power adapter	
Battery Dimensions and weight	
Dimensions and weight	
Fingerprint reader	
Security	
SecuritySecurity Software	
Computer environment	

Set up your computer

Steps

- 1. Connect the power adapter and press the power button.
 - (i) NOTE: To conserve battery power, the battery might enter power saving mode.



- 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.
	Dell Help & Support Access help and support for your computer.
DELL	My Dell Centralized location for key Dell applications, help articles, and other important information about your computer. It also notifies you about the warranty status, recommended accessories, and software updates if available.
	SupportAssist
	SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you 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.
	i NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
L	Dell Update Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article 000149088 at www.dell.com/support.
	Dell Digital Delivery 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.

Create a USB recovery drive for Windows

Create a recovery drive to troubleshoot and fix problems that may occur with Windows. An empty USB flash drive with a minimum capacity of 16 GB is required to create the recovery drive.

Prerequisites

- i NOTE: This process may take up to an hour to complete.
- NOTE: The following steps may vary depending on the version of Windows installed. Refer to the Microsoft support site for latest instructions.

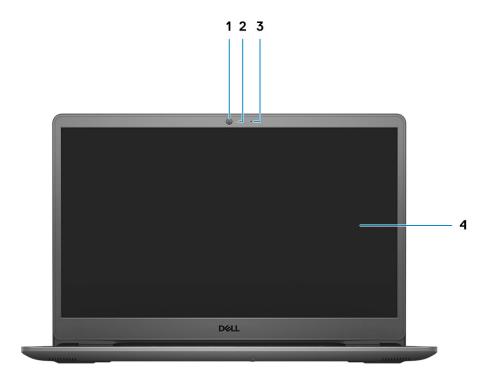
Steps

- 1. Connect the USB flash drive to your computer.
- 2. In Windows search, type **Recovery**.
- In the search results, click Create a recovery drive.
 The User Account Control window is displayed.
- 4. Click Yes to continue.
 - The **Recovery Drive** window is displayed.
- 5. Select Back up system files to the recovery drive and click Next.
- 6. Select the USB flash drive and click Next.
 - A message appears, indicating that all data in the USB flash drive will be deleted.
- 7. Click Create.
- 8. Click Finish.

For more information about reinstalling Windows using the USB recovery drive, see the *Troubleshooting* section of your product's *Service Manual* at www.dell.com/support/manuals.

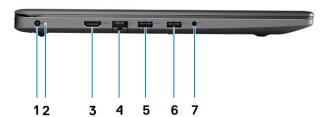
Chassis overview

Display view



- 1. Camera
- 2. Camera Status Light
- **3.** Microphones
- 4. LCD Panel

Left view



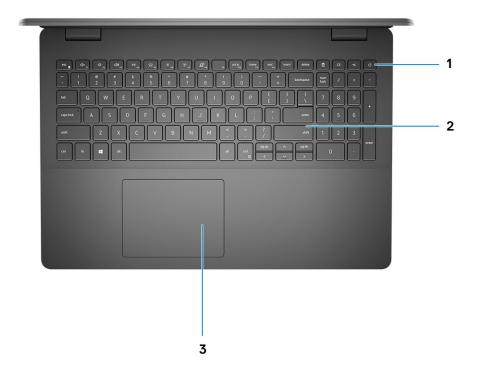
- 1. DC-in port
- 2. LED indicator
- **3.** HDMI 1.4 port
 - i NOTE: The maximum resolution supported by HDMI port is 1920x1080 @60Hz (24 bit)
- 4. Network Port
- 5. USB 3.2 Gen 1 port
- 6. USB 3.2 Gen 1 port
- 7. Universal audio jack (Realtek audio) / Audio jack (Cirrus audio logic)

Right view



- 1. SD 3.0 card reader slot
- 2. USB 2.0 Type-A port
- 3. Wedge-shaped security slot

Palmrest view



- 1. Power button with optional finger print reader
- 2. Keyboard
- 3. Touchpad

Bottom view



- 1. Speakers
- 2. Service Tag
- 3. Air Vents

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 2. List of keyboard shortcuts

Keys	Primary behavior
Fn + F1	Mute audio
Fn + F2	Decrease volume
Fn + F3	Increase volume
Fn + F4	Play/Pause
Fn + F5	Turn on/off keyboard backlight
Fn + F6	Decrease brightness

Table 2. List of keyboard shortcuts (continued)

Keys	Primary behavior
Fn + F7	Increase brightness
Fn + F8	Switch to external display
Fn + F10	Print screen
Fn + F11	Home
Fn + 12	End
Fn + Ctrl	Open application menu

Technical specifications

NOTE: Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information about the configuration of your computer, go to Help and Support in your Windows operating system and select the option to view information about your computer.

Processors

Table 3. Processors

Description	Values
Processors	10th Generation Intel Core i3-1005G1
Wattage	15 W
Core count	2
Thread count	4
Speed	Up to 3.4 GHz
Cache	4 MB
Integrated graphics	Intel UHD Graphics

Chipset

Table 4. Chipset

Description	Values
Processor	Ice lake U (ICL U) PCH-LP
Chipset	Intel Core i3
DRAM bus width	64-bit
PCle bus	Gen 3

Operating system

Your Vostro 3501 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Home National Academic, 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

Table 5. Memory specifications

Description	Values	
Slots	Two SODIMM slots	
Туре	DDR4	
Speed	2666 MHz	
Maximum memory	16 GB	
Minimum memory	4 GB	
Configurations supported	 4 GB DDR4 at 2666 MHz (1x4 GB) 8 GB DDR4 at 2666 MHz (2 x 4 GB) 8 GB DDR4 at 2666 MHz (1 x 8 GB) 12 GB DDR4 at 2666 MHz (1 x 8 GB + 1 x 4 GB) 16 GB DDR4 at 2666 MHz (1 x 16 GB) 16 GB DDR4 at 2666 MHz (2 x 8 GB) 	

Storage

Your computer supports one of the following configurations:

- 2.5 in. 5400 RPM, SATA hard drive
- M.2 2230/2280 for solid-state drive

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

- 2.5 in. 5400 RPM, SATA hard drive
- M.2 2230/2280 for solid-state drive

Table 6. Storage specifications

Form factor	Interface type	Capacity
2.5 in. 5400 rpm, hard drive	SATA	upto 2 TB
M.2 2230 solid-state drive	PCle NVMe 3x4	upto 512 GB
M.2 2280 solid-state drive	PCIe NVMe 3x4	upto 1 TB

Ports and connectors

Table 7. External ports and connectors

Description	Values	
External:		
Network	One Flip-down RJ 45 10/100/1000 Mbps	
USB	Two USB 3.2 Gen 1 Type-A portOne USB 2.0 Type-A port	
Audio	One Universal audio port (Computers with Realtek audio configuration)	

Table 7. External ports and connectors (continued)

Description	Values	
	One Audio jack (Computers with Cirrus logic audio configuration)	
Video	One HDMI 1.4 port (i) NOTE: The maximum resolution supported by HDMI port is 1920x1080 @60Hz (24 bit)	
Power adapter port	4.5 mm barrel-type	
Security	One Wedge shaped lock slot	
Card slot	One SD 3.0 card slot	

Table 8. Internal ports and connectors

Description	Values
Internal:	
One M.2 Key-M (2280 or 2230) for solid-state drive One M.2 2230 Key-E for WLAN	 One M.2 2230 slot for Wi-Fi One M.2 slot for 2230/2280 solid-state drive NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.
SIM card	Not Supported

Audio

Table 9. Audio specifications

Description	Values	
Controller	Realtek ALC3204	Cirrus CS8409 (CS42L42 + TI SN005825)
Stereo conversion	Supported	Supported
Internal interface	High definition audio	HDA bridge + CS42L42 audio codec
External interface	Universal Audio Jack	Headset jack (i) NOTE: 3.5mm 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

Table 9. Audio specifications (continued)

Description	Values	
Speaker Output Peak	2.5 W	2.5 W
Subwoofer output	Not supported	Not supported
Microphone	Single digital microphone	Single digital microphone

Video

Table 10. Integrated graphics specifications

Integrated graphics			
Controller External display support		Memory size	Processor
Intel UHD Graphics	One HDMI 1.4 NOTE: The maximum resolution supported by HDMI port is 1920x1080 @60Hz (24 bit)	Shared system memory	Intel 10th Generation Core i3 processors

Camera

Table 11. Camera specifications

Standard Webcam		
Description		Values
Number of	cameras	One
Туре		HD RGB camera
Location		Front Camera
Sensor type	Э	CMOS sensor technology
Resolution:		
	Still image	0.92 megapixel
	Video	1280 x 720 (HD) at 30 fps
Diagonal viewing angle		78.6 degrees

Communications

Ethernet

Table 12. Ethernet specifications

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

Wireless module

Table 13. Wireless module specifications

Description		Values	
Model number	Intel 9462	Qualcomm QCA9377 (DW1810)	Realtek RTL8723DE
Transfer rate	Up to 433 Mbps	Up to 433 Mbps	Up to 150 Mbps
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz
Wireless standards	 WiFi 802.11a/b/g Wi-Fi 4 (Wi-Fi 802.11n) Wi-Fi 5 (Wi-Fi 802.11ac) Wi-Fi 6 (WiFi 802.11ax) 	WiFi 802.11a/b/gWi-Fi 4 (Wi-Fi 802.11n)Wi-Fi 5 (Wi-Fi 802.11ac)	Wi-Fi 802.11 a/b/gWi-Fi 4 (WiFi 802.11n)
Encryption	64-bit/128-bit WEPAES-CCMPTKIP	64-bit/128-bit WEPAES-CCMPTKIP	64-bit/128-bit WEPAES-CCMPTKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 4.2

Keyboard

The following table lists the keyboard specifications of your Vostro 3501.

Table 14. Keyboard specifications

Description	Values
Keyboard type	Standard keyboardWhite backlight keyboard
Keyboard layout	QWERTY
Number of keys	 United States and Canada: 101 keys United Kingdom: 102 keys Japan: 105 keys
Keyboard size	X=18.7 mm key pitch Y=18.05 mm key pitch
Keyboard shortcuts	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. (i) NOTE: You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program.

Touchpad

The following table lists the touchpad specifications of your Vostro 3501.

Table 15. Touchpad specifications

Description		Values
Touchpad reso	plution:	
	Horizontal	Synaptics: 1230Lite-on: 1920
	Vertical	Synaptics: 930Lite-on: 1080
Touchpad dim	ensions:	
ŀ	Horizontal	105 mm (4.13 in.)
\	Vertical	65 mm (2.55 in.)
Touchpad gestures		For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Media-card reader

Table 16. Media-card reader specifications

Description	Values
Туре	One Micro SD 3.0 card
Cards supported	 Micro Secure Digital (mSD) Micro Secure Digital High Capacity(mSDHC) Micro Secure Digital Extended Capacity(mSDXC)

Power adapter

Table 17. Power adapter specifications

Description	Values	Values
Туре	45 W	65 W
Connector dimensions:	4.5 mm x 2.9 mm	4.5 mm x 2.9 mm
Input voltage	100 VAC x 240 VAC	100 VAC x 240 VAC
Input frequency	50 Hz x 60 Hz	50 Hz x 60 Hz
Input current (maximum)	1.30 A	1.60 A / 1.70 A
Output current (continuous)	2.31 A	3.34 A
Rated output voltage	19.50 VDC	19.50 VDC
Temperature range:		

Table 17. Power adapter specifications (continued)

Desc	cription	Values	Values
	Operating	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
	Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Battery

Table 18. Battery specifications

Description		Values
Туре		42 WHr Polymer battery
Voltage		11.40 VDC
Weight (max	imum)	0.2 kg (0.44 lb)
Dimensions:		<u>'</u>
	Height	184.15 mm (7.25 in.)
	Width	97.15 mm (3.82 in.)
	Depth	5.90 mm (0.23 in.)
Temperature	e range:	
	Operating	0°C to 35°C (32°F to 95°F)
	Storage	-40°C to 65°C (-40°F to 149°F)
Operating tir	ne	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.
Charging time (approximate)		4 hours (when the computer is off) (i) 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 your computer to reduce the power consumption. 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, Me and My Dell on www.dell.com/
Coin-cell bat	tery	CR2032
Operating tir	ne	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.

Dimensions and weight

Table 19. Dimensions and weight

Description	Values
Height:	

Table 19. Dimensions and weight (continued)

Description		Values	
	Front	18 mm (0.70 in.)	
	Rear	19.90 mm (0.78 in.)	
Width		363.96 mm (14.32 in.)	
Depth		249 mm (9.80 in.)	
Weight		 Touch: 1.91 kg (4.21 lb) Non-touch: 1.90 kg (4.18 lb) NOTE: The weight of your notebook depends on the configuration ordered and the manufacturing variability. 	

Display

Table 20. Display specifications

Decsription			Values	
Туре		High Definition (HD)	Full High Definition (FHD)	
Panel technology		TN (Twisted Nematic)	WVA (wide view angle)	
Luminance (typical)		220 nits	220 nits	
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.)	
Native resolu	ution	1366 x 768	1920 x 1080	
Megapixels		1.05	2.07	
Color gamut		NTSC 45% Typ.	NTSC 45% Typ.	
Pixels per ind	ch (PPI)	100	141	
Contrast rat	io (min)	400:1	400:1	
Response time (max)		25 ms	35 ms	
Refresh rate		60 Hz	60 Hz	
Horizontal view angle		40 degrees	80 degrees	
Vertical view angle		Top/Bottom 10/30 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	

Table 20. Display specifications (continued)

Decsription	Values	
Touch options	No	No

Fingerprint reader

Table 21. Fingerprint reader specifications

Description	Values
Sensor technology	Capacitive
Sensor resolution	500 dpi
Sensor pixel size	80 x 64

Security

Table 22. Security specifications

Features	Specifications
Trusted Platform Module (TPM) 2.0	Integrated on system board
Fingerprint reader	Optional
Wedge-shaped lock slot	Standard

Security Software

Table 23. Security Software specifications

Specifications	
Dell Client Command Suite	
Optional Dell Data Security and Management Software	
Dell Client Command Suite	
Dell BIOS Verification	
Optional Dell Endpoint Security and Management Software	
VMware Carbon Black Endpoint Standard	
VMware Carbon Black Endpoint Standard + Secureworks Threat Detection and Response	
Dell Encryption Enterprise	
Dell Encryption Personal	
Carbonite	
VMware Workspace ONE	
Absolute® Endpoint Visibility and Control	
Netskope	
Dell Supply Chain Defense	

Computer environment

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	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude (maximum)	0 m to 3048 m (0 ft to 10000 ft)	0 m to 10668 m (0 ft to 35000 ft)

 $[\]ensuremath{^{*}}$ Measured using a random vibration spectrum that simulates user environment.

 $[\]ensuremath{\dagger}$ Measured using a 2 ms half-sine pulse when the hard drive is in use.

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	DELL
Tips	*
Contact Support	In Windows search, type Contact Support, 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	 Go to www.dell.com/support. On the menu bar at the top of the Support page, select Support > Knowledge Base. 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.

- (i) 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.