Vostro 5301

Setup and Specifications

Regulatory Model: P121G
Regulatory Type: P121G002
August 2021
Rev. A01

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.

1

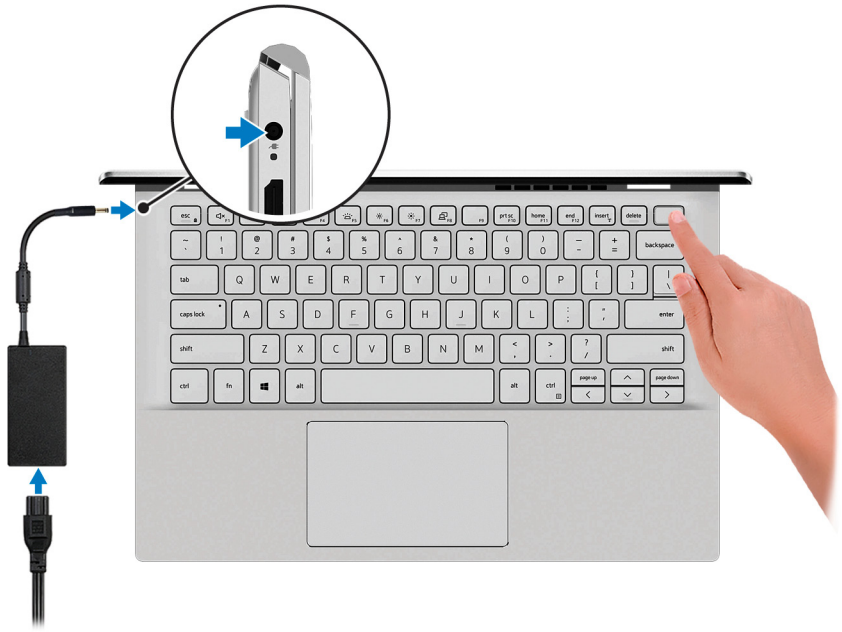
Set up your Vostro 5301

About this task

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

Steps

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



NOTE: All pictures shown are for illustration purposes only. Actual product may differ in color.

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.

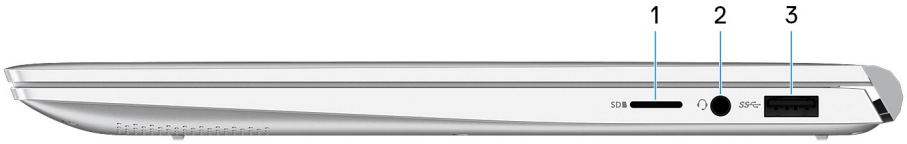
Table 1. Locate Dell apps

Resources	Description
	**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** Pro-actively checks the health of your computer's hardware and software. The SupportAssist OS Recovery tool troubleshoots issues with the operating system. For more information, see the SupportAssist documentation at www.dell.com/support. **NOTE:** In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.
	**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 SLN305843 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 153764 at www.dell.com/support.

2

Views of Vostro 5301

Right



NOTE: All pictures shown are for illustration purposes only. Actual product may differ in color.

1. **microSD-card slot**

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

   - microSecure Digital (microSD)
   - microSecure Digital High Capacity (microSDHC)
   - microSecure Digital Extended Capacity (microSDXC)

2. **Headset port**

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

3. **USB 3.2 Gen 1 port**

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

Left

NOTE: All pictures shown are for illustration purposes only. Actual product may differ in color.

1. **Power-adapter port**

   Connect a power adapter to provide power to your computer.

2. Power connector LED/ Diagnostics LED
3. **HDMI port**

   Connect to a TV 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.

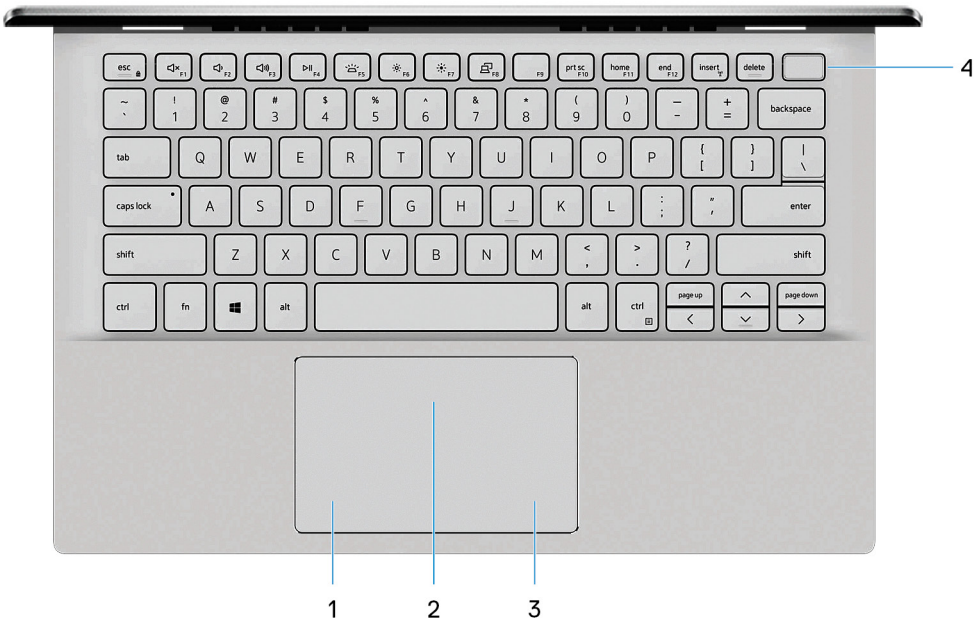
5. **USB 3.2 Gen 2 (Type-C) port with Power Delivery/DisplayPort**

   Connect peripherals such as external storage devices, printers, and external displays.

   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.

Base



NOTE: All pictures shown are for illustration purposes only. Actual product may differ in color.

1. **Left-click area**

   Press to left-click.

2. **Touchpad**

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

3. **Right-click area**

   Press to right-click.

4. **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.

Display

NOTE: All pictures shown are for illustration purposes only. Actual product may differ in color.

1. **Left microphone**

   Provides digital sound input for audio recording and voice calls.

2. **Camera**

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

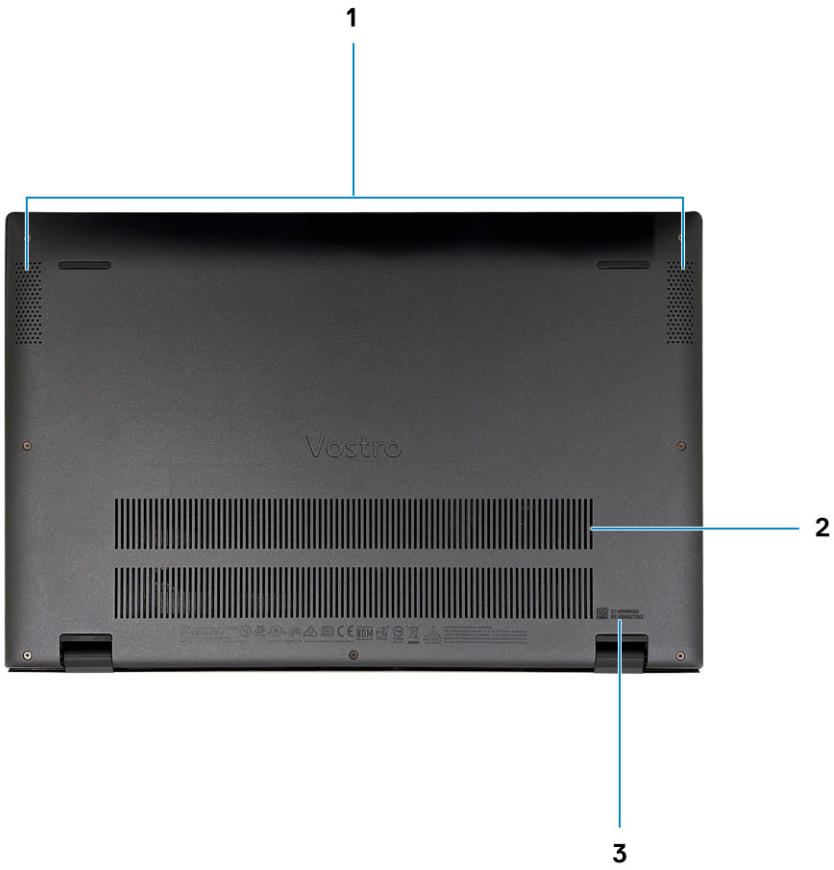
3. **Camera-status light**

   Turns on when the camera is in use.

4. **Right microphone**

   Provides digital sound input for audio recording and voice calls.

Bottom



1. **Speaker grills**

   Provides audio output.

2. **Fan vents**

   Provides for entry of air intake.

3. **Service Tag label**

   The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your computer and access warranty information.

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Specifications of Vostro 5301

Dimensions and weight

The following table lists the height, width, depth, and weight of your Vostro 5301.

Table 2. Dimensions and weight

Description	Values
Height:	
Front height	14.00 mm (0.551 in.)
Rear height	15.90 mm (0.626 in.)
Width	306.00 mm (12.00 in.)
Depth	204.00 mm (8.03 in.)
Weight (maximum)	• UMA: 1.16 kg (2.56 lb) • DSC: 1.25 kg (2.75 lb) **NOTE:** The weight of your computer depends on the configuration ordered and manufacturing variability.

Processors

NOTE: Global Standard Products (GSP) are a subset of Dell's relationship products that are managed for availability and synchronized transitions on a worldwide basis. They ensure the same platform is available for purchase globally. This allows customers to reduce the number of configurations managed on a worldwide basis, thereby reducing their costs. They also enable companies to implement global IT standards by locking in specific product configurations worldwide.

Device Guard (DG) and Credential Guard (CG) are the new security features that are only available on Windows 10 Enterprise today. Device Guard is a combination of enterprise-related hardware and software security features. When you configure together, it locks a device down so that it can only run trusted applications. Credential Guard uses virtualization-based security to isolate secrets (credentials) so that only privileged system software can access them. Unauthorized access to these secrets can lead to credential theft attacks. Credential Guard prevents these attacks by protecting NT LAN Manager (NTLM) password hashes and Kerberos Ticket Granting Tickets.

NOTE: Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 3. Processors

Description	Option one	Option two
Processors	11th Generation Intel Core i5-1135G7	11th Generation Intel Core i7-1165G7
Wattage	15 W	28 W
Core count	4	4

Table 3. Processors (continued)

Description	Option one	Option two
Thread count	8	8
Speed	2.4 GHz to 4.2 GHz	2.8 GHz to 4.7 GHz
Cache	8 MB	8 MB
Integrated graphics	Intel Iris Xe Graphics	Intel Iris Xe Graphics

Chipset

The following table lists the details of the chipset supported by your Vostro 5301.

Table 4. Chipset

Description	Values
Chipset	Intel
Processor	11th Generation Intel Tiger Lake Core i5/i7
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen3

Operating system

Your Vostro 5301 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Windows 11 Home National Academic, 64-bit
- Windows 11 Home in S-mode, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Ubuntu 18.04 LTS (64-bit)

Memory

The following table lists the memory specifications of your Vostro 5301.

Table 5. Memory specifications

Description	Values
Memory slots	Onboard system memory
Memory type	Single-channel LPDDR4x soldered down
Memory speed	4267 MHz
Maximum memory configuration	16 GB

Table 5. Memory specifications (continued)

Description	Values
Minimum memory configuration	8 GB
Memory configurations supported	• 8 GB, 1 x 8 GB, LPDDR4, 4267 MHz • 16 GB, 2 x 8 GB, LPDDR4, 4267 MHz • 16 GB, 1 x 16 GB, LPDDR4, 4267 MHz

Ports and connectors

Table 6. External ports and connectors

Description	Values
External:	
USB	• One USB 3.2 Gen 2 Type-C port with DisplayPort 1.2 and Power Delivery support (10 Gbps) • Two USB 3.2 Gen 1 Type-A port with PowerShare (5 Gbps)
Audio	One headset (headphone and microphone combo) port
Video	One HDMI 2.0 Port
Media card reader	One microSD 3.0 card reader (integrated)
Power adapter port	One 4.5 mm x 2.9 mm DC-in port

Table 7. Internal ports and connectors

Description	Values
Internal:	
M.2	• One M.2 2230 slot for Wi-Fi • One M.2 2230/ 2280 slot for solid-state drive **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Vostro 5301.

Table 8. Wireless module specifications

Description	Option one	Option two
Model number	Qualcomm QCA61x4A (DW1820) (2x2) Wireless Adapter with Bluetooth 4.2	Intel Wi-Fi 6 AX201, 2x2, 802.11ax with Bluetooth 5.0
Transfer rate	• 802.11ac - Up to 867 Mbps • 802.11n - Up to 450 Mbps • 802.11a/g - Up to 54 Mbps • 802.11b - Up to 11 Mbps	• 2.4 GHz 40M: Up to 574 Mbps • 5 GHz 80M: Up to 1.2 Gbps • 5 GHz 160M: Up to 2.4 Gbps

Table 8. Wireless module specifications (continued)

Description	Option one	Option two
Frequency bands supported	2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n/ac)	2.4/5 GHz
Wireless standards	• 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac • Dual-mode Bluetooth 4.2, BLE (HW ready, SW depends on OS)	IEEE 802.11a/b/g/n/ac/ax, 160MHz channel use
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64/128-bit WEP • 128-bit AES-CCMP • TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.0

Audio

The following table lists the audio specifications of your Vostro 5301.

Table 9. Audio specifications

Description		Values
Audio controller		Realtek ALC3204
Stereo conversion		Supported
Internal audio interface		HD audio interface
External audio interface		Universal Audio Jack
Number of speakers		Two
Internal-speaker amplifier		Supported (audio codec integrated)
External volume controls		No hardware volume buttons, keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output		Not supported
Microphone		Dual array microphone

Storage

Your computer supports one of the following configurations:

- M.2 2230 Class 35 SSD/SED
- M.2 2280 Class 40 SSD/SED
- M.2 2280 Intel Optane memory

Table 10. Storage specifications

Storage type	Interface type	Capacity
M.2 Intel Optane with Storage	PCIe x4 NVMe 3.0	512 GB
M.2 Class 35 solid-state drive	PCIe x4 NVMe 3.0	• 128 GB • 256 GB • 512 GB
M.2 Class 40 solid-state drive	PCIe x4 NVMe 3.0	• 256 GB • 512 GB • 1 TB

Intel Optane Memory H10 with Solid State Storage (optional)

Intel Optane Memory technology utilizes 3D XPoint memory technology and functions as a non-volatile storage cache/accelerator and/or storage device depending on the Intel Optane Memory installed in your computer.

Intel Optane Memory H10 with Solid State Storage functions as both a non-volatile 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 computer.

Table 11. Intel Optane Memory H10 with Solid State Storage specifications

Description	Values
Interface	PCIe 3 x4 NVMe • One PCIe 3 x2 for Optane memory • One PCIe 3 x2 for solid-state storage
Connector	M.2
Form factor	2280
Capacity (Intel Optane memory)	Up to 32 GB
Capacity (solid-state storage)	Up to 512 GB

NOTE: Intel Optane Memory H10 with Solid State Storage is supported on computers that meet the following requirements:

- 9th Generation or higher Intel Core i3/i5/i7 processors
- Windows 10 64-bit version or higher (Anniversary Update)
- Intel Rapid Storage Technology driver version 15.9.1.1018 or higher

Media-card reader

The following table lists the media cards supported by your Vostro 5301.

Table 12. Media-card reader specifications

Description	Values
Media-card type	One micro-SD 3.0 card
Media-cards supported	Secure Digital (SD)
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 5301.

Table 13. Keyboard specifications

Description	Values
Keyboard type	• Standard spill resistant keyboard (Optional backlit)
Keyboard layout	QWERTY/ KANJI
Number of keys	• United States and Canada: 81 keys • United Kingdom: 82 keys • Japan: 85 keys
Keyboard size	X=18.07 mm key pitch Y=18.07 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. **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 5301.

Table 14. Camera specifications

Description		Values
Number of cameras		One
Camera type		RGB HD 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:		74.9 degrees

Touchpad

The following table lists the touchpad specifications of your Vostro 5301.

Table 15. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	1229
	Vertical	749
Touchpad dimensions:		
	Horizontal	105 mm (4.13 in.)
	Vertical	65 mm (2.56 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 5301.

Table 16. Power adapter specifications

Description		Option one	Option two
Type		45 W	65 W
Connector dimensions:			
	External diameter	4.50	4.50
	Internal diameter	2.90	2.90
Input voltage		100 VAC–240 VAC	100 VAC–240 VAC
Input frequency		50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)		1.30 A	1.60 A
Output current (continuous)		2.31 A	3.34 A
Rated output voltage		19.50 VDC	19.50 VDC
Temperature range:			
	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 17. Battery specifications

Description		Values	
Type		3-cell, 40 WHr, Polymer battery	4-cell, 53 WHr, Polymer battery
Voltage		11.40 VDC	15.2 VDC
Weight (maximum)		0.18 kg (0.4 lb)	0.235 kg (0.518 lb)
Dimensions:			
	Height	5.75 mm (0.23 in.)	5.75 mm (0.23 in.)
	Width	184.1 mm (7.25 in.)	239.1 mm (9.41 in.)
	Depth	90.73 mm (3.6 in.)	90.73 mm (3.6 in.)
Temperature range:			
	Operating	0 °C to 35 °C (32 °F to 95 °F)	0 °C to 35 °C (32 °F to 95 °F)
	Storage	-40 °C to 65 °C (-40 °F to 149 °F)	-40 °C to 65 °C (-40 °F to 149 °F)
Operating time		Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.	
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 Manger application. For more information on the Dell Power Manger see, https://www.dell.com/support/home/product-support/product/power-manager/docs	
Life span (approximate)		300 discharge/charge cycles	300 discharge/charge cycles
ExpressCharge		Supported	Supported
User replaceable		No (FRU)	No (FRU)
Coin-cell battery		CR2032	

NOTE: For batteries with the ExpressCharge feature, the battery will typically have at least an 80% charge after about an hour of charging with the system off, and fully charged in about 2 hours with the system off.

Enabling ExpressCharge requires that both the computer and the battery used be ExpressCharge capable. If these requirements are not met, ExpressCharge will not be enabled.

Display

The following table lists the display specifications of your Vostro 5301.

Table 18. Display specifications

Description	Values
Display type	Full High Definition (FHD)
Display-panel technology	NA

Table 18. Display specifications (continued)

Description		Values
Display-panel dimensions (active area):		
	Height	165.24 mm (6.5 in.)
	Width	293.76 mm (11.57 in.)
	Diagonal	337.82 mm (13.3 in.)
Display-panel native resolution		1920 x 1080
Luminance (typical)		300 nits
Megapixels		2.07
Color gamut		sRGB 95%
Pixels Per Inch (PPI)		166
Contrast ratio (min)		600:1
Response time (max)		35 ms
Refresh rate		60 Hz
Horizontal view angle		+/-80°
Vertical view angle		+/-80°
Pixel pitch		0.153 mm × 0.153 mm
Power consumption (maximum)		4 W
Anti-glare vs glossy finish		Anti-glare
Touch options		No

Fingerprint reader (optional)

The following table lists the specifications of the optional fingerprint-reader of your Vostro 5301.

Table 19. Fingerprint reader specifications

Description	Values
Fingerprint-reader sensor technology	Capacitive
Fingerprint-reader sensor resolution	500 dpi
Fingerprint-reader sensor pixel size	64 x 80

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Vostro 5301.

Table 20. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel Iris Xe Graphics	HDMI 2.0/ Display over USB Type-C	Shared system memory	11th Generation Intel Core i5/i7

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your Vostro 5301.

Table 21. GPU—Discrete

Controller	External display support	Memory size	Memory type
NVIDIA GeForce MX350	NA	2 GB	GDDR5

Operating and storage environment

This table lists the operating and storage specifications of your Vostro 5301.

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

Table 22. 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)	10% to 95% (non-condensing)
Vibration (maximum)*	0.66 GRMS	1.30 GRMS
Shock (maximum)	140 G†	160 G†
Altitude range	0 m to 3048 m (32 ft to 5518.4 ft)	0 m to 10668 m (32 ft to 19234.4 ft)

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

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

4

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: Depending on the computer and its installed devices, the items listed in this section may or may not be displayed.

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.

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.

Table 23. Navigation keys

Keys	Navigation
Up arrow	Moves to the previous field.
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follow the link in the field.

Table 23. Navigation keys (continued)

Keys	Navigation
Spacebar	Expands or collapses a drop-down list, if applicable.
Tab	Moves to the next focus area. **NOTE:** For the standard graphics browser only.
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 enables 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

  NOTE: XXXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

  NOTE: Choosing **Diagnostics**, displays the **SupportAssist diagnostics** screen.

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

BIOS setup

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

Overview

Table 24. Overview

Option	Description

System Information	This section lists the primary hardware features of your computer.
	The options are:
	• **System Information**
	  ○ BIOS version
	  ○ Service Tag
	  ○ Asset Tag
	  ○ Manufacture Date
	  ○ Ownership Date
	  ○ Express Service Code
	  ○ Ownership Tag
	  ○ Signed Firmware Update

Table 24. Overview

Option	Description

	• **Battery**
	  ○ Primary
	  ○ Battery Level
	  ○ Battery State
	  ○ Health
	  ○ AC Adapter
	• **Processor Information**
	  ○ Processor Type
	  ○ Maximum Clock Speed
	  ○ Minimum Clock Speed
	  ○ Current Clock Speed
	  ○ Core Count
	  ○ Processor ID
	  ○ Processor L2 Cache
	  ○ Processor L3 Cache
	  ○ Microcode Version
	  ○ Intel Hyper-Threading Capable
	  ○ 64-Bit Technology
	• **Memory Configuration**
	  ○ Memory Installed
	  ○ Memory Available
	  ○ Memory Speed
	  ○ Memory Channel Mode
	  ○ Memory Technology
	  ○ DIMM_Slot 1
	  ○ DIMM_Slot 2
	• **Device Information**
	  ○ Panel Type
	  ○ Video Controller
	  ○ Video Memory
	  ○ Wi-Fi Device
	  ○ Native Resolution
	  ○ Video BIOS Version
	  ○ Audio Controller
	  ○ Bluetooth Device
	  ○ LOM MAC Address
	  ○ dGPU Video Controller

Boot Options

Table 25. Boot Options

Option	Description
Enable Boot Devices	UEFI Hard Drive - Allows the user to select Enable boot devices detected by the system. 1. Windows Boot Manager 2. UEFI Hard Drive **NOTE:** Legacy Boot mode is not supported on this platform.

Table 25. Boot Options (continued)

Option	Description
Add / Remove / View Boot Devices	Allows the user to add or remove boot devices listed above. The controls available are as follows: • Add Boot Options • Remove Boot Options • View
UEFI Boot Path Security	Allows the user to control if the system should ask for admin password. The controls available are as follows: • Never • Always • Always Except Internal HDD

System configuration

Table 26. System configuration

Option	Description
Date/Time	The options are: • **Date** • **Time** **NOTE:** Legacy Boot mode is not supported on this platform.
Network Controller Configurator	**Integrated NIC**: 1. Disabled 2. Enabled 3. Enabled with PXE **Enable UEFI Network Stack**: 1. On 2. Off
Storage Interface	**Port Enablement** - Allows the user to enable/disable onboard drives. The user can toggle on/off for the following drives: • **SATA-0** • **M.2 PCIe SSD-0/SATA-2**
SATA Operation	Allows the user to set the SATA operation mode for the storage devices available. The options available are as follows: • **Disabled** • **AHCI** • **RAID On**
Drive Information	This section displays the driver configuration and specification for all storage devices available.
Enable Audio	Allows the user to enable internal audio devices. The options available are as follows: • **Enable Microphone** • **Enable Internal Speaker**
USB Configuration	Allows the user to enable USB Boot devices. The options available are as follows:

Table 26. System configuration (continued)

Option	Description
	• **Enable USB Boot Support** • **Enable External USB Ports**
Miscellaneous Devices	Allows the user to enable internal Camera. The options available are as follows: • **Enable Camera**
Keyboard Illumination	Allows the user to configure the keyboard brightness levels. The options available are as follows: • **Disabled** • **Dim** • **Bright**

Video

Table 27. Video

Option	Description
LCD Brightness	Set the screen brightness when running on battery power. • 0 - 100
Brightness on AC power	Set the screen brightness when running on AC power. • 0 - 100
EcoPower	**Enable EcoPower** - Enable to increase battery life and reduce the display brightness when appropriate. The options are: • **On** • **Off**

Security

Table 28. Security

Option	Description
Enable Admin Setup Lockout	Allows the admin to allow/block users from accessing the BIOS menu • **On** • **Off** **NOTE:** Deleting the admin password deletes the system password (if set). The admin password can also be used to delete hard drive password. For this reason, you cannot set an admin password if a system password or hard drive password is set. Hence, an admin password has to be set first if the admin password has to be used with system password and/or hard drive password.
Password Bypass	Allows the user to control if the systems prompts for the system and hard drive passwords when powered on from off state: • **Disabled** • **Reboot Bypass**
Enable Non-Admin Password Changes	When enabled, the user can change system and hard drive password without admin password. • **On**

Table 28. Security (continued)

Option	Description
	• **Off**
Enable UEFI Capsule Firmware Updates	Allows the user to configure BIOS updates via UEFI capsule update packages • **On** • **Off**
Absolute	Allows the user to enable, disable or permanently disable the BIOS module interface of the optional Absolute Persistence Module service. The controls are as follows: • **Enabled** • **Disabled** • **Permanently Disabled**
TPM 2.0 Security On	Allows the user to enable or disable TPM security. The controls are as follows: • **On** • **Off**
PPI Bypass for Enable Commands	Allows the user to enable or disable TPM Physical Presence Interface (PPI). The controls are as follows: • **On** • **Off**
PPI Bypass for Disabled Commands	Allows the user to enable or disable TPM Physical Presence Interface (PPI). The controls are as follows: • **On** • **Off**
PPI Bypass for Clear Commands	Allows the user to enable or disable TPM Physical Presence Interface (PPI). The controls are as follows: • **On** • **Off**
Attestation Enable	Allows the user to enable or disable TPM endorsement Hierarchy for the operating system. The controls are as follows: • **On** • **Off**
Key Storage Enable	Allows the user to enable or disable TPM endorsement Hierarchy for the operating system. The controls are as follows: • **On** • **Off**
SHA-256	Allows the user to enable SHA-256 hash algorithm to extend the measurements into the TPM PCRs during BIOS boot. The controls are as follows: • **On** • **Off**
Clear	Allows the user to clear TPM owner information and returns TPM to default state. The controls are as follows: • **On** • **Off**
TPM State	Allows the user to enable/disable TPM. The controls are as follows: • **On** • **Off**
SMM Security Mitigation	Allows the user to enable/disable UEFI SMM Security Mitigation. The controls are as follows:

Table 28. Security (continued)

Option	Description
	• **On** • **Off**

Passwords

Table 29. Passwords

Option	Description
Enable Strong Passwords	Allows the user to enable complex admin and system passwords: • **On** • **Off** **NOTE:** Deleting the admin password deletes the system password (if set). The admin password can also be used to delete hard drive password. For this reason, you cannot set an admin password if a system password or hard drive password is set. Hence, an admin password has to be set first if the admin password has to be used with system password and/or hard drive password.
Password Configuration	Allows the user to set the maximum number of characters for Admin and System oasswords: • **Admin Password Min (04)** • **Admin Password Max (32)** • **System Password Min (04)** • **System Password Max (32)**
Admin Password	Allows you to configure an admin password. **NOTE:** Deleting the admin password deletes the system password (if set). The admin password can also be used to delete hard drive password. For this reason, you cannot set an admin password if a system password or hard drive password is set. Hence, an admin password has to be set first if the admin password has to be used with system password and/or hard drive password. **Upper Case Letter** — When enabled, this field reinforces password must contain at least one upper capital letter. **Lower Case Letter** — When enabled, this field reinforces password must contain at least one lower capital letter. **Digit** — When enabled, this field reinforces password must contain at least one-digit number. **Special Character** — When enabled, this field reinforces password must contain at least one special character. **NOTE:** These options by default are disabled. **Minimum Characters** — Defines the number of characters allowed for a password. Min = 4
Password Bypass	Allows you to bypass the System password and the Internal hard drive password, when it is set, during a system restart. The options are: • **Disabled**—This option is enabled by default. • **Reboot bypass**
Password Changes	Allows you to change the system password and hard drive password without the need of administrator password.

Table 29. Passwords (continued)

Option	Description
	Enable Non-Admin Password Changes - By default, this option is disabled.
Admin Setup Lockout	Allows the administrator to control how the user can access BIOS setup. **Enable Admin Setup Lockout** - By default, this option is disabled. **NOTE:** • If the admin password is set and **Enable Admin Setup Lockout**is enabled, you cannot view the BIOS setup (using F2 or F12) without the admin password. • If the admin password is set and **Enable Admin Setup Lockout**is disabled, the BIOS setup can be entered and items that are viewed in Locked mode.
Master Password Lockout	Allows you to disable master password support. **Enable Master Password Lockout** - By default, this option is disabled. **NOTE:** The Hard Disk password has to be cleared before the settings can be changed.

Secure Boot

Table 30. Secure Boot

Option	Description
Secure Boot	Secure Boot helps ensure the system boots using only validated boot software. **Enable Secure Boot**—By default, this option is disabled. **NOTE:** The system has to be in UEFI boot mode to enable **Enable Secure Boot**.
Secure Boot Mode	Changes to the Secure Boot operation mode modifies the behavior of Secure Boot to allow evaluation of UEFI driver signatures. The options are: • **Deployed Mode**—By default, this option is enabled. • **Audit Mode**

Expert Key Management

Table 31. Expert Key Management

Option	Description
Enable Custom Mode	Aloows the user to manipulate security key databases • **On** • **Off** — By default, this option is enabled.
Expert Key Management	The Custom Mode Key Management options are: • **PK**—By default, this option is enabled. • **KEK** • **db** • **dbx**

Performance

Table 32. Performance

Option	Description
Multi Core Support	This field specifies whether the process has one or all cores enabled. The default value is set to the maximum number of cores. • **All Cores** — This option is enabled by default. • **1** • **2** • **3**
Intel SpeedStep	This feature allows the system to dynamically adjust processor voltage and core frequency, decreasing average power consumption and heat production. **Enable Intel SpeedStep** This option is enabled by default.
C-States Control	This feature allows you to enable or disable the ability of the CPU to enter and exit low-power states. **Enable C-state control** This option is enabled by default.
	This feature allows the system to dynamically detect high usage of discrete graphics and adjust system parameters for higher performance during that time period. **Enable Adaptive C-states for Discrete Graphics** This option is enabled by default.
Intel Turbo Boost Technology	This option allows you to enable or disable the Intel TurboBoost mode of the processor. **Enable Intel Turbo Boost Technology** This option is enabled by default.
Intel Hyper-Threading Technology	This option allows you to enable or disable the HyperThreading in the processor. **Enable Intel Hyper-Threading Technology** This option is enabled by default.

Power management

Table 33. Power Management

Option	Description
Wake on AC	Allows the system to wake up to perform basic checks when the adapter is connected. • **On** • **Off** — enabled by default
Enable USB Wake Support	Allows you to enable USB devices to wake the system from standby mode. • **On** • **Off** — enabled by default

Table 33. Power Management (continued)

Option	Description
	NOTE: These features are only functional when the AC power adapter is connected. If the AC power adapter is removed before Standby, the BIOS removes power from all USB ports to conserve battery power.
Block Sleep	This option enables you to block entering to sleep (S3) mode in operating system environment. By default, the **Block Sleep** option is disabled. **NOTE:** When Block Sleep is enabled, the system does not go to sleep. Intel Rapid Start gets disabled automatically, and the operating system power option remains blank if it was set to Sleep.
Auto On Time	Allows the user to set a defined day/time when they want the system to automatically power on The options are: • **Disable**—enabled by default • **Every Day** • **Weekdays** • **Select Days** The user will see the days of the week listed with fields to select the time.
Battery Charge Configuration	Allows the user to set the preferred battery charging plan for the system: The options are: • **Adaptive**—enabled by default • **Standard** • **Primarily AC Use** • **CUstom** - Allows the user to set a Start/Stop percentage for battery
Enable Advanced Battery Charge Configuration	Allows the user to enable advanced configuration to maximize battery health while supporting heavy usage. The controls are as follows: • **On** • **Off** The UI below allows the user to set the day and time to further configure battery charging behaviour.
Peak Shift	Allows the system to run on battery during peak power usage hours. The controls are as follows: • **On** • **Off** The UI below allows the user to set the peak day and time to further configure battery usage behavior.

Wireless

Table 34. Wireless options

Option	Description
Wireless Device Enable	The options are: • **WLAN** - Enable / Disable the WLAN device • **Bluetooth** - Enable / Disable the Bluetooth device

POST behavior

Table 35. POST behavior

Option	Description
Numlock Enable	Allows the user to enable/disable numlock **Enable numlock** • **ON** - Enabled by default • **OFF**
FN Lock	Allows the user to enable/disable Function keys • **ON** - Enabled by default • **OFF** Lock Mode: • **Lock Mode Standard** - When selected, the F1 - F12 keys will hold their traditional functions. • **Lock Mode Secondary** - When selected, the F1 - F12 keys will switch to secondary functions with media and system controls.
Warnings and Errors	Allows the user to configure in what circumstances would the system stop the boot process upon encountering errors: • **Prompt on Warning Errors** — System will wait for user input when errors or warnings are detected. • **Continue on Warning** — System will wait for user input only when errors are detected. • **Continue on Warning and Errors** — System will not ask for user input even when errors or warnings are detected.
Enable Adapter Warnings	Allows the user to configure the system to give an error message when lower power adapter is detected. The controls are as follows: • **On** • **Off**
Fastboot	Allows the user to configure the speed of UEFI boot process: • **Minimal** • **Thorough** • **Auto**
Extend BIOS POST Time	Allows the user to configure the BIOS POST load time • **0 seconds** • **5 seconds** • **10 seconds**

Maintenance

Table 36. Maintenance

Option	Description
Service Tag	Displays the service tag of your computer.
Asset Tag	Allows the admin to add an Asset Tag. It is a string of 64 characters that are used by IT administrator to uniquely identify a particular system. Once an asset tag is set, it cannot be changed.
BIOS Recovery from Hard Drive	Allows you to enable or disable recovery from a corrupt BIOS from a copy stored on the hard drive.

Table 36. Maintenance (continued)

Option	Description
	• **ON** - Enabled by default. • **OFF** The user also gets a check box that allows enabling automatic recovery of the BIOS without user input.
Start Data Wipe	Allows the user to setup an autowipe on the storage devices on the system upon a reboot. The options are: • **ON** • **OFF** - Enabled by default.

System logs

Table 37. System Logs

Option	Description
BIOS Event Log	Allows you to either keep and clear the BIOS event log. **Clear BIOS Event Log** The options are: • **Keep** - This option is enabled by default. • **Clear**
Thermal Event Log	Allows you to either keep and clear the Thermal event log. **Clear Thermal Event Log** The options are: • **Keep** - This option is enabled by default. • **Clear**
Power Event Log	Allows you to either keep and clear the Power event log. **Clear Power Event Log** The options are: • **Keep** - This option is enabled by default. • **Clear**

Updating the BIOS

Updating the BIOS in Windows

About this task

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

Steps

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 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 at www.dell.com/support.

Updating the BIOS using the USB drive in Windows

About this task

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

Steps

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 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.

About this task

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.

Steps

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 setup options

NOTE: Depending on this computer and its installed devices, the items that are listed in this section may or may not be displayed.

Table 38. System setup options—System information menu

Overview	
BIOS Version	Displays the BIOS version number.
Service Tag	Displays the Service Tag of the computer.
Asset Tag	Displays the Asset Tag of the computer.
Ownership Tag	Displays the ownership tag of the computer.
Manufacture Date	Displays the manufacture date of the computer.
Ownership Date	Displays the ownership date of the computer.
Express Service Code	Displays the express service code of the computer.
Ownership Tag	Displays the ownership tag of the computer.
Signed Firmware Update	Displays whether the signed firmware update is enabled.
Battery	Displays the battery health information.
Primary	Displays the primary battery.
Battery Level	Displays the battery level.

Table 38. System setup options—System information menu (continued)

Overview	
Battery State	Displays the battery state.
Health	Displays the battery health.
AC Adapter	Displays whether an AC adapter is installed.
Processor Information	
Processor Type	Displays the processor type.
Maximum Clock Speed	Displays the maximum processor clock speed.
Core Count	Displays the number of cores on the processor.
Processor L2 Cache	Displays the processor L2 Cache size.
Processor ID	Displays the processor identification code.
Processor L3 Cache	Displays the processor L3 Cache size.
Current Clock Speed	Displays the current processor clock speed.
Minimum Clock Speed	Displays the minimum processor clock speed.
Microcode Version	Displays the microcode version.
Intel Hyper-Threading Capable	Displays whether the processor is Hyper-Threading (HT) capable.
64-Bit Technology	Displays whether 64-bit technology is used.
Memory Information	
Memory Installed	Displays the total computer memory installed.
Memory Available	Displays the total computer memory available.
Memory Speed	Displays the memory speed.
Memory Channel Mode	Displays single or dual channel mode.
Memory Technology	Displays the technology that is used for the memory.
Device Information	
Video Controller	Displays the integrate graphics information of the computer.
dGPU Video Controller	Displays the discrete graphics information of the computer.
Video BIOS Version	Displays the video BIOS version of the computer.
Video Memory	Displays the video memory information of the computer.
Panel Type	Displays the Panel Type of the computer.
Native Resolution	Displays the native resolution of the computer.
Audio Controller	Displays the audio controller information of the computer.
Wi-Fi Device	Displays the wireless device information of the computer.
Bluetooth Device	Displays the Bluetooth device information of the computer.

Table 39. System setup options—Boot options menu

Boot options	
Advanced Boot Options	
Enable UEFI Network Stack	Enables or disables UEFI Network Stack. Default: OFF.
Boot Mode	
Boot Mode: UEFI only	Displays the boot mode of this computer.
Enable Boot Devices	Enables or disables boot devices for this computer.

Table 39. System setup options—Boot options menu (continued)

Boot options	
Boot Sequence	Displays the boot sequence.
BIOS Setup Advanced Mode	Enables or disables advanced BIOS settings. Default: ON.
UEFI Boot Path Security	Enables or disables the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Always Except Internal HDD.

Table 40. System setup options—System Configuration menu

System Configuration	
Date/Time	
Date	Sets the computer date in MM/DD/YYYY format. Changes to the date take effect immediately.
Time	Sets the computer time in HH/MM/SS 24-hour format. You can switch between 12-hour and 24-hour clock. Changes to the time take effect immediately.
Enable SMART Reporting	Enables or disables SMART (Self-Monitoring, Analysis, and Reporting Technology) during computer startup to report hard drive errors. Default: OFF.
Enable Audio	Enables or disables all integrated audio controller. Default: ON.
Enable Microphone	Enables or disables microphone. Default: ON.
Enable Internal Speaker	Enables or disables internal speaker. Default: ON.
USB Configuration	
Enable Boot Support	Enables or disables booting from USB mass storage devices such as external hard drive, optical drive, and USB drive.
Enable External USB Ports	Enables or disables USB ports to be functional in an operating system environment.
SATA Operation	Configures operating mode of the integrated SATA hard drive controller. Default: RAID. SATA is configured to support RAID (Intel Rapid Restore Technology).
Drives	Enables or disables various onboard drives.
M.2 PCIe SSD-0/SATA-2	Default: ON.
SATA-0	Default: ON.
Drive Information	Displays the information of various onboard drives.
Miscellaneous Devices	Enables or disables various onboard devices.
Enable Camera	Enables or disables the camera. Default: ON.
Keyboard Illumination	Configures the operating mode of the keyboard illumination feature. Default: Disabled. The keyboard illumination will always be off.

Table 40. System setup options—System Configuration menu (continued)

System Configuration	
Keyboard Backlight Timeout on AC	Configures the timeout value for the keyboard when an AC adapter is connected to the computer. The keyboard backlight timeout value is only effect when the backlight is enabled. Default: 10 seconds.
Keyboard Backlight Timeout on Battery	Configures the timeout value for the keyboard when the computer is running on battery. The keyboard backlight timeout value is only effect when the backlight is enabled. Default: 10 seconds.
Touchscreen	Enables or disables the touchscreen for the operating system. **NOTE:** Touchscreen will always work in the BIOS setup irrespective of this setting. Default: ON.

Table 41. System setup options—Video menu

Video	
LCD Brightness	
Brightness on battery power	Sets the screen brightness when the computer is running on battery power.
Brightness on AC power	Sets the screen brightness when the computer is running on AC power.
EcoPower	Enables or disables EcoPower which increases the battery life by reducing the screen brightness when appropriate. Default: ON.

Table 42. System setup options—Security menu

Security	
Enable Admin Setup Lockout	Enables or disables the user from entering BIOS Setup when an Admin Password is set. Default: OFF.
Password Bypass	Bypass the System (Boot) Password and the internal hard drive password prompts during a system restart. Default: Disabled.
Enable Non-Admin Password Changes	Enables or disables the user to change the system and hard drive password without the need for admin password. Default: ON.
Non-Admin Setup Changes	
Allow Wireless Switch Changes	Enables or disables changes to the setup option when an Administrator password is set. Default: OFF.
Enable UEFI Capsule Firmware Updates	Enables or disables BIOS updates through UEFI capsule update packages.
Computrace	Enable or disable the BIOS module interface of the optional Computrace(R) Service from Absolute Software.
Intel Platform Trust Technology On	Enables or disables Platform Trust Technology (PTT) visibility to the operating system. Default: ON.

Table 42. System setup options—Security menu (continued)

Security	
PPI Bypass for Clear Commands	Enables or disables the operating system to skip BIOS Physical Presence Interface (PPI) user prompts when issuing the Clear command. Default: OFF.
Clear	Enables or disables the computer to clear the PTT owner information, and returns the PTT to the default state. Default: OFF.
Intel SGX	Enables or disables the Intel Software Guard Extensions (SGX) to provide a secured environment for running code/storing sensitive information. Default: Software Control
SMM Security Mitigation	Enables or disables additional UEFI SMM Security Mitigation protections. Default: OFF. **NOTE:** This feature may cause compatibility issues or loss of functionality with some legacy tools and applications.
Enable Strong Passwords	Enables or disables strong passwords. Default: OFF.
Password Configuration	Control the minimum and maximum number of characters that are allowed for Admin and System passwords.
Admin Password	Sets, Changes, or deletes the administrator (admin) password (sometimes called the "setup" password).
System Password	Sets, Changes, or deletes the system password.
Enable Master Password Lockout	Enables or disables the master password support. Default: OFF.

Table 43. System setup options—Secure Boot menu

Secure Boot	
Enable Secure Boot	Enables or disables the computer to boos using only validated boot software. Default: OFF. **NOTE:** For Secure Boot to be enabled, the computer needs to be in UEFI boot mode and the Enable Legacy Option ROMs option needs to be turned off.
Secure Boot Mode	Selects the Secure Boot operation mode. Default: Deployed Mode. **NOTE:** Deployed Mode should be selected for normal operation of Secure Boot.

Table 44. System setup options—Expert Key Management menu

Expert Key Management	
Enable Custom Mode	Enables or disables the keys in the PK, KEK, db, and dbx security key databases to be modified. Default: OFF.
Custom Mode Key Management	Selects the custom values for expert key management. Default: PK.

Table 45. System setup options—Performance menu

Performance	
Intel Hyper-Threading Technology	Enables or disables the Intel Hyper-Threading Technology to use processor resources more efficiently. Default: ON.
Intel SpeedStep	Enables or disables the Intel SpeedStep Technology to dynamically adjust processor voltage and core frequency, decreasing average power consumption and heat production. Default: ON.
Intel TurboBoost Technology	Enabled or disabled the Intel TurboBoost mode of the processor. If enabled, the Intel TurboBoost driver increases the performance of the CPU or graphics processor. Default: ON.
Multi-Core Support	Changes the number of CPU cores available to the operating system. The default value is set to the maximum number of cores. Default: All Cores.
Enable C-State Control	Enables or disables the CPU's ability to enter and exit low-power states. Default: ON.

Table 46. System setup options—Power Management menu

Power Management	
Wake on AC	Enables the computer to turn on and go to boot when AC power is supplied to the computer. Default: OFF.
Auto on Time	Enables the computer to automatically power on for defined days and times. Default: Disabled. The system will not automatically power up.
Battery Charge Configuration	Enables the computer to run on battery during power usage hours. Use the below options to prevent AC power usage between certain times of each day. Default: Adaptive. Battery settings are adaptively optimized based on your typical battery usage pattern.
Enable Advanced Battery Charge Configuration	Enables Advanced Battery Charge Configuration from the beginning of the day to a specified work period. Advanced Battery Charged maximizes battery health while still supporting heavy use during the work day. Default: OFF.
Block Sleep	Blocks the computer from entering Sleep (S3) mode in the operating system. Default: OFF. **NOTE:** If enabled, the computer will not go to sleep, Intel Rapid Start will be disabled automatically, and the operating system power option will be blank if it was set to Sleep.
Enable USB Wake Support	Enables the USB devices to wake the computer from Standby mode. Default: OFF.
Enable Intel Speed Shift Technology	Enables or disables Intel Speed Shift Technology support which enables the operating system to select the appropriate processor performance automatically. Default: ON.

Table 46. System setup options—Power Management menu (continued)

Power Management	
Lid Switch	Enables the computer to power up from the off state whenever the lid is opened. Default: ON.

Table 47. System setup options—Wireless menu

Wireless	
Wireless Switch	Determines which wireless devices can be controlled by the Wireless Switch. For Windows 8 systems, this is controlled by an operating system drive directly. As a result, the setting does not affect the Wireless Switch behavior. **NOTE:** When both WLAN and WiGig are present, enable/disable controls are tied together. Thus, they cannot be enabled or disabled independently.
WLAN	Default: ON.
Bluetooth	Default: ON.
Wireless Device Enable	Enable or disable internal WLAN/Bluetooth devices.
WLAN	Default: ON.
Bluetooth	Default: ON.

Table 48. System setup options—POST Behavior menu

POST Behavior	
Numlock Enable	Enables or disables Numlock when the computer boots. Default: ON.
Enable Adapter Warnings	Enables the computer to display adapter warning messages during boot. Default: ON.
Extend BIOS POST Time	Configures the BIOS POST (Power-On Self-Test) load time. Default: 0 seconds.
Fastboot	Configures the speed of the UEFI boot process. Default: Thorough. Performs complete hardware and configuration initialization during boot.
Fn Lock Options	Enables or disables the Fn lock mode. Default: ON.
Lock Mode	Default: Lock Mode Secondary. Lock Mode Secondary = If this option is selected, the F1-F12 keys scan the code for their secondary functions.
Pull Screen Logo	Enabled or disabled the computer to display full screen logo if the image match screen resolution. Default: OFF.
Warnings and Errors	Selects an action on encountering a warning or error during boot. Default: Prompt on Warnings and Errors. Stop, prompt and wait for user input when warnings or errors are detected. **NOTE:** Errors deemed critical to the operation of the computer hardware will always halt the computer.

Table 49. System setup options—Virtualization menu

Virtualization	
Intel Virtualization Technology	Enables the computer to run a virtual machine monitor (VMM). Default: ON.
VT for Direct I/O	Enables the computer to perform Virtualization Technology for Direct I/O (VT-d). VT-d is an Intel method that provides virtualization for memory map I/O. Default: ON.

Table 50. System setup options—Maintenance menu

Maintenance	
Asset Tag	Creates a system Asset Tag that can be used by an IT administrator to uniquely identify a particular system. Once set in BIOS, the Asset Tag cannot be changed.
Service Tag	Displays the Service Tag of the computer.
BIOS Recovery from Hard Drive	Enables the computer to recover from a bad BIOS image, as long as the Boot Block portion is intact and functioning. Default: ON. **NOTE:** BIOS recovery is designed to fix the main BIOS block and cannot work if the Boot Block is damaged. In addition, this feature cannot work in the event of EC corruption, ME corruption, or a hardware issue. The recovery image must exist on an unencrypted partition on the drive.
BIOS Auto-Recovery	Enables the computer to automatically recover the BIOS without user actions. This feature requires BIOS Recovery from Hard Drive to be set to Enabled. Default: OFF.
Start Data Wipe	**CAUTION: This Secure Wipe Operation will delete information in a way that it cannot be reconstructed.** If enabled, the BIOS will queue up a data wipe cycle for storage devices that are connected to the motherboard on the next reboot. Default: OFF.
Allow BIOS Downgrade	Controls flashing of the system firmware to previous revisions. Default: ON.

Table 51. System setup options—System Logs menu

System Logs	
Power Event Log	Displays Power events. Default: Keep.
BIOS Event Log	Displays BIOS events. Default: Keep.
Thermal Event Log	Displays Thermal events. Default: Keep.

Table 52. System setup options—SupportAssist menu

SupportAssist	
Dell Auto operating system Recovery Threshold	Controls the automatic boot flow for SupportAssist System Resolution Console and for Dell operating system Recovery tool.

Table 52. System setup options—SupportAssist menu (continued)

SupportAssist	
SupportAssist operating system Recovery	Default: 2. Enables or disables the boot flow for SupportAssist operating system Recovery tool in the even of certain system errors. Default: ON.

Clearing BIOS (System Setup) and System passwords

About this task

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.

System and setup password

Table 53. 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

Prerequisites

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

About this task

To enter the system setup, press F2 immediately after a power-on or reboot.

Steps

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 allowed.
   - Only the following special characters are allowed: space, (”), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.

4. Press **Esc** and a message prompts you to save the changes.
5. Press **Y** to save the changes.
   The computer reboots.

Deleting or changing an existing system setup password

Prerequisites

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

About this task

To enter the System Setup, press **F2** immediately after a power-on or reboot.

Steps

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**, alter or delete the existing system password and press **Enter** or **Tab**.
4. Select **Setup Password**, alter or delete the existing setup password and press **Enter** or **Tab**.

   NOTE: If you change the System and/or Setup password, re enter the new password when prompted. If you delete the System and Setup password, confirm the deletion when prompted.

5. Press **Esc** and a message prompts you to save the changes.
6. Press **Y** to save the changes and exit from System Setup.
   The computer restarts.

5

Technology and components

NOTE: Instructions provided in this section are applicable on computers shipped with Windows 10 operating system. Windows 10 is factory-installed with this computer.

Audio

The following table lists the audio specifications of your Vostro 5301.

Table 54. Audio specifications

Description		Values
Audio controller		Realtek ALC3204
Stereo conversion		Supported
Internal audio interface		HD audio interface
External audio interface		Universal Audio Jack
Number of speakers		Two
Internal-speaker amplifier		Supported (audio codec integrated)
External volume controls		No hardware volume buttons, keyboard shortcut controls
Speaker output:		
	Average speaker output	2 W
	Peak speaker output	2.5 W
Subwoofer output		Not supported
Microphone		Dual array microphone

Identifying the audio controller

Steps

1. On the taskbar, click the search box, and then type **`Device Manager`**.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Sound, video and game controllers** to view the audio controller.

Changing the audio settings

Steps

1. On the taskbar, click the search box, and then type **`Audio`**.
2. Click **Audio** and change the audio settings as required.

Identifying the audio controller

Steps

1. On the taskbar, click the search box, and then type **Device Manager**.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Sound, video and game controllers** to view the audio controller.

Camera

The following table lists the camera specifications of your Vostro 5301.

Table 55. Camera specifications

Description		Values
Number of cameras		One
Camera type		RGB HD 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:		74.9 degrees

Identifying the webcam in device manager

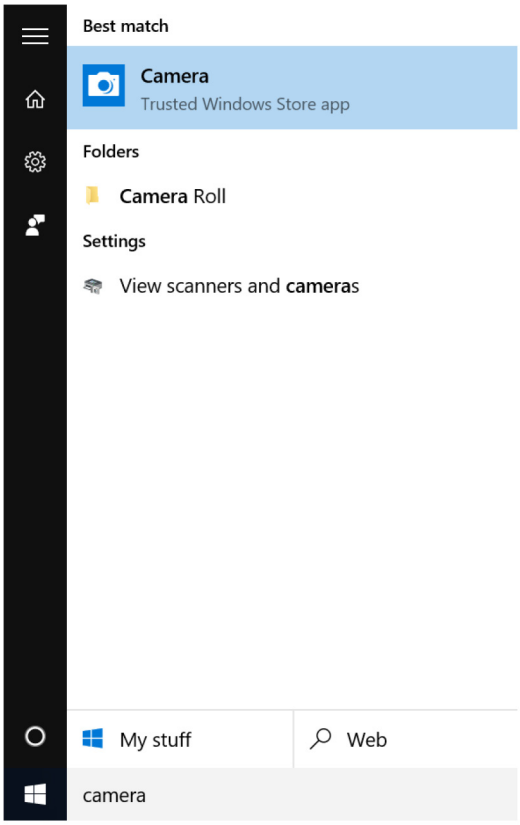
Steps

1. On the taskbar, click the search box, and then type **Device Manager**.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Camera Imaging Devices**.

Starting the camera application

Steps

1. On the taskbar, click the search box, and then type **Camera**.
2. Click **Camera**.



Display

The following table lists the display specifications of your Vostro 5301.

Table 56. Display specifications

Description		Values
Display type		Full High Definition (FHD)
Display-panel technology		NA
Display-panel dimensions (active area):		
	Height	165.24 mm (6.5 in.)
	Width	293.76 mm (11.57 in.)
	Diagonal	337.82 mm (13.3 in.)
Display-panel native resolution		1920 x 1080
Luminance (typical)		300 nits
Megapixels		2.07
Color gamut		sRGB 95%
Pixels Per Inch (PPI)		166

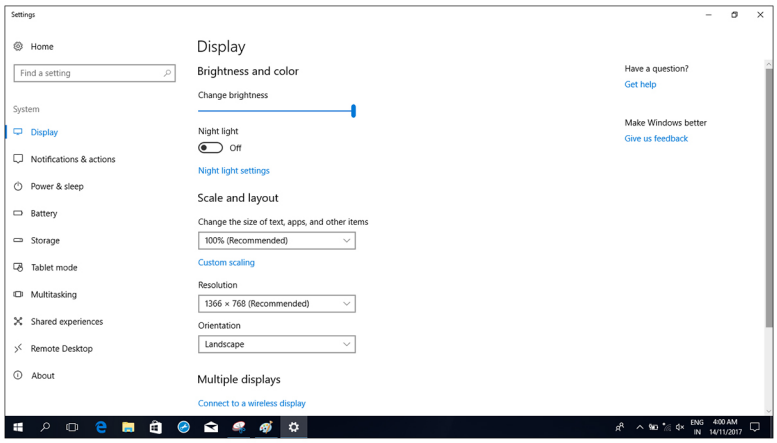
Table 56. Display specifications (continued)

Description	Values
Contrast ratio (min)	600:1
Response time (max)	35 ms
Refresh rate	60 Hz
Horizontal view angle	+/-80°
Vertical view angle	+/-80°
Pixel pitch	0.153 mm × 0.153 mm
Power consumption (maximum)	4 W
Anti-glare vs glossy finish	Anti-glare
Touch options	No

Adjusting the brightness

Steps

1. Right-click on your desktop and select **Display settings**.
2. Drag the **Change brightness** slider to adjust the brightness.

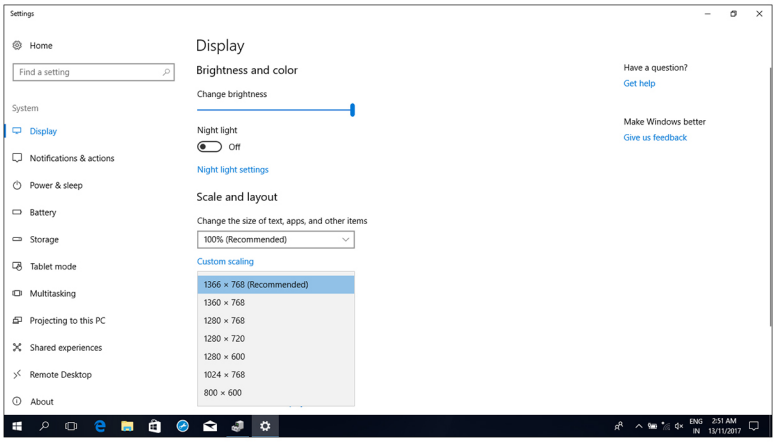


Alternatively, press F11 to decrease brightness and F12 to increase brightness.

Changing the screen resolution

Steps

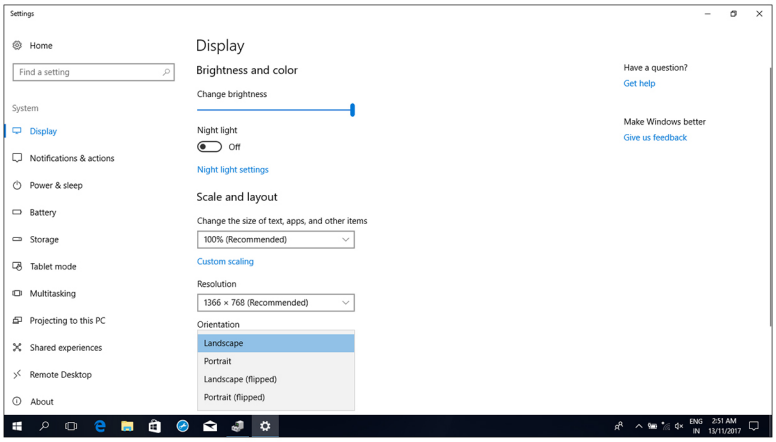
1. Right-click on your desktop and select **Display settings**.
2. Select the appropriate resolution from the drop-down list.
3. Click **Apply**.



Rotating the display

Steps

1. Right-click on your desktop.
2. Select **Display Settings**.
   The **Settings** window is displayed.
3. From the **Orientation** drop-down list, select one of the following options:
   - Landscape
   - Portrait
   - Landscape (flipped)
   - Portrait (flipped)



4. Click **Apply**.

Cleaning the display

About this task

CAUTION: Do not use substances such as alcohol, chemicals, or household cleaners for cleaning the display.

CAUTION: To avoid damaging the display, do not apply force when cleaning and wipe off any remaining liquid after cleaning.

NOTE: A commercial display cleaning kit should be used for cleaning. If unavailable, use a soft, damp microfiber cloth lightly sprayed with distilled water.

Steps

1. Turn off your computer and display before cleaning.
2. Gently wipe the display in circular motions to remove any dust or dirt particles.
3. Let the display dry thoroughly before turning it on.

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Vostro 5301.

Table 57. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel Iris Xe Graphics	HDMI 2.0/ Display over USB Type-C	Shared system memory	11th Generation Intel Core i5/i7

Identifying the display adapter

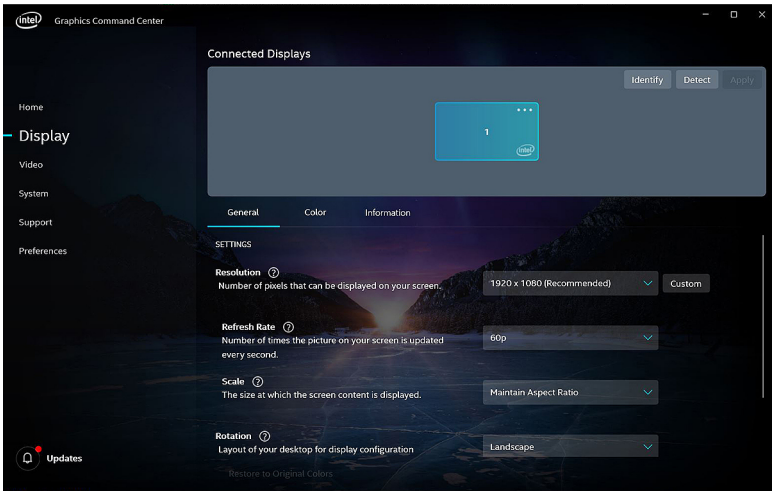
Steps

1. On the taskbar, click the search box, and then type `Device Manager`.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Display adapters**.

Changing the display settings

Steps

1. On the taskbar, select **Intel Graphics Command Center**.
2. Click **Display**.



3. Change the display settings as required.

USB

The following table shows the USB ports available in your computer.

Table 58. USB ports and their locations

Ports	Location
One USB 3.2 Gen 1 (Type-A) port	Left side
One USB 3.2 Gen 1 (Type-A) port	Right side
One USB 3.2 Gen 1 (Type-C) with DisplayPort 1.2 port	Right side

Enabling or disabling the USB in BIOS setup program

Steps

1. Turn on or restart your computer.
2. Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.
   The BIOS setup program is displayed.
3. On the left pane, select **Settings** > **System Configuration** > **USB Configuration**.
   The USB configuration is displayed on the right pane.
4. Select or clear the **Enable External USB Port** check box to enable or disable it, respectively.
5. Save the settings and exit.

Fixing a no-boot issue caused by USB-boot support

About this task

Sometimes the computer does not boot to the operating system when USB devices are connected to the computer during startup. This behavior occurs because the computer is looking for bootable files in connected USB devices.

Either disconnect USB devices before booting or follow these steps to fix the no-boot issue.

Steps

1. Turn on or restart your computer.
2. Press F2 when the Dell logo is displayed on the screen to enter the BIOS setup program.

   NOTE: The F2 prompt indicates that the keyboard is initialized. This prompt can appear very quickly, so you must watch for it, and then press F2. If you press F2 before the F2 prompt, this keystroke is lost. If you wait too long and the operating system logo appears, continue to wait until you see the desktop. Then, turn off your computer and try again.

   The BIOS setup program is displayed.
3. On the left pane, select **Settings** > **System Configuration** > **USB Configuration**.
   The USB configuration is displayed on the right pane.
4. Clear the **Enable Boot Support** check box to disable it.
5. Save the settings and exit.

Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your Vostro 5301.

Table 59. Wireless module specifications

Description	Option one	Option two
Model number	Qualcomm QCA61x4A (DW1820) (2x2) Wireless Adapter with Bluetooth 4.2	Intel Wi-Fi 6 AX201, 2x2, 802.11ax with Bluetooth 5.0
Transfer rate	• 802.11ac - Up to 867 Mbps • 802.11n - Up to 450 Mbps	• 2.4 GHz 40M: Up to 574 Mbps • 5 GHz 80M: Up to 1.2 Gbps • 5 GHz 160M: Up to 2.4 Gbps

Table 59. Wireless module specifications (continued)

Description	Option one	Option two
	• 802.11a/g - Up to 54 Mbps • 802.11b - Up to 11 Mbps	
Frequency bands supported	2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/n/ac)	2.4/5 GHz
Wireless standards	• 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac • Dual-mode Bluetooth 4.2, BLE (HW ready, SW depends on OS)	IEEE 802.11a/b/g/n/ac/ax, 160MHz channel use
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64/128-bit WEP • 128-bit AES-CCMP • TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 5.0

Media-card reader

The following table lists the media cards supported by your Vostro 5301.

Table 60. Media-card reader specifications

Description	Values
Media-card type	One micro-SD 3.0 card
Media-cards supported	Secure Digital (SD)
NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

Identifying the media-card reader

Steps

1. On the taskbar, click the search box, and then type `Device Manager`.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Universal Serial Bus controllers**.

Browsing a media card

Steps

1. Insert the media card with the metal contacts facing down.
   The card will auto-play and a notification is displayed on the screen.
2. Follow the onscreen instructions.

Keyboard

The following table lists the keyboard specifications of your Vostro 5301.

Table 61. Keyboard specifications

Description	Values
Keyboard type	• Standard spill resistant keyboard (Optional backlit)
Keyboard layout	QWERTY/ KANJI
Number of keys	• United States and Canada: 81 keys • United Kingdom: 82 keys • Japan: 85 keys
Keyboard size	X=18.07 mm key pitch Y=18.07 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. **NOTE:** You can define the primary behavior of the function keys (F1–F12) changing **Function Key Behavior** in BIOS setup program.

Changing the keyboard language

Steps

1. Click **Start**.
2. Click **Settings**.
3. Click **Time & language** > **Region & language**.
4. Click **Add a language**.
5. Choose the language you want to add and select a country for the language.
6. Under **Languages**, click the language that you want to set as the default language.
7. Click **Set as default**.

Keyboard shortcuts of Vostro 5301

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

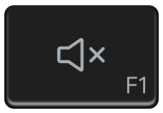
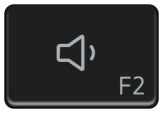
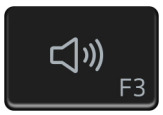
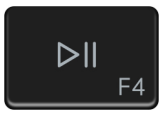
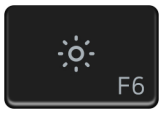
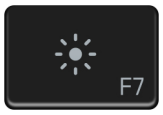
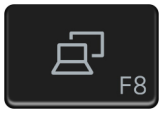
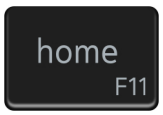
Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol shown 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, multimedia 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 62. List of keyboard shortcuts

Function key	Redefined key (for multimedia control)	Behavior
		Mute audio
		Decrease volume
		Increase volume
		Play/Pause
		Toggle keyboard backlight
		Decrease brightness
		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 63. List of keyboard shortcuts

Function key	Behavior
fn + B	Pause/Break
fn + S	Toggle scroll lock
fn + R	System request
fn + ctrl	Open application menu
fn + esc	Toggle Fn-key lock
fn + H	Toggle Battery charge LED and HDD LED behavior
fn + T	Toggle Ultra performance mode
fn +	Emoji (Win + Period (.) or Win + Semicolon (;)

Touchpad

The following table lists the touchpad specifications of your Vostro 5301.

Table 64. Touchpad specifications

Description		Values
Touchpad resolution:		
	Horizontal	1229
	Vertical	749
Touchpad dimensions:		
	Horizontal	105 mm (4.13 in.)
	Vertical	65 mm (2.56 in.)

Table 64. Touchpad specifications (continued)

Description	Values
Touchpad gestures	For more information about touchpad gestures available on Windows, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Identifying the touchpad

Steps

1. On the taskbar, click the search box, and then type `Device Manager`.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **Mice and other pointing devices**.

Touchpad gestures

For more information about touchpad gestures for Windows 10, see the Microsoft knowledge base article 4027871 at support.microsoft.com.

Power adapter

The following table lists the power adapter specifications of your Vostro 5301.

Table 65. Power adapter specifications

Description		Option one	Option two
Type		45 W	65 W
Connector dimensions:			
	External diameter	4.50	4.50
	Internal diameter	2.90	2.90
Input voltage		100 VAC–240 VAC	100 VAC–240 VAC
Input frequency		50 Hz–60 Hz	50 Hz–60 Hz
Input current (maximum)		1.30 A	1.60 A
Output current (continuous)		2.31 A	3.34 A
Rated output voltage		19.50 VDC	19.50 VDC
Temperature range:			
	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)

Chipset

The following table lists the details of the chipset supported by your Vostro 5301.

Table 66. Chipset

Description	Values
Chipset	Intel
Processor	11th Generation Intel Tiger Lake Core i5/i7
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen3

Identifying the chipset

Steps

1. On the taskbar, click the search box, and then type **`Device Manager`**.
2. Click **Device Manager**.
   The **Device Manager** window is displayed.
3. Expand **System devices**.

Memory

The following table lists the memory specifications of your Vostro 5301.

Table 67. Memory specifications

Description	Values
Memory slots	Onboard system memory
Memory type	Single-channel LPDDR4x soldered down
Memory speed	4267 MHz
Maximum memory configuration	16 GB
Minimum memory configuration	8 GB
Memory configurations supported	• 8 GB, 1 x 8 GB, LPDDR4, 4267 MHz • 16 GB, 2 x 8 GB, LPDDR4, 4267 MHz • 16 GB, 1 x 16 GB, LPDDR4, 4267 MHz

Checking the system memory in Windows

Steps

1. Click **Start**.
2. Select **Settings**.
3. Click **System** > **About**.

Checking the system memory in BIOS setup program

Steps

1. Turn on or restart your computer.
2. Press F2 when the Dell logo is displayed to enter the BIOS setup program.
3. On the left pane, select **Settings** > **General** > **System Information**.
   The memory information is displayed on the right pane.

Testing memory using ePSA diagnostics

Steps

1. Turn on or restart your computer.
2. Press F12 after the Dell logo is displayed on the screen to access the boot menu.
3. Use the arrow keys to highlight the **Diagnostics** menu option and press Enter.
4. Follow the instructions on the screen to complete the ePSA Pre-boot System Assessment (PSA).

   NOTE: If the operating system logo appears, wait until you see the desktop. Turn off your computer and try again.

6

Software

This chapter details the supported operating systems along with instructions on how to install the drivers.

Operating system

Your Vostro 5301 supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit
- Windows 11 Home National Academic, 64-bit
- Windows 11 Home in S-mode, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Ubuntu 18.04 LTS (64-bit)

Downloading the audio driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the system.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Audio** in the drop-down list.
15. Click **Download** to download the audio driver for your computer.
16. After the download is complete, navigate to the folder where you saved the audio driver file.
17. Double-click the audio driver file icon and follow the instructions on the screen to install the driver.

Downloading the graphics driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the system.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Video** in the drop-down list.
15. Click **Download** to download the graphics driver for your computer.
16. After the download is complete, navigate to the folder where you saved the graphics driver file.
17. Double-click the graphics driver file icon and follow the instructions on the screen to install the driver.

Downloading the USB driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the computer.
12. The application installs all drivers and updates identified.

NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Chipset** in the drop-down list.
15. Click **Download** to download the USB driver for your computer.
16. After the download is complete, browse the folder where you saved the USB driver file.
17. Double-click the USB driver file icon and follow the instructions on the screen to install the driver.

Downloading the WiFi driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the system.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Network** in the drop-down list.
15. Click **Download** to download the WiFi driver for your computer.
16. After the download is complete, navigate to the folder where you saved the WiFi driver file.
17. Double-click the WiFi driver icon and follow the instructions on the screen to install the driver.

Downloading the media-card reader driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the system.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Chipset** in the drop-down list.
15. Click **Download** to download the media-card reader driver for your computer.
16. After the download is complete, navigate to the folder where you saved the media-card reader driver file.
17. Double-click the media-card reader driver file icon and follow the instructions on the screen to install the driver.

Downloading the chipset driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.
3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the computer.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Chipset** in the drop-down list.
15. Click **Download** to download the chipset driver for your computer.
16. After the download is complete, browse the folder where you saved the chipset driver file.
17. Double-click the chipset driver file icon and follow the instructions on the screen to install the driver.

Downloading the network driver

Steps

1. Turn on your computer.
2. Go to www.dell.com/support.

3. Enter the Service Tag of your computer, and then click **Submit**.

   NOTE: If you do not have the Service Tag, use the auto-detect feature or manually browse for your computer model.

4. Click **Drivers & downloads**.
5. Click the **Detect Drivers** button.
6. Review and agree to the Terms and Conditions to use **SupportAssist**, then click **Continue**.
7. If necessary, your computer starts to download and install **SupportAssist**.

   NOTE: Review on-screen instructions for browser-specific instructions.

8. Click **View Drivers for My System**.
9. Click **Download and Install** to download and install all driver updates detected for your computer.
10. Select a location to save the files.
11. If prompted, approve requests from **User Account Control** to make changes on the system.
12. The application installs all drivers and updates identified.

    NOTE: Not all files can be installed automatically. Review the installation summary to identify if manual installation is necessary.

13. For manual download and installation, click **Category**.
14. Click **Network** in the drop-down list.
15. Click **Download** to download the network driver for your computer.
16. After the download is complete, navigate to the folder where you saved the network driver file.
17. Double-click the network driver file icon and follow the instructions on the screen to install the driver.

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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 68. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell	
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	www.dell.com/support/windows www.dell.com/support/linux
Troubleshooting information, user manuals, setup instructions, product specifications, technical help blogs, drivers, software updates, and so on.	www.dell.com/support
Dell knowledge base articles for a variety of computer concerns.	1. Go to https://www.dell.com/support/home/?app=knowledgebase. 2. Type the subject or keyword in the **Search** box. 3. Click **Search** to retrieve the related articles.
Learn and know the following information about your product: • Product specifications • Operating system • Setting up and using your product • Data backup • Troubleshooting and diagnostics • Factory and system restore • BIOS information	See *Me and My Dell* at www.dell.com/support/manuals. To locate the *Me and My Dell* relevant to your product, identify your product through one of the following: • Select **Detect Product**. • Locate your product through the drop-down menu under **View Products**. • Enter the **Service Tag number** or **Product ID** in the search bar.

Contacting Dell

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

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

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