Vostro 3888

Setup and Specifications

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Regulatory Model: D29M
Regulatory Type: D29M002

May 2020
Rev. A00

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 computer

Steps

1. Connect the keyboard and mouse.

2. Connect to your network using a cable, or connect to a wireless network.

3. Connect the display.

NOTE: If you ordered your computer with a discrete graphics card. Connect the display cable to the discrete graphics card connectors.

4. Connect the power cable.

5. Press the power button.

6. Finish operating system setup.

   For Ubuntu:

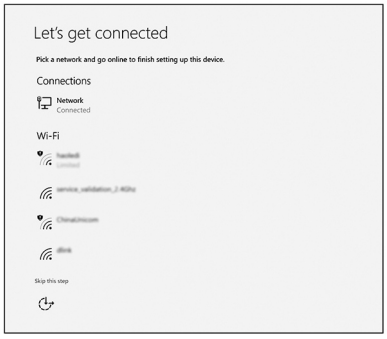
   Follow the on-screen instructions to complete the setup. For more information about installing and configuring Ubuntu, see the knowledge base articles SLN151664 and SLN151748 at www.dell.com/support.

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

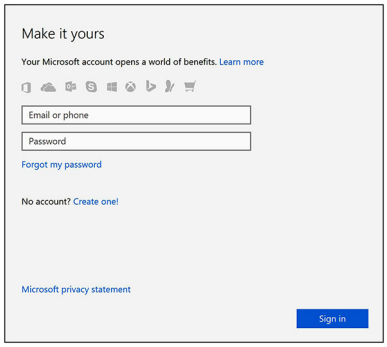
   - Connect to a network for Windows updates.

     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.

   a. Connect to a network.

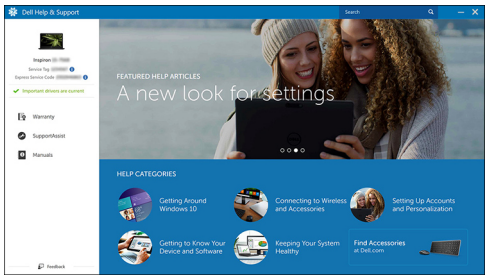


b. Sign-in to your Microsoft account or create a new account.



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

Table 1. Locate Dell apps

	Dell Product Registration Register your computer with Dell.
	Dell Help & Support Access help and support for your computer. 
	SupportAssist Proactively checks the health of your computer's hardware and software. **NOTE: Renew or upgrade your warranty by clicking the warranty expiry date in SupportAssist.**
	Dell Update Updates your computer with critical fixes and important device drivers as they become available.
	Dell Digital Delivery Download software applications including software that is purchased but not preinstalled on your computer.

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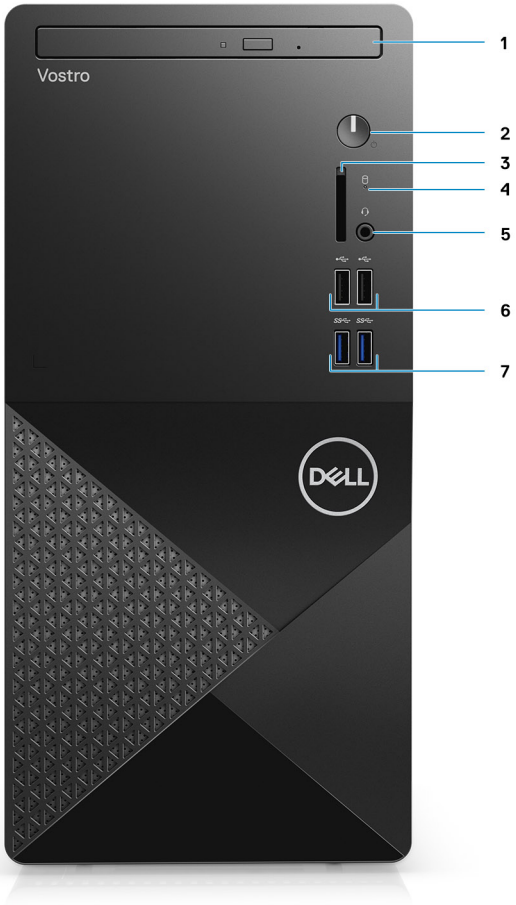
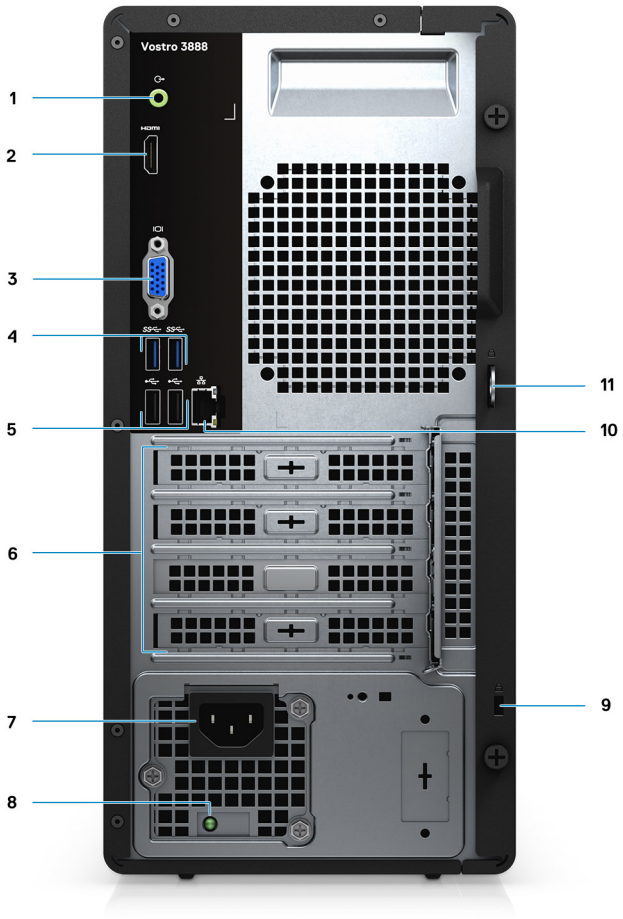
Chassis overview

Front



1. Optical drive
2. Power button
3. SD card slot (optional)
4. Hard-drive activity light
5. Universal Audio Jack headphone slot
6. USB 2.0 ports
7. USB 3.2 Gen 1 Type-A ports

Back



1. Line-out port
2. HDMI 1.4b port
3. VGA port
4. USB 3.2 Gen 1 ports
5. USB 2.0 Gen 1 ports
6. Expansion card slots
7. Power connector port
8. Power supply diagnostics light
9. Kensington security slot
10. Network port
11. Padlock loop

NOTE: HDMI 1.4b port is not available for computers shipped with 10th generation Intel Core i5-10400F and 10th generation Intel Core i7-10700F.

NOTE: VGA port is not available for computers shipped with 10th generation Intel Core i5-10400F and 10th generation Intel Core i7-10700F

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Specifications of Vostro 3888

Processors

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

Table 2. Processors

Description						Values	
Processors	10th Generation Intel Core i3-10100	10 th Generation Intel Core i5-10400	10th Generation Intel Core i5-10400F	10th Generation Intel Celeron G-5900	10th Generation Intel Pentium Gold G-6400	10 th Generation Intel Core i7-10700	10 th Generation Intel Core i7-10700F
Wattage	65 W	65 W	65 W	58 W	58 W	65 W	65 W
Core count	4	6	6	2	2	8	8
Thread count	8	12	12	2	4	16	16
Speed	3.6 GHz to 4.3 GHz	2.9 GHz to 4.3 GHz	2.9 GHz to 4.3 GHz	Up to 3.4 GHz	Up to 4.0 GHz	Up to 4.8 GHz	Up to 4.8 GHz
Cache	6 MB	12 MB	12 MB	2 MB	4 MB	16 MB	16 MB
Integrated graphics	Intel UHD Graphics 630	Intel UHD Graphics 630	Not supported	Intel UHD Graphics 610	Intel UHD Graphics 610	Intel UHD Graphics 630	Not supported

Operating system

- Windows 10 Home (64-bit)
- Windows 10 Professional (64-bit)
- Ubuntu 18.04

Chipset

Table 3. Chipset

Description	Values
Chipset	B460
Processor	10th Generation Intel Core i3/i5/i7 and Intel Pentium Gold G-6400 and Celeron 5900
DRAM bus width	64-bit
PCIe bus	Up to Gen3

Memory

Table 4. Memory specifications

Description	Values
Slots	2 UDIMM slots
Type	DDR4
Speed	• 2666 MHz • 2933 MHz (supported on Core i7-10700 processor) **NOTE: Memory speed may be subject to change by regions.**
Maximum memory	64 GB
Minimum memory	4 GB
Memory per slot	4 GB, 8 GB, 12 GB, 16 GB, 32 GB
Configurations supported:	• 4 GB (1 x 4 GB) • 8 GB (2 x 4 GB, 1 x 8 GB) • 12 GB (1 x 4 GB and 1 x 8 GB) • 16 GB (2 x 8 GB, 1 x 16 GB) • 32 GB (1 x 32 GB, 2 x 16 GB) • 64 GB (2 x 32 GB)

Storage

Your computer supports one or more combination of the following configurations:

- 3.5-inch, 500 GB, 7200 RPM, SATA HDD
- 3.5-inch, 1 TB, 7200 RPM, SATA HDD
- 3.5-inch, 2 TB, 7200 RPM, SATA HDD
- M.2 2230, 128 GB, NVMe, Class 35 SSD
- M.2 2230, 256 GB, NVMe, Class 35 SSD
- M.2 2230, 512 GB, NVMe, Class 35 SSD

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

- with a M.2 drive, the M.2 drive is the primary drive
- without a M.2 drive, the 3.5-inch hard drive is the primary drive

Table 5. Storage specifications

Storage type	Interface type	Capacity
3.5-inch HDD, 7200 RPM	SATA	Up to 500 GB
3.5-inch HDD, 7200 RPM	SATA	Up to 1 TB
3.5-inch HDD, 7200 RPM	SATA	Up to 2 TB
M.2 2230 SSD	PCIe Gen 3 x4 NVMe, Class 35	Up to 128 GB
M.2 2230 SSD	PCIe Gen 3 x4 NVMe, Class 35	Up to 256 GB
M.2 2230 SSD	PCIe Gen 3 x4 NVMe, Class 35	Up to 512 GB

Intel Optane memory

Intel Optane memory functions only as a storage accelerator. It neither replaces nor adds to the memory (RAM) installed on your computer.

NOTE: Intel Optane memory is supported on computers that meet the following requirements:

- **7th Generation or higher Intel Core i3/i5/i7 processor**
- **Windows 10 64-bit version or higher (Anniversary Update)**
- **Latest version of Intel Rapid Storage Technology driver**

Table 6. Intel Optane memory

Description	Values
Type	Storage accelerator
Interface	PCIe NVMe 3.0x2 or 3.0x4
Connector	M.2 2280
Configurations supported	16 GB and 32 GB
Capacity	Up to 32 GB

Ports and connectors

Table 7. Ports and connectors

Description	Values
Front	
USB	• Two USB 2.0 Gen 1 ports (front) • Two USB 3.2 Gen 1 Type-A port (front) • Two USB 2.0 Gen 1 ports (rear) • Two USB 3.2 Gen 1 Type-A ports (rear)
Audio	1 x Universal audio jack
Network	1x RJ-45 Port 10/100/1000 Mbps
Audio	1 x Line-out re-tasking Line-in audio port
Video	• 1 x HDMI 1.4b port • 1 x VGA port
Memory card reader	SD 3.0 card reader (optional)
Security	1 x Padlock hoop, 1 x Kensington security-cable slot
Internal	
Expansion	• 1 x full-height Gen 3 PCIe x16 slot • 2 x full-height PCIe x1 slot • 1 x full-height PCI 32 x1 slot
M.2	• 1 x M.2 2230 slot for Wi-Fi/Bluetooth card • 1 x M.2 2230/2280 slot for solid-state drive or Intel Optane

Table 7. Ports and connectors(continued)

Description	Values
	NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article at https://www.dell.com.

Media-card reader

NOTE: Media-card reader is mutually exclusive with a dual M.2 configuration.

Table 8. Media-card reader specifications

Description	Values
Type	SD 3.0 card reader (optional)
Cards supported	• Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC) • Multimedia Card (MMC) • MMC+ • Secure Digital (SD)

Audio

Table 9. Audio specifications

Description	Values
Type	Dual Channel High Definition Audio
Controller	Realtek ALC3246
Internal interface	ALC3246
External interface	• 1 x Universal audio jack (front) • 1 x Line-out re-tasking Line-in audio jack (rear)

Video

Table 10. Integrated graphics Specifications

Integrated graphics			
Controller	**External display support**	**Memory size**	**Processor**
Intel UHD 610 Graphics	VGA and HDMI 1.4b	Shared system memory	10th Generation Intel Celeron and Pentium Gold
Intel UHD 630 Graphics	VGA and HDMI 1.4b	Shared system memory	10th Generation Intel Core i3/i5/i7 processor

Table 11. Discrete graphics specifications

Discrete graphics			
Controller	**External display support**	**Memory size**	**Memory Type**
NVIDIA® GeForce® GT730	Dual Link DVI-D, VGA and HDMI	2 GB	GDDR5
NVIDIA® GeForce® GT1030	Dual Link DVI-D, HDMI	2 GB	GDDR5

Communications

Ethernet

Table 12. Ethernet specifications

Description	Values
Model number	Realtek RTL8111HS
Transfer rate	10/100/1000 Mbps

Wireless module

Table 13. Wireless module specifications

Description	Values		
Model number	Intel Wireless-AC 9260	Intel Wireless-AC 3165	Realtek RTL8723DE
Transfer rate	Up to 433 Mbps	Up to 433 Mbps	Up to 433 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	Wi-Fi 9260 802.11ac	Wi-Fi 802.11ac	Wi-Fi 802.11bgn
Encryption	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP	• 64-bit/128-bit WEP • AES-CCMP • TKIP
Bluetooth	Bluetooth 5.0	Bluetooth 4.2	Bluetooth 4.2

Power supply unit

Table 14. Power supply unit specifications

Description	Values
Type	260 W Bronze
Input voltage	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz
Input current (maximum)	3.20 A
Output current (continuous)	• +12 VA/16.50 A

Table 14. Power supply unit specifications(continued)

Description	Values
	• +12 VB/14 A Standby mode: • +12 VA/0.5 A • +12 VB/2.5 A
Rated output voltage	• +12 VA • +12 VB
Temperature range:	
Operating	5°C to 45°C (41°F to 113°F)
Storage	-40°C to 70°C (-40°F to 158°F)

CMOS battery

Table 15. CMOS battery

Brand	Type	Voltage	Composition	Battery life
MITSUBISHI	CR2032	3.0 V	Lithium metal	Continuous Discharge Under 15 kΩ Load to 2.0 V End-Voltage. 20℃±2℃ 940 Hrs. or Longer.910 Hrs.or Longer after 12 mo.

Dimensions and weight

Table 16. Dimensions and weight

Description	Values
Height	12.77 in. (324.30 mm)
Width	6.06 in. (154.00 mm)
Depth	11.54 in. (293.00 mm)
Weight (approximate)	13.28 lb (6.03 kg)
NOTE: The weight of your system unit varies depending on the configuration ordered and the manufacturing variability.	

Media-card reader

NOTE: Media-card reader is mutually exclusive with a dual M.2 configuration.

Table 17. Media-card reader specifications

Description	Values
Type	SD 3.0 card reader (optional)
Cards supported	• Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC) • Multimedia Card (MMC)

Table 17. Media-card reader specifications(continued)

Description	Values
	• MMC+ • Secure Digital (SD)

Power supply unit

Table 18. Power supply unit specifications

Description	Values
Type	D9 200 W EPA Bronze
Input voltage	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz
Input current (maximum)	3.20 A
Output current (continuous)	• +12 VA/16.50 A • +12 VB/14 A Standby mode: • +12 VA/0.5 A • +12 VB/2.5 A
Rated output voltage	• +12 VA • +12 VB
Temperature range:	
Operating	5°C to 45°C (41°F to 113°F)
Storage	-40°C to 70°C (-40°F to 158°F)

Computer environment

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

Table 19. Computer environment

Description	Operating	Storage
Temperature range	10 °C to 35 °C (50 °F to 95 °F)	-40 °C to 65 °C (-40 °F to 149 °F)
Relative humidity (maximum)	20% to 80% (non-condensing)	5% to 95% (non-condensing)
Vibration (maximum)*	0.26 GRMS	1.37 GRMS
Shock (maximum)	40 G†	105 G†
Altitude (maximum)	0 m to 3048 m (0 ft to10,000 ft)	0 m to 10668 m (0 ft to 35,000 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.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

Energy Star and Trusted Platform Module (TPM)

Table 20. Energy Star and TPM

Features	Specifications
Energy Star	Compliant
Discrete TPM	Optional

Environmental

Table 21. Environmental specifications

Feature	
Recyclable packaging	Yes
BFR/PVC—free chassis	No
Vertical orientation packaging support	Yes
MultiPack packaging	Yes (DAO only)
Energy-Efficient Power Supply	Standard
ENV0424 compliant	Yes

NOTE: Wood-based fiber packaging contains a minimum of 35% recycled content by total weight of wood-based fiber. Packaging that contains without wood-based fiber can be claimed as Not Applicable. Anticipated Required Criteria for EPEAT Revision Effective 1H 2018.

Service and support

NOTE: For more details on Dell Service Plans, see https://www.dell.com/learn/us/en/19/services/warranty-support-services.

Table 22. Service and support

	Vostro 3681
1-year Base Next Business Day On-site warranty	Standard
2-4 Year Warranty[1] Next Business Day On-site[2] (3-3-3)	Optional
ProSupport	Optional
ProSupport Plus	Optional
Accidental damage	Optional

[1] For a copy of guarantees or limited warranties, write to Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, go to www.dell.com/warranty.

[2] Service may be provided by third party. Technician is dispatched if necessary, following phone-based troubleshooting. Subject to parts availability, geographical restrictions, and terms of service contract. Service timing dependent upon time-of-day call placed to Dell. U.S.A only.

4

System setup

System setup enables you to manage your tabletdesktopnotebook hardware and specify BIOS level options. From the System setup, you can:

- Change the NVRAM settings after you add or remove hardware
- View the system hardware configuration
- Enable or disable integrated devices
- Set performance and power management thresholds
- Manage your computer security

BIOS overview

The BIOS manages data flow between the computer's operating system and attached devices such as hard disk, video adapter, keyboard, mouse, and printer.

Entering BIOS setup program

About this task

Turn on (or restart) your computer and press F2 immediately.

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:
  - Windows Boot Manager
- Other Options:
  - BIOS Setup
  - BIOS Flash Update
  - Diagnostics
  - Change Boot Mode Settings

Navigation keys

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

Keys	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.
Spacebar	Expands or collapses a drop-down list, if applicable.

Keys	Navigation
Tab	Moves to the next focus area.
Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restarts the system.

Boot Sequence

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

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

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

- Removable Drive (if available)
- STXXXX Drive (if available)

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

  NOTE: Choosing Diagnostics, will display the diagnostics screen.

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

System setup options

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

Table 23. System setup options—System information menu

General-System Information	
System Information	
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.
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 used for the memory.
DIMM 1 Size	Displays the DIMM 1 memory size.
DIMM 2 Size	Displays the DIMM 2 memory size.
PCI Information	
SLOT2	Displays the PCI information of the computer.

Table 23. System setup options—System information menu(continued)

General-System Information	
SLOT3	Displays the PCI information of the computer.
SLOT5_M.2	Displays the PCI information of the computer.
Processor Information	
Processor Type	Displays the processor type.
Core Count	Displays the number of cores on the processor.
Processor ID	Displays the processor identification code.
Current Clock Speed	Displays the current processor clock speed.
Minimum Clock Speed	Displays the minimum processor clock speed.
Maximum Clock Speed	Displays the maximum processor clock speed.
Processor L2 Cache	Displays the Processor L2 Cache size.
Processor L3 Cache	Displays the Processor L2 Cache size.
HT Capable	Displays whether the processor is HyperThreading (HT) capable.
64-Bit Technology	Displays whether 64-bit technology is used.
Device Information	
SATA-0	Displays the SATA device information of the computer.
SATA-1	Displays the SATA device information of the computer.
M.2 PCIe SSD-2	Displays the M.2 PCIe SSD information of the computer.
LOM MAC Address	Displays the LOM MAC address of the computer.
Video Controller	Displays the video controller type 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.
Boot Sequence	
Boot Sequence	Displays the boot sequence.
Boot List Option	Displays the available boot options.
UEFI Boot Path Security	
Always,Except Internal HDD	Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Enabled
Always	Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Disabled
Never	Enable or disable the system to prompt the user to enter the Admin password when booting a UEFI boot path from the F12 boot menu. Default: Disabled
Date/Time	Displays the current date in MM/DD/YY format and current time in HH:MM:SS AM/PM format.

Table 24. System setup options—System Configuration menu

System Configuration	
Integrated NIC	Controls the on-board LAN controller.
Enable UEFI Network Stack	Enable or disable UEFI Network Stack.
SATA Operation	Configure operating mode of the integrated SATA hard drive controller.
Drives	Enable or disable various drives on board.

Table 24. System setup options—System Configuration menu(continued)

System Configuration	
SATA-0	Displays the SATA device information of the computer.
SATA-1	Displays the SATA device information of the computer.
M.2 PCIe SSD-2	Displays the M.2 PCIe SSD information of the computer.
SMART Reporting	Enable or disable SMART Reporting during system startup.
USB Configuration	
Enable USB Boot Support	Enable or disable booting from USB mass storage devices such as external hard drive, optical drive, and USB drive.
Enable front USB Port	Enable or disable the front USB ports.
Enable rear USB Port	Enable or disable the rear USB ports.
Front USB Configuration	Enable or disable the front USB ports.
Rear USB Configuration	Enable or disable the rear USB ports.
Audio	Enable or disable the integrated audio controller.
Miscellaneous Devices	Enable or disable various onboard devices.

Table 25. System setup options—Video menu

Video	
Multi-Display	Enable or disable multiple displays.
Primary Display	Set or change the primary display.

Table 26. System setup options—Security menu

Security	
Admin Password	Set, change, or delete the administrator password.
System Password	Set, change, or delete the system password.
Internal HDD-0 Password	Set, change, or delete the internal hard-disk drive password.
Password Configuration	Control the minimum and maximum number of characters allowed for Admin and System passwords.
Password Change	Enable or disable changes to the System and Hard Disk passwords when an administrator password is set.
UEFI Capsule Firmware Updates	Enable or disable BIOS updates through UEFI capsule update packages.
PTT Security	
PTT On	Enable or disable Platform Trust Technology (PTT) visibility to the operating system.
Clear	Default: Disabled
PPI ByPass for Clear Command	Enable or disable the TPM Physical Presence Interface (PPI). When enabled, this setting will allow the OS to skip BIOS PPI user prompts when issuing the Clear command. Changes to this setting take effect immediately.Default: Disabled
Absolute(R)	Enable or disable the BIOS module interface of the optional Computrace(R) Service from Absolute Software.
Admin Setup Lockout	Enable to prevent users from entering Setup when an Admin Password is set.
Master Password Lockout	Disables the master password support. Hard Disk passwords need to be cleared before changing the setting.
SMM Security Mitigation	Enable or disable SMM Security Mitigation

Table 27. System setup options—Secure Boot menu

Secure Boot	
Secure Boot Enable	Enable or disable the secure boot feature.
Secure Boot Mode	Modifies the behavior of Secure Boot to allow evaluation or enforcement of UEFI driver signatures. • Deployed Mode-Default: Enabled • Audit Mode-Default: Disabled
Deployed Mode	Enable or disable the deployed mode.
Audit Mode	Enable or disable the audit mode.
Expert Key Management	
Expert Key Management	Enable or disable Expert Key Management.
Custom Mode Key Management	Select the custom values for expert key management.

Table 28. System setup options—Intel Software Guard Extensions menu

Intel Software Guard Extensions	
Intel SGX Enable	Enable or disable Intel Software Guard Extensions.
Enclave Memory Size	Set the Intel Software Guard Extensions Enclave Reserve Memory Size.
Performance	
Multi Core Support	Enable multiple cores. Default: Enabled.
Intel SpeedStep	Enable or disable Intel Speedstep Technology. Default: Enabled. **NOTE: If enabled, the processor clock speed and core voltage are adjusted dynamically based on the processor load.**
C-States Control	Enable or disable additional processor sleep states. Default: Enabled.
Intel TurboBoost	Enable or disable Intel TurboBoost mode of the processor. Default: Enabled.
HyperThread control	Enable or disable HyperThreading in the processor. Default: Enabled.
Power Management	
AC Recovery	Sets what action the computer takes when power is restored.
Enable Intel Speed Shift Technology	Enable or disable Intel Speed Shift Technology.
Auto On Time	Enable to set the computer to turn on automatically every day or on a preselected date and time. This option can be configured only if the Auto On Time is set to Everyday, Weekdays or Selected Days. Default: Disabled.
USB Wake Support	Enable the USB devices to wake the computer from Standby.
Deep Sleep Control	Enables you to control the Deep Sleep mode support.
Wake on LAN/WLAN	Enables the computer to be powered on by special LAN signals.
Block sleep	Enables you to block entering to sleep mode in OS environment.
POST Behavior	

Table 28. System setup options—Intel Software Guard Extensions menu(continued)

Intel Software Guard Extensions	
Numlock LED	Enables the NumLock function when computer boots.
Keyboard Errors	Enables the keyboard error detection.
Fastboot	Enable to set the speed of the boot process. Default: Thorough.
Extend BIOS POST Time	Configure additional pre-boot delay.
Full Screen Logo	Enable or disable to display full screen logo.
Warnings and Errors	Sets the boot process to pause when Warnings or Errors are detected.

Table 29. System setup options—Virtualization Support menu

Virtualization Support	
Virtualization	Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology.
VT for Direct I/O	Specify whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by Intel Virtualization Technology for Direct I/O.

Table 30. System setup options—Wireless menu

Wireless	
Wireless Device Enable	Enable or disable internal wireless devices.

Table 31. System setup options—Maintenance menu

Maintenance	
Service Tag	Display the system's Service Tag.
Asset Tag	Create a system Asset Tag.
SERR Messages	Enable or disable SERR messages.
BIOS Downgrade	Control flashing of the system firmware to previous revisions.
Data Wipe	Enable to securely erase data from all internal storage devices.
BIOS Recovery	Enable the user to recover from certain corrupted BIOS conditions from a recovery file on the user primary hard drive or an external USB key.

Table 32. System setup options—System Logs menu

System Logs	
BIOS Events	Display BIOS events.

Table 33. System setup options—SupportAssist System Resolution menu

SupportAssist System Resolution	
Auto OS Recovery Threshold	Control the automatic boot flow for SupportAssist System Resolution Console and for Dell OS Recovery tool.

System and setup password

Table 34. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.

Table 34. System and setup password(continued)

Password type	Description
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.

Clearing CMOS settings/RTC reset

About this task

CAUTION: Clearing CMOS settings will reset the BIOS settings on your computer as well as reset the Real-Time Clock on your BIOS.

Steps

1. Press and hold the power button for 30 seconds.
2. Release the power button and allow the system to boot.

Clearing BIOS (System Setup) and System passwords

About this task

NOTE: To conduct a BIOS and System password reset, you must call the Dell Tech Support number in your region.

Steps

1. Key in your computer's service tag number into the locked BIOS/system setup screen.
2. Convey the code generated to the Dell Tech Support agent.
3. The Dell Tech Support agent will provide a 32 character Master System Password that can be used to access the locked BIO/system setup.

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Software

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

Downloading Windows drivers

Steps

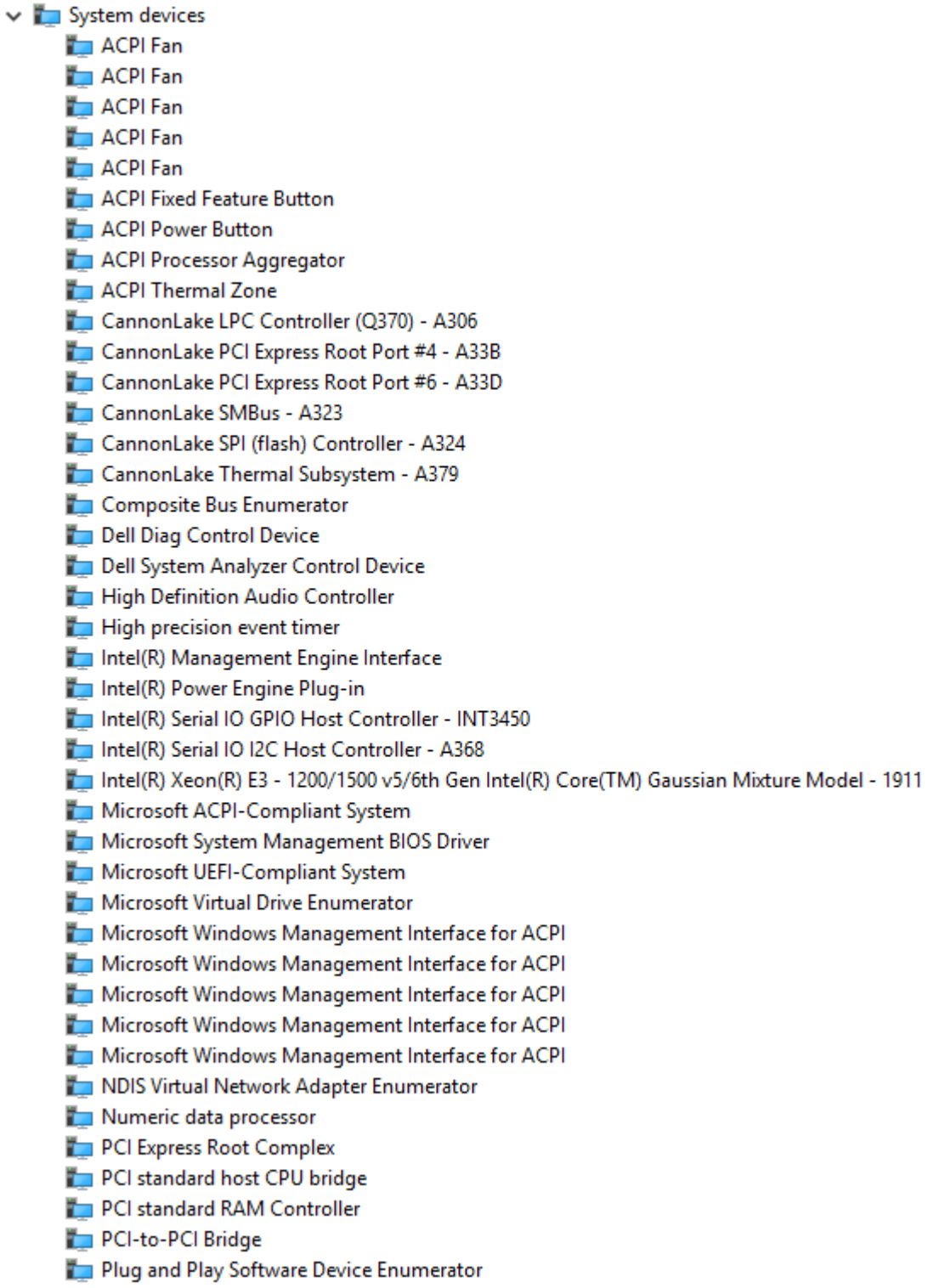
1. Turn on the notebook.
2. Go to **Dell.com/support**.
3. Click **Product Support**, enter the Service Tag of your notebook, and then click **Submit**.

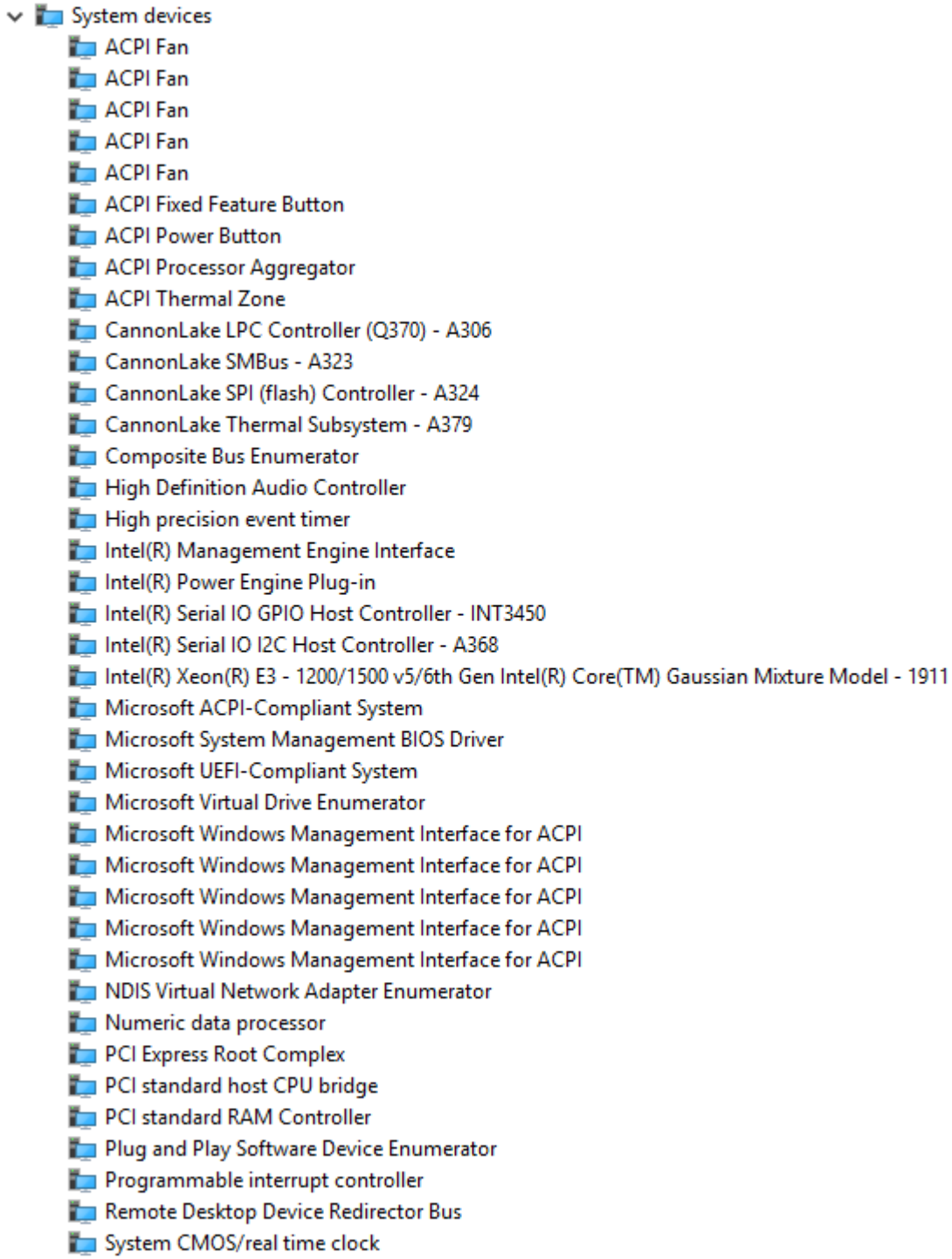
   NOTE: If you do not have the Service Tag, use the auto detect feature or manually browse for your notebook model.

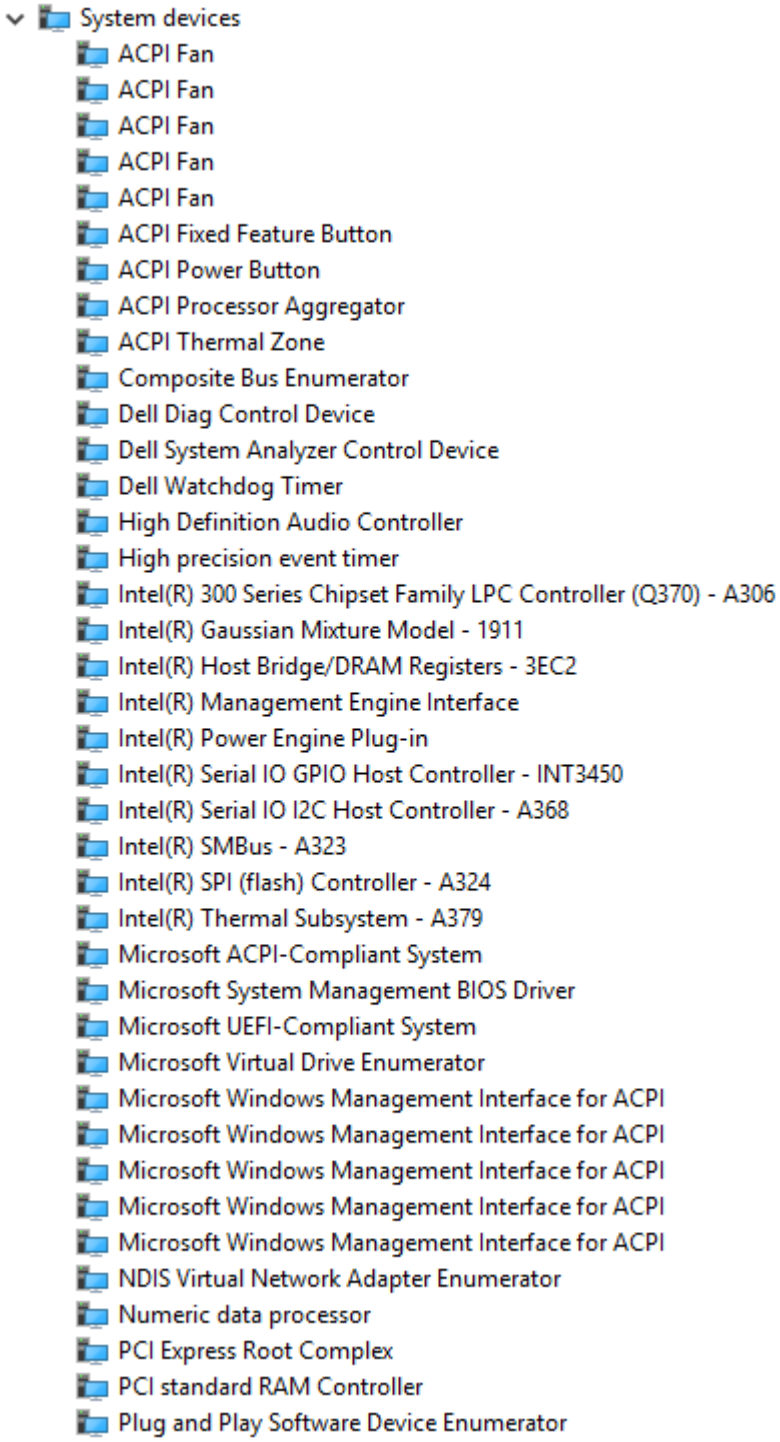
4. Click **Drivers and Downloads**.
5. Select the operating system installed on your notebook.
6. Scroll down the page and select the driver to install.
7. Click **Download File** to download the driver for your notebook.
8. After the download is complete, navigate to the folder where you saved the driver file.
9. Double-click the driver file icon and follow the instructions on the screen.

System device drivers

Verify if the system device drivers are already installed in the system.


System devices
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fixed Feature Button
ACPI Power Button
ACPI Processor Aggregator
ACPI Thermal Zone
CannonLake LPC Controller (Q370) - A306
CannonLake PCI Express Root Port #4 - A33B
CannonLake PCI Express Root Port #6 - A33D
CannonLake SMBus - A323
CannonLake SPI (flash) Controller - A324
CannonLake Thermal Subsystem - A379
Composite Bus Enumerator
Dell Diag Control Device
Dell System Analyzer Control Device
High Definition Audio Controller
High precision event timer
Intel(R) Management Engine Interface
Intel(R) Power Engine Plug-in
Intel(R) Serial IO GPIO Host Controller - INT3450
Intel(R) Serial IO I2C Host Controller - A368
Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) Gaussian Mixture Model - 1911
Microsoft ACPI-Compliant System
Microsoft System Management BIOS Driver
Microsoft UEFI-Compliant System
Microsoft Virtual Drive Enumerator
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
NDIS Virtual Network Adapter Enumerator
Numeric data processor
PCI Express Root Complex
PCI standard host CPU bridge
PCI standard RAM Controller
PCI-to-PCI Bridge
Plug and Play Software Device Enumerator


System devices
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fan
ACPI Fixed Feature Button
ACPI Power Button
ACPI Processor Aggregator
ACPI Thermal Zone
CannonLake LPC Controller (Q370) - A306
CannonLake SMBus - A323
CannonLake SPI (flash) Controller - A324
CannonLake Thermal Subsystem - A379
Composite Bus Enumerator
High Definition Audio Controller
High precision event timer
Intel(R) Management Engine Interface
Intel(R) Power Engine Plug-in
Intel(R) Serial IO GPIO Host Controller - INT3450
Intel(R) Serial IO I2C Host Controller - A368
Intel(R) Xeon(R) E3 - 1200/1500 v5/6th Gen Intel(R) Core(TM) Gaussian Mixture Model - 1911
Microsoft ACPI-Compliant System
Microsoft System Management BIOS Driver
Microsoft UEFI-Compliant System
Microsoft Virtual Drive Enumerator
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
Microsoft Windows Management Interface for ACPI
NDIS Virtual Network Adapter Enumerator
Numeric data processor
PCI Express Root Complex
PCI standard host CPU bridge
PCI standard RAM Controller
Plug and Play Software Device Enumerator
Programmable interrupt controller
Remote Desktop Device Redirector Bus
System CMOS/real time clock



Serial IO driver

Verify if the drivers for Touchpad, IR camera, and keyboard and are installed.

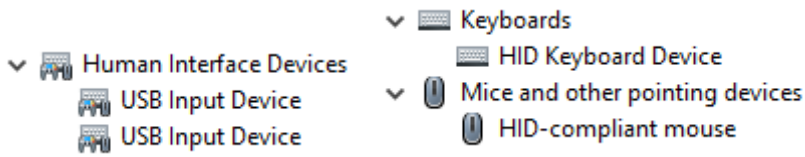
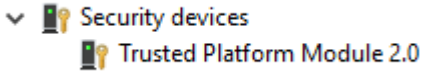


Figure 1. Serial IO driver

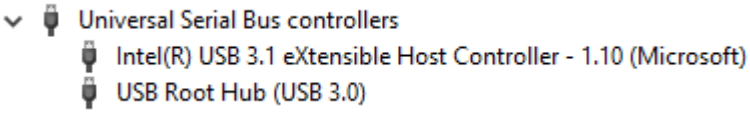
Security drivers

Verify if the security drivers are already installed in the system.



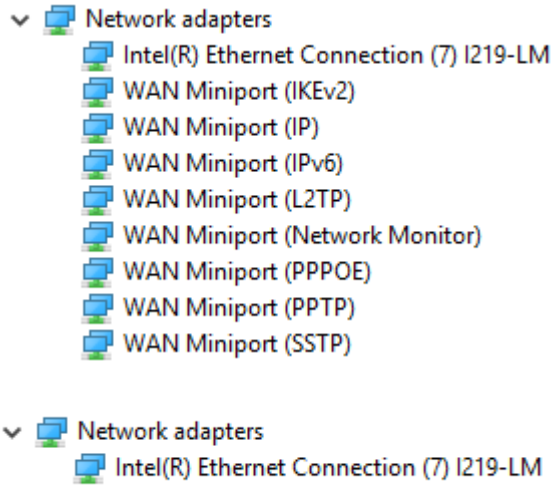
USB drivers

Verify if the USB drivers are already installed in the computer.



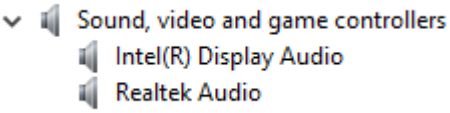
Network adapter drivers

Verify if the Network adapter drivers are already installed in the system.



Realtek Audio

Verify if audio drivers are already installed in the computer.



Storage controller

Verify if the storage control drivers are already installed in the system.

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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 35. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	https://www.dell.com/
Dell Support	
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	• Windows: https://www.dell.com/support/windows • Linux: https://www.dell.com/support/linux
Troubleshooting information, user manuals, set up instructions, product specifications, technical help blogs, drivers, software updates, and so on.	https://www.dell.com/support/home/
Dell knowledge base articles for various of system 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 get more 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	Dell provides several online and telephone-based support and service options. If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. • 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. • Once on product support page, scroll down to Manuals and Documents section to preview all the Manuals, documents, and other information for your product.

Contacting Dell

Dell provides several online and telephone-based support and service options. If you do not have an active Internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell product catalog. Availability varies by country/region and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to https://www.dell.com/support/.
2. Select your country/region from the drop-down menu on the lower right corner of the page.
3. For **customized support:**
   a. Enter your system Service Tag in the **Enter your Service Tag** field.
   b. Click **submit**.
      - The support page that lists the various support categories is displayed.
4. For **general support:**
   a. Select your product category.
   b. Select your product segment.
   c. Select your product.
      - The support page that lists the various support categories is displayed.
5. For contact details of Dell Global Technical Support, see https://www.dell.com/contactdell.

   NOTE: The Contact Technical Support page is displayed with details to call, chat, or email the Dell Global Technical Support team.

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