

Dell Vostro 5090

Setup and specifications guide



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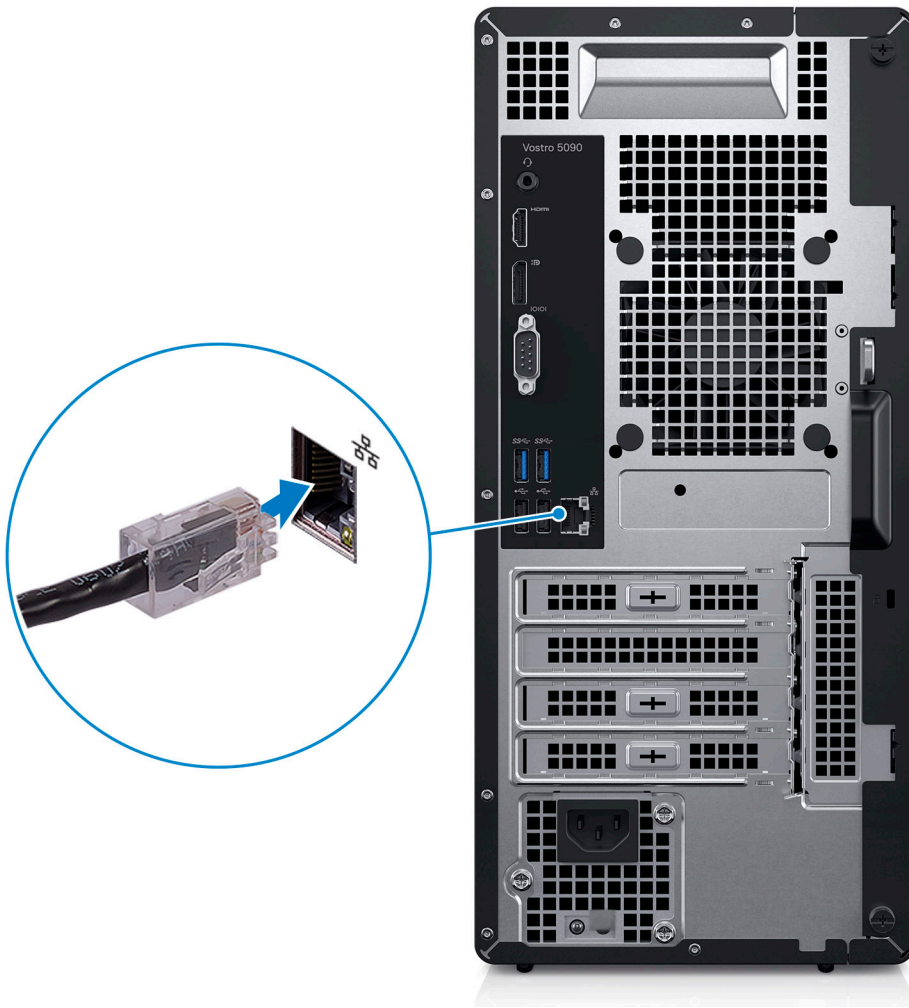
Notes, cautions, and warnings

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

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

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

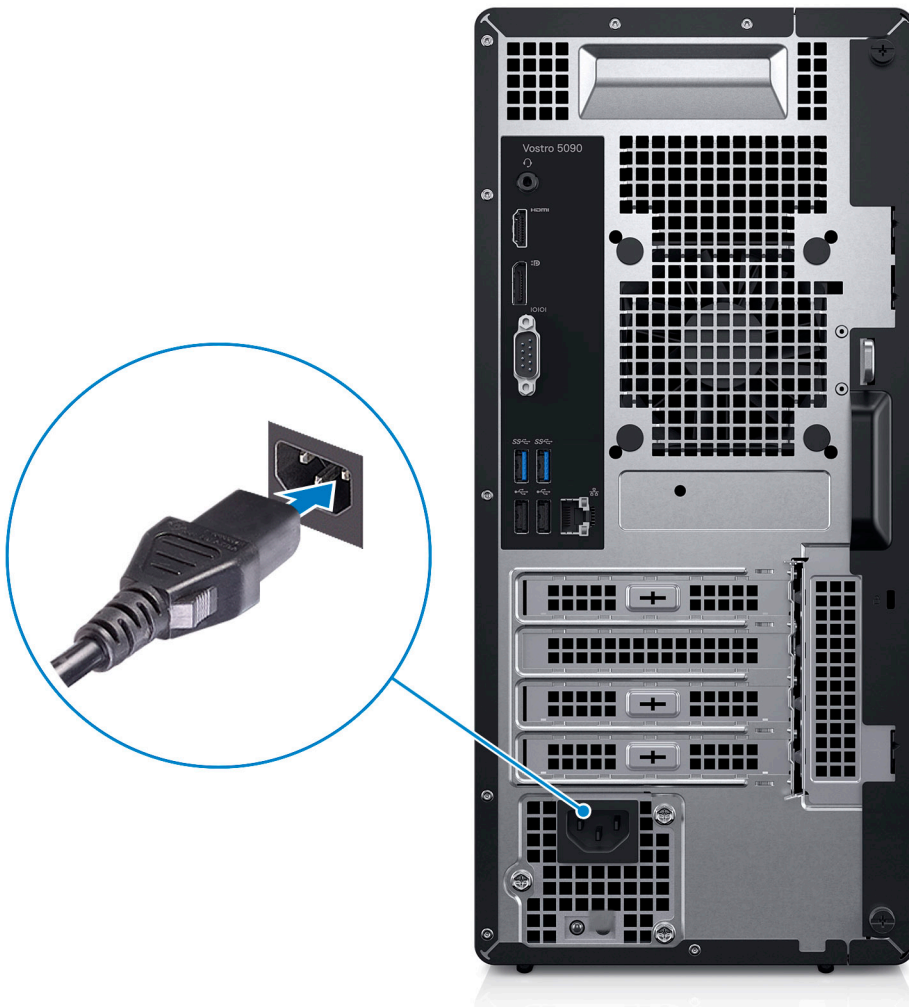
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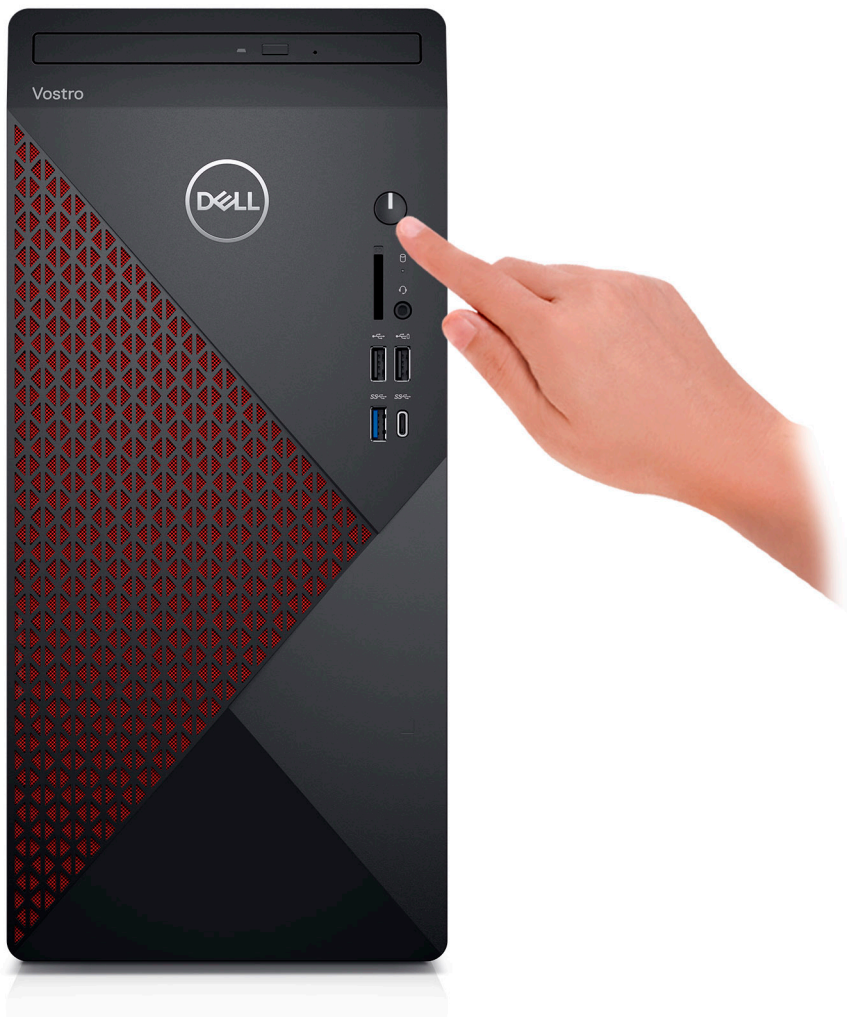
3. Connect the display.



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.

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

Table 1. Locate Dell apps

Dell apps	Details
	<p>Dell Product Registration Register your computer with Dell.</p>
	<p>Dell Help & Support Access help and support for your computer.</p>

Dell apps



Details

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.

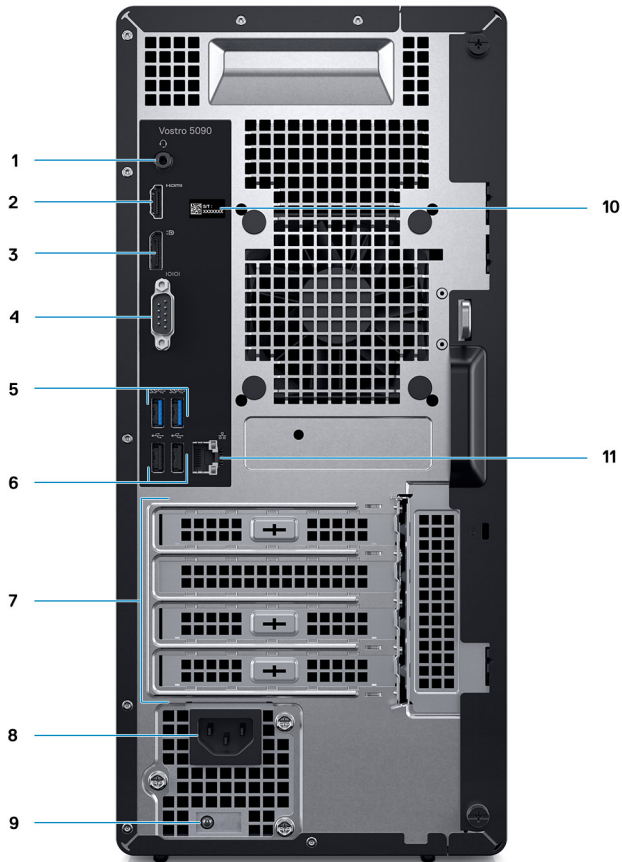
Chassis overview

Front



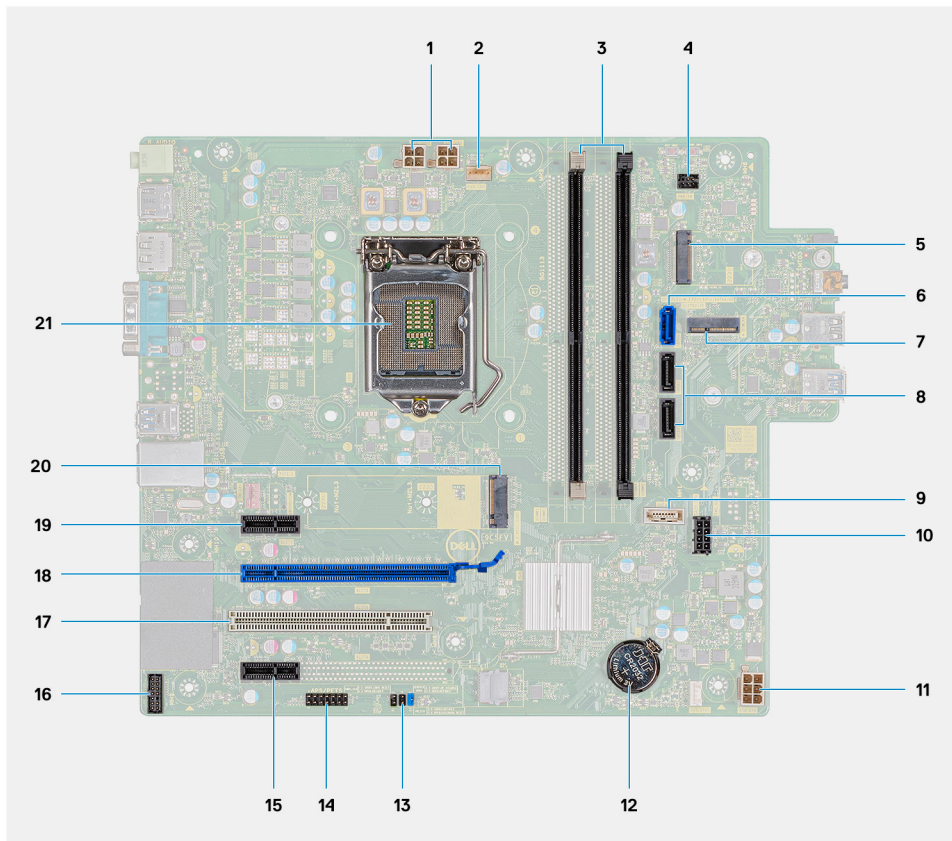
1. Optical drive
2. Power button
3. SD-card reader
4. Hard drive activity light
5. Universal audio/microphone connector
6. USB 2.0 ports
7. USB 2.0 ports
8. USB 3.1 Gen 1 (Type-C) port
9. USB 3.1 Gen 1 port

Back



1. Line-out audio Jack
2. HDMI 1.4
3. Display port
4. Serial port
5. USB 3.1 Gen 1 port
6. USB 2.0 ports
7. Expansion card slots
8. Power connector port
9. Power-supply diagnostics light
10. Service tag
11. Network port

System board layout



1. PSU power connector
2. Processor fan connector
3. Memory module connector
4. Power button connector
5. M.2 SSD card reader slot
6. SATA0 connector (blue)
7. M.2 WLAN connector
8. SATA1/2 connector (black)
9. SATA3 connector (white)
10. SATA power connector
11. ATX power connector
12. Coin-cell battery
13. CMOS_CLR/Password/Service_Mode jumper
14. APS/PETS connector (Debug)
15. PCIe x1 (Slot4)
16. LPC debug card connector
17. PCI-32 (Slot3)
18. PCIe x16 (Slot2)
19. PCIe x1 (Slot1)
20. M.2 2230/2280 SSD/Optane card connector
21. Processor socket

Technical specifications

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

Topics:

- [Dimensions and weight](#)
- [Processors](#)
- [Chipset](#)
- [Operating system](#)
- [Memory](#)
- [Storage](#)
- [Ports and connectors](#)
- [Communications](#)
- [Audio](#)
- [Intel Optane memory](#)
- [Media-card reader](#)
- [Power supply unit](#)
- [Video](#)
- [Computer environment](#)
- [Security hardware](#)

Dimensions and weight

Table 2. Dimensions and weight

Description	Values
Height:	
Front	367 mm (14.45 in.)
Rear	367 mm (14.45 in.)
Width	169 mm (6.65 in.)
Depth	300.50 mm (11.83 in.)
Weight (maximum)	7.90 kg (17.42 lb)

NOTE: The weight of your computer depends on the configuration ordered and the manufacturing variability.

Processors

Table 3. Processors

Description	Values
Processors	9 th Generation Intel Core i3-9100 9 th Generation Intel Core i5-9400 9 th Generation Intel Core i7-9700

Description	Values		
Wattage	65 W	65 W	65 W
Core count	4	6	8
Thread count	4	6	8
Speed	Up to 4.2 GHz	Up to 4.1 GHz	Up to 4.8 GHz
Cache	6 MB	9 MB	12 MB
Integrated graphics	Intel UHD Graphics 630	Intel UHD Graphics 630	Intel UHD Graphics 630

Chipset

Table 4. Chipset

Description	Values
Chipset	B360
Processor	9th Generation Intel core i3/i5/i7
DRAM bus width	64-bit
PCIe bus	Up to Gen2

Operating system

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

Memory

Table 5. Memory specifications

Description	Values
Slots	Two UDIMM slots
Type	Dual-channel DDR4
Speed	2666 MHz, 2400 MHz
Maximum memory	32 GB
Minimum memory	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB
Configurations supported	<ul style="list-style-type: none"> • 4 GB DDR4 at 2666 MHz (1 x 4 GB) • 8 GB DDR4 at 2666 MHz (2 x 4 GB), (1 x 8 GB) • 12 GB DDR4 at 2666 MHz (1 x 4 GB + 1 x 8 GB) • 16 GB DDR4 at 2666 MHz (1 x 16 GB), (2 x 8 GB) • 32 GB DDR4 at 2666 MHz (2 x 16 GB)

Storage

Your computer supports one of the following configurations:

- One 3.5-inch hard drive
- One M.2 2230 SSD or One M.2 2280 SSD/Intel Optane Module

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 6. Storage specifications

Storage type	Interface type	Capacity
3.5-inch hard drive	SATA 3.0	2TB
M.2 2230 SSD	PCI-e	Up to 512 GB
M.2 2280 SSD	PCI-e	Up to 512 GB

Ports and connectors

Table 7. External ports and connectors

Description	Values
External:	
Network	One RJ-45 port
USB	<ul style="list-style-type: none">• Two USB 2.0 ports (front)• Two USB 2.0 ports (rear)• One USB 3.1 Gen 1 Type-C port (front)• One USB 3.1 Gen 1 port (front)• Two USB 3.1 Gen 1 ports (rear)
Audio	<ul style="list-style-type: none">• One universal audio jack (front)• One line-out audio jack (rear)
Video	One HDMI 1.4b port/One DisplayPort v1.2
Media card reader	One SD-card 3.0 slot (optional)
Expansion card	Supported
Smart card reader	Supported
Docking port	Not supported
Power adapter port	AC-in
Security	<ul style="list-style-type: none">• One Padlock loop• One Kensington slot

Table 8. Internal ports and connectors

Description	Values
Internal:	
Expansion	Two PCI-e x1 / One PCI-e x16 / 1 PCI-32 expansion card slot

Description	Values
SATA slots	Four SATA Slots for 2.5-inch HDD/ 3.5-inch HDD/ ODD
M.2	<ul style="list-style-type: none"> One M.2 slot for WiFi One M.2 2230/2280 slot for solid-state drive/Intel Optane <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626.</p>

Communications

Ethernet

Table 9. Ethernet specifications

Description	Values
Model number	I219V
Transfer rate	10/100/1000 Mbps

Wireless module

Table 10. Wireless module specifications

Description	Values		
Model number	Qualcomm QCA9565 (DW1707)	Intel 9462	Intel 9560 (160 MHz)
Transfer rate	Up to 150 Mbps	Up to 433 Mbps	Up to 1730 Mbps
Frequency bands supported	2.4 GHz/NA GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> WiFi 802.11b/g/n 	<ul style="list-style-type: none"> WiFi 802.11ac 	<ul style="list-style-type: none"> Wi-Fi 802.11ac
Encryption	<ul style="list-style-type: none"> 64/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64/128-bit WEP AES-CCMP TKIP
Bluetooth	Bluetooth 4.0	Bluetooth 5 (Windows 10 supports Bluetooth 5 with the latest Windows update)	Bluetooth 5 (HW ready, SW depends on OS)

Audio

Table 11. Audio specifications

Description	Values
Controller	Realtek ALC3246
Stereo conversion	Supported
Internal interface	High definition audio interface
External interface	Universal Audio Jack

Description	Values
Speakers	N/A
Internal speaker amplifier	Not supported
External volume controls	N/A
Speaker output:	
Average	_2__ W
Peak	_2.5__ W
Subwoofer output	Not supported
Microphone	Not supported

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 12. Intel Optane memory

Description	Values
Type	Storage accelerator
Interface	PCIe 3.0
Connector	M.2 2280
Configurations supported	16 GB, 32 GB
Capacity	Up to 32 GB

Media-card reader

Table 13. Media-card reader specifications

Description	Values
Type	One SD 3.0 card slot (optional)
Cards supported	<ul style="list-style-type: none"> • Secure Digital (SD) • Secure Digital High Capacity (SDHC) • Secure Digital Extended Capacity (SDXC) • Multimedia card (MMC) • Multimedia plus card (MMC+)

Power supply unit

Table 14. Power supply unit specifications

Description	Values	
Type	D10 460 W EPA Bronze	D9 260 W EPA Bronze
Diameter (connector)	Not supported	Not supported
Input voltage	90 VAC to 264 VAC	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz	47 Hz to 63 Hz
Input current (maximum)	7 A	4.20 A
Output current (continuous)	<ul style="list-style-type: none"> • +12 VA1/18 A • +12 VA2/18 A • +12 VB/18 A • +12 VC/18 A Standby mode: <ul style="list-style-type: none"> • +12 VA1/1.50 A • +12 VA2/1.50 A • +12 VB/2.50 A 	<ul style="list-style-type: none"> • +12 VA/16.50 A • +12 VB/16 A • +12 VSB/2.50 A Standby mode: <ul style="list-style-type: none"> • +12 VA/0.5 A • +12 VB/2.5 A
Rated output voltage	<ul style="list-style-type: none"> • +12 VA1 • +12 VA2 • +12 VB • +12 VC 	<ul style="list-style-type: none"> • +12 VA • +12 VB
Temperature range:		
Operating	5°C to 45°C (41°F to 113°F)	5°C to 45°C (41°F to 113°F)
Storage	-40°C to 70°C (-40°F to 158°F)	-40°C to 70°C (-40°F to 158°F)

Video

Table 15. Discrete graphics specifications

Discrete graphics			
Controller	External display support	Memory size	Memory Type
AMD RX550	One Display port/Two Mini-Display port	4 GB	GDDR5
NVIDIA 1660 TI	One DVI-D/One Display port/One HDMI port	6 GB	GDDR6
NVIDIA 2060	One DVI-D/One Display port/One HDMI port	6 GB	GDDR6
NVIDIA 2070	One DVI-D/Two Display port/One HDMI port	8 GB	GDDR6
NVIDIA GT 730	One DVI-D/One VGA/One HDMI port	2 GB	GDDR5

Table 16. Integrated graphics specifications

Integrated graphics			
Controller	External display support	Memory size	Processor
Intel UHD 630 Graphics	One HDMI port/One Display port	Shared system memory	9th Generation Intel core i3/i5/i7

Computer environment

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

Table 17. 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 (32 ft to 10000 ft)	0 m to 10668 m (32 ft to 35000 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.

Security hardware

Table 18. Security hardware


Feature	Specifications
Security HW	<ul style="list-style-type: none">• Kensington Lock Slot• Padlock Loop• Microsoft Windows Bitlocker• Local HDD data wipe via BIOS ("Secure Erase")• HW TPM (optional)

Getting help

Topics:

- [Contacting Dell](#)

Contacting Dell

 **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.

Dell provides several online and telephone-based support and service options. Availability varies by country 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 **Dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.