

Inspiron 27-7790

Setup and Specifications



Notes, cautions, and warnings

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

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

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

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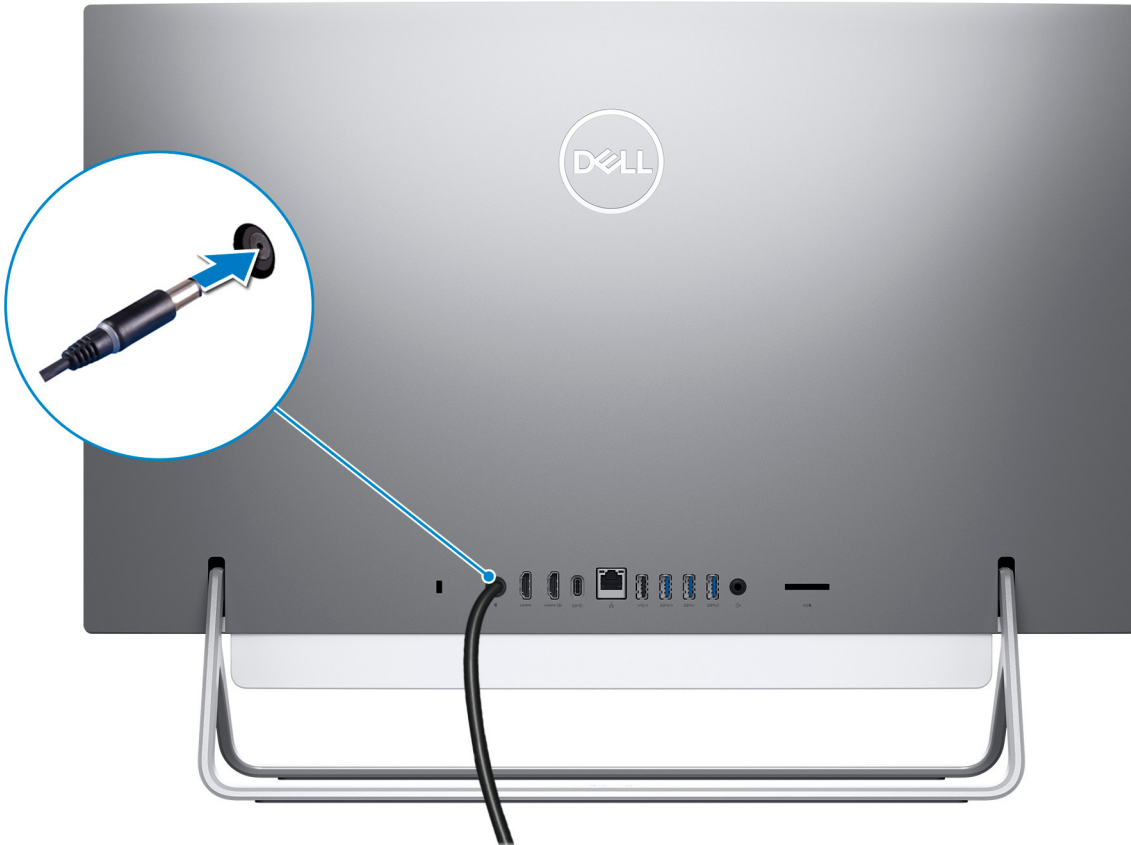
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Set up your computer

1. Set up the keyboard and mouse.

i **NOTE:** For setup instructions, see the documentation shipped with the keyboard and mouse.

2. Connect the power cable.



3. Press the power button.





4. Finish Windows setup.

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.

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

Table 1. Locate Dell apps

Resources	Description
	<p>My Dell</p> <p>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.</p>
	<p>SupportAssist</p> <p>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.</p> <p>NOTE: In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p>

Resources

Description



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.

Views of Inspiron 27-7790

Front



1. Retractable-camera assembly

Enables you to videochat, capture photos, and record videos. This camera can be retracted to protect your privacy.

2. Left speaker

Provides audio output.

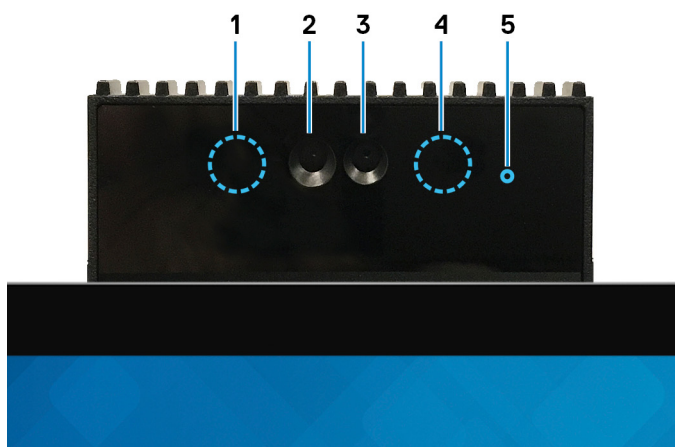
3. Digital-array microphones (2)

Provide digital sound input for audio recording, voice calls, and so on.

4. Right speaker

Provides audio output.

Retractable camera



NOTE: Depending on the configuration ordered, your computer will have only camera or both camera and Infrared camera.

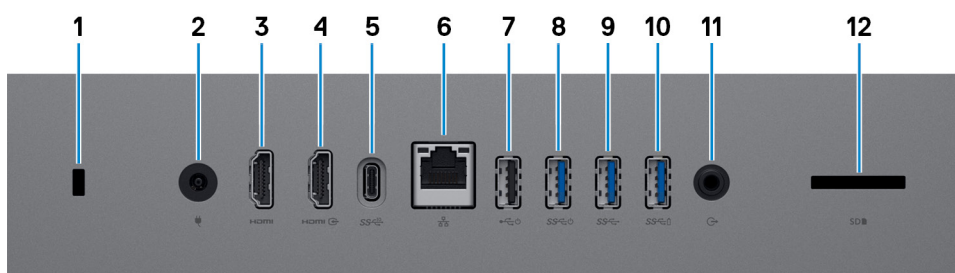
1. **Infrared emitter**
Emits infrared light, which enables the infrared camera to sense and track motion.
2. **Infrared camera**
Enhances security when paired with Windows Hello face authentication.
3. **Camera**
Enables you to video chat, capture photos, and record videos.
4. **Infrared emitter**
Emits infrared light, which enables the infrared camera to sense and track motion.
5. **Camera-status light**
Turns on when the camera is in use.

Back



For more information on the rear ports, see [Back panel](#).

Back panel



- 1. Security-cable slot (for Kensington locks)**

Connect a security cable to prevent unauthorized movement of your computer.

- ## 2. Power-adaptor port

Connect a power adapter to provide power to your computer.

- ### 3. HDMI port

Connect to a TV or another HDMI-in enabled device. Provides video and audio output.

- #### 4. HDMI-in port

Connect a gaming console, Blu-ray player, or other HDMI-out enabled devices.

- ### 5. USB 3.1 Gen 2 Type-C port

Connect peripherals such as external storage devices and printers.

Provides data transfer speeds up to 10 Gbps. PowerShare enables you to charge connected USB devices.

NOTE: Connected USB devices will not charge when the computer is turned off. Please set BIOS Deep Sleep control to disabled to start charging when the computer is powered off.

6. Network port

Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access, with a transfer rate of 10/100/1000 Mbps.

7. USB 2.0 port with Power on/Wake-up support

Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 480 Mbps. Wake the computer from standby with the keyboard or mouse connected to this port.

NOTE: Please set BIOS Deep Sleep control to disabled to enable Wake up when the computer is powered off.

8. USB 3.1 Gen 1 port with Power on/Wake-up support

Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps. Wake the computer from standby with the keyboard or mouse connected to this port.

NOTE: Please set BIOS Deep Sleep control to disabled to enable Wake up when the computer is powered off.

9. USB 3.1 Gen 1 port

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

10. USB 3.1 Gen 1 port with PowerShare

Connect peripherals such as external storage devices and printers.

Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge connected USB devices.

NOTE: Connected USB devices will not charge when the computer is turned off. Please set BIOS Deep Sleep control to disabled to start charging when the computer is powered off.

11. Audio-out port

Connect audio-output devices such as speakers, amplifiers, and so on.

12. SD-card slot

Reads from and writes to the SD card, supporting the following cards:

- SD card
- SD High Capacity (SDHC) card
- SD Extended Capacity (SDXC) card
- micro Secure Digital (mSD)
- micro Secure Digital High Capacity (mSDHC)
- micro Secure Digital Extended Capacity (mSDXC)

Bottom



1. Power button

Press to turn on the computer if it is turned off, in sleep state, or in hibernate state.

Press to put the computer in sleep state if it is turned on.

Press and hold for 10 seconds to force shut-down the computer.

 **NOTE:** You can customize the power-button behavior in Power Options. For more information, see *Me and My Dell* at www.dell.com/support/manuals.

2. Display Built-in Self Test button

Press to run a built-in self-test for the display.

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.

Tilt

Darth stand



Vessel stand



Pafilia X stand



Retractable camera

Push the top of camera to extend or retract the camera. Extend the camera before use and retract the camera to protect your privacy when not in use.



Specifications of Inspiron 27-7790

Stand

Table 2. Stand

Description	Darth stand	Vessel stand	Pafilia X stand
Height	132.20 mm (5.20 in.)	127.71 mm (5.02 in.)	135 mm (5.31 in.)
Width	477 mm (18.77 in.)	462 mm (18.18 in.)	531.8 mm (20.93 in.)
Depth	193.4 mm (7.61 in.)	182 mm (7.16 in.)	202.3 mm (7.96 in.)
Weight	0.40 kg (0.88 lb)	0.64 kg (1.41 lb)	0.63 kg (1.38 lb)

Darth stand

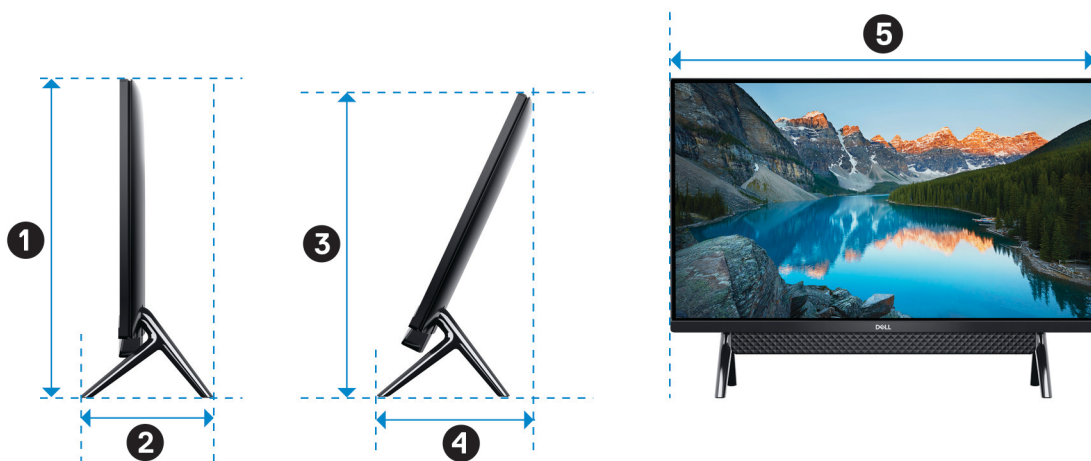


Table 3. Darth stand dimensions

Description	Dimensions
1	453.20 mm (17.84 in.)
2	193.40 mm (7.61 in.)
3	453.20 mm (17.84 in.)
4	193.40 mm (7.61 in.)
5	611.70 mm (24.08 in.)

Vessel stand

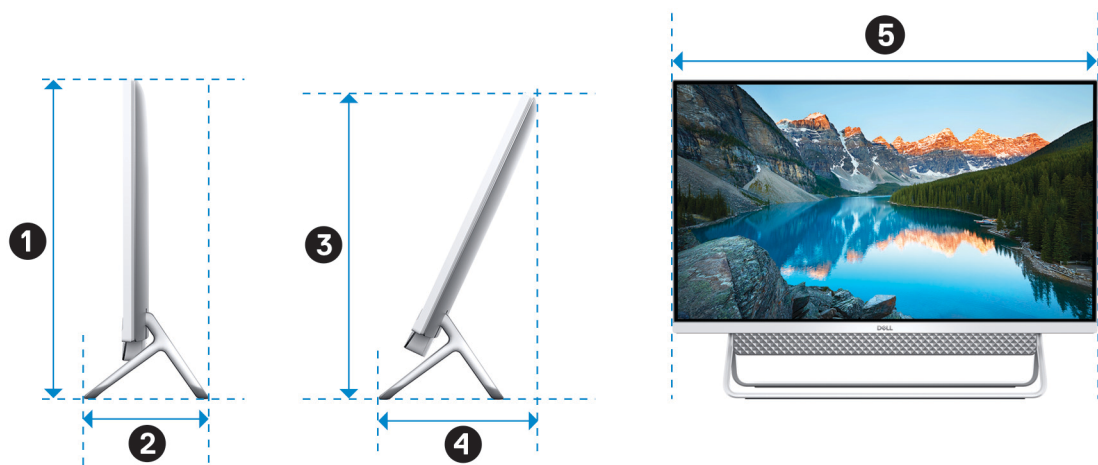


Table 4. Vessel stand

Description	Dimensions
1	453.20 mm (17.84 in.)
2	182 mm (7.16 in.)
3	453.20 mm (17.84 in.)
4	182 mm (7.16 in.)
5	611.70 mm (24.08 in.)

Pafilia X stand

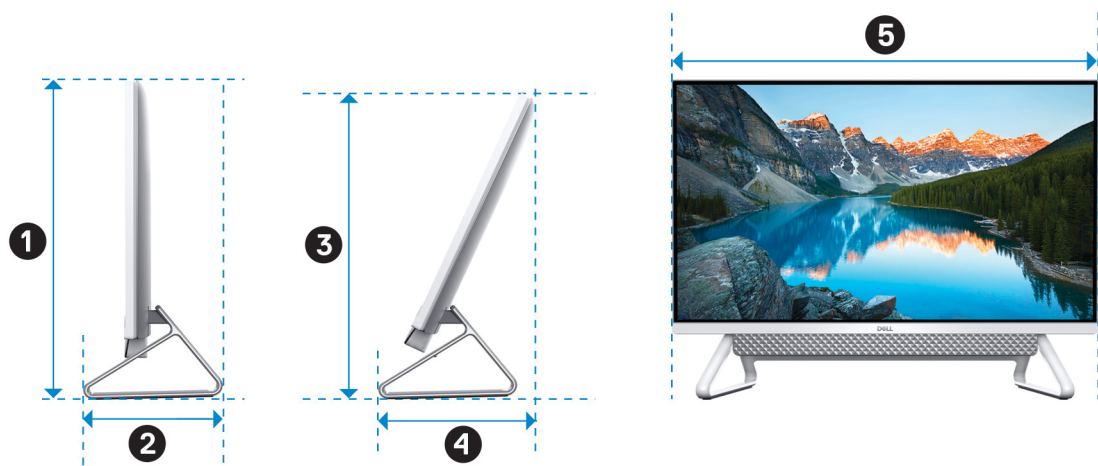


Table 5. Pafilia X stand dimensions

Description	Dimensions
1	453.20 mm (17.84 in.)
2	202.3 mm (7.96 in.)

Description	Dimensions
3	453.20 mm (17.84 in.)
4	202.3 mm (7.96 in.)
5	611.90 mm (24.09 in.)

Dimensions and weight

Table 6. Computer dimensions and weight (without stand)

Description	Values
Height	395.40 mm (15.56 in.) i NOTE: The height of your computer varies depending on the stand installed.
Width	<ul style="list-style-type: none"> 611.70 mm (24.08 in.) with Darth stand and Vessel stand 611.90 mm (24.09 in.) with Pafilia X stand i NOTE: The width of your computer varies depending on the stand installed.
Depth	42 mm (1.65 in.)
Weight:	
Touchscreen	7.14 kg (15.74 lb)
Non-touchscreen	6.71 kg (14.79 lb) i NOTE: The weight of your computer varies depending on the configuration ordered and the manufacturing variability.

Processors

Table 7. Processors

Description	Values
Processors	10 th Generation Intel Core i3 (10110U) 10 th Generation Intel Core i5 (10210U) 10 th Generation Intel Core i7 (10510U)
Wattage	15 W 15 W 15 W
Core count	4 4 4
Thread count	8 8 8
Speed	Up to 4.1 GHz Up to 4.2 GHz Up to 4.9 GHz
Cache	4 MB 6 MB 8 MB
Integrated graphics	Intel UHD Graphics 620 Intel UHD Graphics 620 Intel UHD Graphics 620

Chipset

Table 8. Chipset

Description	Values
Chipset	Integrated in the processor
Processor	10 th Generation Intel Core i3/i5/i7
DRAM bus width	64 bit
Flash EPROM	16 MB
PCIe bus	PCIe Gen2

Operating system

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

Memory

Table 9. Memory specifications

Description	Values
Slots	Two SODIMM slots
Type	Dual-channel DDR4
Speed	2666 MHz
Maximum memory	32 GB
Minimum memory	4 GB
Memory size per slot	4 GB, 8 GB, 12 GB, and 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)• 12 GB DDR4 at 2666 MHz (1 x 4 GB + 1 x 8 GB)• 16 GB DDR4 at 2666 MHz (2 x 8 GB or 1 x 16 GB)• 32 GB DDR4 at 2666 MHz (2 x 16 GB)

Ports and connectors

Table 10. Ports and connectors

Description	Values
External:	
Network	One RJ-45 port
USB	<ul style="list-style-type: none">• One USB 2.0 port with Power on/Wake-up support• One USB 3.1 Gen 1 port• One USB 3.1 port with Power on/Wake-up support

Description		Values
		<ul style="list-style-type: none"> One USB 3.1 Gen 1 port with PowerShare One USB 3.1 Gen 2 (Type-C) port
Audio		Audio-out port
Video		<ul style="list-style-type: none"> One HDMI 1.4b port One HDMI-in port
Memory card reader		One SD-card slot
Power port		One 4.5 mm x 2.9 mm DC-in adapter port
Security		Wedge-shaped lock
Internal:		
PCIe expansion card slots		Not supported
M.2		<ul style="list-style-type: none"> One M.2 slot for Wi-Fi and Bluetooth combo card One PCIe/SATA M.2 2230/2242 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 .

Communications

Ethernet

Table 11. Ethernet specifications

Description		Values
Model number		Realtek RTL8111HSD-CG PCIe Gigabit Ethernet controller (integrated on system board)
Transfer rate		10/100/1000 Mbps

Wireless module

Table 12. Wireless module specifications

Description		Values
Model number	Intel 9462	Intel AX200
Transfer rate	Up to 433 Mbps	Up to 2400 Mbps
Frequency bands supported	Dual band 2.4 GHz/5 GHz	Dual band 2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> Wi-Fi 802.11a/b/g Wi-Fi 4 (Wi-Fi 802.11n) Wi-Fi 5 (Wi-Fi 802.11ac) 	<ul style="list-style-type: none"> Wi-Fi 802.11a/b/g Wi-Fi 4 (Wi-Fi 802.11n) Wi-Fi 6 (Wi-Fi 802.11ax)
Encryption	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP 	<ul style="list-style-type: none"> 64-bit/128-bit WEP AES-CCMP TKIP

Description	Values	
Bluetooth	Bluetooth 5.0	Bluetooth 5.0

Audio

Table 13. Audio specifications

Description	Values	
Controller	Realtek ALC3289-CG	
Stereo conversion	Supported	
Internal interface	High definition audio interface	
External interface	Universal Audio Jack/HDMI 1.4 port	
Speakers	2	
Internal speaker amplifier	Supported	
External volume controls	Not supported	
Speaker output:		
	Average	5 W
	Peak	6 W
Subwoofer output	Not supported	
Microphone	Digital-array microphones	

Storage

Your computer supports one of the following configurations:

- One 2.5-inch hard-disk drive
- One M.2 2230/2242 solid-state drive
- One 2.5-inch hard drive and one M.2 2242 solid-state drive

Table 14. Storage specifications

Storage type	Interface type	Capacity
One 2.5-inch hard-disk drive	SATA AHCI 6 Gbps	Up to 2 TB
One M.2 2230/2242 solid-state drive	PCIe Gen3.0x4 NVMe, up to 32 Gbps	Up to 1 TB

Media-card reader

Table 15. Media-card reader specifications

Description	Values
Type	One SD-card slot
Cards supported	<ul style="list-style-type: none"> • SD card • SD High Capacity (SDHC) card

Description	Values
	<ul style="list-style-type: none"> SD Extended Capacity (SDXC) card micro Secure Digital (mSD) micro Secure Digital High Capacity (mSDHC) micro Secure Digital Extended Capacity (mSDXC)

Camera

Table 16. Camera specifications

Description	Values
Number of cameras	One
Type	<ul style="list-style-type: none"> FHD RGB camera FHD RGB + infrared camera
Location	Front camera
Sensor type	CMOS sensor technology
Resolution	
Camera	
Still image	2.07 megapixels (FHD camera)
Video	1920 x 1080 (FHD) at 30 fps (FHD camera)
Infrared camera	
Still image	0.3 megapixel
Video	640 x 480 (VGA) at 30 fps
Diagonal viewing angle	
Camera	77.5 degrees (FHD camera)
Infrared camera	82.8 degrees

Display

Table 17. Display specifications

Description	Values
Type	Full High Definition (FHD)
Panel technology	Wide Viewing Angle (WVA)
Luminance (typical)	250 nits
Dimensions (active area):	
Height	354.10 mm (13.94 in.)
Width	607.10 mm (23.90 in.)
Diagonal	686 mm (27 in.)
Native resolution	1920 x 1080

Description	Values
Megapixels	16.78
Color gamut	72%
Pixels Per Inch (PPI)	82
Contrast ratio (min)	1000:1
Response time (max)	25
Refresh rate	60 Hz
Horizontal view angle	+/- 170 degrees
Vertical view angle	+/- 170 degrees
Pixel pitch	0.3114 x 0.3114
Power consumption (maximum)	14.25 W
Anti-glare vs glossy finish	Anti-glare
Touch options	Yes

Power adapter

Table 18. Power adapter specifications

Description	Values	
Type	90 W	130 W
Diameter (connector)	4.5 mm	4.5 mm
Input voltage	100 VAC-240 VAC	100 VAC-240 VAC
Input frequency	50 Hz-60 Hz	50 Hz-60 Hz
Input current (maximum)	1.50 A	2.50 A
Output current (continuous)	4.62 A	6.70 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)

Video

Table 19. Discrete graphics specifications

Discrete graphics			
Controller	External display support	Memory size	Memory type
NVIDIA MX110	Not applicable	2 GB	GDDR5

Table 20. Integrated graphics specifications

Integrated graphics			
Controller	External display support	Memory size	Processor
Intel UHD Graphics 620	One HDMI 1.4 port	Shared system memory	10 th Generation Intel Core i3/i5/i7

Computer environment

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

Table 21. Computer environment

	Operating	Storage
Temperature range	5°C to 35°C (32°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)	3048	10668

* 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.

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 22. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	www.dell.com
My Dell app	
Tips	
Contact Support	In Windows search, type Contact Support , and press Enter.
Online help for operating system	www.dell.com/support/windows
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.	<ol style="list-style-type: none"> 1. Go to www.dell.com/support. 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:	See <i>Me and My Dell</i> at www.dell.com/support/manuals .
<ul style="list-style-type: none"> • Product specifications • Operating system • Setting up and using your product • Data backup • Troubleshooting and diagnostics • Factory and system restore • BIOS information 	<p>To locate the <i>Me and My Dell</i> relevant to your product, identify your product through one of the following:</p> <ul style="list-style-type: none"> • 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/region and product, and some services may not be available in your country/region.

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