



DELL XPS 8940 Desktop Computer Tower User Guide

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DELL XPS 8940 Desktop Computer Tower



Notes, cautions, and warnings

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

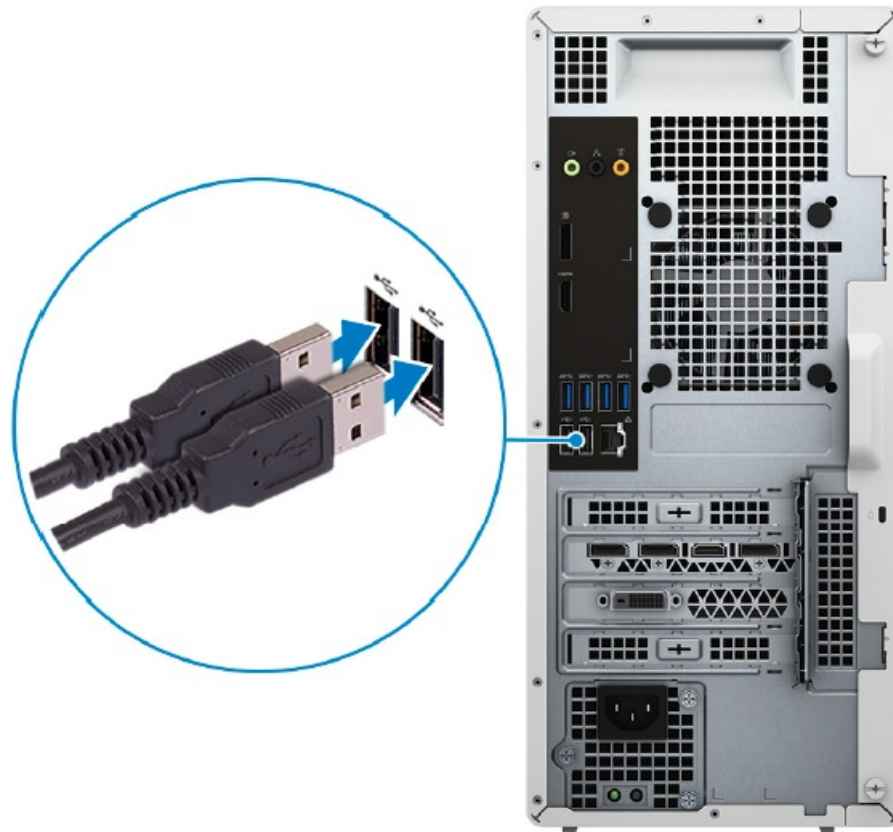
CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

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

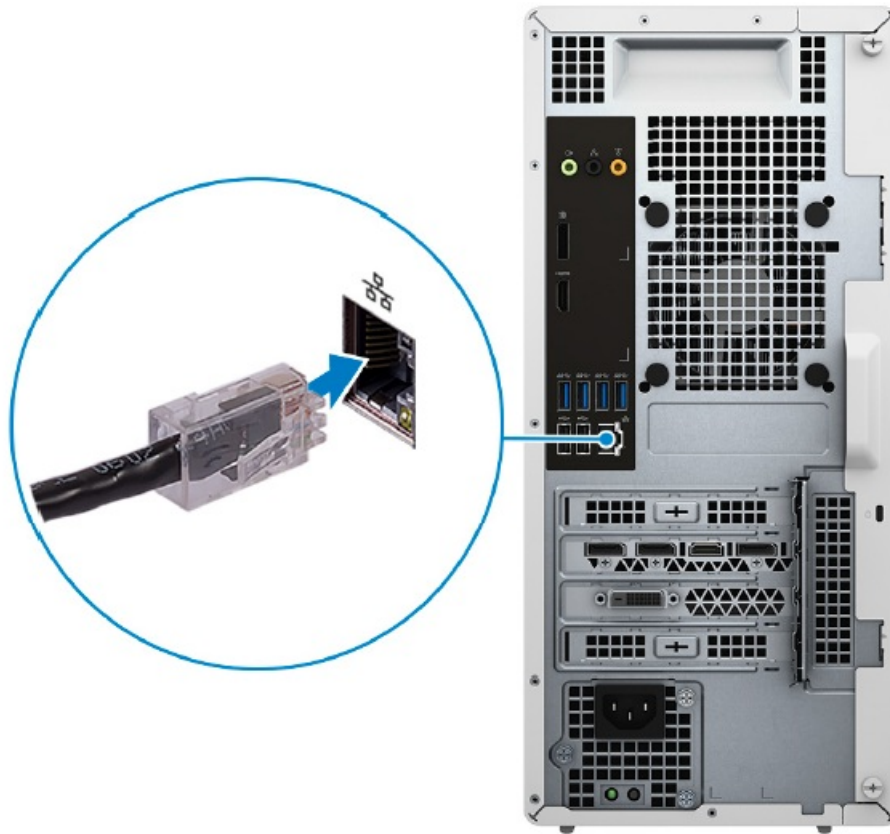
Set up your computer

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

1. Connect the keyboard and mouse to suitable ports. For instructions on how to connect a wireless keyboard and mouse, see the documentation that ships with the wireless keyboard and mouse.



2. Connect to your network using an Ethernet cable. Alternatively, connect to a wireless network while setting up your operating system.



3. Connect the display. For more information about setting up the display, see the documentation that is shipped with your display.



NOTE: If you have two graphics cards, the card installed in PCI-Express X16 (graphics slot 1) is the primary graphics card.

4. Connect the power cable to the computer and then connect it to the wall outlet.



5. Press the power button on the front of computer to turn on the computer. If required, press the power button on the display to turn it on.








6. For instructions on how to connect speakers, a printer and other accessories, see Me and My Dell at www.dell.com/manuals.
7. 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.

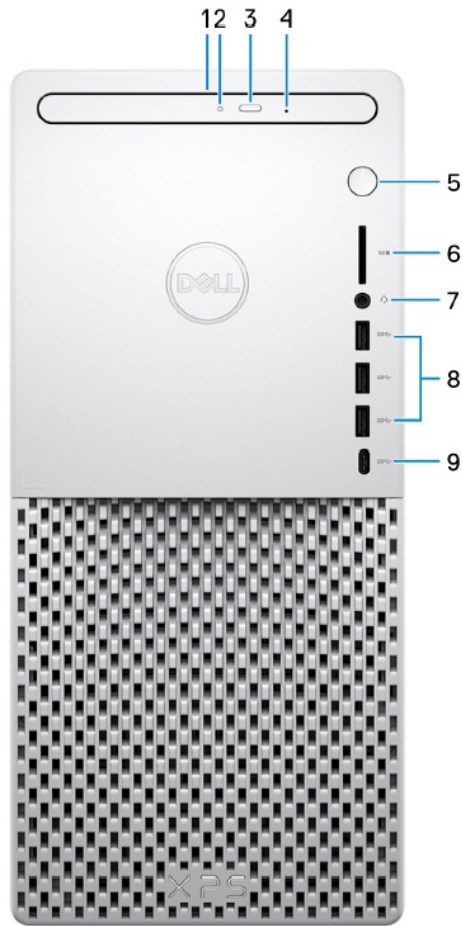
8. Locate and use Dell apps from the Windows Start menu—Recommended.

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 SupportAssist proactively and predictively identifies hardware and software issues on your computer and automates the engagement process with Dell Technical support. It addresses performance and stabilization issues, prevents security threats, monitors, and detects hardware failures. For more information, see <i>SupportAssist for Home PCs User's Guide</i> at www.dell.com/serviceabilitytools . Click SupportAssist and then, click SupportAssist for Home PCs .  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 000149088 at www.dell.com/support .
	Dell Digital Delivery Download software applications, which are purchased but not preinstalled on your computer. For more information about using Dell Digital Delivery, see the knowledge base article 000129837 at www.dell.com/support .

Views of XPS 8940

Front



1. Slim optical drive (optional)

Reads from and writes to CDs, DVDs, and Blu ray discs.

2. Optical-drive activity light

The Optical-drive activity light turns on when the computer reads from or writes to an optical drive.

3. Optical-drive eject button

Press to open the optical drive tray.

4. Optical-drive emergency eject pinhole

Used to eject the optical-drive tray manually if the optical-drive eject button fails.

NOTE: For more information about manually ejecting optical-drive trays, see the knowledge base article 000139665 at www.dell.com/support.

5. 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 to force shut-down the computer.

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

6. SD-card slot

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

- Secure Digital (SD)
- Secure Digital High Capacity (SDHC)
- Secure Digital Extended Capacity (SDXC)

7. Headset port

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

8. **USB 3.1 Gen 1 ports (3)**

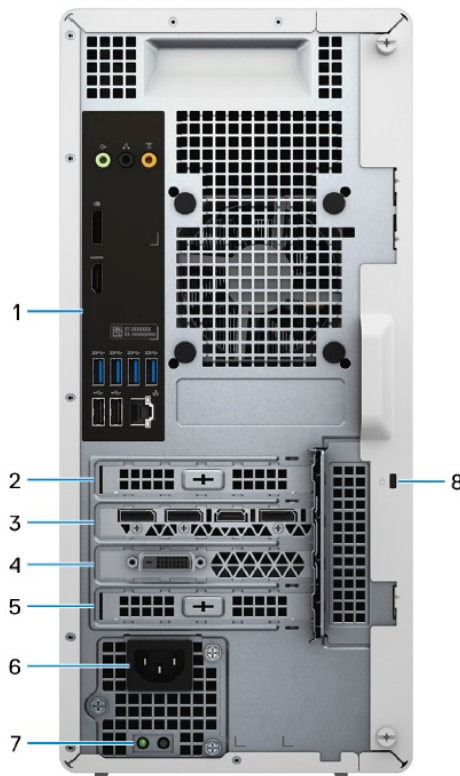
Connect peripherals such as external storage devices and printers. Provides data transfer speeds up to 5 Gbps.

9. **USB 3.1 Gen 1 (Type-C) port**

Connect to external storage devices. Provides data transfer speeds up to 5 Gbps.

NOTE: This port does not support video/audio streaming.

Back



1. **Back panel**

Connect USB, audio, video, and other devices.

2. **PCI-Express x1 slot**

Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.

3. **PCI-Express x16 (graphics) slot 1**

Connect a PCI-Express graphics card to enhance the capabilities of your computer.

4. **Expansion slot for dual-width graphics card**

This expansion slot seats the bottom half of a dual-width graphics card if it is installed in the PCI-Express x16 slot.

5. **PCI-Express x4 slot**

Connect a PCI-Express card such as graphics, audio, or network card to enhance the capabilities of your computer.

6. **Power port**

Connect a power cable to provide power to your computer.

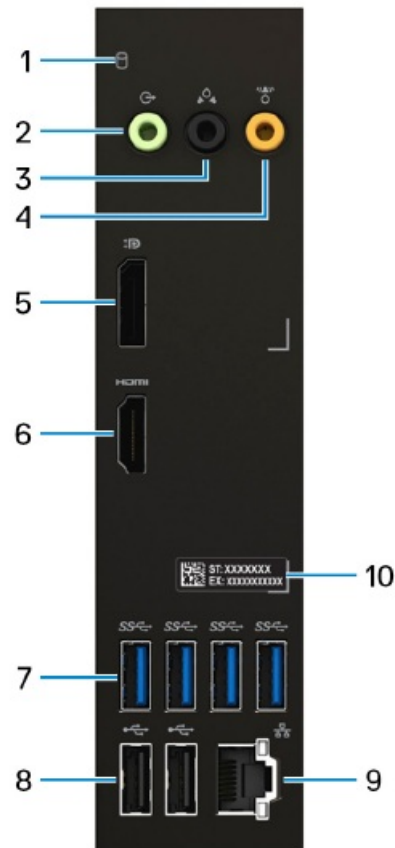
7. **Power-supply diagnostics light**

Indicates the power-supply state.

8. Security-cable slot (wedge-shaped)

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

Back panel



1. Hard-drive activity light

The activity light turns on when the computer reads from or writes to the hard drive.

2. Line-out port

Connect speakers.

3. Rear L/R surround port

Connect audio-output devices such as speakers and amplifiers. In a 5.1 speaker channel setup, connect the rear-left and rear-right speakers.

4. Center or subwoofer surround port

Connect the center speaker and/or subwoofer.

NOTE: For more information about speaker setup, see the documentation that shipped with the speakers.

5. DisplayPort

Connect an external display or a projector.

6. HDMI port

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

7. USB 3.1 Gen 1 ports (4)

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

8. USB 2.0 ports (2)

Connect devices such as external storage devices and printers. Provides data transfer speeds up to 480 Mbps.

9. Network port (with lights)

Connect an Ethernet (RJ45) cable from a router or a broadband modem for network or Internet access.

The two lights next to the connector indicate the connectivity status and network activity.

10. 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.

Specifications of XPS 8940

Dimensions and weight

The following table lists the height, width, depth, and weight of your XPS 8940.

Table 2. Dimensions and weight

Description		Values
Height:		
	Front height	367 mm (14.45 in.)
	Rear height	367 mm (14.45 in.)
Width		169 mm (6.65 in.)
Depth		308 mm (12.13 in.)
Weight (maximum)		8.20 kg (18.08 lb) NOTE: The weight of your computer depends on the configuration ordered and manufacturing variability.

Processors

The following table lists the details of the processors supported by your XPS 8940.

Table 3. Processors

Processors	Wattage	Core count	Thread count	Speed	Cache
10th Generation Intel Core i3-10100	65 W	4	8	Up to 4.30 GHz	6 MB
10th Generation Intel Core i3-10105	65 W	4	8	Up to 4.40 GHz	6 MB
10th Generation Intel Core i5-10400	65 W	6	12	Up to 4.30 GHz	12 MB
10th Generation Intel Core i5-10400F	65 W	6	12	Up to 4.30 GHz	12 MB
10th Generation Intel Core i5-10600K	125 W	6	12	Up to 4.80 GHz	12 MB
10th Generation Intel Core i5-10600KF	125 W	6	12	Up to 4.80 GHz	12 MB
10th Generation Intel Core i7-10700	65 W	8	16	Up to 4.80 GHz	16 MB

Processors	Wattage	Core count	Thread count	Speed	Cache
10th Generation Intel Core i7-10700K	125 W	8	16	Up to 5.10 GHz	16 MB

10th Generation Intel Core i7-10700F	65 W	8	16	Up to 4.80 GHz	16 MB
10th Generation Intel Core i7-10700KF	125 W	8	16	Up to 5.10 GHz	16 MB
10th Generation Intel Core i9- 10900	65 W	10	20	Up to 5.20 GHz	20 MB
10th Generation Intel Core i9-10900K	125 W	10	20	Up to 5.30 GHz	20 MB
10th Generation Intel Core i9-10900F	65 W	10	20	Up to 5.20 GHz	20 MB
10th Generation Intel Core i9-10900KF	125 W	10	20	Up to 5.30 GHz	20 MB
11th Generation Intel Core i5- 11400	65 W	6	12	Up to 4.40 GHz	12 MB

11th Generation Intel Core i5-11600K	125 W	6	12	Up to 4.90 GHz	12 MB
11th Generation Intel Core i5-11400F	65 W	6	12	Up to 4.40 GHz	12 MB
11th Generation Intel Core i5-11600KF	125 W	6	12	Up to 4.90 GHz	12 MB
11th Generation Intel Core i7- 11700	65 W	8	16	Up to 4.90 GHz	16 MB
11th Generation Intel Core i7-11700K	125 W	8	16	Up to 5 GHz	16 MB
11th Generation Intel Core i7-11700F	65 W	8	16	Up to 4.90 GHz	16 MB
11th Generation Intel Core i7-11700KF	125 W	8	16	Up to 5 GHz	16 MB

11th Generation Intel Core i9- 11900	65 W	8	16	Up to 5.20 GHz	16 MB
11th Generation Intel Core i9-11900K	125 W	8	16	Up to 5.30 GHz	16 MB
11th Generation Intel Core i9-11900F	65 W	8	16	Up to 5.20 GHz	16 MB

Processors	Wattage	Core count	Thread count	Speed	Cache
11th Generation Intel Core i9-11900KF	125 W	8	16	Up to 5.30 GHz	16 MB

Chipset

The following table lists the details of the chipset supported by your XPS 8940.

Table 4. Chipset

Description	Values
Chipset	H470
Processor	<ul style="list-style-type: none"> • 10th Generation Intel Core i3/i5/i7/i9 • 10th Generation Intel Core i5K/i7K/i9K • 10th Generation Intel Core i7F/i9F • 10th Generation Intel Core i5KF/i7KF/i9KF • 11th Generation Intel Core i5/i7/i9 • 11th Generation Intel Core i5K/i7K/i9K • 11th Generation Intel Core i5F/i7F/i9F • 11th Generation Intel Core i5KF/i7KF/i9KF
DRAM bus width	64-bit
Flash EPROM	32 MB
PCIe bus	Up to Gen3.0

Operating system

Your XPS 8940 supports the following operating systems:

- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro National Academic, 64-bit

Memory

The following table lists the memory specifications of your XPS 8940.

Table 5. Memory specifications

Description	Values
Memory slots	Four UDIMM slots
Memory type	Dual-channel DDR4
Memory speed	2666 MHz/2933 MHz
Maximum memory configuration	128 GB

Description	Values
Minimum memory configuration	8 GB
Memory size per slot	4 GB, 8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> ● 8 GB, 2 x 4 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel ● 8 GB, 1 x 8 GB, DDR4, 2666 MHz/2933 MHz, UDIMM ● 16 GB, 2 x 8 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel ● 16 GB, 1 x 16 GB, DDR4, 2666 MHz/2933 MHz, UDIMM ● 32 GB, 1 x 32 GB, DDR4, 2666 MHz/2933 MHz, UDIMM ● 32 GB, 2 x 16 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel ● 64 GB, 2 x 32 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel ● 64 GB, 4 x 16 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel ● 128 GB, 4 x 32 GB, DDR4, 2666 MHz/2933 MHz, UDIMM, dual-channel <p>NOTE: The computer is shipped with 3200 MHz memory. However, with Intel Core i3/i5 processors, it is limited to 2666 MHz. With Intel Core i7/i9 processors, it is limited to 2933 MHz.</p>

Ports and connectors

The following table lists the external and internal ports available on your XPS 8940.

Table 6. Ports and connectors

Description	Values
External:	
Network	One RJ-45 port
USB	<ul style="list-style-type: none"> ● Seven USB 3.1 Gen 1 ports ● Two USB 2.0 ports ● One USB 3.1 Gen 1 (Type-C) port
Audio	<ul style="list-style-type: none"> ● One headset port ● One audio line-out port ● One rear L/R-surround audio-out port ● One center/subwoofer LFE surround audio-out port
Video	NOTE: Depending on the graphics card(s) installed on your computer, the video ports on your computer may vary.
Media-card reader	One SD-card slot
Power port	Power-cord connector
Security	One wedge-shaped slot
Internal:	

Description	Values
PCIe expansion card slots	<ul style="list-style-type: none"> ● One PCIe x16 ● One PCIe x1 ● One PCIe x4
mSATA	Not supported
SATA	<ul style="list-style-type: none"> ● Two SATA slots for 2.5-inch hard drive ● One SATA slot for a 3.5-inch hard drive
M.2	<ul style="list-style-type: none"> ● One M.2 2230 slot for WiFi and Bluetooth combo card ● One M.2 2230/2280 slot for solid-state drive/Intel Optane memory <p>NOTE: To learn more about the features of different types of M.2 cards, see the knowledge base article 000144170.</p>

Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your XPS 8940.

Table 7. Ethernet specifications

Description	Values
Model number	Rivet Networks E2600 PCIe Gigabit Ethernet controller
Transfer rate	10/100/1000 Mbps

Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules supported on your XPS 8940.

Table 8. Wireless module specifications

Description	Option one	Option two
Model number	Qualcomm QCA9377 (DW1810)	Killer AX1650i
Transfer rate	Up to 433 Mbps	Up to 2400 Mbps
Frequency bands supported	2.40 GHz/5 GHz	2.40 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none">● WiFi 802.11a/b/g● Wi-Fi 4 (WiFi 802.11n)● Wi-Fi 5 (WiFi 802.11ac)	<ul style="list-style-type: none">● WiFi 802.11a/b/g● Wi-Fi 4 (WiFi 802.11n)● Wi-Fi 5 (WiFi 802.11ac)● Wi-Fi 6 (WiFi 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
Bluetooth	Bluetooth 5.0	Bluetooth 5.1

Audio

The following table lists the audio specifications of your XPS 8940.

Table 9. Audio specifications

Description	Values
Audio type	Integrated 5.1 Channel High Definition audio
Audio controller	Realtek ALC3861
Internal audio interface	High definition audio interface
External audio interface	<ul style="list-style-type: none"> • One headset port • One audio line-out port • One rear L/R-surround audio-out port • One center/subwoofer LFE surround audio-out port

Storage

This section lists the storage options on your XPS 8940. Your computer ships one of the following configurations:

- One 3.5-inch hard drive
- One M.2 2230/2280 solid-state drive
- One 3.5-inch hard drive and one M.2 2230/2280 solid-state drive
- One 3.5-inch hard drive and one M.2 2280 Intel Optane memory

NOTE: This computer is shipped with two empty 2.5-inch hard-drive cages and one SATA extension cable.

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

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

Table 10. Storage specifications

Storage type	Interface type	Capacity
3.5-inch hard drive	SATA AHCI, up to 6 Gbps	Up to 2 TB
M.2 2230/2280 solid-state drive	PCIe Gen3.0x4 NVMe, up to 32 Gbps	Up to 2 TB

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
- Latest version of Intel Rapid Storage Technology driver

Table 11. Intel Optane memory

Description	Values
Type	Storage accelerator

Description	Values
Interface	PCIe 3.0 x2
Connector	M.2 2280
Configurations supported	32 GB
Capacity	32 GB

Media-card reader

The following table lists the media cards supported by your XPS 8940.

Table 12. Media-card reader specifications

Description	Values
Media-card type	One SD card
Media-cards supported	<ul style="list-style-type: none"> Secure Digital (SD) Secure Digital High Capacity (SDHC) Secure Digital Extended Capacity (SDXC)
NOTE: The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.	

GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your XPS 8940.

Table 13. GPU—Integrated

Controller	External display support	Memory size	Processor
Intel UHD Graphics 630	<ul style="list-style-type: none"> One HDMI 2.0 port Two DisplayPort 1.4 	Shared system memory	<ul style="list-style-type: none"> 10th Generation Intel Core i3/i5/i7/i9 10th Generation Intel Core i5K/i7K/i9K 11th Generation Intel Core i3/i5/i7/i9 11th Generation Intel Core i5K/i7K/i9K <p>NOTE: 10th Generation and 11th Intel Core F-series processors do not support integrated GPUs. For computers shipped with these processors, a discrete GPU is required.</p>

GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your XPS 8940.

Table 14. GPU — Discrete

Controller	External display support	Memory size	Memory type
NVIDIA GeForce GT 1030	<ul style="list-style-type: none"> One Single-link DVI-D port One HDMI 2.0 port 	2 GB	GDDR6
NVIDIA GeForce GTX 1650 SUPER	<ul style="list-style-type: none"> One Dual-link DVI-D port One HDMI 2.0 port One DisplayPort 1.4 	4GB	GDDR6

NVIDIA GeForce GTX 1660 SUPER	<ul style="list-style-type: none"> ● One Dual-link DVI-D port ● One HDMI 2.0 port ● One DisplayPort 1.4 	6 GB	GDDR6
NVIDIA GeForce GTX 1660 Ti	<ul style="list-style-type: none"> ● One Dual-link DVI-D port ● One HDMI 2.0 port ● One DisplayPort 1.4 	6 GB	GDDR6
NVIDIA GeForce RTX 2060	<ul style="list-style-type: none"> ● One Dual-link DVI-D port ● One HDMI 2.0 port ● One DisplayPort 1.4 	6 GB	GDDR6
NVIDIA GeForce RTX 2060 SUPER	<ul style="list-style-type: none"> ● One Dual-link DVI-D port ● One HDMI 2.0 port ● One DisplayPort 1.4 	8 GB	GDDR6
NVIDIA GeForce RTX 2070 SUPER	<ul style="list-style-type: none"> ● One HDMI 2.0 port ● Two DisplayPort 1.4 	8 GB	GDDR6

NVIDIA GeForce RTX 3060	<ul style="list-style-type: none"> ● One HDMI 2.1 port ● Three DisplayPort 1.4a 	12 GB	GDDR6
NVIDIA GeForce RTX 3060 Ti	<ul style="list-style-type: none"> ● One HDMI 2.1 port ● Three DisplayPort 1.4a 	8 GB	GDDR6
NVIDIA GeForce RTX 3070	<ul style="list-style-type: none"> ● One HDMI 2.1 port ● Two DisplayPort 1.4a 	8 GB	GDDR6
AMD Radeon RX 5300	<ul style="list-style-type: none"> ● One HDMI 2.0b port ● Two DisplayPort 1.4 	3 GB	GDDR6
AMD Radeon RX 5600	<ul style="list-style-type: none"> ● One HDMI 2.0b port ● Three DisplayPort 1.4 	6 GB	GDDR6
AMD Radeon RX 5700	<ul style="list-style-type: none"> ● One HDMI 2.0b port ● Three DisplayPort 1.4 	8 GB	GDDR6

AMD Radeon RX 5700 XT	<ul style="list-style-type: none"> One HDMI 2.0b port Three DisplayPort 1.4 	8 GB	GDDR6
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Power ratings

The following table lists the power rating specifications of XPS 8940.

Table 15. Power ratings

Description	Option one	Option two
Type	360 W	500 W

Description	Option one	Option two
Input voltage	90 VAC–264 VAC	90 VAC–264 VAC
Input frequency	47 Hz–63 Hz	47 Hz–63 Hz
Input current (maximum)	5 A	7 A
Output current (continuous)	18 A	18 A
Rated output voltage	12 VDC	12 VDC
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)

Operating and storage environment

This table lists the operating and storage specifications of your XPS 8940. Airborne contaminant level: G1 as defined by ISA-S71.04-1985

Table 16. 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†, 2.5 ms	105 G†, 2.5 ms
Altitude range	-15.2 m to 3048 m (-49.87 ft to 10000 ft)	-15.2 m to 10668 m (-49.87 ft to 35000 ft)
CAUTION: Operating and storage temperature ranges may differ among components, so operating or storing the device outside these ranges may impact the performance of specific components.		

* 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 17. 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
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	<p>Your Dell computer is uniquely identified by a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at www.dell.com/support.</p> <p>For more information on how to find the Service Tag for your computer, see Locate the Service Tag on your computer.</p>
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> 1. Go to www.dell.com/support. 2. On the menu bar at the top of the Support page, select Support > Knowledge Base. 3. In the Search field on the Knowledge Base page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

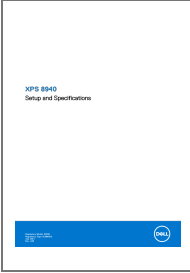
Contacting Dell

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

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

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

Documents / Resources

	<p>DELL XPS 8940 Desktop Computer Tower [pdf] User Guide</p> <p>XPS 8940, Desktop Computer Tower, XPS 8940 Desktop Computer Tower, Desktop Computer Tower, Desktop Computer, Tower</p>
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