

# OptiPlex 5090 Small Form Factor

## 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.

# Contents

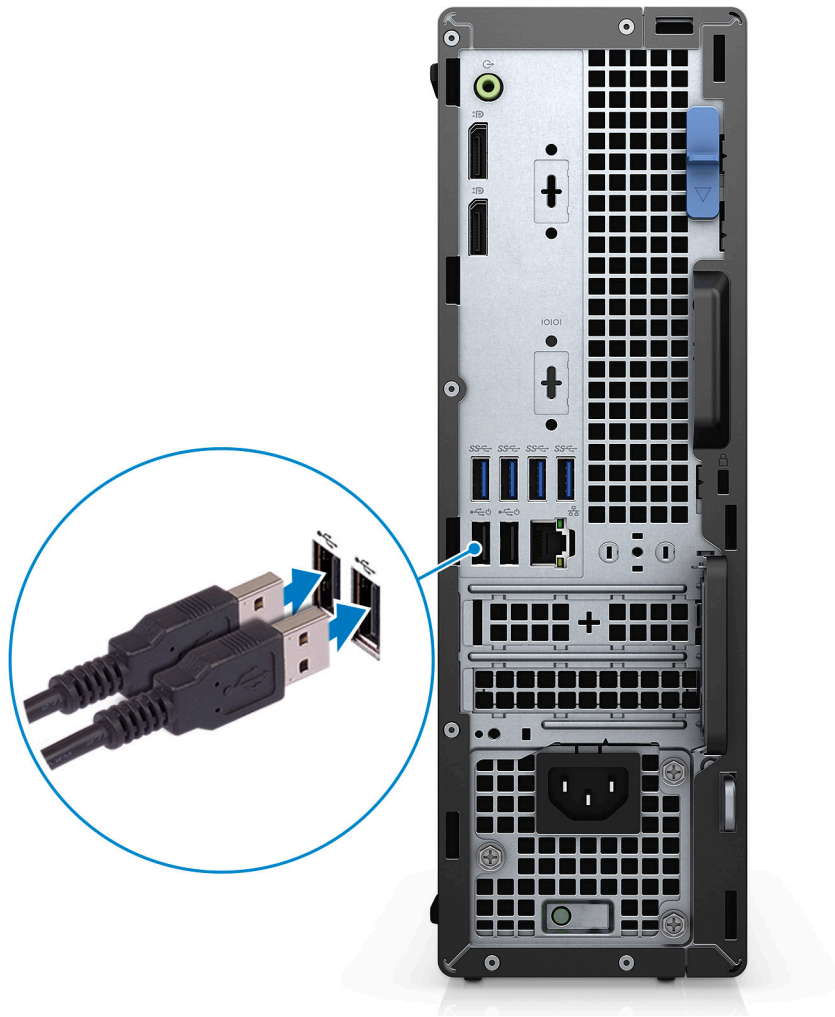
<b>Chapter 1: Set up your OptiPlex 5090 Small Form Factor.....</b>	<b>4</b>
<b>Chapter 2: Views of OptiPlex 5090 Small Form Factor.....</b>	<b>9</b>
Front.....	9
Back.....	10
<b>Chapter 3: Specifications of OptiPlex 5090.....</b>	<b>11</b>
Dimensions and weight.....	11
Processors.....	11
Chipset.....	12
Operating system.....	12
Memory.....	13
Memory configuration matrix .....	14
External ports.....	15
Internal slots.....	15
Ethernet.....	16
Wireless module.....	16
Audio.....	16
Storage.....	17
RAID (Redundant Array of Independent Disks).....	18
Intel Optane memory.....	18
Media-card reader.....	19
Power ratings.....	19
Power Supply power cable specs.....	19
GPU—Integrated.....	20
GPU—Discrete.....	20
Multiple display support matrix.....	20
Operating and storage environment.....	21
Energy Star, EPEAT and Trusted Platform Module (TPM).....	21
<b>Chapter 4: Getting help and contacting Dell.....</b>	<b>23</b>

# Set up your OptiPlex 5090 Small Form Factor

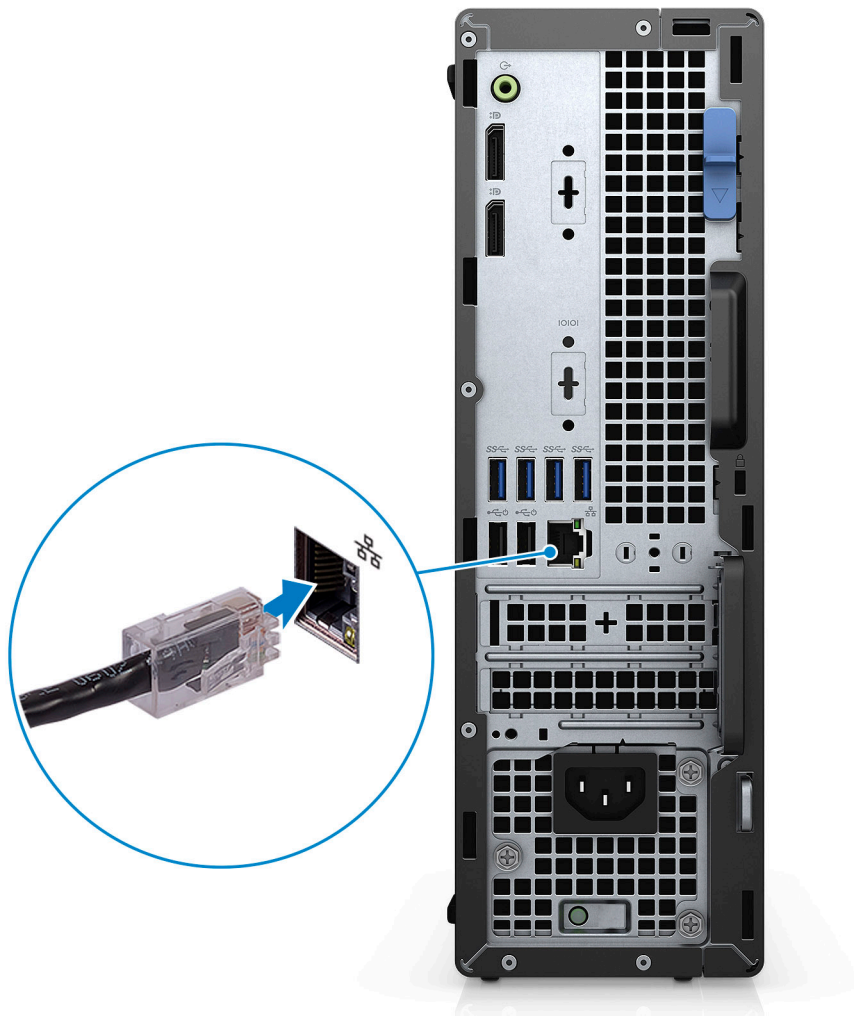
The images in this document may differ from your computer depending on the configuration you ordered.

## Steps

1. Connect the keyboard and mouse.



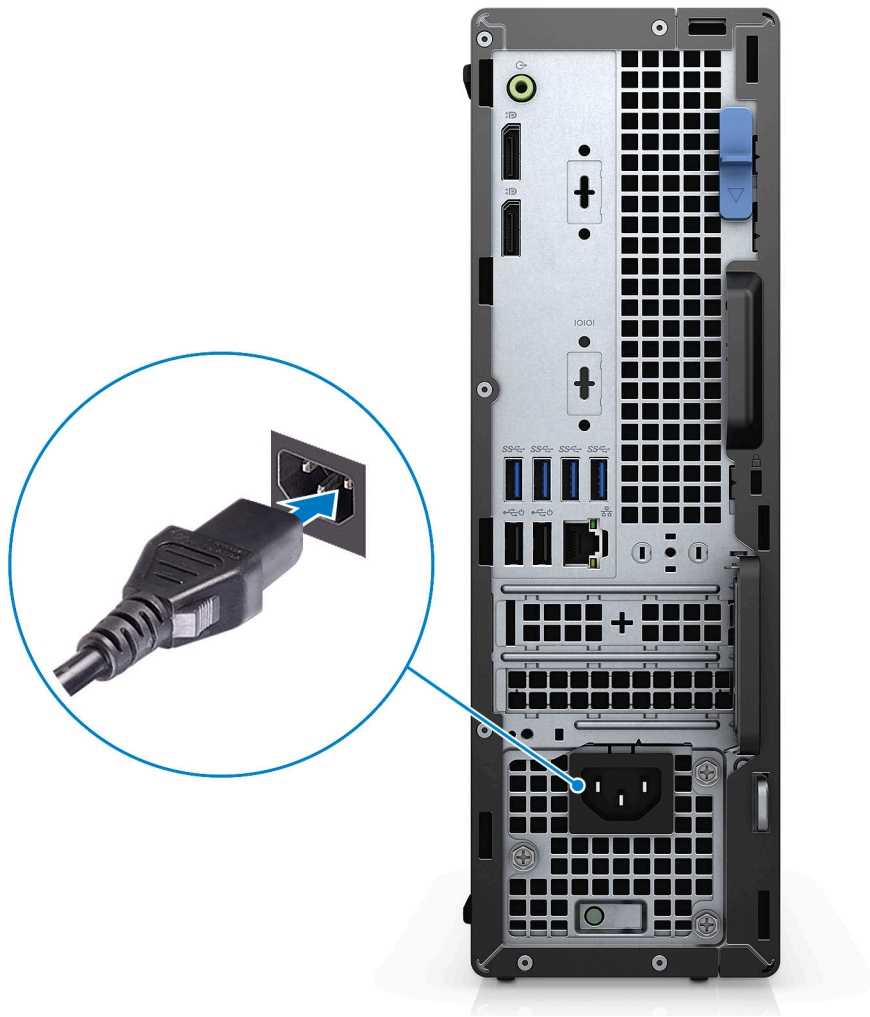
2. Connect to your network using a cable, or connect to a wireless network.



3. Connect the display.



4. Connect the power cable.



5. Press the power button.





6. Finish Windows setup.

Follow the on-screen instructions to complete the setup. When setting up, Dell Technologies recommends:




- 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><b>Dell Product Registration</b> Register your computer with Dell.</p>
	<p><b>Dell Help &amp; Support</b> Access help and support for your computer.</p>

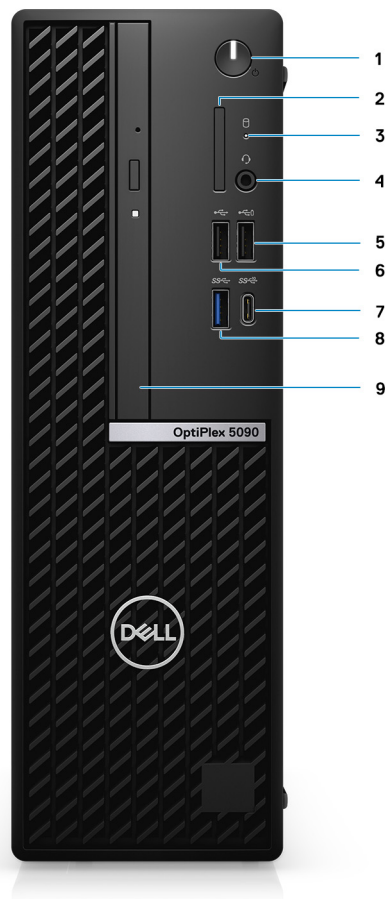
**Table 1. Locate Dell apps (continued)**

Dell apps	Details
	<p><b>SupportAssist</b></p> <p>SupportAssist is the smart technology that keeps your computer running at its best by optimizing settings, detecting issues, removing viruses and notifies when you must make system updates. SupportAssist proactively checks the health of your system's hardware and software. When an issue is detected, the necessary system state information is sent to Dell to begin troubleshooting. SupportAssist is preinstalled on most of the Dell devices running Windows operating system. For more information, see SupportAssist for Business PCs User's Guide on <a href="http://www.dell.com/serviceabilitytools">www.dell.com/serviceabilitytools</a>.</p>
	<p><b>Dell Update</b></p> <p>Updates your computer with critical fixes and important device drivers as they become available.</p>
	<p><b>Dell Digital Delivery</b></p> <p>Download software applications including software that is purchased but not preinstalled on your computer.</p>



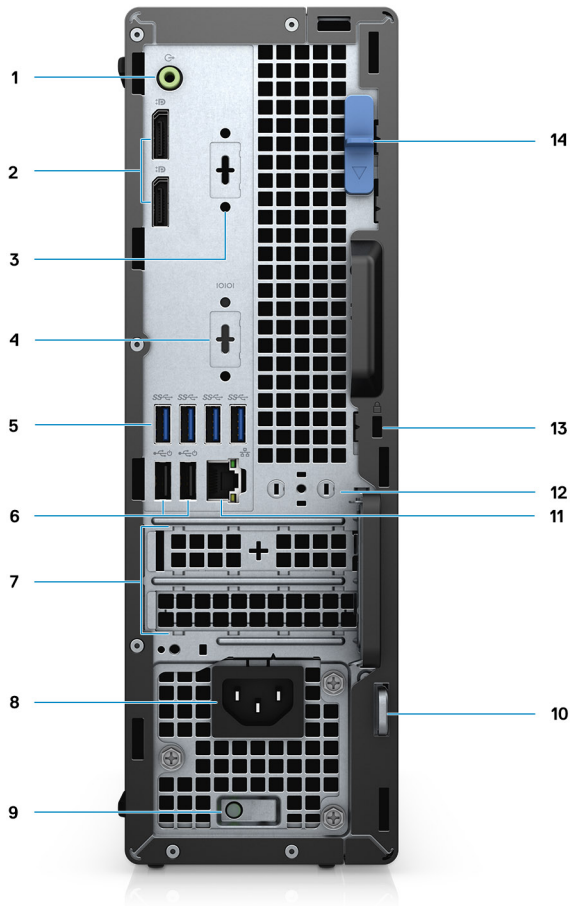
# Views of OptiPlex 5090 Small Form Factor

## Front



1. Power Button  
**i** **NOTE:** The power button also works as the diagnostic LED.
2. SD-card reader (optional)
3. Hard-drive activity light
4. Universal audio port
5. One USB 2.0 port with PowerShare
6. One USB 2.0 port
7. One USB 3.2 Gen 2 Type-C port
8. One USB 3.2 Gen 1 port
9. Optical disk drive (optional)

# Back




1. Line-out re-tasking Line-in audio port
2. Two DisplayPort 1.4 ports
3. One VGA port/DisplayPort 1.4 port/HDMI 2.0b port/USB 3.2 Gen 2 Type-C port with Alt-Mode (optional)
4. Serial port (optional)
5. Four USB 3.2 Gen 1 ports
6. Two USB 2.0 ports with SmartPower On
7. Two expansion card slots
8. Power connector port
9. Power supply diagnostic light
10. Padlock ring
11. RJ45 Ethernet port
12. Antenna module slot
13. Kensington security-cable slot
14. Release latch

# Specifications of OptiPlex 5090

## Dimensions and weight

**Table 2. Dimensions and weight**

Description	Values
Height:	
Front	290 mm (11.42 in.)
Rear	290 mm (11.42 in.)
Width	92.60 mm (3.65 in.)
Depth	292.80 mm (11.53 in.)
Weight (minimum)	4.43 kg (9.76 lb)
Weight (maximum)	5.65 kg (12.53 lb)
	 <b>NOTE:</b> The weight of your computer depends on the configuration ordered and the manufacturing variability.

## Processors

The following table lists the details of the processors supported by your OptiPlex 5090.

**Table 3. Processors**

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics
10 <sup>th</sup> Generation Intel Pentium Gold G6405	58 W	2	4	Up to 4.10 GHz	4 MB	Intel UHD Graphics 610
10 <sup>th</sup> Generation Pentium Gold G6505	58 W	2	4	Up to 4.20 GHz	4 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i3-10105	65 W	4	8	3.70 GHz to 4.40 GHz	6 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i3-10305	65 W	4	8	3.80 GHz to 4.50 GHz	8 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i5-10400	65 W	6	12	2.90 GHz to 4.30 GHz	12 MB	Intel UHD Graphics 630

**Table 3. Processors (continued)**

Processors	Wattage	Core count	Thread count	Speed	Cache	Integrated graphics
10 <sup>th</sup> Generation Intel Core i5-10500	65 W	6	12	3.10 GHz to 4.50 GHz	12 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i5-10505	65 W	6	12	3.20 GHz to 4.60 GHz	12 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i5-10600	65 W	6	12	3.30 GHz to 4.80 GHz	12 MB	Intel UHD Graphics 630
10 <sup>th</sup> Generation Intel Core i7-10700	65 W	8	16	2.90 GHz to 4.80 GHz	16 MB	Intel UHD Graphics 630
11 <sup>th</sup> Generation Intel Core i5-11400	65 W	6	12	2.60 GHz to 4.40 GHz	12 MB	Intel UHD Graphics 730
11 <sup>th</sup> Generation Intel Core i5-11500	65 W	6	12	2.70 GHz to 4.60 GHz	12 MB	Intel UHD Graphics 750
11 <sup>th</sup> Generation Intel Core i5-11600	65 W	6	12	2.80 GHz to 4.80 GHz	12 MB	Intel UHD Graphics 750
11 <sup>th</sup> Generation Intel Core i7-11700	65 W	8	16	2.50 GHz to 4.90 GHz	16 MB	Intel UHD Graphics 750

## Chipset

The following table lists the details of the chipset supported by your OptiPlex 5090

**Table 4. Chipset**

Description	Option one	Option two
Processors	11 <sup>th</sup> Generation Intel Core i5/i7	10 <sup>th</sup> Generation Intel Pentium Gold, Core i3/i5/i7
Chipset	Intel Q570	Intel Q570
DRAM bus width	64-bit, Dual-channel	64-bit, Dual-channel
Flash EPROM	32 MB	32 MB
PCIe bus	Up to Gen 3.0	Up to Gen 3.0

## Operating system

Your OptiPlex 5090 supports the following operating systems:

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

- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Windows 10 Pro Education, 64-bit
- Windows 10 IoT Enterprise 2019 LTSC (OEM only)
- Windows 10 CMIT Government Edition, 64-bit (China only)
- Ubuntu 20.04 LTS, 64-bit
- Kylin Linux Desktop version 10.1 (China only)

## Memory

The following table lists the memory specifications of your OptiPlex 5090.

**Table 5. Memory specifications**

Description	Values
Memory slots	Four UDIMM slots
Memory type	DDR4
Memory speed	2666/2933/3200 MHz
Maximum memory configuration	128 GB
Minimum memory configuration	4 GB
Memory size per slot	4 GB, 8 GB, 16 GB, 32 GB
Memory configurations supported	<ul style="list-style-type: none"> <li>• 4 GB, 1 x 4 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7, 3200 MHz for 11<sup>th</sup> Generation Intel Core i5/i7 processors</li> <li>• 8 GB, 1 x 8 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7, 3200 MHz for 11<sup>th</sup> Generation Intel Core i5/i7 processors</li> <li>• 8 GB, 2 x 4 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7, 3200 MHz for 11<sup>th</sup> Generation Intel Core i5/i7 processors</li> <li>• 16 GB, 1 x 16 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7, 3200 MHz for 11<sup>th</sup> Generation Intel Core i5/i7 processors</li> <li>• 16 GB, 2 x 8 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> <li>• 16 GB, 4 x 4 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> <li>• 32 GB, 1 x 32 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> <li>• 32 GB, 2 x 16 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> </ul>

**Table 5. Memory specifications (continued)**

Description	Values
	<ul style="list-style-type: none"> <li>32 GB, 4 x 8 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> <li>64 GB, 2 x 32 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> <li>64 GB, 4 x 16 GB, DDR4, 2666 MHz for 10<sup>th</sup> Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933/3200 MHz for 11<sup>th</sup> Generation Intel Core i7 processors</li> <li>128 GB, 4 x 32 GB, DDR4,2666 MHz for Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10<sup>th</sup> Generation Intel Core i7 processors, 2933 MHz for 11<sup>th</sup> Generation Intel Core i5/ i7 processors</li> </ul>

## Memory configuration matrix

**Table 6. Memory configuration matrix**

Configuration	Slot			
	XMM1	XMM2	XMM3	XMM4
4 GB DDR4	4 GB			
8 GB DDR4	4 GB	4 GB		
8 GB DDR4	8 GB			
16 GB DDR4	8 GB	8 GB		
16 GB DDR4	16 GB			
32 GB DDR4	8 GB	8 GB	8 GB	8 GB
32 GB DDR4	16 GB	16 GB		
32 GB DDR4	32 GB			
64 GB DDR4	16 GB	16 GB	16 GB	16 GB
64 GB DDR4	32 GB	32 GB		
64 GB DDR4	64 GB			
128 GB DDR4	32 GB	32 GB	32 GB	32 GB

**NOTE:** Memory speed varies by different type of DPC (DIMM per Channel) installation.

**NOTE:** Systems configured with 128 GB memory will only run at 2933MHz.

**NOTE:** Memory on systems configured with 11<sup>th</sup> Generation Intel processors will run at 2933 MHz clock speed when in Dual-channel mode.

**Table 7. Dual-channel mode**

Channel A	Channel B	Memory speed
2 UDIMM	None	2666/2933/3200 MHz
None	2 UDIMM	2666/2933/3200 MHz

**Table 7. Dual-channel mode (continued)**

Channel A	Channel B	Memory speed
2 UDIMM	2 UDIMM	2666/2933/3200 MHz

## External ports

The following table lists the external ports of your OptiPlex 5090.

**Table 8. External ports**

Description	Values
Network port	One RJ-45 port 10/100/1000 Mbps (rear)
USB ports	<ul style="list-style-type: none"> <li>One USB 3.2 Gen 1 port (front)</li> <li>One USB 3.2 Gen 2 Type-C port (front)</li> <li>One USB 2.0 port (front)</li> <li>One USB 2.0 port with PowerShare (front)</li> <li>Four USB 3.2 Gen 1 ports (rear)</li> <li>Two USB 2.0 ports with SmartPower On (rear)</li> </ul>
Audio port	<ul style="list-style-type: none"> <li>One Universal audio port (front)</li> <li>One Line-out audio port with re-tasking to Line-in (rear)</li> </ul>
Video port	<ul style="list-style-type: none"> <li>Two DisplayPort 1.4 ports (rear)</li> <li>One DisplayPort 1.4 port (rear, optional)</li> <li>One VGA port (rear, optional)</li> <li>One HDMI 2.0 port (rear, optional)</li> <li>One USB 3.2 Gen 2 Type-C port with DisplayPort Alt Mode (rear, optional)</li> </ul>
Media-card reader	One SD 4.0 card slot (front, optional)
Power-adaptor port	Not supported
Security-cable slot	<ul style="list-style-type: none"> <li>One Kensington lock slot</li> <li>One Padlock ring</li> </ul>


## Internal slots

The following table lists the internal slots of your OptiPlex 5090.

**Table 9. Internal slots**

Description	Values
PCIe Expansion	<ul style="list-style-type: none"> <li>One Half-height Gen3 PCIe x16 slot</li> <li>One Half-height Gen3 PCIe x4 slot</li> </ul>
SATA	<ul style="list-style-type: none"> <li>Three SATA 3.0 slot for 3.5-inch/2.5-inch hard drive and slim optical drive</li> </ul>
M.2	<ul style="list-style-type: none"> <li>One M.2 2230 slot for WiFi and Bluetooth card</li> <li>One M.2 2230/2280 slot for SSD/Intel Optane</li> </ul>

**Table 9. Internal slots (continued)**

Description	Values
	 <b>NOTE:</b> To learn more about the features of different types of M.2 cards, see the knowledge base article <a href="https://www.dell.com/support/sln/SLN301626">SLN301626</a> at <a href="https://www.dell.com/support">www.dell.com/support</a> .

## Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your OptiPlex 5090.

**Table 10. Ethernet specifications**

Description	Values
Model number	Intel I219
Transfer rate	10/100/1000 Mbps

## Wireless module

The following table lists the Wireless Local Area Network (WLAN) module specifications of your OptiPlex 5090.

**Table 11. Wireless module specifications**

Description	Option one	Option two	Option three
Model number	Qualcomm QCA61x4a	Qualcomm QCA9377	Intel AX201
Transfer rate	Up to 867 Mbps	Up to 433 Mbps	Up to 2400
Frequency bands supported	2.4 GHz/5 GHz	2.4 GHz/5 GHz	2.4 GHz/5 GHz
Wireless standards	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> </ul>	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> </ul>	<ul style="list-style-type: none"> <li>WiFi 802.11a/b/g</li> <li>Wi-Fi 4 (WiFi 802.11n)</li> <li>Wi-Fi 5 (WiFi 802.11ac)</li> <li>Wi-Fi 6 (WiFi 802.11ax)</li> </ul>
Encryption	<ul style="list-style-type: none"> <li>64-bit and 128-bit WEP</li> <li>128-bit AES-CCMP</li> <li>TKIP</li> </ul>	<ul style="list-style-type: none"> <li>64-bit and 128-bit WEP</li> <li>128-bit AES-CCMP</li> <li>TKIP</li> </ul>	<ul style="list-style-type: none"> <li>64-bit and 128-bit WEP</li> <li>128-bit AES-CCMP</li> <li>TKIP</li> </ul>
Bluetooth	5.0	5.0	5.1

## Audio

The following table lists the audio specifications of your OptiPlex 5090.

**Table 12. Audio specifications**

Description	Values
Audio type	Waves MaxxAudio
Audio controller	Waves MaxxAudio API
Internal audio interface	Intel HDA (high-definition audio)



**Table 12. Audio specifications (continued)**

Description	Values
External audio interface	<ul style="list-style-type: none"> <li>One Universal audio port (front)</li> <li>One Line-out audio port with re-tasking to Line-in(rear)</li> </ul>
Speakers	Not supported
Speaker output average	Not supported
Subwoofer output	Not supported
Microphone	Not supported

## Storage

Your computer supports one of the following configurations:

**Table 13. Storage Matrix**

Storage		1st 2.5-inch hard drive	2nd 2.5-inch hard drive	1st 3.5-inch hard drive	M.2 socket	1st Bootable Device
2.5-inch hard drive		Y	N	N	N	2.5-inch hard drive
Dual 2.5-inch hard drive		Y	Y	N	N	1st 2.5-inch hard drive
3.5-inch hard drive		N	N	Y	N	3.5-inch hard drive
M.2 PCIe solid-state drive		N	N	N	Y	1st M.2 solid-state drive
M.2 PCIe solid-state drive	3.5-inch hard drive	N	N	Y	Y	M.2 solid-state drive
M.2 PCIe solid-state drive	2.5-inch hard drive	N	Y	N	Y	1st M.2 solid-state drive
M.2 PCIe solid-state drive	Dual 2.5-inch hard drive	Y	Y	N	Y	M.2 solid-state drive
M.2 PCIe solid-state drive	M.2 PCIe solid-state drive via M.2 expansion card	N	N	N	Y	1st M.2 solid-state drive
M.2 Intel Optane	2.5-inch hard drive	Y	N	N	Y	2.5-inch hard drive
M.2 Intel Optane	Dual 2.5-inch hard drive	Y	Y	N	Y	2.5-inch hard drive
M.2 Intel Optane	3.5-inch hard drive	N	N	Y	Y	3.5-inch hard drive

**Table 14. Storage specifications**

Storage type	Interface type	Capacity
2.5-inch, 5400 RPM, hard-disk drive	SATA 3.0	Up to 2 TB
2.5-inch, 7200 RPM, hard-disk drive	SATA 3.0	Up to 2 TB

**Table 14. Storage specifications (continued)**

Storage type	Interface type	Capacity
3.5-inch, 7200 RPM, hard-disk drive	SATA 3.0	Up to 4 TB
M.2 2230, Class 35 solid-state drive	PCIe NVMe Gen3 x4	Up to 1 TB
M.2 2280, Class 40 solid-state drive	PCIe NVMe Gen3 x4	Up to 2 TB
M.2 2280 Opal Self-Encrypting solid-state drive	PCIe NVMe Gen3 x4, Class 40	Up to 1 TB

## RAID (Redundant Array of Independent Disks)

For optimal performance when configuring drives as a RAID volume, Dell recommends drive models that are identical.

**NOTE:** RAID is not supported on Intel Optane configurations.

RAID 0 (Striped, Performance) volumes benefit from higher performance when drives are matched because the data is split across multiple drives: any I/O operations with block sizes larger than the stripe size splits the I/O and become constrained by the slowest of the drives. For RAID 0 I/O operations where block sizes are smaller than the stripe size, whichever drive the I/O operation targets determine the performance, which increases variability and results in inconsistent latencies. This variability is particularly pronounced for write operations, and it can be problematic for applications that are latency sensitive. One such example of this is any application that performs thousands of random writes per second in small block sizes.

RAID 1 (Mirrored, Data Protection) volumes benefit from higher performance when drives are matched because the data is mirrored across multiple drives: all I/O operations must be performed identically to both drives, thus variations in drive performance when the models are different, results in the I/O operations completing only as fast as the slowest drive. While this does not suffer the variable latency issue in small random I/O operations as with RAID 0 across heterogeneous drives, the impact is nonetheless large because the higher performing drive becomes limited in all I/O types. One of the worst examples of constrained performance here is when using unbuffered I/O. To ensure that writes are fully committed to non-volatile regions of the RAID volume, unbuffered I/O bypasses cache (for example by using the Force Unit Access bit in the NVMe protocol) and the I/O operation will not complete until all the drives in the RAID volume have completed the request to commit the data. This kind of IO operation completely negates any advantage of a higher performing drive in the volume.

Care must be taken to match not only the drive vendor, capacity, and class, but also the specific model. Drives from the same vendor, with the same capacity, and even within the same class, can have different performance characteristics for certain types of I/O operations. Thus, matching by model ensures that the RAID volumes are consisted of a homogeneous array of drives that deliver all the benefits of a RAID volume without incurring the additional penalties when one or more drives in the volume are lower performing.

OptiPlex 7080 supports RAID with more than one hard drive configuration.

## 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:

- 7<sup>th</sup> 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 15. Intel Optane memory**

Description	Values
Type	Memory/Storage/Storage accelerator
Interface	PCIe NVMe Gen3 x4
Connector	M.2 2280

**Table 15. Intel Optane memory (continued)**

Description	Values
Configurations supported	16 GB
Capacity	16 GB

## Media-card reader

**Table 16. Media-card reader specifications**

Type	One SD 4.0 card slot (Optional)
Cards supported	<ul style="list-style-type: none"> <li>Secure Digital (mSD)</li> <li>Secure Digital High Capacity(mSDHC)</li> <li>Secure Digital Extended Capacity(mSDXC)</li> </ul>

## Power ratings

The following table lists the power rating specifications of OptiPlex 5090.

**Table 17. Power ratings**

Description	Option one	Option two
Type	200 W (80 PLUS Bronze)	300W (80 PLUS Platinum)
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)	3.2 A	4.2 A
Output current (continuous)	<ul style="list-style-type: none"> <li>12 VA/16.5 A</li> <li>12 VB/14 A</li> </ul> Standby mode: <ul style="list-style-type: none"> <li>12 VA/1.5 A</li> <li>12 VB/2.5 A</li> </ul>	<ul style="list-style-type: none"> <li>12 VA/28 A</li> <li>12 VB/18 A</li> </ul> Standby mode: <ul style="list-style-type: none"> <li>12 VA/1.5 A</li> <li>12 VB/3.3 A</li> </ul>
Rated output voltage	<ul style="list-style-type: none"> <li>+12 VA</li> <li>+12 VB</li> </ul>	<ul style="list-style-type: none"> <li>+12 VA</li> <li>+12 VB</li> </ul>
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)

## Power Supply power cable specs

**Table 18. Power Supply power cable specs**

200 W (80 PLUS Bronze)	<ul style="list-style-type: none"> <li>Two 4 pin connectors for processor</li> <li>One 6 pin connector for system board</li> </ul>
300 W (80 PLUS Platinum)	<ul style="list-style-type: none"> <li>Two 4 pin connectors for processor</li> </ul>

**Table 18. Power Supply power cable specs (continued)**

	<ul style="list-style-type: none"> <li>One 6 pin connector for system board</li> </ul>
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## GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your OptiPlex 5090.

**Table 19. GPU—Integrated**

Controller	External display support	Memory size	Processor
Intel UHD Graphics 610	Two DisplayPort 1.4 ports	Shared system memory	10 <sup>th</sup> Generation Intel Pentium G6405 processor
Intel UHD Graphics 630	Two DisplayPort 1.4 ports	Shared system memory	10 <sup>th</sup> Generation Intel Pentium G6505 and Intel Core i3/i5/i7 processors
Intel UHD Graphics 730	Two DisplayPort 1.4 ports	Shared system memory	11 <sup>th</sup> Generation Intel Core i5-11400 processor
Intel UHD Graphics 750	Two DisplayPort 1.4 ports	Shared system memory	11 <sup>th</sup> Generation Intel Core i5/i7

## GPU—Discrete

The following table lists the specifications of the discrete Graphics Processing Unit (GPU) supported by your OptiPlex 5090.

**Table 20. GPU—Discrete**

Controller	External display support	Memory size	Memory type
AMD Radeon RX640	<ul style="list-style-type: none"> <li>Two Mini-DisplayPort 1.4 ports</li> <li>One DisplayPort 1.4 port</li> </ul>	DDR5	4 GB
AMD Radeon 550	<ul style="list-style-type: none"> <li>Two DisplayPort 1.4 ports</li> </ul>	DDR5	2 GB
AMD Radeon 540	<ul style="list-style-type: none"> <li>Two DisplayPort 1.4 ports</li> </ul>	DDR5	1 GB

## Multiple display support matrix

**Table 21. Integrated - Multiple display support matrix**

Video ports on Integrated Graphics Card	2 DisplayPort 1.4 ports
Video port on Option Video module	2 DisplayPort 1.4 ports
Number of displays	3 displays (4096 x 2304 @60 Hz,24 bpp)

**Table 22. Discrete - Multiple display support matrix**

Graphics Card	Radeon RX 640	Radeon 550	Radeon 540
Memory	4 GB GDDR5	2 GB GDDR5	1 GB GDDR5
Video Ports on Graphics Card	<ul style="list-style-type: none"> <li>2 x Mini-DisplayPort</li> <li>1 x DisplayPort</li> </ul>	<ul style="list-style-type: none"> <li>2 x DisplayPort</li> </ul>	<ul style="list-style-type: none"> <li>2 x DisplayPort</li> </ul>

**Table 22. Discrete - Multiple display support matrix (continued)**

Graphics Card	Radeon RX 640	Radeon 550	Radeon 540
Max Displays (direct connect)	3	2	2
Max Displays (DP multi-stream)	4	4	4
Number of displays	3	2	2
Supported Resolution	5120 x 2880 60 Hz	5120 x 2880 60 Hz	5120 x 2880 60 Hz
Total Power	50 W	50 W	50 W

## Operating and storage environment

This table lists the operating and storage specifications of your OptiPlex 5090.

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

**Table 23. Computer environment**

Description	Operating	Storage
Temperature range	10 °C – 35°C (50 °F – 95°F)	-40°C - 65°C (-40°F - 149°F)
Relative humidity (maximum)	20% to 80% (non-condensing, Max dew point temperature = 26°C)	5% to 95% (non-condensing, Max dew point temperature = 33°C)
Vibration (maximum)*	0.26 GRMS random at 5 Hz to 350 Hz	1.37 GRMS random at 5 Hz to 350 Hz
Shock (maximum)	Bottom half-sine pulse with a change in velocity of 40.20 cm/sec (20 in./sec)	105G half-sine pulse with a change in velocity of 105.20 cm/sec (52.5 in./sec)
Altitude range	-15.2 m to 3048 m (-49.86 ft to 10000 ft)	-15.2 m to 10668 m (-49.86 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.

## Energy Star, EPEAT and Trusted Platform Module (TPM)

**Table 24. Energy Star, EPEAT and TPM**

Features	Specifications
Energy Star 8.0	Compliant configurations available
EPEAT	Gold and Silver compliant configurations available
Trusted Platform Module (TPM) 2.0 <sup>1,2</sup>	Integrated on system board
Firmware-TPM (Discrete TPM disabled)	Optional

**NOTE:**

<sup>1</sup>TPM 2.0 is FIPS 140-2 certified.



<sup>2</sup>TPM is not available in all countries.

# 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 25. Self-help resources**

Self-help resources	Resource location
Information about Dell products and services	<a href="http://www.dell.com">www.dell.com</a>
My Dell app	
Tips	
Contact Support	In Windows search, type <code>Contact Support</code> , and press Enter.
Online help for operating system	<a href="http://www.dell.com/support/windows">www.dell.com/support/windows</a>
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals and documents.	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 <a href="http://www.dell.com/support">www.dell.com/support</a> .  For more information on how to find the Service Tag for your computer, see <a href="#">Locate the Service Tag on your computer</a> .
Dell knowledge base articles for a variety of computer concerns	<ol style="list-style-type: none"> <li>1. Go to <a href="http://www.dell.com/support">www.dell.com/support</a>.</li> <li>2. On the menu bar at the top of the Support page, select <b>Support &gt; Knowledge Base</b>.</li> <li>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.</li> </ol>

## Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see [www.dell.com/contactdell](http://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.