# OptiPlex 5090 Small Form Factor

## Setup and Specifications

Regulatory Model: D15S
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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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# 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 |
|---|---|
| | **Dell Product Registration**<br>Register your computer with Dell. |
| | **Dell Help & Support** |

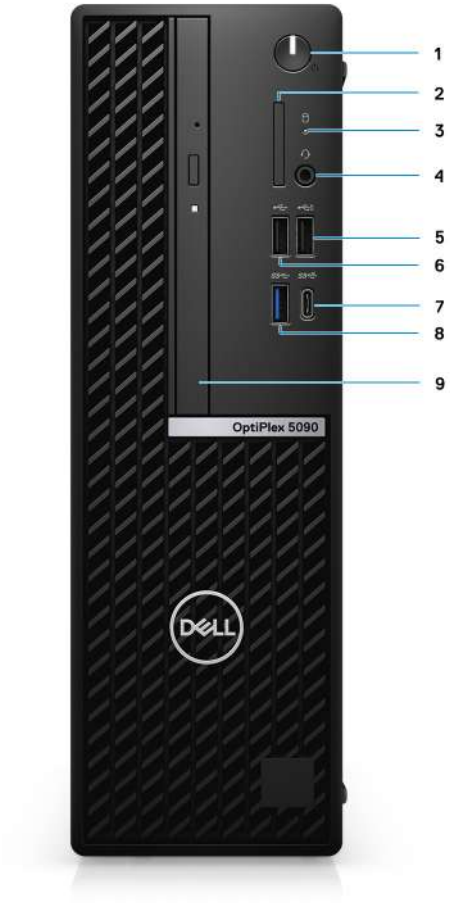
**Table 1. Locate Dell apps (continued)**

| Dell apps | Details |
|---|---|
| | Access help and support for your computer. |
|  | **SupportAssist**<br>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. |
|  | **Dell Update**<br>Updates your computer with critical fixes and important device drivers as they become available. |
|  | **Dell Digital Delivery**<br>Download software applications including software that is purchased but not preinstalled on your computer. |

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# Views of OptiPlex 5090 Small Form Factor

## Front

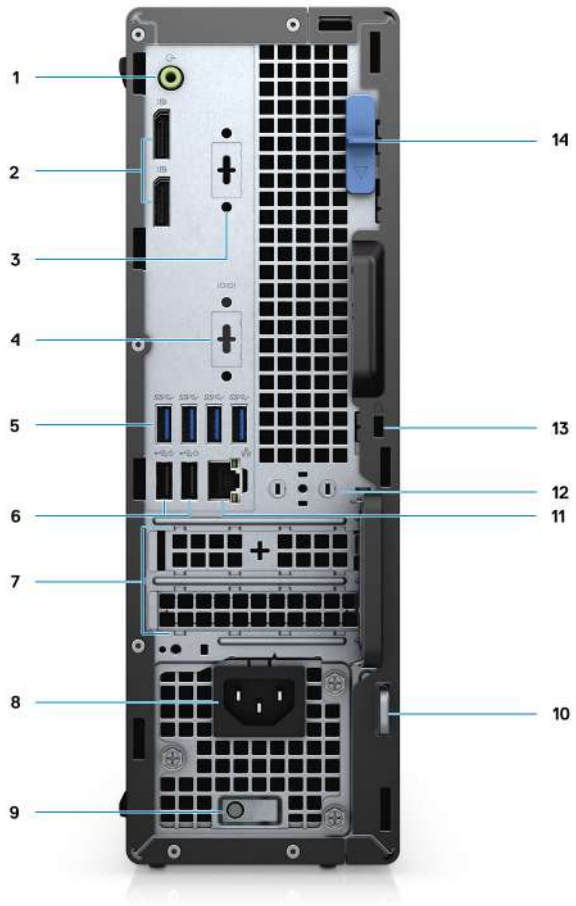



1. Power Button

   **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

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# 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)<br>**NOTE:** 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 |
|---|---|---|---|---|---|---|
| 10th Generation Intel Pentium Gold G6405 | 58 W | 2 | 4 | Up to 4.10 GHz | 4 MB | Intel UHD Graphics 610 |
| 10th Generation Pentium Gold G6505 | 58 W | 2 | 4 | Up to 4.20 GHz | 4 MB | Intel UHD Graphics 630 |
| 10th Generation Intel Core i3-10105 | 65 W | 4 | 8 | 3.70 GHz to 4.40 GHz | 6 MB | Intel UHD Graphics 630 |
| 10th Generation Intel Core i3-10305 | 65 W | 4 | 8 | 3.80 GHz to 4.50 GHz | 8 MB | Intel UHD Graphics 630 |
| 10th 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 |
|---|---|---|---|---|---|---|
| 10th Generation Intel Core i5-10500 | 65 W | 6 | 12 | 3.10 GHz to 4.50 GHz | 12 MB | Intel UHD Graphics 630 |
| 10th Generation Intel Core i5-10505 | 65 W | 6 | 12 | 3.20 GHz to 4.60 GHz | 12 MB | Intel UHD Graphics 630 |
| 10th Generation Intel Core i5-10600 | 65 W | 6 | 12 | 3.30 GHz to 4.80 GHz | 12 MB | Intel UHD Graphics 630 |
| 10th Generation Intel Core i7-10700 | 65 W | 8 | 16 | 2.90 GHz to 4.80 GHz | 16 MB | Intel UHD Graphics 630 |
| 11th Generation Intel Core i5-11400 | 65 W | 6 | 12 | 2.60 GHz to 4.40 GHz | 12 MB | Intel UHD Graphics 730 |
| 11th Generation Intel Core i5-11500 | 65 W | 6 | 12 | 2.70 GHz to 4.60 GHz | 12 MB | Intel UHD Graphics 750 |
| 11th Generation Intel Core i5-11600 | 65 W | 6 | 12 | 2.80 GHz to 4.80 GHz | 12 MB | Intel UHD Graphics 750 |
| 11th 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 that is supported in your OptiPlex 5090.

### Table 4. Chipset

| Description | Option one | Option two |
|---|---|---|
| Processors | 11th Generation Intel Core i5/i7 | 10th 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 that are supported by 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 | • 4 GB, 1 x 4 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7, 3200 MHz for 11th Generation Intel Core i5/i7 processors<br>• 8 GB, 1 x 8 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7, 3200 MHz for 11th Generation Intel Core i5/i7 processors<br>• 8 GB, 2 x 4 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7, 3200 MHz for 11th Generation Intel Core i5/i7 processors<br>• 16 GB, 1 x 16 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7, 3200 MHz for 11th Generation Intel Core i5/i7 processors<br>• 16 GB, 2 x 8 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors<br>• 16 GB, 4 x 4 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors<br>• 32 GB, 1 x 32 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors<br>• 32 GB, 2 x 16 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors |

### Table 5. Memory specifications (continued)

| Description | Values |
|---|---|
| | • 32 GB, 4 x 8 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors<br>• 64 GB, 2 x 32 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i5/ i7 processors<br>• 64 GB, 4 x 16 GB, DDR4, 2666 MHz for 10th Generation Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933/3200 MHz for 11th Generation Intel Core i7 processors<br>• 128 GB, 4 x 32 GB, DDR4,2666 MHz for Intel Pentium and Intel Core i3/i5 processors, 2933 MHz for 10th Generation Intel Core i7 processors, 2933 MHz for 11th Generation Intel Core i5/ i7 processors |

# 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 11th 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 and slots

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

**Table 8. External ports and slots**

| Description | Values |
|---|---|
| Network port | One RJ-45 port 10/100/1000 Mbps (rear) |
| USB ports | • One USB 3.2 Gen 1 port (front)<br>• One USB 3.2 Gen 2 Type-C port (front)<br>• One USB 2.0 port (front)<br>• One USB 2.0 port with PowerShare (front)<br>• Four USB 3.2 Gen 1 ports (rear)<br>• Two USB 2.0 ports with SmartPower On (rear) |
| Audio port | • One Universal audio port (front)<br>• One Line-out audio port with re-tasking to Line-in (rear) |
| Video port(s) | • Two DisplayPort 1.4 ports (rear)<br>• One DisplayPort 1.4 port (rear, optional)<br>• One VGA port (rear, optional)<br>• One HDMI 2.0 port (rear, optional)<br>• One USB 3.2 Gen 2 Type-C port with DisplayPort Alt Mode (rear, optional)<br>**NOTE:** Download and install the latest Intel Graphics driver from Dell Support Site to enable multiple displays. |
| Media-card reader | One SD 4.0 card slot (front, optional) |
| Power-adapter port | Not supported |
| Security-cable slot | • One Kensington lock slot<br>• One Padlock ring |

# Internal slots

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

**Table 9. Internal slots**

| Description | Values |
|---|---|
| PCIe Expansion | • One Half-height Gen3 PCIe x16 slot<br>• One Half-height Gen3 PCIe x4 slot |
| SATA | • Three SATA 3.0 slot for 3.5-inch/2.5-inch hard drive and slim optical drive |
| M.2 | • One M.2 2230 slot for WiFi and Bluetooth card<br>• One M.2 2230/2280 slot for SSD/Intel Optane |

### Table 9. Internal slots (continued)

| Description | Values |
|---|---|
| | **NOTE:** To learn more about the features of different types of M.2 cards, see the knowledge base article SLN301626 at Dell Support Site. |

# Ethernet

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

### Table 10. Ethernet specifications

| Description | Values |
|---|---|
| Model | 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 | • WiFi 802.11a/b/g<br>• Wi-Fi 4 (WiFi 802.11n)<br>• Wi-Fi 5 (WiFi 802.11ac) | • WiFi 802.11a/b/g<br>• Wi-Fi 4 (WiFi 802.11n)<br>• Wi-Fi 5 (WiFi 802.11ac) | • WiFi 802.11a/b/g<br>• Wi-Fi 4 (WiFi 802.11n)<br>• Wi-Fi 5 (WiFi 802.11ac)<br>• Wi-Fi 6 (WiFi 802.11ax) |
| Encryption | • 64-bit and 128-bit WEP<br>• 128-bit AES-CCMP<br>• TKIP | • 64-bit and 128-bit WEP<br>• 128-bit AES-CCMP<br>• TKIP | • 64-bit and 128-bit WEP<br>• 128-bit AES-CCMP<br>• TKIP |
| Bluetooth wireless card | 5.0 | 5.0 | 5.1 |
| | **NOTE:** The functionality of the Bluetooth wireless card may vary depending on the operating system that is installed on your computer. | | |

# Audio

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

### Table 12. Audio specifications

| Description | Values |
|---|---|
| Audio type | Waves MaxxAudio |

### Table 12. Audio specifications (continued)

| Description | Values |
|---|---|
| Audio controller | Waves MaxxAudio API |
| Internal audio interface | Intel HDA (high-definition audio) |
| External audio interface | • One Universal audio port (front)<br>• One Line-out audio port with re-tasking to Line-in(rear) |
| 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 |
| 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:

- 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 15. Intel Optane memory

| Description | Values |
|---|---|
| Type | Memory/Storage/Storage accelerator |

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

| Description | Values |
|---|---|
| Interface | PCIe NVMe Gen3 x4 |
| Connector | M.2 2280 |
| Configurations supported | 16 GB |
| Capacity | 16 GB |

# Media-card reader

### Table 16. Media-card reader specifications

| Feature | Description |
|---|---|
| Type | One SD 4.0 card slot (Optional) |
| Cards supported | • Secure Digital (mSD)<br>• Secure Digital High Capacity(mSDHC)<br>• Secure Digital Extended Capacity(mSDXC) |

# 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) | • 12 VA/16.5 A<br>• 12 VB/14 A<br>Standby mode:<br>• 12 VA/1.5 A<br>• 12 VB/2.5 A | • 12 VA/28 A<br>• 12 VB/18 A<br>Standby mode:<br>• 12 VA/1.5 A<br>• 12 VB/3.3 A |
| Rated output voltage | • +12 VA<br>• +12 VB | • +12 VA<br>• +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) |

## Power Supply power cable specs

### Table 18. Power Supply power cable specs

| Connector | Pin |
|---|---|
| 200 W (80 PLUS Bronze) | • Two 4 pin connectors for processor<br>• One 6 pin connector for system board |
| 300 W (80 PLUS Platinum) | • Two 4 pin connectors for processor<br>• One 6 pin connector for system board |

# 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 | 10th Generation Intel Pentium G6405 processor |
| Intel UHD Graphics 630 | Two DisplayPort 1.4 ports | Shared system memory | 10th Generation Intel Pentium G6505 and Intel Core i3/i5/i7 processors |
| Intel UHD Graphics 730 | Two DisplayPort 1.4 ports | Shared system memory | 11th Generation Intel Core i5-11400 processor |
| Intel UHD Graphics 750 | Two DisplayPort 1.4 ports | Shared system memory | 11th 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 | • Two Mini-DisplayPort 1.4 ports<br>• One DisplayPort 1.4 port | DDR5 | 4 GB |
| AMD Radeon 550 | • Two DisplayPort 1.4 ports | DDR5 | 2 GB |
| AMD Radeon 540 | • Two DisplayPort 1.4 ports | DDR5 | 1 GB |

# Multiple display support matrix

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

| Category | Description |
|---|---|
| Video ports on Integrated Graphics Card | 2 DisplayPort 1.4 ports |
| Video port on Option Video module | 2 DisplayPort 1.4 ports |

### Table 21. Integrated - Multiple display support matrix (continued)

| Category | Description |
|---|---|
| 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 | • 2 x Mini-DisplayPort<br>• 1 x DisplayPort | • 2 x DisplayPort | • 2 x DisplayPort |
| 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[1,2] | Integrated on system board |
| Firmware-TPM (Discrete TPM disabled) | Optional |

**NOTE:**

[1]TPM 2.0 is FIPS 140-2 certified.

[2]TPM is not available in all countries.

# 4

# Getting help and contacting Dell Technologies

## Self-help resources

You can get information and help on Dell Technologies products and services using these self-help resources:

**Table 25. Self-help resources**

| Self-help resources | Resource location |
|---|---|
| Information about Dell Technologies products and services | Dell Site |
| MyDell app | |
| Tips | |
| Contact Support | In Windows search, type `Contact Support`, and press Enter. |
| Online help for operating system | Windows Support Site |
| Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents. | Your Dell Technologies computer is uniquely identified using a Service Tag or Express Service Code. To view relevant support resources for your Dell Technologies computer, enter the Service Tag or Express Service Code at Dell Support Site.<br>For more information about how to find the Service Tag for your computer, see Instructions on how to find your Service Tag or Serial Number. |
| Dell Technologies knowledge base articles | 1. Go to Dell Support Site.<br>2. On the menu bar at the top of the Support page, select **Support** > **Support Library**.<br>3. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles. |

## Contacting Dell Technologies

To contact Dell Technologies for sales, technical support, or customer service issues, see Contact Support at Dell Support Site.

**NOTE:** Availability of the services may vary depending on the country or region, and product.

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