

# Precision 3460 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.

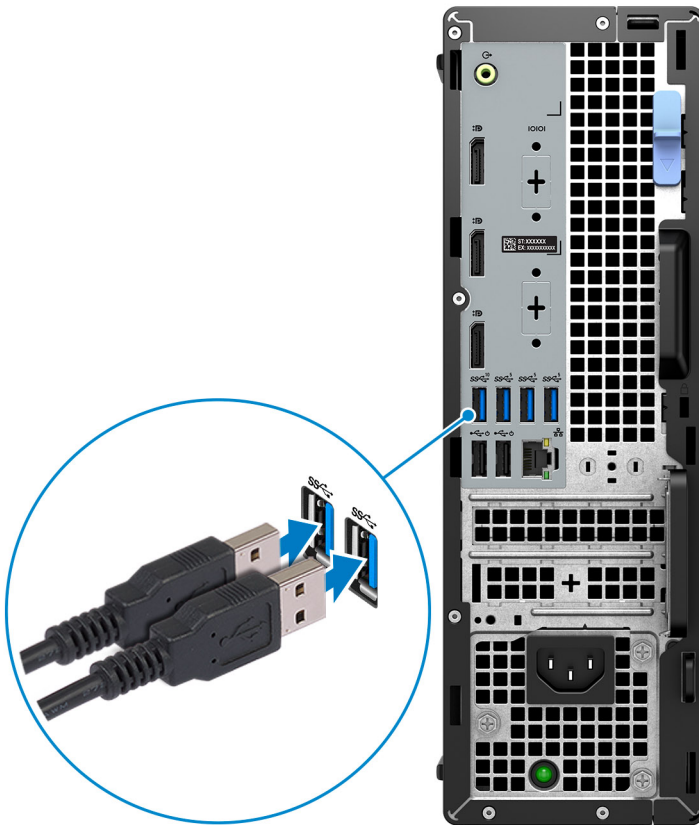
 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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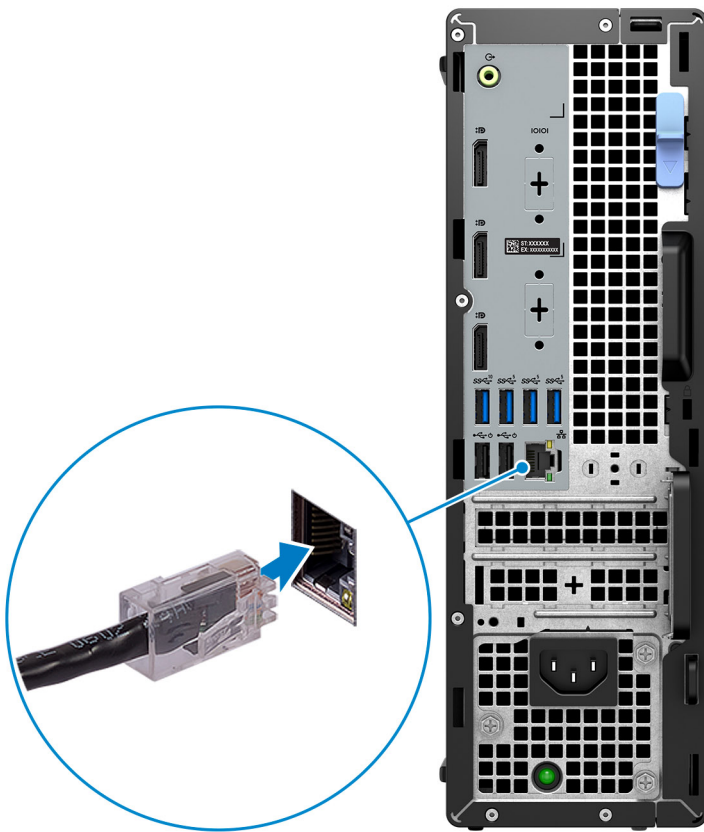
# Set up your computer

## Steps

1. Connect the keyboard and mouse.



2. Connect to your network using a cable.



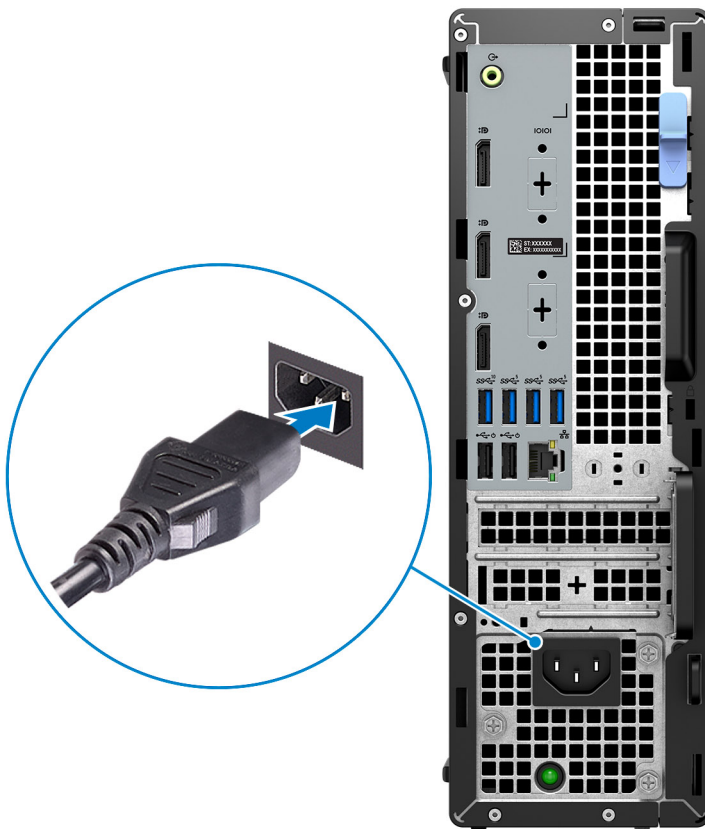
**i** **NOTE:** Alternatively, you can connect to a wireless network.

3. Connect the display.



**i** **NOTE:** If you ordered your computer with a discrete graphics card, the HDMI and the display ports on the back panel of your computer are covered. Connect the display to the port on the discrete graphics card.

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 recommends that you:




- Connect to a network for Windows updates.
  - **NOTE:** If connecting to a secured wireless network, enter the password for the wireless network access when prompted.
- If connected to the internet, sign-in with or create a Microsoft account. If not connected to the internet, create an offline account.
- On the **Support and Protection** screen, enter your contact details.

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

**Table 1. Locate Dell apps**

| Resources   | Description   |
|---|---|
|  | <p><b>My Dell</b></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><b>SupportAssist</b></p> <p>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 <a href="http://www.dell.com/serviceabilitytools">www.dell.com/serviceabilitytools</a>. Click <b>SupportAssist</b> and then, click <b>SupportAssist for Home PCs</b>.</p> |

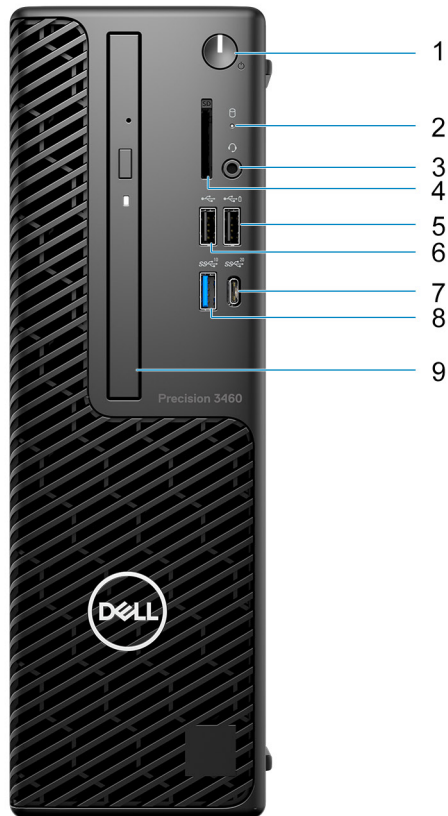
**Table 1. Locate Dell apps (continued)**

| Resources   | Description   |
|---|---|
|   |  <b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.  |
|  | <b>Dell Update</b><br>Updates your computer with critical fixes and latest device drivers as they become available. For more information on using Dell Update, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a> .                  |
|  | <b>Dell Digital Delivery</b><br>Download software applications, which are purchased but not preinstalled on your computer. For more information on using Dell Digital Delivery, search in the Knowledge Base Resource at <a href="http://www.dell.com/support">www.dell.com/support</a> . |



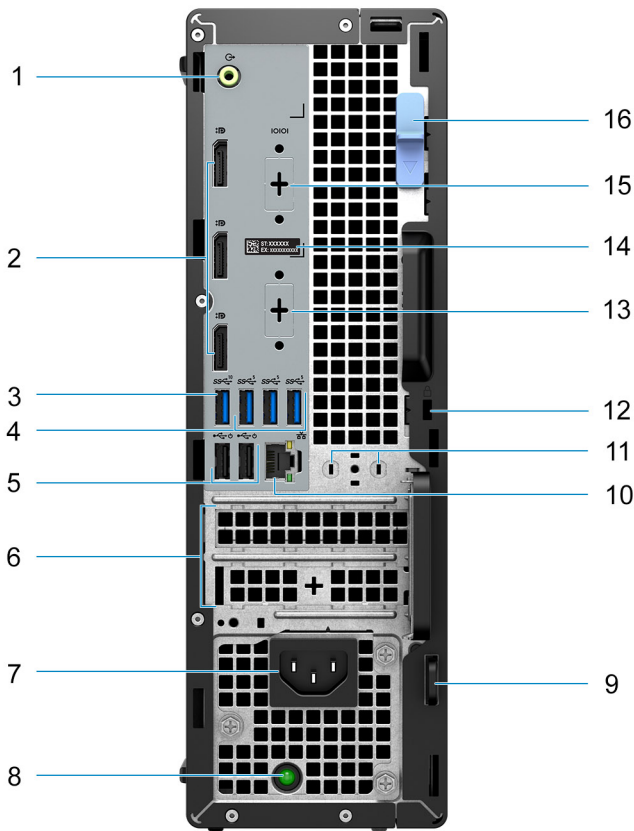
## Chassis overview

### Front



1. Power button
2. Hard drive activity light
3. Universal audio port
4. SD-card reader (optional)
5. USB 2.0 port with PowerShare
6. USB 2.0 port
7. USB 3.2 Gen 2x2 Type-C port
8. USB 3.2 Gen 2 port
9. Optical drive (optional)

# Back



1. Re-tasking Line-out/Line-in audio port
2. Three DisplayPort 1.4a ports (HBR2)
3. USB 3.2 Gen 2 port
4. Three USB 3.2 Gen 1 ports
5. Two USB 2.0 ports with Smart Power On
6. Two expansion card slots
7. Power connector port
8. Power supply diagnostic light
9. Padlock ring
10. RJ45 Ethernet port
11. Antenna module slot
12. Kensington security-cable slot
13. HDMI 2.1/DisplayPort 1.4/VGA/USB 3.2 Gen 2 type-C port with DisplayPort Alt Mode (optional)
14. Service Tag
15. Serial port (optional)
16. Release latch

# Specifications of Precision 3460 Small Form Factor

## Dimensions and weight

The following table lists the height, width, depth, and weight of your Precision 3460 Small Form Factor.

**Table 2. Dimensions and weight**

| Description      | Values  |
|------------------|---|
| Height:          |   |
| Front height     | 290.00 mm (11.42 in.)   |
| Rear height      | 290.00 mm (11.42 in.)   |
| Width            | 92.60 mm (3.65 in.)   |
| Depth            | 292.80 mm (11.53 in.)   |
| Weight (maximum) | <ul style="list-style-type: none"> <li>Minimum: 3.87 kg (8.52 lb)</li> <li>Maximum: 5.34 kg (11.77 lb)</li> </ul> <p><b>NOTE:</b> The weight of your computer depends on the configuration ordered and manufacturing variability.</p> |

## Processors

The following table lists the details of the processors supported by your Precision 3460 Small Form Factor.

**Table 3. Processors**

| Processors  | Wattage | Core count | Thread count | Speed              | Cache | Integrated graphics    |
|---|---------|------------|--------------|--------------------|-------|------------------------|
| 13 <sup>th</sup> Generation Intel Core i9-13900, vPro | 65 W    | 24         | 32           | 2.0 GHz to 5.6 GHz | 36 MB | Intel UHD Graphics 770 |
| 13 <sup>th</sup> Generation Intel Core i7-13700, vPro | 65 W    | 16         | 24           | 2.1 GHz to 5.2 GHz | 30 MB | Intel UHD Graphics 770 |
| 13 <sup>th</sup> Generation Intel Core i5-13600, vPro | 65 W    | 14         | 20           | 2.7 GHz to 5.0 GHz | 24 MB | Intel UHD Graphics 770 |
| 13 <sup>th</sup> Generation Intel Core i5-13500, vPro | 65 W    | 14         | 20           | 2.5 GHz to 4.8 GHz | 24 MB | Intel UHD Graphics 770 |

**Table 3. Processors (continued)**

| Processors  | Wattage | Core count | Thread count | Speed              | Cache | Integrated graphics    |
|---|---------|------------|--------------|--------------------|-------|------------------------|
| 13 <sup>th</sup> Generation Intel Core i5-13400       | 65 W    | 10         | 16           | 2.5 GHz to 4.6 GHz | 20 MB | Intel UHD Graphics 730 |
| 13 <sup>th</sup> Generation Intel Core i3-13100       | 60 W    | 4          | 8            | 3.4 GHz to 4.5 GHz | 12 MB | Intel UHD Graphics 730 |
| 12 <sup>th</sup> Generation Intel Core i9-12900, vPro | 65 W    | 16         | 24           | 2.4 GHz to 5.1 GHz | 30 MB | Intel UHD Graphics 770 |
| 12 <sup>th</sup> Generation Intel Core i7-12700, vPro | 65 W    | 12         | 20           | 2.1 GHz to 4.9 GHz | 25 MB | Intel UHD Graphics 770 |
| 12 <sup>th</sup> Generation Intel Core i5-12600, vPro | 65 W    | 6          | 12           | 3.3 GHz to 4.8 GHz | 18 MB | Intel UHD Graphics 770 |
| 12 <sup>th</sup> Generation Intel Core i5-12500, vPro | 65 W    | 6          | 12           | 3.0 GHz to 4.6 GHz | 18 MB | Intel UHD Graphics 770 |
| 12 <sup>th</sup> Generation Intel Core i3-12100       | 60 W    | 4          | 8            | 3.3 GHz to 4.3 GHz | 12 MB | Intel UHD Graphics 730 |

**i NOTE:** System boards that ship with 12<sup>th</sup> Generation Intel Core processors are only compatible with 12<sup>th</sup> Generation Intel Core processors. System boards that ship with 13<sup>th</sup> Generation Intel Core processors are also backwards compatible with 12<sup>th</sup> Generation Intel Core processors.

**i NOTE:** To contact Dell for sales, technical support, customer service issues, or to learn more about different types of system boards, see [www.dell.com/contactdell](http://www.dell.com/contactdell).

## Chipset

The following table lists the details of the chipset supported by your Precision 3460 Small Form Factor.

**Table 4. Chipset**

| Description    | Values   |
|----------------|--|
| Chipset        | Intel W680   |
| Processor      | <ul style="list-style-type: none"> <li>13<sup>th</sup> Generation Intel Core i3/i5/i7/i</li> <li>12<sup>th</sup> Generation Intel Core i3/i5/i7/i</li> </ul> |
| DRAM bus width | 64-bit, Dual-channel   |
| Flash EPROM    | <ul style="list-style-type: none"> <li>16 MB (nRPMC)</li> <li>32 MB (RPMC)</li> </ul>  |
| PCIe bus       | Up to Gen 4.0  |

# Operating system

Your Precision 3460 Small Form Factor supports the following operating systems:

- Windows 11 Home, 64-bit
- Windows 11 Pro, 64-bit
- Windows 11 Pro for Workstations, 64-bit
- Windows 11 Pro National Education, 64-bit
- Windows 10 Home, 64-bit
- Windows 10 Pro, 64-bit
- Windows 10 Pro National Academic, 64-bit
- Windows 10 IoT Enterprise 2019 LTSC (OEM only)
- Ubuntu Linux 20.04 LTS, 64-bit

# Memory

The following table lists the memory specifications of your Precision 3460 Small Form Factor.

**Table 5. Memory specifications**

| Description                     | Values   |
|---------------------------------|--|
| Memory slots                    | Two SODIMM slots   |
| Memory type                     | DDR5   |
| Memory speed                    | 4800 MHz   |
| Maximum memory configuration    | 64 GB  |
| Minimum memory configuration    | 8 GB   |
| Memory size per slot            | 8 GB, 16 GB, 32 GB   |
| Memory configurations supported | <ul style="list-style-type: none"> <li>• 8 GB, 1 x 8 GB, DDR5, 4800 MHz, ECC, single-channel</li> <li>• 16 GB, 1 x 16 GB, DDR5, 4800 MHz, ECC, single-channel</li> <li>• 16 GB, 2 x 8 GB, DDR5, 4800 MHz, ECC, dual-channel</li> <li>• 32 GB, 1 x 32 GB, DDR5, 4800 MHz, ECC, single-channel</li> <li>• 32 GB, 2 x 16 GB, DDR5, 4800 MHz, ECC, dual-channel</li> <li>• 64 GB, 2 x 32 GB, DDR5, 4800 MHz, ECC, dual-channel</li> <li>• 8 GB, 1 x 8 GB, DDR5, 4800 MHz, non-ECC, single-channel</li> <li>• 16 GB, 1 x 16 GB, DDR5, 4800 MHz, non-ECC, single-channel</li> <li>• 16 GB, 2 x 8 GB, DDR5, 4800 MHz, non-ECC, dual-channel</li> <li>• 32 GB, 1 x 32 GB, DDR5, 4800 MHz, non-ECC, single-channel</li> </ul> |

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

| Description | Values   |
|-------------|--|
|             | <ul style="list-style-type: none"> <li>32 GB, 2 x 16 GB, DDR5, 4800 MHz, non-ECC, dual-channel</li> <li>64 GB, 2 x 32 GB, DDR5, 4800 MHz, non-ECC, dual-channel</li> </ul> |

## Memory matrix

The following table lists the memory configurations supported on your Precision 3460 Small Form Factor.

**Table 6. Memory matrix**

| Configuration | Slot     |          |
|---------------|----------|----------|
|               | SO-DIMM1 | SO-DIMM2 |
| 8 GB DDR5     | 8 GB     | NA       |
| 16 GB DDR5    | 16 GB    | NA       |
| 16 GB DDR5    | 8 GB     | 8 GB     |
| 32 GB DDR5    | 32 GB    | NA       |
| 32 GB DDR5    | 16 GB    | 16 GB    |
| 64 GB DDR5    | 32 GB    | 32 GB    |

## External ports

The following table lists the external ports of your Precision 3460 Small Form Factor.

**Table 7. External ports**

| Description  | Values   |
|--------------|--|
| Network port | One RJ45 Ethernet port (rear)  |
| USB ports    | <ul style="list-style-type: none"> <li>One USB 2.0 port with PowerShare (front)</li> <li>One USB 2.0 port (front)</li> <li>One USB 3.2 Gen 2 ports (front)</li> <li>One USB 3.2 Gen 2x2 Type-C port (front)</li> <li>Three USB 3.2 Gen 1 ports (rear)</li> <li>One USB 3.2 Gen 2 port (rear)</li> <li>Two USB 2.0 ports with Smart Power On (rear)</li> </ul>  |
| Audio port   | <ul style="list-style-type: none"> <li>One Universal audio port (front)</li> <li>One Re-tasking Line-out/Line-in audio port (rear)</li> </ul>  |
| Video port   | <ul style="list-style-type: none"> <li>Three DisplayPort 1.4a (HBR2) ports (rear) <ul style="list-style-type: none"> <li><b>NOTE:</b> Maximum resolution up to 4096 x 2304 @60Hz.</li> </ul> </li> <li>One Optional video port (DisplayPort 1.4a (HBR3)/HDMI 2.1/VGA) (optional) <ul style="list-style-type: none"> <li><b>NOTE:</b> Maximum resolution: <ul style="list-style-type: none"> <li>HDMI 2.1: Up to 4096 x 2160 @60Hz</li> </ul> </li> </ul> </li> </ul> |

**Table 7. External ports (continued)**

| Description         | Values  |
|---------------------|---|
|                     | <ul style="list-style-type: none"> <li>○ DisplayPort 1.4a (HBR3): Up to 5120 x 3200 @60Hz</li> <li>○ VGA: Up to 1920 x 1200 @60Hz</li> </ul> <ul style="list-style-type: none"> <li>● One USB 3.2 Gen 2 type-C port with DisplayPort Alt Mode (rear, optional)</li> </ul> <p><b>NOTE:</b> Maximum resolution up to 5120 x 3200 @60Hz</p> <p><b>NOTE:</b> Download and install the latest Intel Graphics driver from <a href="http://www.dell.com/support">www.dell.com/support</a> to enable multiple displays.</p> |
| Media-card reader   | One SD 4.0 card slot (front, optional card)   |
| 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 Precision 3460 Small Form Factor.

**Table 8. Internal slots**

| Description    | Values   |
|----------------|--|
| PCIe Expansion | <ul style="list-style-type: none"> <li>● One Half-height Gen4 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 slots 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>● Three M.2 2230/2280 slots for SSD                             <ul style="list-style-type: none"> <li>○ 1st M.2 slot for 2230/2280 SSD</li> <li>○ 2nd M.2 slot for 2230/2280 SSD</li> <li>○ 3rd M.2 slot for 2280 SSD</li> </ul> </li> </ul> <p><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">000144170</a> at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p> |

## Ethernet

The following table lists the wired Ethernet Local Area Network (LAN) specifications of your Precision 3460 Small Form Factor.

**Table 9. Ethernet specifications**

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

# Wireless module

The following table lists the Wireless Local Area Network (WLAN) modules supported on your Precision 3460 Small Form Factor.

**Table 10. Wireless module specifications**

| Description               | Option one  | Option two  |
|---------------------------|---|---|
| Model number              | Intel AX211   | Qualcomm WCN6856-DBS  |
| Transfer rate             | Up to 2400 Mbps   | Up to 3571 Mbps   |
| Frequency bands supported | 2.4 GHz/5 GHz/6 GHz   | 2.4 GHz/5 GHz/6 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> <li>• Wi-Fi 6E (WiFi 802.11ax)</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 6E (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>• AES-CCMP</li> <li>• TKIP</li> </ul>  |
| Bluetooth                 | 5.3   | 5.3   |

# Audio

The following table lists the audio specifications of your Precision 3460 Small Form Factor.

**Table 11. Audio specifications**

| Description                | Values   |
|----------------------------|--|
| Audio controller           | Waves MaxxAudio API  |
| Stereo conversion          | 24-bit DAC (Digital-to-Analog) and ADC (Analog-to-Digital)   |
| Internal audio interface   | Intel HDA (high-definition audio)  |
| 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> |
| Number of speakers         | Not supported  |
| Internal-speaker amplifier | Not supported  |
| External volume controls   | Not supported  |
| Speaker output:            |  |
| Average speaker output     | Not supported  |
| Peak speaker output        | Not supported  |
| Subwoofer output           | Not supported  |
| Microphone                 | Not supported  |



# Storage

This section lists the storage options on your Precision 3460 Small Form Factor.

Your computer supports one of the following configurations:

- One 2.5 inch hard drive
- Two 2.5 inch hard drives
- One 3.5 inch hard drive
- One M.2 2230 solid-state drive
- One M.2 2230 solid-state drive (class 35) and one 2.5 inch hard-disk drive
- One M.2 2230 solid-state drive (class 35) and two 2.5 inch hard-disk drive
- One M.2 2230 solid-state drive (class 35) and one 3.5 inch hard-disk drive
- One M.2 2280 solid-state drive
- One M.2 2280 solid-state drive (class 40) and one 3.5 inch hard-disk drive
- One M.2 2280 solid-state drive (class 40) and one 2.5 inch hard-disk drive
- One M.2 2280 solid-state drive (class 40) and two 2.5 inch hard-disk drives
- Two M.2 2280 solid-state drive (class 40) and one 3.5 inch hard-disk drive
- Two M.2 2280 solid-state drive (class 40) and one 2.5 inch hard-disk drive
- Two M.2 2280 solid-state drive (class 40) and two 2.5 inch hard-disk drives
- Three M.2 2280 solid-state drive (class 40) and one 3.5 inch hard-disk drive
- Three M.2 2280 solid-state drive (class 40) and one 2.5 inch hard-disk drive
- Three M.2 2280 solid-state drive (class 40) and two 2.5 inch hard-disk drives

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, either the 3.5-inch hard drive or one of the 2.5-inch hard drives is the primary drive

**Table 12. 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 1 TB   |
| 2.5-inch, 7200 RPM, Opal Self-Encrypting hard-disk drive   | SATA 3.0          | Up to 500 GB |
| 3.5-inch, 5400 RPM, hard-disk drive                        | SATA 3.0          | Up to 4 TB   |
| 3.5-inch, 7200 RPM, hard-disk drive                        | SATA 3.0          | Up to 2 TB   |
| M.2 2280, Class 40 solid-state drive                       | PCIe NVMe Gen3 x4 | Up to 1 TB   |
| M.2 2280, Class 40 solid-state drive                       | PCIe NVMe Gen4 x4 | Up to 4 TB   |
| M.2 2280, Class 40, Opal Self-Encrypting solid-state drive | PCIe NVMe Gen3 x4 | Up to 1 TB   |
| M.2 2280, Class 50 solid-state drive                       | PCIe NVMe Gen3 x4 | 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 IO operations with block sizes larger than the stripe size will split the IO and become constrained by the slowest of the drives. For RAID 0 IO operations where block sizes are smaller than the stripe size, whichever drive the IO

operation targets will 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 very 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 IO operations must be performed identically to both drives, thus variations in drive performance when the models are different, results in the IO operations completing only as fast as the slowest drive. While this does not suffer the variable latency issue in small random IO operations as with RAID 0 across heterogeneous drives, the impact is nonetheless large because the higher performing drive becomes limited in all IO types. One of the worst examples of constrained performance here is when using unbuffered IO. To ensure writes are fully committed to non-volatile regions of the RAID volume, unbuffered IO bypasses cache (for example by using the Force Unit Access bit in the NVMe protocol) and the IO 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 very different performance characteristics for certain types of IO operations. Thus, matching by model ensures that the RAID volumes is comprised of an homogeneous array of drives that will deliver all the benefits of a RAID volume without incurring the additional penalties when one or more drives in the volume are lower performing.

Precision 3460 Small Form Factor supports RAID with more than one hard drive configuration.

## Media-card reader

The following table lists the media cards supported by your Precision 3460 Small Form Factor.

**Table 13. Media-card reader specifications**

| Description  | Values   |
|--|--|
| Media-card type  | One SD 4.0 card slot   |
| Media-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> |
| <p><b>NOTE:</b> The maximum capacity supported by the media-card reader varies depending on the standard of the media card installed in your computer.</p> |  |

## Power ratings

The following table lists the power rating specifications of Precision 3460 Small Form Factor.

**Table 14. Power ratings**

| Description                 | Option one  | Option two  |
|-----------------------------|---|---|
| Type                        | 300 W (92% Efficient, 80 PLUS Platinum)   | 260 W (85% Efficient, 80 PLUS Bronze)   |
| 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   | 3.2 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/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> |

**Table 14. Power ratings (continued)**

| Description          |           | Option one   | Option two   |
|----------------------|-----------|--|--|
| 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 connector

The following table lists the Power supply connector specifications of your Precision 3460 Small Form Factor.

**Table 15. Power supply connector**

|                          |  |
|--------------------------|--|
| 300 W (80 PLUS Platinum) | <ul style="list-style-type: none"> <li>Two 4 pin connectors for processor</li> <li>One 8 pin connector for system board</li> </ul> |
| 260 W (80 PLUS Bronze)   | <ul style="list-style-type: none"> <li>Two 4 pin connectors for processor</li> <li>One 8 pin connector for system board</li> </ul> |

## GPU—Integrated

The following table lists the specifications of the integrated Graphics Processing Unit (GPU) supported by your Precision 3460 Small Form Factor.

**Table 16. GPU—Integrated**

| Controller             | External display support  | Memory size          | Processor  |
|------------------------|---|----------------------|--|
| Intel UHD Graphics 730 | <ul style="list-style-type: none"> <li>Three DisplayPort 1.4a (HBR2) ports</li> </ul> | Shared system memory | 13 <sup>th</sup> Generation Intel Core i3-13100 and i5-13400 processor                       |
| Intel UHD Graphics 770 | <ul style="list-style-type: none"> <li>Three DisplayPort 1.4a (HBR2) ports</li> </ul> | Shared system memory | 13 <sup>th</sup> Generation Intel Core i5-13500, i5-13600, i7-13700, and i9-13900 processors |

## Multiple display support matrix

The following table lists the multiple display support matrix for your Precision 3460 Small Form Factor.

**Table 17. Multiple display support matrix**

| Description              | Option 1   | Option 2   |
|--------------------------|--|--|
| Integrated Graphics Card | UHD Graphics 730 with 3 Display Port   | UHD Graphics 770 with 3 Display Port   |
| Optional Module          | <ul style="list-style-type: none"> <li>Optional card with VGA (1920 x 1200 @ 60 Hz)</li> <li>Optional card with DP 1.4a (HBR3) (5120 x 3200 @ 60 Hz)</li> <li>Optional card with HDMI 2.1 (4096 x 2160 @ 60 Hz)</li> </ul> | <ul style="list-style-type: none"> <li>Optional card with VGA (1920 x 1200 @ 60 Hz)</li> <li>Optional card with DP 1.4a (HBR3) (5120 x 3200 @ 60 Hz)</li> <li>Optional card with HDMI 2.1 (4096 x 2160 @ 60 Hz)</li> </ul> |

**Table 17. Multiple display support matrix (continued)**

| Description           | Option 1   | Option 2   |
|-----------------------|--|--|
|                       | <ul style="list-style-type: none"> <li>Optional card with Type-C (5120 x 3200 @ 60 Hz)</li> </ul>  | <ul style="list-style-type: none"> <li>Optional card with Type-C (5120 x 3200 @ 60 Hz)</li> </ul>  |
| Supported 4K Displays | DP1.4a HBR2, 4096 x 2304 @ 60 Hz   | DP1.4a HBR2, 4096 x 2304 @ 60 Hz   |
| Supported 5K Displays | 5K tiled resolution (5120x2880) support on DP panels.<br>ⓘ <b>NOTE:</b> Requires two DP cables driven through two separate DDIs from the source, and using DP-SST (Single Stream Transport) mechanism. | 5K tiled resolution (5120x2880) support on DP panels.<br>ⓘ <b>NOTE:</b> Requires two DP cables driven through two separate DDIs from the source, and using DP-SST (Single Stream Transport) mechanism. |

## GPU — Discrete

The following table lists the specifications of the discrete graphics processing unit (GPU) supported by your Precision 3460 Small Form Factor.

**Table 18. GPU — Discrete**

| Controller                          | External display support     | Memory size | Memory type |
|-------------------------------------|------------------------------|-------------|-------------|
| NVIDIA Quadro T400 (low profile)    | Three Mini-DisplayPort ports | 4 GB        | GDDR6       |
| NVIDIA Quadro T600 (low profile)    | Four Mini-DisplayPort ports  | 4 GB        | GDDR6       |
| NVIDIA Quadro T1000 (low profile)   | Four Mini-DisplayPort ports  | 8 GB        | GDDR6       |
| NVIDIA RTX A2000 (low profile)      | Two DisplayPort 1.4 ports    | 8 GB        | GDDR6       |
| AMD Radeon Pro WX3200 (low profile) | Three DisplayPort 1.4 ports  | 4 GB        | GDDR6       |

## Multiple display support matrix

The following table lists the multiple display support matrix for your Precision 3460 Small Form Factor.

**Table 19. Multiple display support matrix**

| Graphics Card      | Memory     | Ports  | Supported external displays with Direct Connect | Supported external displays with DP Multi-Stream | Supported 4K Displays | Supported 5K Displays | Resolution  | Total Power |
|--------------------|------------|--|---|--|-----------------------|-----------------------|---|-------------|
| NVIDIA Quadro T400 | 2 GB GDDR6 | Three mini DisplayPort 1.4 with latching mechanism | 3   | TBD  | TBD                   | TBD                   | <ul style="list-style-type: none"> <li>Three 3840 x 2160 @ 120Hz</li> <li>Three 5120 x 2880 @ 60Hz</li> </ul> | 30 W        |

**Table 19. Multiple display support matrix (continued)**

| Graphics Card         | Memory     | Ports                      | Supported external displays with Direct Connect | Supported external displays with DP Multi-Stream | Supported 4K Displays | Supported 5K Displays | Resolution  | Total Power |
|-----------------------|------------|----------------------------|---|--|-----------------------|-----------------------|---|-------------|
| NVIDIA Quadro T600    | 4 GB GDDR6 | Four mini DisplayPort 1.4  | 4   | TBD  | TBD                   | TBD                   | <ul style="list-style-type: none"> <li>• Four 3840 x 2160 @ 120Hz</li> <li>• Four 5120 x 2880 @ 60Hz</li> <li>• Two 7680 x 4320 @ 60Hz</li> </ul> | 40 W        |
| NVIDIA Quadro T1000   | 4 GB GDDR6 | Four mini DisplayPort 1.4  | 4   | TBD  | TBD                   | TBD                   | <ul style="list-style-type: none"> <li>• Four 3840 x 2160 @ 120Hz</li> <li>• Four 5120 x 2880 @ 60Hz</li> <li>• Two 7680 x 4320 @ 60Hz</li> </ul> | 50 W        |
| NVIDIA RTX A2000      | 8 GB GDDR6 | Four mini DisplayPort 1.4  | 4   | TBD  | TBD                   | TBD                   | Four 5120 x 3200 @ 60Hz   | 70 W        |
| AMD Radeon Pro WX3200 | 4 GB GDDR6 | Three mini DisplayPort 1.4 | 3   | TBD  | TBD                   | TBD                   | <ul style="list-style-type: none"> <li>• Three 3840 x 2160 @ 120Hz</li> <li>• Three 5120 x 2880 @ 60Hz</li> </ul>                                 | 50 W        |

## Hardware security

The following table lists the hardware security of your Precision 3460 Small Form Factor.

**Table 20. Hardware security**

| Hardware security                                  |
|--|
| Kensington security-cable slot                     |
| Padlock ring                                       |
| Chassis lock slot support                          |
| Chassis intrusion switch                           |
| Lockable cable covers                              |
| Supply chain tamper alerts                         |
| SafelD including Trusted Platform Module (TPM) 2.0 |
| Smart card keyboard (FIPS)                         |

**Table 20. Hardware security (continued)**

| Hardware security   |
|---|
| Microsoft 10 Device Guard and Credential Guard (Enterprise SKU) |
| Microsoft Windows Bitlocker                                     |
| Local hard drive data wipe through BIOS (Secure Erase)          |
| Self-encrypting storage drives (Opal, FIPS)                     |
| Trusted Platform Module TPM 2.0                                 |
| China TPM   |

## Environmental

The following table lists the environmental specifications of your Precision 3460 Small Form Factor.

**Table 21. Environmental**

| Feature                                | Values   |
|--|----------|
| Recyclable packaging                   | Yes      |
| BFR/PVC—free                           | No       |
| Vertical orientation packaging support | Yes      |
| Multi-Pack packaging                   | No       |
| Energy-Efficient Power Supply          | Standard |
| ENV0424 compliant                      | Yes      |

**NOTE:** Wood-based fiber packaging contains a minimum of 35% recycled content by total weight of wood-based fiber. Packaging that contains without wood-based fiber can be claimed as Not Applicable. The anticipated required criteria for EPEAT 2018.

## Regulatory compliance

The following table lists the regulatory compliance of your Precision 3460 Small Form Factor.

**Table 22. Regulatory compliance**


| Regulatory compliance  |
|--|
| <a href="#">Product Safety, EMC and Environmental Datasheets</a> |
| <a href="#">Dell Regulatory Compliance Home page</a>             |
| <a href="#">Dell and the Environment</a>                         |

## Operating and storage environment

This table lists the operating and storage specifications of your Precision 3460 Small Form Factor.

**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   | 3048 m (10,000 ft)  | 10,668 m (35,000 ft)   |
|  <b>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.</b> |   |  |

\* Measured using a random vibration spectrum that simulates user environment.



† Measured using a 2 ms half-sine pulse.

# 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 24. 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><br><a href="http://www.dell.com/support/linux">www.dell.com/support/linux</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> .<br><br>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.