

# XPS 15 7590

## 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 XPS 15 7590

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

1. Connect the power adapter and press the power button.



**NOTE:** The battery may go into power-saving mode during shipment to conserve charge on the battery. Ensure that the power adapter is connected to your computer when it is turned on for the first time.




2. 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.

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

**Table 1. Locate Dell apps**

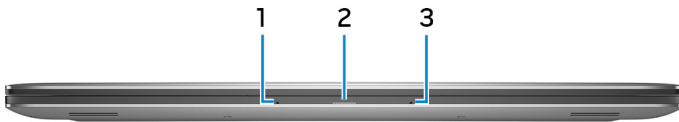
| Resources   | Description  |
|---|--|
|  | <p><b>My Dell</b></p> <p>Centralized location for key Dell applications, help articles, and other important information about your computer. It also notifies you about the warranty status, recommended accessories, and software updates if available.</p>   |
|  | <p><b>SupportAssist</b></p> <p>Proactively checks the health of your computer's hardware and software. The SupportAssist OS Recovery tool troubleshoots issues with the operating system. For more information, see the SupportAssist documentation at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p> <p><b>NOTE:</b> In SupportAssist, click the warranty expiry date to renew or upgrade your warranty.</p> |
|  | <p><b>Dell Update</b></p> <p>Updates your computer with critical fixes and latest device drivers as they become available. For more information about using Dell Update, see the knowledge base article <a href="https://www.dell.com/support">SLN305843</a> at <a href="http://www.dell.com/support">www.dell.com/support</a>.</p>  |

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

| Resources   | Description  |
|---|--|
|  | <p><b>Dell Digital Delivery</b></p> <p>Download software applications, which are purchased but not pre-installed on your computer. For more information about using Dell Digital Delivery, see the knowledge base article <a href="https://www.dell.com/support/153764">153764</a> at <a href="https://www.dell.com/support">www.dell.com/support</a>.</p> |

## Views of XPS 15 7590

### Front



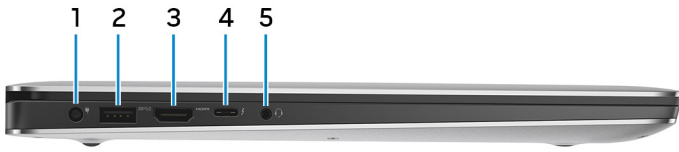
- 1. Left microphone**  
Provides digital sound input for audio recording and voice calls.
- 2. Power and battery-status light**  
Indicates the power state and battery state of the computer.  
Solid white—Power adapter is connected and the battery is charging.  
Solid amber—Battery charge is low or critical.  
Off—Battery is fully charged.
- 3. Right microphone**  
Provides digital sound input for audio recording and voice calls.

### Right



- 1. SD-card slot**  
Reads from and writes to the SD card.
- 2. USB 3.1 Gen 1 port with PowerShare**  
Connect peripherals such as external storage devices and printers.  
Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge your USB devices even when your computer is turned off.  
**NOTE:** If the charge on your computer's battery is less than 10 percent, you must connect the power adapter to charge your computer, and USB devices connected to the PowerShare port.  
**NOTE:** If a USB device is connected to the PowerShare port before the computer is turned off or in hibernate state, you must disconnect and connect it again to enable charging.  
**NOTE:** Certain USB devices may not charge when the computer is turned off or in sleep state. In such cases, turn on the computer to charge the device.
- 3. Battery-charge status lights (5)**  
Turn on when the battery-charge status button is pressed. Each light indicates approximately 20% charge.
- 4. Battery-charge status button**  
Press to check the charge remaining in the battery.
- 5. Security-cable slot (wedge-shaped)**  
Connect a security cable to prevent unauthorized movement of your computer.

## Left



### 1. Power-adapter port

Connect a power adapter to provide power to your computer and charge the battery.

### 2. USB 3.1 Gen 1 port with PowerShare

Connect peripherals such as external storage devices and printers.

Provides data transfer speeds up to 5 Gbps. PowerShare enables you to charge your USB devices even when your computer is turned off.

**NOTE:** If the charge on your computer's battery is less than 10 percent, you must connect the power adapter to charge your computer, and USB devices connected to the PowerShare port.

**NOTE:** If a USB device is connected to the PowerShare port before the computer is turned off or in hibernate state, you must disconnect and connect it again to enable charging.

**NOTE:** Certain USB devices may not charge when the computer is turned off or in sleep state. In such cases, turn on the computer to charge the device.

### 3. HDMI port

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

### 4. Thunderbolt 3 (USB 3.1 Gen 2 Type-C) port with Power delivery

Supports USB 3.1 Gen 2, DisplayPort 1.2, Thunderbolt 3 and also enables you to connect to an external display using a display adapter. Provides data transfer rates up to 10 Gbps for USB 3.1 Gen 2 and up to 40 Gbps for Thunderbolt 3. Supports Power Delivery that enables two-way power supply between devices. Provides up to 5V/3A power output that enables faster charging.

**NOTE:** Adapters (sold separately) are required to connect standard USB and DisplayPort devices.

### 5. Headset port

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

## Base



### 1. Power button with optional fingerprint reader

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

When the computer is turned on, press the power button to put the computer into sleep state; press and hold the power button for 10 seconds to force shut-down the computer.

If the power button has a fingerprint reader, place your finger on the power button to log in.

**i** **NOTE:** You can customize power-button behavior in Windows. For more information, see *Me and My Dell* at [www.dell.com/support/manuals](http://www.dell.com/support/manuals).

**i** **NOTE:** The power-status light on the power button is available only on computers without the fingerprint reader. Computers shipped with the fingerprint reader integrated on the power button will not have the power-status light on the power button.

**2. Right-click area**

Press to right-click.

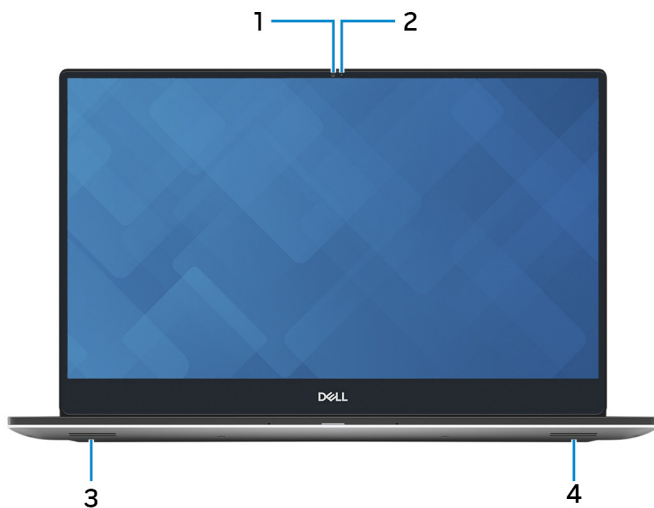
**3. Touchpad**

Move your finger on the touchpad to move the mouse pointer. Tap to left-click and two finger tap to right-click.

**4. Left-click area**

Press to left-click.

## Display



**1. Camera**

Enables you to video chat, capture photos, and record videos.

**2. Camera-status light**

Turns on when the camera is in use.

**3. Left speaker**

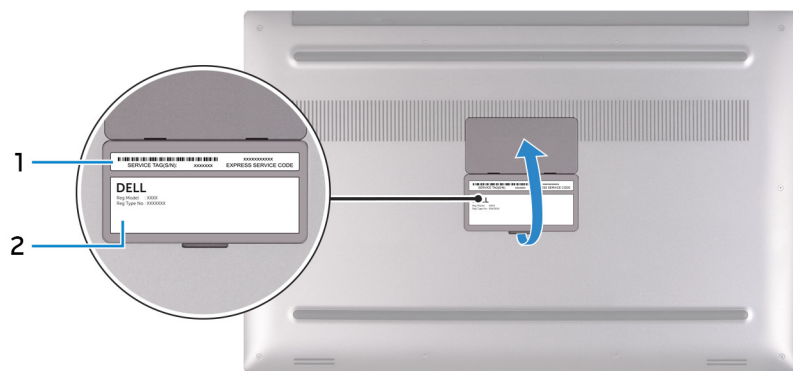
Provides audio output.

**4. Right speaker**

Provides audio output.



# Bottom



## 1. Service Tag label

The Service Tag is a unique alphanumeric identifier that enables Dell service technicians to identify the hardware components in your computer and access warranty information.


## 2. Regulatory label

Contains regulatory information of your computer.

# Specifications of XPS 15 7590

## Dimensions and weight

Table 2. Dimensions and weight

| Description      | Values  |
|------------------|---|
| Height:          |   |
| Front            | 11.2 mm (0.44 in.)  |
| Rear             | 17 mm (0.67 in.)  |
| Width            | 357 mm (14.06 in.)  |
| Depth            | 235 mm (9.25 in.)   |
| Weight (maximum) | 1.8 kg (3.97 lb)  |
|                  |  <b>NOTE:</b> The weight of your computer depends on the configuration ordered and the manufacturing variability. |

## Processors

Table 3. Processors

| Description         | Values                             |                                    |                                      |
|---------------------|------------------------------------|------------------------------------|--------------------------------------|
| Processors          | 9th Generation Intel Core i5-9300H | 9th Generation Intel Core i7-9750H | 9th Generation Intel Core i9-9980 HK |
| Wattage             | 45 W                               | 45 W                               | 45 W                                 |
| Core count          | 4                                  | 6                                  | 8                                    |
| Thread count        | 8                                  | 12                                 | 16                                   |
| Speed               | Up to 4.1 GHz                      | Up to 4.5 GHz                      | Up to 5.0 GHz                        |
| Cache               | 8 MB                               | 12 MB                              | 16 MB                                |
| Integrated graphics | Intel UHD Graphics 630             | Intel UHD Graphics 630             | Intel UHD Graphics 630               |

## Chipset

Table 4. Chipset

| Description | Values |
|-------------|--------|
| Chipset     | CM246  |

**Table 4. Chipset (continued)**

| Description    | Values                             |
|----------------|------------------------------------|
| Processor      | 9th generation Intel Core i5/i7/i9 |
| DRAM bus width | 64-bit                             |
| Flash EPROM    | 16 MB                              |
| PCIe bus       | Up to Gen3                         |

## Operating system

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

## Memory

**Table 5. Memory specifications**

| Description              | Values  |
|--------------------------|---|
| Slots                    | Two SODIMM slots  |
| Type                     | Dual-channel DDR4   |
| Speed                    | 2666 MHz  |
| Maximum memory           | 64 GB   |
| Minimum memory           | 8 GB  |
| Memory size per slot     | 4 GB, 8 GB, 16 GB, 32 GB  |
| Configurations supported | <ul style="list-style-type: none"> <li>• 8 GB DDR4 at 2666 MHz (2 x 4 GB)</li> <li>• 16 GB DDR4 at 2666 MHz (2 x 8 GB)</li> <li>• 32 GB DDR4 at 2666 MHz (2 x 16 GB)</li> <li>• 64 GB DDR4 at 2666 MHz (2 x 32 GB)</li> </ul> |

## Ports and connectors

**Table 6. External ports and connectors**

| External:         |  |
|-------------------|--|
| USB               | <ul style="list-style-type: none"> <li>• Two USB 3.1 Gen 1 ports with PowerShare</li> <li>• One Thunderbolt 3 (USB 3.1 Gen 2 Type-C) port with Power delivery</li> </ul> |
| Audio             | One headset (headphone and microphone combo) port  |
| Video             | One HDMI 2.0b port   |
| Media card reader | One SD-card slot   |
| Docking port      | Not supported  |

**Table 6. External ports and connectors (continued)**

| External:          |  |
|--------------------|--|
| Power adapter port | One 4.5 mm x 2.9 mm DC-in              |
| Security           | One security-cable slot (wedge-shaped) |

**Table 7. Internal ports and connectors**

| Internal: |  |
|-----------|--|
| M.2       | <ul style="list-style-type: none"> <li>One M.2 slot for solid-state drive (SATA or PCIe/NVMe)</li> <li>One M.2 slot for WiFi and Bluetooth combo card</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="#">SLN301626</a>.</p> |

## Communications

### Wireless module

**Table 8. Wireless module specifications**

| Description               | Values  |
|---------------------------|---|
| Model number              | Killer 1650x  |
| Transfer rate             | Up to 2400 Mbps   |
| Frequency bands supported | 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> <li>WiFi 6 (WiFi 802.11ax)</li> </ul> |
| Encryption                | <ul style="list-style-type: none"> <li>64-bit/128-bit WEP</li> <li>AES-CCMP</li> <li>TKIP</li> </ul>  |
| Bluetooth                 | Bluetooth 5   |

## Audio

**Table 9. Audio specifications**

| Description        | Values                              |
|--------------------|-------------------------------------|
| Controller         | ALC3266-CG with Waves MaxxAudio Pro |
| Stereo conversion  | Not supported                       |
| Internal interface | High-definition audio interface     |
| External interface | HDMI 2.0b port                      |

**Table 9. Audio specifications (continued)**

| Description                |         | Values                     |
|----------------------------|---------|----------------------------|
| Speakers                   |         | 2                          |
| Internal speaker amplifier |         | Not supported              |
| External volume controls   |         | Keyboard shortcut controls |
| Speaker output:            |         |                            |
|                            | Average | 2 W                        |
|                            | Peak    | 2.5 W                      |
| Subwoofer output           |         | Not supported              |
| Microphone                 |         | Dual-array microphones     |

## Storage

Your computer supports one of the following configurations:

- One 2.5-inch hard-drive
- One M.2 2230/2280 solid-state drive (SSD)

**Table 10. Storage specifications**

| Storage type                        | Interface type                    | Capacity   |
|-------------------------------------|-----------------------------------|------------|
| One 2.5-inch hard-disk drive        | SATA AHCI, up to 6 Gbps           | Up to 2 TB |
| One M.2 2230/2280 solid-state drive | PCIe Gen3.0x4 NVMe, up to 32 Gbps | Up to 2 TB |

## Media-card reader

**Table 11. Media-card reader specifications**

| Description     | Values  |
|-----------------|---|
| Type            | One SD-card slot  |
| Cards supported | <ul style="list-style-type: none"> <li>• Secure Digital (SD)</li> <li>• Secure Digital High Capacity (SDHC)</li> <li>• Secure Digital Extended Capacity (SDXC)</li> </ul> |

## Keyboard

**Table 12. Keyboard specifications**

| Description    | Values  |
|----------------|---|
| Type           | Backlit keyboard  |
| Layout         | QWERTY  |
| Number of keys | <ul style="list-style-type: none"> <li>• United States and Canada: 80 keys</li> </ul> |

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

| Description   | Values   |
|---------------|--|
|               | <ul style="list-style-type: none"> <li>· United Kingdom: 81 keys</li> <li>· Japan: 84 keys</li> </ul>  |
| Size          | X=19.05 mm key pitch<br>Y=18.05 mm key pitch   |
| Shortcut keys | <p>Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. To type the alternate character, press Shift and the desired key. To perform secondary functions, press Fn and the desired key.</p> <p><b>NOTE:</b> You can define the primary behavior of the function keys (F1–F12) changing Function Key Behavior in BIOS setup program.</p> <p><a href="#">Keyboard shortcuts</a></p> |

## Camera

**Table 13. Camera specifications**

| Description  | Values                    |                 |                           |
|--|---------------------------|-----------------|---------------------------|
| Number of cameras  | One                       |                 |                           |
| Type   | RGB HD camera             |                 |                           |
| Location   | Front camera on top bezel |                 |                           |
| Sensor type  | Rolling shutter           |                 |                           |
| Resolution   |                           |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Camera</td> </tr> </table>          |                           | Camera          |                           |
|  | Camera                    |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Still image</td> </tr> </table>     |                           | Still image     | 0.92 megapixel            |
|  | Still image               |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Video</td> </tr> </table>           |                           | Video           | 1280 x 720 (RGB) @ 30 fps |
|  | Video                     |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Infrared camera</td> </tr> </table> |                           | Infrared camera |                           |
|  | Infrared camera           |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Still image</td> </tr> </table>     |                           | Still image     | 0.92 megapixel            |
|  | Still image               |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Video</td> </tr> </table>           |                           | Video           | 340 x 340 @ 30 fps        |
|  | Video                     |                 |                           |
| Diagonal viewing angle   |                           |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Camera</td> </tr> </table>          |                           | Camera          | 78 degrees                |
|  | Camera                    |                 |                           |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10px;"></td> <td>Infrared camera</td> </tr> </table> |                           | Infrared camera | 80 degrees                |
|  | Infrared camera           |                 |                           |

# Touchpad

**Table 14. Touchpad specifications**

| Description |            | Values            |
|-------------|------------|-------------------|
| Resolution: |            |                   |
|             | Horizontal | 1219              |
|             | Vertical   | 919               |
| Dimensions: |            |                   |
|             | Horizontal | 105 mm (4.13 in.) |
|             | Vertical   | 80 mm (3.15 in.)  |

## Touchpad gestures

For more information about touchpad gestures for Windows 10, see the Microsoft knowledge base article [4027871](https://support.microsoft.com/4027871) at [support.microsoft.com](https://support.microsoft.com).

# Power adapter

**Table 15. Power adapter specifications**

| Description                 |           | Values                         |
|-----------------------------|-----------|--------------------------------|
| Type                        |           | 130 W                          |
| Diameter (connector)        |           | 4.5 mm x 2.9 mm                |
| Input voltage               |           | 100 VAC x 240 VAC              |
| Input frequency             |           | 50 Hz x 60 Hz                  |
| Input current (maximum)     |           | 1.80 A                         |
| Output current (continuous) |           | 6.67 A                         |
| Rated output voltage        |           | 19.50 VDC                      |
| Temperature range:          |           |                                |
|                             | Operating | 0°C to 40°C (32°F to 104°F)    |
|                             | Storage   | -40°C to 70°C (-40°F to 158°F) |

# Battery

**Table 16. Battery specifications**

| Description | Values                      |                             |
|-------------|-----------------------------|-----------------------------|
|             | 3-cell lithium ion (56 WHr) | 6-cell lithium ion (97 WHr) |
| Voltage     | 11.40 VDC                   | 11.40 VDC                   |

**Table 16. Battery specifications (continued)**

| Description                 |           | Values  |   |
|-----------------------------|-----------|---|---|
| Weight (maximum)            |           | 0.24 kg (0.53 lb)   | 0.34 kg (0.75 lb)   |
| Dimensions:                 |           |   |   |
|                             | Height    | 71.80 mm (2.83 in.)   | 71.80 mm (2.83 in.)   |
|                             | Width     | 223.20 mm (8.79 in.)  | 330.50 mm (13.01 in.)   |
|                             | Depth     | 7.20 mm (0.28 in.)  | 7.20 mm (0.28 in.)  |
| Temperature range:          |           |   |   |
|                             | Operating | 0°C to 35°C (32°F to 95°F)  | 0°C to 35°C (32°F to 95°F)  |
|                             | Storage   | -40°C to 65°C (-40°F to 149°F)  | -40°C to 65°C (-40°F to 149°F)  |
| Operating time              |           | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.   | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.   |
| Charging time (approximate) |           | 4 hours (when the computer is off)<br><b>i NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on <a href="http://www.dell.com/">www.dell.com/</a></b> | 4 hours (when the computer is off)<br><b>i NOTE: Control the charging time, duration, start and end time, and so on using the Dell Power Manager application. For more information on the Dell Power Manager see, <i>Me and My Dell</i> on <a href="http://www.dell.com/">www.dell.com/</a></b> |
| Life span (approximate)     |           | 300 discharge/charge cycles   | 300 discharge/charge cycles   |
| Coin-cell battery           |           | ML1220  | ML1220  |
| Operating time              |           | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.   | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions.   |

## Display

**Table 17. Display specifications**

| Description               |          | Values                    |                                    |                                    |
|---------------------------|----------|---------------------------|------------------------------------|------------------------------------|
| Type                      |          | 15.6-inch UHD touchscreen | 15.6-inch WLED FHD non-touchscreen | 15.6 inch OLED UHD non-touchscreen |
| Panel technology          |          | In-Plane Switching (IPS)  | In-Plane Switching (IPS)           | OLED                               |
| Luminance (typical)       |          | 500 nits                  | 500 nits                           | 400 nits                           |
| Dimensions (active area): |          |                           |                                    |                                    |
|                           | Height   | 193.62 mm (7.62 in.)      | 193.59 mm (7.62 in.)               | 193.62 mm (7.62 in.)               |
|                           | Width    | 344.21 mm (13.55 in.)     | 344.16 mm (13.55 in.)              | 344.22 mm (13.55 in.)              |
|                           | Diagonal | 394.9 mm (15.55 in.)      | 394.9 mm (15.55 in.)               | 394.9 mm (15.55 in.)               |
| Native resolution         |          | 3840 x 2160               | 1920 x 1080                        | 3840 x 2160                        |



**Table 17. Display specifications (continued)**

| Description                 | Values                           |                                  |                                  |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|
|                             |                                  |                                  |                                  |
| Megapixels                  | 8.29                             | 2.07                             | 8.29                             |
| Color gamut                 | 100 % (Adobe RGB)                | NTSC 72 %                        | DCI P3 100%                      |
| Pixels per inch (PPI)       | 282.42                           | 141.21                           | 282                              |
| Contrast ratio (min)        | 1500:1 (typical)                 | 1500:1 (typical)                 | 100000:1 (typical)               |
| Response time (max)         | 35 ms                            | 35 ms                            | 1 ms                             |
| Refresh rate                | 60 Hz                            | 60 Hz                            | 60 Hz                            |
| Horizontal view angle       | 89/89 (typical), 80/80 (minimum) | 89/89 (typical), 80/80 (minimum) | 88/88 (typical), 80/80 (minimum) |
| Vertical view angle         | 89/89 (typical), 80/80 (minimum) | 89/89 (typical), 80/80 (minimum) | 88/88 (typical), 80/80 (minimum) |
| Pixel pitch                 | 0.09 mm                          | 0.18 mm                          | 0.09 mm                          |
| Power consumption (maximum) | 10.41 W                          | 4.30 W                           | 14.80 W                          |
| Anti-glare vs glossy finish | Anti-reflective                  | Anti-glare                       | Anti-reflective                  |
| Touch options               | Yes                              | No                               | No                               |

## Fingerprint reader (optional)

**Table 18. Fingerprint reader specifications**

| Description       | Values          |
|-------------------|-----------------|
| Sensor technology | Touch           |
| Sensor resolution | 500 dpi         |
| Sensor area       | 5.5 mm x 4.5 mm |
| Sensor pixel size | 108 x 88        |

## Video

**Table 19. Discrete graphics specifications**

| Discrete graphics       |                          |             |             |
|-------------------------|--------------------------|-------------|-------------|
| Controller              | External display support | Memory size | Memory type |
| NVIDIA GeForce GTX 1650 | One HDMI 2.0b port       | 4 GB        | GDDR5       |

**Table 20. Integrated graphics specifications**

| Integrated graphics    |                          |                      |                                    |
|------------------------|--------------------------|----------------------|------------------------------------|
| Controller             | External display support | Memory size          | Processor                          |
| Intel UHD 630 Graphics | One HDMI 2.0b port       | Shared system memory | 9th generation Intel Core i5/i7/i9 |

## Computer environment

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

**Table 21. Computer environment**

| Description                 | Operating                                | Storage                                   |
|-----------------------------|--|---|
| Temperature range           | 0°C to 35°C (32°F to 95°F)               | -40°C to 65°C (-40°F to 149°F)            |
| Relative humidity (maximum) | 10% to 90% (non-condensing)              | 0% to 95% (non-condensing)                |
| Vibration (maximum)*        | 0.66 GRMS                                | 1.3 GRMS                                  |
| Shock (maximum)             | 110 G†                                   | 160 G†                                    |
| Altitude (maximum)          | -15.2 m to 3,048 m (-50 ft to 10,000 ft) | -15.2 m to 10,668 m (-50 ft to 35,000 ft) |

\* 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.

# Keyboard shortcuts

**NOTE:** Keyboard characters may differ depending on the keyboard language configuration. Keys used for shortcuts remain the same across all language configurations.











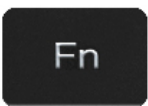


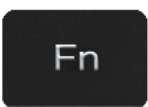


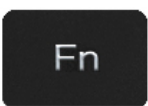




Some keys on your keyboard have two symbols on them. These keys can be used to type alternate characters or to perform secondary functions. The symbol shown on the lower part of the key refers to the character that is typed out when the key is pressed. If you press shift and the key, the symbol shown on the upper part of the key is typed out. For example, if you press **Shift + 2**, **@** is typed out.

The keys F1-F12 at the top row of the keyboard are function keys for multi-media control, as indicated by the icon at the bottom of the key. Press the function key to invoke the task represented by the icon. For example, pressing F1 mutes the audio (refer to the table below).













However, if the function keys F1-F12 are needed for specific software applications, multi-media functionality can be disabled by pressing **Fn + Esc**. Subsequently, multi-media control can be invoked by pressing **Fn** and the respective function key. For example, mute audio by pressing **Fn + F1**.

**NOTE:** You can also define the primary behavior of the function keys (F1–F12) by changing Function Key Behavior in BIOS setup program.

**Table 22. List of keyboard shortcuts**



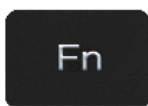

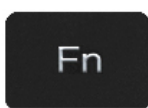

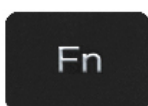

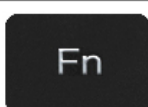
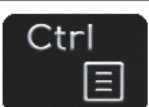
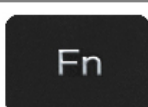

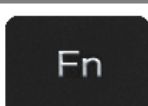
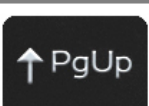
| Function key  | Re-defined key (for multi-media control)  | Behavior                    |
|---|---|-----------------------------|
|  |  +  | Mute audio                  |
|  |  +  | Decrease volume             |
|  |  +  | Increase volume             |
|  |  +  | Play previous track/chapter |
|  |  +  | Play/Pause                  |
|  |  +  | Play next track/chapter     |
|  |  +  | Switch to external display  |

**Table 22. List of keyboard shortcuts (continued)**

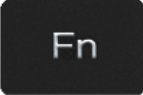
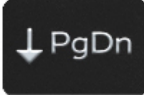
| Function key  | Re-defined key (for multi-media control)  | Behavior                             |
|---|---|--------------------------------------|
|  |  +  | Search                               |
|  |  +  | Toggle keyboard backlight (optional) |
|  |  +  | Decrease brightness                  |
|  |  +  | Increase brightness                  |

The **Fn** key is also used with selected keys on the keyboard to invoke other secondary functions.

**Table 23. List of keyboard shortcuts**

| Function key  | Behavior  |
|---|---|
|  +    | Pause/Break   |
|  +  | Toggle scroll lock  |
|  +  | Toggle between power and battery-status light/hard-drive activity light |
|  +  | System request  |
|  +  | Open application menu   |
|  +  | Toggle Fn-key lock  |
|  +  | Up/page up  |

**Table 23. List of keyboard shortcuts (continued)**



| Function key  | Behavior       |
|---|----------------|
|  +  | Down/page down |

# 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>  |
| Troubleshooting information, user manuals, set up instructions, product specifications, technical help blogs, drivers, software updates, and so on.  | <a href="http://www.dell.com/support">www.dell.com/support</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>   |
| Learn and know the following information about your product: <ul style="list-style-type: none"> <li>• Product specifications</li> <li>• Operating system</li> <li>• Setting up and using your product</li> <li>• Data backup</li> <li>• Troubleshooting and diagnostics</li> <li>• Factory and system restore</li> <li>• BIOS information</li> </ul> | See <i>Me and My Dell</i> at <a href="http://www.dell.com/support/manuals">www.dell.com/support/manuals</a> .<br>To locate the <i>Me and My Dell</i> relevant to your product, identify your product through one of the following: <ul style="list-style-type: none"> <li>• Select <b>Detect Product</b>.</li> <li>• Locate your product through the drop-down menu under <b>View Products</b>.</li> <li>• Enter the <b>Service Tag number</b> or <b>Product ID</b> in the search bar.</li> </ul> |

## 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.**