

# Technical specifications

**NOTE:** Offerings may vary by region. The following specifications are only those required by law to ship with your computer. For more information about the configuration of your computer, go to Help and Support in your Windows operating system and select the option to view information about your computer.

## System information

Table 3. System information

| Feature        | Specifications |
|----------------|----------------|
| Chipset        | Intel Chipset  |
| DRAM bus width | 64-bit         |
| FLASH EPROM    | 24 MB / 32 MB  |
| PCIe bus       | 100 Mhz        |

## Processor

**NOTE:** Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.

Table 4. Processor specifications

| Type  | UMA Graphics                                       |
|---|--|
| 8th Generation Intel core i5-8265U Processor (Quad Core (QC), 6M SmartCache, base frequency 1.6 GHz, up to 3.9 GHz) |  |
| 8th Generation Intel core i7-8665U Processor (QC, 8M SmartCache, base frequency 1.9 GHz, up to 4.8 GHz)             | Intel UHD Graphics 620 (8th Generation Intel Core) |
| 8th Generation Intel core i5-8365U Processor (QC, 6M SmartCache, base frequency 1.6 GHz, up to 4.1 GHz)             |  |

## Memory

Table 5. Memory specifications

| Feature                      | Specifications |
|------------------------------|----------------|
| Minimum memory configuration | 4 GB           |
| Maximum memory configuration | 32 GB          |
| Number of slots              | Two SoDIMM     |

| Feature        | Specifications  |
|----------------|---|
| Memory options | <ul style="list-style-type: none"> <li>• 4 GB - 1 x 4 GB</li> <li>• 8 GB - 1 x 8 GB</li> <li>• 8 GB - 2 x 4 GB</li> <li>• 16 GB - 1 x 16 GB</li> <li>• 16 GB - 2 x 8 GB</li> <li>• 32 GB - 2 x 16 GB</li> </ul> |
| Type           | DDR4  |
| Speed          | 2400 MHz  |

## Storage

**Table 6. Storage specifications**

| Type                                   | Form factor             | Interface   | Capacity   |
|--|-------------------------|-------------|------------|
| Solid-state drive                      | M.2 2280                | PCIe / SATA | Up to 1 TB |
| Solid-state drive                      | M.2 2230 (With bracket) | PCIe        | 128 GB     |
| Self Encrypting Drive (SED) / Opal SED | M.2 2280                | PCIe NVMe   | 256 GB     |

## Media card-reader

**Table 7. Media card-reader specifications**

| Feature         | Specifications   |
|-----------------|--|
| Type            | One micro-SD card slot   |
| Supported cards | <ul style="list-style-type: none"> <li>• SD</li> <li>• SDHC</li> <li>• SDXC</li> </ul> |

## Audio

**Table 8. Audio specifications**

| Feature                    | Specifications                           |
|----------------------------|--|
| Controller                 | Realtek ALC3254 with Waves MaxxAudio Pro |
| Type                       | Two-channel high-definition audio        |
| Speakers                   | Two (Directional speakers)               |
| Interface                  | Intel HDA bus                            |
| Internal speaker amplifier | 2 W (RMS) per channel                    |

# Video card

Table 9. Video card specifications

| Controller             | Type | CPU Dependency  | Graphics memory type | Capacity             | External display support | Maximum resolution |
|------------------------|------|---|----------------------|----------------------|--------------------------|--------------------|
| Intel UHD Graphics 620 | UMA  | <ul style="list-style-type: none"><li>8th Gen Intel Core i5 processor</li><li>8th Gen Intel Core i7 processor</li></ul> | Integrated           | Shared system memory | HDMI 1.4a                | 4096 x 2304        |

# Camera

Table 10. Camera specifications

| Feature                    | Specifications  |
|----------------------------|---|
| Resolution                 | <ul style="list-style-type: none"><li>Still image: 0.92 megapixels</li><li>Video: 1280 x 720 at 30 fps</li></ul>  |
| Diagonal viewing angle     | <ul style="list-style-type: none"><li>Diagonal <math>&gt;/ 86.7^{\circ}</math> (tolerance <math>\pm 3\%</math>)</li><li>Vertical <math>&gt;/ 47^{\circ}</math></li></ul>  |
| Camera Options             | <ul style="list-style-type: none"><li>No Camera</li><li>6.0 mm RGB HD</li><li>6.0 mm RGB IR</li><li>3.0 mm RGB IR</li><li>2.7 mm RGB HD</li></ul> <p>Ambient Light Sensor is only available with the 3mm IR camera option</p> |
| Video Max resolution       | 1280 x 720 (HD) at 30 FPS   |
| Still image max resolution | 0.92 megapixel (1280 x 720)   |

# Ports and connectors

Table 11. Ports and connectors

| Features           | Specifications  |
|--------------------|---|
| Memory card reader | micro-SD 4.0 memory card reader (optional)  |
| USB                | <ul style="list-style-type: none"><li>One USB Type-C 3.1 Gen 2 port (Thunderbolt)</li><li>Two USB Type-A 3.1 Gen 1 ports (one PowerShare capable)</li></ul> |
| Security           | <ul style="list-style-type: none"><li>Noble Wedge lock slot</li><li>Smart card reader (optional)</li></ul>  |

| Features     | Specifications  |
|--------------|---|
| Docking port | Dell USB 3.0 Dock (UNO)   |
| Audio        | Universal audio jack (Headset Jack + microphone-in + line-in support) |
| Video        | HDMI 1.4a   |

## Wireless

### Wireless LAN card specifications

**Table 12. Wireless LAN card specifications**

#### Wireless card options

- Qualcomm QCA61x4A 802.11ac Dual Band (2x2) Wireless Adapter + Bluetooth 4.2 (non vPro)
- Intel Dual-Band Wireless-AC 9560 Wi-Fi + Bluetooth 5.0 Wireless Card (2x2)(vPro)(Bluetooth Optional)
- Intel Wi-Fi 6 AX200 2x2 .11ax 160MHz + Bluetooth 5.0

### WWAN card specifications

**Table 13. Wireless WAN card specifications**

#### Wireless card option

- Mobile Broadband Qualcomm Snapdragon X20 Global Gigabit LTE (Optional)

## Display

**Table 14. Display specifications**

| Feature                        | Specifications   |
|--------------------------------|--|
| Type                           | <ul style="list-style-type: none"> <li>13.3-in. HD AG (WXGA 1366x768), 220 nits, non-touch display</li> <li>13.3-in. FHD AG (1920 x 1080), 300 nits, non-touch display</li> <li>13.3-in. FHD AG (1920 x 1080), 300 nits, non-touch display with Dynamic Privacy Dell SafeScreen</li> <li>13.3-in. FHD AG (1920 x 1080), 255 nits, touch display</li> </ul> |
| Height (Active area)           | 165.24 mm (6.5 in.)  |
| Width (Active area)            | 293.76 mm (11.55 in.)  |
| Diagonal                       | <ul style="list-style-type: none"> <li>HD: 337.08 mm (13.27 in.)</li> <li>FHD: 337.04 mm (13.26 in.)</li> </ul>  |
| Luminance/Brightness (typical) | HD: 220 nits (Super Low Power) / FHD: 300 nits   |

| Feature      | Specifications |
|--------------|----------------|
| Refresh rate | 60 Hz          |

## Keyboard

**Table 15. Keyboard specifications**

| Feature          | Specifications   |
|------------------|--|
| Number of keys   | <ul style="list-style-type: none"> <li>81 (U.S)</li> <li>82 (UK)</li> <li>82 (Brazil)</li> <li>85 (Japan)</li> </ul> |
| Size             | Full sized <ul style="list-style-type: none"> <li>X= 18.05 mm key pitch</li> <li>Y= 18.05 mm key pitch</li> </ul>    |
| Backlit keyboard | Optional   |
| Layout           | QWERTY / AZERTY / Kanji  |

## Touchpad

**Table 16. Touchpad specifications**

| Feature     | Specifications  |
|-------------|---|
| Resolution  | 1048 x 984  |
| Dimensions  | <ul style="list-style-type: none"> <li>Width: 3.91 inch (99.5 mm)</li> <li>Height: 2.08 inch (53 mm)</li> </ul> |
| Multi-touch | Configurable single finger and multi-finger gestures  |

## 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).

## Operating system

**Table 17. Operating system**

| Feature                     | Specifications  |
|-----------------------------|---|
| Operating systems supported | <ul style="list-style-type: none"> <li>Windows 10 Home (64 bit)</li> <li>Windows 10 Pro (64 bit)</li> <li>Ubuntu</li> </ul> |

# Battery

**Table 18. Battery specifications**

|  |   |
|--|---|
| Type   | <ul style="list-style-type: none"> <li>• Polymer 3-cell 42 WHr</li> <li>• Polymer 4-cell 60 WHr</li> <li>• Polymer 4-cell 60 WHr (LCL)</li> </ul>   |
| Dimension  | <p>Polymer 3-cell 42 WHr</p> <ul style="list-style-type: none"> <li>• Width: 95.9 mm (3.78 in)</li> <li>• Length: 200.5 mm (7.89 in)</li> <li>• Height: 5.7 mm (0.22 in)</li> </ul> <p>Polymer 4-cell 60 WHr and LCL</p> <ul style="list-style-type: none"> <li>• Width: 95.9 mm (3.78 in)</li> <li>• Length: 238 mm (9.37 in)</li> <li>• Height: 5.7 mm (0.22 in)</li> </ul> |
| Weight (maximum)                                     | <ul style="list-style-type: none"> <li>• Polymer 3-cell 42 WHr: 192.5 g (0.42 lb)</li> <li>• Polymer 4-cell and LCL: 270 g (0.60 lb)</li> </ul>   |
| Voltage  | 11.4 VDC  |
| Life span  | <ul style="list-style-type: none"> <li>• Polymer 3-cell 42 WHr and 4-cell 60 WHr (Standard Pack): 300 discharge / charge cycles</li> <li>• Polymer 4-cell 60 WHr (LCL): 1000 discharge / charge cycles</li> </ul>   |
| Charging time when the computer is off (approximate) | <ul style="list-style-type: none"> <li>• Standard Charge: 0°C to 50°C : 4 hours</li> <li>• Express Charge<sup>†</sup>:               <ul style="list-style-type: none"> <li>– 0°C to 15°C : 4 hours</li> <li>– 16°C to 45°C : 2 hours</li> <li>– 46°C to 50°C : 3 hours</li> </ul> </li> </ul>  |
| Operating time                                       | Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions  |
| Temperature range: Operating                         | <ul style="list-style-type: none"> <li>• Charging: 0°C to 50°C (32°F to 122°F)</li> <li>• Discharging : 0°C to 70°C (32°F to 158°F)</li> </ul>  |
| Temperature range: Storage                           | -20°C to 60°C (-4°F to 140°F)   |
| Coin-cell battery                                    | CR 2032   |

**NOTE:** <sup>†</sup>For batteries with the ExpressCharge feature, the battery will typically have at least an 80% charge after about an hour of charging with the system off, and fully charged in about 2 hours with the system off.

Enabling ExpressCharge requires that both the computer and the battery used be ExpressCharge capable. If these requirements are not met, ExpressCharge will not be enabled.

# Power adapter

Table 19. Power adapter specifications

| Feature                           | Specifications  |
|-----------------------------------|---|
| Type                              | <ul style="list-style-type: none"><li>• E5 65 W 7.4 mm Barrel Adapter</li><li>• E5 65 W BFR/PVC Halogen Free adapter, 7.4 mm barrel</li><li>• E5 65 W Rugged Adapter 7.4 mm barrel (India only)</li><li>• E5 90 W 7.4 mm Barrel Adapter</li><li>• 65 W adapter, Type-C</li><li>• 90 W adapter, Type-C</li></ul> |
| Input Voltage                     | 100 VAC - 240 VAC   |
| Input current (maximum)           | <ul style="list-style-type: none"><li>• 1.7 A for 65 W</li><li>• 2.5 A for 90 W</li></ul>   |
| Input frequency                   | 50 Hz to 60 Hz  |
| Output current                    | <ul style="list-style-type: none"><li>• 3.34 A for 65 W</li><li>• 4.62 A for 90 W</li></ul>   |
| Rated output voltage              | 19.5 VDC  |
| Temperature range (Operating)     | 0°C to 40° C (32°F to 104°F)  |
| Temperature range (Non-Operating) | 40°C to 70°C (-40°F to 158°F)   |

## Dimensions and weight

Table 20. Dimensions and weight

| Feature | Specifications               |                             |
|---------|------------------------------|-----------------------------|
|         | Aluminum (Al)                | Carbon fibre (CF)           |
| Height  | Front - 16.57 mm (0.65 inch) | Front - 17.42 mm(0.69 inch) |
|         | Rear- 17.52 mm(0.70 inch)    | Rear- 18.45 mm(0.73 inch)   |
| Width   | 306.5 mm (12.07 inch)        |                             |
| Depth   | 206.95 mm (8.15 inch)        |                             |
| Weight  | 1.3 Kg (2.88 lb)             | 1.24 Kg (2.75 lb)           |

## Computer environment

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

**Table 21. Computer environment**

|                             | Operating  | Storage   |
|-----------------------------|--|---|
| Temperature range           | 0°C to 40°C (32°F to 104°F)  | -40°C to 65°C (-40°F to 149°F)  |
| Relative humidity (maximum) | 10% to 90% (non-condensing)<br><div> <i>i</i> <b>NOTE: Maximum dew point temperature = 26°C</b> </div> | 0% to 95% (non-condensing)<br><div> <i>i</i> <b>NOTE: Maximum dew point temperature = 33°C</b> </div> |
| Vibration (maximum)         | 0.66 GRMS  | 1.30 GRMS   |
| Shock (maximum)             | 140 G †  | 160 G ‡   |
| Altitude (maximum)          | 0 m to 3048 m (0 ft to 10,000 ft)  | 0 m to 10,668 m (0 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.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.