

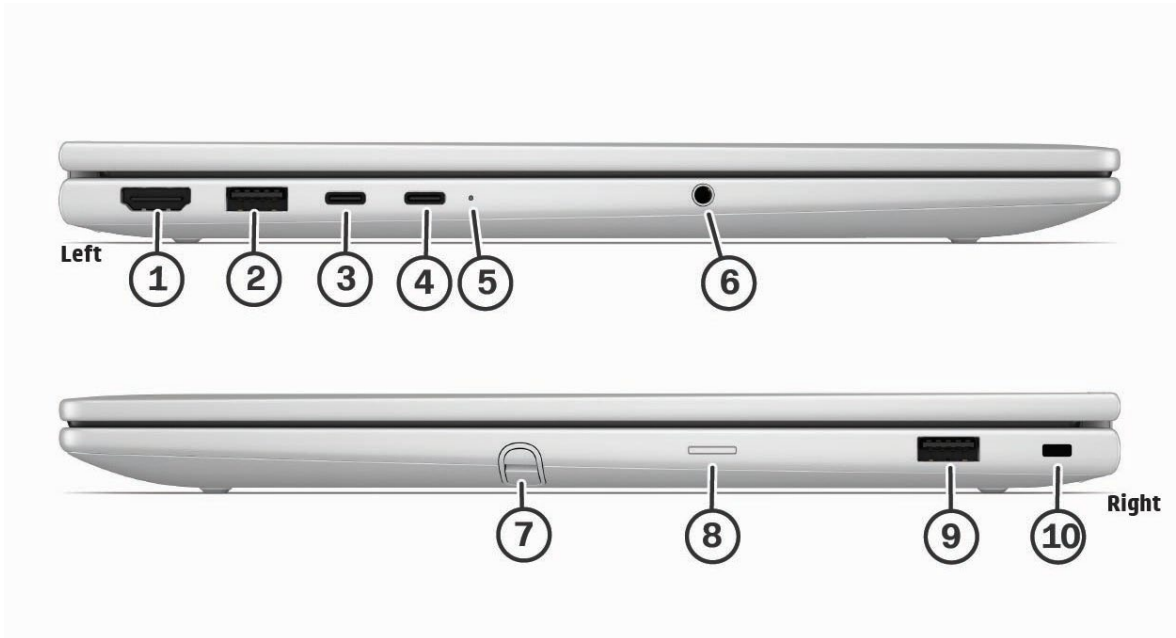
HP ProBook 4 Flip G2i 13 inch Notebook AI PC



Front

- |   |                         |   |                                          |
|---|-------------------------|---|------------------------------------------|
| 1 | Internal Microphone (2) | 4 | Webcam LED                               |
| 2 | Webcam                  | 5 | Finger Print Reader (Optional)           |
| 3 | Camera Shutter          | 6 | Touchpad                                 |
|   |                         | 7 | World Facing Secondary Camera (Optional) |





Sides

- |   |                                                                           |    |                                           |
|---|---------------------------------------------------------------------------|----|-------------------------------------------|
| 1 | HDMI 2.1                                                                  | 7  | HP Nested Pen (optional)                  |
| 2 | USB Type-A 5Gbps signaling rate (Powered)                                 | 8  | Nano SIM card slot (optional)             |
| 3 | USB Type-C® 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1)¹ | 9  | USB Type-A 5Gbps signaling rate (Powered) |
| 4 | USB Type-C® 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1)¹ | 10 | Nano Security Slot                        |
| 5 | Power Indicator LED                                                       |    |                                           |
| 6 | Headphone/mic combo jack                                                  |    |                                           |

1. USB 20Gbps signaling rate is not available with Thunderbolt™ 4. Actual throughput may vary.

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### PRODUCT NAME

HP ProBook 4 Flip G2i 13 inch Notebook AI PC

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### OPERATING SYSTEM

#### Preinstalled

FreeDOS

Windows 11 Home - HP recommends Windows 11 Pro for business <sup>1</sup>

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business <sup>1</sup>

Windows 11 Pro <sup>1</sup>

Windows 11 Pro (Windows 11 Enterprise available with a Volume Licensing Agreement) <sup>1</sup>

Windows 11 Pro Education <sup>1</sup>

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows is automatically updated and enabled. High speed internet and Microsoft account required. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>

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## PROCESSORS

| Processor <sup>2,3,4</sup>   | Cores   | Number of P-cores | Number of LP E-cores | Threads | Smart Cache | Max Turbo Frequency |            | Intel SIPP/ vPro® Enterprise | NPU     |
|------------------------------|---------|-------------------|----------------------|---------|-------------|---------------------|------------|------------------------------|---------|
|                              |         |                   |                      |         |             | P-cores             | LP E-cores |                              |         |
| Intel® Core™ 7 Processor 360 | 6 cores | 2                 | 4                    | 6       | 6 MB        | 4.8 GHz             | 3.6 GHz    | SIPP only                    | 17 TOPS |
| Intel® Core™ 7 Processor 350 | 6 cores | 2                 | 4                    | 6       | 6 MB        | 4.8 GHz             | 3.6 GHz    |                              | 17 TOPS |
| Intel® Core™ 5 Processor 330 | 6 cores | 2                 | 4                    | 6       | 6 MB        | 4.6 GHz             | 3.4 GHz    | SIPP only                    | 16 TOPS |
| Intel® Core™ 5 Processor 320 | 6 cores | 2                 | 4                    | 6       | 6 MB        | 4.6 GHz             | 3.4 GHz    |                              | 16 TOPS |
| Intel® Core™ 5 Processor 315 | 6 cores | 2                 | 4                    | 6       | 6 MB        | 4.4 GHz             | 3.3 GHz    |                              | 15 TOPS |
| Intel® Core™ 3 Processor 304 | 5 cores | 1                 | 4                    | 5       | 6 MB        | 4.3 GHz             | 3.3 GHz    |                              | 15 TOPS |

**Processor Family**

Intel® Core 7 processor

Intel® Core 5 processor

Intel® Core 3 processor

2. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel® numbering, branding, naming are not a measurement of clock speed.

3. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration.

4. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on

<http://www.support.hp.com>



### GRAPHICS

#### Integrated

Intel® Graphics

#### Supported protocols

Support HDMI 2.1 (up to 4K 60Hz)

Display supported (including internal display; dock may be required) up to 3

#### Codec

Hardware Acceleration HEVC (H.265) CODEC is an optional feature and must be configured at purchase.

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DISPLAY

Availability may vary by country.  
Actual brightness will be lower with touchscreen or HP Sure View.

Touch

33.8 cm (13.3") diagonal, WUXGA (1920 x 1200), LCD, Direct Bonding Touch Screen, UWVA, Anti-Glare, Gorilla Glass 5, WLED+Low Blue Light, 400 nits, Low Power, sRGB 100%

33.8 cm (13.3") diagonal, WUXGA (1920 x 1200), LCD, Direct Bonding Touch Screen, UWVA, Anti-Reflection, Gorilla Glass 3, WLED+Low Blue Light, 400 nits, Low Power, sRGB 100%

33.8 cm (13.3") diagonal, WUXGA (1920 x 1200), LCD, Direct Bonding Touch Screen, UWVA, Anti-Reflection, Gorilla Glass 3, WLED, 300 nits, sRGB 62.5%

Display Size (Diagonal)

33.8 cm (13.3")

Aspect Ratio

16:10

Screen to Body Ratio

Up to 85.00%

Max Hinge Open Angle

360°



### DOCKING (SOLD SEPARATELY)

#### Docking station model name

HP Thunderbolt™ 100W G6 Dock

#### Total number of supported displays (incl.the notebook)

4

#### Max. resolutions supported

(4) 4K @ 60Hz\*

(2) 4K @ 120Hz\*

(3) QHD @ 120Hz\*

(1) QHD @ 360Hz\*

#### Dock Connectors

1 x HDMI 2.1, 2 x DisplayPort 1.4, 1 x Thunderbolt 4

#### Technical limitations

\*Requires DisplayPort 1.4 support with Display Stream Compression (DSC).

Bluetooth required for HP Quick Connect. HP Quick Connect available on select HP notebooks.

Maximum resolution and display support is dependent on the maximum capability of the notebook.

#### Thunderbolt Hosts:

Maximum of (4) displays with maximum resolution of 5K@ 30Hz running Thunderbolt host.

Maximum resolution possible is dual 8K displays @ 60Hz running Thunderbolt host or running a non-Thunderbolt host in high resolution mode @30Hz

#### Non-Thunderbolt hosts:

The highest resolution for dual displays running a non-Thunderbolt host in multi-function mode is

(1) 5K dual cable (using both DP ports) +(1) 4K on USB-C DP port

Non-Thunderbolt hosts support (3) displays with a maximum resolution of (2) 5K single cable + (1) 4K UHD @ 60 Hz in high resolution mode. In multi-function mode the maximum resolution for (3) displays is (2) 5K single cable @ 30Hz + (1) 4K UHD @ 30Hz.



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**Docking station model name**

HP USB-C™ 100W G6 Dock

**Total number of supported displays (incl.the notebook)**

3

**Max. resolutions supported**

- (1) 4K @ 120hz\*
- (2) 4K @ 120hz\*
- (3) 4K @ 60hz\*

**Dock Connectors**

1 x HDMI 2.1, 2 x DisplayPort 1.4

**Technical limitations**

\*Requires DisplayPort 1.4 support with Display Stream Compression (DSC).

Bluetooth required for HP Quick Connect. HP Quick Connect available on select HP notebooks.

Maximum resolution and display support is dependent on the maximum capability of the notebook.

Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution mode.

Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K UHD@ 30 Hz on HDMI in Multi-function mode

The highest resolution for a non-Thunderbolt host in Multi-function mode is a single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.

**Docking station model name**

HP Thunderbolt™ 180W G6 Dock

**Total number of supported displays (incl.the notebook)**

4

**Max. resolutions supported**

- (4) 4K @ 60Hz\*
- (2) 4K @ 120Hz\*



(3) QHD @ 120Hz\*

(1) QHD @ 360Hz\*

### Dock Connectors

1 x HDMI 2.1, 2 x DisplayPort 1.4, 1 x Thunderbolt 4, 1 x USB-C 3.2 Gen 2 DisplayPort

### Technical limitations

\*Requires DisplayPort 1.4 support with Display Stream Compression (DSC).

Up to 180W of power delivery via Thunderbolt 4 cable to notebooks that support PD 3.1.

Bluetooth required for HP Quick Connect. HP Quick Connect available on select HP notebooks.

Maximum resolution and display support is dependent on the maximum capability of the notebook.

Thunderbolt Hosts:

Maximum of (4) displays with maximum resolution of 5K@ 30Hz running Thunderbolt host.

Maximum resolution possible is (2) 8K @ 60Hz running TBT host or running a non-TBT host in high resolution mode @30Hz

### Docking station model name

HP Thunderbolt™ 280W G6 Dock

### Total number of supported displays (incl.the notebook)

4

### Max. resolutions supported

(4) 4K @ 60Hz\*

(2) 4K @ 120Hz\*

(3) QHD @ 120Hz\*

(1) QHD @ 360Hz\*

### Dock Connectors

1 x HDMI 2.1, 2 x DisplayPort 1.4, 1 x Thunderbolt 4, 1 x USB-C 3.2 Gen 2 DisplayPort



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### Technical limitations

\*Requires DisplayPort 1.4 support with Display Stream Compression (DSC).

Up to 180W of power delivery via Thunderbolt 4 cable to notebooks that support PD 3.1.

Bluetooth required for HP Quick Connect. HP Quick Connect available on select HP notebooks.

Maximum resolution and display support is dependent on the maximum capability of the notebook.

Thunderbolt Hosts:

Maximum of (4) displays with maximum resolution of 5K@ 30Hz running Thunderbolt host.

Maximum resolution possible is (2) 8K @ 60Hz running TBT host or running a non-TBT host in high resolution mode @30Hz

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### STORAGE AND DRIVES

#### Storage

1 TB PCIe® NVMe™ SSD Value <sup>5</sup>

512 GB PCIe® NVMe™ SSD Value <sup>5</sup>

256 GB PCIe® NVMe™ SSD Value <sup>5</sup>

128 GB UFS <sup>6</sup>

256 GB UFS <sup>6</sup>

5. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 32 GB is reserved for system recovery software.

6. 128/256 GB refers to nominal storage capacity. Actual formatted capacity is less. A portion of storage is reserved for system software and other functions. Storage performance may vary by configuration and usage.



MEMORY

Only one memory type option can be selected in a single unit.

HP branded SODIMM memory is recommended to ensure compatibility. If two SODIMM memory modules with different speeds are installed, the system will perform at the lower memory speed.

| Option                          | Option 1                                                                                                                                                                                                                                                       | Option 2                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Memory slots                    | One SODIMM slot                                                                                                                                                                                                                                                | Onboard memory, no memory slots                                             |
| Memory type                     | DDR5                                                                                                                                                                                                                                                           | LPDDR5x                                                                     |
| Maximum supported memory        | 32GB DDR5-5600 MT/s                                                                                                                                                                                                                                            | 16GB LPDDR5x-8533 MT/s                                                      |
| Available memory configurations | 8 GB (1 x 8 GB) DDR5-5600 MT/s, single-channel<br>12 GB (1 x 12 GB) DDR5-5600 MT/s, single-channel<br>16 GB (1 x 16 GB) DDR5-5600 MT/s, single-channel<br>24 GB (1 x 24 GB) DDR5-5600 MT/s, single-channel<br>32 GB (1 x 32 GB) DDR5-5600 MT/s, single-channel | 16 GB LPDDR5x 8533 MT/s, single-channel                                     |
| Notes                           | System runs at 5600 MT/s.<br>Memory is replaceable by customer or customer IT support.                                                                                                                                                                         | System runs at 6800 MT/s<br>The memory is non-accessible / non-upgradeable. |

**NETWORKING / COMMUNICATIONS**

Items below may be optional.

**WLAN**

Intel® AX211 Wi-Fi 6E Bluetooth® 5.3 WW WLAN <sup>7,8</sup>

Intel® BE211 Wi-Fi 7 Bluetooth® 6.0 non-vPro® WW WLAN <sup>9</sup>

**WWAN**

MediaTek T700 5G NR WWAN <sup>10</sup>

MediaTek T700 5G NR with HP Go WWAN <sup>10</sup>

**LPWAN**

HP RW220-GL LTE (Low Power) (CAT-1bis) <sup>11</sup>

**Miracast**

Native Miracast Support <sup>12</sup>

7. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited.

Wi-Fi 6E is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 6E is supported.

8. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router.

Requires a wireless router, sold separately, that supports 80MHz and higher channels.

9. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows OS, select processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.

10. 5G module is optional and must be configured at the factory. Module designed for 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.

11. LPWAN (also called Mobile Narrowband) supports HP Protect & Trace with Wolf Connect service through the subscription term,



but does not support mobile broadband use.

12. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.

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### AUDIO/MULTIMEDIA

#### Audio

Audio by Poly Studio

2 Integrated stereo speakers

2 Integrated dual array microphone

Enhanced by AI noise reduction.

#### Speaker Power

2W / 4 ohm per speaker

#### Camera

FHD HDR camera ; 5MP HDR camera with Image Signal Processing (ISP) and AI Presence Detection, IR camera

5MP HDR Camera (World Facing secondary camera) (Optional)

#### Sensors

Accelerometer

Fingerprint Sensor (optional)

HP Sure Platform

HP Tamper Lock

Inertial Measurement Unit Sensor

Thermal Sensor

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### KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

#### Keyboard

HP Standard Keyboard, spill-resistant, Backlit, Durakey keyboard

HP Standard Keyboard, spill-resistant, Durakey keyboard

#### Pointing Device

Microsoft Precision Touchpad Default Gestures Support

Multi-touch gesture support

Taps enabled as default

#### Function Keys

ESC - System Information

F1 - Display Switching

F2 - Blank

F3 - Brightness Down

F4 - Brightness up

F5 - Keyboard Backlight

F6 - Audio Mute

F7 - Volume Down

F8 - Volume Up

F9 - Mic Mute

F10 - Media

F11 - Programmable Key

F12 - Home

End

Insert

Delete

Power Button (with LED)

Microsoft Copilot<sup>13</sup>



### Hidden Function Keys

Fn+R=Break, Fn+S=Sys Rq, Fn+C=Scroll Lock, Fn+E=Insert, Fn+W= Pause

13. Copilot+ in Windows requires Windows 11. Some features require an NPU. Timing of feature delivery and availability varies by market and device. Requires Microsoft account to log in. Where Microsoft in Windows is not available, the Copilot key will lead to the Bing search engine. See [aka.ms/copilotpluspcs](https://aka.ms/copilotpluspcs).

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### DIGITAL PEN

HP Nested Pen (Select models)

#### Functions

Pen Loss Alert

One Step Inking

Pen Application Aware

Power Savings with Idle Pen

Pen Loss Adjustable Timer

Pen as a Magnifier

Gestures with Pen (onscreen)

#### Charging time

30 seconds

#### Usage time

Up to 120 minutes

#### Dimensions

Pen diameter: 6.50 mm (0.26 in)

Pen length: 136.95 mm (5.39 in)

#### Weight

7.000 g (0.015 lbs)

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### SOFTWARE AND SECURITY

#### Application Software

Buy Microsoft Office (Sold Separately) <sup>14</sup>

Edge Customization

HP Connection Optimizer

HP Hotkey Support

HP IQ <sup>15</sup>

HP Notifications

HP PC Hardware Diagnostics UEFI

HP PC Hardware Diagnostics Windows

HP Privacy Settings

HP Services Scan <sup>16</sup>

HP Support Assistant <sup>17</sup>

HSA Fusion for Commercial

HSA Telemetry for Commercial

HP app <sup>18</sup>

Poly Studio Desktop <sup>19</sup>

#### Manageability Features

HP Client Catalog (download) <sup>20</sup>

HP Client Management Script Library (download) <sup>21</sup>

HP Cloud Recovery <sup>22</sup>

HP Connect for Microsoft Endpoint Manager <sup>23</sup>

HP Driver Packs (download) <sup>24</sup>

HP Image Assistant (download) <sup>25</sup>

HP Manageability Integration Kit (download) <sup>26</sup>

HP Patch Assistant (download) <sup>27</sup>

HP Power Manager with Battery Health Manager (download) <sup>28</sup>

#### Security Features

Secured-Core PC Enable <sup>29</sup>

Windows Hello Enhanced Sign-In Security (ESS)



HP Wolf Security for Business which includes: <sup>30</sup>

HP Sure Admin <sup>31</sup>

HP Sure Click <sup>32</sup>

HP Sure Recover <sup>33</sup>

HP Sure Run <sup>34</sup>

HP Sure Sense <sup>35</sup>

HP Sure Start <sup>36</sup>

HP Tamper Lock <sup>37</sup>

### Security- TPM

#### Model

Model: Nuvoton NPCT760HAEYX

#### Firmware Version

Firmware Version: 7.2.4.1

#### TCG

TCG TPM 2.0

### FIPS 140-3 Compliant

FIPS 140-3 Compliant: Yes

#### Model

Model: STMicro ST33KTPM2X32DKG9

#### Firmware Version

Firmware Version: 9.257

#### TCG

TCG TPM 2.0



### FIPS 140-3 Compliant

FIPS 140-3 Compliant: Yes

### BIOS

Absolute Persistence Module <sup>38</sup>

HP BIOS Recovery

BIOS Update via Network

HP BIOSphere <sup>39</sup>

HP DriveLock & Automatic DriveLock

HP Secure Erase <sup>40</sup>

### IPv6 Support

Yes

### FirstNet Certified

Yes

### Does the BIOS implement the ISO/IEC 19678:2015 (formerly NIST 800-147) guidelines?

Yes

### UEFI version

2.9

### Class

3

14. Buy Microsoft Office (Sold Separately)

15. HP IQ delivery app is preloaded on select HP PCs; it will be automatically updated to the future featured HP IQ application with automatic updates enabled in the Microsoft Store app on your PC. The future featured HP IQ app uses artificial intelligence. Features vary by configuration. For complete details see [https://support.hp.com/us-en/document/ish\\_13696672-13696717-16](https://support.hp.com/us-en/document/ish_13696672-13696717-16)

16. HP Services Scan automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it



can be downloaded. For more information about how to enable HP Smart Support or for download, please visit

<http://www.hp.com/smart-support>.

17. HP Support Assistant is available on Windows. For more information, please visit [www.support.hp.com/help/hp-support-assistant](http://www.support.hp.com/help/hp-support-assistant).

18. HP app with Multicamera support for Mini Desktop PC will only be available on 13th processor and beyond.

19. Poly Studio Desktop requires a Windows OS.

20. HP Client Catalog not preinstalled, however available for download at (<https://www.hp.com/us-en/solutions/client-management-solutions.html>).

21. HP Client Management Script Library (<https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>).

22. HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail, please refer to: <https://support.hp.com/us-en/document/c05115630>.

23. HP Connect for Microsoft Endpoint Manager is available from the Azure Market Place for HP Pro, Elite, Z and Point-of-Sale PCs managed with Microsoft Endpoint Manager. Subscription to Microsoft Endpoint Manager required and sold separately. Network connection required.

24. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

25. HP Image Assistant not preinstalled, however available for download at (<https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html>)

26. HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>.

27. HP Patch Assistant available on select HP PCs with the HP Manageability Kit that are managed through Microsoft System Center Configuration Manager. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>.

28. HP Power Manager with Battery Health can be downloaded by entering your system information here: [https://support.hp.com/in-en/document/ish\\_4449597-3519507-16](https://support.hp.com/in-en/document/ish_4449597-3519507-16).

29. Secured-Core PC Enable requires an Intel® vPro®, AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.

30. HP Wolf Security for Business requires Windows 10 or 11 Pro or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features.

31. HP Sure Admin requires HP G8 or newer platforms, Windows 10 or higher, HP BIOS, HP Manageability Kit or KMS Service from <http://www.hp.com/go/clientmanagement> and HP Sure Admin Local Access Authenticator

32. HP Sure Click requires Windows 10 Pro or higher or Enterprise. See [https://bit.ly/2PrLT6A\\_SureClick](https://bit.ly/2PrLT6A_SureClick) for complete details.

33. HP Sure Recover is available on select HP PCs and requires Windows 10 or 11 and an open network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data. HP Sure Recover Gen6 with Embedded Reimaging is an optional feature on select HP PCs which requires Windows 10 or 11 must be configured at purchase. You must back



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up important files, data, photos, videos, etc. before use to avoid loss of data.

34. HP Sure Run is available on select HP PCs and requires Windows 10 and higher.

35. HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.

36. HP Sure Start is available on select HP PCs and requires Windows 10 and higher

37. HP Tamper Lock can be Enabled/disabled by customers or IT administrator with administrator authority.

38. Absolute Persistence firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit:

<https://www.absolute.com/about/legal/agreements/absolute/>.

39. HP BIOSphere features may vary depending on the platform and configuration.

40. HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special.

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### POWER

Power supply availability may vary by country.

Battery is internal and replaceable by customer.

Higher wattage adapter is recommended for best performance and fastest charging.

Using lower-capacity third-party USB Type-C® power cables may reduce power delivery.

#### Power Supply

HP 65W Wall Mount USB Type-C® GaN Halogen Free AC power adapter

HP 65W Standard USB Type-C® GaN AC power adapter

HP 45W Standard USB Type-C® GaN AC power adapter

#### Battery

HP Long Life 3 cell, 56Wh Polymer

HP Long Life 3 cell, 48Wh Polymer

Compliant with UL 1642/2054 Standard

#### Battery Recharge Time

Supports battery HP Fast Charge: approximately 50% in 30 minutes <sup>41</sup>

#### Power Cord

3-wired plug- 1.0m for standard type adapter

USB Type-C® Power Cable- 2.0m for wall mount adapter

#### Battery life

TBD <sup>42</sup>

41. Recharges your battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter minimum of 65 watts required for battery capacities 56Whr or less. Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr. Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

42. MobileMark 30 battery life will vary depending on various factors including product model, configuration, loaded applications,



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features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See [www.bapco.com](http://www.bapco.com) for additional details.

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### WEIGHT & DIMENSIONS

Weight will vary by configuration. Does not include power adapter.

Front height measurement is near the front edge where the mechanical chassis taper begins. Back height measurement is near the rear edge where the mechanical chassis taper ends.

#### Product Weight

Starting at 1.380 kg (3.04 lb) with 56 Wh battery

#### Product Dimensions (w x d x h)<sup>43</sup>

Width: 302.70 mm (11.92 in)

Depth: 216.99 mm (8.54 in)

Height Front: 10.50 mm (0.41 in) - 11.50 mm (0.45 in)

Height Rear: 16.50 mm (0.65 in) - 17.50 mm (0.69 in)

Maximum height: 19.40 mm (0.76 in) - 20.40 mm (0.80 in)

#### Pallet Dimensions (w x d x h)

Product packaging size varies based on options chosen. Please contact your HP representative for your packaging size details. For detailed packaging information, access the [HP Commercial Notebooks Packaging Guide](#).

43. Typical dimension. Actual dimension may vary +/- 0.5mm. Height may vary based on configuration. Maximum Height does not include Rubber feet.

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### PORTS/SLOTS

#### Left side

- 1 x USB Type-A 5Gbps signaling rate (Powered)
- 2 x USB Type-C® 20Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) <sup>44</sup>
- 1 x HDMI 2.1 (Resolution up to 4K/60Hz, bandwidth 6Gbps TMDS mode)
- 1 x headphone/mic combo jack

#### Right side

- 1 x USB Type-A 5Gbps signaling rate (Powered)
- 1 x Nano SIM card slot (optional)
- 1 x Nano Security slot

<sup>44</sup>. USB 20Gbps signaling rate is not available with Thunderbolt™ 4. Actual throughput may vary.

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### SERVICE AND SUPPORT <sup>45</sup>

1-year warranty and 90 day software limited warranty options depending on country. HP Worldwide Limited Warranty for the battery is aligned with the warranty period of the HP Hardware Product. Refer to <http://www.hp.com/support/batterywarranty/> for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: <http://www.hp.com/go/cpc>

45. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit <http://www.hp.com/go/cpc>. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

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### SYSTEM UNIT

#### Stand - Alone Power Requirements

##### (AC Power)

|                           |            |
|---------------------------|------------|
| Nominal Operating Voltage | 20.0 V     |
| Max Operating Power       | UMA < 65 W |

##### Temperature

|                 |                                                                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------|
| Operating       | 0° to 35° C (32° to 95° F) No sustained direct exposure to sunlight, System performance may be reduced above 32°C (89.6°F)    |
| Non - operating | -20° to 60° C (-4° to 140° F) No sustained direct exposure to sunlight, System performance may be reduced above 32°C (89.6°F) |

##### Relative Humidity

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Operating       | 10% to 90% (non-condensing)                                |
| Non - operating | 5% to 95%, 38.7° C (101.6° F) maximum wet bulb temperature |

##### Shock

|                 |                        |
|-----------------|------------------------|
| Operating       | 40 G, 2 ms, half-sine  |
| Non - operating | 240 G, 2 ms, half-sine |

##### Random Vibration

|                 |            |
|-----------------|------------|
| Operating       | 1.043 grms |
| Non - operating | 3.500 grms |

##### Altitude (unpressurized)

|                 |                      |
|-----------------|----------------------|
| Operating       | 3,048 m (10,000 ft)  |
| Non - operating | 12,192 m (40,000 ft) |

#### Industry Standard Certifications

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Regulatory Model Number | HSN-Q38C-3                                               |
| CSA/UL 62368-1          | Yes                                                      |
| ENERGY STAR® 1          | Yes                                                      |
| FCC/ICES/CISPR/VCCI     | Yes                                                      |
| CE MARKING              | Yes                                                      |
| GS Mark                 | Yes.                                                     |
|                         | Related commodity should comply with ISO 9241 Standards. |
| China CCC/SRRC/CEL      | Yes                                                      |
| Taiwan BSMI/NCC         | Yes                                                      |
| Korea KCC/KC/KES        | Yes                                                      |



|                                                   |                                                                                                      |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Ukraine NSoC/TEC                                  | Yes                                                                                                  |
| EAEU Compliance                                   | Yes                                                                                                  |
| Saudi Arabian Compliance                          | Yes                                                                                                  |
| TCO                                               | Yes                                                                                                  |
| EPEAT Gold <sup>2</sup>                           | Yes                                                                                                  |
| Low Blue Light                                    | Yes                                                                                                  |
| WW RoHS                                           | Yes                                                                                                  |
| CECP                                              | No                                                                                                   |
|                                                   | This is related to government bids, and the review is usually handled by HP China closer to the RTP. |
|                                                   | They will confirm whether the application is required at that time.                                  |
| Medical EMC: IEC 60601-1-2:2014 EN60601-1-2: 2015 | Yes                                                                                                  |
| SEPA                                              | No                                                                                                   |
|                                                   | This is related to government bids, and the review is usually handled by HP China closer to the RTP. |
|                                                   | They will confirm whether the application is required at that time.                                  |
| MIL - STD Testing <sup>3</sup>                    | MIL-STD 810H                                                                                         |

1. Configurations that are ENERGY STAR® qualified are identified as ENERGY STAR on HP websites and on <http://www.energystar.gov>

2. Based on US registration according to EPEAT criteria and EPEAT Climate+, status and tier level varies by country. Visit <http://www.epeat.net> for more information.

3. MIL STD testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

### DISPLAYS

Actual brightness will be lower with touchscreen or HP Sure View.  
Availability may vary by country

|                                                                                                                                                                                     |                                  |                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------|
| <b>33.8 cm (13.3") diagonal, WUXGA (1920 x 1200), LCD, Direct Bonding Touch Screen, UWVA, Anti-Reflection, Gorilla Glass 3, WLED+Low Blue Light, 400 nits, Low Power, sRGB 100%</b> | <b>Active Area</b>               | 286.040 x 178.780 mm (typ)                             |
|                                                                                                                                                                                     | <b>Dimensions (W x H)</b>        | 295.900 x 204.890 mm (max)                             |
|                                                                                                                                                                                     | <b>Weight</b>                    | 280 g (max)                                            |
|                                                                                                                                                                                     | <b>Diagonal Size</b>             | 13.3 inch                                              |
|                                                                                                                                                                                     | <b>Surface Treatment</b>         | Bright View                                            |
|                                                                                                                                                                                     | <b>Touch Enabled</b>             | Yes                                                    |
|                                                                                                                                                                                     | <b>Contrast Ratio</b>            | 1500:1 (typ)                                           |
|                                                                                                                                                                                     | <b>Refresh Rate</b>              | 60 (typ)                                               |
|                                                                                                                                                                                     | <b>Brightness</b>                | 400 nits (typ)                                         |
|                                                                                                                                                                                     | <b>Pixel Resolution</b>          | RGB                                                    |
|                                                                                                                                                                                     | <b>Pixel Resolution - Format</b> | 1920x1200 (WUXGA)                                      |
|                                                                                                                                                                                     | <b>Aspect Ratio</b>              | 16:10                                                  |
|                                                                                                                                                                                     | <b>Backlight</b>                 | WLED                                                   |
|                                                                                                                                                                                     | <b>Color Gamut Coverage</b>      | sRGB 100%                                              |
|                                                                                                                                                                                     | <b>Color Depth</b>               | 8                                                      |
|                                                                                                                                                                                     | <b>Viewing Angle</b>             | UWVA 89/89/89/89                                       |
|                                                                                                                                                                                     | <b>Low Blue Light</b>            | Yes                                                    |
|                                                                                                                                                                                     | <b>Power Consumption</b>         | EBL@150nits: 1.21 W (Max)<br>EBL@200nits: 1.45 W (Max) |

|                                                                                                                                                                                |                           |                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------|
| <b>33.8 cm (13.3") diagonal, WUXGA (1920 x 1200), LCD, Direct Bonding Touch Screen, UWVA, Anti-Glare, Gorilla Glass 5, WLED+Low Blue Light, 400 nits, Low Power, sRGB 100%</b> | <b>Active Area</b>        | 286.040 x 178.780 mm (typ) |
|                                                                                                                                                                                | <b>Dimensions (W x H)</b> | 295.900 x 204.890 mm (max) |
|                                                                                                                                                                                | <b>Weight</b>             | 185 g (max)                |
|                                                                                                                                                                                | <b>Diagonal Size</b>      | 13.3 inch                  |
|                                                                                                                                                                                | <b>Surface Treatment</b>  | Anti-Glare                 |
|                                                                                                                                                                                | <b>Touch Enabled</b>      | Yes                        |
|                                                                                                                                                                                | <b>Contrast Ratio</b>     | 1200:1 (typ)               |
|                                                                                                                                                                                | <b>Refresh Rate</b>       | 60 (typ)                   |
|                                                                                                                                                                                | <b>Brightness</b>         | 400 nits (typ)             |

|                                                                                                                                                                                 |                                  |                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------|
|                                                                                                                                                                                 | <b>Pixel Resolution</b>          | RGB                                                    |
|                                                                                                                                                                                 | <b>Pixel Resolution - Format</b> | 1920x1200 (WUXGA)                                      |
|                                                                                                                                                                                 | <b>Aspect Ratio</b>              | 16:10                                                  |
|                                                                                                                                                                                 | <b>Backlight</b>                 | WLED+Low Blue Light                                    |
|                                                                                                                                                                                 | <b>Color Gamut Coverage</b>      | sRGB 100%                                              |
|                                                                                                                                                                                 | <b>Color Depth</b>               | 8                                                      |
|                                                                                                                                                                                 | <b>Viewing Angle</b>             | UWVA 89/89/89/89                                       |
|                                                                                                                                                                                 | <b>Low Blue Light</b>            | Yes                                                    |
|                                                                                                                                                                                 | <b>Power Consumption</b>         | EBL@150nits: 1.21 W (Max)<br>EBL@200nits: 1.45 W (Max) |
| <b>33.8 cm (13.3") diagonal,<br/>WUXGA (1920 x 1200), LCD,<br/>Direct Bonding Touch<br/>Screen, UWVA, Anti-<br/>Reflection, Gorilla Glass 3,<br/>WLED, 300 nits, sRGB 62.5%</b> | <b>Active Area</b>               | 286.040 x 178.780 mm (typ)                             |
|                                                                                                                                                                                 | <b>Dimensions (W x H)</b>        | 295.900 x 205.529 mm (max)                             |
|                                                                                                                                                                                 | <b>Weight</b>                    | 280 g (max)                                            |
|                                                                                                                                                                                 | <b>Diagonal Size</b>             | 13.3 inch                                              |
|                                                                                                                                                                                 | <b>Surface Treatment</b>         | Bright View                                            |
|                                                                                                                                                                                 | <b>Touch Enabled</b>             | Yes                                                    |
|                                                                                                                                                                                 | <b>Contrast Ratio</b>            | 1000:1 (typ)                                           |
|                                                                                                                                                                                 | <b>Refresh Rate</b>              | 60 (typ)                                               |
|                                                                                                                                                                                 | <b>Brightness</b>                | 300 nits (typ)                                         |
|                                                                                                                                                                                 | <b>Pixel Resolution</b>          | RGB                                                    |
|                                                                                                                                                                                 | <b>Pixel Resolution - Format</b> | 1920x1200 (WUXGA)                                      |
|                                                                                                                                                                                 | <b>Aspect Ratio</b>              | 16:10                                                  |
|                                                                                                                                                                                 | <b>Backlight</b>                 | WLED                                                   |
|                                                                                                                                                                                 | <b>Color Gamut Coverage</b>      | sRGB 62.5%                                             |
|                                                                                                                                                                                 | <b>Color Depth</b>               | 8                                                      |
|                                                                                                                                                                                 | <b>Viewing Angle</b>             | UWVA 89/89/89/89                                       |
|                                                                                                                                                                                 | <b>Low Blue Light</b>            | No                                                     |
|                                                                                                                                                                                 | <b>Power Consumption</b>         | EBL@200nits: 2.80 W (Max)<br>EBL@250nits: 3.40 W (Max) |



|                                                                                                                                                                                 |                                  |                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------|
| <b>33.8 cm (13.3") diagonal,<br/>WUXGA (1920 x 1200), LCD,<br/>Direct Bonding Touch<br/>Screen, UWVA, Anti-<br/>Reflection, Gorilla Glass 3,<br/>WLED, 300 nits, sRGB 62.5%</b> | <b>Active Area</b>               | 286.040 x 178.780 mm (typ)                             |
|                                                                                                                                                                                 | <b>Dimensions (W x H)</b>        | 295.900 x 205.529 mm (max)                             |
|                                                                                                                                                                                 | <b>Weight</b>                    | 280 g (max)                                            |
|                                                                                                                                                                                 | <b>Diagonal Size</b>             | 13.3 inch                                              |
|                                                                                                                                                                                 | <b>Surface Treatment</b>         | Bright View                                            |
|                                                                                                                                                                                 | <b>Touch Enabled</b>             | Yes                                                    |
|                                                                                                                                                                                 | <b>Contrast Ratio</b>            | 1000:1 (typ)                                           |
|                                                                                                                                                                                 | <b>Refresh Rate</b>              | 60 (typ)                                               |
|                                                                                                                                                                                 | <b>Brightness</b>                | 300 nits (typ)                                         |
|                                                                                                                                                                                 | <b>Pixel Resolution</b>          | RGB                                                    |
|                                                                                                                                                                                 | <b>Pixel Resolution - Format</b> | 1920x1200 (WUXGA)                                      |
|                                                                                                                                                                                 | <b>Aspect Ratio</b>              | 16:10                                                  |
|                                                                                                                                                                                 | <b>Backlight</b>                 | WLED                                                   |
|                                                                                                                                                                                 | <b>Color Gamut Coverage</b>      | sRGB 62.5%                                             |
|                                                                                                                                                                                 | <b>Color Depth</b>               | 8                                                      |
|                                                                                                                                                                                 | <b>Viewing Angle</b>             | UWVA 89/89/89/89                                       |
|                                                                                                                                                                                 | <b>Low Blue Light</b>            | No                                                     |
|                                                                                                                                                                                 | <b>Power Consumption</b>         | EBL@200nits: 2.80 W (Max)<br>EBL@250nits: 3.40 W (Max) |



STORAGE

|                                           |                  |                                                                          |
|-------------------------------------------|------------------|--------------------------------------------------------------------------|
| 1TB PCIe® NVMe™ SSD Value <sup>1</sup>    | Form Factor      | M.2 2280                                                                 |
|                                           | Capacity         | 1TB                                                                      |
|                                           | NAND Type        | Value                                                                    |
|                                           | Weight           | 0 ~ 10.0 g (0 ~ 0.02 lb)                                                 |
|                                           | Interface        | PCIe NVMe                                                                |
|                                           | Sequential Read  | 3500 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Sequential Write | 2700 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Logical Blocks   | 2000409264                                                               |
|                                           | Features         | Pyrite 2.0; TRIM; L1.2<br>Not all features are available in all versions |
| 512 GB PCIe® NVMe™ SSD Value <sup>1</sup> | Form Factor      | M.2 2280                                                                 |
|                                           | Capacity         | 512GB                                                                    |
|                                           | NAND Type        | Value                                                                    |
|                                           | Weight           | 0 ~ 10.0 g (0 ~ 0.02 lb)                                                 |
|                                           | Interface        | PCIe NVMe                                                                |
|                                           | Sequential Read  | 3500 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Sequential Write | 1600 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Logical Blocks   | 1000215216                                                               |
|                                           | Features         | Pyrite 2.0; TRIM; L1.2<br>Not all features are available in all versions |
| 256 GB PCIe® NVMe™ SSD Value <sup>1</sup> | Form Factor      | M.2 2280                                                                 |
|                                           | Capacity         | 256GB                                                                    |
|                                           | NAND Type        | Value                                                                    |
|                                           | Weight           | 0 ~ 10.0 g (0 ~ 0.02 lb)                                                 |
|                                           | Interface        | PCIe NVMe                                                                |
|                                           | Sequential Read  | 3100 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Sequential Write | 1200 MB/s ±20% (in PCIe Gen4x4 slot)                                     |
|                                           | Logical Blocks   | 500118192                                                                |
|                                           | Features         | Pyrite 2.0; TRIM; L1.2<br>Not all features are available in all versions |



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1. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 32 GB is reserved for system recovery software.

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NETWORKING / COMMUNICATION

|                                       |                        |                                            |
|---------------------------------------|------------------------|--------------------------------------------|
| Intel® AX211 Wi-Fi 6E                 | Wireless LAN Standards | IEEE 802.11a                               |
| Bluetooth® 5.3 WW WLAN <sup>1,2</sup> |                        | IEEE 802.11ac                              |
|                                       |                        | IEEE 802.11ax                              |
|                                       |                        | IEEE 802.11b                               |
|                                       |                        | IEEE 802.11d                               |
|                                       |                        | IEEE 802.11e                               |
|                                       |                        | IEEE 802.11g                               |
|                                       |                        | IEEE 802.11h                               |
|                                       |                        | IEEE 802.11i                               |
|                                       |                        | IEEE 802.11k                               |
|                                       |                        | IEEE 802.11n                               |
|                                       |                        | IEEE 802.11r                               |
|                                       |                        | IEEE 802.11v                               |
|                                       | Interoperability       | Wi-Fi certified                            |
|                                       | Frequency Band         | 802.11b/g/n/ax                             |
|                                       |                        | 2.402 - 2.482 GHz                          |
|                                       |                        | 802.11a/n/ac/ax                            |
|                                       |                        | 4.9 - 4.95 GHz (Japan)                     |
|                                       |                        | 5.15 - 5.25 GHz                            |
|                                       |                        | 5.25 - 5.35 GHz                            |
|                                       |                        | 5.47 - 5.725 GHz                           |
|                                       |                        | 5.825 - 5.850 GHz                          |
|                                       |                        | 5.955 - 6.415 GHz                          |
|                                       |                        | 6.435 - 6.515 GHz                          |
|                                       |                        | 6.535 - 6.875 GHz                          |
|                                       |                        | 6.895 - 7.115 GHz                          |
|                                       | Data Rates             | 802.11b: 1, 2, 5.5, 11 Mbps                |
|                                       |                        | 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps |
|                                       |                        | 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps |
|                                       |                        | 802.11n: max 300Mbps                       |
|                                       |                        | 802.11ac: 1733Mbps                         |
|                                       |                        | 802.11ax: max 2.4Gbps                      |

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Modulation</b>                        | Direct Sequence Spread Spectrum<br>1024-QAM, 16-QAM, 256-QAM, 64-QAM, BPSK, CCK, OFDM, QPSK                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Security</b>                          | WPA3 personal and enterprise including WPA2 transition mode.<br>802.1X EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0-MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA')                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Network Architecture</b>              | 128-bit AES-CCMP, 256-bit AES-GCMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Models</b>                            | Ad-hoc (Peer to Peer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Roaming</b>                           | Infrastructure (Access Point Required)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Output Power</b>                      | IEEE 802.11 compliant roaming between access points<br>802.11b : +17dBm minimum<br>802.11g : +16dBm minimum<br>802.11a : +17dBm minimum<br>802.11n HT20(2.4GHz) : +14dBm minimum<br>802.11n HT40(2.4GHz) : +13dBm minimum<br>802.11n HT20(5GHz) : +14dBm minimum<br>802.11n HT40(5GHz) : +13dBm minimum<br>802.11ac VHT80(5GHz) : +10dBm minimum<br>802.11ac VHT160(5GHz) : +10dBm minimum<br>802.11ax HE40(2.4GHz) : +12dBm minimum<br>802.11ax HE80(5GHz) : +10dBm minimum<br>802.11ax HE160(5GHz) : +10dBm minimum |
| <b>Power Consumption</b>                 | Transmit mode : 2.0 W<br>Receive mode : 1.6 W<br>Idle mode (PSP) : 180 mW (WLAN Associated)<br>Idle mode: 50 mW (WLAN unassociated)<br>Connected Standby/Modern Standby : 10 mW<br>Radio disabled : 8 mW                                                                                                                                                                                                                                                                                                              |
| <b>Power Management</b>                  | ACPI and PCI Express® compliant power management<br>802.11 compliant power saving mode                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Receiver Sensitivity</b> <sup>3</sup> | 802.11b, 1Mbps : -93.5dBm maximum<br>802.11b, 11Mbps : -84dBm maximum<br>802.11a/g, 6Mbps : -86dBm maximum                                                                                                                                                                                                                                                                                                                                                                                                            |



|                              |                                                                                                                                                                                                                                                                                                                      |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | 802.11a/g, 54Mbps : -72dBm maximum                                                                                                                                                                                                                                                                                   |
|                              | 802.11n, MCS07 : -67dBm maximum                                                                                                                                                                                                                                                                                      |
|                              | 802.11n, MCS15 : -64dBm maximum                                                                                                                                                                                                                                                                                      |
|                              | 802.11ac, MCS0(VHT80) : -84dBm maximum                                                                                                                                                                                                                                                                               |
|                              | 802.11ac, MCS9(VHT80) : -59dBm maximum                                                                                                                                                                                                                                                                               |
|                              | 802.11ac, MCS9(VHT160) : -58.5dBm maximum                                                                                                                                                                                                                                                                            |
|                              | 802.11ax, MCS11(HE40) : -57dBm maximum                                                                                                                                                                                                                                                                               |
|                              | 802.11ax, MCS11(HE80) : -54dBm maximum                                                                                                                                                                                                                                                                               |
|                              | 802.11ax, MCS11(HE160) : -53.5dBm maximum                                                                                                                                                                                                                                                                            |
| Antenna Type                 | High efficiency antenna with spatial diversity<br>Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications                                                                                                                               |
| Form Factor                  | PCI Express® M.2                                                                                                                                                                                                                                                                                                     |
| Dimensions                   | 2.30 x 22.00 x 30.00 mm (0.09 x 0.87 x 1.18 inch)                                                                                                                                                                                                                                                                    |
| Weight                       | Type 2230: 2.8 g(0.099 oz)                                                                                                                                                                                                                                                                                           |
| Operating Voltage            | 3.3 v +/- 9 %                                                                                                                                                                                                                                                                                                        |
| Bluetooth® Specification     | Integrated Bluetooth® specifications<br>4.0/4.1/4.2/5.0/5.1/5.2/5.3 Compliant                                                                                                                                                                                                                                        |
| Frequency Band               | 2402 to 2480 MHz                                                                                                                                                                                                                                                                                                     |
| Number of Available Channels | Legacy : 0~79 (1 MHz/CH)<br>BLE : 0~39 (2 MHz/CH)                                                                                                                                                                                                                                                                    |
| Data Rates and Throughput    | Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps<br>BLE : 1 Mbps data rate; throughput up to 0.2 Mbps<br>Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels<br>Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) |
| Transmit Power               | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR.                                                                                                                                                                                      |



|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power Consumption</b>             | Peak (Tx): 330 mW<br>Peak (Rx): 230 mW<br>Selective Suspend: 17 mW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Bluetooth® Software</b>           | Microsoft Windows Bluetooth® Software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Supported Link Topology</b>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Power Management</b>              | ACPI and PCI Express compliant power management<br>802.11 compliant power saving mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Certifications</b>                | FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407<br>ETSI 300 328, ETSI 301 893, ETSI 303 687                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Bluetooth® Profiles Supported</b> | BT4.1-ESR 5/6/7 Compliance<br>LE Link Layer Ping<br>LE Dual Mode<br>LE Link Layer<br>LE Low Duty Cycle Directed Advertising<br>LE L2CAP Connection Oriented Channels<br>Train Nudging & Interlaced Scan<br>BT4.2 ESR08 Compliance<br>LE Secure Connection- Basic/Full<br>LE Privacy 1.2 -Link Layer Privacy<br>LE Privacy 1.2 -Extended Scanner Filter Policies<br>LE Data Packet Length Extension<br>FAX Profile (FAX)<br>Basic Imaging Profile (BIP)2<br>Headset Profile (HSP)<br>Hands Free Profile (HFP)<br>Advanced Audio Distribution Profile (A2DP)<br>BT5.2<br>ESR9/10 Compliance<br>LE Advertisement Extensions<br>Channel Selection Algo<br>Limited High Duty Cycle Non-Connectable Advertising<br>2Mbps LE<br>LE Long Range |



|                            |                        |                                                                      |
|----------------------------|------------------------|----------------------------------------------------------------------|
|                            |                        | BT5.3                                                                |
|                            |                        | Host to Controller Encryption Key Control Enhancements               |
|                            |                        | Compliance to the latest Errata Section 12.3 of BT 5.3 specification |
|                            |                        | Periodic Advertisement interval                                      |
| Intel® BE211 Wi-Fi 7       | Wireless LAN Standards | IEEE 802.11a                                                         |
| Bluetooth® 6.0 non-vPro WW |                        | IEEE 802.11b                                                         |
| WLAN <sup>4</sup>          |                        | IEEE 802.11g                                                         |
|                            |                        | IEEE 802.11n                                                         |
|                            |                        | IEEE 802.11ac                                                        |
|                            |                        | IEEE 802.11ax                                                        |
|                            |                        | IEEE 802.11be                                                        |
|                            |                        | IEEE 802.11d                                                         |
|                            |                        | IEEE 802.11e                                                         |
|                            |                        | IEEE 802.11h                                                         |
|                            |                        | IEEE 802.11i                                                         |
|                            |                        | IEEE 802.11k                                                         |
|                            |                        | IEEE 802.11r                                                         |
|                            |                        | IEEE 802.11v                                                         |
|                            | Interoperability       | Wi-Fi certified                                                      |
|                            | Frequency Band         | 802.11b/g/n/ax/be                                                    |
|                            |                        | 2.402 - 2.482 GHz                                                    |
|                            |                        | 802.11a/n/ac/ax/be                                                   |
|                            |                        | 5.15 - 5.25 GHz                                                      |
|                            |                        | 5.25 - 5.35 GHz                                                      |
|                            |                        | 5.47 - 5.725 GHz                                                     |
|                            |                        | 5.825 - 5.850 GHz                                                    |
|                            |                        | 5.955 - 6.415 GHz                                                    |
|                            |                        | 6.435 - 6.515 GHz                                                    |
|                            |                        | 6.535 - 6.875 GHz                                                    |
|                            |                        | 6.895 - 7.115 GHz                                                    |

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data Rates</b>           | <p>802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</p> <p>802.11ac: MCS0 ~ MCS9, (20MHz, 40MHz, 80MHz, 160MHz)</p> <p>802.11ax: MCS0 ~ MCS11, (20MHz, 40MHz, 80MHz, 160MHz)</p> <p>802.11b: 1, 2, 5.5, 11 Mbps</p> <p>802.11be: MCS0~13, (20MHz, 40MHz, 80MHz, 160MHz, 320MHz)</p> <p>802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</p> <p>802.11n: MCS 0 ~ MCS 15, (20MHz, 40MHz)</p>                                                                                                                                                                                                                                                                                                                                                     |
| <b>Modulation</b>           | <p>Direct Sequence Spread Spectrum</p> <p>1024-QAM, 16-QAM, 256-QAM, 4096-QAM, 64-QAM, BPSK, CCK, OFDM, QPSK</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Security</b>             | <p>WPA3 personal and enterprise including WPA2 transition mode.</p> <p>802.1X EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0-MSCHAPv2 (EAP-SIM, EAP-AKA, EAP-AKA')</p> <p>128-bit AES-CCMP, 256-bit AES-GCMP</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Network Architecture</b> | Ad-hoc (Peer to Peer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Models</b>               | Infrastructure (Access Point Required)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Roaming</b>              | IEEE 802.11 compliant roaming between access points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Output Power</b>         | <p>802.11b, 1Mbps : +17dBm minimum</p> <p>802.11g, 6Mbps : +16dBm minimum</p> <p>802.11a, 6Mbps : +17dBm minimum</p> <p>802.11n, MCS7(HT20) : +14dBm minimum</p> <p>802.11n, MCS7(HT40) : +13.5dBm minimum</p> <p>802.11ac MCS9(VHT20) : 13.5dBm minimum</p> <p>802.11ac MCS9(VHT40) : +13.5dBm minimum</p> <p>802.11ac MCS9(VHT80) : +12.5dBm minimum</p> <p>802.11ac MCS9(VHT160) : +10.5dBm minimum</p> <p>802.11ax MCS11(HE20)(6GHz) : +11.5dBm minimum</p> <p>802.11ax MCS11(HE40)(6GHz) : +7.5dBm minimum</p> <p>802.11ax MCS11(HE80)(6GHz) : +7.5dBm minimum</p> <p>802.11ax MCS11(HE160)(6GHz) : +7.5dBm minimum</p> <p>802.11be MCS13(EHT20)(6GHz) : +4dBm minimum</p> <p>802.11be MCS13(EHT40)(6GHz) : +7dBm minimum</p> |



Power Consumption

802.11be MCS13(EHT80)(6GHz) : +10dBm minimum  
802.11be MCS13(EHT160)(6GHz) : +13dBm minimum  
802.11be MCS13(EHT320)(6GHz) : +16dBm minimum  
Transmit mode : 3.1 W  
Receive mode : 1.8 W  
Idle mode (PSP) : 180 mW (WLAN Associated)  
Idle mode: 50 mW (WLAN unassociated)  
Connected Standby/Modern Standby : 10 mW  
Radio disabled : 8 mW

Power Management

ACPI and PCI Express® compliant power management  
802.11 compliant power saving mode

Receiver Sensitivity <sup>3</sup>

802.11b, 1Mbps : -93.5dBm maximum  
802.11b, 11Mbps : -85dBm maximum  
802.11a/g, 6Mbps : -90.5dBm maximum  
802.11a/g, 54Mbps : -72.5dBm maximum  
802.11n, MCS0(HT20) : -90dBm maximum  
802.11n, MCS7(HT20) : -71.5dBm maximum  
802.11n, MCS0(HT40) : -88.5dBm maximum  
802.11n, MCS7(HT40) : -68.5dBm maximum  
802.11ac, MCS9(VHT20) : -88.5dBm maximum  
802.11ac, MCS9(VHT40) : -65.5dBm maximum  
802.11ac, MCS9(VHT80) : -60.5dBm maximum  
802.11ac, MCS9(VHT160) : -58.5dBm maximum  
802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum  
802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum  
802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum  
802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum  
802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum  
802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum  
802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum  
802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum  
802.11be, MCS13(EHT320)(6GHz) : -45.5dBm maximum



|                                      |                                                                                                                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Antenna Type</b>                  | High efficiency antenna with spatial diversity<br>Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications   |
| <b>Form Factor</b>                   | PCI Express® M.2 MiniCard with CNVi Interface                                                                                                                                            |
| <b>Dimensions</b>                    | 30.00 x 22.00 x 2.30 mm (1.18 x 0.87 x 0.09 inch)                                                                                                                                        |
| <b>Weight</b>                        | Type 2230: 3.0 g(0.106 oz)                                                                                                                                                               |
| <b>Operating Voltage</b>             | 3.3 v +/- 9 %                                                                                                                                                                            |
| <b>Bluetooth® Specification</b>      | <b>Integrated Bluetooth® specifications</b><br>4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4/6.0 Compliant                                                                                             |
| <b>Frequency Band</b>                | 2402 to 2480 MHz                                                                                                                                                                         |
| <b>Number of Available Channels</b>  | Legacy : 0~79 (1 MHz/CH)<br>BLE : 0~39 (2 MHz/CH)                                                                                                                                        |
| <b>Data Rates and Throughput</b>     | Bluetooth 4.x : 1Mbps (LE); 3Mbps (EDR)<br>Bluetooth 5.x : 2Mbps (LE); 3Mbps (EDR)<br>Bluetooth 6.0 : 2Mbps (LE); 3Mbps (EDR)                                                            |
| <b>Transmit Power</b>                | The Bluetooth component shall operate as a Class I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.                                                |
| <b>Power Consumption</b>             | Peak (Tx): 330 mW<br>Peak (Rx): 230 mW<br>Selective Suspend: 17 mW                                                                                                                       |
| <b>Bluetooth® Software</b>           | Microsoft Windows Bluetooth® Software                                                                                                                                                    |
| <b>Supported Link Topology</b>       |                                                                                                                                                                                          |
| <b>Power Management</b>              | Microsoft Windows ACPI, and USB Bus Support                                                                                                                                              |
| <b>Certifications</b>                | FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407<br>ETSI 300 328, ETSI 301 893, ETSI 303 687                                                                                      |
| <b>Bluetooth® Profiles Supported</b> | Advanced Audio Distribution Profile (A2DP)<br>Basic Imaging Profile (BIP)<br>Bluetooth® 4.1 -ESR 5/6/7 Compliance<br>Bluetooth® 4.2 ESR08 Compliance<br>Bluetooth® 5.2<br>Bluetooth® 5.3 |



- Bluetooth® 5.4
- Bluetooth® 6.0
- Channel Selection Algo
- Compliance to the latest Errata Section 12.3 of Bluetooth® 5.3 specification
- Encryption key size control enhancements
- ESR 9/10 Compliance
- FAX Profile (FAX)
- Hands Free Profile (HFP)
- Headset Profile (HSP)
- Host to Controller Encryption Key Control Enhancements
- LE 2Mbps
- LE Advertisement Extensions
- LE Data Packet Length Extension
- LE Dual Mode
- LE L2CAP Connection Oriented Channels
- LE Link Layer
- LE Link Layer Ping
- LE Long Range
- LE Low Duty Cycle Directed Advertising
- LE Privacy 1.2 -Extended Scanner Filter Policies
- LE Privacy 1.2 -Link Layer Privacy
- LE Secure Connection- Basic/Full
- Limited High Duty Cycle Non-Connectable Advertising
- Periodic Advertisement interval
- Train Nudging & Interlaced Scan
- Windows Bluetooth® profiles support

|                            |                                   |                                                       |
|----------------------------|-----------------------------------|-------------------------------------------------------|
| <b>MediaTek T700 5G NR</b> | <b>Technology Operating Bands</b> | WCDMA/HSPA+ operating bands:                          |
| <b>WWAN<sup>5</sup></b>    |                                   | Band 01: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) |
|                            |                                   | Band 02: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) |
|                            |                                   | Band 04: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) |
|                            |                                   | Band 05: 824 to 849 MHz (UL), 869 to 894 MHz (DL)     |

Band 08: 880 to 915 MHz (UL), 925 to 960 MHz (DL)

LTE FDD/TDD operating bands:

Band 01: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL)

Band 02: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL)

Band 03: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL)

Band 04: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL)

Band 05: 824 to 849 MHz (UL), 869 to 894 MHz (DL)

Band 07: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL)

Band 08: 880 to 915 MHz (UL), 925 to 960 MHz (DL)

Band 12: 699 to 716 MHz (UL), 729 to 746 MHz (DL)

Band 13: 777 to 787 MHz (UL), 746 to 756 MHz (DL)

Band 14: 788 to 798 MHz (UL), 758 to 768 MHz (DL)

Band 17: 704 to 716 MHz (UL), 734 to 746 MHz (DL)

Band 18: 815 to 830 MHz (UL), 860 to 875 MHz (DL)

Band 19: 830 to 845 MHz (UL), 875 to 890 MHz (DL)

Band 20: 832 to 862 MHz (UL), 791 to 821 MHz (DL)

Band 25: 1850 to 1915 MHz (UL), 1930 to 1995 MHz (DL)

Band 26: 814 to 849 MHz (UL), 859 to 894 MHz (DL)

Band 28: 703 to 748 MHz (UL), 758 to 803 MHz (DL)

Band 29: 717 to 728 MHz (DL)

Band 30: 2305 to 2315 MHz (UL) 2350 to 2360 MHz (DL)

Band 32: 1452 to 1496 MHz (DL)

Band 34: 2010 to 2025 MHz (UL/DL)

Band 38: 2570 to 2620 MHz (UL/DL)

Band 39: 1880 to 1920 MHz (UL/DL)

Band 40: 2300 to 2400 MHz (UL/DL)

Band 41: 2496 to 2690 MHz (UL/DL)

Band 42: 3400 to 3600 MHz (UL/DL)

Band 43: 3400 to 3800 MHz (UL/DL)

Band 46: 5150 to 5925 MHz (DL)

Band 48: 3550 to 3700 MHz (UL/DL)

Band 66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL)



Band 71: 663 to 698 MHz (UL), 617 to 652 MHz (DL)

5G NR Sub 6GHz:

n1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL)

n2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL)

n20: 832 to 862 MHz (UL), 791 to 821 MHz (DL)

n25: 1850 to 1915 MHz (UL), 1930 to 1995 MHz (DL)

n28: 703 to 748 MHz (UL), 758 to 803 MHz (DL)

n3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL)

n30: 2305 to 2315 MHz (UL) 2350 to 2360 MHz (DL)

n38: 2570 to 2620 MHz (UL/DL)

n40: 2300 to 2400 MHz (UL/DL)

n41: 2496 to 2690 MHz (UL/DL)

n48: 3550 to 3700 MHz (UL/DL)

n5: 824 to 849 MHz (UL), 869 to 894 MHz (DL)

n66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL)

n7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL)

n71: 663 to 698 MHz (UL), 617 to 652 MHz (DL)

n77: 3300 to 4200 MHz (UL/DL)

n78: 3300 to 3800 MHz (UL/DL)

n79: 4400 to 5000 MHz (UL/DL)

n8: 880 to 915 MHz (UL), 925 to 960 MHz (DL)

Wireless Protocol Standards

NR Sub6G rel15

200MHz 2 DLCA, 256 QAM

200MHz 2 ULCA, 256 QAM

15KHz/30KHz SCS for FDD/TDD

LTE Rel15

100MHz 5 DLCA, 256 QAM

40MHz 2 ULCA, 256 QAM

UMTS Rel8

GPS

GPS only support L1 C/A

GPS Bands

GPS: L1 (1575.42MHz)

GLONASS: L1 (1602MHz)



|                                                  |                                         |                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  |                                         | BeidouB1(1561.098MHz)<br>Galileo E1 (1575.42)<br>QZSS (1575.42 MHz)<br>Sub-6 SA Peak<br>DL 4.67Gbps/UL 1.25Gbps<br>Sub-6 NSA Peak<br>DL 3.74Gbps/UL 835Mbps<br>LTE Peak<br>DL 1.6Gbps (CAT19)/UL 211Mbps (CAT18)<br>UMTS/HSPA+<br>DL DC-HSPA+: 42 Mbps (CAT24)/UL 11.5 Mbps (CAT7) |
|                                                  | Maximum Data Rates                      |                                                                                                                                                                                                                                                                                    |
|                                                  | Maximum Output Power                    | NR:<br>23 dBm in all band except (n30 = 22dBm & n48=21dBm & n77=25dBm & n41/n77/n78 = 26dBm)<br>LTE:<br>23 dBm in all band except (B30 = 22dBm & B48=21dBm & B41=26dBm)<br>UMTS:<br>23.5 dBm                                                                                       |
|                                                  | Maximum Power Consumption               | 5G Sub 6: 3,500 mA (peak); 1,674 mA (average)                                                                                                                                                                                                                                      |
|                                                  | Form Factor                             | M.2<br>3052-S3 Key B                                                                                                                                                                                                                                                               |
|                                                  | Weight                                  | 8.7 g (0.307 oz)                                                                                                                                                                                                                                                                   |
|                                                  | Dimensions (Length x Width x Thickness) | 52.00 x 30.00 x 2.30 mm (2.05 x 1.18 x 0.09 inch)                                                                                                                                                                                                                                  |
|                                                  | Embedded eSIM                           | Yes                                                                                                                                                                                                                                                                                |
| MediaTek T700 5G NR with HP Go WWAN <sup>5</sup> | Technology Operating Bands              | WCDMA/HSPA+ operating bands:<br>Band 01: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL)<br>Band 02: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL)<br>Band 04: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL)<br>Band 05: 824 to 849 MHz (UL), 869 to 894 MHz (DL)                       |

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n8: 880 to 915 MHz (UL), 925 to 960 MHz (DL)

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200MHz 2 DLCA, 256 QAM

200MHz 2 ULCA, 256 QAM

15KHz/30KHz SCS for FDD/TDD

LTE Rel15

100MHz 5 DLCA, 256 QAM

40MHz 2 ULCA, 256 QAM

UMTS Rel8

GPS

GPS only support L1 C/A

GPS Bands

GPS: L1 (1575.42MHz)

GLONASS: L1 (1602MHz)



|                                                     |                                         |                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     |                                         | BeidouB1(1561.098MHz)<br>Galileo E1 (1575.42)<br>QZSS (1575.42 MHz)<br>Sub-6 SA Peak<br>DL 4.67Gbps/UL 1.25Gbps<br>Sub-6 NSA Peak<br>DL 3.74Gbps/UL 835Mbps<br>LTE Peak<br>DL 1.6Gbps (CAT19)/UL 211Mbps (CAT18)<br>UMTS/HSPA+<br>DL DC-HSPA+: 42 Mbps (CAT24)/UL 11.5 Mbps (CAT7) |
|                                                     | Maximum Data Rates                      |                                                                                                                                                                                                                                                                                    |
|                                                     | Maximum Output Power                    | NR:<br>23 dBm in all band except (n30 = 22dBm & n48=21dBm & n77=25dBm & n41/n77/n78 = 26dBm)<br>LTE:<br>23 dBm in all band except (B30 = 22dBm & B48=21dBm & B41=26dBm)<br>UMTS:<br>23.5 dBm                                                                                       |
|                                                     | Maximum Power Consumption               | 5G Sub 6: 3,500 mA (peak); 1,674 mA (average)                                                                                                                                                                                                                                      |
|                                                     | Form Factor                             | M.2<br>3052-S3 Key B                                                                                                                                                                                                                                                               |
|                                                     | Weight                                  | 8.7 g (0.307 oz)                                                                                                                                                                                                                                                                   |
|                                                     | Dimensions (Length x Width x Thickness) | 52.00 x 30.00 x 2.30 mm (2.05 x 1.18 x 0.09 inch)                                                                                                                                                                                                                                  |
|                                                     | Embedded eSIM                           | Yes                                                                                                                                                                                                                                                                                |
| HP RW220-GL LTE (Low Power) (CAT-1bis) <sup>6</sup> | Technology/Operating bands              | FDD LTE: 2100 (Band 1), 1800 (Band 3), 850 (Band 5), 900 (Band 8), 700 (Band 12), 850 (Band 18), 850 (Band 19), 800 (Band 20), 850 (Band 26), 700 (Band 28)<br>WIFI Scan : 802.11b                                                                                                 |
|                                                     | Wireless Protocol Standards             | 3GPP TS 51.010-1 V12.9.0: Mobile Station (MS) conformance                                                                                                                                                                                                                          |



|                                                |                                                                                                                                                                                  |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                | specification; Part 1: Conformance specification                                                                                                                                 |
|                                                | 3GPP TS 36.521-1 V13.3.0: User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance testing                                           |
|                                                | 3GPP TS 21.111 V10.0.0: USIM and IC card requirements                                                                                                                            |
|                                                | 3GPP TS 51.011 V4.15.0: Specification of the Subscriber Identity Module -Mobile Equipment (SIM-ME) interface                                                                     |
|                                                | 3GPP TS 31.102 V10.11.0: Characteristics of the Universal Subscriber Identity Module (USIM) application                                                                          |
|                                                | 3GPP TS 31.111 V10.16.0: Universal Subscriber Identity Module (USIM) Application Toolkit (USAT)                                                                                  |
|                                                | 3GPP TS 36.124 V13.2.0: Electro Magnetic Compatibility (EMC) requirements for mobile terminals and ancillary equipment                                                           |
|                                                | 3GPP TS 27.007 V10.0.8: AT command set for User Equipment (UE)                                                                                                                   |
|                                                | 3GPP TS 27.005 V10.0.1: Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS) |
| <b>GPS</b>                                     | GPS, Galileo, BeiDou, QZSS, AGPS-MS-B                                                                                                                                            |
| <b>GPS Bands</b>                               | GPS L1:1575.42Mhz±1.023Mhz,<br>BDS B1:1561.098Mhz±2.046Mhz<br>Galileo E1:1575.42Mhz±1.023Mhz<br>QZSS L1:1575.42Mhz±1.023Mhz                                                      |
| <b>Maximum Data Rates</b>                      | Downlink: 10Mbps<br>Uplink: 5Mbps                                                                                                                                                |
| <b>Maximum Output Power</b>                    | B1/3: 23 +/-2dBm<br>B5/8/12/18/19/20/26/28: 24 +1.7/-2dBm                                                                                                                        |
| <b>Maximum Power Consumption</b>               | 290.945 mA(peak), 8.035 mA(average)                                                                                                                                              |
| <b>Form Factor</b>                             | M.2                                                                                                                                                                              |
| <b>Weight</b>                                  | 3.9 g (0.138 oz)                                                                                                                                                                 |
| <b>Dimensions (Length x Width x Thickness)</b> | 42.00 x 22.00 x 2.30 mm (1.65 x 0.87 x 0.09 inch)                                                                                                                                |



Embedded eSIM                      Yes

- 1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 6E is supported.
- 2. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
- 3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
- 4. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows OS, select processor, and a Wi-Fi 7 router, sold separately. Wi-Fi 7 is backwards compatible with prior 802.11 specs. Available in countries where Wi-Fi 7 is supported. The specification for 802.11BE is a draft specification and is not final. If the final specification differs from the draft specification, it may affect the ability of the device to communicate with other 802.11BE devices.
- 5. 5G module is optional and must be configured at the factory. Module designed for 5G NR NSA (non-standalone) networks as carriers deploy Evolved-Universal Terrestrial Radio Access New Radio Dual Connectivity (ENDC) with both 100Mhz of 5G NR and LTE channel bandwidth, using 256QAM 4x4 as defined by 3GPP. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Data connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. Backwards compatible to 4G LTE and 3G HSPA technologies. 5G module planned to be available in select platforms and select countries, where carrier supported.
- 6. LPWAN (also called Mobile Narrowband) supports HP Protect & Trace with Wolf Connect service through the subscription term, but does not support mobile broadband use.



POWER

Power supply availability may vary by country.

Battery is internal and replaceable by customer.

Higher wattage adapter is recommended for best performance and fastest charging.

Using lower-capacity third-party USB Type-C® power cables may reduce power delivery.

|                                                  |                                      |                                                                                             |
|--------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------|
| HP 65W Standard USB Type-C® GaN AC power adapter | Weight (DC Cable Included)           | 185 g ± 10 g                                                                                |
|                                                  | Input                                | 100 Vac ~ 240 Vac                                                                           |
|                                                  | Input Efficiency                     | USB-C                                                                                       |
|                                                  |                                      | 89.00 % min at 115 Vac/ 230 Vac @ 20.00 V/ 3.25 A                                           |
|                                                  | Input frequency range                | 47 Hz ~ 63 Hz                                                                               |
|                                                  | Input AC current                     | Max 1.60 A at 90 Vac input                                                                  |
|                                                  | Output                               |                                                                                             |
|                                                  | Output power                         | 20.00 V / 65.00 W                                                                           |
|                                                  | DC output                            | + 20.00 V                                                                                   |
|                                                  | Hold - up time                       | 5 ms at 115 Vac input                                                                       |
|                                                  | Output Over Current                  | 5.40 A (max)                                                                                |
|                                                  | Protection                           |                                                                                             |
|                                                  | AC Inlet Type                        | C6                                                                                          |
|                                                  | DC Cable Connector                   | USB Type-C                                                                                  |
|                                                  | DC Cable Material                    | Low Halogen                                                                                 |
|                                                  | Connector                            |                                                                                             |
|                                                  | Connector                            | C6                                                                                          |
|                                                  | Environmental Design                 |                                                                                             |
|                                                  | Operating temperature                | 0°C to 35°C (32°F to 95°F)                                                                  |
|                                                  | Non - operating(storage) temperature | -20°C to 85°C (-4°F to 185°F)                                                               |
|                                                  | Altitude                             | 0 m to 5000 m (0 ft to 16404.2 ft)                                                          |
|                                                  | Humidity                             | 20 % to 95 %                                                                                |
|                                                  | Storage Humidity                     | 10 % to 95 %                                                                                |
|                                                  | EMI and Safety Certifications        | Worldwide safety standards - IEC60950-1 and IEC62368-1: 2018, EN62368-1:2014+A11, UL62368-1 |
|                                                  |                                      | Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class                                  |

|                                                                        |                                      |                                                                                                                                                                                                                   |
|------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                        |                                      | B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia GEMS and RCM, BIS, BSMI, UAE, UKCA DoC    |
| <b>HP 65W Wall Mount USB Type-C® GaN Halogen Free AC power adapter</b> | Weight (DC Cable Included)           | 185 g ± 10 g                                                                                                                                                                                                      |
|                                                                        | Input                                | 100 Vac ~ 240 Vac                                                                                                                                                                                                 |
|                                                                        | Input Efficiency                     | USB-C                                                                                                                                                                                                             |
|                                                                        |                                      | 89.00 % min at 115 Vac/ 230 Vac @ 20.00 V/ 3.25 A                                                                                                                                                                 |
|                                                                        | Input frequency range                | 47 Hz ~ 63 Hz                                                                                                                                                                                                     |
|                                                                        | Input AC current                     | Max 1.60 A at 90 Vac input                                                                                                                                                                                        |
|                                                                        | <b>Output</b>                        |                                                                                                                                                                                                                   |
|                                                                        | Output power                         | 20.00 V / 65.00 W                                                                                                                                                                                                 |
|                                                                        | DC output                            | + 20.00 V                                                                                                                                                                                                         |
|                                                                        | Hold - up time                       | 5 ms at 115 Vac input                                                                                                                                                                                             |
|                                                                        | Output Over Current                  | 5.40 A (max)                                                                                                                                                                                                      |
|                                                                        | Protection                           |                                                                                                                                                                                                                   |
|                                                                        | AC Inlet Type                        | Foldable for 2 prong                                                                                                                                                                                              |
|                                                                        | DC Cable Connector                   | USB Type-C                                                                                                                                                                                                        |
|                                                                        | DC Cable Material                    | Halogen Free                                                                                                                                                                                                      |
|                                                                        | <b>Connector</b>                     |                                                                                                                                                                                                                   |
|                                                                        | Connector                            | Foldable for 2 prong                                                                                                                                                                                              |
|                                                                        | <b>Environmental Design</b>          |                                                                                                                                                                                                                   |
|                                                                        | Operating temperature                | 0°C to 35°C (32°F to 95°F)                                                                                                                                                                                        |
|                                                                        | Non - operating(storage) temperature | -20°C to 85°C (-4°F to 185°F)                                                                                                                                                                                     |
|                                                                        | Altitude                             | 0 m to 5000 m (0 ft to 16404.2 ft)                                                                                                                                                                                |
|                                                                        | Humidity                             | 20 % to 95 %                                                                                                                                                                                                      |
|                                                                        | Storage Humidity                     | 10 % to 95 %                                                                                                                                                                                                      |
|                                                                        | EMI and Safety Certifications        | Worldwide safety standards - IEC60950-1 and IEC62368-1: 2018, EN62368-1:2014+A11, UL62368-1<br>Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), |

|                                                                        |                                      |                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                        |                                      | EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia GEMS and RCM, BIS, BSMI, UAE, UKCA DoC                                                                                                                    |
| <b>HP 65W Wall Mount USB Type-C® GaN Halogen Free AC power adapter</b> | Weight (DC Cable Included)           | 185 g ± 10 g                                                                                                                                                                                                                                                              |
|                                                                        | Input                                | 100 Vac ~ 240 Vac                                                                                                                                                                                                                                                         |
|                                                                        | Input Efficiency                     | USB-C                                                                                                                                                                                                                                                                     |
|                                                                        |                                      | 89.00 % min at 115 Vac/ 230 Vac @ 20.00 V/ 3.25 A                                                                                                                                                                                                                         |
|                                                                        | Input frequency range                | 47 Hz ~ 63 Hz                                                                                                                                                                                                                                                             |
|                                                                        | Input AC current                     | Max 1.60 A at 90 Vac input                                                                                                                                                                                                                                                |
|                                                                        | <b>Output</b>                        |                                                                                                                                                                                                                                                                           |
|                                                                        | Output power                         | 20.00 V / 65.00 W                                                                                                                                                                                                                                                         |
|                                                                        | DC output                            | + 20.00 V                                                                                                                                                                                                                                                                 |
|                                                                        | Hold - up time                       | 5 ms at 115 Vac input                                                                                                                                                                                                                                                     |
|                                                                        | Output Over Current                  | 5.50 A (max)                                                                                                                                                                                                                                                              |
|                                                                        | Protection                           |                                                                                                                                                                                                                                                                           |
|                                                                        | AC Inlet Type                        | Fixed 2 Prong                                                                                                                                                                                                                                                             |
|                                                                        | DC Cable Connector                   | USB Type-C                                                                                                                                                                                                                                                                |
|                                                                        | DC Cable Material                    | Halogen Free                                                                                                                                                                                                                                                              |
|                                                                        | <b>Connector</b>                     |                                                                                                                                                                                                                                                                           |
|                                                                        | Connector                            | Fixed 2 Prong                                                                                                                                                                                                                                                             |
|                                                                        | <b>Environmental Design</b>          |                                                                                                                                                                                                                                                                           |
|                                                                        | Operating temperature                | 0°C to 35°C (32°F to 95°F)                                                                                                                                                                                                                                                |
|                                                                        | Non - operating(storage) temperature | -20°C to 85°C (-4°F to 185°F)                                                                                                                                                                                                                                             |
|                                                                        | Altitude                             | 0 m to 5000 m (0 ft to 16404.2 ft)                                                                                                                                                                                                                                        |
|                                                                        | Humidity                             | 20 % to 95 %                                                                                                                                                                                                                                                              |
|                                                                        | Storage Humidity                     | 10 % to 95 %                                                                                                                                                                                                                                                              |
|                                                                        | EMI and Safety Certifications        | Worldwide safety standards - IEC60950-1 and IEC62368-1: 2018, EN62368-1:2014+A11, UL62368-1<br>Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, |



NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia GEMS  
and RCM, BIS, BSMI, UAE, UKCA DoC

|                                                  |                                      |                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HP 45W Standard USB Type-C® GaN AC power adapter | Weight (DC Cable Included)           | 185 g ± 10 g                                                                                                                                                                                                                                                                                                                          |
|                                                  | Input                                | 100 Vac ~ 240 Vac                                                                                                                                                                                                                                                                                                                     |
|                                                  | Input Efficiency                     | USB-C                                                                                                                                                                                                                                                                                                                                 |
|                                                  |                                      | 88.85 % min at 115 Vac/ 230 Vac @ 20.00 V/ 2.25 A                                                                                                                                                                                                                                                                                     |
|                                                  | Input frequency range                | 47 Hz ~ 63 Hz                                                                                                                                                                                                                                                                                                                         |
|                                                  | Input AC current                     | Max 1.40 A at 90 Vac input                                                                                                                                                                                                                                                                                                            |
|                                                  | Output                               |                                                                                                                                                                                                                                                                                                                                       |
|                                                  | Output power                         | 20.00 V / 45.00 W                                                                                                                                                                                                                                                                                                                     |
|                                                  | DC output                            | + 20.00 V                                                                                                                                                                                                                                                                                                                             |
|                                                  | Hold - up time                       | 5 ms at 115 Vac input                                                                                                                                                                                                                                                                                                                 |
|                                                  | Output Over Current                  | 5.00 A (max)                                                                                                                                                                                                                                                                                                                          |
|                                                  | Protection                           |                                                                                                                                                                                                                                                                                                                                       |
|                                                  | AC Inlet Type                        | C6                                                                                                                                                                                                                                                                                                                                    |
|                                                  | DC Cable Connector                   | USB Type-C                                                                                                                                                                                                                                                                                                                            |
|                                                  | DC Cable Material                    | PVC                                                                                                                                                                                                                                                                                                                                   |
|                                                  | Connector                            |                                                                                                                                                                                                                                                                                                                                       |
|                                                  | Connector                            | C6                                                                                                                                                                                                                                                                                                                                    |
|                                                  | Environmental Design                 |                                                                                                                                                                                                                                                                                                                                       |
|                                                  | Operating temperature                | 0°C to 35°C (32°F to 95°F)                                                                                                                                                                                                                                                                                                            |
|                                                  | Non - operating(storage) temperature | -20°C to 85°C (-4°F to 185°F)                                                                                                                                                                                                                                                                                                         |
|                                                  | Altitude                             | 0 m to 5000 m (0 ft to 16404.2 ft)                                                                                                                                                                                                                                                                                                    |
|                                                  | Humidity                             | 20 % to 95 %                                                                                                                                                                                                                                                                                                                          |
|                                                  | Storage Humidity                     | 10 % to 95 %                                                                                                                                                                                                                                                                                                                          |
|                                                  | EMI and Safety Certifications        | CE Mark - full compliance with LVD and EMC directives<br>Worldwide safety standards - IEC60950-1 and IEC62368-1 :<br>2018, EN62368-1:2014+A11, UL62368-1<br>Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CEC, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, |



|                                          |                                   |                                                                                                                          |
|------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
|                                          |                                   | NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC, USB-IF, Ukraine(CoC+DoC+RoHS+ECO) |
| <b>Battery</b>                           |                                   |                                                                                                                          |
| <b>HP Long Life 3 cell, 56Wh Polymer</b> | Weight                            | 207 g ± 10 g (0.46 lb)                                                                                                   |
|                                          | Cells / Type                      | 3 cell Lithium-Ion Polymer / 586075                                                                                      |
|                                          | <b>Energy</b>                     |                                                                                                                          |
|                                          | Voltage                           | 11.58 V                                                                                                                  |
|                                          | Amp - hour capacity               | 4.848 Ah                                                                                                                 |
|                                          | Watt - hour capacity              | 56Wh                                                                                                                     |
|                                          | <b>Temperature</b>                |                                                                                                                          |
|                                          | Operating (Charging)              | 0°C to 45°C (32°F to 113°F)                                                                                              |
|                                          | Operating (Discharging)           | -10°C to 65°C (14°F to 149°F)                                                                                            |
|                                          | Optional Travel Battery Available | No                                                                                                                       |
|                                          |                                   |                                                                                                                          |
| <b>HP Long Life 3 cell, 48Wh Polymer</b> | Weight                            | 194 g ± 10 g (0.43 lb)                                                                                                   |
|                                          | Cells / Type                      | 3 cell Lithium-Ion Polymer / 565875                                                                                      |
|                                          | <b>Energy</b>                     |                                                                                                                          |
|                                          | Voltage                           | 11.40 V                                                                                                                  |
|                                          | Amp - hour capacity               | 4.285 Ah                                                                                                                 |
|                                          | Watt - hour capacity              | 48Wh                                                                                                                     |
|                                          | <b>Temperature</b>                |                                                                                                                          |
|                                          | Operating (Charging)              | 0°C to 45°C (32°F to 113°F)                                                                                              |
|                                          | Operating (Discharging)           | 0°C to 50°C (32°F to 122°F)                                                                                              |
|                                          | Optional Travel Battery Available | No                                                                                                                       |

|                                   |                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AUDIO</b>                      |                                                                                                                                                                 |
| <b>Codec</b>                      | Realtek ALC3247                                                                                                                                                 |
| <b>Audio I/O Ports</b>            | 3.5mm Headset: CTIA only; Headset: CTIA only; Combo headphone/microphone jack; Combo audio jack with CTIA                                                       |
| <b>Internal Speaker Amplifier</b> | Audio Codec with class-D                                                                                                                                        |
| <b>Multi-streaming Capable</b>    | Playback multi-streaming can be enabled in the audio control panel to allow independent audio streams to be sent to/from the front jacks or integrated speaker. |
| <b>Sampling</b>                   | DAC: Supports resolutions from 16-bit to 24-bit;48.0 kHz to 48.0 kHz<br>ADC: Supports resolutions from 16-bit to 24-bit;48.0 kHz to 48.0 kHz                    |
| <b>Internal Speaker</b>           | Yes                                                                                                                                                             |



FINGERPRINT READER

|                             |                                    |
|-----------------------------|------------------------------------|
| Sensor vendor               | ELAN                               |
| Sensor type                 | Capacitive                         |
| DPI resolution              | 508 DPI                            |
| Scan area                   | 80 x 80 pixels                     |
| False Rejection Rate        | < 3%                               |
| False Acceptance Rate       | < 0.001%                           |
| Mobile Voltage Operation    | 2.7 V ~ 3.6 V                      |
| Operating Temperature       | -20°C ~ 80°C (-4°F ~ 176°F)        |
| Current Consumption Image   | 35 mA max                          |
| Low Latency Wait For Finger | 300 uA                             |
| Capture Rate                | 50 frames/sec                      |
| ESD Resistance              | IEC 61000-4-2 4B (+15KV)           |
| Detection Matrix            | 508 dpi / 4.0 x 4.0 mm sensor area |

|                             |                                    |
|-----------------------------|------------------------------------|
| Sensor vendor               | SYNAPTICS                          |
| Sensor type                 | Capacitive                         |
| DPI resolution              | 363 DPI                            |
| Scan area                   | 104 x 86 pixels                    |
| False Rejection Rate        | < 3%                               |
| False Acceptance Rate       | < 0.001%                           |
| Mobile Voltage Operation    | 2.7 V ~ 3.6 V                      |
| Operating Temperature       | 0°C ~ 60°C (32°F ~ 140°F)          |
| Current Consumption Image   | 100 mA max                         |
| Low Latency Wait For Finger | 260 uA                             |
| Capture Rate                | 50 frames/sec                      |
| ESD Resistance              | IEC 61000-4-2 4B (+15KV)           |
| Detection Matrix            | 363 dpi / 7.4 x 6.0 mm sensor area |

## OPTIONS

| Container Name         | Description                                            | Part Number |
|------------------------|--------------------------------------------------------|-------------|
| <b>Adapters</b>        | HP HDMI to VGA Adapter                                 | H4F02AA     |
|                        | HP USB 3.0 to Gigabit RJ45 Adapter G2                  | 4Z7Z7AA     |
|                        | HP USB-C to DisplayPort Adapter G2                     | 8Y8Y1AA     |
|                        | HP USB-C to HDMI 2.0 Adapter                           | 1WC36AA     |
|                        | HP USB-C to RJ45 Adapter G2                            | 4Z527AA     |
|                        | HP USB-C to USB 3.0 Adapter                            | N2Z63AA     |
|                        | HP USB-C to VGA Adapter                                | N9K76AA     |
| <b>Audio - Earbuds</b> | Poly Voyager Free 60+ Carbon Black Earbuds             | 7Y8G4AA     |
|                        | Poly Voyager Free 60+ Carbon Black Earbuds             | 7Y8H0AA     |
| <b>Audio - Headset</b> | HP Poly Focus 625 Fold Headset + Wireless Charge Stand | C56XZAA     |
|                        | HP Poly Focus 625 Fold Stereo Bluetooth Headset        | C56XSAA     |
|                        | HP Poly Focus 625 Headset + Wireless Charge Stand      | C56XXAA     |
|                        | HP Poly Focus 625 Stereo Bluetooth Headset             | C56XPAA     |
|                        | HP Poly Mission 415 Monaural USB Wired Headset Classic | C01A9AA     |
|                        | HP Poly Mission 425 Stereo USB Wired Headset Classic   | C01B3AA     |
|                        | HP Poly Mission 615 Monaural                           | C01F4AA     |
|                        | HP Poly Mission 615 Monaural USB Wired Headset         | C01C3AA     |
|                        | HP Poly Mission 625 Stereo                             | C01F6AA     |
|                        | HP Poly Mission 625 Stereo USB Wired Headset           | C01C6AA     |
|                        | HP Poly Mission 815 Monaural USB Wired Headset         | C01F8AA     |
|                        | HP Poly Mission 825 Stereo USB Wired Headset           | C01FCAA     |
|                        | HP USB G2 Stereo Headset                               | 428K6AA     |
|                        | Poly Blackwire 3210 Monaural USB-C Headset             | 8X214AA     |
|                        | Poly Blackwire 3215 Monaural USB-C Headset             | 8X227AA     |
|                        | Poly Blackwire 3220 Stereo USB-C Headset               | 8X228AA     |
|                        | Poly Blackwire 3225 Stereo USB-C Headset               | 8X229AA     |
|                        | Poly Blackwire 3310 Monaural USB-C Headset             | 8X215AA     |
|                        | Poly Blackwire 3310 Monaural USB-C Headset             | 8X216AA     |
|                        | Poly Blackwire 3315 Monaural USB-C Headset             | 8X217AA     |
|                        | Poly Blackwire 3315 Monaural USB-C Headset             | 8X218AA     |
|                        | Poly Blackwire 3320 Stereo USB-C Headset               | 8X219AA     |



|                                                        |         |
|--------------------------------------------------------|---------|
| Poly Blackwire 3320 Stereo USB-C Headset               | 8X220AA |
| Poly Blackwire 3325 Stereo USB-C Headset               | 8X221AA |
| Poly Blackwire 3325 Stereo USB-C Headset               | 8X222AA |
| Poly Blackwire 5210 Monaural USB-C Headset             | 8X230AA |
| Poly Blackwire 5220 Stereo USB-C Headset               | 8X231AA |
| Poly Blackwire 8225 Stereo USB-C Headset               | 8X223AA |
| Poly Blackwire 8225 Stereo USB-C Headset               | 8X225AA |
| Poly EncorePro 320 Binaural Headset                    | 77T26AA |
| Poly EncorePro 510 Monaural Headset                    | 783Q2AA |
| Poly EncorePro 510 Monoaural Headset                   | 783Q1AA |
| Poly EncorePro 520 Binaural Headset                    | 783P6AA |
| Poly EncorePro 520 Binaural Headset                    | 783P7AA |
| Poly EncorePro 530 Discreet Headset                    | 783P2AA |
| Poly EncorePro 530 Headset                             | 783P3AA |
| Poly EncorePro 540 Convertible Headset                 | 783P0AA |
| Poly EncorePro 540 Convertible Headset                 | 783P1AA |
| Poly EncorePro 720 Binaural Headset                    | 8R707AA |
| Poly EncorePro HW710 Single Ear Headset                | 8R708AA |
| Poly EncorePro Monoaural 310 Headset                   | 77T43AA |
| Poly EncorePro Monoaural 515 with USB-A Headset        | 783R0AA |
| Poly EncorePro Monoaural 515 with USB-A Headset        | 783R1AA |
| Poly EncorePro Stereo 525 with USB-A Headset           | 783R2AA |
| Poly EncorePro USB-A Monoaural 715 Headset             | 783N5AA |
| Poly EncorePro USB-A Stereo 525 Headset                | 783R3AA |
| Poly EncorePro USB-A Stereo 725 Headset                | 783M6AA |
| Poly EncorePro USB-C Monoaural 310 Headset             | 760Q8AA |
| Poly Savi 7310 DECT 1880-1900 MHz Single Ear Headset   | 8D3G3AA |
| Poly Savi 7310 Monaural DECT 1880-1900 MHz Headset     | 8L561AA |
| Poly Savi 7310 Monaural DECT 1880-1900 MHz Headset     | 8L575AA |
| Poly Savi 7310 Monaural DECT 1920-1930 MHz Headset     | 7S430AA |
| Poly Savi 7310 Monaural DECT 1920-1930 MHz Headset     | 8L570AA |
| Poly Savi 7310 Monaural DECT 1920-1930 MHz Headset     | 8L585AA |
| Poly Savi 7310-M DECT 1880-1900 MHz Single Ear Headset | 8D3K7AA |



|                                                        |         |
|--------------------------------------------------------|---------|
| Poly Savi 7310-M DECT 1920-1930 MHz Single Ear Headset | 7S439AA |
| Poly Savi 7320 Stereo DECT 1880-1900 MHz Headset       | 8D3F7AA |
| Poly Savi 7320 Stereo DECT 1880-1900 MHz Headset       | 8L545AA |
| Poly Savi 7320 Stereo DECT 1880-1900 MHz Headset       | 8L553AA |
| Poly Savi 7320 Stereo DECT 1893-1906 MHz Headset       | 8D3F8AA |
| Poly Savi 7320 Stereo DECT 1893-1906 MHz Headset       | 8L546AA |
| Poly Savi 7320 Stereo DECT 1893-1906 MHz Headset       | 8L555AA |
| Poly Savi 7320 Stereo DECT 1910-1920 MHz Headset       | 8D3G0AA |
| Poly Savi 7320 Stereo DECT 1920-1930 MHz Headset       | 7S429AA |
| Poly Savi 7320 Stereo DECT 1920-1930 MHz Headset       | 8L549AA |
| Poly Savi 7320 Stereo DECT 1920-1930 MHz Headset       | 8L559AA |
| Poly Savi 7320-M Stereo DECT 1880-1900 MHz Headset     | 8D3J6AA |
| Poly Savi 7320-M Stereo DECT 1893-1906 MHz Headset     | 8D3K2AA |
| Poly Savi 7320-M Stereo DECT 1910-1920 MHz Headset     | 8D3K0AA |
| Poly Savi 7320-M Stereo DECT 1920-1930 MHz Headset     | 7S435AA |
| Poly Savi 8210 DECT 1880-1900 MHz USB-A Headset        | 8D3E9AA |
| Poly Savi 8210 DECT 1880-1900 MHz USB-A Headset        | 8D3F1AA |
| Poly Savi 8210 DECT 1920-1930 MHz USB-A Headset        | 77T29AA |
| Poly Savi 8210 DECT 1920-1930 MHz USB-A Headset        | 77T31AA |
| Poly Savi 8220 DECT 1880-1900 MHz USB-A Headset        | 8D3F2AA |
| Poly Savi 8220 DECT 1880-1900 MHz USB-A Headset        | 8D3F5AA |
| Poly Savi 8220 DECT 1920-1930 MHz USB-A Headset        | 77T33AA |
| Poly Savi 8220 DECT 1920-1930 MHz USB-A Headset        | 77Y82AA |
| Poly Savi 8220 Stereo DECT 1880-1900 MHz Top           | 8Y9C4AA |
| Poly Savi 8245 DECT 1880-1900 MHz Headset              | 8D3H2AA |
| Poly Savi 8245 DECT 1880-1900 MHz USB-A Headset        | 8D3F4AA |
| Poly Savi 8410 Monaural DECT 1880-1900 MHz Headset     | 8L5A7AA |
| Poly Savi 8410 Monaural DECT 1880-1900 MHz Headset     | 8L5A9AA |
| Poly Savi 8410 Monaural DECT 1920-1930 MHz Headset     | 8L7E6AA |
| Poly Savi 8410 Monaural DECT 1920-1930 MHz Headset     | 8L7E9AA |
| Poly Savi 8420 Stereo DECT 1880-1900 MHz Headset       | 8L5B2AA |
| Poly Savi 8420 Stereo DECT 1880-1900 MHz Headset       | 8L5B3AA |
| Poly Savi 8420 Stereo DECT 1920-1930 MHz Headset       | 8L7F2AA |



|                                                       |                 |
|-------------------------------------------------------|-----------------|
| Poly Savi 8420 Stereo DECT 1920-1930 MHz Headset      | 8L7F5AA         |
| Poly Savi 8445 DECT 1880-1900 MHz Convertible Headset | 8L5B4AA         |
| Poly Savi 8445 DECT 1880-1900 MHz Convertible Headset | 8L5B6AA         |
| Poly Savi 8445 DECT 1920-1930 MHz Convertible Headset | 8L7F1AA         |
| Poly Savi 8445 DECT 1920-1930 MHz Convertible Headset | 8L7F8AA         |
| Poly Voyager 4310 Headset                             | 77Y93AA         |
| Poly Voyager 4310 Monaural Headset                    | 77Y92AA         |
| Poly Voyager 4310 USB-A Headset                       | 76U48AA         |
| Poly Voyager 4310 USB-A Headset                       | 77Y91AA         |
| Poly Voyager 4310 USB-C Headset                       | 77Y94AA         |
| Poly Voyager 4310 USB-C Headset                       | 77Y95AA         |
| Poly Voyager 4310 USB-C Headset                       | 77Y96AA         |
| Poly Voyager 4310-M USB-C Headset                     | 77Y97AA         |
| Poly Voyager 4320 Headset                             | 77Z00AA         |
| Poly Voyager 4320 Stereo USB-A Headset                | 77Y99AA         |
| Poly Voyager 4320 USB-A Headset                       | 76U49AA         |
| Poly Voyager 4320 USB-A Headset                       | 77Y98AA         |
| Poly Voyager 4320 USB-C Headset                       | 76U50AA         |
| Poly Voyager 4320 USB-C Headset                       | 77Z30AA         |
| Poly Voyager 4320 USB-C Headset                       | 77Z31AA         |
| Poly Voyager 4320-M Headset                           | 77Z32AA         |
| Poly Voyager Focus 2 USB-C-C Headset                  | 9T9J3AA         |
| Poly Voyager Focus 2 USB-C-C Headset                  | 9T9J5AA         |
| Poly Voyager Focus 2 USB-C-C Headset                  | 9T9J6AA         |
| Poly Voyager Legend 50 Headset UC                     | AT9M9AA,AT9M9UT |
| Poly Voyager Legend 50-M Headset UC                   | AJ8V4AA,AJ8V4UT |
| Poly Voyager Surround 80 USB-C Headset                | 8G7T9AA         |
| Poly Voyager Surround 80 USB-C Headset                | 8G7U0AA         |
| Poly Voyager Surround 85 USB-C Headset                | 8G7T7AA         |
| Poly Voyager Surround 85 USB-C Headset                | 8G7T8AA         |
| Poly Sync 10 Speakerphone                             | 77P34AA         |
| Poly Sync 20 Speakerphone USB-C/A Adapter             | B95VJUT         |
| Poly Sync 20+ Speakerphone                            | B95VKAA         |

**Audio - Speaker phone**

### Camera

### Cases

|                                                   |         |
|---------------------------------------------------|---------|
| Poly Sync 20+M Speakerphone USB-C/A Adapter       | B95VLAA |
| Poly Sync 20-M Speakerphone USB-C/A Adapter       | B95VMUT |
| Poly Sync 40 Speakerphone                         | 77P35AA |
| Poly Sync 40+ USB-A USB-C Speakerphone            | 77P36AA |
| Poly Sync 40+ USB-A USB-C Speakerphone            | 772C5AA |
| Poly Sync 60 Speakerphone                         | 772C2AA |
| Poly Sync 60 Speakerphone                         | 77P41AA |
| Poly Sync USB-A USB-C 10 Speakerphone             | 772C3AA |
| Poly Sync USB-A USB-C 40 Speakerphone             | 772C4AA |
| HP USB-A 325 Webcam                               | 53X27AA |
| HP 115 15.6 Laptop Backpack                       | 8DV45AA |
| HP 14 Convertible Laptop Backpack Tote            | 9C2H1AA |
| HP 14 Modular Laptop Sleeve                       | 9J499AA |
| HP 15.6 Modular Laptop Backpack                   | 9J496AA |
| HP 15.6 Modular Laptop Bag                        | 9J497AA |
| HP 15.6 Modular Laptop Sleeve                     | 9J498AA |
| HP 215 15.6 Laptop Backpack                       | 35L98UT |
| HP 225 15.6 Laptop Backpack                       | 2P7U6UT |
| HP 235 15.6 Laptop Backpack                       | 35M00AA |
| HP 315 15.6 Laptop Backpack                       | 35L97AA |
| HP Campus blue Backpack                           | 7K0E5AA |
| HP Campus Core 16 blue Laptop Backpack            | B9RB4AA |
| HP Campus Core 16 green Laptop Backpack           | B9RB5AA |
| HP Campus green Backpack                          | 7K0E4AA |
| HP Campus XL Marble Stone Backpack                | 7K0E2AA |
| HP Campus XL Tie Dye Backpack                     | 7K0E3AA |
| HP Convertible Laptop Stand                       | 9C2H2AA |
| HP Everyday 14 odyssey gray Laptop Bag            | A08KJAA |
| HP Everyday 14 odyssey gray Laptop Briefcase      | A08KGAA |
| HP Everyday 16 odyssey gray Laptop Backpack       | A08KLUT |
| HP Everyday 16 odyssey gray Laptop Bag            | A08KKAA |
| HP Everyday 16 odyssey gray Laptop Briefcase      | A08KHUT |
| HP Modern 14-inch moonless Night Laptop Briefcase | CJ8D0AA |



|                  |                                                    |                         |
|------------------|----------------------------------------------------|-------------------------|
|                  | HP Modern 14-inch navy blazer Laptop Briefcase     | CJ8F8AA                 |
|                  | HP Prelude 15.6 Backpack                           | 1E7D6AA,1E7D6UT,50P32AA |
|                  | HP Prelude 15.6 Top Load                           | 1E7D7AA,50P31AA         |
|                  | HP Prelude Pro Recycled 15.6 Backpack              | 1X644AA                 |
|                  | HP Prelude Pro Recycled 15.6 Top Load              | 1X645AA                 |
|                  | HP Protective 13-14 atmospheric blue Laptop Sleeve | C3TR3UT                 |
|                  | HP Protective 13-14 meteor silver Laptop Sleeve    | C3TR2UT                 |
|                  | HP Renew Business 14.1 Laptop Bag                  | 3E5F9AA                 |
|                  | HP Renew Business 14.1 Laptop Sleeve               | 3E2U7AA                 |
|                  | HP Renew Business 15.6 Laptop Bag                  | 3E5F8AA                 |
|                  | HP Renew Business 17.3 Laptop Backpack             | 3E2U5UT                 |
|                  | HP Renew Business 17.3 Laptop Bag                  | 3E2U6AA                 |
|                  | HP Renew Executive 14.1 Laptop Sleeve              | 6B8Y3AA                 |
|                  | HP Renew Executive 16 Laptop Backpack              | 6B8Y1UT                 |
|                  | HP Renew Executive 16 Laptop Bag                   | 6B8Y2AA                 |
|                  | HP Travel 18 Liter 15.6 iron gray Laptop Backpack  | 6H2D9AA                 |
|                  | HP Travel 25 Liter 15.6 iron gray Laptop Backpack  | 6H2D8AA                 |
|                  | HP Travel Plus 15 Liter 14 Laptop Bag              | A2CE2AA                 |
|                  | HP Travel Plus 22 Liter 16 Laptop Bag              | A2CE1AA                 |
|                  | HP Travel Plus 30 Liter 17 Laptop Backpack         | A2CE0AA                 |
| <b>Commodity</b> | HP USB DVD-Writer External ODD                     | F2B56AA                 |
|                  | HP Combination Nano Cable Lock                     | 63B28AA                 |
|                  | HP Essential Combination Nano Cable Lock           | 63B31AA                 |
|                  | HP Nano Keyed Cable Lock                           | 1AJ39AA                 |
|                  | HP Nano Master Keyed Cable Lock                    | 1AJ40AA                 |
|                  | HP SureKey Standard/Nano/Wedge Cable Lock          | 6UW42AA                 |
| <b>Docking</b>   | HP Thunderbolt™ 100W G6 Dock                       | 9X472AA,9X472UT         |
|                  | HP Thunderbolt™ 180W G6 Dock                       | 9X481AA,9X481UT         |
|                  | HP Thunderbolt™ 280W G6 Dock                       | AW5L5AA,AW5M5UT         |
| <b>Hub</b>       | HP USB-C™ 100W G6 Dock                             | 9X3V1AA,9X3V1UT         |
|                  | HP 4K USB-C Multiport Hub                          | 6G843AA                 |
|                  | HP Portable USB-C 4K HDMI Hub                      | BR1U0UT                 |
|                  | HP Portable USB-C Hub                              | B8SU8UT                 |



|                                   |                                                                        |                 |
|-----------------------------------|------------------------------------------------------------------------|-----------------|
| <b>Keyboard</b>                   | HP Universal USB-C Hub and Laptop Charger Combo                        | 9H0H9AA         |
|                                   | HP Universal USB-C Multiport Hub                                       | 50H55UT         |
|                                   | HP USB-C to USB-A Hub                                                  | Z6A00AA         |
|                                   | HP USB-C Travel Hub G3                                                 | 86S97UT         |
|                                   | HP 125 G2 Wired Keyboard                                               | AY2Y7AA         |
|                                   | HP 125 Wired Keyboard                                                  | 266C9AA         |
|                                   | HP 225 Wireless Keyboard                                               | 805T1AA         |
|                                   | HP 320K G2 Wired Keyboard                                              | 9SR37UT         |
|                                   | HP 355 Compact Multi-Device Keyboard                                   | 692S9AA         |
|                                   | HP 405 Backlit Wired Keyboard                                          | 7N7C1AA,7N7C1UT |
|                                   | HP 435 Programmable Wireless Keypad                                    | 7N7C3AA         |
|                                   | HP 475 Dual-Mode Wireless Keyboard                                     | 7N7B9AA,7N7B9UT |
|                                   | HP 485 Comfort Wired Keyboard                                          | 8T6M2AA         |
|                                   | HP 495K Multi-Device Keyboard                                          | BD5F5UT         |
|                                   | HP 585K Multi-Device Keyboard with Palm Rest                           | BD5F7AA         |
|                                   | HP 685 Comfort Dual-Mode Keyboard                                      | 8T6L9UT         |
|                                   | HP 725 Multi-Device Rechargeable Wireless Keyboard                     | 9T5B2AA         |
| <b>Keyboard &amp; Mouse Combo</b> | HP 965 black Ergonomic Wireless Keyboard                               | 7E756AA         |
|                                   | HP 975 Dual-Mode USB+Bluetooth Wireless Keyboard                       | 3Z726AA         |
|                                   | HP 225 Wired Mouse and Keyboard Combo G2                               | AX2Y7AA         |
|                                   | HP 225 Wired Mouse and Keyboard Combo Cashmere White G2                | AW5S6AA         |
|                                   | HP 235 Wireless Mouse and Keyboard Combo                               | 1Y4D0UT         |
|                                   | HP 685 Comfort Dual-Mode Keyboard and Mouse Combo                      | 8T6L7UT         |
|                                   | HP 725 Multi-Device Rechargeable Wireless Keyboard and Mouse Combo     | 9T5B0UT         |
|                                   | HP Multi-Device Dual-Mode Mouse and Keyboard Combo 495C                | BE1Q0UT         |
|                                   | HP Multi-Device Dual-Mode Mouse and Keyboard Combo 495C White          | BE1M6AA         |
|                                   | HP Multi-Device Dual-Mode Mouse and Keyboard Combo with Palm Rest 585C | BD5F3AA         |
| <b>Mouse</b>                      | HP Wired Desktop 320MK Mouse and Keyboard                              | 9SR36UT         |
|                                   | HP 105 Black Wired Mouse                                               | 822M9UT         |
|                                   | HP 105 Mouse Pad                                                       | 8X595AA         |



|              |                                                  |                 |
|--------------|--------------------------------------------------|-----------------|
|              | HP 125 Wired Mouse                               | 265A9UT         |
|              | HP 128 Laser Wired Mouse                         | 265D9AA         |
|              | HP 205 Desk Mat                                  | 8X597AA         |
|              | HP 235 Slim Wireless Mouse                       | 4E407UT         |
|              | HP 245 Black Bluetooth Mouse                     | 81S67AA,81S67UT |
|              | HP 255 Dual Wireless Mouse                       | 8R3U1AA,8R3U1UT |
|              | HP 285 Silent Wireless Mouse                     | 6G4E6AA         |
|              | HP 320M Wired Mouse                              | 9VA80AA         |
|              | HP 405 Quiet Black Wireless Mouse                | AZ7B3AA         |
|              | HP 425 Programmable Wireless Mouse               | 7M1D5AA         |
|              | HP 435 Multi-Device Wireless Mouse               | 3B4Q5UT         |
|              | HP 515 Ultra-Fast Rechargeable Wireless Mouse    | 9C2F7AA         |
|              | HP 685 Comfort Dual-Mode Mouse                   | 8T6M0UT         |
|              | HP 695 Qi-Charging Wireless Mouse                | 8F1Y4AA         |
|              | HP 705 Rechargeable Wireless Mouse               | AZ7B1AA         |
|              | HP 715 Rechargeable Multi-Device Bluetooth Mouse | 6E6F0AA         |
|              | HP 925 Ergonomic Vertical Wireless Mouse         | 6H1A5AA         |
|              | HP Tilt Ergonomic Mouse 725M                     | BH0Z5AA         |
|              | HP Travel USB Mouse                              | G1K28AA         |
|              | HP Ultra-Fast Scroll Wireless Mouse 785M         | B8YX4AA         |
| <b>Pen</b>   | HP 705 Rechargeable Multi Pen                    | 93Z28AA         |
| <b>Power</b> | HP 45W LC USB-C AC power adapter                 | 1MZ01AA         |
|              | HP 65W LC USB-C AC power adapter                 | 1P3K6AA         |
|              | HP 65W LC USB-C AC power adapter                 | AJ7X5AA         |
|              | HP 65W USB-C Laptop Charger                      | 671R3UT         |
|              | HP 56Wh Replaceable Laptop Battery               | BF8G6AA         |



CHANGELOG

| Date of change | Version History |       | Description of change |
|----------------|-----------------|-------|-----------------------|
| July 27, 2026  | V1 to V2        | Added | Processor Section     |

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