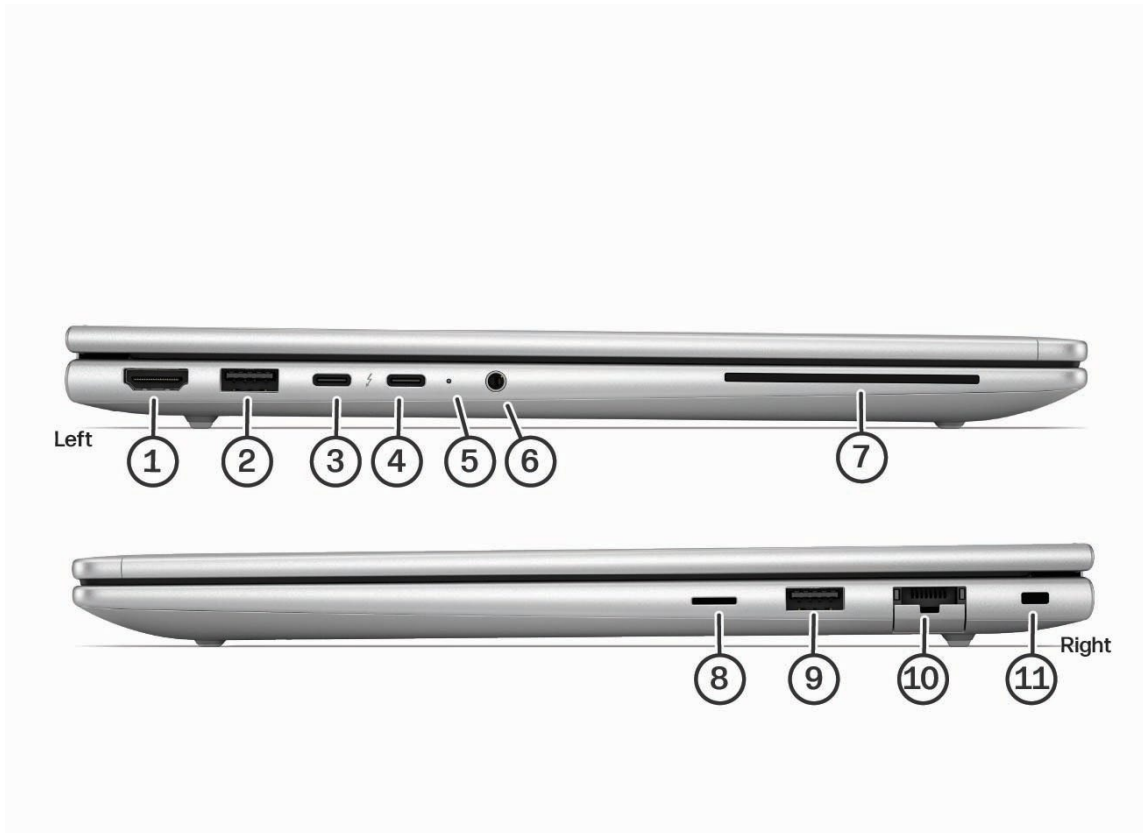


HP EliteBook 6 G2iR 14 inch Notebook Next Gen AI PC



Front

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



Sides

1	HDMI 2.1	8	Nano SIM card slot (optional)
2	USB Type-A 5Gbps signaling rate (Powered)	9	USB Type-A 5Gbps signaling rate (Powered)
3	Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) ¹	10	RJ45 Ethernet port
4	Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) ¹	11	Nano Security Slot
5	Power Indicator LED		
6	Headphone/mic combo jack		
7	Smart Card Reader (optional)		

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

PRODUCT NAME

HP EliteBook 6 G2iR 14 inch Notebook Next Gen AI PC



OPERATING SYSTEM

Preinstalled

FreeDOS

Windows 11 Home - HP recommends Windows 11 Pro for business ¹

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business ¹

Windows 11 Pro ¹

Windows 11 Pro (Windows 11 Enterprise available with a Volume Licensing Agreement) ¹

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>



PROCESSORS

Processor ^{2,3,4,5,6}	Cores	Number of P-cores	Number of E-cores	Number of LP E-cores	Threads	Smart Cache	Max Turbo Frequency		Intel SIPP/ vPro® Enterprise	Integrated Graphic	NPU
							P-cores	LP E-cores			
Intel® Core™ Ultra7 processor 268V	8 cores	4	0	4	8	12 MB	5.00 GHz	3.70 GHz	X	Intel® Arc™ 140V	48 TOPS
Intel® Core™ Ultra7 processor 258V	8 cores	4	0	4	8	12 MB	4.80 GHz	3.70 GHz		Intel® Arc™ 140V	47 TOPS
Intel® Core™ Ultra5 processor 236V	8 cores	4	0	4	8	8 MB	4.70 GHz	3.50 GHz	X	Intel® Arc™ 130V	40 TOPS
Intel® Core™ Ultra5 processor 226V	8 cores	4	0	4	8	8 MB	4.50 GHz	3.50 GHz		Intel® Arc™ 130V	40 TOPS

Processor Family

Intel® Core™ Ultra7 processor

Intel® Core™ Ultra5 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. For full Intel® vPro® functionality, Windows 10 (or higher) Pro or Enterprise 64 bit edition, a vPro supported processor, vPro enabled chipset, vPro enabled wired LAN and/or WLAN card and TPM 2.0 are required. Some functionality requires additional 3rd party software in order to run. See <http://intel.com/vpro>

5. Features and software that require a NPU may require software purchase, subscription or enablement by a software or platform provider, and third party software may have specific configuration or compatibility requirements. Potential NPU inferencing performance varies by use, configuration, and other factors.



6. 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® Arc™ Graphics ⁷

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.

7. Intel® ARC™ graphics only available on select Intel® Core™ Ultra H-series processor-powered systems with at least 16GB of system memory in dual channel configuration.



DISPLAY

Availability may vary by country.

Actual brightness will be lower with touchscreen or HP Sure View.

Non-Touch

35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Anti-Glare, WLED, 300 nits, Low Power, sRGB 62.5%

35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Anti-Glare, WLED+Low Blue Light, 400 nits, Low Power, sRGB 100%

35.6 cm (14") diagonal, 2.5K (2560 x 1600), LCD, 120Hz (VRR), UWVA, , Anti-Glare, WLED+Low Blue Light, 400 nits, Adobe 100% + DCI-P3 100%

Display Size (Diagonal)

35.6 cm (14.0")

Aspect Ratio

16:10

Screen to Body Ratio

Up to 88.80%

Max Hinge Open Angle

177±3°



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.



Docking station model name

HP USB-C™ 100W G6 Dock

Total number of supported displays (incl.the notebook)

4

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@ 30Hz 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).

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.

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

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.



STORAGE AND DRIVES

Storage

1 TB PCIe® NVMe™ SSD Value ⁸

512 GB PCIe® NVMe™ SSD Value ⁸

256 GB PCIe® NVMe™ SSD Value ⁸

⁸ 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.



MEMORY

Maximum Memory

32GB LPDDR5X-8533 MT/s

Memory

32GB LPDDR5X-8533 MT/s

16GB LPDDR5X-8533 MT/s

Memory Slots

No memory slots. Memory on package.

System runs at 8533 MT/s

Supports Dual Channel Memory.

The memory is non-accessible / non-upgradeable.



NETWORKING /COMMUNICATIONS

Items below may be optional.

Ethernet

Intel® I219-LM 1GbE Vpro Ethernet Controller

Intel® I219-V 1GbE Ethernet Controller

WLAN

Intel® BE201 Wi-Fi 7 Bluetooth® 5.4 non-vPro® WW WLAN⁹

Intel® BE201 Wi-Fi 7 Bluetooth® 5.4 vPro® WW WLAN⁹

Miracast

Native Miracast Support¹⁰

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.

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



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

Sensors

Fingerprint Sensor (optional)

Hall Effect Sensor

HP Sure Platform

HP Tamper Lock

Thermal Sensor



KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Standard Keyboard, spill-resistant, backlit, DuraKey keyboard

HP Standard Keyboard, spill-resistant, DuraKey keyboard

Pointing Device

Clickpad

Microsoft Precision Touchpad Default Gestures Support

Multi-touch gesture support

Function Keys ¹¹

ESC - System Information

F1 - Display Switching

F2 - Blank

F3 - Brightness Down

F4 - Brightness Up

F5 - Blank or KB Backlight

F6 - Audio Mute

F7 - Volume Down

F8 - Volume Up

F9 - Mic Mute

F10 - Media

F11 - Programmable Key (myHP)

F12 - HOME

End

Insert

Delete

Power Button (with LED)

Page up

Page down

Microsoft Copilot ¹¹



Hidden Function Keys

Fn+R - Break

Fn+S - Sys Rq

Fn+C - Scroll Lock

Fn+E - Insert

Fn+W - Pause

Fn+Copilot - Context Menu

11. 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.



SOFTWARE AND SECURITY

Application Software

Buy Microsoft Office (Sold Separately) ¹²

Edge Customization

HP Connection Optimizer

HP Hotkey Support

HP IQ ¹³

HP Mac Address Manager

HP Notifications

HP PC Hardware Diagnostics UEFI

HP PC Hardware Diagnostics Windows

HP Privacy Settings

HP Services Scan ¹⁴

HP Support Assistant ¹⁵

HSA Fusion for Commercial

HSA Telemetry for Commercial

HP app ¹⁶

Poly Studio Desktop ¹⁷

Manageability Features

HP Client Catalog (download) ¹⁸

HP Client Management Script Library (download) ¹⁹

HP Cloud Recovery ²⁰

HP Connect for Microsoft Endpoint Manager ²¹

HP Driver Packs (download) ²²

HP Image Assistant (download) ²³

HP Manageability Integration Kit (download) ²⁴

HP Patch Assistant (download) ²⁵

HP Power Manager with Battery Health Manager (download) ²⁶

Security Features

Secured-Core PC Enable ²⁷



Windows Hello Enhanced Sign-In Security (ESS)

HP Wolf Security for Business which includes: ²⁸

HP Sure Admin ²⁹

HP Sure Click ³⁰

HP Sure Recover ³¹

HP Sure Run ³²

HP Sure Sense ³³

HP Sure Start ³⁴

HP Tamper Lock ³⁵

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

BIOS

Absolute Persistence Module ³⁶

Audio Permanent Disable

HP BIOS Update via Network

HP BIOSphere ³⁷

HP DriveLock & Automatic DriveLock

HP Fingerprint Sensor

HP Secure Erase ³⁸

HP Wake on WLAN



Smartcard Reader

Model number

Alcorlink AK9563

FIPS 201-3 Compliant

FIPS 201-3 Compliant: Yes

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

12. Microsoft 365 sold separately and requires Internet access for activation.

13. HP IQ delivery app is preloaded on select HP PCs; it will be automatically updated to the future featured HP IQ application if you have auto updates enabled in Windows or will be available for download from the Microsoft Store. 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

14. 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>.

15. HP Support Assistant is available on Windows. For more information, please visit <http://www.support.hp.com/help/hp-support-assistant>



16. HP app requires Windows 10 or higher OS.
17. Poly Studio Desktop requires a Windows OS.
18. HP Client Catalog not preinstalled, however available for download at (<https://www.hp.com/us-en/solutions/client-management-solutions.html>).
19. HP Client Management Script Library (<https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>).
20. 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>.
21. 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.
22. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.
23. HP Image Assistant not preinstalled, however available for download at (<https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html>)
24. HP Manageability Integration Kit can be downloaded from <https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPMIK.html>
25. 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 <https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPMIK.html>
26. 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.
27. 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.
28. 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.
29. 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
30. HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.
31. 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 up important files, data, photos, videos, etc. before use to avoid loss of data.
32. HP Sure Run is available on select HP PCs and requires Windows 10 and higher.
33. HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11



Enterprise OS.

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

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

36. 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/>.

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

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

37. 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.

38. Mobile Mark 30 battery life will vary depending on various factors including product model, configuration, loaded applications, 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 for additional details.



POWER

Power supply availability may vary by country.

Battery is internal and replaceable by customer. Serviceable by warranty.

Power Supply

100W Wall Mount USB Type-C® GaN Halogen Free AC power adapter

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

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

Battery

HP Long Life 3 cell, 68Wh Polymer

HP Long Life 3 cell, 56Wh Polymer

Compliant with UL 1642/2054 Standard

Battery Recharge Time

Supports battery HP Fast Charge: approximately 50% in 30 minutes ³⁹

Power Cord

3-wired plug- 1.0m for standard type adapter

Battery life

MM30: Up to 21 hours with 68Whr battery (Intel Core Ultra 5 236V, UMA graphic, brightness set to 250nits on a 14-inch WUXGA 400nits LP LCD display, 16GB LPDDR5X memory, 256GB SSD) ⁴⁰

Teams 3x3: Up to 11 hours 45 minutes with 68Whr battery (Intel Core Ultra 5 236V, UMA graphic, brightness set to 150nits on a 14-inch WUXGA 400nits LP LCD display, 16GB LPDDR5X memory, 256GB SSD) ⁴¹

Web Browsing: Up to 24 hours 45 minutes with 68Whr battery (Intel Core Ultra 5 236V, UMA graphic, brightness set to 150nits on a 14-inch WUXGA 400nits LP LCD display, 16GB LPDDR5X memory, 256GB SSD) ⁴²

³⁹. 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.



40. Test configuration: MobileMark 30 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See <http://www.bapco.com> for additional details.
41. Test configuration: HP factory image, balanced power mode with Windows Studio Effects on. Teams 3x3 conferencing battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage.
42. Test configuration: HP factory image. Microsoft web browsing battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage (CER Test Methodology).



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 1.38 kg (3.04 lb) with 56.00 Wh battery

Product Dimensions (w x d x h)⁴³

Width: 318.60 mm (12.54 in)

Depth: 224.35 mm (8.83 in)

Height Front: 11.00 mm (0.43 in) - 11.50 mm (0.45 in)

Height Rear: 17.00 mm (0.67 in) - 17.50 mm (0.69 in)

Maximum height:

19.90 mm (0.78 in) - 20.40 mm (0.80 in) for plastic

20.90 mm (0.82 in) - 21.40 mm (0.84 in) for metal

Packaging and Pallet Dimensions

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.



PORTS/SLOTS

Left side

- 1 x USB Type-A 5Gbps signaling rate (Powered)
- 2 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) ⁴⁴
- 1 x HDMI 2.1 (Supports HDCP 2.3, resolution up to 4K/60Hz, bandwidth 6Gbps TMDS mode)
- 1 x headphone/mic combo jack
- 1 x Smart Card Reader (optional)

Right side

- 1 x USB Type-A 5Gbps signaling rate (Powered)
- 1 x RJ45 Ethernet port
- 1 x Nano Security Slot

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



ENVIRONMENTAL DATA

Environmental Data	Eco-Label Certifications & Declarations	<p>This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:</p> <ul style="list-style-type: none"> • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT® Gold registered in the United States. See http://www.epeat.net for registration status in your country. • TCO Certified • China Energy Conservation Program (CECP) • China State Environmental Protection Administration (SEPA) • Taiwan Green Mark • Korea Eco-label • Japan PC Green label* 																						
	Sustainable Impact Specifications	<ul style="list-style-type: none"> • Product Carbon Footprint • At least 30% ocean bound plastic in the Speaker enclosure and 5% in keyboard button membrane¹ • At least 30% post-consumer recycled plastic² • At least 25% recycled metal³ • External Power Supply 90% Efficiency • Low Halogen⁴ • 100% of HP paper-based packaging is from recycled or certified sustainable sources⁵ • Bulk packaging available 																						
	System Configuration Energy Consumption (in accordance with US ENERGY STAR® test method)	<p>The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".</p> <table border="1" data-bbox="634 1444 1576 1808"> <thead> <tr> <th></th> <th>115VAC, 60Hz</th> <th>230VAC, 50Hz</th> <th>100VAC, 50Hz</th> </tr> </thead> <tbody> <tr> <td>Normal Operation (Sort idle)</td> <td>6.30 W</td> <td>6.56 W</td> <td>6.19 W</td> </tr> <tr> <td>Normal Operation (Long idle)</td> <td>1.26 W</td> <td>1.32 W</td> <td>1.23 W</td> </tr> <tr> <td>Sleep</td> <td>1.26 W</td> <td>1.32 W</td> <td>1.23 W</td> </tr> <tr> <td>Off</td> <td>0.39 W</td> <td>0.43 W</td> <td>0.39 W</td> </tr> </tbody> </table>				115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz	Normal Operation (Sort idle)	6.30 W	6.56 W	6.19 W	Normal Operation (Long idle)	1.26 W	1.32 W	1.23 W	Sleep	1.26 W	1.32 W	1.23 W	Off	0.39 W	0.43 W	0.39 W
	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz																					
Normal Operation (Sort idle)	6.30 W	6.56 W	6.19 W																					
Normal Operation (Long idle)	1.26 W	1.32 W	1.23 W																					
Sleep	1.26 W	1.32 W	1.23 W																					
Off	0.39 W	0.43 W	0.39 W																					



	<p>Note: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.</p>		
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	22 BTU/hr	22 BTU/hr	21 BTU/hr
Normal Operation (Long idle)	4 BTU/hr	5 BTU/hr	4 BTU/hr
Sleep	4 BTU/hr	5 BTU/hr	4 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr
	<p>*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</p>		
Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WA}, bels)		Sound Pressure (L_{pAm}, decibels)
Typically Configured - Idle	2.6		13
Fixed Disk - Random writes	2.7		13
Active mode - Sequential reads	3.4		26
Longevity and Upgrading	<p>This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the</p> <p>Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.</p>		



	Additional Information	<ul style="list-style-type: none"> This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC. This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC. This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986). This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. This product is 92.3% recycle-able when properly disposed of at end of life. 		
	Packaging Materials	External:	PAPER/Corrugated	251 g
			PAPER/Molded Pulp	100 g
			PAPER/Paper	24.75 g
		The plastic packaging material contains at least 53% recycled content.		
		The corrugated paper packaging materials contains at least 53% recycled content.		
	RoHS Compliance	<p>HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam.</p> <p>We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products.</p> <p>We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve.</p> <p>To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.</p>		



	<p>Material Usage</p>	<p>This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c05998906):</p> <ul style="list-style-type: none"> • Asbestos • Certain Azo Colorants • Certain Brominated Flame Retardants - may not be used as flame retardants in plastics • Cadmium • Chlorinated Hydrocarbons • Chlorinated Paraffins • Bis(2-Ethylhexyl) phthalate (DEHP) • Benzyl butyl phthalate (BBP) • Dibutyl phthalate (DBP) • Diisobutyl phthalate (DIBP) • Formaldehyde • Halogenated Diphenyl Methanes • Lead carbonates and sulfates • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
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	<p>Packaging Usage</p>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
	<p>End-of-life Management and Recycling</p>	<p>HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: https://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c05403198 or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</p> <p>The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: HP Product Disassembly Instruction Website. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.</p>

	<p>HP, Inc. Corporate Environmental Information</p>	<p>For more information about HP's commitment to the environment:</p> <ul style="list-style-type: none"> • Sustainable Impact Report <ul style="list-style-type: none"> ○ https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06040843 • Eco-label certifications <ul style="list-style-type: none"> ○ https://www.hp.com/us-en/sustainable-impact/document-reports.html#filters_documents_reports=-document_type-type_energy_star,type_epeat,type_tcoISO • ISO 14001 certificates <ul style="list-style-type: none"> ○ https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04777932
	<p>Footnotes</p>	<ol style="list-style-type: none"> 1. Percentage of ocean-bound plastic contained in each component varies by product. Ocean Bound plastic is expressed as a percentage of the total weight plastic. Ocean Bound plastic is based on the definition set by the UL2809 standard. 2. Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard. 3. Recycled metal is expressed as a percentage of the total weight of the metal according to ISO 14021 definitions for metal parts over 25 grams. 4. External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen. 5. HP paper and fiber-based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included. Plastic cushions are made from >90% recycled plastic.



SERVICE AND SUPPORT

Warranty

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

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.



SYSTEM UNIT

Stand - Alone Power Requirements

(AC Power)

Nominal Operating Voltage	20.0 V
Max Operating Power	UMA < 100 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-4
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 ²	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 ³	MIL-STD 810H

1. 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.

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

3. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit <http://www.epeat.net> for more information.



DISPLAYS

Actual brightness will be lower with touchscreen or HP Sure View.

Availability may vary by country

35.6 cm (14") diagonal, WUXGA (1920 x 1200), 60 Hz IPS anti-glare, 300 nits, sRGB 62.5% eDP 1.2 w/o PSR	Active Area	301.590 x 188.500 mm (typ)
	Dimensions (W x H)	307.290 x 198.850 mm (max)
	Weight	300 g (max)
	Diagonal Size	14 inch
	Surface Treatment	Anti-Glare
	Touch Enabled	No
	Contrast Ratio	1,000:1 (typ)
	Refresh Rate	60 Hz (typ)
	Brightness	300 nits (typ)
	Pixel Resolution	RGB
	Pixel Resolution - Format	1920x1200 (WUXGA)
	Aspect Ratio	16:10
	Backlight	WLED
	Color Gamut Coverage	sRGB 62.5%
	Color Depth	8
	Viewing Angle	UWVA 89/89/89/89
	Low Blue Light	No
	Power Consumption	EBL @ 150 nits: 1.7 W(max) EBL @ 200 nits: 2.1 W(max) EBL @ 250 nits: 2.5 W(max)

35.6 cm (14") diagonal, WUXGA (1920 x 1200), 60 Hz WLED+LBL IPS anti-glare, 400 nits, sRGB 100% eDP1.5	Active Area	301.590 x 188.500 mm (typ)
	Dimensions (W x H)	307.590 x 199.550 mm (max)
	Weight	300 g (max)
	Diagonal Size	14 inch
	Surface Treatment	Anti-Glare
	Touch Enabled	No
	Contrast Ratio	1,200:1 (typ)



Refresh Rate	60 Hz (typ)
Brightness	400 nits (typ)
Pixel Resolution	RGB
Pixel Resolution - Format	1920x1200 (WUXGA)
Aspect Ratio	16:10
Backlight	WLED
Color Gamut Coverage	sRGB 100%
Color Depth	8
Viewing Angle	UWVA 89/89/89/89
Low Blue Light	Yes
Power Consumption	EBL @ 200 nits: 1.4 W(max) EBL @ 250 nits: 1.6 W(max)

35.6 cm (14") diagonal, 2.5K (2560 x 1600), WLED+LBL IPS anti-glare, 400 nits, AD-100 eDP 1.4+PSR2

Active Area	301.590 x 188.500 mm (typ)
Dimensions (W x H)	307.590 x 199.550 mm (max)
Weight	300 g (max)
Diagonal Size	14 inch
Surface Treatment	Anti-Glare
Touch Enabled	No
Contrast Ratio	1200:1 (typ)
Refresh Rate	120Hz
Brightness	400 nits (typ)
Pixel Resolution	RGB
Pixel Resolution - Format	1920x1200 (WUXGA)
Aspect Ratio	16:10
Backlight	WLED
Color Gamut Coverage	sRGB 100%
Color Depth	8
Viewing Angle	UWVA 89/89/89/89
Low Blue Light	Yes
Power Consumption	EBL@250: 3.1W (Max)



STORAGE

1 TB PCIe® NVMe™ Value 2280 Solid State Drive ¹	Form Factor	M.2 2280
	Capacity	1TB
	NAND Type	Value
	Weight	10 g
	Interface	PCIe NVMe
	Sequential Read	3500 MB/s ±20%
	Sequential Write	2700 MB/s ±20%
	Logical Blocks	2000409264
	Features	Pyrite 2.0; TRIM; L1.2 Not all features are available in all versions

256 GB PCIe® NVMe™ Value 2280 Solid State Drive	Form Factor	M.2 2280
	Capacity	256 GB
	NAND Type	Value
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Sequential Read	3100 MB/s ±20%
	Sequential Write	1200 MB/s ±20%
	Logical Blocks	500118192
	Features	Pyrite 2.0; TRIM; L1.2 Not all features are available in all versions.

512 GB PCIe® NVMe™ Value 2280 Solid State Drive	Form Factor	M.2 2280
	Capacity	512 GB
	NAND Type	Value
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Sequential Read	3500 MB/s ±20%
	Sequential Write	1600 MB/s ±20%
	Logical Blocks	1000215215
	Features	Pyrite 2.0; TRIM; L1.2 Not all features are available in all versions.



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.



NETWORKING / COMMUNICATION

Intel® BE201 Wi-Fi 7	Wireless LAN Standards	IEEE 802.11a
Bluetooth® 5.4 non-vPro WW		IEEE 802.11ac
WLAN ¹		IEEE 802.11ax
		IEEE 802.11b
		IEEE 802.11be
		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/be
		2.402 - 2.482 GHz
		802.11a/n/ac/ax/be
		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	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
		802.11ac: MCS0 ~ MCS9, (20MHz, 40MHz, 80MHz, 160MHz)
		802.11ax: MCS0 ~ MCS11, (20MHz, 40MHz, 80MHz, 160MHz)
		802.11b: 1, 2, 5.5, 11 Mbps



	802.11be: MCS0~13, (20MHz, 40MHz, 80MHz, 160MHz, 320MHz)
	802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	802.11n: MCS 0 ~ MCS 15, (20MHz, 40MHz)
Modulation	Direct Sequence Spread Spectrum 1024-QAM, 16-QAM, 256-QAM, 4096-QAM, 64-QAM, BPSK, CCK, Direct Sequence Spread Spectrum, OFDM, QPSK
Security	802.1x authentication AES-CCMP: 128 bit in hardware IEEE 802.11i IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only WAPI WPA, WPA2: 802.1x, WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification WPA3 (personal) certification
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b, 1Mbps: +17dBm minimum 802.11g, 6Mbps: +16dBm minimum 802.11a, 6Mbps: +17dBm minimum 802.11n, MCS7(HT20): +14dBm minimum 802.11n, MCS7(HT40): +13.5dBm minimum 802.11ac MCS9(VHT20): 13.5dBm minimum 802.11ac MCS9(VHT40): +13.5dBm minimum 802.11ac MCS9(VHT80): +12.5dBm minimum 802.11ac MCS9(VHT160): +10.5dBm minimum 802.11ax MCS11(HE20)(6GHz): +11.5dBm minimum 802.11ax MCS11(HE40)(6GHz): +7.5dBm minimum 802.11ax MCS11(HE80)(6GHz): +7.5dBm minimum 802.11ax MCS11(HE160)(6GHz): +7.5dBm minimum 802.11be MCS13(EHT20)(6GHz): 11.5dBm



	802.11be MCS13(EHT40)(6GHz) : 7.5dBm
	802.11be MCS13(EHT80)(6GHz) : 7.5dBm
	802.11be MCS13(EHT160)(6GHz) : 6.5dBm
	802.11be MCS13(EHT320)(6GHz) : 4.5dBm
Power Consumption	Transmit mode : 3.4 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 ²	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

Antenna Type	High efficiency antenna with spatial diversity 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 MiniCard with CNVi Interface
Dimensions	30.00 x 22.00 x 2.30 mm (1.18 x 0.87 x 0.09 inch)
Weight	3.1 g(0.109 oz)
Operating Voltage	3.3 v +/- 9 %
Bluetooth® Specification	Integrated Bluetooth® specifications 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Compliant
Frequency Band	2042 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels 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 I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software	Microsoft Windows Bluetooth® Software
Supported Link Topology	
Power Management	Microsoft Windows ACPI, and USB Bus Support ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687



Bluetooth® Profiles Supported

- LE 2Mbps
- Advanced Audio Distribution Profile (A2DP)
- Basic Imaging Profile (BIP)
- Bluetooth® 4.1 -ESR 5/6/7 Compliance
- Bluetooth® 4.2 ESR08 Compliance
- Bluetooth® 5.2
- Bluetooth 5.3 wireless card
- Bluetooth 5.4
- Channel Selection Algo
- Encryption key size control enhancements
- ESR9/10 Compliance
- FAX Profile (FAX)
- Hands Free Profile (HFP)
- Headset Profile (HSP)
- 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

**Intel® BE201 Wi-Fi 7
Bluetooth® 5.4 vPro WW
WLAN¹**

Wireless LAN Standards

- IEEE 802.11a
- IEEE 802.11ac
- IEEE 802.11ax



	IEEE 802.11b
	IEEE 802.11be
	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/be 2.402 - 2.482 GHz
	802.11a/n/ac/ax/be 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	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11ac: MCS0 ~ MCS9, (20MHz, 40MHz, 80MHz, 160MHz) 802.11ax: MCS0 ~ MCS11, (20MHz, 40MHz, 80MHz, 160MHz) 802.11b: 1, 2, 5.5, 11 Mbps 802.11be: MCS0~13, (20MHz, 40MHz, ,80MHz, 160MHz, 320MHz) 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS 0 ~ MCS 15, (20MHz, 40MHz)



Modulation	Direct Sequence Spread Spectrum 1024-QAM, 16-QAM, 256-QAM, 4096-QAM, 64-QAM, BPSK, CCK, Direct Sequence Spread Spectrum, OFDM, QPSK
Security	802.1x authentication AES-CCMP: 128 bit in hardware IEEE 802.11i IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only WAPI WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. WPA2 certification WPA3 (personal) certification
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power	802.11b, 1Mbps : +17dBm minimum 802.11g, 6Mbps : +16dBm minimum 802.11a, 6Mbps : +17dBm minimum 802.11n, MCS7(HT20) : +14dBm minimum 802.11n, MCS7(HT40) : +13.5dBm minimum 802.11ac MCS9(VHT20) : 13.5dBm minimum 802.11ac MCS9(VHT40) : +13.5dBm minimum 802.11ac MCS9(VHT80) : +12.5dBm minimum 802.11ac MCS9(VHT160) : +10.5dBm minimum 802.11ax MCS11(HE20)(6GHz) : +11.5dBm minimum 802.11ax MCS11(HE40)(6GHz) : +7.5dBm minimum 802.11ax MCS11(HE80)(6GHz) : +7.5dBm minimum 802.11ax MCS11(HE160)(6GHz) : +7.5dBm minimum 802.11be MCS13(EHT20)(6GHz) : 11.5dBm 802.11be MCS13(EHT40)(6GHz) : 7.5dBm 802.11be MCS13(EHT80)(6GHz) : 7.5dBm 802.11be MCS13(EHT160)(6GHz) : 6.5dBm 802.11be MCS13(EHT320)(6GHz) : 4.5dBm



Power Consumption	<p>Transmit mode : 3.4 W</p> <p>Receive mode : 1.8 W</p> <p>Idle mode (PSP) : 180 mW (WLAN Associated)</p> <p>Idle mode: 50 mW (WLAN unassociated)</p> <p>Connected Standby/Modern Standby : 10 mW</p> <p>Radio disabled : 8 mW</p>
Power Management	ACPI and PCI Express® compliant power management; 802.11 compliant power saving mode
Receiver Sensitivity²	<p>802.11b, 1Mbps : -93.5dBm maximum</p> <p>802.11b, 11Mbps : -85dBm maximum</p> <p>802.11a/g, 6Mbps : -90.5dBm maximum</p> <p>802.11a/g, 54Mbps : -72.5dBm maximum</p> <p>802.11n, MCS0(HT20) : -90dBm maximum</p> <p>802.11n, MCS7(HT20) : -71.5dBm maximum</p> <p>802.11n, MCS0(HT40) : -88.5dBm maximum</p> <p>802.11n, MCS7(HT40) : -68.5dBm maximum</p> <p>802.11ac, MCS9(VHT20) : -88.5dBm maximum</p> <p>802.11ac, MCS9(VHT40) : -65.5dBm maximum</p> <p>802.11ac, MCS9(VHT80) : -60.5dBm maximum</p> <p>802.11ac, MCS9(VHT160) : -58.5dBm maximum</p> <p>802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum</p> <p>802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum</p> <p>802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum</p> <p>802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum</p> <p>802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum</p> <p>802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum</p> <p>802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum</p> <p>802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum</p> <p>802.11be, MCS13(EHT320)(6GHz) : -45.5dBm maximum</p>
Antenna Type	<p>High efficiency antenna with spatial diversity</p> <p>Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications</p>



Form Factor	PCI Express® M.2 MiniCard with CNVi Interface
Dimensions	30.00 x 22.00 x 2.30 mm (1.18 x 0.87 x 0.09 inch)
Weight	3.1 g(0.109 oz)
Operating Voltage	3.3 v +/- 9 %
	Integrated Bluetooth® specifications
Bluetooth® Specification	4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Compliant
Frequency Band	2042 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels 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 I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.
Power Consumption	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
Bluetooth® Software	Microsoft Windows Bluetooth® Software
Supported Link Topology	
Power Management	Microsoft Windows ACPI, and USB Bus Support ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Certifications	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249, 15.407 ETSI 300 328, ETSI 301 893, ETSI 303 687
Bluetooth® Profiles Supported	LE 2Mbps Advanced Audio Distribution Profile (A2DP) Basic Imaging Profile (BIP) Bluetooth® 4.1 -ESR 5/6/7 Compliance



Bluetooth® 4.2 ESR08 Compliance
 Bluetooth® 5.2
 Bluetooth 5.3 wireless card
 Bluetooth 5.4
 Channel Selection Algo
 Encryption key size control enhancements
 ESR9/10 Compliance
 FAX Profile (FAX)
 Hands Free Profile (HFP)
 Headset Profile (HSP)
 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

**Intel® I219-LM 1GbE Vpro
Ethernet Controller**

Connector
System Interface
Data Rates Supported

RJ-45
 PCI™ (Intel proprietary) + SMBus
 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40)
 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)
 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses



	13-14)
	Auto-Negotiation (Automatic Speed Selection)
	Full Duplex Operation at all Speeds
	Half Duplex operation at 10 & 100 Mbit/s
IEEE Compliance	IEEE 802.1p QoS (Quality of Service) Support
	IEEE 802.1q VLAN support
	IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)
	IEEE 802.3az EEE (Energy Efficient Ethernet)
Performance	TCP/IP/UDP Checksum Offload (configurable)
	Protocol Offload (ARP & NS)
	Large send offload and Giant send offload
	Receiving Side Scaling (Hash Mode Only)
	Jumbo Frame 9K
Power Consumption	Cable Disconnection: 25 mW
	100Mbps Full Run: 450 mW
	1000Mbps Full Run: 1000 mW
	WoL Enable(S3/S4/S5): 50 mW
	WoL Disable(S3/S4/S5): 25 mW
Power Management	ACPI compliant - multiple power modes
	Situation-sensitive features reduce power consumption
	Advanced link down power saving for reducing link down power consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame)
	Wake-on-LAN from off (Magic Packet only)
	PXE 2.1 Remote Boot
	Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))
	Comprehensive diagnostic and configuration software suite
	Virtual Cable Doctor for Ethernet cable status
Security & Manageability	Intel® vPro™ support with appropriate Intel® chipset components



Intel® I219-V 1GbE Ethernet Controller	Connector	RJ-45
	System Interface	PCI™ (Intel proprietary) + SMBus
	Data Rates Supported	<p>10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)</p> <p>100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)</p> <p>1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 clauses 40)</p> <p>Auto-Negotiation (Automatic Speed Selection)</p> <p>Full Duplex Operation at all Speeds</p> <p>Half Duplex operation at 10 & 100 Mbit/s</p>
	IEEE Compliance	<p>IEEE 802.1p QoS (Quality of Service) Support</p> <p>IEEE 802.1q VLAN support</p> <p>IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)</p> <p>IEEE 802.3az EEE (Energy Efficient Ethernet)</p> <p>IEEE 802.3i 10BASE-T</p> <p>IEEE 802.3u 100BASE-TX</p> <p>IEEE 802.3ab 1000BAE-T</p>
	Performance	<p>TCP/IP/UDP Checksum Offload (configurable)</p> <p>Protocol Offload (ARP & NS)</p> <p>Large send offload and Giant send offload</p> <p>Receiving Side Scaling (Hash Mode Only)</p> <p>Jumbo Frame 9K</p>
	Power Consumption	<p>Cable Disconnection: 25 mW</p> <p>100Mbps Full Run: 450 mW</p> <p>1000Mbps Full Run: 1000 mW</p> <p>WoL Enable(S3/S4/S5): 50 mW</p> <p>WoL Disable(S3/S4/S5): 25 mW</p>
	Power Management	<p>ACPI compliant - multiple power modes</p> <p>Situation-sensitive features reduce power consumption</p> <p>Advanced link down power saving for reducing link down power</p>



	consumption
Management Interface	Auto MDI/MDIX Crossover cable detection
IT Manageability	Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame) Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Virtual Cable Doctor for Ethernet cable status Comprehensive diagnostic and configuration software suite
Security & Manageability	Intel® non-vPro™ support with appropriate Intel® chipset components

1. 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.

2. 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).



POWER

Power supply availability may vary by country. Battery is internal and replaceable by customer. Serviceable by warranty.

100W Wall mount USB Type-C® GaN Halogen Free AC power adapter	Weight (DC Cable Included)	106 g ± 10 g	
	Input	100 Vac ~ 240 Vac	
	Input Efficiency	USB-C 90.00 % min at 115 Vac/ 230 Vac @ 20.00 V/ 5.00 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 / 100.00 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	Fixed 2 Prong	
	DC Cable Connector	USB Type-C	
	DC Cable Material	Halogen Free	
	Connector		
	Connector	Fixed 2 Prong	
	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 %	
EML 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

100W Wall mount USB Type-C® GaN Halogen Free AC power adapter	Weight (DC Cable Included)	250 g ± 10 g
	Input	100 Vac ~ 240 Vac
	Input Efficiency	USB-C 90.00 % min at 115 Vac/ 230 Vac @ 20.00 V/ 5.00 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 / 100.00 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
	Connector	
	Connector	Foldable for 2 prong
	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	



65W Gallium Nitride USB-C 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	



65W Wall mount USB Type-C® GaN Halogen Free 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	Foldable for 2 prong
	DC Cable Connector	USB Type-C
	DC Cable Material	Halogen Free
	Connector	
	Connector	Foldable for 2 prong
	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	



65W Wall mount USB Type-C® GaN Halogen Free 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	5.50 A (max)
	Protection	
	AC Inlet Type	Fixed 2 Prong
	DC Cable Connector	USB Type-C
	DC Cable Material	Halogen Free
	Connector	
	Connector	Fixed 2 Prong
	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	



Battery

RX 56Whr Long Life Polymer	Weight	207 g ± 10 g (0.46 lb)
Fast charge 3 cell Battery	Cells / Type	3 cell Lithium-Ion Polymer / 586075
	Energy	
	Voltage	11.58 V
	Amp - hour capacity	4.848 Ah
	Watt - hour capacity	56.000
	Temperature	
	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

PM 68Whr Long Life Polymer	Weight	236 g ± 10 g (0.52 lb)
Fast charge 3 cell Battery	Cells / Type	3 cell Lithium-Ion Polymer /
	Energy	
	Voltage	11.67 V
	Amp - hour capacity	5.830 Ah
	Watt - hour capacity	68.000
	Temperature	
	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



AUDIO

Codec	Realtek ALC3247
Audio I/O Ports	3.5mm Headset: CTIA only; Headphone-out
Multi-streaming Capable	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. Following Microsoft behavior.
Sampling	DAC: Supports resolutions from 16-bit to 24-bit;48.0 kHz to 48.0 kHz ADC: Supports resolutions from 16-bit to 24-bit;44.1 kHz to 48.0 kHz
Internal Speaker	Yes



FINGERPRINT READER

Sensor vendor	Synaptics
Sensor type	Capacitive
DPI resolution	363 DPI
Scan area	104 x 86 pixels
False Rejection Rate	< 3%
False Acceptance Rate	< 0.002%
Mobile Voltage Operation	2.7 V ~ 3.6 V
Operating Temperature	-20°C ~ 85°C (-4°F ~ 185°F)
Current Consumption Image	100 mA max
Low Latency Wait For Finger	50 uA
Capture Rate	58 frames/sec
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	363 dpi / 6.0 x 7.4 mm sensor area

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	2.8 V ~ 3.6 V
Operating Temperature	-20°C ~ 80°C (-4°F ~ 176°F)
Current Consumption Image	120 mA max
Low Latency Wait For Finger	350 uA
Capture Rate	30 frames/sec
ESD Resistance	IEC 61000-4-2 4B (+15KV)
Detection Matrix	508 dpi / 4.0 x 4.0 mm sensor area



OPTIONS

Container Name	Description	Part Number
Adapters	HP 240W Thunderbolt 4 Cable	BR1W8AA
	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
Audio - Earbuds	HP USB-C to VGA Adapter	N9K76AA
	Poly Voyager Free 60+ UC Carbon Black Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8G4AA
Audio - Headset	Poly Voyager Free 60+M UC Carbon Black Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8H0AA
	HP Poly Focus 625 Fold Headset + Wireless Charge Stand	C56XZAA
Audio - Headset	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 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 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	
Audio - Speaker phone	Poly Sync 10 Speakerphone	77P34AA	
	Poly Sync 20 Speakerphone USB-C/A Adapter	B95VJUT	
	Poly Sync 20+ Speakerphone USB-C/A Adapter	B95VKAA	
	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	
	Camera	HP 435 Webcam	77B10AA
		HP 625 Webcam	6Y7L1AA
HP USB-A 325 Webcam		53X27AA	
Cases	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 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 Modern 16-inch moonless Night Laptop Briefcase	CJ8D2AA
HP Modern 16-inch navy blazer Laptop Briefcase	CJ8F9AA
HP Prelude 15.6 Backpack	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 Protective 15-16 atmospheric blue Laptop Sleeve	C40BPUT
HP Protective 15-16 meteor silver Laptop Sleeve	C40BQUT
HP Renew Business 14.1 Laptop Bag	3E5F9AA
HP Renew Business 14.1 Laptop Sleeve	3E2U7UT
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
HP USB DVD-Writer External ODD	F2B56AA
HP 14-inch Widescreen Laptop Privacy Filter	BH0M6AA
HP Combination Nano Cable Lock	63B28AA

Commodity



	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
	HP Universal Keyed Cable Lock	C6CQ2AA
	HP Universal Resettable Combination Cable Lock	C6CQ3AA
Docking	HP Thunderbolt™ 100W G6 Dock	9X472AA,9X472UT
	HP Thunderbolt™ 180W G6 Dock	9X481AA,9X481UT
	HP Thunderbolt™ 280W G6 Dock	AW5L5AA,AW5M5UT
	HP USB-C™ 100W G6 Dock	9X3V1AA,9X3V1UT
Hub	HP 4K USB-C Multiport Hub	6G843AA
	HP Portable USB-C 4K HDMI Hub	BR1U0UT
	HP Portable USB-C Hub	B8SU8UT
	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
Keyboard	HP 125 G2 Wired Keyboard	AY2Y7AA
	HP 175K Wired Keyboard	D54CRAA
	HP 225 Wireless Keyboard	805T1AA
	HP 275K Wireless Keyboard	D4YK9AA
	HP 320K G2 Wired Keyboard	9SR37UT
	HP 405 Backlit Wired Keyboard	7N7C1AA,7N7C1UT
	HP 435 Programmable Wireless Keypad	7N7C3AA
	HP 475 Dual-Mode Wireless Keyboard	7N7B9A,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
	HP 965 black Ergonomic Wireless Keyboard	7E756AA
Keyboard & Mouse Combo	HP 175C Mouse and Keyboard Combo	D54DLAA
	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 275C Mouse and Keyboard Combo	D4YK6AA
	HP 685 Comfort Dual-Mode Keyboard and Mouse Combo	8T6L7AA
	HP 725 Multi-Device Rechargeable Wireless Keyboard and	9T5B0UT



	Mouse Combo	
Mouse	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
	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 175M Wired Mouse	D54CFAA
	HP 205 Desk Mat	8X597AA
	HP 235 Slim Wireless Mouse	4E407UT
	HP 245 Black Bluetooth Mouse	81S67AA,81S67UT
	HP 255 Dual Wireless Mouse	8R3U1UT
	HP 275M Wireless Mouse	D4YK4AA
	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 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	
Power	HP 100W Gallium Nitride Wall Charger	CS9V7UT
	HP 65W Gallium Nitride USB-C LC Power Adapter	D36ZXAA
	HP 65W Gallium Nitride Wall Charger	C90CKUT
	HP 140W USB-C Laptop Charger	B7NK0AA
	HP 65W USB-C Laptop Charger	671R3UT
	HP 56Wh Replaceable Laptop Battery	BF8G6AA



CHANGELOG

Date of change	Version History		Description of change
April 1, 2026	V1 to V2	Added	Environmental Section
April 7, 2026	V2 to V3	Updated	Power Section
April 29, 2026	V3 to V4	Updated	Power Section
May 11, 2026	V4 to V5	Updated	Processor Section

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