

HP EliteBook X G1i 14 inch Notebook Next Gen AI PC



Also available in
Atmospheric Blue



Front

| | | | |
|---|-------------------------|---|----------------|
| 1 | Internal Microphone (2) | 4 | Camera Shutter |
| 2 | IR Camera | 5 | Touchpad |
| 3 | Webcam | | |



Sides

| | | | |
|---|--|----|--|
| 1 | 1 x HDMI 2.1 | 6 | 1 x Nano SIM card slot (optional) |
| 2 | 1 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) | 7 | Power Indicator LED |
| 3 | 1 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) | 8 | 1 x USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4) |
| 4 | Power Indicator LED | 9 | 1 x USB Type-A 5Gbps signaling rate (Powered |
| 5 | 1 x Headphone/mic combo jack | 10 | 1 x Security lock slot |

PRODUCT NAME

HP EliteBook X G1i 14 inch Notebook Next Gen AI PC

OPERATING SYSTEM

FreeDOS

Windows 11 Home - HP recommends Windows 11 Pro for business¹

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business¹

Windows 11 Pro¹

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} | Cores | Number of P-cores | Number of E-cores | Number of LP E-cores | Threads |
|------------------------------------|---------|-------------------|-------------------|----------------------|---------|
| Intel® Core™ Ultra7 processor 268V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra7 processor 266V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra7 processor 258V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra7 processor 256V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra5 processor 238V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra5 processor 236V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra5 processor 228V | 8 cores | 4 | N/A | 4 | 8 |
| Intel® Core™ Ultra5 processor 226V | 8 cores | 4 | N/A | 4 | 8 |

| Processor ^{2,3,4} | Smart Cache | Max Turbo Frequency | | Intel SIPP/vPro® Enterprise | Integrated Graphics | NPU |
|------------------------------------|-------------|---------------------|-----------|-----------------------------|---------------------|---------|
| | | P-cores | LPE-cores | | | |
| Intel® Core™ Ultra7 processor 268V | 12 MB | 5.00 GHz | 3.70 GHz | X | Intel® Arc™ 140V | 48 TOPS |
| Intel® Core™ Ultra7 processor 266V | 12 MB | 5.00 GHz | 3.70 GHz | X | Intel® Arc™ 140V | 48 TOPS |
| Intel® Core™ Ultra7 processor 258V | 12 MB | 4.80 GHz | 3.70 GHz | | Intel® Arc™ 140V | 47 TOPS |
| Intel® Core™ Ultra7 processor 256V | 12 MB | 4.80 GHz | 3.70 GHz | | Intel® Arc™ 140V | 47 TOPS |
| Intel® Core™ Ultra5 processor 238V | 8 MB | 4.70 GHz | 3.50 GHz | X | Intel® Arc™ 130V | 40 TOPS |
| Intel® Core™ Ultra5 processor 236V | 8 MB | 4.70 GHz | 3.50 GHz | X | Intel® Arc™ 130V | 40 TOPS |
| Intel® Core™ Ultra5 processor 228V | 8 MB | 4.50 GHz | 3.50 GHz | | Intel® Arc™ 130V | 40 TOPS |
| Intel® Core™ Ultra5 processor 226V | 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's numbering, branding and/or naming is not a measurement of higher performance.

3. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

4. Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.

5. 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>.

6. 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. Performance varies by use, configuration, and other factors.



GRAPHICS

Integrated

Intel® ARC™ Graphics ⁷

Supported Protocols

Support DX12, HDMI 2.1 (4K/60Hz only), HDCP 2.3

Displays supported (including Internal display; dock may be required)

Up to 3

Codec

Hardware Acceleration HEVC (H.265) CODEC is supported.

7. Intel® Arc™ graphics only available on select Intel® Core™ Ultra V-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, Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5⁸

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

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

Touch

35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Touch, Anti-Glare, Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5⁸

35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Touch, Anti-Glare, WLED, 500 nits, sRGB 100%

Display Size (Diagonal)

35.6 cm (14.0")

Screen to Body Ratio

89.8%

Aspect Ratio

16:10

Max Hinge Open Angle

177±3°

8. HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.

DOCKING (SOLD SEPARATELY)

Docking station model #1

HP Thunderbolt 4 100W G6 Dock

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

4

Max. resolutions supported

(4) 4K @60Hz*

(2) 4K @ 120Hz*

(3) QHD @ 120Hz*

(1) QHD @ 360Hz*

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

Dock Connectors

Yes

HP Quick Connect Support

HP Quick Connect is supported on this platform.

*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.

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

Thunderbolt Hosts:

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 #2

HP Thunderbolt Dock G4

Total number of supported displays (incl.the notebook)

4

display)

Max.resolutions supported

Quad 4K @60Hz

Dual 8K single cable@30 for Thunderbolt hosts or USB-C hosts DisplayPort 1.4 with Display Stream Compression in High-Resolution Mode

2x HDMI 2.0, 2x DisplayPort 1.4, 1x Thunderbolt 4, 1x USB-C 3.2 Gen 2 DisplayPort 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 #3

HP USB-C Dock G5

Total number of supported displays (incl.the

3

notebook)

display)

Max.resolutions supported

Multi-Function Mode: (2) 5k @ 30Hz and (1) 4k UHD @ 30Hz on any port

High-Resolution Mode: (2) 5k @ 60Hz on DisplayPort ports and (1) 4k UHD @ 60Hz on HDMI port

1x HDMI 2.0, 2x DisplayPort 1.4

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

Dock Connectors

Technical limitations

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.

STORAGE AND DRIVES

Primary Storage

2 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell ⁹

1 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell ⁹

1 TB PCIe® NVMe™ SSD Value ⁹

512 GB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell ⁹

512 GB PCIe® Gen4x4 NVMe™ Self Encrypted OPAL2 SSD Three Layer Cell ⁹

512 GB PCIe® NVMe™ SSD Value ⁹

256 GB PCIe® NVMe™ SSD Value ⁹

9. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 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

Optional feature.

WLAN

Intel® BE201 Wi-Fi 7 Bluetooth® 5.4 vPro WW WLAN ¹⁰

Intel® BE201 Wi-Fi 7 Bluetooth® 5.4 non-vPro WW WLAN ¹⁰

WWAN

HP R15 5G Solution ¹¹

HP R15 4G LTE-Advanced Pro ¹²

LPWAN

Qualcomm 9205 LTE-M (CAT-M1 fSVC) ¹³

NFC (optional)

NFC Mirage WNC XRAV-1

Miracast

Native Miracast Support ¹⁴

10. 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 Intel® 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.

11. 5G module is optional. WWAN-ready configuration must be selected at purchase to add WWAN at a later date. 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.

12. 4G module is optional. WWAN-ready configuration must be selected at purchase to add WWAN at a later date. Check with service provider for coverage and availability in your area. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions. "stry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

13. Cat M1 LPWAN (Mobile Narrowband) cards support select platforms with the HP Protect & Trace with Wolf Connect service, but do not support mobile broadband/Internet use.

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



AUDIO/MULTIMEDIA

Select product only (Privacy panel SKU).

Audio

Audio by Poly Studio
4 Integrated stereo speakers
Discrete Amplifiers
2 Integrated dual array microphone

Speaker Power

1W / 8 ohm per speaker

Camera

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

Sensors

Ambient Light Sensor
Color Sensor with Ambient Light Sensing
Fingerprint Sensor (optional)
Gyroscope
Hall Effect Sensor
Inertial Measurement Unit Sensor
Thermal Sensor

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Premium Keyboard, spill-resistant, Backlit, Durakey keyboard.

HP Premium Keyboard, spill-resistant, Privacy, Backlit, Durakey keyboard

Pointing Device

Clickpad

Microsoft Precision Touchpad Default Gestures Support

Multi-touch gesture support

Function Keys

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

ESC - System information

F1 - Display Switching

F2 - Blank or Privacy

F3 - Brightness Down

F4 - Brightness Up

F5 - Keyboard Backlight

F6 - Audio Mute

F7 - Volume Down

F8 - Volume Up

F9 - Mic Mute

F10 - Play and Pause

F11 - Programmable key

F12 - HOME

End

Insert

Delete

Power Button (with LED)

Microsoft Copilot

Hidden Function Keys

Fn+R - Break, Fn+S - Sys Rq, Fn+C - Scroll Lock

SOFTWARE AND SECURITY

Application Software

Buy Microsoft Office (Sold Separately)

Edge Customization

HP AI Companion

HP Connection Optimizer

HP Hotkey Support

HP Mac Address Manager

HP Notifications

HP PC Hardware Diagnostics UEFI

HP PC Hardware Diagnostics Windows

HP Privacy Settings

HP Services Scan ¹⁵

HP Smart Support ¹⁶

HP Support Assistant ¹⁷

HSA Fusion for Commercial

HSA Telemetry for Commercial

myHP ¹⁸

Poly Camera Pro

Poly Lens ¹⁹

Manageability Features

HP Client Catalog ([download](#)) ²⁰

HP Client Management Script Library ([download](#)) ²¹

HP Cloud Recovery ²²

HP Connect for Microsoft Endpoint Manager ²³

HP Driver Packs ([download](#)) ²⁴

HP Image Assistant ([download](#)) ²⁵

HP Manageability Integration Kit ([download](#)) ²⁶

HP Power Manager with Battery Health Manager ([download](#)) ²⁷

Security Management

Secured-Core PC Enable ²⁸

Windows Hello Enhanced Sign-In Security (ESS)

HP Wolf Security for Business which includes: ²⁹

HP Sure Admin ³⁰

HP Sure Click ³¹

HP Sure Recover ³²

HP Sure Run ³³

HP Sure Sense ³⁴

HP Sure Start ³⁵

HP Tamper Lock ³⁶



Security- TPM

Model: Nuvoton NPCT760HABYX

TCG TPM 2.0

Firmware Version: 7.2.4.0

FIPS 140-2 Compliant: Yes

BIOS

Absolute Persistence Module ³⁷

Audio Permanent Disable

BIOS Update via Network

HP BIOS Recovery

HP BIOSphere³⁸

HP DriveLock & Automatic DriveLock

HP Fingerprint Sensor ³⁹

HP Secure Erase ⁴⁰

HP Wake on WLAN

IPv6 Support

Yes

FirstNet Certified

Yes

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

UEFI version: 2.7b

HP BIOS UEFI Specification Level version 2.9 supported with BIOS update

Class: 3

15. HP Services Scan is preinstalled and/or provided thru Windows Update and checks for service entitlement on each hardware device and downloads the HP Insights agent automatically. To disable this feature, please follow the instructions at <http://www.hpdaas.com/requirements>. The HP Insights agent is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. Select HP Workforce Solutions require an HP Insights agent for Windows, Mac, & Android, available for download at <https://admin.hp.com/software>. For full system requirements and services that require the agent, please visit <https://admin.hp.com/requirements>. The agent collects telemetry and analytics around devices and applications that integrate into the Workforce Experience platform and is not sold as a standalone service. Internet access with connection to the Workforce Experience platform is required. HP follows stringent GDPR privacy regulations, and the platform is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Not available in China.

16. HP Smart Support requires the HP Insights agent to be installed. For more information about how to enable or to download HP Smart Support, please visit <http://www.hp.com/smart-support>. HP Services Scan is preinstalled and/or provided thru Windows Update and will check entitlement on each hardware device to determine if an HP Insights agent-enabled service has been purchased, and will download applicable software automatically. HP Insights agent is a telemetry and analytics platform that provides critical data around devices and

applications and is not sold as a standalone service. HP follows stringent GDPR privacy regulations and is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Internet access is required. For full system requirements or to disable this feature, please visit <https://www.hpdaas.com/requirements>.

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

18. MyHP requires Windows 10 or higher OS.

19. Poly Lens 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/computer>.

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 not presintalled, however available for downloaded from <https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>.

27. 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

28. 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.

29. 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.

30. 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 smartphone app from the Android or Apple store.

31. HP Sure Click requires Windows 10 and higher. See https://bit.ly/2PrLT6A_SureClick for complete details.

32. 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.

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

34. HP Sure Sense requires Windows 10 and higher. See product specifications for availability. On units with WWAN shipping to China, HP Sure Sense is only available via Softpaq download.

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

36. HP Tamper Lock must be enabled by the customer or your administrator.

37. 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/>

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

39. HP Fingerprint Reader is an optional feature that requires Windows 10 or 11 and must be configured at purchase.

40. HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.

POWER

Power supply availability may vary by country.

Battery is internal and not replaceable by customer. Serviceable by warranty.

Power Supply

HP 100W Slim USB Type-C® AC power adapter

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

HP 65W USB Type-C® Gallium Nitride AC power adapter

HP 65W Slim USB Type-C® AC power adapter

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

Battery

HP Long Life 6 cell, 68Whr Polymer

HP Long Life 3 cell, 56Whr Polymer

Battery Recharge Time

Supports battery HP Fast Charge: approximately 50% in 30 minutes ⁴¹

Power Cord

3-wired plug- 1.0m

Battery life

Up to 24 hours 30 minutes with 68Whr battery (Intel Ultra 7 vPro, UMA graphic, brightness set to 250nits on a WUXGA 400nits LCD display, 16GB LPDDR5x memory, 256GB SSD) ⁴²

Up to 19 hours 30 minutes with 56Whr battery (Intel Ultra 7 vPro, UMA graphic, brightness set to 250nits on a WUXGA 400nits LCD display, 16GB LPDDR5x memory, 256GB SSD) ⁴²

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 25 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.



WEIGHT & DIMENSIONS

Product Weight

Starting at 1.18 kg (2.6 lb) with 56.00 Wh battery

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

Product Dimensions (w x d x h)⁴³

313.9 mm (W) x 219.90 mm (D) x 10.50 mm (front) / 14.90 mm (rear) (12.36 in (W) x 8.66 in (D) x 0.41 in (front) / 0.59 in (rear))

Maximum height 17.55 mm (0.69 in)

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](#).

PORTS/SLOTS

Left side

- 2 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) ⁴⁴
- 1 x HDMI 2.1
- 1 x Headphone/mic combo jack

Right side

- 1 x USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- 1 x USB Type-A 5Gbps signaling rate (Powered)
- 1 x Nano SIM card slot (optional)
- 1 x Security lock slot

[44. USB 20Gbps signaling rate is not available with Thunderbolt™ 4. Actual throughput may vary.](#)

ENVIRONMENTAL DATA

| | | | |
|--|--|---------------------|---------------------|
| Eco-Label Certifications & declarations | 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: <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 50% ocean bound plastic in the (CPU Fan)¹ and 30% ocean bound plastic in the (Speaker)¹ At least 35% post-consumer recycled plastic² At least 90% recycled metal³ Low Halogen⁴ 100% of HP paper-based packaging is from recycled or certified sustainable sources⁵ Bulk packaging available | | |
| System Configuration | The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook". | | |
| Energy Consumption (in accordance with US ENERGY STAR® test method) | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
| Normal Operation (Sort idle) | 5.87 W | 6.20 W | 6.00 W |
| Normal Operation (Long idle) | N/A | N/A | N/A |
| Sleep | 0.75 W | 0.81 W | 0.74 W |
| Off | 0.27 W | 0.32 W | 0.26 W |
| 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. | | | |
| Heat Dissipation* | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
| Normal Operation (Short idle) | 20 BTU/hr | 21 BTU/hr | 21 BTU/hr |
| Normal Operation (Long idle) | N/A | N/A | N/A |
| Sleep | 3 BTU/hr | 3 BTU/hr | 3 BTU/hr |
| Off | 1 BTU/hr | 1 BTU/hr | 1 BTU/hr |
| *NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour. | | | |

| Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296) | Sound Power (L _{WA} dB, bels) | Sound Pressure (L _{pA} m, decibels) |
|---|---|---|
| Typically Configured – Idle | 2.6 | 13.3 |
| Fixed Disk – Random writes | 3.0 | 19.5 |
| Optical Drive – Sequential reads | N/A | N/A |
| 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 92.9% recycle-able when properly disposed of at end of life. | |
| Packaging Materials | External: | PAPER/Corrugated 255 g |
| | | PAPER/Molded Pulp 90 g |
| | | PAPER/Paper 24 g |
| | The plastic packaging material contains at least 0.00% recycled content. | |
| | The corrugated paper packaging materials contains at least 54.5% 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> | |
| Material Usage | <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) |
| Packaging Usage | HP follows these guidelines to decrease the environmental impact of product packaging: <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. |

| | |
|---|--|
| End-of-life Management and Recycling | <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> |
| HP, Inc. Corporate Environmental Information | <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 |
| footnotes | <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

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. 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)

20.0V

Nominal Operating Voltage

UMA 65W

Max Operating Power

Discrete W

Temperature

Operating

Operating: 0° to 35° C (32° to 95° F) System performance may be reduced above 32°C (89.6°F)

Non-operating

Non-operating: -20° to 60° C (-4° to 140° F) System performance may be reduced above 32°C (89.6°F)

Relative Humidity

Operating

Operating: 10% to 90 % (non-condensing)

Non-operating

Non-operating: 5% to 95 %, 38.7° C (101.6° F) maximum wet bulb temperature

Shock

Operating

Operating: 40 G, 2 ms, half-sine

Non-operating

Non-operating: 240 G, 2 ms, half-sine

Random Vibration

Operating

Operating: 1.043 grms

Non-operating

Non-operating: 3.500 grms

Altitude (unpressurized)

Operating

3048 m (10000 ft)

Non-operating

12192 m (40000 ft)

Planned Industry Standard Certifications

Regulatory Model Number

HSN-I60C

CSA/UL 62368-1

Yes

ENERGY STAR®

Yes⁴⁶

FCC/ICES/CISPR/VCCI

Yes

CE MARKING

Yes

GS Mark

No

China CCC/SRRC

Yes

Taiwan BSMI/NCC

Yes

Korea KCC/KC/KES

Yes

Ukraine NSoC/TEC

Yes

EAEU Compliance

Yes

Saudi Arabian Compliance

Yes

TCO

Yes

EPEAT®

EPEAT® Gold in the United States⁴⁷

Low Blue Light

Yes

WW RoHS

Yes

CECP

Yes

Medical EMC: IEC 60601-1-2:2014 EN60601-1-2:

Yes

2015

MIL-STD Testing

MIL-STD 810H⁴⁸



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46. Configurations that are ENERGY STAR® qualified are identified as ENERGY STAR on HP websites and on <http://www.energystar.gov>
47. 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.
48. MIL STD 810H 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

35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Anti-Glare, Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5¹

| | |
|--|-------------------------|
| Outline Dimensions (W x H) | 306.890 x 197.900 (max) |
| Active Area | 301.590 X 188.500 (typ) |
| Weight | 260 (max) |
| Diagonal Size | 14 |
| Surface Treatment | Anti-Glare |
| Touch Enabled | No |
| Contrast Ratio | 1500 : 1 (typ) |
| Refresh Rate | 60 (typ) |
| Brightness | 8 |
| Pixel Resolution | RGB |
| Pixel Resolution - Format | 1920 x 1200 (WUXGA) |
| Aspect Ratio | 16:10 |
| Backlight | WLED |
| Color Gamut Coverage | sRGB 100% |
| Color Depth | 8 bit |
| Viewing Angle | UWVA 89/89/89/89 |
| Low Blue Light | Yes |
| Power Consumption (W, EBL@ 150nits max/ 200nits max)) | 1.48 (max)/1.8(max) |

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

| | |
|--|------------------------------|
| Outline Dimensions (W x H) | 306.890 x 197.900 (max) |
| Active Area | 301.594 x 188.496 (typ) |
| Weight | 200 (max) |
| Diagonal Size | 14 |
| Surface Treatment | Anti-Glare |
| Touch Enabled | No |
| Contrast Ratio | 2000:1 (typ) |
| Refresh Rate | 120 (typ) |
| Brightness | 400 (typ) |
| Pixel Resolution | 216 |
| Pixel Resolution - Format | 2560 x 1600 (2.5K) |
| Aspect Ratio | 16:10 |
| Backlight | WLED |
| Color Gamut Coverage | Adobe RGB 100% + DCI-P3 100% |
| Color Depth | 8 |
| Viewing Angle | UWVA 89/89/89/89 |
| Low Blue Light | Yes |
| Power Consumption (W, EBL@ 150nits max/ 200nits max)) | 2.3 (max)/ 2.7 (max) |



| | | |
|---|--|-------------------------|
| 35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Anti-Glare, WLED + Low Blue Light, 400 nits, Low power, sRGB 100% | Outline Dimensions (W x H) | 307.590 x 199.550 (max) |
| | Active Area | 301.590 x 188.500 (typ) |
| | Weight | 210 (max) |
| | Diagonal Size | 14 |
| | Surface Treatment | Anti-Glare |
| | Touch Enabled | No |
| | Contrast Ratio | 1000:1(typ) |
| | Refresh Rate | 60 (typ) |
| | Brightness | 400 (typ) |
| | Pixel Resolution | RGB |
| | Pixel Resolution - Format | 1920 x 1200 (WUXGA) |
| | Aspect Ratio | 16:10:00 |
| | Backlight | WLED |
| | Color Gamut Coverage | sRGB 100% |
| | Color Depth | 8 |
| | Viewing Angle | UWVA 89/89/89/89 |
| | Low Blue Light | Yes |
| | Power Consumption (W, EBL@ 150nits max/ 200nits max)) | 1.29 (max) / 1.66 (max) |
| 35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Touch, Anti-Glare, Low Blue Light, 800 nits, sRGB 100%, HP Sure View 5¹ | Outline Dimensions (W x H) | 306.890 x 197.900 (max) |
| | Active Area | 301.590 X 188.500 (typ) |
| | Weight | 260 (max) |
| | Diagonal Size | 14 |
| | Surface Treatment | Anti-Glare |
| | Touch Enabled | Yes |
| | Contrast Ratio | 1500 : 1 (typ) |
| | Refresh Rate | 60 (typ) |
| | Brightness | 800 (typ) |
| | Pixel Resolution | RGB |
| | Pixel Resolution - Format | 1920 x 1200 (WUXGA) |
| | Aspect Ratio | 16:10:00 |
| | Backlight | WLED |
| | Color Gamut Coverage | sRGB 100% |
| | Color Depth | 8 bit |
| | Viewing Angle | UWVA 89/89/89/89 |
| | Low Blue Light | Yes |
| | Power Consumption (W, EBL@ 150nits max/ 200nits max)) | 1.60 (max)/ 1.97 (max) |

| | | |
|---|---|-------------------------|
| 35.6 cm (14") diagonal, WUXGA (1920 x 1200), LCD, UWVA, Touch, Anti-Glare, WLED, 500 nits, sRGB 100% | Outline Dimensions (W x H) | 306.594 x 197.596 (max) |
| | Active Area | 301.59 x 188.5 (typ.) |
| | Weight | 220(max) |
| | Diagonal Size | 14 |
| | Surface Treatment | Anti-Glare |
| | Touch Enabled | Yes |
| | Contrast Ratio | 1500 : 1 (typ) |
| | Refresh Rate | 60 (typ) |
| | Brightness | 500 (typ) |
| | Pixel Resolution | RGB |
| | Pixel Resolution - Format | 1920 x 1200 (WUXGA) |
| | Aspect Ratio | 16:10:00 |
| | Backlight | WLED |
| | Color Gamut Coverage | sRGB 100% |
| | Color Depth | 8 |
| | Viewing Angle | UWVA 89/89/89/89 |
| | Low Blue Light | Yes |
| | Power Consumption (W, EBL@ 150nits max/ 200nits max) | 1.37 (max) / 1.68 (max) |

1. HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.

STORAGE

1. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB is reserved for system recovery software.

| | | |
|---|---------------------------------|------------------------|
| 2 TB PCIe® Gen4x4 NVMe™ SSD | Form Factor | M.2 2280 |
| Three Layer Cell¹ | Capacity | 2TB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 6400 MB/s ±20% |
| | Maximum Sequential Write | 5000 MB/s ±20% |
| | Logical Blocks | 4,000,797,360 |
| | Features | Pyrite 2.0; TRIM; L1.2 |
| 1 TB PCIe® Gen4x4 NVMe™ SSD | Form Factor | M.2 2280 |
| Three Layer Cell¹ | Capacity | 1TB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 6400 MB/s ±20% |
| | Maximum Sequential Write | 5000 MB/s ±20% |
| | Logical Blocks | 2,000,409,264 |
| | Features | Pyrite 2.0; TRIM; L1.2 |
| 1 TB PCIe® NVMe™ SSD Value¹ | Form Factor | M.2 2280 |
| | Capacity | 1TB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 2200 MB/s ±20% |
| | Maximum Sequential Write | 1600 MB/s ±20% |
| | Logical Blocks | 2,000,409,264 |
| | Features | Pyrite 2.0; TRIM; L1.2 |
| 512 GB PCIe® Gen4x4 NVMe™ | Form Factor | M.2 2280 |
| SSD Three Layer Cell¹ | Capacity | 512GB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 6400 MB/s ±20% |
| | Maximum Sequential Write | 3500 MB/s ±20% |
| | Logical Blocks | 1,000,215,215 |
| | Features | Pyrite 2.0; TRIM; L1.2 |
| 512 GB PCIe® Gen4x4 NVMe™ | Form Factor | M.2 2280 |
| Self Encrypted OPAL2 SSD | Capacity | 512GB |
| Three Layer Cell¹ | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 6400 MB/s ±20% |



| | | |
|-------------------------------------|---------------------------------|--------------------------|
| | Maximum Sequential Write | 3500 MB/s ±20% |
| | Logical Blocks | 1,000,215,215 |
| | Features | TCG Opal 2.0; TRIM; L1.2 |
| 512 GB PCIe® NVMe™ SSD Value | Form Factor | M.2 2280 |
| 1 | Capacity | 512 GB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 2200 MB/s ±20% |
| | Maximum Sequential Write | 1000 MB/s ±20% |
| | Logical Blocks | 1,000,215,215 |
| | Features | Pyrite 2.0; TRIM; L1.2 |
| 256 GB PCIe® NVMe™ SSD Value | Form Factor | M.2 2280 |
| 1 | Capacity | 256 GB |
| | NAND Type | TLC |
| | Interface | PCIe NVMe Gen4X4 |
| | Maximum Sequential Read | 2000 MB/s ±20% |
| | Maximum Sequential Write | 900 MB/s ±20% |
| | Logical Blocks | 500,118,192 |
| | Features | Pyrite 2.0; TRIM; L1.2 |

NETWORKING / COMMUNICATION

Intel® BE201 Wi-Fi 7

Bluetooth® 5.4 vPro WW WLAN

1

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 Frequency Band

Wi-Fi certified
• 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

- 802.11a: 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
1024QAM, 16-QAM, 256-QAM, 4096QAM, 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



| | |
|--|--|
| Network Architecture Models | <ul style="list-style-type: none">• WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.• WPA2 certification• WPA3 (personal) certification |
| Roaming | Ad-hoc (Peer to Peer) |
| Output Power | Infrastructure (Access Point Required) IEEE 802.11 compliant roaming between access points |
| Power Consumption | <ul style="list-style-type: none">• 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 <p>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</p> |
| Power Management | ACPI and PCI Express compliant power management |
| Receiver Sensitivity ² | <ul style="list-style-type: none">• 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 |

| | |
|--------------------------|---|
| | <ul style="list-style-type: none">802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum802.11be, 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 | 1. Type 2230: 3.1 g 2. Type 1216: 0.8 g |
| Operating Voltage | 3.3 v +/- 5 % |

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Wireless Technology

| | |
|-------------------------------------|---|
| Bluetooth Specification | 4.0 4.1 4.2 5.0 5.1 5.2 5.3 5.4 |
| 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 II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. |
| Power Consumption | Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW |
| Bluetooth Software Supported | Microsoft Windows Bluetooth Software |
| Link Topology | |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |

| | |
|-------------------------------------|--|
| 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 | 2Mbps LE Advanced Audio Distribution Profile (A2DP) Basic Imaging Profile (BIP) 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 Train Nudging & Interlaced Scan |
| Intel® BE201 Wi-Fi 7 | Wireless LAN Standards |
| Bluetooth® 5.4 non-vPro WW | 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 |
| WLAN¹ | Wi-Fi certified • 802.11b/g/n/ax 2.402 – 2.482 GHz • 802.11a/n/ac/ax 4.9 – 4.95 GHz (Japan) |
| Interoperability | |
| Frequency Band | |

| | |
|------------------------------------|---|
| | 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 | <ul style="list-style-type: none">802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11ac : MCS0 ~ MCS9, (20MHz, 40MHz, 80MHz, 160MHz)802.11ax : MCS0 ~ MCS11, (20MHz, 40MHz, 80MHz, 160MHz)802.11b: 1, 2, 5.5, 11 Mbps802.11be : MCS0~13, (20MHz, 40MHz, ,80MHz, 160MHz, 320MHz)802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11n: MCS 0 ~ MCS 15, (20MHz, 40MHz) |
| Modulation | Direct Sequence Spread Spectrum 1024QAM, 16-QAM, 256-QAM, 4096QAM, 64-QAM, BPSK, CCK, Direct Sequence Spread Spectrum, OFDM, QPSK |
| Security | <ul style="list-style-type: none">802.1x authenticationAES-CCMP: 128 bit in hardwareIEEE 802.11iIEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode onlyWAPIWPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.WPA2 certificationWPA3 (personal) certification |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) |
| Roaming | IEEE 802.11 compliant roaming between access points |
| Output Power | <ul style="list-style-type: none">802.11b, 1Mbps : +17dBm minimum802.11g, 6Mbps : +16dBm minimum802.11a, 6Mbps : +17dBm minimum802.11n, MCS7(HT20) : +14dBm minimum802.11n, MCS7(HT40) : +13.5dBm minimum802.11ac MCS9(VHT20) : 13.5dBm minimum802.11ac MCS9(VHT40) : +13.5dBm minimum802.11ac MCS9(VHT80) : +12.5dBm minimum802.11ac MCS9(VHT160) : +10.5dBm minimum802.11ax MCS11(HE20)(6GHz) : +11.5dBm minimum802.11ax MCS11(HE40)(6GHz) : +7.5dBm minimum802.11ax MCS11(HE80)(6GHz) : +7.5dBm minimum802.11ax MCS11(HE160)(6GHz) : +7.5dBm minimum802.11be MCS13(EHT20)(6GHz) : 11.5dBm |

| | |
|---|---|
| Power Consumption | <ul style="list-style-type: none">802.11be MCS13(EHT40)(6GHz) : 7.5dBm802.11be MCS13(EHT80)(6GHz) : 7.5dBm802.11be MCS13(EHT160)(6GHz) : 6.5dBm802.11be MCS13(EHT320)(6GHz) : 4.5dBm <p>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</p> |
| Power Management | ACPI and PCI Express compliant power management |
| Receiver Sensitivity² | <ul style="list-style-type: none">802.11b, 1Mbps : -93.5dBm maximum802.11b, 11Mbps : -85dBm maximum802.11a/g, 6Mbps : -90.5dBm maximum802.11a/g, 54Mbps : -72.5dBm maximum802.11n, MCS0(HT20) : -90dBm maximum802.11n, MCS7(HT20) : -71.5dBm maximum802.11n, MCS0(HT40) : -88.5dBm maximum802.11n, MCS7(HT40) : -68.5dBm maximum802.11ac, MCS9(VHT20) : -88.5dBm maximum802.11ac, MCS9(VHT40) : -65.5dBm maximum802.11ac, MCS9(VHT80) : -60.5dBm maximum802.11ac, MCS9(VHT160) : -58.5dBm maximum802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum802.11be, 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 | 1. Type 2230: 3.1 g 2. Type 1216: 0.8 g |
| Operating Voltage | 3.3 v +/- 5 % |

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Wireless Technology

| | |
|-------------------------------------|--|
| Bluetooth Specification | 4.0 4.1 4.2 5.0 5.1 5.2 5.3 5.4 |
| 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 II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. |
| Power Consumption | Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW |
| Bluetooth Software Supported | Microsoft Windows Bluetooth Software |
| Link Topology | |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |
| 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 | 2Mbps LE Advanced Audio Distribution Profile (A2DP) Basic Imaging Profile (BIP) 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
Train Nudging & Interlaced Scan

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 Intel® 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).

HP R15 5G Solution³

Technology/Operating bands

WCDMA/HSPA+ operating bands:

Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL)
Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL)
Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL)
Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL)
Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL)

LTE FDD/TDD operating bands:

Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 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 2: 1850 to 1910 MHz (UL), 1930 to 1990 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 3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL)
Band 30: 2305 to 2315 MHz (UL) 2350 to 2360 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 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (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)



| | |
|---|---|
| | <p>Band 46: 5150 to 5925 MHz (DL) Band 48: 3550 to 3700 MHz (UL/DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL) Band 7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL) Band 71: 663 to 698 MHz (UL), 617 to 652 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL)</p> |
| Wireless protocol standards | 5GNR Air Interface 3GPP Rel15 5G NR sub-6 LTE Rel15 3GPP Release 8 UMTS Specification |
| GPS | Standalone/A-GPS (MS-A, MS-B) |
| GPS bands | GPS L1 (1575.42MHz), GLONASS L1 (1602MHz), Beidou B1 (1561.098MHz), Galileo E1 (1575.42MHz), QZSS (1575.42MHz) |
| Maximum data rates | SA 5G/NR sub-6 Peak: 4.67 Gbps(Download), 1.25 Gbps(Upload) |
| Maximum output power | HSPA+: 23.5 dBm () LTE (all bands except B41): 23.0 dBm (Not support HPUE) NR (all band except n41, n77, n78, n79): 23.0 dBm (Not support HPUE) NR n41, n77, n78, n79 HPUE: 26.0 dBm (Support HPUE) |
| Maximum power consumption | 5G Sub 6: 3,500 mA LTE: 2,500 mA (peak) |
| Form Factor | M.2; 3052-S3 Key B |
| Weight | 8.6 g (0.303 oz) |
| Dimensions | 30.00 x 52.00 x 2.30 mm (1.18 x 2.05 x 0.09 inch) |
| (Length x Width x Thickness) | |
| embedded eSIM | Yes |
| HP R15 4G LTE-Advanced Pro⁴ | Technology/Operating bands <p>WCDMA/HSPA+ operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 MHz (DL) Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 MHz (DL) Band 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (DL) Band 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL)</p> <p>LTE FDD/TDD operating bands: Band 1: 1920 to 1980 MHz (UL), 2110 to 2170 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)</p> |

| | |
|-------------------------------------|--|
| | Band 2: 1850 to 1910 MHz (UL), 1930 to 1990 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 3: 1710 to 1785 MHz (UL), 1805 to 1880 MHz (DL) |
| | Band 30: 2305 to 2315 MHz (UL) 2350 to 2360 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 4: 1710 to 1755 MHz (UL), 2110 to 2155 MHz (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 5: 824 to 849 MHz (UL), 869 to 894 MHz (DL) |
| | Band 66: 1710 to 1800 MHz (UL), 2110 to 2200 MHz (DL) |
| | Band 7: 2500 to 2570 MHz (UL), 2620 to 2690 MHz (DL) |
| | Band 71: 663 to 698 MHz (UL), 617 to 652 MHz (DL) |
| | Band 8: 880 to 915 MHz (UL), 925 to 960 MHz (DL) |
| Wireless protocol standards | LTE Rel15 |
| GPS | 3GPP Release 8 UMTS Specification |
| GPS bands | Standalone/A-GPS (MS-A, MS-B) |
| Maximum data rates - LTE | GPS L1 (1575.42MHz), GLONASS L1 (1602MHz), Beidou B1 (1561.098MHz), Galileo E1 (1575.42MHz), QZSS (1575.42MHz) |
| Maximum output power | UE Category DL 19 (1.6 Gbps Download). UE Category UL 18 (211 Mbps Upload) |
| Maximum power consumption | LTE (all bands except B41): 23.0 dBm (Not support HPUE) |
| Form Factor | LTE: 2,500 mA (peak) |
| Weight | M.2; 3052-S3 Key B |
| Dimensions | 8.4 g (0.296 oz) |
| (Length x Width x Thickness) | 30.00 x 52.00 x 2.30 mm (1.18 x 2.05 x 0.09 inch) |
| embedded eSIM | Yes |

3. 5G module is optional. WWAN-ready configuration must be selected at purchase to add WWAN at a later date. 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.

4. 4G module is optional. WWAN-ready configuration must be selected at purchase to add WWAN at a later date. Check with service provider for coverage and availability in your area. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

| | | |
|------------------------------|---|---|
| NFC Mirage WNC XRAV-1 | Dimensions (L x W x H) | 17.00 x 10.00 x 2.00 mm (0.67 x 0.39 x 0.08 inch) |
| | Chipset | NPC300 |
| | System interface | I2C |
| | NFC RF standards | ISO/IEC 14443 A ISO/IEC 14443 B ISO/IEC 15693 ISO/IEC 18092 ECMA-340 NFCIP-1 Target and Initiator ECMA-320 NFCIP-2 |
| | NFC Forum Support | Type 1, Type 2, Type 3 / Type 4, NFCIP-1 / NFCIP-2 |
| | Reader (PCD-VCD) Mode | ISO/IEC 14443 A ISO/IEC 14443 B ISO/IEC 15693 MIFARE 1K MIFARE 4K MIFARE DESFire FeliCa Jewel and Topaz |
| | Card Emulation (PICC-VICC) | ISO/IEC 14443 A ISO/IEC 14443 B and B' |
| | Mode | MIFARE FeliCa |
| | Frequency | 13.56 MHz |
| | NFC Modes Supported | Reader/Writer, Peer-to-Peer |
| | Raw RF Data Rates | 106 kbps, 212 kbps, 424 kbps, 848 kbps |
| | Operating temperature | Operating: 0 °C to 70 °C (32 °F to 158 °F) Storage: -20 °C to 125 °C (-4 °F to 257 °F) |
| | Storage temperature | Operating: 10% - 90% (non-condensing) Non-Operating: 5% - 95% (non-condensing) |
| | Humidity | Operating: 10% - 90% (non-condensing) Non-Operating: 5% - 95% (non-condensing) |
| | Supply Operating voltage | 4.35 to 5.25 Volts |
| | I/O Voltage | 1.8V or 3.3V |
| | Power Consumption | |
| | (Booster enable, VBAT= 3.3V, VCC_BOOST = 5V) | |
| | Mode | Power Consumption, Typical |
| | Polling | 7.3 mA |
| | Detected Test Tag Type 1 | Total 283.8 mA Net Module 236.8 mA |

| | | |
|--|---|--|
| | Detected Test Tag Type 2 | Total 288.8 mA Net Module 241.8 mA |
| | Detected Test Tag Type 3 | Total 287.7 mA Net Module 240.7 mA |
| | Detected Test Tag Type 4 | Total 282.3 mA Net Module 235.3 mA |
| | Antenna | Antenna connector, 0.5mm pitch, 7 connector FPC. Antenna matching is external to module. |
| Qualcomm 9205 LTE-M (CAT-M1 fSVC)⁵ | Technology/Operating bands-FDD LTE | Band 1: 2100 Band 2: 1900 Band 3: 1800 Band 4: 1700/2100 Band 5: 850 Band 8: 900 Band 12 lower: 700 Band 13 upper: 700 Band 14 upper: 700 Band 18 lower: 850 Band 19 upper: 850 Band 20: 800 Band 25: 1900 Band 26: 850 Band 27: 800 Band 28: 700 Band 66: 1700/2100 Band 85: 700 |
| | Technology/Operating bands-GSM/GPRS/EGPRS: | 850 900 1800 1900 |
| | Wireless protocol standards | 3GPP TS 21.111 V10.0.0: USIM and IC card requirements 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) 3GPP TS 27.007 V10.0.8: AT command set for User Equipment (UE) 3GPP TS 31.102 V10.11.0: Characteristics of the Universal Subscriber Identity Module (USIM) application 3GPP TS 31.11 V10.16.0: Universal Subscriber Identity Module (USIM) Application Toolkit (USAT) 3GPP TS 36.124 V10.3.0: Electro Magnetic Compatibility (EMC) requirements for mobile terminals and ancillary equipment 3GPP TS 36.521-1 V14.3.0: User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: |

| | |
|---------------------------------------|--|
| GPS | Conformance testing 3GPP TS 51.010-1 10.5.0: Mobile Station (MS) conformance specification; 1551.mas. specification of the Subscriber Identity Module - Mobile Equipment (SIM-ME) interface |
| GPS bands | Standalone GPS/Beidou/GLONASS A-GPS (XTRA) 1575.42 MHz ± 1.023 MHz GLONASS 1596-1607MHz Beidou 1561.098 MHz |
| Maximum data rates | LTD FDD: 375 Kbps (download); 1119.00 Kbps (upload) GPRS: 107.00 Kbps (download); 85.60 Kbps (upload) EGPRS: 296.00 Kbps (download); 236.80 Kbps (upload) |
| Maximum output power | LTE (all bands except B41): 21.5 dBm GSM: 34.0 dBm |
| Maximum power consumption | LTE: 151 mA (peak) ; 16 mA (average) |
| Form Factor | M.2 |
| Dimensions (L x W x Thickness) | 22.00 x 42.00 x 2.30mm (0.87 x 1.65 x 0.09 inch) |
| Weight | 4.0g (0.141 oz) |
| Embedded eSIM | Yes |

5 Cat M1 LPWAN (Mobile Narrowband) cards support select platforms with the HP Protect & Trace with Wolf Connect service, but do not support mobile broadband/Internet use.

POWER

| | | |
|---|-------------------------------------|---|
| HP 100W Slim USB Type-C® AC power adapter | Weight | 380g ± 10g |
| | Input | 100-240Vac |
| | Input Efficiency | 81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V |
| | Input frequency range | 47-63Hz |
| | Input AC current | Max. 1.6 A at 90 Vac |
| | Output | |
| | Output power | 5V/15W 9V/27W 12V/60W 15V/75W 20V/100W |
| | DC output | 5V/9V/12V/15V/20V |
| | Hold-up time | 100% load 5ms at 115 Vac input/80% load 10ms at 115 Vac input |
| | Output Over Current Protection | 5V/9V/12V/15V<125% max current, 20V<135% max current |
| | AC Inlet Type | C6 |
| | DC Cable Connector | USB type C |
| | DC Cable Material | PVC |
| | Connector | C6 |
| | Environmental Design | |
| | Operating temperature | 0° to 35° C (32° to 95° F) |
| | Non-operating (storage) temperature | -20° to 85° C (-4° to 185° F) |
| | Altitude | 0 to 5,000 m (0 to 16,400 ft) |
| | Humidity | 20% to 95% |
| | Storage Humidity | 10% to 95% |
| | EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1, IEC 62368-1:2014 and IEC62368-1 : 2018, EN62368-1:2020+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC, CU(EAC), KCC(Safety+EMC), NOM-001 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC, Ukraine(CoC+DoC+RoHS+ECO) |
| HP 65W Standard USB Type-C® AC power adapter | Weight | 240g ± 10g |
| | Input | 100-240Vac |
| | Input Efficiency | 81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V |



| | |
|-------------------------------------|--|
| Input frequency range | 89.00% min at 115 Vac/ 230 Vac @20.00V |
| Input AC current | 47-63Hz |
| Output | Max. 1.6 A at 90 Vac |
| Output power | 5V/15W 9V/27W 12V/60W 15V/65W 20V/65W |
| DC output | 5V/9V/12V/15V/20V |
| Hold-up time | 100% load 5ms at 115 Vac input |
| Output Over Current Protection | < 8.0A |
| AC Inlet Type | C6 |
| DC Cable Connector | USB type C |
| DC Cable Material | PVC |
| Connector | C6 |
| Environmental Design | |
| Operating temperature | 0° to 35° C (32° to 95° F) |
| Non-operating (storage) temperature | -20° to 85° C (-4° to 185° F) |
| Altitude | 0 to 5,000 m (0 to 16,400 ft) |
| Humidity | 20% to 95% |
| Storage Humidity | 10% to 95% |
| EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 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 RCM, BIS, BSMI, UAE, UKCA DoC |

HP 65W USB Type-C® Gallium Nitride AC power adapter

| | |
|------------------------------|--|
| Weight | 105g(+/-10g) (Not including power cord. Power cord varies by country.) |
| Input | 100-240Vac |
| Input Efficiency | 81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V |
| Input frequency range | 47-63Hz |
| Input AC current | Max. 1.6 A at 90 Vac |
| Output | |
| Output power | 5V/15W 9V/27W |



| | | |
|---|-------------------------------------|--|
| HP 65W Slim USB Type-C® AC power adapter | Weight | 220g ± 10g |
| | Input | 100-240Vac |
| | Input Efficiency | 81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V |
| | Input frequency range | 47-63Hz |
| | Input AC current | Max. 1.6 A at 90 Vac |
| | Output | |
| | Output power | 5V/15W 9V/27W 12V/60W 15V/65W 20V/65W |
| | DC output | 5V/9V/12V/15V/20V |
| | Hold-up time | 100% load 5ms at 115 Vac input |
| | Output Over Current Protection | < 8.0A |
| | AC Inlet Type | C6 |
| | Connector | |
| | DC output | 15V/65W 20V/65W |
| | Hold-up time | 5V/9V/15V/20V |
| | Output Over Current Protection | 100% load 5ms at 115 Vac input |
| | AC Inlet Type | 115%-125% |
| | DC Cable Connector | C6 |
| | DC Cable Material | USB type C |
| | Environmental Design | PVC |
| | Operating temperature | C6 |
| | Non-operating (storage) temperature | 0° to 35° C (32° to 95° F) -20° to 85° C (-4° to 185° F) |
| | Altitude | 0 to 5,000 m (0 to 16,400 ft) |
| | Humidity | 20% to 95% |
| | Storage Humidity | 10% to 95% |
| | EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 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 RCM, BIS, BSMI, UAE, UKCA DoC |

| | | |
|--|--|--|
| Connector | DC Cable Connector | USB type C |
| | DC Cable Material | PVC |
| | Connector | C6 |
| Environmental Design | | |
| Operating temperature | 0° to 35° C (32° to 95° F) | |
| Non-operating (storage) temperature | -20° to 85° C (-4° to 185° F) | |
| Altitude | 0 to 5,000 m (0 to 16,400 ft) | |
| Humidity | 20% to 95% | |
| Storage Humidity | 10% to 95% | |
| EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 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 RCM, BIS, BSMI, UAE, UKCA DoC | |
| HP 65W Standard USB Type-C® Halogen Free AC power adapter | Weight | 240g ± 10g |
| | Input | 100-240Vac |
| | Input Efficiency | 81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V |
| | Input frequency range | 47-63Hz |
| | Input AC current | Max. 1.6 A at 90 Vac |
| | Output | |
| | Output power | 5V/15W 9V/27W 12V/60W 15V/65W 20V/65W |
| | DC output | 5V/9V/12V/15V/20V |
| | Hold-up time | 100% load 5ms at 115 Vac input |
| | Output Over Current Protection | < 8.0A |
| | AC Inlet Type | C6 |
| | DC Cable Connector | USB type C |
| | DC Cable Material | Halogen Free |
| | Connector | C6 |
| Environmental Design | | |
| Operating temperature | 0° to 35° C (32° to 95° F) | |
| Non-operating (storage) | -20° to 85° C (-4° to 185° F) | |

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| temperature | |
| Altitude | 0 to 5,000 m (0 to 16,400 ft) |
| Humidity | 20% to 95% |
| Storage Humidity | 10% to 95% |
| EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 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 RCM, BIS, BSMI, UAE, UKCA DoC |

HP Long Life 3 cell, 56Whr Polymer

| | |
|-------------------------|--|
| Dimensions | 255.8 x 67.8 x 6.68mm (10.07 x 2.67 x 0.26 inch) |
| Weight | 0.205kg +/- 10g (0.474 lb) |
| Cells/Type | 3cell Lithium-Ion Polymer cell / 586075 |
| Energy | |
| Voltage | 11.58V |
| Amp-hour capacity | 4.84Ah |
| Watt-hour capacity | 56.04Wh |
| Temperature | |
| Operating (Charging) | 32° to 113° F (0° to 45° C) |
| Operating (Discharging) | 14° to 140° F (-10° to 60° C) |
| Optional Travel Battery | No |
| Available | |

HP Long Life 6 cell, 68Whr Polymer

| | |
|-------------------------|--|
| Dimensions | 275.3 x 87.5 x 6.79mm (10.83 x 3.44 x 0.26 inch) |
| Weight | 0.255kg +/- 10g (0.562 lb) |
| Cells/Type | 6cell Lithium-Ion Polymer cell / 594461 |
| Energy | |
| Voltage | 11.58V |
| Amp-hour capacity | 5.88Ah |
| Watt-hour capacity | 68Wh |
| Temperature | |
| Operating (Charging) | 0° to 45° C (32° to 113° F) |
| Operating (Discharging) | -10° to 60° C (14° to 140° F) |
| Optional Travel Battery | No |
| Available | |



AUDIO

Codec

Realtek ALC3315

Audio I/O Ports

3.5mm Headset: CTIA only; Headphone-out

Internal Speaker Amplifier

Cirrus Logic High-Efficiency Boosted Class D Amplifier

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 MSFT Behavior

Sampling

DAC: Supports resolutions from 16-bit to 24-bit;48.0 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 | < 0.001% |
| Mobile Voltage Operation | 2.7 V ~ 3.6 V |
| Operating Temperature | 5°C ~ 60°C (41°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

| Category | Description | Part Number |
|-----------------|---|-----------------|
| Adapters | 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 |
| Audio - Earbuds | Poly Voyager Free 60/60+ Black Earbuds (2 Pieces) | 8L5A6AA |
| | Poly Voyager Free 60/60+ Black Earbuds (2 Pieces) | 8L649AA,8L5A6AA |
| | Poly Voyager Free 60/60+ Microsoft Teams Certified Black Earbuds (2 Pieces) | 8L5A8AA |
| | Poly Voyager Free 60/60+ Microsoft Teams Certified White Earbuds (2 Pieces) | 8L5B0AA |
| | Poly Voyager Free 60/60+ White Earbuds (2 Pieces) | 8L5B1AA |
| | Poly Voyager Free 60 Carbon Black Earbuds | 7Y8H3AA |
| | Poly Voyager Free 60 Carbon Black Earbuds | 7Y8H4AA |
| | Poly Voyager Free 60 Carbon Black Earbuds | 7Y8L7AA |
| | Poly Voyager Free 60 Carbon Black Earbuds | 7Y8L8AA |
| | Poly Voyager Free 60 Carbon Black Earbuds +Basic Charge Case | 7Y8M2AA |
| | Poly Voyager Free 60 UC Black Earbuds +BT700 USB-C Adapter +Basic Charge Case | 7Y8M0AA |
| | Poly Voyager Free 60 White Sand Earbuds | 7Y8L3AA |
| | Poly Voyager Free 60 White Sand Earbuds | 7Y8L4AA |
| | Poly Voyager Free 60 White Sand Earbuds | 7Y8L5AA |
| | Poly Voyager Free 60 White Sand Earbuds | 7Y8L6AA |
| | Poly Voyager Free 60+ Carbon Black Earbuds | 7Y8G3AA |
| | Poly Voyager Free 60+ Carbon Black Earbuds | 7Y8G4AA |
| | Poly Voyager Free 60+ Carbon Black Earbuds | 7Y8G9AA |
| | Poly Voyager Free 60+ Carbon Black Earbuds | 7Y8H0AA |
| | Poly Voyager Free 60+ White Sand Earbuds | 7Y8G5AA |
| | Poly Voyager Free 60+ White Sand Earbuds | 7Y8G6AA |
| | Poly Voyager Free 60+ White Sand Earbuds | 7Y8G7AA |
| | Poly Voyager Free 60+ White Sand Earbuds | 7Y8G8AA |
| Audio - Headset | Poly Blackwire 3210 Monaural USB-C Headset +USB-C/A Adapter | 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 |



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| 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 Microsoft Teams Certified USB-C Headset +3.5mm Plug +USB-C/A Adapter | 8X222AA |
| Poly Blackwire 3325 Stereo USB-C Headset +3.5mm Plug +USB-C/A Adapter | 8X221AA |
| Poly Blackwire 5210 Monaural USB-C Headset +3.5mm Plug +USB-C/A Adapter | 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 310 Monaural USB-A Headset | 767G1AA |
| Poly EncorePro 320 Binaural Headset | 77T26AA |
| Poly EncorePro 320 Stereo USB-A Headset | 767G0AA |
| Poly EncorePro 320 Stereo USB-C Headset | 767F9AA |
| 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 | 783P1AA |
| Poly EncorePro 710 Monoaural Headset | 783N9AA |
| Poly EncorePro 715 USB-A Monoaural Headset | 783N5AA |
| Poly EncorePro 720 Binaural Headset | 8R707AA |
| Poly EncorePro 725 USB-A Stereo Headset | 783M6AA |
| Poly EncorePro HW710 Single Ear Headset +Carry Case +Quick Disconnect | 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 Stereo 525 Headset | 783R3AA |
| Poly EncorePro USB-C Monoaural 310 Headset | 760Q8AA |
| Poly Savi 7210 Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ) | 8D3G9AA |
| Poly Savi 7210 Office DECT 1920-1930 MHz Single Ear Headset (NA) | 7W6D4AA |
| Poly Savi 7220 Office Binaural DECT 1880-1900 MHz Headset (EMEA + APJ) | 8D3G8AA |
| Poly Savi 7220 Office Binaural DECT 1920-1930 MHz Headset (NA) | 7W6D5AA |
| Poly Savi 7310 DECT 1880-1900 MHz Single Ear Headset | 8D3G3AA |
| Poly Savi 7310 DECT 1910-1920 MHz Single Ear Headset | 8D3G5AA |

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| Poly Savi 7310 Headset | 77T40AA |
| 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 1893-1906 MHz Headset | 8L565AA |
| Poly Savi 7310 Monaural DECT 1893-1906 MHz Headset | 8L578AA |
| Poly Savi 7310 Monaural DECT 1910-1920 MHz Headset | 8L566AA |
| Poly Savi 7310 Monaural DECT 1910-1920 MHz Headset | 8L581AA |
| 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 1893-1906 MHz Single Ear Headset | 8D3K9AA |
| Poly Savi 7310-M DECT 1910-1920 MHz Single Ear Headset | 8D3L0AA |
| 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 1910-1920 MHz Headset | 8L548AA |
| Poly Savi 7320 Stereo DECT 1910-1920 MHz Headset | 8L557AA |
| 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 7410 Monaural DECT 1880-1900 MHz Headset | 8L589AA |
| Poly Savi 7410 Monaural DECT 1880-1900 MHz Headset | 8L593AA |
| Poly Savi 7410 Monaural DECT 1893-1906 MHz Headset | 8L591AA |
| Poly Savi 7410 Monaural DECT 1893-1906 MHz Headset | 8L594AA |
| Poly Savi 7410 Monaural DECT 1910-1920 MHz Headset | 8L592AA |
| Poly Savi 7410 Monaural DECT 1910-1920 MHz Headset | 8L597AA |
| Poly Savi 7410 Monaural DECT 1920-1930 MHz Headset | 8L7D5AA |
| Poly Savi 7410 Monaural DECT 1920-1930 MHz Headset | 8L7D7AA |
| Poly Savi 7420 Stereo DECT 1880-1900 MHz Headset | 8L560AA |
| Poly Savi 7420 Stereo DECT 1880-1900 MHz Headset | 8L574AA |
| Poly Savi 7420 Stereo DECT 1893-1906 MHz Headset | 8L563AA |
| Poly Savi 7420 Stereo DECT 1893-1906 MHz Headset | 8L576AA |
| Poly Savi 7420 Stereo DECT 1910-1920 MHz Headset | 8L564AA |
| Poly Savi 7420 Stereo DECT 1910-1920 MHz Headset | 8L579AA |

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| Poly Savi 7420 Stereo DECT 1920-1930 MHz Headset | 8L567AA |
| Poly Savi 7420 Stereo DECT 1920-1930 MHz Headset | 8L583AA |
| Poly Savi 8210 Office DECT 1880-1890 MHz Single Ear Headset (EMEA + APJ) | 8D3K3AA |
| Poly Savi 8210 Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ) | 8D3K5AA |
| Poly Savi 8210 Office DECT 1910-1920 MHz Single Ear Headset (NA) | 8D3K6AA |
| Poly Savi 8210 Office DECT 1920-1930 MHz Single Ear Headset (NA) | 7S445AA |
| Poly Savi 8210 UC DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3E9AA |
| Poly Savi 8210 UC DECT 1920-1930 MHz USB-A Headset (NA) | 77T29AA |
| Poly Savi 8210 UC Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3F1AA |
| Poly Savi 8210 UC Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA) | 77T31AA |
| Poly Savi 8210-M Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ) | 8D3J8AA |
| Poly Savi 8210-M Office DECT 1910-1920 MHz Single Ear Headset (NA) | 8D3K1AA |
| Poly Savi 8210-M Office DECT 1920-1930 MHz Single Ear Headset (NA) | 7S447AA |
| Poly Savi 8220 Office Stereo DECT 1880-1890 MHz Headset (EMEA + APJ) | 8D3J1AA |
| Poly Savi 8220 Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ) | 8D3J2AA |
| Poly Savi 8220 Office Stereo DECT 1910-1920 MHz Headset (NA) | 8D3J4AA |
| Poly Savi 8220 Office Stereo DECT 1920-1930 MHz Headset (NA) | 7S4B5AA |
| Poly Savi 8220 Stereo DECT 1880-1900 MHz Top +Charging Cradle (EMEA + APJ) | 8Y9C4AA |
| Poly Savi 8220 UC DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3F2AA |
| Poly Savi 8220 UC DECT 1920-1930 MHz USB-A Headset (NA) | 77T33AA |
| Poly Savi 8220 UC Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3F5AA |
| Poly Savi 8220 UC Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA) | 77Y82AA |
| Poly Savi 8220-M Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ) | 8D3H8AA |
| Poly Savi 8220-M Office Stereo DECT 1910-1920 MHz Headset (NA) | 8D3J0AA |
| Poly Savi 8220-M Office Stereo DECT 1920-1930 MHz Headset (NA) | 7S4B6AA |
| Poly Savi 8245 DECT 1880-1900 MHz Headset +USB-A to USB-C Cable +D400 (EMEA + APJ) | 8D3H2AA |

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| Poly Savi 8245 Office DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3H1AA |
| Poly Savi 8245 Office DECT 1910-1920 MHz USB-A Headset (NA) | 8Q005AA |
| Poly Savi 8245 Office DECT 1920-1930 MHz USB-A Headset (NA) | 7W6D1AA |
| Poly Savi 8245-M Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset +D200 (EMEA + APJ) | 8D3F4AA |
| Poly Savi 8245-M Office Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ) | 8D3H7AA |
| Poly Savi 8245-M Office Microsoft Teams Certified DECT 1910-1920 MHz USB-A Headset (NA) | 8Q006AA |
| Poly Savi 8245-M Office Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA) | 7W069AA |
| 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 1880-1890 MHz Convertible Headset | 8L5B7AA |
| Poly Savi 8445 DECT 1880-1900 MHz Convertible Headset | 8L5B4AA |
| Poly Savi 8445 DECT 1880-1900 MHz Convertible Headset | 8L5B6AA |
| Poly Savi 8445 DECT 1910-1920 MHz Convertible Headset | 8L5B5AA |
| Poly Savi 8445 DECT 1910-1920 MHz Convertible Headset | 8L5B8AA |
| 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 UC Headset +USB-A to USB-C Cable +BT700 dongle | 7Y210AA |
| 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 |

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| | Poly Voyager 4320-M Headset | 77Z32AA |
| | Poly Voyager 4320-M +USB-A to USB-C Cable +BT700 dongle | 7Y211AA |
| | 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 Surround 80 UC Microsoft Teams Certified USB-C Black Headset +USB-C/A Adapter | 9D452AA |
| | Poly Voyager Surround 80 UC Microsoft Teams Certified USB-C Headset +USB-C/A Adapter Demo | 9C6W5AA |
| | 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 10 Speakerphone +USB-A to USB-C Cable | 7S4M6AA |
| | Poly Sync 20 USB-C Speakerphone | 7F0J7AA |
| | Poly Sync 20+M Speakerphone +USB-A to USB-C Cable +BT700 dongle +Pouch | 7Y215AA |
| | Poly Sync 20-M Speakerphone +USB-A to USB-C Cable | 7S4M1AA |
| | Poly Sync 20-M USB-C Speakerphone | 7F0J8AA |
| | 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 20 Speakerphone | 772C8AA |
| | Poly Sync USB-A 20 Speakerphone | 772D2AA |
| | Poly Sync USB-A 20+ Speakerphone | 772C6AA |
| | Poly Sync USB-A 20+ Speakerphone | 772C9AA |
| | Poly Sync USB-A USB-C 10 Speakerphone | 772C3AA |
| | Poly Sync USB-A USB-C 40 Speakerphone | 772C4AA |
| | Poly Sync USB-C 20+ Speakerphone | 772D0AA |
| | Poly Sync USB-C 20+ Speakerphone | 772D1AA |
| Camera | HP 625 Webcam | 6Y7L1AA |
| | HP USB-A 325 Webcam | 53X27AA,53X27UT |
| 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 |

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| | 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 Prelude 15.6 Backpack | 1E7D6AA,1E7D6UT,50P32AA |
| | HP Prelude 15.6 Top Load | 1E7D7AA,50P31AA |
| | HP Prelude Pro Recycled 15.6 Backpack | 1X644AA,1X644UT |
| | HP Prelude Pro Recycled 15.6 Top Load | 1X645AA,1X645UT |
| | 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 | 6B8Y1AA,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 |
| Commodity | 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 |
| Docking | HP Thunderbolt 4 100W G6 Dock | 9X472UT |
| | HP Thunderbolt 4 Ultra 180W G6 Dock | 9X481UT |
| | HP Thunderbolt 4 Ultra 280W G6 Dock | AW5M5UT |
| | HP Thunderbolt™ 120W G4 Dock | 4J0A2AA |
| | HP Thunderbolt™ 280W G4 Dock w/Combo Cable | 4J0G4AA |
| | HP USB-C™ 120W G5 Dock | 5TW10AA |
| | HP USB-C™ G5 Essential Dock | 72C71AA |
| | HP USB-C™/A 120W G2 Universal Dock | 5TW13AA |
| Hub | HP 4K USB-C Multiport Hub | 6G843AA,6G843UT |
| | HP Universal USB-C Hub and Laptop Charger Combo | 9H0H9AA |
| | HP Universal USB-C Multiport Hub | 50H55AA,50H55UT, 50H55PT#ACJ |
| | HP USB-C to USB-A Hub | Z6A00AA |
| | HP USB-C Travel Hub G3 | 86S97AA,86S97UT |
| | | |
| Keyboard | HP 125 Wired Keyboard | 266C9AA |
| | HP 320K USB Wired Keyboard | 9SR37AA,9SR37UT |

| | | |
|----------------------------|--|-------------------------|
| | HP 965 black Ergonomic Wireless Keyboard | 7E756AA |
| | HP 975 Dual-Mode USB+Bluetooth Wireless Keyboard | 3Z726AA |
| Keyboard & Mouse Combo | HP 225 Wired Mouse and Keyboard Combo | 286J4AA |
| | HP 225 Wired Mouse and Keyboard Combo | 86J24AA |
| | HP 655 Wireless Keyboard and Mouse Combo | 860P8AA |
| | HP Wired Desktop 320MK Mouse and Keyboard | 9SR36AA,9SR36UT |
| Mouse | HP 105 Mouse Pad | 8X595AA |
| | HP 125 Wired Mouse | 265A9AA,265A9AT,265A9UT |
| | HP 128 Laser Wired Mouse | 265D9AA |
| | HP 205 Desk Mat | 8X597AA |
| | HP 320M Wired Mouse | 9VA80AA |
| | HP 685 Comfort Dual-Mode Mouse | 8T6M0UT |
| | HP 695 Qi-Charging Wireless Mouse | 8F1Y4AA |
| | HP 715 Rechargeable Multi-Device Bluetooth Mouse | 6E6F0AA |
| | HP 925 Ergonomic Vertical Wireless Mouse | 6H1A5AA |
| | HP Creator Black 935 Wireless Mouse | 1D0K8AA |
| | HP Multi-Device Black 635 Wireless Mouse | 1D0K2AA |
| Power | HP 110W USB-C Laptop Charger | 8B3Y2AA,8B3Y2UT |
| | HP 65W LC USB-C AC power adapter | 1P3K6AA |
| | HP 65W USB-C Laptop Charger | 600Q8UT |
| | HP 65W USB-C Laptop Charger | 671R3AA,671R3UT |
| Networking /Communications | HP 4G LTE-Advanced Pro Cat19 WWAN | B8BD3AA |
| | HP 5G Sub-6 WWAN | B8BD4AA |

CHANGELOG

| Date of change | Version History | | Description of change |
|--------------------|-----------------|---------|---|
| February 12, 2025 | V1 to V2 | Updated | Graphics Section Weight and Dimensions Section |
| February 19, 2025 | V2 to V3 | Updated | Power Section |
| March 3, 2025 | V3 to V4 | Updated | Power Section |
| April 23, 2025 | V4 to V5 | Added | Image |
| May 20, 2025 | V5 to V6 | Updated | Docking Section |
| May 21, 2025 | V6 to v7 | Updated | Camera Section |
| June 8, 2025 | V7 to V8 | Removed | Pen Accessory |
| July 9, 2025 | V8 to V9 | Updated | Overview Section |
| August 18, 2025 | V9 to V10 | Updated | Software and Security Section |
| September 2, 2025 | V10 to V11 | Updated | Networking /Communications Section Options Section |
| September 4, 2025 | V11 to V12 | Updated | Networking /Communications Section |
| September 19, 2025 | V12 to V13 | Updated | Software and Security Section |
| October 3, 2025 | V13 to V14 | Updated | Processors Section |
| December 17, 2025 | V14 to V15 | Updated | Graphics Section |

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