HP EliteBook Ultra G1i 14 inch Notebook Next Gen AI PC

Front

1	IR Led	4	Camera Shutter
2	IR Camera	5	Webcam LED
3.	Webcam	6	Haptic Touchpad

Sides

1	Headphone/mic combo jack	4	Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) [1]
2	USB Type-A 10Gbps signaling rate (1 charging)	5	Power Indicator LED
3	Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) [1]	6	Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) [1]
		7	Security lock slot

1. SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.

PRODUCT NAME

HP EliteBook Ultra G1i 14 inch Notebook Next Gen AI PC

OPERATING SYSTEMS

Preinstalled

FreeDOS
Windows 11 Home - HP recommends Windows 11 Pro for business [1]
Windows 11 Home Single Language - HP recommends Windows 11 Pro for business [1]
Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing Agreement) [1]
Windows 11 Pro[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. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See www.intel.com/technology/turboboost for more information.
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. For full Intel® vPro® functionality, Windows, a vPro supported processor, vPro enabled Q370 chipset or higher and vPro enabled WLAN card are required. Some functionality, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependent on 3rd party software providers. Compatibility of this generation of Intel vPro technology-based hardware with future "virtual appliances" is yet to be determined.

GRAPHICS

Integrated
Intel® Arc™ Graphics

Supported Protocols
Support HDMI2.1 (5K/60Hz only), HDCP2.3, HDCP1.4, DX12

Displays supported (including Internal display; dock may be required)
Up to 3

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

DISPLAY

Non-Touch
35.6 cm (14") diagonal, 3K (2880 x 1800), OLED, 120Hz (VRR), UWVA, BrightView, OLED + Low Blue Light, 400 nits, DCI-P3 100% [7]

Touch
35.6 cm (14") diagonal, 3K (2880 x 1800), OLED, Touch, 120Hz (VRR), UWVA, BrightView, OLED + Low Blue Light, 400 nits, DCI-P3 100% [7]

Display Size (Diagonal)
35.6 cm (14.0")

Screen to Body Ratio
90.04%

Aspect Ratio
16:10

Max Hinge Open Angle
180±3°

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

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*
Dock Connectors	1x HDMI 2.1, 2x DisplayPort 1.4, 1x Thunderbolt 4
HP Quick Connect Support	No
Technical limitations	HP Quick Connect not 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. 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 #2	HP Thunderbolt 120W G4 Dock
Total number of supported displays (incl.the notebook) display)	4
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
Dock Connectors	2x HDMI 2.0, 2x DisplayPort 1.4, 1x Thunderbolt 4, 1x USB-C 3.2 Gen 2 DisplayPort
Technical limitations	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 G5 Dock
Total number of supported displays (incl.the notebook) **display)**	3
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
Dock Connectors	1x HDMI 2.0, 2x DisplayPort 1.4
Technical limitations	Maximum resolution and display support is dependent on the maximum capability of the notebook. Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution mode. Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K UHD@ 30 Hz on HDMI in Multi-function mode The highest resolution for a non-Thunderbolt host in Multi-function mode is a single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.

STORAGE AND DRIVES

Primary Storage

2 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [8]
1 TB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [8]
1 TB PCIe® Gen4x4 NVMe™ Self Encrypted OPAL2 SSD Three Layer Cell [8]
512 GB PCIe® NVMe™ SSD Value [8]
512 GB PCIe® Gen4x4 NVMe™ SSD Three Layer Cell [8]
512 GB PCIe® Gen4x4 NVMe™ Self Encrypted OPAL2 SSD Three Layer Cell [8]
256 GB PCIe® NVMe™ SSD Value [8]

8. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) 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
LPDDR5, System runs at 8533MT/s.
Supports Dual Channel Memory
The memory is non-accessible / non-upgradable.

NETWORKING /COMMUNICATIONS

WLAN

Intel® BE201(2x2) Wi-Fi 7 Bluetooth® 5.4 wireless card, vPro® [9]
Intel® BE201(2x2) Wi-Fi 7 Bluetooth® 5.4 wireless card, non-vPro® [9]

Miracast
Native Miracast Support [10]

9. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 7 (802.11BE) functionality requires compatible Windows OS, select 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.
10. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.

AUDIO/MULTIMEDIA

Audio
Audio by Poly Studio
4 Integrated stereo speakers
Dual microphones enhanced by AI noise reduction

Speaker Power
1W / 8 ohm per speaker

Camera
9MP camera with Image Signal Processing (ISP) and AI Presence Detection, IR camera

Sensors
IR thermal sensor
Accelerometer + Gyroscope
FingerPrint

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard
Full-size, backlit, Atmospheric Blue color keyboard HP Imagepad

Pointing Device
Haptics trackpad supporting gestures (Brightness/Volume/SmartAdapt Mode Switch)

Function Keys
ESC - System information
F1 - Display Switching
F2 - Opens the Calculator
F3 - Brightness Down
F4 - Brightness Up
F5 - Blank or Keyboard Backlight
F6 - Audio Mute
F7 - Volume Down
F8 - Volume Up
F9 - Mic Mute
F10 - Play and Pause
F11 - Programmable key
F12 - Snipping Mode
Insert
Power Button (with LED) – integrated with Fingerprint sensor
Microsoft Copilot 1

SOFTWARE AND SECURITY

Software

Buy Office (sold separately)
Edge Customizations
HP AI Companion
HP Connection Optimizer
HP Documentation
HP Hotkey Support
HP Notifications
HP PC Hardware Diagnostics UEFI
HP PC Hardware Diagnostics Windows
HP Privacy Settings
HP Services Scan for Commercial
HP Setup Integrated OOBE (GDPR)
HP Support Assistant [11]
Sure Recover Secure Storage Device Setup
myHP
HSA Fusion for Commercial
HSA Telemetry for Commercial
Poly Camera Pro
Poly Lens [12]
Seamless Firmware Update Service
TCO E-Logo
Touchpoint Customizer for Commercial
Windows Push Button Reset Recovery – CPS
Windows 11 Battery Remaining Time Disablement – CPS
WW-BTB Host and ISP Stub

Manageability Features

HP Client Management Script Library (download) [13]
HP Cloud Recovery
HP Driver Packs (download) [14]
HP Image Assistant (download) [15]
HP Manageability Integration Kit (download) [16]

Security Management

HP Client Security Manager
HP Wolf Security for Business includes: [17]
HP Sure Admin [18]
HP Sure Click [19]
HP Sure Recover [20]
HP Sure Sense [21]
HP Sure Start [22]

Secured-Core PC Enable [23]

Security – TPM
Model: Nuvoton NPCT760HACYX
Firmware Version: 7.2.4.0
TCG TPM 2.0
FIPS 140-2 Compliant: Yes

BIOS
Absolute Persistence Module [24]
Audio Permanent Disable
HP Bios Recovery
HP Fingerprint Sensor [25]
HP Secure Erase [26]
BIOS Update via Network
HP DriveLock & Automatic DriveLock
HP Wake on WLAN

IPv6 Support
Yes

FirstNet Certified
No

11. HP Support Assistant is available on Windows. For more information, please visit www.support.hp.com/help/hp-support-assistant
12. Poly Lens Desktop requires a Windows OS
13. HP Client Management Script Library (https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools)
14. HP Driver Packs not preinstalled, however available for download at http://www.hp.com/go/clientmanagement.
15. HP Image Assistant (https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html)
16. HP Manageability Integration Kit can be downloaded from https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools
17. 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.
18. 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
19. HP Sure Click requires Windows 10 and higher. See https://bit.ly/2PrLT6A_SureClick for complete details.
20. 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 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.
21. 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.
22. HP Sure Start is available on select HP PCs and requires Windows 10 and higher
23. 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.
24. Absolute 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/
25. HP Fingerprint Reader is a feature that requires Windows 10 or 11 and must be configured at purchase.
26. HP Secure Erase implements the methods outlined in the National Institute of Standards and Technology Special Publication 800-88r "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™

POWER

Power Supply
HP 65W Slim USB Type-C® AC power adapter [27]
HP 65W USB Type-C® Gallium Nitride AC power adapter [27]

Battery
HP Long Life 6 cell, 64Whr Polymer [28, 29, 30]

Power Cord
3-wire plug - 1m [28]

Battery life
Up to 16 hours 30 minutes with 64Whr battery (Intel Ultra 5 non-vPro, UMA graphic, brightness set to 250nits on a 3K 400nits OLED display, 16GB LPDDR5x memory, 512GB SSD) Up to 15 hours 45 minutes with 64Whr battery (Intel Ultra 7 vPro, UMA graphic, brightness set to 250nits on a 3K 400nits OLED display, 32GB LPDDR5x memory, 2TB SSD)

27. Availability may vary by country.
28. Battery is internal and not replaceable by customer. Serviceable by warranty.
29. Mobile Mark 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.
30. Recharges your battery up to 50% within 45 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 and 100 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

WEIGHT & DIMENSIONS

Product Weight [31]
Starting at 2.63 lbs
Starting at 1.195 kgs

Product Dimensions (w x d x h)
313.7 mm (W) x 217.25 mm (D) x 9.1 mm (front)/ 12.1 mm (rear) (12.35 in (W) x 8.55 in (D) x 0.36 in (front)/ 0.48 in (rear))
Maximum height 14.9 mm (0.59 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.

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

PORTS/SLOTS

Left side
1 x headphone/mic combo jack 1 x USB Type-A 10Gbps signaling rate (1 charging) 1 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) [32]

Right side
2 x Thunderbolt™ 4 with USB Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 2.1) [32]
1 x Security lock slot

32. SuperSpeed USB 20Gbps is not available with Thunderbolt™ 4.

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: • IT ECO declaration • US ENERGY STAR® • US Federal Energy Management Program (FEMP) • EPEAT[â] Gold Bronze, Silver, 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	• Product Carbon Footprint • Ocean-bound plastic in Speaker Enclosures • 23% post-consumer recycled plastic • 90% recycled metal • Low halogen • Outside Box and corrugated cushions are 100% sustainably sourced and recyclable • Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable.		
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)	4.58 W	4.78 W	4.54 W
Normal Operation (Long idle)	NA	NA	NA
Sleep	0.66 W	0.69 W	0.67 W
Off	0.33 W	0.37 W	0.33 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)	15.66 BTU/hr	16.34 BTU/hr	15.52 BTU/hr
Sleep	2.25 BTU/hr	2.35 BTU/hr	2.29 BTU/hr
Off	1.12 BTU/hr	1.26 BTU/hr	1.12 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_{WAd}, bels)**	**Sound Pressure (L_{pAm}, decibels)**
Typically Configured – Idle	2.8	25.3
Fixed Disk – Random writes	2.8	25.3
Optical Drive – Sequential reads	N/A	N/A

Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the Spare parts are available throughout the warranty period and or for up to "5" years after the end of production.		
Additional Information	• 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 93.4% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	584 g
		PAPER/Molded Pulp	233 g
		PAPER/Paperboard	30 g
		PAPER/Paper	9 g
	Internal:	Other/Other	18 g
	The plastic packaging material contains at least 100% recycled content.		
	The corrugated paper packaging materials contains at least 35% recycled content.		
RoHS Compliance	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. 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. 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. To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.		

Material Usage	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): • 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: • 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	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. 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.
HP, Inc. Corporate Environmental Information	For more information about HP's commitment to the environment: Sustainable Impact Report https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06040843 Eco-label certifications 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: https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04777932
footnotes	• Percentage of ocean-bound plastic contained in each component varies by product • Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard. • 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers. • Fiber cushions made from 100% recycled wood fiber and organic materials. • Disclaimer: 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.

SERVICE AND SUPPORT

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. Refer to http://www.hp.com/support/batterywarranty/ for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc. [33]

33. 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)	65W Type-C adapter
Nominal Operating Voltage	15 V
Integrated graphics	Yes
Max Operating Power	65 W
Temperature	
Operating	Operating: 0° to 35° C (32° to 95° F) No sustained direct exposure to sunlight, System performance may be reduced above 32° C (89.6° F)
Non-operating	Non-operating: -20° to 60° C (-4° to 140° F) No sustained direct exposure to sunlight, system performance may be reduced above 32° C (89.6° F)
Relative Humidity	
Operating	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 40G, 2ms, half-sine
Non-operating	Non-operating: 5% to 95%, 38.7° C (101.6° F) maximum wet bulb temperature
Random Vibration	
Operating	Operating 1.043 grms
Non-operating	Non-operating 3.5 grms
Altitude (unpressurized)	
Operating	Operating 3,048 m (10,000 ft)
Non-operating	Non-operating 12,192 m (40,000 ft)
Planned Industry Standard Certifications	
Regulatory Model Number	TPN-Q303
CSA/UL 62368-1	Yes (UL only)
ENERGY STAR®	Yes[34]
EPEAT	EPEAT® Gold in the United States [35]
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
WW RoHS	Yes
Low Blue Light	No

34. Configurations of the HP EliteBook Ultra G1i AI that are ENERGY STAR® qualified are identified as HP EliteBook Ultra G1i AI ENERGY STAR on HP websites and on http://www.energystar.gov.
35. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit www.epeat.net for more information.

DISPLAYS

1. Actual brightness will be lower with touchscreen.

NOTE: All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.

14.0 in 2.8K (2880 x 1800) BrightView UWVA OLED+LBL DCI-P3 100 NB2Z 400 eDP 1.4+PSR 120Hz (VRR) bent OLED Panel

Outline Dimensions (W x H x D)	305.450 x 197.850 (max)
Active Area	301.824x188.640 (typ.)
Weight	139 (max), DBTS 240 (max), DBCG 230 (max)
Diagonal Size	14"
Surface Treatment	Bright View
Touch Enabled	No for DBCG; Yes for DBTS
Contrast Ratio	100,000:1 (typ)
Refresh Rate	48~120Hz
Brightness	400 nits [1]
Pixel Resolution - Format	2880 x 1800 (UWVA)
Backlight	OLED
Pixel Resolution	RGB
Color Gamut Coverage	DCI P3 100%
Color Depth	8 bit + FRC 2 bit
Viewing Angle	UWVA 89/89/89/89
Low Blue Light	Yes
Power Consumption (W, EBL@ 150nits max/ 200nits max)	4.42 (max)/ 4.09 (max)

STORAGE

1TB PCIe-4x4 2280 NVME Self Encrypted OPAL2 Three Layer Cell Solid State Drive	**Form Factor**	M.2 2280
	Capacity	1TB
	NAND Type	TLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 7000 MB/s ± 20%
	Logical Blocks	2,000,409,264
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	TCG Opal 2.0; TRIM; L1.2
512GB PCIe-4x4 2280 NVME Self Encrypted OPAL2 Three Layer Cell Solid State Drive	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	TLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 7000 MB/s ± 20%
	Logical Blocks	1,000,215,216
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	TCG Opal 2.0; TRIM; L1.2
SSD 1TB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	1TB
	NAND Type	TLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 7000 MB/s ± 20%
	Logical Blocks	2,000,409,264
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	Pyrite 2.0; TRIM; L1.2
SSD 256GB 2280 PCIe NVMe	**Form Factor**	M.2 2280
	Capacity	256GB
	NAND Type	QLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 5400 MB/s ± 20%
	Maximum Sequential Write	Up To 2700 MB/s ± 20%
	Logical Blocks	500,118,192
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	Pyrite 2.0; TRIM; L1.2

SSD 2TB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	2TB
	NAND Type	TLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 7000 MB/s ± 20%
	Logical Blocks	4,000,797,360
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	Pyrite 2.0; TRIM; L1.2
SSD 512GB 2280 PCIe NVMe	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	QLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 5900 MB/s ± 20%
	Logical Blocks	1,000,215,216
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	Pyrite 2.0; TRIM; L1.2
SSD 512GB 2280 PCIe-4x4 NVMe Three Layer Cell	**Form Factor**	M.2 2280
	Capacity	512GB
	NAND Type	TLC
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen4X4
	Maximum Sequential Read	Up To 7000 MB/s ± 20%
	Maximum Sequential Write	Up To 7000 MB/s ± 20%
	Logical Blocks	1,000,215,216
	Operating Temperature	0° to 70° C (32° to 158° F) [ambient temp]
	Features	Pyrite 2.0; TRIM; L1.2

NETWORKING / COMMUNICATION

Intel BE201 Wi-Fi 7 +BT 5.4 M.2 320MHz PCIe World-wide WLAN vPro [1]	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11be IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
	Interoperability	Wi-Fi certified
	Frequency Band	• 802.11b/g/n/ax/be 2.402 – 2.482 GHz • 802.11a/n/ac/ax/be 4.9 – 4.95 GHz (Japan) 5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz 5.955 – 6.415 GHz 6.435 – 6.515 GHz 6.535 – 6.875 GHz 6.895 – 7.115 GHz
	Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac : 1733Mbps • 802.11ax : max 2.4Gbps • 802.11be : max 5.76Gbps
	Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM
	Security [2]	• IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware

	• 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power [3]	• 802.11b, 1Mbps : +17dBm minimum • 802.11g, 6Mpbs : +16dBm minimum • 802.11a, 6Mbps : +17dBm minimum • 802.11n, MCS7(HT20) : +14dBm minimum • 802.11n, MCS7(HT40) : +13.5dBm minimu • 802.11ac MCS9(VHT20) : 13.5dBm minimum • 802.11ac MCS9(VHT40) : +13.5dBm minimum • 802.11ac MCS9(VHT80) : +12.5dBm minimum • 802.11ac MCS9(VHT160) : +10.5dBm minimum • 802.11ax MCS11(HE20)(6GHz) : +11.5dBm minimum • 802.11ax MCS11(HE40)(6GHz) : +7.5dBm minimum • 802.11ax MCS11(HE80)(6GHz) : +7.5dBm minimum • 802.11ax MCS11(HE160)(6GHz) : +7.5dBm minimum • 802.11be MCS13(EHT20)(6GHz) : 11.5dBm • 802.11be MCS13(EHT40)(6GHz) : 7.5dBm • 802.11be MCS13(EHT80)(6GHz) : 7.5dBm • 802.11be MCS13(EHT160)(6GHz) : 6.5dBm • 802.11be MCS13(EHT320)(6GHz) : 4.5dBm
Power Consumption	• Transmit mode 3.1 W • Receive mode 1.8 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated) • Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity [4]	•802.11b, 1Mbps : -93.5dBm maximum •802.11b, 11Mbps : -85dBm maximum • 802.11a/g, 6Mbps : -90.5dBm maximum • 802.11a/g, 54Mbps : -72.5dBm maximum • 802.11n, MCS0(HT20) : -90dBm maximum • 802.11n, MCS7(HT20) : -71.5dBm maximum

	• 802.11n, MCS0(HT40) : -88.5dBm maximum • 802.11n, MCS7(HT40) : -68.5dBm maximum • 802.11ac, MCS9(VHT20) : -88.5dBm maximum • 802.11ac, MCS9(VHT40) : -65.5dBm maximum • 802.11ac, MCS9(VHT80) : -60.5dBm maximum • 802.11ac, MCS9(VHT160) : -58.5dBm maximum • 802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum • 802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum • 802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum • 802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum • 802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum • 802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum • 802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum • 802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum • 802.11be, MCS13(EHT320)(6GHz) : -45.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 1216: 1.67 x 12.0 x 16.0 mm
Weight	Type 1216: 1.3g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: –10° to 70° C (14° to 158° F) Non-operating: –40° to 80° C (–40° to 176° F)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED OFF – Radio ON
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 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.

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. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. 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).

Intel BE201 Wi-Fi 7 +BT 5.4 M.2 320MHz PCIe World-wide WLAN non-vPro [1]	**Wireless LAN Standards**	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11be IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v
	Interoperability	Wi-Fi certified
	Frequency Band	• 802.11b/g/n/ax/be 2.402 – 2.482 GHz • 802.11a/n/ac/ax/be 4.9 – 4.95 GHz (Japan) 5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz 5.955 – 6.415 GHz 6.435 – 6.515 GHz 6.535 – 6.875 GHz 6.895 – 7.115 GHz
	Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: max 300Mbps • 802.11ac : 1733Mbps

	• 802.11ax : max 2.4Gbps • 802.11be : max 5.76Gbps
Modulation	Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM
Security[2]	• IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • WPA3 certification • IEEE 802.11i • WAPI
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power [3]	• 802.11b, 1Mbps : +17dBm minimum • 802.11g, 6Mpbs : +16dBm minimum • 802.11a, 6Mbps : +17dBm minimum • 802.11n, MCS7(HT20) : +14dBm minimum • 802.11n, MCS7(HT40) : +13.5dBm minimu • 802.11ac MCS9(VHT20) : 13.5dBm minimum • 802.11ac MCS9(VHT40) : +13.5dBm minimum • 802.11ac MCS9(VHT80) : +12.5dBm minimum • 802.11ac MCS9(VHT160) : +10.5dBm minimum • 802.11ax MCS11(HE20)(6GHz) : +11.5dBm minimum • 802.11ax MCS11(HE40)(6GHz) : +7.5dBm minimum • 802.11ax MCS11(HE80)(6GHz) : +7.5dBm minimum • 802.11ax MCS11(HE160)(6GHz) : +7.5dBm minimum • 802.11be MCS13(EHT20)(6GHz) : 11.5dBm • 802.11be MCS13(EHT40)(6GHz) : 7.5dBm • 802.11be MCS13(EHT80)(6GHz) : 7.5dBm • 802.11be MCS13(EHT160)(6GHz) : 6.5dBm • 802.11be MCS13(EHT320)(6GHz) : 4.5dBm
Power Consumption	• Transmit mode 3.1 W • Receive mode 1.8 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated)

	• Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity [4]	•802.11b, 1Mbps : -93.5dBm maximum •802.11b, 11Mbps : -85dBm maximum • 802.11a/g, 6Mbps : -90.5dBm maximum • 802.11a/g, 54Mbps : -72.5dBm maximum • 802.11n, MCS0(HT20) : -90dBm maximum • 802.11n, MCS7(HT20) : -71.5dBm maximum • 802.11n, MCS0(HT40) : -88.5dBm maximum • 802.11n, MCS7(HT40) : -68.5dBm maximum • 802.11ac, MCS9(VHT20) : -88.5dBm maximum • 802.11ac, MCS9(VHT40) : -65.5dBm maximum • 802.11ac, MCS9(VHT80) : -60.5dBm maximum • 802.11ac, MCS9(VHT160) : -58.5dBm maximum • 802.11ax, MCS11(HE20)(6GHz) : -59.5dBm maximum • 802.11ax, MCS11(HE40)(6GHz) : -56.5dBm maximum • 802.11ax, MCS11(HE80)(6GHz) : -53.5dBm maximum • 802.11ax, MCS11(HE160)(6GHz) : -51.5dBm maximum • 802.11be, MCS13(EHT20)(6GHz) : -55.5dBm maximum • 802.11be, MCS13(EHT40)(6GHz) : -53.5dBm maximum • 802.11be, MCS13(EHT80)(6GHz) : -51.5dBm maximum • 802.11be, MCS13(EHT160)(6GHz) : -48.5dBm maximum • 802.11be, MCS13(EHT320)(6GHz) : -45.5dBm maximum
Antenna type	High efficiency antenna with spatial diversity Two embedded tri-band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 1216: 1.67 x 12.0 x 16.0 mm
Weight	Type 1216: 1.3g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: –10° to 70° C (14° to 158° F) Non-operating: –40° to 80° C (–40° to 176° F)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED OFF – Radio ON
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 Compliant
Frequency Band	2402 to 2480 MHz

Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)
Transmit Power	The Bluetooth component shall operate as a Class I Bluetooth device with a maximum transmit power of +15.5 dBm for BR and +13dBm for EDR.

1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
2. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

POWER

HP 65W Slim USB-C Straight AC Power Adapter	**Dimensions**	9.7 x 5.35 x 2.1 cm (3.819 x 2.106 x 0.827 in)
	Weight	200 g (+/-10 g) (Not including power cord. Power cord varies by country.)
	Input	100 to 240 Vac
	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 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 current limit	< 8.0A
	Connector	USB type C
	Operating temperature	0° to 35° C (32° to 95° F)
	Non-operating (storage) temperature	-20° to 85° C (-4° to 185° F)
	Non-operating (storage) temperature	-20° to 85° C (-4° to 185 °F)
	Altitude	0 to 16,400 ft (0 to 5000m)
	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 GaN USB-C nPFC Straight AC Power Adapter	**Dimensions**	6.8 x 5.3 x 2.2 cm (2.67 x 2.086 x 0.866 in)
	Weight	150g(+/-10g) (Not including power cord. Power cord varies by country.)
	Input	100 to 240 VAC

	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 ~ 63 Hz
	Input AC current	Max. 1.6 A at 90 VAC
	Output	
	Output power	5V / 15W 9V / 27W 15V / 65W 20V / 65W
	DC output	5V / 9V / 15V / 20V
	Hold-up time	100% load 5ms at 115 VAC input
	Output current limit	< 6.0A
	Connector	USB type C
	Operating temperature	0° to 35° C (32° to 95° F)
	Non-operating (storage) temperature	-20° to 85° C (-4° to 185° F)
	Non-operating (storage) temperature	-20° to 85° C (-4° to 185 °F)
	Altitude	0 to 16,400 ft (0 to 5000m)
	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 6-cell Long Life Li-Ion (64 WHr)	**Weight**	64Wh
	Cells/Type	6cell Lithium-Ion Polymer cell / 367161
	Voltage	7.72V
	Amp-hour capacity	No
	Watt-hour capacity	64Wh
	Operating (Charging)	0˚ to 45˚ C (32˚ to 113˚ F)
	Operating (Discharging)	-10˚ to 60˚ C (14˚ to 122˚ F)
	Optional Travel Battery Available	No

AUDIO

HD Stereo Codec	Realtek ALC3315-CG
Audio I/O Ports	3.5mm audio combo jack support CTIA style headset was designed in system Left hand side
Internal Speaker Amplifier	2W Class-D Stereo AMP & Two mono Class-H SmartAMP up to 6.6W
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 and rear jacks or integrated speaker.
Sampling	Independent sampling rates for DAC's and ADC's; Internal speaker : 16/24bit, 48kHz Intelnal mics : 24bit, 48kHz Headphone : 16/24bit, 48kHz Headset mic: 16bit, 44.1kHz ~ 192kHz
Wavetable Syntheses	Yes - Uses OS soft wavetable
Analog Audio	Yes, by audio jack.
# of Channels on Line-Out	Stereo, 2
Internal Speaker	Yes

FINGERPRINT READER

Sensor vendor	Synaptics FM-04053
Sensor type	Capacitive
DPI resolution	363 DPI
Scan area	104 x 86 pixels
False Rejection Rate	≤ 3%
False Acceptance Rate	1/50K
Mobile Voltage Operation	3.0V to 3.6V
Operating Temperature	0 to 60°C
Current Consumption Image	150mA peak
Low Latency Wait For Finger	80 uA (USB PHY excluded)
Capture Rate	Capture image time (1 frame) : 30 ms
ESD Resistance	IEC 61000-4-2 Level 4B (± 15 KV)
Detection Matrix	8 x 36 pixels

OPTIONS

Category	Description	Part Number
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 USB-C G5 Dock	5TW10AA
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 XL Marble Stone Backpack	7K0E2AA
	HP Campus XL Tie Dye Backpack	7K0E3AA
	HP Convertible Laptop Stand	9C2H2AA
	HP Everyday 14 odyssey gray Laptop Bag	A08KJAA
	HP Everyday 14 odyssey gray Laptop Briefcase	A08KGAA
	HP Everyday 16 odyssey gray Laptop Backpack	A08KLAA
	HP Everyday 16 odyssey gray Laptop Bag	A08KKAA
	HP Everyday 16 odyssey gray Laptop Briefcase	A08KHAA
	HP Renew Business 17.3 Laptop Backpack	3E2U5AA
	HP Renew Business 17.3 Laptop Bag	3E2U6AA
	HP Renew Executive 16 Laptop Backpack	6B8Y1AA
	HP Renew Executive 16 Laptop Bag	6B8Y2AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D8AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D9AA
	HP Travel Plus 14 Laptop Bag	A2CE2AA
	HP Travel Plus 16 Laptop Bag	A2CE1AA
	HP Travel Plus 17 Laptop Backpack	A2CE0AA
Hub	HP 4K USB-C Multiport Hub	6G843AA
	HP Universal USB-C Hub and Laptop Charger Combo	9H0H9AA
	HP Universal USB-C Multiport Hub	50H55AA
	HP USB-C to USB-A Hub	Z6A00AA
	HP USB-C Travel Hub G3	86S97AA
Adapter	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

Keyboard/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
	HP 125 Wired Keyboard	266C9AA
	HP 320K USB Wired Keyboard	9SR37AA
	HP 685 Comfort Dual-Mode Keyboard	8T6L9AA
	HP 725 Multi-Device Rechargeable Wireless Keyboard	9T5B2AA
	HP 965 black Ergonomic Wireless Keyboard	7E756AA
	HP 975 Dual-Mode USB+Bluetooth Wireless Keyboard	3Z726AA
Mouse	HP 105 Mouse Pad	8X595AA
	HP 125 Wired Mouse	265A9AA
	HP 128 Laser Wired Mouse	265D9AA
	HP 205 Desk Mat	8X597AA
	HP 320M Wired Mouse	9VA80AA
	HP 515 Ultra-Fast Rechargeable Wireless Mouse	9C2F7AA
	HP 685 Comfort Dual-Mode Mouse	8T6M0AA
	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
	HP 65W LC USB-C AC power adapter	1P3K6AA
	HP 65W USB-C Laptop Charger	600Q8AA
	HP 65W USB-C Laptop Charger	671R3AA
Commodity	HP USB DVD-Writer EXT ODD	F2B56AA
	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP SureKey Standard/Nano/Wedge Cable Lock	6UW42AA
	HP Combination Nano Cable Lock	63B28AA
	HP Essential Combination Nano Cable Lock	63B31AA

CHANGELOG

Date of change	Version History		Description of change
16th December 2024	V1 to V2	Added	Environmental Section
22nd January 2025	V2 to V3	Updated	Memory Section Networking Section Keyboard Section
7th February 2025	V3 to V4	Updated	Software and Security Section
12th February 2025	V4 to V5	Updated	Graphics Section Weight and Dimensions Section
19th February 2025	V5 to V6	Updated	Software and Security Section
20th February 2025	V6 to V7	Updated	BIOS Section
25th February 2025	V7 to V8	Updated	Processors Section
4th March 2025	V8 to V9	Updated	Software and Security Section
27th March 2025	V9 to V10	Updated	Keyboards/Pointing Devices/Buttons & Function Keys
23 May, 2025	V10 to V11	Updated	Docking Section
27 May, 2025	V11 to V12	Updated	Camera Section
23 June 2025	V12 to V13	Updated	Software And Security
5 September, 2025	V13 to V14	Updated	Camera Section
October 3, 2025	V14 to V15	Updated	Processors Section
December 17, 2025	V15 to V16	Updated	Graphics Section