

Overview

HP ProBook 430 G6 Notebook PC



Left

- | | |
|-----------------------------|--|
| 1. Internal microphones (2) | 6. SD Card reader |
| 2. Webcam | 7. Thermal vent |
| 3. Webcam LED | 8. USB 3.1 Gen 1 port |
| 4. Clickpad | 9. Security lock slot (Lock sold separately) |
| 5. Hard drive LED | 10. Power button |



Overview



Right

- | | |
|-----------------------------------|------------------------------------|
| 1. Power connector | 5. USB 3.1 Gen 1 port |
| 2. USB Type-C™ 3.1 Gen 1 port | 6. Headphone/microphone combo jack |
| 3. Ethernet port (RJ-45) | 7. HP FingerPrint Sensor |
| 4. HDMI port (Cable not included) | |

Overview

At a Glance

- Preinstalled with Windows 10 versions or FreeDOS 3.0
- Choice of 8th Generation Intel® Core™ i7, i5, i3 processors
- Display include your choice of 33.8 cm (13.3") diagonal HD, Ultra Wide Viewing Angle FHD, Touch or Non-Touch screen
- Integrated Intel® HD Graphics 610 and intel® UHD 620
- Enhanced security features including TPM2.0, HP BIOSphere, Hardware enforced Firmware Protection, optional fingerprint sensor, and optional IR camera
- Passed 19 items of MIL-STD 810G testing plus an additional 120,000 hours of reliability testing through HP's Total Test Process¹
- Weight starting at 3.28 lbs (1.49 kgs)
- HP Long-Life Rechargeable battery, with HP Fast Charge Technology recharges 50% in 30 minutes²
- Supports wireless LAN and wireless WWAN options for connectivity on the go
- Up to 512 GB Solid State Drives or 1 TB Hard Drive
- Up to 32 GB total system memory
- 720p HD webcam, IR camera for face authentication with Windows Hello
- Spill-resistant and optional backlit Keyboard with numeric keypad, and Clickpad with multi-touch gestures enabled, taps enabled as default
- Enjoy the rich conferencing experience of the Skype for Business™ Certified HP ProBook 430

1. **MIL STD 810G testing is pending and 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. Damage under the MIL STD test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.**
2. **Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. After charging has reached 50% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.**

NOTE: See important legal disclosures for all listed specs in their respective features sections.



Technical Specifications

PRODUCT NAMES

HP ProBook 430 G6 Notebook PC

OPERATING SYSTEMS

| | |
|--------------|--|
| Preinstalled | Windows 10 Pro 64 ¹ Windows 10 Pro 64 (National Academic only) ² Windows 10 Home 64 ¹ Windows 10 Home Single Language 64 ¹ FreeDOS 3.0 |
|--------------|--|

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 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.

2. Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see <https://aka.ms/ProEducation> for Windows 10 Pro Education feature information.

PROCESSORS

Intel® Core™ i7-8565U with Intel® UHD Graphics 620 (1.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores)^{3,4,5,6}

Intel® Core™ i5-8265U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores)^{3,4,5,6}

Intel® Core™ i3-8145U with Intel® UHD Graphics 620 (2.1 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 4 MB L3 cache, 2 cores)^{3,4,5,6}

Intel® Core™ i7+ 8565U processor (Core™ i7 and 16 GB Intel® Optane™ memory) with Intel® UHD Graphics 620 (1.8 GHz base frequency, up to 4.6 GHz with Intel® Turbo Boost Technology, 8 MB L3 cache, 4 cores)^{3,4,5,6,7}

Intel® Core™ i5+ 8265U processor (Core™ i5 and 16 GB Intel® Optane™ memory) with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 6 MB L3 cache, 4 cores)^{3,4,5,6,7}

Intel® Celeron® 4205U processor with Intel® HD Graphics 610 (1.8 GHz base frequency, 2 MB L3 cache, 2 cores)^{3,4,5,6}

Intel® Pentium® 5405U processor with Intel® HD Graphics 610 (2.3 GHz base frequency, 2 MB L3 cache, 2 cores)^{3,4,5,6}

Processors Family

8th Generation Intel® Core™ i7 processor (i7-8565U)⁶

8th Generation Intel® Core™ i5 processor (i5-8265U)⁶

8th Generation Intel® Core™ i3 processor (i3-8145U)⁶

Intel® Pentium® processor (5405U)⁶

Intel® Celeron® processor (4205U)⁶

3. 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.
4. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
5. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost> for more information.



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6. **NOTE:** 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>.
7. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system and requires configuration with an optional Intel® Core™ i(5 or 7)+ processor.

CHIPSET

Integrated with processor

GRAPHICS

Integrated
Intel® UHD graphics 620⁸

8. HD content required to view HD images.

DISPLAYS

Internal

Non-Touch

33.8 cm (13.3") diagonal HD SVA eDP anti-glare LED-backlit Ultralim, 220 cd/m², 67% sRGB for two WLAN antennas (1366 x 768)^{8,10}

33.8 cm (13.3") diagonal HD SVA eDP anti-glare LED-backlit Ultralim, 220 cd/m², 67% sRGB for HD camera and two WLAN antennas (1366 x 768)^{8,10}

33.8 cm (13.3") diagonal HD SVA eDP anti-glare LED-backlit Ultralim, 220 cd/m², 67% sRGB for HD+IR camera and two WLAN antennas (1366 x 768)^{8,10}

33.8 cm (13.3") diagonal FHD UWVA eDP anti-glare LED-backlit slim, 220 cd/m², 67% sRGB for HD camera and two WLAN antennas (1920 x 1080)^{8,10}

33.8 cm (13.3") diagonal FHD UWVA eDP anti-glare LED-backlit slim, 220 cd/m², 67% sRGB for HD+IR camera and two WLAN antennas (1920 x 1080)^{8,10}

Touch

33.8 cm (13.3") diagonal HD SVA eDP LED-backlit Ultralim touch screen, 220 cd/m², 67% sRGB for HD camera and two WLAN antennas (1366 x 768)^{8,9,10}

33.8 cm (13.3") diagonal FHD UWVA eDP LED-backlit slim touch screen, 220 cd/m², 67% sRGB for HD camera and two WLAN antennas (1920 x 1080)^{8,9,10}

HDMI

Supports resolutions up to 4K 30Hz

8. HD content required to view HD images.
9. Sold separately or as an optional feature.
10. Resolutions are dependent upon monitor capability, and resolution and color depth settings.



Technical Specifications

| Docking station model | Total number of supported displays (incl. the notebook display) | Max. resolutions supported | Dock Connect3ors | Technical limitations |
|-----------------------------|---|--|-------------------------------------|--|
| HP Thunderbolt Dock 120W G2 | 3 | Dual 4k @60Hz | 2xDP, 1xVGA, 1xTB, 1xUSB-C alt-mode | Dual 4k only with one display in to DP and + TB port or USB-C alt mode + TB port |
| HP USB-C Dock G4 | 3 | Dual 2K @ 60Hz Single 4K @ 60Hz (3840 x 1440) | 1xHDMI, 2xDP | |
| HP USB-C Universal Dock | 3 | Dual 4K @ 60Hz Single 5K @ 60Hz | 2xDP | |
| HP USB-C Travel Dock | 2 | Single 2K @ 60Hz | 1xHDMI, 1xVGA | Single external display Only HDMI or VGA at the time |
| HP USB-C Mini Dock | 2 | Single 4K @ 30Hz | 1xHDMI, 1xVGA | Single external display Only HDMI or VGA at the time |

STORAGE AND DRIVES

Primary Storage

500 GB 7200 rpm SATA11

1 TB 5400 rpm SATA11

Primary M.2 Storage

128 GB M.2 SATA TLC Solid State Drive11

256 GB PCIe® NVMe™ M.2 Value Solid State Drive11

512 GB PCIe® NVMe™ M.2 TLC Solid State Drive11

512 GB PCIe® NVMe™ M.2 Value Solid State Drive11

11. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10) is reserved for system recovery software.

NOTE: PCIe SSD not available for Celeron

MEMORY

Memory

32 GB DDR4-2400 SDRAM (2 x 16 GB)¹²

16 GB DDR4-2400 SDRAM (1 x 16 GB)

16 GB DDR4-2400 SDRAM (2 x 8 GB)¹²

12 GB DDR4- 2400 SDRAM (4 GB and 8 GB (1 x 8 GB)¹²

8 GB DDR4-2400 SDRAM (1 x 8 GB)

8 GB DDR4-2400 SDRAM (2 x 4 GB)¹²



Technical Specifications

4 GB DDR4-2400 SDRAM (1 x 4 GB)

Maximum

32 GB DDR4-2400 SDRAM¹²

Memory Slots

2 SODIMM

Both slots are customer accessible / upgradeable

DDR4 PC4 SODIMMS, system runs at 2400

Supports Dual Channel Memory

12. Due to the non-industry 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.

NETWORKING/COMMUNICATIONS

Wireless LAN (WLAN)

Realtek 802.11ac (2x2) WLAN and Bluetooth® 4.2 Combo¹³

Intel® Dual Band Wireless-AC 9560 802.11ac (2x2) WLAN and Bluetooth® 5 Combo, non-vPro™¹³

Ethernet

Realtek RTL8111HSH-CG 10/100/1000 GbE NIC¹⁵

13. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
15. The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

AUDIO/MULTIMEDIA

Audio

Integrated microphone (Mono or Dual Array)

2 Integrated stereo speakers

Speaker Power

2W/4ohm Per speaker

Camera

720p HD camera⁸

720p HD camera+IR Camera^{8,9}

8. HD content required to view HD images.
9. Sold separately or as an optional feature.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS



Technical Specifications

Keyboard

HP Premium Keyboard, spill resistant with optional backlit function

Pointing Device

Clickpad with multi-touch gesture support

Function Keys

ESC: system information

F1 - Display Switching

F2 - Blank

F3 - Brightness Down

F4 - Brightness Up

F5 - Audio Mute

F6 - Volume Down

F7 - Volume Up

F8 - Mic Mute

F9 - Blank or Backlit Toggle

F10 - numlk

F11 - Wireless

F12 - Sleep

Hidden Functions

Fn+R - Break

Fn+S - Sys Rq

Fn+C - Scroll Lock

Fn+E - Insert

SOFTWARE AND SECURITY

BIOS

HP BIOSphere Gen4¹⁶

HP DriveLock & Automatic DriveLock

BIOS Update via Network

Secure Erase¹⁷

Absolute Persistence Module¹⁸

Pre-boot Authentication

HP Wireless Wakeup

Software

HP Native Miracast Support¹⁹

HP LAN-Wireless Protection

HP Connection Optimizer

HP 3D DriveGuard

HP Hotkey Support - CMIT

HP Jumpstart

HP Support Assistant²⁰

HP Noise Cancellation Software

HP Host Based MAC Address Manager



Technical Specifications

Buy Office (sold separately)

Manageability Features

HP Driver Packs²¹

HP System Software Manager (SSM)

HP BIOS Config Utility (BCU)

HP Client Catalog

HP Manageability Integration Kit Gen2²²

Ivanti Management Suite²³

HP Cloud Recovery²⁴

Client Security Software

- HP Client Security Suite Gen4²⁵ including:
- HP Security Manager²⁶ (including Credential Manager, HP Password Manager, HP Spare Key)
- HP Fingerprint Sensor²⁷
- HP Device Access Manager²⁸
- HP Power On Authentication

Windows Defender²⁹

Security Management

Secure Erase¹⁷

TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified)³⁰

SATA 0,1 port disablement (viaBIOS)

RAID configurations³¹

Serial, USB enable/disable (viaBIOS)

Power-on password (viaBIOS)

Setup password (viaBIOS)

Support for chassis padlocks and cable lock devices

Integrated hood sensor

HP Sure Click³²

16. HP BIOSphere Gen4 requires Intel(R) or AMD 8th Gen processors. Features may vary depending on the platform and configurations.
17. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method.
18. Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: <http://www.absolute.com/company/legal/agreements/computrace-agreement>. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
19. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming



Technical Specifications

- 20. HP Support Assistant requires Windows and Internet access.
- 21. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.
- 22. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>
- 23. Ivanti Management Suite subscription required
- 24. HP Cloud Recovery is available for HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. Note: You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: <https://support.hp.com/us-en/document/c05115630>
- 25. HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors..
- 26. HP Password Manager requires Internet Explorer or Chrome or FireFox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser.
- 27. HP Fingerprint Sensor sold separately or as an optional feature.
- 28. HP Device Access Manager requires HP Client Security Suite Gen4.
- 29. Windows Defender Opt in and internet connection required for updates.
- 30. Firmware TPM is version 2.0. Hardware TPM is v1.2, which is a subset of the TPM 2.0 specification version v0.89 as implemented by Intel Platform Trust Technology (PTT).
- 31. RAID configuration is optional and does require a second hard drive.
- 32. HP Sure Click is available on most HP PCs and supports Microsoft® Internet Explorer and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed.

POWER

HP Smart 65 W External AC power adapter³³
HP Smart 65 W EM External AC power adapter³³
HP Smart 65 W USB Type-C™ adapter³³
HP Smart 45 W External AC power adapter³³
HP Smart 45 W USB Type-C™ adapter³³

Primary Battery
HP Long Life 3-cell, 45 Wh Li-ion³⁴

Power Cord
3-wire plug - 1m³³
3-wire plug - 1.8m³³
2-wire plug - 1m³³
Duckhead power cord- 1m³³
Duckhead power cord- 1.8m³³

Battery Life
TBD ³⁵

Battery Weight
0.49 lb
0.22 kg

33. Availability may vary by country.

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



Technical Specifications

35. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See <http://www.bapco.com> for additional details.

WEIGHTS & DIMENSIONS

Weight

Starting at 3.28 lb³⁶

Starting at 1.49 kg³⁶

Dimensions (w x d x h)

12.15 x 9.09 x 0.71 in

30.85 x 23.1 x 1.8 cm

36. Weight will vary by configuration.

PORTS/SLOTS

Ports

1 USB 3.1 Type-C™ Gen 1 (Power delivery, DisplayPort™)

1 USB 3.1 Gen 1

1 USB 3.1 (Powered port)

1 HDMI 1.4b³⁷

1 RJ-45

1 AC power

1 Headphone/microphone combo jack

Expansion Slots

1 SD

Supports SD, SDHC, SDXC

37. HDMI cable sold separately.

SERVICE AND SUPPORT

HP Services offers 3-year and 1-year limited warranties and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for Long Life Batteries which will have same 1-year or 3-year limited warranty as the platform. 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>.³⁸

38. 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 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.



Technical Specifications

ENVIRONMENTAL & INDUSTRY

HP PROBOOK 430 G6 NOTEBOOK PC

| | | | |
|--|--|---------------------|---------------------|
| Eco-Label Certifications & declarations | <p>This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:</p> <ul style="list-style-type: none"> •IT ECO declaration •US ENERGY STAR® •EPEAT® Gold registered in the United States. See http://www.epeat.net for registration status in your country. •TCO or TCO Certified Edge | | |
| 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, 60Hz |
| Normal Operation (Short idle) | 5.17 W | 5.30 W | 5.14 W |
| Normal Operation (Long idle) | 2.84 W | 2.79 W | 2.77 W |
| Sleep | 0.61 W | 0.64 W | 0.61 W |
| Off | 0.38 W | 0.42 W | 0.38 W |
| | <p>Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.</p> | | |



Technical Specifications

| Heat Dissipation* | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 60Hz |
|---|---|--|--------------|
| Normal Operation (Short idle) | 18 BTU/hr | 18 BTU/hr | 18 BTU/hr |
| Normal Operation (Long idle) | 10 BTU/hr | 10 BTU/hr | 9 BTU/hr |
| Sleep | 2 BTU/hr | 2 BTU/hr | 2 BTU/hr |
| Off | 1 BTU/hr | 1 BTU/hr | 1 BTU/hr |
| | 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 | 2.7 | 24.2 | |
| Fixed Disk – Random writes | 2.8 | 25.1 | |
| Longevity and Upgrading | This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: <ul style="list-style-type: none">• 3 USB ports• 1 PC card slot (type I/II)• 1 ExpressCard/54 slot• 1 IEEE 1394 Port• 2 SODIMM memory slots• Optional expansion base docking station• 1 multi-bay II storage port• Interchangeable HDD | | |



Technical Specifications

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|------------------------|--|---|-------|
| | Spare parts are available throughout the warranty period and or for up to "5" years after the end of production. | | |
| Batteries | <p>This battery(s) in this product comply with EU Directive 2006/66/EC</p> <p>Batteries used in the product do not contain:</p> <p>Mercury greater than 1ppm by weight</p> <p>Cadmium greater than 20ppm by weight</p> <p>Battery size: CR2032 (coin cell)</p> <p>Battery type: lithium/manganese dioxide</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 in the U.S. See http://www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 0% post-consumer recycled plastic (by wt.) • This product is 95.1% recycle-able when properly disposed of at end of life. | | |
| Packaging Materials | External: | PAPER/Corrugated | 281 g |
| | Internal: | PLASTIC/Polyethylene Expanded - EPE | 62 g |
| | | PLASTIC/Polyethylene low density – LDPE | 9 g |
| 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 http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf):</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 • 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 (PBEBs) • 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) | | |



Technical Specifications

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|--|--|
| Packaging Usage | <p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards. |
| End-of-life Management and Recycling | <p>HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle 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: http://www.hp.com/go/recyclers. 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> <p>Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf</p> |

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)

| | |
|----------------------------------|---------------------|
| Nominal Operating Voltage | 19V |
| Average Operating Power | Win 10 |
| Integrated graphics | 5.71W |
| Max Operating Power | UMA < 45W |

| | |
|------------------------------|--------------------------------------|
| Temperature Operating | 32° to 95° F (0° to 35° C) |
| Non-operating | -4° to 140° F (-20° to 60° C) |

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



Technical Specifications

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|---------------------------------|--|
| Operating | 40 G, 2 ms, half-sine |
| Non-operating | 200 G, 2 ms, half-sine |
| Random Vibration | |
| Operating | 0.75 grms |
| Non-operating | 1.50 grms |
| Altitude (unpressurized) | |
| Operating | -50 to 10,000 ft (-15.24 to 3,048 m) |
| Non-operating | -50 to 40,000 ft (-15.24 to 12,192 m) |
| Planned Industry Standard | |
| Certifications | |
| UL | Yes |
| CSA | Yes |
| FCC Compliance | Yes |
| ENERGY STAR® | Selected models ³⁹ |
| EPEAT | Registered Gold in United States ⁴⁰ |
| ICES | Yes |
| Australia / | Yes |
| NZ A-Tick Compliance | Yes |
| CCC | Yes |
| Japan VCCI Compliance | Yes |
| KC | Yes |
| BSMI | Yes |
| CE Marking Compliance | Yes |
| BNCI or BELUS | Yes |
| CIT | Yes |
| GOST | Yes |
| Saudi Arabian Compliance (ICCP) | Yes |
| SABS | Yes |
| UKRSERTCOMPUTER | Yes |

39. Configurations of the HP ProBook 430 G6 that are ENERGY STAR® certified² are identified as HP ProBook 430 G6 ENERGY STAR on HP websites and on <http://www.energystar.gov>.

40. EPEAT® registered where applicable. EPEAT registration varies by country. See <http://www.epeat.net> for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at <http://www.hp.com/go/options>.

DISPLAYS

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

| | | |
|---|--------------------------------|----------------------|
| Panel LCD 13.3 inch diagonal FHD (1920x1080) | Outline Dimensions (W x H x D) | 300.56 x 187.77 max. |
| | Active Area | 293.76 x 165.24 typ. |



Technical Specifications

| | | |
|--|---------------------------------------|--|
| Anti-Glare WLED UWVA 45% cg 220nits eDP slim NB non-touch | Weight | <260 max. |
| | Diagonal Size | 13.3" |
| | Thickness | 3.0mm max. |
| | Interface | eDP 1.2 (2 lanes) |
| | Surface Treatment | Anti-glare |
| | Touch Enabled | No |
| | Contrast Ratio | 600:1 (typ) |
| | Refresh Rate | 60Hz |
| | Brightness | 220 nits typical (Panel Only) |
| | Pixel Resolution | 1920 x 1080 (FHD) |
| | Format | RGB |
| | Backlight | LED |
| | Color Gamut Coverage | 45% |
| | Color Depth | 6 bits (Hi FRC @ system GFX output 8bits) |
| | Viewing Angle | UWVA 85/85/85/85 |
| <hr/> | | |
| Panel LCD 13.3 inch diagonal FHD (1920x1080) WLED UWVA 45% cg 220nits eDP slim NB touch | Outline Dimensions (W x H x D) | 300.56 x 187.77 max. |
| | Active Area | 293.76 x 165.24 typ. |
| | Weight | <383 max. |
| | Diagonal Size | 13.3" |
| | Thickness | 3.2mm max. |
| | Interface | eDP 1.2 (2 lanes) |
| | Surface Treatment | BrightView Glass |
| | Touch Enabled | Yes |
| | Contrast Ratio | 600:1 (typ) |
| | Refresh Rate | 60Hz |
| | Brightness | 220 nits typical (Panel Only) |
| | Pixel Resolution | 1920 x 1080 (FHD) |
| | Format | RGB |
| | Backlight | LED |
| | Color Gamut Coverage | 45% |
| | Color Depth | 6 bits (Hi FRC @ system GFX output 8bits) |
| | Viewing Angle | UWVA 85/85/85/85 |
| <hr/> | | |
| Panel LCD 13.3 inch diagonal HD (1366x768) Anti-Glare WLED SVA 45% cg 220nits eDP slim NB non-touch | Outline Dimensions (W x H x D) | 300.56 x 187.77 max. (w/ PCB & w/o bracket) |
| | Active Area | 293.83 x 165.20 typ. |
| | Weight | <260 max. |
| | Diagonal Size | 13.3 (inch) |
| | Thickness | 3.0mm max. |
| | Interface | eDP 1.2 (2 lanes) |
| | Surface Treatment | Anti-glare |
| | Touch Enabled | No |



Technical Specifications

| | |
|----------------------|---|
| Contrast Ratio | 300:1 (typ) |
| Refresh Rate | 60Hz |
| Brightness | 220 nits typical (Panel Only) |
| Pixel Resolution | 1366 x 768 (HD) |
| Format | RGB |
| Backlight | LED |
| Color Gamut Coverage | 45% |
| Color Depth | 6 bits (Hi FRC @ system GFX output 8bits) |
| Viewing Angle | SVA 45/45/15/30 |

Panel LCD 13.3 inch diagonal
HD (1366x768) WLED
SVA 45% cg 220nits eDP slim
NB touch

| | |
|--------------------------------|---|
| Outline Dimensions (W x H x D) | 300.56 x 187.77 max. (w/ PCB & w/o bracket) |
| Active Area | 293.83 x 165.20 typ. |
| Weight | <383 max. |
| Diagonal Size | 13.3 (inch) |
| Thickness | 3.2mm max. |
| Interface | eDP 1.2 (2 lanes) |
| Surface Treatment | BrightView Glass |
| Touch Enabled | Yes |
| Contrast Ratio | 300:1 (typ) |
| Refresh Rate | 60Hz |
| Brightness | 220 nits typical (Panel Only) |
| Pixel Resolution | 1366 x 768 (HD) |
| Format | RGB |
| Backlight | LED |
| Color Gamut Coverage | 45% |
| Color Depth | 6 bits (Hi FRC @ system GFX output 8bits) |
| Viewing Angle | SVA 45/45/15/30 |

STORAGE AND DRIVES

Hard Drives

500 GB 7200 rpm SATA
Hard Drive

| | |
|-----------------------|--|
| Drive Weight | 0.20 lbs (92 g) ~ 0.21 lbs (95 g) |
| Rotation speed | 7200 rpm |
| Cache Buffer | Up to 32 MB |
| Height | 0.28 in (7 mm) |
| Width | 2.75 in (69.85 mm) |
| Interface | ATA-8, SATA 3.0 |
| Transfer Rate | 600 MB/s |
| Seek Time | Single Track: 2 ~ 1.5 ms; Average: 11 ~ 13 ms; Maximum: 18 ~ 22 ms |
| Logical Blocks | 976,773,168 |
| Operating Temperature | 32° to 140° F (0° to 60° C) [top cover temp] |
| Security Features | ATA Security |



Technical Specifications

| | Features | S.M.A.R.T., NCQ, Ultra DMA |
|-------------------------------|-----------------------|--|
| 1 TB 5400 rpm SATA Hard Drive | Drive Weight | 0.21 lbs (94 g) |
| | Rotation speed | 5400 rpm |
| | Cache Buffer | Up to 32 MB |
| | Height | 0.28 in (7.2 mm) |
| | Width | 2.75 in (69.85 mm) |
| | Interface | ATA-8, SATA 3.0 |
| | Transfer Rate | 600 MB/s |
| | Seek Time | Single Track2 ms |
| | | Average12 ~ 13 ms |
| | | Maximum18 ~ 22 ms |
| | Logical Blocks | 1,953,525,168 |
| | Operating Temperature | 32° to 140° F (0° to 60° C) [top cover temp] |
| | Security Features | ATA Security |
| | Features | S.M.A.R.T., NCQ, Ultra DMA |



Technical Specifications

| | | |
|--|---------------------------------|---|
| SSD 128 GB 2280 M2 SATA-3 TLC | Form Factor | M.2 2280 |
| | Capacity | 128GB |
| | NAND Type | TLC |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Weight | 0.02 lb (10 g) |
| | Interface | ATA-8, SATA 3.0 |
| | Maximum Sequential Read | Up To 520 MB/s |
| | Maximum Sequential Write | Up To 450 MB/s |
| | Logical Blocks | 250,069,680 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Features | DIPM; TRIM; DEVSLP |

| | | |
|--|---------------------------------|---|
| 256 GB 2280 PCIe NVMe Value Solid State Drive | Form Factor | M.2 2280 |
| | Capacity | 256 GB |
| | NAND Type | TLC |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3 |
| | Maximum Sequential Read | Up To 1700 MB/s |
| | Maximum Sequential Write | Up to 1300 MB/s |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Features | TRIM; L1.2 |

| | | |
|---|---------------------------------|---|
| 512 GB 2280 M2 PCIe NVMe TLC Solid State Drive | Form Factor | M.2 2280 |
| | Capacity | 512 GB |
| | NAND Type | TLC |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Maximum Sequential Read | Up To 2600 MB/s |
| | Maximum Sequential Write | Up To 1400 MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Features | TRIM; L1.2 |



Technical Specifications

| | | |
|---|---------------------------------|---|
| 16 GB 2280 PCIe-3x2 NVMe 3D Xpoint Solid State Drive | Form Factor | M.2 2280 |
| | Capacity | 16 GB |
| | NAND Type | Xpoint |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X2 |
| | Maximum Sequential Read | 1400 |
| | Maximum Sequential Write | 300 |
| | Logical Blocks | 28,181,188 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Features | L1.2 |
| 512 GB 2280 PCIe NVMe Value Solid State Drive | Form Factor | M.2 2280 |
| | Capacity | 512 GB |
| | NAND Type | Value |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Maximum Sequential Read | Up To 1500 ~ 1700 MB/s |
| | Maximum Sequential Write | Up To 860 ~ 1500MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Features | ATA Security, TRIM; L1.2 |

NETWORKING/COMMUNICATIONS

WLAN

| | | |
|---|-------------------------------|--|
| Intel® 9560 802.11a/b/g/n/ac (2x2) WLAN and Bluetooth® 5.0 Combo¹ non-vPro | Wireless LAN Standards | IEEE 802.11a |
| | | IEEE 802.11b |
| | | IEEE 802.11g |
| | | IEEE 802.11n |
| | | IEEE 802.11ac |
| | | 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 • 2.402 – 2.482 GHz 802.11a/n/ac |



Technical Specifications

| | |
|-----------------------------------|---|
| | <ul style="list-style-type: none"> • 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 |
| Data Rates | <ul style="list-style-type: none"> • 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: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, , 80MHz & 160MHz) |
| Modulation | Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| Security ³ | <ul style="list-style-type: none"> • IEEE and Wi-Fi® 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 • IEEE 802.11i • Cisco Certified Extensions, all versions through CCX4 and CCX Lite • WAPI |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) |
| Roaming | IEEE 802.11 compliant roaming between access points |
| Output Power ² | <ul style="list-style-type: none"> • 802.11b : +18.5dBm minimum • 802.11g : +17.5dBm minimum • 802.11a : +18.5dBm minimum • 802.11n HT20(2.4GHz) : +15.5dBm minimum • 802.11n HT40(2.4GHz) : +14.5dBm minimum • 802.11n HT20(5GHz) : +15.5dBm minimum • 802.11n HT40(5GHz) : +14.5dBm minimum • 802.11ac VHT80(5GHz) : +11.5dBm minimum • 802.11ac VHT160(5GHz) : +11.5dBm minimum |
| Power Consumption | Transmit mode: 2.0 W Receive mode: 1.6 W Idle mode (PSP)180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connected Standby/Modern Standby: 10mW Radio disabled: 8 mW |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode |
| Receiver Sensitivity ³ | 802.11b, 1Mbps: -93.5dBm maximum 802.11b, 11Mbps: -84dBm maximum 802.11a/g, 6Mbps: -86dBm maximum 802.11a/g, 54Mbps: -72dBm maximum 802.11n, MCS07: -67dBm maximum 802.11n, MCS15: -64dBm maximum |



Technical Specifications

| | |
|-------------------|---|
| Antenna type | 802.11ac, MCS0: -84dBm maximum |
| | 802.11ac, MCS9: -59dBm maximum |
| Form Factor | High efficiency antenna with spatial diversity, mounted in the display enclosure |
| Dimensions | Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications |
| Weight | 1. Type 2230: 2.8g 2. Type 1216: 1.67 x 12.0 x 16.0 mm |
| Operating Voltage | 3.3v +/- 9% |
| Temperature | Operating 14° to 158° F (-10° to 70° C) Non-operating -40° to 176° F (-40° to 80° C) |
| 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 White – Radio ON |

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0 Wireless Technology

Bluetooth® Specification 4.0/4.1/4.2/5.0 Compliant

Frequency Band 2402 to 2480 MHz

Number of Available Channels Legacy: 0~79 (1 MHz/CH)
BLE: 0~39 (2 MHz/CH)

Signaling Data Rate Legacy: 3 Mbps signaling rate¹
BLE: 1 Mbps signaling data rate¹
1. Actual throughput may vary.

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

Electrical Interface USB 2.0 compliant

Bluetooth Software Supported Microsoft Windows Bluetooth Software

Link Topology

Power Management Microsoft Windows ACPI, and USB Bus Support

Certifications FCC (47 CFR) Part 15C, Section 15.247 & 15.249



Technical Specifications

| | |
|--|--|
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |

| | | |
|---|-------------------------------|---|
| Realtek 802.11a/b/g/n/ac (2x2) WLAN and Bluetooth® 4.1 Combo¹ | Wireless LAN Standards | IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac |
| | Interoperability | Wi-Fi® certified |
| | Frequency Band | 802.11b/g/n •2.402 – 2.482 GHz 802.11a/n •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 |
| | Data Rates | <ul style="list-style-type: none"> • 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: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac: MCS0 ~ MCS7, (1SS) (20MHz, 40MHz, and 80MHz) |
| | Modulation | Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| | Security³ | <ul style="list-style-type: none"> • IEEE and Wi-Fi® 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 • IEEE 802.11i • Cisco Certified Extensions, all versions through CCX4 and CCX Lite |



Technical Specifications

| | |
|--|---|
| | <ul style="list-style-type: none"> WAPI |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) |
| Roaming | IEEE 802.11 compliant roaming between access points |
| Output Power ² | <ul style="list-style-type: none"> 802.11b: +14dBm minimum 802.11g: +12dBm minimum 802.11a: +12dBm minimum 802.11n HT20(2.4GHz): +12dBm minimum 802.11n HT40(2.4GHz): +12dBm minimum 802.11n HT20(5GHz): +10dBm minimum 802.11n HT40(5GHz): +10dBm minimum 802.11ac VHT80(5GHz): +10dBm minimum |
| Power Consumption | Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connect Standby: 10 mW (WLAN+BT) Radio disabled: 8 mW |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode |
| Receiver Sensitivity ³ | 802.11b, 1Mbps: -93.5dBm maximum 802.11b, 11Mbps: -84dBm maximum 802.11a/g, 6Mbps: -86dBm maximum 802.11a/g, 54Mbps: -72dBm maximum 802.11n, MCS07: -67dBm maximum 802.11n, MCS15: -64dBm maximum 802.11ac, MCS0: -84dBm maximum 802.11ac, MCS9: -59dBm maximum |
| Antenna type | High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications |
| Form Factor | PCI-Express M.2 MiniCard |
| Dimensions | Type 2230: 2.3 x 22.0 x 30.0 mm |
| Weight | Type 2230: 2.8g |
| Operating Voltage | 3.3v +/- 9% |
| Temperature | Operating 14° to 158° F (-10° to 70° C) Non-operating -40° to 176° F (-40° to 80° C) |
| 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 White – Radio ON |
| <ol style="list-style-type: none"> Check latest software/driver release for updates on supported security features. Maximum output power may vary by country according to local regulations. 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). | |



Technical Specifications

| | |
|--|---|
| HP Integrated Module with Bluetooth 4.0/4.1 Wireless Technology | |
| Bluetooth® Specification | 4.0/4.1 Compliant |
| Frequency Band | 2402 to 2480 MHz |
| Number of Available Channels | Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH) |
| Signaling Data Rate | Legacy: 3 Mbps signaling data rate¹ BLE: 1 Mbps signaling data rate¹ Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels 1. Actual throughput may vary. |
| | 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 |
| Electrical Interface | USB 2.0 compliant |
| Bluetooth Software Supported Link Topology | Microsoft Windows Bluetooth Software |
| Power Management Certifications | Microsoft Windows ACPI, and USB Bus Support FCC (47 CFR) Part 15C, Section 15.247 & 15.249 |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |



Technical Specifications

POWER

| | | | |
|--------------------------------|--------------------------------------|--|---|
| HP 45W Smart AC Adapter | Dimensions (H x W x D) | 3.74 x 1.57 x 1.04 in (9.5 x 4.0 x 2.65 cm) | |
| | Weight | 0.386 lb (175g) max | |
| | Input | 90 to 265 VAC | |
| | | Input Efficiency | 87.74% at 115Vac and 88.4% at 230Vac |
| | | Input frequency range | 47 to 63 Hz |
| | Output | Input AC current | 1.4 A at 90 VAC |
| | | Output power | 45W |
| | | DC output | 19.5V |
| | | Hold-up time | 5 msec at 115 VAC input |
| | | Output current limit | <8.0A |
| | Connector | 4.5mm Barrel Type, 3 pin/grounded, mates with interchangeable cords | |
| | Environmental Design | Operating temperature | 32°F to 95°F (0° to 35°C) |
| | | Non-operating (storage) temperature | -4°F to 185°F (-20° to 85°C) |
| | | Altitude | 0 to 16,400 ft (0 to 5,000 m) |
| | | 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, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. MTBF - over 200,000 hours at 25°C ambient condition. | |

| | | | |
|--------------------------------|-----------------------------|--|--|
| HP 65W Smart AC Adapter | Dimensions | 90x51x28.5mm | |
| | Weight | unit: 220g +/- 10g | |
| | | Input Efficiency | 88% at 115 VAC and 89% at 230 VAC |
| | | Input frequency range | 47 to 63 Hz |
| | Output | Input AC current | 1.7 A at 90 VAC |
| | | Output power | 65W |
| | | DC output | 19.5V |
| | | Hold-up time | 5 ms at 115 VAC input |
| | | Output current limit | <11A |
| | Connector | 4.5mm Barrel Type, 3 pin/grounded, mates with interchangeable cords | |
| | Environmental Design | Operating temperature | 32°F to 95°F (0° to 35°C) |



Technical Specifications

| | | |
|-------------------------------|--|------------------------------|
| EMI and Safety Certifications | Non-operating (storage) temperature | -4°F to 185°F (-20° to 85°C) |
| | Altitude | 0 to 16,400 ft (0 to 5000m) |
| | Humidity | 20% to 95% |
| | Storage Humidity | 10% to 95% |
| | CE Mark - full compliance with LVD and EMC directives* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition. | |

| | | |
|----------------------------|-------------------------------|--|
| HP 65W EM Smart AC adapter | Dimensions | 102x55x30mm |
| | Weight | 270g +/- 10g |
| | Input Efficiency | 87% min at 115V/230V |
| | Input frequency range | 47 to 63 Hz |
| | Input AC current | 1.7 A at 90 VAC and maximum load |
| | DC output | 65W(19.5V/3.33A) |
| | Hold-up time | 5 msec at 115 VAC input |
| | Output current limit | <11A, Over voltage protection- 29V max automatic shutdown |
| | Connector | 4.5mm Barrel Type, 3 pin/grounded, mates with interchangeable cords |
| | Environmental Design | Operating temperature |
| | | 0° to 35° C |
| | | Non-operating (storage) temperature |
| | | -20° to 85° C |
| | | Altitude |
| | | 0 to 5,000 m |
| | | Humidity |
| | | 0% to 95% |
| | | Storage Humidity |
| | | 0% to 95% |
| | EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition. |

| | | |
|------------------------------------|------------------|--|
| AC Adapter 65 Watt nPFC USB type C | Dimensions | 74x74x28.5mm |
| | Weight | unit: 245g +/- 10g |
| | Input Efficiency | 81.5% min at 115 Vac/ 230Vac @ 5V/3A |
| | | 86.7% min at 115 Vac/ 230Vac @ 9V/3A |
| | | 88% min at 115 Vac/ 230Vac @ 10V/5A |
| | | 88% min at 115 Vac/ 230Vac @ 12V/5A |
| | | 89% min at 115 Vac/ 230Vac @ 15V/4.33A |
| | | 89% min at 115 Vac/ 230Vac @ 20V/3.25A |



Technical Specifications

| | | |
|-------------------------------|--|----------------------------------|
| | Input frequency range | 47 ~ 63 Hz |
| | Input AC current | 1.7 A at 90 VAC and maximum load |
| | Output power | 65W |
| | DC output | 5V/9V/10V/12V/15V/20V |
| | Hold-up time | 5ms at 115 Vac input |
| | Output current limit | <8.0A |
| Connector | Type C | |
| Environmental Design | Operating temperature | 32°F to 95°F (0° to 35°C) |
| | Non-operating (storage) temperature | -4°F to 185°F (-20° to 85°C) |
| | Altitude | 0 to 16,400 ft (0 to 5000m) |
| | Humidity | 5% to 95% |
| | Storage Humidity | 5% to 95% |
| EMI and Safety Certifications | CE Mark - full compliance with LVD and EMC directives* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition. | |

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|------------------------------------|-------------------------------------|---|
| AC Adapter 45 Watt nPFC USB type C | Dimensions | 62.0x62.0x28.5mm |
| | Weight | unit: 220g +/- 10g |
| | Input Efficiency | Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec:5V : 81.5%9V : 86.7%10V : 87.5%12V : 87.8%15V : 87.8%20V : 87.8% |
| | Input frequency range | 47 ~ 63Hz |
| | Input AC current | Max. 1.4 A at 90 Vac |
| | Output power | 5V/15W 9V/27W 10V/37.5W 12V/45W 15V/45W 20V/45W |
| | DC output | 5V / 9V / 10V /12V / 15V / 20V |
| | Hold-up time | 5ms at 115 Vac input |
| | Output current limit | <5.0A |
| Connector | Type C | |
| Environmental Design | Operating temperature | 32°F to 95°F (0° to 35°C) |
| | Non-operating (storage) temperature | -4°F to 185°F (-20° to 85°C) |
| | Altitude | 0 to 16,400 ft (0 to 5000m) |



Technical Specifications

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|--|----------------------------------|--|------------|
| | EMI and Safety Certifications | Humidity | 20% to 95% |
| | | Storage Humidity | 10% to 95% |
| | | CE Mark - full compliance with LVD and EMC directives* Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE; MTBF - over 200,000 hours at 25°C ambient condition. | |

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|--|-------------------------|-------------------------------|
| 3 Cell WHr 45 Long Life - Polymer HP Fast Charge Technology ¹ | Dimensions | 6.0. x184.7x88.9 mm |
| | Weight | 0.22 kg (0.48lb) |
| | Cells/Type | 3cell Lithium-Ion |
| | Voltage | 11.55V |
| | Amp-hour capacity | 3.900Ah |
| | Watt-hour capacity | 45Wh |
| | Operating (Charging) | 32° to 113° F (0° to 45° C) |
| | Operating (Discharging) | 14° to 122° F (-10° to 60° C) |

1. Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. After charging has reached 50% capacity, charging speed will return to normal. Charging time may vary +/-10% due to System tolerance.

Country of Origin
China



Options and Accessories (sold separately and availability may vary by country)

| Type | Description | Part Number |
|--------------|---|-------------|
| Cases | HP Essential Top Load Case | H2W17AA |
| | HP Essential Backpack | H1D24AA |
| | HP Essential Messenger Case | H1D25AA |
| Docking | HP USB-C Mini Dock | 1PM64AA |
| | HP USB-C Universal Dock | 1MK33AA |
| | HP USB-C Dock G4 | 3FF69AA |
| Input/Output | HP USB Essential Keyboard and Mouse | H6L29AA |
| | HP Ultra Mobile Wireless Mouse | H6F25AA |
| | HP Comfort Grip Wireless Mouse | H2L63AA |
| | HP 3-Button USB Laser Mouse | H4B81AA |
| | HP USB Travel Mouse | G1K28AA |
| | HP HDMI to DVI Adapter | F5A28AA |
| Memory | 4GB 2666MHz DDR4 | 4VN05AA |
| | 8GB 2666MHz DDR4 | 4VN06AA |
| | 16GB 2666 MHz DDR4 | 4VN07AA |
| Power | HP 45W Smart AC Adapter 4.5mm | H6Y88AA |
| | HP 65W Slim AC Adapter | H6Y82AA |
| | HP 65W USB-C Power Adapter | 3PN48AA |
| | HP 45W USB-C Power Adapter | 1HE17AA |
| | HP 65W USB-C Power Adapter | 1HE08AA |
| | HP Power Bank | N9F71AA |
| | HP USB-C Power Bank | 2NA10AA |
| Storage | HP 45W LC USB-C Power Adapter | 1MZ01AA#ABA |
| | HP External USB Optical Drive | F2B56AA |
| | HP 500GB 7200rpm HDD | F3B97AA |
| Security | HP Combination Lock | T0Y15AA |
| | HP Essential Keyed Cable lock 12.3mm | T0Y14AA |
| | HP Keyed Cable Lock 10mm | T1A62AA |
| | HP UltraSlim Keyed Cable Lock | T1A62AA |
| UCC | HP Conferencing Keyboard | K8P74AA |
| | HP Speaker Phone | K7V16AA |
| | HP Wired Headset | K7V17AA |
| Displays | HP ProDisplay P223 21.5-inch Monitor | X7R61AA |
| | HP ProDisplay P232 23-inch Monitor | K7X31AA |
| | HP ProDisplay P240va 23.8-inch Monitor | X3B48AA |
| | HP EliteDisplay E243 23.8-inch Monitor | 1FH47AA |
| | HP EliteDisplay E243m 23.8-inch Collaboration Monitor | 1FH48AA |
| | HP EliteDisplay E273 27-inch Monitor | 1FH50AA |



Summary of Changes

| Date of change: | Version History: | | Description of change: |
|-----------------|------------------|--|------------------------|
| | V1 to V2 | | |
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