

Overview

HP ProBook x360 440 G1 Notebook PC



1. Security lock slot (Lock sold separately.)
2. Power button
3. USB 3.1 Gen 1 (Power port)
4. Headphone/microphone combo jack
5. SD Card reader

Overview



Right

- 1. Microphones (2)
- 2. Web/IR camera
- 3. Webcam light
- 4. Power connector
- 5. Ethernet port (RJ-R45)
- 6. HDMI port (Cable not included.)
- 7. USB 3.1 Gen 1
- 8. USB Type-C™ port (DisplayPort + Power Delivery)
- 9. Volume Up/Down
- 10. Fingerprint reader
- 11. Clickpad

Overview

AT A GLANCE

- Preinstalled with Windows 10 versions or FreeDOS 2.0
- Choice of Intel® Core™ processors
- HP's signature linear wedge design converts from a traditional laptop to tablet, media and tent modes for easy creation, presentation, collaboration and sharing at the office and on the go
- Full size HP Premium Keyboard, spill-resistant keyboard with a thin layer of mylar film to prevent minor spills
- Function keys provide control of features including: standby mode, display brightness, external display, microphone mute, volume down, volume up, and backlight toggle for backlit keyboard (Select models only.)
- Large Clickpad with gestures support
- Enhanced security features with preinstalled software and hardware options
- Optional HD webcam or IR camera with dual-microphone array for video conferencing¹
- Choice of displays 35.56 cm (14") diagonal FHD (1920 x 1080) UWVA LED backlit touch; 220 cd/m², 45% sRGB; or 400 cd/m², 72% sRGB
- Flexible wireless connectivity options
- Battery life up to 12 hours
- HP 3-cell, 48 WHr Li-ion battery
- Pending MIL-STD testing²
- The new optional HP Active Pen

1. Sold separately or as an optional feature.

2. MIL-STD-810G testing is pending and is conducted on select HP products. Testing is not intended to demonstrate fitness of U.S. Department of Defense (DoD) contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.

Features

PRODUCT NAME

HP ProBook x360 440 G1 Notebook PC

OPERATING SYSTEM

Preinstalled

Windows® 10 Pro 64¹
Windows® 10 Pro 64 (National Academic License)²
Windows® 10 Home 64¹
Windows® 10 Home Single Language 64¹
FreeDos 2.0

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.

NOTE: Your product does not support Windows 8 or Windows 7

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>

PROCESSORS

Intel® Core™ i7-8550U with Intel® UHD graphics 620 (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)^{3,4,5}

Intel® Core™ i5-8350U vPro™ processor with Intel® UHD Graphics 620 (1.7 GHz base frequency, up to 3.6 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)^{3,4,5}

Intel® Core™ i5-8250U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)^{3,4,5}

Intel® Core™ i5-7200U with Intel® HD Graphics 620 (2.5 GHz base frequency, up to 3.1 GHz with Intel® Turbo Boost Technology, 3 MB cache, 2 cores)^{3,4,5}

Intel® Core™ i3-8130U with Intel® UHD graphics 620 (2.2 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)^{3,4,5}

Intel® Pentium® Gold 4415U with Intel® HD Graphics 610 (2.3 GHz, 2 MB cache, 2 cores)^{3,4,5}

Intel® Celeron® 3865U with Intel® HD Graphics 610 (1.8 GHz, 2 MB cache, 2 cores)^{3,4,5}

Processor Family

8th Generation Intel® Core™ i7 processor (i7-8550U model) ⁵

8th Generation Intel® Core™ i5 processor (i5-8350U) ⁵

8th Generation Intel® Core™ i5 processor (i5-8250U model) ⁵

8th Generation Intel® Core™ i3 processor (i3-8130U model) ⁵

7th Generation Intel® Core™ i5 processor (i5-7200U model) ⁵

Intel® Pentium® Gold processor ⁵

Intel® Celeron® processor (3865U is Windows 10 only) ⁵

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.

Features

5. **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>.

CHIPSET

Integrated with processor

GRAPHICS

Integrated

Intel® UHD Graphics 620 ⁶

Intel® HD Graphics 620 ⁶

Intel® HD Graphics 610 ⁶

Discrete

NVIDIA® GeForce® MX130 (2 GB DDR5 dedicated) ⁷

6. HD content required to view HD images.

7. Integrated graphics depends on processor. NVIDIA® Optimus™ technology requires an Intel processor, plus an NVIDIA® GeForce® discrete graphics configuration and is available on Windows 10 Pro OS. With NVIDIA® Optimus™ technology, full enablement of all discrete graphics video and display features may not be supported on all systems (e.g. OpenGL applications will run on the integrated GPU or the APU as the case may be).

Features

DISPLAY

Touch

35.56 cm (14") diagonal FHD IPS eDP + PSR LED-backlit touch screen, 400 cd/m², 100% sRGB for IR camera and WWAN (1920 x 1080) ^{8,9,10}

35.56 cm (14") diagonal FHD IPS eDP LED-backlit touch screen, 220 cd/m², 67% sRGB for IR camera and WWAN (1920 x 1080) ^{8,9,10}

35.56 cm (14") diagonal FHD IPS eDP LED-backlit touch screen, 220 cd/m², 67% sRGB for HD camera and WWAN (1920 x 1080) ^{8,9,10}

8. HD content required to view HD images.

9. Resolutions are dependent upon monitor capability, and resolution and color depth settings.

10. Sold separately or as an optional feature.

| Docking station model | Total number of supported displays (incl. the notebook display) | Max. resolutions supported | Dock Connectors | Technical limitations |
|------------------------------|---|--|-------------------------------------|--|
| HP UltraSlim Docking Station | 3 | Dual 2.5K @ 60Hz | 2xDP, 1xVGA | Dual 2.5k only with both displays into DP |
| HP Elite 120W TB3 Dock | 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 Elite 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 @ 60Hz" | 1xHDMI, 1xVGA | Single external display Only HDMI or VGA at the time |

Features

STORAGE AND DRIVES

Primary M.2 Storage M.2 2280 SSD (NGFF)

128 GB SATA TLC ¹¹
256 GB PCIe® NVMe™ Value ^{11,12}
256 GB SATA TLC ¹¹
512 GB PCIe® NVMe™ TLC ^{11,12}

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.

12. Not available with Intel® Celeron® processor.

MEMORY

Maximum Memory 16 GB DDR4-2400 SDRAM ¹³

Memory

16 GB DDR4-2400 SDRAM (1 X 16 GB) ¹³
16 GB DDR4-2400 SDRAM (2 X 8 GB) Dual channel ¹³
12 GB DDR4-2400 SDRAM (8 GB + 4 GB) Dual channel ¹³
8 GB DDR4-2400 SDRAM (1 x 8 GB) ¹³
8 GB DDR4-2400 SDRAM (2 x 4 GB) Dual channel ¹³
4 GB DDR4-2400 SDRAM (1 x 4 GB) ¹³

Memory Slots

2 SODIMM
Both slots are upgradeable
System runs at 2400
Supports Dual Channel Memory

13. 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.

Features

NETWORKING/COMMUNICATIONS

WWAN

HP Lt4132 LTE/HSPA+ with GPS Mobile Broadband Module ¹⁵
Intel® XMM™ 7360 LTE-Advanced ¹⁵

~~14. 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. WWAN module is an optional feature, requires factory configuration and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

AUDIO/MULTIMEDIA

Audio

Integrated microphone (Mono) - On non-webcam configs only
Integrated microphone (Dual Array) - on webcam configs only
2 Stereo Speakers

Camera

720p HD camera ⁸
HD IR webcam ^{8,18}

8. HD content required to view HD images.

18. Internet access required.

Features

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Premium Keyboard
Full-sized chiclet keyboard
Backlit full-sized chiclet keyboard

Pointing Device

Clickpad
On/off control by driver
Taps enabled as default

Function Keys

ESC: system information
F1 - Display Switching
F2 - Blank
F3 - Brightness Down
F4 - Brightness Up
F5 - Speaker Mute
F6 - Volume Down
F7 - Volume Up
F8 - Mic Mute
F9 - Backlight Toggle (for backlit keyboard) or Blank
F10 - NumLock
F11 - Wifi Toggle
F12 - Sleep

Features

SOFTWARE AND SECURITY

Preinstalled Software

BIOS

HP BIOSphere Gen4 ¹⁹
HP DriveLock & Automatic DriveLock
BIOS Update via Network
Master Boot Record Security
Power On Authentication
Secure Erase ²⁰
Absolute Persistence Module ²¹
Pre-boot Authentication

Software

HP Native Miracast Support ¹⁷
HP LAN-Wireless Protection
HP Velocity
HP ePrint + JetAdvantage ²²
HP Hotkey Support - CMIT
HP Recovery Manager
HP Jumpstart
HP Support Assistant ²³
HP Noise Cancellation Software
HP Host Based MAC Address Manager
HP PhoneWise ²⁴
Buy Office (sold separately)

Manageability Features

HP Driver Packs ²⁵
HP System Software Manager (SSM)
HP Manageability Integration Kit Gen2 ²⁶
Ivanti Management Suite ²⁷

Client Security Software

HP Client Security Suite Gen4 including: ²⁸
HP Security Manager ²⁹ (including Credential Manager, HP Password Manager, HP Spare Key)
Power On Authentication
HP Fingerprint Reader ³⁰
HP Device Access Manager
Microsoft Defender ³¹

Features

Security Management

Secure Erase ²⁰

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

Power-on password (viaBIOS)

Setup password (viaBIOS)

Support for chassis padlocks and cable lock devices

Integrated hood sensor

HP Sure Click ³²

Security

TPM

Model:

Version:

Revision:

FIPS 140-2 Compliant:

IPv6 Certification:

Yes / No

MD5 Hash: Please follow the instructions below to access MD5 Hash.

Graphics (Intel Video Driver): TBD

WWAN: TBD

WLAN: TBD

Is the BIOS on this notebook ISO/IEC 19678:2015 (formerly NIST 800-147) compliant?:

Yes/No

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

19. HP BIOSphere Gen4 requires Intel® or AMD 8th Gen processors. Features may vary depending on the platform and configurations.

20. Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method.

21. 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.

22. HP ePrint Driver requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Print times and connection speeds may vary.

23. HP Support Assistant requires Windows and Internet access.

24. HP PhoneWise Client may not be available with HP Workwise. For supported platforms and HP PhoneWise system requirements see www.hp.com/go/HPPhoneWise.

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

26. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>

27. Ivanti Management Suite subscription required.

Features

- 28. HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.
- 29. 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.
- 30. HP Fingerprint Sensor sold separately or as an optional feature.
- 31. Microsoft Defender Opt in and internet connection required for updates.
- 32. HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer, Google Chrome, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.

POWER

Power Supply

HP Smart 45 W External AC power adapter ³⁴

HP Smart 65 W External AC power adapter ³⁴

Primary Battery

HP Long Life 3-cell, 48 Wh Li-ion prismatic ^{35,36}

Power Cord

3-wire plug (C5), 1.8m, Sticker, Conventional

3-wire plug (C5), 1.0m, Sticker, Conventional

Battery Life

Up to 13 hours ³⁷

34. Availability may vary by country.

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

36. Supports HP Fast Charging.

37. 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 www.bapco.com for additional details.

WEIGHTS & DIMENSIONS

Weight

Starting at 3.8 lb ³⁸

Starting at 1.72 kg ³⁸

Dimensions (w x d x h)

12.99 x 9.13 x 0.78 in

33 x 23.2 x 1.99 cm

- 38. Weight will vary by configuration.
-

Features

PORTS/SLOTS

Ports

- 1 USB 3.1 Type-C™ Gen 1 (Power delivery, DisplayPort™)
- 1 USB 3.0 (charging)
- 1 USB 3.0
- 1 HDMI 1.4b ³⁹
- 1 RJ-45 ³⁹
- 1 headphone/microphone combo
- 1 AC power

Expansion Slots

- 1 SD Media Reader Slot
- Supports SDXC

³⁹. Cables are not included.

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>. ⁴⁰

⁴⁰. 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.

CERTIFICATION AND COMPLIANCE

- ENERGY STAR® certified
- EPEAT® Gold ⁴¹
- Low halogen ⁴²
- TCO 5.0 Certified

⁴¹. 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 www.hp.com/go/options.

⁴². External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

Technical Specifications

SYSTEM UNIT

| | | |
|--|----------------------------------|--|
| Stand-Alone Power Requirements (AC Power) | Nominal Operating Voltage | 19V |
| | Average Operating Power | Win 10 |
| | Integrated graphics | 5.71W |
| | Discrete Graphics | 6.78W |
| | Max Operating Power | Discrete < 65W 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 | 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 6.0® | Selected models [34] |
| | EPEAT | Registered Gold in United States [32] |
| | 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 | |

Technical Specifications

DISPLAYS

| | | |
|---|-----------------------------------|-------------------------------|
| Panel LCD 14 inch FHD (1920x1080) WLED UWVA 45% cg 220nits eDP slim NB Touch | Outline Dimensions (W x H) | 316.112 x 197.98 max. |
| | Active Area | 309.312 x 173.988 |
| | Weight | <413g max. |
| | Diagonal Size | 14.0" |
| | Thickness | 3.2mm max. |
| | Interface | eDP 1.2 |
| | Surface Treatment | Bright-View |
| | Touch Enabled | Yes |
| | Contrast Ratio | 600:1 (typical) |
| | 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 | |
| Viewing Angle | UWVA 85/85/85/85 | |

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

| | | |
|---|---------------------------------------|-------------------------------|
| Panel LCD 14 inch FHD (1920x1080) WLED UWVA 72% cg 400nits eDP 1.3 + PSR slim NB Touch | Outline Dimensions (W x H x D) | 316.11 x 197.98 max. |
| | Active Area | 309.31 x 173.99 |
| | Weight | <285g max. |
| | Diagonal Size | 14.0" |
| | Thickness | 3.0mm max. |
| | Interface | eDP 1.3 + PSR (2 lane) |
| | Surface Treatment | Bright-View |
| | Touch Enabled | Yes |
| | Contrast Ratio | 600:1 (typical) |
| | Refresh Rate | 60Hz |
| | Brightness | 400 nits typical (Panel Only) |
| | Pixel Resolution | 1920 x 1080 (FHD) |

Technical Specifications

| | |
|-----------------------------|------------------|
| Format | RGB |
| Backlight | LED |
| Color Gamut Coverage | 72% |
| Color Depth | 6 bits + Hi FRC |
| Viewing Angle | UWVA 85/85/85/85 |

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

STORAGE

128 GB 2280 M2 SATA-3 TLC Solid State Drive

| | |
|---------------------------------|--|
| Form Factor | M.2 2280 |
| Capacity | 128 GB |
| 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) |
| Weight | 0.02 lb (10 g) |
| Interface | PCIe NVMe Gen3X4 |
| Maximum Sequential Read | Up To 1700 MB/s |
| Maximum Sequential Write | Up To 600 MB/s |
| Logical Blocks | 500,118,192 |
| Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| Features | TRIM; L1.2 |

Technical Specifications

| | | |
|---|---------------------------------|--|
| 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) |
| | Weight | 0.02 lb (10 g) |
| | 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

NETWORKING/COMMUNICATIONS

| | | |
|---|--|---|
| HP It4132 LTE/HSPA+ 4G Mobile Broadband Module (Macan)¹ | Technology/Operating bands | LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3) MHz, 850 (Band 5), 2600 (Band 7), 900 (Band 8) MHz, 800 (Band 20), 700 (Band 28) MHz. HSPA+: 2100 (Band 1), 1900 (Band 2), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 (Band 5), 900 (Band 8) MHz |
| | Wireless protocol standards | 3GPP Release 10 LTE Specification CAT.4, 20MHz BW WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification E-GPRS: Class B, Multi-slot class 12, coding schemes CS1 - CS4 and MSC1 - MSC9 |
| | GPS | Standalone, A-GPS (MS-B and LTO) |
| | GPS bands | 1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz |
| | Maximum data rates | LTE: 150 Mbps (Download), 50 Mbps (Upload) DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload) EDGE: 236.8 kbps (Download), 236.8 kbps (Upload) GPRS: 85.6 kbps(Download), 85.6 kbps (Upload) |
| | Maximum output power | LTE: 23 dBm HSPA+: 23.5 dBm E-GPRS 1900/1800: 26 dBm E-GPRS 900/850: 27 dBm GPRS 1900/1800: 29.5 dBm GPRS 900/850: 32.5 dBm |
| | Maximum power consumption | LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average) E-GPRS: 2,600 mA (peak); 500 mA (average) |
| | Form Factor | M.2, 3042-S3 Key B |
| | Weight | 6 g |
| | Dimensions (Length x Width x Thickness) | 42 x 30 x 2.3 mm |

1. Wireless access point and Internet service is required. Availability of public wireless access point is 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

Technical Specifications

| | | |
|--|--|---|
| Intel® XMM™ 7360 LTE-Advanced CAT9 (Pandora) ¹ | Technology/Operating bands | FDD LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 1400 (Band 11), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 17 lower), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1400 (Band 21), 850 (Band 26), 700 (Band 28), 700 (Band 29 RX only), 2300 (Band 30), 1700/2100 (Band 66). TDD LTE: 2600 (Band 38), 1900 (Band 39), 2400 (Band 40), 2500 (Band 41). HSPA+: 2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8) MHz |
| | Wireless protocol standards | 3GPP Release 11 LTE Specification CAT.9, DL 60MHz BW throughput up to 450Mbps; UL 20MHz throughput up to 50Mbps WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification |
| | GPS | Standalone, A-GPS (MS-A, MS-B) |
| | GPS bands | 1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz, Beidou 1561.098 MHz |
| | Maximum data rates | LTE: 450 Mbps (Download), 50 Mbps (Upload) DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload) |
| | Maximum output power | LTE: 23 dBm HSPA+: 23.5 dBm |
| | Maximum power consumption | LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average) |
| | Form Factor | M.2, 3042-S3 Key B |
| | Weight | 5.8 g |
| | Dimensions (Length x Width x Thickness) | 42 x 30 x 2.3 mm |

1. Mobile Broadband is an optional feature. Connection requires wireless data service contract, network support, and is not available in all areas. Contact service provider to determine the coverage area and availability. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products or in all countries.

Technical Specifications

POWER

| | | | |
|--------------------------------------|---|---|--------------------------------------|
| HP 45W Smart AC adapter | Dimensions | 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 |
| | | Input AC current | 1.4 A at 90 VAC |
| | Output | 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° to 95° F (0° to 35° C) |
| | | Non-operating (storage) temperature | -4° 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 | 107.0x47.0x30.0mm | |
| | Weight | unit: 250g +/- 10g | |
| | Input | Input Efficiency | 88.0 % at 115 Vac and 89.0 % at 230Vac |
| | | Input frequency range | 47 ~ 63 Hz |
| | | Input AC current | Max. 1.7 A at 90 Vac |
| | Output | Output power | 65W |
| | | DC output | 19.5V |
| | | Hold-up time | 5ms at 115 Vac input |
| | | Output current limit | <11.0A |
| | Connector | 4.5mm Barrel Type | |
| | 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 | 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, | | |

Technical Specifications

FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE.
MTBF - over 200,000 hours at 25°C ambient condition.

| | | |
|--|-------------------------------|---|
| HP 3 Cell Long Life -Li-On (48 WHr) | Dimensions (H x W x L) | 7.3*94*184.47mm (0.287*3.7*7.263 inch) |
| | Weight | 0.215kg |
| | Cells/Type | 3cell Lithium-Ion Prismatic cell / 596080 3cell Lithium-Ion Polymer cell / 606072 |
| | Energy | Voltage 11.4V Amp-hour capacity 4.212Ah Watt-hour capacity 48Wh |
| | Temperature | Operating (Charging) 32° to 113° F (0° to 45° C) Operating (Discharging) 14° to 122° F (-10° to 60° C) |
| | Fuel Gauge LED | N/A |
| | | |
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| | | |
| | | |

COUNTRY OF ORIGIN

China

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

| Type | Description | Part # |
|-------------------------------------|--|--------------------------------|
| Cases | HP Essential Top Load Case | H2W17AA#xxx |
| | HP Essential Backpack (up to 15.6") | H1D24AA |
| | HP Essential Messenger Case (up to 17.3") | H1D25AA |
| Docking | HP USB-C Dock G4 | 3FF69AA#xxx |
| | HP USB-C Universal Dock | 1MK33AA#xxx |
| | HP USB-C Universal Dock NF | 3DV65AA#xxx |
| | HP USB-C Mini Dock | 1PM64AA |
| | HP USB Travel Dock | T0K30AA |
| | HP Thunderbolt Dock 120W G2 | 2UK37AA#xxx |
| | HP TB Dock G2 w/ Combo Cable | 3TR87AA#xxx |
| | HP TB Dock 120W G2 w/ Audio | 3YE87AA#xxx |
| | HP Thunderbolt Dock Audio Module | 3AQ21AA |
| | HP TB Dock 120W G2 cable | 3XB94AA |
| | HP TB Dock G2 combo cable | 3XB96AA |
| | HP Adjustable Display Stand | AW663AA |
| | Input/Output | HP Slim USB Keyboard and Mouse |
| HP Slim Wireless Keyboard and Mouse | | T6L04AA#xxx |
| HP USB Collaboration Keyboard | | Z9N38AA#xxx |
| HP Wireless Collaboration Keyboard | | Z9N39AA#xxx |
| HP USB Essential Keyboard and Mouse | | H6L29AA |
| HP Ultra Mobile Wireless Mouse | | H6F25AA#xxx |
| HP USB Premium Mouse | | 1JR32AA |
| HP Wireless Premium Mouse | | 1JR31AA |
| HP Elite Presenter Mouse | | 2CE30AA |
| HP Comfort Grip Wireless Mouse | | H2L63AA |
| HP 3-Button USB Laser Mouse | | H4B81AA |
| HP USB Travel Mouse | | G1K28AA |
| HP HDMI to DVI Adapter | | F5A28AA |
| HP USB-C to DP | | N9K78AA |
| HP USB-C to USB-A Hub | | Z6A00AA |
| HP Stereo 3.5mm Headset | | T1A66AA |
| HP Stereo USB Headset | | T1A67AA |
| HP Active Pen with Spare tips | | 1FH00AA |
| Power | HP 45W Smart AC Adapter 4.5mm | H6Y88AA#xxx |
| | HP 65W Smart AC Adapter | H6Y89AA#xxx |
| | HP 65W Slim AC Adapter | H6Y82AA#xxx |
| | HP Notebook Power Bank | N9F71AA#xxx |
| | HP 45W 4.5mm Smart AC Adapter (Japan Only) | L6F60AA#ABJ |
| Storage | HP External USB Optical Drive | F2B56AA |

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

| | | |
|-----------------|---|-------------|
| | HP 500GB 7200rpm HDD | F3B97AA |
| Security | HP Essential Combination Lock | T0Y16AA |
| | HP Combination Lock | T0Y15AA |
| | HP Keyed Cable lock | T0Y14AA |
| | HP Keyed Cable Lock 10mm | T1A62AA |
| UCC | HP Conferencing Keyboard | K8P74AA#xxx |
| | HP Speaker Phone | K7V16AA |
| | HP Wired Headset | K7V17AA |
| | HP UC Wireless Mono Headset | W3K08AA |
| | HP UC Wireless Duo Headset | W3K09AA |
| Displays | HP EliteDisplay E243 23.8-inch Monitor | 1FH47AA |
| | HP EliteDisplay E243i 23.8-inch Monitor | 1FH49AA |
| | HP EliteDisplay E273 27-inch Monitor | 1FH50AA |
| | HP EliteDisplay E273m 27-inch Monitor | 1FH51AA |
| | HP EliteDisplay E273m 27-inch Monitor | 1FH51AA |

Summary of Changes

| Date of change: | Version History: | | Description of change: |
|-----------------|------------------|--------|--|
| June 14, 2018 | v1 to v2 | Update | Memory, display and displays sections updated according to current MAT |
| July 2, 2018 | v2 to v3 | Update | At a glance and storage section |
| July 4, 2018 | v3 to v4 | Update | Input/Output |
| July 11, 2018 | v4 to v5 | Update | HP Active Pen with Spare tips added to Options section |

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