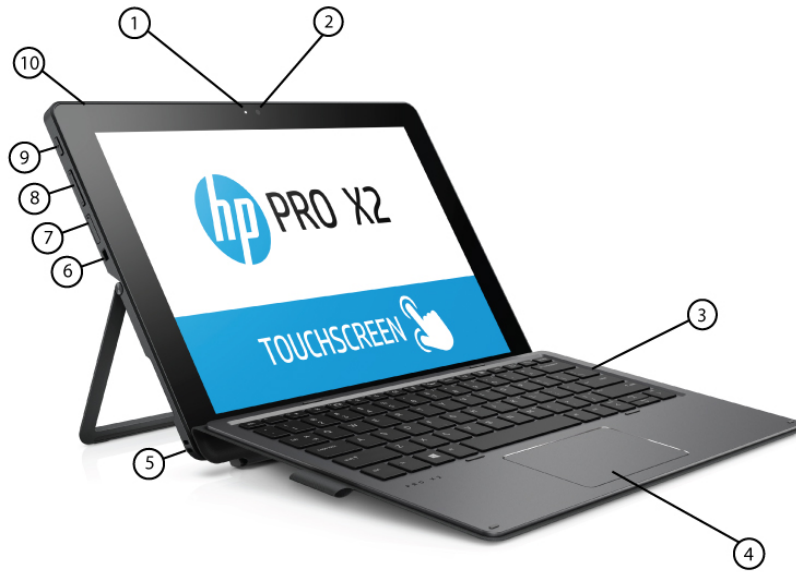


Overview

HP Pro x2 612 G2



Right View

- | | |
|----------------------------|-------------------------|
| 1. Front-facing camera LED | 6. Lock Slot |
| 2. Webcam | 7. Micro SDXC Card Tray |
| 3. 2 in 1 keyboard | 8. Volume controls |
| 4. Touchpad | 9. Power button |
| 5. Pen Tether | 10. Smart card reader |

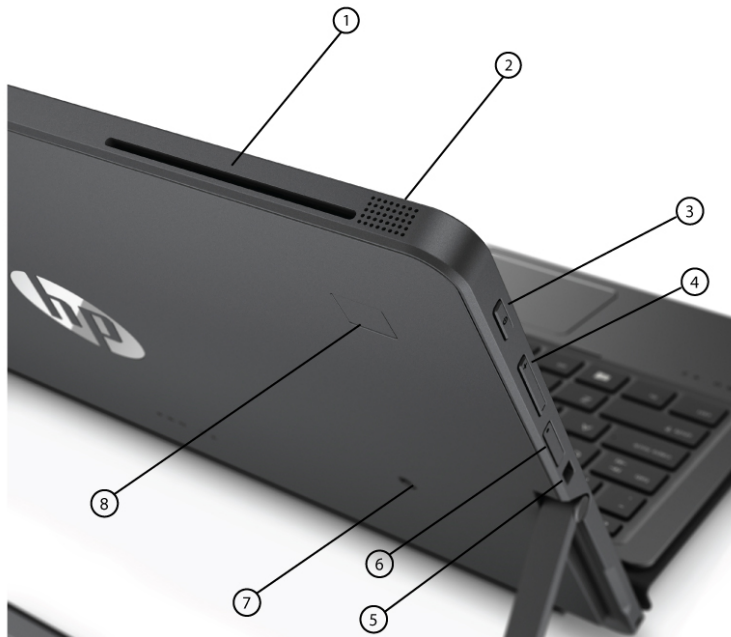
Overview



Left side view

- | | |
|---|---|
| 1. Front-facing camera LED | 6. Indicator LEDs: Wireless Light, Power Light, AC Adapter/Battery Light, Storage Usage Light |
| 2. Webcam | 7. USB Type-C™ 3.1 |
| 3. Stereo headphone-out/mic-in combo jack | 8. Guide pins |
| 4. USB-A 3.0 | 9. Guide pins |
| 5. SIM card tray | |

Overview



Top and Side

- | | |
|--------------------|--------------------------------|
| 1. Smart Card Slot | 5. Micro SDXC Card Tray |
| 2. Speakers (2) | 6. Lock slot |
| 3. Power button | 7. Optional NFC |
| 4. Volume controls | 8. Optional fingerprint reader |

Overview

At A Glance

- Windows 10 versions
- Intel® Core™ or Intel® Pentium® processors
- Intel® Graphics
- 30.48 cm (12") diagonal FHD BrightView WUXGA+ UWVA ultra-slim LED-backlit touch screen (1920 x1280) with direct bonded, Corning® Gorilla® Glass 4
- Up to 8 GB of memory and up to 512 GB storage
- Starting weight 2.65 lbs/ 1.2 kg (tablet with optional HP Pro x2 612 keyboard)
- With integrated stereo speakers, front and rear facing web camera and integrated microphone
- New collaboration keyboard with dedicated collaboration keys, multitouch gestures enabled for clickpad and backlit keyboard
- Security features include TPM 1.2/2.0, integrated smart card reader, optional pad fingerprint reader, optional NFC and HP SureStart 3.0
- Wireless connectivity with WLAN and optional WWAN
- Pending MIL-STD-810g testing¹
- Standard commercial 1 year limited warranty. Optional HP Care Packs also available.

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.

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

Features

PRODUCT NAME

HP Pro x2 612 G2

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
Windows 10 IoT Enterprise for Retail¹

Web Supported Windows 10 Enterprise 64¹

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>.

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.

PROCESSOR

Intel® Core™ i7-7Y75 with Intel Graphics 615 (1.3 GHz, up to 3.6 GHz, 4 MB cache, 2 cores)
Intel® Core™ i5-7Y54 with Intel Graphics 615 (1.2 GHz, up to 3.2 GHz, 4 MB cache, 2 cores)
Intel® Core™ i5-7Y57 with Intel Graphics 615 (1.2 GHz, up to 3.3 GHz, 4 MB cache, 2 cores)
Intel® Core™ M3-7Y30 with Intel Graphics 615 (1 GHz, up to 2.6 GHz, 4 MB cache, 2 cores)
Intel® Pentium® 4410Y with Intel Graphics 615 (1.5 GHz, 2 MB cache, 2 cores)

1. 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 is not a measurement of higher performance.

CHIPSET

Chipset is integrated with processor

GRAPHICS

Integrated



Features

Intel® HD Graphics 615¹

Discrete

Intel® UMA Graphics (GT2)
With shared video memory

1. HD content required to view HD images.

DISPLAY

Internal

30.48 cm (12") diagonal FHD BrightView WUXGA+ UWVA ultra-slim LED-backlit touch screen (1920 x1280) direct bonded, Corning® Gorilla® Glass 4¹

1. HD content required to view HD images.

STORAGE

Supports M.2 Solid State Drive SS 2280

128 GB SATA-3 SS VALUE

256 GB SATA-3 SS TLC

256 GB PCIe NVMe TLC SED

256 GB PCIe Gen 3x4 TLC

512 GB PCIe Gen 3x4 TLC

512 GB PCIe NVMe TLC SED

512 GB SATA FIPS 140-2 TLC

1. 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.

MEMORY

LPDDR3 1866 (Transfer rates up to 1866 MT/s)

Supports Dual Channel Memory

2 SODIMM memory slots

Memory Soldered Down

Non-accessible

Not upgradeable

Configurations

4 GB

8 GB

Memory Maximum

Up to 8 GB

NETWORKING/COMMUNICATIONS

Broadband Wireless (WWAN)^{1,2,3}

HP hs3210 WW HSPA+ Mobile Broadband



Features

HP lt4132 LTE/HSPA+ 4G Mobile Broadband
HP lt4120 LTE/EV-DO/HSPA+ Gobi 4G Mobile Broadband

Wireless LAN (WLAN)

Intel® Dual Band Wireless-AC 8265 802.11 a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo (non-vPro)
Intel® Dual band wireless-AC 8265 802.11AC 2x2 WiFi + BT 4.2 Combo Adaptor (vPro)

Optional GPS

U-Blox GPS EVA-M8M M.2/USB WW²

Communications

HP Module with NXP NFC (Near Field Communication) Controller NPC100 I2C NCI
Support for Miracast (Windows 10)⁴

1. 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.
2. Sold separately or as an optional feature.
3. Mobile Broadband requires separately purchased service contract and factory configuration. 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, and in all regions.
4. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: <http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast>

AUDIO/MULTIMEDIA

Audio on Tablet

Integrated stereo speakers
Integrated dual-microphone array

Web Camera on Tablet

5 MP FHD 1080p front-facing webcam with LED indicator^{1,2}
8 MP FHD 1080p rear-facing webcam with flash LED^{1,2}

Sensors on Tablet

Accelerometer Magnetometer, Gyro (Combo chip)
Proximity (SAR for WWAN)
Ambient light sensor

1. HD content required to view HD images.
2. Internet access required.

KEYBOARD

HP Pro x2 612 keyboard

Optional HP Pro x2 612 keyboard¹
ClickPad with on/off button, supports 2-way scroll, taps and gestures enabled by default, two-finger scrolling, two finger zoom (pinch), 3 Finger tap (Cortana), 4 Finger tap (Action Center)

1. Sold separately or as an optional feature.

Features

SOFTWARE AND SECURITY

BIOS

HP BIOSphere Gen3¹
HP SureStart Gen3¹⁰
HP DriveLock | HP Automatic DriveLock
BIOS Update via Network
Master Boot Record Security
Power On Authentication
Secure Erase²
Absolute Persistence Module³
Pre-boot Authentication

Communication / Connectivity

HP Mobile Connect Pro (Windows 8.1 and Windows 10 only)⁴
Native Miracast Support⁵
HP LAN-WLAN Protection
HP MAC Address Manager
HP Wireless Wakeup
HP SureConnect
HP Workwise
HP Velocity

HP Value Add Software

HP ePrint Driver + JetAdvantage⁶
HP Hotkey Support - CMIT
HP Recovery Manager
HP Jumpstart
HP Support Assistant
HP Noise Cancellation Software
HP Notifications

Microsoft Products

Buy Office
Bing Search
Skype⁷

Manageability

HP Driver Packs⁸
HP SoftPaq Download Manager (SDM)
HP System Software Manager (SSM)⁸
HP BIOS Config Utility (BCU)⁸
HP Client Catalog⁸
HP MIK for Microsoft SCCM⁸
LANDESK Management⁹

Features

For more information on HP Client Management Solutions refer to: <http://www.hp.com/go/clientmanagement>.

Client Security Software

HP Client Security Suite Gen3¹¹

- HP Security Manager (including Credential Manager and Password Manager)
- HP Drive Lock
- HP Fingerprint Sensor
- HP Password Manager
- Absolute Persistence Module
- Power On Authentication

Microsoft Defender¹²

Standard

Trusted Platform Module (TPM) 1.2 (Infineon SLB9670). Common Criteria EAL4+ Certified.

Upgradable to TPM 2.0. Convertible to FIPS 140-2 Certified mode. (TPM 2.0 is not available for Win 7 32-bit.)¹³

HP Fingerprint Reader (On select models)

1. Available only on business PCs with HP BIOS.
2. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
3. 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.
4. HP Mobile Connect Pro is only available on preconfigured devices with WWAN. For geographic availability refer to www.hp.com/go/mobileconnect
5. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: <http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast>
6. 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). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.
7. Skype is not offered in China.
8. Not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>
9. Subscription required.
10. Sure Start Gen 3 is available on HP Elite products equipped with Intel® 7th generation processors.
11. HP Client Security Suite Gen3 requires Windows and Intel® or AMD 7th generation processors.
12. Microsoft Defender requires Windows 10.
13. This product ships with TPM 1.2 with option to upgrade to TPM 2.0. Upgrade utility is available via HP Customer Support

Features

POWER

Power Supply

HP 45 W USB Type-C™ AC adapter

HP 65 W USB Type-C™ AC adapter

Primary Battery

4-cell, long life 41 Wh Li-ion²

Supports battery fast charge (65W adapter only).

Power cord

Duckhead Power Cord (3.28 feet /1.0 m)

Battery life

TBD¹

1. 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.
2. 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.

WEIGHTS & DIMENSIONS

Weight¹

1.87 lbs /0.85 kg (tablet)

2.65 lbs/ 1.2 kg (tablet with collaboration keyboard)

1. Weight will vary by configuration.

Dimensions

(w x d x h)

11.81 x 8.42 x 0.36 in (tablet)

30 x 21.38 x 0.91 cm

11.81 x 8.65 x 0.57 in (tablet with collaboration keyboard)

30 x 21.93 x 1.46 cm

NOTE: Height varies depending upon where on the notebook the measurement is made.

PORTS/SLOTS

Tablet

1 USB Type-C™ with Thunderbolt™ support (docking, charging and USB 3.1)

1 USB A 3.0

1 headphone/microphone combo

1 SIM

1 Micro SD Media Reader Slot - Supports SD, SDHC, SDXC

Features

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 ¹ 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>.

1. 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.

Features

DISPLAY

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

12.0" diagonal LED-backlit BV UWVA eDP 1.3 Ultra-slim (1920 x 1280 – Full HD*) Chemically-strengthened Corning® Gorilla® Glass 4 top cover directly bonded to display	Outline Dimensions (W x H x D)	267.7 x 184.4 (mm) max
	Active Area	253.44 x 168.96 (mm)
	Weight	200 g max
	Diagonal Size	12.0 (inch)
	Surface Treatment	Bright-View (BV)
	Touch enabled	Yes
	Contrast Ratio	800:1 (typical)
	Refresh Rate	60 Hz
	Brightness	340 nits
	Pixel Resolution	Format 1920 x 1280 (WUXGA+)
		Configuration RGB
	Interface	eDP 1.3 + PSR
	LCD Mode	LED
	PPI	192
	Viewing Angle	UWVA 85/85/85/85

STORAGE

128 GB SATA-3 SS VALUE SSD	Drive Weight	0.02 lb (10 g)	
	Capacity	128 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		535 MB/s	515 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security; DIPM; TRIM; DEVSLP	

Features

256GB 2280 M2 PCIe-3x4 SS NVMe TLC	Drive Weight	0.02 lb (10 g)	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		2600 MB/s	900 MB/s
	Logical Blocks	500,118,192	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option) TRIM; L1.2	
256GB 2280 M2 SATA-3 Self Encrypted OPAL2 TLC	Drive Weight	0.02 lb (10 g)	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		530 MB/s	515 MB/s
	Logical Blocks	500,118,192	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security; TCG Opal 2.0 DIPM; TRIM; DEVSLP	
256GB 2280 PCIe NVMe Value	Drive Weight	0.02 lb (10 g)	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		1700 MB/s	600 MB/s
	Logical Blocks	500,118,192	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security; TCG Opal 2.0 ; FIPS; TRIM; L1.2	
360GB 2280 PCIe-3x4 NVMe TLC	Drive Weight	0.02 lb (10 g)	
	Capacity	360GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		1700 MB/s	600 MB/s

Features

	Logical Blocks	703,282,608	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option); TRIM; L1.2	
512GB 2280 M2 PCIe-3x4 SS NVMe TLC	Drive Weight	0.02 lb (10 g)	
	Capacity	512 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		2600 MB/s	1400 MB/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	
512GB 2280 PCIe NVMe Value	Drive Weight	0.02 lb (10 g)	
	Capacity	512 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		1700 MB/s	600 MB/s
	Logical Blocks	1,000,215,216	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security; TCG Opal 2.0 ; FIPS; TRIM; L1.2	
512GB 2280 M2 SATA-3 Three Layer Cell Federal Information Processing Standard	Drive Weight	0.02 lb (10 g)	
	Capacity	512 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		530 MB/s	500 MB/s
	Logical Blocks	1,000,215,216	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security; TCG Opal 2.0 ; FIPS; TRIM; L1.2	

Features

NETWORKING/COMMUNICATIONS

HP hs3210 WW HSPA+ Mobile Broadband*

Technology/Operating bands	HSPA+: 2100 (Band1), 1900 (Band 2), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 MHz (Band 5), 900 (Band 8) MHz
Wireless protocol standards	WCDMA R99, 3GPP Release 5, 6 and 7 UMTS Specification E-GPRS: Class B, Multi-slot class 33, coding schemes CS1 - CS4 and MSC1 - MSC9
Maximum data rates	HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload) E-GPRS: 296 kbps (Download), 236.8 kbps (Upload) GPRS: 107 kbps (Download), 85.6 kbps (Upload)
Maximum output power	HSPA+: 24 dBm E-GPRS 1800/1900: 26 dBm E-GPRS 850/900: 27 dBm GPRS 1800/1900: 30 dBm GPRS 850/900: 33 dBm
Maximum power consumption	HSPA+: 1,100 mA (peak); 800 mA (average) E-GPRS: 2,800 mA (peak); 700 mA (average)
Form Factor	M.2, 2242-S3 Key B
Weight	6 g
Dimensions (Length x Width x Thickness)	1.65 x 8.66 x 0.09 in (42 x 22 x 2.38 mm)

*Mobile Broadband requires separately purchased service contract and factory configuration. 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, and in all regions.

HP lt4132 LTE/HSPA+ 4G Mobile Broadband*

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

Features

	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

* Mobile Broadband requires separately purchased service contract and factory configuration.
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, and in all regions.

HP It4120 LTE/EV-DO/HSPA+ Gobi 4G Mobile Broadband*

Technology/Operating bands	LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 17 lower), 800 (Band 20), 700 (Band 28). HSPA+: 2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8) MHz EV-DO: 850 (BC0), 1900 (BC1) MHz (Only work with Verizon network) 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 1xEVDO Release 0, A and B. E-GPRS: Class B, Multi-slot class 12, coding schemes CS1 - CS4 and MSC1 - MSC9
GPS	Standalone, A-GPS (MS-A, MS-B and XTRA)
GPS bands	1575.42 MHz $\pm$ 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) CDMA 1xRTT: 153.6 kbps (Download), 153.6 kbps (Upload) EVDO Rel.A: 3.1 Mbps (Download), 1.8 Mbps (Upload) EVDO Rel.B: 14.7 Mbps (Download), 5.4Mbps (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 1xRTT/EVDO: 24dBm 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)

Features

	1xRTT/EVDO: 1,000 mA (peak); 700 mA (average)
	E-GPRS: 2,800 mA (peak); 500 mA (average)
Form Factor	M.2, 3042-S3 Key B
Weight	6.2 g
Dimensions (Length x Width x Thickness)	42 x 30 x 2.3 mm

* Mobile Broadband requires separately purchased service contract and factory configuration.
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, and in all regions.

Intel® Dual Band Wireless-AC 8265 802.11 a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo

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 Note: The FCC has declared as of January 1, 2015 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.
	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 Note: Indonesia no support this band)
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: MCS 0 ~ MCS 15, (20MHz, and 40MHz) 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security¹	- 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

Features

	- IEEE 802.11i - Cisco Certified Extensions, all versions through CCX4 and CCX Lite - WAPI
Network Architecture	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power²	802.11b : +16dBm minimum 802.11g : +14dBm minimum 802.11a : +14dBm minimum 802.11n HT20(2.4GHz) : +14dBm minimum 802.11n HT40(2.4GHz) : +12dBm minimum 802.11n HT20(5GHz) : +14dBm minimum 802.11n HT40(5GHz) : +12dBm 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: 5 mW
Power Management	ACPI and PCI Express compliant power management
Receiver Sensitivity³	802.11 compliant power saving mode 802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum 802.11g, 54Mbps : -74dBm maximum 802.11a, 6Mbps : -88dBm maximum 802.11a, 54Mbps : -74dBm maximum 802.11n, MCS07 : -69dBm maximum 802.11n, MCS15 : -66dBm maximum 802.11ac, 1SS, MCS-0 : -86dBm maximum 802.11ac, 1SS, MCS-9 : -61dBm maximum 802.11ac, 2SS, MCS-0 : -83dBm maximum 802.11ac, 2SS, MCS-9 : -58dBm 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 Or Type 1630 : 2.3 x 16.0 x 30.0 mm
Weight	Type 2230 : 2.8g

Features

Or

Type 1630 : 2g

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).

Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology

Bluetooth Specification

4.0/4.1/4.2 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 II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.

Receiver Sensitivity

Modulation	0.01% BER	0.001% BER
GFSK	-80 dBm	-70 dBm
π/4-DQPSK	-80 dBm	-70 dBm
8DPSK	-80 dBm	-70 dBm

Power Consumption

Peak (Tx) 330 mW

Peak (Rx) 230 mW

Selective Suspend 17 mW

Range

Legacy Up to 33 ft (10 m)

BLE Up to 99 ft (30 m)

Critical Interface

USB 2.0 compliant

Bluetooth Software Supported

Microsoft Windows Bluetooth Software

Link Topology

Critical Interface

Point to Point, Multipoint Pico Nets up to 7 slaves

Bluetooth Software Supported

Full support of Bluetooth Security Provisions

Security

Power Management

Microsoft Windows ACPI, and USB Bus Support

Certifications

Self-configurable to optimize power conservation in all operating

Features

Security	modes, including Standby, Hold, Park, and Sniff
Certifications	All necessary regulatory approvals for supported countries, including:
Bluetooth Profiles Supported	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management	ETS 300 328, ETS 300 826
Certifications	Low Voltage Directive IEC950
	UL, CSA, and CE Mark
	Serial Port Profile (SPP) ^{1,2}
	Service Discovery Application Profile (SDAP)
	Dial-Up Networking (DUN) ^{1,1}
	Generic Object Exchange Profile (GOEP) ^{1,2}
	Object Push Profile (OPP) ^{1,2}
Certifications	Hard Copy Cable Replacement (HCRP) ^{1,2}
Bluetooth Profiles Supported	Personal Area Networking Profile (PAN) ^{1,0}
	Human Interface Device Profile (HID) ^{1,0}
	Hands Free Profile (HFP) ^{1,5/1,6}
	Advanced Audio Distribution Profile (A2DP) ^{1,3}
	Audio Video Remote Control Profile (AVRCP) ^{1,3/1,4}
Bluetooth V4.1/V4.2 support feature	V4.1: ESR5/6/7 compliant
	V4.2: ESR8 compliant, LE Secure Connection – Basic.

POWER

HP 45 W USB Type-C™ AC adapter	Dimensions	62.0x62.0x28.5mm
	Weight	unit: 220g +/- 10g
	Input	

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	Output power
	5V/15W
	9V/27W
	10V/37.5W

Features

	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	USB Type-C
Environmental Design	Operating temperature 32°F to 95°F (0°C to 35°C) Non-operating (storage) temperature -40°F to 185°F (-20°C 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, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.

HP 65 W USB Type-C™ AC adapter	Dimensions 74x74x28.5mm Weight unit: 245g +/- 10g Input 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 Input frequency range 47 ~ 63 Hz Input AC current 1.7 A at 90 VAC and maximum load Output Output power 65W DC output 5V/9V/10V/12V/15V/20V
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Features

		Hold-up time	5ms at 115 Vac input	
		Output current limit	<8.0A	
	Connector	USB Type C		
	Environmental Design	Operating temperature	32oFto 95oF (0oto 35oC)	
		Non-operating (storage) temperature	-4oFto 185oF (-20oto 85oC)	
		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 100,000 hours at 25°C ambient condition.		
	4-cell, long life 41 Wh Li-ion	Dimensions (H x W x L)	3.4mm*91.1mm*264.58mm	
Weight		170g		
Cells/Type		Li-Ion/polymer cell		
Energy		Voltage	7.7V	
		Amp-hour capacity	5200mAh	
		Watt-hour Capacity	41.58Wh	
Temperature		Operating (Charging)	0~45°C	
		Operating (Discharging)	-10~60°C	
Battery Re-Charge Time		System in OFF mode or Standby	3Hr	
		Fuel Gauge LED	N/A	
	Optional Travel Battery Available	N/A		

COUNTRY OF ORIGIN

China

ENVIRONMENTAL

TBD

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

Category	Description	Part number
Cases	HP Elite Top Load Colombian Leather Case	T9H72AA
	HP Elite Top Load Herringbone Nylon Case	T9H73AA
	HP Elite x2 612 G2 Rugged Case	Z7T26AA
Docking	HP Elite USB-C™ Desk Dock G2	Z9R42AA
	HP Elite USB-C™ Docking Station	X7W54AA
	HP USB-C™ Travel HUB	Z9G82AA
Input Devices	HP Pro x2 612 Keyboard	1FV38AS
	HP Active Pen with Bluetooth App Launch Button	T4Z24AA
	HP USB Type-C™ to VGA Adapter	N9K76AA
	HP USB Type-C™ to HDMI Adapter	N9K77AA
	HP USB Type-C™ to DisplayPort Adapter	N9K78AA
	HP USB Type-C™ to Gigabit Ethernet Adapter	V8Y76AA
Power	HP 45W USB-C™ Auto Adapter	Z3Q87AA
Security	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP Nano Dual Head Keyed Cable Lock	1AJ41AA

Summary of Changes

Date of change:	Version History:		Description of change:

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