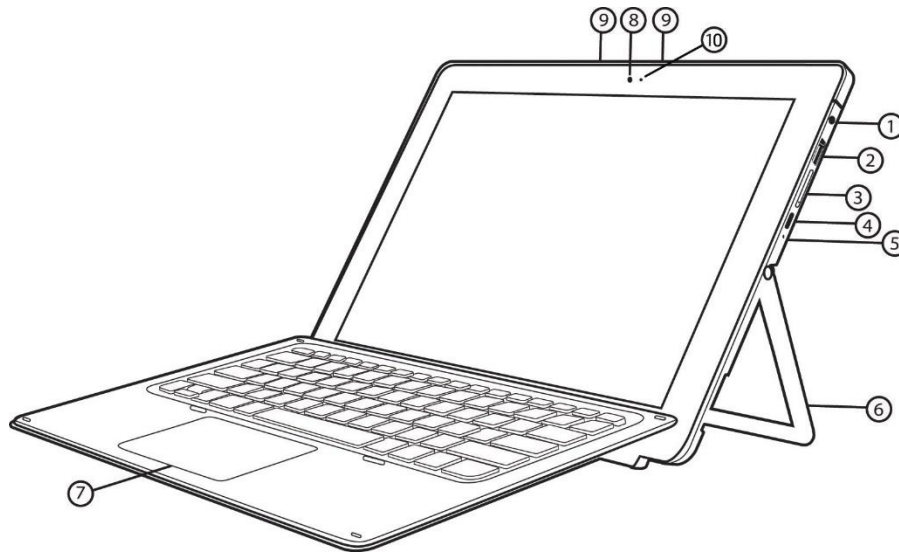


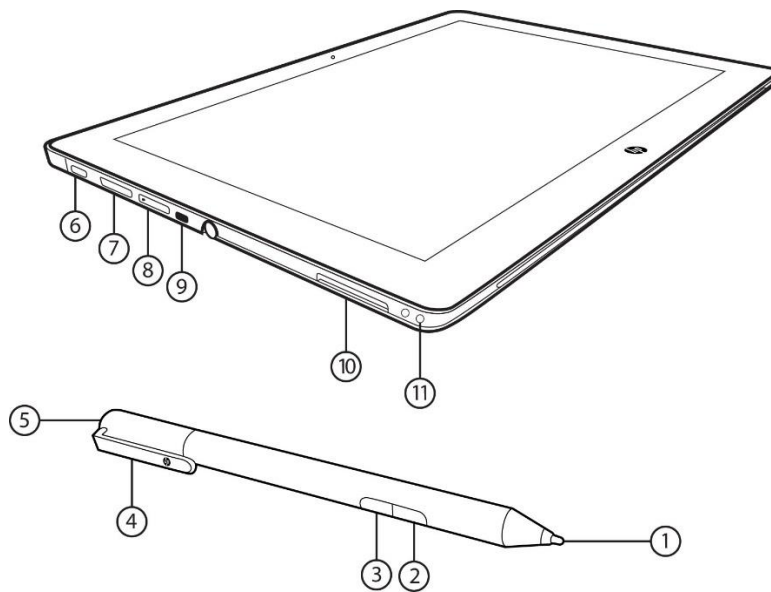
### Overview

### HP Elite x2 1012 G1



1. Combo Headset
2. USB A
3. SD Card Slot
4. USB Type-C™
5. Power LED

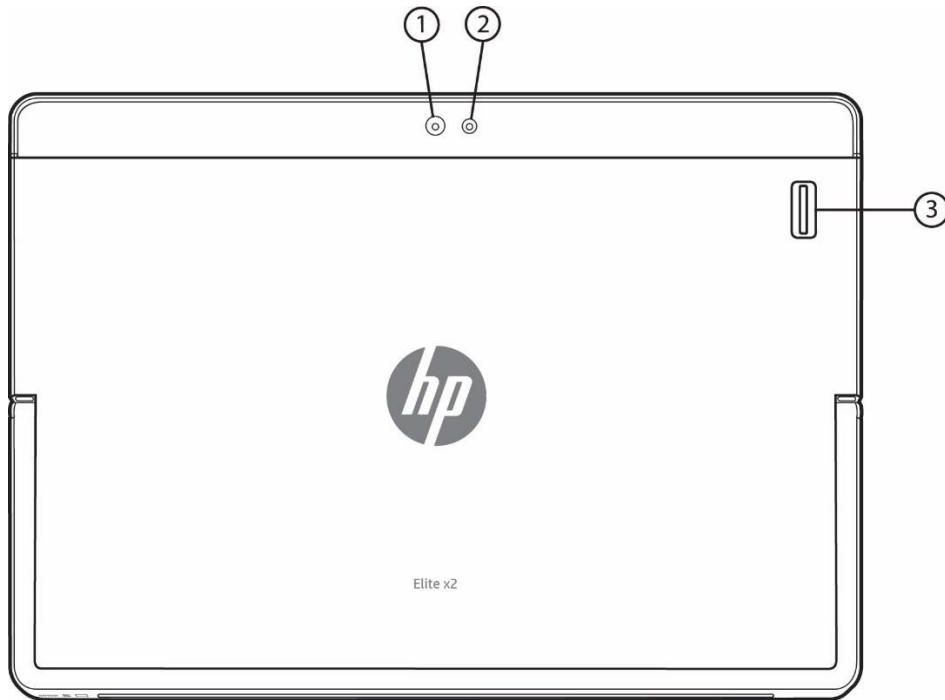
6. Kickstand
7. ClickPad
8. Front Camera
9. Microphones
10. Camera LED



1. Tip
2. Erase
3. Select
4. Clip
5. Application Launch Button (Default OneNote)
6. Power

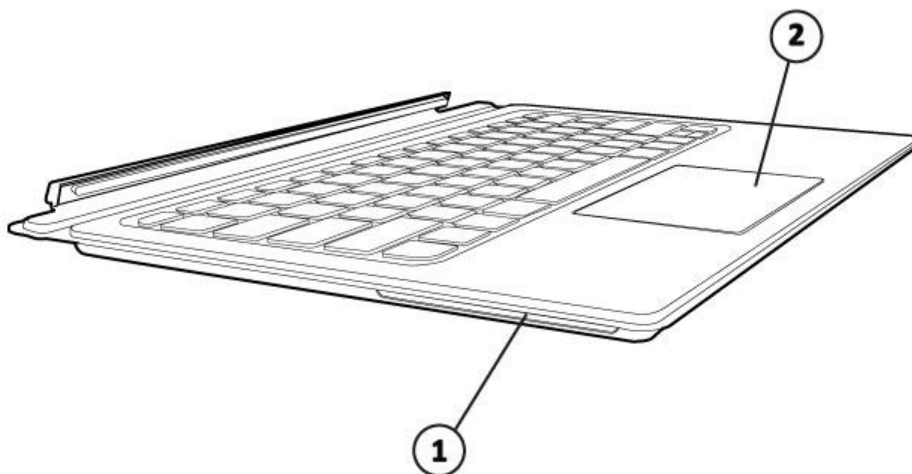
7. Volume Up/Volume down
8. SIM card slot
9. Lock Slot
10. There is no slot in there, it's just to open the kickstand.
11. Tether

### Overview



- 1. Camera
- 2. Camera Flash

- 3. Fingerprint Reader (optional)

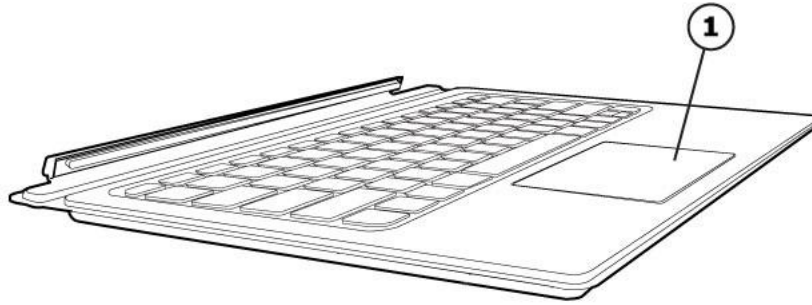


- 1. Smartcard Slot

#### Advanced Keyboard

- 2. ClickPad/NFC area

### Overview



### Travel Keyboard

1. ClickPad

### Technical Specifications

#### At A Glance

- Designed for excellent mobility this stylish and thin 2-in-1 design is built to the standards of Elite durability
- The quiet fanless design and 10 hours of battery life<sup>1</sup> lets you work, surf, and connect with colleagues
- Windows 10 versions, Web support for Windows 8.1
- 6<sup>th</sup> Generation Intel® Core™ M processors, some with vPro™ support<sup>2</sup>
- 12.0" diagonal ultra-slitm LED-backlit Full HD (1920 x 1280) Multi-Touch Display
- Solid State Drives up to 512 GB , PCIe NVMe drives support up to 256GB
- Weight starting at 820g for Tablet
- Height starting at 8.05mm for Tablet
- MIL-STD 810G tested
  - MIL STD is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. MIL STD test results are not a guarantee of future performance under these test conditions. Damage from drops requires separately purchase Accidental Damage Protection HP Care Pack.
- 
- Audio by Bang & Olufsen
- Dual microphone array with HP Advanced Noise Reduction Software
- Front and Back facing camera and webcam
- Supports a broad range of wireless broadband and Wi-Fi options for connectivity on the go
- Optimized security using industry standard technologies such as TPM2.0, optional integrated fingerprint reader and an optional smart card reader in the optional Advanced keyboard
- Protect your device and data using the latest HP security technology solutions: HP Sure Start, HP BIOSphere and HP Client Security.
- Standard commercial 1 year limited warranty with extended service available with optional HP Care Packs.

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

<sup>1</sup> 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](http://www.bapco.com) for additional details.

<sup>2</sup> vPro™ support not available on all configurations.

### Technical Specifications

#### PRODUCT NAME

HP Elite x2 1012 G1

#### OPERATING SYSTEM

<b>Preinstalled</b>	Windows 10 Pro 64* Windows 10 Home 64*
<b>Web-only Support</b>	Windows 10 Pro 64 Windows 10 Home 64 Windows 10 Enterprise 64 Windows 8.1 Pro 64 Windows 8.1 64 Windows 8.1 Enterprise 64

\* 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://http://www.microsoft.com>

#### PROCESSOR\*

##### Intel® Core™ M processor, 6th Generation processors:

Intel® Core™ M7-6Y75 with Intel HD Graphics 515  
(1.2 GHz, up to 3.1 GHz with Intel Turbo Boost Technology\*\*, 4 MB cache, 2 cores), vPro™ Support

Intel® Core™ M5-6Y57 with Intel HD Graphics 515  
(1.1 GHz, up to 2.8 GHz with Intel Turbo Boost Technology\*\*, 4 MB cache, 2 cores), vPro™ Support

Intel® Core™ M5-6Y54 with Intel HD Graphics 515\*\*\*  
(1.1 GHz, up to 2.7 GHz with Intel Turbo Boost Technology\*\*, 4 MB cache, 2 cores)

Intel® Core™ M3-6Y30 with Intel HD Graphics 515  
(0.9 GHz, up to 2.2 GHz with Intel Turbo Boost Technology\*\*, 4 MB cache, 2 cores)

\* Multi-Core 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.

\*\* Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost> for more information.

\*\*\*Available for SMB store and Channel only. Not recommended for corporate enterprise deployments.

#### CHIPSET

Integrated with processor

## Technical Specifications

### GRAPHICS

Intel® HD Graphics 515

### DISPLAY

#### Internal

##### Touch screen

12.0" diagonal BrightView LED-backlit WUXGA UWVA eDP 1.3 Ultra-slim (1920 x 1280 – Full HD\*) Touch screen Chemically-strengthened Corning® Gorilla® Glass 4 top cover directly bonded to display

##### Refresh Rate

60 Hz

##### Brightness

340 nits (typical)

##### Pixel Resolution

Format	1920 x 1280 (WUXGA+)
Configuration	RGB Stripe

##### Interface

eDP 1.3

##### LCD Mode

IPS/FFS/VA

##### PPI

192 ppi

##### Viewing Angle

UWVA 85/85/85/85 (Left/Right/Down/Up)

#### External

24-bit + 8 bit alpha channel (standard)

Up to 30-bit per pixel color depth (Wide Color Gamut)

\* HD content required to view HD images.

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

### STORAGE AND DRIVES

#### Internal Storage\*

Supports M.2 SSD SS 2280

128 GB SATA III Solid State Drive

180 GB SATA III Solid State Drive

180 GB SATA III SED OPAL2 Solid State Drive

256 GB SATA III Solid State Drive

256 GB SATA III Solid State Drive PCIe NVMe

256 GB SATA III SED OPAL2 Solid State Drive

512 GB SATA III Solid State Drive

\* For SSD's, GB=1 billion bytes. TB=1 trillion bytes. Actual formatted capacity is less. Up to 16 GB (for Windows 7) and up to 30 GB (for Windows 8 and 10) of system disk is reserved for system recovery software.

#### Expansion Storage

Micro SD Media Reader Slot - Supports microSD, microSDHC, microSDXC, supporting expansion up to 200GB

### MEMORY

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

Supports Dual Channel Memory

Soldered Down

### Technical Specifications

#### Standard

4 GB Total System Memory  
8 GB Total System Memory

#### Maximum

Up to 8 GB

## NETWORKING/COMMUNICATIONS

#### Wireless

Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Broadband Wireless (WWAN) requires a Windows operating system and is available in select countries as a standard, factory configurable feature only. Integrated Bluetooth is also available (factory configurable only) and is supported via combo card.

#### Wireless WAN (WWAN)\*

HP hs3110 HSPA+ Intel® Mobile Broadband\*  
HP lt4120 Qualcomm® Snapdragon™ X5 LTE Mobile Broadband\*  
HP lt4225 LTE/EV-DO Gobi™ 4G Mobile Broadband\*  
HP lt4226 LTE/HSPA+ Gobi™ 4G Mobile Broadband\*

#### Wireless LAN (WLAN)\*\*

Intel® Dual Band Wireless-AC 8260 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo;  
Intel® Tri Band Wireless-AC 18260 802.11a/b/g/n/ac (2x2) and Bluetooth® 4.2 + WiGig Combo;

\* WWAN is an optional feature and requires factory configuration. WWAN 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, in all regions

\*\*Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.

\*\*\*The WiGig-compatible notebook or tablet must be positioned within 1.2 m (4 ft) and without obstruction in the line of sight of the wireless dock. HP Advanced Wireless Docking is compatible with the HP Elite x2 1012 G1 with an optional installed Intel Tri Band Wireless AC with WiGig Combo card available at the time of purchase.

## AUDIO/MULTIMEDIA

#### Audio

Audio by Bang & Olufsen  
Dual speakers (top facing)  
Dual microphone array with echo cancellation, noise suppression  
Headphone line-out and microphone-in (combo)  
HP Advanced Noise Reduction Software

#### Camera – Front

Integrated 2 MP (1080p)

- 1080p format for video
- 2 MP for still capture
- Supports videoconferencing\* and still image capture
- High quality fixed focus lens
- Video capture at various resolutions up to 1920x1080 resolution (1080p) and up to 30 fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing\*

### Technical Specifications

- Improved low light sensitivity
- Improved dynamic range

#### Camera – Back

Integrated 5 MP (1080p)

- 1080p format for video
- 5 MP for still capture
- Supports videoconferencing\* and still image capture
- High quality auto focus lens
- Video capture at various resolutions up to 1920x1080 resolution (1080p) and up to 30fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing\*
- Improved low light sensitivity
- Improved dynamic range

\* Internet access required.

### ACTIVE PEN

#### HP Active Pen with Bluetooth® App Launch

<b>Pen Technology</b>	Wacom
<b>Digitizer</b>	N/A, shared with touch
<b>Dimensions</b>	147.29 x 9.5 mm
<b>Weight</b>	17.5 g
<b>Power</b>	AAAA battery and 319 coin cell x2
<b>System Requirements</b>	Windows 8.1/10
<b>Tip Diameter</b>	1 mm
<b>Pressure Sensitivity (Y/N)</b>	Yes (2048 levels)
<b>Buttons (Y/N)</b>	Yes, 3
<b>Resolution</b>	2540 ppi
<b>Hover Capability (Y/N)</b>	Yes
<b>Hover Height (mm)</b>	10mm+ (max to 15mm)
<b>Off Screen Writing Supported (Y/N)</b>	8 mm+
<b>Palm Rejection (Y/N)</b>	Yes
<b>Tilt Angle (Y/N)</b>	Yes
<b>3D Input Support (Y/N)</b>	Change to >60° from vertical
<b>Battery Life Based on Continuous Usage</b>	7.5 month+ with 1 hour non-stop usage per day



### Technical Specifications

#### OPTIONAL KEYBOARDS

##### Optional HP Elite x2 1012 G1 Travel Keyboard\*

<b>Kit contents</b>	HP Elite x2 1012 G1 Travel Keyboard and documentation
<b>Weight</b>	.848 lb (385 g)

##### Optional HP Elite x2 1012 Advanced Keyboard \*

<b>Kit contents</b>	HP Elite x2 1012 Advanced Keyboard and documentation
<b>Key Features</b>	Smart card reader FIPS-201 compliant. Security - Near Field Communications (NFC) Module

<b>Weight</b>	.992 lb (450 g)
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\*Sold only as an optional feature

##### Keyboard Features (common to both Travel and Advanced Keyboards)

- Backlit
- HP Dura Keys
- ClickPad™ (91 x 51 mm) with image sensor, multi-touch gestures enabled, on/off function and LED indicator
- 150° viewing angle
- Docking connector to tablet
- Full size 81/82-key island-style backlit keyboard with full row of function keys and LED indicators

<b>Function Keys</b>	F1 - Blank F2 - Blank F3 - Sleep F4 - Display Switching F5 - Mute F6 - Volume Down F7 - Volume Up F8 - Mic Mute F9 - Brightness Down F10 - Brightness Up F11 - Backlight Toggle F12 - Wireless On/Off
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<b>ClickPad</b>	Glass with chemical etched surface Supports 2-way scroll Taps enabled as default Gestures enabled by default - 2 Finger Scrolling, 2 Finger Zoom (Pinch)
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#### SOFTWARE AND SECURITY

##### Preinstalled Software with Windows Operating System

###### HP BIOS

HP BIOSphere<sup>1</sup>  
HP Sure Start with Dynamic Protection  
HP DriveLock | HP Automatic DriveLock  
HP BIOS Protection<sup>2</sup>  
HP SpareKey<sup>3</sup>  
BIOS Update via Network

### Technical Specifications

Master Boot Record Security  
Power On Authentication  
Pre-Boot Security  
Secure Erase<sup>4</sup>  
Hybrid Boot (Windows 8.1 only)  
Measured Boot (Windows 8.1 only)  
Secure Boot (Windows 8.1 only)  
Absolute Persistence Module<sup>5</sup>

#### MultiMedia

Cyberlink Power2Go  
Cyberlink Power DVD

#### Communication

HP Mobile Connect Pro<sup>6</sup>  
Intel WiDi Software<sup>7</sup>

#### HP Value Add Software

HP ePrint Driver <sup>8</sup>  
HP Hotkey Support  
HP Support Assistant  
HP Recovery Manager (Windows 7 only)  
HP Recovery Disc Creator (Windows 7 only)  
HP Noise Reduction Software

#### 3<sup>rd</sup> Party

Foxit PhantomPDF Express for HP

#### Microsoft Products

Buy Office  
Bing Search  
Skype<sup>9</sup>

#### Manageability

HP Driver Packs <sup>10</sup>  
HP SoftPaq Download Manager (SDM)  
HP System Software Manager (SSM)<sup>10</sup>  
HP BIOS Config Utility (BCU)<sup>10</sup>  
HP Client Catalog<sup>10</sup>  
HP CIK for Microsoft SCCM<sup>10</sup>  
LANDESK Management<sup>11</sup>  
HP Touchpoint Manager<sup>12</sup>

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

#### Client Security Software

HP Client Security

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

### Technical Specifications

- Microsoft Security Essentials<sup>13</sup>
- Microsoft Defender<sup>13</sup>

#### Standard

TPM 2.0 Embedded Security Chip (Common Criteria EAL4+ Certified)

HP Fingerprint Reader (selected models)

For more information on HP Client Security Software Suite, refer to <http://www.hp.com/go/clientsecurity>.

1. HP BIOSphere features may vary depending on the PC platform & configuration.
2. HP BIOS Protection requires a HPTools partition for automatic recovery.
3. Requires initial user set up.
4. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
5. BIOS Absolute Persistence module is shipped turned off, and will be activated when customers purchase and activate a subscription. Service may be limited. Check with Absolute for availability outside the U.S. The optional subscription service of Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit: <http://www.absolute.com/company/legal/agreements/computrace-agreement>. If Data Delete is utilized, the Recovery Guarantee payment is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either create a PIN or purchase one or more RSA SecurID tokens from Absolute Software.
6. HP Mobile Connect Pro is only available on preconfigured devices with WWAN. For geographic availability refer to [www.hp.com/go/mobileconnect](http://www.hp.com/go/mobileconnect)
7. Integrated Intel Wi-Di feature is available on select configurations only and requires separately purchased projector, TV or computer monitor with an integrated or external Wi-Di receiver. External Wi-Di receivers connect to the projector, TV or computer monitor via a standard HDMI cable, also sold separately.
8. 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 <http://www.hp.com/go/businessmobileprinting>).
9. Skype is not offered in China.
10. Not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>
11. LANDesk is an optional feature sold separately. Managed devices must be connected to the management server. Location based functionality requires active LANDesk maintenance service. Wipe functionality performs a "Windows 8 Reset" and requires Windows 8. Lock performs a Windows "Lock Computer."
12. HP Touchpoint Manager requires purchase of a subscription and supports Android™, iOS and Windows 7 or higher operating systems and PCs, notebooks, tablets and smartphones from various manufacturers. Not available in all countries see [www.hp.com/touchpoint](http://www.hp.com/touchpoint) for availability information.
13. Opt in and internet connection required for updates.

### POWER

#### Power Supply

45W USB Type-C™ AC Adapter

- USB Type-C™ DC integrated cord (1.8m)
- AC Power cord (0.45m)
- AC Adapter Weight: 200g

#### Tablet – Battery

HP 4-cell, Long Life 40 WHr Li-Ion

- Voltage – 7.7 V

#### Battery Life\*

Windows 10 battery time:

Up to 10 hours and 15 minutes\*

### Technical Specifications

\* 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](http://www.bapco.com) for additional details.

### WEIGHTS & DIMENSIONS

#### Weight\*

##### Tablet only

Starting at 1.8 lbs (820 g)

##### Tablet with Travel Keyboard

2.65 lbs (1205 g)

##### Tablet with Advanced Keyboard

2.79 lbs (1270 g)

#### Dimensions - (w x d x h)\*

##### Tablet

11.8 x 8.4 x 0.3 in (300 x 213.5 x 8.05 mm)

##### Tablet with Travel Keyboard

11.8 x 8.4 x 0.5 in (300 x 213.5 x 13.45 mm)

##### Tablet with Advanced Keyboard

11.8 x 8.4 x 0.6 in (300 x 213.5 x 16.45 mm)

**NOTE:** Height varies depending upon where on the notebook the measurement is made.  
Weight varies by configuration and components.

\*Values are preliminary and may be updated before product launch.

### Technical Specifications

#### PORTS/SLOTS

##### Tablet

###### Ports

1 USB Type-C™, supporting USB 3.1 (supports Thunderbolt™ 3)

1 USB Type-A, supporting USB 3.0

1 Headphone /microphone combo

**NOTE:** For optimal performance, the HP x2 1012 G1 should charge from a USB Power Delivery, v2 compatible adapter or power source that offers 12V @ 3A.

###### Slots

1 Micro SIM drawer (optional)

Micro SD Media Reader Drawer -supports microSD, microSDHC, microSDXC

Lock slot

##### Advanced Keyboard

###### Ports

###### Slots

1 Smart Card Reader

#### SENSORS

Accelerometer

Magnetometer

Gyro

ALS (Ambient Light Sensor)

Proximity (SAR for WWAN)

Hail Sensor

#### SERVICE AND SUPPORT

HP Services offers 3-year, 1-year and 90 day 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>.

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](http://www.hp.com/go/cpc).

## Technical Specifications

### SYSTEM UNIT

<b>Stand-Alone Power Requirements</b> (AC Power)	<b>Nominal Operating Voltage</b>	12 V
	<b>Average Operating Power</b>	
<b>Temperature</b>	<b>Max Operating Power</b>	< 36 W
	<b>Operating</b>	32° to 95° F (0° to 35° C) (not writing optical) 41° to 95° F (5° to 35° C) (writing optical)
<b>Relative Humidity</b>	<b>Non-operating</b>	-4° to 140° F (-20° to 60° C)
	<b>Operating</b>	10% to 90%, non-condensing
<b>Shock</b>	<b>Non-operating</b>	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
	<b>Operating</b>	40 G, 2 ms, half-sine
<b>Random Vibration</b>	<b>Non-operating</b>	240 G, 2 ms, half-sine
	<b>Operating</b>	1.043 grms
<b>Altitude</b> (unpressurized)	<b>Non-operating</b>	3.50 grms
	<b>Operating</b>	-50 to 10,000 ft (-15.24 to 3,048 m)
	<b>Non-operating</b>	-50 to 40,000 ft (-15.24 to 12,192 m)

### STORAGE AND DRIVES

<b>128 GB* M.2 Solid State Drive</b>	<b>Drive Weight</b>	10 grams		
	<b>Capacity</b>	128 GB		
	<b>Height</b>	0.09 in (2.3mm)		
	<b>Width</b>	0.87 in (22 mm)		
	<b>Interface</b>	SATA 3 (6 Gb/s)		
	<b>Performance</b>	<b>Maximum Sequential Read</b>	Up to 540 MB/s	<b>Maximum Sequential Write</b> Up to 300 MB/s
		<b>Logical Blocks</b>	250,069,680	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]		
	<b>Features</b>	ATA Security; ATA-8; SATA 3.0; DIPM; TRIM; DVESLP		
	<b>180 GB* M.2 Solid State Drive</b>	<b>Drive Weight</b>	10 grams	
<b>Capacity</b>		180 GB		
<b>Height</b>		0.09 in (2.3mm)		
<b>Width</b>		0.87 in (22 mm)		
<b>Interface</b>		SATA Gen 3 (6 Gb/s)		
<b>Performance</b>		<b>Maximum Sequential Read</b>	Up to 540 MB/s Compressible performance)	<b>Maximum Sequential Write</b> Up to 490 MB/s (Compressible performance)
		<b>Logical Blocks</b>	351,651,888	
<b>Operating Temperature</b>		32° to 158°F (0° to 70°C) [ambient temp]		
<b>Features</b>		ATA Security; ATA-8, SATA 3.0; DIPM; TRIM; DEVSLP		

### Technical Specifications

<b>180 GB* M.2 Solid State Opal 2 Drive</b>	<b>Drive Weight</b>	10 grams	
	<b>Capacity</b>	180 GB	
	<b>Height</b>	0.09 in (2.3 mm)	
	<b>Width</b>	0.87 in (22 mm)	
	<b>Interface</b>	SATA Gen 3 (6 Gb/s)	
	<b>Performance</b>	<b>Maximum Sequential Read</b>	<b>Maximum Sequential Write</b>
		Up to 540 MB/s (Compressible performance)	Up to 490 MB/s (Compressible performance)
	<b>Logical Blocks</b>	351,651,888	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]	
	<b>Features</b>	ATA Security; TCG OPAL 2.x; ATA-8, SATA 3.0; DIPM; TRIM; DEVSLP	
<b>256 GB* M.2 Solid State Drive</b>	<b>Drive Weight</b>	10 grams	
	<b>Capacity</b>	256 GB	
	<b>Height</b>	0.09 (2.3mm)	
	<b>Width</b>	0.87 in (22 mm)	
	<b>Interface</b>	SATA Gen 3 (6 Gb/s)	
	<b>Performance</b>	<b>Maximum Sequential Read</b>	<b>Maximum Sequential Write</b>
		Up to 540MB/s	Up to 455 MB/s
	<b>Logical Blocks</b>	500,118,192	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]	
	<b>Features</b>	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM; DEVSLP	
<b>256 GB* M.2 Solid State Opal 2 Drive</b>	<b>Drive Weight</b>	10 grams	
	<b>Capacity</b>	256 GB	
	<b>Height</b>	0.09 (2.3 mm)	
	<b>Width</b>	0.87 in (22 mm)	
	<b>Interface</b>	SATA Gen 3 (6 Gb/s)	
	<b>Performance</b>	<b>Maximum Sequential Read</b>	<b>Maximum Sequential Write</b>
		Up to 540 MB/s	Up to 460 MB/s
	<b>Logical Blocks</b>	500,118,192	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]	
	<b>Features</b>	ATA Security; TCG OPAL 2.x; ATA-8, SATA 3.0; DIPM; TRIM; DEVSLP	
<b>256 GB* M.2 Solid State PCIe 3X4 NVMe Drive</b>	<b>Drive Weight</b>	10 grams	
	<b>Capacity</b>	256 GB	
	<b>Height</b>	0.09 (2.3 mm)	
	<b>Width</b>	0.87 in (22 mm)	
	<b>Interface</b>	SATA Gen 3 (6 Gb/s)	
	<b>Performance</b>	<b>Maximum Sequential Read</b>	<b>Maximum Sequential Write</b>
		Up to 2260 MB/s	Up to 1260 MB/s
	<b>Logical Blocks</b>	500,118,192	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]	
	<b>Features</b>	ATA Security; PCIe Gen3x4, TRIM, L1.2	

## Technical Specifications

<b>512 GB* M.2 Solid State Drive</b>	<b>Drive Weight</b>	10 grams	
	<b>Capacity</b>	512 GB	
	<b>Height</b>	0.09 in (2.3 mm)	
	<b>Width</b>	0.87 in (22 mm)	
	<b>Interface</b>	SATA Gen 3 (6 Gb/s)	
	<b>Performance</b>	<b>Maximum Sequential Read</b>	<b>Maximum Sequential Write</b>
		Up to 540 MB/s	Up to 500 MB/s
	<b>Logical Blocks</b>	1,000, 215, 216	
	<b>Operating Temperature</b>	32° to 158°F (0° to 70°C) [ambient temp]	
<b>Features</b>	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM; DEVSLP		

## SECURITY

<b>HP Fingerprint Reader</b>  (Optional – available on the Tablet)	<b>Mobile Voltage Operation</b>	3.0V-3.6V
	<b>Operating Temperature</b>	14° – 167°F (-10° – 75°C)
	<b>Current Consumption</b>	36 mA peak
	<b>Image</b>	
	<b>Low Latency Wait for Finger</b>	950 uA
	<b>Capture Rate</b>	30 cm/sec
	<b>ESD Resistance</b>	IEC 61000-4-2 4B (±15KV)
	<b>Detection Matrix</b>	200*1 (plus another secondary line) 508 dpi 10 mm sensor area

## NETWORKING/COMMUNICATIONS

### WWAN Modules

#### HP hs3110 HSPA+ 3G Mobile Broadband Module\*

<b>Technology/Operating bands</b>	HSPA+: 2100 (Band1), 1900 (Band 2), 1700 (Band 4), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 MHz (Band 5), 900 (Band 8) MHz
<b>Wireless protocol standards</b>	E-GPRS: Class B, Multi-slot class 33, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 7
<b>GPS</b>	Standalone, A-GPS
<b>GPS bands</b>	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz
<b>Maximum data rates</b>	HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload) HSPA: 7.2 Mbps (Download), 5.76 Mbps (Upload) WCDMA PS: 384 kbps (Download), 384 kbps (Upload) WCDMA CS: 64 kbps (Download), 64 kbps (Upload) E-GPRS: 296 kbps (Download), 236.8 kbps (Upload) GPRS: 107 kbps (Download), 85.6 kbps (Upload)
<b>Maximum output power</b>	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



### Technical Specifications

**Maximum power consumption** HSPA+: 1,100 mA (peak); 800 mA (average)  
E-GPRS: 2,800 mA (peak); 700 mA (average)

**Form Factor** M.2, 3042-S3 Key B

**Weight** 6 g

**Dimensions** 1.65 x 1.18 x 0.09 in (42 x 30 x 2.3 mm)  
(Length x Width x Thickness)

\* 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.

#### HP It4120 Qualcomm® Snapdragon™ X5 LTE Mobile Broadband Module\*

**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 ± 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)  
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** 42 x 30 x 2.3 mm  
(Length x Width x Thickness)

### Technical Specifications

\* 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.

#### HP It4225 LTE/EV-DO Gobi™ 4G Mobile Broadband Module\*

<b>Technology/Operating bands</b>	LTE: 1400 (Band 11), 800 (Band 18, Japan 800 lower) EV-DO: 800 (BC0), 2100 (BC6) MHz
<b>Wireless protocol standards</b>	3GPP Release 8 LTE Specification EVDO Release 0 and Release A
<b>GPS</b>	Standalone, A-GPS
<b>GPS bands</b>	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz
<b>Maximum data rates</b>	LTE: 100 Mbps (Download), 50 Mbps (Upload) CDMA 1x: 153.6 kbps (Download), 153.6 kbps (Upload) EVDO Rev.A: 3.1 Mbps (Download), 1.8 Mbps (Upload)
<b>Maximum output power</b>	LTE: 23 dBm CDMA/EVDO: 24dBm
<b>Maximum power consumption</b>	LTE: 1,200 mA (peak); 900 mA (average) EVDO: 900mA (peak); 720mA (average)
<b>Form Factor</b>	M.2, 3042-S3 Key B
<b>Weight</b>	6 g
<b>Dimensions</b> (Length x Width x Thickness)	1.65 x 1.18 x 0.09 in (42 x 30 x 2.3 mm)

\* 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.

#### HP It4226 LTE/HSPA+ Gobi 4G Module\*

<b>Technology/Operating bands</b>	LTE: 2100 (Band 1), 800 (Band 19, Japan 800 upper), 1450 (Band 21) HSPA+: 2100 (Band 1), 800 (Band 6), 800 (Band 19) MHz
<b>Wireless protocol standards</b>	3GPP Release 8 LTE Specification WCDMA R99, 3GPP Release 5, 6 and 7 UMTS Specification
<b>GPS</b>	Standalone, A-GPS
<b>GPS bands</b>	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz
<b>Maximum data rates</b>	LTE: 100 Mbps (Download), 50 Mbps (Upload) DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload)
<b>Maximum output power</b>	LTE: 23 dBm HSPA+: 23.5 dBm
<b>Maximum power consumption</b>	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
<b>Form Factor</b>	M.2, 3042-S3 Key B
<b>Weight</b>	6 g
<b>Dimensions</b> (Length x Width x Thickness)	1.65 x 1.18 x 0.09 in (42 x 30 x 2.3 mm)

### Technical Specifications

\* 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

### WLAN MODULES

#### Intel® Tri Band Wireless-AC 18260 802.11 a/b/g/n/ac (2x2) and Bluetooth® 4.2 + WiGig Combo\*

<b>Form Factor</b>	Combo Module, M.2 3030-S3-A
<b>Dimensions</b>	30.00±0.15mm by 30.00±0.15mm by 2.38mm max.
<b>Weight</b>	4 grams
<b>Operating Voltage</b>	3.3 Volts
<b>Wireless LAN Standards</b>	IEEE 802.11ad
<b>Interoperability</b>	Wi-Fi certified MAC and Physical Layer  WiFi Alliance/WiGig Alliance Protocol Adaption Layers (PALs) (Not yet ratified)  Wireless Display Extension (WDE) Wireless Serial Extension (WSE)
<b>Frequency Band</b>	Note: IP protocol is not supported 802.11ad 57 – 66 GHz Note: There are 4 bands (1, 2, 3, 4) but only 2 (bands 2 and 3) are supported in most of the countries on the planet. HP will support only bands 2 and 3, 59-64 GHz
<b>Antenna Structure (Remote Front End Module, R-FEM)</b>	Note: Not all countries allow unlicensed operation at these frequencies Active, Beam Steering Array of 10 x 2 Elements, 8 x 2 Active Elements Azimuth 8 active elements Elevation 2 active elements Vertical tilt of 20 to 30 degrees off of broadside Horizontal beam steering ±65°, -6dB from peak gain Vertical beam steering +80° -50°, -6dB from peak gain Azimuth beam width ~20°, -6dB from peak gain Elevation beam width ~80°, -6dB from peak gain Omni (no beam forming) beam width ~110°, -6dB from peak gain Vertical Polarization Device side supports one R-FEM Dock side supports one or two R-FEMs
<b>Data Rates (RAW)</b>	MCS Rate, Mbit/s                      Modulation
	0            27.5                                      π/2-BPSK
	1            385.0                                      π/2-BPSK
	2            770.0                                      π/2-BPSK
	3            962.5                                      π/2-BPSK
	4            1155.0                                      π/2-BPSK
	5            1251.25                                      π/2-BPSK
	6            1540.0                                      π/2-QPSK
	7            1925.0                                      π/2-QPSK
	8            2310.0                                      π/2-QPSK
	9            2502.5                                      π/2-QPSK
	10          3080.0                                      π/-16QAM
	11          3850.0                                      π/-16QAM
	12          4620.0                                      π/-16QAM
<b>Network Architecture Models</b>	Ad-hoc (Peer to Peer)

### Technical Specifications

<b>Wireless Display Extension (WDE)</b>	WGA WDE support	AV PAL (WDE) as defined by WiGig alliance
	AVC/MPEG support - encoder	WDE supports generation of MPEG-PS / MPEG-PES packets as described in the WDE standard WDE supports AVC (H264) encoder, intra only, 4:4:4 Chroma subsampling. Different visually lossless and lossy scenarios are supported by configuration
	AVC/MPEG support – decoder	H.264 CAVLC 4:4:4 I-only sub sampling is supported
	Type of Interface	Client device side <ul style="list-style-type: none"> <li>• DP (Display port) v1.2a – HBR (1, 2, 4 lanes)</li> </ul> Dock device side <ul style="list-style-type: none"> <li>• DP v1.2 – HBR (1, 2, 4 lanes)</li> <li>• HDMI v1.4a (through external Hub or cable adapter)</li> <li>• DP++ compatible</li> </ul>
	DP Resolution and Frame Rate Support	<b>Note:</b> DP v1.2 is backward compatible with DP v1.1a DP will support the following resolutions 640x480, 1280x720, 1920x1080, 1920x1200, 2560x1440, 2560x1600 and frame rates – 24, 25, 30, 50 and 60 Hz All resolutions are in progressive mode (no interlaced supported) Specifically, the following resolutions and frame rates will be supported <ul style="list-style-type: none"> <li>• 640x480p60</li> <li>• 1280x720p60</li> <li>• 1920x1080p60</li> <li>• 1920x1200p60</li> <li>• 2560x1440p60</li> <li>• 2560x1600p60</li> </ul>
	HDMI Resolution and Frame Rate Support	<b>Note:</b> resolution and refresh rate may change in situations where there is a bad link or strict limits on TDP HDMI supports the following resolution and frame rates – <ul style="list-style-type: none"> <li>• 640x480p60</li> <li>• 1280x720p60</li> <li>• 1920x1080p60</li> <li>• 1920x1200p60</li> <li>• 2560x1440p60</li> <li>• 2560x1600p60</li> </ul> <b>Note:</b> resolution and refresh rate may change in situations where there is a bad link or strict limits on TDP
	Color space support	YCbCr and RGB

### Technical Specifications

<p>DP &amp; HDMI Color Depth Support</p> <p>Dual display mode</p>	<p>The following color depths are supported 8 bits per color</p> <p>The Output interface (Display Port Multi-Stream Transport, DP MST) has the ability to support dual display mode – splitting the video stream is based on external HW (with monitors that can support it, a daisy chain approach can be used to support dual display mode)</p>
<p>Multiple Display Stream Support (MST)</p>	<p>The following dual display mode via MST is supported</p> <ul style="list-style-type: none"> <li>• 2 x (1280x720)</li> <li>• 2 x (1920x1080)</li> <li>• 2 x (1920x1200)</li> </ul> <p>1920x1080 plus 1920x1200</p>
<p>Audio Pass-Through Support</p>	<p>Support for all relevant Audio formats in Pass-Through mode as defined in the WDE specification. LPCM (uncompressed and uncompound), 2-8 channels, 32KHz – 192KHz, up to 24 bits per sample (dependent on the number of channels)</p>
<p>Independent Digital Audio Out Interface (Sink)</p>	<p>Support for an independent digital Audio Out sink interface, operational upon insertion of an audio peripheral, and not dependent on monitor state (On/Off/Powered-Off)</p> <ul style="list-style-type: none"> <li>• 4 x I2S Interfaces</li> <li>• Multiplexed with</li> <li>• S/PDIF Interface</li> </ul>
<p>Selection of Independent Audio Out Interface</p>	<p>Selection of output interface (I<sup>2</sup>S or SPDIF) and on-board audio device capabilities is configurable on a system basis through module Flash Configuration.</p> <p>AUX (DP) / DDC (HDMI) channel is supported.</p>
<p>AUX/DDC Channel Interface</p>	<p><b>Note:</b> FAUX – fast AUX (~7000Mb) is not required.</p>
<p>Chosen resolution, frame rate, color space, audio capabilities</p>	<p>WDE will inform the host graphics of the best resolution , frame rate, color space and audio capabilities based on</p> <ul style="list-style-type: none"> <li>• Native/Supported monitor resolutions</li> <li>• Module Core Capabilities</li> <li>• Power consumption considerations</li> <li>• Link status(physical layer rate and other services)</li> </ul>
<p>Hot Plug</p>	<p>Plug and Play through hot plug detection is not supported</p>
<p><b>Wireless Serial Extension (WSE) for support of USB data flow over wireless link</b></p>	<p>WGA WSE support</p> <p>USB PAL (WSE) version 1.2 (June 2013)</p>

### Technical Specifications

WSE Supported USB Ports USB Hub	Single USB 2.0/3.0 Root Port Supports direct connection to an external USB Hub device. Any USB devices on the Dock device should be connected to the external USB Hub.																
Port Powering	Module does not support USB device powering. Any Dock device must be self-powered or powered from an external USB Hub in the Dock Device. The module is capable of managing the powering requirements of USB devices connected to the Dock USB Hub external to the module.																
WSE Supported Devices	USB devices listed in 'Supported USB Peripherals over USB' below are supported, separately and simultaneously. It supports control, interrupt, bulk and isochronous flows based on the supported device capabilities.																
Number of USB devices supported on Dock device	At least 12 USB devices																
Number of USB Hub Tiers supported	Maximum number of Hub Tiers connected to the external Hub in the Dock device is 3. A 4 <sup>th</sup> Tier will only support non Hub devices.																
Supported USB peripherals over WSE	<table border="0"> <thead> <tr> <th style="text-align: left;">Device Class</th> <th style="text-align: left;">Comment</th> </tr> </thead> <tbody> <tr> <td>HID</td> <td>Supported</td> </tr> <tr> <td>Printer</td> <td>Supported</td> </tr> <tr> <td>Communication Device Class (CDC)</td> <td>Supported</td> </tr> <tr> <td>Mass Storage Class (MSC)</td> <td>Supported</td> </tr> <tr> <td>Hub</td> <td>Supported</td> </tr> <tr> <td>Audio Class</td> <td>Supported</td> </tr> <tr> <td>USB Video Class (UVC)</td> <td>Supported</td> </tr> </tbody> </table>	Device Class	Comment	HID	Supported	Printer	Supported	Communication Device Class (CDC)	Supported	Mass Storage Class (MSC)	Supported	Hub	Supported	Audio Class	Supported	USB Video Class (UVC)	Supported
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\* Wireless access point and Internet service required. Availability if 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.

#### Intel® Dual Band Wireless-AC 8260 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo\*

<b>Wireless LAN Standards</b>	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac
<b>Interoperability Frequency Band</b>	Wi-Fi certified 802.11b/g/n <ul style="list-style-type: none"> <li>• 2.402 – 2.482 GHz</li> </ul>

Note:  
The FCC has declared as of January 1, 2015 products that utilize passive

### Technical Specifications

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

#### Security<sup>1</sup>

- 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
- IEEE 802.11i
- Cisco Certified Extensions, all versions through CCX4 and CCX Lite
- WAPI

#### Network Architecture Models Roaming

Ad-hoc (Peer to Peer)

Infrastructure (Access Point Required)

IEEE 802.11 compliant roaming between access points

#### Output Power<sup>2</sup>

- 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)



### Technical Specifications

	Idle mode (PSP): 180 mW (WLAN Associated)
	Idle mode: 50 mW (WLAN unassociated)
	Connect Standby: 10 mW (WLAN+BT)
	Radio disabled: 5 mW
<b>Power Management</b>	ACPI and PCI Express compliant power management
<b>Receiver Sensitivity<sup>3</sup></b>	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
<b>Antenna type</b>	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
<b>Form Factor</b>	PCI-Express M.2 MiniCard
<b>Dimensions</b>	Type 2230 : 2.3 x 22.0 x 30.0 mm
	Or
	Type 1630 : 2.3 x 16.0 x 30.0 mm
<b>Weight</b>	Type 2230 : 2.8g
	Or
	Type 1630 : 2g
<b>Operating Voltage</b>	3.3v +/- 9%
<b>Temperature</b>	Operating 14° to 158° F (-10° to 70° C)
	Non-operating -40° to 176° F (-40° to 80° C)
<b>Humidity</b>	Operating 10% to 90% (non-condensing)
	Non-operating 5% to 95% (non-condensing)
<b>Altitude</b>	Operating 0 to 10,000 ft (3,048 m)
	Non-operating 0 to 50,000 ft (15,240 m)
<b>LED Activity</b>	LED Amber – Radio OFF; LED White – Radio ON
	1. Check latest software/driver release for updates on supported security features. 4.
	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).
<b>HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology</b>	
<b>Bluetooth Specification</b>	4.0/4.1/4.2 Compliant
<b>Frequency Band</b>	2402 to 2480 MHz
<b>Number of Available Channels</b>	Legacy : 0~79 (1 MHz/CH)
	BLE : 0~39 (2 MHz/CH)
<b>Data Rates and Throughput</b>	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps
	BLE : 1 Mbps data rate; throughput up to 0.2 Mbps

### Technical Specifications

<b>Transmit Power</b>	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) The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.												
<b>Receiver Sensitivity Legacy</b>	<table border="1"> <thead> <tr> <th>Modulation</th> <th>0.01% BER</th> <th>0.001% BER</th> </tr> </thead> <tbody> <tr> <td>GFSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> <tr> <td><math>\pi/4</math>-DQPSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> <tr> <td>8DPSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> </tbody> </table>	Modulation	0.01% BER	0.001% BER	GFSK	-80 dBm	-70 dBm	$\pi/4$ -DQPSK	-80 dBm	-70 dBm	8DPSK	-80 dBm	-70 dBm
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$\pi/4$ -DQPSK	-80 dBm	-70 dBm											
8DPSK	-80 dBm	-70 dBm											
<b>Power Consumption</b>	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW												
<b>Range</b>	Legacy Up to 33 ft (10 m) BLE Up to 99 ft (30 m)												
<b>Electrical Interface Bluetooth Software Supported Link Topology</b>	USB 2.0 compliant Microsoft Windows Bluetooth Software												
<b>Electrical Interface Bluetooth Software Supported Security</b>	Point to Point, Multipoint Pico Nets up to 7 slaves												
<b>Power Management Certifications</b>	Full support of Bluetooth Security Provisions Microsoft Windows ACPI, and USB Bus Support												
<b>Security Certifications Bluetooth Profiles Supported</b>	Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff All necessary regulatory approvals for supported countries, including: FCC (47 CFR) Part 15C, Section 15.247 & 15.249												
<b>Power Management Certifications</b>	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark Serial Port Profile (SPP) <sup>1</sup> Service Discovery Application Profile (SDAP) Dial-Up Networking (DUN) <sup>1,2</sup> Generic Object Exchange Profile (GOEP) <sup>1,2</sup> Object Push Profile (OPP) <sup>1,2</sup> Hard Copy Cable Replacement (HCRP) <sup>1,2</sup> Personal Area Networking Profile (PAN) <sup>1,2</sup> Human Interface Device Profile (HID) <sup>1,2</sup> Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Audio Video Remote Control Profile (AVRCP)												
<b>Certifications Bluetooth Profiles Supported</b>	V4.1: ESR5/6/7 compliant												
<b>Bluetooth V4.1/V4.2 support feature</b>	V4.2: ESR8 compliant, LE Secure Connection – Basic.												

\* Wireless access point and Internet service required. Availability if 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.

### Technical Specifications

**Environmental Data**    **Eco-Label Certifications & declarations**    This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT <Gold> registered in the United States. See <http://www.epeat.net> for registration status in your country.

**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)**

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
Normal Operation (Short idle)	6.06 W	6.18 W	6.04 W
Normal Operation (Long idle)	1.85 W	1.94 W	1.81 W
Sleep	0.39 W	0.42 W	0.37 W
Off	0.27 W	0.3 W	0.26 W

**Note:**

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 60Hz</b>
<b>Heat Dissipation*</b>			
Normal Operation (Short idle)	21 BTU/hr	21 BTU/hr	21 BTU/hr
Normal Operation (Long idle)	6 BTU/hr	7 BTU/hr	6 BTU/hr
Sleep	1 BTU/hr	1 BTU/hr	1 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

\*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

**Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)**

	<b>Sound Power (L<sub>wAd</sub>, bels)</b>	<b>Sound Pressure (L<sub>pAm</sub>, decibels)</b>
Typically Configured – Idle	1.5	8
Fixed Disk – Random writes	1.8	11

**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:

- 3 USB ports
- 1 PC card slot (type I/II)
- 1 ExpressCard/54 slot
- 1 IEEE 1394 Port

### Technical Specifications

- 2 SODIMM memory slots
- Optional expansion base docking station
- 1 multi-bay II storage port
- Interchangeable HDD??

<edit list of features as required>

Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.

#### Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:  
Mercury greater the 1ppm by weight  
Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)  
Battery type: Lithium

#### Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see [www.epeat.net](http://www.epeat.net)
- 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 97% recycle-able when properly disposed of at end of life.

#### Packaging Materials

<b>External:</b>	PAPER/Corrugated	329.5 g
<b>Internal:</b>	PLASTIC/EPE (Expanded Polyethylene)	23.3 g
	PLASTIC/Polyethylene low density	14.5 g

The plastic packaging material contains at least 50% recycled content.  
The corrugated paper packaging materials contains at least 70% recycled content.

#### Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- 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

### Technical Specifications

	<ul style="list-style-type: none"><li>• Lead and Lead compounds</li><li>• Mercuric Oxide Batteries</li><li>• Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.</li><li>• Ozone Depleting Substances</li><li>• Polybrominated Biphenyls (PBBs)</li><li>• Polybrominated Biphenyl Ethers (PBBEs)</li><li>• Polybrominated Biphenyl Oxides (PBBOs)</li><li>• Polychlorinated Biphenyl (PCB)</li><li>• Polychlorinated Terphenyls (PCT)</li><li>• Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.</li><li>• Radioactive Substances</li><li>• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)</li></ul>
<b>Packaging Usage</b>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"><li>• Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.</li><li>• Eliminate the use of ozone-depleting substances (ODS) in packaging materials.</li><li>• Design packaging materials for ease of disassembly.</li><li>• Maximize the use of post-consumer recycled content materials in packaging materials.</li><li>• Use readily recyclable packaging materials such as paper and corrugated materials.</li><li>• Reduce size and weight of packages to improve transportation fuel efficiency.</li><li>• Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.</li></ul>
<b>End-of-life Management and Recycling</b>	<p>Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <a href="http://www.hp.com/go/reuse-recycle">http://www.hp.com/go/reuse-recycle</a> 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: <a href="http://www.hp.com/go/recyclers">http://www.hp.com/go/recyclers</a>. 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> <p>For more information about HP's commitment to the environment:</p>
<b>Hewlett-Packard Corporate Environmental Information</b>	<p>Global Citizenship Report <a href="http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html">http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</a></p> <p>Eco-label certifications <a href="http://www8.hp.com/us/en/hp-information/environment/ecolabels.html">http://www8.hp.com/us/en/hp-information/environment/ecolabels.html</a></p> <p>ISO 14001 certificates: <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf">http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf</a> and <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf">http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf</a></p>

### Technical Specifications

#### POWER

<b>HP AC Adapter 45W USB Type-C™</b>	<b>Dimensions (H x W x D)</b>	66mm x 66mm x 28.5mm	
	<b>Input</b>	90 to 265 VAC	
		Input Efficiency	+5V out --78.7% min at 115 VAC/230VAC +12V out—87.4% min at 115 VAC/230VAC +15V out –87.73% min at 115 VAC/230VAC
		Input frequency range	47 to 63 Hz
	<b>Output</b>	Input AC current	1.4 A at 90 VAC and maximum load
		Output power	45W
		DC output	5V/12V/15V
		Hold-up time	5 msec at 115 VAC input
		Output current limit	<5A, Over voltage protection <a href="#">7.85V@5Vout</a> <a href="#">18V@12Vout</a> <a href="#">20.5V@15Vout</a> max automatic shutdown
		<b>Connector</b>	<b>USB TYPE C connector</b>
		<b>Environmental Design</b>	<b>Operating temperature</b>
	<b>Non-operating (storage) temperature</b>		-4° to 121° F (-20° to 85° C)
	<b>Altitude</b>		0 to 16,405 ft (0 to 5,000 m)
<b>Humidity</b>	0% to 95%		
<b>EMI and Safety Certifications</b>	<b>Storage Humidity</b>	0% 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; Reliability - failure rate of less than 0.1% annually within the first three years of operation.		
<b>HP 4-cell Polymer Battery (40 WHr)</b>	<b>Dimensions (H x W x L)</b>	138.15 x 58.90 x 3.81 mm 5.44 x 2.32 x 0.15 inch	
	<b>Weight</b>	0.166 kg/0.37 lb	
	<b>Cells/Type</b>	4-cell Lithium-Ion	
	<b>Energy</b>	Voltage : 7.7V	
		Amp-hour capacity Ah Watt-hour capacity : 40 WHr	
	<b>Watt-hour capacity</b>	40 WHr	
	<b>Temperature</b>	<b>Operating (Charging)</b>	32° to 113° F (0° to 45° C)
<b>Operating (Discharging)</b>		14° to 140° F (-10° to 60° C)	

### Technical Specifications

	<b>Non-operating</b>	-4° to 140° F ( -20° to 60° C )
<b>Battery recharge time</b>	System in OFF or Standby Mode <3 hours	
<b>Fuel Gauge LED</b>	No	
<b>Optional travel battery available</b>	No	

## MIL-STD 810G TEST

### High Temperature test\*

The High Temperature test was performed in accordance with MIL-STD-810G, Method 501.5, Procedure I (Storage). This test evaluated the units' performance while it was being exposed to high temperature conditions: 71°C (160°F) nonoperational. Test cycle 24 hours; test consisted of seven cycles.

### High Temperature test\*

The High Temperature test was performed in accordance with MIL-STD-810G, Method 501.5, Procedure II (Operation). This test evaluated the units' performance while it was being exposed to high temperature conditions: 60°C (140°F) operational. Four hours duration.

### Low Temperature test\*

The Low Temperature test was performed in accordance with MIL-STD-810G, Method 502.5, Procedure I (Storage). This test evaluated the unit's performance while it was being exposed to low temperature conditions: -51°C (-60°F) nonoperational. Four hours duration.

### Low Temperature test\*

The Low Temperature test was performed in accordance with MIL-STD-810G, Method 502.5, Procedure II (Operation). This test evaluated the unit's performance while it was being exposed to low temperature conditions: -29°C (20°F) operational. Four hour duration.

### Thermal Shock test\*

The Thermal Shock test was performed in accordance with MIL-STD-810G, Method 503.5, Procedure I. The objective of this test was to determine whether the unit could be safely operated after being exposed to sudden changes in ambient temperature while non-operational. The high temperature was set to be 96°C (205°F) and the low temperature to be -51°C (-60°F); three high-to-low cycles were performed.

### Altitude\*

The Altitude test was performed in accordance with MIL-STD-810G, Method 500.5, Procedure I (Storage) and II (Operation). The altitude level simulated for both procedures was 15,000 feet at 57kPa. Four hour duration.

### Humidity\*

The humidity test was performed in accordance with MIL-STD-810G, Method 507.5, Procedure II. Relative humidity 95%. Temperature cycled between 86oF and 140oF. Test cycle 24 hours; test consisted of ten cycles.

### Drop\*

The drop test was performed in accordance with MIL-STD-810G, Method 516.6, Procedure IV. The objective of this test was to determine whether the unit was operational after being dropped from desk height. For this test, 26 drops were performed from

### Technical Specifications

<b>Dust*</b>	<p>3ft onto every side, angle and edge onto 2" of plywood over steel over concrete.</p> <p>The dust test was performed in accordance with MIL-STD-810G, Method 510.5, Procedure I. Test parameters were set so that the unit was dusted with Arizona Road Dust for six hours while being operated. Each cycle was one day (24 hours); ten cycles with the temperature being cycled between 30°C (86°F) and 60°C (140°F); and relative humidity was a constant 95%.</p>
<b>Vibration*</b>	<p>The vibration test was performed in accordance with MIL-STD-810G, Method 514.6, Procedure I category 4. This test evaluated the units performance after it has been subjected to higher levels of vibration while in storage: Operational U.S. highway truck exposure, 1000 mile Simulation and One hour/axis duration.</p>
<b>Vibration 2*</b>	<p>The vibration test was performed in accordance with MIL-STD-810G, Method 514.6, Procedure I category 24. This test evaluated the units performance after it has been subjected to higher levels of vibration while in storage: Non-operational 0.04 g<sup>2</sup>/Hz at 20-1000 Hz, -6 dB/octave at 1000-2000 Hz and One hour/axis duration.</p>
<b>Shock*</b>	<p>The shock test was performed in accordance with MIL-STD-810G, Method 516.6.5, Procedure I. This test objective was to determine whether the unit could be safely operated after being exposed to sudden physical shock events while operational. For this test, 3 shocks were performed across each axis and direction for a total of 18 shocks -40Gs peak, 11ms.</p>
<b>Freeze/Thaw test*</b>	<p>The Freeze/Thaw test was performed in accordance with MIL-STD-810G, Method 524.54 Procedure III. The objective of this test was to determine whether the unit could be safely operated after being exposed to a temperature drop of -10°C (14°F) for two hours. Unit is removed and checked for operation.</p>
<b>Sand test*</b>	<p>The Sand test was performed in accordance with MIL-STD-810G, Method 510.5 Procedure II</p>
<b>Explosive Atmosphere*</b>	<p>The Explosive Atmosphere test was performed in accordance with MIL-STD 810G, Method 511.5 Procedure I.</p>

\*MIL STD 810G testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Damage under the MIL STD test conditions or any accidental damage requires an optional HP Accidental Damage Protection Care Pack.

### COUNTRY OF ORIGIN

China



### Technical Specifications

## CLEANING

The following cleaning solutions, if used as instructed in the user guide, will not harm the HP Elite x2 1012 G1:

- Dimethyl benzyl ammonium chloride 0.3 percent maximum concentration (for example, disposable wipes, which come in a variety of brands)
- Alcohol-free glass-cleaning fluid
- Solution of mild soap and water
- Dry microfiber cleaning cloth or a chamois (static-free cloth without oil)
- Static-free cloth wipes

Please refer to the user guide that came with your product for detailed instructions about how to clean your HP Elite x2 1012 G1 using these solutions.

The following cleaning solutions, if used as instructed in the user guide, will not harm the surface of HP Elite x2 1012 Travel Keyboard and the HP Elite x2 1012 Advanced Keyboard:

Surface side of the keyboards:

- Dimethyl benzyl ammonium chloride 0.3 percent maximum concentration (for example, disposable wipes, which come in a variety of brands)
- Alcohol-free glass-cleaning fluid
- Solution of mild soap and water
- Dry microfiber cleaning cloth or a chamois (static-free cloth without oil)
- Static-free cloth wipes

Fabric side of the keyboards:

- Solution of mild soap and water
- Dry microfiber cleaning cloth or a chamois (static-free cloth without oil)
- Static-free cloth wipes

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

Type	Description	Part number	
<b>Carrying Cases</b>	HP Elite Top Load Colombian Leather Case	T9H72AA	
	HP Elite Top Load Herringbone Nylon Case	T9H73AA	
	HP Business Slim Top Load (up to 14.1" x .75" thick)	H5M90AA	
	HP Slim Ultrabook Messenger (up to 15.6" x .88"/22/5mm)	F3W14AA	
	HP Slim Ultrabook Top Load (up to 15.6" x .88"/22/5mm)	F3W15AA	
	HP Slim Ultrabook Backpack (up to 15.6" x .88"/22/5mm)	F3W16AA	
	HP UltraSlim Tablet Sling	F7Z97AA	
	HP Essential Top Load Case (up to 15.6")	H2W17AA	
	HP Essential Backpack (up to 15.6")	H1D24AA	
	HP x2 1012 Protective Case	T3P15AA	
<b>Input/Output Devices</b>	HP Active Pen with Bluetooth App Launch Button	T4Z24AA	
	HP Ultra Mobile Wireless Mouse	H6F25AA	
	HP 3-Button Laser Mouse	H4B81AA	
	HP Ultrathin Wireless Mouse	L9V78AA	
	HP 2.4 GHz Wireless Mouse	LOZ84AA	
	HP Conferencing Keyboard	K8P74AA	
	HP Stereo 3.5mm Headset	T1A66AA	
	HP Stereo USB 3.5mm Headset	T1A67AA	
	HP Speaker Phone	K7V16AA	
	HP Wired Headset	K7V17AA	
	HP H2310 Black In-ear headset	J8H42AA	
<b>Adapters</b>	HP USB Graphics Adapter	NL571AA	
	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 3.0 to Gigabit LAN adapter	N7P47AA	
	HP USB-C™ to USB 3.0 adapter	N2Z63AA	
	HP USB-C™ to HP USB-C to 4.5mm + 3.0mm Combo DC Jack adapter	N2Z65AA	
	HP Wireless display Adapter	J1V25AA	
	HP USB-C™ Travel Dock	TOK294AA	
<b>Keyboards</b>	HP Elite x2 1012 G1 Travel Keyboard	T4Z25AA	
	HP Elite x2 1012 Advanced Keyboard	P5Q65AA	
	USB Stylish Keyboard & Mouse Bundle	H4B80AA	
	HP Conferencing Keyboard	K8P74AA	
	HP Wireless keyboard and mouse	G1K29AA	
<b>Docking Stations/Replicators</b>	HP Advanced Wireless Docking Station*		
	*HP Advanced Wireless Docking is compatible with the HP Elite x2 1012 G1 with an optional installed Intel Tri Band Wireless AC with WiGig Combo card available at the time of purchase.	F7M97AA	

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

	HP Elite USB-C Docking Station	T3V74AA
	HP Elite 65W Thunderbolt 3 Dock	P5Q54AA
	HP USB-A 3.1 Port Replicator	H1L08AA
	HP 3005pr USB 3 Port Replicator	H1L08AA
	HP Elite USB-C Dock	Z9R42AA
<b>Power Adapters</b>	HP 45W USB Type-C™ AC Adapter	V5Y26AA
	HP Mobile Hot Spot	M5T50AA
	HP 45W USB-C Auto Adapter	Z3Q87AA
<b>Storage</b>	HP External USB Optical Drive	F2B56AA
<b>Security</b>	HP Tablet Master Cable Lock	T8X45AA
<b>Others</b>	HP Tablet Cleaning Kit	K6F99AA

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### Summary of Changes

<b>Date of change:</b>	<b>Version History:</b>	<b>Description of change:</b>
12/08/2015	From v1 to v2	Multiple edits
12/09/2015	From v2 to v3	Multiple edits
12/16/2015	From v3 to v4	Added BrightView and WUXGA to display specs.
01/20/2016	From v4 to v5	Removed HP USB-C to RJ45/USB3/USB-C Adapter and Display support.
02/11/2016	From v5 to v6	Added disclaimer under "HP Advanced Wireless Docking Station".
02/19/2016	From v6 to v7	Added environmental specs
03/01/2016	From v7 to v8	Multiple edits
03/04/2016	From v8 to v9	Added Fanless design for a quiet computing experience to at a glance.
03/09/2016	From v9 to v10	Added AC adapter weight. Edit to At-a-Glance section.
03/21/2016	From v10 to v11	Option Update
03/22/2016	From v11 to v12	Edit to Storage
04/21/2016	From v12 to v13	Added USB adapters
05/25/2016	From v13 to v14	Added port note
02/14/2017	From v14 to v15	Accessories Section Updated
03/22/2017	From v15 to v16	Technical Specifications Section Updated (Active Pen Resolution)