Overview

HP Elite x2 1013 G3

1. Web cam LED
2. Web cam
3. Optional IR cam
4. Optional IR cam LED
5. Audio-out/Audio-in combo jack
6. Speakers

Left

7. Volume up/volume down
8. Nano SIM Card Slot (Available on configurations with WWAN only)[1]
9. Nano Security Lock Slot (Lock sold separately)
10. Pen holder
11. Glass clickpad

1. All units have a SIM card slot and icon but units that do not support WWAN are shipped with a non-removable SIM slot plug.
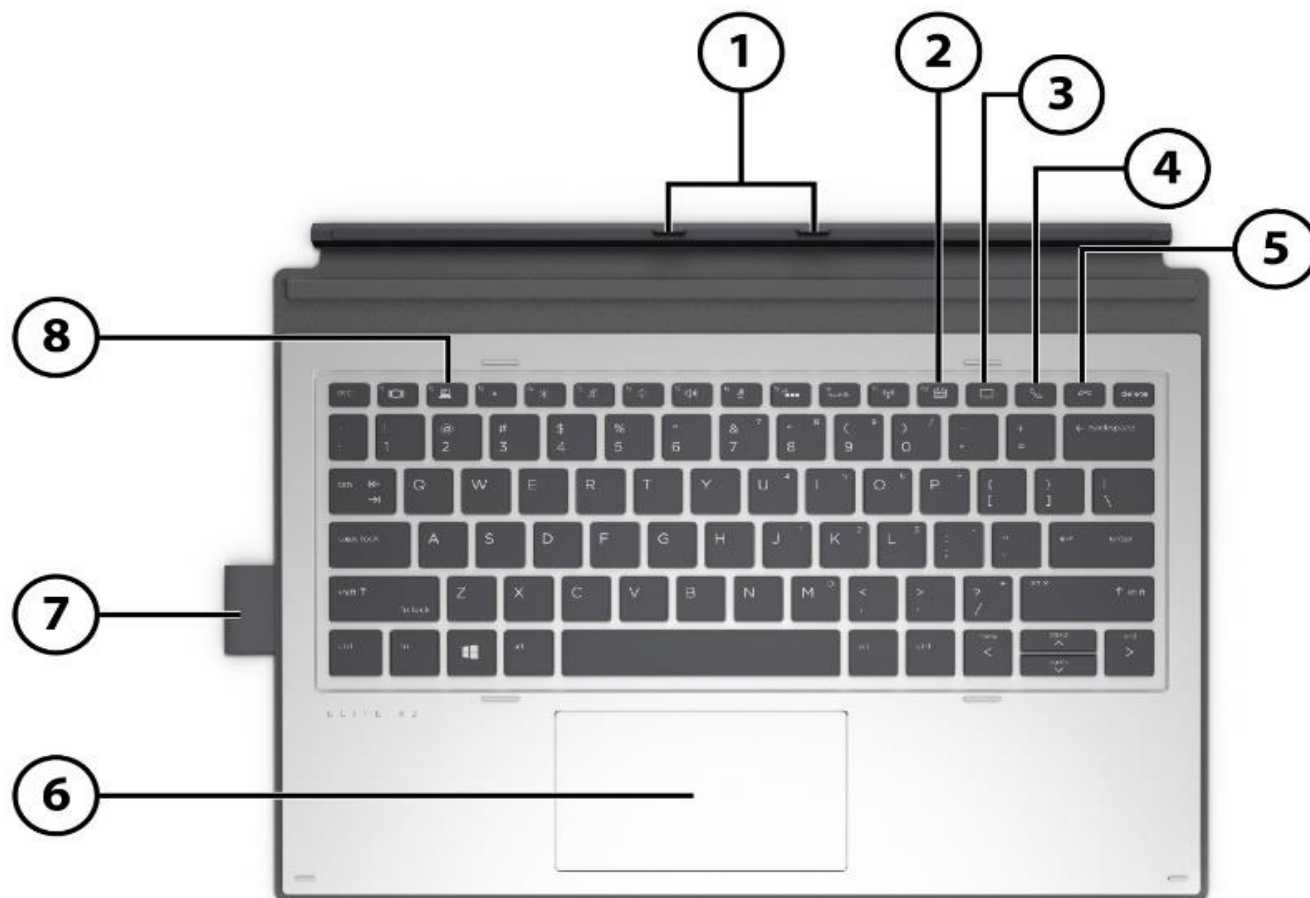
Overview

Rear

1. Charging LED
2. USB-C charging port
3. USB Type-C™ with Thunderbolt™
4. USB Type-C™ with Thunderbolt™

5. Rear-facing camera
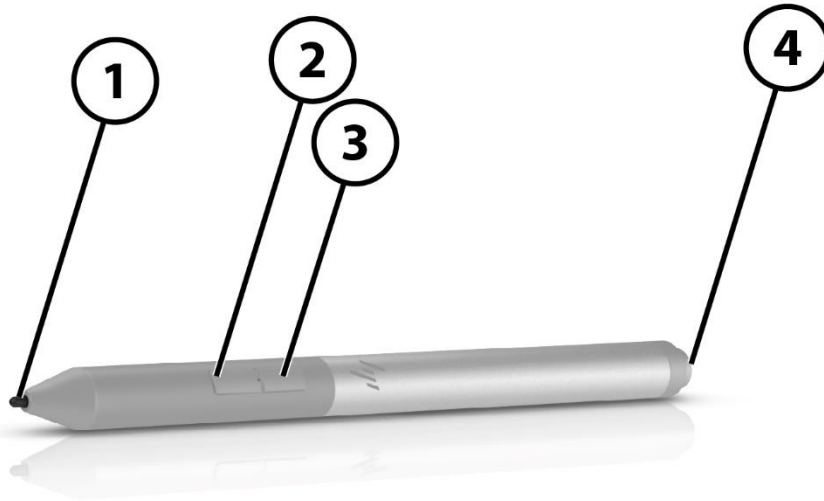6. Power button
7. Optional Fingerprint sensor
8. Kickstand

Overview

Keyboard

1. Keyboard guide pins
2. Outlook calendar initiate
3. Present
4. Call answer/initiate

5. Call end
6. Pen holder
7. Glass clickpad
8. Sure View on/off

Overview

Pen

1. Tip
2. Erase

3. Select
4. Application Launch Button (Default OneNote)

Overview

AT A GLANCE

- Designed for PC performance with tablet mobility, this thin and sleek detachable is built to the standards of Elite durability
- Up to 10 hours and 30 minutes of battery life lets you work, surf and connect with colleagues[1]
- Windows 10 versions
- 8th Generation Intel® Core™ (U-series) processors, some with vPro™ support[2]
- 13.0" diagonal ultra-slim IPS LED-backlit (3000k x 2000k) Multi-Touch Display
- Solid State Drives up to 512 GB including FIPS 140.2 (CIS only); OPAL 2 drives support up to 512 GB PCLe; NVMe drives support up to 1024 GB
- Weight starting at 810 g (1.78 lb) for Tablet
- Height starting at 7.9 mm (.31 inches) for Tablet
- Passed MIL-STD 810g testing[3]
- Optional Sure View privacy screen
- Audio by Bang & Olufsen
- Optional IR camera
- Three microphone array featuring a rear-facing microphone with HP Advanced Noise Reduction Software
- Front and back-facing 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 and an optional integrated fingerprint sensor
- Protect your device and data using the latest HP security technology solutions: HP Sure Start Gen4[4], HP BIOSphere Gen4[5] and HP Client Security Suite Gen4[6]
- Standard commercial 1 year limited warranty with extended service available with optional HP Care Packs
- Passed EN 60601-1-2:2007 and IEC 60601-1-2:2014 tests

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 http://www.bapco.com for additional details.
2. vPro™ support not available on all configurations
3. 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.
4. HP Sure Start Gen4 is available on HP EliteBook products equipped with Intel® 8th generation processors.
5. HP BIOSphere Gen4 requires Intel® or AMD 8th Gen processors. Features may vary depending on the platform and configurations.
6. HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.

Technical Specifications

PRODUCT NAME

HP Elite x2 1013 G3

OPERATING SYSTEM

Preinstalled
Windows 10 Pro 64[1]
Windows 10 Pro 64 (National Academic only)[1,2]
Windows 10 Home 64[1]
Windows 10 Home Single Language 64[1]
FreeDOS 2.0

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See http://www.windows.com/.

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

PROCESSORS

Intel® Core™ i3-8130U with Intel® UHD Graphics 620 (2.2 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)[3,4,5,6]
Intel® Core™ i5-8250U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)[3,4,5,6]
Intel® Core™ i5-8350U vPro™ processor with Intel® UHD Graphics 620 (1.7 GHz base frequency, up to 3.6 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)[3,4,5,6,7]
Intel® Core™ i7-8550U processor with Intel® UHD graphics 620 (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)[3,4,5,6,7]
Intel® Core™ i7-8650U vPro™ processor with Intel® UHD graphics 620 (1.9 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)[3,4,5,6,7]

Processor Family
8th Generation Intel® Core™ i7 processor (i7-8650U and i7-8550U models)[5]
8th Generation Intel® Core™ i5 processor (i5-8350U and i5-8250U models)[5]
8th Generation Intel® Core™ i3 processor (i3-8130U model)[5]

3. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering branding and/or naming is not a measurement of higher performance.
4. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
5. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.
6. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost for more information.
7. Some functionality of vPro, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependant on 3rd party software providers. Compatibility of this generation of Intel vPro technology-based hardware with with future "virtual appliances" is yet to be determined.

Technical Specifications

CHIPSET

Integrated with processor

GRAPHICS

Integrated
Intel® UHD Graphics 620[8]

8. HD content required to view HD images.

DISPLAY

Touch
33.02 cm (13") diagonal 3kx2k IPS LED-backlit touch screen with Corning® Gorilla® Glass 4, Low Power Ultra Slim bent, 450 cd/m², RGB (3000 x 2000)[8,9,10]
HP Sure View integrated privacy screen 33.02 cm (13") diagonal WUXGA+ IPS eDP LED-backlit touch screen with Corning® Gorilla® Glass 4, CWLED UWVA 700 cd/m², RGB (1920 x 1280)[8,9,10,11]

8. HD content required to view HD images.
9. Resolutions are dependent upon monitor capability, and resolution and color depth settings.
10. Sold separately or as an optional feature.
11. HP Sure View integrated privacy screen is an optional feature that must be configured at purchase.

Technical Specifications

STORAGE AND DRIVES

Primary Storage
128 GB SATA-3 SS TLC[12]
256 GB PCIe® Gen3x4 NVMe™ SS TLC[12]
256 GB PCIe® NVMe™ Value[12]
256 GB PCIe® TLC Opal 2[12]
512 GB PCIe® Gen3x4 NVMe™ SS TLC[12]
512 GB PCIe® Opal 2 TLC[12]
512 GB SATA SS TLC Federal Information Processing Standard (FIPS 140.2 available via CIS only)[12]
1 TB PCIe® Gen3x4 NVMe™ SS TLC[12]

12. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) is reserved for system recovery software.

MEMORY

Maximum Memory
16 GB LPDDR3-2133 SDRAM[13]

Memory
16 GB LPDDR3-2133 SDRAM Total System Memory (32Gb 256Mx32x4, Qty 4)[13]
8 GB LPDDR3-2133 SDRAM Total System Memory (16Gb 256Mx16x4, Qty 4)[13]
4 GB LPDDR3-2133 SDRAM Total System Memory (8Gb 128Mx32x2, Qty 4)[13]

Memory Slots
Memory soldered down
Supports Dual Channel Memory
Supports up to 16 GB

13. Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

Technical Specifications

NETWORKING/COMMUNICATIONS

WLAN
Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, vPro™ [14,15]
Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, non-vPro™ [14,15]

WWAN
Integrated WWAN options with dual antennas:
HP lt4132 LTE/HSPA+ with GPS Mobile Broadband Module [16]
HP lt4220 LTE/HSPA+ with GPS Mobile Broadband Module [16]
WWAN cards are compatible with a programmable removable eSIM

Miracast
Native Miracast Support [17]

Standalone GPS
HP Graff GNSS Module [18]

HP Connection Optimizer
Support HP Connection Optimizer with WiFi Load balancing

14. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
15. Dynamic Regulatory Solution will auto-change AC WLAN to abgn by passive scan when entering Indonesia.
16. WWAN module is optional, must be configured at the factory and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
17. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
18. Standalone GPS is an optional feature and requires factory configuration. GPS and WWAN are mutually exclusive.

AUDIO/MULTIMEDIA

Audio
Bang & Olufsen
Dual speakers (front-facing, 72db)
3 multi array microphone
HP Noise Cancellation
Headphone line-out and microphone-in (combo)
72 dB Audio Level

Camera
Integrated 5MP (1080p) - Front[8]
Integrated 8MP with (1080p) - Back[8]

IR Camera
Integrated VGA IR camera w/ IR LED emitters that meets Microsoft Hello face recognition certification for secure authentication[19,20]

8. HD content required to view HD images.
19. Sold separately or as an optional feature. Microsoft Hello requires Windows 10.
20. Internet access required.

Technical Specifications

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard
Collaboration travel keyboard

Pointing Device
Touchpad with multi-touch gestures enabled.

Function Keys
ESC Key
F1 -Display Switching
F2 - Sure View on/off
F3 - Brightness Down
F4 - Brightness Up
F5 – Mute
F6 - Volume Down
F7 - Volume Up
F8 - Mic Mute
F9 - Backlight Toggle
F10 - Num Lock
F11 - Wireless On/Off
F12 – Calendar
Delete key

Collaboration Keys
Call End
Share / Present
Call Answer

Technical Specifications

SOFTWARE AND SECURITY

Preinstalled Software

BIOS

HP BIOSphere Gen4[21]

HP Drive Lock & Automatic Drive Lock

BIOS Update via Network

Master Boot Record Security

Power On Authentication

Secure Erase[22]

Absolute Persistence Module[23]

Pre-boot Authentication

HP Wireless Wakeup

Software

HP Native Miracast Support[17]

HP LAN-Wireless Protection

HP ePrint Driver + JetAdvantage[24]

HP Hotkey Support – CMIT

HP Recovery Manager

HP Jumpstart

HP Support Assistant[25]

HP Noise Cancellation Software

Buy Office (Sold separately)

Manageability Features

HP Driver Packs[26]

HP System Software Manager (SSM)

HP BIOS Config Utility (BCU)

HP Client Catalog

HP Manageability Integration Kit Gen2[27]

Ivanti Management Suite[28]

Client Security Software

HP Client Security Suite Gen4[29] including:

HP Client Security Manager[30] (including Credential Manager, Password Manager, Spare Key)

Synaptics Fingerprint Sensor[33]

HP Device Access Manager

HP Power On Authentication

Microsoft Defender[31]

Security Management

Secure Erase[22]

Technical Specifications

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

SATA 0,1 port disablement (viaBIOS)

RAID configurations[34]

Serial, USB enable / disable (viaBIOS)

Power-on password (viaBIOS)

Setup password (viaBIOS)

Support for chassis padlocks and cable lock devices

Integrated hood sensor

HP Sure Click[37]

HP Sure Start Gen4[32]

HP Sure Run[35]

HP Sure Recover[36]

HP Sure View Gen 2

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

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

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

23. 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.

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

25. HP Support Assistant requires Windows and Internet access.

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

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

28. Ivanti Management Suite subscription required.

29. HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.

30. HP Sure Recover is available on HP Elite PCs with 8th generation Intel® or AMD processors and requires an open, wired network connection. Not available on platforms with multiple internal storage drives, Intel® Optane™. You must back up important files, data, photos, videos, etc. before use to avoid loss of data.

31. Microsoft Defender Opt in and internet connection required for updates.

32. HP Sure Start Gen4 is available on HP EliteBook products equipped with Intel® 8th generation processors.

33. HP Fingerprint Sensor sold separately or as an optional feature.

34. RAID configuration is optional and does require a second hard drive.

35. HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD® processors.

36. HP Sure Recover is available on HP Elite PCs with 8th generation Intel® or AMD processors and requires an open, wired network connection. You must back up important files, data, photos, videos, etc. before using HP Sure Recover to avoid loss of data.

37. HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer, Google Chrome, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode. Check http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW for all compatible platforms as they become available.

Technical Specifications

POWER

Power Supply
Length: DC = 1.8m[38,40]

Primary Battery
HP Long Life 4-cell, 50 Wh Polymer (3250mAhr/cell)[39]

Power Cord
Duckhead
Duckhead Power Cord Length: AC = 1m

Battery Life
Up to 10 hours and 30 minutes[41]

Battery Charge Time
50% in 30 minuntes[42]

38. Availability may vary by country.
39. Battery is internal and not replaceable by customer. Serviceable by warranty.
40. Supports HP Fast Charging.
41. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See http://www.bapco.com for additional details.
42. Units enabled with 65w adapters or higher can support fast charging of the battery from 0-50% in 30 minutes while the system is off.

Technical Specifications

WEIGHTS & DIMENSIONS

Weight

Tablet weight (imperial)	1.78 lb[45]
Tablet weight (metric)	810 g[45]
Keyboard weight (imperial)	0.81 lb
Keyboard weight (metric)	368 g
Weight of tablet and keyboard (imperial)	2.59 lb[43]
Weight of tablet and keyboard (metric)	1178 g[43]

Dimensions (W x D x H)

Dimensions tablet (imperial)	11.81 x 0.31 x 8.55 in
Dimensions tablet (metric)	30 x 0.79 x 21.73 cm
Dimensions tablet and keyboard (imperial)	11.81 x 0.52 x 9.11 in
Dimensions tablet and keyboard (metric)	30 x 1.33 x 23.15 cm

43. Weight will vary by configuration.

PORTS/SLOTS

Ports

2 USB 3.1 Type-C™ with Thunderbolt™ support
1 USB 3.1 Type-C™ power port (Power delivery, DisplayPort™)
1 Headphone/microphone combo
Nano Security Lock Slot (Lock sold separately)

Expansion Slots
1 Nano SIM

SERVICE AND SUPPORT

HP Services offers a 1-year limited warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/cpc.[44]

44. HP Care Packs are sold separately. Service levels and response times for HP Care Packs may vary depending on your geographic location. Service starts on date of hardware purchase. Restrictions and limitations apply. For details, visit http://www.hp.com/go/cpc. HP services are governed by the applicable HP terms and conditions of service provided or indicated to Customer at the time of purchase. Customer may have additional statutory rights according to applicable local laws, and such rights are not in any way affected by the HP terms and conditions of service or the HP Limited Warranty provided with your HP Product.

Technical Specifications

ENVIRONMENTAL & INDUSTRY

HP Elite x2 1013 G3 Tablet PC

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® 2019 Gold registered in the United States. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit http://www.epeat.net for more information.		
System Configuration	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a Typically Configured Notebook.		
Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	5.77 W	6.00 W	5.76 W
Normal Operation (Long idle)	2.05 W	2.06 W	2.02 W
Sleep	0.54 W	0.59 W	0.53 W
Off	0.26 W	0.30 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.		
Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	20 BTU/hr	21 BTU/hr	20 BTU/hr
Normal Operation (Long idle)	7 BTU/hr	7 BTU/hr	7 BTU/hr
Sleep	2 BTU/hr	2 BTU/hr	2 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.		

Technical Specifications

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	2.6	15
Fixed Disk – Random writes	3.3	21

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: 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 the1ppm 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 1680.1 (EPEAT) standard at the Gold level in the U.S. See http://www.epeat.net for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at http://www.hp.com/go/options • Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043. • This product contains 0% post-consumer recycled plastic (by wt.) • This product is 95.1% recycle-able when properly disposed of at end of life.

Packaging Materials	**External:**	PAPER/Corrugated	340 g
	Internal:	PLASTIC/Polyethylene Expanded - EPE	56 g
		PLASTIC/Polyethylene high density - HDPE	7 g
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 • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs)			

QuickSpecs

HP Elite x2 1013 G3

Technical Specifications

	• Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	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 • Lead and Lead compounds • Mercuric Oxide Batteries • Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user. • Ozone Depleting Substances • Polybrominated Biphenyls (PBBs) • Polybrominated Biphenyl Ethers (PBBEs) • Polybrominated Biphenyl Oxides (PBBOs) • Polychlorinated Biphenyl (PCB) • Polychlorinated Terphenyls (PCT) • Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications. • Radioactive Substances • Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
End-of-life Management and Recycling	HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications

2Eco-label certifications

Technical Specifications

	http://www8.hp.com/us/en/hp-information/environment/ecolabels.html
	ISO 14001 certificates:
	http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf
	and
	http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

DISPLAYS

13" diagonal 3kx2k IPS LED-backlit touch screen with Corning® Gorilla® Glass 4 Low Power Ultra Slim bent 450nit 72% CG (3000x2000)

Outline Dimensions (W x H)	279.3 * 193.0 mm (max.)
Active Area	274.5 * 183 mm (max.)
Weight	160g (max.)
Diagonal Size	13.0"
Thickness	1.8(panel side)/3.9(PCBA side) mm(max.)
Interface	eDP
Surface Treatment	Glare
Touch Enabled	No
Contrast Ratio	1800 (typ.)
Refresh Rate	60Hz
Brightness	450 nit typical (Panel Only)
Pixel Resolution	3000x2000
Format	RGB stripe
Backlight	LED
Color Gamut Coverage	72%
Color Depth	6 bits
Viewing Angle	85/85/85/85

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

Technical Specifications

33.02 cm (13") diagonal WUXGA+ IPS LED-backlit touch screen with Corning® Gorilla® Glass 4 and privacy screen, CWLED UWVA (1920x1280)

Outline Dimensions (W x H x D)	279.3 x 193.2 mm (max.)
Active Area	272.449 x 181.632 mm (max.)
Weight	220g (max.)
Diagonal Size	13.0"
Thickness	1.8 mm / 3.9 mm(max.)
Interface	eDP 1.4a
Touch Enabled	No
Contrast Ratio	Sharing mode, 600:1 (typ.) Privacy mode, 150:1 (typ.)
Refresh Rate	120Hz
Brightness	Sharing mode, 700 nits (typ.) Privacy mode, 320 nits (typ.)
Pixel Resolution	1920x1280
Format	RGB strip
Backlight	LED
Color Gamut Coverage	Sharing mode, 72% Privacy mode, 60%
Color Depth	6 bits + Hi FRC
Viewing Angle	Sharing mode, CR >10, L/R/U/D, 85/85/85/85 (typ.) Privacy mode CR>2, L/R/U/D, 50/50/85/85 (typ.)

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

Technical Specifications

STORAGE

SSD 128 GB 2280 M2 SATA-3 TLC

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

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

SSD 256 GB 2280 M2 PCIe-3x4 SS NVMe TLC

Form Factor	M.2 2280
Capacity	256 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	Up To 2600 MB/s
Maximum Sequential Write	Up To 900 MB/s
Logical Blocks	500,118,192
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications

SSD 256 GB 2280 M2 SATA-3 Self Encrypted OPAL2 Three Layer Cell

Form Factor	M.2 2280
Capacity	256 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	ATA-8, SATA 3.0
Maximum Sequential Read	Up To 530 MB/s
Maximum Sequential Write	Up To 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

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

SSD 256 GB 2280 PCIe NVMe Value

Form Factor	M.2 2280
Capacity	360 GB
NAND Type	MLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	Up To 1700 MB/s
Maximum Sequential Write	Up To 600 MB/s
Logical Blocks	703,282,608
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications

SSD 360 GB 2280 PCIe-3x4 NVMe Three Layer Cell

Form Factor	0.02 lb (10 g)
Capacity	360 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	Up To 1700 MB/s
Maximum Sequential Write	Up To 600 MB/s
Logical Blocks	703,282,608
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

SSD 512 GB 2280 M2 PCIe-3x4 SS NVMe TLC

Form Factor	0.02 lb (10 g)
Capacity	512 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	Up To 2600 MB/s
Maximum Sequential Write	Up To 1400 MB/s
Logical Blocks	1,000,215,216
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications

SSD 512 GB 2280 M2 SATA-3 Three Layer Cell Federal Information Processing Standard

Form Factor	M.2 2280
Capacity	512 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	ACS-3, SATA 3.2
Maximum Sequential Read	Up To 530 MB/s
Maximum Sequential Write	Up To 400 MB/s
Logical Blocks	1,000,215,216
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TCG Opal 2.0; FIPS, DIPM; TRIM; DEVSLP

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

SSD 512 GB 2280 PCIe-3x4 NVMe Self Encrypted OPAL2 Three Layer Cell

Form Factor	0.02 lb (10 g)
Capacity	512 GB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	Up To 2900 MB/s
Maximum Sequential Write	Up To 1400 MB/s
Logical Blocks	1,000,215,215
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TCG Opal2, TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications

SSD 1 TB 2280 PCIe-3x4 NVMe Three Layer Cell single-sided

Form Factor	0.02 lb (10 g)
Capacity	1 TB
NAND Type	TLC
Height	0.09 in (2.3 mm)
Width	0.87 in (22 mm)
Weight	0.02 lb (10 g)
Interface	PCIe NVMe Gen3X4
Maximum Sequential Read	2900
Maximum Sequential Write	2000
Logical Blocks	2000409263
Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
Features	TRIM; L1.2

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications

NETWORKING/COMMUNICATIONS

Intel 802.11a/b/g/n/ac (2x2) WiFi 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 802.11a/n • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz
	Data Rates	• 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	• 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	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
	Roaming	IEEE 802.11 compliant roaming between access points
	Output Power	• 802.11b : +14dBm minimum • 802.11g : +12dBm minimum • 802.11a : +12dBm minimum • 802.11n HT20(2.4GHz) : +12dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +10dBm minimum • 802.11n HT40(5GHz) : +10dBm minimum • 802.11ac VHT80(5GHz) : +10dBm minimum
	Power Consumption	• Transmit mode 2.0 W • Receive mode 1.6 W • Idle mode (PSP) 180 mW (WLAN Associated) • Idle mode 50 mW (WLAN unassociated)

Technical Specifications

	• Connected Standby 10mW • Radio disabled 8 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications
Form Factor	PCI-Express M.2 MiniCard
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
Weight	Type 2230 : 2.8g
Operating Voltage	3.3v +/- 9%
Temperature	Operating: 14° to 158° F (−10° to 70° C) Non-operating: −40° to 176° F (−40° to 80° C)
Humidity	Operating: 10% to 90% (non-condensing) Non-operating: 5% to 95% (non-condensing)
Altitude	Operating: 0 to 10,000 ft (3,048 m) Non-operating: 0 to 50,000 ft (15,240 m)
LED Activity	LED Amber − Radio OFF; LED White − Radio ON
Subtitle	HP 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.
Power Consumption	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW
Electrical Interface	USB 2.0 compliant

Technical Specifications

Bluetooth Software Supported **Link Topology**	Microsoft Windows Bluetooth Software
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Power Management Certifications	ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark
Bluetooth Profiles Supported	BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP)

QuickSpecs

Technical Specifications

HP lt4132 LTE/HSPA+ 4G Mobile Broadband Module	**Technology/Operating bands**	LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3) MHz, 850 (Band 5), 2600 (Band 7), 900 (Band 8) MHz, 800 (Band 20), 700 (Band 28) MHz. HSPA+: 2100 (Band 1), 1900 (Band 2), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 (Band 5), 900 (Band 8) MHz
	Wireless protocol standards	3GPP Release 10 LTE Specification CAT.4, 20MHz BW WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification E-GPRS: Class B, Multi-slot class 12, coding schemes CS1 - CS4 and MSC1 - MSC9
	GPS	Standalone, A-GPS (MS-B and LTO)
	GPS bands	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz
	Maximum data rates	LTE: 150 Mbps (Download), 50 Mbps (Upload) DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload) EDGE: 236.8 kbps (Download), 236.8 kbps (Upload) GPRS: 85.6 kbps(Download), 85.6 kbps (Upload)
	Maximum output power	LTE: 23 dBm HSPA+: 23.5 dBm E-GPRS 1900/1800: 26 dBm E-GPRS 900/850: 27 dBm GPRS 1900/1800: 29.5 dBm GPRS 900/850: 32.5 dBm
	Maximum power consumption	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average) E-GPRS: 2,600 mA (peak); 500 mA (average)
	Form Factor	M.2, 3042-S3 Key B
	Weight	6 g
	Dimensions (Length x Width x Thickness)	42 x 30 x 2.3 mm

NOTE: Wireless access point and Internet service is required. Availability of public wireless access point is limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices

Technical Specifications

Qualcomm® Snapdragon™ X12 LTE- Advanced	**Technology/Operating bands**	FDD LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 17 lower), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1400 (Band 21), 850 (Band 26), 700 (Band 28), 700 (Band 29 RX only), 2300 (Band 30), 1700/2100 (Band 66). TDD LTE: 2600 (Band 38), 1900 (Band 39), 2400 (Band 40), 2500 (Band 41). HSPA+: 2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8) MHz
	Wireless protocol standards	3GPP Release 11 LTE Specification CAT.9, DL 60MHz BW throughput up to 450Mbps; UL 20MHz throughput up to 50Mbps WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification
	GPS	Standalone, A-GPS (MS-A, MS-B and XTRA)
	GPS bands	1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz, Beidou 1561.098 MHz
	Maximum data rates	LTE: 450 Mbps (Download), 50 Mbps (Upload) DC–HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload)
	Maximum output power	LTE: 23 dBm HSPA+: 23.5 dBm
	Maximum power consumption	LTE: 1,200 mA (peak); 900 mA (average) HSPA+: 1,100 mA (peak); 800 mA (average)
	Form Factor	M.2, 3042-S3 Key B
	Weight	6 g
	Dimensions (Length x Width x Thickness)	42 x 30 x 2.3 mm

NOTE: 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 Graff GNSS Module	**Technology**	Standalone GPS, GLONASS
	Dimensions (L x W x H)	42 x 30 x 2.3 mm
	System interface	USB 2.0
	GPS bands	GPS L1 1575.42 MHz ± 1.023 MHz, GLONASS 1596–1607MHz
	Power Consumption	Active mode (continuous): 67 mA (peak); 26 mA (average)
	Form Factor	M.2, 3042-S3 Key B
	Weight	4.3g

Technical Specifications

POWER

AC Adapter 65 Watt nPFC Slim USB	Dimensions	88.0x53.5x21.0mm	
	Weight	220g +/- 10g	
	Input	100 to 240 VAC	
		Input Efficiency	Average Efficiency of 25%, 50%, 75%, 100% load condition with 115Vac/230Vac Spec: 5V : 81.5% 9V : 86.7% 12V : 88.0% 15V : 89.0% 20V : 89.0%
		Input frequency range	48 ~ 63 Hz
		Input AC current	Max. 1.7 A at 90 VAC
	Output	DC output	5V/15W 9V/27W 10V/50W 12V/60W 15V/65W 20V/65W
		Hold-up time	5V / 9V / 10V /12V / 15V / 20V
		Output current limit	5ms at 115 Vac input
	Connector	<8.0A	
	Environmental Design	Operating temperature	32°F to 95°F (0°to 35°C)
		Non-operating (storage) temperature	-4°F to 185°F (-20°to 85°C)
		Altitude	0 to 16,400 ft (0 to 5000m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C–UL–US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM–1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	

Technical Specifications

Battery ME 4 Cell WHr 50 Long Life -PL Fast Charge

Dimensions	4.0 x 96.62 x231.8 mm (0.157 x3.804 x9.126 inch)
Weight	0.188kg (0.415 lb)
Cells/Type	4cell Lithium-Ion Polymer cell / 385784
Energy	ED750 platform
Voltage	8.8V/7.7V
Watt-hour capacity	47.5Wh(min.)/50Wh(typ.)
Operating (charging)	32˚ to 113˚ F (0˚ to 45˚ C)
Operating (Discharging)	14˚ to 122˚ F (-10˚ to 60˚ C)
Operating (Discharging)	14˚ to 122˚ F (-10˚ to 60˚ C)
Fuel Gauge LED	NA
Optional Travel Battery Available	No

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

Type	Description	Part #
Cases	HP Business Slim Top Load	2SC66AA
	HP Elite Top Load Colombian Leather Case	T9H72AA
	HP Elite Top Load Herringbone Nylon Case	T9H73AA
	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
Docking	HP Thunderbolt Dock 120W G2	2UK37AA#xxx
	HP TB Dock G2 w/ Combo Cable	3TR87AA#xxx
	HP TB Dock 120W G2 w/ Audio	3YE87AA#xxx
	HP Thunderbolt Dock Audio Module	3AQ21AA
	HP TB Dock 120W G2 cable	3XB94AA
	HP TB Dock G2 combo cable	3XB96AA
	HP USB-C Universal Dock	1MK33AA#xxx
	HP USB-C Universal Dock NF	3DV65AA#xxx
	HP USB-C Dock G4	3FF69AA#xxx
	HP USB-C Mini Dock	1PM64AA#xxx
Input/Output	HP Elite x2 1013 G3 Collaboration Keyboard	4KY69AA
	HP Essential USB Mouse	2TX37AA#xxx
	HP Slim Bluetooth Mouse	F3J92AA#xxx
	HP Elite presenter mouse	2CE30AA#xxx
	HP Stereo 3.5mm Headset	T1A66AA
	HP Rechargeable Active Pen	4KL69AA
	HP USB-C to VGA Adapter	N9K76AA
	HP USB-C to HDMI 2.0 Adapter	X7W54AA
	HP USB-C to DisplayPort Adapter	N9K78AA
	HP USB-C to USB 3.0	N2Z63AA
	HP USB-C to RJ45 Adapter	V8Y76AA
	HP USB-C to 4.5mm + 3.0mm Combo DC Jack	N2Z65AA
Power	HP 45W USB-C Auto Adapter	Z3Q87AA
	HP 45W USB-C AC Adapter	1HE07AA#xxx
	HP USB-C Notebook Power Bank	1TZ86AA
	HP 65W USB-C AC Adapter	1HE08AA#xxx
Security	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP Nano Keyed Dual Head Cable Lock	1AJ41AA
Displays	HP EliteDisplay S340c 34-inch Curved Monitor	V4G46AA
	HP S270n 27-inch 4K Monitor	2PD37AA

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

HP EliteDisplay E273m Collaboration Monitor	1FH51AA
HP EliteDisplay E243 Monitor	1FH47AA

Summary of Changes

Date of change:	Version History:		Description of change:
June 28, 2018	V1 to V2	Added	Environmental tab
July 13, 2018	V2 to V3	Updated	Processors
August 21, 2018	V3 to V4	Updated	At a glance, callouts section Software Workwise and Velocity, Power supply, Cases, WWAN sections
September 6, 2018	V4 to V5	Updated	At a glance, WWAN sections
September 26, 2018	V5 to V6	Removed	Dock HP USB-C Travel Hub
December 18, 2018	V6 to V7	Removed	Flash from camera section
February 13, 2019	V7 to V8	Removed	Phonewise Software
March 7, 2019	V8 to V9	Updated	Dimensions
May 30, 2019	V9 to V10	Updated	Lock Slot
June 5, 2019	V10 to V11	Updated	Accessories section
June 7, 2019	V11 to V12	Updated	EPEAT