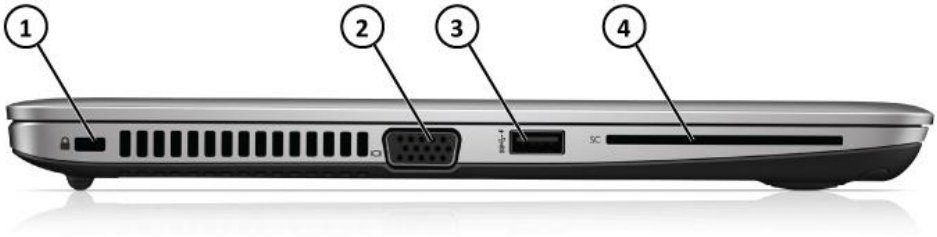
Overview

HP EliteBook 725 G4 Notebook PC

Front right

1. WLAN antennas (2)
2. WWAN antennas (2)
3. Internal microphone (2)
4. Webcam LED (select models)
5. Webcam (select models)
6. SIM card slot
7. Power connector
8. Docking connector
9. Ethernet port
10. USB 3.1 GEN 1 port
11. Microphone/ headphones combo jack
12. Display Port™ 1.2
13. USB-C™ Basic port
14. USB-C™ port
15. Fingerprint reader (select models)
16. Touchpad buttons (4)
17. Indicator LEDs: Wireless Light, Power Light, AC Adapter/Batte Storage Usage Light
18. NFC (select models)
19. Pointstick
20 Power button

Overview



Left

1. Security lock slot
2. VGA port
3. USB 3.1 GEN 1 Charging port
4. Smart Card Reader

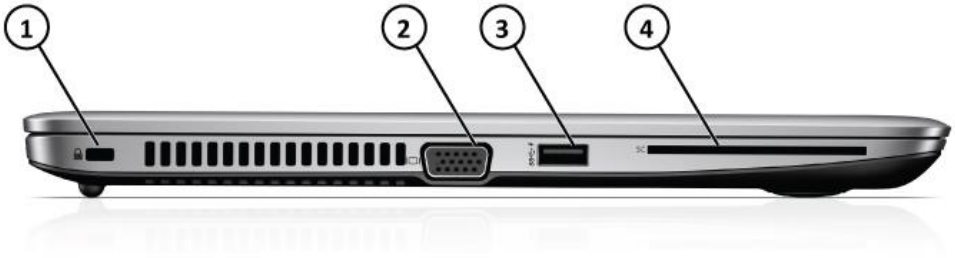
Overview

HP EliteBook 745 G4 Notebook PC

Front right

1. WLAN antennas (2)
2. WWAN antennas (2) (select models)
3. Internal microphones (2)
4. Webcam LED (select models)
5. Webcam (select models)
6. Wireless on/off button
7. Speaker mute button
8. SIM card slot
9. Power connector
10. Docking connector
11. Ethernet port
12. USB 3.1 GEN 1 port
13. SD card slot
14. Microphone/ headphones combo jack
15. Display Port™ 1.2
16. USB-C™ Basic port
17. Fingerprint reader (select models)
18. Touchpad
19. Touchpad buttons (4)
20. Indicator LEDs: Wireless Light, Power Light, AC Adapter/Battery Light, Storage Usage Light
21. NFC (select models)
22. Pointstick
23. Power button

Overview



Left

1. Security lock slot
2. VGA port
3. USB 3.1 GEN 1 Charging port
4. Smart Card Reader

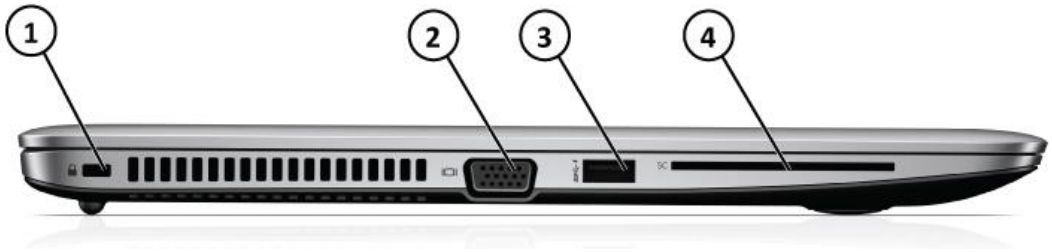
Overview

HP EliteBook 755 G4 Notebook PC

Front right

1. WLAN antennas (2)
2. WWAN antennas (2) (select models)
3. Internal microphones (2)
4. Webcam LED (select models)
5. Webcam (select models)
6. Wireless on/off button
7. Speaker mute button
8. SIM card slot
9. Power connector
10. Docking connector
11. Ethernet port
12. USB 3.1 GEN 1 port
13. SD card slot
14. Microphone/ headphones combo jack
15. Display Port™ 1.2
16. USB-C Basic port™
17. Fingerprint reader (select models)
18. Touchpad
19. Touchpad buttons (4)
20. Indicator LEDs: Wireless Light, Power Light, AC Adapter/Battery Light, Storage Usage Light
21. NFC (select models)
22. Pointstick
23. Power button
24. 10-key Numeric Keypad

Overview



Left

1. Security lock slot
2. VGA port
3. USB 3.1 GEN 1 Charging port
4. Smart Card Reader

Overview

AT A GLANCE

- Stylish, lightweight magnesium and aluminum chassis
- No dongles are needed with built-in VGA, drop-jaw RJ-45 Ethernet port, 2 USB 3.1 GEN 1 , 1 USB Type-C™ Basic,and 1 DisplayPort™ 1.2 for high resolution support
- Design allows memory, storage, wireless modules, and battery to be customer serviceable and upgradeable
- Accelerated Processing Unit and graphics from AMD
- Optimize your audio experience for remote collaboration with optional HD webcam, dual-microphone array, premium speakers, and Audio by Bang & Olufsen
- Featuring HP Premium Keyboard with Pointstick and 10-key numeric keypad available on HP EliteBook 755
- Passed MIL-SPEC 810G testing, plus an additional 120,000 hours of reliability testing through HP's Total Test Process[1]
- Optional back-lit keyboard keeps you productive in all settings with HP DuraKeys to protect keys from fading
- Enhanced security features including TPM 2.0, SmartCard Reader, Self-Encrypting storage drives, and optional Fingerprint reader
- LED-backlit displays:
  - HP EliteBook 725: 31.75 cm (12.5") diagonal Non-Touch
  - HP EliteBook 745: 35.6 cm (14") diagonal Touch and Non-Touch
  - HP EliteBook 755: 39.6 cm (15.6") diagonal Touch and Non-Touch
- Experience new vibrant color provided by AMD Vivid Color Technology
- Regain up to 50% battery life in just 30 minutes of charging with an HP fast charging battery.
- HP WorkWise is office intelligence rolled into one smartphone app to provide PC security, real-time PC performance information, and simplified printer driver installation for HP PC users.
- Flexible wireless connectivity options including mobile broadband
- Easily dock with the HP UltraSlim Docking Station
- Choice of hard drives up to 1 TB and solid state drives up to 512 GB
- Memory up to 16 GB
- Preinstall Windows 10, or FreeDOS 2.0
- DDR4 memory up to 16 GB

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

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

Features

PRODUCT NAMES

HP EliteBook 725 G4 Notebook PC
HP EliteBook 745 G4 Notebook PC
HP EliteBook 755 G4 Notebook PC

OPERATING SYSTEM

Preinstalled

Windows 10 Pro 64[1]
Windows 10 Home 64[1]
Windows 10 Home Single Language 64[1]
Windows 10 Pro (National Academic only) [1]
Windows 7 Professional 64 (available through downgrade rights from Windows 10 Pro)[2]
Windows 7 Professional 64 (available through downgrade rights from Windows 10 Pro 64)
National Academic only[2]
FreeDOS 2.0

Web supported

Windows 10 Enterprise 64[1]
Windows 7 Enterprise 64[1,3]
Windows 7 Professional 64[1]

NOTE: Your product does not support Windows 8 or Windows 7
In accordance with Microsoft's support policy, HP does not support the Windows® 8 or Windows 7 operating system on products configured with Intel 7th generation and forward processors or provide any Windows® 8 or Windows 7 drivers on http://www.support.hp.com.

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

2. This system is preinstalled with Windows 7 Pro software and also comes with a license and media for Windows 10 Pro software. You may only use one version of the Windows software at a time. Switching between versions will require you to uninstall one version and install the other version. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

ACCELERATED PROCESSING UNIT

HP EliteBook 725

AMD PRO A8 -9600B (1.6 GHz, up to 3.0 GHz, 2 MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A10-8730B (1.8 GHz, up to 3.2 GHz, 2 MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A12-8830B (2.1 GHz, up to 3.4 GHz, 2 MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]
AMD PRO A12-9800B (2.1 GHz, up to 3.4 GHz, 2 MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]

HP EliteBook 745

AMD PRO A8 -9600B (1.6 GHz, up to 3.0 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A10-8730B (1.8 GHz, up to 3.2 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A12-8830B (2.1 GHz, up to 3.4 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]
AMD PRO A12-9800B (2.1 GHz, up to 3.4 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]

Features

HP EliteBook 755
AMD PRO A8 -9600B (1.6 GHz, up to 3.0 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A10-8730B (1.8 GHz, up to 3.2 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R5 Graphics[1]
AMD PRO A12-8830B (2.1 GHz, up to 3.4 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]
AMD PRO A12-9800B (2.1 GHz, up to 3.4 GHz, 2MB Cache, 4 Cores) with AMD Radeon™ R7 Graphics[1]

1. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. AMD's numbering is not a measurement of clock speed.
NOTE: Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

GRAPHICS

Integrated Graphics
AMD PRO A8 -9600B with AMD Radeon™ R5 Graphics
AMD PRO A10-8730B with AMD Radeon™ R5 Graphics
AMD PRO A12-8830B with AMD Radeon™ R7 Graphics
AMD PRO A12-9800B with AMD Radeon™ R7 Graphics

AMD UMA Graphics - with shared video memory
Support dual-display ports through optional docking station[1]

1. Sold separately or as an optional feature.

DISPLAY

HP EliteBook 725
Internal
Non-Touch
31.75 cm (12.5") diagonal LED backlight HD SVA Anti-glare (1366 x 768) [1]
31.75 cm (12.5") diagonal LED backlight HD SVA Anti-glare (1366 x 768) with camera[1]
31.75 cm (12.5") diagonal LED backlight FHD UWVA Anti-glare (1920 x 1080)[1]
31.75 cm (12.5") diagonal LED backlight FHD UWVA Anti-glare (1920 x 1080) with camera[1]
Touch
31.75 cm (12.5") diagonal LED backlight FHD UWVA Touch (1920 x 1080)[1]

HP EliteBook 745
Internal
Non-Touch
35.6 cm (14") diagonal LED backlight HD SVA Anti-glare (1366 x 768)[1]
35.6 cm (14") diagonal LED backlight HD SVA Anti-glare (1366 x 768) with camera[1]
35.6 cm (14") diagonal LED backlight FHD SVA Anti-glare (1920 x 1080) [1]
35.6 cm (14") diagonal LED backlight FHD SVA Anti-glare (1920 x 1080) with camera[1]
35.6 cm (14") diagonal LED backlight QHD UWVA Anti-glare (2560 x 1440)[1]
35.6 cm (14") diagonal LED backlight QHD UWVA Anti-glare (2560 x 1440) camera[1]

Features

Touch
35.6 cm (14") diagonal LED backlight FHD SVA with camera, Corning® Gorilla® Glass 4 Touch (1920 x 1080)[1]

HP EliteBook 755
Internal
Non-Touch
39.6 cm (15.6") diagonal LED backlight HD SVA Anti-glare (1366 x 768) [1]
39.6 cm (15.6") diagonal LED backlight HD SVA Anti-glare (1366 x 768) with Camera[1]
39.6 cm (15.6") diagonal LED backlight FHD SVA Anti-glare (1920 x 1080) [1]
39.6 cm (15.6") diagonal LED backlight FHD SVA Anti-glare (1920 x 1080) with Camera[1]
Touch
39.6 cm (15.6") diagonal LED backlight FHD SVA with camera, Corning® Gorilla® Glass 4 Touch (1920 x 1080)[1]

External
Up to 32-bit per pixel color depth

VGA
Port supports resolutions up to 1900 x 1200 external resolution @60 Hz

DisplayPort
Supports resolutions up to 4096 x 2160 @ 60Hz
NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

Number of Displays supported with Docking
Supports 3 independent displays if used with optional HP Ultraslim Docking Station.[2]

1. HD content required to view HD images.
2. Sold separately or as an optional feature.

STORAGE AND DRIVES

Primary Storage
SATA, 2.5" Hard Drives[1]
500 GB 7200 rpm Hard Drive
500 GB 7200 rpm SED Hard Drive (Opal 2)
500 GB 7200 rpm SED Hard Drive (FIPS-140-2)
1 TB 5400 rpm

M.2 (NGFF) 2280 Solid State Drives
128 GB SATA-3 SS Value Solid State Drive
256 GB PCIe NVMe TLC Solid State Drive
256 GB SATA-3 SED MLC Solid State Drive (Opal 2)
512 GB PCIe NVMe TLC Solid State Drive
512 GB PCIe NVMe M Solid State Drive

HP 3D DriveGuard (Windows and Hard Drives only)
The hard drive is mounted directly to the notebook frame, reducing the transmission of shock to the hard drive

Features

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

MEMORY

Standard
DDR4 PC4 – 1866 (Transfer rates up to 1866 MT/s)
Two SODIMM slots supporting dual-channel memory
Both slots are customer accessible / upgradeable

Supports the following configurations
4096 MB Total System Memory (4096 MB x 1)
8192 MB Total System Memory (4096 MB x 2)
8192 MB Total System Memory (8192 MB x 1)
16384 MB Total System Memory (8192 MB x 2)

Maximum
Up to 16 GB

Dual-channel
Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory slots.

NOTE: Improved system performance when memory is added in pairs (dual channel).
Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed.

NETWORKING/COMMUNICATIONS

Broadband Wireless (WWAN)
HP lt4120 Qualcomm® Snapdragon™ X5 LTE Mobile Broadband Module [1,2]
HP lt4132 LTE/HSPA+ 4G Mobile Broadband Module[1,2]
HP hs3210 WW HSP with GPS Mobile Broadband[1,2]

Wireless LAN (WLAN) Via MiniCard
Realtek RTL8723BE-VB 802.11 b/g/n (1x1) Wi-Fi + Bluetooth® 4.0 Combo[3]
Intel® Dual Band AC 3168 802.11 a/b/g/n/ac (1x1) Wi-Fi + Bluetooth® 4.2 Combo[3]
Intel® Dual Band AC 7265 802.11 a/b/g/n/ac (2x2) Wi-Fi + Bluetooth® 4.2 Combo[3](non-vPro™)

Near Field Communication (NFC)[1]
HP Module with NXP NFC Controller NPC100

1. Sold separately or as an optional feature.
2. WWAN module is optional, 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.
3. Wireless access point and Internet service is required and is not included.
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.

Communications
Broadcom 5762 10/100/1000 Ethernet NIC with DASH Support

NOTE: The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

Support for Miracast
Support for HP Sure Connect

AUDIO/MULTIMEDIA

Audio
Audio by Bang & Olufsen
Digital Microphones (Dual Array)
2 Premium Stereo Speakers

Webcam[1]
Optional[2] 720p webcam

1. Internet access required.
2. Sold separately or as an optional feature.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

HP Premium Keyboard
Spill-resistant with drain using a thin layer of Mylar film under the keyboard
DuraKeys & Backlit
Dual Point

Pointing Devices
Glass Touchpad
On/Off button
Taps enabled as default
Gestures enabled by default - 2 Finger Scrolling, 2 Finger Zoom (Pinch)

Buttons and Function Keys
HP EliteBook 725
Function Keys
F1 - Sleep
F2 - Blank
F3 - Backlit Toggle
F4 - Display Switching
F5 - Brightness Down
F6 - Brightness Up
F7 - Audio Mute
F8 - Volume Down

Features

F9 - Volume Up
F10 - Mic Mute
F11 - Wireless
F12 - numlk

Hidden Function Keys
Fn+R - Break
Fn+S - Sys Rq
Fn+C - Scroll Lock

HP EliteBook 745
Function Keys
F1 - Sleep
F2 - Blank
F3 - Backlit Toggle
F4 - Display Switching
F5 - Brightness Down
F6 - Brightness Up
F7 - Blank
F8 - Volume Down
F9 - Volume Up
F10 - Mic Mute
F11 - Blank
F12 – numlk

Hidden Function Keys
Fn+R - Break
Fn+S - Sys Rq
Fn+C - Scroll Lock
Fn+Up – PG UP
Fn+Down – PG Down
Fn+Left - Home
Fn+ Right - End

HP EliteBook 755
Function Keys
F1 - Sleep
F2 - Blank
F3 - Backlit Toggle
F4 - Display Switching
F5 - Brightness Down
F6 - Brightness Up
F7 - Blank
F8 - Volume Down
F9 - Volume Up
F10 - Mic Mute
F11 - Blank
F12 - Blank

Hidden Function Keys

Features

Fn+R - Break
Fn+S - Sys Rq
Fn+C - Scroll Lock

SOFTWARE AND SECURITY

BIOS

HP BIOSphere[1]
HP Sure Start with Runtime Intrusion Detection[2]
HP DriveLock | HP Automatic DriveLock
BIOS Update via Network
Master Boot Record Security
Power On Authentication
Secure Erase[3]
Absolute Persistence Module[4]
Pre-boot Authentication

Communication / Connectivity

HP Mobile Connect Pro (Windows 10 only)[5]
Native Miracast Support[6]
HP LAN-WLAN Protection
HP MAC Address Manager

HP Value Add Software

HP 3D DriveGuard (Requires Windows)
HP ePrint Driver + JetAdvantage[7]
HP Hotkey Support - CMIT
HP Recovery Manager
HP Jumpstart
HP Support Assistant
HP Noise Cancellation Software

Microsoft Products

Buy Office
Bing Search
Skype[8]

Manageability

HP Driver Packs[9]
HP SoftPaq Download Manager (SDM)
HP System Software Manager (SSM)[9]

Features

HP BIOS Config Utility (BCU)[9]
HP Client Catalog[9]
HP Management Integration Kit for Microsoft SCCM[9]
HP WorkWise
LANDESK Management[10]

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

Client Security Software

HP Client Security Suite Gen3

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

Microsoft Defender (Windows 10 only)

Security

Trusted Platform Module (TPM) 1.2 (Infineon SLB9670). Common Criteria EAL4+ Certified.
Upgradable to TPM 2.0. Convertible to FIPS 140-2 Certified mode. (TPM 2.0 is not available for Win 7 32-bit.)[11]
HP Fingerprint Reader (On select models)
Integrated Smart Card Reader
Security lock slot (Lock sold separately)
For more information on HP Client Security Software Suite, refer to http://www.hp.com/go/clientsecurity.

1. Available only on business PCs with HP BIOS.
2. Available on HP EliteBook products equipped with AMD® 7th generation processors.
3. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88.
4. 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.
5. HP Mobile Connect Pro is only available on preconfigured devices with WWAN. For geographic availability refer to www.hp.com/go/mobileconnect

Features

6. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast
7. Requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see www.hp.com/go/eprintcenter). Requires optional broadband module. Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.
8. Skype is not offered in China.
9. Not preinstalled, however available for download at http://www.hp.com/go/clientmanagement
10. Subscription required.
11. This product ships with TPM 1.2 with option to upgrade to TPM 2.0. Upgrade utility is available via HP Customer Support

POWER

Power Supply[1]
HP 45W Smart AC Adapter
HP 45W 2-prong DC jack AC Adapter
HP 65W Smart AC Adapter (Supports HP Fast Charging)
HP 65W Smart AC Adapter EM (Supports HP Fast Charging)

1. Availability may vary by country.

Power cord is configurable; either 3.2 feet or 6 feet (1.0 or 1.8 meter)
Total length including external AC adapter is 9.2 feet or 12 feet (2.86 or 3.66 meter)

Primary Battery
HP EliteBook 725
HP 3-cell Long Life Li-Ion (44 WHr)
HP 3-cell Long Life Li-Ion (49 WHr) (Supports HP Fast Charging)

HP EliteBook 745 and 755
HP 3-cell Long Life Li-Ion (46 WHr)
HP 3-cell Long Life Li-Ion (51 WHr) (Supports HP Fast Charging)

Battery Life[1]

Platform	Other HW Details	Battery	Battery life
HP EliteBook 725 G4	HDD	3-cell (49WHr)	Up to 8 hrs 15 mins
HP EliteBook 725 G4	SSD	3-cell (49WHr)	Up to 9 hrs 45 mins
HP EliteBook 745 G4	HDD	3-cell (51WHr)	Up to 9 hrs 15 mins
HP EliteBook 745 G4	SSD	3-cell (51WHr)	Up to 11 hrs 00 mins
HP EliteBook 755 G4	HDD	3-cell (51WHr)	Up to 9 hrs 00 mins

Features

HP EliteBook 755 G4	SSD	3-cell (51WHr)	Up to 10 hrs 30 mins

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

System Standby Time[2]
TBD

Power Conservation
Hibernation
Standby
ACPI compliance

WEIGHTS & DIMENSIONS

HP EliteBook 725 G4
Weight[1]
Non-Touch
Starting at 2.78 lbs (1.26 kg)
(3-cell battery (49WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Panel)

Touch
Starting at 3.05 lbs (1.38 kg)
(3-cell battery (49WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Touch)

Dimensions[2] (w x d x h)
Non-Touch
12.2 x 8.6 x 0.74 in
31 x 21.89 x 1.89 cm

1.
2.

Touch
12.2 x 8.6 x 0.80 in
31 x 21.89 x 2.02 cm

HP EliteBook 745 G4 Notebook PC
Weight[1]
Non-Touch
Starting at 3.27 lbs (1.48 kg)
(3-cell battery (51WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, QHD screen)
Touch
Starting at 3.75 lbs (1.70 kg)
(3-cell battery (51WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Touch screen)

Features

Dimensions[2] (w x d x h)
Non-Touch
13.3 x 9.3 x 0.74 in
33.8 x 23.7 x 1.89 cm
Touch
13.3 x 9.3 x 0.80 in
33.8 x 23.7 x 2.02 cm

HP EliteBook 755 G4 Notebook PC
Weight[1]
Non-Touch
Starting at 4.06 lbs (1.84 kg)
(3-cell battery (51WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Panel)
Touch
Starting at 4.54 lbs (2.06 kg)
(3-cell battery (51WHr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Touch)

Dimensions[2] (w x d x h)
Non-Touch
15.1 x 10.10 x 0.76 in
38.36 x 25.77 x 1.94 cm
Touch
15.1 x 10.10 x 0.82 in
38.36 x 25.77 x 2.08 cm

1. Weight varies by configuration and components.
2. Height varies depending upon where on the notebook the measurement is made.

PORTS/SLOTS

Ports
1 USB 3.1 GEN 1 Charging Port
1 USB 3.1 GEN 1 Port
1 USB Basic Type-C™ Basic Port (Up to 5 Gbps data transfer and 15W power)
1 Display Port™
1 RJ-45 / Ethernet
1 Docking connector
1 Headphone/Microphone Combo
1 AC Port

NOTE: Cables are not included.

Slots
External Micro SIM Slot(3FF)
15 x 12 mm
SD Media Reader Slot Supports SD, SDHC, SDXC

SERVICE AND SUPPORT

HP Services offers 3-year and 1-year limited warranties and 90 day software support depending on country. Batteries have a default one year limited warranty. 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.

1. Sold separately or as an optional feature.
2. 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. 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. 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.

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	**Nominal Operating Voltage**	19.5 V
	Average Operating Power	**Windows 10 (64-bit)**
	Integrated graphics	12.9 W
	Max Operating Power	Discrete < 90W UMA < 65W
Temperature	**Operating**	32° to 95° F (0° to 35° C) (not writing optical)
		41° to 95° F (5° to 35° C) (writing optical)
	Non-operating	-4° to 140° F (-20° to 60° C)
Relative Humidity		10% to 90%, non-condensing
		5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
Shock	**Operating**	40 G, 2 ms, half-sine
	Non-operating	200 G, 2 ms, half-sine
Random Vibration	**Operating**	0.75 grms
	Non-operating	1.50 grms
Altitude (unpressurized)	**Operating**	-50 to 10,000 ft (-15.24 to 3,048 m)
	Non-operating	-50 to 15,000 ft (-15.24 to 12,192 m)
Planned Industry Standard	**UL**	Yes
Certifications	**CSA**	Yes
	FCC Compliance	Yes
	ENERGY STAR®	Select models*
	EPEAT®	Registered Gold in United States**
	ICES	Yes

Australia / NZ RCM Compliance	Yes
CCC	Yes
Japan VCCI Compliance	Yes
KC	Yes
BSMI	Yes
CE Marking Compliance	Yes
CIT	Yes
EAC	Yes
Saudi Arabian Compliance (SASO)	Yes
SABS	Yes
UKRSERTCOMPUTER	Yes

* Configurations of the HP EliteBook 725, 745 and 755 G4 that are ENERGY STAR qualified are identified as HP EliteBook 725 G4, HP EliteBook 745 G4 or HP EliteBook 755 G4 ENERGY STAR on HP websites and on www.energystar.gov.
** EPEAT registration varies by country. See www.epeat.net for registration status by country.
EPEAT status listed above applies to U.S. For accessibility information on HP products, please visit: http://www.hp.com/accessibility.

Displays

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

31.75 cm (12.5”) diagonal LED backlight HD Slim eDP SVA Anti-glare non-touch (1366 x 768)	**Outline Dimensions** (W x H x D)	291.0 x 181.9 X 3.0 mm (max)
	Active Area	276.62 mm x 155.52 mm
	Weight	250g max
	Diagonal Size	31.75 cm (12.5”)
	Surface Treatment	AG
	Contrast Ratio	300:1 (typ)
	Refresh Rate	60Hz
	Response time	16ms typ.

	Pixel Per Inch (PPI)	125	
	Brightness	220nits	
	Pixel Resolution	**Format**	1366 x 768 (HD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	
31.75 cm (12.5") diagonal LED backlight FHD UltraSlim eDP UWVA Anti-glare non-touch (1920 x 1080)	**Outline Dimensions** (W x H x D)	282.7 x 179.82 x 2.3 (mm) max	
	Active Area	276.48 x 155.52 mm	
	Weight	170g max	
	Diagonal Size	31.75 cm (12.5")	
	Surface Treatment	AG	
	Contrast Ratio	600:1 (typ)	
	Refresh Rate	60Hz	
	Response time	25ms typ.	
	Pixel Per Inch (PPI)	176	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.3 + PSR	
	LCD Mode	IPS/FFS/VA	
	Viewing Angle	UWVA 85/85/85/85	
31.75 cm (12.5") diagonal LED backlight FHD UltraSlim eDP UWVA (1920 x 1080) Touch	**Outline Dimensions** (W x H x D)	282.7 x 179.82 x 2.3 (mm) max	
	Active Area	276.48 x 155.52 mm	
	Weight	170g max	
	Diagonal Size	31.75 cm (12.5")	
	Touch Enabled	Yes	
	TSP Type	Capacitive	
	Surface Treatment	Anti-smudge/fingerprint coating	
	Contrast Ratio	600:1 (typ)	
	Refresh Rate	60Hz	
	Response time	25ms typ.	
	Pixel Per Inch (PPI)	176	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.3 + PSR	

	LCD Mode	IPS/FFS/VA	
	Viewing Angle	UWVA 85/85/85/85	
35.56 cm (14”) diagonal LED backlight HD Slim eDP SVA Anti-glare non-touch (1366 x 768)	**Outline Dimensions** (W x H x D)	320.9 x 205.6 (max) x 3.0mm max	
	Active Area	309.4 x 173.95 (mm)	
	Weight	290 g max	
	Diagonal Size	35.56 cm (14”)	
	Surface Treatment	Anti-Glare (AG)	
	Contrast Ratio	300:1 (typ)	
	Refresh Rate	60Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	112	
	Brightness	220nits	
	Pixel Resolution	**Format**	1366 x 768 (HD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	
35.56 cm (14”) diagonal LED backlight FHD Slim eDP SVA Anti-glare non-touch (1920 x 1080)	**Outline Dimensions** (W x H x D)	320.9 x 205.6 (max) x 3.0(max) mm	
	Active Area	309.40 x 173.95 (mm)	
	Weight	270 g max	
	Diagonal Size	14”	
	Surface Treatment	Anti-Glare (AG)	
	Contrast Ratio	300:1 (typ)	
	Refresh Rate	60Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	157	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	
	Outline Dimensions (W x H x D)	320.9 x 205.6 (mm) max x 2.6 (mm) max	

Technical Specifications

35.56 cm (14") diagonal LED backlight QHD UltraSlim eDP UWVA Anti-glare non-touch (2560 x 1440)	**Active Area**	309.50 x 174.10 (mm)	
	Weight	270g max	
	Diagonal Size	35.56 cm (14")	
	Surface Treatment	Anti-Glare (AG)	
	Contrast Ratio	600:1 (typ.)	
	Refresh Rate	60Hz	
	Response time	30 ms typ.	
	Pixel Per Inch (PPI)	210	
	Brightness	340 nits	
	Pixel Resolution	**Format**	2560x1440 (QHD)
		Configuration	RGB
	Interface	eDP 1.3 + PSR	
	LCD Mode	IPS/FFS/VA	
	Viewing Angle	UWVA 85/85/85/85	

35.56 cm (14") diagonal LED backlight FHD Slim eDP SVA (1920 x 1080) Touch	**Outline Dimensions** (W x H x D)	320.9 x 205.6 (mm) max x 3.0 (mm) max	
	Active Area	309.40 x 173.95 (mm)	
	Weight	270 g max	
	Diagonal Size	14"	
	Surface Treatment	Anti-smudge/fingerprint coating	
	Touch Enabled	Yes	
	TSP Type	Capacitive	
	Contrast Ratio	300:1 (typ)	
	Refresh Rate	60 Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	157	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	

39.6 cm (15.6") diagonal LED backlight HD Slim	**Outline Dimensions** (W x H x D)	360.0 x 224.3 x 3.2 (mm) max

Technical Specifications

eDP SVA Anti-glare non-touch (1366 x 768)	**Active Area**	344.2 x 193.5 (mm)	
	Weight	370g max	
	Diagonal Size	39.6 cm (15.6")	
	Surface Treatment	Anti-Glare (AG)	
	Contrast Ratio	300:1 (typ)	
	Refresh Rate	60Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	101	
	Brightness	220 nit typ	
	Pixel Resolution	**Format**	1366 x 768 (HD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	

39.6 cm (15.6") diagonal LED backlight FHD Slim eDP SVA Anti-glare non-touch (1920 x 1080)	**Outline Dimensions** (W x H x D)	360.0 x 224.3 x 3.2 (mm) max	
	Active Area	344.2 x 193.5 (mm)	
	Weight	360 g max.	
	Diagonal Size	39.6 cm (15.6")	
	Surface Treatment	Anti-Glare (AG)	
	Contrast Ratio	400:1 (typ)	
	Refresh Rate	60Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	142	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	

39.6 cm (15.6") diagonal LED backlight FHD Slim eDP SVA (1920 x 1080) Touch	**Outline Dimensions** (W x H x D)	360.0 x 224.3 x 3.2 (mm) max	
	Active Area	344.2 x 193.5 (mm)	
	Weight	360 g max.	
	Diagonal Size	39.6 cm (15.6")	
	Surface Treatment	Anti-smudge/fingerprint coating	
	Contrast Ratio	400:1 (typical)	
	Touch Enabled	Yes	
	TSP Type	Capacitive	
	Refresh Rate	60Hz	
	Response time	16ms typ.	
	Pixel Per Inch (PPI)	142	
	Brightness	300nits	
	Pixel Resolution	**Format**	1920 x 1080 (FHD)
		Configuration	RGB
	Interface	eDP 1.2	
	LCD Mode	TN	
	Viewing Angle	SVA 45/45/25/35	

NETWORKING*

	HP lt4120 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 (Length x Width x Thickness)	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 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

Technical Specifications

	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

* 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 hs3210 WW HSP with GPS Mobile Broadband
Technology/Operating bands	HSPA+: 2100 (Band1), 1900 (Band 2), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 MHz (Band 5), 900 (Band 8) MHz
Wireless protocol standards	WCDMA R99, 3GPP Release 5, 6 and 7 UMTS Specification E-GPRS: Class B, Multi-slot class 33, coding schemes CS1 - CS4 and MSC1 - MSC9
Maximum data rates	HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload) E-GPRS: 296 kbps (Download), 236.8 kbps (Upload) GPRS: 107 kbps (Download), 85.6 kbps (Upload)
Maximum output power	HSPA+: 24 dBm E-GPRS 1800/1900: 26 dBm E-GPRS 850/900: 27 dBm GPRS 1800/1900: 30 dBm GPRS 850/900: 33 dBm
Maximum power consumption	HSPA+: 1,100 mA (peak); 800 mA (average) E-GPRS: 2,800 mA (peak); 700 mA (average)
Form Factor	M.2, 2242-S3 Key B
Weight	6 g
Dimensions (Length x Width x Thickness)	1.65 x 8.66 x 0.09 in (42 x 22 x 2.38 mm)

* Mobile Broadband 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.

Note: Wireless access point and Internet service required. 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.

Intel® Dual Band Wireless-AC 8265 802.11 a/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 IEEE 802.11ac Wave 2 MU-MIMO
Interoperability	Wi-Fi certified
Frequency Band	802.11b/g/n • 2.402 – 2.482 GHz Note: The FCC has declared as of January 1, 2015 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels. 802.11a/n • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz Note: Indonesia no support this band)
Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)

Technical Specifications

Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security[1]	• 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	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[2]	• 802.11b : +16dBm minimum • 802.11g : +14dBm minimum • 802.11a : +14dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +12dBm minimum
Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connect Standby: 10 mW (WLAN+BT) Radio disabled: 5 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum

	802.11g, 54Mbps : -74dBm maximum	
	802.11a, 6Mbps : -88dBm maximum	
	802.11a, 54Mbps : -74dBm maximum	
	802.11n, MCS07 : -69dBm maximum	
	802.11n, MCS15 : -66dBm maximum	
	802.11ac, 1SS, MCS-0 : -86dBm maximum	
	802.11ac, 1SS, MCS-9 : -61dBm maximum	
	802.11ac, 2SS, MCS-0 : -83dBm maximum	
	802.11ac, 2SS, MCS-9 : -58dBm maximum	
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure	
	Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications	
Form Factor	PCI-Express M.2 MiniCard	
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm	
	Or Type 1630 : 2.3 x 16.0 x 30.0 mm	
Weight	Type 2230 : 2.8g	
	Or	
	Type 1630 : 2g	
Operating Voltage	3.3v +/- 9%	
Temperature	Operating	14° to 158° F (–10° to 70° C)
	Non-operating	–40° to 176° F (–40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 95% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED White – Radio ON	

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

Intel® Dual Band Wireless-AC 3168 802.11 a/b/g/n/ac (1x1) 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 Note: The FCC has declared as of January 1, 2015 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels. 802.11a/n • 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz • 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz Note: Indonesia only supports 5.725 - 5.825 GHz (CH149 - CH161)
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 ~ MCS7, (1SS) (20MHz, 40MHz, and 80MHz)

Technical Specifications

Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security[1]	• 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	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power[2]	• 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 • 802.11ac 80MHz(5GHz) : +11dBm minimum
Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 180 mW (WLAN Associated) Idle mode: 50 mW (WLAN unassociated) Connect Standby: 10 mW (WLAN+BT) Radio disabled: 5 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity[3]	802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum

	802.11g, 54Mbps : -74dBm maximum	
	802.11a, 6Mbps : -88dBm maximum	
	802.11a, 54Mbps : -74dBm maximum	
	802.11n, MCS07 : -69dBm maximum	
	802.11n, MCS15 : -66dBm maximum	
	802.11ac, 1SS, MCS-0 : -86dBm maximum	
	802.11ac, 1SS, MCS-9 : -61dBm maximum	
	802.11ac, 2SS, MCS-0 : -83dBm maximum	
	802.11ac, 2SS, MCS-9 : -58dBm maximum	
Antenna type	High efficiency antenna with spatial diversity, mounted in the display enclosure	
	Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications	
Form Factor	PCI-Express M.2 MiniCard	
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm	
	Or Type 1630 : 2.3 x 16.0 x 30.0 mm	
Weight	Type 2230 : 2.8g	
	Or	
	Type 1630 : 2g	
Operating Voltage	3.3v +/- 9%	
Temperature	Operating	14° to 158° F (–10° to 70° C)
	Non-operating	–40° to 176° F (–40° to 80° C)
Humidity	Operating	10% to 90% (non-condensing)
	Non-operating	5% to 95% (non-condensing)
Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)
LED Activity	LED Amber – Radio OFF; LED White – Radio ON	

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

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.

Receiver Sensitivity

Legacy

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

Power Consumption

Peak (Tx) 330 mW
Peak (Rx) 230 mW
Selective Suspend 17 mW

Range

Legacy Up to 33 ft (10 m)

BLE Up to 99 ft (30 m)

Technical Specifications

Electrical Interface	USB 2.0 compliant
Bluetooth Software Supported	Microsoft Windows Bluetooth Software
Link Topology	
Electrical Interface	Point to Point, Multipoint Pico Nets up to 7 slaves
Bluetooth Software Supported	Full support of Bluetooth Security Provisions
Security	
Power Management	Microsoft Windows ACPI, and USB Bus Support
Certifications	Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff
Security	All necessary regulatory approvals for supported countries, including:
Certifications	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
Bluetooth Profiles Supported	
Power Management	ETS 300 328, ETS 300 826
Certifications	Low Voltage Directive IEC950
	UL, CSA, and CE Mark
Certifications **Bluetooth Profiles Supported**	Serial Port Profile (SPP)[1] Service Discovery Application Profile (SDAP) Dial-Up Networking (DUN)[1,2] Generic Object Exchange Profile (GOEP)[1,2] Object Push Profile (OPP)[1,2] Hard Copy Cable Replacement (HCRP)[1,2] Personal Area Networking Profile (PAN)[1,2] Human Interface Device Profile (HID)[1,2] Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Audio Video Remote Control Profile (AVRCP)

Bluetooth V4.1/V4.2 support feature	V4.1: ESR5/6/7 compliant V4.2: ESR8 compliant, LE Secure Connection – Basic.

STORAGE AND DRIVES

500 GB 7200rpm Self Encrypting Drive (FIPS-140-2) (Opal 2)	**Drive Weight**	0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms
		Average	12 ms
		Maximum	21 ms
	Cache	32 MB	
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [top cover temp]	
	Features	ATA Security; TCG Opal 2.x, FIPS, S.M.A.R.T., NCQ, Ultra DMA—,	

500 GB 7200rpm Hard Drive	**Drive Weight**	0.20 lbs (92 g) ~ 0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms ~ 2 ms
		Average	11 ms ~ 13 ms
		Maximum	18 ms ~ 22 ms

	Cache	32 MB	
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security, S.M.A.R.T., NCQ, Ultra DMA	
500 GB 7200rpm Self-Encrypting Drive (Opal 2)	**Drive Weight**	0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	1.5ms
		Average	12ms
		Maximum	21 ms
	Cache	32 MB	
	Rotational Speed	7200rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [top cover temp]	
	Features	ATA Security; TCG Opal 2.x, S.M.A.R.T., NCQ, Ultra DMA	
1 TB 5400rpm Hard Drive	**Drive Weight**	0.21 lbs (94 g)- 0.21 lbs (95 g)	
	Capacity	1TB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	2ms
		Average	12ms-13ms
		Maximum	18ms- 22ms
	Cache	Up to 32-MB	
	Rotational Speed	5400rpm	
	Logical Blocks	1,953,525,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security, S.M.A.R.T., NCQ, Ultra DMA	

Technical Specifications

128 GB SATA-3 Value Solid State Drive	**Drive Weight**	0.01 lb (6 g) ~ 0.02 lb (10 g)	
	Capacity	128 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up To 535 MB/s	Up To 515 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	DIPM; TRIM; DEVSLP	
256 GB PCIe Gen3x4 NVMe TLC Solid State Drive	**Drive Weight**	M.2 2280	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 2600 MB/s	Up to 900 MB/s
	Logical Blocks	500,118,192	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option); TRIM; L1.2	
512 GB PCIe Gen3x4 NVMe TLC Solid State Drive	**Drive Weight**	M.2 2280	
	Capacity	512 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 2600 MB/s	Up to 1400 MB/s
	Logical Blocks	1,000,215,216	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option); TRIM; L1.2	

256 GB SATA-3 TLC Self-Encrypting Solid State Drive (Opal 2)	**Drive Weight**	M.2 2280	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 530 MB/s	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	

POWER

HP 45W Smart AC Adapter	**Dimensions** (H x W x D)	9.5 x 4.0 x 2.65 cm)	
	Weight	unit: 200g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	87.74% at 115Vac and 88.4% at 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	Max. 1.4 A at 90 Vac
	Output	**Output power**	45W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<8.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	

HP 45W Smart AC Adapter (2 Prong)	**Dimensions** (H x W x D)	95.0x40.0x26.5mm	
	Weight	unit: 200g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	87.74% at 115Vac and 88.4% at 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	Max. 1.4 A at 90 Vac
	Output	**Output power**	45W
		DC output	19.5V
		Hold-up time	5 ms at 115Vac input
		Output current limit	<8.0A
	AC Connector (Ac Inlet)	C8 (2 pin/non-grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	

HP 65W Smart AC Adapter	**Dimensions**	107.0x47.0x30.0mm	
	Weight	unit: 250g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	88.0 % at 115 Vac and 89.0 % at 230 Vac
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 Vac
	Output	**Output power**	65W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<11.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	

Technical Specifications

	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	
HP 65W Smart AC Adapter EM	**Dimensions**	102.0x55.0x30.0mm	
	Weight	unit: 350g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	87.0% min at 115 VAC and 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 VAC
	Output	**Output power**	65W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<11.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	
HP 3-cell Long Life Li-Ion (49 WHr)	**Dimensions** (H x W x L)	8.30 mm x127.5 mm x 160.25 mm	
	Weight	225g	
	Cells/Type	3 cell Lithium-Ion Polymer cell / 505295	

	Energy	**Voltage**	11.55V
		Amp-hour capacity	4250mAh
		Watt-hour capacity	49Wh
	Temperature	**Operating (Charging)**	0~45 C
		Operating (Discharging)	-10~60 C
	Fuel Gauge LED	NA	
	Warranty	1000 cycles > 65% (at 23˚C)	
	Optional Travel Battery Available	No	
HP 3-cell Long Life Li-Ion (51 WHr)	**Dimensions** (H x W x L)	6.8mm x 102.8mm x 198mm	
	Weight	235g	
	Cells/Type	3cell Lithium-Ion Polymer cell / 506480	
	Energy	**Voltage**	11.55V
		Amp-hour capacity	4420mAh
		Watt-hour capacity	51wh
	Temperature	**Operating (Charging)**	0~45 C
		Operating (Discharging)	-10~60 C
	Fuel Gauge LED	NA	
	Warranty	1000 cycles > 65% (at 23˚C)	
	Optional Travel Battery Available	No	

ENVIRONMENTAL

STORAGE AND DRIVES

500 GB 7200rpm Self Encrypting Drive (FIPS-140-2) (Opal 2)	**Drive Weight**	0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s

	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms
		Average	12 ms
		Maximum	21 ms
	Cache	32 MB	
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [top cover temp]	
	Features	ATA Security; TCG Opal 2.x, FIPS, S.M.A.R.T., NCQ, Ultra DMA—,	
500 GB 7200rpm Hard Drive	**Drive Weight**	0.20 lbs (92 g) ~ 0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	1.5 ms ~ 2 ms
		Average	11 ms ~ 13 ms
		Maximum	18 ms ~ 22 ms
	Cache	32 MB	
	Rotational Speed	7200 rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security, S.M.A.R.T., NCQ, Ultra DMA	
500 GB 7200rpm Self-Encrypting Drive (Opal 2)	**Drive Weight**	0.21 lbs (95 g)	
	Capacity	500 GB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	1.5ms
		Average	12ms
		Maximum	21 ms
	Cache	32 MB	
	Rotational Speed	7200rpm	
	Logical Blocks	976,773,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [top cover temp]	

	Features	ATA Security; TCG Opal 2.x, S.M.A.R.T., NCQ, Ultra DMA	
1 TB 5400rpm Hard Drive	**Drive Weight**	0.21 lbs (94 g)- 0.21 lbs (95 g)	
	Capacity	1TB	
	Height	0.28 in (7 mm)	
	Width	2.75 in (69.85 mm)	
	Interface	ATA-8, SATA 3.0	
	Transfer Rate	**Synchronous** (maximum)	600 MB/s
	Seek Time (typical reads, including settling)	**Single Track**	2ms
		Average	12ms-13ms
		Maximum	18ms- 22ms
	Cache	Up to 32-MB	
	Rotational Speed	5400rpm	
	Logical Blocks	1,953,525,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security, S.M.A.R.T., NCQ, Ultra DMA	
128 GB SATA-3 Value Solid State Drive	**Drive Weight**	0.01 lb (6 g) ~ 0.02 lb (10 g)	
	Capacity	128 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up To 535 MB/s	Up To 515 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	DIPM; TRIM; DEVSLP	
256 GB PCIe Gen3x4 NVMe TLC Solid State Drive	**Drive Weight**	M.2 2280	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 2600 MB/s	Up to 900 MB/s
	Logical Blocks	500,118,192	

	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option); TRIM; L1.2	
512 GB PCIe Gen3x4 NVMe TLC Solid State Drive	**Drive Weight**	M.2 2280	
	Capacity	512 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	PCIe NVMe Gen3X4	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 2600 MB/s	Up to 1400 MB/s
	Logical Blocks	1,000,215,216	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]	
	Features	ATA Security (Option); TRIM; L1.2	
256 GB SATA-3 TLC Self-Encrypting Solid State Drive (Opal 2)	**Drive Weight**	M.2 2280	
	Capacity	256 GB	
	Height	0.09 in (2.3 mm)	
	Width	0.87 in (22 mm)	
	Interface	ATA-8, SATA 3.0	
	Performance	**Maximum Sequential Read**	**Maximum Sequential Write**
		Up to 530 MB/s	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	

POWER

HP 45W Smart AC Adapter	**Dimensions** (H x W x D)	9.5 x 4.0 x 2.65 cm~~)~~
	Weight	unit: 200g +/- 10g
	Input	90 to 265 VAC

		Input Efficiency	87.74% at 115Vac and 88.4% at 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	Max. 1.4 A at 90 Vac
	Output	**Output power**	45W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<8.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	

HP 45W Smart AC Adapter (2 Prong)	**Dimensions** (H x W x D)	95.0x40.0x26.5mm	
	Weight	unit: 200g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	87.74% at 115Vac and 88.4% at 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	Max. 1.4 A at 90 Vac
	Output	**Output power**	45W
		DC output	19.5V
		Hold-up time	5 ms at 115Vac input
		Output current limit	<8.0A
	AC Connector (Ac Inlet)	C8 (2 pin/non-grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%

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

HP 65W Smart AC Adapter	**Dimensions**	107.0x47.0x30.0mm	
	Weight	unit: 250g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	88.0 % at 115 Vac and 89.0 % at 230 Vac
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 Vac
	Output	**Output power**	65W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<11.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	

HP 65W Smart AC Adapter EM	**Dimensions**	102.0x55.0x30.0mm	
	Weight	unit: 350g +/- 10g	
	Input	90 to 265 VAC	
		Input Efficiency	87.0% min at 115 VAC and 230Vac
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 VAC

Technical Specifications

	Output	**Output power**	65W
		DC output	19.5V
		Hold-up time	5 ms at 115 Vac input
		Output current limit	<11.0A
	AC Connector (Ac Inlet)	C6 (3pin/with grounded, with Smart ID DC connector)	
	Environmental Design	**Operating temperature**	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft (0 to 5,000 m)
		Humidity	20% to 95%
		Storage Humidity	10% to 95%
	EMI and Safety Certifications	*CE Mark - full compliance with LVD and EMC directives * Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. * MTBF - over 200,000 hours at 25°C ambient condition.	
HP 3-cell Long Life Li-Ion (49 WHr)	**Dimensions** (H x W x L)	8.30 mm x127.5 mm x 160.25 mm	
	Weight	225g	
	Cells/Type	3 cell Lithium-Ion Polymer cell / 505295	
	Energy	**Voltage**	11.55V
		Amp-hour capacity	4250mAh
		Watt-hour capacity	49Wh
	Temperature	**Operating (Charging)**	0~45 C
		Operating (Discharging)	-10~60 C
	Fuel Gauge LED	NA	
	Warranty	1000 cycles > 65% (at 23˚C)	
	Optional Travel Battery Available	No	
HP 3-cell Long Life Li-Ion (51 WHr)	**Dimensions** (H x W x L)	6.8mm x 102.8mm x 198mm	
	Weight	235g	
	Cells/Type	3cell Lithium-Ion Polymer cell / 506480	
	Energy	**Voltage**	11.55V
		Amp-hour capacity	4420mAh
		Watt-hour capacity	51wh
	Temperature	**Operating (Charging)**	0~45 C
		Operating (Discharging)	-10~60 C

Fuel Gauge LED	NA
Warranty	1000 cycles > 65% (at 23˚C)
Optional Travel Battery Available	No

ENVIRONMENTAL

HP EliteBook 725 G4 Notebook 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 Gold registered in the United States. See http://www.epeat.net for registration status in your country.		
System Configuration **Energy Consumption (in accordance with US ENERGY STAR® test method)**	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".		
	115VAC, 60Hz	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	8.12 W	8.99 W	8.23 W
Normal Operation (Long idle)	6.78 W	6.77 W	6.23 W
Sleep	0.76 W	0.77 W	0.76 W
Off	0.49 W	0.53 W	0.49 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, 50Hz**
Normal Operation (Short idle)	28 BTU/hr	31 BTU/hr	28 BTU/hr
Normal Operation (Long idle)	23 BTU/hr	23 BTU/hr	21 BTU/hr
Sleep	3 BTU/hr	3 BTU/hr	3 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 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)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)	
Typically Configured – Idle	3.1	24	
Fixed Disk – Random writes	3.1	25	
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: CR2320 (coin cell) Battery type: Lithium		

<table>
<tr><td>Additional Information</td><td colspan="3">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
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 96.7% recycle-able when properly disposed of at end of life.</td></tr>
<tr><td rowspan="6">Packaging Materials</td><td>External:</td><td>PAPER/Corrugated</td><td>328 g</td></tr>
<tr><td>Internal:</td><td>PLASTIC/Expanded Polyethylene - EPE</td><td>38 g</td></tr>
<tr><td></td><td>PLASTIC/Polyethylene low density - LDPE</td><td>14 g</td></tr>
<tr><td></td><td>PLASTIC/Polypropylene - PP</td><td>3 g</td></tr>
<tr><td colspan="3">The plastic packaging material contains at least 50% recycled content.</td></tr>
<tr><td colspan="3">The corrugated paper packaging materials contains at least 70% recycled content.</td></tr>
<tr><td>Material Usage</td><td colspan="3">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/qse.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</td></tr>
</table>

	• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
End-of-life Management and Recycling	Hewlett-Packard 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.
HP Inc. **Environmental Information**	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

HP EliteBook 745 G4 Notebook 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 <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)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 50Hz**
Normal Operation (Short idle)	8.78 W	9.59 W	8.76 W
Normal Operation (Long idle)	5.64 W	6.37 W	6.47 W
Sleep	0.73 W	0.74 W	0.73 W
Off	0.50 W	0.52 W	0.49 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, 50Hz**
Normal Operation (Short idle)	30 BTU/hr	33 BTU/hr	30 BTU/hr

Normal Operation (Long idle)	19 BTU/hr	22 BTU/hr	22 BTU/hr
Sleep	2 BTU/hr	3 BTU/hr	2 BTU/hr
Off	2 BTU/hr	2 BTU/hr	2 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)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)
Typically Configured – Idle	3.1	21
Fixed Disk – Random writes	3.4	24

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 (EPEAT) standard at the <Gold> level, see 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 94.6% recycle-able when properly disposed of at end of life.

Packaging Materials	**External:**	PAPER/Corrugated	323 g

	Internal:	PLASTIC/Polyethylene Expanded - EPE	38 g
		PLASTIC/Polyethylene low density - LDPE	15 g
		PLASTIC/Polypropylene - PP	4 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
- 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)

Packaging Usage

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling	Hewlett-Packard 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.
HP Inc. **Environmental Information**	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

HP EliteBook 755 G4 Notebook 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 <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)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**

Normal Operation (Short idle)	9.16 W	9.48 W	9.10 W
Normal Operation (Long idle)	6.02 W	6.47 W	6.08 W
Sleep	0.74 W	0.72 W	0.73 W
Off	0.52 W	0.50 W	0.52 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)	31 BTU/hr	32 BTU/hr	31 BTU/hr
Normal Operation (Long idle)	20 BTU/hr	22 BTU/hr	21 BTU/hr
Sleep	3 BTU/hr	2 BTU/hr	2 BTU/hr
Off	2 BTU/hr	1 BTU/hr	2 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)	Sound Power (L_{WAd}, bels)	Sound Pressure (L_{pAm}, decibels)	

Typically Configured – Idle	2.9	22
Fixed Disk – Random writes	3.5	28

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 (EPEAT) standard at the <Gold> level, see 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 95.2% recycle-able when properly disposed of at end of life.		
Packaging Materials	**External:**	PAPER/Corrugated	348 g
	Internal:	PLASTIC/EPE-Expanded Polyethylene	38 g
		PLASTIC/Polyethylene low density	15 g
		PLASTIC/Polypropylene – PP	5 g
	The plastic packaging material contains at least 50.0% recycled content.		
	The corrugated paper packaging materials contains at least 70.0% 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		

	• 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)
Packaging Usage	HP follows these guidelines to decrease the environmental impact of product packaging: • Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials. • Eliminate the use of ozone-depleting substances (ODS) in packaging materials. • Design packaging materials for ease of disassembly. • Maximize the use of post-consumer recycled content materials in packaging materials. • Use readily recyclable packaging materials such as paper and corrugated materials. • Reduce size and weight of packages to improve transportation fuel efficiency. • Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.
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Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/qcreport/index.html Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html ISO 14001 certificates: http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842 and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf

COUNTRY OF ORIGIN

China

Options and Accessories (Sold separately and availability may vary by country.)

Type	Description	Part Number
Docking	HP USB-C Travel Dock	T0K29AA#xxx
	HP USB Travel Dock	T0K30AA#xxx
	HP UltraSlim Docking Station	D9Y32AA#xxx
	HP Elite USB-C Docking Station	X7W54AA
	HP Adjustable Dual Display Stand	AW664AA
	HP Display and Notebook Stand II	E8G00AA
Input/Output	HP Slim Wireless Keyboard and Mouse	T6L04AAxxx
	HP USB Essential Keyboard and Mouse	H6L29AA
	HP Conferencing Keyboard	K8P74AA
	HP Ultrathin Wireless Mouse	L9V78AA
	HP UC Speaker Phone	K7V16AA
	HP UC Wired Headset	K7V17AA
	HP Stereo 3.5mm Headset	T1A66AA
	HP Stereo USB Headset	T1A67AA
	HP UC Wireless Mono Headset	W3K08AA
	HP UC Wireless Duo Headset	W3K09AA
	HP USB Speaker Phone	X7N17AA
Memory	HP 4GB 2133MHz DDR4 Memory	T7B76AA
	HP 8GB 2133MHz DDR4 Memory	T7B77AA
Power	HP 65W Slim AC Adapter	H6Y82AA#xxx
	HP 90W Slim AC Adapter	H6Y83AA#xxx
	HP 90W Slim Combo AC Adapter w/ USB	H6Y84AA#xxx
	HP 45W Smart AC Adapter	H6Y88AA#xxx
	HP 65W Smart AC Adapter	H6Y89AA#xxx
	HP 90W Smart AC Adapter	H6Y90AA#xxx
	HP Notebook Power Bank	N9F71AA#xxx
Storage	HP USB External DVDRW Drive	F2B56AA
Security	HP Combination Lock	T0Y15AA
	HP Keyed Cable lock	T0Y14AA
Displays	HP EliteDisplay E232 23-inch Monitor	M1N98AA
	HP EliteDisplay S231d 23-inch Notebook Docking Monitor	F3J72AA
	HP Elite Display S140u 14-inch USB Portable Monitor	G8R65AA

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