Overview

HP ProBook 440 14-inch G9 Notebook PC



Left

- 1. Internal Microphones (2)
- 2. Webcam LED (Optional)
- 3. Camera Shutter
- 4. Combo Web/IR Camera (Optional)

- 5. Clickpad
- **6.** SuperSpeed USB Type-A 5Gbps signaling rate port (USB 3.2 Gen 1)
- 7. Ethernet Port (RJ-45)
- 8. Nano Security Lock Slot (Lock sold separately)

Overview



1. Power Button Key

- 2. Power Connector
- SuperSpeed USB Type-C[®] 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- **4.** SuperSpeed USB Type-A 5Gbps signaling rate port (USB 3.2 Gen 1)
- **5.** SuperSpeed USB Type-A 5Gbps signaling rate port (USB 3.2 Gen 1)

Right

- 6. HDMI 2.1 Port (Cable not included)
- 7. Audio Combo Jack
- 8. External SIM (WWAN Optional Model)
- 9. Touch Fingerprint Sensor (Select Models)

Overview

AT A GLANCE

- Preinstalled with Windows 11 versions or FreeDOS
- Choice of 12th generation Intel[®] Core[™] i7, i5 and i3 processors
- NVIDIA® GeForce® MX570 discrete graphics with 2 GB GDDR6 video memory
- NVIDIA® GeForce® MX570A discrete graphics with 2 GB GDDR6 video memory
- Fast and upgradeable dual channel DDR4 SODIMM memory up to 32 GB
- Choice of 35.56 cm (14") diagonal HD, Ultra Wide Viewing Angle FHD, Touch or Non-Touch screen, and Privacy Panel
 option.
- Features redesigned quiet and responsive HP Keyboard with the HP Programmable key and backlit options
- Choice of solid state drives up to 1 TB, 2nd SSD 128GB/256GB (Optional)
- Multi-layered security with HP SureStart Gen7, HP Privacy Camera, HP Sure View Gen4¹, HP Sure Sense G2, HP Sure Click, and Touch Fingerprint reader², Tamper Lock, HP Wolf Security
- Supports wireless options for connectivity on the go including gigabit-speed up to Wi-Fi® 6E and CAT16 4G/LTE WWAN
 (Optional)
- Supports fast charging (50% in 30 minutes) with no impact on battery recharge cycles³
- Designed to support HP docking options
- Passed MIL-STD 810H tests ⁴
- Battery options 42.75 Wh and 51.3 Wh
- Battery life up to 13 hours and 30 minutes
- Optimize your video calls with an HD camera and Temporal Noise Reduction that adjusts to the lighting in your environment.
- 1. HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- 2. Sold separately or as an optional feature.
- 3. HP notebooks up to 50% within 30 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.
- 4. MIL STD 810H testing is not intended to demonstrate fitness for U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. 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.



PRODUCT NAME

HP ProBook 440 14-inch G9 Notebook PC

OPERATING SYSTEM

Preinstalled Windows 11 Pro 1

Windows 11 Pro Education 1

Windows 11 Home - HP recommends Windows 11 Pro for business 1

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business 1

Windows 11 Pro (Windows 11 Enterprise or Windows 10 Enterprise available with a Volume Licensing

Agreement) 1

Windows 11 Pro (preinstalled with Windows 10 Pro Downgrade) 1,2

FreeDOS

- 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 is automatically updated and enabled. High speed internet and Microsoft account required. 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 10 Pro software and also comes with a license for Windows 11 Pro software and provision for recovery 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.

PROCESSORS

Processor 3,4,5,6	Cores	Number of	Number of	Threads	L3 Cache		Turbo Jency	Base Fro	equency
		P-cores	E-cores			P-cores	E-cores	P-cores	E-cores
Intel® Core™ i7- 1260P	12	4	8	16	18MB	4.7 GHz	3.4 GHz	2.1 GHz	1.5 GHz
Intel® Core™ i5- 1240P	12	4	8	16	12MB	4.4 GHz	3.3 GHz	1.7 GHz	1.2 GHz
Intel® Core™ i7- 1255U	10	2	8	12	12MB	4.7 GHz	3.5 GHz	1.7 GHz	1.2 GHz
Intel® Core™ i5- 1235U	10	2	8	12	12MB	4.4 GHz	3.3 GHz	1.3 GHz	0.9 GHz
Intel® Core™ i3- 1215U	6	2	4	8	10MB	4.4 GHz	3.3 GHz	1.2 GHz	0.9 GHz
Intel® Pentium® Gold 8505	5	1	4	6	8MB	4.4 GHz	3.3 GHz	1.2 GHz	0.9 GHz
Intel® Celeron® 7305	5	1	4	6	8MB	N/A	N/A	1.1 GHz	0.9 GHz

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. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See http://www.intel.com/technology/turboboost for more information.
- 6. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel and AMD 7th generation and forward processors or provide any Windows 8 or Windows 7 drivers on http://www.support.hp.com.

CHIPSET

Chipset is integrated with processor

GRAPHICS

Integrated

Intel® Iris® Xe Graphics (Core i5 and Core i7) 7 Intel® UHD Graphics (Core i3)

Discrete

NVIDIA GeForce ®MX570 Controller NVIDIA GeForce ®MX570A Controller

Supports

Support HD decode, DX12, HDMI 2.18

7. Intel® Iris® Xe Graphics capabilities require system to be configured with Intel® Core™ i5 or i7 processors and dual channel memory. Intel® Iris® Xe Graphics with Intel® Core™ i5 or 7 processors and single channel memory will only function as UHD graphics.

8. HD content required to view HD images.

DISPLAY

Non-Touch

35.6 cm (14") diagonal FHD UWVA eDP +PSR anti-glare Low Blue Light, narrow bezel bent, 1000 nits, 100% sRGB for HD + IR camera, HP Sure View Reflect integrated Privacy Screen (1920x1080) with HP Eye Ease 8,10,11,12

35.6 cm (14") diagonal FHD UWVA eDP anti-glare,narrow low power bezel bent, 400 nits, 100% sRGB for HD TNR camera(1920x1080) 8,10

35.6 cm (14") diagonal FHD UWVA eDP anti-glare, low power narrow bezel bent, 400 nits, 100% sRGB for HD+IR camera(1920x1080) 8,10

35.6 cm (14") diagonal FHD UWVA eDP + PSR anti-glare narrow bezel bent, 250 nits, 45% NTSC (1920x1080) 8.10

35.6 cm (14") diagonal FHD UWVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD TNR camera (1920x1080)8.10

35.6 cm (14") diagonal FHD UWVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD + IR camera(1920x1080) 8,10

35.6 cm (14") diagonal FHD UWVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD TNR camera and WWAN (1920x1080) 8,10

35.6 cm (14") diagonal HD SVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD TNR camera and WWAN



(1366 x 768) 8,10

35.6 cm (14") diagonal HD SVA eDP + PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC (1366 x 768) 8,10

35.6 cm (14") diagonal HD SVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD TNR camera (1366 x 768) 8,10

35.6 cm (14") diagonal HD SVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSCfor HD+IR camera (1366 x 768) 8,10

Touch

35.6 cm (14") diagonal FHD UWVA eDP + PSR anti-glare, narrow bezel bent, touch-on-panel screen, 250 nits, 45% NTSC for HD + IR camera (1920x1080) 8,9,10,12

35.6 cm (14") diagonal FHD UWVA eDP + PSR anti-glare, narrow bezel bent touch-on-panel screen, 250 nits, 45% NTSC for HD + IR camera and WWAN (1920x1080) 8,9,10,12

HDMI

Support resolutions up to 4k 60Hz

Display Size

14" diagonal 35.6 cm (14") diagonal

- 8. HD content required to view HD images.
- 9. Sold separately or as an optional feature.
- 10. Resolutions are dependent upon monitor capability, and resolution and color depth settings.
- 11. HP Sure View Reflect integrated privacy screen is an optional feature that must be configured at purchase and is designed to function in landscape orientation.
- 12. Actual brightness will be lower with touchscreen or HP Sure View.

DOCKING (Sold Separately)

Docking station model #1 HP USB-C Dock G5

Docking station model #2 Docking station model #3HP USB-C/A Universal Dock G2

HP Thunderbolt Dock G2

For additional aftermarket options and docking specs please see page 39.

STORAGE AND DRIVES

Primary Storage

1 TB PCIe® NVMe™ M.2 TLC Solid State Drive 13

1 TB PCIe® Gen4x4 NVMeTM M.2 SSD TLC ^{13,15}

512 GB PCIe® NVMe™ M.2 Value Solid State Drive 13

256 GB PCIe® NVMe™ M.2 Value Solid State Drive 13

128 GB PCIe® NVMe™ M.2 Value Solid State Drive 13

Secondary M.2 Storage (Optional)

256 GB PCIe® NVMe™ M.2 Value Solid State Drive 13,14

128 GB PCIe® NVMe™ M.2 Value Solid State Drive 13,14



- 13. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) is reserved for system recovery software.
- 14. Second storage is only available with non-WWAN base Unit AND Primary M.2 storage.
- 15. Available only to HK (Hong Kong), TW(Taiwan) and CN (China).

MEMORY

Maximum Memory

32 GB DDR4-3200 MT/s SDRAM 16

Memory

```
32 GB DDR4-3200 MT/s SDRAM (2 x 16 GB) <sup>16</sup>
16 GB DDR4-3200 MT/s SDRAM (1 x 16 GB) <sup>16</sup>
16 GB DDR4-3200 MT/s SDRAM (2 x 8 GB) <sup>16</sup>
12 GB DDR4-3200 MT/s SDRAM (1 x 8 GB + 1 x 4 GB) <sup>16</sup>
8 GB DDR4-3200 MT/s SDRAM (1 x 8 GB) <sup>16</sup>
8 GB DDR4-3200 MT/s SDRAM (2 x 4 GB) <sup>16</sup>
4 GB DDR4-3200 MT/s SDRAM (1 x 4 GB) <sup>16</sup>
```

Memory Slots

2 SODIMM

Both slots are accessible/upgradeable by IT or self-maintainers only. DDR4 PC4 SODIMMS, system runs at 3200 MT/s Supports Dual Channel Memory

16. 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

WLAN

Intel® AX211 Wi-Fi 6E +Bluetooth® 5.3 M.2 2230 160MHz CNVi WLAN Wireless Card¹⁷ Realtek 8852BE Wi-Fi6 + Bluetooth® 5.3 M.2 2230 PCI-e+ USB WLAN Wireless Card ¹⁸

WWAN

Intel® XMM 7560 R+ LTE-Advanced Pro Cat1619

Miracast

Native Miracast Support

Ethernet

Realtek RTL8111HSH 10/100/1000 Integrated NIC 20

Wake on WLAN

Support on S3 AC mode only



17. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

18. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs. Wi-Fi 6™ is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

19. 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.

20. 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.

AUDIO/MULTIMEDIA

Audio

2 Integrated stereo speakers Integrated microphone (Dual Array)

Speaker Power

2W/4ohm Per speaker

Camera

720p HD camera with Temporal Noise Reduction ⁹
720p HD camera+IR Camera ^{8,9}

- 8. HD content required to view HD images.
- 9. Sold separately or as an optional feature.



QuickSpecs

Technical Specifications

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Premium Keyboard, full-size, spill resistant with keypad and optional backlit 21

Pointing Device

Clickpad with multi-touch gesture support

Function Keys

- F1 Display Switching
- F2 Blank or SureView On/Off
- F3 Brightness Down
- F4 Brightness Up
- F5 Audio Mute
- F6 Volume Down
- F7 Volume Up
- F8 Mic Mute
- F9 Blank or Backlit Toggle
- F10 Insert
- F11 Airplane Mode
- F12 Programmable key
- Print Screen

Power Button (with LED)

Hidden Function Keys

- Fn+R Break
- Fn+S Sys Rq
- Fn+C Scroll Lock
- 21. Backlit keyboard is an optional feature.



SOFTWARE AND SECURITY

Software

HP Quick Drop²²

HP PC Hardware Diagnostics Windows

mvHP

HP Smart Support 23

HP Connection Optimizer

HP Hotkey Support

HP Support Assistant 24

HP Notifications

HP Power Manager

HP Privacy Settings

Buy Microsoft Office (Sold separately)

Manageability Features

HP Image Assistant Gen5 (download)

HP Manageability Integration Kit (download) 25

HP Client Management Script Library (download)

HP Driver Packs (download)

HP Client Catalog (download)

NOTE: To enhance brightness, level go to the Intel® Graphics Command Center app, click on System and turn off the Display Power Savings function.

Security Management

HP Wolf Security of Business²⁶ includes:

HP Sure Click²⁷

HP Sure Sense228

HP Sure Start Gen729

HP Tamper Lock

HP Sure Admin³⁰

HP Client Security Manager Gen731

BIOS

HP BIOSphere Gen6 32

HP Secure Erase 33

Absolute Persistence Module 34

HP DriveLock & Automatic DriveLock

BIOS Update via Network

HP Wake on WLAN

TPM 2.0 Embedded Security Chip (Common Criteria EAL4+ Certified) (FIPS 140-2 Level 2 Certified)

HP Fingerprint Sensor 35

Security

TPM

Model: Nuvoton NPCT760HAAYX

Version: 7.2.3.0 Revision: TPM 2.0

FIPS 140-2 Compliant: Yes



QuickSpecs

Technical Specifications

IPv6 Support

TBC

FirstNet Certified

No

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

UEFI version: 2.7

Class: 3

- 22. HP Quick Drop requires Internet access and Windows 10 or higher PC preinstalled with HP QuickDrop app and either an Android device (phone or tablet) running Android 7 or higher with the Android HP QuickDrop app, and /or an iOS device (phone or tablet) running iOS 12 or higher with the iOS HP QuickDrop app.
- 23. HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights and is available preinstalled on select products, thru HP Factory Configuration Services; or it can be downloaded. For more information about how to enable HP Smart Support or for download, please visit http://www.hp.com/smart-support.
- 24. HP Support Assistant requires Windows and Internet Access.
- 25. HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement.
- 26. HP Wolf Security for Business requires Windows 10 or higher, includes various HP security features and is available on HP Pro, Elite, RPOS and Workstation products. See product details for included security features and OS requirement.
- 27. HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A_SureClick for complete details.
- 28. HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.
- 29. HP Sure Start Gen7 is available on select HP PCs and requires Windows 10 and higher.
- 30. HP Sure Admin requires Windows 10 or higher, HP BIOS, HP Manageability Integration Kit from http://www.hp.com/go/clientmanagement and HP Sure Admin Local Access Authenticator smartphone app from the Android or Apple store.
- 31. HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.
- 32. HP BIOSphere Gen6 features may vary depending on the platform and configuration.
- 33. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method. HP Secure Erase does not support platforms with Intel® Optane™.
- 34. Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: https://www.absolute.com/about/legal/agreements/absolute/.
- 35. HP Fingerprint Reader is an optional feature that must be configured at purchase.



QuickSpecs

Technical Specifications

POWER

Power Supply

HP Smart 65 W External AC power adapter ³⁶ HP Smart 65 W EM External AC power adapter ³⁶ HP Smart 65 W USB Type-C adapter ³⁶ HP Smart 45 W External AC power adapter ³⁶ HP Smart 45 W USB Type-C adapter ³⁶

Battery

HP Long Life 3-cell, 42.75 Wh Polymer ^{37,38} HP Long Life 3-cell, 51.3 Wh Polymer ^{37,38} Compliant with UL 1642 Standard

Power Cord

3-wire plug - 1 ³⁶ 2-wire plug - 1 ³⁶

Battery life

Up to 13 hours and 30 minutes with 51Whr battery (HP Long Life 3-Cell, 51 Whr Polymer, UMA graphic, Intel U15, display set up to 200 nits, 2*4G memory, 256 GB SSD) ³⁹

Up to 13 hours and 15 minutes with 51Whr battery (HP Long Life 3-Cell, 51 Whr Polymer, UMA graphic, Intel P28, display set up to 200 nits, 2*4G memory, 256 GB SSD) ³⁹

Up to 11 hours and 15 minutes with 42Whr battery (HP Long Life 3-Cell, 42 Whr Polymer, UMA graphic, Intel U15, display set up to 200 nits, 2*4G memory, 256 GB SSD) ³⁹

- 36. Availability may vary by country.
- 37. Battery is internal and not replaceable by customer. Serviceable by warranty.
- 38. Actual battery Watt-hours (Wh) will vary from design capacity. Battery capacity will naturally decrease with shelf life, time, usage, environment, temperature, system configuration, loaded apps, features, power management settings and other factors.
- 39. Windows 10 MM18 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.



WEIGHTS & DIMENSIONS

Product Weight 42.75Wh

Starting at 3.03 lb⁴⁰ Starting at 1.38 kg ⁴⁰

51.3 Wh

Starting at 3.14 lb⁴⁰ Starting at 1.42 kg ⁴⁰

Product Dimensions (W x D x H)

12.67 x 8.42 x 0.78 in 32.19 x 21.39 x 1.99 cm

40. Weight will vary by configuration.

PORTS/SLOTS

- 1 SuperSpeed USB Type-C[®] 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- 3 SuperSpeed USB Type-A 5Gbps signaling rate includes 1 charging, 1 powered port (USB 3.2 Gen 1)
- 1 HDMI 2.1 41
- 1 RJ-45
- 1 Headphone/microphone combo jack
- 1 AC power
- 1 External Nano SIM slot for WWAN (optional)
- 41. HDMI cable sold separately.



QuickSpecs

Technical Specifications

SERVICE AND SUPPORT

HP Services offers 1-year or 3-year limited warranties and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. Refer to http://www.hp.com/support/batterywarranty for additional battery information. 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.42

42. 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.



SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)

Nominal Operating Voltage 19V

Average Operating Power U15 UMA 3.49W/U15 DSC 4.28W/U28 4.10W

Integrated graphics Yes

Discrete Graphics Yes, GN20-S5
Max Operating Power Discrete < 65W

UMA U15 < 45W, UMA U28 < 65W

Temperature

Operating 32° to 95° F (0° to 35° C)

(No sustained direct exposure to sunlight)

(System performance may be reduced above 32°C (89.6°F))

Non-operating -4° to 140° F (-20° to 60° C)

Relative Humidity

Operating 10% to 90% (non-condensing)

Non-operating 5% to 95%

(38.7° C (101.6° F) maximum wet bulb tempera-ture; non-condensing)

Shock

Operating 40 G, 2 ms, half-sine Non-operating 200 G, 2 ms, half-sine

Random Vibration

Operating 1.043 grams Non-operating 3.5 grams

Altitude (unpressurized)

Operating 10,000 ft (3,048 m) Non-operating 40,000 ft (12,192 m)

Planned Industry Standard Certifications

Regulatory Model Number HSN-Q32C-4

CSA/UL 62368-1 Yes FCC/ICES/CISPR/VCCI Yes ENERGY STAR® Yes⁴³

EPEAT® Gold in the United States⁴⁴

China CCC/SRRC Korea KCC/KC/KES Yes Taiwan BSMI/NCC Yes **CE MARKING** Yes **EAEU** compliance Yes Saudi Arabian Compliance Yes **Ukraine NSoC/TEC** Yes TC0 Yes WW RoHs Yes Low Blue Light Yes

43. Configurations of the HP ProBook 440 G9 that are ENERGY STAR® qualified are identified as HP ProBook 440 G9 ENERGY STAR on HP websites and on http://www.energystar.gov.

44. Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. EPEAT® status varies by country. Visit http://www.epeat.net for more information.



DISPLAYS

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

1. Actual brightness will be lower with touchscreen or HP Sure View.

Panel LCD 14 inch FHD (1920 x 1080) Anti-Glare WLED UWVA 45percent cg 250nits eDP 1.2 w/o PSR bent Touch on Panel NWBZ **Outline Dimensions (W x H)** 316.170 x 186.400 mm (max) (w/ PCB)

Active Area 309.370 x 174.020 mm (typ.)

Weight 305 g (max)
Diagonal Size 14.0 (inch)

Surface Treatment Anti-Glare On-cell

Touch Enabled Yes¹

Contrast Ratio600:1 (typ.)Refresh Rate60 HzBrightness250 nits

Pixel Resolution - Format 1920 x 1080 (FHD)

Backlight LED

Pixel ResolutionRGB StripeColor Gamut CoverageNTSC 45%

Color Depth 6 bits (Hi FRC supportive w/ condition to enable)

Viewing Angle UWVA 85/85/85

Low Blue Light No

Power Consumption (W, EBL@ 150nits max/ 200nits max)

2.3W max./2.8W max.

Panel LCD 14 inch FHD (1920 x 1080) Anti-Glare WLED UWVA sRGB 100percent cg 400nits eDP 1.4+PSR2 bent LP NB2X

 Outline Dimensions (W x H)
 315.070 x 186.600 mm (max)

 Active Area
 309.370 X 174.020mm (typ.)

Weight 200 g (max)

Diagonal Size 14.0 (inch)

Surface Treatment Anti-Glare

Touch Enabled No

Contrast Ratio 1200:1 (typ.)

Refresh Rate 60Hz Brightness 400 nits

Pixel Resolution - Format 1920 x 1080 (FHD)

Backlight LED
Pixel Resolution RGB Stripe

Color Gamut Coverage sRGB 100% (NTSC 72%)

Color Depth 6 bits

Viewing Angle UWVA 85/85/85

Low Blue Light No

Power Consumption (W, EBL@

150nits max/ 200nits max)

2.07W max./ 2.5W max.



Panel LCD 14-in FHD (1920 x 1080) Anti-Glare WLED UWVA 45percent cq 250nits eDP 1.2 w/o PSR NWBZ bent

Outline Dimensions (W x H) 316.170 x 186.400 mm (max) (w/ PCB)

Active Area 309.370 x 174.020 mm (typ.)

Weight 300 g (max) 14.0 (inch) **Diagonal Size Surface Treatment** Anti-Glare

Touch Enabled Nο

Contrast Ratio 600:1 (typ.) **Refresh Rate** 60 Hz **Brightness** 250 nits

Pixel Resolution - Format 1920 x 1080 (FHD)

Backlight **LED Pixel Resolution RGB Stripe Color Gamut Coverage NTSC 45%**

Color Depth 6 bits (Hi FRC supportive w/ condition to enable)

UWVA 85/85/85/85 **Viewing Angle**

Low Blue Light

Power Consumption (W, EBL@ 150nits max/ 200nits max)

2.205W Max/2.716W Max

Panel LCD 14-in HD (1366 x 768) Anti-Glare WLED SVA 45percent cg 250nits eDP 1.2 w/o PSR **NWBZ** bent

Outline Dimensions (W x H)

Active Area

316.110 x 186.370 mm (max) 309.400 x 173.950 mm (typ.)

Weight 300 g (max) **Diagonal Size** 14.0 (inch) **Surface Treatment** Anti-Glare

Touch Enabled No

Contrast Ratio 300:1 (tvp.) **Refresh Rate** 60 Hz **Brightness** 250 nits

1366 x 768 (HD) **Pixel Resolution - Format**

Backlight LED

Pixel Resolution RGB Stripe Color Gamut Coverage NTSC 45% Color Depth 6 bits

Viewing Angle SVA 45/45/15/35

Low Blue Light

Power Consumption (W, EBL@ 2.52W max./ 2.86W max. 150nits max/ 200nits max)



14.0 in FHD (1920 x 1080) Anti-Glare UWVA Low Blue Light sRGB NB2Y 1000 eDP 1.3+PSR 100 PrivacyG4 Plus bent LCD Panel

 Outline Dimensions (W x H)
 314.612x 185.330

 Active Area
 309.312 x 173.990

Weight 230g
Diagonal Size 14.0 (inch)

Surface Treatment AG
Touch Enabled NA
Contrast Ratio 1500:1
Refresh Rate 60Hz
Brightness 1000nits

Pixel Resolution - Format 1920 x1080 (FHD)

BacklightLEDPixel ResolutionRGB StripeColor Gamut CoveragesRGB 100%

Color Depth 8bit

Viewing Angle UWVA 85/85/85

Yes

N/A

Low Blue Light

Power Consumption (W, EBL@

150nits max/ 200nits max)



STORAGE AND DRIVES

For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 30 GB (for Windows 10 and 11) is reserved for system recovery software.

M.2 2230

SSD 128GB 2230 PCIe NVMe Value Form Factor

Capacity 128GB NAND Type Value

InterfacePCIe NVMe Gen3Maximum Sequential ReadUp to 2100 MB/sMaximum Sequential WriteUp to 1200 MB/s

Logical Blocks 250,069,680 Features Pyrite; TRIM; L1.2

SSD 256GB 2230 PCIe NVMe Value Form Factor M.2 2230

Capacity 256 GB NAND Type Value

Interface PCIe NVMe Gen3

Maximum Sequential Read up to 2500 MB/s

Maximum Sequential Write up to 1300 MB/s

Logical Blocks 500,118,192

Features Pyrite; TRIM; L1.2

SSD 256GB 2280 PCIe NVMe Value Form Factor M.2 2280

Capacity 256GB NAND Type Value

InterfacePCIe NVMe Gen3Maximum Sequential ReadUp to 2900 MB/sMaximum Sequential WriteUp to 1400 MB/sLogical Blocks500,118,192

Features ATA Security; TRIM; L1.2

SSD 512GB 2280 PCIe NVMe Value Form Factor M.2 2280

Capacity 512GB NAND Type Value

InterfacePCIe NVMe Gen3Maximum Sequential ReadUp to 3500 MB/sMaximum Sequential Writeup to 3000 MB/sLogical Blocks1,000,215,216FeaturesTRIM; L1.2

SSD 1TB 2280 PCIe-4x4 NVMe Three Layer Cell Form Factor M.2 2280
Capacity 1TB
NAND Type TLC

InterfacePCIe NVMe Gen4Maximum Sequential ReadUp to 7,100 MB/sMaximum Sequential WriteUp to 5,200 MB/sLogical Blocks2,000,409,264FeaturesPyrite 2.0; TRIM; L1.2

SSD 1 TB 2280 PCIe NVMe Value Form Factor M.2 2280

Capacity1TBNAND TypeTLC

InterfacePCIe NVMe Gen4X4Maximum Sequential Read3200 MB/s ±20%Maximum Sequential Write2700 MB/s ±20%Logical Blocks2,000,409,264FeaturesPyrite 2.0; TRIM; L1.2



NETWORKING/COMMUNICATIONS

Intel® AX211 Wi-Fi 6E and Wireless LAN Standards
Bluetooth® 5.3 M.2
IEEE 802.11b
160MHz CNVi WLAN nonvPro Wireless Card ¹
IEEE 802.11n
IEEE 802.11ac
IEEE 802.11ax

IEEE 802.11ac
IEEE 802.11ax
IEEE 802.11d
IEEE 802.11e
IEEE 802.11h
IEEE 802.11i
IEEE 802.11k
IEEE 802.11r
IEEE 802.11r

Interoperability Wi-Fi certified

Frequency Band •802.11b/g/n/ax

2.402 – 2.482 GHz •802.11a/n/ac/ax 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 5.955 – 6.415 GHz 6.435 – 6.515 GHz 6.535 – 6.875 GHz 6.895 – 7.115 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: max 300Mbps •802.11ac: 1733Mbps •802.11ax: max 2.4Gbps

Modulation Direct Sequence Spread Spectrum

OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM

Security³ •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
•WPA3 certification
•IEEE 802.11i
•WAPI

Network Architecture Ad-hoc (Peer to Peer)

Models Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between access points

Output Power² • 802.11b: +17dBm minimum



• 802.11g : +16dBm minimum • 802.11a : +17dBm minimum

802.11n HT20(2.4GHz): +14dBm minimum
802.11n HT40(2.4GHz): +13dBm minimum
802.11n HT20(5GHz): +14dBm minimum
802.11n HT40(5GHz): +13dBm minimum
802.11ac VHT80(5GHz): +10dBm minimum
802.11ac VHT160(5GHz): +10dBm minimum
802.11ax HE40(2.4GHz): +12dBm minimum
802.11ax HE80(5GHz): +10dBm minimum

Power Consumption •Transmit mode2.0 W

•Receive mode1.6 W

•Idle mode (PSP)180 mW (WLAN Associated)
•Idle mode50 mW (WLAN unassociated)

802.11ax HE160(5GHz): +10dBm minimum

•Connected Standby 10mW
•Radio disabled8 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity⁴ •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(VHT80): -84dBm maximum
802.11ac, MCS9(VHT80): -59dBm maximum
802.11ac, MCS9(VHT160): -58.5dBm maximum
802.11ax, MCS11(HE40): -57dBm maximum
802.11ax, MCS11(HE80): -54dBm maximum
802.11ax, MCS11(HE160): -53.5dBm 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 1. Type 2230: 2.3 x 22.0 x 30.0 mm

2. Type 1216: 1.67 x 12.0 x 16.0 mm

Weight 1. Type 2230: 2.8g

2. Type 1216: 1.3g

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 Amber – Radio OFF; LED OFF – Radio ON

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card

Bluetooth Specification 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Compliant

Frequency Band 2402 to 2480 MHz

Number of Available Legacy: 0~79 (1 MHz/CH) **Channels** BLE: 0~39 (2 MHz/CH)

Data Rates andLegacy: 3 Mbps data rate; throughput up to 2.17 Mbps **Throughput**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 + 9.5 dBm for BR and EDR.

- 1. Wi-Fi 6E requires a Wi-Fi 6E router, sold separately, to function in the 6GHz band. Availability of public wireless access points limited. Wi-Fi 6E is backwards compatible with prior 802.11 specs. And available in countries where Wi-Fi 6E is supported. Wi-Fi 6E is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.
- 2. The FCC has declared as of September 1, 2014 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.
- 3. Check latest software/driver release for updates on supported security features.
- 4. 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).



Realtek RTL8852BE 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3 (802.11ax 2x2. supporting gigabit data rate) Wireless Card 1

Wireless LAN Standards IEEE 802.11a

> IEEE 802.11b IEEE 802.11q IEEE 802.11n IEEE 802.11ac IEEE 802.11ax IEEE 802.11d

IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k IEEE 802.11r IEEE 802.11v

Interoperability Wi-Fi certified modules

Frequency Band •802.11b/g/n/ax

> 2.402 - 2.482 GHz •802.11a/n/ac/ax 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

> •802.11q: 6, 9, 12, 18, 24, 36, 48, 54 Mbps •802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

•802.11n: max 300Mbps •802.11ac: max 866.7Mbps 802.11ax: max 1201Mbps

Modulation Direct Sequence Spread Spectrum

BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM

Security³ •IEEE and WiFi certified 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 WPA3 certification •IEEE 802.11i

•WAPI

Network Architecture Ad-hoc (Peer to Peer)

Models Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between access points

Output Power² 802.11b: +18.5dBm minimum

 802.11g: +17.5dBm minimum 802.11a: +18.5dBm minimum

 802.11n HT20(2.4GHz): +15.5dBm minimum 802.11n HT40(2.4GHz): +14.5dBm minimum 802.11n HT20(5GHz): +15.5dBm minimum



802.11n HT40(5GHz): +14.5dBm minimum
 802.11ac VHT80(5GHz): +11.5dBm minimum

802.11ax HE40(2.4GHz): +10dBm minimum
 802.11ax HE80(5GHz): +10dBm minimum

Power Consumption • Transmit mode: 2.5 W

•Receive mode:2 W

Idle mode (PSP)180 mW(WLAN Associated)
 Idle mode:50 mW(WLAN unassociated)
 Connected Standby/Modern Standby: 10mW

Radio disabled: 8 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity⁴ 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

•802.11ax, MCS11(HE40): -57dBm maximum •802.11ax, MCS11(HE80): -54dBm 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

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Weight 1. Type 2230: 2.8g

2. Type 126: 1.3g

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)

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 Off - Radio ON

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3 Wireless Card

Bluetooth Specification 4.0/4.1/4.2/5.0/5.1 Compliant/5.2/5.3 Compliant

Frequency Band 2402 to 2480 MHz

Number of Available Legacy: 0~79 (1 MHz/CH)
Channels BLE: 0~39 (2 MHz/CH)



Data Rates and Legacy: 3 Mbps data rate: throughput up to 2.17 Mbps Throughput 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.

1. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

- 2. The FCC has declared as of September 1, 2014 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.
- 3. Check latest software/driver release for updates on supported security features.
- 4. 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® XMM™ 7560 R+ LTE-Advanced Pro1

Technology/Operating FDD LTE:

bands 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 14 upper), 700 (Band 17 lower), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1900 (Band 25), 850 (Band 26), 700 (Band 28), 700 (Band 29 RX only),

2300 (Band 30), 1700/2100 (Band 66), 600 (band 71).

TDD LTE:

2100 (Band 34), 2600 (Band 38), 1900 (Band 39), 2400 (Band 40), 2500 (Band 41), 3500 (Band 42), 3700 (Band 43), 3700 (band 48), 5200 (Band

46 RX only) MHz:

HSPA+:

2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4),

850 (Band 5), 900 (Band 8) MHz

Wireless protocol standards

power

3GPP Release 12 LTE Specification DL-CAT.16, DL 100MHz BW throughput up to 978Mbps; UL-CAT.13 40MHz throughput up to

150Mbps

WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification

GPS Standalone GPS/Beidou/Glonass, A-GPS (MS-A, MS-B)

GPS bands 1575.42 MHz ± 1.023 MHz, GLONASS 1596-1607MHz, Beidou 1561.098

MHz

Maximum data rates LTE: 978 Mbps (Download), 150 Mbps (Upload)

DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload) HSPA+: 21Mbps (Download), 5.76 Mbps (Upload)

Maximum output LTE: 23 dBm in all band except B41

> LTE B41 HPUE = 26dBm HSPA+: 23.5 dBm

LTE: 1,200 mA (peak); 900 mA (average) Maximum power HSPA+: 1,100 mA (peak); 800 mA (average)

consumption **Form Factor** M.2, 3042-S3 Kev B

Weight 6 q



Dimensions (Length x Width x Thickness)

eSIM

42 x 30 x 2.3 mm

Support

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

Realtek RTL8111HSH				
10/100/1000 Integrated				
NIC				

Ethernet Features 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)

100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-

30)

1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses

40)

Auto-Negotiation (Automatic Speed Selection)

Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100

Mbit/s

Power Management ACPI compliant – multiple power modes

Situation-sensitive features reduce power consumption

Advanced link down power saving for reducing link down power

consumption

Performance Features TCP/IP/UDP Checksum Offload (configurable)

Protocol Offload (ARP & NS)

Large send offload and Giant send offload

Receiving Side Scaling Jumbo Frame 9K

Manageability Wake-on-LAN from modern standby or sleep state (Magic Packet and

Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only)

PXE 2.1 Remote Boot

Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB

(802.3x, clause 30))

Comprehensive diagnostic and configuration software suite

Virtual Cable Doctor for Ethernet cable status

Interface

PCIe + SMBus

NIC Device Driver Name Realtek PCIe GBE Ethernet Family Controller



POWER

AC Adapter 45 Watt nPFC Standard USB type C Straight 1.8m **Dimensions** 94.0mm x 40.0mm x 26.5mm

Weight 192.5g +/-10% **Input** 100-240 VAC

Input Efficiency Average Efficiency of 25%, 50%, 75%, 100% load condition with

115Vac/230Vac Spec:

5V: 81.5% 9V: 86.7% 12V: 87.41% 15V: 87.8%

Input frequency range 47 to 63 Hz

Input AC current Max. 1.4 A at 90 Vac

Output

Output power 5V/15W

9V/27W 12V/36W 15V/45W

DC output 5V/9V/12V/15V
Hold-up time 5ms at 115 Vac input

Output current limit <5.0A
Connector USB Type-C

Environmental Design

Operating temperature 32° to 95° F (0° to 35° C)
Non-operating (storage) -4° to 185° F (-20° to 85° C)

temperature

Altitude 0 to 16,400 ft (0 to 5000m)

Humidity20% to 95%Storage Humidity10% to 95%

EMI and Safety Eg:

Certifications *CE Mark - full compliance with LVD and EMC directives

* Worldwide safety standards - IEC60950-1 and/or IEC62368-1, EN60950-1 and/or EN62368-1, UL60950-1 and/or UL62368-1,

Class1, SELV

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B. CISPR32 Class B. CCC. NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.

AC Adapter 45 Watt Smart nPFC Standard Barrel 4.5mm Right Angle 1.8m

 Dimensions
 95 x 45 x 26.5 mm

 Weight
 unit: 200g +/- 10g

 Input
 100-240 VAC

Input Efficiency 87.74 % at 115 Vac and 88.4 % at 230 Vac

Input frequency range 47 ~ 63 Hz

Input AC current Max. 1.4 A at 90 Vac

Output

Output power 45W



DC output 19.5V

Hold-up time 5ms at 115 Vac input

Output current limit <8.0A

Connector 4.5mm Barrel Type

Environmental Design

Operating temperature 32° to 95° F (0° to 35° C)
Non-operating (storage) -4° to 185° F (-20° to 85° C)

temperature

Altitude 0 to 16,400 ft (0 to 5000m)

Humidity20% to 95%Storage Humidity10% to 95%

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Class1, SELV;

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B, CISPR32 Class B, CCC, NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.

AC Adapter 65 Watt nPFC Standard USB type C Straight 1.8m

 Dimensions
 90.0 x 51 x 28.5mm

 Weight
 unit: 250g +/- 10g

 Input
 100-240 VAC

Input Efficiency Average Efficiency of 25%, 50%, 75%, 100% load condition with

115Vac/230Vac Spec:

5V: 81.5% 9V: 86.7% 12V: 88% 15V: 88% 20V: 89%

Input frequency range

47 ~ 63Hz

Input AC current

1.6 A at 90 VAC and maximum load

Output

Output power 5V/15W

9V/27W 12V/60W 15V/60W 20V/65W

DC output 5V/9V/12V/15V/20V **Hold-up time** 5ms at 115 Vac input

Output current limit <8.0A
Connector USB Type-C

Environmental Design

Operating temperature 32° to 95° F (0° to 35° C)
Non-operating (storage) -4° to 185° F (-20° to 85° C)

temperature

Altitude 0 to 16,400 ft (0 to 5000m)

Humidity20% to 95%Storage Humidity10% to 95%

EMI and Safety Eg:

Certifications *CE Mark - full compliance with LVD and EMC directives

* Worldwide safety standards - IEC60950-1 and/or IEC62368-1, EN60950-1 and/or EN62368-1, UL60950-1 and/or UL62368-1,

Class1, SELV;

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B, CISPR32 Class B, CCC, NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.

AC Adapter 65 Watt Smart nPFC EM Barrel 4.5mm New EM

 Dimensions
 102 x 55 x 30mm

 Weight
 unit: 250g +/- 10g

 Input
 100-240 VAC

Input Efficiency 88.0 % at 115 Vac and 89.0 % at 230 Vac

Input frequency range 47 ~ 63 Hz

Input AC current Max. 1.7 A at 90 Vac

Output

Output power 65W **DC output** 19.5V

Hold-up time 5ms at 115 Vac input

Output current limit <11.0A

Connector 4.5mm Barrel Type

Environmental Design

Operating temperature 32°F to 95°F (0°to 35°C)
Non-operating (storage) -4°F to 185°F (-20°to 85°C)

temperature

Altitude 0 to 16,400 ft (0 to 5000m)

Humidity 20% to 95% **Storage Humidity** 10% to 95%

EMI and Safety Eq:

Certifications *CE Mark - full compliance with LVD and EMC directives

* Worldwide safety standards - IEC60950-1 and/or IEC62368-1, EN60950-1 and/or EN62368-1, UL60950-1 and/or UL62368-1,

Class 1. SELV:

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B, CISPR32 Class B, CCC, NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.



AC Adapter 65 Watt Smart nPFC Standard Barrel 4.5mm Right Angle 1.8m

 Dimensions
 90 x 51 x 28.5mm

 Weight
 Unit: 230g +/-10%

 Input
 100-240 VAC

Input Efficiency 88.0 % at 115 Vac and 89.0 % at 230 Vac

Input frequency range 47 ~ 63 Hz

Input AC current Max. 1.7 A at 90 Vac

Output

Output power 65W **DC output** 19.5V

Hold-up time 5 ms at 115 Vac input

Output current limit <11.0A

Connector 4.5mm Barrel Type

Environmental Design

Operating temperature 32°F to 95°F (0°to 35°C) **Non-operating (storage)** -4°F to 185°F (-20°to 85°C)

temperature

Altitude 0 to 16,400 ft (0 to 5000m)

Humidity20% to 95%Storage Humidity10% to 95%

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Class1, SELV;

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B, CISPR32 Class B, CCC, NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.

AC Adapter 65 Watt nPFC Slim USB type C Straight 1.8m
 Dimensions
 88x53.5x21mm

 Weight
 unit: 220g +/- 10g

 Input
 100-240 VAC

Input Efficiency 81.5% min at 115 Vac/ 230Vac @ 5V/3A

86.7% min at 115 Vac/ 230Vac @ 9V/3A 88% min at 115 Vac/ 230Vac @ 12V/5A 89% min at 115 Vac/ 230Vac @ 15V/4.33A 89% min at 115 Vac/ 230Vac @ 20V/3.25A

Input frequency range 47 ~ 63 Hz

Input AC current 1.7 A at 90 VAC and maximum load

Output

Output power 65W

DC output 5V/9V/12V/15V/20V **Hold-up time** 5ms at 115 Vac input

Output current limit <8.0A
Connector USB Type C

Environmental Design



Operating temperature Non-operating (storage)

temperature

Altitude 0 to 16.400 ft (0 to 5000m)

Humidity5% to 95%Storage Humidity5% to 95%

EMI and Safety Eg:

Certifications *CE Mark - full compliance with LVD and EMC directives

32°F to 95°F (0°to 35°C)

-4°F to 185°F (-20°to 85°C)

* Worldwide safety standards - IEC60950-1 and/or IEC62368-1, EN60950-1 and/or EN62368-1, UL60950-1 and/or UL62368-1,

Class1, SELV;

Agency approvals - C-UL-US, NORDICS, DENAN, EN55032 Class B, FCC

Class B, CISPR32 Class B, CCC, NOM-001 NYCE.

* MTBF - over 200,000 hours at 25°C ambient condition.

RH 42Whr Long Life Polymer Fast Charge 3 cell Battery Weight 0.18 kg (0.397 lb)

Cells/Type 3cell Lithium-Ion Polymer cell / 545974
Energy

Voltage 11.4V Amp-hour capacity 3.752Ah Watt-hour capacity 42.75Wh

Temperature

Operating (Charging) 32° to 113° F (0° to 45° C)
Operating (Discharging) 14° to 122° F (-10° to 60° C)

Optional Travel Battery

Available

No



RH 51Whr Long Life Polymer Fast Charge 3 cell Battery **Weight** 0.2025 kg (0.446 lb)

Cells/Type 3cell Lithium-Ion Polymer cell / 566075

Energy

Voltage 11.58V Amp-hour capacity 4.431Ah Watt-hour capacity 51.3Wh

Temperature

Operating (Charging) 32° to 113° F (0° to 45° C) **Operating (Discharging)** 14° to 122° F (-10° to 60° C)

Optional Travel Battery

Available

No



AUDIO

HD Stereo Codec ALC3247-CG

Audio I/O Ports Headset: CTIA only and Headphone-out

Internal Speaker Amplifier ALC 3247 has Embedded Class-D 2W Stereo Amplifier

Multi-streaming Capable Playback multi-streaming can be enabled in the audio control panel to allow independent audio.

Following MSFT Behavior

Sampling DAC:44.1k/48kHz

ADC:48kHz

Wavetable Syntheses NA

Analog Audio Support 3.5mm Headset: CTIA only and Headphone-out

of Channels on Line-Out $_{
m NA}$ Internal Speaker $_{
m Yes}$

FINGERPRINT READER

Sensor vendorElan efsa80STSensor typeCapacitiveDPI resolution508 dpiScan area80*80 pixels

False Rejection Rate <3%
False Acceptance Rate 1/100K
Mobile Voltage Operation 2.7V to 3.6V

Operating Temperature $-4-175^{\circ}\text{F} (-20^{\circ} \sim +80^{\circ}\text{C})$

Current Consumption

Image 50mA peak

Low Latency Wait For

Finger 900uA
Capture Rate 30 frame/sec
ESD Resistance +15KV

Detection Matrix 80*80 pixels/ 508 dpi / 4*4mm sensor area



ENVIRONMENTAL DATA

Eco-Label Certifications &	This product has received	or is in the process of being c	ertified to the following approvals and may		
declarations	be labeled with one or more of these marks:				
	IT ECO declaration	n			
	US ENERGY STAR				
	US Federal Energy	y Management Program (FEN	1P)		
	EPEAT [®] Gold regis	stered in the United States. S	ee http://www.epeat.net for registration		
	status in your cou	ıntry.	· · · · · · · · ·		
	 TCO Certified 				
	3,	servation Program (CECP)			
		onmental Protection Adminis	stration (SEPA)		
	Taiwan Green Mar	rk			
	Korea Eco-label				
	Japan PC Green la				
Sustainable Impact	Ocean-bound plastic in S				
Specifications	• 10% post-consumer recy	cled plastic			
	• Low halogen				
			inably sourced and recyclable		
	<u> </u>		nably sourced and recyclable		
	 Bulk packaging available 				
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 (Sort					
idle)	4.18 W	4.1 W	4.16 W		
Normal Operation (Long					
idle)	0.93 W	0.92 W	0.96 W		
Sleen	0.93 W				
Sleep	0.93 W	0.92 W	0.96 W		
Sleep Off	0.93 W 0.25 W				
	0.25 W	0.92 W	0.96 W		
	0.25 W NOTE:	0.92 W 0.25 W	0.96 W 0.29 W		
	0.25 W NOTE: Energy efficiency data liste	0.92 W 0.25 W ed is for an ENERGY STAR® co	0.96 W 0.29 W mpliant product if offered within the model		
	0.25 W NOTE: Energy efficiency data liste family. HP computers mar	0.92 W 0.25 W ed is for an ENERGY STAR® co	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S.		
	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model		
	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENE	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant config	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed		
	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENEI is for a typically configure	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk d	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model		
	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENE	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk d	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed		
Off	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENEI is for a typically configure Microsoft Windows® operations.	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk deting system.	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a		
Off Heat Dissipation*	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENEI is for a typically configure	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk d	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed		
Off Heat Dissipation* Normal Operation (Short	0.25 W NOTE: Energy efficiency data lists family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® opera	0.92 W 0.25 W ed is for an ENERGY STAR® coked with the ENERGY STAR® Agency (EPA) ENERGY STARRGY STARRGY STAR® compliant configued PC featuring a hard disk dating system.	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a		
Off Heat Dissipation* Normal Operation (Short idle)	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENEI is for a typically configure Microsoft Windows® operations.	0.92 W 0.25 W ed is for an ENERGY STAR® co ked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk deting system.	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a		
Off Heat Dissipation* Normal Operation (Short idle) Normal Operation (Long	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® opera 115VAC, 60Hz 14.3 BTU/hr	0.92 W 0.25 W ed is for an ENERGY STAR® coked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk dating system. 230VAC, 50Hz	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a 100VAC, 50Hz 14.2 BTU/hr		
Off Heat Dissipation* Normal Operation (Short idle)	0.25 W NOTE: Energy efficiency data lists family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® opera	0.92 W 0.25 W ed is for an ENERGY STAR® coked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk dating system. 230VAC, 50Hz 14 BTU/hr 3.1 BTU/hr	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a		
Off Heat Dissipation* Normal Operation (Short idle) Normal Operation (Long	0.25 W NOTE: Energy efficiency data liste family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® opera 115VAC, 60Hz 14.3 BTU/hr	0.92 W 0.25 W ed is for an ENERGY STAR® coked with the ENERGY STAR® I Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk dating system. 230VAC, 50Hz	0.96 W 0.29 W mpliant product if offered within the model Logo are compliant with the applicable U.S. specifications for computers. If a model urations, then energy efficiency data listed rive, a high efficiency power supply, and a 100VAC, 50Hz 14.2 BTU/hr		





	*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level attained for one hour.				
Declared Noise Emissions	Sound Power Soun			d Pressure	
(in accordance with ISO 7779 and ISO 9296)	(L _{pAm} , decibels)				
Typically Configured – Idle	2.6 15.5				
Fixed Disk – Random writes	2.7 22.8				
Optical Drive – Sequential reads	3.3 26.2				
Longevity and Upgrading	ongevity and Upgrading This product can be upgraded, possibly extending its useful life by several ye features and/or components contained in the			eral years. Upgradeable	
	Spare parts a of production		warranty period and or for up	to "5" years after the end	
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 is 93.2% recycle-able when properly disposed of at end of life. 				
Packaging Materials	External:	PAPER/Corrugated		0.281 g	
		PAPER/Molded Pulp		0.122 g	
	Internal:	PLASTIC/Polyethylene lov	density - LDPE	0.009 g	
	The plastic packaging material contains at least 0.0% recycled content.				
RoHS Compliance	The corrugated paper packaging materials contains at least 57.0% recycled content. HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam. We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products. We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve. To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.				
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/supplychain/gen_specifications.html				



recillicat Specifica	נוטוו
reclinical Specifical): Asbestos Certain Azo Colorants Certain Brominated Flame Retardants – may not be used as flame retardants in plastics Cadmium Chlorinated Hydrocarbons Chlorinated Paraffins Bis(2-Ethylhexyl) phthalate (DEHP) Benzyl butyl phthalate (BBP) Dibutyl phthalate (DBP) Diisobutyl phthalate (DIBP) 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 Biphenyl (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	HP 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.	Corporate	For more information about HP's commitment to the environment:
Envir	onmental		
Inforr	mation		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
footn	otes		 Percentage of ocean-bound plastic contained in each component varies by product Recycled plastic content percentage is based on the definition set in the IEEE 1680.1 - 2018 standard. External power supplies, WWAN modules, power cords, cables and peripherals excluded. 100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers. Fiber cushions made from 100% recycled wood fiber and organic materials.

COUNTRY OF ORIGIN

China



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

DOCKING (Sold Separately)

Docking station model #1

Total number of supported displays

(incl. the notebook display)
Max. resolutions supported

HP USB-C Dock G5

3

Dual 5K@ 30Hz + 1 4K UHD (multi-function mode) 5120x2880

Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution

mode.

Dock Connectors 1xHDMI, 2xDP

Technical limitations Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution

mode.

Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one

4K UHD@ 30 Hz on HDMI in Multi-function mode

The highest resolution for a non-Thunderbolt host in Multi-function mode is a

single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.

Docking station model #2

Total number of supported displays

(incl. the notebook display)
Max. resolutions supported

Dock Connectors

3

Triple 4K UHD@ 60Hz 3840x2160

HP USB-C/A Universal Dock G2

1xHDMI, 2xDP

Technical limitations The best resolution for dual or triple displays is 4K UHD@ 60Hz.

For use with the USB-A adapter that comes in the box the maximum number of displays supported is (2) 4k x 60 Hz on the Type-A Gen 1 connection from

the host

4

Docking station model #3

Total number of supported displays

(incl. the notebook display)
Max. resolutions supported

HP Thunderbolt Dock G2

Dual 4K @30Hz or dual 4K UHD @ 60Hz is supported

Single 8K@ 60Hz for Thunderbolt hosts or USB-C hosts DP 1.4 with DSC in

high res mode.

Dock Connectors

2xDP, 1xVGA, 1xTB, 1xUSB-C alt-mode

Technical limitations Thunderbolt Hosts:

Maximum of (4) displays with maximum resolution of 5K@ 30Hz running

Thunderbolt host.

Maximum resolution possible is dual 8K displays @ 60Hz running Thunderbolt

host or running a non-Thunderbolt host in high resolution mode @30Hz

Non-Thunderbolt hosts:

The highest resolution for dual displays running a non-Thunderbolt host in

multi-function mode is

(1) 5K dual cable (using both DP ports) +(1) 4K on USB-C DP port

Non-Thunderbolt hosts support (3) displays with a maximum resolution of (2) 5K single cable + (1) 4K UHD @ 60 Hz in high resolution mode. In multifunction mode the maximum resolution for (3) displays is (2) 5K single cable

@ 30Hz + (1) 4K UHD @ 30Hz.



QuickSpecs

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

Category	Description	Part Number
Audio/Video	HP Wired USB-A Stereo Headset	428K6AA
	HP Wired 3.5mm Stereo Headset	428K7AA
Cases	HP Business 14.1 Sleeve	2UW01AA
	HP Business Slim 17.3 Top Load	2UW02AA
	HP Executive 14.1 Tote	6KD10AA
	HP Executive 15.6 Backpack	6KD07AA
	HP Executive 15.6 Top Load	6KD06AA
	HP Executive 17.3 Backpack	6KD05AA
	HP Executive 17.3 Top Load	6KD08AA
	HP Executive Leather 15.6 Top Load	6KD09AA
	HP Executive Slim 14.1 Top Load	6KD04AA
	HP Prelude G2 15.6 Backpack	1E7D6AA
	HP Prelude G2 15.6 Top Load	1E7D7AA
	HP Prelude Pro Recycled 15.6 Backpack	1X644AA
	HP Prelude Pro Recycled 15.6 Top Load	1X645AA
	HP Renew 14 Laptop Sleeve	2E6U9AA,2E6V0AA
	HP Renew Business 14.1 Laptop Sleeve	3E2U7AA
	HP Renew Business 17.3 Laptop Backpack	3E2U5AA
	HP Renew Business 17.3 Laptop Bag	3E2U6AA
	HP Renew Business 14.1 Laptop Bag	3E5F9AA
	HP Renew Business 15.6 Laptop Bag	3E5F8AA
Docking	HP Thunderbolt 120W G2 Dock	2UK37AA
	HP Thunderbolt 120W G2 Dock w/Audio	3YE87AA
	HP Thunderbolt 120W G4 Dock	4J0A2AA
	HP Thunderbolt 230W G2 Dock w/Combo Cable	3TR87AA
	HP Thunderbolt 280W G4 Dock w/Combo Cable	4J0G4AA
	HP USB-C/A 120W G2 Universal Dock	5TW13AA
	HP USB-C Dock G5	5TW10AA
Hub	HP USB-C Mini Dock	1PM64AA
	HP Universal USB-C Multiport Hub	50H55AA
	HP USB-C Travel Dock G2	7PJ38AA
	HP USB-C to USB-A Hub	Z6A00AA
Adapter	HP HDMI to DVI Adapter	F5A28AA
	HP HDMI to VGA Adapter	H4F02AA
	HP USB-C to DisplayPort Adapter	N9K78AA
	HP USB-C to HDMI 2.0 Adapter	1WC36AA
	HP USB-C to USB 3.0 Adapter	N2Z63AA
	HP USB-C to VGA Adapter	N9K76AA





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

Keyboard/Combo	HP 975 USB+BT Dual-Mode Wireless Keyboard	3Z726AA
	HP 455 Programmable Wireless Keyboard	4R177AA
	HP 125 WD USB Keyboard	266C9AA
	HP 320K WD USB Keyboard	9SR37AA
	HP 655 Wireless Keyboard and Mouse Combo	4R009AA
	HP 225 Wired Mouse and Keyboard Combo	286J4AA
	HP 235 Wireless Mouse and Keyboard Combo	1Y4D0AA
	HP Slim Wireless Keyboard and Mouse	T6L04AA
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
	HP Wireless Rechargeable 950MK Mouse and Keyboard	3M165AA
Mouse	HP USB Premium Wireless Mouse	1JR31AA
	HP 435 Multi-Device Wireless Mouse	3B4Q5AA
	HP 125 USB-A Wired Mouse	265A9AA
	HP 128 USB Laser Wired Mouse	265D9AA
	HP 320M USB-A Wired Mouse	9VA80AA
	HP Creator USB-A+Bluetooth 935 Wireless Mouse Black	1D0K8AA
	HP USB-A+Bluetooth Multi-Device 635 Wireless Mouse Black	1D0K2AA
	HP USB-A+Bluetooth Travel Bluetooth Mouse	6SP30AA
Power	HP 65W USB-C Auto Chevy AC Power Adapter	5TQ76AA
	HP 45W 4.5 mm Smart AC Power Adapter	H6Y88AA
	HP 45W USB-C G2 Zeus AC Power Adapter	1HE07AA
	HP 45W USB-C LC Dali AC Power Adapter	1MZ01AA
	HP 65W 4.5 mm LC Smart non-EM India Ony AC Power Adapter	3FF84AA#ACJ
	HP 65W 4.5 mm Smart AC Power Adapter	H6Y89AA
	HP 65W 4.5 mm wDongle 7.4 mm Slim AC Power Adapter	H6Y82AA
	HP 65W USB-C Hades AC Power Adapter	1HE08AA
	HP 65W USB-C LC AC Power Adapter	1P3K6AA
Commodity	HP USB DVD-Writer EXT ODD	F2B56AA
	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP SureKey Standard/Nano/Wedge Cable Lock	6UW42AA
	The Sarchey Standard/Harlo/ Wedge Cable Lock	UUW72AA



Summary of Changes

Date of change:	Version History:	Updated	Description of change:
April 11, 2022	V1 to V2	Added	Reference for USB ports
June 15, 2022	V2 to V3	Added	Added note in Manageability Feature
June 22, 2022	V3 to V4	Updated	Discrete in Graphics section
July 13, 2022	V4 to V5	Added	Input value in Power section
August 8, 2022	V5 to V6	Updated	DisplayPort™ in At a Glance and Ports/Slots section
August 17, 2022	V6 to V7	Removed	Numeric wording in Keyboard section
September 7, 2022	V7 to V8	Removed	Tile App
October 20, 2022	V8 to V9	Updated	Bluetooth version
December 8, 2022	V9 to V10	Updated	Windows OS
January 12, 2023	V10 to V11	Added	HP Client Security Manager in Software and Security section
January 20, 2023	V11 to V12	Updated	Operating System
March 7, 2023	V12 to V13	Updated	Networking and communications section and content updates
May 18, 2023	V13 to V14	Updated	Storage and Drives section
April 24, 2024	V14 to V15	Updated	Memory Section

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