tehnot≡ka

Informacije o proizvodu (EN)

HP laptop ProBook 455 G9 Win 11 Pro (9M3Q0AT/16)





Tehnoteka je online destinacija za upoređivanje cena i karakteristika bele tehnike, potrošačke elektronike i IT uređaja kod trgovinskih lanaca i internet prodavnica u Srbiji. Naša stranica vam omogućava da istražite najnovije informacije, detaljne karakteristike i konkurentne cene proizvoda.

Posetite nas i uživajte u ekskluzivnom iskustvu pametne kupovine klikom na link:

https://tehnoteka.rs/p/hp-laptop-probook-455-g9-win-11-pro-9m3g0at16-akcija-cena/

Overview

HP ProBook 455 15.6" 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
- 3. 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 2.0b Port (Cable not included)
- 7. Audio Combo Jack
- 8. Nano SIM Slot (Select Models)
- 9. Touch Fingerprint Sensor (select models)

Overview

AT A GLANCE

- Preinstalled with Windows 11 versions or FreeDOS
- Choice of AMD Barcelo[™] 5000 series mobile processors, R7, R5 and R3
- Integrated AMD Radeon ™ Vega graphics
- Fast and upgradeable dual channel DDR4 SODIMM memory up to 32 GB
- Choice of 39.62 cm (15.6") diagonal HD, Ultra Wide Viewing Angle FHD and FHD TOP Panel Option
- Features redesigned quiet and responsive HP Keyboard with the HP Programmable key and backlit options
- Choice of primary solid state drives up to 1TB, Optional 2nd SSD 128GB/256GB
- Multi-layered security with HP SureStart Gen6, HP Privacy Camera, HP Sure View Gen4, HP Sure Sense G2, HP Sure Click, and Touch Fingerprint reader, Tamper Lock, HP Wolf Security
- Supports wireless options for connectivity on the go including gigabit-speed up to Wi-Fi 6e and CAT9 4G/LTE WWAN (Optional)
- Supports fast charging (50% in 30 minutes) with no impact on battery recharge cycles
- Designed to support HP docking options including the HP Universal Dock G5
- Designed to pass 19 MIL-STD 810H tests
- Battery options 42.75 Wh and 51.3 Wh
- Battery life up to 19 hours and 30 minutes
- Optimize your video calls with an HD camera and temporal noise reduction that adjusts to the lighting in your environment.

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



PRODUCT NAME

HP ProBook 455 15.6" G9 Notebook PC

OPERATING SYSTEM

Preinstalled Windows 11 Pro1

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

AMD Ryzen™ 7 5825U Mobile Processor with Radeon™ Graphics (2.0 GHz base clock, up to 4.5 GHz max boost clock, 16 MB L3 cache, 8 cores, 16 threads) ^{3,4,5,6}

AMD Ryzen™ 5 5625U Mobile Processor with Radeon™ Graphics (2.3 GHz base clock, up to 4.3 GHz max boost clock, 16 MB L3 cache, 6 cores, 12 threads) ^{3,4,5,6}

AMD Ryzen™ 3 5425U Mobile Processor with Radeon™ Graphics (2.7 GHz base clock, up to 4.1 GHz max boost clock, 8 MB L3 cache, 4 cores, 8 threads) ^{3,4,5,6}

Processor Family

AMD Barcelo™ 5000 Series Mobile Processors 6

- 3. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- 4. 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.
- 5. AMD Max Burst frequency performance varies depending on hardware, software and overall system configuration.
- 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

AMD Radeon™ Graphics 7

Supports

Support HD decode, DX12, HDMI 2.0b

7. HD content required to view HD images.

DISPLAY

Non-Touch

39.6 cm (15.6") diagonal FHD UWVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD camera +WWAN (1920 \times 1080) ^{7,8}

39.6 cm (15.6") diagonal FHD UWVA eDP anti-glare, low power narrow bezel bent, 400 nits, 100% sRGB for HD Webcam (1920 x 1080) 7,8

39.6 cm (15.6") diagonal FHD UWVA eDP anti-glare, low power narrow bezel bent, 400 nits, 100% sRGB for HD Webcam +IR camera (1920 x 1080) 7,8

39.6 cm (15.6") diagonal FHD UWVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC (1920 x 1080) ^{7,8}

39.6 cm (15.6") diagonal FHD UWVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD Webcam (1920 x 1080) 7.8

39.6 cm (15.6") diagonal FHD UWVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD Webcam +IR camera (1920 x 1080) 7.8

39.6 cm (15.6") diagonal HD SVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD camera +WWAN $(1366 \times 768)^{7.8}$

39.6 cm (15.6") diagonal HD SVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC (1366 x 768) 7.8

39.6 cm (15.6") diagonal HD SVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD Webcam (1366 x 768) 7.8

39.6 cm (15.6") diagonal HD SVA eDP anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD Webcam +IR camera (1366 x 768) 7.8

Touch

39.6 cm (15.6") diagonal FHD, touch, UWVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD IR camera (1920 x 1080) 7.8.10

39.6 cm (15.6") diagonal FHD, touch, UWVA eDP w/o PSR anti-glare, narrow bezel bent, 250 nits, 45% NTSC for HD IR camera \pm +WWAN (1920 x 1080) \pm 1080 \pm 1080

HDMI

Support resolutions up to 4k 60Hz

Display Size

15.6"

39.6 cm (15.6") Diagonal



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

DOCKING (Sold Separately)

Docking station model #1HP Thunderbolt Dock G2Docking station model #2HP USB-C Dock G5

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

For additional aftermarket options and docking specs please see page 37.

STORAGE AND DRIVES

Primary Storage

128 GB PCIe® NVMe™ M.2 Value Solid State Drive ¹¹
256 GB PCIe® NVMe™ M.2 Value Solid State Drive ¹¹
512 GB PCIe® NVMe™ M.2 Value Solid State Drive ¹¹
1 TB PCIe® NVMe™ M.2 TLC Solid State Drive ¹¹

Secondary M.2 Storage (Optional)

128 GB PCIe® NVMe™ M.2 Value Solid State Drive ¹¹
256 GB PCIe® NVMe™ M.2 Value Solid State Drive ¹¹

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

MEMORY

Maximum Memory

32 GB DDR4-3200 MT/s SDRAM 12

Memory

32 GB DDR4-3200 MT/s SDRAM (2 x 16 GB) ¹²
16 GB DDR4-3200 MT/s SDRAM (1 x 16 GB) ¹²
16 GB DDR4-3200 MT/s SDRAM (2 x 8 GB) ¹²
12 GB DDR4-3200 MT/s SDRAM (4 GB and 8 GB (1 x 8 GB)) ¹²
8 GB DDR4-3200 MT/s SDRAM (1 x 8 GB) ¹²
8 GB DDR4-3200 MT/s SDRAM (2 x 4 GB) ¹²
4 GB DDR4-3200 MT/s SDRAM (1 x 4 GB) ¹²

Memory Slots

2 SODIMM

Both slots are accessible/upgradeable by IT or self-maintainers only



Technical Specifications

DDR4 PC4 SODIMMS, system runs at 3200 MT/s Supports Dual Channel Memory

12. 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

Realtek RTL8852BE 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3 Wireless Card¹³
Qualcomm® Fast Connect 6900 Wi-Fi 6E + Bluetooth® 5.2 (802.11ax 2x2, AMD AIM-T AME) Wireless Card ^{13,14}

WWAN

Intel® XMM™ 7560 R+ LTE-Advanced Pro Cat 16 13,15

Miracast

Native Miracast Support

Ethernet

Realtek RTL8111HSH 10/100/1000 Integrated NIC 16

Wake on WLAN

Support on S3 AC mode only

- 13. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs.
- 14. 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.
- 15. WWAN is an optional feature, requires factory configuration and separately purchased service contract. Check with service provider for coverage and availability in your area. 4G LTE not available on all products, in all regions.
- 16. 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 ⁷
720p HD camera+IR Camera ^{7,17}

7. HD content required to view HD images.

17. Sold separately or as an optional feature.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

HP Premium Keyboard, spill resistant and optional Durakeys and backlit

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



SOFTWARE AND SECURITY

Software

HP Quick Drop 18

HP PC Hardware Diagnostics Windows

HSA Fusion for Commercial

HSA Telemetry for Commercial

Touchpoint Customizer for Commercial

myHP

HP Smart Support 19

HP Connection Optimizer

HP Mac Address Manager

HP Hotkey Support

HP Support Assistant 20

HP Notifications

HP Power Manager

HP Privacy Settings

Buy Microsoft Office (Sold separately)

Manageability Features

HP Connect for Microsoft Endpoint Manager²¹

HP Manageability Integration Kit Gen4 (download) 22

HP Driver Packs (download)

HP Client Catalog (download)

HP Client Management Script Library (download)

HP Image Assistant (download)

HP Patch Assistant (download) 23

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 Business²⁴ includes:

HP Sure Click 25

HP Sure Sense 26

HP Sure Start Gen7²⁷

HP Tamper Lock

HP Sure Admin²⁸

HP Client Security Manager Gen7 29

BIOS

HP BIOSphere Gen6 30

HP Secure Erase 31

Absolute Persistence Module 32

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 33



Technical Specifications

Security TPM

Model: Nuvoton NPCT760HAAYX

Version: 7.2.3.0 Revision: TPM 2.0

FIPS 140-2 Compliant: Yes

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

- 18. HP Quick Drop requires Internet access and Windows 10 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.
- 19. 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.
- 20. Requires Windows and Internet Access
- 21. HP Connect for Microsoft Endpoint Manager is available from the Azure Market Place for HP Pro, Elite, Z and Point-of-Sale PCs managed with Microsoft Endpoint Manager. Subscription to Microsoft Endpoint Manager required and sold separately. Network connection required.
- 22. HP Manageability Integration Kit can be downloaded from http://www.hp.com/go/clientmanagement.
- 23. HP Patch Assistant available on select HP PCs with the HP Manageability Kit that are managed through Microsoft System Center Configuration Manager. HP Manageability Integration Kit can be downloaded from http://www8.hp.com/us/en/ads/clientmanagement/overview.html.
- 24. 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.
- 25. HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.lv/2PrLT6A SureClick for complete details.
- 26. HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.
- 27. HP Sure Start Gen7 is available on select HP PCs and requires Windows 10 and higher
- 28. 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.

- 29. HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.
- 30. HP BIOSphere Gen6 features may vary depending on the platform and configuration.
- 31. 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™.
- 32. 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/.



Technical Specifications

33. HP Fingerprint sensor is an optional feature that must be configured at purchase.http://www8.hp.com/us/en/ads/clientmanagement/overview.html

POWER

Power Supply

HP Smart 65 W EM External AC power adapter ³⁴ HP Smart 65 W USB Type-C adapter ³⁴ HP Smart 45 W External AC power adapter ³⁴ HP Smart 45 W USB Type-C adapter ³⁴

Battery

HP Long Life 3-cell, 42.75 Wh Polymer ^{35,36} HP Long Life 3-cell, 51.3 Wh Polymer ^{35,36} Compliant with UL 1642 Standard

Power Cord

2-wire plug - 1m 3-wire plug - 1m

Battery life

Up to 19 hours and 30 minutes with 51whr battery (HP Long Life 3-Cell, 51 Whr Polymer, UMA graphic, AMD R7, 200 nits display, 8G memory, 256 GB SSD) ³⁷

Up to 16 hours and 15 minutes with 42whr battery (HP Long Life 3-Cell, 42 Whr Polymer, UMA graphic, AMD R7, 200 nits display, 8G memory, 256 GB SSD) ³⁷

- 34. Availability may vary by country.
- 35. Battery is internal and not replaceable by customer. Serviceable by warranty.
- 36. 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.
- 37. 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 www.bapco.com for additional details



Technical Specifications

WEIGHTS & DIMENSIONS

Product Weight 42.75Wh

Starting at 3.83 lb ³⁸ Starting at 1.74 kg ³⁸

51.3 Wh

Starting at 3.96 lb ³⁸ Starting at 1.79 kg ³⁸

Product Dimensions (W x D x H)

14.15 x 9.21 x 0.78 in 35.94 x 23.39 x 1.99 cm

38. 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 port (USB 3.2 Gen 1)
- 1 HDMI 2.0b 39
- 1 RJ-45
- 1 Headphone/microphone combo jack
- 1 AC power
- 1 Nano SIM slot for WWAN (optional)

39. HDMI cable sold separately.



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. ⁴⁰

40. 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 7.52W (Idle)

Integrated graphics Yes (AMD Radeon™ Graphics)

Discrete Graphics N/A

Max Operating Power Discrete < 65W

UMA < 45W

Temperature

Operating 32° to 95° F (0° to 35° C) Non-operating -4° to 140° F (-20° to 60° C)

Relative Humidity

Operating 10% to 90%, non-condensing

Non-operating 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 1.043 grms
Non-operating 3.5 grms

Altitude (unpressurized)

Operating -50 to 10,000 ft (-15 to 3,048 m) Non-operating -50 to 40,000 ft (-15 to 12,192 m)

Planned Industry Standard Certifications

Regulatory Model Number HSN-Q34C-5

UL Yes
CSA Yes
FCC Compliance Yes
ENERGY STAR® Yes⁴¹

EPEAT® 2019 Gold in the United States⁴²

ICES Yes Australia / Yes NZ A-Tick Compliance Yes CCC Yes Japan VCCI Compliance Yes KC Yes **BSMI** Yes **CE Marking Compliance** Yes **BNCI or BELUS** Yes CIT Yes EAC Yes



Saudi Arabian Compliance (ICCP)

Yes

SABS Yes UKRSERTCOMPUTER Yes

- 41. Configurations of the HP ProBook 455 G9 that are ENERGY STAR® certified are identified as HP ProBook 455 G9 ENERGY STAR on HP websites and on http://www.energystar.gov.
- 42. 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 15.6 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)
 350.960 x 205.740 (max)

 Active Area
 344.160 x 193.590 (typ)

Weight 380 g (max)
Diagonal Size 15.6

Thickness 3.2 / 5.2 (max)
Interface eDP 1.2

Surface Treatment Anti-Glare On-cell

Touch Enabled Yes¹
Contrast Ratio 600:1 (typ)
Refresh Rate 60 Hz

Brightness 250 Nits¹

Pixel Resolution - Format 1920 x 1080 (FHD)

BacklightWLEDPixel ResolutionRGBColor Gamut CoverageNTSC 45%

Color Depth 6

Viewing Angle UWVA 85/85/85

Low Blue Light No

Power Consumption (W, EBL@ 2.54 (Max) / 3.12 (Max) 150nits max/ 200nits max)

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

 Outline Dimensions (W x H)
 349.460 x 204.790 (max)

 Active Area
 344.160 x 193.590 (typ)

Weight 325 g (max)

Diagonal Size 15.6
Thickness 2.6 / 4.6 (

Thickness 2.6 / 4.6 (max)
Interface eDP 1.4
Surface Treatment Anti-Glare

Touch Enabled No

Contrast Ratio 1200:1 (typ)
Refresh Rate 60 Hz



Brightness 400 Nits

Pixel Resolution - Format 1920 x 1080 (FHD)

Backlight WLED **Pixel Resolution** RGB

Color Gamut Coverage SRGB 100%

Color Depth 8

Viewing Angle UWVA 85/85/85

Low Blue Light No.

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

1.13 (Max) / 1.37 (Max)

15.6 inch FHD (1920 x 1080) Anti-Glare WLED UWVA 45percent cg 250nits eDP 1.2 w/o PSR bent NWBZ

 Outline Dimensions (W x H)
 350.960 x 205.540 (max)

 Active Area
 344.160 x 193.590 (typ)

Weight 370 g (max)

Diagonal Size 15.6

Thickness3.0 / 5.0 (max)InterfaceeDP 1.2Surface TreatmentAnti-Glare

Touch Enabled No

Contrast Ratio600:1 (typ)Refresh Rate60 HzBrightness250 nits

Pixel Resolution - Format 1920 x 1080 (FHD)

BacklightWLEDPixel ResolutionRGBColor Gamut CoverageNTSC 45%

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

Viewing Angle UWVA 85/85/85

Low Blue Light No

Power Consumption (W, EBL@

150nits max/ 200nits max)

2.62 (Max) / 3.27 (Max)

15.6-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)
 350.960 x 205.540 (max)

 Active Area
 344.230 x 193.540 (typ)

Weight 370 q (max)

Diagonal Size 15.6

Thickness 3.2 / 5.0 (max)
Interface eDP 1.2
Surface Treatment Anti-Glare

Touch Enabled No

Contrast Ratio 300:1 (typ)
Refresh Rate 60 Hz



Brightness 250 nits

Pixel Resolution - Format 1366 x 768 (HD)

BacklightWLEDPixel ResolutionRGBColor Gamut CoverageNTSC 45%

Color Depth 6

Viewing Angle SVA 45/45/15/35

Low Blue Light No

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

2.49 (Max) / 2.78 (Max)



STORAGE AND DRIVES

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

SSD 128GB 2230 PCIe NVMe Value

Form Factor M.2 2230
Capacity 128GB
NAND Type TLC

Height 0.09 in (2.3 mm)
Width 0.87 in (22 mm)
Weight 0.01 lb (5 g)
Interface PCIE NVMe Gen3
Maximum Sequential Read Up to 2100 MB/s
Maximum Sequential Write Up to 1200 MB/s
Logical Blocks 250069680

Operating Temperature

32° to 158°F (0° to 70°C) [ambient temp]

Features

Pyrite; TRIM; L1.2

SSD 256GB 2230 PCIe NVMe Value

Form Factor M.2 2230
Capacity 256 GB
NAND Type TLC

Height0.09 in (2.3 mm)Width0.87 in (22 mm)InterfacePCIe NVMe Gen3Maximum Sequential Readup to 2500 MB/sMaximum Sequential Writeup to 1300 MB/sLogical Blocks500118192

Operating Temperature

32° to 158°F (0° to 70°C) [ambient temp]

Features

Pyrite; TRIM; L1.2

SSD 256GB 2280 PCIe NVMe Value

Form Factor M.2 2280
Capacity 256GB
NAND Type Value

Height 0.09 in (2.3 mm)
Width 0.87 in (22 mm)
Interface PCIe NVMe Gen3
Maximum Sequential Read Up to 2900 MB/s
Maximum Sequential Write Up to 1400 MB/s
Logical Blocks 500118192

Operating Temperature

32° to 158°F (0° to 70°C) [ambient temp]

Features

ATA Security; TRIM; L1.2



SSD 512GB 2280 PCIe NVMe Value

Form Factor M.2 2280
Capacity 512GB
NAND Type Value

Height 0.09 in (2.3 mm)
Width 0.87 in (22 mm)
Interface PCIe NVMe Gen3
Maximum Sequential Read Up to 3500 MB/s
Maximum Sequential Write up to 3000 MB/s
Logical Blocks 1000215216

Operating Temperature 32° to 158°F (0° to 70°C) [ambient temp]

Features TRIM; L1.2

SSD 1TB 2280 PCIe-4x4 NVMe Three Layer Cell Form Factor M.2 2280
Capacity 1TB
NAND Type 3D TLC

Height 0.09 in (2.3 mm)
Width 0.87 in (22 mm)
Interface PCIe NVMe Gen3
Maximum Sequential Read Up to 7,100 MB/s
Maximum Sequential Write Up to 5,200 MB/s
Logical Blocks 2000409264

Operating Temperature 32° to 158°F (0° to 70°C) [ambient temp]

Features Pyrite 2.0; TRIM; L1.2



NETWORKING/COMMUNICATIONS

Qualcomm® Fast Connect Wireless LAN Standards
6900 Wi-Fi 6E + BT5.2 IEEE 802.11b
Wireless Card (802.11ax IEEE 802.11g
2x2, AMD AIM-T AME, IEEE 802.11n
supporting gigabit file IEEE 802.11ac
transfer speeds)¹ IEEE 802.11ax
IEEE 802.11d
IEEE 802.11d
IEEE 802.11d

IEEE 802.11ax
IEEE 802.11d
IEEE 802.11e
IEEE 802.11h
IEEE 802.11i
IEEE 802.11k
IEEE 802.11r
IEEE 802.11r
IEEE 802.11u
IEEE 802.11v
IEEE 802.11w

Interoperability Wi-Fi certified

Frequency Band •802.11b/g/n/ax

2.402 – 2.482 GHz •802.11a/n/ac/ax 5.15 – 5.25 GHz 5.25 – 5.35 GHz 5.47 – 5.725 GHz 5.825 – 5.850 GHz 5.925 – 7.125 GHz"

Data Rates • 802.11b: 1, 2, 5.5, 11 Mbps

802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)

802.11ac: MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, ,80MHz &

160MHz)

802.11ax: MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, ,80MHz &

160MHz)

Modulation Direct Sequence Spread Spectrum

OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 024QAM, 4096QAM

Security³ •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

Network Architecture

Wi-Fi Direct in Win10 for peer-to-peer connection.

Models

Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between access points

Output Power² 2.4GHz (MIMO, typical):

• 802.11b: +18dBm • 802.11g: +16.5dBm

• 802.11n/ac/ax (HT20/VHT20/HE20): +16dBm



• 802.11n/ac/ax (HT40/VHT40/HE40): +12.5dBm

5GHz (MIMO, typical):

• 802.11a: +13dBm

802.11n/ac/ax (HT20/VHT20/HE20): +13.5dBm
 802.11n/ac/ax (HT40/VHT40/HE40): +12.5dBm

• 802.11ac/ax (VHT80/HE80): +11.5dBm

• 802.11ax HE160: +11.5dBm 6GHz LPI mode (MIMO, typical):

802.11a: 0dBm

802.11ax HE20: +1dBm
 802.11ax HE40: +4dBm
 802.11ax HE80: +7dBm
 802.11ax HE160: +7.5dBm

Power Consumption •Transmit mode: 3.0 W

•Receive mode: 2.0 W

Idle mode (WLAN associated): 300mW
Idle mode (WLAN unassociated): 100mW
Modern Connected Standby: 10mW

•Radio disabled: 8 mW

Power Management ACPI and PCI Express compliant power management

802.11 compliant power saving mode

Receiver Sensitivity⁴ 2.4GHz (SISO):

802.11b, 11Mbps: -82dBm maximum
802.11g, 54Mbps: -71dBm maximum
802.11n, MCS7: -64dBm maximum
802.11ac, MCS9: -52dBm maximum

•802.11ax, MCS11(HT40): -49dBm maximum

5GHz (SISO):

802.11a, 54Mbps: -71dBm maximum
802.11n, MCS07: -64dBm maximum
802.11ac, MCS9: -52dBm maximum

•802.11ax, MCS11(HE80/HE160): -46dBm maximum

6GHz (SISO):

802.11a, 54Mbps: -71dBm maximum
802.11n, MCS7: -64dBm maximum
802.11ac, MCS9: -52dBm maximum

•802.11ax, MCS11(HE160): -46dBm maximum

Antenna type High efficiency antenna with spatial diversity, mounted in the display

enclosure.

Two embedded dual band 2.4/5/6 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications.

Form Factor PCI-Express M.2 MiniCard

Dimensions Type 2230: 2.3 x 22.0 x 30.0 mm

 Weight
 Type 2230: 3g

 Operating Voltage
 3.3 +/ 0.165v

Temperature Operating -10° to 60° C

Non-operating -40° to 85° C



Humidity Operating 10% to 60% (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 N/A

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

Bluetooth Specification 4.0/4.1/4.2/5.0/5.1/5.2 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 1.5 Bluetooth device

with a maximum transmit power of + 14 dBm and 10 dBm for BR and EDR,

respectively.

- 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 + **BT5.3 Wireless Card** (802.11ax 2x2.

supporting gigabit data

rate) 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

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 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 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 + 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® XN	1M™ 7	7560 R+
LTE-Adv	anced	Pro ¹

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

GPS

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 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+: 21 Mbps (Download), 5.76 Mbps (Upload)

Maximum output

power

LTE: 23 dBm in all band except B41

LTE B41 HPUE = 26dBm

HSPA+: 23.5 dBm

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

Form Factor M.2, 3042-S3 Key B

Weight 6 g



Dimensions (Length x Width x Thickness)

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 802.3; 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** 94.0 mm x 40.0 mm x 26.5 mm

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 ~ 63Hz

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,

EN55022 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%

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 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)



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

Humidity20% to 95%Storage Humidity10% to 95%

EMI and Safety Ed

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 Standard Barrel 4.5mm Right Angle 1.8m
 Dimensions
 90 x 51 x 28.5mm

 Weight
 230g +/-10%

 Input
 100-240 VACvvvvv

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%

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.

RH 42Whr Long Life Polymer Fast Charge 3 cell Battery **Dimensions (H x W x L)** 6.2 x 76.25 x 249.50 mm (0.244 x 3.002 x 9.823 inch)

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)

Fuel Gauge LED NA

Warranty

Optional Travel Battery No

Available



RH 51Whr Long Life Polymer Fast Charge 3 cell Battery **Dimensions (H x W x L)** 6.50 x 67.80 x 254.00 mm (0.256 x 2.669 x 10 inch)

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)

Fuel Gauge LED

Warranty

Optional Travel Battery

Available

No

NA



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: 48kHz

ADC: 44.1k/48kHz

Wavetable Syntheses N/A

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

of Channels on Line-Out **Internal Speaker** Yes

FINGERPRINT READER

Model: Elan efsa80ST (module P1515E) Sensor vendor

Sensor type Capacitive **DPI** resolution 508 dpi Scan area 80*80 pixels **False Rejection Rate** FRR: ≤ 3% False Acceptance Rate FAR: 1:100K

Mobile Voltage Operation Mobile Voltage Operation: 2.7V to 3.6V

50mA peak

900uA

Operating Temperature -4°F - 175°F (-20° ~ +80°C)

Current Consumption

Image

Low Latency Wait For

Finger

30 frame/sec **Capture Rate**

ESD Resistance +15KV

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



ENVIRONMENTAL DATA

ENVIRONMENTAL DATA				
Eco-Label Certifications &	This product has received or is in the process of being certified to the following approvals and may			
declarations	be labeled with one or more of these marks:			
	IT ECO declaration			
	US ENERGY STAR®			
	US Federal Energy Management Program (FEMP)			
	• EPEAT [®] Gold registered in the United States. See http://www.epeat.net for registration			
	status in your country.			
	TCO Certified			
	China Energy Con	servation Program (CECP)		
	China State Environmental Protection Administration (SEPA)			
	Taiwan Green Ma	rk		
	 Korea Eco-label 			
	 Japan PC Green la 	abel*		
Sustainable Impact	• Ocean-bound plastic in S	peaker		
Specifications	• 15% post-consumer recy	ycled plastic		
	 Low halogen 			
			inably sourced and recyclable	
	· · ·		nably sourced and recyclable	
	Bulk packaging available			
System Configuration	_		and Declared Noise Emissions data for the	
	Notebook model is based	on a "Typically Configured No	otebook".	
Energy Consumption				
(in accordance with US	445446 604-	220046 FOUL	100005 5005	
ENERGY STAR® test method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz	
ENERGY STAR® test method) Normal Operation (Sort idle)	4.04 W	4.34 W	4.37 W	
Normal Operation (Sort idle) Normal Operation (Long			-	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle)	4.04 W 0.86 W	4.34 W 1.02 W	4.37 W 0.70 W	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep	4.04 W 0.86 W 0.86 W	4.34 W 1.02 W 1.02 W	4.37 W 0.70 W 0.70 W	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle)	4.04 W 0.86 W	4.34 W 1.02 W	4.37 W 0.70 W	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep	4.04 W 0.86 W 0.86 W	4.34 W 1.02 W 1.02 W	4.37 W 0.70 W 0.70 W	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep	4.04 W 0.86 W 0.86 W 0.30 W	4.34 W 1.02 W 1.02 W 0.32 W	4.37 W 0.70 W 0.70 W 0.30 W	
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ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep Off	4.04 W 0.86 W 0.86 W 0.30 W NOTE: Energy efficiency data list family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® operations.	4.34 W 1.02 W 1.02 W 0.32 W ed is for an ENERGY STAR® coked with the ENERGY STAR® Agency (EPA) ENERGY STAR® RGY STAR® compliant configued PC featuring a hard disk deting system.	4.37 W 0.70 W 0.70 W 0.30 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	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep Off Heat Dissipation*	4.04 W 0.86 W 0.86 W 0.30 W NOTE: Energy efficiency data list family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure	4.34 W 1.02 W 1.02 W 0.32 W ed is for an ENERGY STAR® coked with the ENERGY STAR® RGY STAR® compliant configued PC featuring a hard disk d	4.37 W 0.70 W 0.70 W 0.30 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	
Rormal Operation (Sort idle) Normal Operation (Long idle) Sleep Off Heat Dissipation* Normal Operation (Short	4.04 W 0.86 W 0.86 W 0.30 W NOTE: Energy efficiency data lister family. HP computers mare Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® operations.	4.34 W 1.02 W 1.02 W 0.32 W ed is for an ENERGY STAR® coked with the ENERGY STAR® Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk dating system. 230VAC, 50Hz	4.37 W 0.70 W 0.70 W 0.30 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	
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Rormal Operation (Sort idle) Normal Operation (Long idle) Sleep Off Heat Dissipation* Normal Operation (Short idle) Normal Operation (Short idle) Normal Operation (Long	4.04 W 0.86 W 0.86 W 0.30 W NOTE: Energy efficiency data list family. HP computers mar Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® operations of the second	4.34 W 1.02 W 1.02 W 0.32 W ed is for an ENERGY STAR® coked with the ENERGY STAR® (EPA) ENERGY STAR® COMPLIANT CONFIGURE OF COMPLIANT CONFIGURE OF COMPLIANT CONFIGURE OF COMPLIANT CONFIGURE OF COMPLIANT CONFIGURATION CONFIGURA	4.37 W 0.70 W 0.70 W 0.30 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 14.9 BTU/hr	
ENERGY STAR® test method) Normal Operation (Sort idle) Normal Operation (Long idle) Sleep Off Heat Dissipation* Normal Operation (Short idle)	4.04 W 0.86 W 0.86 W 0.30 W NOTE: Energy efficiency data lister family. HP computers mare Environmental Protection family does not offer ENE is for a typically configure Microsoft Windows® operations.	4.34 W 1.02 W 1.02 W 0.32 W ed is for an ENERGY STAR® coked with the ENERGY STAR® Agency (EPA) ENERGY STAR RGY STAR® compliant configued PC featuring a hard disk dating system. 230VAC, 50Hz	4.37 W 0.70 W 0.70 W 0.30 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

1.1 BTU/hr

1 BTU/hr

1 BTU/hr



	* NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.			
Declared Noise Emissions	Sound Power Sound Pressure			
(in accordance with				decibels)
ISO 7779 and ISO 9296)	(=mo) octo			
Typically Configured – Idle	2.2 13.3			
Fixed Disk – Random writes	3.2 27			
Optical Drive — Sequential reads	2.7 20			
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the spare parts are available throughout the warranty period and or for up to "5" years after the end of production.			
	 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 93.4% recycle-able when properly disposed of at end of life. 			
Packaging Materials	External:	ernal: PAPER/Corrugated		245 g
		PAPER/Paperboard		50 g
		PAPER/Molded Pulp		192 g
	Internal:	PLASTIC/Polyethylene lo	w density - LDPE	10 g
		The plastic packaging material contains at least 0.0% recycled content.		
RoHS Compliance	The corrugated paper packaging materials contains at least 61% 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 Error! Hyperlink reference not valid. 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): **Ashestos** 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 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	HP offers end-of-life HP product return and recycling programs in many geographic areas. To		
and Recycling	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:		
Environmental Information			
	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		
footnotes	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.		
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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 Thunderbolt Dock G2

Dual 4K @30Hz or dual 4K UHD @ 60Hz is supported 9

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.

Docking station model #2

Total number of supported displays

(incl. the notebook display)
Max. resolutions supported

HP USB-C Dock G5

Dual 5K@ 30Hz + 1 4K UHD (multi-function mode) 5120 x 2880 9

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

mode.

3

Dock Connectors 1xHDMI, 2xDP

Technical limitations The highest resolution for running a non-Thunderbolt host in Multi-function

HP USB-C/A Universal Dock G2

mode is a single 5K dual cable (using both DP ports) + one 4K on HDMI port.

Docking station model #3

Total number of supported displays

(incl. the notebook display) Max. resolutions supported

Technical limitations

Dock Connectors

3

Triple 4K UHD@ 60Hz 3840 x 21609

1xHDMI, 2xDP

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

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 Slim 17.3 Top Load	2UW02AA
	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 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 Business 17.3 Laptop Backpack	3E2U5AA
	HP Renew Business 17.3 Laptop Bag	3E2U6AA
	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
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



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

op (.o o	a riceessories (sola separately and availability may t	ary by courtery,
	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 Only 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



Summary of Changes

Date of change:	Version History:	Updated	Description of change:
January 25, 2022	V1 to V2	Added	TPM and IPv6 Compliance in Security section and Battery Life
February 11, 2022	V2 to V3	Removed	Tile App from Software and Security section
February 15, 2022	V3 to V4	Updated	Display Port in Ports and Slots section
February 22, 2022	V4 to V5	Updated	WWAN Module and Battery Life section
February 28, 2022	V5 to V6	Removed	HP 955 4K Webcam from Accessories; add Wake on WLAN
March 14, 2022	V6 to V7	Added	Battery Compliance in Power section
April 11, 2022	V7 to V8	Added	Reference for USB ports
June 15, 2022	V8 to V9	Added	Added note in Manageability Feature
July 19, 2022	V9 to V10	Added	Input value in Power section
October 20, 2022	V10 to V11	Updated	Bluetooth version
December 8, 2022	V11 to V12	Updated	Windows OS
January 12, 2023	V12 to V13	Added	HP Client Security Manager in Software and Security section
January 20, 2023	V13 to V14	Updated	Operating System
March 2, 2023	V14 to V15	Updated	Networking and communications section
April 24, 2024	V15 to V16	Updated	Memory Section

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