Overview

HP 245 G8 Notebook PC



Left

- 1. Webcam LED
- 2. Webcam
- 3. Internal digital microphone
- 4. Touchpad
- 5. Touchpad buttons
- 6. Power indicator LED

- 7. Hard drive indicator LED
- 8. SD Card slot (Selected models)
- **9.** SuperSpeed USB Type-C[®] 5Gbps signaling rate¹ port (Data Transfer Only)
- 10. Mini Security lock slot (Lock sold in select countries)
- 11. Power button

1. SuperSpeed USB 20Gbps is not available.

Overview



Right

- 1. AC Smart Pin adapter plug
- 2. RJ-45 / Ethernet port
- 3. HDMI port (Cable not included)
 - 1. SuperSpeed USB 20Gbps is not available.

- **4.** SuperSpeed USB Type-A 5Gbps signaling rate¹ port (USB 3.2 Gen 1)
- **5.** SuperSpeed USB Type-A 5Gbps signaling rate¹ port (USB 3.2 Gen 1)
- 6. Audio combo jack



Overview

At a Glance

- Windows 11 Pro, other Windows OS, or FreeDOS preinstalled
- A new compact narrow bezel design with thinner & lighter chassis
- Choice of AMD Ryzen™, Athlon™ or AMD APU processors
- Choice of 35.56 cm (14") diagonal HD SVA Anti-Glare WLED or FHD IPS Anti-Glare WLED
- Choice of Integrated AMD Radeon™ Vega Graphics or Radeon™ Graphics
- Security features including Firmware TPM 2.0 or discrete TPM Rev.1.2 on selected models
- Weight starting at 3.25 lbs (1.47 kgs)
- MM18 Battery life up to 10 hours and 30 minutes
- Wireless LAN (WLAN) up to 802.11ac or 802.11ax to keep you connected
- One SuperSpeed USB Type-C® 5Gbps signaling rate² (Data Transfer Only), Two SuperSpeed USB Type-A 5Gbps signaling rate² (USB 3.2 Gen 1)
- Choice of Solid State Drives up to 1 TB and Hard Drive up to 1 TB
- Fast dual channel DDR4 SODIMM memory up to 16 GB
- HP webcam with digital microphone and HD (supporting WDR- Wide Dynamic Range) or VGA camera

1. 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.
2. SuperSpeed USB 20Gbps is not available.

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



Technical Specifications

PRODUCT NAME

HP 245 G8 Notebook PC

OPERATING SYSTEMS

Preinstalled Windows 11 Pro ²

Windows 11 Pro Education ²

Windows 11 Home – HP recommends Windows 11 Pro for business 2

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business ²

Windows 10 Pro 1,2

Windows 10 Pro Education 1,2

Windows 10 Home - HP recommends Windows 11 Pro for business^{1,2}

Windows 10 Home Single Language - HP recommends Windows 11 Pro for business 1,2

FreeDOS

- 1. Device comes with Windows 10 and a free Windows 11 upgrade or may be preloaded with Windows 11. Upgrade timing may vary by device. Features and app availability may vary by region. Certain features require specific hardware (see Windows 11 Specifications).
- 2. 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.

PROCESSORS

AMD Ryzen™ 5 3500U APU with Radeon™ Vega 8 Mobile Graphics (2.1 GHz base frequency, up to 3.7 GHz burst frequency, 4 MB cache. 4 cores) ^{3,4,5}

AMD Ryzen™ 3 3300U APU with Radeon™ Vega 6 Graphics (2.1 GHz base frequency, up to 3.5 GHz burst frequency, 4 MB cache, 4 cores) ^{3,4,5}

AMD Ryzen™ 3 3250U APU with Radeon™ Graphics (2.6 GHz base frequency, up to 3.5 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5}

AMD Athlon™ Gold 3150U APU with Radeon™ Graphics (2.4 GHz base frequency, up to 3.3 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5}

AMD Athlon™ Silver 3050U APU with Radeon™ Graphics (2.3 GHz base frequency, up to 3.2 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5}

AMD Athlon™ Pro 3145B APU with Radeon™ Graphics (2.4 GHz base frequency, up to 3.3 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5}

AMD Athlon™ Pro 3045B APU with Radeon™ Graphics (2.3 GHz base frequency, up to 3.2 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5}

AMD 3020e APU with Radeon™ Graphics (1.2 GHz base frequency, up to 2.6 GHz burst frequency, 4 MB cache, 2 cores) ^{3,4,5} AMD A6-9225 APU with Radeon™ R4 Graphics (2.6 GHz base frequency, up to 3 GHz burst frequency, 1 MB cache, 2 cores) ^{3,4,5} AMD A4-9125 APU with Radeon™ R3 Graphics (2.3 GHz base frequency, up to 2.6 GHz burst frequency, 1 MB cache, 2 cores) ^{3,4,5}

AMD PROA6-8350B APU with Radeon™ R4 Graphics (3.1 GHz base frequency, up to 3.7 GHz burst frequency, 1 MB cache, 2 cores) ^{3,4,5}

AMD PROA4-5350B APU with Radeon™ R3 Graphics (3.0 GHz base frequency, up to 3.6 GHz burst frequency, 1 MB cache, 2 cores) ^{3,4,5}

AMD Ryzen™ 3 5300 APU with AMD Radeon™ Graphics (2.6 GHz base frequency, up to 3.8 GHz burst frequency, 4MB cache, 4 cores) 3,4,5

AMD Ryzen™ 5 5500 APU with AMD Radeon™ Graphics (2.1 GHz base frequency, up to 4.0 GHz burst frequency, 8 MB cache,



Technical Specifications

6 cores) 3,4,5

AMD Ryzen™ 7 5700U APU with AMD Radeon™ Graphics (1.8 GHz base frequency, up to 4.3 GHz burst frequency, 8MB cache, 8cores) ^{3,4,5}

AMD Ryzen™ 3 3200U APU with Radeon™ Vega 3 Graphics (2.6 GHz base frequency, up to 3.5 GHz burst frequency, 4MB cache. 2 cores) ^{3,4,5}

Processors Family

AMD Ryzen™ 5 Mobile Processors ⁶
AMD Ryzen™ 3 Mobile Processors ⁶
AMD Ryzen™ 7 Mobile Processors ⁶
7th Generation AMD A6 APU processor ⁶
7th Generation AMD A4 APU processor ⁶
AMD PRO APU processor ⁶
AMD Athlon™ Mobile Processors ⁶

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

CHIPSET

Chipset is integrated with processor

drivers on http://www.support.hp.com.

GRAPHICS

Integrated

AMD Radeon™ Vega 8 Mobile Graphics AMD Radeon™ Vega 6 Mobile Graphics AMD Radeon™ Vega 3 Mobile Graphics AMD Radeon™ Graphics AMD Radeon™ R4 Graphics AMD Radeon™ R3 Graphics

Supports

Support HD decode, DX12, HDMI 1.4b 7

7. HD content required to view HD images.



DISPLAYS

Internal

Non-Touch

35.56 cm (14") diagonal, HD (1366 x 768), SVA, Anti-Glare WLED, 250nits, eDP micro-edge, 45% NTSC 7,8,9 35.56 cm (14") diagonal, FHD (1920 x 1080), IPS, Anti-Glare WLED, 250nits eDP micro-edge, 45% NTSC 7,8,9

ном

Port supports resolutions up to 1920 x 1080 external resolution @60 Hz

- 7. HD content required to view HD images.
- 8. Sold separately or as an optional feature.
- 9. Resolutions are dependent upon monitor capability, and resolution and color depth settings.

STORAGE AND DRIVES

Primary Storage

1 TB 5400 rpm SATA ¹⁰ 500 GB 7200 rpm SATA ¹⁰ 500 GB 5400 rpm SATA ¹⁰

Primary M.2 Storage

128 GB M.2 SATA-3 TLC Solid State Drive ¹⁰
128 GB PCle NVMe[™] TLC Solid Sate Drive ¹⁰
256 GB M.2 SATA-3 TLC Solid State Drive ¹⁰
256 GB PCle® NVMe[™] M.2 Value Solid State Drive ¹⁰
512 GB PCle® NVMe[™] M.2 Value Solid State Drive ¹⁰
1TB PCle® NVMe[™] M.2 Value Solid State Drive ¹⁰

Dual Storage

128 GB M.2 SATA-3 TLC Solid State Drive + 1TB 5400rpm SATA ¹⁰
128 GB PCle NVMe™ TLC Solid State Drive + 1TB 5400rpm SATA ¹⁰
256 GB PCle® NVMe™ M.2 Value Solid State Drive + 1TB 5400rpm SATA ¹⁰

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

MEMORY

Maximum Memory

16 GB DDR4-3200 SDRAM 11

Memory

```
16 GB DDR4-3200 SDRAM (2 x 8 GB)<sup>11</sup>
16 GB DDR4-2400 SDRAM (2 X 8 GB)<sup>11</sup>
16 GB DDR4-2133 SDRAM (2 X 8 GB)<sup>11</sup>
12 GB DDR4-3200 SDRAM (4 GB (1 x 4 GB) and 8 GB (1 x 8 GB))<sup>11</sup>
12 GB DDR4-2400 SDRAM (4 GB (1 x 4 GB) and 8 GB (1 x 8 GB))<sup>11</sup>
12 GB DDR4-2133 SDRAM (4 GB (1 x 4 GB) and 8 GB (1 x 8 GB))<sup>11</sup>
8 GB DDR4-3200 SDRAM (2 x 4 GB)<sup>11</sup>
8 GB DDR4-2400 SDRAM (2 x 4 GB)<sup>11</sup>
8 GB DDR4-2133 SDRAM (2 x 4 GB)<sup>11</sup>
8 GB DDR4-3200 SDRAM (2 x 4 GB)<sup>11</sup>
8 GB DDR4-3200 SDRAM (1 x 8 GB)<sup>11</sup>
```



Technical Specifications

```
8 GB DDR4-2400 SDRAM (1 x 8 GB) <sup>11</sup>
8 GB DDR4-2133 SDRAM (1 x 8 GB) <sup>11</sup>
4 GB DDR4-3200 SDRAM (1 x 4 GB) <sup>11</sup>
4 GB DDR4-2400 SDRAM (1 x 4 GB) <sup>11</sup>
4 GB DDR4-2133 SDRAM (1 x 4 GB) <sup>11</sup>
```

Memory Slots

2 SODIMM (Ryzen3/5/7 speed runs up to 2400, ProA4/A6 speed runs up to 2133) Supports Dual Channel Memory

1 SODIMM (Athlon Gold/Silver/A4/A6 processors) Support Single Channel Memory

NOTE: All slots are customer non-accessible / non-upgradeable

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



Technical Specifications

NETWORKING/COMMUNICATIONS

WLAN

Realtek RTL8822CE 802.11ac 2x2 Wi-Fi® + Bluetooth® 5 26 Realtek RTL8822CE 802.11a/b/g/n/ac (2x2) Wi-Fi® with Bluetooth® 4.2 Combo 12 Realtek RTL8822CE 802.11a/b/g/n/ac (1x1) Wi-Fi® with Bluetooth® 4.2 Combo 12 Realtek Wi-Fi CERTIFIED 6^{TM} (2x2) and Bluetooth® 5.2 combo 12

Miracast

Compatible with Miracast-certified devices (For Win10) 13

Ethernet

Realtek 10/100/1000 GbE NIC 14

- 12. Wi-Fi supporting gigabit speeds (802.11ac) is achievable when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.
- 13. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
- 14. 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.
- 26. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

AUDIO/MULTIMEDIA

Audio

2 Integrated stereo speakers Integrated digital microphone

Camera

HP TrueVision HD Camera 7,8

Webcam

VGA webcam⁸

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



Technical Specifications

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

Full Size Textured island-style Keyboard

Pointing Device

Touchpad with multi-touch gesture support (PTP certified)

Function Keys

F1 - Open " How to get help in Windows 10" webpage

F2 - Brightness Down

F3 - Brightness Up

F4 - Display Switching

F5 - Blank

F6 - Mute

F7 - Volume Down

F8 -Volume Up

F9 - Previous

F10 - Play/Pause

F11 - Next

F12 - Airplane mode

SOFTWARE AND SECURITY

Preinstalled Software

Software

HP Support Assistant 16

Native Miracast Support 17

HP documentation

HP Setup Integrated 00BE

HP SSRM

HP Audio Switch

HP JumpStarts

McAfee LiveSafe™ 15

Xerox® DocuShare® 30-day free trial offer26

HP QuickDrop

HP Smart Support 27

Security Management

Firmware TPM 2.0 (On select models)¹⁸ Discrete TPM Rev.1.2 (On select models)¹⁸

- 15. 30 days free trial
- 16. HP Support Assistant requires Windows and Internet access.
- 17. Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming.
- 18. Firmware TPM is version 2.0, Hardware TPM is v1.2, which is a subset of the TPM 2.0 specification version v0.89 as implemented by Intel Platform Trust Technology (PTT).32. Firmware TPM is version 2.0.
- 26. Simply sign up and start using Xerox® DocuShare® Go. No credit card. No obligation. Data will become unavailable unless a subscription is entered before the end of the 30-day free trial period. See visit http://www.xerox.com/docusharego for details.
- 27. HP Smart Support is available to commercial customers through your HP Service Representative and HP Factory Configuration Services; or it can be downloaded at: http://www.hp.com/smart-support. HP Smart Support automatically collects the telemetry necessary upon initial boot of the product to deliver device-level configuration data and health insights.



Technical Specifications

POWER

Power Supply 19

HP Smart 65 W EM External AC power adapter ¹⁹ HP Smart 45 W External AC power adapter ¹⁹

Primary Battery

HP Long Life 3-cell, 41 Wh Li-ion Polymer^{20, 28} HP Long Life 4-cell, 46 Wh Li-ion Battery Polymer (India only) ^{20, 28}

Power Cord

1M (3.28 feet) length power cord

MM18 Battery life

Up to 10 hours and 30 minutes 21

Battery Weight

0.18 kg 0.39 lb

- 19. Availability may vary by country.
- 20. Battery is internal and not replaceable by customer. Serviceable by warranty.
- 21. 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.
- 28. 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.



Technical Specifications

WEIGHTS & DIMENSIONS

Product Weight

Starting at 3.25 lb ²² Starting at 1.47 kg ²²

Product Dimensions (w x d x h)

12.76 x 8.89 x 0.78 in 32.4 x 22.59 x 1.99 cm

22. Weight will vary by configuration.

PORTS/SLOTS

Ports

2 SuperSpeed USB Type-A 5Gbps signaling rate ²⁴ (USB 3.2 Gen 1)

1 SuperSpeed USB Type-C® 5Gbps signaling rate (Data Transfer Only) 24

1 HDMI v1.4b 23

1 RJ-45

1 AC Power

1 Headphone/microphone combo jack

Expansion Slots

Support SD/SDHC/SDXC

1 Multi-format digital media reader (Select models)

23. HDMI cable sold separately.

24. SuperSpeed USB 20Gbps is not available.

SERVICE AND SUPPORT

1-year limited warranty and 90-day software limited warranty options depending on country. Batteries have a default one-year limited warranty. 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.25

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



Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)

Nominal Operating Voltage 19.5 V Average Operating Power TBD Integrated graphics 6.03W

Discrete Graphics N/A (Switchable graphics design)

Max Operating Power Discrete < 65W UMA < 45W

Temperature

Operating 32° to 95° F (0° to 35° C) (not writing optical) 41° to 95° F (5° to 35° C) (writing optical)

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

Relative Humidity

Operating 10% to 90%, non-condensing

Non-operating 5% to 95%

Shock

Operating 40 G, 2 ms duration, half-sine Non-operating 240 G, 2 ms duration, half-sine

Random Vibration

Operating 1.043 grms Non-operating 3.5 grms

Altitude (unpressurized)

Operating -15 m to 3048 m (-50 ft to 10000 ft)
Non-operating -15 m to 12192 m (-50 ft to 40000 ft)

Planned Industry Standard Certifications

Yes UL No CSA Yes **FCC** Compliance Yes **ENERGY STAR®** Yes **EPEAT®** Yes **ICES** No Australia / No NZ A – Tick Compliance Yes Yes Japan VCCI Compliance No KC **BSMI** Yes Yes **CE Marketing Compliance** No **BNCI or BELUS** No CIT No **GOST** No Saudi Arabian Compliance (ICCP) No **SABS**



UKRSERTCOMPUTER

No

DISPLAYS

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

Panel LCD 14-in FHD (1920x1080) Anti-Glare WLED UWVA 45percent cg 250nits eDP NWBZ slim **Outline Dimensions (W x H x D)** 316.11 x 198.07 max. (w/ PCB)(mm)

Active Area 309.31 x 173.99(mm)

Weight 285g max.

Diagonal Size 14.0"

Thickness 3.0mm max.
Interface eDP 1.2

Surface Treatment Anti-glare (AG)

Touch EnabledNoneContrast Ratio600:1Refresh Rate60HzBrightness250nit

Pixel Resolution 1920 x 1080 (FHD)

Format RGB
Backlight LED
Color Gamut Coverage 45%
Color Depth 6bit

Viewing Angle UWVA 85/85/85

Panel LCD 14-in HD (1366x768) Anti-Glare WLED SVA 45percent cg 250nits eDP NWBZ ultraslim Outline Dimensions (W x H x D) 315.9+/-0.3 x 197.55 +/- 0.5

Active Area 309.4 x 173.95(mm)

Weight 285g Max

Diagonal Size 14"

Thickness 3.0mm max Interface eDP 1.2

Surface Treatment Anti-glare (AG)

Touch EnabledNoneContrast Ratio300:1 (Refresh Rate60HzBrightness250nit

Pixel Resolution 1366 x 768 (HD)

Format RGB
Backlight LED
Color Gamut Coverage 45%
Color Depth 6 bits

Viewing Angle SVA 45/45/15/30



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) is reserved for system recovery software.

TLC (SSD 128GB 2280 M2

SATA-3 TLC)

SSD 128GB 2280 M2 SATA-3 Drive Weight 0.01 lb (6 g) ~ 0.02 lb (10 g)

> Capacity 128 GB

Height 0.09 in (2.3 mm) Width 0.87 in (22 mm) Interface ATA-8. SATA 3.0

Performance

Maximum Sequential Read Up To 560 MB/s **Maximum Sequential Write** Up To 530 MB/s **Logical Blocks** 250.069.680

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

SSD 1TB 2280 PCIe NVMe Value (SSD 1TB 2280 PCIe NVMe Value)

Drive Weight 0.01 lb (6 g) ~ 0.02 lb (10 g)

Capacity 1 TB

Height 0.09 in (2.3 mm) Width 0.87 in (22 mm) Interface PCIe NVMe Gen3X4

Performance

Maximum Sequential Read Up to 2400MB/s **Maximum Sequential Write** Up to 1950MB/s **Logical Blocks** 2,000,409,264

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

SSD 256GB 2280 M2 SATA-3 Drive Weight TLC (SSD 256GB 2280 M2 SATA-3 Three Layer Cell)

0.01 lb (6 q) ~ 0.02 lb (10 q)

Capacity 256 GB

Height 0.09 in (2.3 mm) Width 0.87 in (22 mm) Interface PCIe NVMe Gen3X4

Performance

Maximum Sequential Read Up to 530MB/s **Maximum Sequential Write** Up to 520MB/s **Logical Blocks** 500,118,192

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

Technical Specifications

SSD 256GB 2280 PCIe NVMe Drive Weight Value (SSD 256GB 2280 Capacity PCIe NVMe Value)

Drive Weight 0.01 lb (6 g) \sim 0.02 lb (10 g)

Capacity 256GB

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Interface
 PCIe NVMe Gen3X2

Performance

Maximum Sequential ReadUp to 1500MB/sMaximum Sequential WriteUp to 750MB/sLogical Blocks500,118,192

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

Features TRIM, L1.2

SSD 512GB 2280 PCIe NVMe Drive Weight
Value (SSD 512GB 2280 Capacity
PCIe NVMe Value)

Drive Weight 0.01 lb (6 g) ~ 0.02 lb (10 g)

Capacity 512GB

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Interface
 PCIe NVMe Gen3X2

Performance

Maximum Sequential ReadUp to 1500MB/sMaximum Sequential WriteUp to 750MB/sLogical Blocks1,000,215,216

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

Features TRIM, L1.2



NETWORKING/COMMUNICATIONS

Realtek RTL8822CE 802.11ac 2x2 Wi-Fi® + Bluetooth® 5¹ **Wireless LAN Standards**

IEEE 802.11a
IEEE 802.11b
IEEE 802.11g
IEEE 802.11n
IEEE 802.11ac
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
• 2.402 – 2.482 GHz
802.11a/n/ac

• 4.9 – 4.95 GHz (Japan) • 5.15 – 5.25 GHz

• 5.25 – 5.35 GHz • 5.47 – 5.725 GHz • 5.825 – 5.850 GHz

Data Rates

• 802.11b: 1, 2, 5.5, 11 Mbps

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

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

Modulation

Direct Sequence Spread Spectrum

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

Security²

• 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.

IEEE 802.11 compliant roaming between access points

WPA2 certificationIEEE 802.11i

WAPI

Network Architecture

Models

Ad-hoc (Peer to Peer)

Infrastructure (Access Point Required)

Roaming

Output Power³

• 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

Power Consumption

• Transmit mode: 2.0 W

Receive mode: 1.6 W

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

Radio disabled: 8 mW



Technical Specifications

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/q, 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

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

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: 2.8q

2. Type 126: 1.3g

Operating Voltage 3.3v +/- 9%

Operating 14° to 158° F (-10° to 70° C) **Temperature**

-40° to 176° F (-40° to 80° C) Non-operating

Humidity Operating 10% to 90% (non-condensing)

5% to 95% (non-condensing) Non-operating

Altitude Operating 0 to 10.000 ft (3.048 m)

Non-operating 0 to 50,000 ft (15,240 m)

LED Activity LED Amber - Radio OFF

LED Off - Radio ON

1. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 5 (802.11 ac) is backwards compatible with prior 802.11 specs.

2. Check latest software/driver release for updates on supported security features.

3. 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.

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).

HP Integrated Module with Bluetooth® 4.0/4.1/4.2/5.0 Wireless Technology

Bluetooth Specification 4.0/4.1/4.2/5.0 Compliant

Frequency Band 2402 to 2480 MHz

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

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.



Technical Specifications

Realtek 802.11a/b/g/n/ac (1x1) Wi-Fi® and Bluetooth® 4.2 Combo¹ Wireless LAN Standards

IEEE 802.11a
IEEE 802.11b
IEEE 802.11g
IEEE 802.11n
IEEE 802.11ac
IEEE 802.11d
IEEE 802.11e
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 • 2.402 – 2.482 GHz 802.11a/n/ac

4.9 – 4.95 GHz (Japan)
5.15 – 5.25 GHz
5.25 – 5.35 GHz
5.47 – 5.725 GHz
5.825 – 5.850 GHz

Data Rates

• 802.11b: 1, 2, 5.5, 11 Mbps

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

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

Modulation

Direct Sequence Spread Spectrum

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

Security²

• 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.

IEEE 802.11 compliant roaming between access points

WPA2 certificationIEEE 802.11iWAPI

Network Architecture

Models

Ad-hoc (Peer to Peer)

Roaming

Infrastructure (Access Point Required)

Output Power³

• 802.11b : +14dBm minimum • 802.11g : +12dBm minimum

• 802.11a: +12dBm minimum

802.11n HT20(2.4GHz): +12dBm minimum
802.11n HT40(2.4GHz): +12dBm minimum
802.11n HT20(5GHz): +10dBm minimum
802.11n HT40(5GHz): +10dBm minimum
802.11ac VHT80(5GHz): +10dBm minimum

Power Consumption

• Transmit mode: 2.0 W

• Receive mode: 1.6 W

Idle mode (PSP) 180 mW (WLAN Associated)
Idle mode: 50 mW (WLAN unassociated)
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/q, 6Mbps: -86dBm maximum • 802.11a/q, 54Mbps: -72dBm maximum • 802.11n, MCS07: -67dBm maximum • 802.11n, MCS15: -64dBm maximum

• 802.11ac. MCS0: -84dBm maximum • 802.11ac, MCS9: -59dBm maximum

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

enclosure

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

Form Factor PCI-Express M.2 MiniCard

Dimensions Type 2230: 2.3 x 22.0 x 30.0 mm

Weight Type 2230: 2.8q **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 Activity**

LED Off - Radio ON

1. Wi-Fi supporting gigabit speeds (802.11ac) is achievable when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

2. Check latest software/driver release for updates on supported security features.

3. 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.

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).

HP Integrated Module with Bluetooth® 4.0/4.1/4.2 Wireless Technology

Bluetooth Specification 4.0/4.1/4.2 Compliant 2402 to 2480 MHz **Frequency Band**

Number of Available

Channels

Legacy: 0~79 (1 MHz/CH)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.



Technical Specifications

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asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)

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a maximum transmit power of + 4 dBm for BR and EDR.



88.0 % at 115 Vac and 89.0 % at 230Vac

Technical Specifications

POWER

AC Adapter 65 Watt Smart Dimensions (H x W x D)

nPFC EM Barrel 4.5mm

New EM

Weight Input 102x55x30mm

unit: 250g +/- 10g

Input Efficiency

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 C6 (3pin/with grounded, with Smart ID DC connector)

Environmental Design Operating 32°F to 95°F (0° to 35°C)

temperature

Non-operating (storage) -4°F to 185°F (-20° to 85°C)

temperature

Altitude 0 to 16,400 ft (0 to 5,000 m)

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

EMI and Safety Certifications CE Mark - full compliance with LVD and EMC directives

Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV: Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B,

FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. MTBF - over 200,000 hours at 25°C ambient condition.



AC Adapter 45 Watt Smart Dimensions nPFC Standard Barrel

Weight 200 q +/- 10 q 4.5mm Right Angle 1.8m

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

> Input frequency range 47 ~ 63 Hz

Input AC current Max. 1.4 A at 90 Vac

Output **Output power** 45 W

> DC output 19.5 V

Hold-up time 5 ms at 115 Vac input

Output current limit <8.0A

Connector C6 (3pin/with grounded, with Smart ID DC connector) **Environmental Design** Operating 32°F to 95°F (0°to 35°C)

95 x 40 x 26.5 mm

temperature

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 CE Mark - full compliance with LVD and EMC directives

Certifications Worldwide safety standards - IEC60950, EN60950, UL60950, Class1,

SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B,

FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. MTBF - over 200.000 hours at 25°C ambient condition.

HP 3-cell Long Life Li-Ion Dimensions (H x W x L) (41 Wh)

6.0. x 186.85 x 90.2 mm (0.236 x 7.35 x 3.55 inch)

Weight 0.175 kg (0.37 lb)

Cells/Type 3 cell Lithium-Ion Polymer cell / 515974

Energy

11.4 V / 11.34 V Voltage Amp-hour capacity 3.6 Ah / 3.62 Ah

Watt-hour capacity 41 Wh

Temperature

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

Fuel Gauge LED NA Warranty 1-year **Optional Travel Battery**

Available

No

HP 4-cell Long Life Li-lon Dimensions (H x W x L)

7.51. x 186.85 x 90.2 mm (0.295 x 7.35 x 3.55 inch)

(46 Wh)

Weight 0.20 kg (0.44 lb)

Cells/Type 4 cell Lithium-Ion Polymer cell / 336975

Energy

Voltage 15.4 V 2.988 Ah **Amp-hour capacity** 46 Wh **Watt-hour capacity**

Temperature

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

Fuel Gauge LED NA Warranty 1-year **Optional Travel Battery** No

Available

COUNTRY OF ORIGIN

China





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

Туре	Description	Part Number
Cases	HP Prelude Pro Top Load	1X645AA
	HP Prelude Pro Backpack	1X644AA
	HP Prelude Top Load 15.6	1E7D7AA
	HP Prelude Backpack 15.6	1E7D6AA
Docking	HP 4.5 mm and USB-C® Dock Adapter G2	6LX61AA
Input/Output	HP USB Essential Keyboard/Mouse	H6L29AA
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
	HP Slim Wireless Keyboard & Mouse	T6L04AA
	HP Wired Desktop 320K Keyboard	9SR37AA
	HP Slim Wireless Keyboard (Link-5)	T6U20AA
	HP 3-Button USB Laser Mouse	H4B81AA
	HP Essential USB Mouse	2TX37AA
	HP USB Travel Mouse	G1K28AA
	HP Bluetooth Travel Mouse	6SP30AA
	HP Comfort Grip Wireless Mouse	H2L63AA
	HP Wired Desktop 320M Mouse	9VA80AA
	HP HDMI to VGA Adapter	H4F02AA
	HP HDMI to DVI	F5A28AA
Power	HP 45W Smart AC Adapter	H6Y88AA
	HP 65W Smart AC Adapter	Н6Ү89АА
	HP 65W Slim Adapters (w/ detachable DC cable + TIPS)	H6Y82AA
Storage	HP External USB Optical Drive	F2B56AA



Summary of Changes

Date of change:	Version History:		Description of change:
	V1 to V2		USB Information Updated
January 28, 2021	V2 to V3	Update	Primary Battery Updated
February 12, 2021	V3 to V4	Update	Processors Section and added Battery Spec
February 25, 2021	V4 to V5	Update	Xerox DocuShare offer value
April 20, 2021	V5 to V6	Update	TechSpecs/Memory Modules
May 6, 2021	V6 to V7	Added	HP Smart Support
June 10, 2021	V7 to V8	Update	Security lock slot in Overview section
June 14, 2021	V8 to V9	Added	New WLAN in Networking/Communications section
July 6, 2021	V9 to V10	Added	Battery disclaimer
October 12, 2021	V10 to V11	Updated	Windows 10 with Free upgrade to Windows 11 when available in OS section and footnote. Removed Windows 10 Pro (Windows 10 Enterprise available with a Volume Licensing Agreement)
October 15, 2021	V11 to V12	Removed	Memory from Options and Accessories section
December 13, 2021	V12 to V13	Update	OS footnotes
April 20, 2022	V13 to V14	Added	Reference for USB Ports
July 21, 2022	V14 to V15	Removed	HP USB-C®/A Universal Dock G2 from Docking Options
August 8, 2022	V15 to V16	Updated	Memory Slots
	V16 to V17		

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