### **Overview**

#### HP EliteBook 865 16 inch G9 Notebook PC



- 1. Ambient Light Sensor (Optional)
- 2. Internal Microphones (2)
- 3. Webcam LED (Optional)
- 4. Webcam
- 5 Camera Shutter
- 6. IR Camera (Optional)
- 7. IR Camera LEDs (Optional)

#### Left

- 8. Clickpad
- 9. Smartcard Reader (Optional)
- 10. LED Indicator
- **11.** USB4™ Type-C<sup>®</sup> 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- **12.** USB4™ Type-C® 40Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- **13.** SuperSpeed USB Type-A 5Gbps signaling rate (USB 3.2 Gen 1)
- 14. HDMI 2.0b Port (Cable not included)

### **Overview**



#### Right

- 1. Power Button Key
- 2. Audio Combo Jack
- **3.** SuperSpeed USB Type-A 5Gbps signaling rate (Charging) (USB 3.2 Gen 1)
- 4. Nano Security Lock Slot (Lock sold separately)
- 5. SIM Card Slot (Optional)
- **6.** Touch Fingerprint Sensor (Select models)

#### **Overview**

#### At a Glance

- Preinstalled with Windows 11 versions or FreeDOS
- New premium ultraslim design with precision-crafted all-metal chassis for a premium look and feel
- Latest AMD® Ryzen PRO and non-PRO 6000 U and HS series processors
- New 16:10 ratio screen reduces the need to scroll by showing more vertical content than 16:9
- Optional ultrabright displays with HP Eye Ease, ambient light and ambient color sensors
- New 5MP camera<sup>1</sup> with HP Auto Frame<sup>2</sup> allows you around a little without losing viewers' attention during video calls
- New DDR5 memory and PCI Gen4 SSDs provide fast access to your work.
- Choice of displays:
  - 40.6 cm (16") diagonal WUXGA IPS Anti-Glare LED-backlit non-touch, 250 nits, 45% NTSC
    40.6 cm (16") diagonal WUXGA IPS Anti-Glare On-Cell LED-backlit touch, 250 nits, 45% NTSC
    40.6 cm (16") diagonal WUXGA IPS Anti-Glare LED-backlit non-touch, 400 nits, 100% sRGB with HP Eye Ease
    40.6 cm (16") diagonal WUXGA IPS Anti-Glare LED-backlit non-touch, 1000 nits, 100% sRGB with HP Sure View Reflect with HP Eye Ease
- Redesigned keyboard layout to include easy use of discrete PgUp/Dn, End, and Home keys
- Choose from 51Whr or 76Whr battery options
- HP Wolf Security for Business creates a hardware-enforced, always-on, resilient defense.<sup>3</sup>
- Larger Clickpad surface for easier, more intuitive input
- Connectivity with optional 4G LTE WWAN available, and USB-C Docking (Dock sold separately)
- Undergoes MIL-STD 810H tests<sup>4</sup>
- Supports fast charging (50% in 30 minutes) with no impact on battery recharge cycles 5
- 1. Optional feature that must be configured at the time of purchase.
- 2. Requires the myHP application and Windows OS.
- 3. HP Wolf Security for Business requires Windows 10 and higher, includes various HP security features and is available on HP Pro, Elite, Workstation, and RPOS products. See product details for included security features and OS requirements.
- 4. MIL-STD 810H is not intended to demonstrate fitness of U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack.
- 5. Recharges your battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 and 100 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

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



#### **PRODUCT NAME**

HP EliteBook 865 16 inch G9 Notebook PC

#### **OPERATING SYSTEMS**

Preinstalled Windows 11 Pro <sup>1</sup>

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 <a href="http://www.windows.com">http://www.windows.com</a>.
- 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™ 9 PRO 6950HS APU (3.3 GHz base clock, up to 4.9 GHz max boost clock, 20 MB L2+L3 cache, 8 cores) Available in May 2022 3,4,5,6

AMD Ryzen™ 7 PRO 6850HS APU (3.2 GHz base clock, up to 4.7 GHz max boost clock, 20 MB L2+L3 cache, 8 cores) 3,4,5,6 AMD Ryzen™ 7 PRO 6850U APU (2.7 GHz base clock, up to 4.7 GHz max boost clock, 20 MB L2+L3 cache, 8 cores) 3,4,5,6 AMD Ryzen™ 5 PRO 6650U APU (2.9 GHz base clock, up to 4.5 GHz max boost clock, 19 MB L2+L3 cache, 6 cores) 3,4,5,6 AMD Ryzen™ 7 6800U APU (2.7 GHz base clock, up to 4.7 GHz max boost clock, 20 MB L2+L3 cache, 8 cores) 3,4,5,6 AMD Ryzen™ 5 6600U APU (2.9 GHz base clock, up to 4.5 GHz max boost clock, 19 MB L2+L3 cache, 6 cores) 3,4,5,6

#### **Processor Family**

AMD Ryzen<sup>™</sup> processor <sup>7</sup>

- 3. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
- 4. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
- 5. 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.
- Max Boost clock frequency performance varies depending on hardware, software and overall system configuration.



7. In accordance with Microsoft's support policy, HP does not support the Windows 8 or Windows 7 operating system on products configured with Intel 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

#### Supports

Support HW decode, DX12, HDMI 2.0, HDCP 2.3 8

8. HD content required to view HD images.

#### **DISPLAY**

#### Non-Touch

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP camera for WWAN (1920 x 1200) <sup>8,9,10</sup> 40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP+IR camera for WWAN (1920 x 1200) <sup>8,9,10</sup>

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP+IR camera (1920 x 1200) 8.9.10

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP camera (1920 x 1200) 8,9,10

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC (1920 x 1200) 8,9,10

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for WWAN (1920 x 1200) 8,9,10

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP+PSR, 400 nits, 100% sRGB, Low Power, Ambient Light Sensor for 5MP Camera (1920 x 1200) with HP Eve Ease 8,9,10

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP+PSR, 400 nits, 100% sRGB, Low Power, Ambient Light Sensor for 5MP+IR Camera (1920 x 1200) with HP Eye Ease 8,9,10

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP+PSR, 400 nits, 100% sRGB, Low Power, Ambient Light Sensor for 5MP Camera for WWAN (1920 x 1200) with HP Eye Ease 8,9,10

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP1.3+PSR, 1000 nits, 100% sRGB with HP Sure View Reflect integrated privacy screen, Ambient Light Sensor for 5MP camera (1920 x 1200) with HP Eye Ease 8,9,10,11,12

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP1.3+PSR, 1000 nits, 100% sRGB with HP Sure View Reflect integrated privacy screen, Ambient Light Sensor 5MP+IR camera (1920 x 1200) with HP Eye Ease 8,9,10,11,12

40.64 cm (16") diagonal WUXGA Bent, Low Blue Light, anti-glare UWVA eDP1.3+PSR, 1000 nits, 100% sRGB with HP Sure View Reflect integrated privacy screen, Ambient Light Sensor 5MP+IR camera for WWAN (1920 x 1200) with HP Eye Ease 8,9,10,11,12

#### Touch

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP+IR camera Touch on Panel (1920 x 1200)  $^{8.9,10,11,12}$ 

40.64 cm (16") diagonal WUXGA Bent, anti-glare UWVA, 250 nits, 45% NTSC for 5MP+IR camera for WWAN Touch on Panel (1920 x 1200)  $^{8,9,10,11,12}$ 



#### DisplayPort <sup>™</sup> 1.2

Support HW decode, DX12, HDMI 2.0, HDCP 2.3 via HDMI/DP up to 4K@60Hz.

#### **Displays Support**

Supports 4 independent displays through the dock.

#### Display Size (Diagonal)

16"

40.64 cm (16")

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

#### **DOCKING (Sold Separately)**

Docking station model #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 38.

#### STORAGE AND DRIVES

#### Primary M.2 Storage

2 TB PCIe® Gen4x4 NVMe™ M.2 SSD TLC <sup>13</sup>
1 TB PCIe® Gen4x4 NVMe™ M.2 SSD TLC <sup>13</sup>
512 GB PCIe® Gen4x4 NVMe™ M.2 SSD TLC <sup>13</sup>
512 GB PCIe® Gen4x4 NVMe™ SED TLC OPAL2 <sup>13</sup>
512 GB PCIe® NVMe™ Value M.2 SSD <sup>13</sup>
256 GB PCIe® Gen4x4 NVMe™ M.2 SSD TLC <sup>13</sup>

256 GB PCIe<sup>®</sup> Gen4x4 NVMe<sup>™</sup> SED TLC OPAL2 <sup>13</sup>

256 GB PCIe® NVMe™ Value M.2 SSD 13

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



#### **MEMORY**

#### **Maximum Memory**

64GB DDR5-4800 14

#### Memory

64GB DDR5-4800 (2x32GB) <sup>14</sup> 32GB DDR5-4800 (2x16GB) <sup>14</sup> 32GB DDR5-4800 (1x32GB) <sup>14</sup> 16GB DDR5-4800 (2x8GB) <sup>14</sup> 16GB DDR5-4800 (1x16GB) <sup>14</sup> 8GB DDR5-4800 (1x8GB) <sup>14</sup>

#### **Memory Slots**

2 SODIMM DDR5 SODIMMS, system runs at 4800 <sup>14</sup> Supports Dual Channel Memory

14. 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**

Qualcomm® Fast Connect 6900 Wi-Fi 6E and Bluetooth® 5.2 Wireless Card<sup>15</sup> Realtek 8852BE Wi-Fi 6 + Bluetooth® 5.3 M.2 2230 PCI-e+ USB Wireless Card <sup>16</sup>

#### **WWAN**

Intel® XMM™ 7560 R+ LTE-Advanced Pro (Cat 16) WWAN 17

#### NFC

NFC Mirage WNC XRAV-1

#### Miracast

Native Miracast Support 18

15. 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. For systems with Windows 10, Wi-Fi 6E does not operate under the 6GHz band. The product is compatible with 6GHz and other routers, sold separately, which have capability to and will operate in 2.4Ghz and 5GHz bands. The actual throughput depends on network condition and router configuration.

16. 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.

17. WWAN module is an optional feature, requires factory configuration and requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

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



#### **AUDIO/MULTIMEDIA**

#### Audio

Audio by Bang & Olufsen 2 Integrated stereo speakers Integrated dual array microphone

#### Speaker Power

2W/4ohm Per speaker

#### Camera

Dual Array Digital Microphone 5MP USB2 Narrow Field of View Integrated Camera
Dual Array Digital Microphone 5MP USB2 Infrared Narrow Field of View Integrated Camera

#### **KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS**

#### Keyboard

HP Premium Keyboard, spill resistant with numeric keypad and optional Backlit keyboard 19

#### **Pointing Device**

Clickpad with multi-touch gesture support, taps enabled as default Microsoft Precision Touchpad Default Gestures Support

#### **Function Keys**

- F1 Display Switching
- F2 Blank or Privacy
- 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 HP Command Center (Programmable Key)

Print Screen

Power Button (with LED)

#### **Hidden Function Keys**

Fn+R - Break

Fn+S - Sys Rq

Fn+C - Scroll Lock

19. Backlit keyboard is an optional feature.



#### **SOFTWARE AND SECURITY**

#### Software

**HP Quick Touch** 

HP Ouick Drop 20

HP Easy Clean<sup>21</sup>

**HP PC Hardware Diagnostics Windows** 

myHP

HP Smart Support 22

**HP Connection Optimizer** 

**HP Hotkey Support** 

HP Support Assistant 23

**HP Notifications** 

**HP Privacy Settings** 

**HP Power Manager** 

Buy Microsoft Office (Sold separately)

#### **Manageability Features**

HP Image Assistant Gen5 (download)

HP Manageability Integation Kit (download) 24

HP Client Management Script Library (download)

**HP Driver Packs (download)** 

HP Cloud Recovery 25

**HP Client Catalog (download)** 

DASH manageability (AIM-T feature) support by AMD Ryzen PRO APU and HP Windows OS, and BIOS version 01.02.01 <sup>26</sup>

**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 Business<sup>27</sup> includes:

HP Sure Click 28

HP Sure Sense 29

HP Sure Run Gen5 30

HP Sure Recover Gen5 31

HP Sure Start Gen7 32

**HP Tamper Lock** 

HP Sure Admin 33

HP Client Security Manager Gen7 34

#### BIOS

HP BIOSphere Gen6 35

HP Secure Erase 36

Absolute Persistence Module 37

**HP DriveLock & Automatic DriveLock** 

**BIOS Update via Network** 

HP Wake on WLAN

HP Fingerprint Sensor 38

Secured-Core PC Enable 39

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



#### Security TPM

Model: Infineon SLB9670

Version: 7.85 Revision: TPM 2.0

FIPS 140-2 Compliant: Yes

#### **Smartcard Reader**

Model number: Alcor AU9560 FIPS 201 Compliant: Yes

#### **IPv6 Support**

Yes

#### **FirstNet Certified**

Yes

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

UEFI version: 2.7 Class: Class 3

- 20. HP Quick Drop requires Internet access and Windows 10 or higher PC preinstalled with HP QuickDrop app and either an Android device (phone or tablet) running Android 7 or higher with the Android HP QuickDrop app, and /or an iOS device (phone or tablet) running iOS 12 or higher with the iOS HP QuickDrop app.
- 21. HP Easy Clean requires Windows 10 RS3 and higher and will disable the keyboard, touchscreen, and clickpad only. Ports are not disabled. See user guide for cleaning instructions.
- 22. 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.
- 23. HP Support Assistance requires Windows and Internet Access
- 24. HP Manageability Integration Kit can be downloaded from

http://www8.hp.com/us/en/ads/clientmanagement/overview.html.

- 25. HP Cloud Recovery is available for Z by HP, HP Elite and Pro desktops and laptops PCs with Intel® or AMD processors and requires an open, wired network connection. **NOTE:** You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Detail please refer to: https://support.hp.com/us-en/document/c05115630.
- 26. AIM-T user guide can be found here: www.amd.com/DASH, under the Downloads section. Only support with:

Qualcomm Fast Connect 6900 Wi-Fi 6E AIM-T 160 MHz +Bluetooth 5.3 WW WLAN

- 27. 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..
- 28. HP Sure Click requires Windows 10 Pro or higher or Enterprise. See https://bit.ly/2PrLT6A\_SureClick for complete details.
- 29. HP Sure Sense is available on select HP PCs with Windows 10 Pro, Windows 10 Enterprise, Windows 11 Pro, or Windows 11 Enterprise OS.
- 30. HP Sure Run Gen5 is available on select HP PCs and requires Windows 10 and higher.
- 31. HP Sure Recover Gen5 with Embedded Reimaging is an optional feature which requires Windows 10 and higher must be configured at purchase. You must back up important files, data, photos, videos, etc. before use to avoid loss of data. Network based recovery using Wi-Fi is only available on PCs with Intel Wi-Fi Module
- 32. HP Sure Start Gen7 is available on select HP PCs and requires Windows 10 and higher



- 33. 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
- 34. HP Client Security Manager Gen7 requires Windows and is available on the select HP Elite and Pro PCs.
- 35. HP BIOSphere Gen6 features may vary depending on the platform and configuration.
- 36. HP Secure Erase 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™.
- 37. 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/
- 38. HP Fingerprint sensor is an optional feature that must be configured at purchase.
- 39. Secured-Core PC Enable requires an Intel® vPro®, AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.

#### **POWER**

#### **Power Supply**

HP 100W+10W Slim USB-C+USB-A AC power adapter <sup>40</sup> HP Smart 65 W USB Type-C adapter <sup>40</sup> HP Smart 45 W USB Type-C adapter <sup>40</sup>

#### **Battery**

HP Long Life 3-cell, 51 Wh Polymer <sup>41,42</sup> HP Long Life 6-cell, 76 Wh Polymer <sup>41,42</sup> Compliant with UL 1642 Standard

#### **Power Cord**

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

#### **Battery Life**

Up to 17 hours 15 minutes (51 Wh battery) <sup>43</sup> Up to 26 hours 15 minutes (76 Wh battery) <sup>43</sup>

- 40. Availability may vary by country.
- 41. Battery is internal and not replaceable by customer. Serviceable by warranty.
- 42. 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.
- 43. 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 <a href="http://www.bapco.com">http://www.bapco.com</a> for additional details.



#### **WEIGHTS & DIMENSIONS**

Product Weight 44

Starting at 3.90 lb Starting at 1.769 kg

Product Dimensions (W x D x H)

14.12 x 9.88 x 0.76 in 35.87 x 25.09 x 1.92 cm

44. Weight will vary by configuration. Does not include power adapter.

#### **PORTS/SLOTS**

2 USB4<sup>™</sup> Type-C<sup>®</sup> 40Gbps signaling rate (USB Power Delivery, DisplayPort<sup>™</sup> 1.4) 2 Super Speed USB Type-A 5Gbps signaling rate (1 charging) (USB 3.2 Gen 1) 1 HDMI 2.0 <sup>45</sup> 1 Headphone/microphone combo jack

45. HDMI cable sold separately.

#### SERVICE AND SUPPORT

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for HP Long Life batteries which will follow the one or three year warranty of 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.<sup>46</sup>

46. 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 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)

Type-C Adapter

Nominal Operating Voltage

**AC 20V** 

Average Operating Power

Integrated graphics Yes N/A

**Discrete Graphics** 

Max Operating Power

UMA<65W

**Temperature** 

Operating 32° to 95° F (0° to 35° C)

Non-operating 41° to 95° F (5° to 35° C) (writing optical)

**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 0.75 grams
Non-operating 1.50 grams

**Altitude (unpressurized)** 

Operating -50 to 10,000 ft (-15.24 to 3,048 m) Non-operating -50 to 40,000 ft (-15.24 to 12,192 m)

**Planned Industry Standard** 

**Certifications** 

Regulatory Model Number HSN-I45C-3

UL Yes
CSA Yes
FCC Compliance Yes
ENERGY STAR® Certified<sup>47</sup>

EPEAT® Gold in United States<sup>48</sup>

Yes

**ICES** Yes Yes Australia / Yes **NZ A-Tick Compliance** Yes CCC Japan VCCI Compliance Yes Yes KC **BSMI** Yes **CE Marking Compliance** Yes **BNCI or BELUS** Yes Yes CIT GOST Yes Saudi Arabian Compliance (ICCP) Yes

SABS

47. Configurations of the HP EliteBook 865 16 inch G9 Notebook PC that are ENERGY STAR® qualified are identified as HP EliteBook 865 16 inch G9 Notebook PC ENERGY STAR on HP websites and on http://www.energystar.gov.
48. 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.

16.0 in WUXGA (1920 x 1200) Anti-Glare UWVA LED NTSC NB2X 250 eDP 1.2 w/o PSR 45 bent LCD Panel 

 Outline Dimensions (W x H x D)
 350.380 x 226.170 (max)

 Active Area
 344.678 x 215.424 (typ)

Weight 390 (max)

**Diagonal Size** 16

Thickness 3.0 / 5.0 (max)
Interface eDP 1.2
Surface Treatment Anti-Glare

**Touch Enabled** No

Contrast Ratio1000:1(typ)Refresh Rate60 HzBrightness250 nits

**Pixel Resolution - Format** 1920 x 1280 (WUXGA)

BacklightWLEDPixel ResolutionRGB

**Color Gamut Coverage** NTSC 45%

Color Depth 6

Viewing Angle UWVA 89/89/89

Low Blue Light No

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

2.70 (max) / 2.40 (max)

16.0 in WUXGA (1920 x 1200) Anti-Glare UWVA LED NTSC NB2X 250 TOP eDP 1.2 w/o PSR 45 bent LCD Panel 

 Outline Dimensions (W x H x D)
 350.680 x 226.470 (max)

 Active Area
 344.680 x 215.420 (typ)

Weight 400 (max)

**Diagonal Size** 16

**Thickness** 3.0 / 5.0 (max)

Interface eDP 1.2
Surface Treatment Anti-Glare
Touch Enabled Yes¹

Contrast Ratio 1000:1(typ)

**Refresh Rate** 60Hz **Brightness** 250 nits<sup>1</sup>

Pixel Resolution - Format 1920 x 1280 (WUXGA)

BacklightWLEDPixel ResolutionRGBColor Gamut CoverageNTSC 45%

Color Depth 8

Viewing Angle UWVA 89/89/89

**Low Blue Light** No

Power Consumption (W, EBL@ 2.70 (max) / 2.40 (max) 150nits max/ 200nits max)

16.0 in WUXGA (1920 x 1200) Anti-Glare

(1920 x 1200) Anti-Glare UWVA WLED+LBL sRGB NB2X 400 eDP 1.4+PSR2 Low-Power 100 bent LCD

Panel

Outline Dimensions (W x H x D) 350.680 x 226.470 (max)

**Active Area** 344.678 x 215.424 (typ)

Weight 330 (max)

**Diagonal Size** 16

**Thickness** 2.6 / 4.6 (max)

InterfaceeDP 1.4Surface TreatmentAnti-Glare

**Touch Enabled** No

Contrast Ratio1000:1(typ)Refresh Rate60 Hz

**Brightness** 400 nits

**Pixel Resolution - Format** 1920 x 1200 (WUXGA)

BacklightWLEDPixel ResolutionRGB

**Color Gamut Coverage** sRGB 100%

Color Depth 8

Viewing Angle UWVA 89/89/89

**Low Blue Light** Yes

Power Consumption (W, EBL@ 1.60 (max) / 1.95 (max) 150nits max/ 200nits max)

16.0 in WUXGA (1920 x
1200) Anti-Glare UWVA
WLED+LBL sRGB NB2Y 1000
eDP 1.3+PSR 100 PrivacyG4
Plus bent LCD Panel
Outline
Active I

**Outline Dimensions (W x H x D)** 349.980 x 225.420 (max)

**Active Area** 344.680 x 215.420 (typ)

Veight 310 (max)

**Diagonal Size** 16

Thickness 2.2 / 3.9 (max)
Interface eDP 1.3



**Surface Treatment** Anti-Glare

**Touch Enabled** No

Contrast Ratio 1500:1 (typ)

Refresh Rate60 HzBrightness1000 nits

**Pixel Resolution - Format** 1920 x1200 (WUXGA)

BacklightWLEDPixel ResolutionRGB

**Color Gamut Coverage** sRGB 100%

Color Depth 8

Viewing Angle UWVA 85/85/85

Yes

N/A

Low Blue Light
Power Consumption (W, EBL@

150nits max/ 200nits max)

#### STORAGE AND DRIVES

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

SSD 256GB 2280 PCIe-4x4 NVMe Three Layer Cell Form Factor M.2 2280
Capacity 256GB
NAND Type TLC

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen4X4

 Maximum Sequential Read
 4000 MB/s ±20%

 Maximum Sequential Write
 2000 MB/s ±20%

 Logical Blocks
 500,118,192

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

**Features** Pyrite 2.0; TRIM; L1.2

SSD 512GB 2280 PCIe-4x4 NVMe Three Layer Cell Form Factor M.2 2280
Capacity 512GB
NAND Type TLC

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCle NVMe Gen4X4

 Maximum Sequential Read
 6400 MB/s ±20%

 Maximum Sequential Write
 3500 MB/s ±20%

 Logical Blocks
 1,000,215,215

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

**Features** Pyrite 2.0; TRIM; L1.2

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

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen4X4

 Maximum Sequential Read
 6400 MB/s ±20%

 Maximum Sequential Write
 5000 MB/s ±20%

 Logical Blocks
 2,000,409,264

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

**Features** Pyrite 2.0; TRIM; L1.2

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

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen4X4

 Maximum Sequential Read
 6400 MB/s ±20%

Maximum Sequential Write5000 MB/s ±20%Logical Blocks4,000,797,360

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

Features Pyrite 2.0; TRIM; L1.2

256GB PCIe-4x4 2280 NVME Form Factor
Self Encrypted OPAL2 Capacity
Three Layer Cell Solid State
Drive NAND Type

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

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen4X4

 Maximum Sequential Read
 4000 MB/s ±20%

 Maximum Sequential Write
 2000 MB/s ±20%

 Logical Blocks
 500,118,192

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

Features TCG Opal 2.0; TRIM; L1.2

512GB PCIe-4x4 2280 NVME Form Factor
Self Encrypted OPAL2 Capacity
Three Layer Cell Solid State
Drive NAND Type

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

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen4X4

 Maximum Sequential Read
 6400 MB/s ±20%

 Maximum Sequential Write
 3500 MB/s ±20%



**Logical Blocks** 1,000,215,215

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

Features TCG Opal 2.0; TRIM; L1.2

SSD 256GB 2280 PCIe NVMe  $\,$  Form Factor  $\,$ 

Value

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

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCle NVMe Gen3X4

 Maximum Sequential Read
 1500 MB/s ±20%

 Maximum Sequential Write
 750 MB/s ±20%

Logical Blocks 500,118,192

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

**Features** Pyrite 2.0; TRIM; L1.2

SSD 512GB 2280 PCIe NVMe Form Factor

Value

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

**Logical Blocks** 

 Height
 0.09 in (2.3 mm)

 Width
 0.87 in (22 mm)

 Weight
 0.02 lb (10 g)

 Interface
 PCIe NVMe Gen3X4

 Maximum Sequential Read
 1500 MB/s ±20%

 Maximum Sequential Write
 750 MB/s ±20%

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

1,000,215,215

**Features** Pyrite 2.0; TRIM; L1.2

#### **NETWORKING/COMMUNICATIONS**

Realtek RTL8852BE 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.3 (802.11ax 2x2, supporting gigabit data rate) Wireless Card <sup>1</sup> **Wireless LAN Standards** IEEE 802.11a IEEE 802.11b

IEEE 802.11b
IEEE 802.11g
IEEE 802.11n
IEEE 802.11ac
IEEE 802.11ax
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/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

802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

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

**Modulation** Direct Sequence Spread Spectrum

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

• 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 certificationWPA3 certificationIEEE 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 Power<sup>3</sup> • 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 Sensitivity<sup>4</sup>** •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

**Weight** 1. 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 Activity** LED Amber – Radio OFF;

LED OFF - Radio ON

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

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

Frequency Band 2402 to 2480 MHz

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

**Data Rates and** Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps

#### HP EliteBook 865 16 inch G9 Notebook PC

## **Technical Specifications**

**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. 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).



Qualcomm® Fast Connect Wireless LAN Standards IEEE 802.11a 6900 Wi-Fi 6E + IEEE 802.11b Bluetooth® 5.2 (802.11ax IEEE 802.11a 2x2, AMD IEEE 802.11n AIM-T AME, supporting IEEE 802.11ac gigabit file transfer IEEE 802.11ax speeds) Wireless Card 1 IEEE 802.11d IEEE 802.11e IEEE 802.11h IEEE 802.11i IEEE 802.11k 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 &

Modulation Direct Sequence Spread Spectrum

160MHz)

OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM, 4096QAM

• 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** 

Models

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

Infrastructure (Access Point Required)

**Roaming** IEEE 802.11 compliant roaming between access points

Output Power<sup>3</sup> 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 Sensitivity<sup>4</sup>

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)

**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 MbpsThroughputBLE: 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. 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).



Intel® XMM™ 7560 R+ LTE-Advanced Pro¹ **Technology/Operating** FDD LTE:

**bands** 2100 (Band 1), 1900 (Band 2), 1800 (Band 3),

1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 14 upper), 700 (Band 17 lower), 850 (Band 18 lower), 850 (Band 19 upper), 800 (Band 20), 1900 (Band 25), 850 (Band 26), 700 (Band 28), 700 (Band 29 RX only), 2300 (Band 30), 1700/2100 (Band 66), 600 (band 71).

TDD LTE:

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

5200 (Band 46 RX only) MHz;

HSPA+:

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

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

Wireless protocol standards 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** 42 x 30 x 2.3 mm

(Length x Width x Thickness)

**GPS** 

**eSIM** 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.

Near Field Communications Controller (optional) **Dimensions (L x W x H)** Module 25 mm by 10 mm by 2.0 mm

Chipset NPC100 System interface I2C

NFC RF standards ISO/IEC 14443 A

ISO/IEC 14443 B ISO/IEC 15693 ISO/IEC 18092

ECMA-340 NFCIP-1 Target and Initiator



ECMA-320 NFCIP-2

NFC Forum Support Tag Type 1, Type 2, Type3 and Type 4, NFCIP-1 and NFCIP-2

Reader (PCD-VCD) Mode ISO/IEC 14443 A

ISO/IEC 14443 B ISO/IEC 15693 MIFARE 1K MIFARE 4K MIFARE DESFire

FeliCa

Jewel and Topaz cards

**Card Emulation (PICC-**

VICC) Mode

ISO/IEC 14443 A

ISO/IEC 14443 B and B'

MIFARE FeliCa

Frequency 13.56 MHz

NFC Modes Supported Reader/Writer. Peer-to-Peer

**Raw RF Data Rates** 106, 212, 424, 848 kbps

**Operating temperature** 0°C to 70°C

**Storage temperature** -20°C to 125°C

**Humidity** 10-90% operating

5-95% non-operating

Supply Operating voltage 4.35 to 5.25 Volts

**I/O Voltage** 1.8V or 3.3V

Power Consumption (Booster enable, VBAT= 3.3V, VCC\_BOOST = 5V)

Mode Power Consumption, Typical

Polling 7.3 mA

Detected Test Tag Type 1 Total 283.8 mA

Net Module 236.8 mA

Detected Test Tag Type 2 Total 288.8 mA

Net Module 241.8 mA

Detected Test Tag Type 3 Total 287.7 mA

Net Module 240.7 mA

Detected Test Tag Type 4 Total 282.3 mA

Net Module 235.3 mA

Antenna Antenna connector, 0.5mm pitch, 7 connector FPC. Antenna matching is

external to module.



#### **POWER**

1. 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

AC Adapter 45 Watt nP Standard USB type C Straight 1.8m

AC Adapter 45 Watt nPFC Dimensions (H x W x D)

94.0mm x 40.0mm x 26.5mm

Weight Input 192.5g +/-10%

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

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

5V/15W

**DC output** 5V/9V/12V/15V

**Hold-up time** 5ms at 115 Vac input

Output current limit <5.0A

Connector C6

**Environmental Design** 

Operating temperature

32°F to 95°F (0° to 35° C)

Non-operating (storage) -4°Fto 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 Certifications Eg:

\*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.



Slim USB type C Straight 1.8m

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

88 x 53.5 x 21 mm Weight unit: 220a +/- 10a

Input **Input Efficiency** 

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

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

Input frequency range

47 ~ 63 Hz

**Input AC current** 1.6 A at 90 VAC and maximum load

Output **Output power** 

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

**Output current limit** <8.0A

Connector

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

temperature

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

temperature

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

**Humidity** 5% to 95% **Storage Humidity** 5% to 95%

**EMI and Safety** Certifications

Eq:

\*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 Dimensions (H x W x D) Standard USB type C Straight 1.8m

Weight

Input

90.0 mm x 51.0 mm x 28.5 mm

250g +/-10%

**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** Max. 1.6 A at 90 Vac

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 **C6** 

**Environmental Design Operating** 32°F to 95oF (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 5000m)

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

**EMI and Safety** Certifications

Ea:

\*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.

HP 100W+10W Slim USB-C+USB-A Straight AC Weight **Power Adapter Kenting** 

Dimensions  $(H \times W \times D)$ 

Input

**Output** 

136 x 60 x 22 mm

unit: 365g +/- 10g

**Input Efficiency** Average Efficiency of 25%, 50%, 75%, 100%

load condition with 115Vac/230Vac Spec:

5VusbA: 73.62% 5VusbC: 81.5% 9V:86.7% 12V:88% 15V:89% 20V:89%

> 90% efficiency at 100W (20V/5A) output

1.6 A at 90 VAC and maximum load

condition

Input frequency range

**Input AC current** 

47 ~ 63Hz

**Output power** 110W

DC output 5VusbA/5V/9V/12V/15V/20V

5ms at 115 Vac input Hold-up time

**Output current limit** <6.25A

Connector **C6** 

**USB Type C** 



**Environmental Design Operating** 32°F to 95oF (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 5000m)

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

**EMI and Safety** 

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

\* Worldwide safety standards - IEC60950-1 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.

HP 3-cell Long Life Li-Ion Dimensions (H x W x D) (51 Wh)1

251.8 x 70.3 x 6.82 mm (9.91 x 2.77 x 0.27 inch)

Weight

0.229kg +/- 10g (0.505 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 140° F (-10° to 60° C)

**Fuel Gauge LED** 

Warranty

Follow product spec

**Optional Travel Battery** 

Available

No



HP 6-cell Long Life Li-Ion Dimensions (H x W x D)

303.2 x 90.1 x 6.82 mm (11.94 x 3.55 x 0.27 inch)

(76 Wh)1

Weight

0.357kg +/- 10g (0.787 lb)

Cells/Type

6cell Lithium-Ion Polymer cell / 564975

Energy

Voltage

11.58V

**Amp-hour capacity** 

6.565Ah

**Watt-hour capacity** 

76Wh

Temperature

Operating (Charging)

32° to 113° F (0° to 45° C)

**Operating (Discharging)** 14° to 140° F (-10° to 60° C)

**Fuel Gauge LED** 

Warranty

Follow product spec

**Optional Travel Battery** 

Available

No



#### **AUDIO**

HD Stereo Codec Realtek ALC3315

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

Internal Speaker Amplifier Cirrus Logic High-Efficiency Boosted Class D Amplifier

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

Following MSFT Behaviour

Sampling DAC: 44.1k/48kHz

Wavetable Syntheses ADC: 48kHz

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

# of Channels on Line-Out

Internal Speaker Yes

#### FINGERPRINT READER

Sensor vendor Synaptics FS7604

Sensor type Capacitive DPI resolution 363DPI

Scan area 7.4x6mm sensor area

False Rejection Rate <1%

False Acceptance Rate 1:50K FARMobile Voltage Operation 3.0V to 3.6VOperating Temperature  $0\sim60^{\circ}\text{C}$ 

**Current Consumption** 

Image

Low Latency Wait For

LOW Latency Wait Fo

Finger

260 uA

100mA Max

**Capture Rate** <30msec per image

ESD Resistance IEC 61000-4-2 4B (+/-15KV)

Detection Matrix 363 dpi / 7.4x6mm sensor area



## **Technical Specifications**

### **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:				
ucciai ations	IT ECO declaration				
	US ENERGY STAR®				
	(				
	EPEAT <sup>®</sup> Gold registered in the United States. See http://www.epeat.net for registration     status in your country.				
	status in your country.				
	TCO Certified     China Energy Conservation Program (CECD)				
	China Energy Conservation Program (CECP)  China State System and All Program (Administration (CEDA)				
	China State Environmental Protection Administration (SEPA)  Taking Green Mark				
	Taiwan Green Mark      Kawan Fan Jahal				
	<ul><li>Korea Eco-label</li><li>Japan PC Green label*</li></ul>				
Sustainable Impact	Ocean-bound plastic in S				
Specifications	• 55% post-consumer recy	•			
Specifications	• Low halogen	/cieu piastic			
	_	ted cushions are 100% sus	tainably sourced and recyclable		
	_		-		
	<ul> <li>Molded Paper Pulp Cushion inside box is 100% sustainably sourced and recyclable</li> <li>Bulk packaging available</li> </ul>				
System Configuration			and Declared Noise Emissions data for the		
Jystem comiganation	The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".				
Energy Consumption					
(in accordance with US					
ENERGY STAR® test					
method)	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz		
Normal Operation (Sort					
idle)	5.46 W	5.59 W	5.43 W		
Normal Operation (Long					
idle)	1.29 W	1.32 W	1.19 W		
Sleep	1.29 W	1.32 W	1.19 W		
Off	0.42 W	0.47 W	0.42 W		
	NOTE:				
	Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model				
	family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S.				
	Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model				
	family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is				
for a typically configured PC featuring a hard disk drive, a high efficiency power sup			ve, a high efficiency power supply, and a		
	Microsoft Windows® operating system.				
Î.					
Heat Dissipation*	11EVAC COUL	2201/65 5011-	100000		
Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz		
Normal Operation (Short		-			
Normal Operation (Short idle)	115VAC, 60Hz 18.7 BTU/hr	230VAC, 50Hz 19.1 BTU/hr	100VAC, 50Hz 18.6 BTU/hr		
Normal Operation (Short idle)  Normal Operation (Long	18.7 BTU/hr	19.1 BTU/hr	18.6 BTU/hr		
Normal Operation (Short idle)		-			





Off	1.4 BT	1.4 BTU/hr 1.6 BTU/hr			1.4 BTU/hr	
	* <b>NOTE:</b> Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.					
Declared Noise Emissions (in accordance with	Sound Power Sound Pressure (L <sub>WAd</sub> , bels) (L <sub>pAm</sub> , decibels)					
ISO 7779 and ISO 9296)  Typically Configured – Idle	2.6 14.4			1.4		
Fixed Disk – Random writes		2.8		25.3		
Optical Drive – Sequential reads	3.6			33.1		
Longevity and Upgrading	This product can be upgraded, possibly extending its useful life by several ye features and/or components contained in the			eral years. Upgradeable		
	Spare parts a production.	are available	throughout the	warranty p	eriod and or for up	to "5" years after the end of
Additional Information	<ul> <li>This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.</li> <li>This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.</li> <li>This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).</li> <li>This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see www.epeat.net</li> <li>Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.</li> <li>This product is 92.9% recycle-able when properly disposed of at end of life.</li> </ul>					
Packaging Materials	External:	PAPER/Corrugated		287 g		
		PAPER/Pa	perboard			72 g
		PAPER/Mo	olded Pulp			162 g
		·		4 g		
Internal:		PLASTIC/Polyethylene low density - LDPE		13 g		
The plastic packaging material contains at l						
The corrugated paper packaging materials contains at least 51.8% recycled conte  ROHS Compliance  HP Inc. complies fully with materials regulations. We were among the first compan the restrictions in the European Union (EU) Restriction of Hazardous Substances (R our products worldwide through the HP GSE. HP has contributed to the developme legislation in Europe, as well as China, India, and Vietnam.			irst companies to extend bstances (RoHS) Directive to			
	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.					
			untary objective to achieve worldwide compliance with the new EU RoHS or virtually all relevant products by July 2013, and we will continue to extend the			



	scope of the commitment to include further restricted substances as regulations continue to				
	evolve.				
	To obtain a copy of the HP RoHS Compliance Statement, see HP RoHS position statement.				
Material Usage	This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at				
	http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):				
	• Asbestos				
	Certain Azo Colorants				
	<ul> <li>Certain Brominated Flame Retardants – may not be used as flame retardants in plastics</li> </ul>				
	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				
	<ul> <li>Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.</li> </ul>				
	Ozone Depleting Substances				
	<ul> <li>Polybrominated Biphenyls (PBBs)</li> </ul>				
	Polybrominated Biphenyl Ethers (PBBEs)				
	<ul> <li>Polybrominated Biphenyl Oxides (PBBOs)</li> </ul>				
	Polychlorinated Biphenyl (PCB)				
	Polychlorinated Terphenyls (PCT)				
	<ul> <li>Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has</li> </ul>				
	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:				
	<ul> <li>Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.</li> </ul>				
	<ul> <li>Eliminate the use of ozone-depleting substances (ODS) in packaging materials.</li> </ul>				
	<ul> <li>Design packaging materials for ease of disassembly.</li> </ul>				
	<ul> <li>Maximize the use of post-consumer recycled content materials in packaging materials.</li> </ul>				
	<ul> <li>Use readily recyclable packaging materials such as paper and corrugated materials.</li> </ul>				
	<ul> <li>Reduce size and weight of packages to improve transportation fuel efficiency.</li> </ul>				
	<ul> <li>Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.</li> </ul>				



End-of-life Management and Recycling	HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.  The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
HP, Inc. Corporate Environmental	For more information about HP's commitment to the environment:
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	<ul> <li>Percentage of ocean-bound plastic contained in each component varies by product</li> <li>Recycled plastic content percentage is based on the definition set in the IEEE 1680.1-2018 standard.</li> <li>External power supplies, WWAN modules, power cords, cables and peripherals excluded.</li> <li>100% outer box packaging and corrugated cushions made from sustainably sourced certified and recycled fibers.</li> <li>Fiber cushions made from 100% recycled wood fiber and organic materials.</li> </ul>

#### **COUNTRY OF ORIGIN**

China



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

#### **DOCKING (Sold Separately)**

**Dock Connectors** 

Docking station model #1

Total number of supported displays

(incl. the notebook display)

Max. resolutions supported

**HP Thunderbolt Dock G2** 

4

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

Single 8K@ 30Hz (multiple tiles) for Thunderbolt hosts

Non-TBT hosts DP 1.4 in high res mode (1) 8K video single cable@30Hz

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

**Technical limitations** 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 max resolution of: (2) 5K single cable + (1) 4K UHD @ 60 Hz in high resolution mode. In multi-function 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

**Dock Connectors** 

Dock Connectors

HP USB-C Dock G5

3

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

1xHDMI, 2xDP

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

mode.

Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K

UHD@ 30 Hz on HDMI in multi-function mode

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

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

Docking station model #3

Total number of supported displays

(incl. the notebook display)
Max. resolutions supported

Dock Connectors

Technical limitations

HP USB-C/A Universal Dock G2

3

Triple 4K UHD@ 60Hz

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)

_		
Туре	Description	Part Number
Cases	HP Executive 15.6 Backpack	6KD07AA
	HP Executive 15.6 Top Load	6KD06AA
	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
Docking	HP Thunderbolt 120W G2 Dock	2UK37AA
	HP Thunderbolt 120W G2 Dock w/Audio	3YE87AA
	HP Thunderbolt 230W G2 Dock w/Combo Cable	3TR87AA
	HP USB-C 120W G5 Dock	5TW10AA
	HP USB-C/A 120W G2 Universal Dock	5TW13AA
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 USB-C to RJ45 Adapter G2	4Z527AA
	HP USB 3.0 to Gigabit RJ45 Adapter G2	4Z7Z7AA
	HP HDMI to DVI Adapter	F5A28AA
	HP HDMI to VGA Adapter	H4F02AA
	HP USB to Gigabit RJ45 Adapter	N7P47AA
	HP USB-C to DisplayPort Adapter	N9K78AA
	HP USB-C to HDMI 2.0 Adapter	1WC36AA
	HP USB-C to RJ45 Adapter	V7W66AA
	HP USB-C to USB 3.0 Adapter	N2Z63AA
	HP USB-C to VGA Adapter	N9K76AA
Keyboard/Combo	HP 125 WD USB Keyboard	266C9AA
	HP 320K WD USB Keyboard	9SR37AA
	HP 225 Wired Mouse and Keyboard Combo	286J4AA
	HP 235 Wireless Mouse and Keyboard Combo	1Y4D0AA
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
	HP Wireless Rechargeable 950MK Mouse and Keyboard	3M165AA
	HP 975 USB+BT Dual-Mode Wireless Keyboard	3Z726AA
	HP 455 Programmable Wireless Keyboard	4R177AA



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

	HP 655 Wireless Keyboard and Mouse Combo	4R009AA
Mouse	HP USB Premium Wireless Mouse	1JR31AA
	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 45W USB-C G2 Zeus AC Power Adapter	1HE07AA
	HP 45W USB-C LC Dali AC Power Adapter	1MZ01AA
	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
Commounty		
	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Master Keyed Cable Lock	1AJ40AA
	HP SureKey Standard/Nano/Wedge Cable Lock	6UW42AA



### Change Log

Date of change:	Version History:		Description of change:
May 6, 2022	V1 to V2	Added	Environmental Data
June 8, 2022	V2 to V3	Updated	Battery Life
June 15, 2022	V3 to V4	Added	Added note in Manageability Feature
August 30, 2022	V4 to V5	Added	DASH Manageability
October 19, 2022	V5 to V6	Updated	Bluetooth version
November 11, 2022	V6 to V7	Added	DASH Manageability disclaimer
December 7, 2022	V7 to V8	Updated	Windows OS
January 20, 2023	V8 to V9	Updated	Operating Systems
March 2, 2023	V9 to V10	Updated	Networking and communications sections
	V10 to V11		

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