

HP EliteOne 1000 G2 All-in-One Business PC



Front

- 1. Webcam (optional)
- 2. On-screen display (OSD) buttons
- 3. Volume slider
- 4. Collaboration keys
- 5. Power button
- 6. Speakers (optional)

HP EliteOne 1000 G2 All-in-One Business PC

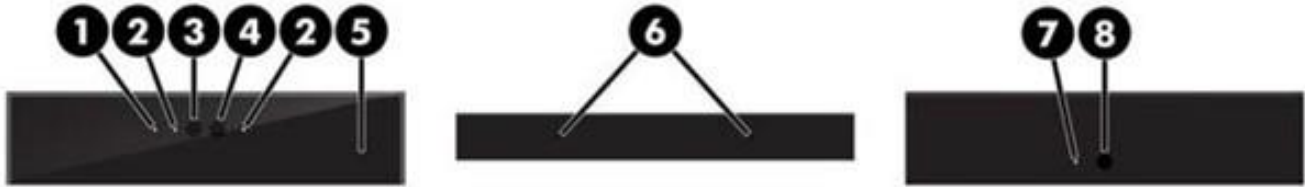


Collaboration keys

- 1. Volume slider
- 2. Speaker mute button
- 3. Hang up button
- 4. Webcam mute button
- 5. Microphone mute button
- 6. Call button
- 7. Power button

Overview

Infrared (IR) and Dual-facing Full High Definition (FHD) webcam (optional)



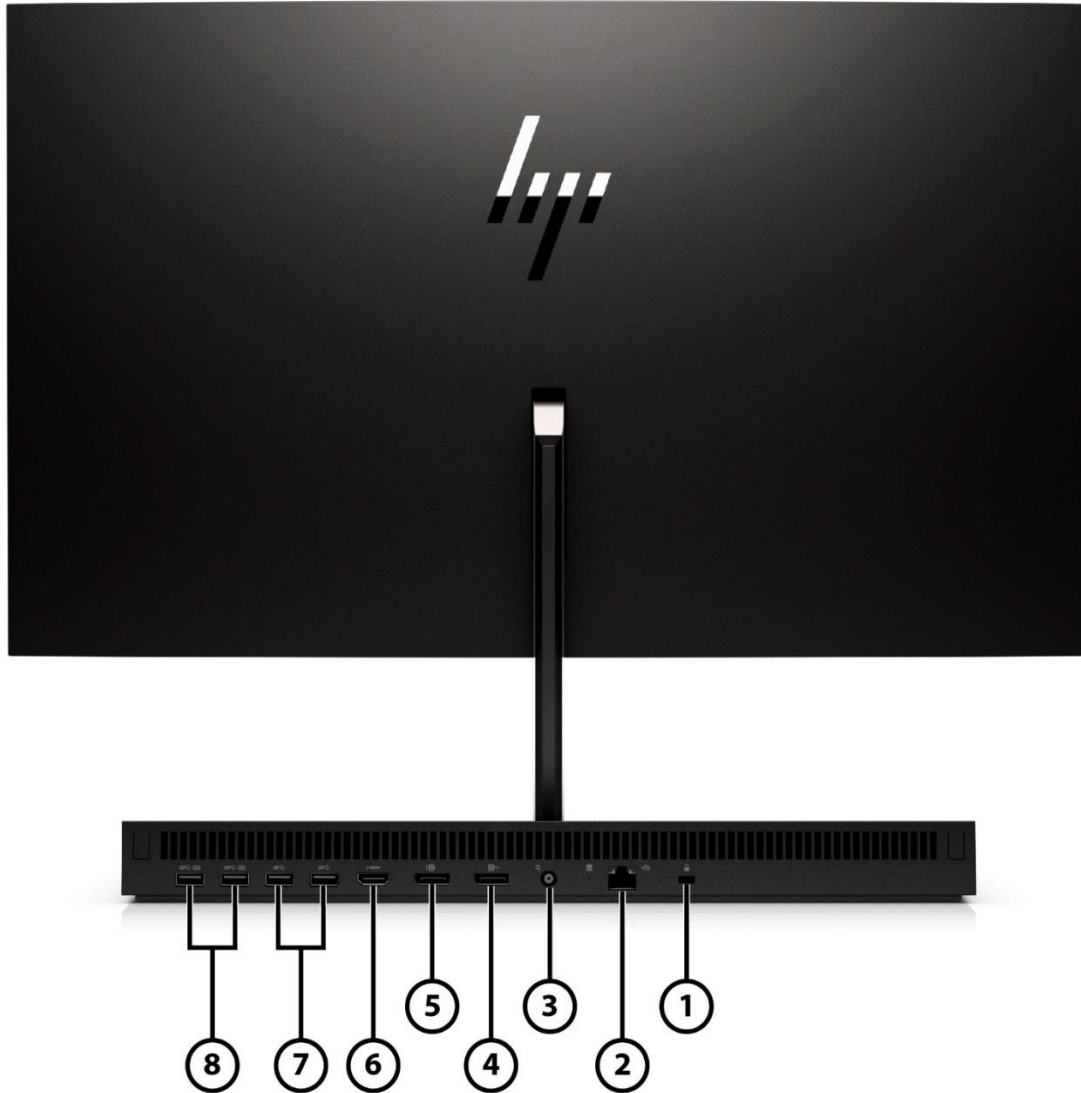
1. Webcam light
2. IR light
3. Full High Definition (FHD) webcam
4. IR webcam
5. Rear webcam adjustment wheel
6. Digital microphones
7. Webcam light
8. FHD webcam

Full High Definition (FHD) webcam (optional)



1. Webcam light
2. FHD webcam
3. Digital microphones

HP EliteOne G2 All-in-One Business PC (rear)



1. Standard lock slot
2. RJ-45 (network) jack
3. Power connector
4. DisplayPort™ 1.2 in

Not Shown

Slots

(1) internal M.2 2230 connector for optional wireless NIC

(1) internal M.2 SSD storage (2230 or 2280 connector)

Rear

5. DisplayPort™ 1.2 out
6. HDMI 2.0a out connector
7. USB 3.1 Gen2 ports
8. USB 3.1 Gen2 ports (wake capable)

Bays

(1) 2.5" internal storage drive bay

HP EliteOne 1000 G2 All-in-One Business PC (side)

Overview



Side

- | | |
|--|---|
| 1. USB 3.1 Gen1 Type-A port(charge support up to 5V/1.5A) | 3. Universal Audio Jack with CTIA headset support |
| 2. USB 3.1 Gen2 Type-C™ Thunderbolt port (DP Alt mode and 15W) | 4. Fingerprint sensor (optional) |

Overview

HP EliteOne 1000 Display

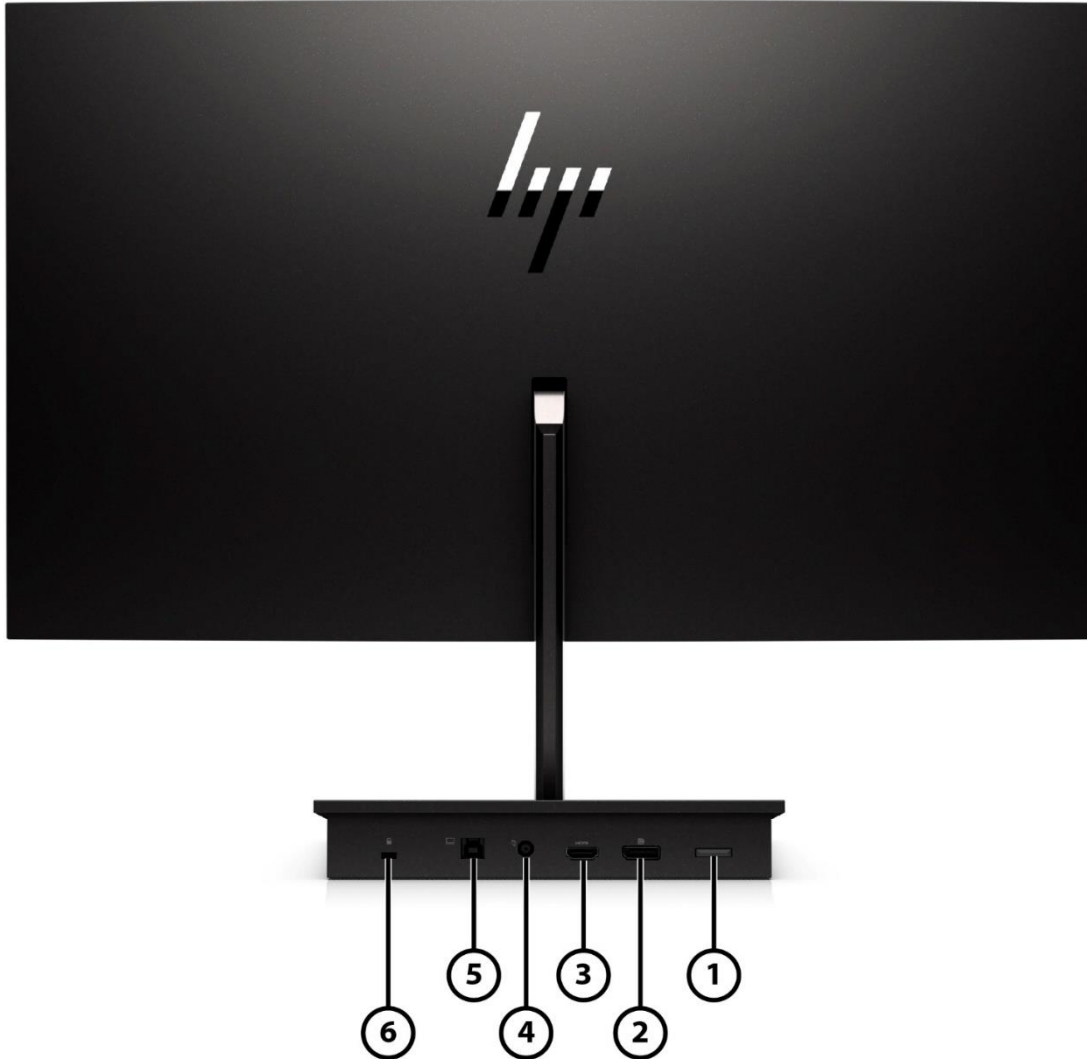
Additional optional displays include: HP EliteOne 1000 23.8-in FHD Display, HP EliteOne 1000 23.8-in FHD Touch Display, HP EliteOne 1000 27-in 4K UHD Display, and HP EliteOne 1000 34-in WQHD Curved Display⁵



Front

1. Webcam (optional)
2. On-screen display (OSD) buttons
3. Power indicator LED

HP EliteOne 1000 Display



Rear

- | | |
|------------------------|---|
| 1. Power button | 4. Power connector |
| 2. DisplayPort™ 1.2 in | 5. USB Type-B out (webcam, mics, and touch) |
| 3. HDMI connector | 6. Standard lock slot |

Features

AT A GLANCE

- Unique All-in-One form factor with interchangeable and upgradeable display options
- Four display options: 23.8" diagonal FHD touch and non-touch, 27" diagonal 4K UHD, and 34" diagonal WQHD Curved⁵
- Ability to redeploy displays or purchase additional displays with a matching standalone display base
- Tool-less accessibility to easily reach upgradeable components or swap displays
- Creates a rich video conferencing solution with immersive video and audio engagement, capacitive touch collaboration keys, and a built-in pop-up privacy camera
- Integrated collaboration keys keep conferencing controls (call answer, microphone mute, webcam disable, call hang up, and volume controls) within reach
- Intel Unite™ (optional)
- Intel® Unite™ needs to be configured at factory (AiO/DM)
- Intel® Q370 chipset supporting Intel® 8th generation Core™ processors, featuring integrated Intel® UHD Graphics and Intel® vPro™ Technology (available with Core i5 and Core i7 processors)
- 35W and 65W processor support
- Windows 10
- Intel® UHD graphics
- Optional AMD discrete graphics
- USB 3.1 Type-C™ Thunderbolt port
- Intel® Ethernet Connection I219LM GbE LOM integrated network connection
- DDR4 Synchronous Dynamic Random Access Memory (SDRAM)
- Support for up to 2 additional monitors via DisplayPort™ 1.2 or HDMI connectors
- HP Sure Start Gen4¹
- HP Manageability Integration Kit Gen2²
- HP Sure Click⁴
- HP Sure Run⁶
- HP Sure Recover⁷
- 23.8" and 27" screen sizes are ENERGY STAR® certified and EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See <http://www.epeat.net> for registration status by country⁸. Search keyword generator on HP's 3rd party option store for solar generator accessories at <http://www.hp.com/go/options>
- CCC Certified
- TCO Edge for AiO
- PC chassis and all internal components and modules are manufactured with low halogen content³
- Protected by HP Services, including limited warranties up to 3-3-3 (terms and conditions vary by country; certain restrictions and exclusions apply); Care Packs available with up to 5 years ext Business Day Onsite Hardware Support

1. HP Sure Start G4 requires Intel® 8th generation processors

2. HP Management Integration Kit Gen2 for Microsoft System Center Configuration Manager: HP Management Integration Kit Gen2 can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>

3. External power supplies, power cords, cables and peripherals are not low halogen. Service parts obtained after purchase may not be low halogen.

4. HP Sure Click is available on select HP platforms and supports Microsoft® Internet Explorer, Google Chrome, and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.

5. Configurable at purchase with choice of display sizes. Additional displays sold separately.

6. HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD® processors.

7. HP Sure Recover is available on HP Elite PCs with 8th generation Intel® or AMD processors and requires an open, wired network connection. Not available on platforms with multiple internal storage drives, Intel® Optane™. You must back up important files, data, photos, videos, etc. before use to avoid loss of data.

8*Based on US EPEAT® registration according to IEEE 1680.1-2018 EPEAT®. Status varies by country. Visit <http://www.epeat.net> for more information.

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

Features

PRODUCT NAME

HP EliteOne 1000 G2 All-in-One Business PC
HP EliteOne 1000 G2 23.8-in All-in-One Business PC
HP EliteOne 1000 G2 23.8-in Touch All-in-One Business PC
HP EliteOne 1000 G2 27-in 4K UHD All-in-One Business PC
HP EliteOne 1000 G2 34-in Curved All-in-One Business PC
HP EliteOne 1000 G2 Base PC

OPERATING SYSTEMS

| | |
|---------------------------|---|
| Preinstalled | Windows® 10 Pro 64 ¹ |
| | Windows® 10 Pro 64 (National Academic License) ² |
| | Windows® 10 Home 641 |
| | Windows® 10 Home Single Language 641 |
| | FreeDos 2.0 |
| Web-supported only | Windows® 10 Enterprise 64 ¹ |

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

2. Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see <https://aka.ms/ProEducation> for Windows 10 Pro Education feature information.

NOTE: Your product does not support Windows 8 or Windows 7

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

Features

PROCESSORS

Intel® 8th Generation Core™ Processors

Intel® Core™ i7 8700T processor with Intel® UHD Graphics 630 (2.4 GHz, up to 4 GHz with Intel® Turbo Boost, 12 MB cache, 6 cores)^{3,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i7+ 8700T Processor with Intel® UHD Graphics 630 (2.4 GHz, up to 4.0 GHz with Intel® Optane™ Memory, 12 MB cache, 6 cores)^{3,4}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i7 8700 processor with Intel® UHD Graphics 630 (3.22 GHz, up to 4.66 GHz with Intel® Turbo Boost, 12 MB cache, 6 cores) 65W^{3,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i7+ 8700 processor (Core i7 and 16GB Intel® Optane™ memory) with Intel® UHD Graphics 630 (3.2 GHz, up to 4.6 GHz with Intel® Turbo Boost, 12 MB cache, 6 cores) 65W^{3,4,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5 8600T processor with Intel® UHD Graphics 630 (2.3 GHz, up to 3.7 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5+ 8600T Processor with Intel® UHD Graphics 630 (2.3 GHz, up to 3.7 GHz with 16GB Intel® Optane™ Memory, 9 MB cache, 6 cores)^{3,4}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5 8600 processor with Intel® UHD Graphics 630 (3.1 GHz, up to 4.3 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5+ 8600 processor (Core i5 and 16GB Intel® Optane™ memory) with Intel® UHD Graphics 630 (3.1 GHz, up to 4.3 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,4,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5 8500T processor with Intel® UHD Graphics 630 (2.1 GHz, up to 3.5 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i5+ 8500T Processor with Intel® UHD Graphics 630 (2.1 GHz, up to 3.5 GHz with 16GB Intel® Optane™ Memory, 9 MB cache, 6 cores)^{3,4}
Supports Intel® vPro™ Technology⁵

Intel® Core™ i5 8500 processor with Intel® UHD Graphics 630 (3.0 GHz, up to 4.1 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,5}
Supports Intel® vPro™ Technology⁵

Intel® Core™ i5+ 8500 processor (Core i5 and 16GB Intel® Optane™ memory) with Intel® UHD Graphics 630 (3.0 GHz, up to 4.1 GHz with Intel® Turbo Boost, 9 MB cache, 6 cores)^{3,4,5}
Supports Intel® vPro™ Technology⁶

Intel® Core™ i3 8300T processor with Intel® UHD Graphics 630 (3.2 GHz, 8 MB cache, 4 cores)³

Intel® Core™ i3 8300 processor with Intel® UHD Graphics 630 (3.7 GHz, 8 MB cache, 4 cores)³

Intel® Core™ i3 8100T processor with Intel® UHD Graphics 630 (3.1 GHz, 6 MB cache, 4 cores)³

Intel® Core™ i3 8100 processor with Intel® UHD Graphics 630 (3.6 GHz, 6 MB cache, 4 cores)³

Features

Intel® 8th Generation Pentium® Processors

Intel® Pentium® Gold G5600 processor with Intel® UHD Graphics 630 (3.9 GHz, 4 MB cache, 2 cores)³

Intel® Pentium® Gold G5500T processor with Intel® UHD Graphics 630 (3.2 GHz, 4 MB cache, 2 cores)³

Intel® Pentium® Gold G5500 processor with Intel® UHD Graphics 630 (3.8 GHz, 4 MB cache, 2 cores)³

Intel® Pentium® Gold G5400T processor with Intel® UHD Graphics 610 (3.1 GHz, 4 MB cache, 2 cores)³

Intel® Pentium® Gold G5400 processor with Intel® UHD Graphics 610 (3.7 GHz, 4 MB cache, 2 cores)³

Intel® 8th Generation Celeron™ Processors

Intel® Celeron® G4900T processor with Intel® UHD Graphics 610 (2.9 GHz, 2 MB cache, 2 cores)³

Intel® Celeron® G4900 processor with Intel® UHD Graphics 610 (3.1 GHz, 2 MB cache, 2 cores)³

3 Multi-core 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. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system.

5. Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software and overall system configuration. See <http://www.intel.com/technology/turboboost> for more information.

6. Some functionality of vPro technology, such as Intel Active management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel vPro technology is dependant on 3rd party software providers. Compatibility of this generation of Intel vPro technology-based hardware with with future "virtual appliances" is yet to be determined.

GRAPHICS

Integrated Intel® Graphics

Optional Discrete Graphics

AMD Radeon™ RX 560 Graphics with 4GB GDDR5 dedicated memory*

*Optional discrete graphics card can only be configured with 35W CPUs and PCIe NVMe storage drives

Features

DISPLAY FEATURES

HP EliteOne 1000 23.8-in FHD Display⁹

23.8" diagonal IPS widescreen WLED backlit anti-glare LCD (1920 x 1080)¹⁰

Non-Touch

Tilt: 5 degrees forward and 25 degrees back

Height Adjustment: 40mm

HP EliteOne 1000 23.8-in FHD Touch Display⁹

23.8" diagonal IPS widescreen WLED backlit anti-glare LCD (1920 x 1080)¹⁰

Touch; Projected capacitive touch supports up to 10 touch-points

Tilt: 5 degrees forward and 25 degrees back

Height Adjustment: 40mm

HP EliteOne 1000 27-in 4K UHD Display⁹

27" diagonal IPS widescreen WLED backlit anti-glare 4K UHD LCD (3840 x 2160)¹⁰

Non-Touch

Tilt: 5 degrees forward and 25 degrees back

HP EliteOne 1000 34-in WQHD Curved Display⁹

34" diagonal IPS widescreen WLED backlit anti-glare WQHD LCD (3440 x 1440)^{5,10}

Non-Touch

Tilt: 0 degrees forward and 20 degrees back

9. HD and 4K content required to view HD and 4K images.

10. Resolutions are dependent upon monitor capability, and resolution and color depth settings.

DISPLAY PANEL SPECIFICATIONS

23.8" diagonal IPS widescreen WLED backlit anti-glare LCD (1920 x 1080)

| | |
|---|------------------------|
| Type | IPS WLED Backlit LCD |
| Active area (mm) | 527.04 x 296.46 |
| Native Resolution (HxV) | 1920 x 1080 |
| Aspect ratio | 16:09 |
| Pixel pitch (HxV)(mm) | 0.2745 x 0.2745 |
| Contrast ratio (typical) | 1000:01:00 |
| Brightness (typical) | 250 nits ¹¹ |
| Viewing angle (typical) (HxV) | 178° x 178° |
| Backlight lamp life (to half brightness) | 30,000 hours minimum |
| Color support | Over 16 million colors |
| Response time | 14ms (typical) |
| Color gamut (typical) | NTSC 72% |
| Anti-glare | Yes |
| Default color temperature | Warm (6500K) |

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

Features

27" diagonal IPS widescreen WLED backlit anti-glare 4K UHD LCD (3840 x 2160)

| | |
|---|------------------------|
| Type | IPS WLED Backlit LCD |
| Active area (mm) | 596.74 x 335.66 |
| Native Resolution (HxV) | 3840 x 2160 |
| Aspect ratio | 16:09 |
| Pixel pitch (HxV)(mm) | 0.1554 x 0.1554 |
| Contrast ratio (typical) | 1000:01:00 |
| Brightness (typical) | 350 nits ¹¹ |
| Viewing angle (typical) (HxV) | 178° x 178° |
| Backlight lamp life (to half brightness) | 30,000 hours minimum |
| Color support | Over 1 billion colors |
| Response time | 14ms (typical) |
| Color gamut (typical) | sRGB 99% |
| Anti-glare | Yes |
| Default color temperature | Warm (6500K) |

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

34" diagonal IPS widescreen WLED backlit anti-glare WQHD LCD (3440 x 1440)

| | |
|---|------------------------|
| Type | IPS WLED Backlit LCD |
| Active area (mm) | 799.80 x 334.8 |
| Native Resolution (HxV) | 3440 x 1440 |
| Aspect ratio | 21:09 |
| Pixel pitch (HxV)(mm) | 0.2325 x 0.2325 |
| Contrast ratio (typical) | 1000:01:00 |
| Brightness (typical) | 300 nits ¹¹ |
| Viewing angle (typical) (HxV) | 178° x 178° |
| Backlight lamp life (to half brightness) | 30,000 hours minimum |
| Color support | Over 1 billion colors |
| Response time | 14ms (typical) |
| Color gamut (typical) | sRGB 99% |
| Anti-glare | Yes |
| Default color temperature | Warm (6500K) |

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

Features

STORAGE AND DRIVES¹²

2.5 inch 7.2k RPM 2.5 inch 7.2k RPM Hard Disk Drives

500GB SATA
1TB SATA

2.5 inch Solid State Hybrid Drives (SSHD)

500GB 5400RPM 2.5in 8GB Hybrid
1TB 5400RPM 2.5in 8GB Hybrid
2TB 5400RPM 2.5in 8GB Hybrid

2.5 inch 5.4k RPM Hard Disk Drives

2TB SATA

2.5 inch Self-encrypting Drives (SED HDD)

500GB 7200RPM 2.5in SED OPAL 2*
500GB 5400RPM 2.5in Federal Information Processing Standard (FIPS) SED*
2.5 SATA SSD Drives
128GB SATA TLC SSD
256GB SATA TLC SSD
512GB SATA TLC SSD

2.5 inch Self-encrypting Drives (SED SSD)

256GB TLC SED SSD OPAL 2 Drive*
512GB TLC SED SSD OPAL 2 Drive*
256GB TLC SED SSD 2.5in Federal Information Processing Standard (FIPS) SED*
512GB TLC SED SSD 2.5in Federal Information Processing Standard (FIPS) SED*

PCIe NVMe SSD Drives

128GB PCIe NVMe TLC SSD
256GB PCIe NVMe TLC SSD
512GB PCIe NVMe TLC SSD
1TB PCIe NVMe TLC SSD
128GB PCIe NVMe SSD
256GB PCIe NVMe SSD
512GB PCIe NVMe SSD

PCIe NVMe Self-encrypting Drives (PCIe NVMe SED SSD)

256GB PCIe NVMe TLC SED SSD OPAL 2 Drive*
512GB PCIe NVMe TLC SED SSD OPAL 2 Drive*

12. For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) is reserved for system recovery software.

NOTE*: Storage Drivelock does not work with Self Encrypting or Optane based storage.

Features

MEMORY¹³

Maximum

32GB (16GB/slot)

Memory Slots

2 SODIMM

DDR4-2666 (Transfer rates up to 2666 MT/s)

Double channel support

Customer accessible/upgradeable

Configurations

4 GB (1 x 4 GB)

8 GB (2 x 4 GB)

8 GB (1 x 8 GB)

16 GB (2 x 8 GB)

16 GB (1 x 16 GB)

32 GB (2 x 16 GB)

Intel® Optane Memory 16GB SSD (cache)

13. Intel® Optane™ memory system acceleration does not replace or increase the DRAM in your system and requires configuration with an optional Intel® Core™ i(5or 7)+ processor.

NETWORKING

Wireless LAN

Intel® 9560 802.11b/g/n/a/ac 2x2 Wi-Fi +Bluetooth® M.2 Combo Card non-vPro™

Intel® 9560 802.11b/g/n/a/ac 2x2 Wi-Fi +Bluetooth® M.2 Combo Card vPro™

Realtek RTL8822BE ac 2x2 Wi-Fi +Bluetooth® M.2 Combo Card

Realtek ac 1x1 +Bluetooth® M.2 Combo Card (2230 PCI-e+USB)

Ethernet (RJ-45) Integrated

Intel® I219LM Gigabit Network Connection LOM (standard)

14. Wireless LAN is optional and must be bought at purchase

15. Wireless access point and Internet service required and not included. Availability of public wireless access points limited.

16. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

Features

AUDIO/MULTIMEDIA

Audio

Integrated Conexant CX5001 codec - up to 24-bit PCM
High performance integrated stereo speakers (2W)
Headset side port (3.5mm)
Multi-streaming capable¹⁷

Webcam & Mic

Pop-up webcam - 2MP FHD webcam, Up to 30 frames/sec, discrete dual array microphone (Fixed 2MP FHD 1080p)(maximum resolution of 1920 x1080)(optional)
Pop-up webcam - 2MP FHD webcam with IR camera front-facing and 2nd rear-facing 2MP webcam, discrete dual array microphone (Dual Camera 480P IR+1080P RGB Fixed/2MP FHD 1080P Fixed)(maximum resolution of 1920 x1080)(optional)
IR camera (optional) supports Win10 Hello

Collaboration Keys

Integrated, capacitive touch collaboration keys functions include:
Call answer, microphone mute, webcam mute, hang up, speaker mute, and volume slider

Collaboration Keys

Call answer
Microphone mute

NOTE: All HP devices which carry the Bang & Olufsen brand are custom-tuned with Bang & Olufsen's acoustical engineers for precise sound experience in business use.

17.The side headset connector supports CTIA style headsets and is re-taskable as a Line-in, Microphone-in or Headphone-out port. External speakers must be powered externally. Multi-streaming can be enabled in the audio control panel to allow independent audio streams to be sent to/from the side headset jack or internal speakers. This allows for different audio applications to use separate audio ports on the system. For example, the side audio jack could be used with a headset for a communications application while the internal speakers can be used with a multimedia application.

AUDIO SPECIFICATIONS

High Definition Audio

| | |
|---------------------|---|
| Type | Integrated |
| HD Audio Codec | Conexant CX5001 |
| Audio I/O Ports | Universal Audio Jack with CTIA headset support (re-taskable for headphone/line out/microphone in/line in) |
| Wavetable Syntheses | Yes - Uses OS soft wavetable |
| Analog Audio | Yes |
| Internal Speaker | Yes - two speakers (optional) |
| DAC Sampling Rates | 44.1kHz/48kHz/96kHz/192kHz |
| ADC Sampling Rates | 44.1kHz/48kHz/96kHz |

Features

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard and Mouse Combos

- HP Premium Wireless Keyboard and Mouse
- HP Premium USB Wired Keyboard and Mouse
- HP USB Keyboard and Mouse Healthcare Edition
- HP Wireless Business Slim Keyboard and Mouse

Keyboards

- HP Premium USB Wired Keyboard
- HP USB Business Slim Keyboard
- HP USB Business Slim Grey Keyboard
- HP USB Business Slim CCID SmartCard Keyboard
- HP USB Business Slim Antimicrobial Keyboard¹⁸
- HP USB Wired Keyboard
- HP Wired Keyboard EPEAT®

Mice

- HP USB 1000dpi Laser Mouse
- HP Grey V2 Mouse
- HP USB Mouse
- HP USB Antimicrobial Mouse¹⁸
- HP USB Hardened Mouse
- HP USB PS/2 Wired Washable Mouse

Other

- HP Mouse Pad

Adapters and Cables

- DisplayPort™ 1.2 Cable
- DisplayPort™ 1.2 to DVI-D Adapter
- DisplayPort™ 1.2 to HDMI 4K Adapter
- DisplayPort™ 1.2 to VGA Adapter
- HP DVI Cable
- HP USB Type-C™ to Type-A Hub
- HP USB to Serial Port Adapter
- HP USB-C™ to USB 3.0 Adapter

Headsets

- HP Business Headset v2
- HP UC Bluetooth® Headset

[18. China Only](#)

Features

SOFTWARE AND SECURITY

BIOS

- HP BIOSphere Gen4¹⁷
- HP DriveLock & Automatic DriveLock²⁰
- BIOS Update via Network
- Master Boot Record Security
- Power On Authentication
- Secure Erase¹⁸
- Absolute Persistence Module¹⁹
- Pre-boot Authentication
- HP Wireless Wakeup

Software

- HP Native Miracast Support¹⁵
- HP Hotkey Support - CMIT
- HP Recovery Manager
- HP JumpStart
- HP Support Assistant²¹
- HP Noise Cancellation Software
- Buy Office (sold separately)
- Intel Unite (optional)}

Manageability Features

- HP Driver Packs²²
- HP System Software Manager (SSM)
- HP BIOS Config Utility (BCU)
- HP Client Catalog
- HP Manageability Integration Kit Gen2²³
- Ivanti Management Suite²⁴
- HP Cloud Recovery³⁹

Client Security Software

- HP Client Security Suite Gen4²⁵ including:
 - HP Client Security Manager²⁶ (including Credential Manager, Password Manager, Spare Key)
- Synaptics Fingerprint Sensor³¹
- HP Device Access Manager
- HP Power On Authentication
- Windows Defender²⁷

Security Management

- Secure Erase¹⁸

Features

- TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified) (FIPS 140-2 Level 2 Certified)³²
- SATA 0,1 port disablement (viaBIOS)
- Serial, USB enable/disable (viaBIOS)
- Power-on password (viaBIOS)
- Setup password (viaBIOS)
- Support for chassis padlocks and cable lock devices
- Integrated hood sensor
- HP Sure Start Gen4³⁰
- HP Sure Run³⁵
- HP Sure Recover³⁶
- HP Sure Click³⁸

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

17. HP BIOSphere Gen4 features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.

18. For the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method.

19. Absolute agent is shipped turned off, and will be activated when customers activate a purchased subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. The Absolute Recovery Guarantee is a limited warranty. Certain conditions apply. For full details visit:

<http://www.absolute.com/company/legal/agreements/computrace-agreement>. Data Delete is an optional service provided by Absolute Software. If utilized, the Recovery Guarantee is null and void. In order to use the Data Delete service, customers must first sign a Pre-Authorization Agreement and either obtain a PIN or purchase one or more RSA SecurID tokens from Absolute Software.

20. Storage Drivelock does not work with Self Encrypting or Optane based storage.

21. HP Support Assistant requires Windows and Internet access.

22. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>.

23. HP Manageability Integration Kit can be downloaded from <http://www8.hp.com/us/en/ads/clientmanagement/overview.html>

24. Ivanti Management Suite subscription required.

25. HP Client Security Suite Gen 4 requires Windows and Intel® or AMD 8th generation processors.

26. HP Password Manager requires Internet Explorer or Chrome or FireFox. Some websites and applications may not be supported. User may need to enable or allow the add-on / extension in the internet browser.

27. Windows Defender Opt in Windows 10 and internet connection required for updates.

30. HP Sure Start Gen4 is available on HP Elite and HP Pro 600 products equipped with 8th generation Intel® or AMD processors.

31. HP Fingerprint Sensor sold separately or as an optional feature.

32. 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).

35. HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD® processors.

36. HP Sure Recover is available on HP Elite PCs with 8th generation Intel® or AMD processors and requires an open, wired network connection. Not available on platforms with multiple internal storage drives, Intel® Optane™. You must back up important files, data, photos, videos, etc. before use to avoid loss of data.

38. HP Sure Click is available on most HP PCs and supports Microsoft® Internet Explorer and Chromium™. Supported attachments include Microsoft Office (Word, Excel, PowerPoint) and PDF files in read only mode, when Microsoft Office or Adobe Acrobat are installed. Check <http://h20195.www2.hp.com/v2/GetDocument.aspx?docname=4AA7-0922ENW> for all compatible platforms as they become available.

39. HP Cloud Recovery is available for 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>

POWER

Power Supply

External 180W

Standard efficiency

87%



Features

Power cord length: 6.0 ft. (1.83 m)

WEIGHTS & DIMENSIONS

Weight

23.8 Non-Touch Product Weight (Unboxed)

Without Arm: 4.71kg, 10.3lb
 Without Base: 5.19kg, 11.4lb
 Whole system with Base: 8.21kg, 18.1lb

23.8 Touch Product Weight (Unboxed)

Without Arm: 4.71kg, 10.3lb
 Without Base: 5.26 kg, 11.6lb
 Whole system with Base: 8.28kg, 18.25lb

23.8 Shipping Weight (Boxed)

System with package weight: 12.42kg , 27.38 lb

23.8 Shipping Weight (Pallet)

Total Weight including pallet: 247 kg, 544.54 lb

Dimensions (W x D x H)

23.8 System Dimensions (including Touch, Non-Touch)

Without Base: 539.5 x 33 x 324.9 mm, 21.2 x 1.3 x 12.8 in
 Base only: 400 x 190 x 37 mm, 15.7 x 7.5 x 1.5 in
 With Base: 539.5 x 190 x 419.2 mm, 21.2 x 7.5 x 16.5 in

23.8 Shipping Dimensions (Pallet)

Shipping pallet size : 1153 x 905 x 1728 mm, 45.39 x 35.63 x 68.03 in

23.8 Pallet Quantity (including Touch, Non-Touch)

18 units per pallet

Weight

27 Product Weight (Unboxed)

Without Arm: 6.78 kg, 14.9 lb
 Without Base: 7.26 kg, 16.0lb
 Whole system with Base: 10.2kg, 22.5lb

27 Shipping Weight (Boxed)

System with package weight: 14.62 kg, 32.23lb (maximum config.)

27 Shipping Weight (Pallet)

Total Weight including pallet: 243 kgf, 535.72 lb

Dimension

27 System Dimensions

Without Base: 613.3 x 30.5 x 366.7 mm, 24.15 x 1.19 x 14.44 in
 Base only: 400 x 190 x 37 mm, 15.7 x 7.5 x 1.5 in
 With Base: 613.3 x 190 x 457.3 mm, 24.15 x 7.5 x 18 in

27 Shipping Dimensions (Boxed)

Package: 741 x 243 x 572 mm, 29.71 x 9.57 x 22.52 in

27 Shipping Dimensions (Pallet)

Shipping pallet size : 1102 x 984 x 1851 mm, 43.39 x 38.74 x 62.87 in

27 Pallet Quantity

15 units per pallet

Weight

34 Product Weight (Unboxed)

Without Arm: 6.8 kg, 15.0 lb
 Without Base: 7.28 kg, 16 lb
 Whole system with Base: 10.3 kg, 22.8 lb

34 Shipping Weight (Boxed)

System with package weight: 17.32 kg , 38.14 lb

Features

| | |
|--|--|
| 34 Shipping Weight (Pallet) | Total Weight including pallet: 228 kg, 502.65 lb |
| Dimension | |
| 34 System Dimensions | Without Base: 815.8 x 73.8 x 366.7 mm, 32.1 x 2.9 x 14.44 in Base only: 400 x 190 x 37 mm, 15.7 x 7.5 x 1.5 in With Base: 815.8 x 190 x 457.3 mm, 32.1 x 7.5 x 18 in |
| 34 Shipping Dimensions (Boxed) | Package: 985 x 292 x 608 mm, 38.78 x 11.5 x 23.94 in |
| 34 Shipping Dimensions (Pallet) | Shipping pallet size : 1168 x 984 x 1959 mm, 45.98 x 38.74 x 77.13 in |
| 34 Pallet Quantity | 12 units per pallet |

ENVIRONMENTAL AND INDUSTRY

UNIT ENVIRONMENT AND OPERATING CONDITIONS

General Unit Operating Guidelines

- Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range.
- Leave a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow.
- Never restrict airflow into the computer by blocking any vents or air intakes.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow.
- If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.

| | |
|---|---|
| Temperature Range | Operating: 50° to 95° F (10° to 35° C)* Non-operating: -22° to 140° F (-30° to 60° C) |
| Relative Humidity | Operating: 10% to 90% (non-condensing at ambient) Non-operating: 5% to 95% (non-condensing at ambient) |
| Maximum Altitude (unpressurized) | Operating: 5000m Non-operating: 50000ft (15240 m) |

NOTE: Operating temperature is de-rated 1.0 deg C per 300 m (1000 ft) to 3000 m (10,000 ft) above sea level, no direct sustained sunlight. Maximum rate of change is 10 deg C/Hr. The upper limit may be limited by the type and number of options installed.

Technical Specifications - Storage

STORAGE AND DRIVES

| | | |
|---------------------------------------|-----------------------|-----------------------------|
| 500GB 7200 RPM SATA Hard Drive | Capacity | 500 GB |
| | Rotational Speed | 7,200 rpm |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 16 MB |
| | Logical Blocks | 976,773,168 |
| | Seek Time | 12 ms (Average) |
| | Height | 0.267 in/6.8 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| | Operating Temperature | 41° to 131° F (5° to 55° C) |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|-------------------------------------|-----------------------|-----------------------------|
| 1TB 7200 RPM SATA Hard Drive | Capacity | 1 TB |
| | Rotational Speed | 7,200 rpm |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 32 MB |
| | Logical Blocks | 1,953,525,168 |
| | Seek Time | 12 ms (Average) |
| | Height | 0.374 in/9.5 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| | Operating Temperature | 41° to 131° F (5° to 55° C) |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|--|-----------------------------|--|
| 500GB 5400 RPM Solid State Hybrid Drive | Capacity | 500 GB |
| | Rotational Speed | 5,400 rpm |
| | Drive Type | Solid State Hybrid Drive (SSHD) technology with NAND Flash |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 64 MB |
| | NAND Flash | 8GB |
| | Seek Time | 12 ms (Average) |
| | Height | 0.267 in/6.8 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| Operating Temperature | 41° to 131° F (5° to 55° C) | |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|--|-----------------------------|--|
| 1TB 5400 RPM Solid State Hybrid Drive | Capacity | 1 TB |
| | Rotational Speed | 5,400 rpm |
| | Drive Type | Solid State Hybrid Drive (SSHD) technology with NAND Flash |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 64 MB |
| | NAND Flash | 8 GB |
| | Seek Time | 12 ms (Average) |
| | Height | 0.374 in/9.5 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| Operating Temperature | 41° to 131° F (5° to 55° C) | |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|--|-----------------------------|--|
| 2TB 5400 RPM Solid State Hybrid Drive | Capacity | 2 TB |
| | Rotational Speed | 5,400 rpm |
| | Drive Type | Solid State Hybrid Drive (SSHD) technology with NAND Flash |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 128 MB |
| | NAND Flash | 8GB |
| | Seek Time | 12 ms (Average) |
| | Height | 0.374 in/9.5 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| Operating Temperature | 41° to 131° F (5° to 55° C) | |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|-------------------------------------|-----------------------|-----------------------------|
| 2TB 5400 RPM SATA Hard Drive | Capacity | 2 TB |
| | Rotational Speed | 5,400 rpm |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 128MB |
| | Logical Blocks | 3,907,050,336 |
| | Seek Time | 12 ms (Average) |
| | Height | 0.374 in/9.5 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| | Operating Temperature | 41° to 131° F (5° to 55° C) |
| | Capacity | 2TB |
| Rotational Speed | 5,400 rpm | |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|------------------------------------|-----------------------|---|
| 500GB SED Solid State Drive | Capacity | 500 GB |
| | Rotational Speed | Self-Encrypting (SED) Solid State Drive with SATA interface |
| | Interface | SATA 6 Gb/s |
| | Buffer Size | 32 MB |
| | Logical Blocks | 976,773,168 |
| | Seek Time | 12 ms (Average) |
| | Height | 0.267 in/6.8 mm (nominal) |
| | Width | 2.75 in/70 mm (nominal) |
| | Operating Temperature | 41° to 131° F (5° to 55° C) |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|---|--------------------------|--|
| 128GB SATA TLC Solid State Drive | Drive Weight | up to 50g (0.11lb) |
| | Capacity | 128 GB |
| | Height | 7mm (0.276in) |
| | Width | 70mm (2.756 in) |
| | Interface | SATA 3.0 (6Gb/s) |
| | Maximum Sequential Read | Up to 530MB/s |
| | Maximum Sequential Write | Up to 450MB/s |
| | Logical Blocks | 250,069,680 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | DIPM; TRIM; |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|---|--------------------------|--|
| 256GB SATA TLC Solid State Drive | Drive Weight | up to 50g (0.11lb) |
| | Capacity | 256GB |
| | Height | 7mm (0.276in) |
| | Width | 70mm (2.756 in) |
| | Interface | SATA 3.0 (6Gb/s) |
| | Maximum Sequential Read | Up to 540MB/s |
| | Maximum Sequential Write | Up to 500MB/s |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | DIPM; TRIM; |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|---|--------------------------|--|
| 512GB SATA TLC Solid State Drive | Drive Weight | up to 50g (0.11lb) |
| | Capacity | 512 GB |
| | Height | 7mm (0.276in) |
| | Width | 70mm (2.756 in) |
| | Interface | SATA 3.0 (6Gb/s) |
| | Maximum Sequential Read | Up to 540MB/s |
| | Maximum Sequential Write | Up to 500MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | DIPM; TRIM; |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|---|--------------------------|--|
| 256GB SATA TLC SED OPAL2 Solid State Drive | Drive Weight | up to 50g (0.11lb) |
| | Capacity | 256 GB |
| | Height | 7mm (0.276in) |
| | Width | 70mm (2.756 in) |
| | Interface | SATA 3.0 (6Gb/s) |
| | Maximum Sequential Read | Up to 540MB/s |
| | Maximum Sequential Write | Up to 500MB/s |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | DIPM; TRIM; Self Encrypting Drive with OPAL2.0 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|---|--------------------------|--|
| 512GB SATA TLC SED OPAL2 Solid State Drive | Drive Weight | up to 50g (0.11lb) |
| | Capacity | 512 GB |
| | Height | 7mm (0.276in) |
| | Width | 70mm (2.756 in) |
| | Interface | SATA 3.0 (6Gb/s) |
| | Maximum Sequential Read | Up to 540MB/s |
| | Maximum Sequential Write | Up to 500MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | DIPM; TRIM; Self Encrypting Drive with OPAL2.0 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

**256 GB SATA TLC FIPS
140-2 SED Solid State
Drive**

| | |
|--------------------------|--|
| Drive Weight | up to 50g (0.11lb) |
| Capacity | 256 GB |
| Height | 7mm (0.276in) |
| Width | 70mm (2.756 in) |
| Interface | SATA 3.0 (6Gb/s) |
| Maximum Sequential Read | Up to 540MB/s |
| Maximum Sequential Write | Up to 500MB/s |
| Logical Blocks | 500,118,192 |
| Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| Features | DIPM; TRIM; FIPS 140-2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

**512GB 2.5" SATA-3 TLC FIPS
140-2 SED Solid State Drive**

| | |
|--------------------------|--|
| Drive Weight | up to 50g (0.11lb) |
| Capacity | 512 GB |
| Height | 7mm (0.276in) |
| Width | 70mm (2.756 in) |
| Interface | SATA 3.0 (6Gb/s) |
| Maximum Sequential Read | Up to 540MB/s |
| Maximum Sequential Write | Up to 500MB/s |
| Logical Blocks | 1,000,215,216 |
| Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| Features | DIPM; TRIM; FIPS 140-2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|--|--------------------------|--|
| 256GB M.2 PCIe NVME Solid State Drive | Drive Weight | up to 10g (0.022lb) |
| | Capacity | 256GB |
| | Height | 2.38mm (0.093in) |
| | Width | 22mm (0.87in) |
| | Length | 80mm (3.15in) |
| | Interface | PCIe Gen3 |
| | Maximum Sequential Read | Up to 1600MB/s |
| | Maximum Sequential Write | Up to 550MB/s |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | APST; ASPM L1.2; NVME spec 1.2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|--|--------------------------|--|
| 512GB M.2 PCIe NVME Solid State Drive | Drive Weight | up to 10g (0.022lb) |
| | Capacity | 512 GB |
| | Height | 2.38mm (0.093in) |
| | Width | 22mm (0.87in) |
| | Length | 80mm (3.15in) |
| | Interface | PCIe Gen3 |
| | Maximum Sequential Read | Up to 1800MB/s |
| | Maximum Sequential Write | Up to 550MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | APST; ASPM L1.2; NVME spec 1.2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

| | | |
|--|--------------------------|--|
| 256GB M.2 PCIE NVME TLC Solid State Drive | Drive Weight | up to 10g (0.022lb) |
| | Capacity | 256GB |
| | Height | 2.38mm (0.093in) |
| | Width | 22mm (0.87in) |
| | Length | 80mm (3.15in) |
| | Interface | PCIE Gen3 x 4 |
| | Performance | Up to 2700MB/s |
| | Maximum Sequential Read | Up to 1100MB/s |
| | Maximum Sequential Write | 500,118,192 |
| | Logical Blocks | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Operating Temperature | APST; ASPM L1.2; NVME spec 1.2 |
| | Features | Up to 2700MB/s |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

| | | |
|--|--------------------------|--|
| 512GB M.2 PCIE NVME TLC Solid State Drive | Drive Weight | up to 10g (0.022lb) |
| | Capacity | 512GB |
| | Height | 2.38mm (0.093in) |
| | Width | 22mm (0.87in) |
| | Length | 80mm (3.15in) |
| | Interface | PCIE Gen3 x 4 |
| | Maximum Sequential Read | Up to 2700MB/s |
| | Maximum Sequential Write | Up to 1400MB/s |
| | Logical Blocks | 1,000,215,216 |
| | Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| | Features | APST; ASPM L1.2; NVME spec 1.2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Storage

1TB M.2 PCIE NVME TLC Solid State Drive

| | |
|--------------------------|--|
| Drive Weight | up to 10g (0.022lb) |
| Capacity | 1 TB |
| Height | 2.38mm (0.093in) |
| Width | 22mm (0.87in) |
| Length | 80mm (3.15in) |
| Interface | PCIE Gen3 x 4 |
| Maximum Sequential Read | Up to 2700MB/s |
| Maximum Sequential Write | Up to 1500MB/s |
| Logical Blocks | 2,000,409,264 |
| Operating Temperature | 0° to 70°C (32° to 158°F) [ambient temp] |
| Features | APST; ASPM L1.2; NVME spec 1.2 |

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 36 GB (for Windows 10) of system disk is reserved for the system recovery software.

Technical Specifications - Graphics

GRAPHICS

Intel® UHD Graphics (integrated)

| | |
|----------------------------|---|
| DisplayPort™ | Multimode capable; supports HDCP 2.2, Display Port Audio (2 streams), HBR2 link rates and Multi-Stream Technology for a maximum of 3 displays (including the integrated panel) |
| HDMI Optional | Supports HDMI 2.0a features |
| Memory | The actual amount of maximum graphics memory can be >4GB. System memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use. |
| Maximum Color Depth | Up to 10 bits/color |
| Graphics/Video API Support | HEVC 10b Enc/Dec HW VP9 10b Dec HW HDR Rec. 2020 DX12" |

AMD Radeon™ RX 560 Graphics

| | |
|-----------------------|--|
| Architecture | Discrete hybrid graphics configuration |
| Memory | 4GB GDDR5 on a x128 bit bus |
| Outputs | Since this is a hybrid design, the AMD graphics' output capabilities are the same as listed for Intel Graphics |
| System Bus Connection | PCIEx8 |
| API support | DirectX 12 OpenCL 2.0 OpenGL 4.5 |

Display Output chart.

| Resolution | Refresh Rate | VGA (Using HP DP to VGA adapter) | DVI-D (Using HP DP to DVI-D adapter) | DisplayPort™ | HDMI | Standard |
|-------------|---------------------|--|--|--------------|------|---------------------------------|
| 640 x 480 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT 0.31M3 |
| 720 x 400 | 70 | X | X | X | X | IBM VGA |
| 800 x 600 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT0.48M3 |
| 1024 x 768 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT 0.79M3 |
| 1152 x 864 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT 0.83MA |
| 1280 x 720 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT 0.92M9, CEA-770.3 |
| 1280 x 768 | 60, 60RB, 75, 85 | X | X | X | X | VESA DMT, CVT 0.98M9/0.98M9-R |
| 1280 x 800 | 60, 75, 85 | X | X | X | X | VESA DMT |
| 1280 x 960 | 60, 75, 85 | X | X | X | X | VESA DMT |
| 1280 x 1024 | 60, 75, 85 | X | X | X | X | VESA DMT, CVT 1.31M4 |
| 1366 x 768 | 60, 60RB | X | X | X | X | VESA DMT |
| 1440 x 900 | 60, 60RB | X | X | X | X | VESA DMT |

Technical Specifications - Graphics

| | | | | | | |
|-------------|------------------|----------------|---|---|---|--|
| 1600 x 900 | 60, 60RB, 75, 85 | X | X | X | X | VESA DMT |
| 1680 x 1050 | 60, 60RB | X | X | X | X | VESA DMT, CVT 1.76MA/1.76MA-R |
| 1920 x 1080 | 60 | X | X | X | X | VESA DMT, CVT 2.07M9, SMPTE 274M |
| 1920 x 1080 | 75 | | | X | X | CVT-RBv2 (2.07M-R) |
| 1920 x 1080 | 100 | | | X | X | CVT-RBv2 (6.14M-R) |
| 1920 x 1080 | 120 | | | X | X | SMPTE 274M |
| 1920 x 1080 | 144 | | | X | X | SMPTE 274M |
| 1920 x 1200 | 60, 60RB | X ¹ | X | X | X | DMT, CVT 2.30MA/2.30MA-R |
| 1600 x 1200 | 60 | X | X | X | X | VESA DMT, 1.92M3 |
| 1920 x 1440 | 60, 75, 85 | | | X | X | VESA DMT, CVT 2.76M3 |
| 1920 X 1600 | 59.95 | | | X | X | CVT-RBv2 (Not CVT Standard Aspect Ratio) |
| 2048 x 1536 | 60 | | | X | X | CVT 3.15M3 |
| 2560 x 1440 | 59.951 | | | X | X | CVT 3.69M9-R |
| 2560 x 1600 | 60, 60RB | | | X | X | VESA DMT, CVT 4.10MA/4.10MA-R |
| 3440 x 1200 | 60 | | | X | X | CVT-4.61M-R |
| 3440 x 1440 | 49.987 | | | X | X | CVT-RB v1 |
| 3440 x 1440 | 59.973 | | | X | X | CVT-RB v1 |
| 3440 x 1440 | 60 | | | X | X | Samsung Custom |
| 3440 x 1440 | 100 | | | X | X | CVT-RBv2 (4.95M-R) |
| 3440 x 1440 | 120 | | | X | X | CVT-RBv2 (4.95M-R) |
| 3840 x 1600 | 30 | | | X | X | CVT-RBv2 (6.14M-R) |
| 3840 x 1600 | 59.994 | | | X | X | CVT-RBv2 |
| 3840 x 2160 | 24 | | | X | X | SMPTE 274M |
| 3840 x 2160 | 25 | | | X | X | SMPTE 274M |
| 3840 x 2160 | 30 | | | X | X | SMPTE 274M |
| 3840 x 2160 | 29.981 | | | X | X | CVT-RB v1 |
| 3840 x 2160 | 50 | | | X | X | SMPTE 274M |
| 3840 x 2160 | 59.997 | | | X | X | CVT-RBv1 (8.29M9-R) |
| 3840 x 2160 | 60 | | | X | X | SMPTE 274M |
| 4096 x 2160 | 24 | | | X | X | SMPTE 274M |
| 4096 x 2160 | 25 | | | X | X | SMPTE 274M |
| 4096 x 2160 | 30 | | | X | X | SMPTE 274M |
| 4096 x 2160 | 50 | | | X | X | SMPTE 274M |
| 4096 x 2160 | 59.94 | | | X | X | CVT-RBv2 |

Technical Specifications - Graphics

| | | | | | | |
|-------------|-------|--|---|---|---|-------------------|
| 4096 x 2160 | 60 | | | X | X | CVT-RBv2 |
| 1920 x 1080 | 60 | | X | X | X | VESA (SMPTE 274M) |
| 1920 x 1080 | 50 | | X | X | X | SMPTE 274M |
| 1920 x 1080 | 30 | | X | X | X | SMPTE 274M |
| 1920 x 1080 | 24 | | X | X | X | SMPTE 274M |
| 1280 x 720 | 60 | | X | X | X | VESA (CEA-770.3) |
| 1280 x 720 | 50 | | X | X | X | SMPTE 296M |
| 720 x 480 | 59.94 | | X | X | X | MHL (CEA-770.2) |
| 720 x 576 | 50 | | X | X | X | ITU-R BT.1358 |
| 640 x 480 | 59.94 | | X | X | X | CEA (VESA DMT) |

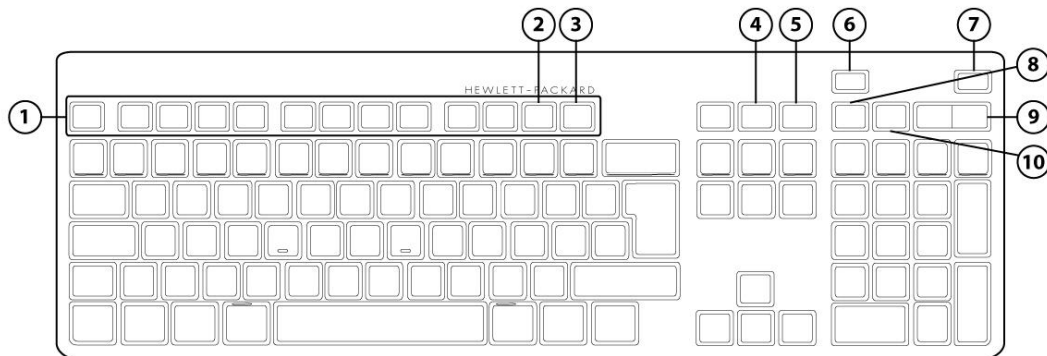
NOTE: Other refresh rates and resolutions may also work, but have not been validated.

>60Hz refresh rates only for analog (VGA) signaling

1. 60Hz Reduced Blanking only

INPUT/OUTPUT DEVICES

HP Conferencing Keyboard



- | | |
|---|-----------------------|
| 1. Function Keys | 6. End/Decline a Call |
| 2. F11 Lync or Skype for Business Contact list ¹ | 7. Answer a Call |
| 3. F12 Lync or Skype for Business Calendar ² | 8. Microphone Mute |
| 4. Share Screen | 9. Volume Up/Down |
| 5. Stop Webcam | 10. Audio Mute |

1. [Microsoft Lync 2013, or Skype for Business Contact list](#)

2. [Microsoft Lync 2013, or Skype for Business Calendar](#)

HP USB Premium Keyboard

| | | |
|---------------------------------|---------------------------|--|
| | Keys | 104, 105 layout (depending upon country) |
| Physical Characteristics | Dimensions (L x W x H) | 17.04 x 5.55 x 0.52 in (433 x 141 x 13.2 mm) |
| | Weight | 1.54 lb (698g) |
| | Operating voltage | 5 VDC, +/-5% |
| | Power consumption | 35mA (All LED on) |
| Electrical | System interface | USB Type A plug connector |
| | ESD | Contact Discharge: 8 KV Air Discharge: 15 KV |
| | EMI - RFI | Conforms to FCC rules for a Class B computing device |
| | Microsoft® PC 99 - 2001 | Mechanically compliant |
| | Keycaps | Low-profile design |
| Mechanical | Switch actuation | 60±10g nominal peak force with tactile feedback |
| | Switch life | 10 million keystrokes (Life tester) |
| | Switch type | Contamination-resistant switch membrane |
| | Key-leveling mechanisms | For all double-wide and greater-length keys |

Technical Specifications – I/O Devices

| | | |
|----------------------|---------------------------|---|
| | Cable length | 6 ft (1.8 m) |
| | Microsoft PC 99 - 2001 | Mechanically compliant |
| | Acoustics | 43-dBA maximum sound pressure level |
| | Operating temperature | 50° to 122° F (10° to 50° C) |
| | Non-operating temperature | -22° to 140° F (-30° to 60° C) |
| | Operating humidity | 10% to 90% (non-condensing at ambient) |
| | Non-operating humidity | 20% to 80% (non-condensing at ambient) |
| | Operating shock | 40 g, six surfaces |
| | Non-operating shock | 80 g, six surfaces |
| Environmental | Operating vibration | 2-g peak acceleration |
| | Non-operating vibration | 4-g peak acceleration |
| | Drop (out of box) | 26 in (66 cm) on carpet, six-drop sequence |
| | Drop (in box) | 30 in (76.2 cm) on concrete, 16-drop sequence |
| | Approvals | UL, FCC, CE Mark, VCCI, BSMI, C-Tick, KC |
| | Ergonomic compliance | TUVGS |
| | Kit contents | Keyboard, QSP |
| | Warranty Card | Product Notice |

Technical Specifications – I/O Devices

Skylab USB wired Keyboard

| | | |
|---------------------------------|------------------------|---|
| | Keys | 104, 105, 106, 107, 109 layout (depending upon country) |
| Physical Characteristics | Dimensions (L x W x H) | 171.97 x 68.35 x 8.27 in (436.8± 1.5 x 137.6± 1.0 x 21.0± 1.0 cm) |
| | Weight | 1.32 lb (0.6± 0.08 kg) |
| | Operating voltage | 4.4-5.25VDC |
| | Power consumption | 50-mA maximum (with 5 VDC power supplied and three LEDs ON) |
| Electrical | System interface | USB |
| | ESD | Contact Discharge: 2, 4,6,8KV Air Discharge: 2, 4, 8,10,12.5KV |
| | EMI - RFI | Conforms to FCC rules for a Class B computing device |
| | Keycaps | Low-profile design |
| | Switch actuation | 60±15g nominal peak force with tactile feedback |
| Mechanical | Switch life | 10 million keystrokes (Life tester) |
| | Switch type | Silicon rubber switch membrane |
| | Cable length | 6 ft (1.8 m) |
| | Acoustics | 43-dBA maximum sound pressure level |
| | Temperature | 50° to 122° F (10° to 50° C) |
| | Humidity | 20% to 80% (non-condensing at ambient) |
| | Vibration | 2-g peak acceleration |
| Environmental | Drop (out of box) | 26 in (66 cm) on carpet, six-drop sequence |
| | Drop (in box) | 30 in (76.2 cm) on concrete, 16-drop sequence |
| | Approvals | UL, FCC, CE Mark, VCCI, BSMI, C-Tick, KC |
| | Ergonomic compliance | ANSI HFS 100, ISO 9241-4, and TUVGS |
| | Kit contents | Keyboard, Installation Guide, Warranty card, Safety and Comfort Guide |

Technical Specifications – I/O Devices

HP USB Premium Mouse

| | | |
|---------------------------------|--|--|
| Physical characteristics | Dimensions (L x W x H) | 4.21 x 2.64 x 1.52 in (107 x 67 x 38.7 mm) |
| | Weight w/o cable | 0.19lb (90g) |
| | Operating temperature | 50° to 122° F (10° to 50° C) |
| | Non-operating temperature | -22° to 140° F (-30° to 60° C) |
| Environmental | Operating humidity | 10% to 90% (non-condensing at ambient) |
| | Non-operating humidity | 20% to 80% (non-condensing at ambient) |
| | Operating shock | 50 g, 6 surfaces |
| | Non-operating shock | 80 g, 6 surfaces |
| Electrical | Operating vibration | 2-g peak acceleration |
| | Non-operating vibration | 4-g peak acceleration |
| | Operating voltage | 5 VDC, +/-5% |
| | Power consumption (typical) | 12mA |
| Mechanical | Connector | USB 2.0 |
| | Type | 3D mouse (3 keys and wheel) |
| | Resolution | 800, 1200, 1600 DPI |
| | Sensor | Pixart PAN3606DL |
| | Tracking speed | 30 inch/sec (max) |
| | Tracking acceleration | 8G(max), 1G=9.8m/s ² |
| | Cable length | 6 ft (1.8 m) |
| Color | Jack Black | |
| Regulatory Approvals | UL, FCC, CE Mark, VCCI, BSMI, C-Tick, KC | |

Apollo wired USB MS

| | | |
|---------------------------------|-------------------------|--|
| Physical characteristics | Dimensions (H x L x W)" | 2.5 x 4.5 x 1.5 in (63.5 x 114.3 x 38.1 mm) |
| | Weight | 0.22 lb (99.79 g) |
| | Color | Black |
| | Connector | USB |
| | Resolution | 799 DPI sensitivity |
| | Buttons | Two primary buttons and clickable scroll wheel |

Technical Specifications – Audio

AUDIO

Audio by Bang & Olufsen*
Internal 2watt stereo speaker
3.5mm Combo Jack

High Definition Audio

| | |
|----------------------------|--|
| Type | Integrated |
| HD Audio Codec | Conexant CX5001 |
| Audio I/O Ports | Universal Audio Jack with CTIA headset support (re-taskable for headphone/line out/microphone in/line in) |
| Wavetable Syntheses | Yes - Uses OS soft wavetable |
| Analog Audio | Yes |
| Internal Speaker | Yes - two speakers (optional) |
| DAC Sampling Rates | 44.1kHz/48kHz/96kHz/192kHz |
| ADC Sampling Rates | 44.1kHz/48kHz/96kHz |

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

WEBCAM & MICROPHONE

Integrated microphones and FHD (1920X1080) RGB webcam
No support for RealSense
Integrated dual discrete microphone modules
For Windows Hello

NOTE: All HP devices which carry the Bang & Olufsen brand are custom-tuned with Bang & Olufsen's acoustical engineers for precise sound experience in business use.

Technical Specifications – Power

POWER SUPPLY

| | |
|--|---|
| Operating Voltage Range | 90 – 264 VAC |
| Rated Voltage Range | 100-240V AC |
| Rated Line Frequency | 50/60 HZ |
| Operating Line Frequency | 47 – 63 Hz |
| Rated Input Current | 180W: 2.5A |
| Rated Input Current with Energy Efficient* Power Supply | 180W: 2.5A 180W active PFC 87/90/87% efficient at 20/50/100% load (115V) 88/91/88% efficient at 20/50/100% load (230V) |
| DC Output | +19.5V |
| Current Leakage (NFPA 99: 2102) | Less than 500 microamps of leakage current at 120 Vac with the ground wire disconnected, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. Less than 100 microamps of leakage current at 120 Vac with the ground wire intact with normal polarity, as required for Non-patient Electrical Appliances and Equipment used in a patient care facility or that contact patients in normal use. Per section 10.3.5.1. |
| Power cord length | 6.0 ft. (1.83 m) |

NETWORKING

| Intel i219LM 10/100/1000 Integrated NIC | |
|--|---|
| Connector | RJ-45 |
| System Interface | PCI (Intel proprietary) + SMBus |
| Data rates supported | 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s |
| IEEE Compliance | IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE (Energy Efficient Ethernet) |
| Performance | TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K |
| Power Consumption | Cable Disconnection: 25mW 100Mbps Full Run: 450mW 1000bp Full Run: 1000mW WoL Enable(S3/S4/S5): 50mW WoL Disable(S3/S4/S5): 25mW |
| Power Management | ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption |
| Management Interface | Auto MDI/MDIX Crossover cable detection |
| IT Manageability | Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status |
| Security & Manageability | Intel® vPro™ support with appropriate Intel® chipset components |
| | |

Technical Specifications – Networking

| Intel® Jefferson Peak 9560 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 5.0 Combo [1] vPro | | |
|---|---|--|
| Wireless LAN Standards | IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac | |
| Interoperability | Wi-Fi certified | |
| Frequency Band | 802.11b/g/n | •2.402 – 2.482 GHz |
| | 802.11a/n | •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz |
| Data Rates | <ul style="list-style-type: none"> •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) | |
| Modulation | Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM | |
| Security | <ul style="list-style-type: none"> •IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only •AES-CCMP: 128 bit in hardware •802.1x authentication •WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. •WPA2 certification •IEEE 802.11i •Cisco Certified Extensions, all versions through CCX4 and CCX Lite •WAPI | |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) | |
| Roaming | IEEE 802.11 compliant roaming between access points | |
| Output Power | <ul style="list-style-type: none"> • 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 • 802.11ac VHT160(5GHz) : +11.5dBm minimum | |
| Power Consumption | <ul style="list-style-type: none"> •Transmit mode2.0 W •Receive mode1.6 W •Idle mode (PSP)180 mW(WLAN Associated) •Idle mode50 mW(WLAN unassociated) •Connected Standby 10mW •Radio disabled8 mW | |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode | |

Technical Specifications – Networking

| | | |
|--|---|--------------------------------|
| Receiver Sensitivity | 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 | |
| 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 : 2.8g | |
| Operating Voltage | 3.3v +/- 9% | |
| Temperature | Operating | 14° to 158° F (-10° to 70° C) |
| | Non-operating | -40° to 176° F (-40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber – Radio OFF; LED White – Radio ON | |
| 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 Channels | Legacy: 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH) | |
| Data Rates and Throughput | Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) | |
| Transmit Power | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. | |
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW | |
| Bluetooth Software Supported Link Topology | Microsoft Windows Bluetooth Software | |
| Power Management | Microsoft Windows ACPI, and USB Bus Support | |
| Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 | |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark | |

Technical Specifications – Networking

| | |
|--|--|
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |
| Security & Manageability | Intel® vPro™ support with appropriate Intel® chipset components |
| NOTE: Wireless access point and Internet service is required. Availability of public wireless access point is limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices | |

| | | | | | |
|---|---|--------------------|--------------------|------------------|--|
| Intel® Jefferson Peak 9560 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 5.0 Combo [1] non-vPro | | | | | |
| Wireless LAN Standards | IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac | | | | |
| Interoperability | Wi-Fi certified | | | | |
| Frequency Band | <table border="1"> <tr> <td>802.11b/g/n</td> <td>•2.402 – 2.482 GHz</td> </tr> <tr> <td>802.11a/n</td> <td> •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 </td> </tr> </table> | 802.11b/g/n | •2.402 – 2.482 GHz | 802.11a/n | •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz |
| 802.11b/g/n | •2.402 – 2.482 GHz | | | | |
| 802.11a/n | •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz | | | | |
| Data Rates | <ul style="list-style-type: none"> •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 | | | | |
| Security³ | <ul style="list-style-type: none"> •IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only •AES-CCMP: 128 bit in hardware •802.1x authentication •WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. •WPA2 certification •IEEE 802.11i •Cisco Certified Extensions, all versions through CCX4 and CCX Lite •WAPI | | | | |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) | | | | |
| Roaming | IEEE 802.11 compliant roaming between access points | | | | |

Technical Specifications – Networking

| | | |
|--|---|--------------------------------|
| Output Power² | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 10 mW • Radio disabled 8 mW | |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode | |
| Receiver Sensitivity³ | 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 | |
| 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 : 2.8g | |
| Operating Voltage | 3.3v +/- 9% | |
| Temperature | Operating | 14° to 158° F (-10° to 70° C) |
| | Non-operating | -40° to 176° F (-40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber – Radio OFF; LED White – Radio ON | |
| HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0 Wireless Technology | | |
| Bluetooth Specification | 4.0/4.1/4.2 Compliant | |
| Frequency Band | 2402 to 2480 MHz | |
| Number of Available Channels | Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH) | |
| Data Rates and Throughput | Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) | |
| Transmit Power | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. | |

Technical Specifications – Networking

| | |
|--|--|
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW |
| Bluetooth Software Supported Link Topology | Microsoft Windows Bluetooth Software |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |
| Power Management Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark |
| | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |
| NOTE: Wireless access point and Internet service is required. Availability of public wireless access point is limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices | |

| | | |
|--|---|--|
| Realtek 802.11 a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo [1] | | |
| Wireless LAN Standards | IEEE 802.11 a IEEE 802.11 b IEEE 802.11 g IEEE 802.11 n IEEE 802.11 ac | |
| Interoperability | Wi-Fi certified | |
| Frequency Band | 802.11b/g/n | •2.402 – 2.482 GHz |
| | 802.11a/n | •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz |
| 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 | |

Technical Specifications – Networking

| | | |
|---|---|--------------------------------|
| Security | <ul style="list-style-type: none"> •IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only •AES-CCMP: 128 bit in hardware •802.1x authentication •WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. •WPA2 certification •IEEE 802.11i •Cisco Certified Extensions, all versions through CCX4 and CCX Lite •WAPI | |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) | |
| Roaming | IEEE 802.11 compliant roaming between access points | |
| Output Power | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> •Transmit mode2.0 W •Receive mode1.6 W •Idle mode (PSP)180 mW(WLAN Associated) •Idle mode50 mW(WLAN unassociated) •Connected Standby 10mW •Radio disabled8 mW | |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode | |
| Receiver Sensitivity³ | 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 | |
| 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 : 2.8g | |
| Operating Voltage | 3.3v +/- 9% | |
| Temperature | Operating | 14° to 158° F (-10° to 70° C) |
| | Non-operating | -40° to 176° F (-40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber – Radio OFF; LED White – Radio ON | |

Technical Specifications – Networking

| HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology | |
|--|--|
| Bluetooth Specification | 4.0/4.1/4.2 Compliant |
| Frequency Band | 2402 to 2480 MHz |
| Number of Available Channels | Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH) |
| Data Rates and Throughput | Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) |
| Transmit Power | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. |
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW |
| Electrical Interface | USB 2.0 compliant |
| Bluetooth Software Supported Link Topology | Microsoft Windows Bluetooth Software |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |
| Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |
| NOTE: Wireless access point and Internet service is required. Availability of public wireless access point is limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices | |

Technical Specifications – Networking

| Realtek 802.11a/b/g/n/ac (1x1) WiFi and Bluetooth® 4.2 Combo ¹ | |
|--|---|
| Wireless LAN Standards | IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac |
| Interoperability | Wi-Fi certified |
| Frequency Band | 802.11b/g/n •2.402 – 2.482 GHz |
| | 802.11a/n •4.9 – 4.95 GHz (Japan) •5.15 – 5.25 GHz •5.25 – 5.35 GHz •5.47 – 5.725 GHz •5.825 – 5.850 GHz |
| Data Rates | <ul style="list-style-type: none"> •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 |
| Security | <ul style="list-style-type: none"> •IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only •AES-CCMP: 128 bit in hardware •802.1x authentication •WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. •WPA2 certification •IEEE 802.11i •Cisco Certified Extensions, all versions through CCX4 and CCX Lite •WAPI |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) |
| Roaming | IEEE 802.11 compliant roaming between access points |
| Output Power | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> •Transmit mode2.0 W •Receive mode1.6 W •Idle mode (PSP)180 mW(WLAN Associated) •Idle mode50 mW(WLAN unassociated) •Connected Standby 10mW •Radio disabled8 mW |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode |
| Receiver Sensitivity | 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 |

Technical Specifications – Networking

| | | |
|--|---|--------------------------------|
| Antenna type | High efficiency antenna. One embedded dual band 2.4/5 GHz antenna is provided to the card to support WLAN 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 : 2.8g | |
| Operating Voltage | 3.3v +/- 9% | |
| Temperature | Operating | 14° to 158° F (–10° to 70° C) |
| | Non-operating | –40° to 176° F (–40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber – Radio OFF; LED White – Radio ON | |
| HP Integrated Module with Bluetooth 4.0/4.1/4.2 Wireless Technology | | |
| Bluetooth Specification | 4.0/4.1/4.2 Compliant | |
| Frequency Band | 2402 to 2480 MHz | |
| Number of Available Channels | Legacy: 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH) | |
| Data Rates and Throughput | Legacy: 3 Mbps data rate; throughput up to 2.17 Mbps BLE : 1 Mbps data rate; throughput up to 0.2 Mbps Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) | |
| Transmit Power | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. | |
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW | |
| Electrical Interface | USB 2.0 compliant | |
| Bluetooth Software Supported Link Topology | Microsoft Windows Bluetooth Software | |
| Power Management | Microsoft Windows ACPI, and USB Bus Support | |
| Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 | |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark | |

Technical Specifications – Networking

| | |
|--|--|
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 –Link Layer Privacy LE Privacy 1.2 –Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP)2 Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |
| NOTE: Wireless access point and Internet service is required. Availability of public wireless access point is limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices | |

Technical Specifications – Environmental

ENVIRONMENTAL DATA

HP EliteOne 1000 G2 Base PC

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See <http://www.epeat.net> for registration status in your country.
- TCO

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

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.

Energy Consumption (in accordance with US ENERGY STAR® test method)

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 60Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 14.63 W | 14.68 W | 14.54 W |
| Normal Operation (Long idle) | 13.72 W | 13.82 W | 13.41 W |
| Sleep | 0.75 W | 0.78 W | 0.74 W |
| Off | 0.64 W | 0.67 W | 0.64 W |

NOTE:

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 50 BTU/hr | 50 BTU/hr | 50 BTU/hr |
| Normal Operation (Long idle) | 47 BTU/hr | 47 BTU/hr | 46 BTU/hr |
| Sleep | 3 BTU/hr | 3 BTU/hr | 3 BTU/hr |
| Off | 2 BTU/hr | 2 BTU/hr | 2 BTU/hr |

NOTE:

Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)

| | Sound Power (LWAd, bels) | Sound Pressure (LpAm, decibels) |
|-----------------------------|--------------------------|---------------------------------|
| Typically Configured – Idle | 3.1 | 20 |
| Fixed Disk – Random writes | 3.1 | 20 |

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Technical Specifications – Environmental

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 36.8% post-consumer recycled plastic (by wt.)
- This product is 99.1% recycle-able when properly disposed of at end of life.

Packaging Materials

| | | |
|------------------|---|-------|
| External: | PAPER/Corrugated | 910 g |
| Internal: | PLASTIC/Polyethylene Expanded - EPE | 194 g |
| | PLASTIC/Polyethylene low density - LDPE | 21 g |

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

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

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

Technical Specifications – Environmental

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

HP, Inc. Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842>

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

HP EliteOne 1000 G2 23.8-in All-in-One Business PC

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See <http://www.epeat.net> for registration status in your country.
- TCO

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook".

Energy Consumption (in accordance with US ENERGY STAR® test method)

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 60Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 26.44 W | 26.51 W | 26.37 W |
| Normal Operation (Long idle) | 16.25 W | 16.30 W | 16.15 W |
| Sleep | 4.07 W | 4.09 W | 3.96 W |
| Off | 0.64 W | 0.67 W | 0.63 W |

NOTE:

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Technical Specifications – Environmental

| Heat Dissipation* | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
|-------------------------------|---------------------|---------------------|---------------------|
| Normal Operation (Short idle) | 90 BTU/hr | 91 BTU/hr | 90 BTU/hr |
| Normal Operation (Long idle) | 56 BTU/hr | 56 BTU/hr | 55 BTU/hr |
| Sleep | 14 BTU/hr | 14 BTU/hr | 14 BTU/hr |
| Off | 2 BTU/hr | 3 BTU/hr | 2 BTU/hr |

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise

| Emissions (in accordance with ISO 7779 and ISO 9296) Typically Configured – Idle | Sound Power (LWAd, bels) | Sound Pressure (LpAm, decibels) |
|---|-----------------------------|------------------------------------|
| Fixed Disk – Random writes | 3.1 | 18 |

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 36.8% post-consumer recycled plastic (by wt.)
- This product is 99.1% recycle-able when properly disposed of at end of life.

Packaging Materials

| | | |
|------------------|---|--------|
| External: | PAPER/Corrugated | 1415 g |
| Internal: | PLASTIC/Polyethylene Expanded - EPE | 609 g |
| | PLASTIC/Polyethylene low density - LDPE | 63 g |

Technical Specifications – Environmental

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

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

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

End-of-life Management and Recycling

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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.

Technical Specifications – Environmental

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Eco-label certifications

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842>

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

HP EliteOne 1000 G2 23.8-in Touch All-in-One Business PC

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
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- TCO

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

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.

Energy Consumption (in accordance with US ENERGY STAR® test method)

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 60Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 26.44 W | 26.51 W | 26.37 W |
| Normal Operation (Long idle) | 16.25 W | 16.30 W | 16.15 W |
| Sleep | 4.07 W | 4.09 W | 3.96 W |
| Off | 0.64 W | 0.67 W | 0.63 W |

NOTE:

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 90 BTU/hr | 91 BTU/hr | 90 BTU/hr |
| Normal Operation (Long idle) | 56 BTU/hr | 56 BTU/hr | 55 BTU/hr |
| Sleep | 14 BTU/hr | 14 BTU/hr | 14 BTU/hr |
| Off | 2 BTU/hr | 3 BTU/hr | 2 BTU/hr |

NOTE:

Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Technical Specifications – Environmental

Declared Noise

| Emissions (in accordance with ISO 7779 and ISO 9296) Typically Configured – Idle | Sound Power (LWAd, bels) | Sound Pressure (LpAm, decibels) |
|--|-----------------------------|------------------------------------|
| Fixed Disk – Random writes | 3.1 | 18 |
| | 3.1 | 18 |

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 36.8% post-consumer recycled plastic (by wt.)
- This product is 99.1% recycle-able when properly disposed of at end of life.

Packaging Materials

| | | |
|------------------|---|--------|
| External: | PAPER/Corrugated | 1415 g |
| Internal: | PLASTIC/Polyethylene Expanded - EPE | 609 g |
| | PLASTIC/Polyethylene low density - LDPE | 63 g |

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances

Technical Specifications – Environmental

Packaging

- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
- HP follows these guidelines to decrease the environmental impact of product packaging:
- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
 - Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
 - Design packaging materials for ease of disassembly.
 - Maximize the use of post-consumer recycled content materials in packaging materials.
 - Use readily recyclable packaging materials such as paper and corrugated materials.
 - Reduce size and weight of packages to improve transportation fuel efficiency.
 - Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

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HP, Inc. Corporate Environmental Information

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Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Eco-label certifications

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04755842>

and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

HP EliteOne 1000 G2 27-in 4K UHD All-in-One Business PC

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- IT ECO declaration
- US ENERGY STAR®
- EPEAT® 2019 registered where applicable. EPEAT® registration varies by country. See <http://www.epeat.net> for registration status in your country.
- TCO

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

System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.

Energy Consumption (in accordance with US ENERGY STAR® test method)

115VAC, 60Hz

230VAC, 50Hz

100VAC, 60Hz

Technical Specifications – Environmental

| | | | |
|-------------------------------|---------|---------|---------|
| Normal Operation (Short idle) | 39.24 W | 39.32 W | 39.13 W |
| Normal Operation (Long idle) | 12.39 W | 12.40 W | 12.26 W |
| Sleep | 0.90 W | 0.93 W | 0.90 W |
| Off | 0.64 W | 0.64 W | 0.63 W |

NOTE: Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

| Heat Dissipation* | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 134 BTU/hr | 134 BTU/hr | 134 BTU/hr |
| Normal Operation (Long idle) | 42 BTU/hr | 42 BTU/hr | 42 BTU/hr |
| Sleep | 3 BTU/hr | 3 BTU/hr | 3 BTU/hr |
| Off | 2 BTU/hr | 2 BTU/hr | 2 BTU/hr |

NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Declared Noise

| Emissions (in accordance with ISO 7779 and ISO 9296) Typically Configured – Idle | Sound Power (LWAd, bels) | Sound Pressure (LpAm, decibels) |
|--|-----------------------------|------------------------------------|
| Fixed Disk – Random writes | 3.1 | 18 |
| | 3.1 | 18 |

Longevity and Upgrading

This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include:

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 36.8% post-consumer recycled plastic (by wt.)
- This product is 99.1% recycle-able when properly disposed of at end of life.

Packaging Materials

| | | |
|------------------|---|--------|
| External: | PAPER/Corrugated | 2074 g |
| Internal: | PLASTIC/Polyethylene Expanded - EPE | 793 g |
| | PLASTIC/Polyethylene low density - LDPE | 73 g |

Technical Specifications – Environmental

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

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

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

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Technical Specifications – Environmental

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HP EliteOne 1000 G2 34-in Curved All-in-One Business PC

Eco-Label Certifications & declarations

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System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.

Energy Consumption (in accordance with US ENERGY STAR® test method)

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 60Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 51.75 W | 51.80 W | 51.46 W |
| Normal Operation (Long idle) | 13.52 W | 13.60 W | 13.29 W |
| Sleep | 0.95 W | 0.97 W | 0.94 W |
| Off | 0.68 W | 0.71 W | 0.68 W |

NOTE:

Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system.

Heat Dissipation*

| | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
|-------------------------------|--------------|--------------|--------------|
| Normal Operation (Short idle) | 177 BTU/hr | 177 BTU/hr | 176 BTU/hr |
| Normal Operation (Long idle) | 46 BTU/hr | 47 BTU/hr | 45 BTU/hr |
| Sleep | 3 BTU/hr | 3 BTU/hr | 3 BTU/hr |
| Off | 2 BTU/hr | 2 BTU/hr | 2 BTU/hr |

NOTE:

Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Technical Specifications – Environmental

Declared Noise

| Emissions (in accordance with ISO 7779 and ISO 9296) Typically Configured – Idle | Sound Power (LWAd, bels) | Sound Pressure (LpAm, decibels) |
|--|-----------------------------|------------------------------------|
| Fixed Disk – Random writes | 3.1 | 18 |
| | 3.1 | 18 |

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Packaging Materials

| | | |
|------------------|---|--------|
| External: | PAPER/Corrugated | 2798 g |
| Internal: | PLASTIC/Polyethylene Expanded - EPE | 1362 g |
| | PLASTIC/Polyethylene low density - LDPE | 89 g |

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at <http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf>):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants – may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
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and

<http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf>

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

| Category | Description | Part # |
|------------------------------------|---|-------------|
| DDR4-2666 Memory SoDIMMs | HP 16GB DDR4-2666 SODIMM | 3TK84AA |
| DDR4-2666 Memory SoDIMMs | HP 4GB DDR4-666 SODIMM | 3TK86AA |
| DDR4-2666 Memory SoDIMMs | HP 8GB DDR4-2666 SODIMM | 3TK88AA |
| 2.5" SATA Solid State Drive | HP 256GB SATA TLC Non-SED Solid State Drive | P1N68AA |
| 2.5" SATA Solid State Hybrid Drive | HP 500GB SATA 6G 2.5 (8GB Cache) SSHD Drive | E1C62AA |
| M.2 PCIe NVME SSD/Optane | HP PCIe NVME TLC 512GB SSD M.2 Drive | X8U75AA |
| M.2 PCIe NVME SSD/Optane | HP PCIe NVME TLC 256GB SSD M.2 Drive | 1CA51AA |
| M.2 PCIe NVME SSD/Optane | Intel® Optane Memory 16GB (cache) **** | 1WV97AA |
| I/O Devices | HP USB to Serial Adapter | J7B60AA |
| HP EliteOne 1000 Accessories | HP EliteOne 1000 IR Camera with Rear Webcam | 2HW55AA |
| HP EliteOne 1000 Accessories | HP EliteOne 1000 23.8in FHD Display (See Note H for localization support) | 2SC22AA# |
| HP EliteOne 1000 Accessories | HP EliteOne 1000 23.8in FHD Touch Display (See Note H for localization support) | 2SC23AA# |
| HP EliteOne 1000 Accessories | HP EliteOne 1000 27in 4K UHD Display (See Note H for localization support) | 2SC24AA# |
| HP EliteOne 1000 Accessories | HP EliteOne 1000 34in WQHD Curved Display (See Note H for localization support) | 2SC25AA# |
| Graphics - Cables & Adapters | HP DVI Cable Kit | DC198A |
| Graphics - Cables & Adapters | HP DisplayPort To DVI-D Adapter | FH973AA |
| Graphics - Cables & Adapters | HP DisplayPort To VGA Adapter | AS615AA |
| Graphics - Cables & Adapters | HP DisplayPort Cable Kit | VN567AA |
| Graphics - Cables & Adapters | HP DisplayPort To HDMI 4k Adapter | K2K92AA |
| Graphics - Cables & Adapters | HP DisplayPort To HDMI True 4k Adapter | 2JA63AA |
| Graphics - Cables & Adapters | HP HDMI Standard Cable Kit | T6F94AA |
| Audio & Multimedia | HP Business Headset v2 | T4E61AA |
| Audio & Multimedia | HP UC Wireless Duo Headset | W3K09AA |
| Pointing Devices | HP USB Grey v2 Mouse | Z9H74AA |
| Pointing Devices | HP USB Mouse | QY777AA |
| Pointing Devices | HP USB 1000dpi Laser Mouse | QY778AA |
| Pointing Devices | HP Mouse Pad | AT485AA |
| Pointing Devices | HP USB PS/2 Washable Scroll Mouse | BM866AA |
| Pointing Devices | HP USB Hardened Mouse | P1N77AA |
| Keyboards | HP Bus Slim Wirles Localize Kit Nordic | 2MY27AA |
| Keyboards | HP Bus Slim Localize Kit - Nordic USB | 2MY28AA |
| Keyboards | HP USB Keyboard and Mouse Healthcare Edition | 1VD81AA |
| Keyboards | HP Business Slim Smartcard Keyboard | Z9H48AA |
| Keyboards | HP USB (Grey) Business Slim Keyboard | Z9H49AA |
| Keyboards | HP USB Antimicrobial Slim Kybd and Mouse | Z9H50AA |
| Keyboards | HP USB Keyboard | QY776AA |
| Keyboards | HP USB PS2 Washable Keyboard & Mouse | BU207AA#xxx |
| Keyboards | HP USB Business Slim Keyboard | N3R87AA |
| Keyboards | HP Wireless Business Slim Keyboard and Mouse | N3R88AA |
| Keyboards | HP USB Business Slim Keyboard and Mouse and MousePad | T4E63AA |

Summary of Changes

| Date of change: | Version History: | | Description of change: |
|------------------------|-------------------------|--------|---|
| July 11, 2018 | V1 to V2 | Update | RAID reference removed from software security section |
| August 21, 2018 | V2 to V3 | Update | Windows Home removed Rear call outs corrected |
| August 27, 2018 | V3 to V4 | Update | Windows Home re-attached |
| October 25, 2018 | V4 to V5 | Update | Environmental Data section added Intel Processors added |
| November 13, 2018 | V5 to V6 | Update | “Optional” added to speakers lines |
| November 27, 2018 | V6 to V7 | Update | TUV GS certification removed |
| February 1, 2019 | V7 to V8 | Update | HP PhoneWise, HP ePrinter + Jet advantage, HP Velocity, and HP WorkWise removed. |
| March 11, 2019 | V8 to V9 | Update | PORTS information charging capability statement update |
| June 27, 2019 | V9 to V10 | Update | HP Cloud Recovery and footnote added at Software section Intel Unite needs to be configured at factory (AiO/DM) added on At a Glance section |
| July 17, 2019 | V10 to v11 | Update | EPEAT references updated |
| July 31, 2019 | V11 to V12 | Update | Response time row added to all formats in Display panel specs section. |
| August 22, 2019 | V12 to V13 | Update | Lock slot upgraded to Standard |
| November 11, 2019 | V13 to V14 | Update | EPEAT references updated |
| February 18, 2020 | V14 to V15 | Update | Storage Drivelock note and disclaimer added |

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