

### Overview

#### EliteBook x360 1040 G5



#### Right

1. Touch fingerprint sensor
2. Volume up/down
3. USB Type-C™ with Thunderbolt™
4. USB Type-C™ with Thunderbolt™
5. HDMI port (Cable not included)
6. USB 3.1 Gen 1 charging port

### Overview



#### Left

- |                         |   |
|-------------------------|---|
| 1. Internal microphones | 6. Nano Security lock slot (Lock sold separately) |
| 2. IR/FHD Cameras       | 7. Power button                                   |
| 3. Webcam LED           | 8. Audio combo jack                               |
| 4. Glass clickpad       | 9. USB 3.1 Gen 1 charging port                    |
| 5. WWAN SIM (Nano)      |   |

### Overview

### At a Glance

- All metal CNC Aluminum chassis that is .67 inches (1.69 cm) thin and with a starting weight of 2.99 lbs (1.36 Kg)<sup>3</sup>
  - A 360° convertible notebook with 4 usage modes: Laptop mode, Tablet mode, Tent mode, and Media mode.
  - Choice of 8th Generation Intel® Core™ i5, i7 Processors with integrated Intel® HD 620 Graphics
  - Display choices include 35.56 cm (14.0") diagonal IPS FHD touch screen or UHD touch screen. Brightness choices up to 700 Nits. Optional Anti-glare screen available. Get added protection in open or public places with the optional HP Sure View integrated privacy screen. Ambient Light Sensor (ALS) standard.
  - Ultimate connectivity with 4G/LTE WWAN (up to Cat16), WLAN, USB Type-C™, USB Type-A (2), HDMI, and Thunderbolt™ Docking
  - Innovative world-facing third mic improves inbound ambient noise cancellation
  - Engage teams, clients, and vendors with the crystal-clear audio by Bang & Olufsen and the high-performance HP Premium Collaboration Keyboard
  - The new optional HP Rechargeable Active Pen
  - Never forget your password with your choice of simple authentication methods, including the IR camera for face recognition and Touch Fingerprint Sensor for Windows Hello
  - Choice of solid state drives up to 2 TB
  - DDR4 Memory up to 32 GB
  - Up to 17 hours of battery life<sup>1</sup>
  - Preinstalled with Windows 10 versions
  - Passed MIL-STD 810g testing<sup>2</sup>
  - Instant on/instant off with Modern Connected Standby
1. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See [www.bapco.com](http://www.bapco.com) for additional details.
  2. MIL-STD 810G testing is pending and is conducted on select HP products. Testing is not intended to demonstrate fitness of U.S. Department of Defense contract requirements or for military use. Test results are not a guarantee of future performance under these test conditions. Accidental damage requires an optional HP Accidental Damage Protection Care Pack
  3. Weight will vary by configuration.

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



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## Technical Specifications

### PRODUCT NAME

HP EliteBook x360 1040 G5 Notebook PC

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### OPERATING SYSTEMS

<b>Preinstalled</b>	Windows 10 Pro 64 – HP recommends Windows 10 Pro <sup>1</sup> Windows 10 Pro 64 (National Academic only) <sup>1,2</sup> Windows 10 Home 64 <sup>1</sup> Windows 10 Home Single Language 64 <sup>1</sup> FreeDOS 2.0
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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.
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### PROCESSORS

Intel® Core™ i7-8650U vPro™ processor with Intel® UHD graphics 620 (1.9 GHz base frequency, up to 4.2 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)<sup>3,4,5,6</sup>

Intel® Core™ i7-8550U with Intel® UHD graphics 620 (1.8 GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)<sup>3,4,5,6</sup>

Intel® Core™ i5-8350U vPro™ processor with Intel® UHD Graphics 620 (1.7 GHz base frequency, up to 3.6 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)<sup>3,4,5,6</sup>

Intel® Core™ i5-8250U with Intel® UHD Graphics 620 (1.6 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)<sup>3,4,5,6</sup>

#### Processor Family

8th Generation Intel® Core™ i7 processor (i7-8650U and i7-8550U models)<sup>6</sup>

8th Generation Intel® Core™ i5 processor (i5-8350U and i5-8250U models)<sup>6</sup>

3. Multicore is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. Performance and clock frequency will vary depending on application workload and your hardware and software configurations. Intel's numbering, branding and/or naming is not a measurement of higher performance.
  4. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.
  5. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration. See [www.intel.com/technology/turboboost](http://www.intel.com/technology/turboboost) for more information.
  6. NOTE: 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>.
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## Technical Specifications

### CHIPSET

Integrated with processor

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### GRAPHICS

#### Integrated

Intel® UHD graphics 620<sup>7</sup>

7. HD content required to view HD images.

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### DISPLAY

#### Touch UHD (4K)

35.56 cm (14") diagonal 4K IPS eDP + PSR BrightView WLED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 500 cd/m<sup>2</sup>, 100% sRGB for WWAN (3840 x 2160)<sup>7,8,10</sup>

#### Touch FHD Privacy Panel

HP Sure View Integrated Privacy Screen 35.56 cm (14") diagonal FHD IPS eDP + PSR anti-glare LED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 700 cd/m<sup>2</sup>, 100% sRGB (1920 x 1080)<sup>7,8,9,10</sup>

HP Sure View Integrated Privacy Screen 35.56 cm (14") diagonal FHD IPS eDP + PSR LED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 700 cd/m<sup>2</sup>, 100% sRGB for WWAN (1920 x 1080)<sup>7,8,9,10</sup>

HP Sure View Integrated Privacy Screen 35.56 cm (14") diagonal FHD IPS eDP + PSR LED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 700 cd/m<sup>2</sup>, 100% sRGB (1920 x 1080)<sup>7,8,9,10</sup>

#### Touch FHD

35.56 cm (14") diagonal FHD IPS eDP + PSR anti-glare LED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 400 cd/m<sup>2</sup>, 100% sRGB for WWAN (1920 x 1080)<sup>7,8,10</sup>

35.56 cm (14") diagonal FHD IPS eDP + PSR anti-glare LED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 400 cd/m<sup>2</sup>, 100% sRGB (1920 x 1080)<sup>7,8,10</sup>

35.56 cm (14") diagonal FHD IPS eDP + PSR BrightView WLED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 400 cd/m<sup>2</sup>, 100% sRGB for WWAN (1920 x 1080)<sup>7,8,10</sup>

35.56 cm (14") diagonal FHD IPS eDP + PSR BrightView WLED-backlit touch screen direct bonded with Corning® Gorilla® Glass 5, 400 cd/m<sup>2</sup>, 100% sRGB (1920 x 1080)<sup>7,8,10</sup>

#### Display Size

35.56 cm (14")

7. HD content required to view HD images.

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

9. HP Sure View integrated privacy screen is an optional feature that must be configured at purchase and functions in landscape orientation.

10. Sold separately or as an optional feature.

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## Technical Specifications

### STORAGE AND DRIVES

#### Primary M.2 Storage

2 TB PCIe® Gen3x4 NVMe™ SS TLC <sup>11</sup>  
1 TB PCIe® Gen3x4 NVMe™ SS TLC <sup>11</sup>  
512 GB PCIe® Gen3x4 NVMe™ SS TLC Opal 2 <sup>11</sup>  
512 GB PCIe® Gen3x4 NVMe™ SS TLC <sup>11</sup>  
256 GB SATA-3 SED TLC Opal 2 <sup>11</sup>  
256 GB PCIe® Gen3x4 NVMe™ SS TLC <sup>11</sup>  
256 GB PCIe® NVMe™ SS Value <sup>11</sup>  
128 GB SATA-3 SS TLC <sup>11,12</sup>  
118 GB PCIe® Gen3x2 NVMe™ SS (Intel® Optane™) <sup>11,12,13</sup>

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

12. Not available with eMMC Base Units.

13. Intel® Optane™ SSD is sold separately. Intel® Optane™ SSD system acceleration does not replace or increase the DRAM in your system. Available for HP commercial desktops and notebooks and for select HP workstations and requires a SATA HDD, 7th Gen or higher Intel® Core™ processor or Intel® Xeon® processor E3-1200 V6 product family or higher, BIOS version with Intel® Optane™ supported, Windows 10 version 1703 or higher, M.2 type 2280-S1-B-M connector on a PCH Remapped PCIe Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe™ Spec 1.1, and an Intel® Rapid Storage Technology (Intel® RST) 15.5 driver.

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### MEMORY

32 GB DDR4-2666 SDRAM (2 X 16 GB) <sup>14</sup>  
16 GB DDR4-2666 SDRAM (2 X 8 GB) <sup>14</sup>  
8 GB DDR4-2666 SDRAM (2 X 4 GB) <sup>14</sup>

#### Maximum Memory

32 GB DDR4-2666 SDRAM <sup>14</sup>

#### Memory Slots

Memory soldered down

Supports Dual Channel Memory for 16 GB & 32 GB, Single Channel Memory for 8 GB

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

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### NETWORKING/COMMUNICATIONS

#### Broadband Wireless (WWAN)

#### WLAN

Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, vPro™ <sup>10,15</sup>  
Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo, non-vPro™ <sup>10,15</sup>

Support for Miracast <sup>17</sup>



### Technical Specifications

Supports WLAN/LAN /WWAN switching  
Support HP Connection Optimizer with Wi-Fi® Load balancing  
Support for DYNAMIC WiFi SAR in BIOS

#### **WWAN**

HP lt4132 LTE/HSPA+ 4G, Mobile Broadband Module Cat 4 <sup>10,16</sup>  
Intel® XMM™ 7360 LTE-Advanced<sup>10,15,41</sup>  
Intel® XMM™ 7560 LTE-Advanced<sup>10,15,41</sup>

#### **NFC**

NXP NPC300 Near Field Communication Module

#### **Ethernet**

No direct Ethernet Support - Ethernet via accessories

10. Sold separately or as an optional feature.

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

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

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

18. Cat 16 4G LTE module is optional and must be configured at the factory. This module supports gigabit class speeds on select networks, currently available in the UK only. The full utilization of this module's functionality is dependent on network providers' technical ability to support this network and speed. Backwards compatible to 3G networks. Module requires activation and separately purchased service contract. Check with service provider for coverage and availability in your area. Download speeds up to one gigabit per second. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors.

41. Gigabit class 4G LTE module is optional and must be configured at the factory. Module designed for up to 1 Gbps download speeds as carriers deploy 5 carrier aggregation and 100Mhz channel bandwidth, requires activation and separately purchased service contract. Backwards compatible to HSPA 3G technologies. Check with service provider for coverage and availability in your area. Connection, upload and download speeds will vary due to network, location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.

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### AUDIO/MULTIMEDIA

#### **Audio**

Bang & Olufsen  
4 Premium Stereo Speakers; 1609 x 2pcs, 4013 x 2pcs  
Microphones (Multi Array including World-Facing 3rd Mic)  
4 Discrete Amplifiers

#### **Camera**

1080p FHD camera <sup>7</sup>

#### **Webcam**

IR Camera <sup>18</sup>

#### **Sensors**





### Technical Specifications

Accelerometer  
Magnetometer  
Gyroscope  
Ambient light sensor  
Hall Sensor

7. HD content required to view HD images.

18. Internet access required.

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

#### Keyboard

HP Premium Collaboration Keyboard  
Backlit, Spill-resistant, with HP Dura Keys

#### Function Keys

F1 - Display Switching  
F2 - Sure View (blank if not supported)  
F3 - Brightness Down  
F4 - Brightness up  
F5 - Audio Mute  
F6 - Volume Down  
F7 - Volume Up  
F8 - Mic Mute  
F9 - Kybd Backlight  
F10 - NumLock  
F11 - Wireless  
F12 - Calendar  
Share/Present  
Pick Up/Accept/ Answer/Hold  
Hang Up/Decline/ Reject  
Delete  
FN key lock

#### Hidden Function Keys

Fn+R = Break  
Fn+S = Sys Rq  
Fn+C = Scroll Lock  
Fn+E = Insert  
Fn+W = Pause

#### Clickpad Requirements

Glass Clickpad  
Microsoft Precision Touchpad Default Gestures Support  
FW PTP with Filter Driver  
Hybrid Mode Support

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### SOFTWARE AND SECURITY

#### Preinstalled Software

#### BIOS

HP BIOSphere Gen4 <sup>18</sup>





## Technical Specifications

HP Drive Lock & Automatic Drive Lock  
BIOS Update via Network  
Master Boot Record Security  
Power On Authentication  
Secure Erase <sup>19</sup>  
Absolute Persistence Module <sup>20</sup>  
Pre-boot Authentication  
HP Wireless Wakeup

### Software

HP Native Miracast Support <sup>17</sup>  
HP LAN-Wireless Protection  
HP Velocity  
HP Collaboration Keyboard Software  
HP ePrint Driver + JetAdvantage <sup>21</sup>  
HP Hotkey Support - CMIT  
HP Recovery Manager  
HP Jumpstart  
HP Support Assistant <sup>22</sup>  
HP Noise Cancellation Software  
HP PhoneWise <sup>29</sup>  
Buy Office (sold separately)

### Manageability Features

HP Driver Packs <sup>23</sup>  
HP System Software Manager (SSM)  
HP BIOS Config Utility (BCU)  
HP Client Catalog  
HP Manageability Integration Kit Gen2 <sup>24</sup>  
Ivanti Management Suite <sup>25</sup>

### Client Security Software

HP Client Security Suite Gen4 <sup>26</sup> including:  
HP Security Manager <sup>27</sup> (including Credential Manager, HP Password Manager, HP Spare Key)  
HP Fingerprint Sensor  
HP Device Access Manager  
HP Power On Authentication  
Microsoft Defender <sup>28</sup>

### Security Management

Secure Erase <sup>18</sup>  
TPM 2.0 Embedded Security Chip shipped with Windows 10 (Common Criteria EAL4+ Certified)  
SATA 0,1 port disablement (viaBIOS)  
RAID configurations <sup>31</sup>  
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 Click <sup>32</sup>  
HP Sure Start Gen4 <sup>30</sup>  
HP Sure Run <sup>33</sup>  
HP Sure Recover <sup>34</sup>

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



### Technical Specifications

18. HP BIOSphere Gen4 features may vary depending on the PC platform and configurations requires 8th Gen Intel® processors.
  19. Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88 "Clear" sanitation method.
  20. 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.
  21. HP ePrint Driver requires an Internet connection to HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types and other HP ePrint details, see <http://www.hp.com/go/eprintcenter> Print times and connection speeds may vary.
  22. HP Support Assistant requires Windows and Internet access.
  23. HP Driver Packs not preinstalled, however available for download at <http://www.hp.com/go/clientmanagement>
  24. HP Manageability Integration Kit can be downloaded from <http://www.hp.com/go/clientmanagement>
  25. Ivanti Management Suite subscription required.
  26. HP Client Security Manager Gen4 requires Windows and Intel® or AMD 8th generation processors.
  27. 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.
  28. Microsoft Defender Opt in and internet connection required for updates.
  29. For supported platforms and HP PhoneWise system requirements see <http://www.hp.com/go/HPPhoneWise>. Download the HP PhoneWise app for your phone from Google Play store or Apple App Store.
  30. HP Sure Start Gen4 is available on HP Elite and HP Pro 600 products equipped with 8th generation Intel® or AMD processors.
  31. RAID configuration is optional and does require a second hard drive.
  32. 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.
  33. HP Sure Run is available on HP Elite products equipped with 8th generation Intel® or AMD® processors.
  34. 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.
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### Technical Specifications

#### POWER

##### Power Supply

65 W USB Type-C™ adapter <sup>35</sup>  
Supports HP Fast Charging (Up to 50% in 30 minutes) <sup>37</sup>

##### Primary Battery

HP Long Life 4-cell, 56.2 Wh Li-ion polymer <sup>36</sup>  
100%; Supports HP Fast Charging (Up to 50% in 30 minutes) <sup>37</sup>

##### Power Cord

Duckhead power cord (C5NS), 1.0 m, Sticker, Premium Black (For Hades+) <sup>35</sup>

##### Battery Life

Up to 17 hours (With FHD panel)<sup>38</sup>  
Up to 11 hours 15 mins (With 4K panel) <sup>38</sup>

35. Availability may vary by country.

36. Battery is internal and not replaceable by customer. Serviceable by warranty.

37. Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode. Power adapter with a minimum capacity of 65 watts is required. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

38. Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See [www.bapco.com](http://www.bapco.com) for additional details.

### Technical Specifications

#### WEIGHTS & DIMENSIONS

**Weight**

Starting at 2.99 lb <sup>39</sup>

Starting at 1.35 kg <sup>39</sup>

**Dimensions (w x d x h)**

12.65 x 8.46 x 0.66 in

32.14 x 21.5 x 1.69 cm

39. Weight will vary by configuration.

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#### PORTS/SLOTS

2 Thunderbolt™ (USB Type-C™ connector)<sup>40</sup>

2 USB 3.1 Gen 1 (charging)

1 HDMI 1.4 <sup>39</sup>

1 External Nano SIM slot for WWAN

1 headphone-out

40. Cables are not included.

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#### SERVICE AND SUPPORT

HP Services offers 1-year limited warranties and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. Refer to <http://www.hp.com/support/batterywarranty/> for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: <http://www.hp.com/go/cpc> <sup>41</sup>

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

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### Technical Specifications

#### SYSTEM UNIT

<b>Stand-Alone Power Requirements (AC Power)</b>	<b>Nominal Operating Voltage</b>	AC 15V
	<b>Average Operating Power</b>	Win 10
	<b>Integrated Graphics</b>	Yes
	<b>Discrete Graphics</b>	N/A
	<b>Max Operating Power</b>	UMA<65W
<b>Temperature</b>	<b>Operating</b>	32° to 95° F (0° to 35° C) (not writing optical)
	<b>Non-operating</b>	41° to 95° F (5° to 35° C) (writing optical)
<b>Relative Humidity</b>	<b>Operating</b>	32° to 95° F (0° to 35° C) (not writing optical)
	<b>Non-operating</b>	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
<b>Shock</b>	<b>Operating</b>	40 G, 2 ms, half-sine
	<b>Non-operating</b>	200 G, 2 ms, half-sine
<b>Random Vibration</b>	<b>Operating</b>	1.043 grms
	<b>Non-operating</b>	3.5 grms
<b>Altitude (unpressurized)</b>	<b>Operating</b>	-50 to 10,000 ft (-15.24 to 3,048 m)
	<b>Non-operating</b>	-50 to 40,000 ft (-15.24 to 12,192 m)
<b>Planned Industry Standard Certifications</b>	<b>UL</b>	Yes
	<b>CSA</b>	Yes
	<b>FCC Compliance</b>	Yes
	<b>ENERGY STAR®</b>	Yes
	<b>EPEAT®</b>	Yes
	<b>ICES</b>	Yes
	<b>Australia / NZ A-Tick Compliance</b>	Yes
	<b>CCC</b>	Yes
	<b>Japan VCCI Compliance</b>	Yes
	<b>KC</b>	Yes
	<b>BSMI</b>	Yes
	<b>CE Marking Compliance</b>	Yes
	<b>BNCI or BELUS</b>	Yes
	<b>CIT</b>	Yes
	<b>GOST</b>	Yes
	<b>Saudi Arabian Compliance (ICCP)</b>	Yes
	<b>SABS</b>	Yes
	<b>UKRSERTCOMPUTER</b>	Yes



### Technical Specifications

#### DISPLAYS

<b>Panel LCD 14 inch FHD (1920x1080) Anti-Glare WLED UWVA 72percent cg 700nits eDP 1.3+PSR ultraslim Narrow Bezel Privacy</b>	Outline Dimensions (W x H x D)	315.91 x 186.69 max. (FPC folding included)
	Active Area	309.31 x 173.99
	Weight	245g max.
	Diagonal Size	14 (inch)
	Thickness	2.0mm / 3.9mm (PCB) max.
	Interface	eDP1.4a + PSR (4lane)
	Surface Treatment	Anti-Glare (AG)
	Touch Enabled	Yes
	Contrast Ratio	Sharing mode: 600:1 (typ.) Privacy mode: 150:1 (typ.) 110:1 (min)
	Refresh Rate	120Hz
	Brightness	Sharing mode: 700nits Privacy mode: 350nits
	Pixel Resolution	1920 x 1080 (FHD)
	Format	RGB strip
	Backlight	LED
	Color Gamut Coverage	72%
	Color Depth	8bits
	Viewing Angle	Sharing mode, CR >10, L/R/U/D, 85/85/85/85 (typ.) Privacy mode CR>2, L/R/U/D, 50/50/85/85 (typ.)

<b>Panel LCD 14 inch FHD (1920x1080) BrightView WLED UWVA 72percent cg 400nits eDP 1.3+PSR ultraslim NB bent</b>	Outline Dimensions (W x H x D)	315.31 x 185.43 max. (FPC folding included)
	Active Area	309.37 X 174.02
	Weight	200g max.
	Diagonal Size	14 (inch)
	Thickness	2.0mm / 4.0mm (PCB) max.
	Interface	eDP 1.3 + PSR (2 lane)
	Surface Treatment	Anti-Glare (AG)
	Touch Enabled	Yes
	Contrast Ratio	1200:1 (typ.)
	Refresh Rate	60Hz
	Brightness	400nits
	Pixel Resolution	1920 x 1080 (FHD)
	Format	RGB strip
	Backlight	LED
	Color Gamut Coverage	72%
	Color Depth	6bits
Viewing Angle	UWVA 85/85/85/85	



# QuickSpecs

## Technical Specifications

<b>Panel LCD 14 inch UHD (3840x2160) BrightView WLED UWVA 72percent cg 500nits eDP 1.3+PSR ultraslim NB bent</b>	Outline Dimensions (W x H x D)	315.31 x 186.55 max. (FPC folding included)
	Active Area	309.31 X 173.99
	Weight	210g max.
	Diagonal Size	14 (inch)
	Thickness	2.0mm / 4.0mm (PCB) max.
	Interface	eDP 1.4 + PSR (4 lane)
	Surface Treatment	Anti-Glare (AG)
	Touch Enabled	Yes
	Contrast Ratio	1200:1 (typ.)
	Refresh Rate	60Hz
	Brightness	500nits
	Pixel Resolution	3840 x 2160 (UHD)
	Format	RGB strip
	Backlight	LED
	Color Gamut Coverage	72%
Color Depth	8bits	
Viewing Angle	UWVA 85/85/85/85	





# QuickSpecs

## Technical Specifications

### STORAGE AND DRIVES

#### HARD DRIVES

<b>SSD 128GB 2280 M2 SATA-3 TLC</b>	Form Factor	M.2 2280
	Capacity	128 GB
	NAND Type	TLC
	Height	0.09 in (2.3 mm)
	Width	0.87 in (22 mm)
	Weight	0.02 lb (10 g)
	Interface	ATA-8, SATA 3.0
	Maximum Sequential Read	540 MB/s~ 560 MB/s
	Maximum Sequential Write	500 MB/s~ 530 MB/s
	Logical Blocks	250,069,680
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	DIPM; TRIM; DEVSLP
	<b>SSD 1TB 2280 PCIe-3x4 NVMe Three Layer Cell single-sided</b>	Form Factor
Capacity		1 TB
NAND Type		TLC
Height		0.09 in (2.3 mm)
Width		0.87 in (22 mm)
Weight		0.02 lb (10 g)
Interface		PCIe NVMe Gen3X4
Maximum Sequential Read		Up To 2800 MB/s
Maximum Sequential Write		Up To 1600 MB/s
Logical Blocks		2,000,409,264
Operating Temperature		32° to 158°F (0° to 70°C) [ambient temp]
Features		ATA Security (Option); TRIM; L1.2
<b>SSD 256GB 2280 M2 PCIe-3x4 SS NVMe TLC</b>		Form Factor
	Capacity	256 GB
	NAND Type	TLC
	Height	0.09 in (2.3 mm)
	Width	0.87 in (22 mm)
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen3X4
	Maximum Sequential Read	2580 MB/s~ 2600 MB/s
	Maximum Sequential Write	900 MB/s~ 1000 MB/s
	Logical Blocks	500,118,192
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	ATA Security (Option); TRIM; L1.2



# QuickSpecs

## Technical Specifications

<b>SSD 256GB 2280 M2 SATA-3 Self Encrypted OPAL2 Three Layer Cell</b>	Form Factor	M.2 2280
	Capacity	256 GB
	NAND Type	TLC
	Height	0.09 in (2.3 mm)
	Width	0.87 in (22 mm)
	Weight	0.02 lb (10 g)
	Interface	ATA-8, SATA 3.0
	Maximum Sequential Read	530 MB/s~ 560 MB/s
	Maximum Sequential Write	500 MB/s~ 530 MB/s
	Logical Blocks	500,118,192
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	ATA Security; TCG OPAL 2.0;DIPM; TRIM; DEVSLP
	<b>SSD 2TB 2280 PCIe-3x4 NVMe Three Layer Cell single-sided</b>	Form Factor
Capacity		2 TB
NAND Type		TLC
Height		0.09 in (2.3 mm)
Width		0.87 in (22 mm)
Weight		0.02 lb (10 g)
Interface		PCIe NVMe Gen3X4
Maximum Sequential Read		Up To 3000 MB/s
Maximum Sequential Write		Up To 2100 MB/s
Logical Blocks		3,907,029,168
Operating Temperature		32° to 158°F (0° to 70°C) [ambient temp]
Features		ATA Security; TCG OPAL 2.0;DIPM; TRIM; DEVSLP
<b>SSD 512GB 2280 M2 PCIe-3x4 SS NVMe TLC</b>		Form Factor
	Capacity	512 GB
	NAND Type	TLC
	Height	0.09 in (2.3 mm)
	Width	0.87 in (22 mm)
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen3X4
	Maximum Sequential Read	2800 MB/s~ 2900 MB/s
	Maximum Sequential Write	1000 MB/s~ 1800 MB/s
	Logical Blocks	1,000,215,215
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	ATA Security (Option); TRIM; L1.2



# QuickSpecs

## Technical Specifications

<b>SSD 512GB 2280 PCIe-3x4 NVMe Self Encrypted OPAL2 Three Layer Cell</b>	Form Factor	M.2 2280
	Capacity	512 GB
	NAND Type	TLC
	Height	0.09 in (2.3 mm)
	Width	0.87 in (22 mm)
	Weight	0.02 lb (10 g)
	Interface	PCIe NVMe Gen3X4
	Maximum Sequential Read	2800 MB/s~ 2900 MB/s
	Maximum Sequential Write	1000 MB/s~ 1800 MB/s
	Logical Blocks	1,000,215,215
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	ATA Security (Option); TCG Opal 2.0; TRIM; L1.2
	<b>SSD 118GB 2280 PCIe-3x2 NVMe 3D Xpoint</b>	Form Factor
Capacity		118 GB
NAND Type		3D Xpoint
Height		0.09 in (2.3 mm)
Width		0.87 in (22 mm)
Interface		PCIe NVMe Gen3X2
Maximum Sequential Read		1200 MB/s
Maximum Sequential Write		600 MB/s
Logical Blocks		231,270,400
Operating Temperature		0° to 85°C [ambient temp]
Features	Not Support	



# QuickSpecs

## Technical Specifications

### NETWORKING/COMMUNICATIONS

<b>Wireless LAN Standards</b>	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n IEEE 802.11ac
<b>Interoperability</b>	Wi-Fi certified
<b>Frequency Band</b>	<b>802.11b/g/n</b> •2.402 – 2.482 GHz  <b>802.11a/n</b> •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
<b>Data Rates</b>	•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)
<b>Modulation</b>	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
<b>Security</b>	•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
<b>Network Architecture Models</b>	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
<b>Roaming</b>	IEEE 802.11 compliant roaming between access points
<b>Output Power<sup>2</sup></b>	• 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
<b>Power Consumption</b>	•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 10mW



# QuickSpecs

## Technical Specifications

<b>Power Management</b>	•Radio disabled 8 mW ACPI and PCI Express compliant power management 802.11 compliant power saving mode
<b>Receiver Sensitivity</b> <sup>3</sup>	802.11b, 1Mbps : -93.5dBm maximum 802.11b, 11Mbps : -84dBm maximum 802.11a/g, 6Mbps : -86dBm maximum 802.11a/g, 54Mbps : -72dBm maximum 802.11n, MCS07 : -67dBm maximum 802.11n, MCS15 : -64dBm maximum 802.11ac, MCS0 : -84dBm maximum 802.11ac, MCS9 : -59dBm maximum
<b>Antenna type</b>	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
<b>Form Factor</b>	PCI-Express M.2 MiniCard
<b>Dimensions</b>	Type 2230 : 2.3 x 22.0 x 30.0 mm
<b>Weight</b>	Type 2230 : 2.8g
<b>Operating Voltage</b>	3.3v +/- 9%
<b>Temperature</b>	Operating 14° to 158° F (-10° to 70° C) Non-operating -40° to 176° F (-40° to 80° C)
<b>Humidity</b>	Operating 10% to 90% (non-condensing) Non-operating 5% to 95% (non-condensing)
<b>Altitude</b>	Operating 0 to 10,000 ft (3,048 m) Non-operating 0 to 50,000 ft (15,240 m)
<b>LED Activity</b>	LED Amber – Radio OFF; LED White – Radio ON

## POWER

<b>AC Adapter 65 Watt nPFC USB Type C™ Straight 1.8m C6NS (Hades+)</b>	<b>Dimensions (H x W x D)</b>	74x74x28.5mm
	<b>Weight</b>	245g +/- 10g
	<b>Input</b>	100 to 240 VAC
	<b>Input Efficiency</b>	81.5% min at 115 Vac/ 230Vac @ 5V/3A 86.7% min at 115 Vac/ 230Vac @ 9V/3A 88% min at 115 Vac/ 230Vac @ 10V/5A 88% min at 115 Vac/ 230Vac @ 12V/5A 89% min at 115 Vac/ 230Vac @ 15V/4.33A 89% min at 115 Vac/ 230Vac @ 20V/3.25A
	<b>Input frequency range</b>	47 ~ 63 Hz
	<b>Input AC current</b>	1.7 A at 90 VAC and maximum load
	<b>Output</b>	<b>Output power</b> 65W
		<b>DC output</b> 5V/9V/10V/12V/15V/20V
		<b>Hold-up time</b> 5 ms at 115 VAC input
		<b>Output current limit</b> <8.0A



# QuickSpecs

## Technical Specifications

<b>Connector</b>	Non-Standard C6
<b>Environmental Design</b>	<p><b>Operating temperature</b> 32oFto 95oF (0oto 35oC)</p> <p><b>Non-operating (storage) temperature</b> -4oFto 185oF (-20oto 85oC)</p> <p><b>Altitude</b> 0 to 16,400 ft (0 to 5000m)</p> <p><b>Humidity</b> 5% to 95%</p> <p><b>Storage Humidity</b> 5% to 95%</p>
<b>EMI and Safety Certifications</b>	<p>CE Mark - full compliance with LVD and EMC directives</p> <p>Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE.</p> <p>MTBF - over 100,000 hours at 25°C ambient condition.</p>

<b>Battery BL 4 Cell WHr 56 Long Life -PL Fast Charge</b>	<b>Dimensions (H x W x L)</b>	5.55 x 280.4 x 84.12 mm (0.219 x 11.039 x 3.312 inch)
	<b>Weight</b>	0.247kg (0.545 lb)
	<b>Cells/Type</b>	4cell Lithium-Ion Polymer cell / 446872
	<b>Energy</b>	<p><b>Voltage</b> 7.7V</p> <p><b>Amp-hour capacity</b> 7.3Ah</p> <p><b>Watt-hour capacity</b> 56Wh</p>
	<b>Temperature</b>	<p><b>Operating (Charging)</b> 32° to 113° F (0° to 45° C)</p> <p><b>Operating (Discharging)</b> 14° to 122° F (-10° to 60° C)</p>
	<b>Fuel Gauge LED</b>	NA
	<b>Optional Travel Battery Available</b>	No



# QuickSpecs

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## Technical Specifications

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### Country of Origin

China

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

Type	Description	Part Number	
<b>Cases</b>	HP Slim Ultrabook Top Load	F3W15AA	
	HP Exec Midnight 15.6" Backpack	1KM16AA	
	HP Business Top Load	2SC66AA	
<b>Docking</b>	HP Thunderbolt Dock 120W G2	2UK37AA#xxx	
	HP TB Dock G2 w/ Combo Cable	3TR87AA#xxx	
	HP TB Dock 120W G2 w/ Audio	3YE87AA#xxx	
	HP Thunderbolt Dock Audio Module	3AQ21AA	
	HP TB Dock 120W G2 cable	3XB94AA	
	HP TB Dock G2 combo cable	3XB96AA	
	HP USB-C Universal Dock	1MK33AA#xxx	
	HP USB-C Universal Dock NF	3DV65AA#xxx	
	HP USB-C Dock G4	3FF69AA#xxx	
	HP USB-C Mini Dock	1PM64AA#xxx	
	HP USB Travel Dock	T0K30AA#xxx	
	HP Elite 90W Thunderbolt 3 Dock	1DT93AA#xxx	
	HP Hot Desk Stand (up to 32" monitor)	W3Z73AA#xxx	
	HP Hot Desk Stand Monitor Arm (for use with W3Z73AA; supports two 24" monitors)	W3Z74AA#xxx	
	<b>Input/Output</b>	HP Slim Wireless Keyboard and Mouse	T6L04AA#xxx
		HP Slim USB Keyboard and Mouse	T6T83AA#xxx
HP Wireless (Link-5) Keyboard		T6U20AA#xxx	
HP USB Essential Keyboard and Mouse		H6L29AA#xxx	
HP Conferencing Keyboard		K8P74AA#xxx	
HP USB Collaboration Keyboard		Z9N38AA#xxx	
HP Wireless Collaboration Keyboard		Z9N39AA#xxx	
HP Comfort Grip Wireless Mouse		H2L63AA#xxx	
HP X4000b Bluetooth Mouse		H3T50AA#xxx	
HP 3-Button USB Laser Mouse		H4B81AA#xxx	
HP USB Travel Mouse		G1K28AA#xxx	
HP Ultra Mobile Wireless Mouse		H6F25AA#xxx	
HP Slim Bluetooth Mouse		F3J92AA#xxx	
HP Wireless Premium Mouse		1JR31AA#xxx	
HP USB Premium Mouse		1JR32AA#xxx	
HP Stereo 3.5mm Headset		T1A66AA#xxx	
HP Stereo USB Headset		T1A67AA#xxx	
HP Elite Presenter Mouse		2CE30AA#xxx	
HP USB-C to USB 3.0 Adapter		N2Z63AAA#xxx	
HP USB-C to USB-A Hub		Z6A00AA#xxx	
HP USB-C to DP		N9K78AA#xxx	
HP USB-C to VGA		N9K76AA#xxx	
HP to HDMI 2.0		1WC36AA	
HP USB-C to RJ45 Adapter FD	V7W66AA		
HP USB-C to RJ45 Adapter	V7W66AA		



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

	HP HDMI to DVI	F5A28AA#xxx
	HP HDMI to VGA	H4F02AA#xxx
	HP USB 3.0 to Gigabit Adapter	N7P47AA#xxx
	HP Active Pen G2	TBD
<b>Power</b>	HP 65W USB-C Power Adapter	1HE08AA#xxx
	HP 65W USB-C Slim Power Adapter w/USB-A port	3PN48AA
	HP USB-C Notebook Power Bank	2NA10AA#xxx
<b>Storage</b>	HP USB External DVDRW Drive	F2B56AA#xxx
<b>Security</b>	HP Nano Keyed Cable Lock	1AJ39AA
	HP Nano Dual-Head Keyed Cable Lock	1AJ41AA
<b>UCC</b>	HP UC Wireless Mono Headset	W3K08AA#xxx
	HP UC Wireless Duo Headset	W3K09AA#xxx
	HP UC Speaker Phone	K7V16AA#xxx
	HP UC Wired Headset	K7V17AA#xxx
<b>Displays</b>	HP EliteDisplay S340c 34-inch Curved Micro Edge Monitor	V4G46AA
	HP EliteDisplay S270N 27-inch 4K Micro Edge Monitor	2PD37AA
	HP EliteDisplay S240n 24-inch Micro Edge Monitor	W9A88AA
	HP EliteDisplay E243 23.8-inch Monitor	1FH47AA



### Change Log

<b>Date of change:</b>	<b>Version History:</b>		<b>Description of change:</b>
November 2, 2018	From V1 to V2		At a glance Passed MIL-STD

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