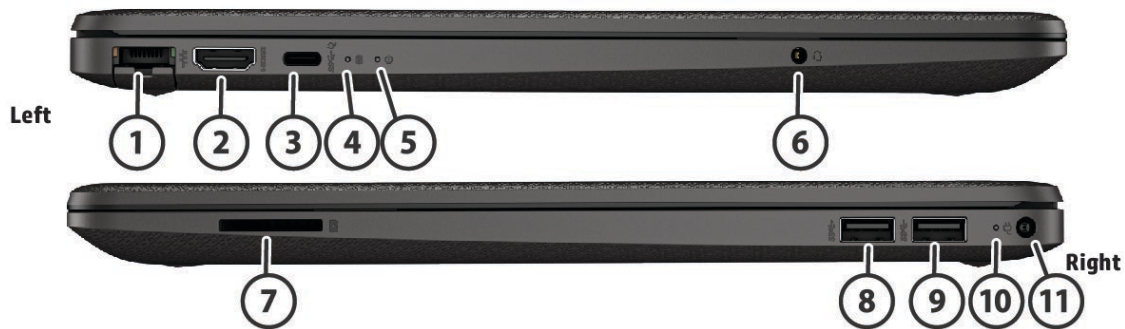


## HP 250RT 15.6 inch G9 Notebook PC



**Front**

- 1. Internal Dual Digital Microphone
- 2. Webcam LED
- 3. Webcam
- 4. Touchpad
- 5. Touchpad Buttons
- 6. Fingerprint Reader (Selected models)



- 1 RJ-45 Ethernet Port
- 2 HDMI Port (Cable Sold Separately)
- 3 USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- 4 Storage Indicator LED
- 5 Power Indicator LED
- 6 Headphone/mic combo jack

### Sides

- 7 SD Card Slot
- 8 USB Type-A 5Gbps signaling rate (1 charging)
- 9 USB Type-A 5Gbps signaling rate (1 charging)
- 10 Power indicator LED
- 11 Power Connector

### PRODUCT NAME

HP 250RT 15.6 inch G9 Notebook PC

### OPERATING SYSTEMS

Windows 11 Home - HP recommends Windows 11 Pro for business <sup>1</sup>

Windows 11 Home Single Language - HP recommends Windows 11 Pro for business <sup>1</sup>

Windows 11 Pro <sup>1</sup>

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

FreeDOS

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

### PROCESSORS

Processor <sup>2,3,4</sup>	Cores	Number of P-cores	Number of E-cores	Number of LP E-cores	Threads	L3 Cache	Max Turbo Frequency <sup>4</sup>		Integrated Graphics
							P-cores	E-cores	
Intel® Core™ Twin Lake - N350	8 cores	0	8	N/A	8	6 MB	N/A	3.9 GHz	Intel® Graphics
Intel® Core™ Twin Lake - N150	4 cores	0	4	N/A	4	6 MB	N/A	3.6 GHz	Intel® Graphics

#### Processor Family

Intel® Core™ Twin Lake processor

2. 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.

3. Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

4. Intel® Turbo Boost performance varies depending on hardware, software and overall system configuration.



### GRAPHICS

#### Integrated

Intel® Graphics

#### Supports

Support HD decode, DX12, HDMI 1.4b<sup>5</sup>

[5 HD content required to view HD images.](#)

---



---

### DISPLAY

#### Non-Touch

39.6 cm (15.6") diagonal, FHD (1920 x 1080), anti-glare, UWVA, micro-edge, 300 nits, 45% NTSC eDP 1.2 <sup>6,7,8</sup>

39.6 cm (15.6") diagonal, FHD (1920 x 1080), anti-glare, SVA, micro-edge, 250 nits, 45% NTSC eDP 1.2 <sup>6,7,8</sup>

39.6 cm (15.6") diagonal, HD (1366x768), anti-glare, SVA, micro-edge, 250 nits, 45% NTSC eDP 1.2 <sup>6,7,8</sup>

#### Display Size (Diagonal)

39.6 cm (15.6")

#### Screen to Body Ratio

80.69%

#### Aspect Ratio

16:9

#### Max Hinge Open Angle

135°

6. HD content required to view HD images.

7. Sold separately or as an optional feature.

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



### DOCKING (SOLD SEPARATELY)

<b>Docking station model #1</b>	HP USB-C Dock G5
<b>Total number of supported displays (incl. the notebook) display)</b>	3
<b>Max.resolutions supported</b>	Multi-Function Mode: (2) 5k @ 30Hz and (1) 4k UHD @ 30Hz on any port  High-Resolution Mode: (2) 5k @ 60Hz on DisplayPort ports and (1) 4k UHD @ 60Hz on HDMI port 1x HDMI 2.0, 2x DisplayPort 1.4 Maximum resolution and display support is dependent on the maximum capability of the notebook.  Highest resolution with dual displays is two 8K@ 60Hz host in High Resolution mode.  Three maximum displays supported are two 5K@ 30 Hz on DP ports plus one 4K UHD@ 30 Hz on HDMI in Multi-function mode  The highest resolution for a non-Thunderbolt host in Multi-function mode is a single 5K dual cable (using both DP ports) + (1) 4K on HDMI port.
<b>Dock Connectors</b>	HP USB-C/A Universal Dock G2
<b>Technical limitations</b>	3  Multi-Function Mode: (3) 4K DCI @ 30Hz on any port  High-Resolution Mode: (3) 4K DCI @ 30Hz on any port 1x HDMI 2.0, 2x DisplayPort 1.2 Maximum resolution and display support is dependent on the maximum capability of the notebook. The best resolution for dual or triple displays is 4K UHD@ 60Hz. For use with the USB-A adapter that comes in the box the maximum number of displays supported is (2) 4k x 60 Hz on the Type-A Gen 1 connection from the host.
<b>Docking station model #2</b>	
<b>Total number of supported displays (incl. the notebook) display)</b>	
<b>Max.resolutions supported</b>	
<b>Dock Connectors</b>	
<b>Technical limitations</b>	



### STORAGE AND DRIVES

#### Primary Storage

1 TB PCIe® NVMe™ SSD Value<sup>9</sup>

512 GB PCIe® NVMe™ SSD Value <sup>9</sup>

256 GB PCIe® NVMe™ SSD Value <sup>9</sup>

128GB MO-276 UFS v3.x Gear4x2

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

---



### MEMORY

#### Maximum Memory

16 GB DDR4-3200 MT/s <sup>10,11</sup>

#### Memory

16 GB DDR4-3200 MT/s <sup>10,11</sup>

8 GB DDR4-3200 MT/s <sup>10,11</sup>

4 GB DDR4-3200 MT/s <sup>10,11</sup>

#### Memory Slots

All slots are customer non-accessible / non-upgradeable

System runs at 3200 MT/s

10. All slots are non-accessible / non-upgradeable.

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

---



---

### NETWORKING /COMMUNICATIONS

#### WLAN

Intel® AX201 Wi-Fi® 6 Bluetooth® 5.2 Wireless Card non-vPro WW MU-MIMO WLAN with 2 Antennas <sup>12</sup>

WLAN Realtek M.2 2230 Cass 8852BE-VT Wi-Fi 6 +BT 5.4 **Wireless Card** WW <sup>12</sup>

#### Miracast

Compatible with Miracast-certified devices (For Windows 11) <sup>13</sup>

#### Ethernet

Integrated 10/100/1000 GbE <sup>14</sup>

12. Wireless access point and internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 is backwards compatible with prior 802.11 specs.

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

14. The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

---



### AUDIO/MULTIMEDIA

#### Audio

Audio by Poly Studio

2 Integrated stereo speakers

Integrated dual array microphone

#### Speaker Power

2W / 4 ohm per speaker

#### Camera

720p HD camera with Temporal Noise Reduction <sup>15</sup>

[15. HD content required to view HD images.](#)

---



---

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

#### Keyboard

Full size textured island-style keyboard <sup>16</sup>

#### Pointing Device

Touchpad with multi-touch gesture support (PTP certified)

#### Function Keys

ESC - ESC

F1 - Open " How to get help in Windows 11" webpage

F2 - Brightness Down

F3 - Brightness Up

F4 - Display Switching

F5 - Blank

F6 - Mute

F7 - Volume Down

F8 - Volume Up

F9 - Previous

F10 - Play/Pause

F11 - Next

F12 - Airplane mode

#### Hidden Function Keys

[16. Backlit keyboard is an optional feature.](#)

---



### SOFTWARE AND SECURITY

#### Application Software

Edge Customization  
HP Easy Clean  
HP Hotkey Support  
HP Mac Address Manager  
HP Notifications  
HP PC Hardware Diagnostics UEFI  
HP PC Hardware Diagnostics Windows  
HP Privacy Settings  
HP Services Scan  
HP Smart Support <sup>17</sup>  
HP Support Assistant <sup>18</sup>  
myHP  
HSA Fusion for Commercial  
HSA Telemetry for Commercial  
Poly Lens <sup>19</sup>

#### Manageability Features

HP Client Catalog ([download](#)) <sup>20</sup>  
HP Client Management Script Library ([download](#)) <sup>21</sup>  
HP Connect for Microsoft Endpoint Manager  
HP Driver Packs ([download](#)) <sup>22</sup>  
HP Image Assistant ([download](#)) <sup>23</sup>  
HP Manageability Integration Kit ([download](#)) <sup>24</sup>  
HP Power Manager with Battery Health Manager ([download](#)) <sup>25</sup>

#### Security Management

McAfee - MLS <sup>26</sup>  
WPS Office CMIT <sup>27</sup>  
Microsoft Office OPK <sup>28</sup>  
sMedio True DVD for HP <sup>29</sup>  
HP Documentation <sup>30</sup>  
myHP <sup>31</sup>  
HP Privacy Settings <sup>32</sup>  
HP SUPPORT ASSISTANT <sup>33</sup>  
HP PC Hardware Diagnostics Windows <sup>34</sup>  
HP PC Hardware Diagnostics UEFI <sup>35</sup>  
HP System Event Utility - UWP <sup>36</sup>  
Secured-Core PC Enable (Only required 8GB above) <sup>37</sup>  
Windows Hello Enhanced Sign-In Security (ESS)



### Security- TPM

Model: Nuvoton NPCT760HABYX

TCG TPM 2.0

Firmware Version: 7.2.4.0

FIPS 140-2 Compliant: Yes

### BIOS

Absolute Persistence Module <sup>38</sup>

### Smartcard Reader

FIPS 201 Compliant:

### IPv6 Support

#### FirstNet Certified

Does the BIOS implement the ISO/IEC 19678:2015 (formerly NIST 800-147) guidelines?:Yes <sup>39</sup>

UEFI version: 2.8

Class: 3+

17. HP Smart Support requires the HP Insights agent to be installed. For more information about how to enable or to download HP Smart Support, please visit <http://www.hp.com/smart-support>. HP Services Scan is preinstalled and/or provided thru Windows Update and will check entitlement on each hardware device to determine if an HP Insights agent-enabled service has been purchased, and will download applicable software automatically. HP Insights agent is a telemetry and analytics platform that provides critical data around devices and applications and is not sold as a standalone service. HP follows stringent GDPR privacy regulations and is ISO27001, ISO27701, ISO27017 and SOC2 Type2 certified for Information Security. Internet access is required. For full system requirements or to disable this feature, please visit <http://www.hpdaas.com/requirements>.

18. HP Support Assistant is available on Windows. For more information, please visit <http://www.support.hp.com/help/hp-support-assistant>

19. Poly Lens Desktop requires a Windows OS

20. HP Client Catalog not preinstalled, however available for download at <https://www.hp.com/us-en/solutions/client-management-solutions.html>

21. HP Client Management Script Library (<https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>)

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

23. HP Image Assistant not preinstalled, however available for download at <https://ftp.ext.hp.com/pub/caps-softpaq/cmit/HPIA.html>

24. HP Manageability Integration Kit not preinstalled, however available for download from <https://www.hp.com/us-en/solutions/client-management-solutions.html#tab=manageability-tools>

25. HP Power Manager with Battery Health can be downloaded by entering your system information here: [https://support.hp.com/in-en/document/ish\\_4449597-3519507-16](https://support.hp.com/in-en/document/ish_4449597-3519507-16)

26. McAfee - MLS (LiveSafe): Ultimate protection for your data and identity on all your devices. It includes 30 days, 12 months on consumer and commercial platforms

27. WPS Office for CMIT Kingsoft Docs-online documents for multi-person collaboration Supports online creation, preview, and editing of Office files: Word, Excel, PPT, PDF, and other file types such as flowcharts, mind maps, and notes Support 365 people to edit files online at the same time, automatic content saving, real-time data synchronization, bid farewell to repeated physical file transfers, and can easily



---

complete document scenarios that require multi-person collaboration, such as information statistics, data sharing, project management, etc.

28. This is Microsoft Office OPK (OEM Pre-install Kit) for pre-install images

29. "sMedio True DVD for HP" UWP is a DVD player which can playback any DVD Titles well

30. The User Guides in this application contain product specific information

31. HPX is a UWP to replace myHP with the same PFN. It integrates HP's first-party and white-labeled applications into a single source for hardware optimization, giving users an intuitive place to go for enhanced management options for their hardware, accessories and services.

32. HP Privacy Settings is a stand alone application that enables users to review and update their consent settings regarding privacy. The users will be able to view their consent settings which they provided during OOB setup. The users can then make updates to the settings and those updates will be sent to HP Analytics service. On relaunch of this application or any other application that displays consent, the users will be able to view their updated consent. The users will also be able to view HP privacy statement, telemetry and warranty information via hyperlink.

33. HP Support Assistant" allows HP customers to discover, maintain, and troubleshoot their machine. It also allows them to contact HP to receive assistance.

34. This package provides HP PC Hardware Diagnostics for supported computer models that are running a supported operating system. HP PC Hardware Diagnostics Windows is allows HP customers to run diagnostic tests to determine if the computer hardware is functioning properly. The tool runs

35. HP PC Hardware Diagnostics UEFI provides UEFI based hardware diagnostics used to validate if a system is functioning correctly. Additional support is provided for updating and managing the system BIOS and other device firmware on the system.

36. This package contains the HP System Event Utility, which enables special function keys on supported notebook models to be programmed. For example, HP System Event Utility enables users to press the Fn+ESC keys to view system information. This software works with the supported operating systems.

37. Secured-Core PC Enable requires an Intel® vPro®, AMD Ryzen™ Pro processor or Qualcomm® processor with SD850 or higher and requires 8 GB or more system memory. Secured-core PC is enabled from the factory.

38. Absolute firmware module is shipped turned off and can only be activated with the purchase a license subscription and full activation of the software agent. License subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S. Certain conditions apply. For full details visit: <https://www.absolute.com/about/legal/agreements/absolute/>

39. HP BIOSphere Gen6 features may vary depending on the platform and configuration.

---



### POWER

#### Power Supply

HP 65W Standard USB Type-C® Halogen Free AC power adapter <sup>40,41,42</sup>

HP 65W Standard USB Type-C® AC power adapter <sup>40,41,42</sup>

HP 65W 4.5mm AC power adapter <sup>40,41</sup>

HP 45W 4.5mm AC power adapter <sup>40,41</sup>

#### Battery

HP Long Life 3-cell, 41 Whr Polymer.

#### Battery Recharge Time

0.7C Fast Charge (50% in 45min) with 45W adapter under system OFF mode <sup>43</sup>

#### Power Cord

1M (3.28 feet) length power cord

Halogen-free power cord

#### Battery life

Up to 6.35 hours with 41whr battery (HP Long Life 3-Cell, 41 Whr Polymer, UMA graphic, Intel TWL 7W, Display set to 250 nits display, 1\*8G memory, 128GB UFS)<sup>44</sup>

40. Availability may vary by country.

41. Only available for selected regions and selected configurations.

42. USB Type-C adapter power supply input requirement is above 45W at 20V

43. Recharges your battery up to 50% within 30 minutes when the system is off or in standby mode.

Power adapter minimum of 65 watts required for battery capacities 56Whr or less.

Power adapter minimum of 100 watts required for battery capacities greater than 56Whr and less than 83Whr.

Power adapter minimum of 120 watts required for battery capacities greater than 83Whr and less than 100Whr.

After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

44. MobileMark 25 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.



### WEIGHT & DIMENSIONS

#### Product Weight

Starting at 1.7 kg (3.75 lb) with 41 Whr battery

Weight will vary by configuration. Does not include power adapter <sup>45</sup>

#### Product Dimensions (w x d x h) <sup>46</sup>

358.5 mm (W) x 242 mm (D) x 9.2 mm (front) / 14.8 mm (rear)

Maximum height 19.9 mm

#### Pallet Dimensions (w x d x h)

12-15" boxes (305 mm height): 1200 mm x 1000 mm x 1080 mm

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

46. Front height measurement is near the front edge where the mechanical chassis taper begins. Back height measurement is near the rear edge where the mechanical chassis taper ends.

---



### PORTS/SLOTS

#### Left side

- 1 USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4)
- 1 HDMI 1.4b <sup>47</sup>
- 1 RJ-45
- 1 AC Power
- 1 Headphone/mic combo jack

#### Right side

- 2 USB Type-A 5Gbps signaling rate

#### Expansion Slots

- Support SD/SDHC/SDXC
- 1 multi-format digital media reader

[47. HDMI cable sold separately.](#)

---



### ENVIRONMENTAL DATA

<b>Eco-Label Certifications &amp; declarations</b>	<p>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:</p> <ul style="list-style-type: none"> <li>• IT ECO declaration</li> <li>• US ENERGY STAR®</li> <li>• US Federal Energy Management Program (FEMP)</li> <li>• EPEAT® Gold registered in the United States. See <a href="http://www.epeat.net">http://www.epeat.net</a> for registration status in your country.</li> <li>• TCO Certified</li> <li>• China Energy Conservation Program (CECP)</li> <li>• China State Environmental Protection Administration (SEPA)</li> <li>• Taiwan Green Mark</li> <li>• Korea Eco-label</li> <li>• Japan PC Green label*</li> </ul>																						
<b>Sustainable Impact Specifications</b>	<ul style="list-style-type: none"> <li>• <a href="#">Product Carbon Footprint</a></li> <li>• At least (4%) post-consumer recycled plastic<sup>2</sup></li> <li>• Low Halogen<sup>4</sup></li> <li>• 100% of HP paper-based packaging is from recycled or certified sustainable sources<sup>5</sup></li> <li>• Bulk packaging available</li> </ul>																						
<b>System Configuration</b>  <b>Energy Consumption (in accordance with US ENERGY STAR® test method)</b>	<p>The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a “Typically Configured Notebook”.</p> <table border="1" data-bbox="440 1031 1469 1283"> <thead> <tr> <th></th> <th>115VAC, 60Hz</th> <th>230VAC, 50Hz</th> <th>100VAC, 50Hz</th> </tr> </thead> <tbody> <tr> <td>Normal Operation (Sort idle)</td> <td>0.00 W</td> <td>0.00 W</td> <td>0.00 W</td> </tr> <tr> <td>Normal Operation (Long idle)</td> <td>0.00 W</td> <td>0.00 W</td> <td>0.00 W</td> </tr> <tr> <td>Sleep</td> <td>0.00 W</td> <td>0.00 W</td> <td>0.00 W</td> </tr> <tr> <td>Off</td> <td>0.00 W</td> <td>0.00 W</td> <td>0.00 W</td> </tr> </tbody> </table> <p><b>NOTE:</b> 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.</p>				115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz	Normal Operation (Sort idle)	0.00 W	0.00 W	0.00 W	Normal Operation (Long idle)	0.00 W	0.00 W	0.00 W	Sleep	0.00 W	0.00 W	0.00 W	Off	0.00 W	0.00 W	0.00 W
	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz																				
Normal Operation (Sort idle)	0.00 W	0.00 W	0.00 W																				
Normal Operation (Long idle)	0.00 W	0.00 W	0.00 W																				
Sleep	0.00 W	0.00 W	0.00 W																				
Off	0.00 W	0.00 W	0.00 W																				
<b>Heat Dissipation*</b>	<b>115VAC, 60Hz</b>	<b>230VAC, 50Hz</b>	<b>100VAC, 50Hz</b>																				
Normal Operation (Short idle)	0.00 BTU/hr	0.00 BTU/hr	0.00 BTU/hr																				
Normal Operation (Long idle)	0.00 BTU/hr	0.00 BTU/hr	0.00 BTU/hr																				
Sleep	0.00 BTU/hr	0.00 BTU/hr	0.00 BTU/hr																				
Off	0.00 BTU/hr	0.00 BTU/hr	0.00 BTU/hr																				
<p><b>*NOTE:</b> Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</p>																							



Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power ( $L_{WAd}$ , bels)	Sound Pressure ( $L_{pAm}$ , decibels)	
Typically Configured – Idle	2.6	18.1	
Fixed Disk – Random writes	3.0	18	
Optical Drive – Sequential reads	-	-	
<b>Longevity and Upgrading</b>	<p>This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the</p> <p>Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.</p>		
<b>Additional Information</b>	<ul style="list-style-type: none"> <li>• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.</li> <li>• This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.</li> <li>• This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).</li> <li>• This product is in compliance with the IEEE 1680 (EPEAT) standard at the Gold level, see <a href="http://www.epeat.net">www.epeat.net</a></li> <li>• Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.</li> <li>• This product is 94.4% recycle-able when properly disposed of at end of life.</li> </ul>		
<b>Packaging Materials</b>	<b>External:</b>	PAPER/Corrugated	272 g
		PAPER/Molded Pulp	110 g
	<b>Internal:</b>	PAPER/Paperboard	9 g
		PLASTIC/Polyethylene low density – LDPE	10 g
	The plastic packaging material contains at least 0.0% recycled content.		
	The corrugated paper packaging materials contains at least 57% recycled content.		
<b>RoHS Compliance</b>	<p>HP Inc. complies fully with materials regulations. We were among the first companies to extend the restrictions in the European Union (EU) Restriction of Hazardous Substances (RoHS) Directive to our products worldwide through the HP GSE. HP has contributed to the development of related legislation in Europe, as well as China, India, and Vietnam.</p> <p>We believe the RoHS directive and similar laws play an important role in promoting industry-wide elimination of substances of concern. We have supported the inclusion of additional substances—including PVC, BFRs, and certain phthalates—in future RoHS legislation that pertains to electrical and electronics products.</p> <p>We met our voluntary objective to achieve worldwide compliance with the new EU RoHS requirements for virtually all relevant products by July 2013, and we will continue to extend the scope of the commitment to include further restricted substances as regulations continue to evolve.</p> <p>To obtain a copy of the HP RoHS Compliance Statement, see <a href="#">HP RoHS position statement</a>.</p>		
<b>Material Usage</b>	This product does not contain any of the following substances in excess of regulatory limits		



	<p>(refer to the HP General Specification for the Environment at <a href="https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c05998906">https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c05998906</a>):</p> <ul style="list-style-type: none"> <li>• Asbestos</li> <li>• Certain Azo Colorants</li> <li>• Certain Brominated Flame Retardants – may not be used as flame retardants in plastics</li> <li>• Cadmium</li> <li>• Chlorinated Hydrocarbons</li> <li>• Chlorinated Paraffins</li> <li>• Bis(2-Ethylhexyl) phthalate (DEHP)</li> <li>• Benzyl butyl phthalate (BBP)</li> <li>• Dibutyl phthalate (DBP)</li> <li>• Diisobutyl phthalate (DIBP)</li> <li>• Formaldehyde</li> <li>• Halogenated Diphenyl Methanes</li> <li>• Lead carbonates and sulfates</li> <li>• Lead and Lead compounds</li> <li>• Mercuric Oxide Batteries</li> <li>• Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.</li> <li>• Ozone Depleting Substances</li> <li>• Polybrominated Biphenyls (PBBs)</li> <li>• Polybrominated Biphenyl Ethers (PBBEs)</li> <li>• Polybrominated Biphenyl Oxides (PBBOs)</li> <li>• Polychlorinated Biphenyl (PCB)</li> <li>• Polychlorinated Terphenyls (PCT)</li> <li>• Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.</li> <li>• Radioactive Substances</li> <li>• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)</li> </ul>
<p><b>Packaging Usage</b></p>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> <li>• Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.</li> <li>• Eliminate the use of ozone-depleting substances (ODS) in packaging materials.</li> <li>• Design packaging materials for ease of disassembly.</li> <li>• Maximize the use of post-consumer recycled content materials in packaging materials.</li> <li>• Use readily recyclable packaging materials such as paper and corrugated materials.</li> <li>• Reduce size and weight of packages to improve transportation fuel efficiency.</li> <li>• Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.</li> </ul>



<p><b>End-of-life Management and Recycling</b></p>	<p>HP offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <a href="https://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c05403198">https://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c05403198</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</p> <p>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: <a href="#">HP Product Disassembly Instruction Website</a>. 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</p>
<p><b>HP, Inc. Corporate Environmental Information</b></p>	<p>For more information about HP's commitment to the environment:</p> <ul style="list-style-type: none"> <li>• Sustainable Impact Report             <ul style="list-style-type: none"> <li>○ <a href="https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06040843">https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c06040843</a></li> </ul> </li> <li>• Eco-label certifications             <ul style="list-style-type: none"> <li>○ <a href="https://www.hp.com/us-en/sustainable-impact/document-reports.html#filters_documents_reports=-document_type-type_energy_star,type_epeat,type_tcoISO">https://www.hp.com/us-en/sustainable-impact/document-reports.html#filters_documents_reports=-document_type-type_energy_star,type_epeat,type_tcoISO</a></li> </ul> </li> <li>• ISO 14001 certificates             <ul style="list-style-type: none"> <li>○ <a href="https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04777932">https://h20195.www2.hp.com/v2/GetDocument.aspx?docname=c04777932</a></li> </ul> </li> </ul>
<p><b>footnotes</b></p>	<ol style="list-style-type: none"> <li>2. Recycled plastic is expressed as a percentage of the total weight plastic. Post-consumer recycled is based on the definition set in the EPEAT standard for computers, IEEE 1680.1-2018 standard.</li> <li>4. External power supplies, WWAN modules, power cords, cables and peripherals excluded. Service parts obtained after purchase may not be Low Halogen.</li> <li>5. HP paper and fiber-based packaging for PCs, displays, home and office print, and supplies is reported by suppliers as recycled or certified, with a minimum of 97% by volume verified by HP. Packaging is the box that comes with the product and all paper-based materials inside the box. Packaging for personal systems accessories and spare parts is not included. Plastic cushions are made from &gt;90% recycled plastic.</li> </ol>



---

### SERVICE AND SUPPORT

1-year warranty and 90 day software limited warranty options depending on country. Batteries have a default one year limited warranty. Refer to <http://www.hp.com/support/batterywarranty/> for additional battery information. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: <http://www.hp.com/go/cpc><sup>48</sup>

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

---



### SYSTEM UNIT

#### Stand-Alone Power Requirements (AC Power)

Nominal Operating Voltage	19.5V
Average Operating Power	6.300W
Max Operating Power	UMA 45W Discrete W

#### Temperature

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

#### Relative Humidity

Operating	Operating: 10 % to 90 % (non-condensing)
Non-operating	Non-operating: 5 % to 95 %, 38.7° C (101.6° F) maximum wet bulb temperature

#### Shock

Operating	Operating: 40 G, 2 ms, half-sine
Non-operating	Non-operating: 200 G, 2 ms, half-sine

#### Random Vibration

Operating	Operating: 0.75 grms
Non-operating	Non-operating: 1.50 grms

#### Altitude (unpressurized)

Operating	Operating: 3048 m (10000 ft)
Non-operating	Non-Operating: 12192 m (40000 ft)

#### Planned Industry Standard Certifications

Regulatory Model Number	TPN-C139
CSA/UL 62368-1	No
ENERGY STAR®	Yes <sup>49</sup>
FCC/ICES/CISPR/VCCI	Yes
CE MARKING	Yes
GS Mark	No
China CCC/SRRC	Yes
Taiwan BSMI/NCC	Yes
Korea KCC/KC/KES	Yes
Ukraine NSoC/TEC	Yes
EAEU Compliance	Yes
Saudi Arabian Compliance	Yes
TCO	Yes
EPEAT®	EPEAT® Gold in the United States <sup>50</sup>
Low Blue Light	No
WW RoHS	Yes

49. Configurations of the HP 250RT 15.6 inch G9 Notebook PC that are ENERGY STAR® qualified are identified as HP 250RT 15.6 inch G9 Notebook PC PC ENERGY STAR on HP websites and on <http://www.energystar.gov>.

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



### DISPLAYS

1. Actual brightness will be lower with touchscreen.

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

<b>15.6 in FHD (1920 x 1080) Anti-Glare UWVA LED NTSC 45 NWBZ 300 eDP 1.2 w/o PSR flat LCD Panel</b>	<b>Active Area</b>	344.16 x 193.59 (typ)
	<b>Dimensions (W x H)</b>	350.96 x 216.75 (max)
	<b>Weight</b>	370 (max)
	<b>Diagonal Size</b>	15.6
	<b>SurfaceTreatment</b>	Anti-Glare
	<b>TouchEnabled</b>	No
	<b>Contrast Ratio</b>	1000:1 (typ)
	<b>Refresh Rate</b>	60 (typ)
	<b>Brightness</b>	300 nits <sup>1</sup>
	<b>Pixel Resolution – Format</b>	1920 x 1080 (FHD)
	<b>Aspect Ration</b>	
	<b>Backlight</b>	WLED
	<b>Pixel Resolution</b>	RGB
	<b>Color Gamut Coverage</b>	NTSC 45%
	<b>Color Depth</b>	6+2 FRC
	<b>Viewing Angle</b>	UWVA 89/89/89/89
<b>Low Blue Light</b>	No	
<b>Power Consumption (W, EBL@ 150nits max/ 200nits max))</b>	2.71 (max) / 3.4 (max)	

<b>Panel LCD 15.6-in FHD (1920x1080) Anti-Glare WLED SVA 45percent cg 250nits eDP 1.2 w/o PSR NWBZ ultraslim</b>	<b>Active Area</b>	344.16 x 193.59 (typ)
	<b>Dimensions (W x H)</b>	350.96 x 216.75 (max)
	<b>Weight</b>	360 (max)
	<b>Diagonal Size</b>	15.6
	<b>SurfaceTreatment</b>	Anti-Glare
	<b>TouchEnabled</b>	No
	<b>Contrast Ratio</b>	300 : 1 (typ)
	<b>Refresh Rate</b>	60 (typ)
	<b>Brightness</b>	250 nits <sup>1</sup>
	<b>Pixel Resolution - Format</b>	1920 x 1080 (FHD)
	<b>Backlight</b>	WLED
	<b>Pixel Resolution</b>	RGB
	<b>Color Gamut Coverage</b>	NTSC 45%
	<b>Color Depth</b>	6
	<b>Viewing Angle</b>	SVA 45/45/15/30
	<b>Low Blue Light</b>	No
<b>Power Consumption (W, EBL@ 150nits max/ 200nits max))</b>	2.67 (max) / 3.33 (max)	



---

<b>Panel LCD 15.6-in HD (1366x768) Anti-Glare WLED SVA 45percent cg 250nits eDP 1.2 w/o PSR NWBZ ultraslim</b>	<b>Active Area</b>	344.23 x 193.54 (typ)
	<b>Dimensions (W x H)</b>	351.03 x 216.75 (max)
	<b>Weight</b>	370 (max)
	<b>Diagonal Size</b>	15.6
	<b>SurfaceTreatment</b>	Anti-Glare
	<b>TouchEnabled</b>	No
	<b>Contrast Ratio</b>	300 : 1 (typ)
	<b>Refresh Rate</b>	60 (typ)
	<b>Brightness</b>	250 nits <sup>1</sup>
	<b>Pixel Resolution - Format</b>	1366 x 768 (HD)
	<b>Backlight</b>	WLED
	<b>Pixel Resolution</b>	RGB
	<b>Color Gamut Coverage</b>	NTSC 45%
	<b>Color Depth</b>	6
	<b>Viewing Angle</b>	SVA 45/45/15/30
	<b>Low Blue Light</b>	No
	<b>Power Consumption (W, EBL@ 150nits max/ 200nits max))</b>	2.49 (max) / 2.78 (max)

---



### STORAGE

<b>SSD 256GB 2280 PCIe NVMe Value</b>	<b>Form Factor</b>	M.2 2280
	<b>Capacity</b>	256 GB
	<b>NAND Type</b>	TLC
	<b>Interface</b>	PCIe NVMe Gen4X4
	<b>Maximum Sequential Read</b>	2000 MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	900 MB/s $\pm$ 20%
	<b>Logical Blocks</b>	500,118,192
	<b>Features</b>	Pyrite 2.0; TRIM; L1.2
	<b>Maximum Sequential Read</b>	up to 2300MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	up to 1280MB/s $\pm$ 20%
<b>SSD 512GB 2280 PCIe NVMe Value</b>	<b>Form Factor</b>	M.2 2280
	<b>Capacity</b>	512 GB
	<b>NAND Type</b>	TLC
	<b>Interface</b>	PCIe NVMe Gen4X4
	<b>Maximum Sequential Read</b>	2200 MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	1000 MB/s $\pm$ 20%
	<b>Logical Blocks</b>	1,000,215,215
	<b>Features</b>	Pyrite 2.0; TRIM; L1.2
	<b>Maximum Sequential Read</b>	up to 2300MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	up to 1400MB/s $\pm$ 20%
<b>SSD 1TB 2280 PCIe NVMe Value</b>	<b>Form Factor</b>	M.2 2280
	<b>Capacity</b>	1TB
	<b>NAND Type</b>	TLC
	<b>Interface</b>	PCIe NVMe Gen4X4
	<b>Maximum Sequential Read</b>	2200 MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	1600 MB/s $\pm$ 20%
	<b>Logical Blocks</b>	2,000,409,264
	<b>Features</b>	Pyrite 2.0; TRIM; L1.2
	<b>Maximum Sequential Read</b>	up to 2300MB/s $\pm$ 20%
	<b>Maximum Sequential Write</b>	up to 2000MB/s $\pm$ 20%
<b>128GB M0-276 UFS v3.x Gear4x2</b>	<b>Form Factor</b>	UFS 3.1
	<b>Capacity</b>	128GB
	<b>NAND Type</b>	TLC
	<b>Interface</b>	SCSI
	<b>Maximum Sequential Read</b>	1000MB/s
	<b>Maximum Sequential Write</b>	200MB/s
	<b>Logical Blocks</b>	127,984,992,256



### NETWORKING / COMMUNICATION

Intel® AX201 Wi-Fi® 6

Bluetooth® 5.2 Wireless Card  
non-vPro WW MU-MIMO WLAN  
with 2 Antennas <sup>1</sup>

#### Interoperability

Wi-Fi certified

#### Wireless LAN Standards

IEEE 802.11a  
IEEE 802.11b  
IEEE 802.11g  
IEEE 802.11n  
IEEE 802.11ac  
IEEE 802.11ax  
IEEE 802.11d  
IEEE 802.11e  
IEEE 802.11h  
IEEE 802.11i  
IEEE 802.11k  
IEEE 802.11r  
IEEE 802.11v

#### Frequency Band

- 802.11b/g/n/ax  
2.402 – 2.482 GHz
- 802.11a/n/ac/ax  
4.9 – 4.95 GHz (Japan)  
5.15 – 5.25 GHz  
5.25 – 5.35 GHz  
5.47 – 5.725 GHz  
5.825 – 5.850 GHz

#### Data Rates

- 802.11b: 1, 2, 5.5, 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11n: max 300Mbps
- 802.11ac : 1733Mbps
- 802.11ax : max 2.4Gbps

#### Modulation

Direct Sequence Spread Spectrum  
OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM

#### Security <sup>2</sup>

- 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
- WPA3 certification



<b>Network Architecture Models</b>	<ul style="list-style-type: none"> <li>• IEEE 802.11i</li> <li>• WAPI</li> </ul> <p>Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)</p>
<b>Roaming</b>	IEEE 802.11 compliant roaming between access points
<b>Output Power</b> <sup>3</sup>	<ul style="list-style-type: none"> <li>• 802.11b : +17dBm minimum</li> <li>• 802.11g : +16dBm minimum</li> <li>• 802.11a : +17dBm minimum</li> <li>• 802.11n HT20(2.4GHz) : +14dBm minimum</li> <li>• 802.11n HT40(2.4GHz) : +13dBm minimum</li> <li>• 802.11n HT20(5GHz) : +14dBm minimum</li> <li>• 802.11n HT40(5GHz) : +13dBm minimum</li> <li>• 802.11ac VHT80(5GHz) : +10dBm minimum</li> <li>• 802.11ac VHT160(5GHz) : +10dBm minimum</li> <li>• 802.11ax HE40(2.4GHz) : +12dBm minimum</li> <li>• 802.11ax HE80(5GHz) : +10dBm minimum</li> <li>• 802.11ax HE160(5GHz) : +10dBm minimum</li> </ul>
<b>Power Consumption</b>	<ul style="list-style-type: none"> <li>• Transmit mode: 2.0W</li> <li>• Receive mode: 1.6W</li> <li>• Idle mode (PSP): 180mW (WLAN Associated)</li> <li>• Idle mode: 50mW (WLAN Unassociated)</li> <li>• Connected Standby: 10mW</li> <li>• Radio disabled: 8mW</li> </ul>
<b>Power Management</b>	ACPI and PCI Express compliant power management
<b>Receiver Sensitivity</b> <sup>4</sup>	<p>802.11 compliant power saving mode</p> <ul style="list-style-type: none"> <li>• 802.11b, 1Mbps : -93.5dBm maximum</li> <li>• 802.11b, 11Mbps : -84dBm maximum</li> <li>• 802.11a/g, 6Mbps : -86dBm maximum</li> <li>• 802.11a/g, 54Mbps : -72dBm maximum</li> <li>• 802.11n, MCS07 : -67dBm maximum</li> <li>• 802.11n, MCS15 : -64dBm maximum</li> <li>• 802.11ac, MCS0(VHT80) : -84dBm maximum</li> <li>• 802.11ac, MCS9(VHT80) : -59dBm maximum</li> <li>• 802.11ac, MCS9(VHT160) : -58.5dBm maximum</li> <li>• 802.11ax, MCS11(HE40): -57dBm maximum</li> <li>• 802.11ax, MCS11(HE80): -54dBm maximum</li> <li>• 802.11ax, MCS11(HE160): -53.5dBm maximum</li> </ul>
<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 with CNVi Interface
<b>Dimensions</b>	1. Type 2230 : 2.3 x 22.0 x 30.0 mm 2. Type 1216: 1.67 x 12.0 x 16.0 mm
<b>Weight</b>	1. Type 2230 : 2.8g 2. Type 1216: 1.3g
<b>Operating Voltage</b>	3.3v +/- 9%
<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 Off – Radio ON
<b>HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2 Wireless Card Technology</b>	
<b>Bluetooth Specification</b>	4.0/4.1/4.2/5.0/5.1/5.2 Compliant
<b>Frequency Band</b>	2402 to 2480 MHz
<b>Number of Available Channels</b>	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
<b>Data Rates and Throughput</b>	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)
<b>Transmit Power</b>	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR.
<b>Power Consumption</b>	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
<b>Bluetooth Software Supported Link Topology</b>	Microsoft Windows Bluetooth Software

1. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.

Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.

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



3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.

4.Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

**Realtek RTL8852BE-VT  
802.11ax 2x2 Wi-Fi + BT5.4  
Wireless Card  
(802.11ax 2x2, supporting  
gigabit data rate)<sup>1</sup>**

### Wireless LAN Standards

IEEE 802.11a  
IEEE 802.11ac  
IEEE 802.11ax  
IEEE 802.11b  
IEEE 802.11d  
IEEE 802.11e  
IEEE 802.11g  
IEEE 802.11h  
IEEE 802.11i  
IEEE 802.11k  
IEEE 802.11n  
IEEE 802.11r  
IEEE 802.11v

### Interoperability

Wi-Fi certified

### Frequency Band

- 802.11b/g/n/ax  
2.402 – 2.482 GHz
- 802.11a/n/ac/ax  
4.9 – 4.95 GHz (Japan)  
5.15 – 5.25 GHz  
5.25 – 5.35 GHz  
5.47 – 5.725 GHz  
5.825 – 5.850 GHz

### Data Rates

- 802.11b: 1, 2, 5.5, 11 Mbps
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- 802.11n: max 300Mbps
- 802.11ac : max 866.7Mbps
- 802.11ax : max 1201Mbps

### Modulation

Direct Sequence Spread Spectrum, OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM

### Security<sup>2</sup>

- IEEE and WiFi certified 64 / 128 bit WEP encryption for a/b/g mode only
- AES-CCMP: 128 bit in hardware
- 802.1x authentication
- WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.
- WPA2 certification
- WPA3 certification
- IEEE 802.11i
- WAPI

### Network Architecture Models

Ad-hoc (Peer to Peer)



	Infrastructure (Access Point Required)
<b>Roaming</b>	IEEE 802.11 compliant roaming between access points
<b>Output Power<sup>3</sup></b>	<ul style="list-style-type: none"> <li>• 802.11b : +18.5dBm minimum</li> <li>• 802.11g : +17.5dBm minimum</li> <li>• 802.11a : +18.5dBm minimum</li> <li>• 802.11n HT20(2.4GHz) : +15.5dBm minimum</li> <li>• 802.11n HT40(2.4GHz) : +14.5dBm minimum</li> <li>• 802.11n HT20(5GHz) : +15.5dBm minimum</li> <li>• 802.11n HT40(5GHz) : +14.5dBm minimum</li> <li>• 802.11ac VHT80(5GHz) : +11.5dBm minimum</li> <li>• 802.11ax HE40(2.4GHz) : +10dBm minimum</li> <li>• 802.11ax HE80(5GHz) : +10dBm minimum</li> </ul>
<b>Power Consumption</b>	<ul style="list-style-type: none"> <li>• Transmit mode : 2.5 W</li> <li>• Receive mode : 2.0 W</li> <li>• Idle mode (PSP) : 180 mW (WLAN Associated)</li> <li>• Idle mode: 50 mW (WLAN unassociated)</li> <li>• Connected Standby/Modern Standby : 10 mW</li> <li>• Radio disabled : 8 mW</li> </ul>
<b>Power Management</b>	• ACPI and PCI Express compliant power management
<b>Receiver Sensitivity<sup>4</sup></b>	<ul style="list-style-type: none"> <li>• 802.11b, 1Mbps : -93.5dBm maximum</li> <li>• 802.11b, 11Mbps : -84dBm maximum</li> <li>• 802.11a/g, 6Mbps : -86dBm maximum</li> <li>• 802.11a/g, 54Mbps : -72dBm maximum</li> <li>• 802.11n, MCS07 : -67dBm maximum</li> <li>• 802.11n, MCS15 : -64dBm maximum</li> <li>• 802.11ac, MCS0 : -84dBm maximum</li> <li>• 802.11ac, MCS9 : -59dBm maximum</li> <li>• 802.11ax, MCS11(HE40): -57dBm maximum</li> <li>• 802.11ax, MCS11(HE80): -54dBm maximum</li> </ul>
<b>Antenna type</b>	High efficiency antenna with spatial diversity. 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>	30.00 x 22.00 x 2.30 mm (1.18 x 0.87 x 0.09 inch)
<b>Weight</b>	Type 2230 : 2.4 x 22.0 x 30.0 mm 1. Type 2230: 2.8 g
<b>Operating Voltage</b>	3.3 v +/- 9 %

### HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0/5.1/5.2/5.3/5.4 Wireless Card Technology

<b>Frequency Band</b>	2402 to 2480 MHz
<b>Number of Available Channels</b>	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
<b>Data Rates and Throughput</b>	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)



<b>Transmit Power</b>	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.
<b>Power Consumption</b>	Peak (Tx): 330 mW Peak (Rx): 230 mW Selective Suspend: 17 mW
<b>Certifications</b>	FCC (47 CFR) Part 15C/E, Section 15.247, 15.249
<b>Bluetooth Profiles Supported</b>	ETSI 300 328, ETSI 301 893  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) BT5.1 ESR9/10 Compliance LE Advertisement Extensions Channel Selection Algo Limited High Duty Cycle Non-Connectable Advertising 2Mbps LE LE Long Range

1. Wi-Fi 6 is designed to support gigabit data rate when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 80MHz and higher channels.  
Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. Wi-Fi 6 (802.11ax) is backwards compatible with prior 802.11 specs.
2. Check latest software/driver release for updates on supported security features.
3. The FCC has declared as of September 1, 2014 products that utilize passive scanning on channel 12/13 and are capable of transmitting must fully comply with requirements of 15.247 or otherwise disable those channels.
4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).



<b>Realtek RTL8111HSH 10/100/1000 Integrated NIC</b>	<b>Connector</b> <b>System Interface</b> <b>Data rates supported</b>	RJ-45 PCI (Intel proprietary) + SMBus 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 802.3 clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s
	<b>IEEE Compliance</b>	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)
	<b>Performance</b>	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload (ARP & NS) Large send offload and Giant send offload Receiving Side Scaling Jumbo Frame 9K
	<b>Power consumption</b>	Cable Disconnection: 25 mW 100Mbps Full Run: 450 mW 1000Mbps Full Run: 1000 mW  WoL Enable(S3/S4/S5): 50 mW WoL Disable(S3/S4/S5): 25 mW
	<b>Power Management</b>	ACPI compliant – multiple power modes Situation-sensitive features reduce power consumption Advanced link down power saving for reducing link down power consumption
	<b>Management Interface IT Manageability</b>	Auto MDI/MDIX Crossover cable detection Wake-on-LAN from modern standby or sleep state (Magic Packet and Microsoft Wake-Up Frame) Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Virtual Cable Doctor for Ethernet cable status



<b>POWER</b>		
<b>HP 45W 4.5 mm nPFC Right Angle Smart (3-pin) AC Power Adapter</b>	<b>Weight (DC Cable Included)</b> <b>Input</b> <b>Input Efficiency</b> <b>Input frequency range</b> <b>Input AC current</b> <b>Output power</b> <b>DC output</b> <b>Hold-up time</b> <b>Output current limit</b> <b>Connector</b> <b>Environmental Design</b> <b>Operating temperature</b> <b>Non-operating (storage) temperature</b> <b>Altitude</b> <b>Humidity</b> <b>Storage Humidity</b> <b>EMI and Safety Certifications</b>	170g(+/-10g) 100~240VAC 87.74 % at 115 Vac and 88.4 % at 230Vac 47 ~ 63Hz Max. 1.4 A at 90 Vac 45W 5V/9V/12V/15V 100% load 5ms at 115 Vac input/80% load 10ms at 115 Vac input < 8.0A C6  32° F to 95° F (0° to 35° C) -4° F to 185° F (-20° to 85° C)  0 to 16,400 ft (0 to 5000m) 20% to 95% 10% to 95% CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia GEMS and RCM, BIS, BSMI, UAE, UKCA DoC
<b>HP 65W 4.5 mm nPFC Right Angle Smart (3-pin) AC Power Adapter</b>	<b>Weight (DC Cable Included)</b> <b>Input</b> <b>Input Efficiency</b> <b>Input frequency range</b> <b>Input AC current</b> <b>Output power</b> <b>DC output</b> <b>Hold-up time</b> <b>Output current limit</b> <b>Connector</b> <b>Environmental Design</b> <b>Operating temperature</b> <b>Non-operating (storage) temperature</b> <b>Altitude</b> <b>Humidity</b> <b>Storage Humidity</b>	250g(+/-10g) 100-240Vac 88 % at 115 Vac and 89 % at 230Vac 47-63Hz Max. 1.7 A at 90 Vac 65 W 19.5V 100% load 5ms at 115 Vac input/80% load 10ms at 115 Vac input < 11.0A C6  32° F to 95° F (0° to 35° C) -4° F to 185° F (-20° to 85° C)  0 to 16,400 ft (0 to 5000m) 20% to 95% 10% to 95%



**AC Adapter 65 Watt nPFC  
Standard USB type C Straight  
1.8m**

<b>EMI and Safety Certifications</b>	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL62368-1 Agency approvals - C-UL-US, TUV/GS, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, BIS, UKCA DoC
<b>Weight (DC Cable Included)</b>	220g(+/-10g) (Not including power cord. Power cord varies by country.)
<b>Input</b>	100-240Vac
<b>Input Efficiency</b>	81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
<b>Input frequency range</b>	47-63Hz
<b>Input AC current</b>	Max. 1.6 A at 90 Vac
<b>Output power</b>	5V/15W 9V/27W 12V/60W 15V/65W 20V/65W
<b>DC output</b>	5V/9V/12V/15V/20V
<b>Hold-up time</b>	100% load 5ms at 115 Vac input
<b>Output current limit</b>	< 8.0A
<b>Connector</b>	C6
<b>Environmental Design</b>	
<b>Operating temperature</b>	32° F to 95° F (0° to 35° C)
<b>Non-operating (storage) temperature</b>	-4° F to 185° F (-20° to 85° C)
<b>Altitude</b>	0 to 16,400 ft (0 to 5000m)
<b>Humidity</b>	20% to 95%
<b>Storage Humidity</b>	10% to 95%
<b>EMI and Safety Certifications</b>	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC



**HP 65W Standard USB-C  
Halogen Free Straight AC  
Power Adapter**

<b>Weight (DC Cable Included)</b>	220g(+/-10g) (Not including power cord. Power cord varies by country.)
<b>Input</b>	100-240Vac
<b>Input Efficiency</b>	81.50% min at 115 Vac/ 230 Vac @5.00V 86.70% min at 115 Vac/ 230 Vac @9.00V 88.00% min at 115 Vac/ 230 Vac @12.00V 89.00% min at 115 Vac/ 230 Vac @15.00V 89.00% min at 115 Vac/ 230 Vac @20.00V
<b>Input frequency range</b>	47-63Hz
<b>Input AC current</b>	Max. 1.6 A at 90 Vac
<b>Output power</b>	5V/15W 9V/27W 12V/60W 15V/65W 20V/65W
<b>DC output</b>	5V/9V/12V/15V/20V
<b>Hold-up time</b>	100% load 5ms at 115 Vac input
<b>Output current limit</b>	< 8.0A
<b>Connector</b>	C6
<b>Environmental Design</b>	
<b>Operating temperature</b>	32° F to 95° F (0° to 35° C)
<b>Non-operating (storage) temperature</b>	-4° F to 185° F (-20° to 85° C)
<b>Altitude</b>	0 to 16,400 ft (0 to 5000m)
<b>Humidity</b>	20% to 95%
<b>Storage Humidity</b>	10% to 95%
<b>EMI and Safety Certifications</b>	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL 62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia RCM, BIS, BSMI, UAE, UKCA DoC

**HP 65W 4.5 mm nPFC Right  
Angle Smart (3-pin) AC Power  
Adapter**

<b>Weight (DC Cable Included)</b>	225g(+/-10g) (Not including power cord. Power cord varies by country.)
<b>Input</b>	100-240Vac
<b>Input Efficiency</b>	88 % at 115 Vac and 89 % at 230Vac
<b>Input frequency range</b>	47-63Hz
<b>Input AC current</b>	Max. 1.7 A at 90 Vac
<b>Output power</b>	65W
<b>DC output</b>	19.5V
<b>Hold-up time</b>	100% load 5ms at 115 Vac input/80% load 10ms at 115 Vac input



<b>Output current limit</b>	< 11.0A
<b>Connector</b>	C6
<b>Environmental Design</b>	
<b>Operating temperature</b>	32° F to 95° F (0° to 35° C)
<b>Non-operating (storage) temperature</b>	-4° F to 185° F (-20° to 85° C)
<b>Altitude</b>	0 to 16,400 ft (0 to 5000m)
<b>Humidity</b>	20% to 95%
<b>Storage Humidity</b>	10% to 95%
<b>EMI and Safety Certifications</b>	CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950-1 and IEC62368-1 : 2018, EN62368-1:2014+A11, UL62368-1 Agency approvals - C-UL-US, TUV/GS, TUV/PSE, EN55032 Class B, FCC Class B, CISPR32 Class B, CCC and CECP, CU(EAC), EAEU, KCC(Safety+EMC) and K-MEPS, NOM-001 and 029 NYCE, NRcan, NRCS, ISC, SEC, PSB, Argentina S-mark, Australia GEMS and RCM, BIS, BSMI, UAE, UKCA DoC

### Battery HW 3 Cell WHr 41 Long Life -PR+PL Fast Charge

<b>Weight</b>	175g
<b>Cells/Type</b>	3S1P / Polymer cell
<b>Energy</b>	
<b>Voltage</b>	11.34V / 11.28V
<b>Amp-hour capacity</b>	3620mAh / 4635mAh
<b>Watt-hour capacity</b>	41Whr
<b>Temperature</b>	
<b>Operating (Charging)</b>	32° to 113° F (0° to 45° C) (Charge Initial Temperature) 32° to 122° F (0° to 50° C) (Continuous Charging)
<b>Operating (Discharging)</b>	14° to 140° F (-10° to 60° C)
<b>Optional Travel Battery Available</b>	No



### AUDIO

Codec	Realtek ALC3247-CG
Sampling	DAC: Supports resolutions from 16 bit to 24 bit; 44.1 kHz to 48 kHz ADC: Supports resolutions from 16 bit to 24 bit; 44.1 kHz to 48 kHz
Internal Speaker	Yes

---



---

### FINGERPRINT READER

<b>Sensor vendor</b>	Elan eFSA80ST touch sensor
<b>Sensor type</b>	Capacitive
<b>DPI resolution</b>	508 DPI
<b>Scan area</b>	80 x 80 pixels
<b>False Rejection Rate</b>	~ 2%
<b>False Acceptance Rate</b>	1:50K FAR
<b>Mobile Voltage Operation</b>	2.6 V ~ 3.6 V
<b>Operating Temperature</b>	0°C ~ 35°C (32°F ~ 95°F)
<b>Current Consumption Image</b>	50 mA max
<b>Low Latency Wait For Finger</b>	900 uA
<b>Capture Rate</b>	20 frames/sec
<b>ESD Resistance</b>	IEC 61000-4-2 4B (+15KV)
<b>Detection Matrix</b>	508 dpi / 4.0 x 4.0 mm sensor area

---



### OPTIONS

Category	Description	Part Number
Adapter	HP HDMI to VGA Adapter	H4F02AA
	HP USB 3.0 to Gigabit RJ45 Adapter G2	4Z7Z7AA
	HP USB-C to DisplayPort Adapter G2	8Y8Y1AA
	HP USB-C to HDMI 2.0 Adapter	1WC36AA
	HP USB-C to RJ45 Adapter G2	4Z527AA
	HP USB-C to USB 3.0 Adapter	N2Z63AA
	HP USB-C to VGA Adapter	N9K76AA
Audio	Poly Voyager Free 60 Carbon Black Earbuds +Basic Charge Case	7Y8M2AA
	Poly Voyager Free 60 UC Black Earbuds +BT700 USB-C Adapter +Basic Charge Case	7Y8M0AA
	Poly Voyager Free 60 UC Carbon Black Earbuds +BT700 USB-A Adapter +Basic Charge Case	7Y8H3AA
	Poly Voyager Free 60 UC Carbon Black Earbuds +BT700 USB-C Adapter +Basic Charge Case	7Y8H4AA
	Poly Voyager Free 60 UC M Carbon Black Earbuds +BT700 USB-A Adapter +Basic Charge Case	7Y8L7AA
	Poly Voyager Free 60 UC M Carbon Black Earbuds +BT700 USB-C Adapter +Basic Charge Case	7Y8L8AA
	Poly Voyager Free 60 UC M White Sand Earbuds +BT700 USB-A Adapter +Basic Charge Case	7Y8L5AA
	Poly Voyager Free 60 UC M White Sand Earbuds +BT700 USB-C Adapter +Basic Charge Case	7Y8L6AA
	Poly Voyager Free 60 UC White Sand Earbuds +BT700 USB-A Adapter +Basic Charge Case	7Y8L3AA
	Poly Voyager Free 60 UC White Sand Earbuds +BT700 USB-C Adapter +Basic Charge Case	7Y8L4AA
	Poly Voyager Free 60+ UC Carbon Black Earbuds +BT700 USB-A Adapter +Touchscreen Charge Case	7Y8G3AA
	Poly Voyager Free 60+ UC Carbon Black Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8G4AA,7Y8H2AA
	Poly Voyager Free 60+ UC M Carbon Black Earbuds +BT700 USB-A Adapter +Touchscreen Charge Case	7Y8G9AA
	Poly Voyager Free 60+ UC M Carbon Black Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8H0AA
	Poly Voyager Free 60+ UC M White Sand Earbuds +BT700 USB-A Adapter +Touchscreen Charge Case	7Y8G7AA
	Poly Voyager Free 60+ UC M White Sand Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8G8AA
	Poly Voyager Free 60+ UC White Sand Earbuds +BT700 USB-A Adapter +Touchscreen Charge Case	7Y8G5AA
	Poly Voyager Free 60+ UC White Sand Earbuds +BT700 USB-C Adapter +Touchscreen Charge Case	7Y8G6AA



+Touchscreen Charge Case	
Poly Voyager Free 60/60+ Black Earbuds (2 Pieces)	8L649AA,8L5A6AA
Poly Voyager Free 60/60+ Microsoft Teams Certified Black Earbuds (2 Pieces)	8L5A8AA
Poly Voyager Free 60/60+ Microsoft Teams Certified White Earbuds (2 Pieces)	8L5B0AA
Poly Voyager Free 60/60+ White Earbuds (2 Pieces)	8L5B1AA,8L650AA
Poly Blackwire 3210 Monaural USB-C Headset +USB-C/A Adapter	8X214AA
Poly Blackwire 3215 Monaural USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X227AA
Poly Blackwire 3220 Stereo USB-C Headset +USB-C/A Adapter	93S87AA,8X228AA
Poly Blackwire 3310 Monaural Microsoft Teams Certified USB-C Headset +USB-C/A Adapter	8X216AA
Poly Blackwire 3310 Monaural USB-C Headset +USB-C/A Adapter	8X215AA
Poly Blackwire 3315 Monaural Microsoft Teams Certified USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X218AA
Poly Blackwire 3315 Monaural USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X217AA
Poly Blackwire 3320 Stereo Microsoft Teams Certified USB-C Headset +USB-C/A Adapter	8X220AA
Poly Blackwire 3320 Stereo USB-C Headset +USB-C/A Adapter	8X219AA
Poly Blackwire 3325 Stereo Microsoft Teams Certified USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X222AA
Poly Blackwire 3325 Stereo USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X221AA
Poly Blackwire 5210 Monaural USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X230AA
Poly Blackwire 5220 Stereo USB-C Headset +3.5mm Plug +USB-C/A Adapter	8X231AA,93S88AA
Poly Blackwire 8225 Stereo Microsoft Teams Certified USB-C Headset +USB-C/A Adapter	8X225AA
Poly Blackwire 8225 Stereo USB-C Headset +USB-C/A Adapter	8X223AA
Poly EncorePro 310 Monaural USB-A Headset	767G1AA
Poly EncorePro 310 Monoaural with Quick Disconnect Headset	77T43AA
Poly EncorePro 310 USB-C Monoaural Headset	760Q8AA
Poly EncorePro 320 Stereo USB-A Headset	767G0AA
Poly EncorePro 320 Stereo USB-C Headset	767F9AA
Poly EncorePro 320 with Quick Disconnect Binaural Headset	77T26AA
Poly EncorePro 510 Monaural Headset +Quick Disconnect	783Q2AA
Poly EncorePro 515 Microsoft Teams Certified Monoaural with USB-A Headset	783R1AA
Poly EncorePro 515 Monoaural with USB-A Headset	783R0AA
Poly EncorePro 520 Binaural Headset +Quick Disconnect	783P7AA
Poly EncorePro 525 Microsoft Teams Certified Stereo with USB-A Headset	783R2AA
Poly EncorePro 525 USB-A Stereo Headset	783R3AA
Poly EncorePro 530 Headset +Quick Disconnect	783P3AA



Poly EncorePro 540 Convertible Headset +Quick Disconnect	783P1AA
Poly EncorePro 715 USB-A Monoaural Headset	783N5AA
Poly EncorePro 720 Binaural Headset +Quick Disconnect	8R707AA
Poly EncorePro 725 USB-A Stereo Headset	783M6AA
Poly EncorePro HW710 Single Ear Headset +Carry Case +Quick Disconnect	8R708AA
Poly Savi 7210 Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ)	8D3G9AA
Poly Savi 7210 Office DECT 1920-1930 MHz Single Ear Headset (NA)	7W6D4AA
Poly Savi 7220 Office Binaural DECT 1880-1900 MHz Headset (EMEA + APJ)	8D3G8AA
Poly Savi 7220 Office Binaural DECT 1920-1930 MHz Headset (NA)	7W6D5AA
Poly Savi 7310 Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ)	8D3G3AA
Poly Savi 7310 Office DECT 1910-1920 MHz Single Ear Headset (NA)	8D3G5AA
Poly Savi 7310 Office Monoaural DECT 1920-1930 MHz Headset (NA)	7S430AA
Poly Savi 7310 UC Monoaural DECT 1880-1900 MHz Headset (EMEA + APJ)	8L561AA
Poly Savi 7310 UC Monoaural DECT 1893-1906 MHz Headset (Japan)	8L565AA
Poly Savi 7310 UC Monoaural DECT 1910-1920 MHz Headset (NA)	8L566AA
Poly Savi 7310 UC Monoaural DECT 1920-1930 MHz Headset (NA)	8L570AA
Poly Savi 7310 UC Monoaural Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L575AA
Poly Savi 7310 UC Monoaural Microsoft Teams Certified DECT 1893-1906 MHz Headset (Japan)	8L578AA
Poly Savi 7310 UC Monoaural Microsoft Teams Certified DECT 1910-1920 MHz Headset (NA)	8L581AA
Poly Savi 7310 UC Monoaural Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L585AA
Poly Savi 7310-M Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ)	8D3K7AA
Poly Savi 7310-M Office DECT 1893-1906 MHz Single Ear Headset (Japan)	8D3K9AA
Poly Savi 7310-M Office DECT 1910-1920 MHz Single Ear Headset (NA)	8D3L0AA
Poly Savi 7310-M Office DECT 1920-1930 MHz Single Ear Headset (NA)	7S439AA
Poly Savi 7320 Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8D3F7AA
Poly Savi 7320 Office Stereo DECT 1893-1906 MHz Headset (Japan)	8D3F8AA
Poly Savi 7320 Office Stereo DECT 1910-1920 MHz Headset (NA)	8D3G0AA
Poly Savi 7320 Office Stereo DECT 1920-1930 MHz Headset (NA)	7S429AA
Poly Savi 7320 UC Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8L545AA
Poly Savi 7320 UC Stereo DECT 1893-1906 MHz Headset (Japan)	8L546AA
Poly Savi 7320 UC Stereo DECT 1910-1920 MHz Headset (NA)	8L548AA
Poly Savi 7320 UC Stereo DECT 1920-1930 MHz Headset (NA)	8L549AA
Poly Savi 7320 UC Stereo Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L553AA
Poly Savi 7320 UC Stereo Microsoft Teams Certified DECT 1893-1906 MHz Headset (Japan)	8L555AA
Poly Savi 7320 UC Stereo Microsoft Teams Certified DECT 1910-1920 MHz	8L557AA



Headset (NA)	
Poly Savi 7320 UC Stereo Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L559AA
Poly Savi 7320-M Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8D3J6AA
Poly Savi 7320-M Office Stereo DECT 1893-1906 MHz Headset (Japan)	8D3K2AA
Poly Savi 7320-M Office Stereo DECT 1910-1920 MHz Headset (NA)	8D3K0AA
Poly Savi 7320-M Office Stereo DECT 1920-1930 MHz Headset (NA)	7S435AA
Poly Savi 7410 Office Monaural DECT 1880-1900 MHz Headset (EMEA + APJ)	8L589AA
Poly Savi 7410 Office Monaural DECT 1893-1906 MHz Headset (Japan)	8L591AA
Poly Savi 7410 Office Monaural DECT 1910-1920 MHz Headset (NA)	8L592AA
Poly Savi 7410 Office Monaural DECT 1920-1930 MHz Headset (NA)	8L7D5AA
Poly Savi 7410 Office Monaural Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L593AA
Poly Savi 7410 Office Monaural Microsoft Teams Certified DECT 1893-1906 MHz Headset (Japan)	8L594AA
Poly Savi 7410 Office Monaural Microsoft Teams Certified DECT 1910-1920 MHz Headset (NA)	8L597AA
Poly Savi 7410 Office Monaural Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L7D7AA
Poly Savi 7420 Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8L560AA
Poly Savi 7420 Office Stereo DECT 1893-1906 MHz Headset (Japan)	8L563AA
Poly Savi 7420 Office Stereo DECT 1910-1920 MHz Headset (NA)	8L564AA
Poly Savi 7420 Office Stereo DECT 1920-1930 MHz Headset (NA)	8L567AA
Poly Savi 7420 Office Stereo Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L574AA
Poly Savi 7420 Office Stereo Microsoft Teams Certified DECT 1893-1906 MHz Headset (Japan)	8L576AA
Poly Savi 7420 Office Stereo Microsoft Teams Certified DECT 1910-1920 MHz Headset (NA)	8L579AA
Poly Savi 7420 Office Stereo Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L583AA
Poly Savi 8210 Office DECT 1880-1890 MHz Single Ear Headset (EMEA + APJ)	8D3K3AA
Poly Savi 8210 Office DECT 1880-1900 MHz Single Ear Headset (EMEA + APJ)	8D3K5AA
Poly Savi 8210 Office DECT 1910-1920 MHz Single Ear Headset (NA)	8D3K6AA
Poly Savi 8210 Office DECT 1920-1930 MHz Single Ear Headset (NA)	7S445AA
Poly Savi 8210 UC DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3E9AA
Poly Savi 8210 UC DECT 1920-1930 MHz USB-A Headset (NA)	77T29AA
Poly Savi 8210 UC Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3F1AA
Poly Savi 8210 UC Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA)	77T31AA
Poly Savi 8210-M Office DECT 1880-1900 MHz Single Ear Headset (EMEA +	8D3J8AA



APJ)	
Poly Savi 8210-M Office DECT 1910-1920 MHz Single Ear Headset (NA)	8D3K1AA
Poly Savi 8210-M Office DECT 1920-1930 MHz Single Ear Headset (NA)	7S447AA
Poly Savi 8220 Office Stereo DECT 1880-1890 MHz Headset (EMEA + APJ)	8D3J1AA
Poly Savi 8220 Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8D3J2AA
Poly Savi 8220 Office Stereo DECT 1910-1920 MHz Headset (NA)	8D3J4AA
Poly Savi 8220 Office Stereo DECT 1920-1930 MHz Headset (NA)	7S4B5AA
Poly Savi 8220 Stereo DECT 1880-1900 MHz Top +Charging Cradle (EMEA + APJ)	8Y9C4AA
Poly Savi 8220 UC DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3F2AA
Poly Savi 8220 UC DECT 1920-1930 MHz USB-A Headset (NA)	77T33AA
Poly Savi 8220 UC Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3F5AA
Poly Savi 8220 UC Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA)	77Y82AA
Poly Savi 8220-M Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8D3H8AA
Poly Savi 8220-M Office Stereo DECT 1910-1920 MHz Headset (NA)	8D3J0AA
Poly Savi 8220-M Office Stereo DECT 1920-1930 MHz Headset (NA)	7S4B6AA
Poly Savi 8245 DECT 1880-1900 MHz Headset +USB-A to USB-C Cable +D400 (EMEA + APJ)	8D3H2AA
Poly Savi 8245 Office DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3H1AA
Poly Savi 8245 Office DECT 1910-1920 MHz USB-A Headset (NA)	8Q005AA
Poly Savi 8245 Office DECT 1920-1930 MHz USB-A Headset (NA)	7W6D1AA
Poly Savi 8245-M Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset +D200 (EMEA + APJ)	8D3F4AA
Poly Savi 8245-M Office Microsoft Teams Certified DECT 1880-1900 MHz USB-A Headset (EMEA + APJ)	8D3H7AA
Poly Savi 8245-M Office Microsoft Teams Certified DECT 1910-1920 MHz USB-A Headset (NA)	8Q006AA
Poly Savi 8245-M Office Microsoft Teams Certified DECT 1920-1930 MHz USB-A Headset (NA)	7W069AA
Poly Savi 8410 Office Monaural DECT 1880-1900 MHz Headset (EMEA + APJ)	8L5A7AA
Poly Savi 8410 Office Monaural DECT 1920-1930 MHz Headset (NA)	8L7E6AA
Poly Savi 8410 Office Monaural Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L5A9AA
Poly Savi 8410 Office Monaural Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L7E9AA
Poly Savi 8420 Office Stereo DECT 1880-1900 MHz Headset (EMEA + APJ)	8L5B2AA
Poly Savi 8420 Office Stereo DECT 1920-1930 MHz Headset (NA)	8L7F2AA
Poly Savi 8420 Office Stereo Microsoft Teams Certified DECT 1880-1900 MHz Headset (EMEA + APJ)	8L5B3AA
Poly Savi 8420 Office Stereo Microsoft Teams Certified DECT 1920-1930 MHz Headset (NA)	8L7F5AA
Poly Savi 8445 Office DECT 1880-1900 MHz Convertible Headset (EMEA +	8L5B4AA



APJ)	
Poly Savi 8445 Office DECT 1910-1920 MHz Convertible Headset (NA)	8L5B5AA
Poly Savi 8445 Office DECT 1920-1930 MHz Convertible Headset (NA)	8L7F8AA
Poly Savi 8445 Office Microsoft Teams Certified DECT 1880-1890 MHz Convertible Headset (EMEA + APJ)	8L5B7AA
Poly Savi 8445 Office Microsoft Teams Certified DECT 1880-1900 MHz Convertible Headset (EMEA + APJ)	8L5B6AA
Poly Savi 8445 Office Microsoft Teams Certified DECT 1910-1920 MHz Convertible Headset (NA)	8L5B8AA
Poly Savi 8445 Office Microsoft Teams Certified DECT 1920-1930 MHz Convertible Headset (NA)	8L7F1AA
Poly Voyager 4310 Microsoft Teams Certified Headset +BT700 dongle +Charging Stand	77Y93AA
Poly Voyager 4310 Microsoft Teams Certified USB-A Headset +BT700 dongle	77Y91AA
Poly Voyager 4310 Microsoft Teams Certified USB-C Headset +BT700 dongle	77Y95AA
Poly Voyager 4310 UC Monaural Headset +BT700 USB-A Adapter +Charging Stand	77Y92AA
Poly Voyager 4310 USB-A Headset +BT700 dongle	76U48AA
Poly Voyager 4310 USB-C Headset +BT700 dongle +Charging Stand	77Y96AA
Poly Voyager 4310 USB-C Headset +BT700 dongle	77Y94AA
Poly Voyager 4310-M Microsoft Teams Certified USB-C Headset +BT700 dongle +Charging Stand	77Y97AA
Poly Voyager 4310-M UC Headset +USB-A to USB-C Cable +BT700 dongle	7Y210AA
Poly Voyager 4320 Microsoft Teams Certified Headset +BT700 dongle +Charging Stand	77Z00AA
Poly Voyager 4320 Microsoft Teams Certified USB-A Headset +BT700 dongle	77Y98AA
Poly Voyager 4320 Microsoft Teams Certified USB-C Headset +BT700 dongle	77Z30AA
Poly Voyager 4320 UC Stereo USB-A Headset +BT700 USB-A Adapter +Charging Stand	77Y99AA
Poly Voyager 4320 USB-A Headset +BT700 dongle	76U49AA
Poly Voyager 4320 USB-C Headset +BT700 dongle +Charging Stand	77Z31AA
Poly Voyager 4320 USB-C Headset +BT700 dongle	76U50AA
Poly Voyager 4320-M +USB-A to USB-C Cable +BT700 dongle	7Y211AA
Poly Voyager 4320-M Microsoft Teams Certified Headset +BT700 dongle +Charging Stand	77Z32AA
Poly Voyager Focus 2 Microsoft Teams Certified USB-C-C Headset +USB-C/A Adapter +Charging Stand	9T9J6AA
Poly Voyager Focus 2 USB-C-C Headset +USB-C/A Adapter	9T9J3AA
Poly Voyager Focus 2 USB-C-C Headset +USB-C/A Adapter +Charging Stand	9T9J5AA
Poly Voyager Surround 80 UC Microsoft Teams Certified USB-C Black	9D452AA

	Headset +USB-C/A Adapter	
	Poly Voyager Surround 80 UC Microsoft Teams Certified USB-C Headset +USB-C/A Adapter	8H2G3AA,8G7U0AA
	Poly Voyager Surround 80 UC Microsoft Teams Certified USB-C Headset +USB-C/A Adapter Demo	9C6W5AA
	Poly Voyager Surround 80 UC USB-C Headset +USB-C/A Adapter	8G7T9AA
	Poly Voyager Surround 85 UC Microsoft Teams Certified USB-C Headset +USB-C/A Adapter +Charging Stand	8G7T8AA
	Poly Voyager Surround 85 UC USB-C Headset +USB-C/A Adapter +Charging Stand	8G7T7AA
	HP USB G2 Stereo Headset	428K6AA, 428K6PT
Speaker Phone	Poly Sync 10 Microsoft Teams Certified Speakerphone	77P34AA
	Poly Sync 10 Speakerphone +USB-A to USB-C Cable	7S4M6AA
	Poly Sync 10 USB-A USB-C Speakerphone	772C3AA
	Poly Sync 20 Microsoft Teams Certified USB-A Speakerphone	772C8AA
	Poly Sync 20 USB-A Speakerphone	772D2AA
	Poly Sync 20 USB-C Speakerphone	7F0J7AA
	Poly Sync 20+ Microsoft Teams Certified USB-A Speakerphone	772C9AA
	Poly Sync 20+ Microsoft Teams Certified USB-C Speakerphone	772D1AA
	Poly Sync 20+ USB-A Speakerphone	772C6AA
	Poly Sync 20+ USB-C Speakerphone	772D0AA
	Poly Sync 20+M Speakerphone +USB-A to USB-C Cable +BT700 dongle +Pouch	7Y215AA
	Poly Sync 20-M Microsoft Teams Certified USB-C Speakerphone	7F0J8AA
	Poly Sync 20-M Speakerphone +USB-A to USB-C Cable	7S4M1AA
	Poly Sync 40 Microsoft Teams Certified Speakerphone	77P35AA
	Poly Sync 40 USB-A USB-C Speakerphone	772C4AA
	Poly Sync 40+ Microsoft Teams Certified USB-A USB-C Speakerphone +BT700 USB-A Adapter	77P36AA
	Poly Sync 40+ USB-A USB-C Speakerphone +BT700 USB-A Adapter	772C5AA
	Poly Sync 60 Microsoft Teams Certified Speakerphone	77P41AA
	Poly Sync 60 Speakerphone	772C2AA
Cases	HP 115 15.6 Laptop Backpack	8DV45AA
	HP 15.6 Modular Laptop Backpack	9J496AA
	HP 15.6 Modular Laptop Bag	9J497AA
	HP 15.6 Modular Laptop Sleeve	9J498AA
	HP 215 15.6 Laptop Backpack	35L98AA
	HP 225 15.6 Laptop Backpack	2P7U6AA
	HP 235 15.6 Laptop Backpack	35M00AA
	HP 315 15.6 Laptop Backpack	35L97AA
	HP Campus blue Backpack	7K0E5AA
	HP Campus green Backpack	7K0E4AA
	HP Convertible Laptop Stand	9C2H2AA



	HP Everyday 16 odyssey gray Laptop Backpack	A08KLAA
	HP Everyday 16 odyssey gray Laptop Bag	A08KKAA
	HP Everyday 16 odyssey gray Laptop Briefcase	A08KHAA
	HP Prelude 15.6 Backpack	1E7D6AA,50P32AA
	HP Prelude 15.6 Top Load	1E7D7AA,50P31AA
	HP Prelude Pro Recycled 15.6 Backpack	1X644AA
	HP Prelude Pro Recycled 15.6 Top Load	1X645AA
	HP Renew Business 15.6 Laptop Bag	3E5F8AA
	HP Renew Business 17.3 Laptop Backpack	3E2U5AA
	HP Renew Business 17.3 Laptop Bag	3E2U6AA
	HP Renew Executive 16 Laptop Backpack	6B8Y1AA
	HP Renew Executive 16 Laptop Bag	6B8Y2AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D8AA
	HP Travel 15.6 iron gray Laptop Backpack	6H2D9AA
	HP Travel Plus 16 Laptop Bag	A2CE1AA
	HP Travel Plus 17 Laptop Backpack	A2CE0AA
Commodity	HP USB DVD-Writer External ODD	F2B56AA,
Docking	HP USB-C™ 120W G5 Dock	5TW10AA
	HP USB-C™/A 120W G2 Universal Dock	5TW13AA
Hub	HP 4K USB-C Multiport Hub	6G843AA
	HP Universal USB-C Hub and Laptop Charger Combo	9H0H9AA
	HP Universal USB-C Multiport Hub	50H55AA
	HP USB-C to USB-A Hub	Z6A00AA
	HP USB-C Travel Hub G3	86S97AA
Keyboard / Combo	HP 225 Antimicrobial Wired Mouse and Keyboard Combo	286K3AA
	HP 225 Wired Mouse and Keyboard Combo	286J4AA
	HP 225 Wired Mouse and Keyboard Combo	86J24AA
	HP 235 Wireless Mouse and Keyboard Combo	1Y4D0AA
	HP Wired Desktop 320MK Mouse and Keyboard	9SR36AA
	HP 125 Wired Keyboard	266C9AA
	HP 225 Wireless Keyboard	805T1AA
	HP 320K USB Wired Keyboard	9SR37AA
	HP 355 Compact Multi-Device Keyboard	692S9AA
	HP 455 Programmable Wireless Keyboard	4R177AA
Mouse	HP 105 Black Wired Mouse	822M9AA
	HP 105 Mouse Pad	8X595AA
	HP 125 Wired Mouse	265A9AA
	HP 128 Laser Wired Mouse	265D9AA
	HP 155 Wired Mouse	5B8B7AA



---

	HP 205 Desk Mat	8X597AA
	HP 235 Slim Wireless Mouse	4E407AA
	HP 245 Black Bluetooth Mouse	81S67AA
	HP 255 Dual Wireless Mouse	8R3U1AA
	HP 285 Silent Wireless Mouse	6G4E6AA
	HP 320M Wired Mouse	9VA80AA
	HP 425 Programmable Wireless Mouse	7M1D5AA
	HP 435 Multi-Device Wireless Mouse	3B4Q5AA
	HP 515 Ultra-Fast Rechargeable Wireless Mouse	9C2F7AA
	HP 685 Comfort Dual-Mode Mouse	8T6M0AA
	HP 695 Qi-Charging Wireless Mouse	8F1Y4AA
Power	HP 65W LC USB-C AC power adapter	1P3K6AA
	HP 65W Smart 4.5 mm AC power adapter	H6Y89AA

---

### CHANGELOG

Date of change	Version History		Description of change
February 24, 2025	V1 to V2	Added	Storage Section
April 1, 2025	V2 to V3	Updated	Software And Security
October 17, 2025	V3 to V4	Updated	Processor Section

© Copyright 2025 HP Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Core, Thunderbolt and Intel vPro are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries. USB Type-C® and USB-C® are trademarks of USB Implementers Forum. ENERGY STAR is a registered trademark of the U.S. Environmental Protection Agency. Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

