



## HP ProBook 450 G5 Notebook PC (3GG60PA)

Active as of 27/11/2017



### Overview

#### Power, style and value, just what your growing business needs.

Full-featured, thin, and light, the HP ProBook 450 lets professionals stay productive in the office and on the go. Stylish design, linear precision, and subtle curvature plus optional Quad Core<sup>2</sup> performance and long battery life make this ProBook essential for today's workforce.

Help keep professionals productive in the office or on the go with style, performance and long battery life on the HP ProBook 450.

#### Powerful processing

Get through your deadline-driven, multitasking day with optional 7th Gen Intel® Core™ i3<sup>3</sup> or 8th Gen Core™ i5/i7 Quad Core™ processors<sup>2</sup> and optional NVIDIA® GeForce® discrete graphics<sup>4</sup>.

#### Stylish and durable ultraslim design

The HP ProBook 450 delivers stylish design to every business. An ultraslim chassis in a refined new natural silver finish includes a keyboard deck made of durable premium stamped aluminum.

#### Designed for docking

Quickly transition to desktop productivity with a single cable that supports docking via USB-C™ which allows you to connect multiple external displays<sup>4</sup>, a power source, and a gigabit network connection through optional docks<sup>4</sup>.

#### Immersive experience

Experience vivid audio engagement and an easy conferencing experience with the Skype for Business™ Certified HP ProBook 450 with HP Audio Boost, HP Noise Cancellation.

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### Specifications

#### Operating system

Windows 10 Home 64

#### Processor family

8th Generation Intel® Core™ i5 processor

#### Processor

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)

#### MDA key selling point

Windows 10 Home 64

#### Chipset

Chipset is integrated with processor

#### Management features

HP BIOS Config Utility (BCU); HP Client Catalog; HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Manager; HP System Software Manager (SSM); LANDESK management

#### Environmental

Low halogen

#### Security management

HP BIOSphere Gen4; HP Client Security Gen3; HP DriveLock and Automatic DriveLock; TPM 2.0

**Memory**

8 GB DDR4-2400 SDRAM (1 x 8 GB)

**Memory Slots**

2 SODIMM

**Internal Storage**

256 GB PCIe® NVMe™ SSD

**Graphics**

Integrated

**Graphics (integrated)**

Intel® UHD Graphics 620

**Ports**

1 AC power; 1 HDMI 1.4b; 1 headphone/microphone combo; 1 RJ-45; 1 USB 2.0 (power port); 1 USB 3.1 Type-C™; 1 VGA; 2 USB 3.1 Gen 1

**Expansion slots**

1 multi-format digital media reader

**Camera**

720p HD webcam

**Audio features**

Dual stereo speakers, dual array microphone

**Pointing device**

Image sensor clickpad, with multi-touch gesture support; Clickpad with multi-touch gesture support, taps enabled as default

**Keyboard**

HP Premium Keyboard, full-size, backlit, chiclet, spill-resistant with numeric keypad

**Network interface**

Realtek RTL8111HSH GbE

**Wireless**

Intel® Dual Band Wireless-AC 8265 802.11a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo<sup>9,10</sup>

**Power**

HP Smart 45 W External AC power adapter

**Battery type**

3-cell, 48 Wh Li-ion

**Energy efficiency**

ENERGY STAR® certified

**Minimum dimensions (W x D x H)**

37.6 x 26.41 x 2.08 cm (non-touch)

**Weight**

Starting at 2.1 kg

**Software**

Bing Search for IE11; Buy Office; HP 3D DriveGuard 6; HP Connection Optimizer; HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP JumpStart; HP LAN Protection; HP Noise Cancellation Software; HP Recovery Manager; HP Support Assistant; HP Velocity; Native Miracast support

**Warranty**

1 year standard parts, labor and on-site limited warranty (1-1-1), depending on country (upgrades available). 1 year limited warranty on primary battery.<sup>18</sup>

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## Overview

- 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 Quad Core processor sold separately or as an optional feature.
- 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 is not a measurement of higher performance.
- 4 Sold separately or as an optional feature.
- 5 Recharges the battery up to 90% within 90 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook and no external devices are connected. After charging has reached 90% capacity, charging speed will return to normal. Charging time may vary +/- 10% due to System tolerance.
- 6 Wireless and Bluetooth may be optional features. Wireless requires separately purchased access point and internet service. Availability of public wireless access points limited.
- 7 MIL STD 810G testing is pending and is not intended to demonstrate fitness for 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.

## Specifications

- 9 Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.
- 10 WWAN module requires separately purchased service contract. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, in all regions.
- 18 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.

**Data sheet (1)**

**HP ProBook 450 G5 Notebook PC (AP Datasheet)**

HP ProBook 450 G5 (AP datasheet)

**Quick specs (1)**

**WW PB - HP ProBook 450 G5 Notebook PC - 5/18 - EN**






Full-featured, thin, and light, the HP ProBook 450 lets professionals stay productive in the office and on the go. Stylish design, linear precision, and subtle curvature plus optional Quad Core performance and long battery life make this ProBook essential for today's workforce.

**Success story (1)**

**New England Institute of Technology relies on high performance of HP technology**

To meet its needs for reliability and high-end performance, New England Institute of Technology standardized on HP products ranging from HP All-in-One and EliteBook PCs to HP Digital Signage. HP Workstations are showcased in the new HP Gaming Lab.

**Images - Product (8)**

																																																																																																								
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Left rear facing

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Rear facing

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Right facing closed

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## Videos (1)

HP ProBook 400 G5 Series Family Product Demo

## Search additional assets (Asset Hub)

### Search for additional assets

This link is being provided as a convenience and for informational purposes only. HP Sales Central bears no responsibility for the accuracy, legality or content of the external site or for that of subsequent links. Contact the external site for answers to questions regarding its content.

## Audio/Multimedia and Communication Devices

### Headsets

Active	HP Stereo 3.5mm Headset	T1A66AA
Active	HP Stereo USB Headset	T1A67AA
Active	HP UC Wired Headset	K7V17AA
Active	HP UC Wireless Duo Headset	W3K09AA
Active	HP UC Wireless Mono Headset	W3K08AA

### Phones

Active	HP UC Speaker Phone	K7V16AA
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## Batteries/Chargers/Adapters

### AC Adapters

Active	HP 7.4 mm to 4.5 DC Dongle	K0Q39AA
Active	HP 45W Smart AC Adapter	H6Y88AA
Active	HP 65W Slim AC Adapter	H6Y82AA
Active	HP 65W Smart AC Adapter	H6Y89AA
Active	HP 90W Smart AC Adapter	H6Y90AA

### Power Adapters

Active	HP 45W USB-C G2 Power Adapter	1HE07AA
Active	HP 65W USB-C Power Adapter	1HE08AA

### Power Packs

Active	HP Notebook Power Bank	N9F71AA
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## Cabinets and Stands

### Carts

Active	HP 20 Mgd Charging Cart V2	T9E83AA
Active	HP 30 Mgd Charging Cart V2	T9E85AA

### Monitor Stands

Active	HP Adjustable Dual Display Stand	AW664AA
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### Notebook and Monitor Stands

Active	HP Adjustable Display Stand	AW663AA
Active	HP Display and Notebook II Stand	E8G00AA

### Notebook Stands

Active	HP Dual Hinge II Notebook Stand	E8F99AA
Active	HP Hot Desk 2nd Monitor Arm	W3Z74AA
Active	HP Hot Desk Stand	W3Z73AA

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## Cables/Cable Kits/Cable Adapters

## Audio and Video Cables

Active	HP HDMI to DVI Adapter	F5A28AA
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## Cable Adapters

Active	HP Thunderbolt 120W G2 Cable	3XB94AA
Active	HP Thunderbolt Dock G2 Combo Cable	3XB96AA
Active	HP USB-C to USB-A Hub	Z6A00AA

## Cases and Covers

### Backpacks

Active	HP Essential Backpack	H1D24AA
Active	HP Exec 15.6 Midnight Backpack	1KM16AA
Active	HP Exec 17.3 Midnight Backpack	1KM17AA
Active	HP Prelude Backpack 15.6	2MW63AA
Active	HP Slim Backpack	F3W16AA

### Cases

Active	HP 15.6 Business Top Load	2SC66AA
Active	HP 15.6 Executive Brown Top Load	P6N19AA
Active	HP 15.6 Prelude Top Load with Mouse Bundle	2MW64AA
Active	HP 17.3 Business Backpack	2SC67AA
Active	HP 17.3 Business Roller Case	2SC68AA
Active	HP 17.3 Business Slim Top Load	2UW02AA
Active	HP Essential Top Load Case	H2W17AA
Active	HP Exec 15.6 Midnight Top Load	1KM15AA
Active	HP Executive Black Leather 15.6 Top Load	1LG83AA
Active	HP Prelude Top Load 15.6	2MW62AA
Active	HP Slim Professional Top Load Case	F3W15AA

## Docking and Port Replicators

### Docking Accessories

Active	HP TB Dock Audio Module	3AQ21AA
Active	HP USB-C Universal Dock Non Flash	3DV65AA

### Docking Stations

Active	HP Thunderbolt Dock 120W G2	2UK37AA
Active	HP Thunderbolt Dock 120W G2 with Audio	3YE87AA
Active	HP Thunderbolt Dock G2 with Combo Cable	3TR87AA
Active	HP USB-C Dock G4	3FF69AA
Active	HP USB-C Mini Dock	1PM64AA
Active	HP USB-C Universal Dock	1MK33AA
Active	HP USB-C Universal Dock with 4.5 mm and USB Dock Adapter	2UF95AA

## Port Replicators

Active	HP 3001pr USB 3.0 Port Replicator	F3S42AA
Active	HP 3005pr USB3 Port Replicator	Y4H06AA
Active	HP USB-C Travel Dock	TOK29AA

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## Keyboards/Mice/Monitors and Input Devices

### Keyboard and Mouse Kits

Active	HP Slim USB Keyboard and Mouse	T6T83AA
Active	HP Slim Wireless Keyboard and Mouse	T6L04AA
Active	HP USB Essential Keyboard and Mouse	H6L29AA
Active	HP Wireless (Link-5) Keyboard	T6U20AA

### Keyboards

Active	HP Conferencing Keyboard	K8P74AA
Active	HP Wireless Collaboration Keyboard	Z9N39AA

### Mice

Active	HP 3-button USB Laser Mouse	H4B81AA
Active	HP Comfort Grip Wireless Mouse	H2L63AA
Active	HP Elite Presenter Mouse	2CE30AA
Active	HP Essential USB Mouse	2TX37AA
Active	HP Slim Bluetooth Mouse	F3J92AA
Active	HP Ultra Mobile Wireless Mouse	H6F25AA
Active	HP Wireless Premium Mouse	1JR31AA
Active	HP X3000 Wireless Mouse	H4K60AA
Active	HP X4000b Bluetooth Mouse	H3T50AA
Active	USB Travel Mouse	G1K28AA

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## Memory

### DDR4 Memory

Active	HP 4 GB 2400 MHz DDR4	Z4Y84AA
Active	HP 8 GB 2400 MHz DDR4	Z4Y85AA
Active	HP 16 GB 2400 MHz DDR4	Z4Y86AA

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## PC Drives and Storage

### PC DVD Drives

Active	HP External USB DVDRW Drive	F2B56AA
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### PC SATA Hard Drives

Active	HP 500GB 7200rpm SATA Hard Drive	F3B97AA
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### PC Solid State Drives

Active	HP 128 GB TLC 2280 M.2 Solid State Drive	2JB95AA
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Active	HP 256 GB TLC M.2 SATA-3 Solid State Drive	1DE48AA
Active	HP 512 GB TLC PCIe 3x4 NVMe M.2 Solid State Drive	1FU88AA

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## Security and Protection

### PC Locks

Active	HP Combination Lock	T0Y15AA
Active	HP Dual Head Keyed Cable Lock 10 mm	T1A64AA
Active	HP Dual Head Master Cable Lock 10 mm	T1A65AA
Active	HP Essential Combination Lock	T0Y16AA
Active	HP Essential Keyed Cable Lock	T0Y14AA
Active	HP Keyed Cable Lock 10 mm	T1A62AA
Active	HP Master Keyed Cable Lock 10mm	T1A63AA

### Privacy Filter

Active	HP 15.6-in Privacy Filter	J7H71AA
Active	HP 15.6-inch Touchable Privacy Filter	3KP53AA

## Business Monitors

### EliteDisplays

Active	HP EliteDisplay E190i 18.9-inch LED Backlit IPS Monitor	E4U30AA
Active	HP EliteDisplay E220t 21.5-inch Touch Monitor	L4Q76AA
Active	HP EliteDisplay E223 21.5-inch Monitor	1FH45AA
Active	HP EliteDisplay E230t 23-inch Touch Monitor	W2Z50AA
Active	HP EliteDisplay E233 23-inch Monitor	1FH46AA
Active	HP EliteDisplay E273 27-inch Monitor	1FH50AA
Active	HP EliteDisplay E273q 27-inch Monitor	1FH52AA
Active	HP EliteDisplay S140u 14-inch USB Portable Monitor	G8R65AA
Active	HP EliteDisplay S231d 23-in IPS LED Notebook Docking Monitor	F3J72AA
Active	HP EliteDisplay S240n 23.8-inch Micro Edge Monitor	W9A88AA
Active	HP EliteDisplay S240uj 23.8-inch USB-C Wireless Charging Monitor	T7B66AA
Active	HP EliteDisplay S340c 34-inch Curved Monitor	V4G46AA

### Healthcare Edition Displays

Active	HP HC240 24-inch Healthcare Edition Display	Z0A71A4
Active	HP HC270 27-inch Healthcare Edition Display	Z0A73A4
Active	HP Healthcare Edition HC270cr Clinical Review Monitor	1QW03AA

### Large Format Display

Active	HP LD4312 4K Large Format Display	3XE86AA
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### ProDisplays

Active	HP ProDisplay P19A 19-inch LED Backlit Monitor	D2W67AA
Active	HP ProDisplay P200 19.5-in LED Backlit Monitor	F7M92AA
Active	HP ProDisplay P203 20-inch Monitor	X7R53AA
Active	HP ProDisplay P223 21.5-inch Monitor	X7R61AA
Active	HP ProDisplay P223a 21.5-inch Monitor	X7R62AA
Active	HP ProDisplay P240va 23.8-inch Monitor	N3H14AA

### Value Displays

Active	HP LV2011 20-inch LED Backlit LCD Monitor	A3R82AA
Active	HP N240 23.8-inch Monitor	Y6P10AA
Active	HP N240h 23.8-inch Monitor	2MW69AA
Active	HP N270 27-inch Monitor	Y6P11AA
Active	HP N270c 27-inch Curved Display	Y6J31AA
Active	HP N270h 27-inch Monitor	2MW70AA
Active	HP V190 18.5-inch Monitor	2NK17AA
Active	HP V202b 19.5-inch Monitor	X2N37AA
Active	HP V220 21.5-inch Monitor	4CJ27AA
Active	HP V243 24-inch Monitor	V5J53AA

### Z Displays

Active	HP DreamColor Z24x G2 Display	1JR59A4
Active	HP DreamColor Z24x G2 Display	1JR59AT
Active	HP DreamColor Z27x G2 Studio Display	2NJ08A4
Active	HP DreamColor Z27x Studio Display	D7R00A4
Active	HP Z22n G2 21.5-inch Display	1JS05A4
Active	HP Z23n G2 23-inch Display	1JS06A4
Active	HP Z24n G2 24-inch Display	1JS09A4
Active	HP Z27 27-inch 4K UHD Display	2TB68A4
Active	HP Z27n G2 27-inch Display	1JS10A4
Active	HP Z32 31.5-inch 4K UHD Display	1AA81A4
Active	HP Z43 42.5-inch 4K UHD Display	1AA85A4
Active	HP Z Display Z30i 30-inch IPS LED Backlit Monitor	D7P94A4

## HP Care Pack Services

### Personal Systems Commercial Care Pack Services

Active	HP 1 year Next Business Day Onsite Hardware Support w/Defective Media Retention for Notebooks	UL656E
Active	HP 1 year Post Warranty Next business day onsite Notebook Only Service	UK738PE
Active	HP 3 year Next Business Day Onsite Hardware Support for Notebooks	UK703E
Active	HP 3 year Next Business Day Onsite Hardware Support w/ADP-G2/Defective Media Retention for NB	UL846E
Active	HP 3 year Next Business Day Onsite Hardware Support w/Travel Coverage for Notebooks	UL653E
Active	HP 3 year Next Business Day Onsite HW Support w/Accidental Damage Protection-G2 for Notebooks	UK726E
Active	HP 3 year Next Business Day Onsite HW Support w/Defective Media Retention for Notebooks	UL657E
Active	HP 3 year Pickup and Return Hardware Support for Notebooks	UK707E
Active	HP 4 year Next Business Day Onsite Hardware Support for Notebooks	UK716E
Active	HP 5 year Next Business Day Onsite Hardware Support for Notebooks	UK718E
Active	HP 5 year Pickup and Return Hardware Support for Notebooks	UK721E

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## Personal Systems Services

### Deploy Services

Active	HP 1 unit Basic Installation Service	UJ865E
Active	HP 2-10 unit Basic Installation Same Site Service	UJ866E
Active	HP 11-50 unit Basic Installation Same Site Service	UJ867E
Active	HP 51-100 unit Basic Installation Same Site Service	UJ868E
Active	HP 100+ units Basic Installation Same Site Service	UJ869E

## Detailed Specifications

### Accessories

HP USB-C Travel Dock T0K29AA; HP Elite USB-C Dock G3 2DW60AA; 65W USB-C Power Adapter 1HE08AA; HP External USB Optical Drive F2B56AA; HP Essential Top Load Case H2W17AA

### Audio features

Dual stereo speakers, dual array microphone

### Battery type

3-cell, 48 Wh Li-ion

### Camera

720p HD webcam

### Chipset

Chipset is integrated with processor

### Code name

Rollbar

### Copyright notice

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### Datasheet publication number

4AA7-0725EEAP

### Display

15.6" diagonal HD display

### Display

15.6" diagonal HD SVA anti-glare LED-backlit, 220 cd/m<sup>2</sup>, 45% sRGB (1366 x 768)

### Display footnote number

[12,14]

### Display size (diagonal)

15.6"

### Energy efficiency

ENERGY STAR® certified

### Energy efficiency compliance footnote number

[19]

### Environmental

Low halogen

### Environmental specification footnote number

[20]

### Expansion slots

1 multi-format digital media reader

### Expansion slots note

Supports SD, SDHC, SDXC.

### External I/O ports footnote number

[11]

### Graphic card footnote number

[12]

### Graphics

Integrated

### Graphics (integrated)

Intel® UHD Graphics 620

### Image legal disclaimer

Product image may differ from actual product

### Integrated camera footnote number

[12,13]

### Internal Storage

256 GB PCIe® NVMe™ SSD

**Keyboard**

HP Premium Keyboard, full-size, backlit, chiclet, spill-resistant with numeric keypad

**Legal tagline**

HP recommends Windows 10 Pro.

**Manageability features footnote number**

[24,25,26]

**Management features**

HP BIOS Config Utility (BCU); HP Client Catalog; HP Driver Packs; HP Management Integration Kit for Microsoft System Center Configuration Manager; HP System Software Manager (SSM); LANDESK management

**MDA key selling point**

Windows 10 Home 64

**Memory**

8 GB DDR4-2400 SDRAM (1 x 8 GB)

**Memory and storage**

8 GB memory; 256 GB SSD storage

**Memory Slots**

2 SODIMM

**Minimum dimensions (W x D x H)**

37.6 x 26.41 x 2.08 cm (non-touch)

**Network interface**

Realtek RTL8111HSH GbE

**Operating system**

Windows 10 Home 64

**Pointing device**

Image sensor clickpad, with multi-touch gesture support; Clickpad with multi-touch gesture support, taps enabled as default

**Ports**

1 AC power; 1 HDMI 1.4b; 1 headphone/microphone combo; 1 RJ-45; 1 USB 2.0 (power port); 1 USB 3.1 Type-C™; 1 VGA; 2 USB 3.1 Gen 1

**Power**

HP Smart 45 W External AC power adapter

**Power supply required footnote number**

[17]

**Processor**

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)

**Processor family**

8th Generation Intel® Core™ i5 processor

**Processor family footnote number**

[5]

**Processor speed**

1.6 GHz

**Product brand name**

HP

**Product long name specifications**

HP ProBook 450 G5 Notebook PC with Windows 10 Home 64; 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); 8 GB DDR4-2400 SDRAM (1 x 8 GB); 256 GB PCIe® NVMe™ SSD

**Sales office and telephone number**

Albania: +49 89 9396 1803; Algeria: +213 (0) 61 68 23 00; Austria: +43 (0) 810 00 60 80; Bahrain: 800 171; Belgium: +32 (02) 729 71 11; Bulgaria: +359 2 969 87; Bosnia-Herzegovina: +49 89 9396 1803; Commonwealth of Independent States (CIS): +(095) 923 50 01; Croatia: +385 1 606 02 00; Czech Republic: +420 261 108 108; Denmark: +45 48 12 10 00; HP East Africa, Authorized Consultant: +254 20 27 16 111; Egypt: HP +202 792 5070; Estonia: +372 6 813 820; Finland: HP Myyntipalvelu 010 217 2700; France: +33 (0) 826 800 400; Germany: +49 (0) 180 532 62 22; Greece: +30 801 11 22 55 47; Hungary: +36 (1) 382 11 11; Iceland: +354 (1) 67 10 00; Ireland: +353 1 615 82 00; Israel: +972 9 830 48 48; Italy: Prodotti +39 02 92607 330, Servizio HP Care Pack: +39 02 9212 2040; Kazakhstan & Kyrgyzstan: +7 327 2 58 43 43; Latvia: +371 703 07 00; Lithuania: +370 5 2103 300; Luxembourg: (+352) 263 160 34 Macedonia: +49 89 9396 1803; Malta: +49 89 9396 1803; Middle East (Within UAE Toll Free): 800 45 20; Moldova: +49 89 9396 1803; Morocco (African Region): Call Centre +212 22 40 47 47, HP Sale Office +212 22 97 37

37/+212 22 43 64 00; Netherlands: 0800 266 7272; Nigeria: + 234 13 205 241/3; Norway: +47 24 09 70 00; Poland: 0 801 522 622 and/or 00 48 22 565 77 00 (calls are charged at national rates); Portugal: +351 808 200 808 (end user welcome desk for commercial products) ; Romania: +40 (21) 303 83 00; Saudi Arabia: (Toll free) 800 897 14 33, Office Number: +96612731200; Serbia and Montenegro: +381 11 201 99 00; Slovakia: 0800 147 147; Slovenia: +386 1 230 74 20; Spain: +34 (91) 631 16 00; Sweden: +46 200 27 00 00; Switzerland: Pre-sales/product information +41 (0) 848 88 44 66, Spare parts, manuals +41 (0) 848 84 74 64; Tunisia: +216 1 89 12 22; Turkey: +90 (212) 444 79 79; UAE (Toll Free): 800 45 20; UAE (Toll Free): 800 45 20 or 800 49 10; Ukraine: +380 44 490 61 20 ; United Kingdom: HP Teleweb Glasgow +44 (0) 845 270 40 00

#### **Security management**

HP BIOSphere Gen4; HP Client Security Gen3; HP DriveLock and Automatic DriveLock; TPM 2.0

#### **Security management footnote number**

[27,28,29,30,31,32]

#### **Services (Care Pack)**

This HP services offers notebook users on the go prompt, reliable coverage in major geographies of the world, for 3 years. For more information on Care Pack services, please visit [www.hp.com/go/cpc](http://www.hp.com/go/cpc).

#### **Software**

Bing Search for IE11; Buy Office; HP 3D DriveGuard 6; HP Connection Optimizer; HP ePrint Driver + JetAdvantage; HP Hotkey Support; HP JumpStart; HP LAN Protection; HP Noise Cancellation Software; HP Recovery Manager; HP Support Assistant; HP Velocity; Native Miracast support

#### **Software footnote number**

[21,22,23]

#### **Standard memory note**

Transfer rates up to 2400 MT/s.

#### **Storage type**

SSD

#### **Tech spec footnote**

[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/>.

#### **Tech spec footnote**

[10] WWAN module 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.

#### **Tech spec footnote**

[11] HDMI cable sold separately.

#### **Tech spec footnote**

[12] HD content required to view HD images.

#### **Tech spec footnote**

[13] Internet access required.

#### **Tech spec footnote**

[14] Sold separately or as an optional feature.

#### **Tech spec footnote**

[15] 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.

#### **Tech spec footnote**

[16] Battery is internal and not replaceable by customer. Serviceable by warranty.

#### **Tech spec footnote**

[17] Availability may vary by country.

#### **Tech spec footnote**

[18] 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.

#### **Tech spec footnote**

[19] EPEAT® registered where applicable. EPEAT registration varies by country. See <http://www.epeat.net> for registration status by country. Search keyword generator on HP's 3rd party option store for solar generator accessories at [www.hp.com/go/options](http://www.hp.com/go/options).

**Tech spec footnote**

[2] Note: 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.

**Tech spec footnote**

[20] External power supplies, power cords, cables and peripherals are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

**Tech spec footnote**

[21] Miracast is a wireless technology your PC can use to project your screen to TVs, projectors, and streaming media players that also support Miracast. You can use Miracast to share what you're doing on your PC and present a slide show. For more information: <http://windows.microsoft.com/en-us/windows-8/project-wireless-screen-miracast>

**Tech spec footnote**

[22] HP ePrint Drive 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 [www.hp.com/go/eprintcenter](http://www.hp.com/go/eprintcenter)). Print times and connection speeds may vary.

**Tech spec footnote**

[23] HP Support Assistant requires Windows and Internet Access.

**Tech spec footnote**

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

**Tech spec footnote**

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

**Tech spec footnote**

[26] LANDESK Management subscription required.

**Tech spec footnote**

[27] HP BIOSphere Gen4 requires Intel® 7th or 8th Generation processors.

**Tech spec footnote**

[28] HP Client Security Suite Gen3 requires Windows and Intel® or AMD 7th or 8th Generation processors.

**Tech spec footnote**

[29] Secure Erase for the methods outlined in the National Institute of Standards and Technology Special Publication 800-88. Supported on Elite platforms with BIOS version F.03 or higher.

**Tech spec footnote**

[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 is not a measurement of higher performance.

**Tech spec footnote**

[30] 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.

**Tech spec footnote**

[31] 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.

**Tech spec footnote**

[32] Microsoft Defender Opt in and internet connection required for updates.

**Tech spec footnote**

[33] NVIDIA® technology requires an Intel® processor, plus an NVIDIA® GeForce® discrete graphics configuration and is available on Windows 10 Professional OS. With NVIDIA® Optimus™ technology, full enablement of all discrete graphics video and display features may not be supported on all systems (e.g. OpenGL applications will run on the integrated GPU or the APU as the case may be).

**Tech spec footnote**

[34] HP Drive Lock is not supported on NVMe™ drives.

**Tech spec footnote**

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

**Tech spec footnote**

[5] 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>.



**Tech spec footnote**

[6] 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.

**Tech spec footnote**

[7] 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.

**Tech spec footnote**

[8] Note: PCIe SSD hard drives not available for models with Celeron processor.

**Tech spec footnote**

[9] Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11ac WLAN are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11ac WLAN devices.

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**UNSPSC code**

43211503

**Warranty**

1 year standard parts, labor and on-site limited warranty (1-1-1), depending on country (upgrades available). 1 year limited warranty on primary battery.

**Warranty footnote number**

[18]

**Weight**

Starting at 2.1 kg

**Weight note (metric)**

Weight will vary by configuration.

**Wireless**

Intel® Dual Band Wireless-AC 8265 802.11 a/b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo

**Wireless technologies footnote number**

[9,10]

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