

Overview

HP 340S G7 Notebook PC



Left

- | | |
|-----------------------------|-------------------|
| 1. Internal Microphones (2) | 5. Power Light |
| 2. Webcam LED | 6. Drive Light |
| 3. Webcam Camera | 7. SD Card Reader |
| 4. Touch Pad | 8. Power Button |

Overview



Right

- | | | | |
|----|--------------------------------|----|-----------------------------------|
| 1. | Power | 5. | USB Type-C™ with Data Only |
| 2. | HDMI Port (Cable not included) | 6. | Audio Comb Jack |
| 3. | USB 3.1 Type-A Gen 1 | 7. | Optional touch Fingerprint Sensor |
| 4. | USB 3.1 Type-A Gen 1 | | |

Overview

At a Glance

- Preinstalled Windows 10¹, FreeDOS
- Choice of 10th generation Intel® Core™ i7, i5, i3 processors
- Intel® Iris® Plus graphics for captivating visual and video experiences
- Optional backlit keyboard
- Forget about user names and passwords. Simply log on to Windows and web sites, via using an optional fingerprint sensor²
- Less than 18 mm
- Super-light: 1.47 Kg (3.24 lbs)
- Long battery life gets you through a day of meetings without plugging in. Quickly recharge your PC with HP Fast Charge You'll get to 50% battery life in just 45 minutes of charging.⁵
- Get a fast and reliable connection in dense wireless environments with gigabit speed Wi-Fi 6^{2, 3, 4}
- Up to 512 GB Solid State Drives
- Up to 16 GB total system memory
- 6.5mm micro-edge display w/ 79.1% screen-to-body ratio

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. Sold separately or as an optional feature.

3. Wi-Fi® supporting gigabit speeds is achievable with Wi-Fi 6 (802.11ax) when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160MHz channels.

4. 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. The specifications for Wi-Fi 6 (802.11ax) are draft 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 802.11ax devices.

5. Recharges your battery up to 50% within 45 minutes when the system is off or in standby mode. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.

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

Technical Specifications

PRODUCT NAME

HP 340S G7 Notebook PC

OPERATING SYSTEMS

| | |
|--------------|--|
| Preinstalled | Windows 10 Pro 64 ¹ Windows 10 Pro 64 (National Academic only) ² Windows 10 Home 64 ¹ Windows 10 Home Single Language 64 ¹ 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 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.windows.com>.
2. Some devices for academic use will automatically be updated to Windows 10 Pro Education with the Windows 10 Anniversary Update. Features vary; see <https://aka.ms/ProEducation> for Windows 10 Pro Education feature information.

PROCESSORS

Intel® Core™ i7-1065G7 processor with Intel® Iris® Plus Graphics (1.3 GHz base frequency, up to 3.9 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)^{3,4,5,6}
Intel® Core™ i5-1035G1 processor with Intel® UHD Graphics (1 GHz base frequency, up to 3.6 GHz with Intel® Turbo Boost Technology, 6 MB cache, 4 cores)^{3,4,5,6}
Intel® Core™ i3-1005G1 processor with Intel® UHD Graphics (1.2 GHz base frequency, up to 3.4 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)^{3,4,5,6}

Processors Family
10th Generation Intel® Core™ i7 processor (i7-1065G7)⁶
10th Generation Intel® Core™ i5 processor (i5-1035G1)⁶
10th Generation Intel® Core™ i3 processor (i3-1005G1)⁶

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

Technical Specifications

CHIPSET

Integrated with processor

GRAPHICS

Integrated

Intel® Iris® Plus Graphics
Intel® UHD Graphics (i3-1005G1/i5-1035G1), Intel Iris Plus Graphics (i7-1065G7)⁷

Supports

Support HD decode, DX12, HDMI 1.4b

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

DISPLAYS

Internal

Non-Touch

35.56 cm (14") diagonal FHD IPS eDP anti-glare WLED-backlit slim, 250 nits, 45% NTSC (1920 x 1080)^{8,9}
35.56 cm (14") diagonal HD SVA anti-glare WLED-backlit slim, 220 nits, 45% NTSC (1366 x 768)^{8,9}

Display Size

14"
35.56 cm (14"?)

[8. HD content required to view HD images.](#)
[9. Resolutions are dependent upon monitor capability, and resolution and color depth settings.](#)

STORAGE AND DRIVES

Primary M.2 Storage

128 GB M.2 SATA-3 TLC SSD¹⁰
256 GB PCIe® NVMe™ M.2 SSD¹⁰
256 GB PCIe® 3x2x2 NVMe™ M.2 + SSD 16 GB 3D Xpoint¹⁰
512 GB PCIe® NVMe™ M.2 SSD¹⁰
512 GB PCIe® 3x2x2 NVMe™ M.2 + SSD 32 GB 3D Xpoint¹⁰

[10. 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.](#)

MEMORY

Technical Specifications

Maximum Memory

16 GB DDR4-2666 SDRAM¹¹

Memory

- 12 GB DDR4-2666 SDRAM (1 X 8 GB + 1 X 4 GB)¹¹
- 16 GB DDR4-2666 SDRAM (2 X 8 GB)¹¹
- 8 GB DDR4-2666 SDRAM (1 x 8 GB)¹¹
- 8 GB DDR4-2666 SDRAM (2 x 4 GB)¹¹
- 4 GB DDR4-2666 SDRAM (1 x 4 GB)¹¹

Memory Slots

2 SODIMM
DDR4 PC4 SODIMMS, system runs at 2666
Supports Dual Channel Memory

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® Dual Band Wireless-AC AX201 Wi-Fi® and Bluetooth® 5 Combo, non-vPro^{TM12}
Realtek 802.11ac (2x2) and Bluetooth® 5 Combo (MU-MIMO supported)*

Miracast

Native Miracast Support¹³

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. The specifications for Wi-Fi 6 (802.11ax) are draft 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 802.11ax devices.

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

* Wireless access point and internet service required and sold separately. Availability of public wireless access points limited.

AUDIO/MULTIMEDIA

Audio

2 Integrated stereo speakers
Integrated dual array Digital Microphones

Camera

720p HD Camera⁸

8. HD content required to view HD images.

Technical Specifications

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

Full-size island-style, backlit keyboard¹⁴

Pointing Device

Clickpad with multi-touch gesture support

Function Keys

- ESC: Blank
- F1 - system information
- F2 - Brightness Down
- F3 - Brightness Up
- F4 - Display Switching
- F5 - Backlight Toggle (for backlit keyboard) or Blank
- F6 - Speaker Mute
- F7 - Volume Down
- F8 - Volume Up
- F9 - Rewind
- F10 - Start/Stop
- F11 - Fast-forward
- F12 - Flight Mode

14. Backlit keyboard is an optional feature.

SOFTWARE AND SECURITY

Software

- HP Support Assistant¹⁵
- Buy Office (Sold separately)

Security Management

- TPM 2.0
- Fingerprint Sensor¹⁶

15. HP Support Assistant requires Windows and Internet access.
16. Fingerprint Sensor is an optional feature

POWER

Technical Specifications

HP Smart 65 W EM External AC power adapter^{17,18}
HP Smart 65 W External AC power adapter^{17,18}
HP Smart 45 W External AC power adapter¹⁷

Primary Battery

HP Long Life 3-cell, 41 Wh Li-ion¹⁹

Power Cord

1M length power Cord

Battery life

Up to 12 hours²⁰

Battery Weight

0.43 lb
0.195 kg

17. Availability may vary by country.
18. Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode. After charging has reached 50% capacity, charging will return to normal. Charging time may vary +/-10% due to System tolerance.
19. Battery is internal and not replaceable by customer. Serviceable by warranty.
20. 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 <http://www.bapco.com> for additional details.

WEIGHTS & DIMENSIONS

Product Weight

Starting at 3.24 lb²¹
Starting at 1.47 kg²¹
Does not include power adapter.

Product Dimensions (w x d x h)

12.76 x 8.86 x 0.7 in
32.4 x 22.5 x 1.79 cm

21. Weight will vary by configuration.

PORTS/SLOTS

Technical Specifications

Ports

- 1 USB 3.1 Type-C™ Gen 1
- 2 USB 3.1 Type-A Gen 1
- 1 HDMI 1.4²²
- 1 AC power
- 1 Headphone/microphone combo jack

Expansion Slots

- 1 multi-format digital media reader
- Supports SD, SDHC, SDXC

22. HDMI cable sold separately.

SERVICE AND SUPPORT

HP Services offers 1-year limited warranties and 90 day software support 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>.²³

23. 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.

COMPATIBILITY

| | |
|-------------------------------------|---------|
| HP USB Essential Keyboard and Mouse | H6L29AA |
| HP USB-C to HDMI 2.0 Adapter | 1WC36AA |
| HDMI to VGA Adapter | H4F02AA |
| HP Essential Top Load Case | H2W17AA |

CERTIFICATION AND COMPLIANCE

ENERGY STAR® certified
EPEAT® 2019 Silver²⁴

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

ENVIRONMENTAL & INDUSTRY

| | |
|-----------|---|
| Eco-Label | This product has received or is in the process of being certified to the following approvals and may be |
|-----------|---|

Technical Specifications

| | | | |
|---|--|--|--------------|
| Certifications & declarations | labeled with one or more of these marks: <ul style="list-style-type: none">IT ECO declarationUS ENERGY STAR®EPEAT® 2019 Silver in U.S. 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. | | |
| System Configuration | The configuration used for the Energy Consumption and Declared Noise Emissions data for the Notebook model is based on a "Typically Configured Notebook"?. | | |
| Energy Consumption (in accordance with US ENERGY STAR® test method) | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
| Normal Operation (Short idle) | 4.14 W | 4.164 W | 4.056 W |
| Normal Operation (Long idle) | 2.112 W | 2.184 W | 2.076 W |
| Sleep | 0.372 W | 0.384 W | 0.372 W |
| Off | 0.192 W | 0.228 W | 0.192 W |
| | Energy efficiency data listed is for an ENERGY STAR® compliant product if offered within the model family. HP computers marked with the ENERGY STAR® Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR® specifications for computers. If a model family does not offer ENERGY STAR® compliant configurations, then energy efficiency data listed is for a typically configured PC featuring a hard disk drive, a high efficiency power supply, and a Microsoft Windows® operating system. | | |
| Heat Dissipation* | 115VAC, 60Hz | 230VAC, 50Hz | 100VAC, 50Hz |
| Normal Operation (Short idle) | 14 BTU/hr | 14 BTU/hr | 14 BTU/hr |
| Normal Operation (Long idle) | 7 BTU/hr | 7 BTU/hr | 7 BTU/hr |
| Sleep | 1 BTU/hr | 1 BTU/hr | 1 BTU/hr |
| Off | 1 BTU/hr | 1 BTU/hr | 1 BTU/hr |
| | Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour. | | |
| Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296) | Sound Power (L _{WAd} , bels) | Sound Pressure (L _{pAm} , decibels) | |
| Typically Configured - Idle | 2.5 | 25 | |
| Fixed Disk - Random writes | 2.5 | 25 | |
| Longevity and Upgrading | This product can be upgraded, possibly extending its useful life by several years. Upgradeable features and/or components contained in the product may include: <ul style="list-style-type: none">3 USB ports1 PC card slot (type I/II)1 ExpressCard/54 slot1 IEEE 1394 Port2 SODIMM memory slotsOptional expansion base docking station1 multi-bay II storage portInterchangeable HDD Spare parts are available throughout the warranty period and or for up to "5"? years after the end of production. | | |

Technical Specifications

| | | | |
|------------------------|--|---|-------|
| Batteries | This battery(s) in this product comply with EU Directive 2006/66/EC Batteries used in the product do not contain: Mercury greater the1ppm by weight Cadmium greater than 20ppm by weight Battery size: Not Applicable Battery type: Not Applicable | | |
| Additional Information | <ul style="list-style-type: none">• This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2011/65/EC.• This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.• This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).• This product is in compliance with the IEEE 1680.1 (EPEAT) standard at the <Silver> level, see http://www.epeat.net• Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.• This product contains 2.4% post-consumer recycled plastic (by wt.)• This product is 96.2% recycle-able when properly disposed of at end of life. | | |
| Packaging Materials | External: | PAPER/Paper | 51 g |
| | | PAPER/Corrugated | 230 g |
| | Internal: | PLASTIC/Polyethylene Expanded - EPE | 31 g |
| | | PLASTIC/Polyethylene low density - LDPE | 9 g |
| Material Usage | This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/gse.pdf): <ul style="list-style-type: none">• Asbestos• Certain Azo Colorants• Certain Brominated Flame Retardants - may not be used as flame retardants in plastics• Cadmium• Chlorinated Hydrocarbons• Chlorinated Paraffins• Formaldehyde• Halogenated Diphenyl Methanes• Lead carbonates and sulfates• Lead and Lead compounds• Mercuric Oxide Batteries• Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.• Ozone Depleting Substances• Polybrominated Biphenyls (PBBs)• Polybrominated Biphenyl Ethers (PBBEs)• Polybrominated Biphenyl Oxides (PBBOs)• Polychlorinated Biphenyl (PCB)• Polychlorinated Terphenyls (PCT)• Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.• Radioactive Substances• Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO) | | |
| Packaging Usage | HP follows these guidelines to decrease the environmental impact of product packaging: <ul style="list-style-type: none">• Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.• Eliminate the use of ozone-depleting substances (ODS) in packaging materials. | | |

Technical Specifications

| | |
|--|---|
| | <ul style="list-style-type: none">• Design packaging materials for ease of disassembly.• Maximize the use of post-consumer recycled content materials in packaging materials.• Use readily recyclable packaging materials such as paper and corrugated materials.• Reduce size and weight of packages to improve transportation fuel efficiency.• Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards. |
| End-of-life Management and Recycling | <p>HP Inc. offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</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: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.</p> |
| HP Inc. Corporate Environmental Information | <p>For more information about HP's commitment to the environment:</p> <p>Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</p> <p>Eco-label certifications http://www8.hp.com/us/en/hp-information/environment/ecolabels.html</p> <p>ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC_GBU_Product_Design_ISO_14K_Certificate.pdf and http://www.hp.com/hpinfo/globalcitizenship/environment/pdf/cert.pdf</p> |

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)

| | |
|---------------------------|--|
| Nominal Operating Voltage | 19.5 V |
| Average Operating Power | 4.82W |
| Integrated graphics | Intel® Iris® Plus Graphics (ICL-i7) Intel® UHD graphics (ICL-i5/i3) |
| Discrete Graphics | N/A (Switchable graphics design) |
| Max Operating Power | UMA < 45W |

Temperature

| | |
|---------------|-------------------------------|
| Operating | 41° to 95° F (5° to 35° C) |
| Non-operating | -4° to 140° F (-20° to 60° C) |

Relative Humidity

| | |
|---------------|------------|
| Operating | 10% to 90% |
| Non-operating | 5% to 95% |

Shock

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

Random Vibration

| | |
|---------------|------------|
| Operating | 1.043 grms |
| Non-operating | 3.5 grms |

Altitude (unpressurized)

| | |
|---------------|------------------------------------|
| Operating | -50 to 10,000 ft (-15 to 3,048 m) |
| Non-operating | -50 to 40,000 ft (-15 to 12,192 m) |

Technical Specifications

Planned Industry Standard Certifications

| | |
|-----------------------|--|
| UL | Yes |
| FCC Compliance | Yes |
| EPEAT® | EPEAT® 2019 Silver in U.S. ²⁵ |
| ICES | Yes |
| CCC | Yes |
| CE Marking Compliance | Yes |
| BNCI or BELUS | Yes |
| EAC | Yes |
| UKRSERTCOMPUTER | Yes |

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

DISPLAYS

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

| | | |
|---|--|---------------------------------------|
| 14.0 inch diagonal HD SVALED-backlight; 220 cd/m2; 45% sRGB (1366 x 768) | Outline Dimensions (W x H x D) | 316.2 x 198 (mm) max (with PCB Board) |
| | Active Area | 309.4 x 173.95 (mm) |
| | Weight | 280 g max. |
| | Diagonal Size | 14.0 (inch) |
| | Thickness | 3.0 (mm) max |
| | Interface | eDP 1.2 |
| | Surface Treatment | Anti-glare (AG) |
| | Touch Enabled | None |
| | Contrast Ratio | 500:1 (typical) |
| | Refresh Rate | 60Hz |
| | Brightness | 220 nit typical |
| | Pixel Resolution | 1366 x 768 (HD) |
| | Backlight | RGB |
| | Format of LCD Pixel Arrangement | LED |
| | Color Gamut Coverage | 45% |
| | Color Depth | 6 bits |
| | Viewing Angle | 45/45/20/45 |

Technical Specifications

| | | |
|---|--|---|
| 14.0 inch Diagonal FHD Anti-Glare WLED UWVA 45 % cg 250 nits slim NB (1920 x 1080) | Outline Dimensions (W x H x D) | 316.17 x 198.04 (mm) max (with PCB Board) |
| | Active Area | 309.37 X 174.02 (mm) |
| | Weight | 285 max. |
| | Diagonal Size | 14.0 (inch) |
| | Thickness | 3.0 (mm) max |
| | Interface | eDP1.2 |
| | Surface Treatment | Anti-glare (AG) |
| | Touch Enabled | None |
| | Contrast Ratio | 700:1 (typical) |
| | Refresh Rate | 60Hz |
| | Brightness | 250 nit typical |
| | Pixel Resolution | 1920 x1080 (FHD) |
| | Backlight | LED |
| | Format of LCD Pixel Arrangement | RGB |
| | Color Gamut Coverage | 45% of NTSC |
| | Color Depth | 6 bits |
| | Viewing Angle | UWVA 85/85/85/85 |

STORAGE AND DRIVES

| | | |
|--|------------------------------|--|
| SSD 128 GB 2280 M2 SATA-3 TLC | Drive Weight | 0.022 lb (10 g) |
| | Height | 0.14 in (3.58 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | ATA-8, SATA 3.0 |
| | Logical Blocks | 250,069,680 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Security Features | ATA Security |
| | Features | DIPM; TRIM; DEVSLP |

| | | |
|--|------------------------------|--|
| 256 GB 2280 PCIe NVMe Value | Drive Weight | 0.022 lb (10 g) |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Security Features | ATA Security |
| | Features | TRIM; L1.2 |

Technical Specifications

| | | |
|--|-----------------------|--|
| 256 GB 2280 PCIe-3x2x2 NVMe+SSD 16 GB 3D Xpoint | Drive Weight | 0.022 lb (10 g) |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Logical Blocks | 500,118,192 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Security Features | ATA Security |
| | Features | TRIM; L1.2 |

| | | |
|--|-----------------------|--|
| 512 GB 2280 M2 PCIe-3x4 SS NVMe TLC | Drive Weight | 0.022 lb (10 g) |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Logical Blocks | 1,000,215,215 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Security Features | ATA Security |
| | Features | TRIM; L1.2 |

| | | |
|--------------------------------|-----------------------|--|
| 512 GB 2280 PCIe NVMe Value | Drive Weight | 0.022 lb (10 g) |
| | Height | 0.09 in (2.3 mm) |
| | Width | 0.87 in (22 mm) |
| | Interface | PCIe NVMe Gen3X4 |
| | Logical Blocks | 1,000,215,215 |
| | Operating Temperature | 32° to 158°F (0° to 70°C) [ambient temp] |
| | Security Features | ATA Security |
| | Features | TRIM; L1.2 |

NETWORKING/COMMUNICATIONS

| | | |
|---|------------------------|------------------|
| Realtek RTL8822CE 802.11ac (2 x 2) Wi-Fi® and Bluetooth® 5 ¹ | Wireless LAN Standards | IEEE 802.11a |
| | | IEEE 802.11b |
| | | IEEE 802.11g |
| | | IEEE 802.11n |
| | | IEEE 802.11ac |
| | | IEEE 802.11d |
| | | IEEE 802.11e |
| | | IEEE 802.11h |
| | | IEEE 802.11i |
| | | IEEE 802.11k |
| | | IEEE 802.11r |
| | | IEEE 802.11v |
| | Interoperability | Wi-Fi® certified |
| | | |
| | | |

Technical Specifications

| | |
|-----------------------------------|--|
| Frequency Band | <ul style="list-style-type: none">802.11b/g/n 2.402 - 2.482 GHz |
| | <ul style="list-style-type: none">802.11a/n/ac 4.9 - 4.95 GHz (Japan) 5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz 5.825 - 5.850 GHz |
| Data Rates | <ul style="list-style-type: none">802.11b: 1, 2, 5.5, 11 Mbps802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)802.11ac: MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz & 80MHz) |
| Modulation | Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| Security ³ | <ul style="list-style-type: none">IEEE compliant 64 / 128 bit WEP encryption for a/b/g mode onlyAES-CCMP: 128 bit in hardware802.1x authenticationWPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.WPA2 certificationIEEE 802.11iWAPI |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) |
| Roaming | IEEE 802.11 compliant roaming between access points |
| Output Power ² | <ul style="list-style-type: none">802.11b: +18.5dBm minimum802.11g: +17.5dBm minimum802.11a: +18.5dBm minimum802.11n HT20(2.4GHz): +15.5dBm minimum802.11n HT40(2.4GHz): +14.5dBm minimum802.11n HT20(5GHz): +15.5dBm minimum802.11n HT40(5GHz): +14.5dBm minimum802.11ac VHT80(5GHz): +11.5dBm minimum802.11ac VHT160(5GHz): +11.5dBm minimum |
| Power Consumption | <ul style="list-style-type: none">Transmit mode: 2.0 WReceive mode:1.6 WIdle mode (PSP) 180 mW (WLAN Associated)Idle mode: 50 mW (WLAN unassociated)Connected Standby/Modern Standby: 10mWRadio disabled: 8 mW |
| Power Management | ACPI and PCI Express compliant power management 802.11 compliant power saving mode |
| Receiver Sensitivity ⁴ | 802.11b, 1Mbps: -93.5dBm maximum 802.11b, 11Mbps: -84dBm maximum 802.11a/g, 6Mbps: -86dBm maximum 802.11a/g, 54Mbps: -72dBm maximum 802.11n, MCS07: -67dBm maximum 802.11n, MCS15: -64dBm maximum 802.11ac, MCS0: -84dBm maximum 802.11ac, MCS9: -59dBm maximum |

Technical Specifications

| | | |
|-------------------|---|--------------------------------|
| Antenna type | High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications | |
| Form Factor | PCI-Express M.2 MiniCard with CNVi Interface | |
| Dimensions | 1. Type 2230: 2.3 x 22.0 x 30.0 mm 2. Type 1216: 1.67 x 12.0 x 16.0 mm | |
| Weight | 1. Type 2230: 2.8 g 2. Type 126: 1.3 g | |
| Operating Voltage | 3.3v +/- 9% | |
| Temperature | Operating | 14° to 158° F (-10° to 70° C) |
| | Non-operating | -40° to 176° F (-40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber - Radio OFF LED White - Radio ON | |

HP Integrated Module with Bluetooth 4.0/4.1/4.2/5.0 Wireless Technology

| | |
|---------------------------------|---|
| Bluetooth Specification | 4.0/4.1/4.2/5.0 Compliant |
| Frequency Band | 2402 to 2480 MHz |
| Number of Available Channels | Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH) |
| Signaling Data Rate | Legacy: 3 Mbps signaling data rate ¹ 2.17 Mbps BLE: 1 Mbps signaling data rate ¹ 0.2 Mbps 1. Actual throughput may vary. |
| | Legacy: Synchronous Connection Oriented links up to 3, 64 kbps, voice channels Legacy: Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5) |
| Transmit Power | The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR. |
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW |
| Bluetooth Software Supported | Microsoft Windows Bluetooth Software |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |
| Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 -Link Layer Privacy |

Technical Specifications

- 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)

- 1. Wireless access point and Internet service is required. Availability of public wireless access point is limited.
- 2. 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.
- 3. Check latest software/driver release for updates on supported security features.
- 4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

| | | |
|---|------------------------|---|
| Intel® Wi-Fi 6 ¹ AX201 and Bluetooth® 5 (802.11ax 2 x 2, non-vPro, supporting gigabit file transfer speeds) non-vPro | 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 |
| | Interoperability | Wi-Fi® certified |
| | Frequency Band | <ul style="list-style-type: none">802.11b/g/n/ax 2.402 - 2.482 GHz802.11a/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 | <ul style="list-style-type: none">802.11b: 1, 2, 5.5, 11 Mbps802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)802.11ac: MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, 80MHz & 160MHz)802.11ax: MCS0 ~ MCS11, (1SS and 2SS) (20MHz, 40MHz, 80MHz & 160MHz) |
| | Modulation | Direct Sequence Spread Spectrum OFDM, BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM, 1024QAM |
| | Security ³ | <ul style="list-style-type: none">IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode onlyAES-CCMP: 128 bit in hardware802.1x authenticationWPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.WPA2 certification |

Technical Specifications

| | | |
|---|--|--------------------------------|
| | <ul style="list-style-type: none">• IEEE 802.11i• WAPI | |
| Network Architecture Models | Ad-hoc (Peer to Peer) Infrastructure (Access Point Required) | |
| Roaming | IEEE 802.11 compliant roaming between access points | |
| Output Power² | <ul style="list-style-type: none">• 802.11b: +18.5dBm minimum• 802.11g: +17.5dBm minimum• 802.11a: +18.5dBm minimum• 802.11n HT20(2.4GHz): +15.5dBm minimum• 802.11n HT40(2.4GHz): +14.5dBm minimum• 802.11n HT20(5GHz): +15.5dBm minimum• 802.11n HT40(5GHz): +14.5dBm minimum• 802.11ac VHT80(5GHz): +11.5dBm minimum• 802.11ac VHT160(5GHz): +11.5dBm minimum• 802.11ax HT40(2.4GHz): +10dBm minimum• 802.11ax VHT160(5GHz): +10dBm minimum | |
| Power Consumption | <ul style="list-style-type: none">• Transmit mode: 2.0 W• Receive mode:1.6 W• Idle mode (PSP) 180 mW (WLAN Associated)• Idle mode: 50 mW (WLAN unassociated)• Connected Standby/Modern Standby: 10mW• Radio disabled: 8 mW | |
| Power Management | ACPI compliant power management 802.11 compliant power saving mode | |
| Receiver Sensitivity⁴ | <ul style="list-style-type: none">• 802.11b, 1Mbps: -93.5dBm maximum• 802.11b, 11Mbps: -84dBm maximum• 802.11a/g, 6Mbps: -86dBm maximum• 802.11a/g, 54Mbps: -72dBm maximum• 802.11n, MCS07: -67dBm maximum• 802.11n, MCS15: -64dBm maximum• 802.11ac, MCS0: -84dBm maximum• 802.11ac, MCS9: -59dBm maximum• 802.11ax, MCS11(HT40): -59dBm maximum• 802.11ax, MCS11(VHT160): -58.5dBm maximum | |
| Antenna type | High efficiency antenna with spatial diversity, mounted in the display enclosure Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications | |
| Form Factor | PCI-Express M.2 MiniCard with CNVi Interface | |
| Dimensions | 1. Type 2230: 2.3 x 22.0 x 30.0 mm 2. Type 1216: 1.67 x 12.0 x 16.0 mm | |
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| Operating Voltage | 3.3v +/- 9% | |
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| | Non-operating | -40° to 176° F (-40° to 80° C) |
| Humidity | Operating | 10% to 90% (non-condensing) |
| | Non-operating | 5% to 95% (non-condensing) |
| Altitude | Operating | 0 to 10,000 ft (3,048 m) |
| | Non-operating | 0 to 50,000 ft (15,240 m) |
| LED Activity | LED Amber - Radio OFF LED Off - Radio ON | |

Technical Specifications

| | |
|---------------------------------|--|
| Bluetooth Specification | 4.0/4.1/4.2/5.0/5.1 Compliant |
| Frequency Band | 2402 to 2480 MHz |
| Number of Available Channels | Legacy: 0~79 (1 MHz/CH) BLE: 0~39 (2 MHz/CH) |
| Signaling Data Rate | Legacy: 3 Mbps signaling data rate ¹ 2.17 Mbps BLE: 1 Mbps signaling data rate ¹ 0.2 Mbps 1. Actual throughput may vary. |
| Transmit Power | 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) The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 9.5 dBm for BR and EDR. |
| Power Consumption | Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW |
| Bluetooth Software Supported | Microsoft Windows Bluetooth Software |
| Power Management | Microsoft Windows ACPI, and USB Bus Support |
| Certifications | FCC (47 CFR) Part 15C, Section 15.247 & 15.249 |
| Power Management Certifications | ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark |
| Bluetooth Profiles Supported | BT4.1-ESR 5/6/7 Compliance LE Link Layer Ping LE Dual Mode LE Link Layer LE Low Duty Cycle Directed Advertising LE L2CAP Connection Oriented Channels Train Nudging & Interlaced Scan BT4.2 ESR08 Compliance LE Secure Connection- Basic/Full LE Privacy 1.2 -Link Layer Privacy LE Privacy 1.2 -Extended Scanner Filter Policies LE Data Packet Length Extension FAX Profile (FAX) Basic Imaging Profile (BIP) ² Headset Profile (HSP) Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) |

1. 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. The specifications for Wi-Fi 6 (802.11ax) are draft 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 802.11ax devices. Only available in countries where 802.11ax is supported. Wi-Fi® supporting gigabit speeds is achievable when transferring files between two devices connected to the same router. Requires a wireless router, sold separately, that supports 160 MHz channels.

2. 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.

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

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).

POWER

Technical Specifications

| | | | |
|--------|---|--|---|
| 65W EM | Dimensions (H x W x D) | | 102 x 55 x 30 mm |
| | Weight | | 270 g +/- 10 g |
| | Input | 100 to 240 VAC | |
| | | Input Efficiency | 88.0 % at 115 Vac and 89.0 % at 230 Vac |
| | | Input frequency range | 47 ~ 63 Hz |
| | Output | Input AC current | Max. 1.7 A at 90 Vac |
| | | Output power | 65 W |
| | | DC output | 19.5 V |
| | | Hold-up time | 5 ms at 115 Vac input |
| | | Output current limit | <11.0 A Over voltage protection- 29 V max automatic shutdown |
| | Connector | | 4.5mm Barrel Type, 3 pin/grounded, mates with interchangeable cords |
| | Environmental Design | Operating temperature | 32°F to 95°F (0° to 35°C) |
| | | Non-operating (storage) temperature | -4°F to 185°F (-20° to 85°C) |
| | | Altitude | 1 to 16,400 ft (0 to 5,000 m) |
| | | Humidity | 20% to 95% |
| | | Storage Humidity | 10% to 95% |
| | EMI and Safety Certifications CE Mark - full compliance with LVD and EMC directives Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV; Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B, CISPR22 Class B, CCC, NOM-1 NYCE. MTBF - over 200,000 hours at 25°C ambient condition. | | |

| | | | |
|-----|-----------------------------|--|---|
| 45W | Dimensions | | 95 x 45 x 26.8 mm |
| | Weight | | 200 g +/- 10 g |
| | Input | 100 to 240 VAC is missing | |
| | | Input Efficiency | 88.0 % at 115 VAC and 89.0 % at 230VAC |
| | | Input frequency range | 48 ~ 63 Hz |
| | Output | Input AC current | Max. 1.4 A at 90 VAC |
| | | Output power | 45 W |
| | | DC output | 19.5 V |
| | | Hold-up time | 5 ms at 115 Vac input |
| | | Output current limit | <11.0 A Over voltage protection- 29 V max automatic shutdown |
| | Connector | | 4.5mm Barrel Type, 3 pin/grounded, mates with interchangeable cords |
| | Environmental Design | Operating temperature | 32°F to 95°F (0°to 35°C) |
| | | Non-operating (storage) temperature | -4°F to 185°F (-20°to 85°C) |
| | | Altitude | 1 to 16,400 ft (0 to 5000m) |
| | | Humidity | 20% to 95% |
| | | Storage Humidity | 10% to 95% |

Technical Specifications

EMI and Safety Certifications CE Mark - full compliance with LVD and EMC directives
Worldwide safety standards - IEC60950, EN60950, UL60950, Class1, SELV;
Agency approvals - C-UL-US, NORDICS, DENAN, EN55022 Class B, FCC Class B,
CISPR22 Class B, CCC, NOM-1 NYCE.
MTBF - over 200,000 hours at 25°C ambient condition.

| | | |
|--|-----------------------------------|---|
| HP 3-cell Long Life Li-Ion (41 WHr) | Dimensions | 6.0 x 186.85 x 90.2 mm (0.236 x 7.36 x 3.55 inch) |
| | Weight | 0.195 kg (0.43 lb) |
| | Cells/Type | 3 cell Lithium-Ion Prismatic cell / 496080/506080 |
| | Voltage | 11.55 V |
| | Amp-hour capacity | 3.615 Ah/3.63 Ah |
| | Watt-hour capacity | 41 Wh |
| | Operating (Charging) | 32° to 113° F (0° to 45° C) |
| | Operating (Discharging) | 14° to 122° F (-10° to 60° C) |
| | Optional Travel Battery Available | No |
| | Warranty | 1-year ² |

1. Recharges the battery up to 50% within 30 minutes when the system is off or in standby mode when used with the power adapter provided with the notebook. After charging has reached 50% capacity, charging speed will return to normal. Charging time may vary +/- 10% due to System tolerance.
2. Batteries have a default one year limited warranty.

FINGERPRINT SENSOR

| | |
|---|---|
| Model | Elan eFSA80ST touch sensor |
| Mobile Voltage Operation | 2.65V to 3.6V |
| Operating Temperature | -4° - 176°F (-20°- 80°C) |
| Current Consumption Image | 50mA peak |
| Low Latency Wait for Finger | <900 uA |
| Capture Rate | 20 cm/sec |
| ESD Resistance | IEC 61000-4-2 (+15KV) |
| Detection Matrix | 508 DPI resolution / 4.0x4.0mm ² sensor area |
| FRR (False Reject Rate) / FAR (False Acceptance Rate) | FRR ~ 2% @ 1:50K FAR |

Country of Origin

China

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

| Type | Description | Part Number |
|--------------|---|-------------|
| Cases | HP Essential Top Load Case | H2W17AA |
| | HP Essential Backpack (up to 15.6") | H1D24AA |
| | HP Essential Messenger Case (up to 17.3") | H1D25AA |
| Input/Output | HP USB Essential Keyboard and Mouse | H6L29AA |
| | HP Ultra Mobile Wireless Mouse | H6F25AA |
| | HP Comfort Grip Wireless Mouse | H2L63AA |
| | HP 3-Button USB Laser Mouse | H4B81AA |
| | HP USB Travel Mouse | G1K28AA |
| | HP USB-C to HDMI 2.0 Adapter | 1WC36AA |
| | HDMI to VGA Adapter | H4F02AA |
| | HP USB to Gigabit RJ45 Adapter | N7P47AA |
| | HP USB-C to RJ45 Adapter | V7W66AA |
| | HP Stereo USB Headset | T1A67AA |
| | HP Stereo 3.5mm Headset | T1A66AA |
| Power | HP 65W Smart AC Adapter | H6Y89AA |
| | HP 65W Slim AC Adapter | H6Y82AA |
| | HP 45W Smart Power Adapter | H6Y88AA |
| Storage | HP Mobile USB DVDRW | F2B56AA |

Summary of Changes

| Date of change: | Version History: | | Description of change: |
|------------------|------------------|---------|------------------------|
| October 28, 2019 | V1 to V2 | Added | Environmental Section |
| October 30, 2019 | V2 to V3 | Updated | Processors Section |

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