

### Overview

#### HP Stream 11 Pro G3 Notebook PC



#### Front

- |    |  |     |                                      |
|----|--|-----|--------------------------------------|
| 1. | WLAN antenna                               | 7.  | Power LED                            |
| 2. | Microphone                                 | 8.  | Headphone / Microphone in Combo Jack |
| 3. | Webcam LED                                 | 9.  | USB 2.0 Port                         |
| 4. | Webcam                                     | 10. | Security lock slot                   |
| 5. | Internal Speakers (2)                      | 11. | Power Button                         |
| 6. | Clickpad with multi-touch gestures support |     |                                      |

### Overview



1. HDMI Port
2. USB 3.0 Port
3. microSD Card Reader

#### Right

4. AC plug LED
5. AC adapter plug

### Overview

#### At A Glance

- Pre-installed with Windows 10 editions
- Powered by Intel® Celeron® N3060 processor
- 11.6" diagonal HD WLED anti-glare (1366x768) display
- Storage options with eMMC configurations up to 64 GB to run programs locally
- Memory options up to 4GB for enhanced memory management
- Intel® Dual Band Wireless - AC 7265 802.11 ac (2x2) WiFi + Bluetooth® 4.2 Combo
- Weight starting at 1.10 kg (2.57 lbs) 1.8 cm (0.71 in) thin
- HDMI port for connecting to high-resolution displays
- HP Webcam VGA camera with integrated microphone
- Enhanced security TPM 2.0 discrete chip
- Battery life up to 10 hours and 45 minutes<sup>1</sup>

**NOTE 1:** (Windows 10 MM14 battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See <http://www.bapco.com> for additional details.)

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

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### Features

#### PRODUCT NAME

HP Stream 11 Pro G3 Notebook PC

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#### OPERATING SYSTEM

**Preinstalled** Windows 10 Pro 64<sup>1</sup>  
Windows 10 Pro 64 (National Academic only)<sup>1</sup>

1. Not all features are available in all editions or versions of Windows 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/>.
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#### PROCESSORS

Intel® Celeron® N3060 with Intel HD Graphics 400 (1.6 GHz, up to 2.48 GHz, 2 MB cache, 2 cores)<sup>1</sup>

1. 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. 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.
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#### CHIPSET

Chipset is integrated with processor

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#### GRAPHICS

**Integrated**

Intel® HD<sup>1</sup> Graphics 400

Support HD Decode, DX11, and HDMI 1.4b

1. HD content required to view HD images.
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### Features

#### DISPLAY

**Internal**

(29.4 cm) 11.6" diagonal HD<sup>1</sup> SVA LED anti-glare(1366x768)

**External**

Up to 32-bit per pixel color depth

**HDMI<sup>2</sup>**

1.4v supports up to 1920 x 1080 @ 60 Hz

1. HD content required to view HD images.
2. HDMI cable sold separately.

**NOTE:** Resolutions are dependent upon monitor capability, and resolution and color depth settings.

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#### STORAGE AND DRIVES

**Primary Storage**

eMMC Configurations

32 GB

64 GB

**NOTE:** For storage drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 980 MB (for Windows 10) is reserved for system recovery software.

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#### MEMORY

**Standard**

DDR3L-1600 (Transfer rates up to 1600 MT/s)

Single Channel Support (For 2 GB)

Dual Channel Support (For 4 GB)

On board (Customer non-accessible)

2 GB (256 MB x 16 x 4 pcs)

4 GB (256 MB x 16 x 8 pcs)<sup>1</sup>

1. Not available with 32 GB eMMC

**Maximum**

4 GB

**Dual-channel**

Maximized dual-channel performance requires on board memory design of the same size and speed in both memory slots.

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### Features

#### NETWORKING/COMMUNICATIONS

**Wireless<sup>1</sup>**

Intel® Dual Band Wireless - AC 7265 802.11 ac (2x2) WiFi + Bluetooth® 4.2 Combo

**Internal Card Expansion**

One M.2 slot for WLAN

1. Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited. The specifications for the 802.11 ac 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 802.11 ac WLAN devices.
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#### AUDIO/MULTIMEDIA

**Audio**

Two integrated stereo speaker  
Headphone / microphone in combo jack

**Webcam<sup>1</sup>**

VGA camera  
Fixed (no tilt) + activity LED, 1 PC, USB 2.0, M-JPEG  
640x480 by 24 frames per second  
Single digital microphone with noise suppression  
HP Noise Cancellation support

1. Internet access required.
  2. HD content required to view HD images.
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#### KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

**Keyboard**

Full sized black textured  
Island-style keyboard (No numeric keypad)

**Clickpad**

Clickpad with image sensor  
Multitouch gestures enabled  
Default on: 2-finger scroll, pinch, rotate, 2-finger click, 3-finger flick  
Support modern Trackpad gestures  
Taps enabled as default

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### Features

#### SOFTWARE AND SECURITY

##### Software

Buy Office<sup>1</sup>  
HP ePrint<sup>2</sup>  
HP Support Assistant<sup>3</sup>  
HP JumpStart

##### Security

Lock slot (Lock sold separately)  
TPM 2.0  
McAfee Checkbox  
McAfee LiveSafe<sup>4</sup>

1. Sold separately or as an optional feature.
  2. HP ePrint 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/businessmobileprinting](http://www.hp.com/go/businessmobileprinting)).
  3. Internet access required.
  4. Internet access required to receive updates. First update included. Subscription required for updates thereafter.
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#### POWER

##### Power Supply

HP 45W Smart AC adapter

##### Primary Battery

HP 2-cell (37 Whr) Polymer battery  
Support battery fast charge

##### Battery life<sup>1</sup>

Up to 10 hours and 45 minutes<sup>1</sup>

##### System Standby Time<sup>2</sup>

TBD

1. Windows 10 MM14Battery life will vary depending on various factors including product model, configuration, loaded applications, features, use, wireless functionality, and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See [www.bapco.com](http://www.bapco.com) for additional details.
  2. Standby life will vary depending on various factors including battery, Memory, CPU, EC and LAN chip. The maximum capacity of the battery will naturally decrease with time and usage.
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#### WEIGHTS & DIMENSIONS

##### Weight

Starting at 2.57 lbs (1.17 kg)

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

30.0 x 20.56 x 1.8 cm



### Features

11.81 x 8.09 x .71 in

**NOTE:** Weight varies by configuration and components.

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### Features

#### PORTS/SLOTS

##### Ports

USB 3.0 Ports – One (Right side)

USB 2.0 Ports – One (Left side)

##### USB 2.0/3.0 Allocation:

2 for the unit

1 for Camera

1 for WLAN Combo

1 AC Smart Pin adapter plug

##### HP Multi-Format Digital Media Reader

Support micro SD/SDHC/SDXC up to UHS-104 (up to 2TB)

Push-Push Insertion/Removal

**NOTE:** All cables are sold separately.

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#### SERVICE AND SUPPORT

HP 1 year limited warranty. 1 year limited warranty on primary battery. On-site service and optional extended service contracts are also available. Optional<sup>1</sup> HP CarePacks<sup>2</sup> are extended service contracts which go beyond your standard limited warranties. For more details, visit: <http://www.hp.com/go/lookuptool>.

1. Sold separately or as an optional feature.
  2. 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. 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. 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>.
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### Technical Specifications

#### SYSTEM UNIT

<b>Stand-Alone Power Requirements</b> (AC Power)	<b>Nominal Operating Voltage</b>	19.5V
	<b>Average Operating Power</b>	
<b>Temperature</b>	<b>Max Operating Power</b>	< 45W
	<b>Operating</b>	41° to 95° F (5° to 35° C)
<b>Relative Humidity</b>	<b>Non-operating</b>	-4° to 140° F (-20° to 60° C)
	<b>Operating</b>	10% to 90%, non-condensing
<b>Shock</b>	<b>Non-operating</b>	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
	<b>Operating</b>	40 G, 2 ms, half-sine
<b>Random Vibration</b>	<b>Non-operating</b>	200 G, 2 ms, half-sine
	<b>Operating</b>	0.75 grms
<b>Altitude</b> (unpressurized)	<b>Non-operating</b>	1.50 grms
	<b>Operating</b>	-50 to 10,000 ft (-15.24 to 3,048 m)
<b>Planned Industry Standard Certifications</b>	<b>Non-operating</b>	-50 to 40,000 ft (-15.24 to 12,192 m)
	<b>UL</b>	Yes
	<b>FCC Compliance</b>	Yes
	<b>ENERGY STAR®</b>	Yes
	<b>EPEAT</b>	Yes
	<b>ICES</b>	Yes
	<b>Australia / NZ A-Tick Compliance</b>	Yes, now for "RCM"
	<b>CCC</b>	Yes
	<b>Japan VCCI Compliance</b>	Yes
	<b>KC</b>	Yes
	<b>BSMI</b>	Yes
	<b>CE Marking Compliance</b>	Yes
	<b>BNCI or BELUS</b>	Yes, now call "CU" or "EAC"
	<b>CIT</b>	No idea
	<b>GOST</b>	Yes, now call "CU" or "EAC"
	<b>Saudi Arabian Compliance (ICCP)</b>	Yes
	<b>SABS</b>	Yes
	<b>UKRSERTCOMPUTER</b>	Yes



### Technical Specifications

#### DISPLAYS

<b>11.6" diagonal HD WLED Anti-Glare (1366x768) flat (3.6mm), SVA</b>	<b>Outline Dimensions (W x H x D)</b>	278.5 x 168.5 x 3.6mm max.
	<b>Active Area</b>	256.125 x 144.0mm typ.
	<b>Weight</b>	235g max.
	<b>Diagonal Size</b>	11.6 inch
	<b>Contrast Ratio</b>	300:1
	<b>Refresh Rate</b>	60Hz
	<b>Brightness</b>	220nits typ.
	<b>Pixel Resolution</b>	<b>Format</b> 1366 x 768
	<b>Pixel Resolution Interface</b>	<b>Configuration</b> RGB Stripe
	<b>LCD Mode</b>	eDP
	<b>PPI</b>	TN
	<b>Viewing Angle</b>	135
		40/40/15/30

#### NETWORKING/COMMUNICATIONS

<b>Intel® Dual Band Wireless - AC 7265 802.11 ac (2x2) WiFi + Bluetooth® Combo</b>	<b>Wireless LAN Standards</b>	IEEE 802.11a
		IEEE 802.11b
		IEEE 802.11g
		IEEE 802.11n
		IEEE 802.11ac
	<b>Interoperability</b>	Wi-Fi certified
<b>Frequency Band</b>	802.11b/g/n	
	<ul style="list-style-type: none"> <li>• 2.402 – 2.482 GHz</li> </ul> <p>Note:</p> <p>The FCC has declared as of January 1, 2015 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.</p>	
	802.11a/n	
	<ul style="list-style-type: none"> <li>• 4.9 – 4.95 GHz (Japan)</li> <li>• 5.15 – 5.25 GHz</li> <li>• 5.25 – 5.35 GHz</li> <li>• 5.47 – 5.725 GHz</li> </ul>	



### Technical Specifications

	<ul style="list-style-type: none"><li>5.825 – 5.850 GHz</li></ul> Note: Indonesia no support this band)
<b>Data Rates</b>	<ul style="list-style-type: none"><li>802.11b: 1, 2, 5.5, 11 Mbps</li><li>802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li><li>802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li><li>802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz)</li><li>802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)</li></ul>
<b>Modulation</b>	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
<b>Security<sup>1</sup></b>	<ul style="list-style-type: none"><li>IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only</li><li>AES-CCMP: 128 bit in hardware</li><li>802.1x authentication</li><li>WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES.</li><li>WPA2 certification</li><li>IEEE 802.11i</li><li>Cisco Certified Extensions, all versions through CCX4 and CCX Lite</li><li>WAPI</li></ul>
<b>Network Architecture Models</b>	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
<b>Roaming</b>	IEEE 802.11 compliant roaming between access points
<b>Output Power<sup>2</sup></b>	<ul style="list-style-type: none"><li>802.11b : +16dBm minimum</li><li>802.11g : +14dBm minimum</li><li>802.11a : +14dBm minimum</li><li>802.11n HT20(2.4GHz) : +13dBm minimum</li><li>802.11n HT40(2.4GHz) : +13dBm minimum</li><li>802.11n HT20(5GHz) : +12dBm minimum</li><li>802.11n HT40(5GHz) : +12dBm minimum</li><li>802.11ac 80MHz(5GHz) : +11dBm minimum</li></ul>
<b>Power Consumption</b>	Transmit: 2.0 W (max)  Receive: 1.6 W (max)  Idle mode (PSP): 180 mW (WLAN Associated)  Idle mode: 60 mW (WLAN unassociated)  Radio disabled: 30 mW



### Technical Specifications

<b>Power Management</b>	ACPI and PCI Express compliant power management 802.11 compliant power saving mode	
<b>Receiver Sensitivity<sup>3</sup></b>	802.11b, 1Mbps : -94dBm maximum  802.11b, 11Mbps : -86dBm maximum  802.11g, 6Mbps : -88dBm maximum  802.11g, 54Mbps : -74dBm maximum  802.11a, 6Mbps : -86dBm maximum  802.11a, 54Mbps : -72dBm maximum  802.11n, MCS07 : -69dBm maximum  802.11n, MCS15 : -66dBm maximum  802.11ac, 1SS, MCS-0 : -86dBm maximum  802.11ac, 1SS, MCS-9 : -61dBm maximum  802.11ac, 2SS, MCS-0 : -83dBm maximum  802.11ac, 2SS, MCS-9 : -58dBm maximum	
<b>Antenna type</b>	High efficiency antenna with spatial diversity, mounted in the display enclosure  Two embedded dual band 2.4/5 GHz antennas are provided to the card to support WLAN MIMO communications and Bluetooth communications	
<b>Form Factor</b>	PCI-Express M.2 MiniCard	
<b>Dimensions</b>	Type 2230: 2.3 x 22.0 x 30.0 mm	
<b>Weight</b>	Type 2230: 2.8g	
<b>Operating Voltage</b>	3.3v +/- 9%	
<b>Temperature</b>	<b>Operating</b>	14° to 158° F (–10° to 70° C)
	<b>Non-operating</b>	–40° to 176° F (–40° to 80° C)
<b>Humidity</b>	<b>Operating</b>	10% to 90% (non-condensing)
	<b>Non-operating</b>	5% to 95% (non-condensing)
<b>Altitude</b>	<b>Operating</b>	0 to 10,000 ft (3,048 m)
	<b>Non-operating</b>	0 to 50,000 ft (15,240 m)



### Technical Specifications

**LED Activity** LED Amber – Radio OFF; LED White – Radio ON

1. Check latest software/driver release for updates on supported security features.
2. Maximum output power may vary by country according to local regulations.
3. 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).

#### HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology

**Bluetooth Specification** 4.0+EDR Compliant

**Frequency Band** 2402 to 2480 MHz

**Number of Available Channels** 79 (1 MHz) available channels

**Data Rates and Throughput** 3 Mbps data rate; throughput up to 2.17 Mbps

Synchronous Connection Oriented links up to 3, 64 kbps, voice channels

Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric or 1306.9 kbps symmetric

**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.

Receiver Sensitivity	Modulation	0.01% BER	0.001% BER
	GFSK	-80 dBm	-70 dBm
	$\pi/4$ -DQPSK	-80 dBm	-70 dBm

**Power Consumption** Peak (Tx) 330 mW  
Peak (Rx) 230 mW  
Selective Suspend 17 mW

**Range** Up to 33 ft (10 m)

**Electrical Interface** USB 2.0 compliant

**Bluetooth Software Supported** Microsoft Windows Bluetooth Software

**Link Topology**

**Electrical Interface** Point to Point, Multipoint Pico Nets up to 7 slaves

Full support of Bluetooth Security Provisions



### Technical Specifications

#### Bluetooth Software Supported

#### Security

**Power Management** Microsoft Windows ACPI, and USB Bus Support

**Power Management** Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff

#### Certifications

**Security** All necessary regulatory approvals for supported countries, including:

**Certifications** FCC (47 CFR) Part 15C, Section 15.247 & 15.249

#### Bluetooth Profiles Supported

**Power Management** ETS 300 328, ETS 300 826

**Certifications** Low Voltage Directive IEC950

**Certifications** UL, CSA, and CE Mark

#### Bluetooth Profiles Supported

Serial Port Profile (SPP)<sup>1</sup>  
Service Discovery Application Profile (SDAP)  
Dial-Up Networking (DUN)<sup>1,2</sup>  
Generic Object Exchange Profile (GOEP)<sup>1,2</sup>  
Object Push Profile (OPP)<sup>1,2</sup>  
File Transfer Profile (FTP)  
Synchronization Profile (SYNC)  
Hard Copy Cable Replacement (HCRP)<sup>1,2</sup>  
Personal Area Networking Profile (PAN)<sup>1,2</sup>  
Human Interface Device Profile (HID)<sup>1,2</sup>  
FAX Profile (FAX)  
Basic Imaging Profile (BIP)<sup>2</sup>  
Headset Profile (HSP)  
Hands Free Profile (HFP)  
Advanced Audio Distribution Profile (A2DP)



### Technical Specifications

#### AUDIO/MULTIMEDIA

<b>Hardware</b>	<b>Implementation</b>	Realtek ALC 3227 Low Power High Definition Audio Codec
	<b>Function Key Volume Controls</b>	Volume up, Volume down, and Mute
	<b>Full Duplex</b>	Yes
	<b>Microphone In</b>	Mono
	<b>Headphone/Line Out</b>	Stereo
	<b>Integrated Microphone</b>	Yes, Dual Digital Microphone
<b>Audio Output Quality</b>	<b>Frequency Response</b>	20 Hz – 20KHz
	<b>Signal to Noise Ratio</b>	90 dB FSA (Typical)
	<b>Total Harmonic Distortion</b>	-80 dB FS (Typical)
	<b>Noise Floor</b>	-120 dB
	<b>Play/Record Sampling Rate(s)</b>	8KHz – 96KHz
	<b>DAC</b>	16, 20 or 24 bit
	<b>ADC</b>	16 or 20 bit
<b>Integrated Stereo Speakers</b>	<b>Power Rating</b>	2 Watts
	<b>Impedance</b>	4 Ohm

#### POWER

<b>HP 45W AC Adapter</b>	<b>Dimensions</b>	3.74 x 1.57 x 1.04 in (9.5 x 4.0 x 2.65 cm)
	<b>Weight</b>	0.386 lb (175g) max
	<b>Input</b>	<b>Input Efficiency</b> 87.74% at 115Vac and 88.4% at 230Vac <b>Input frequency range</b> 47 to 63 Hz <b>Input AC current</b> 1.4A at 90VAC
	<b>Output</b>	<b>Output power</b> 45W <b>Hold-up time</b> 5m Sec. at 115 VAC input <b>DC output</b> 19.5V
	<b>Environmental Design</b>	<b>Output current limit</b> < 8.0A <b>Operating temperature</b> 32° to 95° F (0° to 35° C) <b>Non-operating (storage) temperature</b> -4° to 185° F (-20° to 85° C) <b>Altitude</b> 0 to 16,400 ft (0 to 5,000 m) <b>Humidity</b> 20% to 95% <b>Storage Humidity</b> 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 2-cell Polymer Battery Cells/Type (37.69 WHr)

#### Watt-hour capacity

2-cell Polymer

37.69Whr

#### Temperature

**Operating (Charging)** 0° to 45° C

**Operating (Discharging)** -10° to 60° C

**Non-operating** -20° ~ 60° C (1 month)

-20° ~ 45° C (3 month)

-20° ~ 30° C (6 month)

#### Warranty

1 year limited

## ENVIRONMENTAL

#### Eco-Label Certifications & declarations

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

- IT ECO declaration
- US ENERGY STAR®
- EPEAT<sup>®</sup> Gold registered in the United States. See <http://www.epeat.net> for registration status in your country.

#### 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 (Sort idle)	5.06 W	5.08 W	5.19 W
Normal Operation (Long idle)	2.78 W	2.83 W	2.78 W
Sleep	0.72 W	0.74 W	0.72 W
Off	0.16 W	0.24 W	0.16 W



### Technical Specifications

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

Heat Dissipation*	115VAC, 60Hz	230VAC, 50Hz	100VAC, 50Hz
Normal Operation (Short idle)	17 BTU/hr	17 BTU/hr	18 BTU/hr
Normal Operation (Long idle)	10 BTU/hr	10 BTU/hr	10 BTU/hr
Sleep	2 BTU/hr	3 BTU/hr	2 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

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

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)	Sound Power (L <sub>WAd</sub> , bels)	Sound Pressure (L <sub>pAm</sub> , decibels)
Typically Configured – Idle	1.7	16
Fixed Disk – Random writes	1.7	16

**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:

- 3 USB ports
- 1 PC card slot (type I/II)
- 1 ExpressCard/54 slot
- 1 IEEE 1394 Port
- 2 SODIMM memory slots
- Optional expansion base docking station
- 1 multi-bay II storage port
- Interchangeable 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 than 1ppm by weight

Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)

Battery type: Lithium

#### Additional Information

- 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 (EPEAT) standard at the <GOLD> level, see [www.epeat.net](http://www.epeat.net)
- Plastics parts weighing over 25 grams used in the product are marked per ISO11469 and ISO1043.
- This product contains 0.0% post-consumer recycled plastic (by wt.)
- This product is 97.3% recycle-able when properly disposed of at end of life.

#### Packaging Materials

**External:** PAPER/Corrugated 292.0 g

**Internal:** PLASTIC/EPE (Expanded Polyethylene) 34.5 g

The plastic packaging material contains at least 0% recycled content.

The corrugated paper packaging materials contains at least 80% recycled content.

#### Material Usage

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

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



### Technical Specifications

- 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:

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

#### End-of-life Management and Recycling

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

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

#### Hewlett-Packard Corporate Environmental Information

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

Global Citizenship Report

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

Eco-label certifications

<http://www8.hp.com/us/en/hp-information/environment/ecolabels.html>

ISO 14001 certificates:

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

and

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

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### COUNTRY OF ORIGIN

China



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

Category	Description	Part number
<b>Cases</b>	HP Business Top Load	H5M92AA
	HP Business Slim Top Load	H5M91AA
	HP Business Backpack	H5M90AA
	HP Essential Top Load Case (up to 15.6")	H2W17AA#xxx
<b>Docking</b>	HP USB 3.0 Travel Dock	T0K30AA#AC3
	HP USB 3.0 Port Replicator	H1L08AA#xxx
	HP Display and Notebook Stand II	E8G00AA#xxx
<b>Input/Output</b>	HP Slim USB Keyboard & Mouse	T6T83AA#xxx
	HP USB Optical Travel mouse	G1K28AA
	HP Ultrathin Bluetooth Mouse	L9V78AA
	HP Conferencing Keyboard	K8P74AA#xxx
	HP UC Speaker Phone	K7V16AA
	HP UC Wired Headset	K7V17AA
	HDMI to VGA Adapter	H4F02AA
	HP HDMI to DVI Adapter	F5A28AA
	HP USB Gigabit RJ45 Adapter	N7P47AA#xxx
<b>Power</b>	HP 45W Smart AC Adapter (4.5mm)	H6Y88AA#xxx
	HP 65W Slim AC Adapter	H6Y82AA#xxx
	HP 65W Smart Travel AC Adapter	J0E43AA#xxx
<b>Storage</b>	HP External USB Optical Drive	F2B56AA
<b>Security</b>	HP Keyed Cable Lock 10mm	T1A62AA



### Summary of Changes

<b>Date of change:</b>	<b>Version History:</b>	<b>Description of change:</b>
Sep 27 2016	V1 to V2	Environmental Data added
July 27 2017	V2 to V3	Software and security section updated

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