

### Overview

#### HP Chromebook 11 G5



#### Left View

- |    |                    |    |                          |
|----|--------------------|----|--------------------------|
| 1. | Webcam             | 4. | USB 3.1 Gen 1 port       |
| 2. | Webcam LED         | 5. | Audio in/ out combo jack |
| 3. | Security lock slot | 6. | Power LED                |



### Overview



#### Front Right View

1. USB 3.1 Gen 1 port
2. HDMI port
3. Micro SD card reader
4. AC plug LED
5. AC Smart Pin adapter plug (4.5mm barrel)



### Overview

#### AT A GLANCE

- Enjoy affordable, convenient mobile productivity with an Intel® Celeron® Processor
- Choose from either a 11.6" diagonal HD IPS (1366 x 768) Corning® Gorilla® Glass NBT Touch™ screen or 11.6" diagonal HD Anti-glare (1366 x 768) Non-Touch display
- Starting at 1.1418 kg (2.51 lbs) for Non-Touch and 1.878 kg (2.61 lbs) for Touch
- A compact design at 1.84 cm (0.72 in) thin
- Up to 12 hours and 30 minutes of battery life to comfortably last the entire school day
- Wireless connectivity allows you to stay productive wherever work takes you
- The growing Chrome™ Web Store offers thousands of free apps, themes, and extensions to help you make the most of your Chromebook™ - including customized apps and extensions for education and business environments
- Store up to 100 GB of your files and content with complimentary Google Drive  
Your own virtual hard drive is available anywhere the Internet is accessible with this complimentary two year promotion
- Purchase with confidence with a 1-year limited warranty and 3-year, 4-year and 5-year extended service available with optional HP Care Services.

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



### Features

#### PRODUCT NAME

HP Chromebook 11 G5

#### OPERATING SYSTEM

**Preinstalled** Chrome OS™

#### PROCESSOR

Intel® Celeron® N3060 (1.60 GHz, Turbo up to 2.48 GHz) 2 MB 1600 MHz L2 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.

#### CHIPSET

Integrated with processor

#### GRAPHICS

Intel® HD Graphics 400

- Support HD Decode, DX12, and HDMI

#### DISPLAY

##### Internal Touch

11.6" diagonal HD<sup>1</sup> WLED slim eDP UWVA, (1366 x 768) with ) Corning® Gorilla® Glass NBT™

##### Non-Touch

11.6" diagonal HD<sup>1</sup> WLED flat eDP SVA Anti-glare (1366 x 768)

##### External

HDMI v1.4

Supporting up to 1920 x 1080 @ 60 Hz

1. High definition content is required to view high-definition images.  
**NOTE:** Resolutions are dependent upon monitor capability, and resolution and color depth settings.

#### STORAGE AND DRIVES

##### Support eMMC

16 GB<sup>1</sup>

32 GB<sup>1</sup>

Store up to 100 GB with Google Drive (2-year subscription included)<sup>2</sup>



### Features

1. For hard drives, GB = 1 billion bytes. Actual formatted capacity is less. 5.1GB of the eMMC are dedicated/allocated to the OS and OS partitions.
2. This offer is tied to this device and is non-transferable. If this device is returned, the extra storage will be revoked. In order to redeem this offer, you will need to be on Chrome OSTM 23 or later. Internet access is required and not included. Additional information about storage plan refunds, renewals, cancellations and expiration is available at the Google website: <https://support.google.com/chromebook/answer/2703646?hl=en>

### MEMORY

Memory soldered down  
LPDDR3-1600 Single Channel (Transfer rates up to 1600 MT/s) for 2 GB Memory  
LPDDR3-1600 Dual Channel (Transfer rates up to 1600 MT/s) for 4 GB Memory

**Maximum**  
4 GB

**NOTE:** Internal component upgrades to memory are not available after factory configuration.

### NETWORKING/COMMUNICATIONS

#### Wireless LAN (WLAN)

Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n/ac (2x2) WiFi and Bluetooth® 4.2 Combo<sup>1</sup>

1. Wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.

#### Internal Card Expansion

One M.2 slot for WLAN

### AUDIO/MULTIMEDIA

#### Audio

HD Audio  
Dual speakers

#### Webcam<sup>1</sup>

HP TrueVision HD<sup>2</sup>

- HD<sup>2</sup> camera - Indicator LED, USB2.0, f2.0
- 720p by 30 frames per second
- Dual array digital microphone w/ appropriate software - beam forming, echo cancellation, noise suppression

1. Internet access required and not included.
2. High definition content is required to view high-definition images.

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



### Features

#### Keyboard

Full size textured island-style keyboard  
Ash Gray

#### Clickpad

Clickpad with image sensor  
Multitouch gestures enabled  
Taps enabled as default

### SOFTWARE AND SECURITY

#### Preinstalled Software

Chrome OS™ and its default set of apps

#### Security

Trusted Platform Module (TPM) 1.2  
Lock slot  
Optional UltraSlim Kensington Security Lock (Sold separately)

### POWER

#### Power Supply

HP 45W Smart AC Adapter<sup>1</sup>  
Power cord included is 1.0 meter (3.3 feet)

1. AC adapter uses a 90 degree 4.5mm DC plug

#### Primary Battery

2-cell (43.7 WHr) Polymer Long- Life battery

#### Battery Life

Non-touch SKU: 750 mins = 12.5hrs  
Touch SKU: 675 mins = 11.25 hrs

**NOTE:** Testing conducted by HP using Google Chrome OS power LoadTest. Battery life will vary and the maximum capacity of the battery will naturally decrease with time and usage. See <http://www.chromium.org/chromium-os/testing/power-testing> for test details.

### WEIGHTS & DIMENSIONS

#### Weight<sup>1</sup>

##### Non-Touch

Starting at 1.137 kg (2.51lbs)

##### Touch

Starting at 1.185 kg (2.62lbs)

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

20.5 x 28.6 x 1.84 cm



Not all configuration components are available in all regions/countries.  
Americas –HP Chromebook 11 G5 – April 07, 2017 - c05137760

### Features

8.07 x 11.25 x 0.72 in

1. Weight varies by configuration and components.

### PORTS/SLOTS

#### Ports

USB 3.1 Gen 1 – Two (One on the left side and one on the right - Both USB ports support USB boost

HDMI v1.4 – One

Headphone/Microphone combo jack – One

AC Smart Pin adapter plug (4.5mm barrel) – One

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

Support micro-SD/SDHC/SDXC up to UHS-104 (left side)

Push-push insertion/removal

### SERVICE AND SUPPORT

HP Services offers limited 1-year limited warranty depending on country; 1-year limited warranty on primary battery. On-site service is also available with optional HP Care Services<sup>1,2</sup> which extend protection beyond the standard limited warranty. To choose the right level of service for your HP product, use the HP Care Services Lookup Tool at:

<http://www.hp.com/go/lookuptool>. Additional HP Care Services<sup>1,2</sup> information by product is available at: [www.hp.com/go/cpc](http://www.hp.com/go/cpc).

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. For details, visit [www.hp.com/go/cpc](http://www.hp.com/go/cpc).

**NOTE:** Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details.

<http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp>

### SYSTEM UNIT

<b>Stand-Alone Power Requirements</b> (AC Power)	<b>Nominal Operating Voltage</b>	19.5V
	<b>Average Operating Power</b>	28W
	<b>Max Operating Power</b>	< 45W
<b>Temperature</b>	<b>Operating</b>	41° to 95° F (5° to 35° C)
	<b>Non-operating</b>	-4° to 140° F (-20° to 60° C)
<b>Relative Humidity</b>	<b>Operating</b>	10% to 90%, non-condensing
	<b>Non-operating</b>	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
<b>Shock</b>	<b>Operating</b>	40 G, 2 ms, half-sine
	<b>Non-operating</b>	200 G, 2 ms, half-sine
<b>Random Vibration</b>	<b>Operating</b>	0.75 grms
	<b>Non-operating</b>	1.50 grms
<b>Altitude</b> (unpressurized)	<b>Operating</b>	-50 to 10,000 ft (-15.24 to 3,048 m)



Not all configuration components are available in all regions/countries.  
Americas –HP Chromebook 11 G5 – April 07, 2017 - c05137760

### Features

<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>CSA</b>	No, only UL request
	<b>FCC Compliance</b>	Yes
	<b>ENERGY STAR®</b>	Yes
	<b>EPEAT</b>	Yes, Silver compliant
	<b>ICES</b>	Yes
	<b>Australia / NZ A-Tick Compliance</b>	Yes
	<b>CCC</b>	No
	<b>Japan VCCI Compliance</b>	Yes
	<b>KC</b>	No
	<b>BSMI</b>	Yes
	<b>CE Marking Compliance</b>	Yes
	<b>BNCI or BELUS</b>	No
	<b>CIT</b>	No
	<b>GOST</b>	Yes, now is EAC(CU) approval
	<b>Saudi Arabian Compliance (ICCP)</b>	No
	<b>SABS</b>	No
<b>UKRSERTCOMPUTER</b>	No	

### DISPLAY

<b>Outline Dimensions</b> (W x H x D)	268.5 x 168.5 x 3.0 (max.)	
<b>Active Area</b>	256.125 x 144.0	
<b>Weight</b>	300g max.	
<b>Diagonal Size</b>	11.6"	
<b>Surface Treatment</b>	AG	
<b>Touch Enabled</b>	Yes	
<b>TSP Type</b>	OGS, Direct bonding	
<b>Contrast Ratio</b>	800:1 (typ)	
<b>Refresh Rate</b>	60Hz	
<b>Response time</b>	27ms typ.	
<b>Pixel Per Inch (PPI)</b>	135	
<b>Brightness</b>	220nits typ.	
<b>Pixel Resolution</b>	<b>Format</b>	1366 x 768
	<b>Configuration</b>	RGB Vertical Stripe
<b>Interface</b>	eDP 1.2 w/o PSR	
<b>LCD Mode</b>	UWVA	





### Features

<b>Viewing Angle</b>	85/85/85/85	
<b>Outline Dimensions</b> (W x H x D)	278.5 x 168.5 x 3.0 (max.)	
<b>Active Area</b>	256.125 x 144.0	
<b>Weight</b>	235g max.	
<b>Diagonal Size</b>	11.6"	
<b>Surface Treatment</b>	AG	
<b>Contrast Ratio</b>	500:1 (typ)	
<b>Refresh Rate</b>	60Hz	
<b>Response time</b>	8ms typ.	
<b>Pixel Per Inch (PPI)</b>	135	
<b>Brightness</b>	220nits typ.	
<b>Pixel Resolution</b>	<b>Format</b>	1366 x 768
	<b>Configuration</b>	RGB Vertical Stripe
<b>Interface</b>	eDP 1.2 w/o PSR	
<b>LCD Mode</b>	TN, SVA	
<b>Viewing Angle</b>	45/45/15/35	



### Technical Specifications

#### NETWORKING

Intel® Dual Band Wireless-AC 7265 802.11 ac (2x2) WiFi + Bluetooth® 4.2 Combo(non-vPro, Non-UNII D1)

<b>Wireless LAN Standards</b>	IEEE 802.11a
	IEEE 802.11b
	IEEE 802.11g
	IEEE 802.11n
	IEEE 802.11ac

**Interoperability** Wi-Fi certified

**Frequency Band** 802.11b/g/n

- 2.402 – 2.482 GHz

Note: 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.

802.11a/n

- 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

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>
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**Modulation** 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> </ul>
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### Technical Specifications

	<ul style="list-style-type: none"><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) : +14dBm minimum</li><li>• 802.11n HT40(2.4GHz) : +12dBm minimum</li><li>• 802.11n HT20(5GHz) : +14dBm minimum</li><li>• 802.11n HT40(5GHz) : +12dBm 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: 50 mW (WLAN unassociated)  Connect Standby: 10 mW (WLAN+BT)  Radio disabled: 5 mW
<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 : -88dBm maximum  802.11a, 54Mbps : -74dBm maximum  802.11n, MCS07 : -69dBm maximum



### Technical Specifications

	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  Or Type 1630 : 2.3 x 16.0 x 30.0 mm
<b>Weight</b>	Type 2230 : 2.8g  Or Type 1630 : 2g
<b>Operating Voltage</b>	3.3v +/- 9%
<b>Temperature</b>	Operating                    14° to 158° F (–10° to 70° C) Non-operating            –40° to 176° F (–40° to 80° C)
<b>Humidity</b>	Operating                    10% to 90% (non-condensing) Non-operating            5% to 95% (non-condensing)
<b>Altitude</b>	Operating                    0 to 10,000 ft (3,048 m) Non-operating            0 to 50,000 ft (15,240 m)
<b>LED Activity</b>	LED Amber – Radio OFF; LED White – Radio ON

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).



### Technical Specifications

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

<b>Bluetooth Specification</b>	4.0/4.1/4.2 Compliant												
<b>Frequency Band</b>	2402 to 2480 MHz												
<b>Number of Available Channels</b>	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)												
<b>Data Rates and Throughput</b>	Legacy : 3 Mbps data rate; throughput up to 2.17 Mbps  BLE : 1 Mbps data rate; throughput up to 0.2 Mbps  Legacy : Synchronous Connection Oriented links up to 3, 64 kbps, voice channels  Legacy : Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric (3-DH5) or 864 kbps symmetric (3-EV5)												
<b>Transmit Power</b>	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of + 4 dBm for BR and EDR.												
<b>Receiver Sensitivity</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Modulation</th> <th style="width: 33%;">0.01% BER</th> <th style="width: 33%;">0.001% BER</th> </tr> </thead> <tbody> <tr> <td>GFSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> <tr> <td><math>\pi/4</math>-DQPSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> <tr> <td>8DPSK</td> <td>-80 dBm</td> <td>-70 dBm</td> </tr> </tbody> </table>	Modulation	0.01% BER	0.001% BER	GFSK	-80 dBm	-70 dBm	$\pi/4$ -DQPSK	-80 dBm	-70 dBm	8DPSK	-80 dBm	-70 dBm
Modulation	0.01% BER	0.001% BER											
GFSK	-80 dBm	-70 dBm											
$\pi/4$ -DQPSK	-80 dBm	-70 dBm											
8DPSK	-80 dBm	-70 dBm											
<b>Legacy</b>													
<b>Power Consumption</b>	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW												
<b>Range</b>	Legacy Up to 33 ft (10 m)  BLE Up to 99 ft (30 m)												
<b>Electrical Interface</b>	USB 2.0 compliant												
<b>Bluetooth Software Supported</b>	Microsoft Windows Bluetooth Software												
<b>Link Topology</b>													



### Technical Specifications

<b>Electrical Interface</b>	Point to Point, Multipoint Pico Nets up to 7 slaves
<b>Bluetooth Software Supported Security</b>	Full support of Bluetooth Security Provisions
<b>Power Management</b>	Microsoft Windows ACPI, and USB Bus Support
<b>Certifications</b>	Self-configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff
<b>Security</b>	All necessary regulatory approvals for supported countries, including:
<b>Certifications</b>	FCC (47 CFR) Part 15C, Section 15.247 & 15.249
<b>Bluetooth Profiles Supported</b>	
<b>Power Management</b>	ETS 300 328, ETS 300 826
<b>Certifications</b>	Low Voltage Directive IEC950 UL, CSA, and CE Mark
<b>Certifications</b>	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> 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> Hands Free Profile (HFP) Advanced Audio Distribution Profile (A2DP) Audio Video Remote Control Profile (AVRCP)
<b>Bluetooth V4.1/V4.2 support feature</b>	V4.1: ESR5/6/7 compliant  V4.2: ESR8 compliant, LE Secure Connection – Basic.



### Technical Specifications

#### AUDIO / MULTIMEDIA

<b>Hardware</b>	<b>Implementation</b>	Realtek ALC5650, I2S Audio
	<b>Function Key</b>	Volume up, Volume down, and Mute
	<b>Volume Controls</b>	
	<b>Full Duplex</b>	Yes
	<b>Microphone In</b>	Yes (Headset)
	<b>Headphone/Line Out</b>	Yes (Stereo)
	<b>Integrated Microphone</b>	Yes (Dual)
<b>Audio Output Quality</b>	<b>Frequency Response</b>	20-20kHz
	<b>Total Harmonic Distortion + Noise</b>	-85dB
	<b>Noise Floor</b>	-100dB
	<b>Play/Record Sampling Rate(s)</b>	48kHz
	<b>DAC</b>	100dBA SNR, -85dB THD+N
	<b>ADC</b>	94dBA SNR, -83dB THD+N
	<b>Integrated Stereo Speakers</b>	<b>Power Rating</b>
	<b>Impedance</b>	4ohm

#### POWER

##### HP 45W Smart AC Adapter

<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	
	90 to 265 VAC	
<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>	1.4 A at 90 VAC
	<b>Output power</b>	45W
	<b>DC output</b>	19.5V
<b>Output</b>	<b>Hold-up time</b>	5 msec at 115 VAC input
	<b>Output current limit</b>	<8.0A
	<b>Over voltage protection</b>	< 29V max automatic shutdown
	<b>Over short protection</b>	Auto-recovery and no damage
<b>Connector</b>	3 pin/grounded, mates with interchangeable cords	
	<b>Operating temperature</b>	32° to 95° F (0° to 35° C)



### Technical Specifications

<b>Environmental Design</b>	<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%
<b>EMI and Safety Certifications</b>	*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 65W EM Smart AC Adapter

<b>Dimensions</b>	4.98 x 1.97 x 1.18 in (12.65 x 5.0 x 3.0 cm)	
<b>Weight</b>	0.62 lb (290g) 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>	1.7 A at 90 VAC
	<b>Output power</b>	65W
	<b>DC output</b>	19.5V
	<b>Hold-up time</b>	5 msec at 115 VAC input
<b>Output</b>	<b>Output current limit</b>	<11.0A
	<b>Over voltage protection</b>	< 29V max automatic shutdown
	<b>Over short protection</b>	Auto-recovery and no damage
<b>Connector</b>	3 pin/grounded, mates with interchangeable cords	
	<b>Operating temperature</b>	32° to 95° F (0° to 35° C)
<b>Environmental Design</b>	<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%
<b>EMI and Safety Certifications</b>	*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.	





### Technical Specifications

<b>2-cell (43.7 WHr) Polymer battery</b>	<b>Dimensions (H x W x L)</b>	5.3mm x 142.6mm x 159.2mm		
	<b>Weight (max)</b>	195g		
	<b>Cells/Type</b>	Polymer Cells/LGC ICP3678122L1 & Coslight C3678122G		
	<b>Energy</b>	<b>Voltage</b>	7.7V	
		<b>Amp-hour capacity</b>	5680mAh(Typ.)/5400mAh(Min.)	
		<b>Watt-hour capacity</b>	43.7Whr(Typ.)/41.5Whr(Min.)	
		<b>Temperature</b>	<b>Operating (Charging)</b>	0~45°C
	<b>Operating (Discharging)</b>		-10~60°C	
	<b>Non-operating</b>		-20~60°C(1 month storage) -20~45°C(3 month storage) -20~30°C(6 month storage)	
	<b>Battery Re-Charge Time</b>	<b>System in OFF or Standby Mode</b>	~2.77hrs-2.92hrs	
		<b>System ON</b>	~3.25hrs	
	<b>Fuel Gauge LED</b>	No		
	<b>Warranty</b>	1 year		
<b>Compatible with optional Travel Battery</b>	No			

### ENVIRONMENTAL

- BFR/PVC Free
- WEEE compliant (Waste Electric and Electronic Equipment)
- Energy Star 6.1 / EPEAT Gold compliant
- RoHS 2 Compliant
- California Battery Charger Energy Efficiency compliant

**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 <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**

**115VAC, 60Hz**

**230VAC, 50Hz**

**100VAC, 60Hz**

Not all configuration components are available in all regions/countries.  
Americas –HP Chromebook 11 G5 – April 07, 2017 - c05137760



### Technical Specifications

#### ENERGY STAR® test method)

Normal Operation (Short idle)	4.75 W	4.82 W	4.51 W
Normal Operation (Long idle)	2.73 W	2.74 W	2.44 W
Sleep	0.36 W	0.42 W	0.37 W
Off	0.34 W	0.36 W	0.32 W

#### 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, 60Hz
Normal Operation (Short idle)	16 BTU/hr	16 BTU/hr	15 BTU/hr
Normal Operation (Long idle)	9 BTU/hr	9 BTU/hr	8 BTU/hr
Sleep	1 BTU/hr	1 BTU/hr	1 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>WA</sub> , bels)	Sound Pressure (L <sub>pAm</sub> , decibels)
Typically Configured – Idle	N/A	17
Fixed Disk – Random writes	N/A	17

#### 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??



### Technical Specifications

Spare parts are available throughout the warranty period and or for up to “5” years after the end of production.

#### 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% post-consumer recycled plastic (by wt.)
- This product is 95.5% recycle-able when properly disposed of at end of life.

#### Packaging Materials

<b>External:</b>	PAPER/Corrugated	329.8 g
<b>Internal:</b>	PLASTIC/EPE-Expanded Polyethylene	33.3 g
	PLASTIC/Polyethylene low density	10.3 g
	PLASTIC/EPP (Expanded Polypropylene)	4.9 g

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

The corrugated paper packaging materials contains at least 95.5% 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.



### Technical Specifications

- 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:

- 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://www.hp.com/hpinfo/globalcitizenship/environment/pdf/PC\\_GBU\\_Product\\_Design\\_ISO\\_14K\\_Certificate.pdf](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>



## Technical Specifications

### **COUNTRY OF ORIGIN**

China



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

Type	Description	Part number
<b>Cases</b>	HP Business Backpack	H5M90AA
	HP Slim Ultrabook Top Load	F3W15AA
	HP Essential Top Load Case (up to 15.6")	H2W17AA#xxx
	HP Essential Backpack (up to 15.6")	H1D24AA
<b>Input/Output</b>	HP 3-Button Laser Mouse	H4B81AA#xxx
	HP Ultra Mobile Wireless Mouse	H6F25AA
	HP USB Optical Travel mouse	G1K28AA
	HDMI to VGA Adapter	H4F02AA
<b>Power</b>	HP 45W Smart AC Adapter (4.5mm)	H6Y88AA#xxx
	HP Notebook Power Bank	N9F71AA
<b>Storage - External Storage</b>	HP External USB Optical Drive	F2B56AA



### Summary of Changes

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