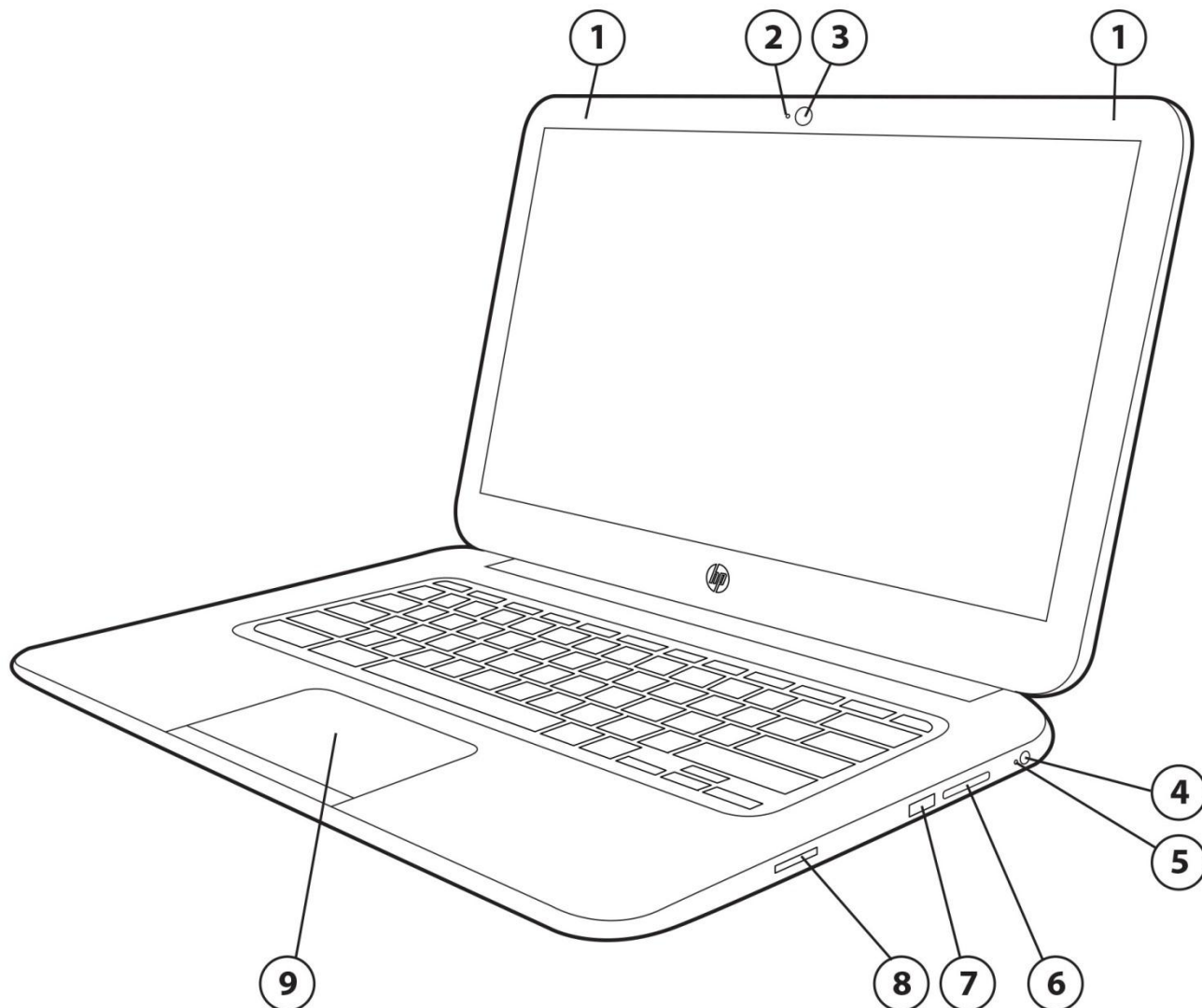


Overview

HP Chromebook14 G1

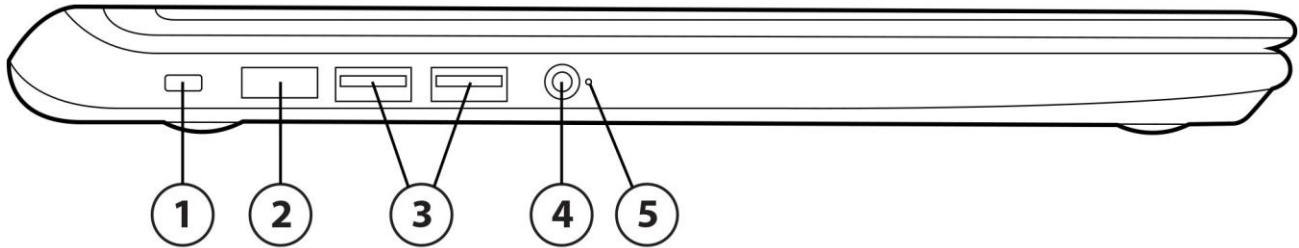


Front/Right Image

- | | | | |
|----|------------------|----|--------------------|
| 1. | WLAN antennas | 6. | Memory card reader |
| 2. | Webcam light | 7. | USB 2.0 port |
| 3. | Webcam | 8. | SIM slot |
| 4. | Power connector | 9. | TouchPad zone |
| 5. | AC adapter light | | |



Overview



Left Image

- | | |
|------------------------|--------------------------------------|
| 1. Security cable slot | 4. Headphone-out/microphone-in combo |
| 2. HDMI port | 5. Power state LED indicator |
| 3. USB 3.0 ports (2) | |

AT A GLANCE

- Google Chrome OS
- Provides cloud computing functionality where you can access your files, applications, documents and profiles*
- Intel® HD Graphics
- Full-size, Island-style Chrome OS keyboard
- HDMI port for connecting to high-resolution displays
- Integrated HD webcam, integrated microphone
- Intel 802.11 a/b/g/n (2x2) wireless LAN module
- Optional HP cr3114 HSPA+ Mobile Broadband Module
- 14.0" diagonal LED-backlit HD BrightView display

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



Features

OPERATING SYSTEM

Preinstalled Chrome OS

PROCESSOR

Intel® Celeron® 2955U 1(1.4 GHz, 2 MB L3 cache, 2 cores, 15W)*

* Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

CHIPSET

Intel processor controller hub (PCH), ULT, soldered on circuit (SoC), integrated in MCP

GRAPHICS

Integrated: Intel® HD* Graphics
Support for HD decode and HDMI

* High definition (HD) content is required to view high-definition images.

DISPLAY

Internal
14.0" diagonal HD* WLED BrightView (1366x768) flat (3.6mm) SVA

External
Up to 32-bit per pixel color depth

HDMI
1.4b port supports up to 1080p, 1920 x 1080 at 60Hz

* High definition (HD) content is required to view high-definition images.

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

STORAGE AND DRIVES

Primary Storage Bay

Solid State Drive
16 GB or 32 GB M.2

Cloud Storage
Store up to 100 GB with Google Drive*

** 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 OS 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:



Features

<https://support.google.com/chromebook/answer/2703646?hl=en>

MEMORY

Standard

DDR3L SDRAM (1600 MHz)
One SODIMM slot
Standard memory of 4096 MB*

*Maximum memory speed supported by the system may be 1333 MHz or 1066 MHz.

NOTE: 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

Broadband Wireless (WWAN)

Optional HP cr3114 HSPA+ Mobile Broadband Module*

Wireless LAN (WLAN)

Atheros AR9462 802.11a/b/g/n (2x2) Wi-Fi + BT 4.0 Combo Adapter**

* Wireless Broadband use requires separately purchased service contract. Check with service provider for coverage and availability in your area. Sold separately or as an optional feature.

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

AUDIO/MULTIMEDIA

Audio

High Definition Audio support
Stereo speakers
Headphone / Microphone Combo Jack
One digital microphone with echo cancellation and noise suppression appropriate software

Webcam

HP TrueVision HD slim webcamera*

- Supports videoconferencing and still image capture
- Improved quality for video streaming and still image capture (1280x720 resolution)
- Up to 30 frames/sec
- Fixed focus lens

* Internet access is required and not included.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The island-style Chrome OS keyboard features full-pitch key layout with features such as the isolated inverted-T cursor control keys, editing keys, both left and right control and alt keys, and 12 function keys. International key layouts are available. Other features include hotkeys for instant access to, brightness, etc. 19-mm x 19-mm key pitch (center-to-center spacing), 2.2-mm stroke, comfort-dished keycaps, and bright key legends for improved visibility in low light conditions.



Features

Pointing Devices

Clickpad with multi-touch gestures support

Buttons and Function Keys

Power button

SOFTWARE AND SECURITY

Preinstalled Software

Chrome OS with default set of apps, HP registration app

Security

TPM 1.2 Embedded Security Chip*

Security Cable Lock (Slot) (lock must be purchased separately)

Sign-on with your Google credentials

For more information on HP security solutions refer to: <http://www.hp.com/go/security>.

POWER

Power Supply

External 65W HP AC adapter (not available in India)

External 65W EM HP AC adapter (only available in India)

External 65W HP Slim Travel AC adapter (only available in India)

Power cord included is 1.0 m (+/- 0.1 m).

Primary Battery

HP 4-cell (51 WHr) Li-Ion polymer battery

Power Conservation

Energy Star compliant

WEIGHTS & DIMENSIONS

Weight

Starting at < 4.19 lb (1.9 kg)

Dimensions (w x d x h)

13.56 x 9.44 x 0.86 in

34.44 x 23.98 x 2.16 cm

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Weight includes 4-cell battery, solid state drive, and 4 GB memory.

PORTS/SLOTS

Ports

HDMI v1.4b* - One

Headphone / Microphone in Combo - One



Features

Power Connector – One
USB 3.0 – Two (left side)
USB 2.0 – One (right side)

HP Multi-Format Digital Media Reader

Supports SD/SDHC/SDXC

* HDMI cable sold separately.

SERVICE AND SUPPORT

HP Services offers limited 1-year warranty options depending on country; 1-year limited warranty on primary battery. On-site service and warranty upgrades are also available. HP Care Pack Services^{*,**} extend service contracts beyond the standard 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/lookuptool>. Additional HP Care Pack Services^{*,**} information by product is available at: www.hp.com/go/cpc.

* Sold separately or as an optional feature.

** 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.

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

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



Technical Specifications

SYSTEM UNIT

Stand-Alone Power Requirements (AC Power)	Nominal Operating Voltage	18.5/19.5V
Temperature	Max Operating Power	< 65 W
Relative Humidity	Operating	41° to 95° F (5° to 35° C)
Shock	Non-operating	-4° to 140° F (-20° to 60° C)
Random Vibration	Operating	10% to 90%, non-condensing
Altitude (unpressurized)	Non-operating	5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature
Planned Industry Standard Certifications	Operating	40 G, 2 ms, half-sine
	Non-operating	200 G, 2 ms, half-sine
	Operating	0.75 grms
	Non-operating	1.50 grms
	Operating	-50 to 10,000 ft (-15.24 to 3,048 m)
	Non-operating	-50 to 40,000 ft (-15.24 to 12,192 m)
	UL	Yes
	CSA	Yes
	FCC Compliance	Yes
	ENERGY STAR®	Select models*
	EPEAT	Registered Silver in United States**
	ICES	Yes
	Australia / NZ A-Tick Compliance	Yes
	CCC	Yes
	Japan VCCI Compliance	Yes
	KC	Yes
	BSMI	Yes
	CE Marking Compliance	Yes
	BNCI or BELUS	Yes
	CIT	Yes
	GOST	Yes
	Saudi Arabian Compliance (ICCP)	Yes
	SABS	Yes
	UKRSERTCOMPUTER	Yes

* Configurations of the HP Chromebook14 that are ENERGY STAR qualified are identified as HP Chromebook14 ENERGY STAR on HP websites and on www.energystar.gov.

** EPEAT registration varies by country. See www.epeat.net for registration status by country. EPEAT status listed above applies to U.S.

For accessibility information on HP products, please visit: <http://www.hp.com/accessibility>.

DISPLAY

14.0-inch LED HD (1366 x 768) BrightView	Dimensions (W x H)	12.74 x 7.56 in (32.4 x 19.2 cm)
	Diagonal Size	14.0 in (35.6cm)
	Surface Treatment	BrightView
	Contrast Ratio	400:1 (typical)
	Refresh Rate	60 Hz



Technical Specifications

Brightness	200 nit (typical)
Pixel Resolution	Pitch 0.227 mm
	Format 1366 x 768
	Configuration RGB Stripe
Backlight	LED
PPI	112 ppi
Viewing Angle	±30° Horizontal, ±10° Vertical (minimum) 30/30/20/10 (Left/Right/Down/Up) (minimum) or 45/45/35/25 (Left/Right/Down/Up) (typical)

STORAGE AND DRIVES

Internal Storage

SATA 6Gb/s 16 GB, 2242 M.2 Solid State Drive	Drive Weight	6 Grams max.
	Capacity	16 GB
	Height	0.138 in (3.65mm)
	Width	0.866 in (22 mm)
	Interface	M.2 SATA Gen6 (6 Gb/s)
	Performance	Maximum Sequential Read Maximum Sequential Write Up to 210 MB/s Up to 30 MB/s
	Logical Blocks	31,277,232
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]
	Features	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM

SATA 6Gb/s 32 GB, 2242 M.2 Solid State Drive	Drive Weight	Up to 10 Grams
	Capacity	32 GB
	Height	0.138 in (3.5mm)
	Width	0.866 in (22 mm)
	Interface	M.2 SATA Gen6 (6 Gb/s)
	Performance	Maximum Sequential Read Maximum Sequential Write Up to 380 MB/s Up to 70 MB/s
	Logical Blocks	62,533,296
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]
	Features	ATA Security; ATA-8, SATA 3.0; DIPM; TRIM

NETWORKING/COMMUNICATIONS

HP cr3114 HSPA+ Mobile Broadband*	Technology/Operating Bands	Modes: WCDMA/HSDPA/HSUPA/HSPA+/AWS/GSM/EDGE/GPRS Penta-band WCDMA/HSDPA/HSUPA/HSPA+/AWS: 850/900/1900/2100/AWS
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Technical Specifications

Module	MHz
	GSM/GPRS/EDGE: 850/900/1800/1900 MHz
Wireless Protocol Standards	GSM/GPRS/EDGE: Class B, Multi-slot class 33, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 7 Advanced Receiver Type 3i
GPS	GPS Standalone, A-GPS: L1 (Internet- and Network assisted)
Wireless Parametric Standards	Complies with 3GPP specifications
Maximum Data Rates	GPRS/EDGE: Multi-slot Class 33, Class B WCDMA PS: UL (384 kbps) / DL (384 kbps) UL/DL HSPA: UL (5.76 Mbps)/ DL (7.2 Mbps) UL/DL HSPA+: UL (5.76 Mbps)/ DL (21Mbps)
Maximum Output Power	WCDMA/HSPA/HSPA+ 2100/1900/900/850/AWS MHz: +24dBm (Power Class 3) GPRS 1900/1800 MHz: +30dBm (Power Class 1) GPRS 900/850 MHz: +33dBm (Power Class 4) EDGE 1900/1800 MHz: +26dBm (Power Class E2) EDGE 900/850 MHz: +27dBm (Power Class E2)
Maximum Power Consumption	2500mA (peak); 600mA (average)
Power Consumption, Sleep Mode	3.6 mA
Power Management	USB selective suspend, Connected Standby Integrated notebook wireless button
Antenna Type	Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
Form Factor	M.2 Socket 2, USB 2.0 interface high speed
Weight	< 6g

* Mobile Broadband is an optional feature sold separately or as an add on feature. Connection requires wireless data service contract, network support, and is not available in all areas. Contact service provider to determine the coverage area and availability. Connection speeds will vary due to location, environment, network conditions, and other factors.

Atheros AR9462	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b
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Technical Specifications

802.11abgn (2x2) Wi-Fi + BT 4.0 Combo Adapter*	IEEE 802.11g IEEE 802.11n
Interoperability	Wi-Fi certified Cisco Compatible Extensions Program
Frequency Band	802.11b/g/n: 2.4 GHz and 5 GHz 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
Data Rates	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: card will support rates for NSS=1 and NSS=2 for RX and TX for 20 and 40 MHz channels. Short and long guard interval shall be supported.
Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
Security¹	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES, 802.1x authentication types EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, LEAP, EAP-FAST.
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
Media Access Protocol	CSMA/CA (Collision Avoidance) with ACK
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between access points
Output Power²	13.5 dBm , nominal
Power Consumption	Idle associated: 250 mW Idle unassociated: 100 mW Radio disabled: 75mW Transmit: 2.0 W (max) Receive: 1.6 W (max)
Power Management	ACPI compliant power management 802.11 compliant power saving mode
Receiver Sensitivity³	300 Mbps: -66 dBm, 54 Mbps: -74 dBm, 11 Mbps: -88 dBm , 1 Mbps: -95 dBm
Antenna Type	Two embedded, high efficiency dual band antennae with spatial diversity, mounted in the display enclosure
Form Factor	PCI-Express Half-MiniCard 1.2
Weight	0.013 lb (6 g)
Dimensions	0.19 x 1.06 x 1.18 in (4.75 x 26.8 x 30 mm)
Operating Voltage	3.3v +/- 10%
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)



Technical Specifications

		Non-operating	0 to 50,000 ft (15,240 m)
	LED Activity	LED Off - Radio OFF; Solid LED On - Radio ON	
		<ol style="list-style-type: none"> 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 (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation). 	
Bluetooth 4.0 Wireless Technology	Bluetooth Specification	2.1+EDR, 3.0+HS, 4.0 Compliant	
	Dimensions	1.18 x 0.26 x 0.13 in (30 x 6.5 x 3.25 mm)	
	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	Max 4 dBm (Bluetooth Class II)	
	Receiver Sensitivity	Better than -80 dBm at 0.1 % raw bit error rate	
	Power Consumption	Average 230mW Sleep <1 mW	
	Antenna	Internally integrated within module	
	Range	Up to 33 ft (10 m)	
	Electrical Interface	USB 2.0 compliant	
	Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves	
	Security	Full support of Bluetooth Security Provisions	
	Power Management	USB Bus Support Self configurable to optimize power conservation in all operating modes, including Standby, Hold, Park, and Sniff	
	Certifications	All necessary regulatory approvals for supported countries, including: FCC (47 CFR) Part 15C, Section 15.247 & 15.249 ETS 300 328, ETS 300 826 Low Voltage Directive IEC950 UL, CSA, and CE Mark	
	Temperature	Operating	-4° to 158° F (-20° to 70° C)
		Non-operating	-40° to 176° F (-40° to 80° C)
	Humidity	Operating	10% to 90%
		Non-operating	5% to 95%
	Altitude	Operating	15,000 ft (4,572 m)
		Non-operating	40,000 ft (12,192 m)
	Bluetooth Profiles Supported	Serial Port Profile (SPP) Service Discovery Application Profile (SDAP) Dial-Up Networking (DUN) Generic Object Exchange Profile (GOEP)	



Technical Specifications

Object Push Profile (OPP)
 File Transfer Profile (FTP)
 Synchronization Profile (SYNC)
 Hard Copy Cable Replacement (HCRP)
 Personal Area Networking Profile (PAN)
 Human Interface Device Profile (HID)
 FAX Profile (FAX)
 Basic Imaging Profile (BIP)
 Headset Profile (HSP)
 Hands Free Profile (HFP)
 Advanced Audio Distribution Profile (A2DP)

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

AUDIO/MULTIMEDIA

Audio Hardware

Implementation	HD Audio
Volume Controls	Up, down, and mute function keys
Full Duplex	Yes
Microphone In	Stereo
Headphone/Line Out	Stereo
Integrated Microphone	Yes

Audio Output Quality

Frequency Response	10 Hz ~ 22 KHz
Signal to Noise Ratio	Typical 95 dB FSA (DAC)
Total Harmonic Distortion	Typical -88 dB FS (DAC)
Noise Floor	-110 dB
Play/Record Sampling Rate(s)	Up to 192 KHz
DAC	24 bits
ADC	24 bits

Integrated Altec Lansing Stereo Speakers

Power Rating	1.5 W
Impedance	4 ohms

Multimedia Integrated HD Webcam

Supports videoconferencing and still image capture
 Improved quality for video streaming and still image capture (1280x720 resolution)
 Up to 30 frames/sec
 Fixed focus lens

POWER

HP 65W AC Adapter

Dimensions	4.21 x 1.85 x 1.18 in (10.7 x 4.7 x 3.0 cm)
Weight	0.62 lb (280 g)
Input	100 to 240 VAC



Technical Specifications

	Output	Input Efficiency	87% min at 115 VAC
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 VAC
		Output power	65W
		DC output	18.5/19.5V
		Hold-up time	5 msec at 115 VAC input
		Output current limit	<11A, Over voltage protection- 29V max automatic shutdown
	Connector	3 pin/grounded, mates with interchangeable cords	
	Environmental Design	Operating temperature	41° to 95° F (5° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 5,000 ft (0 to 1,524 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.	
4-Cell (51 WHr) Lithium-Ion polymer battery	Dimensions (h x w x l)	3.71 x 68.2 x 110.3mm	
	Cells/Type	4-cells/Lithium-Ion polymer	
	Voltage	Nominal	7.5 V
	Energy	Watt-hour capacity	51 WHr
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 140° F (-10° to 60° C)
		Non-operating	-4° to 140° F (-20° to 60° C)
	Battery Re-Charge Time	System in OFF or Standby Mode	2.5 hours
		System ON	3 to 5 hours (depending on system power consumption)

COUNTRY OF ORIGIN

Made in China

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Technical Specifications

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