

Overview

HP Chromebook 13 G1



1. Webcam LED
2. HD Webcam
3. Microphones (2)
4. Touchpad

Front/ Left

5. Headphone / microphone combo jack
6. USB-A 3.1 Gen 1 port
7. USB-C™ 3.1 Gen 1 charging port
8. USB-C™ 3.1 Gen 1 charging port



Overview



Rear/ Right

1. Micro SD Media Card Reader



Overview

AT A GLANCE

- Google Chrome OS™
- Designed for businesses that are accelerating the movement to cloud-based applications
- 12.59 mm (0.50 inches) thin
- Weight starting at 2.86 lbs (1.29 kg)
- Not your kids Chromebook- a stylish, fanless Chromebook™ with a durable anodized aluminum chassis
- 6th Generation Intel® Pentium® or Intel® Core™ M processors
- 13.3" diagonal QHD+ Bright View (3200 x 1800) IPS display or 13.3" diagonal Full HD Anti-glare (1920 x 1080) IPS display
- Audio by B&O PLAY for crystal clear Hangouts; HD webcam
- Keep dozens of browser tabs open with 4 GB memory standard and up to 16 GB
- Backlit keyboard for late night emails on the red-eye flight home
- Battery life up to 11 hours and 30 minutes
- Two USB Type-C™ 3.1 Gen 1 charging ports enables fast charging between meetings
- Supports docking with the HP Elite USB-C™ Docking Station and a host of USB-C™ adapters
- Supports next generation Lucid Sleep¹ means your docs/emails/notifications are updated the second you log-in
- Purchase with confidence with a limited 1-year limited warranty and 3-year extended service available with optional HP Care Services.

1. Internet service is required and is not included.

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



Technical Specifications

PRODUCT NAMES

HP Chromebook 13 G1

OPERATING SYSTEM

Preinstalled Chrome OS™

PROCESSORS

Intel® Pentium® 4405Y with Intel® HD Graphics 515
(1.5 GHz, 2 MB cache, 2 cores)¹

Intel® Core™ m3-6Y30 with Intel® HD Graphics 515
(0.9 GHz, up to 2.2 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)¹

Intel® Core™ m5-6Y57 with Intel® HD Graphics 515
(1.1 GHz, up to 2.80 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)¹

Intel® Core™ m7-6Y75 with Intel® HD Graphics 515
(1.2 GHz, up to 3.10 GHz with Intel® Turbo Boost Technology, 4 MB cache, 2 cores)¹

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.

NOTE: Processor speed denotes maximum performance mode; processors will run at lower speeds in battery optimization mode.

CHIPSET

Integrated with processor

GRAPHICS

Integrated

Intel® HD Graphics 515¹ Supports 4K video output over DisplayPort™ or HDMI with optional USB Type-C™ video adapter cable

1. HD content required to view HD images.

DISPLAY

13.3" diagonal FHD WLED Anti-glare (1920 x 1080) uslim-flat (2.6mm) UWVA, eDP, 330nits¹

13.3" diagonal RGBW QHD+ WLED Bright View (3200 x 1800) uslim-flat (2.6mm) UWVA, eDP, 300nits¹

1. HD content required to view HD images.



Technical Specifications

STORAGE AND DRIVES

Support eMMC

Embedded Multi Media Card¹

32 GB eMMC v5.0

Store up to 100 GB with Google Drive (2-year subscription included)²

1. 5.1 GB of the eMMC are dedicated/allocated to the Chrome OS™ partition.
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

Standard

On-board system memory

Single/Dual Channel Support

LPDDR3-1866 MHZ

Support

4 GB LPDDR3; configurable with Intel® Pentium® 4405Y, Intel® Core™ m3-6Y30, Intel® Core™ m5- 6Y57

8 GB LPDDR3; configurable with Intel® Core™ m5- 6Y57, Intel® Core™ m7-6Y75

16 GB LPDDR3; configurable with Intel® Core™ m7-6Y75

Maximum

Up to 16 GB

NETWORKING/COMMUNICATIONS

Wireless LAN (WLAN)¹

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

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

AUDIO/MULTIMEDIA

Audio

Audio by B&O PLAY, dual speakers, top-firing

Webcam¹

HP TrueVision HD²

- HD² camera - Fixed (no tilt) + activity LED, USB 2.0, M-JPEG
- 1280 x 720 by 30 frames per second

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



Technical Specifications

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

Black, Textured, Full Size, Island-style Chrome OS™ keyboard
Backlit keyboard

Touchpad

Multi-touch gestures enabled
Taps enabled as default

SOFTWARE AND SECURITY

Preinstalled Software

Chrome OS™ with default set of apps

Security

TPM 1.2 Embedded Security Chip

POWER

Power Supply

HP 45W USB Type-C™ Straight Type AC Adapter
Power cord included is 5 feet 9 inches (1.8 m) in length

Primary Battery

HP 3-cell 45WHr Polymer Long-Life Battery

Battery Life

Up to 11 hours 30 minutes¹
(3-cell 45WHr Polymer Battery with Pentium 4405Y/4GB RAM/32GB Storage/ Full HD panel)
Up to 8 hours 15 minutes¹
(3-cell 45WHr Polymer Battery with Pentium 4405Y/4GB RAM/32GB Storage/ QHD+ panel)
Up to 8 hours 45 minutes¹
(3-cell 45WHr Polymer Battery with Core m3/4GB RAM/32GB Storage/ QHD+ panel)
Up to 8 hours 15 minutes¹
(3-cell 45WHr Polymer Battery with Core m5/8GB RAM/32GB Storage/ QHD+ panel)
Up to 8 hours 30 minutes¹
(3-cell 45WHr Polymer Battery with Core m7/16GB RAM/32GB Storage/ QHD+ panel)

1. 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.

NOTE: Battery is internal and not replaceable by customer.

System Standby Time

TBD



Technical Specifications

WEIGHTS & DIMENSIONS

Weight

Starting at 2.86 lbs (1.29 kg)¹

1. Weight varies by configuration and components.

Dimensions (w x d x h)

12.59 x 8.64 x 0.50 in

319.9 x 219.6 x 12.95 mm

PORTS/SLOTS

Ports

USB-C™ 3.1 Gen 1 charging ports – Two (Left side) Support power delivery, video, data. up to 5Gbps data , 4K display out with optional HDMI or DisplayPort™ adapter, 45W charging.¹

USB-A 3.1 Gen 1 port – One (Left side)

Headphone / microphone combo jack – One

1. Each USB Type-C™ 3.1 charging port delivers power to the Chromebook individually, not when using both at once.

HP Multi-Format Digital Media Card Reader

Supports micro SD/SDHC/SDXC up to UHS-I

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^{1,2} 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^{1,2} information by product is available at: 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.

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	15V
	Average Operating Power	5~45W
Temperature	Max Operating Power	45W
	Operating	5C ~ 35C
Relative Humidity	Non-operating	-20C ~ 60C
	Operating	10% ~ 90%
Shock	Non-operating	5% ~ 95%
Random Vibration	Operating	
	Non-operating	
Altitude (unpressurized)	Operating	-15m ~ 3048m
	Non-operating	-15m ~ 12192m
Planned Industry Standard Certifications	UL	
	FCC Compliance	
	ENERGY STAR®*	
	EPEAT®**	
	ICES	
	Australia / NZ C-Tick Compliance	
	CCC	
	Japan VCCI Compliance	
	MIC / KCC	
	BSMI	
	CE Marking Compliance	
	BNCI or BELUS	
	CIT	
	GOST	
	Saudi Arabian Compliance (ICCP)	
	SABS	

* Configurations of the HP Chromebook 13 G1 that are ENERGY STAR qualified are identified as HP Chromebook 13 G1 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>.



Technical Specifications

DISPLAYS*

13.3" diagonal FHD WLED Anti Glare (1920x1080) uslim-flat (2.6mm) UWVA, eDP, 330 nits	Outline Dimensions (W x H x D)	305.4x194.9x2.6mm
	Active Area	293.4x165.0mm
	Weight	230gm
	Diagonal Size	336.7mm
	Surface Treatment	Anti-Glare, Harness 3H
	Contrast Ratio	700 typ.
	Refresh Rate	60Hz frame rate
	Brightness	330nits
	Pixel Resolution	Format
	Interface	Configuration
	LCD Mode	eDP
	PPI	Normally black
	Viewing Angle	1661

13.3" diagonal RGBW QHD+ WLED Bright View (3200x 1800) uslim-flat (2.6mm) UWVA, eDP, 300 nits	Outline Dimensions (W x H x D)	306.15x194.3x2.8mm
	Active Area	293.44x164.06mm
	Weight	210gm
	Diagonal Size	336.7mm
	Surface Treatment	Haze 0%
	Contrast Ratio	400 typ
	Refresh Rate	60Hz frame rate
	Brightness	300nits
	Pixel Resolution	Format
	Interface	Configuration
	LCD Mode	eDP
	PPI	Normally black
	Viewing Angle	554/H; 277/V

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



Technical Specifications

NETWORKING/COMMUNICATIONS**

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

Wireless LAN Standards	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> • 2.402 – 2.482 GHz <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"> • 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 <p>Note: Indonesia no support this band)</p>
Data Rates	<ul style="list-style-type: none"> • 802.11b: 1, 2, 5.5, 11 Mbps • 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: MCS 0 ~ MCS 15, (20MHz, and 40MHz) • 802.11ac : MCS0 ~ MCS9, (1SS, and 2SS) (20MHz, 40MHz, and 80MHz)
Modulation	Direct Sequence Spread Spectrum BPSK, QPSK, CCK, 16-QAM, 64-QAM, 256-QAM
Security¹	<ul style="list-style-type: none"> • IEEE and WiFi compliant 64 / 128 bit WEP encryption for a/b/g mode only • AES-CCMP: 128 bit in hardware



Technical Specifications

	<ul style="list-style-type: none"> • 802.1x authentication • WPA, WPA2: 802.1x. WPA-PSK, WPA2-PSK, TKIP, and AES. • WPA2 certification • IEEE 802.11i • Cisco Certified Extensions, all versions through CCX4 and CCX Lite • 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 : +16dBm minimum • 802.11g : +14dBm minimum • 802.11a : +14dBm minimum • 802.11n HT20(2.4GHz) : +14dBm minimum • 802.11n HT40(2.4GHz) : +12dBm minimum • 802.11n HT20(5GHz) : +14dBm minimum • 802.11n HT40(5GHz) : +12dBm minimum
Power Consumption	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
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity³	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
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
Dimensions	Type 2230 : 2.3 x 22.0 x 30.0 mm
	Or
	Type 1630 : 2.3 x 16.0 x 30.0 mm
Weight	Type 2230 : 2.8g
	Or
	Type 1630 : 2g
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

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

Bluetooth Specification	4.0/4.1/4.2 Compliant
Frequency Band	2402 to 2480 MHz
Number of Available Channels	Legacy : 0~79 (1 MHz/CH) BLE : 0~39 (2 MHz/CH)
Data Rates and Throughput	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)
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.

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



Technical Specifications

Receiver Sensitivity

Legacy

Modulation	0.01% BER	0.001% BER
GFSK	-80 dBm	-70 dBm
$\pi/4$ -DQPSK	-80 dBm	-70 dBm
8DPSK	-80 dBm	-70 dBm

Power Consumption

Peak (Tx) 330 mW
 Peak (Rx) 230 mW
 Selective Suspend 17 mW

Range

Legacy Up to 33 ft (10 m)
 BLE Up to 99 ft (30 m)

Electrical Interface

USB 2.0 compliant

Bluetooth Software Supported

Link Topology

Electrical Interface

Point to Point, Multipoint Pico Nets up to 7 slaves

Bluetooth Software Supported

Full support of Bluetooth Security Provisions

Security

Power Management

ACPI, and USB Bus Support power management

Certifications

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

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)¹
 Service Discovery Application Profile (SDAP)
 Dial-Up Networking (DUN)^{1,2}
 Generic Object Exchange Profile (GOEP)^{1,2}



Technical Specifications

- Object Push Profile (OPP)^{1,2}
- Hard Copy Cable Replacement (HCRP)^{1,2}
- Personal Area Networking Profile (PAN)^{1,2}
- Human Interface Device Profile (HID)^{1,2}
- Hands Free Profile (HFP)
- Advanced Audio Distribution Profile (A2DP)

- Audio Video Remote Control Profile (AVRCP)

Bluetooth V4.1/V4.2 support feature	V4.1: ESR5/6/7 compliant
	V4.2: ESR8 compliant, LE Secure Connection – Basic.

AUDIO/MULTIMEDIA

Hardware	Implementation	
	Function Key Volume Controls	Yes
	Full Duplex	Yes
	Microphone In	Yes
	Headphone/Line Out	Yes
	Integrated Microphone	n/a
Audio Output Quality	Frequency Response	20~20K Hz
	Signal to Noise Ratio	100dB
	Total Harmonic Distortion	-85dB
	Noise Floor	-123dB
	Play/Record Sampling Rate(s)	44.1K/48KHz
	DAC	123dB SNR and -85dB THD
	ADC	100dB SNR & -85dB THD
Integrated Stereo Speakers	Power Rating	0.8W in 1 c.c cavity (1.0W max)
	Impedance	6 ohms



Technical Specifications

POWER

HP 45W USB Type-C™ Straight Type AC Adapter	Dimensions	95x46x29 (mm)	
	Input	Input Efficiency	78%~88%
		Input frequency range	50~60Hz
	Output	Input AC current	1.4A
		Output power	45W
		DC output	5V/12V/15V
		Hold-up time	5mSec
		Output current limit	2A~3A
	Connector		
	Environmental Design	Operating temperature	
Non-operating (storage) temperature			
Altitude			
Humidity			
EMI and Safety Certifications	Storage Humidity		
		Industry std	

HP 3-cell 45Whr Polymer Battery	Dimensions (H x W x L)			
	Weight			
	Cells/Type	Li-Polymer/Coslight-3950		
	Energy	Voltage	11.4V nominal	
		Amp-hour capacity	3900mAh	
		Watt-hour capacity	45W	
	Temperature	Operating (Charging)	0~45C	
		Operating (Discharging)	-10~60C	
		Non-operating	Storage 1 month :	-20~60C
			Storage 3 month :	-20~45C
Storage 6 month :	-20~30C			
Battery Re-Charge Time	System in OFF or Standby Mode	-10~60C		
Fuel Gauge LED		n/a		
Warranty				
Optional Travel Battery Available		n/a		



Technical Specifications

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[®] Silver 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, 60Hz
Normal Operation (Sort idle)		8.43 W	8.54 W	8.49 W
Normal Operation (Long idle)		1.47 W	1.51 W	1.51 W
Sleep		0.48 W	0.49 W	0.48 W
Off		0.37 W	0.38 W	0.37 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



Technical Specifications

Normal (Short idle)	Operation	29 BTU/hr	29 BTU/hr	29 BTU/hr
Normal (Long idle)	Operation	5 BTU/hr	5 BTU/hr	5 BTU/hr
Sleep		2 BTU/hr	2 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 Emissions (in accordance with ISO 7779 and ISO 9296)

Noise

Sound Power (L_{WAd}, bels)

Sound Pressure (L_{pAm}, decibels)

Typically Configured – Idle

1.6

16

Fixed Disk – Random writes

1.6

16

Longevity and Upgrading

and

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.

Batteries

This battery(s) in this product comply with EU Directive 2006/66/EC

Batteries used in the product do not contain:

- Mercury greater the 1ppm by weight
- Cadmium greater than 20ppm by weight

Battery size: CR2032 (coin cell)



Technical Specifications

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 silver level, see 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 96.4% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	384 g
Internal:	PLASTIC/EPE (Expanded Polyethylene)	18.9 g
	PLASTIC/Polyethylene low density	18 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](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)
- 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)



Technical Specifications

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/qcreport/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>

COUNTRY OF ORIGIN

China



Summary of Changes

Options and Accessories (Sold separately and availability may vary by country.)

Type	Description	Part Number
Cases	HP Business Slim Top Load	H5M91AA
	HP Business Backpack	H5M90AA
	HP Slim Ultrabook Top Load	F3W15AA
Docking	HP Elite USB-C Docking Station	T3V74AA
Input/Output	HP 3-Button Laser Mouse	H4B81AA#xxx
	HP USB Optical Travel mouse	G1K28AA
	HP USB-C to VGA Adapter	N9K76AA
	HP USB-C to HDMI Adapter	N9K77AA
	HP USB-C to DisplayPort Adapter	N9K78AA
	HP USB-C to USB 3.0 Adapter	N2Z63AAA#xxx
Power	HP 45W USB-C Right Type Power Adapter	V5Y26AA#xxx

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Summary of Changes

