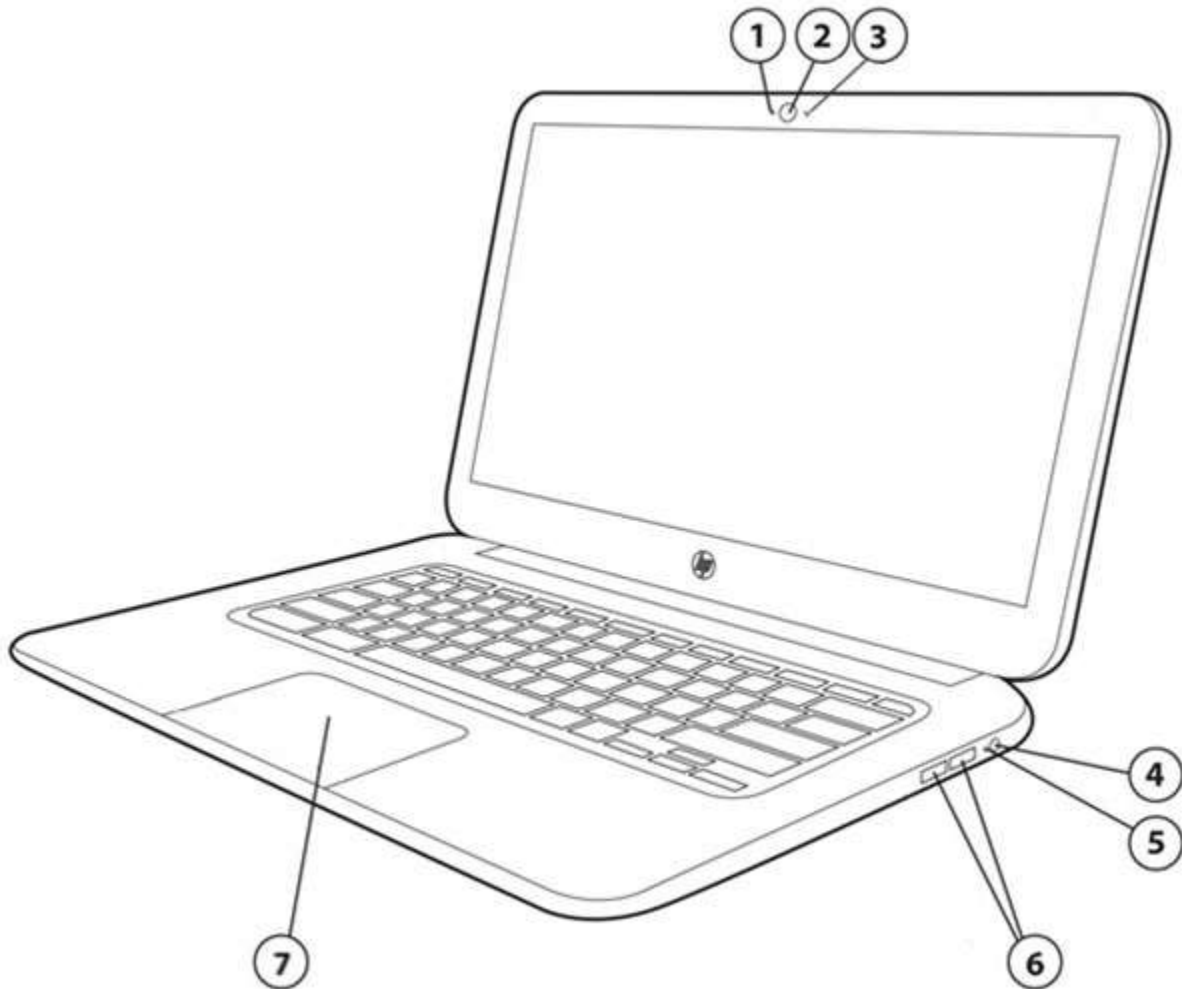


Overview

HP Chromebook 14 G4

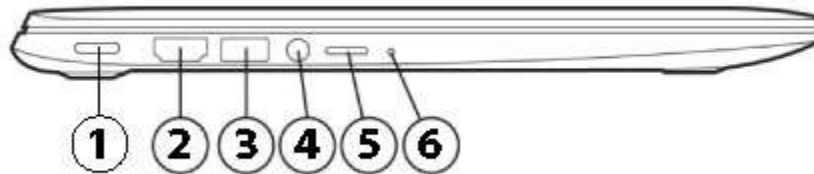


Front/Right Image

- | | |
|--------------------|---------------------|
| 1. Microphone | 5. AC adapter light |
| 2. Web cam lens | 6. USB 2.0 ports |
| 3. Web cam LED | 7. Clickpad |
| 4. Power connector | |



Overview



Left side

- | | |
|-------------------------|--------------------------------------|
| 1. Ultra slim lock slot | 4. Headphone-out/microphone-in combo |
| 2. HDMI port | 5. MicroSD Media Card Reader |
| 3. USB 3.0 port | 6. Power state LED indicator |

AT A GLANCE

- Google Chrome OS™
- Designed for businesses that are accelerating the movement to cloud-based applications
- Passed MIL STD 810G testing
- Intel® Celeron® dual-core processor N2840, quad-core processor N2940
- Up to 9 hours and 15 minutes of battery life without worrying about recharging
- The 14" diagonal corporate-friendly screen size yet still fanless, thin, and light to work almost anywhere
14" diagonal HD SVA eDP anti-glare flat WLED-backlit (1366 x 768) or
14" diagonal FHD SVA eDP WLED UWVA anti-glare slim (1920 x 1080)
- Speed through the internet with Intel® Dual Band Wireless
- .70 inches (17.8 mm) thin
- Weight starting at 3.78 lb (1.71 kg)
- HDMI port for connecting to high-resolution displays
- Integrated HD webcam and microphone with echo cancellation and noise suppression software for seamless videoconferencing
- Delivers a high definition user experience with Citrix®-ready HDX verification for XenDesktop® and XenApp HDX features.

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



Features

PRODUCT NAME

HP Chromebook 14 G4

OPERATING SYSTEM

Preinstalled Chrome OS™

PROCESSOR

Intel® Celeron® N2940 with Intel® HD Graphics (1.83 GHz, up to 2.25 GHz, 2 MB cache, 4 cores)¹
Intel® Celeron® N2840 with Intel® HD Graphics (2.16 GHz, up to 2.58 GHz, 1 MB cache, 2 cores)¹

1. 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 system required. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.

CHIPSET

Integrated with processor

GRAPHICS

Intel® HD Graphics

DISPLAY

Internal

14" diagonal HD¹ SVA eDP anti-glare flat WLED-backlit (1366 x 768)
14" diagonal FHD SVA eDP WLED UWVA anti-glare slim (1920 x 1080)²

1. High definition (HD) content is required to view high-definition images.
2. Full HD panel is only configurable with Celeron N2940 processor and 4 GB memory.

External

Up to 32-bit per pixel color depth

HDMI

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

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 embedded Multi Media Card¹

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



Features

Cloud Storage

Store up to 100 GB with Google Drive (2-year subscription included)¹

1. This offer is tied to this device and is non-transferable. If this device is returned, the extra storage will be revoked. 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

DDR3L-1600 Single Channel (Transfer rates up to 1600 MT/s) for 2 GB Memory

DDR3L-1600 Dual Channel (Transfer rates up to 1600 MT/s) for 4 GB Memory

Standard memory

2048 MB (4 pcs of 256 MB x 16)

4096 MB (8 pcs of 256 MB x 16)

Maximum memory

Supports up to 4 GB max on-board system memory

NETWORKING/COMMUNICATIONS

Intel® Dual Band Wireless-AC 7260 802.11ac (2x2) WiFi + Bluetooth® 4.0 Combo Adapter¹

Intel® Dual Band Wireless-N 7260AN 802.11a/b/g/n (2x2) WiFi and Bluetooth® 4.0 Combo¹

1. For 802.11, wireless access point and Internet service required and not included. 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.

AUDIO/MULTIMEDIA

Audio

High Definition Audio support

Stereo speakers

Headphone / Microphone Combo Jack

One digital microphone with echo cancellation and noise suppression appropriate software

Webcam¹

HP TrueVision HD²

- HD² camera - Fixed (no tilt) + activity LED, USB 2.0, M-JPEG
- 1280x720 by 30 frames per second
- Single Digital Microphone w/ appropriate software - echo cancellation, noise suppression

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



Features

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The Black, textured, island-style Chrome OS™ keyboard features full-pitch key layout with features such as 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.

Pointing Devices

Click pad with multi-touch gestures enabled

Buttons and Function Keys

Power key, Search key, Back, Forward, Refresh, Full Screen, Switch window

SOFTWARE AND SECURITY

Preinstalled Software

Chrome OS™ with default set of apps
HP registration app

Security

TPM 1.2 Embedded Security Chip
Security lock slot (Lock must be purchased separately)
Sign-in with your Google credentials

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

POWER

Power Supply

External HP 45W Smart AC Adapter¹
Power cord is 3.2 feet (1.0 meter)
Total length including external AC adapter is 9.2 feet (2.86 meter)

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

Primary Battery

HP 3-cell (37 WHr) Li-Ion polymer Long-Life battery

Battery Life¹

Up to 9 hours and 15 minutes

NOTE: Battery is internal and not replaceable by customer.

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.



Features

Charging Time

3 hours to 100% when the system is off or in suspend or deep sleep mode. Power adapter with a minimum capacity of 45 watts is required

Power Conservation

ENERGY STAR® certified
EPEAT® Silver registered

EPEAT® registered where applicable. EPEAT registration varies by country. See www.epeat.net for registration status by country.

WEIGHTS & DIMENSIONS

Weight

Starting at 3.78 lb (1.71 kg)¹

Dimensions (w x d x h)¹

13.54 x 9.44 x 0.7 in

34.4 x 24 x 1.78 cm

1. Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Weight includes 3-cell battery, embedded Multi Media Card, and 14.0" diagonal HD non-touch panel.

PORTS/SLOTS/CONNECTORS

Ports

- 1 USB 3.0 (Support HP USB Boost (Sleep & Charge))
- 2 USB 2.0
- 1 HDMI
- 1 headphone/microphone combo jack
- 1 AC power connector

NOTE: All cables are sold separately and not included.

Micro SD Digital Media Card Reader

- 1 Multi-format digital media reader
- Support micro SD/SDHC/SDXC up to UHS-1

SERVICE AND SUPPORT

HP Services offers limited 1-year 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.



Features

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

NETWORKING/COMMUNICATIONS

Intel® Dual Band Wireless-AC 7260 802.11ac (2x2) WiFi + Bluetooth® 4.0 Combo Adapter

Wireless LAN Standards	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 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• 2.402 – 2.482 GHz
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• 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



Technical Specifications

Network Architecture Models	<ul style="list-style-type: none">• WAPI 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">• 2.4G: +13.5dBm minimum• 5G: +12dBm minimum• Maximum output power must be able to achieve modular regulatory certification with notebooks that have antennas >20cm from the user and peak gain of +3dBi at 2.4GHz and +4dBi at 5GHz
Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Idle mode (PSP): 250 mW (WLAN Associated) Idle mode: 100 mW (WLAN unassociated) Radio disabled: 75 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity³	802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88 dBm (11 Mbps) 802.11a/g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74 dBm (54 Mbps) 802.11n:-69 dBm (72.2 Mbps), -66 dBm (300 Mbps) 802.11ac: -83 dBm (65Mbps), -79 dBm (195Mbps), -73 dBm (390Mbps), -66 dBm (650Mbps), -60 dBm (867Mbps)
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 Half-MiniCard



Technical Specifications

Dimensions	0.19 x 1.06 x 1.18 in (4.75 x 26.8 x 30 mm)	
Weight	3.1g	
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	
	<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 (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation). 	
Bluetooth Specification	<p>V4.0 High Speed, V2.1+EDR, backwards compatible with V1.1, 1.2 and 2.0</p>	
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	–6 dBm to 4 dBm (Bluetooth Class II)	
Receiver Sensitivity	Better than –80 dBm at 0.1 % raw bit error rate	
Power Consumption	Peak (Tx) 330 mW	
	Peak (Rx) 230 mW	
	Sleep 17 mW	
Antenna Range	Internally integrated within module	
	Up to 33 ft (10 m)	
Electrical Interface	USB 2.0 compliant	
	Microsoft Windows Plug and Play compliant	
Bluetooth Software Supported	Broadcom Bluetooth for Windows	
Link Topology	Microsoft Windows Bluetooth Software	
Security	Point to Point, Multipoint Pico Nets up to 7 slaves	
Power Management	Full support of Bluetooth Security Provisions	
	Microsoft Windows ACPI, and 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	

Not all configuration components are available in all regions/countries.
Americas – HP Chromebook 14 G4 – January 2018 - c04772322



Technical Specifications

Bluetooth Profiles Supported

ETS 300 328, ETS 300 826
 Low Voltage Directive IEC950
 UL, CSA, and CE Mark
 Generic Access Profile (GAP)
 Service Discovery Application Profile (SDAP)
 Serial Port Profile (SPP)
 Dial_Up Networking Profile (DUN)
 Generic Object Exchange Profile (GOEP)
 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)
 Generic Audio/Video Distribution Profile (GAVDP)
 Advanced Audio/Video Distribution Profile (A2DP)
 FAX Profile (FAX)
 Basic Imaging Profile (BIP)
 Headset Profile (HSP)
 Hands Free Profile (HFP)
 Basic Printing Profile (BPP)
 VDP (Video Distribution Profile)
 AVRCP (Audio Video Remote Control Profile)

Intel® Dual Band Wireless-N 7260AN 802.11a/b/g/n (2x2) WiFi and Bluetooth® 4.0 Combo

Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n
Interoperability	Wi-Fi certified Cisco Compatible Extensions Program compliant with Microsoft Windows 7, Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN)
Frequency Band	802.11b/g/n 2.402 - 2.482 GHz 802.11a/n 4.9 - 4.95 GHz (Japan) 5.15 - 5.25 GHz 5.25 - 5.35 GHz



Technical Specifications

5.47 - 5.725 GHz
5.825 - 5.850 GHz

Antenna Structure	2 transmit; 2 receive (2x2)
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: MCS 0 ~ MCS 15, (20MHz, and 40MHz)
Modulation	Direct Sequence Spread Spectrum CCK, BPSK, QPSK, 16-QAM, 64-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 ○ 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
Sub-channels	Multinational support with frequency bands and channels compliant to local regulations.
Network Architecture Models	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between band Access Points
Output Power²	<ul style="list-style-type: none"> ○ 2.4G: +13.5dBm minimum ○ 5G: +12dBm minimum
Power Consumption	Transmit: 2.0 Watts Receive: 1.6 Watts Idle mode ³ : 250 mW (WLAN Associated) Idle mode: 100 mW (WLAN unassociated) Radio off: 75 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity⁴	802.11g: -90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74 dBm (54 Mbps)



Technical Specifications

	802.11b:-95 dBm (1 Mbps), -93 dBm (2 Mbps), -91 dBm (5.5 Mbps), -88 dBm (11 Mbps)
	802.11g:-90 dBm (6 Mbps), -89 dBm (9 Mbps), -87 dBm (12 Mbps), -85 dBm (18 Mbps), -82 dBm (24 Mbps), -79 dBm (36 Mbps), -76 dBm (48 Mbps), -74 dBm (54 Mbps)
	802.11n:-69 dBm (150 Mbps), -66 dBm (300 Mbps)
Antenna Connections	2 U.FL type connectors (output impedance of 50 ± 2 ohms)
Form Factor	PCI-Express Half-MiniCard
Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)
Weight	3.1g
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. In Power Save Polling mode and on battery power.
4. 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).
5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows XP. WLAN may also be compatible with certain third-party software suppliers. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology

Bluetooth Specification	4.0+EDR Compliant
Dimensions	1.18 x 0.26 x 0.13 in (30 x 6.5 x 3.25 mm)



Technical Specifications

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	-1.5 dBm to 4 dBm (Bluetooth Class II)
Receiver Sensitivity	Better than -20 dBm at 0.1 % raw bit error rate
Power Consumption	Peak (Tx) 330 mW Peak (Rx) 230 mW Selective Suspend 17 mW
Antenna	Internally integrated within module
Range	Up to 33 ft (10 m)
Electrical Interface	USB 2.0 compliant Microsoft Windows Plug and Play compliant
Bluetooth Software Supported	Broadcom Bluetooth for Windows Microsoft Windows Bluetooth Software
Link Topology	Point to Point, Multipoint Pico Nets up to 7 slaves
Security	Full support of Bluetooth Security Provisions
Power Management	Microsoft Windows ACPI, and 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



Technical Specifications

Bluetooth Profiles Supported

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

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 <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, 60Hz
Normal Operation (Short idle)	5.17 W	5.05 W	5.18 W
Normal Operation (Long idle)	3.43 W	3.31 W	3.45 W
Sleep	0.39 W	0.45 W	0.39 W
Off	0.25 W	0.30 W	0.24 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



Technical Specifications

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)	18 BTU/hr	17 BTU/hr	18 BTU/hr
Normal Operation (Long idle)	12 BTU/hr	11 BTU/hr	12 BTU/hr
Sleep	1 BTU/hr	2 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_{WA}, bels)

Sound Pressure
(L_{pAm}, decibels)

Typically Configured – Idle
Fixed Disk – Random writes

1.6
1.6

16
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.

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)
Battery type: Lithium



Technical Specifications

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
- 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 96.6% recycle-able when properly disposed of at end of life.

Packaging Materials

External:	PAPER/Corrugated	410 g
Internal:	PLASTIC/EPE (Expanded Polyethylene)	27.5 g
	PLASTIC/Polyethylene low density	20 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)
- 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.

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

Hewlett-Packard Corporate Environmental Information

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://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>

COUNTRY OF ORIGIN

China



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

Type	Description	Part Number
Carrying Cases	HP Business Slim Top Load	H5M90AA
	HP Essential Top Load Case (up to 15.6")	H2W17AA
	HP Essential Backpack (up to 15.6")	H1D24AA
	HP Chromebook 14 G3 Protective Cover	M5N99AA
Input/Output	USB Stylish Keyboard & Mouse Bundle	H4B80AA
	HP 3-Button Laser Mouse	H4B81AA
	HP USB Essential Keyboard/Mouse	H6L29AA
	HP USB Optical Travel mouse	G1K28AA
	HDMI to VGA Adapter	H4F02AA
Power	HP 45W Smart AC Adapter 4.5mm	H6Y88AA
	HP External USB Optical Drive	F2B56AA
Displays	HP ProDisplay P242va 24-inch Monitor	K7X32AA
	HP EliteDisplay E222 21.5-inch Monitor	M1N96AA
	HP EliteDisplay E240 23.8-inch Monitor	M1N99AA
	HP EliteDisplay S270c 27-inch Curved Display	K1M38AA



Summary of Changes

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