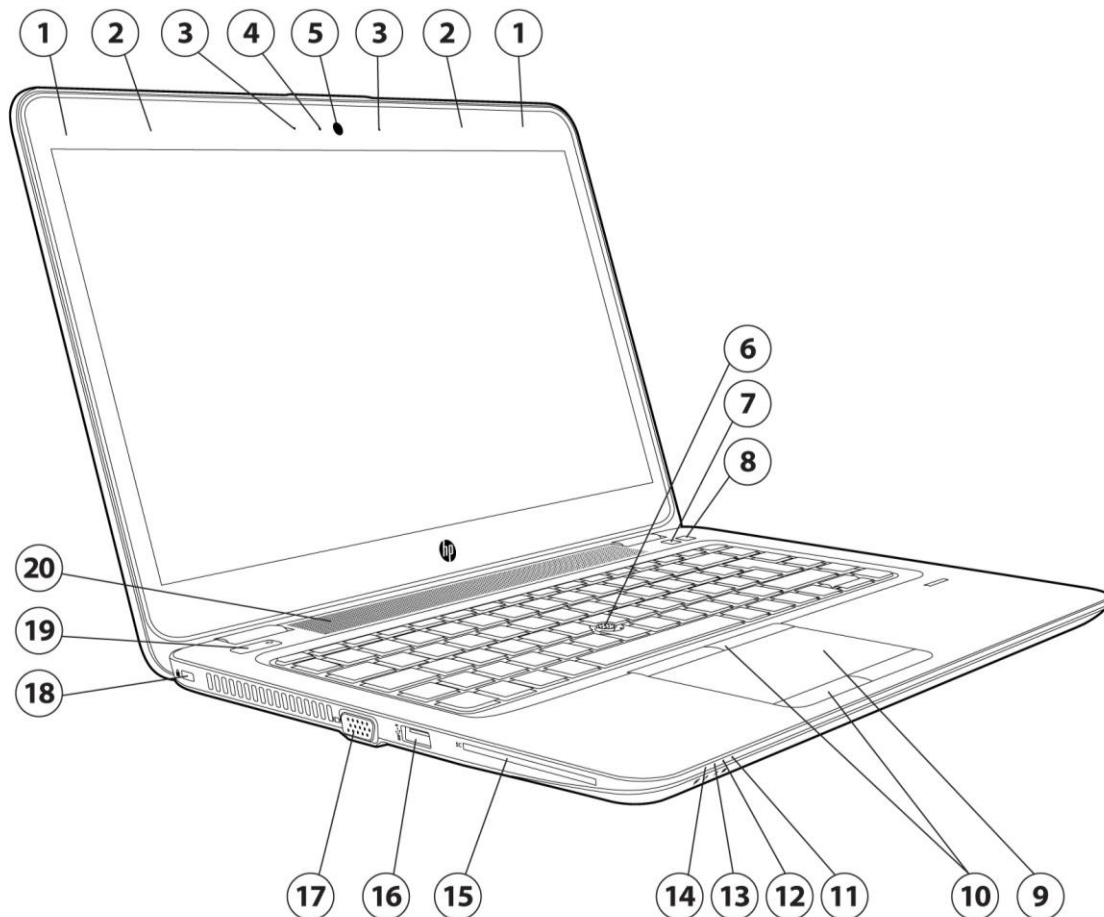


Overview

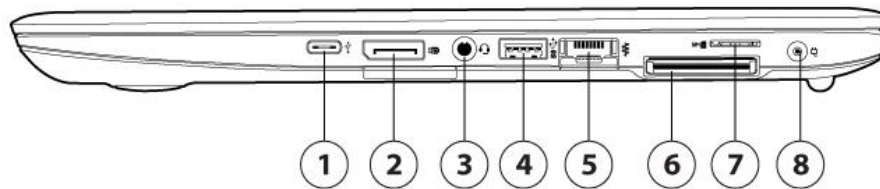
HP mt42 Mobile Thin Client



Front/Left

- | | |
|--------------------------------------|------------------------------------|
| 1. WLAN antennas (2) | 11. Storage Usage light indicator |
| 2. WWAN antennas (2) (select models) | 12. Battery charge light indicator |
| 3. Internal microphones (2) | 13. Power light indicator |
| 4. Webcam LED | 14. Wireless light indicator |
| 5. Webcam | 15. Smart card reader |
| 6. Pointstick | 16. USB 3.0 charging port |
| 7. Wireless on/off button | 17. VGA port |
| 8. Speaker mute button | 18. Security lock slot |
| 9. Touchpad | 19. Power button |
| 10. Touchpad buttons (4) | 20. Audio Speakers |

Overview



1. USB-C™
2. Display Port
3. Microphone/headphones combo jack
4. USB 3.0

Right

5. RJ-45/ Ethernet port
6. Docking connector
7. Micro SIM card slot
8. Power connector

Overview

AT A GLANCE

- Windows Embedded Standard 7E (32-bit), Windows 10 IoT Enterprise for Thin Clients (*planned availability: December 2015*)
- Accelerated Processing Unit and graphics from AMD
- Memory up to 8 GB
- 14.0-inch diagonal LED-backlit display
- DisplayPort for high resolution support
- Supports dual-display ports through optional docking station and up to 3 independent displays when on the HP 2013 UltraSlim Docking Station
- Wireless LAN and WAN connectivity options
- HD webcam with dual-microphone array for video conferencing
- Audio by Bang & Olufsen optimized for high fidelity audio
- Security features including Security lock slot, TPM 1.2/2.0 & TPM Enhanced Drive Lock, Integrated Smart Card Reader, and Pre-boot Authentication (Password, Smart Card)

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

Features

OPERATING SYSTEM

Preinstalled

Windows Embedded Standard 7E (32-bit)¹

Windows 10 IoT Enterprise for Thin Clients² (planned availability: December 2015)

1. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers, software or BIOS update to take full advantage of Windows functionality. Windows 10 is automatically updated, which is always enabled. ISP fees may apply and additional requirements may apply over time for updates. See <http://www.microsoft.com>.

ACCELERATED PROCESSING UNIT

AMD A8-Pro-8600B APU with Radeon™ R6 Graphics (1.66 up to 3 GHz, 2 MB cache, 4 cores)

GRAPHICS

Integrated Graphics

AMD Radeon™ R6 Graphics - with shared video memory

Supports dual-display ports through optional docking station¹

Supports 3 independent displays when on the HP 2013 UltraSlim Docking Station¹

1. Sold separately or as an optional feature.

DISPLAY

Internal

14.0" diagonal LED backlit FHD Slim eDP SVA anti-glare (1920 x 1080) with camera¹

1. HD content required to view HD images.

External

Up to 32-bit per pixel color depth

VGA

Port supports resolutions up to 1920 x 1200 external resolution @75 Hz

DisplayPort

Supports resolutions up to 3200 x 2000 @ 60Hz

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

Number of Displays supported with Docking

Supports dual-display ports through optional docking station¹

Supports 3 independent displays when on the HP 2013 UltraSlim Docking Station¹

1. Sold separately or as an optional feature.

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



Features

STORAGE AND DRIVES

Mini Card Solid State Drive

32GB M.2 (NGFF) 2242 Solid State Drive (SSD)

NOTE: For hard drives and solid state drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less.

MEMORY

Standard

DDR3L PC3L-12800 (Transfer rates up to 1600 MT/s)
Two SODIMM slots supporting dual-channel memory

NOTE: Memory is non customer accessible / upgradeable

Supports the following configurations

4096 MB Total System Memory (4096 MB x 1)
8192 MB Total System Memory (4096 MB x 2)

Maximum

Up to 8 GB¹

Dual-channel

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

1. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

NOTE: Memory speed is dependent on processor. 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

Wireless WAN (WWAN)¹

HP lt4120 LTE/HSPA+ 4G Mobile Broadband
HP hs3110 HSPA+ Mobile Broadband

Wireless LAN (WLAN) Via MiniCard

Broadcom 943228 a/b/g/n (2x2) dual band 802.11 with Bluetooth® 4.0 LE ²

Wireless Personal Area Network (WPAN)

Bluetooth 4.0 supported via combo card

1. WWAN use requires separately purchased service contract and factory configuration. Check with service provider for coverage and availability in your area. Connection speeds will vary due to location, environment, network conditions, and other factors. 4G LTE not available on all products, and in all regions.
2. All wireless options are sold separately or as optional features. For all 802.11 wireless, wireless access point and Internet service is required and is not included. Availability of public wireless access points limited.



Features

Communications

Broadcom 5762 10/100/1000 Ethernet NIC with DASH Support

NOTE: The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.

AUDIO/MULTIMEDIA

Audio

Bang & Olufsen
HP Clear Sound Amp
HP Noise Reduction Software
Digital Microphones (Dual Array)
2 Premium Stereo Speakers

Webcam¹

720p HD² webcam

1. Internet access required.
2. HD content required to view HD images.

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

HP Premium Keyboard

The HP spill-resistant keyboard is designed using a thin layer of Mylar film under the keyboard and includes an all-metal keyboard deck for greater rigidity. The 101/102-key compatible keyboard features a full-pitch key layout with desktop keyboard features, such as editing keys, both left and right control and alt keys, and function keys. U.S. and International key layouts are available.

Pointing Devices On/Off button

Taps enabled as default

Gestures enabled by default - 2 Finger Scrolling, 2 Finger Zoom (Pinch)

Buttons and Function Keys

F1 - Sleep
F2 - Blank
F3 - Blank
F4 - Display Switching
F5 - Brightness Down
F6 - Brightness Up
F7 - Blank
F8 - Volume Down
F9 - Volume Up
F10 - Mic Mute
F11 - Blank
F12 - Num lock



Features

SOFTWARE AND SECURITY

HP Software

HP Velocity
HP Easy Shell
HP Device Manager

Security

Security lock slot
TPM 1.2/2.0 & TPM Enhanced Drive Lock
Integrated Smart Card Reader
Preboot Authentication (Password, Smart Card)

Note: Firmware TPM is version 2.0. Hardware TPM is v1.2, which is a subset of the TPM 2.0 specification version v0.89 as implemented by Intel Platform Trust Technology (PTT).

POWER

Power Supply

HP 45W Smart AC Adapter
HP 45W 2-prong DC jack AC Adapter (Japan and England only)
HP 65W Smart AC Adapter EM (Asia, China and India only)

Power cord is localized:

2-wire cord (only available with 45W 2-prong AC Adapter)
3-wire cord(with ground pin)(not available with 2-prong adapter)

Available in 2 lengths:

3.2 feet or 6 feet (1.0 or 1.8 meter)
Total length including external AC adapter is 9.2 feet or 12 feet (2.86 or 3.66 meter)

Primary Battery

HP 3-cell Long Life Li-Ion 46 WHr (4.08Ahr)

NOTE: Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform.

Battery Life

TBD

System Standby Time

TBD

Power Conservation

Standby
ACPI compliance

Features

WEIGHTS & DIMENSIONS

Weight¹

Starting at 3.41 lbs (1.54 kg)

(3-cell battery (46Whr), UMA, no FPR, 1 SODIMM, WLAN, M.2 SSD, no camera, no WWAN, FHD Panel)

Dimensions² (w x d x h)

13.3 x 9.3 x 0.74 in

338 x 237 x 18.9 mm

1. Weight varies by configuration and components.
2. Height varies depending upon where on the thin client the measurement is made.

PORTS/SLOTS

Ports

Left side:

- (1) USB 3.0 Charging Port
- (1) VGA

Right side:

- (1) USB Basic Type-C™
- (1) DisplayPort
- (1) RJ-45 / Ethernet
- (1) Docking connector
- (1) Headphone/Microphone Combo
- (1) Power connector

NOTE: Cables are not included.

Expansion slots

- (1)SD media reader (Supports SD, SDHC, SDXC)
- (1)SC reader
- (1)Micro SIM Slot

SERVICE AND SUPPORT

HP Support offers 3-year, 1-year and 90 day limited warranty options depending on country. Batteries have a default one year limited warranty except for Long Life batteries which will have same 1-year or 3-year limited warranty as the platform. On-site service and extended coverage is also available. HP Care Pack Services are optional extended service contracts that go beyond the standard limited 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/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. Consult the HP Customer Support Center for details. <http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp>



Technical Specifications

SYSTEM UNIT

TBD



Technical Specifications

DISPLAYS

14.0" diagonal LED backlit FHD Slim eDP SVA anti-glare (1920 x 1080)	Outline Dimensions (W x H x D)	12.6 x 8.09 x 0.12 in (32.09 x 20.56 x 0.3 cm)
	Active Area	12.18 x 6.85 in (30.93 x 17.4 cm)
	Weight	0.75 lb. (340 g) (max)
	Diagonal Size	14.0 in (35.6cm)
	Surface Treatment	Anti-glare
	Contrast Ratio	300:1 (min)
	Refresh Rate	60 Hz
	Brightness	300 nit (typical)
	Pixel Resolution	Format 1920 x 1080 (FHD)
		Configuration RGB Stripe
	Interface	eDP 1.2+PSR (2 lane)
	LCD Mode	IPS/FFS/AHVA
	PPI	157 ppi
	Viewing Angle	SVA 40/40/15/30 (Left/Right/Down/Up)

STORAGE AND DRIVES

32GB M.2 SATA-3 Solid State Drive	Drive Weight	0.019 lb (8.5 g)-0.022 lb (10 g)
	Capacity	32 GB
	Height	0.09 in (2.23 mm)- 0.14 in (3.58 mm)
	Width	0.87 in (22 mm)
	Interface	ATA-8, SATA 3.0
	Performance	Maximum Sequential Read Up to 540 MB/s (Compressible Performance)
		Maximum Sequential Write
	Logical Blocks	
	Operating Temperature	32° to 158°F (0° to 70°C) [ambient temp]
	Features	ATA Security, DIPM; TRIM; DEVSLP

Technical Specifications

SECURITY

Smart Card Reader	Smart card standard	PC/SC 2.0 for Windows smart card standard
	Dimensions (L x W x H)	0.41x 0.08 x 0.32 in (10.5 x 2 x 8.2 mm)
	Smart Card support	ISO 7816 Class A and AB smart cards
	Smart Card Interface	Smart Card Interface with T = 0 and T = 1 support Support I2C memory card, SLE4418, SLE4428, SLE4432, SLE4442, SLE4436, SLE5536, SLE6636, AT88SC1608, AT45D041 card and AT45DB041 card via external EEPROM
	Operating systems	No driver is required for this device. Native support is provided by the operating system.
	Power	Normal Mode With card present, before being suspended: 40.9 mA Without card present, before being suspended: 33.16 mA After being suspended with smart card present: 380 μ A After being suspended without smart card present: 380 μ A
		Power Saving Mode With card present, before being suspended: 40.6 mA Without card present: 380 μ A After being suspended with smart card present: 380 μ A
	Features	<ul style="list-style-type: none"> • Support single slot • Support T0, T1 protocol • Support I2C memory card, SLE4418, SLE4428, SLE4432, SLE4442, SLE4436, • SLE5536, SLE6636, AT88SC1608, AT45D041 card and AT45DB041 card via external EEPROM • Support ISO7816 Class A, B and C (5V/3V/1.8V) card • Implemented as an USB full speed device with bulk transfer endpoint, Mass • Storage endpoint • Built-in PLL for USB and Smart Card clocks requirement • Support EEPROM for USB descriptors customization (PID/VID/iManufacturer/iProduct/Serial Number), Direct Web Page Link, and accessing memory card module. • EEPROM programmable via USB interface • Support software update for memory card module • Support Direct Web Page Link via configuration in external EEPROM • Support short APDU and extended APDU • Compatible with Microsoft USB-CCID driver • Support remote wake up through inserting card/removing card • Support USB selective suspend • Support Power Saving Mode (Using one pin to select between Normal/PWR Saving Mode) • Support card power over current protection mechanism • Built in resonator.

Technical Specifications

- Support USB LPM (Link Power Management) features.
- Embedded clock source.

NETWORKING/COMMUNICATIONS

Broadband Wireless (WWAN)

HP It4120 LTE/EVDO/HSPA+ Gobi 4G Mobile Broadband Module	Technology/Operating Bands	<p>LTE: 2100 (Band 1), 1900 (Band 2), 1800 (Band 3), 1700/2100 (Band 4), 850 (Band 5), 2600 (Band 7), 900 (Band 8), 700 (Band 12 lower), 700 (Band 13 upper), 700 (Band 17 lower), 800 (Band 20), 700 (Band 28).</p> <p>HSPA+: 2100 (Band 1), 1900 (Band 2), 1700/2100 (Band 4), 850 (Band 5), 900 (Band 8) MHz</p> <p>EV-DO: 850 (BC0), 1900 (BC1) MHz (Only work with Verizon network)</p> <p>E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 (Band 5), 900 (Band 8) MHz</p>
	Wireless Protocol Standards	<p>3GPP Release 10 LTE Specification CAT.4, 20MHz BW</p> <p>WCDMA R99, 3GPP Release 5, 6, 7 and 8 UMTS Specification</p> <p>1xEVDO Release 0, A and B.</p> <p>E-GPRS: Class B, Multi-slot class 12, coding schemes CS1 - CS4 and MSC1 - MSC9</p>
	GPS	Standalone, A-GPS (MS-A, MS-B and XTRA)
	GPS bands	1575.42 MHz \pm 1.023 MHz, GLONASS 1596-1607MHz
	Maximum data rates	<p>LTE: 150 Mbps (Download), 50 Mbps (Upload)</p> <p>DC-HSPA+: 42 Mbps (Download), 5.76 Mbps (Upload)</p> <p>HSPA+: 21Mbps (Download), 5.76 Mbps (Upload)</p> <p>CDMA 1xRTT: 153.6 kbps (Download), 153.6 kbps (Upload)</p> <p>EVDO Rel.A: 3.1 Mbps (Download), 1.8 Mbps (Upload)</p> <p>EVDO Rel.B: 14.7 Mbps (Download), 5.4Mbps (Upload)</p> <p>EDGE: 236.8 kbps (Download), 236.8 kbps (Upload)</p> <p>GPRS: 85.6 kbps(Download), 85.6 kbps (Upload)</p>
	Maximum output power	<p>LTE: 23 dBm</p> <p>HSPA+: 23.5 dBm</p> <p>1xRTT/EVDO: 24dBm</p> <p>E-GPRS 1900/1800: 26 dBm</p> <p>E-GPRS 900/850: 27 dBm</p> <p>GPRS 1900/1800: 29.5 dBm</p> <p>GPRS 900/850: 32.5 dBm</p>
	Maximum power consumption	<p>LTE: 1,200 mA (peak); 900 mA (average)</p> <p>HSPA+: 1,100 mA (peak); 800 mA (average)</p> <p>1xRTT/EVDO: 1,000 mA (peak); 700 mA (average)</p> <p>E-GPRS: 2,800 mA (peak); 500 mA (average)</p>
	Form Factor	M.2, 3042-S3 Key B
	Weight	6.2 g
	Dimensions (Length x Width x Thickness)	42 x 30 x 2.3 mm

* Mobile Broadband is an optional 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,



Technical Specifications

and other factors. 4G LTE not available on all products or in all countries.

HP hs3110 HSPA+ Intel® Mobile Broadband Module*	Technology/Operating Bands	HSPA+: 2100 (Band1), 1900 (Band 2), 1700 (Band 4), 850 (Band 5), 900 (Band 8) MHz E-GPRS: 1900 (Band 2), 1800 (Band 3), 850 MHz (Band 5), 900 (Band 8) MHz
	Wireless Protocol Standards	E-GPRS: Class B, Multi-slot class 33, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 7
	Maximum Data Rates	HSPA+: 21.6 Mbps (Download), 5.76 Mbps (Upload) HSPA: 7.2 Mbps (Download), 5.76 Mbps (Upload) WCDMA PS: 384 kbps (Download), 384 kbps (Upload) WCDMA CS: 64 kbps (Download), 64 kbps (Upload) E-GPRS: 296 kbps (Download), 236.8 kbps (Upload) GPRS: 107 kbps (Download), 85.6 kbps (Upload)
	GPS	Standalone, A-GPS
	GPS Bands	1575.42 MHz (± 1.023 MHz), GLONASS 1596-1607MHz
	Maximum Output Power	HSPA+: 24 dBm E-GPRS 1800/1900: 26 dBm E-GPRS 850/900: 27 dBm GPRS 1800/1900: 30 dBm GPRS 850/900: 33 dBm
	Maximum Power Consumption	2500 mA (peak); 600 mA (average)
	Form Factor	M.2, 3042-S3 Key B
	Weight	6g
	Dimensions (Length x Width x Thickness)	1.65 x 1.18 x 0.09 in (42 x 30 x 2.3 mm)
* Mobile Broadband is an optional 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.		

Wireless LAN (WLAN)

Broadcom 943228 Dual Band 802.11 a/b/g/n (2x2) Bluetooth 4.0 Combo	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Interoperability	Wi-Fi certified
	Frequency Band	802.11b/g/n <ul style="list-style-type: none"> 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
- 4.9 – 4.95 GHz (Japan)
 - 5.15 – 5.25 GHz



Technical Specifications

- 5.25 – 5.35 GHz
- 5.47 – 5.725 GHz
- 5.825 – 5.850 GHz

NOTE: Indonesia only supports 5.725 - 5.825 GHz (CH149 - CH161)

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	Ad-hoc (Peer to Peer)
Models	Infrastructure (Access Point Required)
Roaming	IEEE 802.11 compliant roaming between band Access Points
Output Power	<ul style="list-style-type: none"> • 802.11b : +16dBm minimum • 802.11g : +14dBm minimum • 802.11a : +14dBm minimum • 802.11n HT20(2.4GHz) : +13dBm minimum • 802.11n HT40(2.4GHz) : +13dBm minimum • 802.11n HT20(5GHz) : +12dBm 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: 60 mW (WLAN unassociated) Radio disabled: 30 mW
Power Management	ACPI and PCI Express compliant power management 802.11 compliant power saving mode
Receiver Sensitivity	802.11b, 1Mbps : -94dBm maximum 802.11b, 11Mbps : -86dBm maximum 802.11g, 6Mbps : -88dBm maximum 802.11g, 54Mbps : -74dBm maximum 802.11a, 6Mbps : -86dBm maximum 802.11a, 54Mbps : -72dBm maximum 802.11n, MCS07 : -69dBm maximum 802.11n, MCS15 : -66dBm maximum



Technical Specifications

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 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).

HP Integrated Module with Bluetooth 4.0+EDR Wireless Technology

Bluetooth Specification	4.0+EDR Compliant		
Frequency Band	2402 to 2480 MHz		
Number of Available Channels	79 (1 MHz) available channels		
Data Rates and Throughput	3 Mbps data rate; throughput up to 2.17 Mbps		
	Synchronous Connection Oriented links up to 3, 64 kbps, voice channels		
	Asynchronous Connection Less links 2178.1 kbps/177.1 kbps asymmetric or 1306.9 kbps symmetric		
Transmit Power	The Bluetooth component shall operate as a Class II Bluetooth device with a maximum transmit power of +4 dBm for BR and EDR.		
Receiver Sensitivity	Modulation	0.01% BER	0.001% BER
	GFSK	-80 dBm	-70 dBm
	π/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	Up to 33 ft (10 m)		



Technical Specifications

Electrical Interface	USB 2.0 compliant
Bluetooth Software Supported	Microsoft Windows Bluetooth Software
Link Topology	
Electrical Interface	Point to Point, Multipoint Pico Nets up to 7 slaves
Bluetooth Software Supported	Full support of Bluetooth Security Provisions
Security	
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
Security Certifications	All necessary regulatory approvals for supported countries, including: 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, 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} 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)

Technical Specifications

AUDIO/MULTIMEDIA – BANG & OLUFSEN SOUND

DTS Studio Sound™

Hardware	Implementation	ALC3228
	Function Key Volume Controls	Volume up, volume down, and mute
	Full Duplex	Yes
	Microphone In	Stereo
	Headphone/Line Out	Stereo
	Integrated Microphone	Yes, dual digital microphone array
Audio Output Quality	Frequency Response	20 Hz – 20 kHz
	Signal to Noise Ratio	>85 dB
	Total Harmonic Distortion	0.01%
	Noise Floor	–110 dB
	Play/Record Sampling Rate(s)	8 kHz – 48kHz
	DAC	16, 20 or 24-bit
	ADC	16 or 20-bit
Integrated Stereo Speakers	Power Rating	2 Watts
	Impedance	4 Ohms

POWER

HP 45W Smart AC Adapter	Dimensions (H x W x D)	3.74 x 1.57 x 1.04 in (9.5 x 4.0 x 2.65 cm)
	Weight	0.386 lb (175g) max
	Input	90 to 265 VAC
	Input Efficiency	87.74% at 115Vac and 88.4% at 230Vac
	Input frequency range	47 to 63 Hz
	Input AC current	1.4 A at 90 VAC
	Output	
	Output power	45W
	DC output	9.50V
	Hold-up time	5 msec at 115 VAC input
	Output current limit	<8.0A
	Connector	3 pin/grounded, mates with interchangeable cords
	Environmental Design	
	Operating temperature	32° to 95° F (0° to 35° C)
	Non-operating (storage) temperature	–4° to 185° F (–20° to 85° C)
	Altitude	0 to 16,400 ft (0 to 5,000 m)
	Humidity	20% to 95%



Technical Specifications

		Storage Humidity	10% to 95%
HP 65W Smart AC Adapter EM	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.	
	Dimensions	4.98 x 1.97 x 1.18 in (12.65 x 5.0 x 3.0 cm)	
	Weight	0.62 lb. (280 g)	
	Input	90 to 265 VAC	
		Input Efficiency	87% min at 115/230 VAC
		Input frequency range	47 to 63 Hz
		Input AC current	1.7 A at 90 VAC, 0.85 A at 180 VAC
	Output	Output power	65W
		DC output	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	32° to 95° F (0° to 35° C)
		Non-operating (storage) temperature	-4° to 185° F (-20° to 85° C)
		Altitude	0 to 16,400 ft. (0 to 3,048 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.	

Technical Specifications

HP 3-cell Long Life Li-Ion (46.5 WHr)	Dimensions (H x W x L)	0.27 x 4.05 x 7.79in (0.68 x 10.28 x 19.8cm)
	Weight	216.3g, 0.48lb (ATL), 217.8g, 0.48lb (COS)
	Cells/Type	3-cell Lithium-Ion Polymer
	Energy	Voltage 11.4V
		Amp-hour capacity 4080mAh
		Watt-hour capacity 46.5Wh
	Temperature	Operating (Charging) 32° to 113° F (0° to 45° C)
		Operating (Discharging) 14° to 140° F (-10° to 60° C)
		Non-operating 41° to 104° F (5° to 40° C)
	Fuel Gauge LED	NA
	Warranty	1000 cycles >65% (at 23° C)
	Optional Travel Battery Available	No

ENVIRONMENTAL

TBD

COUNTRY OF ORIGIN

China



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

<u>Type</u>	<u>Description</u>	<u>Part #</u>
<i>Docking</i>	HP 3005pr USB 3.0 Port Replicator	H1L08AA#xxx
	HP 2013 UltraSlim Docking Station TAA US	E5C22AV#ABA
<i>Input/Output – Adapters</i>	DisplayPort to DVI Adapter	F7W96AA
	DisplayPort to VGA	F7W97AA
	DisplayPort to HDMI 1.4 Adapter	F3W43AA
<i>Power Adapters</i>	HP 45W Smart AC Adapter	H6Y88AA#xxx
	HP 65W Smart AC Adapter	H6Y89AA#xxx
	HP 90W Smart AC Adapter	H6Y90AA#xxx
<i>Security</i>	HP Docking Station Cable Lock	AU656AA#XXX
	HP UltraSlim Keyed Cable Lock	H4D73AA
<i>Headset</i>	HP Wired Headset	K7V17AA
<i>Phone</i>	HP Speaker Phone	K7V16AA
	HP 14" Notebook PC Privacy Filter	J6E65AA



Summary of Changes

Date of change:	Version History:		Description of change:
	From v1 to v2		

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