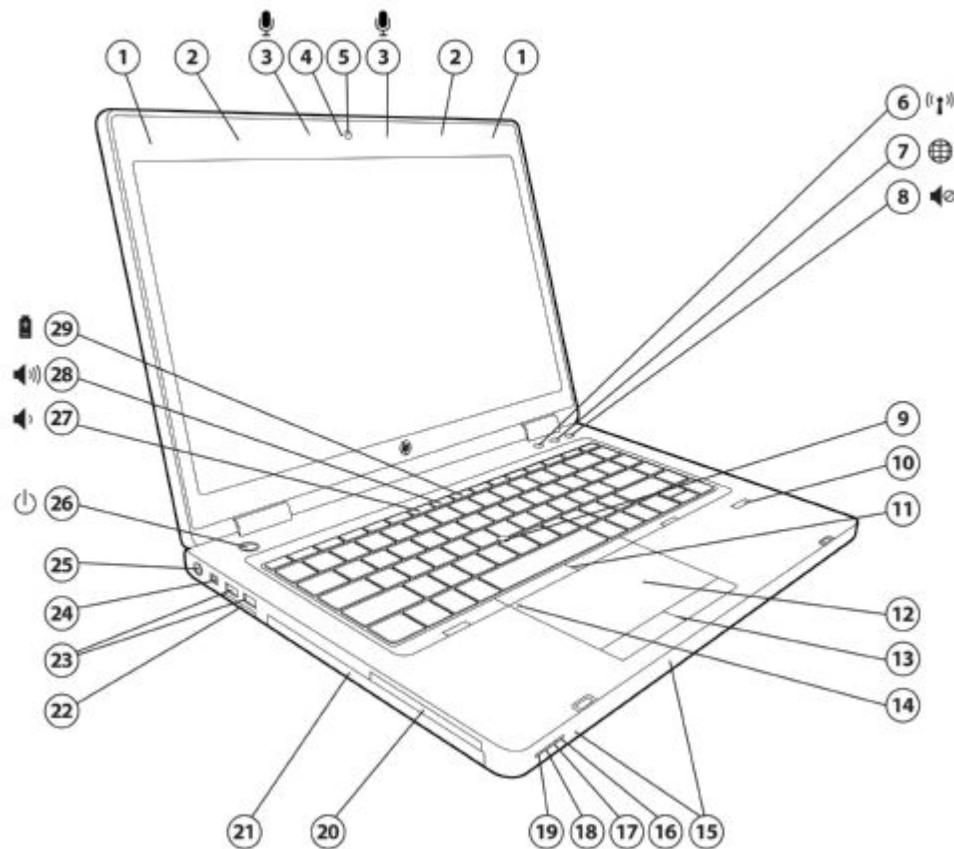


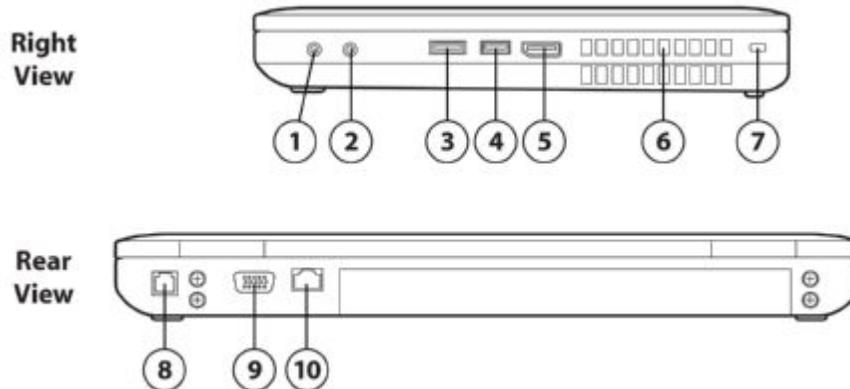
Overview



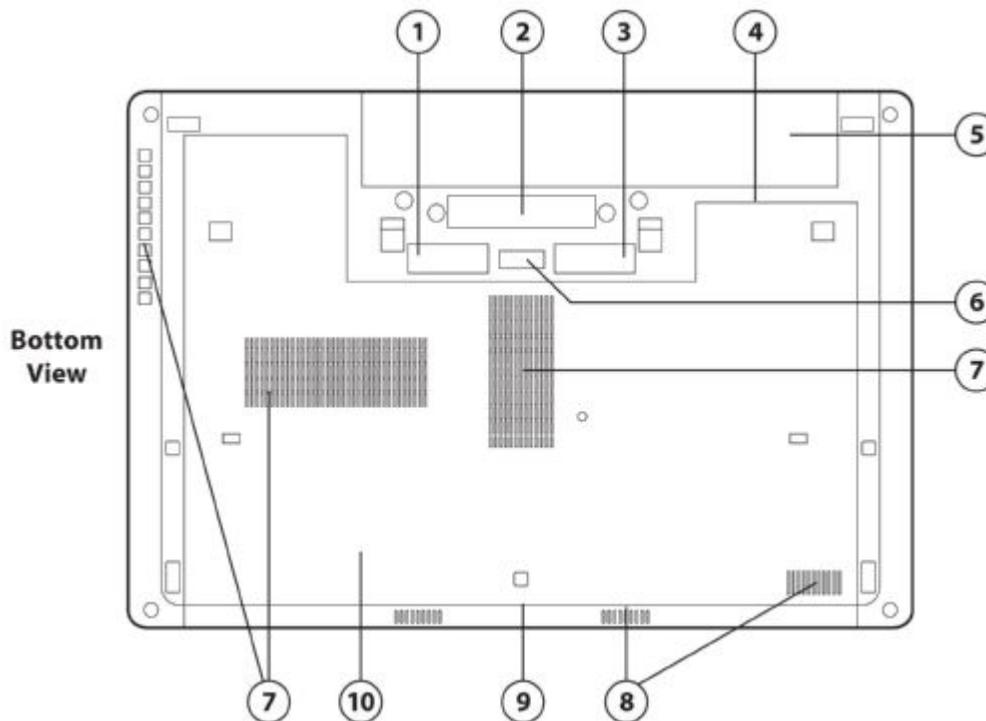
- | | |
|--|--|
| 1. WLAN antennas | 16. Hard drive activity / HP 3D DriveGuard LED indicator |
| 2. WWAN antennas (select models) | 17. Battery charging LED indicator |
| 3. Dual-microphone array* | 18. Power/standby LED indicator |
| 4. Webcam LED indicator (with optional webcam) | 19. Wireless on/off LED indicator |
| 5. Optional 720p HD webcam | 20. ExpressCard/54 slot or optional Smart Card Reader |
| 6. Wireless on/off button with LED indicator | 21. Upgrade Bay (optical drive, second hard drive or weight saver) |
| 7. Web browser button with LED indicator | 22. Secure Digital/MMC slot |
| 8. Volume mute button with LED indicator | 23. (2) USB 3.0 ports |
| 9. Optional pointstick | 24. 1394a port |
| 10. Optional HP Fingerprint Sensor | 25. Power connector |
| 11. Pointstick pick buttons (with optional pointstick) | 26. Power button with LED indicator |
| 12. Touchpad with scroll zone | 27. Volume down function key |
| 13. Touchpad pick buttons | 28. Volume up function key |
| 14. Touchpad on/off button with LED indicator | 29. HP Power Assistant function key |
| 15. Stereo speakers | |

* Models without optional webcam have single integrated microphone on left side of display panel.

Overview



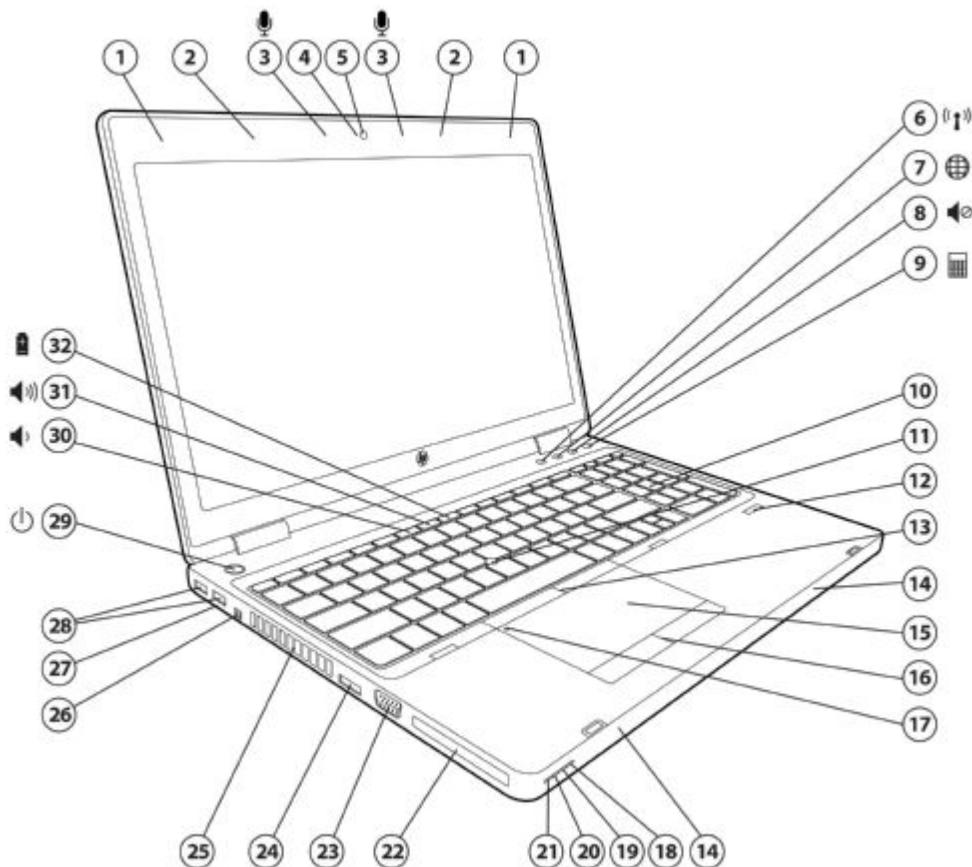
- | | |
|------------------------------|-----------------------------------|
| 1. Stereo headphone/line out | 6. Vents |
| 2. Stereo microphone/line in | 7. Security lock slot |
| 3. eSATA/USB 2.0 combo port | 8. RJ-11/modem port (optional) |
| 4. (1) USB 2.0 port | 9. VGA/external monitor connector |
| 5. DisplayPort | 10. RJ-45/Ethernet port |



- | | |
|--|---|
| 1. Battery release latch | 6. Secondary battery connector |
| 2. Docking connector | 7. Vents |
| 3. Bottom cover release latch | 8. Speakers |
| 4. SIM slot for WWAN (in battery bay; select models) | 9. Bluetooth module compartment under bottom cover |
| 5. Battery bay | 10. Hard drive, memory, and wireless compartment under bottom cover |

HP ProBook 6570b Notebook PC

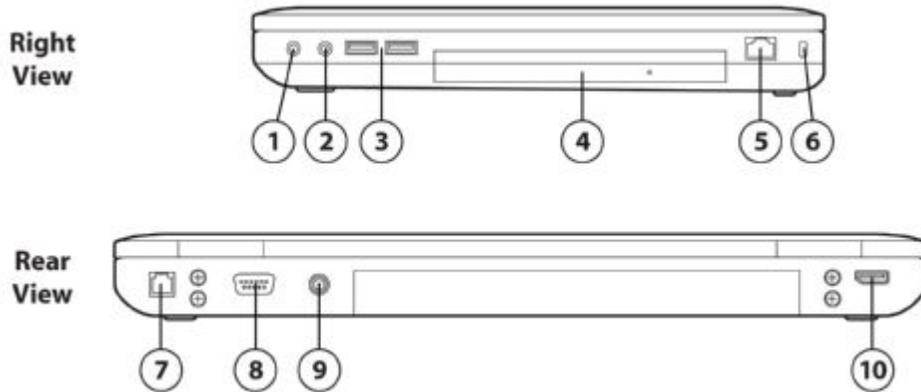
Overview



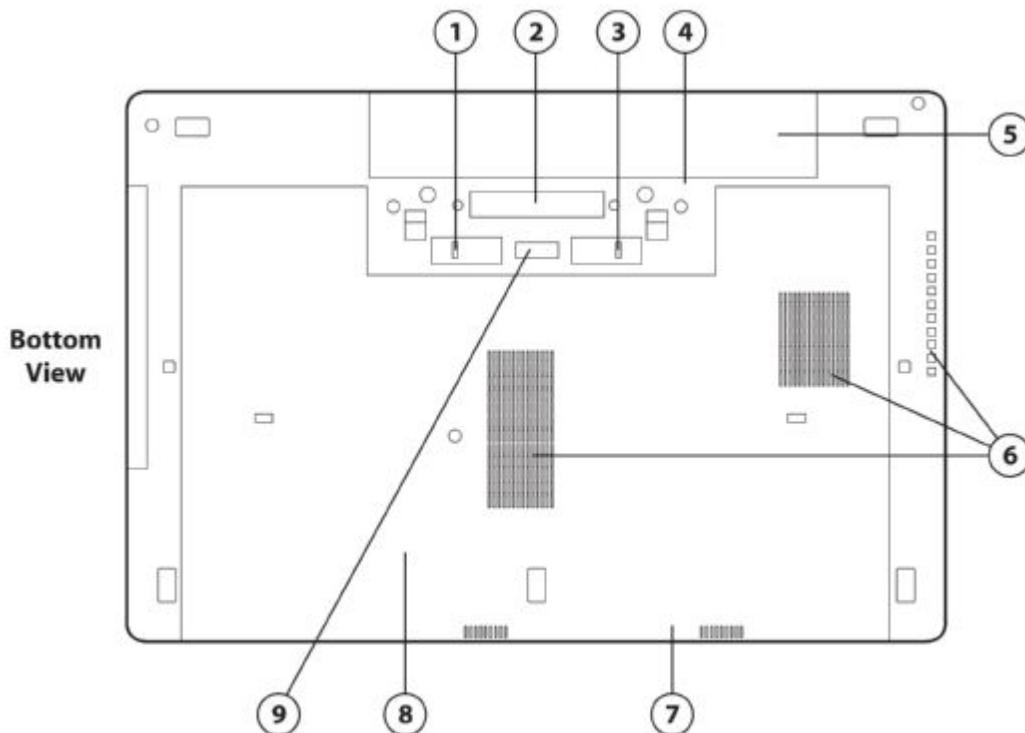
- | | |
|--|--|
| 1. WLAN antennas | 17. TouchPad on/off light |
| 2. WWAN antennas (select models) | 18. Hard drive activity / HP 3D DriveGuard LED indicator |
| 3. Dual-microphone array* | 19. Battery charging LED indicator |
| 4. Webcam LED indicator (with optional webcam) | 20. Power/standby LED indicator |
| 5. Optional 720p HD webcam | 21. Wireless on/off LED indicator |
| 6. Wireless on/off button with LED indicator | 22. ExpressCard/54 slot or optional Smart Card Reader |
| 7. Web browser button with LED indicator | 23. VGA/external monitor connector |
| 8. Volume mute button with LED indicator | 24. eSATA/USB 2.0 combo port |
| 9. Calculator button with LED indicator | 25. Vent |
| 10. Numeric keypad | 26. 1394a port |
| 11. Optional pointstick | 27. Secure Digital/MMC slot |
| 12. Optional HP Fingerprint Sensor | 28. (2) USB 2.0 ports |
| 13. Pointstick pick buttons (with optional pointstick) | 29. Power button with LED indicator |
| 14. Stereo speakers | 30. Volume down function key |
| 15. Touchpad with scroll zone | 31. Volume up function key |
| 16. Touchpad pick buttons | 32. HP Power Assistant function key |

* Models without optional webcam have single integrated microphone on left side of display panel.

Overview



- | | |
|---|-----------------------|
| 1. Stereo headphone/line out | 6. Security lock slot |
| 2. Stereo microphone/line in | 7. RJ-11/modem port |
| 3. (2) USB 3.0 ports | 8. Serial port |
| 4. Upgrade Bay (optical drive, second hard drive or weight saver) | 9. Power connector |
| 5. RJ-45/Ethernet port | 10. DisplayPort |



- | | |
|--|---|
| 1. Battery release latch | 6. Vents |
| 2. Docking connector | 7. Bluetooth module compartment (located under bottom cover) |
| 3. Bottom cover release latch | 8. Hard drive, memory, and wireless compartments under bottom cover |
| 4. SIM slot for WWAN (in battery bay; select models) | 9. Secondary battery connector |
| 5. Battery bay | |

Overview

At A Glance

- Genuine Windows® 7 versions, SuSE Linux Enterprise Desktop 11, or FreeDOS
- Bead-blast aluminum display enclosure, magnesium support structure, wear-resistant tungsten-colored HP DuraFinish, HP DisplaySafe frame, precision latches, and keyboard in full aluminum deck
- Choice of 3rd generation Intel® Core™ i7, i5, and i3 dual-core processors and 2nd generation Intel® Core i3 dual-core processor, or Celeron® processor
- Intel Core i7 with vPro™ and Core i5 with vPro technology (optional)
- AMD Radeon™ HD 7570M discrete graphics with 1 GB dedicated GDDR5 video memory, integrated Intel HD Graphics 4000 (on Intel Core i7 and i5 configurations), integrated Intel HD Graphics 3000 (on 2nd generation Intel Core i3 configurations), or Intel HD Graphics (on Celeron configurations)
- Widescreen LED-backlit display
HP ProBook 6470b: 14.0-inch diagonal HD or HD+
HP ProBook 6570b: 15.6-inch diagonal HD or HD+ WVA
- Easily hot dock with one of the optional HP docking stations
- DisplayPort for high resolution support
- SRS Premium Sound optimized for high fidelity audio
- Choice of primary battery to optimize run-time or weight: 9-cell (100 WHr), 6-cell (55 WHr), 6-cell (55 WHr) HP Long Life Battery, or 3-cell (31 WHr)
- Combine primary battery with optional secondary battery options
- Touchpad with scroll zone; optional pointstick; 6570b features a numeric keypad and calculator button
- Choice of standard ExpressCard slot or optional integrated Smart Card Reader for strong security authentication
Security features including HP ProtectTools, with central management across HP and non-HP client PCs
- HP Power Assistant allows you to conserve power, stretch battery run-time, accurately monitor your reported power needs, and report workforce power consumption.
- Flexible wireless connectivity options:
 - Optional integrated HP hs2350 HSPA+ Mobile Broadband Module connects to both HSPA and HSPA+ (UMTS) networks and provides GPS functionality
 - Optional integrated HP un2430 EV-DO/HSPA Mobile Broadband Module (Gobi 3000) (provides GPS functionality)
 - Optional Integrated Intel Centrino® 802.11 a/b/g/n 2x2 or b/g/n 2x2, Broadcom 802.11 a/b/g/n 2x2, or Atheros b/g/n 1x1 wireless LAN module
 - Bluetooth® v4.0+ EDR
- Upgrade Bay for optical drive, optional second hard drive, or weight saver
- Choice of 7200 rpm user-removable hard drive (up to 750 GB) with HP 3D DriveGuard, 500 GB 7200 rpm Self Encrypting Drive, or 128 GB Solid State Drive
- BFR/PVC-free*, ENERGY STAR qualified (with Microsoft OS) and EPEAT Gold registered in the U.S. (with Microsoft OS). EPEAT status varies by country- please see epeat.net.

* Meeting the industry definition of 'BFR/PVC-free' per the iNEMI Position Statement on "Low Halogen" Electronics. Plastic parts incorporated into the chassis generally contain < 1000 ppm (0.1%) of bromine or chlorine. Printed circuit board and substrate laminates generally contain < 1500 ppm (0.15%) of total bromine and chlorine. Service parts after purchase may not be BFR/PVC-free. External accessories, including power supplies, power cords, and peripherals as well as the following customer-configurable internal components: ATT SIM card are not BFR/PVC-free.

Features

OPERATING SYSTEM

Preinstalled	Genuine Windows 7 Professional 32* Genuine Windows 7 Professional 64* Genuine Windows 7 Home Premium 32* Genuine Windows 7 Home Premium 64* Genuine Windows 7 Home Basic 32* (select countries) SuSE Linux Enterprise Desktop 11 FreeDOS
Supported	Genuine Windows 7 Enterprise 32* Genuine Windows 7 Enterprise 64* Genuine Windows 7 Ultimate 32* Genuine Windows 7 Ultimate 64* Genuine Windows XP Professional 32 Genuine Windows Home Basic 64
Certified	SUSE Linux Enterprise Desktop 11

* Not all features are available in all editions of Windows 7. This system may require upgraded and/or separately purchased hardware to take full advantage of Windows 7 functionality. See <http://www.microsoft.com/windows/windows-7/> for details.

PROCESSOR

3rd Generation Intel® Core™ i7-3520M (2.90 GHz, 4 MB L3 cache, 35W, 2 cores)*
Up to 3.60 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3360M (2.80 GHz, 3 MB L3 cache, 35W, 2 cores)*
Up to 3.50 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3320M (2.60 GHz, 3 MB L3 cache, 35W, 2 cores)*
Up to 3.30 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i5-3210M (2.50 GHz, 3 MB L3 cache, 35W, 2 cores)*†
Up to 3.10 GHz with Intel Turbo Boost Technology
3rd Generation Intel® Core™ i3-3110M (2.40 GHz, 3 MB L3 cache, 35W, 2 cores)*†
2nd Generation Intel® Core™ i3-2370M (2.40 GHz, 3 MB L3 cache, 35W, 2 cores)*†
Intel® Celeron® B840 (1.90 GHz, 2 MB L3 cache, 35W, 2 cores)*

* 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.

† Not available with vPro

CHIPSET

Mobile Intel QM77 Express (vPro configurations)
Mobile Intel HM76 Express (non- vPro configurations)

Features

GRAPHICS

Integrated:

Intel HD Graphics 4000 (3rd Generation Intel Core i7 and Core i5)

Intel HD Graphics 3000 (2nd Generation Intel Core i3)

Intel HD Graphics (Celeron configurations)

Discrete:

AMD Radeon™ HD 7570M, with 1 GB dedicated GDDR5 video memory

DISPLAY

HP ProBook 6470b:

Internal

14.0" diagonal LED-backlit HD 16:9 anti-glare (1366 x 768)

14.0" diagonal LED-backlit HD+ 16:9 anti-glare (1600 x 900)

HP Privacy Filter support

External

Up to 32-bit per pixel color depth

DisplayPort

Supports resolutions up to 2560 x 1600, 30-bit color depth at 60 Hz, and full HD (1920 x 1080) monitors, 24-bit color depth at 120 Hz

VGA

Port supports resolutions up to 2048 x 1536 external resolution at 75 Hz

DVI-D (single link)

Video signal available through DVI port in optional HP Docking Station (sold separately)

supports resolutions up to 1600 x 1200 at both full and reduced blanking, and 1920 x 1200 at reduced blanking

HP ProBook 6570b:

Internal

15.6" diagonal LED-backlit HD 16:9 anti-glare (1366 x 768)

15.6" diagonal LED-backlit HD+ 16:9 WVA anti-glare (1600 x 900)

HP Privacy Filter support

External

Up to 32-bit per pixel color depth

DisplayPort

Supports resolutions up to 2560 x 1600, 30-bit color depth at 60 Hz, and full HD (1920 x 1080) monitors, 24-bit color depth at 120 Hz

VGA

Port supports resolutions up to 2048 x 1536 at 75 Hz, and lower resolutions at up to 100 Hz

DVI-D (single link)

Video signal available through DVI port in optional HP Docking Station (sold separately)

supports resolutions up to 1600 x 1200 at both full and reduced blanking, and 1920 x 1200 at reduced blanking

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

Features

STORAGE AND DRIVES

Primary Storage Bay

Hard Drives

320/500/750 GB 7200 rpm SMART SATA II

500 GB 7200 rpm SMART SATA II Self Encrypting Drive

HP 3D DriveGuard (Windows only)

The hard drive is mounted directly to the notebook frame, reducing the transmission of shock to the hard drive.

Solid State Drive

SATA 6 Gb/s 128 GB Solid State

NOTE: Up to 19 GB is reserved for the system recovery software.

OPTICAL DRIVES

Fixed 12.7 mm SATA optical drive

Blu-ray ROM DVD+/-RW SuperMulti DL Drive

DVD+/-RW SuperMulti DL Drive

DVD-ROM Drive

Second hard drive

500 GB 7200 rpm SMART SATA II Hard Drive

Weight saver

MEMORY

Standard

DDR3 SDRAM (1600 MHz)*

Two SODIMM slots supporting dual-channel memory

Standard memory up to 8192 MB (2 GB, 4 GB, and 8 GB SODIMMs)

Maximum

Upgradeable to 16384 MB with optional 8192 MB SODIMMs in slots 1 and 2

Dual-channel

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

* Maximum memory speed supported by the 2nd Generation Core i3 processor and the Celeron processor is 1333 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. With Windows Starter 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.

Features

NETWORKING/COMMUNICATIONS

Wireless

Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Broadband Wireless (WWAN) requires a Windows operating system and is available in select countries as a standard, factory configurable feature only. Wireless LAN and integrated Bluetooth are also available (both are factory configurable only) and can be combined with either of the supported wireless WAN options.

Mobile Broadband options

HP hs2350 HSPA+ Mobile Broadband Module

HP un2430 EV-DO/HSPA Mobile Broadband Module

Integrated wireless LAN options

Intel Centrino Advanced-N 6205 802.11 a/b/g/n (2x2)

Intel Centrino Wireless-N 2200 802.11 b/g/n (2x2)

Broadcom BCM943228HM4L 802.11 a/b/g/n WiFi Adapter (2x2)

Atheros AR9485 802.11 b/g/n WiFi Adapter (1x1)

HP Integrated Module with Bluetooth 4.0+ EDR Wireless Technology
Communications

Integrated Intel 82579LM Gigabit* Network Connection (vPro configurations)

Integrated Intel 82579V Gigabit* Network Connection (non- vPro configurations)

56K V.92 modem**

* 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.

** Designed for downloads from 56K modem compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions. Modem availability is subject to country regulatory approval.

AUDIO/MULTIMEDIA

Audio

SRS Premium Sound™

Integrated stereo speakers

Integrated microphone (dual-microphone array when equipped with optional webcam)

Button for volume mute; function keys for volume up and down

Stereo headphone port

Stereo microphone port

Webcam

Optional 720p HD webcam

- HD format (widescreen)
- Supports videoconferencing and still image capture
- High quality fixed focus lens
- Video capture at various resolutions up to 1280x720 resolution (720p) and up to 30fps
- M-JPEG compression supports higher frame rates for video capture and videoconferencing
- Improved low light sensitivity
- Improved dynamic range

Features

KEYBOARDS/POINTING DEVICES/BUTTONS & FUNCTION KEYS

Keyboard

The HP spill-resistant keyboard is designed using a thin layer of Mylar film under the keyboard and a drain system that funnels fluid through a hole in the bottom of the notebook. This minimizes the risk of damage to sensitive components underneath. The 101/102-key compatible keyboard features a full-pitch key layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, editing keys, both left and right control and alt keys, 12 function keys, and 19.05 x 19.05 mm key pitch (center-to-center spacing). U.S. and International key layouts are available. Other features include hot keys for instant access to power conservation and brightness. The HP ProBook 6570b includes a separate numeric keypad.

Pointing Devices

Touchpad with on/off button, two-way scroll, gestures, two pick buttons
Optional pointstick with two additional pointstick buttons (for a total of four)

Buttons and Function Keys

Discrete buttons provide easy access to the following features: wireless on/off, Web browser, and volume mute. The HP ProBook 6570b also features a calculator button. Function keys provide control of the following features: standby mode, external display, volume down, volume up, HP Power Assistant, and display brightness.

SOFTWARE AND SECURITY

Preinstalled Software with Windows Operating System

HP Connection Manager

HP Hotkey Support

HP Power Assistant

HP ProtectTools for Central Management

HP ProtectTools Security Manager

HP Recovery Manager

HP Support Assistant

HP Webcam Software (select models)

Adobe® Flash Player

Corel WinDVD (select models)

Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®. Buy Office 2010 to use the full-featured software.*

Microsoft Security Essentials

PDF Complete Corporate Edition

Roxio MyDVD Business 2010 (select models)

Roxio Secure Burn (select models)

UEFI 2.3 supported by BIOS

WinZip Basic

NOTE: HP Recovery Manager enables fast recovery of the factory preinstalled image if the system becomes corrupted or if important system files are accidentally deleted. Up to 19 GB of the hard drive is reserved for the system recovery software. Support in Windows Operating System only.

Additional Software Available from the Web

HP SoftPaq Download Manager

* Includes reduced functionality versions of Word and Excel. Purchase of Product Key required to activate full Office 2010 suite available at participating resellers/retailers and <http://www.office.com>.

Security

Standard

HP Disk Sanitizer

HP ProtectTools

HP Spare Key (requires initial user setup)

Central Management for HP ProtectTools

Credential Manager for HP ProtectTools

Drive Encryption for HP ProtectTools

Enhanced Pre-Boot Security

Face Recognition for HP ProtectTools

Features

File Sanitizer for HP ProtectTools
Microsoft Security Essentials
Security lock slot
TPM Embedded Security Chip 1.2

Optional

Computrace (requires a subscription)
Intel Anti-Theft Technology (requires a Computrace subscription)
HP Fingerprint Sensor
Smart Card Reader (replaces ExpressCard)
HP Privacy Filter

NOTE: The Computrace agent is shipped turned off, and must be activated by customers when they purchase a subscription. Subscriptions can be purchased for terms ranging multiple years. Service is limited, check with Absolute for availability outside the U.S.

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

POWER

Power Supply

Models with discrete graphics:

External 90-watt Smart AC adapter

Models with integrated graphics:

External 65-watt Smart AC adapter

Power cord included is 6-foot (1.8 meter).

Total length including external AC adapter is 12 feet (3.66 meter).

HP Fast Charge (not supported on 9-cell primary or secondary batteries)

Primary Battery

HP 9-cell Lithium-Ion Battery (100 WHr)

HP 6-cell Lithium-Ion Battery (55 WHr)

HP 6-cell HP Long Life Lithium-Ion Battery (55 WHr)

HP 3-cell Lithium-Ion Battery (31 WHr)

Secondary Battery

HP Extended Life Notebook Battery (9-cell /73 WHr)

HP Ultra Extended Life Notebook Battery (9-cell /100 WHr)

Battery Life*

HP ProBook 6470b**

9-cell (100 WHr) Up to 15 hours and 15 minutes

6-cell (55 WHr) Up to 8 hours and 15 minutes

with optional Up to 19 hours and 30 minutes

HP ST09 Extended Life
Notebook Battery

with optional Up to 24 hours

HP BB09 Ultra

Extended Life Notebook
Battery

3-cell (31 WHr) Up to 4 hours and 15 minutes

HP ProBook 6570b**

6-cell (55 WHr) Up to 7 hours and 15 minutes

with optional Up to 17 hours and 30 minutes

HP ST09 Extended Life
Notebook Battery



Features

with optional Up to 21 hours
HP BB09 Ultra
Extended Life Notebook
Battery

9-cell (100 WHr) Up to 13 hours

3-cell (31 WHr) Up to 3 hours and 45 minutes

System Standby Time

Up to 4 weeks

*Battery life will vary depending on the product model, configuration, loaded applications, features, use, wireless functionality and power management settings. The maximum capacity of the battery will naturally decrease with time and usage. See MobileMark07 battery benchmark <http://www.bapco.com/products/mobilemark2007> for additional details.

** Configurations with integrated graphics.

NOTE: Fast Charge recharges your battery up to 90% within 90 minutes when the system is off. Please note that 9-cell batteries do not support Fast Charge.

Power Conservation

AMD PowerPlay technology (models with discrete graphics)

Hibernation

Standby

ACPI compliance

ENVIRONMENTAL

ENERGY STAR qualified (with Microsoft OS)

IT ECO Declaration

EPEAT Gold where HP registers commercial notebook products. See <http://www.epeat.net> for registration status in your country.

NOTE: 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.

WEIGHTS & DIMENSIONS

6470b

Weight

Starting at 4.48 lb (2.03 kg)

Dimensions (w x d x h)

13.31 x 9.11 x 1.34 in (at front)

33.8 x 23.1 x 3.4 cm (at front)

6570b

Weight

Starting at 5.53 lb/2.51 kg (3-cell with weight saver)

Starting at 5.75 lb/2.61 kg (3-cell with optical drive)

Dimensions (w x d x h)

14.72 x 9.86 x 1.35 in (at front)

37.4 x 25.1 x 3.4 cm (at front)

NOTE: Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components. Weight includes 6-cell battery, hard drive, 1 GB memory, and no optical drive. Weight varies by configuration and components.

Features

PORTS/SLOTS

Ports

6470b

VGA - One
DisplayPort - One (UMA: v1.1a; discrete: v1.2)
Stereo microphone port - One
Stereo headphone port - One
Power Connector - One
Secondary Battery Connector - One
Docking Connector - One
RJ-45 (Ethernet) - One
RJ-11 (Modem)- One
1394a - One
USB 3.0 - Two
USB 2.0 - One
eSATA/USB 2.0 combo port - One

6570b

VGA - One
DisplayPort - One (UMA: v1.1a; discrete: v1.2)
Stereo microphone port - One
Stereo headphone port - One
Power Connector - One
Secondary Battery Connector - One
Docking Connector - One
RJ-45 (Ethernet) - One
RJ-11 (Modem)- One
1394a - One
USB 3.0 - Two
USB 2.0 - Two
eSATA/USB 2.0 combo port - One
Serial port - One

Digital Media Slots

1 ExpressCard/54 slot
1 SD/MMC slot (supported media include: SD, SDHC, SDXC, MMC, MMC+)

SERVICE AND SUPPORT

HP Services offers limited 3-year and 1-year warranty options depending on country; 1-year limited warranty on primary battery; 3-year limited warranty on HP Long Life Battery (only available with 3-year platform warranty). 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: <http://www.hp.com/hps/carepack>.

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 V			
	Average Operating Power	HP EliteBook 6570b	Windows 7 (32-bit)	Windows 7 (64-bit)	
			Integrated graphics	10.23 W	10.42 W
			Discrete graphics	13.5 W	13.88 W
	HP EliteBook 6470b	Integrated graphics	9.14 W	9.07 W	
		Discrete graphics	13.62 W	13.31 W	
	Max Operating Power	< 65 W or < 90 W			
	Temperature	Operating	32° to 95° F (0° to 35° C) (not writing optical) 41° to 95° F (5° to 35° C) (writing optical)		
		Non-operating	-4° to 140° F (-20° to 60° C)		
	Relative Humidity	Operating	10% to 90%, non-condensing		
Non-operating		5% to 95%, 101.6° F (38.7° C) maximum wet bulb temperature			
Shock	Operating	40 G, 2 ms, half-sine			
	Non-operating	200 G, 2 ms, half-sine			
Random Vibration	Operating	0.75 grms			
	Non-operating	1.50 grms			
Altitude (unpressurized)	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)			
Planned Industry Standard Certifications	UL	Yes			
	CSA	Yes			
	FCC Compliance	Yes			
	ENERGY STAR®	Select models*			
	EPEAT	Registered Gold 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				

Technical Specifications

* Configurations of the HP ProBook 6470b and HP ProBook 6570b that are ENERGY STAR qualified are identified as HP 6470b ENERGY STAR and HP 6570b 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) anti-glare	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	Anti-glare		
	Contrast Ratio	400:1 (typical)		
	Refresh Rate	60 Hz		
	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)		

14.0-inch LED HD+ (1600 x 900) anti-glare	Dimensions (W x H)	12.74 x 7.56 in (32.4 cm x 19.2 cm)		
	Diagonal Size	14.0 in (35.6cm)		
	Surface Treatment	Anti-glare		
	Contrast Ratio	300 (min)		
	Refresh Rate	60 Hz		
	Brightness	200 nits (typical)		
	Pixel Resolution	Pitch	0.1935mm	
		Format	1600 x 900	
		Configuration	RGB Stripe	
	Backlight	LED		
PPI	131 ppi			
Viewing Angle	30/30/20/10 (Left/Right/Down/Up) (minimum)			

Technical Specifications

15.6-inch LED HD (1366 x 768) anti-glare	Dimensions (W x H)	13.54 x 7.59 in (34.4 x 19.4 cm)		
	Diagonal Size	15.6 in (39.6cm)		
	Surface Treatment	Anti-glare		
	Contrast Ratio	300:1 (typical)		
	Refresh Rate	60 Hz		
	Brightness	200 nit (typical)		
	Pixel Resolution	Pitch	0.252 mm	
		Format	1366 x 768	
		Configuration	RGB Stripe	
	Backlight	LED		
PPI	100 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)			

15.6-inch LED HD+ WVA (1600 x 900) anti-glare	Dimensions (W x H)	13.54 x 7.59 in (34.4 x 19.4 cm)		
	Diagonal Size	15.6 in (39.6cm)		
	Surface Treatment	Anti-glare		
	Contrast Ratio	300:1 (typical)		
	Refresh Rate	60 Hz		
	Brightness	200 nit (typical)		
	Pixel Resolution	Pitch	0.215 mm	
		Format	1600 x 900	
		Configuration	RGB Stripe	
	Backlight	LED		
PPI	118 ppi			
Viewing Angle	±60° Horizontal, ± 50° Vertical (minimum) or ±70° Horizontal, ±60° Vertical (typical)			

STORAGE AND DRIVES

Internal Storage

Technical Specifications

750 GB 7200 rpm SATA Hard Drive	Drive Weight	0.22 lb (101 g)		
	Capacity	750 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.75 in (70 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ		
	Transfer Rate	Synchronous (maximum)	300 MB/s (Drive Capability)	
	Seek Time (typical reads, including settling)	Single Track	1.5 ms	
		Average	11 ms	
		Maximum	22 ms	
	Rotational Speed	7200 rpm		
	Logical Blocks	1,465,149,168		
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
	Features	ATA Security		

500 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lbs (115g)		
	Capacity	500 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.75 in (70 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ		
	Transfer Rate	Synchronous (maximum)	300 MB/s (Drive Capability)	
	Seek Time (typical reads, including settling)	Single Track	1.5 ms	
		Average	11 ms	
		Maximum	22 ms	
	Rotational Speed	7200 rpm		
	Logical Blocks	976,773,168		
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
	Features	ATA Security		

500 GB 7200 rpm SMART SATA II Self Encrypting Drive	Drive Weight	0.25 lbs (115g)		
	Capacity	500 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.50 in (63.5 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s		
	Transfer Rate	Synchronous (maximum)	300 MB/s (Drive Capability)	
	Seek Time (typical reads, including settling)	Single Track	1 ms	
		Average	12 ms	
		Maximum	20 ms	
	Rotational Speed	7200 rpm		
	Logical Blocks	976,773,168		
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
	Features	ATA Security		

Technical Specifications

320 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lbs (115 g)		
	Capacity	320 GB		
	Height	0.37 in (9.5 mm)		
	Width	2.75 in (70 mm)		
	Interface	ATA-8, SATA 2.6, 3.0 Gb/s, NCQ		
	Transfer Rate	Synchronous (maximum)	300 MB/s (Drive Capability)	
	Seek Time (typical reads, including settling)	Single Track	1.5 ms	
		Average	11 ms	
		Maximum	22 ms	
	Rotational Speed	7200 rpm		
	Logical Blocks	625,142,448		
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]		
	Features	ATA Security		

SATA 6 Gb/s 128 GB, 2.5-inch Solid State Drive	Drive Weight	73 Grams		
	Capacity	128 GB		
	Height	0.276 in (7 mm)		
	Width	2.76 in (70 mm)		
	Interface	SATA 3 (6 Gb/s)		
	Performance	Maximum Sequential Read	415 MB/s	Maximum Sequential Write 175 MB/s
		Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]		
Features	ATA Security; ATA-8; SATA 3.0 DIPM; TRIM			

Optical Drives

DVD-ROM Drive	Access Times	Random	< 140 ms CD (typical) < 160 ms DVD (typical)
	Max Data Transfer Rate	24X CD-ROM 8X-DVD	
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	
	Supported Media (read)	CD-DA, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVI RAM	
	Supported Media (write)	None	
	Max Media Capacity (read)	8.5GB	
	Transport	Tray Loading	

Technical Specifications

DVD+/-RW SuperMulti DL Drive	Access Times	Random	<140ms CD (typical) < 160 ms DVD (typical)
	Max Data Transfer Rate	24X CD-ROM 8X DVD 24X CD-R 24X CD-RW 8X DVD+R 8X DVD+RW 8X DVD-R 6X DVD-RW 6X - DVD+R Dual Layer 6X - DVD-R Dual Layer 5X DVD-RAM	
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	
	Supported Media (read)	CD-DA, CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM	
	Supported Media (write)	CD-R, CD-RW, DVD+R, DVD+RW, DVD-R, DVD-RW, DVD-RAM, DVD+R DL, DVD-R DL	
	Max Media Capacity (read)	8.5 GB	
	Max Media Capacity (write)	8.5 GB	
	Transport	Tray Loading	

Blu-ray ROM DVD+/-RW SuperMulti DL Drive	Access Times	Random	<190 ms CD-ROM (typical) < 180ms DVD-ROM (typical) <230 ms BD-ROM (typical)
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	Max Data Transfer Rate	24X CD-ROM 8X DVD-ROM 24X CD-R 16X CD-RW 8X DVD+R 8X DVD+RW 8X DVD-R 6X DVD-RW 4X - DVD+R Dual Layer 4X - DVD-R Dual Layer 5X DVD-RAM 6X BD-ROM
	Transfer Mode	UDMA Mode 5
	Interface	Gen 1 SATA

Technical Specifications

Supported Media (read)	CD-DA, , CD-TEXT, CD-ROM, CD-ROM XA, MIXED MODE CD, CD-I, CD-I Bridge (Photo-CD, Video CD), Multisession CD (Photo-CD, CD-EXTRA, Portfolio, CD-R, CD-RW), CD-R, CD-RW, DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW. DVI RAM, BD-ROM, BD-R, BD-RE
Supported Media (write)	CD-R, CD-RW, DVD+R, DVD+R DL, DVD+RW, DVD-R, DVD-R DL, DVD-RW, DVD-RAM
Max Media Capacity (read)	50.0 GB
Max Media Capacity (write)	8.5GB
Transport	Tray Loading

SECURITY

HP Fingerprint Sensor (optional)	Mobile Voltage Operation	3.0V-3.6V Single Supply
	Operating Temperature	32° - 158°F (0° - 70°C)
	Current Consumption @ 3.3V	Less than 70 mA peak imaging and scrolling Less than 25 mA hardware finger detection Advanced Power Management
	High-Rate Image Capture	Up to 240 image frames /sec
	ESD Resistance	IEC 61000-4-2 Level 4 (±15KV)
	Detection Matrix	192 x 16 Pixels 9.7 mm x 0.81 mm 500 ppi High-Resolution Images

NETWORKING/COMMUNICATIONS

Intel® 82579LM Gigabit Ethernet Features Network Connection	10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14) 100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30) 1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 802.3 Clauses 40) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s IEEE 802.1p QoS (Quality of Service) Support IEEE 802.1q VLAN support IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable) IEEE 802.3az EEE(Energy Efficient Ethernet) Jumbo Frame 9K Auto MDI/MDIX Crossover cable detection
Power Management	ACPI compliant - multiple power modes Energy Detect Low Power Mode(Green Ethernet)
Performance Features	TCP/IP/UDP Checksum Offload (configurable) Protocol Offload(ARP & NS)

Technical Specifications

		<p>Large send offload and Giant send offload</p> <p>Receiving Side Scaling</p> <p>MACSec Offload (802.3ae)</p> <p>Intel vPro</p> <p>iSCSI Boot</p>
	Manageability	<p>Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only)</p> <p>PXE 2.1 Remote Boot</p> <p>Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))</p> <p>Comprehensive diagnostic and configuration software suite</p> <p>Virtual Cable Doctor for Ethernet cable status</p>
	Interface	<p>PCI Express 1.1 x1 to fully support ASPM L0s/L1 and CLKREQ.</p> <p>NOTE: Intel 82579 PCIe interface is not PCIe compliant. It operates at half of PCIe specification V1.1 (2.5GT/S) speed.</p>
	NIC Device Driver Name	Intel 82579LM/82579V Ethernet Network Connection
Intel® 82579V Gigabit Network Connection	Ethernet Features	<p>10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)</p> <p>100 10 Mbit/s operation (10BASE-T; IEEE 802.3i; IEEE 802.3 clauses 13-14)</p> <p>100 Mbit/s operation (100BASE-TX; IEEE 802.3u; IEEE 802.3 clauses 21-30)</p> <p>1000 Mbit/s operation (1000BASE-T; IEEE 802.3ab; IEEE 8023 clause 40)</p> <p>Auto-Negotiation (Automatic Speed Selection)</p> <p>Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s</p> <p>IEEE 802.1p QoS (Quality of Service) Support</p> <p>IEEE 802.1q VLAN support</p> <p>IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)</p> <p>IEEE 802.3az EEE(Energy Efficient Ethernet)</p> <p>Jumbo Frame 9K</p> <p>Auto MDI/MDIX Crossover cable detection</p>
	Power Management	<p>ACPI compliant - multiple power modes</p> <p>Energy Detect Low Power Mode(Green Ethernet)</p>
	Performance Features	<p>TCP/IP/UDP Checksum Offload (configurable)</p> <p>Protocol Offload(ARP & NS)</p> <p>Large send offload and Giant send offload</p> <p>Receiving Side Scaling</p>
	Manageability	<p>Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only)</p> <p>PXE 2.1 Remote Boot</p> <p>Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30))</p> <p>Comprehensive diagnostic and configuration software suite</p> <p>Virtual Cable Doctor for Ethernet cable status</p>
	Interface	<p>Intel PCI Express-Base 1.1 x1 to fully support ASPM L0s/L1 and CLKREQ</p> <p>NOTE: Intel 82579 PCIe interface is not PCIe compliant. It operators at half of PCIe specification V1.1 (2.5GT/S) speed.</p>
	NIC Device Driver Name	Intel 82579LM/82579V Ethernet Network Connection

Technical Specifications

V.92 56K Data/Fax Modem	Form Factor	MDC 1.5 Daughtercard
	Power Management Support	APM Revision 1.2, ACPI
	Approvals/Certifications	UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australia/ACA, CE Mark, Other Countries
	Data Mode Capabilities	V.92 data V.8bis V.80 V44, V.42bis, MNP5 (Compression) V.42 (LAPM, MNP2-4) (Error Correction) Optional symbol rates: 2800, 3429 Asymmetric Symbol rates Synchronous primary channel data signaling rates: 3600, 31200 Automatic rate re-negotiation V.34 V.32bis V.32 V.23 V.22bis V.22 V.21 Bell 212A Bell 103J
	Fax Mode Capabilities	TIA/EIA-578-B (Class 1) T.30, T.4 (Group 3) V.17 V.29 V.27ter V.21 Channel 2 T.31
	Command Set	V.250 (Partial) TIA-602 Identification: +GMI, +GMM, +GMR Port control: +IPR, +ICF, +IFC, +ILRR Modulation: +MS, +MR, +MA Error control: +ES, +ER, +EB, +ESR, +ETBM Data compression: +DS, +DR V.251

Technical Specifications

HP un2430 EV-DO/HSPA Mobile Broadband Module	Technology/Operating Bands	GSM/GPRS/EDGE: 850MHz(Cell), 900MHz(EGSM), 1800MHz(DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), AWS (UTRA FDD Band IV), 900MHz(UTRA FDD Band VIII), 850MHz (UTRA FDD Band V) 1xEVDO/1xRTT with receive diversity: 850MHz (Band Class0-Cell), 1900MHz (Band Class1-PCS)
	Wireless Protocol Standards	GSM/GPRS/EDGE: Class A, Multi-slot class 10 operation, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 6 CDMA: 1xEVDO Release 0 and Release A, IS-95A, IS-95B, IS-856, IS 2000
	Wireless Parametric Standards	Meets or exceeds TIA/EIA IS-98-D
	Maximum Data Rates	UMTS (HSPA) - 14.4 Mbps (Download), 5.76Mbps (Upload) CDMA (EVDO Release A) - 3.1 Mbps (Download), 1.8Mbps (Upload)
	GPS	Standalone GPS enabled gpsOneXTRATM™
	GPS Bands	L1 - 1575.42 MHz
	Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+0.7/-2.3) CDMA: 24dBm (+0.7/-2)
	Maximum Power Consumption	2750mA (peak); 1100mA (average)
	Power Consumption, Idle Not Connected	20 mA
	Power Management	USB selective suspend Integrated notebook wireless button
	Antenna Type	Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
	Form Factor	PCI-Express MiniCard, USB 2.0 interface
	Weight	11.5 g
	Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 5 mm)
	Voltage, Operating	3.3v +/- 10%
	Temperature, Operating (from TIA/EIA/IS-98-D)	-22° to 158° F (-30° to 70° C) (full RF performance) -22° to 167° F (-30° to 75° C) (reduced RF performance)
	Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)	-40° to 185° F (-40° to 85° C)
	Humidity, Non-operating	95% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
	Configuration Utilities	HP Connection Manager
	LED Activity	LED Off - Radio Off; Solid LED On - Radio On

Technical Specifications

HP hs2350 HSPA+ Mobile Broadband Module	Technology/Operating Bands	GSM/GPRS/EDGE: 850MHz(Cell), 900MHz(EGSM), 1800MHz(DCS), 1900MHz (PCS) UMTS/WCDMA with receive diversity: 2100MHz (UTRA FDD Band I), 1900MHz (UTRA FDD Band II), 900MHz(UTRA FDD Band VIII), 850 MHz (UTRA FDD Band V)
	Wireless Protocol Standards	GSM/GPRS/EDGE: Class B, Multi-slot class 10 operation, coding schemes CS1 - CS4 and MSC1 - MSC9. UMTS/WCDMA: Release 99 and Release 7 Advanced Receiver Type 3i
	Wireless Parametric Standards	Complies with 3GPP specifications
	Maximum Data Rates	UMTS (HSPA) - 21 Mbps (Download), 5.76Mbps (Upload)
	GPS	Standalone, A-GPS (Internet- and Network assisted)
	GPS Bands	1575.42 MHz (± 1.023 MHz)
	Maximum Output Power	GSM/EDGE GSM850 & GSM900 bands GPRS: +33 dBm ± 2 dBm (class 4) EGPRS: +27 dBm ± 3 dBm (class E2) DCS1800 & PCS1900 bands GPRS: +30 dBm ± 2 dBm (class 1) EGPRS: +26 dBm +4 / -3 dBm (class E2)
	Maximum Power Consumption	UMTS UTRA FDD Bands +24 dBm +4 / -3 dBm (class 3) 2000mA (peak); 600mA (average)
	Power Consumption, Sleep Mode	5 mA
	Power Management	USB selective suspend Integrated notebook wireless button
	Antenna Type	Dual high efficiency 5 band antennae with spatial diversity, mounted in the display enclosure
	Form Factor	PCI-Express MiniCard, USB 2.0 interface
	Weight	< 12 g
	Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 5 mm)
	Voltage, Operating	3.3v +/- 9%
	Temperature, Operating	14° to 149° F (-10° to 65° C) (full RF performance) 14° to 167° F (-10° to 75° C) (reduced RF performance)
	Temperature, Non-operating, 96 hours (from MIL-STD 202 Method 108)	-22° to 185° F (-30° to 85° C)
	Humidity, Non-operating	85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)
	Configuration Utilities	HP Connection Manager
	LED Activity	LED Off - Radio Off; Solid LED On - Radio On

Intel Centrino Wireless-Wireless LAN

IEEE 802.11b



Technical Specifications

N 2200 802.11 b/g/n (2x2)	Standards	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	2.4 GHz
	Antenna Structure	2 transmit; 2 receive (2x2)
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: many possible data rates, ranging from 6 Mbps to 300 Mbps, depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n specification
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
	Security¹	Authentication: WPA and WPA2, 802.1x (EAP_TLS, TTLS, PEAP, LEAP, EAP-FAST) Authentication Protocols: PAP, CHAP, TLS, GTC, MS-CHAP, MS-CHAPv2 Encryption: 64 and 128-bit WEP, AES-CCMP, CKIP, TKIP Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program Version 4) with Microsoft Windows Vista and XP only.
	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 2.4GHz band Access Points
	Output Power (for CCK and OFDM) ²	15 dBm typical
	Power Consumption	Transmit: 1.4 Watts (average, with one spatial streams) Receive: 1.3 Watts (average with two receive chains) Idle mode ³ : 30 mW (average) Radio off: 20 mW (max)
	Power Management	ACPI compliant power management 802.11 compliant power saving mode
	Receiver Sensitivity⁴	54 Mbps: -74 dBm, 6 Mbps: -91 dBm
	Antenna Connections	2 U.FL type connectors, 50 ohm nominal impedance
	Form Factor	PCI-Express Half-MiniCard
	Weight	0.0075 lb (3.4 g)
	Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)
	Operating Voltage	3.3V +/- 9%
	Temperature	Operating 32° to 176° F (0° to 80° C) Non-operating -40° to 176° F (-40° to 80° C)
	Humidity	Operating 10% to 90% (non-condensing) Non-operating 5% to 90% (non-condensing)

Technical Specifications

Altitude	Operating	0 to 10,000 ft (3,048 m)
	Non-operating	0 to 50,000 ft (15,240 m)

LED Activity LED Off - Radio OFF; Solid LED On - 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 supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

Intel Centrino Advanced-N 6205 (2x2)	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	2.4 GHz and 5GHz
	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: 66 possible data rates, ranging from 6 Mbps to 300 Mbps, depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n specification
	Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
	Security¹	Authentication: WPA and WPA2, 802.1x (EAP_TLS, TTLS, PEAP, LEAP, EAP-FAST)
		Authentication Protocols: PAP, CHAP, TLS, GTC, MS-CHAP, MS-CHAPv2
		Encryption: 64 and 128-bit WEP, AES-CCMP, CKIP, TKIP
	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 2.4GHz band Access Points	
Output Power (for CCK and OFDM) ²	17 dBm max	

Technical Specifications

Power Consumption	Transmit: 2.3 Watts (max, with two spatial streams) Receive: 1 Watt (max with two spatial streams) Idle mode ³ : 35 mW (average) Radio off: 20 mW (max)
Power Management	ACPI compliant power management 802.11 compliant power saving mode
Receiver Sensitivity⁴	54 Mbps: -76 dBm, 6 Mbps: -92 dBm
Antenna Connections	2 U.FL type connectors, 50 ohm nominal impedance
Form Factor	PCI-Express Half-MiniCard
Weight	0.0075 lb (3.4 g)
Dimensions	0.12 x 1.06 x 1.18 in (3.1 x 26.8 x 30.0 mm)
Operating Voltage	3.3V +/- 9%
Temperature	Operating 32° to 176° F (0° to 80° C) Non-operating -40° to 176° F (-40° to 80° C)
Humidity	Operating 10% to 90% (non-condensing) Non-operating 5% to 90% (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 Off - Radio OFF; Solid LED On - 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 supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

Broadcom BCM943228HM4L 802.11 a/b/g/n WiFi Adapter (2x2)	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	2.4 GHz and 5 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: 6, 6.5, 9, 12, 13, 13.5, 18, 19.5, 24, 26, 27, 36, 39, 40.5, 48, 52, 54, 58.5, 65, 78, 81, 104, 108, 117, 121.5, 130, 135, 162, 216, 240, 270, 300 Mbps
	Frequency Support	20 MHz: 2.4 GHz and 5 GHz bands 40 MHz: 2.4 GHz and 5 GHz bands
	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.

Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible

Technical Specifications

	Extensions Program Version 4) with Microsoft Windows Vista and XP only.
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 Power (for CCK) ²	17 dBm , nominal
Output Power (for OFDM; power varies by data rate) ²	15 dBm , nominal
Power Consumption	Idle associated: 250 mW Idle unassociated: 150 mW Transmit/Receive 20 MHz channel: 2.0 W (max) Transmit/Receive 40 MHz channel: 2.0 W (max)
Power Management	ACPI compliant power management 802.11 compliant power saving mode
Receiver Sensitivity ³	270 Mbps: -61dBm, , 54 Mbps: -72 dBm, 11 Mbps: -85 dBm , 1 Mbps 92 dBm
Antenna Connections	High efficiency dual band antenna with spatial diversity, mounted in the display enclosure
Form Factor	PCI-Express Half-MiniCard
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 149° F (-10° to 65° 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 Off - Radio OFF; Solid LED On - 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 (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
4. 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.

Technical Specifications

Atheros AR9485 802.11 b/g/n WiFi Adapter (1x1)	Wireless LAN Standards	IEEE 802.11b IEEE 802.11g IEEE 802.11n
	Interoperability	Wi-Fi certified
	Frequency Band	2.4 GHz
	Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: many possible data rates, ranging from 6 Mbps to 300 Mbps depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n specification
	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
	Output²	13.5 dBm, nominal
	Power Consumption	Transmit: 2.0 W (max) Receive: 1.6 W (max) Associated to Access Point, Idle: 250 mW nominal Wireless Button Off: 100 mW nominal Radio disabled: 75 mW nominal
	Power Management	ACPI compliant power management 802.11 compliant power saving mode
	Receiver Sensitivity³	72.2 Mbps: -70 dbm, 54 Mbps: -74 dBm, 11 Mbps: -88 dBm , 1 Mbps: 95 dBm
	Antenna Connections	High efficiency antenna 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 +/- 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 Off - Radio OFF; Solid LED On - 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 \(CCK modulation\) an a packet error rate of 10% for 802.11a/g \(OFDM modulation\).](#)

HP Integrated Module Bluetooth Specification 4.0+EDR Compliant



Technical Specifications

with Bluetooth 4.0+EDR Wireless Technology	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	-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) 264 mW Peak (Rx) 231 mW Sleep <1 mW
	Antenna	Internally integrated within module
	Range	Up 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 UL, CSA, and CE Mark
	Temperature	Operating -14° to 158° F (-10° to 70° C) Non-operating -40° to 212° F (-40° to 100° C)
	Humidity	Operating 0% to 90% Non-operating 0% 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) 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

Technical Specifications

Headset Profile (HSP)
Hands Free Profile (HFP)
Advanced Audio Distribution Profile (A2DP)

1. indicates the profile is supported by Microsoft Windows XP SP2
2. indicates the profile is part of Windows Vista

AUDIO/MULTIMEDIA

Hardware	Implementation	IDT 92HD87 High Definition CODEC
	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 when equipped with optional webca

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

Internal Stereo Speaker	Power Rating	2 Watts
	Impedance	4 ohms

POWER

Technical Specifications

HP 90W Smart AC Adapter (discrete configurations)	Dimensions	5.00 x 1.97 x 1.1 in (12.7 x 5.0 x 2.9 cm)	
	Weight	0.82 lb (370 g)	
	Input		100 to 240 VAC
		Input Efficiency	87% min at 115 VAC
		Input frequency range	47 to 63 Hz
		Input AC current	1.5 A at 90 VAC, 0.75 A at 180 VAC PFC Version 2.4 A at 90 VAC, 1.2 A at 180 VAC NON PF Version
	Output	Output power	90W
		DC output	19.0V
		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 104° F (0° to 40° C)
		Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)
		Altitude	0 to 10,000 ft (0 to 3,048 m)
		Humidity	20% to 80%
		Storage Humidity	10% to 90%
	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.	

HP 65W Smart AC Adapter (UMA configurations)	Dimensions	4.17 x 1.85 x 1.1 in (10.6 x 4.7 x 2.8 cm)	
	Weight	0.62 lb (280 g)	
	Input		100 to 240 VAC
		Input Efficiency	87% min at 115 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	18.5V
		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 104° F (0° to 40° C)
		Non-operating (storage) temperature	-4° to 149° F (-20° to 65° C)
		Altitude	0 to 10,000 ft (0 to 3,048 m)
		Humidity	20% to 80%
		Storage Humidity	10% to 90%

Technical Specifications

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.

HP 9-cell (100 WHr) Lithium-Ion Primary battery

Dimensions (H x W x L)	0.8 x 2.4 x 8.1in (2 x 6.6 x 20.5cm)	
Weight (max)	1.1lb, (.488kg)	
Cells/Type	Lithium-Ion	
Energy	Voltage	11.25V
	Amp-hour capacity	8.85Ah
	Watt-hour capacity	100Wh
Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
	Operating (Discharging)	14° to 122° F (-10° to 50° C)
	Non-operating	-4° to 122° F (-20° to 50° C)
Battery Re-Charge Time	System in OFF or Standby Mode	3.5 to 5 hours
	System ON	4 to 7 hours
Fuel Gauge LED	No	
Warranty	1 year	
Compatible with optional Travel Battery	Yes	

HP 6-cell (55 WHr) Lithium-Ion Primary battery

Dimensions (H x W x L)	0.8 x 1.8 x 8.0in (2.0 x 4.7 x 20.5cm)	
Weight (max)	.70lb, (.313kg)	
Cells/Type	Lithium-Ion	
Energy	Voltage	10.8V
	Amp-hour capacity	5.1Ah
	Watt-hour capacity	55Wh
Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
	Operating (Discharging)	14° to 122° F (-10° to 50° C)
	Non-operating	-4° to 122° F (-20° to 50° C)
Battery Re-Charge Time	System in OFF or Standby Mode	2.5 hours
	System ON	3 to 5 hours
Fuel Gauge LED	No	
Warranty	1 year	
Compatible with optional Travel Battery	Yes	

Technical Specifications

HP 3-cell (31 WHr) Lithium-Ion Primary battery	Dimensions (H x W x L)	0.8 x 1.8 x 8.0in (2.0 x 4.7 x 20.5cm)		
	Weight (max)	0.47lb, (.210kg)		
	Cells/Type	Lithium-Ion		
	Energy	Voltage	11.1V	
		Amp-hour capacity	2.8Ah	
		Watt-hour capacity	31Wh	
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)	
		Operating (Discharging)	14° to 122° F (-10° to 50° C)	
		Non-operating	-4° to 122° F (-20° to 50° C)	
	Battery Re-Charge Time	System in OFF or Standby Mode	2.5 hours	
		System ON	3 to 5 hours	
	Fuel Gauge LED	No		
	Warranty	1 year		
Compatible with optional Travel Battery	Yes			

Optional HP BB09 Ultra Extended Life Notebook Battery (secondary battery)	Dimensions (H x W x L)	1.2 x 5.9 x 11.4 in (3x15x29cm)		
	Weight (max)	1.5lb, (.682kg)		
	Cells/Type	Lithium-Ion		
	Energy	Voltage	11.25V	
		Amp-hour capacity	8.85Ah	
		Watt-hour capacity	100Wh	
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)	
		Operating (Discharging)	14° to 122° F (-10° to 50° C)	
		Non-operating	-4° to 122° F (-20° to 50° C)	
	Battery Re-Charge Time	System in OFF or Standby Mode	3.5 to 5 hours	
		System ON	4 to 7 hours	
	Fuel Gauge LED	Yes		
	Warranty	1 year		
Compatible with optional Travel Battery	No			

Technical Specifications

Optional HP ST09 Extended Life Notebook Battery ("Travel Battery") (secondary battery)	Dimensions (H x W x L)	1.2 x 6.1 x 12 in (3x15.5x30.5cm)		
	Weight (max)	1.2lb, (.550kg)		
	Cells/Type	Lithium-Ion Polymer		
	Energy	Voltage	11.1V	
		Amp-hour capacity	6.6Ah	
		Watt-hour capacity	73Wh	
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)	
		Operating (Discharging)	14° to 122° F (-10° to 50° C)	
		Non-operating	-4° to 122° F (-20° to 50° C)	
	Battery Re-Charge Time	System in OFF or Standby Mode	3.5 to 5 hours	
		System ON	4 to 7 hours	
	Fuel Gauge LED	Yes		
	Warranty	1 year		
Compatible with optional Travel Battery	Yes			

Optional HP 6-cell (55 WHr) Long Life Primary Battery	Dimensions (H x W x L)	0.8 x 1.8 x 8.0in (2.0 x 4.7 x 20.5cm)		
	Weight (max)	.72lb, (.323kg)		
	Cells/Type	Lithium-Ion		
	Energy	Voltage	10.8V	
		Amp-hour capacity	5.1Ah	
		Watt-hour capacity	55Wh	
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)	
		Operating (Discharging)	14° to 122° F (-10° to 50° C)	
		Non-operating	-4° to 122° F (-20° to 50° C)	
	Battery Re-Charge Time	System in OFF or Standby Mode	2.5 hours	
		System ON	3 to 5 hours	
	Fuel Gauge LED	No		
	Warranty	3 years		
Compatible with optional Travel Battery	Yes			

ENVIRONMENTAL

Technical Specifications

HP ProBook 6470b Notebook PC

Environmental Data

Eco-Label Certifications 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:

US ENERGY STAR qualified (with Microsoft OS)
 IT ECO declaration
 EPEAT Gold with a Microsoft OS where HP registers commercial notebook products. See <http://www.epeat.net> for registration status in your country. US Federal Energy Management Program (FEMP)

System Configuration The configuration used for the Energy Consumption and Declared Noise Emissions data is based on a "Typically Configured Notebook"

Energy Consumption	115 VAC	230 VAC	100 VAC
Normal Operation	8.6 W	9.27 W	8.32 W
Sleep (Energy Star low power mode)	0.6 W	0.7 W	0.6 W
Off	0.61 W	0.68 W	0.58 W

Heat Dissipation*	115 VAC	230 VAC	100 VAC
Normal Operation	29.4 BTU/hr	31.7 BTU/hr	28.4 BTU/hr
Sleep	2 BTU/hr	2.3 BTU/hr	2 BTU/hr
Off	2 BTU/hr	2.3 BTU/hr	2 BTU/hr

* 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)

System Fan Off	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	3	26
Fixed Disk (random writes)	3.4	26

System fan is usually off except when charging the battery

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

Batteries used in the product do not contain:

- Mercury greater than 5ppm by weight
- Cadmium greater than 10ppm by weight

The battery type and chemistry used in the product is:

CR2032 (coin cell), Li-ion
 6-cell high capacity Lithium-Ion battery (optional 8 cell available)

Additional information

This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/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

Technical Specifications

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 ISO 11469 and ISO1043.

This product contains 0% post-consumer recycled plastic (by wt.)

This product is greater than 96.7% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
 - PAPER/Corrugated 335.7 g
- Internal:
 - PLASTIC/Polyethylene low density 13.8 g
 - PLASTIC/EPE-Expanded Polyethylene 68.1 g
 - PLASTIC/Polyester 6.5 g
- The PAPER/Corrugated packaging material is made from 80% recycled content.
- The PLASTIC/Polyethylene low density packaging material is made from 60% recycled content.
- The PLASTIC/EPE-Expanded Polyethylene packaging material is made from 60% recycled content.
- The PLASTIC/Polyester packaging material is made from 60% recycled content.

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.

Technical Specifications

HP ProBook 6570b Notebook PC

Environmental Data

Eco-Label Certifications 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:

US ENERGY STAR qualified (with Microsoft OS)
IT ECO declaration
EPEAT Gold with a Microsoft OS where HP registers commercial notebook products. See <http://www.epeat.net> for registration status in your country. US Federal Energy Management Program (FEMP)

System Configuration The configuration used for the Energy Consumption and Declared Noise Emissions data is based on a "Typically Configured Notebook"

Energy Consumption	115 VAC	230 VAC	100 VAC
Normal Operation	13.36 W	13.65 W	13.32 W
Sleep (Energy Star low power mode)	1.22 W	1.35 W	1.21 W
Off	0.685 W	0.800 W	0.677 W

Heat Dissipation*	115 VAC	230 VAC	100 VAC
Normal Operation	45.69 BTU/hr	46.68 BTU/hr	45.55 BTU/hr
Sleep	4.2 BTU/hr	4.6 BTU/hr	4.1 BTU/hr
Off	2.3 BTU/hr	2.7 BTU/hr	2.3 BTU/hr

* 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)

System Fan Off	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	2.7	22
Fixed Disk (random writes)	3.3	27

System fan is usually off except when charging the battery

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

Batteries used in the product do not contain:

- Mercury greater than 5ppm by weight
- Cadmium greater than 10ppm by weight

The battery type and chemistry used in the product is:

CR2032 (coin cell), Li-ion
6-cell high capacity Lithium-Ion battery (optional 8 cell available)

Additional information

This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/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

Technical Specifications

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 ISO 11469 and ISO1043.

This product contains 0% post-consumer recycled plastic (by wt.)

This product is greater than 95.5% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
 - PAPER/Corrugated 361 g
- Internal:
 - PLASTIC/Polyethylene low density 36 g
 - PLASTIC/Polypropylene 15 g
 - PLASTIC/EPE-Expanded Polyethylene 28 g
 - OTHER/OTHER 20
- The PAPER/Corrugated packaging material is made from 74% recycled content.
- The PLASTIC/Polyethylene low density packaging material is made from 21.9% recycled content
- The PLASTIC/PET packaging material is made from 21.9% recycled content
- The PLASTIC/EPE-Expanded Polyethylene packaging material is made from 21.9% recycled content
- The OTHER/OTHER packaging material is made from 21.9% recycled content

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.

Technical Specifications

MATERIAL USAGE

This product does not contain any of the following substances in excess of regulatory limits (for reference of these limits please refer to the HP General Specification of the Environment

(http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- 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
- 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)
- Nickel finishes that release greater than 0.5 µgrams/cm²/week, measured according to EN 1811:1998, are not used on any product surface designed to be frequently handled or touched by users.

END-OF-LIFE MANAGEMENT AND RECYCLING

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <http://www.hp.com/go/reuse-recycle> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/recyclers>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

HEWLETT-PACKARD CORPORATE ENVIRONMENTAL INFORMATION

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

Global Citizenship Report

<http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html>

Environment website

<http://www.hp.com/environment>

Eco-label certifications

<http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html>

ISO 14001 certificates:

<http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html>

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

Type	Description	Part
Cases	HP Professional Slim Top Load Case	AY530A
	HP Professional Series Backpack	AT887A
	HP Deluxe 4 Wheel Roller	XW576A
Docking	HP Display and Notebook Stand	AW662A
	HP Dual Hinge Notebook Stand	AW661A
	HP Adjustable Dual Display Stand	AW664A
	HP 90W Docking Station	A7E32AA#x
	HP 120W Advanced Docking Station	A7E36AA#x
Input/Output - Mice	HP 2.4 GHz Wireless Optical Mobile Mouse	LX732A
	HP Wireless Mobile Mouse	H2L63A
	USB Keyboard & Mouse Bundle	RC465AA#x
Adapters	HP 90W Slim Adapter	BT796AA#x
	HP 90W Smart AC/Auto/Air Combo Adapter	AJ652AA#x
Storage - External Storage	HP Mobile USB DVDRW	A2U57A
	SATA Upgrade Bay 500 GB 7200 rpm Hard Drive	AU097A
Batteries	HP CC06XL Long Life Notebook Battery	QK642A
	HP CC09 Notebook Battery	QK643A
	HP ST09 Extended Life Notebook Battery	QK639A
	HP BB09 Ultra Extended Life Notebook Battery	QK640A
Health and Education	HP 20-Notebook Managed Charging Cart	QL489A
	HP 20-Notebook Charging Cart	QL488A
	HP 30-Notebook Managed Charging Cart	QL490A
	HP Pocket Whiteboard	A0X37A
Security	HP Keyed Cable Lock	BV411A
	HP Docking Station Cable Lock	AU656A

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