Overview
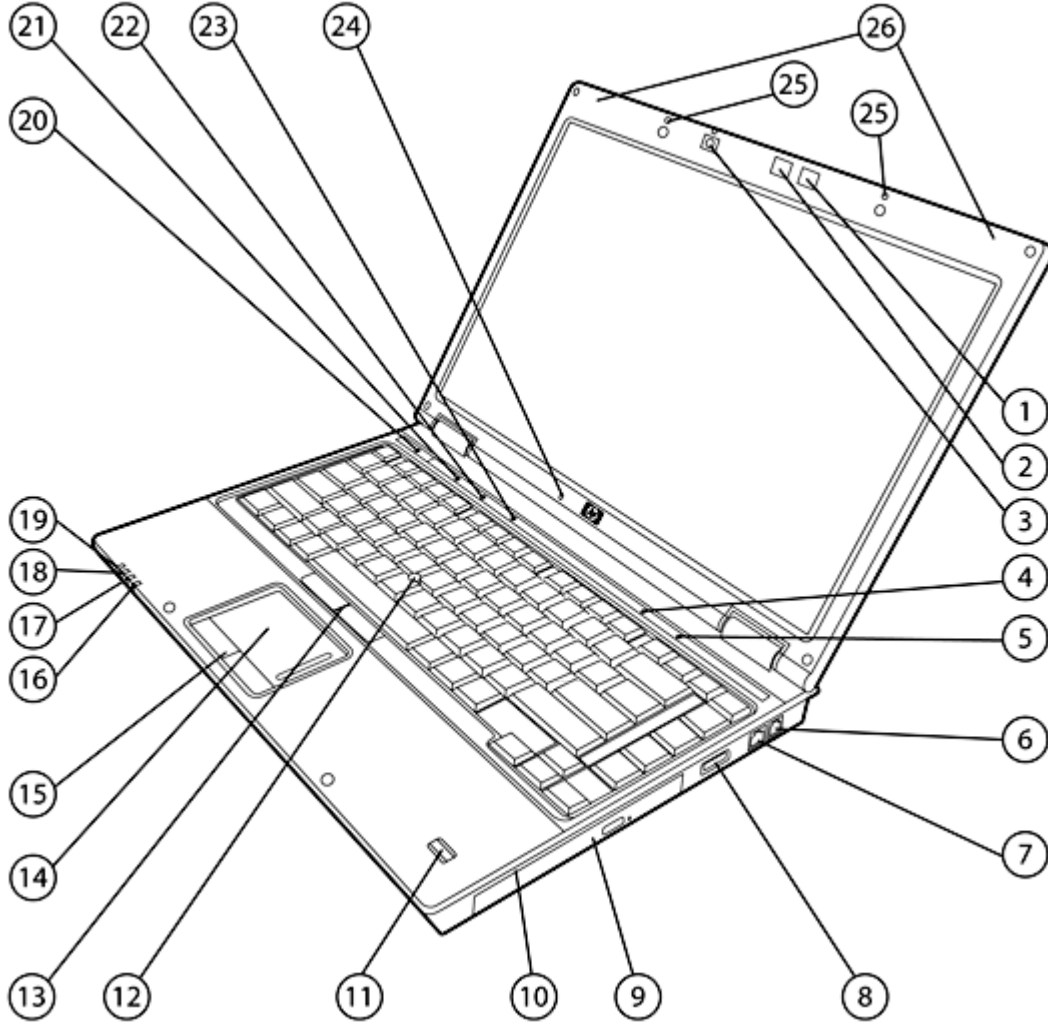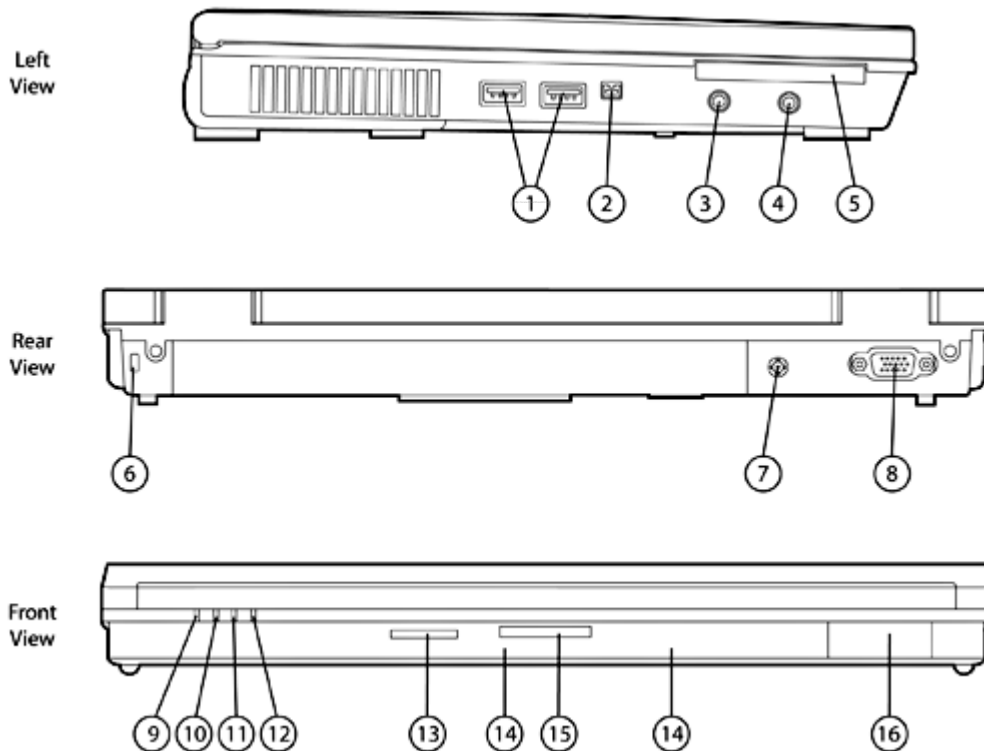
Overview

1. HP NightLight on/off button
2. HP NightLight
3. Optional 2 MP Webcam
4. Volume mute button with LED indicator
5. Volume scroll zone with up/down LED indicators
6. RJ-11/modem port
7. RJ-45/Ethernet port
8. USB 2.0 port
9. Upgrade Bay (optical drive, second hard drive)
10. Integrated Smart Card Reader
11. HP Fingerprint Sensor
12. Pointstick
13. Pointstick buttons

14. Touchpad with scroll zone
15. Touchpad buttons
16. Hard drive activity / HP 3D DriveGuard LED indicator
17. Battery charging LED indicator
18. Power/standby LED indicator
19 Wireless on/off LED indicator
20. Power button with LED indicator
21. HP Info / HP QuickLook 2 button with LED indicator
22. Wireless on/off button with LED indicator
23. HP Presentation button with LED indicator
24. Ambient Light Sensor
25. Dual-microphone array
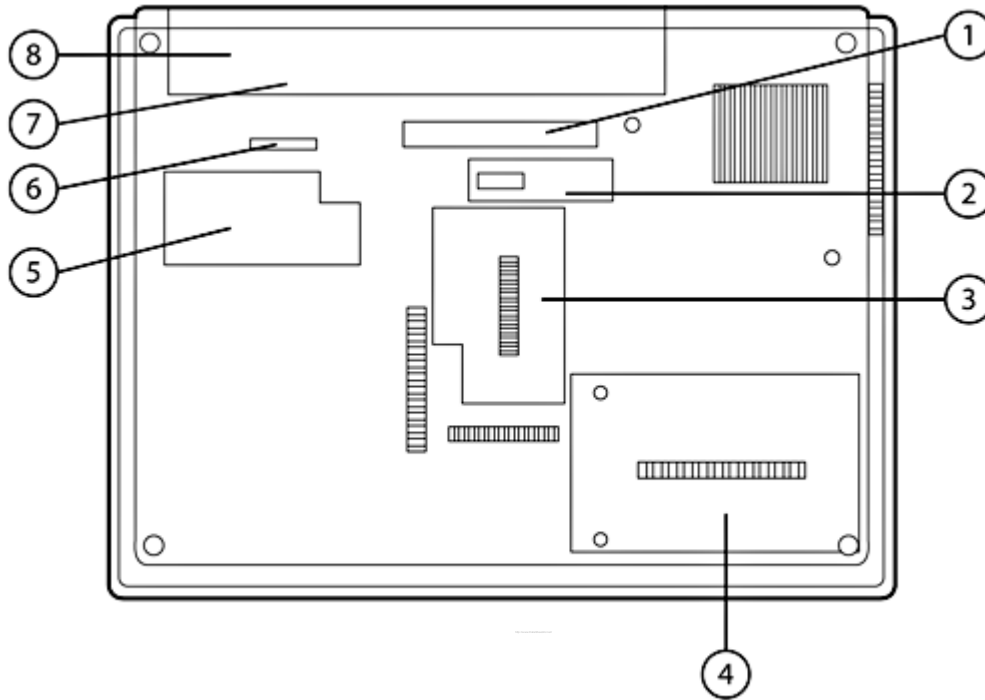26. WLAN and WWAN antennas

Left View

Rear View

Front View

1. (2) USB 2.0 ports
2. 1394a port
3. Stereo microphone in
4. Stereo headphone/line out
5. ExpressCard/54 slot
6. Kensington Lock slot
7. Power connector

9. Wireless on/off LED indicator
10. Power/standby LED indicator
11. Battery charging LED indicator
12. Hard drive activity / HP 3D DriveGuard LED
13. Secure Digital (SD) slot
14. Integrated stereo speakers
15. Display release latch

Overview

8. VGA connector (external monitor/projector)   16. Bluetooth module compartment

Bottom View

1. Docking connector
2. Secondary battery connector
3. Memory module compartment
4. Hard drive bay

5. WWAN module compartment
6. Battery release latch
7. SIM slot for WWAN (select models) – inside battery bay
8. Battery bay

NOTE: WLAN module connector is located under the keyboard (not shown)

Overview

At A Glance

- Genuine Windows 7 Professional 32, Genuine Windows 7 Home Premium 32, Genuine Windows 7 Home Basic 32, Genuine Windows Vista Business 32, Genuine Windows Vista Home Basic 32, Genuine Windows XP Professional available through downgrade rights from Windows Vista Business, or FreeDOS
- Business Rugged – designed to meet the military standard Mil-Std-810F for dust, altitude, and high temperature operation*
- ATI Mobility Radeon™ HD 3450 graphics with 128 or 256 MB dedicated memory or Mobile Intel GMA 4500MHD graphics
- Flexible wireless connectivity options:
    - Integrated HP un2400 EV-DO/HSDPA Mobile Broadband Module provides worldwide Gobi mobile Internet technology
    - Integrated 802.11 a/b/g/n draft 2.0 or a/b/g wireless LAN module
    - Bluetooth® 2.0
- Intel® Centrino® 2 with vPro™ technology capable, with Intel Core™2 Duo processors
- Optional HP Illumi-Lite LED 14.1-inch diagonal widescreen display with Ambient Light Sensor and optional HP Privacy Filter
- Upgrade Bay for easy optical drive upgrade or optional second hard drive for RAID 1 Mirroring or RAID 0 Striping
- Enhanced security features including integrated Smart Card Reader, HP ProtectTools, HP SpareKey, HP Fingerprint Sensor, TPM 1.2 Embedded Security Chip**
- 2 MP Webcam with Business Card Reader Software, HP Night Light
- HP QuickLook 2 for instant access to email, calendar, and contact information
- Enhanced reliability with HP DuraCase, HP DuraKeys and HP DuraFinish
- Up to 8 GB of 800 MHz DDR2 SDRAM supported, dual channel memory support
- Up to 320 GB 7200 rpm user-removable hard drive with HP 3D DriveGuard protection,
    or 128 GB Solid State Drive
- Integrated Intel Gigabit Network Connection (10/100/1000 NIC)
- Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
- ExpressCard/54 slot, Secure Digital (SD) slot
- Designed for common image for corporate environments

* Testing was not intended to demonstrate fitness for DOD contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.
** TPM module disabled where not permitted by law (for example, Russia and China).

Standard Features

Processors	Intel Core 2 Duo Processor T9900 (3.06 GHz, 6 MB L2 cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor T9600 (2.80 GHz, 6 MB L2 cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor T9400 (2.53 GHz, 6 MB L2 cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor P8800 (2.66 GHz, 3 MB L2 Cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor P8700 (2.53 GHz, 3 MB L2 Cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor P8600 (2.40 GHz, 3 MB L2 Cache, 1066 MHz FSB)*
	Intel Core 2 Duo Processor P8400 (2.26 GHz, 3 MB L2 cache, 1066 MHz FSB)*

* Intel's numbering is not a measurement of higher performance.

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

Operating System	**Preinstalled**	Genuine Windows 7 Professional 32*
		Genuine Windows 7 Home Premium 32*
		Genuine Windows 7 Home Basic 32*
		Genuine Windows Vista Business 32**
		Genuine Windows Vista Home Basic 32**
		Genuine Windows XP Professional available through downgrade rights from Windows Vista Busines**†
		FreeDOS
	Supported	Genuine Windows Vista Business 64**
		Genuine Windows Vista Enterprise**
	Certified	SuSE Linux Enterprise Desktop 10

* System may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality. See: http://www.microsoft.com/windows/windows-7/ for details.

** Certain Windows Vista product features require advanced or additional hardware. See: http://www.microsoft.com/windowsvista/getready/hardwarereqs.mspx and: http://www.microsoft.com/windowsvista/getready/capable.mspx for details. Windows Vista Upgrade Advisor can help you determine which features of Windows Vista will run on your computer. To download the tool, visit: http://www.windowsvista.com/upgradeadvisor.

† Windows XP Professional is preinstalled on this system and includes end user rights and media for Windows Vista Business. You may only use one version at a time. You must back up all data (files, photos, etc.) before uninstalling and installing operating systems to avoid loss of your data.

Chipset	Mobile Intel PM45 Express Chipset with ICHM9-Enhanced, 1066 MHz front side bus (models with discrete graphics)
	or
	Mobile Intel GM45 Express Chipset with ICHM9-Enhanced, 1066 MHz front side bus (models with integrated graphics)

QuickSpecs

Standard Features

Intel Centrino 2 with vPro technology capable	Intel Centrino 2 with vPro technology is a selectable feature that is available on units configured with an Intel WiFi Link 5300 or 5100. It provides advances in remote manageability, security, energy efficient performance, and wireless connectivity. Intel Active Management Technology (AMT) offers built-in manageability and proactive security for networked notebook PCs, even when they are powered off* or when the operating system is inoperable. It can help identify threats before they reach the operating system, isolate infected systems, and update PCs regardless of their power state.

NOTE: Some functionality of Intel Centrino 2 with vPro technology, such as Intel Active Management technology and Intel Virtualization technology, requires additional 3rd party software in order to run. Availability of future "virtual appliances" applications for Intel Centrino 2 with vPro technology is dependant on 3rd party software providers. Compatibility with future "virtual appliances" is yet to be determined.

Business Rugged	Meets the military standard Mil-Std-810F* for:

- Drop: Method 516.5 Proc. IV (26 drops from 30")
- Shock: Method 515.5 Proc. I (Functional)
- Vibration: Method 514.5, Proc I, Cat. 20 & 24
- High Temperature: Method 501.4, Proc I & II (140°F/60°C operational)
- Low Temperature: Method 502.4, Proc I & II (-20°F/-29°C operational)
- Sand and Dust: Method 510.4, Proc. I (Blowing Dust)
- Humidity: Method 507.4 (95% relative humidity)
- Altitude: Method 500.4 Low Pressure, Proc. I & II (15,000 feet operational)

* Testing was not intended to demonstrate fitness for DOD contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.

Graphics	Models with discrete graphics:
	    ATI Mobility Radeon HD 3450 with 128 MB or 256 MB dedicated video memory
	    Microsoft DirectX 10.1 (Shader 4.1) and OpenGL 2.1 capable
	
	Models with integrated graphics:
	    Mobile Intel Graphics Media Accelerator 4500MHD
	    Microsoft DirectX 10 (Shader 4.0) and OpenGL 2.0 capable

QuickSpecs

Standard Features

Display	Internal	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution) 14.1-inch diagonal Illumi-Lite LED WXGA anti-glare (1280 x 800 resolution) 14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution) Ambient Light Sensor Optional HP Privacy Filter
	External	Up to 32-bit per pixel color depth **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 Supports 2 external displays (optional HP Docking Station required) NOTE: Resolutions are dependent upon monitor capability, and resolution and color depth settings.

Memory	Standard	800 MHz DDR2 SDRAM; two slots supporting dual channel memory 1024 MB, 2048 MB, 4096 MB, or 8192 MB
	Maximum	Upgradeable to 8192 MB with 4096 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.

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. Availability of 4 GB or more of memory requires Windows Vista Business 64-bit or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC)* 56K V.92 modem**

* The term "10/100/1000" or "Gigabit" Ethernet indicates compliance 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.

QuickSpecs

Standard Features

Wireless Devices	Support for a broad range of secure, integrated wireless LAN and wireless WAN options featuring support for the latest industry standards. Wireless LAN is factory configurable or available as an option to be added later. Broadband Wireless (WWAN) requires Windows Vista Business or Windows XP Professional and is available in select countries as a standard, factory configurable feature or as an option to be added later. Integrated Bluetooth is also available (factory configurable only) and can be combined with any of the supported wireless LAN and wireless WAN options.

HP un2400 EV-DO/HSPA Mobile Broadband Module	Integrated WWAN module with Gobi global mobile Internet technology that provides worldwide connection to both CDMA (EVDO) and UMTS (HSPA) wireless networks. NOTE: Separately purchased mobile network operator service is required. Two 850/900/1800/1900/2100 MHz antennas integrated in the top of the display panel support current and future WWAN technologies.
All 802.11 integrated wireless LAN options	Wi-Fi CERTIFIED* Cisco Compatible Extensions support Wired Equivalent Privacy (WEP) support up to 128-bit keys Wi-Fi Protected Access (WPA) and WPA2 support 802.1x authentication support, including EAP-TLS, EAP-TTLS, PEAP-GTC, PEAP-MSCHAPv2, and LEAP Advanced Encryption Standard (AES) support Three antennas integrated in the display enclosure
Intel WiFi Link 5300	Integrated support for 802.11a, b, g, and n draft 2.0* Up to 450 mbps data rate
Broadcom 4322AGN 802.11a/b/g/draft-n Wi-Fi Adapter	Integrated support for 802.11a, b, g, and n draft 2.0* Up to 300 mbps data rate
HP Integrated Module with Bluetooth Wireless Technology	Bluetooth Specification v2.0 compliant Works with a wide range of Bluetooth devices

* The specifications for 802.11n draft 2.0 are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11n WLAN devices. In countries where n draft 2.0 is not allowed, this capability is not enabled (Intel 802.11a/b/g only).

Keyboard	The 101/102-key compatible keyboard features an industry standard, 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, and 12 function keys. US and International key layouts are available. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, and other features, 19 x 19 mm key pitch (center-to-center spacing), 2.5 mm stroke, and comfort-dished keycaps. HP DuraKeys is a clear coating applied over the notebook keyboard that helps protect the finish and the printed characters on the keys. HP DuraFinish helps protect the finish on the keyboard deck, graphics, and icons from normal wear and tear. HP Night Light shines directly on the keyboard for low-light conditions.

Standard Features

Touch-sensitive controls	Touch-sensitive controls provide easy access to the following features: HP Info Center, HP QuickLook 2, wireless on/off, HP Presentation button, external volume up, volume down, and mute

Pointing device	Enhanced dual pointing devices: Touchpad with scroll zone, two pick buttons and Pointstick, two pick buttons

Expansion card slots	**ExpressCard/54 slot**	Supports ExpressCard/54 and ExpressCard/34
	Integrated Smart Card Reader	Compatible with ISO 7816 compliant Smart Cards PC/SC interface support
	Secure Digital slot	Supports SD (Secure Digital), MMC (MultiMedia Card)

Storage	**Internal Storage Device**	120/160/250 GB 5400 rpm SMART SATA II Hard Drive 160/250/320 GB 7200 rpm SMART SATA II Hard Drive 128 GB Solid State Drive 80 GB Solid State Drive

NOTE: Hard drives are customer removable and will withstand multiple insertion/removal cycles. Up to 10 GB is reserved for the system recovery software.

	HP 3D DriveGuard	The hard drive is mounted directly to the notebook frame, reducing the transmission of shock away from the hard drive. Uses three-axis digital motion detection with intelligent sensitivity to help protect the hard drive during normal use from shock and vibration. The digital accelerometer temporarily halts all data transfer and parks the hard drive when abrupt motion is detected.

	Upgrade Bay	Fixed 12.7 mm SATA optical drive Blu-ray R/RE DVD+/-RW SuperMulti DL Drive
		                               DVD+/-RW SuperMulti DL LightScribe Drive
		                               DVD/CD-RW Combo Drive
		                               DVD-ROM Drive

<div align="center">or</div>

	Second hard drive*	250 GB 5400 rpm SMART SATA II Hard Drive 160 GB 7200 rpm SMART SATA II Hard Drive

* For RAID configurations, both hard drive capacities must be equal.

Standard Features

Interfaces	ExpressCard/54 slot	One
	Smart Card Reader	One
	External monitor	One (VGA)
	1394a	One
	Stereo microphone in	One
	Stereo headphone/line out	One
	Power connector	One
	RJ-11/modem	One
	RJ-45/Ethernet	One
	USB 2.0	Three
	Docking connector	One
	Secondary battery connector	One
	LED status indicators	Fifteen

Audio/Visual   High Definition Audio support w/24-bit DAC
Integrated stereo speakers
Integrated dual-microphone array
Touch-sensitive controls for volume up, volume down, and mute
Stereo headphone/line out
Stereo microphone in

Optional 2 MP Webcam with Business Card Reader Software

- Supports videoconferencing and still image capture
- Large image sensor for excellent color matching and good low light sensitivity
- Up to 30 frames/sec
- AutoMacro focus lens
- Video capture at VGA, 1.3 Mpixel, and 2 Mpixel resolutions
- 16-bit true color (camera sensors output YCrCb format among others)

QuickSpecs

Standard Features

Software	Preinstalled software with Windows Vista or Windows XP	HP Recovery Manager (Vista only)
		HP Help and Support Center
		HP QuickLook 2
		HP Universal Print Driver
		HP ProtectTools Security Manager:
		    BIOS Configuration for HP ProtectTools
		    Credential Manager for HP ProtectTools
		    Device Access Manager for HP ProtectTools
		    Drive Encryption for HP ProtectTools
		    Embedded Security for HP ProtectTools
		HP Quick Launch Buttons
		HP Wireless Assistant
		Microsoft Office Ready with 60-day Office Professional 2007 Trial Edition (select models)
		PDF Complete Special Edition
		Intervideo WinDVD – DVD Player
		Roxio Creator Business (for optional DVD+/-RW and DVD/CD-RW drives)
		McAfee Total Protection*
		Synaptics Touchpad Driver
		Microsoft Windows Live Messenger (select models)
		HP Webcam Software (select models)

	Additional software available from the web	HP SoftPaq Download Manager HP Client Manager Software HP Client Management Solutions Java Card Security for HP ProtectTools

* 60 day trial period for McAfee Total Protection for Small Business software. Internet access required to receive updates. First update included. Subscription required for updates thereafter.

HP Recovery Manager (Vista only)	Each unit is shipped with HP Recovery Manager. 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 10 GB of the hard drive is reserved for the system recovery software.

SMBIOS Version 2.4	System Management BIOS, previously known as DMI BIOS, is used to store system management information.

Standard Features

HP ProtectTools Security Manager	HP ProtectTools Security Manager is the security platform for business notebooks and desktops. The HP ProtectTools Security Manager is an extensible client security console that delivers enhanced security capabilities through add-on software modules. Modules currently available are:

- BIOS Configuration for HP ProtectTools
- Credential Manager for HP ProtectTools
- Device Access Manager for HP ProtectTools
- Drive Encryption for HP ProtectTools
- File Sanitizer for HP ProtectTools
- Set-up Wizard for HP ProtectTools
- Privacy Manager for HP ProtectTools (Chat & Sign)
- Embedded Security for HP ProtectTools
- Java Card Security for HP ProtectTools

Security	Standard Features	HP ProtectTools Security Manager
		Enhanced Pre-Boot Security
		HP SpareKey
		One-Step Logon
		HP Fingerprint Sensor
		Integrated Smart Card Reader
		Configuration Control Hardware
		Memory Change Alert
		Ownership Tag
		Setup Password
		Power-On Password
		TPM 1.2 Embedded Security Chip*
		TPM Enhanced DriveLock*
		HP Disk Sanitizer
		HP 3D DriveGuard
		Kensington Lock Slot
		Support for Computrace / LoJack for Laptops (must be purchased separately)

	Optional Features	HP Privacy Filter	Narrows viewing area so that screen data is visible only to persons directly in front of the monitor

* TPM module disabled where use is restricted by law; for example, Russia and China.
For more information on HP security solutions refer to: http://www.hp.com/go/security.

Power Supply	External 90-watt Smart AC adapter, 6-foot (1.8 meter) power cord included. Total length including external AC adapter is 12 feet (3.66 meter). HP Fast Charge*

* HP Fast Charge recharges your battery up to 90% within 90 minutes when the system is off. HP Fast Charge does not apply to 12-cell Ultra-Capacity batteries.

QuickSpecs

Standard Features

Battery	Primary battery	6-cell (55 WHr) Li-Ion battery	
	Optional HP Extended Life Battery	8-cell (52 WHr) high capacity Li-Ion battery	
	Optional HP Ultra-Capacity Battery	12-cell (95 WHr) high capacity Li-Ion battery	

Battery Life		6-cell Primary with integrated graphics and CCFL display	6-cell Primary with integrated graphics and Illumi-Light LED display and Intel 80 GB Solid State Drive
	Primary battery	Up to 6 hours and 15 minutes	Up to 8 hours and 45 minutes
	Primary battery and optional HP Extended Life Battery	Up to 13 hours	Up to 17 hours and 30 minutes
	Primary battery and optional HP Ultra-Capacity Battery	Up to 17 hours and 15 minutes	Up to 24 hours

NOTE: The listed battery life measurements were taken on models running Microsoft Windows XP Professional. Battery life will vary depending on the product configuration, product model, applications loaded on the product, power management settings of the product, and the product features used by the customer. As with all batteries, the maximum capacity of this battery will decrease with time and usage.

System Standby Time	Up to 1 week

Power Conservation	Supports enhanced Intel SpeedStep technology with Intel Core 2 Duo (allows Battery Optimized Mode, Maximum Performance Mode, or Automatic mode)
	Intel Display Power Saving technology (models with integrated graphics) ATI PowerPlay technology (models with discrete graphics)
	Hibernation
	Standby
	ACPI compliance

Docking and Stands	HP Advanced Docking Station HP Docking Station HP Standard Monitor Stand HP Adjustable Notebook Stand HP External MultiBay II
	HP's shared docking solutions provide simple and convenient port replication and cable management. Features include Gigabit NIC pass through, modem pass through, legacy parallel and serial ports, USB 2.0 ports, integrated security mechanism*, integrated MultiBay II and ExpressCard** slots. These docking solutions are compatible across multiple Business Notebook platforms enabling a lower total cost of ownership.
	* HP/Kensington Cable Lock required (purchased separately) ** HP Advanced Docking Station only

Standard Features

Service and Support	HP Services offers limited 3-year warranty; 1-year limited warranty on primary battery. On-site service and warranty upgrades are also available. HP Care Pack Services extend service contracts beyond the standard warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: 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.
Select Model(s)	HP's Global Product Offer includes Global Series Preconfigured (GS-P) and Configurable (GS-C) products. GPO delivers globally consistent products, services, and solutions with End-of-Life (EOL) transition management. These products reduce IT complexity, lower management costs, increase productivity, and simplify product transitions.

6930p
FL488AW#ABA
Global
(may vary based on local regulatory requirements)

Processor	Intel® Core™2 Duo Processor T8600 (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
Intel Centrino with vPro technology	Enabled
Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
System Memory	2048MB 800MHz DDR2 (1 DIMM)
Hard Drive	160GB 5400rpm SATA Hard Drive
Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution)
Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
Battery	6-cell (55 WHr) Lithium-Ion battery
Power	External 90W adapter
Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p FL490AW#ABA Global (may vary based on local regulatory requirements)		
	Processor	Intel® Core™2 Duo Processor T9400* (2.53 GHz, 1066 MHz FSB, 6 MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	250GB 5400rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p FL492AW#ABA Global (may vary based on local regulatory requirements)		
	Processor	Intel® Core™2 Duo Processor T8600 (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 5400rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution)
	Graphics	ATI Mobility Radeon™ HD 3450 with 128 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0

Standard Features

	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p FL494AW#ABA Global (may vary based on local regulatory requirements)	Processor	Intel® Core™2 Duo Processor T9400* (2.53 GHz, 1066 MHz FSB, 6 MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p KS081UT#ABA Smart Buy	Processor	Intel® Core™2 Duo Processor T8400* (2.26 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Not Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 5400rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

QuickSpecs

Standard Features

6930p
KS082UT#ABA
Smart Buy

Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
Intel Centrino with vPro technology	Not Enabled
Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
System Memory	2048MB 800MHz DDR2 (1 DIMM)
Hard Drive	160GB 5400rpm SATA Hard Drive
Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
Graphics	ATI Mobility Radeon™ HD 3450 with 128 MB of dedicated video memory
Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
Battery	6-cell (55 WHr) Lithium-Ion battery
Power	External 90W adapter
Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p
KS083UT#ABA
Smart Buy

Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
Intel Centrino with vPro technology	Not Enabled
Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
System Memory	2048MB 800MHz DDR2 (1 DIMM)
Hard Drive	160GB 5400rpm SATA Hard Drive
Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
Graphics	ATI Mobility Radeon™ HD 3450 with 128 MB of dedicated video memory
Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem

Standard Features

	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0; HP Mobile Broadband (powered by Gobi)
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS084UT#ABA Smart Buy	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Not Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p KS085UT#ABA Smart Buy	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Not Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	4096MB 800MHz DDR2 (2 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS086UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T9400* (2.53 GHz, 1066 MHz FSB, 6MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	4096MB 800MHz DDR2 (2 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem

Standard Features

	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS087UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T9400* (2.53 GHz, 1066 MHz FSB, 6MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	4096MB 800MHz DDR2 (2 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0; HP Mobile Broadband (powered by Gobi)
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p KS008UA#ABA Regional	**Processor**	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0; HP Mobile Broadband (powered by Gobi)
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p KS007UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS107UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Not Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 128 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem

Standard Features

	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS108UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Not Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 128 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0; HP Mobile Broadband (powered by Gobi)
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p KS134UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T8600* (2.4 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 5400rpm SATA Hard Drive
	Display	14.1-inch diagonal Illumi-Lite WXGA (1280 x 800 resolution)
	Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p KS135UA#ABA Regional	Processor	Intel® Core™2 Duo Processor T9400* (2.53 GHz, 1066 MHz FSB, 6MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business with downgrade to Windows® XP Professional custom installed *+ w/MS Office 2007 (Trial)
	System Memory	3072MB 800MHz DDR2 (1 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal Illumi-Lite WXGA (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem

Standard Features

	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p NP905AW#ABA Global (may vary based on local regulatory requirements)	Processor	Intel® Core™2 Duo Processor P8700 (2.53 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	4096MB 800MHz DDR2 (2 DIMM)
	Hard Drive	160GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA anti-glare (1280 x 800 resolution)
	Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

Standard Features

6930p NP907AW#ABA Global (may vary based on local regulatory requirements)	Processor	Intel® Core™2 Duo Processor P8700* (2.53 GHz, 1066 MHz FSB, 3 MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	250GB 5400rpm SATA Hard Drive
	Display	14.1-inch diagonal Illumi-Lite WXGA (1280 x 800 resolution); 2 MP Webcam with Business Card Reader Software
	Graphics	Mobile Intel® GMA X4500 HD, with up to 384 MB of shared system memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0
	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p NP909AW#ABA Global (may vary based on local regulatory requirements)	Processor	Intel® Core™2 Duo Processor P8700 (2.53 GHz, 1066 MHz FSB, 3MB L2 cache)
	Intel Centrino with vPro technology	Enabled
	Operating System	Genuine Windows Vista® Business (note) w/MS Office 2007 (Trial)
	System Memory	2048MB 800MHz DDR2 (1 DIMM)
	Hard Drive	250GB 7200rpm SATA Hard Drive
	Display	14.1-inch diagonal WXGA+ anti-glare (1440 x 900 resolution)
	Graphics	ATI Mobility Radeon™ HD 3450 with 256 MB of dedicated video memory
	Audio	High Definition Audio, stereo speakers, stereo headphone/line out, stereo microphone in, integrated dual-microphone array
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel® WiFi Link 5300; Bluetooth 2.0

Standard Features

	Integrated Security	Integrated Smart Card Reader, HP ProtectTools, TPM** 1.2 Embedded Security Chip, Enhanced Pre-Boot Security, HP Spare Key, HP Disk Sanitizer, Enhanced Drive Lock, HP Fingerprint Sensor, Drive Encryption for HP ProtectTools, Credential Manager for HP ProtectTools, File Sanitizer for HP ProtectTools
	Pointing Device	Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Battery	6-cell (55 WHr) Lithium-Ion battery
	Power	External 90W adapter
	Warranty	3/3/0

* Intel's numbering system is not a measurement of higher performance.
** TPM module disabled where use is restricted by law; for example, Russia and China.

6930p NU836AW#ABA Global (may vary based on local regulatory requirements)	Processor	Intel Core 2 Duo Processor T9550 (2.66 GHz, 6 MB L2 cache, 1066 MHz FSB)
	Intel Centrino 2 with vPro technology	Enabled
	Operating System	Genuine Windows Vista Business 32 with Office Ready
	System Memory	4096 MB 800 MHz DDR2 (2 DIMM)
	Hard Drive	250 GB 7200 rpm SMART SATA Hard Drive
	Upgrade Bay	DVD+/-RW SuperMulti DL LightScribe Drive
	Display	14.1-inch diagonal WXGA+ anti-glare
	Graphics	ATI Mobility Radeon HD 3450 with 256 MB
	Webcam	2 MP Webcam
	Audio	ADI High Definition CODEC Stereo headphone/line out and microphone in Integrated microphone
	Communications	Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 56K V.92 modem
	Integrated Wireless	Intel WiFi Link 5300 (802.11 a/b/g/n draft 2.0)
	Integrated Security	Drive Encryption for HP ProtectTools HP Fingerprint Sensor TPM 1.2*
	Pointing Device	Dual pointing devices (Touchpad and Pointstick)
	Battery	6-cell (55 WHr) Li-Ion
	Power	External 90W adapter
	Warranty	3/3/0 or 3/3/3 depending on country

* TPM module disabled where use is restricted by law; for example, Russia and China.

QuickSpecs

Options

Memory	HP 1 GB (DDR2 800 MHz) SODIMM	KT292AA
	HP 2 GB (DDR2 800 MHz) SODIMM	KT293AA
	HP 4 GB (DDR2 800 MHz) SODIMM	KT294AA

Storage	HP Notebooks USB Diskette Drive	DC361B
	HP Primary SATA 120 GB 5400 rpm Hard Drive	RT080AA
	HP Primary SATA 120 GB 7200 rpm Hard Drive	AH920AA
	HP Primary SATA 250 GB 5400 rpm Hard Drive	AK072AA
	HP Upgrade Bay SATA 250 GB 5400 rpm Hard Drive	AK868AA
	HP Upgrade Bay SATA DVD+/-RW SuperMulti DL LightScribe Drive	AK869AA

MultiBay II Storage (9.5-mm)	HP MultiBay II DVD-ROM Drive	PA849A
NOTE: Requires HP Advanced Docking Station or HP External MultiBay II	HP MultiBay II DVD+/-RW SuperMulti DL Drive	PA851A

Expansion Solutions	HP 2008 120W Docking Station	KP080AA#ABA
	HP 2008 150W Docking Station	KQ751AA#ABA
	HP 2008 150W Advanced Docking Station	KP081AA#ABA
	HP 2008 180W Advanced Docking Station	KQ752AA#ABA
	HP External MultiBay II	PA509A#ABA
	HP Standard Monitor Stand	PA507A
	HP Adjustable Notebook Stand	PA508A

Communications	Intel WiFi Link 5300	KM591AA#ABA
	HP un2400 EVDO/HSUPA Mobile Broadband Module	FN556AA

Power	HP 1-Bay Battery Charging Station	RW635AA#ABA
	HP 5-Bay Battery Charging Station	RW636AA#ABA
	HP Battery Adapter Kit	RW637AA
	HP 90W Smart AC Adapter	ED495AA#ABA
	HP 90W Smart Auto Adapter	ED493AA
	Primary 6-cell Battery pack	KU531AA
	HP Extended Life Battery	AJ359AA

QuickSpecs

Options

Carrying Cases	HP Basic Carrying Case	AJ078AA
	HP Value Nylon Case	RR314AA
	HP Universal Nylon Case	RR315AA
	HP Executive Leather Case	RR316AA
	HP Deluxe Nylon Backpack	RR317AA
	HP Deluxe Roller Case	GD405AA

Security	HP ExpressCard Smart Card Reader with Java Card	AJ451AA
	HP ProtectTools Java Card – 10 units	EL348AA
	HP/Kensington MicroSaver Security Lock	PC766A
	HP Privacy Filter	AJ357AA

Input/Output Devices	HP PS/2 Keyboard & Mouse Bundle	RC464AA#ABA
	HP USB Keyboard & Mouse Bundle	RC465AA#ABA
	HP USB/PS2 Optical 2-Button Scroll Mouse	DC369A
	HP USB Optical Travel Mouse	RH304AA

Memory

800-MHz DDR2 SDRAM
Two DIMM slots supporting dual channel memory
DIMM sizes supported: 1024 MB, 2048 MB, and 4096 MB

Standard Memory

- 1024 MB (1024 MB x 1)
- 2048 MB (2048 MB x 1 or 1024 MB x 2)
- 4096 MB (4096 MB x 1 or 2048 MB x 2)
- 8192 MB (4096 MB x 2)

Optional Memory Upgrades

Support for up to 8192 MB of memory with the installation of optional DDR2 SDRAM memory kits. Both memory slots are user accessible. Please refer to the Hardware and Software Guide for installation procedures. Maximized dual-channel performance requires SODIMMs of the same size and speed in both memory slots.

Up to	Slot 1	Slot 2
1024 MB	1024 MB	Empty
2048 MB	1024 MB	1024 MB
3072 MB	2048 MB	1024 MB
4096 MB	2048 MB	2048 MB
8192 MB	4096 MB	4096 MB

NOTE: This chart does not represent all possible memory configurations. Due to the non-industry standard nature of some third-party memory modules, we strongly recommend using only HP branded memory modules to ensure compatibility. If you mix memory speeds, the system will perform at the lower memory speed. Availability of 4 GB or more of memory requires Windows Vista Business 64-bit or Linux. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.

Memory Upgrades

HP 1 GB (DDR2 800 MHz) SODIMM	KT292AA
HP 2 GB (DDR2 800 MHz) SODIMM	KT293AA
HP 4 GB (DDR2 800 MHz) SODIMM	KT294AA

Storage

Upgrade Bay Drive Support

	Quantity Supported	Drive Bay
Blu-ray R/RE DVD+/--RW SuperMulti DL Drive	One	Upgrade Bay
DVD+/-RW SuperMulti DL LightScribe Drive	One	Upgrade Bay
DVD/CD-RW Combo Drive	One	Upgrade Bay
DVD-ROM Drive	One	Upgrade Bay
250 GB 5400 rpm SMART SATA Hard Drive	One	Upgrade Bay
160 GB 7200 rpm SMART SATA Hard Drive	One	Upgrade Bay

Internal Storage Device

	Quantity Supported	Drive Bay
Hard Drives		
250 GB 5400 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
160 GB 5400 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
120 GB 5400 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
320 GB 7200 rpm Smart SATA Hard Drive	One	Dedicated hard drive bay
250 GB 7200 rpm Smart SATA Hard Drive	One	Dedicated hard drive bay
160 GB 7200 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
Solid State Drive		
128 GB Solid State Drive	One	Dedicated hard drive bay
80 GB Solid State Drive	One	Dedicated hard drive bay

QuickSpecs

Technical Specifications

System Unit	Dimensions (HxWxD)	1.23 in (at front) x 13.03 in x 9.57 in 31.3 mm (at front) x 331.0 mm x 243.0 mm	
	Weight	with Upgrade Bay weight-saver and 4-cell battery	Starting at 4.7 lb (2.1 kg)
		with Upgrade Bay optical drive and 6-cell battery	Starting at 5.1 lb (2.3 kg)

NOTE: Height varies depending upon where on the notebook the measurement is made. Starting weight includes integrated graphics, hard drive, one memory DIMM, 802.11 wireless communications module. Weight varies by configuration and components.

Stand-Alone Power Requirements (AC Power)	Nominal Operating Voltage	18.5 V
	Average Operating Power	20.0 W (integrated graphics)
		23.0 W (discrete graphics)
	Max Operating Power	< 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	125 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)

* These ranges represent the recommended operating conditions. Although this notebook meets the military standard MIL-STD 810F for vibration, dust, humidity, altitude, and high temperature, HP does not guarantee future performance under those extreme conditions.

Industry Standard Certifications	UL	Yes
	CSA	Yes
	FCC Compliance	Yes
	ENERGY STAR®	Yes*
	EPEAT	Gold**
	ICES	Yes
	GS	Yes
	Australia / NZ A-Tick Compliance	Yes
	CCC	Yes
	Japan VCCI Compliance	Yes
	MIC	Yes
	BSMI	Yes

Technical Specifications

	CE Marking Compliance	Yes
	BNCI or BELUS	Yes
	CIT	Yes
	GOST	Yes
	Saudi Arabian Compliance (ICCP)	Yes
	SABS	Yes
	UKRSERTCOMPUTER	Yes

* Configurations of the HP EliteBook 6930p that are ENERGY STAR qualified are identified as HP EliteBook 6930p 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.

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

HP 90W Smart AC Adapter	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	83% 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 PFC Version
	Output	Output power 65W	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.	

Technical Specifications

Optional HP Ultra-Capacity Battery	Dimensions (H x W x L)	1.3 x 6.0 x 10.6 in (3.33 x 15.25 x 26.88 cm)	
	Weight	1.77 lb (0.803 kg)	
	Cells/Type	12-cell Li-Ion	
	Energy	Watt-hour Capacity	95 WHr
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 140° F (–10° to 60° C)
		Non-operating	–4° to 140° F (–20° to 60° C)
	Battery Re-Charge Time	Smart Adapter	3 to 4 hours
		System ON	4 to 5 hours (depending on system power consumption)
	Fuel Gauge	When pressed, LEDs light indicating level of charge remaining on battery	

Optional HP Extended Life Battery	Dimensions (H x W x L)	1.0 x 3.9 x 8.7 in (2.5 x 10.0 x 22.0 cm)	
	Weight	1.00 lb (0.455 kg)	
	Cells/Type	8-cell Li-Ion	
	Energy	Watt-hour Capacity	52 WHr
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 140° F (–10° to 60° C)
		Non-operating	–4° to 140° F (–20° to 60° C)
	Battery Re-Charge Time	System in OFF mode or Standby	3 hours
		System ON	3 to 5 hours (depending on system power consumption)
		HP Fast Charge Technology	Charges the battery up to 90% within 90 minutes when system is OFF
	Fuel Gauge	When pressed, LEDs light indicating level of charge remaining on battery	

6-Cell (55 WHr) Li-Ion battery	Dimensions (H x W x L)	0.8 x 2.1 x 8.0 in (2.0 x 5.3 x 20.3 cm)	
	Weight	0.737 lb (0.335 kg)	
	Cells/Type	6-cell Li-Ion	
	Energy	Watt-hour Capacity	55 WHr
	Temperature	Operating (Charging)	32° to 113° F (0° to 45° C)
		Operating (Discharging)	14° to 140° F (–10° to 60° C)
		Non-operating	–4° to 140° F (–20° to 60° C)
	Battery Re-Charge Time	System in OFF mode or Standby	2.5 hours
		System ON	3 to 5 hours (depending on system power consumption)
		HP Fast Charge Technology	Charges the battery up to 90% within 90 minutes when system is OFF

Technical Specifications

Displays

14.1-inch Illumi-Lite WXGA anti-glare	Active Area (W x H)	11.9 x 7.5 in (30.3 x 19.0 cm)	
	Diagonal Size	14.1 in (35.7 cm)	
	Surface Treatment	Anti-glare	
	Contrast Ratio	400:1 (typical)	
	Refresh Rate	60 Hz	
	Brightness	200 nit (typical)	
	Pixel Resolution	Pitch	0.237 mm
		Format	1280 x 800
		Configuration	RGB Stripe
	Backlight	LED	
	PPI	107	
	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)	

14.1-inch WXGA anti-glare	Active Area (W x H)	11.9 x 7.5 in (30.3 x 19.0 cm)	
	Diagonal Size	14.1 in (35.7 cm)	
	Surface Treatment	Anti-glare	
	Contrast Ratio	300:1 (typical)	
	Refresh Rate	60 Hz	
	Brightness	200 nit (typical)	
	Pixel Resolution	Pitch	0.237 mm
		Format	1280 x 800
		Configuration	RGB Stripe
	Backlight	CCFL	
	PPI	107	
	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)	

QuickSpecs

Technical Specifications

14.1-inch WXGA+ anti-glare			
Active Area (W x H)	11.9 x 7.5 in (30.3 x 19.0 cm)		
Diagonal Size	14.1 in (35.7 cm)		
Surface Treatment	Anti-glare		
Contrast Ratio	300:1 (typical)		
Refresh Rate	60 Hz		
Brightness	200 nit (typical)		
Pixel Resolution	Pitch	0.210 mm	
	Format	1440 x 900	
	Configuration	RGB Stripe	
Backlight	CCFL		
PPI	121		
Viewing Angle	$\pm30°$ Horizontal, $\pm10°$ Vertical (minimum) 30/30/20/10 (Left/Right/Down/Up) (minimum) or 45/45/35/25 (Left/Right/Down/Up) (typical)		

Hard Drives

320 GB 7200 rpm SATA Hard Drive			
Drive Weight	0.25 lb (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)	100 MB/s (Drive Capability)	
Seek Time (typical reads, including settling)	Single Track	1 ms	
	Average	10 ms	
	Maximum	18 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		

Technical Specifications

250 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lb (115 g)	
	Capacity	250 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)	100 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	1 ms
		Average	10 ms
		Maximum	18 ms
	Rotational Speed	7200 rpm	
	Logical Blocks	488,397,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

160 GB 7200 rpm SATA Hard Drive	Drive Weight	0.25 lb (115 g)	
	Capacity	160 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)	100 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	312,581,808	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

Technical Specifications

250 GB 5400 rpm SATA Hard Drive	Drive Weight	0.22 lb (101 g)	
	Capacity	250 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)	100 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	488,397,168	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

160 GB 5400 rpm SATA Hard Drive	Drive Weight	0.22 lb (101 g)	
	Capacity	160 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)	100 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	312,581,808	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

Technical Specifications

120 GB 5400 rpm SATA Hard Drive	Drive Weight	0.22 lb (101 g)	
	Capacity	120 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)	100 MB/s (Drive Capability)
	Seek Time (typical reads, including settling)	Single Track	3 ms
		Average	13 ms
		Maximum	24 ms
	Rotational Speed	5400 rpm	
	Logical Blocks	234,441,648	
	Operating Temperature	32° to 140° F (0° to 60° C) [case temp]	
	Features	ATA Security	

128 GB 2.5-inch SATA Solid State Drive	Weight	80.1 Grams	
	Capacity	128 GB	
	Height	0.37 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	SATA	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		220 MB/s	200 MB/s
	Logical Blocks	250,069,680	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security; ATA-7 ;SATA 2.6; DIPM	

80 GB 2.5-inch SATA Solid State Drive	Weight	0.19 lbs (86 g)	
	Capacity	80 GB	
	Height	0.37 in (9.5 mm)	
	Width	2.75 in (70 mm)	
	Interface	ATA-7 / SATA 2.6	
	Performance	Maximum Sequential Read	Maximum Sequential Write
		250 MB/s	70 MB/s
	Logical Blocks	156,301,488	
	Operating Temperature	32° to 158°F (0° to 70°C) [case temp]	
	Features	ATA Security	

Removable Storage Drives

Technical Specifications

DVD-ROM Drive	**Access Times**	Random	<116 ms CD (typical)
			<125 ms DVD (typical)
	Max Data Transfer Rate	24X CD-ROM	Up to 3,600 KB/s
		8X-DVD	Up to 10,800 KB/s
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, 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)	None	
	Max Media Capacity (read)	4.7 GB	
	Transport	Tray Loading	

DVD/CD-RW Combo Drive	**Access Times**	Random	<110 ms CD (typical)
			<130 ms DVD (typical)
	Max Data Transfer Rate	24X CD-ROM	Up to 3,600 KB/s
		8X DVD	Up to 10,800 KB/s
		24X CD-R	Up to 3,600 KB/s
		24X CD-RW	Up to 3,600 KB/s
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, 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	
	Supported Media (write)	CD-R, CD-RW	
	Max Media Capacity (read)	8.5 GB	
	Max Media Capacity (write)	700 MB	
	Transport	Tray loading	

QuickSpecs

HP EliteBook 6930p Notebook PC

Technical Specifications

DVD+/-RW SuperMulti DL LightScribe Drive	Access Times	Random	<175 ms CD (typical)
			<230 ms DVD (typical)
	Max Data Transfer Rate	24X CD-ROM	Up to 3,600 KB/s
		8X DVD	Up to 10,800 KB/s
		24X CD-R	Up to 3,600 KB/s
		16X CD-RW	Up to 2,400 KB/s
		8X DVD+R	Up to 10,800 KB/s
		4X DVD+RW	Up to 5,400 KB/s
		8X DVD-R	Up to 10,800 KB/s
		4X DVD-RW	Up to 5,400 KB/s
		2.4X DVD+R(9)	Up to 2,700 KB/s
		5X DVD-RAM	Up to 6,750 KB/s
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	

Supported Media (read): CD-DA, CD+(E)G, CD-MIDI, 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, LightScribe

Max Media Capacity (read): 8.5 GB

Max Media Capacity (write): 8.5 GB

Transport: Tray Loading

Blu-ray R/RE DVD+/-RW SuperMulti DL Drive	Access Times	Random	<140 ms CD-ROM (typical)
			<160 ms DVD-ROM (typical)
			<300 ms BD-ROM (typical)
	Max Data Transfer Rate	24X CD-ROM	Up to 3,600 KB/s
		8X DVD-ROM	Up to 10,800 KB/s
		8X CD-R	Up to 1,200 KB/s
		8X CD-RW	Up to 1,200 KB/s
		8X DVD+R	Up to 10,800 KB/s
		4X DVD+RW	Up to 5,400 KB/s
		8X DVD-R	Up to 10,800 KB/s
		4X DVD-RW	Up to 5,400 KB/s
		2.4X DVD+R(9)	Up to 2,700 KB/s
		5X DVD-RAM	Up to 6,750 KB/s
		1X BD-ROM	Up to 4,500 KB/s
		1X BD-R	Up to 4,500 KB/s

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Technical Specifications

	1X BD-RE	Up to 4,500 KB/s	
	Transfer Mode	UDMA Mode 5	
	Interface	Gen 1 SATA	
	Supported Media (read)	CD-DA, CD+(E)G, CD-MIDI, 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, BD-ROM, BD-R, BD-RE	
	Supported Media (write)	CD-R, CD-RW, DVD+R, DVD+R(9), DVD+RW, DVD-R, DVD-R(9), DVD-RW, DVD-RAM, BD-R, BD-RE	
	Max Media Capacity (read)	50.0 GB	
	Max Media Capacity (write)	50.0 GB	
	Transport	Tray Loading	

Security

HP Fingerprint Sensor	**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

Audio

Hardware	**Implementation**	ADI1981HD High Definition CODEC
	Touch-Sensitive Volume Controls	Volume up, volume down, and mute
	Full Duplex	Yes
	Microphone In	Stereo
	Headphone/Line Out	Stereo
	Integrated Microphone	Yes, dual-microphone array

QuickSpecs

Technical Specifications

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

Communications

Integrated Intel Gigabit Network Connection (10/100/1000 NIC) 82567LM	Ethernet Features	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 802.3z and 802.3ab; IEEE 802.3 clauses 34-42) 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 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)
	Power Management	ACPI compliant -- multiple power modes Situation-sensitive features reduce power consumption
	Performance Features	TCP/IP/UDP Checksum Offload (configurable)
	Manageability	Wake-on-LAN from standby and hibernation (Magic Packet and Microsoft Wake-Up Frame); Wake-on-LAN from off (Magic Packet only) PXE 2.1 Remote Boot Statistics Gathering (SNMP MIB II, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite Intel Advanced Management Technology (iAMT)
	Interface	PCI Express x1
	NIC Device Driver Name	Intel 82567 Gigabit 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, Australian 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
	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 un2400 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), 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 B, Multi-slot operation, coding schemes CS1 – CS4 and MSC1 – MSC9. UMTS/WCDMA: Release 99 and Release 5 CDMA: 1xEVDO Release 0 and Release A, IS-95A, IS-95B, IS-2000
	Wireless Parametric Standards	Meets or exceeds TIA/EIA IS-98-D
	Maximum Data Rates	UMTS (HSPA) – 7.2 Mbps (Download), 2.0Mbps (Upload) CDMA (EVDO Release A) – 3.1 Mbps (Download), 1.8Mbps (Upload)
	Maximum Output Power	GSM/GPRS/EDGE: 32dBm (+/-1) WCDMA: 24dBm (+/-1) CDMA: 24dBm (+/-1)
	Maximum Power Consumption	2500mA (peak); 1000mA (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
	Weight	11.5 g
	Dimensions (Length x Width x Thickness)	2.01 x 1.18 x 0.18 in (51 x 30 x 4.5 mm)
	Voltage, Operating	3.3v +/- 10%
	Temperature, Operating (from TIA/EIA/IS-98-D)	–22° to 140° F (–30° to 60° 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	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 WiFi Link 5300	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n draft 2.0*

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* The specifications for 802.11n draft 2.0 are draft specifications and are not final. If the final specifications differ from the draft specifications, it may affect the ability of the notebook to communicate with other 802.11n WLAN devices. In countries where n draft 2.0 is not allowed, this capability is not enabled.

Interoperability	Wi-Fi certified (802.11abg only) Cisco Compatible Extensions Program compliant (802.11abg only) with Microsoft Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN) Tested with wireless access points from several major manufacturers (details at: http://www.hp.com/go/notebooks/WLAN/draft-n)
Frequency Band	2.4 GHz and 5 GHz
Antenna Structure	3 transmit; 3 receive (3x3)
Data Rates	802.11b: 1, 2, 5.5, 11 Mbps 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n (draft): 66 possible data rates, ranging from 6 Mbps to 450 Mbps, depending on the combination of Bandwidth, Modulation Coding Scheme, and Guard Interval used, as defined in IEEE 802.11n (draft) specification
Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
Security[1]	Supports 64- and 128-bit WEP, WPA, WPA2, hardware-accelerated AES (support for key sizes of 128, 192, and 256 bits), 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 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]	15 dBm
Output Power (for OFDM; power varies by data rate)[2]	15 dBm
Power Consumption	Transmit: 2.3 Watts (average, with three spatial streams) Receive: 1.9 Watts (average with three 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 Sensitivity[4]	300 Mbps: -68 dBm, 54 Mbps: -74 dBm, 6 Mbps: -90 dBm
Antenna Connections	3 U.FL type connectors, 50 ohm nominal impedance
Range	802.11 a – Typical (@6 Mbps) 600 feet – Outdoor Open Area 150 feet – Indoor, Office environment

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	802.11 b – Typical (@1 Mbps)	1200 feet – Outdoor Open Area 300 feet – Indoor, Office environment
	802.11 g – Typical (@1 Mbps)	1200 feet – Outdoor Open Area 300 feet – Indoor, Office environment
Form Factor	PCI-Express MiniCard	
Weight	0.013 lb (6 g)	
Dimensions	0.19 x 1.2 x 2.0 in (4.75 x 29.85 x 50.8 mm)	
Operating Voltage	3.3V +/- 9%, 1.5V +/- 5%	
Temperature	Operating Non-operating	32° to 176° F (0° to 80° C) –40° to 176° F (–40° to 80° C)
Humidity	Operating Non-operating	10% to 90% (non-condensing) 5% to 90% (non-condensing)
Altitude	Operating Non-operating	0 to 10,000 ft (3,048 m) 0 to 50,000 ft (15,240 m)

Configuration Utility[5]   Microsoft Windows XP
> Choice of Configuration Utility:

> - Microsoft Windows XP Wireless Network Connection Manager
> - Intel PROSet for Microsoft Windows XP (required for Cisco Compatible Extensions support)

> Microsoft Windows Vista

> - Microsoft Windows Vista Wireless Network Connection Manager.
> - Intel IHV extensions for Windows Vista available to support Cisco Compatible Extensions.

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 4322AGN 802.11a/b/g/draft-n WiFi Adapter	Wireless LAN Standards	IEEE 802.11a IEEE 802.11b IEEE 802.11g IEEE 802.11n (draft 2.0)
	Interoperability	Wi-Fi certified (802.11abg only) Cisco Compatible Extensions Program compliant (802.11abg only) with Microsoft Windows Vista and XP (details at: http://www.hp.com/go/notebooks/WLAN) Tested with wireless access points from several major manufacturers (details at: http://www.hp.com/go/notebooks/WLAN/draft-n)

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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 (draft): 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, 243, 270, 300 Mbps
Frequency Support	20 MHz: 2.4 GHz and 5 GHz bands 40 MHz: 2.4 GHz and 5 GHz band
Modulation	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM, BPSK, QPSK, 16-QAM, 64-QAM
Security[1]	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 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
Output Power (for OFDM; power varies by data rate)[2]	15 dBm
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: -66dBm, 162 Mbps: -72 dBm, 54 Mbps: -72 dBm, 11 Mbps: -85 dBm , 1 Mbps: -94 dBm
Antenna type	High efficiency dual band antenna with spatial diversity, mounted in the display enclosure
Range	802.11 a – Typical (@6 Mbps) — 600 feet – Outdoor Open Area / 150 feet – Indoor, Office environment 802.11 b – Typical (@1 Mbps) — 1200 feet – Outdoor Open Area / 300 feet – Indoor, Office environment 802.11 g – Typical (@1 Mbps) — 1200 feet – Outdoor Open Area / 300 feet – Indoor, Office environment
Form Factor	PCI-Express MiniCard
Weight	0.026 lb (12 g)
Dimensions	0.19 x 1.2 x 2.0 in (4.75 x 29.85 x 50.8 mm)

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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)

Configuration Utility[4]

Microsoft Windows XP
    Choice of Configuration Utility:

- Microsoft Windows XP Wireless Network Connection Manager
- Broadcom Wireless Configuration Utility (required for Cisco Compatible Extensions support)

Microsoft Windows Vista

- Microsoft Windows Vista Wireless Network Connection Manager
- Broadcom IHV extensions for Windows Vista available to support Cisco Compatible Extensions.

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 supplicants. WLAN supplier IHV extensions required for Cisco Compatible Extensions support for Microsoft Windows Vista.

HP Integrated Module with Bluetooth Wireless Technology	Bluetooth Specification	2.0 Compliant
	Dimensions	1.02 x 0.55 x 0.22 in (26 x 14 x 5.7 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	-6 dBm to 4 dBm (Bluetooth Class II)
	Receiver Sensitivity	Better than -80 dBM at 0.1 % raw bit error rate
	Power Consumption	Peak (Tx) 264 mW
		Peak (Rx) 231 mW
		Sleep <1 mW
	Antenna	Internally integrated within module
	Range	Up 33 ft (10 m)

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Electrical Interface	USB 2.0 compliant	
	Microsoft Windows Plug and Play compliant	
OS Support	Microsoft Windows XP Professional and Home	
	Microsoft Windows 2000	
Bluetooth Software Supported	Broadcom Bluetooth for Windows	
	Microsoft Windows XP 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	–4° to 158° F (–20° to 70° C)
	Non-operating	–40° to 176° F (–40° to 80° C)
Humidity	Operating	10% to 90%
	Non-operating	5% to 95%
Altitude	Operating	15,000 ft (4,572 m)
	Non-operating	40,000 ft (12,192 m)
Bluetooth Profiles Supported	(with Bluetooth for Windows 4.0 software)	
	Serial Port Profile (SPP)*	
	Dial-Up Networking (DUN)*	
	Generic Object Exchange Profile (GOEP)	
	Object Push Profile (OPP)*	
	File Transfer Profile (FTP)	
	Synchronization Profile (SYNC)	
	Hard Copy Cable Replacement (HCRP)*	
	Personal Area Networking Profile (PAN)*	
	Human Interface Device Profile (HID)*	
	FAX Profile (FAX)	
	Basic Imaging Profile (BIP)	
	Headset Profile (HSP)	
	Hands Free Profile (HFP)	
	Advanced Audio Distribution Profile (A2DP)	

* indicates the profile is also supported by Microsoft Windows XP SP2

QuickSpecs

Technical Specifications

Eco 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
- Taiwan Green Mark
- China Energy Conservation Program
- IT ECO declaration
- EPEAT – Gold with Illumi-Lite LED display
- EPEAT – Silver without Illumi-Lite LED display

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

Energy Consumption

	115 VAC	230 VAC	100 VAC
Normal Operation	10.614 W	11.826 W	10.792 W
Sleep (Energy Star low power mode)	1.8621 W	1.9193 W	1.8764 W
Off	0.8042 W	0.8435 W	0.8106 W

Heat Dissipation*

	115 VAC	230 VAC	100 VAC
Normal Operation	36 BTU/hr	40 BTU/hr	36 BTU/hr
Sleep	6 BTU/hr	6 BTU/hr	6 BTU/hr
Off	3 BTU/hr	3 BTU/hr	3 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

This product is in compliance with US executive order 13221, WOL (wake on LAN) disabled.

Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)

	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	3.3	25
Operation	3.3	26

Batteries
This product complies with ISO standards:

- EU Directive 91/ 157/ EEC
- EU Directive 93/ 86/ EEC
- EU Directive 98/ 101/ EEC

Batteries used in the product do not contain:

- Mercury greater than 5ppm by weight
- Cadmium greater than 10ppm by weight
- Lead greater than 4000 ppm by weight.

The battery type and chemistry used in the product is:
Battery type – CR2032 (coin cell)
Battery Chemistry – Lithium, Li Ion

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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 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 when configured with Illumi-lite LED Display, see: www.epeat.net

This product is in compliance with the IEEE 1680 (EPEAT) standard at the Silver level when configured with CCFL Display, see: www.epeat.net

Keyboard complies with ISO standard: ISO 9995, EN 29241-4, and ISO/IEC 15412

Input devices of this product comply with ISO 9241, part 9.

Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

This product contains 0% recycled materials (by wt.)

This product is greater than 95.4% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
  - Corrugated Carton – 182 g
- Internal:
  - EPE-Expanded Polyethylene – 33 g
  - Corrugated Carton – 488 g
- The EPE foam packaging material is made from 100% recycled content.
- The corrugated paper packaging materials contains at least 80% 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

Technical Specifications

efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

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
- Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) – except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

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

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