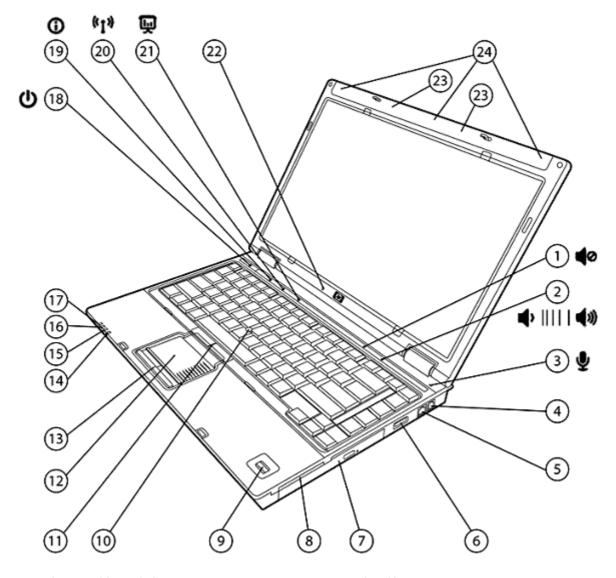
**Overview** 

#### HP recommends Windows Vista® Business



- 1. Volume mute button with LED indicator
- 2. Volume scroll zone with up/down LED indicators
- 3. Integrated microphone
- 4. RJ-11/modem port
- 5. RJ-45/Ethernet port
- 6. USB 2.0 port
- 7. Optical drive
- 8. Integrated Smart Card Reader
- 9. HP Fingerprint Sensor
- 10. Pointstick

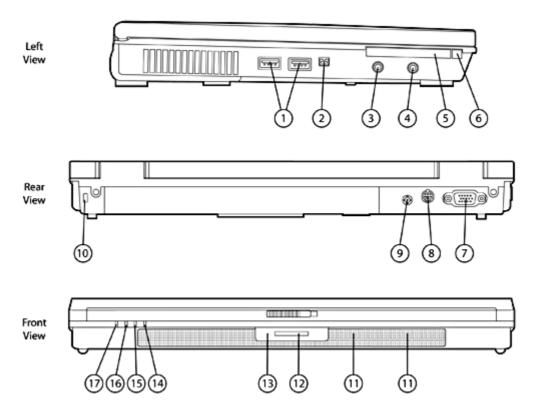
- 13. Touchpad buttons
- 14. Hard drive activity / HP 3D DriveGuard LED
- 15. Battery charging LED
- 16. Power/standby LED
- 17. Wireless on/off LED
- 18. Power button with LED
- 19. HP Info / HP QuickLook button with LED indicator
- 20. Wireless on/off button with LED indicator
- 21. HP Presentation button with LED indicator
- 22. Ambient Light Sensor



#### Overview

- 11. Pointstick buttons
- 12. Touchpad with scroll zone

- 23. Two WWAN antennas
- 24. Three WLAN antennas



- 1. 2 USB 2.0 ports
- 2. 1394a port
- 3. Stereo microphone in
- 4. Stereo headphone/line out
- 5. Type I/II PC Card slot
- 6. PC Card eject button
- 7. VGA/external monitor connector
- 8. S-Video TV out

- 9. Power connector
- 10. Kensington Lock slot
- 11. Integrated stereo speakers
- 12. Secure Digital (SD) slot
- 13. Fast Infrared port
- 14. Hard drive activity / HP 3D DriveGuard LED
- 15. Battery charging LED
- 16. Power/standby LED
- 17. Wireless on/off LED



#### Overview

#### At A Glance

- Genuine Windows Vista Business\*, Genuine Windows Vista Home Basic, Genuine Windows XP Professional, or FreeDOS
- ATI Mobility Radeon X2300 graphics with up to 128 MB dedicated memory (256 MB HyperMemory) or Mobile Intel GMA X3100 graphics with up to 384 MB shared system memory
- Flexible wireless connectivity options:
  - Integrated HP ev2210 1xEVDO-A or HP hs2300 HSDPA Broadband Wireless module (select countries only)
  - O Integrated 802.11 a/b/g/draft-n or a/b/g wireless LAN module
  - O Bluetooth®
- Intel® Centrino® Pro processor technology capable, with Intel Core™2 Duo processors
- Designed for common image for corporate environments
- Widescreen 14.1-inch diagonal display with Ambient Light Sensor and optional HP Privacy Filter
- Thin, lightweight design starting at 4.7 lb/2.1 kg and 1.1-inch/29 mm thin at front
- Enhanced security features including integrated Smart Card Reader, Drive Encryption for HP ProtectTools, HP Fingerprint Sensor, TPM 1.2
- HP QuickLook on Windows Vista models for instant access to email, calendar, and contact information
- Up to 160-GB 7200 rpm user-removable hard drive with HP 3D DriveGuard protection
- Enhanced reliability with HP DuraKeys and HP DuraFinish
- Touch-sensitive controls for HP Info Center, HP QuickLook, wireless on/off, HP Presentation button, external volume up, volume down, and mute
- MultiBay II drive bay for swapping to a different optical drive, an optional secondary hard drive, or weight-saver
- Up to 4 GB of 667-MHz DDR2 SDRAM, dual channel memory support
- Integrated Intel Gigabit Network Connection (10/100/1000 NIC)
- Enhanced dual pointing devices (touchpad with scroll zone and pointstick)
- Type I/II PC Card slot, Secure Digital (SD) slot



<sup>\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

#### **Processors**

Intel Core 2 Duo Processor T9500 (2.60 GHz, 6 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T9300 (2.50 GHz, 6 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T8300 (2.40 GHz, 3 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T8100 (2.10 GHz, 3 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7800 (2.60 GHz, 4 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7700 (2.40 GHz, 4 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7500 (2.20 GHz, 4 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7300 (2.00 GHz, 4 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7250 (2.00 GHz, 2 MB L2 cache, 800 MHz FSB)\*
Intel Core 2 Duo Processor T7100 (1.80 GHz, 2 MB L2 cache, 800 MHz FSB)\*

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

#### **Operating System**

**Preinstalled** Genuine Windows Vista Business<sup>†</sup>\*

Genuine Windows Vista Home Basic\* Genuine Windows XP Professional

**FreeDOS** 

**Supported** Genuine Windows Vista Enterprise\*

**Genuine Windows 2000** 

**Certified** SuSE Linux Enterprise Desktop 10

† At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

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.

#### Chipset

Mobile Intel PM965 with 800-MHz front side bus (models with discrete graphics)

or

Mobile Intel GM965 with 800-MHz front side bus (models with integrated graphics)



<sup>\*</sup> Intel's numbering is not a measurement of higher performance.

<sup>\*</sup> Certain Windows Vista product features require advanced or additional hardware. See:

#### Standard Features

### Intel Centrino with vPro technology capable

Intel Centrino with vPro technology is a selectable feature that is available on units configured with an Intel Wireless WiFi Link 4965AGN or 4965AG. 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.

\*Requires a Windows operating system, network hardware and software, connection with a power source, and a direct (non-VPN) corporate network connection which is either cable or wireless LAN.

**NOTE:** Some functionality of Intel Centrino Pro and 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 Centrino Pro and vPro technology is dependant on 3rd party software providers. Compatibility with future "virtual appliances" and Microsoft Windows Vista operating system is yet to be determined.

#### **Graphics**

Models with discrete graphics:

ATI Mobility Radeon X2300 graphics with 64 or 128 MB dedicated video memory

(256 MB HyperMemory\*)
Models with integrated graphics:

Mobile Intel GMA X3100 graphics with up to 384 MB shared system memory

Microsoft DirectX9 capable

\*Indicates dedicated video memory and shared system memory. Either 64MB or 128MB dedicated video memory, depending on model.

#### Display

**Internal** 14.1-inch diagonal 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** port in optional HP Docking Station (sold separately) supports resolutions up to 1600 x 1200 at both full and reduced

blanking, and 1920 x 1200 at reduced blanking

NOTE: Resolutions are dependent upon monitor capability, and resolution and

color depth settings.



#### Standard Features

#### Memory

**Standard** 512-MB, 1024-MB, 2048-MB, or 4096-MB 667-MHz DDR2 SDRAM; two

SODIMM slots supporting dual channel memory

Maximum Upgradeable to 4096-MB with 2048-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 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.

#### **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 ev2210
1xEVDO-A Broadband
Wireless Module

Integrated WWAN module connects to the Verizon Wireless BroadbandAccess

and NationalAccess networks (US only)

Supports CDMA 1xEVDO-A, 1xRTT connections at 800 and 1900 MHz. **NOTE:** Separately purchased Verizon Wireless service is required. For details,

go to http://www.hp.com/go/broadbandwireless.

Upgradeable design and two 850/900/1800/1900/2100-MHz antennas integrated in the top of the display panel support current and future WWAN technologies

HP hs2300 HSDPA Broadband Wireless Module Integrated WWAN module that provides connection to GSM, GPRS, EDGE, UMTS, and HSDPA mobile networks in many countries. Currently supported networks are the AT&T Broadbandconnect network in the U.S., Vodafone networks in select countries, and roaming on AT&T and Vodafone partner networks in more than 100 countries.

**NOTE:** Separately purchased mobile network operator service is required. Upgradeable design and two 850/900/1800/1900/2100-MHz antennas integrated in the top of the display panel support current and future WWAN

technologies. Wi-Fi certified

All 802.11a/b/g integrated wireless LAN options

Cisco Compatible Extensions support (Version 4.0) with Microsoft Windows XP

Wired Equivalent Privacy (WEP) support up to 128-bit keys



#### Standard Features

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

WiFi certified for WPA2, WMM

Three antennas integrated in the display enclosure

Intel Wireless WiFi Link

4965AGN

Integrated support for 802.11a, b, g, and draft-n

Up to 300-mbps data rate

Intel Wireless WiFi Link

4965AG

Integrated support for 802.11 a, b and g

Up to 54-mbps data rate

**Broadcom 4311AG** 802.11a/b/q WiFi Adapter

Integrated support for 802.11 a, b and g

Up to 54-mbps data rate

**HP Integrated Module** 

with Bluetooth Wireless

Technology

Bluetooth Specification v2.0 compliant Works with a wide range of Bluetooth devices

#### 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-mm 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.

**Touch-sensitive controls** Touch-sensitive controls provide easy access to the following features: HP Info Center, HP QuickLook, 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**

1 Type I/II PC Card slot

Supports 32-bit CardBus and 16-bit PC Cards

**Integrated Smart Card** 

Compatible with ISO 7816 compliant Smart Cards

Reader

PC/SC interface support

**Secure Digital slot** 

Supports SD (Secure Digital), MultiMedia Card



#### Standard Features

Storage

**Primary Storage Device** 80/120/160-GB 5400 rpm SMART SATA Hard Drive

80/120/160-GB 7200 rpm SMART SATA Hard 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.

Optical drives MultiBay II (9.5-mm) MultiBay II DVD-ROM Drive

MultiBay II DVD/CD-RW Combo Drive MultiBay II DVD+/-RW SuperMulti DL Drive

**Interfaces** 

**PC Card slot** One Type I/II PC Card slot

Smart Card Reader One

**External monitor** One – VGA

1394a One
Stereo microphone in One
Stereo headphone/line One

out

Power connector One RJ-11/modem One RJ-45/Ethernet One

Fast Infrared Port One (4-Mb/s support)

IrDA 4-MB compliant; IR performance will vary depending on performance of

IR peripherals and application used.

S-video TV out One (Support for NTSC/PAL)

USB 2.0 Three
Docking connector One
Secondary battery One

connector

**LED status indicators** Fifteen

Audio High Definition Audio support w/24-bit DAC

Integrated stereo speakers Integrated microphone

Touch-sensitive controls for volume up, volume down, and mute

Stereo headphone/line out Stereo microphone in

#### Standard Features

#### Software

**Preinstalled software** with Windows Vista or Windows XP

PDF Complete

**HP Backup and Recovery Manager HP Help and Support Center** HP QuickLook (Windows Vista only)

HP OpenView Radia Management Agent

**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)

Roxio Creator 9 (for optional DVD+/-RW and DVD/CDRW drives)

**Synaptics Touchpad Driver** 

Symantec Norton Internet Security with complimentary 60-day live update

Intervideo WinDVD - DVD Player

**Additional software** available from the web **HP Client Manager** 

Java Card Security for HP ProtectTools

#### **HP Backup and Recovery** Manager

Each unit is shipped with HP Backup and Recovery Manager. HP Backup and Recovery Manager can provide data and system file protection for HP business PCs to enable fast recovery if the system becomes corrupted or if important information is accidentally deleted. HP Backup and Recovery Manager can perform scheduled or manual backups of the entire drive or individual files and folders. Up to 10 GB of the hard drive is reserved for the system recovery software. HP Backup and Recovery Manager can also create software recovery CDs or DVDs (requires optional hardware).

#### **SMBIOS Version 2.4**

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

### Manager

HP ProtectTools Security 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
- Embedded Security for HP ProtectTools
- Java Card Security for HP ProtectTools



#### Standard Features

Security Standard Features HP ProtectTools Security Manager

**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.

**Battery** Primary battery 6-cell (55 WHr) Lithium-lon battery

Optional HP Extended Life 8-cell (52 WHr) high capacity Lithium-Ion battery

**Battery** 

Optional HP Ultra-Capacity Battery 12-cell (95 WHr) high capacity Lithium-Ion battery



#### Standard Features

Battery Life 6-cell Primary with integrated 6-cell Primary with discrete graphics

graphics

**Primary battery** Up to 6 hours Up to 4 hours and 30 minutes

**Primary battery and** Up to 12 hours Up to 9 hours

optional HP Extended Life

**Battery** 

**Primary battery and** Up to 15 hours and 45 minutes Up to 12 hours

optional HP Ultra-Capacity Battery

**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, S-video TV out, 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 3-in-1 NAS Docking Station and HP Advanced Docking Station only

**Service and Support** HP Services offers limited 3- year warranty in North America;

1-year limited warranty on primary battery. On-site service and warranty upgrades are also available. For HP Care Pack services see http://www.hp.com/go/lookuptool.

**NOTE:** Certain restrictions and exclusions apply. Consult the HP Customer Support Center for details. http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp.



#### Standard Features

#### Select Model(s)

**6910p** GH715AW#ABA

Global

(may vary based on local regulatory reguirements)

Processor Intel Core 2 Duo Processor T7300\* (2.00-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Enabled

Operating SystemGenuine Windows Vista Business\*\*System Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive80-GB 5400 rpm SMART SATA

**Display** 14.1-inch WXGA

Graphics Mobile Intel GMA X3100
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

Intel Wireless WiFi Link 4965AG; Bluetooth 2.0

**Integrated Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II Drive DVD/CD-RW Combo MultiBay II Drive

**Battery** 6-cell (55 WHr) Lithium-Ion **Power** External 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

6910р

GH717AW#ABA Global

(may vary based on local regulatory requirements)

Processor Intel Core 2 Duo Processor T7300\* (2.00-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro

processor technology

Operating SystemGenuine Windows Vista Business\*\*System Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive80-GB 5400 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

6910p

GH719AW#ABA

Global

(may vary based on local regulatory requirements)

**Processor** Intel Core 2 Duo Processor T7500\* (2.20-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro Enabled processor technology

Operating SystemGenuine Windows Vista Business\*\*System Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive80-GB 7200 rpm SMART SATA

**Display** 14.1-inch WXGA+

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

**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



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

6910p SKU Part# RM230UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7100\* (1.8-GHz, 800-FSB, 2-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** 

Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 1024 MB 667-MHz DDR2 (1 DIMM) **Hard Drive** 80-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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

Intel Wireless WiFi Link 4965AG; Bluetooth 2.0

**Integrated Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

**6910p** SKU Part# RM231UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7300\* (1.8-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 1024 MB 667-MHz DDR2 (1 DIMM) **Hard Drive** 80-GB 7200 rpm SMART SATA

None

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM232UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Operating System

Genuine Windows Vista Business\*\* with Office Ready

System Memory 1024 MB 667-MHz DDR2 (1 DIMM)
Hard Drive 80-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**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

Broadband Wireless Module\*\*\*

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM233UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

System Memory 1024 MB 667-MHz DDR2 (1 DIMM)
Hard Drive 80-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Wireless WiFi Link 4965AG; Bluetooth 2.0; HP hs2300 HSDPA Broadband

Wireless Module\*\*\*

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

<sup>\*\*\*</sup> Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.

#### Standard Features

- \* Intel's numbering system is not a measurement of higher performance.
- \*\* At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.
- \*\*\* Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.

6910p SKU Part# GM120UT#ABA Smart Buy Processor Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** 

Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 2048 MB 667-MHz DDR2 (2 DIMM) **Hard Drive** 160-GB 5400 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

**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 Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II Drive DVD+/-RW SuperMulti DL Drive
Battery 6-cell (55 WHr) Lithium-Ion
Power External 90W adapter

Warranty 3/3/0

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

**6910p** SKU Part# RM234UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Operating SystemGenuine Windows XP ProfessionalSystem Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive120-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM235UA#ABA Regional Processor Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

None

Operating SystemGenuine Windows XP ProfessionalSystem Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive120-GB 5400 rpm SMART SATA

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**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

Intel Wireless WiFi Link 4965AG; Bluetooth 2.0; HP ev2200 1xEV-D0

**Broadband Wireless Module\*\*** 



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM238UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Operating SystemGenuine Windows XP ProfessionalSystem Memory1024 MB 667-MHz DDR2 (1 DIMM)Hard Drive120-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Wireless WiFi Link 4965AG; Bluetooth 2.0; HP hs2300 HSDPA Broadband

Wireless Module\*\*

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup>Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup>Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.

#### Standard Features

**6910p** SKU Part# RM237UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7300\* (2.0-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Operating SystemGenuine Windows XP ProfessionalSystem Memory2048 MB 667-MHz DDR2 (2 DIMM)Hard Drive160-GB 5400 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM251UA#ABA Regional Processor Intel Core 2 Duo Processor T7300\* (2.00-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Enabled

Operating SystemGenuine Windows Vista Business\*\*System Memory2048 MB 667-MHz DDR2 (2 DIMM)Hard Drive80-GB 7200 rpm SMART SATA

**Display** 14.1-inch WXGA

Graphics Mobile Intel GMA X3100
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 Wireless WiFi Link 4965AGN; Bluetooth 2.0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II Drive DVD/CD-RW Combo MultiBay II Drive

**Battery** 6-cell (55 WHr) Lithium-Ion **Power** External 90W adapter

Warranty 3/3/0

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

\*\* At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will

be deleted.

6910p SKU Part# RM260UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7300\* (1.8-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** 

Genuine Windows XP Professional with Office Ready

System Memory 1024 MB 667-MHz DDR2 (1 DIMM)
Hard Drive 80-GB 7200 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**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

Intel Wireless WiFi Link 4965AG; Bluetooth 2.0

**Integrated Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

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



#### Standard Features

**6910p** SKU Part# RM291UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Operating SystemGenuine Windows Vista Business\*\*System Memory2048 MB 667-MHz DDR2 (1 DIMM)Hard Drive120-GB 7200 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA+

Graphics ATI Mobility Radeon X2300 with 128 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

6910p SKU Part# RM295UT#ABA Smart Buy Processor Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows XP Professional with Office Ready

System Memory 2048 MB 667-MHz DDR2 (2 DIMM)
Hard Drive 160-GB 5400 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

**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 Wireless WiFi Link 4965AGN; Bluetooth 2.0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

**Integrated Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

**MultiBay II Drive** DVD+/-RW SuperMulti DL Drive **Battery** 6-cell (55 WHr) Lithium-Ion **Power** External 90W adapter

3/3/0 Warranty

6910p SKU Part# RM325UT#ABA Smart Buy

Intel Core 2 Duo Processor T7250\* (2.0-GHz, 800-FSB, 2-MB L2 cache) **Processor** 

**Intel Centrino Pro** None

processor technology

Operating System Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 1024 MB 667-MHz DDR2 (1 DIMM) **Hard Drive** 120-GB 5400 rpm SMART SATA

Display 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**ADI High Definition CODEC Audio** 

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 Wireless WiFi Link 4965AG; Bluetooth 2.0

Integrated Smart Card Reader **Integrated Security** 

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

**MultiBay II Drive** DVD+/-RW SuperMulti DL Drive 6-cell (55 WHr) Lithium-Ion **Battery** Power External 90W adapter

3/3/0 Warranty



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

6910p SKU Part# RM326UT#ABA Smart Buy Processor Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 1024 MB 667-MHz DDR2 (1 DIMM) **Hard Drive** 80-GB 7200 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM327UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7700\* (2.4-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

System Memory 2048 MB 667-MHz DDR2 (2 DIMM)
Hard Drive 120-GB 7200 rpm SMART SATA

Enabled

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

**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 Wireless WiFi Link 4965AGN; Bluetooth 2.0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

**6910p** SKU Part# RM328UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

None

Operating SystemGenuine Windows Vista Business\*\*System Memory2048 MB 667-MHz DDR2 (2 DIMM)Hard Drive120-GB 5400 rpm SMART SATA

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**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

Intel Wireless WiFi Link 4965AG; Bluetooth 2.0

**Integrated Security** Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

**Pointing Device** Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

**6910p** SKU Part# RM349UA#ABA Regional **Processor** Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

Enabled

Operating SystemGenuine Windows Vista Business\*\*System Memory2048 MB 667-MHz DDR2 (2 DIMM)Hard Drive160-GB 5400 rpm SMART SATA

**Display** 14.1-inch WXGA

**Graphics** ATI Mobility Radeon X2300 with 128 MB of dedicated memory

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 Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

TPM 1.2

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

6910p SKU Part# RM362UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

None

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

**System Memory** 1024 MB 667-MHz DDR2 (1 DIMM) **Hard Drive** 80-GB 5400 rpm SMART SATA

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

**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 Wireless WiFi Link 4965AG; Bluetooth 2.0; HP ev2210 1xEV-DO-A

(Verizon) Broadband Wireless Module\*\*\*

<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

#### Standard Features

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0

6910p SKU Part# RM363UT#ABA Smart Buy **Processor** Intel Core 2 Duo Processor T7500\* (2.2-GHz, 800-FSB, 4-MB L2 cache)

Intel Centrino Pro processor technology

**Operating System** Genuine Windows Vista Business\*\* with Office Ready

System Memory 1024 MB 667-MHz DDR2 (1 DIMM)
Hard Drive 80-GB 5400 rpm SMART SATA

None

**Display** 14.1-inch WXGA

Graphics ATI Mobility Radeon X2300 with 64 MB of dedicated memory

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

Broadband Wireless Module (Sprint)\*\*\*

Integrated Security Integrated Smart Card Reader

Drive Encryption for HP ProtectTools

**HP Fingerprint Sensor** 

**TPM 1.2** 

Pointing Device Enhanced dual pointing devices (touchpad with scroll zone and pointstick)

MultiBay II DriveDVD+/-RW SuperMulti DL DriveBattery6-cell (55 WHr) Lithium-IonPowerExternal 90W adapter

Warranty 3/3/0



<sup>\*</sup> Intel's numbering system is not a measurement of higher performance.

<sup>\*\*</sup> At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.

<sup>\*\*\*</sup> Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.

#### **Standard Features**

- \* Intel's numbering system is not a measurement of higher performance.
- \*\* At initial boot, either 32- or 64-bit can be selected. This is a one time selection and the other version will be deleted.
- \*\*\* Wireless use requires separately purchased service contract. Check with service provider for availability and coverage in your area.



Options		
Memory	HP 512-MB (DDR2 667 MHz) SODIMM	EM993AA
	HP 1-GB (DDR2 667 MHz) SODIMM	EM994AA
	HP 2-GB (DDR2 667 MHz) SODIMM	EM995AA
MultiBay II Storage	HP MultiBay II DVD-ROM Drive	PA849A
(9.5-mm)	HP MultiBay II DVD/CD-RW Combo Drive	PA850A
	HP MultiBay II DVD+/-RW SuperMulti DL Drive	PA851A
	HP 80-GB 5400rpm MultiBay II Hard Drive	PH357A
Other Storage	HP 80-GB 5400rpm Primary SATA Hard Drive	ET354AA
	HP 120-GB 5400rpm Primary SATA Hard Drive	RT080AA
	HP Notebooks USB Diskette Drive	DC361B
Communications	Intel Wireless WiFi Link 4965AGN option kit	RT081AA#ABA
	HP ev2210 1xEVDO-A Broadband Wireless Module (Verizon)	GM763AA#ABA
	HP ev2210 1xEVDO-A Broadband Wireless Module (Sprint)	GM764AA#ABA
	HP hs2300 HSDPA Broadband Wireless Module (AT&T)	GG589AA#ABA
	HP hs2300 HSDPA Broadband Wireless Module (Generic)	GG590AA#ABA
Expansion Solutions	HP Docking Station with Smart Adapter	EN488AA#ABA
	HP Advanced Docking Station with Smart Adapter	EN489AA#ABA
	HP 3-in1 NAS Docking Station with Smart Adapter	EM537AA#ABA
	HP Standard Monitor Stand	PA507A
	HP Adjustable Notebook Stand	PA508A
	HP External MultiBay II	PA509A#ABA
Power	HP 2-Bay Battery Charging Station (North America only)	DT533A#ABA
	HP 10-Bay Battery Charging Station (North America only)	DT534A#ABA
	HP Battery Adapter Kit	PK402A
	HP 90W Smart AC Adapter	ED495AA#ABA
	HP 90W Smart Auto Adapter	ED493AA
	HP 65W AC/Auto/Air Combo Smart Adapter	ED993AA#ABA
	HP 6-Cell Li-Ion Primary Battery	PB994A
	HP 8-cell Extended Life Battery	PB993A
	HP 12-cell Ultra-Capacity Battery	EJ092AA



Options		
Carrying Cases	HP Value Nylon Case	RR314AA
	HP Universal Nylon Case	RR315AA
	HP Executive Leather Case	RR316AA
	HP Deluxe Nylon Backpack	RR317AA
	HP Universal Messenger Bag	GD404AA
	HP Deluxe Roller Case	GD405AA
Security	HP PC Card Smart Card Reader with Java Card	EL347AA
	HP ProtectTools Java Card – 10 units	EL348AA
	HP/Kensington MicroSaver Security Lock	PC766A
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
	HP Bluetooth PC Card Mouse	RJ316AA



#### Memory

667-MHz DDR2 SDRAM Two DIMM slots supporting dual channel memory DIMM sizes supported: 512 MB, 1024 MB, and 2048 MB

#### **Standard Memory**

- 512 MB (512 MB x 1)
- 1024 MB (1024 MB x 1 or 512 MB x 2)
   2048 MB (2048 MB x 1 or 1024 MB x 2)
- 4096 MB (2048 MB x 2)

#### Optional Memory Upgrades

Support for up to 4096 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
1024 MB	512 MB	512 MB
1536 MB	1024 MB	512 MB
2048 MB	1024 MB	1024 MB
4096 MB	2048 MB	2048 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 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 512-MB (DDR2 667 MHz) SODIMM
 EM993AA

 HP 1024-MB (DDR2 667 MHz) SODIMM
 EM994AA

 HP 2048-MB (DDR2 667 MHz) SODIMM
 EM995AA



#### Storage

### **Removable Media Drive Support**

	Quantity Supported	Drive Bay
MultiBay II DVD-ROM Drive	One	MultiBay II
MultiBay II DVD/CD-RW Combo Drive*	One	MultiBay II
MultiBay II DVD+/-RW SuperMulti DL Drive*	One	MultiBay II

<sup>\*</sup> MultiBay II drives supported in the internal MultiBay II are also supported in the optional HP 3-in-1 NAS Docking Station, HP Advanced Docking Station, or HP External MultiBay II.

#### **Internal Storage Device**

	Quantity Supported	Drive Bay
Hard Drives		
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
80-GB 5400 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
160-GB 7200 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
120-GB 7200 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay
80-GB 7200 rpm SMART SATA Hard Drive	One	Dedicated hard drive bay



#### **Technical Specifications**

**System Unit Dimensions** (HxWxD) 1.1 in (at front) x 13.0 in x 9.4 in

29 mm (at front) x 330 mm x 239 mm

**Weight** with MultiBay II weight-saver and 6- 4.7 lb (2.1 kg)

cell battery

with MultiBay II DVD/CDRW Combo 5.1 lb (2.3 kg)

Drive or DVD+/-RW SuperMulti DL

Drive and 6-cell battery

**NOTE:** Height varies depending upon where on the notebook the measurement is made. Starting weight includes integrated graphics, hard drive, 512-MB memory, 802.11 wireless communications module, and Bluetooth. Weight varies by configuration and components.

Stand-Alone Power Nominal Operating Voltage 18.5 V

**Requirements** (AC Power) Average Operating Power 21.41 W (integrated graphics)

25.55 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
 Operating
 -50 to 10,000 ft (-15.24 to 3,048 m)

 (unpressurized)
 Non-operating
 -50 to 40,000 ft (-15.24 to 12,192 m)

Industry StandardULYesCertificationsCSAYes

FCC Compliance Yes
ENERGY STAR® 4.0 Yes
ICES Yes
GS Yes

Australia / NZ A-Tick Compliance Yes
CCC Yes
Japan VCCI Compliance Yes

MIC Yes
BSMI Yes
CE Marking Compliance Yes
BNCI or BELUS Yes

CIT Yes

#### **Technical Specifications**

GOST Yes
Saudi Arabian Compliance (ICCP) Yes
SABS Yes
UKRSERTCOMPUTER Yes

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

**HP 90W Smart AC Adapter Dimensions** 5.24 x 2.28 x 1.1 in (13.3 x 5.8 x 2.9 cm)

 Weight
 0.86 lb (390 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 90W

DC output 18.5V

Hold-up time 5 msec at 115 VAC input

Output current limit <11A, Over voltage protection- 29V max

automatic shutdown

**Connector** 3 pin/grounded, mates with interchangeable cords **Environmental Design** Operating temperature 32° to 104° F (0° to 40° C)

Non-operating (storage) -4° to 149° F (-20° to 65° C)

temperature

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**  $(H \times W \times L)$ 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 Lithium-Ion

Energy **Watt-hour Capacity** 95Wh

**Temperature** Operating (Charging) 32° to 113° F (0° to 45° C)

> Operating (Discharging) 14° to 140° F (-10° to 60° C) -4° to 140° F (-20° to 60° C) Non-operating

**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 Dimensions (H x W x L) **Battery** 

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 Lithium-Ion

**Energy** Watt-hour Capacity 52Wh

**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) 3 hours

System in OFF mode or **Battery Re-Charge Time** 

Standby

System ON 3 to 5 hours (depending on system power

consumption)

**HP Fast Charge** Charges the battery up to 90% within 90 minutes

when system is OFF

When pressed, LEDs light indicating level of charge remaining on battery **Fuel Gauge** 

6-Cell (55WHr) Lithium-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 Lithium-Ion

Watt-hour Capacity Energy 55Wh

**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)

System in OFF Mode or **Battery Re-Charge Time** 2.5 hours

Standby

System ON 3 to 5 hours (depending on system power

consumption)

Charges the battery up to 90% within 90 minutes **HP Fast Charge** 

when system is OFF

#### **Technical Specifications**

14.1-inch WXGA antiglare **Active Area** (W x H) 11.9 x 7.5 in (30.3 x 19.0 cm)

Diagonal Size14.1 in (35.7 cm)Surface TreatmentAnti-glareContrast Ratio300:1 (typical)

**Refresh Rate** 60 Hz

**Brightness** 200 nit (typical)

Pixel Resolution Pitch 0.237 mm Format 1280x800

**Configuration** RGB Stripe

**Backlight** CCFL **PPI** 107

Viewing Angle ±30° Horizontal, ±10° Vertical (minimum)

14.1-inch WXGA+ antiglare **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 ±30° Horizontal, ±10° Vertical (minimum)

#### **Hard Drives**



### **Technical Specifications**

160-GB 7200 rpm SATA Drive

**Drive Weight** 0.25 lb (113 g)

Capacity 160 GB

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

 Interface
 ATA-7 / SATA 1.0a

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track1 ms(typical reads, including<br/>settling)Average10 msMaximum18 ms

Rotational Speed 7200 rpm Logical Blocks 312,581,808

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

120-GB 7200 rpm SATA

**Drive Weight** 0.25 lb (113 g)

Capacity 120 GB

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

 Interface
 ATA-7 / SATA 1.0a

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track1 ms(typical reads, including<br/>settling)Average10 msMaximum18 ms

**Rotational Speed** 7200 rpm **Logical Blocks** 234,441,648

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

### **Technical Specifications**

**80-GB 7200 rpm SATA Drive Weight** 0.25 lb (113 g)

Capacity 80 GB

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

 Interface
 ATA-7 / SATA 1.0a

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track1 ms(typical reads, including<br/>settling)Average10 msMaximum18 ms

Rotational Speed 7200 rpm Logical Blocks 156,301,488

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

**160-GB 5400 rpm SATA 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-7 / SATA 1.0a

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track3 ms(typical reads, including<br/>settling)Average13msMaximum24 ms

Rotational Speed 5400 rpm Logical Blocks 312,581,808

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

### **Technical Specifications**

120-GB 5400 rpm SATA

0.22 lb (101 g)

Capacity 120 GB

**Drive Weight** 

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

 Interface
 ATA-7 / SATA 1.0a

**Transfer Rate** Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track3 ms(typical reads, including<br/>settling)Average13msMaximum24 ms

**Rotational Speed** 5400 rpm **Logical Blocks** 234,441,648

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

80-GB 5400 rpm SATA

**Drive Weight** 0.22 lb (101 g)

Capacity 80 GB

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

 Interface
 ATA-7 / SATA 1.0a

Transfer Rate Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track3 ms(typical reads, including<br/>settling)Average13 msMaximum24 ms

Rotational Speed 5400 rpm Logical Blocks 156,301,488

**Operating Temperature** 41° to 140° F (5° to 60° C) [case temp]

**Features** ATA Security

#### Removable Storage Drives - MultiBay II



### **Technical Specifications**

**DVD-ROM Drive Dimensions** 0.37 x 5.51 x 5.04 in (0.95 x 14.0 x 12.8 cm)

**Weight** 0.34 lb (155 g)

Access Times Random <120 ms CD

<200 ms DVD

Max Data Transfer Rate 24X-CD-ROM 3,600 KB/s

8X-DVD 10,800 KB/s

Transfer Mode Multiword DMA Mode 2

Interface EIDE

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) None
Max Media Capacity (read) 8.5 GB

**Transport** Tray Loading

**DVD/CD-RW Combo Drive Dimensions** 0.37 x 5.51 x 5.04 in (0.95 x 14.0 x 12.8 cm)

**Weight** 0.45 lb (205 g)

Access Times Random <120 ms CD

<155 ms DVD

Max Data Transfer Rate 24X CD-ROM 3,600 KB/s

8X DVD 10,800 KB/s 24X CD-R 3,600 KB/s 24X CD-RW 3,600 KB/s

Transfer Mode Multiword DMA Mode 2

Interface EIDE

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 700 MB

(write)

**Transport** Tray loading



#### **Technical Specifications**

DVD+/-RW SuperMulti DL Dimensions
Drive Weight

**Dimensions** 0.37 x 5.51 x 5.04 in (0.95 x 14.0 x 12.8 cm)

**Weight** 0.45 lb (205 g)

Access Times Random <150 ms CD

<125 ms DVD

Max Data Transfer Rate 24X CD-ROM 3,600 KB/s

8X DVD 10,800 KB/s 24X CD-R 3,600 KB/s 10X CD-RW 1,500 KB/s 4X DVD+R 5,400 KB/s 2.4X DVD+RW 3,240 KB/s 4X DVD-R 5,400 KB/s 2X DVD-RW 2,700 KB/s 2X DVD-RAM 2,700 KB/s

Transfer Mode Multiword DMA Mode 2

Interface EIDE

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,

0.16 lb (72 g)

 ${\sf DVD\text{-}18),\,DVD\text{-}R,\,DVD\text{-}RW,\,DVD\text{+}R,\,DVD\text{+}RW,\,DVD\text{-}RAM}$ 

Supported Media (write) CD-R, CD-RW, DVD+R, DVD+RW, DVD-R, DVD-RW, DVD-RAM

Max Media Capacity (read) 8.5 GB
Max Media Capacity 8.5 GB

(write)

**Transport** Tray Loading

80-GB 5400 rpm MultiBay II Hard Drive

**80-GB 5400 rpm MultiBay MultiBay II Drive Adapter** Dimensions (H x W x D) 0.37 x 5.51 x 5.04 in (0.95 x 14.0 x 12.8 cm)

**Drive Weight** 0.22 lb (101 g)

**Capacity** 80 GB

 Height
 0.37 in (9.5 mm)

 Width
 2.75 in (70 mm)

Interface ATA-6

**Transfer Rate** Synchronous (maximum) 100 MB/s (Drive Capability)

Seek TimeSingle Track3 ms(typical reads, including<br/>settling)Average13 msAverage13 ms

Weight

ettling) Maximum 24 ms

**Rotational Speed** 5400 rpm **Logical Blocks** 156,301,488

**Operating Temperature** 41° to 131° F (5° to 55° C)

Features ATA Security

### **Technical Specifications**

**HP Fingerprint Sensor** 

**Mobile Voltage** 

Operation

3.0V-3.6V Single Supply

**Operating Temperature** 

 $32^{\circ} - 158^{\circ}F (0^{\circ} - 70^{\circ}C)$ 

**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** 

Volume up, volume down, and mute

**Controls** 

**Full Duplex** 

Yes

**Sound Blaster Pro** 

compatible

Yes

Microphone In

Stereo

Headphone/Line Out

Stereo

**Integrated Microphone** 

Yes

**Audio Output Quality** 

**Frequency Response** 

20 Hz - 20 kHz

Signal to Noise Ratio

>85 dB

**Total Harmonic Distortion 0.01%** 

**Noise Floor** 

-110 dB

**Play/Record Sampling** 

Rate(s)

8 kHz - 48kHz

DAC

16, 20 or 24-bit

**ADC** 

16 or 20-bit

**Integrated Stereo** 

**Speakers** 

**Power Rating** 

2 Watts

**Impedance** 

4 Ohms



### **Technical Specifications**

#### **Communications**

**Integrated Intel Gigabit Network Connection** 

(10/100/1000 NIC)

**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)

ACPI compliant -- multiple power modes **Power Management** 

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,

Comprehensive diagnostic and configuration software suite

Intel Advanced Management Technology (iAMT)

Interface PCI Express x1

**NIC Device Driver Name** 

Intel 82566MM Gigabit Network Connection

**Drivers Available** Microsoft Windows Vista

Microsoft Windows XP

APM Revision 1.2, ACPI

V.92 56K Data/Fax Modem Form Factor

MDC 1.5 Daughtercard

**Power Management** 

Support

Approvals/ 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 **Certifications** 

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



### **Technical Specifications**

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

HP ev2210 1xEVDO-A Broadband Wireless Module **Band and Power Class** 0 (North American Cellular) – Class III;

1 (North American PCS) - Class II

**Wireless Protocol** 

**Standards** 

CDMA 1x Release A; IS-95A, IS-95B, IS-2000

**Wireless Parametric** 

**Standards** 

Meets or exceeds TIA/EIA IS-98-D

Interoperability CDG 22 (TIA/EIA/IS-95-A)

CDG 53(TIA/EIA/IS-95-B) C.S0031 (TIA/EIA/IS-2000) CDG 64 (TIA/EIA/IS-2000) C.S0032 (TIA/EIA/IS-866)

Frequency Band Dual Band: 800 MHz (Cellular) and 1900 MHz (PCS)

Data Rates (Packet Mode) IS-856 rates up to 3.1 Mbps

IS-2000 data rates up to 1.8 Mbps

Maximum Output Power 24dBm (+/-1)

**Power Consumption** 

500mA

(maximum)

Power Consumption,

1.7mA – 3.5mA

Sleep Mode

**Power Management** USB selective suspend

CDMA slotted mode sleep and dormant modes

**Antenna Type** High efficiency dual band antennae with spatial diversity, mounted in the

display enclosure

Form Factor PCI-Express MiniCard



#### **Technical Specifications**

Weight 0.35 oz (10 g)

**Dimensions** (Length x

2.01 x 1.18 x 0.18 in (51 x 30 x 4.5 mm)

Width x Thickness)

Voltage, Operating 3.3v +/- 10%

-22° to 140° F (-30° to 60° C) (full RF performance) Temperature, Operating -22° to 167° F (-30° to 75° C) (reduced RF performance) (from TIA/EIA/IS-98-D)

Temperature, Non--40° to 185° F (-40° to 85° C)

operating, 96 hours (from MIL-STD 202 Method 108)

**Humidity**, Non-operating 85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)

**Configuration Utilities** Verizon Wireless VZAccess Manager

LED Off - Radio Off: **LED Activity** Solid LED On - Radio On

HP hs2300 HSDPA **Broadband Wireless** Module

**Frequency Bands and Power Class** 

850/1900/2100MHz WCDMA Power class 3 (+24dBm) 850MHz GSM/GPRS/EDGE 900MHz GSM/GPRS/EDGE, 1800MHz GSM/GPRS/EDGE

1900MHz GSM/GPRS/EDGE

EDGE E2 power

**GPRS/EDGE Multislot Class 12** GPRS PCS/DCS power class 1

GSM power class 4

**Wireless Protocol** 

WCDMA Release 5 (R5) **Standards** 

High-Speed Downlink Packet Access (HSDPA) 3.6Mbps

GSM Phase 2+

**Wireless Parametric** 

**Standards** 

Complies with 3GPP specifications

GPRS/EDGE: 3GPP R99 GERAN P1

**Additional Standards** 

Compliance

FCC parts 15/22/24, CE, Microsoft WHQL, R&TTE directive 1999/5/EC (health.

safety, EMC, spectrum), GCF-CC (Module), European Union Directive

2002/95/EC (restrictions of the use of certain Hazardous Substances (RoHS) in

electronic equipment), Infrastructure Interoperability Testing (IOT)

**Data Rates** 

EDGE 118 kbps UL / 236 kbps DL (Packet Mode)

UMTS 384 kbps UL / 384 kbps DL HSDPA 384 kbps UL / 3.6 Mbps DL

Designed maximum data rate:

**Chipset and Module** Qualcomm MSM6280 chipset: Sierra Wireless MC8775 module

**Maximum Output Power** 32 dBm (+/-2) GSM/EDGE GMSK mode

**Power Consumption** 

(maximum)

800mA

**Power Consumption,** 

Sleep Mode

4 - 8mA



#### **Technical Specifications**

**Power Management** USB Selective Suspend

sleep and standby mode

**Antenna Type** High efficiency 5- band antennae, mounted in the display enclosure

Form Factor PCI-Express MiniCard

**Weight** 0.35 oz (10 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** -22° to 140° F (-30° to 60° C) (full RF performance)

-22° to 167° F (-30° to 75° C) (reduced RF performance)

**Temperature, Non-** -40° to 185° F (-40° to 85° C)

**operating, 96 hours** (from MIL-STD 202 Method 108)

**Humidity, Non-operating** 85% relative humidity for 48 hours @ 185° F (85° C) (non-condensing)

**LED Activity**LED Off – Radio Off;
Solid LED On – Radio On

**Configuration Utilities** Varies per country and mobile network operator

Intel Wireless WiFi Link 4965AG Wireless LAN Standards IEEE 8

IEEE 802.11a IEEE 802.11b

IEEE 802.11g

**Interoperability** Wi-Fi certified

Cisco Compatible Extensions Program compliant with Microsoft Windows

2000 and XP (details at http://www.hp.com/go/notebooks/WLAN)

Frequency Band 2.4 GHz and 5 GHz

**Data Rates** 802.11b: 1, 2, 5.5, 11 Mbps

802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

**Modulation** Direct Sequence Spread Spectrum

DBPSK, DQPSK, CCK, OFDM

Security<sup>1</sup> 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 2000 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** Ad-hoc (Peer to Peer)

Models Infrastructure (Access Point Required)

, acts

**Roaming** IEEE 802.11 compliant roaming between access points

Output Power (for CKK)<sup>2</sup> 15 dBm



#### **Technical Specifications**

Output Power (for OFDM; 15 dBm

power varies by data rate)2

**Power Consumption** Transmit: 1.6 Watts (average)

Receive: 1.1 Watts (average) Idle mode<sup>3</sup>: 30 mW (average) Radio off: 20 mW (max)

**Power Management** ACPI compliant power management

802.11 compliant power saving mode

**Receiver Sensitivity<sup>4</sup>** 54 Mbps: -74 dBm, 6 Mbps: -90 dBm

**Antenna Connections** 2 U.FL type connectors, 50 ohm nominal impedance

Range 802.11 a – Typical 600 feet – Outdoor Open Area

(@6 Mbps) 150 feet – Indoor, Office environment

802.11 b – Typical 1200 feet – Outdoor Open Area (@1 Mbps) 300 feet – Indoor, Office environment

802.11 g – Typical 1200 feet – Outdoor Open Area

(@1 Mbps) 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 32° to 176° F (0° to 80° C)

Non-operating  $-40^{\circ}$  to  $176^{\circ}$  F ( $-40^{\circ}$  to  $80^{\circ}$  C)

**Humidity** Operating 10% to 90% (non-condensing)

Non-operating 5% to 90% (non-condensing)

**Altitude** Operating 0 to 10,000 ft (3,048 m)

Non-operating 0 to 50,000 ft (15,240 m)

**Configuration Utility**<sup>5</sup> Microsoft Windows 2000 or XP

Choice of Configuration Utility:

- Microsoft Windows XP Wireless Network Connection Manager
- Intel PROSet for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support)

Microsoft Windows Vista

Microsoft Windows Vista Wireless Network Connection Manager

**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 (CKK 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 2000 or XP. WLAN may also be compatible with certain third-party software supplicants.



#### Technical Specifications

Intel Wireless WiFi Link

4965AGN

Wireless LAN Standards IEEE 802.11a

> IEEE 802.11b IEEE 802.11q

IEEE 802.11n (draft 1.02)

Interoperability Wi-Fi certified (802.11abg only)

Cisco Compatible Extensions Program compliant (802.11abg only) with

Microsoft Windows 2000 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

**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 300 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<sup>1</sup> 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 2000 and XP only.

**Sub-channels** Multinational support with frequency bands and channels compliant to local

regulations.

CSMA/CA (Collision Avoidance) with ACK **Media Access Protocol** 

**Network Architecture** 

Models

Ad-hoc (Peer to Peer)

Infrastructure (Access Point Required)

Roaming IEEE 802.11 compliant roaming between access points

Output Power (for CKK)<sup>2</sup> 15 dBm **Output Power** (for OFDM; 15 dBm

power varies by data rate)<sup>2</sup>

**Power Consumption** Transmit: 2.3 Watts (average, with two spatial streams)

Receive: 1.9 Watts (average with three receive chains)

Idle mode<sup>3</sup>: 30 mW (average) Radio off: 20 mW (max)

**Power Management ACPI** compliant power management

802.11 compliant power saving mode

300 Mbps: -68 dBm, 54 Mbps: -74 dBm, 6 Mbps: -90 dBm Receiver Sensitivity<sup>4</sup>

**Antenna Connections** 3 U.FL type connectors, 50 ohm nominal impedance

Range 802.11 a - Typical 600 feet - Outdoor Open Area

> (@6 Mbps) 150 feet - Indoor, Office environment

802.11 b - Typical 1200 feet – Outdoor Open Area

(@1 Mbps) 300 feet - Indoor, Office environment

#### **Technical Specifications**

802.11 g – Typical 1200 feet – Outdoor Open Area (@1 Mbps) 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 32° to 176° F (0° to 80° C)

Non-operating  $-40^{\circ}$  to  $176^{\circ}$  F ( $-40^{\circ}$  to  $80^{\circ}$  C)

**Humidity** Operating 10% to 90% (non-condensing)

Non-operating 5% to 90% (non-condensing)

**Altitude** Operating 0 to 10,000 ft (3,048 m)

Non-operating 0 to 50,000 ft (15,240 m)

**Configuration Utility**<sup>5</sup> Microsoft Windows 2000 or XP

Choice of Configuration Utility:

Microsoft Windows XP Wireless Network Connection Manager

 Intel PROSet for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support)

Microsoft Windows Vista

Microsoft Windows Vista Wireless Network Connection Manager

**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 (CKK 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 2000 or XP. WLAN may also be compatible with certain third-party software supplicants.

Broadcom 4311AG 802.11a/b/g WiFi Adapter Wireless LAN Standards IEEE 802.11a

IEEE 802.11b

IEEE 802.11g

**Interoperability** Wi-Fi certified

Cisco Compatible Extensions Program compliant with Microsoft Windows

2000 and XP (details at: http://www.hp.com/go/notebooks/WLAN)

Frequency Band 2.4 GHz and 5 GHz

**Data Rates** 802.11b: 1, 2, 5.5, 11 Mbps

802.11a/q: 6, 9, 12, 18, 24, 36, 48, 54 Mbps

**Modulation** Direct Sequence Spread Spectrum

DBPSK, DQPSK, CCK, OFDM

**Security**<sup>1</sup> 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.

#### **Technical Specifications**

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

Version 4).

**Sub-channels** Multinational support with frequency bands and channels compliant to local

regulations.

Media Access Protocol CSMA/CA (Collision Avoidance) with ACK

Network Architecture

Ad-hoc (Peer to Peer)

Models

Infrastructure (Access Point Required)

**Roaming** IEEE 802.11 compliant roaming between access points

**Output Power** (for CKK)<sup>2</sup> 17.5 dBm **Output Power** (for OFDM; 15 dBm

power varies by data rate)2

**Power Consumption** Transmit: 2.0 W (max)

Receive: 1.5 W (max)

Idle mode<sup>3</sup>: 390 mW (nominal) Sleep mode: 20 mW (max)

**Power Management** ACPI compliant power management

802.11 compliant power saving mode

Receiver Sensitivity<sup>4</sup>

54 Mbps: -72 dBm, 11 Mbps: -88 dBm, 1 Mbps: -97 dBm

**Antenna type** High efficiency dual band antenna with spatial diversity, mounted in the

display enclosure

**Range** 802.11 a – Typical 600 feet – Outdoor Open Area

(@6 Mbps) 150 feet – Indoor, Office environment

802.11 b – Typical 1200 feet – Outdoor Open Area

(@1 Mbps) 300 feet – Indoor, Office environment

802.11 g – Typical 1200 feet – Outdoor Open Area (@1 Mbps) 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)

Operating Voltage 3.3v +/- 10%

**Temperature** Operating 32° to 176° F (0° to 80° C)

Non-operating -40° to 176° F (-40° to 80° C)

**Humidity** Operating 10% to 90% (non-condensing)

Non-operating 5% to 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**<sup>5</sup> Microsoft Windows 2000 or 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



#### Technical Specifications

Microsoft Windows Vista Wireless Network Connection Manager

**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.
- 4. Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CKK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).
- 5. WLAN supplier's client utility is required for Cisco Compatible Extensions support with Microsoft Windows 2000 or XP. WLAN may also be compatible with certain third-party software supplicants.

**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** 

79 (1 MHz) available channels

Channels

**Data Rates and** 3 Mbps data rate; throughput up to 2.17 Mbps

**Throughput** 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)

Better than -80 dBM at 0.1 % raw bit error rate **Receiver Sensitivity** 

**Power Consumption** Peak (Tx) 264 mW

Peak (Rx) 231 mW

Sleep < 1 mW

**Antenna** Internally integrated within module

Range Up 33 ft (10 m) **Electrical Interface** USB 2.0 compliant

Microsoft Windows Plug and Play compliant

**OS Support** Genuine Windows Vista

> Genuine Windows XP **Genuine 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



### **Technical Specifications**

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)\*

Canadia Object Evebance Duefile (COFI

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)

#### **Environmental Data**

#### **Eco-Label Certifications**

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- ENERGY STAR 4.0
- US Federal Energy Management Program (FEMP)
- Taiwan Green Mark
- China Energy Conservation Program (CECP)
- ECO declaration
- Korean Eco Label
- EPEAT Silver Rating

#### **System Configuration**

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

Energy Consumption	115 VAC	230 VAC	100 VAC
Normal Operation	13.89 W	13.86 W	13.87 W
Sleep (Energy Star low power mode)	0.8524 W	1.028 W	0.8504 W
Off	1.258 W	1.48 W	1.225 W



<sup>\*</sup> indicates the profile is also supported by Microsoft Windows XP SP2

### **Technical Specifications**

<b>Heat Dissipation*</b>	115 VAC	230 VAC	100 VAC
Normal Operation	47.392 BTU/hr	47.29 BTU/hr	47.324 BTU/hr
Sleep	2.908 BTU/hr	3.507 BTU/hr	2.901 BTU/hr
Off	4.292 BTU/hr	5.049 BTU/hr	4.179 BTU/hr

<sup>\*</sup> 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	Sound Power	Sound Pressure
(in accordance with ISO 7779 and ISO 9296)	(LWAd, bels)	(LpAm, decibels)
Idle	3.2	25
Operating mode (HDD)	4.7	40

#### **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 the 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:

CR2032 (coin cell), Lithium

8 cell rechargeable Lithium-Ion battery

Additional information:

This product is in compliance with the EU 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.

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% recyclable when properly disposed of at end

of life.

**Packaging Materials** 



### **Technical Specifications**

- External:
  - Corrugated / Paper 1.0 lb (453 g)
- Internal:
  - EPE Foam 0.15 lb (70 g)
  - LDPE Bag 0.01 lb (5 g)
- The corrugated paper packaging materials contains at least 40% recycled content.

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

#### **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.



### **Technical Specifications**

Radioactive Substances

Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

End-of-life Management and Recycling

HP offers our customers several other options for handling their aging computers while also minimizing the impact on the environment—including product trade-in and leasing services-in addition to recycling services.

Please go to: http://www.hp.com/recycle

or contact your nearest HP sales office. Products returned to HP will be

recycled, recovered or disposed of in a responsible manner.

**Hewlett-Packard Corporate Environmental** Global Citizenship Report Information

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

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

**Environment website** 

http://www.hp.com/environment

**Eco-label certifications** 

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

ISO 14001 certificates:

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

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