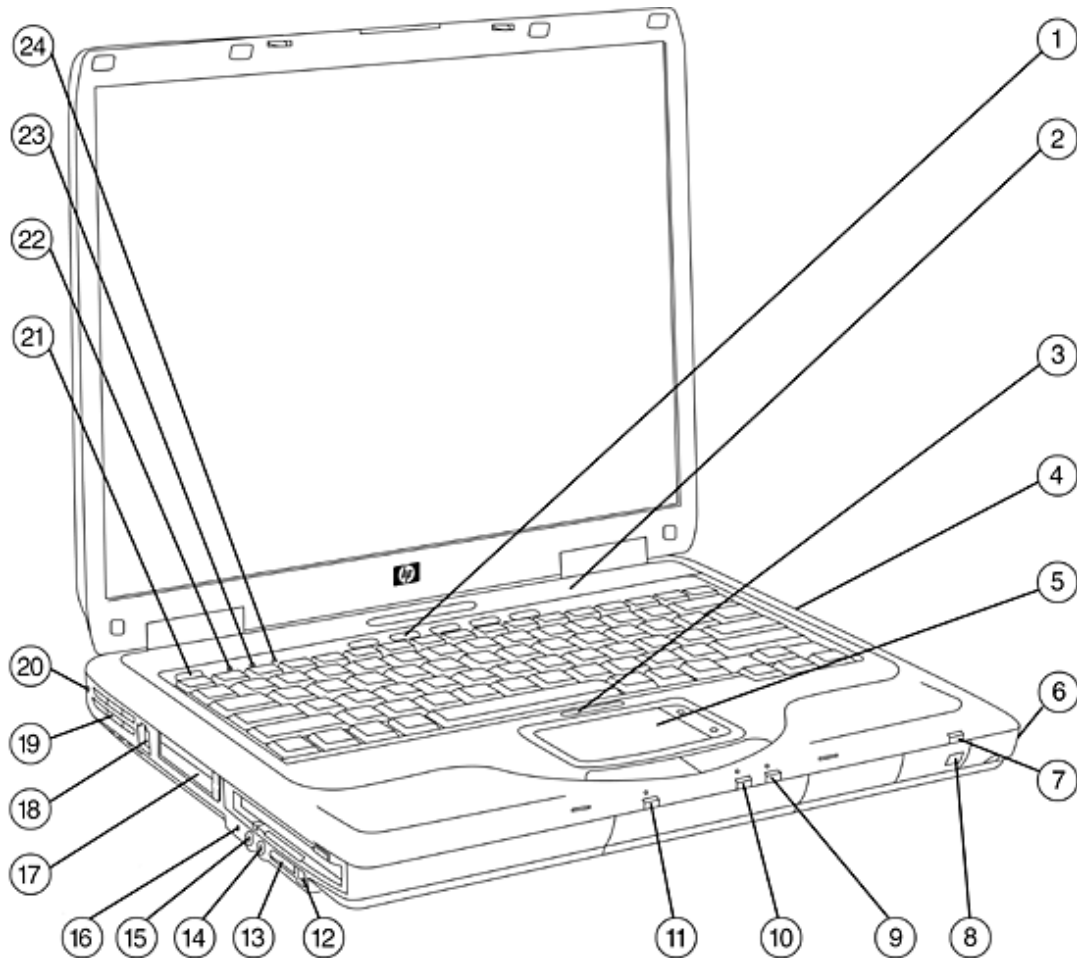
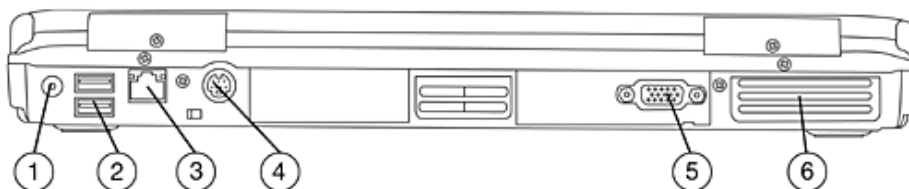


## Overview



- |                                |                       |
|--------------------------------|-----------------------|
| 1. Easy Access Buttons (5)     | 13. Volume Controls   |
| 2. Stereo Speakers             | 14. Headphone         |
| 3. Touch Pad On/Off Button LED | 15. Audio In          |
| 4. Fixed Optical Drive         | 16. 1394 Port         |
| 5. Touch Pad                   | 17. PC Card Slots (1) |
| 6. Primary Battery             | 18. RJ-11 (Modem)     |
| 7. Wireless LED                | 19. Air Vent          |
| 8. Wireless On/Off Button      | 20. Kensington Lock   |
| 9. Battery Charging LED        | 21. Power Button LED  |
| 10. Hard Drive Activity LED    | 22. Caps Lock LED     |
| 11. System Power LED           | 23. Num Lock LED      |
| 12. Mute Lock LED              | 24. Keypad LED        |

### Overview



- |            |              |
|------------|--------------|
| 1. DC In   | 4. S-Video   |
| 2. USB (2) | 5. VGA Video |
| 3. RJ-45   | 6. Air Vent  |

### At A Glance

- Microsoft Windows XP Professional
- Intel® Pentium® M processors with Intel Centrino mobile technology
- Intel 855GM with 400-MHz Front Side Bus
- 15.0-inch display
- Two 266-MHz DDR memory slots with support for up to 2048 MB
- 9.5-mm ATA100 4200-rpm hard drive at 40 GB
- Integrated optical drive = 24x DVD/CD-RW combination drive
- Integrated 10/100 Ethernet NIC
- Integrated 802.11b/g wireless LAN solution
- Integrated 56-K data/fax modem
- Support for a wide range of peripheral devices
- Protected by a one-year, worldwide limited warranty (certain restrictions and exclusions apply). Consult the HP Customer Support Center for details.
- 3-3-0 Flexi-warranty available

### What's Special

- Centrino branding with innovative mobile technologies

### Standard Features

<b>Processors</b>	Intel Pentium M processor 725* (1.6 GHz, 2MB L2 cache, 400 MHz FSB) Intel Pentium M processor 735 (1.7 GHz, 2MB L2 cache, 400 MHz FSB) <b>NOTE:</b> Intel Pentium M Processors support enhanced Intel SpeedStep™ technology. Processor speed denotes maximum performance mode; processors run at approximately 600 MHz in battery optimization mode. * Intel's numbering is not a measurement of higher performance. All other product names mentioned herein may be trademarks of their respective companies.
<b>Operating System</b>	Microsoft Windows XP Professional
<b>Chipset</b>	Intel 855GM Chipset with 400MHz Front Side Bus
<b>Displays</b>	Internal 15.0-inch XGA display with 1024 x 768 resolution and 16 M colors External Up to 32-bit per pixel color depth Supports 640 x 480, 800 x 600, 1024 x 768, 1280 x 768, 1280 x 1024, or 1600 x 1200 resolutions up to 100-Hz refresh rate, dependent upon monitor capability, and resolution and color depth settings <b>NOTE:</b> Durable PC-ABS plastic display enclosure.
<b>Memory</b>	Standard Configurable from 256 to 1024 MB 266-MHz DDR SDRAM (SODIMM in slot 1) Maximum 2048-MB 266-MHz DDR SDRAM <b>NOTE:</b> Uses PC 2700 DDR 333MHz memory module but system runs at 266MHz. Due to the non-industry standard nature of some third-party memory modules, we recommend HP branded memory to ensure compatibility.
<b>Communications</b>	LAN Integrated 10/100 NIC Wireless Mini PCI 802.11 b/g Intel PRO/Wireless 2200BG 802.11b/g Mini PCI Modem 56 KB data/fax modem <b>NOTE:</b> Designed only to allow faster downloads from compliant sources. Maximum achievable download transmission rates currently do not reach 56 KB/s, and will vary with line conditions. <b>NOTE:</b> Modem availability is subject to country regulatory approval.
<b>Keyboard</b>	The 101/102-key compatible keyboard features an industry standard, full-width layout with desktop keyboard features, such as the isolated inverted-T cursor control keys, 3x2 editing keys, both left and right control and alt keys, and 11 function keys. The US layout has 84 keys and the International layout 85 keys. Other features include an integrated numeric keypad, hotkeys for instant access to power conservation, brightness, display selection, and other features, 19.05 mm x 19.05 mm key pitch (center-to-center spacing), 2.5 mm stroke, comfort-dished keycaps, and bright key legends for improved visibility in low light conditions.

### Standard Features

**Quick Launch Buttons** Five Quick Launch buttons designed to provide one-touch access to commonly used features including Internet access, Wireless on/off, and Presentation mode

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**Status indicator** Seven LEDs: System power, battery charging, disk activity, Caps Lock, Num Lock, keypad, and wireless

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**Pointing Device** Touchpad with two-way scroll device

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**PC Card Slots** One Type I/II PC Card slot; 16-bit PCMCIA and 32-bit CardBus

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<b>Storage</b>	<b>Hard Drives</b>	9.5 mm, ATA 100 40 GB, 60 GB 4200 rpm
	<b>Optical Drives</b>	<b>Fixed Bay</b> 24x DVD/CD-RW combination

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**Multimedia** AAC Link audio  
Speakers  
External volume control  
Ports for headphone and external microphone  
Microphone in  
Intervideo WinDVD enables MPEG2 playback (CD only – SKUs don't get this software)  
Windows Media Player enables MPEG1 playback (Part of Windows XP)  
Optical drives: 24x DVD/CD-RW combination  
**NOTE:** No internal microphone.

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<b>Interfaces</b>	PC Card	One Type I/II slots
	External Monitor	One port
	16-bit PCMCIA and 32-bit CardBus	One port
	Microphone	One port
	Headphone	One port
	DC power	Auto/Air adapter support External 65 W three-wire AC adapter
	RJ-11	One port – modem
	RJ-45	One port – NIC
	S-video out	One port Support for NTSC/PAL
	USB 2.0	Two ports
	IEEE 1394	One four-pin port

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**Graphics** Integrated Intel Extreme Graphics 2 with up to 64MB of shared system memory for graphics

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### Standard Features

<b>Audio</b>	AC Link audio Speakers Microphone and headphone jacks Volume control
<b>Software</b>	<b>Preinstalled Software</b> Adobe Acrobat Reader 6.0 HP Quick Launch Button Software HP Mobile Printing Driver HP Help and Support (XP Only) Synaptics Touchpad Driver WinDVD 4.0 – DVD Player (for optional DVD+RW, DVD/CDRW combo and DVD drives)* Symantec Antivirus software <b>NOTE:</b> Symantec Norton Antivirus 2003 (Complimentary 60 days Live Update). Sonic RecordNow 6.5 (for optional DVD+RW & DVD/CDRW combo drives) <b>Software Available on Internet</b> Microsoft Windows 2000 drivers <b>NOTE:</b> *Software is loaded on the HDD and must be installed by running the Setup Compaq Software utility.
<b>System Recovery</b>	Each unit is shipped with a recovery CD kit containing Operating System Recovery and Driver/Application Recovery CDs. These CDs allow users to either recover or repair the notebook operating system and select drivers without losing personal data. The Operating System CD also provides the option of reinstalling the operating system software provided with the notebook.
<b>Security</b>	Configuration control through F10 set-up Memory change alert Ownership tag Set-up password Power-on password DriveLock Kensington Lock Slot
<b>Power Supply</b>	External 65 watt AC adapter with 6-foot (1.8-meter) power cord Total length including external AC adapter is 12 feet (3.66 m)
<b>Battery</b>	Six-cell Lithium-Ion (2.2)

### Notebook Battery Life benchmark results

## Standard Features

HP Compaq nx9030		
Processor/RAM	Pentium M 1.6 Ghz	1 GB
Operating System	XP Pro, SP1a	
HDD/Mfr.	40GB	
Video Driver	Intel 855GME	
Resolution/colors	15.0" XGA	
CD-ROM	DVD RW	
BIOS release	Phoenix NB 4.0 rel 6.0	
Battery chemistry	Li-Ion	
Nominal rating	11.1V, 4.4AH, 48 Wh, 6-cell	

Business Winstone BatteryMark 2004	Run Date	COMMENTS
6-cell, Wireless off	3h 42m	

Power Management Settings	
Scheme	Portable/Laptop
Turn off monitor	Never
Turn off hard disks	Never
System Standby	Never
Hibernation	Off
LCD Brightness	Half brightness under DC power (5/10 clicks)
Volume control	Half
Wireless (802.11 & Bluetooth)	Off

### Quick Specs disclaimer:

**NOTE:** Actual results may vary with product model, configuration, and individual usage. Hewlett-Packard testing of a HP Compaq nx9030 with an Intel Celeron M 1.5GHz CPU, Windows XP Pro, 14.1-inch XGA LCD, 256-MB RAM, 40-GB HDD, 11.1V Lithium-Ion battery, and NIC/modem, achieved an overall Business Winstone 2004 BatteryMark score of **3h 42m** Business Winstone® 2004 BatteryMark™ Version 1.1 units. Winstone® is a registered trademark and BatteryMark™ is a trademark of Ziff Davis Publishing Holdings Inc. in the U.S. and other countries. Copyright 2003 Ziff Davis Media Inc. All Rights Reserved.

**Power Conservation** Supports enhanced Intel SpeedStep Technology (which allows Battery Optimized Mode, Maximum Performance Mode, or Automatic mode)  
 Hibernation  
 Instant-on via standby  
 ACPI compliance  
**NOTE:** Enhanced Intel SpeedStep™ technology support is only on Intel Pentium-M processors.

**Wireless Devices** Intel PRO/Wireless 2200BG 802.11b/g wireless LAN Up to 54 Mbps at 2.4 GHz Wi-Fi certified

### Standard Features

#### Service and Support

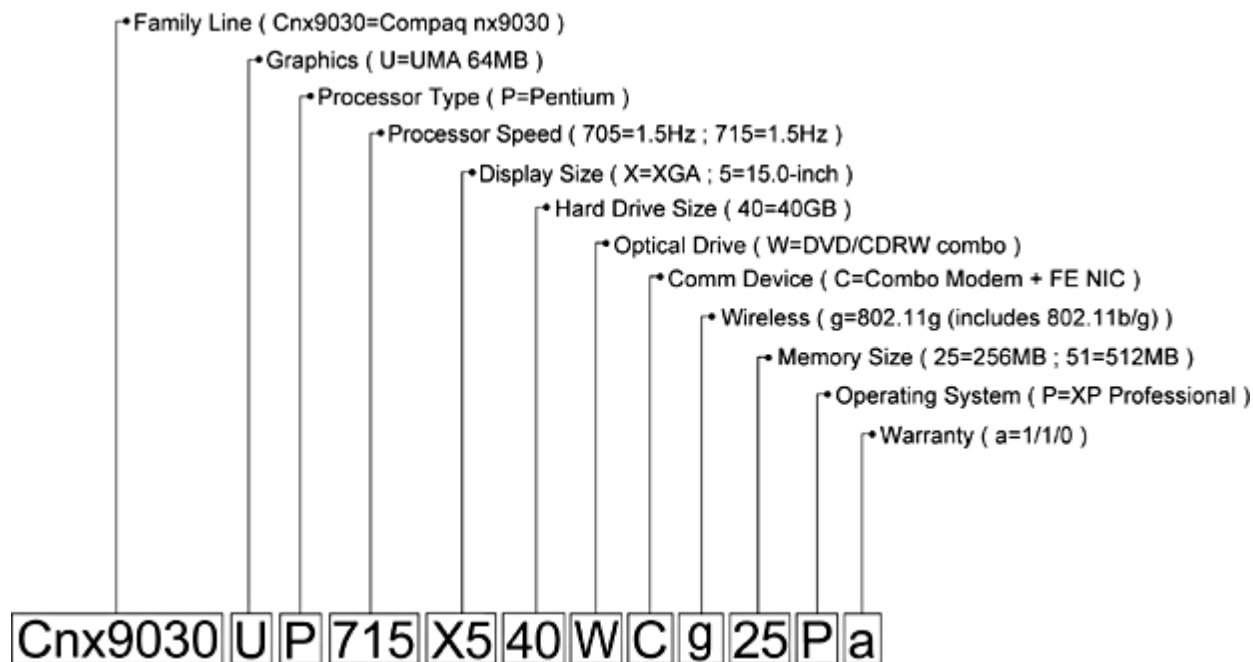
HP Services include a one-year Worldwide Limited Warranty, which covers mail-in, pick-up-and-return (PUR), or carry-in support and defective parts replacement for the first year of ownership.

**NOTE:** Warranty terms may vary by geographic region. For detailed warranty information, refer to the warranty statement included with the product or to the HP website.

<http://h20000.www2.hp.com/bizsupport/TechSupport/ProductRoot.jsp>.

#### Naming Convention

The Etymology of a Model name:



### Models

Hnx9030UP725X540WCc51P  
P/N PG523UA#ABA

<b>Processor</b>	Intel Pentium M 725 (1.6GHz) 400 MHz FSB
<b>Operating System</b>	Microsoft Windows XP Professional
<b>Display</b>	15-inch color TFT XGA
<b>Cache Memory</b>	2MB, L2 Cache
<b>Standard Memory</b>	512 MB (2 DIMM) 266 MHz DDR
<b>Maximum Memory</b>	2048 MB (266 MHz) DDR
<b>Hard Drive</b>	40 GB
<b>Optical Drive</b>	DVD/CD-RW Drive
<b>Communications</b>	Type III Mini PCI 56K high speed modem, (LOM) integrated 10/100 NIC Integrated 802.11b/g WLAN
<b>Graphics</b>	Intel Extreme Graphics 2 with 64MB shared system memory
<b>Warranty</b>	One Year

### Standard Features

Hnx9030UP735X560WCc51P  
P/N PK995LA#ABA

<b>Processor</b>	Intel Pentium M 735 (1.7GHz) 400 MHz FSB
<b>Operating System</b>	Microsoft Windows XP Professional
<b>Display</b>	15-inch color TFT XGA
<b>Cache Memory</b>	2MB, L2 Cache
<b>Standard Memory</b>	512 MB (2 DIMM) 266 MHz DDR
<b>Maximum Memory</b>	2048 MB (266 MHz) DDR
<b>Hard Drive</b>	60 GB 4200 rpm
<b>Optical Drive</b>	DVD/CD-RW Drive
<b>Communications</b>	Type III Mini PCI 56K high speed modem, (LOM) integrated 10/100 NIC Integrated 802.11b/g WLAN
<b>Graphics</b>	Intel Extreme Graphics 2 with 64MB shared system memory
<b>Warranty</b>	One Year

### Options

<b>Memory</b>	512-MB 333-MHz DDR Memory Upgrade	DC390B
	256-MB 333-MHz DDR Memory Upgrade	DC389B
<b>NOTE:</b> System runs at a maximum of 266 MHz with 333 MHz memory modules installed.		
<b>Other Storage Devices</b>	USB Diskette Drive	DC361B
	HP USB Digital Drive with 128MB SD memory	DL702A
	40 GB USB Hard Drive	DQ549A
<b>Power</b>	Lithium-Ion Primary Battery (8 cell)	F4809A
<b>Common Power Solutions</b>	External Battery Charger	DF933A#ABA
	65W AC Adapter	DC359A#ABA
	AC Adapter 90W	DC895B#ABA
	Auto Power Adapter/Charger (90W)	DC303B
	Aircraft Power Cables (90W)	DC899A
<b>Input Devices</b>	USB Travel Mouse (optical scroll mouse)	F2100A
	USB/PS2 Mouse	DC369A
	Wireless Keyboard and Mouse	DL989A#ABA
<b>Docking</b>	4-Port USB 2.0 Hub	DG954A
<b>Security</b>	Security Cable Lock	DC368A
	PC Card Smart Card Reader	DC350B
<b>Carrying Cases</b>	HP Entry Value Carrying case	DL617A
	HP Top Load Leather Case	DC917A
	HP Sport Backpack	DG102A

## Memory

### HP Compaq nx9030 Business Notebook

Up to 2048 MB of 266-MHz DDR SDRAM memory

Two DIMM slots (user accessible under the keyboard deck)

DIMM sizes supported: 128 MB, 256 MB, 512 MB, or 1024 MB

#### Standard Memory

- 128 MB (128 MB x 1)
- 256 MB (256 MB x 1)
- 512 MB (512 MB x 1 or 256 MB x 2)
- 1024 MB (512 MB x 2)

**NOTE:** Configuration offered only up to 1024 MB.

#### Optional Memory Upgrades

Support for up to 2048 MB of memory is available (with the installation of optional DDR SDRAM memory kits)

Memory	Slot 1	Slot 2
128 MB	128 MB	Empty
256 MB	256 MB	Empty
512 MB	256 MB	256 MB
512 MB	512 MB	Empty
768 MB	512 MB	256 MB
1024 MB	1024 MB	Empty
1024 MB	512 MB	512 MB
1280 MB	1024 MB	256 MB
1536 MB	1024 MB	512 MB
2048 MB	1024 MB	1024 MB

**NOTE:** This chart does not represent all possible memory configurations.

**NOTE:** 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.

#### Memory Upgrades

1024 MB 333 MHz

DC890B

512 MB 333 MHz

DC390B

256 MB 333 MHz

DC389B

**NOTE:** System runs at a maximum of 266 MHz with 333 MHz memory modules installed

## Storage

### Removable Media Drive Support

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System Drive Support	Quantity Supported
DVD/CD-RW combination	Up to one - fixed

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### Hard Drive Support

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System Drive Support	Drive Bay Supported
40-GB 4200 rpm SMART Hard Drive	Dedicated hard drive bay
60-GB 4200 rpm SMART Hard Drive	Dedicated hard drive bay

### Technical Specifications

<b>System Unit</b>	<b>Dimensions (HxWxD)</b>	15.0-inch TFT panel display support	12.96 x 10.72 x 1.65 in for 15-inch LCD 32.92 x 27.23 x 4.19 cm for 15-inch LCD)	
	<b>Weight</b>	With 6-cell std battery With 8-cell std battery (option)	6.78 lb (3.08 kg) with 15.0-inch display 6.99 lb (3.17 kg) with 15.0-inch display	
<b>NOTE:</b> Height varies depending upon where on the notebook the measurement is made. Weight varies by configuration and components.				
<b>Stand-Alone Power Requirements</b>	Nominal Operating Voltage		11.1V (on 6-cell battery) 14.8V (on 8-cell battery) 18.5V (on AC power)	
	Average Operating Power		9.76W (on battery) (with portable/laptop) 19.41W (on AC power)	
	Peak Operating Power		65W	
	Power in suspend mode		< 200 mW	
	Power in hibernation mode		< 50 mW	
	<b>Temperature</b>	Operating		50° to 95° F (10° to 35° C)
		Non-operating		-4° to 140° F (-20° to 60° C)
<b>Relative Humidity</b>	Operating		10% to 90% relative humidity, non-condensing	
	Non-operating		5% to 90% relative humidity, 101.6° F (38.7° C) maximum wet bulb temperature	
<b>Shock</b>	Operating		50 G, 2 ms, half-sine	
	Non-operating		175 G, 2 ms, half-sine	
<b>Random Vibration</b>	Operating		0.75 grms	
	Non-operating		1.50 grms	
<b>Vibration</b>	Operating		0.5 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate	
	Non-operating		1.0 G, 10 to 500 Hz, 0.5 Oct/Min sweep rate	
<b>Altitude</b>	Operating		-50 to 10,000 ft (-15.24 to 3,048 m)	
	Non-operating		-50 to 40,000 ft (-15.24 to 12,192 m)	
<b>Maximum Altitude (unpressurized)</b>	Operating		0 to 10,000 ft (3,048 m) (14.7 to 10.1 psia)	
	Non-operating		0 to 30,000 ft (9,144 m) (14.7 to 4.4 psia)	
<b>Industry Standard</b>	Blue Angel		No	

### Technical Specifications

<b>Certifications</b>	UL	Yes
	Energy Star	Yes
	Canadian Safety	Yes
	CSA (Canada)	Yes
	TUV GS	No
	Nordic Safety	No
	Mexican Safety	Yes
	Poland Compliance	Yes
	Australia/NZ Compliance	Yes
	CCC	Yes
	Taiwan Greenmark	Yes
	Japan Compliance	Yes
	MIC	Yes
	BSMI	Yes
	CE Marking Compliance	Yes
	KONCAR	Yes
	GOST	Yes
	SASO	Yes
SABS	Yes	
UKRSERTCOMPUTER	Yes	

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<b>External AC Adapter</b>	<b>Weight</b>	0.535 lb (0.24 kg) (adapter) 0.29 lb (0.13 kg) (power cord)
	<b>Power Supply (Input)</b>	Operating Voltage 100 to 240 VAC RMS Operating Current 1.7 A RMS Operating Frequency 47 to 63 Hz AC Range Maximum Transient 4/50 kV

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### Technical Specifications

<b>Primary Lithium-Ion Battery Pack</b>	<b>Dimensions (H x W x L)</b>	2.1 x 9.505 x 13.4.68 cm			
	<b>Weight</b>	0.75 lb (0.34 kg)			
	<b>Cells/Type</b>	6-cell Lithium-Ion	3S2P		
	<b>Energy</b>	<b>Voltage</b>	11.1V		
		<b>Amp-hour capacity</b>	4.4 Ahr		
		<b>Watt-hour capacity</b>	50 Whr		
	<b>Temperature</b>	<b>Operating</b>	<b>Discharge</b>	32° to 158° F (0° to 70° C)	
			<b>Charge</b>	32° to 140° F (0° to 60° C)	
		<b>Non-operating</b>	<b>For 1 month</b>	-4° to 140° F (-20° to 60° C)	
			<b>For 3 months</b>	-4° to 113° F (-20° to 45° C)	
<b>For 6 months</b>			-4° to 86° F (-20° to 30° C)		
<b>Battery Re-Charge Time</b>	System in OFF mode or Standby	~2.3 hours			
	System ON (depending on system power consumption)	Depend on system loading			

<b>15.0-Inch Color TFT XGA Display</b>	<b>Dimensions (H x W x L)</b>	11.8 x 9.0 in (30.4 x 22.8 cm)		
	<b>Diagonal Size</b>	15.0 in (38.0 cm)		
	<b>Mounting</b>	Internal		
	<b>Number of Colors</b>	16 M		
	<b>Contrast Ratio</b>	250:1 typical		
	<b>Refresh Rate</b>	60 Hz		
	<b>Brightness</b>	150 nit typical		
	<b>Pixel Resolution</b>	<b>Pitch</b>	0.297 x 0.297 mm	
		<b>Format</b>	1024x 768	
		<b>Configuration</b>	RGB Stripe	
	<b>Backlight</b>	CCFT		
	<b>Character Display</b>	80 x 25		
<b>Total Power Consumption</b>	5.5 W			
<b>Viewing Angle</b>	±40° degrees Horizontal, +20°/-40° Vertical (typical)			

### Hard Drives

## Technical Specifications

<b>40-GB 4200 rpm</b>	<b>Drive Weight</b>	0.22 lb (102 g)	
	<b>Capacity</b>	40 GB	
	<b>Height</b>	0.374 in (9.5 mm)	
	<b>Width</b>	2.75 in (70 mm)	
	<b>Interface</b>	ATA-5	
	<b>Transfer Rate</b>	Synchronous (maximum)	100 MB/s (Drive Capability)
	<b>Seek Time</b> (typical reads, including settling)	Single Track	3.0 ms
		Average	13 ms
		Maximum	24 ms
	<b>Rotational Speed</b>	4200 rpm	
	<b>Logical Blocks</b>	78,140,160	
	<b>Operating Temperature</b>	41° to 131° F (5° to 55° C)	
	<b>Features</b>	ATA security	

<b>60-GB 4200 rpm</b>	<b>Drive Weight</b>	0.22 lb (102 g)	
	<b>Capacity</b>	60 GB	
	<b>Height</b>	0.37 in (9.5 mm)	
	<b>Width</b>	2.75 in (70 mm)	
	<b>Interface</b>	ATA-5	
	<b>Transfer Rate</b>	Synchronous (maximum)	100 MB/s (Drive Capability)
	<b>Seek Time</b> (typical reads, including settling)	Single Track	3.0 ms
		Average	13 ms
		Maximum	24 ms
	<b>Rotational Speed</b>	4200 rpm	
	<b>Logical Blocks</b>	117,210,240	
	<b>Operating Temperature</b>	41° to 131° F (5° to 55° C)	
	<b>Features</b>	ATA security	

<b>24x DVD/CD-RW Combination Drive</b>	<b>Dimensions</b>	0.5 x 5.21 x 4.97 in (1.27 x 13.25 x 12.61 cm)	
	<b>Weight</b>	0.551 lb (250 g)	
	<b>Access Times</b>	Random	<110 ms CD
			<130 ms DVD
		Full Stroke	<210 ms CD
			<225 ms DVD
	<b>Max data transfer rate</b>	24X CD-ROM	3,600 KB/s
		24X CD-R	3,600 KB/s
		24X CD-RW	3,600 KB/s
		8X DVD-ROM	10,500 KB/s
	<b>Transfer Mode</b>	Multiword DMA Mode 2	
<b>Interface</b>	EIDE		

### Technical Specifications

<b>Supported Media (read)</b>	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-R, DVD+R, DVD-RW, DVD+RW, DVD-RAM
<b>Supported Media (write)</b>	CD-R, CD-RW
<b>Max Media Capacity (read)</b>	4.7GB
<b>Max Media Capacity (write)</b>	700MB
<b>Transport</b>	Tray Loading

<b>Audio</b>	<b>Hardware</b>	<b>Implementation</b>	AC97 CODEC
		<b>Audio Signal Link to CPU</b>	Audio CODEC (AC) link
		<b>Full Duplex</b>	Yes
		<b>Stereo Inputs</b>	Line In - 20K Impedance (with Port Replicator only) Microphone - 20K Impedance
		<b>Stereo Outputs</b>	Headphone jack, S/PDIF from Port Replicator only
	<b>Audio Output Quality</b>	<b>Frequency Response</b>	20 Hz – 20 kHz
		<b>Signal to Noise Ratio</b>	>90dB
		<b>Total Harmonic Distortion</b>	0.01%
		<b>Noise Floor</b>	-120dB
		<b>Play/Record Sampling Rate(s)</b>	7 kHz - 48 kHz
	<b>AD/DA Resolution</b>	16 bit	

### Communications

<b>Intel Pro/Wireless 2200BG 802.11b/g WLAN</b>	<b>Wireless LAN Standards</b>	IEEE 802.11b IEEE 802.11g
	<b>Interoperability</b>	Wi-Fi certified (details available at <a href="http://www.hp.com/go/WLAN">http://www.hp.com/go/WLAN</a> )
	<b>Frequency Band</b>	2.402 to 2.494 GHz
	<b>Data Rates</b>	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
	<b>Modulation</b>	Direct Sequence Spread Spectrum DBPSK, DQPSK, CCK, OFDM
	<b>Security</b>	64 and 128 bit WEP encryption Support for WiFi Protected Access (WPA) including TKIP, MIC Support for 802.1x authentication types: EAP-TLS, LEAP (Cisco), PEAP (Microsoft implementation); more details available at <a href="http://www.hp.com/go/WLAN">http://www.hp.com/go/WLAN</a> . Support for Cisco Security Features (proven compatibility with Cisco Aironet infrastructure products through the Cisco Compatible Extensions Program).
	<b>Sub-channels</b>	Multinational support with frequency bands and channels compliant to local regulations.

### Technical Specifications

<b>Media Access Protocol</b>	CSMA/CA (Collision Avoidance) with ACK	
<b>Network Architecture Models</b>	Ad-hoc (Peer to Peer) Infrastructure (Access Point Required)	
<b>Roaming</b>	IEEE 802.11 compliant roaming between access points.	
<b>Output Power</b>	16 ±2 dBm for CCK 11 +6/-1 dBm for OFDM (power varies by data rate) Maximum output power may vary by country according to local regulations	
<b>Power Consumption</b>	Transmit: 1.8 Watts (max) Receive: 1.0 Watts (max) Idle mode: 75mW, nominal	
<b>Power Management</b>	ACPI compliant power management 802.11 Compliant Power Saving Mode	
<b>Receiver Sensitivity<sup>1</sup></b>	54 Mbps: -72 dBm, 11 Mbps: -84 dBm , 1 Mbps: -94 dBm	
<b>Antenna type</b>	High efficiency dual band antenna with polarization diversity, mounted in the display enclosure	
<b>Range (typical)</b>	Outdoor	1200 feet at 1 Mbps 250 feet at 54 Mbps
	Indoor	300 feet at 1 Mbps 50 feet at 54 Mbps
<b>Form Factor</b>	MiniPCI Type IIIB	
<b>Weight</b>	0.026 lb (11.75 g) max	
<b>Dimensions</b>	0.20 x 1.75 x 2.34 in (4.9 x 44.6 x 59.8 mm)	
<b>Operating Voltage</b>	3.3v	
<b>Temperature</b>	Operating	32° to 158° F (0° to 70° C)
	Non-operating	-40° to 176° F (-40° to 80° C)
<b>Humidity</b>	Operating	10 to 90% (non-condensing)
	Non-operating	5 to 95% (non-condensing)
<b>Altitude</b>	Operating	0 to 10,000 ft (0 to 3,048 m)
	Non-operating	0 to 50,000 ft (0 to 15,240 m)
<b>Configuration Utility</b>	Choice of Configuration Utility: <ul style="list-style-type: none"><li>• Intel PROset for Microsoft Windows 2000 or XP (required for Cisco Compatible Extensions support)</li><li>• Microsoft Windows XP Wireless Zero Configuration Utility</li></ul>	

**NOTE:** May also be compatible with certain third party software supplicants.

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

<sup>1</sup> Receiver sensitivity is measured at a packet error rate of 8% for 802.11b (CCK modulation) and a packet error rate of 10% for 802.11a/g (OFDM modulation).

### Technical Specifications

<b>Integrated 10/100 NIC</b>	<b>Ethernet Features</b>	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) Auto-Negotiation (Automatic Speed Selection) Full Duplex Operation at all Speeds, Half Duplex operation at 10 and 100 Mbit/s IEEE 802.3x Flow Control (IEEE 802.3 clauses 31-32; configurable)
	<b>Power Management</b>	ACPI 1.1a compliant -- multiple power modes Situation-sensitive features reduce power consumption
	<b>Manageability</b>	Wake-on-LAN from all Power-Managed States (configurable; Magic Packet and Microsoft Wake-Up Frame) PXE 2.0 Remote Boot Statistics Gathering (RMON, Ethernet-like MIB, Ethernet MIB (802.3x, clause 30)) Comprehensive diagnostic and configuration software suite
	<b>NIC Device Driver Name</b>	Broadcom 440X 10/100 Integrated Controller
	<b>Drivers Available</b>	Windows XP Windows 2000 DOS NDIS2 and ODI

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<b>Conexant Modem</b>	<b>Form Factor</b>	Modem On Motherboard
	<b>Power Management Support</b>	APM Revision 1.2, ACPI
	<b>Approvals/Certifications</b>	UL, CSA, NEMKO, CCIB, Industry Canada, FCC Part 68, CTR21, FCC Part 15 Class B, Canadian ICES-003 Class B, C.I.S.P.R.22, Australian ACA, CE Mark, Other Countries
	<b>Data Mode Capabilities</b>	High speed 56K Modem (a-law, mu-law) V.8bis V.80 V.44, V.42bis, MNP5 (Compression) V.42 (LAPM, MNP2-4) (Error Correction) V.34 (file date: 10/96) <b>Optional symbol rates:</b> 2800, 3429 Asymmetric Symbol rates <b>Synchronous primary channel data signaling rates:</b> 3600, 31200 Automatic rate re-negotiation V.32bis V.32 V.23 V.22bis V.22 V.21 Bell 212A Bell 103J

## Technical Specifications

	TIA-578-S (Class 1) T.30, T.4 (Group 3) V.17 V.29 V.27ter V.21 Channel 2
<b>Fax Mode Capabilities</b>	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
<b>Command Set</b>	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

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