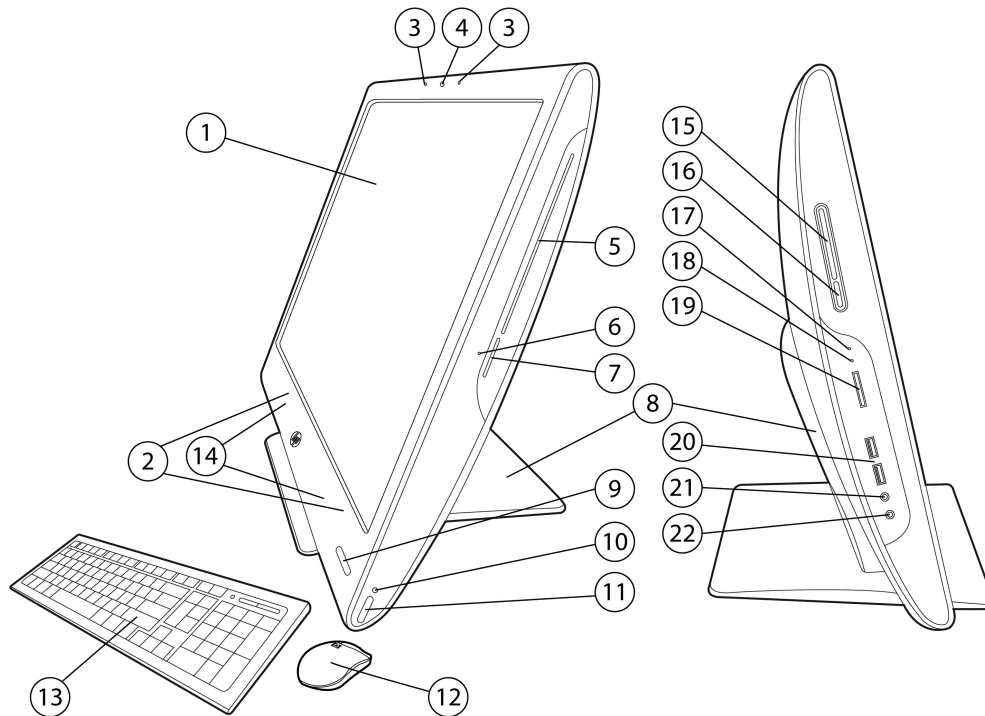


Overview

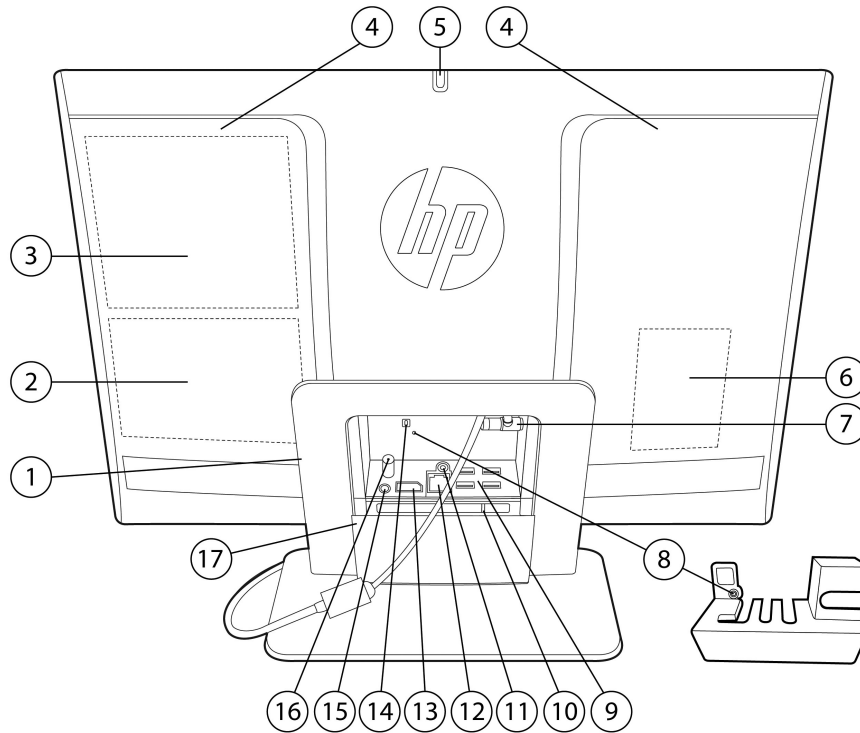


- | | |
|--|---|
| 1. Touch-enabled Full HD LED backlit LCD display | 12. HP optical mouse** |
| 2. Dual wireless antennas | 13. HP low-profile keyboard with numeric keypad** |
| 3. Dual microphone array | 14. High-performance 2.0 speakers |
| 4. Adjustable 2MP Webcam | 15. Volume buttons |
| 5. Slot-load optical drive (optional) | 16. Mute button |
| 6. Optical drive activity LED | 17. Hard drive activity LED |
| 7. Optical drive eject button | 18. Media card reader activity LED |
| 8. Adjustable reclining stand* | 19. Media card reader |
| 9. IR Receiver (select models) | 20. (2) USB 2.0 ports |
| 10. Power LED | 21. Microphone in |
| 11. Power button | 22. Headphone jack |

* Base of stand includes a swivel pad and a VESA mounting bracket.

** USB wired keyboard and mouse are standard, wireless optional.

Overview



1. Adjustable reclining stand
2. Hard drive access
3. Optical drive access
4. Removable access panels
5. Webcam adjustment wheel
6. Memory access
7. Power cord connector and power indicator light
8. Rear port security cover*
9. (4) USB 2.0 ports
10. USB port for optional wireless keyboard/mouse receiver
11. IR Emitter (Blaster) output (optional)
12. RJ-45 Gigabit Ethernet port
13. DisplayPort
14. Security lock slot
15. Audio line out
16. TV coax in (optional)
17. Rear port access door

* Rear port security cover, attached with Torx screw, holds cables in place and prevents rear port access door from opening.

Overview

At A Glance

- Genuine Windows 7 Professional Edition
- 23-inch diagonal Full HD widescreen WLED backlit BrightView LCD display
- Multi-touch panel
- Integrated all-in-one form factor
- Intel® 2nd Generation Core™ i7, i5, or i3 processors and Intel® Pentium and Intel® Celeron processors
- Intel H67 chipset
- Integrated Intel HD Graphics, or discrete MXM graphics
- Integrated Gigabit Network Connection (10/100/1000 NIC)
- Optional wireless connectivity:
 - Integrated 802.11 a/b/g/n or b/g/n wireless LAN module
 - Bluetooth® 3.0
- " Integrated adjustable 2MP webcam, dual microphone array, and premium stereo speakers
- Optional TV Tuner
- Up to 16 GB of DDR3 SDRAM standard, dual channel memory support, four SODIMM slots
- Up to 1 TB hard drive, or up to 160 GB Solid State Drive
- Slim Slot-load Blu-ray Combo Drive (Blu-ray Reader/DVD Burner), Slim Slot-load Blu-ray Writer, or SuperMulti DVD Burner
- 6-in-1 Media Card Reader
- HP TouchSmart software suite for instant access to calendar, internet, notes, and multimedia content

Standard Features

Processors

Intel® 2nd Generation Core™ i7 Processors

Intel Core i7-2700K with Intel HD Graphics 3000 (3.50 GHz, 8M cache, 4 cores)

Intel Core i7-2600 with Intel HD Graphics 2000 (3.40 GHz, 8M cache, 4 cores)*

Intel® 2nd Generation Core™ i5 Processors

Intel® Core™ i5-2500 with Intel HD Graphics 2000 (3.30 GHz, 6 MB cache, 4 cores)

Intel® Core™ i5-2400 with Intel HD Graphics 2000 (3.10 GHz, 6 MB cache, 4 cores)*

Intel® Core™ i5-2300 with Intel HD Graphics 2000 (2.80 GHz, 6 MB cache, 4 cores)

Intel® 2nd Generation Core™ i3 Processors

Intel® Core™ i3-2120 with Intel HD Graphics 2000 (3.30 GHz, 3 MB cache, 2 cores)

Intel® Core™ i3-2100 with Intel HD Graphics 2000 (3.10 GHz, 3 MB cache, 2 cores)*

Intel® Pentium Processors

Intel® Pentium® G870 with Intel HD Graphics (3.10 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G860 with Intel HD Graphics (3.00 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G850 with Intel HD Graphics (2.90 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G840 with Intel HD Graphics (2.80 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G640 with Intel HD Graphics (2.80 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G630 with Intel HD Graphics (2.70 GHz, 3 MB cache, 2 cores)

Intel® Pentium® G620 with Intel HD Graphics (2.60 GHz, 3 MB cache, 2 cores)

Intel® Celeron Processors

Intel® Celeron® G550 with Intel HD Graphics (2.60 GHz, 2 MB cache, 2 cores)

Intel® Celeron® G540 with Intel HD Graphics (2.50 GHz, 2 MB cache, 2 cores)

Intel® Celeron® G530 with Intel HD Graphics (2.40 GHz, 2 MB cache, 2 cores)

Intel® Celeron® G460 with Intel HD Graphics (1.80 GHz, 1.5 MB cache, 1 core)

Intel® Celeron® G440 with Intel HD Graphics (1.60 GHz, 1 MB cache, 1 core)

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

Operating System

Preinstalled

Genuine Windows 7 Professional Edition 64*

Genuine Windows 7 Professional Edition 32*

FreeLnx

* System may require upgraded and/or separately purchased hardware and/or a DVD drive to install the Windows 7 software and take full advantage of Windows 7 functionality.

See <http://www.microsoft.com/windows/windows-7/> for details.

Chipset

Intel H67 chipset

Standard Features

Graphics

Integrated Intel HD Graphics
or
Optional ATI Radeon HD 5570 MXM discrete graphics card (1 GB video memory)
or
Optional NVIDIA GeForce GT 425M MXM discrete graphics card (1 GB video memory)

Display

23-inch diagonal widescreen WLED backlit BrightView LCD
Multi-touch panel

Resolution 1920 x 1080 resolution (16:9), Full HD (1080p)

Aspect ratio 16:9

Touch Panel accuracy USB reported touch resolution 32767 x 32767

Contrast ratio 1000:1

Image brightness 250 nits typical

Vertical viewing angle 178 degrees

Horizontal viewing angle 178 degrees

Adjustable Reclining Stand

Tilt angle -5° to +60° to the vertical plane

Fully reclined position 30° from horizontal

Memory

Standard Configurations PC3-10600 DDR3 non-ECC SDRAM (runs at 1333 MHz)
Four 204-pin SODIMM slots supporting dual channel memory
2 GB SODIMMs (up to 4 for 8 GB memory)
4 GB SODIMMs (up to 4 for 16 GB memory)

Maximum memory Upgradeable to up to 16 GB using four (4) 4 GB SODIMMs

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

NOTE: Full availability of 4 GB or more of memory requires a 64-bit operating system. With Windows 32-bit operating systems, the amount of usable memory is dependent upon your configuration, so that above 3 GB all memory may not be available due to system resource requirements.

Standard Features

Communications

Realtek 8111EDL Ethernet Connection	Integrated 10/100/1000 NIC*
HP 802.11 PCIe Minicard Wireless Module (optional)	Support for 802.11 b, g, and n Up to 300 mbps data rate Built-in dual antennas
Intel Centrino Advanced-N 6205 Wireless Network Interface Connection PCIe Minicard with Bluetooth Wireless Technology (optional)	Support for 802.11 a, b, g, and n Up to 300 mbps data rate Built-in dual antennas Bluetooth 3.0 compliant Works with a wide range of Bluetooth devices

* 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.

Keyboard

HP USB Low Profile Keyboard
HP Low Profile Wireless Keyboard
USB Smart Card (CCID) Keyboard
HP USB Keyboard with USB ports
HP Mini USB Keyboard

Pointing Device

HP USB Optical Scroll Mouse
HP USB Laser Mouse
HP USB PS/2 Washable Scroll Mouse

Storage

Hard Drive

3.5-inch, 7200 rpm, 6.0 Gb/s SATA Hard Drive:
250 GB
500 GB
750 GB
1 TB

2.5-inch Self Encrypting Drive:
320 GB

2.5-inch SATA Solid State Drive:
80 GB
120 GB
128 GB
160 GB
256 GB

Optical Drive

Slim Slot-load Blu-ray Writer

Write: 6x max BD-R (SL/DL), 2x max BD-RE (SL/DL), 8x max DVD±R SL, 6x max DVD±R DL, 8x max DVD+RW, 6x max DVD-RW, 5x max DVD-RAM, 24x max CD-R/RW
Read: 6x max BD-ROM/R/RE (SL/DL), 8x max DVD-ROM/±R SL, 6x max DVD-ROM/±R DL, 8x max DVD±RW, 5x max DVD-RAM, 24x max CD-ROM/R/RW

Standard Features

Data transfer rates up to 3,600 KB/s (CD read/write), 10,800 KB/s (DVD read/write) and 27,000 KB/s (BD read/write)
Data buffer: 4 MB max. 8cm disc: Not supported

Slim Slot-load Blu-ray Combo (Player/Burner)

Write: 8x max DVD±R SL, 4x max DVD±R DL, 8x max DVD+RW, 6x max DVD-RW, 5x max DVD-RAM, 24x max CD-R/RW
Read: 6x max BD-ROM/R SL, 4x max BD-ROM/R DL, 4x max BD-RE SL/DL, 8x max DVD-ROM/±R SL, 6x max DVD-ROM/±R DL, 8x max DVD±RW, 5x max DVD-RAM, 24x max CD-ROM/R/RW
Data transfer rates up to 3,600 KB/s (CD read/write), 10,800 KB/s (DVD read/write) and 27,000 KB/s (BD read)
Data buffer: 2 MB max. 8cm disc: Not supported

Slim Slot-load SuperMulti DVD Burner

Write: 8x max DVD±R SL, 6x max DVD±R DL, 8x max DVD+RW, 6x max DVD-RW, 5x max DVD-RAM, 24x max CD-R/RW
Read: 8x max DVD-ROM SL/DL, 8x max DVD±R SL, 6x max DVD±R DL, 6x max DVD±RW, 5x max DVD-RAM, 24x max CD-ROM/R/RW
Data transfer rates up to 3,600 KB/s (CD read/write) and 10,800 KB/s (DVD read/write)
Data buffer: 1 MB max. 8cm disc: Not supported

6-in-1 Media Card Reader

Supports Secure Digital (SD, SDHC), MultiMediaCard, xPicture Card, Memory Stick, Memory Stick Pro

Interfaces

DisplayPort 1.2	One (supports video and audio)
USB 2.0	Seven (2 side, 4 rear, 1 bottom rear for optional wireless keyboard/mouse receiver)
Microphone in	One
Headphone jack	One
Audio line out	One
Power connector	One
RJ-45/Ethernet	One
IR Emitter (Blaster) out	One (with TV tuner option only)
TV Coax connector	One (with TV tuner option only)

Standard Features

Audio/Visual

High Definition Audio support - 16 & 24-bit PCM
Integrated high-performance 2.0 speakers (4W X 2) with Sonic Focus audio post-processing software
Integrated dual-microphone array
Volume control and mute buttons
Stereo headphone jack
Microphone in
Stereo line out
Microsoft Lync certification pending
Vidyo Telepresence certified

Integrated adjustable 2 MP webcam
Up to 30 frames/sec

TV Tuners (configurable)
Hybrid ATSC/NTSC, Clear QAM, Over the Air TV Tuner, HW encoded

Software

Preinstalled software (varies by country)

HP Power Assistant
Corel WinDVD
Corel Paint It! For TouchSmart
Roxio Creator Business
Roxio Cinema Now for TouchSmart
HP Connect Solutions
HP Setup Manager
HP TouchSmart Browser
HP TouchSmart Calendar
HP TouchSmart Canvas
HP TouchSmart Clock
HP TouchSmart DVD
HP TouchSmart Hulu
HP TouchSmart Live TV
HP TouchSmart Music
HP TouchSmart Video
HP Touch Smart Photo
HP TouchSmart Netflix
HP TouchSmart Notes
HP TouchSmart RSS Reader
HP TouchSmart Symphony
HP TouchSmart Twitter
HP TouchSmart Weather
HP TouchSmart Webcam
PDF Complete
Norton Internet Security 2011*
Microsoft Office 2010 Preloaded (purchase of a Product Key required to activate a full Office 2010 suite)**

* 60 day trial period for Norton Internet Security 2011 software. Internet access required to receive updates. First update included. Subscription required for updates thereafter.

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

Standard Features

HP Power Assistant	Provides real-time reporting of how system settings impact the energy consumed by the PC and the potential savings over time.
SMBIOS	System Management BIOS, previously known as DMI BIOS, is used to store system management information.
Security	Kensington lock slot Rear port security cover
Power Supply	External 180 watt power supply, 90% efficient, active PFC (when configured with Intel Celeron, Pentium or Core i3 processors) External 230 watt power supply, 90% efficient, active PFC (when configured with Intel Core i5 or Core i7 processors)
Service and Support	<p>On-site Warranty^{Note 1}: One-year (1-1-1) limited warranty delivers one year of on-site, next business-day^{Note 2} service for parts and labor and includes free telephone support^{Note 3} 24 x 7. One-year onsite and labor are not available in all countries. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: http://www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at: http://www.hp.com/hps/carepack.</p> <p>NOTE 1: Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.</p> <p>NOTE 2: On-site service may be provided pursuant to a service contract between HP and an authorized HP third-party provider, and is not available in certain countries. Global service response times are based on commercially reasonable best effort and may vary by country.</p> <p>NOTE 3: Technical telephone support applies only to HP-configured Compaq and third-party HP-qualified hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.</p>

Options

Memory	HP 2GB DDR3-1333 (PC3-10600) SODIMM	VH640AA
	HP 4GB DDR3-1333 (PC3-10600) SODIMM	VH641AA
Memory	HP USB Graphics Adapter	NL571AA
	HP DisplayPort To DVI-D Adapter	FH973AA
	HP DisplayPort To VGA Adapter	AS615AA
	HP DisplayPort To HDMI Adapter	BP937AA
Input Devices	HP 2.4-GHz Wireless Keyboard and Mouse	NB896AA#xxx
	HP USB 2-Button Optical Scroll Mouse	DC172B
	HP USB 2-Button Laser Mouse	GW405AA
	HP USB Standard Keyboard	DT528A#xxx
Security	HP Keyed Cable Lock	BV411AA
Miscellaneous	Thin USB Powered Speakers	KK912AA

Technical Specifications

System Unit	Dimensions (HxWxD)	With stand: 17.7 in x 23.0 in x 4.1 in 450.1 mm x 584.5 mm x 103 mm
		Without stand, with VESA adapter for wall mount: 16.0 in x 23.0 in x 3.8 in 405.2 mm x 584.5 mm x 96 mm
	Weight	With stand: Integrated graphics: 26.0 lb (11.8 kg) Discrete graphics: 26.7 lb (12.1 kg)
		Without stand, with VESA adapter for wall mount: Integrated graphics: 19.2 lb (8.7 kg) Discrete graphics: 20.0 lb (9.05 kg)
	Shipping Carton Dimensions (HxLxW)	21.5 in x 26.8 in x 12.6 in 545 mm x 680 mm x 320 mm
	Shipping Carton Weight	36.4 lb (16.5 kg)
	Stand-Alone Power Requirements	Average Operating Power Integrated graphics: TBD W Discrete graphics: TBD W
		Max Operating Power Integrated graphics: < 230 W Discrete graphics: < 180 W
	Temperature	Operating 41° to 95° F (5° to 35° C)
		Non-operating -22° to 149° F (-30° to 65° C)
	Relative Humidity	Operating 15% to 80% @ 26° C
	Altitude (unpressurized)	Operating 0 to 6,562 ft (0 to 2000 m)
		Non-operating 0 to 15,000 ft (0 to 4,572 m)
	Industry Standard Certifications	UL Yes
		CSA Yes
		FCC Compliance Yes
		ENERGY STAR® Yes
		EPEAT Silver

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

Technical Specifications

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

- US Energy Star[®]
- IT ECO declaration
- EPEAT Silver where HP registers commercial desktop products. See <http://www.epeat.net> for registration status in your country.

System Configuration The configuration used for the Energy Consumption and Declared Noise Emissions data for the Ultra-slim Desktop model is based on a typically configured product

Energy Consumption	115 VAC	230 VAC	100 VAC
Normal Operation	32.61 W	32.71 W	32.54 W
Sleep (Energy Star low power mode)	2.33 W	1.83 W	1.93 W
Off	1.37 W	0.75 W	0.13 W

NOTE:

Energy efficiency data listed is for an ENERGY STAR[®] compliant product if offered within the model family. HP computers marked with the ENERGY STAR[®] Logo are compliant with the applicable U.S. Environmental Protection Agency (EPA) ENERGY STAR[®] specifications for computers. If a model family does not offer ENERGY STAR[®] compliant configurations, then energy efficiency data listed is for a typically configured model.

Heat Dissipation*	115 VAC	230 VAC	100 VAC
Normal Operation	112 BTU/hr	112 BTU/hr	111 BTU/hr
Sleep	8 BTU/hr	6 BTU/hr	7 BTU/hr
Off	5 BTU/hr	3 BTU/hr	1 BTU/hr

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

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

(Typically Configured)	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	3.57	21.7
Fixed Disk (random writes)	4.11	27.4

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

Batteries used in the product do not contain:

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

Battery size: CR2032 (coin cell)

Battery type: Lithium

Additional information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.

Technical Specifications

- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the Silver level where HP registers commercial desktop products. See <http://www.epeat.net> for registration status in your country.
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 0% post consumer recycled plastic (by wt.)
- This product is 97% recyclable when properly disposed of at end of life.

Packaging Materials

- External:
 - Paper / Cardboard 3580 g
- Internal:
 - EPE-Expanded Polyethylene 223 g
- The Paper / Cardboard packaging materials contains at least 80% recycled content..
- The EPE-Expanded Polyethylene packaging materials contains at least 8.4% recycled content.

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

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

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

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

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

Technical Specifications

- 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.

End-of-life Management and Recycling

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

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

Hewlett-Packard Corporate Environmental Information

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

Global Citizenship Report

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

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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