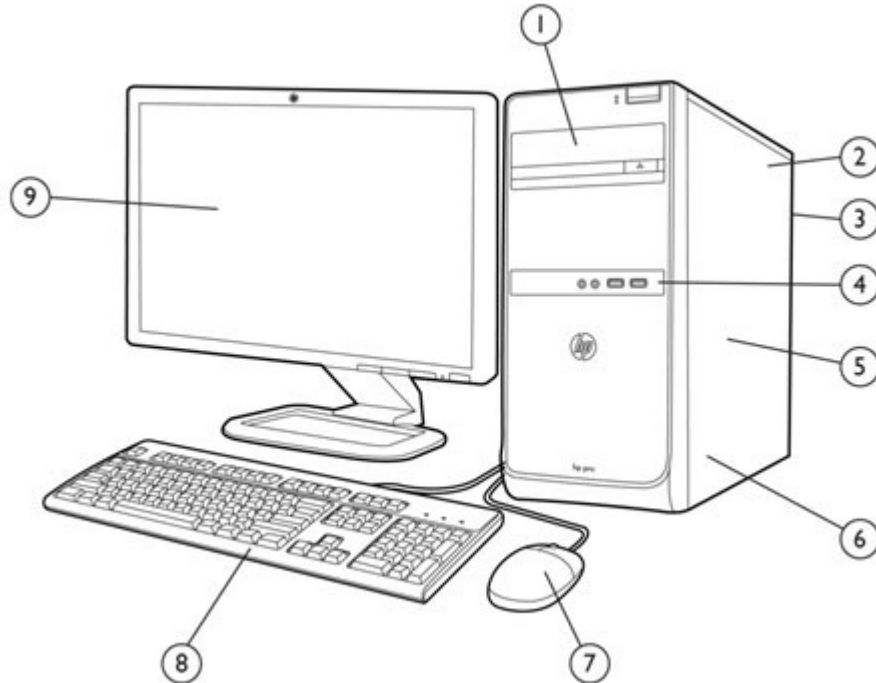


### Overview

### HP PRO 3500 MICROTOWER BUSINESS PC



1. (1) external 5.25" drive bay
2. 300 W power supply
3. Rear I/O includes: (4) USB 2.0 ports, RJ-45 Ethernet Port, DVI-D and VGA video ports, audio in/out jacks (5.1 channel audio out)
4. Front I/O includes: (2) USB 2.0 ports, dedicated headphone port, microphone jack
5. (1) internal 3.5" hard drive bay
6. (3) PCIe x1 slots, (1) PCIe x16 slot, (1) MiniPCIe slot
7. USB Scroll Mouse
8. HP USB Standard Value Keyboard
9. HP Monitor (sold separately)

### Overview

#### At A Glance

- Windows 8 Pro (64-bit), Windows 8 (64-bit), Windows® 7 Professional Edition (32- and 64-bit), FreeDOS, Freelnx
- Choice of 3rd Generation Intel Core i5 and i7 or 2nd Generation Intel Core i3, Intel® Pentium, Intel Celeron® processors
- Choice of integrated graphics: Intel HD Graphics, Intel HD 2000/2500/4000 Graphics Intel H61 Express Chipset
- Up to 8 GB DDR3 1600 MHz SDRAM (running at 1333 MHz) system memory available standard (depending on model)
- Up to 1 TB 6.0 Gb/s SATA hard drive
- SuperMulti DVD+/-RW Drive or DVD ROM Drive
- Integrated Realtek RTL8171E Gigabit Ethernet Controller
- (6) USB 2.0 ports, including (2) Front, (4) rear
- DVI-D and VGA video ports support independent dual displays
- HP Wireless NIC 802.11b/g/n MiniPCIe Card (1x1) (optional)
- 5.1 audio channels
- Protected by HP Services. Terms and conditions vary by country. Certain restrictions and exclusions apply.

### Standard Features and Configurable Modules

#### OPERATING SYSTEMS

##### Preinstalled

Windows 8 Pro (64-bit)\*

Windows 8 (64-bit)\*

Windows® 7 Professional (32-bit or 64-bit)\*\*

FreeDOS 2.0

FreeLnx

\*Not all features are available in all editions of Windows 8. Systems may require upgraded and/or separately purchased hardware, drivers and/or software <http://www.microsoft.com/windows/windows-7/> for details. to take full advantage of Windows 8 functionality. See <http://www.microsoft.com>.

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

\*\*\* Restrictions exist for this operating system. It is not available in some countries and is not compatible with some CPUs. Please check for availability.

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#### PROCESSOR

##### Intel® 3rd Generation Core™ i7 Processors

Intel® Core™ i7-3770 with Intel HD Graphics 4000 (3.40 GHz, 8 MB cache, 4 cores)  
8 threads. Intel Stable Image Platform Program (SIPP)

##### Intel® 3rd Generation Core™ i5 Processors

Intel® Core™ i5-3470 with Intel HD Graphics 2500 (3.20 GHz, 6 MB cache, 4 cores)  
4 threads. Intel Stable Image Platform Program (SIPP)

##### Intel® 2nd Generation Core™ i3 Processors

Intel® Core™ i3-2130 with Intel HD Graphics 2000 (3.40 GHz, 3 MB cache, 2 cores)  
4 threads

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

##### Intel® Pentium® Processors

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

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

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

##### Intel® Celeron® Processors

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

### Standard Features and Configurable Modules

#### CHIPSET

Intel® H61 Express<sup>1</sup>

<sup>1</sup> Intel H61 Express chipset supports up to four Serial ATA (SATA) ports (3 Gb/s).

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#### GRAPHICS

**Integrated (depends on processor)**

Intel HD Graphics: Basic, 2000, 2500, 4000

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#### STORAGE

##### SATA Hard Drive

250 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

500 GB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

1 TB, 7200 rpm, SATA 6.0 Gb/s, SMART IV, 3.5"

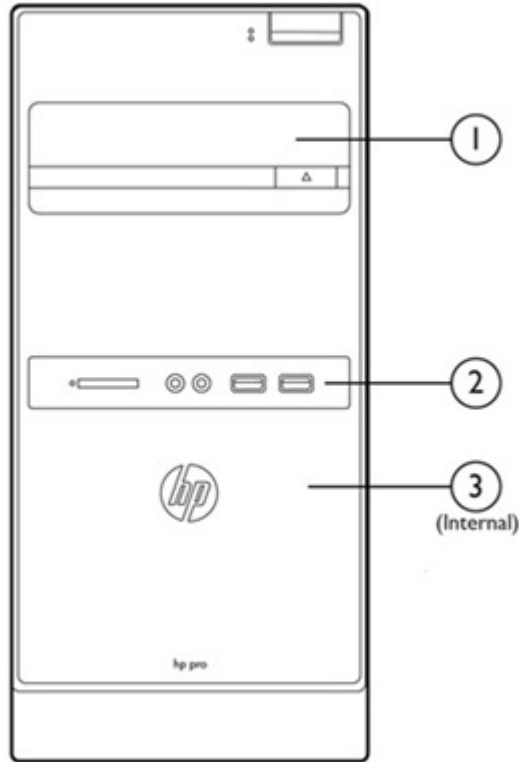
##### Optical Disc Drive

SATA DVD-ROM

SATA SuperMulti DVD+/-RW

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### Standard Features and Configurable Modules



#### DRIVE SUPPORT

	Maximum Quantity Supported	Position Supported	Controller
SuperMulti DVD Drive	1	1	SATA
3.5" SATA Hard Drive	1	2	SATA

#### MEMORY

##### Type

Non-ECC, DDR3 1600 MHz SDRAM UDIMM

**NOTE:** Memory will run at 1333 MHz due to processor/chipset limitations

##### Maximum

8 GB

##### # of Slots

2 DIMM

**NOTE:** For systems configured with more than 3 GB of memory and a 32-bit operating system, all memory may not be available due to system resource requirements. Addressing memory above 4 GB requires a 64-bit operating system.

### Standard Features and Configurable Modules

#### NETWORKING/COMMUNICATIONS

##### Ethernet (RJ-45)

Realtek RTL8171E Gigabit Ethernet Controller (standard)

##### Wireless

802.11b/g/n Mini Card (optional)

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#### AUDIO/MULTIMEDIA

Realtek ALC656

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#### KEYBOARDS AND POINTING DEVICES

##### Keyboard

HP USB Value Keyboard

##### Mice

HP USB Optical Mouse

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#### SECURITY

HP Business PC Security Lock Kit (optional)

HP Keyed Cable Lock Kit (optional)

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#### SOFTWARE

**Preinstalled** (varies by country, list below with Windows 8, certain items not included with other operating systems)  
(Buy Office)

##### Browser and Toolbars

- Internet Explorer 10
- Norton Toolbar

##### Security and Protection

- HP Client Security

##### Productivity

- Buy Office

Optical Disc Drive Playback and TV Tuners

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### Standard Features and Configurable Modules

- CyberLink PowerDVD
- Avermedia TV app
- Hauppauge TV app

#### Windows® Live™

- Movie Maker
- Writer
- Photo Gallery

#### Windows 8 applications

- Mail
- Calendar
- People
- SkyDrive
- Photos
- Messaging

#### Photos and Videos

- CyberLink YouCam
- CyberLink Media Suite
- CyberLink Power2Go
- CyberLink Label Print

#### A/V Integration

- HP Connected Remote

#### Audio Post Processing

- Beats Audio™

#### Games

- HP Games by WildTangent

#### Communication

- Broadband connection utility
- HP MyRoom

#### Utilities and Support

- HP Online User Guide
  - HP Recovery Manager
  - HP Support Assistant
  - HP MyDisplay
  - HP ePrint (driver)
-

### Standard Features and Configurable Modules

#### POWER

**Power Supply**

300 W, active PFC

300 W, regular

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#### PORTS

**I/O Ports - Standard**

6 - USB 2.0 (2 front, 4 rear)

1 - RJ-45 (rear)

1 - DVI-D (rear)

1 - VGA (rear)

1 - Headphone (front)

1 - Microphone (front)

1 - Audio-in (rear)

1 - Audio out (rear)

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#### BAYS

1 -- 5.25" external

1 -- 3.5" internal

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#### SLOTS

1 - PCIe x16

3 - PCIe x1

1 - miniPCIe

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#### FORM FACTOR AVAILABLE

**Form Factor**

Microtower

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### Standard Features and Configurable Modules

#### SERVICE AND SUPPORT

On-site Warranty<sup>Note 1</sup>: 1-1-1, limited warranty delivers on-site, next business-day<sup>Note 2</sup> service for parts and labor and includes free telephone support<sup>Note 3</sup> 24 x 7. Global coverage<sup>Note 2</sup> ensures that any product purchased in one country and transferred to another non-restricted country will remain fully covered under the original warranty and service offering. One-year onsite and labor are not available in all countries.

**NOTE 1:** Terms and conditions may vary by country. Certain restrictions and exclusions apply. Other warranty variations may be offered in your region.

**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.

**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.

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After-Market Options (availability may vary by region)

### Monitors

### Part Number

HP LV1911 18.5-inch LED Backlit LCD Monitor

A5V72AA

HP LV2011 20-inch LED Backlit LCD Monitor

A3R82AA

HP LV2311 23-inch LED Backlit LCD Monitor

A6B85AA

### System Unit Specifications and Environmental Data

#### SYSTEM UNIT

<b>Dimensions (WxDxH)</b>	6.50 x 15.31 x 14.49 in 16.5 x 38.9 x 36.8 cm
<b>Weight</b>	15.28 lbs to 15.83 lbs (approximate) 6.932 kg to 7.18 kg (approximate)
<b>Packaging Dimensions (LxWxH)</b>	19.52 x 9.45 x 20.39 in 496x 240 x 518 mm
<b>Shipping Weight</b>	1.94 lb ~22.49 lb 9.952 kg ~10.2 kg
<b>Temperature</b>	Operating 32° to 104° F (0 to 40° C) Non-operating -22° to 149° F (-30° to 65° C)
<b>Relative Humidity</b>	Operating 10% to 90% (non-condensing at ambient) Non-operating 5% to 95% (non-condensing at ambient)
<b>Shock</b>	Operating 40 G, half-sine Non-operating 35G, T-Shock, 165 cm/sec half sine, 2-3 ms
<b>Maximum Altitude (unpressurized)</b>	Operating 10,000 ft (3048 m) Non-operating 30,000 ft (9144 m)
<b>Environmental</b>	TAA Compliant Yes

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

#### INTEL HD GRAPHICS

<b>VGA Controller</b>	Integrated
<b>DVI-D</b>	Integrated
<b>Bus Type</b>	PCI Express x16
<b>RAMDAC</b>	Integrated, 350 MHz

**Memory** Intel graphics do not have dedicated memory but utilizes some of the computer's system memory. The amount of memory used for graphics depends on the amount of system memory installed, BIOS settings, operating system, and system load. 32 MB is pre-allocated for graphics use at system boot time. Additional memory can be allocated at boot time by the BIOS for PAVP (Protected Audio Video Playback) support for playback of protected video content.

Additional memory is allocated for graphics as needed using Intel's Dynamic Video Memory Technology (DVMT), to provide an optimal balance between graphics and system memory use.

<b>Maximum Graphics Memory</b>	Microsoft Windows XP Up to 1GB	Microsoft Windows 7 Up to 1.7GB
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**NOTE:** the actual amount of maximum graphics memory can be less than the amounts listed above depending upon your computer's configuration.

**HW Video Decode** AVC/VC1/MPEG2/JPEG/MJPEG/PAVP

**Maximum Color Depth** 32 bits/pixel

3rd Generation Core processors:

### System Unit Specifications and Environmental Data

- The Processor Graphics contains a refresh of the seventh generation graphics core enabling substantial gains in performance and lower power consumption. Up to 16 EU support.
- Next Generation Intel Clear Video Technology HD Support is a collection of video playback and enhancement features that improve the end user's viewing experience
  - Encode/transcode HD content
  - Playback of high definition content including Blu-ray Disc
  - Superior image quality with sharper, more colorful images
  - Playback of Blu-ray disc S3D content using HDMI (V.1.4 with 3D)
- DirectX Video Acceleration (DXVA) support for accelerating video processing
  - Full AVC/VC1/MPEG2 HW Decode
- Advanced Scheduler 2.0, 1.0, XPDM support
- Windows 7, Windows XP, OSX, Linux OS Support
- DirectX 11, DirectX 10.1, DirectX 10, DirectX 9 support
- OpenGL 3.3 support

### Graphics/Video API Support

#### 2nd Generation Core processors:

- The Processor Graphics contains a refresh of the sixth generation graphics core enabling substantial gains in performance and lower power consumption.
- Next Generation Intel Clear Video Technology HD support is a collection of video playback and enhancement features that improve the end user's viewing experience.
  - Encode/transcode HD content
  - Playback of high definition content including Blu-ray Disc
  - Superior image quality with sharper, more colorful images
  - Playback of Blu-ray disc S3D content using HDMI (V.1.4 with 3D)
- DirectX Video Acceleration (DXVA) support for accelerating video processing
  - Full AVC/VC1/MPEG2 HW Decode
- Advanced Scheduler 2.0, 1.0, XPDM support
- Windows 7, XP, Windows Vista, OSX, Linux OS Support
- DirectX 10.1, DirectX 10, DirectX 9 support
- OpenGL 3.0 support

#### **Supported Display Resolutions and Refresh Rates**

**NOTE:** other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

<b>Resolution</b>	<b>Analog</b>	<b>Digital</b>
640x480	85	60
800x600	85	60
1024x768	85	60
1280x720	85	60
1280x1024	85	60
1440x900	75	60
1600x1200	85	60
1680x1050	75	60
1920x1080	85	60-R
1920x1200	85	60-R
1920x1440	85	N/A
2048x1536	75	N/A

### System Unit Specifications and Environmental Data

2560x1600

N/A

60\*

**NOTE:** Other resolutions may be available but are not recommended as they may not have been tested and qualified by HP

**NOTE:** 60-R denotes reduced blanking timings are used on single-link DVI connections and may be used with other digital connections

## ENVIRONMENTAL INFORMATION

### Unit Environment and Operating Conditions

#### General Unit Operating Guidelines

- Keep the computer away from excessive moisture, direct moisture and the extremes of heat and cold, to ensure that unit is operated within the specified operating range.
- Leave a 4 in (10.2 cm) clearance on all vented sides of the computer to permit the required airflow.
- Never restrict airflow into the computer by blocking any vents or air intakes.
- Do not stack computers on top of each other or place computers so near each other that they are subject to each other's re-circulated or preheated air.
- Occasionally clean the air vents on the front, back, and any other vented side of the computer. Lint, dust and other foreign matter can block the vents and limit the airflow.

If the computer is to be operated within a separate enclosure, intake and exhaust ventilation must be provided on the enclosure, and the same operating guidelines listed above will still apply.

### 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:

[IT ECO declaration](#) This product conforms to the examination standards (2003 version) under JEITA's Label System.

### System Configuration

The configuration used for the Energy Consumption and Declared Noise Emissions data for the Microtower model is based on a typically configured product

### Energy Consumption

Normal Operation	55.63 W
Sleep (low power mode)	1.80W
Off	0.90 W

### Heat Dissipation\*

Normal Operation	189.9BTU/Hr
Sleep	6.0BTU/Hr
Off	3.07BTU/Hr

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

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

#### System Fan on with active graphic card

	Sound Power (LWAd, bels)	Sound Pressure (LpAm, decibels)
Idle	4.1	30
HDD random seek	4.4	32

### Batteries

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

- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- 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 at least 65% recyclable when properly disposed of at end of life.

### System Unit Specifications and Environmental Data

#### Packaging Materials

- External: (Carton)
  - 1145g
- Internal: (Cushion)
  - 192g
- Internal: (Bag for Chassis)
  - 35g
- Internal: (Accessory Bag)
  - 19g
- Internal: (Insert)
  - 39g

#### **RoHS2 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](http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html))

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)
- Nickel finishes that release greater than 0.5 micro-grams/cm<sup>2</sup>/week, measured according to EN 1811:1998, are not used on any product surface designed to be frequently handled or touched by users.

#### **Packaging**

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.

### System Unit Specifications and Environmental Data

- 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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June 2012