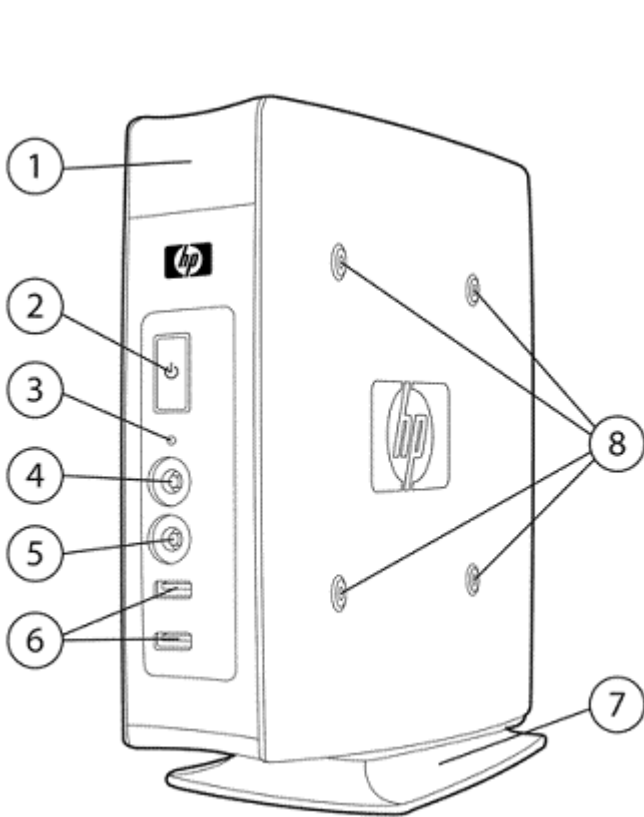


### Overview

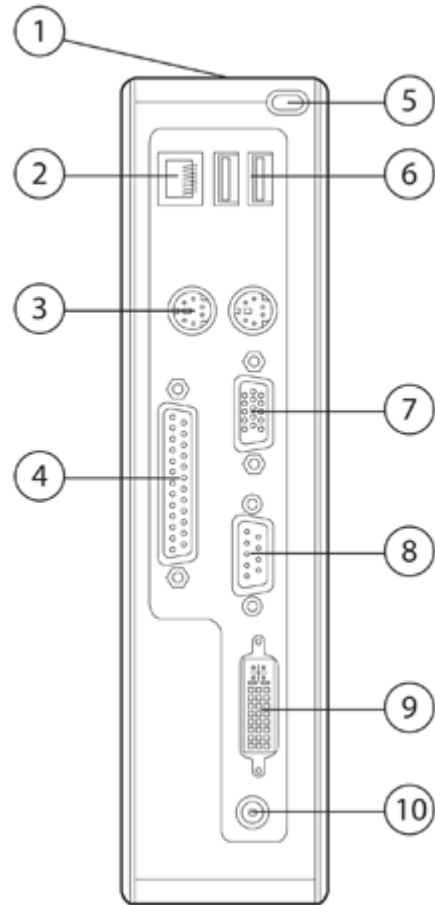
### Introduction

The HP t5540 Thin Client delivers a great desktop experience for general office applications or your specific line of business software. This unit's enhanced features make it ideal for mainstream business use, with support for legacy ports, ICA, RDP, terminal emulation, Windows Media Player, Internet Explorer and viewers for Microsoft Office 2003 Excel, Powerpoint, and Word. The t5540 is designed for more secure, convenient access to traditional Terminal Services, Citrix solutions, VMware solutions, and HP Blade Workstations. Easy Update and Easy Config utilities make setup a snap.



Front

1. Secure USB compartment (2 USB connectors)
2. Power button with LED
3. Flash storage activity indicator
4. Audio connector (mic in)
5. Audio connector (headphone out)
6. USB connectors (2)
7. Vertical stand (removable)
8. VESA mounting points (4)  
(standard in Germany only; available as an option in other countries)



Back

1. Cable lock slot
2. 10/100/1000 Ethernet RJ-45 connector
3. PS/2 connectors (2)
4. Parallel port
5. Cable management feature
6. USB connectors (2)
7. VGA connector
8. Serial port
9. DVI-D connector
10. +12V DC power input

## Overview

### At A Glance

- Microsoft® Windows® Embedded CE 6.0 R3 operating system
- VIA Eden 1 GHz processor for great performance
- 512 MB System memory (64 MB reserved for video)
- 128 MB Flash memory
- Includes one parallel, one serial, two PS/2, and six USB 2.0 ports (two in back, two in front, and two in secure USB compartment – great for safeguarding USB wireless and Flash devices)
- MIC in and Audio out ports in front
- Built in dual monitor support (VGA and DVI-D native)
- ENERGY STAR® qualified
- HP Easy Update makes it quick and easy to identify and choose the latest image and add-on settings helping get up, running and productive faster than ever before.
- HP Easy Config Utility makes it easier to configure as a VMware View, Citrix XenDesktop, or web appliance.
- HP Device Manager lets you remotely manage client devices from a central location
- HP's alliance with Altiris brings a leading management solution to the thin client market. Altiris Deployment Solution's standards-based, advanced thin client management solution helps reduce the costs of deploying, updating, and maintaining your thin clients. A free client license is included with each HP thin client.
- Exclusive HP ThinState Tools offers in-box, easy-to-use image deployment and recovery tools
- Support for HP Client Automation for quick and easy deployment of images and thin client management. HP Client Automation Starter Edition is available as a free download. For more details visit: [www.hp.com](http://www.hp.com).
- HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts which go beyond your standard warranties. For more details visit: [www.hp.com/go/lookuptool](http://www.hp.com/go/lookuptool).



## Models

VA213AA #ABA	Model Name	HP t5540 Thin Client
VA213AT#ABA (SmartBuy or Promo)	Processor	VIA Eden 1 GHz
	Flash	128 MB
	System Memory	512 MB (64 MB reserved for video)
FS436AA#ABA (TAA compliant) <sup>1</sup>	Operating System	Microsoft Windows Embedded CE 6.0 R3
	Keyboard	Keyboard (USB or PS/2) varies by region
	Mouse	Mouse (USB or PS/2) varies by region

<sup>1</sup> Product complies with U.S. Trade Agreement (TAA). Available in U.S. only.



## Options

		Part Number
Accessories	<b>NOTE:</b> Options are available as separate purchase <sup>1</sup>	
	HP Quick Release Kit	EM870AA
	HP Quick Release/VESA Panels Kit	FV248AA
	HP Integrated Work Center Stand	GN783AA
	50 Watt External Power Supply	FJ851AA#ABA
Third-party Communications	Belkin Wireless G USB Adapter <sup>2,3</sup> (Security: WEP, WPA & WPA2 only) (North America, Singapore, Hong Kong, Malaysia, Philippines, India, Korea, China, Taiwan, Australia, New Zealand)	Belkin part number: HP4050
	<b>NOTE:</b> Supported under Windows CE 5.0 only, will not work with Windows CE 6 To order, visit <a href="http://www.belkin.com">www.belkin.com</a> , search for HP4050, and order online	
	Belkin Wireless G USB Adapter <sup>2,3</sup> (Security: WEP, WPA & WPA2 only) (Germany, Netherlands, Spain, Italy, France, Poland, Hungary, Czech, Russia, Bulgaria, Romania, United Kingdom, Sweden/Scandinavia)	Belkin part number: HP4050ea
	<b>NOTE:</b> Supported under Windows CE 5.0 only, will not work with Windows CE 6 To order, visit <a href="http://www.belkin.com">www.belkin.com</a> , search for HP4050ea, and order online	
	HP Neoware NA USB Wireless Adapter <sup>3</sup> (US only; not certified for use in Latin America or Canada) Security: WEP except 256-bit, WPA & WPA2 only	AK256AA
	<b>NOTE:</b> Supported under Windows CE 6 only	
	HP Neoware EMEA USB Wireless Adapter <sup>3</sup> (EMEA and Taiwan; not certified for use in Russia or Belarus) Security: WEP except 256-bit, WPA & WPA2 only	AK257AA
	<b>NOTE:</b> Supported under Windows CE 6 only	
Touch Screens	ELO Touch 1529L Flat Panel <sup>2</sup>	E926109
	HP L5006tm LCD Touchscreen (available in selected countries)	RB146AA
Security	HP USB Smartcard Keyboard	ED707AA
	SCM USB Smart Card Reader SCR331 <sup>2</sup>	904622
	HP/Kensington Cable Lock	PC766A
Input Devices	HP PS/2 Standard Keyboard	DT527A#ABA
	HP USB Standard Keyboard	DT528A#ABA
	HP USB Smartcard Keyboard	ED707AA#ABA
	HP PS/2 2-Button Scroll Mouse	DD440B
	HP PS/2 2-Button Optical Scroll Mouse	EY703AA
	HP USB 2-Button Optical Scroll Mouse	DC172B
Storage	External USB 2.0 Multibay II Cradle	PA509A
	Multibay II DVD Drive (Does not support DVD play back)	PA849A



## Options

Care Pack Services<sup>4</sup>      9x5 Next-Business-Day Advanced Exchange – 3 Years  
                                 9x5 Next-Business-Day On-Site Coverage – 3 Years

<sup>1</sup> The warranties for HP branded products are set forth in the express limited warranty statements accompanying such products. Although third-party products may work effectively on HP thin clients, these third-party products are provided "AS IS." HP does not support or warrant third-party products, including the interoperability of such products with HP thin clients. However, third-party manufacturers and vendors may provide their own warranties and support directly to you. Please contact the manufacturers or vendors for hardware or software support on their products.

<sup>2</sup> This is a third party product. Product, warranty and support available directly from third party vendor.

<sup>3</sup> Wireless access point and Internet service sold separately. Roaming not supported. See Administrator's Guide for supported wireless features. Not certified or available in Asia-Pacific/Japan.

<sup>4</sup> Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Service starts from date of hardware purchase. Restrictions and limitations apply. HP Care Pack Services extend service contracts beyond the standard warranties. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at: [www.hp.com/go/lookuptool](http://www.hp.com/go/lookuptool). Additional HP Care Pack Services information by product is available at: [www.hp.com/hps/carepack](http://www.hp.com/hps/carepack).



## Technical Specifications

<b>Processor</b>	VIA Eden 1 GHz		
<b>Chipsets</b>	VIA VX800 north/south bridge unified chip		
<b>Memory</b>	<b>Flash</b>	128 MB	
	<b>System Memory</b>	512 MB (64 MB reserved for video)	
<b>Graphics</b>	VIAChrome9 HC3 Integrated Graphics Processor		
	<b>NOTE:</b> The resolutions your monitor displays and the multi-display modes (i.e., clone, spanning, extended/independent) supported in ICA, RDP or locally may vary. The graphics controller supports these resolutions:		
	<b>Resolutions</b>	<b>Refresh Rates</b>	<b>Color Depth</b>
	800 x 480	60 Hz	16, 32
	800 x 600	60, 75, 85 Hz	16, 32
	1024x768	60, 75, 85 Hz	16, 32
	1280x720	60 Hz	16, 32
	1280x768	60 Hz	16, 32
	1280x1024	60, 75, 85 Hz	16, 32
	1360x768	60 Hz	16, 32
	1400x1050	60 Hz	16, 32
	1440x900	60 Hz	16, 32
	1600x1200	60, 75, 85 Hz	16
	1600x1200	60 Hz	32
	1680x1050	60, 75, 85 Hz	16, 32
	1920x1200	60 Hz	16, 32
	1920x1440	60 Hz	16, 32
<b>Input/Output/ Peripheral Support</b>	<b>Keyboard</b>	Keyboard (USB or PS/2) varies by region	
	<b>Mouse</b>	Mouse (USB or PS/2) varies by region	
	<b>Printer</b>	Local and/or network printers (RDP, ICA, LPD) JetCET Print Professional and ThinPrint .print TCP client are included	
	<b>Video</b>	VGA-type video output (DB-15) DVI-D digital video output	
<b>Audio</b>	<b>Output</b>	Internal amplified speaker, 1/8-inch mini-jack, 24-bit stereo, 192-kHz sample rate	
	<b>Input</b>	1/8-inch microphone mini-jack, 20-bit stereo, 96-kHz sample rate	
<b>Hardware Security</b>	Security lock slot (cable lock sold separately) Secure USB compartment with 2 USB ports		
<b>Server Based Computing Protocols</b>	Citrix ICA Microsoft RDP		
<b>Networking</b>	10/100/1000 Ethernet (RJ-45)		
	TCP/IP with Dynamic DNS and DHCP support		
	Direct connection via RS-232, Point-to-Point Protocol (PPP), Point-to-Point over Ethernet (PPPoE) VPN connection via MS Point-to-Point Tunneling Protocol (PPTP), Layer-2 Tunneling Protocol (L2TP)		
	Simple Network Time Protocol (SNTP)		



### Technical Specifications

	DHCP with FTP option for automatic updates												
	Microsoft SMB (Server Message Block) for deploying image from a PC that has been defined as a shared resource (No need to set up FTP Server, if this option is used)												
	Wake on LAN												
	PXE												
<b>I/O ports and connectors</b>	6 USB 2.0 ports, 1 serial, 1 parallel, 2 PS/2, 1 RJ45, 1 VGA, 1 DVI-D, 1 headphone, 1 microphone												
<b>Resident Operating System</b>	Microsoft Windows CE 6.0 R3												
<b>OS Languages</b>	English												
<b>Server OS Compatibility/Support</b>	Citrix Presentation Server (up to 4.5) Windows 2000/2003 Server families Windows 2008 Server Windows 2000/2003 Server Terminal Services Windows 2000 Advanced Server, Windows 2000 Advance Server Terminal Services VMware Virtual Desktop Infrastructure using RDP												
<b>Session Allocation Managers/Session Brokers</b>	Citrix XenDesktop DDC Broker VMware View 4.0 client (broker) VMware View Manager 3.x client (broker) VMware VDM 2.1 client (broker) Leostream Desktop Connection Broker												
<b>Software Included</b>	Microsoft Windows CE 6.0 R3 operating system Citrix ICA 10.x and Microsoft RDP 6.0 Microsoft Internet Explorer 6.0 for Windows CE Microsoft Windows Media Player 9.0 for Windows CE Viewers for Microsoft Office 2003: Excel, Powerpoint, and Word HP Device Manager 4.0 Agent Altiris Deployment Solution (full client license). Altiris Deployment Solution (management console) available as free download from Altiris at: <a href="http://www.altiris.com/hptc">www.altiris.com/hptc</a> HP Easy Update Utility for image and add-on update and installation HP Easy Config Utility for Citrix, VMWare, and web appliance configuration HP ThinState for image capture and redeploy HP ThinConnect Connection Manager HP Client Automation. For details visit: <a href="http://www.hp.com">www.hp.com</a> TeemTalk Terminal Emulation Suite VNC for remote control JetCET Print Professional Thinprint .print TCP client Txdpad See <a href="http://www.hp.com/support">www.hp.com/support</a> for list of available add-ons												
<b>Emulations</b>	TeemTalk Terminal Emulator supports these emulations. SSH is supported in terminal emulation mode allowing users to secure their connections to the host.												
	<table><thead><tr><th>Emulation</th><th>Terminal ID</th></tr></thead><tbody><tr><td>ADDS Viewpoint A2</td><td>ADDS-A2</td></tr><tr><td>AIXTerm</td><td>aixterm</td></tr><tr><td>ANSI BBS</td><td>ansi</td></tr><tr><td>AT&amp;T AT 386</td><td>at386-m</td></tr><tr><td>AT&amp;T Dataspeed 4410</td><td>att4410</td></tr></tbody></table>	Emulation	Terminal ID	ADDS Viewpoint A2	ADDS-A2	AIXTerm	aixterm	ANSI BBS	ansi	AT&T AT 386	at386-m	AT&T Dataspeed 4410	att4410
Emulation	Terminal ID												
ADDS Viewpoint A2	ADDS-A2												
AIXTerm	aixterm												
ANSI BBS	ansi												
AT&T AT 386	at386-m												
AT&T Dataspeed 4410	att4410												



### Technical Specifications

Bull BQ3107	VIP7700, VIP7760
Data General Dasher 410/412	dg410
Hewlett Packard HP700- 92/96	2392A, 2622A, 70092, 70094, 70096
Hazeltine 1500	HZ1500
IBM 3151	11, 11-28, 31, 31-28
IBM 3270	3278-2 (24x80 Mono), 3278-3 (32x80 Mono), 3278-4 (43x80 Mono), 3278-5 (27x132 Mono), 3278-2-E (24x80 Color), 3278-3-E (32x80 Color), 3278-4-E (43x80 Color), 3278-5-E (27x132 Color), 3279-2 (24x80 Color), 3279-3 (32x80 Color), 3279-4 (43x80 Color), 3279-5 (27x132 Color), 3287-1 (Printer)
IBM 5250	3179-2 (24x80 Color), 3180-2 (27x132 Mono Msg), 3196-A1 (24x80 Mono), 3477-FC (27x132 Color Msg), 3477-FG (27x132 Mono Msg), 3486-BA (24x80 Mono), 3487-HA (27x132 Mono), 3487-HC (27x132 Color), 3812-1 (Printer), 5251-11 (24x80 Mono), 5291-1 (24x80 Mono), 5292-2 (24x80 Color), 5553-B01 (DBCS Printer), 5555-B01 (DBCS 24x80 Mono), 5555-C01 (DBCS 24x80 Color)
McDonnell Douglas Prism- ty 8, Prism-12	
McDonnell Douglas Prism- ty 9	
Prime PT250	pt250
SCO Console	ansi
Siemens 97801	97801
Stratus V102	v102
Tandem TA6526, TA6530	tn6530-8
Televideo 910	TVI910
Televideo 920	TVI920
Televideo 925	TVI925





## Technical Specifications

	Televideo 950	TVI950
	Televideo 955	TVI955
	Unisys T27	UNISYS-TD830
	Viewdata 40	VIEWDATA – 40
	Viewdata 80	VIEWDATA – 80
	Viewdata Split	VIEWDATA – SPLIT
	DEC VT PCTerm	VT-PCTERM
	DEC VT100	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT100+	VT100+
	DEC VT500 7-bit	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT500 8-bit	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	DEC VT 52	m2200, vt100, vt101, vt102, vt125, vt131, vt132, vt220, vt240, vt320, vt340, vt420, vt510, vt520, vt525
	VT HP220	vt220
	VT UTF8	VT-UTF8
	Wyse WY370	WYSE-370
	Wyse WY50	WYSE-50
	Wyse WY50+	WYSE-50
	Wyse WY60	WYSE-60
	Wyse PCTerm	WYSE-PCTERM
<b>Dimensions H x W x D</b>	<b>Without stand</b>	8.25 x 2.05 x 8.5 in (209.55 x 52.07 x 215.90 mm)
	<b>With stand</b>	8.65 x 2.05 x 8.5 in (219.70 x 52.07 x 215.90 mm)
<b>Weight (approximate)</b>	<b>With stand</b>	3.40 lbs (1.54 kg)
<b>Power*</b>	<b>Operating voltage range</b>	100-240 VAC
	<b>Rated line frequency</b>	50-60 Hz
	<b>Power output (max)</b>	50W
	<b>Rated output current (max)</b>	4.16A
	<b>Output voltage</b>	+12V DC
<b>Environmental</b>	<b>Operating temperature range</b>	50° to 104° F (10° to 40° C)
	<b>Non-operating temperature range</b>	-22° to 140° F (-30 to 60° C)
	<b>Humidity (non-condensing)</b>	10% to 90% operating/5% to 95% non-operating
<b>Regulatory Compliances</b>	<b>Product Safety</b>	International: IEC60950-1, 12:2005, with CB Certificate and all National Deviations US and Canada: UL 60950-1 / CAN/CSA 22.2 No. 60950-1-03, 07:2006, Bi-National Standard for ITE Safety in the US and Canada and is published jointly by UL and CSA. Europe: EN 60950-1, 06:2003, Information Technology Equipment



## Technical Specifications

**Ergonomics** The product has been tested and found to comply with all applicable GS ergonomic requirements.

**RF Interference** FCC Class B, CE Mark, VCCI

**Warranty** Three-year limited hardware warranty.

**NOTE:** Certain restrictions apply. Consult the [HP Customer Support Center](#) for details.



## Technical Specifications – Environmental Data

### 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:

- ENERGY STAR® Category B

### Additional Compliance

This product is in compliance with:

- Restrictions of Hazardous Substances (RoHS) directive - 2002/95/EC.
- Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- 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.

### Energy Consumption

	115 VAC	230 VAC	100 VAC
Idle State:	13.90 W	14.32 W	13.70 W
Off Mode:	1.95 W	1.93 W	1.94 W

**NOTE:** This product is in compliance with US executive order 13221, WOL (wake on LAN) disabled.  
**NOTE:** The actual power consumption at your location could vary and is dependent on many factors including, but not limited to, software load on the thin client, attached peripherals, and environmental factors.

### Heat Dissipation

Idle State:	47.43 BTU/hr	48.86 BTU/hr	46.75 BTU/hr
Off Mode:	6.66 BTU/hr	6.57 BTU/hr	6.62 BTU/hr

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

### 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 4000ppm by weight.

Battery size: CR2032 (coin cell)

Battery type: Lithium

### Recycled material

#### Product

- This product contains 0% recycled materials (by weight).
- This product is 98.1% (by weight) recyclable when disposed of properly at end of life.

#### Packaging

- The EPE foam packaging material contains at least 5% (by weight) post-consumer recycled content.
- The corrugated paper packaging materials contains at least 80% (by weight) post-consumer recycled content.
- The packaging for this product is 94% (by weight) recyclable when disposed of properly.



## Technical Specifications – Environmental Data

<b>RoHS Compliance</b>	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. From 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).
<b>Material Usage</b>	<p>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: <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html">www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html</a>):</p> <ul style="list-style-type: none"><li>● Asbestos</li><li>● Certain Azo Colorants</li><li>● Certain Brominated Flame Retardants – may not be used as flame retardants in plastics</li><li>● Cadmium</li><li>● Chlorinated Hydrocarbons</li><li>● Chlorinated Paraffins</li><li>● Formaldehyde</li><li>● Halogenated Diphenyl Methanes</li><li>● Lead carbonates and sulfates</li><li>● Lead and Lead compounds</li><li>● Mercuric Oxide Batteries</li><li>● Nickel – finishes must not be used on the external surface designed to be frequently handled or carried by the user.</li><li>● Ozone Depleting Substances</li><li>● Polybrominated Biphenyls (PBBs)</li><li>● Polybrominated Biphenyl Ethers (PBBEs)</li><li>● Polybrominated Biphenyl Oxides (PBBOs)</li><li>● Polychlorinated Biphenyl (PCB)</li><li>● Polychlorinated Terphenyls (PCT)</li><li>● Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.</li><li>● Radioactive Substances</li><li>● Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)</li></ul>
<b>Packaging</b>	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"><li>● Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.</li><li>● Eliminate the use of ozone-depleting substances (ODS) in packaging materials.</li><li>● Design packaging materials for ease of disassembly.</li><li>● Maximize the use of post-consumer recycled content materials in packaging materials.</li><li>● Use readily recyclable packaging materials such as paper and corrugated materials.</li><li>● Reduce size and weight of packages to improve transportation fuel efficiency.</li><li>● Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.</li></ul>
<b>End-of-life Management and Recycling</b>	<p>Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: <a href="http://www.hp.com/recycle">www.hp.com/recycle</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</p> <p>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: <a href="http://www.hp.com/go/recyclers">www.hp.com/go/recyclers</a>. 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.</p>



## Technical Specifications – Environmental Data

<b>Hewlett-Packard Corporate Environmental Information</b>	For more information about HP's commitment to the environment: Global Citizenship Report <a href="http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html">www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</a> Eco-label certifications <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html">www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html</a> ISO 14001 certificates: <a href="http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html">www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html</a>
--	--

---

© Copyright 2010 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein. Microsoft and Windows are trademarks of the Microsoft group of companies. ENERGY STAR is a U.S. registered mark of the United States Environmental Protection Agency.

