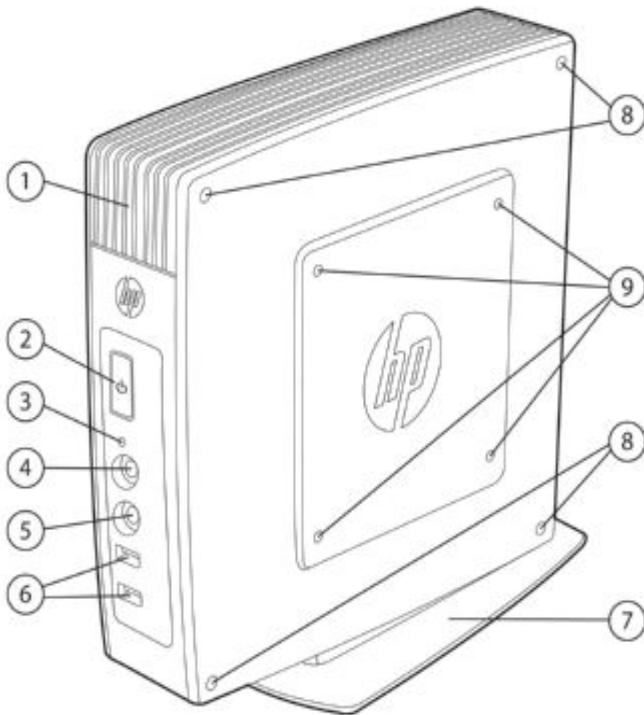
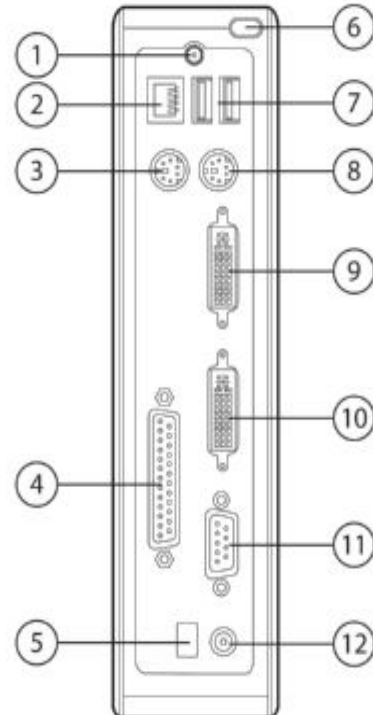


Overview



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. Insertion points for self-adhesive, horizontal positioning feet
9. VESA mounting points (4)

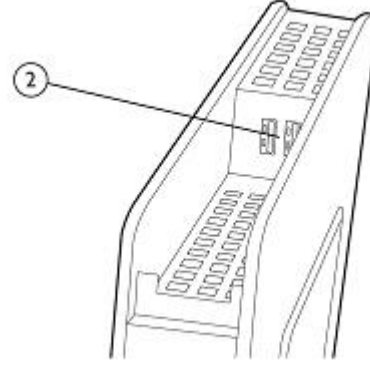
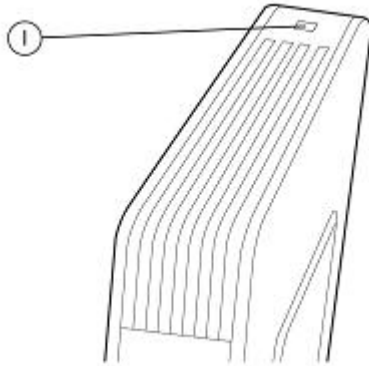


BACK

1. Integrated wireless Ethernet antenna connector (available on some models)
2. 10/100/1000 Ethernet RJ-45 connector
3. PS/2 mouse connector
4. Parallel port
5. Power cord retention slot
6. Cable routing from secure USB compartment
7. USB connectors (2)
8. PS/2 keyboard connector
9. DVI-D connector
10. DVI-I connector
11. Serial Port
12. +19V DC power input

Overview

TOP



1. Cable lock slot - secures unit and secure USB compartment

2. Secure USB compartment with cover removed – 2 USB connectors

At A Glance

Hardware features:

- VIA Eden X2 U4200 (1 GHz, 2 cores) processor for great performance
- VIA VX900 chipset
- 2 GB 1066 MHz DDR3 RAM (128 MB reserved for video)
- 1, 2 or 16GB Flash memory (depending on operating system) provides ample storage for applications and drivers
- 6 USB 2.0 ports
- Secure USB compartment is ideal for protecting USB wireless and USB Flash devices or for securing USB keyboard and mouse)
- Legacy support includes parallel, serial, and PS/2 connections
- Built in dual monitor support (DVI-I and DVI-D native, with DVI-I-to-VGA adapter included in carton)
- Energy Star® qualified and EPEAT® Gold registered where applicable/supported. See <http://www.epeat.net> for registration status by country.
- BFR/PVC free
- Contains over 10% post-consumer recycled plastics (by weight)

NOTE: HP t510 Flexible Thin Client series is brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "INEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free).'" Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter may not be BFR/PVC free

Software features for HP t510 ThinPro Flexible Thin Client:

- HP ThinPro operating system provides a single console interface for dashboard visibility to all user and administrative touch points with user and administrator logins for added security.
- HP ThinPro supports modular software updates that can be applied remotely over the network with less bandwidth overhead. This type of update mechanism also improves HP's ability to deliver time to market client-side updates from third party software partners such as Citrix and VMware.
- ICA, PCoIP, and RDP support for accessing Windows and Citrix resources
- VDI broker support includes VMware View, Citrix XenDesktop (with CDA mode utility))
- Multimedia and USB redirection support

Overview

- Citrix HDX MediaStream (multimedia redirection)
- Citrix HDX Plug-n-Play (USB redirection)
- Preinstalled Video Codecs: MPEG 1, WMV 7/8/9
- Preinstalled Audio Codecs: MP3, WMA, ALAW, MULAW
- HP Easy Tools
 - HP Easy Setup Wizard: Guides administrators through one time setup
 - HP Easy Update: Keep your software current
 - HP Easy Config: Purpose your HP t510 as an optimized VDI appliance
 - HP ThinState: Capture your master image or settings and port to USB key or HP Automatic Update repository
 - HP Automatic Update: Automate configuration changes and/or software updates to multiple devices
- **NOTE: run devices in stateless mode, or cache settings locally in persistent mode**
- HP Device Manager simplifies visibility and management for small and large thin client deployments scattered across multiple subnets and NATed environments.
- Native HP TeamTalk terminal emulation suite and local XDMCP/X.11 for accessing legacy application resources such as mainframes and mid-range servers or Unix/Linux X-window environments.
- Improved Quality of Experience for End User using HP Velocity
 - Available only on HP thin clients
 - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
 - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

Software features for HP t510 Flexible Thin Client with Smart Zero Technology:

- HP Smart Smart Zero technology, just boot and connect!
- Smart zero client Experience
 - Fast boot, quick connect and responsive interaction
 - User boots into their host environment with no local desktop complexity
 - User preferences can be set and retained without leaving the login screen
 - On-screen controls are streamlined to eliminate desktop clutter
- Citrix Optimization:
 - Full screen 1080P HDX multimedia capability at an affordable price
 - Dock bar for convenient access to multiple published applications
 - Smooth roaming assures that your applications follow you
- Automatic Intelligence
 - Intelligence is automatically inherited by HP Smart Zero Client Services
 - Support for Broadcast and DHCP Tag to discover Smart Zero Client Services
 - Leverages remote intelligence resources to minimize desktop overhead
 - Installation wizard establishes desktop environment for all devices in minutes
 - Automatic broadcast system finds HP Smart Zero Client Services & delivers user desktop in seconds
 - Profile editor allows connection changes to be made in just a few clicks
 - Seamless updates from the cloud allow users work instead of waiting for installs
- Uncompromised IT
 - Unique device purposing, choose from ICA-HDX or RDP or View with PCoIP
 - HP Smart Zero Client Services integrates with host to maintain a clean IT environment
 - Your desktop attack surface is minimized with no local apps
- Console visibility, asset information and reboot through HP Device Manager.
- Improved Quality of Experience for End User using HP Velocity
 - Available only on HP thin clients
 - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
 - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

Software features for HP t510 WES 7 Flexible Thin Client:

Overview

- Microsoft® Windows® Embedded Standard 7 SP1 with support for Remote FX and local applications, providing a richer user experience
- Supports latest Internet Explorer 8 (IE8)
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest protocol support from Citrix On-Line Plug in (ICA) 13, RDP 7.1 w/Remote FX, and VMware View 5.0
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- Microsoft Firewall for enhanced data security
- Support 802.1x LAN-based authentication for greater security
- HP Universal Print Driver provides instant access to a range of HP print devices without downloading separate drivers. www.hp.com/go/upd
- Improved Quality of Experience for End User using HP Velocity
 - Available only on HP thin clients
 - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
 - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user

Software features for HP t510 WES 2009 Flexible Thin Client:

- Windows Embedded Standard 2009 OS with support for local applications
- Supports latest Internet Explorer 8 (IE8)
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest Protocol support from Citrix On-Line Plug in (ICA) 13, RDP 7, and VMware View 5.0
- HP Velocity (improves network QoS for virtualized resources including streaming multimedia running over the network)
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- Improved Quality of Experience for End User using HP Velocity
 - Available only on HP thin clients
 - HP Velocity enables IT managers to monitor network activity and optimize end-user experience
 - HP Velocity intelligently reduces network packet loss and retransmissions providing a better experience for the end user
- Symantec Endpoint Protection for enhanced data security
- Support 802.1x LAN-based authentication for greater security

Software features for HP t510 Windows CE Flexible Thin Client:

- Windows Embedded CE 6.0 R3 OS ideal for general office applications (CE6 "Release 3")
- Suited for customers needing light browsing and terminal emulation
- Internet Explorer 6 (IE6.0)
- Protocol support from Citrix On-Line Plug in (ICA) 10, RDP 6.0, and VMware View 4.0 4.5
- Supports 802.1x wired LAN

Warranty:

HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts beyond your standard warranties. For more details visit: <http://www.hp.com/go/lookuptool>.

Technical Specifications

OPERATING SYSTEM

HP t510 Flexible Thin Client models are pre-configured with one of the following operating systems.

- HP ThinPro
- HP Smart Zero Technology
- Genuine Windows® Embedded Standard 2009
- Genuine Windows® Embedded Standard 7
- Windows Embedded CE 6.0 R3 (CE 6 Release 3)

PROCESSOR / CHIPSET

- VIA Eden X2 U4200 (1 GHz, 2 cores)
- VIA VX900

MEMORY

	HP t510 ThinPro Flexible Thin Client	HP t510 Flexible Thin Client with Smart Zero Technology	HP t510 WES 2009 Flexible Thin Client	HP t510 WES 7 Flexible Thin Client	HP t510 CE 6 Flexible Thin Client
Flash (boot drive) memory	1 GB	1 GB	2 GB	16 GB	1 GB
System memory			2 GB DDR3 1066 MHz		
System memory reserved for graphics (minimum)			128 MB		
Maximum system memory			4 GB DDR3		
Memory slots			1 SODIMM		

GRAPHICS

VIA ChromotionHD 2.0 Integrated Graphics Processor

Mode	Color depth	Refresh rate (Hz)
640 x 480	8, 16, 32 bit	60, 72, 75, 85 Hz
800 x 600	8, 16, 32 bit	60, 72, 75, 85 Hz
848 x 480	8, 16, 32 bit	60, 75, 85 Hz
1024 x 480	8, 16, 32 bit	60 Hz
1024 x 768	8, 16, 32 bit	60, 70, 72, 75, 85 Hz
1280 x 720	8, 16, 32 bit	60, 75, 85 Hz
1280 x 768	8, 16, 32 bit	60 Hz
1280 x 1024	8, 16, 32 bit	60, 75, 85 Hz
1360 x 768	8, 16, 32 bit	60 Hz
1368 x 768	8, 16, 32 bit	60, 75, 85 Hz
1400 x 1050	8, 16, 32 bit	60, 75, 85 Hz
1440 x 900	8, 16, 32 bit	60, 75, 85 Hz

Technical Specifications

1600 x 1200	8, 16, 32 bit	60, 75 ,85 Hz
1680 x 1050	8, 16, 32 bit	60, 75 Hz
1920 x 1080	8, 16, 32 bit	60, 75 Hz
1920 x 1200	8, 16, 32 bit	60, 75, 85 Hz

INPUT/OUTPUT (peripheral support)

Keyboard	USB or PS/2 (varies by region)
Mouse	USB or PS/2 (varies by region)
Printer	Local and/or network printers (RDP, ICA, LPD)
Video	DVI-I & DVI-D digital video output (plus included DVI-I-to-VGA adapter)

AUDIO

Output	Internal amplified speaker 1/8-inch mini-jack, 24-bit stereo, 192 kHz sample rate
Input	1/8-inch microphone mini-jack, 20-bit stereo, 96 kHz sample rate
Audio codecs	MP3 AAC stereo & HE AAC WMA stereo
Video codecs	MPEG-1 MPEG-4 part 2 (DivX, Xvid, H.263) MPEG-4 part 10 (H.264, AVC) WMV 7/8/9/ VC-1 & ASF Demuxer

HARDWARE SECURITY

Security lock slot (cable lock sold separately)
Secure USB compartment with 2 USB 2.0 ports

Technical Specifications

NETWORKING

Hardware networking

10/100/1000 Gigabit Ethernet (RJ-45)

Wake on LAN (WOL)

PXE

TCP/IP with DNS and DHCP

Software networking

	HP t510 ThinPro Flexible Thin Client	HP t510 Flexible Thin Client with Smart Zero Technology	HP t510 WES 2009 Flexible Thin Client	HP t510 WES 7 Flexible Thin Client	HP t510 CE 6 Flexible Thin Client
Point-to-Point Protocol (PPP)			X	X	X
Point-to-Point over Ethernet (PPPoE)			X	X	X
Direct Connection through RS-232	X	X	X	X	X
Point-to-Point Tunneling Protocol (PPTP)	X	X	X	X	X
Layer-2 Tunneling Protocol (L2TP)	X	X	X	X	X
Server Network Time Protocol (SNTP)	X	X	X	X	

WIRELESS LAN (select models)

Adapter	Atheros 802.11a/b/g/n WIFI Adapter
Form Factor	PCI-Express Half Mini Card
Security⁷	Supports 64- and 128-bit WEP, WPA, WPA2, AES, TKIP, 802.1x authentication types EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, LEAP

I/O PORTS & CONNECTORS

HP t510 Flexible Series Thin Clients

6 USB 2.0 (two in front, two in rear, two in secure USB compartment)

1 Serial

1 Parallel

2 PS/2

1 RJ-45

1 DVI-I

1 DVI-D

1 DVI-I to VGA adapter included in carton

Technical Specifications

SERVER OS COMPATIBILITY/SUPPORT

Citrix XenApp 5 and 6
Citrix XenDesktop 5.5
Citrix Presentation Server 4.0
Windows Server 2008 Terminal Services
Windows 2000/2003 Server families; Windows 2000/2003 Server Terminal Services
VMware Virtual Desktop Infrastructure using RDP or PCoIP

LANGUAGES (MUI)

English, French, German, Spanish, Simplified Chinese, and Japanese

NOTE: Languages are selectable from the HP ThinPro Control Panel or Easy Config wizard

SOFTWARE for HP t510 ThinPro Flexible Thin Client Models:

Operating System	HP ThinPro (preinstalled)
Protocols	ICA, RDP, and PCoIP
Protocol clients	VMware View 4.6 rDesktop 1.6 Xwindows X11R6 HP TeemTalk Terminal Emulator 7
Browser supported	Mozilla Firefox 8
Security	802.1x
Session brokers	<u>Preinstalled:</u> VMware View 4.6
Management	HP Device Manager agent HP ThinState for rapid deployment HP Easy Tools GUI (avail as add-on) guides you through initial setup and configurations

NOTE: Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

SOFTWARE for HP t510 Flexible Thin Client with Smart Zero Technology Models

Operating System	HP Smart Zero Technology (preinstalled)	
Protocols	Citrix ICA Citrix HDX PCoIP Microsoft RDP	
Protocol clients	Citrix ICA 12.0 VMware View 4.6 HP TeemTalk Terminal Emulator 7 HP RGS Receiver 5.x	
Browser supported	Firefox 8	
Session brokers	<u>Preinstalled:</u> Citrix Desktop Delivery Controller enabled through web browser VMware View 5.0	<u>Available from vendor's website:</u> Leostream Desktop Connection Broker Provision Networks (Quest) broker
Management	HP Smart Zero Client Services	

Technical Specifications

- Installation Wizard
- Automatic Intelligence:
 - Client Kits (ICA-HDX, RDP & View) preinstalled
 - Profile Repository (connections / settings)
 - Profile Editor (connections / settings)
 - Intelligent Delivery: Broadcast, DHCP Tag
- HP Device Manager preinstalled

NOTE: Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

SOFTWARE for HP t510 WES 7 Flexible Thin Client Models

Operating System	Genuine Windows Embedded Standard 7 SP1 (preinstalled)
Protocols	Microsoft RDP 7.1 w/RFX Citrix ICA / HDX VMware View through PCoIP or RDP
Protocol clients	Citrix Receiver 3/Online Plug-in 13 VMware View 5.0 HP TeemTalk Terminal Emulator 7.3
Browser supported	Microsoft Internet Explorer 8
Security	Enhanced Write Filter and File-Based Write Filter Microsoft Firewall LogOn Manager (password logon)
Session brokers	Citrix Desktop Delivery Controller enabled through web browser VMware View 5.0 HP Remote Graphics Software v5.4
Management	<u>Available from vendor's website:</u> Leostream Desktop Connection Broker Provision Networks (Quest) broker HP Device Manager agent HP ThinState for rapid deployment Microsoft SCCM/EDM agent <u>HP Easy Tools:</u> <ul style="list-style-type: none">• HP Easy Setup: Configuration setup wizard• HP Easy Config: Purpose thin client as an optimized VDI appliance• HP Easy Update: Automatically check for and install new software updates
Additional components	Universal Print Driver Adobe PDF Reader (available as add-on) HP Connection Manager

NOTE: Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

Technical Specifications

SOFTWARE for HP t510 WES 2009 Flexible Thin Client Models:

Operating System	Genuine Windows® Embedded Standard 2009
Protocols (Client Virtualization)	Microsoft RDP 7.0 Citrix ICA 13 VMware View 5.0 (RDP and PCoIP)
Protocol Clients	Citrix Online Plug-in 13 VMware View 5.0 (RDP and PCoIP) HP TeemTalk Terminal Emulator 7
Browser supported	Internet Explorer 8 (IE8)
Security	Enhanced Write Filter and File-Based Write Filter Symantec Endpoint Protection LogOn Manager (password logon)
Session brokers	Citrix Desktop Delivery Controller enabled through web browser VMware View 5.0

Available from vendor's website:

Leostream Desktop Connection Broker
Provision Networks (Quest) broker

Management	HP Device Manager agent HP ThinState for rapid deployment
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HP Easy Tools:

- HP Easy Setup: Configuration setup wizard
- HP Easy Config: Purpose thin client as an optimized VDI appliance
- HP Easy Update: Automatically check for and install new software updates

Additional components	HP Connection Manager Microsoft .NET Framework 2.0 SP2, 3.0 SP2 & 3.5 SP1 Microsoft Windows Media Player v12.0 Adobe PDF Reader (available as add-on)
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NOTE: Other add-on software available (see: www.hp.com/support for latest list of available add-ons)

SOFTWARE for HP t510 Windows CE 6.0 R3 Flexible Thin Client Models:

Operating System	Windows® Embedded CE 6.0 R3
Protocols (Client Virtualization)	Microsoft RDP 6.0 Citrix ICA 10.x VMware View 4.x (RDP and PCoIP)
Protocol Clients	Citrix Online Plug-in 10.x VMware View 4.x (RDP and PCoIP) HP TeemTalk Terminal Emulator
Browser supported	Internet Explorer 6.0 for Windows CE
Security	Enhanced Write Filter and File-Based Write Filter Symantec Endpoint Protection LogOn Manager (password logon)

Technical Specifications

Session brokers	Citrix Desktop Delivery Controller enabled through web browser VMware View 4.5
Management	<u>Available from vendor's website:</u> Leostream Desktop Connection Broker HP Device Manager agent 4.0 Agent HP ThinState for rapid deployment HPCA Altiris agent (license not included) <u>HP Easy Tools:</u> <ul style="list-style-type: none">• HP Easy Setup: Configuration setup wizard• HP Easy Config: Purpose thin client as an optimized VDI appliance• HP Easy Update: Automatically check for and install new software updates
Additional components	HP ThinConnect Connection Manager JetCET Print Professional Txdpad Microsoft Windows Media Player v9.0 for Windows CE Viewers for Microsoft Office 2003: Excel, Powerpoint, Word

DIMENSIONS (WxDxH)

Without stand	2.3 x 8.5 x 8.25 in (5.84 x 21.59 x 20.95 cm)
With stand	2.3 x 8.5 x 8.65 in (5.84 x 21.59 x 21.97 cm)

NOTE: Dimensions are approximate

WEIGHT - Standard Chassis

With stand	3.3 lbs (1.49 kg)
Without stand	3.2 lbs (1.45 kg)

NOTE: Weights are approximate

POWER

65 W
Worldwide auto-sensing 100-240 VAC, 50-60 Hz
Energy-saving automatic power-down
Surge-tolerant

Technical Specifications

ENVIRONMENTAL

Operating temperature range	<u>Standard</u> 50° to 104° F (10° to 40° C)
	<u>Using Quick Release with a flat panel monitor</u> 50° to 95° F (10° to 35° C)
Non-operating temperature range	<u>Using PCI Expansion Unit</u> 50° to 104° F (10° to 40° C)
	22° to 140° F (-30° to 60° C)
Humidity	<u>Condensing</u> 20% to 80%
	<u>Non-condensing</u> 10% to 90% non-condensing

NOTE: Specifications are at sea level with altitude derating of 1° C/300m (1.8° F/1000ft) to a maximum of 3 Km (10,000 ft), with no direct, sustained sunlight. Upper limit may be limited by the type and number of options installed.

REGULATORY COMPLIANCE

Ergonomics	German ZH1/618; EN29241-3, approved
Safety	UL 1950, CSA 950; TÜV-GS (EN60 950) approved
RF Interference	FCC Class B; CE Mark; EN55022B; VCCI

EMULATIONS

HP TeemTalk Terminal Emulator supports these emulations. SSH is supported in terminal emulation mode allowing users to secure their connections to the host.

Emulation	Terminal ID
ADDS Viewpoint A2	ADDS-A2
AIXTerm	Aixterm
ANSI BBS	Ansi
AT&T AT 386	at386-m
AT&T Dataspeed 4410	att4410
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),

Technical Specifications

	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-8, Prism-12	tty
McDonnell Douglas Prism-9	tty
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
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+

Technical Specifications

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

NOTE: Wireless features, performance and support may vary depending on environmental variables such as placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.

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 markets:

- ENERGY STAR® Category B
- EPEAT® Gold registered where applicable/supported, see www.epeat.net for registration status by country
- BFR/PVC-free product

NOTE: Products are brominated flame retardant and polyvinyl chloride free (BFR/PVC-free); meeting the evolving definition of "BFR/PVC-free" as set forth in the "iNEMI Position Statement on the 'Definition of Low-Halogen Electronics (BFR/CFR/PVC-Free).'" Plastic parts contain <1,000 ppm (0.1 percent) of bromine (if the Br source is from BFRs) and <1,000 ppm (0.1 percent) of chlorine (if the Cl source is from CFRs or PVC or PVC copolymers). All printed circuit board (PCB) and substrate laminates contain bromine/chlorine total <1,500 ppm (0.15 percent) with a maximum chlorine of 900 ppm (0.09 percent) and maximum bromine being 900 ppm (0.09 percent). Service parts after purchase may not be BFR/PVC-free. External power supply, power cords, keyboard, mouse, and DVI-to-VGA adapter are not BFR/PVC free

ENERGY CONSUMPTION

	115 VAC (60Hz)	230 VAC (50Hz)	100 VAC (60Hz)
Standard Models			
Idle State:	9.8 W	9.8 W	10.80 W
Off Mode:	0.44 W	0.45 W	0.45 W

NOTE: This product is in compliance with US executive order 13221, WOL (wake on LAN) disabled. Off Mode measurements are made with WOL 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

	115 VAC (60Hz)	230 VAC (50Hz)	100 VAC (60Hz)
Idle State:	33.44 BTU/hr	33.44 BTU/hr	33.23 BTU/hr
Off Mode:	1.50 BTU/hr	1.54 BTU/hr	1.54 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

Technical Specifications – Environmental Data

RECYCLED MATERIAL

- | | |
|------------------|--|
| Product | <ul style="list-style-type: none">• This product contains at least 10% recycled materials (by weight).• This product is at least 90% (by weight) recyclable when disposed of properly at end of life. |
| Packaging | <ul style="list-style-type: none">• 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 100% (by weight) recyclable when disposed of properly. |

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. 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).

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



Technical Specifications – Environmental Data

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.

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/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>

Options and Accessories (sold separately)

		Part Number
Accessories	HP Quick Release Kit	EM870AA
	HP Integrated Work Center Stand	LH526AA
	HP Keyed Cable Lock (BFR/PVC free)	BV411AA
	65 Watt External Power Supply replacement	AZ552AA
Input Devices	HP PS/2 Standard Keyboard	DT527A
	HP USB Standard Keyboard	DT528A
	HP USB CCID Smartcard Keyboard (BFR/PVC free)	BV813AA
	HP PS/2 2-Button Optical Mouse	EY703AA
	HP USB 2-Button Optical Scroll Mouse	DC172B
Storage	HP USB External CD/DVD R/RW Drive (read only support)	BU516AA
Security	HP USB CCID Smartcard Keyboard (BFR/PVC free)	BV813AA
	Gemalto PC USB-TR Card Reader ¹	HWP117685A
	Gemalto .NET v2+ Smart Card ¹	HWP115303B
		HWP115647C
	SCM SCR331 USB Smart Card Reader ¹	904054
	HP Keyed Cable Lock (BFR/PVC free)	BV411AA
Care Pack Services²	9x5 Next-Business-Day Advanced Exchange - 3 Years ³	331653-001; U4847E
	9x5 Next-Business-Day On-Site Coverage - 3 Years	331655-001; U4849E
	Hardware Installation	331686-001; UJ865E

¹Option, drivers, warranty, and support are available directly from third party.

²Service levels and response times for HP Care Pack Services may vary depending on your geographic location. Restrictions and limitations apply. For details, visit: www.hp.com/go/carepack.

³U4847E is available in all regions; U4849E is available in Latin America and Asia-Pacific/Japan.

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