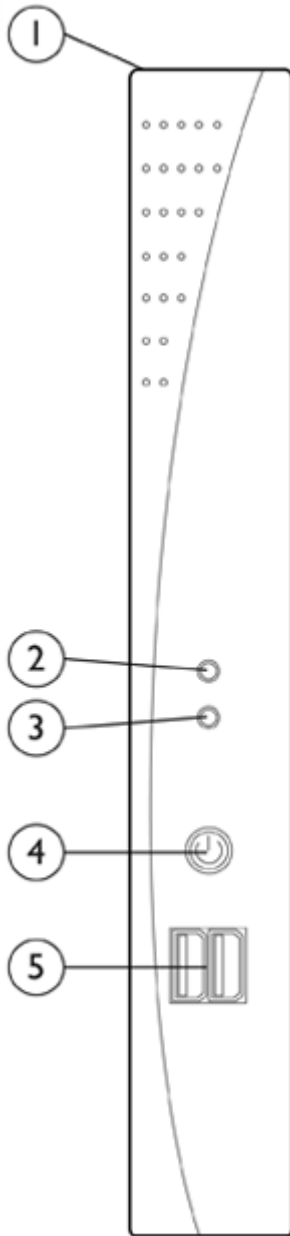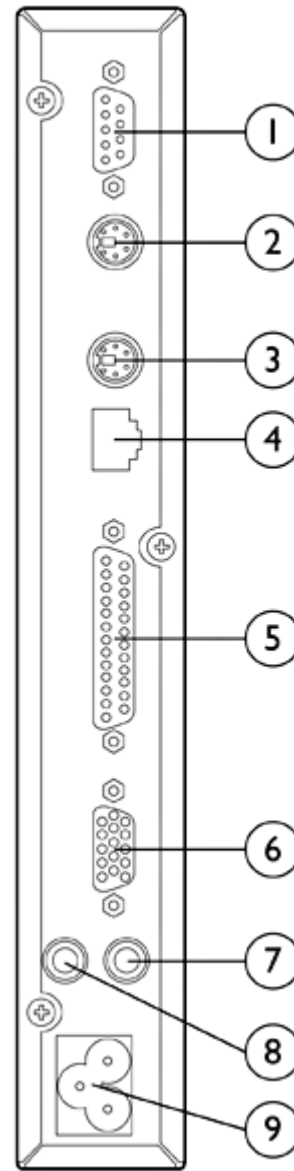# QuickSpecs

HP Neoware c50 Thin Client

Overview

Front

1. Security lock slot (on top)
2. Power indicator
3. Network activity indicator
4. Power button
5. USB ports (two)

Back

1. Serial connector
2. Mouse connector (PS/2)
3. Keyboard connector (PS/2)
4. RJ-45 10/100 BaseT Ethernet connector
5. Parallel connector

Overview

6. VGA monitor connector
7. Audio out jack (speakers, headset)
8. Audio in jack (microphone)
9. Power cord connector

At A Glance

- Efficient, small form factor thin client
- Designed for both server-based computing (SBC) and Virtual Desktop Infrastructure (VDI) environments
- Via Eden 400 MHz processor
- Includes one parallel, one serial, two PS/2, and two USB 2.0 ports (in front for your convenienc
- Available with NeoLinux 3, Windows CE, and Windows XPe
- Management tools provides support for remote configuration, remote shadowing, connection cloning, image cloning, global image updates, scheduled updates, and snap-ins for modular image changes.

Standard Features - Models

HP P/Ns	Neoware P/Ns
KF252AA# (NeoLinux 3)	DE-02-GD-xxx
KF252AT# (NeoLinux 3)	DE-02-GD-xxx
KF248AA# (CE)	DE-01-GD-xxx
KF248AT# (CE)	DE-01-GD-xxx
KF256AA# (XPe)	DE-A3-KD-xxx
KF260AA# (XPe)	DE-A3-KE-xxx
KF262AA# (XPe)	DE-A3-PE-xxx

Model	HP Neoware c50
Processor	VIA Eden 400 MHz
Flash	128 MB – 1 GB
System Memory	256 MB – 512MB (DDR2 RAM)
Operating System	NeoLinux 3, Windows CE, Windows XPe
Keyboard	NA orders ship with PS/2 US 104 Keyboard DE-xx-xx-Bxx, DE-xx-xx-Dxx, DE-xx-xx-Exx, DE-xx-xx-Jxx orders not included
Mouse	PS/2

Options

		Part Number
Accessories	Mounting Bracket (Wall/Desk) – 10 Pack	AK245AA
	Mounting Bracket (Wall/Desk) – Single Pack	KL056AA
Wireless Connectivity	USB 802.11a/b/g Wireless Ethernet Adapter (North American Channel Configuration)	AK256AA
	USB 802.11a/b/g Wireless Ethernet Adapter (European Channel Configuration)	AK257AA
Security	HP/Kensington Cable Lock	PC766A
Memory and Flash	512 MB DDR2 RAM Upgrade	KE678AA
	1 GB DDR2 RAM Upgrade	KE679AA
	512 MB Flash Upgrade XPe	KE706AA
	1 GB Flash Upgrade XPe	KE690AA

Technical Specifications

Processor	VIA Eden 400 MHz Processor		
Chipsets	CN700 Chipset		
Memory	**Flash Memory**	128 MB – 1 GB	
	System Memory	256 MB – 1GB (DDR2 RAM)	
Graphics	VIA S3 Graphics		
	Mode	**Refresh rate**	**Color depth**
	8-Bit color	85 Hz	Up to 1600 x 1200
	16-Bit color	85 Hz	Up to 1600 x 1200
	32-Bit color	60 Hz	Up to 1600 x 1200
		85Hz	Up to 1280 x 1024
Input/Output/ Peripheral Support	**Keyboard**	PS/2 US 104 Keyboard	
	Mouse	PS/2	
	Printer	Local support in ICA, RDP and local applications (may require additional drivers from manufacturer.)	
	Video	Up to 1600 x 1200 resolution or 32-Bit true color Wide Screen Monitor Resolutions: (NeoLinux 3 & XPe) 1440x900, 1680x1050 & 1920x1200	
Audio	**Output**	Speaker Out – 1/8 inch (3.55 mm) jacks Internal Speakers	

Security (hardware)
Slot for Kensington Cable Lock
ActivIdentity USB Smart Card Reader, vendor models GBURR200 & GBUR300P025
GemAlto Smart Cards (Windows XPe models only)
BioPassword (Special XPe Snap-in)

Server-based Computing Protocols
ICA
RDP (CE & XPe) / RDesktop (NeoLinux)*
X.11/XDM (NeoLinux Only)
HP Neoware TeemTalk Terminal Emulator

Networking
Autosensing
10/100 Ethernet
RI-45
WakeOnLAN
PXE Boot
External USB Wireless Options (a/b/g)

I/O Ports and Connectors
1 – Serial Port – D-Sub 9-Pin – Male Connector
1 – Parallel Port – D-Sub 25-Pin – Female Connector
2 – USB Ports – Type A 2.0
PS/2 Ports (1 – Keyboard, 1 – mouse)

Resident Operating System
NeoLinux 3
Windows CE
Windows XPe

Server OS Compatibility/ Support
- Citrix Presentation Server 4.0 including the Desktop Broker feature
- Citrix Metaframe Presentation Server 3.0
- Citrix Metaframe XP Presentation Server
- Citrix Metaframe 1.x
- Windows 2000/2003 Server Terminal Services
- Windows 2000 Advance Server Terminal Services

Technical Specifications

- Windows NT 4.0 Terminal Server Edition
- VMware Virtual Desktop Infrastructure using RDP
- Linux Terminal Server Project (LTSP) *
- Most mainframes and midrange servers **

* Requires bios change to PXE boot
** Requires TeemTalk (standard on most HP Neoware thin clients)

Local software overview		Windows CE	NeoLinux 3	Windows XPe
	Citrix ICA	•	•	•
	RDP	•	•	•
	Basic Internet Explorer	•		
	Full-function Internet Explorer	From server	From server	•
	Netscape Navigator	From server	•	
	Firefox		•	
	TeemTalk Emulation - 30+	•	•	•
	X Windows (X11R6 / XDM)	From server	•	From server
	Acrobat Reader	From server	Snap-in (Add on)	•
	Windows Media Player	Snap-in (Add on)	From server	•
	Java Virtual Machine	From server	•	•
	PPP/DUN	•		
	RealPlayer	From server	Snap-in (Add on)	Snap-in (Add on)
	Shockwave	From server	From server	From server
	ThinPrint	•	Snap-in (Add on)	
	Macromedia Flash	From server	From server	•
	ELO touchscreen support	•	•	•
	.NET Framework			.NET Ready
Management	ezRemote Manager and ezUpdate	•	•	•
	HP Device Manager	•	•	•
	Altiris	Snap-in (Add on)	Snap-in (Add on)	Snap-in (Add on)
Security (software)	Read-only file system	•	•	•
	Locked down user account and configuration	•	•	•
	HP Neoware Write Filter, Firewall, Security Center			•
VDI Support	Leostream		•	•
	Propero		•	•
	Provision Networks		•	•
	Citrix DDI support		•	•
Languages	Windows CE: English Windows XPe: English, MUI for: French, German, Italian, Spanish, Danish, Greek Windows XPe Plus: More options available with full XPe operating system. NeoLinux 3: English			

Technical Specifications

Dimensions (approximate)		1.4 W x 9.5 H x 8.2 in D (3.6 x 24.1 x 20.8 cm)
Weight (approximate)		8.2 lbs (3.7 kgs) with keyboard

Environmental	Temperature range	Operating: 32-95° F (0-35° C)
		Non-operating:
	Humidity	20-80% non-condensing
	Power*	100-240 VAC, 50-60 Hz 22 W typically

* 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.

Regulatory Compliance	Product safety	• UL60950-1, CSA22.2/60950-00, IEC 60950-1:2001, NOM-019-SCFI:1998, EN60950-1:2001, GOST-R, SABS LOA, AS/NZS 60950, CCC: GB4943, JS60950, SS60950
		• IN-Process: IRAM/S-Mark, SASO 60950-1:2001
	Ergonomics	
	RF Interference	• FCC Part 15C, I.C.: RS210, EN 300 328, EN 300 328, FCC15.247, COFETEL FCC 15.247, WPE: FCC Part 15.247, ICASA (Part 15.247), SRO 797:2004, QAT29/30/31, C-Tick: EN 300 328, SRRC (EN 300 328), OFTA 1035, POSTEL (EN300 328), TELEC (Article 19/19.2), SIRIM(Part 15.247), NTC (Part 15.247), iDA (TS SRD), NTC (EN300 328)
		• IN-Process: CNC-Q2-63.01 (wireless only)
		• Initiating request: Anatel: Resolution 305

Warranty	Hardware: 3 year limited warranty
	Software: 12 months
	NOTE: Certain restrictions apply. Consult the HP Customer Support Center for details.

Environment-friendly Products and Approach	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

Technical Specifications

- 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:

- 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

For more information about HP's commitment to the environment:
[link to new HP white paper now in progress]

Technical Specifications

Information	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