

### Overview

#### At A Glance

- Intel® Pentium® 4 and Celeron™ processors
- Intel 845GV chipset with Intel Extreme integrated graphics
- Integrated Intel Pro 100/VM ethernet
- 400 -MHz processor Front Side Bus support
- SMART III Ultra ATA/100 Hard Drives
- SoundMax Digital AC97 integrated audio with internal speaker
- Pre-loaded Manageability tools
- Energy Star compliance with energy-saving features
- Protected by HP Services, including a 3-3-3, standard warranty. Terms and conditions vary by country. Certain restrictions and exclusions apply.

Rear I/O:  
6 USB (2 standard, 4 powered - 3 @ 12V, 1 @ 24V)  
4 Standard RS232 Serial Ports  
(Configurable to powered 5V & 12V),  
1 parallel port, 2 PS/2, 1 RJ-45, 1 VGA,  
Line out

Expansion:  
2 full-height PCI slots

1 3.5" internal bay and  
1 5.25" external bay for  
CD-ROM, DVD-ROM

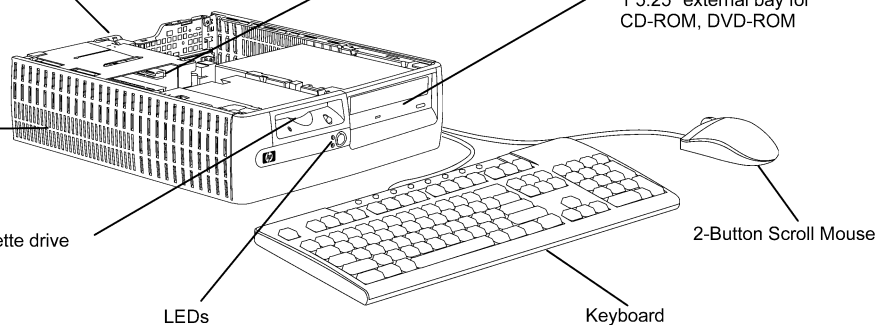
185W Internal  
Power Supply

Optional diskette drive  
or 3.5" bay

LEDs

Keyboard

2-Button Scroll Mouse



# QuickSpecs

## Standard Features – Select Models

HP Point of Sale System rp5000

### Family Line

- d220 = HP Compaq d220
- d230 = HP Compaq d230
- d330 = HP Compaq d330
- d325 = HP d325
- d530 = HP Compaq d530
- rp5 = rp5000 Point of Sale

### Hard Drive

- 40= 40G HD
- 80= 80G HD
- 120 = 120G HD
- 160 = 160G HD

### HDD speed

- a = 5400
- b = 7200
- g = 5400 S
- h = 7200

### Graphic

- II = Intel Extreme 2
- IA = Integrated nV nFr2 GT
- v = DVI Add in card
- AA = nV GFr2 MX200 64M AGP DVI 1h
- AB = nV GFr2 MX400 32M AGP VGA 1h
- AC = nV GFr4 MX420 64M AGP VGA, tv
- AD = nV Qdro4 200NVS 64M AGP VGA 2h
- AE = nV Qdro4 200NVS 64M AGP DVI 2h
- AF = nV Qdro4 400NVS 64M PCI VGA 4h
- AG = nV Qdro4 400NVS 64M PCI DVI 4h
- AH = nV Qdro 100NVS AGP VGA 2h
- AJ = nV Qdro 100NVS AGP DVI 2h
- AK = nV Qdro 100NVS PCI DVI VGA, tv
- AM = nV GFr4 MX440 64M VGA, tv

### Nic or Modem

- M = Modem
- Blank = integrated NIC

**d330sS/P3.06/120b+nyr/256B/AA1tMK**

### Form Factor

- S=SFF
- D=DT
- C=CMT
- m=uT
- U=USDT
- T= ST
- P = POS (Point of Sale)

### Processor Type

- P = Intel P4
- C = Intel C
- A = AMD A-XP

### µP Speed

- 2.0 = 2
- 2.1 = 2.1
- 2.2 = 2.2
- 2.3 = 2.3
- 2.26 = 2.26
- 2.4 = 2.4
- 2.4C = 2.4C 800
- 2.53 = 2.53
- 2.66 = 2.66
- 2.6C = 2.6C 800
- 2.8 = 2.8
- 2.8C = 2.8C 800
- 3.06 = 3.06
- 3.0C = 3C 800
- 3.2C = 3.2C 800
- 2000 = 2000+
- 2100 = 2100+
- 2200 = 2200+
- 2400 = 2400+
- 2600 = 2600+
- 2800 = 2800+
- 3000 = 3000+
- 3200 = 3200+

### 2<sup>nd</sup> HDD

### Removable Storage

- c = CD-ROM
- d = DVD-ROM
- q = DVD+RW
- r = CDRW
- w = DVD/CDRW cmb
- z = ZIP drive
- y = Disk-on-key
- n = no floppy
- blank = floppy

### Memory Size

- 128=128M
- 256=256M
- 384=384M
- 512=512M
- 640=640M
- 768=768M
- 1.0=1G
- 1.5=1.5G
- 2.0=2.0G

### OS

- 1 = Linux
- 2 = Win2000
- 3 = XP Home
- 4 = XP Pro
- 5 = XP Home S Chin
- 6 = XP Pro S Chin
- 7 = XP embedded (POS)

### Security

- Blank = not included
- K = TCPA

### Software Applications

- o = Office XP Pro
- t = Office XP Per
- e = Office XP SBE
- w = MS Word (EMEA only)
- u = MS Works 2003 (NA only)

### Memory Speed

- B = PC2100s (single channel)
- C = PC2100d (dual channel)
- D = PC2700s (single channel)
- E = PC2700d (dual channel)
- F = PC3200s (single channel)
- G = PC3200d (dual channel)

### rp5000 Models

DM329A#ABA	rp5P/P2.0/40anc/256D/4 US
DM330A#ABA	rp5P/P2.0/40an/256D/4 US
DM331A#ABA	rp5P/P2.0/40an/256D/7 US
DM332A#ABA	rp5P/C2.0/40anc/256D/4 US
DN847A#ABA	rp5P/C2.0/40an/256D/4 US
DN848A#ABA	rp5P/C2.0/40an/256D/7 US
DP044A#ABA	rp5P/P2.0/40anc/256D/2 US
DP045A#ABA	rp5P/P2.0/40an/256D/2 US
DP046A#ABA	rp5P/C2.0/40anc/256D/2 US
DP047A#ABA	rp5P/C2.0/40an/256D/2 US

**NOTE:** All rp5000's contain Intel 845GV chipsets with Intel Extreme Integrated graphics, Integrated Intel Pro 100/VM Ethernet, 400 MHz Processor front side bus support, SoundMax Digital AC97 Integrated audio with internal speaker, and 3-3-3 Warranty

## Standard Features – Custom Components

		rp5000
<b>Processor and Speed</b> - One of the following	<b>Intel Celeron Processors</b> with 400-MHz Front Side Bus, 128KB L2 cache	
	2.0-GHz	✓
	<b>Intel Pentium 4 Processors</b> with 400-MHz Front Side Bus, 512KB L2 cache	
	2.0-GHz	✓
<b>Hard Disk Drive</b>	40-GB 5400 rpm SMART III Ultra ATA/100	✓
<b>Memory</b> - One of the following	128-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 128)	✓
	256-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 256)	✓
	512-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 512)	✓
	1-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 1GB)	✓
	2-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (2 x 1GB)	✓
<b>Removable Storage</b> (optional)	1.44-MB Diskette Drive	✓
	64MB USB Disk-on-Key	✓
	48X CD-ROM Drive	✓
	16X/40X DVD-ROM with +R Read	✓
<b>Keyboard</b>	PS/2 Standard Keyboard (no hotkeys)	✓
	No keyboard option	✓
<b>Mouse</b>	PS/2 2-Button Scroll Mouse	✓
	No mouse option	✓
<b>Audio</b>	SoundMax Digital AC97 integrated audio with internal speaker	✓
<b>NIC</b>	Intel Pro 100/VM NIC	✓
<b>Graphics</b>	Intel Extreme Graphics (integrated with Intel 845GV chipset)	✓
	NVIDIA Quadro4 100NVS PCI (64MB, dual VGA, TV out)	✓
<b>Operating System</b> - One of the following	Microsoft Windows XP Professional with service pack 1a	✓
	Microsoft Windows XP Embedded with service pack 1	✓
	Microsoft Windows 2000 with service pack 4	✓

## Standard Features

Processor	Intel Pentium 4, Intel Celeron
CPU Bus Speed Supported	400-MHz FSB
Standard L2 Cache – Pentium 4, Celeron	512-KB ECC, 128-KB ECC depending on processor speed
Chipset	Intel 845GV
Memory Expansion Slots	2 DIMMs
Memory Type Supported	DDR (ECC not supported by Chipset)
Memory Speed Supported	PC2700 (333-MHz) Non-ECC - ships standard DDR Synch DRAM PC2100 (operates at 266MHz) Non-ECC DDR Synch DRAM PC3200 (operates at 333MHz) Non-ECC
Maximum Memory	2-GB
Network controller	Integrated Intel PRO/100VM
Graphics	Integrated Intel Extreme Graphics
Audio	SoundMax Digital AC97 integrated audio with internal speaker
PCI	2 full-height half -length PCI card (6.87 in / 17.45 cm)
AGP	None
Bays	Total Bays = 3
Internal Bays	(1) 3.5 inch ATA Hard Drive
External Bays	(2) 1- 3.5 floppy drive bay or 2 <sup>nd</sup> HD and 1- 5.25 inch optical drive bay
Parallel Port	1
Serial Port	4 standard RS232 - individually configurable to powered (5V, 12V)
USB Port	6 USB 2.0 - 4 powered (3 - 12V, 1 – 24V), 2 standard
Front I/O	None
Rear I/O	6 USB 2.0, 4 Serial, 1 Parallel, 1 VGA, Line Out, 1 RJ-45, 2PS/2
PS/2 Keyboard	1
PS/2 Mouse	1
VGA Adapter	1
Chassis Dimensions (H x W x D) Centimeters	10 x 33.8 x 38.3
Chassis Dimensions (H x W x D) Inches	3.95 x 13.3 x 15.1
System Weight	22.2 lbs.
System Volume	13 liters
Shipping weight	29 lbs.
Power Supply	185W Power Supply – PFC (115v / 230v line switch)
Hard Drive Interfaces Supported	2 ULTRA ATA/100 interfaces
Hard Drive Controller (PCI) Supported	ULTRA ATA 100/66/33
Serial-ATA	0
<b>Preinstalled Software</b>	
Microsoft Windows XP Professional with service pack 1a	✓
Microsoft Windows XP Embedded with service pack 1	✓
Microsoft Windows 2000 with service pack 4	✓
Computer Setup Utility	✓
Diagnostics for Windows	✓
Microsoft Internet Explorer	✓

## After Market Options

<b>Graphics</b>	<b>2D Multi-Display Graphics</b>		
	NVIDIA Quadro4 100NVS 64-MB PCI VGA, DVI-I, S-video	DC665A	
<b>Memory (DIMMs)</b>	<b>266-MHz (PC2100) DDR DIMMs Non-ECC</b>		
	512-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC	DC165A	
	256-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC	DC164A	
	<b>333-MHz (PC2700) DDR DIMMs Non-ECC</b>		
	512-MB DDR Synch Dram PC2700 (333-MHz) Non-ECC	DC340A	
	256-MB DDR Synch Dram PC2700 (333-MHz) Non-ECC	DC339A	
	128-MB DDR Synch Dram PC2700 (333-MHz) Non-ECC	DC338A	
	<b>400-MHz (PC3200) DDR DIMMs Non-ECC</b>		
	512-MB DDR Synch Dram PC3200 (400-MHz) Non-ECC	DE467A	
	256-MB DDR Synch Dram PC3200 (400-MHz) Non-ECC	DE466A	
	128-MB DDR Synch Dram PC3200 (400-MHz) Non-ECC	DE465A	
	<b>Monitors</b>	<b>TFTs</b>	
		HP TFT L2025 Monitor (20.1-inch)	P4831D
HP TFT L1825 Monitor (18.1-inch)		P9021A	
Compaq TFT1720 Monitor (17-inch)		D5064D	
<b>CRTs</b>			
Compaq P1130 CRT Monitor (21-inch)		P4819A	
Compaq P930 CRT Monitor (19-inch)		P9009D	
Compaq S9500 CRT Monitor (19-inch)		261615-003	
Compaq S7500 CRT Monitor (17-inch)		P9008A	
Compaq S5500 CRT Monitor (15-inch)		261602-001	
<b>Optical Drives</b>		<b>DVD-ROM Drive</b>	
		16X/40X DVD-ROM w/ +R read	DC151B
		<b>CD-ROM Drive</b>	
	48X Max CD-ROM Drive	DC143B	
<b>Removable Storage</b>	16-MB USB Disk-on-Key	DC192B	
	64-MB USB Disk-on-Key	DC191B	
	128-MB USB Disk-on-Key	DC190B	
<b>Security</b>	Kensington Security Lock	DC368A	
<b>Brackets/Stand</b>	Wall Mounting Bracket		
	Chassis clamp lock (no cable)	DE817A	
	Chassis clamp lock (with 6 foot cable)	DE818A	
<b>Other</b>	Assorted insert kit (floppy, HDD, ZIP)	DF783B	
	Bezel kit (floppy replacement)	DF785B	
	5.25" bay bezel with 3.5" access slot	DG064B	

## Memory

845GV chipset

### DDR SYNCH DRAM NON-ECC MEMORY

It is not necessary to add memory in pairs. Memory upgrades are accomplished by adding single or multiple DIMMs of the same or varied sizes. This chart does not represent all possible memory configurations. The Intel 845GV chipset supports non-ECC 266MHz (PC2100), 333MHz (PC2700) and 400MHz (PC3200) DDR memory.

System will support PC3200 memory but will default to PC2700 performance.

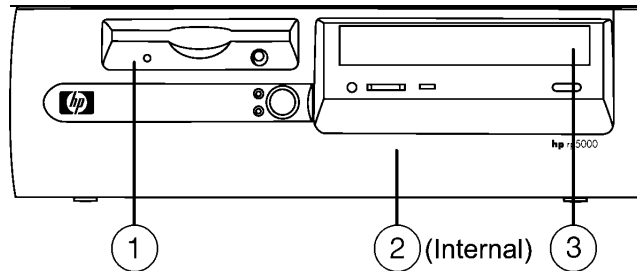
### MAXIMUM MEMORY (RP5000 POINT OF SALE SYSTEM)

Supports up to 2-GB of DDR SYNCH DRAM.

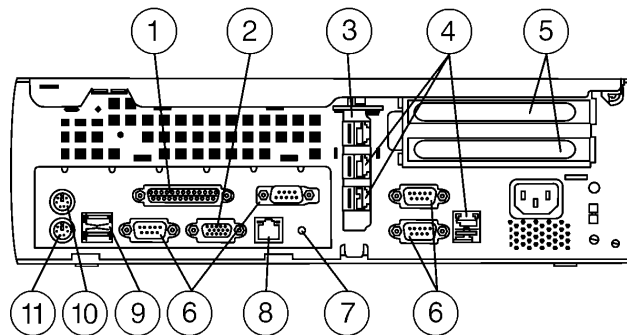
### POSSIBLE MEMORY CONFIGURATIONS

DIMM Size	Slot	
	1	2
128-MB	128-MB	
256-MB	256-MB	
256-MB	128-MB	128-MB
384-MB	256-MB	128-MB
512-MB	512-MB	
512-MB	256-MB	256-MB
768-MB	512-MB	256-MB
1-GB	1-GB	
1-GB	512-MB	512-MB
1.5-GB	1-GB	512-MB
2-GB maximum	1-GB	1-GB

## Storage



Front View	Quantity Supported	Position Supported	Controller
Diskette Drives	1	1	Diskette
Optional second internal 3.5" SMART III Ultra ATA Hard Drive	1 in lieu of floppy	1	IDE
Optical Drive Bay	1	3	IDE
Internal 3.5" SMART III Ultra ATA Hard Drive	1	2	IDE



Rear View	Position
Parallel	1
VGA	2
1 USB 2.0 – 24V powered port	3
3 USB 2.0 – 12V powered ports	4
2 full-height PCI slots	5
4 standard RS232 serial ports configurable via system board jumpers to powered 5V & 12V	6
Line out	7
RJ45	8
2 standard USB 2.0 ports	9
Mouse – PS/2	10
Keyboard – PS/2	11

## Technical Specifications

Base Unit Contents	
Processor	Intel Pentium 4 & Celeron Socket N – 478
CPU Bus Speed Supported	400 & 533 -MHz FSB
Coprocessor	Integrated
CPU Package	FC-PGA2
Standard L2 Cache – Pentium 4, Celeron	512-KB ECC, 128 – KB ECC depending on processor speed
L2 Cache Architecture / Speed – Pentium 4 and Celeron	Full core clock speed
Cache Upgradeable – Pentium 4 and Celeron	Not upgradeable – Integrated into Processor
System board with Intel 845Gv Chipset with Integrated 4X AGP	✓
Cables	ATA Cable
Quick Setup Poster	✓
Product Documentation on CD	✓
Operating System CD	✓
Restore CD	✓
Power Cord	✓
Keyboard	✓ (PS/2)
Mouse	✓ (PS/2)
Memory Expansion Slots	2 DIMMs
Memory Type Supported	DDR (ECC not supported by Chipset)
Memory Speed Supported	PC2700 (333-MHz) Non-ECC - ships standard
	DDR Synch DRAM PC2100 (operates at 266MHz) Non-ECC
	DDR Synch DRAM PC3200 (operates at 333MHz) Non-ECC
Maximum Memory	2-GB
Memory Parity	Not Needed for non-ECC
ECC Memory	Not Supported by chipset
Serial Presence Detect Support	Supported
PCI	2 full-height half-length PCI card (6.87 in / 17.45 cm)
AGP	None
Bays	Total Bays = 3
Internal	(1) 3.5 inch ATA Hard Drive
External	(2) 1- 3.5 floppy drive bay or 2 <sup>nd</sup> HD and 1- 5.25 inch optical drive bay
Wireless Support	PCI card or external USB
Parallel Port	1
Serial Port	4 standard RS232 - individually configurable to powered (5V, 12V)
USB Port	6 USB 2.0 - 4 powered (3 - 12V, 1 – 24V), 2 standard
PS/2 Keyboard	1
PS/2 Mouse	1
VGA Adapter	1

## Technical Specifications

Chassis Dimensions (H x W x D) Inches	3.95 x 13.3 x 15.1 in (10 x 33.8 x 38.3 cm)
System Weight	22.2 lbs (10.07 kg)
System Volume	13 liters
Shipping weight	29 lbs (13.15 kg)
Monitor weight supported (maximum)	77 lbs (35 kg)
Hard Drive Interfaces Supported	2 ULTRA ATA/100 interfaces
Hard Drive Controller (PCI) Supported	ULTRA ATA 100/66/33
Serial-ATA	2 port
<b>System Board</b>	
Architecture	P4 / PCI / AGP 4X
Chipset	Intel 845GV Chipset
I/O Controller	SMSC LPC47B387 & LPC47M107 (for 3 <sup>rd</sup> and 4 <sup>th</sup> serial ports)
System Board Form Factor	custom
Processor Socket - 478 Pin ZIF	✓
DIMM Connectors (2.5V)	2
AGP Connector (1.5V)	x
Integrated AGP Graphics	Intel
PCI Connectors (5.0V)	1
Flash ROM	✓
AC97 integrated audio	✓
CD ROM IN (Audio)	✓
AUX IN (Audio)	✓
Clear CMOS Jumper	✓
CPU Fan Header	✓
Chassis Fan Header	✓
Chassis Speaker Header	✓
CMOS Battery Holder - Lithium	✓
Integrated Intel PRO/100VM nic	✓
Wake-On-Lan®	✓
ASF 1.0 (Alert Standard Format)	✓
Power Supply Header	✓
Power Switch, Power LED & Hard Drive LED Header	✓
Password Clear Header	✓
Riser Connector	✓
SCSI LED Header	✓
PCI extender that connects to System Board	x
<b>Chassis</b>	
Color	Carbonite
System Board Form Factors Supported	Custom point of sale
Cooling Solutions Supported	✓
Power Supply Fan (Variable Speed)	✓
Processor Fan-Heatsink (Variable Speed)	✓
Chassis Fan	✓
Slots Supported	2 full-height half-length PCI card (6.87 in / 17.45 cm)
AGP Slot	x
Front I/O	none
Rear I/O	4 USB, 1 VGA, Audio In, Audio Out, 1 RJ-45, Audio In, Audio Out / Headphone
Internal Speaker	✓
Power Supply	185W Power Supply – PFC (115v / 230v line switch)
Security Locks Supported	Kensington Cable Lock Provision (Lock not included) Hood Cover Security Loop (Lock not included)
Security Loop hole diameter	0.212 inches

## Technical Specifications

<b>Interfaces</b>	
I/O Chip	SMSC LPC47B387 & LPC47M107 (for 3 <sup>rd</sup> and 4 <sup>th</sup> serial ports)
Serial Port	4 powered (5V, 12V) and individually configurable to standard RS232
Parallel Port	1
PS/2	2
USB (2.0)	6 USB 2.0 - 4 powered (3 - 12V, 1 - 24V), 2 standard
RJ-45 10/100/1000 Network	✓
Keyboard	✓ (PS/2 standard)
Mouse	✓ (PS/2 standard)
Multibay	✗
Video (VGA)	✓
Audio	✓ (line out only)
<b>Power Supply</b>	
Power Supply	Custom Power Supply – PFC With in 230V (115v/230V line switch)
Full Ranging Input (No Line Select Switch)	✗
Active Power Factor Correction (APFC) (Input Current is nearly 1/2 a non-APFC PS)	✗
Passive Power Factor Correction (PFC)	✓
Operating Voltage Range	90 – 132 / 180 – 264 VAC
Rated Voltage Range	100 – 127 / 200-240 VAC
Rated Line Frequency	50/60 Hz
Operating Line Frequency Range	47 – 63 Hz
Rated Input Current	5A / 2.5A
Maximum Rated Power	185W
Heat Dissipation	Typical 256 btu/hr (65 kg-cal/hr) Maximum 971 btu/hr (245 kg-cal/hr)
Power Supply Fan	60mm variable speed
Energy Star Compliant	✓
Blue Angel Compliant (<5w in S5-- Power Off)	✓
FEMP Standby Power Compliant (<2W in S5 – Power Off)	✓
Power Consumption in ES Mode - Suspend to RAM (S3) (Instantly Available PC)	2.5W to 3W
Processor/Cache Memory Power -Down (S3)	< 3W
<b>Environmental and Mechanical Engineering Support Center</b>	<a href="http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm">http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm</a>

## Technical Specifications

ROM Features	Description	
Instantly Available PC (Suspend to RAM - S3)	Allows for very low power consumption with quick resume time	✓
ROM Based F10 Setup	Review and customize BIOS settings	✓
Remote System Installation via F12 (PXE) (Remote Boot from Server)	Allows a new or existing system to boot over the network and download software, including the operating system	✓
System/Emergency ROM Flash Recovery with Video	Recovers corrupted system BIOS	✓
CMOS Archive and CMOS Restore	Holding down the power button restores the last known good BIOS settings (from previous restart) if the system gets into a locked state after configuration changes are made	✓
Auto Setup when New Hardware Installed	System automatically detects addition of new hardware	✓
Serial, Parallel, USB, Audio, Network, Enable/Disable Port Control	Enable or disables serial, parallel, USB, audio, and network ports	✓
Removable Media Write / Boot Control	Prevents ability to boot from removable media on supported devices (and can disable writes to media)	✓
Network Server Mode	Allows for secured keyboard-less operation	✓
Power-On Password	Prevents an unauthorized person from booting up the computer	✓
Setup Password	Prevents an unauthorized person from changing the system configuration	✓
Replicated Setup	Saves BIOS settings to diskette or USB disk-on-key in human readable file. Repset.exe utility can then replicate these settings on machines being deployed without entering ROM-based F10 setup	✓
Memory Change Alert (Requires Insight Management Agent)	Alerts management console if memory is removed or changed	✓
Thermal Alert (Requires Insight Management Agent)	Monitors the temperature state within the chassis. Three modes: <ul style="list-style-type: none"> <li>• NORMAL – normal temperature ranges</li> <li>• ALERTED - excessive temperatures are detected. Raises a flag so action can be taken to avoid shutdown or provide for a smoother system shutdown</li> <li>• SHUTDOWN – excessive temperatures are encountered. Automatically shuts down the computer without warning before hardware component damage occurs</li> </ul>	✓
Cover Removal Alert (Requires Insight Management Agent for network alerts)	Notifies the Network Administrator and end user when the cover has been removed without authorization through an electronic switch residing inside the computer. Can be set to one-of-three modes: <ul style="list-style-type: none"> <li>• DISABLED - user/network administrator does not want to be made aware of the computer hood removal</li> <li>• NOTIFY USER - notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer</li> <li>• UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot</li> </ul>	×
Master Boot Record Security	Detects changes to MBR and optional restoration, useful in protecting from viruses	✓
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	✓
Remote Wakeup	<ul style="list-style-type: none"> <li>• System administrators can power on, restart, and power off a client computer from a remote location.</li> <li>• Enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM.</li> </ul>	✓
ACPI (Advanced Configuration and Power Management Interface)	<ul style="list-style-type: none"> <li>• Allows the system to wake from a low power mode</li> <li>• Controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system</li> </ul>	✓
Keyboard-less Operation	The system can be operated without a keyboard	✓
SMBIOS	System Management BIOS, previously known as DMI BIOS, for system management information	✓
Environmental and Mechanical Engineering Support Center (EMESC) - Intranet Web Site only	<a href="http://env-websserver.ccm.cpqcorp.net/EMESC/default.htm">http://env-websserver.ccm.cpqcorp.net/EMESC/default.htm</a>	

## Technical Specifications

Software	Description	
<b>Preinstalled Software</b>		
Windows 3.1		x
Windows 95		x
Windows 98		x
Windows NT 4.X (drivers available on web - Softpaqs only)		x
Microsoft Windows XP Professional with service pack 1a		✓
Microsoft Windows XP Embedded with service pack 1		✓
Microsoft Windows 2000 with service pack 4		✓
Windows XP Home SP1		x
Computer Setup Utility		✓
Diagnostics for Windows		✓
Microsoft Internet Explorer		✓
<b>Pre-loaded Software</b>		
Altiris Agents (Aclient, Nsclient)		✓
Insight Management Agent		✓
Local Diskette Boot		✓
Network Boot		✓
Disk-on-Key Boot		✓
<b>Initial Configuration and Deployment</b>		
HP/Compaq Client Manager (free)	A FREE solution that provides asset tracking, alerting, diagnostics, and SoftPaq distribution for Compaq business desktops, notebooks, and workstations. Compaq Client Manager "plugs" into the Altiris eXpress infrastructure to provide value-add Compaq specific information that can be leveraged by all Altiris eXpress solutions	✓
Altiris eXpress Solutions (30-day trial version)	A suite of solutions that focus on business needs in four areas, saving time and freeing resources to address other crucial issues: <ul style="list-style-type: none"> <li>• Deployment &amp; Migration</li> <li>• Software &amp; Operations Management</li> <li>• Inventory &amp; Asset Management</li> <li>• Help Desk &amp; Problem Resolution</li> </ul>	✓
System Software Manager (free)	Detects and updates BIOS, device drivers, and management agent versions on your networked PCs	✓
Replicated Setup	Saves BIOS settings to diskette or USB disk-on-key in human readable file. Repset.exe utility can then replicate these settings on machines being deployed without entering ROM-based F10 setup	✓
Insight Manager	-----	✓
Support Software CD	-----	✓
Software Restore CD	Restores computer to its original factory shipping image	✓
Asset Tag	<ul style="list-style-type: none"> <li>• Repository for storing company-specific property asset numbers for easy tracking</li> <li>• Initially set equal to the system serial number</li> <li>• Stored in a protected section of non-volatile memory that can be accessed and modified with the F10 Setup program</li> </ul>	✓
DIMM Serial Presence Detect	Detects whether or not memory DIMMs are present and their type	✓
Hard drive serial number, model, and manufacturer	Hard drive manufacturer, model, and serial number is stored in the hard drive firmware and reported in ROM-based F10 setup	✓
Monitor serial number, model and manufacturer	-----	✓
System serial number, model, and manufacturer	System serial number, model, & manufacturer stored in a non-volatile memory and can be retrieved with management SW or viewed in ROM-based F10 setup	✓

## Technical Specifications

Initial Configuration and Deployment <i>(continued)</i>	Description	
ROM revision levels	<ul style="list-style-type: none"> <li>Identifies system ROM revision levels and reports in ROM-based F10 setup</li> <li>Version is stored in an industry standard memory location (SMBIOS) so that management SW applications can use and report this information</li> </ul>	✓
System board revision level	<ul style="list-style-type: none"> <li>Allows management SW to read the revision level of the system board</li> <li>Revision level is digitally encoded into the hardware and cannot be modified</li> </ul>	✓
Memory Change Alert	Alerts management console if memory is removed or changed	✓
Ownership Tag	A user-defined string stored in non-volatile memory that is displayed in the BIOS splash screen	✓
<b>Security Features</b>		
Smart Cover Lock	Remote operated system lock	x
Smart Cover Sensor (Requires Insight Management Agent for network alerts)	<p>Notifies the Network Administrator and end user when the cover has been removed without authorization through an electronic switch residing inside the computer. Can be set to one-of-three modes:</p> <ul style="list-style-type: none"> <li>DISABLED -user/network administrator does not want to be made aware of the computer hood removal</li> <li>NOTIFY USER - notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer</li> <li>UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot</li> </ul>	x
Mechanical Hood Security Provision	Security Loop	✓
Kensington Lock Support	Kensington lock slot on the chassis	✓
Cable Lock Provision	Physically secure computer hardware from theft	✓
Serial, Parallel, USB Enable/Disable	Enable or disable serial, parallel or USB ports and hide them from the operating system	✓
Port Control	Attaches to back of chassis covering external ports and thereby preventing unauthorized access; also aids in cable management	✓
Removable Media Write / Boot Control	Prevents the computer from being booted from removable media on supported devices (and can disable writes to media)	✓
Power-On Password	Prevents an unauthorized person from booting up the computer	✓
Setup Password	Prevents an unauthorized person from changing the system configuration	✓
Smartcard Reader	Prevents system access to the operating system unless the user has the appropriate Smartcard	✓
Fingerprint Reader	Restricts system access to the operating system based on fingerprint	✓
<b>Fault Notification and Recovery</b>		
SMART Hard Drives, Fault Notification, and Prefailure Warranty	<ul style="list-style-type: none"> <li>Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted</li> <li>Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count</li> <li>By avoiding actual hard drive failures, SMART hard drives act as “insurance” against unplanned user downtime and potential data loss from hard drive failure</li> </ul>	✓
Proactive Backup	<ul style="list-style-type: none"> <li>Initiates an automatic backup of the computers SMART hard (to a local tape device for example) when an imminent failure is predicted</li> <li>Prevents data loss and end-user down time due to a failing hard drive</li> </ul>	✓
Surge Tolerant Full Ranging Power Supply	Withstands power surges up to 2000V	✓
Thermal Alert	<p>Monitors the temperature within the chassis</p> <ul style="list-style-type: none"> <li>NORMAL –normal temperature ranges</li> <li>ALERTED - excessive temperatures are detected. Raises a flag so that appropriate action can be taken to avoid shutdown or provide for a smoother system shutdown</li> <li>SHUTDOWN – excessive temperatures are encountered. Automatically shuts down the computer without warning before hardware component damage occurs</li> </ul>	✓
Ultra ATA Integrity Monitoring (CRC Checking)	<p>Provides data transfer verification and proactive notification of hard drive data transmission problems with recommendations for enhancing system performance. It detects all the following errors types:</p> <ul style="list-style-type: none"> <li>single bit errors</li> <li>double bit errors</li> <li>an odd number of errors</li> <li>error bursts up to 32-bits long</li> </ul>	✓

## Technical Specifications

System Software Updating	Description	
Product Change Notification	<ul style="list-style-type: none"> <li>Program to proactively communicate Product Change Notifications (PCNs) and Customer Advisories by email to customers, based on a user-defined profile.</li> <li>PCNs provide advance notification of hardware and software changes to be implemented in the factory providing time to plan for transition.</li> <li>Customer Advisories provide concise, effective problem resolution, greatly reducing the need to call technical support</li> </ul>	✓
Active Update	<ul style="list-style-type: none"> <li>Advanced web-based application that provides proactive notification and automatic download of software updates for most Compaq commercial products</li> <li>Updates may be deployed using Compaq or third-party deployment tools</li> <li>Software subscription filters automatically identify and download only relevant content based on the user-defined subscription information</li> </ul>	✓
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	✓
Remote Wakeup / Remote Shutdown	<ul style="list-style-type: none"> <li>System administrators can power on, restart, and power off a client computer from a remote location.</li> <li>Enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM.</li> </ul>	✓
ROM Based Setup (F10) and Start-up Diagnostics	-----	✓
Support Software CD and WWW	-----	✓
<b>Other Features</b>		
ACPI-Ready Hardware	Advanced Configuration and Power Management Interface (ACPI). <ul style="list-style-type: none"> <li>Allows the system to wake from a low power mode.</li> <li>Controls system power consumption, making it possible to place individual cards and peripherals in a low-power or powered-off state without affecting other elements of the system</li> </ul>	✓
SMBIOS	System Management BIOS, previously known as DMI BIOS, for system management information	✓
Wired for Management Support	Intel-driven, industry-wide initiative to make Intel architecture-based PCs, servers and mobile computers more inherently manageable right out of the box and over the network	✓
Dual-State Power Button	Power button acts as both an on/off button and suspend-to-sleep button	✓
<b>Serviceability Features of System</b>		
Dual Color Power LED on Front of Computer (Indicates Normal Operations and Fault Conditions)	-----	✓
Diagnostic LED Explanation Table	Number of 1-second red LED blinks followed by 2-second pause, then repeats: 2-processor thermal protection activated 3-processor not installed 4-power supply failure 5-memory error 6-video error 7-PCA failure (ROM detected failure prior to video) 8-invalid ROM, bootblock recover mode	✓
System/Emergency ROM Flash Recovery with Video	Recovers corrupted system BIOS.	✓
Compaq Diagnostic for Windows Software	-----	✓
Compaq Configuration Record SW	-----	✓
Over-Temp Warning on Screen (Requires IM Agents)	-----	✓
Compaq OS CD (Restore OS CD)	Restores computer to its original factory shipping image	✓
Compaq Restore CD	Restores the computer to its original factory shipping image	✓
Flash ROM	-----	✓
3.3V Aux Power LED on System PCA	-----	✓
Dual Function 5V Aux Power LED (ON) / PS_ON LED (OFF) on System PCA	-----	✓
Diagnostic Power Switch LED on board	-----	✓
Clear Password Jumper	-----	✓
Clear CMOS Jumper	-----	✓

## Technical Specifications

Serviceability Features of System <i>(continued)</i>	Description	
CMOS Battery Holder for easy Replacement	-----	✓
Processor ZIP Socket for easy Upgrade	-----	✓
DIMM Connectors for easy Upgrade	-----	✓
NIC LEDs (integrated) (Green & Amber)	Used to determine NIC status	✓
<b>Serviceability Features of Chassis</b>		
Dual Color Power and HD LED - To Indicate Normal Operations and Fault Conditions	-----	✓
ASF 1.0 support (Alert Standard Format)	Industry-standard specification for network alerting in operating system-absent environments	✓
Smart Cover Sensor (Requires Insight Management Agent for network alerts)	<p>Notifies the Network Administrator and end user when the cover has been removed without authorization through an electronic switch residing inside the compute. Can be set to one-of-three modes:</p> <ul style="list-style-type: none"> <li>• DISABLED - user/network administrator does not want to be made aware of the computer hood removal</li> <li>• NOTIFY USER - notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer</li> <li>• UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot</li> </ul>	×
Smart Cover Lock	Remote operated system lock	× cover can be locked with security loop or Kensington
Front power switch	-----	✓
Green Pull Tabs, and Quick Release Latches for easy Identification	-----	✓
Color coordinated cables and connectors		✓
System memory can be upgraded without removing the system board or any internal components	Eases memory upgrading	✓
Tool-less Hood Removal	Eases entry to the chassis without use of special tools	✓ (with captive thumbscrew)
Tool-less Hard Drive, CD & Diskette Removal	-----	Hard Drive is tool-less. Multibay Drives are hot-swappable and ejectable.
Tool-less System Board Removal	No special tools required for system board removal or maintenance	×
Towerable	Product can be oriented as a tower (in addition to desktop orientation)	✓
Universal Tower Stand	Necessary to safely orient as a tower	✓ (Standard)
Drive Self Tests (DPS)	<ul style="list-style-type: none"> <li>• Drive Protection System</li> </ul>	✓
DPS Access through F10 Setup during Boot	<ul style="list-style-type: none"> <li>• A diagnostic hard drive self test. It scans critical physical components and every sector of the hard drive for physical faults and then reports any faults to the user. Running independently of the operating system, it can be accessed through a Windows-based diagnostics utility or through the computer's setup procedure. It produces an evaluation on whether the hard drive is the source of the problem and needs to be replaced.</li> </ul>	✓
DPS Access through Diagnostics for Windows	<ul style="list-style-type: none"> <li>• The system expands on the Self-Monitoring, Analysis, and Reporting Technology (SMART), a continuously running systems diagnostic that alerts the user to certain types of failures</li> </ul>	✓
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)	<ul style="list-style-type: none"> <li>• Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted</li> <li>• Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count</li> </ul>	✓
SMART I - Drive Failure Prediction		✓
SMART II - Off-Line Data Collection		✓
SMART III - Off-Line Read Scanning with Defect Reallocation	<ul style="list-style-type: none"> <li>• By avoiding actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure</li> </ul>	✓

## Technical Specifications

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### Service and Support

On-site Warranty and Service <sup>Note 1</sup>: This three-year, limited warranty and service offering delivers three years of 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.

**NOTE 1:** Terms and conditions may vary by country. Certain restrictions and exclusions apply.

**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, HP and HP-qualified, third-party hardware and software. Toll-free calling and 24 x 7 support may not be available in some countries.

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