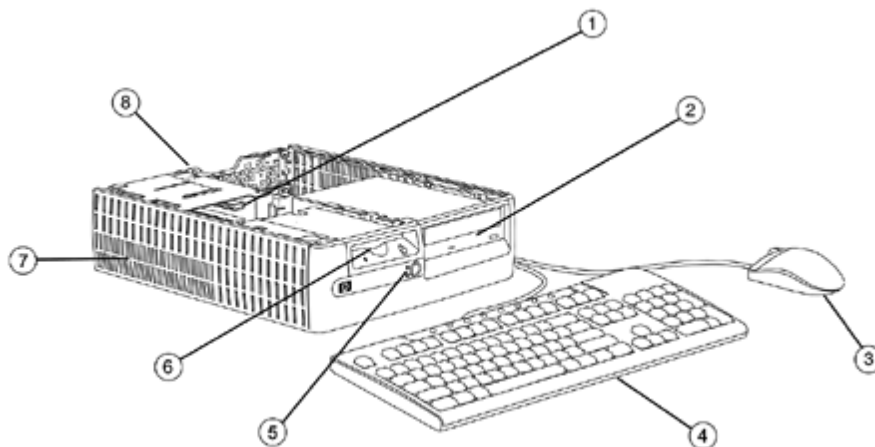


Overview



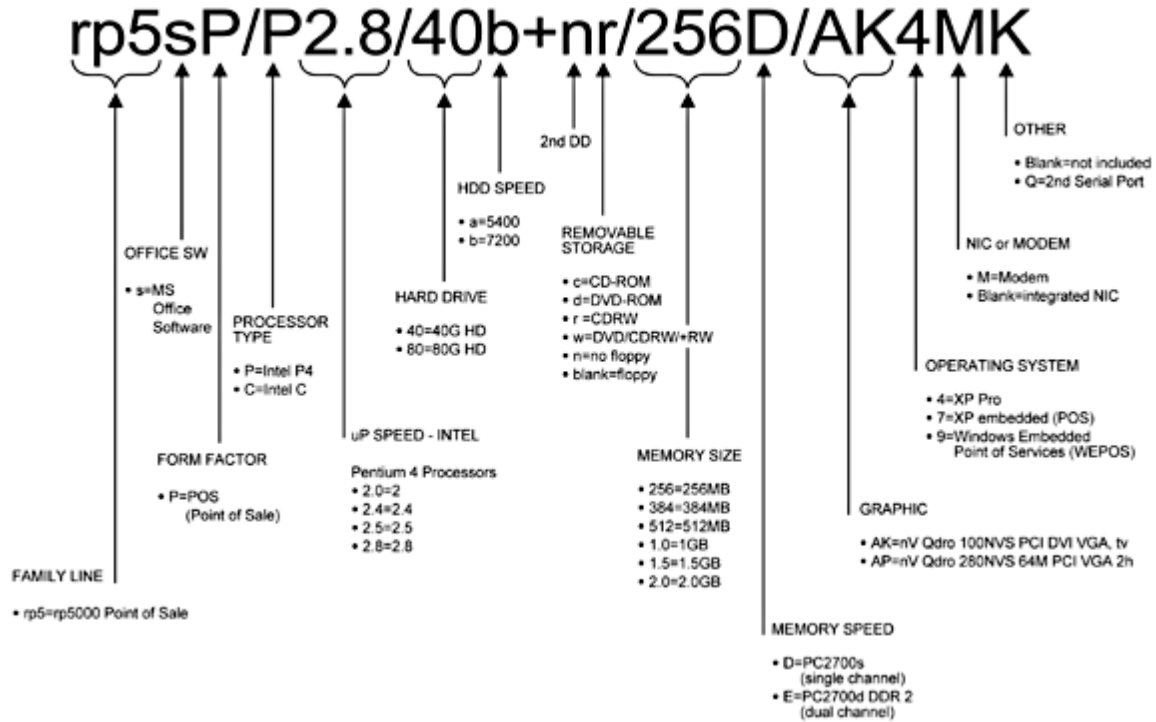
1. Expansion: 2 full-height PCI slots
2. 1 3.5" internal bay and 1 5.25" external bay for optical drive
3. 2-Button Scroll Mouse
4. Keyboard
5. LEDs
6. Optional diskette drive or 3.5" bay
7. 185W Internal Power Supply
8. Rear I/O:
6 USB (2 standard, 4 powered - 3 @ 12V, 1 @ 24V),
4 Standard RS232 Serial Port (supports powered 5V & 12V),
1 parallel port, 2 PS/2, 1 RJ-45, 1 VGA, Line out

At A Glance

- Intel® Pentium® 4 and Celeron™ processors (Socket N)
- One of the following Operating Systems:
Genuine Windows XP Professional
Genuine Windows XP Embedded
Genuine Windows Embedded for Point of Service (WEPOS)
FreeDOS
- Intel 845GV chipset with Intel Extreme integrated graphics
- Integrated Intel Pro 100/VE ethernet
- 400 and 533 MHz with front side bus support
- SMART III Ultra ATA/100 Hard Drives
- SoundMax Digital AC97 integrated audio with internal speaker (supports speaker beeps only, support for other file formats i.e. WAV/AVI requires an external 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.

Standard Features - Select Models (localized by Regions)

HP Point of Sale System rp5000



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

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
Processor and Speed – One of the following	Intel Celeron Processors with 400-MHz Front Side Bus, 128-KB L2 cache 2.0-GHz, 2.5-GHz	X
	Intel Pentium 4 Processors with 400-MHz or 533-MHz Front Side Bus, 512-KB L2 cache 2.0-GHz, 2.4-GHz, 2.8-GHz	X
Operating System – One of the following	Genuine Windows XP Professional SP2	X
	Genuine Windows XP Embedded SP1	X
	Genuine Windows Embedded for Point of Service (WEPOS)	X
	FreeDOS	X
Hard Disk Drive – One of the following	40-GB 5400 rpm SMART III Ultra ATA/100; 40-GB 7200 rpm, 80-GB 7200 rpm	X
	2nd hard drive, 40-GB 5400 rpm SMART III Ultra ATA/100, 40-GB 7200 rpm, 80-GB 7200 rpm (optional in lieu of floppy)	X
Memory – One of the following	256-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 256)	X
	256-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (2 x 128)	X
	384-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 128, 1 x 256)	X
	512-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 512)	X
	512-MB DDR Synch Dram PC2700 (333-MHz) Non ECC (2 x 256)	X
	1-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 1GB)	X
	1-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (2 x 512)	X
	1.5-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (1 x 1GB, 1 x 512)	X
2-GB DDR Synch Dram PC2700 (333-MHz) Non ECC (2 x 1GB)	X	
Removable Storage	1.44-MB Diskette Drive (optional)	X
	48X CD-ROM Drive	X
	48X/32X/48X CDRW Drive (XP Professional only)	X
	16X/40X DVD-ROM	X
	16X DVD+/-RW LightScribe Drive (Double Layer/Dual Format)	X
	48X/32X Combo Drive (XP Professional only)	X
Keyboard	2004 standard keyboard PS/2 (no hotkeys)	X
	No keyboard optional	X
Mouse	PS/2 2-Button Scroll Mouse	X
	No mouse optional	X

Standard Features - Custom Components

Audio	SoundMax Digital AC97 integrated audio with internal speaker (supports speaker beeps only, support for other file formats i.e. WAV/AVI requires an external speaker)	X
NIC	Intel Pro 100/VE NIC	X
Miscellaneous	Wall/under desk mounting bracket Tower stand	X X
Serial Port Configurations	Standard Mode: All four serial ports configured in standard mode (no power) Powered Mode: All four serial ports configured for power (pin 1 = +12V & pin 9 = +5V on each serial port). Standard/Powered Mode: Two serial ports are configured in standard mode (no power) and two serial ports are configured for power (pin 1 = +12V & pin 9 = +5V).	X X X
Graphics	Intel Extreme Graphics (integrated with Intel 845GV chipset) NVIDIA Quadro 280NVS PCI (64 MB, dual VGA)	X X

Standard Features

Processor	Intel Pentium 4, Intel Celeron (Socket N)
Preinstalled Software	
Genuine Microsoft Windows XP Professional SP2	X
Genuine Microsoft Windows XP Embedded SP1	X
Genuine Microsoft Windows Embedded for Point of Service (WEPOS)	X
FreeDOS	X
Computer Setup Utility	X
Diagnostics for Windows	X
Microsoft Internet Explorer	X
Norton Antivirus 2005 with 60-day Live Update Subscription	X
CPU Bus Speed Supported	400 and 533 MHz with FSB support
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 266MHz or 333MHz) Non-ECC
Maximum Memory	2-GB
Network controller	Integrated Intel PRO/100VE
Graphics	Integrated Intel Extreme Graphics
Audio	SoundMax Digital AC97 integrated audio with internal speaker
NOTE: supports speaker beeps only, support for other file formats i.e. WAV/AVI requires an external speaker	
PCI	2 full-height half-length PCI cards (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 2nd HD and 1– 5.25 inch optical drive bay
NOTE: Usability is dependent on configuration. If a configuration contains a 2nd HDD, then no optical device or floppy can be chosen.	
Parallel Port	1
Serial Port	4 standard RS232 – individually configurable to powered 5V & 12V
USB Port	6 USB 2.0 (2 standard, 4 powered - 3 @ 12V, 1 @ 24V),
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 (HxWxD)	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 (13.74 quarts)
Shipping weight	29 lbs (13.15 kg)

Standard Features

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

After-Market Options

Graphics	2D Multi-Display Graphics NVIDIA Quadro 280NVS PCI (64MB, Dual VGA)	DY599A
Hard Disk Drive – One of the following	40-GB 7200 rpm SMART III Ultra ATA/100 80-GB 7200 rpm SMART III Ultra ATA/100	DC180A DC181A
Memory (DIMMs)	266-MHz (PC2100) DDR DIMMs Non-ECC 1-GB DDR Synch Dram PC2100 (266-MHz) Non-ECC 512-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC 256-MB DDR Synch Dram PC2100 (266-MHz) Non-ECC 333-MHz (PC2700) DDR DIMMs Non-ECC 1-GB DDR Synch Dram PC2700 (333-MHz) Non-ECC 512-MB DDR Synch Dram PC2700 (333-MHz) Non-ECC 256-MB DDR Synch Dram PC2700 (333-MHz) Non-ECC 400-MHz (PC3200) DDR DIMMs Non-ECC 1-GB DDR Synch Dram PC3200 (400-MHz) Non-ECC 512-MB DDR Synch Dram PC3200 (400-MHz) Non-ECC 256-MB DDR Synch Dram PC3200 (400-MHz) Non-ECC	DC166A DC165A DC164A DC341A DC340A DC339A DE468A DE467A DE466A
Monitors	CRTs HP s7540 17" (16.0" vis) CRT Monitor HP v7650 17" (16.0" vis) Flat-face CRT Monitor TFTs HP L1506 15" TFT Flat Panel Monitor - Analog only HP L1706 17" TFT Flat Panel Monitor - Analog only HP L1740 17" TFT Flat Panel Display - Analog/Digital HP L1755 17" TFT Flat Panel Display - Analog/Digital HP L1906 19" TFT Flat Panel Display - Analog only HP L1940T 19" TFT Flat Panel Display - Analog/Digital HP L1955 19" TFT Flat Panel Display - Analog/Digital HP L2065 20" TFT Flat Panel Display - Analog/Digital HP LP2465 24" TFT Widescreen Flat Panel Display - Analog/Digital GSA Monitors HP L717g 17" GSA Flat Panel Monitor HP L919g 19" GSA Flat Panel Monitor Options HP Flat Panel Speaker Bar HP CRT Monitor Multimedia Base	PF997AA#ABA PF996AA#ABA PX848AA#ABA PX849AA#ABA PL766AA#ABA PL777AA#ABA PX850AA#ABA EM869AA#ABA PD974AA#ABA EF227A4#ABA EF224A4#ABA EE191AA#ABA EE192AA#ABA EE418AA PM552AA

After-Market Options

Optical Drives	DVD-ROM Drive	
	16X/40X DVD-ROM	DC151B
	16X DVD+/-RW LightScribe Drive (Double Layer/Dual Format)	PR595A
	CD-ROM Drive	
	48X Max CD-ROM Drive	DC143B
	Combo Drive	
	48X/32X (XP Professional only)	DL976B
CD-RW Drive		
	48X/32X/48X CD-RW Drive (XP Professional only)	DL975B
<hr/>		
Communications	HP WL500 PCI (802.11 a/g) WiFi Wireless LAN	DV649A
	HP Wireless A+G PCI Adapter – Americas only	EA118AA
	HP Wireless A+G PCI Adapter – WW except Americas	PZ928AA
	2006 Agere PCI 56K International SoftModem	EK694AA
<hr/>		
Input Devices	HP USB 04 Standard Keyboard	DT528A
	HP USB 04 Standard Keyboard BG1650 Compliant	DT529A
	HP PS/2 2-Button Scroll Mouse (Carbonite)	DD440B
	HP USB 2-Button Scroll Mouse (Carbonite)	DD441B
	HP USB 2- Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
<hr/>		
Removable Storage	256-MB HP USB Drive Key II	PH657A
	1-GB HP USB Drive Key II	AG382AA
	1.44MB Internal Floppy Drive	DS710B
<hr/>		
Security	Kensington Security Lock Kit	PC766A
	HP Business PC Security Lock Kit	EV265AA
<hr/>		
Brackets/Stand	Wall Mounting Bracket	DK412A

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 266-MHz (PC2100), 333-MHz (PC2700) and 400-MHz (PC3200)* DDR memory. Minimum memory configuration is 256 MB for any Microsoft OS.

*System will support PC3200 memory but will default to PC2700 or PC2100 performance depending on any other memory modules installed and the FSB speed of the processor.

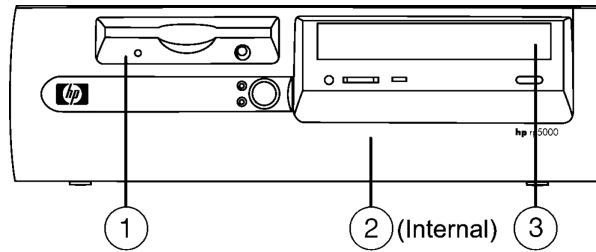
Maximum Memory (RP5000 Point of Sale System)

Supports up to 2-GB of DDR SYNCH DRAM.

Possible Memory Configurations

DIMM Size	Slot	
	1	2
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

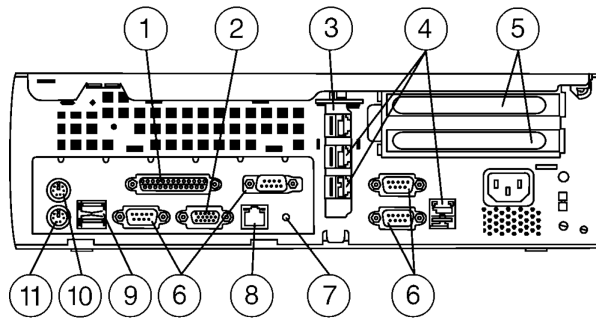
Storage



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

NOTE: Usability is dependent on configuration. If a configuration contains a 2nd HDD, then no optical device or floppy can be chosen.



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 – individually configurable to powered 5V & 12V	6
Line out	7
RJ-45	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 and 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 graphics	X
Cables	ATA Cable
Quick Setup Poster	X
Product Documentation on CD	X
Operating System CD	X
Restore CD	X
Power Cord	X
Keyboard	X (PS/2)
Mouse	X (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 266MHz or 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 2nd HD and 1- 5.25 inch optical drive bay
NOTE: Usability is dependent on configuration. If a configuration contains a 2nd HDD, then no optical device or floppy can be chosen.	
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 (2 standard, 4 powered – 3 @ 12V, 1 @ 24V)
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

Technical Specifications

System Weight	22.2 lb (10.07 kg)
System Volume	13 liters
Shipping Weight	29 lb (13.15 kg)
Monitor weight supported (maximum)	77 lb (35 kg)
Hard Drive Interfaces Supported	2 ULTRA ATA/100 interfaces
Hard Drive Controller (PCI) Supported	ULTRA ATA 100/66/33
Parallel-ATA	2 ports
Serial-ATA	0 port

System Board	
Architecture	P4 / PCI
Chipset	Intel 845GV Chipset
I/O Controller	SMSC LPC47B387 & LPC47M107 (for 3rd and 4th serial ports)
System Board Form Factor	ATX like (not true ATX due to rear I/O layout and motherboard PCI slot configuration)
Processor Socket – 478 Pin ZIF	X
DIMM Connectors (2.5V)	2
AGP Connector (1.5V)	—
Integrated AGP Graphics	Intel
PCI Connectors (5.0V)	1
Flash ROM	X
AC97 integrated audio	X (AC97 audio routes to line-out jack only)
CD ROM IN (Audio)	X
AUX IN (Audio)	X
Clear CMOS Jumper	X
CPU Fan Header	X
Chassis Fan Header	X
Chassis Speaker Header	X
CMOS Battery Holder – Lithium	X
Integrated Intel PRO/100VE NIC	X
Wake-On-Lan®	X
Power Supply Header	X
Power Switch, Power LED & Hard Drive LED Header	X
Password Clear Header	X
Riser Connector	X
SCSI LED Header	X
PCI extender that connects to System Board	—

Technical Specifications

Chassis	
Color	Carbonite
System Board Form Factors Supported	Custom point of sale
Cooling Solutions Supported	X
Power Supply Fan (Variable Speed)	X
Processor Fan-Heatsink (Variable Speed)	X
Chassis Fan	X
Slots Supported	2 full-height half-length PCI card (6.87 in/17.45 cm)
AGP Slot	—
Front I/O	none
Rear I/O	6 USB, 4 Serial, 1 VGA, 1 RJ-45, Line Out, parallel, PS/2 keyboard, PS/2 mouse
Internal Speaker	X
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 in (0.538 cm)

Interfaces	
I/O Chip	SMSC LPC47B387 & LPC47M107 (for 3rd and 4th serial ports)
Serial Port	4 standard RS232 – configurable for powered 5V & 12V
Parallel Port	1
PS/2	2
USB (2.0)	6 USB 2.0 (2 standard, 4 powered – 3 @ 12V, 1 @ 24V)
RJ-45 10/100/1000 Network	X
Keyboard	X (PS/2 standard)
Mouse	X (PS/2 standard)
Multibay	—
Video (VGA)	X
Audio	X (line-out only)

Technical Specifications

Power Supply	
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)	X
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
Heat Dissipation	Typical 256 btu/hr (65 kg-cal/hr) Maximum 971 btu/hr (245 kg-cal/hr)
Power Supply Fan	60 mm variable speed
Energy Star Compliant	X
Blue Angel Compliant (<5w in S5-- Power Off)	X
FEMP Standby Power Compliant (<2W in S5 – Power Off)	X
Power Consumption in ES Mode - Suspend to RAM (S3) (Instantly Available PC)	2.5W to 3W
Processor/Cache Memory Power - Down (S3)	< 3W
CD-ROM Spins Down when not in use	
Environmental and Mechanical Engineering Support Center	http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm

ROM Features	Description	
Instantly Available PC (Suspend to RAM - S3)	Allows for very low power consumption with quick resume time	X
ROM Based F10 Setup	Review and customize BIOS settings	X
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	X
System/Emergency ROM Flash Recovery with Video	Recovers corrupted system BIOS	X
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	X
Auto Setup when New Hardware Installed	System automatically detects addition of new hardware	X

Technical Specifications

Serial, Parallel, USB, Audio, Network, Enable/Disable Port Control	Enable or disables serial, parallel, USB, audio, and network ports	X
Removable Media Write / Boot Control	Prevents ability to boot from removable media on supported devices (and can disable writes to media)	X
Network Server Mode	Allows for secured keyboard-less operation	X
Power-On Password	Prevents an unauthorized person from booting up the computer	X
Setup Password	Prevents an unauthorized person from changing the system configuration	X
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	X
Memory Change Alert (Requires Insight Management Agent)	Alerts management console if memory is removed or changed	X
Thermal Alert (Requires Insight Management Agent)	Monitors the temperature state within the chassis. Three modes: <ul style="list-style-type: none"> • NORMAL – normal temperature ranges • ALERTED – excessive temperatures are detected. Raises a flag so action can be taken to avoid shutdown or provide for a smoother system shutdown • SHUTDOWN – excessive temperatures are encountered. Automatically shuts down the computer without warning before hardware component damage occurs 	X
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"> • DISABLED – user/network administrator does not want to be made aware of the computer hood removal • NOTIFY USER – notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer • UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot 	—
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	X
Remote Wakeup	<ul style="list-style-type: none"> • System administrators can power on, restart, and power off a client computer from a remote location. • Enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM. 	X
ACPI (Advanced Configuration and Power Management Interface)	<ul style="list-style-type: none"> • Allows the system to wake from a low power mode • 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 	X
Keyboard-less Operation	The system can be operated without a keyboard	X
SMBIOS	System Management BIOS, previously known as DMI BIOS, for system management information	X
Environmental and Mechanical Engineering Support Center (EMESC) Intranet Web Site only	http://env-webserver.ccm.cpqcorp.net/EMESC/default.htm	

Technical Specifications

Software	Description	
Preinstalled Software		
Windows 3.1		—
Windows 95		—
Windows 98		—
Windows NT 4.X (drivers available on web – Softpaqs only)		—
Microsoft Windows XP Professional with service pack 2		X
Microsoft Windows for Point of Service (WEPOS)		X
Microsoft Windows XP Embedded with service pack 1		X
Microsoft Windows 2000 with service pack 4		—
Windows XP Home SP1		—
MS FreeDOS		X
Computer Setup Utility		X
Diagnostics for Windows		X
Microsoft Internet Explorer		X
Norton Antivirus 2005 with 60 day Live Update Subscription		X
Pre-loaded Software		
Altiris Agents (Aclient, Nsclient)		X
Insight Management Agent		X
Local Diskette Boot		X
Network Boot		X
Disk-on-Key Boot		X

Technical Specifications

Initial Configuration and Deployment	Description	
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	X
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"> • Deployment & Migration • Software & Operations Management • Inventory & Asset Management • Help Desk & Problem Resolution 	X
System Software Manager (free)	Detects and updates BIOS, device drivers, and management agent versions on your networked PCs	X
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	X
Insight Manager	-----	X
Support Software CD	-----	X
Software Restore CD	Restores computer to its original factory shipping image	X
Asset Tag	<ul style="list-style-type: none"> • Repository for storing company-specific property asset numbers for easy tracking • Initially set equal to the system serial number • Stored in a protected section of non-volatile memory that can be accessed and modified with the F10 Setup program 	X
DIMM Serial Presence Detect	Detects whether or not memory DIMMs are present and their type	X
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	X
Monitor serial number, model & manufacturer	-----	X
System serial number, model, & 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	X
ROM revision levels	<ul style="list-style-type: none"> • Identifies system ROM revision levels and reports in ROM-based F10 setup • Version is stored in an industry standard memory location (SMBIOS) so that management SW applications can use and report this information 	X
System board revision level	<ul style="list-style-type: none"> • Allows management SW to read the revision level of the system board • Revision level is digitally encoded into the hardware and cannot be modified 	X
Memory Change Alert	Alerts management console if memory is removed or changed	X
Ownership Tag	A user-defined string stored in non-volatile memory that is displayed in the BIOS splash screen	X

Technical Specifications

Security Features	Description	
Smart Cover Lock	Remote operated system lock	—
Smart Cover Sensor (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"> • DISABLED – user/network administrator does not want to be made aware of the computer hood removal • NOTIFY USER – notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer • UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot 	—
Mechanical Hood Security Provision	Security Loop	X
Kensington Lock Support	Kensington lock slot on the chassis	X
Cable Lock Provision	Physically secure computer hardware from theft	X
Serial, Parallel, USB Enable/Disable	Enable or disable serial, parallel or USB ports and hide them from the operating system	X
Port Control	Attaches to back of chassis covering external ports and thereby preventing unauthorized access; also aids in cable management	X
Removable Media Write/Boot Control	Prevents the computer from being booted from removable media on supported devices (and can disable writes to media)	X
Power-On Password	Prevents an unauthorized person from booting up the computer	X
Setup Password	Prevents an unauthorized person from changing the system configuration	X
Smartcard Reader	Prevents system access to the operating system unless the user has the appropriate Smartcard	X
Fingerprint Reader	Restricts system access to the operating system based on fingerprint	X


Fault Notification and Recovery	Description	
SMART Hard Drives, Fault Notification, & Prefailure Warranty	<ul style="list-style-type: none"> • Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted • Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count • By avoiding actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure 	X
Altiris Local Recovery	<ul style="list-style-type: none"> • Provides data and system file protection for HP business PCs to enable fast recovery of information that is accidentally deleted or if the system becomes corrupted. Designed for disconnected or seldom-connected users, Local Recovery protects your HP computer's data and system state by taking scheduled snapshots, which are then stored in a protected area on the local hard disk. System backup and disaster recovery is now simple and fast for all users, regardless of connectivity. 	X
Surge Tolerant Full Ranging Power Supply	Withstands power surges up to 2000V	X

Technical Specifications

Thermal Alert	<p>Monitors the temperature within the chassis</p> <ul style="list-style-type: none"> • NORMAL – normal temperature ranges • 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 • SHUTDOWN – excessive temperatures are encountered. Automatically shuts down the computer without warning before hardware component damage occurs 	X
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"> • single bit errors • double bit errors • an odd number of errors • error bursts up to 32-bits long 	X

System Software Updating	Description	
Product Change Notification	<ul style="list-style-type: none"> • Program to proactively communicate Product Change Notifications (PCNs) and Customer Advisories by email to customers, based on a user-defined profile. • PCNs provide advance notification of hardware and software changes to be implemented in the factory providing time to plan for transition. • Customer Advisories provide concise, effective problem resolution, greatly reducing the need to call technical support 	X
Active Update	<ul style="list-style-type: none"> • Advanced web-based application that provides proactive notification and automatic download of software updates for most Compaq commercial products • Updates may be deployed using Compaq or third-party deployment tools • Software subscription filters automatically identify and download only relevant content based on the user-defined subscription information 	X
Remote ROM Flash	Provides secure, fail-safe ROM image management from a central network console	X
Remote Wakeup/ Remote Shutdown	<ul style="list-style-type: none"> • System administrators can power on, restart, and power off a client computer from a remote location. • Enables cost-effective power consumption when the administrator needs to distribute software, perform security management, or update the ROM. 	X
ROM Based Setup (F10) and Start-up Diagnostics	-----	X
Support Software CD & WWW	-----	X

Technical Specifications

Other Features	Description										
ACPI-Ready Hardware	Advanced Configuration and Power Management Interface (ACPI). <ul style="list-style-type: none"> Allows the system to wake from a low power mode. 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 	X									
SMBIOS	System Management BIOS, previously known as DMI BIOS, for system management information	X									
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	X									
Dual-State Power Button	Power button acts as either an on/off button and suspend-to-sleep button	X									
Serial Ports	In addition to the three HP defined serial port configurations, all serial ports on rp5000 can be custom configured in either standard mode or powered mode. By using a combination of jumpers and/or jumper wires, each serial port can achieve seven different variations of power configurability as depicted in the diagram below. <div style="text-align: center; margin: 10px 0;"> <table border="1"> <thead> <tr> <th>Pin</th> <th>Standard Mode</th> <th>Powered Mode</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CD# (Carrier Detect)</td> <td>+5V or +12V</td> </tr> <tr> <td>9</td> <td>RI# (Ring Indicate)</td> <td>+5V or +12V</td> </tr> </tbody> </table>  </div>	Pin	Standard Mode	Powered Mode	1	CD# (Carrier Detect)	+5V or +12V	9	RI# (Ring Indicate)	+5V or +12V	
Pin	Standard Mode	Powered Mode									
1	CD# (Carrier Detect)	+5V or +12V									
9	RI# (Ring Indicate)	+5V or +12V									

Serviceability Features of System	Description	
Dual Color Power LED on Front of Computer (Indicates Normal Operations and Fault Conditions)	-----	X
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	X
System/Emergency ROM Flash Recovery with Video	Recovers corrupted system BIOS.	X
Compaq Diagnostic for Windows Software	XP Pro only	X
Compaq Configuration Record SW	-----	X
Over-Temp Warning on Screen (Requires IM Agents)	-----	X

Technical Specifications

HP OS CD (Restore OS CD)	Restores computer to its original factory shipping image (XP Pro only)	X
HP Restore CD	Restores the computer to its original factory shipping image	X
Flash ROM	-----	X
3.3V Aux Power LED on System PCA	-----	X
Dual Function 5V Aux Power LED (ON)/PS_ON LED (OFF) on System PCA	-----	X
Diagnostic Power Switch LED on board	-----	X
Clear Password Jumper	-----	X
Clear CMOS Jumper	-----	X
CMOS Battery Holder for easy Replacement	-----	X
Processor ZIP Socket for easy Upgrade	-----	X
DIMM Connectors for easy Upgrade	-----	X
NIC LEDs (integrated) (Green & Amber)	Used to determine NIC status	X

Serviceability Features of Chassis	Description	
Dual Color Power and HD LED – To Indicate Normal Operations and Fault Conditions	-----	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 compute. Can be set to one-of-three modes:</p> <ul style="list-style-type: none"> • DISABLED – user/network administrator does not want to be made aware of the computer hood removal • NOTIFY USER – notifies user/network administrator that the hood has been removed, but no action required before re-booting the computer • UP PASSWORD – notifies user/network administrator that the hood has been removed and administrator password is required before the computer will continue to boot 	—
Smart Cover Lock	Remote operated system lock	— cover can be locked with security loop or kensington
Front power switch	-----	X
Green Pull Tabs, and Quick Release Latches for easy Identification	-----	X
Color coordinated cables and connectors	-----	X

Technical Specifications

System memory can be upgraded without removing the system board or any internal components	Eases memory upgrading	X
Tool-less Hood Removal	Eases entry to the chassis without use of special tools	— (with captive thumbscrews)
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)	X
Universal Tower Stand	Necessary to safely orient as a tower	X (Standard)
Drive Self Tests (DPS)	<ul style="list-style-type: none"> • Drive Protection System • 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. • 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 	X
DPS Access through F10 Setup during Boot		X
DPS Access through Diagnostics for Windows (XP Pro only)		X
SMART Technology (Self-Monitoring, Analysis and Reporting Technology)		X
SMART I – Drive Failure Prediction	<ul style="list-style-type: none"> • Allows hard drives to monitor their own health and to raise flags if imminent failures were predicted • Predicts failures before they occur. Tracks fault prediction and failure indication parameters such as re-allocated sector count, spin retry count, calibration retry count • By avoiding actual hard drive failures, SMART hard drives act as "insurance" against unplanned user downtime and potential data loss from hard drive failure 	X
SMART II – Off-Line Data Collection		X
SMART III – Off-Line Read Scanning with Defect Reallocation		X

Service and Support	On-site Warranty and Service ^{NOTE 1} This three-year, limited warranty and service offering delivers three years of on-site, next business-day ^{NOTE 2} service for parts and labor and includes free telephone support ^{NOTE 3} 24 x 7. Global coverage ^{NOTE 2} 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. The rp5000 is available for sale in the Americas and EMEA only
	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.

Technical Specifications - Environmental Data

Eco-Label Certifications & declarations	<p>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:</p> <ul style="list-style-type: none"> • US Energy Star • US Federal Energy Management Program (FEMP) • IT ECO declaration 			
System Configuration	<p>The rp5000 configuration used for the Energy Consumption and Declared Noise Emissions data included:</p> <ul style="list-style-type: none"> • Processor: Intel Pentium 4 • 2.8-GHz, 533-MHz FSB, 512-KB L2 cache) • System memory: 256 MB DDR PC2700 • Hard disk drive: 80 GB 7200 rpm SMART III Ultra ATA/100 • Optical drive: 48x/32x CDRW/DVD-ROM Combo • Graphics: Intel Extreme Graphics (integrated with Intel 845GV chipset) 			
Energy Consumption (in accordance with US Energy Star test method)		115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation	51.6 W	50.5 W	48.69 W
	Sleep	3.27 W	3.4 W	3.15 W
	Off	2.35 W	2.5 W	2.26 W
Heat Dissipation*		115VAC, 60Hz	230VAC, 50Hz	100VAC, 60Hz
	Normal Operation	176 BTU/hr	172 BTU/hr	166 BTU/hr
	Sleep	11 BTU/hr	11.6 BTU/hr	10.7 BTU/hr
	Off	8 BTU/hr	8.5 BTU/hr	7.7 BTU/hr
<p><i>*NOTE: Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.</i></p>				
Declared Noise Emissions (in accordance with ISO 7779 and ISO 9296)		Sound Power (LWad, bels)	Sound Pressure (LpAm, decibels)	
	Idle	3.79	27.9	
	Fixed Disk (random writes)	3.86	28.9	
	Optical Drive (sequential reads)	5.22	45.0	
Longevity and Upgrading	<p>This product is designed to be upgraded, possibly extending its useful life by several years. Spare parts are available throughout the warranty period and for up to 5 years after the end of production. Upgradeability features contained in the product include:</p> <ul style="list-style-type: none"> • 6 USB ports • 2 empty PCI slots (standard profile) • 1 internal drive slot • 2 memory slots • 4 serial ports 			

Technical Specifications - Environmental Data

<p>Batteries</p>	<p>This product complies with ISO standards:</p> <ul style="list-style-type: none"> • EU Directive 91/ 157/ EEC • EU Directive 93/ 86/ EEC • EU Directive 98/ 101/ EEC <p>Batteries used in the product do not contain:</p> <ul style="list-style-type: none"> • Mercury greater the 5ppm by weight • Cadmium greater than 10ppm by weight • Lead greater than 4000 ppm by weight. <p>Battery size: CR2032 (coin cell) Battery type: Lithium/Manganese Dioxide</p>
<p>Additional Information</p>	<p>This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive – 2002/96/EC.</p> <p>Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.</p> <p>This product contains 0% recycled materials (by wt.)</p> <p>This product is 74.7% recycle-able when properly disposed of at end of life.</p> <p>Packaging Materials</p> <ul style="list-style-type: none"> • External: <ul style="list-style-type: none"> ○ Corrugated Paper 1623 g • Internal: <ul style="list-style-type: none"> ○ EPS Molded Foam (front cushion) 85 g ○ EPS Molded Foam (rear cushion) 99 g ○ Corrugated Paper Insert 227g
<p>Material Usage</p>	<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 http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):</p> <ul style="list-style-type: none"> • 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)

Technical Specifications - Environmental Data

	<ul style="list-style-type: none"> • 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	<p>HP follows these guidelines to decrease the environmental impact of product packaging:</p> <ul style="list-style-type: none"> • 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	<p>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.</p>
Hewlett-Packard Corporate Environmental Information	<p>For more information about HP's commitment to the environment:</p> <p>Global Citizenship Report http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html</p> <p>Eco-label certifications http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html</p> <p>ISO 14001 certificates: http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html</p>

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