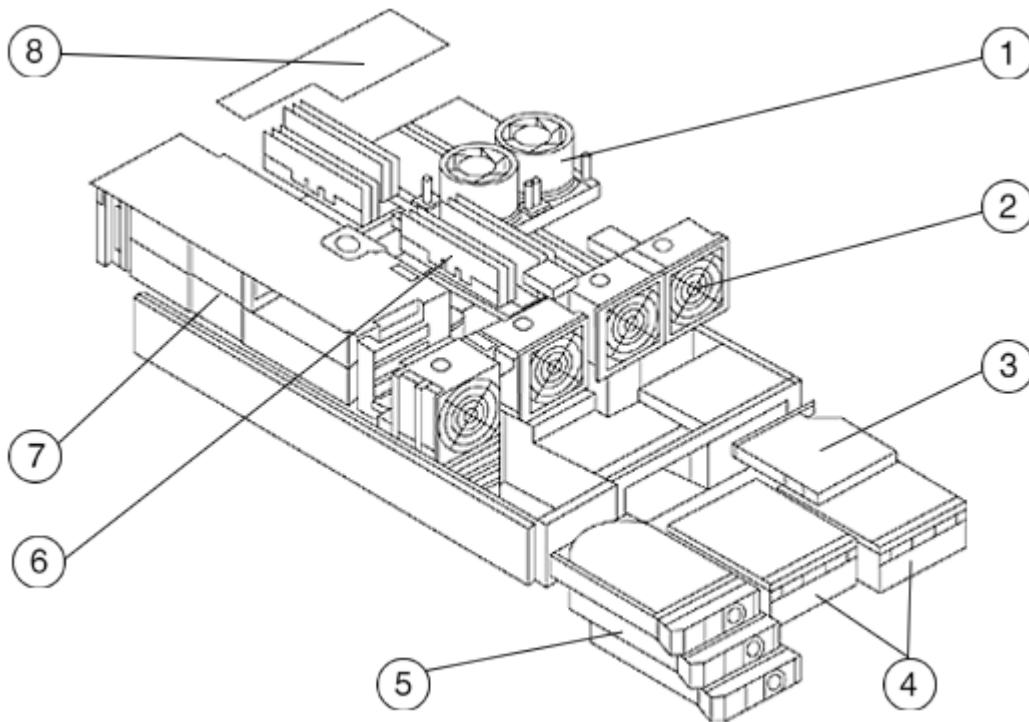


Overview



1. PA-8800 or PA-8900 processors
2. Hot-swap fans
3. DVD-ROM
4. Hot-swap power supplies
5. Hot-plug disk drives
6. 12 DDR memory DIMMs
7. PCI-X I/O slots
8. iLO Manageability Card

At A Glance

rp3440 Server Product Numbers

PA 8900 two core, 2 way Capable Base System with one active and one inactive PA 8900 800 MHz core. Includes system board and power supply. Memory, storage and I/O sold separately. Must select either rackmount option or pedestal server mounting kit.

A9952A

NOTE: Second core cannot be accessed without ordering AB473A. Second core must be activated before adding a second dual PA-8900 processor.

Activation for second PA 8900 800-MHz core

AB473A

PA 8900 two core, 2 way Capable Base System with one active and one inactive PA 8900 1 GHz core. Includes system board and power supply. Memory, storage and I/O sold separately. Must select either rackmount option or pedestal server mounting kit.

A9953A

NOTE: Second core cannot be accessed without ordering AB474A. Second core must be activated before adding a second two core PA 8900 processor.

Activation for second PA 8900 1 GHz core

AB474A

Two core 800 MHz/64 MB cache PA 8900 processor

AB534A

Two core 1 GHz/64 MB cache PA 8900 processor

AB535A

Standard System Features



Overview

- Operating System support: HP UX 11i v1, HP UX 11i v2 and HP UX 11i v3 for HP 9000
- Dual channel Ultra160 SCSI controller, 2 internal disks on one channel, 1 internal disk on a second channel; second channel also can connect to devices externally.
- Internal and external Ultra160 SCSI port
- 10/100/1000Base TX LAN (auto speed sensing, RJ 45 connector)
- iLO Manageability Card for remote management and HA monitoring
- Telnet and web console via 10/100Base TX management LAN (RJ 45 connector)
- Three RS 232 serial ports linked to the management processor (multiplexed from a single DB 25 port)2
- Factory integration of processors, memory, disk drives, removable media, and I/O cards
- Rackmountable into 19 inch cabinets
- Optional stand alone pedestal mount
- One year warranty with next business day on site

Standard Features

Minimum System

- One PA-8900 800-MHz or 1-GHz processor with 64 MB Level 2 cache:
 - One core is activated on either a dual PA-8900 800-MHz or 1-GHz processor.
 - A second core is activated by ordering the appropriate part number
- 1-GB PC2100 ECC Registered DDR266A SDRAM (4×256MB DIMMs)
- One power supply

Maximum Server Capacities

- Two two core PA-8900 processors: Either 800-MHz/64 MB level 2 cache, or 1.0 GHz/64 MB level 2 cache
- 32 GB PC2100 ECC Registered DDR266A SDRAM (8×4GB DIMMs)*
- Two Hotswap power supplies, providing N+1 protection for power supplies and power input
- Four PCI X/PCI IO adapter cards
- One internal DVD ROM or DVD+RW combo drive
- Three internal hot plug LVD SCSI disks

*NOTE: Please see [Configuration for memory configuration details](#).

Standard System Features

- Operating System support: HP UX 11i v1, HP UX 11i v2 and HP UX 11i v3 for HP 9000
- Dual channel Ultra160 SCSI controller, 2 internal disks on one channel, 1 internal disk on a second channel; second channel also can connect to devices externally.
- Internal and external Ultra160 SCSI port
- 10/100/1000Base TX LAN (auto speed sensing, RJ 45 connector)
- iLO Manageability Card for remote management and HA monitoring
- Telnet and web console via 10/100Base TX management LAN (RJ 45 connector)
- Three RS 232 serial ports linked to the management processor (multiplexed from a single DB 25 port)²
- Factory integration of processors, memory, disk drives, removable media, and I/O cards
- Rackmountable into 19 inch cabinets
- Optional stand alone pedestal mount
- One year warranty with next business day on site

High Availability

- N+1 Hot swap cooling
- One Hot swap power supply standard-optional second hot swap power supply for N+1 protection
- On-line memory page deallocation
- ECC protected DDR memory
- Memory chip spare to overcome single DRAM chip failures
- Dynamic Processor resilience and deallocation
- UPS power management
- Hot Plug internal disks
- Two independent Ultra SCSI channels to internal disks for mirroring across disks and channels
- Journal file system for HP-UX
- Auto reboot
- HP MC/ServiceGuard for HP-UX
- HP ServiceGuard Extension for RAC for HP-UX
- ServiceGuard Manager for HP-UX
- Insight Manager 7-proactive fault management
- EMS HA Monitors for HP-UX
- ECM Toolkit for HP-UX
- HP Surestore AutoPath for HP-UX
- MirrorDisk for HP-UX

Standard Features

Security

- Separate LAN for system management
 - Password protection on console port
 - Disabling of remote console ports
 - SSL encryption on web console
-

Manageability

- HP Ignite-UX for installation and deployment of the operating system
- HP Software Distributor-UX for software and patch management
- HP Servicecontrol Suite for HP-UX
- iLO Manageability Card for comprehensive remote management of HP-UX
- Process Resource Manager for HP-UX workload management

Configuration

Processor Configuration The HP 9000 rp3440 is a symmetrical multiprocessing (SMP) server supporting up to two two core PA-8900 processors (two cores per processor, four cores maximum system). Processor architectures and/or processor speeds cannot be mixed within the same system.

Processor Details

- PA-8900 with two cores:
 - 800 MHz or 1.0 GHz
 - Level 2 Cache: 64 MB (shared between cores)
 - Level 1 Cache: 3 MB (1.5 MB per core)
 - Single bit cache error correction
 - 44 bit physical addressing
 - 64 bit virtual addressing
 - 4 GB maximum page size

Memory Configuration

The HP 9000 rp3440 supports DDR (double data rate) SyncDRAM (synchronous dynamic random access memory) DIMMs with ECC and chip spare protection. The HP 9000 rp3440 has twelve DIMM slots. A maximum of 32 GB is supported.

Memory Loading Rules and Performance Guidelines

- 512-MB memory is field installable only, for customers who currently have only 512-MB in their system. In this case, a second 512-MB can be added (2×256 MB). Once 4 DIMMs have been installed, all additional memory must be installed in groups of four DIMMs, also known as quads. Therefore, a third 512-MB option (2×256 MB) is not supported.
- Each quad must consist of equal density DIMMs
- 512 MB (2×256 MB) , 1 GB (4×256 MB), 2 GB (4×512 MB), 4 GB (4×1 GB), 8 GB (4×2 GB) or 16 GB (4x4 GB)
- Minimum memory is 1 GB (4×256 MB)
- Maximum memory is 32 GB (8 × 4 GB). When 4 GB DIMMs are used, only one configuration is supported, which is 8 x 4 GB DIMMs (8 x 4 GB DIMMs in the first eight processors - please note that 4 x 4 GB DIMMs is not supported). The remaining 4 processors must be left unpopulated. The next highest amount of memory supported is 24 GB (12 x 2 GB DIMMs).
- Memory must be loaded in the specific order outlined on the system board.
- Each quad of memory is loaded across both memory buses (two DIMMs on each bus) to ensure maximum bandwidth and performance
- Total memory bandwidth is 8.5 GB/s, split across two 4.25 GB/s memory buses
- Open page memory latency is 80 nanoseconds

Memory Options	
Description	Product Number
512-MB PC2100 DDR-SDRAM memory pair (2×256 MB DIMMs)	A9772A ¹
1-GB Chip Spare PC2100 DDR-SDRAM memory quad (4×256 MB DIMMs)	AB542A
2-GB Chip Spare PC2100 DDR-SDRAM memory quad (4×512 MB DIMMs)	A9773A
4-GB Chip Spare PC2100 DDR-SDRAM memory quad (4×1 GB DIMMs)	A9774A
8-GB Chip Spare PC2100 DDR-SDRAM memory quad (4×2 GB DIMMs)	A9775A
16-GB Chip Spare PC2100 DDR-SDRAM memory quad (4x4GB DIMMs)	AB561A ²

Configuration

¹Field installable only, for customers who have an installed system at only 512 MB and want to upgrade to 1 GB.

²**NOTE:** When ordering option AB561A, only one configuration (8 x 4GB DIMMs, 2 x AB561A) is supported. Therefore, must order 2 x AB561A

Racking Configurations

The HP 9000 rp3440 can either be factory installed in HP cabinets or customer-installed in HP or third-party cabinets. The racking hardware includes slider rails, enabling the server to easily slide out of a cabinet for servicing. The rails have adjustable mounting hardware, enabling the server to mount in many non-HP cabinets.

HP Cabinets

The HP 9000 rp3440 was designed for and has been tested in HP Standard Rack System/E Series cabinets and the HP Universal Rack G2 cabinets. HP cabinets are the best option for customers who want to ensure that their rack environment offers the utmost in safety, ease of service, factory integration, and HP field support. The HP cabinet family is made up of the following products:

HP System/E Series:

- A4900A-(25 EIA Units): up to 12 rp3440 servers
- A4901A-(33 EIA Units): up to 16 rp3440 servers
- A4902A-(41 EIA Units): up to 20 rp3440 servers

HP Universal Rack G2 Series:

- AF002A - (42 EIA Units): up to 20 rp3440 servers
- AF012A - (36 EIA Units): up to 16 rp3440 servers

Refer to the 10000 G2 Series Rack Best Practices Guide for information on rack deployment, stabilization and transportation. Go to HP.com/go/rackandpower for more information.

For factory integration, order racking product number AB241A in the HP 9000 rp3440 ordering guide

Non-HP Cabinets

For customers who choose to use non HP cabinets, the HP 9000 rp3440 provides simple options for installation and HP field support. The HP 9000 rp3440 field rack kit contains adjustable slide rails, allowing the server to be mounted in cabinets that use the four-post EIA mounting system.

Once the server is mounted in a non-HP cabinet, it must meet some simple criteria to ensure that HP field personnel can fully support the rack environment.

- **Anti-Tip**-The rack/cabinet must be solidly anchored to the floor both front and rear. This is usually accomplished by anti-tip feet or by direct bolting to the floor.
- **Air Flow**-The HP 9000 rp3440 uses front to back airflow to cool the unit. Thus a cabinet cannot have a solid front or rear door. Solid doors may have to be removed or changed to an open perforation pattern.
- **Cable Strain Relief**-A proper method of strain relief must be used. This may force the elimination of the rear door in some cases.
- **Front and Rear Access**-For proper cooling and ease of service access, HP recommends 32 inches of unobstructed floor space in the front and rear of rack installations. This recommendation applies to both HP and third-party racks and cabinets.

If a rack is not required, the system can be mounted vertically in the stand-alone pedestal mount

Configuration

(AB242A).

I/O Architecture

The HP 9000 rp3440 I/O architecture utilizes industry standard PCI-X and PCI buses in a unique design for maximum performance, scalability and reliability.

The HP 9000 rp3440 architecture uses eight high-speed I/O channels. Each channel provides 0.5 GB/s of sustained I/O throughput.

The four open PCI-X slots all have their own dedicated 64-bit 133-MHz PCI-X bus and their own independent I/O channel or channels. The independent channels provide improved I/O performance and error containment. Independence protects each I/O card from bus hangs or extended latencies due to the failure or high bandwidth demands of other I/O cards. Independence also ensures that each I/O card can achieve maximum throughput.

The first PCI-X slot has two dedicated I/O channels, resulting in sustained PCI-X bandwidth of 1.0 GB/s. This slot should be reserved for the highest bandwidth cards, such as clustering interconnects or multi port storage adapters. The remaining three PCI-X slots each have a single dedicated I/O channel, resulting in 0.5 GB/s of sustained bandwidth on each slot.

All I/O slots are keyed for 3.3V I/O cards. 5V cards are not supported in the HP 9000 rp3440.

The remaining three I/O channels are allocated to the integrated core I/O.

	Number of Slots	Bandwidth Per Slot	Bus Width	Bus Speed	Slot Keying
Dedicated 1 GB/s	1	1.0 GB/s	64 bits	133 MHz, 66 MHz or 33 MHz	3.3 Volts
Dedicated 0.5 GB/s	3	0.5 GB/s	64 bits	133 MHz, 66 MHz or 33 MHz	3.3 Volts

Supported I/O Cards

I/O Card	Product Number	Connector Type(s)	HP UX / Boot Support	Max Cards / Max Ports
Mass Storage Host Bus Adapters				
PCI 2 Gb/s Fibre Channel	A6795A	LC	Yes / Yes	4 / 4
PCI 1 channel U160 SCSI	A6828A ³	VHDCI	Yes / Yes	4 / 4
PCI 2 channel U160 SCSI	A6829A ³	VHDCI	Yes / Yes	4 / 8
PCI-X 2 channel Ultra320 SCSI	A7173A	VHDCI	Yes / Yes	4 / 8
PCI-X 2 channel Smart Array 6402 U320 ¹²	A9890A	VHDCI	Yes / Yes	3 / 6
PCI-X 4 channel Smart Array 6404 U320 ¹²	A9891A	VHDCI	Yes / Yes	3 / 12
PCI 2 channel PCI 2-Gb/s Fibre Channel	A6826A	LC	Yes / Yes	4 / 8
PCI X 266 MHz 1 channel 4 Gb/s Fiber Channel	AB378B	LC	Yes / Yes	4 / 4
PCI X 266 MHz 2 channel 4 Gb/s Fiber Channel	AB379B	LC	Yes / Yes	4 / 8
Local Area Network (LAN) Adapters				
PCI 1 port 1000Base T (gigabit copper)	A6825A	RJ-45	Yes / No	4 / 4
PCI-X 1 port 1000Base T (gigabit copper)	AD331A	RJ-45	Yes / No	4 / 4

Configuration

PCI 1 port 1000Base SX (gigabit fiber)	A6847A	Duplex SC	Yes / No	4 / 4
PCI-X 1 port 1000Base SX (gigabit fiber)	AD332A	Duplex SC	Yes / No	4 / 4
PCI 1 port 10/100Base TX	A5230A ³	RJ-45	Yes / No	4 / 4
PCI-X 2-port 1000Base-T	A7012A	RJ-45	Yes / No	4 / 8
PCI-X 2-port 1000Base-SX	A7011A	Duplex SC	Yes / No	4 / 8
PCI 4 port 100Base TX	A5506B ³	RJ-45	Yes / No	4 / 16
PCI 1 port Universal FDDI LAN	A3739B	FDDI SC	Yes / No	4 / 4
PCI 1 port 802.5 Token Ring 4/16/100	A5783A	RJ 45 and DB 9	Yes / No	4 / 4
PCI-X 4-port 1000Base-T 1-GbE Adapter	AB545A	RJ-45	Yes/Yes	4 / 16
PCI-X 2-port 4x Fabric Adapter	AB345A	4x Infiniband Copper	Yes/Yes	2 / 4
Multi-Function Cards (Mass Storage/LAN)				
PCI 2 port 100Base T/ 2 port Ultra2 SCSI	A5838A ³	VHDCI/RJ 45	Yes / No	3 / 12
PCI-X 2Gb Fibre Channel / 1000BaseT	A9782A	2 LC	Yes / Yes	4 / 8
PCI-X 2Gb Fibre Channel / 1000BaseSX	A9784A	1 LC, 1 RJ-45	Yes / Yes	4 / 8
PCI-X 2-port 2-Gb Fibre Channel/2-port 1-Gb Ethernet Adapter	AB465A	2 LC, 2 RJ-45	Yes/No	4/16
PCI-X 2-port 1000BT/2-port U320 Multifunction adapter	AB290A	SCSI - LVD/SE LAN - RJ-45	Yes/Yes	3/12
HP PCI-X 1-port 4Gb Fibre Channel & 1-port 1000Base-T Adapter	AD193A	1 LC, 1 RJ-45	Yes/Yes	4/8
HP PCI-X 2-port 4Gb Fibre Channel & 2-port 1000Base-T Adapter	AD194A	2 LC, 2 RJ-45	Yes/Yes	4/16
Wide Area Network (WAN) Adapters				
PCI 1 port ATM 155 Mbps Multi Mode Fiber (MMF)	A5513A	Duplex SC	Yes/No	4 / 4
2 port Programmable Serial Interface (PSI) X.25 / Frame Relay / SDLC	J3525A	RS 530, RS 232, V.35, RS 449 or X.21	Yes / No	4 / 8
4 port X.25/Frame Relay	J3526A	RS 530, RS 232, V.35, RS 449 or X.21	Yes / No	3/12
Additional Interface Cards				
PCI 8 port Serial MUX Adapter	AD278A		Yes / No	3/241
PCI 64 port Serial MUX Adapter	AD279A		Yes / No	4/256
16-port RS-232 RJ45 Port Module	AD280A ⁵		Yes / No	4 per AD279A
16-port RS-232 DB25 Port Module	AD281A ⁶		Yes / No	4 per AD279A
PCI HyperFabric 2 Fibre	A6386A	LC Duplex	Yes / No	4/4
PCI 64-port Terminal Multiplexer	A6749A	RS 232 or RS-422	Yes / No	4 / 256
PCI 8-port Terminal Multiplexer	A6748A	RS-232	Yes / No	4 / 32
PCI AMD Radeon 7000 Graphic Adapter	AH391A	VGA and DVI-I	Yes/No	1/14

Configuration

¹Cards are only supported in slots 1, 2, and 3.

²Cards are supported in slot 3 only for internal RAID.

³I/O card is supported but no longer orderable.

⁴Supported in slot 4 only.

⁵ AD280A #001 Port Module Power Supply, required on Port Module (3) and Port Module (4) connected to an AD279A 64P Mux adapter.

⁶ AD281A #001 Port Module Power Supply, required on Port Module (3) and Port Module (4) connected to an AD279A 64P Mux adapter.

Internal Storage Devices

Device	Part Number
Internal Disk Drives (Optional - Maximum 3)	
36-GB 15K RPM Ultra320 SCSI Low Profile Hot Plug disk ¹	AD186A
73-GB 15K RPM Ultra320 SCSI Low Profile Hot Plug disk ¹	AD187A
146 GB 15K RPM Ultra320 SCSI Low Profile Hot Plug disk ¹	AD206A
300 GB 15K RPM Ultra320 SCSI Low Profile Hot Plug disk ¹	AD263A
Removable Media Drives (Optional - Maximum 1)	
DVD-ROM Drive Slim Line	A9919B
DVD+RW Optical drive	AB348B

¹ Drives run at the speed of the controller they are connected to. If they are connected to the integrated U160 controller, they will operate at U160 speeds.

Integrated Multi-function Core I/O The integrated multi-function I/O provides core I/O functionality and includes the management processor, which provides remote management and high availability monitoring capabilities.

- Core I/O**
- 10/100/1000Base T LAN with RJ 45 connector-Supports LAN boot for operating system installation
 - One external Ultra160 SCSI port-Note: the external SCSI port (SCSI channel B) can not be used if an internal drive is connected to the internal port of SCSI channel B.
 - Four USB 2.0 style A ports (USB 1.1 compatible)

- iLO Manageability Card Functionality**
- Dedicated 10/100Base-T LAN port for LAN console and embedded web console access
 - DB-25 serial port-multiplexed (using W cable) into three RS-232 ports: local ASCII console, remote/modem console, and general purpose
 - Password protected console ports
 - Console mirroring between all local, modem, LAN, and web consoles
 - Remote power up and power down control
 - Configurable remote access control
 - Event notification to system console-Provides connectivity, information, and support for HP-UX tools (such as STM and EMS) to notify by email, pager and/or HP response centers.
 - Interface to system monitoring and diagnostic hardware via an internal IC bus
 - Secure Sockets Layer security on web console

Configuration

System Console Configurations

The HP 9000 rp3440's integrated Management Processor provides five methods for console connections.

- SSL-secured Web console accessible through the 10/100Base-T management LAN
- Standard telnet connections accessible through the 10/100Base-T management LAN
- Local VT100 or hpterm terminal, or VT100 or hpterm emulator via local RS-232 serial connection
- Remote VT100 or hpterm terminal, or VT100 or hpterm emulator via external modem

Internal Disk and Media Drives

- The HP 9000 rp3440 supports up to three internal low profile hot-plug disk drives.
- Dual channel U160 SCSI provides independent channels for the internal disks—two disks on one channel (A) and one disk on a second channel (B). Split SCSI channels provide enhanced high availability—one channel can fail without impacting the disks on the other channel. Note: Each SCSI channel may be used for either internal or external connection but not both internal and external connections. SCSI channel B contains both an internal SCSI port and the external SCSI port. The external SCSI port can not be used if an internal drive is connected to the internal port of SCSI channel B. SCSI channel A only has an internal port.
- Supported by MirrorDisk/UX across disk drives and independent channels
- For PA-8900 systems only, an optional HP Smart Array 6404/256MB controller may be added for internal RAID 1 support. Must order min/max of two identical hard disk product numbers and A9827A Smart Array Internal cables.
- 36 GB 15K, 73 GB 15K, 146 GB 15K and 300 GB 15K hot plug Ultra320 SCSI disks are supported
- Optional optical media drives include a DVD ROM (A9919A) and DVD+RW slimline combo drive (AB348A)

HP 9000 rp3440 Power Subsystem

The HP 9000 rp3440 provides a high level of integrated power protection.

- N+1 redundant hotswap power supplies (N=1)
- N+1 redundant AC power input protection with electrical phase isolation (N=1)
- Power monitoring and control
- The HP 9000 rp3440 supports up to two hot swap power supplies for N+1 protection. One supply is shipped as a standard component with every system. The second supply is optional.
- The HP 9000 rp3440 provides an independent power input receptacle for each power supply. The independent design provides protection against losing the connection from a power cord or breaker. The HP 9000 rp3440 power cords should always be plugged into separate breakers when possible.

Technical Specifications

Server model number rp3440

Server Product Numbers

PA 8900 Two-core, 2-processor Capable Base System: A9952A
 With one active PA-8900 800-MHz core and one inactive PA 8900 800 MHz core.
 Includes system board and power supply. Memory, storage and I/O sold separately.
 Must select either rackmount option or pedestal server mounting kit.
NOTE: Second core cannot be accessed without ordering AB473A. Second core must be activated before adding a second two core PA-8900 processor.

Activation for second PA 8900 800-MHz core AB473A

PA 8900 two core, 2 processor Capable Base System: A9953A
 With one active PA-8900 1-GHz core and one inactive PA 8900 1 GHz core.
 Includes system board and power supply. Memory, storage and I/O sold separately.
 Must select either rackmount option or pedestal server mounting kit.
NOTE: Second core cannot be accessed without ordering AB474A. Second core must be activated before adding a second two core PA 8900 processor.

Activation for second PA-8900 1-GHz core AB474A

Two core 800 MHz/64-MB cache PA 8900 processor AB534A

Two core 1 GHz/64-MB cache PA 8900 processor AB535A

Number of Cores 1, 2 or 4

Number of Processors 1 or 2

NOTE: Two power cords are shipped with each system; one cord connects system to the rack PDU and one cord enables a direct connection to a wall processor. Localized cable is included at the distribution site.

Supported Processors	Two core 800 MHz Processor	PA-8900	Cache Level 1	3 MB (1.5 per core)
			Cache Level 2	64 MB (shared between cores)
			Floating Point coprocessor	Yes
			included	
	Two core 1 GHz Processor	PA-8900	Cache Level 1	3 MB (1.5 per core)
			Cache Level 2	64 MB (shared between cores)
			Floating Point coprocessor	Yes
			included	

System Memory

Minimum memory 1 GB
 (HP-UX 11i v3 requires min 2 GB)

Maximum memory capacity 32 GB

NOTE: Please see Configuration section for configuration details.

Technical Specifications

Internal Disks	Maximum disk mechanisms	3
	Maximum disk capacity	900 GB

Standard Integrated I/O	Ultra160 SCSI-LVD	2 channel
	10/100/1000Base-T (RJ-45 connector)	1 port
	RS-232 serial ports	3
	10/100Base-T management port (RJ-45 connector)	1 port
	USB 2.0	4

I/O Buses and Slots	Total PCI-X/PCI Slots	4
	All four slots are 133-MHz, 64-bit slots on dedicated PCI-X buses	

Maximum I/O Cards (See supported I/O for specific product information)	Mass Storage	3-4
	LAN	4
	WAN	4
	Multi-Function (Mass storage /LAN)	4
	Additional Interface Cards	1-4

Electrical Characteristics	AC Input power	100-240V 50/60 Hz
	Hot swap power supplies	1 included, 2nd for N+1
	Redundant AC power inputs	1 included, 2nd for N+1
	Current requirements at 230V	3.6 A (shared across inputs)
	Typical maximum power dissipation	600 Watts
	Theoretical maximum power dissipation	1,350 Watts
	kW rating for UPS loading	1.3
	Typical heat dissipation (BTUs/hour)	1,945
	Maximum heat dissipation (BTUs/hour)	4,375

Technical Specifications

Site Preparation	Site planning and installation included	No
	NOTE: System is customer installable.	
	Rack depth (in/mm)	26.8 in (680 mm)
	Rack width (in/mm)	19.0 in (483 mm)
	Rack height (EIA/in/mm)	2U (3.4 in) (173 mm)
	Pedestal depth (in/mm)	26.6 in (675 mm)
	Pedestal width (in/mm)	11.6 in (295 mm)
	Pedestal height (in/mm)	19.5 in (494 mm)
	In-Rack Weight (kg/lbs)	23 kg (49 lbs)
	Max.	
	Pedestal Weight (kg/lbs)	26kg (57 lbs)
	Max.	

Environmental Characteristics	Acoustics (operator/bystander) at 25°C	<6.5 Bels LwA
	Operating Temperature (up to 5000 ft) *	41° to 95° F (5° to 35° C)
	Non-operating Temperature	-40° to 158° F (-40° to 70° C)
	Maximum rate of temperature change	10° C/hour
	Operating relative humidity	15% to 80% RH non-condensing
	Non-operating relative humidity	8% to 85% non-condensing
	Operating altitude above sea level	10,000 ft (3000 m) max
	Non-operating altitude above sea level	15,000 ft (4600 m) max

*Maximum operating temperature range up to 5000 feet (1524 m). For higher altitudes, de-rate the maximum temperature by 2°C/1000 feet above 5000 feet.

Regulatory Compliance	RMN	FCLSA-0201
	Electromagnetic interference	Complies with FCC Rules and Regulations, Part 15 as a Class A digital device. Manufacturer's Declaration to EN55022 Level A, VCCI Registered, Class A, Korea RLL
	Safety	UL Listed, CSA Certified, UL GS Mark compliant with EN 60950 and EN 41003

Technical Specifications

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