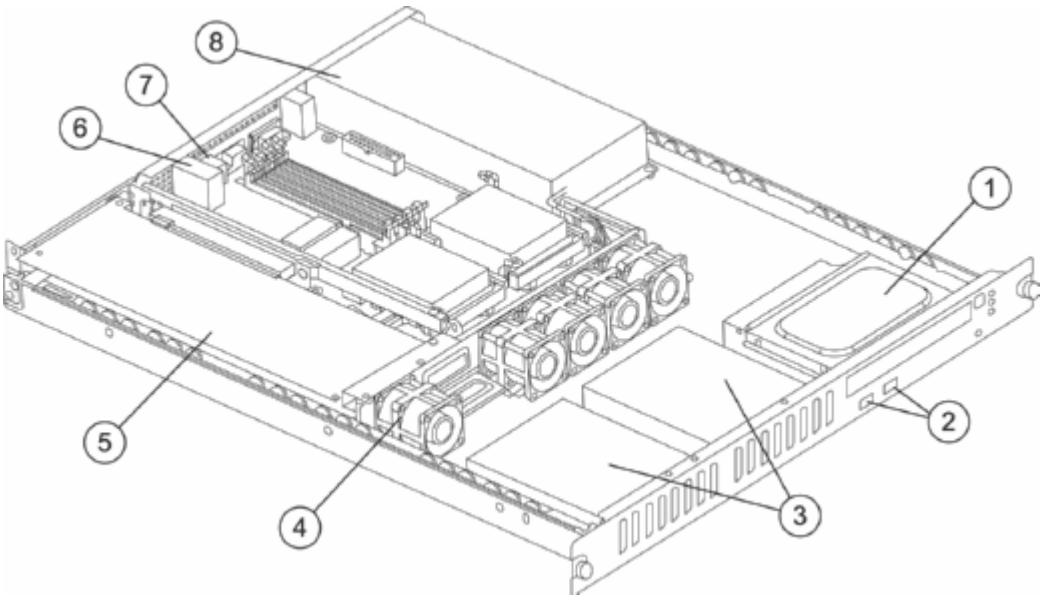
Overview



1. One CD-ROM (optional)
2. Two front USB1.1 ports
3. Two 1" Non-Hot Plug ATA-100 Hard Drive Bays
4. System Fans
5. One 64-bit/133MHz PCI-X full length Slot (PCI card not included)
6. Two Gigabit Ethernet ports
7. Two rear USB1.1 ports
8. One 325W power supply (PFC, auto-switching, non-redundant, non-hot plug)

What's New

- Supports 2 or 1 Intel Xeon 3.06 GHz processors with 512-KB second level ECC cache standard, 533MHz front-side-bus supporting Hyper-Threading Technology

At A Glance

- ServerWorks GC-SL Chipset with 533-MHz FSB
- 1-GB or 512-MB of PC2100 DDR SDRAM running at 266MHz with Advanced ECC capabilities standard, expandable to 4 GB
- Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
- Integrated Dual Channel Ultra ATA/100 Adapter (ATA Models)
- Support for up to two 1" ATA/100 Non Hot Plug hard drives
- One PCI-X 64-bit/133MHz PCI slot operating at 3.3 volts
- Internal storage capacity of up to 320 GB (2 x 160-GB non-hot plug 1" ATA/100 HDDs)
- Integrated ATI Rage XL with 8MB SDRAM video
- 325W Power Supply (Non-Hot Plug, autoswitching)
- Four USB ports (two rear, two front)
- ROM Setup Utility
- Protected by HP Services, including a one-year, limited warranty, Parts only 1 year limited Global warranty - Certain restrictions and exclusions apply.

Standard Features

Processor *One of the following depending on Model:*	Intel Xeon 3.06 GHz processor with 512-KB second level ECC cache standard, 533MHz front-side-bus supporting Hyper-Threading Technology Intel Xeon 3.2 GHz processor with 1-MB second level ECC cache standard, 533MHz front-side-bus supporting Hyper-Threading Technology Intel Xeon 2.4 GHz processor with 512-KB second level ECC cache standard, 533MHz front-side-bus supporting Hyper-Threading Technology		
Memory *One of the following depending on Model:*	Standard	512 MB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities (NOTE: Available with 2.4 GHz models.) 1 GB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities (NOTE: Available with 3.06 GHz, 3.2 GHz or 2.4 GHz models.)	
	Maximum	4 GB	
Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)		
Expansion Slots	I/O	Number of slots	PCI Voltage:
	64-bit/133MHz PCI	1	3.3 volts
Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE		
Storage	Diskette Drives	None	
	CD-ROM	24x IDE (ATAPI) CD-ROM Drive (optional)	
	Hard Drives	80 GB, or 160GB ATA/100 7200 rpm 1"Drive	
	Maximum Internal Storage (ATA Models)	320 GB (2 x 160 GB)	
Interfaces	Parallel	None	
	Serial	1	
	Pointing Device (Mouse)	1	
	Graphics	1	
	Keyboard	1	
	USB	4 (two front, two rear) NOTE: Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html.	
	Network RJ-45 (Ethernet)	2	
Graphics	Integrated ATI RAGE XL Video Controller with 8MB SDRAM Video Memory		
Form Factor	Rack Mount (1U)		

Standard Features

Industry Standard Compliance	ACPI V1.0b Compliant PCI 2.2 Compliant PXE Support WOL Support Microsoft® Logo certifications
Manageability	BIOS Serial Console Redirect
Security	Power-on password Setup password
Server Power Cords	One Highline IEC Power cord ships standard (for connection to a Power Distribution Unit)
Power Supply	325 Watts, auto-switching, PFC (Power Factor Correcting)
System Fans	5 – Non-hot plug, Non-redundant system fan shipped standard
OS Support	Microsoft Windows® 2000 Server Microsoft Windows 2000 Advanced Server Microsoft Windows 2003 Standard Edition Microsoft Windows 2003 Enterprise Edition Microsoft Windows 2003 Web Edition Red Hat Linux AS/ES/WS 2.1 United Linux 1.0 VMware Virtualization Software NOTE: For an up-to-date listing of the latest OS support matrix, please see: ftp://ftp.compaq.com/pub/products/servers/os-support-matrix-310.pdf. NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant DL140, please see: http://h18023.www1.hp.com/support/files/server/us/index.html. NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at: http://h18004.www1.hp.com/products/servers/software/OEM.html NOTE: For more information on HP's Certified and Supported ProLiant Servers, please visit the VMware Server Support Matrix at: http://h18004.www1.hp.com/products/servers/software/vmware/hpvmwarecert.html

Standard Features

ProLiant Essentials Foundation Pack Software	Optional ProLiant Essentials Value Packs	Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs: • Intelligent Networking Pack - detects and analyzes network bottlenecks or broken network linkages and steers traffic to the optimum route based on network conditions. • Vulnerability and Patch Management Pack - identifies and remediates software security vulnerabilities due to missing patches as well operating system configurations that can be exploited by viruses, worms and other blended threats. NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information. NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/proliantessentials.

Factory Express Portfolio for Servers and Storage	HP Factory Express offers configuration, customization, integration and deployment services for HP servers and/or storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSA1000, VA7xxx, EVA3000 & EVA5000, XP, rackable tape libraries and configurable network switches. For more information on Factory Express services for your specific server model please contact your sales representative or go to www.hp.com/go/factory-express.

Service and Support	HP Services provides a one-year, limited warranty, fully supported by a worldwide network of resellers and service providers and lifetime toll-free 7 x 24 hardware technical phone support. In addition, available service offerings include: NOTE: one-year limited warranty, Parts only 1 year limited Global warranty. A full range of HP Care Pack packaged hardware and software services: • Installation and start up • Extended coverage hours and enhanced response times • System management and performance services • Availability and recovery services NOTE: For more information, visit http://www.hp.com/services/carepack. Please see the following URL regarding Warranty Information For Your HP Products: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html. For additional information regarding Worldwide Limited Warranty and Technical Support, please see the following URL: ftp://ftp.compaq.com/pub/supportinformation/ejourney/176738.pdf. NOTE: Certain restrictions and exclusions apply.

Models

ProLiant DL140 Dual 3.06 GHz Xeon 1-GB, 80GB, ATA *356533-B21*	Processor	Dual Intel Xeon 3.06 GHz processors, 533MHz front-side-bus
	Cache Memory	512-KB second level ECC cache
	Memory	1 GB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE
	Hard Drive	80 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 Single 3.06 GHz Xeon 1GB, 80GB, ATA *359043-B21*	Processor	Intel Xeon 3.06 GHz processor, 533MHz front-side-bus
	Cache Memory	512 KB second level ECC cache
	Memory	1 GB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE
	Hard Drive	80 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 Dual 3.2 GHz Xeon 1-GB, 80GB, ATA *350533-B21*	Processor	Dual Intel Xeon 3.2 GHz processors, 533MHz front-side-bus
	Cache Memory	1-MB second level ECC cache
	Memory	1 GB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE
	Hard Drive	80 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Models

ProLiant DL140 Dual 2.4 GHz Xeon 1-GB, 80GB, ATA *350535-B21*	Processor	Dual Intel Xeon 2.4 GHz processors, 533MHz front-side-bus
	Cache Memory	512 KB second level ECC cache
	Memory	1 GB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE
	Hard Drive	80 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

ProLiant DL140 Single 2.4 GHz Xeon 512MB, 80GB, ATA *350534-B21*	Processor	Intel Xeon 2.4 GHz processor, 533MHz front-side-bus
	Cache Memory	512 KB second level ECC cache
	Memory	512 MB PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Integrated Dual Channel Ultra ATA-100 IDE
	Hard Drive	80 GB Ultra ATA/100
	Internal Storage	320 GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Options

Processor	3.06GHz/512KB Processor Option Kit	359047-B21
	2.4GHz/512KB Processor Option Kit	349043-B21
Memory (DIMMs)	1024MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 1024 MB)	351109-B21
	512MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 512 MB)	351108-B21
Optical Drives	24x CD-ROM Option Kit	349046-B21
Communications	HP NC150T PCI 4-port Gigabit 1000T Combo Switch Adapter	367132-B21
	HP NC310F PCI-X 1000SX Gigabit Server Adapter	368169-B21
	HP NC320T PCI Express 1000T Gigabit Server Adapter	367047-B21
	HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21
	HP NC6170 PCI-X Dual Port 1000SX Gigabit Server Adapter	313879-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21
	HP NC570C PCI-X Dual-port 4x Fabric Adapter	376158-B21
	HP NC571C PCI Express Dual-port 4x Fabric Adapter	376160-B21
	HP 24-Port 4x Fabric Copper Switch	376227-B21
	HP 4x Fabric 1m Copper Cable	376232-B21
	HP 4x Fabric 3m Copper Cable	376232-B22
	HP 4x Fabric 5m Copper Cable	376232-B23
	Myrinet -Fiber/PCI-X interface, M3F-PCIXD-2	257894-006
	Myrinet-Fiber/PCI-X Interface (Dual channel Rev. D card)	360040-B21
Hard Drives	*ATA 100 - Non-Hot Plug*	
	160-GB ATA/100 7,200 rpm Drive (1")	366486-B21
	80-GB ATA/100 7,200 rpm Drive (1")	278424-B21

Options

ProLiant Essentials Licensing and Packaging	**ProLiant Essentials Intelligent Networking Pack**	
	ProLiant Essentials Intelligent Networking Pack, Single Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	372906-B21
	ProLiant Essentials Vulnerability and Patch Management Pack	
	ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License	371645-B21
	NOTE: For additional ProLiant Vulnerability and Patch Management Pack License Kits, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12111_div/12111_div.HTML NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/proliantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information. NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/proliantessentials.	
HP KVM Switch Options	HP 1x4 USB/PS2 KVM Switch, TT	371301-D71
	HP PS2 KVM Cable with audio, 6', 2-pack	371730-B21
	HP USB KVM Cable with audio, 6', 2-pack	371729-B21
USB Options	USB Optical Scroll Mouse (Carbonite)	DD441B
	USB 1.44-MB External Diskette Drive	DC141B
	256 MB HP Drive Key II (USB 2.0)	PH657A

Service and Support Offerings (HP Care Pack Services)	*Hardware Services 4-Hour On-site Service*	
	13-Hour x 5-Day Coverage, 3 Years, Electronic	U9509E
	24-Hour x 7-Day Coverage, 3 Years, Electronic	U9510E
	Hardware Services Next Business Day On-Site Service	
	9-Hour x 5-Day Coverage, 3 Years, Electronic	U9508E
	Hardware Services 6-Hour Call to Repair On-Site Service	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U9511E
	Hardware Installation, Electronic	U9520E
	NOTE: For more information, customer/resellers can contact http://www.hp.com/services/carepack.	

NOTE: The Tested Product List (TPL) is a list of HP and standard 3rd party devices (hardware or software) that have been tested by either HP or independent test houses for basic compatibility with the HP ProLiant DL140. HP products are supported by HP, non-HP products are not supported by HP. For non-HP products, you must obtain support from their own manufacturer. Non-HP third party products have been tested only for compatibility with the specified HP server. This level of testing confirms proper device recognition by the HP server and basic compatibility with the identified HP server. HP disclaims all responsibility and liability for the manufacturing, distribution, marketing, licensing, installation, use, performance, maintenance, safety, regulatory certification, and support of these 3rd party products.

HPTC Interconnect	Manufacturer	Myricom
	Product	Myrinet -Fiber/PCI-X interface, M3F-PCIXD-2
	Data Transfer Method	64-bit, 133/66MHz PCI-X/PCI Bus Master

Memory

HP ProLiant DL140 Dual Processor Models

Standard Memory

1-GB of PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities Memory installed. (depending on model)

Maximum Memory

Up to 4096-MB memory is available with the optional installation of PC2100 Registered ECC DDR SDRAM DIMM Memory kits.

NOTE: Chart does not represent all possible memory configurations.

Memory		Slot			
		1	2	3	4
Standard	1,024 MB	Empty	Empty	Empty	1,024 MB
Maximum	4,096 MB	1,024 MB	1,024 MB	1,024 MB	1,024 MB

Following are memory options available from HP:

- 512MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 512 MB) 351108-B21
- 1024MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 1024 MB) 351109-B21

HP ProLiant DL140 Single Processor Models

Standard Memory

512-MB of PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities Memory installed. (depending on model)

Standard Memory Plus Optional Memory

Up to 3584-MB memory is available with the optional installation of PC2100 Registered ECC DDR SDRAM DIMM Memory kits.

Maximum Memory

Up to 4096-MB of memory is available with the removal of the standard 512-MB of memory and the optional installation of PC2100 Registered ECC DDR SDRAM DIMM Memory kits.

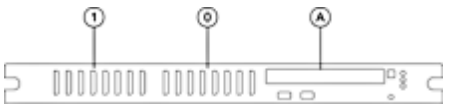
NOTE: Chart does not represent all possible memory configurations.

Memory		Slot			
		1	2	3	4
Standard	512 MB	Empty	Empty	Empty	512 MB
Optional	3,584 MB	1,024 MB	1,024 MB	1,024 MB	512 MB
Maximum	4,096 MB	1,024 MB	1,024 MB	1,024 MB	1,024 MB

Following are memory options available from HP:

- 512MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 512 MB) 351108-B21
- 1024MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (1 x 1024 MB) 351109-B21

Storage



A	24x IDE (ATAPI) CD-ROM (optional)
0, 1	Two 1" Non-hot Plug ATA-100 Hard Drive Bays

Drive Support

Removable Media

	Quantity Supported	Position Supported	Controller
IDE (ATAPI) CD-ROM Drive	Up to 1	A	Integrated IDE (ATAPI) (optional)

Hard Drives

ATA/100 IDE - Non-Hot Plug

	Quantity Supported	Position Supported	Controller
1-inch			
80.0-GB	Up to 2	0, 1	Integrated Dual Channel Ultra ATA-100 Adapter

Power Specifications

Spare Kit	348796-001
Operational Input Voltage Range (V rms)	90Vac to 264Vac full range
Frequency Range (Nominal) (Hz)	50 Hz to 60 Hz

Nominal Input Voltage (Vrms)	100	115	208	220	230	240
Max Rated Output Wattage Rating	325	325	325	325	325	325
Nominal Input Current (A rms)	4.5	3.9	2.3	2.2	2.1	2.1
Max Rated Input Wattage Rating (Watts)	440	435	420	420	420	420
Max. Rated VA (Volt-Amp)	450	445	470	480	490	500
Efficiency (%)	70	70	72	72	73	73
Power Factor	0.98	0.98	0.88	0.87	0.85	0.80
Leakage Current (mA)	1.0	1.0	1.0	1.0	1.0	1.0
Maximum Inrush Current (A peak)	50	51	70	73	76	78
Maximum Inrush Current duration (mS)	2	2	2	3	3	3

System Specifications

	Power	
ProLiant DL140 Fully Configured	110V/60Hz	220V/50Hz
Fully Loaded System Input Wattage (W)	442	442
Fully Loaded System Input Current (A rms)	4.1	2.2
Fully Loaded System Thermal (BTU- Hr)	1509	1509
Fully Loaded System VA (Volt-Amp)	450	480
System Leakage with all power supplies loaded (mA)	0.6	0.6
System Inrush Current with all power supplies loaded (A)	50	70
Power cord requirements	Nema 5-15P to IEC320-C13	IEC320-C13 to IEC320-C14
**Power shown is for a fully configured system consisting of (2) CPU, (4) double-sided DIMMs, (2) HDDs, (1) CD-ROM, and (1) PCI card.		

Power Cord Part Number	307348-B21
Power Cord - 12' (US)	227099-B21

System Unit	Dimensions (HxWxD) (with feet)	1.7 x 16.9 x 23.7 in (4.37 x 43.0 x 60.22 cm)		
	Weight (approximate)	24.2 lb (11.0 kg)		
	Input Requirements (per power supply)	Range Input Voltage	90 to 140 VAC/180 to 264 VAC	
		Normal Line Voltage	115 or 230 VAC	
	Line Frequency	50 to 60 Hz		
	Rated Input Current load	3.9A at 115VAC, 2.1A at 230VAC		
	BTU Rating	1,100 BTU-Hr		
	Power Supply Output Power (per power supply)	Rated Steady-State Power	325W	
		Maximum Peak Power	420W	
	Temperature Range	Operating	50° to 93° F (10° to 35° C)	
		Shipping	-40° to 140° F (-40° to 60° C)	
	Relative Humidity (non-condensing)	Operating	10% to 90%	
		Non-operating	10% to 95%	
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)		
		L WAd (BELS)	5.9	
		L pAm (dBA)	48	
		Operating (Random Seeks to Fixed Disks)		
		L WAd (BELS)	6.6	
		L pAm (dBA)	54	

Non-Hot Plug ATA/100 Hard Drives	80 GB 7.2K 278424-B21	Capacity	80027 MB	
		Height	1.028 in (2.61 cm)	
		Width	4.0 in (10.16 cm)	
		Interface	ATA 100	
		Transfer Rate Synchronous (Maximum)	100 MB/s	
		Seek Time (typical reads, including settling)	Single Track	0.8 ms
			Average	9.0 ms
			Full-Stroke	17.0 ms
			Rotational Speed	7,200 rpm
		Physical Configuration	Bytes/Sector	512
			Logical Blocks	160,086,528
		Operating Temperature	41° to 131° F (5° to 55° C)	

Technical Specifications

Integrated Dual Channel Ultra ATA-100 Adapter (ATA Models only)	Drives Supported	Up to 2 IDE devices
	Channels	2 (ATA Drives, CDROM)
	Storage Capacity	160 GB internal storage
	Data Transfer Method	32-bit/33-MHz PCI bus-master
	Maximum ATA Channel Transfer Rate	100 MB/s per channel
	Maximum Transfer Rate per PCI Bus (peak)	266 MB/s per channel
	ATA Protocols	UDMA Mode[0-5]
		PIO Mode[0-4]
	ATA 100 Cable	80-Conductor Cable
	Internal ATA Connectors	Two 40-Pin Connectors (primary and secondary)

Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)	Network Interface	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3 1000Base-T	
		IEEE 802.3 100Base-TX	
	Data Transfer Method	64-bit, 133MHz PCI(X)1.0	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half-Duplex)	1000 Mb/s
		1000Base-TX (Full-Duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP (2 Pair); up to 328 ft (100 m)

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