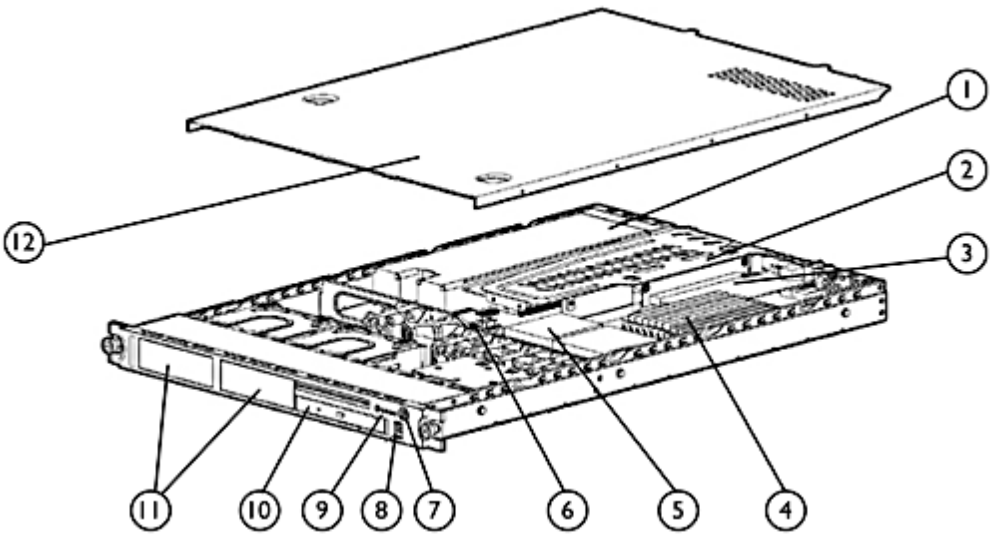
Overview



1. 500W power supply
2. Full-height, full length 133 MHz PCI-X expansion slot which supports PCI-Express with optional riser board
3. Low-profile, half-length 133 MHz PCI-X expansion slot
4. Memory DIMM slots
5. Intel Xeon Processors (Supports up to 2)
6. System fans
7. Power on/off
8. USB port
9. System LEDs
10. Optional CD- or DVD-ROM drive
11. Two Non-Hot Plug SATA OR SCSI 1" Hard Drive Bays
12. Access panel

At A Glance

- Supports 1 or 2 Intel Xeon processors:
  - 2.8 GHz 1MB Level 2 Cache 800MHz front-side bus supporting Hyper-Threading Technology
  - 3.4 GHz 1MB Level 2 Cache 800MHz front-side bus supporting Hyper-Threading Technology
  - 2.8 GHz 2MB Level 2 Cache 800MHz front-side bus supporting Hyper-Threading Technology
  - 3.4 GHz 2MB Level 2 Cache 800MHz front-side bus supporting Hyper-Threading Technology
  - 3.6 GHz 2MB Level 2 Cache 800MHz front-side bus supporting Hyper-Threading Technology
- Supports both serial ATA (SATA) and SCSI non-hot plug hard drives
- Includes one full-length, full-height and one low-profile, half-length 64-bit/133MHz PCI-X slot; Optional PCI Express x8 on full-length, full-height slot
- IPMI 2.0 support
- HP ProLiant Lights Out 100i Remote Management support standard
- 8 DIMM slots, supporting up 16GB DDR2-400MHz memory
- Optional DVD or CD-ROM drive
- Intel Chipset is E7520
- 1 GB of PC2-3200 DDR2 SDRAM running at 400MHz with Advanced ECC capabilities standard, expandable to 16 GB
- Two integrated Dual Broadcom 10/100/1000 5721 NICs (Wake on LAN and PXE capable)
- Integrated 10/100 NIC dedicated for server management
- Support for up to two 1" SATA/SCSI non-hot plug hard drives
- Two PCI-X 64-bit/133MHz PCI slots operating at 3.3 volts (one full-length, one low-profile)
- Internal storage capacity of up to 1-TB (2 x 500-GB non-hot plug 1" SATA HDDs), or 293.6-GB (2x146.8-GB NHP SCSI HDDs)
- Integrated ATI Rage XL with 8MB SDRAM video

Overview

- 500W 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

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

Processor One of the following depending on Model	Intel Xeon 2.8 GHz/800MHz - 1MB L2 Intel Xeon 3.4 GHz/800MHz - 1MB L2 Intel Xeon 2.8 GHz/800Mhz - 2MB L2 Intel Xeon 3.4 GHz/800MHz - 2MB L2 Intel Xeon 3.6 GHz/800MHz - 2MB L2
Cache Memory (Depending on Model)	1MB Level 2 cache memory 2MB Level 2 cache memory
Upgradeability	Upgradeable to dual processing
Chipset	Intel Chipset E7520 with 800MHz Front Side Bus
Memory Protection	Advanced ECC capabilities

Memory			
	Type	PC2-3200 DDR2 SDRAM running at 400MHz	
	Standard	1 GB (2 x 512 MB)	(2 x 512 MB)
	Maximum	16 GB (8 x 2 GB)	(8 x 2 GB)

Network Controller	Integrated Dual Broadcom 5721 10/100/1000 NICs (Wake on LAN and PXE capable)

Expansion Slots

Slot Number	Bus Speed	Bus Number*	Device Number**	Hot Plug (Y/N)	PCI Voltage	Notes
1	64-bit/133MHz PCI-X	1	0	N	3.3 volts	Full length, full height
1	X8 PCI Express	5	1	N	3.3 volts	Full length, full height
2	64-bit/133MHz PCI-X	6	3	N	3.3 volts	Low-profile

NOTE: For more information regarding PCI-X, please see the following URL: http://www.HP.com/pci-x.

NOTE: All slots can accept universal keyed PCI cards

* Default bus assignment. Inserting cards with PCI bridges may alter the actual bus assignment number.

** Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).

Storage Controller	Serial ATA (SATA) models offer SATA controller in the chipset; SCSI models will have SCSI controller in a slot (occupies low-profile slot)

Standard Features

Storage	Diskette Drives	via USB only	
	DVD-ROM	8x IDE (ATAPI) DVD-ROM drive, slim (optional)	
	CD-ROM	24x IDE (ATAPI) CD-ROM drive (optional)	
	Hard Drives	Non-Hot Plug SATA	80-GB 7,200 rpm Hard Drive
		Non-Hot Plug SCSI	36.4-GB 15,000 rpm Hard Drive
Maximum Internal Storage	Non-Hot Plug SATA	1-TB	2 x 500-GB
	Non-Hot Plug SCSI	293.6-GB	2 x 146.8-GB
Interfaces	Parallel	None	
	Network RJ-45 (Ethernet)	1-Dedicated for HP ProLiant Lights Out 100i Remote Management	
	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)		
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, plus it provides an extra layer of protection. The virus throttle feature of the solution slows the propagation of fast spreading virus. • Rapid Deployment Pack - an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands. • 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.	

Standard Features

Industry Standard Compliance	ACPI V2.0 Compliant PCI 2.2 Compliant PXE Support WOL Support Microsoft® Logo certifications IPMI 2.0 Compliant
Manageability	HP ProLiant Lights Out 100i Remote Management standard
Security	Power-on password Setup password
Server Power Cords	One Highline IEC Power cord ships standard (for connection to a Power Distribution Unit)
UPS and PDU Power Cord Matrix	Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units: ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf.
Power Supply	500 Watts, auto-switching, PFC (Power Factor Correcting)
System Fans	6 - Non-hot plug, Non-redundant system fan shipped standard
OS Support	Microsoft Windows® 2000 Server (32-bit) Microsoft Windows 2000 Advanced Server (32-bit) Microsoft Windows 2003 Standard Edition (32-bit) Microsoft Windows 2003 Enterprise Edition (32-bit) Microsoft Windows 2003 Web Edition (32-bit) Microsoft Windows 2003 for Extended Systems Standard Edition (64-bit) Microsoft Windows 2003 for Extended Systems Enterprise Edition (64-bit) Red Hat Linux AS/ES/WS 3.0 and 4.0 (32- and 64-bit) SUSE Linux 8 (32-bit) SUSE Linux 9 (32- and 64-bit) NOTE: For an up-to-date listing of the latest OS support matrix, please see: http://www.hp.com/go/supportos NOTE: For an up-to-date listing of the latest drivers available for the HP ProLiant DL140 G2, 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: Drivers may also found on the base media for some Linux OS's. When configuring your server, please consult your base media driver base, or visit HP.com at: http://h18023.www1.hp.com/support/files/server/us/index.html

Standard Features

Rack Airflow Requirements	Rack 10000 series Cabinets The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors. CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment: Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 5,350 sq cm (830 square inches) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation). Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 7 cm (2.75 inches) CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage. NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: http://h18000.www1.hp.com/products/servers/proliantdl140/index.html
Telco Rack Support	Telco Rack Kit: Support for all 2-post Telco racks requires the use of the standard rack kit and an additional option kit from Rack Solutions. http://www.racksolutions.com/hp
Factory Express Portfolio for Servers and Storage	HP Factory Express offers configuration, customization, integration and deployment services for HP servers and 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, EVA, 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 http://www.hp.com/go/factory-express.

Standard Features

Service and Support

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of resellers and service providers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Additional support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services or customized service agreements.

NOTE: Limited warranty includes 1 year parts, 0 years Labor, 0 years on-site support.

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux and ProLiant Essentials solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack services include coverage for the HP branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3kVA; these items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: http://www.hp.com/hps/carepack
NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: http://www.hp.com/hps
NOTE: Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

HPC Interconnects

NOTE: High Performance Computing (HPC) interconnect technologies are available for the DL140 under the Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPC Clusters with InfiniBand, Gigabit Ethernet or Myrinet Interconnects: http://www.hp.com/techservers/clusters/ucp/index.html

HPC Interconnect	InfiniBand	PCI-X and PCI-Express adapters
	Gigabit Ethernet	Use embedded ports
	Myrinet XP	PCI-X Rev D and Rev E adapters

Models

ProLiant DL140 G2 2.8 GHz Xeon 1GB, 80GB, (1P) SATA 375589-xx1	Processor	One (1) Intel Xeon 2.8 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	1MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Embedded SATA Controller
	Hard Drive	80-GB NHP SATA HDD
	Internal Storage	1-TB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 2.8GHz Xeon 1GB, 36GB, (1P) NHP SCSI 375590-xx1	Processor	One (1) Intel Xeon 2.8 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	1MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	U320 Single Channel PCI-X controller (in low profile slot)
	Hard Drive	36.4-GB NHP SCSI HDD
	Internal Storage	293.6-GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 3.4 GHz Xeon 1GB, 80GB, (1P) SATA 375592-xx1	Processor	One (1) Intel Xeon 3.4 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	1MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Embedded SATA Controller
	Hard Drive	80-GB NHP SATA HDD
	Internal Storage	1-TB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Models

ProLiant DL140 G2 3.4 GHz Xeon 1GB, 36GB, (1P) SCSI 375593-xx1	Processor	One (1) Intel Xeon 3.4 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	1MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	U320 Single Channel PCI-X controller (in low profile slot)
	Hard Drive	36.4-GB NHP SCSI HDD
	Internal Storage	293.6-GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 2.8 GHz Xeon 1GB, 80GB, (1P) SATA 405637-xx1	Processor	One (1) Intel Xeon 2.8 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Embedded SATA Controller
	Hard Drive	80-GB NHP SATA HDD
	Internal Storage	1-TB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 2.8GHz Xeon 1GB, 36GB, (1P) NHP SCSI 405638-xx1	Processor	One (1) Intel Xeon 2.8 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	U320 Single Channel PCI-X controller (in low profile slot)
	Hard Drive	36.4-GB NHP SCSI HDD
	Internal Storage	293.6-GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Models

ProLiant DL140 G2 3.4 GHz Xeon 1GB, 80GB, (1P) SATA 405639-xx1	Processor	One (1) Intel Xeon 3.4 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Embedded SATA Controller
	Hard Drive	80-GB NHP SATA HDD
	Internal Storage	1-TBGB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 3.4 GHz Xeon 1GB, 36GB, (1P) SCSI 405640-xx1	Processor	One (1) Intel Xeon 3.4 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	U320 Single Channel PCI-X controller (in low profile slot)
	Hard Drive	36.4-GB NHP SCSI HDD
	Internal Storage	293.6-GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)
ProLiant DL140 G2 3.6 GHz Xeon 1GB, 80GB, (1P) SATA 383504-xx1	Processor	One (1) Intel Xeon 3.6 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	Embedded SATA Controller
	Hard Drive	80-GB NHP SATA HDD
	Internal Storage	1-TB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Models

ProLiant DL140 G2 3.6 GHz Xeon 1GB, 36GB, (1P) SCSI 383503-xx1	Processor	One (1) Intel Xeon 3.6 GHz processor, 800MHz front-side-bus (Supports up to 2)
	Cache Memory	2MB second level ECC cache
	Memory	1 GB PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities
	Network Controller	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)
	Storage Controller	U320 Single Channel PCI-X controller (in low profile slot)
	Hard Drive	36.4-GB NHP SCSI HDD
	Internal Storage	293.6-GB maximum (with optional hard drive)
	Form Factor	Rack Mount (1U)

Country Code Key	XX=00	NA
	XX=29	Japan
	XX=37	AP
	XX=42	Euro
	XX=AA	PRC

Configuration Information - Factory Integrated Models (North America only)

NOTE: For Configure to Order requirements within EMEA region, please consult local Sales Contact.
NOTE: HP does not allow factory integration of options into standard models listed above.
Configure-to-order servers must start with a CTO Chassis.
NOTE: This product offering does not support HP Factory Express Server Configuration Level 1.

Step 1: Base Configuration

SATA Model	HP ProLiant DL140 G2 SATA Rack Chassis (North America)	389452-405
	Factory Integrated Model ships with:	
	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)	
	Embedded SATA Controller	
	Two available 64-bit/133MHz PCI-X slots, including one full-length/full height and one low-profile/half height slot	
	500 Watt power supply	
	One Highline IEC Power cord	
	6 non-hot plug fans	
	Rack (1U)	
SCSI Model	HP ProLiant DL140 G2 SCSI Rack Chassis (North America)	376343-405
	Factory Integrated Model ships with:	
	Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)	
	One available 64-bit/133MHz PCI-X slot, (full-length/full height) The low-profile/half height slot houses the SCSI controller.	
	500 Watt power supply	
	One Highline IEC Power cord	
	6 non-hot plug fans	
	Rack (1U)	
	NOTE: The selection of SCSI Model (P/N 376343-405), requires the selection of (1) SCSI Controller. Please see Step 2 of this section for compatible SCSI Controllers.	

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Base Processors	Intel X2.8 GHz/800-1MB FIO BASE	383334-L21
	NOTE: If 2 processors are desired, select one 383334-L21and one 383334-B21.	
	Intel X3.4 GHz/800-1MB FIO BASE	383335-L21
	NOTE: If 2 processors are desired, select one 383335-L21and one 383335-B21.	
	Intel X2.8 GHz/800-2MB FIO BASE	405635-L21
	NOTE: If 2 processors are desired, select one 405635-L21 and one 405635-B21.	
	Intel X3.4 GHz/800-2MB FIO BASE	405636-L21
	NOTE: If 2 processors are desired, select one 405636-L21 and one 405636-B21.	
	Intel X3.6 GHz/800-2MB FIO BASE	378283-L21
	NOTE: If 2 processors are desired, select one 378283-L21and one 378283-B21.	

Base Memory	1 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2 x 512 MB)	343055-B21
	2 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2 x 1024 MB)	343056-B21
	4 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2 x 2048 MB)	343057-B21

Configuration Information - Factory Integrated Models (North America only)

Hard Drive	80-GB NHPSATA 1.5Gb 7,200 rpm Non-Hot Plug Hard Drive (1")	383410-B21
	160-GB SATA 1.5Gb 7,200 rpm Non-Hot Plug Hard Drive (3.5") FIO	399164-B21
	250-GB SATA 1.5Gb 7,200 rpm Non-Hot Plug Hard Drive (3.5") FIO	399165-B21
	HP 500-GB 7.2k NHP FIO SATA 1yr Wty Dr	404469-B21
	U320 SCSI- Not-Hot Plug	
	36.4-GB Ultra320 SCSI 15,000 rpm Universal Hard Drive (1")	357012-B21
	72.8-GB Ultra320 SCSI 10,000 rpm Universal Hard Drive (1")	332751-B21
	146.8-GB Ultra320 SCSI 10,000 rpm Universal Hard Drive (1")	356990-B21
Controllers	HP Low Profile U320 DL140 G2/DL145 G2 Controller, FIO	390402-B21
	HP 8 Internal Port SAS HBA with RAID NOTE: For use with SATA drives only	347786-B21
	HP SATA/SAS 1U Cable Kit NOTE: For use with SATA drives only	398307-B21
	HP Single Channel U320 SCSI Controller	374654-B21
	HP PL100 SCSI RAID Controller	355671-B21
	HP Dual Channel U320 SCSI Controller	268351-B21
	NOTE: Must choose one of the above listed Controllers when selecting the SCSI Model (P/N 376343-405) in Step 1 of this section	

Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Options" section below. Some options may not be available for factory integration. Please contact an HP sales representative for additional information.

ProLiant Essentials Licensing and Packaging	**ProLiant Essentials Intelligent Networking Pack Windows Edition and Linux Edition**	
	ProLiant Essentials Intelligent Networking Pack Windows Edition, 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 Intelligent Networking Pack Linux Edition, Single Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	397004-B21
	NOTE: For additional ProLiant Intelligent Networking Pack Windows Edition License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12062_div/12062_div.HTML	
	NOTE: For additional ProLiant Intelligent Networking Pack Linux Edition License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12327_div/12327_div.HTML	
	ProLiant Essentials Rapid Deployment Pack Windows Edition and Linux Edition Release	
	Rapid Deployment Pack, Single-Server License NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-B21
	Rapid Deployment Pack, Single-Server License (Japan) NOTE: This license allows 1 server to be deployed and managed via RDP.	267196-291
	NOTE: For additional ProLiant Essentials Rapid Deployment Pack License Kits please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11053_div/11053_div.HTML http://h18000.www1.hp.com/products/quickspecs/11713_div/11713_div.HTML	
	ProLiant Essentials Vulnerability and Patch Management Pack	
	ProLiant Essentials Vulnerability and Patch Management Pack, Single-Server License NOTE: For use with a single server. Contains one license with a unique license activation key and documentation.	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.	
Processor	Intel Xeon 2.8 GHz/1MB Processor Option Kit	383334-B21
	Intel Xeon 3.4 GHz/1MB Processor Option Kit	383335-B21
	Intel Xeon 2.8 GHz/2MB Processor Option Kit	405635-B21
	Intel Xeon 3.4 GHz/2MB Processor Option Kit	405636-B21
	Intel Xeon 3.6 GHz/2MB Processor Option Kit	378283-B21
Memory (DIMMs)	1 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2x512 MB)	343055-B21
	2 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2x1024 MB)	343056-B21
	4 GB of Advanced PC2 PC3200 DDR2 SDRAM DIMM Memory Kit (2x2048 MB)	343057-B21

Options

Hard Drives	**SATA - Non-Hot Plug**	
	80-GB SATA 1.5Gb 7,200 rpm Non-Hot Plug Hard Drive (1")	383410-B21
	160-GB SATA 1.5Gb 7,200 rpm Hard Drive (3.5")	349238-B21
	250-GB SATA 1.5Gb 7,200 rpm Hard Drive (3.5")	349239-B21
	500-GB SATA 1.5Gb 7,200 rpm Hard Drive (3.5")	395473-B21
	U320 SCSI- Not-Hot Plug	
	36.4-GB Ultra320 SCSI 15,000 rpm Universal Hard Drive (1")	357012-B21
	72.8-GB Ultra320 SCSI 10,000 rpm Universal Hard Drive (1")	332751-B21
	146.8-GB Ultra320 SCSI 10,000 rpm Universal Hard Drive (1")	356990-B21
	NOTE: When deploying systems with 160-GB, 250-GB or 500-GB NHP SATA drives, you will need to remove the drive from the carrier shipped with the drive and install it into the drive carrier that ships with the server. Please see installation sheet for details.	
Optical Drives	DVD-ROM Drive	361040-B21
	24x CD-ROM Drive	349046-B21
	Multibay II DVD/CD-RW Combo Drive NOTE: When purchasing the Multibay II DVD/CD-RW Combo Drive, (P/N PA850A), the USB 2.0 Multibay II Cradle (P/N PA509A) is required.	PA850A
	USB 2.0 MultiBay II Cradle, External NOTE: When purchasing the Multibay II DVD/CD-RW Combo Drive,(P/N 850A), the USB 2.0 Multibay II Cradle,(P/N PA509A) is required	PA509A
Storage Controllers and options	HP U320 Internal SCSI Cable Kit	385749-B21
	64-Bit/133-MHz Single Channel Ultra320 SCSI HBA G2	374654-B21
	HP 8 Internal Port SAS HBA with RAID NOTE: For use with SATA drives only	347786-B21
	HP SATA/SAS 1U Cable Kit NOTE: For use with SATA drives only	398307-B21
	HP PL100 SCSI RAID Controller	355671-B21
	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
	HP PCI Express Riser Board Kit	378841-B21

Options

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 NC370F PCI-X Multifunction 1000SX Gigabit Server Adapter	374193-B21
	HP NC370T PCI-X Multifunction 1000TGigabit Server Adapter	374191-B21
	HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21
	NOTE: A minimum of 1 GB of memory is required for NC370x adapters, with a maximum of two NC370x adapters permitted in a server.	
	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 (Dual channel Rev. D card)	360040-B21
	Myrinet -Fiber/PCI-X Interface, M3F-PCIXD-2	257894-006
	Myrinet 2XP PCI-X, Fiber F-Series, 2MB NIC	390456-B21
	NOTE: For HPC interconnect adapters please see the HPC Interconnect section of this QuickSpecs.	
Rack Kits	1U Cable Management Arm	365403-B21
	NOTE: Package contains two cable management arms	
Tape Drives	**USB Tape Drives**	
	HP StorageWorks DAT 24 USB External Tape Drive (Carbonite)	DW070A
	HP StorageWorks DAT 40 USB External Tape Drive (Carbonite)	DW023A
	HP StorageWorks DAT 72 USB External Tape Drive (Carbonite)	DW027A
	DAT External Tape Drive	
	HP StorageWorks DAT 24 SCSI External Tape Drive (Flint)	C1556D
	HP StorageWorks DAT 40 SCSI External Tape Drive (Carbon)	C5687C
	HP StorageWorks DAT 72 SCSI External Tape Drive (Carbon)	Q1523B
	Ultrium External Tape Drive	
	HP StorageWorks Ultrium 232 External Tape Drive, (Carbonite)	DW065A
	Rack-Mount Tape Drive	
	HP StorageWorks 1U Rack-Mount Kit with one DAT 72 drive (Carbon)	A7443A
	1U USB Cable Option Kit	396114-B21
	NOTE: Converts a 1U SCSI rack-mount kit to a USB interface to support the USB tape drives.	

Options

NOTE: When attaching to an external tape drive, autoloader or jukebox, you must also purchase a HBA

NOTE: For a complete listing of HP tape drive offerings supported with the DL140 G2, visit http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html

USB Options	128MB USB Drive Key	DQ819B
	256MB USB Drive Key	DL973B
	USB Optical Scroll Mouse (Carbonite)	DC172B
	USB 1.44-MB External Diskette Drive	DC141B
HP KVM Switch Options	HP 1x4 USB/PS2 KVM Switch, TT (NA/JPN)	371301-D71
	HP 1x4 USB/PS2 KVM Switch, TT (AU/NZ)	371301-011
	HP 1x4 USB/PS2 KVM Switch, TT (UK)	371301-031
	HP 1x4 USB/PS2 KVM Switch, TT (EU)	371301-A21
	HP 1x4 USB/PS2 KVM Switch, RM (ALL)	371302-B21
	HP PS2 KVM Cable with audio, 6', 2-pack	371730-B21
	HP USB KVM Cable with audio, 6', 2-pack	371729-B21
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm	
HP Serial Console Server Options	HP 16 Port Serial Console Server (worldwide)	AF101A
	HP 48 Port Serial Console Server (worldwide)	AF102A
	Serial Adapter, RJ45-D89 DCE Female, 1-pack	AF103A
	Serial Adapter, RJ45-D89 DCE Female, 8-pack	AF110A
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm	
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm	
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	

Memory

HP ProLiant DL140 G2 (all models)

Standard Memory

1 GB (2 x 512 MB) of PC2-3200 DDR2 SDRAM running at 400MHz, with Advanced ECC capabilities Memory installed.

Maximum Memory

Up to 16GB memory is available with the optional installation of PC2-3200 Registered ECC DDR SDRAM DIMM Memory kits.

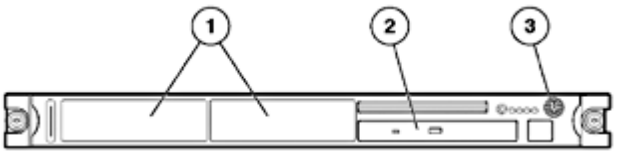
Memory should be installed in pairs and matched for optimum performance.

NOTE: Chart does not represent all possible memory configurations.

Memory	Slot							
	1	2	3	4	5	6	7	8
Standard (1 GB)	512 MB	512 MB	Empty	Empty	Empty	Empty	Empty	Empty
Maximum (16 GB)	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB	2 GB

Following are memory options available from HP:

4096 MB of Advanced ECC PC2-3200 DDR SDRAM DIMM Memory Kit (2 x 2048 MB)	343057-B21
2048 MB of Advanced ECC PC2-3200 DDR SDRAM DIMM Memory Kit (2 x 1024 MB)	343056-B21
1024 MB of Advanced ECC PC2-3200 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	343055-B21



1	Two 1" Non-hot plug SATA or SCSI Hard Drive Bays
2	Optional CD- ROM or DVD drive
3	Power On/Off

Drive Support

Removable Media

	Quantity Supported	Position Supported	Controller
IDE (ATAPI) CD-ROM Drive	Up to 1	2	Integrated IDE (ATAPI) (optional)
DVD-ROM	Up to 1	2	Integrated IDE (ATAPI) (optional)

Hard Drives

SATA - Non-Hot Plug

	Quantity Supported	Position Supported	Controller
1-inch			
80-GB 7,200 rpm	Up to 2	1	Embedded SATA Controller
160-GB 7,200 rpm	Up to 2	1	Embedded SATA Controller
250-GB 7,200 rpm	Up to 2	1	Embedded SATA Controller
500-GB 7,200 rpm	Up to 2	1	Embedded SATA Controller

NOTE: When deploying 160-GB, 250-GB or 500-GB NHP SATA drives, you must remove the drive from the carrier that ships with the drive and install it into the drive carrier that ships with the server. Please see installation sheet for more details.

SCSI- Non-Hot Plug

	Quantity Supported	Position Supported	Controller
1-inch			
36-GB 15,000 rpm	Up to 2	1	Ultra320 Single Channel PCI-X card (in low profile slot) on SCSI models
72-GB 10,000 rpm	Up to 2	1	Ultra320 Single Channel PCI-X card (in low profile slot) on SCSI models
146-GB 10,000 rpm	Up to 2	1	Ultra320 Single Channel PCI-X card (in low profile slot) on SCSI models

Power Specifications

Spare Kit	389322-001
Operational Input Voltage Range (V rms)	90Vac to 264Vac full range
Frequency Range (Nominal) (Hz)	47 Hz to 63 Hz

Nominal Input Voltage (Vrms)	100	115	200	220	230	240
Max Rated Output Wattage Rating	500	500	500	500	500	500
Nominal Input Current (A rms)	6.84	5.78	3.25	2.91	2.75	2.63
Max Rated Input Wattage Rating (Watts)	684	665	649	641	632	632
Max. Rated VA (Volt-Amp)	820	820	820	820	820	820
Efficiency (%)	73	75	77	78	79	79
Power Factor	1.00	1.00	.99	.98	.98	.98
Leakage Current (mA)	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5
Maximum Inrush Current (A peak)	60	60	60	60	60	60
Maximum Inrush Current duration (mS)	1	1	1	1	1	1

System Specifications

	Power	
ProLiant DL140 G2 Fully Configured	110V/60Hz	220V/50Hz
Fully Loaded System Input Wattage (W)	682	660
Fully Loaded System Input Current (A rms)	6.2	3.0
Fully Loaded System Thermal (BTU- Hr)	2327	2252
Fully Loaded System VA (Volt-Amp)	682	660
System Leakage with all power supplies loaded (mA)	<3.5	<3.5
System Inrush Current with all power supplies loaded (A)	60	60
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, (8) double-sided DIMMs, (2) HDDs, (1) CD-ROM, and (2) PCI cards.		

Power Cord Part Number-All Countries	307348-B21
Power Cord - 12' (US)	307372-001

System Unit	Dimensions (HxWxD) (with feet)	1.70 x 16.78 x 26.75 in (4.32 x 42.62 x 67.95 cm)	
	Weight (approximate)	35 lb (15.87 kg)	Fully configured
	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	47 to 63 Hz	
	Rated Input Current load	7.1A at 115VAC, 3.6A at 230VAC	
	BTU Rating	BTU-Hr	2371
	Power Supply Output Power (per power supply)	Rated Steady-State Power	500W
		Maximum Peak Power	645W
	Temperature Range	Operating	50° to 95° F (10° to 35° C)
		Shipping	-40° to 140° F (-40° to 60° C)
	Relative Humidity (non-condensing)	Operating	10% to 85%
		Non-operating	10% to 95%
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)	
		L WAd (BELS)	6.31
		Operating (Random Seeks to Fixed Disks)	
		L WAd (BELS)	6.32

Non-Hot Plug SATA Hard Drives	80 GB 7.2K 383410-B21	Capacity	80027 MB	
		Height	1.028 in (2.61 cm)	
		Width	4.0 in (10.16 cm)	
		Interface	SATA 150	
		Transfer Rate Synchronous (Maximum)	150 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

Non-Hot Plug SCSI Hard Drives	36.4-GB 15K 357012-B21	Capacity	36419.2 MB	
		Height	1 in (2.54 cm)	
		Width	4 in (10.16 cm)	
		Interface	Ultra320 SCSI	
		Transfer Rate Synchronous (Maximum)	320 MB/s	
		Seek Time (typical reads, including settling)	Single Track	0.4 ms
			Average	3.8 ms
			Full-Stroke	8 ms
			Rotational Speed	15,000 rpm
		Physical Configuration	Bytes/Sector	512
			Logical Blocks	71,132,000
		Operating Temperature	50° to 95° F (10° to 35° C)	

Integrated Dual Broadcom 10/100/1000 NICs (Wake on LAN and PXE capable)	Network Interface Compatibility	10Base-T/100Base-TX/1000Base-TX	
		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 and 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)

© Copyright 2005 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice.

Microsoft and Windows NT are US registered trademarks of Microsoft Corporation. Intel is a US registered trademark of Intel Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.