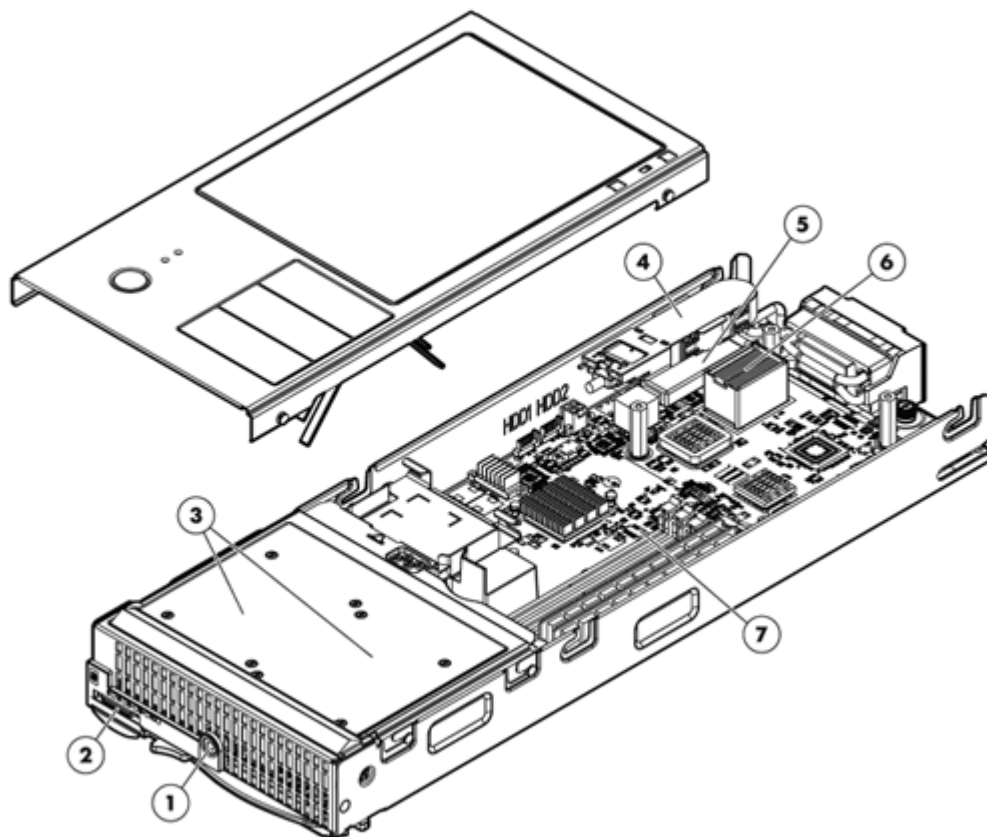# QuickSpecs

Overview

HP ProLiant BL260c G5 Server Blade

1. System Power Button
2. SUV Cable connector
3. Up to two Quad-Core or Dual-Core Intel® Xeon® processors or one Uni-Processor Intel® Xeon®, Intel® Core™2 Duo or Intel® Celeron®
   Also, up to two Small form factor (SFF) non-hot plug drives
4. Battery Holder (Future option support)
5. Internal USB 2.0 Connector
6. One x8 Mezzanine Connector
7. Six (6) PC2 5200 Registered (DDR2 667) Memory DIMM slots

What's New

- Support for HP NC522m Dual Port 10GbE Multifunction BL-c Adapter

At A Glance

This document covers the HP ProLiant BL260c G5 server blade only. For more information on HP BladeSystems c-Class Enclosures and HP BladeSystem c-Class Interconnect Components, please see the following QuickSpecs:

Overview

HP BladeSystem c3000 Enclosure QuickSpecs:
http://h18000.www1.hp.com/products/quickspecs/12790_na/12790_na.html

HP BladeSystem c7000 Enclosure QuickSpecs:
http://h18000.www1.hp.com/products/quickspecs/12810_na/12810_na.html

HP BladeSystem c-Class Interconnect Components QuickSpecs:
http://h18000.www1.hp.com/products/quickspecs/12524_na/12524_na.html

The new HP ProLiant BL260c G5 offers small to mid-market class features with high performance and reliability without compromising energy efficiency, density or simplicity

HP ProLiant BL260c G5 server blade includes:

- **Processor**:
  - Up to two Quad-Core Intel® Xeon® 5400 sequence processors
  - Up to two Dual-Core Intel® Xeon® 5200 sequence processors
  - Or one Uni-Processor Intel® Xeon®, Intel® Core™2 Duo or Intel® Celeron® processor
  - Supports up 2 Quad-Core 3.00 GHz 1333MHz-2x6 MB Level 2 cache memory
  - Intel® 5100 chipset supporting up to a 1333 MHz Front Side Bus
- **Memory**:
  - Up to 48 GB of memory (with 8GB DIMMS), supported by (6) slots of PC2-5300 Registered ECC DIMMs at 667 MHz
  - Advanced ECC memory support
- **Internal Drive Support**:
  - Up to 2 small form factor (SFF) HP Solid State Drives (SSD) For ProLiant Server Blades
  - Up to 2 small form factor (SFF) SATA Non-Hot Plug hard disk drives
- **Storage Controller**
  - HP Embedded G5 SATA RAID Controller
    NOTE: This is a chip set SATA RAID controller. It supports RAID 0 and 1 only and no BBWC. User needs to enable the RAID option through HP RBSU (ROM Base Setup Utility) first before the RAID can be activated. Users also need to download the OS driver from the HP.com website for OS Array Monitoring.
- **Network Controller**:
  - One HP Integrated NC326i Dual Port Gigabit Server Adapter
  - Additional Ethernet adapter ports available via the mezzanine expansion slot
  - One (1) additional 10/100 network adapter dedicated to iLO 2 Management
- **Mezzanine Support**:
  - One additional I/O expansion slot via mezzanine card
  - PCIe, x8,standard Mezzanine expansion slot
  - PCI x4 support for HP BladeSystem PCI Expansion Blade
  - Supports up to 1 additional mezzanine card of your choice:
    - Dual-Port Fibre Channel Mezzanine (4-Gb) options for SAN connectivity (choice of Emulex or QLogic).
    - Ethernet Network Mezzanine options for additional network ports
      - HP NC325m PCI Express Quad Port Gigabit Server Adapter for c-Class BladeSystem
      - HP NC326m PCI Express Dual Port 1Gb Server Adapter for c-Class BladeSystem
      - HP NC360m Dual Port 1GbE BL-c Adapter
      - HP NC364m Quad Port 1GbE BL-c Adapter
      - HP NC373m PCI Express Dual Port Multifunction Gigabit Server Adapter
      - HP NC382m Dual Port 1GbE Multifunction BL-c Adapter
      - HP NC522m Dual Port 10GbE Multifunction BL-c Adapter
      - HP NC532m Dual Port Flex-10 10GbE Multifunction BL-c Adapter
      - 4X DDR InfiniBand (IB) Mezzanine (20 Gb/s) options for low latency server interconnectivity (based on Mellanox technology)

Overview

- **Internal USB Support**:
  - One (1) internal USB 2.0 connector for security key devices and USB drive keys
- **Form Factor**:
  - HP ProLiant BL260c server blade plugs vertically into the BladeSystem c3000 and c7000 enclosures
    - 16 blades per c7000 (10u) enclosure
    - 8 blades per c3000 (6U) enclosure
- **Infrastructure Management**:
  - HP ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) for simplified server setup, health monitoring and recovery, power and thermal control, and lights-out remote administration.
  - HP Insight Control suites deliver essential infrastructure management that can help save time and money by making it easy to deploy, monitor, control and optimize your IT infrastructure through a single, simple management console. Insight Control suites support both Windows and Linux-based servers and management consoles.
  - HP Insight Dynamics - VSE suite for ProLiant servers, a product option, is an integrated command center that enables you to continuously analyze and optimize your adaptive infrastructure. This advanced infrastructure management software lets you reduce the cost of common data center tasks by as much as 40 percent while keeping pace with your changing business.
- **Operating Systems**:
  - Supports Windows RHEL, SLES, OEL, Solaris, NetWare, operating systems,
- **Enclosures**:
  - HP offers three different c-Class server blade enclosures to meet your individual needs:
    - The HP BladeSystem c7000 rack enclosure is 10U high and holds up to 16 ProLiant BL260c G5 servers plugged vertically.
    - The HP BladeSystem c3000 rack enclosure is 6U high and holds up to 8 HP ProLiant BL260c G5 servers plugged horizontally.
    - The HP BladeSystem c3000 tower enclosure is designed with casters for sites without racks and holds up to 8 HP ProLiant BL260c G5 servers plugged vertically.
  - Server blades, storage blades, interconnect modules, power supplies, fans, and redundant Onboard Administrator modules are all designed to fit into the c3000 and c7000 enclosures.
  - For additional enclosure information, please see:
    http://h18004.www1.hp.com/products/blades/components/enclosures/c-class/index.html
- **Warranty**:
  - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
    NOTE: Server Warranty includes 1 year Parts, 1 year Labor, 1-year on-site support. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
    http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Standard Features

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/erc/downloads/4AA1-8227enw.pdf

Processor	Quad-Core Processor Option Kits
	Intel® Xeon® processor E5450 (3.00 GHz, 1333FSB, 80W)*
	Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W)*
	Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W)
	Intel® Xeon® processor L5430 (2.66 GHz, 1333 FSB, 50W)
	Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W)
	Intel® Xeon® processor L5420 (2.50 GHz, 1333 FSB, 50W)
	Intel® Xeon® processor E5410 (2.33 GHz, 1333 FSB, 80W)*
	Intel® Xeon® processor L5410 (2.33 GHz, 1333 FSB, 50W)*
	Intel® Xeon® processor E5405 (2.00 GHz, 1333 FSB, 80W)

Dual-Core Processor Option Kits

Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W)*

Intel® Xeon® processor L5240 (3.00 GHz,1333 FSB, 40W)

Intel® Xeon® processor E5205 (1.86 GHz, 1066 FSB, 65W)

Intel® Xeon® Uni-Processors Processor Option Kits

Quad-Core Processor Option Kits

Intel® Xeon® processor X3363 (2.83 GHz, 1333 FSB, 80W)*

Intel® Xeon® processor X3353 (2.66 GHz, 1333 FSB, 80W)*

Intel® Xeon® processor X3323 (2.50 GHz, 1333 FSB, 80W)*

Dual-Core Processor Option Kits

Intel® Core™2 Duo processor E6405 (2.13GHz, 1066 FSB, 65W)*

Intel® Core™2 Duo processor E6305 (1.86 GHz, 1066 FSB, 65W)*

Single-Core Processor Option Kits

Intel® Celeron® processor 445 (1.86 GHz, 1066 FSB)*

* Offered through Configure-To-Order only. See Factory Integrated Models section for more details.
NOTE: Intel® 5400 series processors are Quad-Core and support 64-bit Intel VT. Intel®.
NOTE: For the Intel® 5400 series, the letter preceding the model number indicates the performance/wattage of the processor. "X" denotes High Performance/Wattage; "E" denotes Enterprise Performance/Wattage (Mainstream); and "L" denotes Lower Wattage.

Upgradeability	Upgradeable to 2 processors when selecting Intel Xeon® 5000 sequence processors

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QuickSpecs

Standard Features

Cache Memory	**5000 Sequence Processors** 2x6 MB shared L2 cache (5400 Series) 1x6 MB shared L2 cache (5200 Series) **Uni-Processors** Quad-Core 2x6 MB shared L2 cache (X3363 and X3353) 1x6 MB shared L2 cache (X3323) Dual-Core 1x2 MB shared L2 cache (E6405 and 6305) Single-Core 1x512 KB shared L2 cache (445)

Chipset	Intel®-5100 chipset

Memory	Type	PC2-5300 DDR2 Registered ECC DIMMS at 667 MHz
	Standard	1 GB (2 x 512 MB) 2 GB (2 x 1 GB)
	Maximum	48 GB (6 x 8 GB DIMMs) NOTE: Memory must be installed in pairs.

Network Controller	One (1) integrated dual-port Broadcom 5715S-based Gigabit Ethernet network adapter One (1) additional 10/100 network adapter dedicated to iLO 2 Management NOTE: The Gigabit Ethernet adapters transmit from the server only at 2000 Mbps, full duplex per port. However, within a Linux environment, the speed can be reduced or "throttled" using a feature available within the Linux operating system; see the white paper at: http://h71028.www7.hp.com/ERC/downloads/4AA1-5513ENW.pdf for more information. Once the adapter signal reaches the interconnect within the blade enclosure and communicates outside the blade enclosure to the LAN, the blade interconnect uplink types and settings determine the cable media, speed, duplex mode, and auto negotiation mode. Interconnects are available with Ethernet uplinks supporting 10/100/1000T, 10/100/1000 SFP, 1000 SX fiber, and 10Gb KX-4.

I/O Expansion Slots	One I/O expansion mezzanine slot (Onex8)

Integrated Manageability	Integrated Lights-Out 2 (iLO 2) Standard Blade Edition (integrated on motherboard)

Storage Controller	HP Embedded G5 SATA RAID Controller NOTE: This is a chip set SATA RAID controller. It supports RAID 0 and 1 only and no BBWC. User needs to enable the RAID option through HP RBSU (ROM Base Setup Utility) first before the RAID can be activated. Users also need to download the OS driver from the HP.com website for OS Array Monitoring

Standard Features

Maximum Internal Storage	Non Hot Plug Serial ATA (SATA)	500GB SATA	2 x 250GB SATA
	Non-Hot Plug SSD (SATA)	128GB SATA	2 x 64GB SATA

Graphics Integrated ATI RN-50 1280 x 1024 x 16M color (32 MB DDR1 memory)

Graphics Resolution Supported	Resolution Color Depths	Depths
		1280 x 1024, 16.7M, 64k, 256.16
		1024 x 768, 16.7M, 64k, 256,16
		800 x 600, 16,7M, 64k, 256, 16
		640 x 480, 16,7M, 64k, 256, 16

Fibre Channel Support

Two optional Fibre Channel HBAs are supported by the HP ProLiant BL260c G5. Both mezzanine circuit boards connect directly to the server blade system board. These Fibre Channel HBAs are available via option kits and must be ordered separately.

Two option kits

Emulex LPe1105-HP 4Gb FC HBA for HP c-Class BladeSystem (403621-B21)

- Based on the same field-proven ASIC, firmware, and driver technology as Emulex's renowned LPe1150 HBA, the Emulex LPe1105-HP is fully driver compatible with all Emulex HBAs

QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem (403619-B21)

- Uses common drivers which means that customers can standardize on one QLogic driver whether they are using the QMH2462 or other 4Gb and 2Gb HBAs powered by QLogic

Emulex and QLogic Fibre Channel HBAs feature:

- Optimal performance utilizing PCI Express
- 4/2/1Gb/s auto negotiating speeds
- Dual-ports for redundant path connections
- Up to two FC HBAs per server blade providing redundant FC HBA support
- Optimized for HP StorageWorks and supported by third party SAN vendors
- Support for Microsoft® Windows® and Linux operating systems environments

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Compatible SAN

HP ProLiant BL260c G5 server blades are optimized for HP StorageWorks MSA, EVA and XP

HP ProLiant BL260c G5 server blades are compatible with select 3rd party SANs Please see blade storage page for more details: http://h18000.www1.hp.com/products/servers/proliant-bl/c-class/storage.html

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Core Infrastructure Management	HP Insight Foundation	Managing the growing number of servers can be complex and expensive for your organization. IT managers need to address changing business needs with tools that meet the challenges of managing today's complex Datacenters.

Standard Features

HP provides management solutions that are designed to simplify a server's installation, configuration and maintenance throughout the entire server lifecycle. This provides the customer with higher levels of operational efficiency and highly reliable systems: www.hp.com/go/foundation.

The foundation pack includes:

- HP SmartStart
- HP Management
- HP ProLiant Firmware Maintenance

Minimum SmartStart version supported (minimum): SmartStart 7.60
http://www.hp.com/servers/smartstart

ProLiant Onboard Administrator	HP ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant ML, DL, and BL servers. HP ProLiant Onboard Administrator functions without additional software, and can be accessed from any location via a web browser. It works hand-in-hand with HP Systems Insight Manager, Insight Control suites, and the Insight Dynamics-VSE suite helping customers unlock the value of the ProLiant platform and deliver the highest possible quality of IT service to the business. See www.hp.com/go/ProLiantOA
HP Insight Control suites	HP Insight Control suites, as product options, deliver essential infrastructure management that can help save time and money by making it easy to deploy, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. ICE Insight Control installs and licenses software modules that are integrated into HP System Insight Manager. Two Insight Control suites are available for environments requiring either a Windows or a Linux-based management console: HP Insight Control suites include one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/insight.
HP Insight Dynamics - VSE suite	The HP Insight Dynamics - VSE suite for ProLiant, a product option, is an integrated command center that enables you to continuously analyze and optimize your adaptive infrastructure. This advanced infrastructure management software that allows you to analyze and optimize your adaptive infrastructure to manage physical and virtual resources in the same way. HP Insight Dynamics - VSE gives you a powerful toolkit to accelerate complex technology projects and simplify daily operations. It enables you to plan capacity and power continuously, balance across physical and virtual resources, ensure cost-effective high availability, and provision infrastructure consistently. HP Insight Orchestration, an optional extension to Insight Dynamics - VSE, enables IT organizations to provision infrastructure consistently and automatically from pools of shared resources using a self-service portal. Resources provisioned can range from a single virtual machine to complex multi-tier environments and their associated physical and virtual resource requirements.

Standard Features

HP Insight Recovery, also an optional extension for Insight Dynamics - VSE, enables cost-effective disaster recovery for physical and virtual environments. Application environments can be reactivated in minutes with the touch of a button to a remote location.

NOTE: For more information, visit:
http://www.hp.com/go/insightdynamics,
http://www.hp.com/go/insightorchestration,
http://www.hp.com/go/insightrecovery

Operating Systems and Virtualization Software Support for ProLiant Servers	Microsoft Windows Server Microsoft Windows Server Hyper-V Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Enterprise Linux (OEL) Solaris 10 for x86/x64 based Systems VMware Citrix XenServer NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: http://www.hp.com/go/supportos.

Integrated Manageability   Integrated Lights-Out 2 Standard Blade Edition (iLO 2)

- Virtual KVM based remote console
- Virtual media (single server, browser based access only)
- Remote Serial Console
- Virtual Power Button Control
- Virtual Unit ID control
- Integrated Remote Console (ActiveX Control client)
- Dedicated network connectivity
- OS independent hardware health status
- Present server power consumption
- Browser, command line and scripted access
- Automatic IP Configuration via DHCP/DNS/WINS
- Industry Standard 128-bit Secure Sockets Layer (SSL) and Secure Shell security (SSH)
- Advanced Encryption Standard (AES)/Triple Data Encryption Standard (3DES)
- IML and iLO Event Logging
- Support for 12 user accounts with customizable access privilege
- Single sign-on from HP BladeSystem Onboard Administrator

Availability

- Dual port Fibre Channel Mezzanine card for redundant SAN connection
- Advanced ECC memory - can correct a multi-bit error (up to 4 bits) that occurs within one memory chip
- Network adapter teaming (network fault tolerance, transmit load balancing, switch-assisted load balancing

Standard Features

Industry Standard Compliance	ACPI 2.0 Compliant PCI 2.2 Compliant WOL Support Microsoft® Logo certifications USB 2.0 Support

Security

- One (1) internal USB 2.0 connector for security key devices and USB drive keys on every BTO model server blade
- Power-on password
- Administrator's password
- Integrated Lights-Out 2 has 12 customizable user accounts and SSL encryption
- Integrated Lights-Out 2 can be disabled via a Global Setting

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 MSAxxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.
For more information on Factory Express services on your specific server model please contact your sales representative or go to http://www.hp.com/go/factory-express.

HP Enterprise Configurator

The HP eConfigure Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance.

Service and Support

HP Care Pack services provide total care and support expertise with committed response designed to meet your IT and business needs.

The HP Care Pack service for HP ProLiant BL c-Class server blades, cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

To fully capitalize on your HP BladeSystem servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions provides a range of support services designed to meet the varying needs of business. Whether an SMB or large global corporation HP has a HP BladeSystem server support offer to help you speedily deploy and maximize system uptime.

Recommended Service - Simplify ProLiant solution implementation, maintenance and management.

- **Support Service** - 4-Hour Response Coverage, 3-Year, 24 x 7, Same Business Day
- **Deployment Service** - Installation and Start Up for HP BladeSystem Infrastructure

Standard Features

Enhanced Service - Optimize service level to increase IT performance and availability

- **Support Service** - HP Proactive BladeSystem Service, 1-Year
- **Deployment Service** - Enhanced Network Installation and Start-up for HP BladeSystem Switches

Installation & Start-Up service for HP BladeSystem Infrastructure plus HP BladeSystem Enhanced Network Installation and Start-UP as per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excluding HP holidays.
For a complete listing of service offerings and information visit:
http://www.hp.com/services/bladesystemservices
http://www.hp.com/go/proliant/carepack

QuickSpecs

HP ProLiant BL260c Generation 5 (G5) Server Blade

Models

Quad-Core Models
NOTE: The models below support Intel® Xeon® 5400 sequence processors.

HP BL260c G5 E5430 2G (1P) 464944-B21	Processor(s) One of the following depending on model	(1) Intel® Xeon® processor E5430 (2.66 GHz,1333 FSB, 80W) (1) Intel® Xeon® processor E5420 (2.50 GHz,1333 FSB, 80W) (1) Intel® Xeon® processor L5420 (2.50 GHz,1333 FSB, 50W) (1) Intel® Xeon® processor E5405 (2.00 GHz,1333 FSB, 80W)
HP BL260c G5 E5420 2G (1P) 464943-B21	Cache Memory	2 x 6 MB Level 2 cache
	Memory One of the following depending on model	2 GB (2 x 1 GB) PC2-5300 Registered DDR2-667 1 GB (2 x 512 MB) PC2-5300, Registered DDR2-667
HP BL260c G5 L5420 2G (1P) 464946-B21	Network Adapter	One (1) embedded dual-port NC326i Gigabit Server Adapter network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
HP BL260c G5 E5405 1G (1P) 464945-B21	Storage Controller	HP Embedded G5 SATA RAID Controller
	Hard Drives	No drives included; (2) SFF Non-Hot Plug SATA drive bays
	Internal Storage	SATA: 500GB
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

Dual-Core Models
NOTE: The models below support Intel® Xeon® 5200 sequence processors.

HP BL260c G5 E5205 1G (1P) 464942-B21	Processor(s) One of the following depending on model	(1) Intel® Xeon® uP processor E5205 (1.86 GHz,1066 FSB, 65W) (1) Intel® Xeon® processor L5240 (3.00 GHz,1333 FSB, 40W)
HP BL260c G5 L5240 2G (1P) 464941-B21	Cache Memory One of the following depending on model	1x 6 MB Level 2 cache
	Memory One of the following depending on model	1 GB (2 x 512 MB) PC2-5300, FBD DDR2-667 2 GB (2 x 1 GB) PC2-5300, FBD DDR2-667
	Network Adapter	One (1) integrated dual-port Gigabit Ethernet Broadcom 5715S-based network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
	Storage Controller	HP Embedded G5 SATA RAID Controller
	Hard Drives	No drives included; (2) SFF Non-Hot Plug SATA drive bays
	Internal Storage	SATA: 500GB
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

QuickSpecs

Models

Uni-Processor Models

NOTE: The models below support Quad-Core, Dual-Core and Single–Core Xeon® uP® Processors.
NOTE: If a Uni-processor model is selected, it cannot support a 2nd processor.

HP BL260c G5 X3323 2G (1P) 467956-B21	**Processor(s)** One of the following depending on model	(1) Intel® Xeon® processor X3323 (2.50 GHz, 1333 FSB, 80W) (1) Intel® Core™2 Duo processor E6405 (2.13 GHz, 1066 FSB, 65W) (1) Intel® Celeron® Processor 445 (1.86 GHz, 1066 FSB, 65W)
HP BL260c G5 E6405 2G (1P) 467957-B21	**Cache Memory** One of the following depending on model	1 x 6 MB shared L2 cache (X3323) 1 x 2 MB shared L2 cache (Dual-Core uP® Processors) 1 x 512 KB shared L2 cache (Single-Core uP® Processors)
	Memory One of the following depending on model	2 GB (2 x 1 GB) PC2-5300, FBD DDR2-667 1 GB (2 x 512 MB) PC2-5300, FBD DDR2-667
HP BL260c G5 445 1G (1P) 467958-B21	**Network Adapter**	One (1) integrated dual-port Gigabit Ethernet Broadcom 5715S-based network adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management
	Storage Controller	HP Embedded G5 SATA RAID Controller
	Hard Drives	No drives included; (2) SFF SATA Non-Hot Plug drive bays
	Internal Storage	SATA: 500GB
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

Smart Buys

The ProLiant Smart Buy program offers a collection of promotional server and option products that are configured with SMB in mind, offered at discounted prices, and positioned for quick delivery. Smart Buy server offers are available for a limited time only.

For a full listing of ProLiant Smart Buys available for all server families, visit: http://www.hp.com/go/smartbuy/server/specs

S-Buy BL260c G5 E5405 2G (1P) 480965-B21	Processor(s)	(1) Quad-core Intel® Xeon® Processor E5405 (2.00 GHz,1333 FSB, 80W)
	Cache Memory	2x4 MB Level 2 cache
	Memory	2 GB (2 x 1 GB) Reg PC2-5300 DDR2
	Network Adapter	(1) Embedded dual-port NC326i Gigabit Server Adapter plus one (1) 10/100 network adapter dedicated to iLO 2 Management
	Storage controller	Software SATA RAID
	Hard Drives	No drives included; (2) SFF SAS/SATA drive bays
	Internal Storage	292GB SAS 240GB SATA
	Optical Drive	None
	Form Factor	Up to 8 half-height blades supported in HP BladeSystem c3000 Enclosure Up to 16 half-height blades supported in HP BladeSystem c7000 Enclosure

Configuration Information - Factory Integrated Models

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on CTO product offerings and requirements.
NOTE: HP does not allow factory integration of options into standard models listed above.
Configure-to-order server blades must start with a CTO Blade.
NOTE: FIO indicates that this option is a Factory Installable Option.

Step 1: Base Server Blade Configuration (Select a configurable Blade)

Models	HP ProLiant BL260c G5 CTO Blade	467657-B21
	Configurable Model ships with:	
	One (1) integrated NC326i (Broadcom 5715) Gigabit Ethernet Adapter plus one (1) additional 10/100 network adapter dedicated to iLO 2 Management	
	Integrated Lights-Out 2 Standard Blade Edition	

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

Processors	Intel® Xeon® 5000 Sequence Processor Option Kits:	
	Quad-Core Processor Option Kits	
	Intel® Xeon® processor E5450 (3.00 GHz, 1333 FSB, 80W), FIO Base	464885-L21
	Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W), FIO Base	464886-L21
	Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W), FIO Base	464887-L21
	Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W), FIO Base	464888-L21
	Intel® Xeon® processor E5410 (2.33 GHz, 1333 FSB, 80W), FIO Base	464889-L21
	Intel® Xeon® processor E5405 (2.00 GHz, 1333 FSB, 80W), FIO Base	464890-L21
	Intel® Xeon® processor L5430 (2.66 GHz, 1333 FSB, 50W), FIO Base	493216-L21
	Intel® Xeon® processor L5420 (2.5 GHz, 1333 FSB, 50W), FIO Base	464891-L21
	Intel® Xeon® processor L5410 (2.33 GHz, 1333 FSB, 50W), FIO Base	464892-L21
	Dual-Core Processor Option Kits	
	Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W), FIO Base	464893-L21
	Intel® Xeon® Processor L5240 (3.00 GHz, 1333 FSB, 40W), FIO Base	464894-L21
	Intel® Xeon® processor E5205 (1.86 GHz, 1066 FSB, 65W), FIO Base	464895-L21
	Intel Xeon Uni-Processors Processor Option Kits (A 2nd processor is not supported if the following kits are selected):	
	Quad-Core Processor Option Kits	
	Intel® Xeon® processor X3363 (2.83 GHz, 1333 FSB, 80W), FIO Base	467963-L21
	Intel® Xeon® processor X3353 (2.66 GHz, 1333 FSB, 80W), FIO Base	467964-L21
	Intel® Xeon® processor X3323 (2.50 GHz, 1333 FSB, 80W), FIO Base	467959-L21
	Dual-Core Processor Option Kits	
	Intel® Core™2 Duo processor E6405 (2.13GHz, 1066 FSB, 65W), FIO Base NOTE: If a Uni-processor is selected, a 2nd processor is not a supported option	467960-L21
	Intel® Core™2 Duo processor E6305 (1.86 GHz, 1066 FSB, 65W), FIO Base NOTE: If a Uni-processor is selected, a 2nd processor is not a supported option.	467965-L21
	Single-Core Process Option Kits	

Configuration Information - Factory Integrated Models

	Intel® Celeron® processor 445 (1.86 GHz, 1066 FSB), FIO Base	467961-L21
	NOTE: If a Uni-processor is selected, a 2nd processor is not a supported option.	

Memory	1 GB REG PC2-5300 DDR2 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 DDR2 2 x 1 GB Low Power Single Rank Kit	483399-B21
	2 GB REG PC2-5300 DDR2 2 x 1 GB Single Rank Kit	408851-B21
	4GB REG PC2-5300 DDR2 2 x 2 GB Low Power Single Rank Kit	483401-B21
	4 GB REG PC2-5300 DDR2 2 x 2 GB Dual Rank Kit	408853-B21
	8 GB REG PC2-5300 DDR2 2 x 4 GB Dual Rank Kit	408854-B21
	8 GB REG PC2-5300 DDR2 2 x 4 GB, Low Power Dual Rank Kit	483403-B21
	16 GB REG PC2-5300 DDR2 2 x 8 GB Dual Rank Kit	408855-B21
	NOTE: Must be installed in pairs.	

Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Core Options" and "Additional Options" section below.

NOTE: For additional options, including server blade enclosures interconnect options and power subsystem options; please see the options section below; or the following QuickSpecs:

HP BladeSystem c3000 Enclosure QuickSpecs:

http://h18000.www1.hp.com/products/quickspecs/12790_na/12790_na.html

HP BladeSystem c7000 Enclosure QuickSpecs:

http://h18000.www1.hp.com/products/quickspecs/12810_na/12810_na.html

and HP BladeSystem c-Class Interconnect Components QuickSpecs:

http://h18000.www1.hp.com/products/quickspecs/12524_na/12524_na.html.

Core Options

Ethernet Mezzanine Options	HP NC325m PCI Express Quad Port 1Gb Server Adapter for c-Class BladeSystem	416585-B21
	HP NC326m PCI Express Dual Port 1Gb Server Adapter for c-Class BladeSystem	406771-B21
	HP NC360m Dual Port 1GbE BL-c Adapter	445978-B21
	HP NC364m Quad Port 1GbE BL-c Adapter	447883-B21
	HP NC382m Dual Port 1GbE Multifunction BL-c Adapter	453246-B21
	HP NC532m Dual Port Flex-10 10GbE Multifunction BL-c Adapter	467799-B21

NOTE: The NC532m network adapter card is required for each server blade connecting to a 10Gb interconnect in bays 3-8 (HP BladeSystem c7000 Enclosure) or bays 3-4 (HP BladeSystem c3000 Enclosure)
NOTE: The NC532m requires a minimum of 2 GB of server memory.
NOTE: The NC532m supports linking at 1000Mbps or 10000Mbps when not connected to a Flex-10 enabled module and will link with all current 1Gb switches at 1Gb.

	HP NC522m Dual Port 10GbE Multifunction BL-c Adapter	467801-B21

NOTE: The NC522m requires a minimum of 2 GB of server memory.
NOTE: The NC522m supports linking at 1000Mbps or 10000Mbps when not connected to a Flex-10 enabled module and will link with all current 1Gb switches at 1Gb.

	QLogic QMH4062 1Gb E iSCSI Adapter for HP BladeSystem c-Class	488074-B21

NOTE: The Gigabit Ethernet adapters above transmit from the server only at 2000 Mbps, full duplex per port. For more information, see the "Network Controller" segment in the Standards Features section.

Fiber Channel Mezzanine Options	Emulex LPe1105 FC Dual Channel 4Gb, PCI-E-to-Fibre Channel Host Bus Adapter	403621-B21
	QLogic QMH2462 4Gb FC HBA for HP c-Class BladeSystem	403619-B21

Processors	**Quad-Core Process Option Kits**	
	Intel® Xeon® processor E5450 (3.00 GHz, 1333 FSB, 80W)	464885-B21
	Intel® Xeon® processor E5440 (2.83 GHz, 1333 FSB, 80W)	464886-B21
	Intel® Xeon® processor E5430 (2.66 GHz, 1333 FSB, 80W)	464887-B21
	Intel® Xeon® processor E5420 (2.50 GHz, 1333 FSB, 80W)	464888-B21
	Intel® Xeon® processor L5430 (2.66 GHz, 1333 FSB, 50W)	493216-B21
	Intel® Xeon® processor L5420 (2.50 GHz, 1333 FSB, 50W)	464891-B21
	Intel® Xeon® processor E5410 (2.33 GHz, 1333 FSB, 80W)	464889-B21
	Intel® Xeon® processor L5410 (2.33 GHz, 1333 FSB, 50W)	464892-B21
	Intel® Xeon® processor E5405 (2.00 GHz, 1066 FSB, 80W)	464890-B21
	Dual-Core Processor Option Kits	
	Intel® Xeon® processor X5260 (3.33 GHz, 1333 FSB, 80W)	464893-B21
	Intel® Xeon® processor L5240 (3.00 GHz, 1333 FSB, 40W)	464894-B21
	Intel® Xeon® processor E5205 (1.86 GHz, 1333 FSB, 65W)	464895-B21

Core Options

Memory	1 GB REG PC2-5300 DDR2 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 DDR2 2 x 1 GB Low Power Single Rank Kit	483399-B21
	2 GB REG PC2-5300 DDR2 2 x 1 GB Single Rank Kit	408851-B21
	4 GB REG PC2-5300 DDR2 2 x 2 GB Low Power Single Rank Kit	483401-B21
	4 GB REG PC2-5300 DDR2 2 x 2 GB Dual Rank Kit	408853-B21
	8 GB REG PC2-5300 DDR2 2 x 4 GB Dual Rank Kit	408854-B21
	8 GB REG PC2-5300 DDR2 2 x 4 GB Low Power Dual Rank Kit	483403-B21
	16 GB REG PC2-5300 DDR2 2 x 8 GB Dual Rank Kit	408855-B21

NOTE: Must be installed in pairs.

Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SATA Non-Hot Plug SFF Entry (ETY) Disk Drives

HP 250GB 3G SATA 5.4K NHP SFF ETY HDD	460357-B21
HP 120GB 1.5G SATA 5.4K NHP SFF ETY HDD	459357-B21

NOTE: Please see the SATA Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature:
http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html

HP Solid State Drives (SSD) For ProLiant Server Blades

HP 32GB 1.5G SATA NHP SFF SP ENT SSD	461201-B21
HP 64GB 1.5G SATA NHP SFF SP ENT SSD	461203-B21

Please see the for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/13121_na/13121_na.html

Additional Options

HP Insight Software

NOTE: Electronic licensing options are available for Insight Control suites software products. Please see the appropriate Insight Control QuickSpecs for additional information.

Insight Control suite

HP Insight Control suite, No Media, 1-Server License including 1 year of 24x7 Technical Support and Updates	452148-B22

NOTE: Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.

HP Insight Software Media Kit	436222-B21

NOTE: Insight Software DVD media without licenses. Contains Insight Control suite and other Insight software products and components licensed by Insight Control suites. Uses an integrated installer to perform quick and accurate software installation and updates.

NOTE: For additional license kits, please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html

HP Insight Control suite for Linux

HP Insight Control suite for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates	464423-B22

NOTE: This part number can be used to purchase one (1) license with a single activation key. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.
NOTE: One certificate is shipped for each license.

HP Insight Control suite for Linux, Media pack (DVD) - No licenses included	464422-B22

NOTE: This optional Media pack DVD contains HP Insight Control suite for Linux, HP System Insight Manager, HP Insight Power Manager, HP Insight Virtual Machine Management software, and an integrated installer. Servers must be acquired separately.

NOTE: This Media pack is optional because the latest ISO image and latest updates may be downloaded at no cost from: http://www.hp.com/go/ice-linux (click on Download button).

NOTE: For additional License kits and Electronic licensing options, please see the Insight Control for Linux QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/13019_na/13019_na.html

HP iLO Advanced for BladeSystem

HP Integrated Lights-Out Advanced for BladeSystem, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates	512488-B21

NOTE: This license allows 1 server to be managed via HP iLO Advanced for BladeSystem. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.

Additional Options

	NOTE: For additional license kits, including electronic delivery options, please see the HP ProLiant Onboard Administrator (OA), powered by the Integrated Lights-Out 2 QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_na/12362_na.html	
	HP Insight Rapid Deployment software	
	HP Insight Rapid Deployment software No Media 1-Server License including 1 year of 24x7 Technical Support and Updates	452151-B21
	NOTE: The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.	
	NOTE: For additional License Kits- please see the Insight Rapid Deployment software QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11053_na/11053_na.html	
I/O Accelerator Mezzanine Options	HP StorageWorks 80GB IO Accelerator for BladeSystem c-Class	AJ876A
	HP StorageWorks 160GB IO Accelerator for BladeSystem c-Class	AJ877A
	HP StorageWorks 320GB IO Accelerator for BladeSystem c-Class	AJ878A
HP InfiniBand Mezzanine Options	HP 4X DDR IB Single Port Mezzanine HCA for HP BladeSystem c-Class	410533-B21
	HP 4X DDR IB Dual Port Mezzanine HCA for HP BladeSystem c-Class	448262-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information at: http://h18000.www1.hp.com/products/quickspecs/12586_na/12586_na.html	
HP PCI Expansion Blade	HP PCI Expansion Blade **NOTE:** Ships with one pre-installed PCI-X connect board. Also includes one PCIe connect board which requires installation. **NOTE:** Please see the for Technical Specifications and additional information at: http://h18000.www1.hp.com/products/quickspecs/12753_na/12753_na.html	448018-B21
HP Ultrium Tape Blades	HP StorageWorks SB920c Tape Blade **NOTE:** LTO-3 Ultrium technology	AJ401A
	HP StorageWorks Ultrium 448c Tape Blade **NOTE:** LTO-2 Ultrium technology	440947-B21
	NOTE: The HP PCI Express Mezzanine Pass-Thru Card for HP BladeSystem (431643-B21) is required when installing a tape blade adjacent to a full-height server blade. **NOTE:** Please see the for Technical Specifications and additional information at: http://h18000.www1.hp.com/products/quickspecs/12729_na/12729_na.html	
HP StorageWorks SB40c Storage Blade	HP StorageWorks SB40c Storage Blade	411243-B21
	NOTE: Please see the for Technical Specifications and additional information at: http://h18000.www1.hp.com/products/quickspecs/12587_na/12587_na.html	

QuickSpecs

Additional Options

USB Options	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	HP 1GB USB 2.0 Floppy Drive Key	442085-B21
	External USB 2.0 Multi-Bay II Cradle	PA509A
	Multibay II 9.5mm DVD Drive	PA849A
	1.44MB External USB Floppy Drive	DC141B
	USB Floppy Drive	DC361B
	2004 Standard Keyboard USB	DT528A#ABA
	HP 4GB USB Flash Media Key Kit	580385-B21

NOTE: Blank USB media device is supported for use with ProLiant iVirtualization. USB media must be installed in the internal slot of the ProLiant server. Learn more at http://www.hp.com/go/proliantvirtualization.

Service and Support Offerings
(HP Care Pack Services)

NOTE: The HP Care Pack service part numbers below for ProLiant BL c-Class server blades, cover the server blade and all HP branded hardware options qualified for the server, purchased at the same time or afterwards, internal to the server.

Hardware Services On-site Service

NOTE: To attach 3 year, 4-Hour On-site Service to Smart Buy servers, Smart Buy Care Packs must be used. For other service levels, order standard Care Pack part numbers.

4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Year, Electronic	UK042E
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Year, Electronic	UK043E

NOTE: Use one of the following Smart Buy Care Packs to attach 3 year, 4-Hour On-site Service to Smart Buy servers. For other service levels, order standard Care Pack part numbers.

BL260c Smart Buy 4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	UK647E
BL260c Smart Buy 4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	UK648E
6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Year, Electronic	UK044E

Memory

NOTE: Memory configurations listed do not apply to "Factory Integrated Models".

DIMM installation guidelines:

1. All DIMMs must be PC2-5300 Registered DDR2, 667 MHz, ECC DIMMS.
2. Both DIMM slots in a memory bank should be populated. The blade will work with 1 DIMM but not recommended as performance will suffer.
3. Banks must be populated in sequential alphabetic order, starting with bank A.
4. Both DIMMs in a memory bank should be identical. Install identical DIMMs as pairs only, starting with DIMM socket 1, bank A. If not; performance will suffer.
5. Multiple advanced memory protection (AMP) modes are supported, based on DDR2 DIMM population and RBSU selection. The server blade defaults to Advanced ECC

HP ProLiant BL260 G5c Server Blade (1P Model)

Standard Memory
1024 MB (2 x 512 MB) or 2048 MB (2 x 1024 MB) (depending on model)of PC2-5300, Registered, DDR2-667 ECC DIMMs

Standard Memory Plus Optional Memory
Up to 17408 MB or 18432 MB (depending on model) of PC2-5300, Registered, DDR2-667 ECC DIMMs. Memory is available with the installation of optional PC2-5300, Registered, DDR2-667 ECC DIMMs memory expansion kits.

Standard Memory Replaced with Optional Memory
Up to 24576 MB of PC2-5300, Registered, DDR2 667MHz, ECC DIMMs. Memory is available with removal of standard and the installation of optional PC2-5300, Registered, DDR2-667 ECC DIMM memory expansion kits.

Memory		Slot					
		1A	2B	3C	4D	5E	6F
Standard	1024 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Standard	2048 MB	1024 MB	Empty	1024 MB	Empty	Empty	Empty
Optional	34186 MB	512 MB	512 MB	8192 MB	8192 MB	8192 MB	8192 MB
Optional	33792 MB	1024 MB	1024 MB	8192 MB	8192 MB	8192 MB	8192 MB
Maximum	49152 MB	8192 MB	8192 MB	8192 MB	8192 MB	8192 MB	8192 MB

Following are memory options available from HP:

1 GB REG PC2-5300 DDR2 2 x 512 MB Single Rank Kit	408850-B21
2 GB REG PC2-5300 DDR2 2 x 1 GB Low Power Single Rank Kit	483399-B21
2 GB REG PC2-5300 DDR2 2 x 1 GB Single Rank Kit	408851-B21
4 GB REG PC2-5300 DDR2 2 x 2 GB Low Power Single Rank Kit	483401-B21
4 GB REG PC2-5300 DDR2 2 x 2 GB Dual Rank Kit	408853-B21
8 GB REG PC2-5300 DDR2 2 x 4 GB Dual Rank Kit	408854-B21
8 GB REG PC2-5300 DDR2 2 x 4 GB Low Power Dual Rank Kit	483403-B21
16 GB REG PC2-5300 DDR2 2 x 8 GB Dual Rank Kit	408855-B21

Storage
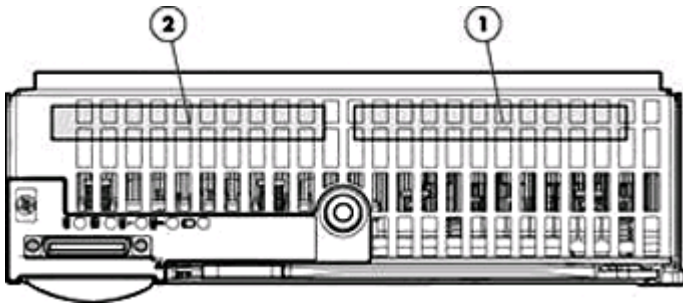
1-2   2 x SSF SATA Non-Hot Plug Hard Drives

Hard Drives
NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.
NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Serial-ATA (SATA) Non-Hot Plug SFF Entry (ETY) Hard Drive

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 5.4K 120GB 1.5G SATA 5.4K	2	1-2	HP Embedded G5 SATA Controller

HP Solid State Drives (SSD) For ProLiant Server Blades

	Quantity Supported	Position Supported	Controller
32GB 1.5G SATA NHP SFF SP ENT SSD 64GB 1.5G SATA NHP SFF SP ENT SSD	2	1-2	HP Embedded G5 SATA Controller

NOTE: Software RAID is not supported in Solid State Drives (SSD)

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
XP Disk Array Systems	Please see the XP Disk Array Systems QuickSpecs below to determine configuration requirements	External	Please see the XP Disk Array Systems Quick Specs for the latest list of supported HBAs

HP StorageWorks XP10000 Disk Array:
http://h18006.www1.hp.com/products/storageworks/xp10000/index.html

Enterprise Virtual Array Systems	Please see the XP Disk Array Systems QuickSpecs below to determine configuration	External	Please see the XP Disk Array Systems Quick Specs for the latest list of supported HBAs

Storage

requirements

HP StorageWorks Enterprise Virtual Array Family:
http://h18006.www1.hp.com/products/quickspecs/12408_na/12408_na.html

Technical Specifications

System Unit	**Dimensions** (H x W x D) (with bezel)		7.11 in x 2.03 in x 19.60 in (18.06 cm x 5.16 cm x 49.78 cm)
	Weight (approximate)	Maximum (all hard drives and processors installed)	10 lb (4.54 kg)
		Minimum (one hard drive and processor installed)	8.5 lb (3.86 kg)
	Power Specifications		For power specifications including Input Requirements, BTU Rating, and Power Supply Output, please see the HP BladeSystem c-Class Enclosure QuickSpecs located at URL: HP BladeSystem c3000 Enclosure QuickSpecs: http://h18000.www1.hp.com/products/quickspecs/12790_na/12790_na.html HP BladeSystem c7000 Enclosure QuickSpecs: http://h18000.www1.hp.com/products/quickspecs/12810_na/12810_na.html
			To review typical system power ratings use the HP BladeSystem Power Sizer which is available via the online tool located at URL: http://www.hp.com/go/bladesystem/powercalculator
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed.
			System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating	10 to 85% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
	Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise		For acoustic noise specifications, please see the HP BladeSystem c-Class Enclosures QuickSpecs located at URL:

Technical Specifications

HP BladeSystem c3000 Enclosure QuickSpecs:
http://h18000.www1.hp.com/products/quickspecs/12790_na/
12790_na.html
HP BladeSystem c7000 Enclosure QuickSpecs:
http://h18000.www1.hp.com/products/quickspecs/12810_na/
12810_na.html

HP Integrated NC326i Dual Port Gigabit Server Adapter Network Processor	Network Processor	Broadcom 5715S
	Data Transfer Method	Four lane (x4) PCI Express
	Network Transfer Rate	2000 Mb/s full duplex (theoretical maximum value)
	IEEE Compliance	802.1p, 802.1Q, 802.3, 802.3ad, and 802.3x
	Standard Features	

- 9K jumbo frames
- TCP/IP checksum offload (TCO)
- Large send offload (LSO)
- Interrupt coalescence
- Dual address cycles (DAC)
- Wake-on-LAN (WOL)
- Pre-boot execution environment (PXE)
- ProLiant Teaming including Network Fault Tolerance, Transmit Load Balancing, and Switch-Assisted Load Balancing
- IPv6 packet transmit and receive (excluding all offload capabilities); IPv6 aware SNMPv1 agents for Windows

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment. |

Technical Specifications