



# HP ProLiant BL685c G6 Server Blade

Data sheet



Realize outstanding performance and scalability for the most demanding data-intensive environments with the HP ProLiant BL685c G6 Server Blade. Combining exceptional four-socket processing power, enterprise-class availability, and expansion features, the BL685c G6 is the right choice for virtual environments.

Engineered for virtualization, the BL685c G6 Server Blade combines a large memory footprint and more I/O than any other four-socket server blade. It removes the barriers to server consolidation and delivers outstanding performance for compute-intensive database applications.

With double the memory capacity of the previous generation, AMD Opteron™ processors, industry-leading management tools, and flexible storage options, the BL685c G6 delivers improved performance, versatility, and ease-of-use. The server also delivers the benefits of HP Virtual Connect Flex-10 and AMD Rapid Virtualization Indexing, making it ideal for hosting virtual machines. What's more, support for AMD Dual Dynamic Power Management™ helps improve application performance significantly, without increasing average power consumption.

This dense 4P server blade provides two hot plug serial-attached SCSI (SAS) or serial ATA (SATA) hard drives, two integrated dual-port 10 Gb Ethernet server adapters, and three I/O expansion slots, giving you concentrated computing power and scalability to meet your future needs.

The BL685c G6 is compatible with both the BladeSystem c3000 and c7000 enclosures. At eight blades per 10U enclosure and four blades in a 6U enclosure, this server blade provides excellent performance per U.

## Key features and benefits

### No-compromise performance

With a rich set of features, the BL685c G6 helps enhance the performance and increase the number of VMs that you can deploy per blade.

- Up to four AMD Opteron™ processors with AMD Virtualization™ deliver 64-bit computing with industry-leading performance-per-watt and are suitable for virtualization applications
- 32 DIMM sockets support up to 256 GB of memory and deliver best-in-class memory-per-VM ratios as well as more VMs-per-server
- Two integrated dual-port 10 Gb Ethernet server adapters with HP Virtual Connect Flex-10 technology enable up to 16 ports of Ethernet connectivity, reducing the need to add costly adapters, switches, or cables
- HP Smart Array P400i storage controller with 512 MB read cache and optional battery-backed write cache delivers high performance disk I/O and data protection
- The BL685c G6 comes future-ready with internal SD card support in addition to an internal USB port that enables easy, rapid deployment of embedded hypervisors

### Industry-leading management and configuration tools

Advanced management and configuration tools offer superior remote administration, lifecycle management, and resource utilization—helping you lower total cost of ownership. With the ProLiant Onboard Administrator powered by Integrated Lights-Out 2 (iLO 2) and the HP Insight Control suite, you can centralize and simplify management functions, and conserve valuable IT resources and time.

- Benefit from the ProLiant Onboard Administrator, which provides high-performance, out-of-band remote control, and embedded health management including virtual KVM and graphical remote console
- Get even more out of iLO 2 by upgrading to iLO Advanced, featuring Power Regulator reporting, scripted multi-server virtual media, and additional enterprise security
- Take advantage of the HP Insight Control suite, which makes the management of your HP BladeSystem environment simple with comprehensive system health, deployment, remote control, and power management in an easy-to-install software suite

### Flexible deployment options

The BL685c G6 delivers proven ProLiant expansion and availability features you can depend on.

- Low-wattage processor options targeted at the most efficient performance per watt result in cooler, power-optimized systems
- Local storage options—including high performance small form factor (SFF) hot-plug serial disk drives, low-power solid state drives (SSD), and a battery-backed write cache option—help protect against data loss
- Three PCI Express mezzanine I/O expansion slots enable configuration options such as Fibre Channel, iSCSI, Ethernet networking, InfiniBand, as well as external storage options
- Direct-attach blades are available for local storage, data protection, or PCI card expansion
- Trusted Platform Module (TPM 1.2) support makes sure your data stays protected

### Ideal Environment

Enhance your performance and expansion with the BL685c G6 to handle your challenging applications. This high-performance server is ideal for:

#### Virtualization and server consolidation

- Outstanding performance with multi-core processors, expanded memory capacity, and HP Virtual Connect Flex-10 networking allow you to deploy more VMs

- Embedded RAID 0, 1 capability provides essential fault tolerance and helps limit costly downtime with optional battery-backed write cache
- High performance remote manageability supports centralized or remote data center environments

### Compute intensive and database applications

- The BL685c G6 is well-suited for large database applications, CRM, mail, messaging, and multi-tiered ERP applications such as SAP, Siebel, and Oracle
- The large memory capacity and 64-bit software capability make the BL685c G6 the perfect solution for High Performance Computing (HPC), electronic design automation (EDA), petrochemical, and life and material science applications

## HP Services

### When Technology Works, Business Works

The challenge of virtually every IT organization is similar: To develop and maintain an agile, efficient server infrastructure that delivers the service levels your business needs.

HP Technology Services offer a comprehensive portfolio of HP Care Pack Services to help design, deploy, manage, and support your Blades environment, with easy-to-buy, easy-to-use support packages.

#### Minimum Recommended HP Care Pack offerings

- Three-year 4 hour response onsite 24-hour x 7-day hardware support.
- Blades Infrastructure plus Enhanced Network Installation and Startup services.

#### Enhanced service level Care Pack offerings

- **Three-year Support Plus 24:** Integrated 24x7 hardware and software support.
- **Proactive Select:** Access to HP best-in-class technical consultants. Purchase service credits and obtain expertise when needed.

#### Benefit from HP Care Pack Services helping you

- Reduce deployment time and manage Blades server solutions smoothly and efficiently.
- Increase uptime and performance of server availability to your business.
- Detect, diagnose, and repair problems to quickly save time, money, and resources.

## HP ProLiant BL685c G6 Server Blade



### Processor and memory

<b>Number of processors</b>	2-4
<b>Maximum number of cores</b>	24
<b>Processors supported</b>	Six-Core AMD Opteron™ processors: Model 8435 (2.6 GHz) Model 8431 (2.4 GHz)  Quad-Core AMD Opteron processors: Model 8389 (2.9 GHz) Model 8387 (2.7 GHz) Model 8381 HE (2.5 GHz)
<b>Low wattage processor offerings</b>	Yes
<b>Cache</b>	512 KB L2 cache per core 6 MB L3 cache
<b>Maximum HyperTransport speed</b>	2.2 GHz
<b>Memory type</b>	PC2-6400 Registered DDR2 800 MHz PC2-5300 Registered DDR2 667 MHz
<b>Standard memory</b>	8 GB
<b>Maximum memory</b>	256 GB
<b>Advanced memory protection</b>	Advanced ECC

### Storage

<b>Storage type</b>	Hot plug SFF SAS Hot plug SFF SATA Non-hot plug SATA SDD
<b>Maximum internal storage</b>	Up to 2: Hot plug SFF SAS 15K 146/72/36 GB or 10K 300/146/72/36 GB; Hot plug SFF SATA 5.4K 120/250 GB; Non-hot plug SATA SSD 32/64 GB
<b>Maximum internal drive bays</b>	2
<b>Expansion slots</b>	3
<b>Storage controller</b>	Smart Array P400i Controller

### Deployment

<b>Form factor</b>	Blade
<b>Rack height</b>	8 blades in 10U or 4 blades in 6U
<b>Networking</b>	2 embedded NC532i Dual Port Flex-10 10GbE Multifunction Server Adapters 1 additional 10/100 server adapter dedicated to iLO 2
<b>Remote management</b>	ProLiant Onboard Administrator powered by iLO 2
<b>Redundant power supply</b>	Enclosure-based power
<b>Warranty</b>	3-year parts/3-year labor/3-year onsite

For additional technical specifications, please visit the [http://h18000.www1.hp.com/products/quickspecs/13243\\_div/13243\\_div.pdf](http://h18000.www1.hp.com/products/quickspecs/13243_div/13243_div.pdf)

## Why HP over other blade choices?

Our unique innovations solve your biggest challenges. HP has the good stuff built-in from the start. We have combined technology from across HP to make our blades easy to use.

- **Solid State Drives (SSDs):** BL685c G6 leverages a new storage technology using solid state memory (NAND), which provides durability and power efficiency improvements over traditional hard disk drive technology. With its low noise, low heat, power efficiency (1 watt versus 9 watt in SAS), ruggedness, high read performance, and reliability, SSDs keep your server infrastructure way ahead of the competition.
- **Thermal Logic technologies:** Smart technology saves you energy every second and lightens the load on your air conditioners, saving 30 percent in power.<sup>1</sup>
- **Virtual Connect Flex-10 architecture:** Up to 16 NICs across 4 ports, plus the ability to fine-tune network bandwidth and connections at the server edge. Wire once, then add, replace, or recover servers on-the-fly, without impacting networks and storage.
- **Insight Control management:** Simple, single package with all the tools to streamline operations and increase administrator productivity up to ten-fold.
- **NonStop midplane:** The same million-dollar reliability that helps run Wall Street is built-in to keep your business up and running.
- **BladeSystem Onboard Administrator:** Wizards to get you up and running fast, paired with useful tools to simplify daily tasks, warn of potential issues, and assist you with repairs.

## No-compromise compatibility

Share the same components with other HP BladeSystem devices to make it fast and easy to create, customize, and grow.

- Run your same business applications with industry standards to support your operating systems and thousands of other applications
- Trust the same server and storage blades. ProLiant, BladeSystem, Integrity, StorageWorks, and more can be mixed and matched in a single box
- Connect to your same networks using the latest Ethernet, Fibre Channel, InfiniBand standards, and trusted brands
- Get more blades with more capability with HP BladeSystem enclosures—two to four times more features in each server blade

## The easiest way to invest in IT

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage, and ultimately retire your HP solutions. For more information, contact your local HP representative or visit

[www.hp.com/go/hpfinancialservices](http://www.hp.com/go/hpfinancialservices)

## For more information

For more information about the HP ProLiant BL685c G6 Server Blade please contact your local HP representative, or visit [www.hp.com/servers/bl685c](http://www.hp.com/servers/bl685c)

To connect with other blade customers, partners, and experts, visit the HP Blade Connect online community [www.hp.com/go/bladeconnect](http://www.hp.com/go/bladeconnect)

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<sup>1</sup> Sine Nomine Associates, "Comparison of HP BladeSystem with Thermal Logic Technologies to Competitive Systems," February 2007

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## Technology for better business outcomes

To learn more, visit [www.hp.com/servers/bl685c](http://www.hp.com/servers/bl685c)

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