



HP ProLiant DL785 G6 Server

Data sheet



Latest six-core AMD Opteron™ processors, support for the new Smart Array Controllers, and high efficiency power supply units make the HP ProLiant DL785 G6 Server an ideal choice for organizations looking for unparalleled performance, scalability, and energy-efficiency for the most demanding and data-intensive environments.

An IT infrastructure running on many servers poses several challenges for your business. Your virtual server sprawl is growing much faster than your physical servers, contributing to increasing operational costs, time-consuming server consolidation and management, a shortage of servers with high-availability (HA) clustering, and data center energy costs that are constantly on the rise.

What can you do to manage your server sprawl, reduce costs, save time, conserve energy, and achieve a high-availability technology infrastructure?

The HP ProLiant DL785 G6 Server helps you reduce costs with better server utilization, increases agility by enabling you to deploy new services rapidly, simplifies resource management with consolidation, and increases operational efficiency with HP Insight Control.

The high-performing six-core processors provide the highest level of x86 floating-point performance that you need to deploy demanding applications. In addition to supporting all 8300-series features, the AMD Opteron™ 8400-series processors feature:

- **AMD Core Select™:** Allows you to select the number of software-visible cores per CPU to provide additional performance and price/performance benefits depending on the workload.
- **HT Assist™:** Reduces coherence traffic overload on the HT links, resulting in faster queries in both cache and compute-intensive applications.

What's new?

Performance

- Supports up to 8 Six-Core AMD Opteron™ 8400 Series processors to deliver high scalability and performance for the most demanding applications
- Supports very large virtualization and consolidation environments with 64 DIMM slots, for a maximum of 512 GB PC2-6400 or PC2-5300 DDR2 dual-channel memory running at up to 800 MHz
- Supports VMware, Microsoft®, Oracle®, and Linux virtualization software

Manageability

- Provides essential infrastructure management with HP Insight Control, which delivers rapid server deployment, proactive server health monitoring, comprehensive power management tools, and remote administration tools; select ProLiant DL785 G6 models ship standard with HP Insight Control

- Controls wake-up system diagnostics with the Systems Insight Display, which provides front access to memory, processors, and hard drives and rear access to power supplies, while the server remains secure in the rack
- Provides enhanced power management—monitoring, regulating, and capping solution—allowing enterprise businesses to reduce energy costs and reclaim trapped data center capacity

Reliability

- Improves server uptime with redundant power supplies, fans and ROM, Advanced ECC (chipkill) memory, automatic server recovery, pre-failure warranty, and adaptive load-balancing NIC support

Scalability

- Provides upgrade options for processor, memory, drives, and controllers
- Includes a provision to add a second drive bay for a total of 16 SFF SAS drive bays
- Includes options for high-performance graphics and HTx cards

Key features and benefits

High performance and reliability

Achieve high processing power, increased memory, and improved I/O expansion capacity that give you the flexibility to help optimize performance for database, consolidation, and virtualization environments.

- Support for up to 8 Six-Core AMD Opteron™ 8400 Series processors
- 64 DIMM slots, for a maximum of 512 GB PC2-6400 or PC2-5300 DDR2 dual-channel memory running at up to 800 MHz (depending on the model)
- 11 PCI-e expansion slots: 3x16, 3x8, and 5x4 slots; optional I/O expansion slots: 7 PCIe (1x16, 1x8, and 5x4) slots, and 2 HTx slots
- Internal storage supports eight SFF SAS drives, with the option to add eight additional SFF SAS drives, for a total of 16 SAS drives supporting up to 8 TB internal storage
- Dual-port embedded NC371i multifunction Gigabit server adapters with TOE and iSCSI support
- Hot-pluggable redundant hard drives, fans, and power supplies and redundant ROM support

Industry-leading management solutions

Some of the world's best-run server infrastructures are built with ProLiant servers and run on HP Insight Control management software. ProLiant servers, backed by Insight Control software, give you complete control, flexibility, and tangible savings for your investment.

- Insight Control remote console allows powerful, remote administration, and control from a standard Web browser to conserve valuable IT resources.
- Insight Control power management supports power monitoring, regulation, and capping. These enhanced power management capabilities help reduce energy costs and reclaim trapped capacity.
- Insight Control server deployment delivers fast, consistent, and reliable server image management tools.
- Insight Control server health reporting reduces unplanned downtime by proactively identifying infrastructure problems before they arise.

Flexibility for a variety of enterprise deployments

The AMD Core Select feature, adherence to industry standards, broad support for software and hardware options, and key certifications mean that the HP ProLiant DL785 G6 Server can support all your application needs.

- Fits into existing enterprise data centers, with support for a full line of HP Smart Array controllers, NICs, and storage options
- Supports the industry's most popular operating systems, including Microsoft Windows® Server, Red Hat Enterprise Linux, SUSE Linux Enterprise Server, Sun Solaris, and VMware
- Has tool-free, quick deploy sliding rails, cable management, and in-rack server access for both HP and third-party racks

Efficient power and cooling

The HP ProLiant DL785 G6 Server provides system and processor technologies that deliver high performance and outstanding reliability.

- Runs on the AMD Opteron™ processors that are designed to require less power to operate.
- Independent Dynamic Core Technology and AMD CoolCore™ Technology control the power used by each processor subsystem and thus reduce power consumption.
- HP Power Regulator built into the BIOS allows the server to be throttled up and down, depending on utilization.
- The small form-factor hard drives use up to 50 percent less power than traditional 3.5-inch form-factor drives.
- New, higher-efficiency power supply enables enhanced power management (monitoring, regulation, and capping) that helps enterprise businesses reduce energy costs and reclaim trapped data center capacity.



Processor	4 or 8 2.8 GHz SE, 2.4 GHz standard, and 2.1 GHz HE Six-Core AMD Opteron™ processors
Memory	64 DDR2 DIMM slots 512 GB maximum memory
Internal storage	8 (standard) + 8 (optional) SFF SAS drive bays Up to 8 TB of Hot Plug SAS Embedded RAID support with optional BBWC, RAID 0/1 support 1 removable Slimline DVD/CD-RW Drive
Networking	Dual-embedded Gigabit NICs with the TCP/IP offload engine
I/O	11 PCIe slots 7 PCIe and 2 HTx slot optional upgrade
Form factor	7U rack-mount server
OS	Windows, Red Hat Linux, SUSE Linux, Oracle Enterprise Linux, Sun Solaris
Infrastructure Management	HP Insight Control

Ideal environments

Virtualization and consolidation

- With 64 DIMM slots for a maximum of 512 GB of memory (with 8 GB DIMMs) and 11 expansion slots, the ProLiant DL785 G6 Server has the memory and I/O expansion capabilities to support very large virtualization and consolidation environments.
- With the capacity to support 8 Six-Core AMD Opteron™ processors, the ProLiant DL785 G6 Server delivers outstanding scalability and performance for the most demanding applications.
- Management features such as Insight Control and Insight Management agents remotely monitor and control your mission-critical applications.

Database applications, decision support, and business intelligence

- Its balanced architecture with ample I/O and memory makes it an ideal platform for “read-intensive” decision support and business intelligence.
- High-performance Six-Core AMD Opteron™ processors meet the needs of data-intensive environments.

- Reliability features (redundant power supplies and fans, ASR, pre-failure warranty) make the ProLiant DL785 G6 Server well-suited to support your enterprise-class database environments.

Applications demanding high-performance I/O

- 11 PCIe slots with three PCIe x16 slots provide high-performance I/O for accelerators, visualization, or high-speed communication.
- Two slots are provisioned for up to 300 W per I/O slot for outstanding high-performance I/O cards. This works well for visualization and graphics-intensive workloads that are moving from workstation-based solutions to servers with high-performance graphics cards like NVIDIA Quadro FX 5600 1.5 GB graphics card.
- HTx option and third-party HTx cards allow direct and faster access to the processors.

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For more information, visit:

www.hp.com/go/factoryexpress

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For more information on these services, visit:

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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 IT environment, with easy-to-buy, easy-to-use support packages.

Minimum recommended HP Care Pack offerings

- Three-year, same business day 4-hour response onsite, 24-hour x 7-day coverage, hardware support.
- Hardware installation plus operating system installation and startup.

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 that help you

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

For more information, visit:

www.hp.com/services/proliantservices or
www.hp.com/go/proliant/carepack

Technology for better business outcomes

To learn more, visit www.hp.com/servers/dl785

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