# HP ProLiant DL580 G5 Server - Overview

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## Product description



**The HP ProLiant DL580 G5 server is an enterprise class, 4 socket server designed for maximum scalability and high availability. Its innovative chassis offers unsurpassed flexibility and serviceability in a versatile form factor. Based upon the latest industry standard processing, memory, I/O and networking technologies, the ProLiant DL580 G5 provides the highest levels of performance demanded by today's compute intensive applications. Unparalleled high availability features, including hot-plug and redundant components, guarantee maximum uptime. Integrated Lights-Out 2 (iLO2) technology allows remote administration from a standard web-browser without ever having to visit the server.**

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## What's new

- Optional -48 V DC power supply
- New 300GB SFF SAS drives supported

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## Product features

| Overview | Description |
|---|---|
| Processors | • 6-Core Intel Xeon X7460 Processor (2.67 GHz, 16MB cache, 130 W)<br>• 6-Core Intel Xeon L7455 Processor (2.13 GHz, 12MB cache, 65 W)<br>• 6-Core Intel Xeon E7450 Processor (2.40 GHz, 12MB cache, 90 W)<br>• Quad-Core Intel Xeon E7440 Processor (2.40 GHz, 16MB cache, 90 W)<br>• Quad-Core Intel Xeon E7430 Processor (2.13 GHz, 12MB cache, 90 W)<br>• Quad-Core Intel Xeon E7420 Processor (2.13 GHz, 8MB cache, 90 W) |

| Overview | Description |
|---|---|
| | • Quad-Core Intel Xeon X7350 Processor (2.93 GHz, 2x4M cache,130 W)<br>• Quad-Core Intel Xeon E7340 Processor (2.40 GHz, 2x4M cache, 80 W)<br>• Quad-Core Intel Xeon E7330 Processor (2.40 GHz, 2x3M cache, 80 W)<br>• Quad-Core Intel Xeon E7320 Processor (2.13 GHz, 2x2M cache, 80 W)<br>• Quad-Core Intel Xeon E7310 Processor (1.60 GHz, 2x2M cache, 80 W)<br>• Quad-Core Intel Xeon L7345 Processor (1.86 GHz, 2x4M cache, 50 W)<br>• Dual-Core Intel Xeon E7220 Processor (2.93 GHz, 2x4M cache, 80 W) |
| Memory | • PC2-5300 Fully Buffered DIMMs (DDR2-667)<br>• Available to be configured in Mirrored, Online Spare, or Advanced ECC modes |
| Internal drive support | • Support for up to 16 hot-plug SFF SAS drives<br>• Slimline DVD Drive standard, Half-height Tape Drive optional on all models |
| Network controller | Two embedded NC373i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit |
| Expansion slots | • More PCI-Express slots with up to eleven available with option card<br>• Eight slots standard: (4) full length PCI-E x8, (1) full length PCI-E x4 and (3) half length PCI-E x4 slots; Optional card adds (3) PCI-X or (3) PCI-E x8 |
| USB 2.0 ports | o 6 Total: (2) front, (2) rear accessible ports (configurable for boot capability), (2) internal |
| Redundancy | • Rear accessible Hot Plug Redundant Power Supplies (RPS optional on some models)<br>• Hot Plug Fans with full redundancy |
| Management | • Integrated Lights-Out 2 featuring Integrated Remote Console with KVM over IP performance over shared network access<br>• Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU), HP Systems Insight Manager, Status LED's including system health and UID, and SmartStart |
| Form factor | Dense form factor - 4U rack models |

<table>
<tr><th>Overview</th><th>Description</th></tr>
<tr><td>Deployment/Serviceability</td><td><ul><li>Front and rear video ports</li><li>Front accessible Processor, Processor Power Modules and Memory allow server to stay safely secured in the rack during servicing</li><li>Quick Deploy Rail System includes sliding universal rails, an ambidextrous cable management arm and quick release levers for fast and easy serviceability and in-rack tool-less access to major components</li><li>Tool-less access to all system components for easy in rack serviceability</li></ul></td></tr>
<tr><td colspan="2">Standard Features</td></tr>
<tr><td>Chipset</td><td>Industry Standard Intel 7300 Chipset with four high-speed interconnects at 1066 MT/s</td></tr>
<tr><td>Memory protection</td><td>Advanced ECC<br>Mirrored Memory<br>Online Spare Memory</td></tr>
<tr><td>Memory(One of the following depending on Model)</td><td><table>
<tr><td>Type</td><td>PC2-5300 Fully Buffered DIMMs (DDR2-667)</td></tr>
<tr><td>Standard<br>(2P Base Models)</td><td>4GB (4 x 1GB)</td></tr>
<tr><td>Standard<br>(4P Base Models)</td><td>8GB (4 x 2GB)</td></tr>
<tr><td>Standard<br>(4P High Performance Models)</td><td>16 GB (8 x 2 GB)</td></tr>
<tr><td>Maximum</td><td>256GB</td></tr>
</table></td></tr>
<tr><td>Network controller</td><td>Two embedded NC373i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional ProLiant Essentials Licensing Kit</td></tr>
<tr><td colspan="2">Technical Specifications</td></tr>
<tr><td>System unit rack</td><td><table>
<tr><td colspan="2">6.94 x 19 x 26.5 in (17.6 x 48.3 x 67.3 cm)</td></tr>
<tr><td>68 lb (30.8 kg)</td><td></td></tr>
<tr><td>Rated Input Voltage</td><td>100 to 120 VAC/200 to 240 VAC</td></tr>
<tr><td>Rated Input Frequency</td><td>50 to 60 Hz</td></tr>
<tr><td>Input Power (per power supply)</td><td>964W@100VAC/1071W@ 120VAC/1412W @ 240 VAC</td></tr>
<tr><td>Rated Input Current (per power supply)</td><td>10A (100-120 VAC), 7.80A (200-240 VAC)</td></tr>
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| Overview | Description | |
|---|---|---|
| | 3355 BTU @100 V | |
| | 3727 BTU@120 V | |
| | 4914 BTU@ 200-240 V | |
| | Rated Steady-State Power | 800 W/900 W/1200 W (100V/120 V/200-240 V) |
| | Maximum Peak Power | 800 W/900 W (100V/120V/200-240 V) |
| | 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.<br>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). |
| | Operating | 10 to 90% 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. |
| | 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). |
| | NOTE: Listed are the declared A-weighted sound power levels (LWAd) and the declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23° C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). | |
| | Idle | |
| | L WAd (BELS) | 6.9 |
| | L pAm (dBA) | 52 |
| | Operating | |

| Overview | Description | | |
|---|---|---|---|
| | | L WAd (BELS) | 6.9 |
| | | L pAm (dBA) | 52 |
| | NOTE: These values apply to 4U rack configuration. The configuration tested included 4 processors, 16 10,000 rpm SFF SAS hard drives, 4 power supplies, and 6 system fans. | | |
| Slimline CD-RW/DVD-ROM 24X combo drive (Multibay) | **Shipping Dimensions** | 13.88 x 11.38 x 9.25 in (35.26 x 28.91 x 23.50 cm) | |
| | **Shipping Weight** | 5 lb (2.27 kg) | |
| | **Disk** | **Applicable Disk** | DVD-ROM |
| | | | DVD-R (Read Only) |
| | | | 2.6 GB/side DVD-RAM (Read Only) |
| | | | 5.2 GB/side DVD-RAM (Read Only) |
| | | | CD-ROM Mode-1 data disc |
| | | | CD-ROM Mode-2 data disc |
| | | | CD Audio disc |
| | | | CD-Extra |
| | | | CD-RW |
| | | | CD-R |
| | | | CD Text |
| | | | PhotoCD |
| | | | CD-I (mode 2) |
| | | | CD-I Ready |

| Overview | Description | | | | |
|---|---|---|---|---|---|
| | | | CD-Bridge | | |
| | | Capacity | DVD-ROM | DVD-SL | 4.7 GB/side |
| | | | | DVD-DL | 8.5 GB/side |
| | | | | Double Sided | 9.40 GB/side |
| | | | DVD-R | | 3.95 GB/side |
| | | | DVD-RAM | | 2.6 GB/side and 5.2 GB/ |
| | | | CD-ROM | Mode-1 | 650 MB (550 MB) |
| | | | | Mode-2 | 742 MB (640 MB) |
| | | Block Size | DVD | | 2,048 bytes |
| | | | CD | | 2,352 (Mode-0) |
| | | | | | 2352, 2340, 2336, 2048 bytes (Mode-1) |
| | | | | | 2352, 2340, 2336, 2048 bytes (Mode-2) |
| | | Diameter | 120 mm (4.7 in), 80 mm (3.1 in) (with adapter at vertical mounting mode) | | |
| | **Loading Mechanism** | Tray type | | | |
| | **Interface** | EIDE (ATAPI) | | | |
| | **Access Times (typical)** | Random | DVD-ROM < 120 ms, CD-ROM < 110 ms | | |
| | | Full-Stroke | DVD-ROM < 240 ms, CD-ROM < 160 ms | | |

| Overview | Description | | | |
|---|---|---|---|---|
| | **Audio Output Level (typical)** | Line-out | CD 0.7 Vrms at 47 Kohms Load | |
| | **Data Transfer Rate (sustained)** | DVD-ROM | Single Layer | 10.8 MB/sec. Max. |
| | | DVD-RAM | 2.77 MB/sec. Max | |
| | | CD-ROM | 7.2 MB/sec. Max. | |
| | **Cache Buffer** | 2 MB | | |
| | **Spin-up Time (typical)** | less than 10 seconds | | |
| | **MTBF** | 120,000 Power On Hours (POH) | | |
| | **Ambient Temperature** | Operating | -22° to 140° F (-30° to 60° C) | |
| | **Relative Humidity** | Operating | 10% to 80% | |
| | | Storage/Transportation | 5% to 95% | |
| | **Dimensions** | (HxWxD, maximum) | 0.5 x 5.04 x 5.1 in (12.7 x 128 x 129.4 mm) | |
| | **Option Kit Contents** | DVD-ROM drive with installation guide, warranty card, registration card | | |

| | | |
|---|---|---|
| Integrated Lights-Out 2 standard (integrated on system board) | **Architecture** | 32-bit PCI-based health and remote management ASIC (Application Specific Integrated Circuit) |
| | **Processor** | 32-bit RISC processor core running at 66 MHz |
| | **Upgradability** | Option firmware upgradable via flash ROM. |
| | **Video Support** | Utilizes the host server's embedded video chip. Supports VGA/SVGA, 640 x 480 (256 to 16.7M colors), 800 x 600 (256 to 16.7M colors), 1024 x 768 (256 to 65K colors), 1280 x 1024 (256 colors) |
| | **Interfaces** | One Ethernet network connection (10/100 Mb/s) |
| | **Memory** | 8-MB SDRAM<br>2-MB Flash ROM |
| | **Operating System Support** | • Microsoft Windows Server<br>• Microsoft Windows Server Hyper V<br>• Red Hat Enterprise Linux (RHEL) |

| Overview | Description | |
|---|---|---|
| | | • SUSE Linux Enterprise Server (SLES)<br>• Oracle Enterprise Linux (OEL)<br>• NetWare<br>• VMware<br>• Citrix Essentials for XenServer |
| | **Client Browser Support** | Microsoft Internet Explorer 5.5 or later. |
| | **iLO 2 Standard Features** | Virtual Text Remote Console<br>Virtual KVM<br>Virtual Power Button Control<br>Virtual UID Control<br>Dedicated LAN Connectivity<br>Secure access using web browser<br>Secure access using Secure Shell (SSH) client<br>Serial connectivity<br>Automatic IP Configuration via DHCP/DNS/WINS<br>Industry Standard 128-bit Secure Sockets Layer (SSL) Security<br>IML and iLO2 Event Logging<br>Support for up to 12 user accounts with customizable access privileges |
| | **iLO 2 Advanced Features** (optional) | Virtual Graphical Remote Console<br>Virtual Floppy/USB Key drive<br>Virtual CD-ROM drive<br>Directory Services Integration<br>Processor States Reporting<br>Terminal Services Integration |
| Smart Array P400i controller | **Disk Drive and Enclosure Interface** | 3G SAS (Serial Attached SCSI)<br>1.5G SATA (Serial Advanced Technology Attachment) |
| | **SAS Connectors** | 2 internal (SFF8484) x4 wide port connectors |
| | **Cache Memory Speed** | DDR2-533MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth. |
| | **Server Interface** | x8 2.5G PCIe provides 2GB/s maximum bandwidth. |
| | **SAS Speed** | x8 3G SAS provides 2.4GB/s maximum bandwidth. |
| | **Cache Memory** | 40-bit 256MB cache (72-bit 512MB module upgrades available); ECC protection, battery-backed, and transportable |
| | **Logical Drives Supported** | Up to 32 logical drives |
| | **Maximum Logical Drive Capacity** | 2TB |

| Overview | Description | | |
|---|---|---|---|
| | **Host Memory Addressing** | 64-bit, supporting greater than 4GB server memory space | |
| | **RAID Support** | RAID 6 with ADG (Advanced Data Guarding) requires Battery Backed Write Cache Upgrade<br>RAID 5 (Distributed Data Guarding)<br>RAID 1, 1+0 (Striping & Mirroring)<br>RAID 0 (Striping) | |
| Two embedded NC373i multifunction gigabit server adapters | **Network Interface** | 10Base-T/100Base-TX/1000Base-TX | |
| | **Compatibility** | IEEE 802.3 10Base-T | |
| | | IEEE 802.3ab 1000Base-T | |
| | | IEEE 802.3u 100Base-TX | |
| | **Data Transfer Method** | PCI-Express x4 | |
| | **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) |
| | | 100 Base-TX | Category 5 or higher UTP; up to 328 ft (100 m) |
| | | 1000 Base-TX | Category 5 or higher UTP; up to 328 ft (100 m) |

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## Link to driver, firmware, software and manuals

Click here to access the updated driver, firmware, software and manuals .

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## Link to warranty information

Click here for detailed information regarding worldwide limited warranty and technical support .

Click here to check the warranty status .

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## Link to QuickSpecs

- Click here to access the HP ProLiant DL580 G5 Worldwide QuickSpecs in html format .
- Click here to access the HP ProLiant DL580 G5 Worldwide QuickSpecs in pdf format .
- Click here to access the QuickSpec homepage, which provides access to the QuickSpecs for other regions/countries .

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## Link to product related documents

Click here to view the list of product related documents .

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