



LightPulse®

PCI Express (PCIe) and PCI-X HBAs

Generations Ahead

New HBA support: HP Integrity servers,
HP BladeSystem c-Class, 8Gb/s for ProLiant

8Gb/s, 4Gb/s and 2Gb/s
Fibre Channel HBAs

HP Fibre Channel HBAs Best-in-Class HBAs for HP

The Emulex LightPulse family of HBAs delivers maximum performance in the broadest range of applications and environments.

Hewlett-Packard ships HP-branded Emulex Fibre Channel Host Bus Adapters (HBAs) certified for HP servers and storage. HP and Emulex have enjoyed a longstanding relationship and to ensure a smooth deployment of SAN solutions, Emulex has invested in a multi-million dollar HP interoperability lab dedicated to the testing and qualification of products exclusively for HP.

Emulex success is an outgrowth of its technology, product leadership, and commitment to HP's success. With first-to-market deployments of new 4Gb/s PCI-X and PCIe HBA products, Emulex continues to drive the adoption of next generation storage networking connectivity technologies to help HP and Emulex customers stay ahead of the storage technology curve.

KEY BENEFITS

- ⊙ Superior quality and reliability ensures data availability
- ⊙ The most efficient installation accelerates deployment and reduces administration costs
- ⊙ Maximum SAN performance and scalability increases user satisfaction
- ⊙ Robust interoperability simplifies deployment and upgrades of SAN hardware and software
- ⊙ LightPulse Virtual HBA technology provides efficient host utilization and compliance with SAN management best practices

KEY FEATURES

- ⊙ Emulex HBAs are Generations Ahead of the competition, leveraging six generations of field-proven technology
- ⊙ Emulex HBAs deliver industry-leading technology by utilizing a field-proven, single-chip design that minimizes components
- ⊙ Comprehensive virtualization capabilities with support for N-Port ID Virtualization (NPID) virtual fabric
- ⊙ Simplified installation and configuration using common HBA drivers
- ⊙ Centralized and efficient administration of HBAs anywhere in the SAN using HBAAnyware®
- ⊙ Full fabric support with automatic topology and speed sensing
- ⊙ Support with HP Systems Insight Manager and Storage Essentials allows customers to monitor and manage HBAs



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LightPulse® PCI Express and PCI-X HBAs

**8Gb/s, 4Gb/s and 2Gb/s
Fibre Channel HBAs**

New HBA support: HP Integrity servers, HP BladeSystem c-Class, 8Gb/s for ProLiant

HP-branded and currently-supported HBA models

| Server family | HP storage | OS support | HP part # | HP model # | Emulex model # | Brief description | | |
|--|---------------|---|-------------------------------------|---|--|--|---|--|
| BL860c, BL870c | MSA, EVA, XP | HP-UX, Win 2000, Win Server 2003/2008, OpenVMS | 403621-B21 | N/A | LPe1105-HP | 4Gb/s DC PCI Express Mezzanine card Zephyr | | |
| BL2x220c G5, BL260c G5, BL460c, BL465c G5, BL480c, BL495c G5 , BL680c G5, BL685c G5 | MSA, EVA, XP | Win 2000, Win Server 2003/2008, Linux, Solaris 10-x86, VMware | | | | | | |
| BL20p G3/G4, BL25p G2, BL45p G2 | MSA, EVA, XP | Win 2000, Win Server 2003/2008, Linux, VMware | 394757-B21 | N/A | N/A | 2Gb/s DC PCI-X Mezzanine card Thor | | |
| BL25p, 30p, 35p, 45p | MSA, EVA, XP | Win 2000, Win Server 2003/2008, Linux, VMware | 394588-B21 | | | | | |
| Alpha | MSA, EVA, XP | Tru64, OVMS | DS-A5132-AA | FCA2684 | LP10000 | 2Gb/s SC PCI-X Enterprise Thor | | |
| | | | DS-A5134-AA | FCA2684DC | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor | | |
| HP 9000 & Integrity | VA, XP | Win Server 2003/2008, Linux | A7298A | N/A | LP982 | 2Gb/s SC PCI-X Midrange Pegasus | | |
| | MSA, EVA, XP | Win Server 2003/2008, Linux | AD167A | FC2143 | LP1150 | 4Gb/s SC PCI-X Midrange Helios | | |
| | | | AD168A | FC2243 | LP11002 | 4Gb/s DC PCI-X Enterprise Helios | | |
| | MSA, EVA, XP | Win Server 2003/2008 | AB466A | N/A | LP1050DC | 2Gb/s DC PCI-X Midrange Thor | | |
| Integrity: rx2660, rx3600, rx6600, rx7640, rx8640, Superdome | MSA, EVA, XP | Win Server 2003/2008, Linux | AB002A | FC2142SR | LPe1150 | 4Gb/s SC PCI Express Midrange Zephyr | | |
| | | | A8003A | FC2242SR | LPe11002 | 4Gb/s DC PCI Express Enterprise Zephyr | | |
| | | | AD221A | N/A | N/A | 4Gb/s SC PCI Express Zephyr-based, 1Gb/s SC Ethernet | | |
| | | | AD222A | N/A | N/A | 4Gb/s DC PCI Express Zephyr-based, 1Gb/s DC Ethernet | | |
| | | | AD393A | N/A | N/A | 4Gb/s DC PCI Express Zephyr-based, 1Gb/s DC Ethernet (optical) | | |
| | | HP-UX, (OpenVMS 2H CY2008) | AD299A | N/A | N/A | 4Gb/s SC PCI Express Zephyr-based | | |
| | | | AD355A | N/A | N/A | 4Gb/s DC PCI Express Zephyr-based | | |
| | | | Win Server 2003/2008, VMware | AH402A | N/A | LPe12000 | 8Gb/s SC PCI Express Enterprise Saturn | |
| | | | | AH403A | N/A | LPe12002 | 8Gb/s DC PCI Express Enterprise Saturn | |
| | | | | | | | | |
| Integrity: rx2660, rx3600, rx6600, rx7640, rx8640, Superdome | MSA, EVA, XP | HP-UX, OpenVMS | AD299A | N/A | N/A | 4Gb/s SC PCI Express Zephyr-based | | |
| | | | AD355A | N/A | N/A | 4Gb/s DC PCI Express Zephyr-based | | |
| | | | Win Server 2003/2008, VMware | AH402A | N/A | LPe12000 | 8Gb/s SC PCI Express Enterprise Saturn | |
| | | | | AH403A | N/A | LPe12002 | 8Gb/s DC PCI Express Enterprise Saturn | |
| | | | | | | | | |
| | | ProLiant | HSG80, MSA, EVA, XP | Win 2000, Win Server 2003/2008, Linux, VMware | A8002A | FC2142SR | LPe1150 | 4Gb/s SC PCI Express Midrange Zephyr |
| | | | | | A8003A | FC2242SR | LPe11002 | 4Gb/s DC PCI Express Enterprise Zephyr |
| | | | | | AD167A | FC2143 | LP1150 | 4Gb/s SC PCI-X Midrange Helios |
| | | | | | AD168A | FC2243 | LP11002 | 4Gb/s DC PCI-X Enterprise Helios |
| | | | | | Win Server 2003/2008, Linux, VMware | AJ762A | 81E | LPe12000 |
| | AJ763A | 82E | LPe12002 | 8Gb/s DC PCI Express Enterprise Saturn | | | | |

Note: DC = dual channels/ports. SC = single channel/port. Please consult your HP representative or HP SAN Infrastructure web page for additional configuration support details and the retired list of HBAs.

Certified for HP-UX: new HBA certification with Integrity servers

| Server family | OS support | HP model # | Emulex model # | Brief description |
|--|------------|------------|----------------|----------------------------------|
| rx-series, Integrity Superdome | 11i v1, v2 | N/A | LP10000 | 2Gb/s SC PCI-X Enterprise Thor |
| | | N/A | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor |
| rp-series, Superdome PA-8700 | 11i | N/A | LP10000 | 2Gb/s SC PCI-X Enterprise Thor |
| | | N/A | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor |
| | | N/A | LP9002L | 2Gb/s SC PCI Enterprise Centaur |
| | | N/A | LP9002LDC | 2Gb/s DC PCI Enterprise Centaur |
| rp-series, rx-series, Superdome, Integrity Superdome | 11i v2 | N/A | LP11000 | 4Gb/s SC PCI-X Enterprise Helios |
| | | N/A | LP11002 | 4Gb/s DC PCI-X Enterprise Helios |

Visit <http://www.emulex.com/ts/docfc/hpxframe.htm>

HP StorageWorks Enterprise Backup Solution (EBS)

| Server family | HP storage | OS support | HP part # | HP model # | Emulex model # | Brief description |
|--|---------------|---|-------------|------------|----------------|--|
| ProLiant | ESL, EML, MSL | Win Server 2003 (32-bit), Win Server 2003 x64 Edition | A7387A | N/A | LP1050DC | 2Gb/s DC PCI-X Midrange Thor |
| | | | A7388A | N/A | LP1050 | 2Gb/s SC PCI-X Midrange Thor |
| | | | AD168A | FC2243 | LP11002 | 4Gb/s DC PCI-X Enterprise Helios |
| | | | AD167A | FC2143 | LP1150 | 4Gb/s SC PCI-X Midrange Helios |
| | | | A8002A | FC2142SR | LPe1150 | 4Gb/s SC PCI Express Midrange Zephyr |
| | | | A8003A | FC2242SR | LPe11002 | 4Gb/s DC PCI Express Enterprise Zephyr |
| HP BladeSystem p-Class | ESL, EML, MSL | Win Server 2003, Linux (x86 and x64) | 394757-B21 | N/A | N/A | 2Gb/s DC PCI-X Mezzanine card Thor |
| | | | 394588-B21 | | | |
| HP BladeSystem c-Class | ESL, EML, MSL | Win Server 2003, Linux (x86 and x64) | 403621-B21 | N/A | LPe1105-HP | 4Gb/s DC PCI Express Mezzanine card Zephyr |
| Integrity: Superdome, rx7000-rx8000, rx1000-rx6000 | ESL, EML, MSL | Win Server 2003 (Integrity, 64-bit), Win Server 2003 x64 Edition, Linux (integrity, 64-bit) | AD167A | FC2143 | LP1150 | 4Gb/s SC PCI-X Midrange Helios |
| | | | AD168A | FC2243 | LP11002 | 4Gb/s DC PCI-X Enterprise Helios |
| | | | AB466A | N/A | LP1050DC | 2Gb/s DC PCI-X Midrange Thor |
| | | | AB467A | N/A | LP1050 | 2Gb/s SC PCI-X Midrange Thor |
| | | | AD299A | N/A | N/A | 4Gb/s SC PCI Express Zephyr-based |
| | | | AD355A | N/A | N/A | 4Gb/s DC PCI Express Zephyr-based |
| UltraSPARC | ESL, EML, MSL | Solaris 8, 9, 10 | N/A | FCA2684 | LP10000 | 2Gb/s SC PCI-X Enterprise Thor |
| | | | N/A | FCA2684DC | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor |
| AlphaServer | ESL, EML, MSL | Tru64 5.1A, 5.1B | DS-A5132-AA | FCA2684 | LP10000 | 2Gb/s SC PCI-X Enterprise Thor |
| | | | DS-A5134-AA | FCA2684DC | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor |
| AlphaServer, Integrity | ESL, EML, MSL | OpenVMS 8.2, 8.2-1, 8.3 | DS-A5132-AA | FCA2684 | LP10000 | 2Gb/s SC PCI-X Enterprise Thor |
| | | | DS-A5134-AA | FCA2684 | LP10000DC | 2Gb/s DC PCI-X Enterprise Thor |

For complete details, please refer to the EBS Compatibility Matrix at <http://www.hp.com/go/ebs>

VMware support: Please go to the VMware web page http://www.vmware.com/pdf/vi3_io_guide.pdf for the current list of Emulex HBAs supported by HP and VMware.

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