QLogic 8Gb FC Host Bus Adapters for System x
Product Guide

The QLogic 8Gb FC Host Bus Adapters are PCI Express 2.0 x8 8Gb Fibre Channel adapters with SFP+ LC-style connectors . The adapters connect to SFP+ Multimode Fiber SR optical modules. These adapters support 8 Gbps per port maximum bidirectional throughput for high-bandwidth storage (SAN). The PCI Express low profile form factor adapter can be used in either a standard PCI Express slot or a low profile PCI Express slot. Figure 1 shows the adapters.

Figure 1. QLogic 8Gb FC Host Bus Adapter

Did you know?

QLogic 8Gb HBAs enable end-to-end SAN Solutions using 8 Gb Fibre Channel technology for System x servers. They provide the ability to build high-performance, highly available SANs and are easy to set up and integrate into existing SAN configurations.

These adapters take advantage of QLogic's StarPower technology, which provides energy-smart features. StarPower technology offers dynamic and adaptive power-management features such as power-optimized and bandwidth-optimized intelligent PCI-Express link training, low-power switching power supplies, and a thermally efficient layout that requires lower airflows.

Part number information

Table 1. Ordering part numbers and feature codes

Description	Part number	Feature code
QLogic 8Gb FC Dual-port HBA	42D0510	3579

The part numbers for the QLogic 8Gb FC HBAs include the following items:

- One QLogic adapter with two 8 Gb transceivers installed
- Documentation package
- 2U bracket

Features

The QLogic 8Gb FC host bus adapters have the following features:

- Based on the QLE2562 (dual port) adapters
- Function at 8/4/2 Gbps (auto-negotiation)
- Persistent binding
- LUN masking
- 2,048 concurrent logins
- PCI Express 2.0 x8 compliance, backwards compatibility with PCI-e 1.0a
- Two SFP+ with LC-style connectors
- Standard PCI Express card with low profile MD2 form factor
- Support for both standard and low-profile PCI-E slots

Specifications

The QLogic 8Gb FC host bus adapters have the following specifications:

- Data rate: 1600 MBps full duplex per port
- Performance: up to 200,000 IOPS per port
- Boot support: BIOS, FCode, UEFI, EFI
- Protocols: FCP-3-SCSI; FC-Tape (FCP-2)
- Standard supported: Enhanced Authentication (FC-SP), Data Integrity (T10) and Network isolation (NPIV)

Server support

The QLogic 8Gb FC host bus adapters are supported in the servers listed in the following tables.

Support for System x and dense servers with Xeon E5/E7 v4 and E3 v5 processors

Table 1. Support for System x and dense servers with Xeon E5/E7 v4 and E3 v5 processors

Part number	Description	x3250 M6 (3943)	x3250 M6 (3633)	x3550 M5 (8869)	x3650 M5 (8871)	x3850 X6/x3950 X6 (6241, E7 v4)	nx360 M5 (5465, E5-2600 v4)	sd350 (5493)
42D0510	QLogic 8Gb FC Dual-port HBA	Y	Y	Y	Y	Y	Y	N

Support for servers with Intel Xeon v3 processors

Table 2. Support for servers with Intel Xeon v3 processors

Part number	Description	x3100 M5 (5457)	x3250 M5 (5458)	x3500 M5 (5464)	x3550 M5 (5463)	x3650 M5 (5462)	x3850 X6/x3950 X6 (6241, E7 v3)	nx360 M5 (5465)
42D0510	QLogic 8Gb FC Dual-port HBA	Y	Y	Y	Y	Y	Y	Y

Support for servers with Intel Xeon v2 processors

Table 3. Support for servers with Intel Xeon v2 processors

Part number	Description	x3500 M4 (7383, E5-2600 v2)	x3530 M4 (7160, E5-2400 v2)	x3550 M4 (7914, E5-2600 v2)	x3630 M4 (7158, E5-2400 v2)	x3650 M4 (7915, E5-2600 v2)	x3650 M4 BD (5466)	x3650 M4 HD (5460)	x3750 M4 (8752)	x3750 M4 (8753)	x3850 X6/x3950 X6 (3837)	x3850 X6/x3950 X6 (6241, E7 v2)	dx360 M4 (E5-2600 v2)	nx360 M4 (5455)
42D0510	QLogic 8Gb FC Dual-port HBA	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y

See ServerProven for the latest information on the servers that support this adapter:
http://www.lenovo.com/us/en/serverproven/xseries/sharedstorage/samatrix.shtml

Operating system support

The adapters support the following operating systems:

- QLogic 8Gb FC Dual-port HBA, 42D0510

Tip: This table is automatically generated based on data from Lenovo ServerProven. Note that older servers are not listed. Visit ServerProven to view OS support for those servers.

Table 2. Operating system support for QLogic 8Gb FC Dual-port HBA, 42D0510

Operating systems	x3850/3950 X6 (3837)	x3850/3950 X6 (6241, E7 v2)	x3850/3950 X6 (6241, E7 v3)	x3850/3950 X6 (6241, E7 v4)	x3250 M6 (3633)	nx360 M5 (5465)	x3500 M5 (5464)	x3550 M5 (5463)	x3550 M5 (8869)	x3650 M5 (5462)	x3650 M5 (8871)	x3100 M5 (5457)	x3250 M5 (5458)
Microsoft Windows Server 2008 R2	Y	Y	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2012 R2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2016	N	Y [1]	Y [1]	Y [1]	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	N	N	N	Y	Y	N	N	N	Y	N	Y	N	N
Microsoft Windows Server version 1709	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	Y	N	Y	N	N
Red Hat Enterprise Linux 5 Server Edition	N	N	N	N	N	N	N	N	N	N	N	Y	Y
Red Hat Enterprise Linux 5 Server x64 Edition	N	N	N	N	N	N	N	N	N	N	N	Y	Y
Red Hat Enterprise Linux 6 Server Edition	N	N	N	N	N	N	N	N	N	N	N	Y	Y
Red Hat Enterprise Linux 6 Server x64 Edition	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	N	N	N	Y	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 11 for AMD64/EM64T	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 11 for x86	N	N	N	N	N	N	N	N	N	N	N	Y	Y
SUSE Linux Enterprise Server 11 with Xen for AMD64/EM64T	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y
SUSE Linux Enterprise Server 12	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 with Xen	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	N	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N
SUSE Linux Enterprise Server 15 with Xen	N	N	Y	Y	Y	Y	N	N	Y	N	Y	N	N
VMware vSphere 5.1 (ESXi)	Y	Y	N	N	N	Y	Y	Y	N	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 5.5	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
VMware vSphere Hypervisor (ESXi) 6.5	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	Y	Y [2]	Y	Y [2]	N	Y [2]	N	Y [2]	N	N

[1] [in box driver support only]

[2] Detail information please refer to Support Tip HT506708

Physical specifications

The QLogic 8Gb FC HBAs have the following physical specifications:

- Height: 64 mm (2.5 in)
- Width: 167 mm (6.6 in)
- Depth: 25 mm (1.0 in)
- Weight: 113 g (0.25 lb)

Operating environment

The adapters are supported in the following environment:

- Temperature:
  - Operating: 0° to 55°C (32° to 131°F) at 0 to 914 m (0 to 3,000 ft)
  - Storage: -40° to 70°C (-40° to 158°F) at 914 to 2,133 m (3,000 to 7,000 ft)
- Relative humidity:
  - Operating: 10% to 90% (relative, non-condensing)
  - Non-operating: 5% to 93% (relative, non-condensing)

Warranty

One-year limited warranty. When installed in a System x server, these cards assume ther server’s base warranty and any warranty upgrade.

Related publications

For more information refer to the following documents:

- Lenovo System x Fibre Channel options product page
  https://www.lenovo.com/us/en/data-center/servers/server-options/system-x-options/networking-adapters/fibre-channel-host-bus-adapters/c/fibre-channel-hba
- QLogic 8Gb FC Single-port and Dual-port HBAs Installation and User's Guide
  http://ibm.com/support/entry/portal/docdisplay?lndocid=MIGR-5076985
- ServerProven compatibility for System x HBAs:
  http://www.lenovo.com/us/en/serverproven/xseries/sharedstorage/samatrix.shtml
- System x Configuration and Options Guide
  https://support.lenovo.com/us/en/documents/SCOD-3ZVQ5W
- QLogic page for Lenovo products
  http://qlogic.com/go/lenovo
- US Announcement Letter for the QLogic 8Gb FC Single-port and Dual-port HBAs
  http://ibm.com/common/ssi/cgi-bin/ssialias?infotype=dd&subtype=ca&&htmlfid=897/ENUS108-481

Related product families

Product families related to this document are the following:

- Host Bus Adapters

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This document, TIPS0721, was created or updated on January 2, 2020.

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