

AFC™-9210LP

2Gb Fibre Channel Host Bus Adapter ideal for rackmount, pedestal, or mixed server environments

Product Highlights

- Fibre Channel data transfer up to 400 MB/s in full duplex mode
- Auto-negotiates both 1Gb and 2Gb data transfer rates
- Low-profile MD2 form factor
- 64 bit/66 MHz PCI 2.2 compliant (fully backward compatible with 32-bit/33 MHz PCI)
- FC-AL private & public loop, point-to-point and switched fabric support
- FC Class 2 and Class 3 support
- Optical SFP or Copper HSSDC interface

Peak Performance

The Adaptec® AFC-9210LP is a low-profile, 2 Gigabit Fibre Channel host bus adapter (HBA) providing the highest performance I/O connectivity available. The AFC-9210LP offers full duplex data transfer capabilities (up to 400 MB/sec), provides Fibre Channel class 2 and class 3 support, and allows auto speed negotiation between 1Gb and 2Gb, all in a low-profile MD2 form factor HBA. The AFC-9210LP also has a 64-bit 66MHz universal PCI interface and is fully backward compatible with 32-bit, 33MHz PCI.

A truly dynamic component of any Fibre Channel SAN solution, the AFC-9210LP supports Fibre Channel Arbitrated Loop, Point-to-Point, and Switched Fabric topologies. The AFC-9210LP delivers on Adaptec's promise of ease of use with easy configuration, quick system setup, and hot pluggable hard drives. The ability to add and remove drives on the fly allows for simple and reliable maintenance and SAN scalability.

To best meet the high performance, interoperability and reliability requirements of the SAN industry, the AFC-9210LP is based on Agilent Technologies' industry leading "Tachyon" silicon, the most widely deployed Fibre Channel controller IC. This architecture enables performance to scale proportionately to the system CPU resources available and avoids bottlenecks associated with embedded processor-based HBAs. The result is minimal latency coupled with the ability to provide maximum I/O data transfer rates and bandwidth.

The AFC-9210LP is the highest-performance Fibre Card on the market, embracing the full potential of Fibre Channel.

Deployment Flexibility

Adaptec recognizes the importance of rackable storage facilities and the

Optical
AFC-9210/LP



Copper
AFC-9210C/LPC



AFC-9210LP's low-profile design makes it ideal for rackmount, pedestal, or mixed server environments. The AFC-9210LP is sold with a low-profile bracket mounted on the HBA, but also includes a standard-height bracket for complete flexibility of deployment. The brackets are easily interchangeable and are a convenient way to support a variety of storage configurations.

Superior Interoperability

Like all Adaptec products, AFC-9210LP has been rigorously tested in a variety of SAN configurations with a wide range of Fibre Channel components to deliver the utmost in interoperability, performance, and reliability now and in the future. At the heart of this product testing is Adaptec's 12,000 square foot testing facility, the largest compatibility test lab in the Fibre Channel HBA industry. Already a recognized leader in SCSI and RAID interoperability, Adaptec is leveraging these testing facilities to establish itself as the leader in Fibre Channel interoperability. With available 24x7 technical support professionals and worldwide coverage, Adaptec provides the expertise required for configuring, supporting, and managing today's Fibre Channel SANs.

Adaptec, Inc.
691 South Milpitas Boulevard
Milpitas, California 95035
Tel: (408) 945-8600
Fax: (408) 262-2533

Adaptec Europe - Belgium
Tel: (+32) 2 352 34 11
Fax: (+32) 2 352 34 00

Adaptec Japan - Tokyo
Tel: (+81) 3-5365-6700
Fax: (+81) 3-5365-6950

Adaptec Singapore
Tel: (+65) 245-7477
Fax: (+65) 245-7487

Literature:
Tel: 1 (800) 442-7274 (USA and Canada)
or (408) 957-7274

Pre-Sales Support:
Tel: 1 (800) 442-7274 (USA and Canada)
or (408) 957-7274

World Wide Web:
www.adaptec.com

Internet ftp server: [ftp.adaptec.com](ftp://ftp.adaptec.com)



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Fibre Channel Operation Specifications

Fibre Channel Data Rate	2Gb/sec, 200 MB/sec (half duplex), 400 MB/sec (full duplex)
Multi-rate Option	Auto-negotiates for 1Gb or 2Gb operation
BIOS Support	Bootability (Arbitrated Loop)
Topology	Arbitrated Loop – public and private, fabric support (F- and FL-login)
Class	FC-2 and 3
Upper Layer Protocol	SCSI FCP – on-chip automation of complete SCSI I/O
Loop Initialization	Completely hardware-based for high availability
Arbitrated Loop Capabilities	Loop map, loop directed reset, loop broadcast
Link Diagnostics	Link status indicators, internal/external loopback
Standards	FC-PH, FC-AL, FC-PLDA, FCP-SCSI, FC-FS, FC-PI

PCI Specifications

Compliance	PCI local bus specification v2.2, Universal PCI Card
Rate & Width	66/33 MHz, 64/32-bit PCI
Burst Transfer Rate	528 Mb/sec, guaranteed for length of frame, inbound & outbound at 64-bit, 66 MHz
Dual Address Cycle Support	Yes (64-bit PCI addressing)
Hot Plug Support	Yes
Additional PCI Features	Zero wait state multiple cache line bursting capable up to a full frame size, 32-byte cache line

Physical and Environmental Specifications

Physical Size	MD2 form factor, 167.6 mm x 61.4 mm (6.6" x 2.5")
PCB Power	7W max, 5W typical at 5V +/-5%
Supply Voltage	5V +/-5%; 3.3V optional +/-5%
Operating Temperature Range	0 to 55 degrees centigrade (no airflow)
Storage Temperature Range	-40 to 70 degrees centigrade
Relative Humidity	up to 90% (non-condensing)

Operating System Support

Microsoft® Windows® 2000 and Windows NT®
Novell NetWare
SCO UnixWare
Solaris x86
LINUX

Certifications

FCC Class B
CE
VCCI
UL/CUL
C-TICK (AZ/NZS 3548)

Flexible Product Offerings

AFC-9210LPC Copper Kit

- AFC-9210LPC HBA
- Standard Full Height Bracket
- 30 AWG Copper Cable (3 meters)
- Installation Guide
- User's Reference
- Operating System Drivers on Diskette (Windows 2000, Windows NT 4.0, NetWare 5.1, SCO UnixWare 7.1, and Solaris x86 8.0)
- Registration Card

AFC-9210LP Optical Single

- AFC-9210LP HBA
- Standard Full Height Bracket
- Installation Guide
- User's Reference
- Operating System Drivers on Diskette (Windows 2000, Windows NT 4.0, NetWare 5.1, SCO UnixWare 7.1, and Solaris x86 8.0)
- Registration Card

AFC-9210LP Optical Kit

- AFC-9210LP HBA
- Standard Full Height Bracket
- Optical SFP
- Optical Cable (10 meters, LC-LC)
- Installation Guide
- User's Reference
- Operating System Drivers on Diskette (Windows 2000, Windows NT 4.0, NetWare 5.1, SCO UnixWare 7.1, and Solaris x86 8.0)
- Registration Card