

- 2 gigabit Fibre Channel
- 66/33 MHz, 64-bit PMC form factor
- Supports up to 400 Mbyte/s sustained Fibre Channel data transfer rate (200 Mbyte/s simultaneous receive and transmit)
- Backward compatible to standard 33/66 MHz PCI
- Automatically negotiates the Fibre Channel bit rate (1 or 2 gigabit)
- Compliant with PCI Local Bus specification revision 2.2
- Supports Fibre Channel Arbitrated Loop (FC-AL), FC-AL-2, point-to-point, and switched fabric topologies
- Supports full-duplex communications in all Fibre Channel topologies
- Compliant with ANSI SCSI standards for class 1, 2, 3, and intermix Fibre Channel services:
 - Fibre Channel Arbitration Loop (FC-AL-2) working draft, rev. 6.4, August 28, 1998
 - Fibre Channel Fabric Loop Attachment (FC-FLA) working draft, rev. 2.7, August 12, 1997¹
 - Fibre Channel Private Loop SCSI Direct Attach (FC-PLDA) working draft, rev. 2.1, September 22, 1997²
 - Fibre Channel tape (FC-TAPE) profile, T11/98-124vD, rev. 1.13, February 3, 1999³
- Compliant with PCI bus Power Management Interface specification rev. 1.1 (PC99)
- Supports Fibre Channel Protocol SCSI (FCP-SCSI), Fibre Channel Internet Protocol (IP), and Fibre Channel Virtual Interface (FC-VI) protocol
- Supports SCSI initiator/target and target modes
- On-board, enhanced RISC processor
- On-board 2 gigabit serial transceiver (SFF)
- Supports PCI dual-address cycle and cache commands
- Supports multi-ID aliasing in target mode
- No host intervention required to execute complete SCSI, IP, or VI operations
- Fully backward compatible with 32-bit PCI
- Fiber-optic interface using LC-type fiber-optic cables
- Based on QLogic ISP2300 series chip
- Supports JTAG boundary scan and full scan

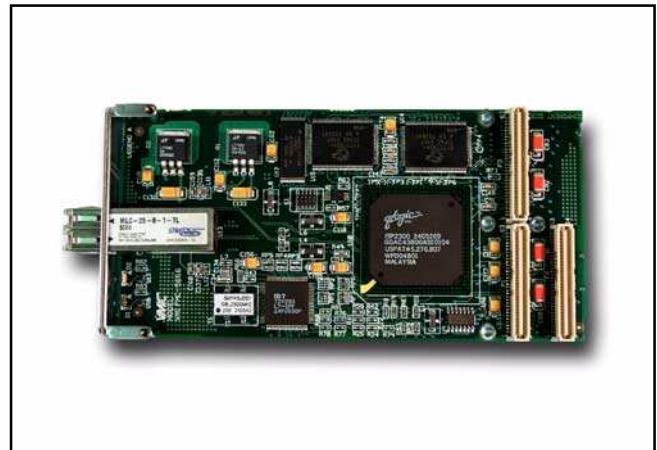
INTRODUCTION — The VMIPMC-5666 is a highly integrated single-board Fibre Channel host bus adapter (HBA) targeted at storage area networks (SANs), network applications, workstations, server systems, and computer clustering. The VMIPMC-5666 connects the bus to a 2 gigabit per second Fibre Channel network in loop, fabric, or point-to-point configurations. The VMIPMC-5666 is a fully autonomous device, capable of managing multiple I/O operations and associated data transfers from start to finish.

The VMIPMC-5666 HBA can balance the advanced speeds and efficiency of the PCI bus with exceptional 2 gigabit Fibre Channel performance. The VMIPMC-5666 maximizes Fibre Channel throughput while minimizing transfer latency and host processor intervention.

PRODUCT OVERVIEW — The VMIPMC-5666 is an HBA specifically designed for SANs, workstations, server systems, and computer clustering applications.

Typical applications include enterprise-wide and workgroup configurations that consolidate hard disk array functions at a central location. Additionally, the VMIPMC-5666 is well suited for telecom, signal processing, and distributed computing applications due to its high network bandwidth. It incorporates a highly integrated, state-of-the-art ASIC that contains a 64-bit PCI host interface.

1. Fibre Channel Fabric Loop Attachment Technical Report (FC-FLA) NCITS/TR-20:1998.
2. Fibre Channel—Private Loop Direct Attach Technical Report (FC-PLDA), NCITS/TR-19:1998.
3. Fibre Channel Tape (FC-TAPE) profile, T11/99-069v4, revision 1.17, May 14, 1999.



Ordering Options							
October 1, 2001 800-755666-000 E	A	B	C	-	D	E	F
VMIPMC-5666	-			-			
A = External FIFO 0 = No FIFO Installed 1 = 8 Kbyte FIFO (For > 1 km Links) 2 = 64 Kbyte FIFO (For Increased Performance on Long (> 10 km) Links) B = RAM Size 0 = 128 Kbyte x 18 (Standard) 1 = 256 Kbyte x 18 (For High-Activity Links) 2 = 1 Mbyte x 18 (For VI Applications Only) C = Transmission Mode 0 = Reserved 1 = Multimode Fiber-Optic SFF (LC-Type Connector) 2 = Single-Mode Fiber-Optic SFF (LC-Type Connector)							
Fibre Channel Connector Data							
Small Form Factor Pluggable (SFF) Type LC							
Cable Specifications							
Fiber-Optic Cable - Multimode; (62.5 Micron Core); Single-Mode (9 Micron Core)							
Fiber-Optic Assemblies	A	B	C	-	D	E	F
VMICBL-000-F6-ABC	-	0		-			
ABC = Cable Lengths 000 = 3 ft. (0.9144 m) 011 = 426 ft (129.8448 m) 001 = 6 ft. (1.8288 m) 012 = 492 ft (149.9616 m) 002 = 10 ft. (3.048 m) 013 = 557 ft (169.7736 m) 003 = 16 ft. (4.8768 m) 014 = 656 ft (199.9488 m) 004 = 32 ft. (9.7536 m) 015 = 721 ft (219.7608 m) 005 = 66 ft (20.1168 m) 016 = 754 ft (229.8192 m) 006 = 98 ft (29.8704 m) 017 = 820 ft (249.936 m) 007 = 164 ft (49.9872 m) 018 = 885 ft (269.748 m) 008 = 230 ft (70.104 m) 019 = 984 ft (299.9232 m) 009 = 328 ft (99.9744 m) 020 = 1 ft (0.3048 m) 010 = 393 ft (119.7864 m)							
For Ordering Information, Call: 1-800-322-3616 or 1-256-880-0444 • FAX (256) 882-0859 E-mail: info@vmic.com Web Address: www.vmic.com Copyright © December 2000 by VMIC Specifications subject to change without notice.							

The VMIPMC-5666's firmware implements a multitasking host adapter that provides the host system with IP communications, complete SCSI command and data transport capabilities, and VI communications, freeing the host system from simultaneous execution of SCSI, IP, and VI traffic. The VMIPMC-5666 provides two interfaces to the host system: the command interface and the Fibre Channel transport interface. The single-threaded command interface facilitates debugging, configuration, and error recovery. The multithreaded transport interface maximizes the use of the Fibre Channel and host buses.

The HBA operates in SCSI initiator mode, and supports SCSI, IP, and VI protocols concurrently.

Software Support: Linux, Windows NT®, Windows® 2000, Solaris x86, Solaris SPARC, and VxWorks (SCSI initiators). See the Fibre Channel products area of www.vmic.com for the complete listing and latest information regarding software driver support.

TECHNICAL SPECIFICATIONS

Fibre Channel Transfer Rate: 400 Mbyte/s (full duplex)

Host Bus Transfer Rate: 64-bit bus master DMA maximum burst data transfers up to 264 Mbyte/s (PCI - 64/33 MHz) or 528 Mbyte/s (PCI - 66 MHz)

Host Bus Signaling: Supports 5 or 3.3 V signaling

PHYSICAL/ENVIRONMENTAL

Temperature Range: 0 to 55 °C, operating
-40 to 70 °C, storage

Relative Humidity: 20 to 80 percent, noncondensing

Power Requirements: 5 VDC (2 A maximum)

Network Connections:

Fiber-optic (multimode) with LC-type connectors (maximum distance - 500 m)

Fiber-optic (single-mode) with LC-type connectors (maximum distance - 10 km)

MTBF: 720,419 hours (Bellcore)

TRADEMARKS

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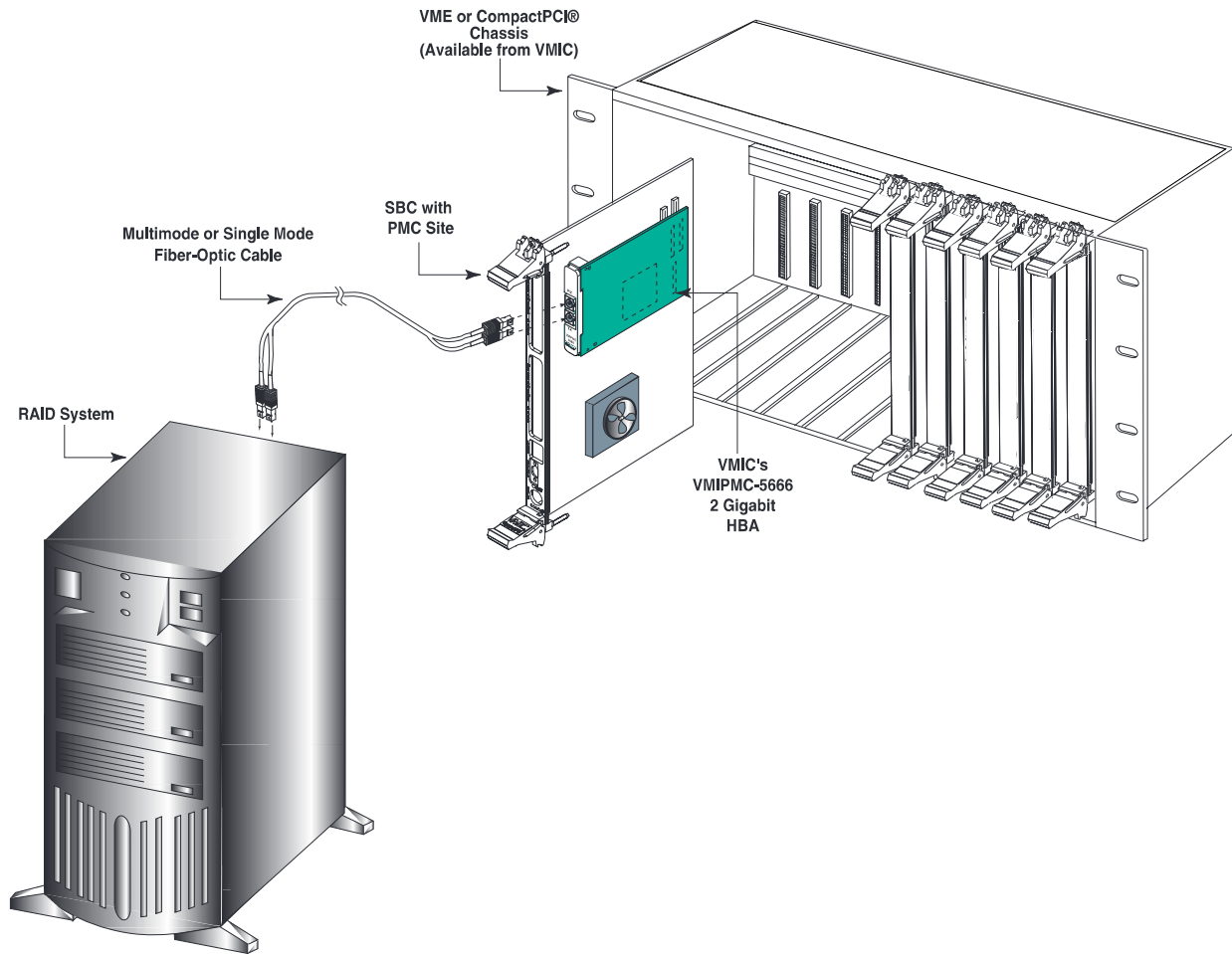


Figure 1. VMIPMC-5666 Connectivity