

► Dual 2 Gbps Fibre Channel PMC Adapters

The Dual 2 Gbps Fibre Channel (FC) PMC (PCI Mezzanine Card) Adapter offers dual 2 Gbps Fibre Channel communication links on multimode or singlemode fibre media. This adapter provides optimal flexibility by supporting all Fibre Channel topologies, including Arbitrated Loop, with full duplex communications on both channels. It is available in air-cooled versions: ruggedised, industrial and commercial.

Architecture

The Dual 2 Gbps FC PMC Adapter uses an embedded RISC processor to handle all the protocol processing and data transfers. This reduces overhead on the host processor, thus providing higher network data throughputs. Data transfers from the adapter are controlled independently using single channel Bus Mastering or Scatter Gather Mode.

Integrated 2 Gbps Optical Transceivers : Dual integrated transceivers provide considerable reliability, speed and distance interconnect technology. Both channels independently support autonegotiation down to 1 Gbps, allowing the separation of legacy and next generation devices.

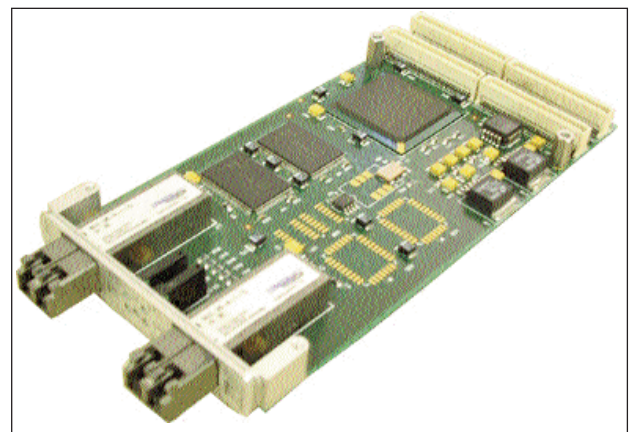
Arbitrated Loop Support : The Dual 2 Gbps FC PMC Adapter's Integrated Link Controller is Arbitrated Loop (FC-AL-2 R7.0) compliant and performs all Link operations. The Internal Controller monitors the Link State and strictly adheres to the Loop Port State Machine, ensuring maximum system interoperability.

Features

- Two independent channels
- 2 Gbps transfer rates on each channel on fibre media
- High-performance context management
- Full simultaneous target and initiator operations
- Data transfer via Bus Mastering to/from PCI-bus
- Onboard SRAM for data storage
- Extensive use of SMT devices to reduce RF noise
- Integrated FPGA design reduces costs and increases reliability

Applications

- Distributed real-time applications in harsh environments
- High-Performance Multimedia Applications
- Mission-Critical Applications
- High-Speed Sensor Integration
- Avionics; Vetronics
- Distributed Digital Voice and Video Applications
- Industrial Simulation
- Host Attach for mass storage sub-systems



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Specifications		
Bus Interface	64-bit/66 MHz PCI-bus (32-bit, 33 MHz compatible) Electrically : 5 V signalling, PCI Rev.2.2 Mechanically : Single CMC formfactor IEEE P1386.1	
LAN Controller	LSI 929	
Compliance	FC-PH, FC-AL2 R7.0, FC-FCP, FC-PLDA, FC-FLA	
	N_Port supporting :	NL_Port supporting :
	- 8 N_port (Point-to-Point) - 8 F_port (Fabric Attach)	- 8 NL_port (Private Loop) - 8 FL_port (Public Loop)
I/O Options	Front-panel I/O only, SFF/LC connectors	
RAM	128 kBytes x 32	
Interrups	PCI INT A and B	
Power Requirement	+ 5 V at 1.2 A (fibre) + 5 V at 1.5 A (max)	
Flash EEPROM	512 kBytes x 8	
Software Drivers	Various software drivers offered including for VxWorks, Linux, Windows 2000 and Windows XP operating systems as standard; others are costed options	
Protocols	Fibre Channel/Internet (singular or intermixed) : - TCP/IP - SCSI IP Traffic can be intermixed with SCSI traffic Custom Protocols supported (singular or intermixed)	
Options	Multimode fibre for fibre-optic media interface Singlemode (long-haul or short-haul) fibre available on request	

Characteristics	
Dimensions	Weight
149,00 mm x 74,00 mm x 9,80 mm	80 g ± 10 g
143,65 mm x 74,00 mm, conforming to VITA 20 height envelope	TBD



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Reliability				
MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method			
	Ground, Mobile Naval, Sheltered Airborne, Inhabited Cargo	$T_j = 65\text{ C}$ $T_j = 65\text{ C}$ $T_j = 75\text{ C}$	$T_a = 45\text{ C}$ $T_a = 40\text{ C}$ $T_a = 55\text{ C}$	17 000 hrs 23 000 hrs 17 000 hrs

Environmental Specifications			
	Commercial Grade	Industrial Grade	Ruggedised Grade
Temperature - Operating - Storage	0 C to +55 C -40 C to +85 C	-15 C to +75 C -50 C to +85 C	-40 C to + 85 C -60 C to +125 C
Humidity	0% - 90%	0% - 95%	0% - 95%
Shock	N/A	30 g peak for 11 ms	40 g peak for 11 ms
Vibration - Sine - Random	2 g (peak) 10 Hz to 100 Hz 0,04 g²/Hz at 15 Hz to 2 kHz	10 g (peak) 5 Hz to 2 kHz 0,1 g²/Hz at 15 Hz to 2 kHz	10 g (peak) 5 Hz to 2 kHz 0,1 g²/Hz at 15 Hz to 2 kHz

Part Selector					
Part Designation	Grade	I/O Options	Attachment	Mode	Connector
CCII/FC/PMC/2P/MM/COM	Commercial	Front-panel I/O	Dual	Multimode	SFF/LC
CCII/FC/PMC/2P/MM/IND	Industrial	Front-panel I/O	Dual	Multimode	SFF/LC
CCII/FC/PMC/2P/MM//RGD	Ruggedised	Front-panel I/O	Dual	Multimode	SFF/LC