

► Dual 1 Gbps Fibre Channel over Copper PMC Adapter

The Dual 1 Gbps Fibre Channel (FC) PMC (PCI Mezzanine Card) Adapter offers dual 1 Gbps Fibre Channel communication links on shielded, twisted-pair copper 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 conduction-cooled (CC) and air-cooled versions : ruggedised, industrial and commercial.

Architecture

The Dual 1 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.

Arbitrated Loop Support : The Dual 1 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

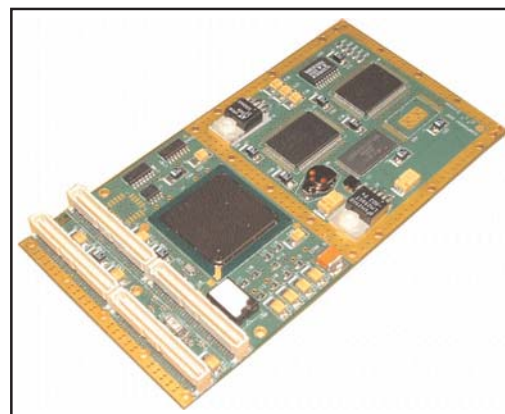
- Two independent channels
- 1 Gbps transfer rates on each channel on copper media
- High-performance context management
- Full simultaneous target and initiator operations
- Data transfer via Bus Mastering to/from PCI-bus
- Onboard SRAM for data storage
- Extensive use of SMT devices to reduce RF noise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

Conduction-Cooling

The conduction-cooled Dual 1 Gbps Fibre Channel PMC Adapter conforms to the CCPMC (Conduction-Cooled PCI Mezzanine Card) Standard, namely ANSI/VITA 20-2001.

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



Dual 1 Gbps Fibre Channel Conduction-Cooled PMC Adapter



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Dual 1 Gbps Fibre Channel PMC and CCPMC Adapter Specifications

Bus Interface	64-bit, 66 MHz PCI-bus (32-bit, 33 MHz compatible) Electrically : 5 V signaling, PCI Rev. 2.2 Mechanically : Single CMC formfactor IEEE P1386.1
Compliance	FC-PH, FC-AL2 R7.0, FC-FCP, FC-PLDA, FC-FLA N_Port supporting : - 8 N_port (Point-to-Point) - 8 F_port (Fabric Attach) NL_Port supporting : - 8 NL_port (Private Loop) - 8 FL_port (Public Loop)
LAN Controller	LSI 929
RAM	128 kBytes x 32
Flash EEPROM	512 kBytes x 8
I/O Options	Front-panel or rear connector I/O with various rear connector PMC Jn4 I/O pin assignments. Conduction-cooled version has rear connector I/O only.
Interrupts	PCI INT A and B
Dimensions	149,00 mm x 74,00 mm x 9,80 mm
Mass	80 g ± 10 g
Power Requirement	+5 V at 0,9 A (copper) +5 V at 1,5 A (max)
MTBF	Figures according to MIL-HDBK-217F, Parts Count Method : Ground, Mobile T _j = 65 C T _a = 45 C 17 000 hrs Naval, Sheltered T _j = 65 C T _a = 40 C 23 000 hrs Airborne, Inhabited Cargo T _j = 75 C T _a = 55 C 17 000 hrs
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	• Singlemode fibre for fibre-optic media interface

Environmental Specifications

	Commercial	Industrial	Ruggedised/Conduction-Cooled
Temperature			
- Operating	0 C to +55 C	-15 C to +75 C	-40 C to + 85 C
- Storage	-40 C to +85 C	-50 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	2 g (peak) 10 Hz to 100 Hz	10 g (peak) 5 Hz to 2 kHz	10 g (peak) 5 Hz to 2 kHz
- Random	0,04 g ² /Hz at 15 Hz to 2 kHz	0,1 g ² /Hz at 15 Hz to 2 kHz	0,1 g ² /Hz at 15 Hz to 2 kHz

Designations

CCII/FC/PMC/2P/HSSDC/COM	Commercial	HSSDC	Front-panel or Backplane I/O	Dual Link
CCII/FC/PMC/2P/HSSDC/IND	Industrial	HSSDC	Front-panel or Backplane I/O	Dual Link
CCII/FC/PMC/2P/HSSDC/RGD	Ruggedised	HSSDC	Front-panel or Backplane I/O	Dual Link
CCII/FC/PMC/2P/BP/CC	Conduction-Cooled	PMC Jn4	Backplane I/O	Dual Link