Dual ATM Adapter

The Dual ATM Adapter provides dual 155 Mbit/s communications links. The adapter is available in the following industry standard compliant formfactors :

- PMC
  - Air-cooled PMC with frontpanel I/O (IEEE Std 1386.1-2001)
  - Conduction-Cooled PMC (CCPMC) with backplane I/O (ANSI/VITA 20-2001)

Architecture

The Dual ATM Adapter uses a Motorola PowerQUICC II Integrated PowerPC Microprocessor as communication controller. The PowerQUICC II processor can easily be configured to implement user protocols and/or user application specific functions, thus allowing the Dual ATM PMC Adapter to keep up with technological advances.

The dual intelligent communication processor remove protocol processing overhead from the host carrier processor thus allowing for higher network data throughput.

Features

High data transmission rate, efficiency and cost-effectiveness make this card ideal for high throughput communication links. A Motorola PowerQUICC II processor acts as the communication front-end and allows the use of a wide range of communication protocols, as well as intelligent management and status reporting of interfaces.

Applications

- Distributed real-time applications in harsh environments
- Mission-critical applications
- Avionics
- Vetronics
- High-speed sensor integration
- Multimedia applications
- Distributed digital voice and video applications

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Specifications	
Bus Interface	32-bit, 33/66 MHz Electrically : PCI Rev.2.2, 3,3 V signalling
I/O Addresses	Automatically assigned to the slot by PCI Rev. 2.2 Plug-and-Play
EEPROM	EEPROM for board ID (Plug-and-Play) and configuration options
Interrupt	PCI INT A
DMA	Automatic depending on PCI slot
I/O Interfaces	Dual 155 Mbit/s fibre optic or copper interfaces
Protocols	- MAC - AAL5, AAL1, AAL0 - Various additional operating system network protocols using supplied standard software driver - Optional : UNI V3.x and V4.0 signalling
CPU	Motorola PowerQUICC II Integrated PowerPC Microprocessor INTIME IME6500 MPEG4 CODEC
Software Drivers	- VxWorks - Linux - Optional : Solaris, QNX, AIX, Windows 2000, LynuxOS
Software	Sample driver usage software (C/C++ source code)

Characteristics

Formfactor	Dimensions	Weight
PMC (IEEE Std 1386.1-2001)	149,00 mm x 74,00 mm, conforming to CMC envelope	100 g +/- 10 g
CCPMC (ANSI/VITA 20-2001)	143,65 mm x 74,00 mm, conforming to VITA 20 envelope	95 g +/- 10 g

Reliability

MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method			
	Ground, Mobile Naval, Sheltered Airborne, Inhabited Cargo	T_j = 65 C T_j = 60 C T_j = 75 C	T_a = 45 C T_a = 40 C T_a = 55 C	30 000 hours (Approx) 40 000 hours (Approx) 30 000 hours (Approx)

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Environmental Specifications

	Commercial Grade	Industrial Grade	Conduction-Cooled/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	Formfactor	Grade	Interface Media	Connector
CCII/ATM/PMC/2P/SC/COM	PMC	Commercial	Fibre	SC
CCII/ATM/PMC/2P/SC/IND	PMC	Industrial	Fibre	SC
CCII/ATM/PMC/2P/SC/RGD	PMC	Ruggedised	Fibre	SC
CCII/ATM/PMC/2P/RJ/COM	PMC	Commercial	Copper (UTP)	RJ-45
CCII/ATM/PMC/2P/RJ/IND	PMC	Industrial	Copper (UTP)	RJ-45
CCII/ATM/PMC/2P/RJ/RGD	PMC	Ruggedised	Copper (UTP)	RJ-45
CCII/ATM/PMC/2P/BP/CC	CCPMC	Conduction-Cooled	Copper (UTP)	Backplane I/O