



► 4-Channel High-Speed Serial I/O PMC Adapter (Not recommended for new designs)

The 4-Channel High-Speed Serial I/O PMC (PCI Mezzanine Card) Adapter provides four channels of simultaneous, high-speed (>10 Mbps), bi-directional serial communications, plus two UART (Universal Asynchronous Receiver/Transmitter) (<1 Mbps) channels. All channels are configurable as RS232/422/485. The adapter is available in both conduction-cooled (CC) and air-cooled versions : ruggedised, industrial and commercial.

Architecture

The 4-Channel High-Speed Serial I/O PMC and CCPMC Adapters are intelligent adapters with onboard CPU and use the Motorola MPC860 PowerQUICC Integrated PowerPC Microprocessor as a communication controller. The PowerQUICC processor can easily be configured to implement different serial protocols, thus allowing the adapter to keep up with technological advances.

Features

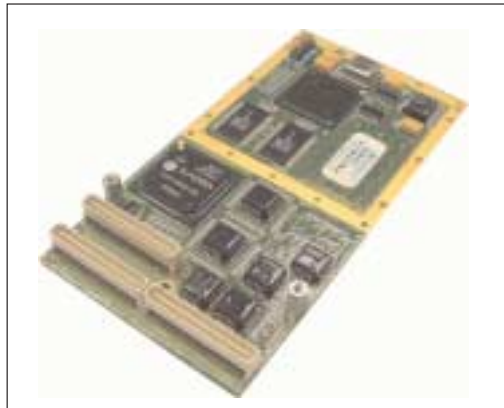
- Cost-effective and flexible option for systems that require both high-speed, real-time communication links as well as some low-speed serial links.
- Offers independent I/O processing offboard the host.

Conduction-Cooling

The conduction-cooled 4-Channel High-Speed Serial I/O PMC Adapter conforms to the CCPMC (Conduction-Cooled PCI Mezzanine Card) Standard, namely VITA 20-199x and is currently implemented in accordance with VITA 20-199x, Draft 1.8.

Applications

- Distributed real-time applications in harsh environments
- Mission-critical applications
- Avionics
- Vetronics
- High-speed sensor integration



4-Channel High-Speed Serial I/O CCPMC Adapter



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4-Channel High-Speed Serial I/O PMC and CCPMC Adapter Specifications

Bus Interface	32-bit, 33 MHz PCI-bus Electrically : 5 V signaling, PCI Rev. 2.2 Mechanically : Single CMC formfactor IEEE P1386-2001
Serial Interface	RS232/422/485 configurable
Serial Channels	4 x SCCs (Serial Communication Controllers) for high-speed serial links - Synchronous or Asynchronous 2 x SMCs (Serial Management Controllers) for UART serial links - Asynchronous only
CPU	1 x Motorola MPC860 PowerQUICC - Integrated PowerPC Microprocessor
EEPROM	EEPROM for board ID (Plug-and-Play) and configuration options
Bit Rates	User-programmable up to 4 Mbps
I/O Addresses	Automatic assigned to the slot by PCI Rev. 2.2 Plug-and-Play
I/O Options	Front-panel and rear connector I/O options with various rear connector PMC Jn4 I/O pin assignments. Conduction-cooled version has rear connector I/O only.
Interrupts	PCI INT A
DMA	Automatic depending on PCI slot
Dimensions	Air-cooled : 149,00 mm x 74,00 mm x 9,80 mm Conduction-cooled : 143,65 mm x 74,00 mm x 13,50 mm (VITA 20)
Mass	80 g ± 10 g
Power Requirement	+5 V at 0,8 A
MTBF	Figures according to MIL-HDBK-217F, Parts Count Method : Ground, Mobile T _j = 65 C T _a = 45 C 32 000 hrs Naval, Sheltered T _j = 60 C T _a = 40 C 47 000 hrs Airborne, Inhabited Cargo T _j = 75 C T _a = 55 C 31 000 hrs
Drivers	Various software drivers offered including for VxWorks, Windows NT, Windows 2000* and Windows XP* operating systems as standard; others optional. (*Standard PC HAL only)
Protocols	<ul style="list-style-type: none"> • HDLC • SDLC • Async • BiSync
Supporting Software	<ul style="list-style-type: none"> • Sample driver usage software (C/C++ source code)
Options	<ul style="list-style-type: none"> • Solaris, QNX, AIX Drivers • SS7, ISDN Protocol (Basic Rate and Primary Rate) • Ethernet / Fast Ethernet Option

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	-40 C to +85 C	-55 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

	Commercial	Industrial	Ruggedised	Conduction-Cooled	Front-panel or Backplane I/O	RS422/485/232
CCII/SIO/PMC/4P/FP/COM	Commercial	Industrial	Ruggedised	Conduction-Cooled	Front-panel or Backplane I/O	RS422/485/232
CCII/SIO/PMC/4P/FP/IND	Commercial	Industrial	Ruggedised	Conduction-Cooled	Front-panel or Backplane I/O	RS422/485/232
CCII/SIO/PMC/4P/FP/RGD	Commercial	Industrial	Ruggedised	Conduction-Cooled	Front-panel or Backplane I/O	RS422/485/232
CCII/SIO/PMC/4P/BP/CC/xx	Commercial	Industrial	Ruggedised	Conduction-Cooled	Backplane I/O	RS422/485/232
xx=	4 x SCC (Serial Communication Controller)		2 x SMC (Serial Management Controller)			
22	232		232			
42	422/485		232			
44	422/485		422/485			
Standard oscillator is 39,3216 MHz. Other oscillator frequencies (to support non-standard baud rates) indicated by an additional /yy at the end of the part number.						

4-Channel HS Serial I/O PMC
Board-Level