

► 8-Channel High-Speed Serial I/O PCI Adapter

The 8-Channel High-Speed Serial I/O PCI Adapter provides eight channels of simultaneous, high-speed (>16 Mbps), bi-directional serial communications and four UART (Universal Asynchronous Transmitter/Receiver) (<1 Mbps) I/O channels. All channels are jumper configurable as RS232/422/485.

The adapter is available in air-cooled versions : commercial and ruggedised.

Architecture

The 8-Channel High-Speed Serial I/O PCI Adapters are intelligent adapters with onboard CPUs and use dual Motorola PowerQUICC II Integrated PowerPC Microprocessors as communication controllers. The PowerQUICC II processors 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.

Applications

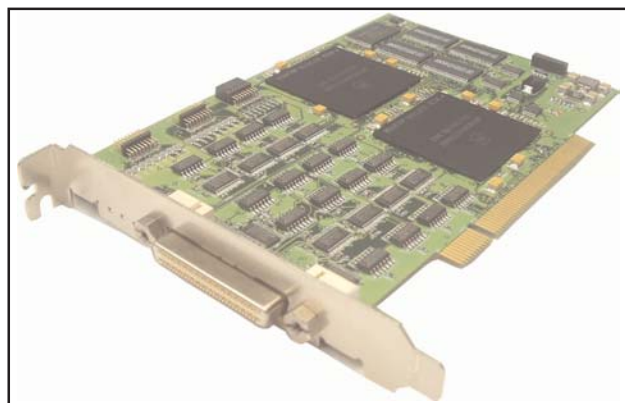
- Distributed real-time applications in harsh environments
- High-speed sensor integration

Availability in Other Formfactors

The 8-Channel High-Speed Serial I/O PCI Adapters are also available in the PMC and PC104 Plus formfactors.

In the PMC formfactor, they are available in conduction-cooled (-40 C to +85 C) and air-cooled versions : ruggedised (-40 C to +85 C), industrial (-15 C to +75 C) and commercial (0 C to +55 C).

In the PC104 Plus formfactor, they are available in air-cooled versions : ruggedised (-40 C to +85 C), industrial (-15 C to +75 C) and commercial (0 C to +55 C).



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8-Channel High-Speed Serial I/O PCI Adapter Specifications

Bus Interface	32-bit, 33/66 MHz PCI-bus Electrically and Mechanically complies to PCI Rev. 2.2		
Serial Interface	RS232/422/485 (all ports individually configurable with jumpers)		
	RS232	TxD, RxD, RTS, CTS, CD, CLK_IN, CLK_OUT	
	RS422/485	TxD, RxD, CLK_IN, CLK_OUT	
Serial Channels	8 x SCCs (Serial Communication Controllers) for high-speed serial links - Synchronous or asynchronous 4 x SMCs (Serial Management Controllers) for UART serial links - Asynchronous, RxD and TxD only, no flow control		
CPU	2 x Motorola PowerQUICC II Integrated PowerPC Microprocessors		
EEPROM	EEPROM for board ID (Plug-and-Play) and configuration options		
Bit Rates	User-programmable up to :	RS232 Mode	RS422/485 Mode
	Synchronous Mode	1 Mbps	16 Mbps
	Asynchronous Mode	1 Mbps	6,25 Mbps
Termination	100 R (all ports individually switchable with jumpers) for RS422/485		
I/O Addresses	Automatic assigned to the slot by PCI Rev. 2.2 Plug-and-Play		
I/O Option	120 pin Molex connector		
Interrupts	PCI INT A		
DMA	Automatic depending on PCI slot		
Power Requirement	+3,3 V at 1,3 A +12 V at 1 mA		
MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method : Ground, Mobile $T_j = 65\text{ C}$ $T_a = 45\text{ C}$ 21 700 hrs Naval, Sheltered $T_j = 60\text{ C}$ $T_a = 40\text{ C}$ 35 800 hrs Airborne, Inhabited Cargo $T_j = 75\text{ C}$ $T_a = 55\text{ C}$ 26 200 hrs		
Software Drivers	<ul style="list-style-type: none"> VxWorks Linux Windows XP Windows 2000 Legacy 		
Protocols	<ul style="list-style-type: none"> HDLC SDLC Async BiSync 		
Supporting Software	Sample driver usage software (C/C++ source code)		

Environmental Specifications

	Commercial	Ruggedised
Temperature		
- Operating	0 C to +55 C	-15 C to +75 C
- Storage	-40 C to +85 C	-40 C to +85 C
Humidity	0% - 90%	0% - 95%
Shock	N/A	20 g peak for 11 ms
Vibration		
- Sine	2 g (peak) 10 Hz to 100 Hz	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

Designations

CCII/SIO/PCI/8P/COM	Commercial	RS422/485/232
CCII/SIO/PCI/8P/RGD	Ruggedised	RS422/485/232