

## ► 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, bi-directional serial communications. These channels are individually configurable as RS232/422/485 by means of jumpers. The front-panel 8-Channel High-Speed Serial I/O PCI Adapter provides an additional four low-speed UART (Universal Asynchronous Transmitter/Receiver) channels. The adapter is available in Commercial and Industrial versions.

### 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

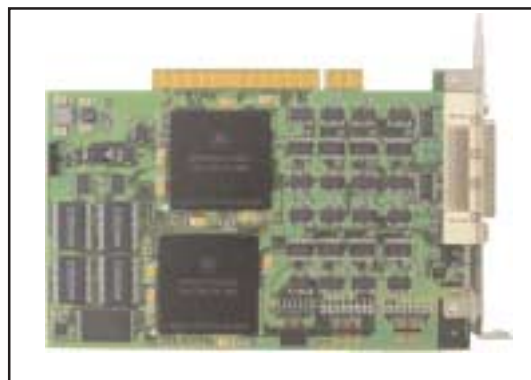
- Cost-effective and flexible option for systems that require both high-speed, real-time communication links as well as some low-speed serial links.
- Offers independent I/O processing offboard the host.

### Applications

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

### Environmental Specifications

	Commercial	Ruggedised
<b>Temperature</b>		
- Operating	0 C to +55 C	-15 C to +75 C
- Storage	-40 C to +85 C	-40 C to +85 C
<b>Humidity</b>	0% - 90%	0% - 95%
<b>Shock</b>	N/A	20 g peak for 11 ms
<b>Vibration</b>		
- Sine	2 g (peak) 10 Hz to 100 Hz	10 g (peak) 5 Hz to 2 kHz
- Random	0,04 g <sup>2</sup> /Hz at 15 Hz to 2 kHz	0,1 g <sup>2</sup> /Hz at 15 Hz to 2 kHz



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

<b>Bus Interface</b>	32-bit, 33/66 MHz PCI-bus Electrically : 3,3 V signaling, PCI Rev. 2.2 Mechanically : Single CMC formfactor IEEE P1386-2001		
<b>Serial Interface</b>	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	
<b>Serial Channels</b>	8 x SCCs (Serial Communication Controllers) for high-speed serial links - Synchronous or asynchronous 4 x SMCs (Serial Management Controllers) for low-speed serial links - Front-panel, asynchronous, RxD and TxD only, no flow control		
<b>CPU</b>	2 x Motorola PowerQUICC II Integrated PowerPC Microprocessors		
<b>EEPROM</b>	EEPROM for board ID (Plug-and-Play) and configuration options		
<b>Bit Rates</b>	<b>User-programmable up to :</b>	<b>RS232 Mode</b>	<b>RS422/485 Mode</b>
	Synchronous Mode	1 Mbps	16 Mbps
	Asynchronous Mode	1 Mbps	6,25 Mbps
<b>Termination</b>	100 R (all ports individually switchable with jumpers) for RS422/485		
<b>I/O Addresses</b>	Automatic assigned to the slot by PCI Rev. 2.2 Plug-and-Play		
<b>I/O Options</b>	Commercial, Industrial : Front-panel and rear connector I/O		
<b>Interrupts</b>	PCI INT A		
<b>DMA</b>	Automatic depending on PCI slot		
<b>Dimensions</b>	Commercial, Industrial : 149,00 mm x 74,00 mm with envelope according to CMC specification		
	Outside Dimensions : 160,00 mm x 75,00 mm x 15,00 mm		
<b>Mass</b>	90 g ± 10 g		
<b>Power Requirement</b>	+3,3 V at 1,3 A		
	+12 V at 1 mA		
<b>MTBF</b>	Figures according to MIL-HDBK-217F, Parts Count Method :		
	Ground, Mobile	T <sub>j</sub> = 65 C	T <sub>a</sub> = 45 C 21 700 hrs
	Naval, Sheltered	T <sub>j</sub> = 60 C	T <sub>a</sub> = 40 C 35 800 hrs
	Airborne, Inhabited Cargo	T <sub>j</sub> = 75 C	T <sub>a</sub> = 55 C 26 200 hrs
<b>Drivers</b>	<ul style="list-style-type: none"> <li>VxWorks V5.5.x</li> <li>Linux – All Linux kernel versions 2.6.x</li> <li>MS-Windows 2000, NT 4.0</li> </ul>		
<b>Protocols</b>	<ul style="list-style-type: none"> <li>HDLC/SDLC</li> <li>HDLC bus (implements an HDLC-based local area network (LAN))</li> <li>Asynchronous HDLC to support PPP (point-to-point protocol)</li> <li>AppleTalk</li> <li>Universal asynchronous receiver transmitter (UART)</li> <li>Synchronous UART</li> <li>Binary synchronous communication (BiSync)</li> <li>Totally transparent (bit streams)</li> <li>Totally transparent (frame based with optional cyclic redundancy check (CRC))</li> </ul>		
<b>Supporting Software</b>	Sample driver usage software (C/C++ source code)		
<b>Options</b>	<ul style="list-style-type: none"> <li>Solaris, QNX, AIX Drivers</li> <li>SS7, ISDN Protocol (Basic Rate and Primary Rate)</li> <li>Ethernet / Fast Ethernet Option</li> </ul>		

### Designations

CCII/SIO/PCI/8P/FP/COM	Commercial	Frontpanel or Backplane I/O	RS422/485/232
CCII/SIO/PCI/8P/FP/IND	Industrial	Frontpanel or Backplane I/O	RS422/485/232