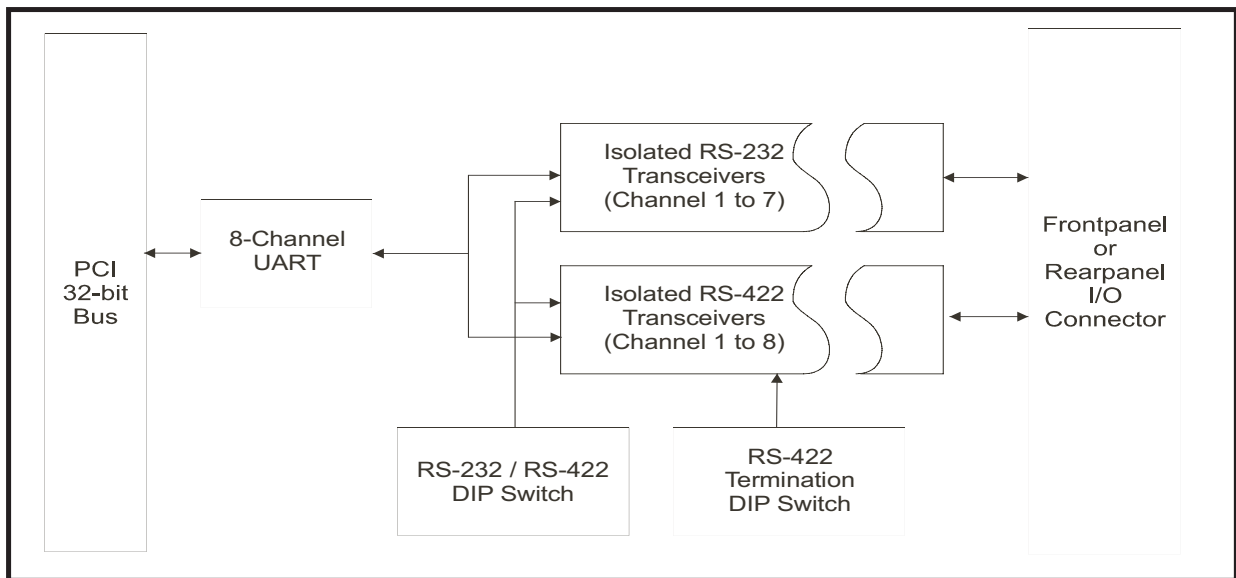


## ► 8-Channel Isolated Serial I/O PMC Adapter

The 8-Channel Serial Input/Output (I/O) PMC Adapter provides eight channels of simultaneous, bidirectional Universal Asynchronous Receiver / Transmitter (UART) serial communications in PMC formfactor. Seven channels are individually configurable as RS-232 or RS-422 by means of a DIP switch. The adapter conforms to the PCI Local Bus Specification Rev. 2.3.

All serial I/O lines have voltage isolation to 2 500 Volts.

A 4-channel version is available as a lower cost option.



**Functional Block Diagram : 8-Channel Isolated Serial I/O PMC Adapter**

### Architecture

The Serial I/O Adapter employ a high performance, industry standard 16550 compatible, 8-channel PCI-based UART. The serial I/O channels are connected to both RS-232 and RS-422 transceivers. The transceivers are enabled or disabled by a configuration Dual In-line Package (DIP) switch.

### Features

- direct low-level control of the serial communication channels
- supports many different combinations of RS-232 and RS-422 communications interfaces simultaneously
- voltage isolation on all serial I/O lines

### Applications

- mission-critical I/O
- intrinsically safe environments



## ► 8-Channel Isolated Serial I/O PMC Adapter

<b>Bus Interface</b>	32-bit, 33/66 MHz Electrically : PCI Rev. 2.3; 3,3 V PCI signalling, 5 V tolerant		
<b>I/O Addresses</b>	Automatically assigned to the slot by PCI Rev. 2.2 Plug-and-Play		
<b>Interrupts</b>	PCI INT A		
<b>Termination</b>	120 Ohm for RS-422 for each serial I/O channel		
<b>Voltage Isolation</b>	2 500 V (channel to PMC at Relative Humidity < 50%)		
<b>Communications Controller</b>	EXAR XR17D158 Octal PCI UART		
<b>Power</b>	3,3 V at < 1,0 A 3,3 W (typical) 3,3 V at < 1,5 A 5,0 W (maximum)		
<b>Serial I/O Interfaces</b>	Channels 1 to 7	RS-232 : TxD, RxD, RTS, CTS RS-422 : TxD+, TxD-, RxD+, RxD-	
	Channel 8	RS-422 : TxD+, TxD-, RxD+, RxD-	
<b>Bit Rates</b>	<b>Serial I/O Clocking Mode</b>	<b>RS-232</b>	<b>RS-422</b>
	Asynchronous	921,6 kbit/s	1,8432 Mbit/s (up to 6,25 Mbit/s with custom oscillator)
<b>MTBF</b>	Figures according to MIL-HDBK-217F, Parts Stress Method		
	Commercial and Industrial Grades	Ground Benign, Controlled, 25 C	350 000 hours
	Ruggedised Grade	Ground, Mobile, 45 C Naval, Sheltered, 40 C Airborne, Inhabited Cargo, 55 C	30 000 hours 60 000 hours 50 000 hours
<b>Software Drivers</b>	VxWorks, Linux, Windows 7		
<b>Physical Characteristics</b>			
	<b>Formfactor</b>	<b>Dimensions</b>	<b>Mass</b>
	PMC (IEEE Std 1386.1-2001)	149,00 mm x 79,00 mm, conforming to CMC envelope	90 g +/- 10 g
	CCPMC (ANSI / VITA 20-2001)	143,65 mm x 79,00 mm, conforming to CMC envelope	80 g +/- 5 g
<b>Connector/Cable Assemblies</b>			
<p>Optional connector / cable assemblies available in 0,5; 1,0; 2,0; 3,0 metre or custom cable lengths.            Board-side connectors are two Tyco 50-pin connectors.            Terminal equipment side connectors are D-type 9-pin connectors.            Backplane I/O on PMC Jn4 connector for Conduction-Cooled version.</p>			

8-Channel Isolated Serial I/O PMC Adapter

Board-Level



## 8-Channel Isolated Serial I/O PMC Adapter

Environmental Specifications				
	Commercial	Industrial	Ruggedised / Conduction-Cooled	
<b>Temperature</b> - Operating - Storage	0 C to +55 C -40 C to +85 C	-15 C to +75 C -40 C to +85 C	-40 C to + 85 C -55 C to +125 C	
<b>Humidity</b>	0% - 90%	0% - 95%	0% - 95%	
<b>Shock</b>	10 g peak for 11 ms	20 g peak for 11 ms	40 g peak for 11 ms	
<b>Vibration</b> - Sine - Random	2 g (peak) at 10 Hz to 100 Hz 0,04 g <sup>2</sup> /Hz at 15 Hz to 2 kHz	5 g (peak) at 5 Hz to 2 kHz 0,06 g <sup>2</sup> /Hz at 15 Hz to 2 kHz	10 g (peak) at 5 Hz to 2 kHz 0,1 g <sup>2</sup> /Hz at 15 Hz to 2 kHz	
Part Selector				
Part Designation	Formfactor	Cooling Type	Grade	Serial I/O Channels
CCII/ISIO/PMC/4PU/FP/COM	PMC	Air	Commercial	4 total
CCII/ISIO/PMC/4PU/FP/IND	PMC	Air	Industrial	4 total
CCII/ISIO/PMC/4PU/FP/RGD	PMC	Air	Ruggedised	4 total
CCII/ISIO/PMC/4PU/BP/CC	CCPMC	Conduction	Ruggedised	4 total
CCII/ISIO/PMC/8PU/FP/COM	PMC	Air	Commercial	8 total
CCII/ISIO/PMC/8PU/FP/IND	PMC	Air	Industrial	8 total
CCII/ISIO/PMC/8PU/FP/RGD	PMC	Air	Ruggedised	8 total
CCII/ISIO/PMC/8PU/BP/CC	CCPMC	Conduction	Ruggedised	8 total

Board-Level 8-Channel Isolated Serial I/O