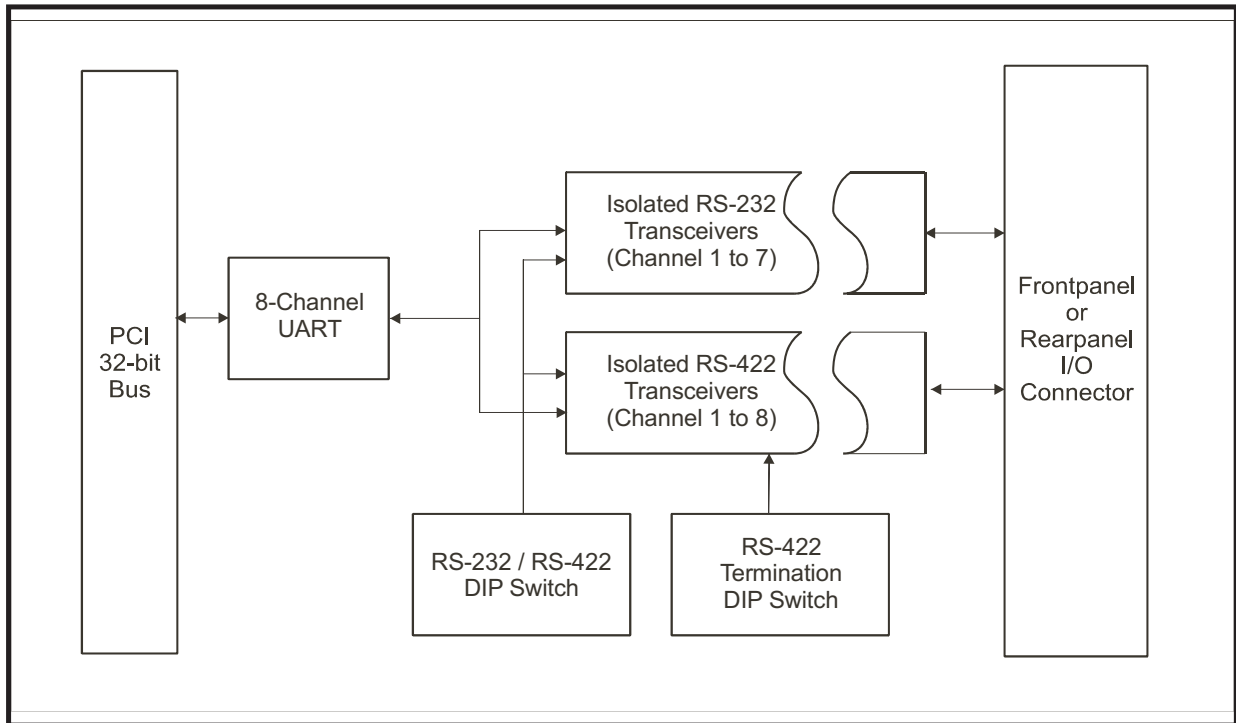


► 8-Channel Isolated Serial Input / Output PMC Adapter

The 8-Channel Serial Input / Output (I/O) PMC Adapter provides four channels of simultaneous, bidirectional Universal Asynchronous Receiver / Transmitter (UART) serial communications on a PMC formfactor. All 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



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Bus Interface	32-bit, 33/66 MHz Electrically : PCI Rev. 2.3; 3,3 V PCI signalling, 5 V tolerant		
I/O Addresses	Automatically assigned to the slot by PCI Rev. 2.2 Plug-and-Play		
Interrupts	PCI INT A		
Termination	120 Ohm for RS-422 for each serial I/O channel		
Voltage Isolation	2 500 V (channel to PMC)		
Communications Controller	EXAR XR17D158 Octal PCI UART		
Power	3,3 V at < 1,0 A 3,3 W (typical) 3,3 V at < 1,5 A 5,0 W (maximum)		
Serial I/O Interfaces	Channels 1 to 4 : RS-232 : TxD, RxD, RTS, CTS, DTR, DSR, CD, RI Channels 5 to 8 : RS-422 : TxD+, RxD+, TxD-, RxD-		
Bit Rates	Serial I/O Clocking Mode	RS-232	RS-422/485
	Asynchronous	921,6 kbit/s	1,8432 Mbit/s (up to 4 Mbit/s with custom oscillator)
MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method		
	Commercial Grade	Ground Benign, Controlled, 25 C	350 000 hours
	Industrial Grade	Ground Benign, Controlled, 25 C	250 000 hours
	Ruggedised Grade	Ground, Mobile, 45 C	30 000 hours
		Naval, Sheltered, 40 C	60 000 hours
Airborne, Inhabited Cargo, 55 C		50 000 hours	
Ruggedised Grade	Ground, Mobile, 45 C Naval, Sheltered, 40 C Airborne, Inhabited Cargo, 55 C	20 000 hours 35 000 hours 30 000 hours	
Software Drivers	VxWorks, Linux, Windows 7		
Physical Characteristics			
Formfactor	Dimensions		Mass
PMC (IEEE Std 1386.1-2001)	149,00 mm x 74,00 mm (+0,0 / -0,5 mm), conforming to CMC envelope		90 g +/- 10 g
CCPMC (ANSI / VITA 20-2001)	143,75 mm x 74,00 mm (+0,0 / -0,5 mm), conforming to CMC envelope		80 g +/- 5 g
Connector/Cable Assemblies			
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.			

8-Channel Isolated Serial I/O PMC Adapter

Board-Level



8-Channel Isolated Serial Input / Output PMC Adapter

Environmental Specifications				
	Commercial	Industrial	Ruggedised / Conduction-Cooled	
Temperature - 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	
Humidity	0% - 90%	0% - 95%	0% - 95%	
Shock	10 g peak for 11 ms	20 g peak for 11 ms	40 g peak for 11 ms	
Vibration - Sine - Random	2 g (peak) at 10 Hz to 100 Hz 0,04 g²/Hz at 15 Hz to 2 kHz	5 g (peak) at 5 Hz to 2 kHz 0,06 g²/Hz at 15 Hz to 2 kHz	10 g (peak) at 5 Hz to 2 kHz 0,1 g²/Hz at 15 Hz to 2 kHz	
Part Selector				
Part Designation	Formfactor	Grade	No. of Serial I/O Channels	Product Status
CCII/ISIO/PMC/4PU/FP/COM	PMC	Commercial	4 total	On Request
CCII/ISIO/PMC/4PU/FP/IND	PMC	Industrial	4 total	On Request
CCII/ISIO/PMC/4PU/FP/RGD	PMC	Ruggedised	4 total	On Request
CCII/ISIO/PMC/4PU/BP/CC	CCPMC	Conduction-Cooled	4 total	On Request
CCII/ISIO/PMC/8PU/FP/COM	PMC	Commercial	8 total	On Request
CCII/ISIO/PMC/8PU/FP/IND	PMC	Industrial	8 total	On Request
CCII/ISIO/PMC/8PU/FP/RGD	PMC	Ruggedised	8 total	On Request
CCII/ISIO/PMC/8PU/BP/CC	CCPMC	Conduction-Cooled	8 total	On Request

8-Channel Isolated Serial I/O PMC Adapter

Board-Level