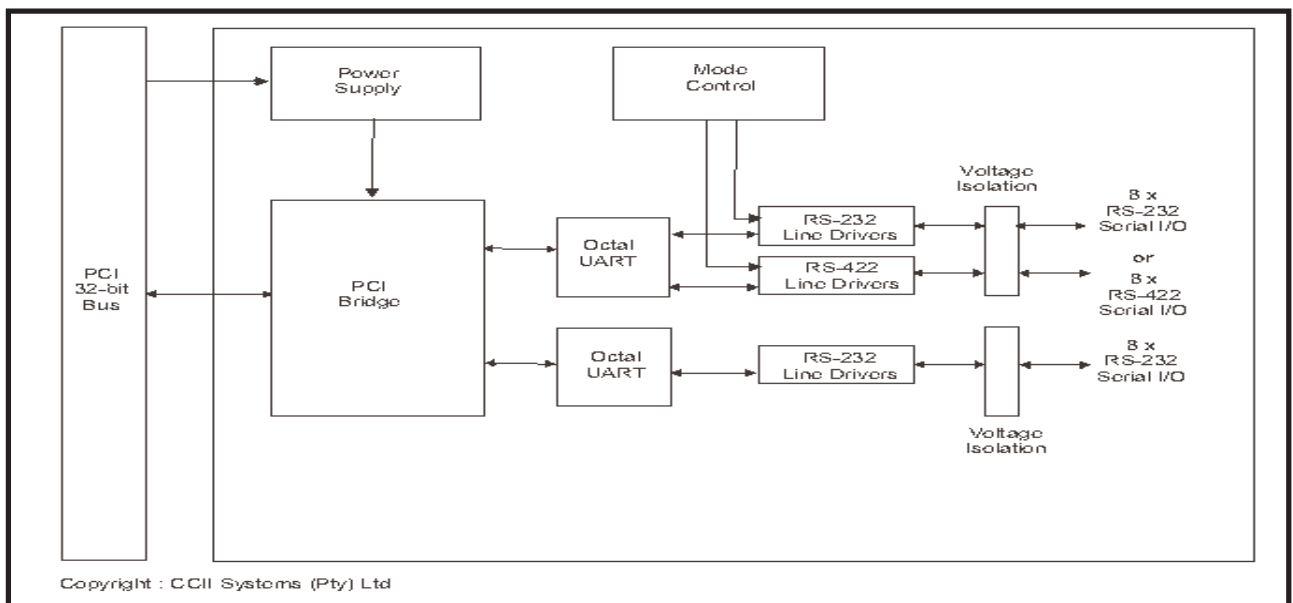


► 16-Channel Serial I/O Voltage Isolated 3U CompactPCI Board

The 16-Channel Serial I/O 3UCompactPCI Board provides sixteen channels of simultaneous, bidirectional UART (Universal Asynchronous Receiver/Transmitter) serial communications on a CompactPCI formfactor. Eight of these channels are individually configurable as RS-232 or RS-422 by means of a DIP switch. The other eight RS-232 channels offer full modem control. The board conforms to the PCI Local Bus Specification Rev. 2.3.

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

The adapter is available in with a 6U CompactPCI formfactor bezel as well as with 8 channels, the latter so as to offer a lower cost version.



Functional Block Diagram : 16-Channel Serial I/O Voltage Isolated CompactPCI Board

Architecture

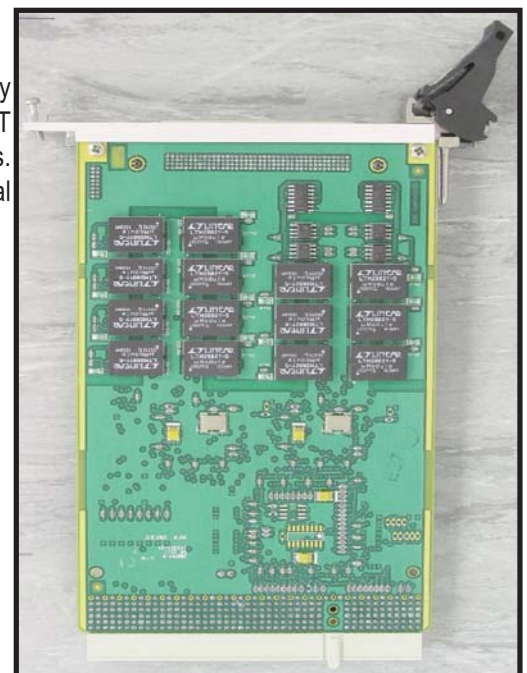
The Serial I/O Adapter employs two high performance, industry standard 16550 compatible, 8-channel PCI-based UARTs. The UART serial channels are connected to both RS-232 and RS-422 transceivers. The transceivers are enabled or disabled by a configuration DIP (Dual In-line Package) switch.

Features

- very large number of UART compatible serial I/O links
- direct low-level control of the serial communication links
- supports many different combinations of RS-232 and RS-422 communications interfaces simultaneously

Applications

- Data Concentrators
- Communications Servers
- Remote Access Servers



**16-Channel Serial I/O Voltage Isolated
3U CompactPCI Board**



▶ 16-Channel Serial I/O Voltage Isolated 3U CompactPCI Board

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	Switch selectable, typically PCI INT A and PCI INT B		
Termination	120 Ohm for RS-422 for each serial I/O channel		
Voltage Isolation	2 500 V on each I/O line		
Communications Controller	2 x EXAR XR17D158 Octal PCI UARTs		
Power	5 V at < 1,0 A 5,0 W (typical) 5 V at < 1,5 A 7,5 W (maximum)		
Serial I/O Interfaces	Channels 1 to 8 : RS-232 : TxD, RxD, RTS, CTS, DTR, DSR, CD, RI Channels 9 to 16 : RS-232 : TxD, RxD, RTS, CTS Channels 9 to 16 : RS-422 : TxD+, RxD+, TxD-, RxD-		
Bit Rates	Serial I/O Clocking Mode	RS-232	RS-422/485
	Asynchronous	1 Mbps	6,25 Mbps
MTBF	Figures according to MIL-HDBK-217F, Parts Stress Method		
	Commercial and Industrial Grades, 8-Channel	Ground Benign, Controlled, 25 C	350 000 hours
	Commercial and Industrial Grades, 16-Channel	Ground Benign, Controlled, 25 C	250 000 hours
	Ruggedised Grade, 8-Channel	Ground, Mobile, 45 C	30 000 hours
		Naval, Sheltered, 40 C	60 000 hours
Airborne, Inhabited Cargo, 55 C		50 000 hours	
Ruggedised Grade, 16-Channel	Ground, Mobile, 45 C	20 000 hours	
	Naval, Sheltered, 40 C	35 000 hours	
	Airborne, Inhabited Cargo, 55 C	30 000 hours	
Software Drivers	Not required for most Operating Systems, UARTs are 16C550 compatible.		
Physical Characteristics			
	Formfactor	Dimensions	Mass
Compact PCI (cPCI)	: 3U	100 mm x 160 mm	150 g ± 30 g
	: 6U	233 mm x 160 mm	300 g ± 60 g
Connector/Cable Assemblies			
Optional 8-way or 16-way connector/cable assemblies available in 0,5; 1,0; 2,0 metre or custom cable lengths. Board-side connector is 160-pin Molex connector with custom moulded hood. Screw-down board-side connector option available for industrial and ruggedised grades. Terminal equipment side connectors are D-type 15-pin connectors.			

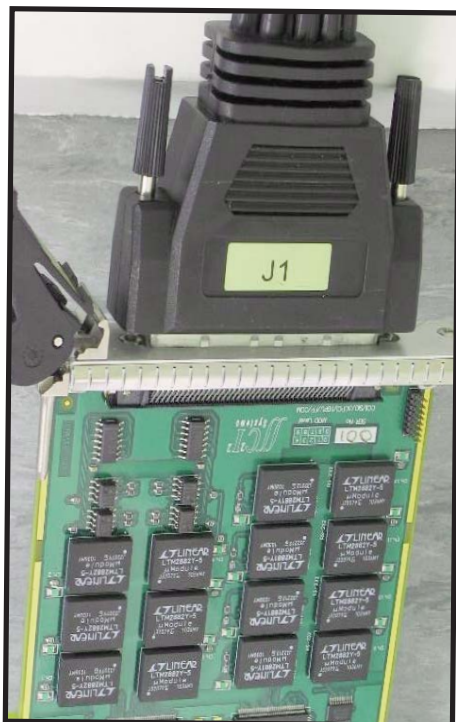
16-Channel Serial I/O Voltage Isolated 3U CompactPCI Board

Environmental Specifications

	Commercial	Industrial	Ruggedised
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	10 g peak for 11 ms	20 g peak for 11 ms	40 g peak for 11 ms
Vibration			
- Sine	2 g (peak) at 10 Hz to 100 Hz	5 g (peak) at 5 Hz to 2 kHz	10 g (peak) at 5 Hz to 2 kHz
- Random	0,04 g ² /Hz at 15 Hz to 2 kHz	0,06 g ² /Hz at 15 Hz to 2 kHz	0,1 g ² /Hz at 15 Hz to 2 kHz

Part Selector

Part Designation	Formfactor	Grade	No. of Serial I/O Channels	Product Status
CCII/SIO/3CPCI/8PU/FP/COM	3U cPCI	Commercial	8 total	Production
CCII/SIO/3CPCI/8PU/FP/IND	3U cPCI	Industrial	8 total	Production
CCII/SIO/3CPCI/8PU/FP/RGD	3U cPCI	Ruggedised	8 total	On Request
CCII/SIO/3CPCI/16PU/FP/COM	3U cPCI	Commercial	16 total	Production
CCII/SIO/3CPCI/16PU/FP/IND	3U cPCI	Industrial	16 total	Production
CCII/SIO/3CPCI/16PU/FP/RGD	3U cPCI	Ruggedised	16 total	On Request



16-Channel Serial I/O Voltage Isolated 3U CompactPCI Board

with
Captive I/O Connector