

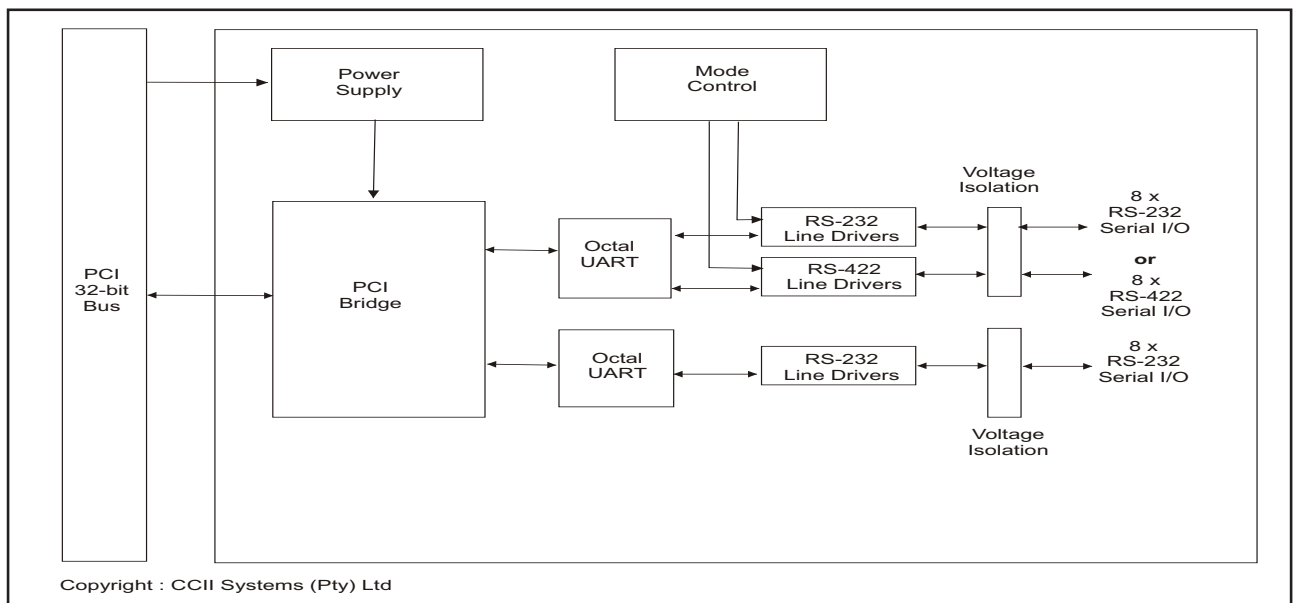
## ► 16-Channel Serial I/O Board

The 16-Channel Serial I/O Adapter provides sixteen channels of simultaneous, bidirectional UART (Universal Asynchronous Receiver/Transmitter) serial communications on a CompactPCI formfactor board. 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 the following industry standard compliant formfactors :

- 3U cPCI
- 6U cPCI



### 16-Channel Serial I/O 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 onboard programmable logic, according to a user specified code which is entered into a configuration DIP (Dual In-line Package) switch.

#### Features

- Cost-effective option for systems that require a very large number of UART compatible serial I/O links
- Allows direct low-level control of the serial communication links
- The adapter can implement many different combinations of RS-232 and RS-422 communications interfaces simultaneously

#### Applications

- Distributed real-time applications in harsh environments
- Avionics
- Communications Servers
- Remote Access Servers
- Mission-critical applications

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### Specifications

<b>Bus Interface</b>	32-bit, 66 MHz Electrically : PCI Rev. 2.3; 3,3 V and 5,0 V signalling		
<b>I/O Addresses</b>	Automatic assigned to the slot by PCI Rev. 2.3 Plug-and-Play		
<b>Interrupts</b>	Jumper selectable PCI INT A to D		
<b>Serial I/O Interfaces</b>	Channels 1 to 8 : RS-232 TxD, RxD, RTS, CTS, DTR, DSR, CD, RI		
	Channels 9 to 16 : RS-232 TxD, RxD, RTS, CTS RS-422 TxD+, TxD-, RxD+, RxD-		
<b>Termination</b>	100 Ohm (individually selectable for each RS-422 channel)		
<b>Voltage Isolation</b>	2 500 Volt isolation on each I/O line		
<b>Bit Rates</b>	<b>RS-232</b>	<b>RS-422</b>	
	Standard rates up to :	1 Mbps	6,25 Mbps
<b>UART ASIC</b>	2 x EXAR XR17D158 Octal PCI UART		
<b>Physical</b>	<b>Formfactor</b>	<b>Dimensions</b>	<b>Mass</b>
	Compact PCI (cPCI) : 3U : 6U	100 mm x 160 mm 233 mm x 160 mm	150 g ± 30 g 300 g ± 60 g
<b>Power</b>	5,0 V at 1,0 A; 5,0 W typical 5,0 V at 1,5 A; 7,5 W maximum		
<b>MTBF</b>	Figures according to MIL-HDBK-217F, Parts Stress Method :		
	Ground, Mobile	T <sub>j</sub> = 65 C	20 000 hours
	Naval, Sheltered	T <sub>j</sub> = 60 C	35 000 hours
	Airborne, Inhabited Cargo	T <sub>j</sub> = 75 C	30 000 hours
<b>Software Drivers</b>	Compatible with industry-standard 16550 UART. No specific software driver required for most Operating Systems. VxWorks source code to locate the device in PCI space is supplied as an example.		
<b>Supporting Software</b>	Sample software driver usage (C/C++ source code).		

### Part Designations

Part Number	Formfactor	Grade	Serial I/O Channels	Product Status
CCII/SIO/3CPCI/16PU/FP/COM	3U cPCI	Commercial	8 x RS-232/422, 8 x RS-232	Development
CCII/SIO/3CPCI/16PU/FP/IND	3U cPCI	Industrial	8 x RS-232/422, 8 x RS-232	Development
CCII/SIO/3CPCI/16PU/FP/RGD	3U cPCI	Ruggedised	8 x RS-232/422, 8 x RS-232	Development
CCII/SIO/6CPCI/16PU/FP/COM	6U cPCI	Commercial	8 x RS-232/422, 8 x RS-232	Development
CCII/SIO/6CPCI/16PU/FP/IND	6U cPCI	Industrial	8 x RS-232/422, 8 x RS-232	Development
CCII/SIO/6CPCI/16PU/FP/RGD	6U cPCI	Ruggedised	8 x RS-232/422, 8 x RS-232	Development