SBS Technologies, Inc.

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PMC-Octal Pro-232

PMC Module with Eight RS-232 UART channels with FIFO

Application Information

The PMC-Octal Pro-232 conveniently provides eight high performance asynchronous EIA-232 serial channels. A similar product, the PCM-Octal Pro-422, provides eight channels of EIA-422. The PMC-Octal Pro-232 features two Quad UARTs, with 128 bytes of transmit FIFO and 128 bytes of receive FIFO per channel. Up to 115.2 kbps is supported.

Each channel of RS-232 has six serial signals – TxD, RxD, CTS, RTS, DSR, and DTR. All signals are routed to the front 68-pin connector, as well as the PMC back panel (P4) I/O connector. A breakout cable and a 68-pin terminal block is available for convenient signal access. These are recommended for prototype development.

A 7.3728 MHz standard oscillator is used to provide standard asynchronous baud rates. Baud rate is software configurable from 50 bps to 460.8 kbps, via the on-board programmable baud rate generator. An empty oscillator site is also available on-board, for custom baud rate generation. Interrupts are fully supported with four programmable transmit/receive FIFO interrupt trigger levels. In addition, programmable bit length, parity and stop bits are provided to support all asynchronous protocols.

The module is compliant with standard PMC specifications IEEE P1386.1.

Windows, LynxOS, and VxWorks drivers are available.

Features

- PMC with eight EIA-232 asynchronous serial channels
- Data rates to 115.2 kbps
- I/O via front panel and back panel (P4) connectors
- Onboard 7.3728 MHz crystal
- Six signals for each port: TxD, RxD, CTS, RTS, DSR, and DTR
- 128-byte FIFOs for receive and transmit on each channel
- Programmable stop bits
- Comprehensive interrupts

Specifications

Form Factor	PMC
PCI Conformance	PCI Specification, Revision 2.1, 32-bit, 33 MHz, slave only
PCI Bus Interface	Altera EPF6016
Number of channels	Eight
Protocol Support	Asynchronous UART
Maximum data rate	115.2 kbps
Serial Port Interface	EIA-232
Signals Supported	TxD, RxD, CTS, RTS, DSR, DTR
Stop Bits	Programmable to 1, 1.5 or 2
FIFOs	Receiver: 128 bytes per channel Transmitter: 128 bytes per channel
Serial UART Controller	Exar XR16C854
On-board Oscillator	7.3728 MHz to support standard data rates
Physical Interface	Texas Instruments 75C188, 75C189
I/O Access	Front panel: 68-pin high density female connector Back panel: 64-pin PMC P4 connector
Weight	0.1 kg (0.22 lb)
Dimensions	75 mm x 150 mm
Power Requirements	+5 VDC, 105 mA typ +12VDC, 45 mA typ -12VDC, 70 mA typ
Environmental	Operating temperature: 0 to 70°C Humidity: 5 to 95% non-condensing Storage: –40 to +85°C

Ordering Information

PMC-OCTPR-232	PMC with eight EIA-232 Serial UART channels
EKPMC-OCTPRO-232	Engineering kit for PMC-Octal Pro-232. Includes: Printed hardware user manual Six foot transition cable HD68 to eight DB25 male (C-HD68M-8D25M) DB25 to DB9 adapter (A-D9M-D25F) DB25 Null modem (NULL-MODEM) Bill of materials Circuit schematic Assembly diagram Exar XR16C854 data sheets Texas Instruments TI75C188 and 75C189 data sheets
VD-PMC-OCTPRO	VxWorks 5.3 asynchronous driver for PMC-Octal Pro, P-Octal. Floppy disk includes: Driver software source code License agreement
ND-PMC-OCTPR232	Windows NT 4.0 driver for PMC-Octal Pro-232. Floppy disk containing: Windows installation program Installation instructions Driver software license agreement
LD-PMC-OCTPR232	LynxOS 3.0.1 asynchronous driver for PMC-OctalPro-232 Includes: Printed license agreement Floppy Disk containing: Driver source code Installation instructions License agreement in text form

Associated Products

PMC-OCTPR-422	PMC with eight EIA-422 Serial UART channels
C-HD68M-8D25M	Six foot transition cable from HD68 male to eight DB25 male. Connects PMC-Octal Pro-232 using standard pin assignments for EIA-232
C-HD68M-HD68M	Six foot transition cable from HD68 male to HD68 male. Connects PMC-Octal Pro to terminal block IP-TERM-HD68
IP-TERM-HD68	68-pin screw terminal block with HD68 female connector
A-D9M-D25F	DB25 to DB9 serial port adapter
NULL-MODEM	DB25 serial port NULL modem adapter

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