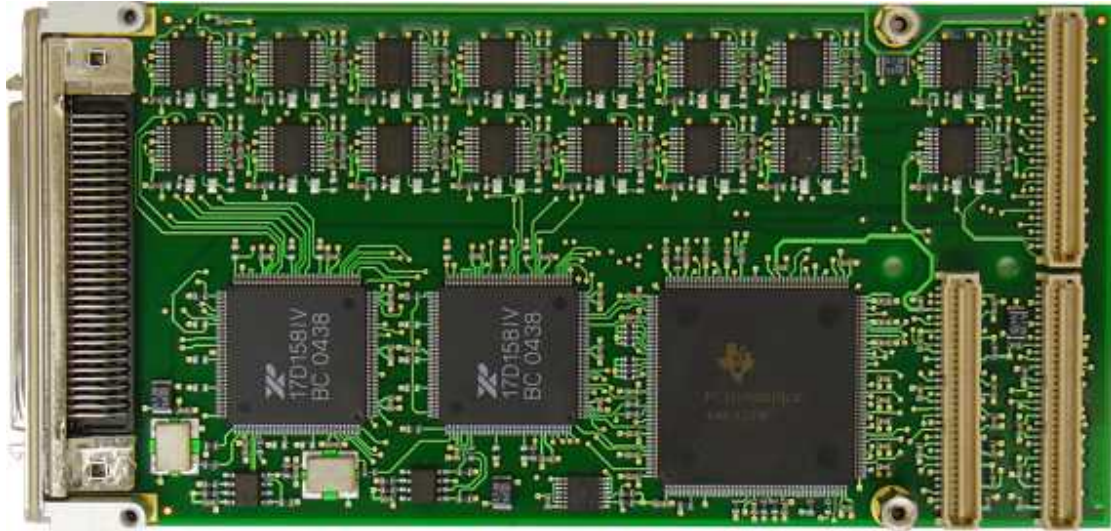


TPMC460 16 Channel Serial Interface RS232/RS422



TPMC460-10R

Application Information

The TPMC460 is a standard single-width 32 bit PMC module and offers 16 channels of high performance asynchronous serial interface.

Five different standard modules are available: The TPMC460-10R provides 16 RS232 interfaces. The TPMC460-11R provides 16 RS422 interfaces. The TPMC460-12R provides 8 RS232 and 8 RS422 interfaces. The TPMC460-13R provides 12 RS232 and 4 RS422 interfaces. The TPMC460-14R provides 4 RS232 and 12 RS422 interfaces.

Other configurations are available as factory option on a per channel basis.

All modules offer front panel I/O with a HD68 connector and P14 I/O. Each RS232 channel supports Rx/D, Tx/D, RTS and CTS. Each RS422 supports Rx/D+/- and Tx/D+/-.

A transparent 32 bit / 66 MHz PCI-to-PCI Bridge provides access to the two Exar XR17D158 octal PCI-UARTs. The PCI-to-PCI Bridge allows 32 bit accesses on the local PCI bus and permits the high data throughput necessary for the high performance serial interfaces.

Each channel has 64 byte transmit and receive FIFOs to significantly reduce the overhead required to provide data to and get data from the transmitters and receivers. The FIFO trigger levels are programmable and the baud rate is individually programmable up to 921.6 kbps for RS232 channels and 5.5296 Mbps for RS422 channels. The UART offers readable FIFO levels.

Interrupts are supported. For fast interrupt source detection each octal UART provides a special Global Interrupt Source Register.

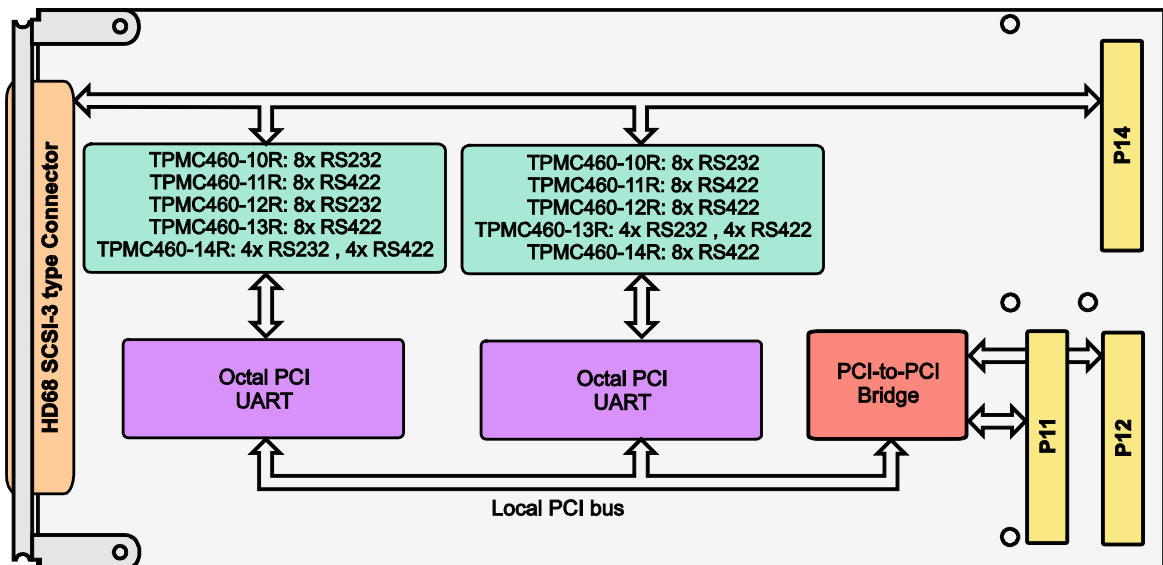
All serial channels use ESD protected transceivers up to $\pm 15\text{KV}$ according to IEC 1000-4-2.

The TPMC460 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

Software Support (TDRV002-SW-xx) for different operating systems is available.

Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- Board size: 149 mm x 74 mm
- Asynchronous serial interface
- PCI-to-PCI Bridge
 - PCI2050b
 - PCI I/O signaling voltage 5V and 3.3V
 - 32 bit / 66 MHz
- UARTs:
 - XR17D158 Octal UART (Exar)
 - PCI 2.2 compliant interface
 - 32 bit / 33 MHz
 - 64 byte transmit FIFO per channel
 - 64 byte receive FIFO per channel
- Readable FIFO levels
- Global Interrupt Source Register
- General Purpose 16 bit Timer/Counter
- Support of RxD, TxD, RTS and CTS for each RS232 channel and RxD+/- and TxD+/- for each RS422 channel of the TPMC460
- Programmable baud rates:
 - RS232: up to 921.6 kbps
 - RS422: up to 5.5296 Mbps
- ESD protected transceiver (up to $\pm 15\text{KV}$ according to IEC 1000-4-2)
- Operating temperature -40° to $+85^{\circ}$



Order Information**RoHS Compliant**

TPMC460-10R	16 Channel Serial RS232, HD68
TPMC460-11R	16 Channel Serial RS422, HD68
TPMC460-12R	8 Channel Serial RS232, 8 Channel Serial RS422, HD68
TPMC460-13R	12 Channel Serial RS232, 4 Channel Serial RS422, HD68
TPMC460-14R	4 Channel Serial RS232, 12 Channel Serial RS422, HD68

Other configurations are available as factory option on a per channel base.

For the availability of non-RoHS compliant (lead solder) products please contact TEWS.

Documentation

TPMC460-DOC	User Manual
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Software

TDRV002-SW-25	Integrity Software Support
TDRV002-SW-42	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TDRV002-SW-65	Windows Software Support
TDRV002-SW-82	Linux Software Support
TDRV002-SW-95	QNX Software Support

For other operating systems please contact TEWS.

Related Products

TA304	Cable Kit for Modules with HD68 Connector
TPIM003	PIM I/O Module, HD68 connector, special pin assignment