

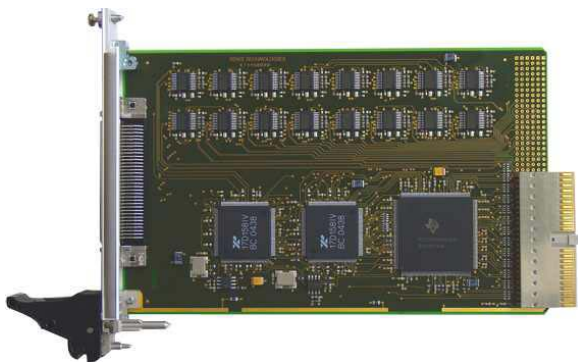
TCP460 16 Channel Serial Interface RS232/RS422

Application Information

The TCP460 is a standard 3U 32 bit CompactPCI module and offers 16 channels of high performance serial interface.

Five different standard modules are available: The TCP460-10 provides 16 RS232 interfaces. The TCP460-11 provides 16 RS422 interfaces. The TCP460-12 provides 8 RS232 and 8 RS422 interfaces. The TCP460-13 provides 12 RS232 and 4 RS422 interfaces. The TCP460-14 provides 4 RS232 and 12 RS422 interfaces.

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



TCP460-10

All modules offer front panel I/O with a HD68 connector. The TCP460-2x modules offer additional J2 rear 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 ±15KV according to IEC 1000-4-2.

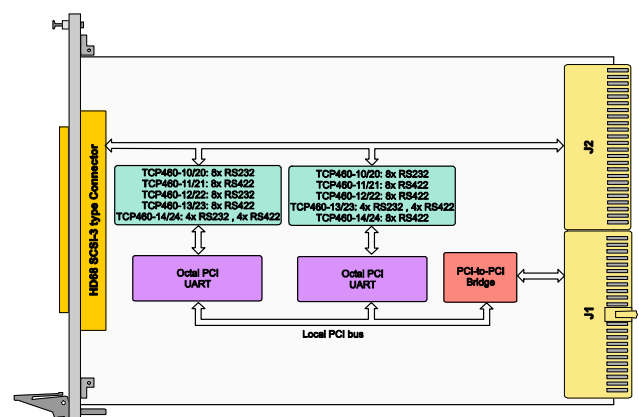
The TCP460 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

For First-Time-Buyers the engineering documentation TCP460-ED is recommended. The engineering documentation includes TCP460-DOC, schematics and data sheets of TCP460.

Driver support (TCP460-SW-xx) for different operating systems is available.

Technical Information

- Standard 3U 32 Bit CompactPCI module conforming to PICMG 2.0 R3.0
- Board size: 160 mm x 100 mm
- 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 Rx/D, Tx/D, RTS and CTS for each RS232 channel and Rx/D+/- and Tx/D+/- for each RS422 channel of the TCP460
- Programmable baud rates:
 - RS232: up to 921.6 kbps
 - RS422: up to 5.5296 Mbps
- ESD protected transceiver (up to ± 15KV according to IEC 1000-4-2)
- Operating temperature -40° to +85°



Order Information

TCP460-10	16 Channel Serial RS232, front panel I/O	TCP460-24	4 Channel Serial RS232, 12 Channel Serial RS422, front panel and J2 I/O
TCP460-10R	RoHS compliant version of TCP460-10	TCP460-24R	RoHS compliant version of TCP460-24
TCP460-11	16 Channel Serial RS422, front panel I/O		
TCP460-11R	RoHS compliant version of TCP460-11		Other configurations are available as factory option on a per channel base.
TCP460-12	8 Channel Serial RS232, 8 Channel Serial RS422, front panel I/O	TCP460-DOC	User Manual
TCP460-12R	RoHS compliant version of TCP460-12	TCP460-ED	Engineering documentation (TCP460-DOC, Schematics, Assembly Drawing, Data Sheets)
TCP460-13	12 Channel Serial RS232, 4 Channel Serial RS422, front panel I/O		
TCP460-13R	RoHS compliant version of TCP460-13	TA304-10	Cable Kit for modules with HD68 SCSI-3 type connector
TCP460-14	4 Channel Serial RS232, 12 Channel Serial RS422, front panel I/O	TA304-10R	RoHS compliant version of TA304-10
TCP460-14R	RoHS compliant version of TCP460-14		
TCP460-20	16 Channel Serial RS232, front panel and J2 I/O	TCP001-FP-10	6U front panel extension for 3U cPCI boards
TCP460-20R	RoHS compliant version of TCP460-20		
TCP460-21	16 Channel Serial RS422, front panel and J2 I/O	TDRV002-SW-42	VxWorks Software Support
TCP460-21R	RoHS compliant version of TCP460-21	TDRV002-SW-65	Windows XP/XPE/2000 Software Support
TCP460-22	8 Channel Serial RS232, 8 Channel Serial RS422, front panel and J2 I/O	TDRV002-SW-72	LynxOS Software Support
TCP460-22R	RoHS compliant version of TCP460-22	TDRV002-SW-82	LiNux Software Support
TCP460-23	12 Channel Serial RS232, 4 Channel Serial RS422, front panel and J2 I/O	TDRV002-SW-95	QNX 6 Software Support
TCP460-23R	RoHS compliant version of TCP460-23		

For other operating systems please contact TEWS.

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