

TCP463 4 Channel Serial Interface RS232/RS422

Application Information

The TCP463 is a standard 3U 32 bit CompactPCI module and offers 4 channels of high performance asynchronous serial interface.

Three different standard modules are available: The TCP463-10x provides 4 RS232 interfaces. The TCP463-11x provides 4 RS422 interfaces. The TCP463-12x provides 2 RS232 and 2 RS422 interfaces.

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



All modules offer front panel I/O with four RJ45 connectors. The TCP463-2x modules offer additional J2 rear I/O. Each RS232 channel supports Tx/D, Rx/D, CTS, RTS, DTR, CD, DSR/RI and GND. Each RS422 channel supports Rx/D+/-, Tx/D+/- and GND.

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.

All channels generate interrupts on CompactPCI interrupt INTA. For fast interrupt source detection the UART provides a special Global Interrupt Source Register.

All serial channels use ESD protected transceivers up to ±15KV.

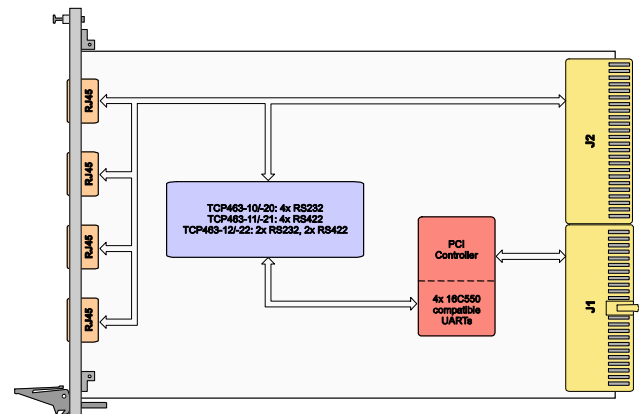
The TCP463 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

For First-Time-Buyers the Engineering Documentation TCP463-ED is recommended. The Engineering Documentation includes TCP463-DOC, schematics and data sheets of TCP463.

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

Technical Information

- Standard 3U 32 Bit CompactPCI module conforming to PICMG 2.0 R3.0
 - Target Chip: XR17D154 (Exar)
 - PCI 2.3 compliant interface
 - PCI I/O signaling voltage 5V and 3.3V
- Board size: 160 mm x 100 mm
- Asynchronous serial interface
- Quad UART: Exar XR17D154
- Support of Rx/D, Tx/D, RTS, CTS, DTR, DCD, DSR/RI and GND for each RS232 channel; Rx/D+/-, Tx/D+/- and GND for each RS422 channel.
- Programmable baud rates:
 - RS232: up to 921.6 kbps
 - RS422: up to 5.5296 Mbps
- 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
- ESD protected transceiver (up to ± 15KV)
- Operating temperature -40°C to +85°C



The Embedded I/O Company

Order Information

RoHS Compliant

TCP463-10R	4 Channel Serial RS232, front panel I/O
TCP463-11R	4 Channel Serial RS422, front panel I/O
TCP463-12R	2 Channel Serial RS232, 2 Channel
TCP463-20R	4 Channel Serial RS232, front panel and J2 I/O Serial RS422, front panel I/O
TCP463-21R	4 Channel Serial RS422, front panel and J2 I/O
TCP463-22R	2 Channel Serial RS232, 2 Channel Serial RS422, front panel and J2 I/O

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

None RoHS Compliant

TCP463-10	None RoHS compliant version of TCP463-10R
TCP463-11	None RoHS compliant version of TCP463-11R
TCP463-12	None RoHS compliant version of TCP463-12R
TCP463-20	None RoHS compliant version of TCP463-20R
TCP463-21	None RoHS compliant version of TCP463-21R
TCP463-22	None RoHS compliant version of TCP463-22R

Documentation

TCP463-DOC	User Manual
TCP463-ED	Engineering Documentation (TCP463-DOC, Schematics, Assembly Drawing, Data Sheets)

Software

TDRV002-SW-25	Integrity Software Support
TDRV002-SW-42	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TDRV002-SW-65	Windows XP/XPE/2000 Software Support
TDRV002-SW-72	LynxOS Software Support
TDRV002-SW-82	LiNIX Software Support
TDRV002-SW-95	QNX 6 Software Support

For other operating systems please contact TEWS.

Related Products

TCP001-FP	6U front panel extension for 3U cPCI boards
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