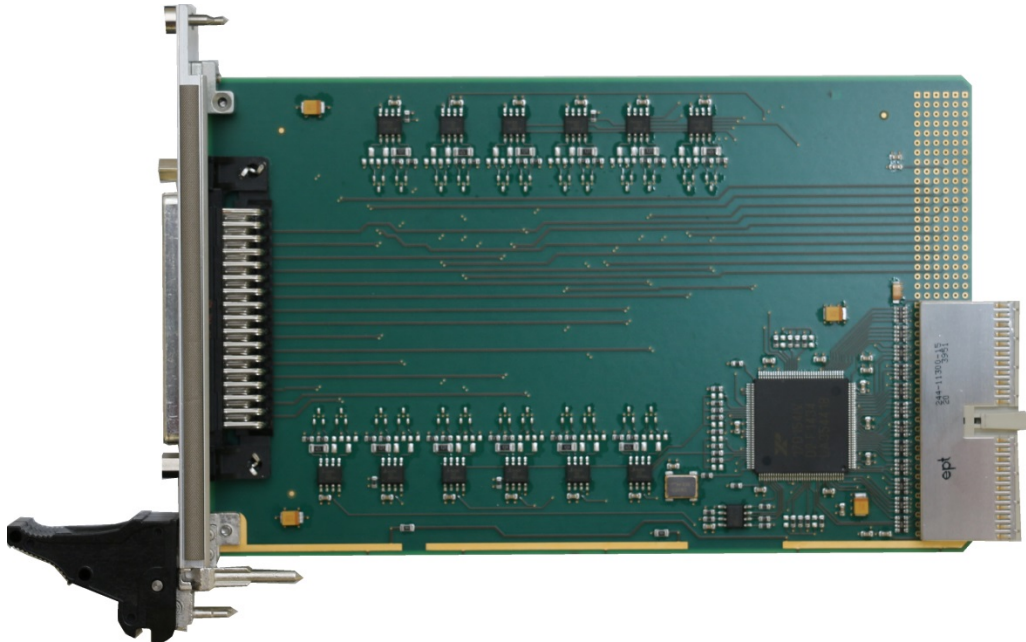## TCP468   4 Channel Serial Interface RS422

Application Information

The TCP468 is a standard 3U 32 bit CompactPCI module and offers 4 channels of high performance RS 422 serial interface.

The module is based on the Exar XR17D154 universal PCI UART.

The module offers front panel I/O with a DB-50 type connector. Each channel provides nearly full modem support by the following signals: RxD±, TxD±, RTS±, CTS±, DCD± and DTR±.

On-board termination is provided for all output signals.

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 5.5296 Mbps. The UART offers readable FIFO levels.

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

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

The TCP468 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

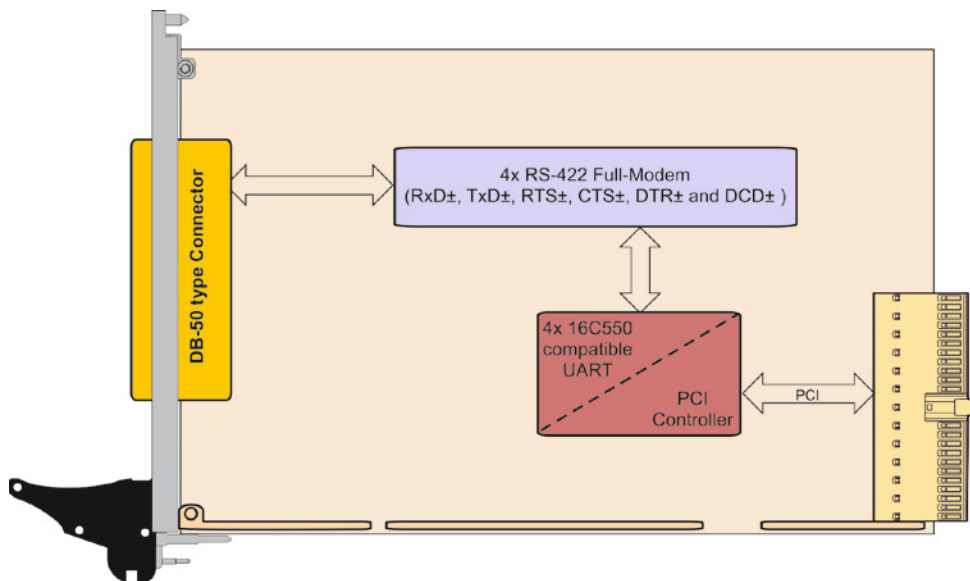Software Support (TDRV002-SW-xx) for different operating systems is available.

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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 RxD±, TxD±, RTS±, CTS± , DTR±, DCD± for each channel

- ❍ Programmable baud rates:
  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

Order Information

RoHS Compliant

TCP468-10R   4 Channel Serial Interface, RS422, DB-50 Front-I/O

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

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

Documentation

TCP468-DOC   User Manual

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.

Accessories

TCP001-FP   6U Front Panel Extension for 3U cPCI Boards