

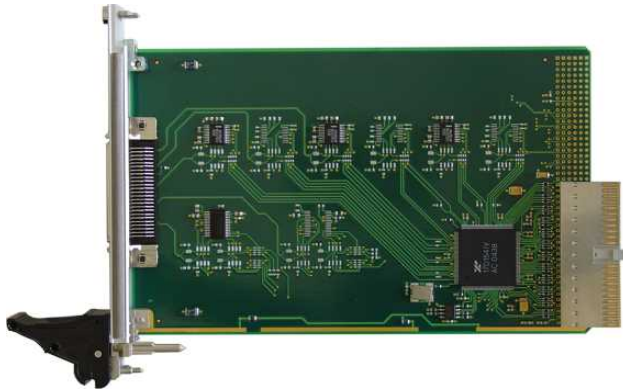
TCP462 4 Channel Serial Interface RS232/RS422

Application Information

The TCP462 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 TCP462-10x provides 4 RS232 interfaces. The TCP462-11x provides 4 RS422 interfaces. The TCP462-12x provides 2 RS232 and 2 RS422 interfaces.

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



TCP462-10R

All modules offer front panel I/O with a HD50 SCSI-2 type connector. The TCP462-2x modules offer additional J2 rear I/O. Each RS232 channel supports Rx/D, Tx/D, RTS, CTS and GND. Each RS422 channel supports Rx/D+/-, Tx/D+/- and GND. One channel of the TCP462-x0x/-x2x offers full modem support (Tx/D, Rx/D, CTS, RTS, DSR, DTR, CD, RI and GND) for RS232. One channel of the TCP462-x1x supports Rx/D+/-, Tx/D+/-, RTS+/-, CTS+/- and GND for RS422.

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.

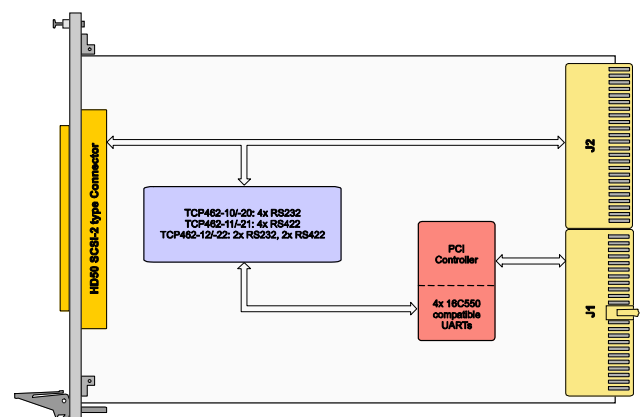
The TCP462 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

For First-Time-Buyers the Engineering Documentation TCP462-ED is recommended. The Engineering Documentation includes TCP462-DOC, schematics and data sheets of TCP462.

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 and GND for each RS232 channel; Rx/D+/-, Tx/D+/- and GND for each RS422 channel. One channel offers extended support (full modem or RTS+/- and CTS+/-)
- 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

| | |
|-------------------|--|
| TCP462-10 | 4 Channel Serial RS232 (1x full Rmodem), front panel I/O |
| TCP462-11R | 4 Channel Serial RS422 (1x plus RTS+/-, CTS+/-), front panel I/O |
| TCP462-12R | 2 Channel Serial RS232 (1x full modem), 2 Channel Serial RS422, front panel I/O |
| TCP462-20R | 4 Channel Serial RS232 (1x full modem), front panel and J2 I/O |
| TCP462-21R | 4 Channel Serial RS422 (1x plus RTS+/-, CTS+/-), front panel and J2 I/O |
| TCP462-22R | 2 Channel Serial RS232 (1x full modem), 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

| | |
|-----------|---|
| TCP462-10 | None RoHS compliant version of TCP461-10R |
| TCP462-11 | None RoHS compliant version of TCP461-11R |
| TCP462-12 | None RoHS compliant version of TCP461-12R |
| TCP462-20 | None RoHS compliant version of TCP461-20R |
| TCP462-21 | None RoHS compliant version of TCP461-21R |
| TCP462-22 | None RoHS compliant version of TCP461-22R |

Documentation

| | |
|-------------------|---|
| TCP462-DOC | User Manual |
| TCP462-ED | Engineering Documentation (TCP462-DOC, Schematics, Assembly Drawing, Data Sheets) |

Software

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|----------------------|--|
| 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

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|------------------|---|
| TA301 | Cable Kit for modules with HD50 connector |
| TCP001-FP | 6U front panel extension for 3U cPCI boards |