TCP866 8 Channel Serial Interface RS232 / RS422
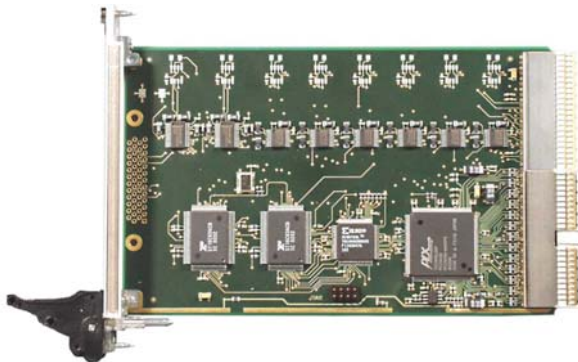
Application Information

The TCP866 is a standard 3U 32 bit CompactPCI module and has eight channels of high performance asynchronous serial interface with front I/O and back I/O.

The TCP866-1x offers an 8 channel RS232 interface and supports Receive Data (RxD), Transmit Data (TxD), Ready-To-Send (RTS), Clear-To-Send (CTS) and GND for each channel. Additionally serial channel one and serial channel two provide Data-Set-Ready (DSR), Data-Terminal-Ready (DTR), Data-Carrier-Detect (DCD) and Ring-Detect-Indicator (RI).

The TCP866-2x supports an 8 channel RS422 interface and offers RS422 signal levels by differential transmitters and receivers. The Transmit data (TxD +/-), Receive Data (RxD +/-) and GND are provided for each serial channel. The receiver signal termination (120 ohms between RxD+ and RxD-) is provided on the TCP866 per channel.

Each serial channel of the TCP866 has a 64 byte transmit FIFO and a 64 byte receive FIFO to significantly reduce the overhead required to provide data to and get data from the transmitter and receivers. The FIFO trigger levels are programmable.

For all modules the baud rate is individually programmable up to 921.6 kbaud per channel. All channels use the CompactPCI interrupt INTA together. For fast interrupt source detection the TPMC866 provides a special interrupt status register. Receiver and transmitter are protected against electrostatic discharge (ESD).
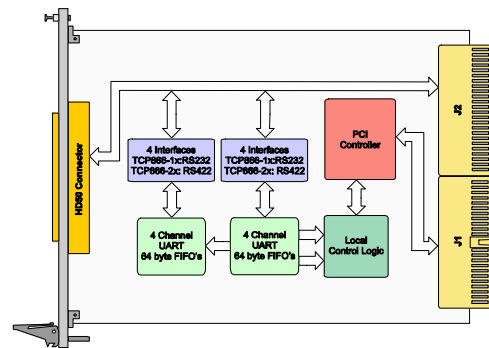

TPC866-11 with J2 I/O

For First Time Users the Engineering Documentation TCP866-ED is recommended. The Engineering Documentation includes TCP866-DOC, schematics and data sheets.

Software Support (TCP866-SW-xx) for different operating systems is available.

Technical Information

❍ Standard 3U 32 Bit CompactPCI module conforming to PICMG 2.0 R3.0
❍ PCI 2.2 compliant interface
❍ 3.3V and 5V PCI Signaling Voltage
❍ Board size: 160 mm x 100 mm
❍ 8 channel asynchronous serial interface
❍ Support of RxD, TxD, RTS, CTS and GND for TCP866-1x; support of RxD+/-, TxD+/- and GND for TCP866-2x
❍ Programmable baud rates up to 921.6 kbaud
❍ 64 byte transmit FIFO per channel, 64 byte receive FIFO per channel
❍ ESD protected transceiver (up to +/- 15KV according to IEC 1000-4-2)
❍ Operating temperature –40°C to +85°C

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Order Information

RoHS Compliant
TCP866-10R   8 Channel serial RS232, front panel I/O
TCP866-11R   8 Channel serial RS232, J2 I/O
TCP866-20R   8 Channel serial RS422, front panel I/O
TCP866-21R   8 Channel serial RS422, J2 I/O

None RoHS Compliant
TCP866-10   None RoHS compliant version of TCP866-10R
TCP866-11   None RoHS compliant version of TCP866-11R
TCP866-20   None RoHS compliant version of TCP866-20R
TCP866-21   None RoHS compliant version of TCP866-21R

Documentation
TCP866-DOC   User Manual
TCP866-ED   Engineering Documentation, includes TCP866-DOC

Software
TCP866-SW-25   Integrity Software Support
TCP866-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TCP866-SW-65   Windows XP/XPE/2000 Software Support
TCP866-SW-72   LynxOS Software Support
TCP866-SW-82   LiNUX Software Support
TCP866-SW-95   QNX 6 Software Support

For other operating systems please contact TEWS.

Related Products
TA301   Cable Kit for modules with HD50 connector
TCP001-FP   6U Front panel extension for 3U cPCI boards