

### TPMC866 8 Channel Serial Interface RS232 / RS422 / RS485

#### Application Information

The TPMC866 is a standard single-width 32 bit PMC module and has eight channels of high performance asynchronous serial interface with front I/O and back I/O.

The TPMC866-10x 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).

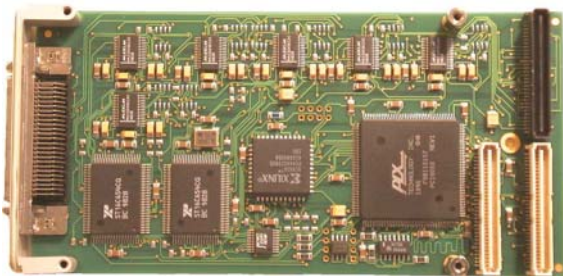


Figure: TPMC866-10R

The TPMC866-11x 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 (120ohms between RxD+ and RxD-) is provided on the TPMC866 per channel.

Each channel of the TPMC866-10x/-11x 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.

The TPMC866-12x provides an 8 channel of high performance serial interface. Each serial channel can be configured by a DIP switch to operate as an RS422, RS485-FD-M (Full Duplex Master), RS485-FD-S (Full Duplex Slave) or RS485-HD (Half Duplex) interface. For RS422 and RS485-FD a four wire interface (RX+, RX-, TX+, TX-) plus ground (GND) is offered. For RS485-HD a two wire interface (DX+, DX-) plus ground (GND) is supported. For the front I/O a HD50 SCSI-2 type female connector is located in the front panel. For the back I/O the P14 I/O connector is supported. Each channel of the TPMC866-12x has a 128 byte transmit FIFO and a 128 byte receive FIFO to significantly reduce the overhead required to provide data to the transmitters and get data from the receivers. The FIFO trigger levels are programmable.

For all modules the baud rate is individually programmable up to 460.8 Kbaud per channel. All channels use the PCI interrupt INTA together but for fast interrupt source detection the TPMC866-xx provides a special interrupt status register. Receiver and transmitter are protected against electrostatic discharge (ESD).

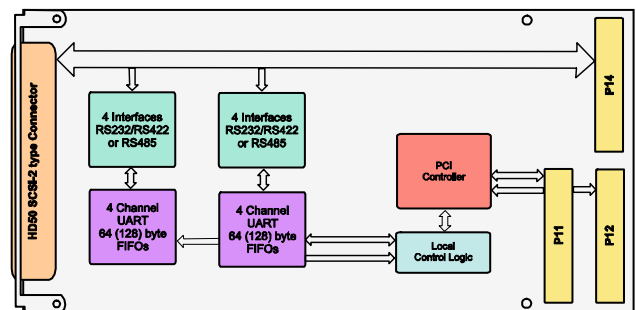
All TPMC866 modules are available in extended temperature range as TPMC866-xx-ET versions.

For First Time Users the Engineering Documentation TPMC866-ED/ED-12 are recommended. The Engineering Documentations include TPMC866-DOC/DOC-12, schematics and data sheets.

Software support (TPMC866-SW-xx) for different operating systems is available.

#### Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- PCI 2.1 compliant interface
- Board size: 149 mm x 74 mm
- 8 channel asynchronous serial interface
- Support of RxD, TxD, RTS, CTS and GND for TPMC866-10x; support of RxD+/-, TxD+/- and GND for TPMC866-11x and support of TXD+/-, RXD+/-, GND (RS422 and RS485-FD M/S) and DX+/-, GND (RS485-HD) for TPMC866-12x
- Programmable baud rates up to 460.8 Kbaud
- 64 byte transmit FIFO per channel, 64 byte receive FIFO per channel for TPMC866-10x/-11x and 128 kbyte transmit FIFO per channel, 128 kbyte receive FIFO per channel for TPMC866-12x
- ESD protected transceiver ( up to +/- 15KV according to IEC 1000-4-2 )
- Temperature range: 0°C to +70°C (TPMC866-10x/-11x/-12x) and -40°C to +85°C (TPMC866-10x-ET/-11x-ET/-12x-ET)



## Order Information

### RoHS Compliant

<b>TPMC866-10R</b>	8 channel serial RS232
<b>TPMC866-10R-ET</b>	Same as TPMC866-10R but Extended Temperature Range
<b>TPMC866-11R</b>	8 channel serial RS422
<b>TPMC866-11R-ET</b>	Same as TPMC866-11R but Extended Temperature Range
<b>TPMC866-12R</b>	8 channel serial RS422/RS485
<b>TPMC866-12R-ET</b>	Same as TPMC866-12R but Extended Temperature Range
<b>TPMC866-TM-10R</b>	Transition Module for TPMC866, provides 8 DB25 in a 6U/8TE front panel
<b>TPMC866-TM-20R</b>	Transition Module for TPMC866, provides 8 RJ45 in a 6U/4TE front panel TPMC866-10R
<b>TPMC866-TM-30R</b>	Transition Module for TPMC866, provides 16 4-pin RJ in a 6U/4TE front panel
<b>TPMC866-IO-10R</b>	Mounting Rail I/O Module

### None RoHS Compliant

<b>TPMC866-10</b>	None RoHS compliant version of TPMC866-10T
<b>TPMC866-10-ET</b>	None RoHS compliant version of TPMC866-10R-ET
<b>TPMC866-11</b>	None RoHS compliant version of TPMC866-11R
<b>TPMC866-11-ET</b>	None RoHS compliant version of TPMC866-11R-ET
<b>TPMC866-12</b>	None RoHS compliant version of TPMC866-12R
<b>TPMC866-12-ET</b>	None RoHS compliant version of TPMC866-12R-ET
<b>TPMC866-TM-10</b>	None RoHS compliant version of TPMC866-TM-10R
<b>TPMC866-TM-20</b>	None RoHS compliant version of TPMC866-TM-20R
<b>TPMC866-TM-30</b>	None RoHS compliant version of TPMC866-TM-30R
<b>TPMC866-IO-10</b>	None RoHS compliant version of TPMC866-IO-10R

### Documentation

<b>TPMC866-DOC</b>	User Manual for TPMC866-10x/11x
<b>TPCM866-DOC-12</b>	User Manual for TPMC866-12x
<b>TPMC866-ED</b>	Engineering Documentation for TPMC866-10x/11x, includes TPMC866-DOC-12
<b>TPMC866-ED-12</b>	Engineering Documentation for TPMC866-12x, includes TPMC866-DOC
<b>TPMC866-TM-10-DOC</b>	User Manual for TPMC866-TM-10x-DOC
<b>TPMC866-TM-20-DOC</b>	User Manual for TPMC866-TM-20x-DOC
<b>TPMC866-TM-30-DOC</b>	User Manual for TPMC866-TM-30x-DOC
<b>TPMC866-IO-10-DOC</b>	User Manual for TPMC866-IO-10x-DOC

### Software

<b>TPMC866-SW-25</b>	Integrity Software Support
<b>TPMC866-SW-42</b>	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
<b>TPMC866-SW-65</b>	Windows XP/XPE/2000 Software Support
<b>TPMC866-SW-72</b>	LynxOS Software Support
<b>TPMC866-SW-82</b>	LiNIX Software Support
<b>TPMC866-SW-95</b>	QNX 6 Software Support

For other operating systems please contact TEWS.

### Related Products

<b>TA301</b>	Cable Kit for modules with HD50 connector
<b>TPIM001</b>	PIM I/O Module with HD50 SCSI-2 type connector