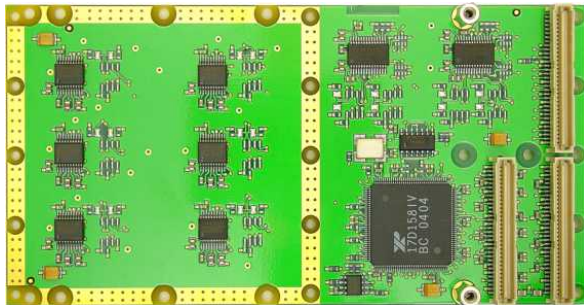


### TPMC371 Conduction Cooled PMC, 8 Channel RS232/RS422

#### Application Information

The TPMC371 is a conduction cooled single-width 32 bit PMC module and offers 8 channels of high performance asynchronous serial interface.

Three different standard modules are available: The TPMC371-10x provides 8 RS232 interfaces. The TPMC371-11x provides 8 RS422 interfaces. The TPMC371-12x provides 4 RS232 and 4 RS422 interfaces.



TPMC371-10R

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

All modules offer P14 I/O. Each RS232 channel supports RxD, TxD, RTS, CTS and GND. Each RS422 channel supports RxD+/-, TxD+/- and GND. Two channels of the TPMC371-10x/-12x offer full modem support (TxD, RxD, CTS, RTS, DSR, DTR, CD, RI and GND) for RS232. Two channels of the TPMC371-11x support RxD+/-, TxD+/-, 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 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.

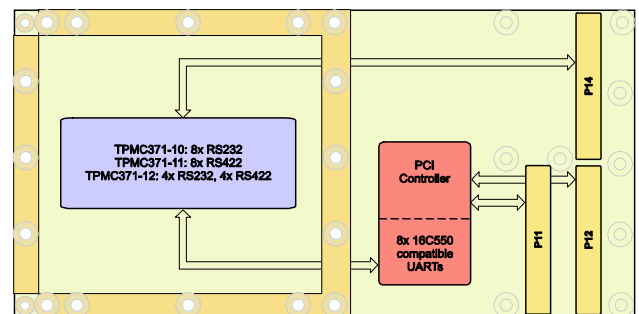
The TPMC371 can operate with 3.3V and 5.0V PCI I/O signaling voltage.

For First-Time-Buyers the Engineering Documentation TPMC371-ED is recommended. The Engineering Documentation includes TPMC371-DOC, schematics and data sheets of TPMC371.

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

#### Technical Information

- Conduction cooled single-width 32 bit PMC module conforming to IEEE P1386.1, no front panel
  - Target Chip: XR17D158 (Exar)
  - PCI 2.3 compliant interface
  - PCI I/O signaling voltage 5V and 3.3V
- Board size: 143.75 mm x 74 mm
- Asynchronous serial interfaces
- Octal UART: Exar XR17D158
- Support of RxD, TxD, RTS, CTS and GND for each RS232 channel; RxD+/-, TxD+/- and GND for each RS422 channel. Two channels offer 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

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### Order Information

#### RoHS Compliant

<b>TPMC371-10R</b>	Conduction cooled 8 Channel Serial RS232 (2x full modem), P14 I/O
<b>TPMC371-11R</b>	Conduction cooled 8 Channel Serial RS422 (2x plus RTS+/-, CTS+/-), P14 I/O
<b>TPMC371-12R</b>	Conduction cooled 4 Channel Serial RS232 (2x full modem), 4 Channel Serial RS422, P14 I/O

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

#### None RoHS Compliant

TPMC371-10	None RoHS compliant version of TPMC371-10R
TPMC371-11	None RoHS compliant version of TPMC371-11R
TPMC371-12	None RoHS compliant version of TPMC371-12R

#### Documentation

<b>TPMC371-DOC</b>	User Manual
<b>TPMC371-ED</b>	Engineering Documentation (TPMC371-DOC, Schematics, Assembly Drawing, Data Sheets)

#### Software

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

For other operating systems please contact TEWS.

#### Related Products

<b>TPIM001</b>	PIM I/O Module with HD50 SCSI-2 type connector
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