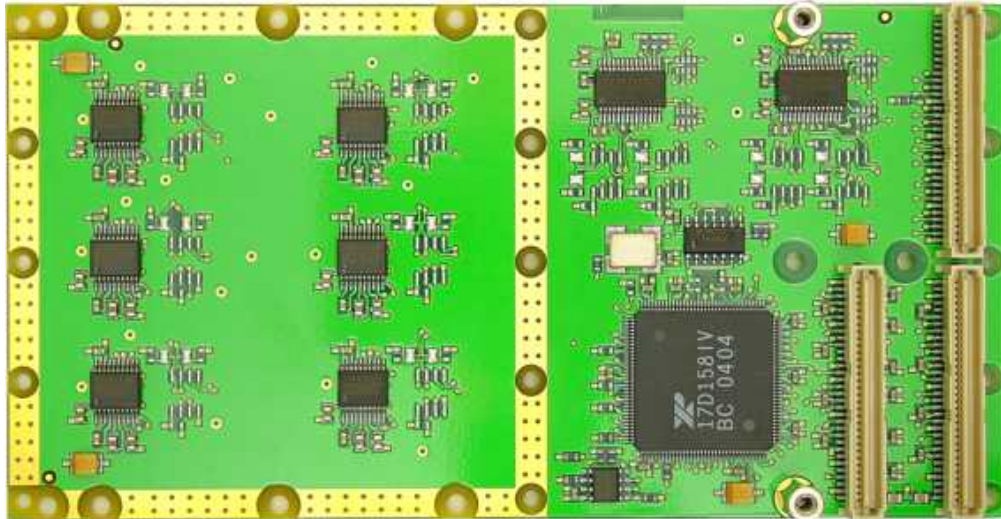


## TPMC371 Conduction Cooled PMC, 8 Channel RS232/RS422



TPMC371-10R

### 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 TPMC371-10xR provides 8 RS232 interfaces. The TPMC371-11xR provides 8 RS422 interfaces. The TPMC371-12xR provides 4 RS232 and 4 RS422 interfaces.

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 TPMC371-10xR/-12xR offer full modem support (TxD, RxD, CTS, RTS, DSR, DTR, CD, RI and GND) for RS232. Two channels of the TPMC371-11xR 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.

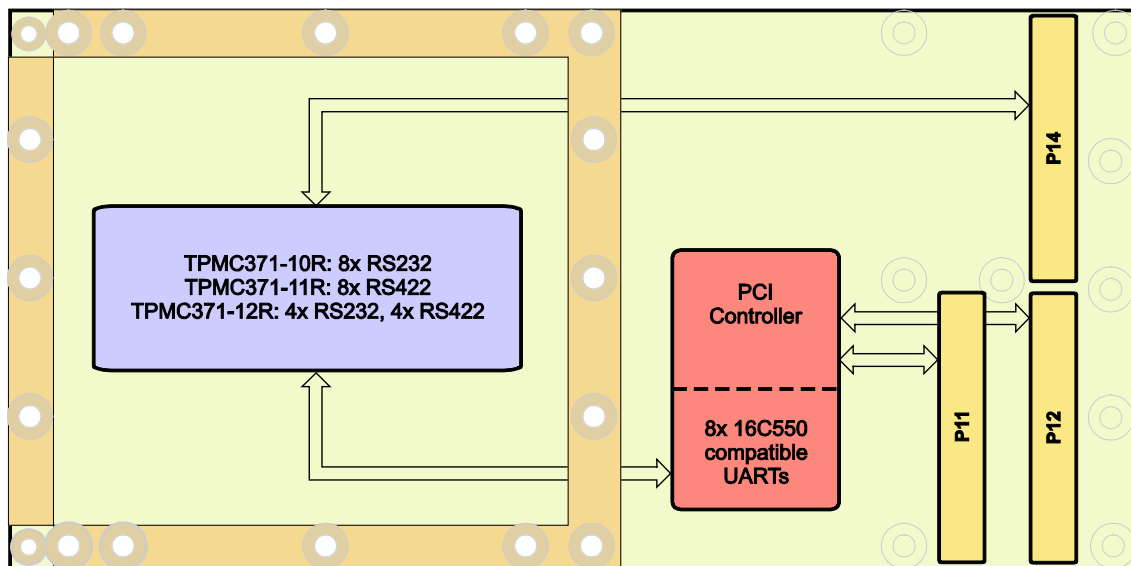
All serial channels use ESD protected transceivers. ESD protection is up to  $\pm 15\text{KV}$ .

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

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  $\pm 15KV$ )
- Operating temperature  $-40^{\circ}C$  to  $+85^{\circ}C$



### Order Information

#### RoHS Compliant

**TPMC371-10R** ccPMC, 8 Channel Serial RS232, P14 I/O  
**TPMC371-11R** ccPMC, 8 Channel Serial RS422, P14 I/O  
**TPMC371-12R** ccPMC, 4 Ch. Serial RS232, 4 Ch. Serial RS422, P14 I/O

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

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

#### Documentation

**TPMC371-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

**TPIM001** PIM I/O Module, HD50 connector