

### **Application Information**

The TPMC463 is a standard single-width 32 bit PMC module and offers 4 channels of high performance asynchronous serial interface.

Three different standard modules are available: The TPMC463-10R provides 4 RS232 interfaces. The TPMC463-11R provides 4 RS422 interfaces. The TPMC463-12R provides 2 RS232 and 2 RS422 interfaces. The TPMC463-20R provides 4 RS232 interfaces with non-standard RJ45 I/O pinout (as used on Motorola CPU boards).

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

All modules offer front panel I/O with four RJ45 connectors and P14 I/O. Each RS232 channel supports TxD, RxD, CTS, RTS, DTR, CD, DSR/RI and GND. Each RS422 channel supports RxD+/-, TxD+/- and GND on front and RxD+/-, TxD+/-, RTS+/-, CTS+/- and GND on back I/O.

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.

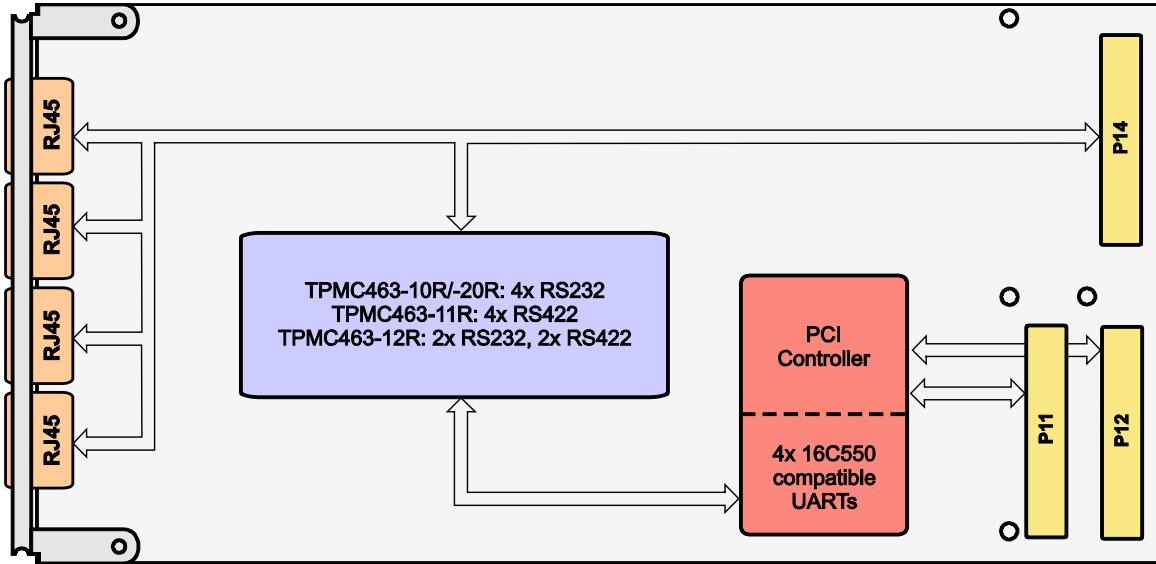
All serial channels use ESD protected transceivers. ESD protection is up to  $\pm 15\text{KV}$ .

The TPMC463 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

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
  - Target Chip: XR17D154 (Exar)
  - PCI 2.3 compliant interface
  - PCI I/O signaling voltage 5V and 3.3V
- Board size: 149 mm x 74 mm
- Asynchronous serial interface
- Quad UART: Exar XR17D154
- Support of RxD, TxD, RTS, CTS, DTR, DCD, DSR/RI and GND for each RS232 channel; RxD+/-, TxD+/- and GND on front and RxD+/-, TxD+/-, RTS+/-, CTS+/- and GND on back I/O for each RS422 channel
- 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  $\pm 15\text{KV}$ )
- Operating temperature  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$



**Order Information****RoHS Compliant**

**TPMC463-10R** 4 Channel Serial RS232, RJ45  
**TPMC463-11R** 4 Channel Serial RS422, RJ45  
**TPMC463-12R** 2 Channel Serial RS232, 2 Channel Serial RS422, RJ45  
**TPMC463-20R** 4 Channel Serial RS232, RJ45 (Motorola compatible pinout)

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

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

**Documentation**

**TPMC463-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-72** LynxOS Software Support  
**TDRV002-SW-82** Linux Software Support  
**TDRV002-SW-95** QNX Software Support

For other operating systems please contact TEWS.

**Related Products**

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