![TEWS TECHNOLOGIES logo]

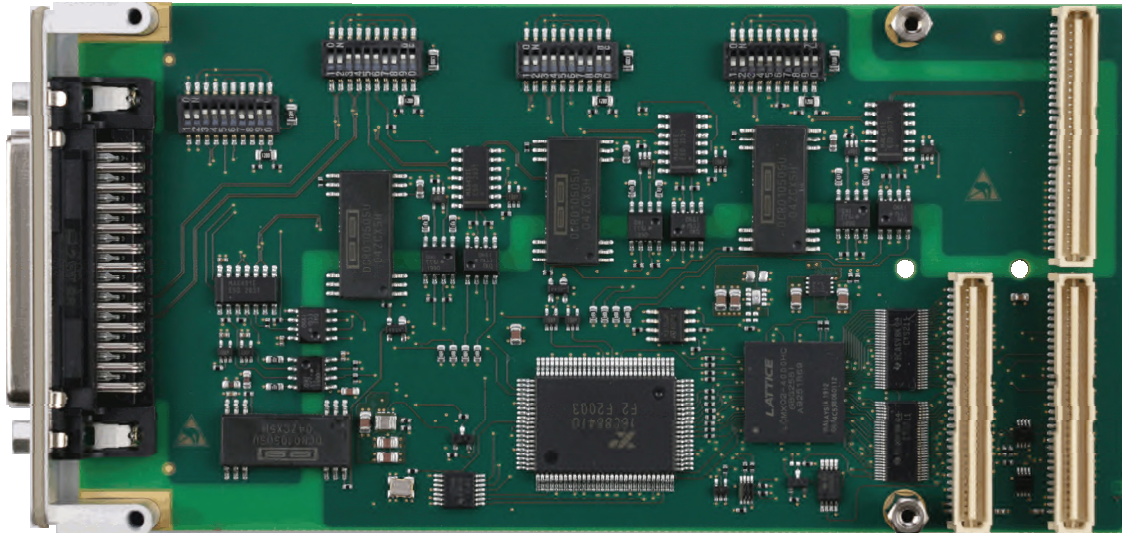*The Embedded I/O Company*

TPMC861   4 Channel Isolated Serial Interface RS422/RS485

Application Information

The TPMC861 is a standard single-width 32 bit PMC module with four channels of high performance RS422/485-HD/FD asynchronous serial interface. Each of the four channels is isolated from the system and against each other by optocoupler and on board DC/DC converter per channel.

The serial channels are accessible through a DB25 connector mounted in the front panel and via P14 I/O. Each channel has a 128 byte transmit FIFO and a 128 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 RS422 and RS485-FD (Full-Duplex) a four wire interface (RX+, RX-, TX+, TX-) plus isolated

ground (GND) per channel is supported. For RS485-HD (Half-Duplex) a two wire interface (DX+, DX-) plus isolated ground (GND) per channel is supported. The baud rate is individually programmable up to 460.8 Kbaud for each channel.
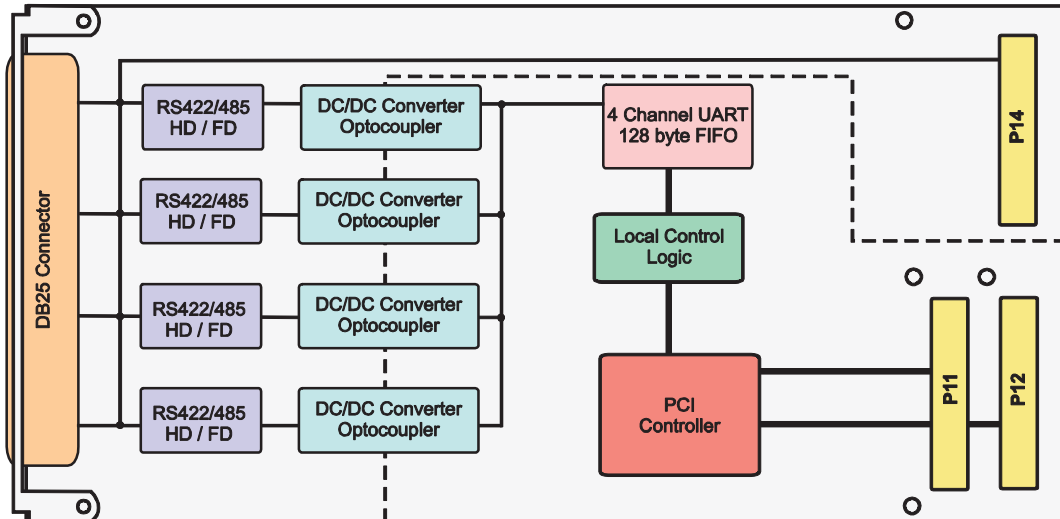
Interrupts are supported. All channels generate interrupts on PCI interrupt INTA. For fast interrupt source detection an interrupt status register that covers all four channels is provided.

Each receiver input and transmitter output of all channels is protected against electrostatic discharge (ESD) up to +/- 15kV according to IEC 1000-4-2.

Software Support (TPMC861-SW-xx) is available for several operating systems.

Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- PCI3.0 compatible interface
- 3.3V and 5V PCI Signaling Voltage
- 4 channel RS422/485 asynchronous serial interface
- Serial channels isolated from system and against each other by optocoupler and on board DC/DC converter per channel
- For RS422 and RS485-FD support of RxD,TxD and GND per channel

- For RS485-HD support of DX+, DX- and GND per channel
- Programmable baud rates up to 460.8 Kbaud
- 128 byte transmit FIFO and 128 byte receive FIFO per channel
- ESD protected transceiver (up to +/- 15KV according to IEC 1000-4-2)
- Operating temperature –40°C to +85°C

Order Information

RoHS Compliant
TPMC861-10R   4 Channel Isolated Serial Interface RS422 / RS485, DB25

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

Documentation
TPMC861-DOC   User Manual

Software
TPMC861-SW-25   Integrity Software Support
TPMC861-SW-42   VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TPMC861-SW-65   Windows Software Support
TPMC861-SW-82   Linux Software Support
TPMC861-SW-95   QNX Software Support

For other operating systems please contact TEWS.

Related Products
TA303   Cable Kit for Modules with DB25 Female Connector
TPIM001   PIM I/O Module, HD50 connector