TEWS TECHNOLOGIES

The Embedded I/O Company

TPMC862 4 Channel High Speed Synch/Asynch Serial Interface

Application Information

The TPMC862 is a standard single-width 32 bit PMC with four high speed serial data communication channels.

An Infineon PEF 20534 DMA Supported Serial Communication Controller (DSCC4) with integrated bus master PCI interface is used.

Several interrupt sources can generate interrupts on INTA for each channel. Interrupts can be enabled and disabled separately.

A 14.7456 MHz oscillator provides standard asynchronous baud rates. An additional 24 MHz oscillator is provided for other baud rates. A 10 MHz oscillator is used for the maximum synchronous baud rate of 10Mbit/s.

Each channel can support many serial communication protocols such as HDLC, SDLC, PPP, asynchronous, monosynchronous, bisynchronous.

Multiprotocol transceivers are used for the line interface. The physical interface can be selected by software individually for each channel as EIA-232, EIA-422, EIA-449, EIA-530, EIA-530A, V.35, V.36 or X.21.

The TPMC862 supports Receive Data (RxD +/-), Transmit Data (TxD +/-), Receive Clock (RxC +/-), Transmit Clock (TxC +/-), Ready-To-Send (RTS +/-), Clear-To-Send (CTS +/-), Carrier-Detect (CD +/-) and GND for each channel. Additionally serial channel three provides Data-Set-Ready (DSR3 +/-) and Data-Terminal-Ready (DTR3 +/-), both over front I/O only.

The DSCC4 contains a central receive and transmit FIFO of 128 long words (32 bit) each. Additionally each channel has a receive FIFO (17 long words deep) and a transmit FIFO (8 long words deep).
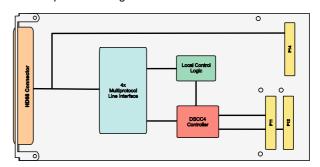

The TPMC862 provides front panel I/O via a HD68 SCSI-3 type connector and rear I/O via P14.

For First Time Users the Engineering Documentation TPMC862-ED is recommended. The Engineering Documentation includes TPMC862-DOC, schematics and data sheets.

Software Support (TDRV001-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 master/slave interface
- ❍ Board size: 147 mm x 74 mm
- ❍ Four high speed synchronous/asynchronous serial interfaces based on Infineon PEF20534
- ❍ Support of RxD, TxD, RxC, TxC, RTS, CTS, CD and GND on HD68 front connector, parallel to rear connector P14; DTR3 and DSR3 only at front I/O
- ❍ Physical interface (individually programmable per channel):
  EIA-232, EIA-422, EIA-449, EIA-530, EIA-530A, V.35, V.36 and X.21
- ❍ Maximum data rate: 10 Mbit/s (synchronous), 2 Mbit/s (asynchronous), internal or external provided clock
  EIA-232: up to 115.2 kbit/s
- ❍ Temperature range: -40°C to +85°C

Order Information

None RoHS Compliant

TPMC862-10 4 Channel High Speed Synch/Asynch Serial Interface (None RoHS compliant)

Documentation

TPMC862-DOC User Manual
TPMC862-ED Engineering Documentation, includes TPMC862-DOC

Software

TDRV001-SW-42 VxWorks Software Support
TDRV001-SW-65 Windows XP/XPE/2000 Software Support
TDRV001-SW-72 LynxOS Software Support
TDRV001-SW-82 LiNUX Software Support
TDRV001-SW-95 QNX 6 Software Support
For other operating systems please contact TEWS.

Related Products

TA304 Cable Kit for modules with HD68 connector
TPIM002 PIM I/O Module with HD68 SCSI-3 type connector
TPIM005 PIM I/O Module with HD68 SCSI-3 type connector