

TPMC917 4 Channel Serial Interface RS232 with 4 Mbyte NV-SRAM

Application Information

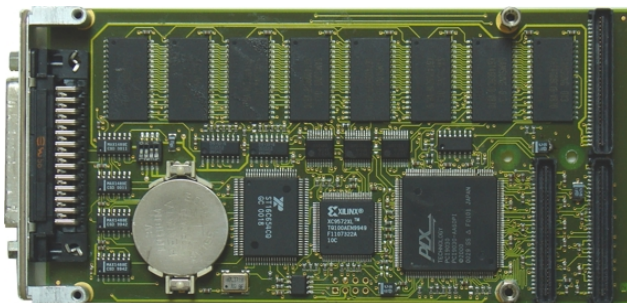
The TPMC917 is a standard single-width 32 bit PMC module providing 4 Mbyte SRAM with battery backup by an on board lithium cell for all SRAM devices and four ESD protected RS232 channels (TPMC917-10 only).

The 4 Mbyte NV-SRAM is organized in two banks, each of them provides 512k x 32 bit memory. During normal operation (standard 5V supply applied to the SRAM) the capacity of the lithium cell is monitored every 24 hours by the battery monitor device and an interrupt can be generated, if the battery voltage is too low. The monitor device switches the power supply of the SRAM from the standard 5V to the battery if the 5V supply drops below the threshold level of the battery monitor device. Any active access to the SRAM at this point is executed correctly within 1.5µs. After this time any further accesses to the SRAM are not possible. A miniature DIP switch allows the selection of the battery backup source either from the on board lithium cell or from an external battery via the P14 I/O connector.

The TPMC917-10 provides four RS232 channels. Each channel has a programmable baud rate up to 115.2 Kbaud. The 4 channel UART16C654 provides 64 byte transmit FIFO and 64 byte receive FIFO for each channel to significantly reduce the overhead required to provide data to and get data from the transmitter and receiver. The FIFO trigger levels are programmable. The channels are ESD protected up to +/-15kV according to the human body model and IEC1000-4-2.

For applications which do not need the UARTs of the TPMC917-10, the TPMC917-20 provides 4 MByte NV-SRAM and has no UARTs.

The TPMC917-21 has a reduced memory size. It provides 2 MByte NV-SRAM and has no UARTs.



For First Time Users the Engineering Documentation TPMC917-ED is recommended. The Engineering Documentation includes TPMC917-DOC, schematics and data sheets.

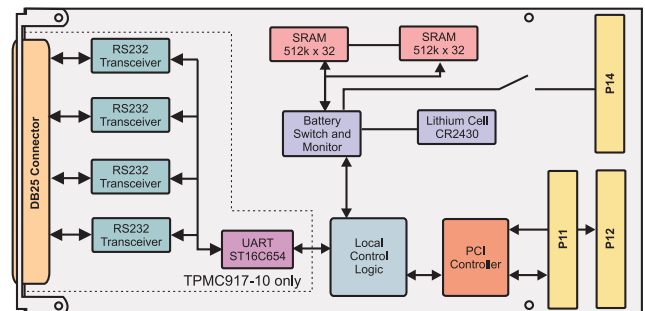
Software Support (TPMC917-SW-xx) for different operating systems is available.

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Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- PCI 2.1 compliant interface
- 3.3V and 5V PCI Signaling Voltage
- Board size: 149 mm x 74 mm
- 4 Mbyte NV-SRAM (TPMC937-10/-20) or 2 Mbyte NV-SRAM (TPMC917-21) with battery backup by on board lithium cell
 - Battery capacity is monitored every 24 hours
 - Interrupt can be generated to control battery voltage
- 4 channel asynchronous serial RS232 interface, ESD protected (TPMC917-10 only):
 - 64 byte transmit FIFO per channel, 64 byte receive FIFO per channel
 - Programmable baud rates up to 115.2 Kbaud
- Operating temperature: 0°C to +70°C



Order Information**RoHS Compliant**

TPMC917-10R	4 MByte NV-SRAM with Battery Backup and 4 Channel Serial RS232
TPMC917-20R	4 MByte NV-SRAM with Battery Backup
TPMC917-21R	2 MByte NV-SRAM with Battery Backup

None RoHS Compliant

TPMC917-10	None RoHS compliant version of TPMC917-10R
TPMC917-20	None RoHS compliant version of TPMC917-20R
TPMC917-21	None RoHS compliant version of TPMC917-21R

Documentation

TPMC917-DOC	User Manual
TPMC917-ED	Engineering Documentation, includes TPMC917-DOC

Software

TPMC917-SW-25	Integrity Software Support
TPMC917-SW-42	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
TPMC917-SW-65	Windows XP/XPE/2000 Software Support
TPMC917-SW-72	LynxOS Software Support
TPMC917-SW-82	LiNIX Software Support
TPMC917-SW-95	QNX 6 Software Support

For other operating systems please contact TEWS.

Related Products

TA303	Cable Kit for modules with DB25 connector
TPIM001	PIM I/O Module with HD50 SCSI-2 type connector