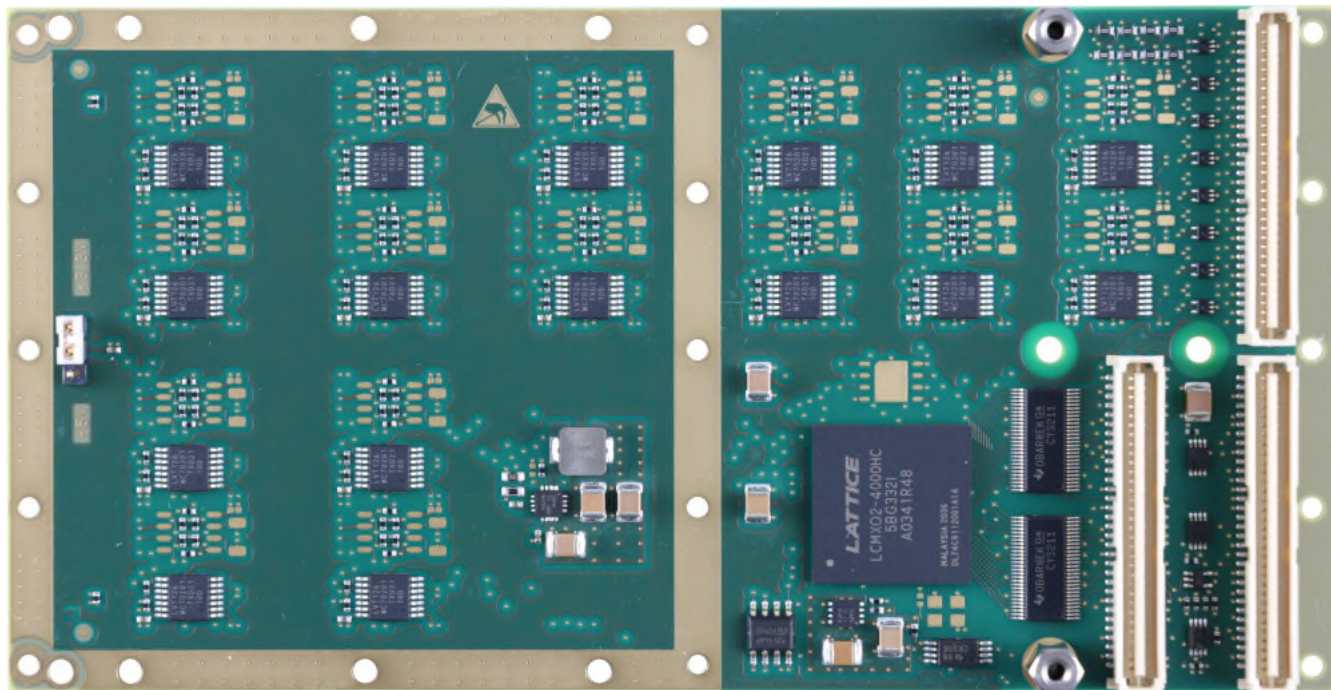


## TPMC321 Conduction Cooled, 64 Digital TTL I/O / 32 Differential I/O



TPMC321-10R

### Application Information

The TPMC321 is a conduction cooled single-width 32 bit PMC module offering 64 ESD-protected 5V-tolerant TTL lines or 32 differential I/O lines using ESD-protected EIA-422 / EIA-485 compatible line transceivers or Multipoint-LVDS transceivers.

Each line is individually programmable as input, output or tri-state. The receivers are always enabled, which allows determining the state of each I/O line at any time. This can be used as read back function for lines configured as outputs. Each TTL I/O line has a pull-up resistor. The pull-up voltage is selectable to be either +3.3V or +5V. Differential I/O lines are terminated, EIA-422 / EIA-485 lines with 120  $\Omega$ , M-LVDS lines with 100  $\Omega$ .

Each input can generate an interrupt. Signal edge handling is programmable to interrupt on rising and/or falling edge of an input signal. Interrupts can be enabled and disabled for each bit. For interrupt source detection the status of each bit can be read from interrupt status registers.

The TPMC321 provides rear I/O via P14.

Software Support (TDRV006-SW-xx) for different operating systems is available.

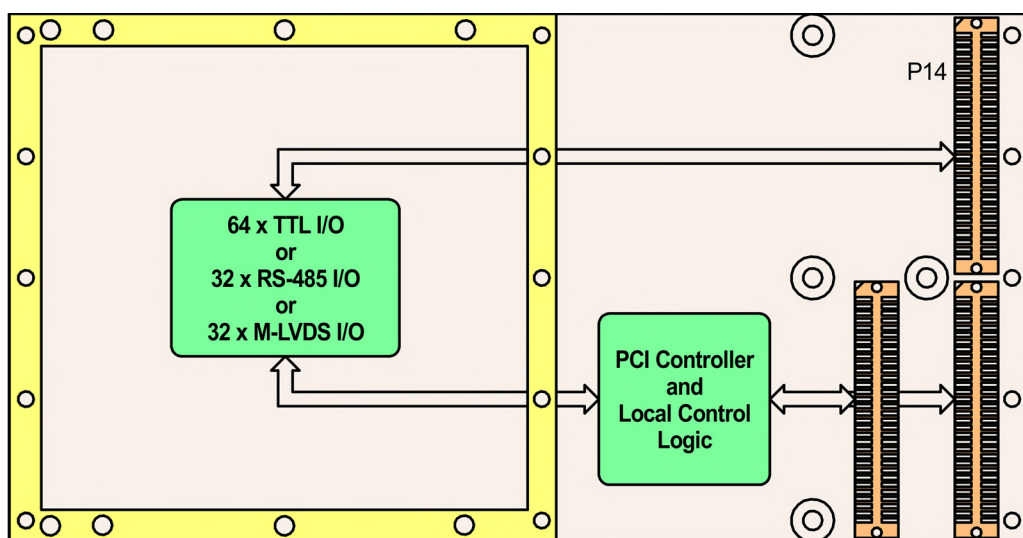
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## The Embedded I/O Company

### Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
  - Board size: 143.75 mm x 74 mm
- PCI 3.0 compatible interface
- 3.3V and 5V PCI Signaling Voltage
- 64 or 32 interrupt generating bit I/O lines
  - 64 TTL I/Os or 32 differential EIA-485 or M-LVDS I/Os
    - Direction individually programmable per line
    - TTL signaling voltage (maximum current: +/- 24mA)
- ESD and overvoltage protection for each TTL I/O line
- ESD protected EIA-485 & M-LVDS transceiver
- 64 TTL I/O lines or 32 differential I/O lines on rear connector P14 (upper 8 lines changeable to system ground)
- Operating temperature -40°C to +85°C
  - MTBF (MIL-HDBK217F/FN2 G<sub>B</sub> 20°C)
    - TPMC321-10R: 350 000 h
    - TPMC321-11R: 891 000 h
    - TPMC321-12R: 846 000 h



### Order Information

#### RoHS Compliant

<b>TPMC321-10R</b>	Conduction Cooled, 64-bit TTL I/O, Bit I/O, Interrupts, P14 I/O
<b>TPMC321-11R</b>	Conduction Cooled, 32-bit EIA-422 / EIA-485 I/O, Bit I/O, Interrupts, P14 I/O
<b>TPMC321-12R</b>	Conduction Cooled, 32-bit M-LVDS I/O, Bit I/O, Interrupts, P14 I/O

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

#### Documentation

<b>TPMC321-DOC</b>	User Manual
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#### Software

<b>TDRV006-SW-25</b>	Integrity Software Support
<b>TDRV006-SW-42</b>	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
<b>TDRV006-SW-65</b>	Windows Software Support
<b>TDRV006-SW-82</b>	Linux Software Support
<b>TDRV006-SW-95</b>	QNX Software Support

For other operating systems please contact TEWS.

#### Related Products

<b>TPIM003</b>	PIM I/O Module, HD68 connector, special pin assignment
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