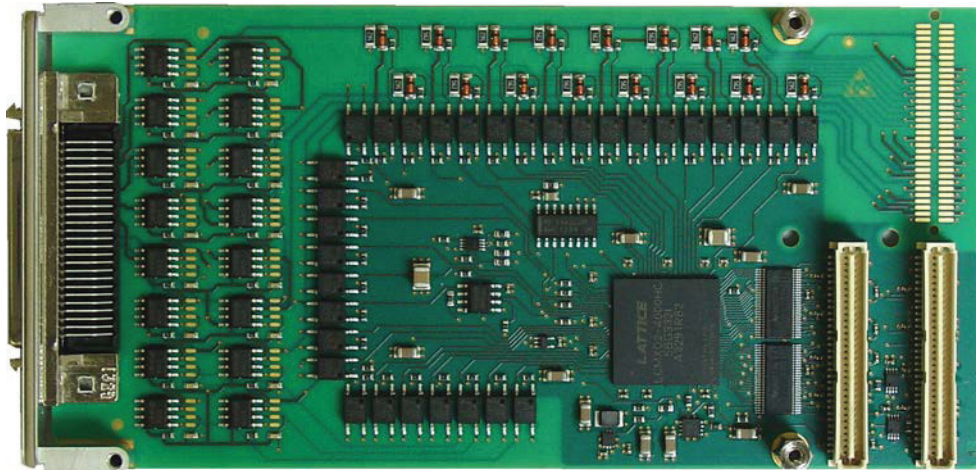


## TPMC670 16/8 Digital Inputs (24V) 16/8 Digital Outputs (24V, 0.5A)



### Application Information

The TPMC670 is a standard single-width 32 bit PMC with 16 / 8 24V digital inputs galvanically isolated from the computer system by optocoupler. The inputs are also potential free to each other in groups of four inputs. A high performance input circuit ensures a defined switching point and polarization protection against confusing the pole. All inputs have a common electronic debounce circuit with a freely programmable debounce time. All inputs can generate an interrupt. The signal edge handling is programmable to interrupt on rising, falling or both edges of the input signal.

The TPMC670 has 16 / 8 digital high side switches with galvanic isolation from the computer system by optocoupler. The outputs are also isolated against each other in groups of four outputs. All outputs are protected against short-circuit and thermal overload. The output drivers are capable of driving 0.5A continuous per channel. A hardware watchdog clears all outputs in case of trigger fail. The TPMC670-1xR provides front panel I/O, the TPMC670-2xR provides P14 I/O.

Software Support (TDRV003-SW-xx) for different operating systems is available.

### Technical Information

- Standard single-width 32 bit PMC module conforming to IEEE P1386.1
- PCI 3.0 compatible interface
- 3.3V and 5V PCI Signaling Voltage
- Board size: 149 mm x 74 mm
- 16 / 8 interrupt generating digital inputs
  - 24 V signal voltage for inputs
  - Optocoupler for galvanic isolation
  - All inputs isolated to each other in groups of four inputs
  - Programmable electronic debounce circuit (7 $\mu$ s to 440ms in steps of 7 $\mu$ s),
- 16 / 8 digital outputs, high side switches
  - 24V signal voltage, current per output 0.5A
  - Optocoupler for galvanic isolation
  - Outputs are short-circuit protected
  - Outputs are isolated to each other in groups of four outputs
  - Outputs protected against thermal overload
  - Watchdog timer resets all channels in case of trigger failure
- Operating temperature -20°C to +85°C
- MTBF (MIL-HDBK217F/FN2 GB 20°C)
  - TPMC670-x0x: 850.000 h
  - TPMC670-x1x: 979.000 h

**powerBridge**  
Computer

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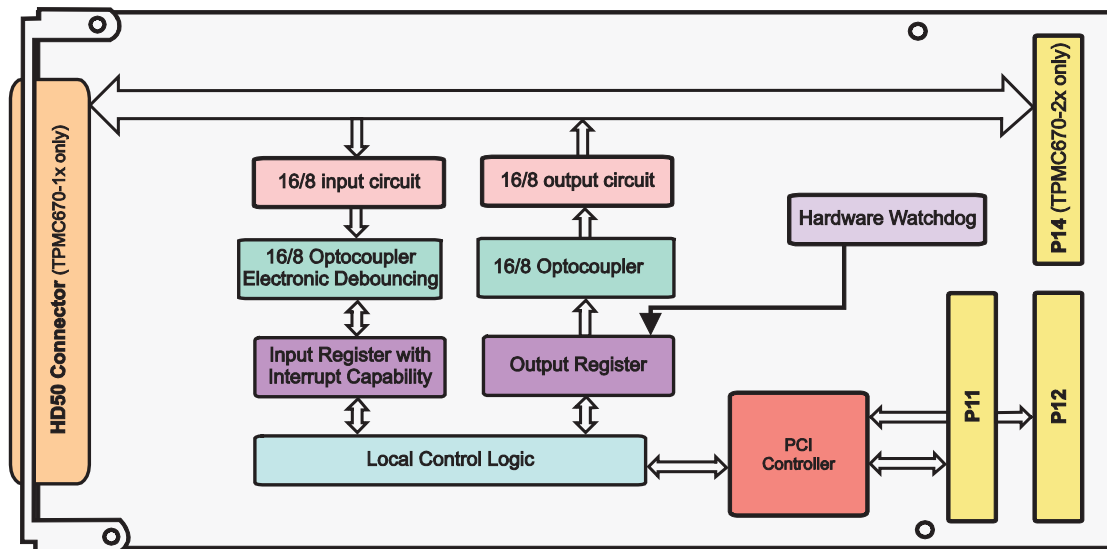
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## Order Information

### RoHS Compliant

<b>TPMC670-10R</b>	16 Digital In (24V, isolated, pgm. interrupts, pgm. Debounce), 16 Digital Out (High Side 24V 0.5A), HD50
<b>TPMC670-11R</b>	8 Digital In (24V, isolated, pgm. interrupts, pgm. Debounce), 8 Digital Out (High Side 24V 0.5A), HD50
<b>TPMC670-20R</b>	16 Dig. In (24V, isolated, pgm. interrupts, pgm. Debounce), 16 Dig. Out (High Side 24V 0.5A), P14 I/O
<b>TPMC670-21R</b>	8 Dig. In (24V, isolated, pgm. interrupts, pgm. Debounce), 8 Dig. Out (High Side 24V 0.5A), P14 I/O

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

### Documentation

<b>TPMC670-DOC</b>	User Manual
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### Software

<b>TDRV003-SW-25</b>	Integrity Software Support
<b>TDRV003-SW-42</b>	VxWorks Software Support (Legacy and VxBus-Enabled Software Support)
<b>TDRV003-SW-65</b>	Windows Software Support
<b>TDRV003-SW-82</b>	Linux Software Support
<b>TDRV003-SW-95</b>	QNX Software Support

For other operating systems please contact TEWS.

### Related Products

<b>TA301</b>	Cable Kit for Modules with HD50 Connector
<b>TPIM001</b>	PIM I/O Module, HD50 connector