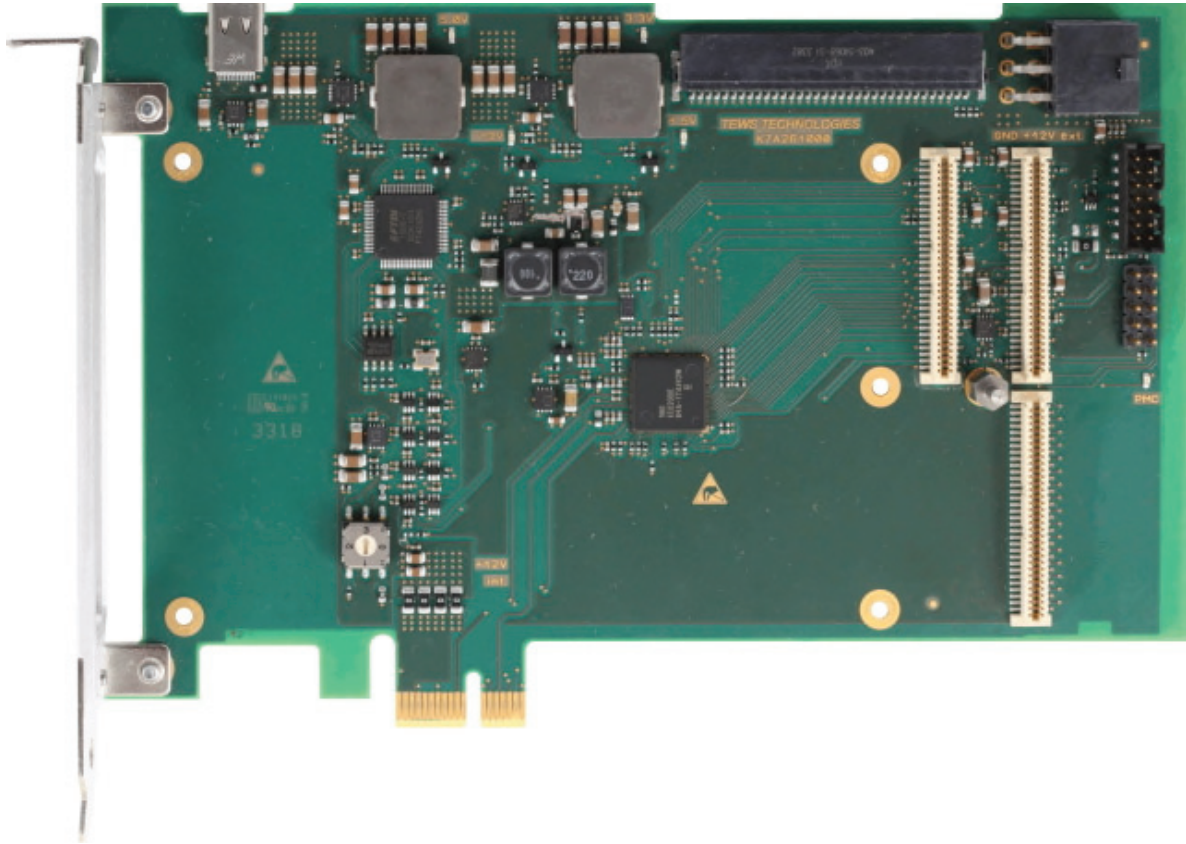


## TPCE261 PCI Express x1 PMC Carrier



TPCE261-10R

### Application Information

The TPCE261 is a standard height, half-length PCI Express Revision 2.0 compatible module that provides one slot for a single-width PMC module used to build modular, flexible and cost effective I/O solutions for all kinds of applications like process control, medical systems, telecommunication and traffic control. The TPCE261 is a versatile solution to upgrade well known PMC I/O solutions to the PCI Express signalling standard.

On the PCI Express side, an x1 link with 2.5GT/s speed to the host board is provided.

The bridging between the system host board and the PMC slot is handled by the PCIe-to-PCI Bridge XIO2001 from Texas Instruments.

On the PMC side, PCI signalling voltages of 3.3V (TPCE261-x1R) and 5V (TPCE261-x0R) are supported. 32-bit PCI accesses are possible with 33MHz or 66MHz.

The TPCE261 supports PMC front-panel I/O and also PMC P14 Rear-I/O through a 68-pin ERNI SMC 1.27mm flat cable connector.

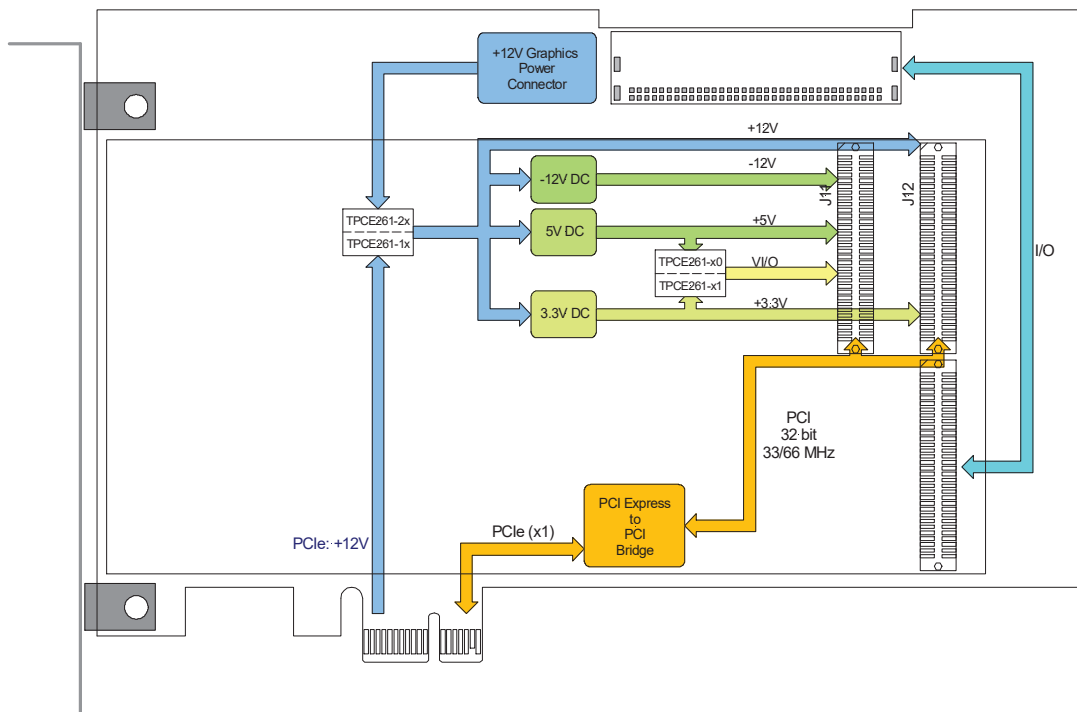
The PCIe edge card connector provides +12V and +3.3V. All TPCE261-xx variants do not use the +3.3V at all. The TPCE261-1xR uses the +12V of the PCIe edge card connector to generate all four power supply voltages for the PMC slot (+3.3V, +5V, +12V and -12V).

According to the PCIe specification, a PCIe x1 card is limited to 6W on the +12V which allows to operate most of the available 32-bit 33/66 MHz PMC modules on the TPCE261-1xR.

For PMC modules with increased power requirements, the TPCE261-2xR offer an additional PCIe Graphics Power Connector to supply the +12V for generating all the power supply voltages for the PMC slot providing a power of up to 25W.

### Technical Information

- Form Factor: PCI Express x1, Revision 2.0
  - Board size: Half-Length (167.65mm x 111.15mm)
  - PCIe Speed: max. 2.5GT/s
- One PMC Slot
  - PCI Interface: 33/66MHz, 32-Bit
  - PCI I/O Signalling Voltage: 3.3V or 5V (order option)
  - PMC Front Panel I/O
  - PMC P14 I/O connected to 68-pin ERNI SMC, Right-Angle Male, 1.27mm pitch flat cable connector
- All PMC Power Supplies generated from +12V
  - TPCE261-1xR: +12V from PCIe Card Edge Connector
  - TPCE261-2xR: +12V from PCIe Graphics Power Connector
- JTAG
  - 14-pin header with four signals (TRST# not included) routed to the PMC connector
  - JTAG reference voltage to the PMC is selectable from 1.5V, 1.8V, 2.5V and 3.3V
- Operating temperature: -40°C to +85°C
- MTBF (MIL-HDBK217F/FN2 G<sub>B</sub> 20°C):
  - TPCE261-1xR: 599000h
  - TPCE261-2xR: 533000h



### Order Information

#### RoHS Compliant

<b>TPCE261-10R</b>	PCIe x1 PMC Carrier,	V(I/O) = 5V,	12V from PCIe connector
<b>TPCE261-11R</b>	PCIe x1 PMC Carrier,	V(I/O) = 3.3V,	12V from PCIe connector
<b>TPCE261-20R</b>	PCIe x1 PMC Carrier,	V(I/O) = 5V,	12V from external PCIe Graphics Power Connector
<b>TPCE261-21R</b>	PCIe x1 PMC Carrier,	V(I/O) = 3.3V,	12V from external PCIe Graphics Power Connector

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

#### Documentation

**TPCE261-DOC** User Manual

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