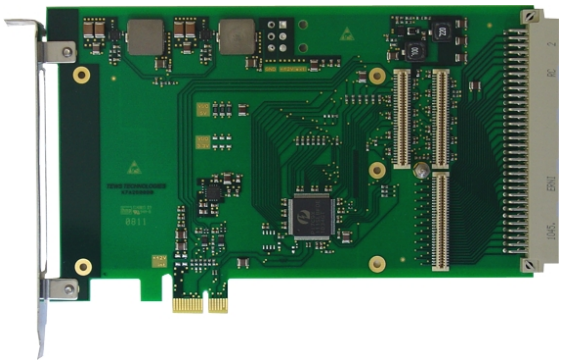
TPCE260 PCI Express PMC Carrier

Application Information

The TPCE260 is a standard height PCI Express Revision 1.1 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 TPCE260 is a versatile solution to upgrade well known PMC I/O solutions to the PCI Express signalling standard.



TPCE260-10R

The bridging between the PCI Express x1 link to the host board and the PCI bus signals to the PMC slot is handled by the transparent PCIe-to-PCI Bridge PI7C9X111SL from Pericom.

The PCI bus side of the bridge allows 32-bit PCI accesses with either 33 MHz or 66 MHz. Both 3.3V (TPCE260-x1) and 5V (TPCE260-x0) PCI I/O signalling voltages are supported.

The TPCE260 supports PMC front panel I/O and also PMC P14 Rear I/O through a VME P2 style connector (IEC 60603-2, Type C). The I/O mapping of P14 complies with VITA-35 (“PMC P4 to VME-P2, Rows A-C mapping”).

The PCIe edge card connector provides +12V and +3.3V. All TPCE260-xx variants do use the +3.3V solely to power the PCIe-to-PCI Bridge.

The TPCE260-1x 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 TPCE260-1x.

For increased power requirements of a PMC module, the TPCE260-2x offer a 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.

For First-Time-Buyers, the engineering documentation TPCE260-ED is recommended. The engineering documentation includes TPCE260-DOC, schematics and data sheets of TPCE260.

Technical Information

- Form Factor: PCI Express x1, Revision 1.1
  - Board size: 178.8mm x 107mm
- One PMC Slot:
  - PCI Interface: 33/66 MHz, 32-Bit
  - PCI I/O Signalling Voltage: 3.3V or 5V (factory build option)
  - PMC Front Panel I/O
  - PMC P14 I/O connected to VME P2 Style Connector (IEC 60603-2 compatible)
- All PMC Power Supplies generated from +12V
  - TPCE260-1x: +12V from PCIe edge card connector
  - TPCE260-2x: +12V from PCIe Graphics Power Connector
- Operating temperature: -40°C to +85°C
- MTBF (MIL-HDBK217F/FN2 G_B 20°C):
  TPCE260-1x: 664000 h
  TPCE260-2x: 582000 h

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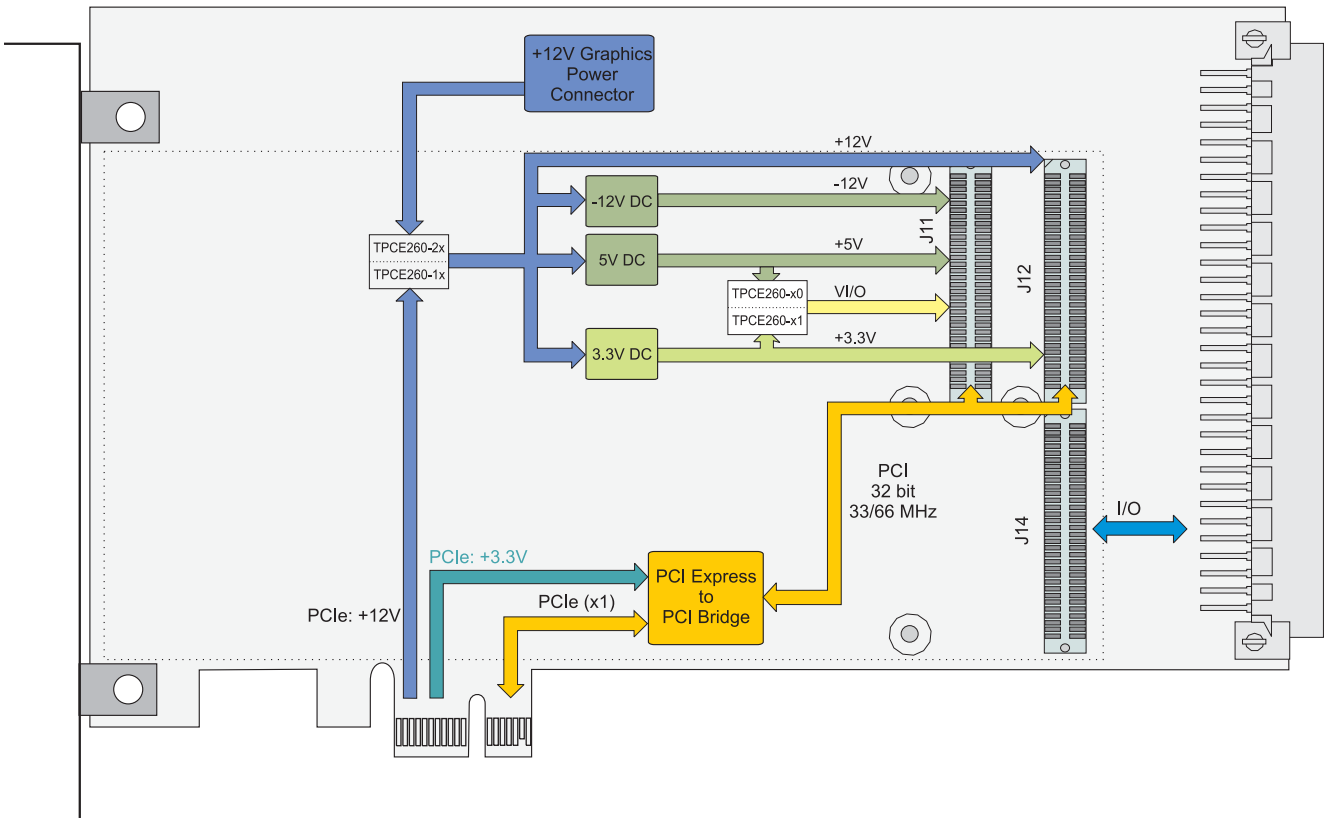

Order Information

RoHS Compliant

TPCE260-10R	PCI Express PMC Carrier, 5V PCI VI/O, +12V Power Supply from PCIe Connector
TPCE260-11R	PCI Express PMC Carrier, 3.3V PCI VI/O, +12V Power Supply from PCIe Connector
TPCE260-20R	PCI Express PMC Carrier, 5V PCI VI/O, +12V Power Supply via PCIe Graphics Power Connector, 2 x 5.25” to 6-pin adapter cable included
TPCE260-21R	PCI Express PMC Carrier, 3.3V PCI VI/O, +12V Power Supply via PCIe Graphics Power Connector, 2 x 5.25” to 6-pin adapter cable included

Documentation

TPCE260-DOC	User Manual
TPCE260-ED	Engineering documentation (TPCE260-DOC, Schematics, Assembly Drawing, Data Sheets)

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