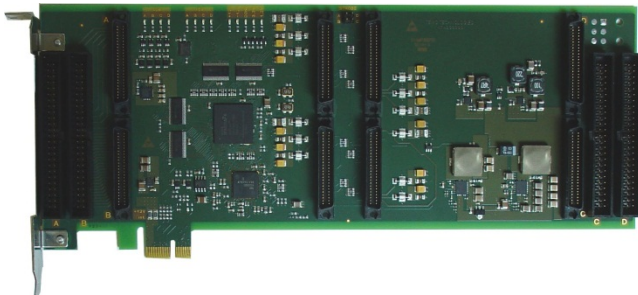# TEWS TECHNOLOGIES

The Embedded I/O Company

TPCE200   PCI Express Carrier for 4 IndustryPack® Modules

Application Information

The TPCE200 is a standard height PCI Express, Revision 2.0 compatible module that provides four slots for up to four single-size or two double-size IndustryPack (IP) modules 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 TPCE200 is a versatile solution to upgrade well known IP I/O solutions to the PCI Express signalling standard.

TPCE200-10R

Four 50-pin 0.1 inch flat ribbon cable connectors provide access to all IP I/O lines. LED status indicators for IP acknowledge, +5V and ±12V are provided.

The IP clock speed is selectable between 8MHz and 32MHz for each IP slot separately.

One memory space is provided for each IP, allowing linear addressing for 16-Bit memory on the IP.

The IP power lines are fuse protected by self-healing fuses and RF filtered. The operating temperature range is -40°C to +85°C.

The PCIe edge card connector provides +12V and +3.3V. The TPCE200-10 uses the +12V of the PCIe edge card connector to generate all power supply voltages for the IP slots (+5V, +12V and -12V).
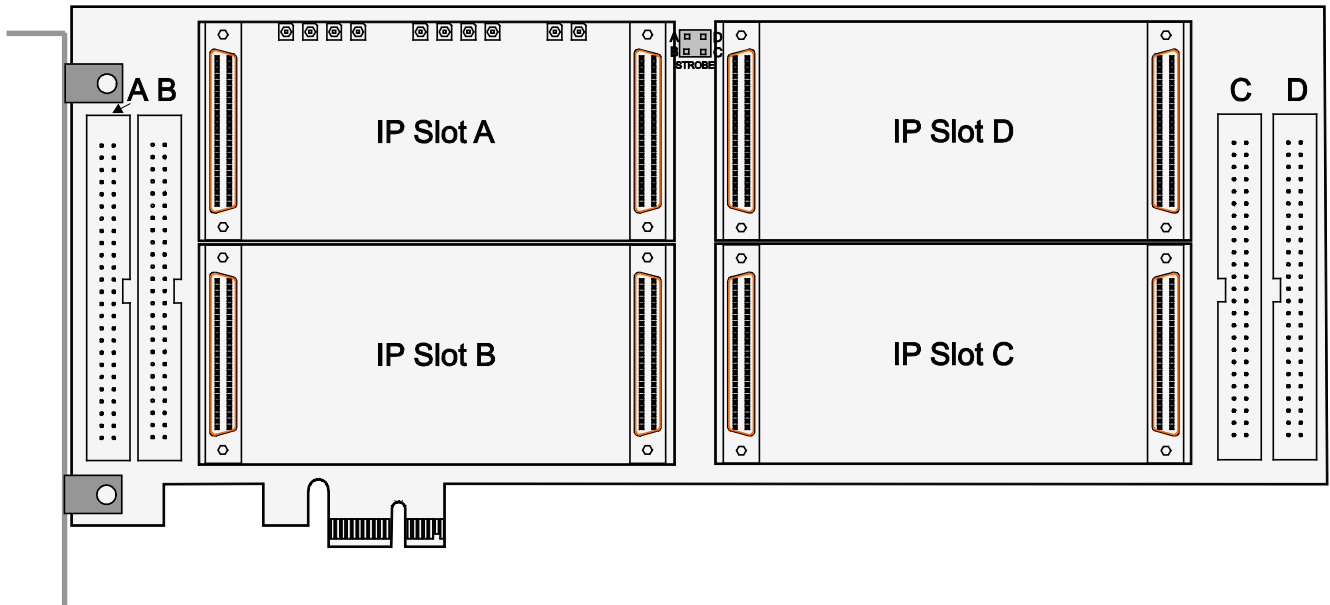
According to the PCIe specification, a PCIe x1 card is limited to 6W on the +12V which allows to operate most of the available IP modules in combination on the TPCE200-10.

For increased power requirements, the TPCE200-11 offer a PCIe Graphics Power Connector to supply the +12V for generating all the power supply voltages for the IP slots providing power of up to 25W.

For First-Time-Buyers the engineering documentation TPCE200-ED is recommended. The engineering documentation includes TPCE200-DOC, schematics and data sheets of TPCE200.

Technical Information

- Form Factor: PCI Express x1, Revision 2.0
  - Board size: approx. 263mm x 111mm
- ANSI/VITA 4-1995 compliant interface to IndustryPack modules
  - IndustryPack slots: Up to four single-size IPs or two double-size IPs
  - 8/32 MHz interface, no DMA
  - 8 Mbytes memory space per IP Slot
  - Routing of all IP interrupts to PCIe INTA/MSI, local interrupt status register
  - I/O access: 50-pin 0.1 inch flat ribbon cable connector for each IP slot
- Self-healing fuses and RF filtering on all IP power lines
- Status LEDs
  - ACK LED for each IP module
  - +5V Power LED for each IP slot
  - +12V and -12V Power LED
- Operating temperature: -40°C to +85°C
- MTBF (MIL-HDBK217F/FN2 G_B 20°C)
  TPCE200-10R: 338000h
  TPCE200-11R: 315000h

Order Information

RoHS Compliant
TPCE200-10R PCI Express Carrier for 4 IndustryPack® modules, +12V Power Supply from PCIe Connector
TPCE200-11R PCI Express Carrier for 4 IndustryPack® modules, +12V Power Supply via PCIe Graphics Connector

None RoHS Compliant
For none RoHS compliant versions of this product, please contact info@tews.com .

Documentation
TPCE200-DOC User Manual
TPCE200-ED Engineering documentation (TPCE200-DOC, Schematics, Assembly Drawing, Data Sheets)

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

For other operating systems please contact TEWS.

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