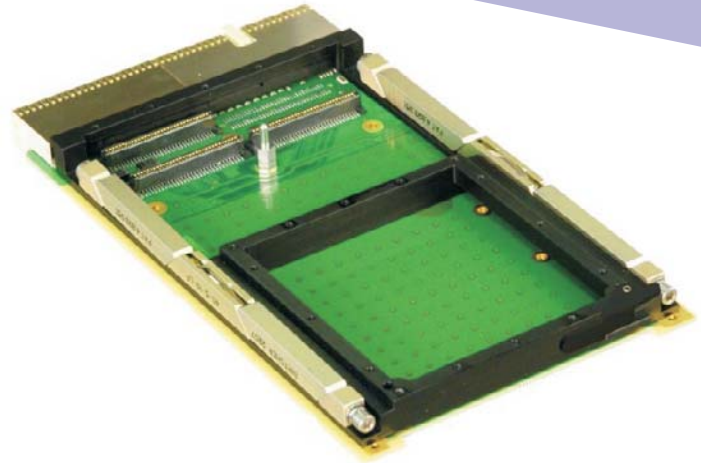


3U CompactPCI PMC Carrier Board, Rugged Conduction-Cooled



APPLICATIONS

The TP CRx/PMC-RC ruggedized 3U PMC carrier board provides a flexible solution for designers wishing to add PMC I/O functionality to a CompactPCI® system. The bridgeless carrier is available as two options, with either a 32-bit or a 64-bit PCI bus. Each option can accommodate one single width PMC module conforming to the IEEE 1386 Common Mezzanine Card standard. A wide range of commercial and proprietary designed PMC

modules can be supported such as SCSI, LAN, WAN, Graphics and Communications Controllers. I/O signals from the PMC site are routed to the CompactPCI J2 connector allowing access from the rear of the system. The TP CRx/PMC-RC is plug compatible with the ruggedized TP CRx/PMC-RA and the non-ruggedized TP CRx/PMC air-cooled boards.

HIGHLIGHTS

- Ruggedized 3U CompactPCI PMC Carrier:
 - conduction-cooled to ANSI/VITA 30.1-2002
 - conformally coated
 - -40°C to +85°C operating temperature
- PMC Carrier available as two options:
 - 64-bit PCI bus to operate with 64-bit CompactPCI backplanes
 - 32-bit PCI bus to operate with 32-bit CompactPCI backplanes
- 64-bit PCI bus option supports:
 - one single size PMC module
 - 32/64-bit, 33/66 MHz modules
 - option for 21 rear I/O signals via J2 connector
 - 5 Volt or 3.3 Volt signalling
- 32-bit PCI bus option supports:
 - one single size PMC module
 - 32-bit, 33/66 MHz modules
 - 64 rear I/O signals via J2 connector
 - 5 Volt or 3.3 Volt signalling
- 3.3 Volt, 5 Volt, +12 Volt and -12 Volt provided for PMC modules via CPCI backplane
- Ruggedized air-cooled option (RA-Series) also available:
 - -40°C to +75°C
 - conformally coated
 - see separate TP CRx/PMC-RA datasheet
- Non-ruggedized version also available:
 - rear plug compatible with the ruggedized versions
 - useful for bench development
 - use in commercial (non-rugged) applications
 - see separate TP CRx/PMC datasheet
- Occupies one 3U CompactPCI slot

Ruggedized PMC Carrier

- conduction-cooled to ANSI/VITA 30.1-2002
- conformally coated
- ruggedized air-cooled version also available:-
→ see TP CRx/PMC-RA datasheet
- non-rugged version also available:-
→ see TP CRx/PMC datasheet

3U CompactPCI PMC Carrier

- available in two options:-
→ 64-bit PCI bus to operate with 64-bit CompactPCI backplanes
→ 32-bit PCI bus to operate with 32-bit CompactPCI backplanes

PMC Interface

- support for one single width module:-
→ 5 Volt or 3.3 Volt signaling
- complies with CMC (Common Mezzanine Card) standard IEEE 1386-2001 and PMC (PCI Mezzanine Card) standard IEEE 1386.1-2001
- I/O can be accessed via J2:-
→ can connect to a Transition Module
- 64-bit option (TP CR2/PMC):-
→ supports 32/64-bit, 33/66 MHz modules
→ option for 21 rear I/O signals via J2 (uses reserved pins on J2)
- 32-bit option (TP CR1/PMC):-
→ supports 32-bit, 33/66 MHz modules
→ 64 rear I/O signals via J2
→ conforms to PICMG 2.3 R1.0 pinouts

CompactPCI Bus Interface

- pinout conforms to PICMG 2.0 R3.0:-
→ supports 3.3V and 5V signaling
→ 32-bit and 64-bit options both support 33MHz and 66 MHz
- passive CompactPCI interface:-
→ no CompactPCI bridge

Electrical Specification

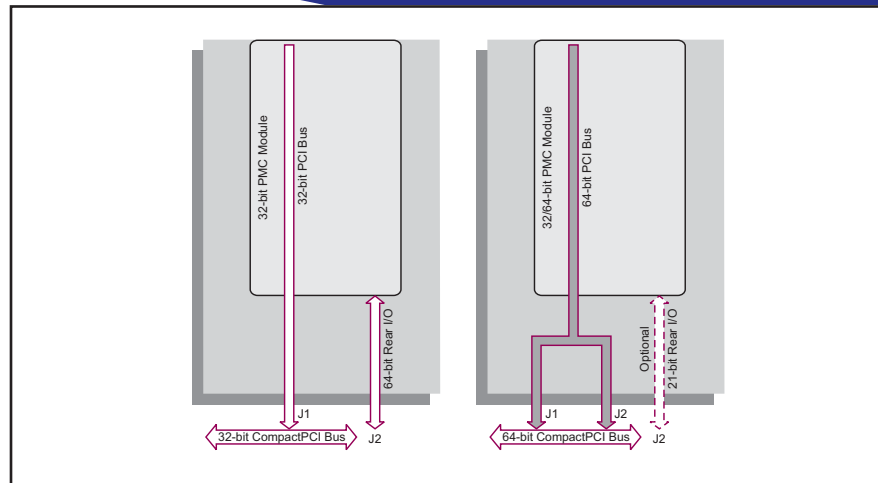
- CompactPCI V(I/O) power rail used for PMC V(I/O):-
→ quiescent current only (<1mA)
- +12V@0.0A; -12V@0.0A
- all power supply rails available to PMC site:-
→ overall power consumption dependent on PMC used

Safety

- PCB (PWB) manufactured with flammability rating of 94V-0

Environmental Specification

- operating temperatures:-
→ -40°C to +85°C
- storage temperatures:-
→ -45°C to +100°C
- Relative Humidity, non condensing (operating and storage):-
→ 5% to 95%
→ includes conformal coating
- altitude (operating):
-1,000 to 50,000 feet (-305 to 15,240 metres)
- non-ruggedized wide temperature versions also available:-
→ see separate TP CRx/PMC datasheet
- ruggedized air-cooled version also available:-
→ see separate TP CRx/PMC-RA datasheet



Mechanical Specification

- 3U form-factor: 3.9 inches x 6.3 inches (100mm x 160mm)
- 10mm height stack module
- shock:
40g, 11ms, ½ sine (operating)
- random vibration:
0.1 g²/Hz (10Hz-1KHz);
-6dB/octave (1KHz-2KHz) (operating)
- rear plug compatible with commercial non-ruggedized TP CRx/PMC:-
→ see separate TP CRx/PMC datasheet
- rear plug compatible with ruggedized air-cooled TP CRx/PMC-RA:-
→ see separate TP CRx/PMC-RA datasheet

ORDERING INFORMATION

Order Number	Product Description (Hardware)	Replace the order number suffix (y) with selections from the following:
TP CR1/PMC-1yRC	Ruggedized conduction-cooled 32-bit PMC Carrier Board for 3U CPCI, with 64-bit rear I/O option	where y = PCI Bus Speed 1 - 33/66 MHz 2 - reserved 3 - reserved 4 - 33 MHz
TP CR2/PMC-1yRC	Ruggedized conduction-cooled 64-bit PMC Carrier Board for 3U CPCI, with 21-bit rear I/O option	
TP CR2/PMC-2yRC	Ruggedized conduction-cooled 64-bit PMC Carrier Board for 3U CPCI, without rear I/O option	

For ruggedized air-cooled version, see separate TP CRx/PMC-RA datasheet
For non-rugged version, see separate TP CRx/PMC datasheet