CompactPCI Ruggedized

TP CR1/PMC-RC

RC - Series

3U CompactPCI PMC Carrier Board, Rugged Conduction-Cooled



APPLICATIONS

The ruggedized 3U CompactPCI® TP CR1/PMC PMC bridgeless carrier board provides a flexible solution for designers wishing to add PMC I/O functionality to a 32-bit CompactPCI system. The TP CR1/PMC-RC can accommodate one single width PMC module conforming to the IEEE 1386 Common Mezzanine Card standard. A wide range of commercial, or proprietary design, PMC

modules can be supported such as SAS, LAN, WAN, Graphics and Communications Controllers. Front panel access is supported and I/O signals from the PMC site are routed to the CompactPCI J2 connector allowing access from the rear of the system. The TP CR1/PMC-RC is rear I/O plug compatible with the non-ruggedized air-cooled versions.

HIGHLIGHTS

- Ruggedized 3U CompactPCI PMC Carrier:
 - conduction-cooled to ANSI/VITA 30.1-2002
 - conformally coated
 - -40°C to +85°C operating temperature (at card edge)
- 3U CompactPCI® PMC Carrier supports:
 - operation with 32-bit 33/66 MHz backplanes
 - one single size 32-bit, 33/66 MHz PMC module
 - 5 Volt or 3.3 Volt signaling
 - I/O via front panel and 64 rear I/O signals via J2

- 3.3 Volt, 5 Volt, +12 Volt and -12 Volt provided for PMC modules via CompactPCI backplane
- Occupies one 3U CompactPCI slot
- Non-ruggedized air-cooled versions (N, E, K-Series):
 - N: 0°C to +55°C, commercial, non-ruggedized
 - E: -25°C to +75°C, extended, non-ruggedized
 - K: -40°C to +85°C, humidity-sealed, non-ruggedized

Specification

Ruggedized PMC Carrier

- conduction-cooled to ANSI/VITA 30.1-2002
- conformally coated
- for non-ruggedized air-cooled versions see separate datasheet:
 - → rear plug compatible
 - → non-ruggedized: TP CR1/PMC

3U CompactPCI PMC Carrier

- 3U CompactPCI® PMC Carrier supports:
 - → one single size 32-bit, 33/66 MHz PMC module
 - → operation with 32-bit 33/66 MHz backplanes

PMC Interface

- PMC site supports:
 - → 32-bit, 33/66 MHz PCI bus
 - → 5 Volt or 3.3 Volt signaling
 - → 64 rear I/O signals via J2
 - → conforms to PICMG 2.3 R1.0 pinouts
- 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

CompactPCI Bus Interface

- pinout conforms to PICMG 2.0 R3.0:
- → 32-bit, 33MHz and 66 MHz PCI bus
- → supports 3.3V and 5V signaling
- passive CompactPCI interface:
 - → no CompactPCI bridge

Electrical Specification

- CompactPCI V(I/0) power rail used for PMC V(I/0):
 - → typical current <10mA
- +12V@0.0A; -12V@0.0A
- all power supply rails available to PMC site:
 - → overall power consumption is PMC dependent

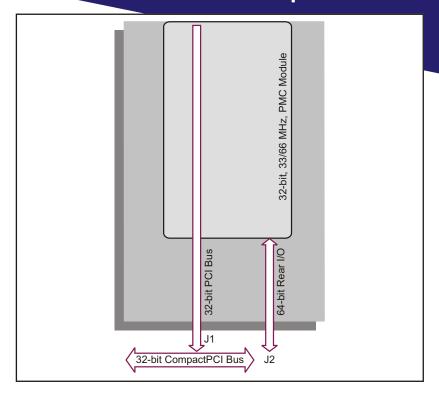
PCB (PWB) manufactured with flammability rating of 94V-0

Environmental Specification

- operating temperature (at card edge):
 - → VITA 47 Class CC4, -40°C to +85°C
 - → conduction-cooled
- storage temperature:
 - → VITA 47 Class C4, -55°C to +105°C
- operating altitude:
 - → -1,000 to 50,000 feet (-305 to 15,240 meters)
- 5% to 95% Relative Humidity, non condensing (operating/storage)

Mechanical Specification

- 3U form-factor:
- 3.9-inches x 6.3-inches (100mm x 160mm)
- single slot
- connectors: IEC-1076-4-101 for J1-J2
- operating mechanical:
- → shock VITA 47 Class OS2, 40g
- → random vibration VITA 47 Class V3, 0.1g²/Hz



ORDERING INFORMATION

Order Number **Product Description (Hardware)** Replace the order number suffix (y) with selections from the following: where y = PCI Bus Speed

TP CR1/PMC-1yRC Ruggedized conduction-cooled 3U CompactPCI PMC Carrier Board, 32-bit 33/66 MHz PCI, 64-bit rear I/O

- 33/66 MHz 4 - 33 MHz

For non-ruggedized air-cooled boards (N-, E- and K-Series), please contact your local sales office.