Dual XMC/PMC Carrier Board

Key Features

AD CR6/XMC consists of a dual XMC/PMC carrier board and a host adapter board to provide additional functionality to 6U VME host cards with a vacant XMC site

- Supports two single size or one double size XMC/PMC Module
- XMC and PMC modules can be used simultaneously
- Includes adapter board that fits on a vacant XMC site of the VME host card
- Includes interconnecting cable
- Option to fit a 2.5-inch drive for mass storage in addition to the two XMC/PMC modules
- Versions available for extended operating temperature





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Specification

6U VME Dual XMC/PMC Carrier

- 6U VME dual XMC/PMC Carrier supports:
 - → 2 single size XMC/PMC modules (or as one dual width module)
 - → a single PMC and a single XMC module can be used simultaneously
 - → module power 25W per site maximum
 - non-Monarch Processor PMC modules and endpoint XMC modules
- commercial air-cooled

XMC and PMC Interfaces

- XMC module interface capabilities:
 - → x1, x2, x4 or x8 PCI Express[®] (PCIe) (Gen 1 or Gen 2)
 - logical and electrical layer meets specification PCI Express 2.0
- PMC module interface capabilities:
 - → 5 Volt or 3.3 Volt signaling
 - → 32/64-bit and 33/66/100 MHz PCI/PCI-X
 - logical and electrical layer meets specification PČI-X 1.0
- complies with CMC (Common Mezzanine Card) standard IEEE 1386-2001 and PMC (PCI Mezzanine Electrical Specification Card) standard IEEE 1386.1-2001
- front panel I/O, and rear I/O via P2 and optional P0 connector:
 - can connect to an optional Rear Transition Module
- site 1 I/O via P2:
 - → 64 I/O from P14 routed as differential pairs P4V2-64ac (VITA 35)
 - X12d+X16s from P16
- site 2 I/O via P0:
- X20d+X38s from P26
- +3.3V for XMC/PMC modules generated on board from VME +5V supply

Mass Storage Interface

- optional on-board 2.5-inch SATA600 hard-disk drive (HDD) or solid-state drive (SSD):
 - → does not require either XMC/PMC site

BIOS EEPROM

- 4Mbit SPI Flash EEPROM with BIOS firmware to support OS Boot
- In-circuit programmable

Adapter Interface

- connects to a compatible VME XMC host processor board.
 - implemented using the
 - IDT®PES32NT8AG2 PCIe switch
 - → PCle x4 or x8 (Gen 1 or Gen 2) → utilizes PCIe base specification

Software Support

- adapter interface features a standard PCI to PCI bridge software architecture:
- → XMC modules appear on the additional PCI buses
- Operating System support depends upon the
 - Concurrent Technologies host processor board

- +5V @ 2.0A maximum (excluding mass storage and
- XMC/PMC modules)
- +12V @ 0.0A; -12V @ 0.0A;
- 3.3V not required

+12V and -12V routed to both sites **Environmental Specification**

- operating temperatures:

 - → 0°C to +55°C (N-Series)
 - → -25°C to +70°C (E-Series) → -40°C to +85°C (K-Series)
- non-operating temperature: -40°C to +85°C
- 5% to 95% Relative Humidity, non condensing:
- → K-Series includes humidity sealant

Mechanical Specification 6U form-factor

- single slot, front panel width 0.8-inch (20.3mm)
- utilizes 160-way connectors for P1 and P2
- optional P0
- shock: 20g, 11ms, 1/2 sine
- vibration: 5Hz-2000Hz at 2g, 0.38mm peak displacement