data sheet

AVC-2/ AVC-2-CC

VME Generic Carrier Card for PMC (PCIbus Mezzanine Card) Modules

product guide

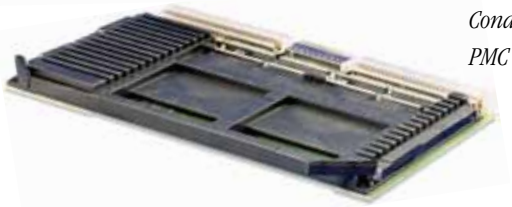
General Features

The AVC-2/ AVC-2-CC is a single slot, double height (6U) VME64x, extended VMEbus module with two separate PMC slots. The Carrier Card is available as Air Cooled AVC-2 or Conduction Cooled AVC-2-CC variant. The functionality of both variants is nearly equal, except that the Conduction Cooled Carrier module is mounted with Conduction Cooled Frame compliant to CCPMC (ANSI/VISA 20-2001, R2005) and CCMC (IEEE Std 1101.2-1992, 2001) specification. The AVC-2-CC does not implement a Front Panel Interface rather than the Rear-I/O Interface functionality. The AVC-2/ AVC-2-CC uses an industry standard device providing the bridge between the VMEbus and PCIbus.
The AVC-2 fulfils the requirements of the VME64x extension plus the Interface for Rear-I/O. Each PMC-slot is in conformance with the Draft Standard Physical and Environmental Layers for PCI Mezzanine Cards (P1386.1/Draft 2.4).

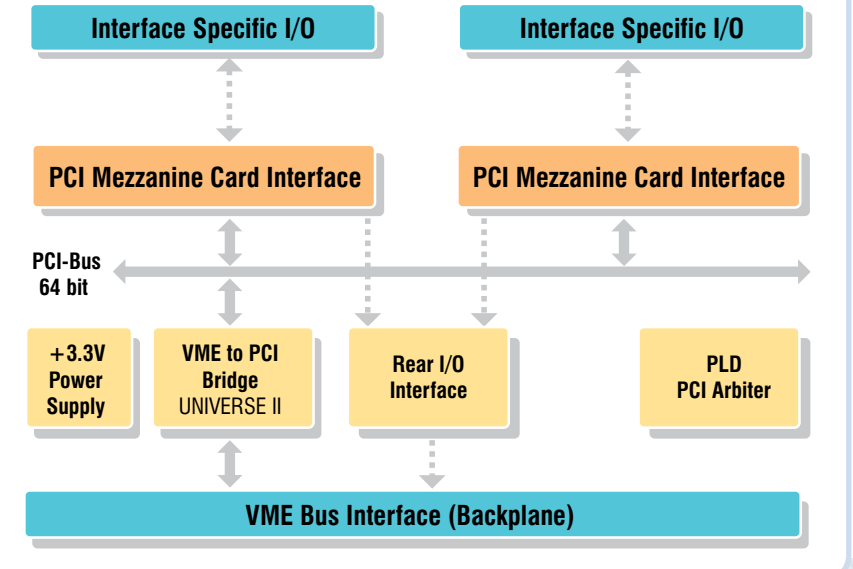
Key features of the AVC-2/ AVC-2-CC module:

- *Easily configured with any combination of PMC modules*
- *Combine different interface types and functions on one VME card*
- *User configurable base address*
- *Front panel LED's for VMEbus/ PCIbus activity/ failure display (only provided @ air cooled variant)*
- *Fully compliant to VME64x - extended VMEbus*
- *Hosts PMC modules designed to PMC standard P1386.1/Draft 2.4*
- *Driver Software Library for VxWorks and LynxOS available*

AVC-2 carrier for Air Cooled PMC modules



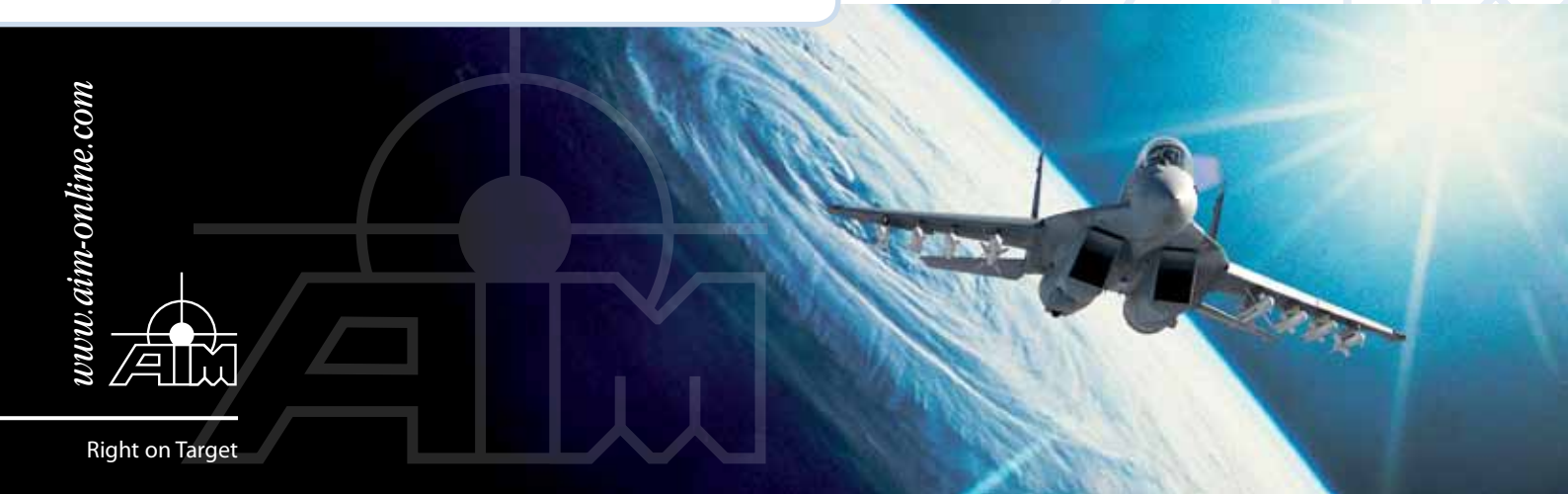
AVC-2-CC carrier for Conduction Cooled PMC modules



PMC Module Interface

The AVC-2/ AVC-2-CC is designed to plug all standard Air Cooled or Conduction Cooled PMC modules with a maximum PCIbus width of 64-bit operating at 33MHz. The AVC-2/ AVC-2-CC carrier board supports the +5.0V PCIbus signaling, hence only +5.0V tolerant devices may be used. The use of a voltage keying pin protects against false PMC assembly.

Avionics Databus Solutions



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AVC-2/ AVC-2-CC

VME Generic Carrier Card for PMC (PCIbus Mezzanine Card) modules

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Technical Data

VME to PCI Bridge: 64-bit VME interface; fully compliant with PCI Standard (Revision 2.1); VME master and slave capability; PCI master and slave capability; Integral FIFOs buffer multiple transactions in both directions; MBLT, BLT, ADOH, RMW and LOCK support; Programmable DMA controller with linked list support; Nine user programmable slave images on both busses; Four mailboxes and location monitor for message oriented systems; Eight semaphores; Full VMEbus system controller functionality; PCIbus burst size of 128bytes; Supports coupled, posted and prefetched cycles on both busses; Provides clock speed of 33MHz with no wait states on PCIbus; Provides flexible mapping of hardware and software interrupts on both busses; Implemented using Industry leading VME to PCI Bridge device (TUNDRA UNIVERSE II)

PCIbus:
Provides the connection between the PMC Interfaces to the VMEbus Interface
Fully compliant to PCIbus Specification Rev 2.1
PCIbus width of 64-bit
PCIbus operation of 33MHz
Priority based PCIbus Arbiter

PMC Slot 1+2:
- Each PMC slot provides 64-bit, 33MHz PCIbus operation
- At AVC-2 Carrier modules, each PMC slot provides the capability for Front- / Rear-I/O (VME64x Mapping) interfaces
- At AVC-2-CC Carrier modules, each PMC slot provides only Rear-I/O (VME64x Mapping) interface

Front Panel (only AVC-2 variant):
The Front Panel provides two breakouts for using the standard PMC- Front Panel bezel

Front Panel LEDs (only AVC-2 variant):
A System Indicator Array is located at the top end of the Front Panel for indicating assertion of the SYSFAIL line, the VMEbus activity, the PCIbus activity and PCIbus errors

Dimensions: Double Height (6U) Board (233mm x 20mm x 160mm), Single-Width, 0.80 pitch

Power Supply: +5VDC, 2W typical without any PMC module installed

Weight:
- AVC-2 (Air Cooled): appr. 290g (without any PMC module installed)
- AVC-2-CC (Conduction Cooled): appr. 640g (without any PMC module installed)

Temperature (all variants): 0 to +45°C Standard Operating
-15 to +60°C Extended Temperature (AVC-2)
-40 to +85°C Extended Temperature (AVC-2-CC)
-40 to +85°C Storage

Humidity: 0 to 95% (non condensing)
Conformal Coating available on request

Ordering Information

AVC-2 VME bus Carrier (6U)
Air Cooled Carrier Module with two PMC slots
Note: Connector P0 will only be assembled upon request, please specify on the order.
Note: VME64x compliant IEEE 1001 Ejector Handles are assembled by default. Original VME ScanBe Handles are available upon request, please specify on the order.

AVC-2-CC VME bus Carrier (6U)
Conduction Cooled Carrier Module with two PMC slots
Note: Connector P0 will be assembled by default (Rear-I/O, PMC-Site 1)