

PMC Carrier / Adapter

64-bit PMC-to-PCI Adapter for Delivery Systems

This passive PMC to PCI Adapter permits delivery of PMC-derived applications in a standard PCI environment.

Several LEDs visible from the back of the board monitor power (PVIO, SVIO, +12V, -12V, 5V, 3.3V) and key PCI bus signals (INTx, BUSMODE1, REQ32). One LED senses the VIO signal voltage to indicate if the slot uses 3.3V (VIO = 3.3V) or 5V (VIO = 5V) PCI bus signaling.

An optional fan assembly (P/N 4936) is available. The assembly is designed to span two PMC-to-PCI adapter boards and provides substantial forced-air cooling of high-power PMC modules. A plenum arrangement guides air across the PMC/adapter for the most efficient cooling.

The BUSMODE [4..2] inputs to the PMC is set to 001 indicating use of the PCI bus for the PMC connectors.

The A and C rows of a 96-pin DIN connector, located toward the rear of the board, connect with the 64-pin user I/O connector (J4/P4) on the mezzanine card. This connection is

specified by IEEE 1386 for the P2 connector on VMEbus boards and permits internal connection of rear I/O, should the PMC board support rear I/O connectivity.

A high quality 2.5 mm thick, machined aluminum panel, with a 0.5 mm chamfered edge, is provided on the PCI board bracket. This mimics the mechanics of a PMC installed on a VMEbus board or other host environments and allows the PMC bezel to be firmly positioned on the board.

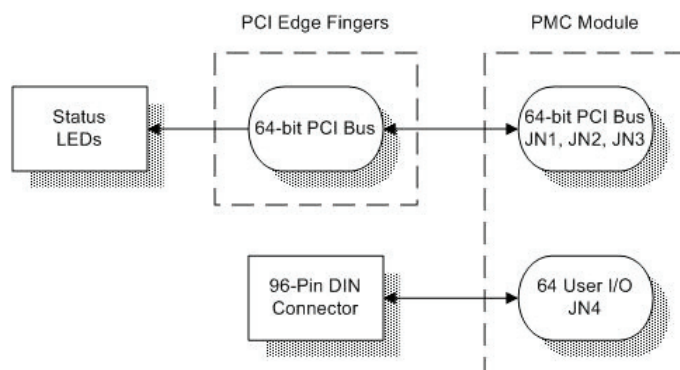
A 4-pin power connector, compatible with 5-1/2 inch disk drive power cables, provides delivery of +12V and +5V in addition to voltage already available at the PCI edge finger. The motherboard and disk power supplies must originate from the same system power supply, as is normally the case in typical PC cabinet/supply implementations.

Because this is a passive adapter, the PCI bus signal characteristics -- bus width (32 or 64-bit), VIO signaling level (either 3.3V or 5V), and clock speed -- are transferred directly from the PCI edge fingers to the installed PMC. For applications

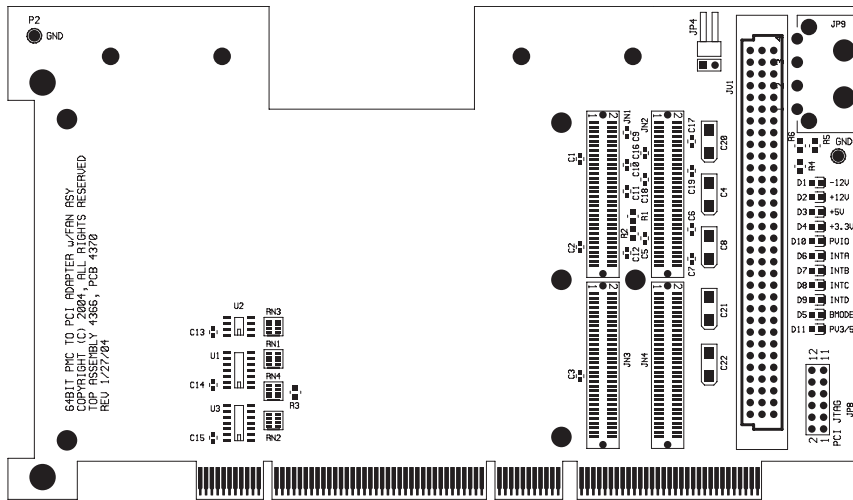


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- Adapts 32- or 64-bit PMC (33 MHz) for use in PCI slot
- Designed for optimal signal quality
- Support for rear I/O
- LEDs convey status of key PCI bus signals and power
- Accommodates external power
- Optional fan assembly for additional cooling of PMC
- RoHS-compliant, Lead-free



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requiring dissimilar PCI bus and PMC signaling, a bridged version of this board (either P/N 3673 or 5012) is available. All of these products use the same optional P/N 4936 fan assembly for forced-air cooling of installed PMCs.

The board has been carefully placed and routed to optimize signal quality to be the best achievable for a passive PMC to PCI adapter. Four

impedance-controlled signal layers, with four power planes (3.3V, 5V, and two GND) are implemented. To minimize signal distance, the routes from the PCI connector to the PMC connectors are routed “diagonally”, a technique unique to this product. Through experience, more than one of these adapters can be used on a “typical” 33 MHz PCI bus segment, but it is recommended that no more than two (2) of these adapters be

installed on a bus. For more than 2 boards or for higher clock speeds, please consider a bridged adapter, such as P/N 3673 or 5012.

Although similar to P/N 4933, this adapter supports 64-bit transfers. For cost sensitive applications requiring no forced-air cooling and only 32-bit, 33MHz operation, please refer to P/N 4933.

Specifications

Temperature (Operating): 0 to 55 C
 Temperature (Storage): -40 to +85 C
 Altitude: Not specified or characterized (Typical similar equipment is at 15,000 ft.)
 Humidity (Operating/Storage): 5% to 90% non-condensing
 Vibration: Not specified or Characterized
 MTBF: Can be provided upon request
 Typical Power Dissipation: TBD
 Power Supplies Required: Per PMC under test
 PCI Environment: 3.3V, 5V; 33 MHz, 64Bit PCI bus

Ordering Information

4930: PMC to PCI adapter
 4936: Optional fan assembly (a single fan assembly can be used to cool two adjacent 4930 adapters)

