

# PMC Carrier / Adapter

## Bridged PMC-X to PCI-X Adapter

This PMC-X to PCI-X Adapter with PCI-X to PCI-X bridge permits delivery of PMC-derived applications in a standard PCI or PCI-X environment. Both PMC (IEEE 1386.1) and PMC-X boards (VITA 39) of any signaling level, clock frequency, and bus width are supported as allowed by the Intel 31154 bridge.

This product features a 31154 PCI to PCI bridge chip to assure PCI bus signal integrity even with multiple adapters plugged into a single PCI bus segment. The 31154 bridge will operate at PCI speeds of 33 or 66 MHz or at PCI-X speeds of 66/100/133 MHz on both the primary and secondary PCI busses. 32-bit and 64-bit transactions are supported, and the bridge will translate transfer width, clock frequency, and protocol differences between the PCI busses (see 31154 datasheet at [www.intel.com](http://www.intel.com) for more detail).

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). Two LEDs sense the pri-

mary side and secondary side VIO signal voltage to indicate if the bus uses 3.3V (VIO = 3.3V) or 5V (VIO = 5V) PCI bus signaling.

An optional fan assembly (P/N 3675) is available that can cool two adjacent PMC-X to PCI-X adapter boards with substantial forced-air to cool high-power PMC modules. The 3675 has a plenum arrangement to guide air efficiently across the PMC/adapter for the most effective cooling available for PMC to PCI adapters.

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

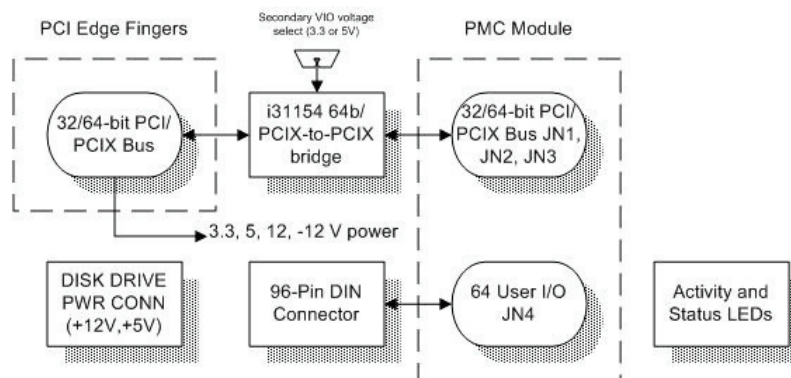
The user may select either 3.3V or 5V secondary PCI bus signaling levels using a jumper on the PMC-X to PCI-X adapter board. The 3.3V / 5V signaling level for the primary PCI bus is established by the VIO power rail on the PCI bus edge finger.

The A and C rows of a 96-pin DIN connector, located toward the rear of the board, connect with the 64-pin

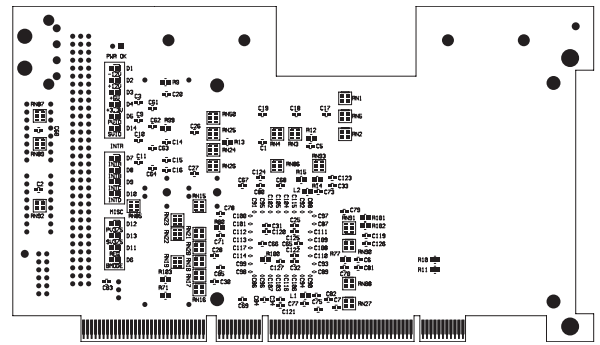
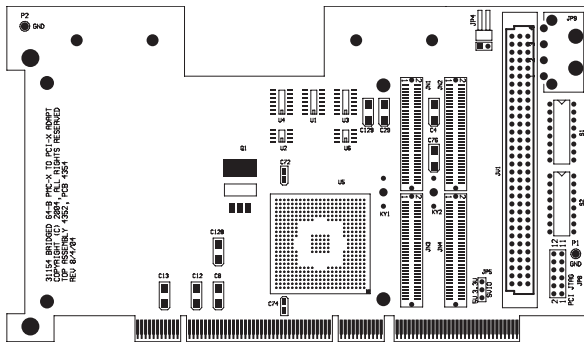


5012  
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- Adapts PMC or PMC-X modules to PCI or PCI-X
- Intel 31154 Bridge
- Supports PCI (33/66 MHz) and PCI-X (66/100/133 MHz)
- Rear I/O support
- LEDs for key PCI bus signals and power
- Accommodates external power
- Optional fan assembly for additional cooling
- RoHS-compliant, Lead-free



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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 what is 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.

### 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: 255.45K Hours (Gb, 20 C)  
 PCI Environment: 3.3V, 5V; 33/66/100/133 MHZ PCI or PCI-X Bus

### Ordering Information

5012: PMC-X to PCI-X adapter  
 4936: Optional fan assembly (a single fan assembly can be used to cool two adjacent 5012 adapters)

