

# PMC Carrier / Adapter

## PMC to PCI Express Adapter

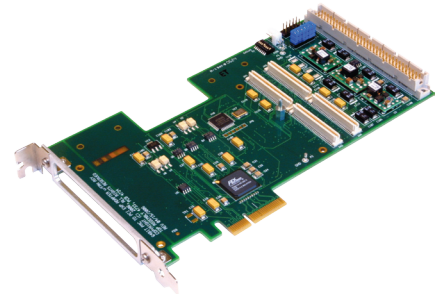
This 64-bit PMC-to-PCI Express carrier card with transparent bridge permits use of 3V and universal PMC/PMC-X cards in a 4X, 8X or 16X PCI Express slot. The product features a PEX8114 bridge running in transparent mode.

The primary (PCI Express) side of the bridge is fixed at 2.5 Giga bits per second per lane in each direction. Each lane is composed of a 2.5GHz transmit and a 2.5GHz receive channel. The secondary (PCI/PCI-X) side operates at 33, 66, 100 or 133 MHz (either 64 or 32 bits). The secondary side supports both standard PCI and PCI-X signaling. The PCI-X bus is carried on the JN1, JN2, and JN3 connectors per the IEEE 1386.1 specification.

The A and C rows of a 96-pin DIN connector 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.

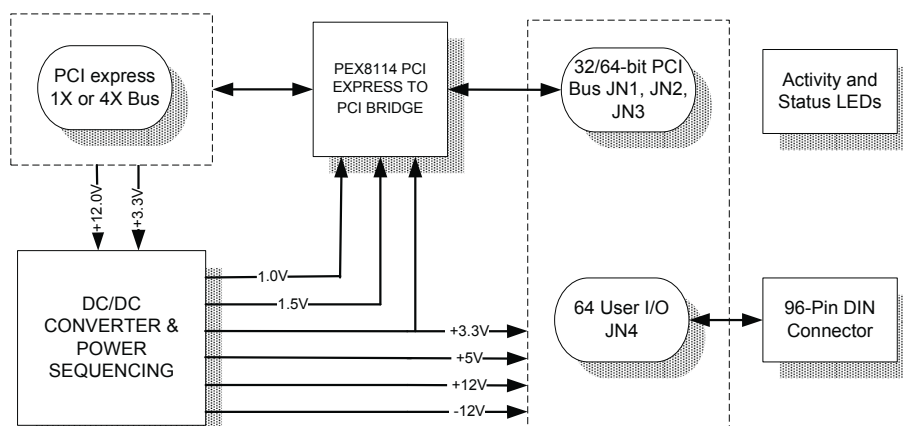
A variant (P/N 4749) is available. Whereas the 4733 is used with 4X, 8x or 16X PCI express slots, the 4749 is intended for use with 1X PCI Express slots (but may also be used in wider slots). An optional fan assembly (P/N 4936) is available that fits over two adjacent adapter boards and provides substantial forced-air cooling of high-power PMC modules.

Activity LEDs located at the edge of the board give an indication of key PCI and PCI express signals and voltages. The XCAP and M66EN signals are supported by this board by DIP switch settings to force operation at non-X or lower PCI clock frequencies. The BUSMODE[4..2] inputs to the PMC is set to 001 indicating use of the PCI bus for the PMC connectors. The JTAG signals from the PCI bus and the PCI Express bus are brought out to headers allowing users the option of connecting the JTAG ports. The -12V and +5V for the PMC are generated from the +12V provided by the PCI Express bus.

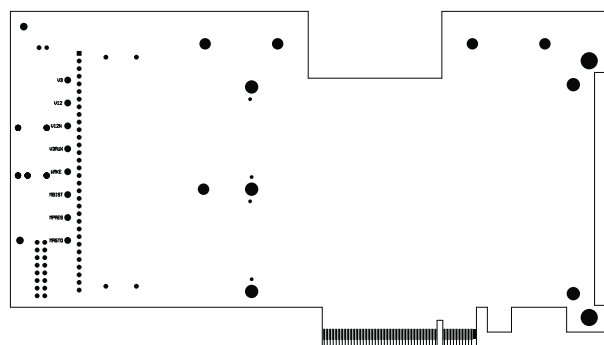
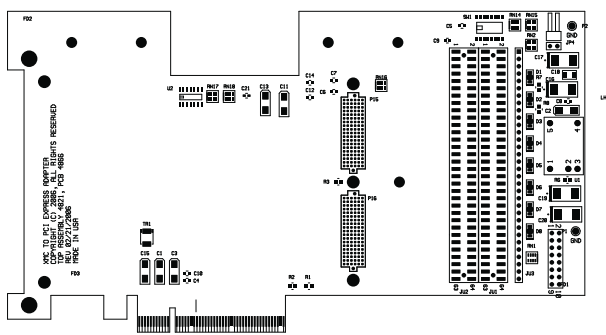


**4733**  
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- Adapts a PMC or PMC-X to a PCIe Site
- PLX 8114 Bridge
- 4, 8, or 16 Lanes PCIe
- 2.5 Gb/s per Lane (each direction)
- LEDs for Key PCI and PCIe Signals and Voltages
- Optional fan assembly for additional cooling
- RoHS-compliant, Lead-free



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This board has been carefully designed to minimize signal lengths on the 2.5GHz LVDS PCI Express bus. Four impedance-controlled signal layers and four power planes (2xGND, 3.3V, and V1.0) are employed to minimize transmission line effects. 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. This bridged adapter needs

no additional software support since PCI Express is backward compatible with PCI software. Software support for the mounted PMC should be provided by the PMC supplier.

### Specifications

Temperature (Operating): -40 to 85 C  
 Temperature (Storage): -50 to +100 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: Per PMC under test  
 PCI Environment: 3.3V, PCI-X 32/64 bit, 33/66/100/133 MHz

### Ordering Information

4733: PMC to PCI Express Adapter - 4X  
 4749: PMC to PCI Express Adapter - 1X

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