PMC Carrier / Adapter

PMC-to-PCI Express Adapter

The 5243 carrier card allows use of a 32 bit PMC in a PCI express edge card slot.

A PEX8111 transparent bridge IC interfaces the PCI express primary side and a PCI secondary side.

The PCI secondary side operates at 33 or 66MHz 32 bit.

The PCI secondary side can be configured for 3V or 5V by moving a jumper and voltage peg.

The product will work in 1X, 4X, 8X or 16X PCI Express slots. But will only provide 1X bandwidth in slots wider than 1X.

The PCI express primary side of the bridge is fixed at 2.5 Giga bits per seconds per lane in each direction. Each lane is composed of a 2.5GHz transmit and a 2.5GHz receive channel.

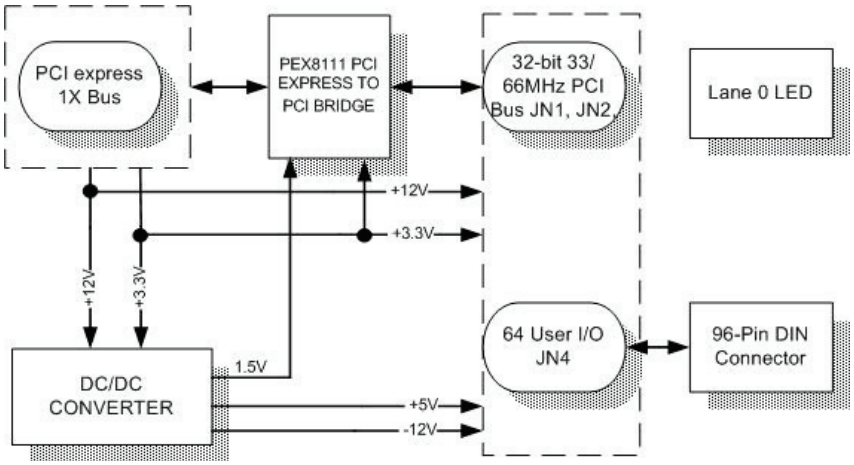
The A and C rows of a 96-pin DIN connector, located toward the rear of the board, connect with the 64-pin user I/O connector (J4/P4) on the mezzanine card. This connection is specified by IEEE 1386 for the P2 connector on VMEbus boards and permits internal connection of rear I/O, should the PMC board support rear I/O connectivity.

An optional fan assembly (P/N 4936) is available that can be used with two or one PCI express adapter boards and provides substantial forced-air cooling of high-power PMC modules.

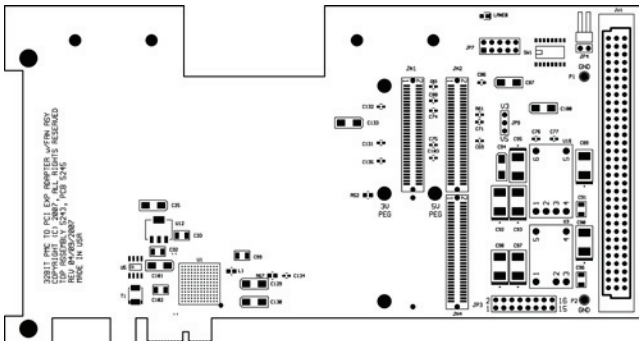
This bridged adapter needs no additional software support since PCI Express is backward compatible with PCI software. Software support for the

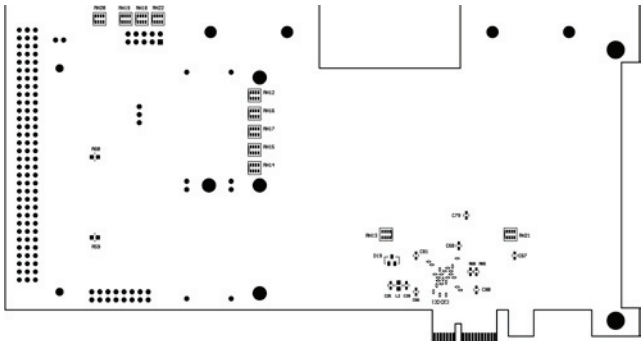
5243

- **Adapts PMC to PCI Express 1X Slot.**
- **PLX 8111 Bridge**
- **Supports PCI (33/66MHz) 32 bit, 3V or 5V Signaling.**
- **Rear I/O support**
- **LED Indicator for PCI Express lane OK**
- **Optional fan assembly for additional cooling**
- **RoHS-compliant, Lead-free**



Technobox





PMC in use is provided by the PMC supplier.

One status LED located at the edge of the board indicates PCI express Lane 0 ok.

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 two JTAG ports.

The -12V and +5V for the PMC are generated by high efficiency DC/DC converters from the PCI express bus +12V.

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.

Specifications

PCI bus: 33 or 66 MHz, 32 bit

PCI signaling: 3.3V or 5V

Power required: +3.3V and +12V, provided by the PCI express motherboard.

Environment (temperature): -40 to +85 degrees operating, -40 to +85 degrees non-operating

Environment (Humidity): 0 to 95% non-condensation

Environment (shock): Not characterized or tested

MTBF: Available on request.

Size: PCB measures 4.376” x 7.875” maximum envelope. Conforms to PCI exp standard.

ROHS compliant.

Ordering Information

5243: PMC to PCI Express Adapter (1X)

Technobox, inc.®

 DS5243-A80208

Technobox, Inc.
140 Mount Holly Bypass
Unit 1
Lumberton, NJ 08048
Tel: 609-267-8988 • Fax: 609-261-1011
www.technobox.com