

# XMC Carrier / Adapter

## 8-lane XMC-to-PCI Express Adapter

The XMC2PCE is a passive 8X XMC to PCI express carrier card which permits the use of XMC cards in PC style PCI express 1X, 2X, 4X, 8X or 16X motherboard slots.

The 8 PCI express lanes on the P15 XMC connector are routed to the male PCI express edge finger connector. The reserved future use, RFU, signals from P15 are available on one of the user connectors.

The XMC2PCE can be ordered in widths of 1X, 4X and 8X to work in different sized PCI express slots. Part numbers 4823, 4822 and 4821 respectively.

The XMC2PCE also provides user access to all the signals on the XMC P16 connectors via two 64 pin headers UC1 and UC2.

All the lanes in the XMC PCI express interface and the PCI express interface are fixed at 2.5 Giga bits per seconds per lane in each direction.

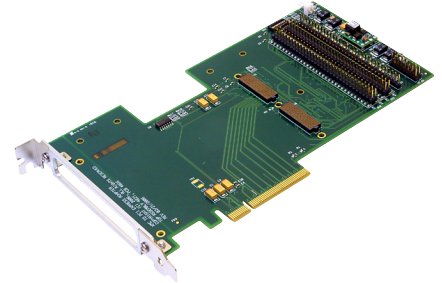
Each lane is composed of a 2.5GHz transmit and a 2.5GHz receive channel.

An optional, RoHS-compatible fan assembly (P/N 4936) is available that fits over two XMC-to-PCI express adapter boards and provides substantial forced-air cooling of high-power XMC modules.

This adapter needs no additional software support since PCI Express is bussed passively to the XMC connector.

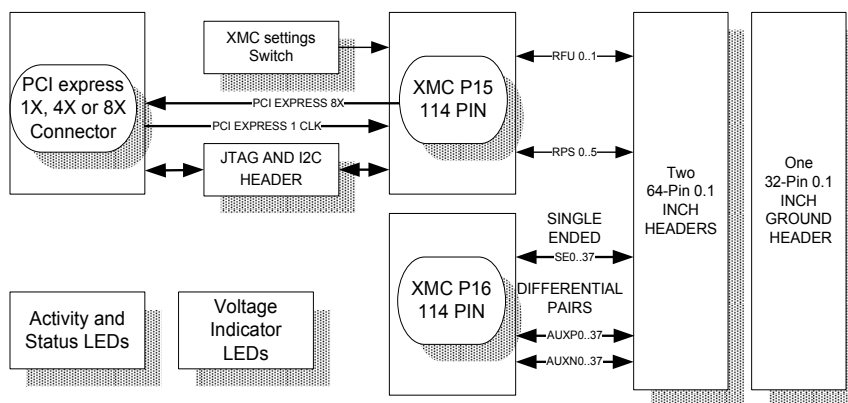
This board provides only +12V on VPWR to the XMC card, while this should not be an issue as all XMC card should accept either +5V or +12V on VPWR, please confirm this before use.

Several activity LEDs located at the edge of the board give an indication of key XMC and PCI express signals and voltages.

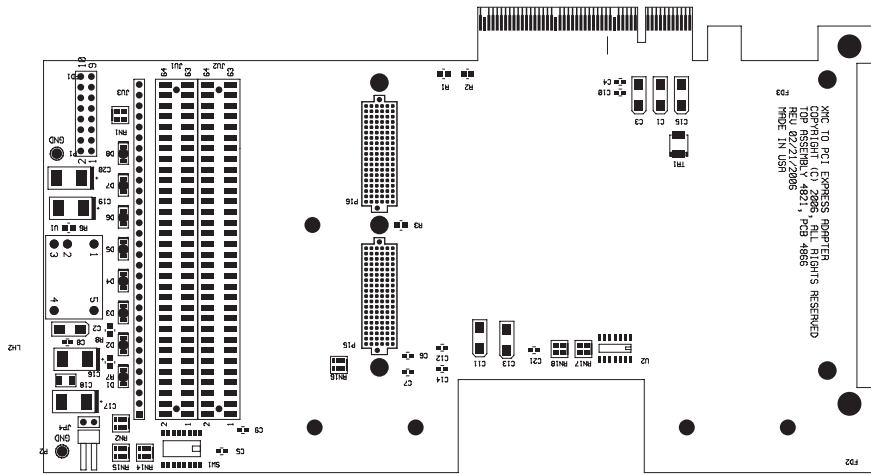


4821

- Adapts an XMC card to PCIe slot
- Supports up 8 PCI Express lanes
- 2.5 Gb/s per lane in each direction.
- Status LEDs show XMC and PCIe status and activity
- XMC signals from P16 are accessible via two 64-pin headers
- Headers provide access to JTAG and I2C signals
- Provides 12 volts only
- Optional fan assembly to augment cooling
- RoHS-compatible, Lead-free



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The MVMRO and ROOT0 output signals to the XMC card are supported on this board by DIP switch settings, along with the I2C eeprom base address GA[2..0].

The JTAG and I2C signals from the XMC bus and the PCI express bus are brought out to headers allowing users the option of connecting to those signals.

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 V12) 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 XMC installed on a VMEbus board or other host environments and allows the XMC bezel to be firmly positioned on the board.

Contact Technobox for O/S and software support.

### 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: Available upon request  
 Typical Power Dissipation: TBD  
 Power Supplies Required: +3.3V, +12  
 PCI Express Environment: +3.3V, +12V

### Ordering Information

4821: 8X PCI express XMC carrier, P16 I/O  
 4822: 4X PCI express XMC carrier, P16 I/O  
 4823: 1X PCI express XMC carrier, P16 I/O

