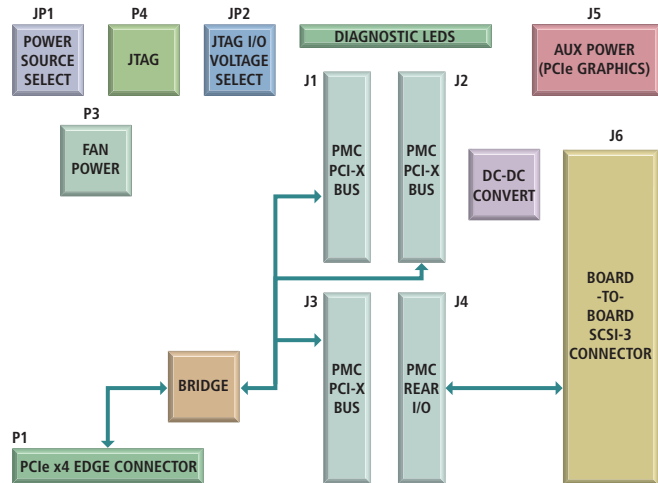
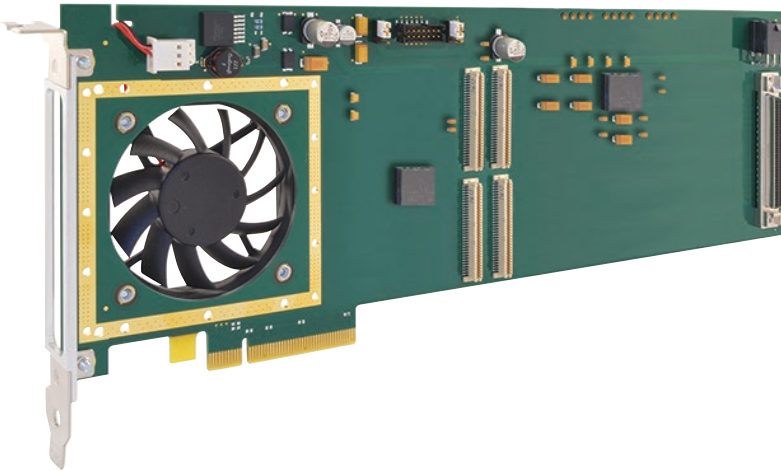


▶ PMC Module Carriers

APCe8670 PCI Express Carrier Card for PMC Modules



One PMC mezzanine module slot ♦ Non-Intelligent carrier card ♦ PCIe x4 interface

Description

Acromag's APCA8670 carrier card interfaces a PMC mezzanine module to a PCI Express bus in a PC-based desktop computer system.

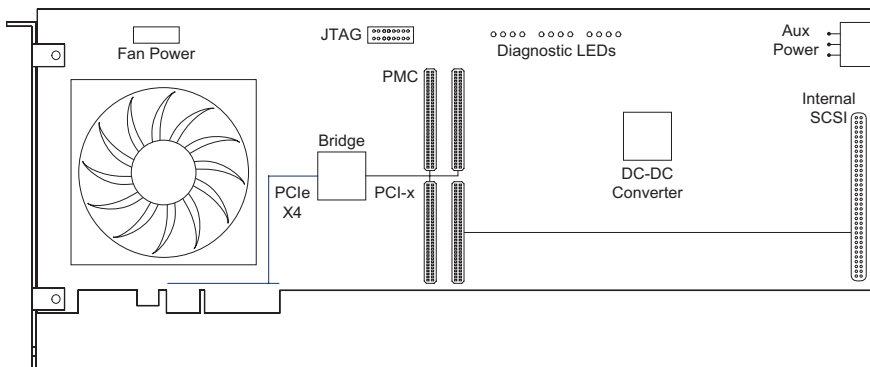
The APCA8670 is a PCIe bus adapter board that allows a PC (PCIe bus master) to control and communicate with the hosted PMC module. It simply acts as an adapter to route signals between the system's PCIe bus and the PMC module connectors.

The I/O signals are accessible via rear connectors and through the front mounting bracket. Cables are available to connect the carrier's rear I/O to a front panel connector in an adjacent slot.

Select PMC modules from Acromag's offering of high-performance FPGA and I/O solutions or use any third-party ANSI/VITA 20 compliant mezzanine modules.

Key Features & Benefits

- One PMC module slot
- 4-lane PCI Express interface
- PCI-X interface supports 32/64-bit addressing, 32/64-bit data bus at up to 100MHz operation
- Carrier routes 32 differential pairs to rear connector for LVDS I/O from the PMC module
- JTAG connector supports Xilinx programmer for use with hosted FPGA modules
- Cooling fan
- Auxiliary power connection for 12V source
- Diagnostic LEDs indicate communication speed



Tel 248-295-0310 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

PMC/XMC Module Carriers

APCe8670 PCI Express Carrier Card for PMC Modules



Performance Specifications

■ PMC Compliance

PMC Module
Conforms to CMC/PMC Specification, P1386.1.

■ PCI/X Bridge

Compliant to the following specifications:
PCI Express Base Specification (Rev. 1.1)
PCI Express-to-PCI/PCI-X Bridge Specification (Rev. 1.0)
PCI-to-PCI Bridge Specification (Rev. 1.2)
PCI Local Bus Specification (Rev. 3.0)
PCI-X Addendum to PCI Local Bus Specification (Rev. 2.0, mode 1 only)
PCI Bus Power Management Interface Specification (Rev. 1.2)

Addressing

32/64-bit.

Data bus

32/64-bit.

Interface

Supports up to 100MHz operation.

■ PCI Express Interface

PCI Express interface

4 lane, Gen 1 capable.

PCIe bus compliance

This device meets or exceeds all written PCI Express specifications per revision 1.1 dated March 28, 2005.

■ I/O Interface

Rear I/O (J6)

Connector: MD68 (internal SCSI), male.

32 LVDS pairs routed from the PMC P4 connector.

■ Environmental

Operating temperature
0 to 70°C.

Storage temperature
-55 to 125°C.

Relative humidity
5 to 95% non-condensing.

Power

The carrier provides +3.3V, +5V, +12V and -12V power to the PMC module. The +12V power source is jumper-selectable from the PCIe bus +12V supply or the PCIe graphics power connector. DC/DC converters generate a +5V or -12V supply from the +12V source.

+3.3V (±10%): 0mA.

+12V (±5%): ??mA, typical with fan operating.

Currents specified are for the carrier board only. For the total current required from each supply, add the PMC module currents.

MTBF

Contact the factory.

■ Physical

Dimensions

Length: 9.342 inches (237.3 mm).

Height: 4.376 inches (111.2 mm).

Width: Occupies two slots with fan installed (fan is mounted on solder side, height is 10 mm). Occupies one slot with fan removed.

Board thickness: 0.062 inches (1.59 mm).

Connectors

J1, J2, J3: PMC PCI-X signals.

J4 : PMC user signals (rear I/O).

J5: Auxiliary power connector (PCIe graphics).

J6: Board-to-board connection of J4 user signals.

JP1: Power source select jumper.

JP2: JTAG I/O voltage select jumper.

P1: PCI Express V1.1 x4 lanes card edge.

P3: Fan power.

P4: JTAG (Xilinx programming adapter).

Ordering Information

Carrier Cards

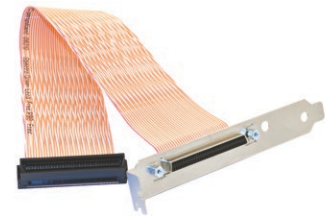
[APCe8670](#)

PCI Express carrier card for PMC modules

Accessories

[5025-913](#)

CS Electronics internal SCSI cable with PCI bracket-mounted HD68 female connector. Brings the PMC J4 rear I/O signals to back panel of the PC.



PMC Modules

See www.acromag.com for more information.



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