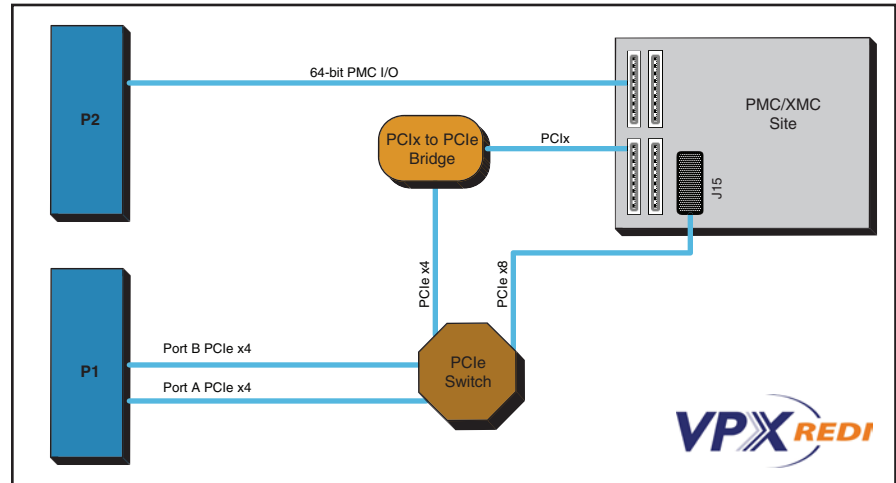


# VPX Carrier Cards

## VPX4810 VPX Carrier Cards for XMC or PMC Modules

24 HOUR STOCK ITEM  
2 YEAR WARRANTY



Air-cooled, conduction-cooled and REDI versions ♦ 3U ♦ One PMC/XMC slot ♦ PCIe x8 Gen 2 interface

### Description

These 3U mezzanine carrier cards provide a simple and cost-effective solution for interfacing a PMC or XMC module to a VPX computer system. The carrier card routes power and bus signals to a plug-in mezzanine module through the VPX card slot connector. Industrial I/O and configurable FPGA modules from Acromag or other vendors are supported.

These carriers are ideal for high-performance industrial, defense, scientific research, and telephony systems requiring high-speed I/O expansion. The VPX4810-LF is available in three versions: air-cooled, conduction-cooled and a Ruggedized Enhanced Design Implementation (REDI VITA 48).

### Key Features & Benefits

- 3U VPX carrier board delivers 25W of power to one PMC/XMC site
- PMC/XMC site uses 64-bit, 66/133MHz PLX technology with a PCIe to PCI-X bridge
- PCIe bus 8-lane Gen 1 or 2 interface
- Supports standard PMC/XMC modules (IEEE 1386.1)
- Conforms to VPX VITA 46.0, 46.4 and 46.9 specifications and optionally VITA 48
- Supports front or rear panel PMC/XMC I/O
- Supports 64 I/O lines (P14, VITA 46.9) via the P2 VPX connector
- 3.3V PCI-X signaling PMC site
- +12V and -12V provided to PMC/XMC site
- Monitors FRU information and module temperature



Conduction-cooled version



VPX REDI VITA 48 version

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Tel 248-295-0310 ■ Fax 248-624-9234 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

# VPX Carrier Cards

## VPX4810 VPX Carrier Cards for XMC or PMC Modules

### Performance Specifications

NOTE: Specifications for VPX4810 only.

#### ■ General

##### Form Factor

3U VPX bus 6.299" (160mm) x 3.937" (100.0mm).

##### Pitch

VPX4810 (air-cooled): 0.80" pitch

VPX4810CC (conduction-cooled): 0.85" pitch

VPX4810REDI (conduction-cooled REDI): 1.00" pitch

##### VPX Carrier Interface

Compatible VITA 65 module / slot profiles:

MOD3-PER-2F-16.3.1-3 / SLT3-PER-2F-14.3.1

MOD3-PER-1F-16.3.2-2 / SLT3-PER-1F-14.3.2

MOD3-PAY-1D-16.2.6-1' / SLT3-PAY-1D-14.2.6

MOD3-PAY-2F-16.2.7-1' / SLT3-PAY-2F-14.2.7

Note 1: Board is compatible with payload profiles but has no hosting capabilities.

FRU EEPROM with temperature monitor.

##### PMC/XMC Interface

One IEEE 1386.1 PMC/XMC module in single VPX slot.

PMC site is PCI 3.0 compliant, 32/64-bit, 33/66MHz, up to 1GB/s.

PMC site is PCI-X 1.0b compliant, 64-bit, 66/100/133MHz, up to 1GB/s.

XMC site is PCIe Gen. 2.0 and 8 lanes wide.

3.3V, 5V and  $\pm 12V$  provided for PMC modules via the VPX backplane.

Front or rear panel I/O support for the PMC site with 64 I/O lines, or 32 differential pairs. Rear I/O is compliant to VITA 46.9 P2w1-P64s.

#### ■ Power Requirements

##### Carrier-Only Power Requirements

+3.3V DC: 0.9A typical plus any additional power consumed by PMC/XMC (4A max).

+5V DC: 0.9A typical plus any additional power consumed by PMC/XMC (4A max).

+12V DC and -12V DC provided to PMC site from VPX backplane.

##### MTBF

MIL Spec 217-F @ 105,000 hours.

#### ■ Environmental

##### Air-Cooled Operating Temperature

0 to 70°C (air flow requirement as measured to be greater than 200 LFM).

##### Conduction-Cooled Operating Temperature Range

-40 to 85°C (board must operate in a fully-installed conduction-cooled rack).

##### REDI (VITA 48) Operating Temperature Range

-40 to 85°C (board MUST operate in a fully-installed conduction-cooled, REDI supported rack).

##### Storage Temperature Range

-55 to 100°C.

##### Relative Humidity

5 to 95% non-condensing.

##### Vibration

0.05g RMS (20 - 2000Hz) random, operating 6g RMS per Hz spectrum.

##### Shock

30g each axis, 11ms.

### Ordering Information

#### Carrier Cards

##### VPX4810-LF

VPX carrier card, 3U, one PMC/XMC slot

##### VPX4810-CC-LF

Conduction-cooled version of VPX-4610

##### VPX4810-REDI-LF

Ruggedized enhanced design implementation (REDI VITA 48) version of VPX-4810-LF

#### Accessories

See [www.acromag.com](http://www.acromag.com) for more information.

#### Software Development Tools

See [www.acromag.com](http://www.acromag.com) for more information.

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Tel 248-295-0310 ■ Fax 248-624-9234 ■ [solutions@acromag.com](mailto:solutions@acromag.com) ■ [www.acromag.com](http://www.acromag.com) ■ 30765 Wixom Rd, Wixom, MI 48393 USA