



# Pelican™ PMC Carrier for Compact PCI

## Versatile dual PMC carrier for 6U cPCI slots

*Use PMCs to build powerful, high density cPCI systems while conserving slot space*

### Pelican™ Family of PMC Carriers

Sabtech's 6U Compact PCI (cPCI) Carrier is one of a number of PMC carriers in the Pelican™ family. The Pelican™ family of PMC carriers adapt PCI Mezzanine Cards (PMCs) to a variety of bus architectures including Compact PCI (cPCI), VME, VME64, VME64x, PCI, and PCI Express (PCIe). PMCs combine the electrical characteristics of the PCI bus with the mechanical dimensions of the Common Mezzanine Card (CMC) format, resulting in a small daughter card that can be mounted in industry standard PMC sites to add system features, increase computing power, or increase I/O channel density.

### Pelican™ 6U cPCI Dual PMC Carrier

The Pelican™ 6U cPCI Carrier hosts two PMC cards and supports 32 or 64-bit operation at 33 or 66 MHz. The PMCs are connected to an onboard secondary PCI bus which is transparently bridged to the offboard primary bus making both PMCs visible to the cPCI system. VIO for the PMC sites can be set for 3.3 or 5.0 VDC signaling.

- Dual PMC sites
- Front or rear I/O connections
- Hot swappable
- Optional onboard Ethernet ports

### Rear I/O Capability (Optional)

In addition to normal front I/O, the Pelican™ 6U cPCI Carrier also features the ability to make rear I/O connections. User-defined I/O signals from each PMC site pass through the cPCI backplane on connectors J3 and J5, which mate with the

optional Rear Transition Module (RTM). Signals are routed to two industry standard PMC I/O Module (PIM) sites on the RTM. PIMs provided by the PMC vendor are mounted on the RTM to provide the final connection point. Up to 64 bits of I/O are supported for each PMC.

### Hot Swap Capability

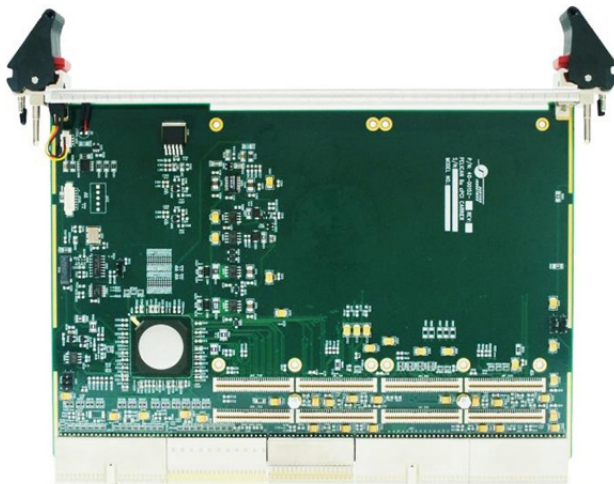
Basic Hot Swap and Full Hot Swap are supported, enabling the orderly insertion or extraction of boards without adversely affecting a running system. When used with an operating system that supports hot swap, a blue Hot Swap LED illuminates when extraction is permitted and the card can be safely removed.

### Gigabit Ethernet Controller (Optional)

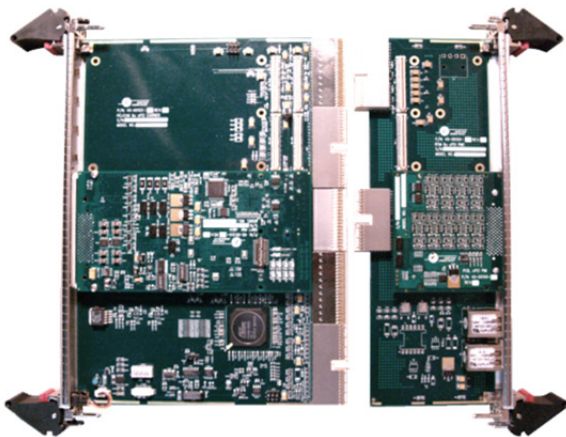
The Pelican™ 6U cPCI Carrier can be configured with two optional Gigabit Ethernet Controllers, which provide two network interfaces for 10/100/1000 Mb/s full- and half-duplex operation. The two ports are accessible via rear I/O using the optional Rear Transition Module only.

### Product Overview

- 6U cPCI carrier board with sites for two PMCs
- Supports 32 or 64-bit operation at 33 or 66 MHz
- Full hot swap capability, PICMG 2.1 R2.0 compliant
- Status LED for Hot Swap (blue)
- Front or rear panel I/O support for PMC sites
- Selectable 3.3V or 5V PCI signaling for PMC sites
- Supports universal (3.3V or 5V) signaling on the cPCI backplane
- Two Gigabit Ethernet controllers accessible through rear I/O (optional)

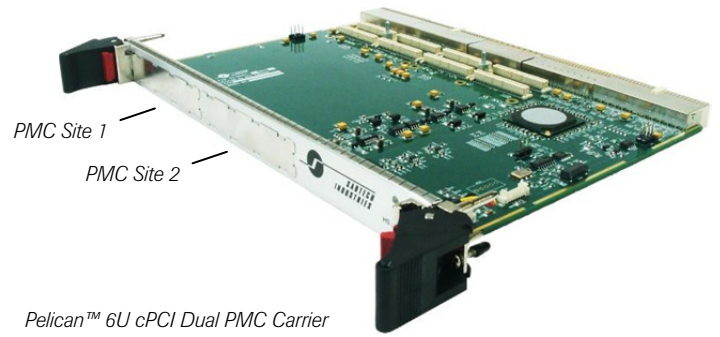


*Pelican™ 6U cPCI Dual PMC Carrier*

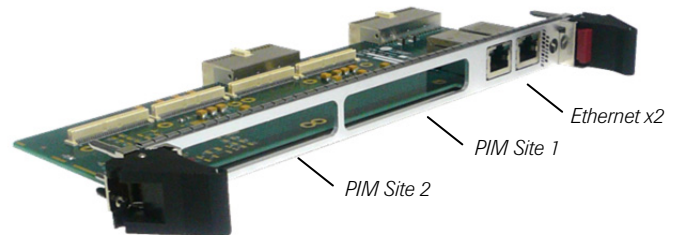


*Pelican™ 6U cPCI Dual PMC Carrier shown with Sabtech NTDS Parallel PMC*

*Rear Transition Module shown with Sabtech PMC Interface Module (PIM)*



*Pelican™ 6U cPCI Dual PMC Carrier*



*Pelican™ 6U cPCI Rear Transition Module*

### Pelican™ 6U cPCI Specifications

cPCI Interface	PICMG 2.0, version 3.0 compliant
cPCI Form Factor	6U Eurocard (160 mm by 233 mm)
PMC Site Interface	Dual PMC sites IEEE P1386.1 compliant PMC on CompactPCI, PICMG 2.3 R1.0 compliant Selectable 3.3V or 5V PCI signaling IEEE P1386-2001 compliant VIO keying 32 or 64-bit operation 33 or 66 Mhz operation
PMC Site Form Factor	IEEE P1386 Single Size CMC (149 mm x 74 mm)
Rear I/O Connections*	Wired per PICMG 2.3 Rev 1.0 Up to 64 bits of user-defined I/O for each PMC Dual 10/100/1000BASE-T
Hot Swap	PICMG 2.1 R2.0 compliant Blue Hot Swap LED
Ethernet Ports (optional)	Dual RJ-45 10/100/1000BASE-T*
Weight	8 oz (unpopulated)
Power Consumption**	+3.3 VDC @ 2.9A
Relative Humidity	5% to 95% (non-condensing)
Operating Temperature	0°C to +55°C

\* Available only when Carrier and RTM are used together

\*\* Power Consumption based on unpopulated carrier with onboard Ethernet controllers. Actual consumption will vary depending on PMC module power requirements.

### Rear Transition Module Specifications

cPCI Interface	PICMG 2.0 CompactPCI specification, version 3.0 compliant Vita 36 – 199X Draft Rev 1.0 compliant
cPCI Form Factor	6U CompactPCI RTM carrier board with sites for two PMC I/O Modules (PIMs)
PIM Site Form Factor	69 mm x 74 mm
Rear I/O Connections	Up to 64 bits of user-defined I/O† Dual RJ-45 10/100/1000BASE-T‡
Relative Humidity	5% to 95% (non-condensing)
Operating Temperature	0°C to +55°C

† Requires matching PIM from the PMC vendor; Connection scheme is specified by the vendor

‡ Available only when Carrier is configured with onboard Ethernet controller (see Model Numbers)

### Model Numbers

PC-CPC6U-01	Pelican PMC Carrier, cPCI 6U, with two Ethernet controllers
PC-CPC6U-02	Pelican PMC Carrier, cPCI 6U (no Ethernet controllers)
PC-RTM6U-01	Pelican Rear Transition Module, cPCI 6U, with dual RJ-45 Ethernet connectors
PC-RTM6U-02	Pelican Rear Transition Module, cPCI 6U (no RJ-45 Ethernet connectors)