

PMCspan

PMC Expansion Mezzanine

■ Embedded Computing for
Business-Critical Continuity™

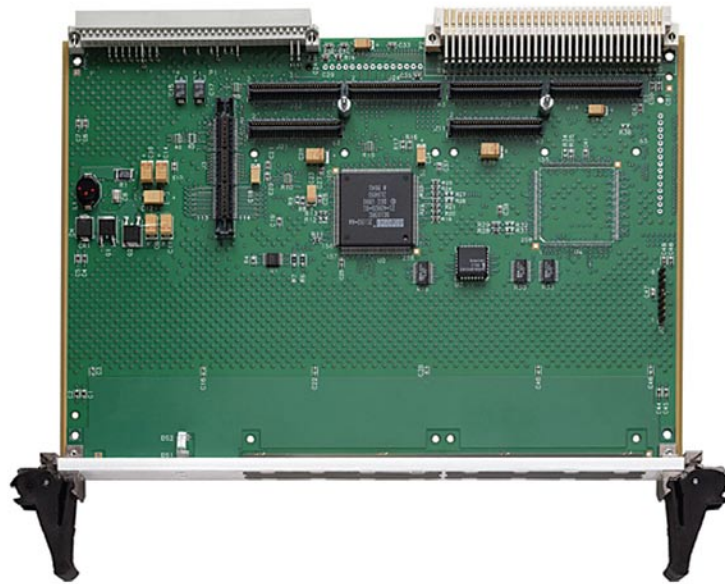
The PMCspan board provides VMEbus processor modules with greater expansion capabilities


- Single-slot 6U VMEbus format
- PLX6150 PCI-to-PCI interface bridge
- Support for two single-wide or one double-wide PCI Mezzanine Card (PMC) per PMCspan
- Stacking capability
- Front-panel and/or P2 I/O
- Compliant with PCI local bus specification (revision 2.1)
- Injector/ejector handles per VME64 extensions
- Compatible with Emerson's PowerPlus VME series

The Emerson Network Power PMCspan board allows users to customize their exact I/O requirements with Emerson's VME-based CPU modules designed around the PowerPlus architecture.

When a PMCspan board is coupled with an Emerson processor module, the system provides up to six PCI Mezzanine Cards (PMCs), more expansion capability than any other VME-bus processor module. Each PMCspan board supports either two single-wide or one double-wide PMC. By stacking PMCspan boards onto a processor module, a total of four additional single-wide PMCs can be added to Emerson's compute engines – either today or as future application growth demands.

The PMCspan is a standard 6U single-slot VMEbus module that links to its host board via a PCI expansion connector. It supports both front panel and P2 I/O access for customer supplied PMCs.




EMERSON™
Network Power

PMCspan Details

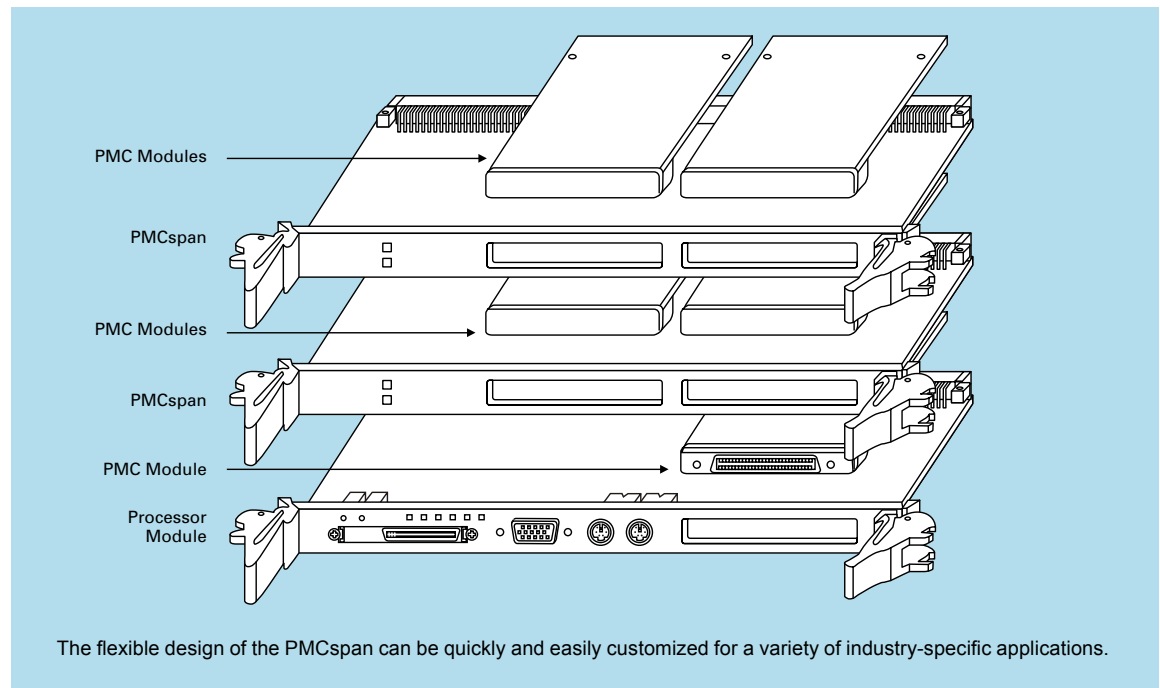
CARRIER BOARDS

Emerson offers a full line of PowerPC® microprocessor-based VME products which can be custom configured for specific applications via on-board PMC slots. The PMCspan expands this capability to further increase customizing alternatives. It is compatible with Emerson's PowerPlus VME series. For further information on these host CPUs, contact your local sales representative.

PRODUCT OFFERING

In order to support the increased PCI bus loading associated with additional PMCs, PMCspan uses the PLX6150. This PCI-to-PCI interface bridge supports a 32-bit primary bus interface and a 32-bit secondary bus interface. PMCspan mates directly with the host CPU via the separate PCI expansion connector.

When the maximum of two PMCspan modules are stacked together, the top board does not require a second PCI-to-PCI interface bridge. Software views this secondary module as an extension to the primary PMCspan.



Specifications

FORM FACTOR

- Single-slot 6U VMEbus format

PCI-TO-PCI INTERFACE

- Controller: PLX6150 PCI-to-PCI interface bridge
- Address/Data: A32/D32
- PCI Bus Clock: 33 MHz
- Signaling: 5V
- Mating Connector on Host Board: 114-pin PCI Expansion Connector; still allows use of host CPU's original PMCs
- Compliance: PCI Local Bus Specification, Revision 2.1

IEEE P1386.1 PCI MEZZANINE CARD SLOTS

- Address/Data: A32/D32, PMC PN1, PN2, PN4 connectors
- PCI Bus Clock: 33 MHz
- Signaling: 5V
- Power: +3.3V, +5V, ±12V, 7.5 watts max. per PMC
- Module Types: Two single-wide or one double-wide, front-panel or P2 I/O
- P2 PMC I/O: 64 I/O signals from first PMC routed to VMEbus P2 connector

POWER REQUIREMENTS (NO PMCS INSTALLED)

Power: +5V @ 0.44 ampere (max.)
+12V @ 0 ampere (max.)
-12V @ 0 ampere (max.)

BOARD SIZE

- Height: 233.4 mm (9.2 in.)
- Depth: 160.0 mm (6.3 in.)
- Front Panel Height: 261.8 mm (10.3 in.)
- Width: 19.8 mm (0.8 in.)

ENVIRONMENTAL

	Operating	Non-operating
Temperature:	0° C to +55° C forced air cooling	-40° C to +85° C
Altitude:	5,000 m	15,000 m
Humidity (NC):	10% to 80%	10% to 90%
Vibration:	2 G RMS, 20–20,000 Hz random	6 G RMS, 20–20,000 Hz random

ELECTROMAGNETIC COMPATIBILITY (EMC)

- Intended for use in systems meeting the following regulations:
 - ▲ U.S.: FCC Part 15, Subpart B, Class B
 - ▲ Canada: ICES-003, Class B
- This product was tested in a representative system to the following standards:
 - ▲ CE Mark per European EMC Directive 89/336/EEC with Amendments; Emissions: EN55022 Class B; Immunity: EN55024

SAFETY

All printed wiring boards (PWBs) are manufactured with a flammability rating of 94V-0 by UL recognized manufacturers.

Ordering Information

Part Number	Description
PMCSPAN16E-002	Primary PCI expansion for MVME2300/2400/5100 w/Scanbe handles, 6E
PMCSPAN16E-010	Secondary PCI expansion for PMCSPAN16E-002 w/Scanbe handles, 6E
PMCSPAN26E-002	Primary PMC expansion for MVME5100/5110/5500 w/IEEE handles, 6E
PMCSPAN26E-010	Secondary PMC expansion for PMCSPAN26E-002 w/IEEE handles, 6E

Documentation

PMCSPANAIH	PMC Carrier Installation and Use Manual
------------	---

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

PowerPC is a trademark of IBM Corp. and used under license. All other product or service names are the property of their respective owners.

This document identifies products, their specifications, and their characteristics, which may be suitable for certain applications. It does not constitute an offer to sell or a commitment of present or future availability, and should not be relied upon to state the terms and conditions, including warranties and disclaimers thereof, on which Emerson Network Power may sell products. A prospective buyer should exercise its own independent judgment to confirm the suitability of the products for particular applications. Emerson Network Power reserves the right to make changes, without notice, to any products or information herein which will, in its sole discretion, improve reliability, function, or design. Emerson Network Power does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent or other intellectual property rights or under others. This disclaimer extends to any prospective buyer, and it includes Emerson Network Power's licensee, licensee's transferees, and licensee's customers and users. Availability of some of the products and services described herein may be restricted in some locations.

Emerson Network Power.
The global leader in enabling
Business-Critical Continuity™.

- | | | |
|-----------------------------|--------------------------------|-----------------------------|
| ■ AC Power Systems | ■ Embedded Power | ■ Precision Cooling |
| ■ Connectivity | ■ Integrated Cabinet Solutions | ■ Services |
| ■ DC Power Systems | ■ Outside Plant | ■ Site Monitoring |
| ■ Embedded Computing | ■ Power Switching & Control | ■ Surge & Signal Protection |

Emerson Network Power

Offices: Tempe, AZ U.S.A. 1 800 759 1107 or +1 602 438 5720 • Madison, WI U.S.A. 1 800 356 9602 or +1 608 831 5500
Shanghai, China +86 10 85631 122 • Paris, France +33 1 60 92 31 20 • Tokyo, Japan +81 3 5403 2730
Munich, Germany +49 89 9608 2333 • Hong Kong, China +852 2176 3540 • Tel Aviv, Israel +972 3 568 4387

www.EmersonNetworkPower.com/EmbeddedComputing

Emerson, Business-Critical Continuity, Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2008 Emerson Electric Co.

PMCSPAN-D6 07/08