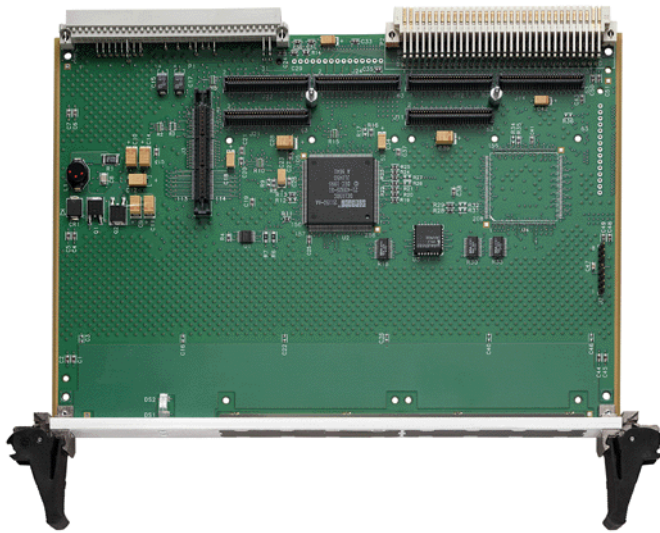


## PMCspan

### PMC Expansion Mezzanine



- ◆ Single-slot 6U VMEbus format
- ◆ DEC 21150 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 Motorola's PowerPlus VME series

#### **Provides VMEbus processor modules with greater expansion capabilities**

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

When a PMCspan board is coupled with an MCG processor module, the system provides up to six PMCs, more expansion capability than any other VMEbus processor module. Each PMCspan board supports either two single-wide or one double-wide PCI Mezzanine Card (PMC). By stacking PMCspan boards onto a processor module, a total of four additional single-wide PMCs can be added to MCG'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.

## PMCSpan Details

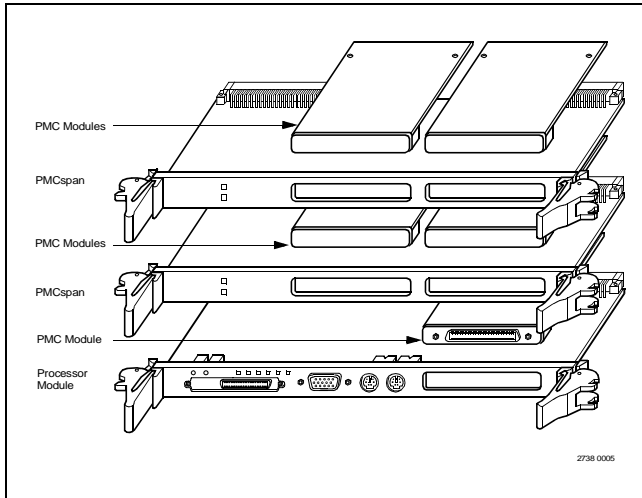
### Carrier Boards

Motorola 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 Motorola'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 DEC 21150. 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.



*The flexible design of the PMCSpan can be quickly and easily customized for a variety of industry-specific applications.*

## Specifications

### Form Factor

Single-slot 6U VMEbus format

### PCI-to-PCI Interface

**Controller:** DEC 21150 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.)

### Demonstrated MTBF

(based on a sample of eight boards in accelerated stress environment)

**Mean:** 190,509 hours

**95% Confidence:** 107,681 hours

### Environmental

	Operating	Nonoperating
<b>Temperature:</b>	0° C to +55° C, forced air cooling	-40° C to +85° C
<b>Altitude:</b>	5,000 m	15,000 m
<b>Humidity (NC):</b>	10% to 80%	10% to 90%
<b>Vibration:</b>	2 Gs RMS, 20-2000 Hz random	6 Gs RMS, 20-2000 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: EN50082-1

### Safety

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

## Ordering Information

<b>PMCSpan-001:</b>	Primary PCI expansion provides two PMC modules for the MVME2600, MVME3600, or MVME4600, includes DEC 21150, optional PMCSpan-010, IEEE 1101 compatible front panel with injector/ejector handles
<b>PMCSpan-002:</b>	Same as PMCSpan-001 but mates only with the MVME2300/2400
<b>PMCSpan-010:</b>	Secondary PCI expansion provides two additional PMC modules, does not include DEC 21150, requires PMCSpan-00x
<b>PMCSpan1-001:</b>	PMCSpan-001 with original VME Scanbe front panel and handles
<b>PMCSpan1-002:</b>	PMCSpan-002 with original VME Scanbe front panel and handles
<b>PMCSpan1-010:</b>	PMCSpan-010 with original VME Scanbe front panel and handles
<b>Documentation</b>	
<b>PMCSpanA/IH:</b>	PMC Carrier Installation and Use Manual
Documentation is available for on-line viewing and ordering at <a href="http://www.motorola.com/computer/literature">http://www.motorola.com/computer/literature</a> .	



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[www.motorola.com/computer](http://www.motorola.com/computer)  
1-800-759-1107

Motorola Computer Group  
2900 S. Diablo Way  
Tempe, AZ 85282

### Regional Sales Offices

#### Canada & Central Pan America

400 Matheson Blvd. West  
Mississauga, Ontario  
L5R 3M1 Canada  
905-507-7135 or 888-366-3624

#### Eastern Pan America

1650 Tysons Boulevard, Suite 250  
McLean, VA 22102  
703-714-0725

#### Western Pan America

1150 Kifer Road, Suite 202  
Sunnyvale, CA 94086  
408-991-8633

#### Asia Pacific and Japan

34/F Nat West Tower  
Times Square, 1 Matheson St  
Causeway Bay, Hong Kong  
852-2966-3209

#### East Mediterranean

6 HaTaas Street  
Ramat-Gan, Isreal 52523  
972-3-610-4388

#### France

Zone Technopolis - Immeuble  
THETA 3, avenue du Canada - BP304  
91958 LES ULLIS  
Courtaboeuf Cedex, France  
+33 (0) 1 64 86 64 00

#### Germany

Hagenauer Strasse 47  
D-65203 Wiesbaden, Germany  
+49 (0) 611-3611 604

#### Benelux

De Waal 26, 5684 PH Best  
PO Box 350, 5680 AJ Best  
Netherlands  
+31 4993 61250

#### Nordic

Dalvagen 2  
S-169 56 Solna, Sweden  
+46 (0) 8 734 8800

#### United Kingdom

London Road, Old Basing,  
Basingstoke, Hampshire  
RG24 7JL England  
+44 (0) 1256 790555

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