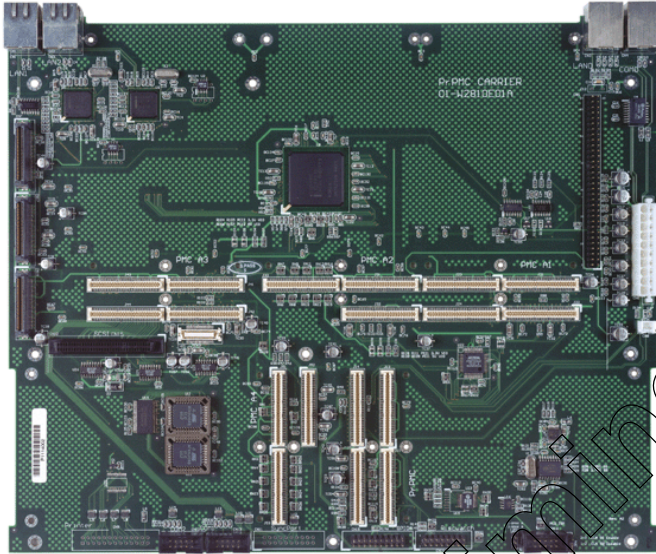


PrPMC Carrier

Configurable Processor PMC Carrier



Standard Features

- ◆ Five PMC sites
 - One 33 MHz capable Monarch processor PMC
 - Four standard 33 MHz PMCs
- ◆ 32/64-bit support
- ◆ Dual 10/100 Ethernet
- ◆ Monarch support including PCI clock, arbitration, etc.
- ◆ Approximately 10" by 12" ATX-like form factor

Optional Features

- ◆ PrPMC System, 1U enclosure
- ◆ Embedded Linux®

Flexible, rapid development for PMC-based products

The PrPMC Carrier provides a flexible off-the-shelf method for deploying and developing PMC processor products. Five complete PMC sites are included: one master (Monarch) and four standard (non-Monarch). With 64-bit PCI support, this carrier board provides a high-performance platform for demanding applications such as storage. Multiple PMC sites provide configurable I/O, supporting a variety of industrial automation interfaces. The PrPMC Carrier is perfect for printing or storage applications where rapid time-to-market is critical. Medical and telecom applications will benefit from rapid upgrades to the processor and I/O.

The front panel supports the three PMCs and connectors for the Monarch site's serial debug and optional Ethernet ports, as well as the two Ethernet ports on the carrier board. Connectors for an ATX-compatible power supply and optional IPMC761 I/O module are also provided.

Details

The PrPMC Carrier supports one master (Monarch) and four target (non-Monarch) PMC sites. All sites support 32/64-bit PCI cards. Processor PMC I/O is supported on the Monarch site including a Flash interface and sockets, serial debug and an optional Ethernet port. The SCSI I/O connector is compatible with the optional IPMC761 module.

Specifications

Processor PMC Monarch Interface

PMC site: Single-wide

Address/Data: 64-bit addressing; 32/64-bit data

PCI Bus Clock: 33 MHz

Signaling: 3.3V or 5.0V selectable

Power: +3.3V, +5V

Size: 74 mm x 149 mm (single-wide)

I/O from Processor PMC

- Front panel
- P14: Serial debug, Ethernet, Flash, JTAG/COP

Related Standard: Compatible with VITA32 processor PMC standard (for more information, refer to www.vita.com)

IEEE P1386.1 Interface

Address/Data: 64-bit addressing; 32/64-bit data

PCI Bus Clock: All sites are 33 MHz

Signaling: 3.3V or 5.0V selectable

Power: +3.3V, +5V

Size: 74 mm x 149 mm (single-wide)
149 mm x 149 mm (double-wide, one site)

Dual Ethernet

Controller: Dual Intel® 82559ER

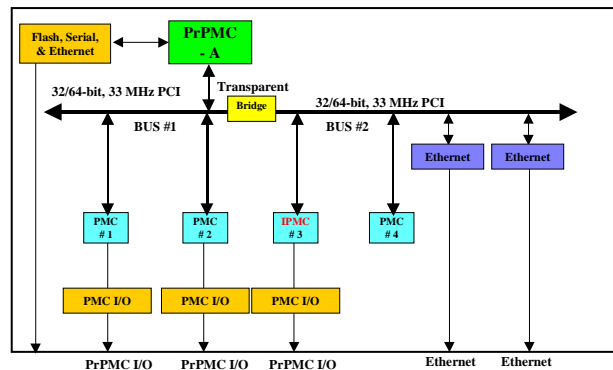
Interface Speed: 10/100Mb/s

PCI Local bus DMA: Yes

Connector: Routed to front panel via an RJ-45

Optional IPMC Support

IPMC761-001 Rear I/O PMC module, Ultra-wide SCSI



I/O Connector Summary

PMC site 1: Monarch with Pn1, Pn2, Pn3, Pn4; Flash sockets for optional debugger

PMC site 2: Pn1, Pn2, Pn3, Pn4 (to 64-pin header for I/O); also front panel I/O

PMC site 3: Pn1, Pn2, Pn3, also front panel I/O

PMC site 4: Pn1, Pn2, Pn3, Pn4 & J45 (for IPMC761 I/O); also front panel I/O

PMC site 5: Pn1, Pn2, Pn3

Power: 20-pin ATX connector, 2-pin on-off switch

Front, COM1 & LAN1: Two RJ-45 Monarch site 1, Pn4 I/O

Front, LAN2 & LAN3: Two RJ-45 Ethernet interfaces to on-board 82559ER

Rear, SCSI: 68-pin miniature sub-D to optional IPMC761 in site 4

Rear, RISC watch: 16-pin header to optional IPMC761 in site 4

Rear, Misc., CN15: Header for power LED, reset, CPU abort

Power Requirements (carrier board only)

+5V ± 5%: TBD

+12V ± 10%: TBD

-12V ± 10%: TBD

Note: +12V/-12V is only supplied to the PMC slot

Board Size (ATX Specification)

Width: 304.8 mm (12.0 in.)

Length: 243.84 mm (9.6 in.)

Height: 20.3 mm (0.8 in.), with standard height PMCs installed

Target MTBF

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

Mean: 190,509 hours

95% Confidence: 107,681 hours

Environmental

(results pending)

	Operating	Nonoperating
Temperature:	0° C to +55° C, forced air cooling	-40° C to +70° C
Humidity (NC):	5% to 85%	5% to 85%
Vibration:	1 G 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 A (non-residential)

Canada: ICES-003, Class A (non-residential)

This product was tested in a representative system to the following standards, results pending:

CE Mark per European EMC Directive 89/336/EEC with Amendments; Emissions: EN55022 Class A; Immunity: EN55024

Safety

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

Ordering Information

PrPMC Carrier Products

Part Number	Description
PRPMC-CARR-0001	Fully configured product with a Monarch PrPMC800-1249 PMC module and four non-Monarch PMC sites, 64MB ECC memory, 1MB Flash and Ethernet
PRPMC-CARR-0002	Fully configured product with a Monarch PrPMC800-1259 PMC module and four non-Monarch PMC sites, 128MB ECC memory, 1MB Flash and Ethernet
PRPMC-CARR-0003	Fully configured product with a Monarch PrPMC800-1269 PMC module and four non-Monarch PMC sites, 256MB ECC memory, 1MB Flash and Ethernet

Note: For more information on the PrPMC800 PMC module, see <http://www.mcg.mot.com/us/ds/pdf/ds0117.pdf>

Related Products

Part Number	Description
IPMC761-001	Ultra-wide SCSI with compatible connector on PrPMC Carrier
MPMC301-001	Entry-level VGA graphics—recommended for Linux
PRPMC-SYS-0002	1U ATX-like processor PMC System with four PMC I/O sites

Note: Future PMCs include gigabit Ethernet and Fibre Channels.

Documentation

PRPMCCRA/IH	PrPMC Carrier Installation Guide
Once released, documentation is available for on-line viewing and ordering at http://www.motorola.com/computer/literature .	



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