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Data Sheet

August 15, 2026

EMERSON / MOTOROLA

Emerson / Motorola PrPMC8150-4371 High-Performance PMC Processor

The Emerson/Motorola PrPMC8150-4371 is a PCI Mezzanine Card processor built on the PowerPC 750FX architecture for demanding embedded applications in industrial control, defense, and aerospace systems. Operating at clock frequencies up to 800 MHz, this single-wide PMC module delivers substantial processing capability within a compact form factor while maintaining thermal efficiency through integrated heatsink management. Ethernet: optional Gigabit (10/100/1000BaseT) via rear P14 I/O or front-panel connector Aumictech offers NIST-traceable calibration and repair for the Emerson / Motorola PrPMC8150-4371. Calibration covers analog input channel accuracy and offset at all gain settings, analog output accuracy, digital I/O logic threshold verification, sample rate and timing accuracy, and trigger and synchronization bus functional verification. NI CompactRIO and PXI chassis also undergo bac



MODEL

**Emerson /
Motorola
PrPMC8150-4371**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

PrPMC8150-4371

LISTING

<https://aumictechlabs.com/products/prpmc8150-4371-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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aerospace systems. Operating at clock frequencies up to 800 MHz, this single-wide PMC module delivers substantial processing capability within a compact form factor while maintaining thermal efficiency through integrated heatsink management.

Technical Specifications

Processor Core PowerPC 750FX microprocessor
Clock frequency: up to 800 MHz
On-chip instruction/data cache: 32 KB / 32 KB
L2 cache: 512 KB at 700 MHz or 800 MHz bus clock
Architecture: Power Plus III

Memory Subsystem
Main memory: PC100 SDRAM with ECC protection, up to 512 MB on-board capacity
Flash memory: up to 64 MB
User I2C serial EEPROM: 8 KB
Memory controller: 72-bit ECC architecture

Interface & Connectivity
PCI host bridge: 64-bit at 33/66 MHz
Ethernet: optional Gigabit (10/100/1000BaseT) via rear P14 I/O or front-panel connector
Serial debug port: asynchronous
Hardware DMA: supported
Timers: four 32-bit timers plus two watchdog timers

Key Features
The PrPMC8150-4371 represents an evolutionary upgrade from the PrPMC8000 family with enhanced processing performance for critical computing tasks. The 72-bit ECC memory controller provides fault tolerance for systems requiring high reliability. Full-length heatsink integration enables sustained operation in thermally demanding environments. Dual watchdog timers and hardware DMA support enable real-time system management and efficient data transfer operations.

Typical Applications
Industrial control systems, defense platforms, aerospace embedded computing, real-time signal processing, and data acquisition systems benefit from this module's performance characteristics and integrated reliability features.

Compatibility & Integration
The single-wide PMC form factor integrates into standard PCI backplanes. Optional Gigabit Ethernet provides flexible network connectivity through configurable I/O mounting options. PowerPC 750FX compatibility enables use of established embedded Linux and real-time operating system environments.

PRPMC81504371 Characteristics / Specifications

PARAMETER	VALUE
Model	PrPMC8150-4371
Model Family	PrPMC8150
Instrument Type	processor PMC
Form Factor	PMC
Bus Interface	PCI mezzanine
Processor Family	PowerPC
Memory	onboard SDRAM class
Flash	onboard Flash class
Manufacturer	Motorola Emerson
Example Configuration	PrPMC8150-4371
Carrier Compatibility	PMC carriers
Operating Systems Class	VxWorks and PowerPC BSPs
Debug	JTAG BDM class
Power	PMC power rails
Cooling	airflow or conduction per carrier
Temperature Class	commercial embedded
Humidity Class	non condensing
Ethernet Class	onboard or carrier dependent
Serial Class	console UART class
Watchdog	hardware watchdog class
Firmware	flash boot
Expansion	carrier dependent IO
Clock	processor system clock
Humidity	Class: non condensing

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

performance processor PCI mezzanine card in the PrPMC family succeeding PowerPC 750 generation modules. OEM Motorola PrPMC product literature describes PowerPC processor PMCs with SDRAM Flash and PCI host bridge for carrier-based embedded computing.

Applications

High-performance embedded processing on PMC carriers in VME CompactPCI and custom hosts.

Key Features

Processor PMC form factor

PowerPC high performance core class

Onboard SDRAM and Flash

PCI mezzanine host interface

Emerson Motorola embedded branding

Technical Specifications

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Notes
Identity from Emerson / Motorola PrPMC8150-4371 inventory title. Exact CPU frequency and memory sizes are configuration-code specific; confirm on the Motorola PrPMC8150 configuration guide for dash 4371.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.