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Data Sheet

August 15, 2026

EMERSON / MOTOROLA / FORCE COMPUTERS

Emerson / Motorola / Force Computers cPCI-690 PowerCore CompactPCI Single-Board Computer

The cPCI-690 is a 6U CompactPCI single-board computer built around the PowerPC 750FX processor for embedded systems requiring high availability and flexible deployment in telecommunications, data communications, and industrial control environments. Operating at 700 MHz or higher with a 133 MHz frontside bus and up to 1 GB of high-speed SDRAM, the cPCI-690 delivers computing performance suitable for multiprocessor architectures. The board's Sentinel universal PCI-to-PCI bridge enables operation as either a system controller or intelligent peripheral card without hardware or software reconfiguration - eliminating design constraints in complex backplane systems. One PMC slot supports IDE interface-compatible modules for CompactFlash or hard disk storage Management & Hot-Swap Aumictech offers NIST-traceable calibration and repair for the Emerson / Motorola / Force Computers cPCI-690. Calib

**MODEL****Emerson /
Motorola / Force
Computers cPCI-
690****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****cPCI-690****LISTING**<https://aumictechlabs.com/products/cpci-690-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

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Technical Specifications
Processor PowerPC 750FX core 700 MHz or higher frequency 133 MHz host interface
Memory Up to 1 GB high-speed SDRAM
System Architecture Discovery GT-64260 system controller Sentinel™ universal PCI-to-PCI bridge
PICMG 2.16 CompactPCI Packet Switching Backplane compliance
I/O Interfaces Three independent 10/100 Mbps Fast Ethernet ports Dual RS-232 serial interfaces (front panel or rear transition module selectable) Dual 64-bit/66 MHz PMC (PCI Mezzanine Card) slots One PMC slot supports IDE interface-compatible modules for CompactFlash or hard disk storage
Management & Hot-Swap Full hot-swap support per CompactPCI specification
IPMI system management (PICMG 2.9) Operating Modes System controller Intelligent peripheral card (universal mode) Software VxWorks and Linux support
Environmental Operating temperature: 0°C to 55°C with forced air cooling Storage temperature: -40°C to +85°C Relative humidity: 5% to 95% non-condensing

Key Features Universal dual-mode operation eliminates hardware and software reconfiguration Three Fast Ethernet ports support distributed networking topologies Dual PMC expansion slots enable storage and peripheral integration Hot-swap capability for continuous-availability deployments Backward compatibility with earlier PowerCore SBC family members

Typical Applications Multiprocessor system controllers, network edge computing, telecom switching fabric, industrial automation platforms, data acquisition systems.

Compatibility & Integration The cPCI-690 is backward compatible with preceding PowerCore PowerPC-based single-board computers and integrates into PICMG 2.16 packet switching backplanes. Its universal bridge architecture simplifies multiprocessor system design by allowing flexible role assignment without physical or logical reconfiguration.

CPCI690 Characteristics / Specifications

PARAMETER	VALUE
Model	cPCI-690
Instrument Type	CompactPCI single board computer
Mechanical Package	6U CompactPCI
Processor	PowerPC 750FX
Processor Frequency Starting	700 MHz
Frontside Bus	133 MHz
System Controller	GT-64260 Discovery
Pci Bridge	Sentinel universal PPB
Serial Ports	dual RS-232
Ethernet Ports Example Sku	1
Pmc Slots	2
Example Ram 256 Sku	256 MB
Example Ram 1024 Sku	1 GB
Host Modes	system controller or intelligent peripheral
Bus Standard	CompactPCI
Manufacturer	Force Computers Motorola Emerson
Example Sku 2	PPC/cPCI-690/256-700-32
Example Sku 10	PPC/cPCI-690/1024-700-32/PSB
Part Number Examples	120039 110194 121734
Operating Context	embedded telecom datacom industrial
Memory Access	concurrent processor and PCI to DRAM
Energy	PowerPC 750FX low power class

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.

Specifications	
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Notes	
From Force Computers CPCI-690 announcement (750FX from 700 MHz, Discovery GT-64260, Sentinel PPB) and Motorola PowerCore cPCI-690 configuration listings. Installed CPU RAM PMC and Ethernet are unit-specific.	

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.