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Data Sheet

August 15, 2026

ACROMAG

Acromag PMC-LX40 User-Configurable Virtex-4 FPGA Module

Acromag Embedded Test Systems. Frequency Range: 150 MHz maximum recommended, Voltage / Current Range: 2.5 V rear I/O VCCO, 3.3 V external supply.



MODEL

Acromag PMC-LX40

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

PMC-LX40

LISTING

<https://aumictechlabs.com/products/pmc-lx40-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Acromag PMC-LX40 is a user-configurable Virtex-4 FPGA module in PMC form factor delivering flexible custom signal processing and real-time data acquisition for demanding applications. Built on the Xilinx Virtex-4 XC4VLX40 with 41,472 logic cells, 64 DSP slices, and 96 x 18Kbit block RAMs, the module integrates 256K x 36-bit dual-ported SRAM and 32Mb x 32-bit DDR DRAM for high-speed buffering. The PLX PCI 9656 controller provides 64-bit 66 MHz bus mastering with dual-channel DMA, full compliance with PCI Local Bus Specification Revision 2.2, and 5V/3.3V signaling. Technical Specifications FPGA Core Xilinx Virtex-4 XC4VLX40 41,472 logic cells 64 DSP slices 294,912 bits distributed RAM 96 x 18Kbit block RAMs 8 digital clock managers Memory Architecture 256K x 36-bit dual-ported SRAM 32Mb x 32-bit DDR DRAM PCI Interface 64-bit 66 MHz bus mastering Dual-channel DMA support Single INTA# multifunction interrupt 5V and 3.3V compliant signaling I/O Connectivity Rear: 32 LVDS I/O lines via J4 connector, bank 5

VCCO at 2.5 V Front: Plug-in AXM mezzanine modules supported Clocking Maximum recommended: 150 MHz Internal FPGA controller clock: 150 MHz Power & Environmental Supply: 3.3 V external via PCI bus Rear I/O VCCO: 2.5 V Operating: 0°C to 70°C Storage: -55°C to 105°C Humidity: 5% to 95% non-condensing MTBF: 773,246 hours @ 25°C (MIL-HDBK-217F Notice 2) LVDS Output (Bank 5) VOH: 1.602 V VOL: 0.898 V VODIFF: 350 mV typical VOCM: 1.25 V typical

Key Features Downloadable FPGA configuration via PCI bus On-board flash memory for automatic power-up configuration Conduction cooling option for hostile environments PMC form factor per P1386.1 specification

Typical Applications Real-time signal processing Custom data acquisition systems DSP-intensive signal conditioning High-speed LVDS interfacing

Compatibility & Integration The module ships with an Engineering Design Kit (EDK) providing FPGA development documentation and integration guidelines. PCI bus compliance ensures compatibility with standard host architectures.

PMCLX40 Characteristics / Specifications

PARAMETER	VALUE
Model	PMC-LX40
Instrument Type	PMC FPGA module
Fpga Device	Xilinx Virtex-4 XC4VLX40
Logic Cells	41472
Dsp Slices	64
Dual Port Sram	256K x 36 bit
Ddr Dram	32 Mb x 32 bit
Rear Io Lines	64 via J4
Rear Io Signaling Example	32 LVDS lines class
Front Io	Acromag AXM mezzanine modules
Dma Channels	2
Pci Signaling	5 V and 3.3 V
Fpga Load Path	PCI bus or flash
Form Factor	PMC
Cooling Options	air or conduction cooled
Related Model	PMC-LX60 with 59904 logic cells
Example Axm A	2 channels 16 bit 100 MHz ADC
Example Axm D	30 RS485 differential channels
Software Support	VxWorks Windows Linux APIs
Manufacturer	Acromag
Use Case	user reconfigurable I/O processing
Engineering Kit	PMC-LX-EDK VHDL examples

PMCLX40 Specifications

PARAMETER	VALUE
Key Features	XC4VLX40 with 41472 logic cells
Plug in AXM front mezzanine I/O	64 rear I/O lines to FPGA
Technical Specifications	Model: PMC-LX40
Notes	From Acromag PMC-LX40/LX60 OEM datasheet (logic cells, memory, I/O, DMA, AXM examples).

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	
Specifications	
PARAMETER	VALUE
Model	PMC-LX40
Instrument Type	PMC FPGA module
Fpga Device	Xilinx Virtex-4 XC4VLX40
Logic Cells	41472
Dsp Slices	64
Dual Port Sram	256K x 36 bit
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Rear Io Lines	64 via J4
Rear Io Signaling Example	32 LVDS lines class
Front Io	Acromag AXM mezzanine modules
Dma Channels	2
Pci Signaling	5 V and 3.3 V
Fpga Load Path	PCI bus or flash
Form Factor	PMC
Cooling Options	air or conduction cooled
Related Model	PMC-LX60 with 59904 logic cells
Example Axm A30	2 channels 16 bit 100 MHz ADC
Example Axm D02	30 RS485 differential channels
Example Axm D04	30 LVDS channels
Software Support	VxWorks Windows Linux APIs
Manufacturer	Acromag
Use Case	user reconfigurable I/O processing
Engineering Kit	PMC-LX-EDK VHDL examples
Notes	
From Acromag PMC-LX40/LX60 OEM datasheet (logic cells, memory, I/O, DMA, AXM examples).	

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

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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.