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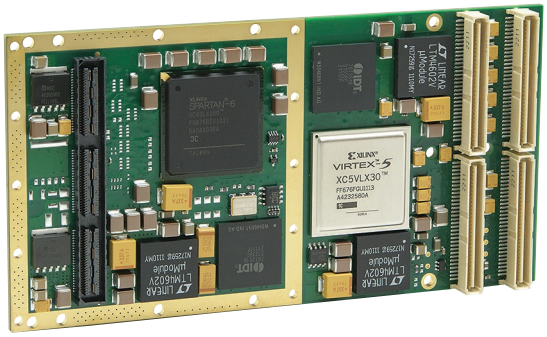
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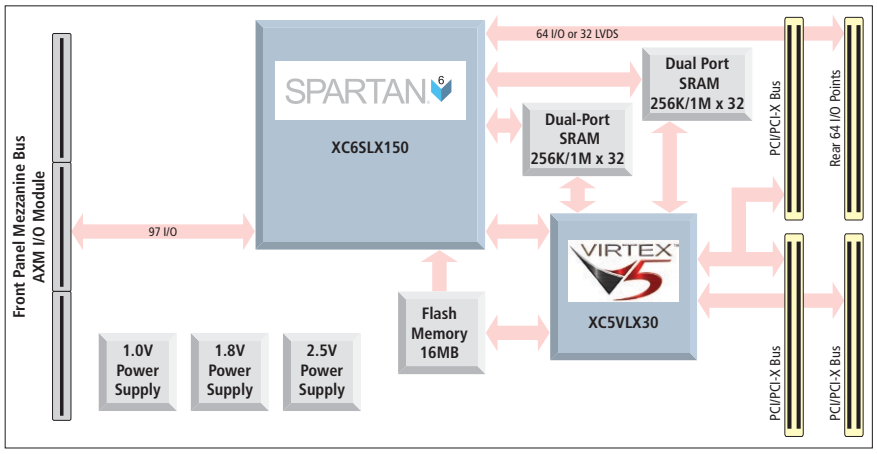
Find the *Acromag PMC-SLX150E-1M* at our website: *Click HERE*

# PMC Modules

## PMC-SLX User-Configurable Spartan-6 FPGA Modules with Plug-In I/O

24 HOUR STOCK ITEM — 2 YEAR WARRANTY




PMC module with PCI-X interface ◆ Logic-optimized Spartan-6 FPGA ◆ I/O extension mezzanine modules

### Description

Acromag's cost-effective PMC-SLX modules feature a user-configurable Xilinx® Spartan®-6 FPGA enhanced with high-speed memory and a high-throughput PCI-X interface. Field I/O interfaces to the FPGA via the rear J4/P4 connector and/or with optional front mezzanine plug-in I/O modules. The result is a powerful and flexible I/O processor module that is capable of executing custom instruction sets and algorithms.

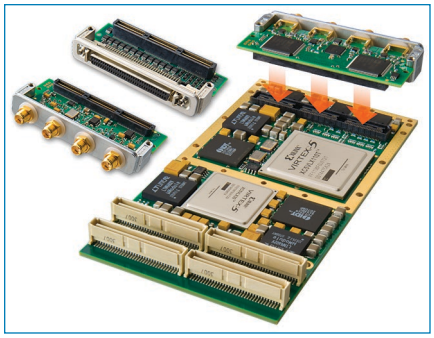
The logic-optimized FPGA is well-suited for a broad range of applications. Typical uses include hardware simulation, communications, in-circuit diagnostics, military servers, signal intelligence, and image processing.

Large, high-speed memory banks enable efficient data handling. The dual-port SRAM facilitates high-speed DMA transfers to the bus or CPU. A high-bandwidth PCI-X interface ensures fast data throughput.

64 I/O lines are accessible through the rear (J4) connector. Additional I/O processing is supported on a separate mezzanine card that plugs into the FPGA base board. A variety of these external AXM I/O cards are available to interface your analog and digital I/O signals.

Take advantage of the conduction-cooled design for use in hostile environments. Conduction efficiently dissipates heat if there is inadequate cooling air flow. Optional extended temperature models operate reliably from -40 to 85°C.

Acromag's Engineering Design Kit provides software utilities and example VHDL code to simplify your program development and get you running quickly. A JTAG interface enables on-board VHDL debugging.



*Plug in an AXM analog or digital I/O module for additional I/O signal processing capabilities.*

### Key Features & Benefits

- Reconfigurable Xilinx Spartan-6 FPGA with 147,433 logic cells
- PCI-X bus 100MHz 64-bit interface
- 256k x 64-bit dual-ported SRAM provides direct links from the PCI bus and to the FPGA (optional 1M x 64-bit)
- Supports both front and rear I/O connections
- 64 I/O or 32 LVDS lines direct to FPGA via rear (J4) connector
- Plug-in I/O extension modules are available for the front mezzanine
- FPGA code loads from the PCI-X bus or from flash memory
- Other memory options available (call factory)
- Supports dual DMA channel data transfer to the CPU/bus
- Support for Xilinx ChipScope™ Pro interface
- Designed for conduction-cooled host card or -40 to 85°C operation in air-cooled systems

Acromag® THE LEADER IN INDUSTRIAL I/O

Tel 248-295-0310 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

# PMC Modules

## PMC-SLX User-Configurable Spartan-6 FPGA Modules with Plug-In I/O

### Performance Specifications

#### FPGA

**FPGA Device**
Xilinx Spartan-6 FPGA.

Model XC6SLX150-3FG676 FPGA with 147,433 logic cells and 180 DSP48A1 slices.

**FPGA configuration**
Download via PCI-X bus or flash memory.

**Example FPGA program**
VHDL provided for bus interface, front & rear I/O control, SRAM read/write interface logic, and SDRAM memory interface controller. See EDK kit.

#### I/O Processing

Acromag AXM I/O modules:
AXM modules plug into the PMC module's front mezzanine for additional I/O lines. Analog and digital I/O AXM modules are sold separately.

**Rear I/O**
64 I/O (32 LVDS) lines supported with a direct connection between the FPGA and the rear I/O connector (J4).

#### Engineering Design Kit

Provides user with basic information required to develop a custom FPGA program. Kit must be ordered with the first purchase of a PMC-SLX module (see www.acromag.com for more information).

#### PMC Compliance

Conforms to PCI Local Bus Specification, Revision 3.0 and CMC/PMC Specification, P1386.1.

Electrical/Mechanical Interface: Single-Width Module.

PCI Bus Modes: Supports PCI-X at 100MHz, 66MHz and Standard PCI at 66MHz and 33MHz

PCI-X Master/Target: 32-bit or 64-bit interface

Signaling: 3.3V compliant.

Interrupts (INTA#): Interrupt A is used to request an interrupt.

#### Environmental

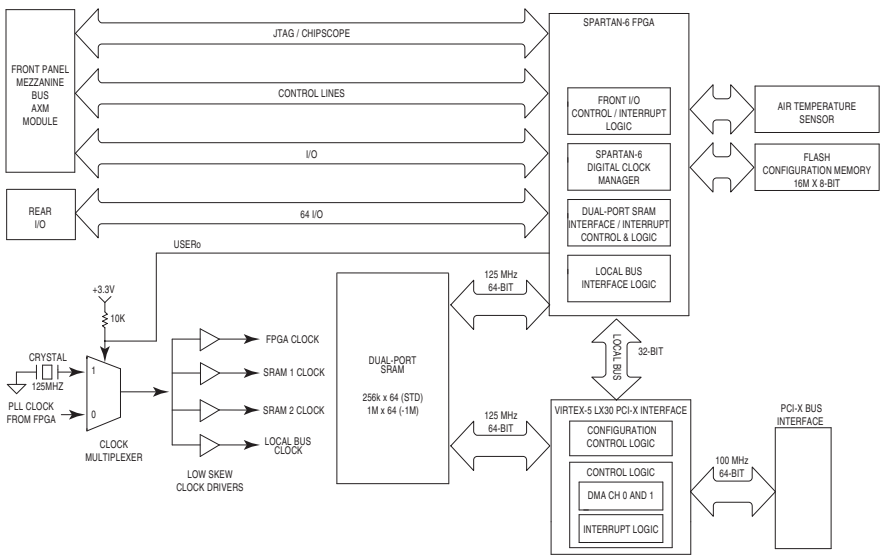
**Operating temperature**
-0 to 70°C or -40 to 85°C (E versions).

**Storage temperature**
-55 to 125°C.

**Relative humidity**
5 to 95% non-condensing.

**Power**
3.3V (±5%): 700mA typical, 840mA maximum.
5V (±5%): 1600mA typical, 2160mA maximum.

**MTBF**
Contact the factory.




### Ordering Information

*NOTE: PMC-SLX-EDK is required to configure FPGA.*

#### PMC Modules

PMC-SLX150
User-configurable Spartan-6 FPGA, 150k logic cells, 256 x 64-bit dual-port SRAM

PMC-SLX150E
Same as PMC-SLX150 with extended temp. range

PMC-SLX150-1M
User-configurable Spartan-6 FPGA, 150k logic cells, 1M x 64-bit dual-port SRAM

PMC-SLX150E-1M
Same as PMC-SLX150-1M with extended temp. range

#### AXM Plug-In I/O Extension Modules

*For more information, see www.acromag.com.*

AXM-A30
2 analog input 100MHz 16-bit A/D channels

AXM-D02
30 RS485 differential I/O channels

AXM-D03
16 CMOS and 22 RS485 differential I/O channels

AXM-D04
30 LVDS I/O channels

AXM-??
Custom I/O configurations available, call factory.

#### Software

*For more information, see www.acromag.com.*

PMC-SLX-EDK
Engineering Design Kit (one kit required)

PMCSW-API-VXW
VxWorks® software support package

PCISW-API-WIN32
32-bit Windows® driver (DLL) software package

PCISW-API-WIN64
64-bit Windows® driver (DLL) software package

PCISW-API-LNX
Linux™ support (website download only)

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