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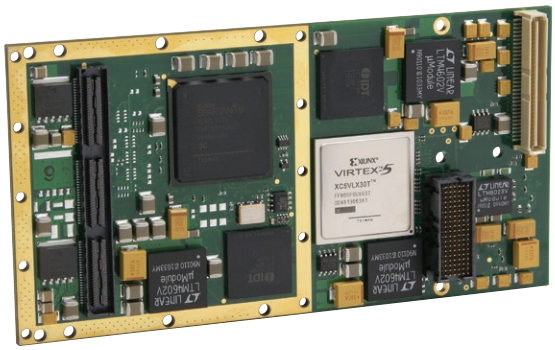
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Find the *Acromag XMC-SLX150* at our website: ***Click HERE***

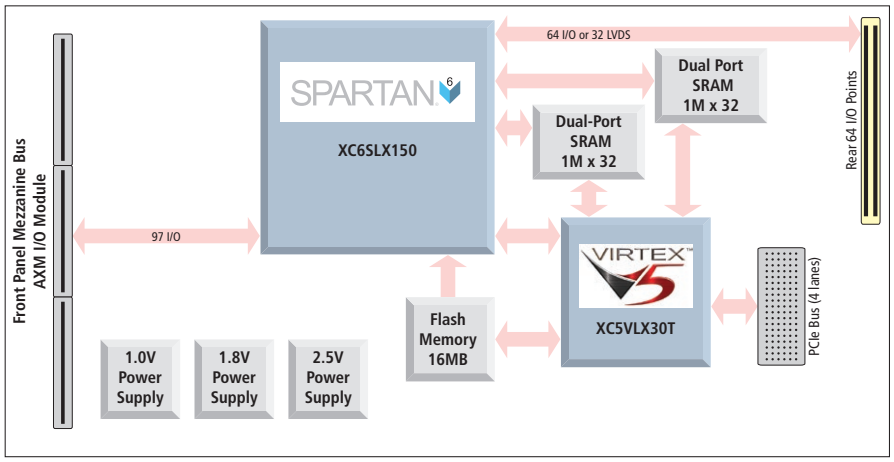
XMC Modules

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

2 YEAR WARRANTY



SPARTAN 6



XMC module with PCIe interface ◆ Logic-optimized Spartan-6 FPGA ◆ I/O extension mezzanine modules

Description

Acromag's cost-effective XMC-SLX modules feature a user-configurable Xilinx® Spartan®-6 FPGA enhanced with high-speed memory and a high-throughput PCIe 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.

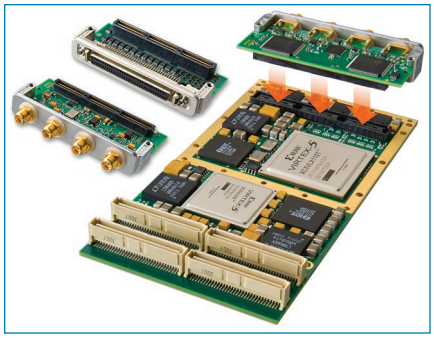
The logic-optimized FPGA is well-suited for a broad range of applications. Typical uses include hardware simulation, communications, in-circuit diagnostics, military servers, signal intelligence, and image processing.

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 PCIe 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.



VPX air-cooled and REDI versions are available

Key Features & Benefits

- Reconfigurable Xilinx Spartan-6 FPGA with 147,433 logic cells
- PCIe bus 4-lane Gen 1 interface
- 256k x 64-bit dual-ported SRAM provides direct links from the PCIe 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 PCIe 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

XMC Modules

XMC-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 PCIe 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 XMC 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 XMC-SLX module (see www.acromag.com for more information).

XMC Compliance

Conforms to PCI Express 1.1a electrical and protocol standards. 2.5Gbps data rate per lane per direction.

Complies with ANSI/VITA 42.0 specification for XMC module mechanicals and connectors.

Complies with ANSI/VITA 42.3 specification for XMC modules with PCI Express interface.

Electrical/Mechanical Interface: Single-Width Module.

Environmental

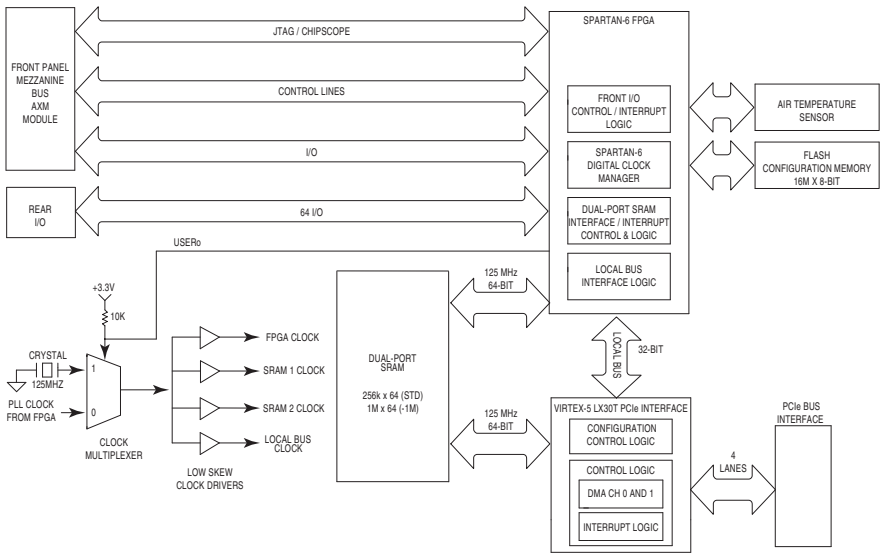
Operating temperature
-0 to 70°C or -40 to 85°C (E versions).

Storage temperature
-55 to 125°C.

Relative humidity
5 to 95% non-condensing.

Power
3.3V (±5%): 700mA typical, 840mA maximum.
12V (±5%): 640mA typical, 804mA maximum.

MTBF
Contact the factory.



Ordering Information

NOTE: XMC-SLX-EDK is required to configure FPGA.

XMC Modules

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

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

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

XMC-SLX150E-1M
Same as XMC-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.

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

PMCSW-API-VXW
VxWorks® software support package

PCISW-API-WIN
Windows® DLL software support package

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

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