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TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
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Custom engineering
so your equipment works exactly as you specify.

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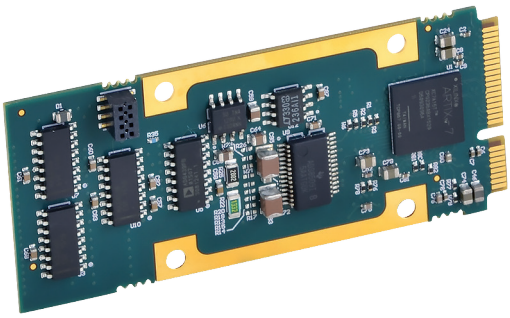
Expert team | Trust guarantee | 100% satisfaction

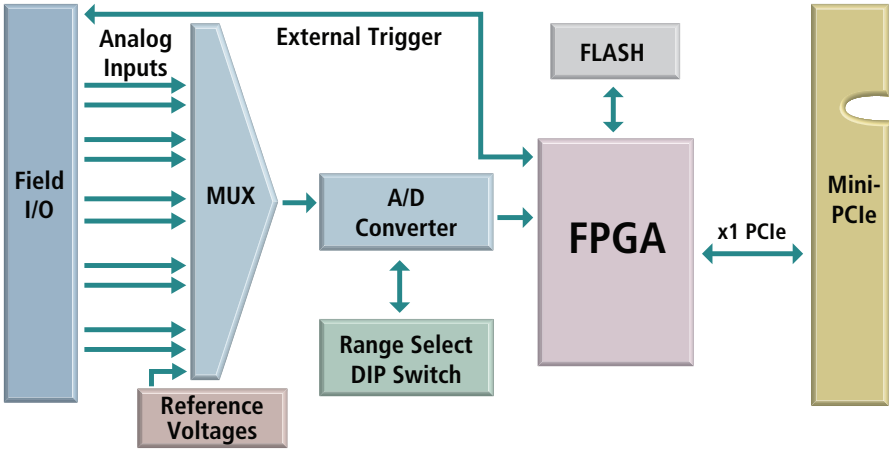
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Find the *Acromag / Xembedded / Xycom AP323* at our website: *Click HERE*

AcroPack® Modules

AP300 Series High-Density Analog Input





16-bit ADC ◆ 20 Differential or 40 Single-Ended Channels ◆ Wide Temp. Range ◆ PCIe Bus Interface

Description

Model: AP323E-LF

The AcroPack® product line updates our popular Industry Pack I/O modules with a PCIe interface format. This COTS tech-refresh design offers a compact size, low-cost I/O in a rugged form factor. Combine different AcroPack modules on one carrier for a simplified modular approach to system assembly.

AP323E-LF AcroPack model monitors 20 differential or 40 single-ended input channels. When used with a carrier that holds four AP modules, up to 160 inputs can be obtained from a single card cage slot.

Software or an external hardware input can trigger A/D conversions for synchronization to external events.

On-board, precision voltage references enable accurate software calibration of the module without external instruments.

Designed for COTS applications these analog input modules deliver high-density, high-reliability, and high-performance at a low cost.

AcroPack modules are RoHS compliant and ideal for military, defense, automation, aerospace, scientific, and development labs industries.

The AP323E-LF modules are 70mm long, 19.05mm longer than the full length mini PCIe card. The board's width is the same as mPCIe board and use the same mPCIe standard board hold down standoff and screw keep out areas.

A down facing 100 pin Samtec connector mates with the carrier card. Fifty of these signals are available as field I/O signals.

Key Features & Benefits

- PCI Express Generation 1 interface
- 20 differential or 40 single-ended inputs
- Mix and match countless I/O combinations in a single slot.
- Flexible scan control
- 8µs conversion time
- FIFO buffer with 16K sample memory
- Interrupt upon FIFIO threshold condition
- FIFO full, empty and threshold reached flags
- Programmable channel conversion control
- Programmable conversion timer
- Several scanning modes
- External trigger
- Solid-down connector I/O interface
- Wide temperature range
- PCIe, VPX and XMC carriers
- Linux®, Windows®, and VxWorks® support

Acromag® THE LEADER IN INDUSTRIAL I/O

Tel: 844-878-2352 ■ solutions@acromag.com ■ www.acromag.com ■ 30765 Wixom Rd, Wixom, MI 48393 USA

AcroPack® Modules

ISO9001
AS9100
MADE IN USA

Performance Specifications

Analog Input

Input configuration
20 differential or 40 single-ended.

A/D Resolution
16 bits.

Input range (dip switch-selectable)
Bipolar ±5V or ±10V
Unipolar 0 to +5V or 0 to +10V

Data sample memory
16K sample FIFO buffer.

Maximum throughput rate
200KHz (5µS/conversion).

A/D triggers
External, and software.

System accuracy
2.4 LSB (0.014%)

Maximum overall calibrated error at 25°C

Input Range (Volts)	ADC Range (Volts)	Maximum Error ±LSB (%span)	Typical Error ±LSB (%span)
±5	±5	±8.6 LSB (0.013%)	±4 LSB (0.006%)
±10	±10	±9.4 LSB (0.014%)	±3 LSB (0.005%)

Data format
Binary two's compliment and straight binary.

Input overvoltage protection
Power on: -20V to +40V.
Power off: -35V to +55V

Common mode rejection ratio (60Hz)
96dB typical.

Channel-to-channel rejection ratio (60Hz)
96dB typical.

PCI Express Base Specification

Conforms to PCIe base specification
Revision 2.1.

Lanes
1 lane in each direction.

Bus Speed
2.5 Gbps (Generation 1).

Memory
4k space required.
1 base address register.

Environmental

Operating temperature
-40 to 70°C.
-40 to 85°C.
(requires an AcroPack heatsink conduction-cool kit)

Storage temperature
-40 to 85°C.

Relative humidity
5 to 95% non-condensing.

Power
3.3 VDC ±5% 400mA typical, 500mA maximum.
5.0 VDC ±5% 20mA typical, 30mA maximum.
±12 VDC ±5% 0.7mA typical, 1.4mA maximum.

Physical

Length
70mm.

Width
30mm.

Ordering Information

AcroPack® Modules

AP323E-LF
20 differential or 40 singel-ended inputs, 16-bit

(Note: Acropack modules are compatible only with the carriers listed below)

Accessories

AP-CC-01
Conduction-cool kit

Carrier Cards

See Acromag.com/AcroPack-Carriers for a full list of AcroPack carrier cards.

Software *(see software documentation for details)*

APSW-API-VXW
VxWorks® software support package.

APSW-API-WIN
Windows® DLL driver software support package.

APSW-API-LNX
Linux® support (website download only).



AP-CC-01 Conduction-Cool Kit

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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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