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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
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

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Expert team | Trust guarantee | 100% satisfaction

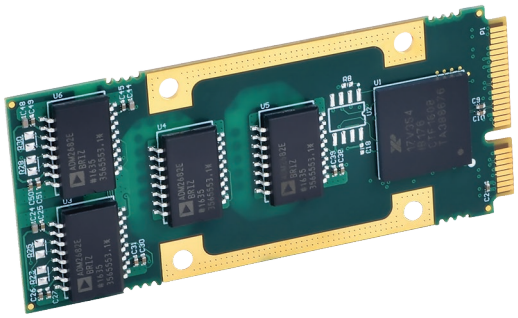
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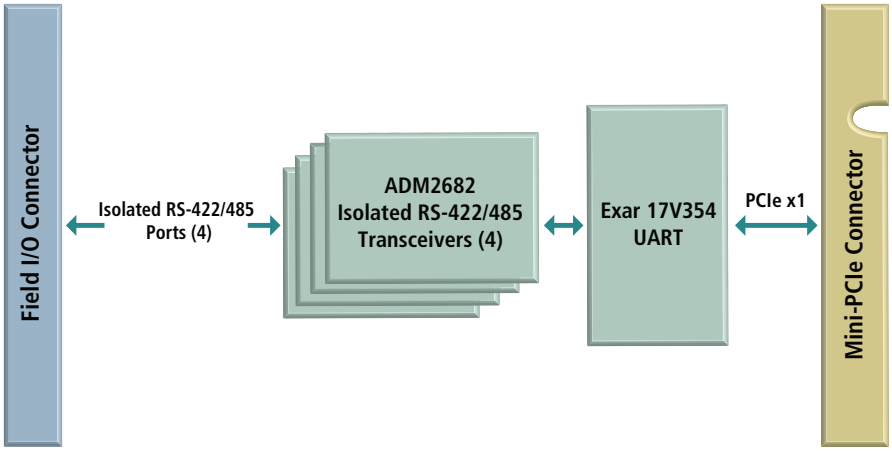
Find the *Acromag / Xembedded / Xycom AP500* at our website: *Click HERE*

AcroPack® Modules

AP500 Series Communication

CE 2 YEAR WARRANTY RoHS Compliant





Four Isolated RS422/485 Serial Ports ◆ Extended Temperature ◆ PCIe Bus Interface

Description

Model: AP512E-LF

The AcroPack® product line updates our popular Industry Pack I/O modules with a PCIe interface format. This tech-refresh design offers a compact size, low-cost I/O, the same functionality and memory map of the existing Industry Pack modules and a rugged form factor.

These modules provide four isolated serial communication ports from a single AP carrier slot for a high-densigy solution. Software-configuration helps you quickly set baud rates, character-sizes, stop bits, and parity.

For more efficient data processing, each serial port is equipped with 256-character FIFO buffers on the transmit and receive lines.

The data ports generate individually controlled transmit, receive, line status, data set, and flow control interrupts. All interrupts can be read from a single register.

The AP512 series modules are 70mm long. This is 19.05mm longer than the full length mini PCIe card at 50.95mm. The boards width is the same as mPCIe board of 30mm and they 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 pins are available for field I/O signals. Pin spacing and signal assignments will allow for 100V of port to port isolation.

The AP512 series maintains the same functionality and memory map of the existing Industry Pack modules providing a smooth transition to the AcroPack I/O modules.

Key Features & Benefits

- Four isolated full duplex RS422B serial ports (supports RS485)
- Ports are isolated to 250V from digital and 100V from each other
- 256-byte transmit FIFO buffers
  256-byte receive FIFO buffers
- Programmable baud rate (up to 16Mbps)
- Line-break and false start-bit detection
- Failsafe receivers
- 16550 compatible register set
- High-density design lowers per-port costs and saves IP carrier card slots for other functions.
- 256-byte FIFO buffers minimize CPU interaction for improved system performance.
- Extended temperatures deliver dependable operation in extreme conditions.

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

Serial Ports

Configuration
Independent, isolated serial ports.

Data Rate
16M bits/second, maximum

Max. Cable Length
1200 meters (4000 feet) typical

Character size
5 to 8 bits, software-programmable

Parity
Odd, even, or no parity; software-programmable.

Stop bits
1, 1-1/2, or 2 bits; software-programmable

Data register buffers
256-byte FIFO buffer

Interrupts
Receiver line status (overrun, parity, framing error, or break interrupt); receive/transmit FIFO level reached or character time-out; Xon/Xoff or special character detected.

PCI Express Base Specification

Conforms to revision 2.0

Lanes
1 lane in each direction

Bus Speed
2.5 Gbps (Generation 1)

Memory
8k 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
-55 to 125°C

Relative humidity
5 to 95% non-condensing

Power
+3.3V (±5%) 450mA typical

Internal Isolated Power
Isolated power is created onboard using ADM2882E Full Duplex RS-485 transceivers, so isolated power does not need to be supplied externally.

MTBF (Mean Time Between Failure)
MTBF in hours using MIL-HDBK-217F, Fn2. Per MIL-HDBK-217, Ground Benign, Controlled, G_BG_C.

25°C:
6,460,240 MTBF hours (737.5 MTBF years).
154.8 failure rate (FIT[1]).

40°C:
3,982,636 MTBF hours (454.6 MTBF years).
251.1 failure rate (FIT[1]).

Note 1: FIT if Failures in 10^9 hours.

Physical

Size
Length: 70mm (2.76 in).
Width: 30mm (1.18 in).
Height: 12.5mm (0.492 in).

Weight
Unit weight: 8.3g (0.293 oz).

Ordering Information

AcroPack® Modules

AP512E-LF
Four Isolated RS422/485 serial ports

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

Accessories

AP-CC-01
Conduction-cool kit

5028-609
Cable, 68-pin VHDCI to four maile DE-9, 7″ long.

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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Gold-standard solutions

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

We buy equipment

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