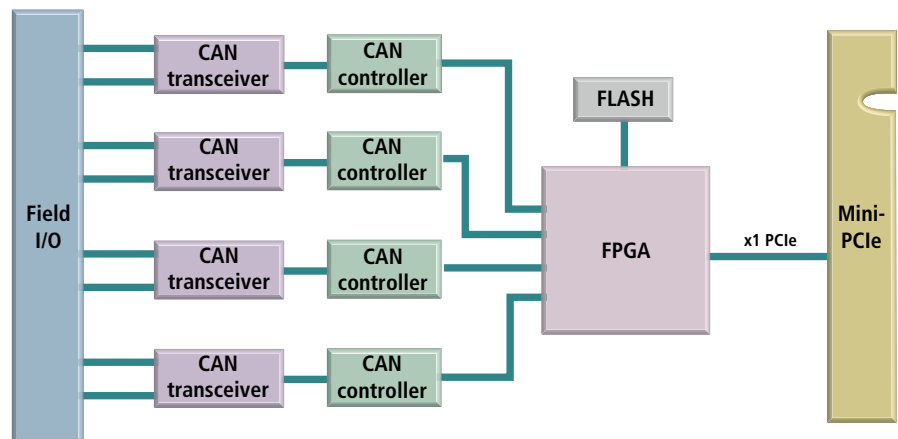
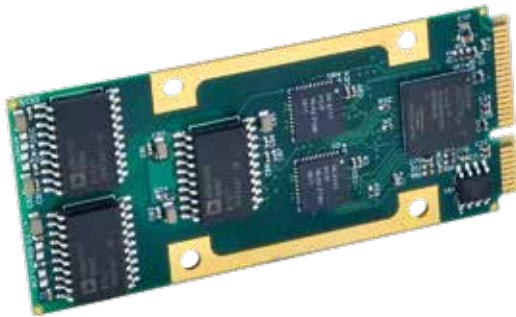


# AcroPack® Modules

## AP500 Series Communication



Four CAN bus channels with isolation ◆ CAN 2.0A/B ◆ ARINC 825 ◆ CANaerospace

### Description

Model: AP560AE-ISO-LF

AP560A modules provide four independent CAN bus interface channels. Each channel has a Holt H13111 CAN controller with an ADM3053 transceiver. The advantage of this design is that it has the ability to transmit, receive and perform message filtering on extended and standard messages.

This module offers an effective solution for avionics and other applications implementing the CAN 2.0A/B specification. The controller is configurable to comply with both the ARINC 825 and CANaerospace standards. High channel density and high-level isolation make this rugged module well-suited for use in a variety of challenging environments.

The AcroPack CAN module is RoHS compliant and ideal for the following applications:

- Avionics and aerospace
- Defense vehicles
- Marine control and navigation systems

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 of the existing Industry Pack modules and a rugged form factor.

The AP560A 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 will mate with the carrier card. Fifty of these signals are available as field I/O signals.

### Key Features & Benefits

- Four isolated CAN channels
- H13111 CAN bus controller with high-speed ADM3053 CAN transceiver
- 1000V isolation, channel-to-channel and channel-to-host
- ISO 11898 compliance for Part A (11-bit) and Part B extended (29-bit) arbitration IDs
- CAN 2.0A/B protocol with programmable bit rate up to 1Mbit/sec. ISO 11898-5 compliant
- Configurable to support ARINC 825 and CANaerospace Standards
- Standard, Extended and Remote frames supported
- 8 maskable identifier filters
- Filtering on ID and first two data bytes for both Standard and Extended Identifiers
- Monitor (Listen-only) mode
- 8-message Transmit and Receive FIFOs
- Internal 16-bit free running counter for time tagging of transmitted or received messages
- Re-transmission disable capability

**Acromag**   
THE LEADER IN INDUSTRIAL I/O

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## Performance Specifications

### ■ General

#### Power

Power Supply	Idle*	Max**
+3.3V	480 mA	500 mA
+5V	66 mA	680 mA

\* Idle current draw was measured with no external loop-backs or termination installed and no active communication on any port.

\*\* Max is with all four ports transmitting at 1Mbps.

### ■ CAN Bus

#### Configuration

Four independent CAN bus channels.

Holt H13111 CAN controller with ADM3053 transceiver.

#### ISO 11898 standard

Supports the standard data and remote frame as well as the extended data and remote frame according to CAN specification 2.0 Part A and Part B.

#### Isolation

1kV DC isolation.

#### Maximum data rate

1Mb/S.

### ■ 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

2K space required.

1 base address register.

### ■ Environmental

#### Operating temperature

-40 to 71°C.

*Temperatures above 65°C will require a heatsink model AP-CC-01.*

*See user manual for airflow specifications.*

*See user manual for airflow specifications.*

#### Storage temperature

-55 to 125°C.

#### Relative humidity

5 to 95% non-condensing.

#### Operating Vibration

Designed to comply with IEC 60068-2-64: 10-500Hz, 5G-rms, 2 hours/axis.

#### Operating Shock

Designed to comply with IEC 60068-2-27: 30G, 11ms half sine, 50G, 3ms half sine, 18 shocks at 6 orientations for both test levels.

#### EMC Directive

Conforms to EMC Directive 2004/108/EC.

### ■ Physical

#### Length

70mm

#### Width

30mm

## Ordering Information

### Model

#### AP560AE-ISO-LF

Quad-channel isolated CAN bus interface module.

*(Note: AcroPack modules are compatible only with AcroPack carriers)*

### Accessories

#### AP-CC-01

Conduction-cool kit

#### 5028-609

Adapter cable, 68-pin VHDCI to four male DSUB-9 connectors, 7" long.

### Carrier Cards

See [Acromag.com/AcroPack-Carriers](http://Acromag.com/AcroPack-Carriers) for a full list of AcroPack carrier cards.

### Software (see software documentation for details)

#### APSW-API-VXW

VxWorks<sup>®</sup> software support package.

#### APSW-API-WIN

Windows<sup>®</sup> DLL driver software support package.

#### APSW-API-LNX

Linux<sup>®</sup> support (website download only).



5028-609



AP-CC-01 Conduction-Cool Kit