

Key Features:

- Robust and Low Power PC-Card (PCMCIA, Type II) supporting up to 16 ARINC429 Channels
- Hot plug capability
- Ruggedised (screw-locked type) SCSI-III connector
- 4 (2Tx/2Rx), 8 (4Tx/4Rx) or 16 (8Tx/8Rx) Channel versions
- Concurrent Operation for Simulation/Monitoring on all Channels
- Full Error Injection/ Detection Capability
- Multi Level Triggering for Capturing/ Filtering
- IRIG-B Time Decoder for Data Correlation
- Real Time Recording and Synchronized Bus Replay
- 8 bi-directional Discrete I/O signals
- Drivers for Windows 2000/XP, Linux, LabVIEW/VI's & LabWIN/CVI's included
- Powerful **PAA429/ParaView** Databus Analyzer/ Parameter Visualizer Software available
- Software compatible with AIM's family of PC104+, PMC PCI, CompactPCI, VME and VXI ARINC429 Cards



APM429



**PC-Card for ARINC429
Test & Simulation**



**Perform ARINC429 testing
in your laptop with AIM's
new PC-Card!**

General Features

The APM429 PC-Card offers full function test, simulation, monitoring and databus analyzer capabilities for ARINC429 applications and has 4 (2Tx/2Rx), 8 (4Tx/ 4Rx) or 16 (8Tx/ 8Rx) channels. In addition the APM429 supports up to 8 discrete input /output signals to be monitored or generated.

An on-board IRIG-B time code decoder and generator allows users to accurately synchronize single or multiple APM429 modules to a common time source.

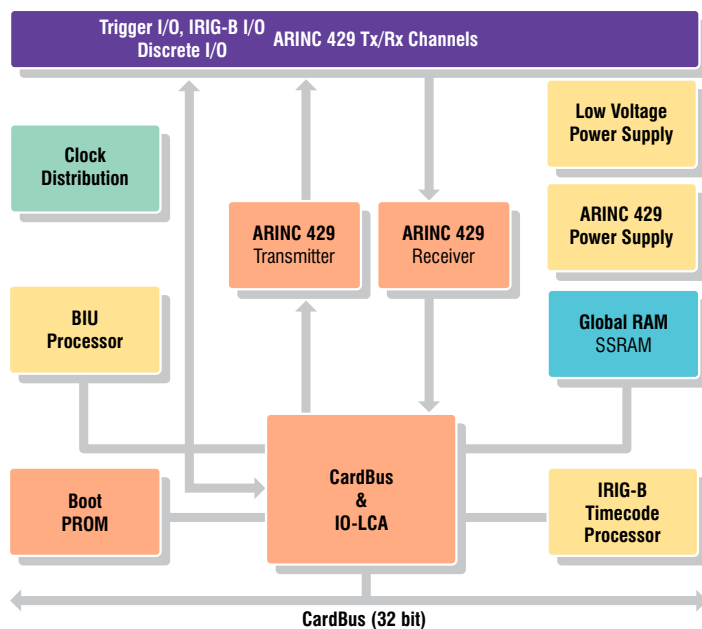
The APM429 module has integrated line receivers/ transmitters for each of the ARINC429 channels.

The APM429 module operates with the optional 'PAA-429' ARINC429 Databus Analyzer Software and with the 'ParaView' the Parameter Visualizer for Windows 2000/XP.

A common programming application interface (API) supports all AIM ARINC429 modules.

Avionics Databus Solutions

PHYSICAL I/O INTERFACE



APM429 Block Diagram



Transmit Channel Operation

- Cyclic/Acyclic Label Transmission Mode & support for File Transfer Protocols
- Error Injection for each Label Transfer: Short Gap, Parity, Bit Count, Coding
- Programmable Gap between Labels : 0 to 255 Bits
- Transmit Operation Controlled by Instruction Lists
- Comprehensive Instruction Set: JUMP, CALL, COND-JUMP, TRANSFER

Receiver Channel Operation

- Triggering and Filtering
- Upper & Lower Limit Check
- Trigger on Specific or on any Error
- Label Content & Sequential Dependant Trigger
- Label selective & Label Data Contents Dependant Interrupt
- Label selective & Label Data Contents Dependant Filter
- Multi-Buffering with Real Time Data Buffer Updates

Physical Bus Interface

APM429 cards have integrated ARINC429 line transmitter/receiver channels and selectable transmission rate for each single channel independently.

Physical Bus Replay

The APM429 module is able to electrically reconstruct previously recorded ARINC429 data traffic physically to the bus with excellent timing accuracy.

IRIG-B Time Code Decoder

- On Board, free wheeling IRIG-B time code decoder/generator with amplitude modulated sinusoidal output.
- Synchronize with multiple AIM modules or any IRIG-B compatible module.

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Discrete I/O

- 8 bi-directional discrete Inputs/Outputs

Driver Software Support

- Common application programming interface (API)
- Drivers for Windows 2000/XP, Linux, LabVIEW/VI's & LabWIN/CVI's

Technical Data

CardBus Interface:	32bit / 33MHz PC-Card Standard (release 8.0)
Memory:	1 Mbyte Global RAM (expandable)
Processor:	One 400MHz RISC Processor
Time Tagging:	46 Bit absolute IRIG-B Time
Discrete I/O:	8 Bi-directional Discrete I/O signals
Physical Bus Interface:	2, 4 or 8 ARINC429 Transmitters 2, 4 or 8 ARINC429 Receivers
Connector:	SCSI-III (screw-locked), 68 pin
Dimensions:	PC-Card Standard Type II (85.6 x 54.0mm)
Supply Voltage:	+3.3V PC Standard
Power Dissipation:	3.0 Watts typical
Operating Temp. Range:	Standard 0°C...+ 50°C ambient Extended -15°C...+60°C
Storage Temp. Range:	-40°C...+85°C
Humidity:	5 up to 95% (non-condensing)

Ordering Information

APM429-4/ APM429-8/ APM429-16

2, 4 or 8 Channel Transmitter/ 2, 4 or 8 Receiver PC-Card (PCMCIA, Type II) to ARINC429 Interface including IRIG-B Time Code Decoder and 8 bi-directional discrete

ACB-M-429-4/ 8/ 16

Ready Made Adaptor Cable:
SCSI-III to D-Sub, 2.0m for APM429-4, APM429-8 & APM429-16 cards

PAA-429-4/ 8/ 16

Optional ARINC429 Databus Analyzer Software for Windows

ParaView-429

Optional Parameter Visualizer Software for Windows

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