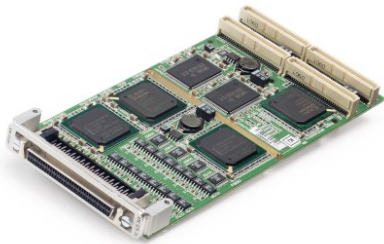


A-A429

ARINC-429 BOARD



DESCRIPTION

The **ARINC-429** board offers full function test, simulation, monitoring and databus analyser capabilities for **ARINC-429** applications on up to 32 channels concurrently 4, 8 and 16 channels can be programmed by software for Receive (Rx) or Transmit (Tx) mode.

The **ARINC-429** board supports up to 8 discrete input signals and 8 discrete output signals monitored or generated.

An on-board IRIG-B time code decoder and generator allows users to accurately synchronise to a common time source.

The **ARINC-429** board uses hardware design utilising multiple RISC processors which means that all channels can operate concurrently at **ARINC-429** high or low bit rates with the intelligence to process data in real time.

KEY FEATURES

- 4, 8 and 16 channels for Receive (Rx) or Transmit (Tx) mode
- Real time monitoring of up to 32 ARINC-429 Receiver Channels concurrently controlled by an on-board RISC Processor.
- Transmission rates selectable for each channel at 12.5 Kbits/sec or 100 Kbits/sec
- 16 off Discrete Input/ Output ports, for monitoring and control of external application, with a wide range voltage characteristics.
- On-board 'IRIG-B' time code decoder and generator allowing synchronisation of ARINC-429 channels.
- Magali driver interface

SPECIFICATIONS

Technical Data

System Interface	64 Bit / 33MHz PCIbus (Rev. 2.2) compliant
Processors	2 x 600MHz RISC Processors
Memory	4MByte Global RAM, 64MByte ASP RAM
Encoder/Decoder	Up to 32 Encoder/Decoders with Error Injection and Detection
Time Tagging	46 Bit absolute IRIG-B Time, 1µsec resolution
Physical bus interface	Up to 32 ARINC-429 Transmitters and 32 ARINC-429 line Receivers for a total of 32 Channels. The lower 16 channels are user programmable RX or TX, with the upper channels being fixed as RX or TX. On AMC429-4/8/16 Discretes and Triggers are included replacing the upper 16 ARINC429 Channels
Connector	68 pin, Mini D-Sub. Signals are also available at Rear-I/O connector. 4 x Standard PMC Connectors. AMC429-CC Modules have Rear IO 64 Pin PMC Connector Only
Dimensions	149 x 74 mm Standard PMC Format
Power Consumption	11 Watts typical

Environmental

Operating Temp. Range	Standard 0°C ...+70°C ambient Extended - 40°C... +85°C ambient
Storage Temp	- 40°C ...+ 85°C ambient

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

Discretes

- 8 discrete Inputs in the range of 3.3 ... 30 VDC
- 8 discrete open collector Outputs up to 30 VDC
- fused 5 VDC provided for open collector supply

Application Support Processor

- Driver Software Execution on the board
- Dynamic Data Generation
- Automatic Test Sequence Generation

Physical Bus Interface

The ARINC-429 board integrates ARINC-429 line transmitter/receivers programmable by software for Receive Rx or Transmit Tx mode and selectable transmission rate for each single channel independently. All ARINC-429 channels and controls are available at the output connector as well as at the Rear-I/O connector.

Physical Bus Replay

The ARINC-429 board is able to electrically reconstruct previously recorded ARINC-429 data traffic and transmit it to the bus with excellent timing accuracy. Recorded data files can be selected for physical bus replay to perform systems integration and test with the ability to disable any or all ARINC-429 labels from the recorded file.

IRIG-B Time Code Decoder

An on-board 'IRIG-B' time code decoder and generator allows synchronisation of ARINC-429 channels. The ARINC-429 board can be synchronised to one common external IRIG-B time source.

ORDERING INFORMATION

MAG-300/A_A429/4	4 ARINC-429 channels interface
MAG-300/A_A429/8	8 ARINC-429 channels interface
MAG-300/A_A429/16	16 ARINC-429 channels interface

*Specifications are subject to change.
Please, verify the latest specifications
prior order.*

NEXEYA FRANCE

Route d'Elne
66200 MONTECOT - France
Phone: + 33 (0) 4 68 37 36 35
Fax: + 33 (0) 4 68 37 36 34
E-mail: sales-tis@nexeya.com

www.magali.com