

Miniature Network ARINC 429 Interface Unit



Applications

- Flight test instrumentation
- Avionics data acquisition unit
- Air vehicle test, certification, or development
- Ethernet-based network distributed systems
- System safety monitoring

Features

- Network-based ARINC 429 Data Acquisition and Encoding Unit
- Includes Fast Ethernet 100BASE-T port for:
 - acquisition setup and configuration
 - SNMP status/control
 - acquisition data transport
 - time synchronization using IEEE 1588 time
- 4-channel ARINC 429 receive interface module
- Automatic and seamless detection and switching between high speed (100 Kb/sec) and low speed (12 Kb/sec) receive data rates
- Plug-in modularity and expandability (up to 8 ARINC 429 modules, 32 channels)
- SNMP MIB for statistics monitoring
- Environmentally sealed package
- Small installation footprint

Description

The ARINC 429 data bus supplies data from a wide variety of electrical sub-systems to an on-board flight computer. The Mn429-2000 is a miniature networked encoding unit that timestamps the incoming ARINC 429 data, processes and delivers packetized data to designated nodes on an Ethernet network.

The Mn429-2000 stack consists of a unique ARINC 429 bus interface module (MBIM-429B-1), an IEEE 1588 time and Ethernet interface module that also functions as an overhead card (MARC-500-1), and supporting processor, power supply, and structural components.

Each ARINC 429 interface module receives wordstrings from up to four standard avionics ARINC 429 serial digital data buses, providing automatic and seamless detection and switching between high speed (100 Kb/sec) and low speed (12 Kb/sec) receive data rates. Data words are timestamped as they arrive, buffered on the module, and processed for transmission to the network fabric.

The Mn429-2000 can accommodate up to eight ARINC 429 interface modules, receiving up to 32 data channels. A 30-watt miniature power supply module is available to accommodate additional power requirements for extended stacks.

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Mn429-2000 Datasheet

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