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Find the *Excalibur Systems M4K429RT10* at our website: *Click HERE*

M4K429RTx

The M4K429RTx is an intelligent multichannel ARINC 429 interface module for the multiprotocol Excalibur 4000 family of carrier boards. The module supports up to ten ARINC 429 channels in any combination of transmitters and receivers. Each of these channels feature error injection and detection capabilities.

The receive channels allow for the storage of all selected Labels with status and Time Tag information appended to each word. The receivers allow for filtering and multi-storage modes of Data Words. The transmit channels operate via a transmit 'instruction stack' which allows scheduling of data transmissions and reduces the need for host computer intervention.

General Features

- Supports 5 or 10 ARINC 429 channels
- Supports maximum data throughput on all channels simultaneously
- Each channel individually configurable as transmit or receive
- Programmable per channel:
  - Buffer size
  - Bit rates (Hi, Lo, Programmable)
  - Parity (Odd, Even, On, Off)
- 64K x 8 dual-port RAM
- Programmable hardware output trigger
- Interrupt and polling modes
- IRIG B input (standard IRIG B120 serial time code)
- Ruggedized and extended temperature options



Transmit Channel

- Three transmit modes:
  - One-shot, N-times, Loop
- Programmable gap time between words
- Programmable interblock time
- Error injection per block:
  - Bit Count Hi/Lo, Sync Time, Stretch Bit, Bit Rate, Parity

Receive Channel

- Three receive modes:
  - Look-up table
  - Sequential per channel
  - Sequential merge
- Word status tagging
- 32-bit, 10 microsecond Time Tag or 64-bit IRIG B Time Tag
- Label/data filtering
- Start triggers
- Receive error count per channel
- Receive count interval trigger
- Error detection per word:
  - Bit Count, Sync Time, Parity, Bit Coding

Physical Characteristics

- Dimensions: 67mm x 46mm
- Weight (RT10): 22g

Operation Environment

- Temperature: 0°–70°C standard temperature
  -40° to +85°C extended temperature (optional)
- Humidity: 5%–90% noncondensing
- MTBF (RT10): 185,700 hours at 25°C, G_F, S217F

Host Interface

- EXC-4000 series of carrier boards
- Power (RT10): 5V @ 1A (max.)

Software Support

- *Software Tools:* Advanced API with C source code. The Software Tools are available for several operating systems. See the Downloads section of our website for a complete list.
- Mystic ARINC 429 Bus Analyzer for Windows
- *Exalt Plus:* Excalibur Analysis Laboratory Tools (optional)

Ordering Information

- **M4K429RT5** five channel module
- **M4K429RT10** ten channel module
- Additional Options:
  - **-E** Extended temperature option
  - **-001** With conformal coating

Note: When ordering this module with a 4000 family carrier board, use the module code specified in the user's manual of the carrier board.

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These specifications are subject to change without notification

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