DAS-429UNET/RTx[-717]

The DAS-429UNET/RTx is an intelligent, multichannel ARINC 429 interface device. Its small size and ability to interface through USB or Ethernet interfaces make it a complete solution for developing, testing and performing system simulation of the ARINC 429 bus, both in the lab and in the field. In addition, this device provides 8 I/O Discrete signals and an IRIG B input. The -717 option has two additional ARING 717 channels.

The DAS-429UNET/RTx shares its API with the entire RTx family so that applications currently running on our PCIe, PCI, ExpressCard, or PCMCIA cards, will run without change on this device.

Multiple units can operate via USB ports on the same computer. In addition, multiple units can operate on the same network, by programming each one with a unique IP address, and can be accessed from any computer on the network.

General Features

- DAS-429UNET/RT5:
    - 5 ARINC 429 channels configurable as Tx or Rx
- DAS-429UNET/RT10:
    - 10 ARINC 429 channels configurable as Tx or Rx
- DAS-429UNET/RT8-717:
    - 8 ARINC 429 channels configurable as Tx or Rx
    - 2 ARINC 717 channels, one Rx and one Tx
- 8 Discrete I/O signals
- Host interface: user selectable USB 2.0 or Ethernet
- Programmable per channel:
    - Buffer size
    - Bit rates (Hi, Lo, Programmable)
    - Parity (Odd, Even, On, Off)
- Real-time operation
- 64K x 8 dual-port RAM
- Programmable hardware output trigger
- Interrupt and polling modes
- External Time Tag clock input
- IRIG B input (standard IRIG B120 serial time code)
- Power source: computer USB ports, USB power supply, battery (optional)
- Smart power management for power saving and battery charging

ARINC 429 Receive Channel

- Three receive modes:
    - Look-up table
    - Sequential per channel
    - Sequential merge
- Word status tagging
- 32-bit word Time Tagging
- 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

ARINC 429 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

ARINC 717 Features

- Protocols: HBP or BPRZ
- Programmable bit rate: 32, 64, 128, 256, 512, 1024, 2048 or 4096 words per second

EXCALIBUR
EXCALIBUR SYSTEMS

DAS-429UNET/RTx[-717]

Physical Characteristics

♦ Dimensions (without battery):
    98.5mm x 76mm x 18mm (not including connectors)
♦ Weight (RT10 basic configuration):
    180g (not including battery)

Operating Environment

♦ Operating Temperature: -40° to + 75°C
♦ Humidity: 5% - 90% noncondensing
♦ MTBF: RT5:   172,440 hours at 25°C, G_F, S217F
          RT10:   157,530 hours at 25°C, G_F, S217F

Host Interface

♦ USB 2.0 or 100 Mbps Ethernet
♦ Power: RT5:   5V @ 750 mA (max.)
           RT10:   5V @ 1000 mA (max.)

Software Support

♦ *429RTx & Discrete Software Tools:* Intuitive and flexible API with source code
    ♦ Compatible with 32/64-bit Windows 7/8/10 & Linux kernel 3.x/4.x/5.x
    ♦ Includes application interface for NI LabView & CVI
♦ *Exalt Plus:* Excalibur Analysis Laboratory Tools (optional)
♦ *Mystic ARINC 429 Bus Analyzer* for Windows
♦ *Discrete Generator* for Windows

Ordering Information

♦ **DAS-429UNET/RT5-M or -C**
    5 ARINC 429 channels
♦ **DAS-429UNET/RT10-M or -C**
    10 ARINC 429 channels
♦ **DAS-429UNET/RT8-717H-M or -C**
    8 ARINC 429 channels
    2 ARINC 717 channels – one receive channel and one Harvard B-Phase transmit channel
♦ **DAS-429UNET/RT8-717B-M or -C**
    8 ARINC 429 channels
    2 ARINC 717 channels – one receive channel and one Bi-Polar Return to Zero transmit channel

Note: "**-M**" specifies a micro DB 25-pin I/O connector mounted on the front panel
          "**-C**" specifies a hard-wired flat cable with a DB 25-pin I/O connector

♦ Additional Options:
    -P Mounting plate
    -B Internal rechargeable battery

311 Meacham Ave ♦ Elmont NY 11003
Tel [516] 327-000 / Fax: [516] 327-4645
e-mail: excalibur@mil-1553.com
website: www.mil-1553.com

EXCALIBUR SYSTEMS