

DAS-429mPCle/RTx[D][-717]

The DAS-429mPCle/RT10, DAS-429mPCle/RT6D4 and DAS-429mPCle/RT8-717 are ARINC 429, multichannel interface cards. The DAS-429mPCle/RT6D4 has additional Discrete I/Os and the DAS-429mPCle/RT8-717 has additional ARINC 717 receive and transmit channels. They comply with the PCI Express™ Mini Card standard, and support one lane 2.5 Gbps PCI Express. The card's small size and suitability for Mini Card compatible computers make it a complete solution for developing, testing, integrating ARINC 429 interfaces and for performing system simulation of the ARINC 429 bus, both in the lab and in the field.

General Features

- ◆ RT10:
 - 6 ARINC 429 channels configurable as Tx or Rx
 - 4 ARINC 429 Rx-only channels
- ◆ RT6D4:
 - 6 ARINC 429 channels configurable as Tx or Rx
 - 4 Discrete I/Os configurable as input or output
- ◆ RT8-717:
 - 4 ARINC 429 channels configurable as Tx or Rx
 - 4 ARINC 429 Rx-only channels
 - 2 ARINC 717 Rx and Tx channels
- ◆ Memory Mapped, 128K x 8 dual-port RAM
- ◆ Programmable per channel: Buffer size, Bit rate, Parity
- ◆ IRIG B input/output (optional)
- ◆ Programmable hardware output trigger (optional)
- ◆ Interrupt and polling modes
- ◆ Real-time operation
- ◆ 32-bit Time Tag
- ◆ 20-pin 0.8mm pitch connector with crimp type mating connector
- ◆ Optional Ruggedized soldered cable connection
- ◆ Programmable interrupts
- ◆ Time Tag can be read in real-time
- ◆ Ruggedized and extended temperature options

ARINC 429 Transmit Features

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

ARINC 429 Receive Features

- ◆ Three receive modes:
 - Look-up table
 - Sequential per channel
 - Sequential merge
- ◆ Word status tagging
- ◆ 32-bit word Time Tagging
- ◆ Label/data filtering
- ◆ Start triggers
- ◆ Error detection per word:
 - Bit Count, Sync Time, Parity, Bit Coding

Discrete Input Features

- ◆ Software selectable voltage threshold:
 - TTL 0 – 5V or Avionics 0 – 32V
- ◆ Programmable trigger mask
- ◆ Interrupt on changing input

Discrete Output Features

- ◆ Open collector outputs (0 – 32 V)
- ◆ Drive capability up to 100mA sink current per discrete

ARINC 717 Features

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



Physical Characteristics

- ◆ PCI Express Mini Card Electromechanical Specification Rev 1.2
- ◆ Dimensions: 50.95mm x 30.00mm x 4.85mm
- ◆ Weight: 7g

Operation Environment

- ◆ Temperature: 0°–70°C standard temperature
-40° to +85°C extended temp. (optional)
- ◆ Humidity: 5%–90% noncondensing
- ◆ MTBF: 354,500 hours at 25°C, G_F, S217F

Host Interface

- ◆ PCI Express compliance: x1 lane PCIe
- ◆ Memory space occupied: 512 KB
- ◆ Interrupts: INTA# virtual wire
- ◆ Power (/RT10): 3.3V @ 730mA (6 Tx, full load)

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.
- ◆ *Mystic* bus analyzer for Windows 32-bit
- ◆ *Exalt Plus*: Excalibur Analysis Laboratory Tools for Windows 32/64-bit (optional)

Ordering Information

- ◆ **DAS-429mPCle/RT10**
 - 6 programmable ARINC 429 channels
 - 4 receive-only ARINC 429 channels
- ◆ **DAS-429mPCle/RT6D4**
 - 6 programmable ARINC 429 channels
 - 4 programmable Discrete I/O channels
- ◆ **DAS-429mPCle/RT8-717**
 - 4 programmable ARINC 429 channels
 - 4 receive-only ARINC 429 channels
 - 2 receive and transmit ARINC 717 channels
- ◆ Additional Options:
 - E Extended temperature card
 - 001 With conformal coating
 - R With ruggedized, hard-wired cable connection

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These specifications are subject to change without notification



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