

- PCI bus compatible
- IPC429 – Next generation 429 core
- PCI bus 32-bit, 33MHz
- Improved architecture to enhance performance
- Performance Improvement and accurate timing control by means of On-board FPGA
- Supports up to 16 Channels per card
 - > 8 Transmit Channels
 - > 8 Receive Channels
- Configurable for High Speed/Low Speed
- Low host CPU load through FIFOs
- Upto 256 Label memory for each Receive channel
- 128 Word Tx and Rx FIFOs for each Transmit and Receive Channel
- Programmable interrupts
- Asynchronous and Synchronous Messaging
- Programmable Refresh rates of 20ms to 200ms
- Label selective trigger for Capture/Filtering and SDI filtering
- Driver & High-level API for Windows XP, Linux

OVERVIEW

The AT-PC104 Plus-429 card enables electronic systems to interface with commercial and military avionics data buses. They provide extensive functionality and are used to communicate with, simulate, test, and monitor ARINC429 equipment and systems. This high-density high-performance card is suitable for applications ranging from test equipment to rugged deployable systems. The card is designed to transmit and receive messages up to 16 channels. Up to 8 channels for Receive (Rx) and 8 channels Transmit (Tx) mode. Each channel is software configurable for high or low speed (12.5k/50k or 100k bits per second) and ARINC429 protocol requirements. The ARINC data word can be decoded and sorted based on the Label and SDI bits and stored in FIFOs. The card is integrated with powerful software that reduces development time. All databus functionality is supported from our advanced API (Application Programming Interface)

Software

The AT-PC104 Plus-429 software includes Drivers and APIs. The card comes with a powerful set of library functions to access the entire ARINC429 functionality. Source code is provided for samples, and detailed documentation. The drivers are designed in a modular fashion consisting of component functions & application functions. The user's test program can be developed with few calls to the driver, by using the set of Application functions provided. Driver and high-level API libraries for Windows XP, Linux are available.

AT-PC104 Plus-429

ARINC429 PC/104Plus Card

PRODUCT SPECIFICATIONS

Bus Interface

- PCI bus – 32-bit, 33 Mhz
- 3.3V PCI bus operation

ARINC429 Interface

- Supports up to 16 ARINC429 channels
 - > 8 Transmit Channels
 - > 8 Receive Channels
- 128 Word deep FIFO on each channel
- Programmable Interrupts
- Built-in Fault Detection Circuitry
- Set parityper channel (odd/even/data)
- Sync output on all or selectedmessages
- Messagefilters andschedules
- Data rates: 12.5 kbps/50 Kbps in Low Speed and 100 kbps in High Speed
- Filtering:Label and/ or SDI
- Parity: Odd, even or none
- Error reporting: Parity
- Standard input levels: ± 6.5 to ± 13 VDC
- Output levels: ± 10 VDC

Diagnostics

- Testing of Memory Elements
- Testing Transmit/Receive functions
- Internal Loopback and Wraparound Test for each channel
- Interrupt Function Testing

Error Conditions

- Sequence Error
- Address Error
- FIFO Overflow Error
- Receive Data Parity Error
- ARINC Clock Error

Software Support

- Driver and high-level API libraries for Windows XP & Linux
- Sample applications provided

Physical

- Standard PC104PLUS card size (3.55in x 3.75in)

Environmental

- Operating temperature : 0° C to +50° C
- Storage temperature : -20° C to +70° C

Power

- Maximum Power consumption <10W

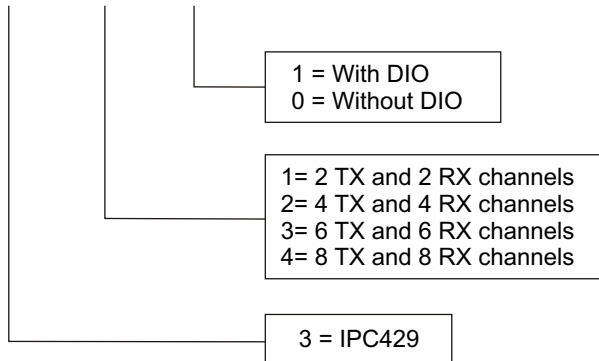
Warranty

- 1 year limited warranty

ORDERING INFORMATION

Hardware Selection

AT-PC104 Plus-429-Controller-Channels - DIO



- Contact sales for support for other Operating Systems
- Contact sales for configuration of front and rear I/O configuration
- Contact sales for environmental options



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