

- **Type III PC Card**
- **Based on 16 bit PCMCIA Architecture**
- **2Tx / 4Rx ARINC429 Channel**
- **Arinc429 controller configured as 2Tx / 4Rx channels**
- **Configurable for High Speed/Low Speed**
- **128 x 32 Shared RAM Interface**
- **Programmable interrupts**
- **Two 32 x 32 Transmit FIFO**
- **Built-in Fault Detection Circuitry**
- **4 Digital I/O Channels- Optional**
- **Windows driver support included with card**

OVERVIEW

The ATS-PCC-429 card provides a flexible, powerful ARINC429 avionics databus interface to the PC card socket. The card can be used with a laptop, notebook PC or a desktop PC or any other device having PC Card interface. The ATS-PCC-429 is based on Type III PC Card form factor. The card is designed to transmit and receive messages on up to 6 channels. Each channel is software configurable for high or low speed (12.5k or 100k bits per second) and ARINC-429 protocol requirements. The ARINC data word can be decoded and sorted based on the Label and SDI bits and stored in RAM and/or FIFOs. The card is integrated with a powerful software that reduces development time. All databus functionality is supported from our advanced API (Application Programming Interface) and VIP (Virtual Instrument Panel).

HARDWARE

The ATS-PCC-429 card can be configured with single ARINC429 controller from DDC which is configured as 2 Transmit and 4 Receive channels. The controller has 128 x 32 bit static RAM, four 32 (words deep) x 32 (bit) Receive FIFOs and two 32 (words deep) x 32 (bit) transmit FIFOs. Look-up tables loaded into RAM enable the controller's receive circuitry to filter and sort incoming data by label and destination bit as well as provide multilevel data specific interrupts or hardware triggers.

Digital I/O Channels-Optional

The card is equipped with TTL level digital I/O channels. It comes with 4 general-purpose digital I/O channels. These are pre-configured as 2 inputs and 2 outputs.

SOFTWARE

The ATS-PCC-429 software includes:

Drivers & APIs

The card comes with a powerful set of library functions to access the entire ARINC429 and Digital I/O functionality. The drivers are designed in a modular fashion consisting of component functions and application functions. The user's test program can be developed with few calls to the card driver, by using the set of Application functions provided.

Driver and high-level API libraries for Windows 2000/XP, Linux, RT-Linux, LabVIEW are available. Sample application programs are included.

PRODUCT SPECIFICATIONS

ARINC429 Interface

- Type III PC Card
- 16 bit PCMCIA Architecture
- 2Tx / 4Rx ARINC429 Channel
- 128 x 32 shared RAM interface
- Programmable Interrupts
- Configurable Bit Format Control
- Built-in Fault Detection Circuitry

Transmit Interface

- Programmable 12.5/100KHz bit rate
- Two 32 x 32 Transmit FIFOs
- Independent data transmit by each channel
- Programmable data transmit rate for each channel
- Transmit FIFO Status Indicators

Receive Interface

- Four 32 x 32 Receive FIFOs
- Receive data rates can be programmed for channel 0 and 1 independent of channel 2 and 3 in a 6 channel controller
- Reducing Receive Data Latency
- Filtering & Sorting of data
- Storage of data
- Parity Error Checking & Reporting
- Receive FIFO status indicator

Diagnostics

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

Digital I/O

- 4 Digital I/O lines configured as 2 Inputs & 2 Outputs
- TTL compatible I/O lines

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 2000/XP, Linux, RT-Linux, LabVIEW.
- Sample applications will be provided to help users quickly setup and use the card.

Physical

- Type III PC Card
- Card dimensions- 54.0 x 85.6 x 10.5 mm

Environmental

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

Power

- + 5 VDC

Warranty

- 1 Year limited warranty

PRODUCT SPECIFICATIONS

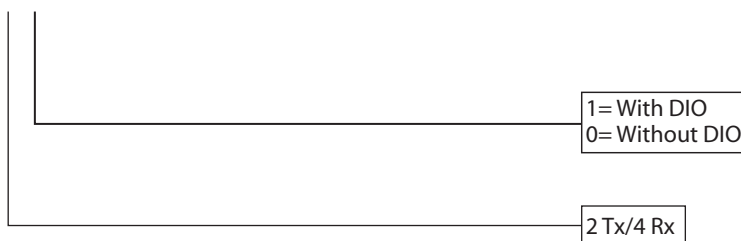
ARINC429 Interface

- Type III PC Card
- 16 bit PCMCIA Architecture

ORDERING INFORMATION

Hardware Selection

ATS-PCC-429-1-DIO



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