



PRELIMINARY

## DESCRIPTION

The DD-42916C1-300 is a PMC (PCI Mezzanine card) designed specifically to interface with an ARINC 429 data bus. The card contains both transmitters and receivers, and can be used as a data source for analyzing and simulating data from an ARINC 429 Data

Bus. With 16 programmable Rx/Tx channels and engineering unit conversion this card is well suited for all types of ground support work (development, manufacturing test, etc.), as well as on-board data acquisition.

## FEATURES

- **16 Programmable High Speed/Low Speed Rx/Tx Channels**
- **Supports High-Speed Data Rates on all Channels Simultaneously**
- **512 Kilobytes Dual Port RAM**
- **Engineering Unit Conversion**
- **Sample Host Code Provided**
- **Command Response FIFO**
- **0° to 70° C Operation**
- **Wrap Around Self Test for Each Channel**
- **Six Discrete Inputs and Four Discrete Outputs**

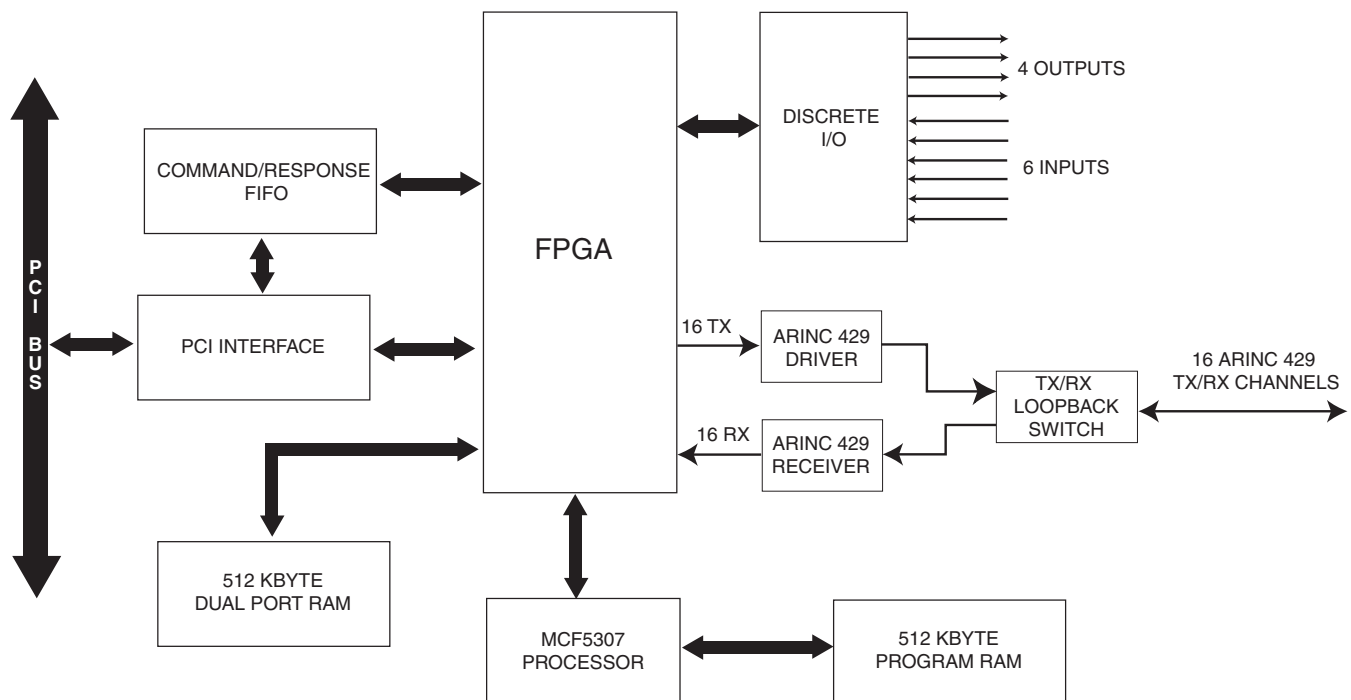


FIGURE 1. DD-42916C1-300 BLOCK DIAGRAM

TABLE 1. DD-42916C1-300 GENERAL SPECIFICATIONS	
<b>PHYSICAL</b>	Standard Single PMC Module
<b>ENVIRONMENTAL</b>	
Operating Temperature	0° to 70°C at no more than 95% relative humidity, non-condensing.
Storage Temperature	-30° to 70°C at no more than 99% relative humidity, non-condensing.
<b>ELECTRICAL</b>	
Connectors	50-pin I/O connector is located on the front panel.
Nominal Data Rate	12.5/100 KHz
Power Supplies	+3.3, +5 and ±12V DC
Expected Bus Impedance	75 Ohms ±10% with termination at both ends.
Time Tag Resolution	100 µsec
Discrete Outputs	Open Drain sink 30 mA @ 30V

## ARINC 429 PMC RECEIVE/TRANSMIT CHANNELS

Each card has up to 16 programmable ARINC 429 channels. These are general-purpose ARINC 429 channels, and can be set under program control to high or low speed, and receive or transmit.

## BUILT IN TEST

There is a green self-test LED on the front panel that indicates passing of self-test. A wrap around test connects receiver and transmitter channels together with an isolated I/O connector.

## DATA MEMORY

512K x 16 dual port memory for data exchange.

## DISCRETE I/O

Six discrete inputs (open/ground) and four discrete outputs

NOTE:

The PMC ARINC 429 conforms to the PMC standard. This guarantees compatibility with multiple PMC Carrier boards.

## APPLICABLE DOCUMENTS

Draft Standard Physical and Environmental Layers for PCI Mezzanine Cards: PMC.

Draft Standard for Common Mezzanine Card Family: CMC.

PCI Local Bus Standard Specification Revision 2.2.

ARINC 429 Mark 33 Digital Information Transfer Systems (DITS).

## SUPPORT

Data Device Corporation is committed to providing unsurpassed customer support. All hardware has a two-year limited warranty and software has a 90 day limited warranty. During this warranty period, all software updates are free.

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## ORDERING INFORMATION:

DD-42916C1-300

└── ARINC 429 PMC Card

The information in this data sheet is believed to be accurate; however, no responsibility is assumed by Data Device Corporation for its use, and no license or rights are granted by implication or otherwise in connection therewith.  
Specifications are subject to change without notice.



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