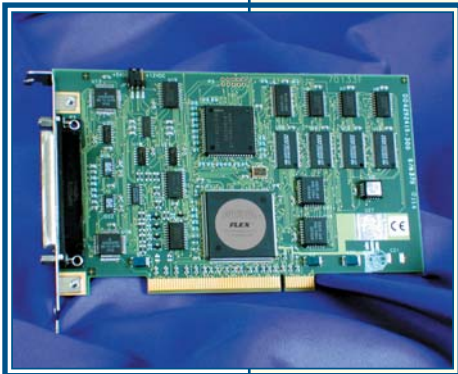


ARINC 429 PCI Card

MODEL: DD-42924I5-300



FEATURES

- 2 Transmitters and 4 Receivers
- Five Discrete Inputs and Five Discrete Outputs
- Supports High, Low, and Variable Speed Data Rates
- Synchronous and Asynchronous Transmission Methods
- Receive Label/SDI Data Filtering and Data Time Stamping
- Multiple Reception Methods
- Programmable Interrupt Support
- On-Board Processor for Data Processing
- Dual-Port Ram for ARINC Data
- Drivers And Run-Time Library
- Supports Windows[®] 95/98/2000/XP, and Windows NT[®], and Linux, Including LabVIEW[™] and LabWindows[™]/CVI Support
- Optional Commercial Avionics Utilities 32-Bit Software Suite
- Optional *dataMARS/dataSIMS* 32-Bit Monitoring and Simulation Software

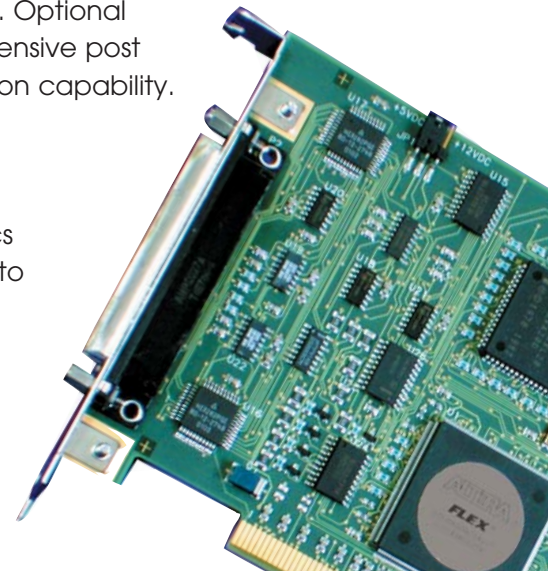
DESCRIPTION

The DD-42924I5-300 PCI interface card for the ARINC 429 data bus contains two transmit channels, four receive channels, five discrete inputs, and five discrete outputs. It can be used as a data source for simulating or as a data receiver for analyzing data on a bus. The card incorporates a high performance processor for data processing and time stamping and dual-port RAM for efficient transfer of ARINC 429 data to and from the card.

DD-42924I5-300 software supports all modes of operation and includes 'C', LabVIEW and LabWindows/CVI programming libraries. An optional Commercial Avionics Utilities Suite, with an ARINC 429 Data Bus Analyzer and ARINC 615 Data Loader, is also available. The card's WinPanel GUI allows users to transmit and receive data onto a bus without developing software. Optional *dataMARS* software provides powerful monitoring, display, and extensive post analysis capabilities. Plus, optional *dataSIMS* software adds simulation capability.

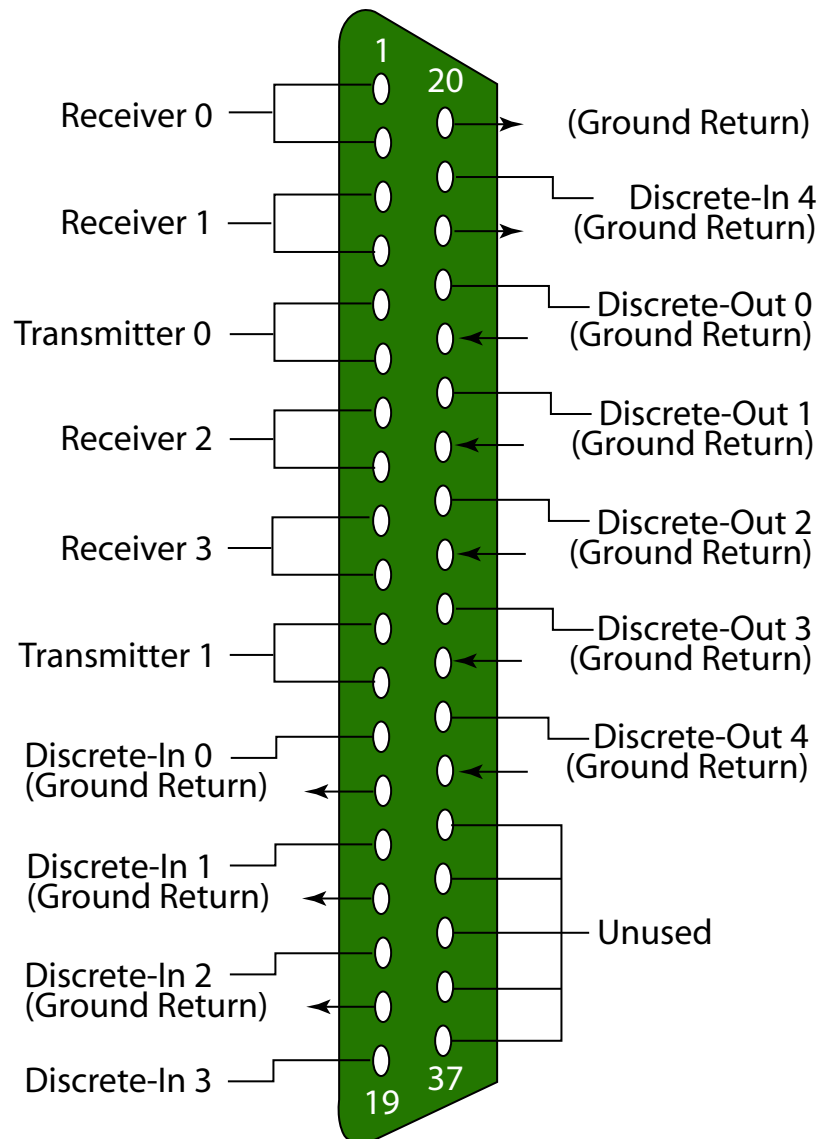
APPLICATIONS

The DD-42924I5-300 is designed for military and commercial avionics applications. This includes simulating and testing new systems prior to use with actual flight systems, in-lab end item testing, and onboard testing via portable PC.



37-Pin D-Type Connector

Figure 1



CARD and SOFTWARE CAPABILITIES

Transmit Data Options

- Scheduled Data
- Instant Data
- File Data

Received Data Options

- FIFO
- "Mailbox"
- Filtering
- Time Stamping of Received Data

256 KB Dual Port RAM

Convert data to engineering units with the optional ARINC 429 Data Bus Analyzer Software

Interrupt Options

- Frequency (time)-driven
- Reception-Driven

Discrete I/O

- 5 CMOS Discrete Inputs
- 5 CMOS Discrete Outputs

Software

- Driver Support for Windows 95/98/2000, Windows NT and Linux
- Support for LabVIEW and LabWindows/CVI
- High-Level API
- Demonstration Software
- Diagnostics

Figure 2

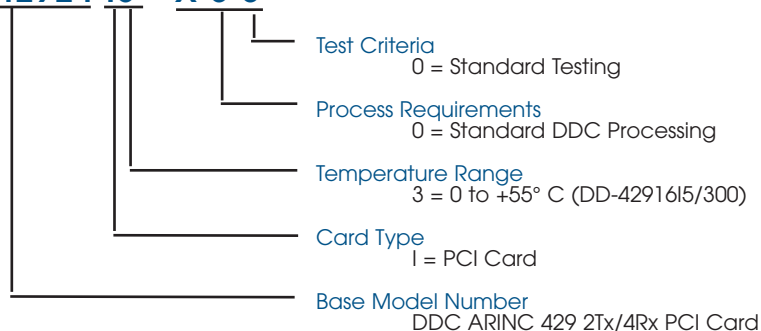


Specifications

PARAMETER	VALUE	UNITS
ELECTRICAL CHARACTERISTICS		
Nominal Data Rates	8, 10, 12.5, 14, 64.5, 80, 100, 111	kHz
Expected bus impedance	75	ohms
Receiver input impedance	12 K	ohms
Time Tag Resolution	1 to 20	ms
Operating Voltage	5 ± 10%	Vdc
Maximum operating current with no transmitters in use	50	mA
Maximum operating current with one transmitter in use	100	mA
Discrete Outputs (open drain sink)	100	mA
Discrete Inputs		
True condition	3.5V to 40	V
False condition	0V to 1.35	V
ENVIRONMENTAL CHARACTERISTICS		
Operating Temperature: (up to 95% relative humidity, non-condensing)	0 to 55	°C
Storage Temperature (up to 99% relative humidity, non-condensing)	-40° to 85	°C
PHYSICAL CHARACTERISTICS		
Standard Short PCI Card	6.865 x 4.2 (17.46 x 10.67)	in (cm)
I/O Connector	37-pin D-Type connector on front panel	
Weight	5.50 (156)	oz (g)

Ordering Information

DD-42924 I5 - X 0 0



Note: The above product contains tin-lead solder.

Included Software

- DD-42976S0 -** Software Drivers, `C` API Library, LabVIEW, and LabWindows/CDI for Windows 9x/2000/XP and Windows NT
- DD-42976S1 -** Software Drivers and C API Library for Linux

Optional 32-bit GUI Software

- BU-694X4DM-64VM -** 32-bit *dataMARS*
- BU-694X4DS-64VM -** 32-bit *dataSIMS*
- X= Software License Type,
0= Parallel Port, 1= USB
- Windows 9x/2000/XP and Windows NT
- DD-42999S0 -** Commercial Avionics Utilities Software Suite for Windows 9x/2000/XP and Windows NT
- Includes: ARINC 429 Data Bus Analyzer
ARINC 615 Data Loader



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