

## PCIe/PMC/PCI/ cPCI/PXI Boards with up to 36 ARINC 429 Channels & ARINC 717

The world's only boards offering up to 36 ARINC 429 Channels that can be individually programmed for Transmit/Receive functionality with parametric test features, variable output voltage, and voltage monitoring on board. Providing an optimal solution for both commercial and military test applications, DDC's ARINC 429/717 series offers flexibility and efficiency by enabling users to configure I/O mix and use one board for all levels of testing and simulation.

**ARINC 429**

**ARINC 717**

**DISCRETE**

PB-DD-40X00X-5  
12/16

**For more information:**

[www.ddc-web.com/DD-40X00X](http://www.ddc-web.com/DD-40X00X)



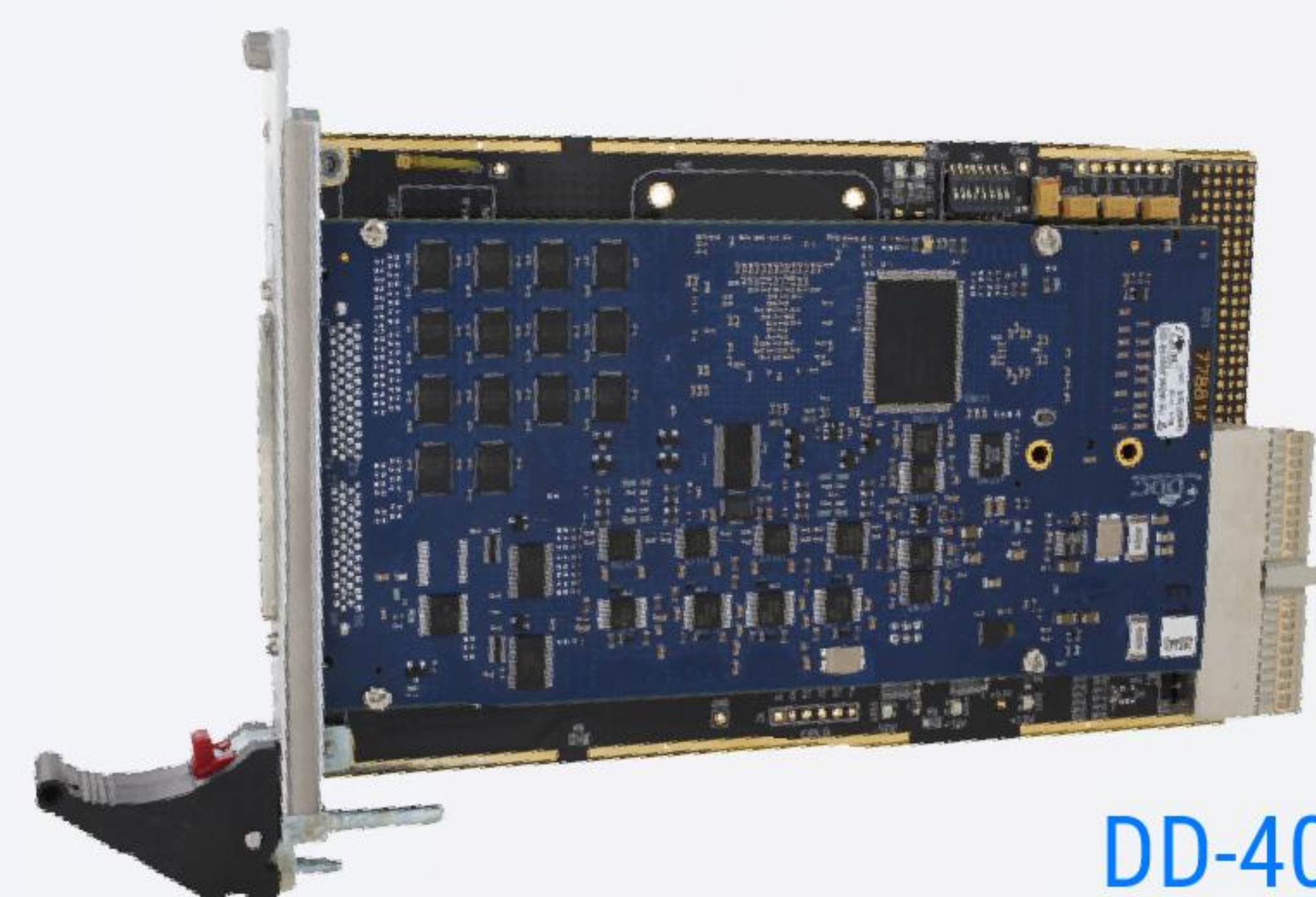
DD-40000K



DD-40100i



DD-40100F



DD-40100T

## Benefits

- Programmable Tx/Rx ARINC Channels
  - Provides Complete Flexibility to Define Your I/O Mix
  - Facilitate Hardware In-the-Loop Testing & Integration
- Variable ARINC Speed Output Allows Compatibility with Many ARINC Specifications that Run a Different Defined Speed
- Voltage Monitoring Allows for Debug of Your ARINC Bus Without a Scope

## Applications

- ◇ Systems Integration Labs
- ◇ Simulators
- ◇ Production Test Stands
- ◇ Automated Test
- ◇ Commercial Aerospace
- ◇ New Product Development
- ◇ System Troubleshooting
- ◇ Portable Testers
- ◇ Flight Line Diagnostics
- ◇ Flight Testing
- ◇ Software Development
- ◇ Data Loading
- ◇ Data Monitoring
- ◇ Bus Debugging & Diagnostics

## Key Features

- ◆ Front I/O PMC, PCI, & cPCI/PXI Boards
- ◆ x1 Lane Bridgeless PCIe Board with MSI IRQ Support
- ◆ DMA Engine for Ultra Low CPU and PCI/PCIe Utilization
- ◆ 6, 10, 18, or 36 Prog. Tx/Rx ARINC 429 Channels
- ◆ Up to 2 Prog. Tx/Rx ARINC 717 Channels
- ◆ Up to 16 Avionics Discrete I/O
- ◆ IRIG-B Input & Output
- ◆ Variable Output Voltage on 8 Channels
- ◆ Voltage Monitoring with Scope View on 8 Channels
- ◆ 48-bit/100ns Time Tag
- ◆ Programmable Speed Per Channel (500bps - 200Kbps)
- ◆ Full Error Detection & Injection Per Message
  - Variable Inter-Message Bit Gap from 1 to 32K Bits
  - Variable ARINC Message Length from 2 to 33 Bits
  - Parity Selection
- ◆ Real Time Asynchronous Message Insertion
- ◆ Real Time Data Modification
- ◆ Fully Independent Channel Operation
- ◆ FIFO or Mailbox Rx Methods
- ◆ Label/SDI Filtering Per Channel
- ◆ Onboard Hardware Scheduler
- ◆ Bus Playback
- ◆ RoHS Compliant

### Need a Custom Solution?

DDC can customize designs for all products, ranging from simple modifications of standard products to fully customized solutions for commercial, military, aerospace, and industrial applications.

# Ordering Information

## Operating Temperature:

JL = 0°C to +55°C (PCI & cPCI/PXI Boards only)

3L = 0°C to +71°C (PCI-Express & Front I/O PMC Boards only)

R-XL0

| I/O Option | # of 429 Ch | # of 717 Ch | Avionics Discrete I/O | IRIG-B In & Out | Voltage Monitoring | Variable Voltage Output |
|------------|-------------|-------------|-----------------------|-----------------|--------------------|-------------------------|
| 060        | 6           | 0           | 0                     | ✓               | 0                  | 0                       |
| 100        | 10          | 2           | 16                    | ✓               | 8                  | 8                       |
| 180        | 18          | 2           | 16                    | ✓               | 8                  | 8                       |
| 360        | 36          | 2           | 5                     | ✓               | 8                  | 8                       |

XXX

DD-40X00X XXX R-XL0

DD-40X00X

## Card Type:

40000K = PCI-Express Board

40100F = Front I/O PMC Board

40100i = PCI Board

40100T = cPCI/PXI Board

## Included Software Development Kits:

- 32-bit Windows® XP Support
- 32/64-bit Windows Vista/7/8/10/Server 2008/Server 2011 Support
- .NET Support Available - Contact Factory
- 32/64-bit Linux® Support
- VxWorks Support - Contact Factory

## Included Accessories:

- Mating Connector and Shell



## Optional Cables:

- PCIe: P/N DDC-78149-1
- PMC/PCI/cPCI: P/N DDC-78149-2

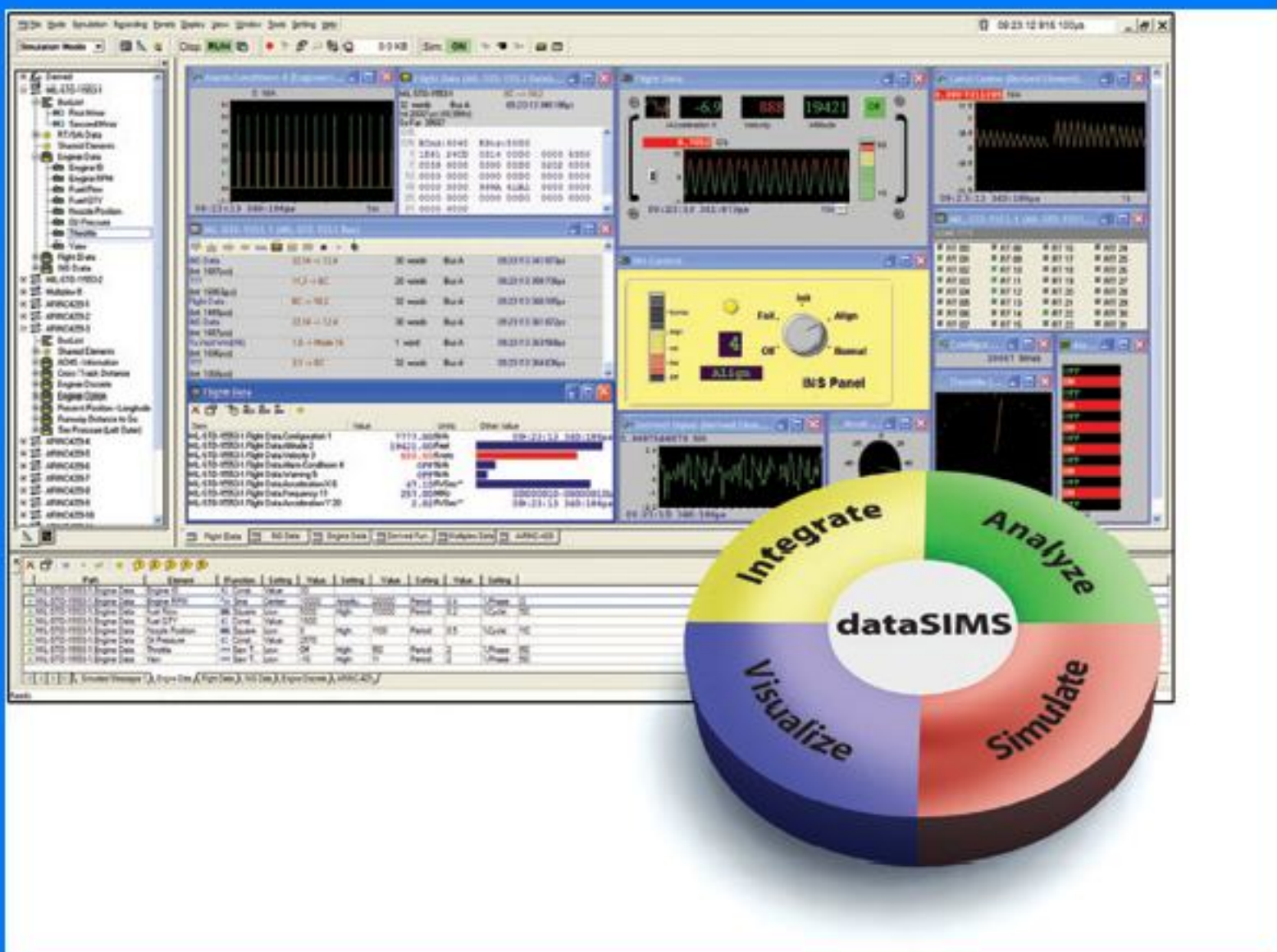
# Optional Software:



## Commercial Avionics Utilities

### Model: DD-42999S0-XX0

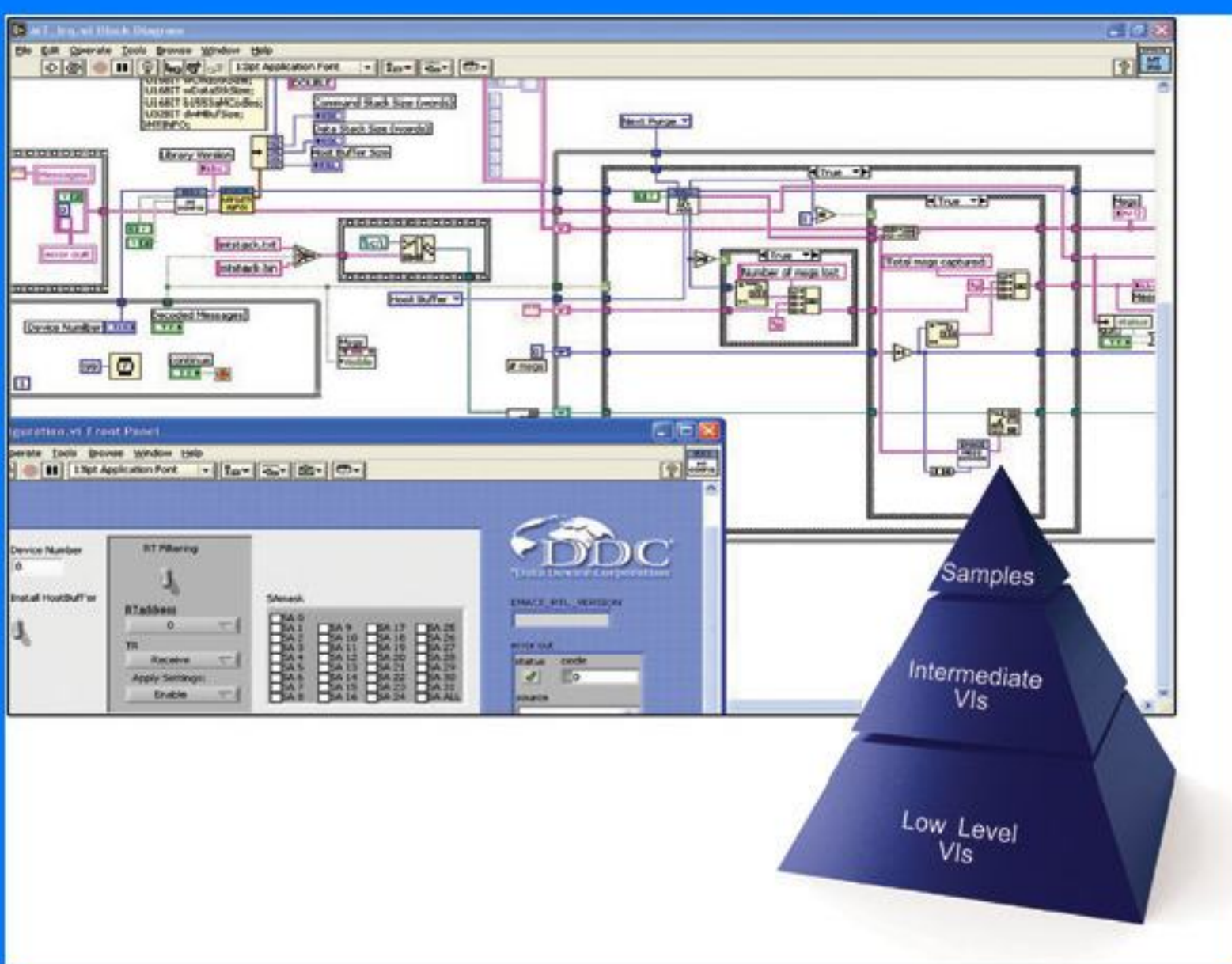
- Graphical ARINC 429 data bus analysis and simulation
- Advanced filtering, message scheduling, and triggering
- Graphical ARINC 615 data loader to load data to and from airborne computers



## DataSIMS (Avionics Data Bus Test & Analysis Software)

### Model: BU-69414DS-64VMt

- Accelerates development and deployment
- Eliminates cost of learning and maintaining separate software programs
- Easy-to-use and customize
- Supports all data protocols and I/O formats



## LabVIEW® & LabVIEW Real-Time Support

### Model: BU-69093S0-XX0

- Simple interface for quick startup and easy programming
- Access real-time 1553/429 data using LabVIEW
- Easily integrate data from different types of instruments and sensors
- Create custom user interface from scratch or by modifying samples



DATA DEVICE CORPORATION  
REGISTERED TO:  
ISO 9001:2008, AS9100C:2009-01  
EN9100:2009, JIS Q9100:2009  
FILE NO. 10001296 ASH09



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**Data Device Corporation**  
[www.ddc-web.com](http://www.ddc-web.com)

## For ordering assistance & technical support

**E-Mail:** [service@ddc-web.com](mailto:service@ddc-web.com)  
**Visit:** [ddc-web.com](http://ddc-web.com)  
**Call:** HQ, N.Y., U.S.A  
1-800-DDC-5757 | (631) 567-5600

**UK** +44-(0)1635-811140  
**France** +33-(0)1-41-16-3424  
**Germany** +49-(0)89-1500-12-11  
**Japan** +81-(0)3-3814-7688  
**Asia** +65-6489-4801  
**India** +91 080 301 10 200