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Find the *DDC BU-67102* at our website: *Click HERE*

Small Form Factor USB
MIL-STD-1553 and ARINC 429 Board

Product Brief

Model: BU-67102Ux1



This small form factor USB board allows up to 2 dual-redundant MIL-STD-1553 channels and/or 4 Receive/2 Transmit ARINC 429 channels to be easily added to any system with a USB connection to provide a light weight, small size, rugged, and reliable bus interface. The board can meet rugged levels of shock and vibration, along with a maximum temperature range of -40°C to +85°C. The board is available as 1553 only, 429 only, or combination 1553/429 Multi-I/O to save space, power, weight, and cost for systems that need both 1553 and 429.

Key Features

- Small Form Factor
  - Conduction or Air Cooled
  - 3 inches x 2.97 inches (76.2 mm x 75.4 mm)
  - USB 2.0 Host Interface
- Up to 2 Dual Redundant MIL-STD-1553 Channels
  - BC/MT or Multi-RT/MT per Channel
  - Supports MIL-STD-1553 A/B
  - Transformer and/or Direct Coupled
  - BC Disable for RT Only Applications
  - Tx Inhibit for MT Only Applications
- Up to 4 Receive and 2 Transmit ARINC-429 Channels
  - High/Low Speed Operation
  - Multiple Reception and Transmission Methods
  - Supports other ARINC Standards
- 8 Digital Discrete I/O
- IRIG-B Time Input & 1 Pulse-Per-Second Output
- 48-bit/100nS Time Stamp
- High-Level C Software Development Kits for Windows XP/Vista/7 and Linux
- Graphical Avionics Bus Analysis and Simulation Software
- ACEXTREME® - Next generation 1553 Core

Benefits

- Complete Hardware and Software Solution
- Small Form Factor with USB 2.0 Interface is ideal for:
  - Desktops, Laptops, and Tablet Computers
  - Any Embedded Box with a USB Port
- MIL-STD-1553 and ARINC 429 Connectivity in One Device
- Suitable for Both Embedded and Portable Applications
- Save Time and Reduce Costs:
  - Common Test/Embedded API for Rapid Prototyping with Less Programming Time
  - Program in Minutes with BusTrACEr™ Automated Application C Code Generation
- IRIG-106 Chapter 10 On-Board Formatting
- On-Board DMA Engine for Low CPU Utilization

Applications

- Rugged Small Embedded Systems
- Laptops or Tablets
- Bus Troubleshooting
- Diagnostic Systems
- Hand Held Test Equipment
- Small Displays

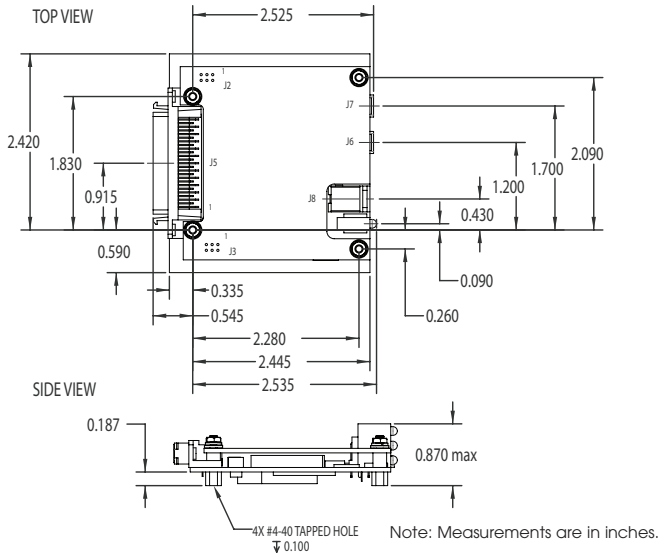
For more information: www.ddc-web.com/BU-67102Ux1

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Overview

This Small Form Factor USB board contains MIL-STD-1553, ARINC-429, digital discrete I/O, IRIG-B, and a 1 Pulse-per-Second (PPS) Output. The USB board is approximately 3 inches x 2.6 inches (76.2 mm x 66 mm) and can meet rugged levels of shock and vibration along with a temperature range of -40°C to +85°C. The USB board can be powered directly from the USB interface, eliminating the need for multiple power supplies. The small board can be mounted inside of a rugged enclosure and connected to a computer via a standard USB cable.

Mechanical Outline



Note: Measurements are in inches.

Ordering Information

Part Number	1553 Ch	429 Rx	429 Tx	Discrete I/O
BU-67102U010L-XXX X	0	4	2	8
BU-67102U110L-XXX X	1	0	0	8
BU-67102U210L-XXX X	2	4	2	8

N = Acrylic Conformal Coating
(Blank) = No Conformal Coating

CA0 = -40°C to +71°C for Air Cooled Applications with 3m/s of airflow
2C0 = -40°C to +85°C for Conduction Cooled Applications

Note: IRIG-B Input and 1 pulse-per-second Output are included on all boards.

Included Software:

- 1553 and 429 C Software Development Kits (SDKs)
- Windows 2000/XP/Vista/7 and Linux support

Quick Specs

POWER DISSIPATION (75% Utilization)	MIN	TYP	MAX
BU-67102U0 (ARINC 429)	-	3.0 W	-
BU-67102U1 (1-ch 1553)	-	2.5 W	-
BU-67102U2 (2-ch 1553)	-	4.0 W	-

THERMAL	MIN	TYP	MAX
Operating Temperature	-40 °C	-	+85 °C
Storage Temperature	-40 °C	-	+85 °C

Optional Software

BusTRACER™ Data Bus Analyzer and Monitor Software



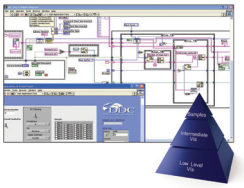
- Generate or monitor live MIL-STD-1553 data without writing any code
- Saves time and reduces development costs
- Program in minutes with one-click ANSI 'C' source code generation
- Rapid creation and setup of custom applications

dataSIMS Avionics Data Bus Test and Analysis Software



- 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® Support Package



- 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 provided

Commercial Avionics Utilities



- 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

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REGISTERED TO ISO 9001:2008
REGISTERED TO AS9100:2004-01
FILE NO. A5976



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