

Quick Start Guide

USB MULTI-I/O AVIONICS DEVICES

BU-67X02U / BU-67103U
BU-67211U

Using Windows® and Linux®



Windows®



Contents include:

- USB Avionics Device
- Software CD
- AC Power Cable/Adapter
- D Connectors and Shell

Note: Documentation for this device is located on the included Software CD and on the DDC website at: www.ddc-web.com/USB

1 Software Installation:

The Software Development Kits (SDK) are included on the supplied Software CD. Insert the disc and select your product from the product list.

MIL-STD-1553 AceXtreme™ SDK: BU-69092S0

Card : BU-67102UX
USB Avionics Device with MIL-STD-1553 and ARINC 429 Interfaces

Files:

- Datasheet: BU-67102/3 USB Avionics Device with MIL-STD-1553 & ARINC 429 Interfaces
- Manual: BU-67102/3U USB Avionics Device with MIL-STD-1553 & ARINC 429 Interfaces Manual
- Manual: BU-69092SX AceXtreme C SDK Software Manual
- Manual: MU-42992SX-001 Software User's Manual for ARINC 429 Multi-IO Cards
- Generic Document: E2MA/AceXtreme Flash Utility Instructions
- Generic Document: Boards and Components Flyer
- Generic Document: MIL-STD-1553 Designer's Guide
- Generic Document: Portable Avionics Bus Capabilities
- Software: BU-69066S0 1.1.4 for Win 2000/XP - Installer
- Software: BU-69092S0 3.1.3 for Win 2000/XP - Installer
- Software: BU-69093 LabVIEW Support Package 1.1.1 for Win 2000/XP - Installer
- Software: dataSIMS and dataMARS 32 3.2.2 for Win 9x/NT/2K/XP - Installer
- Software: DD-42992S0 3.1.3 for Win 2000/XP - Installer
- Software: DD-42999S0 5.0.3 for Win 2000/XP - Installer

For **MIL-STD-1553**, select BU-69092S0 from the software list, and follow the prompts to complete the installation of the SDK.

Supported Boards:

- BU-67X02/103U1
- BU-67102/103U2
- BU-67211U2

ARINC 429 Multi-IO SDK: DD-42992S0

Card : BU-67103UX
USB Avionics Device with MIL-STD-1553 and ARINC 429 Interfaces

Files:

- Datasheet: BU-67102/3 USB Avionics Device with MIL-STD-1553 & ARINC 429 Interfaces
- Manual: BU-67102/3U USB Avionics Device with MIL-STD-1553 & ARINC 429 Interfaces Manual
- Manual: BU-69092SX AceXtreme C SDK Software Manual
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- Software: DD-42992S0 3.1.3 for Win 2000/XP - Installer
- Software: DD-42999S0 5.0.3 for Win 2000/XP - Installer

For **ARINC 429, ARINC 717 / CanBUS, Serial I/O** select

DD-42992S0 from the software list, and follow the prompts to complete the installation of the SDK.

Supported Boards:

- BU-67102/103U0
- BU-67102/103U2
- BU-67211U0
- BU-67211U2

The latest version of the SDK can be downloaded from the DDC website at: www.ddc-web.com/USB

Windows®

2 USB Connection:



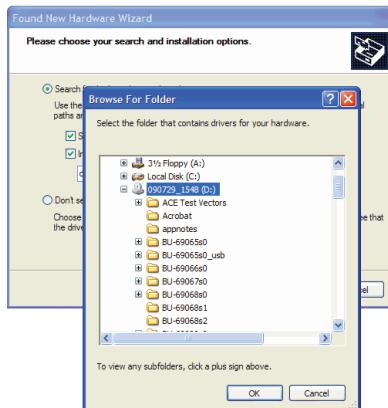
Using the supplied USB cable, connect your computer to the USB Avionics Device through the **PRIMARY** port. USB cable strain relief hardware is provided and can be connected as shown.

Note: BU-67211U requires an external AC Power Connection. The secondary USB connection on the BU-67x02U and BU-67103U can be used to supply more power to the device if required



3 Hardware Installation:

In the Hardware Installation Wizard, select the folder containing the driver. The driver is located in the installed SDK directory. See the paths below:

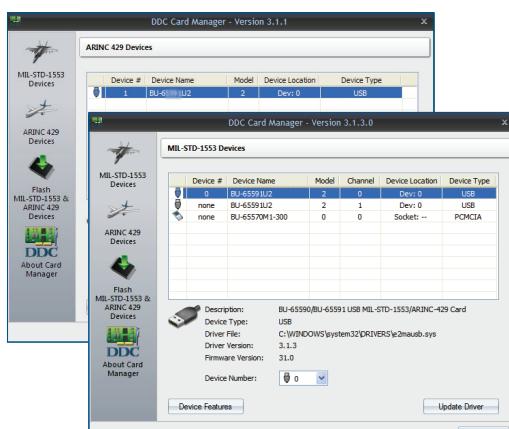


Driver path for **MIL-STD-1553**:
\DDC\aceXtremeSDKvXXX\Drivers

Driver path for **ARINC 429**:
\DDC\DD42992SDKvXXX\Drivers

Note: XXX = version number

4 Logical Device Number Assignment:



Assign a Logical Device Number to each channel on the USB Avionics Device using the DDC Card Manager, located in the Control Panel.

You are now ready to use the USB Avionics Device with your installed SDK. For expanded software capabilities, see the Optional Software section of this document.

Linux®



Contents include:

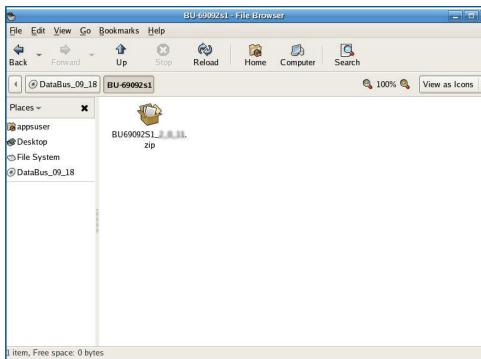
- USB Avionics Device
- Software CD
- AC Power Cable/Adapter
- D Connectors and Shell

Note: Documentation for this device is located on the included Software CD and on the DDC website at: www.ddc-web.com/USB

1 Software Installation:

The Software Development Kits (SDK) are included on the supplied Software CD. Insert the disc and open the file directory.

MIL-STD-1553 AceXtreme™ SDK: BU-69092S1



Unzip the file: **BU69092S1_X_Y_Z.zip**.

note: X_Y_Z = revision number

For installation from CD: Navigate to the BU-69092S1 folder.

For installation from web:

Ensure the zip file above is downloaded.

Supported Boards:

- BU-67X02/103U1
- BU-67102/103U2
- BU-67211U2

ARINC 429 SDK: DD-42992S1

Unzip the file: **DD42992S1_X_Y_Z.zip**.

note: X_Y_Z = revision number

For installation from CD: Navigate to the DD-42992S1 folder.

For installation from web:

Ensure the zip file above is downloaded.

Supported Boards:

- BU-67102/103U1
- BU-67102/103U2
- BU-67211U0
- BU-67211U2

The latest version of the SDK can be downloaded from the DDC website at: www.ddc-web.com/USB

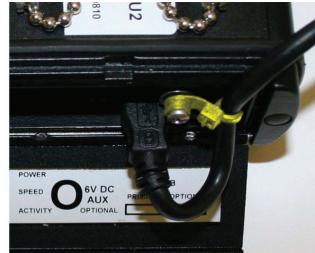
Linux®

2 USB Connection:



Using the supplied USB cable, connect your computer to the USB Avionics Device through the **PRIMARY** port. USB cable strain relief hardware is provided and can be connected as shown.

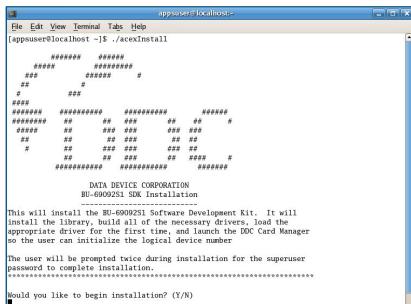
Note: BU-67211U requires an external AC Power Connection. The secondary USB connection on the BU-67x02U and BU-67103U can be used to supply more power to the device if required



3 Hardware Installation:

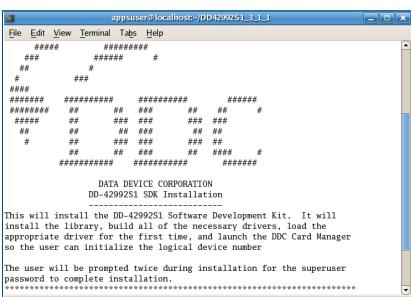
Using the appropriate installation script, follow the prompts to install the package. The script will guide you through building the drivers, installing the library, and setting up the device for the first time.

MIL-STD-1553 AceXtreme™ SDK: BU-69092S1



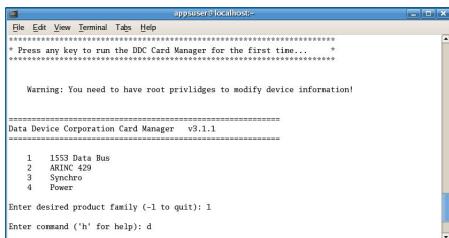
Installation script for **MIL-STD-1553**: *aceXinstall*

ARINC 429 SDK: DD-42992S1



Installation script for ARINC 429 /717, CanBUS, Serial I/O: *arinc429install*

4 Logical Device Number Assignment:



Assign a Logical Device Number to the USB Avionics Device in the DDC Card Manager. The DDC Card Manager can be launched by typing ***ddccm*** into the console.

You are now ready to use the USB Avionics Device with your installed SDK.

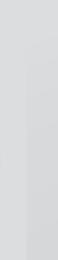
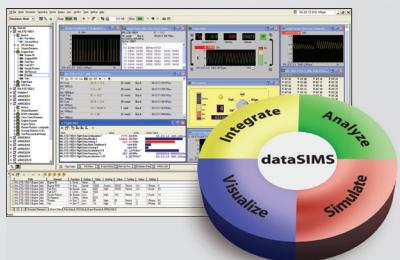
Optional Software



The following Windows® software packages provide expanded capabilities for your USB device:

dataSIMS

Avionics Data Bus Test and Analysis Software



Free 60-Day Trial!

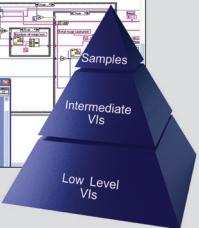
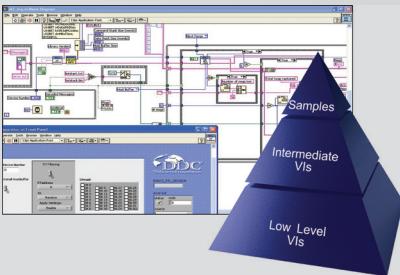
MIL-STD 1553 ARINC 429

- 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

For more information, visit: www.ddc-web.com/datasims

LabVIEW® Support Package

Easy and Efficient LabVIEW Development Software



Free 60-Day Trial!

MIL-STD 1553 ARINC 429

- 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

For more information, visit: www.ddc-web.com/labview

BusTrACEr™

Data Bus Analyzer and Monitor Software



Free 60-Day Trial!

MIL-STD 1553

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

For more information, visit: www.ddc-web.com/bustracer

Commercial Avionics Utility Suite

Data Bus Analyzer and Data Loader Software



Free 60-Day Trial!

ARINC 429

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

For more information, visit: www.ddc-web.com/arincsw

Free 60-Day Trial! → www.ddc-web.com/software