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Find the *DDC BU-67125* at our website: *Click HERE*

Compact Avionics Interface Computer

Product Brief

Model: BU-67125W



ETHERNET
MIL-STD-1553
ARINC 429/717
CANbus
Motion Control
Power Control
Expansion I/O

ACEXTREME®

DDC's Compact Avionics Interface Computer (C-AIC) offers a completely customizable, off-the-shelf solution, that can be optimized for specific application requirements. The C-AIC combines best-in-class performance from Intel's embedded computing architecture, with DDC's avionics data networking expertise and custom I/O capabilities, to deliver unmatched avionics connectivity computing in a small, deployable, rugged enclosure.

Quick Specs (Base System)

FEATURE	DESCRIPTION
Processor	Intel® Atom™ E3845 Processor Module
Memory	4GB DDR3
Networking	2x 10/100/1000 Ethernet
Storage	Solid-State Drive (SSD) 64GB to 512GB
Expansion Slots	2x Mini PCIe Slots, supports additional features such as WiFi, GPS, Bluetooth, Avionics Data Bus
Serial Interface	RS-232, RS-232/422
USB	3x USB 2.0 , 1x USB 3.0 (contact factory)
GPIOs	16x I/O
Audio	HD Audio
Video	DVI
Power	12 - 32VDC
Operating System	Linux
Enclosure	5.5 x 5.0 x 1.75 in (140 x 127 x 44.4 mm)
Weight	< 2lbs (0.91kg)

ENVIRONMENTALS		TYPICAL
Temperature Range		(conduction cooled, bottom surface)
	Operating	-40°C to +71°C
	Storage	-40°C to +125°C
Shock		DO-160G Section 7-A Standard, 6g, 11ms, No crash safety
Vibration		DO-160G Section 8-S Curve B, 1.48GRMS random
EMI		DO-160G 20/21-B, MIL-STD-461E
Humidity		DO-160G 6-A, 95% Non-condensing
CE Compliant		

Benefits

- Embedded Intel® Atom Processor Provides Low Power Computing Performance, Programming, and Flexibility, Enabling the C-AIC to Serve High Density Protocol Bridging and Application Needs.
- Qualified for Rugged Air and Ground Environments.
- Expandable: mPCIe and I/O Expansion Modules to Support Wide Range of I/Os (contact factory)
- Customizable Off-the-Shelf Solution Enables Faster Time-to-Market
- Custom Front Panel Connector Configurations to Support Unique Deployed I/O Requirements
- DDC's Additional Modes of Operation:

1. **Remote Access Mode** Uses Ethernet as a Networking Interface to Control Applications and Avionics Interfaces Running on Remote DDC C-AIC's, Eliminating the Need and Cost of Long Cabling to Onboard 1553/429 Connections from the Test Lab
2. **Bridging & Protocol Conversion Mode** Uses DDC's Bridging SDK, to Easily Create Embedded Software on the AIC that will Autonomously Forward Data Between MIL-STD-1553, ARINC 429, and Ethernet Interfaces

Applications

- Military Aerospace
  - Fixed Wing
  - Rotary
- UAVs
- Commercial Aerospace
  - Fixed Wing
  - Rotary
- Ground Vehicles

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.

For more information: www.ddc-web.com/BU-67125W

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Printed on recycled paper.

Ordering Information

BU-67125WX XX R-C00

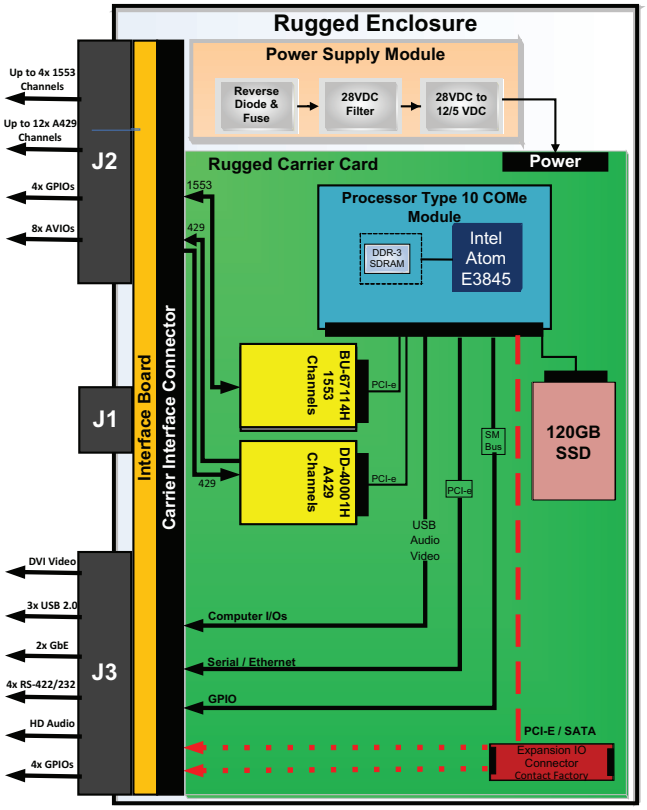
- Operating Temperature: C00 = Conduction Cooled
- Enviromental Compliance: R = RoHS Compliant
- Storage Options: 0 = 120GB, 1 = 512GB

I/O Option	00	01	02	03	04**	06	07	08	09
1553	0	2	0	2	0	1	4	0	1
429	0	0	6	6	0	0	0	12	0
717	0	0	2	2	0	0	0	4	0
RS232/422	4	4	4	4	4	4	4	4	4
GPIO	8	8	8	8	12	8	8	8	8
AV I/O	8	8	8	8	52	8	8	8	8
IRIG-B Input	0	1	1	2	0	1	2	2	1
Ethernet	2	2	2	2	2	2	2	2	2
Can	0	0	0	0	4	0	0	0	2

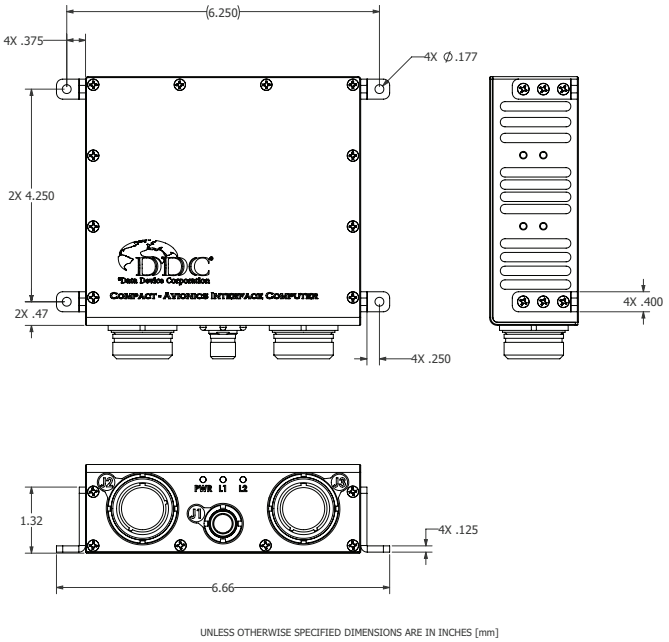
Notes: *Contact factory for custom configurations. See table below.
**Contact factory for 04 model.

System Configuration	
Module	Detail
Mini-PCIe Modules	
BU-67114Hx	Up to 2 dual redundant MIL-STD-1553 channels
DD-40001HX	6 ARINC 429 channels: 2 RX, 4 Tx/Rx (2 programmable as Tx/Rx ARINC 717)
WiFi	Contact Factory
GPS	Contact Factory
Bluetooth	Contact Factory
Daughtercard Module	
The daughtercard module can be customized to support additional I/Os and capabilities. Contact Factory for options. Configurations include:	
Data Networking	1553, 429/717, Ethernet, CANBus, Video
Power Control	Solid-State Power Controller
Motion Control	Motor Control, Motion Feedback
Software	
Operating System	Fedora 20 Linux®
BU-69094S1	Bridging SDK for 1552/429 (runs on C-AIC); Includes Web Server and Remote Access Server
BU-69092S0	Windows 1553 SDK (runs on host); Included with BU-67114Hx module
BU-69092S1	Linux 1553 SDK (runs on host and C-AIC); Included with BU-67114Hx module
DD-42992S0	Windows 429 SDK (runs on host); Included with DD-40001Hx module
DD-42992S1	Linux 429 SDK (runs on host and C-AIC); Included with DD-40001Hx module
BU-69066S0	BusTrACEr® Data Bus Analyzer and Monitor
DD-42999S0	Commercial Avionics Utilities Data Bus Analyzer & 615 Data Loader
BU-694X4DS	dataSIMS Avionics Data Bus Test & Analysis
BU-69093S0	LabVIEW® & LabWindows® Support

Block Diagram



Mechanical Outline



DQS Inc.
DATA DEVICE CORPORATION
REGISTERED TO:
AS9100:2016, ISO9001:2015
FILE NO. 10001296



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E-Mail: service@ddc-web.com
Visit: ddc-web.com Data Device Corporation
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
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