

AMC339

Multi-Channel Multi-Protocol Avionics
MIL-STD-1553 / ARINC429 / ARINC717



AMC339

Key Features

- Comprehensive multi-protocol support
- Support for MIL-STD-1553A/B, MIL-STD-1760
- Support for ARINC 429, ARINC 575, ARINC 717, ARINC 825
- IRIG-B and IRIG-106 chapter 10 MIL-STD-1553 MT
- Full line rate on all channels simultaneously
- Up to 8 programmable RS-232/422/485 channels
- Up to 10 Avionics/Digital discrete I/O
- 48-bit/100ns Time Stamp

Benefits

- Advanced MIL-STD-1553 technology from DDC coupled to VadaTech xTCA expertise
- DMA engine reduces CPU load
- Flexible implementation of numerous avionic standard protocols

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AMC339

The AMC339 is based on the Data Device Corporation (DDC), BU-67118 multi-channel, multi-protocol avionics product. It utilizes the world's most advanced MIL-STD-1553 technology. The module is low power, high MTBF, and high performance.

The module can output MIL-STD-1553A/B, IRIG106, ARINC 429, CAN bus / ARINC 825 channels, discrete I/O, ARINC-717, etc.

The module has an on-board DMA engine for low CPU utilization. IRIG-106 chapter 10, Tx inhibit, and ARINC 717 which are ideal for flight data recorders.

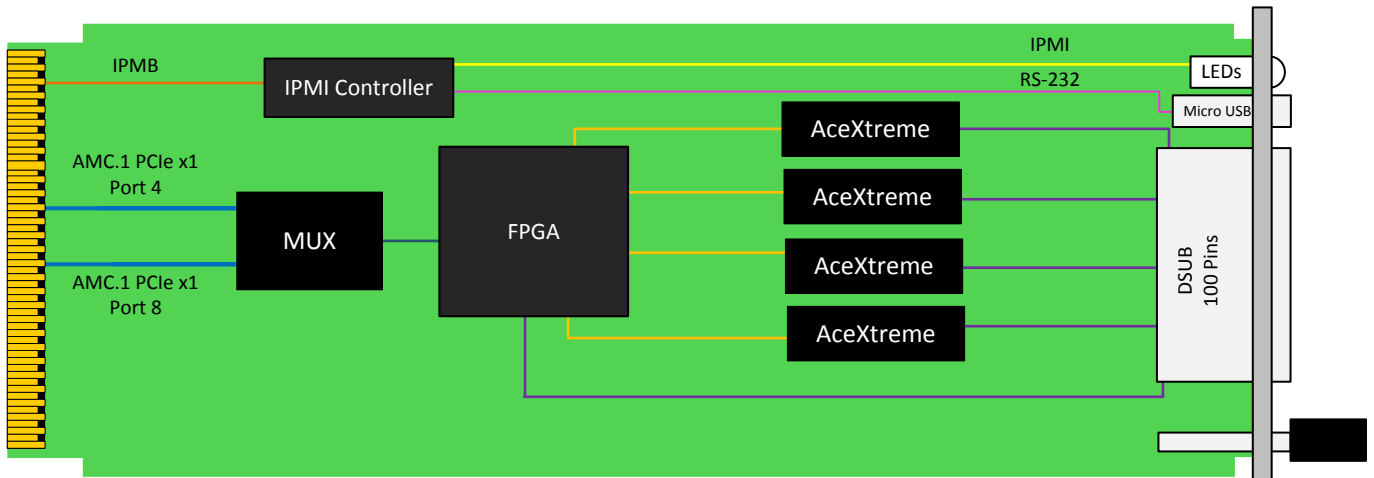
The module is ideal for applications such as mission-computers, displays and LRUs, digital data recorders, radar systems/situational awareness, commercial aerospace, flyable avionics/UAVs, data loading and data monitors.

Features of AMC339 are:

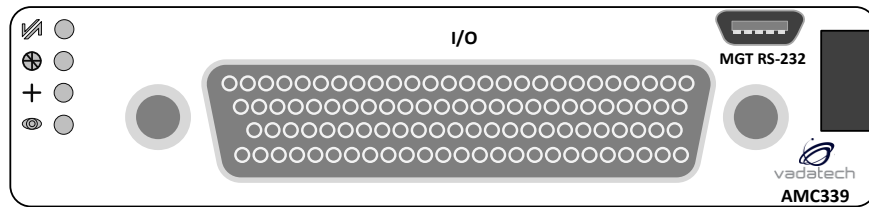
- Up to 4 Dual Redundant Mil-STD-1553 channels
- Supports MIL-STD-1553A/B and MIL-STD-1760
- BC disable for RT Only applications
- Tx Inhibit for MT only applications
- IRIG-106 chapter 10 MIL-STD-1553 MT
- Up to 20 Programmable Tx/Rx ARINC 429 channels
- Support ARINC 575 & many other ARINC protocols
- Full line rate on all channels simultaneously
- Tx inhibit for ARINC 429 Rx only applications
- Programmable ARINC 429 speed
- Support ARINC 575 & many other ARINC protocols
- Up to 2 Programmable Tx/Rx ARINC 717 channels
- Up to 2 CAN bus 2.0/ARINC 825 channels
- Up to 8 programmable RS-232/422/485 channels
- Asynchronous communications on all channels
- Synchronous communication on up to 2 channels
- Up to 10 Avionics/Digital discrete I/O
- 48-bit/100ns Time Stamp
- IRIG-B Input



Block Diagram



Front Panel



Specifications

Architecture		
Physical	Dimensions	Single module, mid-size (full-size optional)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	Multiprotocol Avionics	MIL-STD-1553, ARINC 429, ARINC 717, Discrete and CAN bus
	Multi-Channel	4x 1553, 20x 429, 2x 717, 8x serial, 2x CAN, 10x discrete (not all combinations are valid)
Standards		
AMC	Type	AMC.0 and AMC.1
Module Management	IPMI	IPMI version 2.0
PCIe	Lanes	x1
Configuration		
Power	AMC339	8W
Environmental	Temperature	Operating temperature: -5° to 45° C (55°C for limited time, performance restrictions may apply), industrial and extended versions also available (See environmental spec sheet)
		Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s ² (1G), 5 to 500Hz on each axis
	Shock	Operating 30G on each axis
	Relative Humidity	5 to 95 per cent, non-condensing
Front Panel	Interface Connectors	100 pin micro DSUB
	LEDs	IPMI management control
	Mechanical	Hot swap ejector handle
Software Support	Operating System	Linux and Windows
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
Other		
MTBF		MIL Hand book 217-F@ TBD hrs
Certifications		Designed to meet FCC, CE and UL certifications, where applicable
Standards		VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
Warranty		Two (2) years

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and μ TCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

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Ordering Options

AMC339 – A0C-000-00J

A = I/O Options			
0 = See Table 1			
1 = See Table 1			
2 = See Table 1			
3 = See Table 1			
4 = See Table 1			
5 = See Table 1			
C = Front Panel			J = Temperature Range and Coating
1 = Reserved			0 = Commercial, No coating
2 = Mid-size			1 = Commercial, Humiseal 1A33 polyurethane
3 = Full-size			2 = Commercial, Humiseal 1B31 acrylic
			3 = Industrial, No coating
			4 = Industrial, Humiseal 1A33 polyurethane
			5 = Industrial, Humiseal 1B31 acrylic
			6 = Extended, Humiseal 1A33 polyurethane
			7 = Extended, Humiseal 1B31 acrylic

I/O Options

Option A	Number of channels						IRIG-B Input
	1553 (RT Boot)	429	717	Serial (sync)	CAN bus	Discrete	
0	0	10	2	4 (1)	2	10	1
1	0	20	2	2	2	6	1
2	2 (1)	0	0	8 (2)	1	6	1
3	4 (1)	0	0	8 (2)	1	6	1
4	2 (1)	10	2	4 (1)	1	6	1
5	4 (1)	18	2	0	0	6	1

Table 1: I/O Description for Option A

Related Products

UTC004



- Single module, full size per AMC.0
- Unified 1GHz quad-core CPU for MCMC (MicroTCA Carrier Management Controller), Shelf Manager, Clocking, and Fabric management
- Automatic fail-over with redundant UTC004s

VT951



- MicroTCA rugged 1U 19" rackmount chassis platform
- Designed to meet MIL-STD-810F, MIL-STD-901D for shock/vibration
- Designed to meet MIL-STD-461E for EMI

AMC726



- Intel® 4th Gen Core i7-4700EQ with QM87 chipset
- PCIe Gen3 x4 on ports 4-7 and 8-11 or single PCIe x8 on ports 4-11 (AMC.1)
- Serial over LAN

Contact

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