AMC332

Precision Triaxial, digital Gyroscope

AMC332

Key Features

- The AMC module provides Triaxial, digital gyroscope
- Based on the Analog device ADIS16505 Miniature Microelectromechanical System (MEMS) inertial Measurement unit (IMU)
- Triaxial, digital accelerometer +/-78.4 m/sec^2
- 26.5 um/sec^2 in-run bias stability
- Processor based on the iMX8M quad core
- PCIe and Ethernet interface to the backplane
- Front panel display

Benefits

- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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AMC332

The AMC332 is based on the Analog Device ADIS16505 device which provides Triaxial Digital Gyroscope. The module has an on-board CPU based on the NPX iMX8M Quad Core which provides Dual Ethernet and PCIe to the backplane. The Gyroscope data is available via the Ethernet and/or PCIe.

AMC332 has a display in the front that shows the Triaxial information with the full-size panel (6HP). The module also comes with the mid-size (4HP), but does not come with the front panel display.

Figure 1: AMC332

Figure 2: AMC332 with Heatsink

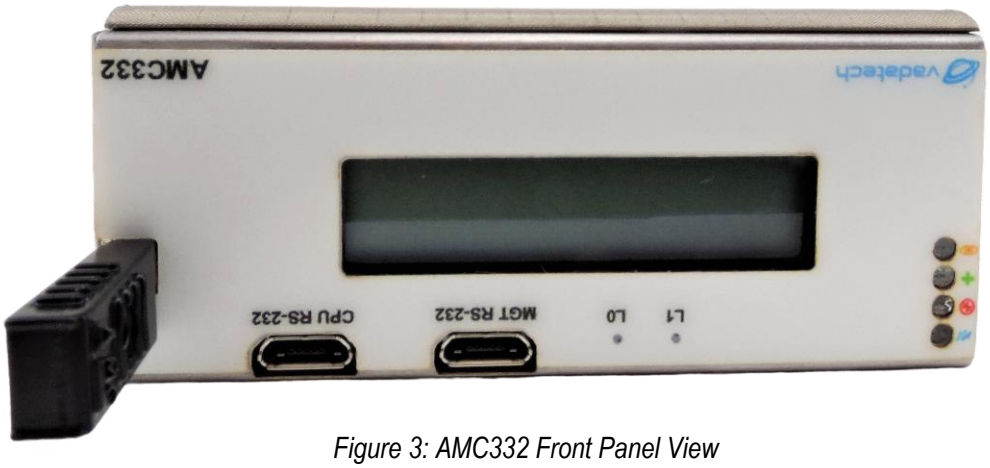

Figure 3: AMC332 Front Panel View

Block Diagram

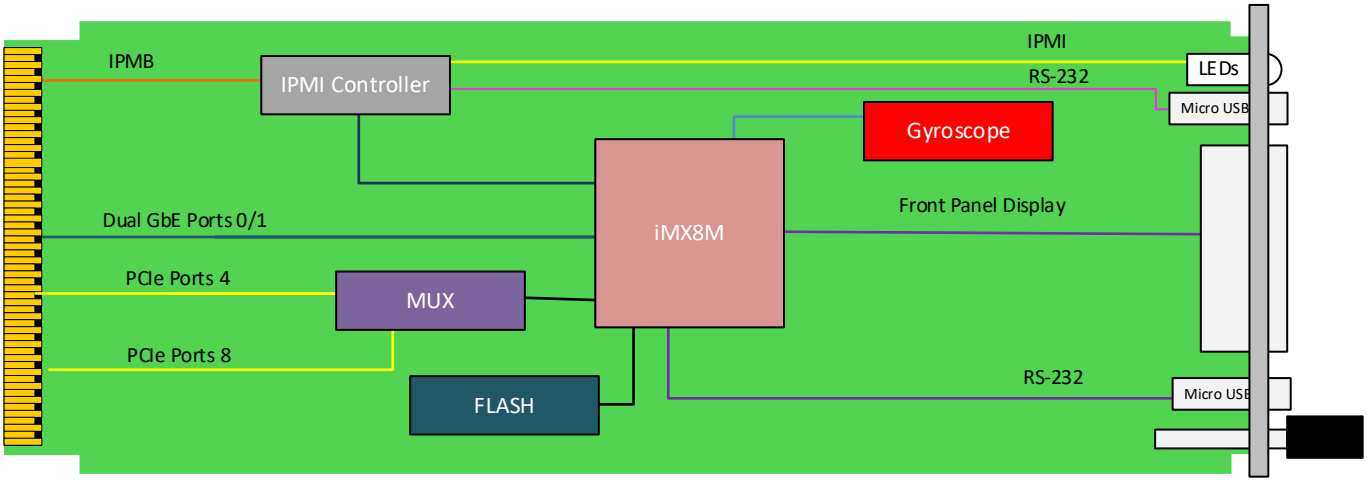

Figure 4: AMC332 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	Single module, mid-size (full-size optional)
		Width: 2.89” (73.5 mm)
		Depth 7.11” (180.6 mm)
Type		PCIe and Ethernet to the backplane
	Precision MEMS IMU	Based on the Analog Device part number ADIS16505
Standards		
AMC	**Type**	AMC.0 and AMC.1
Module Management	**IPMI**	IPMI version 2.0
PCIe	**Lanes**	x2 via mux to either ports 4-5 or 8-9
Configuration		
Power	**AMC332**	3W
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**	Dual Micro-USB RS-232
	LEDs	IPMI management control
	Mechanical	Hot swap ejector handle
Software Support	**Operating System**	Linux
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 µTCA 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.

Trademarks and Disclaimer

Ordering Options

AMC332 – 00C-000-00J

		J = Temperature Range and Coating
1 = Reserved 2 = Mid-size 3 = Full-size* 4 = Mid-Size with captive screw 5 = Full-size with captive screw*		0 = Commercial, No coating 1 = Commercial, Humiseal 1A33 polyurethane 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

*Comes with front panel Display

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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