

AMC106

AMC Carrier for Custom Modules



AMC106

Key Features

- Provides a generic interface with LVDS/Single ended to a custom module
- Allows an easy way to interface to the uTCA system
- On board XCZU04CG FPGA for any protocol interface to the module and the backplane
- GbE on ports 0 and 1
- Dual SERDES to ports 4/5 and 8/9
- Single module, Extended-size AMC

Benefits

- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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AdvancedMC™



AMC106

The AMC106 is a carrier to allow customer custom modules to be easily implemented on an AMC module. The AMC106 utilizes a XCZU04CG FPGA from AMD which interfaces between the AMC backplane and customer custom modules. The FPGA allows any protocol to be used to interface to the backplane and customer custom module.

The AMC106 interfaces to the backplane via dual GbE as well as x4 SERDES which could be configured to run with any protocol (GbE, 10GbE, SRIO, PCIe, Aurora, etc.). Ports 4-5 and 7-8 are routed to the x4 SERDES. The FPGA has a single hard core PCIe which could be instantiated on the Ports 4-5 and/or Ports 7-8.



Figure 1: AMC106



Figure 2: AMC106 Front View



Figure 3: AMC106 Top View

Block Diagram

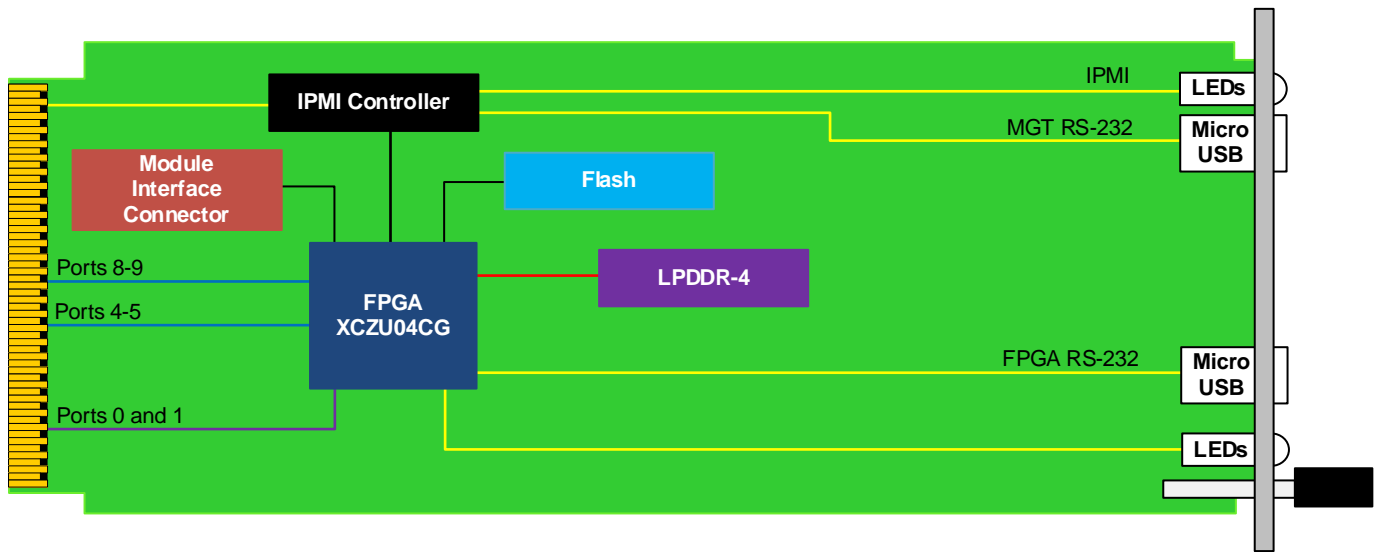


Figure 4: AMC106 Functional Block Diagram

Specifications

Architecture		
Physical	Dimensions	Single Module, Extended-size 8HP Width: 2.89" (73.5 mm) Depth: 7.11" (180.6 mm)
Type	AMC Carrier	Interface to Customer Custom Module
Standards		
AMC	Type	AMC.1, AMC.2, AMC.4
Module Management	IPMI	IPMI v2.0
Configuration		
Power	AMC106	~5W (FPGA load dependent and without customer module)
Environmental	Temperature	See Ordering Options and Environmental Spec Sheet Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s ² (1G), 5-500 Hz
	Shock	Operating 30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	Interface Connectors	RS-232
	LEDs	IPMI management User defined
	Mechanical	Hot-swap ejector handle
Software Support	Operating System	N/A
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 ISO9001:2015 and AS9100D standards
Warranty		Two (2) years, see VadaTech Terms and Conditions

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), 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.

Ordering Options

AMC106 – 00C-DE0-00J

	D = Ports 4-5** 0 = No PCIe 1 = PCIe	
	E = Port 8-9** 0 = No PCIe 1 = PCIe	
C = Front Panel Size 0 = Extended Size (8 HP)		J = Temperature Range and Coating 0 = Commercial (–5° to +55°C), No coating 1 = Commercial (–5° to +55°C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +55°C), Humiseal 1B31 Acrylic 3 = Industrial (–20° to +70°C), No coating 4 = Industrial (–20° to +70°C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70°C), Humiseal 1B31 Acrylic 6 = Extended (–40° to +85°C), Humiseal 1A33 Polyurethane* 7 = Extended (–40° to +85°C), Humiseal 1B31 Acrylic*

Notes:

*Conduction cooled; temperature is at edge of module. Consult factory for availability.

** The FPGA has a single hardcore PCIe. If PCIe is desired option D = 1 or E =1 should be selected but not both unless the second PCIe is instantiated as software

Related Products

AMC233



- Network interface board with dual QSFP+ Ports
- 40GbE or (4x) 10GbE via the QSFP+ Ports
- XLPPI-to-XLAUI/XFI operation

UTC004



- Unified 1 GHz quad-core CPU for MicroTCA Carrier Management Controller (MCMC), Shelf Manager, Clocking, and Fabric management
- Non-blocking PCIe Gen 3, SRIO Gen 2, 10GbE/40GbE, or Crossbar Switch option to AMC fat pipes with options for up to 40GbE uplink
- 1GbE base switch with dual 100/1000/10G uplink

VT866



- MTCA System Platform 19" x 5U x 17"
- Up to 12 AMCs in single width/full-size
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules

Contact

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