AMC080/AMC080C

High Density Versatile Multi I/O Module

AMC080

Key Features

- AMC module with 120 I/O via front panel
- Conduction cooled version available
- 15 banks of 8-bit I/O. Each bank is configurable as Input and/or output
- I/O's are configurable as +3.3V or +5V per bank
- Front panel I/O via High Density Connector (HDC)
- PCIe/Gbe/10GbE/SRIO interface
- Single module, mid-size per AMC.0
- IPMI 2.0 compliant

Benefits

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

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AMC080

The AMC080 is high density versatile I/O module. The 15 banks of 8-bit I/O can be used as input and or/output and are configurable to run as +3.3V or +5V.

The unit interfaces to the system via GbE and/or PCI/10GbE. The I/O's are accessible via HDC. It also has 8 bi-color LED's on the front panel for indication and status. All LED's are reconfigurable.

The AMC080 has a reconfigurable FPGA that can be easily modified to meet user needs such as de-bouncing signals, delaying signals in feedback system, dynamic time delay with precision, etc. The I/O's can be synchronized to any of the input clocks TCLKA/TCLKB/TCLKC/TCLKD.

The AMC080 is available in both air-cooled (MTCA.0 and MTCA.1) and rugged conduction-cooled versions (MTCA.2 or MTCA.3, contact sales for details).

Figure 1: AMC080
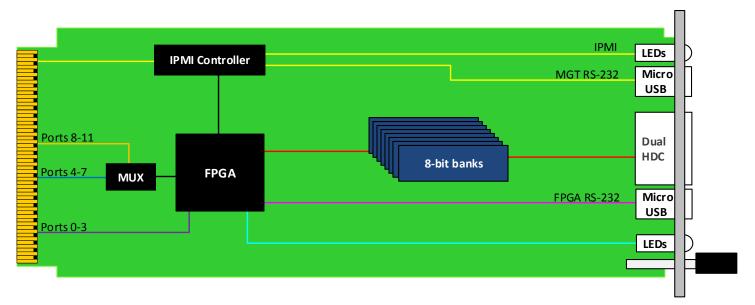

Figure 2: AMC080C

Block Diagram

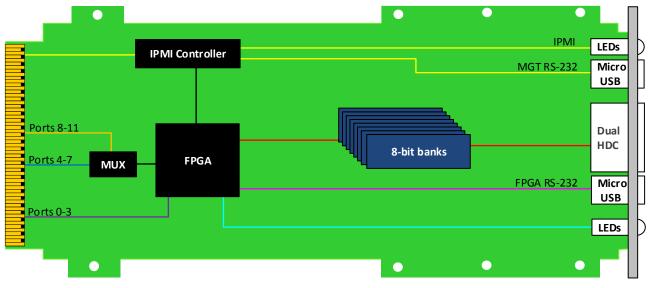*Figure 3: AMC080 Functional Block Diagram*

Figure 4: AMC080C Functional Block Diagram

AMC080/AMC080C – High Density Versatile I/O Module, AMC

Specifications

Architecture		
Physical	**Dimensions**	Single module, mid-size (full-size optional)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	**AMC I/O**	Bus Hold on Data Input that are not connected

Standards		
AMC	**Type**	AMC.1/AMC.2/AMC.4
Module Management	**IPMI**	IPMI v2.0
PCIe	**Lanes**	x4
I/O	**+3.3/+5V**	Up to 120

Configuration		
Power	**AMC080**	10W
Environmental	**Temperature**	See Ordering Options and Environmental Spec Sheet
		Storage Temperature: –40° to +85°C
	Vibration	Operating 9.8 m/s^2 (1G), 5 to 500 Hz on each axis
	Shock	Operating 325G/2 ms, 160G/1 ms
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	Micro USB connector for MGT RS-232 and FPGA RS-232
		High-Density Connector
	LEDs	IPMI management control
		Activity
	Mechanical	Hot-swap ejector handle
Software Support	**Operating System**	Linux, Windows, Solaris and VxWorks

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

AMC080 – A0C-000-00J

A = PCI Option		
0 = No PCIe 1 = PCIe		

C = Front Panel Size		J = Temperature Range and Coating
1 = Reserved 2 = Mid-size 3 = Full-size 4 = Reserved 5 = Reserved 6 = Mid-size, MTCA.1/.4 7 = Full-size, MTCA.1/.4 8 = Reserved		0 = Commercial (–5° to +45°C), No coating 1 = Commercial (–5° to +45°C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +45°C), Humiseal 1B31 Acrylic 3 = Reserved 4 = Industrial (–20° to +70°C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70°C), Humiseal 1B31 Acrylic

Notes:

For operational reasons VadaTech reserves the right to supply a higher speed FPGA device than specified on any particular order/delivery at no additional cost, unless the customer has entered into a Revision Lock agreement with respect to this product.

AMC080C – A00-000-00J

A = PCI Option		
0 = No PCIe 1 = PCIe		

		J = Temperature Range and Coating
		0 = Commercial (–5° to +45°C), No coating 1 = Commercial (–5° to +45°C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +45°C), Humiseal 1B31 Acrylic 3 = Reserved 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

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Related Products

VT950

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

AMC626

- Host Bus Adapter (HBA) for external SATA III (6.0 Gbps) or SAS-3 (12 Gbps) drives
- AMC.1 compliant, PCIe Gen3 x8 or x4
- Support for 8 SAS/SATA Ports

AMC629

- Host Bus Adapter (HBA) for external SATA III (6.0 Gbps) or SAS-3 (12 Gbps) drives
- Conduction cooled version available
- Integrated RAID 0, 1, 1E, and 10

Contact

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