

AMC242

Routing of Ports 4-15 and 17-20 to the Front Panel



AMC242

Key Features

- Routing of Ports 4-7, 8-11, 12-15 and 17-20 to the front panel
- Protocol agnostic
- 16 Ports to the front panel
- 16 lanes to the backplane
- Front-panel I/O via SFP+ or QSFP+
- Single-module, mid-size (option for full-size and extended) per AMC.0
- IPMI 2.0 compliant

Benefits

- Provides front-panel access to fat pipes and extended options
- 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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AMC242

The AMC242 is an AMC form factor which routes 16 lanes from the backplane to the front. The module is agnostic to the protocol, any protocol such as PCIe, SRIO, 40GbE, 10GbE, GbE, Aurora, etc. could be routed between the backplane and the front panel.

When operating at 40G, AMC242 is not recommended for configurations where backplane trace length from the signal source is greater than 27/5cm, e.g. in 1U chassis. For such applications consider AMC240 or similar. Contact VadaTech sales for details.

The AMC242 has option for 4/8 SFP+ or 2/4 QSFP+. The QSFP+ ports have four lanes of TX/RX.

See [Solution Brief](#) for an overview of a 56 GSPS digitizer with IRIGB/GPS timestamping.



Figure 1: AMC242

Block Diagram

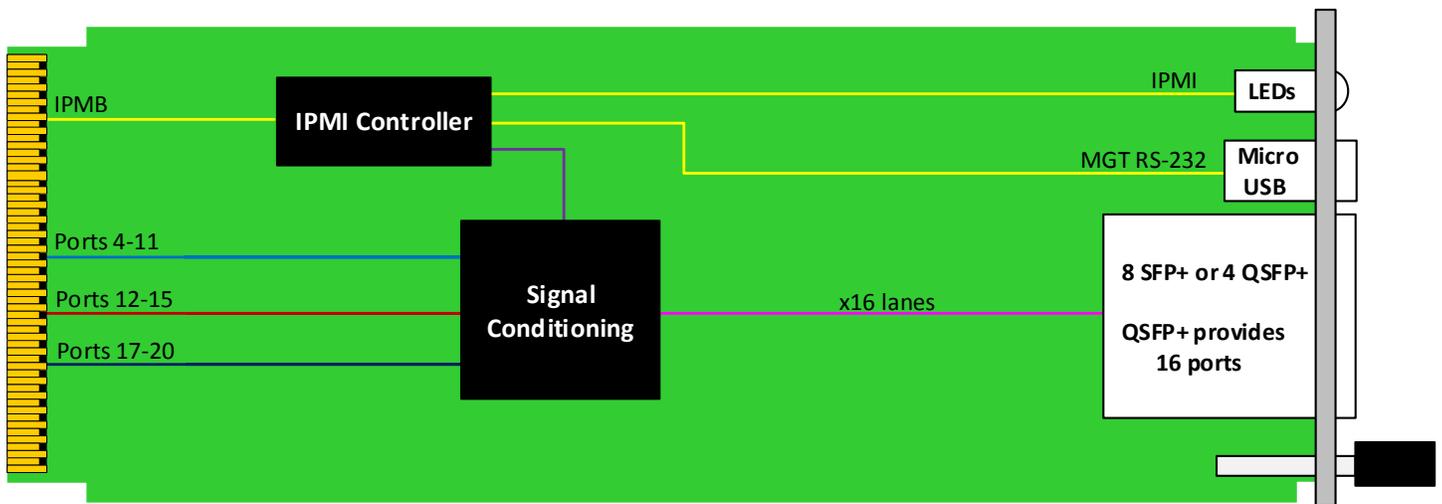


Figure 2: AMC242 Functional Block Diagram

Front Panel

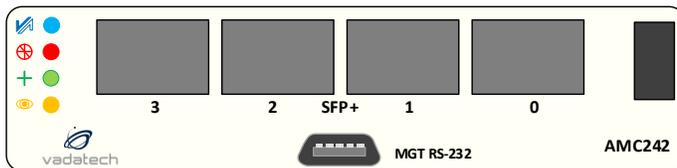


Figure 3: Mid-size SFP+ Option

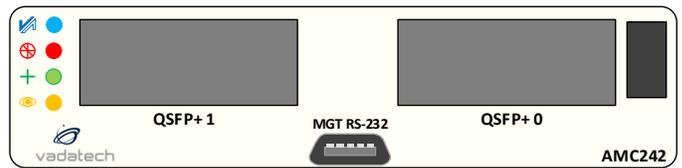


Figure 4: Mid-size QSFP+ Option

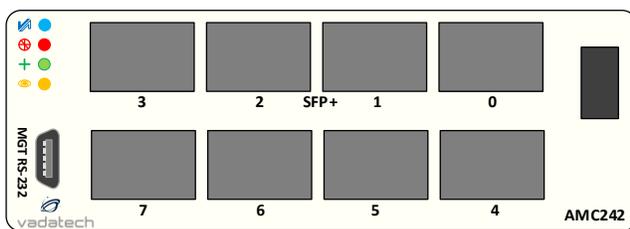


Figure 5: Full-size SFP+ Option

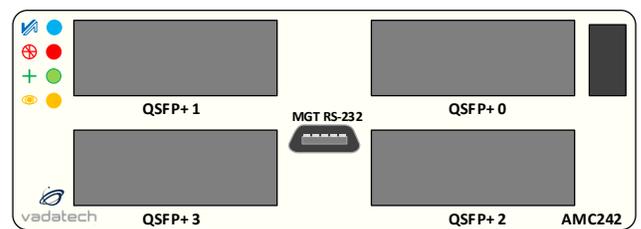


Figure 6: Full-size QSFP+ Option

SFP+ options route a single port per connector. So, while the CBS supports 16 Ports to the front, only 8 of these are connected if an SFP+ option is selected. SFP+ can be populated with copper or fiber as required by the customer application.

Each QSFP+ connector supports four Ports, so the full-size QSFP+ option should be selected if all 16 Ports are required.

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 Routing of Ports 4-15 and 17-20 to the front
Standards	
AMC	Type AMC.0, AMC.1, AMC.2, AMC.3, AMC.4
Module Management	IPMI IPMI v2.0
GbE	Lanes 16
Configuration	
Power	AMC242 4W without TXCVRs
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 on each axis
	Shock Operating 30Gs on each axis
	Relative Humidity 5 to 95% non-condensing
Front Panel	Interface Connectors 8 SFP+ or 4 QSFP+ connectors (max) Micro USB for MGT RS-232
	LEDs IPMI management control
	Mechanical Hot-swap ejector handle
Software Support	Operating System Agnostic
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

AMC242 – ABC-000-00J

A = SFP+ TXCVRs 0 = No SFP+ 1 = SR 2 = LR		
B = QSFP+ TXCVRs 0 = No QSFP+ 1 = SR 2 = LR		
C = Front Panel 1 = Reserved 2 = Mid-size with 4 SFP+ 3 = Mid-size with 2 QSFP+ 4 = Full-size with 8 SFP+ 5 = Full-size with 4 QSFP+ 6 = Extended size (8 HP), 4 QSFP+		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

Related Products

UTC004



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

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

AMC347



- Dual RGB Input
- Dual Video outputs capable of driving up to 110 feet over Coax
- Dual Display Port (DP) input

Contact

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