

FMC122

FMC Quad 10/100/1000BASE-T

FMC122

Key Features

- FPGA Mezzanine Card (FMC) per VITA 57
- Single module
- Quad 10/100/1000BASE-T
- Interface via RGMII V2.0 (1.5V HSTL)
 - Module does not use SERDES to interface to the carrier
- >10 kB Jumbo frame support with programmable synchronization FIFOs

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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FMC122

The FMC122 is an FPGA Mezzanine Card per VITA 57 specification. The FMC122 has a quad RJ-45 which can support 10/100/1000BASE-T over copper with twisted-pair cable. The module interfaces to the MAC with RGMII V2.0 HSTL 1.5V (FMC122 does not use SERDES to interface to the carrier).

The Module supports transceiver-MAC to magnetics for all supported data rate (10/100/1000BASE-T).

Figure 1: FMC122

Block Diagram

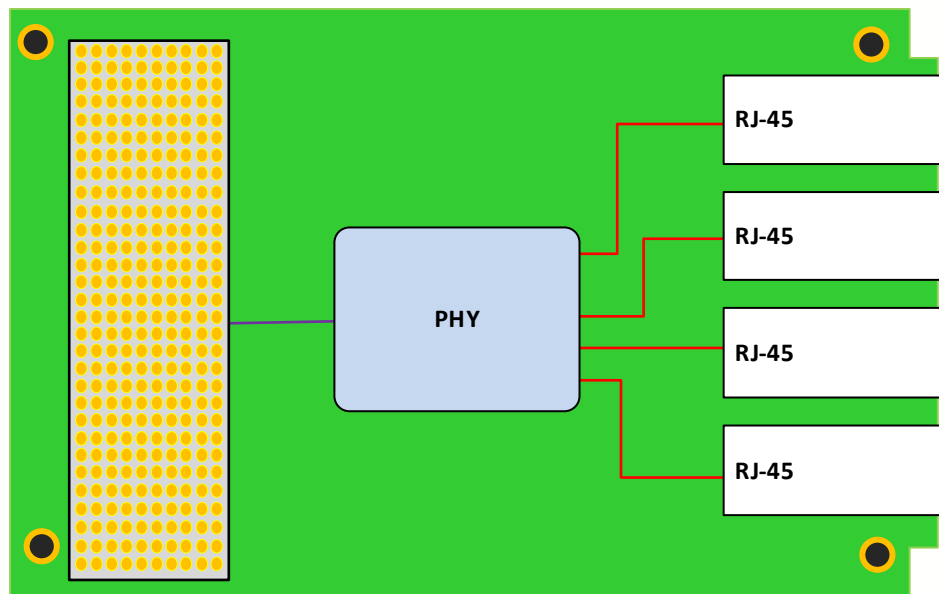


Figure 2: FMC122 Functional Block Diagram

Specifications

Architecture		
Physical	Dimensions	Single Module
		Width: 2.71" (69 mm)
		Depth: 3.011" (76.5 mm)
Type	FMC	Quad Port 10/100/1000 Copper
		Single FMC slot
Standards		
FMC	Type	ANSI/VITA 57.1 – 2008
Configuration		
Power	FMC122	3W
Environmental	Temperature	Operating temperature: -40° to 85°C (air flow requirements >400 LFM)
		See Ordering Options
		Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s ² (1G), 5 to 500 Hz
	Shock	30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	Interface Connectors	Quad RJ-45 connectors
	LEDs	None
Other		
MTBF	MIL Handbook 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

FMC122 – 000-000-G0J

		G = FMC Board Spacing
		0 = 10 mm (per VITA 57 specification) 1 = Reserved 2 = Reserved
		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

AMC517



- AMC FPGA carrier for FMC per VITA 57
- Xilinx Virtex-7 410T FPGA in FFG-900 package with optional P2040
- Supported by DAQ Series™ data acquisition software

AMC532



- AMC FPGA based on Altera Stratix-V (5SGXEA) in F1932 package
- VITA 57.1 FMC HPC Connector (compatible with LPC)
- All FMC LA, HA, HB pairs routed bi-directionally

FMC210



- FPGA Mezzanine Card (FMC) per VITA 57
- Single ADC EV10AS150B @ 2.6 GSPS
- 5 GHz Full Power Input Bandwidth (–3dB)

Contact

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