

FMC109 – FMC QUAD SFP/SFP+ for GbE/10GbE

Quad SFP/SFP+, GbE/10GbE



KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA-57
- Single module
- Quad SFP/SFP+ cages for quad ports
- Re-driver on all four ports for a better signal quality
- RoHS compliant

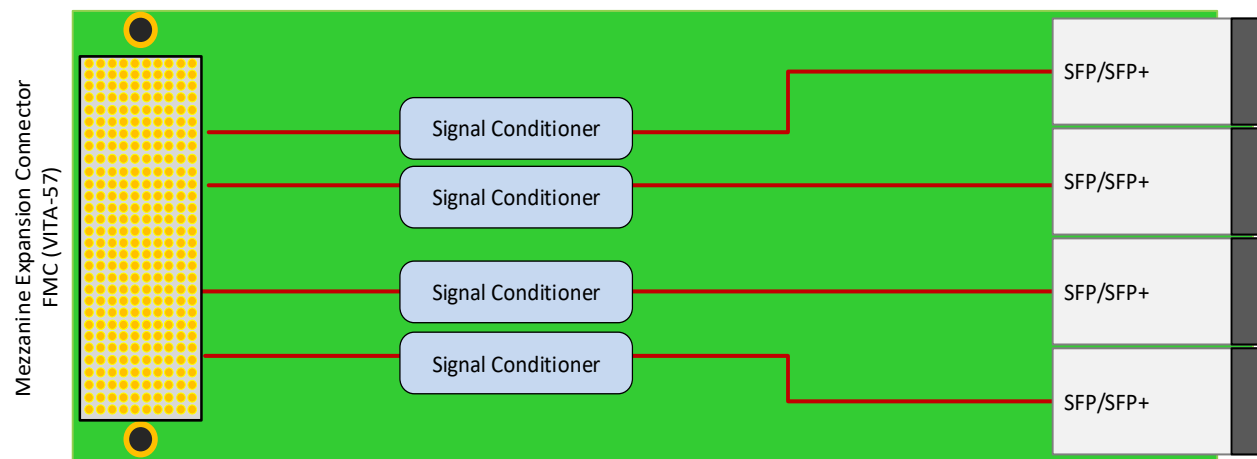
Benefits of Choosing VadaTech

- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, specialty modules, and test/dev products from one source
- AS9100 and ISO9001 certified company

The FMC109 is an FPGA Mezzanine Module per VITA 57 specification. The FMC109 has quad SFP/SFP+ cages which allows for Quad GbE/10GbE to be routed to appropriate FMC pins. The FMC109 has quad re-driver on board to allow long copper cables for the SFP+ vs. fiber to reduce total system cost.

Note: The Carrier must have no component on the top side for 46 mm for this module to fit properly. All VadaTech FMC Carriers provide this clearance. Further this module requires the Carrier board front panel to be modified. When ordering any of the VadaTech FMC Carriers, VadaTech will provide the modified front panel at no extra cost. The FMC109 is shipped without any FMC panel.

BLOCK DIAGRAM



SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module
		Width: 2.71" (69 mm)
		Depth: 3.011" (76.5 mm)
Type	FMC	Four port GbE, 10 GbE
		Single FMC slot
Standards		
FMC	VITA57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC109	GbE/10 GbE module dependant
Environmental	Temperature	Operating temperature: −5° to 55° C (air flow requirement of >400 LFM, industrial versions also available (See environmental spec sheet)
		Storage temperature: −40° to +85° C
	Vibration	Operating 9.8 m/s² (1G), 5 to 500 Hz
	Shock	30Gs on each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	Interface Connectors	Quad SFP/SFP+ connectors
	LEDs	None
Other		
MTBF	MIL Handbook 217-F@TBD Hrs	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Compliance	PICMG 3.0 Rev 3.0, RoHS 2 and NEBS Level 3.	
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 μ TCA 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

The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.

FMC109 – FMC QUAD SFP/SFP+ for GbE/10GbE

ORDERING OPTIONS

FMC109 – ABC – DEF – GHJ

A = SFP/SFP+ Transceiver First Port

- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-T
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

B = SFP/SFP+ Transceiver Second Port

- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-T
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

C = SFP/SFP+ Transceiver Third Port

- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-T
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

D = SFP/SFP+ Transceiver Fourth Port

- 0 = None
- 1 = 10GBASE-SR
- 2 = Reserved
- 3 = 10GBASE-LRM
- 4 = 10GBASE-LR
- 5 = Copper 1000Base-T
- 6 = Fiber 1GbE SX
- 7 = Fiber 1GbE LX

E = Clock routing to GBTCLK0/1

- 0 = Standard Value (100/125/156.25 MHz)
- 1 = 644.53125MHz to GBTCLK0 and Standard to GBTCLK1
- 2 = CLK2 to GBTCLK0 and CLK3 to GBTCLK1

F = FMC CLK2/CLK3 Route

- 0 = Not routed
- 1 = CLK2/CLK3 to LA00/LA01

G = FMC Board Spacing

- 0 = 10 mm (per VITA-57 specification)
- 1 = 17.5 mm *

H = Operating Temperature

- 0 = Commercial (-5° to +55° C)
- 1 = Industrial (-20° to +70° C)

J = Conformal Coating

- 0 = None
- 1 = Humiseal 1A33 Polyurethane
- 2 = Humiseal 1B31 Acrylic

* For use with carriers that require higher mating clearance, such as VadaTech AMC595. Requires full size AMC.

RELATED PRODUCTS



EXP200 Express
Chassis Platform



AMC517 Kintex-7
FPGA Carrier for FMC



AMC532 Stratix-V
FPGA Carrier for FMC

CONTACT US

VadaTech Corporate Office

198 N. Gibson Rd.
Henderson, NV 89014
Email: info@vadatech.com
Telephone: +1 702 896-3337
Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhui Street, Neihu District,
Taipei 114, Taiwan
Email: info@vadatech.com
Telephone: +886-2-2627-7655
Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road,
Southampton, SO40 9LR
Email: info@vadatech.com
Telephone: +44 2380 016403