

FMC100

FMC+ Dual CXP Connectors



FMC100

Key Features

- FPGA Mezzanine Card (FMC+) per VITA 57.4
- Single module
- Dual CXP style connector
- Six distinct oscillators to allow maximum flexibility per x4 lane speed

Benefits

- 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



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FMC100

The FMC100 is an FMC+ module with two CXP style connectors on the front panel. The module routes 24 pairs of high-speed signals from the FMC+ connector to the CXP connectors.

The FMC100 has six oscillators onboard which provide SERDES clock to each quad sector. This allows each x4 lanes to have its own clock for maximum flexibility.

Due to the height of the CXP connector (which is beyond 10 mm), the CXP is **placed on the top of the FMC+ module**. While the module will mate to a standard FMC+ carrier, the front panel of the carrier must be designed to accommodate this height difference.

The module has six Independent oscillators that output by default 156.25 MHz. Each oscillator outputs to each of the GBTCLK's on the FMC+ pinout (GBTCLK0+/- to GBTCLK5+/-). Module could be ordered with different Oscillator values, please contact VadaTech Sales.



Figure 1: FMC100

Block Diagram

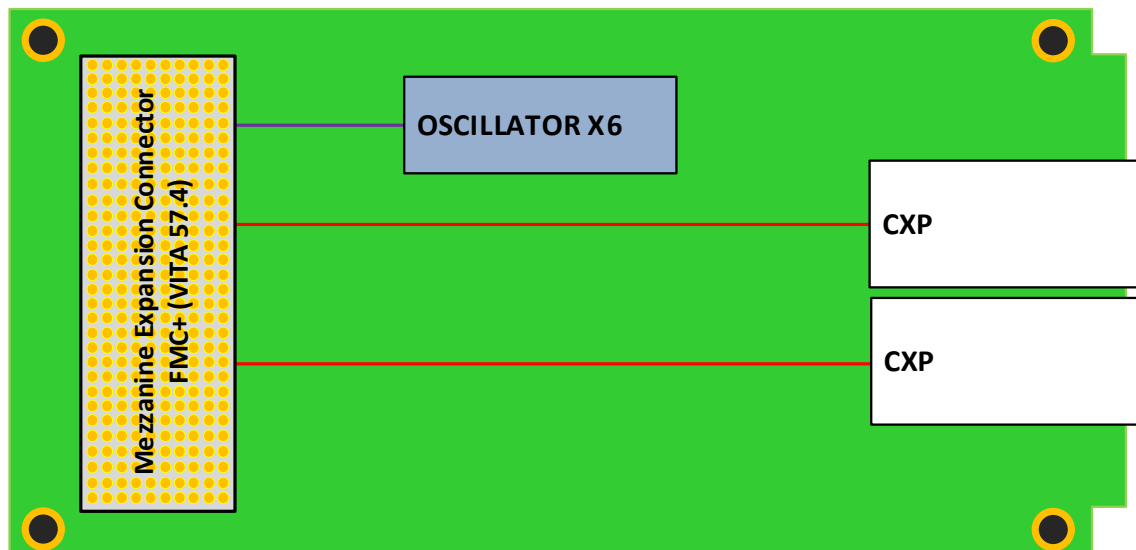


Figure 2: FMC100 Functional Block Diagram

Specifications

Architecture		
Physical	Dimensions	Single Module
		Width: 2.71" (69 mm)
		Depth: 3.011" (76.5 mm)
Type	FMC	Dual CXP
		Single FMC+ slot
Standards		
FMC	Type	ANSI/VITA 57.4 – 2008 (note module height exception)
Configuration		
Power	FMC100	CXP Fiber Optic dependent (with no transceiver < 0.5W)
Environmental	Temperature	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	Dual CXP 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

FMC100 – A00-000-0HJ

A = Oscillators values		
0 = All six Oscillators are 156.25MHz 1 = Reserved 2 = Reserved 3 = Reserved		
		H = Temperature Range
		0 = Commercial (–5° to +55°C) 1 = Industrial (–20° to +70°C)
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

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)

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