



KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA-57
- Single width
- Single ADC @2.5 GSPS
- 5 GHz Full Power Input Bandwidth (-3dB)
- True single core architecture (no calibration required)
- External Interleaving:
 - Gain Adjust
 - Offset Adjust
 - Sampling Delay Adjust
- Full scale analog input Voltage Span 500mVpp
- All front panel input/outputs are via MMCX:
 - Analog Input
 - Reference clock
 - Trig in/out
 - General purpose I/O
- Super low phase noise RF PLL Synthesizer
- RoHS compliant

The FMC210 is an FPGA Mezzanine Card per VITA 57 specification with a high speed ADC.

The ADC converter utilizes the e2v part number EV10AS150A device which has a high linearity ADC. The module has a super low phase noise RF PLL Synthesizer for sampling.

The ADC device has single Tone Performance in 1st Nyquist (-1 dBFS): ENOB = 7.7 bit, SFDR = -56 dBFS at 2.5Gsp/s, Fin = 500MHz and ENOB = 7.8 bit, SFDR = -58 dBFS at 2.5 Gsp/s, Fin = 1245 Mhz. With the single Tone Performance in 2nd Nyquist (-3dB): ENOB = 7.8 bit, SFDR = -60 dBFS at 2.5 GSPS, Fin = 2.495 MHz

Low bit error rate of 10^{-12} at 2.5GSPS with no missing codes at 2.5 GSPS, 1st and 2nd Nyquist.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).

FMC High-speed ADC 10-bit at 2.5 GSPS Module

SPECIFICATIONS

Architecture		
Physical	Dimensions	Single-width
		Width: 69mm
		Depth: 76.5mm
Type	FMC	ADC
		Single FMC slot
Standards		
FMC	VITA57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC210	10W
Environmental	Temperature	Operating Temperature: 0° to 65° C (Air flow requirement is to be greater than 400 LFM) Storage Temperature: -40° to +90° C
	Vibration	1G, 5-500Hz each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	Interface Connectors	MMCX
	LEDs	Status
Other		
MTBF	MIL Handbook 217-F > TBD.	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Standards	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards	
Compliance	RoHS and NEBS	
Warranty	Two (2) years.	
Trademarks and Logos	The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedMC™ and the AdvancedTCA™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.	

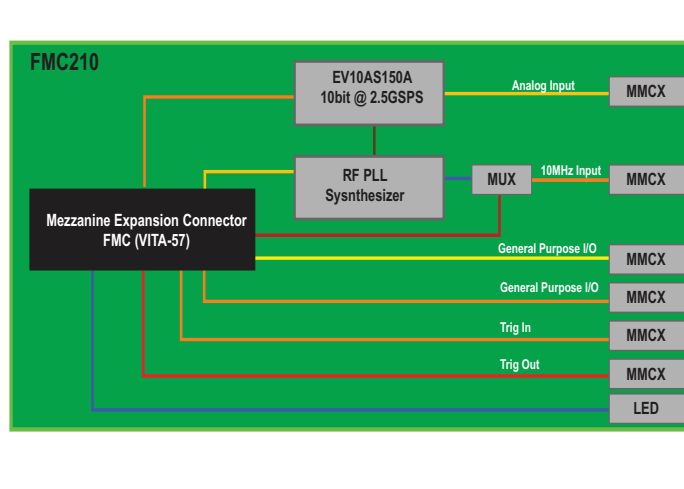


FIGURE 1. FMC210 Functional Block Diagram

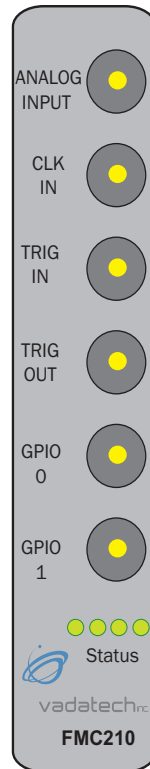


FIGURE 2. FMC210 Front panel

ORDERING OPTIONS

FMC210 - ABO - 000 - OHJ

A = RF PLL Synthesizer*

- 0 = 1.8GHz for sampling at 1.8GSPS
- 1 = 2.5GHz for sampling at 2.5GSPS
- 2 = 1.28GHz for sampling at 1.28GSPS
- 3 = 2.0GHz for sampling at 2.0GSPS

B = Input Clock*

- 0 = 10 MHz
- 1 = 100 MHz

H = Operating Temp

- 0 = Commercial
- 1 = Industrial

J = Conformal Coating

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

*Please call VadaTech for other PLL Synthesizer Frequencies and input clocks.

