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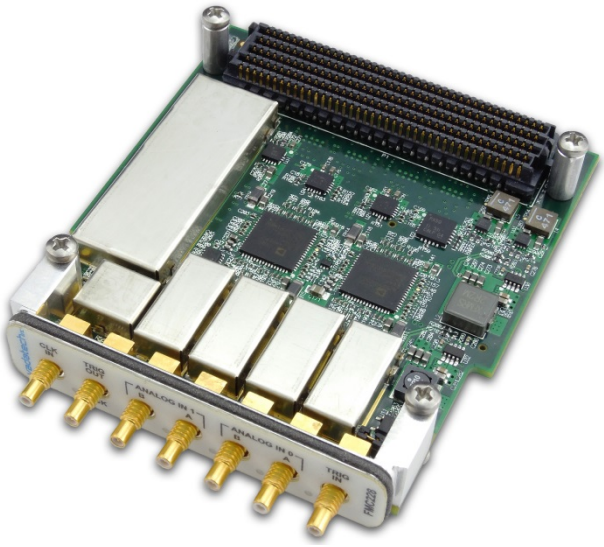
THE POWER OF VISION

FMC Quad ADC 12-bit @ 1 GSPS MSPS – FMC228

FMC, Quad ADC 12-bit



KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA 57
- Quad ADC based on AD9234
  - Optional decimate-by-2 DDC per channel
  - JESD204B
  - 2 GHz analog input full power bandwidth
- Option for Direct RF sampling clock via front panel
- On board wide-band PLL
- Trig In/Out
- CLK In
- RoHS compliant

Benefits of Choosing VadaTech

- Array of FMC's and FMC carriers available from 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 FMC228 is an FPGA Mezzanine Card (FMC) per VITA 57 specification. The module utilizes dual AD9234 ADCs providing two inputs per ADC with 12-bit conversion rates of up to 1.0 GSPS.

The front panel RF clock is a reference input clock to the PLL or it could input to the ADC direct sampling clock. The PLL can also receive its reference clock from an on board or the FMC Carrier. The front panel also has Trig In/Out and CLK In ports.

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INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and µTCA 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.

BLOCK DIAGRAM

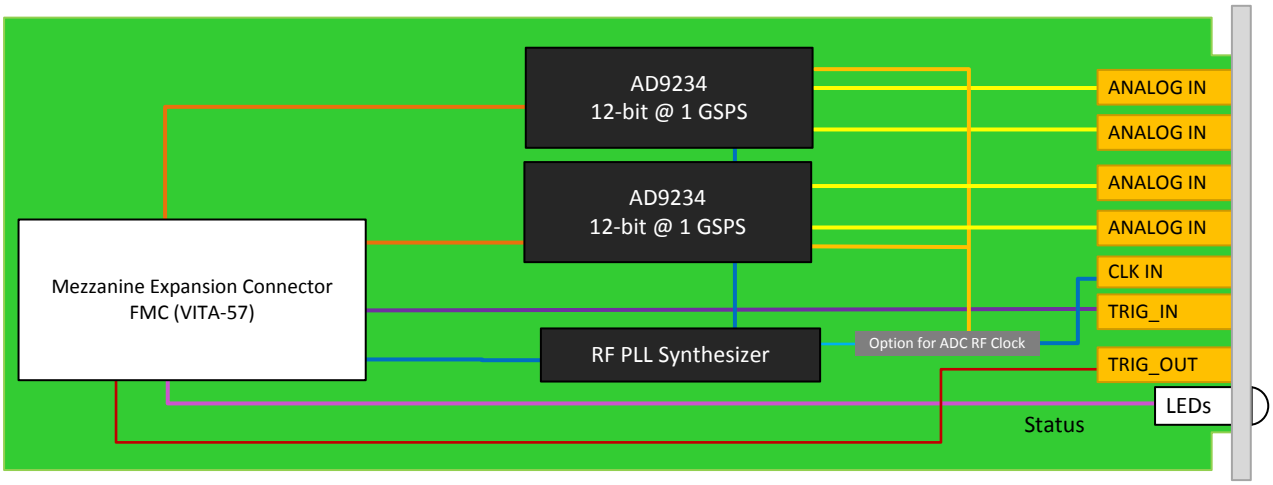

Figure 1: Block Diagram

SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module
		Width 2.71" (69 mm)
		Depth 3.01" (76.5 mm)
Type	FMC	Quad Analog to Digital Converter (ADC)
		FMC connector
Standards		
FMC	VITA-57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC228	5W
Environmental	Temperature	Operating Temperature: -5° to 55° C (air flow requirements >400 LFM))
		Storage Temperature: –40° to +85° C
	Vibration	1G, 5 to 500 Hz on each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, non-condensing
Front Panel	Interface Connectors	7 SSMC
	LEDs	Status
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
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 ISO9001:2000 and AS9100B:2004 standards	
Warranty	Two (2) years	
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ORDERING OPTIONS

FMC228 – 0B0 – 000 – 00J

B = RF Sampling clock
0 = Via on Board wide band PLL
1 = Direct RF Sampling

J = Temperature Range and Coating
0 = Commercial, No coating
1 = Commercial, Humiseal 1A33 Polyurethane
2 = Commercial, Humiseal 1B31 Acrylic
3 = Industrial, No coating
4 = Industrial, Humiseal 1A33 Polyurethane
5 = Industrial, Humiseal 1B31 Acrylic
6 = Military, Humiseal 1A33 Polyurethane*
7 = Military, Humiseal 1B31 Acrylic*

RELATED PRODUCTS

AMC516 Virtex-7 FPGA

AMC532 Stratix-V FPGA

FMC109 Quad SFP+ FMC

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