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THE POWER OF VISION

FMC218 – FMC High-speed DAC 14-bit at 2.5 GSPS Module

FMC, 14-bit DAC, 2.5 GSPS

KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA-57
- Single FMC size
- Single AD9739 DAC 14-bit at 2.5 GSPS
- 2 Vpp differential Analog output swing
- Programmable DSP clock
- Dynamic performance
  - 8 QAM carriers @ 400 MHz IF –71 dBc
  - 16 QAM carriers @ 400 MHz IF –68 dBc
  - 32 QAM carriers @ 400 MHz IF –65 dBc
  - 72 QAM carriers @ 600 MHz IF –61 dBc
- Single tone NSD @ 2.4 GSPS
  - 166 dBm/Hz @ 100 MHz IF
  - 162 dBm/Hz @ 1 GHz IF
- Connection via SSMC
  - Analog out
  - Reference clock input
  - TRIG input
  - TRIG output
- Mini DisplayPort for I/O

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 system supply from industry leader
- AS9100 and ISO9001 certified company

The FMC218 is an FPGA Mezzanine Module per VITA 57 specification. The FMC218 has a single DAC 14-bit at 2.5 GSPS. The DAC converter utilizes the Analog Devices AD9739. A wide band PLL allows for direct RF Clock synthesis via the front panel.

The FMC218 is designed for synthesizing of broadband signals, with enhanced linearity and band flatness performances. The Analog output can be programmed for +/- 1V.

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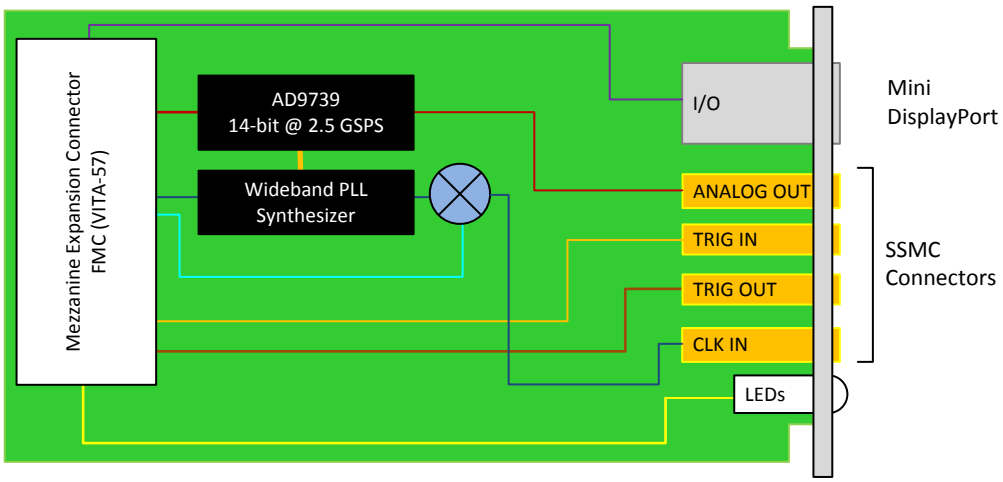
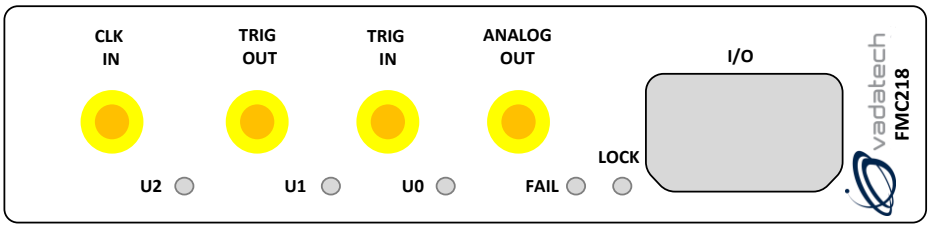
BLOCK DIAGRAM



FRONT PANEL



SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module
		Width 2.71" (69 mm)
		Depth 3.01" (76.5 mm)
Type	FMC	Single DAC
Standards		
FMC	VITA-57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC218	4 W
Environmental	Temperature	Operating Temperature: -5° to 45° C, (55°C for limited time, performance restrictions may apply), industrial and military versions also available (See environmental spec sheet)
		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	4x SSMC and 1x Mini DisplayPort
	LEDs	Status and User defined
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	

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.

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ORDERING OPTIONS

FMC218 – A00 – 000 – 0HJ

A = RF Clock Synthesizer
0 = On board PLL
1 = Front panel

H = Operating Temperature
0 = Commercial
1 = Industrial

J = Conformal Coating
0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

RELATED PRODUCTS

AMC516 FPGA Carrier for FMC Virtex-7

AMC525 FPGA Carrier for Dual FMC Virtex-7

FMC210 ADC FMC

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