

FMC235

**Quad ADC 16-bit @ 250 MSPS,
Single DAC 14-bit 500 @
MSPS**



FMC235

Key Features

- Dual ADS42JB69 (Quad ADC in total), 16-bit @ 250MSPS
- JESD204B lanes from each ADC
- Single DAC3171 (LVDS Based), 14-bit @ 500MSPS
- Front end RF is DC coupled for the ADC and the DAC
- Excellent dynamic performance
- Front panel interface includes CLK In, Trig In and Trig Out

Benefits

- Ideal for Broadband communications systems, Wireless infrastructure, LTE, ATE, RADAR / Jamming
- Compatible with a broad range of Xilinx and Altera based FMC carriers from VadaTech and others
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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FMC235

The FMC235 is an FPGA Mezzanine Card (FMC) per VITA 57.1 specification. The board has Quad ADC and single DAC with DC coupled Input and Output.

The FMC235 utilizes dual ADS42JB69 ADCs which provides quad ADC 16-bit conversion at rates of up to 250 MSPS, and a single DAC3171 providing 14-bit conversion at rates of up to 500MSPS.

The analog input, digital output, clock and trigger interfaces of the FMC235 are routed via SSMC connectors. The internal clock frequency is programmable and the clock is capable of locking to an external reference.

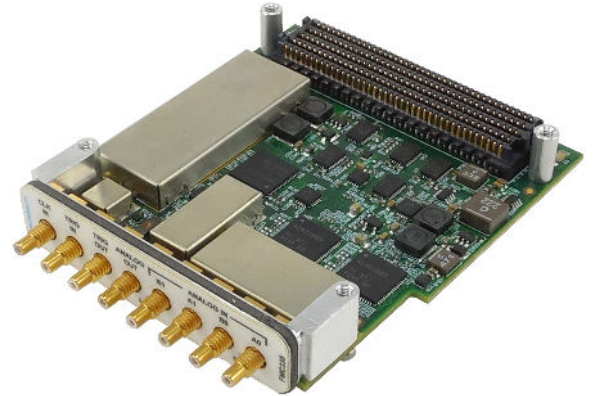


Figure 1: FMC235

Block Diagram

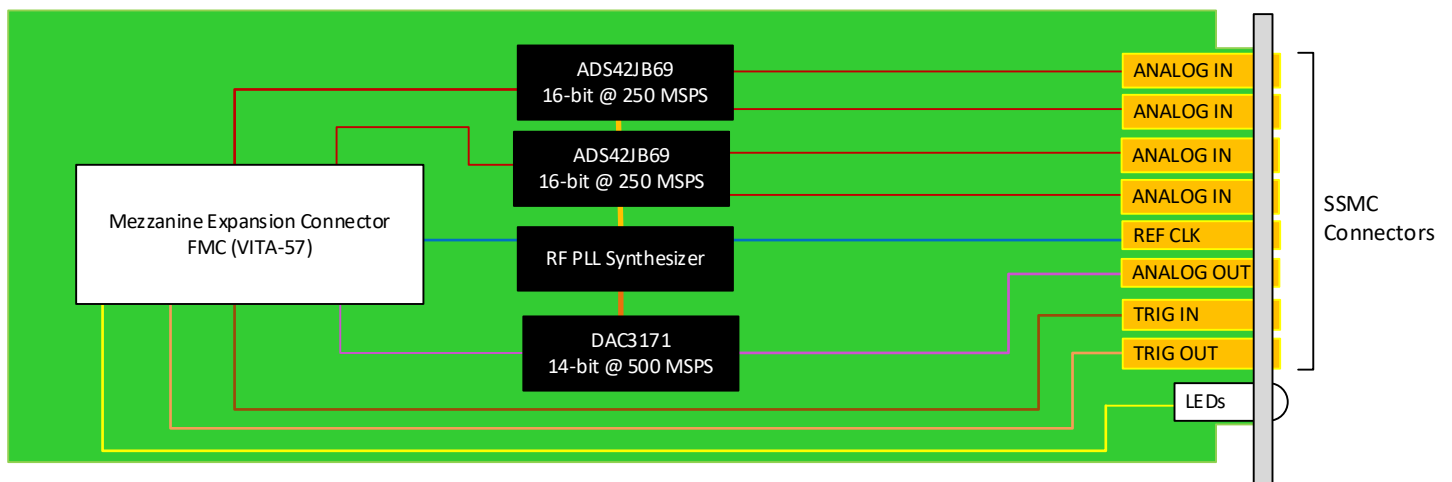


Figure 2: Block Diagram

Specifications

Architecture		
Physical	Dimensions	Width: 2.71" (69 mm)
		Depth: 3.70" (94 mm)
Type	FMC	Dual port ADC with single DAC
Standards		
FMC	VITA-57	ANSI/VITA 57.1
Configuration		
Power	FMC235	~8 W
Environmental	Temperature	Operating temperature: -5° to 45° C (55°C for limited time, performance restrictions may apply), industrial and extended versions also available (See environmental spec sheet)
		Storage Temperature: -40° to +90°C
	Vibration	1G, 5 to 500 Hz on each axis
	Shock	30Gs on each axis
	Relative Humidity	5 to 95 per cent, non-condensing
Front Panel	Interface Connectors	8x SSMC: Analog Out, Quad Analog In, Trig In, Trig Out, Clk In
		LEDs Status and user defined
Software Support	Operating System	Linux (consult VadaTech for other options)
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 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.

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Ordering Options

FMC235 –000-000-G0J

		G = FMC Board Spacing
		0 = 10 mm (per VITA-57 specification) 1 = 17.5 mm *
		J = Temperature Range and Coating**
		0 = Commercial (–5° to +55° C), No coating 1 = Commercial (–5° to +55° C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +55° C), Humiseal 1B31 Acrylic 3 = Industrial (–20° to +70° C), No coating 4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane 5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic 6 = Extended (–40° to +85° C), Humiseal 1A33 Polyurethane 7 = Extended (–40° to +85° C), Humiseal 1B31 Acrylic

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

** Edge of module for conduction cooled boards, consult factory for availability

Related Products

AMC595



- Xilinx Ultra Scale XCVU440 w/ QorIQ PPC2040
- 8 GB of DDR-4 (single bank of 64-bits)
- FMC support (with special connector)

FMC229



- Quad DAC 16-Bit @ 2.8 GSPS With Quadrature Modulator
- Single DAC39J84
- On board dual Wideband Quadrature Modulator

FMC220



- Analog Devices AD9234 dual 1 GSPS ADC
- The Analog inputs for the ADC are DC coupled
- Analog Devices AD9162/9164 6 GSPS RF DAC
Supported by DAQ Series™ data acquisition software

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