FMC262

Quad ADC 14-bit @ 3 GSPS with AD9208 or 2.6 GSPS with AD9689 FMC+

FMC262

Key Features

- Quad ADC 14-bit @ 3 GSPS utilizing AD9208 or 2.6 GSPS with AD9689
- FPGA Mezzanine Card (FMC+) per VITA 57.4
- Clock input for synchronization via front or rear
- Direct RF clock capable

Benefits

- High dynamic range for versatility
- Ideal for Broadband communications systems, Wireless infrastructure, LTE, 3G/4G, TD-SCDMA, W-CDMA, etc.
- 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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FMC262

The FMC262 is an FMC+ per VITA 57.4 specification. The FMC262 has a dual AD9208 or AD9689 device to provide Quad ADC. The AD9208 is a 14-bit @ 3 GSPS ADC and the AD9689 is a 14-bit @ 2.6GSPS.

The module has a dual clock input via front panel which allows synchronization to the external clock. One of the clock inputs could be a direct RF clock which will bypass the onboard PLL to be routed directly as the ADC sampling clock.

The module has an option for the Direct RF Clock input or Trig input.

The FMC262 allows the synchronization clock to also come from the FPGA carrier via the FMC+ connector.
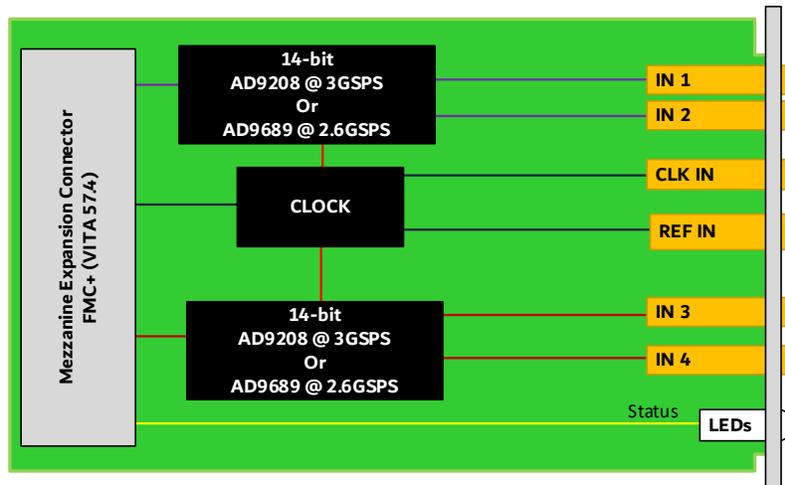

Figure 1: FMC262

Block Diagram

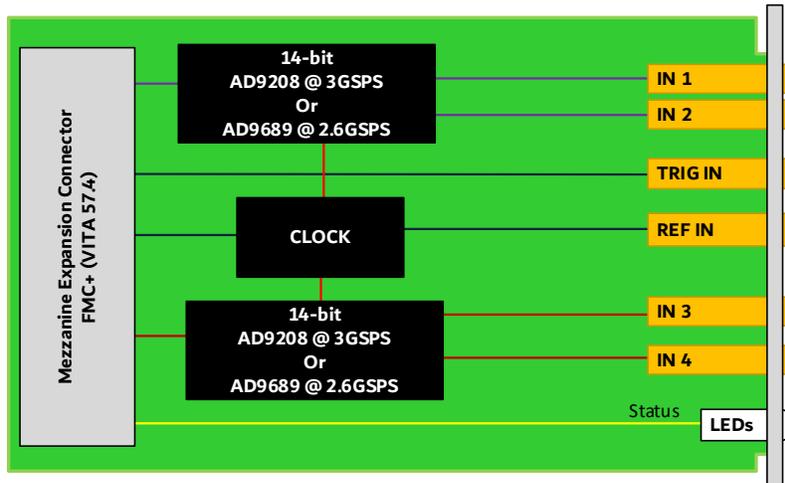*Figure 2: FMC262 Functional Block Diagram C=0*

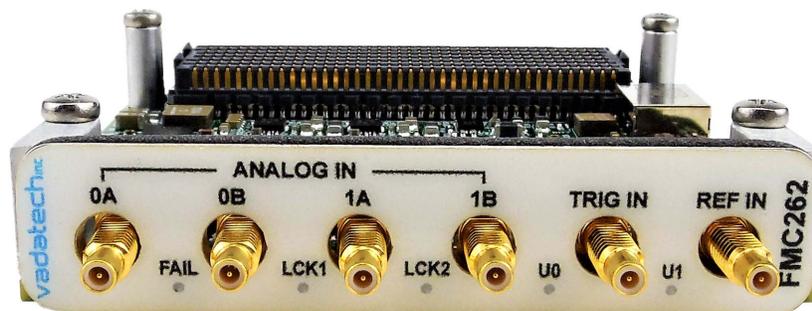*Figure 3: FMC262 Functional Block Diagram C=1*

Front Panel

Figure 4: FMC262 Front Panel with option C = 1

Specifications

Architecture		
Physical	**Dimensions**	Single Module
		Width: 2.71" (69 mm)
		Depth: 3.01" (76.5 mm)
Type	**FMC+**	Quad ADC
Standards		
FMC	**Type**	ANSI/VITA 57.4
Configuration		
Power	**FMC262**	8W
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Altitude	40,000 ft non-operating
	Vibration	Operating 9.8 m/s2 (1G), 5-500 Hz
	Shock	Operating 30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	6 SSMC
	LEDs	Status
Software Support	**Operating System**	Agnostic
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 ISO9001:2015 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

FMC262 – ABC-000-00J

A = Utilizing the ADC Nyquist Zones		
0 = 1st/2nd 1 = 2nd/3rd		

B = ADC		
0 = AD9208 (3 GSPS) 1 = AD9689 (2.6 GSPS)		

C = RF Sampling CLK or Trig Input		J = Temperature Range and Conformal Coating
0 = Direct RF Clock in 1 = Trig in (single ended LVCMOS)		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*

Notes:

*Conduction cooled; temperature is at edge of module. Consult factory for availability.

Related Products

AMC592

- AMC FPGA carrier for FMC per VITA 57
- Xilinx UltraScale™ XCKU115 FPGA
- Supported by DAQ Series™ data acquisition software

FMC214

- Dual complete transceiver signal chain solution using Analog Devices AD9361 transceiver
- Frequency range 70 MHz to 6 GHz with instantaneous bandwidth from 200 kHz to 56 MHz
- MIMO transceiver is Time Domain Duplex (TDD) and Frequency Domain Duplex (FDD) compatible

VPX592

- 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
- Xilinx Kintex UltraScale™ XCKU115 FPGA
- High-performance clock jitter cleaner

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