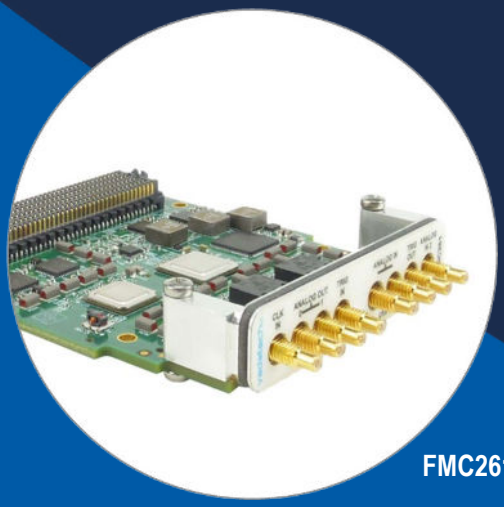
FMC261

Dual ADC 2.6 GSPS, ADC 250 MSPS, DAC 12.6 GSPS, 2x22 Output and 2x1 Input, FMC



FMC261

Key Features

- Dual ADC 14-bit @ 2.6 GSPS (AD9689)
- ADC 16-bit @ 250 MSPS (AD9467)
- Dual DAC 16-bit @ 12.6 GSPS (AD9174)
- FPGA Mezzanine Card (FMC) per VITA 57
- Front panel interface includes Trig In/Out
- Clock input for synchronization via front or rear
- 2 x 22 Output and 2 x 2 Input single ended via a daughter card mate

Benefits

- High dynamic range for versatility in video/broadcast requirements
- 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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FMC261

The FMC261 is an FMC per VITA 57 specification. The board has a dual channel high-speed ADC, dual channel high-speed DAC and single channel low-speed ADC.

The FMC261 utilizes AD9689 dual channel ADC providing 14-bit conversion rates of up to 2.6 GSPS and a Dual DAC utilizing the AD9174 providing 16-bit conversion rates of up to 12.6 GSPS. An additional ADC channel is provided by a single AD9467 which gives 16-bit conversion at up to 250 MSPS.

The module has a Trigger Input/Output, clock and all analog Input/Output via SSMC connectors.

The FMC261 has an option for additional I/O through a Daughter Card (DA850) which mates to the FMC261 to provide 2 x 22 single ended output and 2 x input via two 3M connectors. The DA850 can take +12V and provide the +12V out to the I/O connectors. ***Note, with the DA850 installed the module violates the FMC height specification. VadaTech VPX/AMC/PCIe carriers can accommodate this by modifying the front panel of the carrier as monolithic. Please contact VadaTech Sales for further information.***

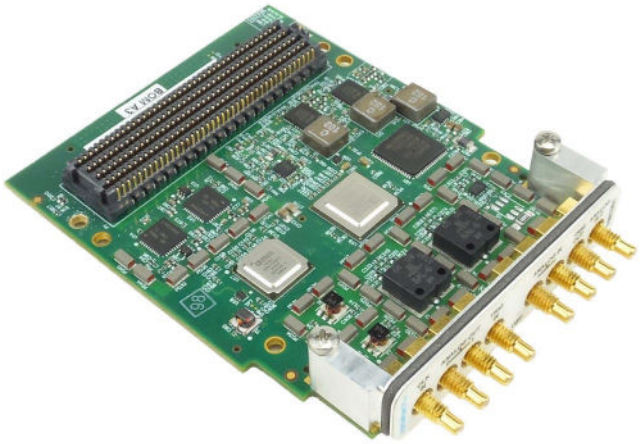

Figure 1: FMC261

Block Diagram

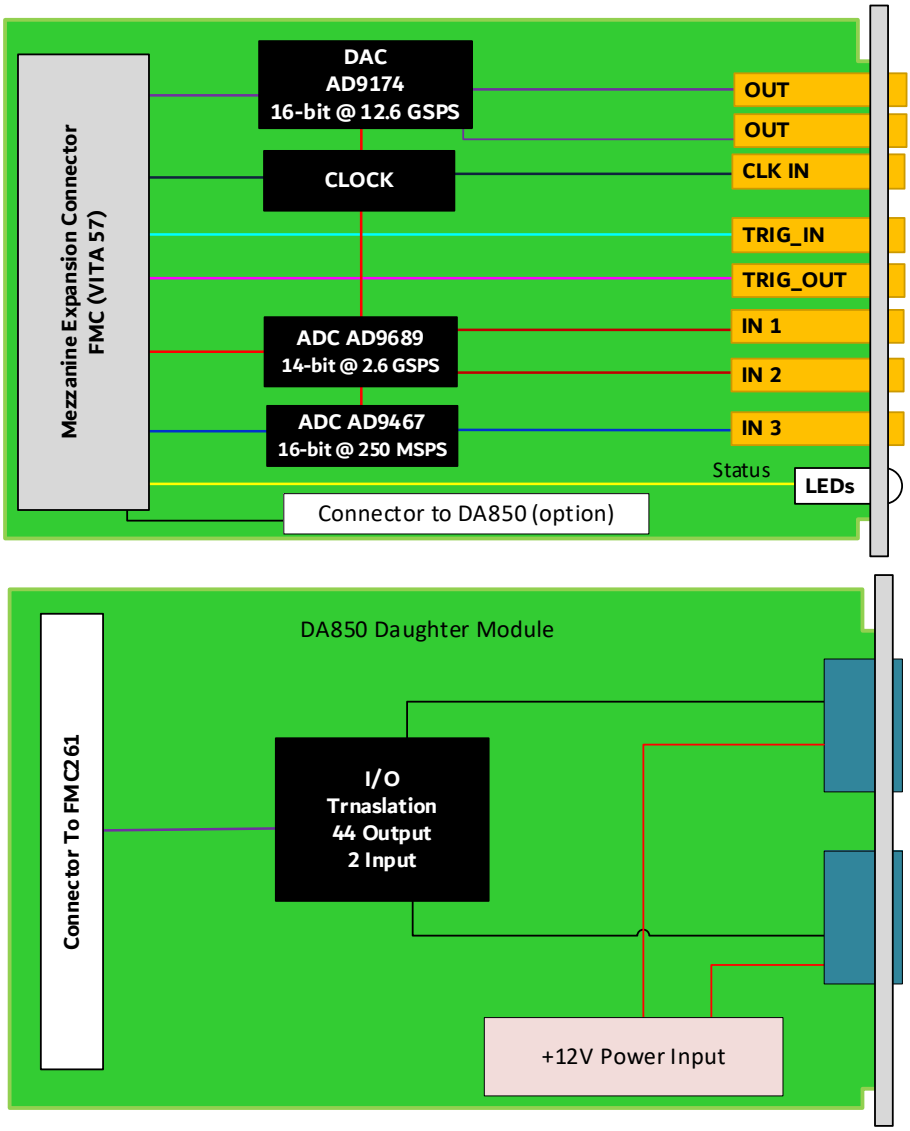

Figure 2: FMC261 Functional Block Diagram

Front Panel

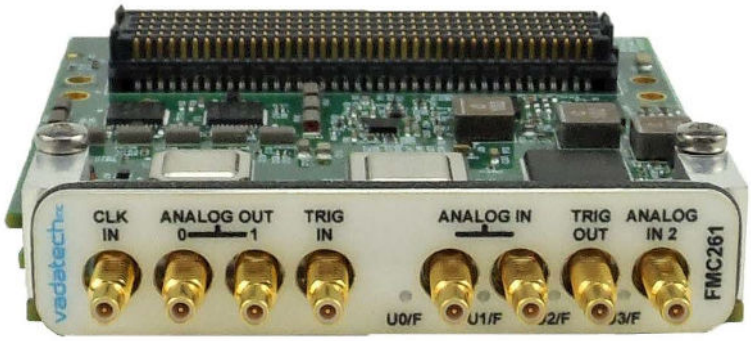

Figure 3: FMC261 Front Panel

Specifications

Architecture		
Physical	**Dimensions**	Single Module
		Width: 2.71” (69 mm)
		Depth: 3.01” (76.5 mm)
Type	**FMC**	Analog I/O
Standards		
FMC	**Type**	ANSI/VITA 57.1 - 2008
Configuration		
Power	**FMC261**	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**	8 SSMC without the DA850
	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

FMC261 – ABC-D00-G0J

A = ADC	D = AD9467 Front End	G = FMC Board Spacing
0 = AD9689 @ 2 GSPS 1 = AD9689 @ 2.6 GSPS	0 = AC Couple 1 = DC Couple	0 = 10 mm (per VITA 57 specification) 1 = 17.5 mm*
B = RF Input Signal		
0 = <5 GHz 1 = >5 GHz		
C = DA850		**J = Temperature Range and Conformal Coating**
0 = Not Installed 1 = Installed		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:

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

**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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