FMC226 – FMC Dual ADC, 12-bit @ 4.0 GSPS

FMC, High Speed ADC

KEY FEATURES

- FPGA Mezzanine Card (FMC) per VITA 57
- Dual Texas Instruments ADC12J4000 ADC
  - Four JESD204B lanes per ADC are routed to the FMC connector
  - Usable output bandwidth of 800 MHz at 4x decimation and 4000 MSPS
  - Usable output bandwidth of 100 MHz at 32x decimation and 4000 MSPS
- Excellent dynamic performance
- Front panel interface includes CLK In, Trig In, Analog In, and GPIO
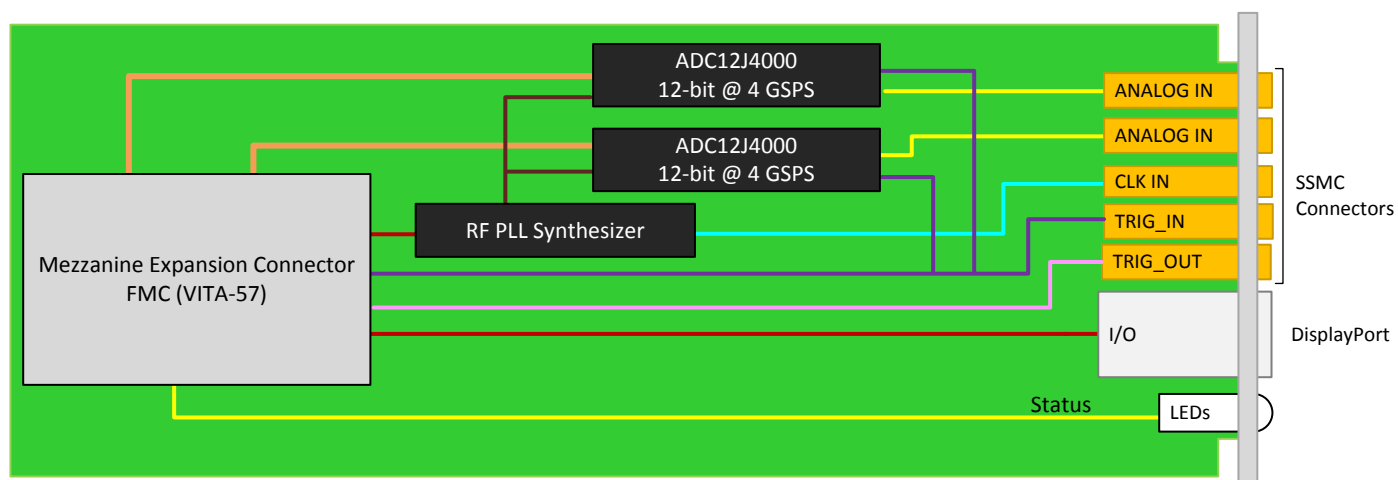- Ultra Low-Noise wide-band PLL
- RoHS compliant

Benefits of Choosing VadaTech

- Array of FMC's and FMC carriers available from VadaTech
- High dynamic range for versatility in video/broadcast requirements
- Ideal for Broadband communications systems, Wireless infrastructure, LTE, ATE, RADAR/Jamming
- 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
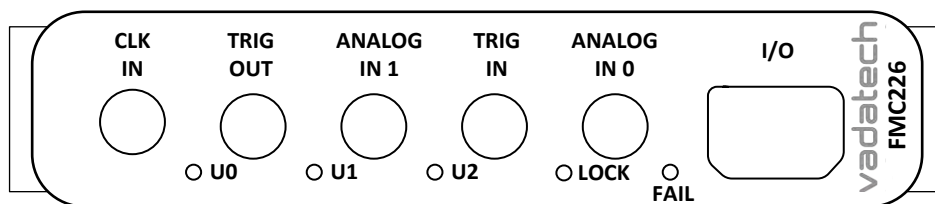- AS9100 and ISO9001 certified company

The FMC226 is an FPGA Mezzanine Carrier (FMC) per VITA 57 specification. The board has dual ADC with 12-bit resolution at 4.0 GSPS.

The FMC226 utilizes a dual TI ADC12J4000 ADC providing 12-bit conversion rates of up to 4.0 GSPS. The analog input, clock input and trigger inputs of the FMC226 are routed via SSMC connectors. The internal clock frequency is programmable and the clock is capable of locking to an external reference.

BLOCK DIAGRAM

FRONT PANEL

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SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module
		Width 2.71" (69 mm)
		Depth 3.01" (76.5 mm)
Type	FMC	Dual Port ADC
		Single FMC
Standards		
FMC	VITA-57	ANSI/VITA 57.1-2008
Configuration		
Power	FMC226	6 W
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	SSMC and DisplayPort
	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	

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.

Trademarks and Disclaimer

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ORDERING OPTIONS

FMC226 – A00 – 000 – 00J

A = Front Panel Clock Input
0 = Square wave
1 = Sinewave

J = Conformal Coating
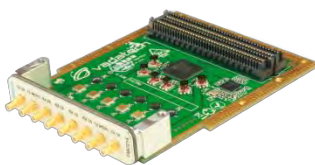0 = Commercial (–5° to +55° C), No coating
1 = Commercial (–5° to +55° C), Humiseal 1A33 Polyurethane
2 = Commercial (–5° to +55° C),Humiseal 1B31 Acrylic
3 = Industrial (–20° to +70° C), No coating
4 = Industrial (–20° to +70° C), Humiseal 1A33 Polyurethane
5 = Industrial (–20° to +70° C), Humiseal 1B31 Acrylic
6 = Military (–40° to +85° C), Humiseal 1A33 Polyurethane*
7 = Military (–40° to +85° C), Humiseal 1B31 Acrylic*

* Edge of module for conduction cooled boards

RELATED PRODUCTS

AMC515 Virtex-7 FPGA

FMC214 Wideband Transceiver

FMC210 ADC FMC

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