FMC212

Dual ADC 12-bit @ 1.5 GSPS and Dual DAC 16-bit @ 2 8 GSPS, FMC

FMC212

Key Features

- Dual ADC 12-bit @ 1.5 GSPS (EV12AS200AZP)
- The ADC has Full power input Bandwidth at 1.5 GSPS is 2.3 GHz and very low latency < 5 Clock Cycles
- Dual DAC 16-bit @ 2.8 GSPS (TI DAC39J82)
- FPGA Mezzanine Card (FMC) per VITA 57
- Front panel interface includes RF CLK In, Trig In/Out

Benefits

- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

vadatech
THE POWER OF VISION

FMC212

The FMC212 is an FPGA Mezzanine Card per VITA 57 specification with high-speed dual ADC and dual DAC.

The ADC is based on the e2v EV12AS200AZP that provides two analog inputs with 12-bit resolution at 1.5 GSPS.

The DAC is based on the TI DAC39J82 that provides two analog outputs with 16-bit resolution at 2.8 GSPS.

The module has a wideband PLL for RF sampling clock. The wideband PLL has RF reference clocking which can come from the FMC carrier or from the front panel via the Ref CLK In Port.

Figure 1: FMC212

Block Diagram

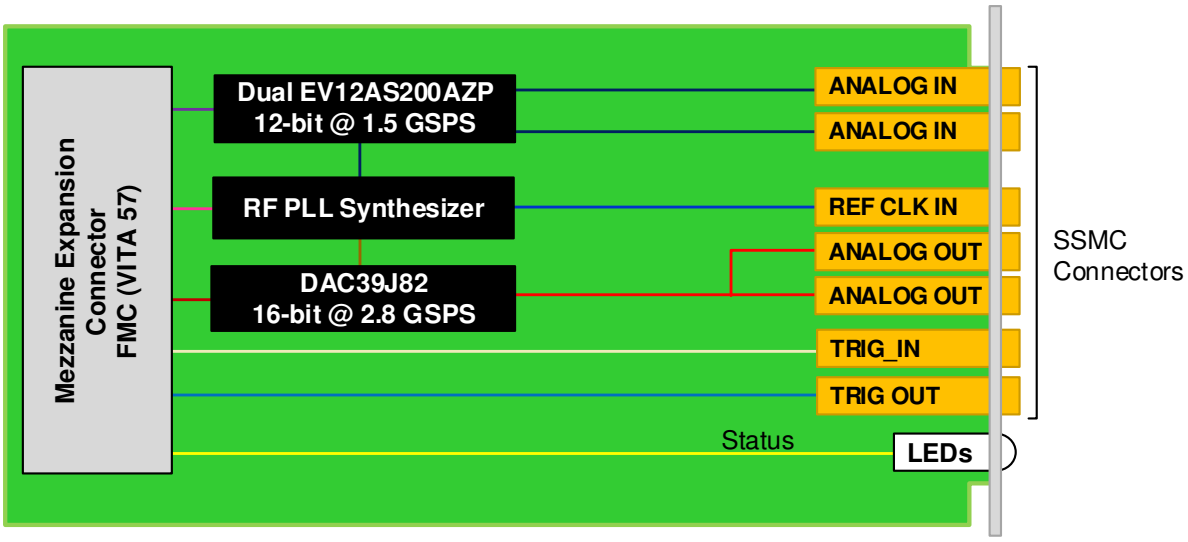

Figure 2: FMC212 Functional Block Diagram

Front Panel

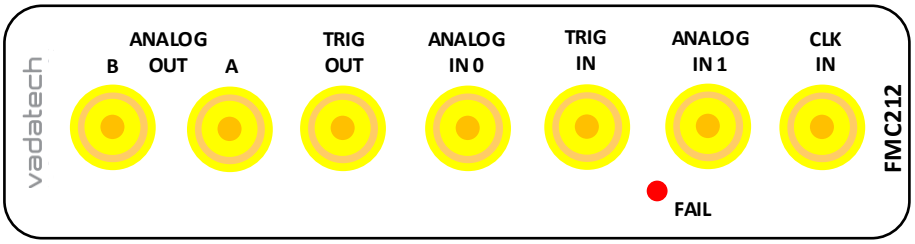

Figure 3: FMC212 Front Panel

Specifications

Architecture		
Physical	**Dimensions**	Single module
		Width: 2.71” (69 mm)
		Depth 3.01” (76.5 mm)
Type	**FMC**	Dual ADC and dual DAC
Standards		
FMC	**VITA 57**	ANSI/VITA 57.1-2008
Configuration		
Power	**FMC212**	~8W
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Vibration	1G, 5 to 500 Hz on each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	7x SSMC
	LEDs	Status
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

FMC212 – A00-000-G0J

A = DAC Output Bandwidth		G = FMC Board Spacing
0 = 250 MHz to ~1.4 GHz 1 = 4.5 MHz to ~350 MHz		0 = 10 mm (per VITA 57 specification) 1 = 17.5 mm*
		J = Temperature Range and 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 = 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

AMC516

- AMC FPGA carrier for FMC per VITA 57
- Xilinx Virtex-7 690T FPGA in FFG-1761 package with optional P2040
- Supported by DAQ Series™ data acquisition software

AMC532

- Single module, mid-size or full-size
- AMC FPGA based on Altera Stratix® V (5SGXEA) in F1932 package
- VITA 57.1 FMC HPC Connector (compatible with LPC)

FMC109

- FPGA Mezzanine Card (FMC) per VITA-57
- Quad SPF/SPF+ cages for Quad Ports
- Re-driver on all four Ports for a better signal quality

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014
Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhu Street, Neihu District, Taipei 114, Taiwan
Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR
Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

Choose VadaTech

We are technology leaders

- First-to-market silicon
- Constant innovation
- Open systems expertise

We commit to our customers

- Partnerships power innovation
- Collaborative approach
- Mutual success

We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

We manufacture in-house

- Agile production
- Accelerated deployment
- AS9100 accredited

vadatech
THE POWER OF VISION

DOC NO. 4FM737-12 REV 01 | VERSION 1.5 – DEC/19