

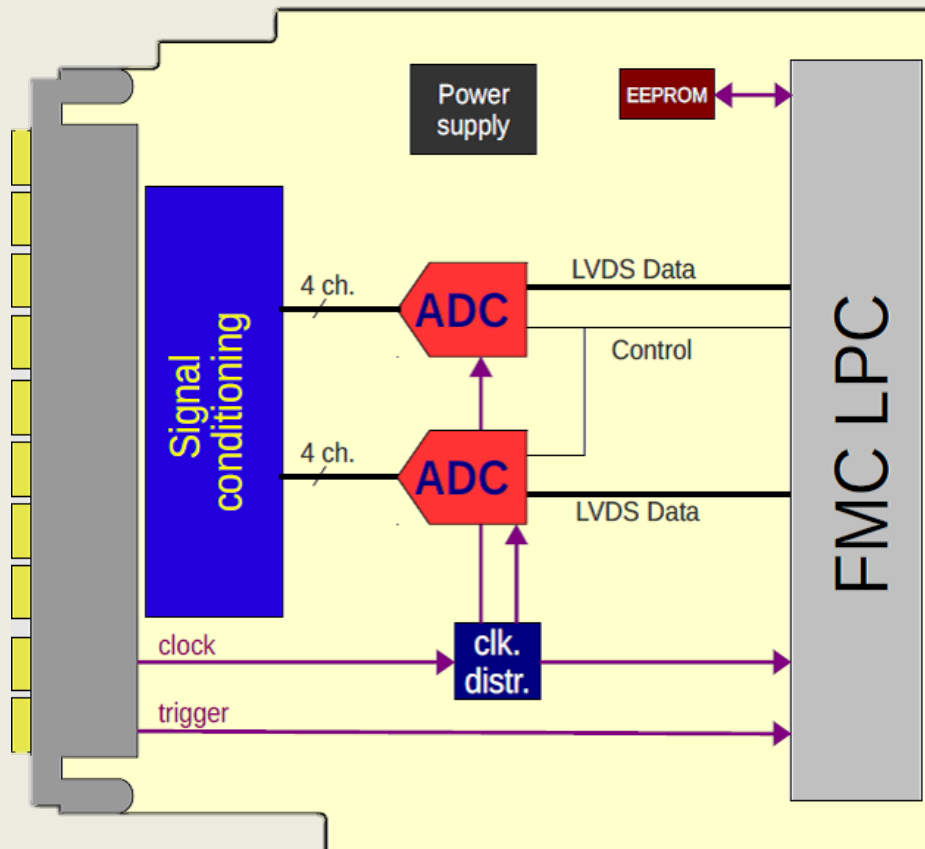
EFMC-D082 eight channel 80MHz digitizer

General Description:

The EFMC-D082 is an octal channel A/D FMC daughter card. The card provides eight 14 or 12bit A/D channels which can be clocked by an externally supplied sample clock. In addition there is one trigger input for customized sampling control. The EFMC-D082 daughter card is mechanically and electrically compliant to FMC standard (ANSI/VITA 57.1).

The EFMC-D082 has a lowpin count (LPC) connector and front panel I/O. The design is based on Linear Technology' LTC2175 quad channel 14(12)bit 80/105/125 MSPS ADC. The analog signals are DC coupled connecting to MMCX (SSMC is an option) coax connectors on the front panel. The EFMC-D082 allows flexible control on clock source, analog input gain, and offset correction through serial communication interface. Furthermore the card is equipped with power supply and temperature monitoring.

Block Diagram:



Description			
Architecture			
Physical	Dimensions	69 x 76.5 mm FMC – VITA57.1	
Standards	FPGA Mezzanine Card	IPMI Version 2.0, MMC V1.0 compatible	
Compatibility	Compatible AMC products	Class D1.0 ERTM-D102; EAMC-FMC500	
Configuration			
Electrical Properties	Power Consumption	<50 Watts	
Dataconverter	Linear Technology, LTC2175, analog-to-digital converter: Sample Rates: 80/105/125 MSPS Resolution: 12 or 14-Bit		
Connectivity			
Frontpanel	Front panel inputs – MMCX (SSMC special option): <ul style="list-style-type: none"> • 8 x analog channel • 1 x clock • 1 x trigger 		
Clock Distribution	The board is equipped with dedicated clock distribution unit. The reference clock can be sourced from a front panel connector or FMC connector. The clock is distributed to all crucial elements of the system.		
Communication Links	Standard connection to LPC FMC connector: <ul style="list-style-type: none"> • LVDS lines for data, • COMC for control signals <p>For LVDS lines the expected transfer rate is 960 Mbps/pair (480 Mbps/pair DDR). The user must ensure that FMC carrier used in the application is capable of receiving such data stream.</p>		
Other Features			
Onboard	Voltage and environmental monitor Clock monitoring	With power supply and temperature monitoring IPMI management control	
Environmental	Temperature Range commercial Temperature Range industrial Relative humidity Weight	0 – 50°C -40 – 85°C 5 to 90%, non-condensing 0.2 kg	
Ordering Information	EFMC-D082.X.Y.G	X	ADC resolution: 12-Bit
		Y	Sampling rate: 80MHz 105MHz 125MHz
		G	Operating Temp. Range 0°C to +55°C -40°C to +85°C

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