

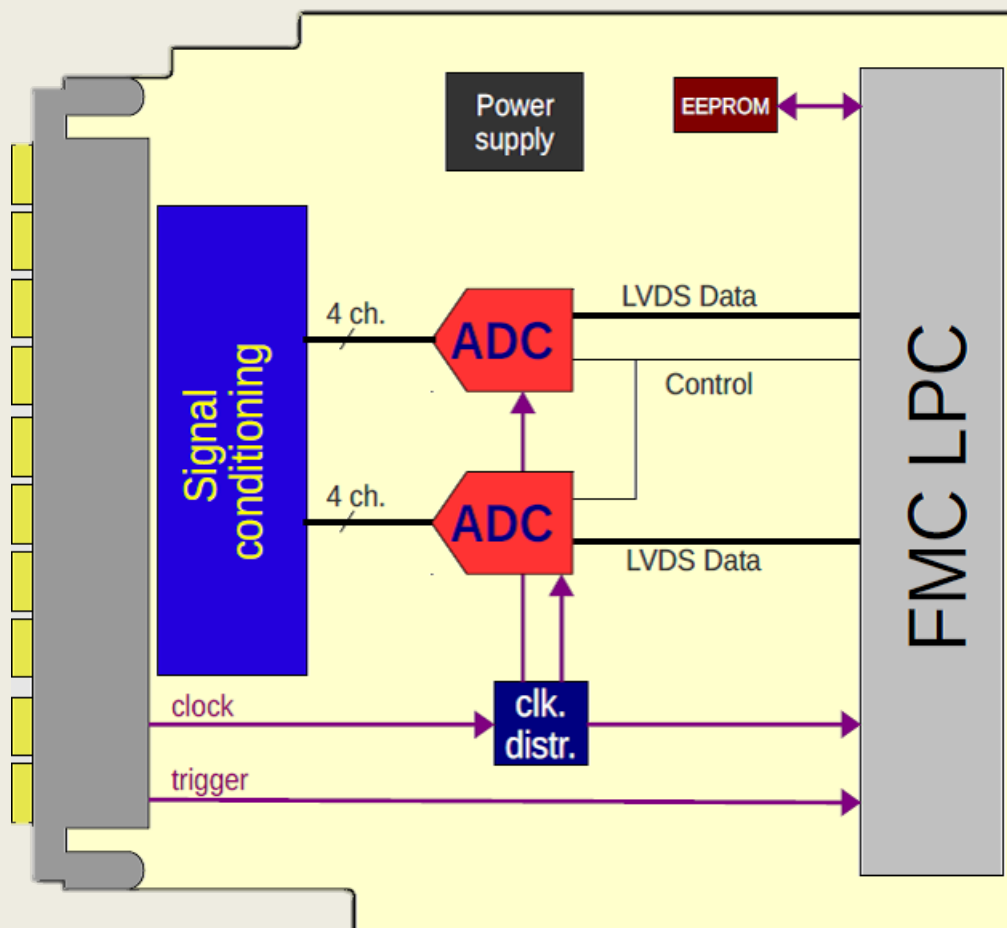
EFMC-D082 eight channel, 80MHz digitizer

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 low pin 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	
Standards	FMC – VITA57.1		
Combatibility	FMC Carrier Boards	EAMC-FMC500 ERTM-D102	
Configuration			
Electrical properties	Power consumption	< 50 Watt	
Data converter	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>		
Others			
Onboard	Voltage and current monitor Clock monitoring	With power supply and temperature monitoring IPMI management control	
Environmental	Operating temperature Storage temperature 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. <ul style="list-style-type: none"> ➤ .12 ➤ .14 	ADC Resolution <ul style="list-style-type: none"> ➤ 12 bit ➤ 14 bit
		Y. <ul style="list-style-type: none"> ➤ .80 ➤ .105 ➤ .125 	Sampling rate <ul style="list-style-type: none"> ➤ 80 MHz ➤ 105 MHz ➤ 125 MHz
		G. <ul style="list-style-type: none"> ➤ .C ➤ .I 	Operating Temp. Range <ul style="list-style-type: none"> ➤ 0°C to +55°C ➤ -40°C to +85°C

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Developed by:
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Specification is subject to change without further notice

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