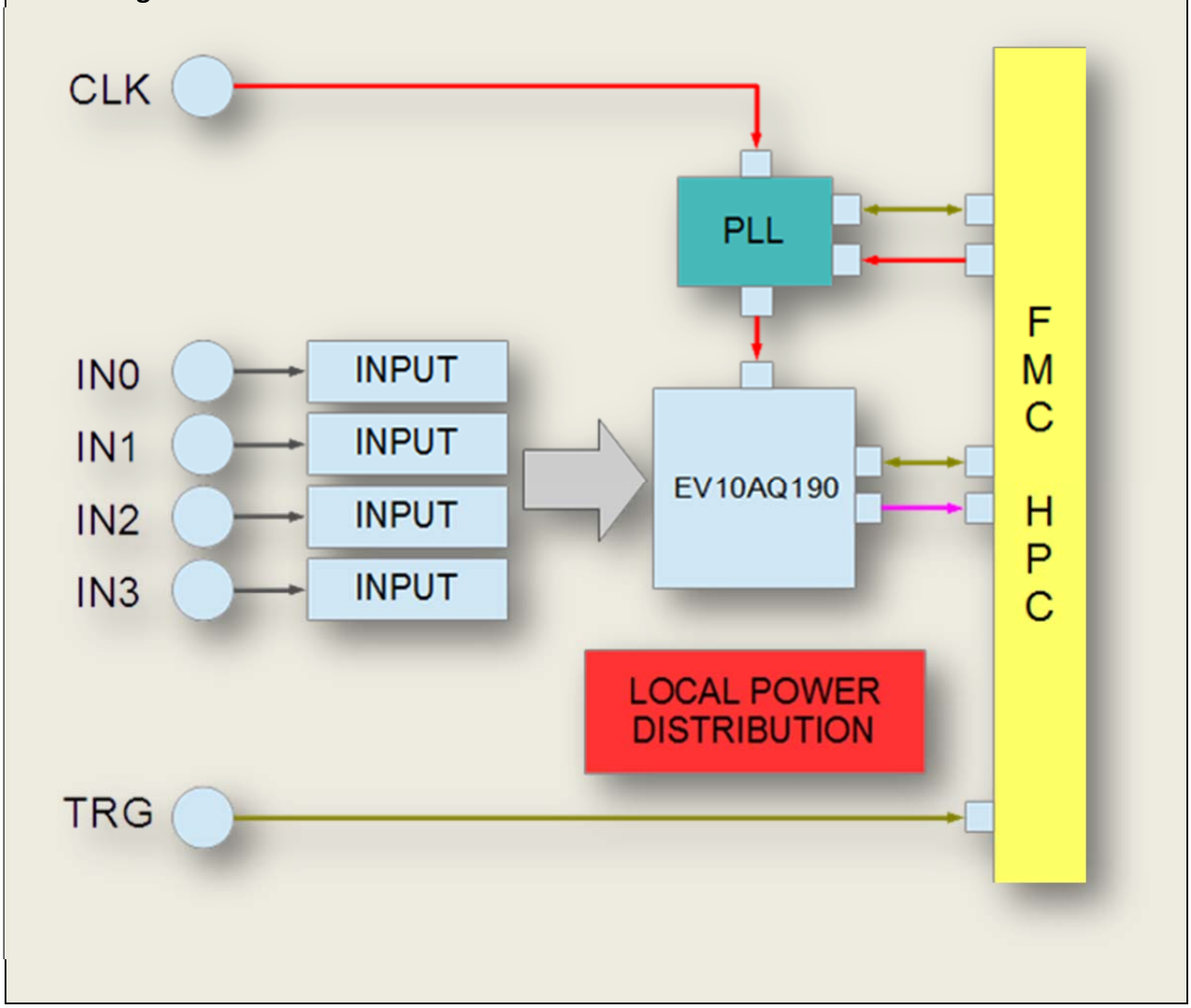
EFMC-D041 four channel, 1,25GHz digitizer

General Description:

The EFMC-D041 is a quad channel A/D FMC daughter card. The card is equipped with eight 10 bit A/D channels, which can be clocked either by an externally supplied sample clock or FMC clock. In addition there is one trigger input for customized sampling control. The EFMC-D041 daughter card is mechanically and electrically compliant to FMC standard (ANSI/VITA 57.1).It has a high-pin-count (LPC) connector and front panel I/Os. The design is based on e2v EV10AQ190 ADC quad channel 10bit 1,25 GSPS ADC. The analog signals are DC coupled connecting to MMCX (SSMC is an option) coax connectors on the front panel. The EFMC-D041 allows flexible control over 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:



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Description		
Architecture		
Physical	Dimensions	69 x 76.5 mm
Standards	FMC – VITA57.1	
Combatibility	**FMC Carrier Boards**	EAMC-FMC500 ERTM-D102 EAMC-FMC270
Configuration		
Electrical properties	**Power consumption**	< 60 Watt
Data converter	**e2v EV10AQ190** analog to digital converter: **Maximum Sample Rate: 1,25 GSPS Resolution: 10Bit**	
Connectivity		
Frontpanel	Front panel inputs – MMCX (SSMC special option): ➢ 4 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 HPC FMC connector: ➢ LVDS lines for data, ➢ COMC for control signals **Can be used as 2.5 GSPS dual channel or 5 GSPS single channel ADC !**	
Others		
Onboard	Voltage and current monitor Clock monitoring	With current monitoring Yes, readout via IPMI 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-D041**	

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Developed by:
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