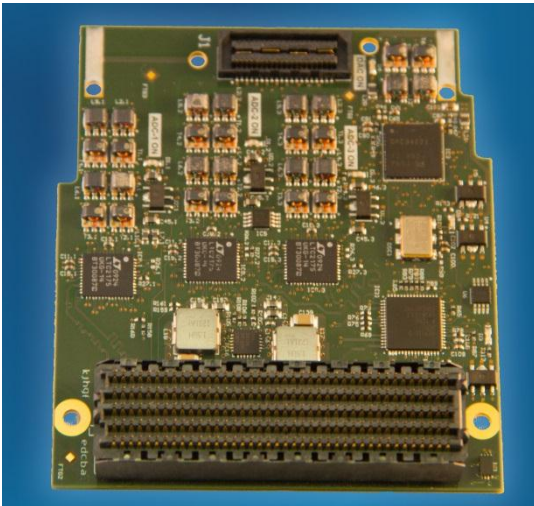


FADB

The FMC ADC/DAC Board 12ch ADC. 2ch DAC



The FADB, aka the **FMC ADC** and **DAC Board**, is a 12 ch ADC/ 2 ch DAC channels board using FMC **HPC** and **QSE** connectors. It has been designed for system requiring a **feedback loop** mechanism with precise timing, such as the tuning of RF cavities.



The FMC connector is HPC type, although it can be connected to a LPC carrier. In this case, the board will provide only 8 ADC channels and none DAC channel.

3x ADC Chips from Linear Technology

Type	LTC2175-14 (4 channels per chip)
Sampling Rate	125 Msps
Resolution	14 bits
Analog BW	800 MHz
SNR/SFDR	73.1 dB / 88 dB
Input Levels	[1 - 2] Vpp

DAC chip from Texas Instruments

Type	DAC3482
Sampling Rate	1.25 Gbps
Resolution	16 bits
Interpolation	Selectable 2x, 4x, 8x or 16x
Output	Differential Scalable [10 - 30] mA

Certifications

Soldering	IPC- 610 Rev E Class 2
Others	ISO-9001, ISO-14001, CE, RoHS

Physical Specification

Dimension 69x76.50 mm

Weight

Environmental Conditions

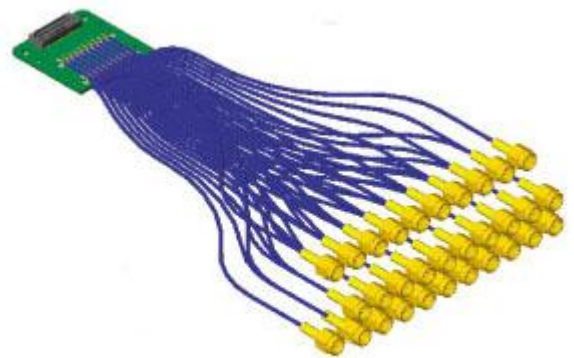
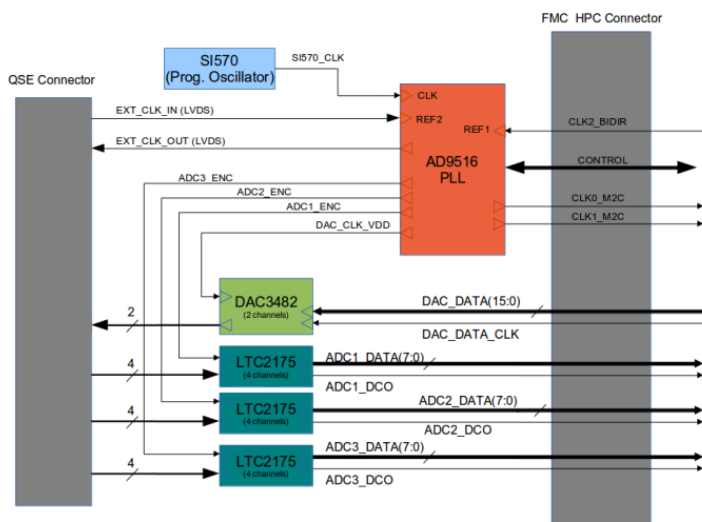
Temperature	-10°C ~ +50°C
Humidity	0% ~ 90% RH

Connectors

FMC	FMC connects to FMC carrier with high pin count (HPC) connector (LPC compatible).
QSE	Compatible with Samtec EQRF cable. 12 ADC channel inputs 2 DAC channel outputs 1 optional clock input for PLL 1 clock output from the PLL

Low Jitter PLL from Analog Devices

Type	AD9516-0
VCO	2.55 – 2.9 GHz On-Chip VCO
Outputs	6 LVPECL, 4 LVDS / 8 LVCMOS 1 LVDS output to QSE connector
Inputs	1 from FMC connector 1 from QSE Connector
Jitter	225 fs rms for LVPECL outputs 275 fs rms for LVDS output
Clock Distrb.	Clock input from SI570 I2C programmable oscillator [10 – 280] MHz



EQRF Samtec Cable



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