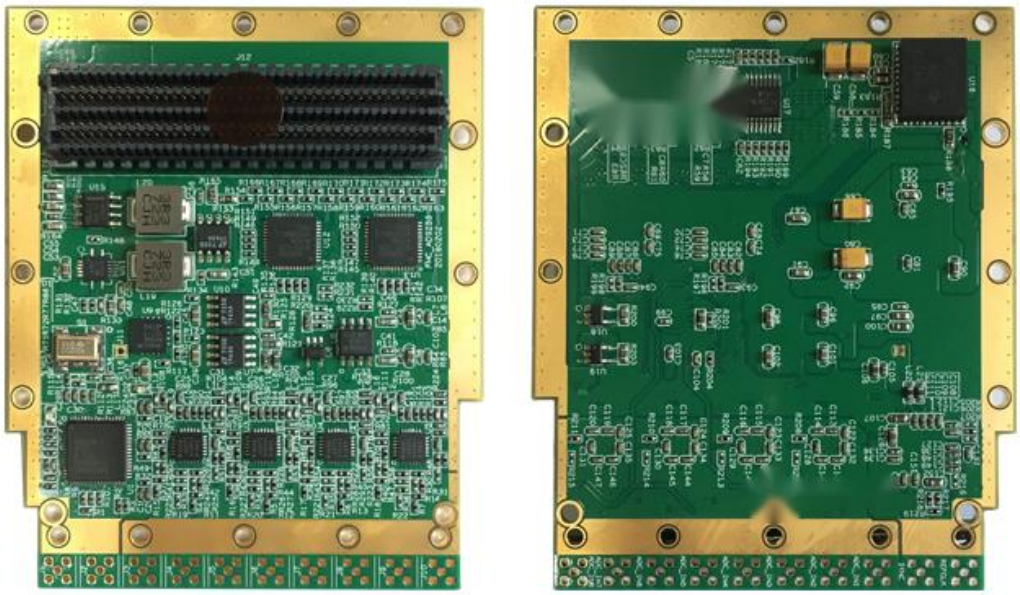
Eight 125Msps 14bit DC coupling pulse acquisition

AD FMC sub-card



1. Introduction

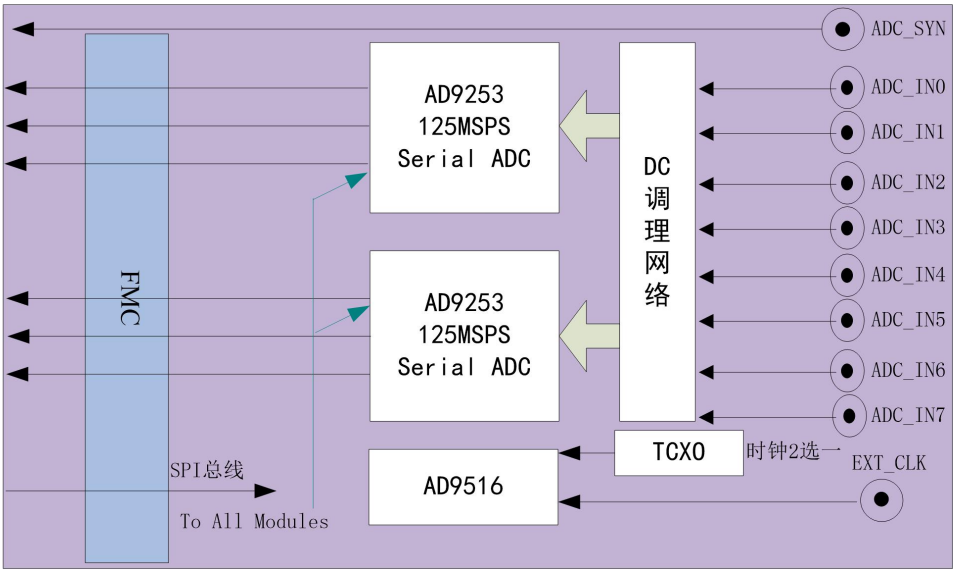
The board card is a standard FMC sub-card , used for ultrasonic, optical pulse and other signal acquisition

(1) AD9253 of ADI is adopted as the ADC, with the highest sampling rate of 125M in four channels, two pieces in total, and eight input channels in board CARDS, supporting sampling of 80M/105M/125Msps;

(2) AD analog input with front-end amplifier and filter circuit supports ±2Vpp input and DC coupling;

(3) The clock adopts AD9516, which supports on-board clock and external clock;The sampling rate can be freely configured;

(4)Ten SSMB interfaces, Eight analog inputs, One external clock, one synchronous signal, and one FMC/LPC interface.



2. Performance

Parameters	Content
ADC Chip type	AD9253
ADC Channel amount	Eight channel ADC，
ADC Sampling rate	125Msps
ADC Data bits	14bit
ADC Digital interface	DDR LVDS
ADC Analog interface	Dc coupling
ADC Analog input	±2V
ADC Input impedance	50Ω
ADC Analog standard	
Clock :PLLchip	AD9516-1
The on-board crystal	10MHz temperature-compensation crystal oscillator(TCXO) VCXO
External input clock	Default 10MHz，3.3V LVTTLelectrical level
Channel amount	One channel input
electrical level	3.3V LVTTLelectrical level
FMC-LPC	ASP_134604_01
Front Panel	Ten channel SSMB
Standard	FMC ANSI/VITA 57.1 - 2008
Size	69X76.5mm
Weight	Within heat sink
Power supply	+12V@1A
Power consumption	8W
Working Temperature	Industrial -20℃ to +70℃
Support Xilinx board	V6、V7、KU、VU、 ZYNQ、ZU development board

Support Orihard board	136、270、367、288、330、274、3、9

3. Software

Provide ISE or Vivado version of FMC interface AD input or DA output, clock configuration, external trigger access reference test program, supported FPGA model or board card see the instruction table.

4.Software application

The board is compatible with all kinds of sole-plates of the company, especially in support of DC coupling, mainly used for photoelectric and ultrasonic pulse signal detection.