250MSps Dual-channel High-speed Data Acquisition Card

PCIe-6920

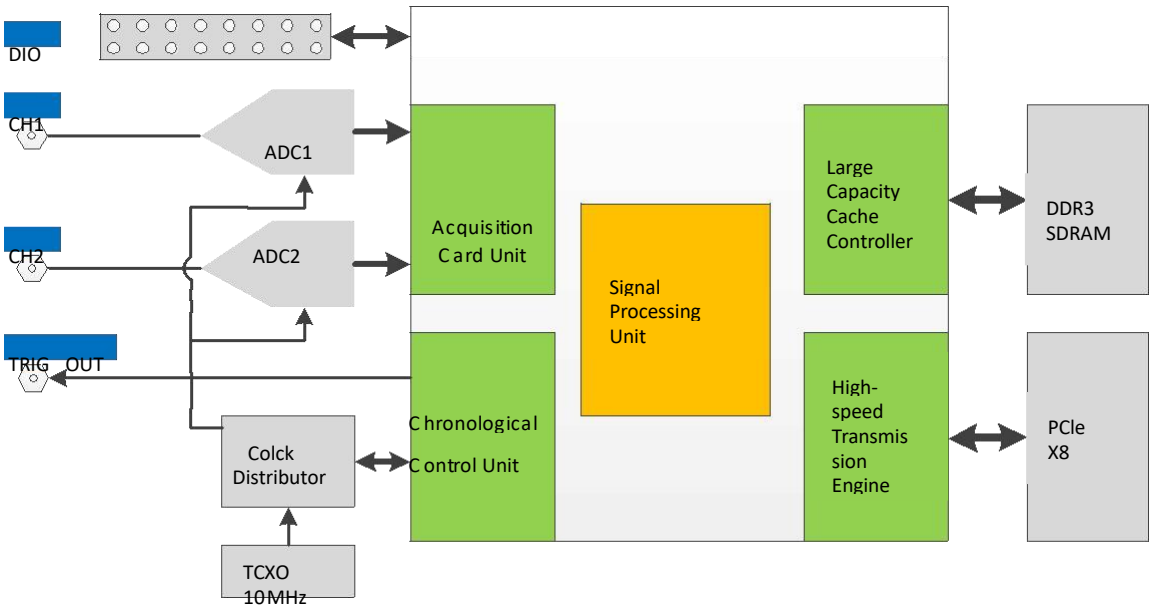
Specifications

- 14bits dual-channel synchronized real-time sampling
- 250M sampling rate
- DC coupling， 50Ω input impedance
- Input voltage range: 2Vpp
- 0-125MHz analog bandwidth
- 88dBc SFDR
- Trigger output pulse, 16-Channel digital IO
- PCI Express x8 Lane high-speed transmission interface
- 2GB DDR3 high-speed data caching

Overview

The PCIe-6920 is a PCIe x8 Lane, dual-channel, 14bits resolution, high-speed data acquisition card with 250MSps sampling rate.Onboard high-performance FPGA chip with rich multiplier and RAM resources. By adopting high-capacity data cache and high-speed data transmission technology, it supports real-time uploading of raw data, and the data transmission rate can be up to 2GB/s. The driver has good compatibility, and it supports multiple versions of 32/64bits of WIN7, WIN8, WIN10, CentOS and Ubuntu system.

System Block Diagram



Specifications

Input Channel		
Input Channel Number	2	
Input Impedance	50±1%	Ω
Input Signal Range	2Vp-p/10dBm	
Input Coupling Mode	DC（AC coupling customizable）	
Resolution	14	bits
Bandwidth(-3dB)	0-125（Other bandwidths customizable)	MHz
Spurious-free Dynamic Range(SFDR)	-1dBFS input/200MSps	
fIN=26MHz	88.5	dBc
fIN=42MHz	88.9	dBc
Signal-to-noise Ratio(SNR)	-1dBFS input/250MSps	
fIN=26MHz	70	dBFS
fIN=42MHz	72	dBFS
Average Noise Intensity	-140	dBm/Hz
Internal Reference Clock		
Frequency	10	MHz
Stability	±0.5（-20-60℃）	ppm
Trigger Output		
High Level Min. Voltage	3.3	V
Pulse Width Resolution	4	nS
Min. Pulse Width	4	nS
Digital Input/Output		
Channel Number	16	
Level Standard	3.3V LVTTL	
Output Driving Capability	8（MAX）	mA
Signal Rate	50（MAX）	Mbps
On-board Cache	2	GB（DDR3L）

Power Supply and Power Consumption

- Supply Voltage：12V（Goldfinger Power）
- Power Consumption：18W（Max）

Temperature Range

- Working Temperature：-20~60℃
- Storage Temperature：-40~85℃

Mechnical Dimensions

- 181mm(L) x 111mm(W)x20mm(D)