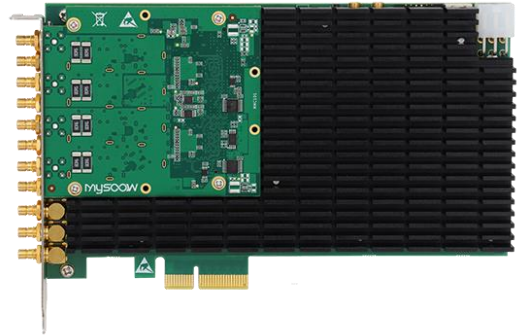


- 2/4/8 channel synchronous sampling
- 10/20/40/80Msps per channel, 16bit
- Input bandwidth DC-5/10/20/40MHz
- Input range: can be set as $\pm 1V$ 、 $\pm 2V$ 、 $\pm 5V$ 、 $\pm 10V$
- Input impedance: $50\Omega/1M\Omega$
- PCIe x4 Gen2 communication interface
- support FPGA secondary development
- Software development package supports C/C++ ,



Series	Bus	Resolution	Channel	Sampling Rate	Bandwidth	Storage depth	System support
LD814x-xx16	PCIe x4 Gen2	16bit	2/4/8 channel	10/20/40/80Msps	DC-5/10/20/40MHz	512MB/1GB	Windows Linux

Brief introduction

- LD814x-xx16 is Mysoow's "Agile" series PCIe acquisition card, supporting 2/4/8 channel, 16bit, achieving 10/20/40/80Msps synchronous sampling, On board DDR3 memory granules, with 512MB/1GB storage volume, larger volume customization is also supported.
- PCIe x4 Gen2 bus interface, supporting the data speed up to 12.5Gbps.
- Support multiple triggering modes including hardware triggering, software triggering and manual triggering etc. Continuous sampling mode is also supported.
- Support the secondary development for users, providing DLL dynamic link pool.
- Equipped with host computer Demo software, supporting the configuration of board and real-time display and storage of data.

Typical applications

- Optical Coherence Tomography (OCT)
- Non-destructive detection
- Ware form recorder
- Multi-channel transient recorder

Detailed parameters

Terminal						
Simulated input	2/4/8 channel, standard SMB interface, SSMA optional					
Triggered input	1 way SMB					
Triggered output	1 way SMB					
Synchronous clock input	1 way SMB					
Synchronous clock output	1 way SMB					
Communication bus	PCIe x4 Gen2					
Acquisition system						
Resolution	16bit					
Bandwidth	DC-5/10/20/40MHz					
Input channel	2/4/8 channel synchronous sampling					
Sampling rate	up to 10/20/40/80Msps					
Sampling mode	Continuous sampling, finite point sampling					
Full range input scope	$\pm 1V$ 、 $\pm 2V$ 、 $\pm 5V$ 、 $\pm 10V$					
Input coupling	AC/DC coupling					
Input impedance	50 Ω /1M Ω					
Extreme input	$\pm 40V_{max}$					
Storage						
Storage volume	512MB/1GB					
Recording capability	Can be set up by software, the overall volume does not exceed memory space					
Trigger depth	Can be set up by software, the overall volume does not exceed memory space					
Index parameter						
Input impedance	Gear	SNR	SINAD	SFDR	ENOB	Test conditions
50 Ω	$\pm 2V$	72	72	80	11.1	Input signal amplitude-1dBFS, frequency 1MHz, sampling rate 10/20M/40M/80Msps
1M Ω	$\pm 2V$	70	70	75	10.8	
Trigger Input System						
Trigger source	Software trigger, threshold(channel) trigger, external(simulation and digital) trigger					
Channel number	1 channel, supporting simulation and digital TTL, LVTTTL, Input impedance 1M Ω					
Trigger input level	Simulation input $\pm 0.2V \sim \pm 5V$, standard digital TTL, LVTTTL level, square wave/pulse wave/trapezoidal wave					
Trigger frequency	$\leq 1.6MHz$					
Trigger mode	post-trigger, pre-trigger, delay-trigger, rising edge trigger, falling edge trigger, double-sided edge trigger					
Trigger threshold adjustment	$\pm 0.2V \sim \pm 5V$ precisely adjustable					

Trigger input width	≥50ns
Trigger delay	0~2 ³¹ sampling cycle
Trigger output	
Trigger output channel	1 channel, share terminal with clock output
Trigger output level	LVTTL, output current 10mA
Trigger output width	≥50ns, adjustable pulse width
Clock system	
Clock source	Internal/external/external direct sampling clock source
Feature of internal clock	10MHz, ±2ppm
External input clock amplitude	0.4Vpp ~ 3.3Vpp sine wave or square wave
External input impedance	50Ω
External input coupling mode	AC coupling
External input frequency range	10MHz, 1MHz~maximum sampling rate@external direct sampling mode
Clock output	10MHz@LVTTL, same source as sampling clock
Power requirements	
Power supply mode	PCIe insertion socket power supply, 5557-2×3P connector power supply
Power requirement	12V/1.5A
Size and weight	
Size	Standard full height & full length PCIe board, occupying 1 bit PCIe insertion socket, length×width×height: 180×20×111mm
Weight	~0.4kg
Environment parameters	
Working temperature	0°C ~ +50°C
Relative working humidity	10% ~ 90%RH, no condensation
Storage temperature	-40°C ~ +85°C
Relative storage humidity	5% ~ 95%RH, no condensation

System requirements

- 1> PCIe x4 Gen2 interface;
- 2> larger than 4GB memory, 1GB hard-disk space;
- 3> Display screen resolution larger than 1280×1024;
- 4> Operation system supports Windows, Linux and domestically produced operation system;

Software Development Package

Provide software development package to help users to quickly accomplish application development and integration. MSDK software development package is applicable for Windows, Linux and other operation system, supporting the secondary integration and development for C/C++, Matlab, Labview, Python, C#, QT and other software, including host computer software, interface pool, DEMO routine and development description documents etc.

Ordering information

Ordering Information	
Model	Description
LD8142-10M16	2 channel 16bit, 10Msps, PCIe x4 Gen2, bandwidth DC-5MHz
LD8142-20M16	2 channel 16bit, 20Msps, PCIe x4 Gen2, bandwidth DC-10MHz
LD8142-40M16	2 channel 16bit, 40Msps, PCIe x4 Gen2, bandwidth DC-20MHz
LD8142-80M16	2 channel 16bit, 80Msps, PCIe x4 Gen2, bandwidth DC-40MHz
LD8144-10M16	4 channel 16bit, 10Msps, PCIe x4 Gen2, bandwidth DC-5MHz
LD8144-20M16	4 channel 16bit, 20Msps, PCIe x4 Gen2, bandwidth DC-10MHz
LD8144-40M16	4 channel 16bit, 40Msps, PCIe x4 Gen2, bandwidth DC-20MHz
LD8144-80M16	4 channel 16bit, 80Msps, PCIe x4 Gen2, bandwidth DC-40MHz
LD8148-10M16	8 channel 16bit, 10Msps, PCIe x4 Gen2, bandwidth DC-5MHz
LD8148-20M16	8 channel 16bit, 20Msps, PCIe x4 Gen2, bandwidth DC-10MHz
LD8148-40M16	8 channel 16bit, 40Msps, PCIe x4 Gen2, bandwidth DC-20MHz
LD8148-80M16	8 channel 16bit, 80Msps, PCIe x4 Gen2, bandwidth DC-40MHz

Note:

1. The product is not equipped with coaxial cables by default, and our company can provide customized wire services

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