

- 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:  $50\Omega/1M\Omega$
- Multiple Communication Interfaces Available
- support FPGA secondary development
- Software development package supports C/C++, LabVIEW, Matlab etc



Series	Bus	Resolution	Channel	Sampling Rate	Bandwidth	Storage depth	System support
LD714x-xx16	USB3.0/RJ45 /10G optical port	16bit	2/4/8 channel	10/20/40/80 Msps	DC-5/10/20/40MHz	512MB/1GB	Windows Linux

### Brief introduction

- LD714x-xx16 is Mysoow's "Agile" series acquisition device, 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.
- Multiple interface buses are available, with optional support for RJ45, USB 3.0, and 10G optical ports.
- 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
- Laser Radar
- 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	Optional Gigabit Ethernet port, USB 3.0 interface, and 10G optical port.					
IO Resources 2.0 12P box	4 sets of IO, 3.3V/5V level software switchable, capable of external power supply. Optionally configurable with 2 sets of MLVDS or 2 sets of RS485 (can constitute RS422 interface).					
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	±1V、±2V、±5V、±10V					
Input coupling	AC/DC coupling					
Input impedance	50Ω/1MΩ					
Extreme input	±40Vmax					
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
50Ω	±2V	72	72	80	11.4	Input signal amplitude-1dBFS, frequency 1MHz, sampling rate 10/20M/40M/80Msps
1MΩ	±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 1MΩ					
Trigger input level	Simulation input ±0.2V~±5V, standard digital TTL, LVTTTL level, square wave/pulse wave/trapezoidal wave					
Trigger frequency	≤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	$\geq 50ns$
Trigger delay	$0 \sim 2^{31}$ sampling cycle
Trigger output	
Trigger output channel	1 channel, share terminal with clock output
Trigger output level	LVTTL, output current 10mA
Trigger output width	$\geq 50ns$ , adjustable pulse width
Clock system	
Clock source	Internal/external/external direct sampling clock source
Feature of internal clock	10MHz, $\pm 2ppm$
External input clock amplitude	0.4Vpp ~ 3.3Vpp sine wave or square wave
External input impedance	50 $\Omega$
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	Adapter-powered or Powered by adapter, DC005 2.0mm
Power requirement	Rated Voltage 12V, Supports 12~24V Input
Size and weight	
Size	length×width×height: 200×127×48mm
Weight	~0.64kg/0.76kg
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> larger than 4GB memory, 1GB hard-disk space;
- 2> Display screen resolution larger than 1280x1024;
- 3> 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
LD7142R-10M16	2channel 16bit, 10Msps, RJ45, bandwidth DC-5MHz
LD7142R-20M16	2channel 16bit, 20Msps, RJ45, bandwidth DC-10MHz
LD7142R-40M16	2channel 16bit, 40Msps, RJ45, bandwidth DC-20MHz
LD7142R-80M16	2channel 16bit, 80Msps, RJ45, bandwidth DC-40MHz
LD7144R-10M16	4channel 16bit, 10Msps, RJ45, bandwidth DC-5MHz
LD7144R-20M16	4channel 16bit, 20Msps, RJ45, bandwidth DC-10MHz
LD7144R-40M16	4channel 16bit, 40Msps, RJ45, bandwidth DC-20MHz
LD7144R-80M16	4channel 16bit, 80Msps, RJ45, bandwidth DC-40MHz
LD7148R-10M16	8channel 16bit, 10Msps, RJ45, bandwidth DC-5MHz
LD7148R-20M16	8channel 16bit, 20Msps, RJ45, bandwidth DC-10MHz
LD7148R-40M16	8channel 16bit, 40Msps, RJ45, bandwidth DC-20MHz
LD7148R-80M16	8channel 16bit, 80Msps, RJ45, bandwidth DC-40MHz
LD7142U-10M16	2channel 16bit, 10Msps, USB3.0, bandwidth DC-5MHz
LD7142U-20M16	2channel 16bit, 20Msps, USB3.0, bandwidth DC-10MHz
LD7142U-40M16	2channel 16bit, 40Msps, USB3.0, bandwidth DC-20MHz
LD7142U-80M16	2channel 16bit, 80Msps, USB3.0, bandwidth DC-40MHz
LD7144U-10M16	4channel 16bit, 10Msps, USB3.0, bandwidth DC-5MHz
LD7144U-20M12	4channel 16bit, 20Msps, USB3.0, bandwidth DC-10MHz
LD7144U-40M16	4channel 16bit, 40Msps, USB3.0, bandwidth DC-20MHz
LD7144U-80M16	4channel 16bit, 80Msps, USB3.0, bandwidth DC-40MHz
LD7148U-10M16	8channel 16bit, 10Msps, USB3.0, bandwidth DC-5MHz

LD7148U-20M16	8channel 16bit, 20Msps, USB3.0, bandwidth DC-10MHz
LD7148U-40M16	8channel 16bit, 40Msps, USB3.0, bandwidth DC-20MHz
LD7148U-80M16	8channel 16bit, 80Msps, USB3.0, bandwidth DC-40MHz
LD7142T-10M16	2channel 16bit, 10Msps, 10G optical ports, bandwidth DC-5MHz
LD7142T-20M16	2channel 16bit, 20Msps, 10G optical ports, bandwidth DC-10MHz
LD7142T-40M16	2channel 16bit, 40Msps, 10G optical ports, bandwidth DC-20MHz
LD7142T-80M16	2channel 16bit, 80Msps, 10G optical ports, bandwidth DC-40MHz
LD7144T-10M16	4channel 16bit, 10Msps, 10G optical ports, bandwidth DC-5MHz
LD7144T-20M16	4channel 16bit, 20Msps, 10G optical ports, bandwidth DC-10MHz
LD7144T-40M16	4channel 16bit, 40Msps, 10G optical ports, bandwidth DC-20MHz
LD7144T-80M16	4channel 16bit, 80Msps, 10G optical ports, bandwidth DC-40MHz
LD7148T-10M16	8channel 16bit, 10Msps, 10G optical ports, bandwidth DC-5MHz
LD7148T-20M16	8channel 16bit, 20Msps, 10G optical ports, bandwidth DC-10MHz
LD7148T-40M16	8channel 16bit, 40Msps, 10G optical ports, bandwidth DC-20MHz
LD7148T-80M16	8channel 16bit, 80Msps, 10G optical ports, 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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