

- 2/4 channel synchronous sampling
- 500Msps per channel, 16bit
- Input bandwidth DC-220MHz
- Input range: ±1.0V、±2.0V
- Input impedance: 50Ω
- 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
LD716x-500M16-K	USB3.0/RJ45/10G optical port	16bit	2/4 channel	500Msps	DC-220MHz	2GB	Windows Linux

Brief introduction

- LD716x-500M16-K is Mysoow's "Agile" series acquisition device, supporting 2/4 channel, 16bit , achieving 500Msps synchronous sampling , On board DDR3 memory granules, with 2GB 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
- Multi-channel transient recorder

Detailed parameters

Terminal						
Simulated input	2/4 channel, SMA					
Triggered input	1 way SSMA					
Triggered output	1 way SSMA					
Synchronous clock input	1 way SSMC					
Synchronous clock output	1 way SSMA					
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-220MHz					
Input channel	2/4 channel synchronous sampling					
Sampling rate	up to 500Msps					
Sampling mode	finite point sampling					
Full range input scope	±1.0V、±2.0V					
Input coupling	AC/DC coupling					
Input impedance	50Ω					
Extreme input	±2.1Vmax					
Storage						
Storage volume	2GB					
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	±1.0V	65	65	75	10.5	Input signal amplitude-1dBFS, frequency 10MHz, sampling rate 500Msps
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	≤2MHz					
Trigger mode	post-trigger, pre-trigger, delay-trigger					

Trigger direction	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
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, $\pm 1.5ppm$
External input clock amplitude	$0.2V_{pp} \sim 3.3V_{pp}$ sine wave or square wave
External input impedance	50Ω
External input coupling mode	AC coupling
External input frequency range	10MHz, 10MHz~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	$\sim 0.76kg$
Environment parameters	
Working temperature	$0^{\circ}C \sim +50^{\circ}C$
Relative working humidity	10% ~ 90%RH, no condensation
Storage temperature	$-40^{\circ}C \sim +85^{\circ}C$
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
LD7162R-500M16-K	2channel 16bit, 500Msps, RJ45, bandwidth DC-220MHz
LD7164R-500M16-K	4channel 16bit, 500Msps, RJ45, bandwidth DC-220MHz
LD7162U-500M16-K	2channel 16bit, 500Msps, USB3.0, bandwidth DC-220MHz
LD7164U-500M16-K	4channel 16bit, 500Msps, USB3.0, bandwidth DC-220MHz
LD7162T-500M16-K	2channel 16bit, 500Msps, 10G optical port, bandwidth DC-220MHz
LD7164T-500M16-K	4channel 16bit, 500Msps, 10G optical port, bandwidth DC-220MHz

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

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