

USB-61210

4 通道 16 位 2MS/s 同步采样 USB 数据采集模块



USB-61210



简介

简仪科技USB-61210是一款16位高速USB 2.0数据采集模块，具备4个模拟输入通道，每个通道提供高达2MS/s的同步采样率。在最高的采样率下，USB-61210提供高精度与出色的动态表现，以及灵活的触发功能。此外，内建256M采样点的FIFO(先进先出的数据缓存器)，使得在数据采集的过程中，即使CPU或系统的工作负荷沉重的情况下，仍能确保数据不丢失。

采用USB总线供电的USB-61210配备了可拆式接头，便于设备连接；同时配备的多功能底座，完全支持桌面安装、导轨安装或壁挂式安装。

USB-61210以经济的价格提供可靠的量测解决方案，适合高速数据采集、实验室或医疗研究领域使用。

引脚定义

特点

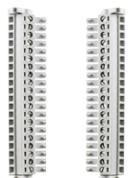
- 高速USB 2.0接口
- USB总线供电
- 500VDC隔离电压
- 256M采样点的FIFO (先进先出的数据缓存器)
- 4通道同步采样模拟输入，最高可达每通道2 MS/s
- 支持模拟与数字触发
- 可拆式接头
- 可锁式USB接口设计，确保连接稳固

操作系统

- Windows 7/8/x64/x86
- Linux
- Max OS X

标准配件

- 一对 20-pin 可拆式接头
- 2 米长可锁式 Tpye A 至 mini-B USB 线缆



- 多动能底座



- 导轨安装套件



USB-61210

IGND	20	40	IGND
GPI0	19	39	GPO0
GPI1	18	38	GPO1
GPI2	17	37	GPO2
GPI3	16	36	GPO3
GPI4	15	35	IGND
GPI5	14	34	CONV
GPI6	13	33	IGND
GPI7	12	32	AITG
IGND	11	31	NC
IGND	10	30	IGND
AI0-	9	23	AI2-
AI0+	8	28	AI2+
IGND	7	27	IGND
AI1-	6	26	AI3-
AI1+	5	25	AI3+
IGND	4	24	IGND
NC	3	23	NC
NC	2	22	NC
CGND	1	21	IGND

可选配件

■ RST-20P

- 一对 20-pin 可拆式接头

■ USB-2M-L

- 2 米长可锁式 Tpye A 至 mini-B USB 线缆

订购指南

- USB-61210
4 通道 16 位 2MS/s 同步采样模拟输入 USB 数据采集模块

Specifications

Model Name	USB-61210
Analog Input	
Resolution	16-Bit
Number of channels	4 differential (simultaneous-sampling)
Maximum sampling rate	2MS/s per channel
Programmable gain	1, 5
Input range (Voltage)	± 10 V, ± 2 V
Offset error	± 1mV (gain=1) ± 0.2mV (gain=5)
Gain error	Typical: ± 0.01% of FSR (gain=1 & 5) Maximum: ± 0.02% of FSR (gain=1 & 5)
-3dB Bandwidth	600 kHz
CMRR(fin=1 kHz)	80 dB (gain=1) 90 dB (gain=5)
SFDR (fin=10 kHz)	98 dB (gain=1 & 5)
SINAD (fin=10 kHz)	89 dB (gain=1 & 5)
THD (fin=10 kHz)	-100 dB (gain=1 & 5)
SNR (fin=10 kHz)	89 dB (gain=1 & 5)
ENOB(fin=10 kHz)	14.3-bit (gain=1 & 5)
FIFO buffer size	256M Samples
Trigger sources	Software, external digital, analog trigger (from one analog input channel)
Trigger mode	Post trigger, pre-trigger, delay trigger, middle trigger, gate trigger, post or delay trigger with re-trigger
External A/D conversion source	Yes (from CONV)
Input coupling	DC
Overvoltage protection	Power on: ± 35 V Power off: ± 15V
Input impedance	1 GΩ
Data transfer	Programmed I/O, continuous (USB bulk transfer mode)
Function I/O	
Mode*	Digital I/O, general timer/counter, pulse generation
Digital I/O	8 DI / 4 DO (TTLLVTTL level)
General timer/counter	Two 32-bit, base clock: 80 MHz, external to 10 MHz
Pulse generation	Two PWM outputs (Modulation frequency: 0.01 Hz to 5 MHz; duty cycle: 1%-99%)
General Specifications	
Interface	USB 2.0 high speed
I/O connector	Two 20-pin removable screw terminals
Operating temperature	0 to 55°C (32 to 131°F)
Storage temperature	-20 to 70°C (-4 to 158°F)
Relative humidity	5 to 95% non-condensing
Power requirements	5V@ 500 mA (USB bus powered)
Requirements	114 mm (H) x 156.5 mm (L) x 41.3 mm (W) (4.5" x 6.16" x 1.63") (without connector and stand)

Note: As function I/Os share the same I/O pins, only one of these modes can be selected.

