

PM 6182 音频分析仪

产品规格书

PM 6182 Audio Signal Analyzer

Product Specification

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产品简介

PM 6182音频分析仪

PM 6182 是一款专门针对产线量产声学测试而设计的音频分析仪。

16 通道模拟信号输入，可选择启用或禁用 IEPE 恒流源激励器，用于调理麦克风，人工耳，加速度计等 IEPE 供电传感器。

2 通道模拟信号输出，可选择直接线路输出或连接功放后输出，进而实现人工嘴驱动，喇叭等大功率负载驱动。

该产品具有通道资源丰富，指标优秀，能满足传感器量产声学测试，是一款极具性价比的音频分析仪。



功能特点

- 16 通道线路输入，2 通道线路输出
- 内置 IEPE 电源，带信号指示灯差分信号
- 内置 2 通道功率放大，x4
- 差分信号
- 定位产线量产声学测试
- 产品使用标准220V电源供电

规格参数

产品参数	
模拟采集通道数	16
模拟输出通道数	2
IEPE 通道	16路（内置在采集前端）
IEPE 电源	4mA
功放通道	2通道
功放功率	8W（每通道）
总线	USB
产品尺寸(L*W*H mm)	240*270*76.5（不含 BNC 接口）
接口类型	BNC
适用温度	-20°C~50°C

AI模拟采集通道特性参数

AI 通道参数	
ADC 精度	24 Bit
ADC 类型	Δ - Σ
采样率范围	1k-192k
FIFO 缓冲大小	1024
数据传输方式	DMA
输入电压范围	+/- 4.5Vrms
输入阻抗	正输入端对地之间：100K
平坦度	20Hz~20kHz，小于 +/- 0.1dB 20Hz~50kHz，小于 +/- 0.2dB

AI 空闲通道噪声 Idle noise (dBFS)		
采样率	fs=48kS/s	fs=96kS/s
最大值	8	8

注：[1]短路源阻抗小于 50 Ω ，工作温度 23 $\pm$ 5°C，IEPE OFF

AI 信噪比 SNR (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	114	115

注：[1]差分输入，交流耦合，输入信号 1kHz 正弦波，0dBFS (4.5Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

AI 动态范围 (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	99	99
注：[1]差分输入，交流耦合，输入信号 1kHz 正弦波，-1dBFS (4.01Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AI 总谐波失真加噪声 THD+N (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-98	-85
注：[1]差分输入，交流耦合，输入信号 1kHz 正弦波，-1dBFS (4.01Vrms) [2]带宽分别为 22.4k、45k、90k [3]线性计权		

AI 总谐波失真 THD (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-99	-99
注：[1]差分输入，交流耦合，输入信号 1kHz 正弦波，-1dBFS (4.01Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AI 串扰 Cross talk (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-104	-102
注：[1]差分输出，交流耦合，输入信号 1kHz 正弦波，-1dBFS (4.01Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AO模拟采集通道特性参数

AO 通道参数	
DAC 精度	24 Bit
采样率范围	1k - 192k
输出电压范围	+/- 3Vrms
输出阻抗	正输入端对负输入端：1ohm
平坦度	20Hz~20kHz，最大值0.7dB 20Hz~50kHz，最大值0.7dB

AO 空闲通道噪声 Idle noise (uVrms)		
采样率	fs=48kS/s	fs=96kS/s
最大值	6.8	6.7

注: [1]采集设备阻抗大于1Mohm, 工作温度为 23±5°C

AO 信噪比 SNR (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	112	113

注: [1]差分输出, 交流耦合, 输出信号 1kHz 正弦波, 0dBFS (3Vrms)
[2]带宽分别为 22.4k、45k
[3]线性加权

AO 动态范围 (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	103	100

注: [1]差分输出, 交流耦合, 输出信号 1kHz 正弦波, -1dBFS (2.67Vrms)
[2]带宽分别为 22.4k、45k
[3]线性加权

AO 总谐波失真加噪声 THD+N (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-106	-101

注: [1]差分输出, 交流耦合, 输出信号 1kHz 正弦波, -1dBFS (2.67Vrms)
[2]带宽分别为 22.4k、45k
[3]线性加权

AO 总谐波失真 THD (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-101	-100

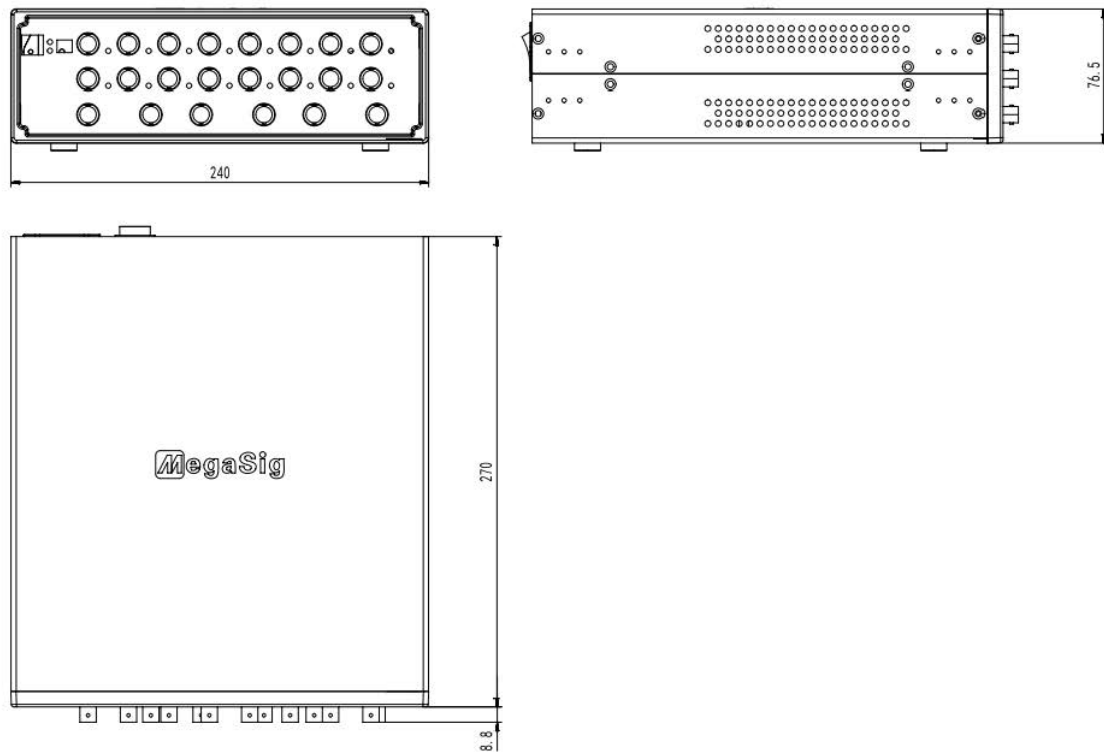
注: [1]差分输出, 交流耦合, 输出信号 1kHz 正弦波, -1dBFS (2.67Vrms)
[2]带宽分别为 22.4k、45k
[3]线性加权

AO 串扰 Cross talk (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-104	-101

注: [1]差分输出, 交流耦合, 输出信号 1kHz 正弦波, -1dBFS (2.67Vrms)
[2]带宽分别为 22.4k、45k
[3]线性加权

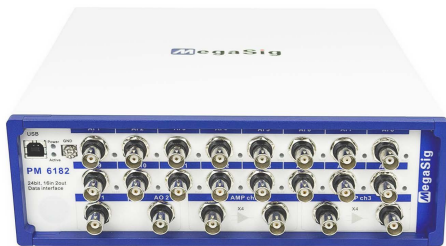
尺寸与结构

单位: mm



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Product introduction



PM 6182 Audio Analyzer

PM 6182 is an audio analyzer specifically designed for acoustic testing in production line mass production.

16-channels of analog signal input, with the option to enable or disable the IEPE constant current source exciter, which is used to condition IEPE-powered sensors such as microphones, artificial ears, and accelerometers.

2-channels of analog signal output, it can be configured for direct line output or connected to a power amplifier for driving high-power loads such as artificial mouths and speakers.

This product offers abundant channel resources and excellent performance, making it a cost-effective audio analyzer capable of meeting the demands of mass production acoustic testing for sensors.

Features

- 16-channel line input, 2-channel line output
- Built-in IEPE power supply with signal indicator
- Integrated 2-channel power amplifier
- Differential signals
- Designed for production line acoustic testing in mass production
- Powered by standard 220V AC supply

Specification parameters

Specification	
Number of analog input channels	16
Number of analog output channels	2
IEPE channel	16-channel (built-in the collection front end)
IEPE power supply	4mA
Power amplifier channel	2-channel
Amplifier power	8W (per channel)
Bus line	USB
Product dimensions (L*W*H mm)	240*270*76.5 (Excluding BNC)
Interface type	BNC
Operating temperature	-20°C~50°C

Analog input channel characteristic parameters

AI Channel Parameters	
ADC accuracy	24 Bit
ADC type	Δ - Σ
Sampling rate range	1k-192k
FIFO buffer size	1024
Data transmission mode	DMA
Input voltage range	+/- 4.5Vrms
Input impedance	Between positive input and ground: 100K
Flatness	20Hz~20kHz , less than +/-0.1dB 20Hz~50kHz , less than +/- 0.2dB

AI Idle Channel Noise (uVrms)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	8	8
Note: [1] Short-circuit source impedance less than 50 Ω , operating temperature 23 $\pm$ 5°C, IEPE OFF		

AI Signal Noise Ratio (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Minimum	114	115
Note: [1] Differential input, AC coupling, input signal 1kHz sine wave, 0dBFS (4.5Vrms) [2] Bandwidths are respectively:22.4k,45k [3] Linear weighting		

AI Dynamic Range (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Minimum	99	99
Note: [1] Differential input, AC coupling, input signal 1kHz sine wave, -1dBFS (4.01Vrms) [2] Bandwidths are respectively:22.4k,45k [3] Linear weighting		

AI THD+N (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-98	-85
Note: [1] Differential input, AC coupling, input signal 1kHz sine wave, -1dBFS (4.01Vrms) [2] Bandwidths are respectively:22.4k, 45k, [3] Linear weighting		

AI THD (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-99	-99
Note: [1] Differential input, AC coupling, input signal 1kHz sine wave, -1dBFS (4.01Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

AI Cross Talk (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-104	-102
Note: [1] Differential input, AC coupling, input signal 1kHz sine wave, -1dBFS (4.01Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

Analog output channel characteristic parameters

AO Channel Parameters	
DAC accuracy	24 Bit
Sampling rate range	1k~192k
Output voltage range	+/- 3Vrms
Output impedance	Between positive input and negative ground: 1ohm
Flatness	20Hz~20kHz, Maximum:0.7dB 20Hz~50kHz, Maximum:0.7dB

AO Idle Channel Noise (uVrms)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	6.8	6.7
Note:[1] Collecting device impedance is more than 1Mohm, operating temperature 23±5°C		

AO Signal Noise Ratio (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Minimum	112	113
Note: [1] Differential output, AC coupling, output signal 1kHz sine wave, 0dBFS (3Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

AO Dynamic Range (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Minimum	103	100
Note: [1] Differential output, AC coupling, output signal 1kHz sine wave, -1dBFS (2.67Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

AO THD+N (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-106	-101
Note: [1] Differential output, AC coupling, output signal 1kHz sine wave, -1dBFS (2.67Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

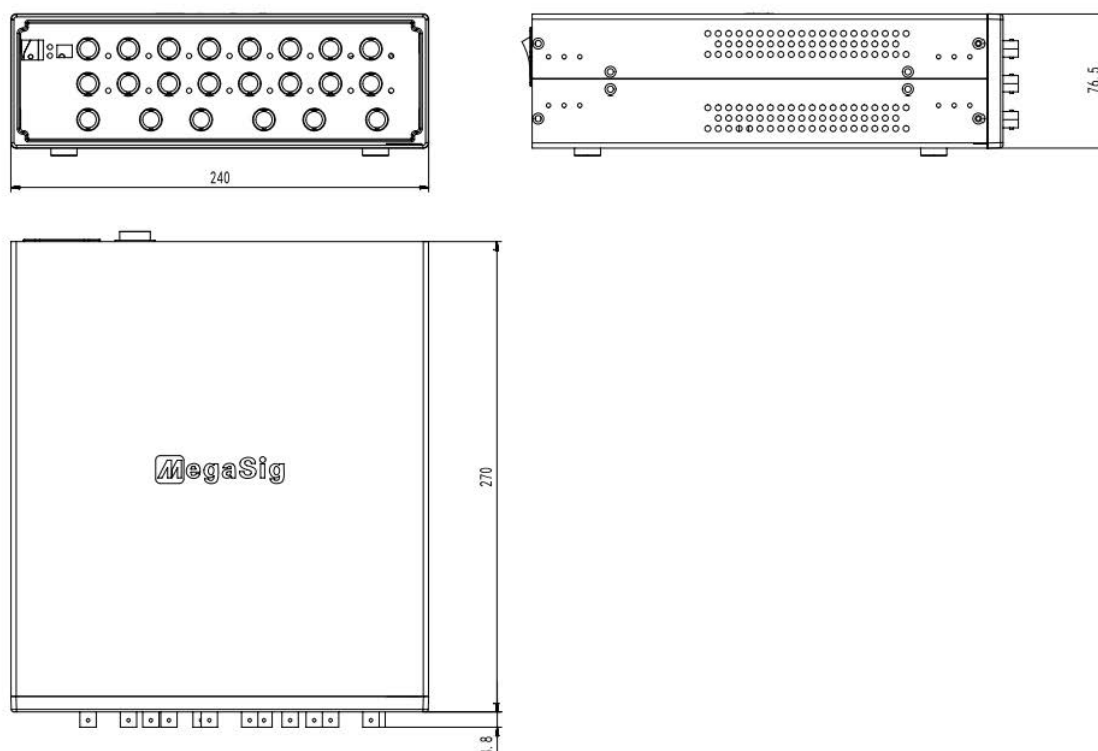
AO THD (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-101	-100
Note: [1] Differential output, AC coupling, output signal 1kHz sine wave, -1dBFS (2.67Vrms) [2] Bandwidths are respectively:22.4k, 45k [3] Linear weighting		

AO Cross Talk (dB)		
Sampling rate	fs=48kS/s	fs=96kS/s
Maximum	-104	-101

Note: [1] Differential output, AC coupling, output signal 1kHz sine wave, -1dBFS (2.67Vrms)
 [2] Bandwidths are respectively:22.4k, 45k
 [3] Linear weighting

Size and Structure

Unit: mm



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