

PM 6684 音频分析仪

产品规格书

PM 6684 Audio Analyzer

Product Specification

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产品简介

PM 6684 音频分析仪



PM 6684 是一款专门为声学测试而设计的高性能音频分析仪。

16 通道模拟信号输入，可选择直接线路出或外接 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。

功能特点

- 16 通道线路输入，2 通道线路输出
- 差分信号与伪差分信号自由选择
- 支持内部触发及外部触发功能
- 定位高品质声学测试性能

规格参数

产品参数	
模拟采集通道数	16
模拟输出通道数	2
总线	USB
产品尺寸(mm)	440*385*134 (不含接口长度)
接口类型	BNC, CANNON, D-SUB25
外部触发接口	SMB
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	$\Delta - \Sigma$
采样率范围	1kHz - 192kHz
FIFO 缓冲大小	1024
数据传输方式	DMA
输入电压范围	+/- 125Vp
增益误差	+/- 0.01dB
输入阻抗	单端: 300ohm , 600ohm , 100kohm 差分: 300ohm , 600ohm , 200kohm
平坦度	20Hz - 20kHz, 192kS/s, DC 耦合, 小于+/-0.008 dB

AI 空闲通道噪声 Idle noise (uVrms)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	2.2	4.0	6.5
注: [1]短路源阻抗小于 50Ω, 工作温度 23±5℃ [2]±1Vp 采集挡位 [3]AC 耦合 [4]10Hz 高通滤波器			

AI 信噪比 SNR (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	120	115	108
注: [1]单端输入, 交流耦合, 10Vp 挡位, 输入信号幅度为 -1dBFS (9Vp), 输出阻抗 20ohm, 输入阻抗 100Kohm [2]带宽分别为 22.4k、45k、90k [3]线性积分 [4]AC 耦合			

AI 动态范围 (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	117	112	109
注: [1]单端输入, 交流耦合, 10Vp 挡位, 输入信号幅度为 -1dBFS (9Vp), 输出阻抗 20ohm, 输入阻抗100Kohm [2]带宽分别为 22.4k、45k、90k [3]线性积分 [4]AC 耦合			

AI 总谐波失真加噪声 THD+N (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	-105	-95	-92

注：[1]单端输入，交流耦合，10Vp 挡位，输入信号幅度为 -1dBFS（9Vp），输出阻抗 20ohm，输入阻抗100Kohm
[2]带宽分别为 22.4k、45k、90k
[3]线性积分
[4]AC 耦合

AI 串扰 Cross talk (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	-112	-106	-99

注：[1]单端输入，交流耦合，10Vp 挡位，输入信号幅度为 -1dBFS（9Vp），输出阻抗 20ohm，输入阻抗 100Kohm
[2]带宽分别为 22.4k、45k、90k
[3]线性积分
[4]AC 耦合

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	1kHz - 192kHz
输出电压范围	+/- 21Vrms（差分）， +/- 10.5Vrms（单端）
增益误差	+/- 0.01dB
输出阻抗	单端： 20ohm, 50ohm, 75ohm, 100ohm, 600ohm 差分： 40ohm, 100ohm, 150ohm, 200ohm, 600ohm
外挂电阻最大输出功率	4ohm时1.56w; 8ohm时1.125w
平坦度	20Hz - 20kHz, 192kS/s, DC 耦合, 小于 +/-0.008 dB

AO 空闲通道噪声 Idle noise (uVrms)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	1.3	2.0	3.0

注：[1]单端输出，交流耦合，输出信号幅度为 2.5Vrms，输出阻抗 20ohm，输入阻抗 100Kohm
[2]AC耦合
[3]10Hz 高通滤波器

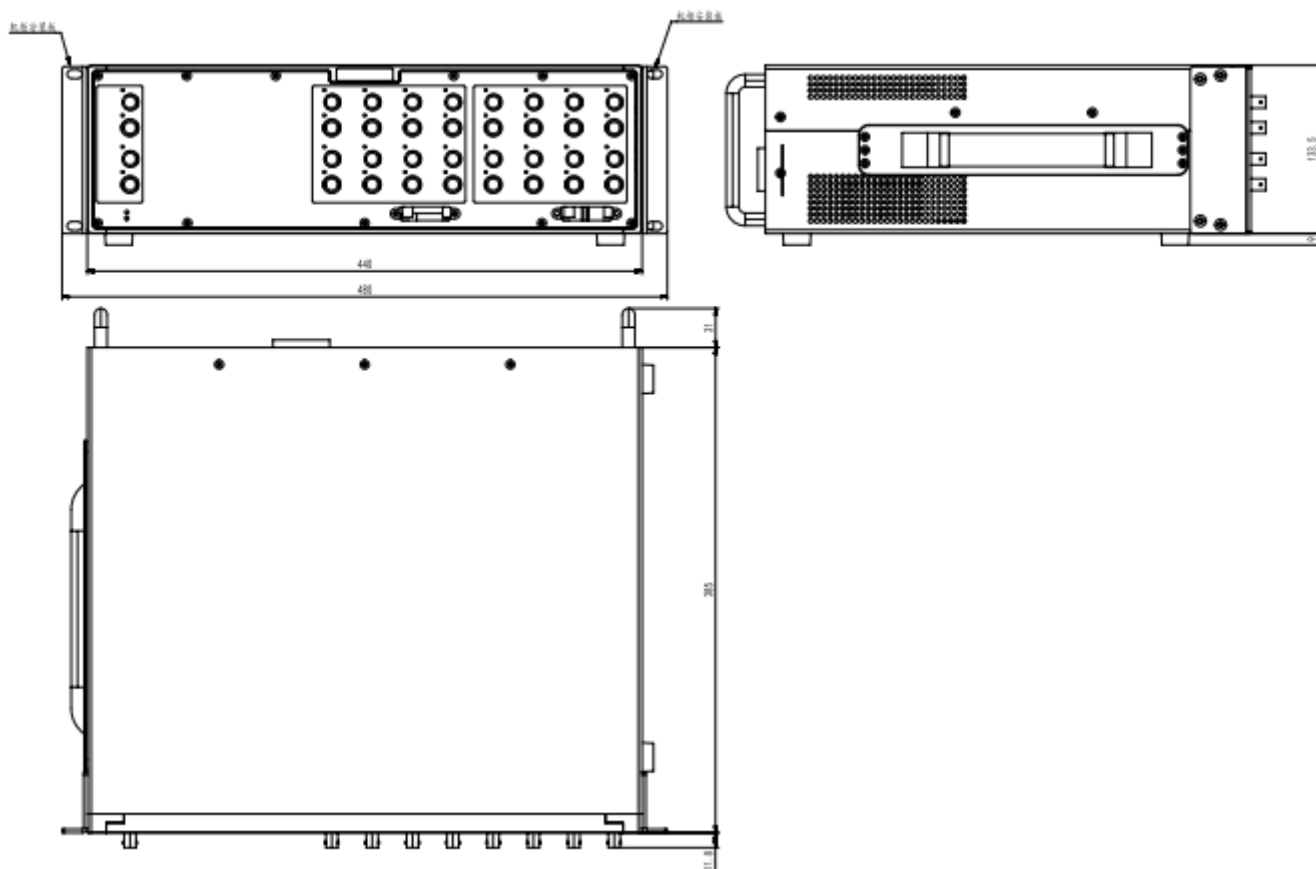
AO 信噪比 SNR (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	125	122	119

注：[1]单端输出，交流耦合，输出信号幅度为 2.5Vrms，输出阻抗 20ohm，输入阻抗 100Kohm
[2]带宽分别为 22.4k、45k、90k
[3]线性积分
[4]AC耦合

AO 动态范围 (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	112	110	108
注：[1]单端输出，交流耦合，输出信号幅度为 2.5Vrms，输出阻抗 20ohm，输入阻抗 100Kohm [2]带宽分别为 22.4k、45k、90k [3]线性积分 [4]AC 耦合			

AO 总谐波失真加噪声 THD+N (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	-105	-98	-90
注：[1]单端输出，交流耦合，输出信号幅度为 2.5Vrms，输出阻抗 20ohm，输入阻抗 100Kohm [2]带宽分别为 22.4k、45k、90k [3]线性积分 [4]AC 耦合			

AO 串扰 Cross talk (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=192kS/s
典型值	-125	-120	-118
注：[1]单端输出，交流耦合，输出信号幅度为 2.5Vrms，输出阻抗 20ohm，输入阻抗 100Kohm [2]带宽分别为 22.4k、45k、90k [3]线性积分 [4]AC 耦合			



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Product introduction



PM 6684 Audio analyzer

PM 6684 is a high performance audio analyzer specifically designed for acoustic testing.

16-channel analog signal input, with the option of direct line output or external IEPE constant current source exciter, is used to regulate IEPE-powered sensors such as microphones, artificial ears, and accelerometers.

2-channel analog signal output, can choose to output directly through the line or connect to a power amplifier for output, thereby enabling the driving of artificial mouths, loudspeakers, and other high-power loads.

Features

- 16-channel line input, 2-channel line output
- Selectable between differential and pseudo-differential signaling
- Supports internal trigger and external trigger functions
- Positioning high-quality acoustic testing performance

Specification parameters

Specification	
Number of analog input channel	16
Number of analog output channel	2
Bus line	USB
Product dimensions(mm)	440*385*134 (excluding interface)
Interface type	BNC, CANNON, D-SUB25
External trigger interface	SMB
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	1kHz - 192kHz
FIFO buffer size	1024
Data transmission mode	DMA
Input voltage range	+/- 125Vp
Gain error	+/- 0.01dB
Input impedance	Single-ended : 300ohm , 600ohm , 100kohm Difference : 300ohm , 600ohm , 200kohm
Flatness	20Hz - 20kHz, 192kS/s, DC coupling , less than +/-0.008 dB

AI Idle Channel Noise (uVrms)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	2.2	4.0	6.5
Note: [1] Short-circuit source impedance is less than 50 Ω , operating temperature is 23 $\pm$ 5 $^{\circ}$ C [2] $\pm$ 1Vp collection gear [3] AC coupling [4] 10Hz high-pass filter			

AI Signal Noise Ratio (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	120	115	108
Note: [1] Single-ended input, AC coupling, 10Vp collection gear, input signal amplitude of -1dBFS (9Vp) , output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AI Dynamic Range (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	117	112	109
Note: [1] Single-ended input, AC coupling, 10Vp collection gear, input signal amplitude of -1dBFS (9Vp) , output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AI THD+N (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-105	-95	-92
Note: [1] Single-ended input, AC coupling, 10Vp collection gear, input signal amplitude of -1dBFS (9Vp), output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AI Cross talk (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-112	-106	-99
Note: [1] Single-ended input, AC coupling, 10Vp collection gear, input signal amplitude of -1dBFS (9Vp), output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

Analog output channel characteristic parameters

AO Channel Parameters	
DAC accuracy	24 Bit
Sampling rate range	1kHz - 192kHz
Output voltage range	+/- 21Vrms (difference), +/- 10.5Vrms (single-ended)
Gain error	+/- 0.01dB
Output impedance	Single-ended: 20ohm, 50ohm, 75ohm, 100ohm, 600ohm Difference: 40ohm, 100ohm, 150ohm, 200ohm, 600ohm
Maximum output power of the external resistor	1.56W at 4Ω; 1.125W at 8Ω
Flatness	20Hz - 20kHz, 192kS/s, DC coupling, less than +/-0.008 dB

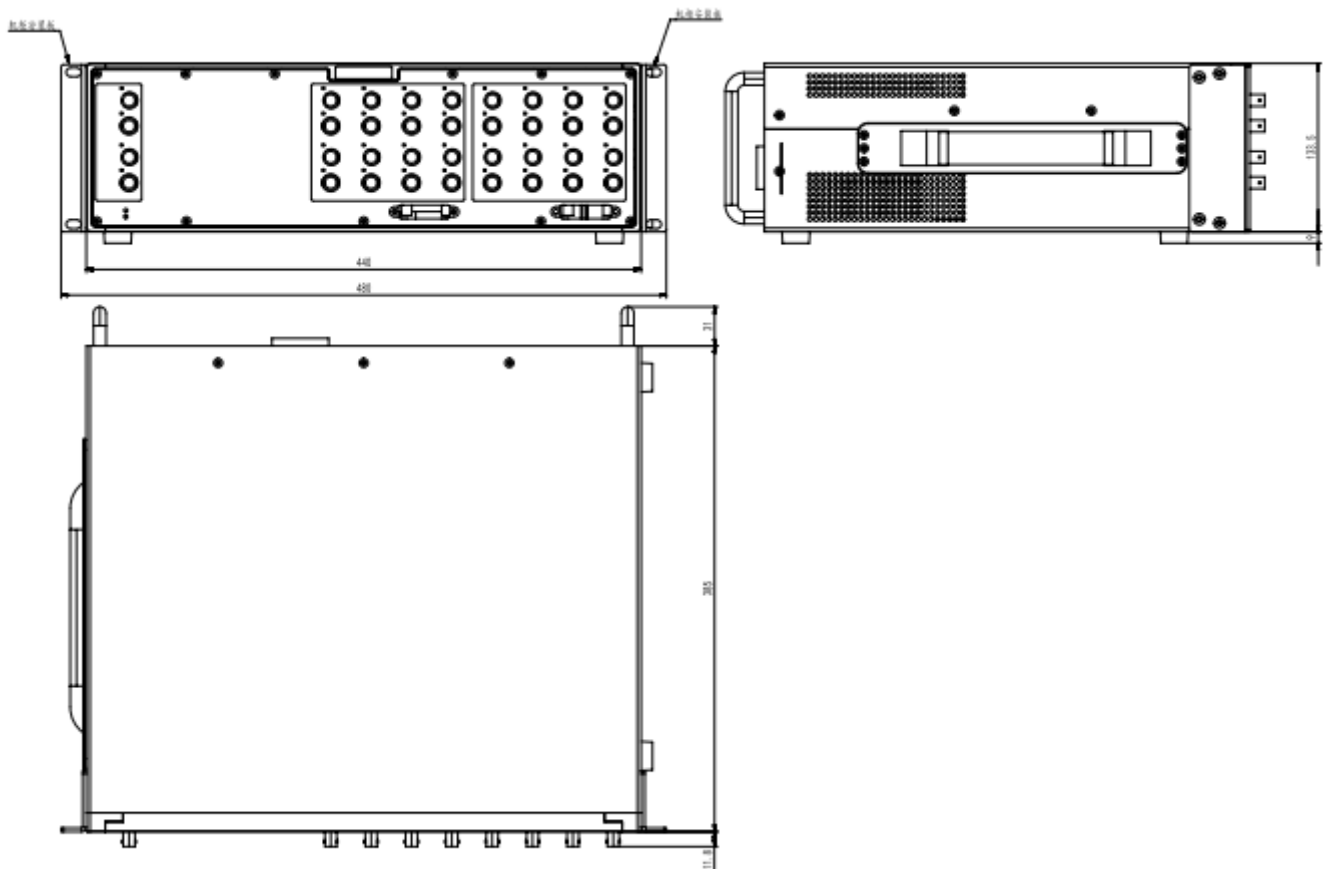
AO Idle Channel Noise (uVrms)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	1.3	2.0	3.0
Note: [1] Collecting device impedance is more than 1Mohm, operating temperature 23±5°C [2] AC coupling [3] 10Hz high-pass filter			

AO Signal Noise Ratio (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	125	122	119
Note:[1] Single-ended output, AC coupling, output signal amplitude is 2.5Vrms , output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AO Dynamic Range (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	112	110	108
Note: [1] Single-ended output, AC coupling, output signal amplitude is 2.5Vrms , output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AO THD+N (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-105	-98	-90
Note: [1] Single-ended output, AC coupling, output signal amplitude is 2.5Vrms, output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

AO Cross Talk (dB)			
Sample rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-125	-120	-118
Note:[1] Single-ended output, AC coupling, output signal amplitude is 2.5Vrms, output impedance 20ohm, input impedance 100Kohm [2] Bandwidth are respectively: 22.4k、45k、90k [3] Linear weighting [4] AC coupling			

Size and Structure**Unit: mm**

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