U 963

Version：V1.1_EN

2 IEPE input channel，2 output channel difference audio analyzer

U 962 is an audio analyzer designed for mass production electroacoustic test of production line.With its excellent electrical characteristics and excellent price advantages,,it is extremely suitable for low voltage PCBA testing of consumer electroacoustics,Such as Bluetooth headset PCBA and typec headset PCBA.

2-channel analog signal input, IEPE constant current source exciter can be selected to enable or disable, which is used to regulate IEPE power supply sensors such as microphone, artificial ear, accelerometer, etc

General specifications

Overall parameters	
Analog input channel	2
Analog output channel	2
Bus	USB
Dimension(mm)	96*33*140
Connection type	BNC
Working temperature	-20℃~50℃

General features

- 2 analog input channel，2 analog input channel
- Differential signal
- Built in IEPE power supply
- Positioning small voltage signal electroacoustic test

AI Analog acquisition channel parameter

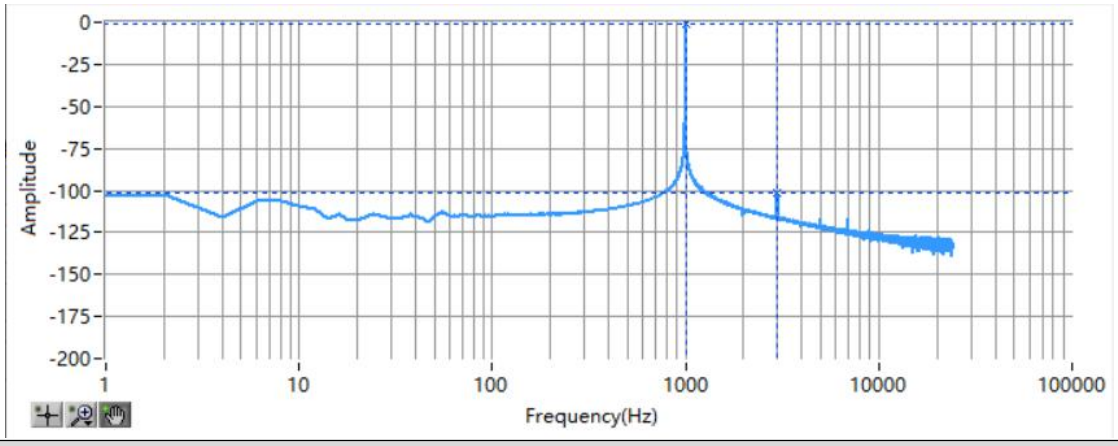
AI channel parameters	
ADC　precision	32 Bit
ADC type	Δ-Σ
Sampling rate range	32k,48k,96k,102.4k
FIFO Buffer size	1024
Data transmission mode	DMA
Input voltage range	+/- 1Vrms
Gain error	+/- 0.03dB
Input impedance	Positive input to negative input：4Mohm Between positive input and ground：2Mohm
Flatness	20Hz~20kHz，<+/- 0.05 10Hz~60KHz，<+/-1

AI Idle noise (uVrms)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Maximum value	10	12	12
Annotation：[1]Short circuit source impedance is less than 50 Ω，Working temperature 23±5℃			

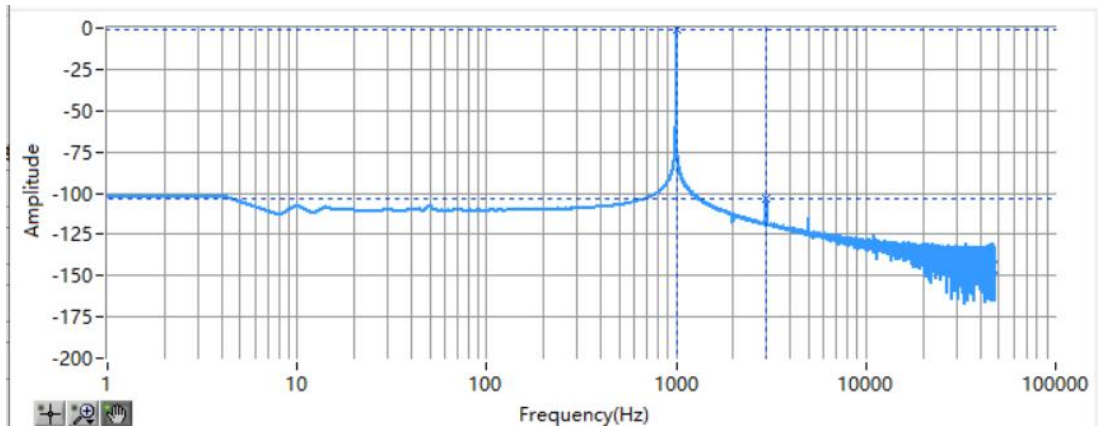
AI SNR (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Minimum value	98	96	96
Annotation：[1]Differential input，AC coupling，Input signal 1kHz Sine wave，0dBFS (1 Vrms) [2]*Bandwidth 20Hz-20kHz			

AI dynamic range (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Minimum value	102	105	105
Annotation：[1]Differential input，AC coupling，Input signal 1kHz Sine wave，-1dBFS (0.89 Vrms) [2]*Bandwidth 20Hz-20kHz			

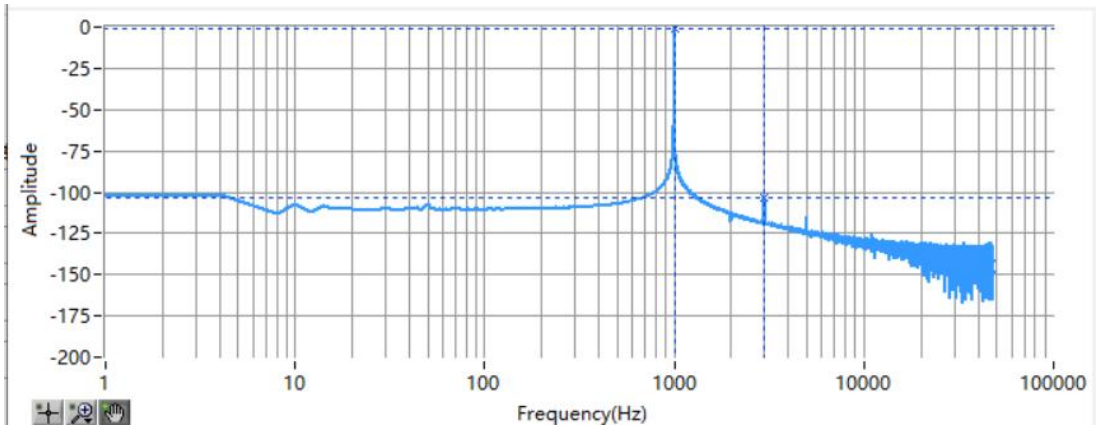
AI, fs=48kS/s, Typical, FFT, -1dBFS



AI, fs=96kS/s, Typical, FFT, -1dBFS



AI, fs=102.4kS/s, Typical, FFT, -1dBFS



AI THD+N (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102. 4kS/s
Typical value	-99	-97	-97
Maximum value	-96	-94	-94
Annotation： [1]Differential input， AC coupling， Input signal 1kHz Sine wave， -1dBFS (0.89 Vrms) [2]Bandwidth 20Hz-20kHz			

AI THD (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102. 4kS/s
Typical value	-106	-106	-105
Maximum value	-103	-103	-102
Annotation： [1]Differential input， AC coupling， Input signal 1kHz Sine wave， -1dBFS (0.89 Vrms) [2]Bandwidth 20Hz-20kHz			

AI Cross talk (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102. 4kS/s
Typical value	-101	-101	-99
Maximum value	-98	-98	-97
Annotation： [1]Differential input， AC coupling， Input signal 1kHz Sine wave， -1dBFS (0.89 Vrms)， Short circuit source without signal end is less than50ohm [2]Bandwidth 20Hz-20kHz			

AO 模拟输出通道特性参数

AO Analog acquisition channel	
DAC precision	32 Bit
Sampling rate range	102.4k, 96k, 48k, 12.8k
Output voltage range	+/- 3Vrms
Gain error	+/- 0.03dB
Output impedance	Positive input to negative inpu： 1ohm
Flatness	20Hz~20kHz，＜+/- 0.05 10Hz~60KHz，＜+/- 2

AO Idle noise (uVrms)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Typical value	10	12	13
Maximum value	12	14	15
Annotation：[1]Acquisition device impedance is greater than 1Mohm，Working temperature:23±5℃			

AO Dynamic range (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Typical value	91	91	91
Minimum value	89	89	89
Annotation：[1]Differential input，AC coupling，output signal 1kHz Sine wave，0dBFS (3Vrms) [2]Bandwidth 20Hz-20kHz			

AO THD+N (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Typical value	-91	-92	-90
Maximum value	-89	-90	-88
Annotation：[1]Differential input，AC coupling，output signal 1kHz Sine wave，0dBFS (3Vrms) [2]Bandwidth 20Hz-20kHz			

AO THD (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
Typical value	-91	-92	-90
Maximum value	-89	-90	-88
Annotation：[1]Differential input，AC coupling，output signal 1kHz Sine wave，0dBFS (3Vrms) [2]Bandwidth 20Hz-20kHz			

AO Cross talk (dB)			
采样率	fs=48kS/s	fs=96kS/s	fs=102.4kS/s
最大值	-117	-117	-117
Annotation：[1]Differential input，AC coupling，output signal 1kHz Sine wave，0dBFS (3Vrms) [2]Bandwidth 20Hz-20kHz			

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