



U 963 Data Acquisition Card

2-Channel Differential Input, 2-Channel Differential Output

Product Specification

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Product Overview



The U963 is an audio analyzer designed for mass production electroacoustic testing on production lines. With its excellent electrical performance and competitive pricing, it is particularly suitable for low-voltage PCBA testing in consumer electroacoustics, such as Bluetooth earphone PCBA and Type-C earphone PCBA.

Product Introduction

Product parameters	
Power consumption	5V/420mA
Analog input channel	2
Analog output channel	2
Number of IEPE Excitation	2
Trigger Mode	Software Trigger / External Trigger
Connection type	BNC
Dimension(mm)	96*33*140
Temperature Range	-20℃~50℃

Analog Input

AI channel parameters	
ADC resolution	24 Bit
ADC type	Δ - Σ
Sampling rate range	2 - 192k
FIFO Buffer size	1024
Data transmission mode	DMA
Input voltage range	+/- 3Vrms
Gain error	+/- 0.03dB
Input Coupling Mode	AC/DC
Input impedance	Between positive input and negative input: 200K ohm Between positive input and ground: 100K ohm
Flatness	20Hz~20kHz, +/- 0.1dB 10Hz~60KHz, +/-1dB

AI Idle noise (uVrms)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	8	10	500
Notes: [1]Short circuit impedance less than 50 Ω , Working temperature 23 $\pm$ 5℃			

AI SNR (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	104	103	60
Notes: [1]Differential input, AC coupling, Input signal 1kHz Sine wave, -1dBFS(0.89Vrms) [2]Linear weight			

AI dynamic range (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	105	103	103
Notes: [1]Differential input, AC coupling, Input signal 1kHz Sine wave, -1dBFS(0.89Vrms) [2]Linear weight			

AI THD+N (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-93	-93	-60
Notes: [1]Differential input, AC coupling, Input signal 1kHz Sine wave, -1dBFS(0.89Vrms) [2]Linear weight			

AI THD (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-98	-98	-98
Notes: [1]Differential input, AC coupling, Input signal 1kHz Sine wave, -1dBFS(0.89Vrms) [2]Linear weight			

AI Cross talk (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-104	-102	-102
Notes: [1]Differential input, AC coupling, Input signal 1kHz Sine wave, -1dBFS(0.89Vrms) [2]Linear weight			

AO channel parameters	
DAC resolution	24 Bit
Sampling rate range	8 - 192k
Output voltage range	+/- 3Vrms
Gain error	+/- 0.03dB
Output impedance	Between positive input and negative input: 1ohm
Flatness	20Hz~20kHz, +/- 0.1dB 10Hz~60KHz, +/- 1.5dB

AO Idle noise (uVrms)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	12	14	60
Notes: [1]Acquisition device impedance greater than 1Mohm, Working temperature:23±5℃			

AO SNR (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	107	105	90
Notes: [1]Differential output, AC coupling, out signal 1kHz Sine wave, -1dBFS(2.67Vrms) [2]Linear weight			

AO dynamic range (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	105	105	105
Notes: [1]Differential output, AC coupling, out signal 1kHz Sine wave, -1dBFS(2.67Vrms) [2]Linear weight			

AO THD+N (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-91	-91	-80
Notes: [1]Differential output, AC coupling, out signal 1kHz Sine wave, -1dBFS(2.67Vrms) [2]Linear weight			

AO THD (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=192kS/s
Typical value	-93	-93	-93
Notes: [1]Differential output, AC coupling, out signal 1kHz Sine wave, -1dBFS(2.67Vrms) [2]Linear weight			

AO Cross talk (dB)			
Sampling rate	fs=48kS/s	fs=96kS/s	fs=1kS/s
Typical value	98	98	98
Notes: [1]Differential output, AC coupling, out signal 1kHz Sine wave, -1dBFS(2.67Vrms) [2]Linear weight			

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