Audio Analyzer Accessories

AIO8

AIO8 is a multi-channel USB analysis collector with 24-bit high resolution, supporting 8-channel analog audio output and 8-channel analog audio input. The 8-channel input interface supports ICP power supply, allowing direct connection to measurement microphones. Characterized by high speed, high precision, and high stability, it is widely applicable to noise and vibration testing, laboratories, studios, or field recording.

Output Characteristics

LINE OUT	
Number of Output Channels	8
Output Port Type	BNC
Output Precision	24bit/192kHz
Frequency Response (20Hz-20kHz)	≤0.1dB
THD	<-92dB
THD+N	<-83dB
SNR	110dB
Noise Floor	<-90dBV
Phase	≤±0.6°
Crosstalk	<-95dB
Vp Value	9.5V

Main Features

- 8-channel analog input and 8-channel analog output
- Support for 8-way ICP power supply
- 0dB/20dB gain adjustment
- Maximum sampling rate of 192kHz
- Support for ASIO, enabling flexible settings with various software

General Specifications

Dimensions (W×D×H)	300mm×212mm×75mm
Weight	2.14kg
Operating Voltage	12V
Communication Port Type	TYPE_B

Input Characteristics

MIC IN	
Number of Input Channels	8
Input Port Type	BNC
Gain Adjustment	0dB/20dB
Precision	24bit/192kHz
Frequency Response (20Hz-20kHz)	≤0.2dB
THD	<89dB
THD+N	<-83dB
SNR	100dB
Noise Floor	-95dBA
Phase	≤±1.2°
Crosstalk	<-92dB
Vp Value	8V

LINE IN	
Number of Input Channels	8
Input Port Type	BNC
Precision	24bit/192kHz
Frequency Response (20Hz-20kHz)	≤0.2dB
THD	<90dB
THD+N	<-83dB
SNR	100dB
Noise Floor	-95dBA
Phase Error	≤±1.2°
Crosstalk	<-92dB
Vp Value	8V

Audio Acquisition Unit

AIO2

The AIO2 is a self-developed 2-channel USB analysis and acquisition unit with multiple input/output modes to meet diverse testing needs. It features a built-in Flex Key analyzer, eliminating the need for additional encryption devices. Once connected to a test computer via USB, the ATC software can be used for comprehensive electroacoustic testing.

Output Characteristics

AMP OUTPUT	
Power	10W (8Ohm) 20W (4Ohm)
Frequency Response (10Hz~100kHz)	±0.5dB
SNR（20Hz-90kHz）	> 90dB
THD+N	< -80dB
Crosstalk	> 80dB
Standard Voltage Gain	0dB /20dB
Class	AB
Number of Output Channels	2
Output Port Type	BNC

LINE OUT	
Max Output Voltage	2Vrms
Frequency Response (20Hz~90kHz)	±0.2dB
THD+N	< -103dB
SNR	> 103dB
Noise Floor	< -100dB
Crosstalk	< -100dB
Number of Output Channels	2
Output Port Type	XLR

General Specifications

Dimensions (W x D x H)	482mm*250mm*68mm
Weight	5.0kg±0.5kg
Operating Voltage	220V,50Hz
Communication Port Type	TYPE_B
Supported Sample Rates	Support 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz,192kHz

Input Characteristics

MIC IN	
Frequency Response (20Hz~20kHz)	±0.5dB
SNR (20Hz~20kHz)	> 100dB
THD+N	< -86dB
Standard Voltage Gain	0dB /20dB
Constant Current Source (2 ch)	24V/4mA
Class	AB
Number of Input Channels	2
Input Port Type	BNC

LINE IN	
Input Voltage Range	0-2Vrms
Frequency Response (10Hz~100kHz)	± 0.2dB
THD+N	< -103dB
SNR	> 103dB
Noise Floor	< -100dB
Crosstalk	< -100dB
Number of Input Channels	2
Input Port Type	BNC

DUT MIC	
Number of Input Channels	2
Input Port Type	BNC
Input (4 Voltage Ranges)	0.68K/1.5K/2.2K/3.0K
Input (4 Impedance Ranges)	1.5V/2.0V/3.0V/5.0V

Audio Acquisition Unit

AI2

The AI2 is a dual-channel USB audio analysis and acquisition unit with 2-channel analog I/O. It features 6.35mm audio jacks and a USB Type-B communication interface, supports multiple sample rates (44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz), and, when paired with the ABTEC Flex Key analyzer, can perform comprehensive electroacoustic testing of audio products.

Output/Input Characteristics

Parameter	OUTPUT	INPUT
Number of I/O Channels	2	2
I/O Port Type	6.35mm TRS Jack	6.35mm TRS Jack
Max Output/Input Voltage	2Vrms	2Vrms
Frequency Response	±0.2dB（20Hz-90kHz）	±0.2dB（20Hz-40kHz）
THD+N	< -103dB	< -103dB
SNR	> 103dB	> 103dB
Noise Floor	< -100dB	< -100dB
Crosstalk	< -100dB	< -100dB
Flatness	±1dB	±1dB

General Specifications

Dimensions (W x D x H)	150mm*150mm*45mm
Weight	1.0kg±0.1kg
Operating Voltage	DC 5V/3A
Communication Interface	TYPE_B
Supported Sample Rates	支持44.1kHz, 48kHz, 88.2kHz, 96kHz,176.4kHz,192kHz

Flex Key Analyzer

The Flex Key analyzer includes the ATC test software and a Flex encryption device. When combined with an audio interface featuring ASIO support, it enables comprehensive electroacoustic measurement. The Flex Key + Audio Interface solution offers:

- Flexibility：Compatible with ASIO-capable audio interfaces; users can choose according to needs
- Configurability：Highly configurable test functions; users can select optional features based on requirements
- Portability: ATC software is licensed via the encryption device; simply move the device to change test computers
- Automation: Provides comprehensive APIs supporting VB.NET, C#, MATLAB, LabVIEW, and Python. Engineering files and automation programs are compatible with any AA hardware

A2B Audio Interface

A2B-ADIO

The A2B-ADIO is an analysis solution developed based on the emerging Automotive Audio Bus (A2B) technology. Designed to meet the measurement needs of automotive and consumer electronics audio manufacturers, this audio interface features flexible A2B network configuration and rich audio I/O interfaces. Combined with audio test software, it enables efficient audio testing of various A2B components such as automotive head units, amplifiers, and microphones, making it ideal for R&D and production testing.

Technical Specifications

Parameter Category		Technical Specifications
Transceiver		AD2428
A2B Bus Load Capacity		8V@500mA
A2B Interface		Molex HS Auto Linking interface
Max Supported Nodes		9个
Number of Channels for Upstream and Downstream		32
Communication Interface		USB
Sine Signal Generator	Distortion	≤ -170dB
	Bit Depth	支持8、16、24、32bit
	Frequency Range	20Hz-22kHz
	Frequency Precision	±0.001Hz
Analog I/O	Interface Type	3.5mm耳机接口
	Number of Analog Channels	2
	Analog I/O Amplitude	< 1Vrms
	THD+N	< -90dB
Optical I/O		S/PDIF (IEC 60958)
Number of USB Audio Channels		8
RS-232		± 5.5V
Dimensions (W×D×H)		143mm*138mm*50mm
Weight		0.52kg
Operating Voltage		12V

Main Features

- 8V A2B bus voltage
- A2B bus current monitoring
- A2B upstream can be output to analog output, S/PDIF output, and UAC input endpoints
- A2B downstream can be sourced from analog input, S/PDIF input, and UAC output endpoints
- Support for ASIO applications
- 3.5mm analog I/O interface
- S/PDIF digital I/O interface
- Quick A2B network configuration via A2B-ADIO Control
- Support for audio measurement software for audio index analysis of node signals

Product Advantages

- Enables rapid deployment of A2B-compliant systems
- Reduces costs through automated test setups
- Improves audio component reliability via comprehensive testing
- Flexible development and testing platform

Bluetooth Adapter

B18/B18-A

Designed specifically for Bluetooth products and their automated testing. Besides providing Bluetooth connection to the DUT, it also offers 2 analog audio I/O interfaces. When paired with an audio analyzer, it enables testing of Bluetooth audio (A2DP & HFP) metrics of the DUT, while also supporting functional tests like track control, volume adjustment, battery level, pause/play, and call answer.

B18

B18-A

Product Parameters

Parameter	B18	B18-A
Name	Supported Profiles	Digital Bluetooth Adapter
Bluetooth Chip	CSR8670	CSR8675
Bluetooth Protocol Version	Bluetooth V5.0	Bluetooth V5.0
Supported Profiles	A2DP Source	A2DP Source
	HFP Audio Gateway	HFP Audio Gateway
	HFP Hands-Free	HFP Hands-Free
	HSP Audio Gateway	HSP Audio Gateway
	HSP Headset	HSP Headset
	AVRCP Controller	AVRCP Controller
	Serial Port Profile	Serial Port Profile
Supported Codecs	SBC, aptX, aptX_LL, aptX_HD	SBC, aptX, aptX_LL, aptX_HD
RF Power	8dBm	8dBm
Rx Sensitivity (0.1% BER)	-90dBm	-90dBm
Frequency Response	A2DP 20Hz-20KHz;HFP 20Hz-6.8KHz	A2DP 20Hz-20KHz;HFP 20Hz-6.8KHz
External Data Port Type	BNC	USB-B
Communication Port Type	USB-B	USB-B
Serial Port Baud Rate	115200/9600	115200/9600
RF Port Type	SMA	SMA
RF Port Impedance	50Ω	50Ω
Transmission Distance	10m	10m
Dimensions (L x W x H)	154mm*84mm*28mm	
Weight	317g	
Power Supply	USB 5V	USB 5V

PDM Extension Cable Adapter

A5-PLD

The PDM Extension Cable Adapter solves the distance limitation between PDM microphones and audio analyzers during testing. It provides buffering for PDM audio data, allowing the use of cables up to 45 feet (13.7 meters) between the DUT and the analyzer without digital signal loss or alteration.

Product Parameters	
Dimensions (L x W x H)	95.2mm*94mm*41.1mm
Weight	0.32kg(±0.2kg)
Interface Impedance	50Ω
Interface Type	BNC

Impedance Box

IMP2

The IMP2 impedance box acts as a sensing element when testing speaker impedance with an audio analyzer, serving as a highly convenient accessory. The IMP2 provides a choice of two sense resistors: 1.0Ω and 0.1Ω. The XLR connector on the rear connects to the audio analyzer's analog input, while the dual banana plug connectors on the front provide connections for the speaker and power amplifier.

Product Parameters	
Dimensions (L x W x H)	103mm*95mm*48mm
Weight	378g

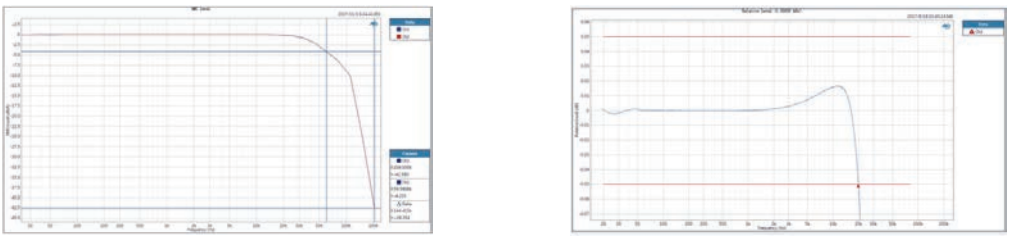
Class-D Amplifier Filter

CAF2/CAF4/CAF8

A dual-channel multi-pole LRC passive low-pass filter primarily used for Class-D amplifier audio measurements. It provides out-of-band attenuation and reduces the steepness of fast transition edges, offering signal pre-processing for test accuracy.

Product Parameters

Parameter	CAF2	CAF4	CAF8
Channels	2	2	8
Frequency Response	±0.05 dB，20 Hz-20 kHz (dc coupled)	±0.08 dB，20 Hz-40 kHz (dc coupled)	±0.05 dB，20 Hz-20 kHz (ac coupled)
Insertion Loss	Typical-0.054 dB	Typical-0.054 dB	Typical-0.054 dB
HF Attenuation	Typical>50 dB 250 kHz-20 MHz	Typical>52 dB 400 kHz-20 MHz	Typical>50 dB 250 kHz-20 MHz
Max Input	±200 Vpk[140 Vrms]	±200 Vpk[140 Vrms]	±200 Vpk[140 Vrms]
Channel Separation	90 dB at 20 kHz	90 dB at 20 kHz	82 dB at 20 kHz
Distortion Performance	<-110 dB harmonic (measured at 70 Vpp，1 kHz) <-100 dB IMD (at 70 Vpp with 18 kHz and 20 kHz dual-tone test signal)	<-110 dB harmonic (measured at 70 Vpp，1 kHz) <-100 dB IMD (at 70 Vpp with 18 kHz and 20 kHz dual-tone test signal)	<-110 dB harmonic (measured at 70 Vpp，1 kHz) <-100 dB IMD (at 70 Vpp with 18 kHz and 20 kHz dual-tone test signal)
Dimensions (L x W x H)	420mm*270mm*44mm	420mm*270mm*44mm	426mm*263mm*80mm
Weight	3.5kg	3.5kg	5.6kg



Frequency Response Graph

Audio Switch

SWF12/SWM12/SWU12

Audio switches are primarily used to expand the input/output capabilities of dual-channel audio analyzers. They can expand 2 inputs/outputs to any two of 12 inputs/outputs, eliminating the need for cable plugging/unplugging during multi-channel product testing and improving test efficiency.

Product Parameters

- Max Input Voltage: 230 Vpk, 160 Vrms
- Max Signal Power: 5W or 200mA
- Channel Isolation:

  Balanced: 600Ω load -150dB@20KHz- 130dB@100KHz

  Unbalanced: 600Ω load -130dB@20KHz-120dB@100KHz
- Series Impedance: <0.3Ω
- Dimensions (L x W x H): 420mm*270mm*44mm
- Weight: 4.5kg
- Parallel Capacitance: <90pF
- Termination Impedance: SWM12/ 604Ω,250mw
- Operating Temperature: 0℃到+50℃
- Storage Temperature: -40℃到75℃
- Humidity: 10% - 80%
- Altitude: 0-2000m
- Power Supply: DC 5V 3A

Audio Switch Communication Box

DB25-USB

The DB25-USB is a USB to Parallel Port adapter, serving as a companion kit for the SW12 series audio switches. It includes a US-made L-COM DB25 cable, effectively suppressing interference during parallel data transmission. The DB25-USB acts as a conversion bridge, playing a crucial role in connecting computers, audio analyzers, and SW12 series audio switches.

Product Parameters	
Dimensions (L x W x H)	103mm*95mm*48mm
Weight	244g
Power Supply	USB_5V

Standard Microphones

MC01/02/03/04

The MC series microphones are prepolarized free-field measurement sensors used to measure the undistorted true sound pressure before the microphone is placed in the sound field. Powered by ICP (24V/4mA standard), they feature high sensitivity, high stability, low distortion, and low noise.

1/2''

1/4''

Product Parameters

Model	MC01	MC02	MC03	MC04
Directivity	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional
Frequency Range	50mV/Pa	20mV/Pa	11mV/Pa	4mV/Pa
Dynamic Range	20Hz~20kHz,±1dB	100Hz~10kHz,±1dB 20Hz~20kHz,±3dB	20Hz~40kHz,±2dB	20Hz~40kHz,±1dB
Dynamic Range	17~140dB	35~139dB	21~160dB	35~156dB
Capsule Dia.	13.2mm	7mm	13.2mm	6.9mm
Length	79.0mm	40.6mm	77.3mm	65.0mm
Operating Temp	-25℃~+70℃	-20℃~+60℃	-20℃~+60℃	-20℃~+60℃
Humidity Range	0~100%	0~90%	0~100%	0~90%
Accessories	BNC-BNC Cable	SMB-BNC Cable	BNC-BNC Cable	SMB-BNC Cable

Standard Microphone

SMK10

The SMK10 is a prepolarized free-field measurement microphone. Besides calibrating artificial mouths and noise fields within a system, it can also capture voice signals before noise cancellation.

Product Parameters

Capsule Specifications	
Sound Field Type	Free Field
Polarization Voltage	0V
Sensitivity	37mV/Pa, -28.6dB±1dB re 1V/Pa
Frequency Range	10Hz-20KHz
Dynamic Range	146dB（at 250Hz,distortion<3%）
Capsule Diameter	12.7mm(1/2)
Capacitance	16pF（typical）
Temperature Coefficient	≤±0.015dB/℃（at 250Hz, -10℃~50℃）
Structure	WS2 type

前置指标	
Gain	0dB
Frequency Range	10-200000Hz
Input Impedance	>2GΩ
Input Capacitance	≤1pF
Output Impedance	<1000Ω
Noise Floor	≤3μV
Power Supply Voltage	6~47V
Polarization Voltage	0V
Outer Diameter	ϕ12.7mm

Artificial Ears

EA01/02

EA series artificial ears are divided into two types: 711 and 318. The 318 artificial ear simulates the acoustic characteristics of the human outer ear, designed for acoustic measurement of telephone receivers and headphones. The 711 artificial ear simulates the acoustic characteristics of the human ear canal, using a catheter inserted into an ear mold to simulate the coupling between earbuds and the human ear for acoustic measurement.

318

Artificial Ears

EA03/04

711

Product Parameters

Parameter	EA01	EA02	EA03	EA04
Standard	IEC60318	IEC60318	IEC60711	IEC60711
Frequency Response	20Hz-20kHz	20Hz-40kHz	20Hz-20kHz	20Hz-40kHz
Sensitivity	10mV	10mV	10mV	10mV
Operating Temperature	-10~+50℃	-10~+50℃	-10~+50℃	-10~+50℃
Operating Humidity	10-90%	10-90%	10-90%	10-90%
Output Interface	BNC	BNC	BNC	BNC
Dimensions	Height:45mm Diameter: 72mm	Height:45mm Diameter: 72mm	Height:60mm Diameter: 70mm	Height:60mm Diameter: 70mm
Weight	480g	480g	360g	360g
Power Supply	24V/4mA	24V/4mA	24V/4mA	24V/4mA

Artificial Ear Test Kits

TF01/02

Designed for headphone testing, the Artificial Ear Test Kit comes in TF01 and TF02 models. TF01 is a 711 artificial ear kit consisting of a test fixture and two 711 artificial ears (with soft ears), primarily used for earbud and in-ear headphone testing. TF02 is a 318 artificial ear kit consisting of a test fixture and two 318 artificial ears (with flat plate), primarily used for over-ear headphone testing.

TF01 and TF02 require the corresponding electroacoustic test interface PA01 during testing. Additionally, when paired with the artificial mouth AM02, they form a complete headphone acoustic test kit capable of microphone testing alongside headphone driver testing.

Model Configuration

Component / Name	Artificial Ear		Fixture	
	Model	Quantity	Model	Quantity
TF01	EA03 (with soft ear)	2	TF00	1
TF02	EA01 (with flat plate)	2	TF00	1

General Specifications

Dimensions (Dia.×H)	225mm*275mm
Weight	3.48kg
External Interface	BNC

TF01

TF02

Artificial Mouth

AM01

The AM01 artificial mouth is customized for production line testing of speaker products. It features extremely high sensitivity and wide-band transducer efficiency. It accurately simulates the sound field near the human mouth for microphone testing. Distortion is less than 1% at 94dB SPL from 200Hz to 10kHz.

Artificial Mouth

AM02/02P

The AM02 series artificial mouth accurately simulates the sound field generated by the human mouth in the near field, fully compliant with international standards such as IEEE269 and ITU-T Rec.P51. It is specifically used for acoustic characteristic testing of microphones in telephones, mobile phones, and electroacoustic components for transmission and communication products. Featuring high stability and low distortion, it is an ideal sound source for microphone testing.

AM02

AM02P

Product Parameters

Model	AM01	AM02	AM02P
Minimum Continuous Output SPL at MRP	Min.SPL of 110dB re.20upa 100Hz-10kHz	Min.SPL of 110dB re.20upa 100Hz-10kHz	
Distortion 94dB spl at MRP	<1.5%,100Hz-200Hz	<1.5%,200Hz-300Hz	<1.3% 200Hz-300Hz
	<1%,200Hz-10kHz	<1%,300Hz-10kHz	<1%,300Hz-10kHz
Speaker	Impedance: 8Ω	Impedance: 4Ω	Impedance: 4Ω
	Maximum Continuous Power:13W	Maximum Continuous Power:15W	Maximum Continuous Power:15W
	Maximum Instantaneous Power:26w for 1s	Maximum Instantaneous Power:50w for 1s	Maximum Instantaneous Power:50w for 1s
Sound Outlet Diameter	68mm	20mm	20mm
Lip Ring	N/A	Outer diameter: 48mm	Outer diameter: 48mm
		Height: 10mm	Height: 10mm
Input Interface	Banana plug	Banana plug/BNC	BNC
Dimensions	126mm*126mm*136mm	Diameter: 104mm	Diameter: 104mm
		Height: 104mm	Height: 104mm
Weight	Approximately1.0kg	Approximately1.3kg	Approximately2.0kg
Power Supply	N/A	N/A	24V/DC

Sound Calibrator

HS6020

The HS6020 sound calibrator is mainly used for calibrating the sound pressure sensitivity of microphones and acoustic measuring instruments. It features small size, light weight, stable performance, and easy use, conforming to the technical requirements of Class I calibrators in IEC942 "Sound Calibrators".

Product Parameters

Parameter	Technical Specifications
Sound Pressure Level	94dB(referenced to 2×10^{-5} Pa)
SPL Accuracy	±0.3dB(20℃±5℃) ±0.5dB(0℃±40℃)
Frequency	1000Hz±2%
Harmonic Distortion	≤ 3%
Warm-up Time	Approximately 1 minute

General Specifications

Dimensions	Φ41mm×92mm
Weight	Approximately 287g (including battery and adapter)
Power Supply	9V layer battery 6F22

Head and Torso Simulator

HATS100/HATS101

The HAT5100 Head and Torso Simulator is primarily used to measure and improve the performance and accuracy of audio signal intelligent devices, meeting high speech recognition requirements and standards. Its ear simulators precisely match human ear sound field characteristics, providing repeatable measurement results to ensure product performance and customer satisfaction.

The HAT5101 is a simplified version of HAT5100, lacking the mouth simulator, meeting the testing needs of some headphone customers.

Head and Shoulder Simulator

HATS200/HATS201

The HAT5200 Head and Shoulder Simulator is a human model with built-in mouth and ear simulators, accurately reproducing the acoustic characteristics of an average adult head and shoulders for precise binaural acoustic signal acquisition and mouth sound generation. Suitable for electroacoustic testing of headphones, telephone handsets, audio conferencing devices, microphones, hearing aids, etc.

The HAT5201 is a simplified version of HAT5200, lacking the mouth simulator.

Key Features

- Features head and partial torso to simulate real human acoustic transmission and reflection characteristics
- Calibration is simple and convenient; removing the outer ear allows for artificial ear calibration
- Simulates real human speech, frequency up to 20kHz
- Standard microphone mounting clamp on the neck for fixing reference microphones

Product Parameters

Ear Simulator	
Frequency Response	20Hz-20kHz
Sensitivity	25mv/Pa
Dynamic Range	153dB（at 250Hz,distortion<3%）
External Interface	HATS100/101：Lemo or BNC HATS200/201：BNC
Compliance	IEC60711（IEC 60318-4）、ITU-T P.57、ANSI S3.5、SJ/Z9150-1987

Artificial Mouth	
Sound Pressure Curve (SPL)	100Hz-20kHz
Maximum Output SPL	110dB(25mmMRP)
Distortion	94dBSPL/25mm:<2%,200Hz-300Hz 94dBSPL/25mm:<1%,above300Hz
Frequency Response	100Hz-10kHzafter compensation:94dB ±1dB
Impedance	4Ohm
Maximum Average Power	10W
External Interface	HATS100/101:BNC/banana plug*2 HATS200/201：BNC
Compliance Standards	ITU-T Rec. P.58、IEC 60318-7 和 ANSI S3.36-1985

Model Configuration

Parameter	HATS100	HATS101	HATS200	HATS201
Ear Simulator	Included	Included	Included	Included
Mouth Simulator	Included	Not included	Included	Not included

General Specifications

Parameter	HATS100/101	HATS200/201
Dimensions (W×D×H)	410*300*715(mm)	396*205*360(mm)
Weight	Approximately 20kg	Approximately 5.8kg

Electroacoustic Testing Interface

PA01

PA01 is a high-precision, high-efficiency, low-power integrated amplifier and microphone power supply, including 2-channel amplifier paths, 4-channel MIC power paths, and other auxiliary testing paths. It is mainly used for electroacoustic and vibration measurements, featuring built-in protection circuits for automatic overload, short circuit, and overheat protection. The 4-channel MIC power supply provides constant current sources for ICP capacitor microphones.

Product Parameters

MIC Power Supply	
Frequency Response	10Hz-20kHz, ±0.5dB
SNR	> 100dB（20Hz-100kHz）
THD+N	< 0.005%
Standard Voltage Gain	0dB/20dB
Input Impedance	40kOhm
Constant Current Source	24V/4mA
Number of I/O Channels	4
I/O Port Type	BNC

Headphone Amplifier	
Output Power	800mW（MAX）
Frequency Response	10Hz-100kHz, ±0.5dB
SNR	> 100dB（20Hz-100kHz）
THD+N	< 0.005 %
Input Impedance	20kOhm
Standard Voltage Gain	0dB
Class	AB
Number of I/O Channels	2
Output Port Type	BNC
Input Port Type	XLR/6.35

Power Amplifier	
Power	10W（8Ohm）, 20W（4Ohm）
Frequency Response	10Hz-100kHz, ±0.5dB
SNR	> 90dB（20Hz-100kHz）
THD+N	< 0.01 %
Channel Isolation	> 80dB
Power Bandwidth	5Hz-100kHz,（+0, -3dB）
Input Impedance	20kOhm
Damping Factor	> 200
Slew Rate	30V/microsecond
Input Sensitivity	1V（0dBV）
Standard Voltage Gain	0dB /20dB
Idle Power Consumption	6W
Class	AB
Number of I/O Channels	2
Output Port Type	BANANA
Input Port Type	XLR/6.35

DUT MIC	
Number of I/O Channels	1
I/O Port Type	BNC
Input (4 Impedance Ranges)	0.68K/1.5K/2.2K/3.0K
Input (4 Voltage Ranges)	1.5V/2.0V/3.0V/5.0V

General Specifications

Dimensions (W×D×H)	482mm*250mm*68mm
Weight	5.0kg±0.5kg
Operating Voltage (AC)	220V/50Hz

Microphone Power Adapter

MP01/MP08

MP01

MP08

The MP series microphone power supplies primarily provide a constant current source for ICP condenser microphones, used in laboratories and various practical applications for electroacoustic and vibration measurements. Besides supplying constant current to multiple ICP microphones simultaneously, they also provide 0dB and 20dB gain adjustment for each channel's microphone output signal. Featuring high SNR and low distortion, they ensure the validity, stability, and reliability of test results.

Product Parameters

Parameter	MP01	MP08
Channels	2	8
I/O Port Type	BNC	BNC
Gain	0dB & 20dB(± 0.1dB)	0dB & 20dB(± 0.1dB)
Frequency Range	10Hz-50kHz(±0.2dB) 10-100kHz(±1dB), 10-200kHz(±2dB)	10Hz-50kHz(±0.2dB) 10-100kHz(±1dB), 10-200kHz(±2dB)
Constant Current	24V,4mA	24V,4mA
Max Input Signal	20Vp-p	20Vp-p
THD	< 0.01%(@1kHz)	< 0.01%(@1kHz)
Input Noise	< 25uV LIN/A-weighted	< 25uV LIN/A-weighted
Dimensions (WxDxH)	113mm*187mm*43mm	300mm*177.5mm*75mm
Weight	0.54kg	2.68kg
Operating Voltage	220V/50Hz	220V/50Hz

Acoustic Test Turntable

TT01

The TT01 is a high-precision acoustic test turntable with independent software control tools, supporting PC remote control and standalone touchscreen operation. It is primarily used for measuring the directivity and related acoustic properties of speakers and microphones. TT01 features high rotational accuracy, low operating noise, good durability, and strong load capacity.

Product Parameters

Parameter	Specific Indicators
Max Vertical Load	1500N(150KG)
Max Lateral Load	900N(90KG)
Continuous Torque	3.1N.m
Peak Torque	8.3N.m
Rotation Angle Accuracy	≤0.1°
Speed Range	0.1-200rpm
Motor Operation Noise 30\60\100rpm\200rpm	≤40\45\48\52dBA
Disc Diameter	300mm
Control Mode	RS232 serial control or turntable touchscreen display standalone control
Other Features	Can be zeroed at any time, test data can be saved, software can be customized as required

General Specifications

Dimensions (W×D×H)	450*350*120mm
Operating Voltage (AC)	220V/50Hz

Shielding & Soundproof Boxes

SB01&GB01/02/04/05

These soundproof shielding boxes are a series designed for audio and RF testing of consumer electronics production lines. They effectively isolate production line noise and prevent internal reflection and reverberation, providing a stable and reliable acoustic environment for product testing. With rich channel terminal interfaces and a manual-automatic integrated design, they meet the testing needs of various products and production lines.

SB01

GB01/02

GB04

GB05

Product Parameters

Parameter	SB01	GB01	GB02	GB04	GB05
Operating Frequency	100MHz-6GHz	0.8GHz-2.4GHz	0.8GHz-2.4GHz	800MHz-6GHz	Custom
Shielding Effect	60-85dB	≥70dB	≥70dB	60-85dB	
Sound Insulation Effect	When external noise ≥70dB, sound insulation ≥35dB	When external noise ≥70dB, sound insulation ≥35dB	When external noise ≥70dB, sound insulation ≥35dB	When external noise ≥70dB, sound insulation ≥35dB	
Working Dimensions	390*430*340mm	500*600*500mm	600*600*600mm	100*220*600mm(single cavity)	
Workbench Dimensions	1050*750*650mm	865*800*858mm	865*800*858mm	1050*750*650mm	
Material	Sheet metal	Sheet metal	Sheet metal	Aluminum alloy	Sheet metal
Communication Port	RS-232	RS-232	RS-232	RS-232	Custom
Product Dimensions (L×W×H)	45cm*48cm*43cm	80cm*80cm*74cm	96cm*90cm*60cm	80cm*49cm*46cm	
Product Weight	50kg	80kg	85kg	75kg	
Power Supply	220 V	220 V	220 V	220 V	/

Custom sizes of anechoic chambers available. Professional anechoic laboratory overall testing solutions provided.

Car Audio Head Unit Auto Test System

ABT5801

ABT5801 is an automated test solution for high-precision testing of various functional and performance indicators of automotive multimedia systems. Its hardware platform is not limited by device brand or model. It can rapidly establish an automatic test system with equivalent accuracy, high stability, and high efficiency based on the customer's existing equipment.

System Features

- Clear equipment architecture and standard reliable control interfaces ensure long-term stable system operation.
- Uses an integrated controller, reducing wiring by 50% and simplifying system installation.
- Adopts an open architecture, allowing functional modules to be added or removed as needed.
- Standard pluggable terminal boxes and universal cables are used between equipment and products, facilitating maintenance and replacement.

Test Items

GPS, WiFi detection, Bluetooth, Radio AM/FM, USB/SD/DVD/iPod/CD, AUX/AV/TV, Current, Power Voltage, Analog KEY function, System Version, Barcode & Data Storage, Headlight Detection (Key Backlight), CAN Communication, Reverse Radar, Dash Cam, 3G Function, Key Feel (Manual), Video Display Effect, etc.

General Specifications

Dimensions (LxWxH)	90cm*115cm*180cm
Weight	240kg
Power Supply	220V AC/ 50Hz

Product Parameters

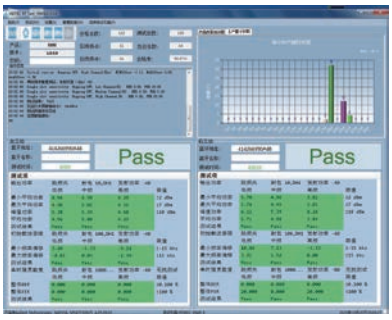
OS Platform	Supports XP, WIN7 and above
Software Platform	NI Labview2012
Software Features	Supports device updates
	Supports multiple file format storage reports
	Supports barcode scanning
	Supports online printing
	Supports online production data statistics
	Supports adding, changing, deleting project sequences, and setting parameter upper/lower limits
Test Ports	4-ch audio input (BNC/XLR)
	2-ch audio output (BNC/XLR)
	1 FM/AM RF interface (BNC)
	8-way voltage detection interface
	1-way current detection interface
Comm. Interfaces	RS232, USB, CAN
Bluetooth	Bluetooth v.2.1 + EDR
WIFI Interface	Wi-Fi extension interface, supports 802.11b/g/n (2.4G or 5.8G), 300Mbps data rate.
3G	Supports 3G
Firmware Upgrade Requirement	Supports platform remote upgrade
Power Output Requirement	Supports vehicle power supply: 9V~36V, default 24V vehicle (can be adapted to 12V vehicle), supports high and low voltage protection
Rated Power	< 800W
Operating Temperature	0℃ ~ +50℃
Relative Humidity	5% ~ 90%
Storage Temperature	-40℃ ~ +60℃

Dual-Channel Bluetooth Headphone RF Testing System
ABT6802

ABT6802 is a fully Chinese-operating-interface system developed based on mainstream Bluetooth RF testers (ANRITSU MT8852B, Agilent N4010A, R&S CMU200, CMW500, CMW270, etc.). It is an automated test system for Bluetooth product production lines, integrating data analysis, statistics, query, and other functions. The system supports all tests for Basic Rate and EDR, features one-to-two duplex station testing with automatic PASS/FAIL judgment for routine test items (power, frequency deviation, sensitivity). Combined with production data statistics management, it helps production lines rapidly improve quality and efficiency.

System Features

- Completes all RF tests based on Bluetooth tester MT8852B (compatible with mainstream testers), ensuring accurate data and high industry recognition.
- Configurable one-to-two testing doubles efficiency; two stations save material handling time. Test time can reach <10s/pcs (recommended configuration).
- Chinese interface simplifies instrument setup; operators can master it with minimal training.
- Can communicate with products to read/write Bluetooth-related information.
- Ergonomic console for easy operation and reduced fatigue; small footprint suitable for production lines.
- Supports production process management, barcode traceability, real-time quality control.
- Production data saved in Excel for easy statistics and analysis.
- Supports server management function; test reports upload to MES.



Software Interface

Test Items

BR Basic Rate (Transmitter)	BR Basic Rate (Receiver)
Output Power	Single Slot Sensitivity
Power Control	
Initial Carrier Frequency	Multi Slots Sensitivity
Carrier Frequency Drift	
Modulation Characteristic	Maximum Input Level

EDR Enhanced Rate (Transmitter)	EDR Enhanced Rate (Receiver)
Relative Transmit Power	Sensitivity Test
Carrier Frequency Stability & Modulation Accuracy	Floor Sensitivity
Differential Phase Encoding	Max Input Power

General Specifications

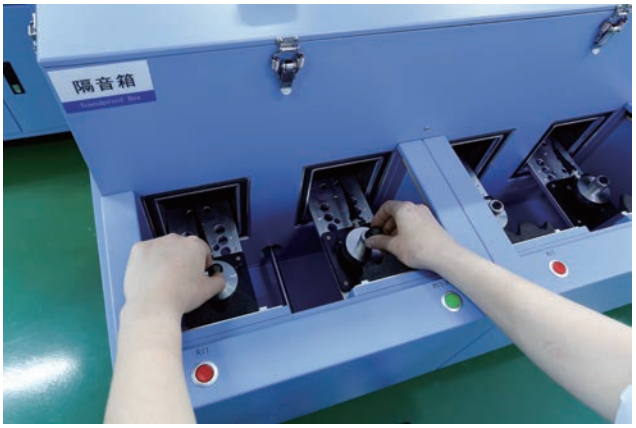
*General specifications consistent for audio/RF equipment

Dimensions of Shielding Box (L×W×H)	45cm*48cm*43cm（2个）
Workstation Dim. (LxWxH)	105cm*75cm*65cm
Weight	162kg
Power Supply	AC 220V

One-to-Four Bluetooth Headset Audio Test System

ABT6812

ABT6812 is designed based on market demand, long-term optimization, and comprehensive consideration of customer product characteristics, test requirements, and operator habits. From hardware design to software platform, the system achieves simple, efficient, and precise testing. It can test the acoustic functions of DUTs in both music mode and call mode, providing judgment for whether finished Bluetooth headsets can proceed to the next process. UPH can reach 480 units/hour.



System Features

- Stable test system with strong consistency
- One-click calibration via software algorithm
- User-friendly test interface, easy for operators to learn
- Covers all audio test items; customers can choose freely
- Simple upper/lower limit setting for curves, sensitivity, distortion curves
- Test instrument changeover in ten minutes: copy template project, change limits
- Fastest test time for finished headsets: 17 seconds for 4 units

Test Items

A2DP Frequency Response Curve

A2DP THD

A2DP Rub and Buzz

HFP Frequency Response Curve

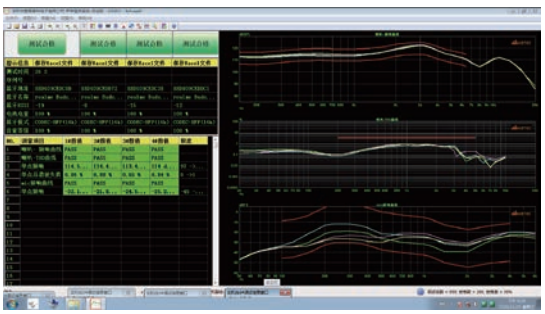
HFP THD

General Specifications

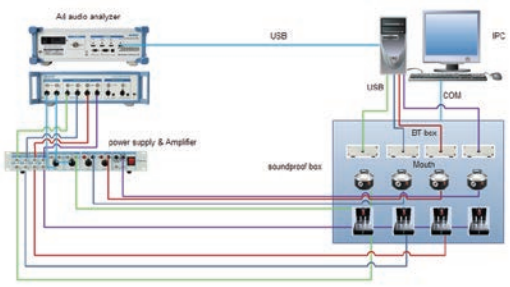
Dimensions of Shielding Box (L×W×H)	90cm*72cm*52cm
Dimensions of Workbench (L×W×H)	105cm*75cm*107cm
Weight	180kg
Power Supply	AC 220V

Test Principle

First, test the speaker characteristics of the earphones. The audio signal is generated by the audio analyzer, transmitted to the earphones under test via a Bluetooth box, and then captured by the artificial ear. The captured signal is sent back to the audio analyzer through a power amplifier, where frequency sweep analysis is performed to evaluate the acoustic performance of the speaker.Next, test the microphone performance of the earphones. The audio analyzer outputs a test signal, which is amplified by the power amplifier to drive the artificial mouth to produce sound. The microphone captures the signal and transmits it back to the input of the audio analyzer, where various performance parameters are measured.



Software Interface

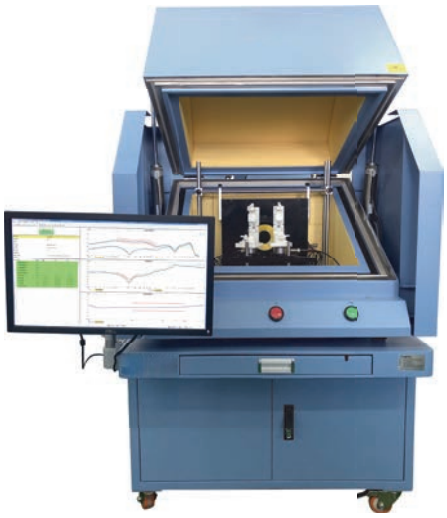


Wiring Diagram

ANC Noise-Canceling Headphone Audio Test System

ABT6807

ABT6807 is a system developed based on an audio analyzer, catering to both ANC testing and acoustic testing of headphones. The system can perform manual or automatic testing of a headphone's passive noise cancellation (PNC) and active noise cancellation (ANC) curves according to customer needs. It features good stability, fast speed, and effectively solves ANC headphone testing issues in R&D and production lines. Also supports ANC filter circuit curve testing, and all related acoustic testing for regular Bluetooth headphones, TWS earbuds, wired headphones, etc.



系统特点

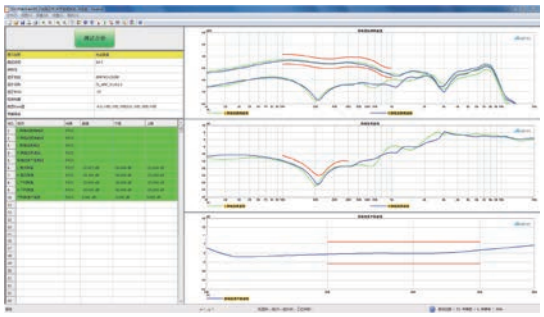
- Supports FFFB, Hybrid ANC
- Supports ANC PCBA filter circuit testing
- Supports automatic ANC gain adjustment
- Supports automatic firmware burning
- Supports automatic test result judgment
- Supports test data statistics, automatic report saving
- Supports audio testing for Bluetooth, TWS, wired headphones
- Supports MES system integration

General Specifications

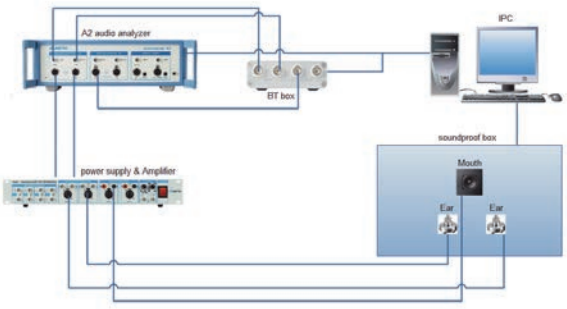
Dimensions (LxWxH)	96cm*90cm*65cm (Single Unit)
Weight	220kg
Power Supply	AC 220V

Test Items

ANC Related Tests	Headphone Acoustic Tests
L/R Passive Noise Cancellation (PNC) Curve	Frequency Response Curve
L/R Active Noise Cancellation (ANC) Curve	Sensitivity (SPL)
L/R Noise Cancellation Curve	Optional Harmonic Distortion (2nd-20th)
L/R Noise Cancellation Balance Curve	THD Curve
Phase Curve	Left/Right Channel THD at Fixed Points
Automatic ANC Adjustment	Rub & Buzz
Automatic ANC Firmware Burning	Left/Right Smoothness Curve
Product Burn-in Status Query	Custom Single-Point Balance
Filter Circuit Frequency Response Curve	Left/Right Polarity
Other Custom Requirements	Left/Right Isolation
	Electroacoustic SNR
	Microphone Frequency Response
	Microphone Average Sensitivity
	Microphone Distortion Curve



Software Interface



System Hardware Block Diagram

Smart Terminal Acoustic Test System

ABT9802

ABT9802 is an automated system for testing the acoustic performance of smart terminal products, including smart bands, speakers, tablets, smartwatches, etc. Smart products generally consist of: main control board, power amplifier board, MIC board, and other auxiliary boards. This system helps customers complete acoustic performance verification for all finished and semi-finished products.

System Features

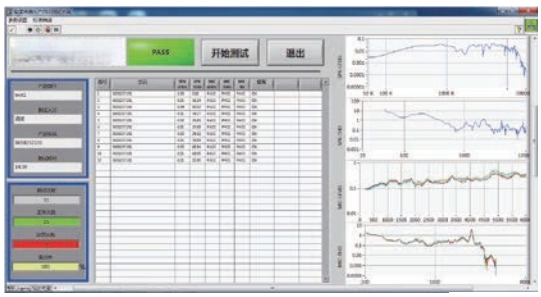
- Suitable for various types of smart terminal product final testing
- Complete and powerful electroacoustic test functions
- Control software ATC supports codeless automation and comprehensive API for secondary development
- Supports VB.NET, C#.NET, LabVIEW
- Supports one-key testing, automatic result judgment
- Graphical test interface, simple operation, easy to learn
- Provides multiple application start interfaces (footswitch, keyboard, barcode scanner, etc.)
- Test items, parameters, and upper/lower limits can be user-defined
- Data import/export function
- Supports multiple data document storage and classification
- Supports data upload to customer MES system

General Specifications

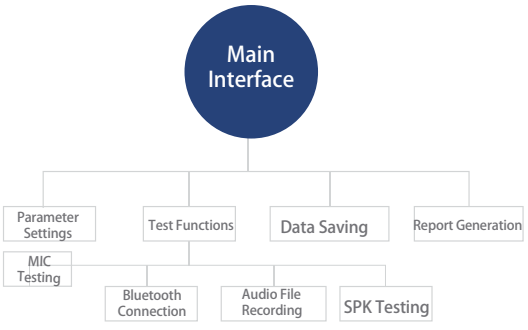
Dimensions (LxWxH)	80cm*75cm*72cm
Weight	200kg
Power Supply	AC 220V

Test Items

MIC Board Tests	Finished Product Tests
MIC Sensitivity	MIC Sensitivity
MIC SNR	MIC Frequency Response
MIC Frequency Response	MIC Distortion
MIC Distortion	MIC Air Tightness
MIC Air Tightness	SPK Frequency Response
	SPK Distortion



软件界面



Test Software Structure

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