CRY6151B Electroacoustic Analyzer

Introduction

CRY6151B electroacoustic analyzer is the newest electro-acoustic analyzer developed by CRY Sound with powerful functions and strong stability. It can measure the performance of headset (USB, Bluetooth, ANC), microphone (electret, dynamic and MEMS), receiver, micro speaker, loudspeaker, communication helmet, etc. The measurement parameters include frequency response, sensitivity, impedance, distortion, Resonant Frequency(F0), degree of balance, position of headphones, Phase Polarity, current and voltage of microphone, Signal to Noise Ratio(SNR), directivity, T&S parameters, loudness rating and so on. The testing frequency range up to 20Hz ~ 20kHz.

Features

- Hardware：
  1. CRY6151B has high-performance hardware that can be extended to synchronous 8-channel acquisition / 4-channel output
  2. Contains soundcard, power amplifier, signal conditioning module and USB communication module. All of above superior modules contribute to various types of electro-acoustic device testing combined with software
  3. Compact design, simple USB data communication, which meet customer requirements for various types of test environment

- Software：
  1. Compatible with Windows XP&7&10 32bit and 64bit system
  2. Support a variety of stimulus type, including RMS, Rapid stepped sweep, Precise stepped sine sweep, Multi-tone, White noise and Pink noise (According to the request of the test)
  3. One single sweep can measure out Frequency Response(FR), Sound Pressure Level(SPL or known as Sensitivity), Total Harmonic Distortion(THD), Impedance, F0, Phase, Degree of Balance, Polarity, etc.
  4. Can test the Bluetooth audio equipment with automatic matching (no manual click);
  5. Powerful sequence editing and preservation function, equipped with signal generator and multimeter. Also have a perfect save function. To better adapt to customers in the laboratory and production line applications.

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Technical Specification

SOUNDCARD（Type CRY6138）	
Channel	4 input / 4 output (can extended to 8 input / 4 output)
Sample Rate	44.1k – 192k, 24 bits
Input Dynamic Range	115dB Typical
Output Dynamic Range	115dB Typical
Noise	-115dBV(1.8uV), bandwidth 20-22k, A weighted
Coupling	AC
Frequency Response	20-20kHz (± 0.03dB)
THD@1kHz	0.001%
Crosstalk@1kHz	-118dB
SIGNAL OUTPUT	
Power	20W(Artificial Mouth ports)　1W(Headphone port)
Frequency Response	20-20kHz (±0.1dB), support 1-96kHz in special circumstance
Stimulus	RMS, Rapid stepped sweep, Precise stepped sine sweep, Multitone, White noise, Pink noise.
Octave Mode	1/3, 1/6, 1/12, 1/24
Output Impedance	1 Ohm, 33 Ohm, 151 Ohm, 601 Ohm, 751 Ohm
Distortion	≤0.01%
Maximum Output Voltage	5V
SIGNAL INPUT	
Amplitude Range	Electrical signal (-95dB~10dB),　Acoustic signal (35dB~140dB)
Maximum Input Voltage	3V
Noise	-105dBV(5.6uV)
ICP Microphone Power Supply	4 channel 4mA (24VDC)
Traditional Microphone Power Supply	2 channel traditional Power (dB9)

Electret Microphone Power	0 - 6.25V (Controlled by software)
Electret Microphone Resistance	0 - 10k Ohm(Controlled by software)
Measurement	
Electret Microphone Current	0 - 1mA, ±1%
Speaker Impedance	0 – 2k Ohm, ±1%, Support differential and single ended
Digital I/O	
Output	14 bits, Maximum current 10mA
Input	1bit (Footswitch)
Level	High +3.3V, Low GND
Other	
Optional Accessories	CRY series Artificial Mouth, Artificial Ear CRY series Microphone, Preamplifier CRY573 Audio Invertor CRY574 Bluetooth Dongle
Power	50Hz, 80V~240V
Environment	0~+40℃, Relative humidity ≤ 80%
Size	330mm X 280mm X 75mm

Application

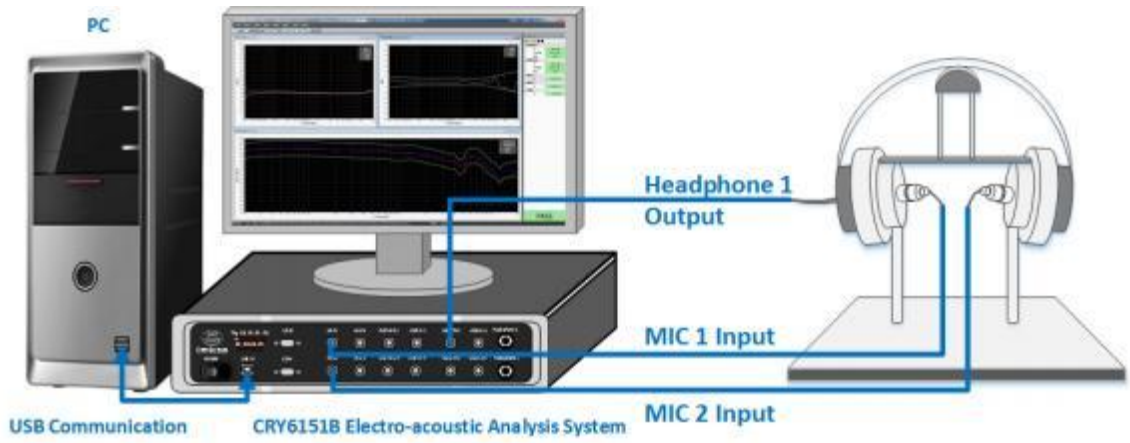
CRY6151B series electroacoustic analyzer could test the following transducers:

- ✓ Headphone, Earphone
- ✓ Microphones (Electret Mic, Dynamic Mic, MEMS Mic.)
- ✓ Loudspeaker
- ✓ Receiver
- ✓ USB headphone, microphone or combination
- ✓ Bluetooth speaker, headphone, microphone or combination

Typical Application

Headphone Test System

Hardware Connection



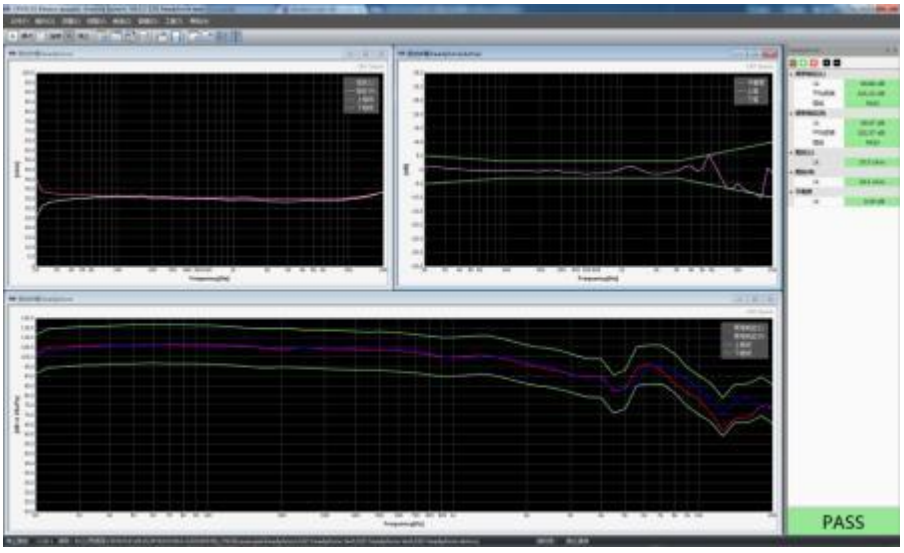
Basic Accessories

- CRY6151B Host
- Full-functional software
- CRY318 Artificial Ear
- CRY332 Measurement Microphone
- CRY506 Preamplifier
- CRY801 Headset Test Stand
- Power Cable, Test Cables

Optional Accessories

- CRY5611 Sound Calibrator
- CRY711 Artificial Ear

Software Interface



Test parameters:

- ✓ Frequency Response
- ✓ Average Sensitivity
- ✓ Impendence Curve
- ✓ Resonance Frequency F0
- ✓ THD Curve
- ✓ Harmonic Energy
- ✓ Polarity & Phase Curve
- ✓ L&R Balance
- ✓ Receiving Loudness Rating
- ✓ L&R Position

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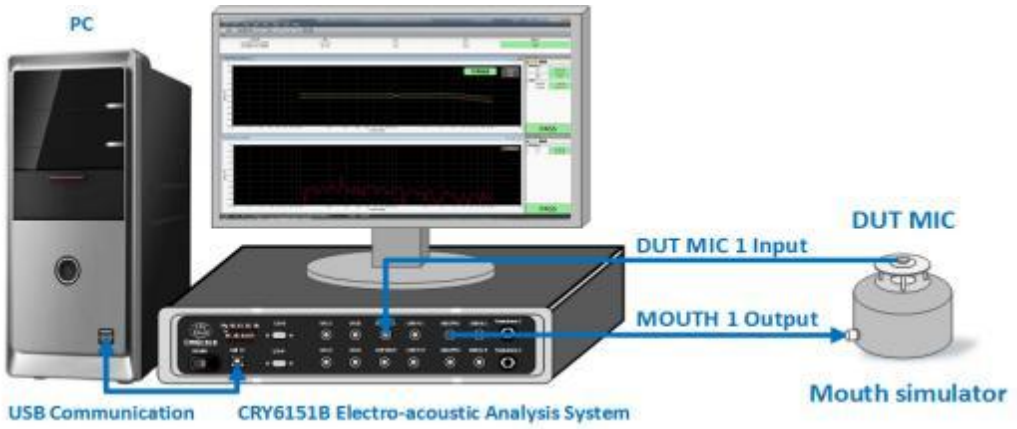
Microphone Test System

Hardware Connection



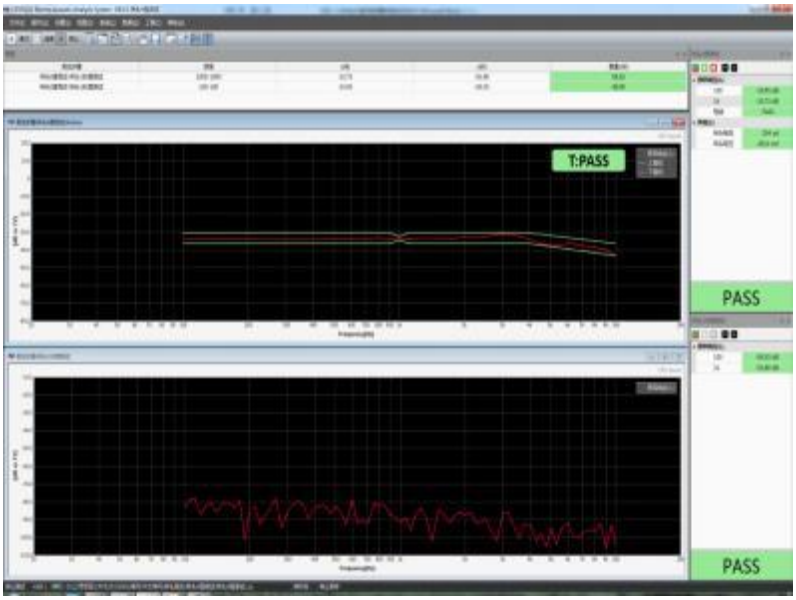
Basic Accessories

- CRY6151B Host
- Full-functional Software
- CRY602 Artificial Mouth
- Power Cable, Test Cables

Optional Accessories

- CRY5611 Sound Calibrator
- CRY331 Measurement Microphone
- CRY506 Preamplifier

Software Interface



Test Parameters:

- ✓ Frequency Response
- ✓ Average Sensitivity
- ✓ THD Curve
- ✓ Sending Loudness Rating
- ✓ Microphone Current
- ✓ Directional Response

杭州兆华电子有限公司 Add：杭州市余杭区闲林工业园闲兴路 31-1 号 Tel ：0571—88225198 Fax ：0571—88225178 E-mail ：cry@crysound.com www.crysound.com

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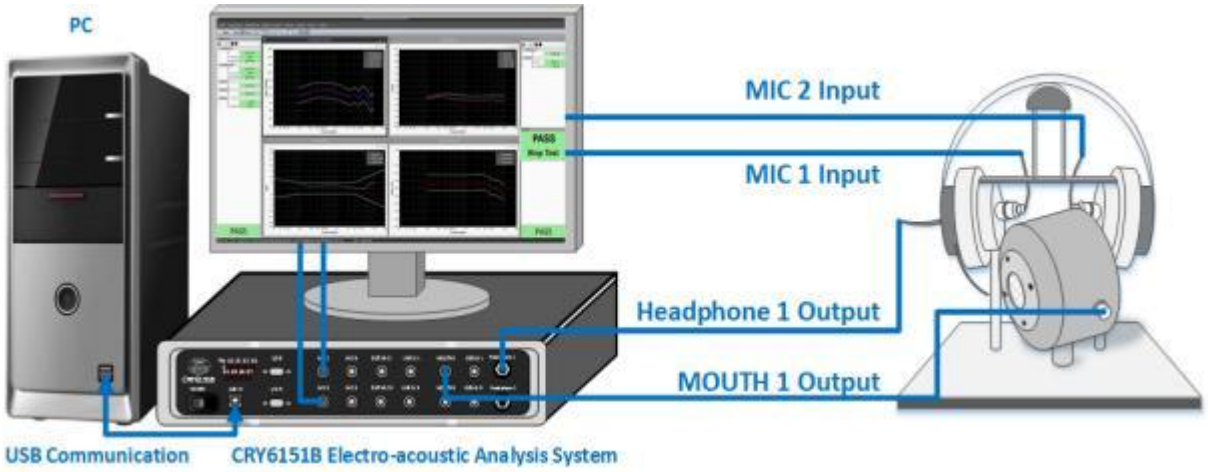
Headset Test System

Hardware Connection



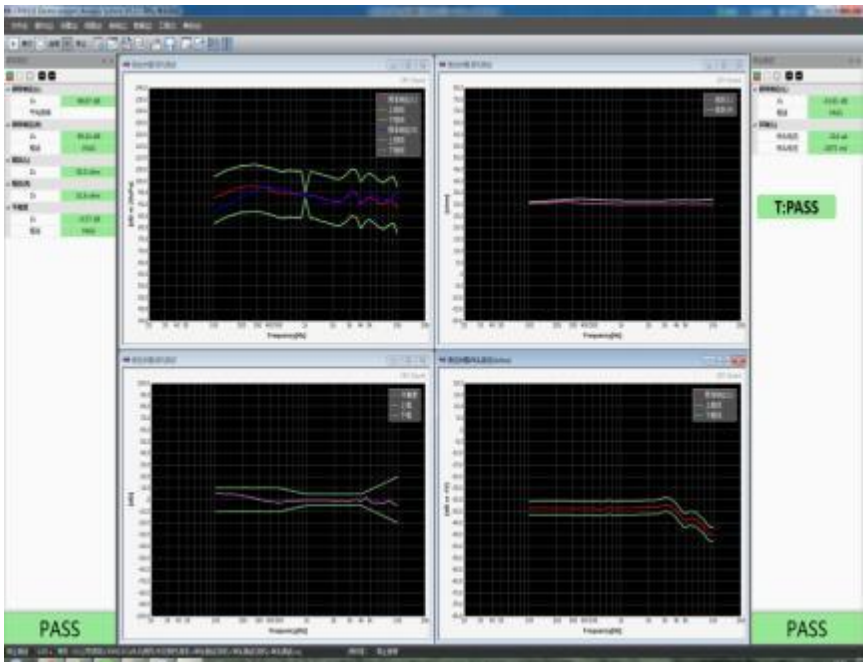
Basic Accessories

- CRY6151B Host
- Full-functional Software
- CRY602 Artificial Mouth
- CRY506 Preamplifier
- CRY318 Artificial Ear
- CRY332 Measurement Microphone
- Power Cable, Test Cables
- CRY801 Headset Test Stand

Optional Accessories

- CRY5611 Sound Calibrator
- CRY711 Artificial Ear

Software Interface



Test parameters:

- ✓ Headphone Frequency Response
- ✓ Headphone Average Sensitivity
- ✓ Headphone Impendence Curve
- ✓ Resonance Frequency F0
- ✓ Headphone THD Curve
- ✓ Headphone Harmonic Energy
- ✓ Headphone Phase & Polarity
- ✓ Headphone L&R Position
- ✓ Receiving Loudness Rating
- ✓ Headphone L&R Balance
- ✓ Microphone Frequency Response
- ✓ Microphone THD Curve
- ✓ Sending Loudness Rating
- ✓ Microphone Current

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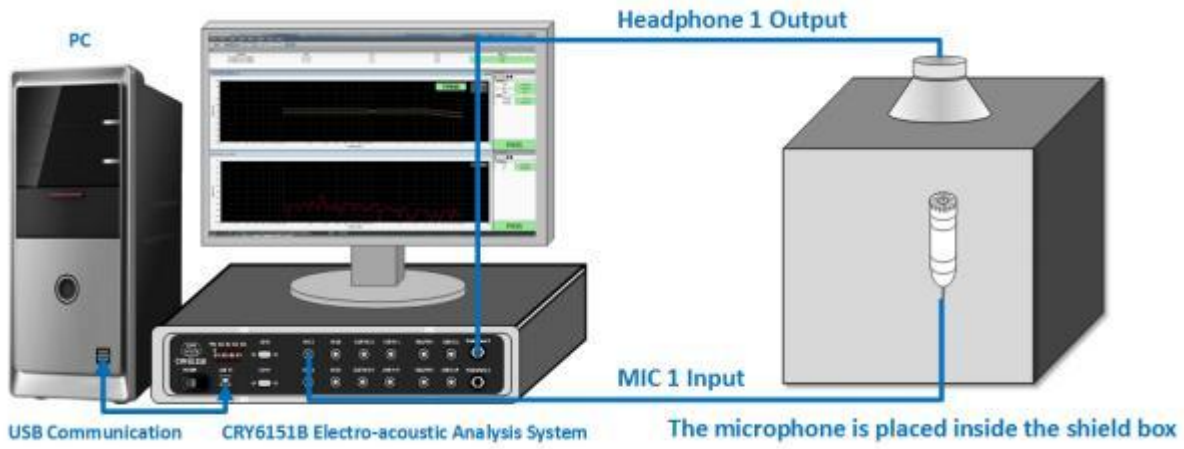
Speaker Test System

Hardware Connection



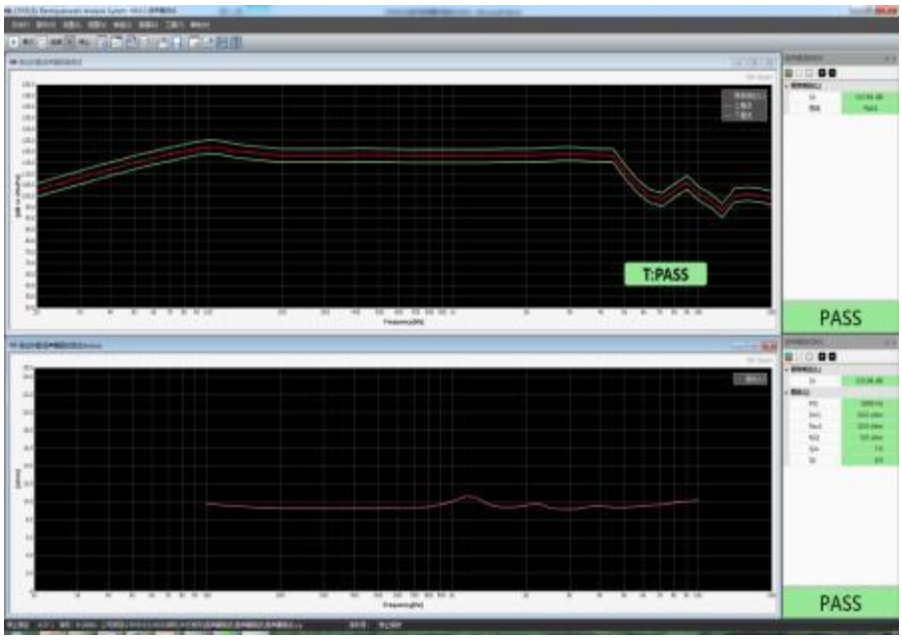
Basic Accessories

- CRY6151B Host
- Full-functional Software
- CRY333 Measurement Microphone
- CRY506 Preamplifier
- CRY602 Artificial Mouth
- Power Cable, Test Cables

Optional Accessories

- CRY5611 Sound Calibrator

Software Interface



Test Parameters:

- ✓ Frequency Response
- ✓ Average Sensitivity
- ✓ Impendence Curve
- ✓ Resonance Frequency F01、F02
- ✓ Q-factor
- ✓ THD Curve
- ✓ Polarity & Phase Curve

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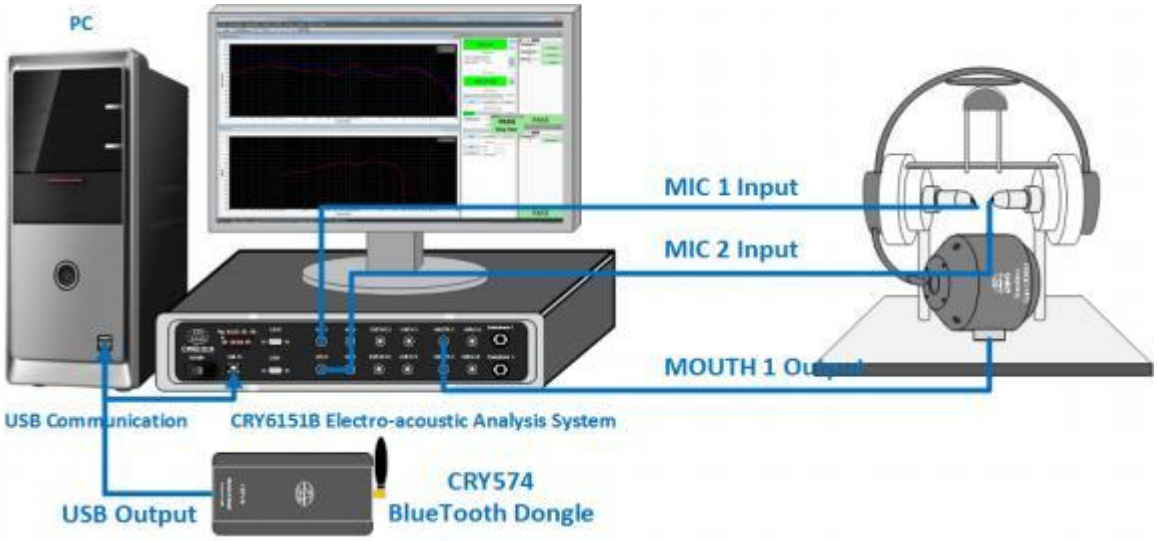
Bluetooth Headset Test System

Hardware Connection



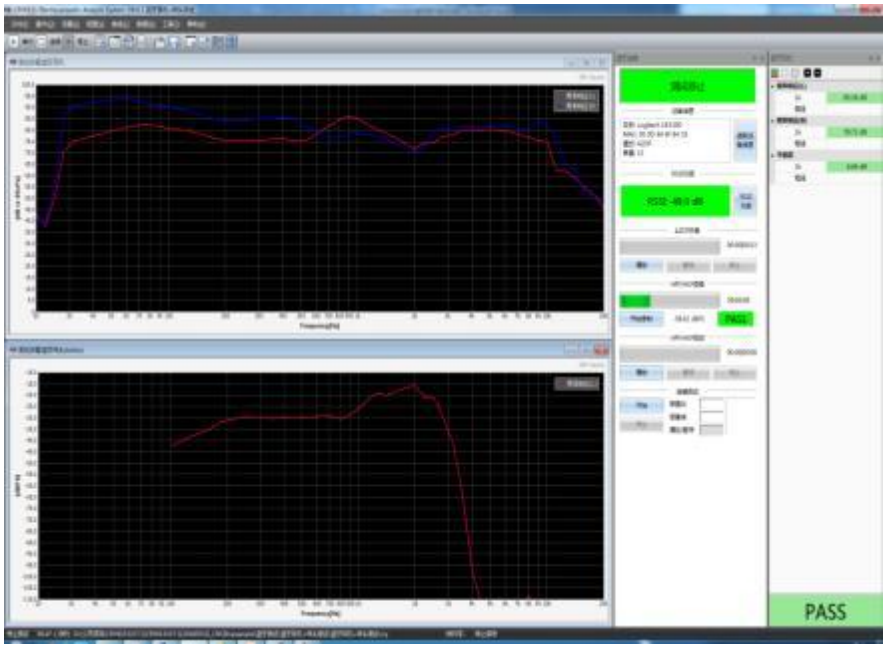
Basic Accessories

- CRY6151B Host
- Full-functional Software
- CRY318 Artificial Ear
- CRY332 Measurement Microphone
- CRY506 Preamplifier
- CRY602 Artificial Mouth
- Power Cable, Test Cables
- CRY801 Headset Test Stand

Optional Accessories

- CRY5611 Sound Calibrator
- CRY711 Artificial Ear

Software Interface



Test Parameters:

- ✓ Headphone Frequency Response
- ✓ Headphone Average Sensitivity
- ✓ Resonance Frequency F0
- ✓ Headphone THD Curve
- ✓ Headphone Harmonic Energy
- ✓ Headphone Phase & Polarity
- ✓ Headphone L&R Position
- ✓ Receiving Loudness Rating
- ✓ Headphone L&R Balance
- ✓ Microphone Frequency Response
- ✓ Microphone THD Curve
- ✓ Sending Loudness Rating

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PURCHASE NOW!

If you want to know more information such as the technical specification, price and other detail

Please contact:

- **CRY Sound Co., Ltd**
- Add: NO.31-1, Xianxing Road, Xianlin Industrial Park, Yuhang District,

  Hangzhou, Zhejiang Province, China
- Tel: +86-(0)571-88225198 88225128
- Fax: +86-(0)571-88225178
- E-mail: cry@crysound.com
- Posta Code: 311122