

AH 231L+AH 231R 耳颊模拟器

产品规格书

AH 231L+AH 231R Ear & Cheek Simulator

Product Specification

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从此文件发布日期起，在此发表的是当前或者拟定的信息。由于我们会不断对产品进行改进和增加特征此出版物中的信息如有变动恕不另行通知。

From the date of this document's release, the information published here is current or proposed. As we will continuously improve and add features to our products, the information in this publication is subject to change without further notice.

我们生产的测量用传声器，属于精密传感器，生产相关的各个方面都进行着严格管控，包括材料选择，生产工艺，测试管控，以及生产环境。



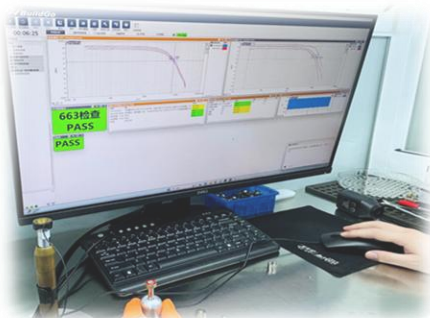
材料选择

经过多年持续改善，我们现采用特种镍合金材料作为膜片核心材料，相比其它合金材料有着更高灵敏度，更低失真率，以及更为稳定的长期使用表现；麦克风前置主体采用不锈钢材料使整支麦克风在各种装配产合下仍能拥有极为强壮的结构特性。



生产工艺

我们采用先进生产工艺，全自动化精密加工设备，最大程度减少了传统加工设备在进行二次装夹时带来的精度误差，从而显著提升了产品的尺寸一致性、几何精度及整体品质稳定性，为高要求的应用场景提供了可靠的技术保障。



测试管控

同时我们采用极其严苛的测试管控手段，对任何可能导致产品品质问题的环节都进行量化测试，并且进行测试顺序管控，防止跳站情况发生，完善的 MES 管控使得所有数据可追踪，确保传感器品质的高度一致性。



生产环境

所有我们的麦克风其整个生产流程均严格在无尘车间内完成，能最大程度降低空气中的灰尘数量，从而为传感器营造一个稳定、纯净的工作环境，以确保传感器长期稳定的寿命和并且在日常使用中始终展现出卓越的性能表现。

产品简介

AH 231L+AH 231R 耳廓模拟器



AH 231L



AH 231R

AH 231L 搭配左耳仿真耳廓，AH 231R 搭配右耳仿真耳廓。

实际购买AH 231L+AH 231R的单品，并不包括耦合腔套件。

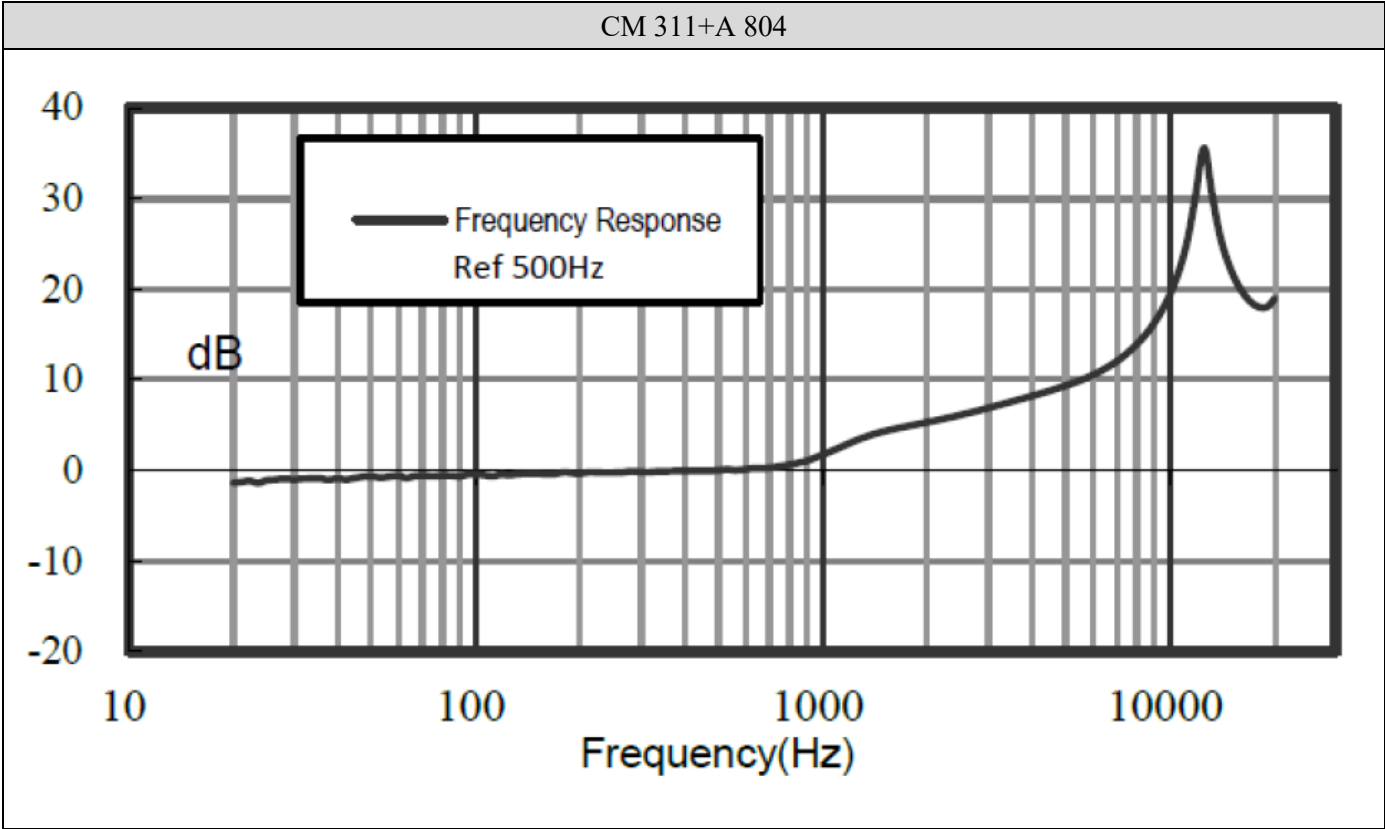
规格参数

可选耦合腔型号	SS 770-11+AD 022+AD 021	SS 771-11+AD 022+AD 021	SS 772-11+AD 022+AD 021
压力场麦克风频响	20Hz – 8kHz ± 0.5 dB 8kHz – 16kHz ± 1 dB	20Hz – 8kHz ± 0.5 dB 8kHz – 10kHz ± 1 dB 10kHz – 16kHz ± 2 dB 16kHz – 20kHz ± 3 dB	20Hz – 8kHz ± 0.5 dB 8kHz – 10kHz ± 1 dB 10kHz – 16kHz ± 2 dB 16kHz – 20kHz ± 3 dB
底噪	<16dB(A)	<12dB(A)	<10dB(A)
声压测量范围	16dB(A) - 135dB (THD<3% @1000Hz)	12dB(A) - 113dB (THD<3% @1000Hz)	10dB(A) - 113dB (THD<3% @1000Hz)
灵敏度范围	50mV/Pa (-26dB $\pm$ 2dB) re 1V/Pa	250mV/Pa (-12dB $\pm$ 2dB) re 1V/Pa	250mV/Pa (-12dB $\pm$ 2dB) re 1V/Pa
接口	BNC		
主体材料	不锈钢		
工作温度范围	-20°C至60°C		
相对湿度	10- 90%无凝结		
储存条件	温度：25°C $\pm$ 5°C，湿度：50% $\pm$ 15%RH（保证传感器的长期稳定性）		

可选耦合腔型号	CM 311+A 804	CM 314+A 815+AD 022+AD 021
压力场麦克风频响	20Hz – 10kHz ± 0.5 dB 10Hz – 16kHz ± 1 dB	20Hz – 10kHz ± 0.5 dB 10kHz – 20kHz ± 1 dB
底噪	33dB(A)	20dB(A)
声压测量范围	33dB (A) - 141dB (THD<3% @1000Hz)	20dB (A) - 134dB (THD<3% @1000Hz)
灵敏度范围	12.5mV/Pa (-38dB $\pm$ 2dB) re 1V/Pa	50mV/Pa (-26dB $\pm$ 2dB) re 1V/Pa
接口	BNC	
主体材料	不锈钢	
工作温度范围	-20°C至60°C	
相对湿度	10- 90%无凝结	
储存条件	温度：25°C $\pm$ 5°C，湿度：50% $\pm$ 15%RH（保证传感器的长期稳定性）	

耳廓参数	
耳廓材质	硅胶
耳廓硬度	35°Shore - OO

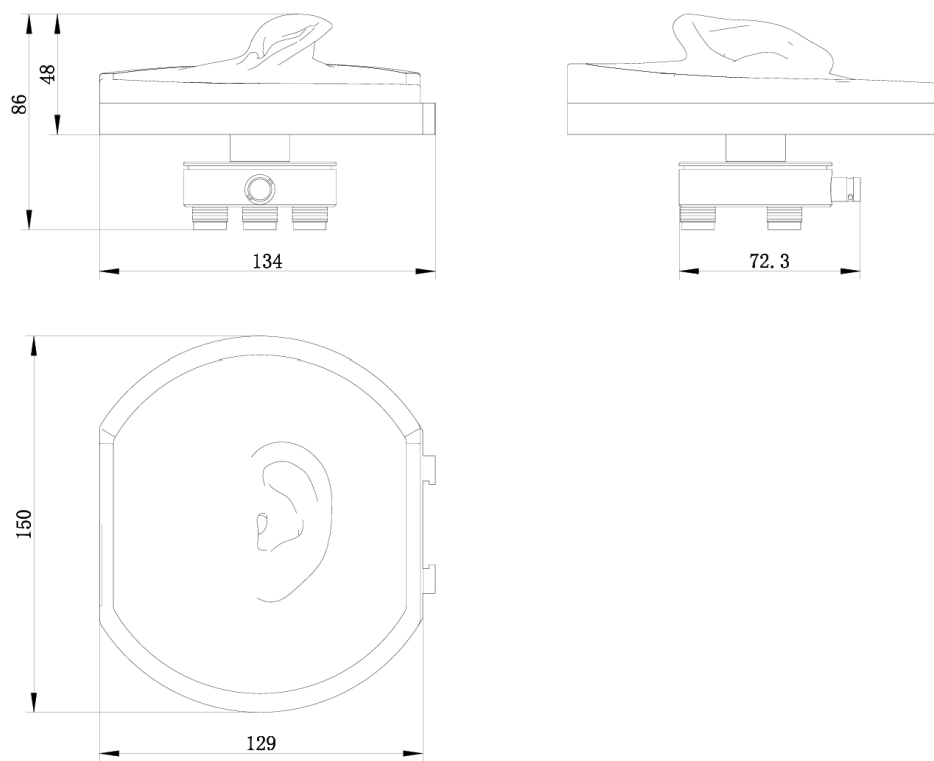
耦合腔的典型频响曲线（500Hz为参考0点）



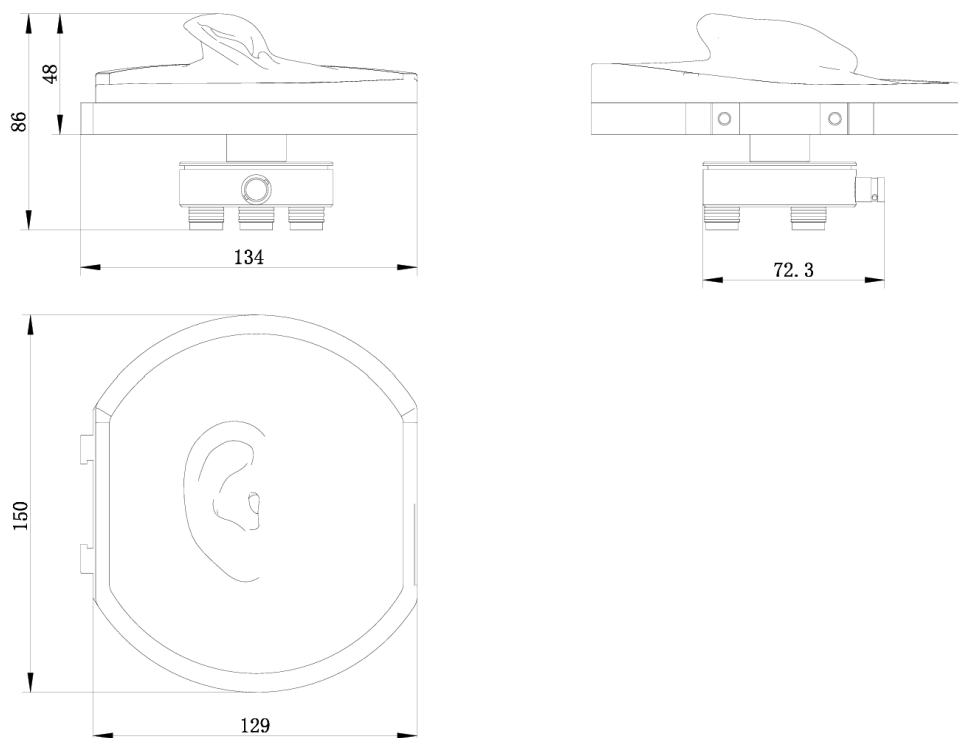
典型外形尺寸

单位: mm

AH 231L+CM 311+A 804尺寸图



AH 231R+CM 311+A 804尺寸图



订购信息

PN号	型号	说明
900014-13	AH 231L	左耳颊模拟器
900014-14	AH 231R	右耳颊模拟器
900002-10	SS 770-11	16dBA声学耦合腔，内置咪头，前置一体，711形态
900002-12	SS 771-11	12dBA声学耦合腔，内置咪头，前置一体，711形态
900002-13	SS 772-11	10dBA声学耦合腔，内置咪头，前置一体，711形态
900011-13	CM 311+A 804	33dBA声学耦合腔
900011-27	CM 314+A 815	20dBA声学耦合腔
900014-12	AD 022	圆形底盘
900014-08	AD 021	二分之一前置L型转接适配器；对于SS 770-11，SS 771-11，SS 772-11、CM 314+A 815搭配该产品使用
910024-01	PM 0083	功率放大器
910019-01	U 921A	2通道恒流源调理器

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The measuring microphones we produce are precision sensors, and all aspects related to production are strictly controlled, including material selection, production processes, testing control, and production environment.



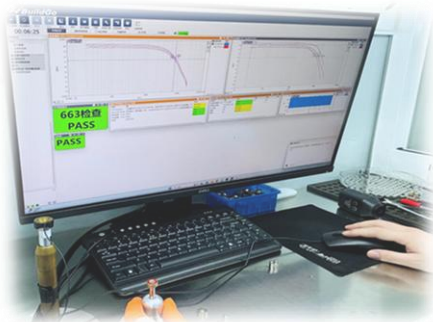
Material selection

After years of continuous improvement, we now use special nickel alloy materials as the core material for the diaphragm. Compared to other alloy materials, it exhibits higher sensitivity, lower distortion rate, and more stable long-term performance. The front body of the microphone is made of stainless steel, ensuring that the entire microphone maintains extremely robust structural characteristics even under various assembly conditions.



Production process

We adopt advanced production processes and fully automated precision machining equipment, which significantly reduces the accuracy errors caused by secondary clamping in traditional machining equipment. This greatly enhances the dimensional consistency, geometric accuracy, and overall quality stability of the products, providing reliable technical support for demanding application scenarios.



Testing control

At the same time, we employ extremely rigorous testing and control measures, conducting quantitative testing on any links that may lead to product quality issues, and implementing test sequence control to prevent skip-station situations. The comprehensive MES control enables all data to be traceable, ensuring a high degree of consistency in sensor quality.



Production environment

The entire production process of all our microphones is strictly carried out in a dust-free workshop, which can minimize the amount of dust in the air, thus creating a stable and pure working environment for the sensors. This ensures a long and stable lifespan for the sensors and maintains their excellent performance throughout daily use.

Product introduction

AH 231L+AH 231R Ear & Cheek Simulator



AH 231L



AH 231R

The AH 231L is paired with a left ear simulated auricle, and the AH 231R is paired with a right ear simulated auricle.

The standalone AH 231L and AH 231R units purchased separately do not include the coupler kit.

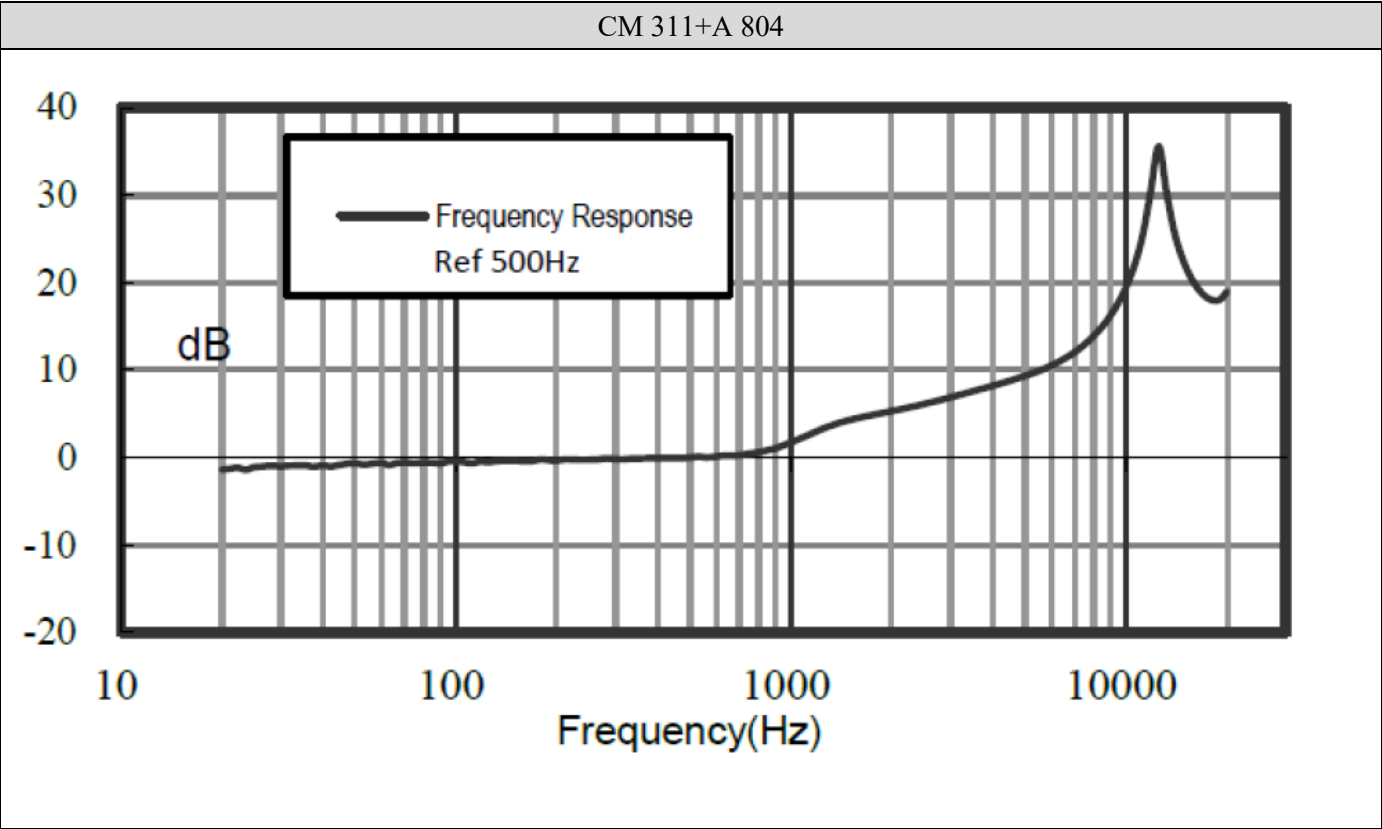
Specification parameters

Optional Ear Simulator Models	SS 770-11+AD 022+AD 021	SS 771-11+AD 022+AD 021	SS 772-11+AD 022+AD 021
Frequency response of pressure field microphone	20Hz – 8kHz $\pm$ 0.5dB 8kHz – 16kHz $\pm$ 1dB	20Hz – 8kHz $\pm$ 0.5dB 8kHz – 10kHz $\pm$ 1dB 10kHz – 16kHz $\pm$ 2dB 16kHz – 20kHz $\pm$ 3dB	20Hz – 8kHz $\pm$ 0.5dB 8kHz – 10kHz $\pm$ 1dB 10kHz – 16kHz $\pm$ 2dB 16kHz – 20kHz $\pm$ 3dB
Noise floor	<16dB(A)	<12dB(A)	<10dB(A)
Dynamic range	16dB(A) - 135dB (THD<3% @1000Hz)	12dB(A) - 113dB (THD<3% @1000Hz)	10dB(A) - 113dB (THD<3% @1000Hz)
Sensitivity range	50mV/Pa (-26dB $\pm$ 2dB) re 1V/Pa	250mV/Pa (-12dB $\pm$ 2dB) re 1V/Pa	250mV/Pa (-12dB $\pm$ 2dB) re 1V/Pa
Interface	BNC		
Main material	Stainless steel		
Operating temperature range	-20°C - 60°C		
RH	10- 90%(no condensation)		
Storage conditions	Temperature:25°C $\pm$ 5°C, Humidity : 50% $\pm$ 15%RH(To ensure long-term stability of the sensor)		

Optional Ear Simulator Models	CM 311+A 804	CM 314+A 815+AD 022+AD 021
Frequency response of pressure field microphone	20Hz – 10kHz $\pm$ 0.5dB 10Hz – 16kHz $\pm$ 1dB	20Hz – 10kHz $\pm$ 0.5dB 10kHz – 20kHz $\pm$ 1dB
Noise floor	33dB(A)	20dB(A)
Dynamic range	33dB (A) - 141dB (THD<3% @1000Hz)	20dB (A) - 134dB (THD<3% @1000Hz)
Sensitivity range	12.5mV/Pa (-38dB $\pm$ 2dB) re 1V/Pa	50mV/Pa (-26dB $\pm$ 2dB) re 1V/Pa
Interface	BNC	
Main material	Stainless steel	
Operating temperature range	-20°C - 60°C	
RH	10- 90%(no condensation)	
Storage conditions	Temperature:25°C $\pm$ 5°C, Humidity : 50% $\pm$ 15%RH(To ensure long-term stability of the sensor)	

Auricle Parameters	
Ear shell material	Silicone
Earlobe hardness	35°Shore - OO

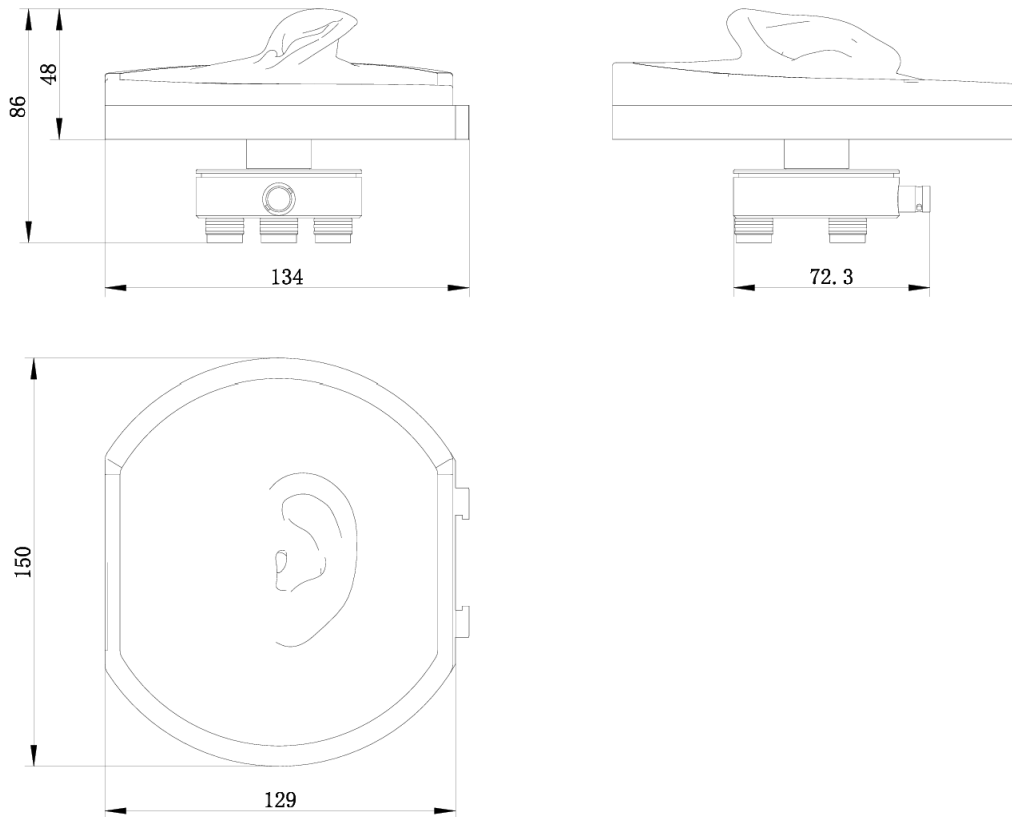
Typical Frequency response



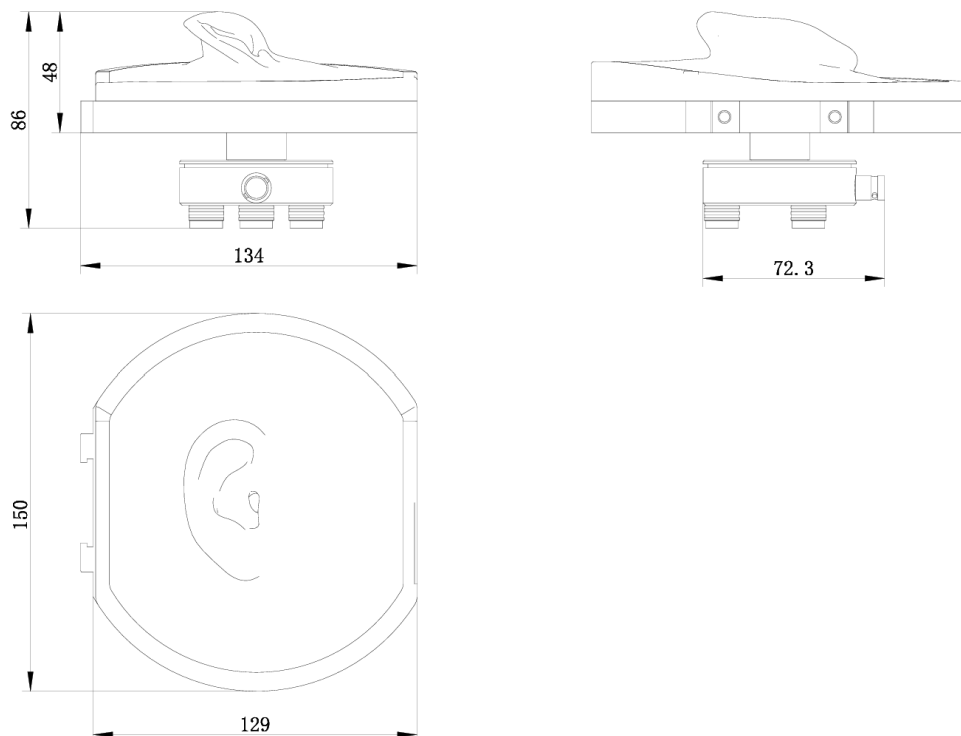
Typical Dimension

Unit: mm

AH 231L+CM 311+A 804



AH 231R+CM 311+A 804



Ordering Information

PN	Model	Description
900014-13	AH 231L	Left ear & cheek simulator
900014-14	AH 231R	Right ear & cheek simulator
900002-10	SS 770-11	16dBA acoustic coupler built-in microphone, front integrated, Type 711 configuration
900002-12	SS 771-11	12dBA acoustic coupler built-in microphone, front integrated, Type 711 configuration
900002-13	SS 772-11	10dBA acoustic coupler built-in microphone, front integrated, Type 711 configuration
900011-13	CM 311+A 804	33dBA acoustic coupler
900011-27	CM 314+A 815	20dBA acoustic coupler
900014-12	AD 022	Circular chassis
900014-08	AD 021	1/2" preamp L-shaped adapter; compatible with SS 770-11, SS 771-11, SS 772-11, CM 314+A 815
910024-01	PM 0083	Power Amplifier
910019-01	U 921A	2-Channel Constant Current Conditioner

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