



Ear Simulators-Couplers

An ear simulator-coupler is an instrument designed to replicate the physical attributes of the human ear. Comprising a microphone and an acoustic network that mirrors the acoustic properties of the human external ear, this device serves a pivotal role in quantitatively and qualitatively assessing the capabilities of headphone equipment.

By emulating the intricacies of the human auditory system, including its external ear characteristics, the ear simulator-coupler provides a standardized platform for evaluating the performance of headphones. This includes measurements of sound quality, frequency response, isolation, and other relevant factors. As a result, manufacturers, researchers, and audiophiles can glean valuable insights into how headphones perform under various conditions, leading to improved designs and enhanced user experiences.

ZT-711 Ear Simulator / Coupled Cavity	
Picture	
Applicable Standards	IEC 60318-4 (IEC60711) ; ITU-T Rec. P.57 Type 2
Frequency range	20Hz~16kHz (for coupled cavity)
Height	23mm (excluding microphone)
Diameter	23.77mm
Weight	45g (excluding microphone)
Optional Items	
Microphone	ZT-372/332
Preamplifier	ZT-508 (IEPE, BNC)

ZT-318 Ear Simulator / Coupled Cavity	
Picture	
Applicable Standards	IEC 60318-1 ITU-T Rec. P.57 Type 1
Height	32mm (including adapter to be connected)
Diameter	60mm
Weight	208g (including adapter to be connected)
Optional Items	
Microphone	ZT-372/332
Preamplifier	ZT-508 (IEPE, BNC)

ZY-319 Ear Simulator / Coupled Cavity	
Picture	
Applicable Standards	IEC 60318-5
Frequency Response (FR)	125Hz~8kHz
Sensitivity ±2 dB	12.5mV/Pa
Sensitivity ±2 dB	-38dB re 1V/Pa
Polarization voltage	0V(pre-polarization)
Upper limit of dynamic range (re 20 uPa)	160dB
Lower limit of dynamic range (re 20uPa)	20dB(A)
Operating temperature	-30℃ ~ 80℃
Temperature coefficient (-10℃ - 50℃)	0.005dB/℃
Relative humidity range	0~90% (without condensation)
Power Supply of Preamplifier	IEPE(2~10mA)
Connection Mode of Preamplifier	SMB coaxial plug
Optional Items	
Microphone	ZT-372/332
Preamplifier	ZT-510 (IEPE, SMB)