

# Specifications

# Audio Tester

## Model OAT-900A



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1. Product overview

OAT-900A consists of Windows PC and an instrument processing the signal by USB interface. It is designed to test the six kinds of products by one unit. It's frequency range of SPL-Frequency Characteristics is 10 Hz~45 kHz applicable to high-resolution audio products. It's frequency range is wider than frequency range of OAT-900 (20 Hz~20 kHz).

2. Products to be tested and measuring items are as follows:

○ : Measuring, — : Not Measuring

Measuring Item	Product to be Tested	Stereo Headphone	Stereo Handset		Handset		Receiver Unit 2 ch and L ch only (Micro Speaker included)	Microphone	Directional Microphone
			Stereo Headphone Side	Microphone Side	Receiver Side	Microphone Side			
Frequency Characteristics		○	○	○	○	○	○	○	○
Sound Pressure Sensitivity Level		○	○	○	○	○	○	○	○
Frequency Characteristics L/R Difference		○	○	—	—	—	—	—	—
Sound Pressure Sensitivity Level L/R Difference		○	○	—	—	—	—	—	—
Pointed Frequency Characteristics L/R Difference (5 points)		○	○	—	—	—	—	—	—
LR Reversed		○	○	—	—	—	—	—	—
Polarity		○	○	—	—	—	○	○	○
Impedance		○	○	—	○	—	○	—	—
Total Harmonic Distortion		○	○	—	○	—	○	—	—
Rub and Buzz		○	○	—	○	—	○	—	—
Fo		—	—	—	—	—	○	—	—
L R Fo Rank		—	—	—	—	—	○	—	—
L R Sound Pressure Sensitivity Level Rank		—	—	—	—	—	○	—	—
Microphone Sensitivity Rank		—	—	—	—	—	—	○	○
Directional Frequency Characteristics (Angle: F1 = 0° , F2 & F3 = 0° ~360° )		—	—	—	—	—	—	—	○
Directional Frequency Characteristics Difference (F2 & F3 on the basis of F1)		—	—	—	—	—	—	—	○
Directional Sound Pressure Sensitivity Level (F1, F2, F3: Each position has ten pointed frequency.)		—	—	—	—	—	—	—	○
Directional Sound Pressure Sensitivity Level Difference (F2, F3: Each position has ten pointed frequency on the basis of F1)		—	—	—	—	—	—	—	○
Current consumption of ECM (Option) *		—	—	○	—	○	—	○	○

\* If an optional adapter (model AP-1900) is connected, current consumption and judgment of ECM can be gotten on four models, namely Stereo Handset, Handset, Microphone and Directional Microphone.

## 2. Main specifications

[Output Part]	
Frequency range	10 Hz ~ 45 kHz
Sweeping time	0.5 s ~ 10 s
Signal	Sine wave logarithmic sweeping
Receiver drive voltage	100 mV ~ 4000 mV 1 mV step
Microphone measurement standard speaker drive voltage	100 mV ~ 4000 mV 1 mV step
Maximum power	2 W ( minimum load: 8 Ω )

[Input Part]	
Directly inputting signal from LR microphone and standard microphone	BNC connector Input impedance: 100 kΩ
Inputting signal from LR condenser microphone and standard microphone	TAJIMI connector ( PRC03—23A10—7F ) Polarized voltage: 200 V, Circuit voltage: 28 V
LR microphone input range	7 range (80 dB, 90 dB, 100 dB, 110 dB, 120 dB, 130 dB, 140 dB) Frequency range: 10 Hz ~ 45 kHz
LR impedance input range	1 range 5 Ω~100 Ω Frequency range: 20 Hz ~ 20 kHz, 1 point

[Measurement]	
Total Harmonic Distortion	Frequency range: 50 Hz ~ 5 kHz Harmonics order: 2nd - 10th Indicated rate: 0.001% ~ 100%
RUB & BUZZ	Frequency range: 50 Hz ~ 1 kHz Harmonics order: 2nd - 35th Indicated rate: 0.001% ~ 100%

[Other Part]	
Temperature/ Humidity range	5°C to 35°C / 5% ~ 90% (No condensation)
Power source/Consumption	100 VAC, 110 VAC, 120 VAC, 200 VAC, 220 VAC, 240 VAC (internal conversion), 50 Hz / 60 Hz, Specified by user when shipped, / Approx. 20W
Main hardware unit Dimensions and Mass	350mm(W) × 75mm (H) × 310 mm(D) (Excluding projections) Approx. 5.2 kg
Accessories	Power cord 1pc. USB cord 2pcs. General instruction manual & Operation manual (PDF)
Optional instruments	Artificial ear based on IEC60318-1 (IEC60318) standard (Model OAE-260) Artificial ear based on IEC60318-4 (IEC60711) standard (Model OAE-262) Condenser microphone 1/2" sound pressure type (Model OMC-58) ECM current consumption adapter (Model AP-1900)

※ Some specifications may be changed without notice due to improvement.

3. Displayed examples: Measuring results of the stereo headphone

The screen of "Frequency Characteristic", Passed the test

**General judgment**  
 GO : Pass the test  
 NG : NO GO  
 (Don't pass the test)

**Individual judgment**  
 The accumulative value of NG is indicated every measurement items.  
 If a judgment is OK, color of the column is green, and if a judgment is NG, color of the column is red.

The screen of "Frequency Characteristic L/R Difference", Passed the test

The screen of "Total Harmonic Distortion", Passed the test



The screen of "Rub and Buzz", Passed the test

