



# PUIaudio



Data Sheet

AR03450MR

## Features:

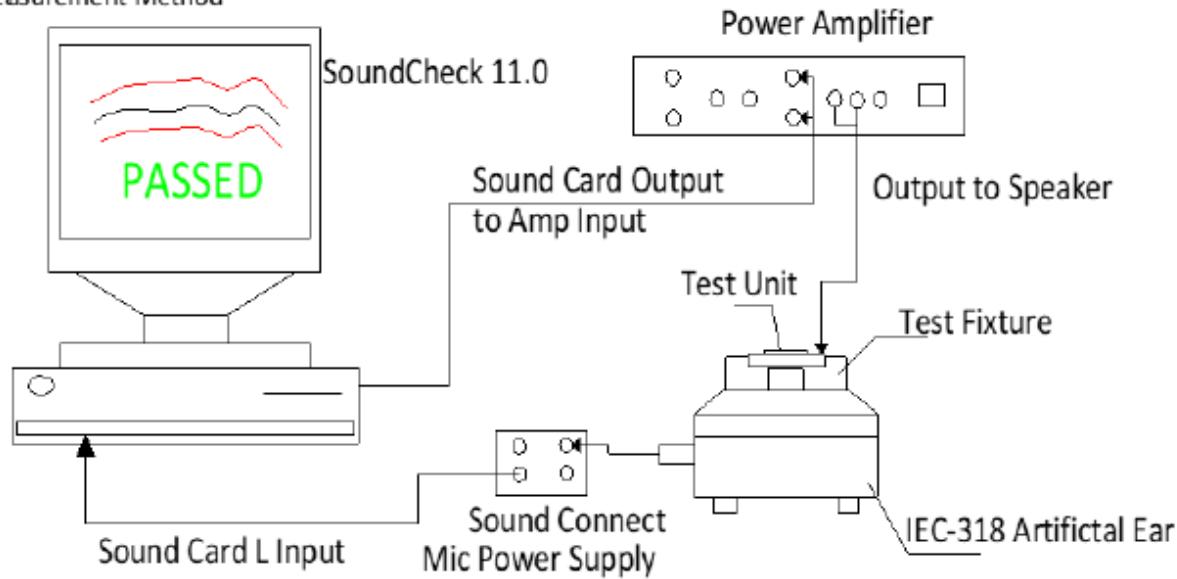
- Low 100 Hz resonant frequency
- 50 Ohm Impedance
- High 20mW max input power

## Specifications

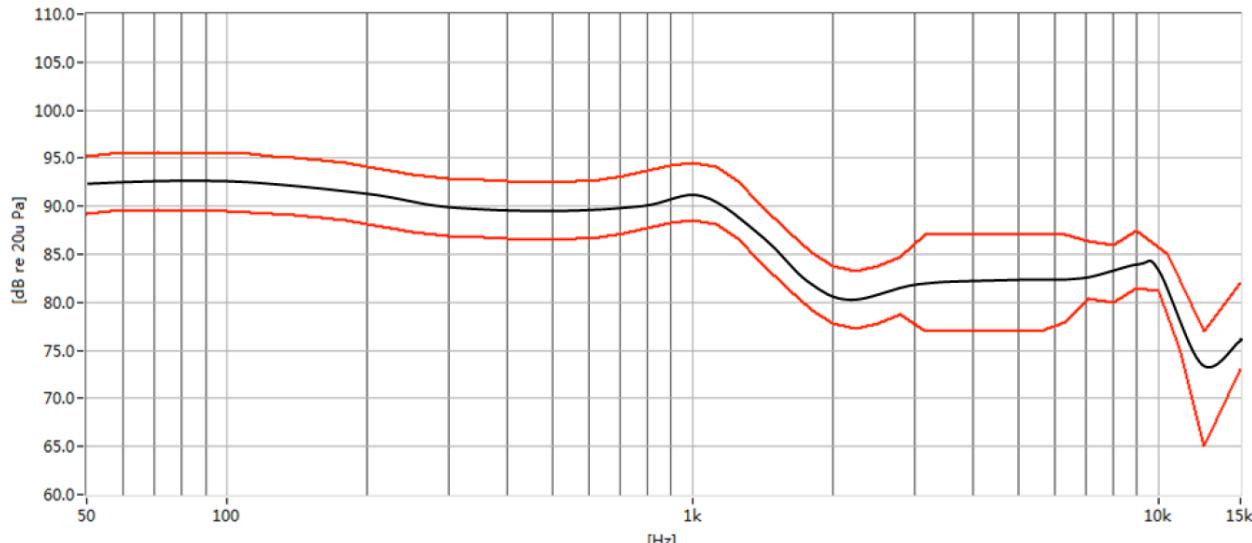
Parameters	Values	Units
Rated Input Power	10	mWatts
Max Input Power	20	mWatts
Impedance	$50 \pm 15\%$	Ohms
Sensitivity (SPL @ 300, 500, 600, 800 Hz; 224mV)	$90 \pm 3$	dB Pa/V
Resonant Frequency	$100 \pm 20\%$	Hz
Frequency Range	50 ~ 10,000	Hz
Distortion (@ 50 ~ 1000 Hz/ 224mV)	5% Max	-
Frame Material	A3 Metal	-
Magnet Material	NdFeB	-
Diaphragm Material	Mylar	-
Weight	1.5	Grams
Ingress Protection	IPX7	-
Environmental Compliances	ROHS/REACH	-
Buzz, Rattle, etc.	Should not be audible with 707 mV sine wave from 50 Hz to 15 kHz	-
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	-
Operating Temperature	-25 ~ +60	°C
Storage Temperature	-25 ~ +60	°C

## Measurement Method (measured with 224mV, Temperature: 25 ~ 35°C, Relative Humidity: 25%~75%)

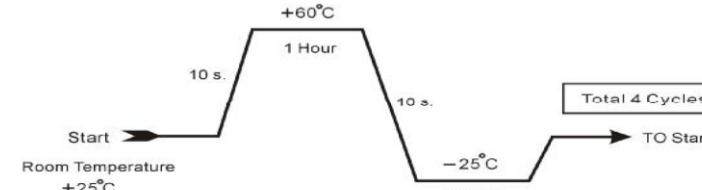
### 1. Measurement Method



## Frequency Response (measured at 224mV)

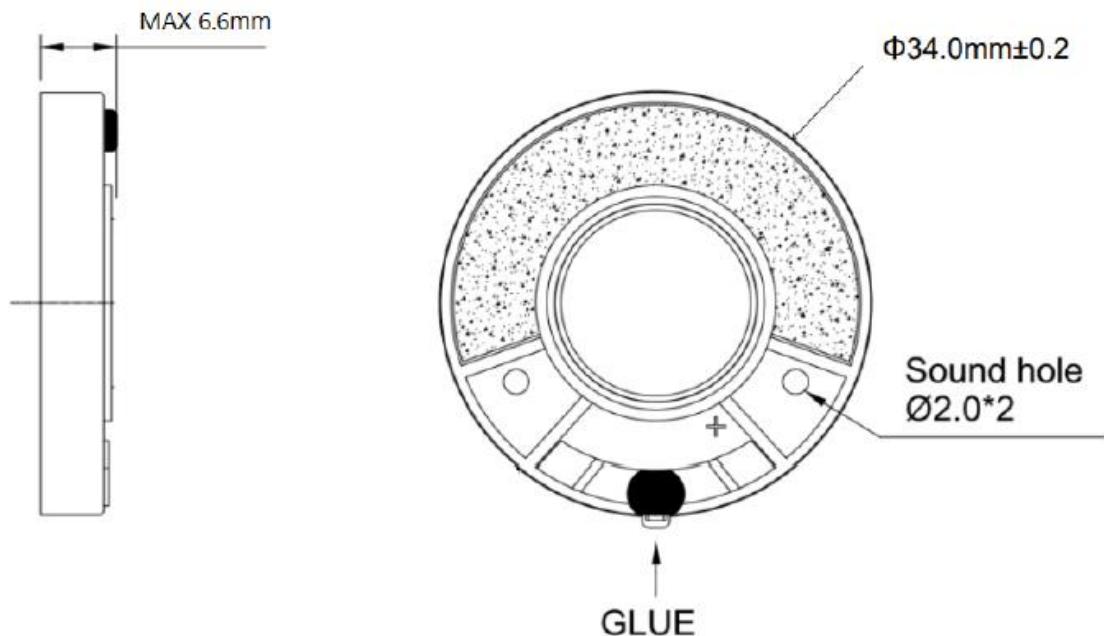


## Reliability Testing

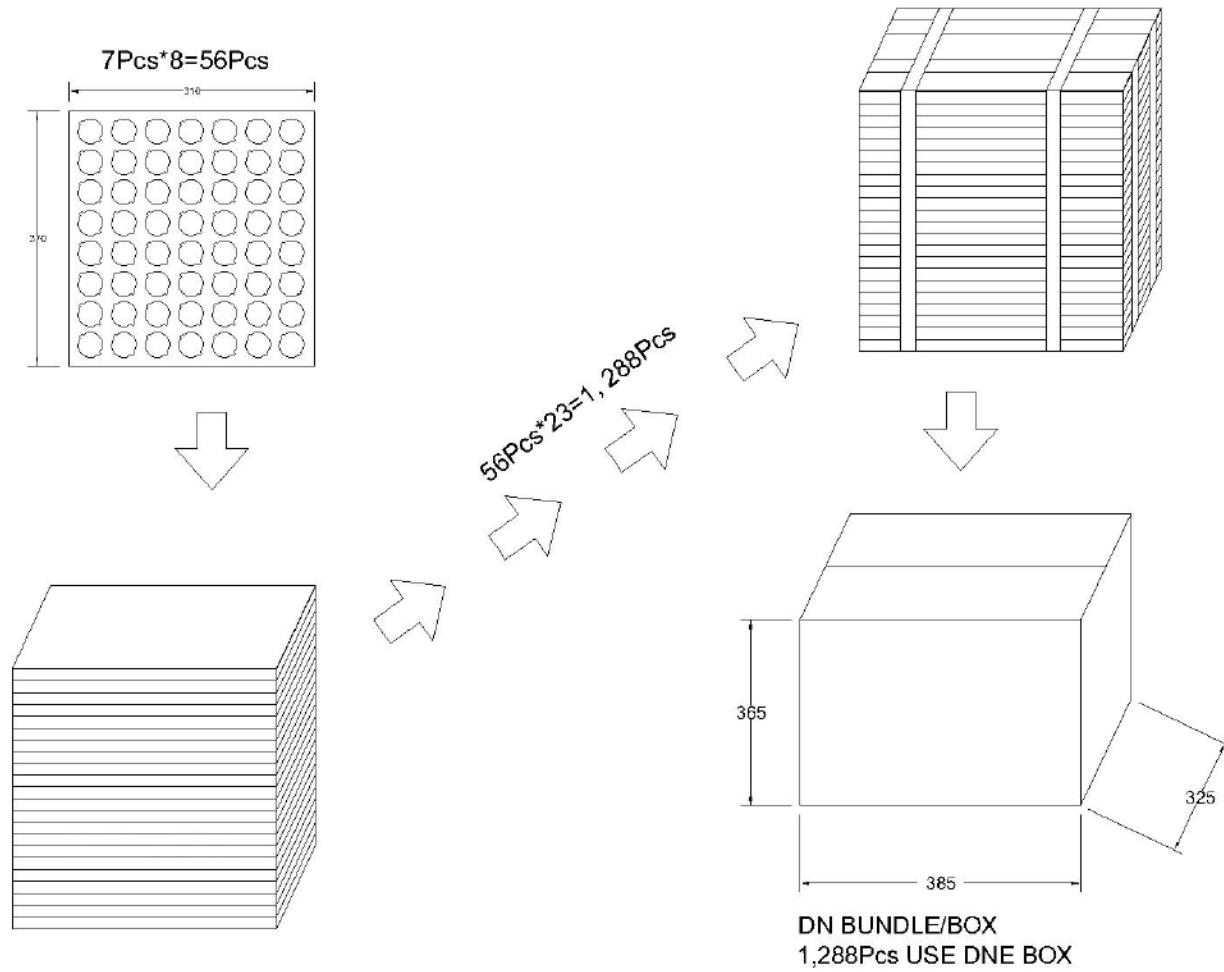
Type of Test	Test Specifications
High Temperature Test	48 hours at $+60^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Low Temperature Test	48 hours at $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Humidity Test	48 hours at $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ with relative humidity at 90~95% relative humidity
Temperature Cycle Testing	The part shall be subjected to 4 cycles. One cycle shall be 2 hours and consist of:  <p>The graph illustrates a temperature cycle test. It starts at Room Temperature (<math>+25^{\circ}\text{C}</math>). The cycle consists of a 1-hour rise to <math>+60^{\circ}\text{C}</math> (labeled '1 Hour') and a 1-hour fall to <math>-25^{\circ}\text{C}</math> (labeled '1 hour'). The transitions between these extremes are 10 seconds each. The entire cycle is labeled 'Total 4 Cycles' and ends with 'TO Start'.</p>
Vibration Test	Frequency 15~55 Hz, Amplitude 1.5 mm for 2 hours
Drop Test	100 cm free fall on concrete floor, 10 times

After each test, the speaker's SPL shall be  $\pm 4$  dB of the original SPL after 1 hour of recovery.

## Dimensions



## Packaging



### Specifications Revisions

Revision	Description	Date	Approved
A	Released from Engineering	3/21/2025	JD
B	Updated Drawing	6/9/2025	JD

#### Note:

1. Unless otherwise specified:
  - A. All dimensions are in millimeters.
  - B. Default tolerances are  $\pm 0.5\text{mm}$  and angles are  $\pm 3^\circ$ .
2. Specifications subject to change or withdrawal without notice.