



PUIaudio



Data Sheet

AR03450MR

Features:

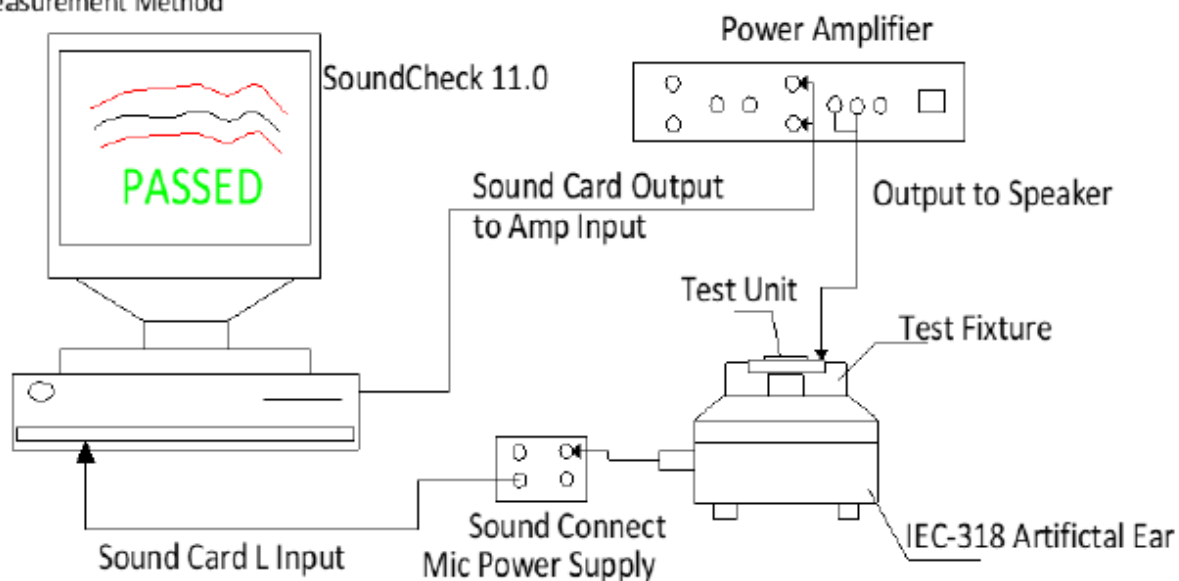
- Low 100 Hz resonant frequency
- 50 Ohm Impedance
- High 20mW max input power

Specifications

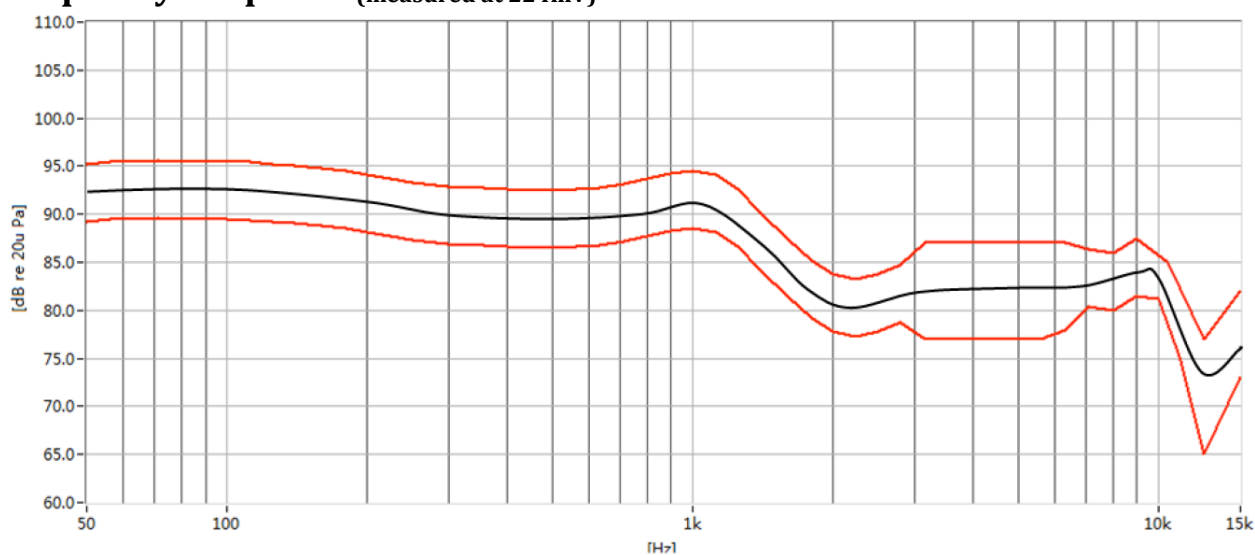
Parameters	Values	Units
Rated Input Power	10	mW
Max Input Power	20	mW
Impedance	$50 \pm 15\%$	Ohms
Sensitivity (SPL) $f_{AVG} = 300\text{Hz}, 500\text{Hz}, 600\text{Hz}, 800\text{Hz}$ $V_{DRIVE} = 224\text{mV}$	127 ± 3	dB
Resonant Frequency	$100 \pm 20\%$	Hz
Frequency Range	50 ~ 15,000	Hz
Maximum Distortion $50\text{Hz} \leq f \leq 1\text{kHz}$ $V_{DRIVE} = 224\text{mV}$	5	%
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	-
Frame Material	A3 Metal	-
Magnet Material	NdFeB	-
Diaphragm Material	Mylar	-
Weight	5.8	gr
Ingress Protection	IPX7	-
Operating Temperature	$-25 \leq T_0 \leq 55$	°C
Storage Temperature	$-25 \leq T_s \leq 60$	°C
Environmental Compliances	ROHS/REACH	-

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

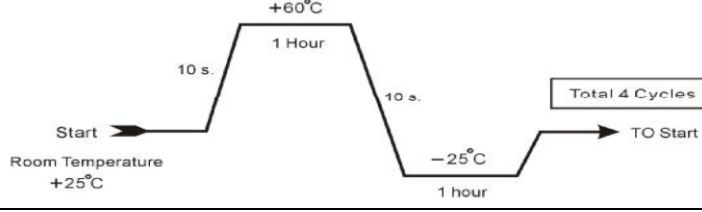
1. Measurement Method



Frequency Response (measured at 224mV)

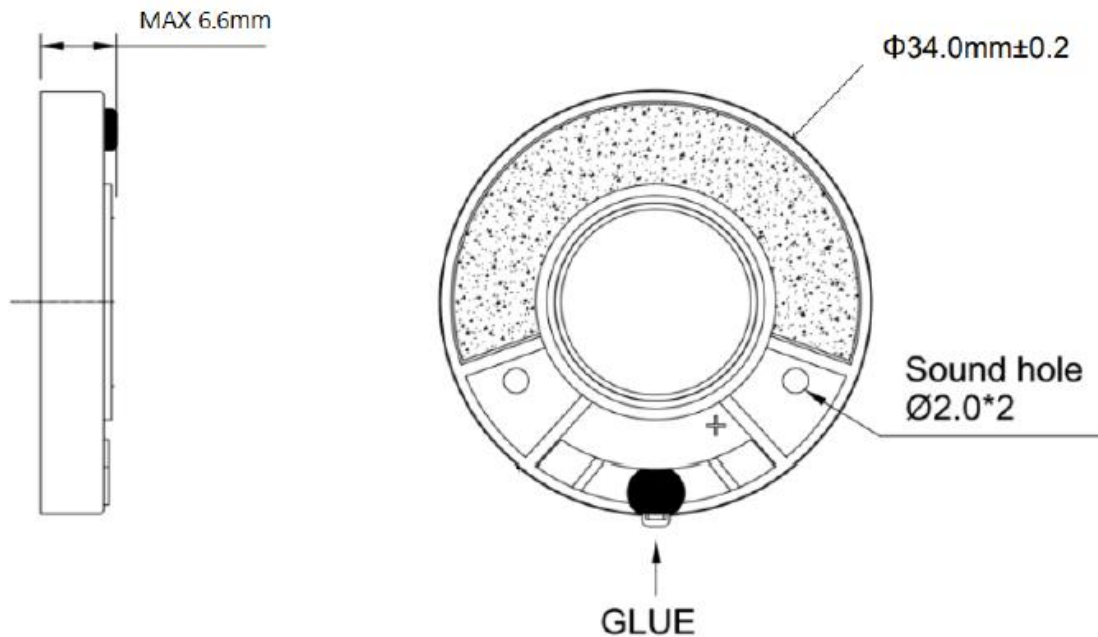


Reliability Testing

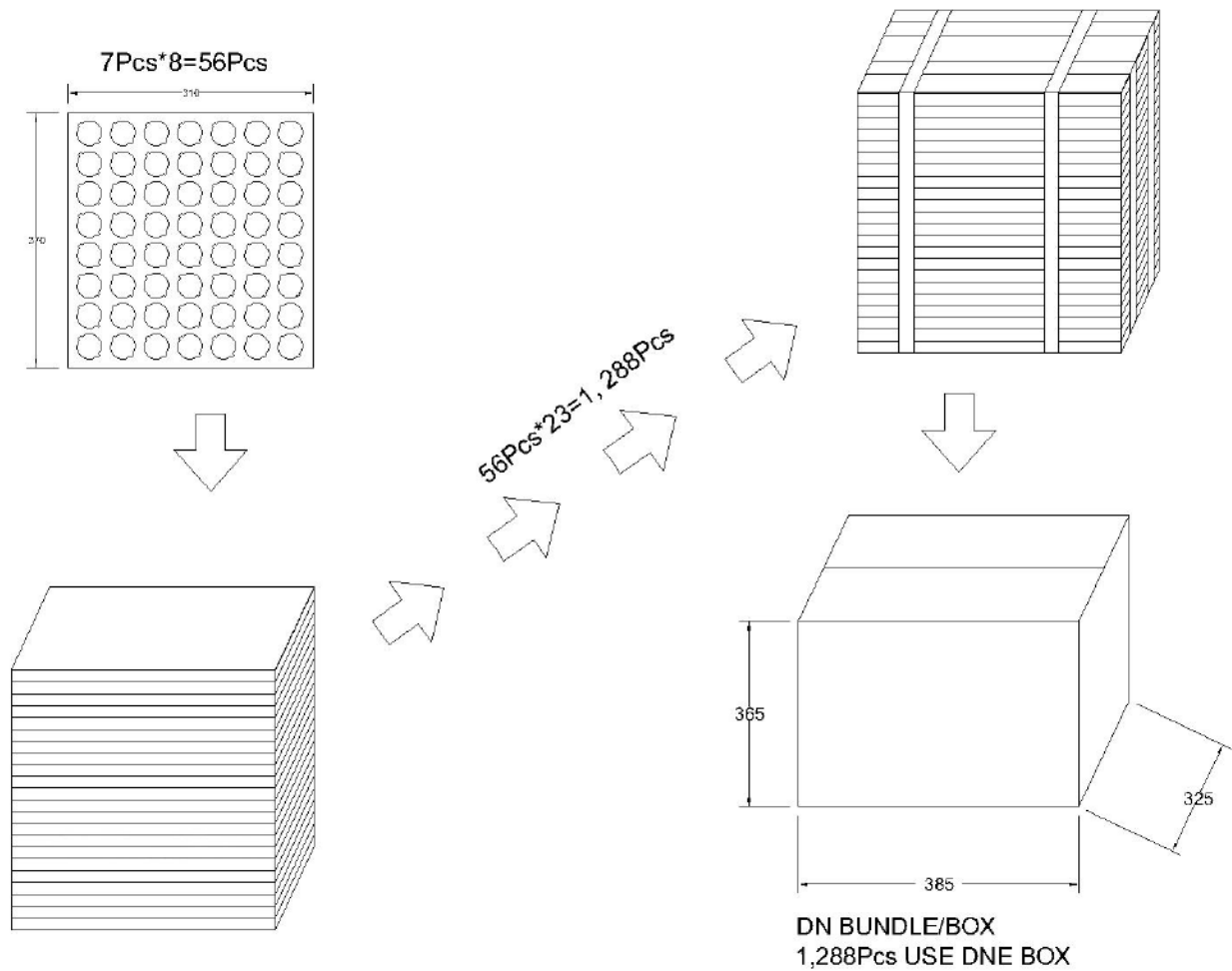
Type of Test	Test Specifications
High Temperature Test	96 hours at $+60^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Low Temperature Test	96 hours at $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Humidity Test	48 hours at $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ with relative humidity at 90~95% relative humidity
Temperature Cycle Testing	The part shall be subjected to 4 cycles. One cycle shall be 2 hours and consist of:  Start → Room Temperature $+25^{\circ}\text{C}$ → 10 s → $+60^{\circ}\text{C}$ (1 Hour) → 10 s → -25°C (1 hour) → TO Start Total 4 Cycles
Drop Test	70cm free falling on plywood at least 5cm thick, 6 times.

After each test, the speaker's SPL shall be ± 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
C	Updated SPL, Weight, Frequency Range, and Operating Temperature	7/22/2026	KH

- 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.