



# PUIaudio



## Data Sheet

AR01016MR

### Features:

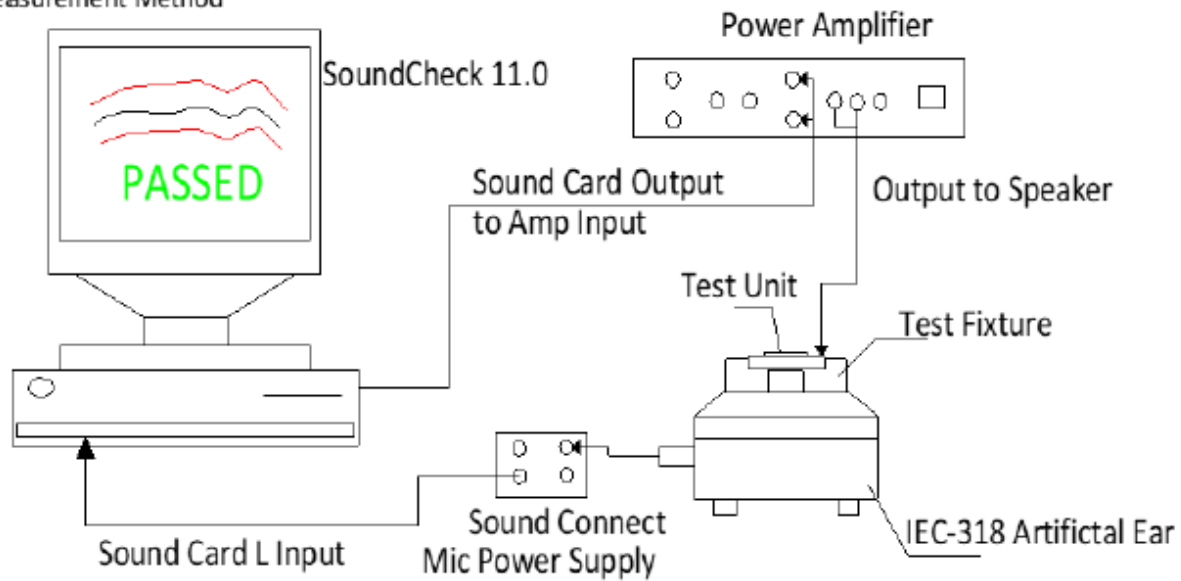
- Small 10mm x 4.8mm size
- High 113 dB output with 800mV in Artificial Ear (1cm)
- High energy neodymium magnet

### Specifications

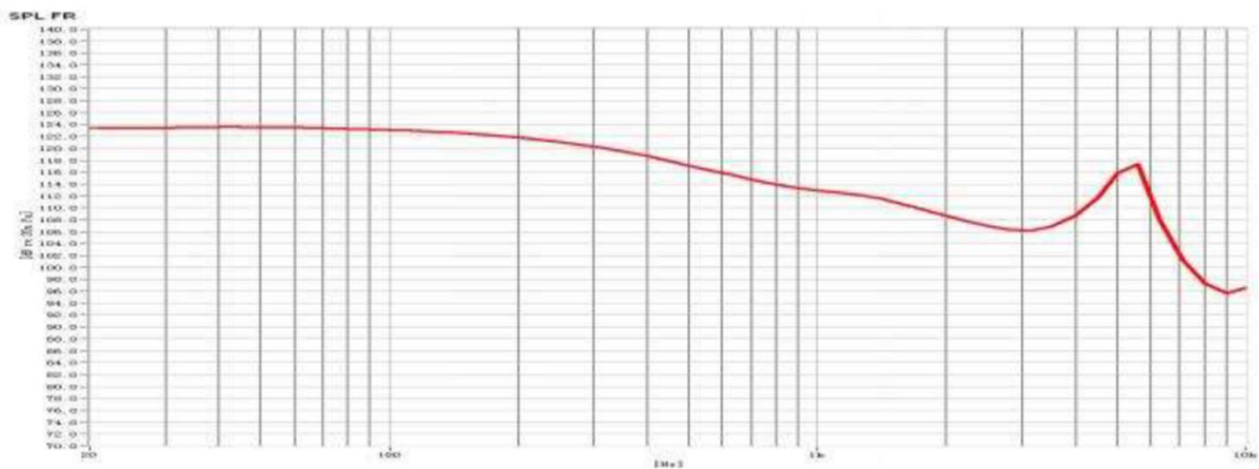
Parameters	Values	Units
Rated Input Power	3	mWatts
Max Input Power	5	mWatts
Impedance	$16 \pm 15\%$	Ohms
Sensitivity (SPL @ 1kHz/1mW)	$113 \pm 2$	dB Pa/V
Resonant Frequency	$130 \pm 20\%$	Hz
Frequency Range	20 ~ 7,000	Hz
Distortion (@ 1kHz/ 1mW)	3% Max	-
Frame Material	A3 Metal	-
Magnet Material	NdFeB	-
Diaphragm Material	PET	-
Weight	0.7	Grams
Environmental Compliances	ROHS/REACH	-
Buzz, Rattle, etc.	Should not be audible with 126 mV sine wave from 100 Hz to 3 kHz	-
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	-
Operating Temperature	-20 ~ +60	°C
Storage Temperature	-20 ~ +60	°C

## Measurement Method (measured with 126mV, Temperature: 25 ~ 35°C, Relative Humidity: 25%~75%)

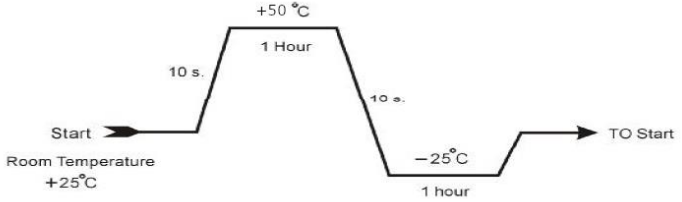
### 1. Measurement Method



## Frequency Response (measured at 126mV)

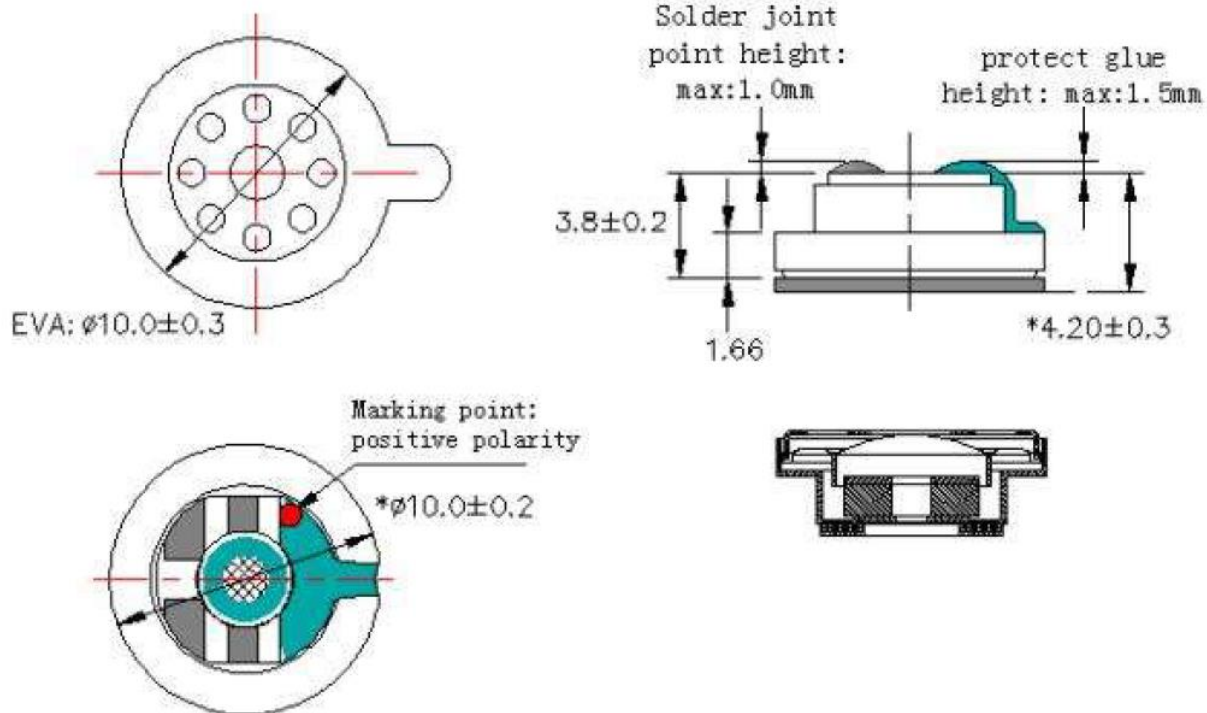


## Reliability Testing

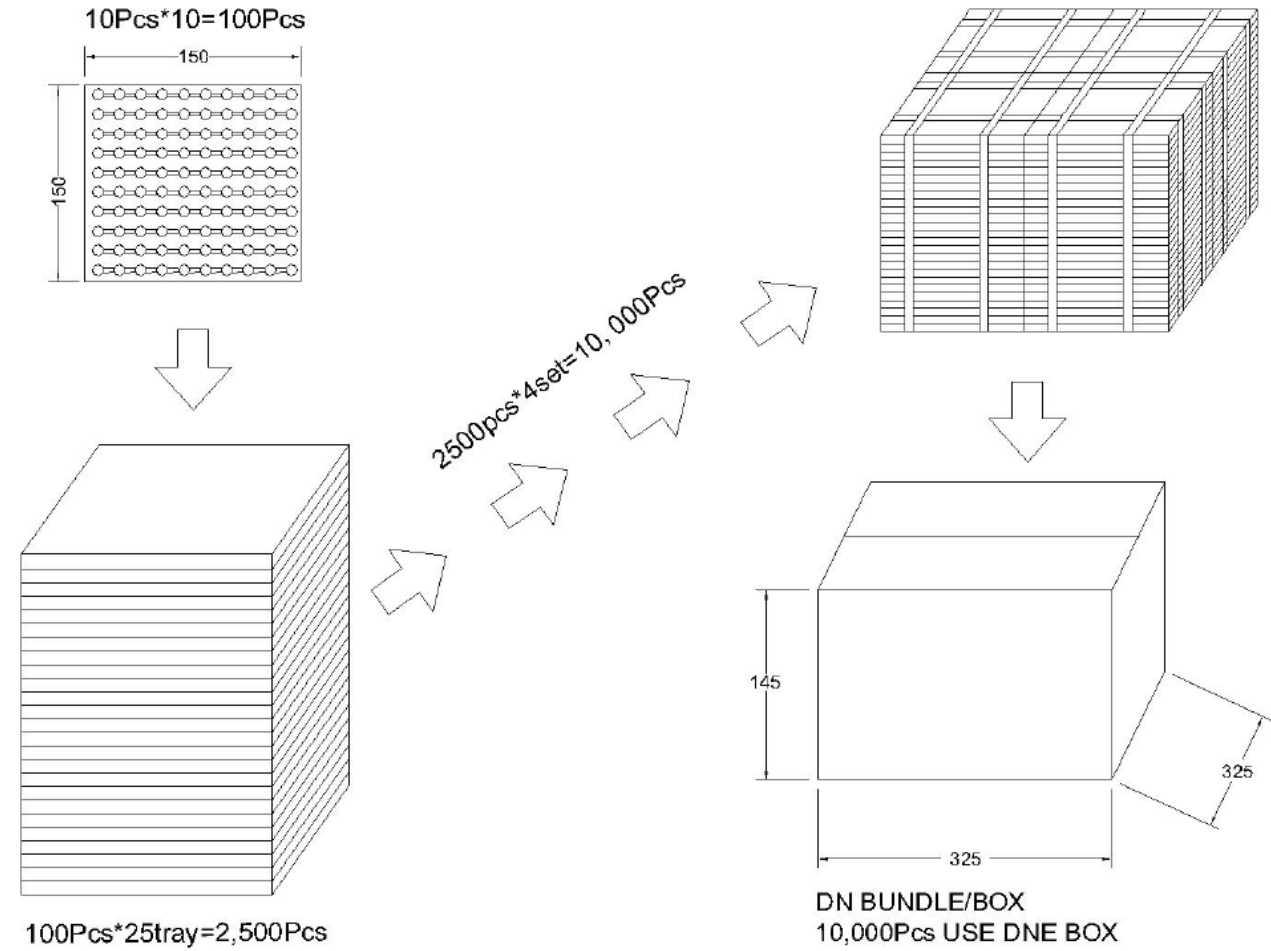
Type of Test	Test Specifications
High Temperature Test	96 hours at $+60^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Low Temperature Test	96 hours at $-20^{\circ}\text{C} \pm 2^{\circ}\text{C}$
Humidity Test	96 hours at $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ with relative humidity at 96% relative humidity
Temperature Cycle Testing	<p>The part shall be subjected to 4 cycles. One cycle shall be 6 hours and consist of</p>  <p>The diagram shows a temperature cycle starting at 'Room Temperature +25°C'. It rises at '10 s.' to '+50 °C', holds for '1 Hour', falls at '10 s.' to '-25°C', holds for '1 hour', and then returns to 'TO Start'.</p>
Vibration Test	Frequency $30 \pm 15$ Hz, Amplitude 1.5 mm for 3 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

- 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.