



# PUI audio



Data Sheet

AR01016MR

## Features:

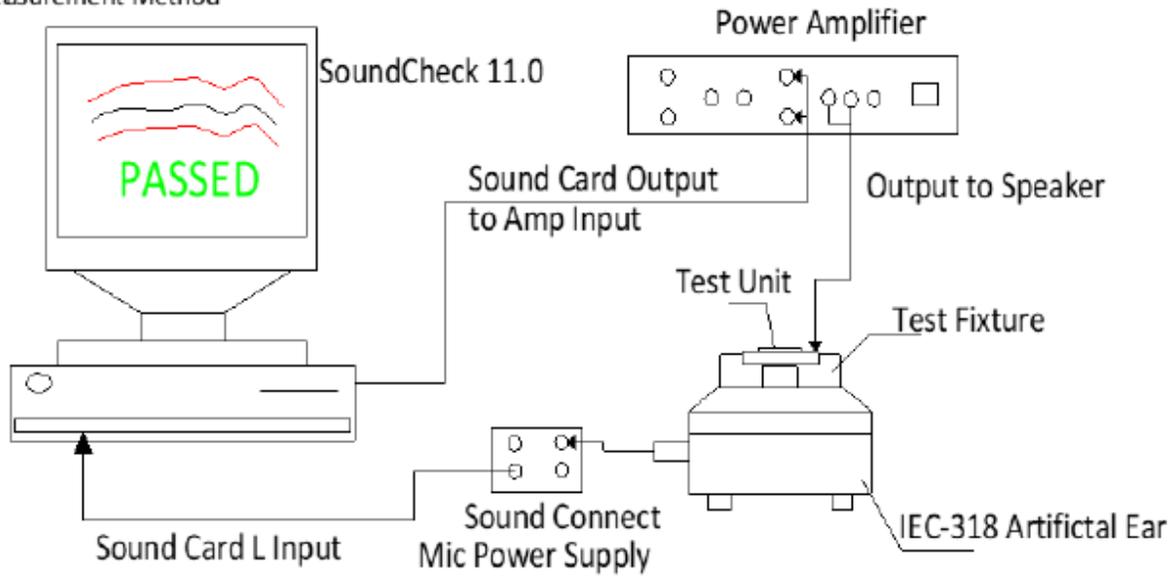
- Small 10mm x 4.8mm size
- High 113 dB output with 800mV in Artificial Ear (1cm)
- High energy neodymium magnet

## Specifications

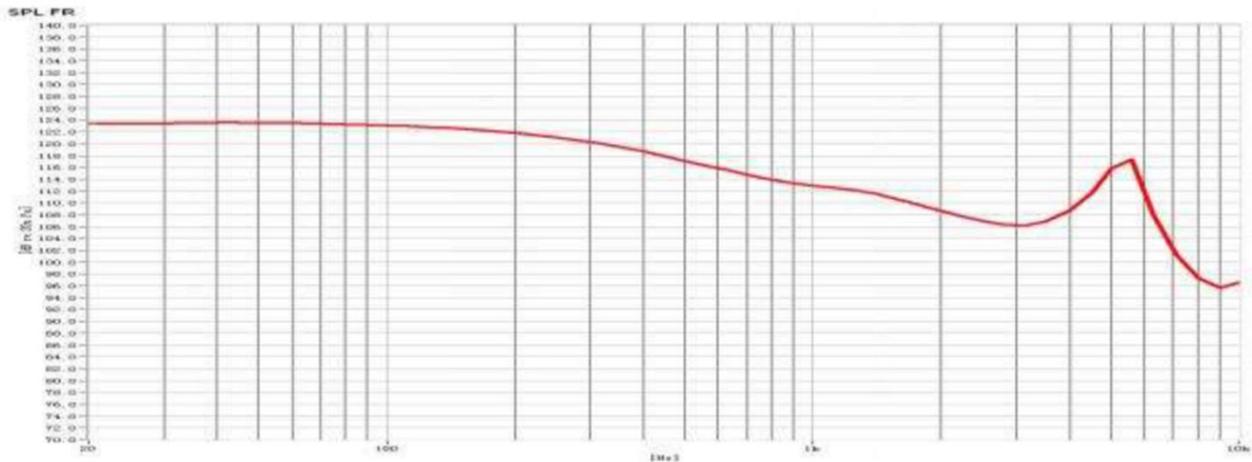
Parameters	Values	Units
Rated Input Power	3	mWatts
Max Input Power	5	mWatts
Impedance	16 ± 15%	Ohms
Sensitivity (SPL @ 1kHz/1mW)	113 ± 2	dB Pa/V
Resonant Frequency	130 ± 20%	Hz
Frequency Range	20 ~ 7,000	Hz
Distortion (@ 1kHz/ 1mW)	3% Max	-
Frame Material	A3 Metal	-
Magnet Material	NdFeB	-
Diaphragm 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%)

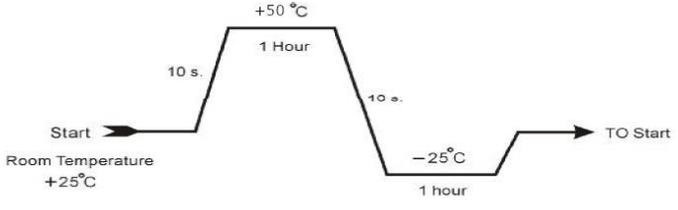
### 1. Measurement Method



## Frequency Response (measured at 126mV)

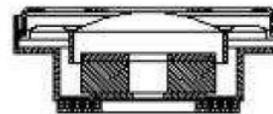
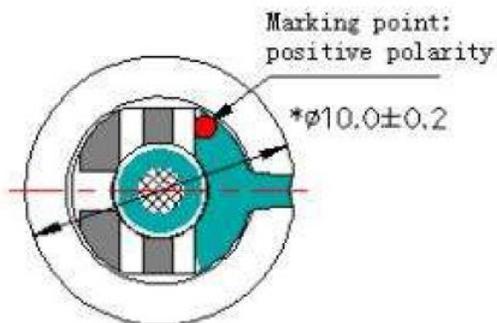
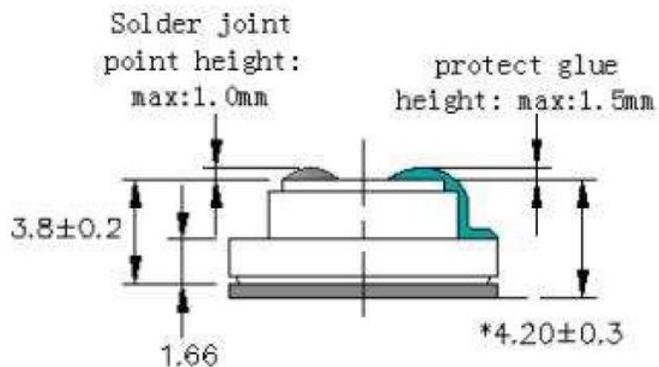
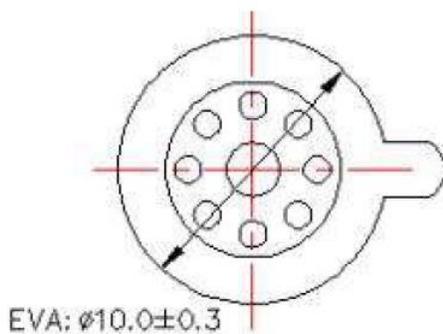


## Reliability Testing

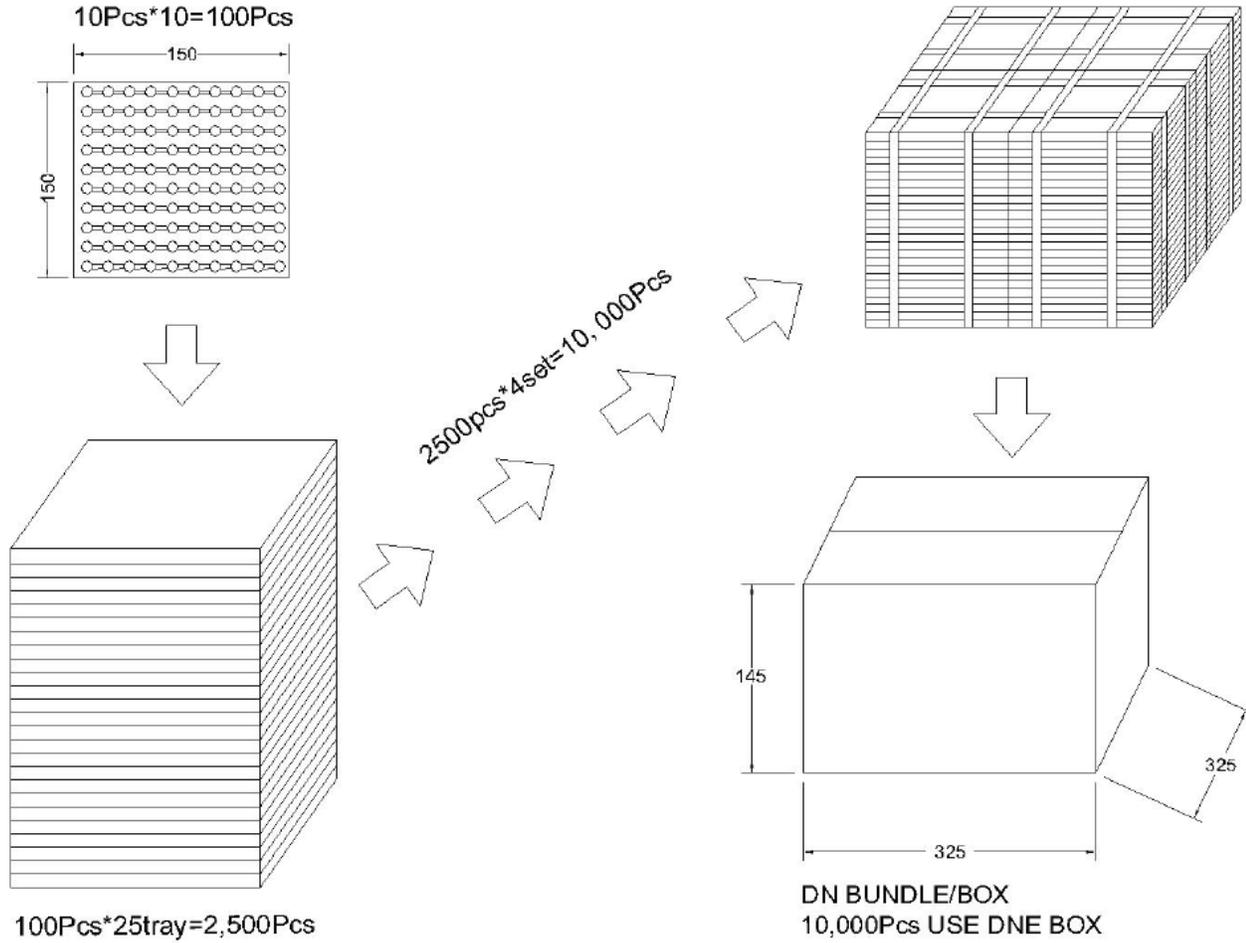
Type of Test	Test Specifications
High Temperature Test	96 hours at +60°C ± 2°C
Low Temperature Test	96 hours at -20°C ± 2°C
Humidity Test	96 hours at +40°C ± 2°C with relative humidity at 96% relative humidity
Temperature Cycle Testing	<p>The part shall be subjected to 4 cycles. One cycle shall be 6 hours and consist of</p>  <p>The graph shows a temperature cycle starting at 'Room Temperature +25°C'. It ramps up at 10 s to +50°C, holds for 1 Hour, ramps down at 10 s to -25°C, holds for 1 hour, and then ramps back up to 'TO Start'.</p>
Vibration Test	Frequency 30 ± 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 ±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:**

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