



# PUI audio



Data Sheet

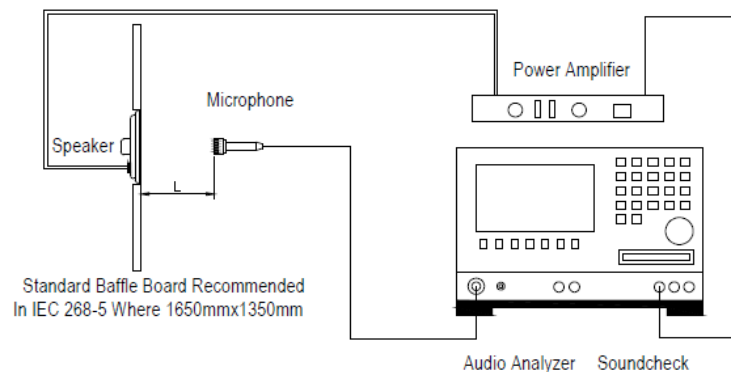
AS03808PR-R

## Specifications

Parameters	Values	Units
Rated Input Power	0.1	Watts
Max Input Power	0.2	Watts
Impedance	$8 \pm 15\%$	Ohms
Sensitivity (Avg. 0.8, 1.0, 1.2, 1.5kHz @ 0.1W/0.1M)	$92 \pm 3$	dBa
Distortion (Max @ 1.5W, 1 kHz)	<5%	-
Resonant Frequency	$850 \pm 20\%$	Hz
Frequency Range	$F_0 \sim 5,000$	Hz
Housing Material	Metal	-
Diaphragm Material	Paper	-
Magnet Material	NdFeB	-
Weight	10.8	Grams
Ingress Protection Rating	-	-
Environmental Compliances	ROHS/REACH	-
Buzz, Rattle, etc.	Should not be audible with 0.894V sine wave from $F_0$ -5kHz	
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	
Operating Temperature	$-20 \sim +60$	°C
Storage Temperature	$-30 \sim +70$	°C

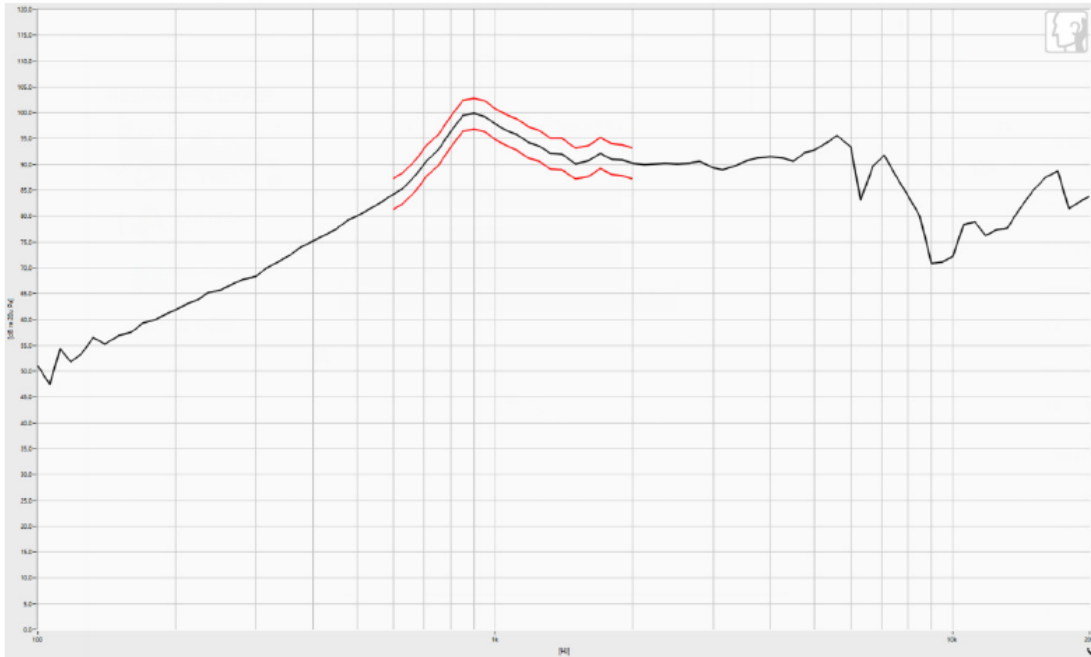
## Measurement Method

Standard test condition of speaker



L=10cm

## Frequency Response (measured at 0.1M with 0.1W input power)

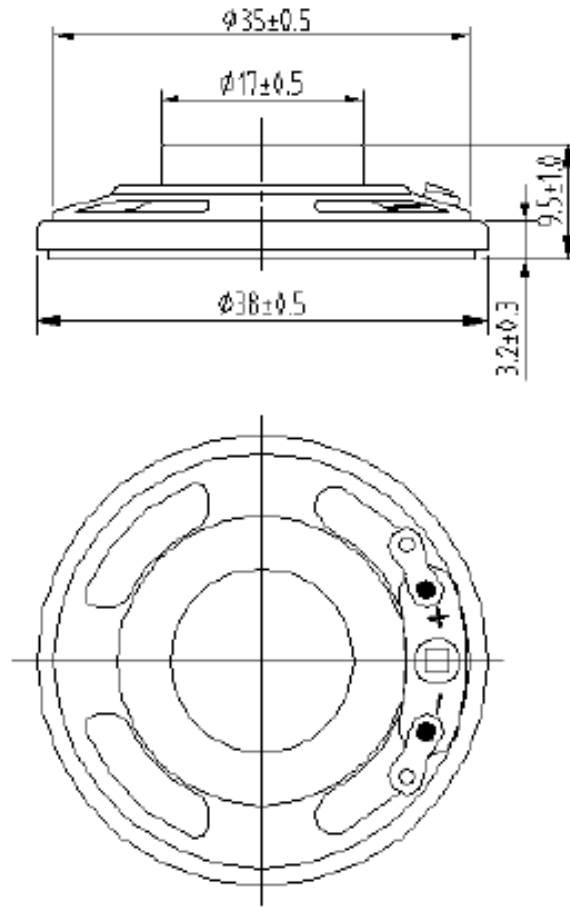


## Reliability Testing

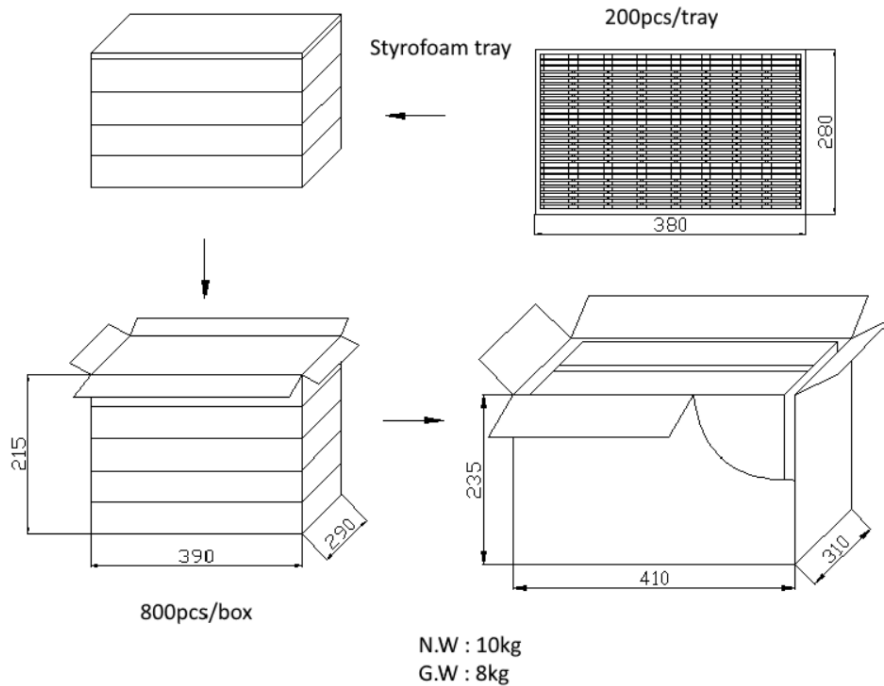
Type of Test	Test Specifications
High Temperature Test	96 hours at 70°C, Random Humidity
Low Temperature Test	96 hours at -30°C, Random Humidity
Humidity Test	48 hours at 40°C with relative humidity at 90-95%
Temperature Cycle Testing	<p>Expose part to 4 cycles of the above test.</p>
Vibration Test	Frequency $30 \pm 15$ Hz, Amplitude 1.5mm for 3hrs.
Drop Test	75cm free fall onto concrete floor, 10 times.
Load Test	White-Noise at rated power for 96 hours.

**After each test, part shall conform to rated performance within  $\pm 3$ dB after 6 hours recovery.**

## Dimensions (Tolerance $\pm 0.5\text{mm}$ unless otherwise noted)



## Packaging



**Specifications Revisions**

<b>Revision</b>	<b>Description</b>	<b>Date</b>	<b>Approved</b>
-	Released from Engineering	06/06/2006	-
A	Revised to Inventor 3D Template	12/08/2008	BR
B	Revised Electrical Parameters	03/17/2017	ML
C	Revised SPL, Resonant Frequency, speaker height	04/08/2024	ML
D	Add Reliability Tests, Change Packaging type and quantity	06/25/2024	ML

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.