



# PUI audio



Data Sheet

AS04008PR-6

The **AS04008PR-6** is designed for applications that require robust low-frequency response in compact designs.

## Features:

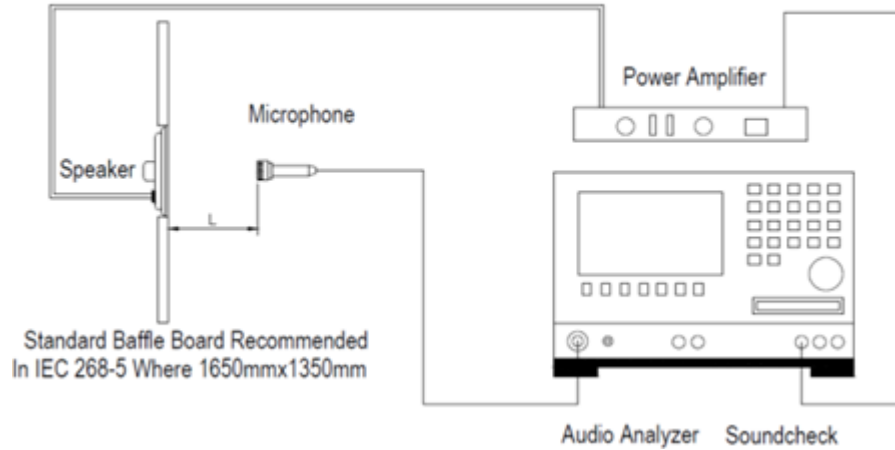
- 86dB SPL: 1W dissipation, distance = 0.5m
- 3.0W continuous dissipation
- 170Hz free-air resonance
- 40mm diameter x 19mm dimensions

## Specifications

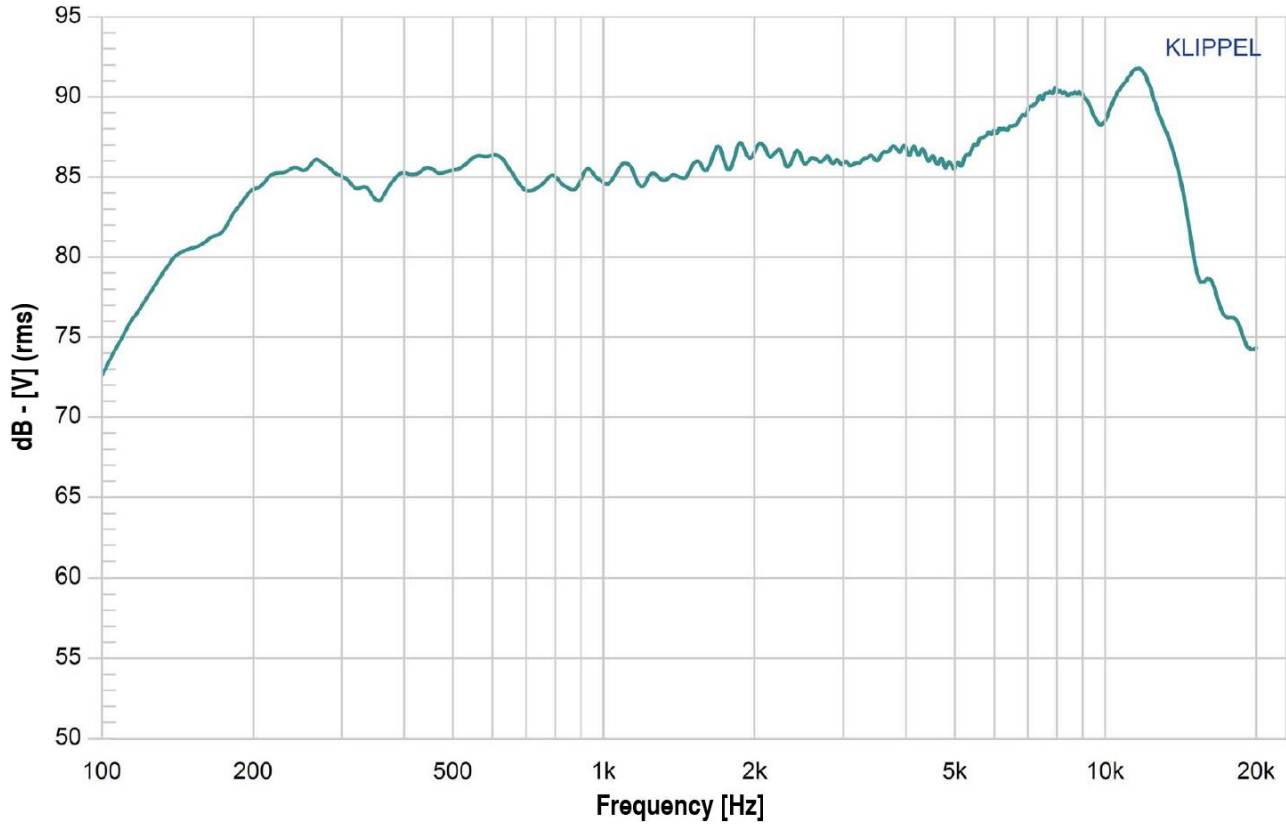
Parameters	Values	Units
Rated Input Power	3.0	Watts
Maximum Input Power	4.0	Watts
Impedance	$8 \pm 15\%$	Ohms
Sensitivity (SPL @ 2kHz) $P_{DRIVE} = 1.0W$ , distance = 0.5m f = ave. 0.6kHz, 0.8kHz, 1.0kHz, 1.2kHz	$86 \pm 3$	dB
Resonant Frequency ( $f_0$ )	$170 \pm 20\%$	Hz
Frequency Range (-10 dB)	$f_0 \leq f \leq 20,000$	Hz
Total Harmonic Distortion (THD) f = 1 kHz, $P_{DRIVE} = 1.0W$	$\leq 5$	%
Frame Material	ABS + 15% GF	-
Magnet Material	NdFeB	-
Diaphragm Material	Sponge + Paper	-
Weight	13.5	gm
Buzz, Rattle, etc.	Not audible with $P_{DRIVE} = 3.0W$ , sine wave	-
Polarity	Applying positive dc current to "+" terminal moves diaphragm forward	-
Operating Temperature Range	$-25 \leq T_o \leq 50$	°C
Storage Temperature Range	$-40 \leq T_s \leq 85$	°C
Environmental Compliance	RoHS/REACH	-

## Measurement Method (measured with $P_{DRIVE} = 1.0$ , distance = 0.5m)

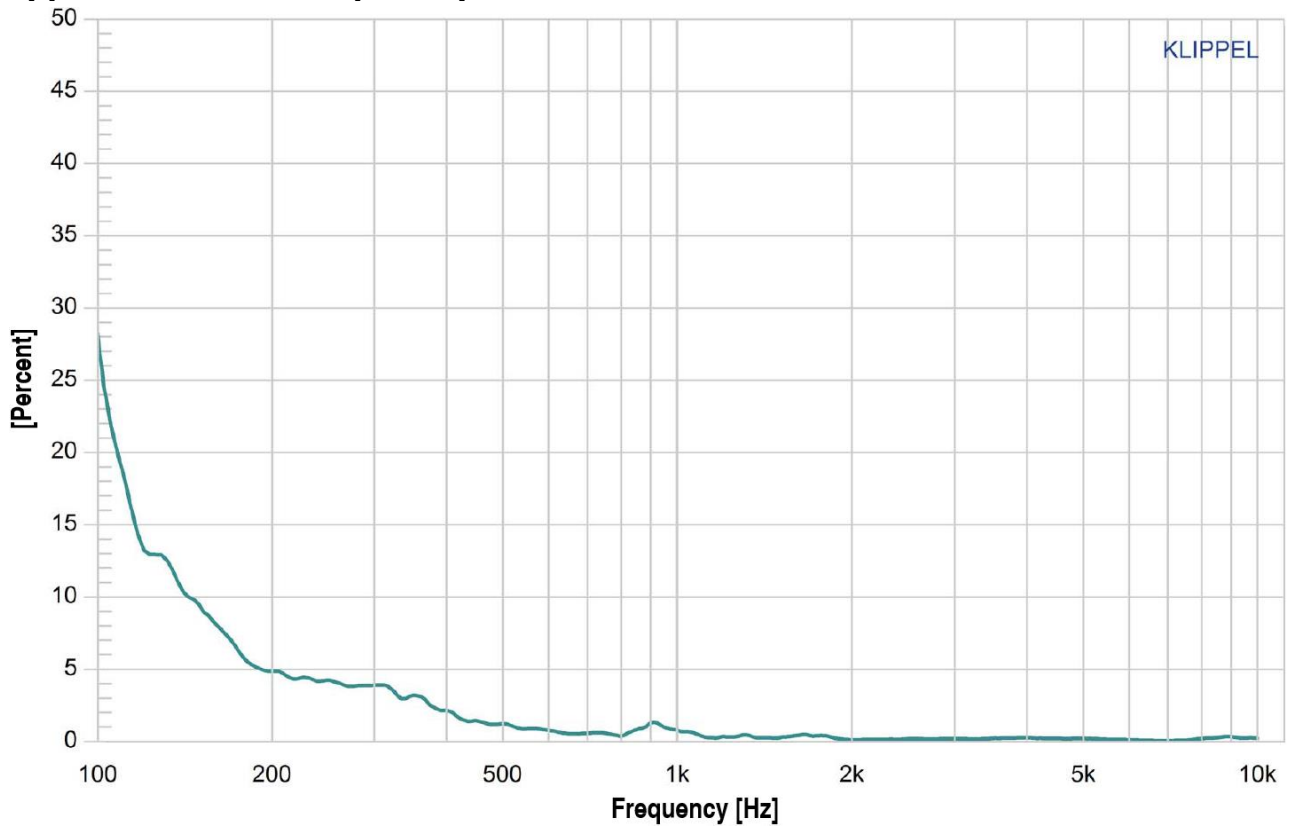
### Standard test condition of speaker



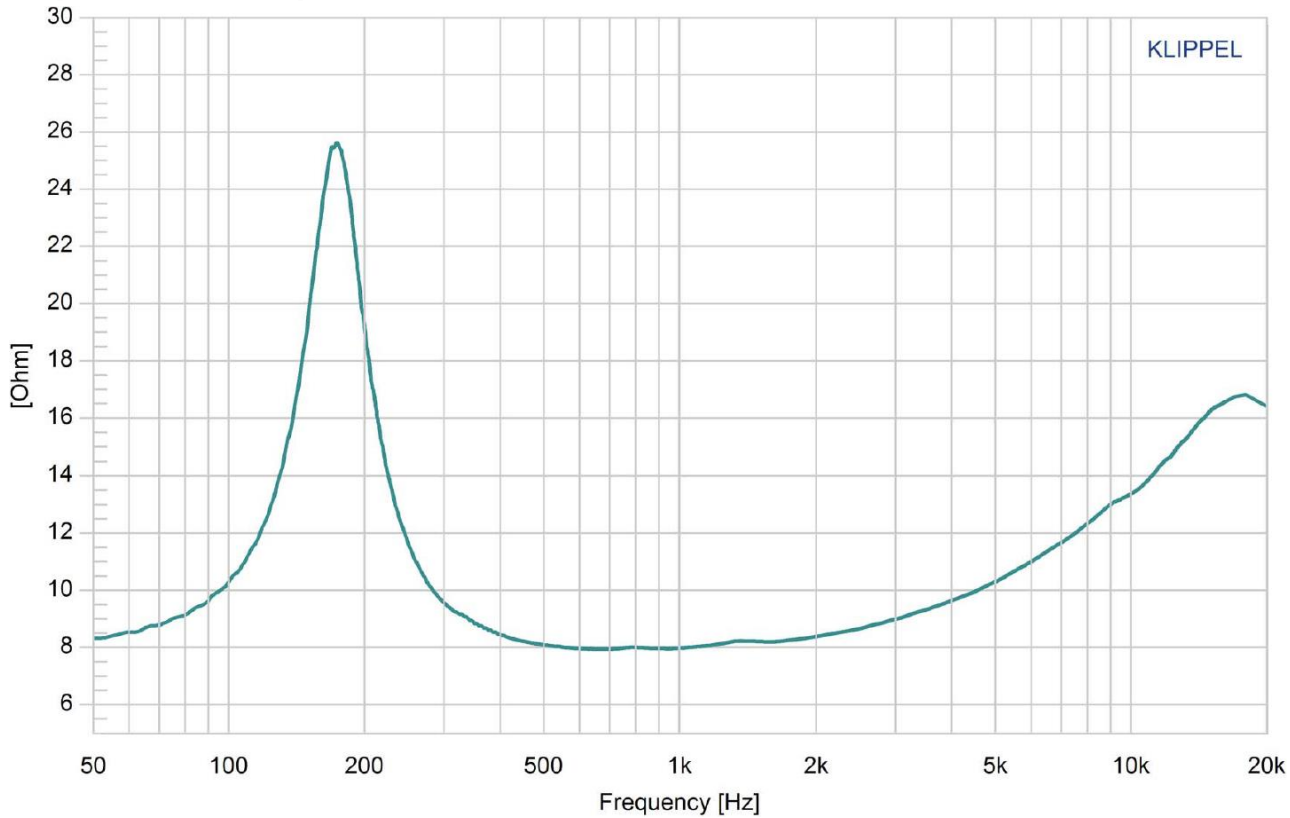
## Typical Frequency Response ( $P_{DRIVE} = 1.0W$ , distance = 0.5m)



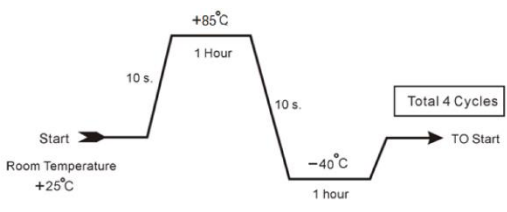
### Typical THD vs. Frequency ( $P_{DRIVE} = 1.0W$ )



### Impedance Response

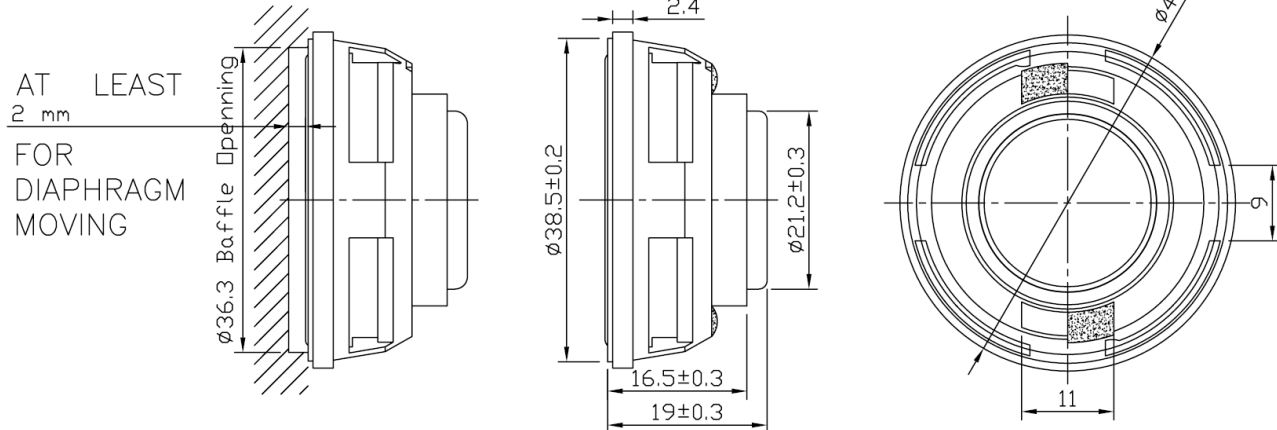


## Reliability Testing

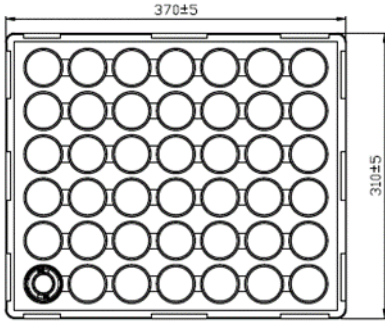
Type of Test	Test Specifications	Judgement
High Temperature Test GB2423.2-81	96 hours at +85°C ± 2°C followed by one hour in normal room temperature	SPL shall not deviate by ±3dB. Resonant frequency shall not deviate by ±50Hz. (compared with pre-test measurement)
Low Temperature Test GB2423.1-81	96 hours at -40°C ± 2°C followed by one hour in normal room temperature	
Humidity Test GB5170.18-87	96 hours at +40°C ± 2°C with relative humidity between 90% and 95% followed by 6 hours in normal room temperature	
Temperature Cycle Testing GB5170.18-87	 <p>The graph shows a temperature cycle starting at Room Temperature +25°C. It ramps up to +85°C in 10 seconds, holds at +85°C for 1 hour, ramps down to -40°C in 10 seconds, and holds at -40°C for 1 hour. This cycle repeats 4 times before returning to the start.</p>	SPL shall not deviate by ±4dB. Resonant frequency shall not deviate by ±80Hz. (compared with pre-test measurement)
Vibration Test GB11606.8-89	Frequency 30±15 Hz, Amplitude 1.5 mm for 3 Hours	SPL shall not deviate by ±3dB. (compared with pre-test measurement)
Drop Test GB2423.8-81	75 cm free falling on concrete floor, 10 times.	
Load Test GB/T12060.5-2011	Speaker should not fail after applying 20Hz ~ 20kHz pink noise with HPF rated power input (RMS), 96 hours.	

## Dimensions (Measured in mm. Tolerance = ±0.2mm.)

### MOUNTING NOTICE

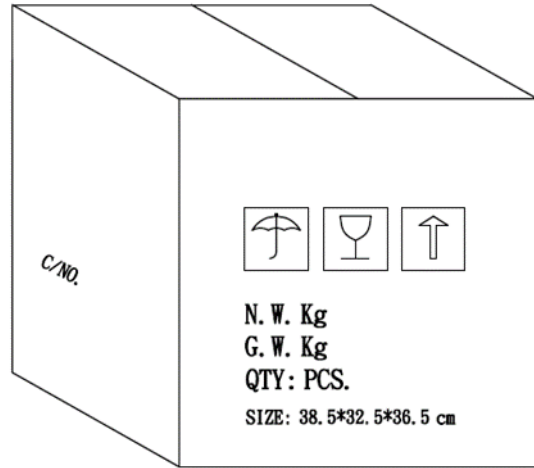
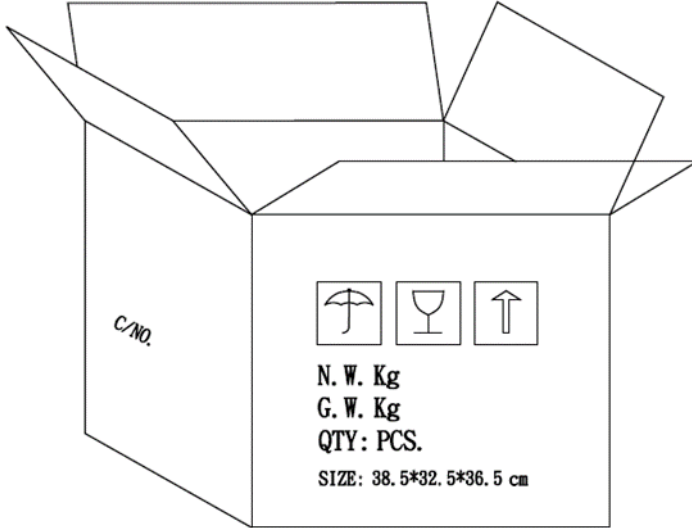


## Packaging



### NOTE

42 set per Layer  
Total 14 Layer per box  
Total 588 set per box  
38.5\*32.5\*36.5 cm  
HF+ROHS 2



## Measurement & Standard Reference

Abstract from GB/T 9396-1996 and IEC 268-5:1989: methods of measurement for main characteristics of loudspeakers.

### 5.1 Rated sine voltage.

A sinusoidal signal voltage specified by the manufacturer which makes the speaker work continuously in the rated frequency range, without causing electrical or mechanical damage to the speaker. The continuous voltage time is 1 hour.

### 5.2 Rated sine power.

The rated sine power corresponding with the rated sine voltage defined by:  $U_s^2/R$ , where  $U_s$  indicates the rated sin voltage and R indicates the rated impedance of the speaker.

### 5.3 Rated noise power.

The rated sine power corresponding with the rated sine voltage defined by:  $U_n^2/R$ , where  $U_n$  indicates the rated sin voltage and R indicates the rated impedance of the speaker.

### Specifications Revisions

Revision	Description	Date	Approved
A	Datasheet released from Engineering	03/25/2024	KH

Notes:

- Unless otherwise specified:
  - All dimensions are in millimeters.
  - Default tolerances are  $\pm 0.2\text{mm}$  and angles are  $\pm 3^\circ$ .
- Specifications subject to change or withdrawal without notice.