



PUI audio



Data Sheet

AS03208MS-3-R

PUI Audio's **AS03208MS-3-R** packs a punch despite its 32 x 32 x 16.5mm size. A 3W nominal, 4W max power handling and great sensitivity combine to make for a small speaker that can output as much as 85dB of sound at one meter!

The flat 200 Hz to 20,000 Hz frequency response covers over 90% of the audio band, and high-end design—rubber surround and non-resonant frame—makes for a speaker that truly delivers high fidelity performance. Great for critical listening applications!

Features:

- IP65 rated speaker face
- High 85dB output at 1W/50cm
- Neodymium motor
- Only 16.5 mm thick
- 1.5mm of excursion

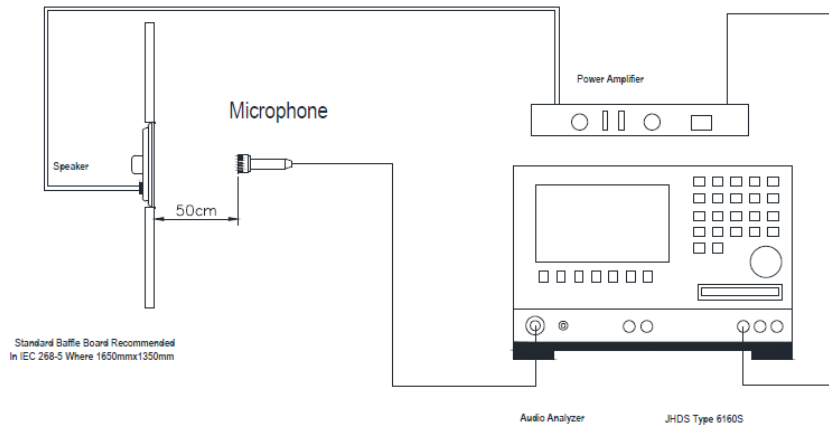
Specifications

Parameters	Values	Units
Rated Input Power	3	Watts
Max Input Power	4	Watts
Impedance	8 ± 15%	Ohms
Sensitivity (Avg. 600, 800, 1000, 1200Hz @ 1W/0.5M)	85 ± 3	dBA
Distortion (Max @ 1W, 1 kHz)	<5%	-
Resonant Frequency	200 ± 20%	Hz
Frequency Range	200 ~ 20,000	Hz
Housing Material	ABS	-
Diaphragm Material	Mylar	-
Magnet Material	NdFeB	-
Weight	16.6	Grams
Ingress Protection Rating	IPx5	-
Environmental Compliances	ROHS/REACH	-

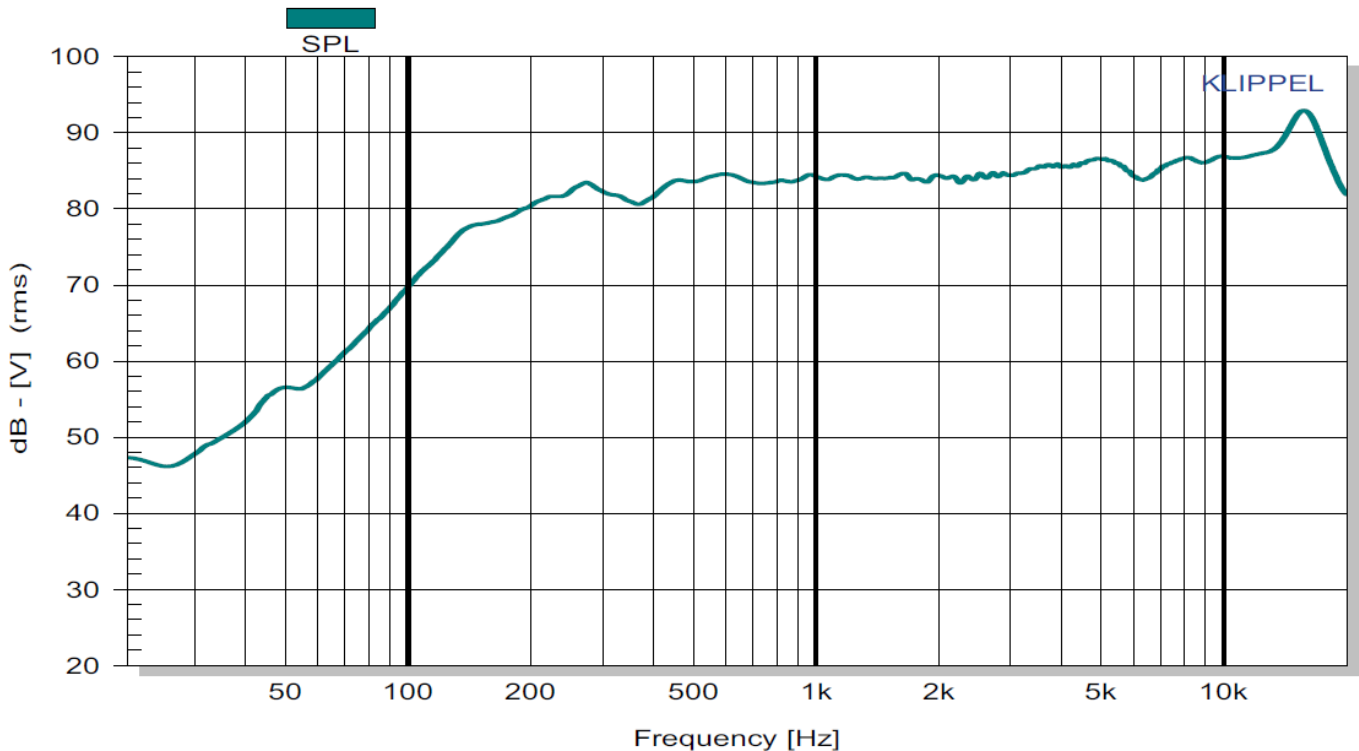
Specifications (continued)

Buzz, Rattle, etc.	Should not be audible with 3.46V sine wave from 300 Hz to 10 kHz	-
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	-
Operating Temperature	-40 ~ +85	°C
Storage Temperature	-40 ~ +85	°C

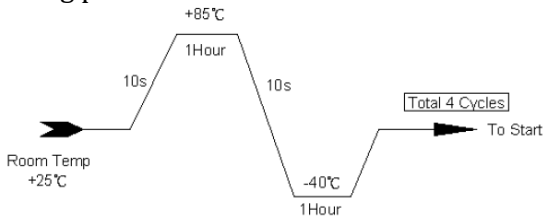
Measurement Method



Frequency Response (measured at 50cm with 1W input power)



Reliability Testing

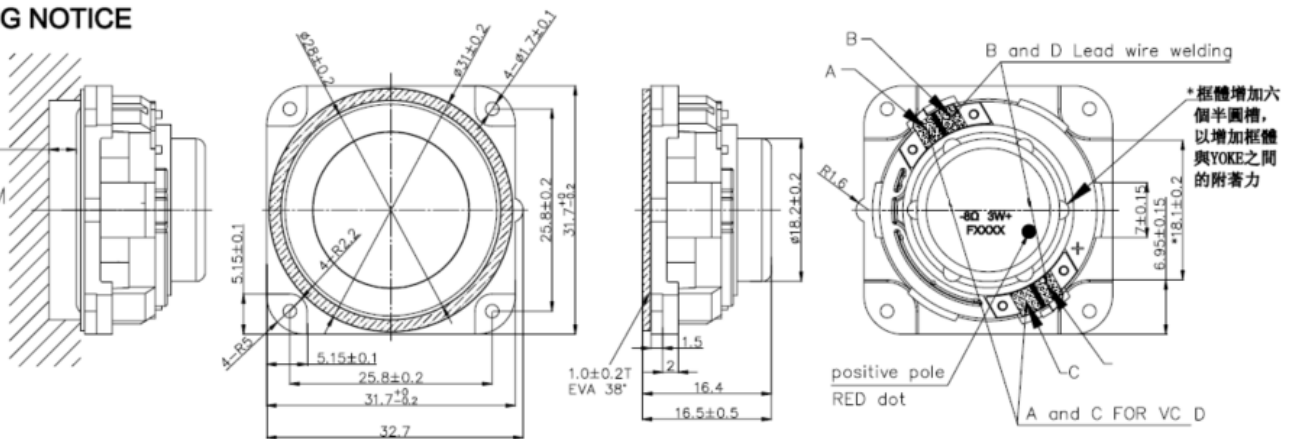
Type of Test	Test Specifications
High Temperature Test	96 hours at +85°C ± 3°C followed by six hours in normal room temperature
Low Temperature Test	96 hours at -40°C ± 3°C followed by six hours in normal room temperature
Humidity Test	96 hours at +40°C ± 3°C with relative humidity at 90% to 95% followed by 3 hours in normal room temperature
Temperature Cycle Testing	The part shall be subjected to 4 cycles using the following procedure: 
Vibration Test	30 ± 15 Hz vibration with 1.5mm amplitude for 3 hours
Drop Test	Drop the speakers onto a 40mm thick board 10 times from a height of 75cm.
Load Test	Pink noise is applied at the speakers rated power for 96 hours at room temperature

After each test, the speaker's SPL shall be ±3 dB of the original SPL

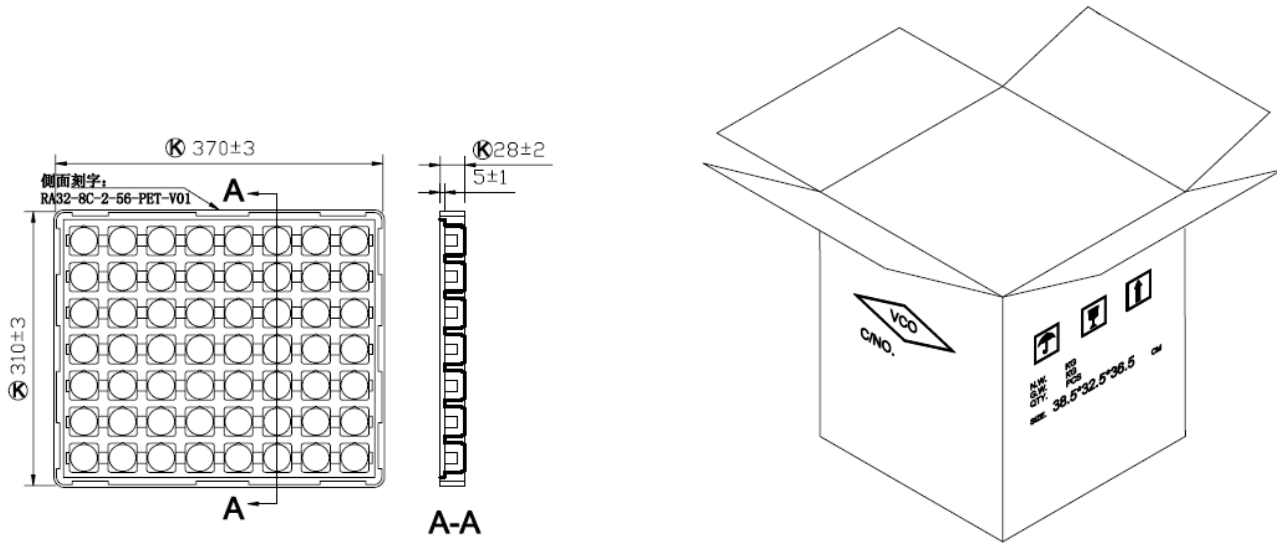
Dimensions

MOUNTING NOTICE

AT LEAST
FOR 2mm
DIAPHRAGM
MOVING



Packaging



56pcs per tray
 10 trays per carton
 560pcs per box
 Approx wt. 16.3kg

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	5/2/2016
A	Revised IP Rating to IP65	12/8/2016
B	Revised Operating Temperature	1/11/2018
C	Revised Solder Pad Information	2/6/2019
D	Revised Solder Pad Information	4/11/2023
E	Update Drawing and Parameters	8/14/2023

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
- Specifications subject to change or withdrawal without notice.
- This part is RoHS 2015/863/EU Compliant.