



PUIaudio



Data Sheet

AS03204MS-3-R

PUI Audio's **AS03204MS-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 83dB 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 83 dB output at 1W/50cm
- Neodymium motor
- Only 16.5 mm thick
- 1.5mm of excursion

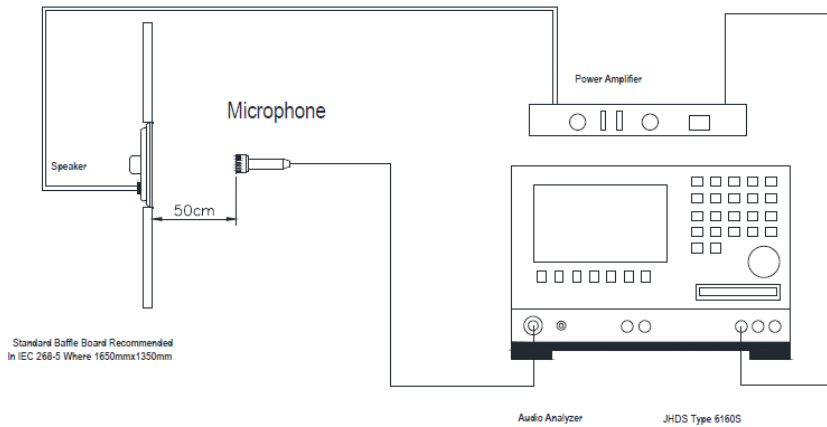
Specifications

Parameters	Values	Units
Rated Input Power	3	Watts
Max Input Power	4	Watts
Impedance	4 ± 15%	Ohms
Sensitivity (Avg. 600, 800, 1000, 1200Hz @ 1W/0.5M)	83 ± 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	-

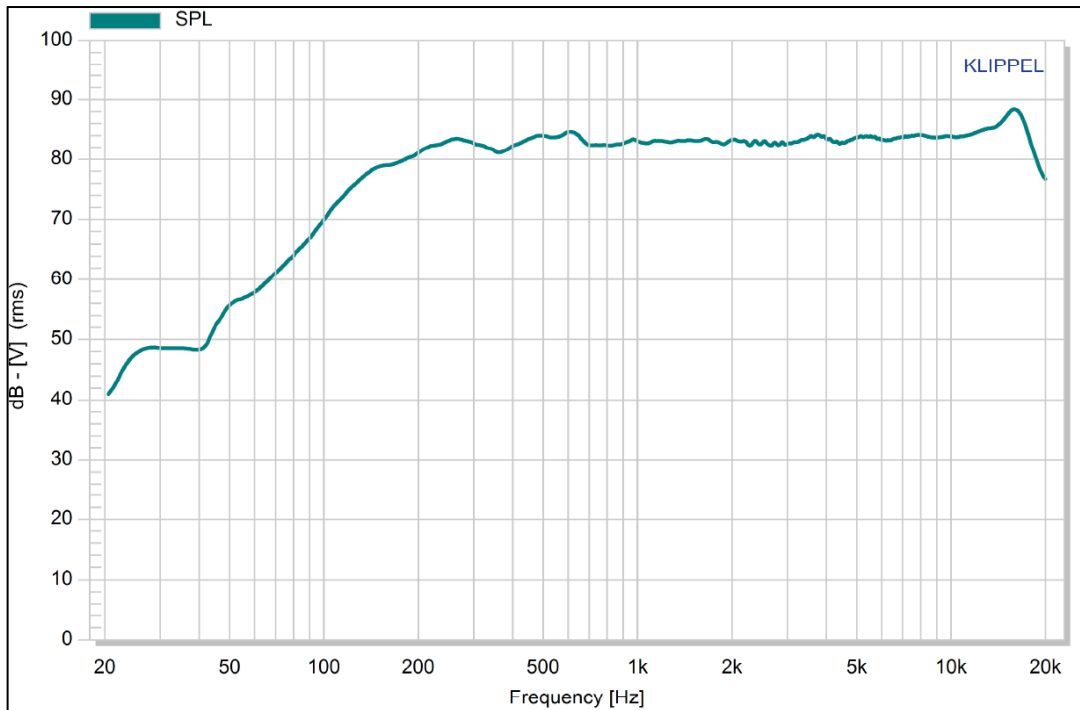
Specifications (continued)

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

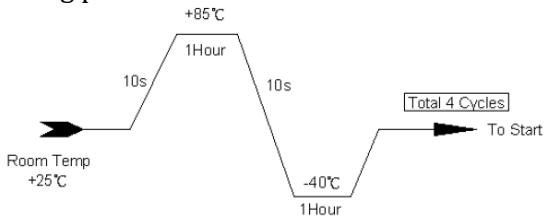
Measurement Method



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



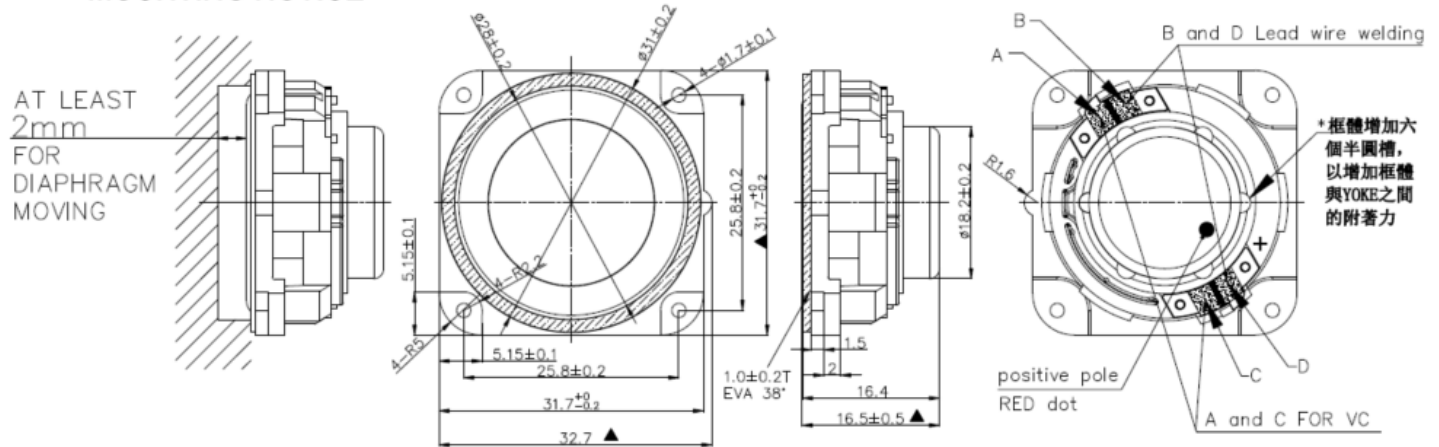
Reliability Testing

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

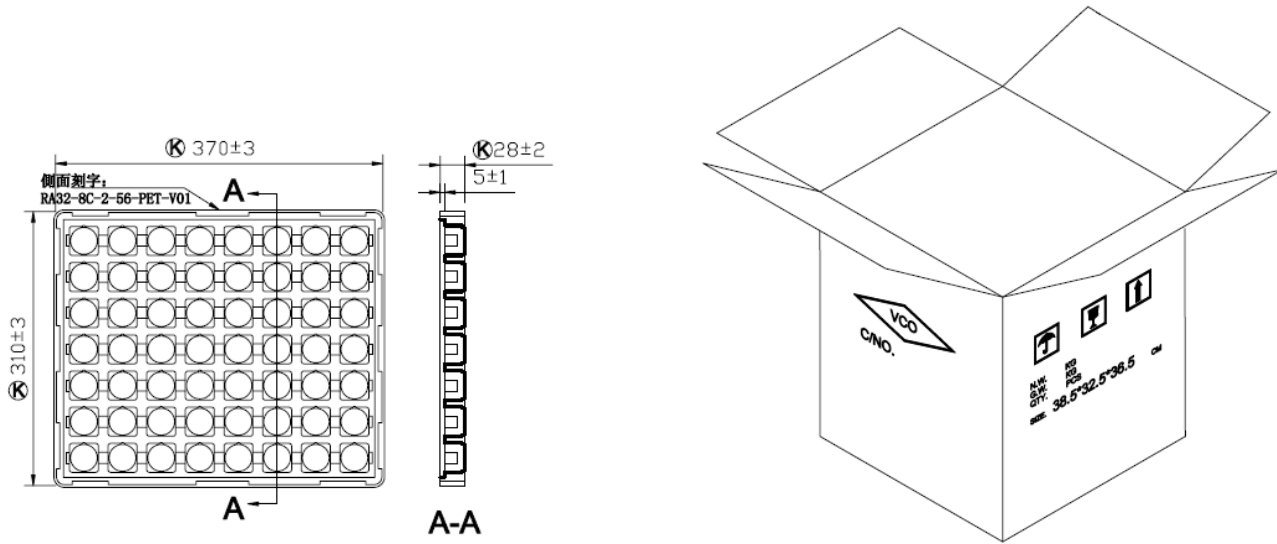
After each test, the speaker's SPL shall be ±3 dB of the original SPL

Dimensions

MOUNTING NOTICE



Packaging



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

Specifications Revisions

Revision	Description	Date
-	Released from Engineering	02/10/2017
A	Add Wire Solder Point Specification	08/08/2017
B	Revised frame to withstand drop testing from 75cm with 600g weight attached	04/04/2018
C	Updated IP Rating	04/07/2023
D	Update drawing for mounting hole tolerance	08/17/2023

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/REACH Compliant.