

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 85 dB 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

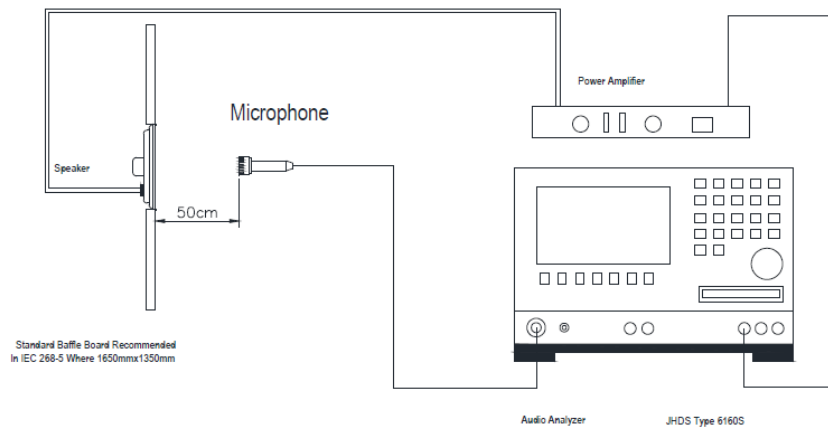
Specifications

Parameters	Values	Units
Rated Input Power	3	Watts
Max Input Power	4	Watts
Impedance	8 ± 15%	Ohms
Sensitivity (SPL @ 1W/50cm) (600, 800, 1000, and 1200 Hz)	83 ± 3	dBA
Distortion (Max @ 1W, 1 kHz)	<5%	-
Resonant Frequency	200 ± 20%	Hz
Frequency Range	200 ~ 20,000	Hz
Housing Material	ABS	-
Magnet Material	NdFeB	-
Weight	16.6	Grams
Environmental Protection Rating	IP65	-

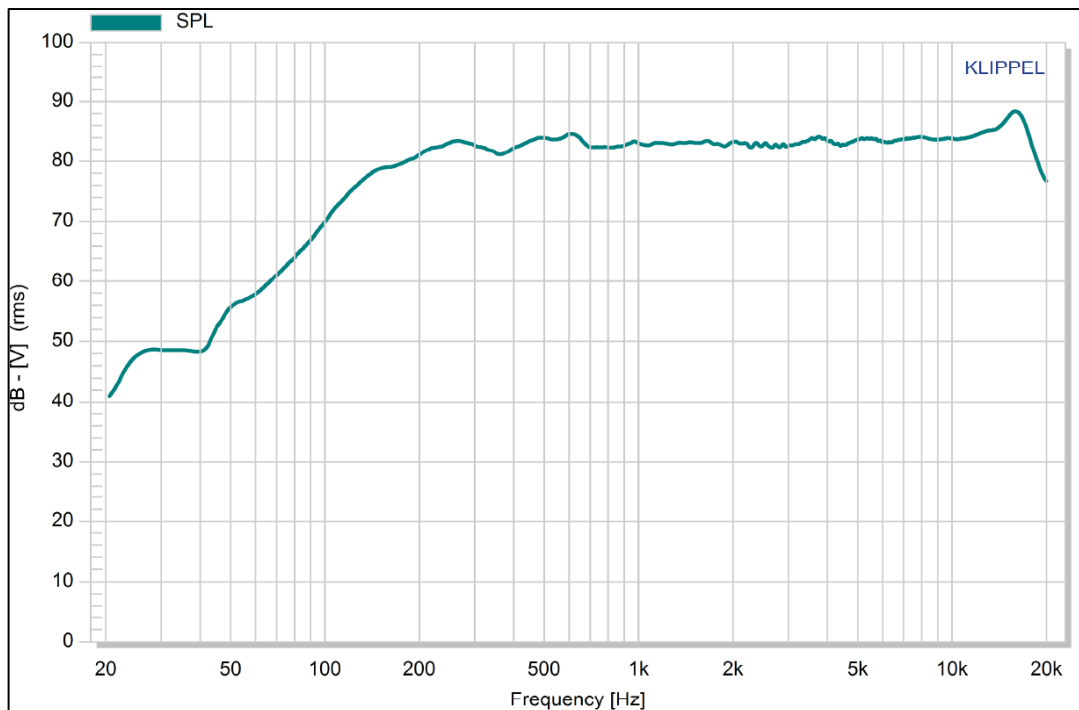
Specifications (continued)

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

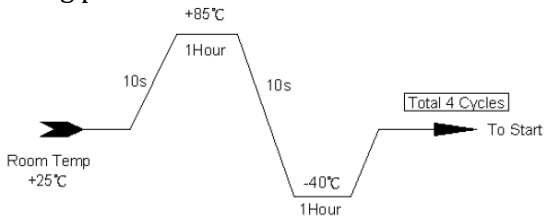
Measurement Method



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

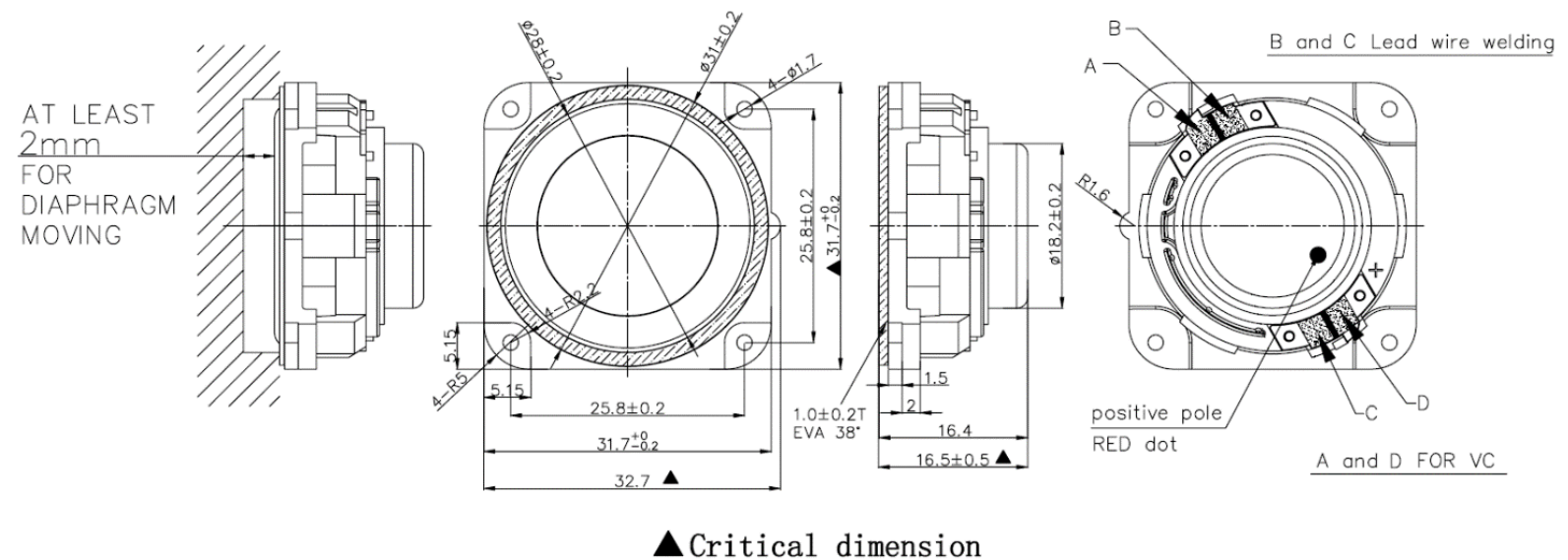


Reliability Testing

Type of Test	Test Specifications
High Temperature Test	96 hours at $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$ followed by six hours in normal room temperature
Low Temperature Test	96 hours at $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ followed by six hours in normal room temperature
Humidity Test	96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ with relative humidity at 90% to 95% followed by 3 hours in normal room temperature
Temperature Cycle Testing	<p>The part shall be subjected to 4 cycles using the following procedure:</p> 
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



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

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.
3. This part is RoHS 2011/65/EU Compliant.

Mouser Electronics

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