



## 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 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:

- IP67 rated speaker face
- High 83 dB output at 1W/50cm
- Neodymium motor
- Only 16.5 mm thick
- 1.5mm of excursion

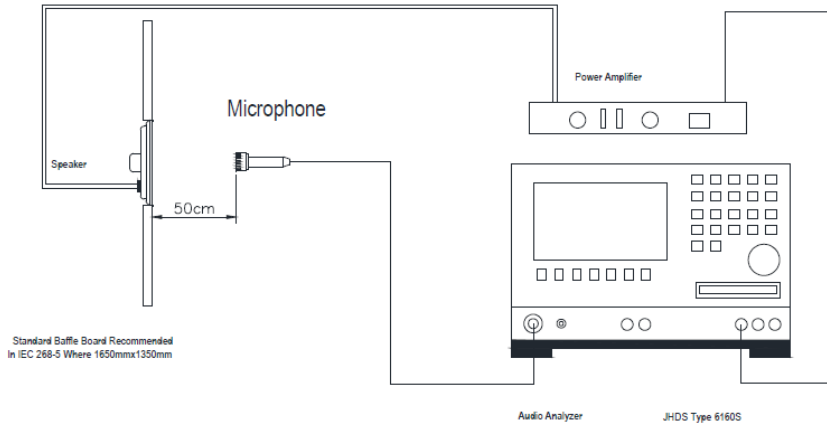
### Specifications

Parameters	Values	Units
Rated Input Power	3	Watts
Max Input Power	4	Watts
Impedance	4 ± 15%	Ohms
Sensitivity (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	IP67	-

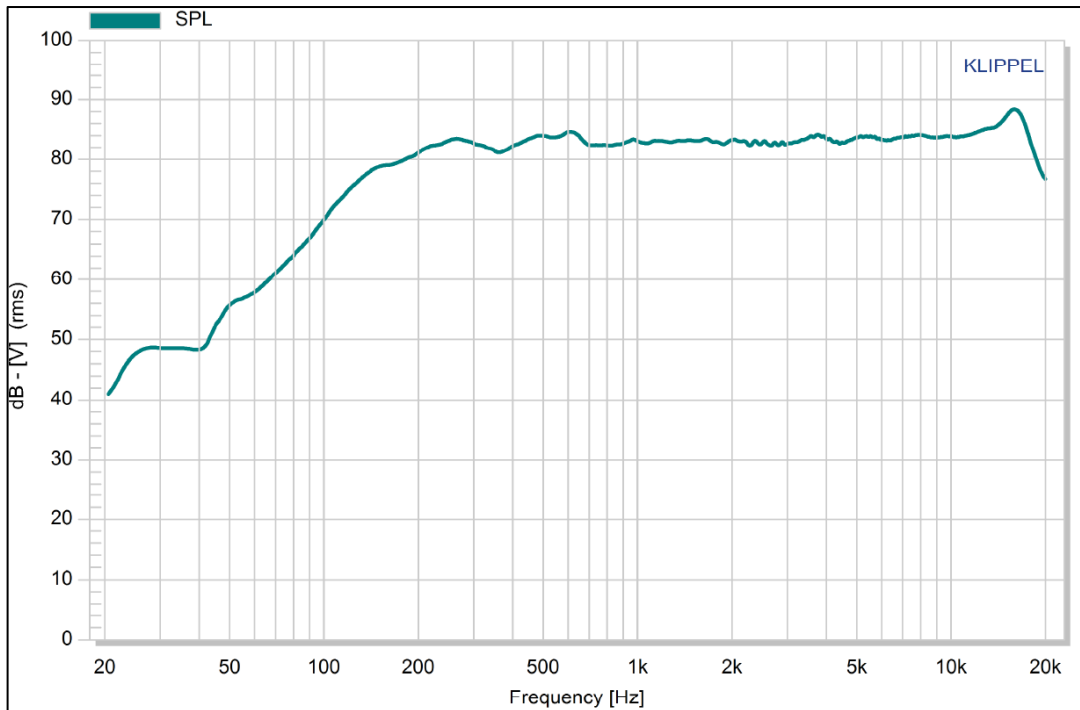
## Specifications (continued)

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

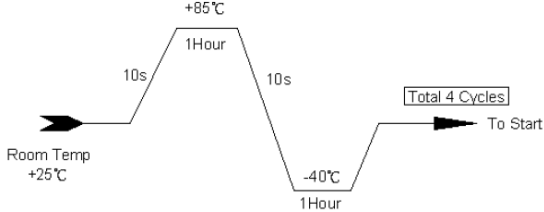
## Measurement Method



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

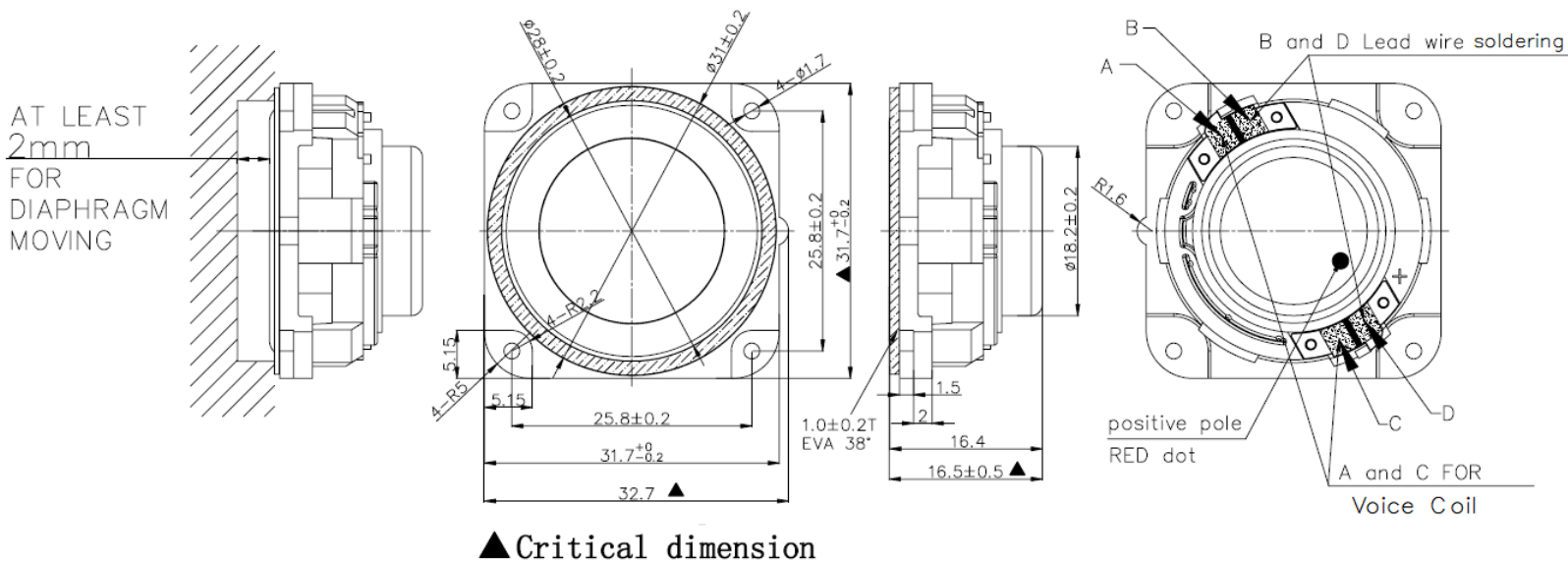


## Reliability Testing

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	10 to 55 to 10 Hz cycles, 15 minutes per cycle. 2 hours in each axis X, Y, and Z.
Drop Test	Attach 600 gram weight to speaker and drop from a height of 75cm on six sides.
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**

<b>Revision</b>	<b>Description</b>	<b>Date</b>
-	Released from Engineering	2/10/2017
A	Added Wire Solder Point Specification	8/8/2017
B	Revised frame to withstand drop testing from 75cm with 600g weight attached	4/4/2018

**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.

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