



Data Sheet

AS02008MR-R

Made for modern electronic devices, PUI Audio's **AS02008MR-R** is designed to be as thin as possible and recreate the human voice with good fidelity.

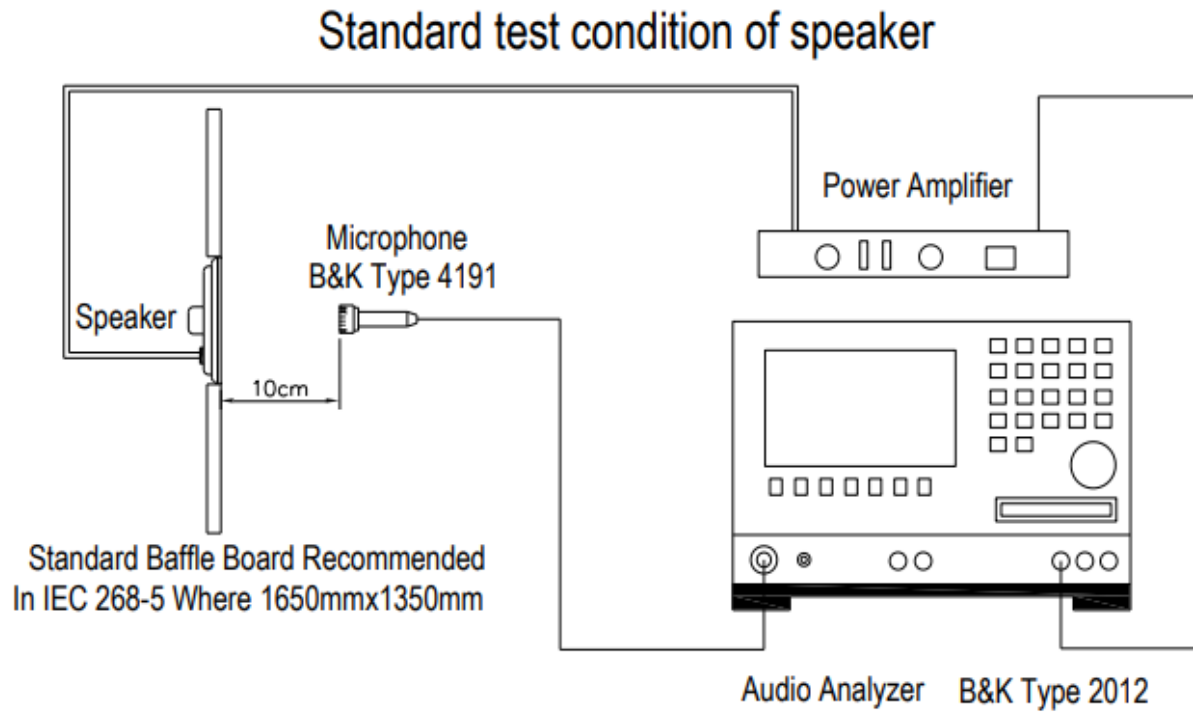
Features:

- IP65-rated face when properly installed
- Only 3mm thick
- 2.4g weight
- Designed for clear voice response

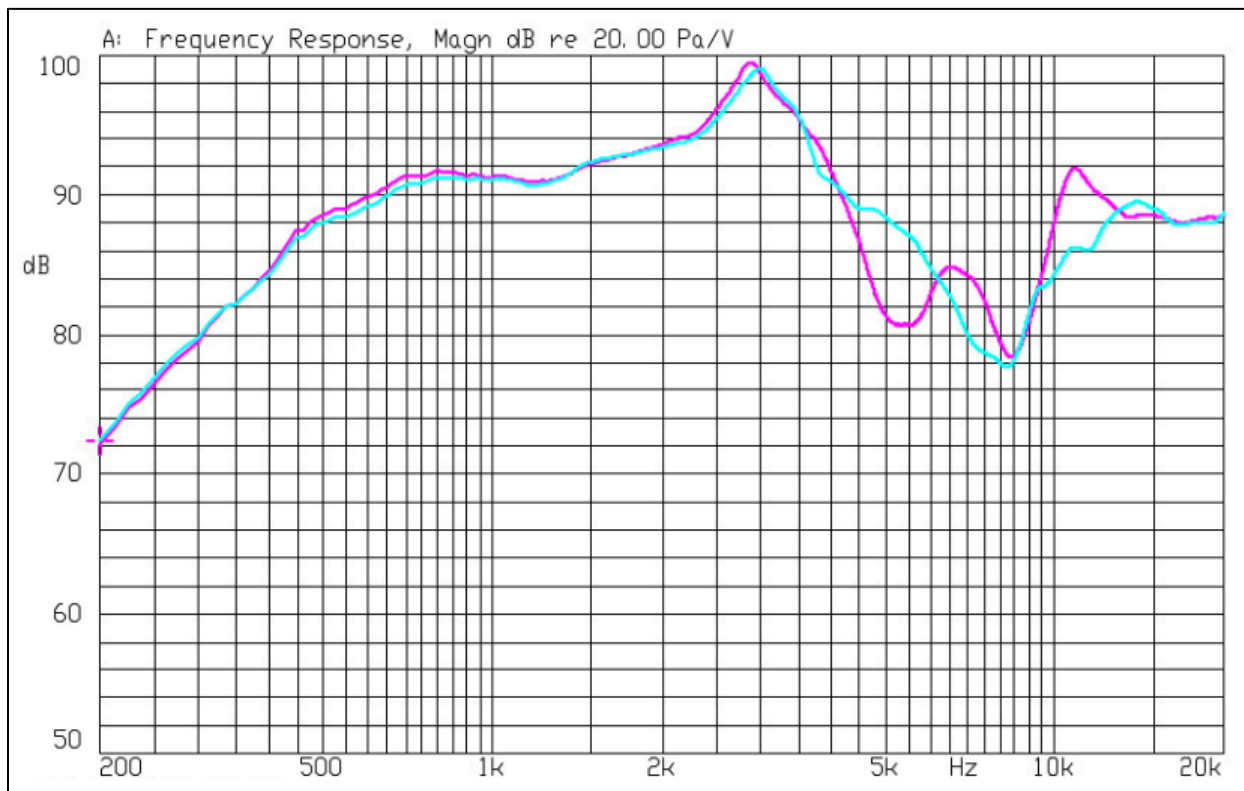
Speaker Specifications

| Parameters | Values | Units |
|--|---|-------|
| Rated Input Power | 0.5 | Watts |
| Max Input Power | 0.8 | Watts |
| Impedance | 8 ± 15% | Ohms |
| Sensitivity @ 0.1W/0.1m (at 0.8, 1.0, 1.2, 1.5 kHz) | 86 ± 3 | dB |
| Resonant Frequency | 500 ± 20% | Hz |
| Frequency Range (-10 dB) | 350 ~ 20,000 | Hz |
| Frame Material | Metal | - |
| Magnet Material | NdFeB | - |
| Weight | 2.4 | Grams |
| Ingress Protection Rating | IP65 | - |
| Acceptable Soldering Methods | Hand Solder for ≤3 seconds | - |
| Buzz, Rattle, etc. | Shall not be audible with 2Vrms sine wave from 500 Hz to 4 kHz | - |
| Environmental Compliances | RoHS | - |
| Polarity | Cone shall move forward when a positive voltage is applied to the positive terminal | - |
| Storage Temperature | -30 ~ +70 | °C |
| Operating Temperature | -20 ~ +55 | °C |

Measurement Method (Measured with 2V input with speaker mounted on IEC baffle)



Typical Frequency Response (2V input measured at 10cm, two samples)

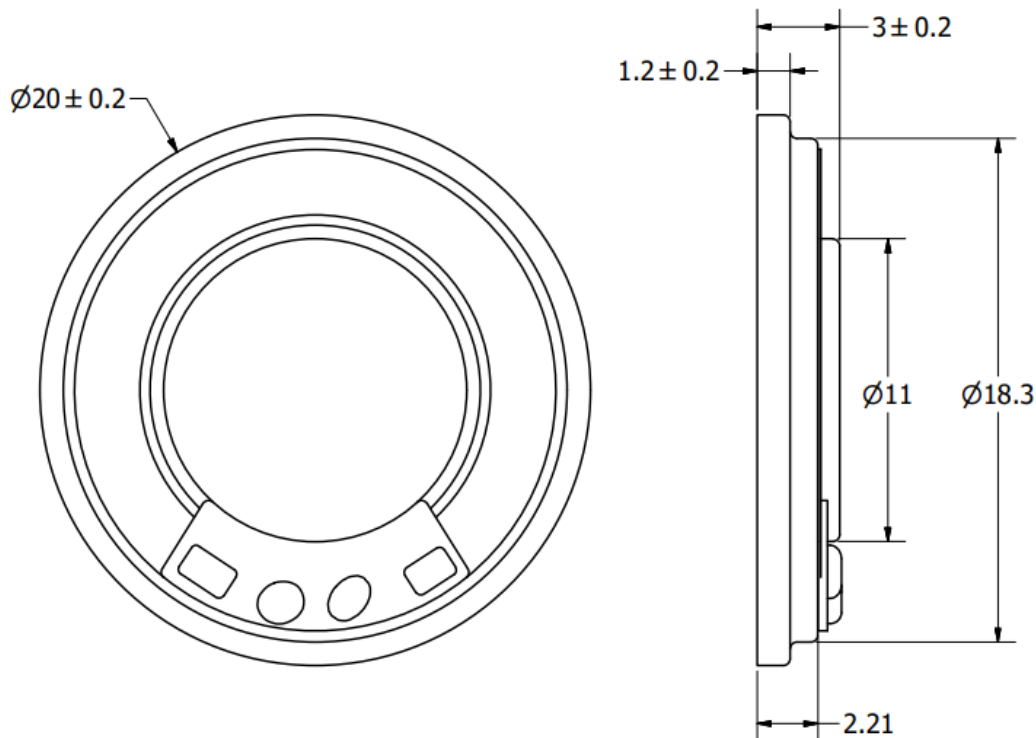


Reliability Testing

| Type of Test | Test Specifications |
|---------------------------|--|
| High Temperature Test | 96 hours at 70°C |
| Low Temperature Test | 96 hours at -30°C |
| Humidity Test | 96 hours at +40°C with relative humidity at 96% |
| Temperature Cycle Testing | The part shall be subjected to 12 cycles using the following procedure: Low temperature: -40°C±3°C High temperature: +80°C±3°C Cycle: 2 hours at High, 5 minutes High to Low, 2 hours at Low, 5 minutes Low to High |
| Vibration Test | 10 to 55 to 10 Hz sine sweep, per minute @ 1.5mm amplitude 2 hours in each axis X, Y, and Z. |
| Shock Test | If applicable, describe conditions of test. |
| Drop Test | Drop speaker from a height of 1m onto a 20mm thick board 5 times |
| Load Test | 2Vrms white noise is applied to the speaker for 96 hours |

Call out how pass/fail conditions are determined after the reliability testing is complete

Dimensions (Right solder pad on left image below is positive +)



Specifications Revisions

| Revision | Description | Date |
|-----------------|----------------------------------|-------------|
| - | Released from Engineering | 5/2/2006 |
| A | Revised to Inventor 3D Template | 1/25/2008 |
| B | Changed Plating on Speaker Frame | 3/21/2016 |

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.