



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



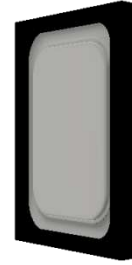
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Data Sheet

AS01808MS-SP18-WP-R

PUI Audio's **Mobile Series** line of speakers and receivers is designed for cutting-edge applications such as smart watches and pendants, Wi-Fi enabled security devices and action cameras, mobile radios and smart phones, as well as IoT devices. Each **Mobile Series** product features an IP67-rated face for protection against dust and water ingress.

The eight ohm 18mm x 13mm **AS01808MS-SP18-WP-R** speaker is designed for high fidelity audio reproduction in the thinnest size possible. Solder pads allow for custom lead wire lengths and a 2.5mm thickness make mounting easy.

Features:

- PEEK diaphragm for flat frequency response
- 88 dB output (2V @ 10cm)
- High-energy neodymium motor
- Only 2.5 mm thick with solder pads
- Dustproof and waterproof IP67-rated face

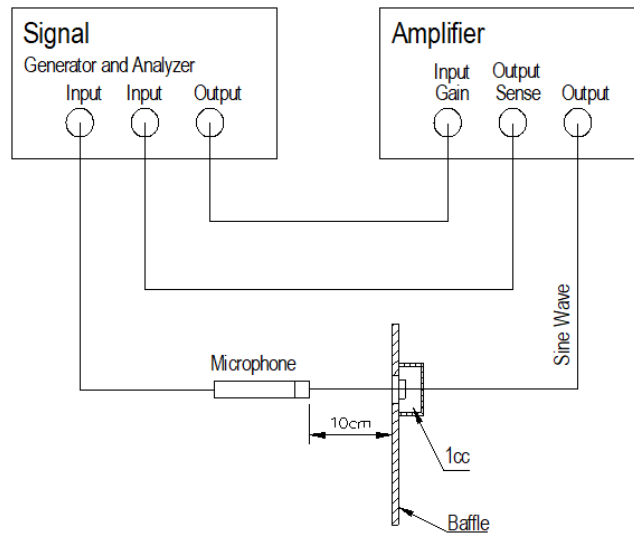
Specifications

| Parameters | Values | Units |
|--|--------------|-------|
| Rated Input Power | 0.5 | Watts |
| Max Input Power | 1 | Watts |
| Impedance | 8 ± 15% | Ohms |
| Sensitivity (SPL @ 2V/10cm) At 2 kHz in 1cc enclosure | 88 ± 3 | dB |
| Resonant Frequency (in 1cc enclosure) | 850 ± 20% | Hz |
| Frequency Range | 500 ~ 20,000 | Hz |
| Frame Material | PPA | |
| Magnet Material | NdFeB | |
| Weight | 1.8 | Grams |
| Environmental Protection Rating | IP67 | - |

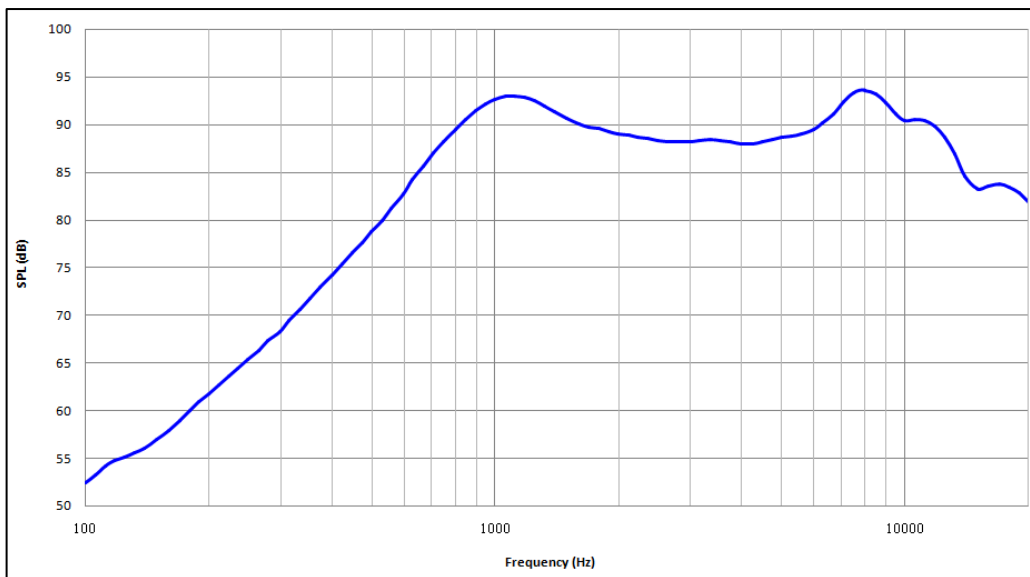
Specifications (continued)

| | | |
|-----------------------|--|----|
| Buzz, Rattle, etc. | Should not be audible with 2.45V sine wave from 0.5 to 10 kHz in 1cc enclosure | |
| Polarity | When positive voltage is applied to the positive terminal, the diaphragm will move outward | |
| Storage Temperature | -40 ~ +85 | °C |
| Operating Temperature | -20 ~ +70 | °C |

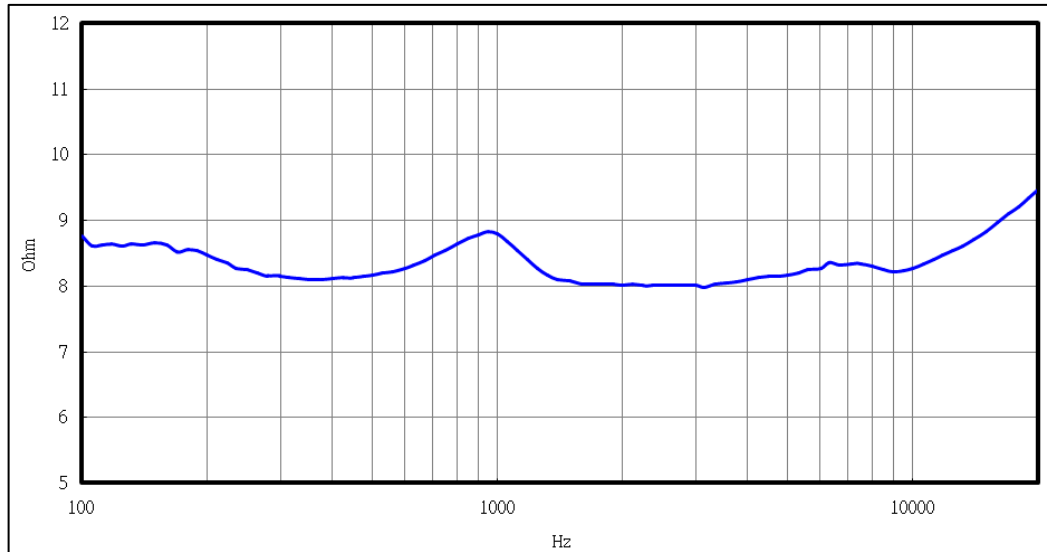
Measurement Method (measured with 2V, Temperature: 15 ~ 35°C, Relative Humidity: 45%~85%)



Frequency Response (measured with 2V @ 10cm in 1cc enclosure)



Impedance Response (measured in 1cc enclosure)

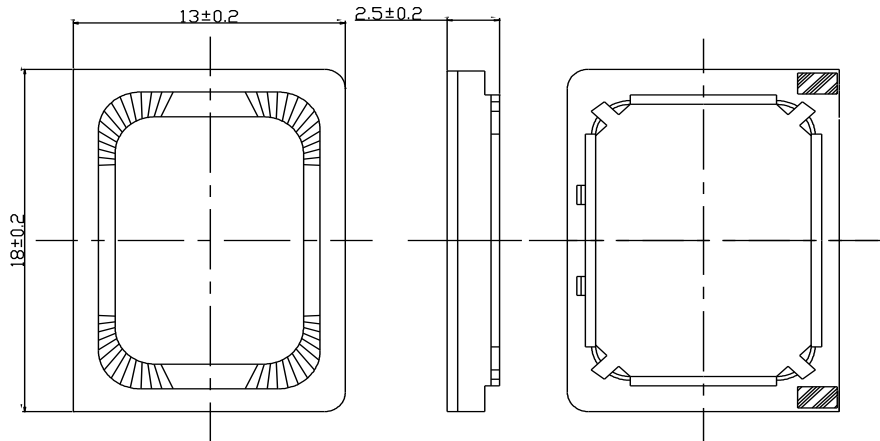


Reliability Testing

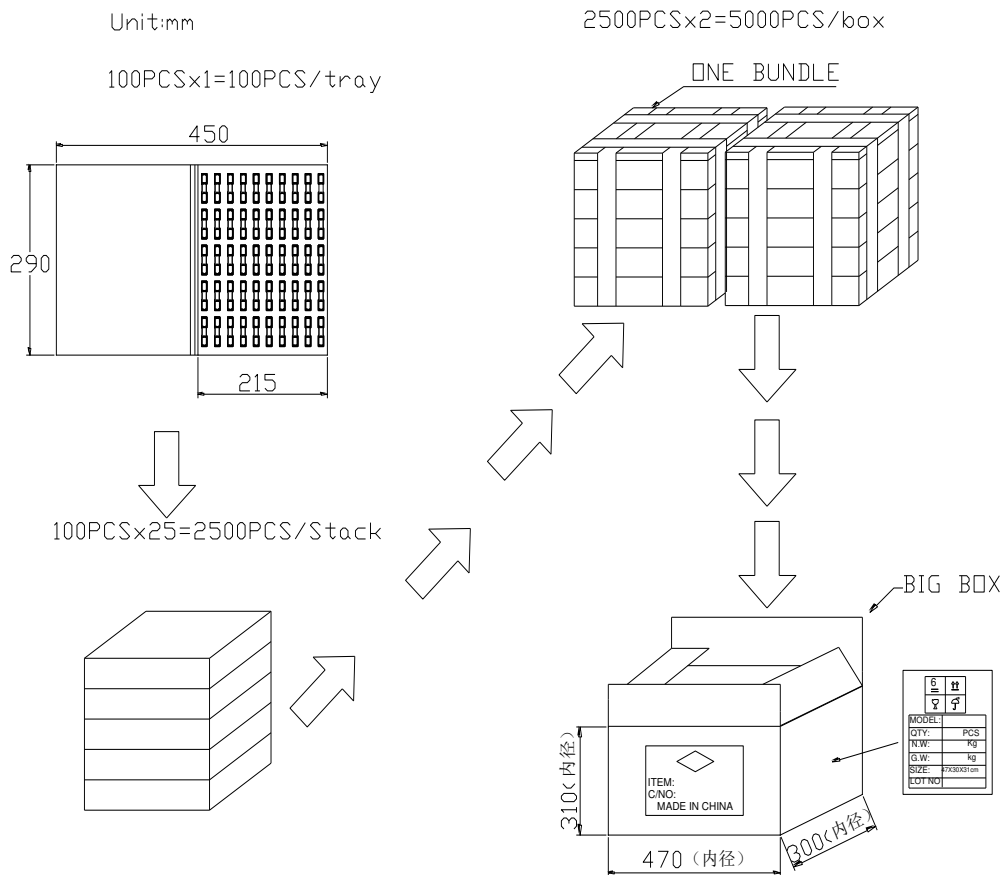
| Type of Test | Test Specifications |
|---------------------------|--|
| High Temperature Test | 96 hours at +85°C ± 3°C followed by three hours in normal room temperature |
| Low Temperature Test | 96 hours at -40°C ± 3°C followed by three hours in normal room temperature |
| Humidity Test | 96 hours at +40°C ± 3°C with relative humidity at 90%~95% followed by 6 hours in normal room temperature |
| 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. |
| Drop Test | Mount speaker to 100g fixture, drop fixture 1.5 meters, twice per side and twice for each corner |
| Load Test | White noise is applied at the speakers rated power for 96 hours at room temperature with speaker in 1cc enclosure. |

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

Dimensions (Top contact is positive on far right drawing below)



Packaging



Unless otherwise specified, tolerance:±10(unit:mm)

Specifications Revisions

| Revision | Description | Date |
|-----------------|---------------------------|-------------|
| - | Released from Engineering | 11/20/2017 |

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.