



PUI audio



Data Sheet

AS01508MS-SC11-WP-2-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 15mm x 11mm AS01508MS-SC11-WP-2-R speaker is designed for high fidelity audio reproduction in the thinnest size possible—only 3.5mm thick! Spring contacts provide convenient connection.

Features:

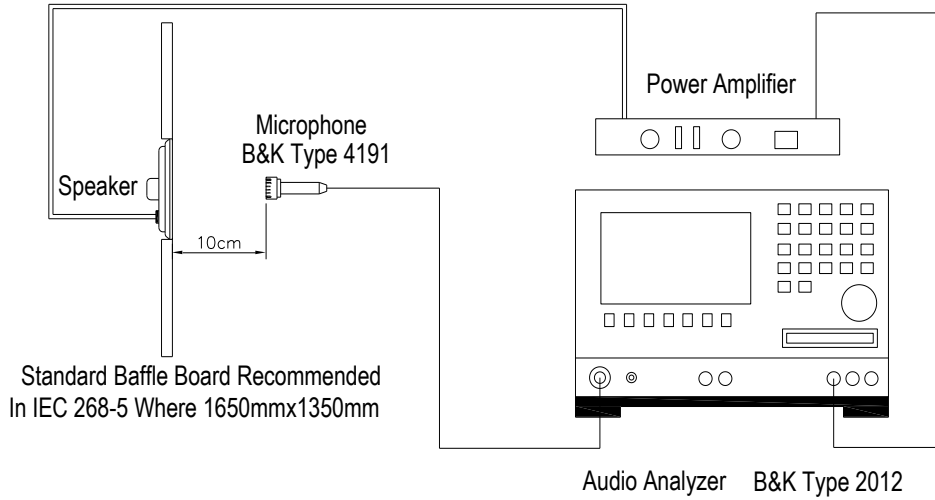
- High-energy neodymium motor
- Rear Mounted Foam Pad
- Dustproof and waterproof IP67-rated face
- TESA 61305 double-sided tape pre-applied

Specifications

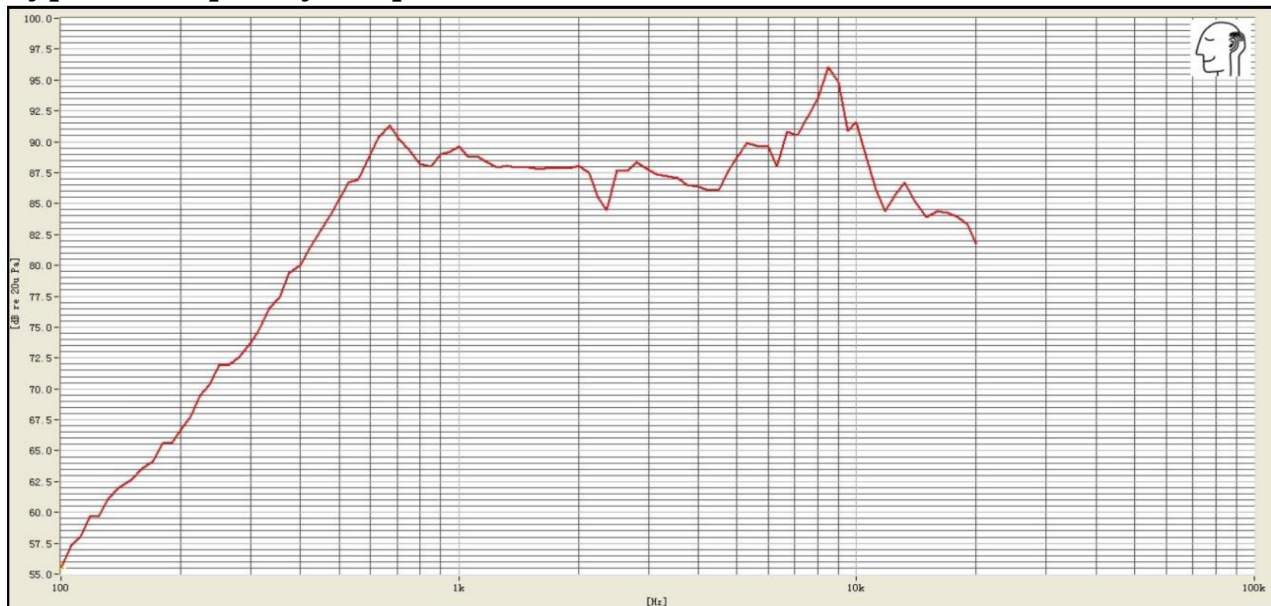
Parameters	Values	Units
Rated Input Power	0.7	Watts
Max Input Power	1.0	Watts
Impedance	$8 \pm 15\%$	Ohms
Output SPL (avg. 0.8, 1.0, 1.5, 2.0k Hz @ 2.0V _{rms} /0.1m)	89 ± 3	dB
Resonant Frequency (Free Air)	$600 \pm 20\%$	Hz
Frequency Range	fo ~ 20,000	Hz
THD	< 5	%
Diaphragm Material	PEEK	-
Frame Material	PBT	-
Magnet Material	NdFeB	-
Weight	1.5	Grams
Buzz, Rattle, etc.	Must not be audible with 2.0V _{RMS} sine wave between 200Hz ~ 2kHz	-
Environmental Protection Rating	ROHS/REACH	-
Ingress Protection	IP67	
Polarity	Cone moves forward with positive dc current to "+" terminal	-
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-20 ~ 70	°C

Measurement Method (Measured with 2V, Temperature: 15 ~ 35°C, Relative Humidity: 25%~70%/)

Standard test condition of speaker



Typical Frequency Response (Measured with 2V drive, distance = 10cm)



Typical Impedance vs. Frequency (Free-air measurement)

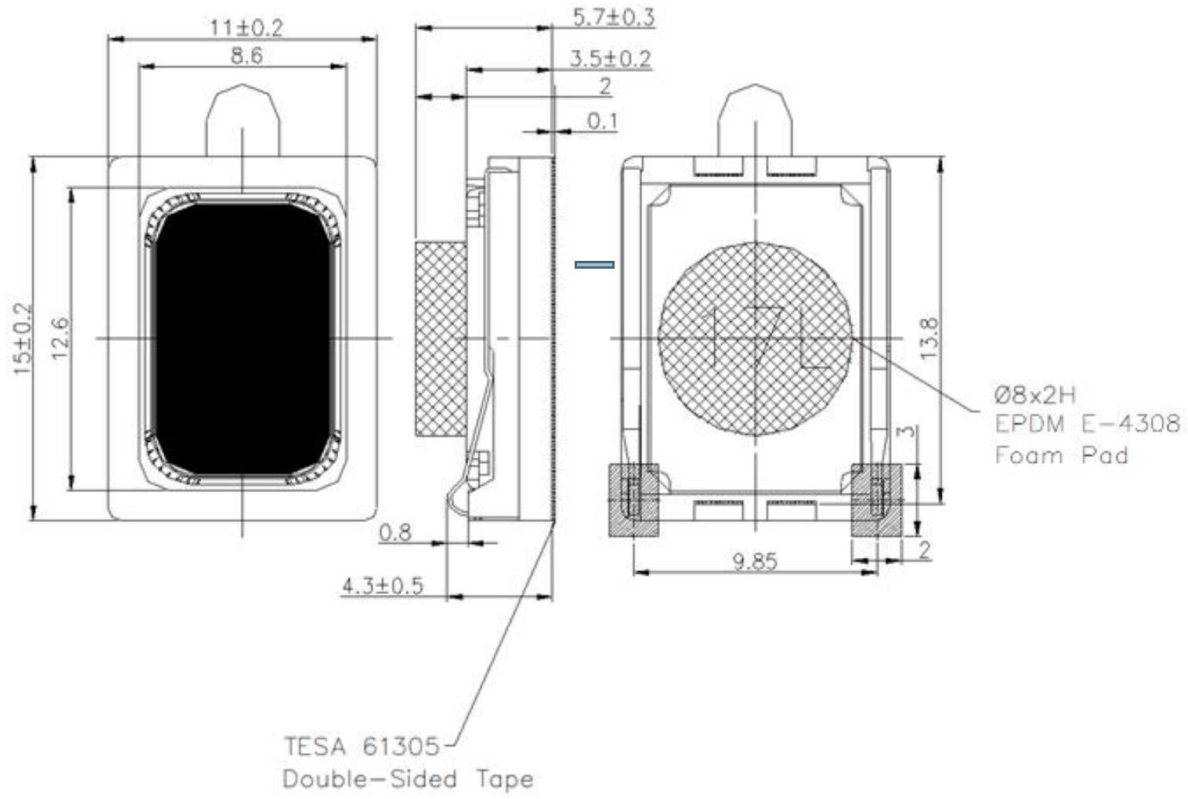


Reliability Testing

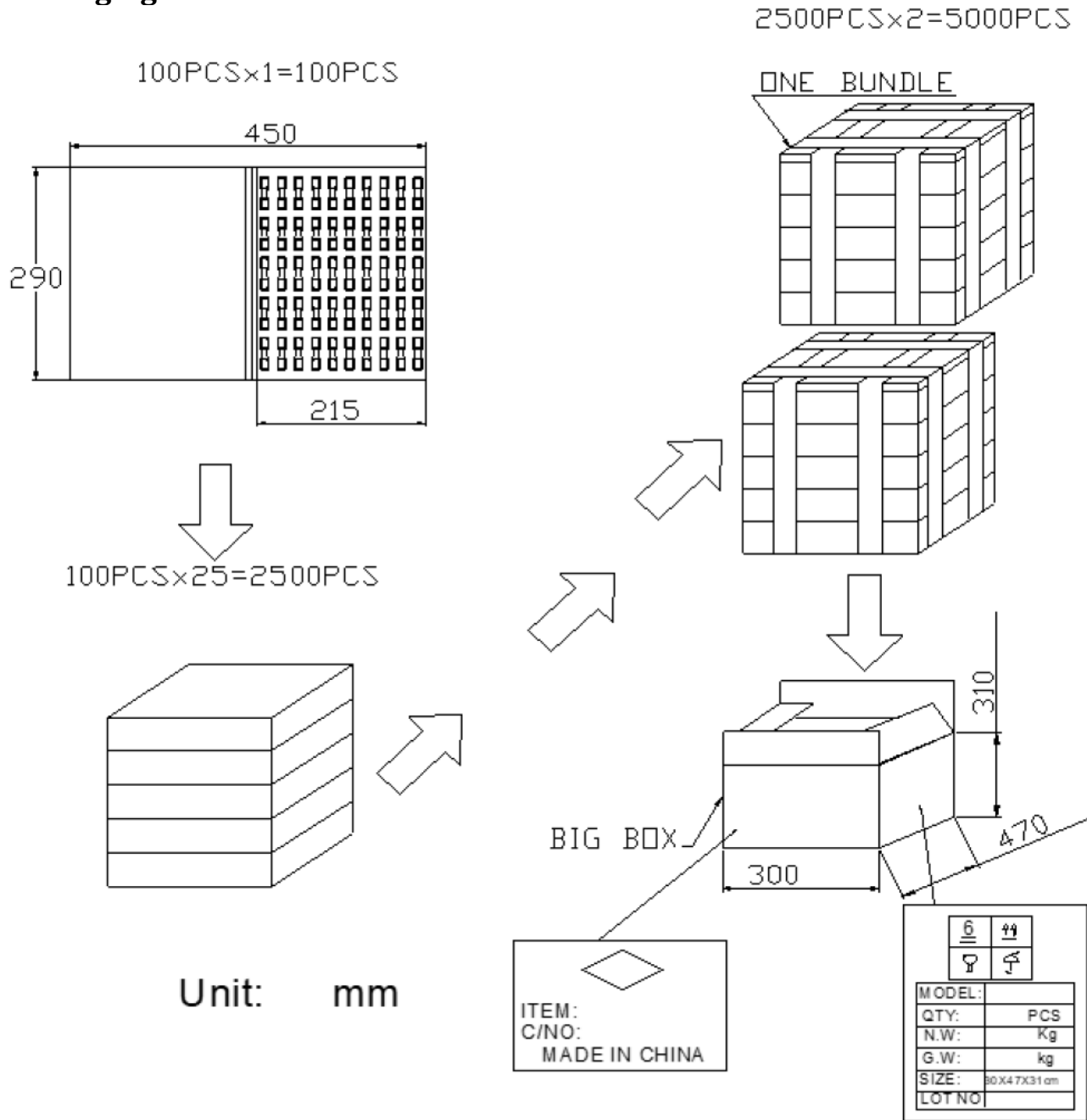
Type of Test	Test Specifications
High Temperature Test	96 hours at 80±3°C
Low Temperature Test	96 hours at -30±3°C
Humidity Test	96 hours at 40±3°C with relative humidity at 90~95%
Temperature Cycle Testing	Run for 10 cycles with each cycle consisting of: -40°C for 1 hour, 85°C for 1 hour.
Vibration Test	10~55~10Hz sine wave sweep 15min. 5G(constant) in X,Y,Z direction 2 hours each, total 6 hours.
Drop Test	Drop the speaker from 1.5m height onto each side (6 sides) and corners (4 corners) x2. Total 20 drops.
Load Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours

After each test let rest for 6 hours in standard room temperature, the part shall be within ±3dB.

Dimensions



Packaging



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	08/01/2023

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
- Specifications may not be changed without customer approval.