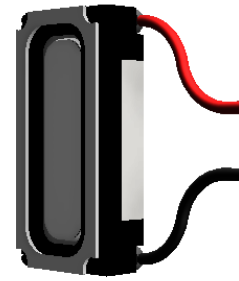




PUI audio



Data Sheet

AS01208MS-SP12-WP-LW100-R

PUI Audio's **Mobile Series** line of speakers and receivers is designed for cutting-edge applications such as smart watches. The **AS01208MS-SP12-WP-LW100-R** is designed for submersion in water depths greater than 1 meter for 30 minutes when properly mounted.

Features:

- High output in one of the smallest form factors for a speaker
- 100mm long UL3302 lead wires for quick implementation
- IPx8 rated face for waterproof protection when properly mounted

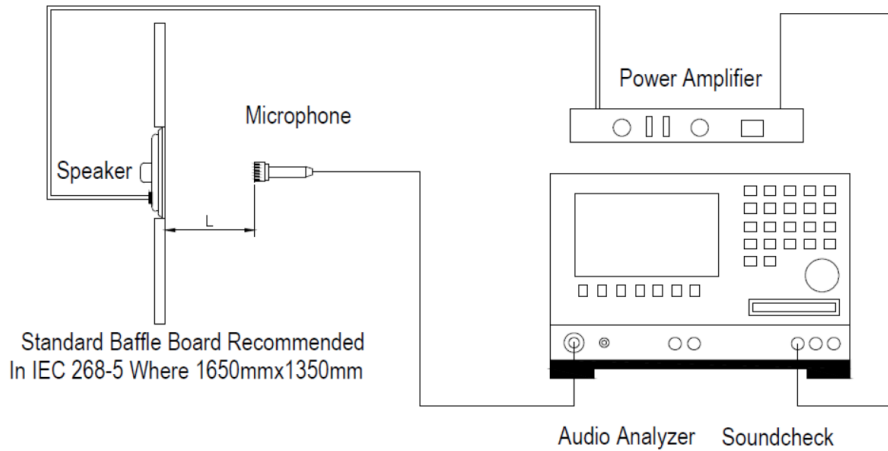
Specifications

Parameters	Values	Units
Rated Input Power (2cc box) (Free-Air)	0.3 0.1	Watts
Max Input Power (2cc box) (Free-Air)	0.5 0.2	Watts
Impedance	8 ± 15%	Ohms
Sensitivity (SPL @ 2kHz) 1.55V @ 10cm in 2cc enclosure 0.894V @ 10cm in Free-Air	88±3 83±3	dB
Resonant Frequency (2cc box) (Free-Air)	1,300 ± 20% 1,200 ± 20%	Hz
Frequency Range (-10 dB)	850 ~ 5,000	Hz
Total Harmonic Distortion (@ 2 kHz, 0.1 W)	<10 %	-
Frame Material	PPA	-
Magnet Material	NdFeB	-
Diaphragm Material	PEEK	-
Weight	1.0	Grams
Ingress Protection Rating	IPX8	-
Buzz, Rattle, etc.	Should not be audible with 1.55V (0.894V free-air) sine wave from 1.25 to 5 kHz	-
Polarity	When positive voltage is applied to the positive terminal, the diaphragm will move outward	-

Operating Temperature	-20 ~ +60	°C
Storage Temperature	-30 ~ +70	°C
Environmental Compliance	RoHS/REACH	-

Measurement Method (measured with 1.55V, L = 10cm)

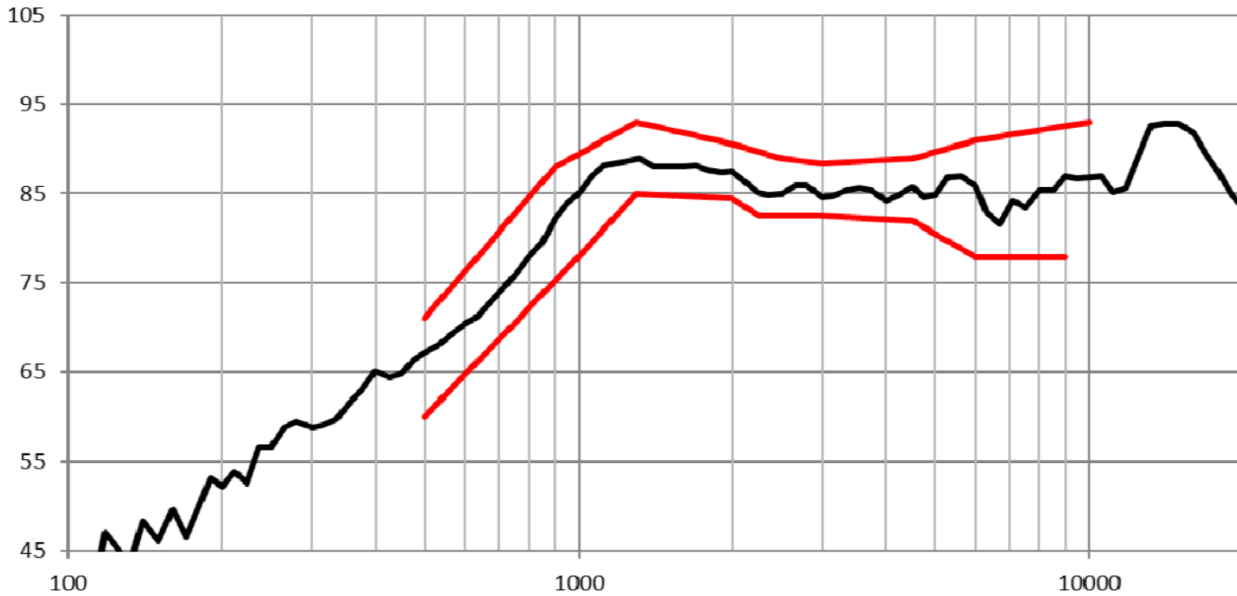
Standard test condition of speaker



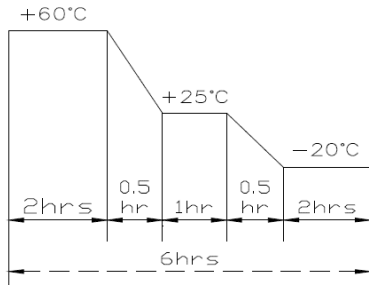
L=10cm

Frequency Response Curve (1.55V @ 10cm with speaker mounted in 2cc enclosure)

Test condition: 1.55v/0.1M,(in 2.0cc box)

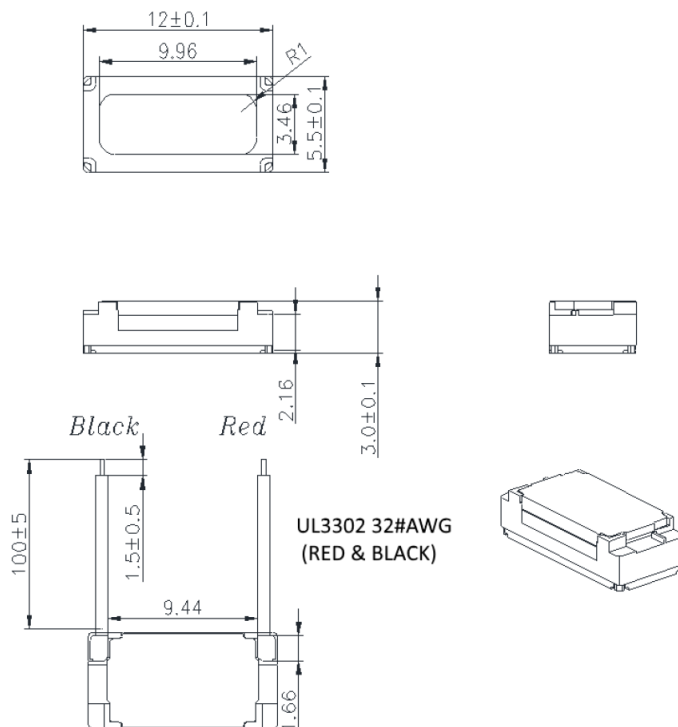


Reliability Testing

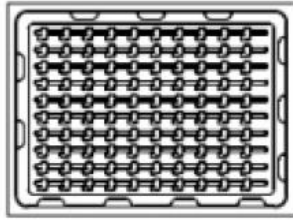
Type of Test	Test Specifications
High Temperature Test	96 hours at +60°C ± 3°C followed by three hours in normal room temperature
Low Temperature Test	96 hours at -20°C ± 3°C followed by three hours in normal room temperature
Humidity Test	96 hours at +30°C ± 3°C with relative humidity between 92% and 95% followed by 3 hours in normal room temperature
Temperature Cycle Testing	<p>The part shall be subjected to 5 cycles using the following procedure:</p> 
Vibration Test	10 to 55 to 10 Hz sine sweep with 1.5mm amplitude 2 hours in each axis X, Y, and Z.
Drop Test	Drop the speakers onto a 40mm thick board 10 times from a height of 75cm
Load Test and Max Power Test	White 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

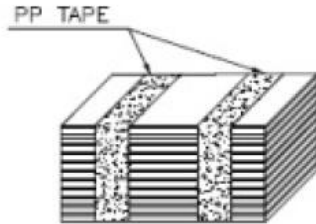
Dimensions



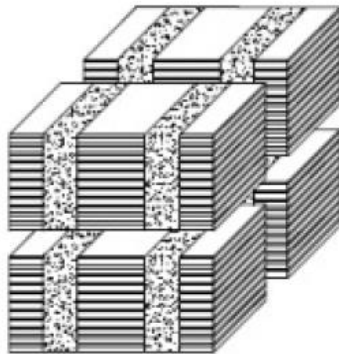
Packaging



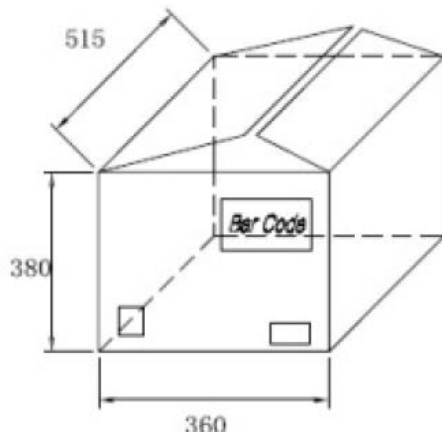
Tray
340*245*16【mm】
Qts = 50pcs



340*245*190【mm】
Qts:50*15=750



CARTON BOX
(PAPER:DW-1,3T)
515*360*380【mm】
Qts:750*4=3000



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	7/15/2019
B	Updates to performance values and add Free-Air measurements	5/11/2023

Note:

1. Unless otherwise specified:
 - A. All dimensions are in millimeters.
 - B. Default tolerances are $\pm 0.2\text{mm}$ and angles are $\pm 3^\circ$.
2. Specifications subject to change or withdrawal without notice.