



Data Sheet	ASE02008MS-LW100-R
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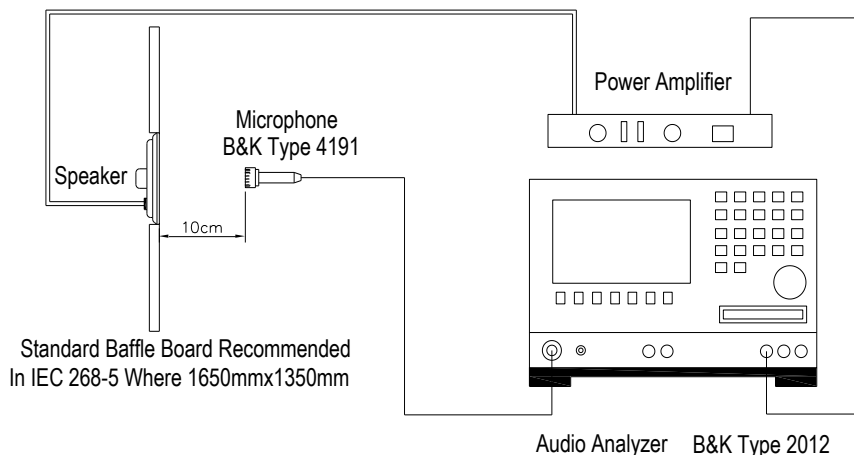
PUI Audio's **ASE02008MS-LW100-R** combines our most powerful 15x11mm speaker together with a small 20mm square housing. Xmax and Tmax specifications are included for plug-and-play operation with smart amplifiers, and 100mm lead wires offer quick, simple electrical connection.

Specifications

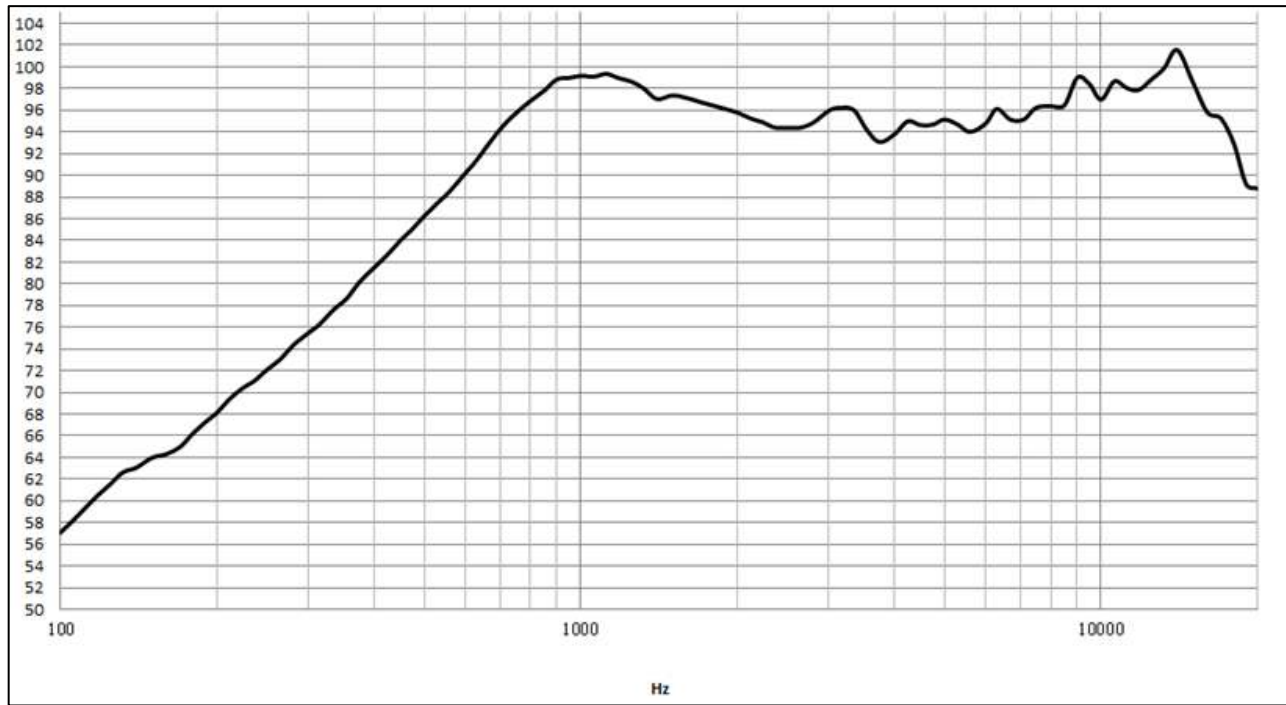
Parameters	Values	Units
Rated Power Handling	1	Watts
Max Power Handling	1.3	Watts
Impedance @ 2 kHz	$8 \pm 15\%$	Ohms
Sensitivity (SPL @ 2.83V/10cm) Avg. 0.8, 1, 1.5, 2 kHz in 1cc enclosure	97 ± 3	dB
Resonant Frequency (In 1cc enclosure)	$950 \pm 20\%$	Hz
Frequency Range (-10 dB)	500 ~ 20,000	Hz
Xmax (where BL product drops by 20%)	0.3	mm
Tmax (max voice coil temperature)	90	°C
Housing Material	ABS	-
Magnet Material	NdFeB	-
Polarity	With positive voltage applied to the positive terminal, the diaphragm will move outward	-
Storage Temperature	-40 ~ +85	°C
Operating Temperature	-20 ~ +70	°C
Weight	15	Grams

Measurement Method (measured with 2.83V, Temperature: 15 ~ 35°C, Relative Humidity: 25%~70%)

Standard test condition of speaker



Frequency Response (measured with 2.83V @ 10cm)

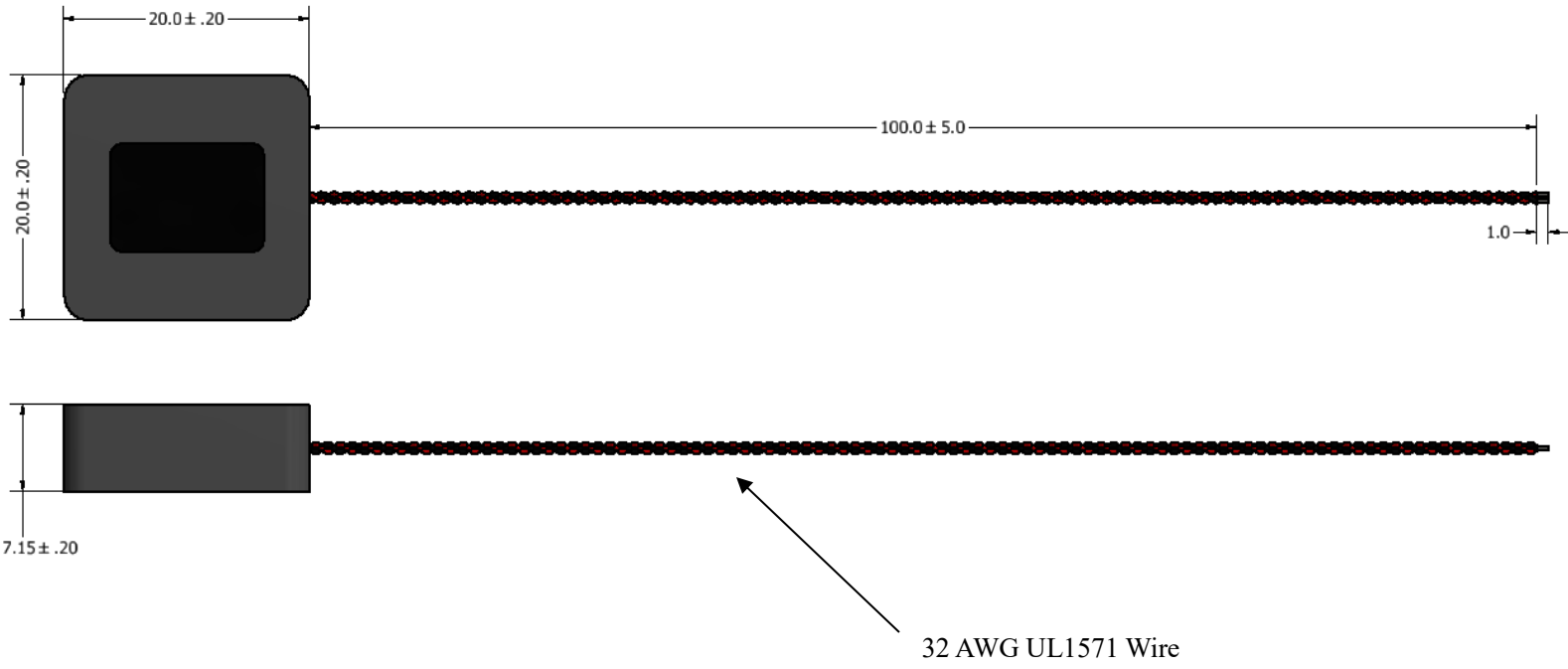


Reliability Testing

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



Specifications Revisions

Revision	Description	Date
-	Released from Engineering	7/21/2020

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 2015/863/EU compliant.