



Data Sheet

ASE05008MS-LWC60

Features:

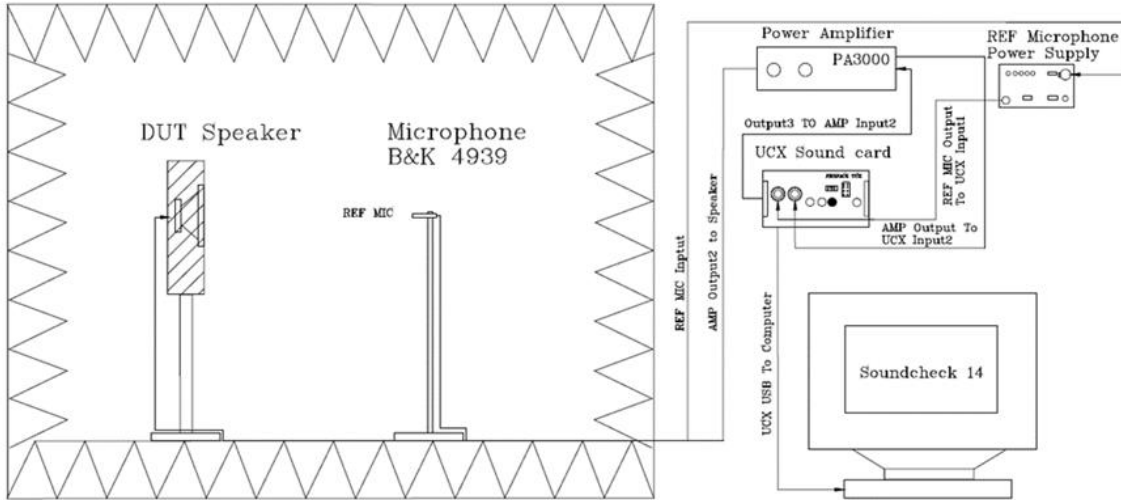
- Compact Enclosure for best performance
- High SPL with low resonant frequency
- High Temperature rating

Specifications

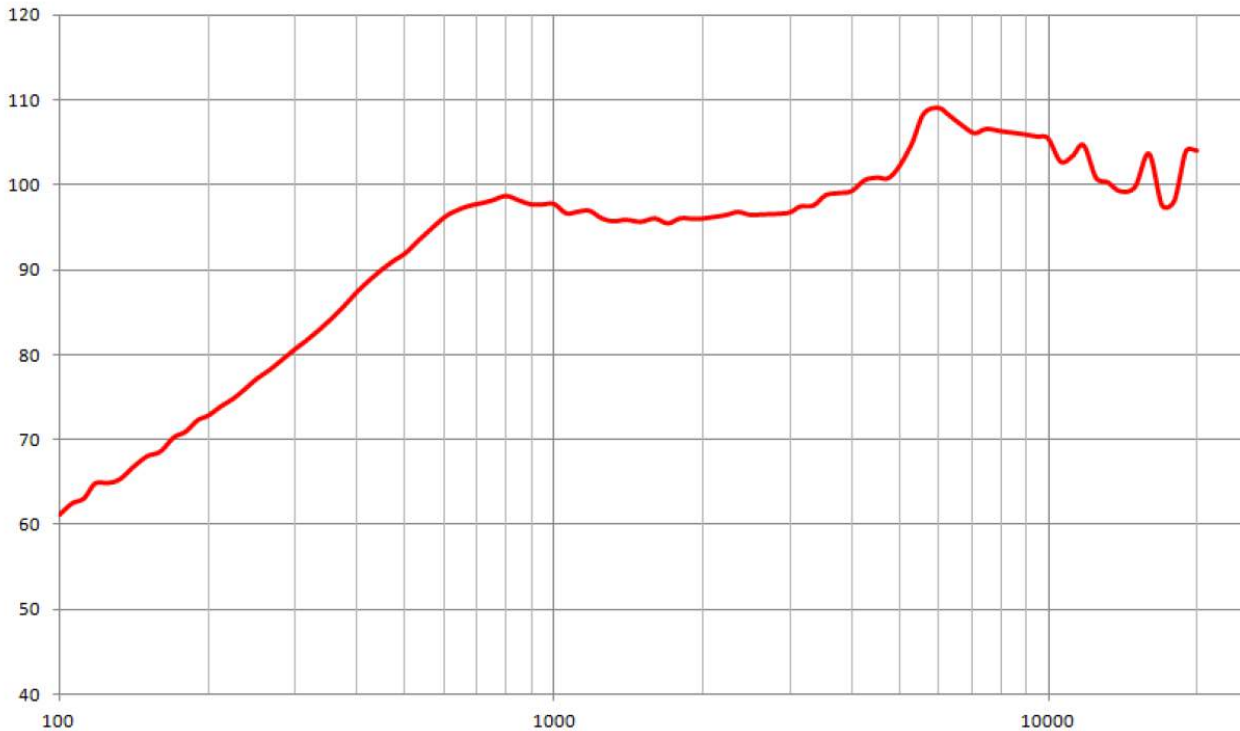
Parameters	Values	Units
Rated Input Power	2.0	Watts
Max Input Power	2.5	Watts
Impedance	8 ± 15%	Ohms
Output SPL (At 0.8K, 1.0K, 1.2K, 1.5KHz, 2W/10cm)	97 ± 3	dB
Resonant Frequency	680 ± 20%	Hz
Frequency Range	680 ~ 20,000	Hz
THD	≤10%	
Frame Material	ABS	-
Magnet Material	NdFeB	-
Diaphragm Material	PEI	-
Weight		Grams
Ingress Protection Rating	IP67	-
Buzz, Rattle, etc.	Not be audible at 4.0V sine wave between From FO~8K	-
Environmental Compliances	ROHS/REACH	-
Storage Temperature	-40 ~ 85	°C
Operating Temperature	-40 ~ 85	°C

Measurement Method

Speaker Testing framework diagram



Typical Frequency Response



Typical Thiele-Small Parameters (based on Golden Sample, up to 20% variance is normal)

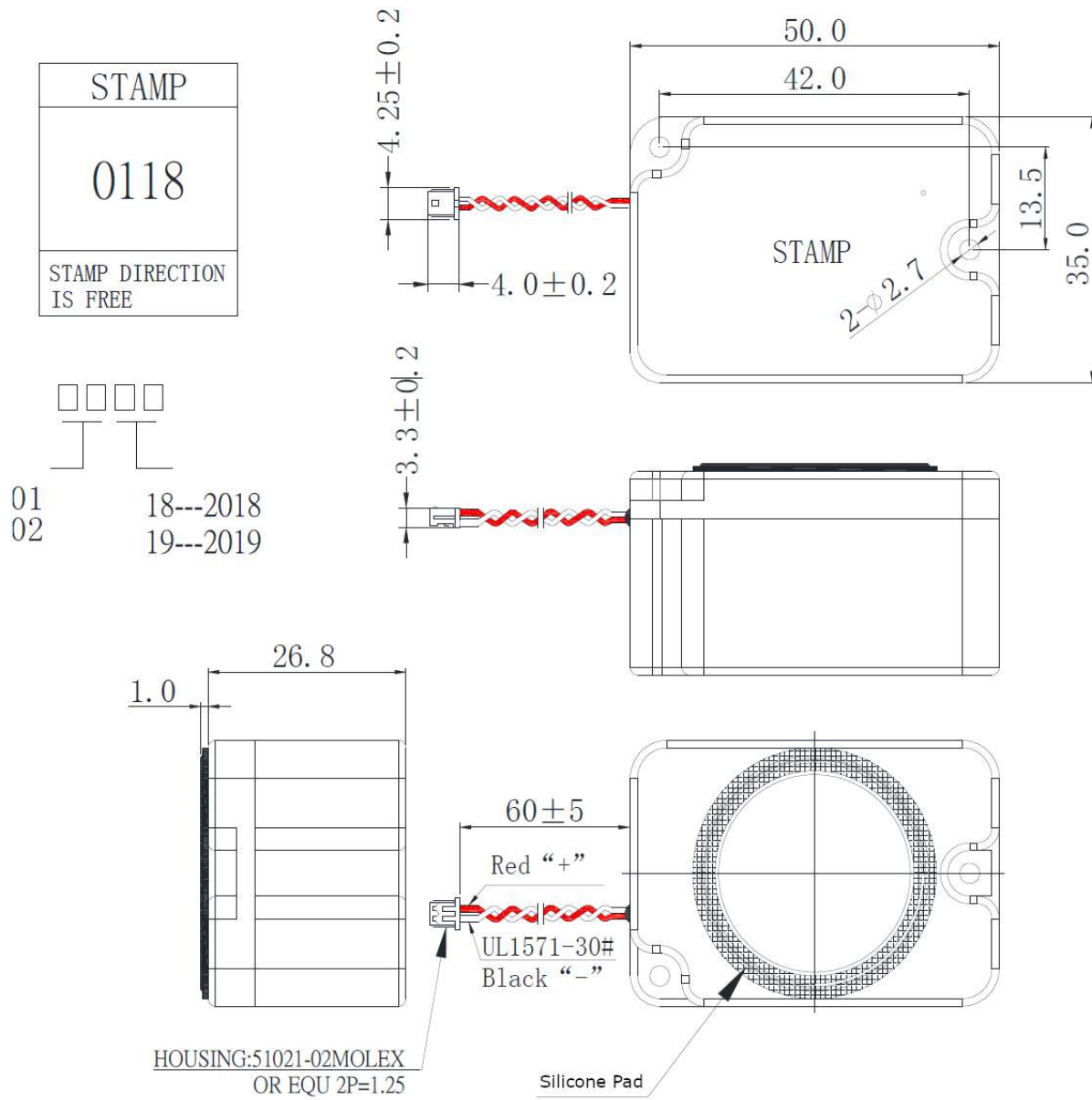
Specification	Value	Description
Re	7.85	DC resistance
Le	0.021	Inductance @ 10 kHz
Fs	663.9	Resonant Frequency
Mms	0.114	Moving Mass
Bl	0.665	Magnet Force Factor
Qms	5.735	Mechanical Q-factor
Qes	8.47	Electrical Q-factor
Qts	3.42	Total Q-factor
Vas	0.0201	Equivalent Air Volume of Suspension

Reliability Testing

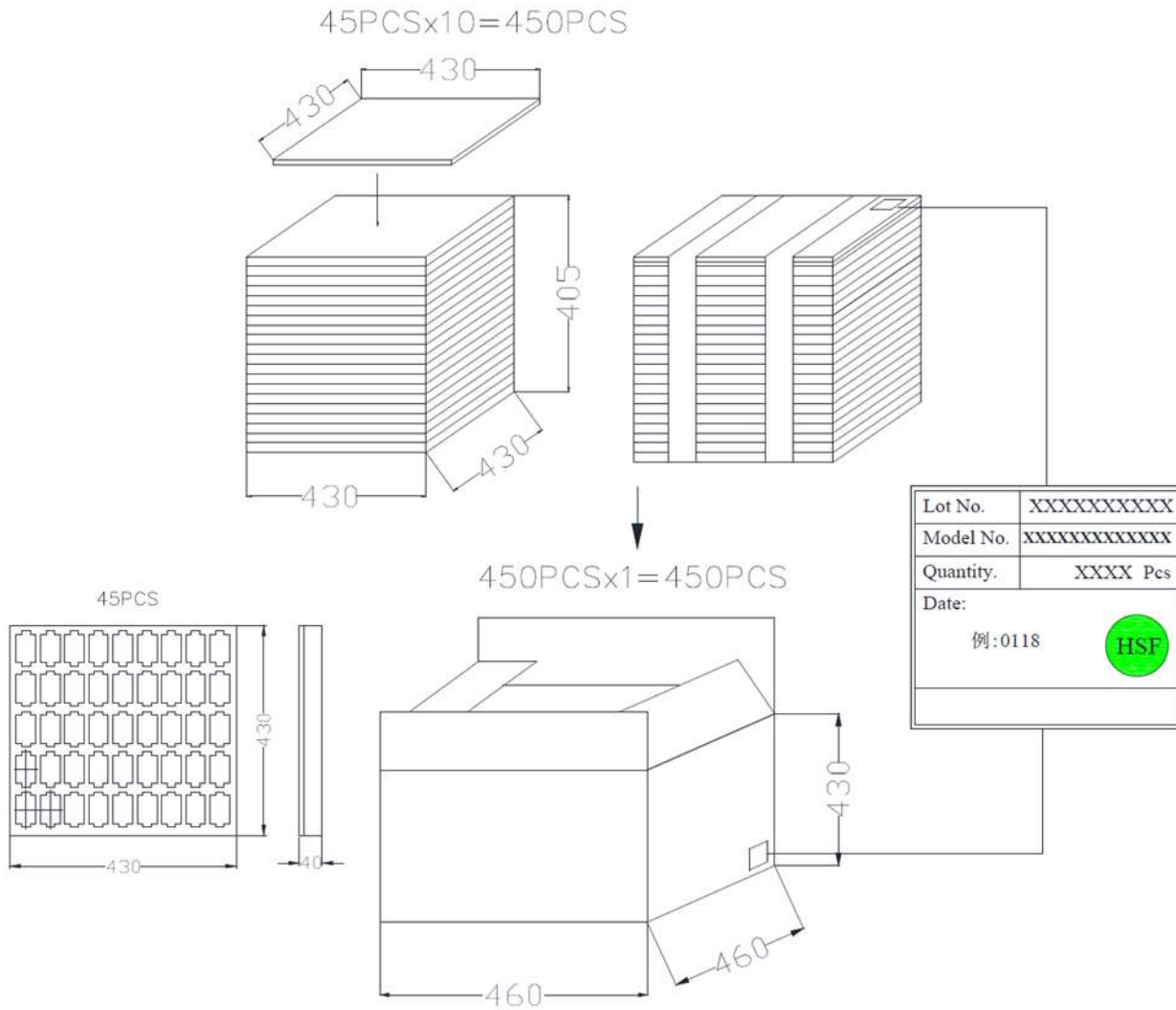
Type of Test	Test Specifications
High Temperature Test	96 hours at 85°C
Low Temperature Test	96 hours at -40°C
Humidity Test	96 hours at 40°C with relative humidity at 90~95%
Temperature Cycle Testing	<p>Run for 5 cycles, with each cycle consisting of:</p> <p>The diagram illustrates a temperature cycle with the following segments: a 2-hour hold at +85°C, a 0.5-hour ramp down to +25°C, a 1-hour hold at +25°C, a 0.5-hour ramp down to -40°C, and a 2-hour hold at -40°C. A dashed line at the bottom indicates the total duration of one cycle is 6 hours.</p>
Load Test	2.0W Rated power pink noise is applied for 96 hours, at room temp product.

After each test, let rest for 6 hours at 25°C and each part shall be within ±3 dB.

Dimensions



Packaging



Specifications Revisions

Revision	Description	Date
A	Released from Engineering	12/16/2022

Note:

- Unless otherwise specified:
 - All dimensions are in millimeters.
 - Default tolerances are $\pm 0.5\text{mm}$ and angles are $\pm 3^\circ$.
- Specifications subject to change or withdrawal without notice.