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Component Specification

Product: Speakerbox automotive
Part Number: CA-SB119123A-0810E
Drawing No: K305020100014


Content

1. General
2. Electrical & Acoustical Characteristics
3. Test Circuit & Response Curve
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Notes:

This specification is subject to change or withdrawal without notice

This part is RoHs 2011/65/EU compliant

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1. General

Speakerbox dedicated for automotive car headrest application.

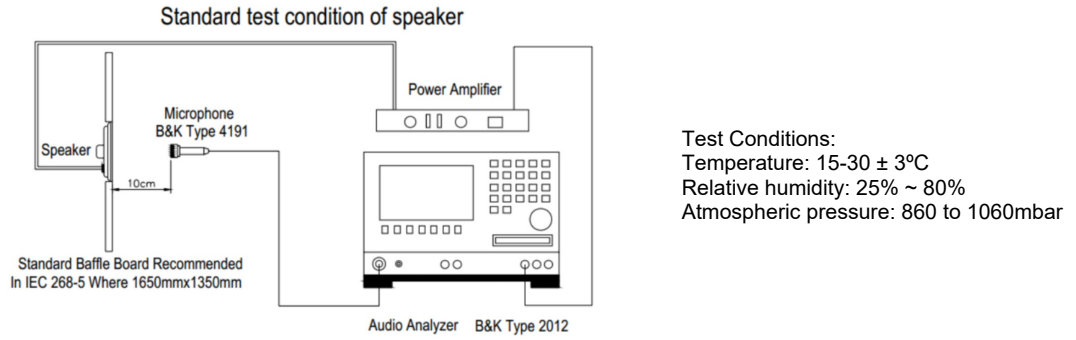
2. Electrical and Acoustic Characteristics

Items	Specification
Impedance	8Ω ± 15% (1Vrms a 800 Hz)
Sound Pressure Level	100dB ± 3dB (1W/0.1M- at 0.8,1.0,1.2,1.5kHz AVG)
Resonance Frequency	260Hz ± 20%
Frequency Range	100Hz~20KHz
Input Power	Rated 1.0W / Max. 4.0W
Distortion	< 3% Max. at 0,3- 10kHz @1W/0,1m
Buzz and Rattle	Should not be audible buzzes, rattles when the 4V sine wave signal swept at frequency range.
Polarity	When supplied plus D.C. Voltage to (+) terminal, the cone diaphragm must move to forward.
Flammability	The material of the membrane has to be of low flammability. The maximum burn-rate Bmax has to be less than 100mm-minute
Dimensions	119 x 124x74mm
Weight	74 g
Operating Temperature range	-40~+85°C
Store Temperature range	-40~+85°C

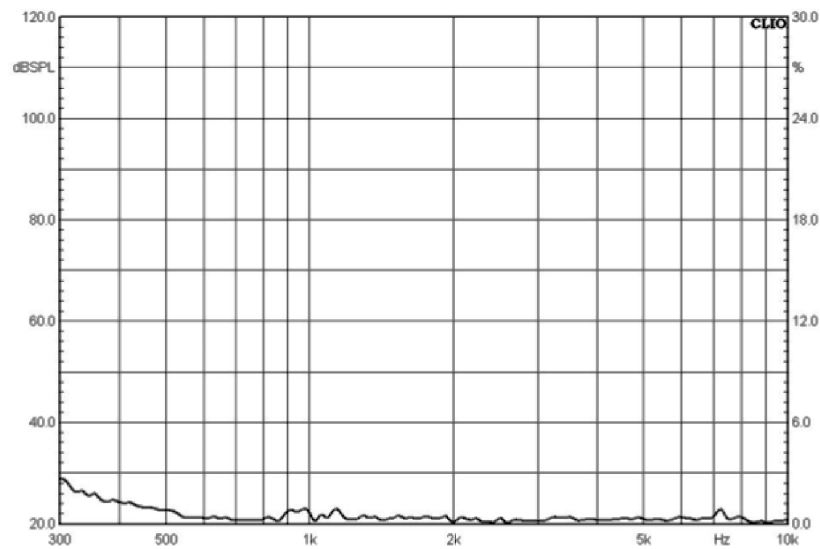
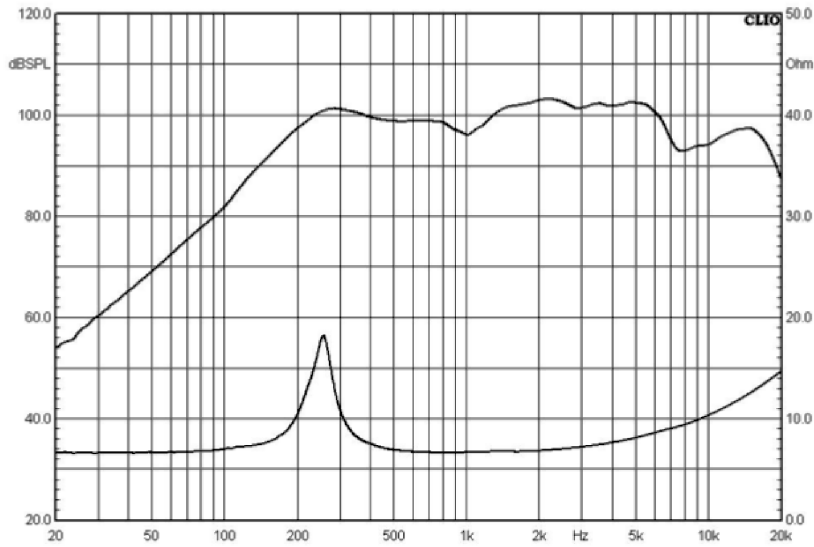
10	03/09/2024	Preliminary production release	L. Chen	S. Ge	Wang Xue
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3.1 Test Circuit



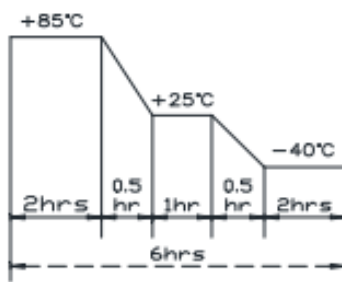
3.2 Frequency Response Curve and THD



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4. Reliability Test

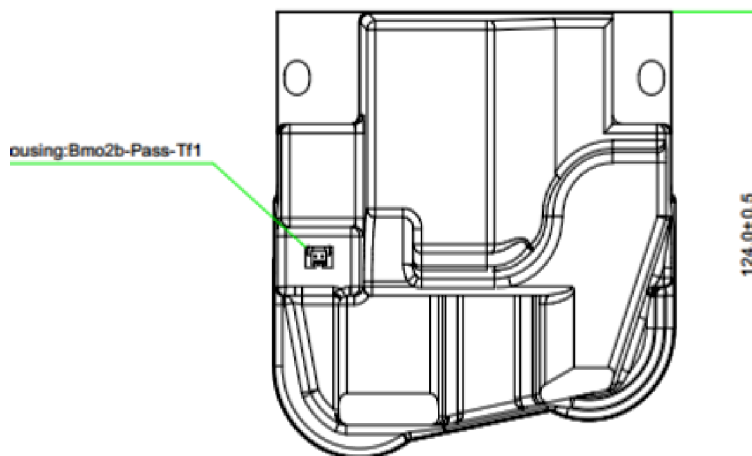
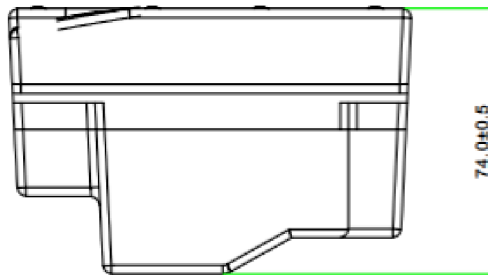
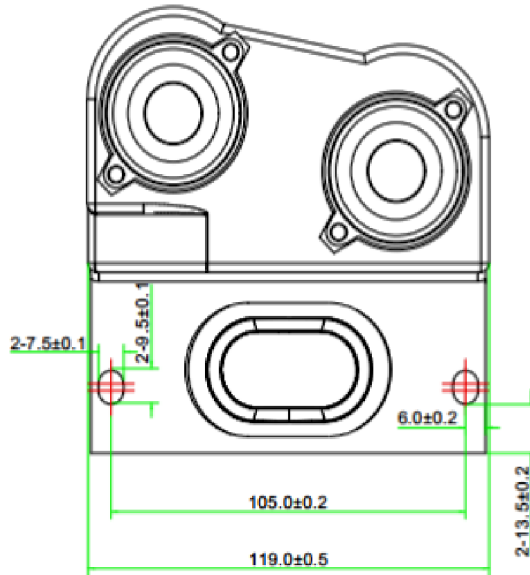
		Specification
4.1	High Temperature Test	After being placed in a chamber with $+85 \pm 3 \text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4.2	Low Temperature Test	After being placed in a chamber with $-40 \pm 3 \text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4.3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40 \pm 2 \text{ }^\circ\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4.4	Thermal Shock Test	<p>After being placed in a chamber at $+85^\circ\text{C}$ for 1 hour, then speaker shall be placed in a chamber at -40°C for 1 hour.(1 cycle is the below diagram). After 6 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p> 
4.5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 1 hour, then placed in natural condition for 1 hour, speaker shall be measured.
4.6	Drop Test	The speaker shall stand 6 times random drops from a height of 1 meter to a concrete floor faced with 5mm thick hard wood board and be nothing mechanical damage.
4.7	Load test	After being applied loading white noise with input power 2.0W for 100 hours, then placed in natural condition for 1 hour, speaker shall be measured.
4.8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 MΩ

After test the speaker S.P.L. Difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation (e.g. Cracks, rusts, damages and distortion)


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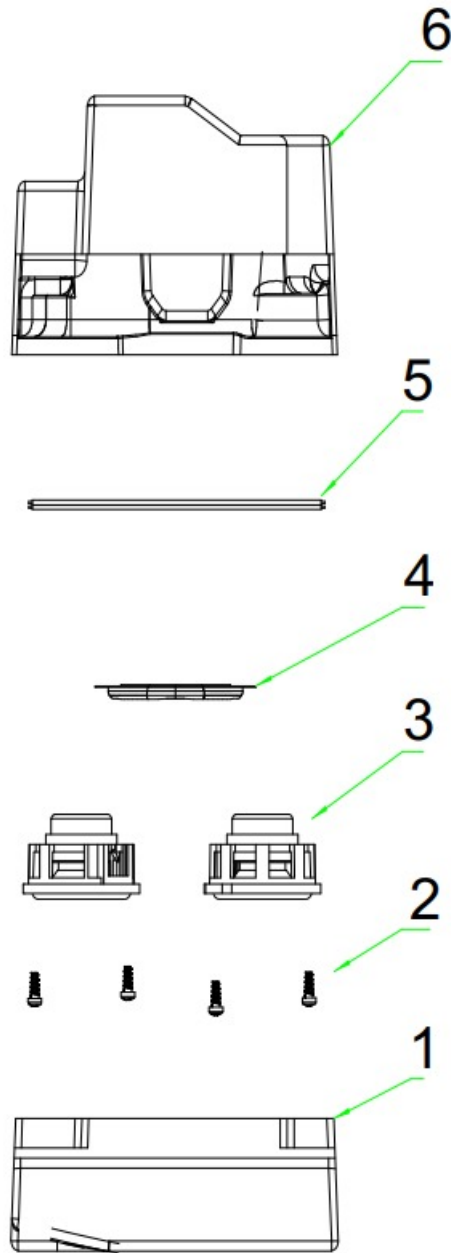
5. Dimension



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6. Structure



6	Lower shell	1	PB-PCT	
5	Wire	1	UL3302 AWG24	
4	Cone	1	Rubber +Fe	
3	Spk	1	4020	
2	Screw	1	Fe	
1	Upper shell	1	PB-PCT	
No.	Part Name	Qty	Material	Remarks

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7. Packing

TBD according customer needs.

ESD protective packing, antistatic bags /conforms to ESD S20.20 EN61340-5-1

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