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Component Specification

Product : Speaker
Part Number : CA-SM151131A-0810
Drawing No : FD1511C005


Content

1. General
2. Electrical & Acoustical Characteristics
3. Test Circuit
4. Frequency Response Curve
5. Dimensions
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Notes:

This specification is subject to change or withdrawel without notice

This part is RoHs 2011/65/EU compliant

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1. General

Mylar speaker for general use.

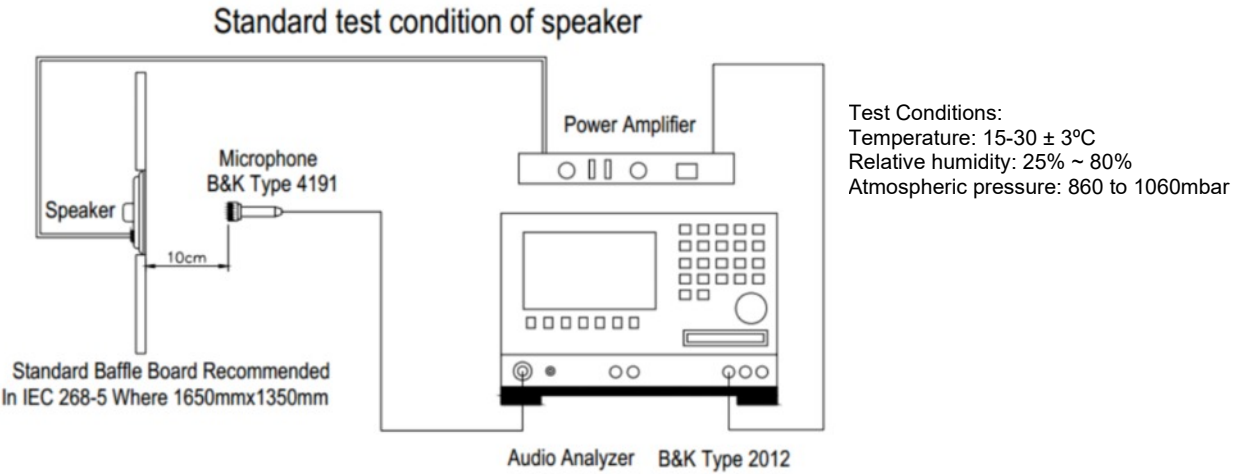
2. Electrical and Acoustic Characteristics

| No | Items | Specification |
|----|-----------------------------|--|
| | Impedance | 8Ω ± 20% |
| | Sound Pressure Level | 85dB ± 3dB (0.1m , 0.1W , 1Khz) |
| | Resonance Frequency | 800Hz ± 20% at 1V |
| | Frequency Range | f0~10KHz |
| | Input Power | Rated 1.0W / Max. 1.2W |
| | Distortion | <10% at 1kHz |
| | Buzz and Rattle | Using rated input power (1.0W) generated by an audio oscillator from F0 to 10Khz . No buzzes nor rattles |
| | Polarity | When supplied plus D.C. Voltage to (+) terminal, the cone diaphragm must move to forward. |
| | Dimensions | 15 x 11 x 3mm |
| | Weight | 6.5g |
| | Operating Temperature range | -30~+70 °C |
| | Store Temperature range | -40~+85 °C |

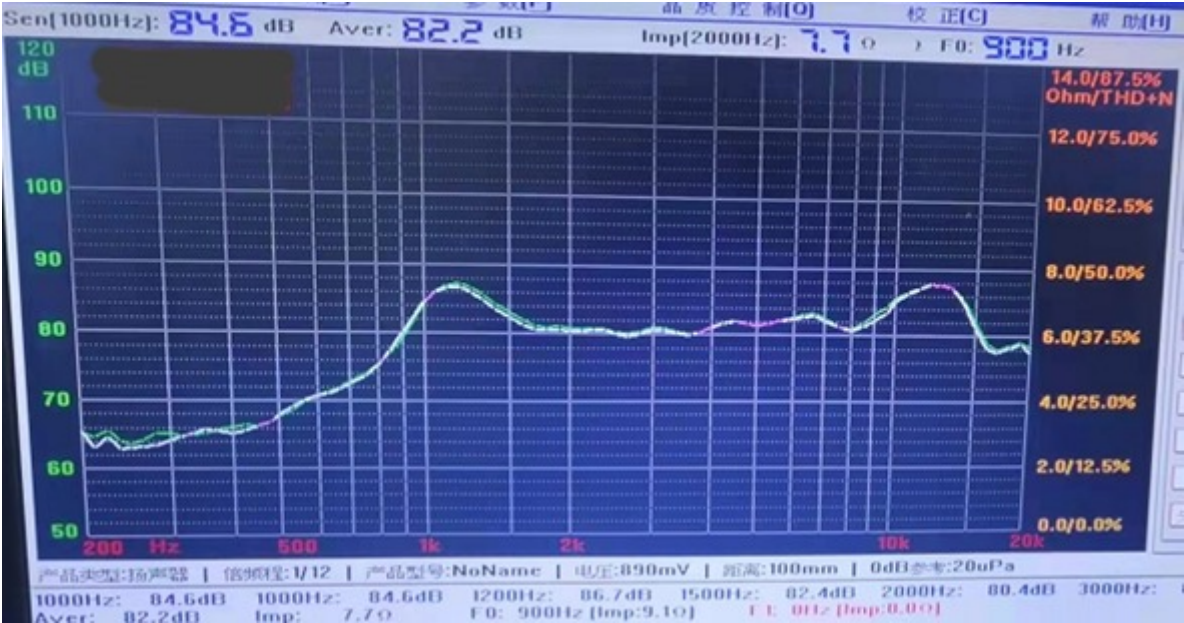
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| 1 . 0 | 16/10/15 | Preliminary | L. Chen | S. Ge | G. Schubert |
| Revision | Date | Note | Drawn by | Checked by | Approved by |

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3. Test Circuit



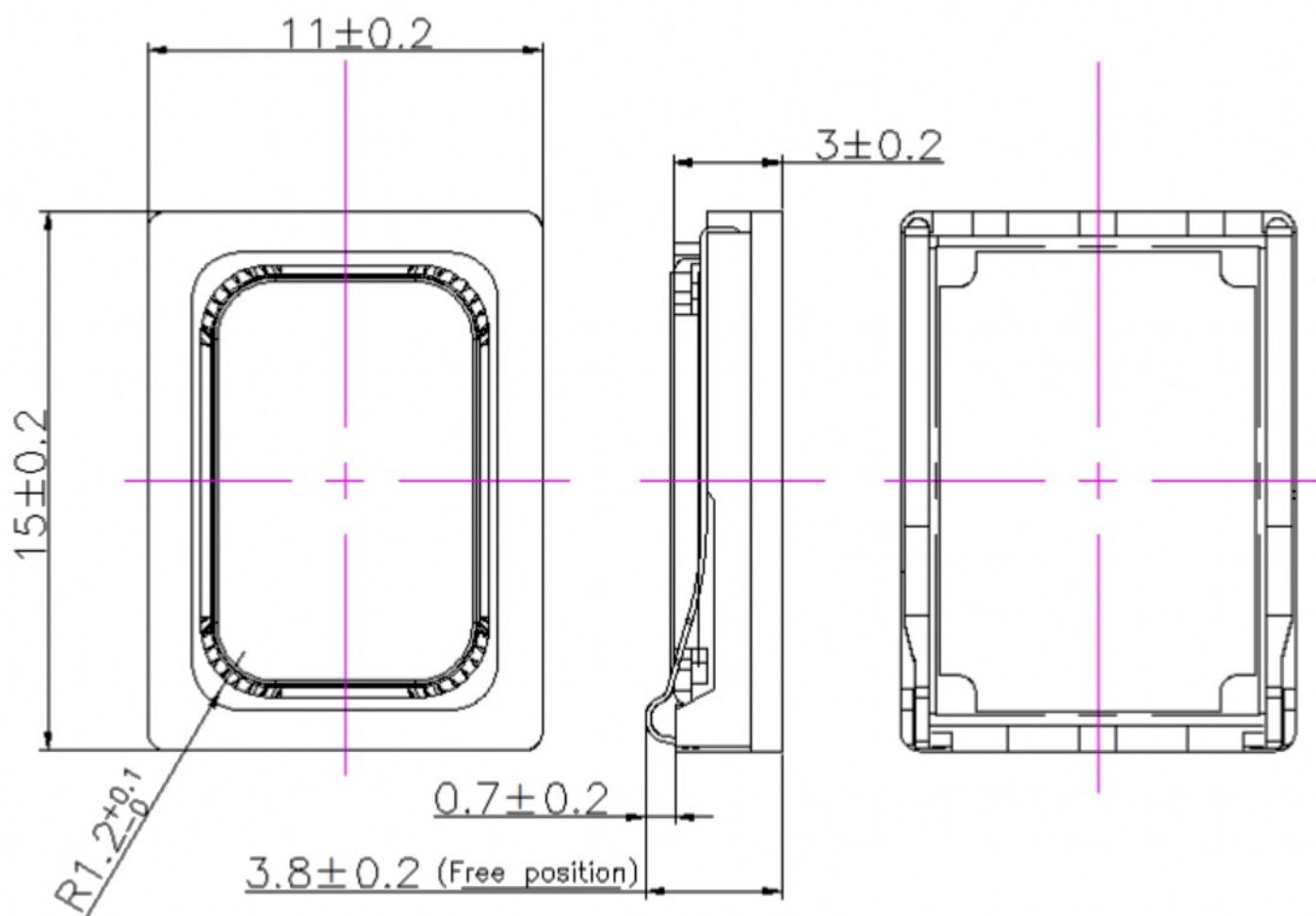
4. Frequency Response Curve




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5. Dimension



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7. Reliability Test

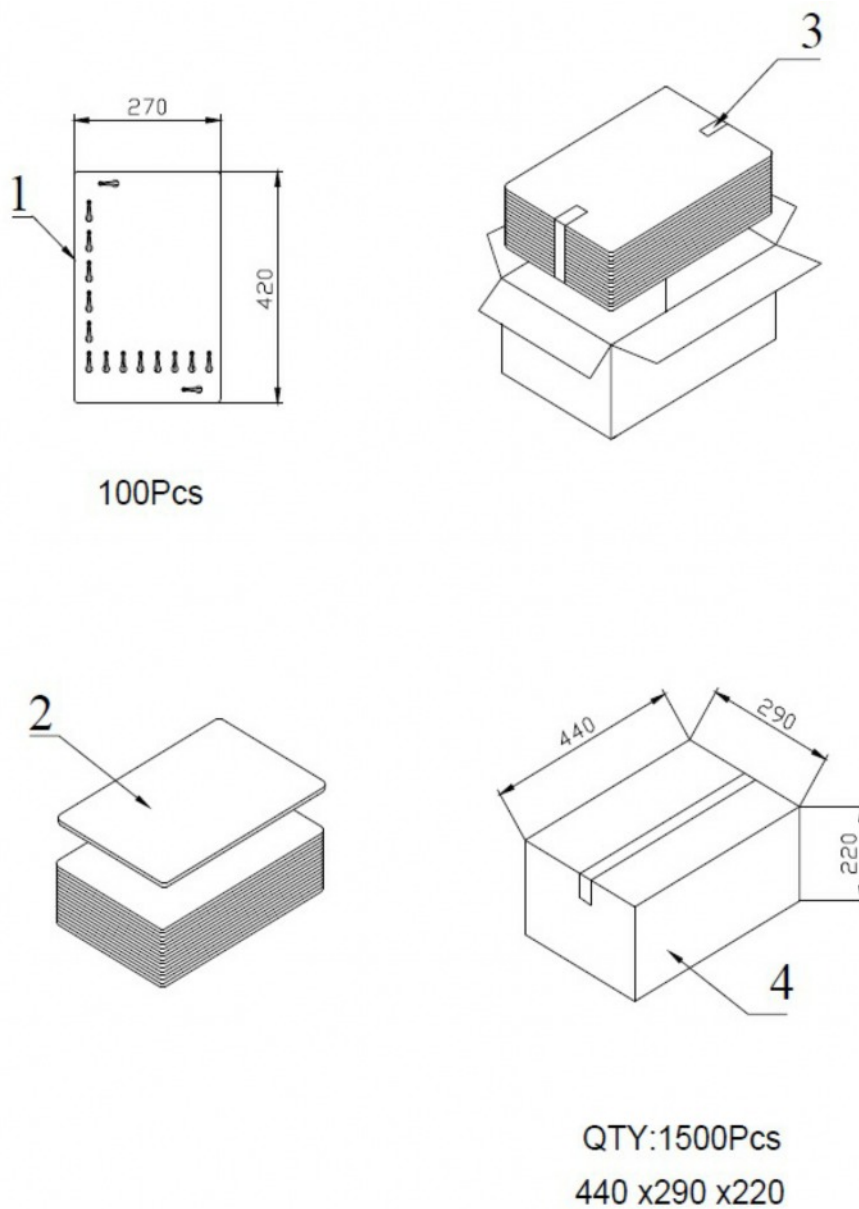
| No | Items | Specification |
|----|-----------------------|--|
| 1 | High Temperature Test | After being placed in a chamber with $85\pm3\text{ }^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour. |
| 2 | Low Temperature Test | After being placed in a chamber with $-40\pm3\text{ }^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 1 hour |
| 3 | Humidity Test | After being placed in a chamber with 85 to 90%R.H. at $+40\pm3\text{ }^{\circ}\text{C}$ for 96 hours and then being placed in natural condition for 3 hour. |
| 4 | Thermal Shock Test | After being placed in a chamber at $+85\text{ }^{\circ}\text{C}$ for 1 hour, then speaker shall be placed in a chamber at $-40\text{ }^{\circ}\text{C}$ for 1 hour (1 cycle). After 4 above cycles, speaker shall be measured after being placed in natural condition for 30 min. |
| 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 . |
| 6 | Drop Test | The speaker when mounted in the jig which weight 85g~100g, shall with stand 5 times random drops from a height of 1 meter to a concrete floor faced with 5mm thick hard wood board and be no mechanical damage. |
| 7 | Load test | After being applied loading white noise with input power 1.0 W for 96 hours, then placed in natural condition for 1 hour. |
| 8 | Isulation test | When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than $1\text{ M}\Omega$ |

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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8. Packing



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9) Revision

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