

SPECIFICATION

Customer :
Applied To :
Product Name : Dynamic Speaker
Model Name : VS1511ST1-YS35
Drawing No. : VS20130530014

Signature of Appronal

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Signature of Voice

Approved by	Checkde by	Issued by	Date



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Model No. : VS1511ST1-YS35	Drawing No.	VS20130530014

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Revision No.

1.0

Model No. : VS1511ST1-YS35

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1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.

-- compact, rich sound

-- applications: mobile phone, PDA, notebook computer, etc. ..

2. General

2.1 Out-Diameter : 15x11 mm

2.2 Height : 3.5 mm

2.3 Weight : 1.1 g

2.4 Operating Temperature range:

-30~+60 °C without loss of function

2.5 Store Temperature range:

-30~+60 °C without loss of function

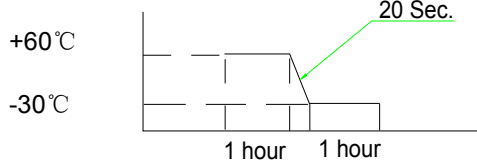
3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	82 dB ± 3dB 1V at 2kHz 10cm)
3	Resonance Frequency	750 Hz ± 20% in free air
		900 Hz ± 120% in 1cc closed Box
4	Frequency Range	750Hz ~10KHz
5	Input Power	Rated 0.5 W / Max. 0.8 W
6	Distortion	<10% Max. at 1kHz 0.5W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 2V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

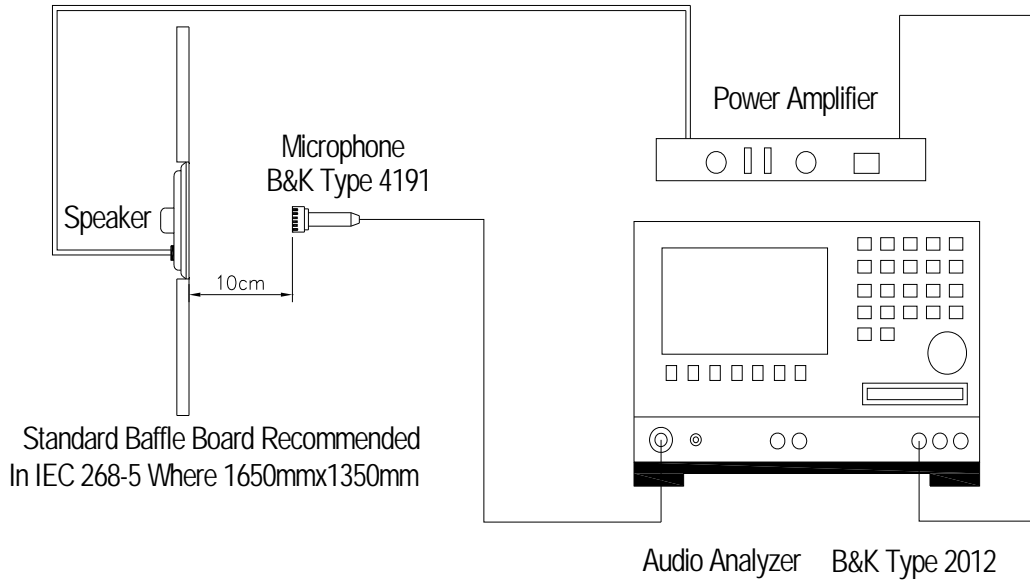
4. Reliability Test

After test(1~7item), 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 especially distortion).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+60\pm 3\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-30\pm 3\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2\text{ }^\circ\text{C}$ for 100 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	<p>After being placed in a chamber at $+60\text{ }^\circ\text{C}$ for 1 hour, then speaker shall be placed in a chamber at $-30\text{ }^\circ\text{C}$ for 1 hour(1 cycle is the below diagram). After 5 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</p> 
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 2 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 6 times random drops from a height of 1.0 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 0.5mW(0.06Vrms.) for 100 hours, then placed in natural condition for 1 hour, speaker shall be measured.
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

5. Measurement Block Diagram & Response curve

Standard test condition of speaker



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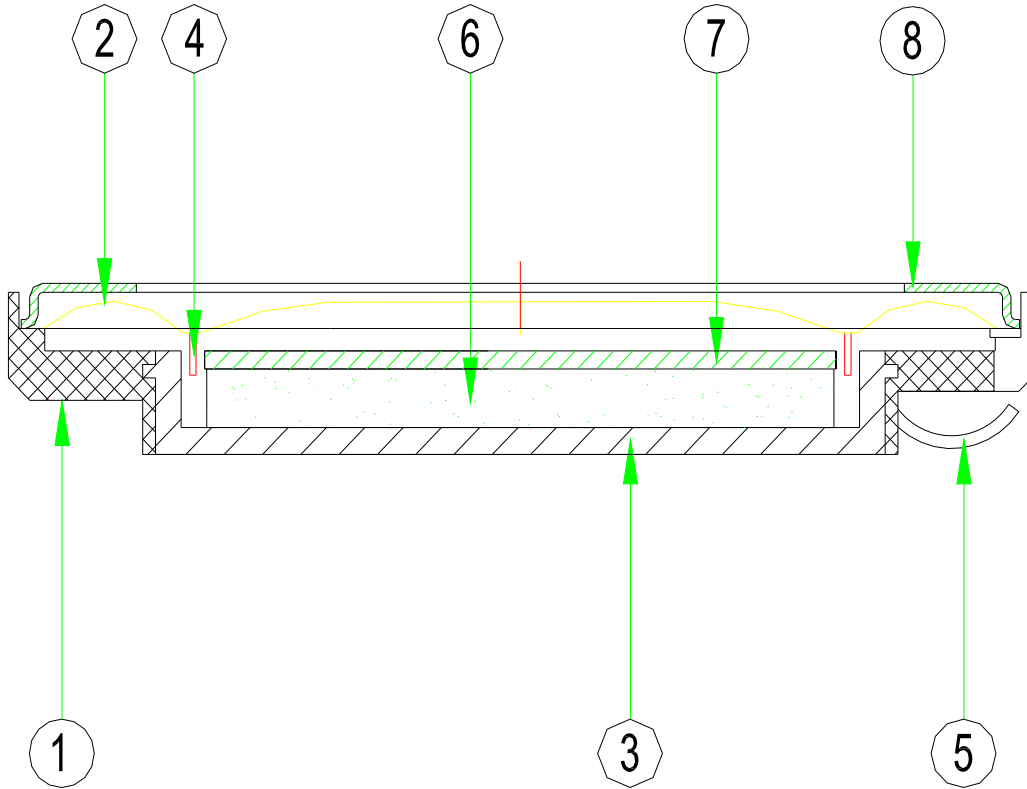
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6. Structure



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8	Cover	1	PC	
7	Polarity Plate	1	SPCC	
6	Magnet	1	Nd-Fe-B	
5	PIN	1	CU+AU	
4	Voice coil	1	CU	
3	Yoke	1	SPCC	
2	cone	1	PEEK	
1	Frame	1	PBT	
No.	Part Name	Q'ty	Material	Remarks

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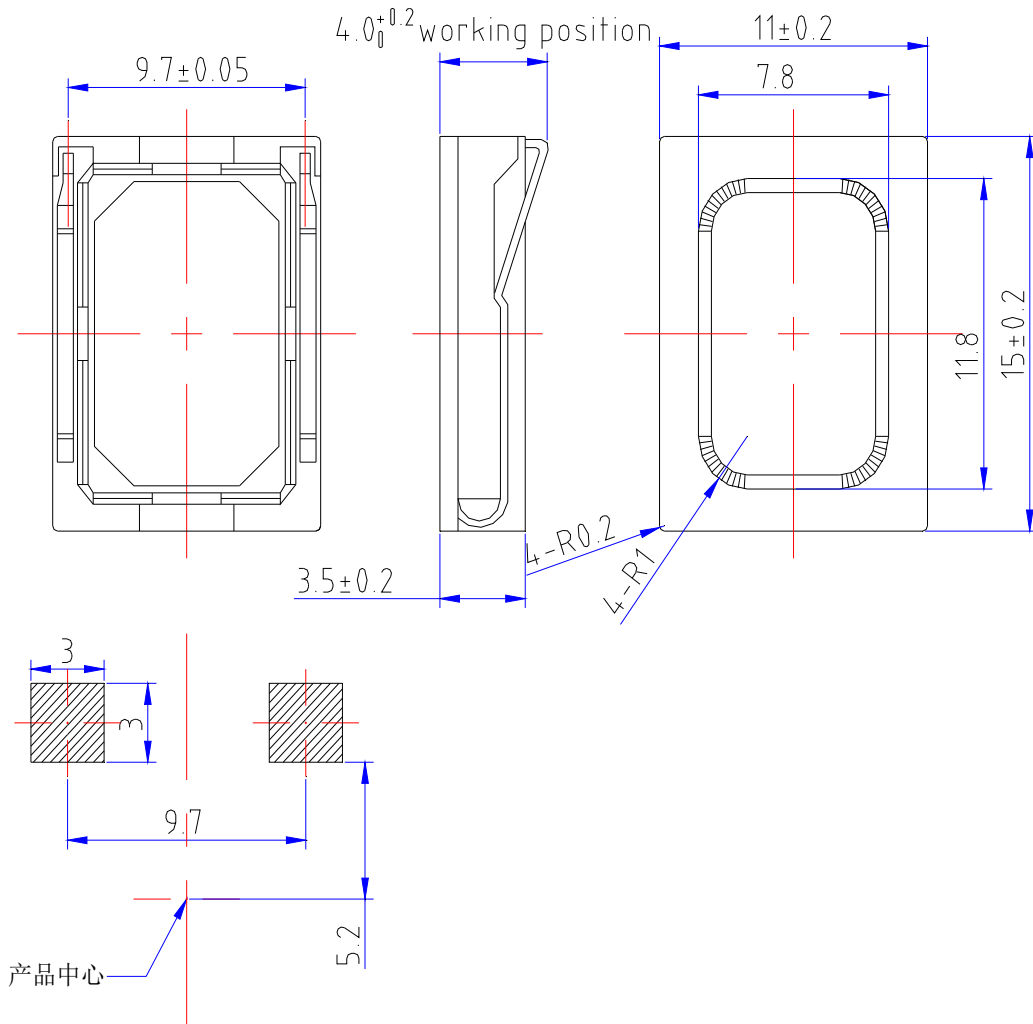
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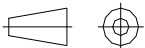
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7. Dimensions



FIRST ANGLE PROJECTION

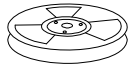


UNIT : mm

Tolerance : ± 0.2

8. Packing

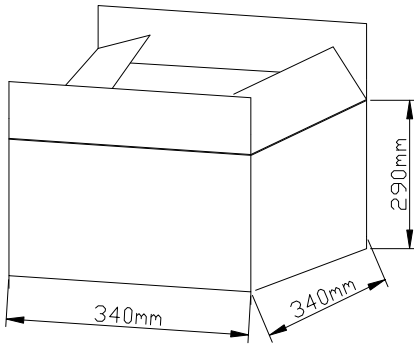
A Customer Specification



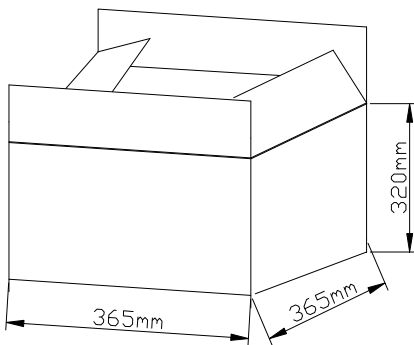
Carrier tape packing: $\phi 330\text{mm}$;
800PCS/Carrier tape packing



5PCS Carrier tape packing/Paper Carton
4000PCS/Paper Carton



Size: 340X340X290mm;
Paper Carton/1:800X5=4000 PCS



Size: 365X365X320mm;
Paper Carton/1:1=4000 PCS

