

# SPECIFICATION

Customer :  
Applied To :  
Product Name : Dynamic Speaker  
Model Name : VS150825T3MWP  
Drawing No. : VS202004028012

**Signature of Appronal**

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**Signature of Voice**

Approved by	Checkde by	Issued by	Date



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# Specification for Dynamic Speaker

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Revision No.

1.0

Model No. : VS150825T3MWP

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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 : 15x8 mm

2.2 Height : 2.5 mm

2.3 Weight : 1.1 g

2.4 Operating Temperature range:

-20~+60°C without loss of function

2.5 Store Temperature range:

-30~+70°C without loss of function

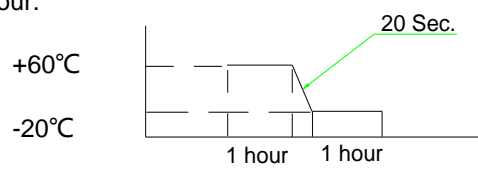
## 3. Electrical and Acoustic Characteristics.

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

No	Items	Specification
1	Impedance	6 Ω ± 15% (1Vrms at 2KHz)
2	Sound Pressure Level	90 dB ± 3dB 2Vrms at 10cm 2KHz
3	Resonance Frequency	800 Hz ± 20% in free air
		950 Hz ± 20% in 1cc Box
4	Frequency Range	F0 ~10KHz
5	Input Power	Rated 0.5 W / Max. 0.8 W In 1cc Box
6	Distortion	<10% Max. at 1kHz 0.5W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 1.73V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
9	Water proof	IP67

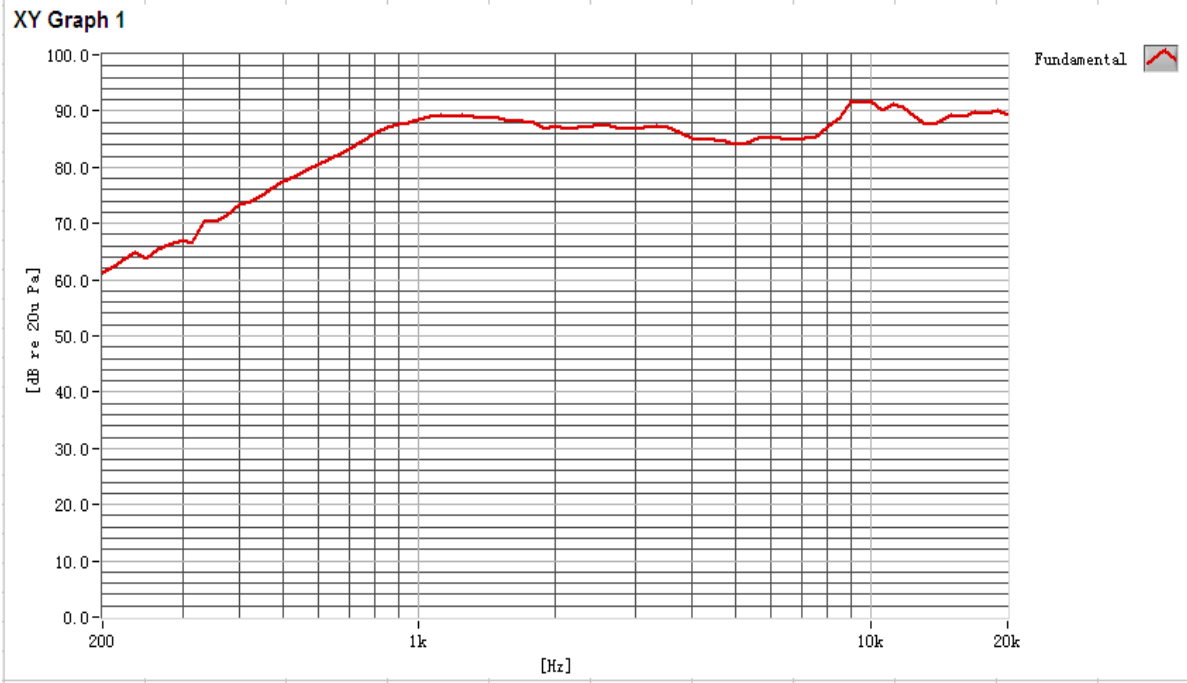
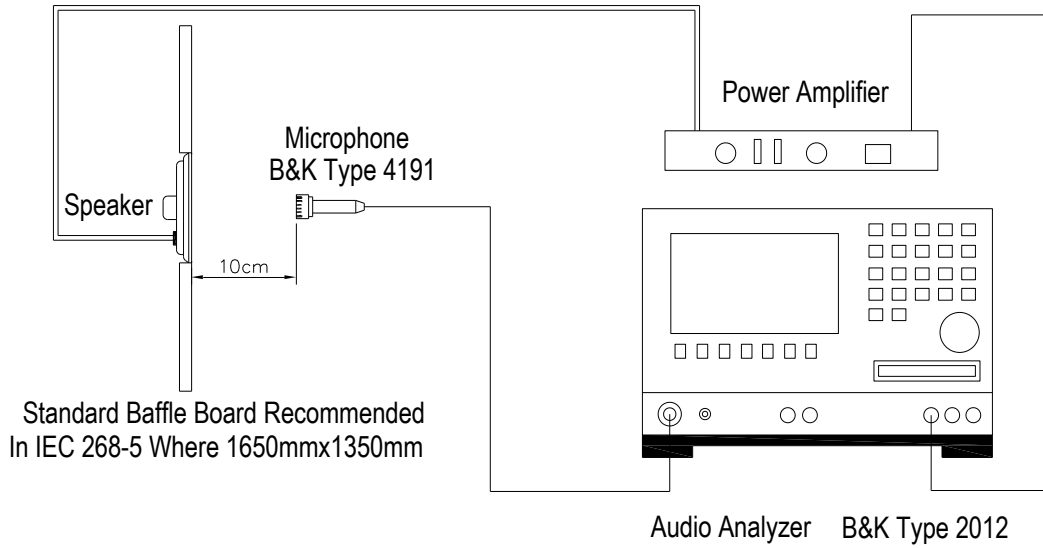
## 4. Reliability Test

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 $+70\pm 3\text{ }^{\circ}\text{C}$ 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 <math>+60\text{ }^{\circ}\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-20\text{ }^{\circ}\text{C}</math> 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>  <p>The diagram illustrates a thermal shock cycle. It starts at a high temperature of <math>+60\text{ }^{\circ}\text{C}</math> for a 1-hour dwell period. A green line indicates a ramp down to a low temperature of <math>-20\text{ }^{\circ}\text{C}</math> over a 20-second period. This is followed by a 1-hour dwell period at <math>-20\text{ }^{\circ}\text{C}</math>. The cycle then repeats.</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 0.5W(1.73Vrms.) for 100 hours In 1cc Box, then placed in natural condition for 1 hour, speaker shall be measured.
8	Max Power test	Max power 1 min on – 2 min off 10 cycles.

### 5. Measurement Block Diagram & Response curve

#### Standard test condition of speaker



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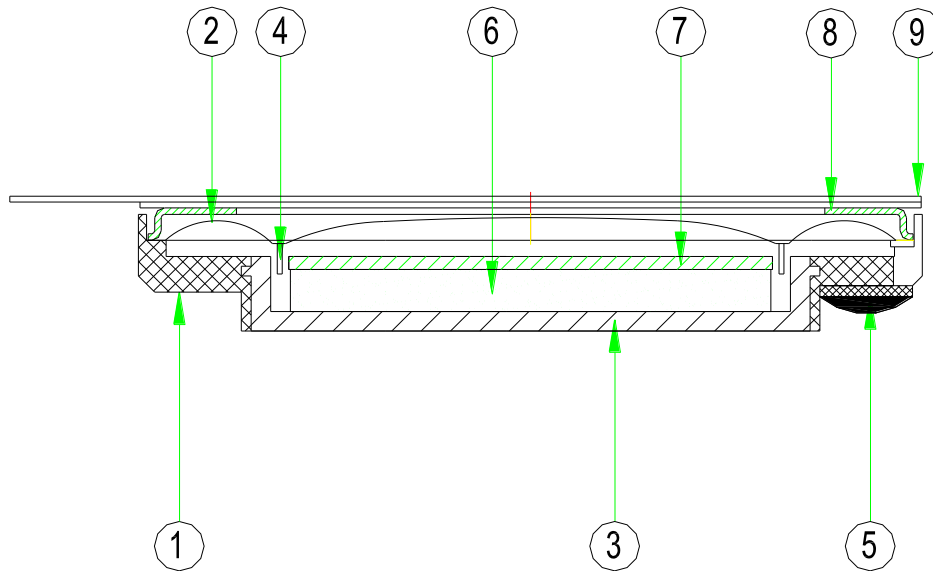
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## 6. Structure



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

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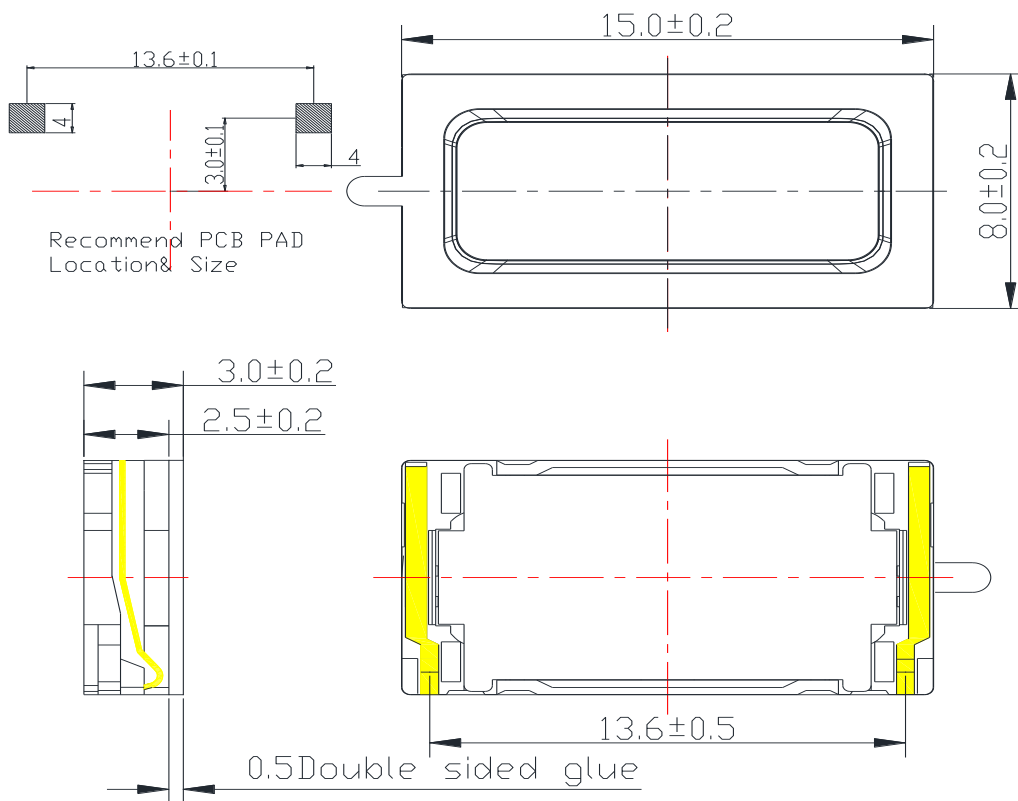
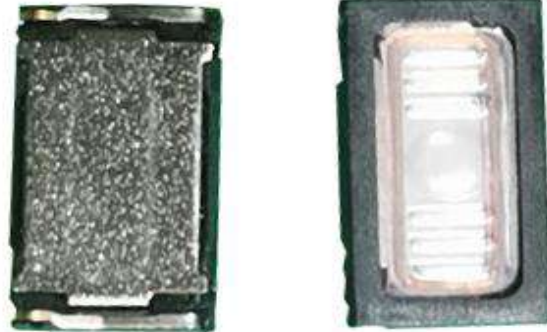
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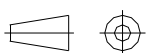
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## 7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±0.2

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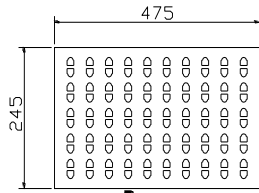
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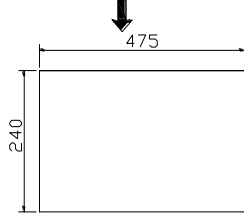
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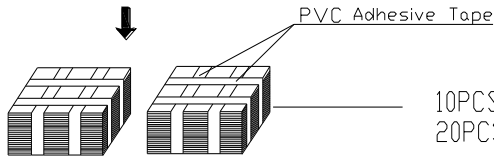
## 8. Packing



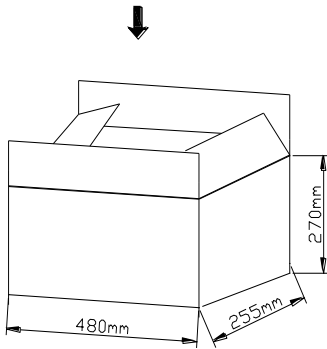
Foam Cardboard: 288X348X17mm;  
50PCS/1PC



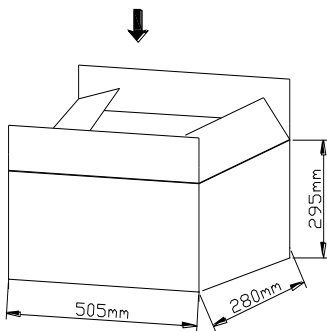
Cardboard: 288X348X7mm;



10PCS Foam Cardboard + 1PC Cardboard  
20PCS/Paper Carton



Size: 480X255X270mm;  
Paper Carton/1: 20X50=1000 PCS



Size: 505X280X295mm;  
Paper Carton/1: 1=1000 PCS

