



# SPECIFICATION

## FOR APPRONAL

Customer : \_\_\_\_\_

Product Name : Dynamic Speaker \_\_\_\_\_

Model Name : VS50170R8F700P05 \_\_\_\_\_

Drawing No. : VS20151211019 \_\_\_\_\_

### Signature of Voise

Approved by	Checkde by	Issued by	Date



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### 1. Revision

Rev.No	Date	Page	Description of Revision
1.0	2015/12/11		Preliminary



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## 2. Scope

This document contains required environmental, electrical, acoustic, mechanical, package and reliability test requirement

## 3. General Characteristics

- 2.1 Out-Diameter : 50 mm
- 2.2 Height : 170 mm
- 2.3 Weight : 45 g
- 2.4 Operating Temperature : -20~+60°C without loss of function
- 2.5 Store Temperature : -30~+70°C without loss of function

## 4. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C Temp., 25% ~ 75% RH, 86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 1KHz)
2	Sound Pressure Level	92 dB ± 3dB (0.1m/0.1w at 0.8,1.0,1.2,1.5kHz Average)
3	Resonance Frequency(fo)	700 Hz ± 20% at 1V
4	Frequency Range	fo ~5KHz
5	Input Power	Rated 0.5 W / Max. 1 W
6	Distortion	Less than 5% 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 a positive DC current is applied to the voice coil terminal marked (+) , the diaphragm shall move to forward.



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## 5. Reliability Test

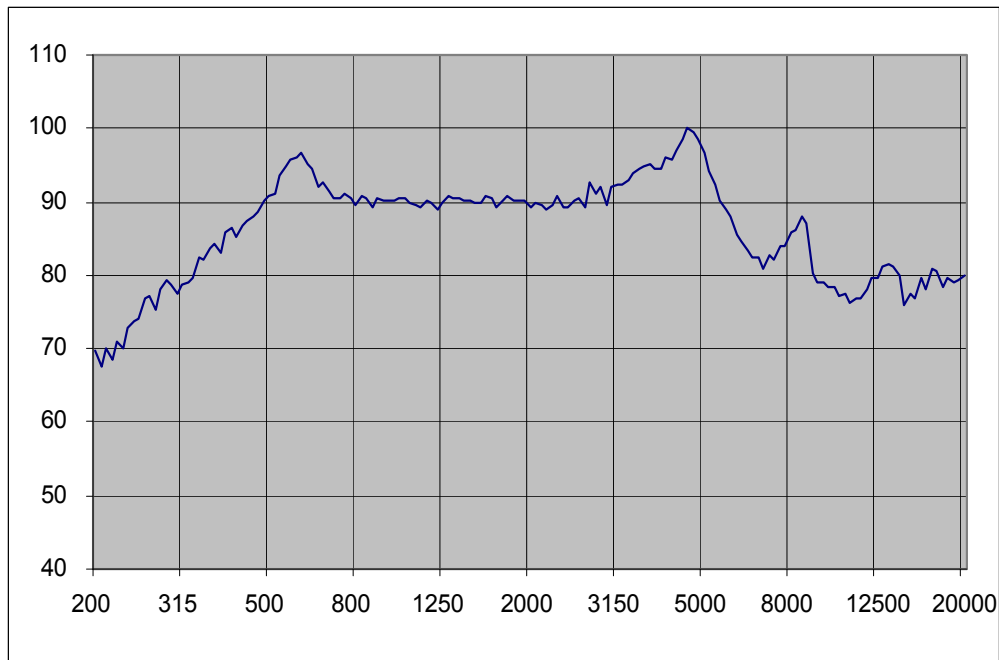
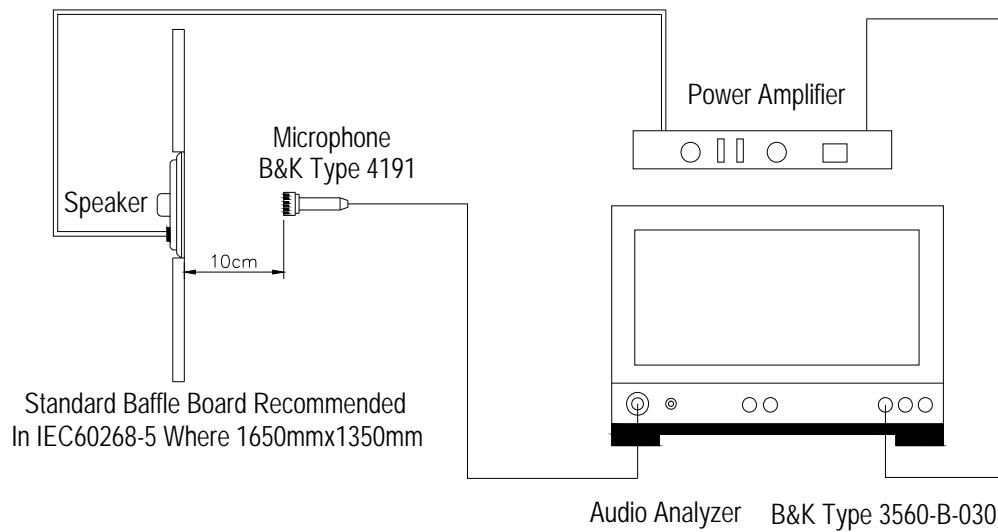
After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 100 hours at $+60\pm 3\text{ }^{\circ}\text{C}$ ,and leave 3 hours in normal temperature and then check.
2	Low Temp.Test	Keep 100 hours at $-30\pm 3\text{ }^{\circ}\text{C}$ ,and leave 3 hours in normal temperature and then check.
3	Humidity Test	Keep 100 hours at $-30\pm 3\text{ }^{\circ}\text{C}$ ,relative humidity 85 to 90% and leave 4 hours in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hours at $+25\pm 3\text{ }^{\circ}\text{C}$ followed by 2hours at $+60\pm 3\text{ }^{\circ}\text{C}$ ,and followed by 2hours at $-30\pm 3\text{ }^{\circ}\text{C}$ with a 20 to 40 minutes transition time between each 2 temperature extremes. The test duration is for 10 cycle.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55-10Hz band of vibration frequency,X.Y.Z.3 direction.2 hours each, total 6 hours.
6	Drop Test	Free drop fram 1.0 meter height to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times.
7	Load test	Loading white noise with input rate power for 100 hours, then placed in natural condition for 1 hour and then check.

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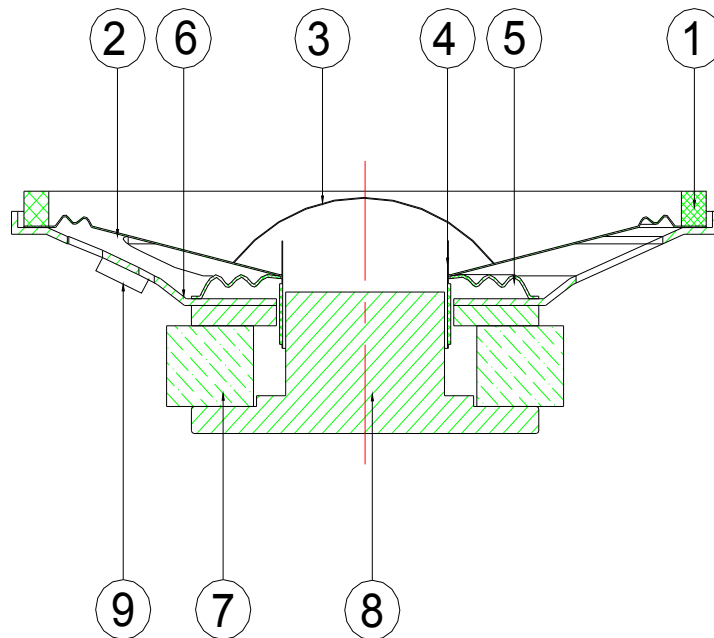
## 6. Measurement Method & Frequency Response curve

### Standard test condition of speaker



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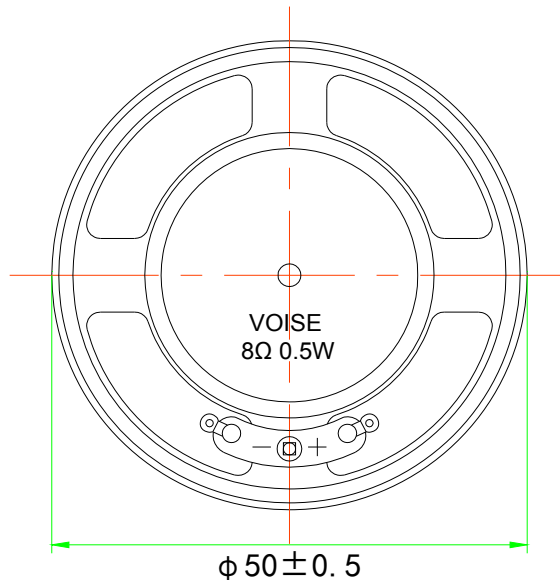
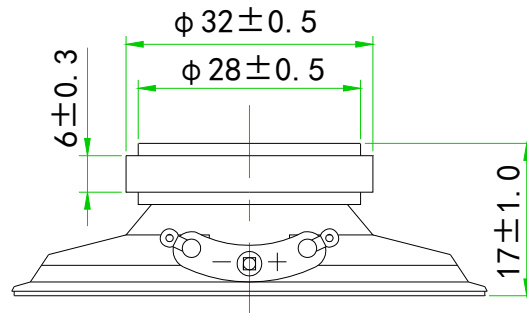
## 7. Mechanical layout



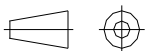
9	Terminal	1	White Fiber	
8	T yoke	1	SPCC	
7	Magnet	1	Y30 Ferrite	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper+QA	
3	Dust Cap	1	Mylar	
2	Cone	1	Mylar	
1	Gasket	1	Paper	
No.	Part Name	Q'ty	Material	Remarks

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### 8. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance :  $\pm 0.2$



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## 9. Packing

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number ,quantity and outgoing inspection number.

There shall be no mechanical damage on products during in storage.