

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : Dynamic Speaker _____

Model Name : VS50240R8F220P2 _____

Drawing No. : VS20220514018 _____

Signature of Voise

Approved by	Checkde by	Issued by	Date

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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 : 24 mm
- 2.3 Weight : 80 g
- 2.4 Operating Temperature : -20~+60°C without loss of function
- 2.5 Store Temperature : -30~+60°C without loss of function

4. Electrical and Acoustic Characteristics.

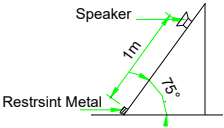
Test condition : 15 ~ 35 °C Temp., 25% ~ 75% RH, 86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 0.6KHz)
2	Sound Pressure Level	85 dB ± 3dB (1m/1w at 0.6,0.8,1.0,1.2,kHz Ave)
3	Resonance Frequency(fo)	220 Hz ± 20% at 1V
4	Frequency Range	fo ~20KHz
5	Input Power	Rated 2 W / Max. 5 W
6	Distortion	Less than 5% at 1kHz 1W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 4V 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.
9	Magnet	Φ40X19X6 mm

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5. Reliability Test

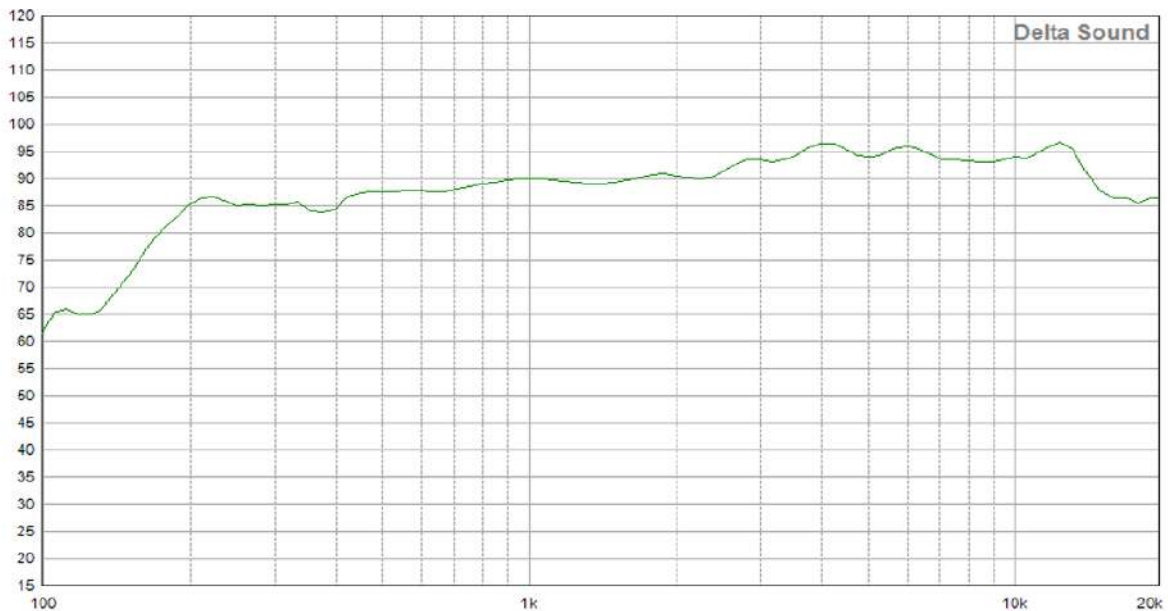
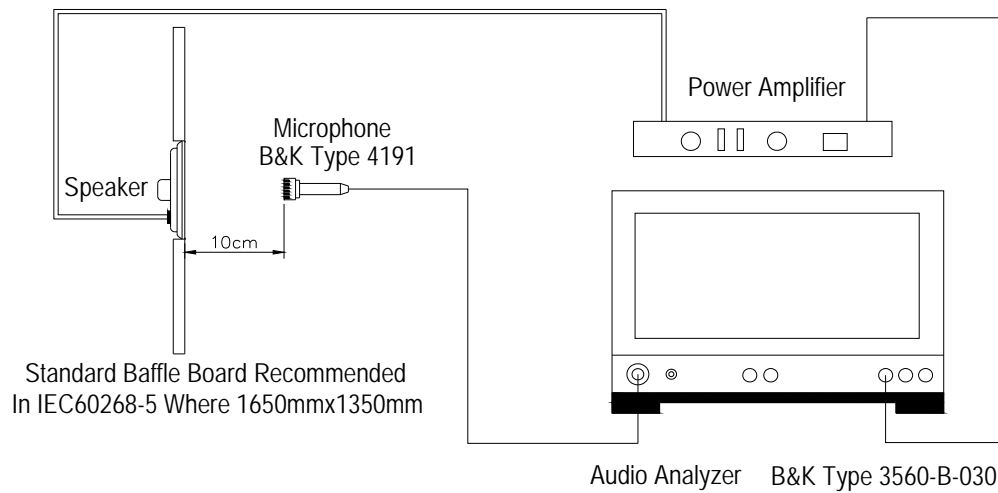
After test(1~7item), the speaker S.P.L . difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 24 hours at $+60\pm 3\text{ }^\circ\text{C}$,and leave 3 houres in normal temperature and then check.
2	Low Temp.Test	Keep 24 hours at $-20\pm 3\text{ }^\circ\text{C}$,and leave 3 houres in normal temperature and then check.
3	Humidity Test	Keep 24 hours at $-20\pm 3\text{ }^\circ\text{C}$,relative humidity 85 to 90% and leave 4 houres 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	A speaker is dropped from 1m in length on 75° inclination to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times. <div style="text-align: right;">  </div>
7	Load test	Loading white noise with input rate power for 96 hours, then placed in natural condition for 1 hour and then check.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 M Ω

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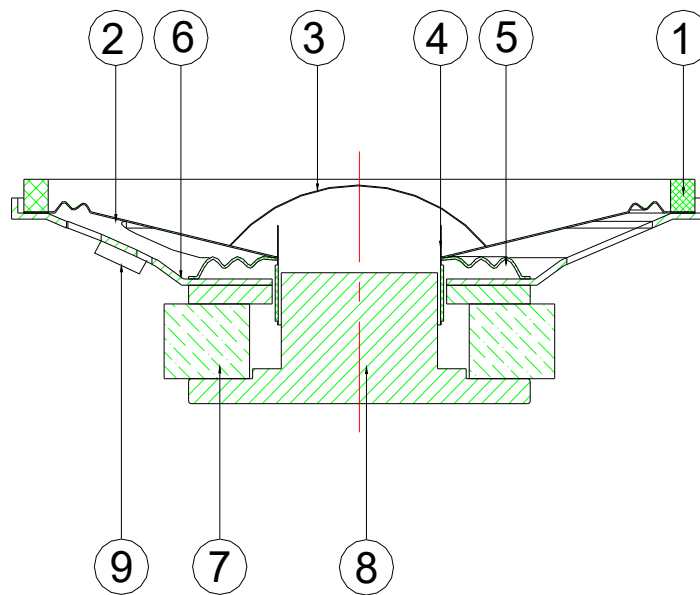
6. Measurement Method & Frequency Response curve

Standard test condition of speaker



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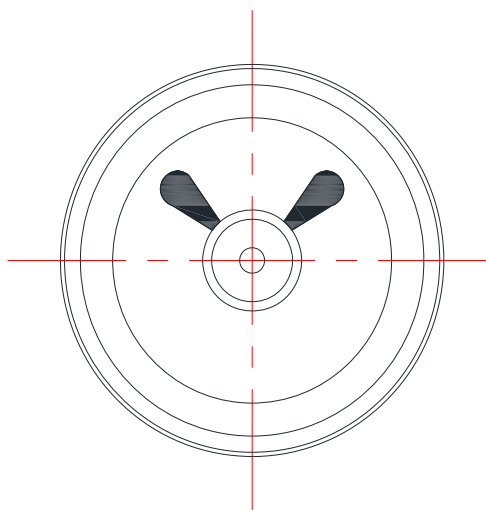
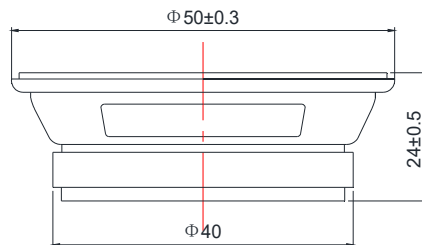
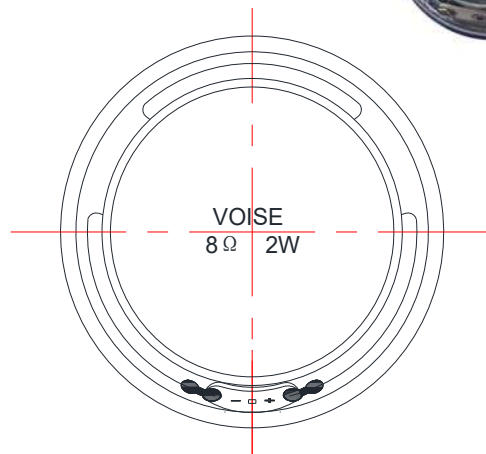
7. Mechanical layout



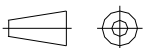
9	Terminal	1	White Fiber	
8	T yoke	1	SPCC	
7	Magnet	1	Ferrite	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper+PSV	
3	Dust Cap	1	Paper	
2	Cone	1	Cloth+Paper	
1	Gasket	1	Paper	
No.	Part Name	Q'ty	Material	Remarks

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8. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ± 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.