

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : Dynamic Speaker _____

Model Name : VS50170R8F450P05 _____

Drawing No. : VS22220718005 _____

Signature of Voise

Approved by	Checkde by	Issued by	Date

 福爱斯电子有限公司
VOISE ELECTRONICS CO.,LTD.

Address:No 96 Mogao Dongqian Lake Industial Area ningbo,China,
Tel:0086-0574-87773030;Fax:0086-0574-87471600 P.C.315121
<http://www.nbvoise.com> Email:sales@nbvoise.com

Specification for Dynamic Speaker		Page	2/8
Model No.:	VS50170R8F450P05	Revision No.	1.0
		Drawing No.	VS22220718005

Table of contents

1. Revision
2. Scope
3. General Characteristics
4. Electrical and Acoustic Characteristics.
5. Reliability Test
6. Measurement Method & Frequency Response curve
7. Mechanical layout
8. Dimensions
9. Packing

1. Revision

Rev.No.	Date	Page	Description of Revision
1.0	2016/9/10		Preliminary

Specification for Dynamic Speaker		Page	3/8
Model No.: VS50170R8F450P05		Revision No.	1.0
		Drawing No.	VS22220718005

2. Scope

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

3. General Characteristics

- 2.1 Out-Diameter : 50 mm
- 2.2 Height : 16.5 mm
- 2.3 Weight : 10 g
- 2.4 Operating Temperature : -20~+60℃ without loss of function
- 2.5 Store Temperature : -30~+70℃ 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	86 dB ± 3dB (1m/1w at 0.8,1.0,1.2,1.5kHz Average)
3	Resonance Frequency	450 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 1W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 2V sine wave signal swept at frequency range.
8	Polarity	When a ppsitive DC current is applied to the voice coil terminal marked (+) , the diaphragm shall move to forward.
9	Magnet size	Φ32*Φ16*6H

Specification for Dynamic Speaker		Page	4/8
Model No.:	VS50170R8F450P05	Revision No.	1.0
		Drawing No.	VS22220718005

5. Reliability Test

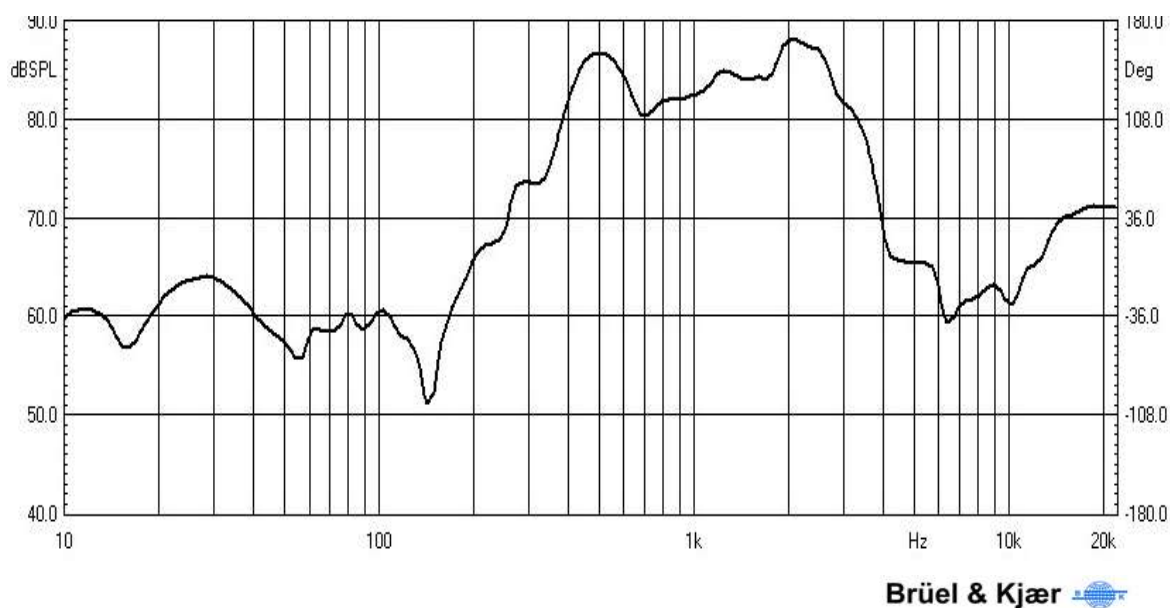
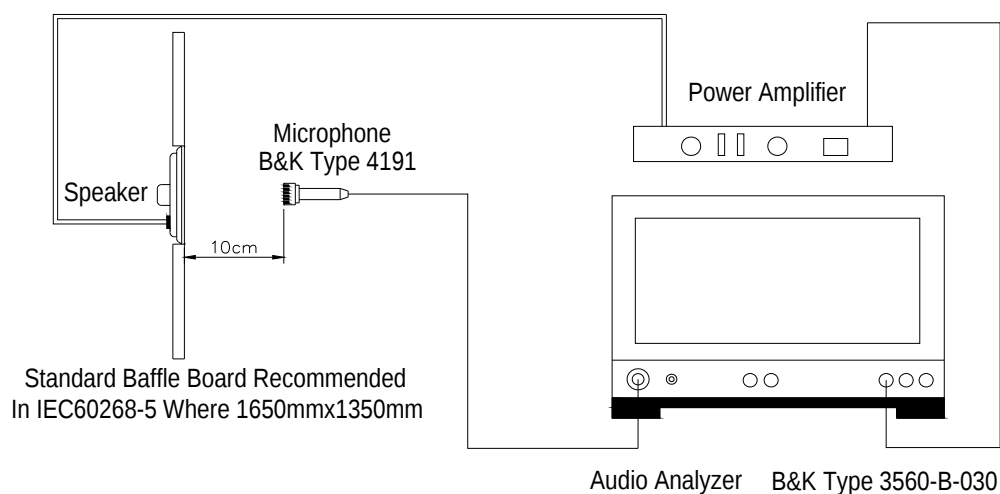
After test(1~7item), the speaker S.P.L . difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 100 hours at $+60\pm 3\text{ }^{\circ}\text{C}$,and leave 3 houres in normal temperature and then check.
2	Low Temp.Test	Keep 100 hours at $-30\pm 3\text{ }^{\circ}\text{C}$,and leave 3 houres 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 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	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.
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

Specification for Dynamic Speaker		Page	5/8
Model No.: VS50170R8F450P05		Revision No.	1.0
		Drawing No.	VS22220718005

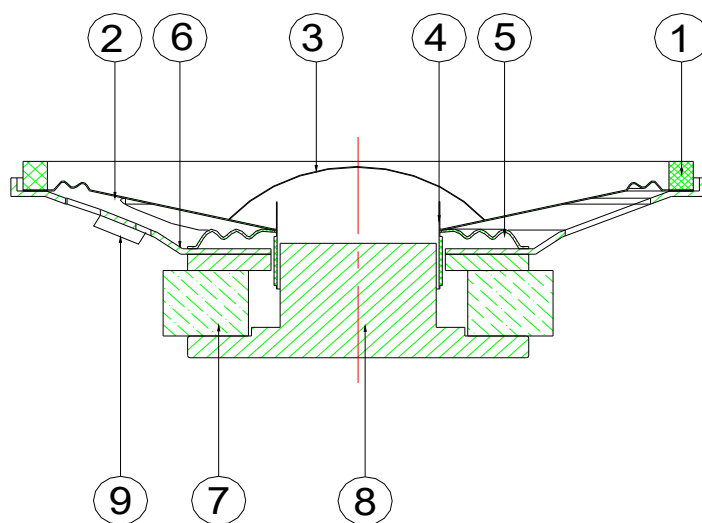
6. Measurement Method & Frequency Response curve

Standard test condition of speaker



Specification for Dynamic Speaker		Page	6/8
Model No.: VS50170R8F450P05		Revision No.	1.0
		Drawing No.	VS22220718005

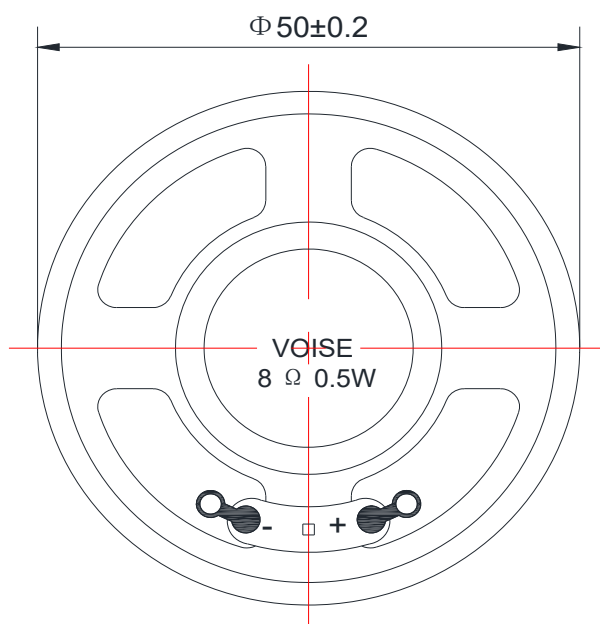
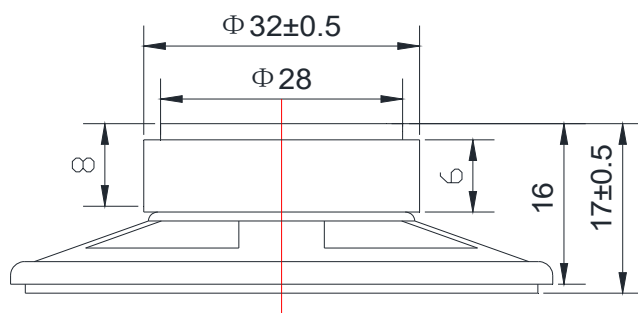
7. Mechanical layout



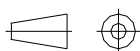
9	Terminal	1	White Fiber	
8	T yoke	1	SPCC	
7	Magnet	1	Y30 Ferrite	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper+QA	
3	Dust Cap	1	Paper	
2	Cone	1	Paper	
1	Gasket	1	Paper	
No.	Part Name	Q'ty	Material	Remarks

Specification for Dynamic Speaker		Page	7/8
Model No.: VS50170R8F450P05		Revision No.	1.0
		Drawing No.	VS22220718005

8. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±0.2

Specification for Dynamic Speaker		Page	8/8
Model No.: VS50170R8F450P05		Revision No.	1.0
		Drawing No.	VS22220718005

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.