



# SPECIFICATION

## FOR APPRONAL

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

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

Model Name : VS66160R4P2F550 \_\_\_\_\_

Drawing No. : VS20161014016 \_\_\_\_\_

### Signature of Voise

Approved by	Checkde by	Issued by	Date



福爱斯电子有限公司  
VOISE ELECTRONICS CO.,LTD.

Office Add:Haoyangguang B-302# No.968 Baizhang Road,Ningbo China  
Factory add: No.96 Mogao Road,Dongqianhu Town Ningbo City China  
Tel:86-0574-87471601 Fax:86-0574-87471600 P.C.315040  
HTTP://www.nbvoise.com E-mail:sales@nbvoise.com

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		Revision No	1.0	
Model No.:	VS66160R4P2F550		Drawing No.	VS20161014016

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### 1. Revision

Rev.No.	Date	Page	Description of Revision
1.0	2016/10/14		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 : 66 mm
- 2.2 Height : 16 mm
- 2.3 Weight : 22 g
- 2.4 Operating Temperature : -25~+50°C without loss of function
- 2.5 Store Temperature : -30~+60°C without loss of function

## 4. Electrical and Acoustic Characteristics.

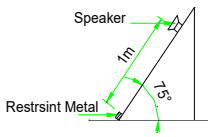
Test condition : 15 ~ 35 °C Temp., 25% ~ 75% RH, 86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	4 Ω ± 15% (1Vrms at 0.8KHz)
2	Sound Pressure Level	88 dB ± 3dB (1m/1w at 1kHz)
3	Resonance Frequency(fo)	550 Hz ± 20% at 1V
4	Frequency Range	fo ~6KHz
5	Input Power	Rated 2 W / Max. 4 W
6	Distortion	Less than 5% at 1kHz 0.5W
7	Buzz and Rattle	Should not be audible buzzes, rattles when the 2.83V 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	Protection Level	IP55

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## 5. Reliability Test

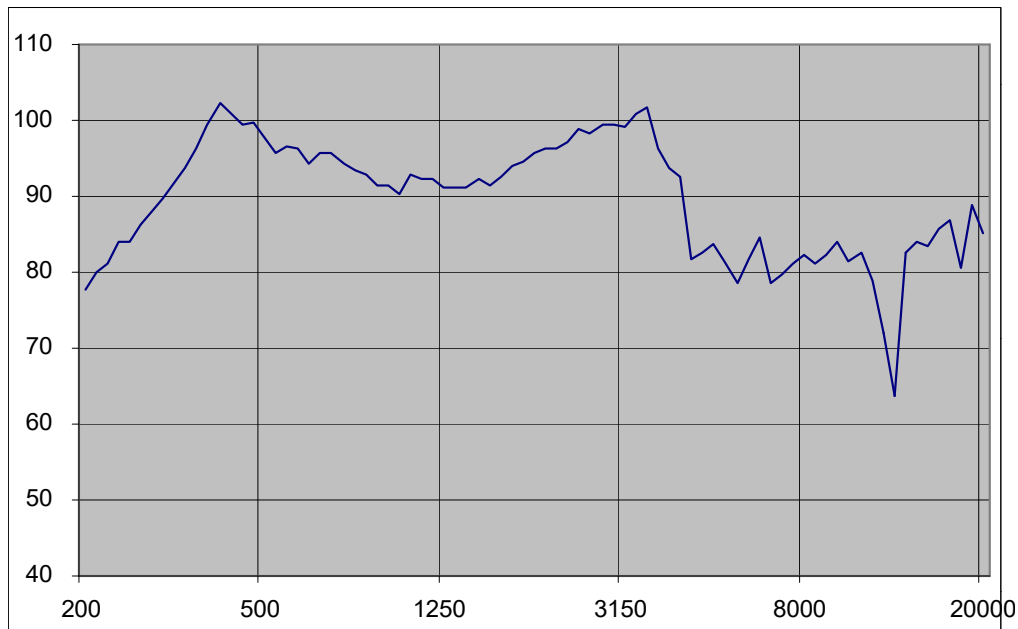
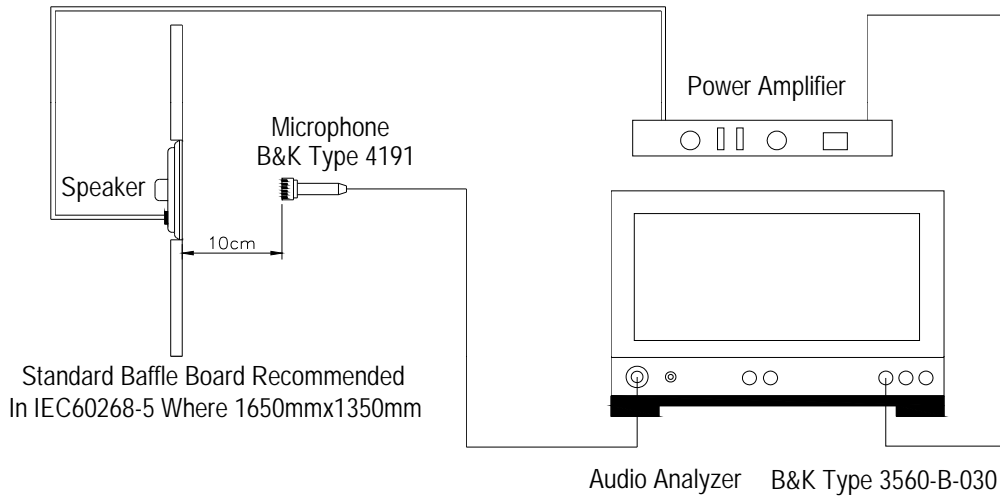
After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 48 hours at $+50\pm 3\text{ }^\circ\text{C}$ ,and leave 3 houres in normal temperature and then check.
2	Low Temp.Test	Keep 48 hours at $-25\pm 3\text{ }^\circ\text{C}$ ,and leave 3 houres in normal temperature and then check.
3	Humidity Test	Keep 48 hours at $-25\pm 3\text{ }^\circ\text{C}$ ,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 $+50\pm 3\text{ }^\circ\text{C}$ ,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	<p>A speaker is dropped from 1m in length on <math>75^\circ</math> inclination to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times.</p> 
7	Load test	Loading white noise with input rate power for 48 hours, then placed in natural condition for 1 hour and then check.

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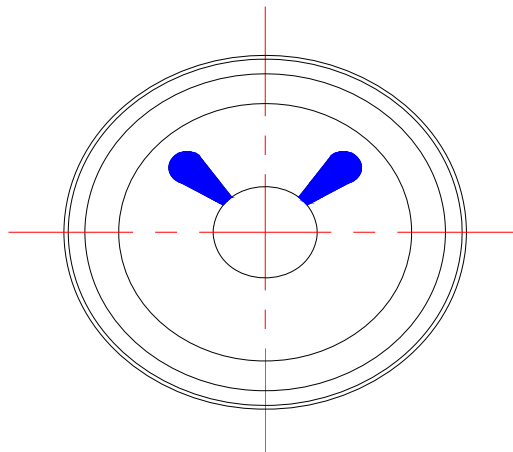
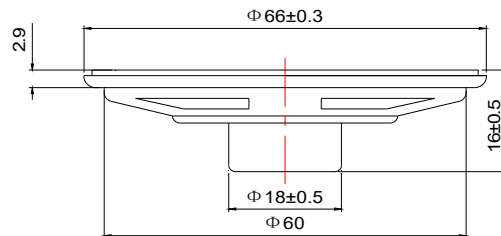
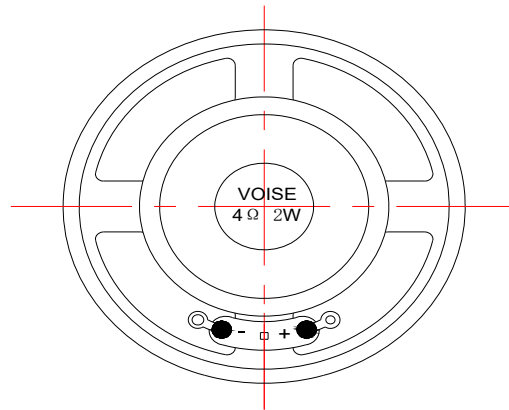
## 6. Measurement Method & Frequency Response curve

### Standard test condition of speaker



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## 7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance :  $\pm 0.2$



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## 8. 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.