

# SPECIFICATION

Customer :

Applied To :

Product Name : Speaker

Model Name : 40322300

Drawing No. : 评估版

Signature of Approval

--

Signature of KEPO

Approved by	Checked by	Issued by	Date



**Ningbo Kepo Electronics Co.,Ltd.**

*Address: No.25 Baoyuan Road Dongqian Lake Industrial Area  
Dongqian Lake, Ningbo315121, China*

*Tel: +86(574)88371186, 88370330      Fax: +86(574)88370329  
http://www.chinaacoustic.com      E-mail: Sales@kepo.com.cn*

Specification for Speaker	Page	2/9
Model No. : 40322300	Revision No.	1.0
	Drawing No.	评估版

## CONTENTS

1. Scope
2. General
3. Electrical and Acoustic Characteristics.
4. Reliability Test
5. Measurement Block Diagram & Response curve
6. Structure
7. Dimensions
8. Packing
9. Revision

Specification for Speaker		Page	3/11
		Revision No.	1.0
Model No. :	40322300	Drawing No.	评估版

## 1. Scope

This specification is applied to the dynamic speaker which is used all of the electrical acoustic product.

- compact, rich sound
- applications: telephone, computer, etc. ..

## 2. General

- 2.1 Out-Diameter : 35x20 mm
- 2.2 Height : 8.4mm
- 2.3 Weight : 5.8 gr.
- 2.4 Operating Temperature range:  
-20~+60℃ without loss of function
- 2.5 Store Temperature range:  
-30~+80℃ without loss of function

## 3. Electrical and Acoustic Characteristics.

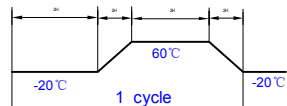
Test condition : 15 ~ 35 ℃, 25% ~ 85% RH, 860~1060 mbar

	Items	Specification
1	Impedance	8 Ω ± 15%(at 1Vrms,1.0kHz)
2	Sound Pressure Level	90 dB ± 3dB( 0.1W/0.1M AT 1KHz)
3	Resonance Frequency	1000 Hz ± 20%
4	Frequency Range	f <sub>0</sub> ~ 15.0kHz
5	Input Power	Rated 0.8W / Max. 1.3W
6	Distortion	<5% Max. at 1kHz/0.8W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 0.8W sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

Specification for Speaker		Page	4/11
		Revision No.	1.0
Model No. :	40322300	Drawing No.	评估版

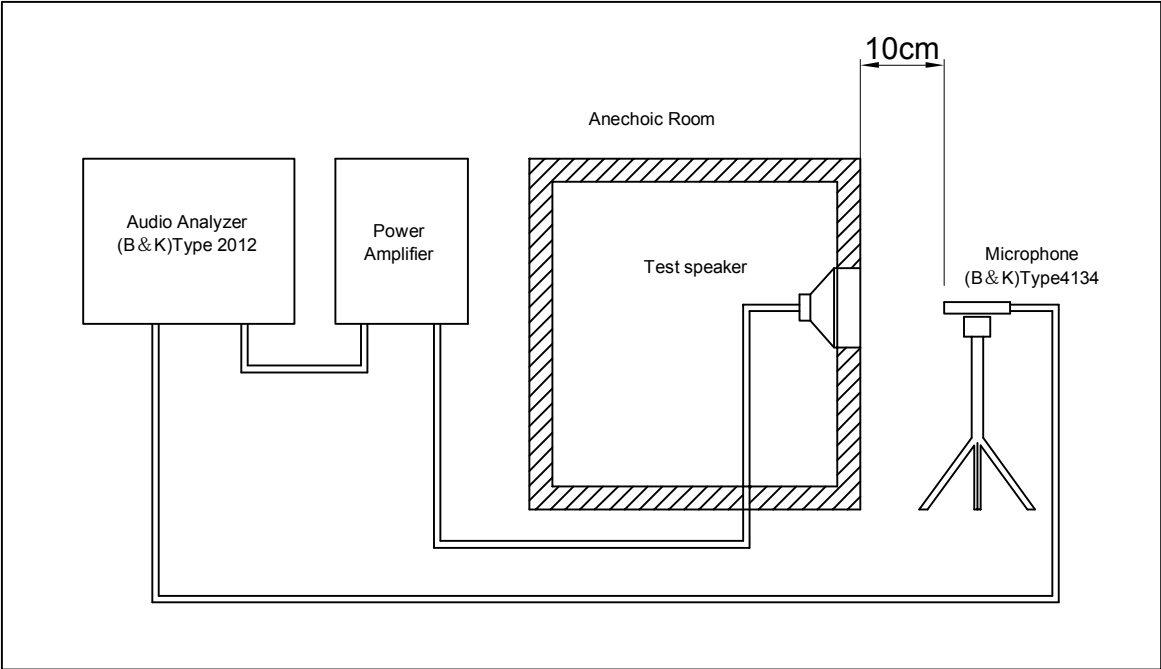
## 4. Reliability Test

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).

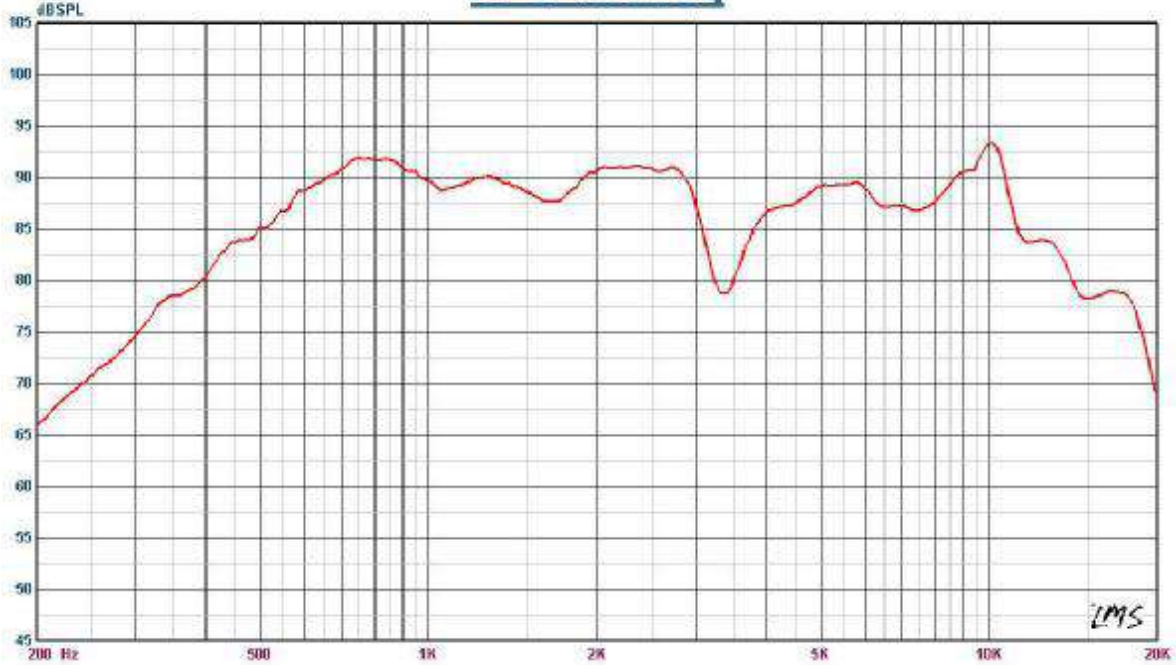
	Item	Specification
1	High Temperature Test	After being placed in a chamber with $60\pm 3\text{ }^\circ\text{C}$ for 168 hours and then being placed in natural condition for 2 hours, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-20\pm 3\text{ }^\circ\text{C}$ for 168 hours and then being placed in natural condition for 2 hours, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 95%R.H. at $50\pm 2\text{ }^\circ\text{C}$ for 168 hours and then being placed in natural condition for 2 hours, speaker shall be measured.
4	Temperature cycling Test	<p>After being placed in a chamber with <math>-20\text{ }^\circ\text{C}</math> for 2 hours,then changed the temperature from <math>-20\text{ }^\circ\text{C}</math> to <math>60\text{ }^\circ\text{C}</math> for 2 hours,kept on the temperature <math>60\text{ }^\circ\text{C}</math> for 2 hours,then changed the temperature from <math>60\text{ }^\circ\text{C}</math> to <math>-20\text{ }^\circ\text{C}</math> for 2 hours(1 cycle is the below diagram).</p> <p>After 15 cycles,the speaker shall be measured after being placed in natural condition for 2 hours.</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 direction for 1 hour, then placed in natural condition for 2 hours, speaker shall be measured.
6	Drop Test	The speaker shall with stand 1 time and difference 6 sides drop from a height of 1 meter to a concrete floor with 5 mm thick hard wood board and be nothing mechanical damage, without irregularity in sound, volume and operation.
7	Load test	After being applied loading white noise with input power 0.8 W(2.53Vrms.) for 100 hours, then placed in natural condition for 2 hours, speaker shall be measured.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 $\text{M}\Omega$

Specification for Speaker		Page	5/11
Model No. : 40322300		Revision No.	1.0
		Drawing No.	评估版

### 5. Measurement Block Diagram & Response curve

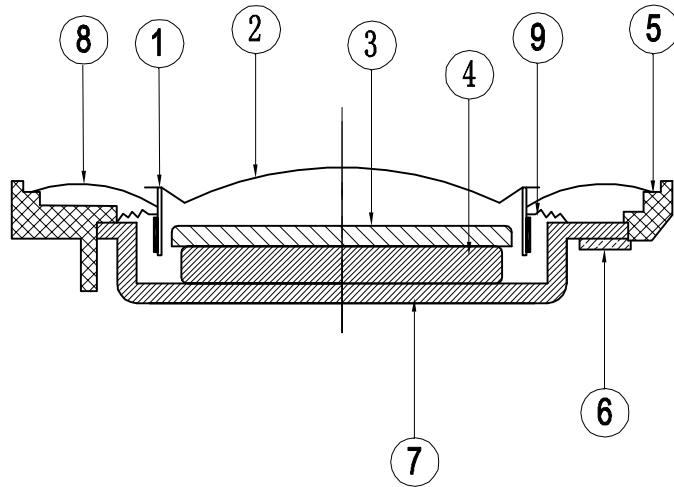


**SPL vs Freq**



Specification for Speaker		Page	6/9
Model No. : 40322300		Revision No.	1.0
		Drawing No.	评估版

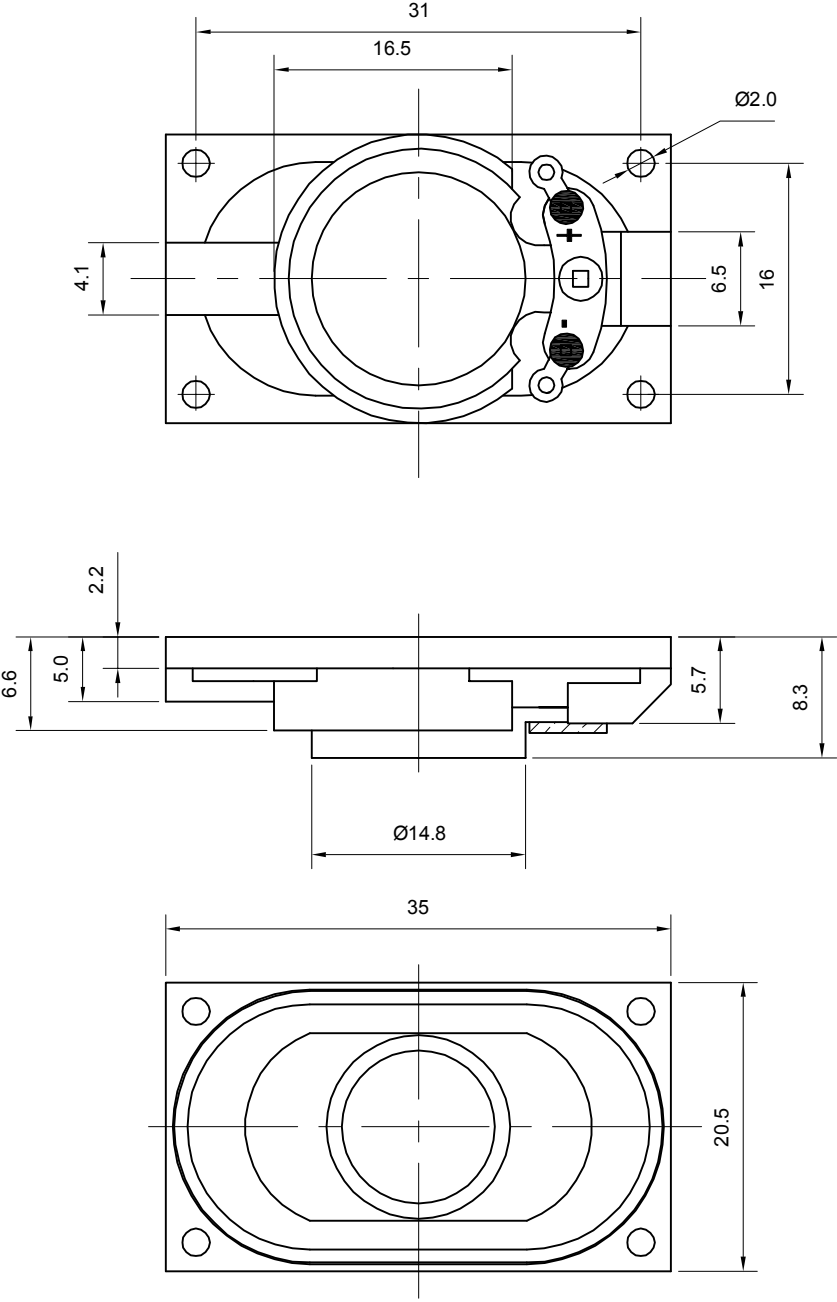
## 6. Structure



9	Damper	1	Silk	
8	Diaphragm	1	CM	
7	U Yoke	1	SPC	
6	Terminal	1	Copper+Paper	
5	Frame	1	PBT	
4	Magnet	1	Nd-Fe-B	
3	Plate	1	SPC	
2	Dust Cap	1	PET	
1	Voice Coil	1	Copper	With paper tube
No.	Part Name	Q'TY	Material	Remarks

Specification for Speaker		Page	7/9
		Revision No.	1.0
Model No. :	40322300	Drawing No.	评估版

### 7. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm  
Tolerance : ±0.2

Specification for Speaker	Page	8/9
Model No. : 40322300	Revision No.	1.0
	Drawing No.	评估版

## 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 transportation and/or in storage.



