

# SPECIFICATION

Customer : KEPO

Applied To :

Product Name : Speaker

Model Name : KP25x16SP1

Drawing No. : kf3.001.034

Signature of Approval

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Signature of KEPO

Approved by	Checked by	Issued by	Date



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## 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 : 25x16 mm
- 2.2 Height : 5.5 mm
- 2.3 Weight : 3.0 gr.
- 2.4 Operating Temperature range:  
-40~+80°C without loss of function
- 2.5 Store Temperature range:  
-40~+80°C without loss of function

## 3. Electrical and Acoustic Characteristics.

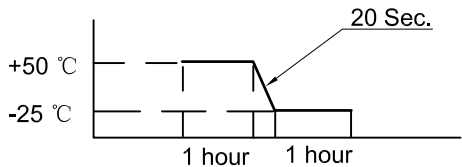
Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

	Items	Specification
1	Impedance	8 Ω ± 15%(at 1Vrms,1kHz)
2	Sound Pressure Level	77 dB ± 3dB( 1kHz/WM )
3	Resonance Frequency	800 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/2.52Vrms
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 2.52V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

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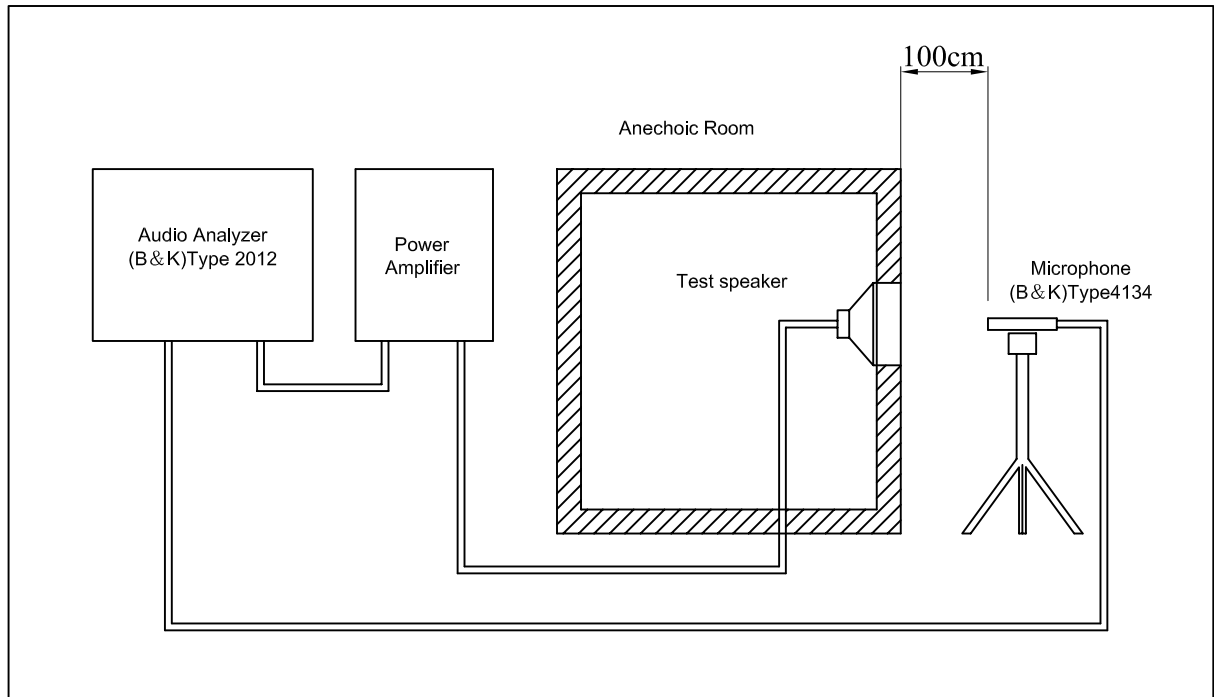
## 4. Reliability Test

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).

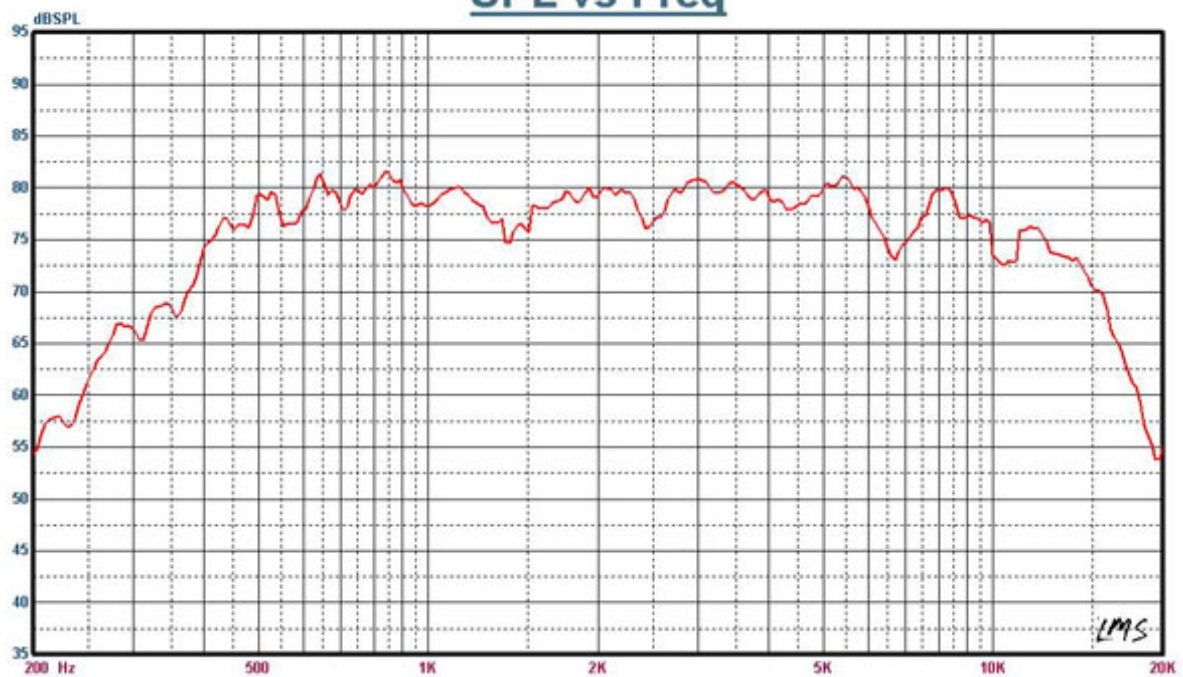
	Item	Specification
1	High Temperature Test	After being placed in a chamber with $+80\pm 3\text{ }^\circ\text{C}$ for 24 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
2	Low Temperature Test	After being placed in a chamber with $-40\pm 3\text{ }^\circ\text{C}$ for 24 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
3	Humidity Test	After being placed in a chamber with 85 to 90%R.H. at $+40\pm 2\text{ }^\circ\text{C}$ for 24 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	Thermal Shock Test	<p>After being placed in a chamber at <math>+80\text{ }^\circ\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-40\text{ }^\circ\text{C}</math> for 1 hour(1 cycle is the below diagram).</p> <p>After 6 above cycles, speaker shall be measured after being placed in natural condition for 1 hour.</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 directions for 1 hour, then placed in natural condition for 1 hour, speaker shall be measured.
6	Drop Test	The speaker when mounted in the jig which weight 85g~100g, shall with stand 15 times random drops from a height of 1.5 meter to a concrete floor faced with 5mm thick hard wood board.and be nothing mechanical damage.
7	Load test	After being applied loading white noise with input power 0.8W(2.52Vrms.) for 24 hours, then placed in natural condition for 1 hour, 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 M $\Omega$

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## 5. Measurement Block Diagram & Response curve

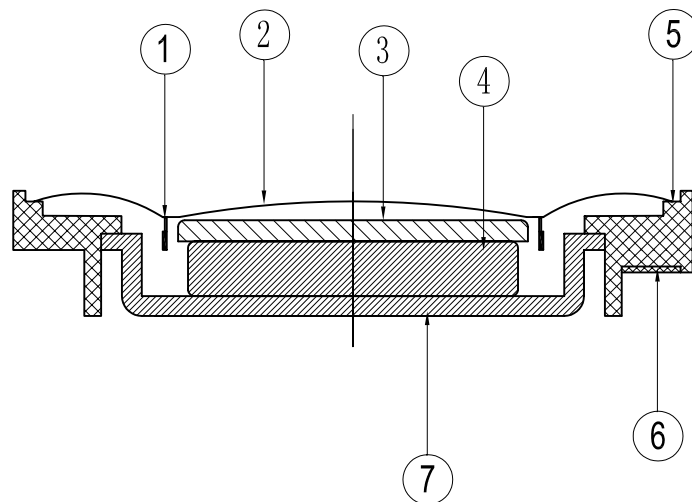


**SPL vs Freq**



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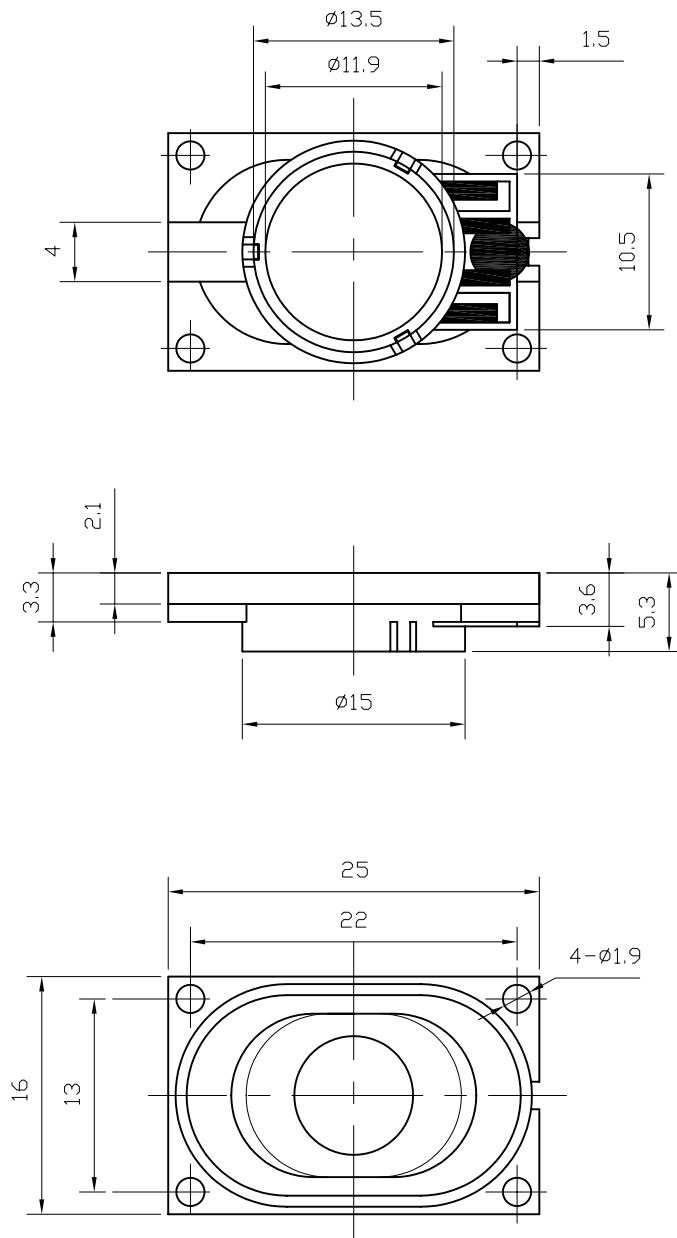
## 6. Structure



7	U Yoke	1	SPC	
6	Terminal	1	Epoxy PCB	
5	Frame	1	PBT	
4	Magnet	1	Nd-Fe-B	
3	Plate	1	SPC	
2	Diaphragm	1	Cloth	
1	Voice Coil	1	Copper	With paper tube
No.	Part Name	Q'TY	Material	Remarks

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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 transportation and/or in storage.

