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Model No. : KP4050SP2f630-4656	Revision No.	1.0
	Drawing No.	KFC4656

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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 : Ø40 mm
- 2.2 Height : 5.0 mm
- 2.3 Weight : 9.5 gr.
- 2.4 Operating Temperature range:
-20~+50 °C without loss of function
- 2.5 Store Temperature range:
-25~+50 °C without loss of function

3. Electrical and Acoustic Characteristics.

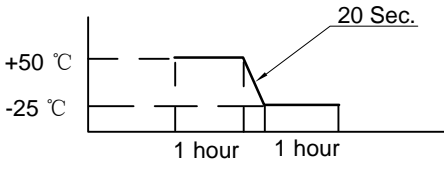
Test condition : 15 ~ 35 °C , 25% ~ 85% RH, 860~1060 mbar

	Items	Specification
1	Impedance	8 Ω ± 15%(at 1Vrms,1kHz)
2	Sound Pressure Level	91dB ± 3dB(1kHz/0.1W/0.1M)
3	Resonance Frequency	630Hz ± 20%
4	Frequency Range	F ₀ ~ 20.0kHz
5	Input Power	Rated 0.5W / Max. 1.0W
6	Buzz and Rattle	Should not be audible buzzes,rattles when the 2.0V sine wave signal swept at frequency range.
7	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

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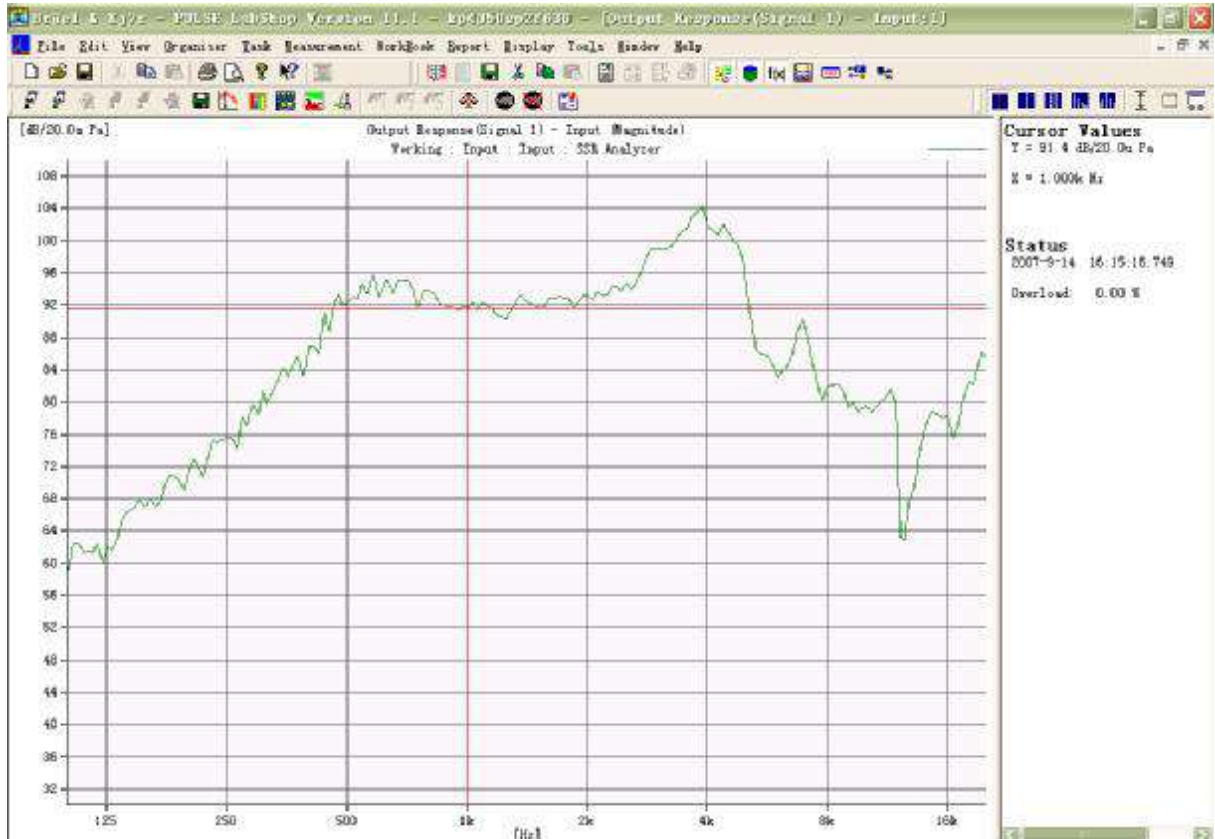
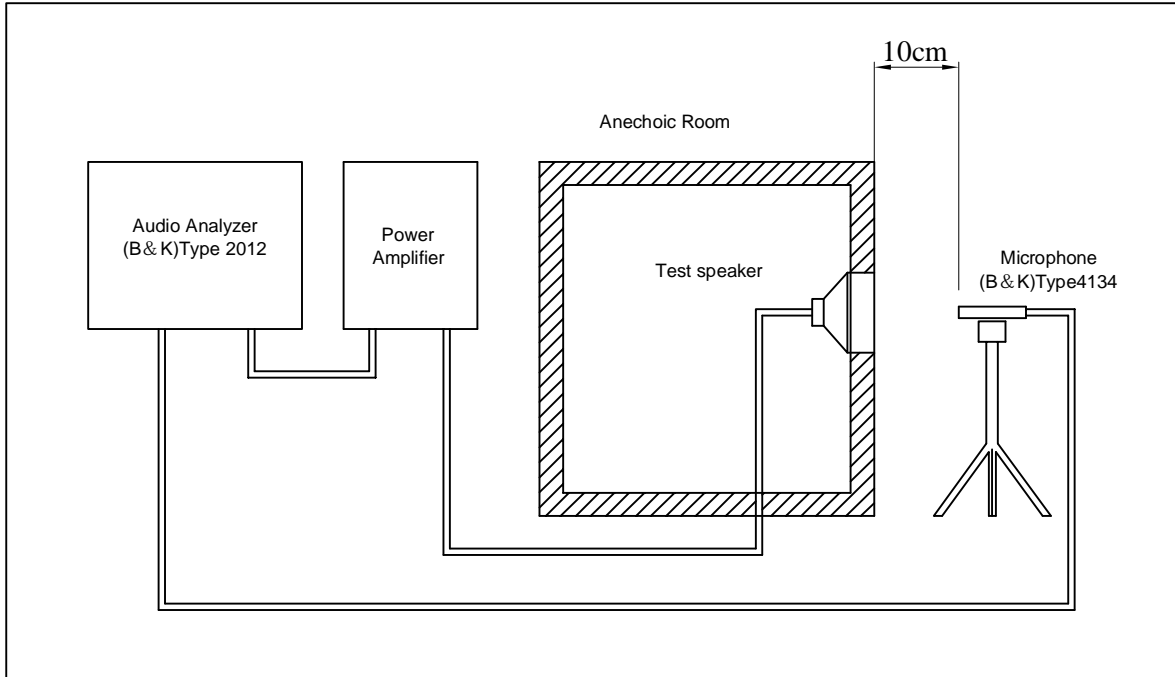
4. Reliability Test

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 $+50 \pm 3 \text{ }^\circ\text{C}$ 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 $-25 \pm 3 \text{ }^\circ\text{C}$ 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 $+50 \text{ }^\circ\text{C}$ for 1 hour, then speaker shall be placed in a chamber at $-25 \text{ }^\circ\text{C}$ 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 0.5W(2.0Vrms.) 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 MΩ

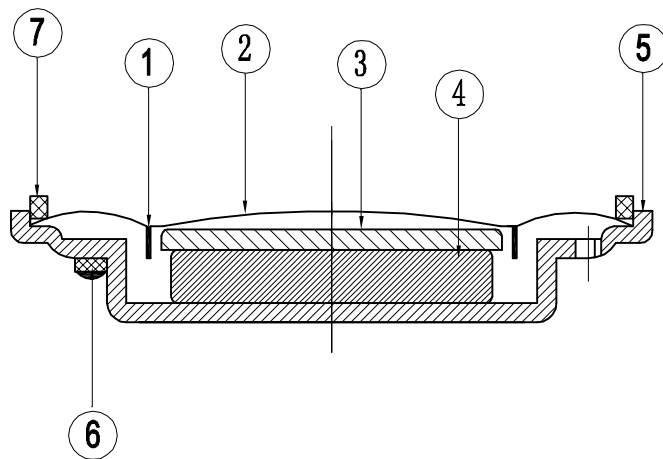
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5. Measurement Block Diagram & Response curve



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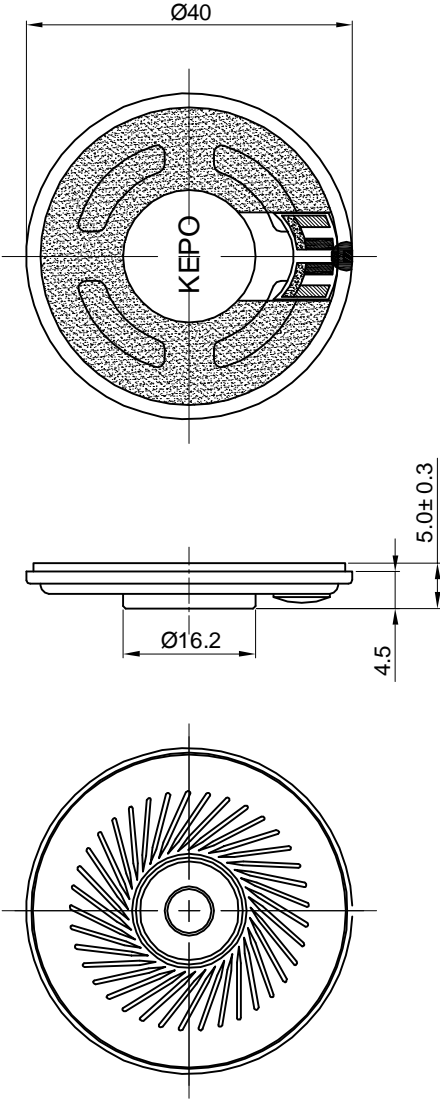
6. Structure



7	Gasket	1	paper	
6	Terminal	1	Epoxy PCB	
5	Frame	1	SPC	
4	Magnet	1	Nd-Fe-B	
3	Plate	1	SPC	
2	Diaphragm	1	PET	
1	Voice Coil	1	Copper	with paper
No.	Part Name	Q'TY	Material	Remarks

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7. Dimensions

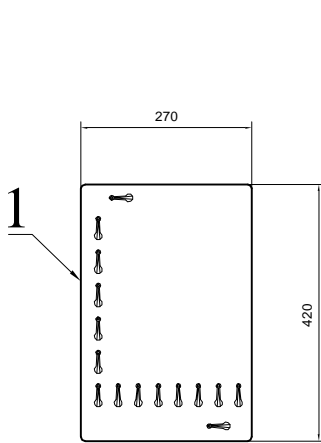


FIRST ANGLE PROJECTION

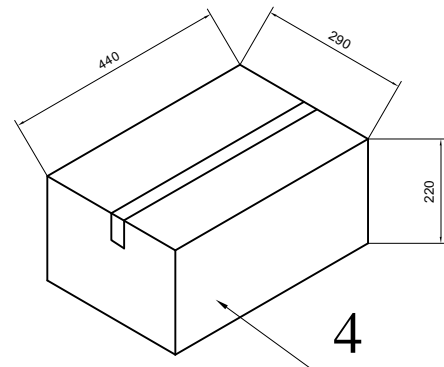
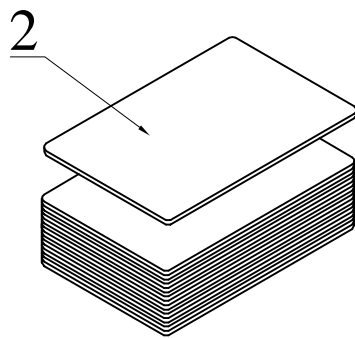
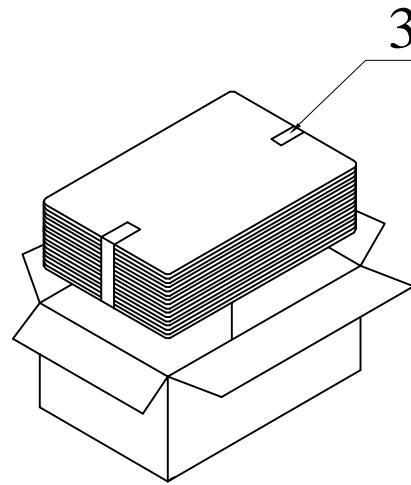
UNIT : mm
Tolerance : ± 0.2

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8. Packing



75Pcs



QTY: 1500Pcs
440 x290 x220