

SPECIFICATION

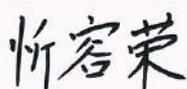
受 控

Customer :
Applied To :
Product Name : Speaker Box
Model Name : KPB4001-7682
Drawing No. : KFC7682

Signature of Appronal

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Signature of KEPO

Approved by	Checkde 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: mobile phone, PDA, notebook computer, etc. ..

2. General

2.1 Out-Diameter : 40 mm

2.2 Height : 14 mm

2.3 Weight : 23.5 g

2.4 Operating Temperature range:

-30 ~+85 °C without loss of function

2.5 Store Temperature range:

-40 ~+90 °C without loss of function

3. Electrical and Acoustic Characteristics.

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

No	Items	Specification
1	Impedance	64 Ω ± 15% (1Vrms at 3KHz)
2	Sound Pressure Level	94 dB ± 3dB (0.25w / 0.3m Avg. at 1.5k,1.8k,2.0k,2.5kHz)
3	Resonance Frequency	1500 Hz ± 20%
4	Frequency Range	Fo ~4.5KHz
5	Input Power	Rated 0.25 W / Max. 0.5 W(White noise for 30 minute)
6	Distortion	5% Max. at 2kHz/4Vrms
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 4V 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).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+90 \pm 3 \text{ }^\circ\text{C}$ for 96 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 96 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 95%R.H. at $+63 \pm 3 \text{ }^\circ\text{C}$ for 96 hours and then being placed in natural condition for 1 hour, speaker shall be measured.
4	ON/OFF Operation Endurance Test	Applying power 0.25W(20Hz~20kHz, sine wave frequency scan signal, scan speed 8ms), carry out operation patterns for 250 hours on/off operation, every on/off circle taks 4 second, 2s on and 2s off.
5	Thermal Shock Test	<p>After being placed in a chamber at $+85 \text{ }^\circ\text{C}$ for 1 hour, then speaker shall be placed in a chamber at $-30 \text{ }^\circ\text{C}$ for 1 hour(1 cycle is the below diagram). After 4 above cycles, speaker shall be measured after being placed in natural condition for 10 Sec..</p> <div style="text-align: center;"> </div>
6	Vibration Test	Put the sampels in test equipment, vibrate at speed 4.4G(43.1m/s ²) , vibration of amplitude 1.5mm ,33 Hz in X Y Z directions for 4 hours. speaker shall be measured.
7	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.
8	Load test	After being applied loading white noise with input power 0.25W(4Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured.
9	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
10	High temperature operation Endurance Test	Apply power 0.5W(20Hz~20kHz, sine wave frequency scan signal, scan speed 8ms), temperature $65 \pm 3 \text{ }^\circ\text{C}$, carry out operation patterns for 48 hours.
11	Low temperature operation Endurance Test	Apply power 0.5W(20Hz~20kHz, sine wave frequency scan signal, scan speed 8ms), temperature $-30 \pm 3 \text{ }^\circ\text{C}$, carry out operation patterns for 48 hours.
12	Pull A Terminal Test	<p>Speaker shall continue to operate after test of a 10N F direction force for 30 seconds.</p> <div style="text-align: right;"> </div>

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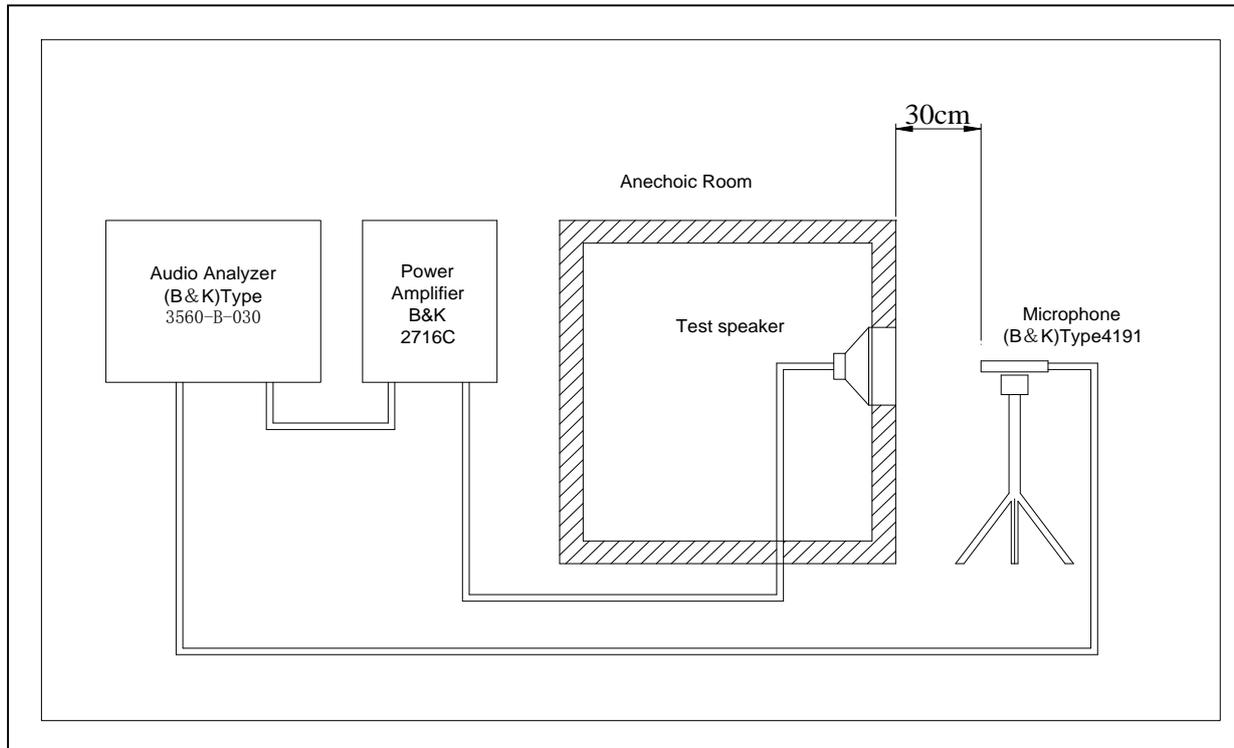
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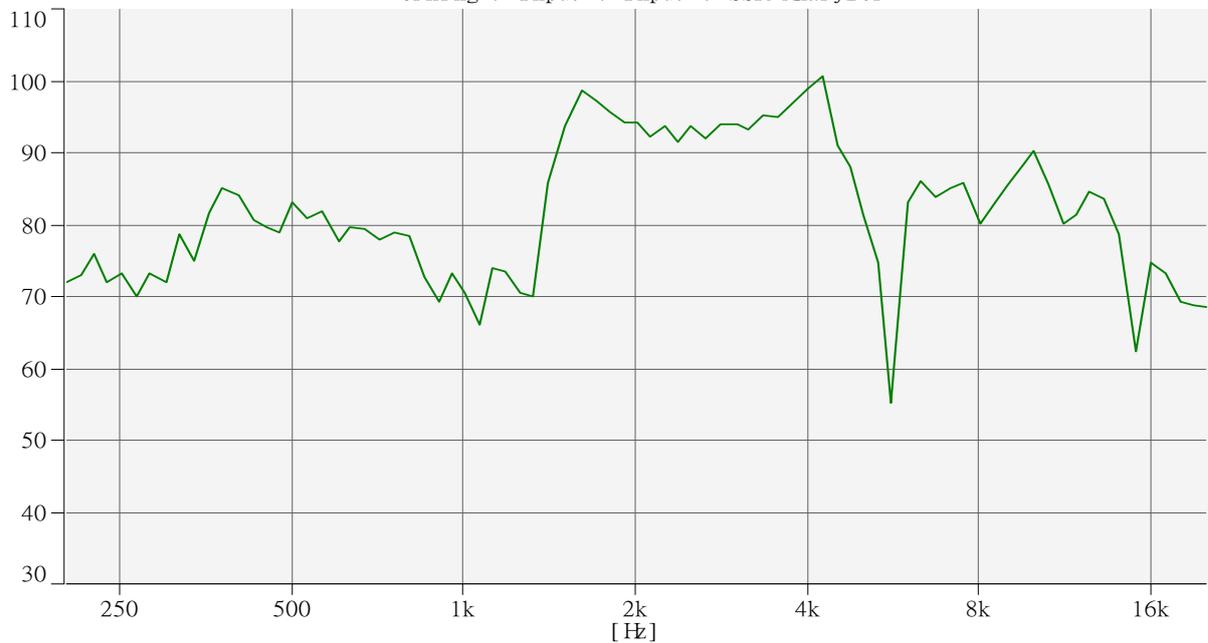
5. Measurement Block Diagram & Response curve



[dB/20.0u Pa]

Output Response (Signal 1) - Input (Magnitude)

Working : Input : Input : SSR Analyzer



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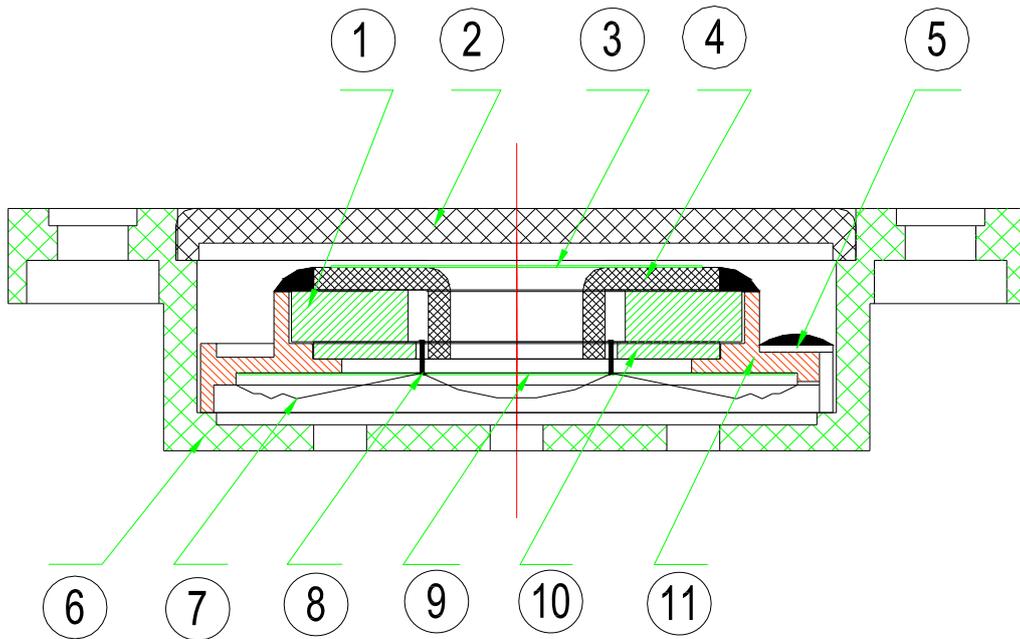
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6. Structure



11	Frame		PBT	
10	Plate	1	SPC	
9	Screen2	1	2B	
8	Voice Coil	1	Copper	
7	Diaphragm	1	PEI	
6	BOX-773 frontCover	1	PC	
5	Terminal	1	Epoxy PCB	
4	Yoke	1	SPC	
3	Screen1	1	2B	
2	BOX-774 rearCover	1	PC	
1	Magnet	1	Y30	
No.	Part Name	Q'ty	Material	Remarks

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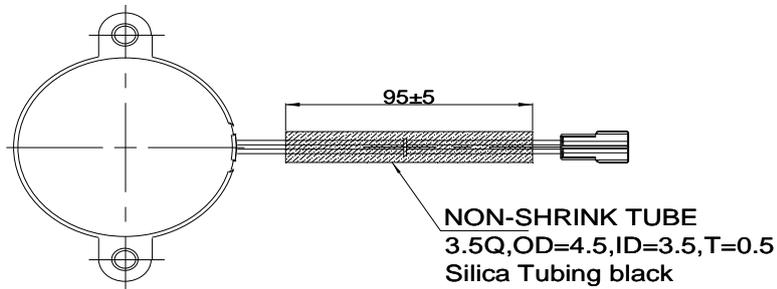
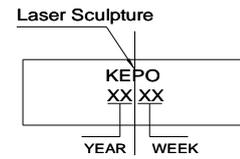
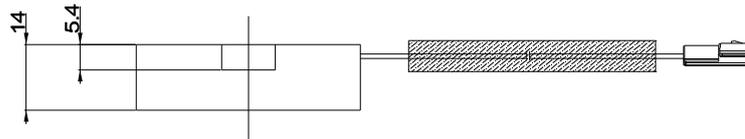
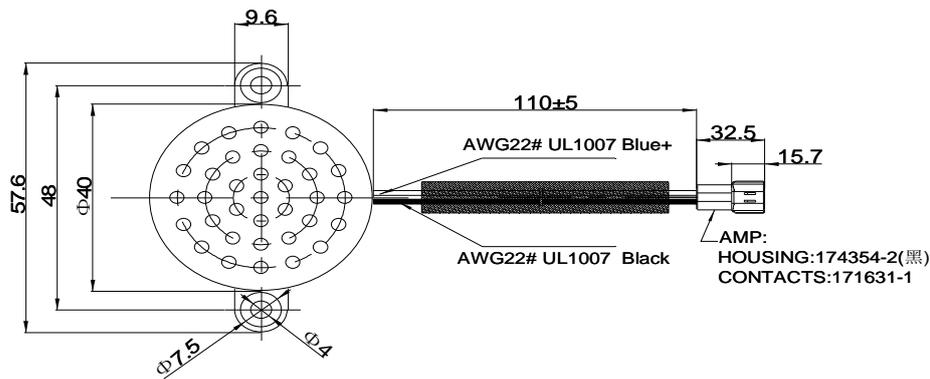
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7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±0.2

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8. Packing



1盒装28个喇叭



顶盒配一块包装平板



每箱装28x11=308PCS



标贴范本, 此标贴贴于外箱正唛右上方



