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		Revision No.	1.0
Model No.	KP50170SP1-6494	Drawing No.	KFC6494

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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. ..

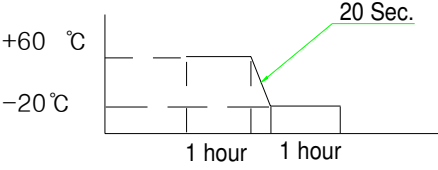
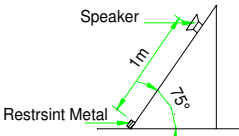
## 2. General

- 2.1 Out-Diameter : 50 mm
- 2.2 Height : 24.5 mm
- 2.3 Weight : 55 g
- 2.4 Operating Temperature range:
  - 20 ~+60 °C without loss of function
- 2.5 Store Temperature range:
  - 20 ~+60 °C without loss of function

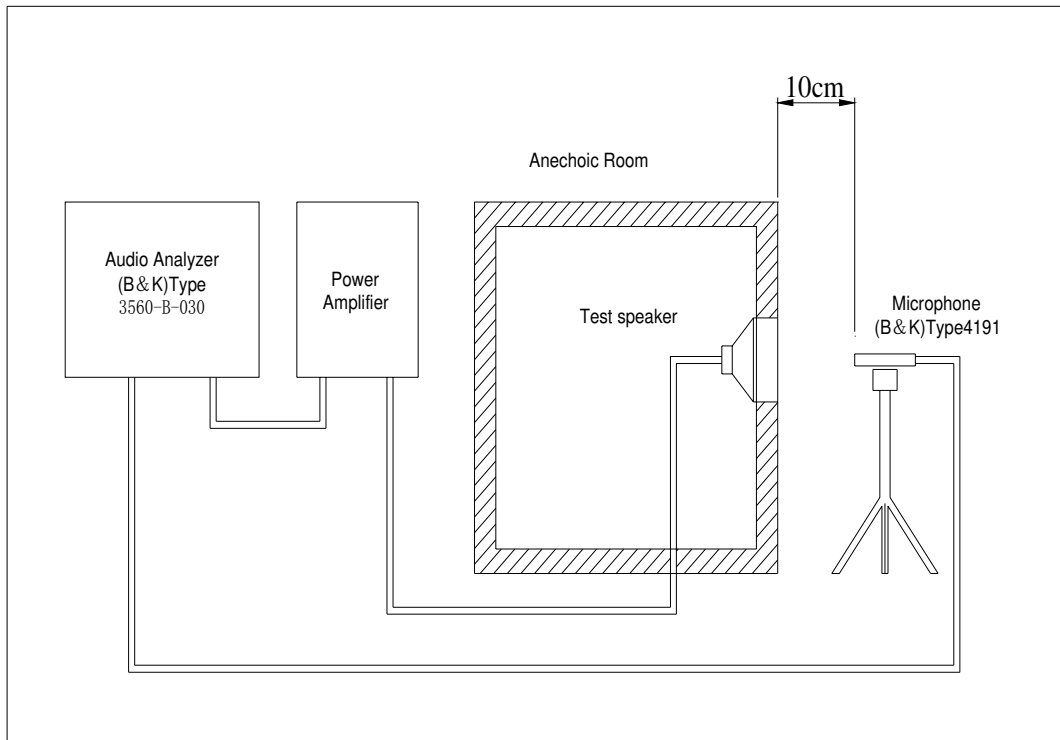
## 3. Electrical and Acoustic Characteristics.

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

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 1.0KHz 1.0V)
2	Sound Pressure Level	91 dB ± 2dB ( at 0.1w/ 0.1m Average at 0.8,1.0,1.2,1.5KHz)
		81 dB ± 2dB ( at 1W/ 1M Average at 0.8,1.0,1.2,1.5KHz)
3	Resonance Frequency	450 Hz ± 20%
4	Frequency Range	Fo ~4KHz
5	Input Power	Rated 0.3 W / Max. 0.5 W
6	Distortion	<10% Max. at 2kHz/2Vrms
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 1.55V 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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<h3>4. Reliability Test</h3> <p>After test(1~7item), the speaker S.P.L . difference shall be within <math>\pm 3\text{dB}</math>, and the appearance not exist any change to be harmful to normal operation (e.g. cracks,rusts,damages and especially distortion).</p>			
No	Items	Specification	
1	High Temperature Test	After being placed in a chamber with $+60 \pm 3 \text{ }^\circ\text{C}$ 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 $-20 \pm 3 \text{ }^\circ\text{C}$ 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 $85 \pm 5\% \text{ R.H.}$ at $+40 \pm 5 \text{ }^\circ\text{C}$ for 96 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>+60 \text{ }^\circ\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-20 \text{ }^\circ\text{C}</math> 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> 	
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	<p>A speaker is dropped from 1m in length on <math>75^\circ</math> inclination and a magnetic circuit of speaker is hit to the restraint metal.</p> <p>After the test, magnetic circuit should not drop out and speaker should be met the item 11,12.</p> 	
7	Load test	After being applied loading white noise with input power $0.3\text{W}(1.55\text{Vrms.})$ for 96 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 $1 \text{ M}\Omega$	

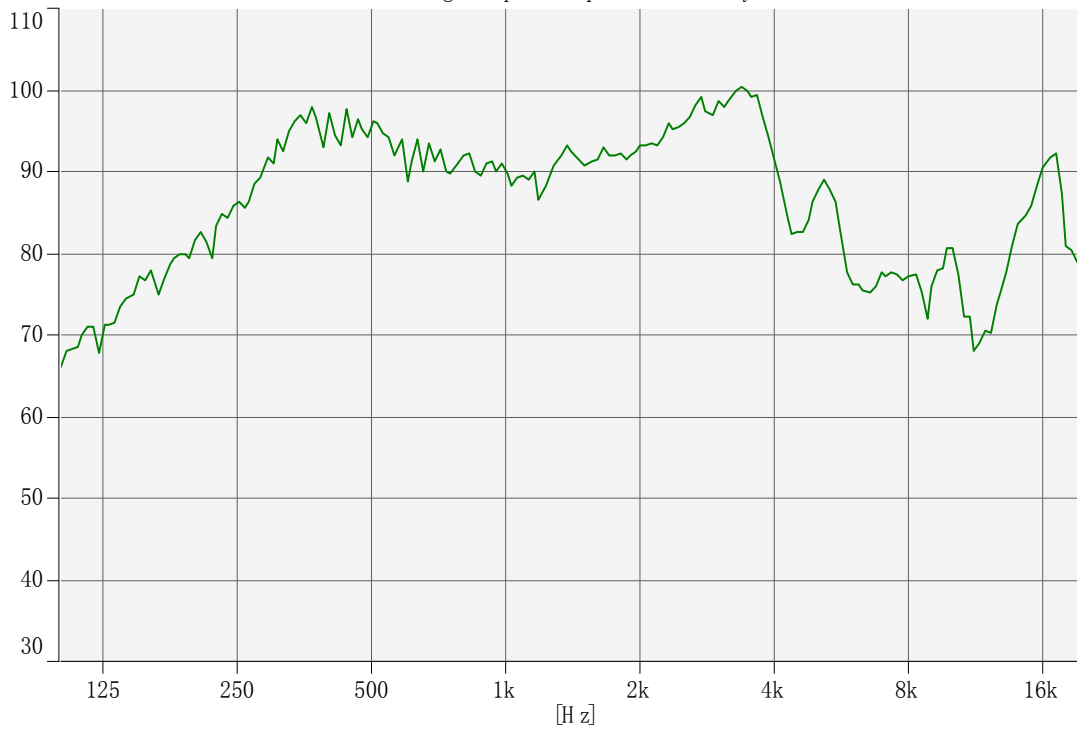
### 5. Measurement Block Diagram & Response curve



[dB/20.0u Pa]

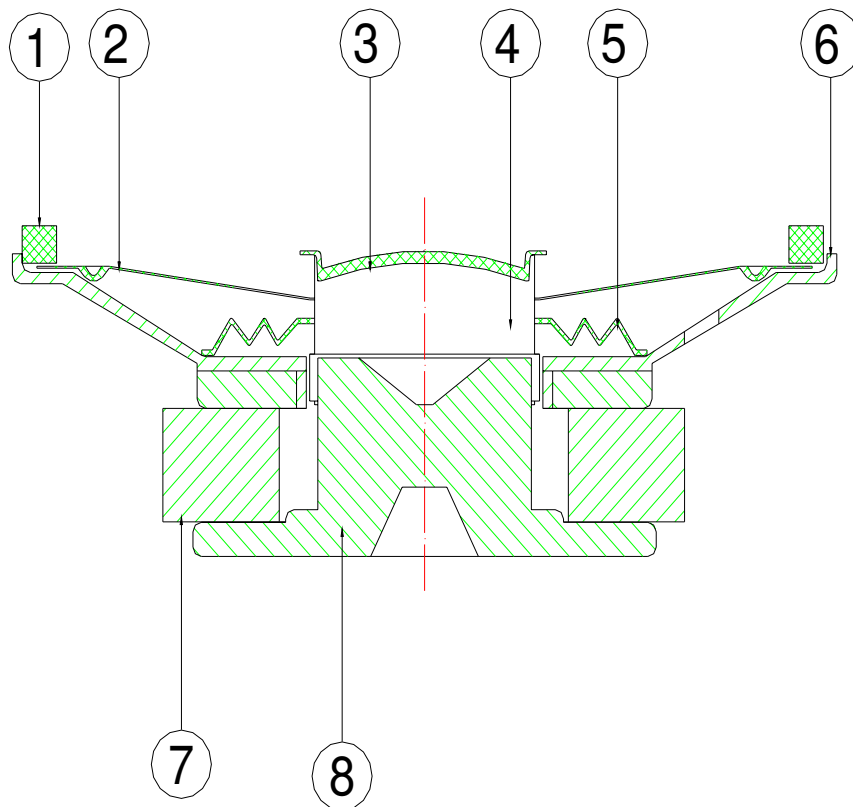
Output Response (Signal) - Input (Magnitude)

Working : Input : Input : SSR Analyzer



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## 6. Structure



8	T yoke	1	SPCC	
7	Magnet	1	Y30	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper	
3	Dust Cap	1	Paper	
2	Cone	1	Paper	
1	Gasket	1	Rubber	
No.	Part Name	Q'ty	Material	Remarks

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<h3>7. Dimensions</h3> <p>The drawing shows a speaker with the following dimensions and features:</p> <ul style="list-style-type: none"> <li>Front view dimensions: <ul style="list-style-type: none"> <li>Total height: <math>24.5 \pm 1.2</math> mm</li> <li>Height of the top section: <math>16.5 \pm 0.5</math> mm</li> <li>Outer diameter: <math>\Phi 50.0 \pm 0.3</math> mm</li> <li>Inner diameter: <math>\Phi 48.0 \pm 0.2</math> mm</li> <li>Height of the main body: <math>9.7 \pm 0.8</math> mm</li> <li>Reference height: (8.0) mm</li> </ul> </li> <li>Top view features: <ul style="list-style-type: none"> <li>Labels: "week", "year", "KEPO", "0.3W 8Ω", "XX", "XX", "+", "-"</li> <li>Terminal markings: "week" and "year" pointing to the top and bottom terminals respectively.</li> </ul> </li> <li>Other labels: "Rubber Gasket" pointing to the bottom flange.</li> </ul>			
<p>FIRST ANGLE PROJECTION</p>		<p>UNIT : mm Tolerance : <math>\pm 0.5</math></p>	

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## 8. Packing



每条5PCS



每条5PCS



每箱24条



每箱120PCS

外箱尺寸：355X275X140  
QTY:120PCS

