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	Revision No.	1.0
	Drawing No.	KFC6581
Model No. : KP45170SP3-WP-6581		

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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, print, electrical appliance, etc. ..

## 2. General

2.1 Out-Diameter : 44.5 mm

2.2 Height : 17 mm

2.3 Weight : 27 g

2.4 Operating Temperature range:

-20 ~+60 °C without loss of function

2.5 Store Temperature range:

-30 ~+60°C without loss of function

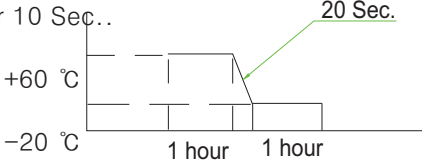
## 3. Electrical and Acoustic Characteristics.

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

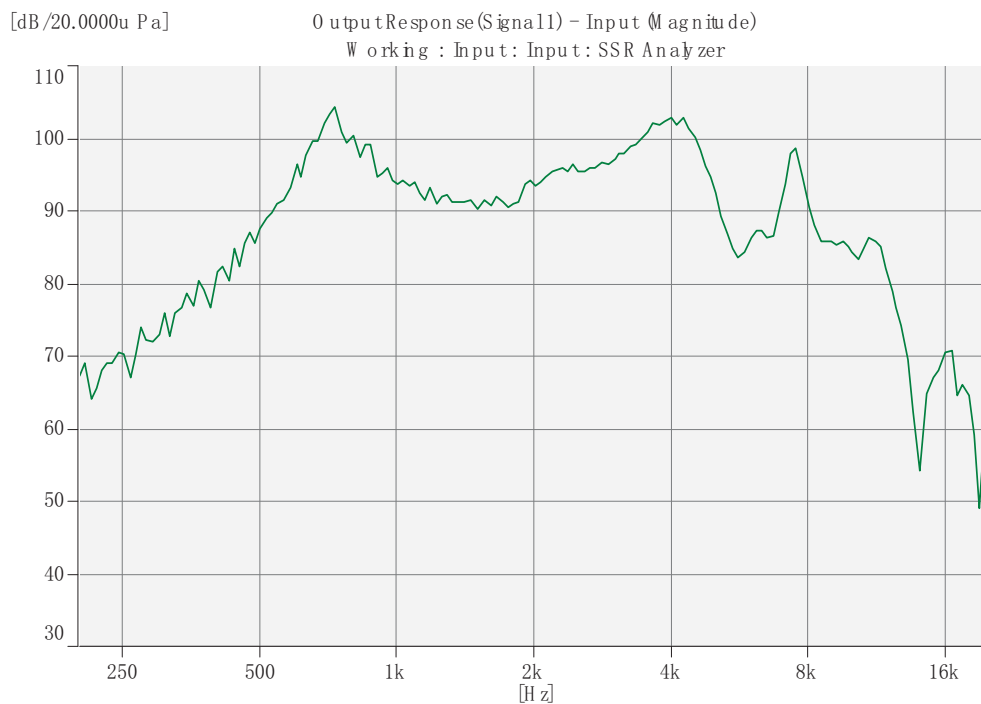
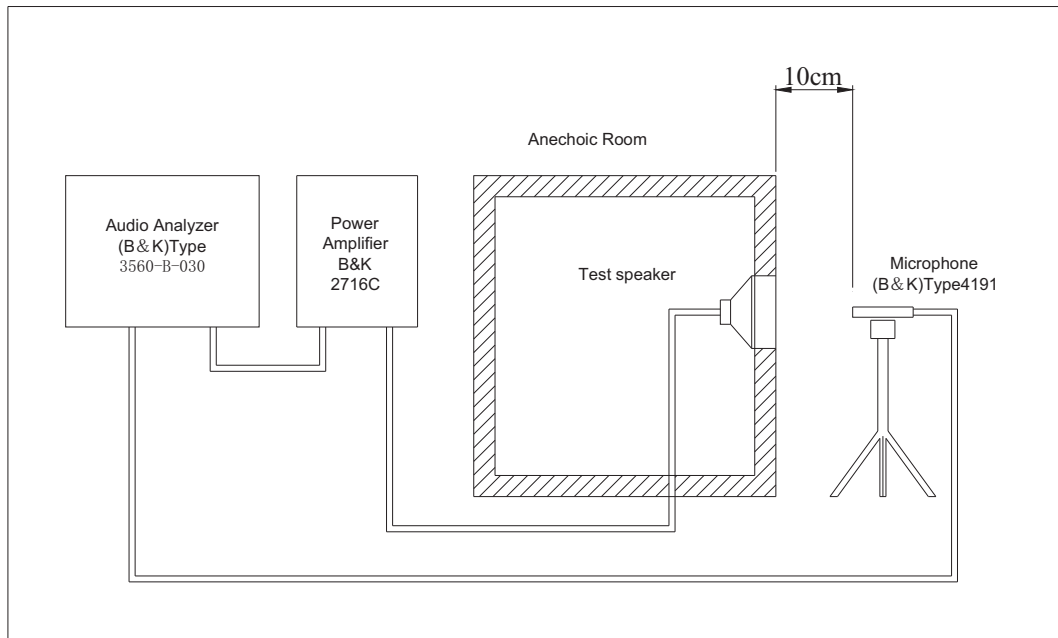
No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 2.0KHz)
2	Sound Pressure Level	92 dB ± 3dB (0.1W/0.1M Avg. at 1.0k,1.2k,1.5k,2.0kHz)
3	Resonance Frequency	750 Hz ± 20%
4	Frequency Range	Fo ~4KHz
5	Input Power	Rated 3 W / Max. 4 W
6	Distortion	10% Max. at 2kHz 3W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 4.9V sine wave signal swept at frequency range.
8	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.
9	water-proof	IPX7

## 4. Reliability Test

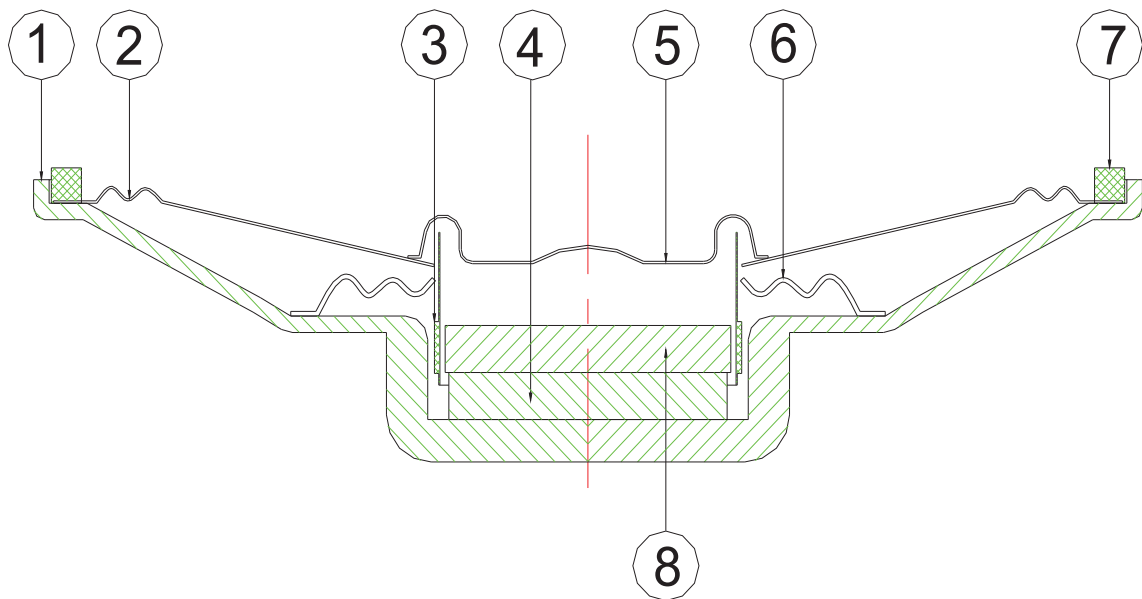
After test(1~7item), the speaker S.P.L . difference shall be within  $\pm 3\text{dB}$ , and the appearance not exist any change to be harmful to normal operation (e.g. cracks,rusts,damages and especially distortion).

No	Items	Specification
1	High Temperature Test	After being placed in a chamber with $+60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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 $-30 \pm 3^{\circ}\text{C}$ 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 to 90%R.H. at $+40 \pm 2^{\circ}\text{C}$ 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^{\circ}\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>-20^{\circ}\text{C}</math> for 1 hour(1 cycle is the below diagram).</p> <p>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	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 3W(4.9Vrms.) 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



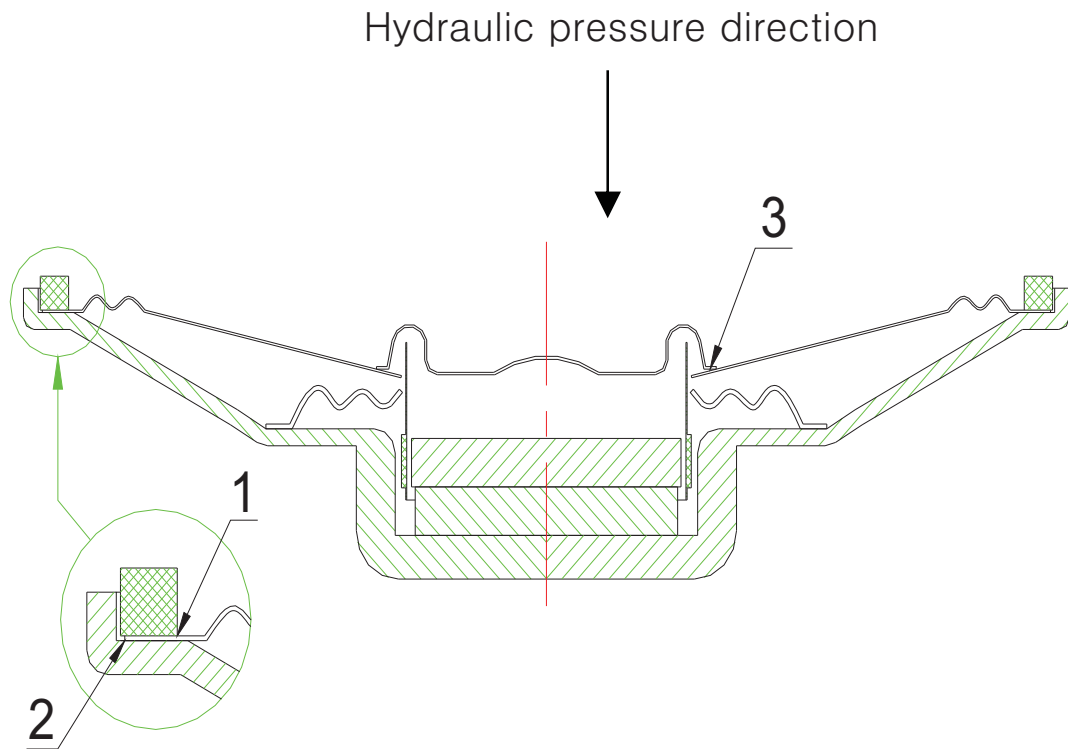
### 6. Structure



8	Top Plate	1	SPCC	
7	Gasket	1	ABS	
6	Spider	1	Silk	
5	Dust Cap	1	Mylar	
4	Magnet	1	Nd-Fe-B	
3	Voice Coil	1	Paper+Copper	
2	Waterproof Cone	1	Mylar	
1	Frame	1	SPCC+Q195	
No.	Part Name	Q'ty	Material	Remarks

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## 7. Waterproof part drawing



3	Between Waterproof Cone and Dust Cap	Product under 4.9kpa hydraulic pressure for 30 minute, the water will not filter.
2	Between Waterproof Cone and Frame	
1	Between Waterproof Cone and Gasket	
No.	Part Name	Waterproof conditions

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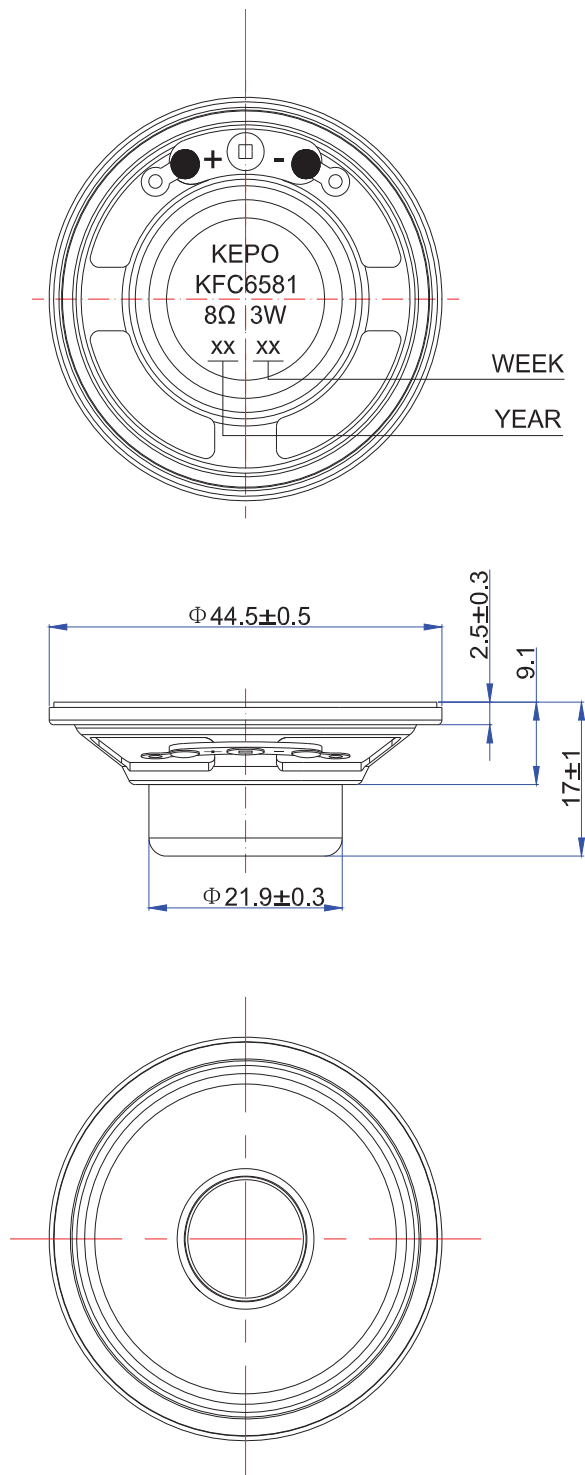
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## 8. Dimensions



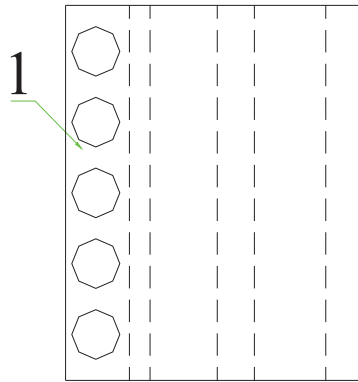
FIRST ANGLE PROJECTION



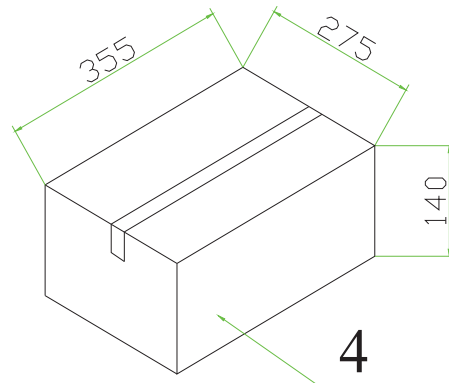
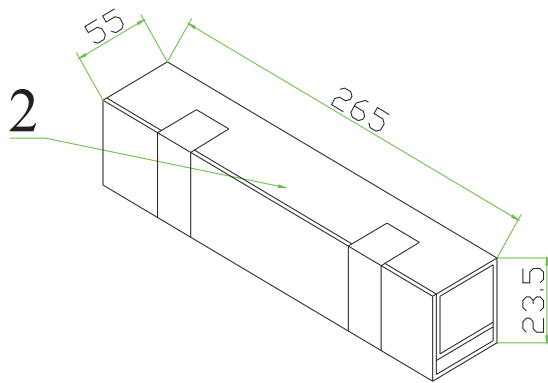
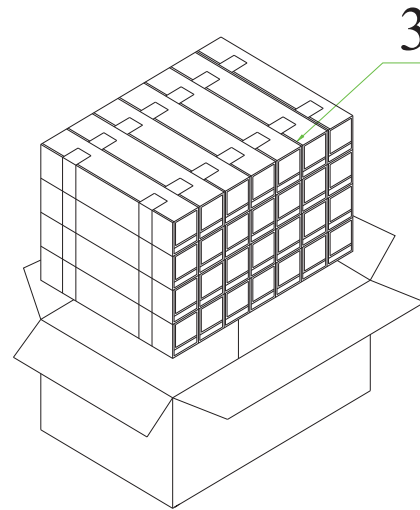
UNIT : mm

Tolerance :  $\pm 0.3$

### 9. Packing



5Pcs



QTY:150Pcs

355 x275 x140