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	Revision No.	1.0
KP77280SP1R25-7988	Drawing No.	KFC7988

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## 1. Scop

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: 77 mm
- 2.2 Height: 28 mm
- 2.3 Weight: 135 g
- 2.4 Operating Temperature range:  
-20~+55°C without loss of function
- 2.5 Store Temperature range:  
-30~+60°C without loss of function

## 3. Electrical and Acoustic Characteristics

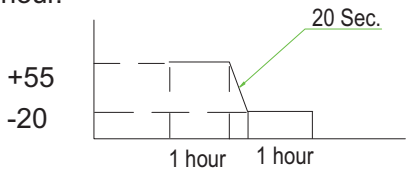
Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

	Item	Specification
3.1	Impedance	25 Ω±10% (1V at 1000Hz)
3.2	Sound Pressure Level	87 ± 3 dB @ 1w/1m at 400,500,600,700 Hz-Avg.
3.3	Resonance Frequency	240 Hz±20%
3.4	Frequency Range	F0 ~20KHz
3.5	Input Power	Rated 2 W /Max. 4W
3.6	Buzz and Rattle	Should not be audible buzzes, rattles when the 5 V sine wave signal swept at frequency range.
3.7	Polarity	When supplied plus D.C. voltage to (+) terminal, the cone diaphragm must move to forward.

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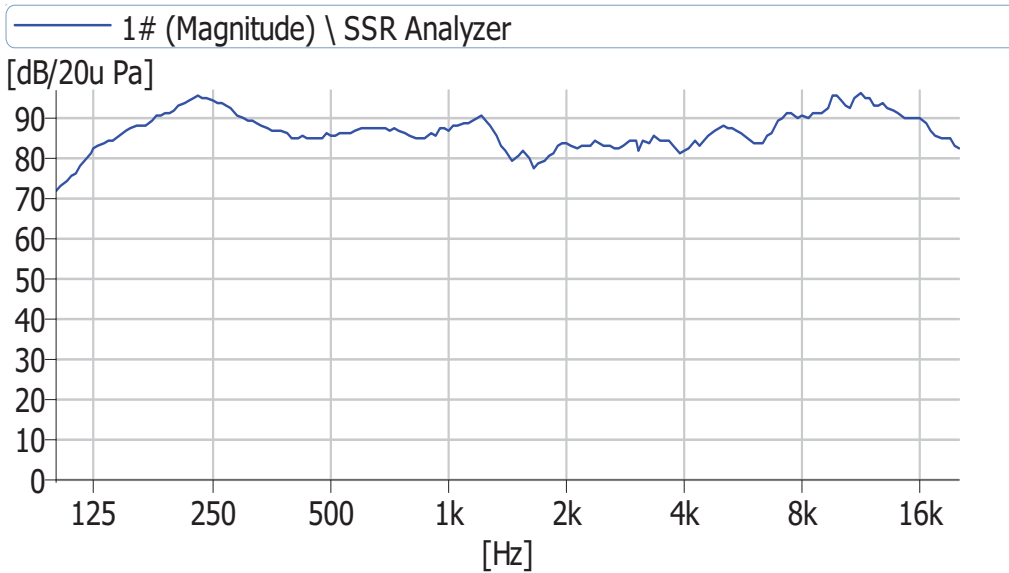
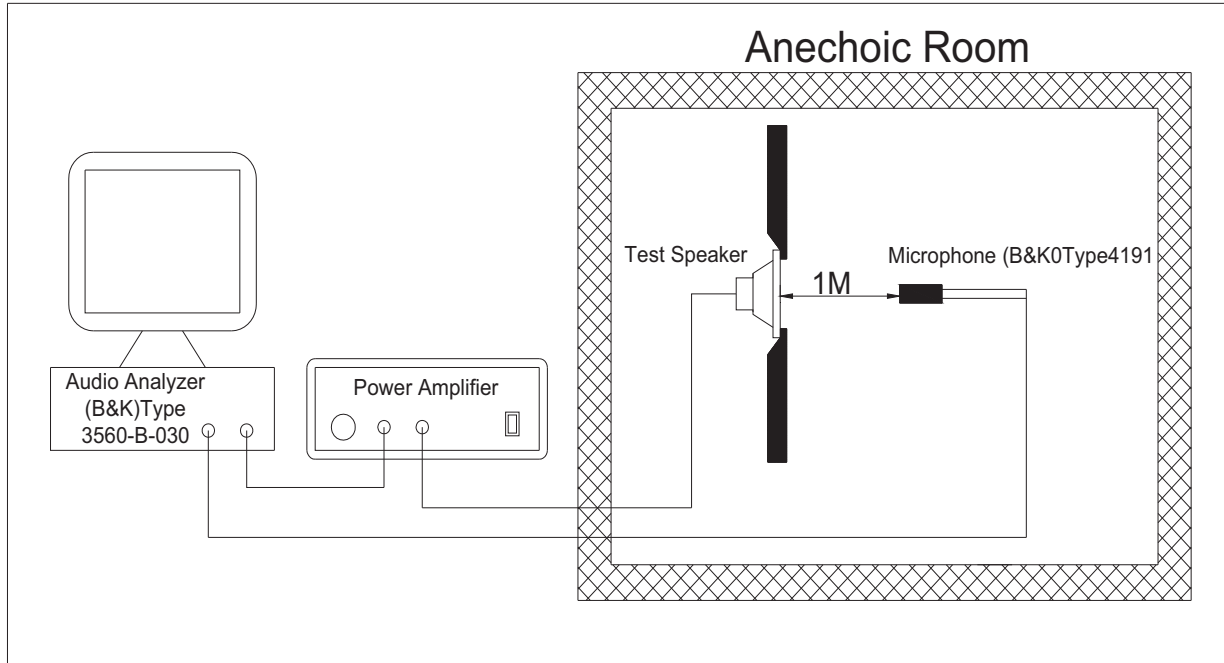
#### 4. Reliability Test

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
4.1	High Temperature Test	After being placed in a chamber with $+60 \pm 2 \text{ }^\circ\text{C}$ for 48 h and then being placed in natural condition for 2h, sounder shall be measured.
4.2	Low Temperature Test	After being placed in a chamber with $-30 \pm 3 \text{ }^\circ\text{C}$ for 48 hours and then being placed in natural condition for 2 hour, speaker shall be measured.
4.3	Humidity Test	After being placed in a chamber with 90-95%R.H. at $+40 \pm 5 \text{ }^\circ\text{C}$ for 48 hours and then being placed in natural condition for 2 hour, speaker shall be measured.
4.4	Thermal Shock Test	<p>After being placed in a chamber at <math>-20^\circ\text{C}</math> for 1 hour, then speaker shall be placed in a chamber at <math>+55^\circ\text{C}</math> for 1 hour(1 cycle is the below diagram). After 6 above cycles, speaker shall be measured after being placed in natural condition for 2 hour.</p>  <p>The diagram shows a temperature profile for a thermal shock test cycle. It starts at a constant temperature of <math>-20^\circ\text{C}</math> for a duration of 1 hour. This is followed by a linear ramp-up to <math>+55^\circ\text{C}</math>, which occurs over a period of 20 seconds. The temperature then remains constant at <math>+55^\circ\text{C}</math> for another 1-hour dwell period. The diagram is labeled with <math>+55</math>, <math>-20</math>, and <math>20 \text{ Sec.}</math> for the ramp, and <math>1 \text{ hour}</math> for both dwell periods.</p>
4.5	Vibration Test	After being applied vibration of amplitude of 1.5mm with 10 to 50Hz band of vibration frequency to each of 3 perpendicular directions for 2 hour, then placed in natural condition for 2 hour, speaker shall be measured.
4.6	Drop Test	Package product to carton, from 1 M height , 6 directions fall to concrete
4.7	Load test	After being applied loading white noise with input power 2W (7Vrms.) for 96 hours, then placed in natural condition for 2 hour, speaker shall be measured.

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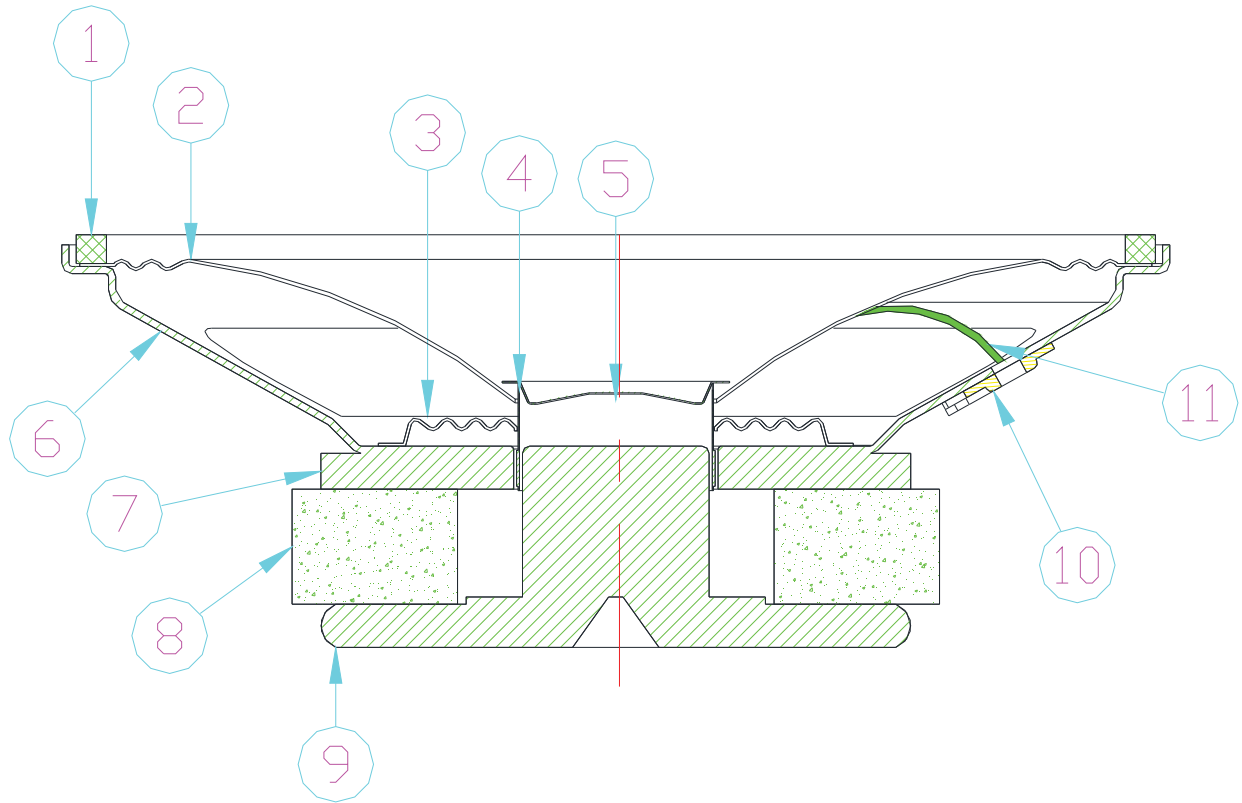
## 5. Measurement Block Diagram & Response curve



**Cursor values**  
X: 500.000 Hz  
Y: 85.882 dB/20u Pa

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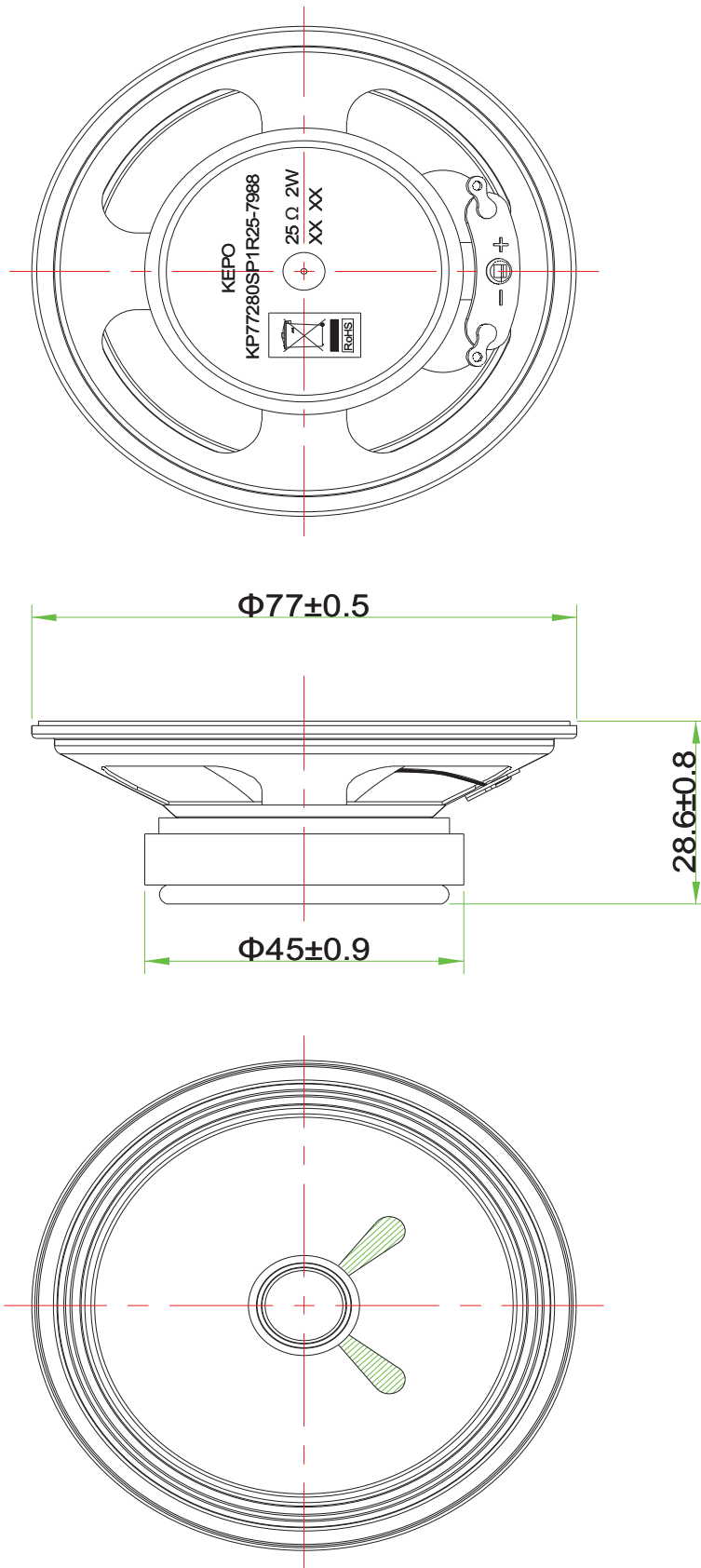
## 6. Structure



11	Wire	2	copper	
10	Terminal	1	Paper +copper	
9	T yoke	1	SPCC	
8	Magnet	1	Ferrite Y30	
7	Top plate	1	SPCC	
6	Frame	1	SPCC	
5	Dust Cap	1	Paper	
4	Voice Coil	1	Paper +copper	
3	Spider	1	Cotton Yarn	
2	Cone	1	Paper	
1	Gasket	1	Paper	
No.	Part Name	Q'ty	Material	Remarks

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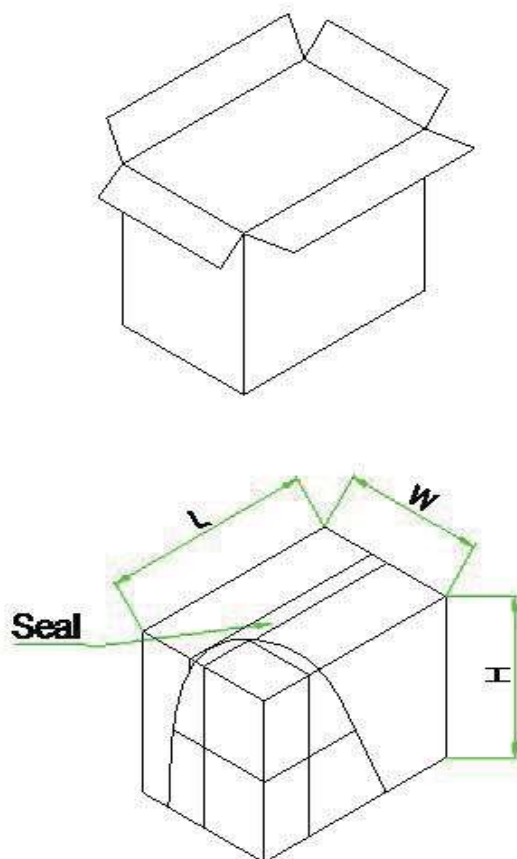
7. Dimensions



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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.



数量: 80pcs

外箱尺寸: 410X365X165mm