



# Specification For Approval

## 承認書

客 戶 (Customer)			
品 名 (Product Name)	SMD SPEAKER		
機 種 (Model No.)			
客戶料號 (Customer Parts No.)			
供應商料號 (Supplier Model No.)	PCXS1515040-R08W0 5-A-SM-187		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

### Revision History

Version	Date	Description	Author
V 00	2016.10.05	Creation	VIVIAN

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## Specification for speaker

### 1. CONDITION.

Test and measurement will be carried out under normal condition of temperature within 5°C to 35°C, relative humidity within 45% to 85% and air pressure of 860 mbar to 1060 mbar.

Should uncertainly arise in data obtained from the above atmosphere, control of temperature at 20°C±2°C and relative humidity within 60%and 70%, with air pressure remaining unchanged, to be enforced.

### 2. ELECTRICAL AND ACOUSTICAL SPECIFICATION.

2-1	<b>Rated Input Power.</b>	<b>0.5W.</b>
2-2	<b>Max Input Power.</b>	<b>0.8W</b>
2-3	<b>Rated Impedance.</b>	<b>8Ω ± 15%</b>
2-4	<b>Sound Pressure Level. (S.P.L)</b>	87dB(0.5W/0.1m) ± 3 dB at AVE 1.0K 1.6K 2.0K 3.2K Hz
2-5	<b>Resonance Frequency (Fo).</b>	<b>850±20%Hz</b>
2-6	<b>Frequency Range.</b>	F0~20kHz.
2-7	<b>Distortion</b>	Less than 5% at 2KHz input Rated Power
2-8	<b>Magnet</b>	Rare earth permanent (SMCO) magnet 6.7*1.1 mm
2-9	<b>Polarity</b>	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
2-10	<b>Appearance</b>	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
2-11	<b>Weight.</b>	<b>1.5g</b>
2-12	<b>Temperature</b>	Operating temperature: -30°C to +85°C Storage temperature: -40°C to +85°C

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### 3. MEASURING METHOD

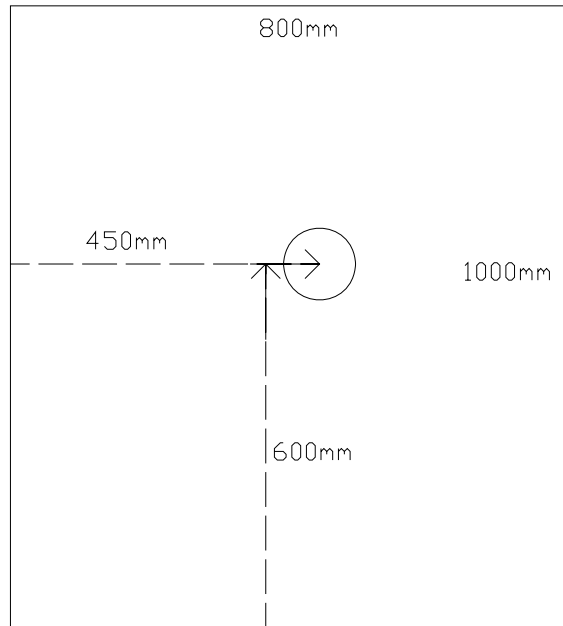


FIG.1

#### 3.1 Block Diagram For Measurement Method.

### Standard test condition of speaker

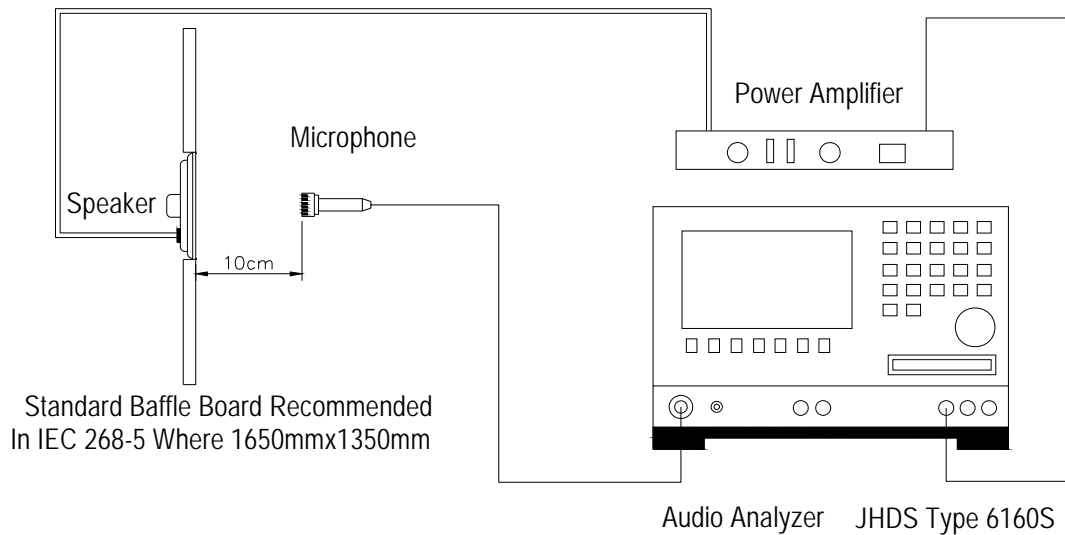


FIG.2

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### 4. Frequency Response :

The swept sine-wave frequency response of a Loud speaker should ideally not deviate more than indicated per Fig.3

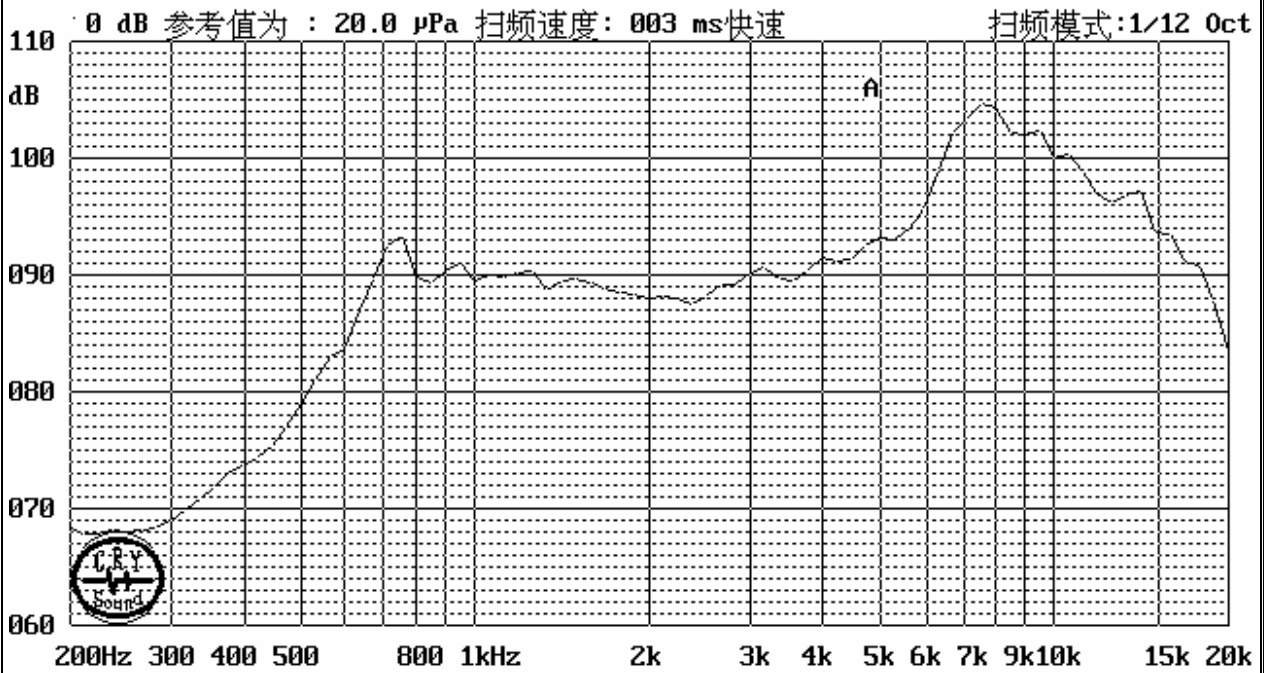


FIG.3

## Specification for speaker

### 5. ENVIRONMENT TEST

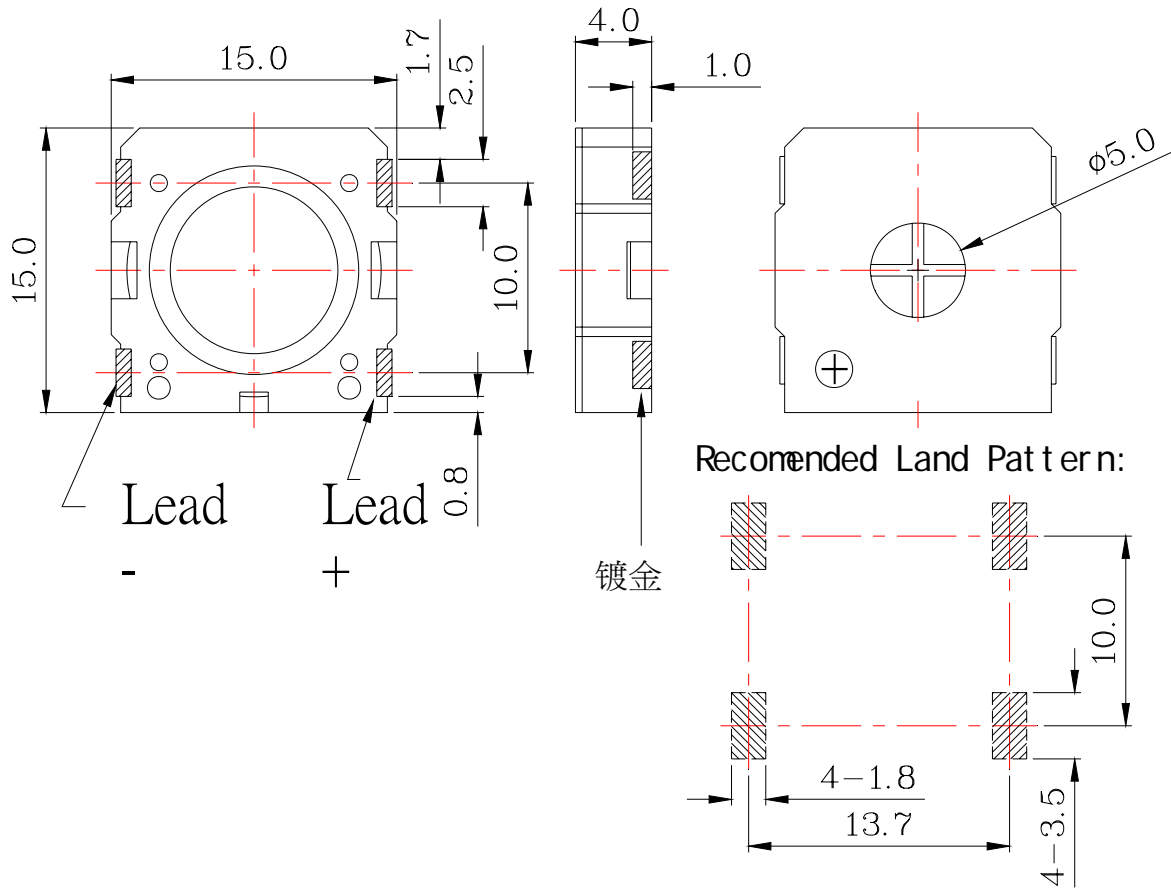
ITEM		SPECIFICATIONS
01	<b>High temp. Test</b>	Keep 96 hours at $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	<b>Low temp. Test</b>	Keep 96 hours at $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	<b>Humidity test</b>	Keep 96 hours at $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 92-95% and leave 3 hours in normal temperature and then checked.
04	<b>Temp./Humidity cycle</b>	<p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p>
05	<b>Thermal cycle test.</b>	Low temperature: $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , temperature: $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	<b>Vibration</b>	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	<b>Fix drop test</b>	Fix on jig. Then drop from 152cm height to the concrete floor X,y, z 6 direction. 5 times each, total 30 times.
08	<b>Free drop test</b>	Free drop from 100cm height to the concrete floor X,Y, Z 6 direction. 1 times each, total 6 times.
09	<b>Load test</b>	Rated Power White noise is applied for 96 hours
10	<b>Max Power test</b>	Max power 1 min. on - 2 min. off 10 cycles.
11	<b>Terminal strength test</b>	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.

**Criterion :**

After these test , the change of S.P.L shall be within  $\pm 3$  dB

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### 6.Dimensions



Unit:mm Tol:±0.5

8	LEADS	4	PLATE WITH GOLD	
7	Cap	1	LCP	
6	Diaphragm	1	PI	
5	VOICE COIL	1	Cu	
4	Plate	1	SPCC	
3	Magnet	1	SmCo	
2	PCB Terminal	1	Cu	
1	Frame	1	LCP	
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

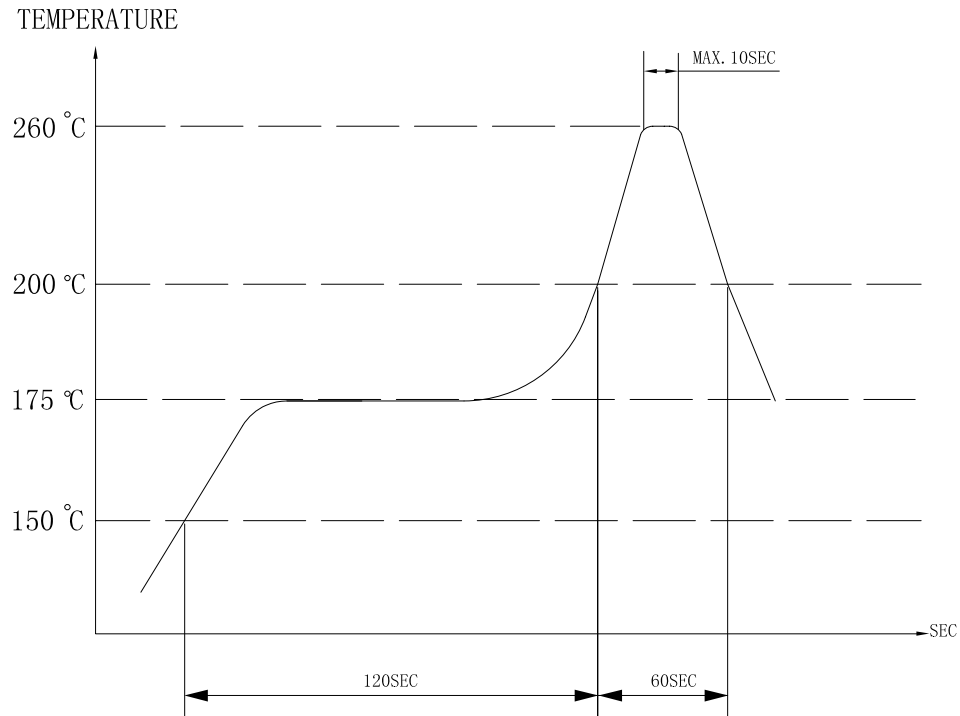
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### 7.Soldering Condition

(1)Recommendable reflow soldering condition is as follows

(Reflow soldering is twice)

Note:It is requested that reflow soldering should be executed after heat of product goes down to normal.



Heat resistant line

(Used when heat resistant reliability test is performed)

(2)Manual soldering

Manual soldering temperature 350° C within 5 sec.



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### 8.Dimensions

