

REV:01



## **SPECIFICATION OF PRODUCT**

CUSTOMER: \_\_\_\_\_

DESCRIPTION:     SPEAKER    

EKEYSOUND P/N:     EKS5713    

DATE:     2017-1-19

## 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

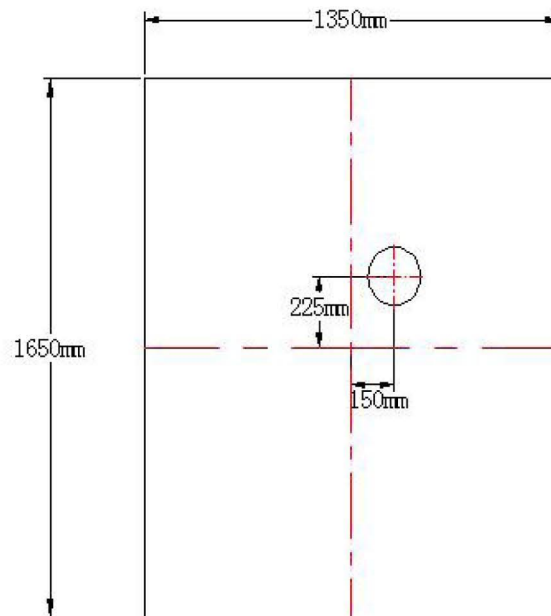
at 20°C±2°C and relative humidity within 60%and 70%, with air pressure remaining unchanged, to be enforced.

### 2. ELECTRICAL AND ACOUSTICAL SPECIFICATION.

2-1	Rated Input Power.	3.0W
2-2	Max Input Power.	4.0W
2-3	Rated Impedance.	8Ω ± 15%
2-4	Sound Pressure Level. (S.P.L)	86dB(0.1W/0.1m) ± 3 dB at AVE 0.6K 0.8K 1.0K 1.2K Hz
2-5	Resonance Frequency (Fo).	450±20%Hz
2-6	Frequency Range.	F0~5kHz.
2-7	Distortion	Less than 5% at 1KHz input Rated Power
2-8	Magnet	Rare earth permanent (NdFeB) magnet φ 12.5*2 mm
2-9	Buzz, Rattle, etc.	Should not be audible at 4.89V sine Wave between Fo to 20KHz
2-10	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
2-11	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
2-12	Weight.	18g±8%
2-13	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C

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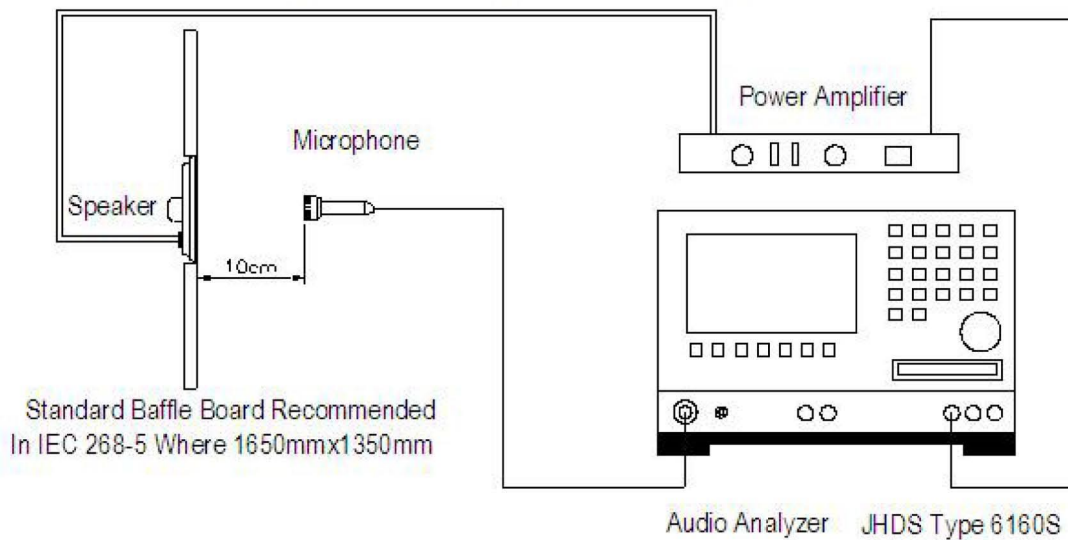
### 3. MEASURING METHOD



**FIG.1**

#### 3.1 Block Diagram For Measurement Method.

#### Standard test condition of speaker



**FIG.2**

## Specification for speaker

### 4. Frequency Response :

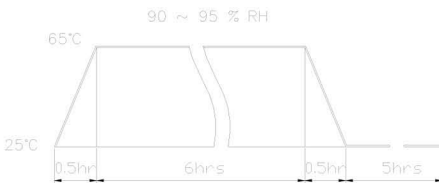
The swept sine-wave frequency response of a Loud speaker should ideally not deviate more than indicated per Fig.3



FIG.3

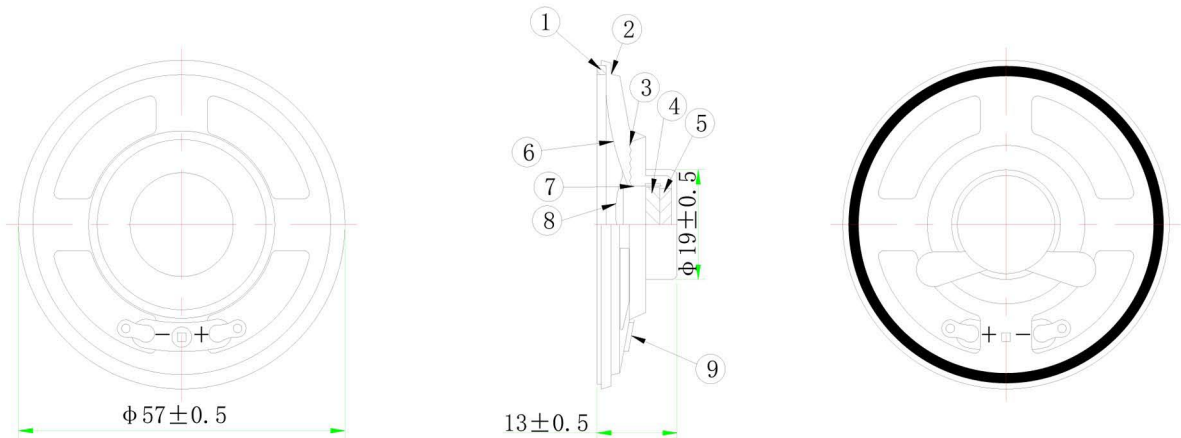
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### 5. ENVIRONMENT TEST

ITEM		SPECIFICATIONS
01	<b>High temp. Test</b>	Keep 96 hours at $+70\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ and leave 6 hours in normal temperature and then check
02	<b>Low temp. Test</b>	Keep 96 hours at $-30\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ and leave 6 hours in normal temperature and then check
03	<b>Humidity test</b>	Keep 96 hours at $+30\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ 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 6 hours and consist of;</p> 
05	<b>Vibration</b>	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
06	<b>drop test</b>	Drop the speakers contained in normal box onto the board 40mm thick 10 times from the height of 75cm
07	<b>Load test</b>	Rate Power Pink noise is applied for 24 hours at room temp
08	<b>Lead Wire Pull Strength</b>	<p>The pull force shall be applied to double lead wire :</p> <p>Horizontal 3.0N(0.306kg) for 30 seconds.</p> <p>Vertical 2.0N(0.204kg) for 30 seconds.</p>
<p><b>Criterion :</b>  <b>After these test , the change of S.P.L shall be within <math>\pm 3\text{ dB}</math></b></p>		

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### 6.Dimensions



Unit:mm Tol:±0.5

8	Gasket	1	Paper	
7	Cap	1	Paper	
6	Diaphragm	1	Paper	
5	VOICE COIL	1	Paper+Cu	
4	Plate	1	SPCC	
3	Magnet	1	NdFeB	
2	PCB Terminal	1	Paper+metal	
1	Frame	1	Metal	

The material must be meet to GU-001

PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
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