

REV:01

ROHS

## SPECIFICATION OF PRODUCT

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

DESCRIPTION :     SPEAKER    

EKEYSOUND P/N:     EKS4509    

CUSTOMER P/N: \_\_\_\_\_

DATE :     2015-05-04

## 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.	0.2W
2-2	Max Input Power.	0.5W
2-3	Rated Impedance.	8Ω ± 15%
2-4	Sound Pressure Level. (S.P.L)	89dB(1W/0.5m) ± 3 dB at AVE 1.0K 1.2K 1.5K 2.0K Hz
2-5	Resonance Frequency (Fo).	650±20%Hz
2-6	Frequency Range.	F0~20kHz.
2-7	Distortion	Less than 5% at 1KHz input Rated Power
2-8	Magnet	Rare earth permanent (NdFeB) magnet Φ 12 *2.0mm
2-9	Buzz, Rattle, etc.	Should not be audible at 1.26 V 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.	g
2-13	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C

## Specification for speaker

### 3. MEASURING METHOD

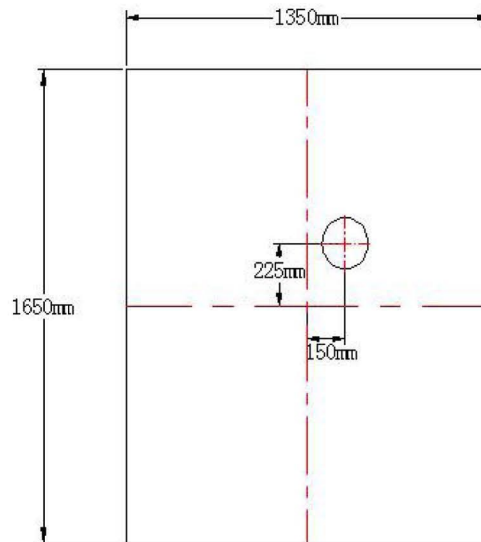


FIG.1

#### 3. 1Block Diagram For Measurement Method.

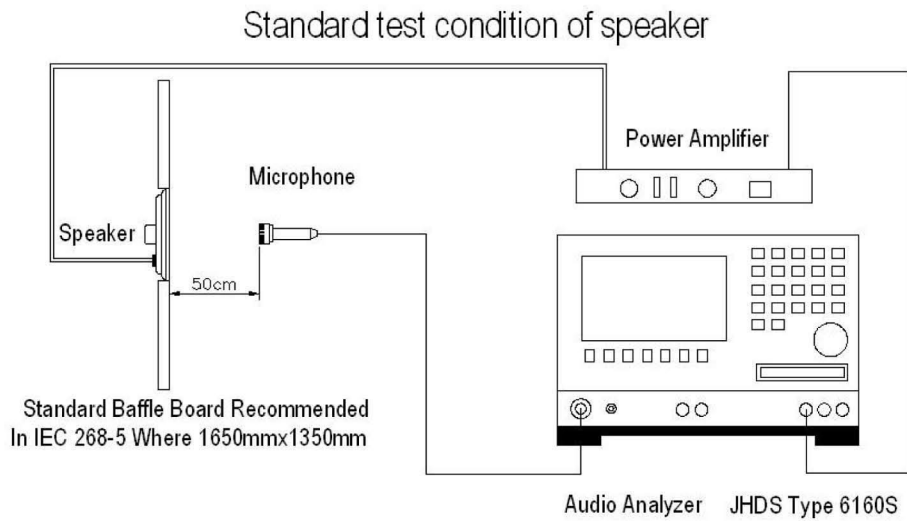


FIG.2

## Specification for speaker

### 4. Frequency Response :

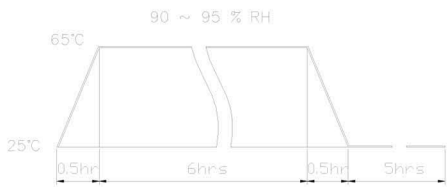
The swept sine-wave frequency response of a Loud speaker should ideally not deviate more than indicated per Fig.3



FIG.3

## Specification for speaker

### 5. ENVIRONMENT TEST

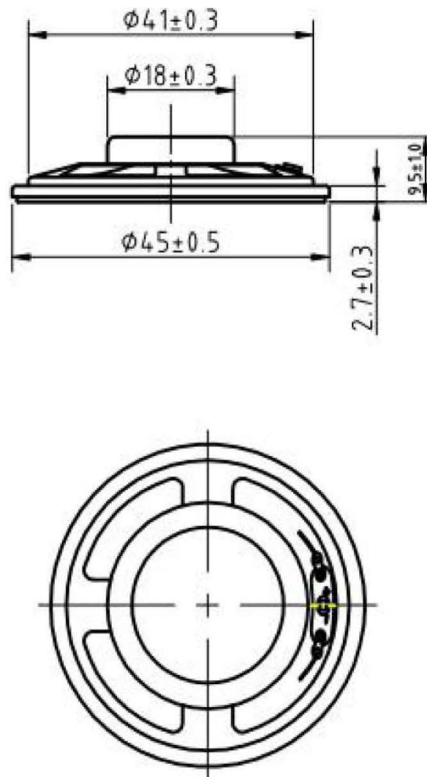
ITEM		SPECIFICATIONS
01	<b>High temp. Test</b>	Keep 96 hours at $+70\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ and leave 6 hours in normal temperature and then check
02	<b>Low temp. Test</b>	Keep 96 hours at $-30\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ and leave 6 hours in normal temperature and then check
03	<b>Humidity test</b>	Keep 96 hours at $+40\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ 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 white noise is applied for 96hours 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>

**Criterion :**

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

## Specification for speaker

### 6.Dimensions

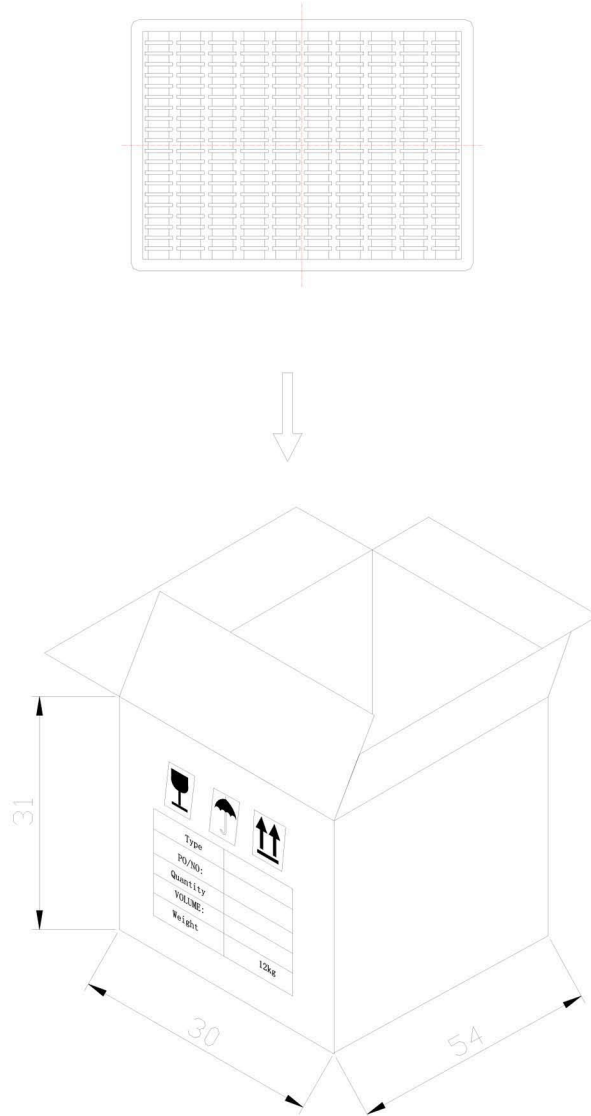


Unit:mm Tol:±0.5

8	GASKET	1	Paper	
7	Diaphragm	1	PET	
6	VOICE COIL	1	Paper Cu	
5	Damper	1	Cloth	
4	Plate	1	SPCC	
3	Magnet	1	NdFeB	
2	Terminal	1	Paper Cu	
1	Frame	1	SPCC	
The material must be meet to GU-001				
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

## Specification for speaker

### 7.PACKING



Remark:

Total:500 pcs per box

Size54\*30\*31cm

Weight:6.5KG