



## **SPECIFICATION OF PRODUCT**

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

DESCRIPTION :     SPEAKER    

EKEYSOUND P/N:     EKS4070    

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

DATE :     2017-07-21

## 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>5.0W.</b>
2-2	<b>Max Input Power.</b>	<b>6.0W</b>
2-3	<b>Rated Impedance.</b>	<b>8Ω ± 15%</b>
2-4	<b>Sound Pressure Level. (S.P.L)</b>	84dB(1W/0.5m) ± 3 dB at AVE 0.8K 1.0K 1.2K 1.5K Hz
2-5	<b>Resonance Frequency (Fo).</b>	<b>350±20%Hz</b>
2-6	<b>Frequency Range.</b>	230~20kHz.
2-7	<b>Distortion</b>	Less than 5% at 1KHz input Rated Power
2-8	<b>Magnet</b>	Rare earth permanent (NdFeB) magnet12.5*2.5mm
2-9	<b>Buzz, Rattle, etc.</b>	Should not be audible at 6.32V sine Wave between Fo to 20KHz
2-10	<b>Polarity</b>	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
2-11	<b>Appearance</b>	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
2-12	<b>Weight.</b>	<b>28g</b>
2-13	<b>Temperature</b>	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C

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### 3. MEASURING METHOD

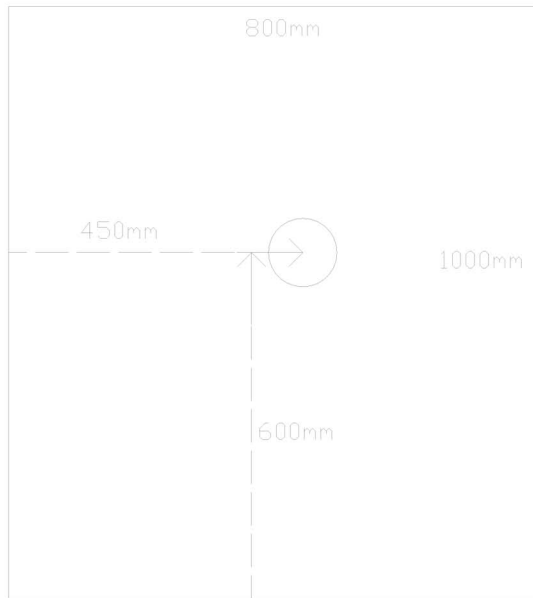


FIG.1

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

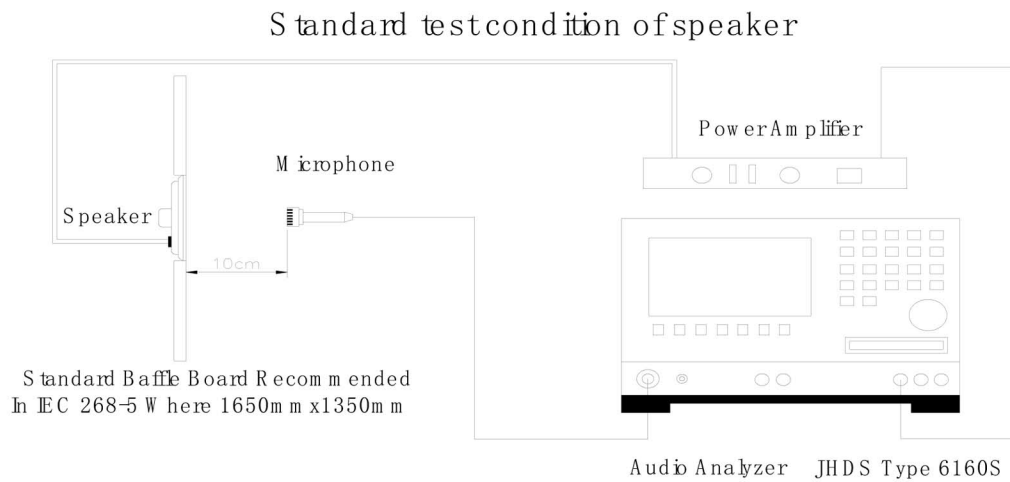


FIG.2

## 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

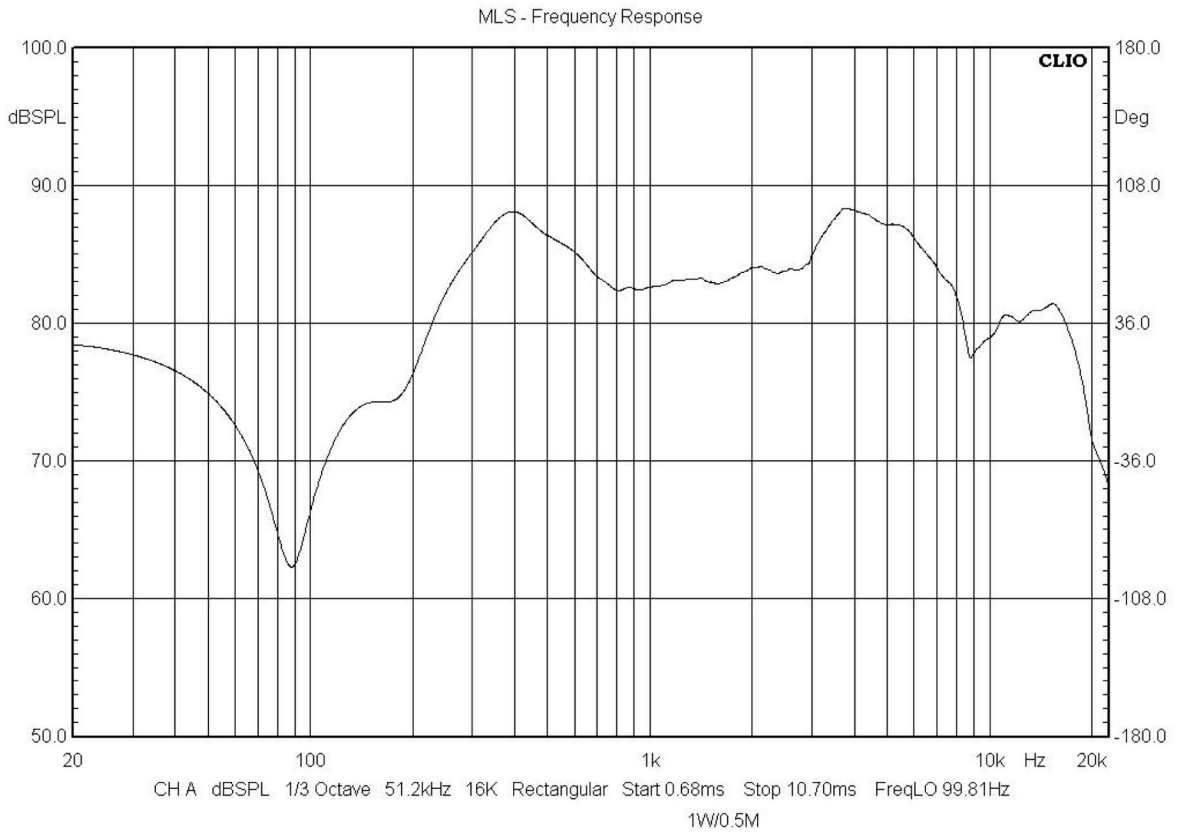
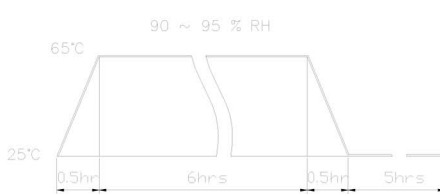


FIG.3

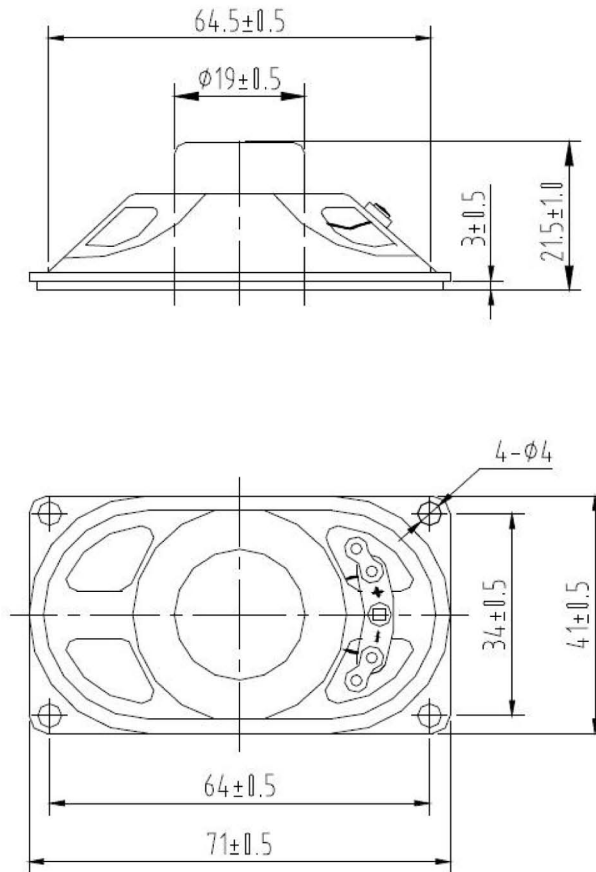
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### 5. ENVIRONMENT TEST

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	<p>The part shall be subjected 5 cycles. One cycle shall be 6 hours and consist of;</p>  <p style="text-align: center;"> <math>25^{\circ}\text{C}</math>      <math>65^{\circ}\text{C}</math>      <math>90 \sim 95\% \text{ RH}</math>              0.5hr      6hrs      0.5hr      5hrs           </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> The pull force shall be applied to double lead wire : Horizontal 3.0N(0.306kg) for 30 seconds. Vertical 2.0N(0.204kg) for 30 seconds.
<p><b>Criterion :</b> After these test , the change of S.P.L shall be within <math>\pm 3\text{ dB}</math></p>	

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### 6.Dimensions



Unit:mm Tol: $\pm 0.5$

7	Cap	1	Paper	
6	Diaphragm	1	Cloth+paper	
5	VOICE COIL	1	Paper+Cu	
4	Plate	1	SPCC	
3	Magnet	1	NdFeB	
2	PCB	1	Paper+Cu	
1	Frame	1	Spcc	

The material must be meet to GU-001

PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
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