

REV:01

ROHS

## SPECIFICATION OF PRODUCT

## 産 品 承 認 書

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

DESCRIPTION : \_\_\_\_\_ SPEAKER

CHENGXUN P/N: PMB102102395-R04W15-F70U-G

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

DATE : \_\_\_\_\_

CUSTOMER	APPROVER	CHECKER

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# C O N T E N T S

※ CONDITION.	
.....	1
※ ELECTRICAL AND ACOUSTICAL SPECIFICATION.	
.....	2
※ MEASURING METHOD	
.....	3
※ FREQUENCY RESPONSE	
.....	4
※ ENVIRONMENT TEST	
.....	5
※ DIMENSIONS	
.....	6

## 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  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  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.	15W
2-2	Max Input Power.	20W
2-3	Rated Impedance.	$4\Omega \pm 15\%$
2-4	Sound Pressure Level. (S.P.L)	89dB(1.0W/0.5m) $\pm 3$ dB at AVE 0.5K 0.6K 0.8K 1.0K Hz
2-5	Resonance Frequency (Fo).	120 $\pm$ 20%Hz
2-6	Frequency Range.	F0~10kHz.
2-7	Distortion	Less than 5% at 0.6KHz input 1W 0.5m
2-8	Magnet	Rare earth per manent (Ferrite) magnet 70*32*10 mm
2-9	Buzz, Rattle, etc.	Should not be audible at 7.7V 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: $-20^{\circ}\text{C}$ to $+60^{\circ}\text{C}$ Storage temperature: $-30^{\circ}\text{C}$ to $+70^{\circ}\text{C}$

## Specification for speaker

### 3. MEASURING METHOD

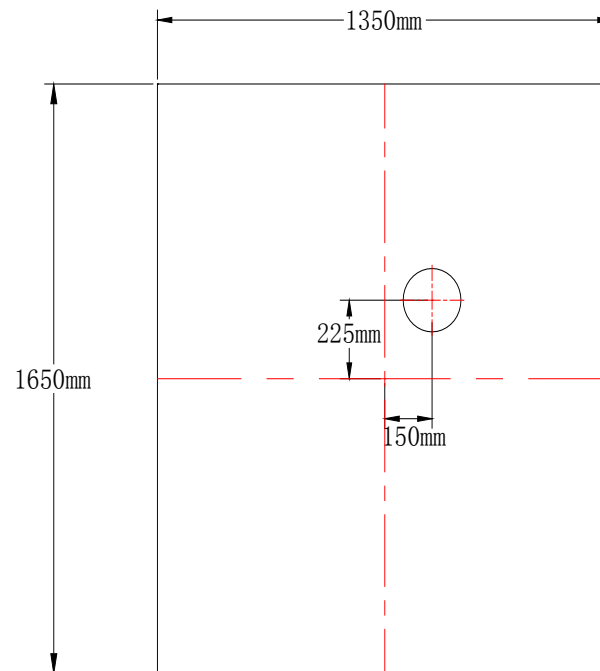


FIG.1

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

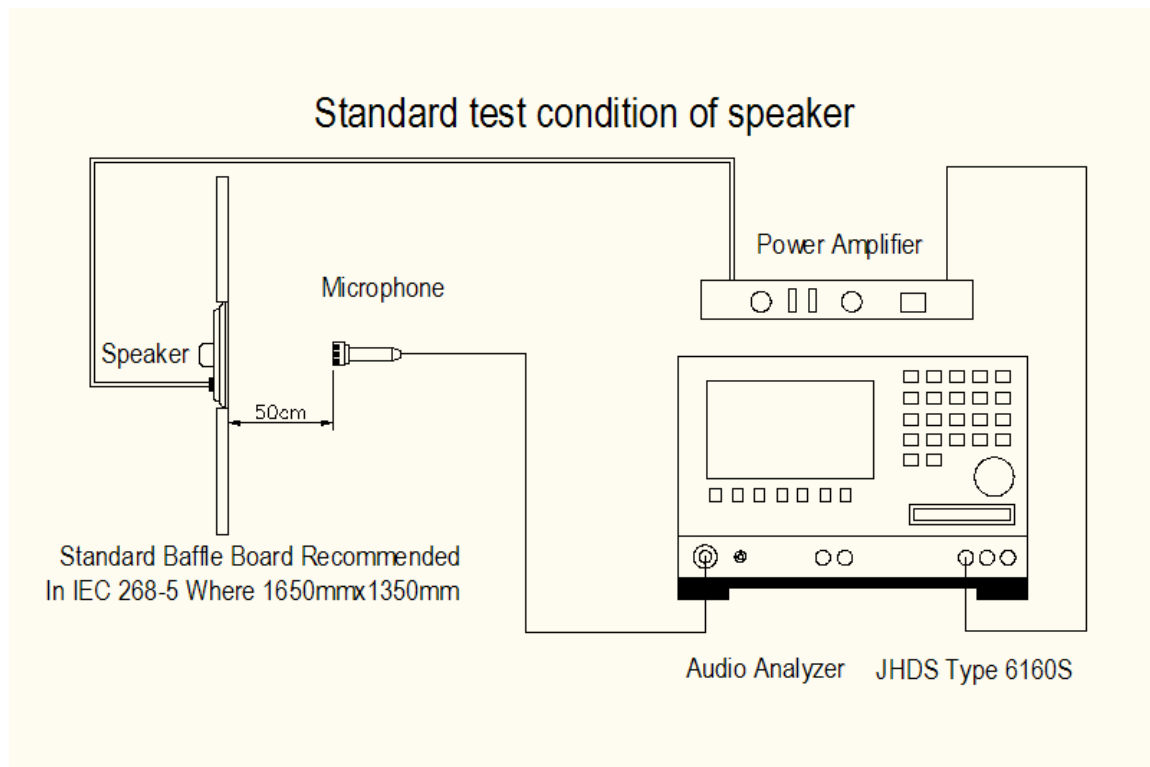


FIG.2

## 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

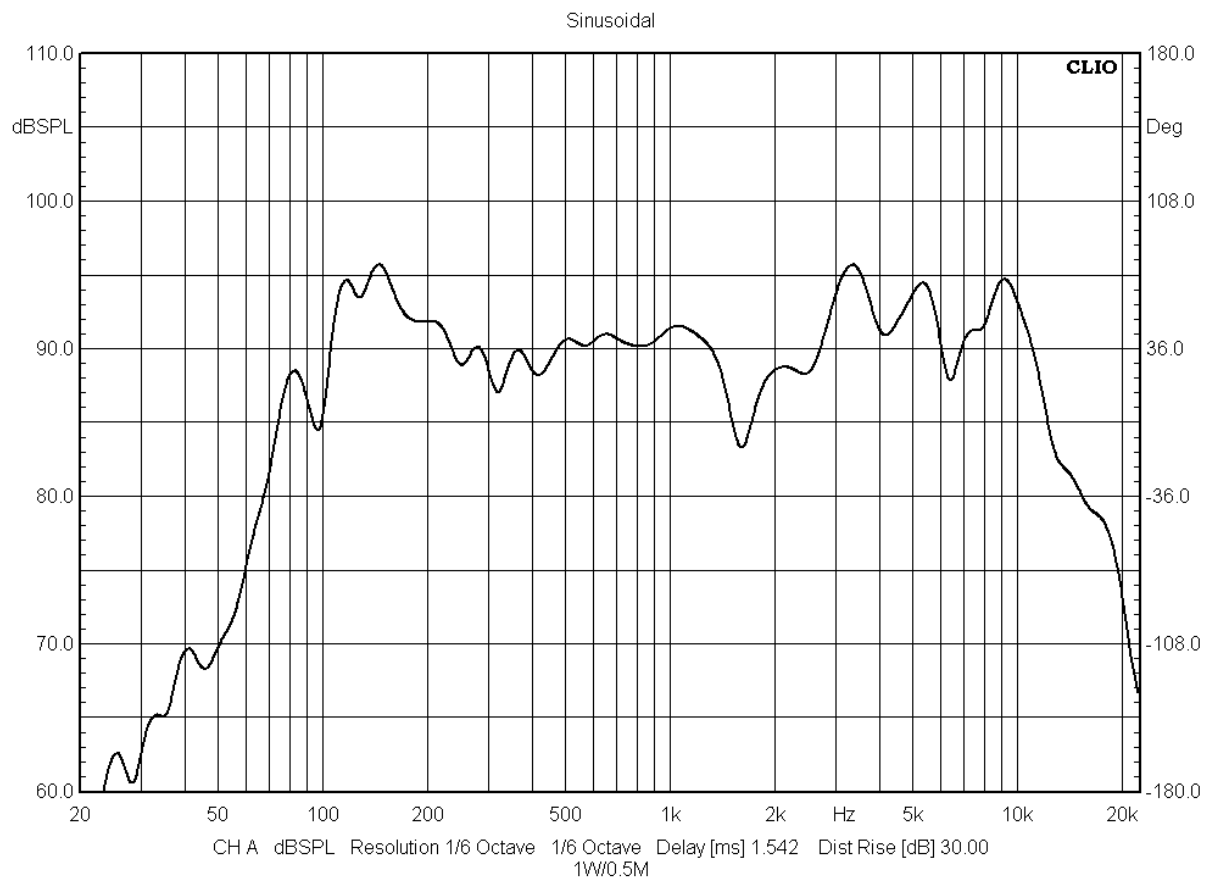
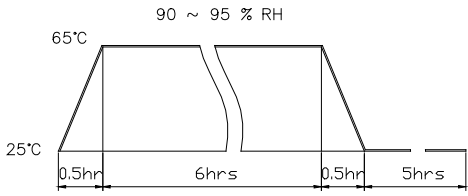


FIG.3

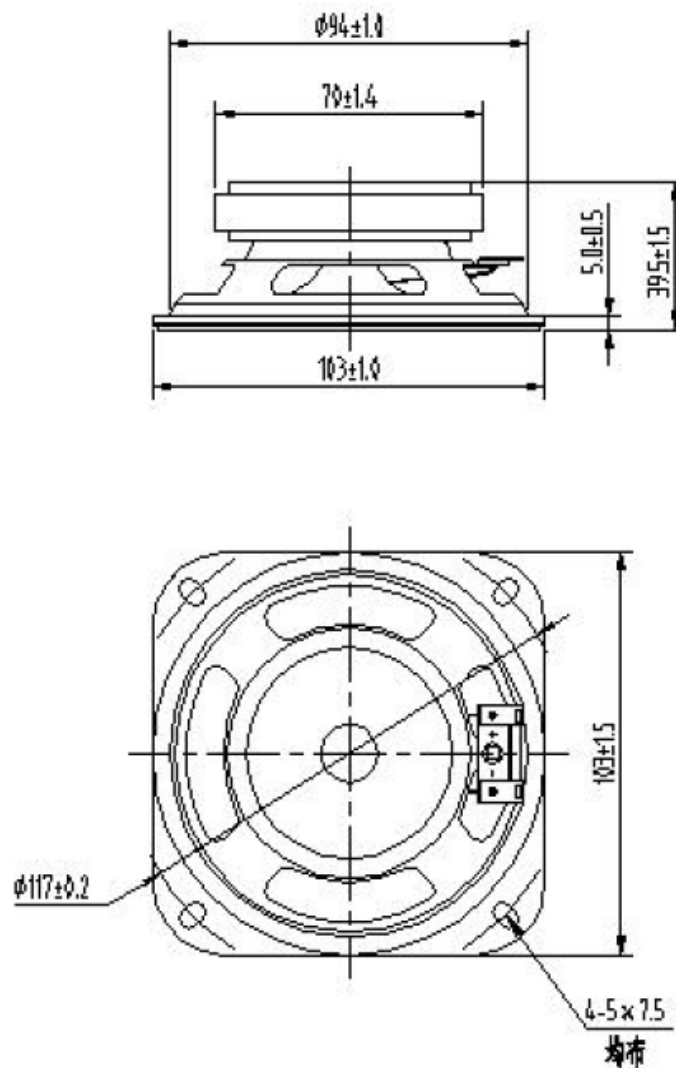
## Specification for speaker

### 5. ENVIRONMENT TEST

ITEM		SPECIFICATIONS
01	High temp. Test	Keep 96 hours at $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	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	Temp./Humidity cycle	<p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p> 
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , temperature: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$ , cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~55~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix drop test	Fix on jig. Then drop from 152cm height to the concrete floor X,y, z 6 direction. 5 times each, total 30 times.
08	Free drop test	Free drop from 100cm height to the concrete floor X,Y, Z 6 direction. 1 times each, total 6 times.
09	Load test	Rated Power White noise is applied for 96 hours
10	Max Power test	Max power 1 min. on - 2 min. off 10 cycles.
11	Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
<p><b>Criterion :</b> After these test , the change of S.P.L shall be within <math>\pm 3 \text{ dB}</math></p>		

## Specification for speaker

### 6.Dimensions



Unit:mm Tol:±0.5

8				
7	Gasket	1	Paper	
6	Diaphragm	1	Foam-edge+Paper	
5	VOICE COIL	1	Paper+Cu	
4	Plate	1	SPCC	
3	Magnet	1	Ferrite	
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