



Dynamic Loudspeaker

With IPX8

15×6.0×2.5 mm

CR1506L025YN8WP

Revision

Date	Version	Status	Changes	Approver
2021/05/20	V0.1	Draft	Initial release	AX

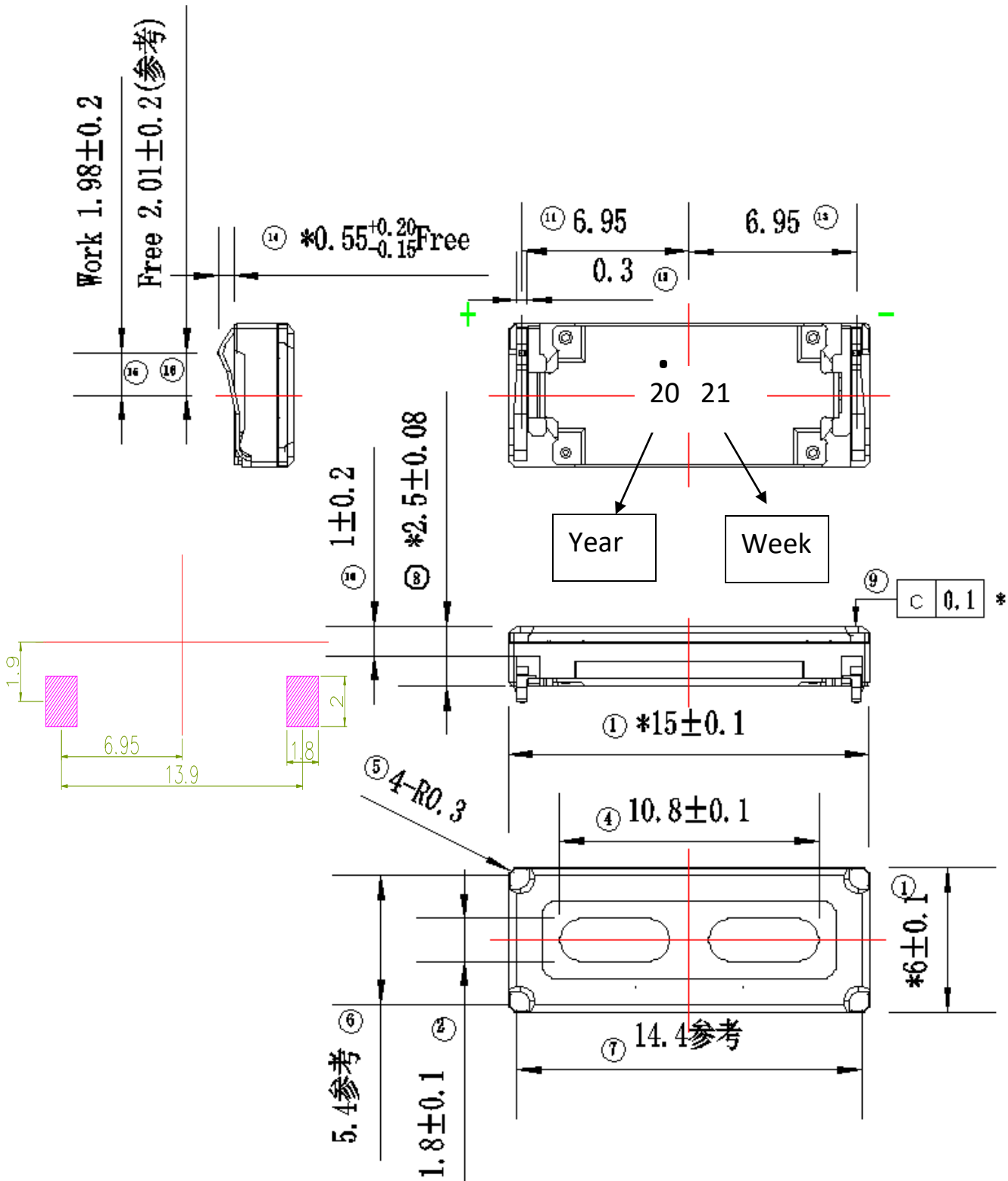
Parameter	Conditions/Description	Values	Units
Rated Input Power	in 2cc closed box	0.5	W
Max Input Power	in 2cc closed box	0.7	W
Rated Impedance	1V input	8.0±15%	Ω
DC Impedance		7.0±0.7	Ω
Sound Pressure Level (S.P.L.)	0.5W/0.1m at 2KHz AVG, in 2 cc box (0dB SPL=20μPa)	89.0±3	dB
Resonant Frequency (Fo)	in 2 cc closed box	950±20%	Hz
	In Free air	650±20%	Hz
Frequency Range	Output S.P.L. -10dB	Fo~20K	Hz
Distortion	at 1K Hz, input 0.5W, in 2 cc box	< 15%	-
Magnet	NdFeB		mm
max membrane excursion	In 2cc box	0.25	mm
Buzz, Rattle, etc.	must be normal at sine wave between 300-5KHz, in 2cc box	2.0	V
Polarity	cone will move forward with positive dc current to“+” terminal		
Weight		0.7	g
Operating Temperature		-20~+70	℃
Storage Temperature		-40~+80	℃
Waterproof	2.0m deep water,stand for 60mins	IPX8	

Above Measuring condition under temperature : 15~35℃ R.H. 25 ~75%.86 kPa to 106 kPa (860 mbar to 1 060 mbar According to standard GB/T 9397—200X and IEC 60268-1

MECHANICAL DRAWING

Units: mm

Tolerance: $\pm 0.15\text{mm}$



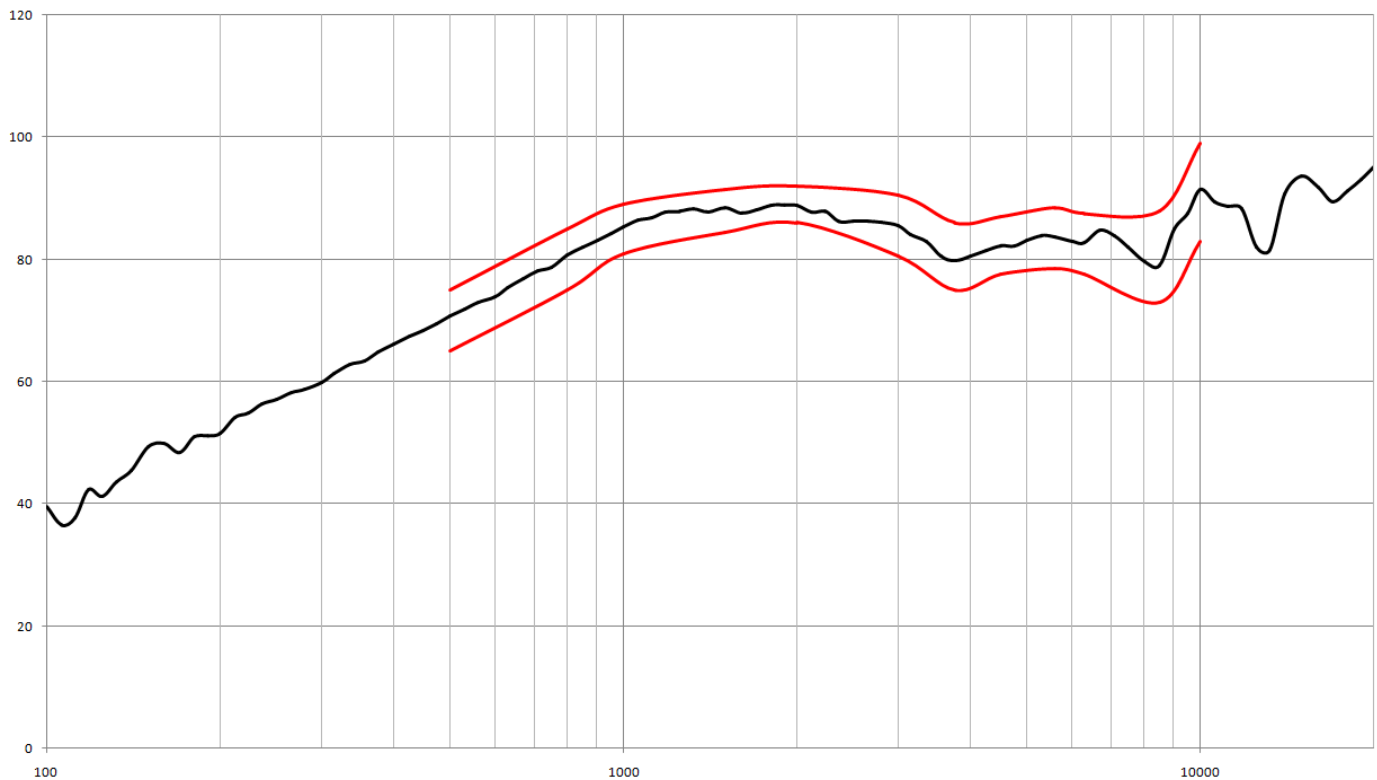
CONSTRUCTION DETAIL

7	前盖 Front Cover	PPA+SU304	1	
6	膜片 DIAPHRAGM	PEEK	1	
5	音圈 VOICE COIL	COPPER WIRE	1	
4	极片 POLE PIECE	SPCC	3	
3	磁钢 MAGNET	NdFeB	3	
2	U 铁 U YOKE	SPCC	1	
1	主架 FRAME	PPA	1	
编号 No.	零件名称 PART NAME	材料 MATERIAL	数量 Q'TY	备注 REMARK

RESPONSE CURVES

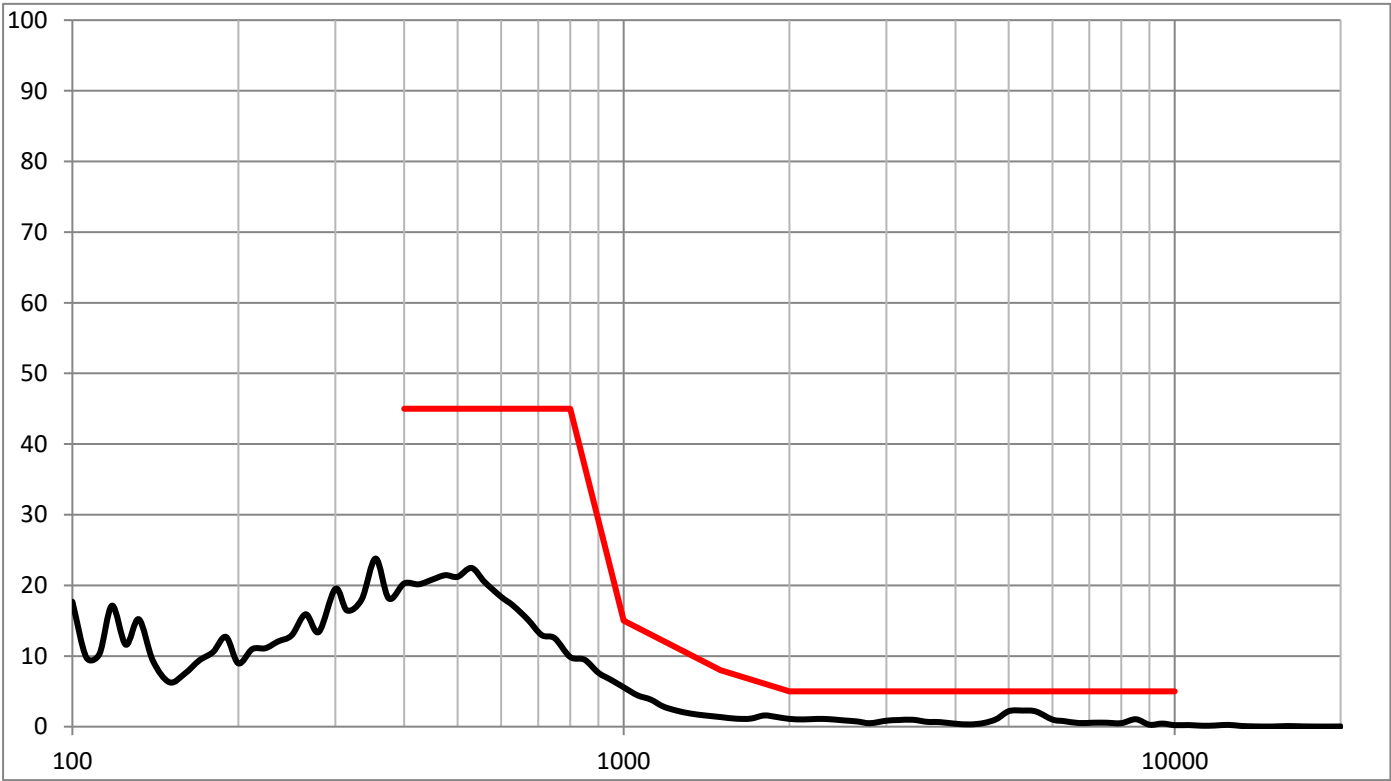
Frequency Response Curve

Test condition: 0.5W/0.1M ,in 2CC box



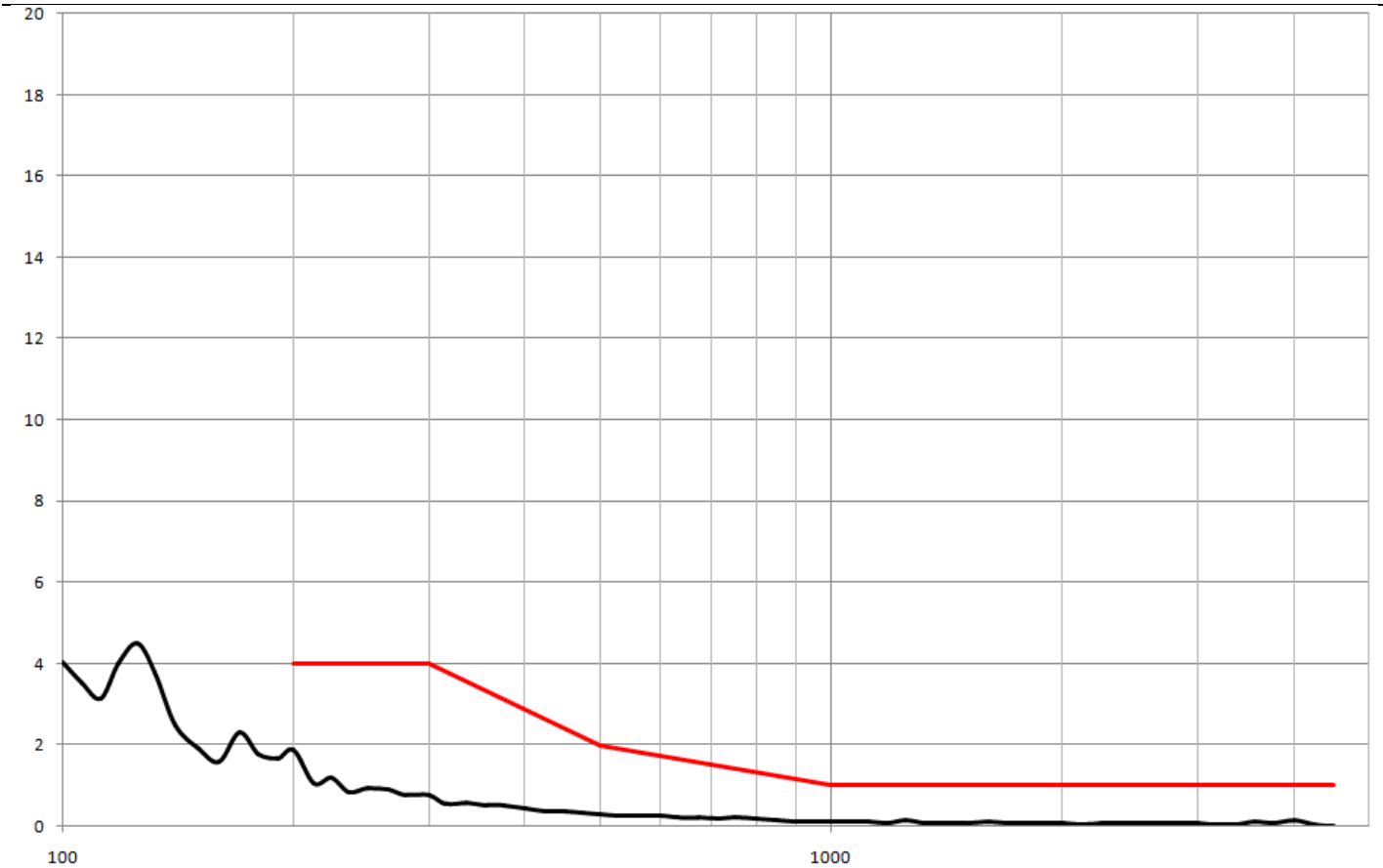
	lower		higher
500	65	500	75
800	75	800	85
1000	81	1000	89
1500	84.5	1500	91.5
2000	86	2000	92
3000	80.5	3000	90.5
3750	75	3750	86
4500	77.5	4500	87
5600	78.5	5600	88.5
6300	77.5	6300	87.5
8500	73	8500	88
10000	83	10000	99

Total Harmonic Distortion Curve



	limit
300	45
800	45
1000	10
2000	10
10000	10

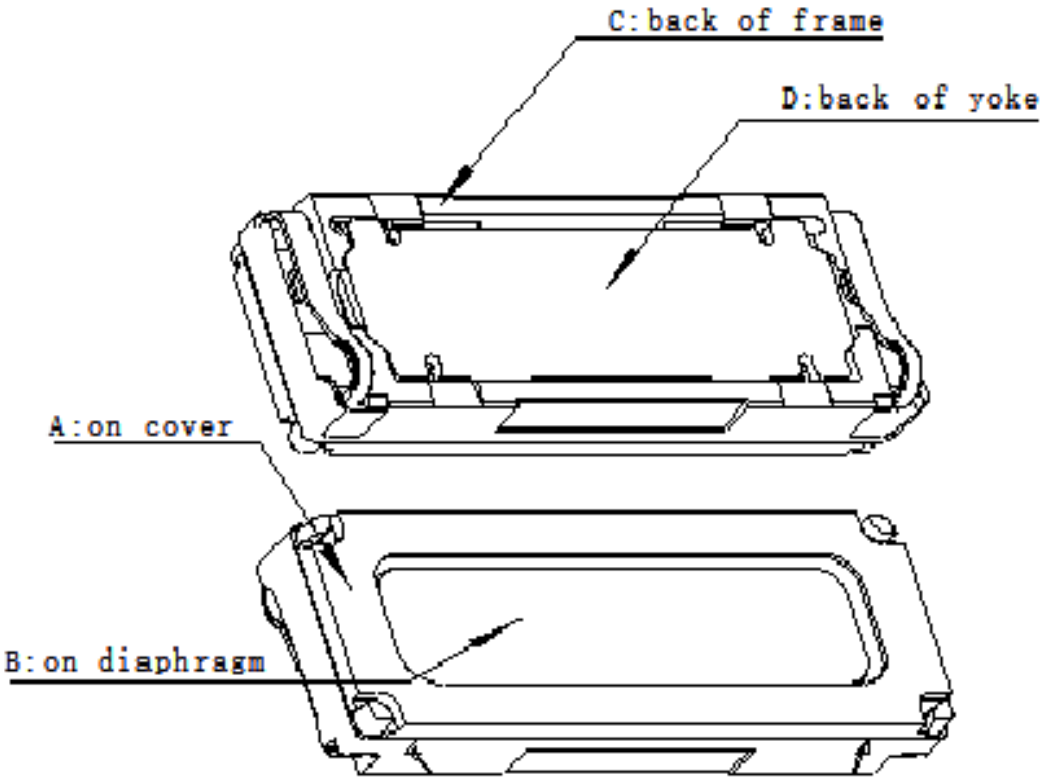
Rub & Buzz



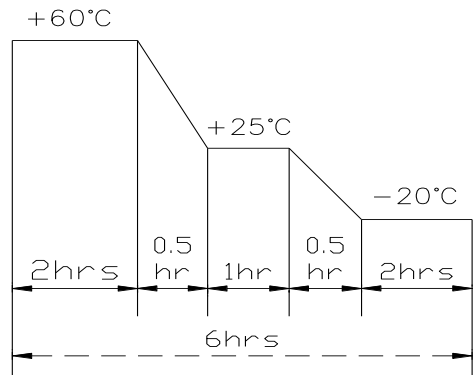
	limit
200	4
300	4
500	2
1000	1
4500	1

PERMITTED FOR TO SPEAKER

Max.permited compression forces		
FORM	TO	Max.Forces (unit:N)
A	C	5
D	A	20
B		0
Suggestion: for assembly, suggest keep 10N-20N pressure on D side, to ensure valid of speaker and waterproof function.		



RELIABILITY TEST

1	Reliability Test Performance	After any following test, parts should conform to original performance within ± 3 dB tested with Rated Power, after 6 hours of recovery period.
2	High Temperature Operation and Storage	+ 70 $\pm$ 2 °C Humidity Random for 48 hours. (GB/T 9397—200X)
3	Low Temperature Operation and Storage	- 20 $\pm$ 2 °C Humidity Random for 48 hours. (GB/T 9397—200X)
4	Humidity Test	96 hours at +60°C $\pm$ 3°C, 93-97% RH
5	Temp Cycle	The part shall be subjected 4cycles. One cycle shall be 6 hours and consist of (GB5170.18-87)  The diagram illustrates a temperature cycle profile over a 6-hour period. It consists of three temperature levels: +60°C, +25°C, and -20°C. The cycle is divided into segments with the following durations: 2hrs at +60°C, 0.5 hr ramping down to +25°C, 1hr at +25°C, 0.5 hr ramping down to -20°C, and 2hrs at -20°C. The total duration of one cycle is 6hrs.
6	Vibration Test	Frequency: 10~55~10Hz Oct/min Amplitude: 1.5mm Duration: 2 hours each of 3 perpendicular directions
7	Drop Test	Drop the speaker contained in normal box onto the surface of marble 10 times from the height of 100cm
8	Load test	Must perform normal with program White-Noise source at Rated Power for 96 Hours(GB/T 9397—200X)
9	Termination Strength	Apply 3.0N(0.306kg) to each terminal in horizontal direction for 30 seconds; Apply 2.0N(0.204kg) to each terminal in vertical direction for 30 seconds;

MEASURING METHOD

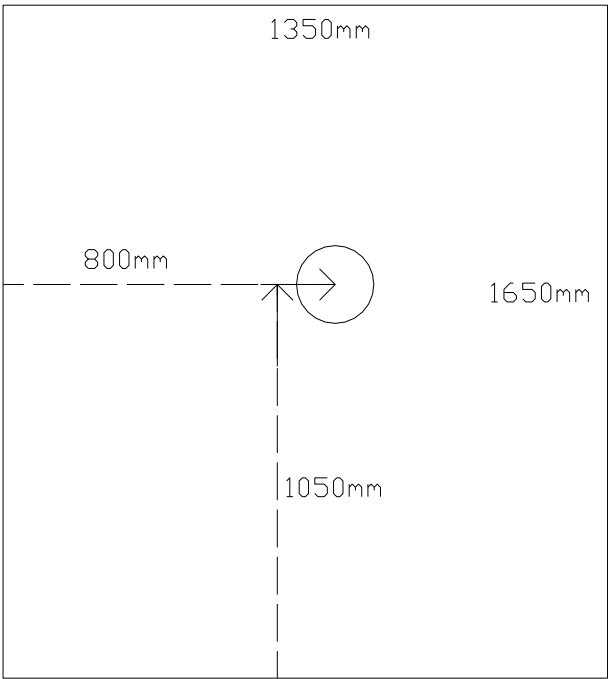
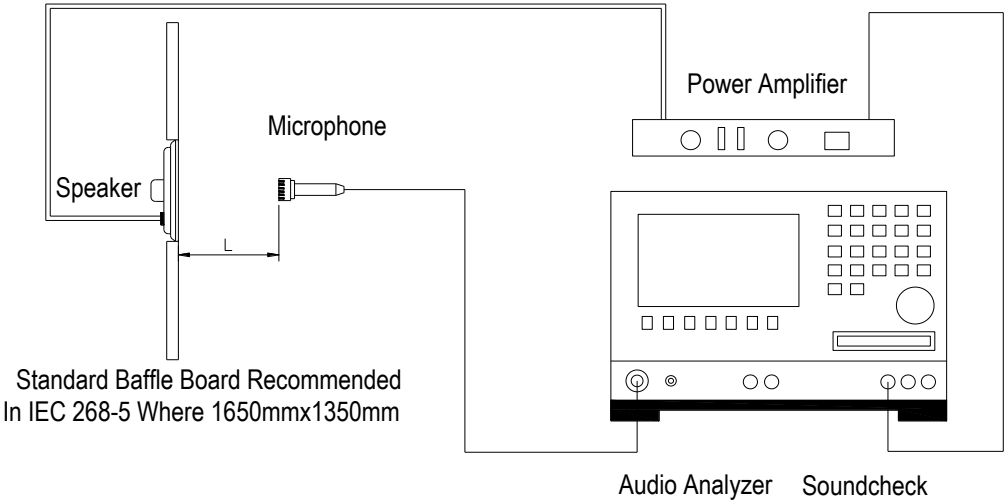


Fig. 1 Block Diagram for Measurement Method

Standard test condition of speaker



L=10cm

Fig. 2 Speaker Test Condition

PACKAGING

Storage conditions:

Speakers should be well packed.

The temperature should be as stable as possible and between -10° C and +40° C.

The relative humidity should be below 90%.

There should be no acid or other harmful gases in the surrounding air (GB/T 9397—200X)

