



Speaker

20 × 3.8 mm

CC20S038CN8

Revision

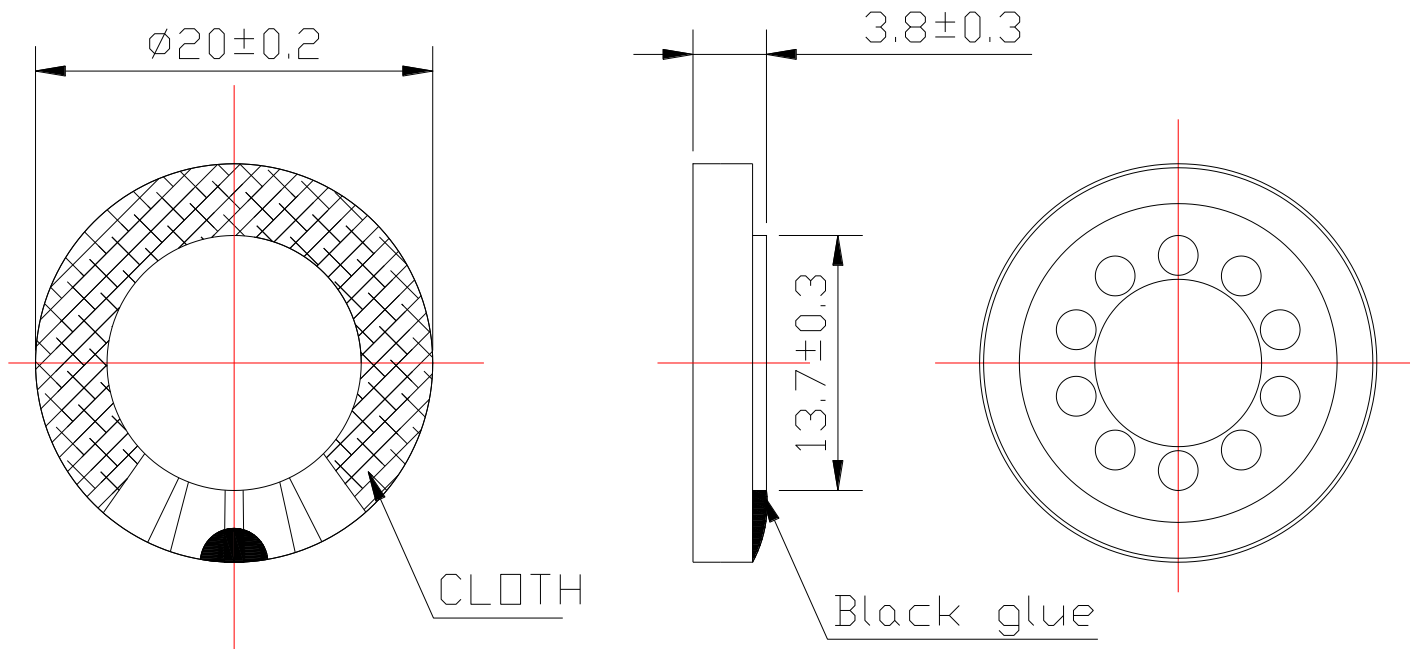
Date	Version	Status	Changes	Approver
2018/05/18	V0.1	Draft	Initial release	AX

Parameter	Conditions/Description	Values	Units
Rated Input Power		0.5	W
Max Input Power		0.8	W
Rated Impedance	at 2.0 kHz	8±15%	Ω
Sound Pressure Level (S.P.L.)	at 0.8K 1.0K 1.2K 1.5K in 0.1W/0.1M average (0dB SPL=20μPa)	88±3	dB
Resonant Frequency (Fo)	at 1.0 V	600±20%	Hz
Frequency Range	Output S.P.L. -10dB	Fo~20K	Hz
Distortion	at 1K Hz, input 0.5W,	< 5%	-
Magnet	NdFeB	Φ9.5*1.2	mm
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 5K Hz	2.0	V
Polarity	cone will move forward with positive dc current to“+” terminal		
Weight			g
Operating Temperature		-20~+60	°C
Storage Temperature		-30~+70	°C
Waterproof Rating		N/A	

Notes: All specifications measured at 5~35°C, humidity at 45~85%, under 86~106 kPa pressure, unless otherwise noted.

MECHANICAL DRAWING

Units: mm

Tolerance: $\pm 0.5\text{mm}$ 

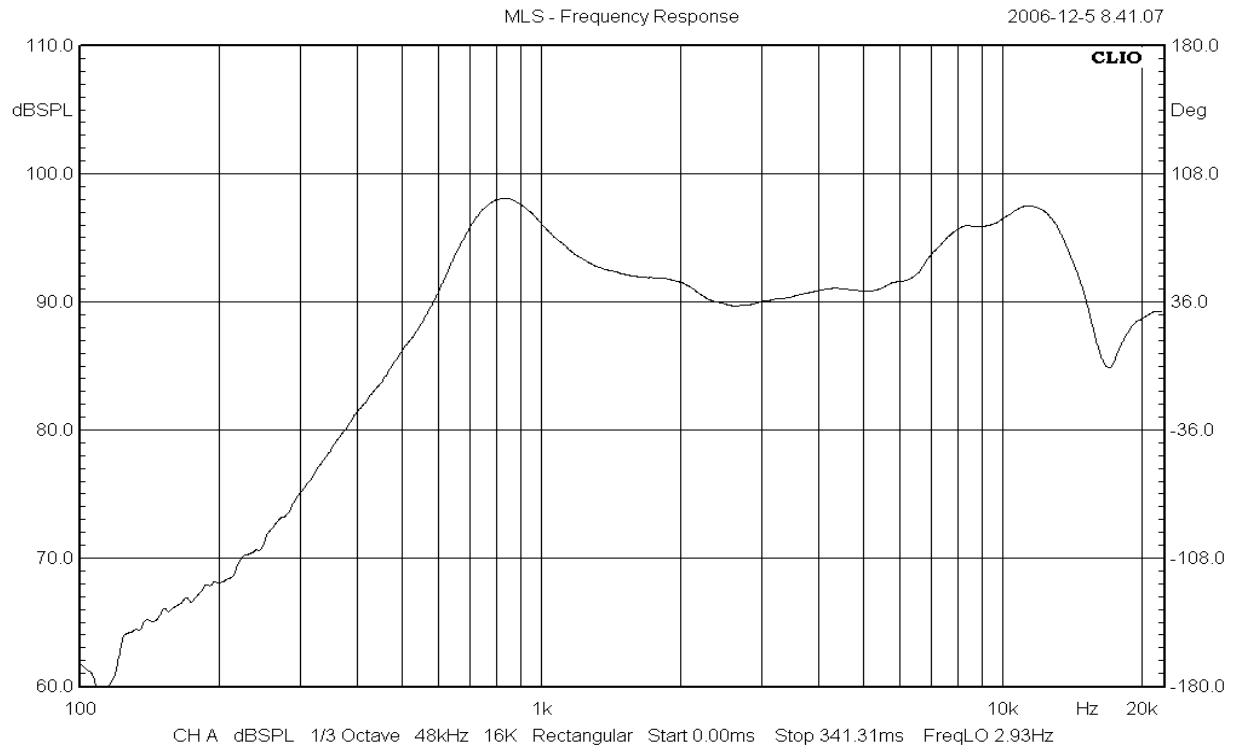
CONSTRUCTION DETAIL

PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
1	CAP	1	SUS304	
2	Diaphragm	1	PEN	
3	VOICE COIL	1	Cu	
4	Plate	1	SPCC	
5	Magnet	1	NdFeB	
6	PCB Terminal	1	FR4	
7	Frame	1	PBT+SPCC	

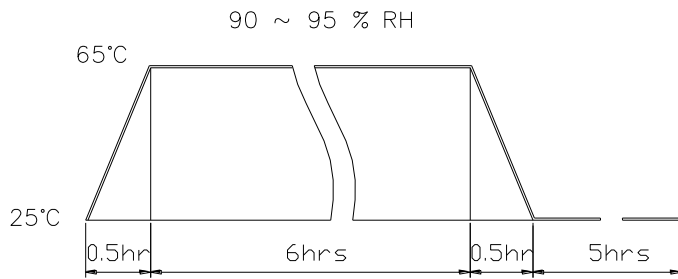
RESPONSE CURVES

Frequency Response Curve

Test condition: 0.1W/0.1M,



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 Test	96 hours at $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$
3	Low Temperature Test	96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$
4	Humidity Test	96 hours at $+30^{\circ}\text{C} \pm 3^{\circ}\text{C}$, 92-95% RH
5	Temp./Humidity Cycle	<p>The part shall be subjected 5 cycles. One cycle shall be 6 hours and consist of</p>  <p>The graph illustrates a temperature and humidity cycle. The temperature starts at 25°C, ramps up to 65°C over 0.5 hours, remains at 65°C for 6 hours, and then ramps down to 25°C over 0.5 hours. The humidity is constant at 90 ~ 95 % RH during the 6-hour high-temperature plateau. The total cycle duration is 7 hours.</p>
6	Vibration Test	<p>Frequency: 10~55~10Hz Oct/min Amplitude: 1.5mm</p> <p>Duration: 2 hours each of 3 perpendicular directions</p>
7	Drop Test	Drop the speaker contained in normal box onto the surface of 40mm thick board 10 times from the height of 75cm
8	Operation Life Test	Must perform normal with program White-Noise source at Rated Power for 96 Hours
9	Termination Strength	<p>Apply 3.0N(0.306kg) to each terminal in horizontal direction for 30 seconds;</p> <p>Apply 2.0N(0.204kg) to each terminal in vertical direction for 30 seconds;</p>

MEASURING METHOD

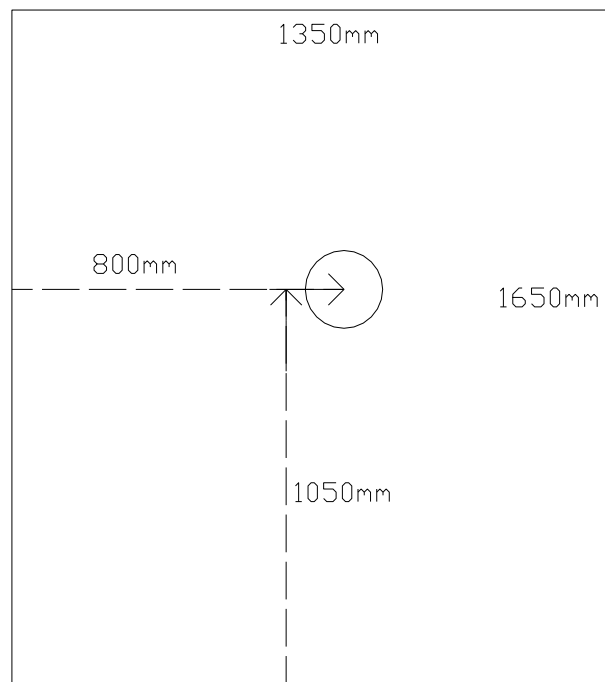
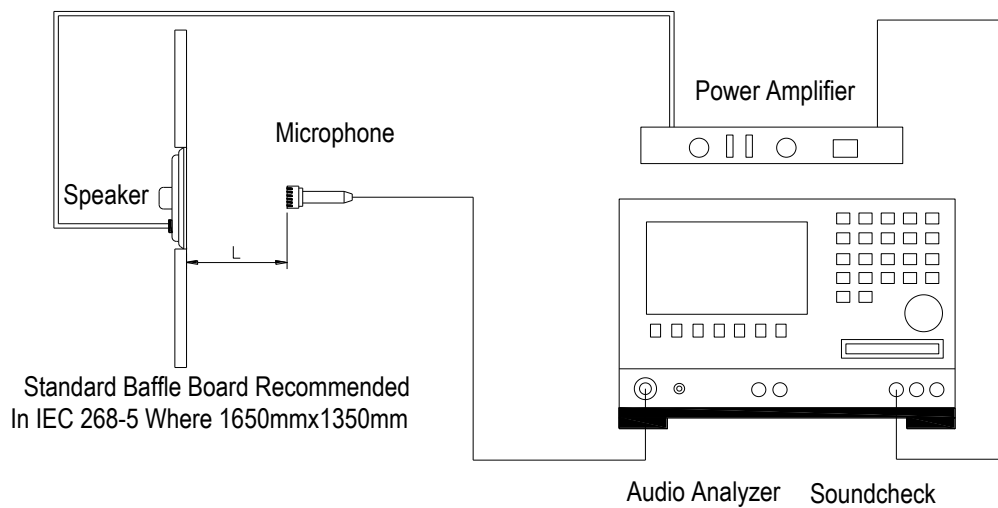


Fig. 1 Block Diagram for Measurement Method

Standard test condition of speaker



$L=100\text{cm}$

Fig. 2 Speaker Test Condition

PACKAGING

units: cm

Remark:

100pcs per tray

8 trays for unit , 2 units per carton

Total:1600 pcs per box

Size: 37*28*29.5cm

