



Loudspeaker

50.0 × 23.5 mm

CC50L235XN4

Revision

Date	Version	Status	Changes	Approver
2018/12/25	V0.1	Draft	First release	AX

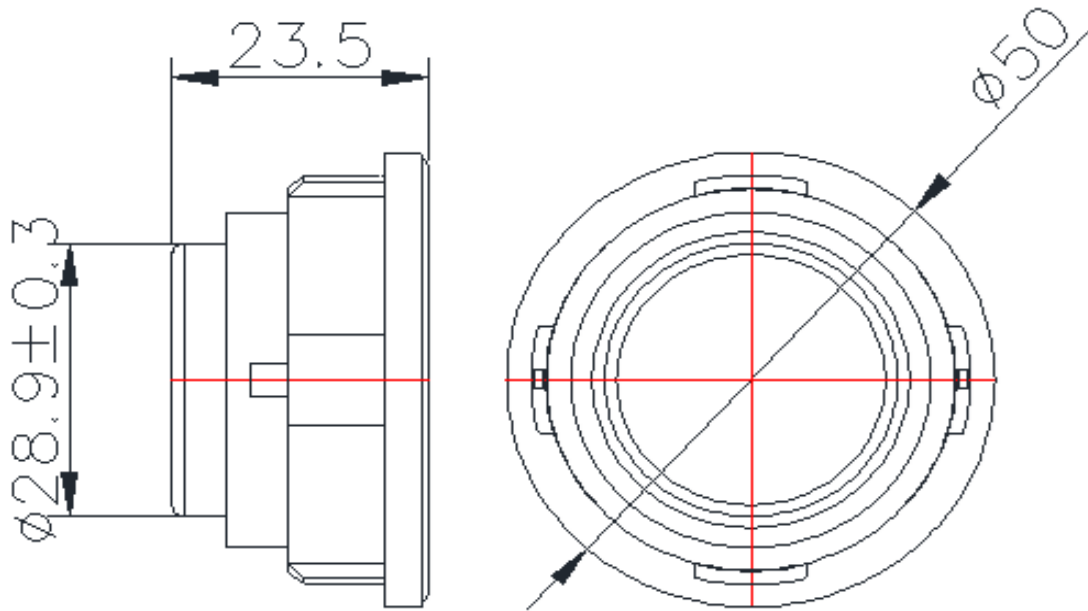
Specifications

Parameter	Conditions/Description	Values	Units
Rated Input Power		5.0	W
Max Input Power	IEC-60268-5, filter 60s on/120s off, 10 cycles at room temp	6.0	W
Rated Impedance	at 2.0 kHz	4±15%	Ω
Sound Pressure Level (S.P.L.)	at 0.8k. 1.2K 1.5K 2.0k Hz in1.0W/0.5M average (0dB SPL=20μPa)	83±3	dB
Resonant Frequency (Fo)	at 1.0 V	120±20%	Hz
Frequency Range	Output S.P.L. -10dB	Fo~20K	Hz
Distortion	at 1K Hz, input 1.0W,	< 5%	-
Magnet	NdFeB	Φ18.7*4.0	mm
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 5K Hz	4.47	V
Polarity	cone will move forward with positive dc current to“+” terminal		
Weight			g
Operating Temperature		-20~+60	°C
Storage Temperature		-30~+70	°C

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

MECHANICAL DRAWING

Units: mm

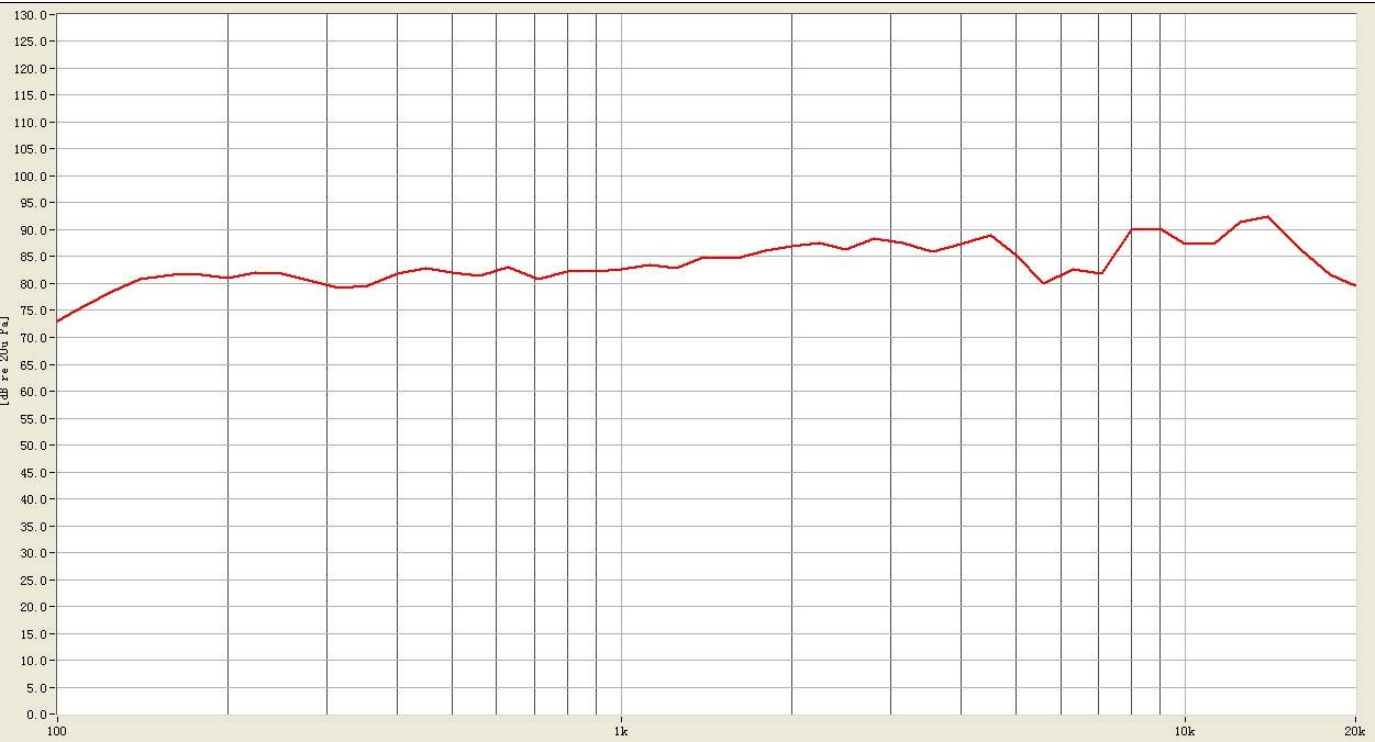
Tolerance: $\pm 0.5\text{mm}$ **CONSTRUCTION DETAIL**

PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
2	Diaphragm	1	PU	
3	VOICE COIL	1	Paper Cu	
4	Plate	1	SPCC	
5	Magnet	1	NdFeB	
6	PCB Terminal	1	FR4	
7	Frame	1	ABS	

RESPONSE CURVES

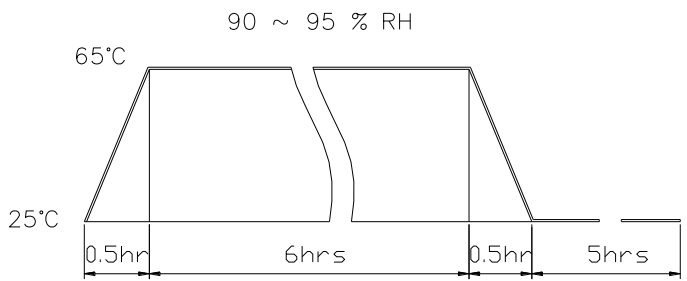
Frequency Response Curve

Test condition: 1.0W/0.5M,



RELIABILITY TEST

Specifications

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	The part shall be subjected 5 cycles. One cycle shall be 6 hours and consist of  The graph illustrates a temperature and humidity cycle. The temperature starts at 25°C, rises linearly to 65°C over 0.5 hours, remains at 65°C for 6 hours, and then falls linearly back to 25°C over 0.5 hours. The humidity is maintained at 90% to 95% RH during the 6-hour high-temperature plateau. The total cycle duration is 7 hours.
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 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	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

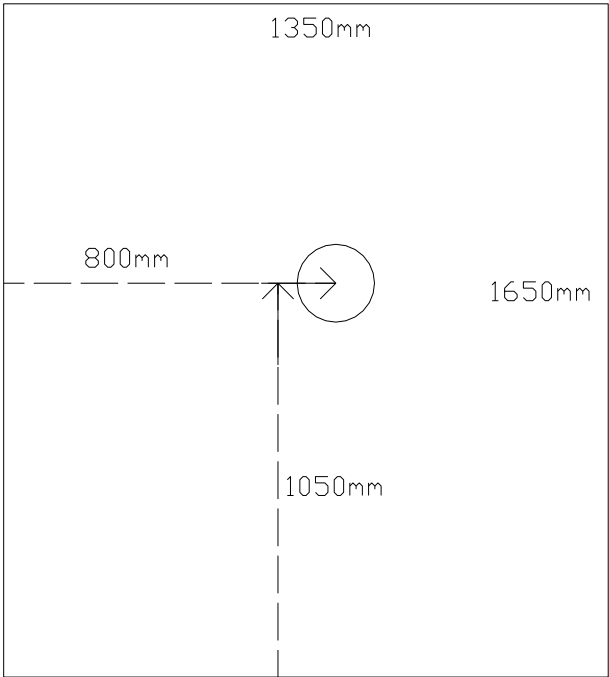
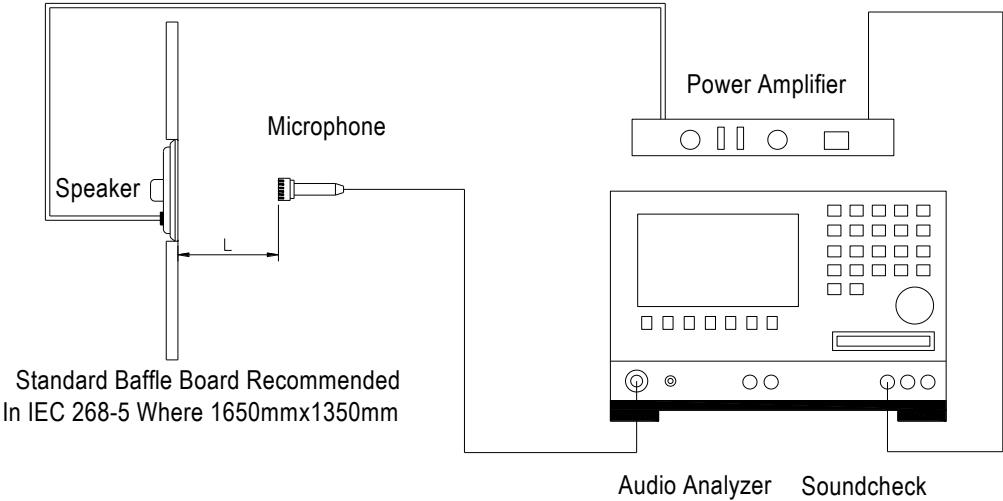


Fig. 1 Block Diagram for Measurement Method

Standard test condition of speaker



L=50cm

Fig. 2 Speaker Test Condition

PACKAGING

units: cm

Remark:

TBD