Round Loudspeaker

Ø31.0×16.5 mm

With wires &connector &foam

CC31C165AN4P

Revision

Date	Version	Status	Changes	Approver
2019/9/29	V0.1	Draft	First release	AX
2020/1/3	V0.2	Draft	Add logo print	AX
2020/1/15	V0.3	Draft	Update package information	AX
2020/2/12	V0.4	Draft	Modify membrane color	AX
2020/3/26	V0.5	Released	Update PCB shape & package	AX
2021/07/26	V0.6	Released	Update connector type	AX

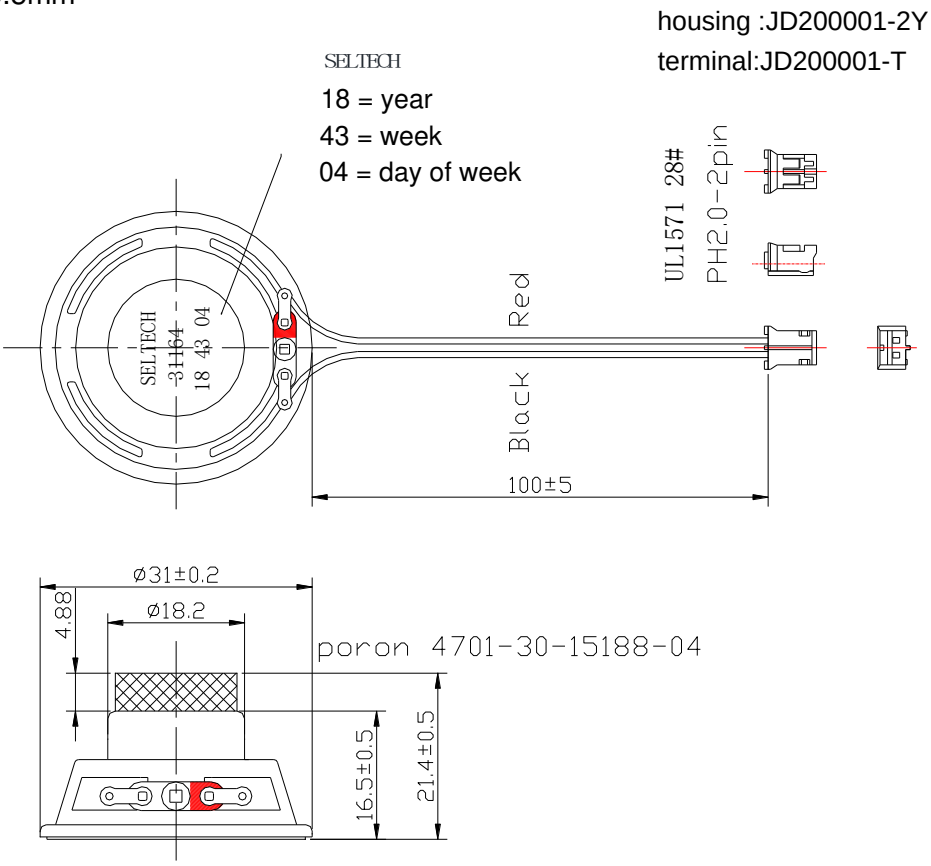
Parameter	Conditions/Description	Values	Units
Rated Input Power		3.0	W
Max Input Power	IEC-60268-5, filter 1s on/60s off, 60 cycles at room temp	4.0	W
Rated Impedance	at 2.0 kHz	4±15%	Ω
Sound Pressure Level (S.P.L.)	at 0.8K 1.0K 1.2K 1.5KHz in1.0W/0.5M average (0dB SPL=20μPa)	82±3	dB
Resonant Frequency (Fo)	at 1.0 V	380±20%	Hz
Frequency Range	Output S.P.L. -10dB	Fo~7K	Hz
Distortion	at 1K Hz, input 1.0W,	< 10%	-
Magnet	NdFeB	Φ12.5*2.0	mm
Buzz, Rattle, etc.	must be normal at sine wave between Fo ~ 5K Hz	3.45	V
Polarity	cone will move forward with positive dc current to“+” terminal		
Weight		14	g
Operating Temperature		-20~+60	℃
Storage Temperature		-30~+70	℃

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: ±0.5mm



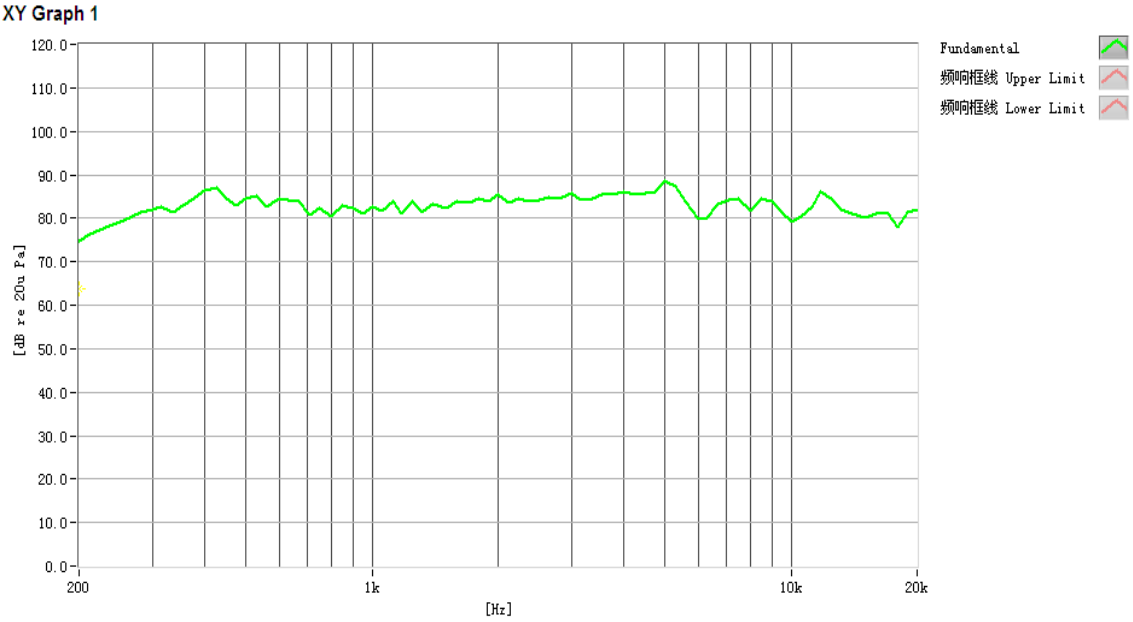
CONSTRUCTION DETAIL

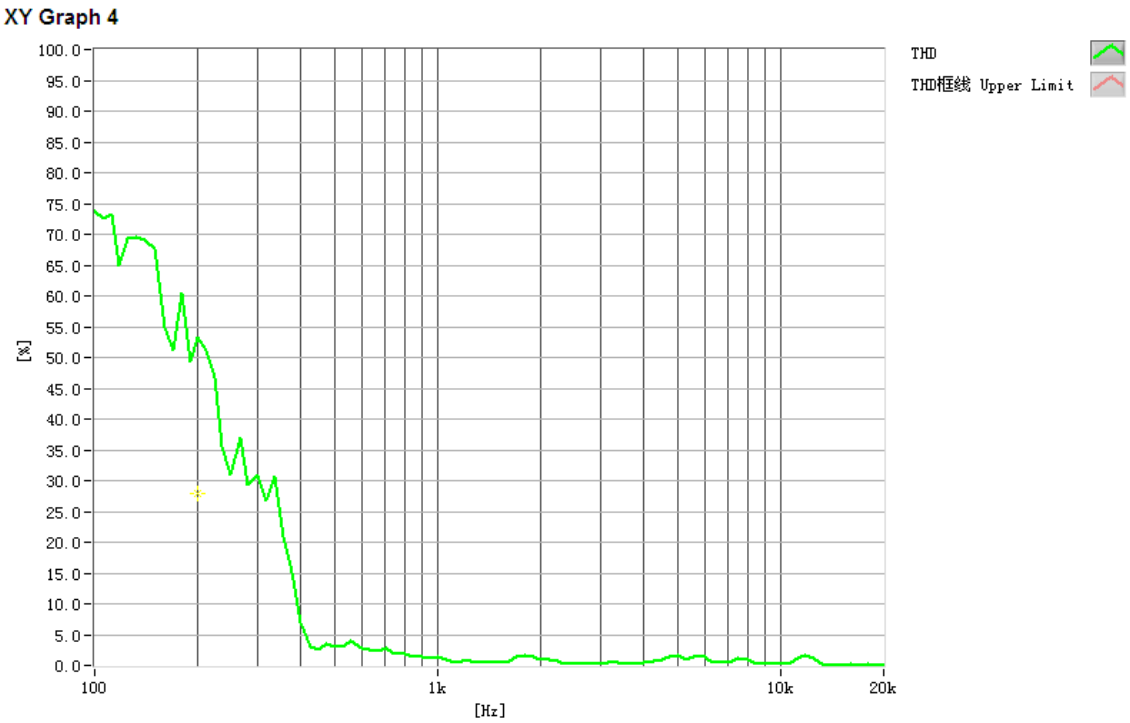
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK
1	Gastet	1	Paper	
2	Diaphragm	1	PU+Paper	
3	VOICE COIL	1	Paper Cu	
4	Plate	1	SPCC	
5	Magnet	1	NdFeB	
6	PCB Terminal	1	FR4	
7	Frame	1	SPCC	
8	CAP	1	PET	black color

RESPONSE CURVES

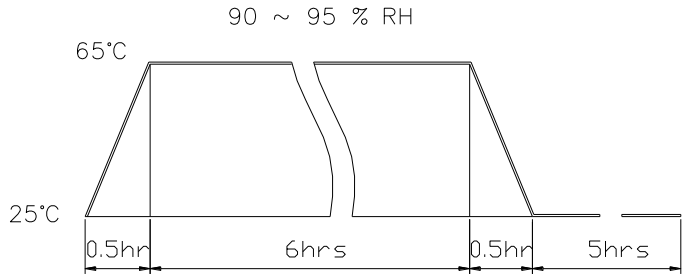
Frequency Response Curve

Test condition: 1.0W/0.5M,





RELIABLITY 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℃±3℃
3	Low Temperature Test	96 hours at -30℃±3℃
4	Humidity Test	96 hours at +30℃±3℃, 92-95% RH
5	Temp./Humidity Cycle	The part shall be subjected 5 cycles. One cycle shall be 6 hours and consist of 
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

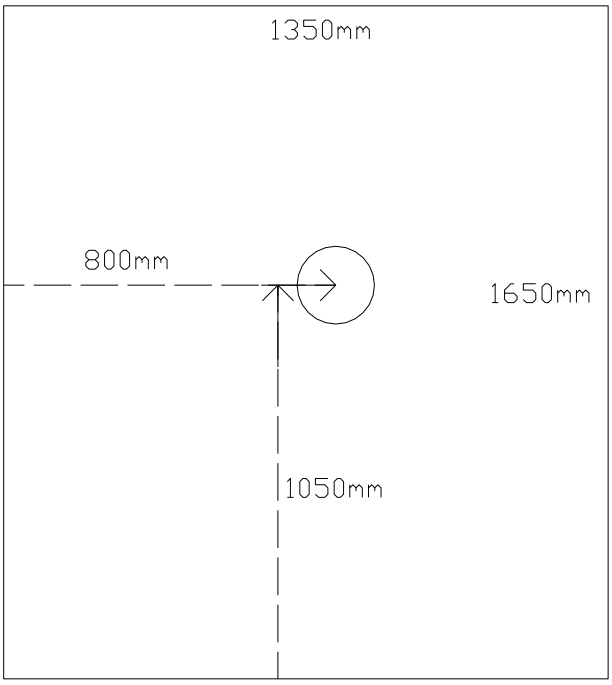
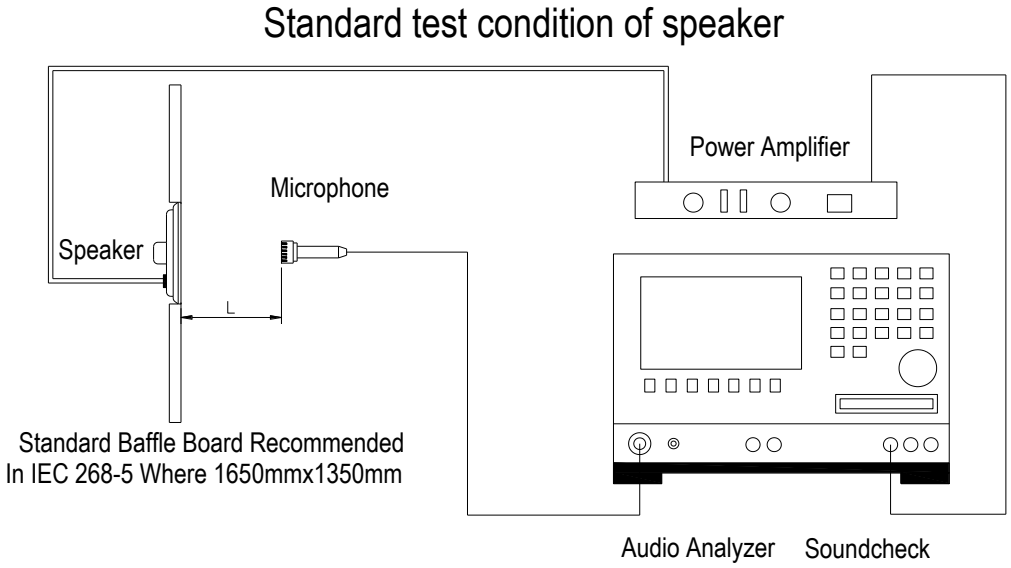


Fig. 1 Block Diagram for Measurement Method

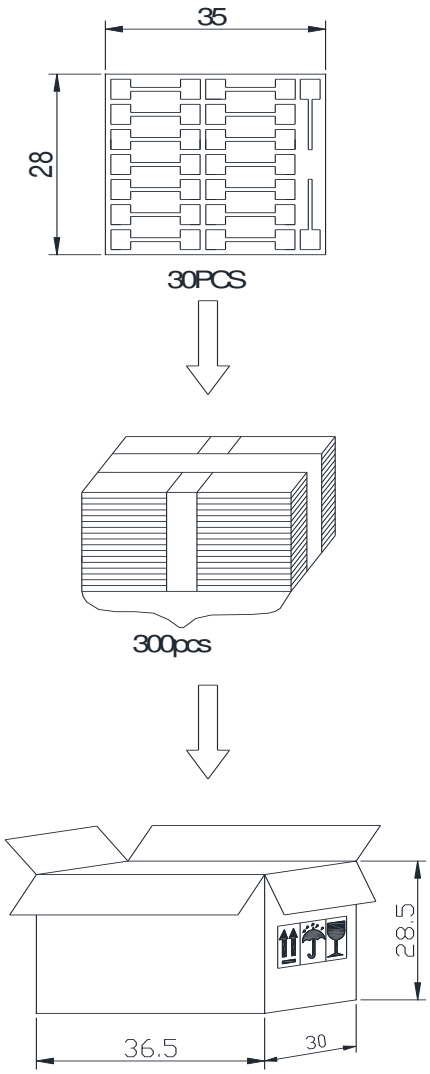


L=10cm

Fig. 2 Speaker Test Condition

PACKAGING

units: cm
Remark:



Remark:
30pcs per tray

10 trays for unit
Total:300 pcs per box

Size:36.5*30*28.5cm

