



East Electronics



Product Specification

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Product Name:	Speaker
Part Number:	SCM-1609L3.3-8N1R (8Ω1W)
Version:	Rev. 1
Date:	2019-11-11
Note:	

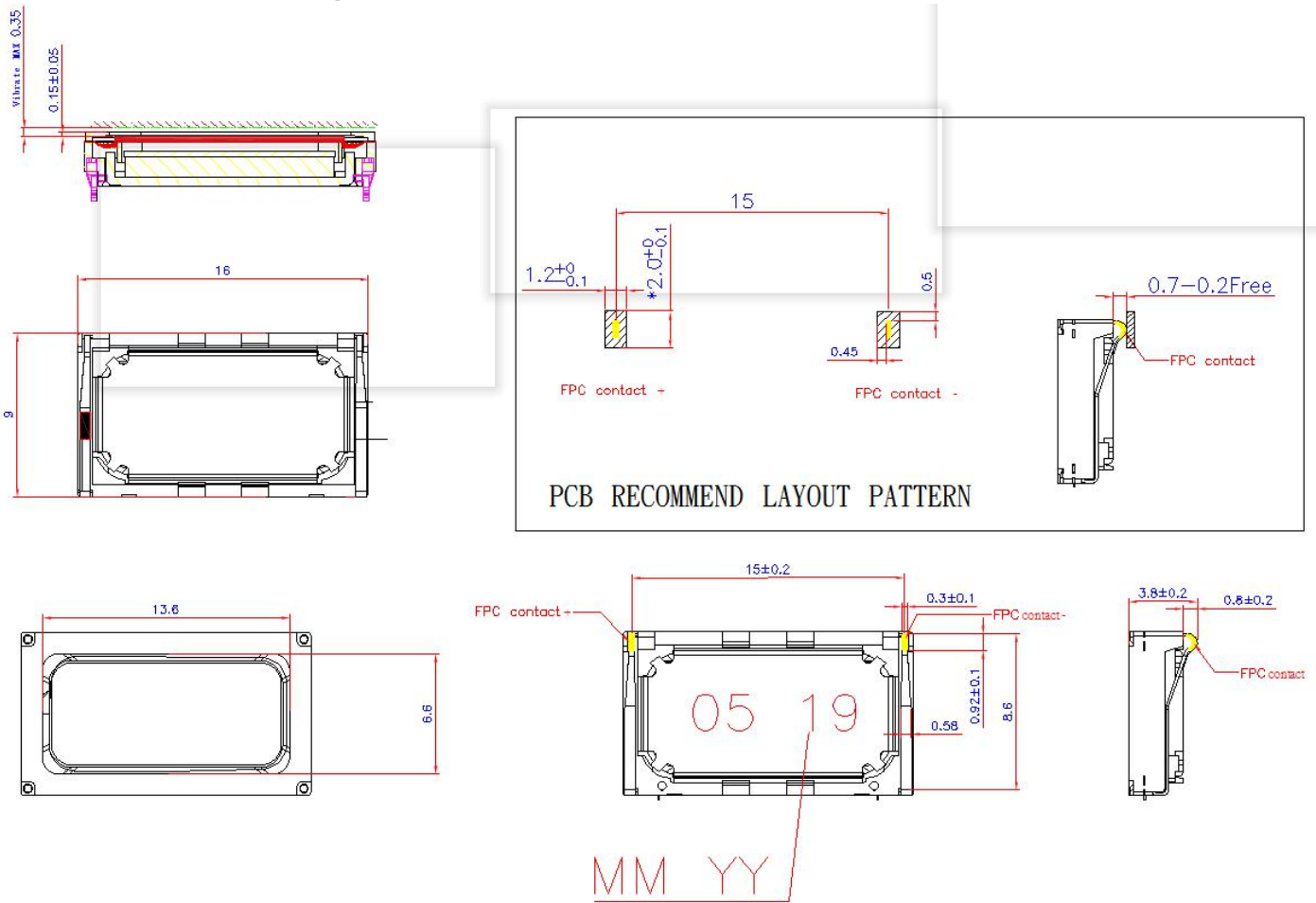
Company passed ISO 9001 / ISO TS16949 / ISO 14001 Certifications

Revision History

Rev.	Description	Author/Date	Checked By	Approver
1	Released	Lv Wenbin Nov. 11. 2019	Gao Rong	Wang Jiancheng

1. Part Number : SCM-1609L3.3-8N1R

2. Dimension Drawing: (Unit: mm)



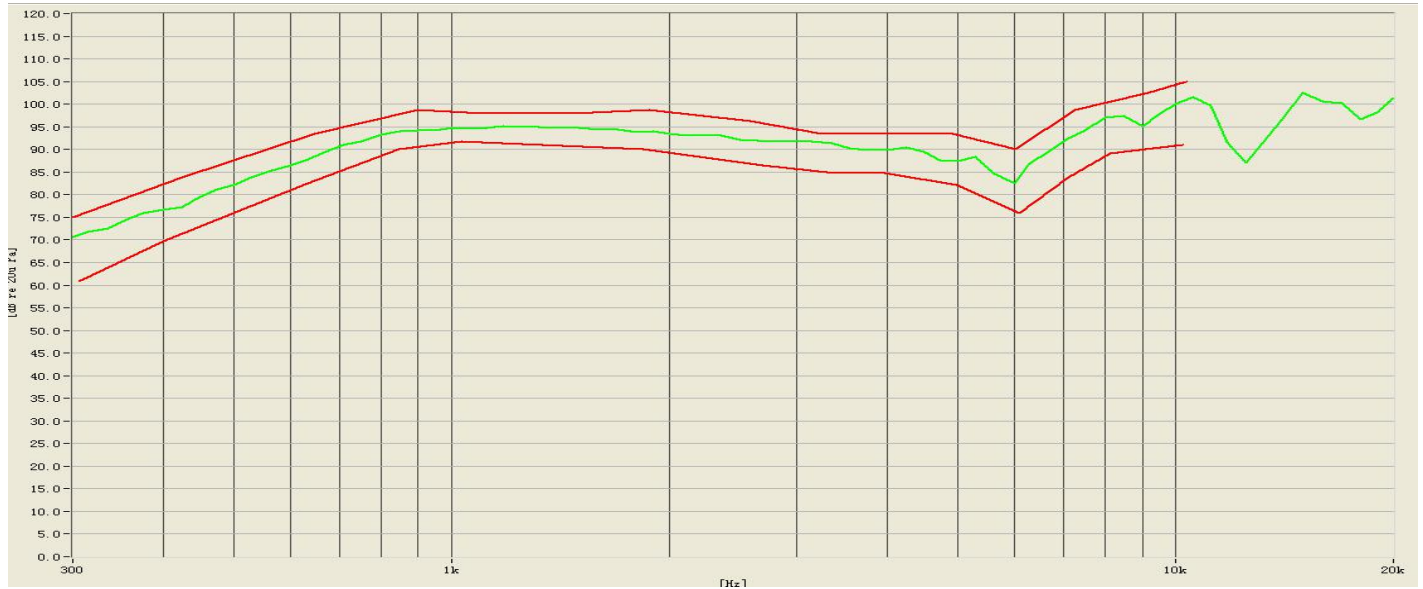
3. Specification:

No.	Items	Specification
3-1	Rated impedance	8Ω± 15 % at 1.5Khz 1 V input
3-2	Resonant frequency (f0)	580Hz ± 20 % in free air 880 Hz ± 20 % in 1.0 cc closed box
3-3	SPL normal power input	92 dB ± 3 1W/0.1 M at 2.0Khz in 1.0 cc closed box 2.83 V
3-4	Frequency range	f0 ~20 kHz SPL-10dB 2.83 V
3-5	Distortion	< 5 % at 1kHz in 1.0 cc closed box input at 0.1W < 10% at 1Khz in free air input at 1W
3-6	Normal power	1.0 W in 1.0 cc closed box
3-7	Maximum power	1.2 W in 1.0 cc closed box
3-8	Appearance normal	@ A.T. 15~35°C, H.M. 25~75%, B.P. 86~106kPa
3-9	Buzzes & rattles no appearance	with sine wave from F0 to 20 kHz in 1.0 cc closed box 2.83 V with sine wave from F0 to 20 kHz in free air 1.0 V
3-10	Diaphragm material	PEEK
3-11	Weight	1.5 g

NOTES:

1. Test in anechoic room and use the IEC standard baffle which size at : 1350 mm (W) X 1650 mm (H)
2. Test should be made under the conditions of room temperature (20 ± 10 °C), relative humidity ($60 \pm 20\%$) and normal atmospheric pressure. In this case, however, that the judgment is questionable, the test conditions are to be changed to room temperature 20 ± 2 °C, relative humidity 60~70% and normal atmospheric pressure.

4. Typical Frequency Response Curve:



Frequency(Hz)	300-600	800-2K	2.5K-4.0K	4.2K-10K
Upper limit	+6	+4	+6	+6
Lower limit	-6	-4	-6	-6

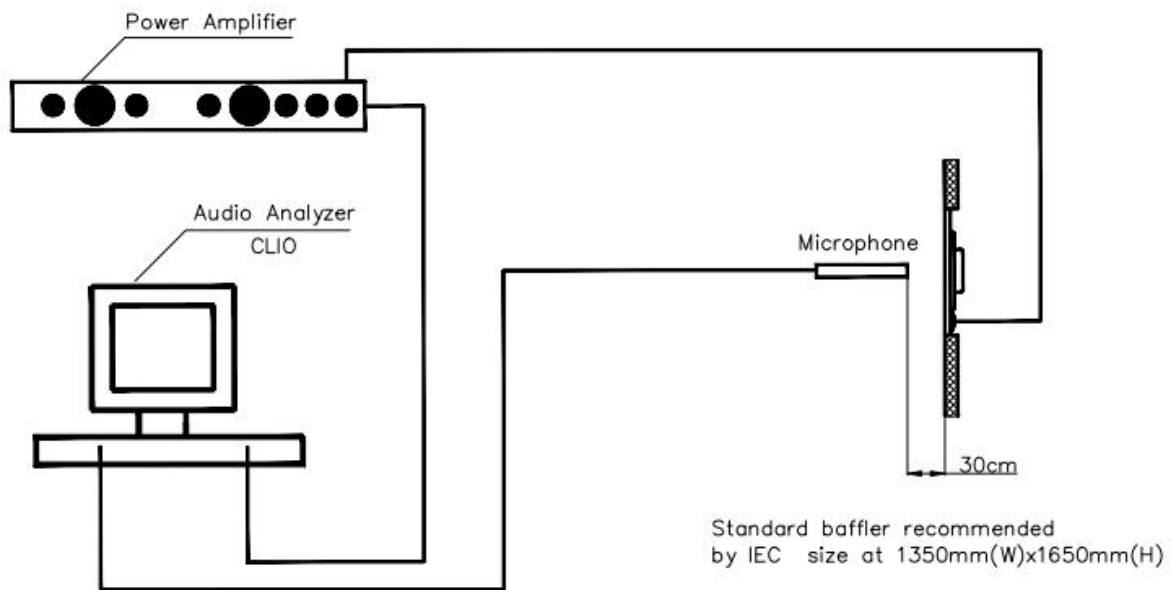
5. Reliability Test:

No.	Item	Method of Test	Tolerance after Testing
5-1	Operating temperature	-20 °C ~ + 60 °C	
5-2	High-temperature loading & storage	@ ¼ rated noise power /60 ± 2 °C operating for 16 hours then depositing for 2 hours at constant temperature,completing testing within 1 hour after withdrawing.	Meet requirements of appearance、Buzzes & rattles after test
5-3	Low-temperature loading & storage	@ ¼ rated noise power/-10 ± 3 °C operating for 1 hours, depositing @ -25 ± 3 °C for 2 hours, then resuming at normal atmosphere conditions (GB/T9396-1996 4.2) for 4 hours.	Meet requirements of appearance、Buzzes & rattles, solderability after test

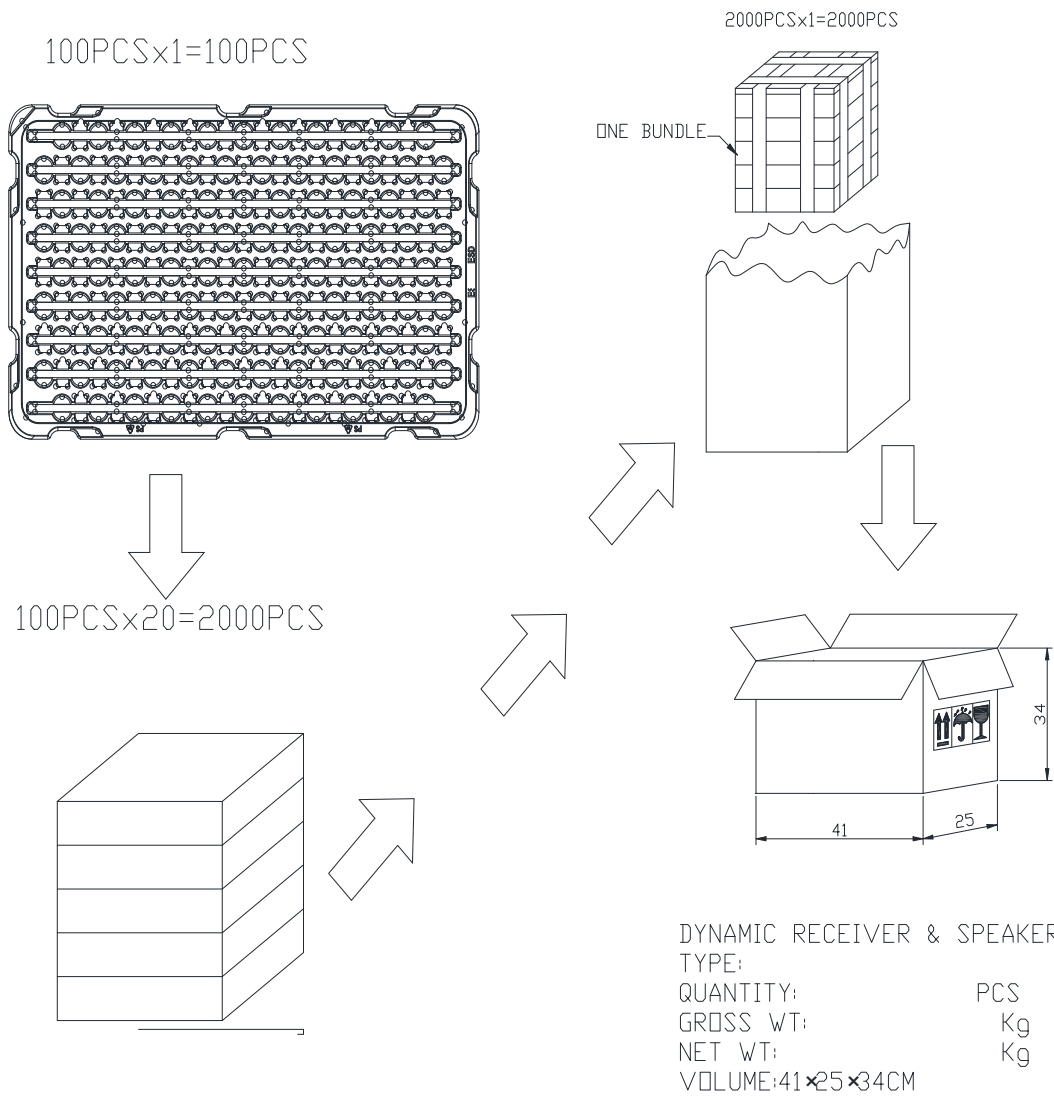
5-4	Static humidity /temperature	@ A.T. $40 \pm 2 \text{ }^\circ\text{C}$, H.M. $93 \pm 2 \%$ depositing for 48 hours, then resuming @ normal atmosphere conditions (GB/T9396-1996 4.2) for 24 hours.	Meet requirements of appearance, Buzzes & rattles, insulation resistance, bearing voltage after test
5-5	Temperature (high and low) cycle test	Storage in $-40 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ for 2hours, in $20 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ for 2 hours, in $60 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ for 2 hours then back in $20 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ 2 hours, as one cycle. 12 cycle in total.	Appearance: no obviously damage Tone: no obviously noise SPL $\pm 3\text{dB}$ F0 $\pm 20\%$ ACR $\pm 15\%$
5-6	Drop test	Drop a product naturally from the height of 1000 mm onto the surface of 100 mm thick wooden board. Two directions: upper and side of the product are to be applied for this drop test once respectively.	
5-7	Life test in the room temperature	Input the signal with the valid frequency range on the speaker in continuously for 100 hours, the room temperature should control in $15 \text{ }^\circ\text{C}$ to $35 \text{ }^\circ\text{C}$.	
5-8	Vibration test	Conduct the test for the directions of X Y and Z for 0.5 hour each (total 1.5 hours). To-and Fri sweep time(from 10 to 55 Hz and then 55 to 10) under single amplitude of 0.75 mm is 3 minute, then expose to the room temperature for 2 hours.	

NOTE: The frame is allowed to deform after drop test.

6. Electrical Testing Method:



7. Packing Information:



Packing information:

100pcs per tray

20 trays for unit, 1 units per carton

Total:2000 pcs per box

Size:41*25*34cm