To:

Approval Sheet for Product Specification

请 承 认 书

PRODUCT NAME	SPEAKER
CUSTOMER PART NO	
QINGLONG PART NO	SP-2008B
DRAWWING NO	
Issue Date	2016-07-20

APPROVAL SEAL （Customer） :				
DISCUSS		***RESOLUTION***		
QA	PURCHASE	ISSUED BY	CHECKED BY	APPROVED BY

SUPPLIER : Changzhou Qinglong Electronic Components Co.,LTD

ADD:NO.73 Qing Yang South Road Tianning district, Changzhou,jiangsu Province,P.R.China
TEL：86-519-85500395 85500651 **FAX**：86-519-85500519
E-mail: Qinlon@263.com
http://www.qinlon.com

SIGNATURE	Issued by	Checked by	Approved by
	Gu Haiping	Ni Xinhu	Lu Tianming

QINGLONG Electronic Components Co., LTD	SPECIFICATION	Page: 1/5
	ISSUED DATE	2016-07-20
	MODEL NO.	SP-2008B

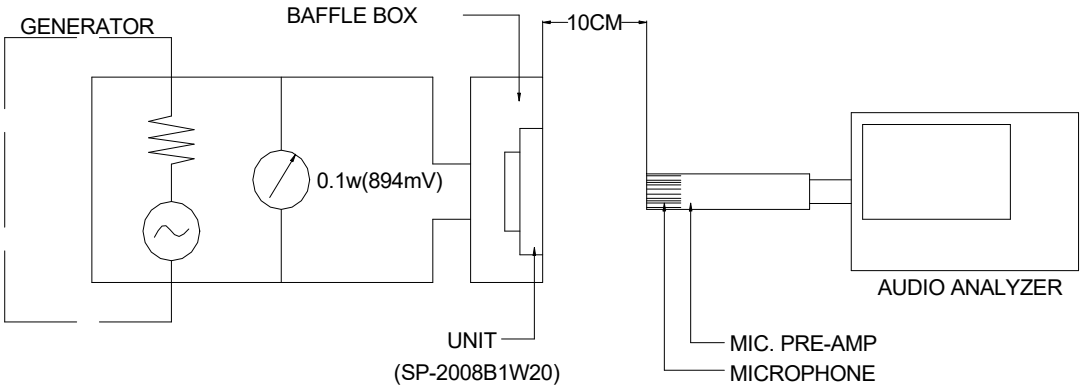
1.REVISION

Revision	Date	Description	Reason	Page
V0	2009-05-30	First issue	/	/
V1	2016-07-20	Optimized frame	for automatic production	P4

2. Electrical and Mechanical Characteristics

2.1	TYPE	**Ø20** mm
2.2	Nominal input Power	**0.5**W
2.3	Impedance	**8** ohm ± 15% at 1 V 2 K Hz
2.4	Resonance Frequency	**800**Hz ± 20 % 1 V
2.5	Sensitivity (S.P.L)	**90±3dB**at (AVG0.8,1,1.2,1.5)KHz 0.1W/0.1m With 1000cc BOX.
2.6	Frequency Range	**Fo** Hz ~ **20** KHz
2.7	Distortion	**5**% max at **1K** Hz—10KHz **0.5**W
2.8	Max. Input power	**1.0**W Must be normal at a white noise (**1.0**W) for one minute.
2.9	Magnet (ND-FE-B)	**Ø9.5** mm
2.10	Net Weight	**2.2** ± 0.2 Gram
2.11	Appearance	Should not exist any kind of obstacle to be harmful to Normal operation not any remarkable damages, cracks, rust and Distortions which may cause malfunctions.
2.12	Operation Test	Must be normal at a program source (**0.5** W)
2.13	Buzz ,Rattle etc.	Should not be audible buzz and rattle at (**2.0**V) RMS sine wave Between (F**0** Hz to **20** KHz)
2.14	Terminal Strength	Capable of withstand a (1 kgf) load for 15 sec. Without Resulting in any damage or rejection.
2.15	Load Test (JIS FILTER,CLIP ON)	A (**2.0**V) RMS white noise is applied for **100** hours and then Should satisfy the test described under item 01~13
2.16	High Temperature Test	After having been in a test chamber for **96** hours at the condition of +80±3℃,20-40% RH and then left on hour in a room should satisfy the test described under item 01~13
2.17	Low Temperature Test	After having been in a test chamber for **96** hours at the condition of -40 ±3℃, and then left on hour in a room should satisfy the test described under item 01~13
2.18	Humidity Test	After having been in a test chamber for **96** hours at the condition of +40℃,90% RH and then left on hour in a room condition Should satisfy the test described under item 01~13
2.19	Drop Test	Drop a unit unpacked onto a board of 20mm thick 18 times(3 time x 6 surfaces) from a height of 1 M and them should satisfy the test described item 01~13

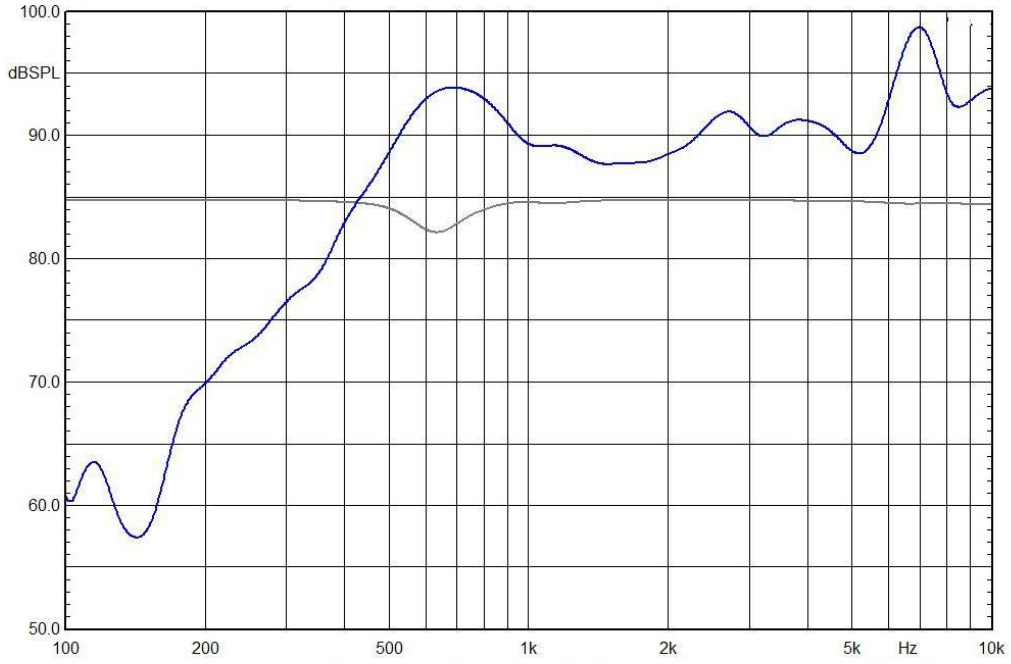
3. MEASURING CIRCUIT (SPEAKER MODE)



Testing Conditions.

- Anechoic Chamber
- Test Signal Input Power : 0.1W (0.89Vrms)
- Measured distance : 0.1m / on the Axis of speaker
- Measuring equipment :6160S
- Test Environment : 25ºC±5ºC, R.H.90%±5%

4. FREQUENCY RESPONSE CURVE(SPEAKER MODE)



5. DIMENSION

TOLERANCE:±0.2 UNIT: mm

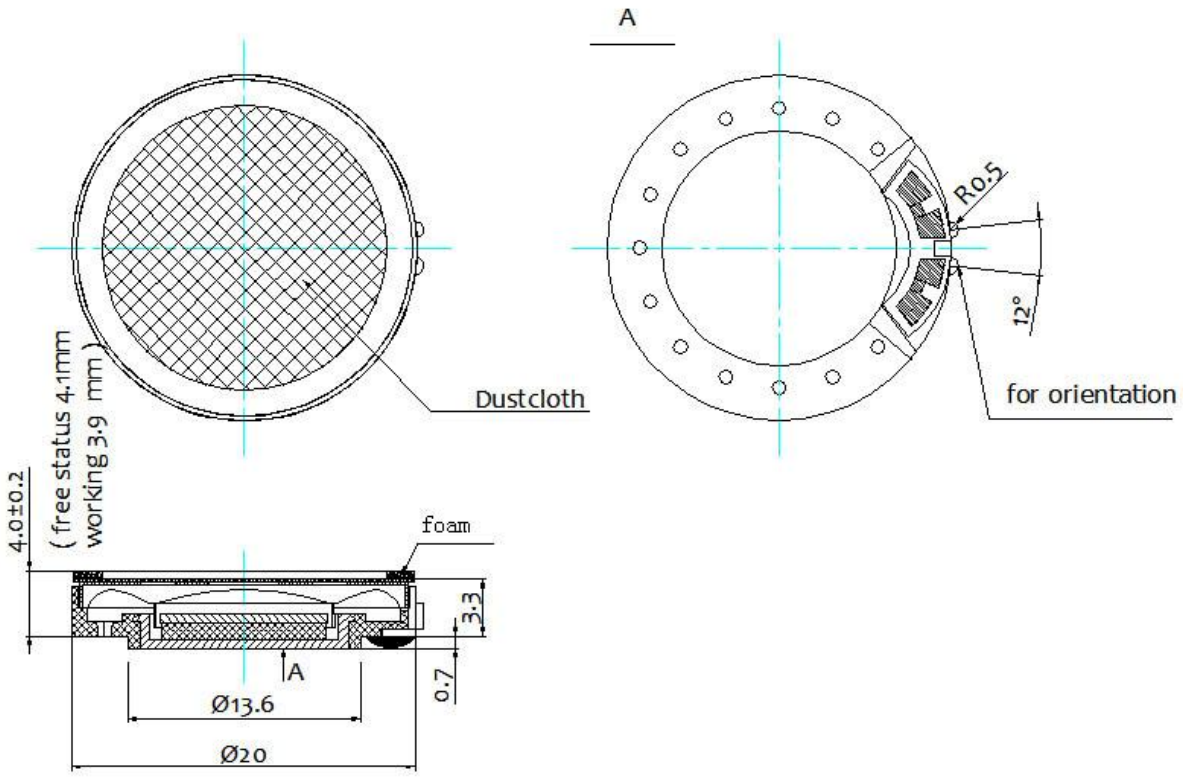
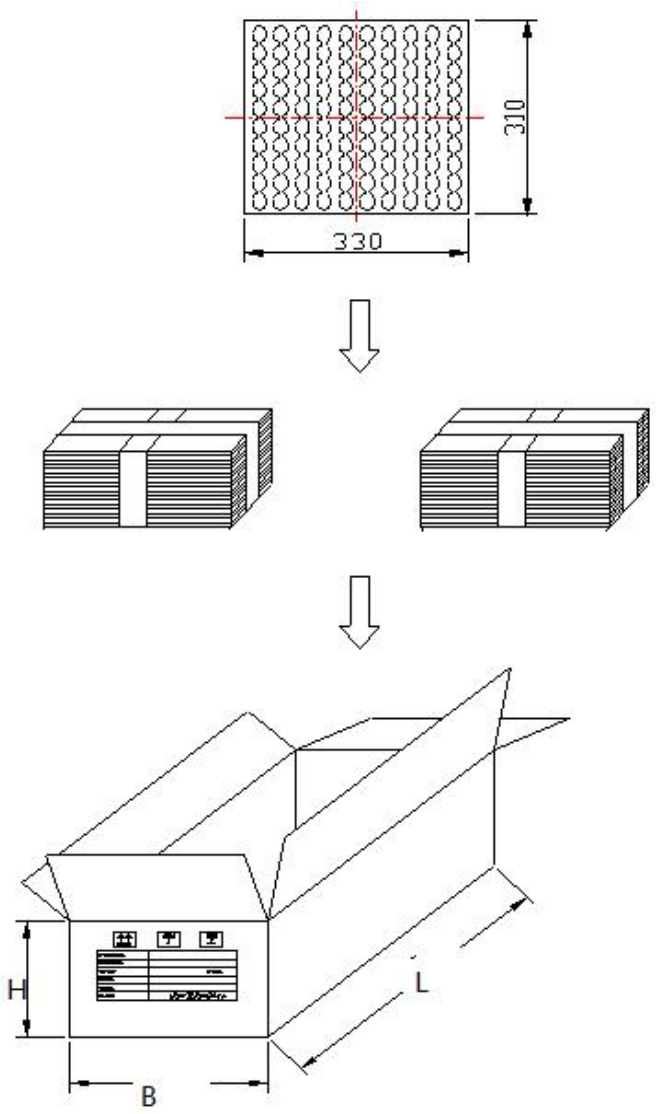


FIG.3

NO.	PART NAME	MATERIAL	QTY
1	Frame	MPPO	1
2	Diaphragm	PEN	1
3	Magnet	Nd Fe B	1
4	Plate	SPCC	1
5	PCB	Epoxy 0.4t-40	1
6	Voice Coil	Copper	1
7	Cap	SUS 304	1
8	Damper Screen	Cloth	
			1

6.PACKING METHOD



100 pcs per tray

Total: 2000pcs per box
Size: To be defined