

SPECIFICATION FOR APPROVAL

规 格 书

Customer (客户): _____

Customer P/N: _____

(客户型号)

QINLON P/N : SP-36A45-R8

(本厂型号)

DESCRIPTION: SPEAKER 36x4.8mm 8 Ω 0.5W

(样品编号)

SAMPLES Date _____

【注意/Note】

- 1, THIS PRODUCT MUST COMPLY WITH RoHS DIRECTIVE .(此本品符合欧洲 RoHS 规定指令)
2. IN CASE OF CHANGES, SUCH AS DIE & MOLD, MANUFACTURING PROCESS, MATERIAL, APPEARANCE, AND INSPECTION etc. ,THE SAME PROCEDURE IS REQUIRED.(此部品确认后`。如模具、制造方法、材料、外观、检查等发生变更的情况下必须事前由双方进行合议)

CUSTOMER'S APPROVED SIGNATURE

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SUPPLIER: CHANGZHOU QINGLONG ELECTRONIC COMPONENTS CO.,LTD

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Issued by 担当	Checked by 核查	Approved by 确认	Initial Date 日期	Updated 更新	Version
Liang Hongwei	He Binbin	Lu Tianming	2011-05-25	2016-12-10	V1.3

Version History 变更历史

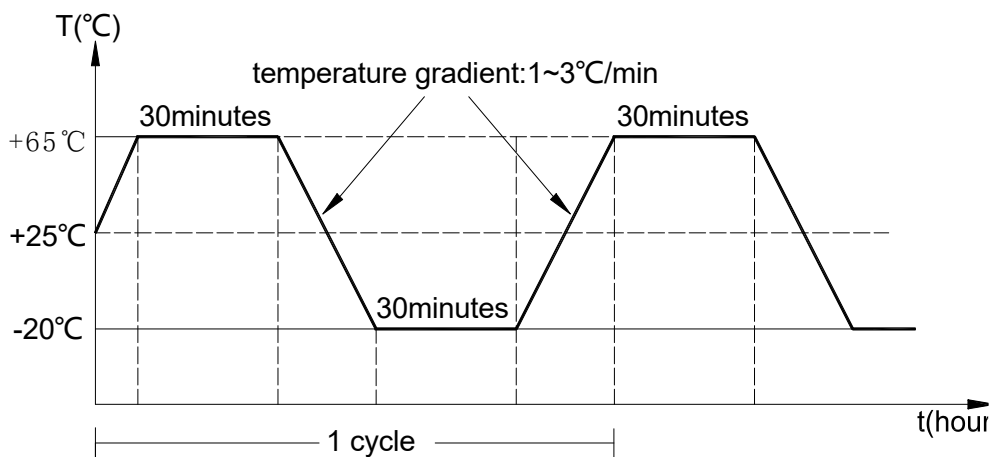
Rev.	Date 日期	Detail changes 变更内容	Reason 变更理由	Revision 变更标识
V0	2011-05-25	Initial		
V1.0	2014-9-18	Back dimension , Diaphragm added stiff patterns	Acc to room of customer's housing	*1
V1.1	2014-11-12	1) Frequency Response set upper and lower limit curve. 2)define speaker DC resistance	To match the Inspection plan	*2
V1.2	2015-11-20	1) Improve packing. 2)Redefine SPL and THD	According to customer requirements	*3
V1.3	2016-12-26	1) Add a gap in the frame 2)Increase the damping of non-woven cloth(from 30g/m ² to 40g/m ²)	Positioning for convenient welding	*4

Loud Speaker Specification

Part No.	Customer No 顾客型号	Customer code 顾客编号	
	QINLON Part No 本厂编号	SP-36A45-R8	Revision 版本
No.	Item 项目	Specification 规格	Testing Condition 测试条件
1.	Impedance 阻抗	8 Ω \pm 15%	At 1.6 kHz 1.0 Vrms
		7.5 Ω \pm 10%	DC resistance (*2)
2.	Resonance Freq 最低共振周波数	550 Hz \pm 20%	Without Baffle
3.	Output S.P.L. 出力音压	90 \pm 3dB	At 0.1m/0.1W 800,1K,1.2K,1.5KHz Average
		102 \pm 4dB (*3)	At 0.1m/0.5W 800,1K,1.2K,1.5KHz Average (on-line test)
4.	Rated Power 定格入力	at 0.5 W	at 2.00 Vrms
5.	Max Power 最大入力	at 1.0 W	at 2.83 Vrms
6.	Frequency Range 实效频宽	F0~5 kHz	Output S.P.L. -10 dB
7.	Operation 可靠性试验	Must Be Normal	Program Source 0.5 W
8.	Buzzes & Rattles 异常音试验	Should not be audible buzz and rattle 无异常声	Sine Wave Between (正弦波入力) at 2.00Vrms /300Hz~3.4 kHz
9.	Distortion 失真	\leq 10%	2.0V/0.5w at 1kHz (*3)
10.	Magnet 磁铁	Size: Φ 12.5*1.35 mm N40H Flux Density: ----- Gauss(高斯)	
11.	Operating Temperature 工作温度	-20°C to +60°C	
12.	Storage Temperature 储存温度	-30°C to +70°C	
13.	Weight 重量	9.2 g \pm 10%	

14.	Cold Test 耐寒试验	After having been in a test chamber for 96 hours at the condition of -20°C 62°C and then left 2 hours in a room. (-20°C 62°C, 96 小时试验室温两小时后, 无异常)
15.	Heat Test 耐热试验	After having been in a test chamber for 96 hours at the condition of +70°C 62°C 90~95% R.H and then left 2 hours in a room. (+70°C 62°C 90~95% R.H 96 小时试验常温 2 小时后, 无异常的不良)
16.	Load Test 连续负荷试验	Must be normal after load test :white noise 0.5 W 96 hours. (白噪音 0.5 W 连续 96 小时试验后无异常的不良)
17	Short Term Maximum Power test 瞬间最大功率测试	Test for 1 hour under maximum power. Input shall be white noise in rated frequency response. And the signal will be 1 second on, 59 seconds off, total 6 cycles. (白噪音 1.0 W, 1 秒开 59 秒关, 连续 60 循环, 试验后无异常之不良)
18.	Polarity 极性	When a positive D.C current is applied to the voice terminal marked + or white, the diaphragm shall move forward (端子的正极输入电流, 振动板向前方向运动)
19.	Drop Test 跌落试验	Drop the speakers contained in normal box onto a board 5mm thick 10 times from a height of 1.0m . (在厚 5mm 的木板上从 1.0m 的高度跌落 10 次, 无异常不良)
20.	Terminal strength 端子强度	A static load of 5.0N shall be applied to the terminals for 10s in any direction between terminal block and frame and between terminal block and fasten terminal. (端子板和支架或焊片任一方向上 5.0N 的力 10s 无异常)

Temperature Cycle Test(6 cycle)



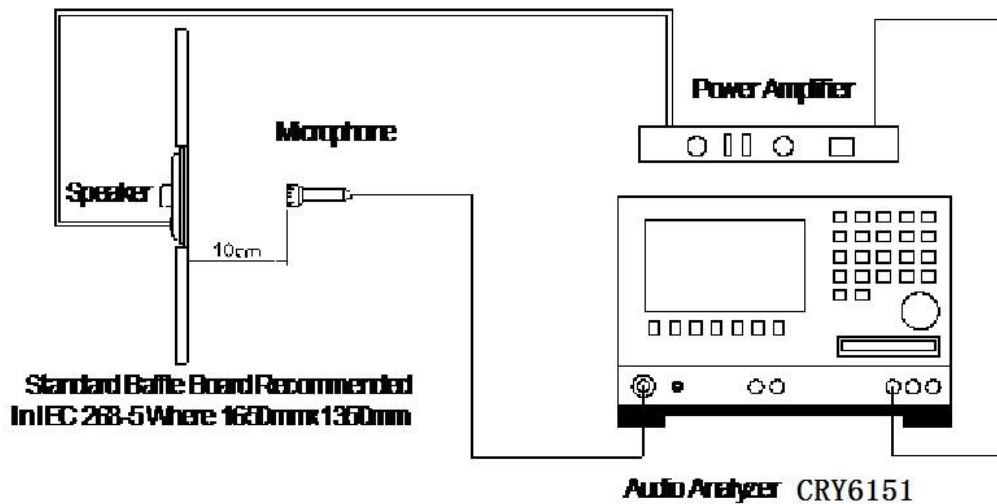
Frequency Response



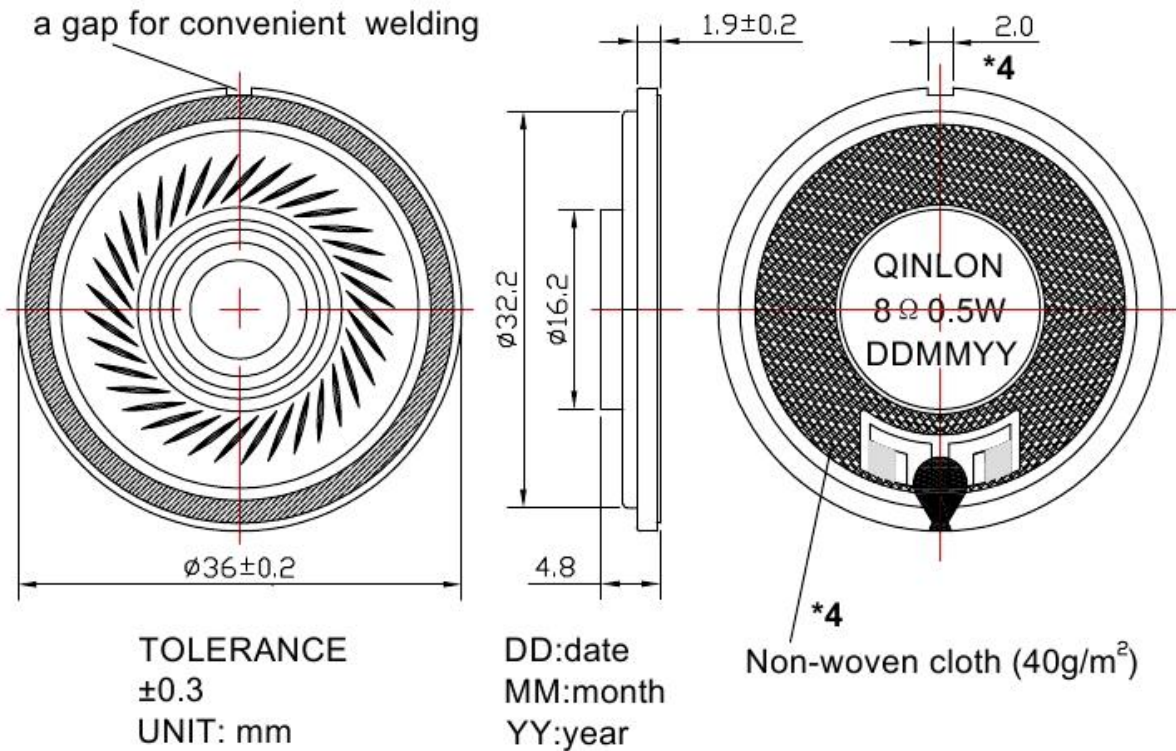
- Speaker frequency response curve
- Speaker impedance curve
- Speaker THD curve

MEASUREMENT CIRCUIT

Standard test condition of speaker



Product Outside View



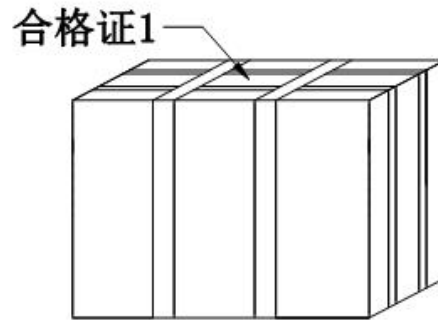
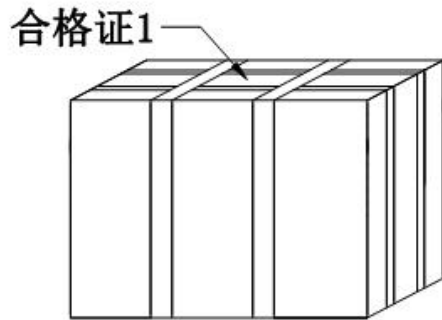
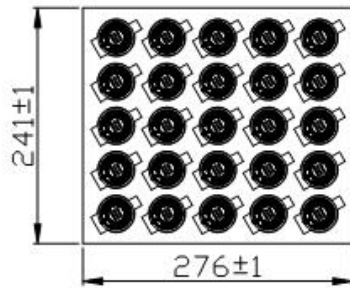
NOTE:

1. Black glue amount of $0.016 \pm 25\%$ grams,
2. Black glue can not spill to the two outer solder joint

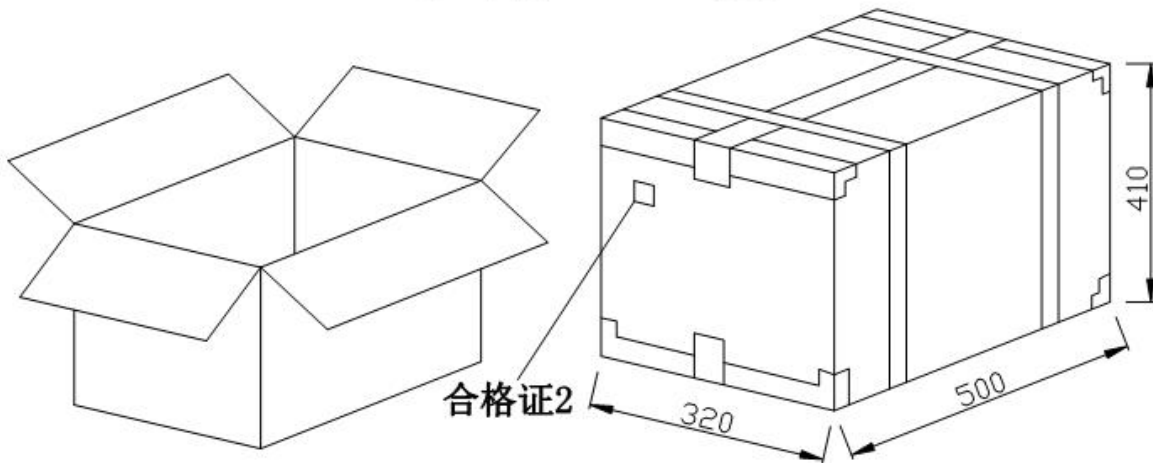
Noise Testing

Testing Method 测试方法	
Item 步骤	Testing Condition 测试条件
1. Testing voltage 测试电压	2.00Vrms
2. Testing Frequency Range 测试频率范围	From 300Hz to 3.4kHz
3. Testing speed 扫描速度	$S \geq 0.8s/Cycle$
4. Operation 测试方法	The distance from speaker to tester ear is 30cm 距离测试者耳朵 30cm 处监听,声音清纯无异常音为 OK

Packing View



400pcs/捆 x 2=800pcs



Remark:

25 pcs per tray

32 trays per box

Total: 800 pcs per box

Size: 500*320*410 mm

Weight: 10kg