SPECIFICATION

Customer : QUARTZ-1

Applied To :

Product Name : Magnetic Buzzer

Model Name : KPMB-G2300-4231

Drawing No. : OEM4231R

Compliance with ROHS(本品符合ROHS指令)

Signature of Approval

Signature of KEPO

Approved by	Checked by	Issued by	Date

宁波凯普电子有限公司

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ISO9001 Certificate

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CONTENTS

1. Scope

This product specification is applied to the Micro Speaker in alarm systems.Please contact us when using this product for any other applications than described in the above.

本规格书适用于微型喇叭，通常它用在系统中做报警或提示的声响器用，如果将该产品用于其它领域，请与我们取得联系。

2. General

2.1 Form : Ø23mm
外形 ：Ø23mm
2.2 Height : 10mm
高度 ： 10 mm
2.3 Weight : 12 g
重量 ：12克
2.4 Operating Temperature range:
-20～+60℃ without loss of function
工作温度：-20～+60℃
Store Temperature range:
-30～+70℃ without loss of function
储藏温度：-30～+70℃
2.5 According to the No.7 of RoHS Exemptions,lead-based solder alloys containing 85％ by weight or more lead(Sn10Pb90)
根据"欧盟RoHS指令豁免条款"第7条规定,使用了铅含量超过85%的锡铅合金焊料(Sn10Pb90)

3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 ℃, 25% ~ 85% RH, 860~1060 mbar
测试条件：15～35 ℃, 25%～85%RH , 860～1060mbar

	Items 项目	Specification 规格
1	Rated Norse Power 额定功率	0.15W
2	Max.Input Power 最大输入功率	0.3W
3	Coil Resistance 直流阻抗	8± 1.2 Ω
4	Rated Frequency Range 频率范围	700~5000Hz
5	Resonant Frequency 谐振频率	1200± 200Hz
6	Min.Sound Pressure Level 额定声压	70dB at 1.2KHz 1.1Vrms Sine Wave/10cm
7	Case Material/Color 壳体材质/颜色	ABS/Black

4. Reliability Test

After test(1~7item), the Buzzer S.P.L . difference shall be within ±10dB,Frequency difference shall be within ±0.5KHz. and the appearance not exist any change to be harmful to normal operation(e.g. cracks,rusts,damages and especially distortion).

在1-7项试验后，蜂鸣器的声压变化值在±10dB之内，频率变化在±0.5KHZ之内。外观无变化（例如：开裂、生锈、损伤、变形等现象）.

	Item	Specification
1	High Temperature Test 高温试验	After being placed in a chamber with +70±2℃ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.Specification The measured value shall meet Table 1. 放置于温度+70±2℃的烘箱内240小时，然 后取出，在常温下放置4小时后，测试蜂鸣器。试验后符合表1要求.
2	Low Temperature Test 低温试验	After being placed in a chamber with -30±2℃ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.Specification The measured value shall meet Table 1. 放置于温度-30±2℃的制冷箱内240小时， 然后取出，在常温下放置4小时后，测试蜂鸣器。试验后符合表1要求.
3	Leave test in humidity 湿中放置	After being placed in a chamber with 90 %~95% R.H. at +40±2℃ for 240 hours and then being placed in natural condition for 4 hours, Buzzer shall be measured.The measured value shall meet Table 1. 放置于 90%~95% R.H.,温度+40±2℃的环境试验箱内240小时，然后取出，在常温下放置4小时后，测试蜂鸣器。试验后符合表1要求.
4	Cycle test for temperature 温度循环	After being placed in a chamber at -20±2℃ for 30 minutes, Buzzer shall be placed at room temperature(+20 ℃).After 15 minutes at this temperature ,Buzzer shall be placed in a chamber at +60±2℃. After 30 minutes at this temperature, Buzzer shall be returned to room temperature (+20 ℃) for 15 minutes. After 5 above cycles, Buzzer shall be measured after being placed in natural condition for 4 hours.The measured value shall meet Table 1. 先放置于温度-20±2℃的试验箱内30分钟后放置于室温(+20℃)15分钟后，放置于+60±2℃的烘箱内30 分钟，再放置于室温(+20℃)15分钟.经过以上循环5次,在常温下放置4小时后，测试蜂鸣器。试验后符合表1要求.

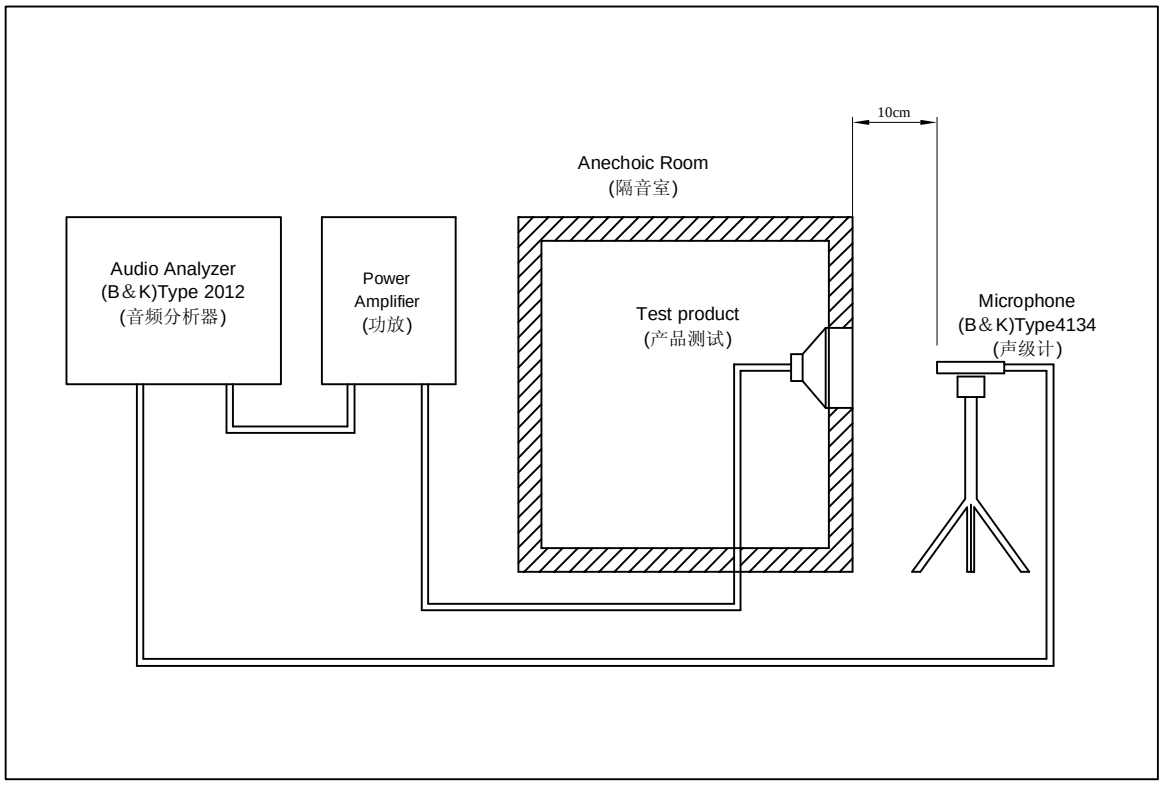
4. Reliability Test

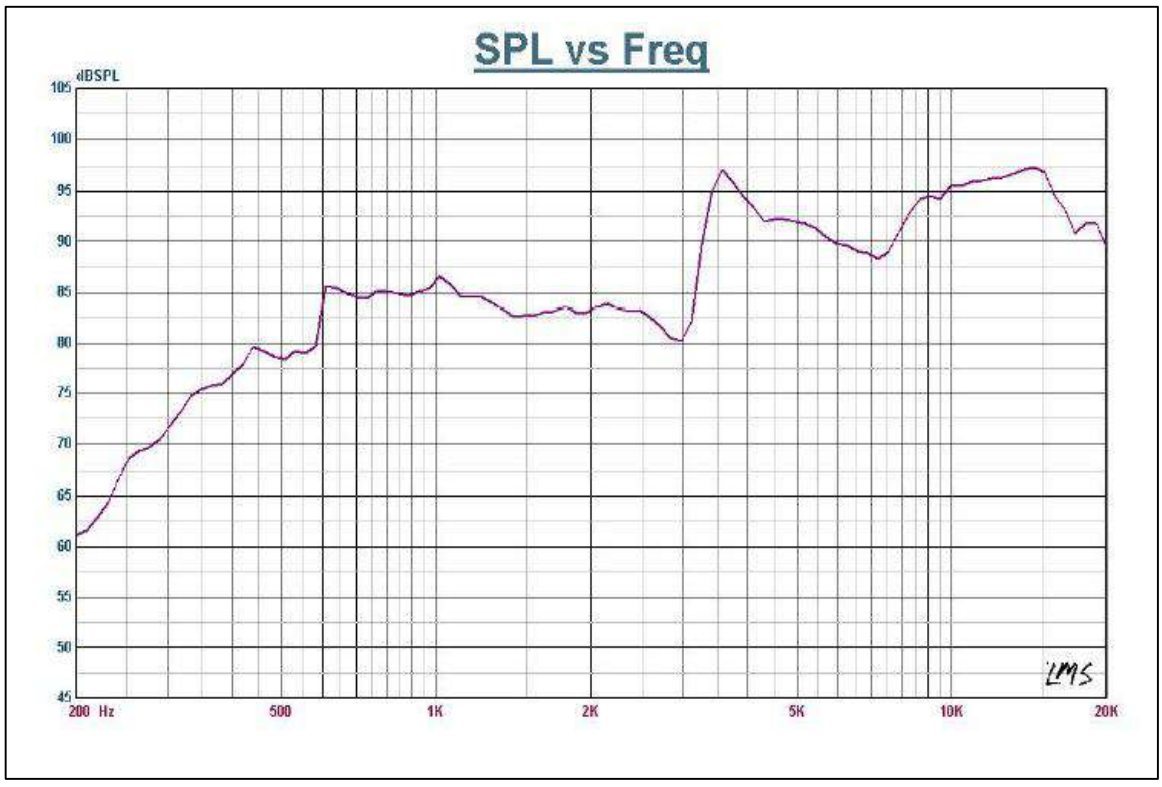
	Item	Specification
5	耐焊接性 Heat-proof for solder	将蜂鸣器的插针插入(插至距蜂鸣器壳 体1.5mm处为止) +300±5℃的焊锡槽3±0.5 秒或+260±5℃的焊锡槽10±1秒,然后在常温中放置4小时后,测试蜂鸣器.试验后符合表1要求. Lead terminal are immersed up to 1.5mm from Buzzer body in Buzzer bath of +300 ±5℃ for 3±0.5 seconds or±260±5℃ for 10±1 seconds, and then Buzzer shall be measured after being placed in natural condition for 4hours.The measured value shall meet Table 1.
6	耐振动性 Vibration test	振动频率10~55Hz,1.5mm全振幅,XYZ 三 个方向各4小时试验后,测试蜂鸣器.试验后符合表1要求. Buzzer shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 4hours.The measured value shall meet Table 1.
7	可焊性 Solderability	先将蜂鸣器的插针浸入松香液5秒钟,然后 浸入+260±5℃熔融的锡槽中3±0.5秒.试验后插针表面90%以上 被焊锡润湿.(插针的段面). Lead terminals are immersed in rosin for 5 seconds and then immersed in Buzzer bath of +260 ±5℃ for 3± 0.5 seconds.Specification:90%min.lead terminals shall be wet with Buzzer (Except the edge of terminal).
8	插针强度 Terminal Strength Pulling	分别在每个插针的轴向施加9.8牛顿的静荷 重10秒.试验后插针没有断开和 可见的损伤. The force 10 seconds of 9.8N is applied to each terminal in axial direction.Specification No visible damage and cutting off.

表1
Table 1

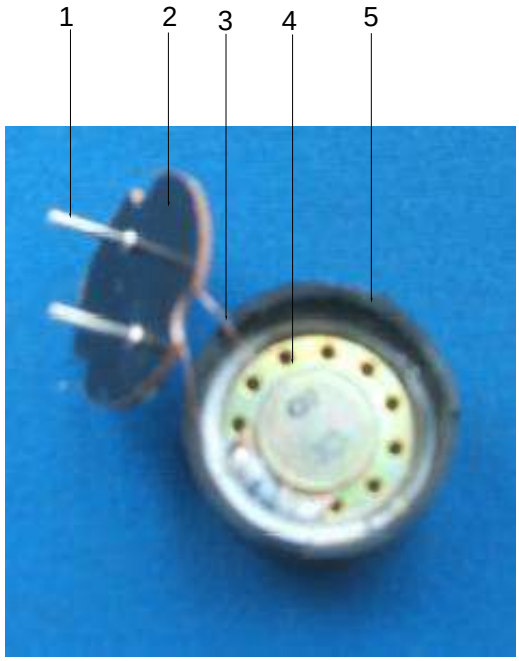
	项目 Item	判定基准 Determinant norm
		在初始值的±10dB以内 ±10dB based on initial value
		在初始值的±0.5KHz以内 ±0.5KHz based on initial value after expose 4hours at normal temperature

5. Measurement Block Diagram & Response curve



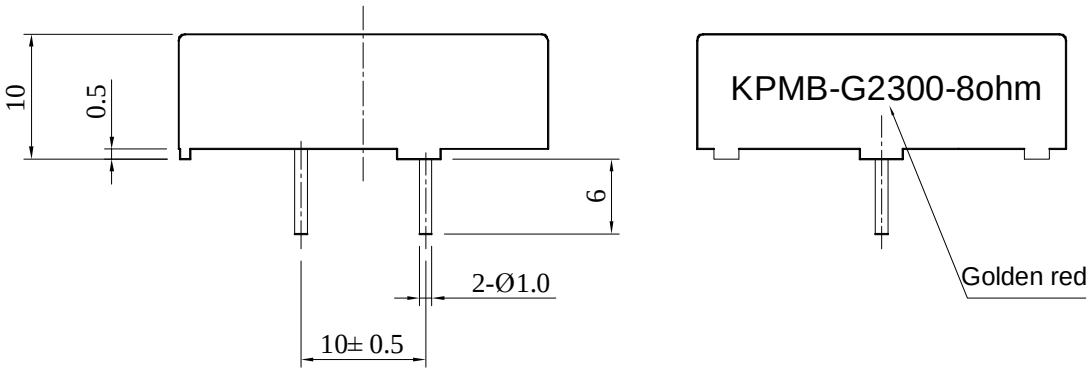


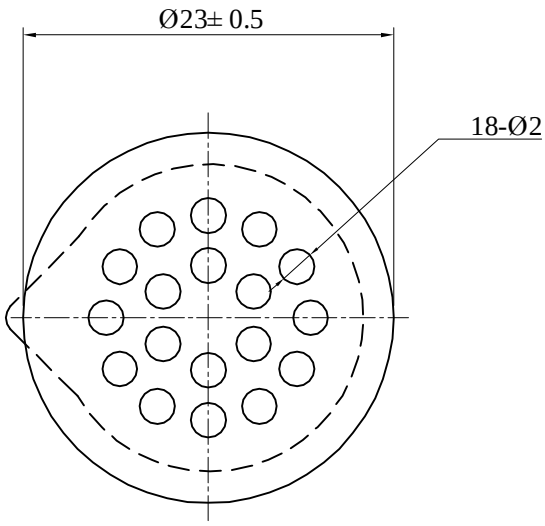
6. Structure



No.	Part Name 型号	Q'TY	Material 材质	Remark 备注
5	Housing 壳体	1	ABS	
4	Speaker 喇叭	1		
3	Coil 漆包线	1	QA-1	
2	PCB 印制板	1		
1	Pin 插针	2	H62	

7. Dimensions





FIRST ANGLE PROJECTION

UNIT : mm

Tolerance : ± 0.5

8. Packing

QTY: 1000Pcs
460x295x350mm

9. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	SIGN
1.2	2009.06.20	10	primary	