

SPECIFICATION

Customer : SHARP

受 控

Applied To : RALMBA029QBZZ

Product Name : Speaker BOX

Model Name : KPMB-G3008EP-4560

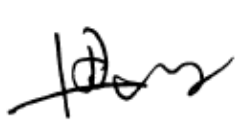
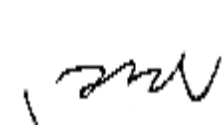
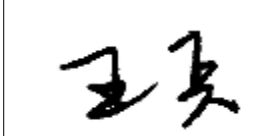
Drawing No. : OEM4560R

Compliance with ROHS(本品符合ROHS指令)

Signature of Approval

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Signature of KEPO

Approved by	Checked by	Issued by	Date
			

宁波凯普电子有限公司



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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，请与我们联系。

2. General

2.1 Form : Ø30mm

外形 : Ø30mm

2.2 Height : 13.25mm

高度 : 13.25mm

2.3 Weight : 10g

重量 : 10克

2.4 Operating Temperature range:

-20~+60°C without loss of function

工作温度: -20~+60°C

Store Temperature range:

-30~+70°C without loss of function

储藏温度: -30~+70°C

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 °C, 25% ~ 85% RH, 860~1060 mbar

测试条件: 15~35 °C, 25%~85%RH, 860~1060mbar

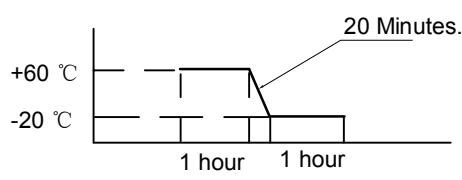
	Items 项目	Specification 规格
1	Rated Impedance 额定阻抗	8 Ω ± 15%
2	Rated Norse Power 额定功率	0.15W
3	Max.Input Power 最大输入功率	0.3W
4	Resonant Frequency 谐振频率	1100± 20%Hz
5	Rated Frequency Range 频率范围	500~5000Hz
7	Min.Sound Pressure Level 额定声压	≥85dB at 1KHz 1.0Vrms Sine Wave/10cm
8	Case Material/Color 壳体材质/颜色	PA66/Black

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4. Reliability Test

After test(1~6item), the Buzzer S.P.L . difference shall be within $\pm 10\text{dB}$, Frequency difference shall be within $\pm 0.2\text{KHZ}$. and the appearance not exist any change to be harmful to normal operation(e.g. cracks,rusts,damages and especially distortion).

在1-6项试验后，蜂鸣器的声压变化值在 $\pm 10\text{dB}$ 之内，频率变化在 $\pm 0.2\text{KHZ}$ 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	<p>After being woked in a chamber with $+60\pm 2\text{ }^\circ\text{C}$ for 2h and then being placed in natural condition for 2h, sounder shall be measured.</p> <p>将产品置于 $+60\pm 2\text{ }^\circ\text{C}$ 试验箱中，先工作 2小时，然后在正常大气压条件下恢复2小时后，进行测量</p>
2	Low Temperature Test 低温试验	<p>First being worked in a chamber with $-20\pm 2\text{ }^\circ\text{C}$ for 2h and then being placed in a chamber with $-20\pm 2\text{ }^\circ\text{C}$ for 16h, finally being placed in natural condtion for 2h, sounder shall be measured.</p> <p>将产品置于 $-20\pm 2\text{ }^\circ\text{C}$ 试验箱中，先工作 2小时，再放置16小时，然后在正常大气压条件下恢复2小时后，进行测量</p>
3	Humidity Test 潮湿试验	<p>After being placed in a chamber with 90 to 95%R.H. at $+40\pm 2\text{ }^\circ\text{C}$ for 2 h and then being placed in natural condition for 2h , sounder shall be measured.</p> <p>将产品置于湿度为 90~95%R.H，温度为$40\pm 2\text{ }^\circ\text{C}$试验箱中 2小时，然后在正常大气压条件下恢复2小时后，进行测量</p>
4	Thermal Shock Test 热冲击试验	<p>After being worked in a chamber at $+60\pm 2\text{ }^\circ\text{C}$ for 1 hour, then sounder shall be placed in a chamber at $-20\pm 2\text{ }^\circ\text{C}$ for 1 hour(1 cycle is the below diagram).</p> <p>After 6 above cycles, sounder shall be measured after being placed in natural condition for 1 hour.</p> <p>将产品置于$60\pm 2\text{ }^\circ\text{C}$试验箱中，先工作1小时，然后将产品置于$-20\pm 2\text{ }^\circ\text{C}$试验箱中，再工作1小时，经过6个循环后，在正常大气压条件下恢复1小时，进行测量</p> 

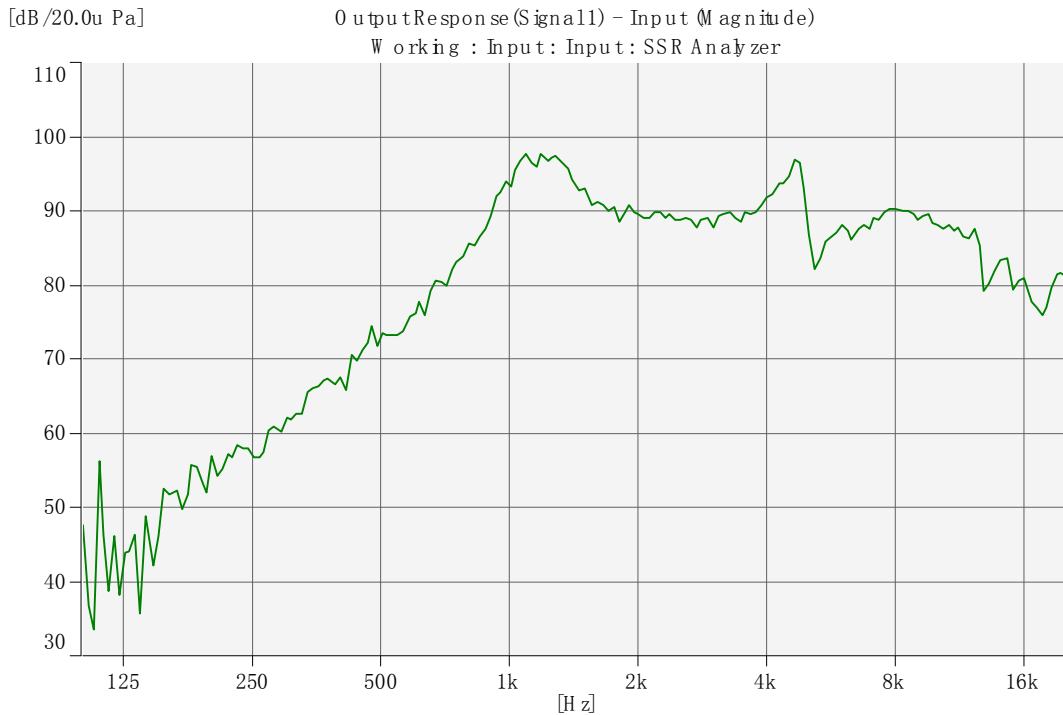
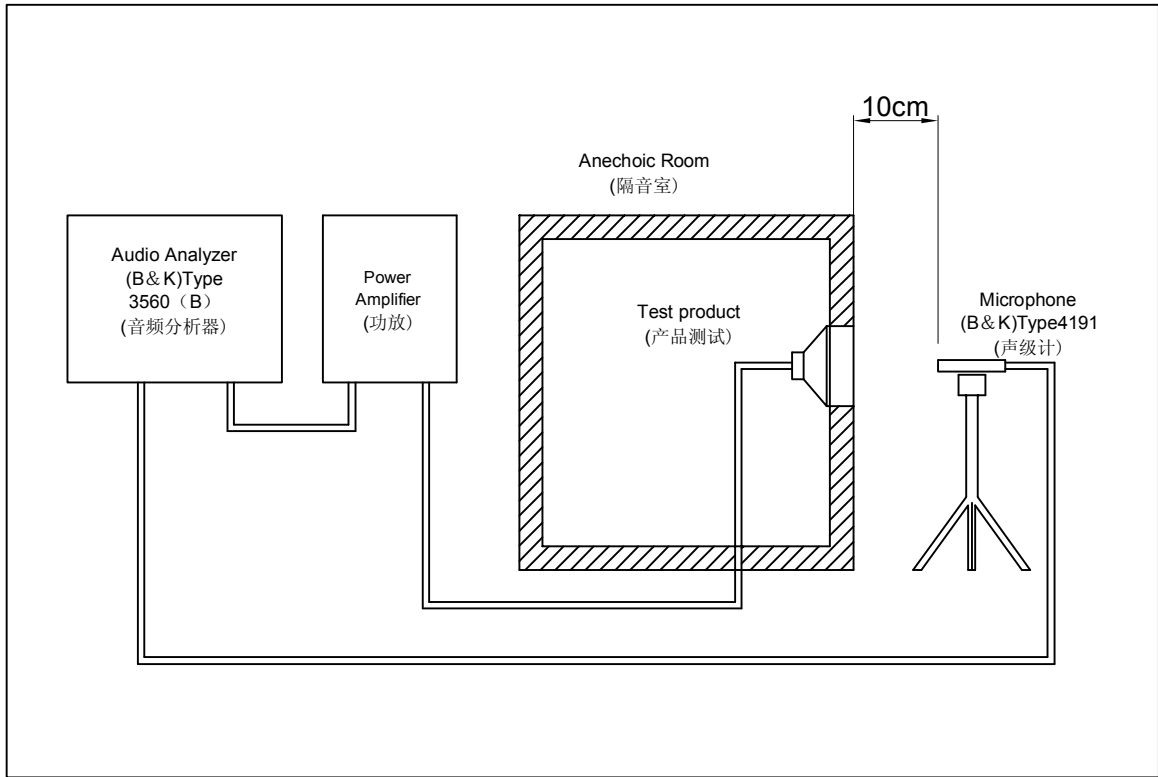
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4. Reliability Test

	实验项目 Item	实验条件 Test Condition	实验后规格 Specification	
5.1	耐冲击性 Shock	峰值加速度 490m/s^2 , 半正弦波, XYZ三个方向各3次冲击实验后, 进行测试. Sounder shall be measured after being applied shock(490m/s^2) for each three mutually perpendicular directions to each of 3 times by half sine wave.	符合表1的要求 The measured value shall meet Table 1.	
5.2	耐振动性 Vibration Resistant	振动频率 10~30 Hz, 1.5mm 全振幅, XYZ三个方向各2小时试验后, 进行测试. Sounder shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 30Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours.		
5.3	耐焊接性 Soldering Heat Resistance	将产品的插针插入(插至距产品壳体1.5mm处为止) $+300 \pm 5^\circ\text{C}$ 的焊锡槽 3 ± 0.5 秒或 $+260 \pm 5^\circ\text{C}$ 的焊锡槽 3 ± 1 秒, 然后在常温中放置4小时后, 进行测试. Lead terminal are immersed up to 1.5mm from sounder's body in solder bath of $+300 \pm 5^\circ\text{C}$ for 3 ± 0.5 seconds or $\pm 260 \pm 5^\circ\text{C}$ for 3 ± 1 seconds, and then sounder shall be measured after being placed in natural condition for 4 hours.		
5.4	可焊性 Solderability	先将产品的插针浸入松香液5秒钟, 然后浸入 $+260 \pm 5^\circ\text{C}$ 熔融的锡槽中 3 ± 0.5 秒. Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of $+260 \pm 5^\circ\text{C}$ for 3 ± 0.5 seconds.		插针表面90%以上被焊锡润湿.(插针的段面除外) 90% min. lead terminals shall be wet with solder. (Except the edge of terminal)
5.5	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. The force 10 seconds of 9.8N is applied to each terminal in axial direction.		插针没有断开和可见的损伤 No visible damage and cutting off
6	寿命试验 Load test	用0.15w (1.1v) 的白噪音输入信号, 工作96小时, 然后放到常温条件下1小时。再进行测试。 After being applied loading white noise with input power 0.15W(1.1Vrms.) for 96 hours, then placed in natural condition for 1 hour, speaker shall be measured."		

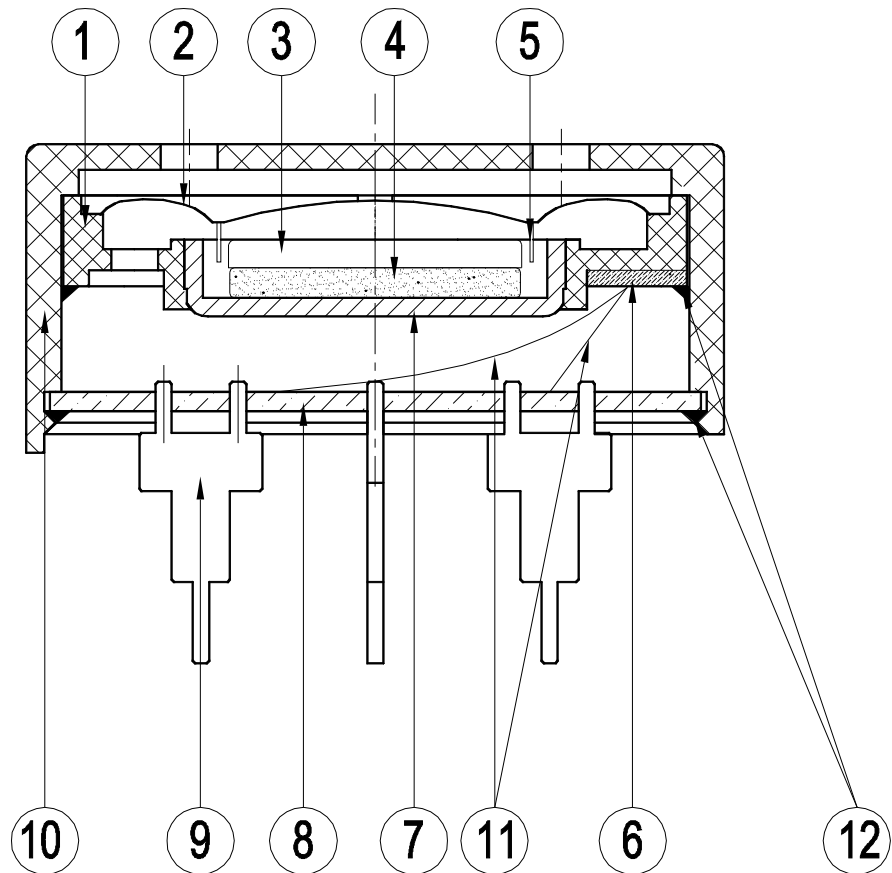
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5. Measurement Block Diagram & Response curve



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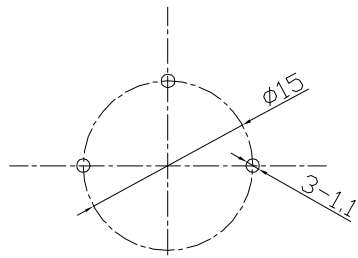
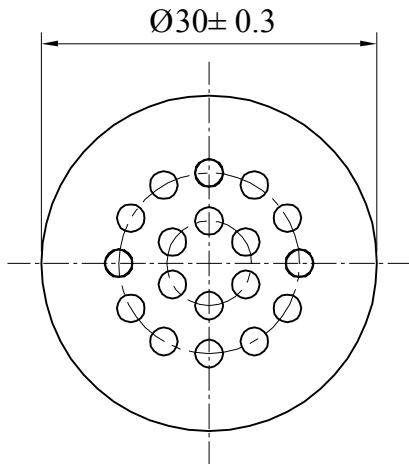
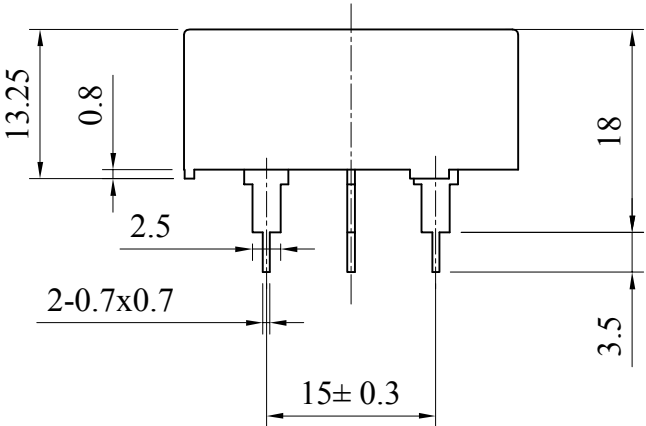
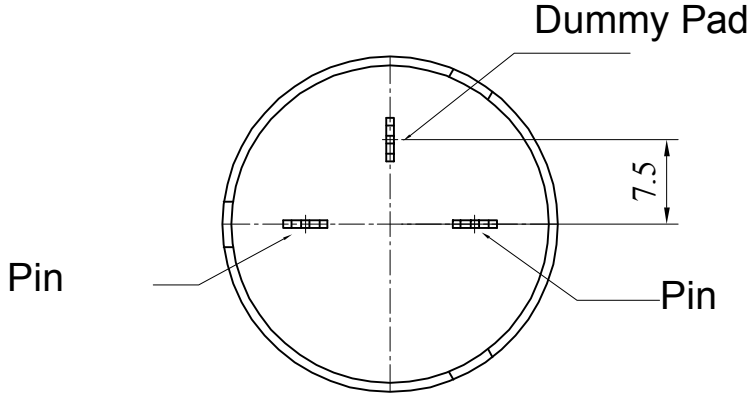
6. Structure



No.	Part Name 型号	Q'TY	Material 材质	Remark 备注
12	Glue 胶水		HD318(黑色)	703硅胶改成HD318胶
11	Coil 漆包线	2	QA-1	
10	Housing 壳体	1	PA66	
9	Pin 插针	3	H62	
8	Terminal 2 接线板 2	1	Epoxy	
7	Yoke U杯	1	SPCC	
6	Terminal 1 接线板 1	1	Epoxy	
5	Voice Coil 音圈	1	copper	
4	Magnet 磁钢	1	Nd-Fe-B	
3	Plate 夹板	1	SPCC	
2	Diaphragm 音膜	1	PET	PET50改为PET100
1	Frame 盆架	1	PBT	

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7. Dimensions



PCB孔布局图

FIRST ANGLE PROJECTION

UNIT : mm
Tolerance : ±0.5

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8. Packing



Eligibility Certificate	
Company Name: NingBo KEPO Electronics co.,LTD	
P/N: RALMBA029QBZZ	QTY: 460
Production Date:	Inspector:
Shipment Date:	
Lot Number:	
ROHS Compliance	
76	

Lable

QTY: Pcs
460x295x350mm

