

# SPECIFICATION

Customer :

Applied To :

Product Name : Piezo Transducer

Model Name : SPT-1240

Drawing No. : KP3.840.906

Signature of Approval

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Signature of KEPO

Approved by	Checked by	Issued by	Date

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Specification for Transducer	Page	2/10
Model No. : SPT-1240	Revision No.	1.0
	Drawing No.	KP3.840.906

## CONTENTS

1. Scope  
范围
2. General  
概要
3. Electrical and Acoustic Characteristics.  
电声参数
4. Reliability Test  
可靠性试验
5. Measurement Block Diagram & Response curve  
测试图和曲线图
6. Structure  
结构
7. Dimensions  
尺寸
8. Packing  
包装
9. Revision  
履历表

Specification for Transducer		Page	3/10
		Revision No.	1.0
Model No. :	SPT-1240	Drawing No.	KP3.840.906

## 1. Scope

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

本规格书适用于压电式声响器，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 Out-Diameter: 12x12 mm

外径: 12x12 mm

2.2 Height : 3.0 mm

高度: 3.0 mm

2.3 Weight: 0.6 g

重量: 0.6克

2.4 Operating Temperature range:

-20~+70°C without loss of function

工作温度: -20~+70°C

2.5 Store Temperature range:

-30~+80°C without loss of function

储藏温度: -30~+80°C

## 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

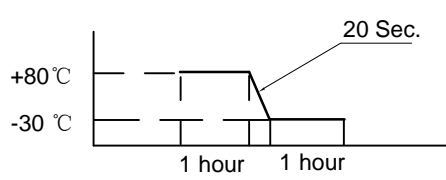
	Items 项目	Specification 规格
1	Rated Voltage 额定电压	10Vp-p Square Wave
2	Max.Allowable Voltage 最大输入电压	30Vp-p Square Wave
3	Resonant Frequency 谐振频率	4.0± 0.5KHz
4	Min.Sound Pressure Level 额定声压	70dB at 4.0KHz/10Vp-p Square Wave/10cm
5	Capacitance at 100Hz 电容量 (at 100Hz)	15nF± 30%
6	Case Material/Color 壳体材质/颜色	PPS/BLACK

Specification for Transducer		Page	4/10
		Revision No.	1.0
Model No. :	SPT-1240	Drawing No.	KP3.840.906

## 4. Reliability Test

After test(1~7item), the transducer S.P.L. difference shall be within  $\pm 10\text{dB}$ , 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，声响器的声压变化值在  $\pm 10\text{dB}$  之内，外观无变化（例如：无开裂、生锈、损伤、变形等现象）。

	Item	Specification
1	High Temperature Test 高温试验	<p>After being worked in a chamber with <math>+80\pm 2\text{ }^\circ\text{C}</math> for 2h and then being placed in natural condition for 2h, sounder shall be measured.</p> <p>将产品置于 <math>+80\pm 2\text{ }^\circ\text{C}</math> 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 <math>-30\pm 2\text{ }^\circ\text{C}</math> for 2h and then being placed in a chamber with <math>-30\pm 2\text{ }^\circ\text{C}</math> for 16h, finally being placed in natural condition for 2h, sounder shall be measured.</p> <p>将产品置于 <math>-30\pm 2\text{ }^\circ\text{C}</math> 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 <math>+40\pm 2\text{ }^\circ\text{C}</math> 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 <math>40\pm 2\text{ }^\circ\text{C}</math> 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 <math>+80\text{ }^\circ\text{C}</math> for 1 hour, then sounder shall be placed in a chamber at <math>-30\text{ }^\circ\text{C}</math> 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 <math>+80\pm 2\text{ }^\circ\text{C}</math> 试验箱中，先工作 1 小时，然后将产品置于 <math>-30\pm 2\text{ }^\circ\text{C}</math> 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> 

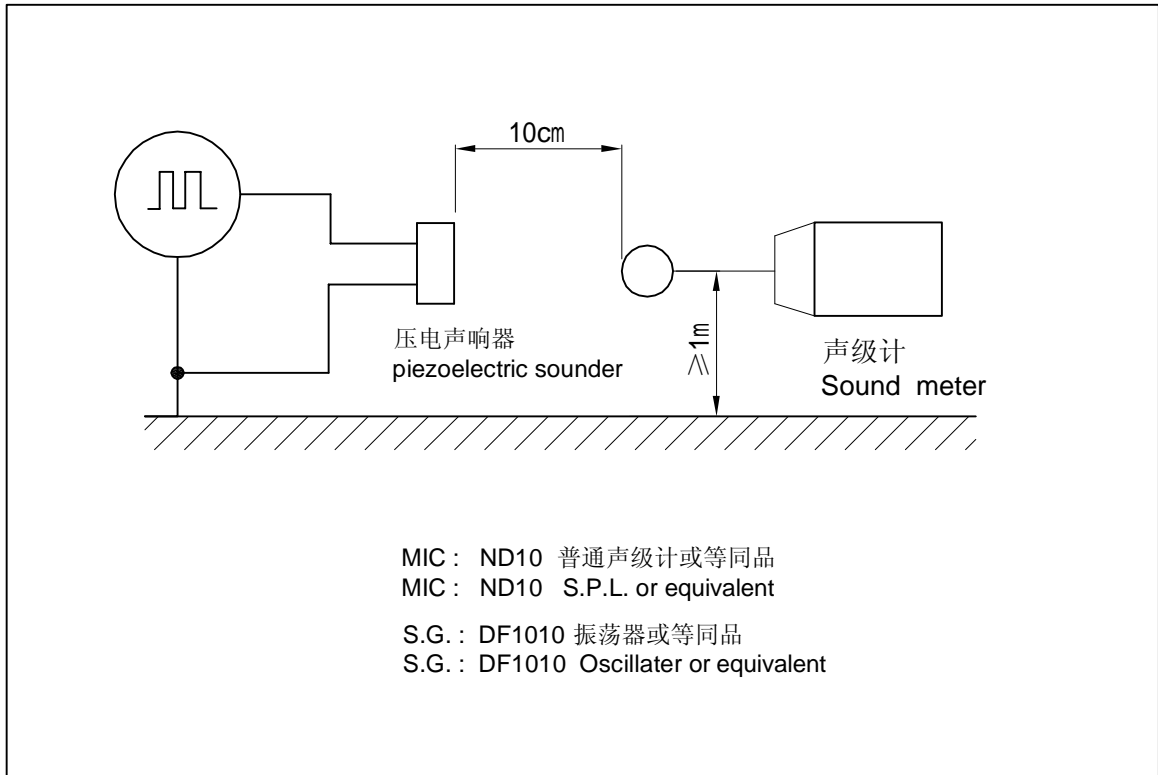
Specification for Transducer		Page	5/10
Model No. : SPT-1240		Revision No.	1.0
		Drawing No.	KP3.840.906

#### 4. Reliability Test

	Item	Specification
5	Vibration Resistance 振动试验	<p>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 hour.</p> <p>振幅为1.5mm，频率为10-30Hz，三个不同轴方向各振动2小时，试验后进行测量。</p>
6	Drop Test 跌落试验	<p>Sounder packed in the carton are dropped in six direction from the height of 80cm to the concrete floor.</p> <p>跌落高度80cm,6个不同方向整箱跌落到水泥地，试验后进行测量。</p>
7	Solderability 可焊性试验	<p>Lead terminals are immersed in rosin for 5 seconds and the immersed in solder bath of <math>+260\pm 5^{\circ}</math> C for <math>3\pm 0.5</math> seconds.</p> <p>焊片浸入松香5秒，然后再浸入<math>+260\pm 5^{\circ}</math> C的锡炉中<math>3\pm 0.5</math>秒，插针表面应覆盖一层光滑明亮的焊料。</p>

Specification for Transducer	Page	6/10
	Revision No.	1.0
Model No. : SPT-1240	Drawing No.	KP3.840.906

## 5. Measurement Block Diagram & Response curve



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CRY6125F 蜂鸣器测试仪 V86

无框 滤波器无

型号:SPT-1240

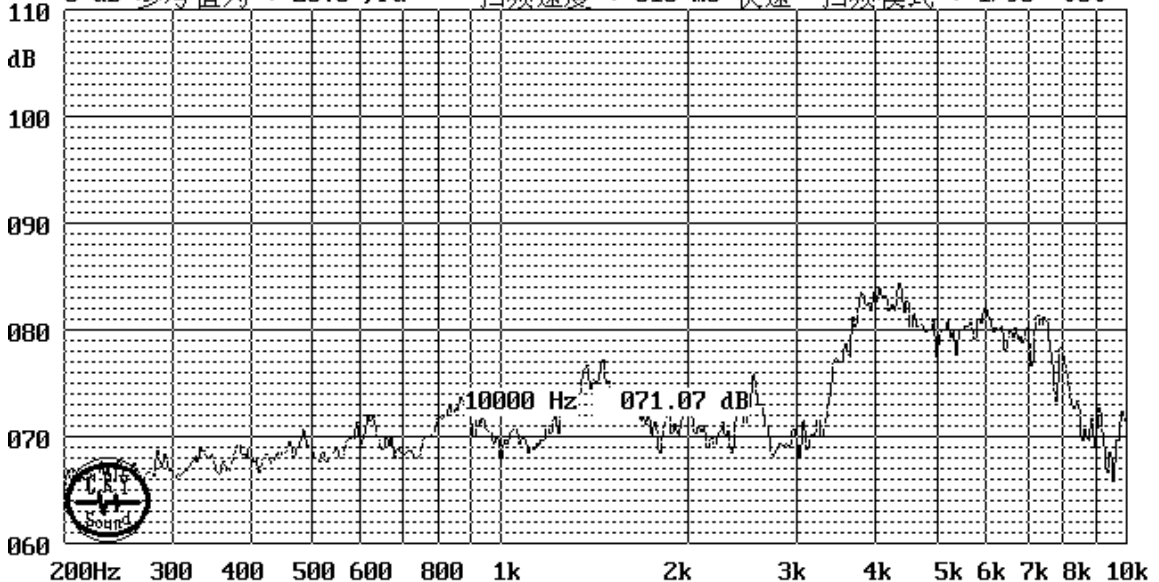
Fc= 4000 Hz 082.51 dB

方波

电压:5000 mV

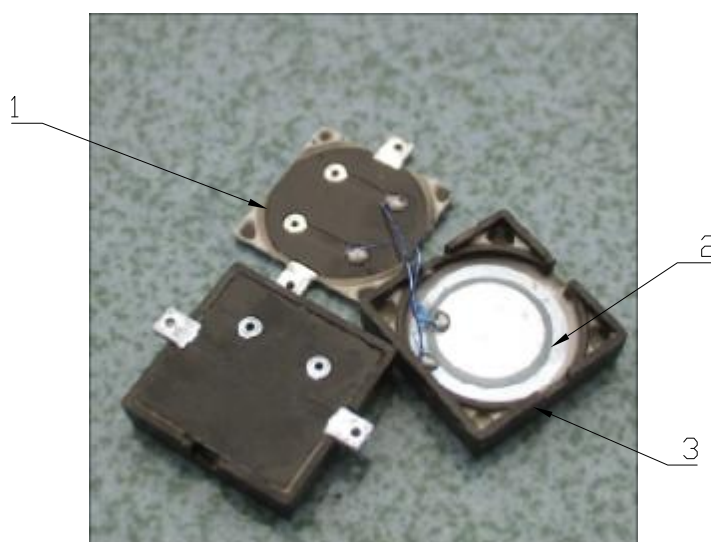
Fo= 4350 Hz 084.44 dB

0 dB 参考值为 : 20.0  $\mu$ Pa 扫频速度 : 015 ms 快速 扫频模式 : 1/96 Oct



Specification for Transducer		Page	7/10
		Revision No.	1.0
Model No. :	SPT-1240	Drawing No.	KP3.840.906

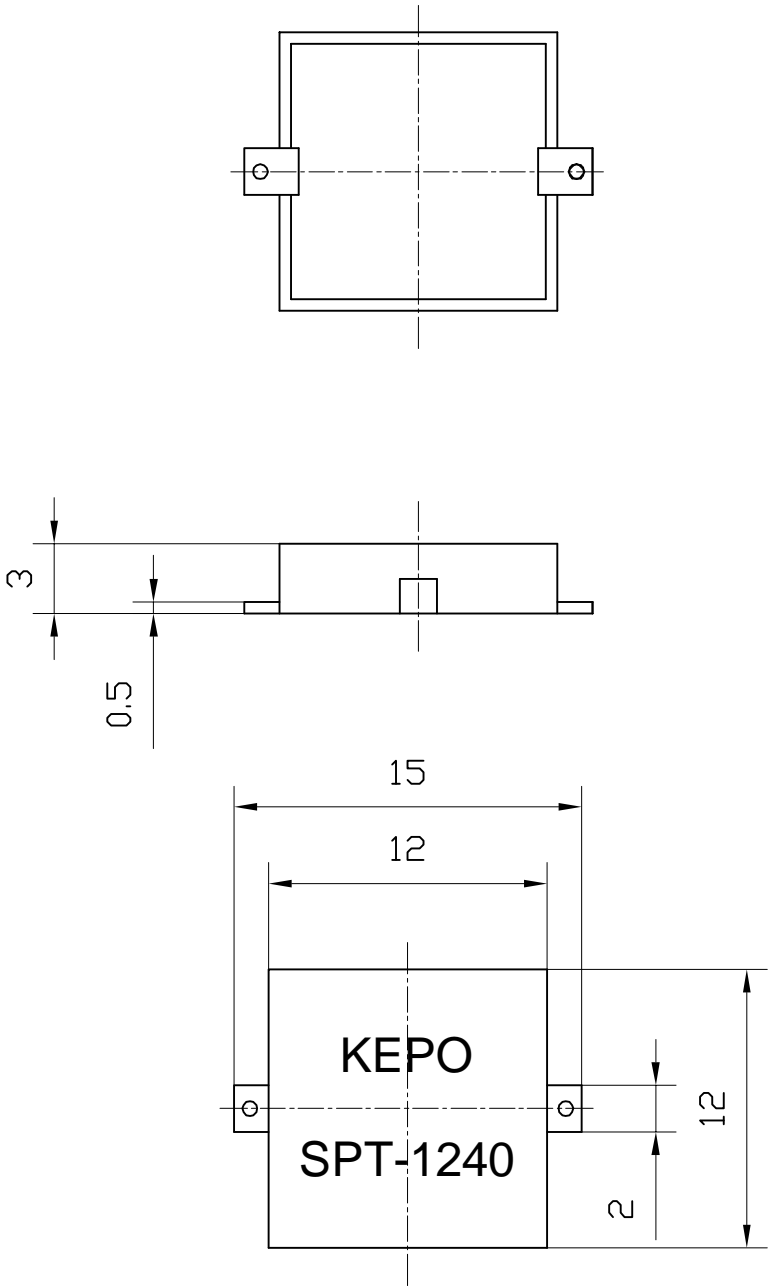
## 6. Structure



3	Case 壳体	1	PPS	
2	Piezo-Element 蜂鸣片	1	H65	
			Piezo Ceramic	
1	PCB 印制板	1	FR-1	
No.	Part Name 型号	Q'TY 数量	Material 材质	Remarks 备注

Specification for Transducer Model No. : SPT-1240	Page	8/10
	Revision No.	1.0
	Drawing No.	KP3.840.906

### 7. Dimensions



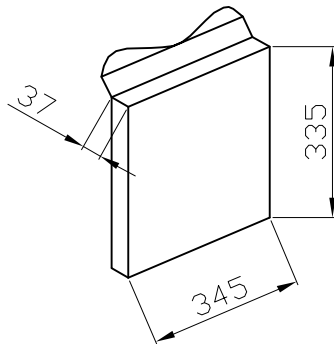
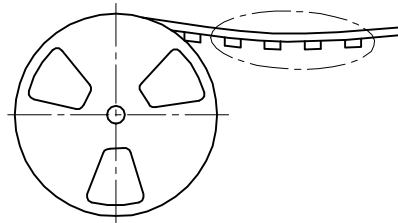
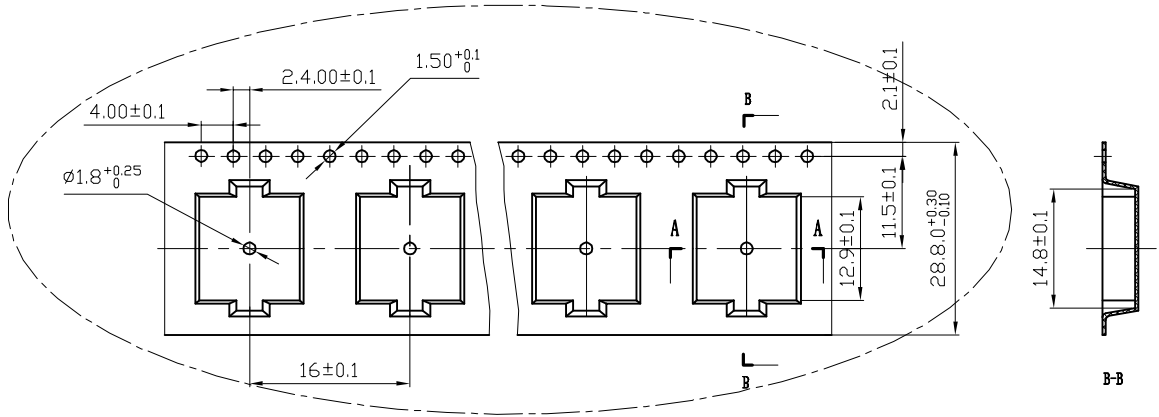
FIRST ANGLE PROJECTION

UNIT : mm  
Tolerance : ±0.5

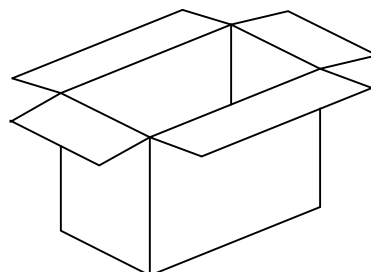


Specification for Transducer		Page	9/10
		Revision No.	1.0
Model No. : SPT-1240	Drawing No.		KP3.840.906

## 8. Packing



QTY: 1000Pcs  
 SIZE: 345 x 37 x 335mm  
 N.W.: 0.6KG  
 G.W.: 0.95KG



QTY: 10000Pcs  
 SIZE: 380 x 350 x 340mm  
 N.W.: 6KG  
 G.W.: 10.5KG

Specification for Transducer		Page	10/10
Model No. : SPT-1240		Revision No.	1.0
		Drawing No.	KP3.840.906

9. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	SIGN
1.0	2006.01.13	/	primary	