

# SPECIFICATION

Customer :

Applied To :

Product Name : Magnetic Buzzer

Model Name : KW12M85A05

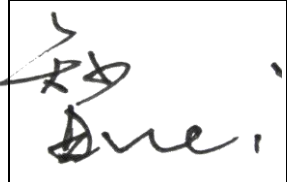
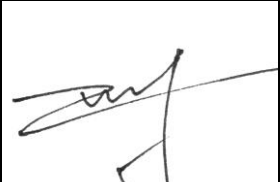
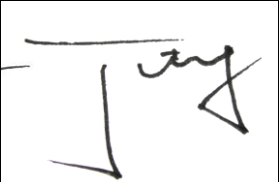
Drawing No. : OEM0901138

Compliance with RoHS

Signature of Approval

--

Signature of KINGWEI

Approved by	Checked by	Issued by	Date
			



凱鐸電子股份有限公司  
KINGWEI ELECTRONIC CO., LTD.  
5FL., 88-5, Kwang Fu Road, Sec. 1, San Chung City, Taipei  
Hsien, Taiwan. R.O.C.

TEL: +886 2 2999-0888 FAX: +886 2 2999-9199

凱威電子(惠州)有限公司

KINGWEI ELECTRONIC (Huizhou) CO., LTD.  
No. 1807, 18 floor, SEG Building, No 20, Huizhou Da Dao,  
Huicheng District, Huizhou City, Guangdong Province, China.

TEL : +86 752 2533396 FAX : +86 752 2533559

常州冠威電子有限公司

ChangZhou Kingwei Electronic Co., Ltd.  
No.248-2 Xinchang Road, Xinza, Town, zhonglou District,  
Changzhou, China

Service mail : [service@k-wei.com](mailto:service@k-wei.com) [service-europe@k-wei.com](mailto:service-europe@k-wei.com)  
<http://www.k-wei.com>

Specification for SMD Buzzer	Page	2/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## CONTENTS

### 1. Scope

範圍

### 2. General

概要

### 3. Electrical and Acoustic Characteristics.

電聲參數

### 4. Reliability Test

可靠度測試

### 5. Measurement Block Diagram & Response curve

測試圖 & 曲線圖

### 6. Dimensions

尺寸

### 7. Packing

包裝

### 8. Revision

版本

Specification for SMD Buzzer	Page	3/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 1. Scope

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

本規格書適用於壓電式聲響器，通常它用在系統中做報警或提示的聲響器用，如果將該產品用於其他領域，請與我們取得聯繫。

## 2. General

2.1 Out-Diameter :  $\varnothing$  12 mm

外徑： $\varnothing$  12 mm

2.2 Height : 8.5 mm

高度：8.5 mm

2.3 Weight : 2.0 g

重量：2.0 克

2.4 Operating Temperature range :  $-20\sim+70^{\circ}\text{C}$  without loss of function

工作溫度： $-20\sim+70^{\circ}\text{C}$

2.5 Store Temperature range :  $-30\sim+80^{\circ}\text{C}$  without loss of function

儲藏溫度： $-30\sim+80^{\circ}\text{C}$

## 3. Electrical and Acoustic Characteristics.

Test condition :  $15\sim 35^{\circ}\text{C}$ , 25% ~ 85% RH, 860~1060 mbar

測試條件： $15\sim 35^{\circ}\text{C}$ , 25%~85%RH, 860~1060mbar

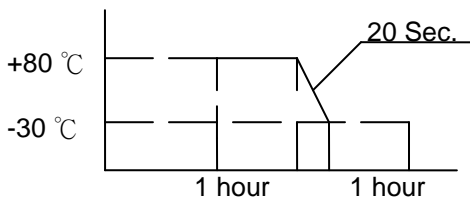
	Items 項目	Specification 規格
1	Rated Voltage 額定電壓	5 Vp-p Square Wave
2	Operating Voltage 工作電壓	1~ 6 Vp-p Square Wave
3	Current Consumption 消耗電流	50mA(Max) at 2048Hz / 5Vp-p Square Wave
4	Resonant Frequency 諧振頻率	2048 $\pm$ 0.5KHz
5	Min.Sound Pressure Level 額定聲壓	85dB at 2048Hz / 5Vp-p Square Wave/10cm
6	Coil Resistance 阻抗	45 $\Omega$ $\pm$ 15%
7	Case Material/Color 殼體材質/顏色	PPO / BLACK
8	Leading Pin	Tin Plated Brass(Sn)

Specification for SMD Buzzer	Page	4/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 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項試驗後，聲響器的聲壓變化值在 $\pm 10\text{dB}$ 之內，外觀無變化（例如：開裂、生鏽、損傷、變形等現象）。

	Item	Specification
1	High Temperature Test 高溫試驗	After being worked in a chamber with $+80\pm 2^\circ\text{C}$ for 2h and then being placed in natural condition for 2h, sounder shall be measured. 將產品置於 $+80\pm 2^\circ\text{C}$ 試驗箱中，先工作 2小時，然後在正常大氣壓條件下恢復2小時後，進行測量
2	Low Temperature Test 低溫試驗	First being worked in a chamber with $-30\pm 2^\circ\text{C}$ for 2h and then being placed in a chamber with $-30\pm 2^\circ\text{C}$ for 16h, finally being placed in natural condition for 2h, sounder shall be measured. 將產品置於 $-30\pm 2^\circ\text{C}$ 試驗箱中，先工作 2小時，再放置16小時，然後在正常大氣壓條件下恢復2小時後，進行測量
3	Humidity Test 潮濕試驗	After being placed in a chamber with 90 to 95%R.H. at $+40\pm 2^\circ\text{C}$ for 2 h and then being placed in natural condition for 2h , sounder shall be measured. 將產品置於濕度為90~95%R.H.，溫度為 $\pm 2^\circ\text{C}$ 試驗箱中 2 小時，然後在正常大氣壓條件下恢復2小時後，進行測量
4	Thermal Shock Test 熱衝擊試驗	After being worked in a chamber at $+80^\circ\text{C}$ for 1 hour, then sounder shall be placed in a chamber at $-30^\circ\text{C}$ for 1 hour(1 cycle is the below diagram). After 6 above cycles, sounder shall be measured after being placed in natural condition for 1 hour. 將產品置於 $+80\pm 2^\circ\text{C}$ 試驗箱中，先工作1小時，然後將產品置於 $-30\pm 2^\circ\text{C}$ 試驗箱中，再工作1小時，經過6個迴圈後，在正常大氣壓條件下恢復1小時，進行測量 

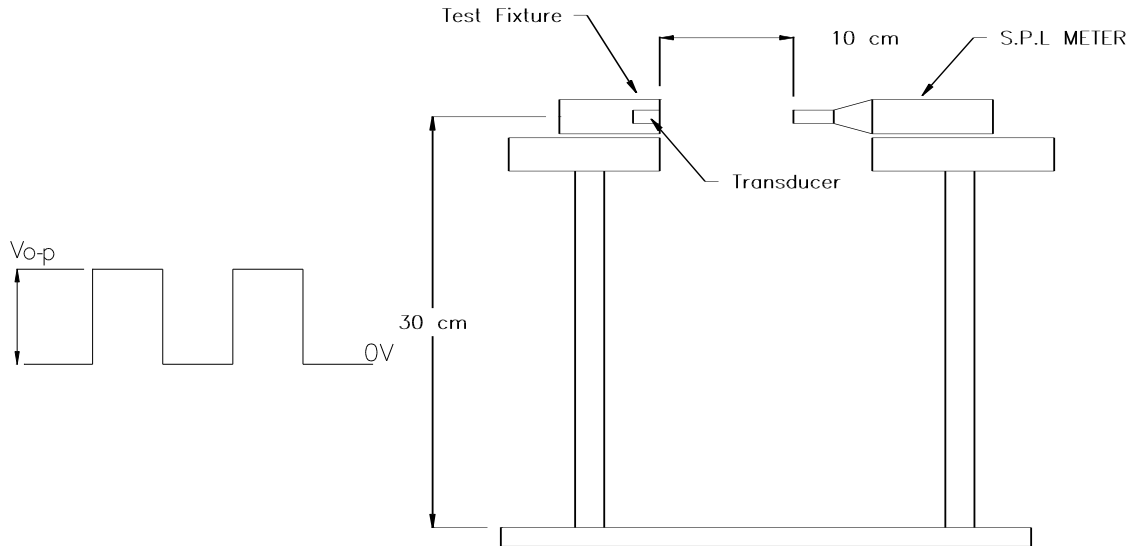
Specification for SMD Buzzer	Page	5/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

#### 4. Reliability Test

	Item	Specification
5	Vibration Resistance 振動試驗	Sounder shall be measured after being applied vibration of amplitude of 1.5mm with 10 to30Hz band of vibration frequency to each of 3 perpendicular directions for 2 hour. 振幅為1.5mm，頻率為10~30Hz，三個不同軸方向各振動2小時，試驗後進行測量。
6	Drop Test 跌落試驗	Sounder packed in the carton are dropped in six direction from the height of 80cm to the concrete floor. 跌落高度80cm,6 個不同方向整箱跌落到水泥地，試驗後進行測量。
7	Solderability 可焊性試驗	Lead terminals are immersed in rosin for 5 seconds and then immersed in solder bath of +260± 5° C for 3± 0.5 seconds. 插針浸入松香5秒，然後再浸入+260± 5° C的錫爐中3± 0.5 秒，插針表面應覆蓋一層光滑明亮的焊料。

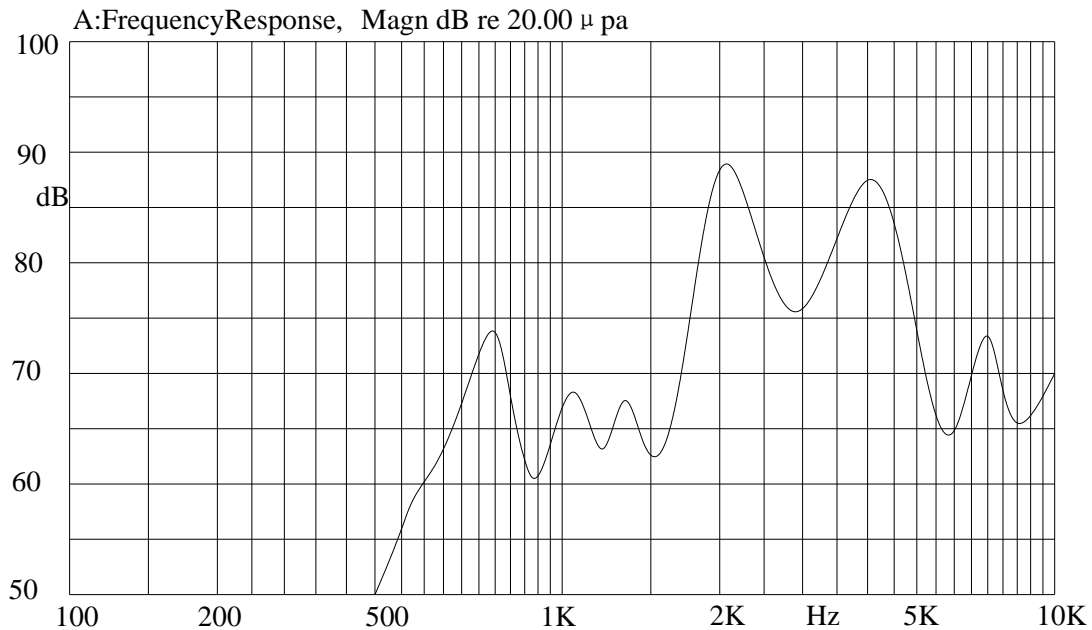
Specification for SMD Buzzer	Page	6/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 5. Measurement Block Diagram & Response curve



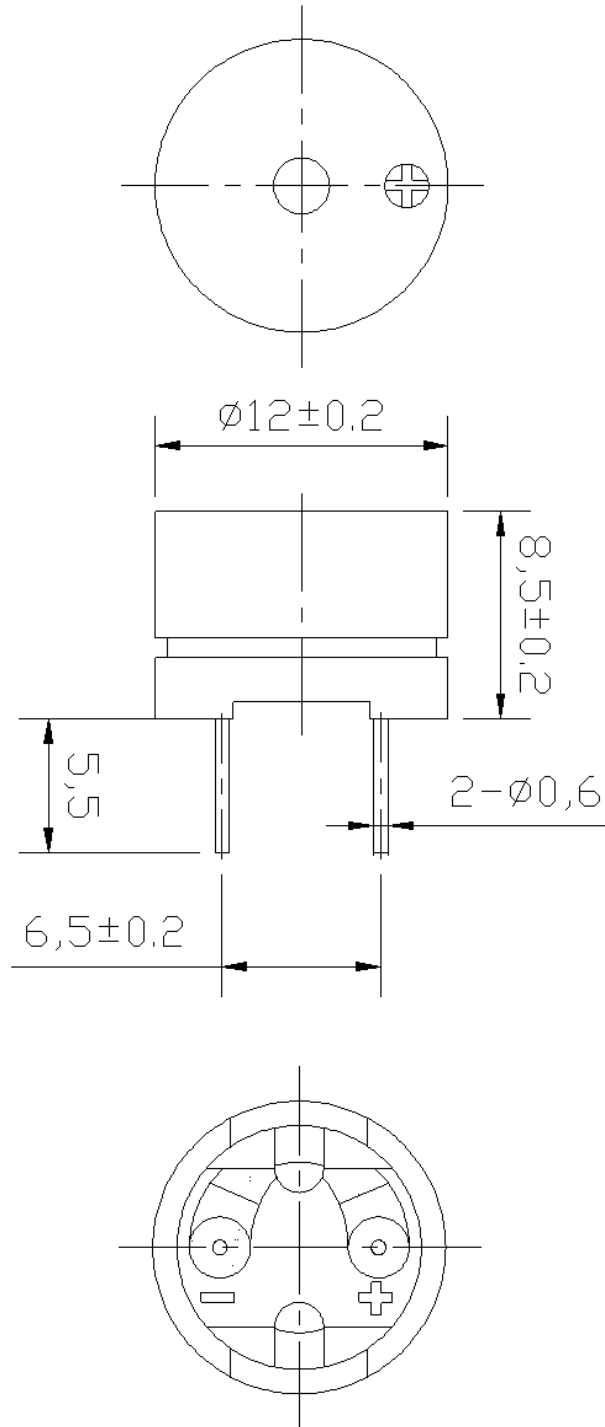
### 5.1 Acoustic Response Graph

Typical frequency spectrum measurement.

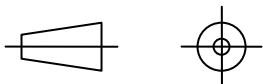


Specification for SMD Buzzer	Page	7/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 6. Dimensions



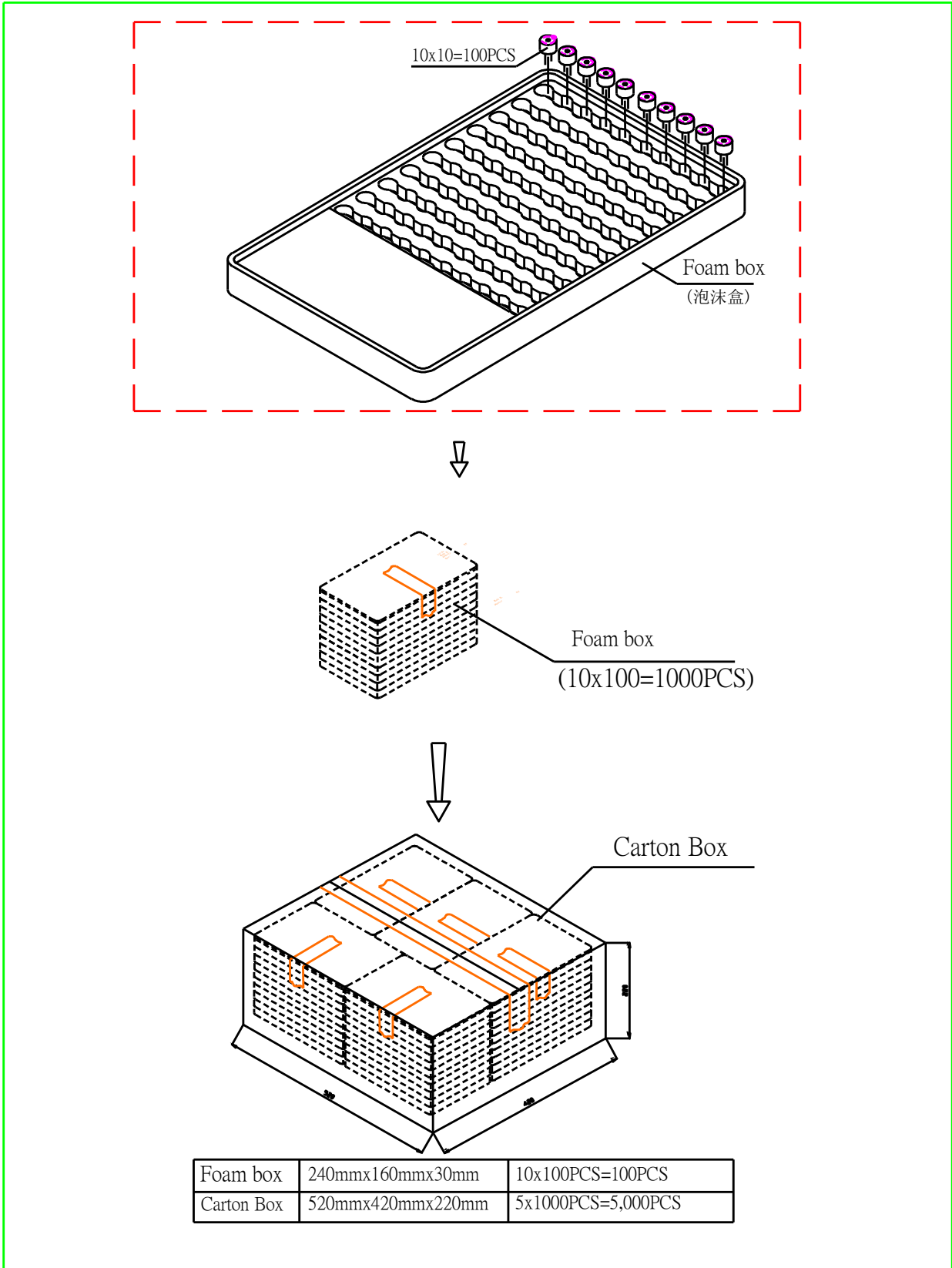
FIRST ANGLE PROJECTION



UNIT : mm  
Tolerance :  $\pm 0.5$

Specification for SMD Buzzer	Page	8/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 7. Packing





Specification for SMD Buzzer	Page	9/9
	Revision No.	1.0
Model No. : KW12M85A05	Drawing No.	OEM0901138

## 8. Revision

Rev. No.	DATE	PAGE	DESCRIPTION	SIGN
1.0	2009.11.30	/	primary	