

SPECIFICATION

Customer :

Applied To :

Product Name : Piezo Buzzer

Model Name : KWT2270F09

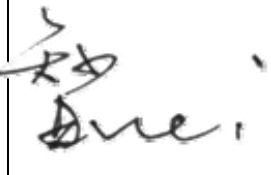

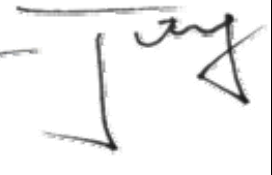
Drawing No. : OEM0912067

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.

North No.220., Boyiroad, Yihe Distict,
Luoyang, Boluo, Guangdong, Huizhou, China

TEL : +86 752 6319898 FAX : +86 752 6319918

Service mail : service@k-wei.com service-europe@k-wei.com

<http://www.k-wei.com>

Specification for Piezo Buzzer	Page	2/9
	Revision No.	1.0
Model No. : KWT2270F09	Drawing No.	OEM0912067

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. Structure
結構
7. Dimensions
尺寸
8. Revision
版本

Specification for Piezo Buzzer	Page	3/9
	Revision No.	1.0
Model No. : KWT2270F09	Drawing No.	OEM0912067

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 : Ø22.0 mm

外徑：Ø 22.0 mm

2.2 Height : 7.0 mm

高度：7.0 mm

2.3 Weight : 2.0 g

重量：2.0 克

2.4 Operating Temperature range : -20~+70 °C without loss of function

工作溫度：-20~+70°C

2.5 Store Temperature range : -30~+80°C without loss of function

儲藏溫度：-30~+80°C

3. Electrical and Acoustic Characteristics.

Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar

測試條件：15~35 °C, 25%~85%RH, 860~1060mbar

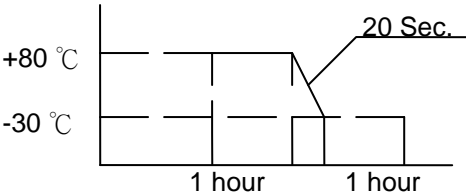
	Items 項目	Specification 規格
1	Rated Voltage 額定電壓	9.0Vp-p Square Wave
2	Max. Allowable Voltage 最大輸入電壓	25Vp-p Square Wave
3	Rated Current(Max) 最大消耗功率	3.0mA at 4KHz/9Vp-p Square Wave
4	Capacitance at 100Hz 電容量(at 120Hz)	15000pF± 30%
5	Resonant Frequency 諧振頻率	4± 0.5KHz
6	Min.Sound Pressure Level 額定聲壓	85dB / 9Vp-p Square Wave/10cm
7	Case Material/Color 殼體材質/顏色	PPO/BLACK

Specification for Piezo Buzzer	Page	4/9
	Revision No.	1.0
Model No. : KWT2270F09	Drawing No.	OEM0912067

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）。

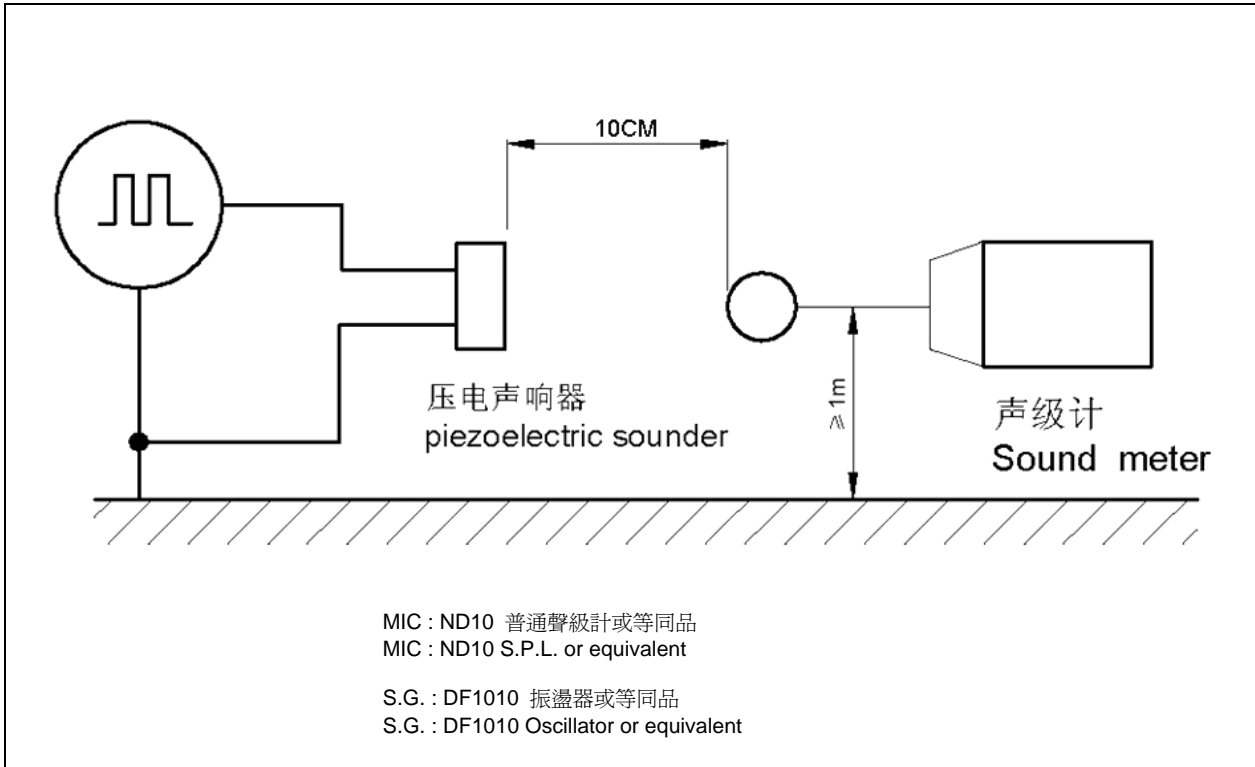
	Item	Specification
1	High Temperature Test 高溫試驗	After being worked in a chamber with $+80\pm 2^\circ\text{C}$ for 240h and then being placed in natural condition for 4h, sounder shall be measured. 將產品置於 $+80\pm 2^\circ\text{C}$ 試驗箱中，先工作 240小時，然後在正常大氣壓條件下恢復4小時後，進行測量
2	Low Temperature Test 低溫試驗	First being worked in a chamber with $-30\pm 2^\circ\text{C}$ for 240h and then being placed in a chamber with $-30\pm 2^\circ\text{C}$ for 16h, finally being placed in natural condition for 4h, sounder shall be measured. 將產品置於 $-30\pm 2^\circ\text{C}$ 試驗箱中，先工作 240小時，再放置16小時，然後在正常大氣壓條件下恢復4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 240 h and then being placed in natural condition for 4h, sounder shall be measured. 將產品置於濕度為90~95%R.H，溫度為 $+40\pm 2^\circ\text{C}$ 試驗箱中 240 小時，然後在正常大氣壓條件下恢復4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°C for 1 hour(1 cycle is the below diagram). After 5 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5個迴圈後，在正常大氣壓條件下恢復1小時，進行測量 

Specification for Piezo Buzzer	Page	5/9
	Revision No.	1.0
Model No. : KWT2270F09	Drawing No.	OEM0912067

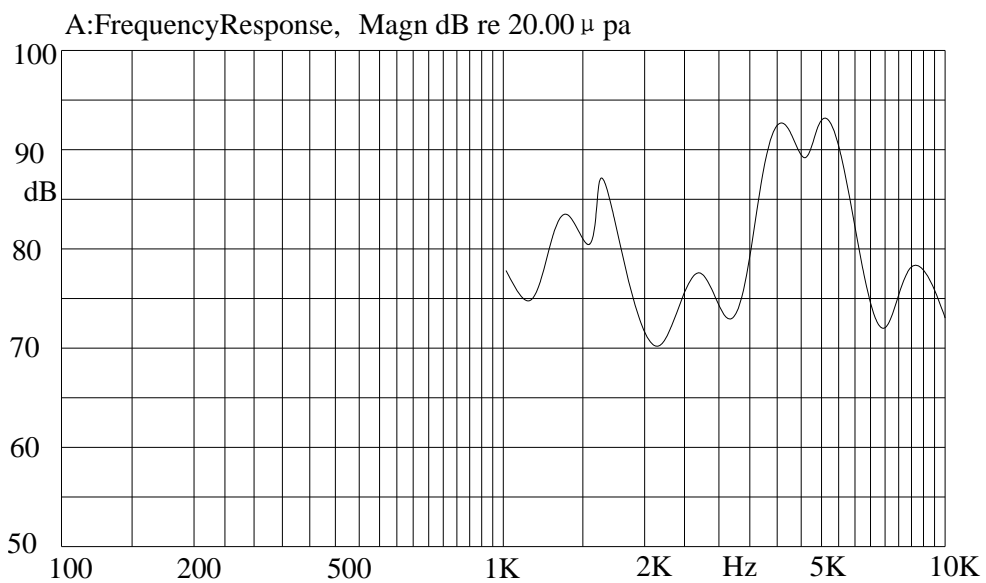
4. Reliability Test

	Item	Specification
5	Vibration Resistance 振動試驗	<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。</p>
6	Drop Test 跌落試驗	<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個不同方向整箱跌落到水泥地，試驗後進行測量。</p>
7	Solderability 可焊性試驗	<p>Lead terminals are immersed in rosin for 5 seconds and the immersed in solder bath of $+260 \pm 5^{\circ} \text{C}$ for 3 ± 0.5 seconds.</p> <p>插針浸入松香5秒，然後再浸入$+260 \pm 5^{\circ} \text{C}$的錫爐中$3 \pm 0.5$秒，插針表面應覆蓋一層光滑明亮的焊料。</p>
8	Terminal Strength Pulling 插針強度試驗	<p>The force 10 seconds of 9.8N is applied go each terminal in axial direction.</p> <p>插針應承受9.8N拉力，拉力時間10秒，插針無鬆動和脫落現象。</p>

5. Measurement Block Diagram & Response curve

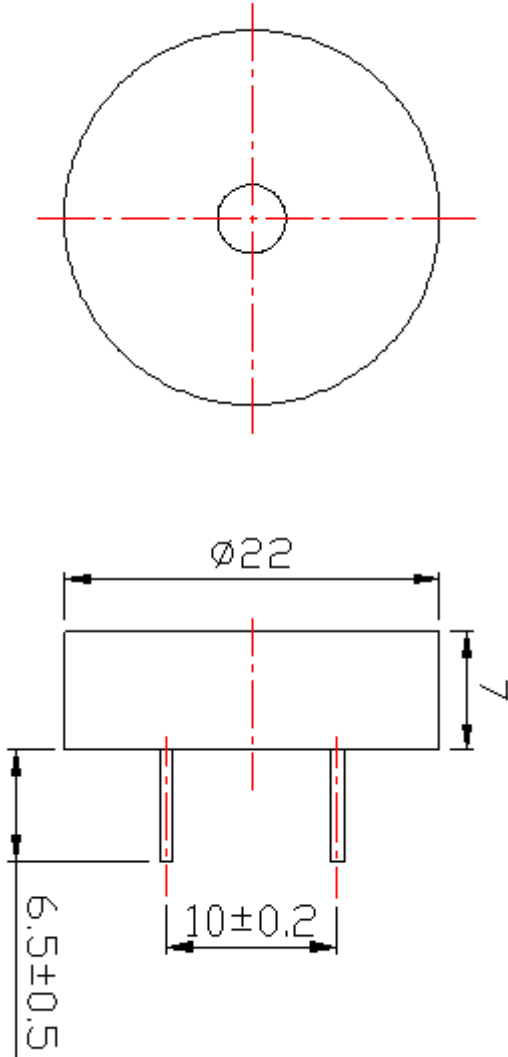


FREQUENCY RESPONSE:



Specification for Piezo Buzzer	Page	8/9
	Revision No.	1.0
Model No. : KWT2270F09	Drawing No.	OEM0912067

6. Dimensions



FIRST ANGLE PROJECTION

UNIT : mm
Tolerance : ± 0.5

