

# SPECIFICATION FOR APPROVAL

## 承 認 書

Description : Micro Dynamic Speaker

Kingstate Part No. : KDMG40008

Customer's Model No. : \_\_\_\_\_

Specification No. : PKD-7299

Number Of The Edition : 1.2

CUSTOMER'S APPROVED SIGNATURE		

志豐電子股份有限公司 KINGSTATE ELECTRONICS CORP.



Address : 10F, No. 69-11, Sec. 2, Chung Cheng E. Rd., Tamshui County, Taipei Hsien, Taiwan, R.O.C.

International sales dept.: TEL:886-2-2809-5651 FAX:886-2-2809-7151

Domestic sales dept.: TEL:886-2-2809-0668 FAX:886-2-28096748

<http://www.kingstate.com.tw>

Approved by	Checked by	Issued by
吳國華 3/27/06	劉子梅 2006.3.27	Fei 3/24/06

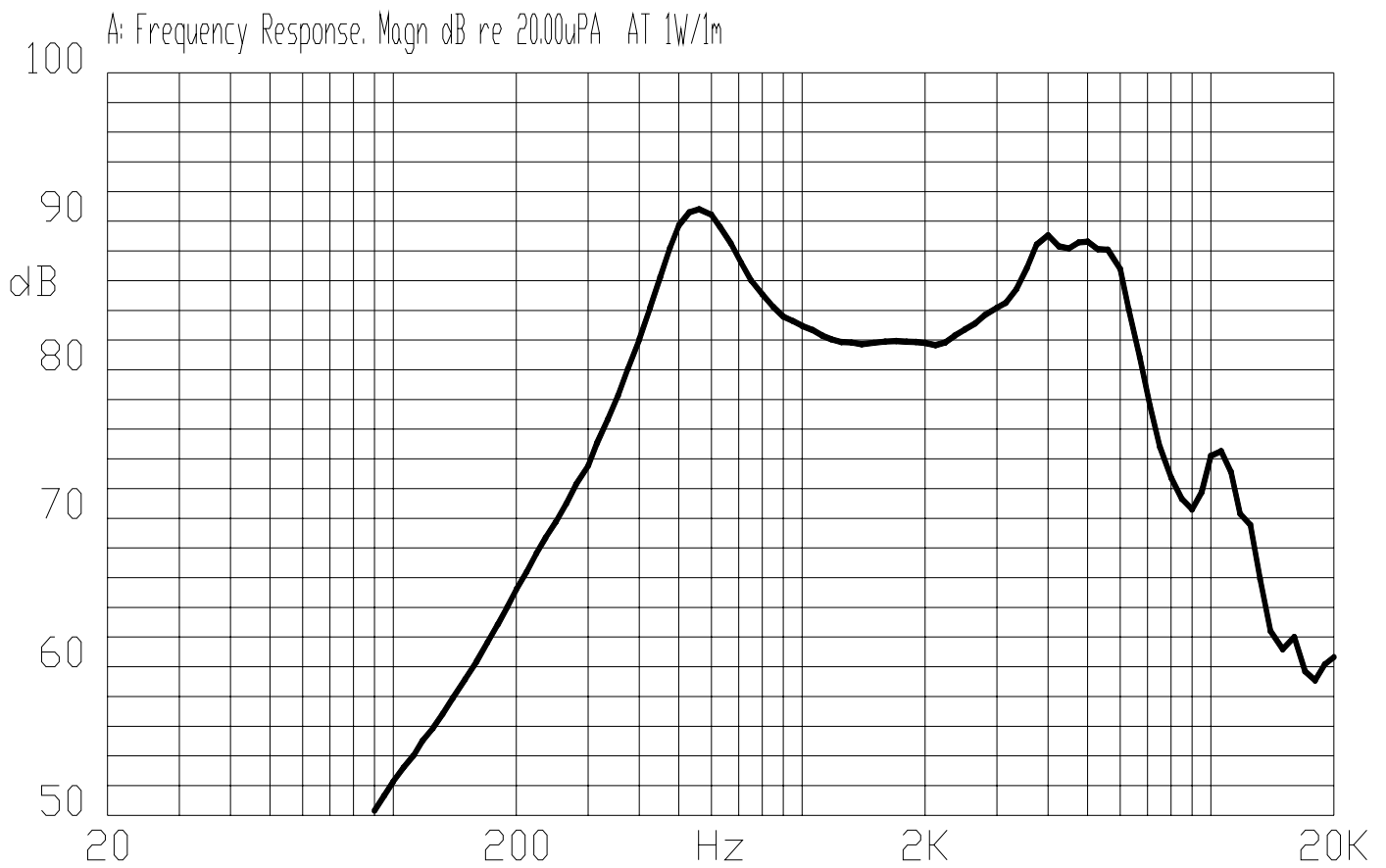
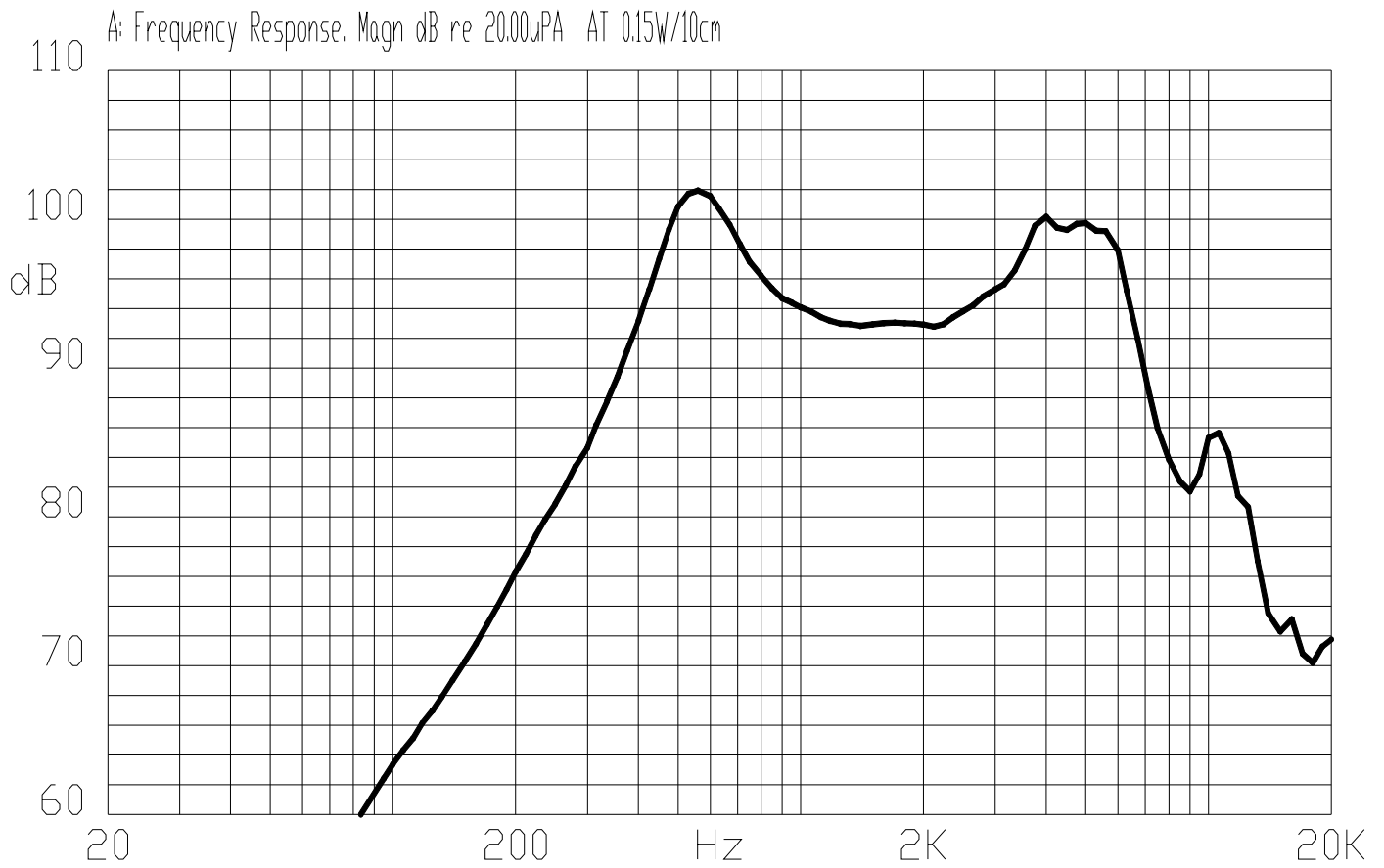
## A. SCOPE 範疇

This specification applies speaker, **KDMG40008**  
此規格書適用於喇叭, **KDMG40008**

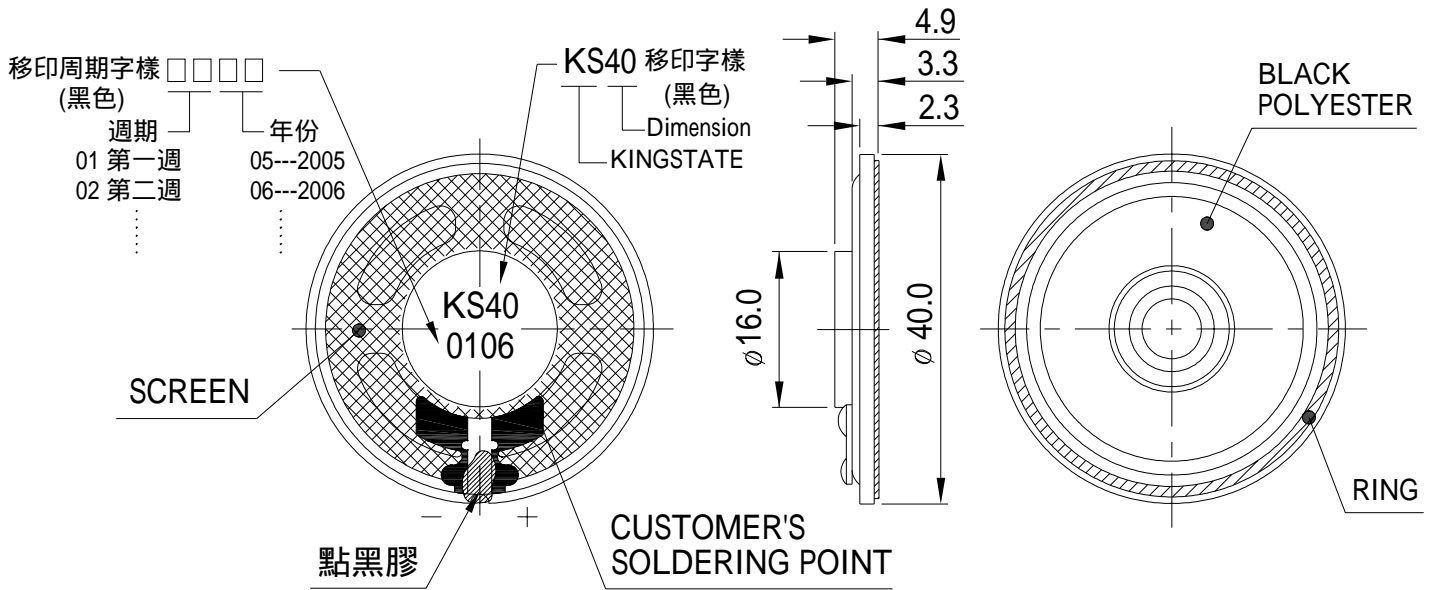
## B. SPECIFICATION 規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	40.0 x 4.9	
2	Power Rating 功率		W	Rated. 0.15/ MAX. 0.3	Maximum Power:IEC-60268-5 Filter 60s On/120s Off 10 Cycles (Room TEMP.)
3	Impedance 阻抗		ohm	8 ± 15%	At 1.0Hz 1.0V
4	Resonance Frequency 低音諧振	Fo	Hz	530 ± 20%	At 1.0V
5	Output S.P.L. 音壓位準		dB	92 ± 3dB(0.15w/10cm) 81 ± 3dB(1w/1m)	At 1.0k,1.2k,1.5k,2.0kHz (Average figures)
6	Frequency Range 有效頻寬		Hz	Fo---7KHz	Output S.P.L. ±10dB
7	Distortion 失真		%	10% Max.	At 1.0kHz , 0.15W
8	Voice Coil 音圈		mm		
9	Magnet 磁石		mm	12.5 x 1.5	Nd-Fe-B(鈹鐵鋁)
10	Flux Density 磁通密度		Gauss		Min.
11	Operating temp. 操作溫度			-20 ~ +60	
12	Buzzer & Rattle 異常音				Not be audible at 1.1V sine wave between Fo ~ 7KHz 輸入 1.1V 正弦波從 Fo 到 7KHz 之間無異常音
13	Weight 重量		g	10.3	
14	Material 材質			Metal	
15	Environmental Protection Regulation 環保法規			RoHS	

### C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線



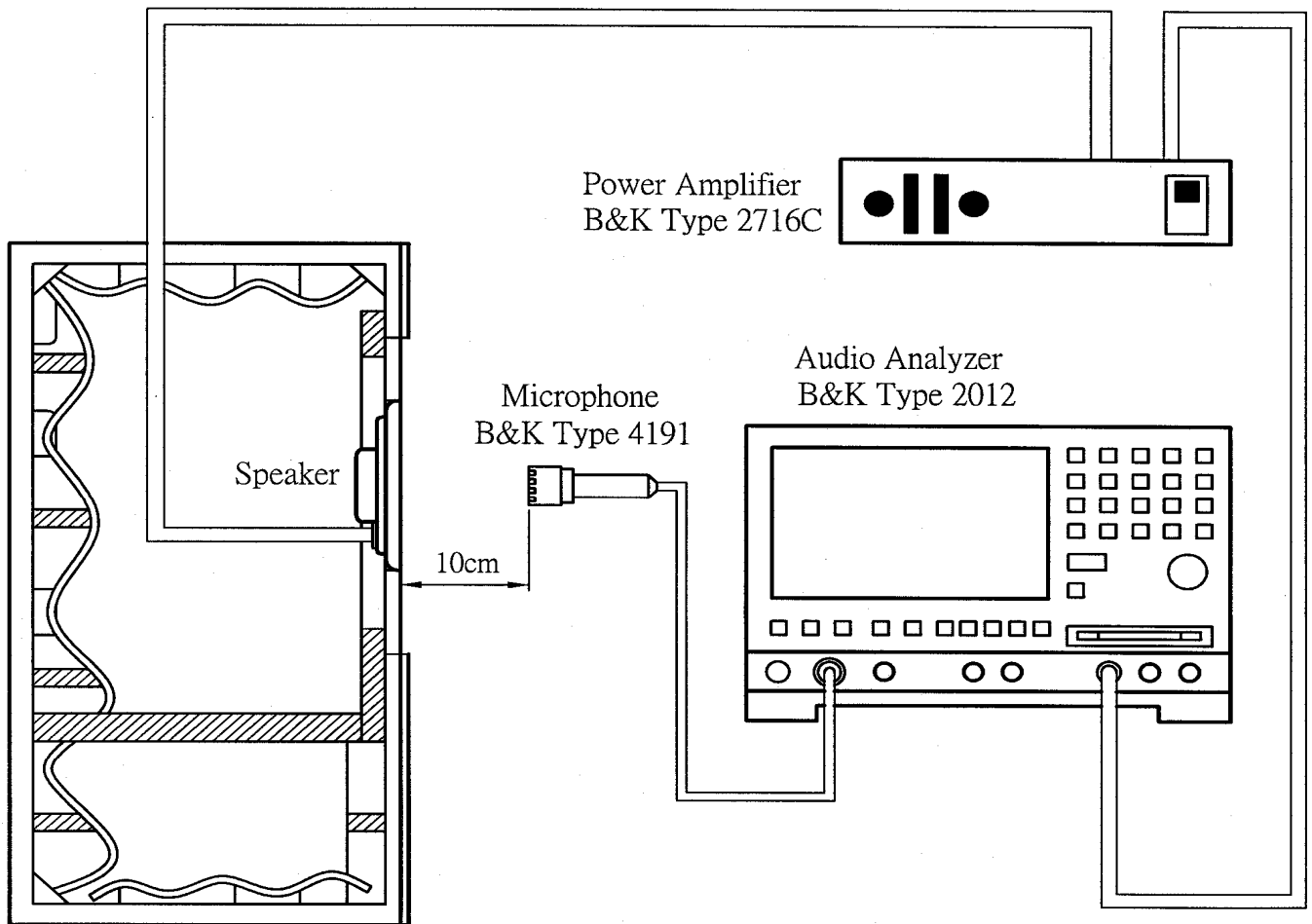
## D. APPEARANCE DRAWING 外觀尺寸圖



Tol:  $\pm 0.5$

Unit: mm

## E. MEASUREMENT CIRCUIT 測量線路



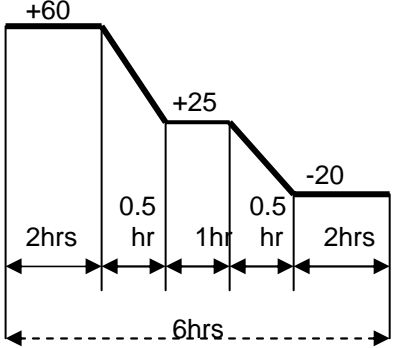
JIS C5531

940mm x 640mm x 1240mm

## F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	PCB Wire Pull Strength PCB 線材拉力	The pull force shall be applied to double lead wire : Horizontal 3.0N(0.306kg) for 30 seconds. 雙線材水平方向施以 3.0N(0.306kg)的力量,30 秒.	No damage and cutting off. 線材不鬆動,不脫落.
2	Vibration Test 振動測試	speaker shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55hz band of vibration frequency to each of 3 per-pendicular directions for 2 hours. 振動週波數 10 ~ 55HZ、全振幅 1.5mm 於 X.Y.Z 3 個方向,各 2 小時.	No obstacle to be harmful to normal operation; damages, cracks, rusts and distortions. Should not be audible at At 1.1V sine wave between Fo ~ 7KHz
3	Drop Test 落下測試	Drop the speakers contained in normal box onto the board 40mm thick 10 times from the height of 75cm 將揚聲器置於盒中,自 75 公分高度落在 40mm 木板上共 10 次.	測試後無任何障礙防礙正常操作.且在輸入 1.1V 正弦波從 Fo 到 7KHz 之間無異常音

## G. ENVIRONMENTAL TEST 環境試驗

No.	Item	Test conditions	Evaluation standard
1	High temp. Test 高溫測試	After being placed in a chamber at +60 for 96 hours 置於+60 環境中 96 小時	Being placed for 6 hours at +25 , speaker shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc. Should not be audible at 1.1V sine wave between Fo ~ 7KHz. Fo should meet initial one. S.P.L. deviation of unit should be within $\pm 3\text{dB}$ 經測試後,靜置於+25 (室溫)環境中 6 小時後,測試後無任何障礙防礙正常操作.且在輸入 1.1V 正弦波從 Fo 到 7KHz 之間無異常音. Fo 與原規格值相同,輸出音壓變化量在 $\pm 3\text{dB}$ 內
2	Low temp. Test 低溫測試	After being placed in a chamber at -20 for 96 hours. 置於-20 環境中 96 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40 and 90 $\pm$ 5%RH relative humidity for 96 hours. 置於+40 , 相對濕度 90 $\pm$ 5%環境中 96 小時	
4	Temp. cycle test 溫度循環測試	The part shall be subjected to 5 cycles. One cycle shall be consist of: 單體承受溫度循環測試 5 次,其循環內容如圖示: 	

## H. Recommended Temperature Profile For Hand Soldering 建議手焊溫度

Hand Soldering
370 $\pm$ 10 / 3 $\pm$ 1 Sec

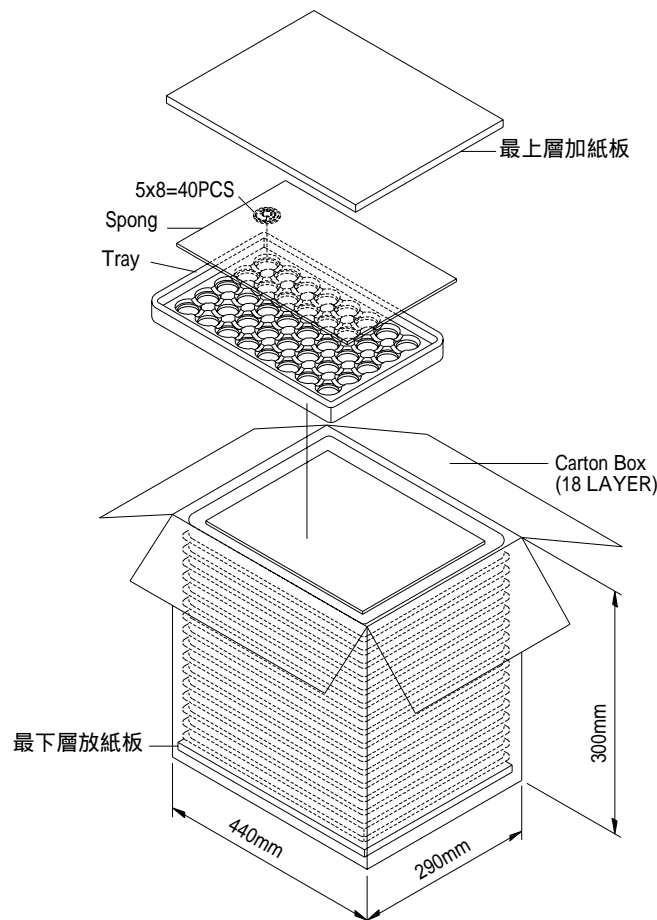
# I. RELIABILITY TEST 信賴性試驗

No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	0.15W white noise is applied for 24 hours, at room temp. 在室溫下,輸入功率 0.15W, 白雜音連續操作 24 小時.	Being placed for 1 hours at +25 , speaker shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc. Should not be audible at 1.1V sine wave between Fo ~7KHz. Fo should meet initial one. S.P.L. deviation of unit should be within ±3dB. 經測試後,靜置於+25 (室溫) 環境中 1 小時後,測試後無任何障礙防礙正常操作.且在輸入 1.1V 正弦波從 Fo 到 7KHz 之間無異常音.Fo 與原規格值相同, 輸出音壓變化量在±3dB 內.

## TEST CONDITION.

Standard Test Condition :	a) Temperature : +5 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件 :	a) 溫度 : +5 ~ +35°C	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	a) Temperature : +25 ± 2°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件 :	a) 溫度 : +25 ± 2°C	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mbar

# J. PACKING STANDARD 包裝規格



Tray	420mmx270mmx22mm	1x40PCS=40PCS
Carton Box	440mmx290mmx300mm	40PCSx18=720PCS