

SPECIFICATION FOR APPROVAL

承 認 書

Description : **Micro Dynamic Speaker**

Kingstate Part No. : **KDMG12008-05**

Customer's Model No. :

Specification No. : **PKD-8033**

Number Of The Edition : **1.1**

CUSTOMER'S APPROVED SIGNATURE		



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陈玉华/11	王 永 松 2008.6.11	Qin 06/11/08'

A. SCOPE 範疇

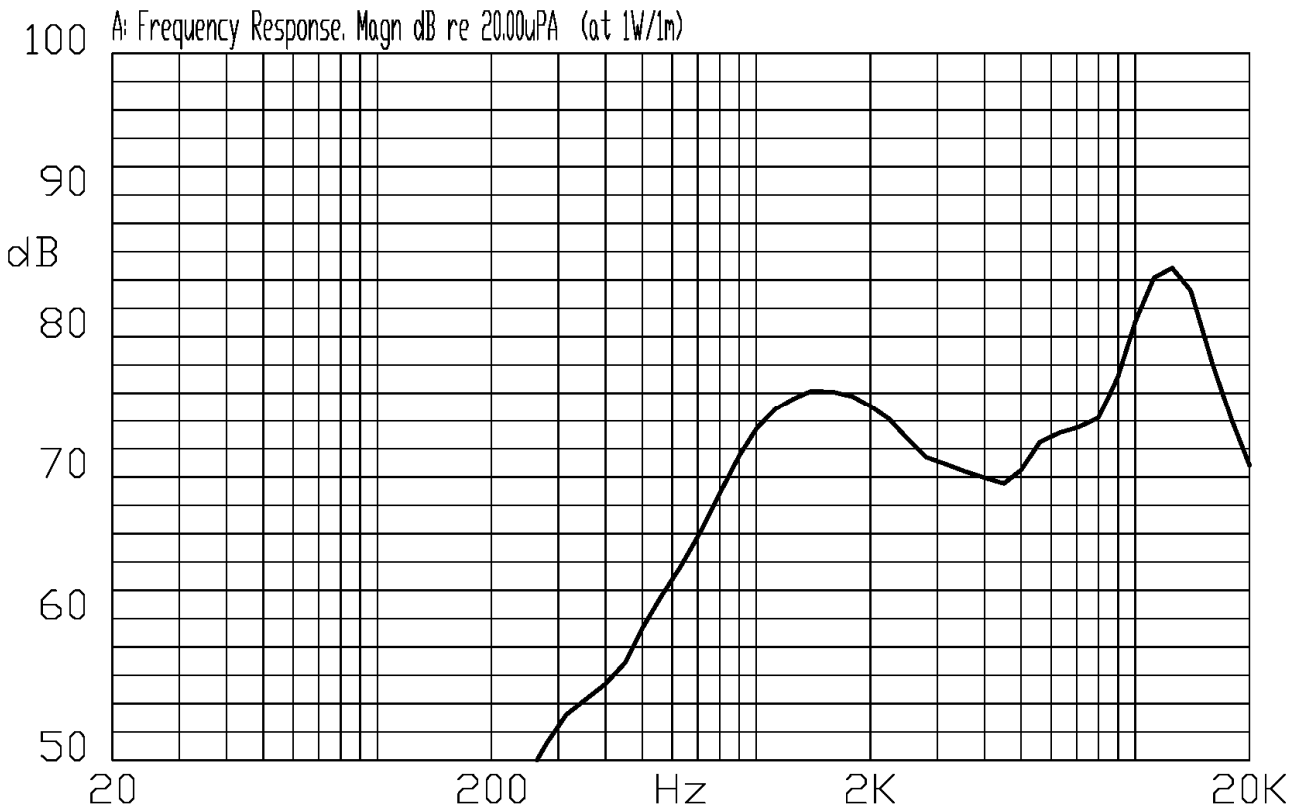
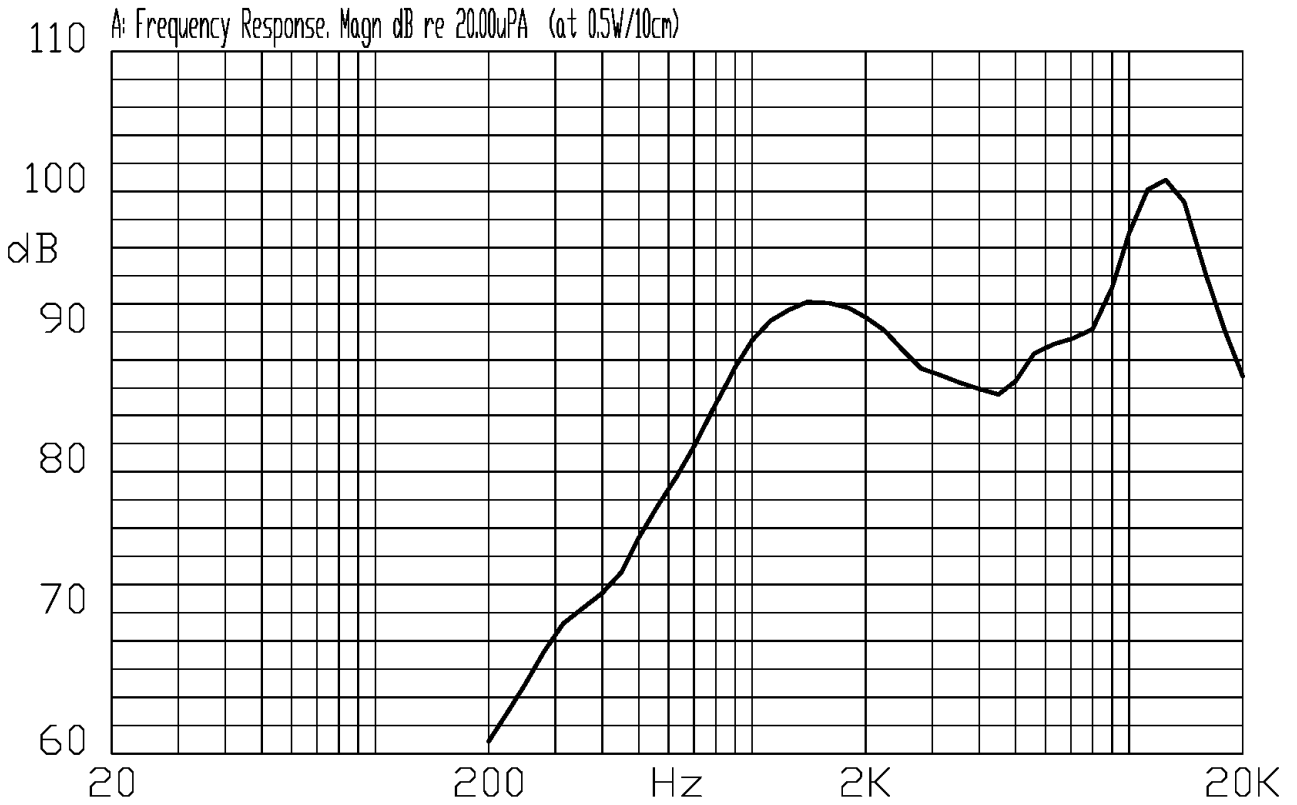
This specification applies speaker, **KDMG12008-05**

此規格書適用於喇叭 , **KDMG12008-05**

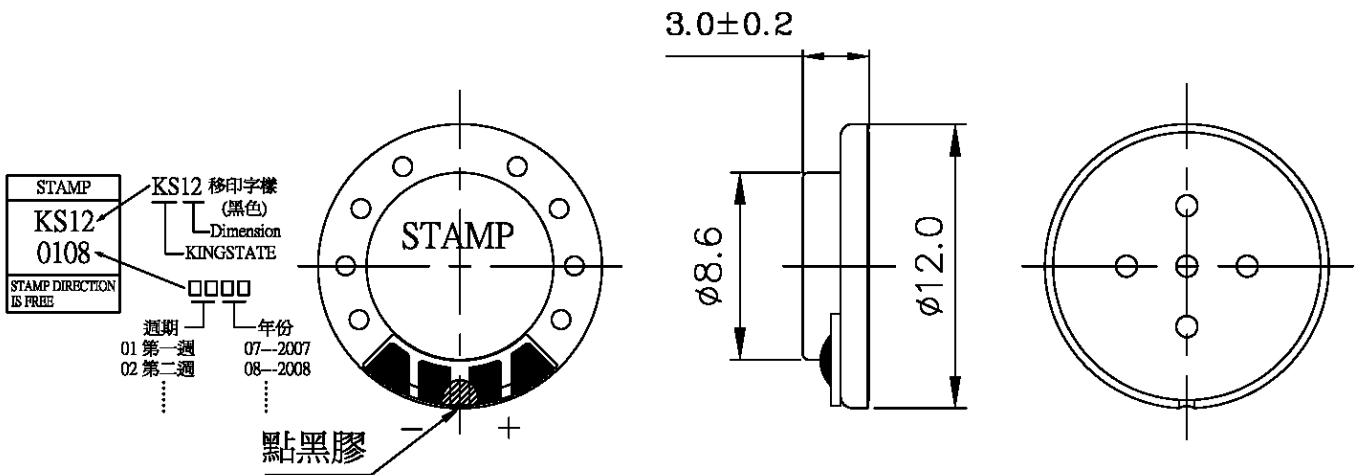
B. SPECIFICATION 規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	12.0 x 3.0	
2	Power Rating 功率		W	Rated. 0.5/ MAX. 0.6	Maximum Power: IEC-60268-5 Filter 60s On/120s Off 10 Cycles (Room TEMP.)
3	Impedance 阻抗		ohm	8 ± 15%	At 1.5KHz 1.0V
4	Resonance Frequency 低音諧振	Fo	Hz	1000 ± 20%	At ,1.0V
5	Output S.P.L. 音壓位準		dB	90 ± 3dB(0.5w/10cm) 77 ± 3dB(1w/1m)	At 1.2k,1.5k,2.0k,2.5kHz (Average figures)
6	Frequency Rang 有效頻寬		Hz	Fo---20K	
7	Distortion 失真		%	10% Max.	At 1.5kHz , 0.5W
8	Voice Coil 音圈		mm		
9	Magnet 磁石		mm	6.9 x 1.0	Nd-Fe-B (鈹鐵鋁) . N45
10	Flux Density 磁通密度		Gauss		
11	Operating temp. 操作溫度			-25 ~ +55	
12	Buzze & Rattle 異常音				Not be audible at 2.0V sine wave between Fo ~ 20KHz 輸入 2.0V 正弦波從 Fo 到 20KHz 之間無異常音
13	Weight 重量		g	1.0	
14	Material 材質			Metal	
15	Environmental Protection Regulation 環保法規			RoHS	Electroplate and does not use hexavalent chromium(Cr6+) to use trivalent chromium(Cr3+) to replace partly. 電鍍部份不使用六價鉻以三價 鉻取代.

C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線



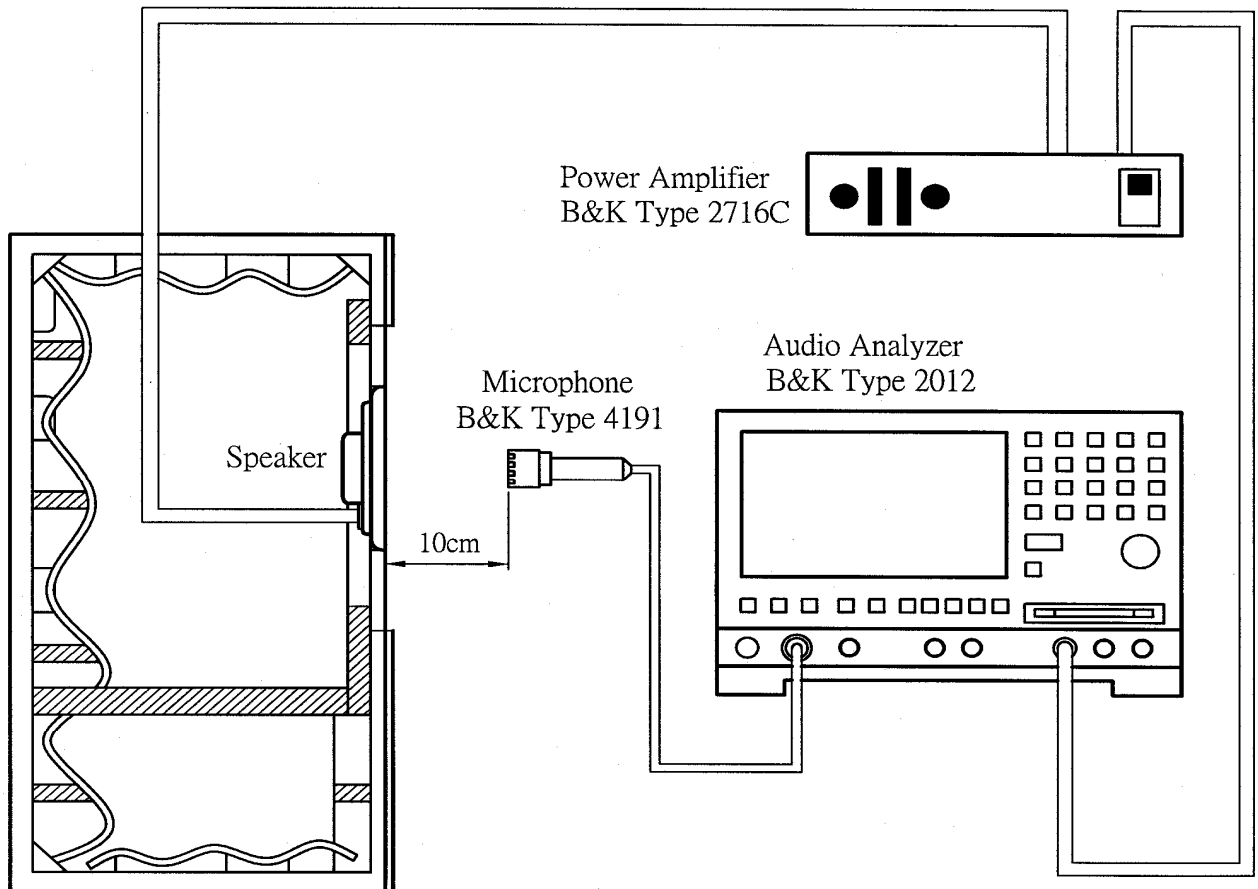
D. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.3

Unit: mm

E. MEASUREMENT CIRCUIT 測量線路



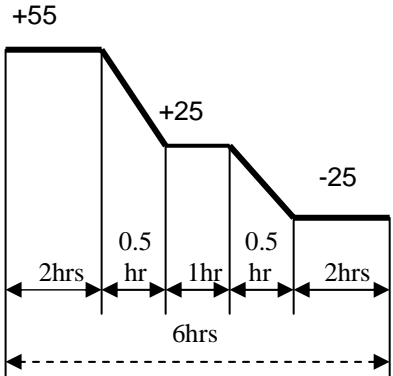
JIS C5531

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. 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 2.0V sine wave between Fo ~ 20KHz
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 2.0V 正弦波從 Fo 到 20KHz 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 +55 for 96 hours 置於+55 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 2.0V sine wave between Fo ~ 20KHz. 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 6 小時後, 測試後無任何障礙防礙正常操作.且在輸入 2.0V 正弦波從 Fo 到 20KHz 之間無異常音. Fo 與原規格值相同,輸出音壓變化量在±3dB 內.
2	Low temp. Test 低溫測試	After being placed in a chamber at -25 for 96 hours. 置於-25 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±5% RH relative humidity for 96 hours. 置於+40 , 相對濕度 90±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±10 / 3±1 Sec

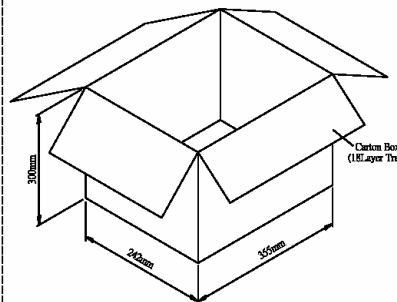
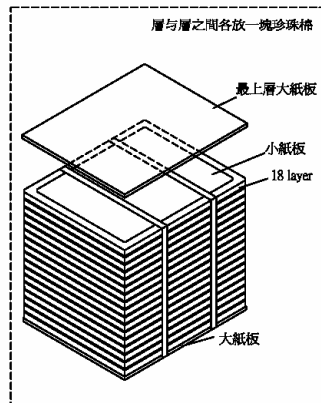
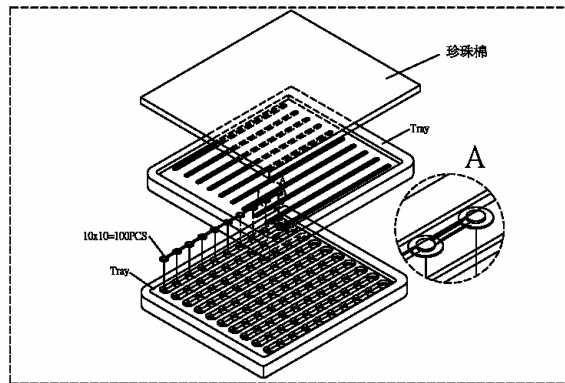
I. RELIABILITY TEST 信賴性試驗

No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	0.5W white noise is applied for 96 hours, at room temp. 在室溫下,輸入功率 0.5W,白雜音連續操作 96 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 2.0V sine wave between Fo ~ 20KHz. 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 2.0V 正弦波從 Fo 到 20KHz 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	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件 :	a) 溫度 : +5 ~ +35	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	a) Temperature : +25 ± 2	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件:	a) 溫度 : +25 ± 2	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mbar

J. PACKING STANDARD 包裝規格



Tray	350mmx235mmx20mm	1x100PCS=100PCS
Carton Box	355mmx242mmx300mm	100PCSx18=1,800PCS