SPECIFICATION FOR APPROVAL

承　　認　　書

Description	:	**Dynamic Speaker**
Kingstate Part No.	:	**KDMG5050045Y-02W**
Customer's Model No.	:	
Specification No.	:	**DOD-3324**
Number Of The Edition	:	**1.1**

CUSTOMER'S APPROVED SIGNATURE		

Preliminary

KINGSTATE 志豐電子股份有限公 KINGSTATEELECTRONICS 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
Jeff 020720	Jeff 020720	Sid 2020.2.7

A. RELEASE HISTORY 發行歷史

Version	Date	Description	Remark
1.1		Creation	

Preliminary

A. SCOPE 範疇

This specification applies speaker, **KDMG5050045Y-02W**

此規格書適用於喇叭, **KDMG5050045Y-02W**

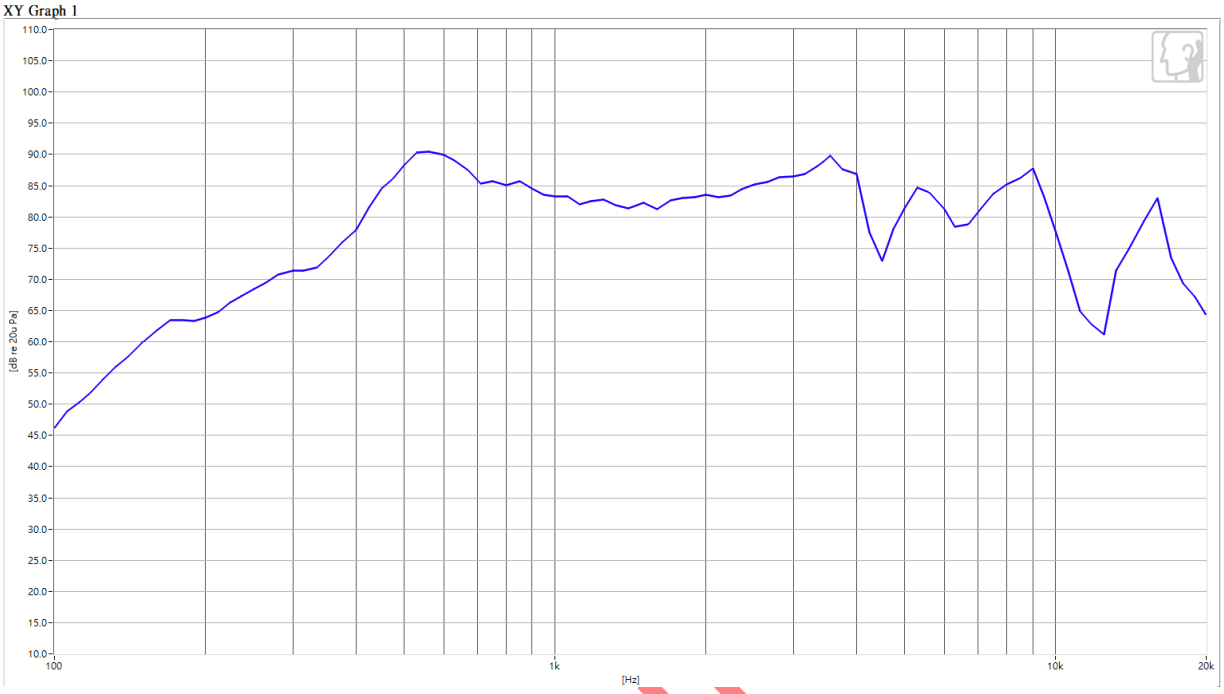
B. SPECIFICATION 規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	50 x 50 x10.3	Refer to attached drawing in details
2	Rated Power 額定功率		W	0.2	
3	Max. Input Power 最大輸入功率		W	0.5	Maximum Power:IEC-60268-5 Filter 60s ON/120s Off 10 Cycles(Room Temp)
4	Impedance 阻抗	Ω	ohm	45 ± 15%	@ 800Hz, 1Vrms input
5	Resonance Frequency 低音諧振	F0	Hz	600 ± 20%	In free air input 1v
6	S.P.L. 音壓位準		dB	83 ± 3 (0.2W/50cm)	At 1,1.4,1.7,2KHz (Average figures)
7	Frequency Rang 有效頻寬		Hz	fo~2.7K	Output S.P.L. -10dB
8	Distortion 失真		%	5% Max	At 800Hz, 0.2W/0.5m
9	Operating temp. 操作溫度		℃	-30 ~ +70	
10	Storage temp. 存儲溫度		℃	-40 ~ +85	
11	Buzzer & Rattle 異常音				Not be audible at 3V sine wave between From Fo~2.7K 輸入3V正弦波從F0 到2.7K 之間無異常音
12	Weight 重量		g	14	
13	Cone 材質			MYLAR (PET 材質)	
14	Gasket 材質			Rubber	
15	Environmental Protection Regulation 環保法規			HSF	

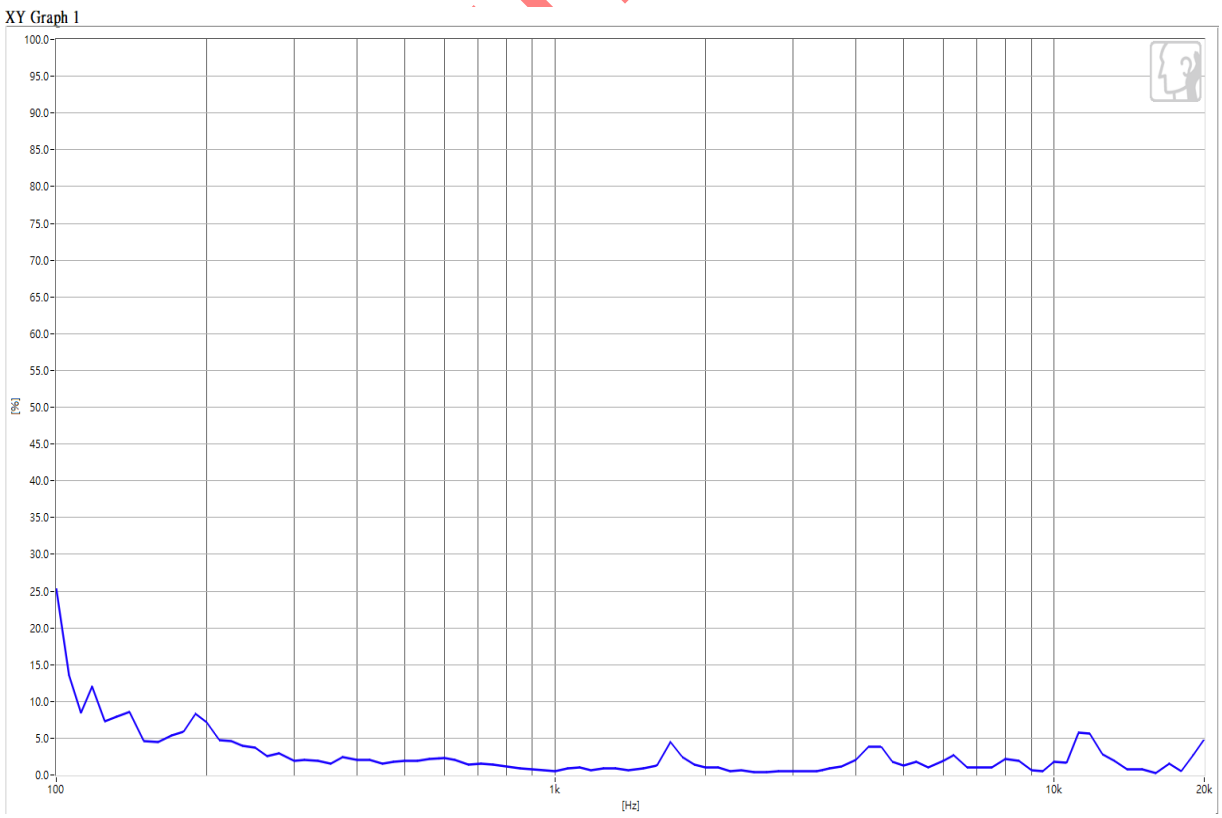
Preliminary

C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線

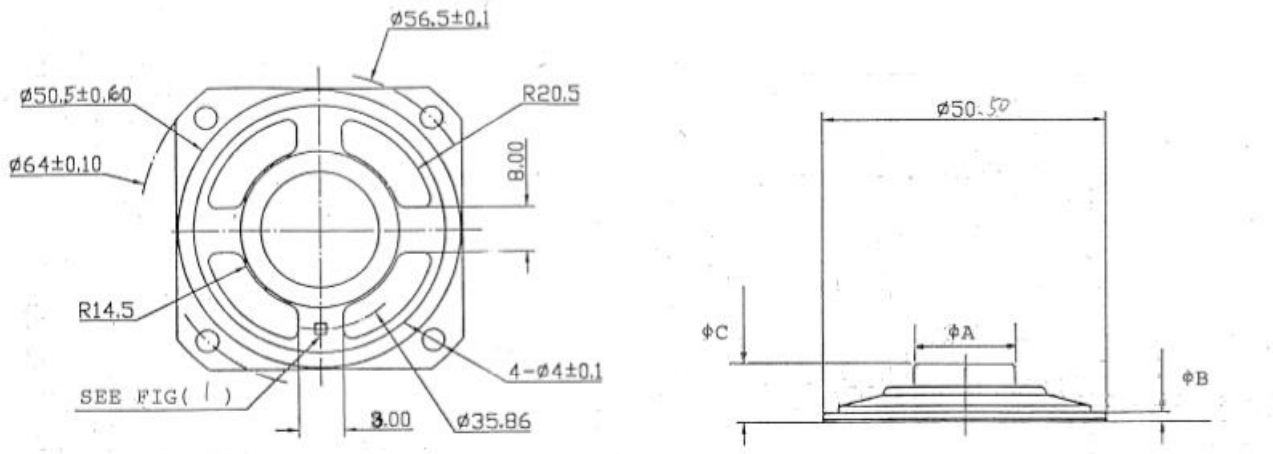
SPL Curve



THD Curve



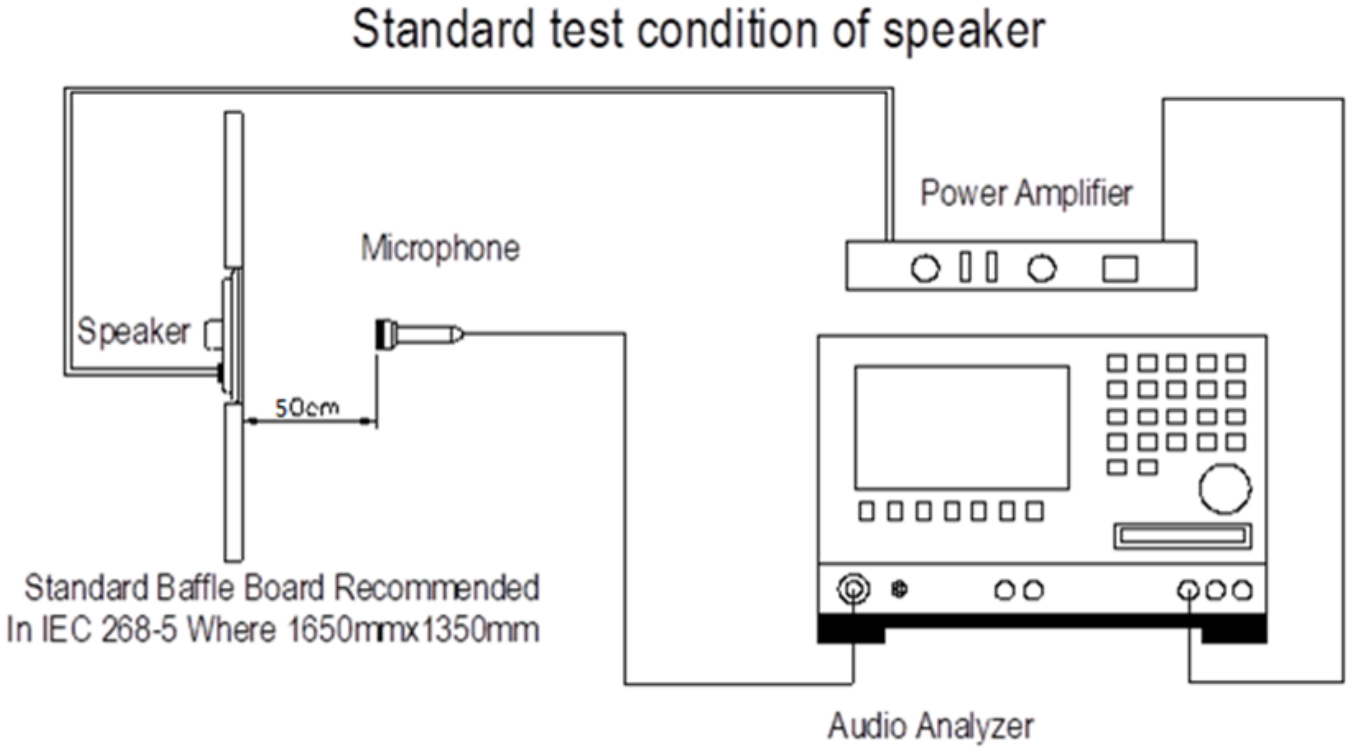
D. APPEARANCE DRAWING 外觀尺寸圖



編號	A	B	C
尺寸	17mm	2.5mm	10.3mm
10mm 以下±0.5		11-30mm±0.8	

minary

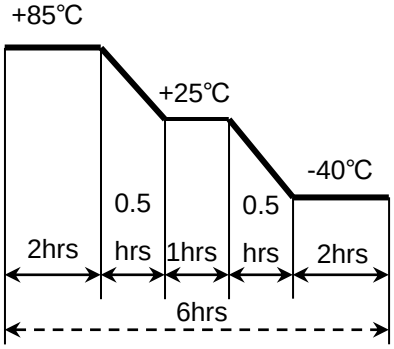
E. MEASUREMENT CIRCUIT 測量線路



F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	Solderability 焊錫附著性 (Connector excepted) 端子類不適用此項	Stripped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder bath of +270±5℃ for 3±0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入+270±5℃溶融焊錫槽 3±0.5 秒.	90% min. stripped wires shall be wet with solder.(Except the edge of terminal) 浸入裸線部份附著焊錫 90% 以上.(末端斷面不算).
2	Lead Wire Pull Strength 線材拉力	The pull force shall be applied to double lead wire： Horizontal3.0N(0.306kg) for 30seconds. Vertical2.0N(0.204kg) for 30seconds. 雙線材水平方向施以 3.0N(0.306kg)的力量，垂直方向施以 2.0N(0.204kg)的力量,各 30 秒.	No damage and cutting off 線材不鬆動，不脫落.
3	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 3Vrms sine wave between 600 ~ 2.7kHz 測試後無任何障礙防礙正常操作.且在輸入3Vrms 正弦波從600到2.7kHz 之間無異常音
4	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.	

G.ENVIRONMENT TEST 環境測試

No.	Item	Test conditions	Evaluation standard
1	High temp. Test 高溫測試	After being placed in a chamber at +85℃ for 96 hours 置於+85℃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 3Vrms sine wave between 600~2.7kHz. F0 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 3Vrms 正弦波 600 到 2.7kHz 之間無異常音.F0 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 -40℃ for 96 hours. 置於-40℃環境中 96 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40℃and 95% RH relative humidity for 96 hours. 置於+40℃，相對濕度 95%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:  	

Preliminary

H. RELIABILITY TEST 信賴性測試

No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	Rated Power White noise is applied for 24 hours 連續 24 小時輸入額定功率的白色噪音	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 3Vrms sine wave between 600 ~2.7kHz. F0 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 3Vrms 正弦波從 600~2.7KHz 之間無異常音.F0 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
JudgmentTestCondition	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

Preliminary

I.PACKING STANDARD 包裝規格

