

SPECIFICATION FOR APPROVAL

承 認 書

Description : **Micro Dynamic Speaker**

Kingstate Part No. : **KDMG404008L-50**

Customer's Model No. :

Specification No. : **DOD-S229**

Number of the Edition : **1.1**

CUSTOMER'S APPROVED SIGNATURE

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KINGSTATE

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Approved by	Checked by	Issued by
		Willie 2017/04/21

A. SCOPE 範疇

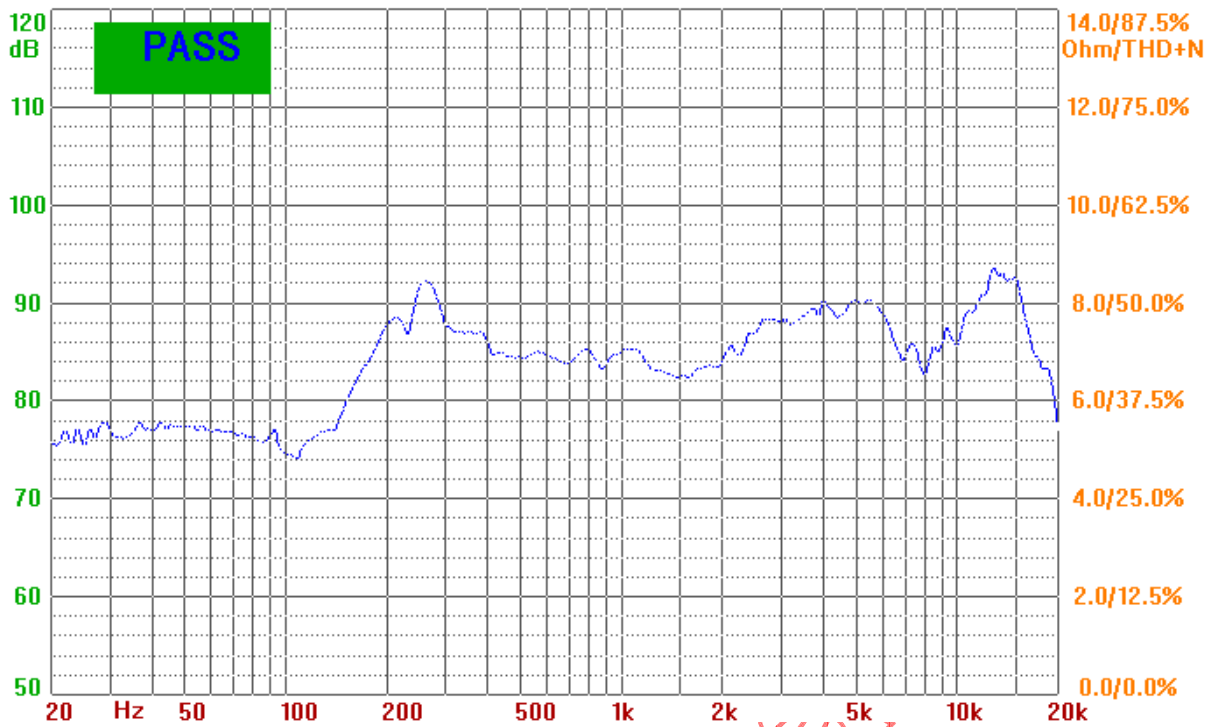
This specification applies speaker, **KDMG404008L-50**

此規格書適用於喇叭, **KDMG404008L-50**

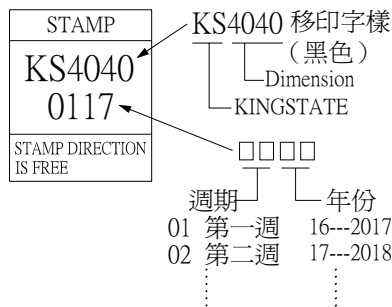
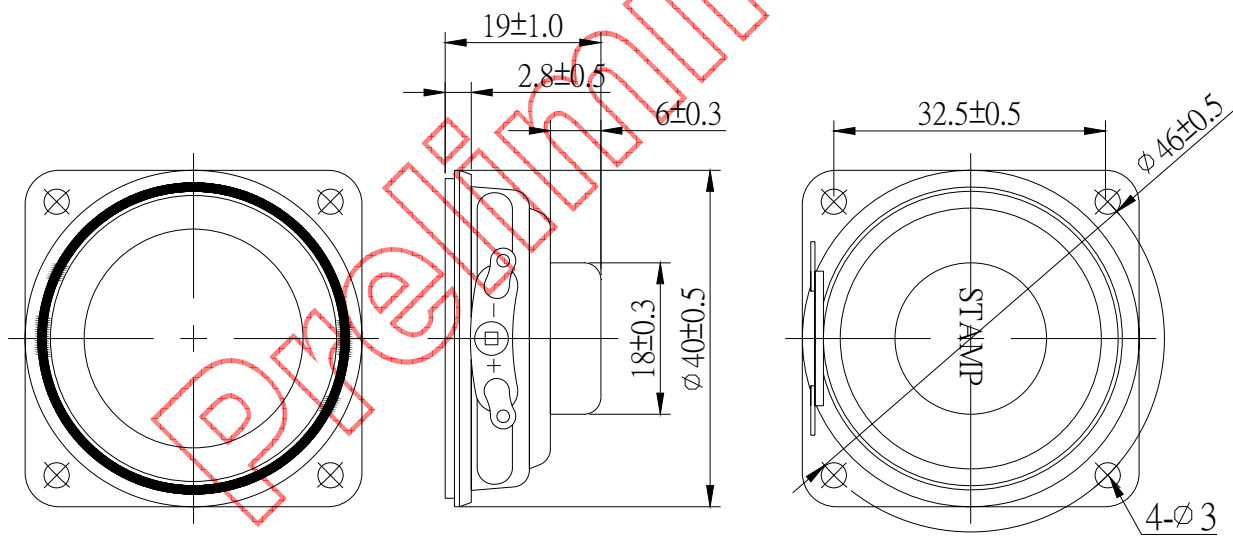
B. SPECIFICATION 規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	40*40*19	
2	Power Rating 功率		W	Rated 5 / MAX 6	Maximum Power: IEC-60268-5 Filter 50s ON/120s Off 10 Cycles(Room Temp)
3	Impedance 阻抗	Ω	ohm	$8 \pm 15\%$	At 1.0KHz 1.0V
4	Resonance Frequency 低音諧振	Fo	Hz	$230 \pm 20\%$ Hz	At 1.0V
5	Output S.P.L. 音壓位準		dB	$85 \pm 3\text{dB}(0.1\text{W}/10\text{cm})$	At 0.6K ,0.8K,1.0K 1.2KHz (Average figures)
6	Frequency Rang 有效頻寬		Hz	F0---20K	Average SPL -10db
7	Distortion 失真		%	5% Max.	at 1KHz ,0.1W
8	Diaphragm 振膜		mm	N/A	PU+Paper
9	Magnet 磁石		mm	N/A	Nd-Fe-B
10	Flux Density 磁通密度		Gauss	N/A	
11	Operating temp. 操作溫度		°C	-30 ~ +70	
12	Storage temp. 儲存溫度		°C	-40 ~ +80	
13	Buzze & Rattle 異常音				Not be audible at 6.32V sine wave between From Fo~20K 輸入 6.32V 正弦波從 Fo 到 20K 之間無異常音
14	Weight 重量		g	16	
15	Material 材質			Spcc	
16	Environmental Protection Regulation 環保法規			RoHS2.0	

C. SPEAKER CHARACTERISTICS 頻率響應曲線

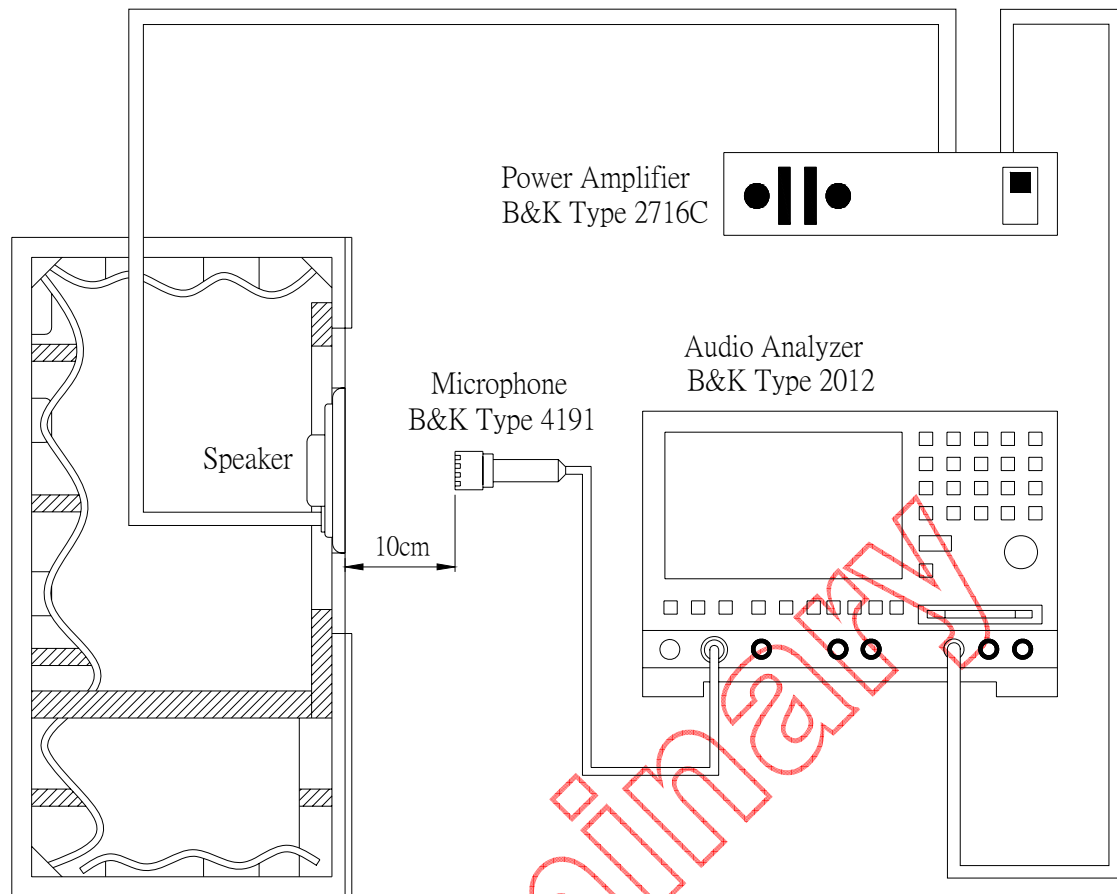


D. APPEARANCEDRAWING 外觀尺寸圖



Tol: ±0.5
Unit: mm

E. MEASUREMENT CIRCUIT 測量線路

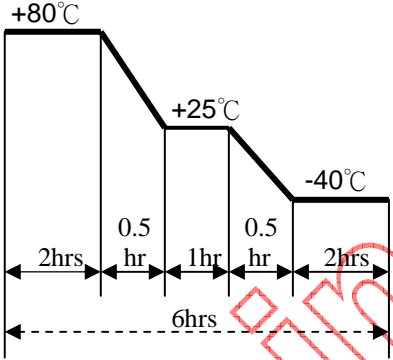


JIS C5531
940mm x 640mm x 1240mm

F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	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 $+270\pm 5^{\circ}\text{C}$ for 3 ± 0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入 $+270\pm 5^{\circ}\text{C}$ 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	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 6.32V sine wave between $F_0 \sim 20\text{KHz}$
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 6.32V 正弦波從 F_0 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 +80°C for 96hours 置於+80°C環境中 96 小時	Being placed for 6 hours at +25°C, speaker shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc. Should not be audible at 6.32V sine wave between Fo~20K. Fo should meet initial one. S.P.L. deviation of unit should be within ±3dB 經測試後, 靜置於+25°C (室溫)環境中 6 小時後, 測試後無任何障礙防礙正常操作. 輸入 6.32V 正弦波從 Fo 到 20K 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 -40°C for 96hours. 置於-40°C環境中 96 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40°C and 90~95% RH relative humidity for 96hours. 置於+40°C, 相對濕度 90~95%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: 	

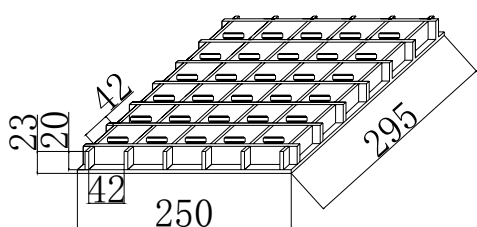
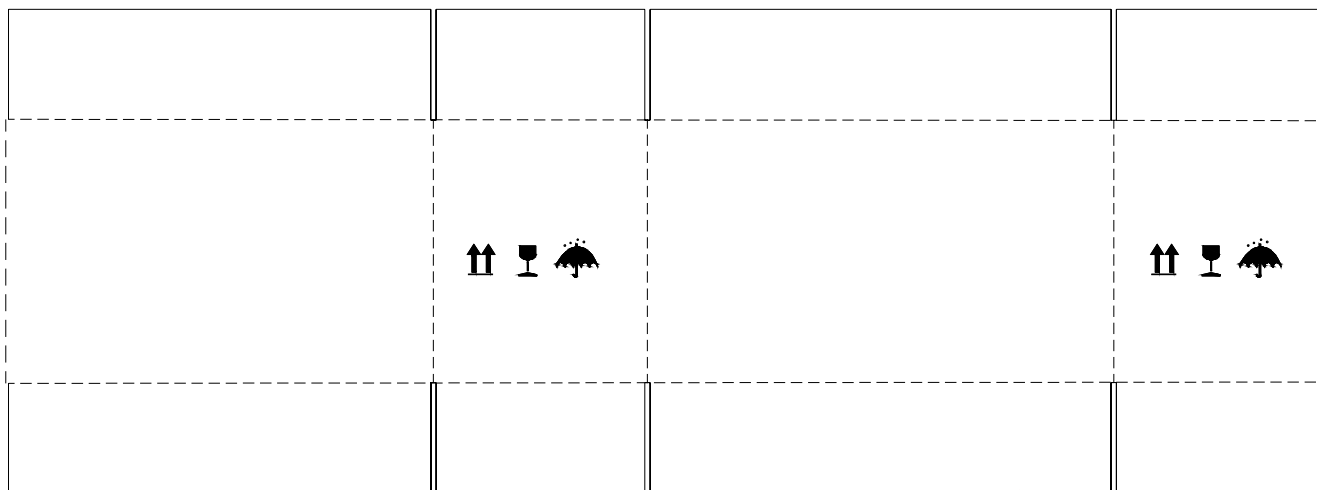
H. RELIABILITY TEST 信賴性試驗



No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	5W Rated power White noise is applied for 96 hours, at room temp product. 在室溫下, 輸入功率 5W, 白雜音連續操作 96 小時.	Being placed for 1 hours at +25°C, speaker shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc. Should not be audible at 6.32V sine wave between Fo ~20K . Fo should meet initial one . S.P.L. deviation of unit should be within ±3dB 經測試後, 靜置於+25°C (室溫)環境中 1 小時後, 測試後無任何障礙防礙正常操作. 輸入 6.32V 正弦波從 Fo 到 20K 之間無異常音. Fo 與原規格值相同, 輸出音壓變化量在±3dB 內.

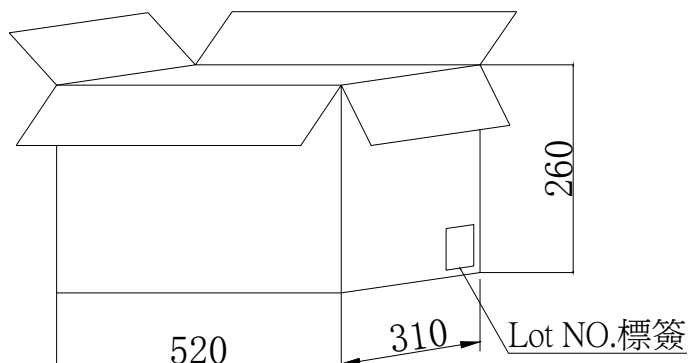
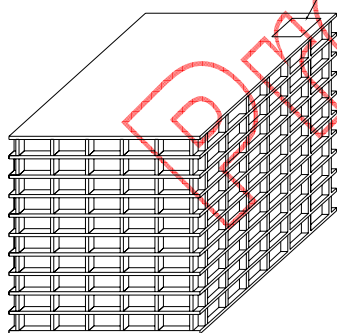
TEST CONDITION.

Standard Test Condition :	a) Temperature : +15 ~ +35°C	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件 :	a) 溫度 : +15 ~ +35°C	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	a) Temperature : +20 ± 3°C	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件:	a) 溫度 : +20 ± 3°C	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mbar

I. PACKING STANDARD 包裝規格



Lot No.	XXXXXXXXXX
Model No.	XXXXXXXXXX
Quantity.	XXXX Pcs
Date:	例:0117
	
 KINGSTATE ELECTRONICS CORP.	



Tray	295*250	30pcs*1=30 pcs
Unit	295*250	30pcs*10=300pcs
Carton	515*345*310	300pcs*2=600pcs