

SPECIFICATION FOR APPROVAL

納入仕樣書

Customer : NIKON CORPORATION

Description : Micro Dynamic Speaker

Kingstate Part No. : KDMG13008C1-03W3

Customer's Model No. : VAA42003(1S541-009)

Specification No. : PKD-7225

Number Of The Edition : 1.5

CUSTOMER'S APPROVED SIGNATURE

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A. SCOPE 範疇

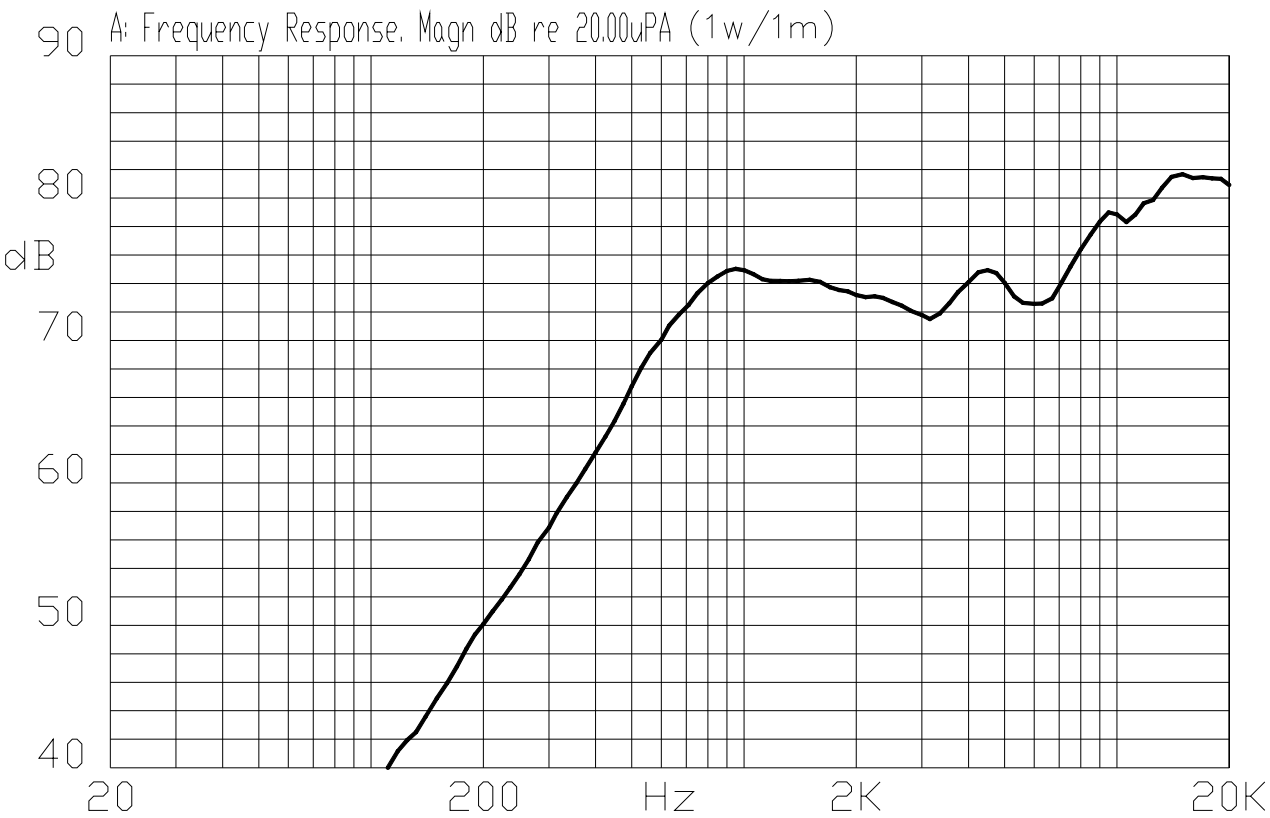
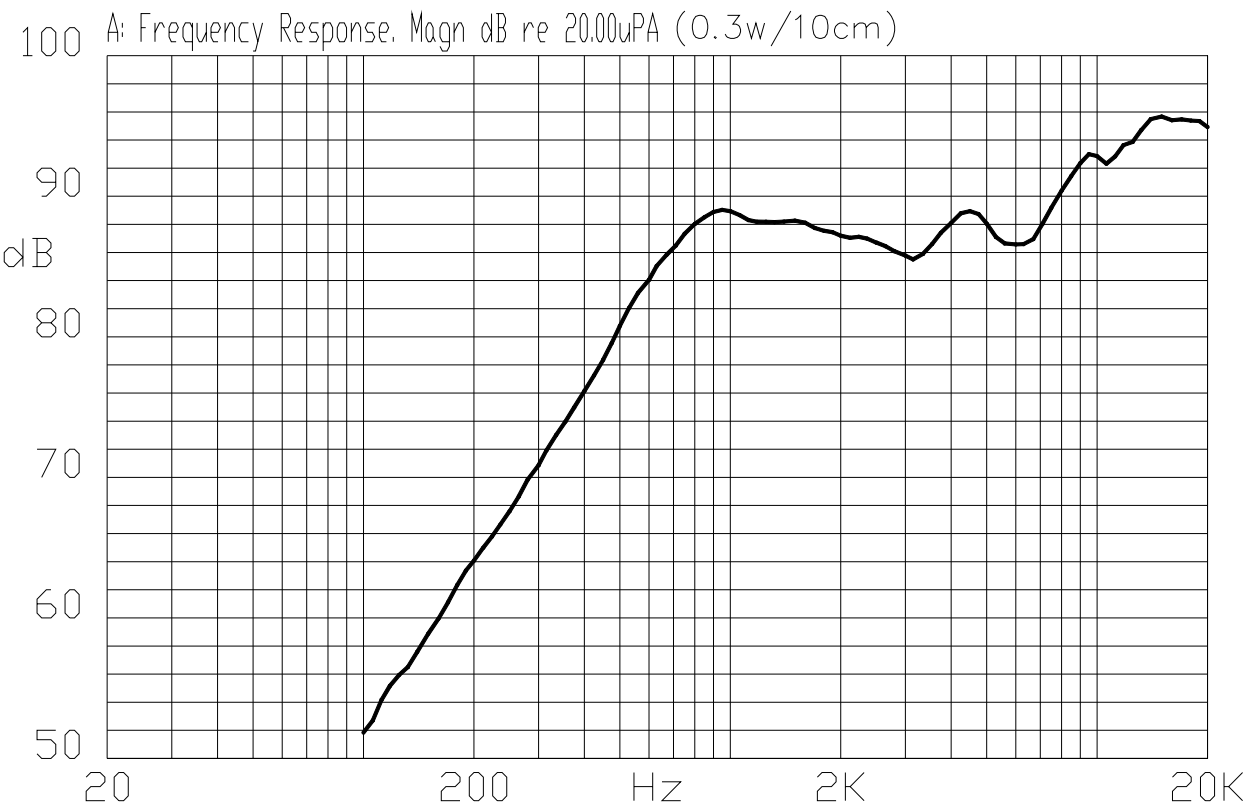
This specification applies speaker, **KDMG13008C1-03W3**

此規格書適用於喇叭，**KDMG13008C1-03W3**

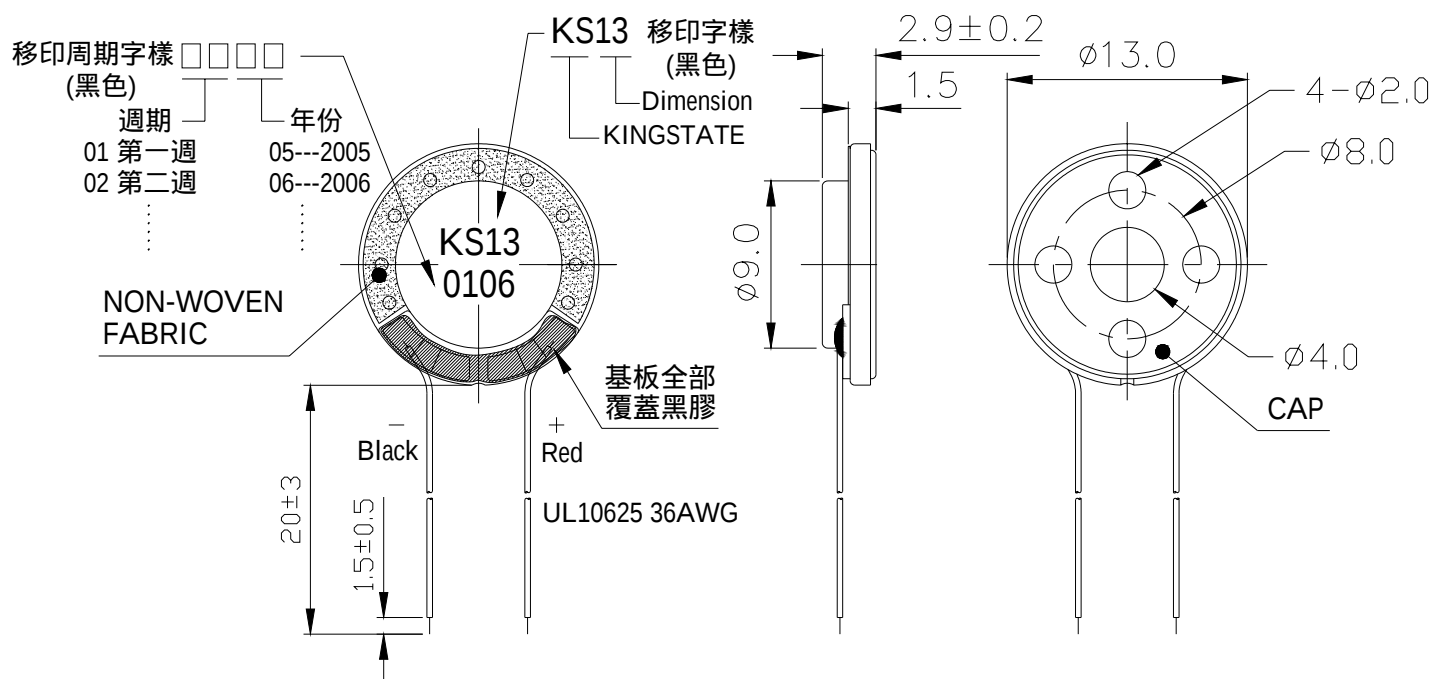
B. SPECIFICATION 規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	$\phi 13.0 \times 2.9$	
2	Power Rating 功率		W	Rated. 0.3 / MAX. 0.5	Maximum Power:IEC-60268-5 Filter 60s On/120s Off 10 Cycles (Room TEMP.)
3	Impedance 阻抗	Ω	ohm	$8 \pm 15\%$	At 1.5kHz 1.0V
4	Resonance Frequency 低音諧振	Fo	Hz	$850 \pm 20\%$	At 1.0V
5	Output S.P.L. 音壓位準		dB	$87 \pm 3\text{dB}(0.3\text{w}/10\text{cm})$ $73 \pm 3\text{dB}(1\text{w}/1\text{m})$	At 1.5k,2.0k,2.5k,3.0kHz (Average figures)
6	Frequency Range 有效頻寬		Hz	Fo---20K	
7	Distortion 失真		%	10% Max.	At 1.5kHz , 0.3W
8	Voice Coil 音圈		mm	-----	
9	Magnet 磁石		mm	$\phi 6.8 \times 1.0$	Nd-Fe-B(鈹鐵鋁)
10	Flux Density 磁通密度		Gauss	2550	
11	Operating temp. 操作溫度			-20 ~ +85	
12	Buzze & Rattle 異常音				Not be audible at 1.55V sine wave between Fo ~ 20KHz 輸入 1.55V 正弦波從 Fo 到 20KHz 之間無異常音
13	Weight 重量		g	1.2	
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



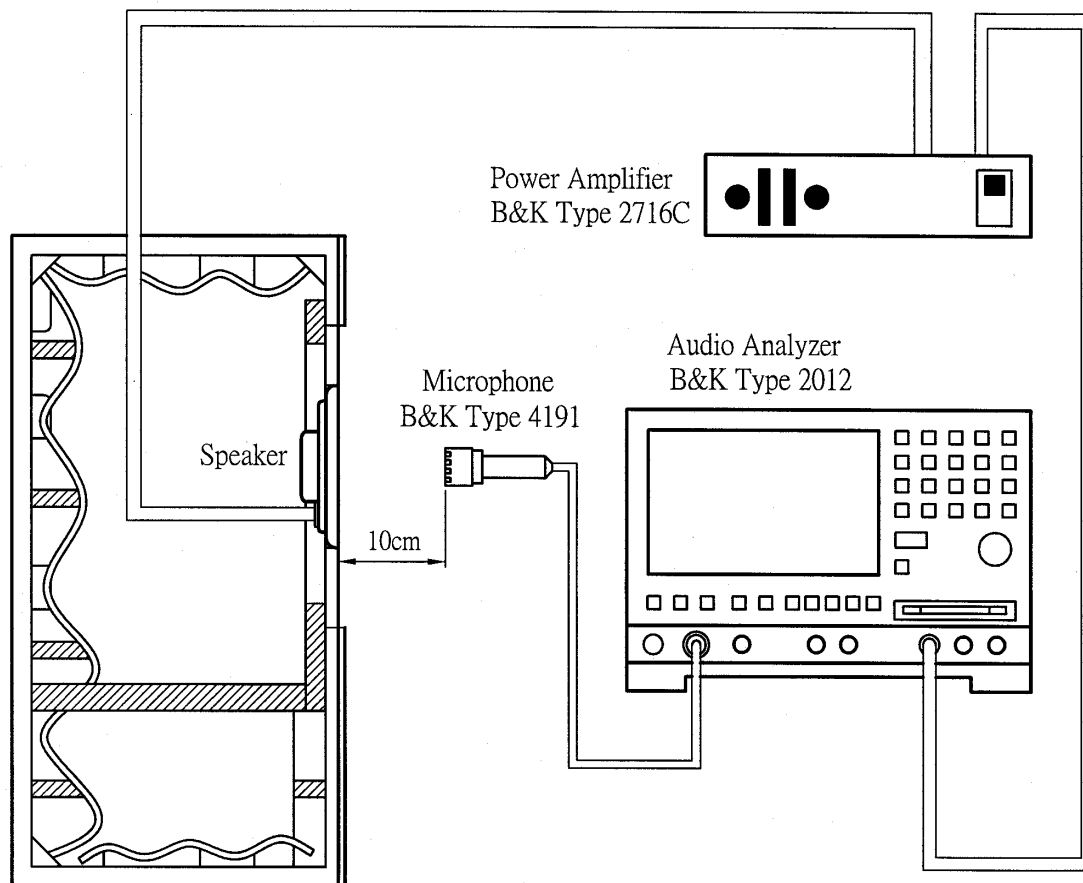
D. APPEARANCE DRAWING 外觀尺寸圖



Tol: ± 0.3

Unit: mm

E. MEASUREMENT CIRCUIT 測量線路



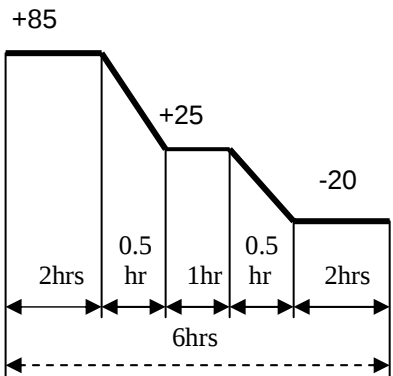
JIS C5531

940mm x 640mm x 1240mm

F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	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 $+270\pm5$ for 3 ± 0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入 $+270\pm5$ 熔融焊錫槽 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 : Horizontal 3.0N(0.306kg) for 30 seconds. Vertical 2.0N(0.204kg) for 30 seconds. 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 1.55V sine wave between $F_o \sim 20\text{KHz}$
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.	測試後無任何障礙防礙正常操作.且在輸入 1.55V 正弦波從 F_o 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 $+85$ 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 1.55V sine wave between $F_o \sim 20\text{KHz}$. F_o 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 1.55V 正弦波從 F_o 到 20KHz 之間無異常音. F_o 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 $90\pm 5\% \text{RH}$ 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. RELIABILITY TEST 信賴性試驗

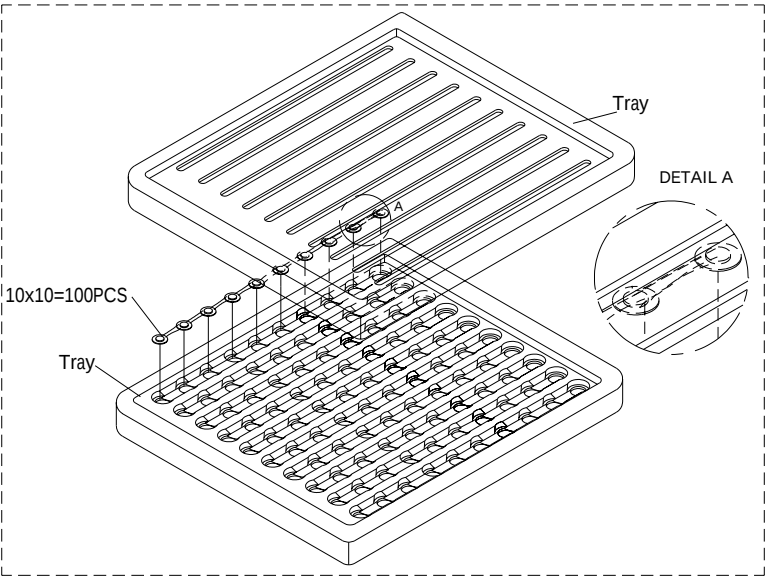
No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	0.3W white noise is applied for 24 hours, at room temp. 在室溫下,輸入功率 0.3W, 白雜音連續操作 24 小時	Being placed for 1 hours at +25℃, speaker shall be measured. No obstacle to be harmful to normal operation; damages, cracks, rusts, etc. Should not be audible at 1.55V 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 1.55V 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.

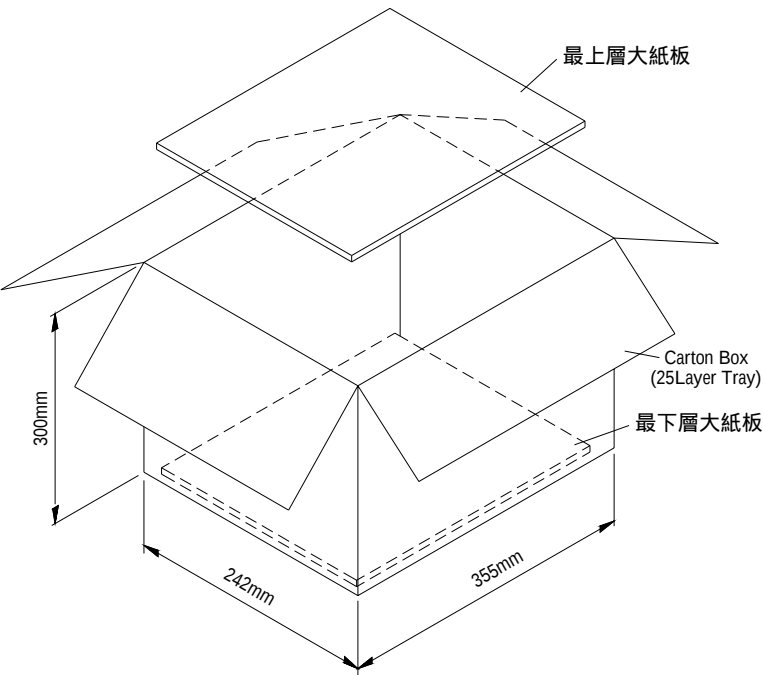
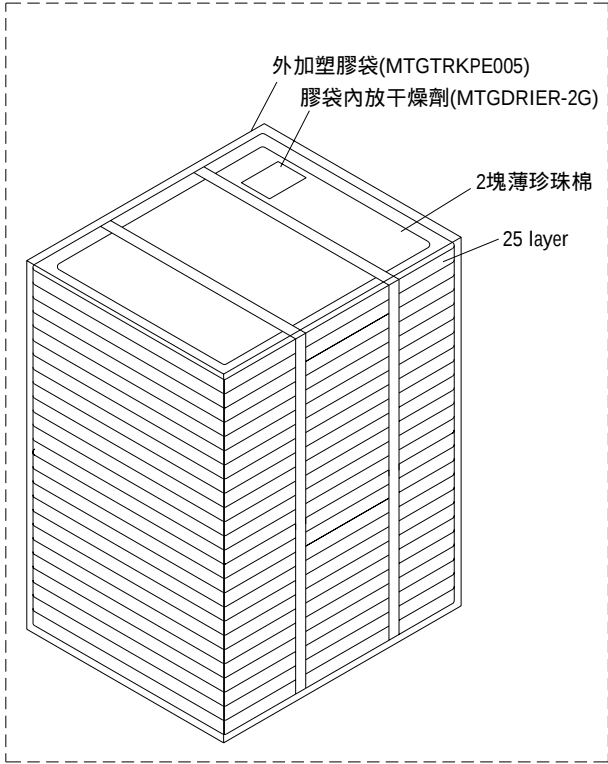
Standard Test Condition :	a) Temperature : +5 ~ +35	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件 :	a) 溫度 : +5 ~ +35	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	a) Temperature : +25 ± 2	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件:	a) 溫度 : +25 ± 2	b) 濕度 : 60-70%	c)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

I. PACKING STANDARD 包裝規格

11.5cm	10cm	
	P/N NO.:	Q3105{VAA42003(1S541-009)/E/350} KDMG13008C1-03W3
	DESCRIPTION	SPEAKER
	P/O NO.:	
	QTY	2500PCS
	DATE	
	INVOICE	
	NET.WEIGHT	6.0KG
	GROSS.WEIGHT	7.0KG
KINGSTATE ELECTRONICS CORP		



- 1.封裝后塑膠袋上貼此標籤
- 2.紙箱側唛上貼此標籤



Tray	345mmx235mmx20mm	1x100PCS=100PCS
Carton Box	355mmx242mmx300mm	100PCSx25=2,500PCS