

SPECIFICATION FOR APPROVAL

承 認 書

Description : **Micro Speaker BOX**

Kingstate Part No. : **KDSG151108Q-IP8**

Customer's Model No. : **631230700G**

Specification No. : **POD-3012**

Number Of The Edition : **1.1**

CUSTOMER'S APPROVED SIGNATURE



KINGSTATE

志豐電子股份有限公司 **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
		

RELEASE HISTORY 發行歷史

Version	Date	Description	Remark
1.1	7/1/16	Creation	

A. SCOPE 範疇

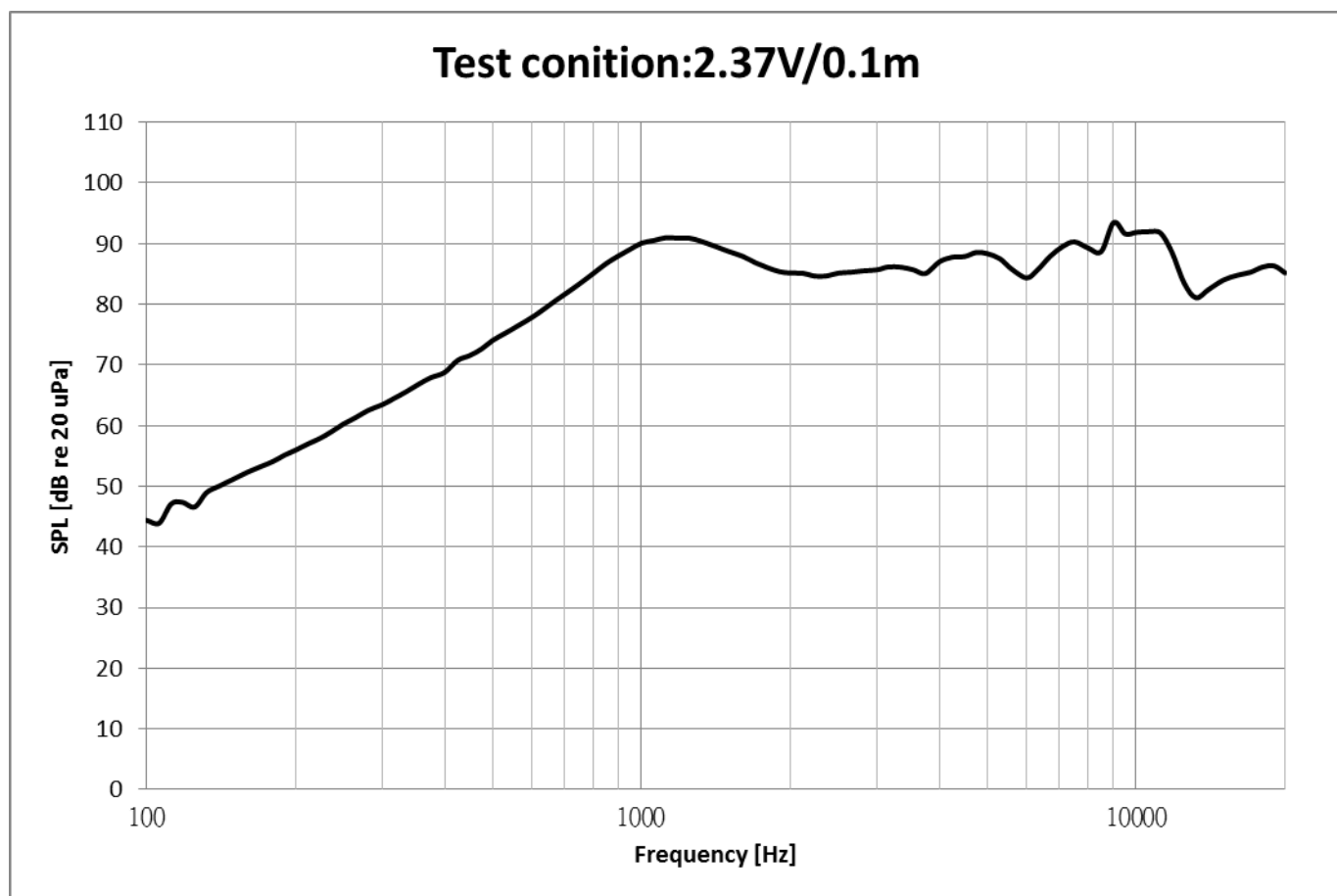
This specification applies speaker, **KDSG151108Q-IP8**

此規格書適用於喇叭, **KDSG151108Q-IP8**

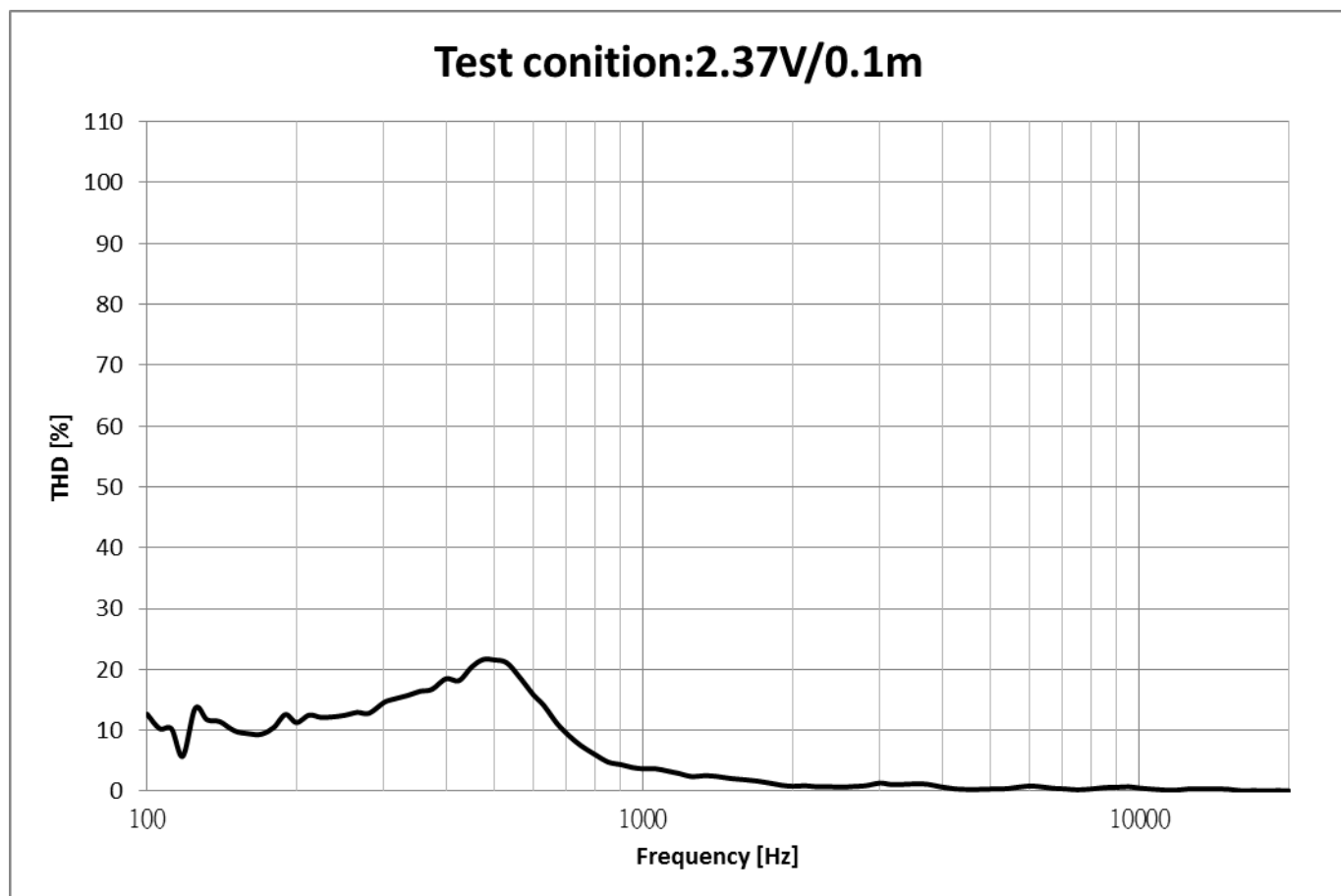
B. BOX SPEAKER SPECIFICATION 音箱規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	Show in Item D	
2	Power Rating 功率		W	Rated. 0.7/ MAX. 1.0	Maximum Power:IEC-60268-5 Filter 60s On/120s Off 10 Cycles (Room TEMP.)
3	Impedance 阻抗	Ω	ohm	$8 \pm 15\%$	@ 2.0kHz 1.0V
4	Resonance Frequency 低音諧振	F0	Hz	$500 \pm 20\%$	@ 1.0V
				$1000 \pm 15\%$	@ 1.0V in closed box
5	Output S.P.L. 音壓位準		dB	$85 \pm 3(0.7W/0.1m)$	@ 2.0KHz in closed box
6	Frequency Range 有效頻寬		Hz	Show in item C	
7	Distortion 失真		%	Show in item D	
8	Voice Coil 音圈		mm	NA	
9	Magnet 磁石		mm	NA	Nd-Fe-B (鈹鐵鋁)
10	Flux Density 磁通密度		Gauss	NA	
11	Operating temp. 操作溫度		°C	-20 ~ +60	
12	Storage temp. 存儲溫度		°C	-40 ~ +85	
13	Buzz & Rattle 異常音				Not be audible at 2.37V sine wave between F0~ 20kHz (in 1cc closed box) 輸入 2.37 V 正弦波從 F0 到 20kHz 之間無異常音(置於 1cc 密閉式箱體內)
14	Weight 重量		g	About 2.6	
15	Material 材質			ABS	
16	Environmental Protection Regulation 環保法規			HSF	

C. BOXSPEAKER CHARACTERISTICS CURVE 音箱特性曲線



D. BOXSPEAKER THD CURVE 音箱失真曲線圖



E. BOX SPEAKER APPEARANCE DRAWING 音箱外觀尺寸圖

KS-E-R-027-1.2

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3

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SH

REV

REV

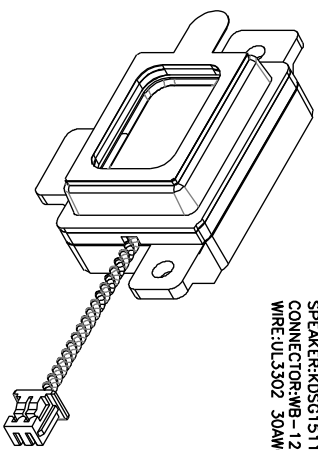
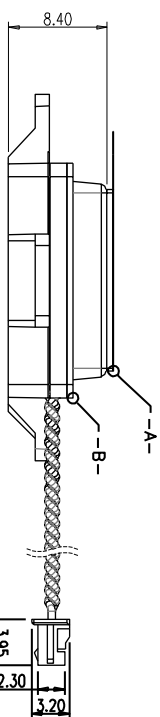
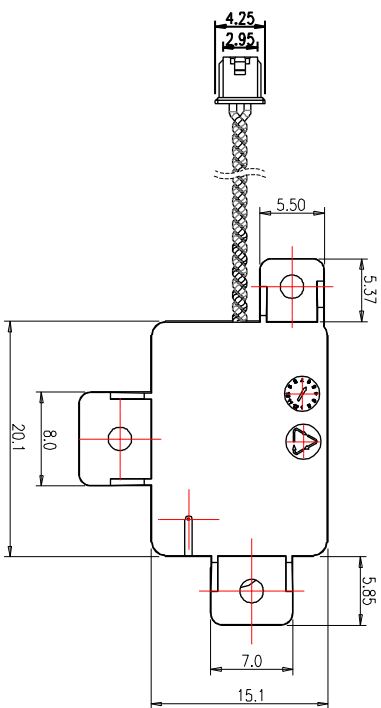
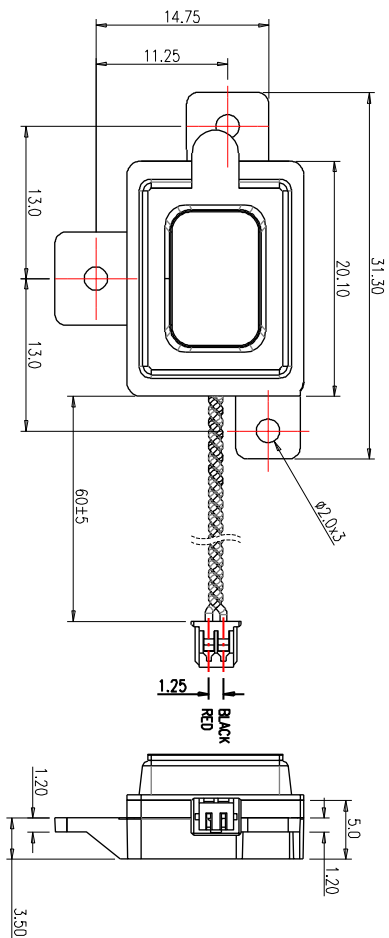
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DATA

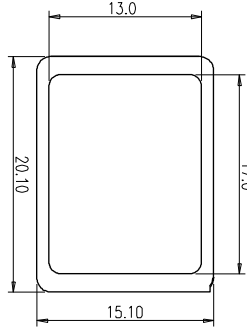
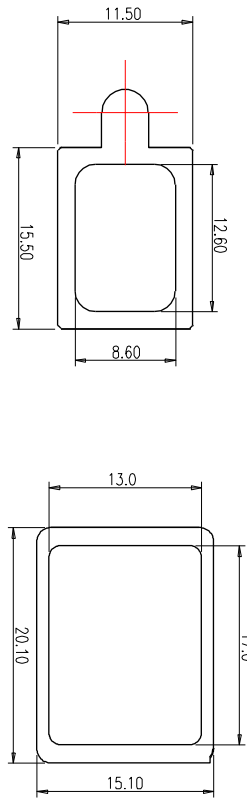
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INITIAL RELEASE IN ARENA

2015/7/8



SPEAKER:KDSG151100B007T1
CONNECTOR:WB-1255(Alternatively)
WIRE:UL3302 30AWG



-A-
PORON 1±0.5mm
+Double-side adhesive
+Release paper

-B-
PORON 1±0.5mm
+Adhesive



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MATERIAL		PC121R		DRAWING		DESCRIPTION		DRAWN NO.		DOD-3012	
FINISH		MT11010		POLO		CHECKED		PART NO.		SCALE	
SELECT V		V		EXTRA		JAMES		KDSG151108Q-IP8		2:1	
~8		0.03		0.05		0.10		0.20		0.30	
8-25		0.05		0.08		0.20		0.30		0.40	
25-30		0.08		0.12		0.30		0.40		0.50	
30-250		0.12		0.20		0.40		0.50		0.60	
250~		0.20		0.30		0.50		0.60		0.7	
APPROVED		POLO		THIRD ANGLE PROJECTION		UNIT: mm		SHEET 1/1			

Environmental Protection Regulation KS-q-R-054 (RoHS)

F.SPEAKER SPECIFICATION 喇叭規格

No.	Item	Symbol	Unit	Specification	Condition
1	Dimension 尺寸		mm	15×11×3	
2	Power Rating 功率		W	Rated. 0.7/ MAX. 1.0 (in 1cc closed box)	Maximum Power:IEC-60268-5 Filter 60s On/120s Off 10 Cycles (Room TEMP.)
3	Impedance 阻抗	Ω	ohm	$8 \pm 15\%$	@ 2.0kHz 1.0V
4	Resonance Frequency 低音諧振	F0	Hz	$500 \pm 20\%$	@ 1.0V
				$850 \pm 15\%$	@ 1.0V in 1cc closed box
5	Output S.P.L. 音壓位準		dB	$91.5 \pm 3(0.7W/0.1m)$	@ 2.0kHz in 1cc closed box
6	Frequency Range 有效頻寬		Hz	Show in item G	
7	Distortion 失真		%	Show in item H	
8	Voice Coil 音圈		mm	NA	
9	Magnet 磁石		mm	NA	Nd-Fe-B (鈹鐵鋁)
10	Flux Density 磁通密度		Gauss	NA	
11	Operating temp. 操作溫度		°C	-20 ~ +60	
12	Storage temp. 存儲溫度		°C	-40 ~ +85	
13	Buzz & Rattle 異常音				Not be audible at 2.37V sine wave between F0~ 20kHz (in 1cc closed box) 輸入 2.37 V 正弦波從 F0 到 20kHz 之間無異常音(置於 1cc 密閉式箱體內)
14	Weight 重量		g	About 1.4	
15	Material 材質			PPA	
16	Environmental Protection Regulation 環保法規			HSF	

G. SPEAKER CHARACTERISTICS CURVE 特性曲線

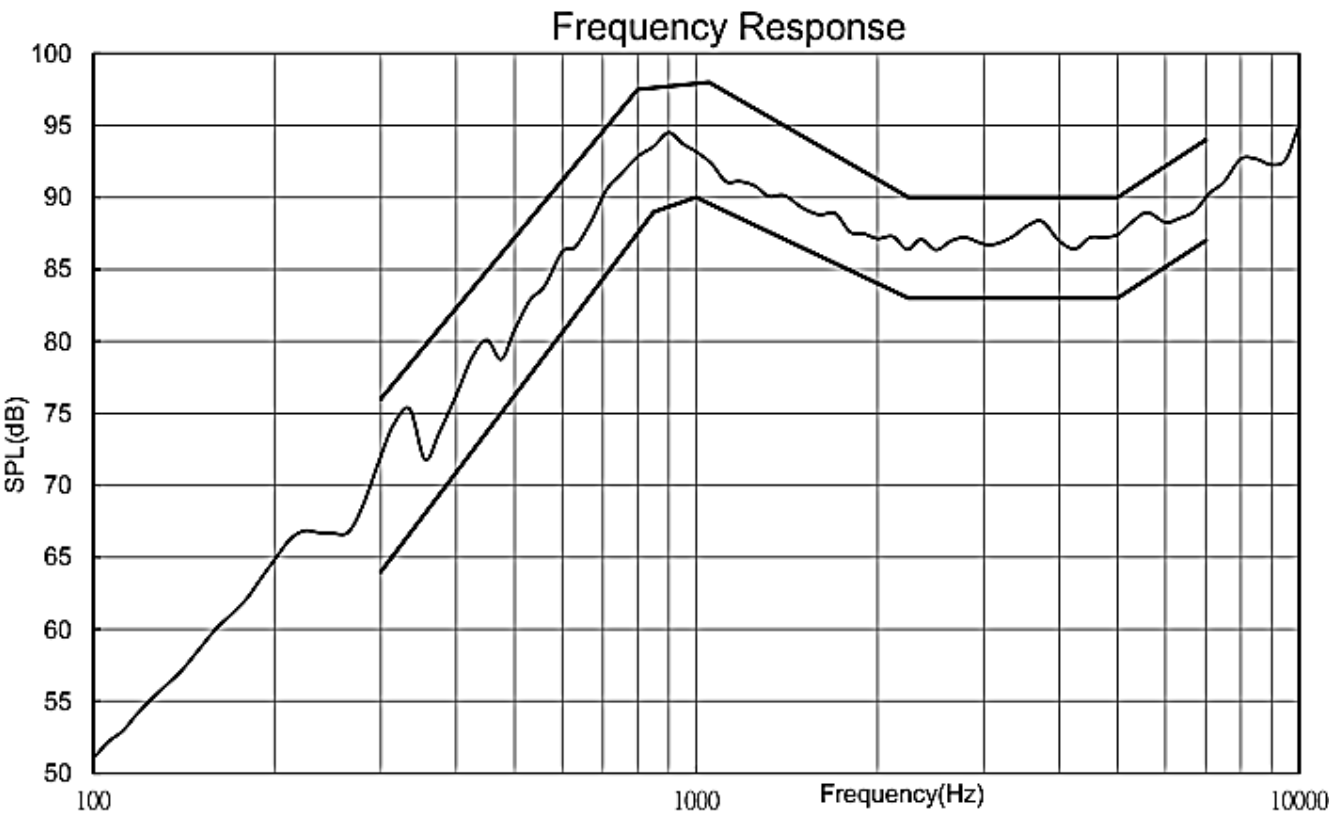


Table 1: Tolerance Limits Date for FR

Frequency(Hz)	Upper Limits(dB)	Frequency(Hz)	Lower Limits(dB)
300	76	300	64
800	97.5	800	89
1050	98	1000	90
2250	90	2250	83
5000	90	5000	83
7000	94	7000	87

H. DISTORTION CURVE 失真曲線

THD

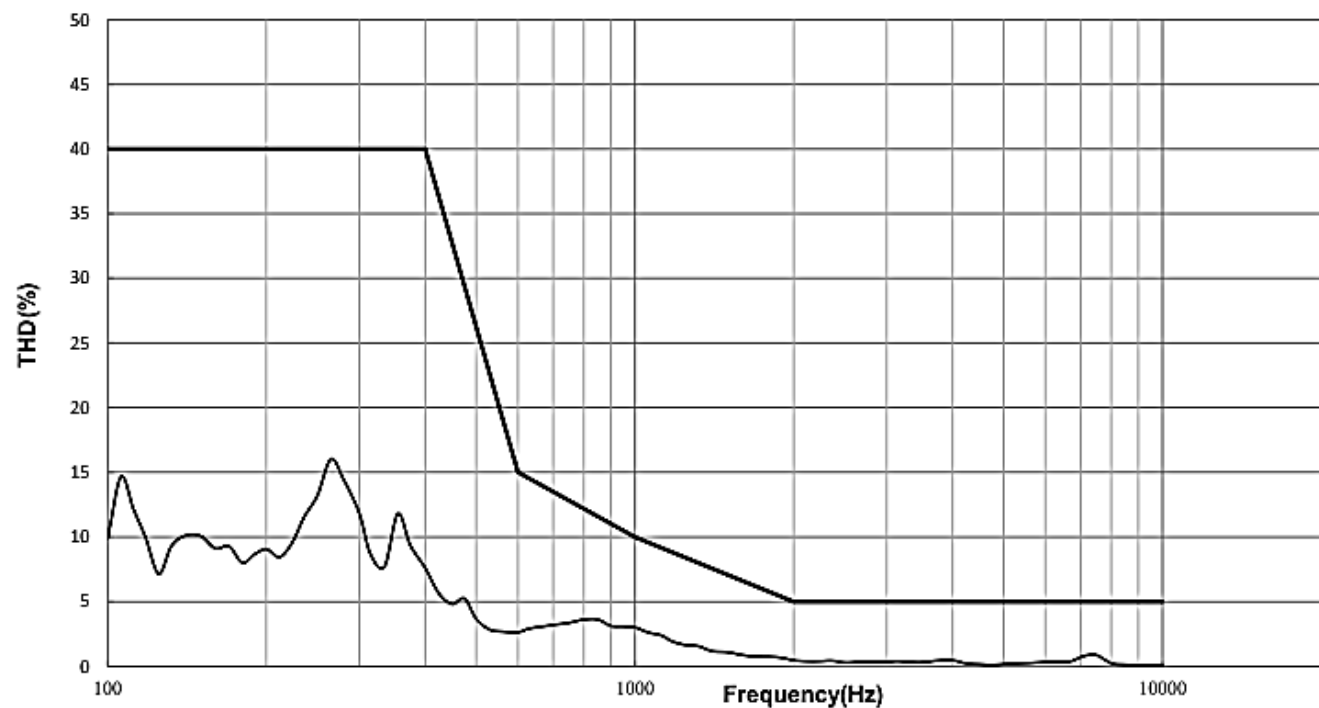
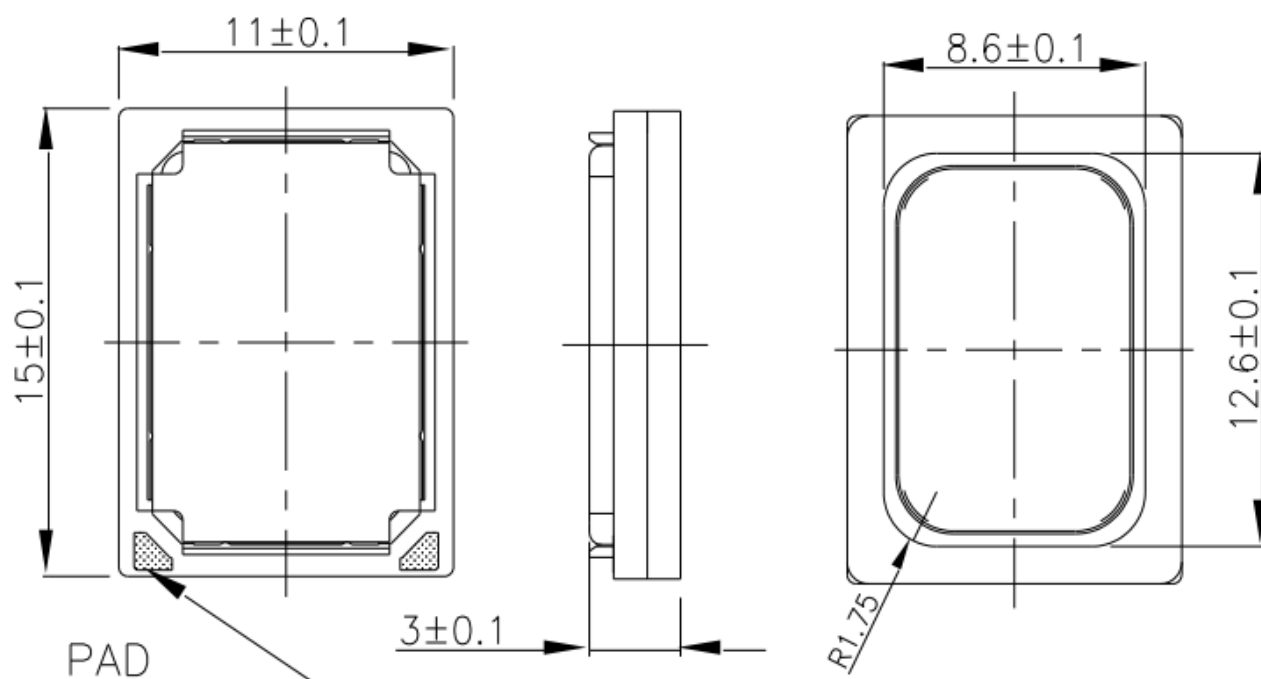


Table 2: Limits Date for THD

Frequency (Hz)	Limits (%)
100	40
400	40
600	15
1000	10
2000	5
10000	5

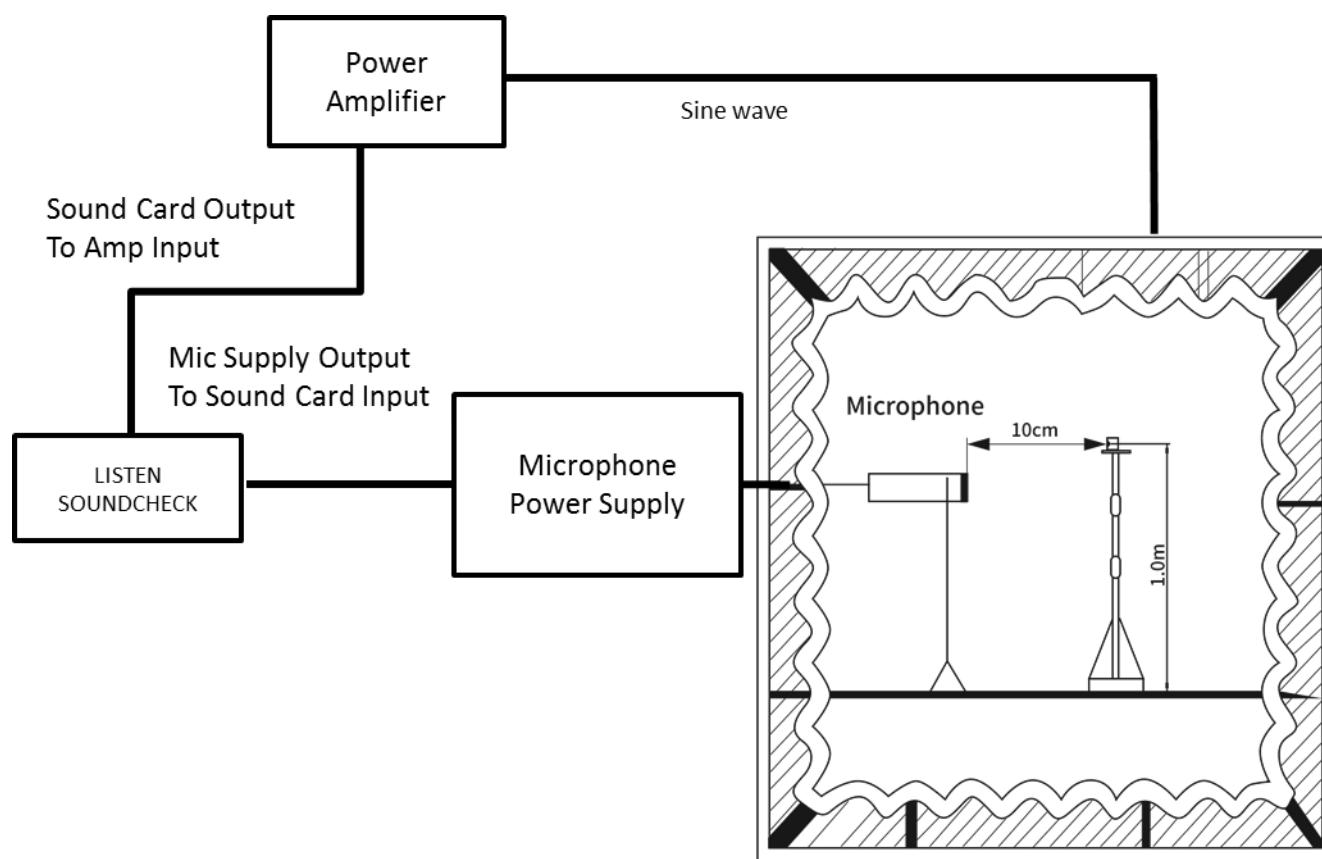
I. APPEARANCE DRAWING 外觀尺寸圖



NOTE: TOLERANCE GENERAL UNLESS OTHERWISE NOTED $\pm 0.2\text{mm}$
Unit :mm

PART NO.	PART NAME	Q'TY	MATERIAL	TREATMENT	REMARK
1	MAGNET	1	Nd-Fe-B	Ni plating	
2	COVER	1	PPA		
3	YOKE	1	SPCE	Ni plating	
4	PLATE	1	SPCC	Ni plating	
5	DIAPHRAM	1	PEEK		
6	VOICE COIL	1	Cu		

J. MEASUREMENT CIRCUIT 測量線路

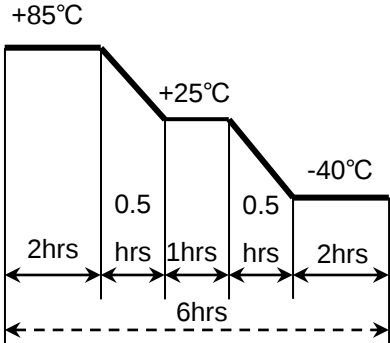


Anechoic Chamber

K. 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 $+270\pm5^{\circ}\text{C}$ for 3 ± 0.5 seconds. 裸線部份浸入松香溶液 5 秒後,再浸入 $+270\pm5^{\circ}\text{C}$ 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 2.37V sine wave between F0 ~ 20kHz (in 1cc closed box)
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 2.37V 正弦波從 F0 到 20kHz 之間無異常音(置於 1cc 密閉箱體內)

M. 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°C for 96 hours 置於+85°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 2.37Vrms sine wave between F0~20kHz. F0 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。且在輸入 2.37Vrms 正弦波從 F0 到 20kHz 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°C for 96 hours. 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 95% RH relative humidity for 96 hours. 置於+40°C，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 consist of: 單體承受溫度循環測試 5 次，其循環內容如圖示： 	

N. RELIABILITY TEST 信賴性試驗

No.	Item	Test conditions	Evaluation standard
1	Load test 連續負荷	0.7W in 1 cc closed box pink noise is applied for 96 hours, at room temp.(with 500Hz high pass filter) 在室溫下，於 1cc 密閉箱體內輸入 0.7W 粉雜音連續操作 96 小時（須加上 500Hz 的高通濾波器）	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 2.37V sine wave between F0 ~ 20kHz. F0 should meet initial one. S.P.L. deviation of unit should be within ±3dB. (in 1cc closed box) 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。且在輸入 2.37V 正弦波從 F0 到 20kHz 之間無異常音。F0 與原規格值相同，輸出音壓變化量在±3dB 內。（置於 1cc 密閉箱體內）

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
 Judgment 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

O. PACKING 包裝

