

承認書

SPECIFICATION FOR APPROVAL

客戶 (Customer): _____

客戶料號 (Customer P/N): _____

型號 (Supplier P/N): HP033-4R-0463C-A

產品名稱 (Description): 喇叭

產品規格 (Specification): Φ33mmH14.5mm4 Ω 3W 橡皮边新疆帽喇叭

客戶承認欄 (Customer Authorization Signature)	东莞市骅鹏电子有限公司 承認欄 (Supplier Audit)	
	審核	制作
	Panjiujiu	songweiyuan
	日期: 2024 年 12 月 6 日 版次: A	



东莞市骅鹏电子有限公司

DONGGUAN HUAPENG ELECTRONIC Co.,LTD

东莞地址:东莞市长安镇厦岗管理区

电话:0769-82761876

ADD:XiaGang Chang An City Dong Guan

传真:0769-81502656

SPECIFICATION

制 品 規 格 表

历史修订记录 Revision History sheet			P 2 / 6
No.	Data 日期	修订内容 Revision Content	修订原因 Revision Reason
1	2024/12/6	新样品送样	
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备注：			

SPECIFICATION

制 品 規 格 表

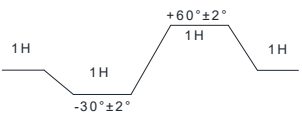
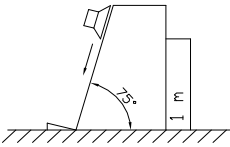
P 3 / 6

客 户 : CUSTOMER		口径: 33 mm SIZE	样品编号:
1. 本厂型号 OUT PART NO	SPEAKER 33mm 4 Ω 3 w	全高: 14.5±0.3mm	印章: 4 Ω 3 w WARKING

2. SPECIFICATION OF SPEAKER MODE(喇叭模式規格)

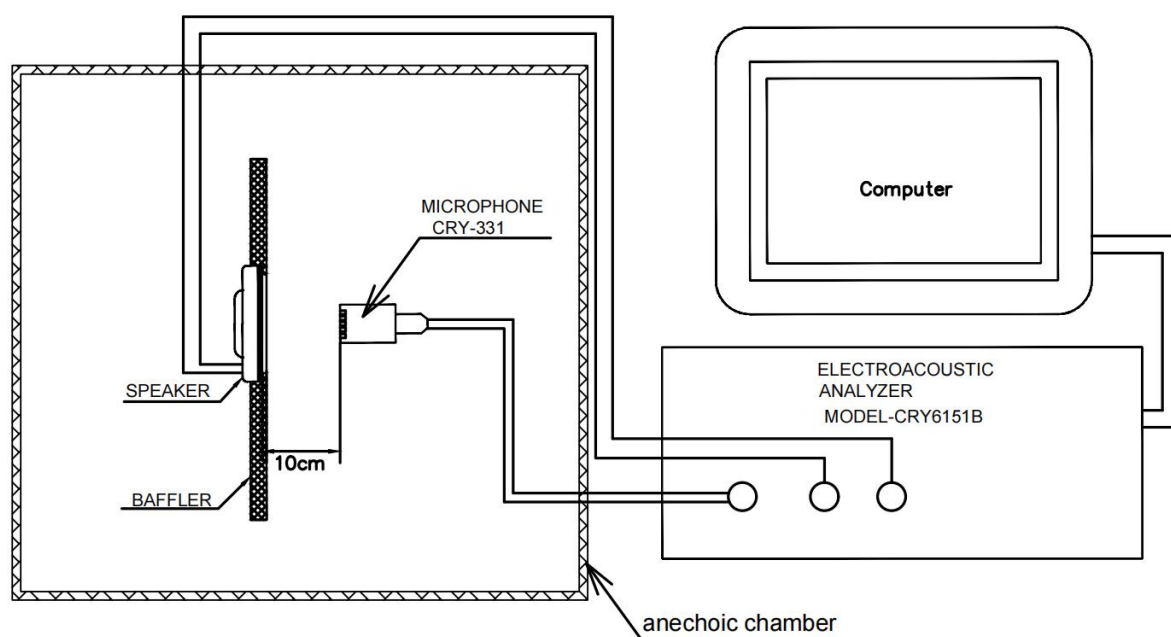
2-1	NOMINAL IMPEDANCE 公稱阻抗	4 ± 15% OHM	AT 1000 HZ 1.0 V TEST
2-2	RESONANCE FREQUENCY 最低共振周波數	275± 20%HZ	AT 1.0 V
2-3	OUTPUT S. P. L. 出力音壓	86 ± 3dB(0.1w/10cm)	At 1.0v (800 , 100, 1200, 1500) Hz Average
2-4	RATED INPUT POWER 定格入力	2 W	AT 2.8 V
2-5	MAX. INPUT POWER 最大入力	3 W	AT 3.46 V
2-6	FREQUENCY RESPONSE & DEVIATION 實效頻寬	FO ~20KHZ	OUTPUT S.P.L-10dB
2-7	BUZZES & RATTLES 異常音試驗	SHOULD NOT BE AUDIBLE BUZZ AND RATTLE (無異常聲)	SINE WAVE BETWEEN (正弦波入力) AT 1.0V / 20HZ~20KHZ
2-8	DISTORTION 失 真	5% MAX.	
2-9	POLARITY 極 性	WHEN A POSITIVE D.C CURRENT IS APPLIED TO THE VOICE COIL TERMINAL MARKED +, THE DIAPHRAGM SHALL MOVE FORWARD (端子的正極通入電流, 振動板向前方向運動)	
2-10	MAGNET SIZE 磁鐵寸法	SIZE (尺寸): Φ12.5*3.0+Φ12.5*2.0MM	
2-11	NET WEIGHT 總重量	≈ / G	
2-12	MEASURING CIRCUIT 測試回路	OUT SPL TEST (出力音壓測試回路) AS SHOWN FIG 1 RATED SINUSOLDAL POWER AND RATED NOISE POWER (定格正弦波入力及定格入力回路) AS SHOWN FIG 2 OPERATIONAL TEST (動作回路) AS SHOWN FIG 3	

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Reliable Test 信 賴 性 試 驗			P 4 / 7		
3-01	RESULTS OF AFTER TEST 測試結果	SENSITIVITY DIFFERENCE SHALL BE WITHIN ± 3 dB (試驗前後出力音壓的變化在 ± 3 dB 範圍內) SOULD NOT EXIST ANY OBSTACLE TO BE HAMFUL TO NORMAL , OPERATION:DAMAGES,CRACLS,RUSTS AND DISTORTIONS,ETC. (外觀滿足無損傷, 裂縫, 生鏽, 變形等等)			
3-02	TERMINAL STRENGTH 端子強度	A STATIC LOAD OF 1.5KGF. SHALL BE APPLIED TO THE TERMINALS FOR 10S IN ANY DIRECTION BETWEEN TERMINAL BLOCK AND FRAME AND BETWEEN TERMINAL BLOCK AND FASTEN TERMINAL (端子板和支架或焊片任一方向上, 1.5KGF 10 秒無異常)			
3-03	TERMINAL SOLDERING TEST 焊接實驗	SPEAKER SHALL CONTINUE TO OPERATE AFTER 10 SEC.STABILIZATION TEST CONDITION SUPPLING LEAD WIRE AND SOLDER ON THE TERMINAL BOARD AND MAINTAINING FOR 2SECONDS AT TEMPERATURE OF 290~320℃BY HAND IRON			
3-04	LOAD TEST 連續負荷試驗	MUST BE NORMAL AFTER LOAD TEST: WHITE NOISE 2.0 W 96 HOURS. (白雜訊 2.0 W 連續 96 小時試驗後無異常的不良)			
3-05	HIGH TEMPERATURE TEST 耐熱試驗	AFTER HAVING BEEN IN A TEST CHAMBER FOR 96 HOURS AT THE CONDITION OF $+70\pm 2^{\circ}\text{C}$, 20~ 25% R.H, AND KEEP 2 HOURS . ($+70\pm 2^{\circ}\text{C}$, 20~25%R.H, 96 小時試驗常溫 2 小時後, 無異常的不良)			
3-06	COLD TEMPERATURE TEST 耐寒試驗	AFTER HAVING BEEN IN A TEST CHAMBER FOR 96 HOURS AT THE CONDITION OF $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ AND KEEP 2 HOURS. ($-30\pm 3^{\circ}\text{C}$, 96 小時試驗常溫 2 小時後, 無異常的不良)			
3-07	HUMIDITY TEST 耐濕試驗	AFTER HAVING BEEN IN A TEST CHAMBER FOR 96 HOURS AT THE CONDITION OF $+40\pm 2^{\circ}\text{C}$ 90~ 95% $\pm 2.5\%$ R.H AND KEEP 2 HOURS . ($+40\pm 2^{\circ}\text{C}$, 90~95% $\pm 2.5\%$ R.H, 96 小時試驗常溫 2 小時後, 無異常的不良)			
3-08	TEMPERATURE CYCLE TEST 溫度週期試驗	LOW TEMPERATURE $-30^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1HR, HIGH TEMPERATURE $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1HR : 1 CYCLE; TOTAL 5 CYCLE AND THEN KEEP 2HR IN A ROOM. (低溫 $-30^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1 小時高溫 $+70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1 小時為 1 週期, 共 5 週期試驗常溫 2 小時後, 無異常的不良) ROOM TEMPERATURE (室溫) 			
3-09	DROP TEST 跌落試驗	THESPEAKER SHALL BE DROPPED 1 TIMES AS SHOWN IN THE FIGURE, CLAUSE 2-7 SHALL BE SATISFIED. (如右圖示 1 回跌落滿足異常音試驗無異常) 			
3-10	INSULATION RESISTANCE 絕緣抵抗	A VOLTAGEOF 100V.D.C SHALL BE APPLIED FOR 1 MIN BETWEEN A TERMINAL AND A FRAME,AFTER WHICH MEASUREMENT SHAI BE MADE., 2 M Ω OR MORE (D. C. 100V, 1 分鐘後端子與支架間 2 M Ω 以上)			
3-11	VIBRATION DURABILITY (PACK) 振動試驗 (捆包狀態)	X,Y,Z AXIS; 10- -55- -10HZ /ONE MINUTE; AMPLITUDE:1.5MM, ENDURANCE:2 HR EACH PLAN. (沿 X, Y, Z 三軸 10-55-10HZ/1 分鐘, 振幅 1.5MM 各 2 小時)			
3-12	COLDHEAT IMPULSION TEST 冷熱衝擊實驗	HIGH TEMPERATURE $60^{\circ}\text{C}\pm 2^{\circ}\text{C}$,20~25%RH,1HR,LOW TEMPERATURE $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$,1HR,3CYCLE (高溫 $+70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1 小時,低溫 $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 1 小時 3 週期)			
3-13	OPERATING TEMPERATURE 動作溫度	-20°C TO $+70^{\circ}\text{C}$			
3-14	STORAGE TEMP ERATURE 儲存溫度	-30°C TO $+70^{\circ}\text{C}$			
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THE TEST NEEDS TO BE DONE IN THE ANECHOIC CHAMBER, THEN TEST AT SPECIFIED CLIMATIC CONITION. THE TEST EQUIPMENT REFER TO FIG.2. THE SPEAKER SHOULD BE MOUNTED TO THE STANDARD BAFFLEPLATE. THE MEASEURING MICROPHONE SHALL BE PLACED 0.1M FROM THE SPEAKER (SIDE FACE). SWEEP RANGE IS FROM 100HZ TO 20000HZ. SWEEP STEP SIZE IS 1/12 OCT.

该测试需要在消声室中并在标准测试气候条件下进行，测试设备请参考图 FIG.2。将喇叭安装到标准障板上，测试麦克风放置在距离喇叭 0.1M 处。扫频范围为 100 到 20000HZ。采样率设置为 1/12 OCT。



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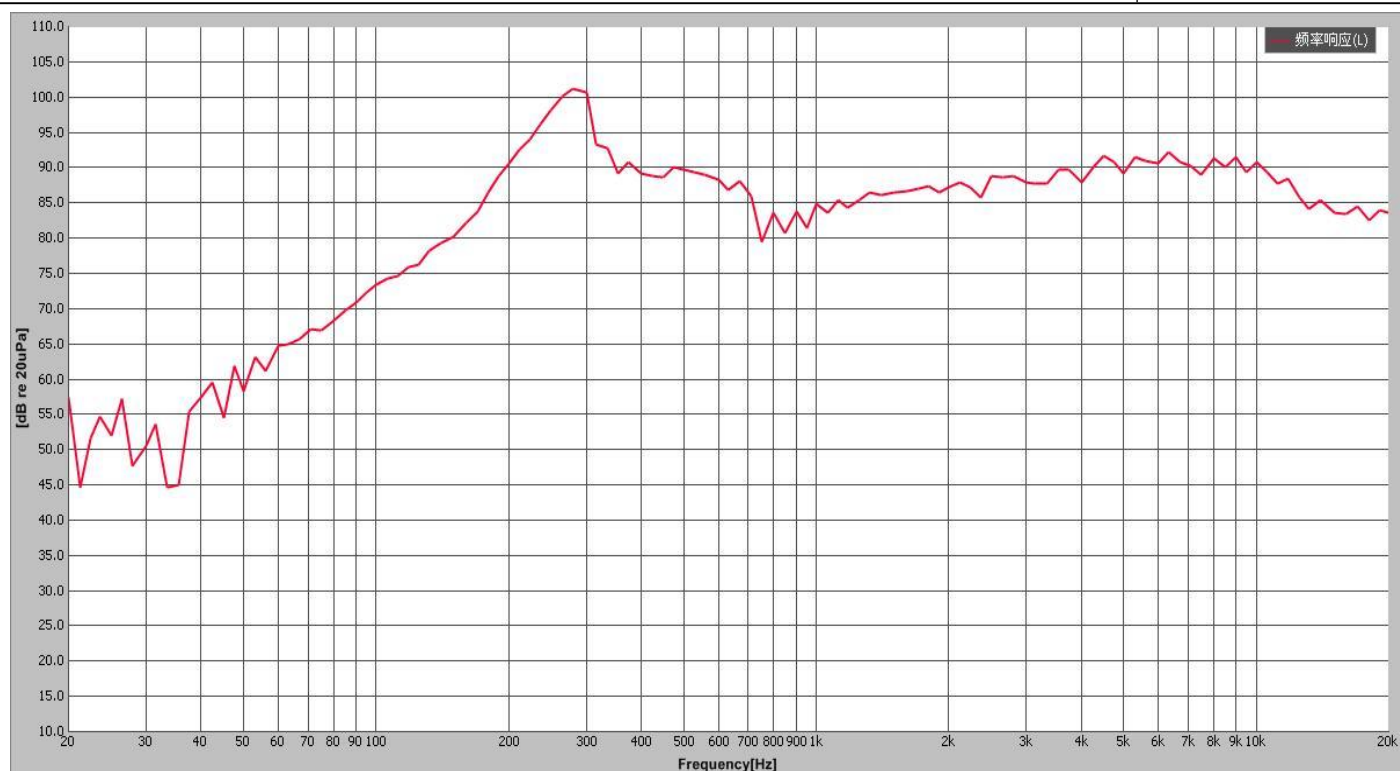
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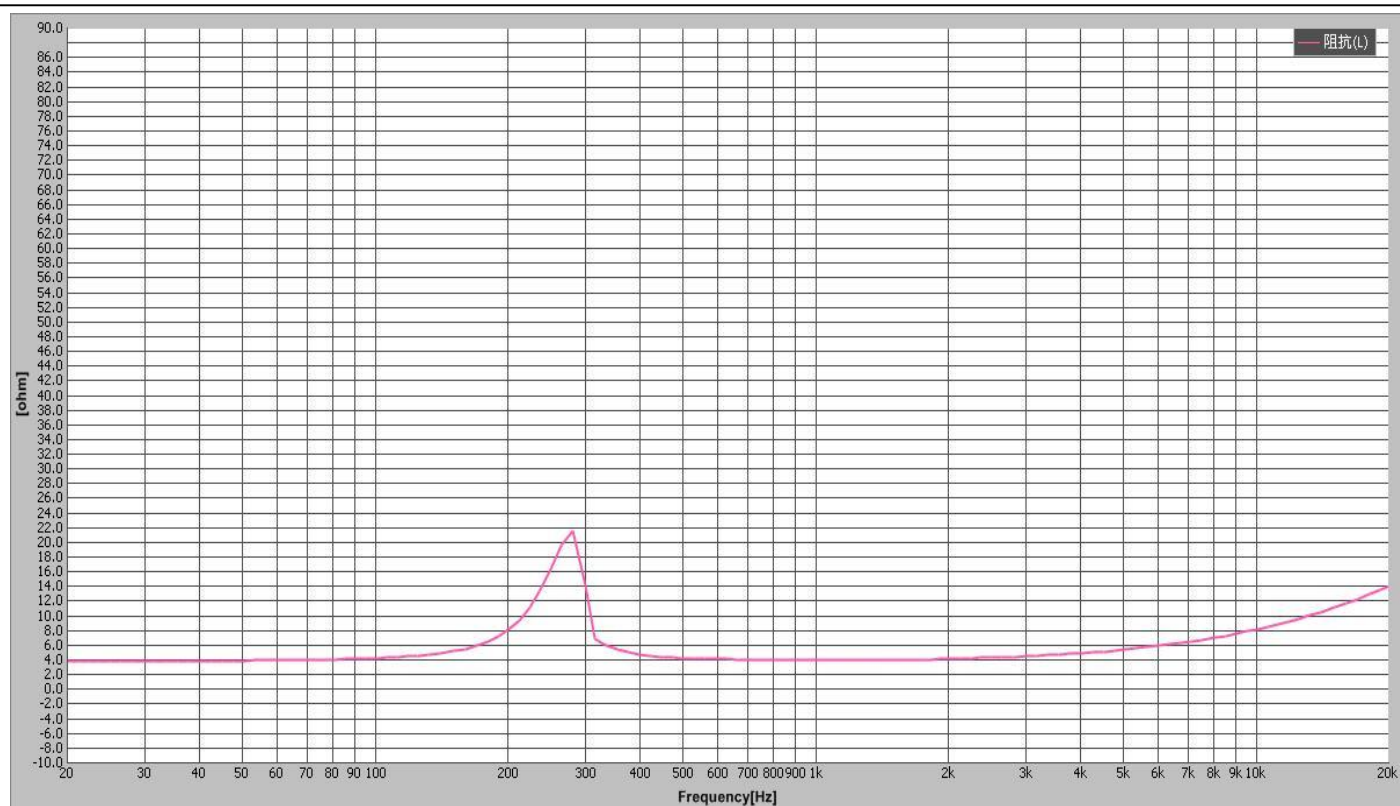
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5. Frequency response curve 频响曲线图

P 6 /7



6. Impedance Curve 阻抗曲线



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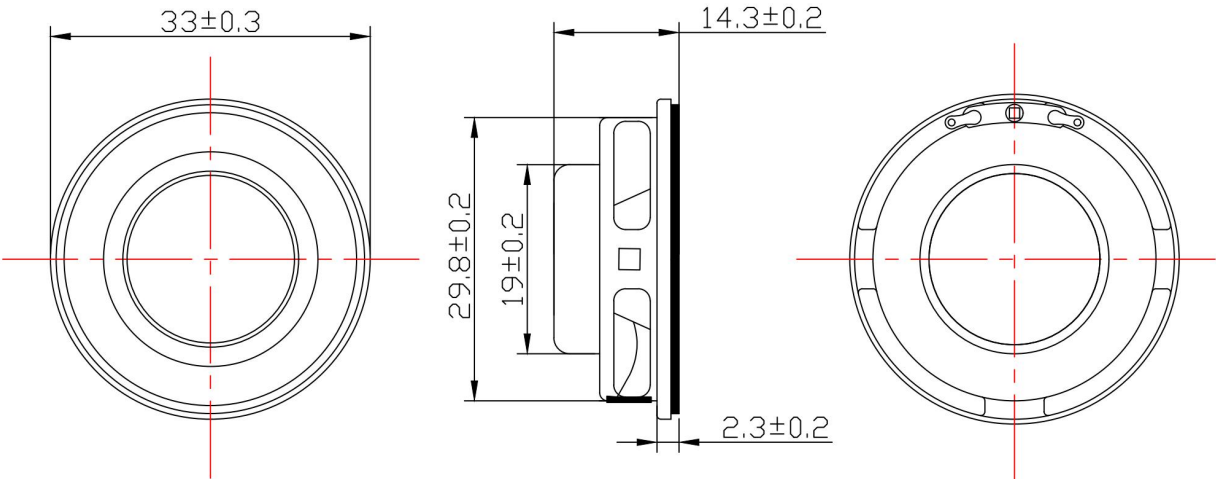
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7. A PPEARANCE DRAWING 外觀尺寸圖

Unless otherwise specified, tolerance: ± 0.2 (unit: mm)

P 7 /7



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