



深圳市兴华鑫电子科技有限公司
Shenzhen xinghuaxin Electronic Technology Co., Ltd

承認書

SPECIFICATION FOR APPROVAL

客戶 (Customer): _____
客戶料號 (Customer P/N): _____
興華鑫型號 (Supplier P/N): SMD4013-04-32-35DB
產品名稱 (Description): 咪头(Microphone)
產品規格 (Specification): 4.0*1.3MM 奔驰标凸台管芯加电容

客戶承認欄 (Customer Authorization Signature)	深圳市興華鑫電子科技有限公司 承認欄 (Supplier Audit)		
	審核	檢查	制作
	唐国兴	唐玉来	吴银娟
	日期: 2022年04月19日 版次: A		

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地址: 深圳市宝安区新安街道新乐社区新乐路 88 号厂房四层
TEL: 0755-27892904
E-mail: jacky.tang@jsxhxdz.com
Http: www.jsxhxdz.com

A. SCOPE 範 疇

This specification applies electret condenser microphone.

此規格書適用於電容式麥克風 XHXDZ-4013 奔馳標

B. SPECIFICATION 規 格

No.	Item	Symbol	Unit	Specification	Condition
1	Directivity 方向性			Unidirectional 全指向	
2	Sensitivity 靈敏度	S	dB	-32-35	f=1KHz, 1Pa 0dB=1V/Pa
3	Standard operating voltage 標準操作電壓	Vs	V D.C.	2.5	
4	Output impedance 輸出阻抗	Zout	K Ω	2.2	f=1KHZ, 1Pa
5	Max operating voltage 最大操作電壓		V D.C.	10	
6	Sensitivity reduction 減電壓靈敏度	Δ S-Vs	dB	-3	f=1KHz, 1Pa Vs=2.0V D.C.to 1.5V D.C.
7	Frequency 頻率	f	Hz	100 ~ 20,000	
8	Normal current range 正常電流范围		mA	0.1 ~ 0.4	
9	Max. current consumption 最大耗電流	IDSS	mA	0.5	Vs=2.0V D.C. RL:2.2K Ω
10	Signal to noise ration 訊號對雜音比	S/N	dBA	58	f=1KHz, 1Pa A weighted
11	Operation temp. 操作溫度		$^{\circ}$ C	-20~+70	
12	Storage temp. 儲存溫度		$^{\circ}$ C	-20~+70	
13	Dimension 尺寸		mm	ϕ 4.0 x 1.3	See appearance drawing 請參照外觀尺寸圖
14	Weight (MAX) 重量		gram	0.06	
15	Material 材質			Cu 銅	
16	Terminal 端子			Wire	See appearance drawing 請參照外觀尺寸圖
17	Environmental Protection Regulation 環保法規			RoHS	
18	physical design 结构设计			背極式	

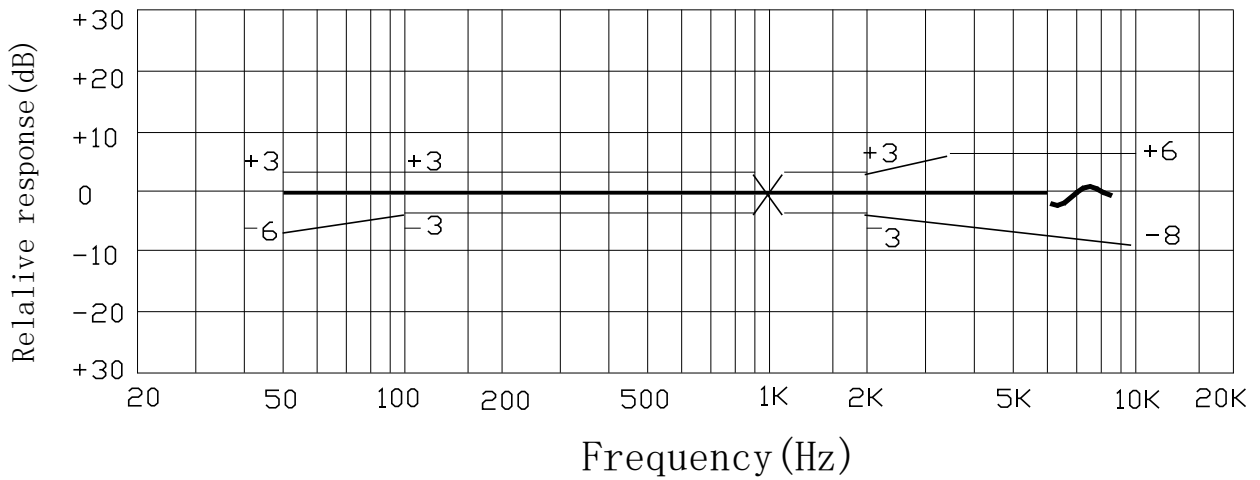
We use "Pascal (Pa)" indication of sensitivity as per the recommendation of I.E.C.(International Electro technical Commission).The Sensitivity of "Pa" will increase 20dB comparing with "ubar" indication.

Example: -60dB (0dB=1V/ubar) =-40dB (1V/Pa)

依 I.E.C.(國際電子協會)建議,以"Pa"為靈敏度標示單位比"ubar" 靈敏度標示單位增加 20dB

例如: -60dB (0dB=1V/ubar) = -40dB (1V/Pa)

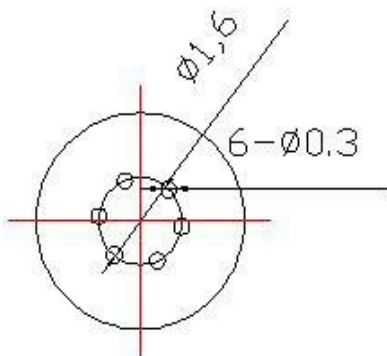
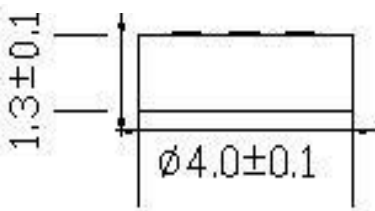
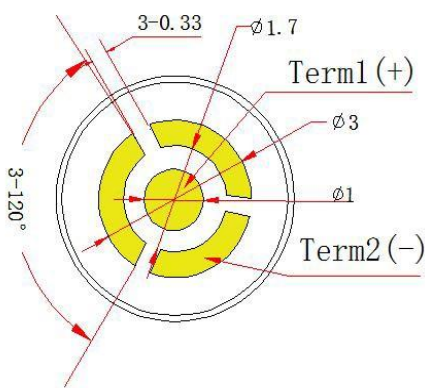
C. TYPICAL FREQUENCY RESPONSE CURVE 頻率響應曲線



D. APPEARANCE DRAWING

外觀尺寸圖

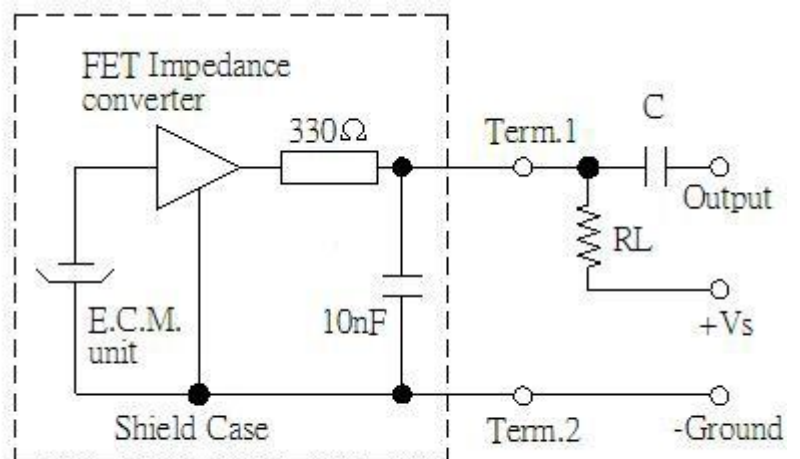
Unit:mm



E. MEASUREMENT CIRCUIT

測量線路

RL=2.2K Ω

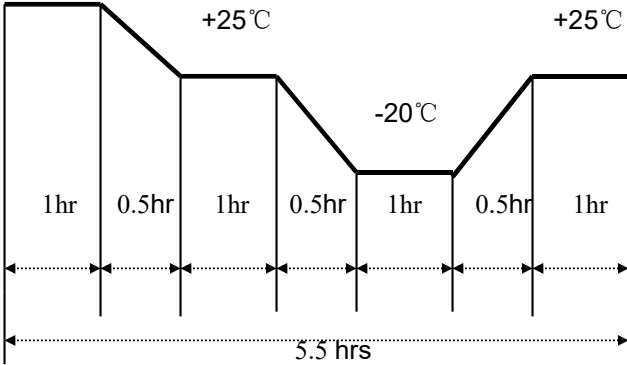


Schematic Diagram

F.MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	Soldering Heat Resistance 焊錫耐熱性	Soldering iron of $+270\pm 5^{\circ}\text{C}$ should be placed on the terminal for 2 ± 0.5 seconds. 端子部份置於 $+270\pm 5^{\circ}\text{C}$ 烙鐵上 2 ± 0.5 秒。	No interference in operation 操作無任何不良
2	Vibration Test 振動測試	The part 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。	After any tests, the sensitivity to be within $\pm 3\text{dB}$ 測試其靈敏度須與原測試值的差異不超過 $\pm 3\text{dB}$ 。
3	Drop Test 落下測試	The part unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20 mm thick wooden board. 未包裝麥克風單體從 1 公尺高處, X.Y.Z 3 個方向, 各 3 回, 落於 20mm 厚木板上。	

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 $+70^{\circ}\text{C}$ for 72 hours. 置於 $+70^{\circ}\text{C}$ 環境中 72 小時	After any tests, the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 6 hours of conditioning at $+25^{\circ}\text{C}$ 經測試後麥克風, 須靜置於 $+25^{\circ}\text{C}$ (室溫) 環境中 6 小時後, 測試其靈敏度須與原測試值的差異不超過 $\pm 3\text{dB}$ 。
2	Low temp. test 低溫測試	After being placed in a chamber at -20°C for 72 hours. 置於 -20°C 環境中 72 小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at $+40^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours. 置於 $+40^{\circ}\text{C}$, 相對濕度 $90\pm 5\%$ 環境中 240 小時	
4	Temp. cycle test 溫度循環測試	The part shall be subjected to 10 cycles. One cycle shall be consist of : 單體承受溫度循環測試 10 次, 其循環內容如圖示: 	

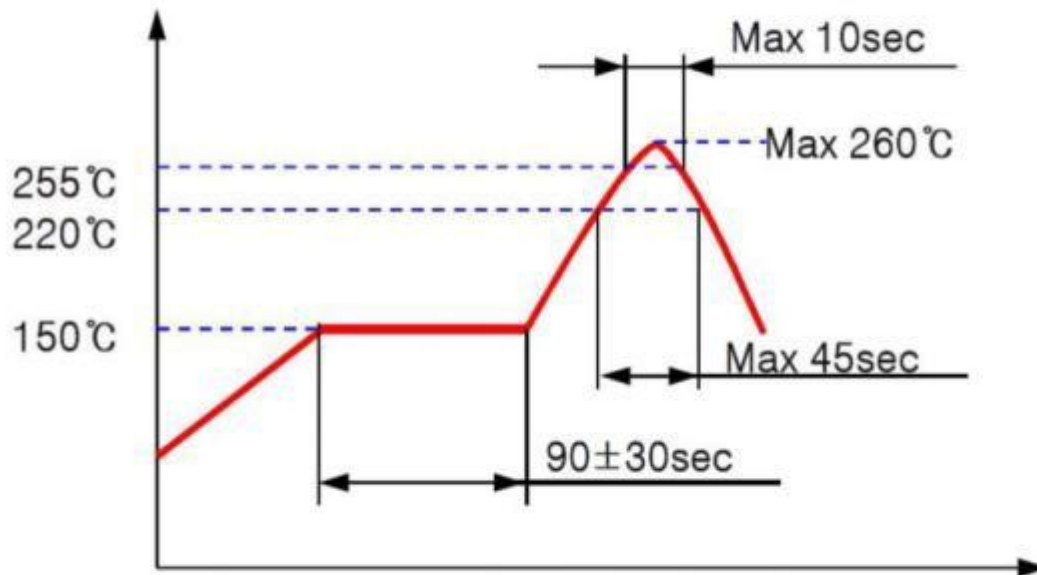
TEST CONDITION.

Standard Test Condition	: a) Temperature : $+5 \sim +35^{\circ}\text{C}$	b) Humidity : 45-85%	c) Pressure : 860-1060mbar
一般測試條件	: a) 溫度 : $+5 \sim +35^{\circ}\text{C}$	b) 濕度 : 45-85%	c) 氣壓 : 860-1060mbar
Judgement Test Condition	: a) Temperature : $+25 \pm 2^{\circ}\text{C}$	b) Humidity : 60-70%	c) Pressure : 860-1060mbar
爭議時測試條件	: a) 溫度 : $+25 \pm 2^{\circ}\text{C}$	b) 濕度 : 60-70%	c) 氣壓 : 860-1060mbar

H.Soldering Condition 焊接条件

Guaranteed Maximum Reflow Condition 极限回流条件

Ambient temperature



NOTE : After the first reflow, the second reflow is tested on keeping MIC the usual temperature. 第一次回流焊后, 待产品温度恢复常温再进行第二次回流焊.

I. PACKING STANDARD 包裝規格

