



承認書

SPECIFICATION FOR APPROVAL

客戶 (Customer):	
客戶料號 (Customer P/N):	
興華鑫型號 (Supplier P/N):	SMD4013-03-32-35DB
產品名稱 (Description):	咪头(Microphone)
產品規格 (Specification):	4.0*1.3MM藍板管芯电容耐高温

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
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	日期： 2022 年 04 月 19 日 版次： A		

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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贴片蓝板

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	
4	Output impedance 輸出阻抗	Zout	KΩ	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	△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	Max. current consumption 最大耗電流	IDSS	mA	0.5	Vs=2.0V D.C. RL:2.2KΩ
9	Signal to noise ration 訊號對雜音比	S/N	dBA	58	f=1KHz, 1Pa A weighted
10	Operation temp. 操作溫度		℃	-20~+70	
11	Storage temp. 儲存溫度		℃	-20~+70	
12	Dimension 尺寸		mm	φ4.0 x 1.3	See appearance drawing 請參照外觀尺寸圖
13	Weight (MAX) 重量		gram	0.06	
14	Material 材質			Cu 铜	
15	Terminal 端子			Wire	See appearance drawing 請參照外觀尺寸圖
16	Environmental Protection Regulation 環保法規			RoHS	
17	Consumption 工作电流		μA	200~400	
18	physical design 结构设计			背极式	

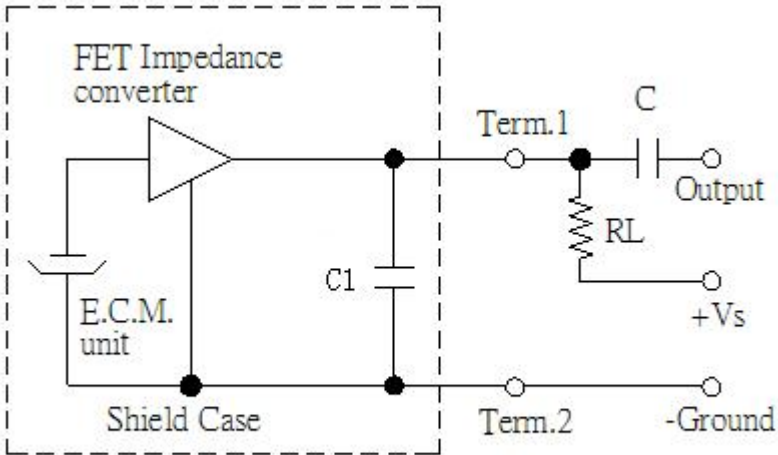
We use “Pascal (Pa)”indication of sensitivity as per the recommendation of I.E.C.(International Electro technical Commission).The Sensitivity of “Pa” will increase 20dB comparing with “ubar” indication.
Example: -60dB (0dB=1V/ubar) =-40dB (1V/Pa)
依I.E.C.(國際電子協會)建議,以“Pa”為靈敏度標示單位比“ubar” 靈敏度標示單位增加20dB
例如: -60dB (0dB=1V/ubar) = -40dB (1V/Pa)

E. MEASUREMENT CIRCUIT

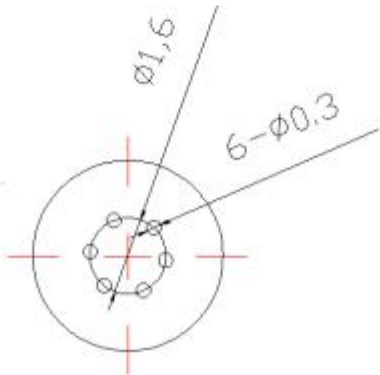


E. MEASUREMENT CIRCUIT

測量線路

 $R_L = 2.2\text{K}\Omega$ 

Schematic Diagram



F. MECHANICAL CHARACTERISTICS 機械特性

No.	Item	Test condition	Evaluation standard
1	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 ±3dB
2	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.	測試其靈敏度須與原測試值的差異不超過± 3 dB.

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℃ for 72 hours. 置於+70℃環境中72小時	After any tests, the sensitivity to be within ±3dB of initial sensitivity after 6 hours of conditioning at +25℃ 經測試後麥克風,須靜置於 +25℃ (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± 3 dB
2	Low temp. test 低溫測試	After being placed in a chamber at -20℃ for 72 hours. 置於-20℃環境中72小時	
3	Humidity test 相對濕度測試	After being placed in a chamber at +40℃ and 90±5% relative humidity for 240 hours. 置於+40℃, 相對濕度90±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: 5.5 hrs	

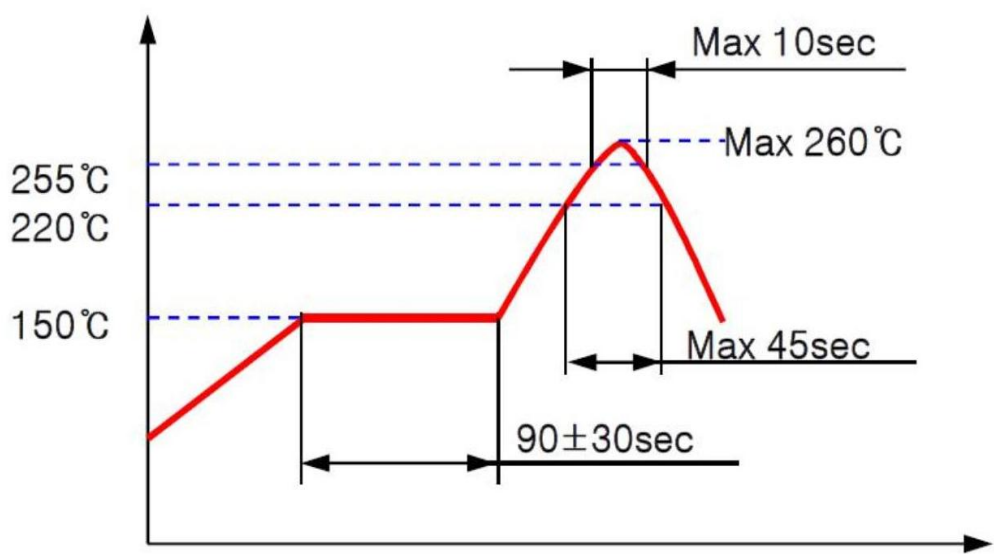
TEST CONDITION.

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

