



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): XHxDZ-6027 焊点
產品名稱 (Description): 咪头 (Microphone)
產品規格 (Specification): 焊点滤波型

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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1. 范围 (Scope)

The specifications should be applied to electret condenser microphone of XHXDZ-6027 焊点.
此规格书适用于 XHXDZ-6027 焊点型驻极体电容传声器。

2. 储藏与判断条件 (Storage And Judgement Conditions)

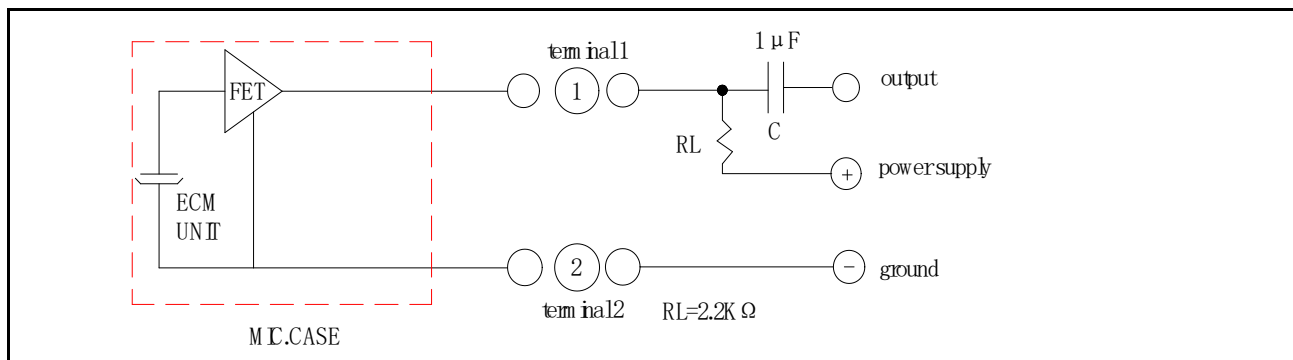
	Temperature Range(° C)	Rel. Humidity(%)	Static Pressure(kPa)
Judgement	19~21	60~65	86~106
Storage	-25~70	<80	
Operating	-25~70	<80	

3. 规格 (Specifications)

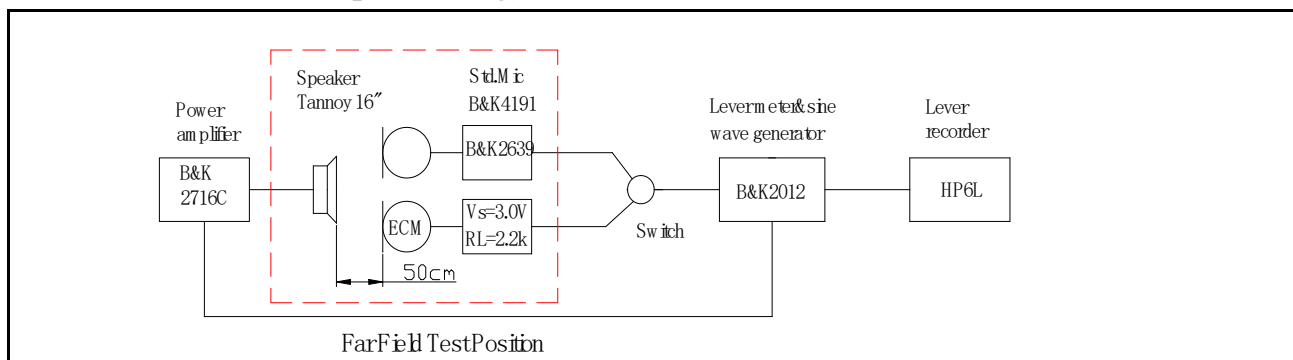
Test conditions($V_S=2.0V$ $R_L=2.2k\Omega$ $Temp=20\pm2^{\circ}C$ $R.H=60\pm5\%$)

Item	Symbol	Test Conditions	Min	Standard	Max	Unit
灵敏度 Sensitivity	S	f=1kHz,Pin=0.1Pa	-43	-40	-37	dB (0dB=1V/Pa)
阻抗 Impedance	Z	f=1kHz,Pin=0.1Pa			2.2	kΩ
指向性 Directivity	Omni-directional					
消耗电流 Current Consumption	I				500	μA
工作电压 Operation Voltage Range	U		1.0	2.0	10	V
信噪比 S/N Ratio	S/N(A)	f=1kHz,Pin=0.1Pa A Curve	58			dB
降压特性 Decreasing Voltage Characteristic	ΔS	f=1kHz,Pin=0.1Pa $V_S=2.0-1.5V$			-3	dB
最大输入声压级 Max.Input Sound Level	MISPL	f=1kHz Distortion<1%			110	dB

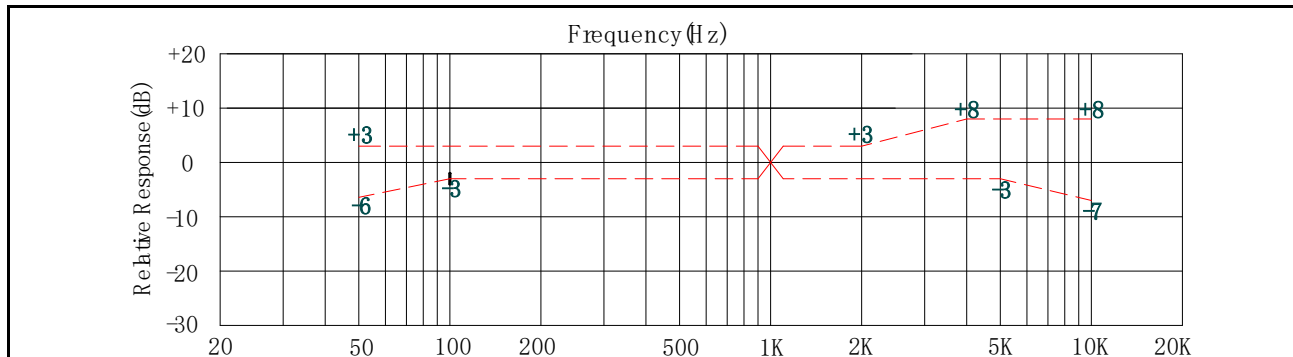
4. 测试电路 (Test Circuit)



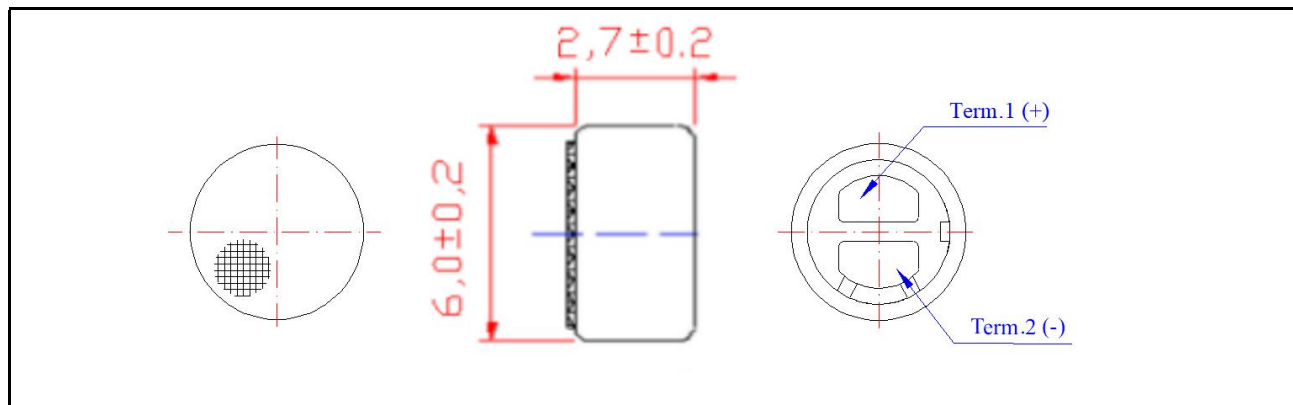
5. 测试装备图 (Test Setup Drawing)



6. 频率响应 (Frequency & Microphone Response Tolerance)



7. 外观图 (Appearance Drawing)



8. 可靠性试验 (Reliability Test)

在下列试验完成后,在温度为 20℃,相对湿度为 65%的条件下恢复 2 小时后进行测试,灵敏度与初始灵敏度相差在 ±3dB 以内.

(All tests should be done after 2 hours of conditioning at 20℃, R.H65%, while the sensitivity is to be within ±3dB from the initial sensitivity after the following experiments.)

8.1 高温试验 (HIGH TEMPERATURE TEST)

温度(High temperature):	+70℃
放置时间(Duration):	96 hours

8.2 低温试验 (LOW TEMPERATURE TEST)

温度(Low temperature):	-40℃
放置时间(Duration):	96 hours

8.3 温度循环试验(如图 1) (TEMPERATURE CYCLE TEST)(See in Fig.1)

低温(Low temperature):	-40℃
高温(High temperature):	+70℃
转化时间(Changeover time):	30min
放置时间(Duration):	60min
次数(Cycle):	5

8.4 湿度 (STATIC HUMIDITY TEST)

温度(Temperature):	+40℃
相对湿度(Relative humidity):	90~95%
放置时间(Duration):	96 hours

8.5 振动试验 (VIBRATION TEST)

振幅(Amplitude):	1.52mm
持续时间(Duration):	1 分钟/面(minutes/plane)
频度范围(Freq.range):	10~55Hz
试验时间(Total time):	2 小时(hour)

8.6 跌落试验 (DROP TEST)

不带包装的跌落到 20mm 厚的地板上(Drop a unit unpacked onto a board of 20mm thick)	
高度(Height):	1 m
次数(Cycle):	6 (1 each plane)

8.7 静电测试 (ESD TEST)

在两次无杂质的静电释放暴露中放电.(接触:±8Kv,空气:±15Kv)麦克风在 10 次暴露后无干扰.
The microphone under test must be discharged between each ESD exposure without ground.
(contact: ±8Kv, air: ±15Kv)There is no interference in operation after 10 times exposure.

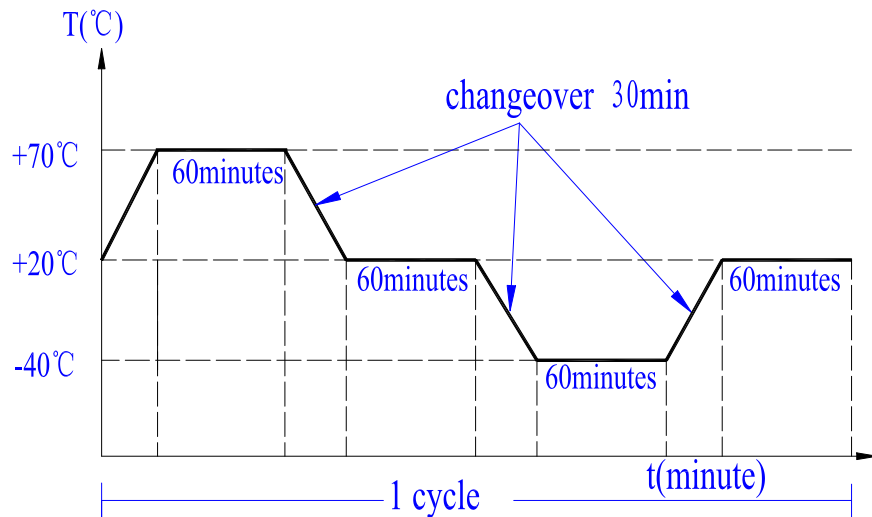


图.1. 温度循环试验

Fig.1 TEMPERATURE CYCLE TEST

9. 焊接要求 (Regarding the Soldering operation)

每个驻极体电容传声器在其麦克风上都有一个 FET,这种 FET 在过热和电流撞击时易损坏，所以对于焊接应遵循

以下操作：

- 要求使用 25W-35W 烙铁，并保持 $300 \pm 10^{\circ}\text{C}$ 的温度范围。
- 在每一个端的焊接应在 2 秒内完成，以防过热。
- 禁止单体麦克风焊接。（否则会影响驻极体电容传声器的灵敏度）
- 最理想的散热装置按以下设计。

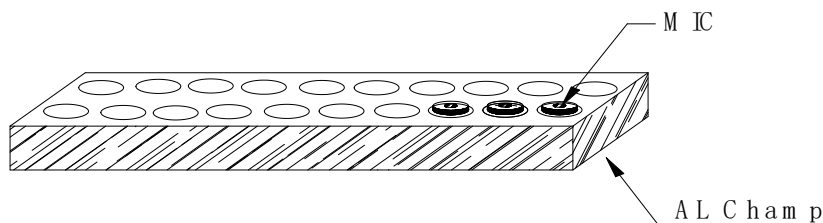
Every ECM contains a FET with microphone body.

This FET easy to damageable from excessive heat and electrical shock. Proper attention for the soldering work is required same as followings.

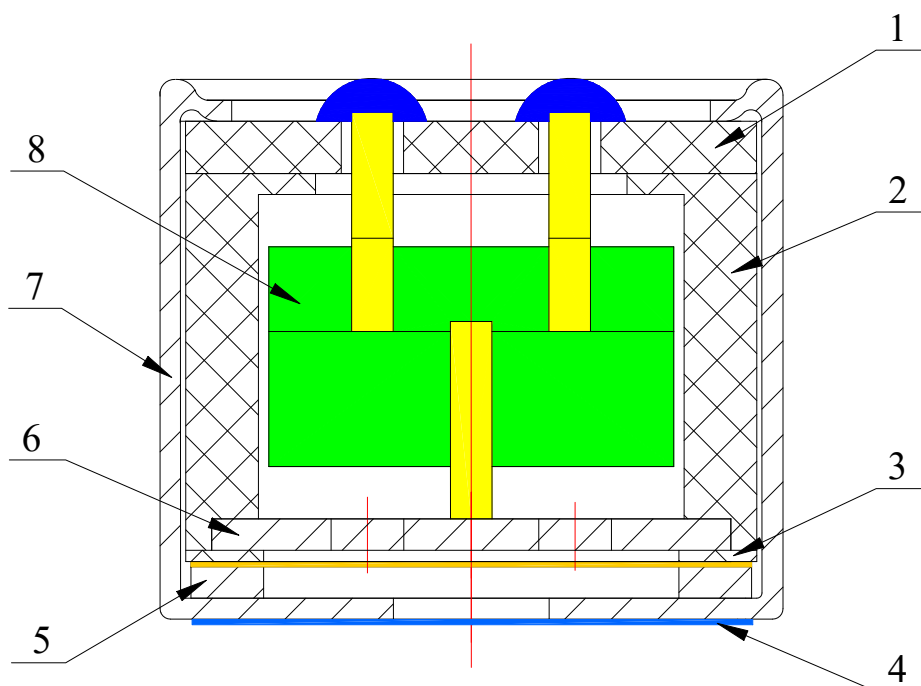
- Recommend to use 25W-35W ceramic soldering iron and apply $300 \pm 10^{\circ}\text{C}$ temperature range
- Soldering should be accomplished within 2 seconds at each terminal so as not to be overheated.
- Do not make a cavity at the surface of lead lump on the PCB. wiring board.

(Opened cavity will influence to the sensitivity of ECM)

- Optimal design for heat sink pad is same as below.



10. 材料及结构清单 (List and Structure of Materials)



ITEM	PART NAME	MATERIAL	QTY	SUPPLIER
1	P.C.B	XPC	1	LOCAL
2	CHAMBER	POM	1	LOCAL
3	SPACER	POLYESTER	1	LOCAL
4	SCREEN	NON-FIBRECORD	1	LOCAL
5	DIAPHRAGM	FEP AND BRASS	1	U.S.A
6	PLATE	BRASS	1	LOCAL
7	CASE	ALUMINUM	1	LOCAL
8	FET	K596	1	LOCAL

REMARK:

In order to keep forerunner of the product, our company carry out the layout upgrade and the color Adjustment after the technique renew, no further notice will be given, if have any doubt, please contact our marketing department to consult.

The color difference is because of different purchase batch and the product function will not be affected, so it does not regards as acceptance standard.

11. 包装规格 (Packing Specifications)

- 1.Item: Electret Condenser Microphone
- 2.Model: XHXDZ-6027 焊点
- 3.Customer:
- 4.Remarks: plastic bag enclosed in the outer box for moistureproof

