

SPECIFICATION


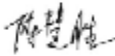
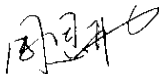
受 控

Customer : SEA ELECTRONICS LTD
Applied To :
Product Name : MIC
Model Name : KPCM-97H45P-38dB-1372
Drawing No. : KIC1372

Signature of Appronal

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Signature of KEPO

Approved by	Checkde by	Issued by	Date
			2010.11.25



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1. Scope 范围

This specification applies electret condenser microphone.
此规格书适用于电容式麦克风.

2. General 概要

- 2.1 Out-Diameter : 9.7 mm
2.1. 外径 : 9.7 mm
- 2.2 Height : 4.5 mm
2.2. 高度 : 4.5 mm
- 2.3 Weight : ≤0.8 g
2.3 重量 : ≤0.8 g
- 2.4 Operating Temperature range: '-20 ~+70℃ without loss of function
2.4 工作温度: -20 ~+70℃
- 2.5 Store Temperature range: '-20~+70℃ without loss of function
2.5 储存温度: -20~+70℃

3. Electrical and Acoustic Characteristics. 电声参数

Test condition : 15 ~ 35 °C, 45% ~ 85% RH, 860~1060 mbar
测试条件 : 15~35 °C, 45%~85%RH, 860 ~ 1060mbar

No	Items	Symbol	Unit	Specification	Condition
1	Directivity 指向性			Omni-directional 全指向性	
2	Sensitivity 灵敏度	S	dB	-38dB±3	0dB=1V/pa,1KHz
3	Standard Operation Voltage 标准操作电压	Vs	V.D.C	4.5	
4	Output impedance 输出阻抗	Zout	KΩ	2.2	f=1KHz,1pa
5	Max operating voltage 最大操作电压		V.D.C	10	
6	Sensitivity reduction 减压灵敏度	ΔS-Vs	dB	-3	f=1KHz,1pa Vs=4.5v-1.5V.D.C
7	Frequency 频率	f	Hz	20-16,000	
8	Max. Current Consumption最大耗电流	IDss	mA	0.5	Vs=4.5V,RL=2.2KΩ
9	Max input Sound Pressure Level最大入力音压	SPL	dB	110	
10	Signal to noise ration 讯号对比杂音	S/N	dBA	58	f=1KHz,1pa A weighted
11	Material 材质			AL 铝	
12	Terminal 端子				See appearance drawing请参 照外观尺寸图
13	Environmental Protection Regulations 环保法规			RoHS	

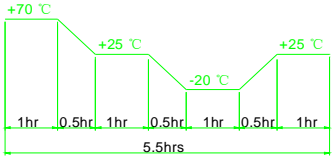
We use "Pascal (Pa)" indication of sensitivity as per the recommendation of I.E.C (International Electro technical Commission). The Sensitivity of "Pa" will increase 20dB comparing with "ubar" indication.
Example : -60dB(0dB=1v/ubar)=-40dB(1v/Pa)
依I.E.C.(国际电子协会)建议,以"Pa"为灵敏度标示单位比"ubar"灵敏度标示单位增加20dB
例如:-60dB(0dB=1V/ubar)=-40dB(1V/Pa)

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4.1 Mechanical Characteristics 机械特性

No.	Item	Test Condition	Evaluation standard
1	Solderability 焊锡附着性 (Connector excepted) 端子类不适合此项	Striped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder both of +270±5℃ for 3±0.5 seconds. 裸线部分浸入松香溶液5秒后, 再浸入+270±5℃ 熔融焊锡槽3±0.5	90% minstripped wires shall be wet with solder .(Except the edge of terminal). 浸入裸线部分附着焊锡90%以上。(末端断面不算)
2	Vibration 振动试验	Sounder shall be measured after being applied vibration of amplitude of 1.5mm with 10 to 55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hour. 振幅为1.5mm, 频率为10-50Hz, 三个不同轴方向各振动2小时, 试验后进行测量.	After any tests, the sensitivity to be within ±3dB 测试其灵敏度须与原测试值的差异不超过±3dB
3	Drop test 跌落试验	To be no interference in operation after dropped to concrete floor each one time from 1meter height at three directions in state of packing 以正规包装的三个方向从1米高处自由落到混凝土地面时, 产品应不受影响	

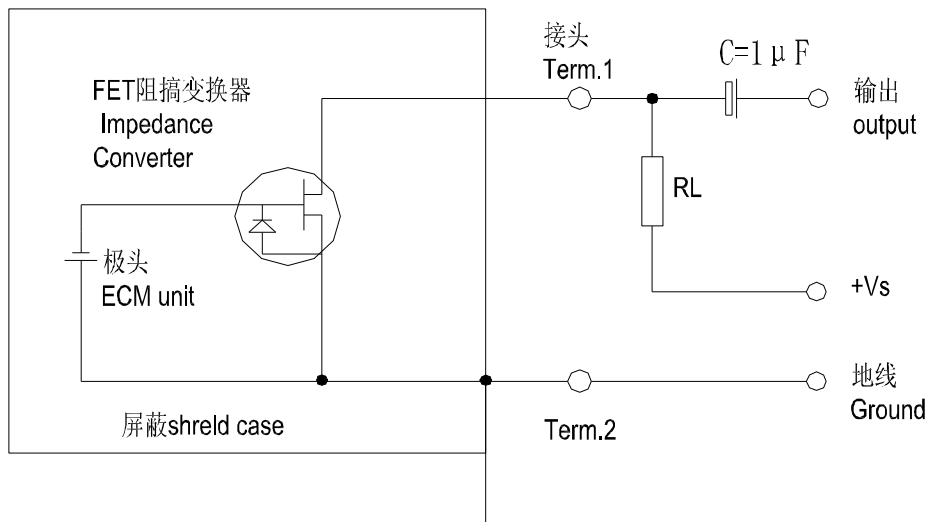
4.2 Environmental test 环境试验

No.	Item	Test Condition	Evaluation standard
1	High temperature test 高温测试	After being placed in a chamber at +70 ℃ for 72 hours. 置于+70 ℃ 环境中72小时.	After any tests, the sensitivity to be within ±3dB of initial sensitivity after 6 hours of conditioning at +25 ℃ 经测试后麦克风, 须静置于+25℃ (室温) 环境中6小时后, 测试其灵敏度须与原测试值的差异不超过±3dB
2	Low temperature test 低温试验	After being placed in a chamber at -20 ℃ for 72 hours. 置于-20 ℃环境中72小时.	
3	Humidity Test 相对湿度试验	After being placed in a chamber at +40 ℃ and 90±5% relative humidity for 240 hours. 置于+40 ℃, 相对湿度90±5%环境中240小时.	
4	Temperature cycle test 温度循环测试	The part shall be subjected to 10 cycles. One cycle shall be consist of : 单 体承受温度循环测试10次, 其循环内容如图示 	

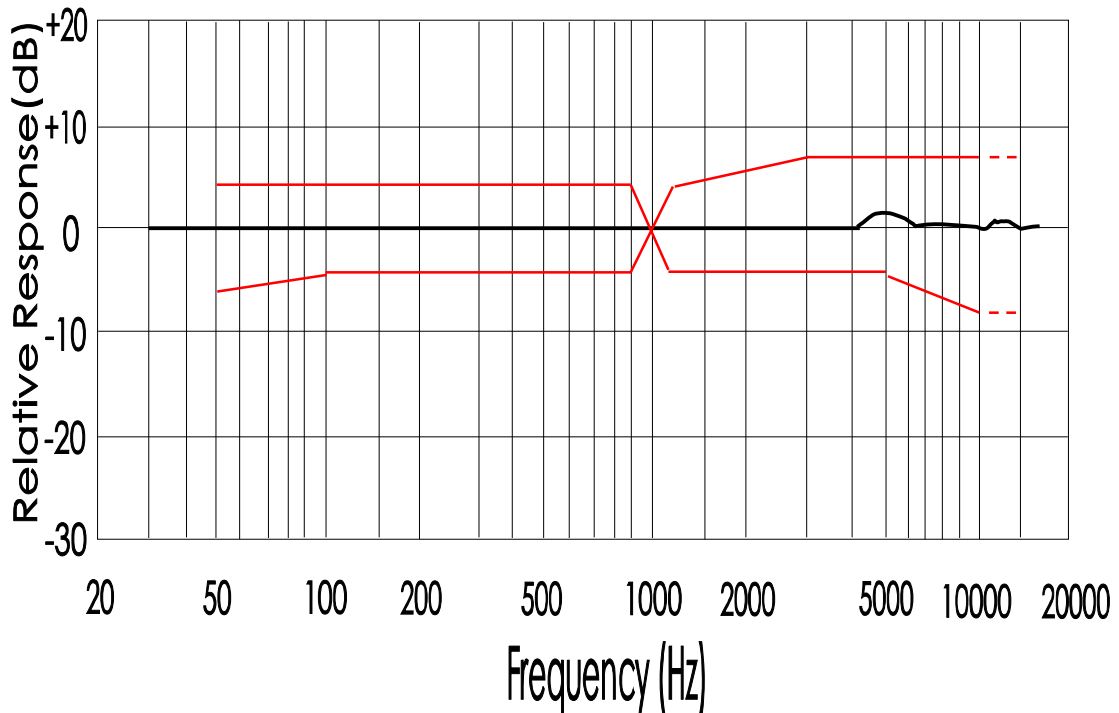
5. Measurement Block Diagram & Response curve
测试图和曲线图

5.1 Measurement Block Diagram 测试图

Schematic Diagram $V_s = 4.5V$; $R_1 = 2.2K\Omega$



5.2 Response curve 曲线图



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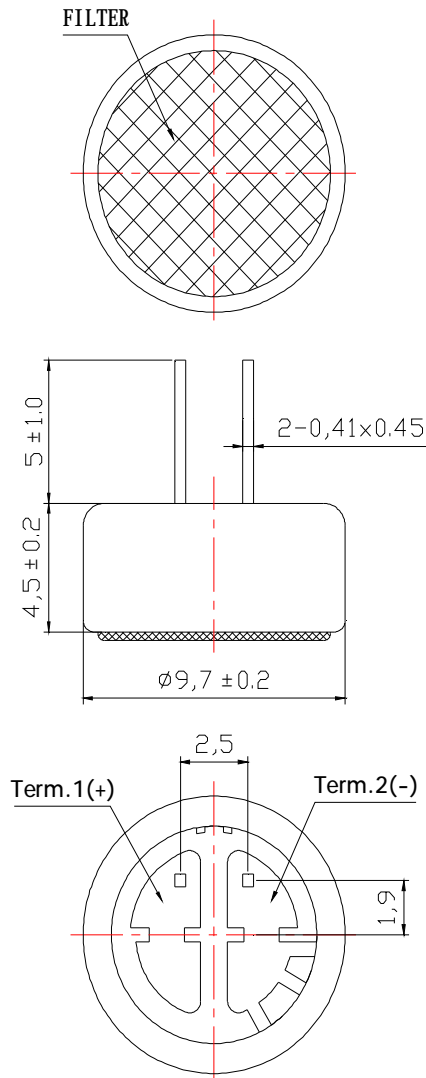
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6. Dimensions 尺寸图



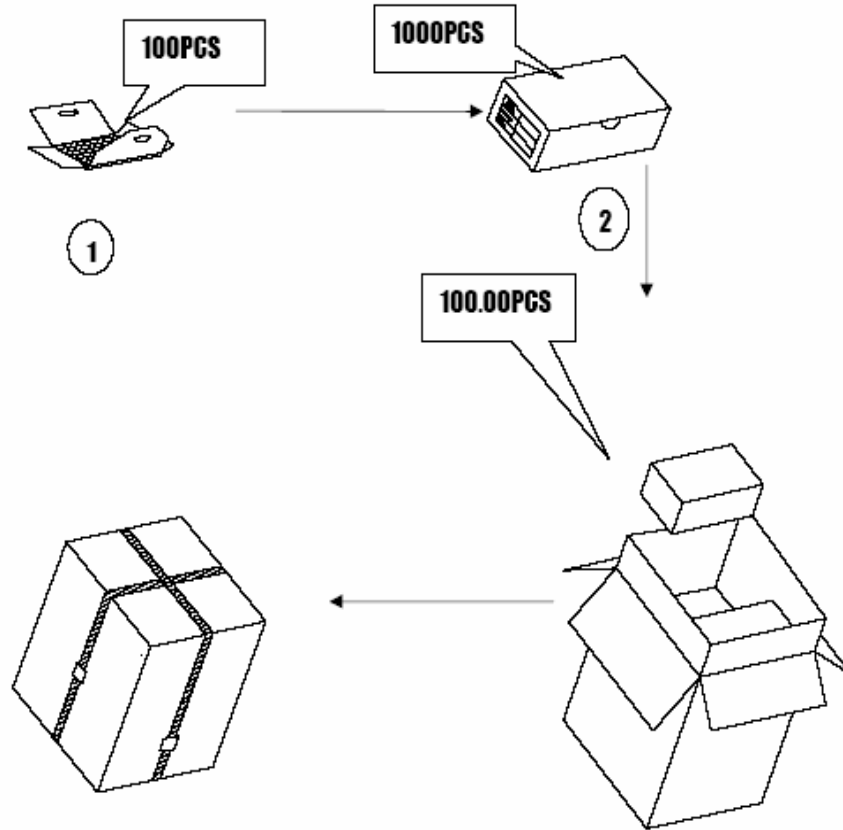
FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ± 0.2

7. Packing 包装



序号 NO.)	名称 (Name)	规格	数量
1	小包装盒	98mmx98mmx8mm	100PCSx1=100PCS
2	中包装盒	205mmx100mmx45mm	100PCSx10=1000PCS
3	大包装盒	230mmx230mmx260mm	1000PCSx10=10000PCS

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8. Revision 履历				
Rev. No.	DATE	PAGE	DESCRIPTION	BOM
1.0	2010.11.25		Primary	