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	Revision No.	1.2
Model No. : KPCM-G60H27LC30-44DB-1333	Drawing No.	KIC1333

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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 : 6 mm
- 2.1. 外径 : 6 mm
- 2.2 Height : 2.7 mm
- 2.2. 高度 : 2.7 mm
- 2.3 Weight : ≤0.3 g
- 2.3 重量 : ≤0.3 g
- 2.4 Operating Temperature range: '-40 ~+85°C without loss of function
- 2.4 工作温度: -40 ~+85°C
- 2.5 Store Temperature range: '-40~+90°C without loss of function
- 2.5 储存温度: -40~+90°C

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

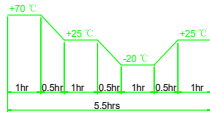
No	Items	Symbol	Unit	Specification	Condition
1	Directivity 指向性			Omni-directional 全指向性	
2	Sensitivity 灵敏度	S	dB	-44dB±3	0dB=1V/pa, 1KHz
3	Standard Operation Voltage 标准操作电压	Vs	V.D.C	2	
4	Output impedance 输出阻抗	Zout	KΩ	2.2	f=1KHz, 1pa
5	Max operating voltage 最大操作电压		V.D.C	10	
6	Sensitivity reduction 减压灵敏度	ΔS-Vs	dB	-3	f=1KHz, 1pa Vs=2v-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=2V, RL=2.2KΩ
9	Signal to noise ration 讯号对比杂音	S/N	dBA	58	f=1KHz, 1pa A weighted
10	Material 材质			AL 铝	
11	Terminal 端子				See appearance drawing 参照外观尺寸图
12	Environmental Protection 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)

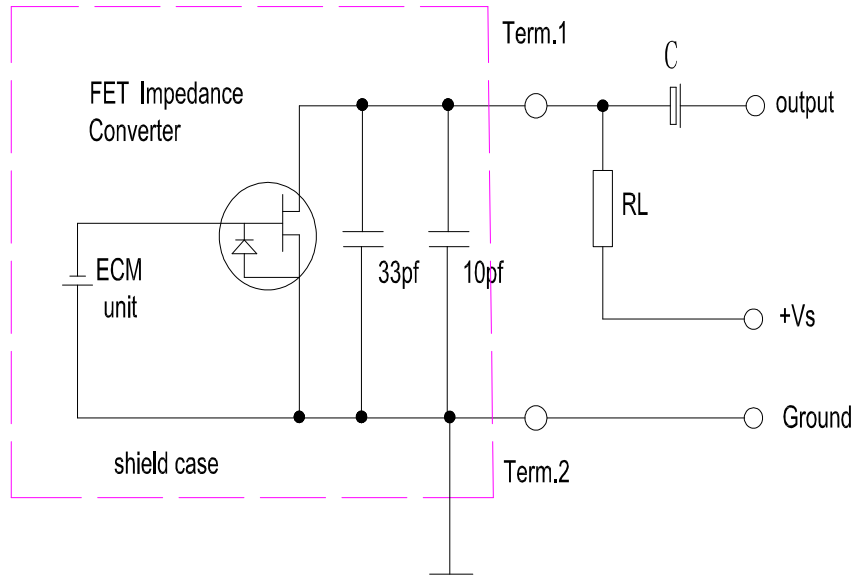
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4.1 Mechanical Characteristics 机械特性				
No.	Item	Test Condition	Evaluation standard	
1	Solderability 焊锡附着性 (Connector excepted) 端子类不适合此项	Striped wires of lead wires are immersed in rosin for 5 seconds and then immersed in solder both of +270±5°C for 3±0.5 seconds. 裸线部分浸入松香溶液5秒后,再浸入+270±5°C 熔融焊锡槽3±0.5	90% minstripped wires shall be wet with solder. (Except the edge of terminal). 裸线部分附着焊锡90%以上。(末端断面不算)	
2	Lead Wire Pull Stength 线材拉力	The pull force shall be applied to double lead wire: Horizontal 4.9N (0.5kg) for 30 seconds. 双线材水平方向施以4.9N (0.5kg)的力量30秒	No damage and cutting off. 线材不松动,不脱落	
3	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	
4	Drop test 跌落试验	The microphone with packaged must be subjected to each 3 drops a three axis from the height of 1 meter to 20mm thick wooden board. 包装麦克风从1公尺高处, X.Y.X 3个方向, 各3回, 落于20mm厚木板上。		
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 +90°C for 72 hours. 置于+90°C 环境中72小时.	After any tests, the sensitivity to be within ±3dB of initial sensitivity after 6H of conditioning at +25°C 经测试后麦克风, 须静置于+25°C(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 -40°C for 72 hours. 置于-40 °C 环境中72小时.		
3	Humidity Test 相对湿度试验	After being placed in a chamber at +40°C and 90±5% relative humidity for 72 hours. 置于+40°C, 相对湿度90±5%环境中72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	Thermal shock 热冲击	The microphone unit must be subjected to an environment from -20°C for 30 minutes to the end of +70°C for 30 minutes, which shall be repeated 32 cycles 麦克风单体 置于零下20摄氏度环境下工作30分钟, 直到温度上升到70摄氏度环境下工作30分钟结束, 进行32个循环		
6	ESD Test 静电试验	a). Contact discharge 通电 Charge 6000v DC to the capacitor with 150pF, and discharge the output of the MIC ten times through the resistance of 330Ω, then check and test it. 直流6000VDC作用于150pF的电容, 对MIC输出口进行10次放电, 阻抗330Ω, 然后进行检查, 测试 b). Air discharge 放电 Charge 8000v DC to the capacitor with 150pF, and discharge the sound hole of the MIC ten times through the resistance of 330 Ω, then check and test it. 直流8000VDC作用于150pF的电容, 对MIC发音孔进行10次放电, 阻抗330Ω, 然后进行检查, 测试		

5. Measurement Block Diagram & Response curve

测试图和曲线图

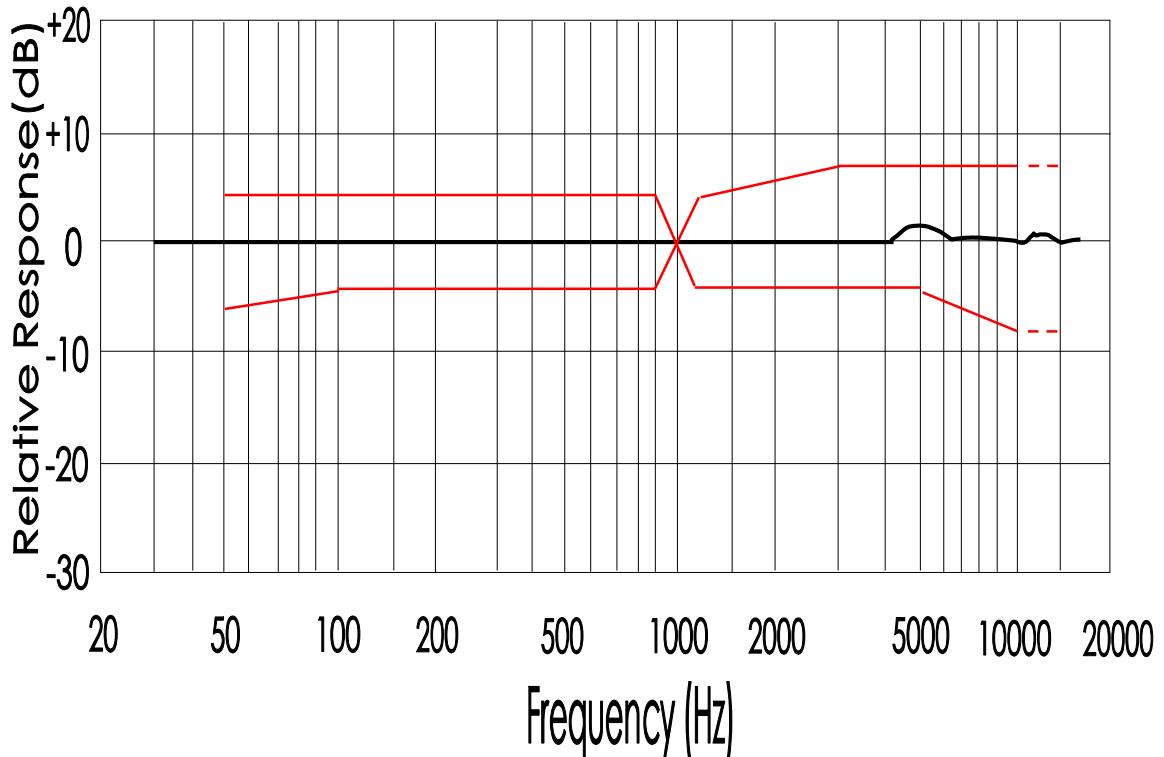
5.1 Measurement Block Diagram 测试图

Schematic Diagram $V_s = 2V$; $R_L = 2.2K\Omega$; $C = 5\mu f$



FET: TF202THC(SANYO E5)

5.2 Response curve 曲线图



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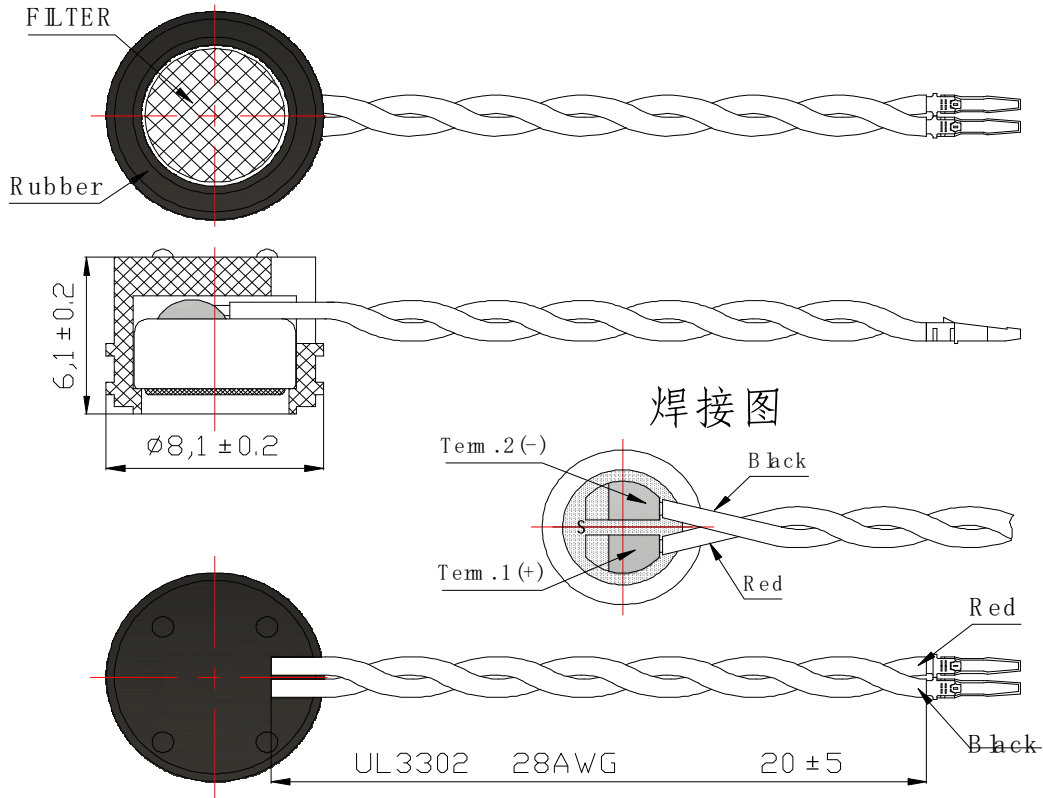
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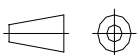
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6. Dimensions 尺寸图



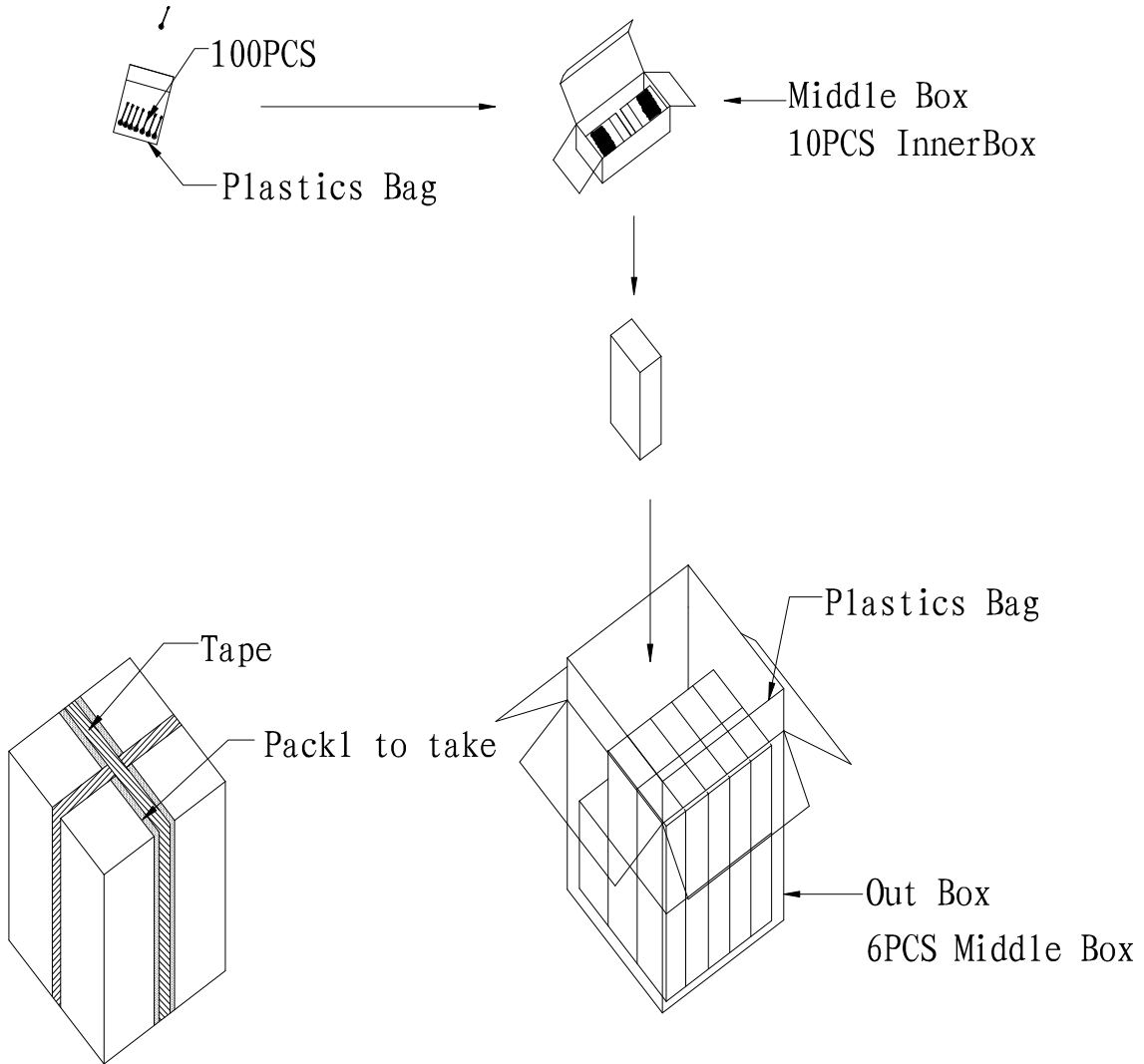
FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ± 0.2

7. Packing 包装



Plastics Bag	130x90	100PCSx1=100PCS
Middle Box	215x105x85	100PCSx10=1000PCS
Out Box	230x230x270	1000PCSx6=6000PCS

