

SPECIFICATION FOR APPROVAL

規 格 書

Customer (客戶): _____

Customer part No: _____
(客戶番號)

Our part No : HOB4530CW1033-R46-4508
(本廠番號)

Date (日期) : 2009-03-20

Environment Request: (環境標準)

NON-ROHS (非 ROHS 標準) ROHS (ROHS 標準)

OTHERS (其他) : _____

CUSTOMER'S APPROVED SIGNATURE



威德利科技控股有限公司

Add: Xi Chong Yan Cun Industrial Area, Kui Chong Town, Shenzhen City,
Guandong Province, P.R.China 518119

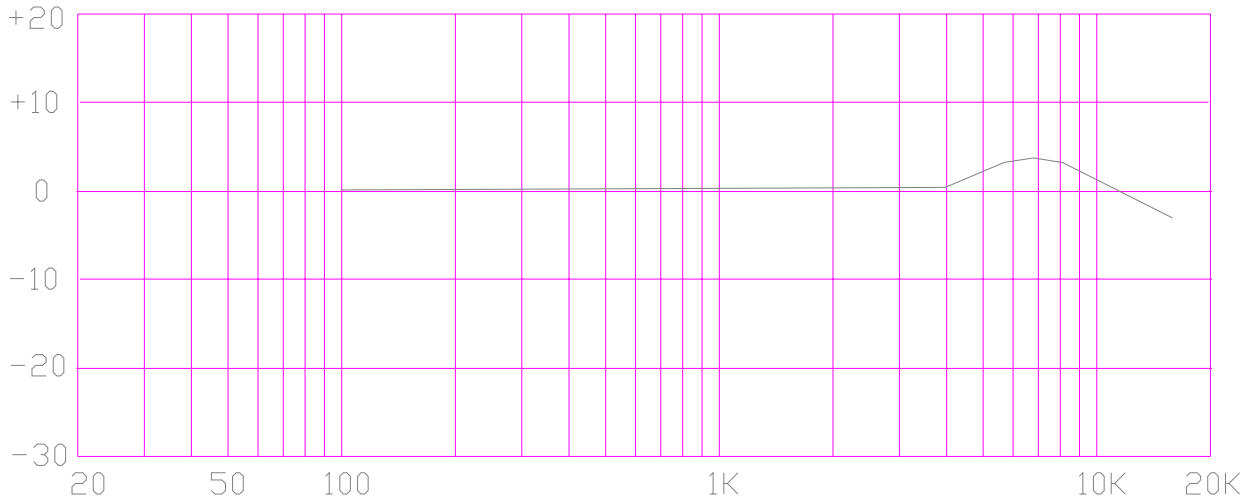
| | DESIGNED | CHECKED | APPROVED |
|-----------|------------|------------|------------|
| SIGNATURE | | | |
| DATE | 2009-03-20 | 2009-03-20 | 2009-03-20 |

A.SPECIFICATION (规格)

| No. | Item | Unit | Specification | Condition |
|-----|--------------------------------------|------|------------------------|---|
| 1 | Directivity 指向性 | | Omnidirectional 全指向 | |
| 2 | Sensitivity 灵敏度 | dB | -40±3dB | F=1KHz 0dB=1V/Pa |
| 3 | Standard operating voltage 标准工作电压 | V | 2.0 | |
| 4 | Output impedance 输出阻抗 | Ω | 2.2K | RL=2.2K F=1KHz 1Pa |
| 5 | Max. operating voltage 最大工作电压 | V | 10 | |
| 6 | Sensitivity reduction 灵敏度降低 | dB | <3 | At 1.5V to 3.0V |
| 7 | Frequency 频率 | Hz | 50~16000Hz | |
| 8 | Max.current consumption 最大消耗电流 | mA | 0.5 | V _{CC} =2.0V R _L =2.2K Ω |
| 9 | Signal to noise ratio 信噪比 | dB | 60 | F=1KHz 1Pa A weighted |
| 10 | Storage temp 贮存温度 | °C | -20°C~+60°C | |
| 11 | Dimension 尺寸 | mm | Φ4.5×3.0 | See appearance drawing 见外观图 |
| 12 | Material 材质 | | AL 铝 | |
| 13 | Terminal 端子 | | Terminal Type 焊点式 | See appearance drawing 见外观图 |

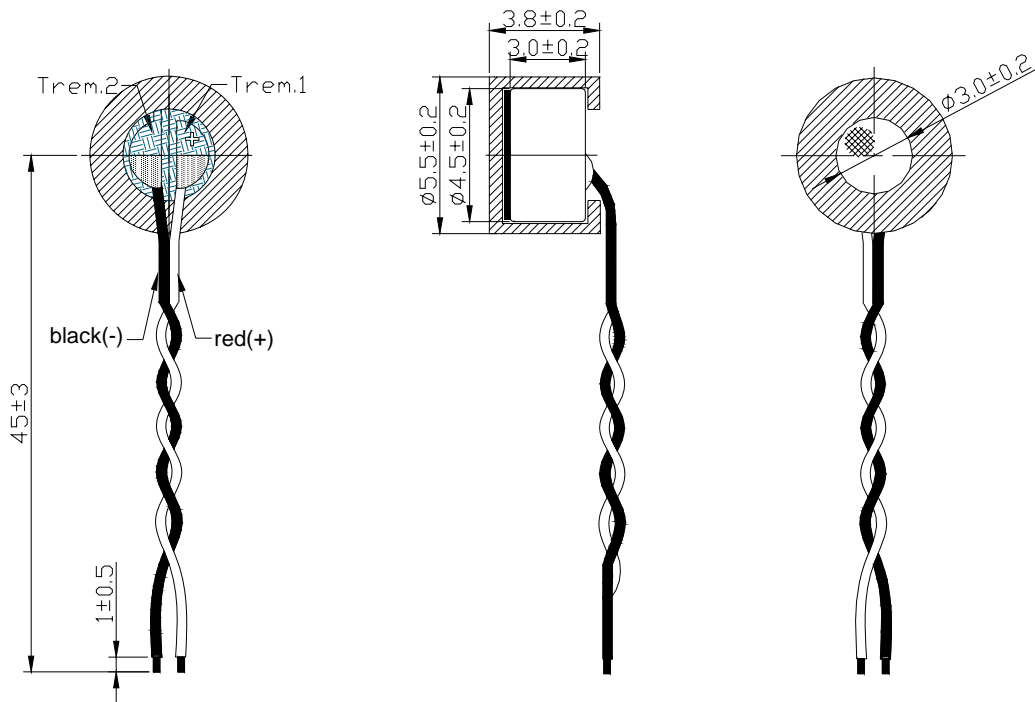
B.TYPICAL FREQUENCY RESPONSE CURVE

(频率曲线)

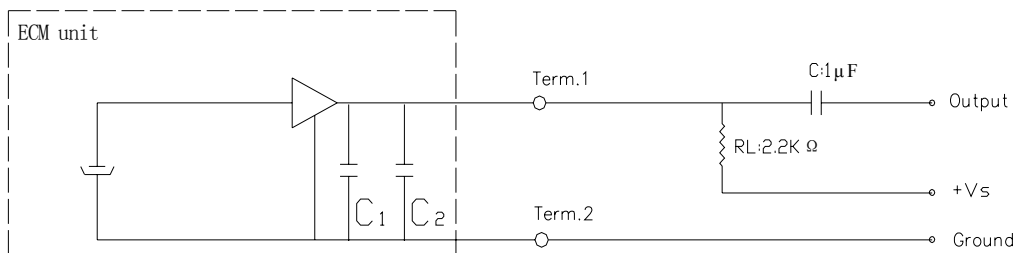


C.APPEARANCE DRAWING&MEASUREMENT CIRCUIT

(外观尺寸及电路图)



WIRE TYPE: UL1571#32AWG

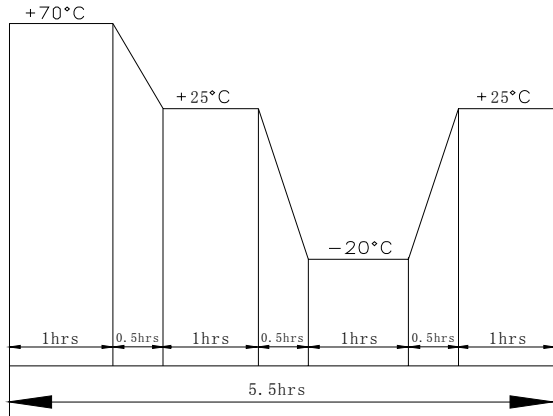


$C_1: 10PF$
 $C_2: 33PF$

D. MECHANICAL CHARACTERISTICS 机械特性

| NO. | item | Test condition | Evaluation standard |
|-----|------------------------------------|--|--|
| 1 | Soldering Heat Resistance 焊锡耐热性 | Soldering iron of $+330\pm 5^{\circ}\text{C}$ should be placed on the terminal for 2 ± 0.5 seconds. 端子部份置于 $+330\pm 5^{\circ}\text{C}$ 烙铁上 2 ± 0.5 秒. | No interference in operation 操作无任何不良 |
| 2 | Vibration Test 振动测试 | The part shall be measured after being applied vibration of amplitude of 1.5mm with 10to 55hz band of vibration frequency to each of 3perpendicular directions for 2hours. 振动周波数 10~55HZ、全振幅 1.5mm 个于 X.Y.Z3 个,各 2 小时 | After any tests, the sensitivity to be within $\pm 3\text{dB}$. 测试其灵敏度须与原测试值差异不超过 $\pm 3\text{dB}$. |
| 3 | Drop Test 落下试验 | The microphone unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20mm thick wooden board. 未包装麦克风单体从 1 公尺高处,X.Y.Z.3 个方向各 3 回,落于 20mm 厚木板上. | |

E. ENVIRONMENTAL TEST 环境试验

| NO. | Item | Test conditions | Evaluation standard |
|-----|---------------------------|--|---|
| 1 | High temp.test 高温测试 | After being placed in a chamber at $+70^{\circ}\text{C}$ for 72 hours. 置于 $+70^{\circ}\text{C}$ 环境中 72 小时 | After any tests, the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 6 hours of conditioning at $+25^{\circ}\text{C}$ (室温) 环境中 6 小时后, 测试其灵敏度须与原测试值差异不超过 $\pm 3\text{dB}$ |
| 2 | Low temp. test 低温测试 | After being placed in a chamber at -25°C for 72 hours. 置于 -25°C 环境中 72 小时 | |
| 3 | Humidity test 相对湿度测试 | After being placed in a chamber at $+60^{\circ}\text{C}$ and $90\pm 5\%$ relative humidity for 240 hours. 置于 $+60^{\circ}\text{C}$, 相对湿度 $90\pm 5\%$ 环境中 240 小时. | |
| 4 | Temp.cycle test 测试回圈测试 | The part shall be subjected to 10 cycles. One cycle shall be consist of: 单体承认温度回圈测试 10 次,其回圈内容如图示:  | |

TEST CONDITION. (测试条件)

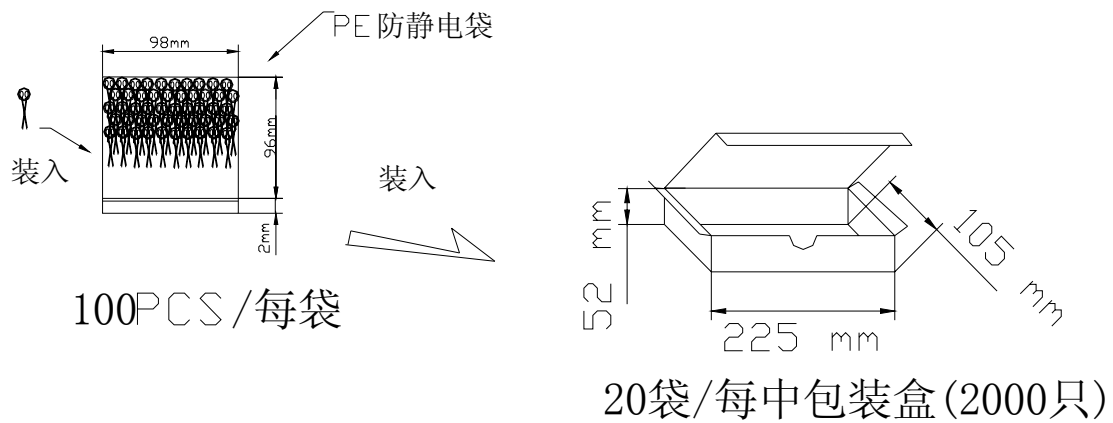
Standard Test Condition: a) Temperature: $+5\sim +35^{\circ}\text{C}$ b) Humidity: 45-85% c) Pressure: 860-1060mbar

一般测试条件: a) 温度: $+5\sim +35^{\circ}\text{C}$ b) 湿度: 45-85% c) 气压: 860-1060mbar

Judgement Test Condition: a) Temperature: $+25\pm 5^{\circ}\text{C}$ b) Humidity: 60-70% c) Pressure: 860-1060mbar

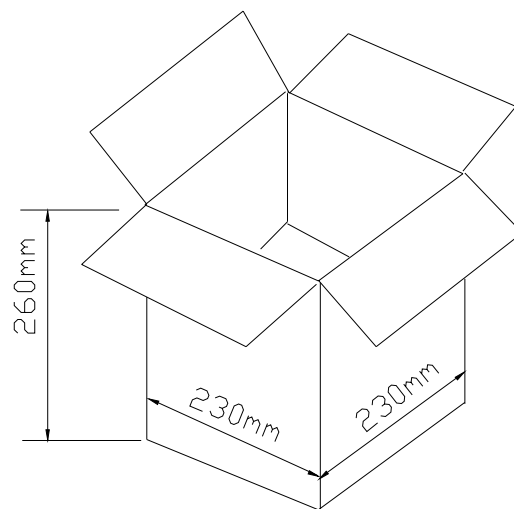
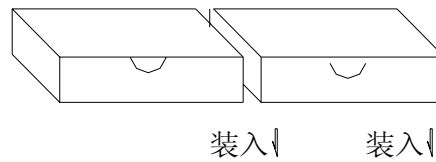
标准测试条件: a) 温度: $+25\pm 5^{\circ}\text{C}$ b) 湿度: 60-70% c) 气压: 860-1060mbar

F. PACKING SKETCH MAP(包装示意图)



*小包装盒及中包装盒使用280克牛皮箱板。

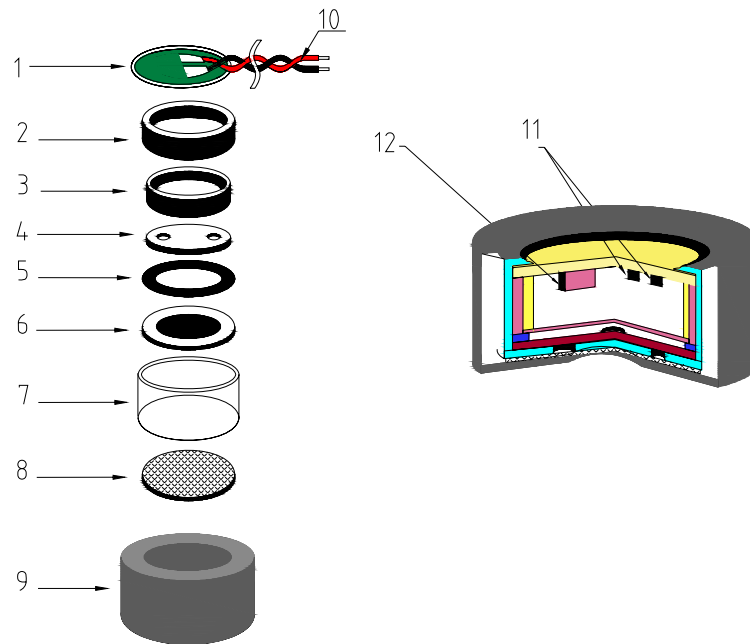
*中包装箱、大包装箱使用二层瓦楞制作，进口纸。



每中包装箱20000只

编号: BZ-4501 版本: B

G. LIST AND STRUCTURE OF MATERIALS(材料清单及机构图)



| NO. | Name | Material | QTY | Origin | Manufacturer |
|-----|------|----------------|-----|--------|--------------|
| 1 | 线路板 | FR4 | 1 | CHINA | SANSN |
| 2 | 腔体 | POM | 1 | CHINA | KELIDA |
| 3 | 极环 | COPPER TUBE | 1 | CHINA | KELIDA |
| 4 | 极板 | Cu | 1 | CHINA | XINDA |
| 5 | 垫片 | POLYESTER FILM | 1 | CHINA | YANGBEN |
| 6 | 振膜 | PET | 1 | CHINA | HUACHENG |
| 7 | 外壳 | AL-MG ALLOY | 1 | CHINA | SHUANGMIAO |
| 8 | 防尘网 | FABRIC CLOTH | 1 | CHINA | GUANGXING |
| 9 | 胶套 | RUBBER | 1 | CHINA | JINTONG |
| 10 | 线材 | PVC+Cu | 1 | JAPAN | SUMITOMO |
| 11 | 电容 | 10PF+33PF | 各 1 | JAPAN | MURATA |
| 12 | FET | K800 | 1 | CHINA | HUADAN |