

## 受 控

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| Specification for Microphone                                                                                                                                                                                                                                                                                                                                                                                                          |  | Page         | 2/8     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Revision No. | 1.0     |
| Model No. : KPCM-B40H15PC43-40DB-1482                                                                                                                                                                                                                                                                                                                                                                                                 |  | Drawing No.  | KIC1482 |
| <h2>CONTENTS</h2> <ol style="list-style-type: none"> <li>1. Scope<br/>1.范围</li> <li>2. General<br/>2.概要</li> <li>3. Electrical and Acoustic Characteristics.<br/>3.电声参数</li> <li>4.Mechanical characteristics and environmental test<br/>4.机械特性和环境试验</li> <li>5. Measurement Block Diagram &amp; Response curve<br/>5.测试图和曲线图</li> <li>6. Dimensions<br/>6.尺寸图</li> <li>7. Packing<br/>7.包装</li> <li>8. Revision<br/>8.履历表</li> </ol> |  |              |         |

|                                                                             |                                                 |        |       |                          |                                    |
|-----------------------------------------------------------------------------|-------------------------------------------------|--------|-------|--------------------------|------------------------------------|
| Specification for Microphone                                                |                                                 |        |       | Page                     | 3/8                                |
| Model No. : KPCM-B40H15PC43-40DB-1482                                       |                                                 |        |       | Revision No.             | 1.0                                |
|                                                                             |                                                 |        |       | Drawing No.              | KIC1482                            |
| 1. Scope 范围                                                                 |                                                 |        |       |                          |                                    |
| This specification applies electret condenser microphone.<br>此规格书适用于电容式麦克风. |                                                 |        |       |                          |                                    |
| 2. General 概要                                                               |                                                 |        |       |                          |                                    |
| 2.1 Out-Diameter : 4 mm                                                     |                                                 |        |       |                          |                                    |
| 2.1. 外径 : 4 mm                                                              |                                                 |        |       |                          |                                    |
| 2.2 Height : 1.5 mm                                                         |                                                 |        |       |                          |                                    |
| 2.2. 高度 : 1.5 mm                                                            |                                                 |        |       |                          |                                    |
| 2.3 Weight : ≤0.3 g                                                         |                                                 |        |       |                          |                                    |
| 2.3 重量 : ≤0.3 g                                                             |                                                 |        |       |                          |                                    |
| 2.4 Operating Temperature range: '-20 ~+80°C without loss of function       |                                                 |        |       |                          |                                    |
| 2.4 工作温度: -20 ~+80°C                                                        |                                                 |        |       |                          |                                    |
| 2.5 Store Temperature range: '-25~+85°C without loss of function            |                                                 |        |       |                          |                                    |
| 2.5 储存温度: -25~+85°C                                                         |                                                 |        |       |                          |                                    |
| 3. Electrical and Acoustic Characteristics. 电声参数                            |                                                 |        |       |                          |                                    |
| Test condition : 15 ~ 35 °C, 25% ~ 85% RH, 860~1060 mbar                    |                                                 |        |       |                          |                                    |
| 测试条件 : 15~35 °C, 25%~85%RH , 860 ~ 1060mbar                                 |                                                 |        |       |                          |                                    |
| No                                                                          | Items                                           | Symbol | Unit  | Specification            | Condition                          |
| 1                                                                           | Directivity<br>指向性                              |        |       | Omni-directional<br>全指向性 |                                    |
| 2                                                                           | Sensitivity<br>灵敏度                              | S      | dB    | -40dB±3                  | 0dB=1V/pa,1KHz                     |
| 3                                                                           | StandardOperationVoltage<br>标准操作电压              | Vs     | V.D.C | 2                        |                                    |
| 4                                                                           | Output impedance<br>输出阻抗                        | Zout   | KΩ    | 2.2                      | f=1KHz,1pa                         |
| 5                                                                           | Max operating voltage<br>最大操作电压                 |        | V.D.C | 10                       |                                    |
| 6                                                                           | Sensitivity reduction<br>减压灵敏度                  | ΔS-Vs  | dB    | -3                       | f=1KHz,1pa<br>Vs=2.0v-1.5V.D.C     |
| 7                                                                           | Frequency<br>频率                                 | f      | Hz    | 50-12,000                |                                    |
| 8                                                                           | Max. Current Consumption<br>最大耗电电流              | IDss   | mA    | 0.5                      | Vs=2V,RL=2.2KΩ                     |
| 9                                                                           | Signal to noise ration<br>讯号对比杂音                | S/N    | dBA   | 58                       | f=1KHz,1pa A weighted              |
| 10                                                                          | Material<br>材质                                  |        |       | AL<br>铝                  |                                    |
| 11                                                                          | Terminal<br>端子                                  |        |       |                          | See appearance drawing请<br>参照外观尺寸图 |
| 12                                                                          | Environmental Protection<br>Regulations<br>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  
I列如;-60dB(0dB=1V/ubar)=-40dB(1V/Pa)

|                              |              |         |
|------------------------------|--------------|---------|
| Specification for Microphone | Page         | 4/8     |
|                              | Revision No. | 1.0     |
|                              | Drawing No.  | KIC1482 |

Model No. : KPCM-B40H15PC43-40DB-1482

## 4.1 Mechanical Characteristics 机械特性

| No. | Item              | Test Condition                                                                                                                                                                          | Evaluation standard                                                                                  |
|-----|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1   | Vibration<br>振动试验 | To be no interference in operation after vibrations. 10Hz to 50Hz for 1 minrte full amplitude 1.52mm , for 2 hours at three axes<br>1分钟频率变化从10Hz到50Hz, 振幅在1.52mm, 在三个方向测试振动2小时, 产品应不受影响 | After any tests,the sensitivity to be within $\pm 3\text{dB}$<br>测试其灵敏度须与原测试值的差异不超过 $\pm 3\text{dB}$ |
| 2   | DROP TEST<br>跌落测试 | To be no interference in operation after dropped to concrete floor each one time from 1meterheight at three directions in state of packing<br>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

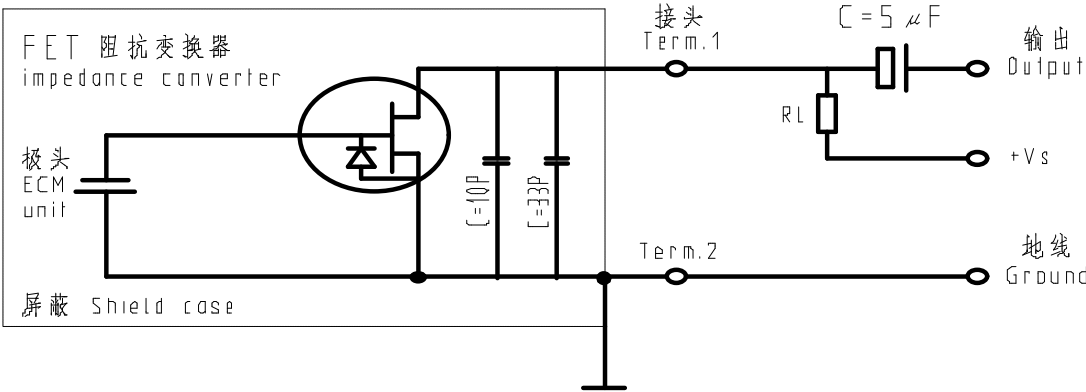
| No. | Item                            | Test Condition                                                                                                                                                                            | Evaluation standard                                                                                                                                                                                |
|-----|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | High temperature test<br>高温测试   | After being placed in a chamber at +60 °C for 200 hours. 置于+60 °C 环境中200小时.                                                                                                               | After any tests,the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after6 hours of conditioning at +25°C<br>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 $\pm 3\text{dB}$ |
| 2   | Low temperature test<br>低温试验    | After being placed in a chamber at -25°C for 200 hours. 置于-25 °C 环境中200小时.                                                                                                                |                                                                                                                                                                                                    |
| 3   | Humidity Test<br>相对湿度试验         | After being placed in a chamber at +40°C and 90-95% relative humidity for 200 hours. 置于+40°C , 相对湿度90-95%环境中200小时.                                                                        |                                                                                                                                                                                                    |
| 4   | TEMPERATURECYCLE TEST<br>温度交变测试 | After exposure at -25°C for 30 minutes,at 20°C for 10 minutes,at 60°C for 30minutes, at 20°C for 10 minrtes.5 cycles<br>在-25°C下持续30分钟, 在20°C下持续10分钟, 在60°C时持续30分钟, 在20°C时持续10分钟, 以上过程循环5次 |                                                                                                                                                                                                    |
| 5   | TEMPERATURE SHOCK<br>温度冲击       | Temperature change from -20°C to 60°C for 30 minures. (changing time :20 sec)After 32 cycles<br>在20秒内温度从-20°C变化到60°C,持续30分钟, 以上过程循环32次                                                    |                                                                                                                                                                                                    |

5. Measurement Block Diagram & Response curve

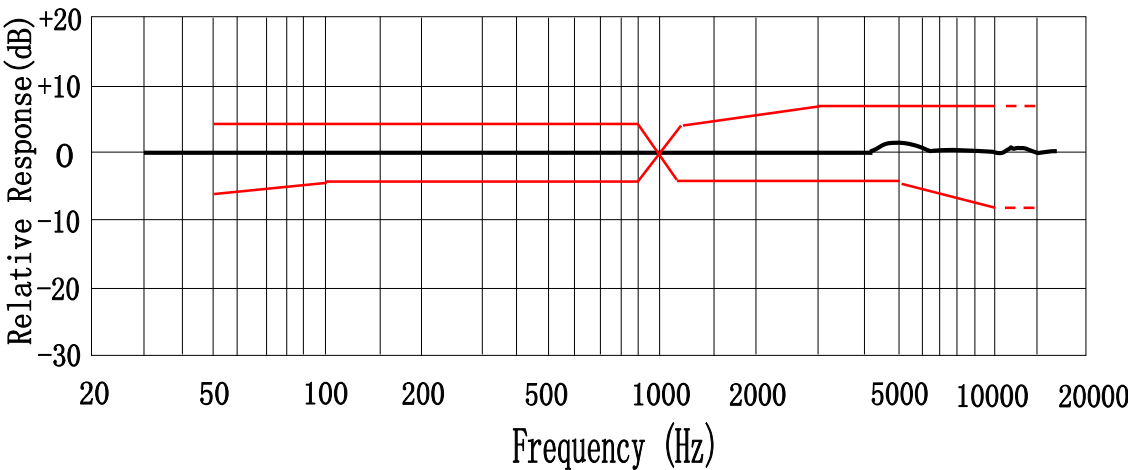
测试图和曲线图

5.1 Measurement Block Diagram 测试图

Schematic Diagram Vs= 2V ; R1=2.2KΩ



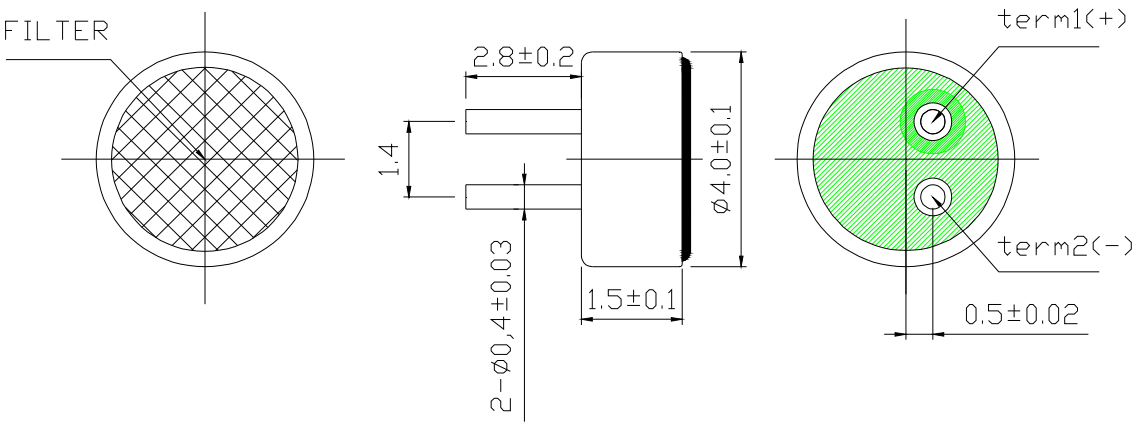
5.2 Response curve 曲线图



|                              |              |         |
|------------------------------|--------------|---------|
| Specification for Microphone | Page         | 6/8     |
|                              | Revision No. | 1.0     |
|                              | Drawing No.  | KIC1482 |

Model No. : KPCM-B40H15PC43-40DB-1482

6. Dimensions 尺寸图



FIRST ANGLE PROJECTION

UNIT : mm  
Tolerance :  $\pm 0.2$

Specification for Microphone

Page

7/8

Revision No.

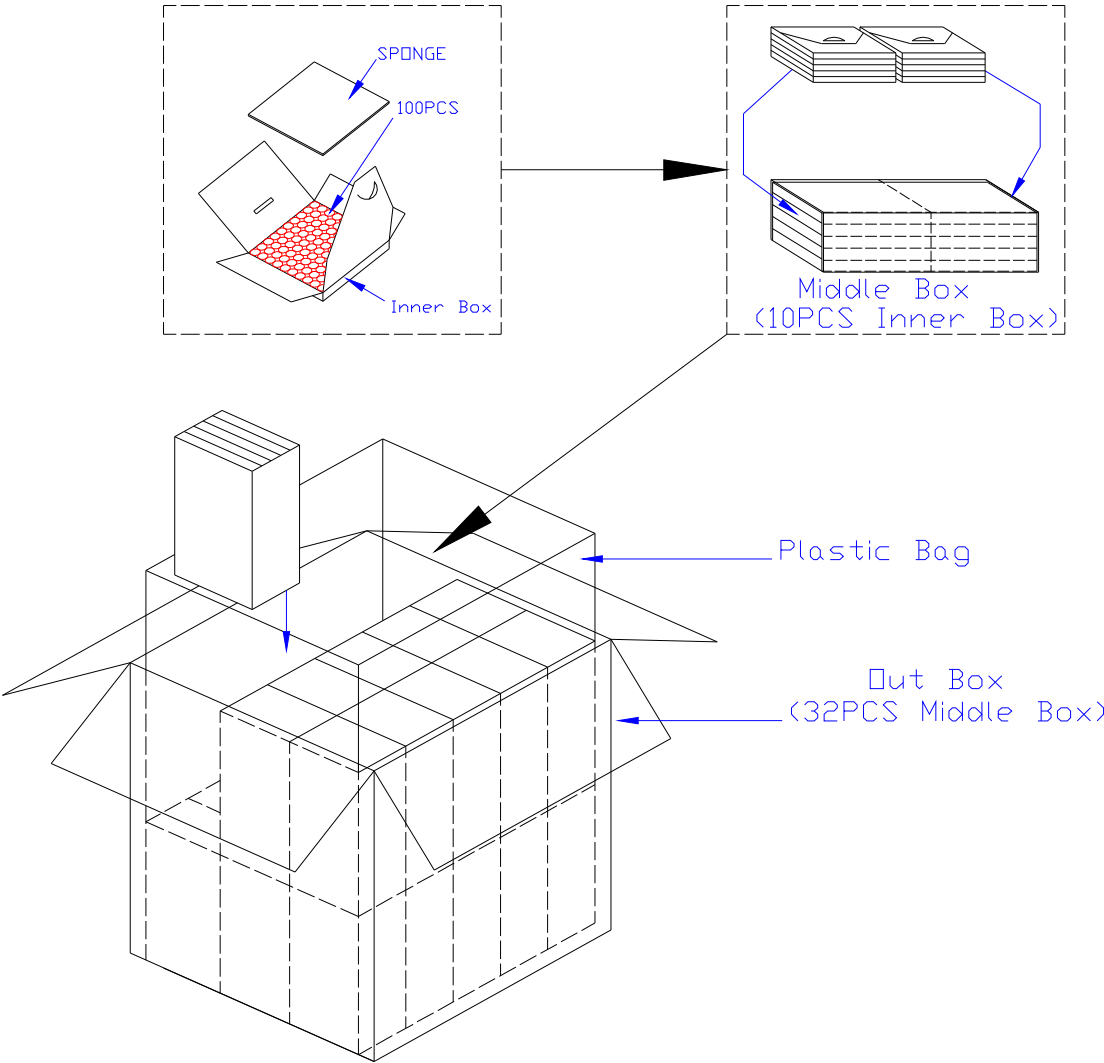
1.0

Model No. : KPCM-B40H15PC43-40DB-1482

Drawing No.

KIC1482

7. Packing 包装



|            |                   |                       |
|------------|-------------------|-----------------------|
| Inner Box  | 61mm×61mm×7mm     | 100PCS×1 = 100PCS     |
| Middle Box | 125mm×62.5mm×41mm | 100PCS×10 = 1000PCS   |
| Out Box    | 230mm×230mm×270mm | 1000PCS×32 = 32000PCS |

[illegible]