



常州市嘉传电子有限公司

Changzhou Jiachuan Electronics Co., Ltd.

## SPECIFICATION FOR APPROVAL

### 产品规格承认书

#### JC-MIC6027-UNI01

单指向驻极体电容咪头 / Unidirectional Electret Condenser Microphone

|                           |                                                      |
|---------------------------|------------------------------------------------------|
| Product / 产品              | Electret Condenser Microphone / 驻极体电容咪头              |
| Model / 型号                | JC-MIC6027-UNI01                                     |
| Original Type / 原型        | GMI6027U-36-66DB                                     |
| Main Specification / 主要规格 | Ø6.0×2.7mm   -36~-66±3dB   1.5V   ≤680Ω   S/N ≥58dBA |
| Directivity / 指向性         | Uni-directional / 单指向                                |
| Revision / 版本             | A0                                                   |

#### Approval / 签核

Prepared 制作  
李明珠

Checked 审核  
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Approved 批准  
黄继桥



#### Customer Confirmation / 客户确认

Tested By / 检查

Checked By / 审核

Approved By / 承认



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## 1. Scope / 适用范围

This specification applies to the unidirectional electret condenser microphone, model JC-MIC6027-UNI01.

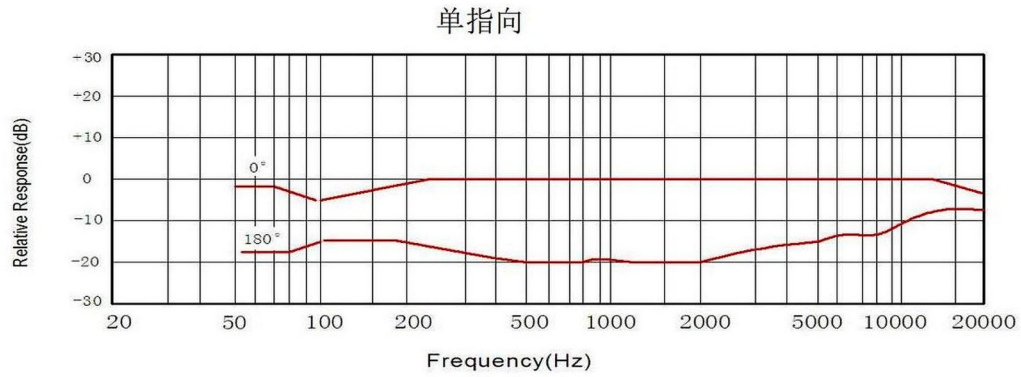
本规格适用于单指向驻极体电容咪头 JC-MIC6027-UNI01。

## 2. Electrical & Acoustic Specifications / 电声参数

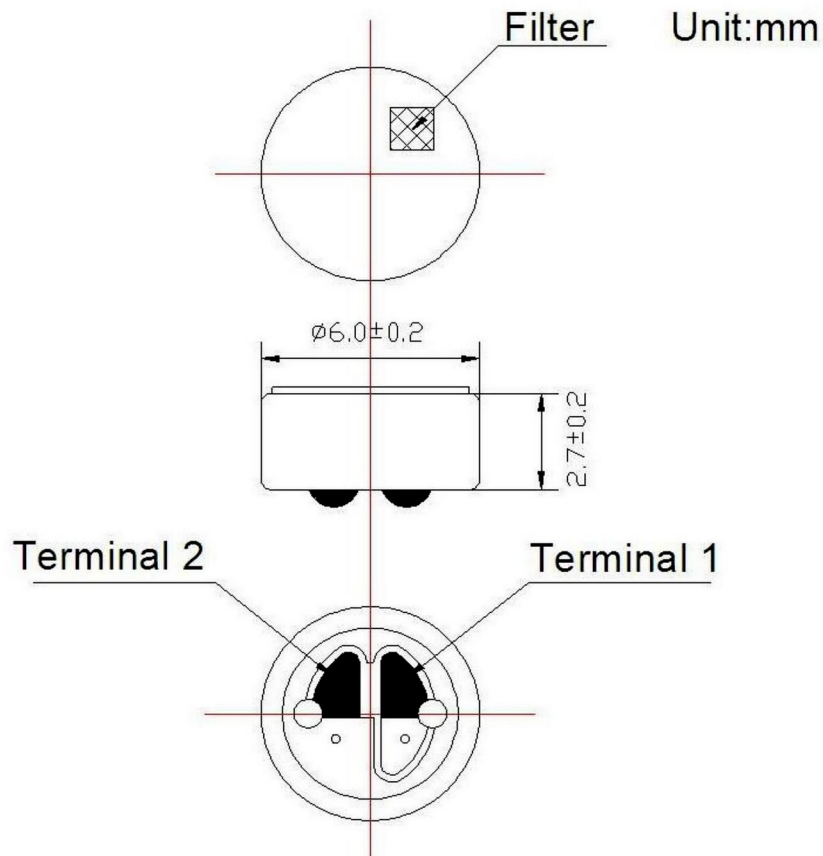
Test condition / 测试条件:  $RL=680\Omega$   $VS=1.5V$   $TEMP=20^{\circ}C\pm 2^{\circ}C$  Related humidity= $65\pm 5\%$

| No. | Item / 项目                           | Symbol        | Unit        | Specification / 规格           | Condition / 条件                     |
|-----|-------------------------------------|---------------|-------------|------------------------------|------------------------------------|
| 1   | Directivity / 指向性                   |               |             | Uni-directional              |                                    |
| 2   | Sensitivity / 灵敏度                   | S             | dB          | -36~-66 $\pm 3$              | 0dB=1V/Pa, 1kHz                    |
| 3   | Standard operating voltage / 标准工作电压 | Vs            | V           | 1.5V                         |                                    |
| 4   | Output impedance / 输出阻抗             | Zout          | $\Omega$    | $\leq 680$                   | f=1kHz, 1Pa                        |
| 5   | Frequency / 频率范围                    |               | Hz          | 50~16,000                    |                                    |
| 6   | Max operating voltage / 最大工作电压      |               | V           | 10                           |                                    |
| 7   | Sensitivity reduction / 灵敏度降低       | $\Delta S-Vs$ | dB          | -3                           | f=1kHz, 1Pa<br>Vs=1.5VDC to 1.0VDC |
| 8   | Max. current consumption / 最大消耗电流   | IDSS          | mA          | $\leq 0.5$                   |                                    |
| 9   | Signal to noise ratio / 信噪比         | S/N           | dBA         | $\geq 58$                    | f=1kHz, P in=1Pa                   |
| 10  | Max input sound level / 最大输入声压      | SPL           | dB          | 110                          |                                    |
| 11  | Operation temp. / 工作温度              |               | $^{\circ}C$ | -20~+70                      |                                    |
| 12  | Storage temp. / 储存温度                |               | $^{\circ}C$ | -40~+80                      |                                    |
| 13  | Dimension / 外形尺寸                    |               | mm          | $\varnothing 6.0 \times 2.7$ | See appearance drawing             |
| 14  | Terminal / 端子                       |               |             | Terminal                     | See appearance drawing             |

### 3. Typical Frequency Response Curve / 典型频率响应曲线

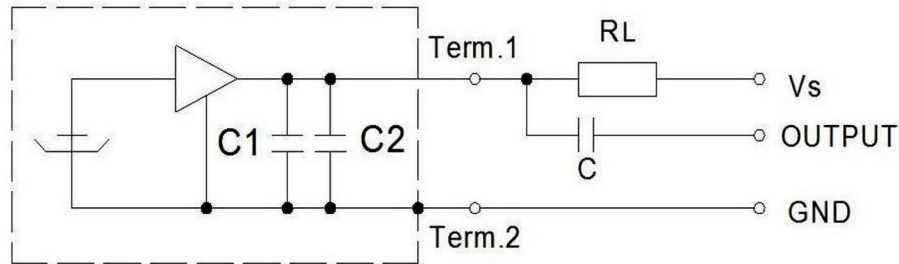


### 4. Appearance Drawing / 外形尺寸图



## 5. Measurement Circuit / 测量电路

Vs:Source Voltage1.5V    RL:Load Resistance680  $\Omega$     C1=10pF    C2=33pF



## 6. Reliability Test / 可靠性试验

After any following tests, the sensitivity of the microphone shall be within  $\pm 3\text{dB}$  of initial sensitivity after 3 hours of conditioning at  $20^\circ\text{C}$ .  
经过以下所有试验，在  $20^\circ\text{C}$  条件下放置 3 小时后，麦克风灵敏度与试验前相比变化应在  $\pm 3\text{dB}$  以内。

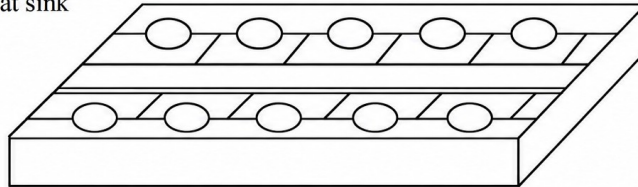
| Item / 项目                             | Condition / 条件                                                                                                                       |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 5-1 Vibration / 振动试验                  | Frequency: 10Hz~55Hz<br>Amplitude: 1.52mm<br>Change of Frequency: 1 octave/min<br>3 axes, 2 hours in each axis                       |
| 5-2 Dry Heat / 高温试验                   | $+80\pm 5^\circ\text{C}$ for 96 hours                                                                                                |
| 5-3 Dry Cold / 低温试验                   | $-40\pm 5^\circ\text{C}$ for 96 hours                                                                                                |
| 5-4 Damp Heat / 高温高湿试验                | 90%~95%RH, $+70\pm 5^\circ\text{C}$ for 96 hours                                                                                     |
| 5-5 Temperature cycles / 温度循环试验       | $-20^\circ\text{C} \leftrightarrow 25^\circ\text{C} \leftrightarrow 70^\circ\text{C}$<br>(2h) (1h) (2h) (1h) (2h) $\times 10$ cycles |
| 5-6 Packing drop test / 跌落试验          | Height: 1m<br>Procedure: 10 times from each of 3 axes                                                                                |
| 5-7 Temperature impact test / 温度冲击试验  | $-20^\circ\text{C} \leftrightarrow 70^\circ\text{C}$<br>30min 30s 30min $\times 10$ cycles                                           |
| 5-8 Electrostatic shock test / 静电冲击试验 | 6000V(contact), 80000V(air) $\times 10$ axes                                                                                         |
| 6-1 Operation Temperature / 工作温度      | $-20^\circ\text{C} \sim 70^\circ\text{C}$                                                                                            |
| 6-2 Storage Temperature / 储存温度        | $-40^\circ\text{C} \sim 80^\circ\text{C}$                                                                                            |

## 7. Soldering Condition / 焊接条件

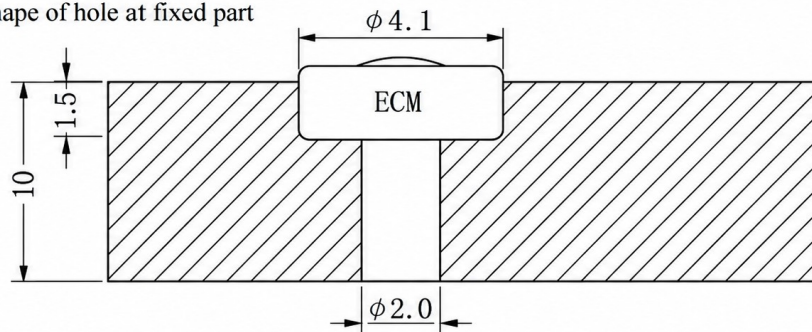
- 7-1 The soldering copper of a type of 90W shall be applied. / 焊接使用 90W 的烙铁。
- 7-2 The temperature of the working surface of the soldering copper shall be  $320 \pm 10^{\circ}\text{C}$ . / 电烙铁表面温度  $320 \pm 10^{\circ}\text{C}$ 。
- 7-3 ECM shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects; shall contact with ECM. / 焊接时把麦克风嵌入散热能力强的金属块内。
- 7-4 Time for each terminal shall be 2~3 sec. / 焊接时间控制在 2~3 秒内。
- 7-5 The pinhole after soldering shall be avoided. / 焊接后不能出现针孔。
- 7-6 ECM may easily be destroyed by static electricity and countermeasures for eliminating static electricity shall be executed. / 静电容易破坏麦克风，必须采取防静电措施。

### 7-7 / 7-8 Heat Sink & Mounting Hole / 散热板及固定孔

7-7 散热板形状 Shape of heat sink



7-8 固定部孔形状 Shape of hole at fixed part



unit:mm

## 8. Packaging / 包装方式

按客户要求包装。

Packaging according to customer requirements.