

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-MIC9750-UNI01 单指向驻极体咪头 / Unidirectional Electret Condenser Microphone

| Item 项目                 | Information 信息                                                       |
|-------------------------|----------------------------------------------------------------------|
| Customer 客户             |                                                                      |
| Customer P/N 客户料号       |                                                                      |
| Supplier 供应商            | 常州市嘉传电子有限公司<br>Changzhou Jiachuan Electronics Co., Ltd.              |
| Jiachuan P/N 嘉传型号       | JC-MIC9750-UNI01                                                     |
| Description 产品名称        | 单指向驻极体背极式咪头 / Unidirectional Back-Electret Condenser Microphone      |
| Main Specification 主要规格 | Ø9.7×5.0mm   -30~-66±3dB   1.5V   ≤0.68kΩ   100-10000Hz   S/N ≥58dBA |
| Revision 版本             | A0                                                                   |

### Approval / 签核

| Prepared 制作 | Checked 审核 | Approved 批准 | Company Seal 公司印章                                                                     |
|-------------|------------|-------------|---------------------------------------------------------------------------------------|
| 李明珠         | 王敏娜        | 黄继桥         |  |

### Customer Confirmation / 客户确认

Signature / 签字 : \_\_\_\_\_ Date / 日期 : \_\_\_\_\_

Product Specification / 产品规格

Model No.: JC-MIC9750-UNI01    Revision: A0

Scope / 适用范围

This specification applies to the unidirectional electret condenser microphone JC-MIC9750-UNI01. / 本规格适用于 JC-MIC9750-UNI01 单指向驻极体咪头。

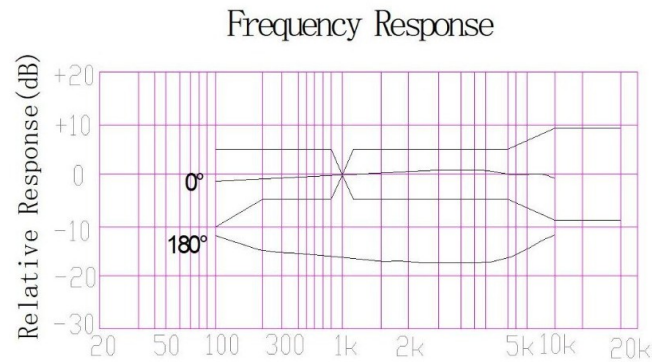
Test Conditions / 测试条件

RL=0.68kΩ   VS=1.5V   TEMP=25°C±2°C   Relative Humidity=65±5%

| No. | Item / 项目                           | Symbol | Unit | Specification / 规格 | Condition / 条件                     |
|-----|-------------------------------------|--------|------|--------------------|------------------------------------|
| 1   | Directivity / 指向性                   |        |      | Unidirectional     |                                    |
| 2   | Sensitivity / 灵敏度                   | S      | dB   | -30~-66±3          | f=1kHz, 0dB=1V/Pa                  |
| 3   | Standard operating voltage / 标准工作电压 | Vs     | V    | 1.5                |                                    |
| 4   | Output impedance / 输出阻抗             | Zout   | kΩ   | ≤0.68              | f=1kHz, 1Pa                        |
| 5   | Frequency / 频率范围                    |        | Hz   | 100~10,000         |                                    |
| 6   | Max operating voltage / 最大工作电压      |        | V    | 1~10               |                                    |
| 7   | Sensitivity reduction / 灵敏度衰减       | ΔS-Vs  | dB   | -3                 | f=1kHz,1Pa;<br>Vs=3.0VDC to 1.5VDC |
| 8   | Max. current consumption / 最大消耗电流   | Idss   | mA   | ≤0.5               |                                    |
| 9   | Signal to noise ratio / 信噪比         | S/N    | dBA  | ≥58                |                                    |
| 10  | Max input sound level / 最大输入声压级     | SPL    | dB   | 110                |                                    |
| 11  | Operation temp. / 工作温度              |        | °C   | -20~+70            |                                    |
| 12  | Storage temp. / 储存温度                |        | °C   | -30~+80            |                                    |
| 13  | Dimension / 尺寸                      |        | mm   | Ø9.7×H5.0          | See appearance drawing             |
| 14  | Terminal / 端子                       |        |      | Terminal           | See appearance drawing             |
| 15  | Approvals / 认证                      |        |      | RoHS FCC           |                                    |

Technical Drawings / 技术图

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



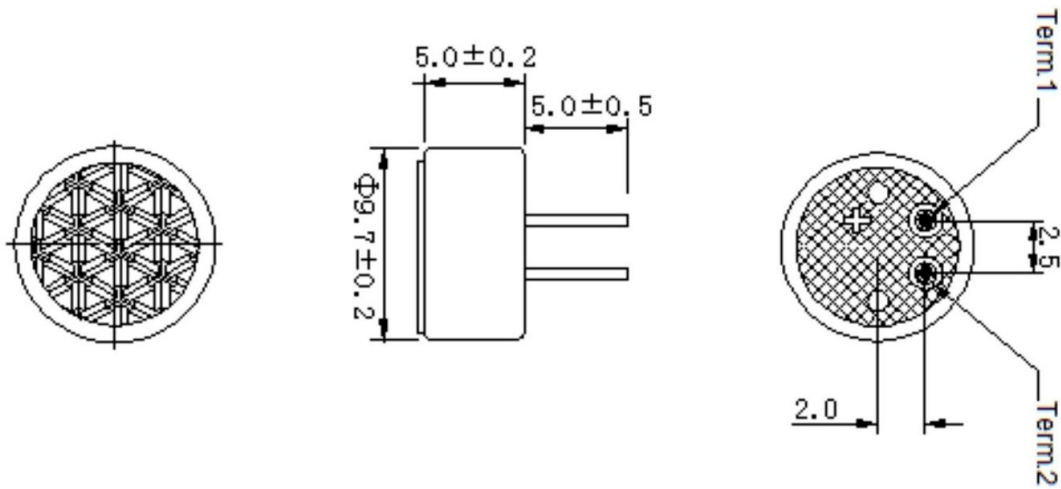
Microphone Response Tolerance Window

| Frequency (Hz) | Lower Limit (dB) | Upper Limit (dB) |
|----------------|------------------|------------------|
| 100            | -5               | 5                |
| 200            | -5               | 5                |
| 800            | -5               | 5                |
| 1000           | 0                | 0                |
| 1200           | -5               | 5                |
| 2000           | -5               | 5                |
| 5000           | -5               | 5                |
| 10000          | -8               | 8                |

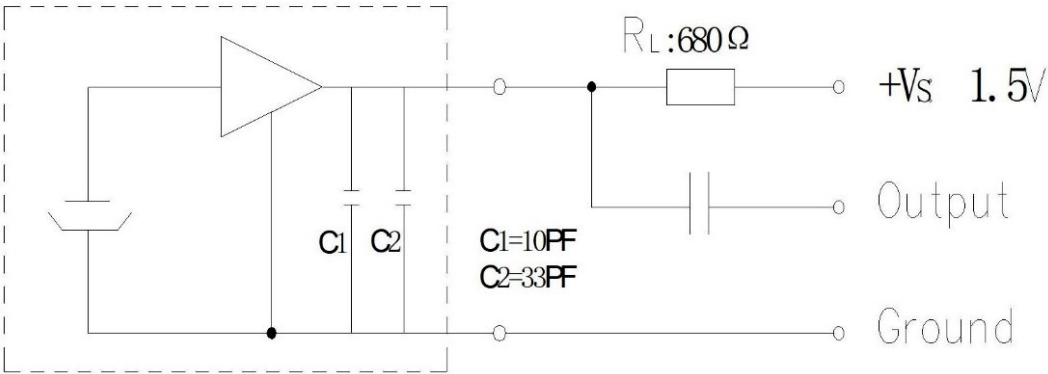
Appearance Drawing / 外观尺寸图

APPEARANCE DRAWING

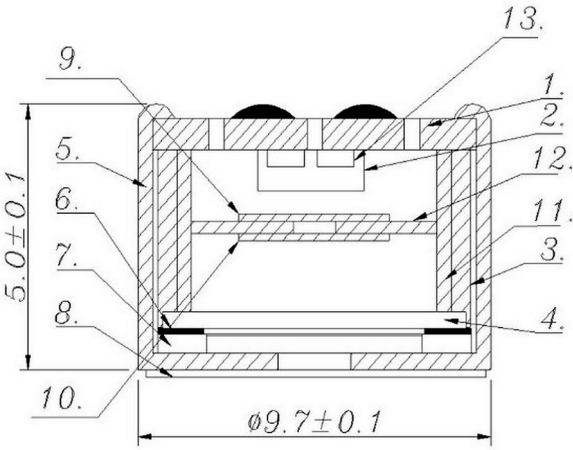
Unit: mm



Measurement Circuit / 测量电路



Exploded Drawing / 结构分解图



| No. | 名称 (中文) | Description (English) | No. | 名称 (中文) | Description (English)       |
|-----|---------|-----------------------|-----|---------|-----------------------------|
| 1   | PCB     | PCB                   | 8   | 防尘网     | Dustproof mesh              |
| 2   | FET     | FET                   | 9   | 阻尼纸     | Damping paper               |
| 3   | 塑环      | Plastic ring          | 10  | 阻尼纸     | Damping paper               |
| 4   | 极板      | Electrode plate       | 11  | 连接环     | Connecting ring             |
| 5   | 外壳      | Case                  | 12  | 单孔极板    | Single-hole electrode plate |
| 6   | 垫片      | Spacer sheet          | 13  | 电容      | Capacitor                   |
| 7   | 振膜      | Diaphragm             | 14  |         |                             |

## 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 conditioning at  $20^{\circ}\text{C}$ . / 以下试验后，在  $20^{\circ}\text{C}$  放置 3 小时，灵敏度相对初始值变化应在  $\pm 3\text{dB}$  以内。

| Test / 试验                  | Condition / 条件                                                                                                                         |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Vibration / 振动             | 10–55Hz, amplitude 1.52mm, 1 octave/min, 2h each of 3 axes                                                                             |
| Dry Heat / 高温              | $+60\pm 5^{\circ}\text{C}$ for 96 hours                                                                                                |
| Dry Cold / 低温              | $-20\pm 5^{\circ}\text{C}$ for 96 hours                                                                                                |
| Damp Heat / 高温高湿           | 90–95%RH, $+60\pm 5^{\circ}\text{C}$ for 96 hours                                                                                      |
| Temperature Cycles / 温度循环  | $-20^{\circ}\text{C}$ (2h) $\leftrightarrow$ $25^{\circ}\text{C}$ (1h) $\leftrightarrow$ $60^{\circ}\text{C}$ (2h), $\times 10$ cycles |
| Packing Drop / 跌落          | Height 1m; 10 times from each of 3 axes                                                                                                |
| Temperature Impact / 温度冲击  | $-20^{\circ}\text{C}$ 30min $\leftrightarrow$ $60^{\circ}\text{C}$ 30min, transfer 30s, $\times 10$ cycles                             |
| Electrostatic Shock / 静电冲击 | 4000V(contact), 8000V(air), $\times 10$                                                                                                |

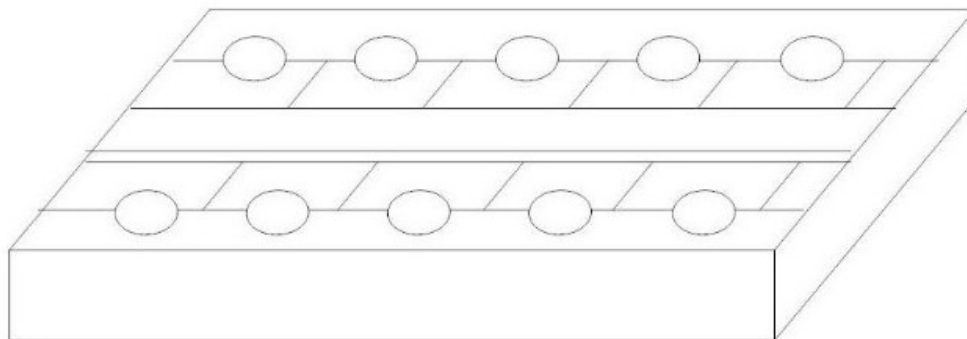
**Operating Temperature / 工作温度:**  $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$     **Storage Temperature / 储存温度:**  $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$

## Soldering Condition / 焊接条件

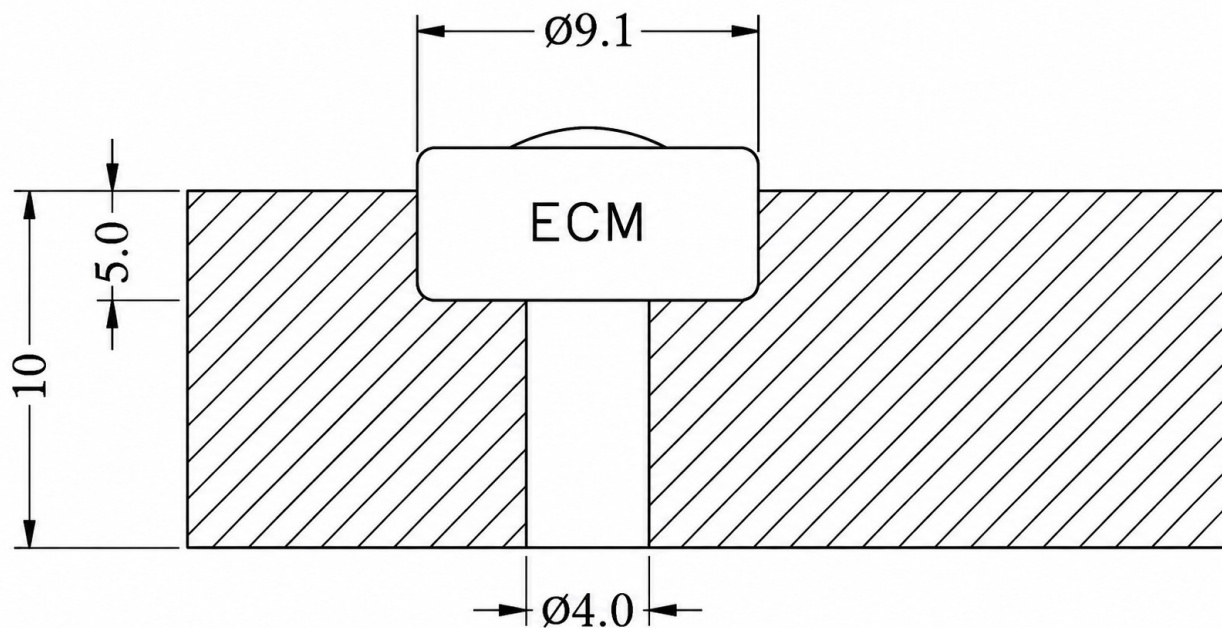
- 90W soldering iron / 使用 90W 烙铁。
- Soldering iron tip temperature:  $320\pm 10^{\circ}\text{C}$  / 烙铁工作表面温度  $320\pm 10^{\circ}\text{C}$ 。
- ECM shall be fixed on a metal heat sink with good heat dissipation during soldering. / 焊接时麦克风应嵌入散热能力强的金属块内。
- Soldering time: 2–3 sec. per terminal / 每个端子焊接时间 2–3 秒。
- Avoid pinholes after soldering / 焊接后不得出现针孔。
- Take ESD precautions; ground soldering iron, workbench and operator. / 应采取静电防护措施。

## Mounting Guidance / 安装指导

### Shape of Heat Sink / 散热板形状



### Shape of Hole at Fixed Part / 固定部孔形状



### Packaging / 包装方式

按客户要求包装。 / Packaging according to customer requirements.