

# 規格承認書

PECIFICATION FOR APPROVAL

客戶  
CUSTOMER : \_\_\_\_\_  
項目  
ITEM : 驻极体电容咪头 (ECM)  
型號  
TYPE : GMI9767-2C30-66DB  
描述  
DESCRIPTION :  $\phi 9.7 \times H6.7\text{mm}$  1033 -30~-66 dB  $\leq 2.2\text{K}\Omega$   $\leq 0.5\text{mA}$  S/N:  $\geq 58$  dBA  
客戶料號  
CUSTOMER NO. : \_\_\_\_\_  
規格書號  
SPECIFICATION NO.: \_\_\_\_\_  
版本  
EDITION NO. : V1.  
日期  
DATE : 20

## 客戶承認

### CUSTOMER CONFIRM AND SIGN

| 檢查<br>TESTED BY | 審核<br>CHECKED BY | 承認<br>APPROVED BY |
|-----------------|------------------|-------------------|
|                 |                  |                   |

## 東莞市贏海電子有限公司

### DONGUAN INGHAI ELECTRONICS CO.,LTD

| 製作<br>ISSUED BY | 審查<br>CHECKED BY | 確認<br>APPROVED BY |
|-----------------|------------------|-------------------|
| 周明              | 李林               |                   |

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## A. SCOPE

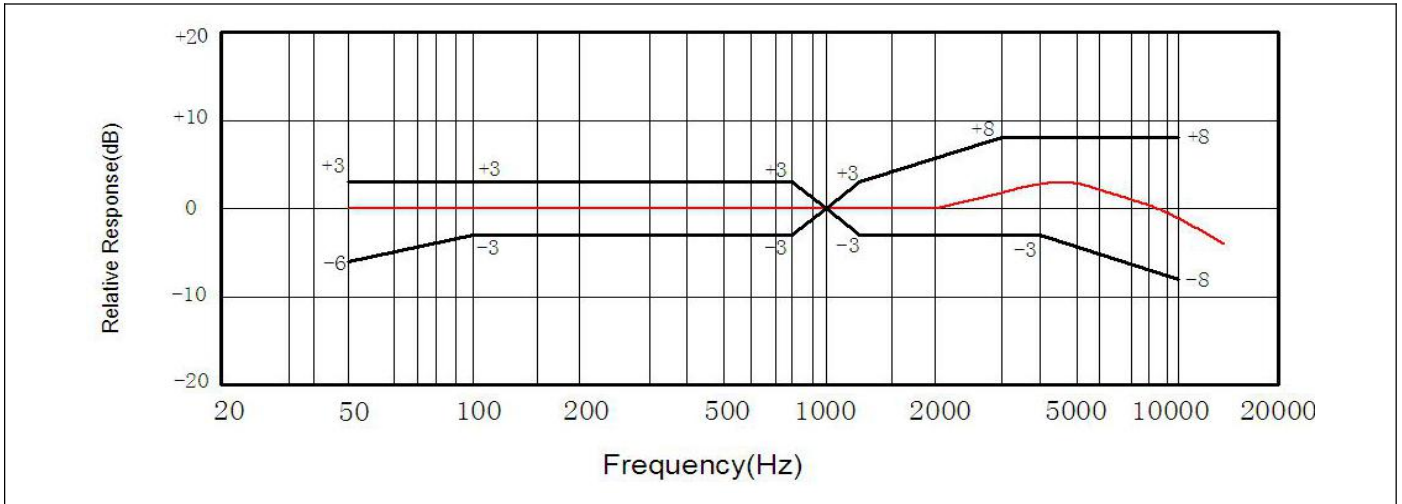
This specification applies electret condenser microphone, GMI9767-2C30-66DB

## B. SPECIFICATION

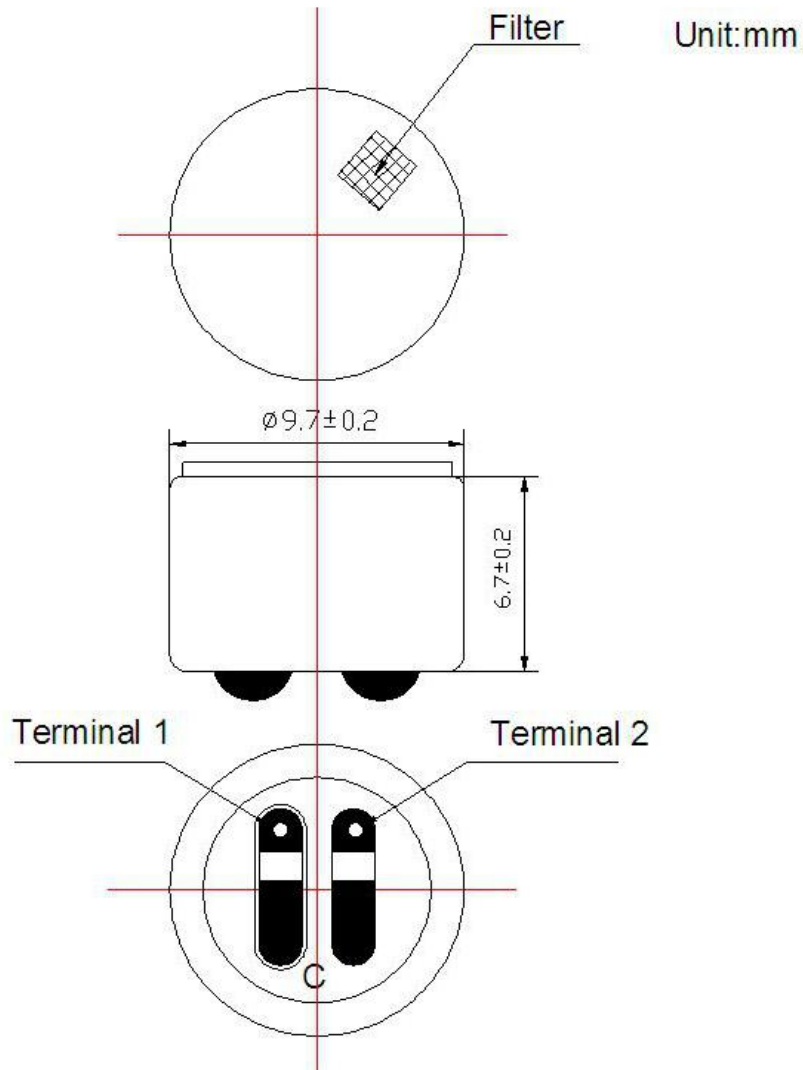
■ Test condition:  $R_L=2.2K\Omega$   $V_S=4.5V$   $TEMP=25^\circ C \pm 2^\circ C$  Related humidity= $65 \pm 5\%$

| No. | Item                       | Symbol        | Unit       | Specification   | Condition                          |
|-----|----------------------------|---------------|------------|-----------------|------------------------------------|
| 1   | Directivity                |               |            | Omnidirectional |                                    |
| 2   | Sensitivity                | <b>S</b>      | dB         | -30~-66±3       | f=1KHz, 1Pa<br>0dB=1V/Pa           |
| 3   | Standard operating voltage | <b>Vs</b>     | V          | 4.5             |                                    |
| 4   | Output impedance           | <b>Zout</b>   | K $\Omega$ | ≤2.2            | f=1KHz, 1Pa                        |
| 5   | Max operating voltage      |               | V .        | 10              |                                    |
| 6   | Sensitivity reduction      | $\Delta S-Vs$ | dB         | -3              | f=1KHz, 1Pa<br>vs=4.5VDC to 3.0VDC |
| 7   | Max. current consumption   | <b>Idss</b>   | mA         | ≤0.5            |                                    |
| 8   | Signal to noise ration     | <b>S/N</b>    | dBA        | ≥58             |                                    |
| 9   | Operation temp.            |               | °C         | -20 ~+60        |                                    |
| 10  | Storage temp.              |               | °C         | -30 ~+70        |                                    |
| 11  | Dimension                  |               | mm         | $\phi$ 9.7x6.7  | See appearance drawing             |
| 12  | Terminal                   |               |            | Terminal        | See appearance drawing             |

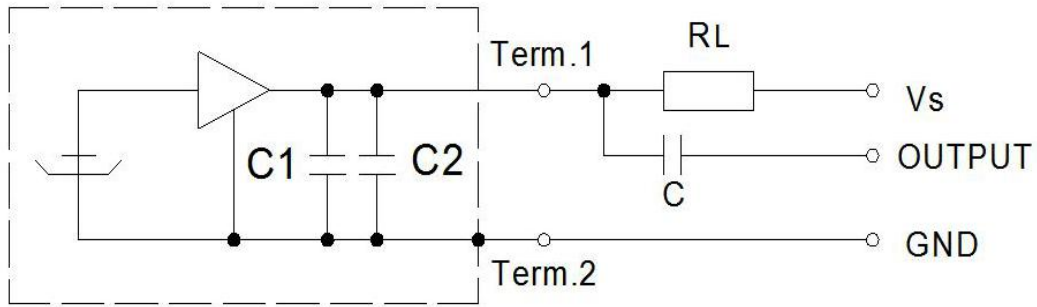
### C.TYPICAL FREQUENCY RESPONSE CURVE



### D. APPEARANCE DRAWING



## E. MEASUREMENT CIRCUIT



## F. 可靠性试验 Reliability Test

经过以下所有试验在 20°C 的条件下放置 3 小时后,麦克风的灵敏度与试验前比较变化在 3dB 以内

After any following tests, the sensitivity of the microphone to be within  $\pm 3\text{dB}$  of initial sensitivity after 3 hours of conditioning at 20°C

|  |   |
|--|---|
| 5-1 振动试验<br>Vibration                  | 周波数 1/Frequency1:10Hz~55Hz<br>振幅/Amplitude:1.52mm<br>变化/Change of Frequency:1 octave/min<br>3 方向,各 2 小时/hours in each of 3 axes |
| 5-2 高温试验<br>Dry Heat                   | +70 $\pm$ 5°C for 96 hours  |
| 5-3 低温试验<br>Dry Cold                   | -30 $\pm$ 5°C for 96 hours  |
| 5-4 高温高湿试验<br>Damp Heat                | 90%~95%RH, +60 $\pm$ 5°C for 96 hours   |
| 5-5 温度循环试验<br>Temperature cycles       | -20°C $\longleftrightarrow$ 25°C $\longleftrightarrow$ 60°C<br>(2h) (1h) (2h) (1h) (2h) $\times$ 10 cycles                      |
| 5-6 跌落试验<br>Packing drop test          | Height:1m<br>顺序:三个面各跌 10 次<br>Procedure:10 times from each of 3 axes  |
| 5-7 温度冲击试验<br>Temperature impact test  | -20°C $\longleftrightarrow$ 60°C<br>30min 30s 30min $\times$ 10 cycles  |
| 5-8 静电冲击试验<br>Electrostatic shock test | 6000V(contact), 15000V(air) $\times$ 10 axes  |
| 备注 Note                                |   |
| 6-1 工作温度范围<br>Operation Temperature    | -20°C ~ 60°C  |
| 6-2 储存温度范围<br>Storage Temperature      | -30°C ~ 70°C  |

## G. 焊接条件

### Soldering Condition

7-1 焊接使用 90W 的烙铁。

The soldering copper of a type of 90W shall be applied

焊接条件

Soldering Condition.

7-2 电烙铁表面温度  $320 \pm 10^\circ\text{C}$

The temperature of the working surface of the soldering copper shall be  $320 \pm 10^\circ\text{C}$

7-3 焊接时把麦克风嵌入散热能力强的金属块内。

ECM shall be soldered fixed on the metal block(heat sink)which has the higher radiation effects said heat sink

Shall contact with of ECM.

7-4 焊接时间控制在 2~3 秒内。

time for each terminal shall be 2~3 sec.

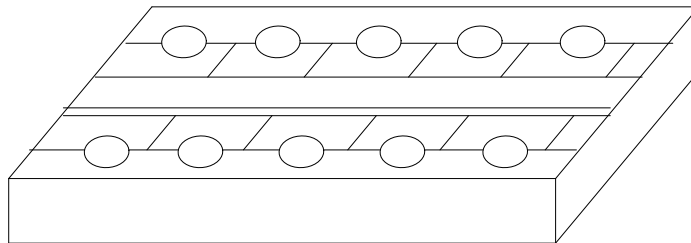
7-5 焊接后不能出现针孔。

The pinhole after soldering shall be avoided.

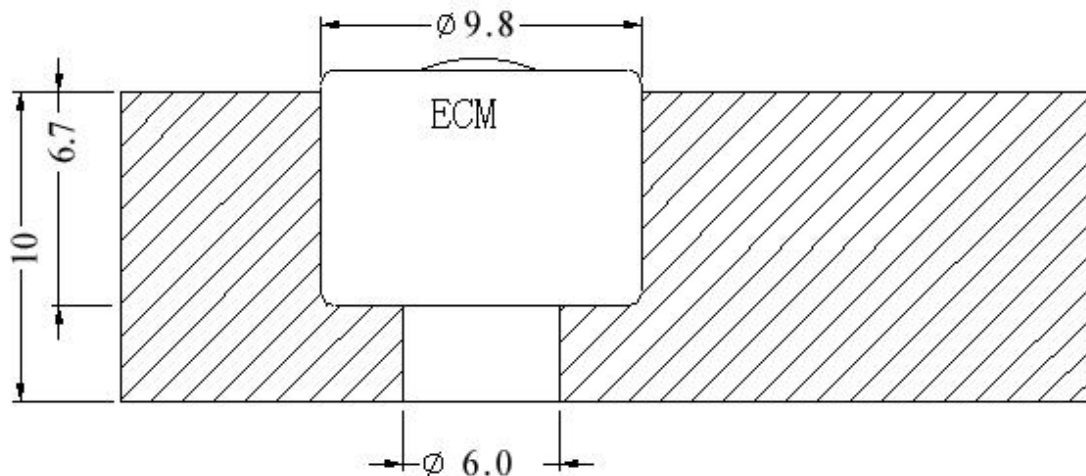
7-6 静电容易破坏麦克风必须采取措施避免（电烙铁接地，戴静电环等。）

ECM may easily destroyed by the static electricity and the countermeasure for eliminating the static electricity (the ground for soldering copper, for worktable and for human body) shall be executed.

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



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