

Model No.

JL-032C

**SPECIFICATION**  
of Electret Condenser Microphone with Cable assembly  
( RoHS Compliance )

Model No.: JL-032C

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Publication History

| Version | Description | Date | Auther | Approved |
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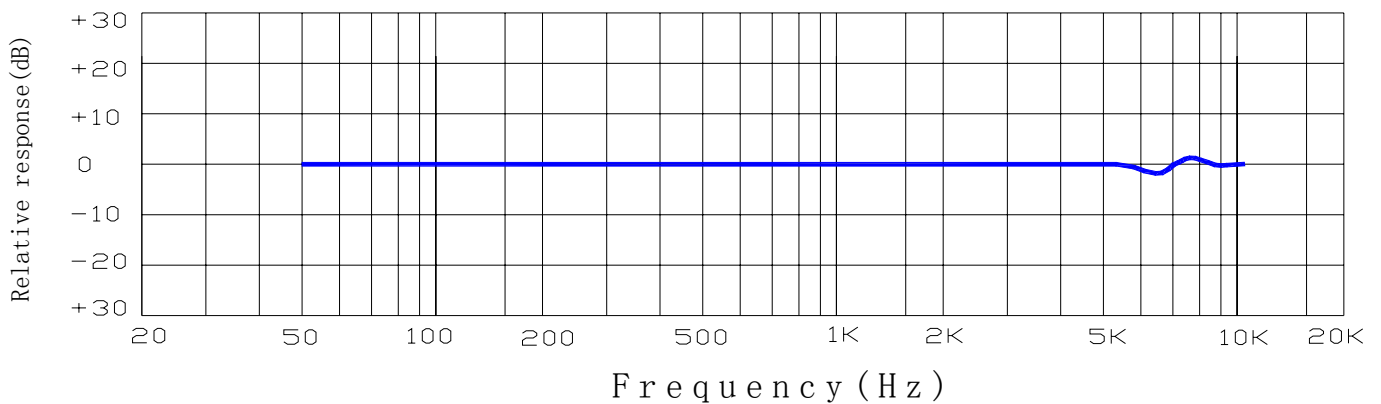


Scope: The specification describes the requirements of an omni-directional condenser microphone with cable assembly.

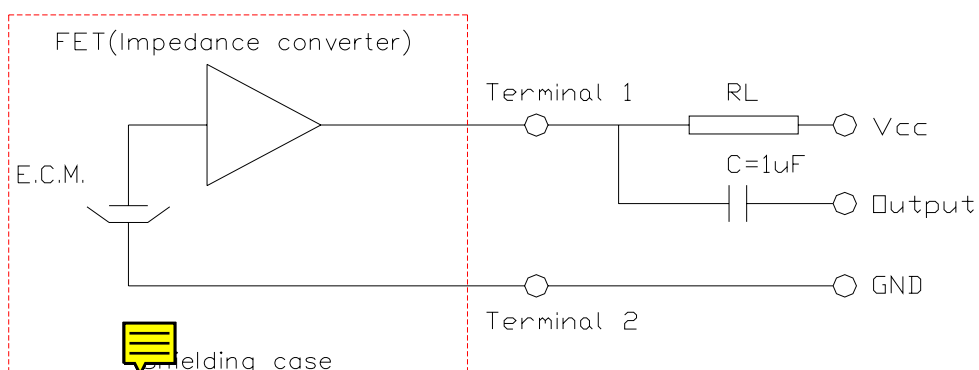
1、Electrical requirements:  $V_{cc}=2.5V$ ,  $R_L=2.2K\Omega$

| Items                   | Description                      | Min | TYP | Max  | Unit     |
|-------------------------|----------------------------------|-----|-----|------|----------|
| Sensitivity             | $f=1KHz$ , $P_{in}=1Pa$          | -43 | -40 | -37  | dB       |
| Output impedance        | $f=1KHz$ , $P_{in}=1Pa$          |     |     | 2.2K | $\Omega$ |
| Directivity             | Omni-directional                 |     |     |      |          |
| Power consumption       | $V_{cc}=2.5V$ , $R_L=2.2K\Omega$ |     |     | 500  | $\mu A$  |
| S/N ratio               | A-weight, at 1Pa                 | 55  |     |      | dB       |
| Max. input SPL          | THD<10%                          |     |     | 115  | dB       |
| Sensitivity reduction   | $V_{cc}$ from 2.0V to 1.5V       |     |     | -3   | dB       |
| Operating voltage range |                                  | 1.0 |     | 10   | V        |

2、Frequency response



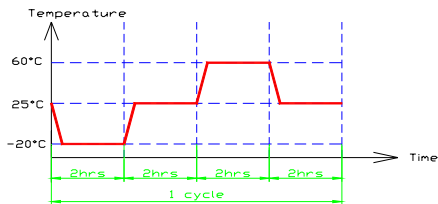
3、Measurement schematic :



## 4、Mechanical requirements :

3-1、Dimension :  $\varnothing 9.7 \times 5.0$  mm3-3、Soldering heat shock : After soldering heat shock at  $330 \pm 5^\circ\text{C}$  for  $2 \pm 1$  seconds.  
The microphone should be without damage.3-4、Terminal strength : After applied a 1 Kg force on terminal for 1 minute.  
The microphone should be without damage.3-5、Operating temperature range :  $-20^\circ\text{C} \sim 50^\circ\text{C}$ 3-6、Storage temperature range :  $-30^\circ\text{C} \sim 60^\circ\text{C}$ 

## 5、Reliability test :

|                        |   |
|------------------------|---|
| Vibration test         | After vibrations with 10Hz~55Hz, full amplitude 2mm to each 3 perpendicular directions for 30 minutes at three axes.<br>The sensitivity should be within $\pm 3$ dB from initial value.   |
| Drop test              | After drop from 1 meter height to concrete floor, each 5 face for 5 times with packing.<br>The sensitivity should be with $\pm 3$ dB from initial value.  |
| Humidity test          | After exposure at $40 \pm 2^\circ\text{C}$ and 90%~95% humidity for 72 hours.<br>The sensitivity should be with $\pm 3$ dB from initial value.<br>(The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$ .)   |
| High temperature test  | After exposure at $60 \pm 2^\circ\text{C}$ for 72 hours.<br>The sensitivity should be with $\pm 3$ dB from initial value.<br>(The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$ .)  |
| Low temperature test   | After exposure at $-30 \pm 2^\circ\text{C}$ for 72 hours.<br>The sensitivity should be with $\pm 3$ dB from initial value.<br>(The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$ .)   |
| Temperature cycle test | After exposure at $-20 \pm 2^\circ\text{C}$ for 2 hours, at $25 \pm 2^\circ\text{C}$ for 2 hours, at $60 \pm 2^\circ\text{C}$ for 2 hours, 5 cycles.<br>The sensitivity should be with $\pm 3$ dB from initial value.<br>(The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$ .)<br> |

6、Dimension :

Unit : mm

