

Model No.

JL-033C

SPECIFICATION
of Electret Condenser Microphone

(RoHS Compliance)

Model No.: JL-033C

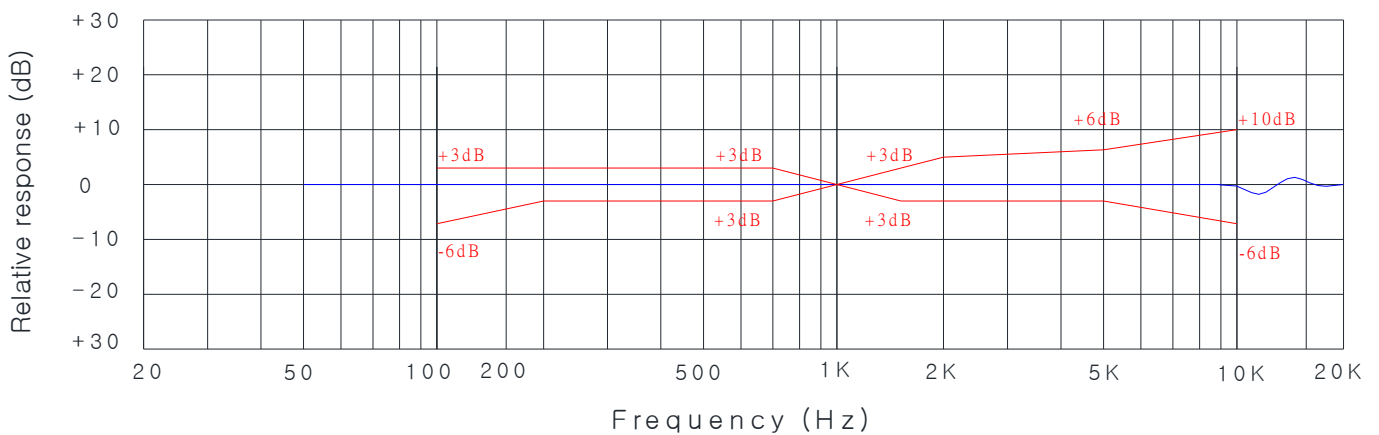
ISSUED BY	J.C	02-01-2012
CHECKED BY		
APPROVED BY		

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

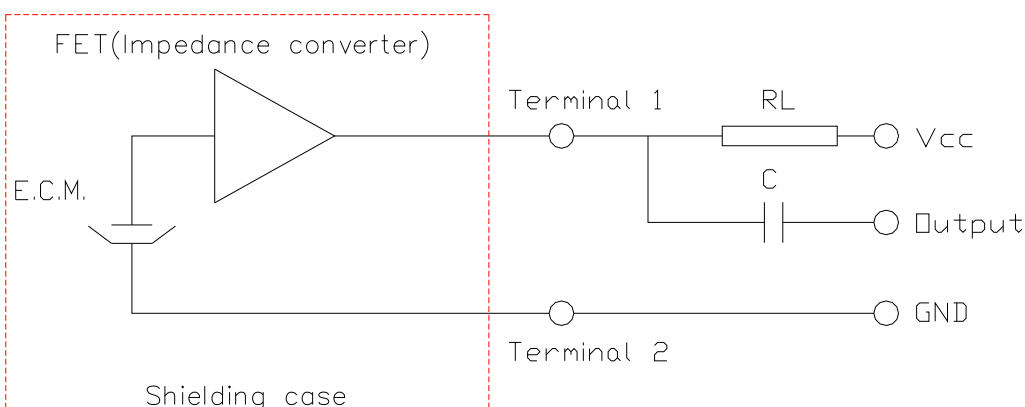
1、Electrical requirements: $V_{CC}=1.5V$, $R_L=1.5K\Omega$

Items	Description	Min	TYP	Max	Unit
Sensitivity	$f=1KHz$, $P_{in}=1\mu Pa$	-47	-44	-41	dB
Output impedance	$f=1KHz$, $P_{in}=1Pa$			2.2K	Ω
Directivity	Omni-directional				
Power consumption	$V_{CC}=1.5V$, $R_L=1.5K\Omega$			500	μA
S/N ratio	A-weight, at 1Pa	60			dB
Max. input SPL	THD<1%			115	dB
Sensitivity reduction	V_{CC} from 1.5V to 1.0V			-3	dB
Operating voltage range		1.0		10	V

2、Frequency response



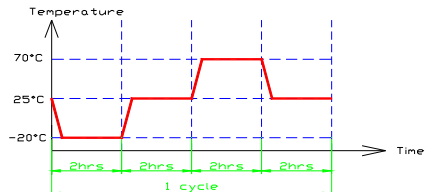
3、Measurement schematic :



4 · Mechanical requirements :

- 3-1 · Dimension : $\varnothing 9.7 \times 6.7$ mm
- 3-3 · Soldering heat shock : After soldering heat shock at $310 \pm 5^\circ\text{C}$ for 2 ± 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 : $-20^\circ\text{C} \sim 60^\circ\text{C}$
- 3-6 · Storage temperature range : $-30^\circ\text{C} \sim 70^\circ\text{C}$

5 · Reliability test :

Vibration test	After vibrations with 10Hz~55Hz , full amplitude 2mm to each 3 per-pendicular directions for 30 minutes at three axes. The sensitivity should be within ± 3 dB from initial value.
Drop test	After drop from 1 meter height to concrete floor , each 5 face for 5 times with packing. The sensitivity should be with ± 3 dB from initial value.
Humidity test	After exposure at $40 \pm 2^\circ\text{C}$ and 90%~95% humidity for 72 hours. The sensitivity should be with ± 3 dB from initial value. (The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$.)
High temperature test	After exposure at $70 \pm 2^\circ\text{C}$ for 72 hours. The sensitivity should be with ± 3 dB from initial value. (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. The sensitivity should be with ± 3 dB from initial value. (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 $70 \pm 2^\circ\text{C}$ for 2 hours , 5 cycles. The sensitivity should be with ± 3 dB from initial value. (The measurement should be done after 3 hours at conditioning $25 \pm 2^\circ\text{C}$.) 

6 · Dimension :

Unit : mm

