



MODEL NO : OBO-64DN-0C-002

Features:Conformity RoHS Directive(2002/95/EC) Requests.

**1. ELECTRICAL CHARACTERISTICS**

Test Condition:(Vs=2.0V,RL=2.2KΩ,Ta=20±2°C,R.H.=65±5%)

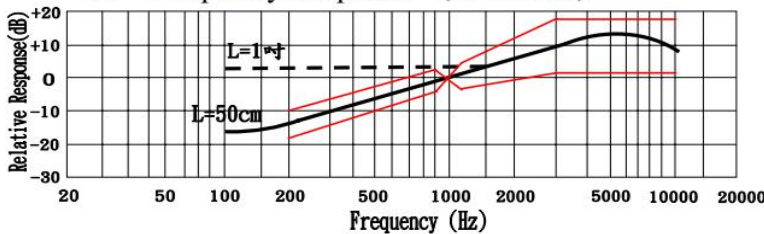
Directivity : Noise Cancelling							
No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	-48	-44	-40	dB
1.2	Output Impedance	Zout	F=1KHz			2.2	KΩ
1.3	Current Consumption	IDss	VS=2.0V, L=2.2KΩ			500	μA
1.4	Signal to Noise Ratio	S/N	S:(F=1KHz,S.P.L.=1Pa) N:(A-Weighted Curve)	58			dB
1.5	Decreasing Voltage	△S-VS	VS=1.5V to 3.0V			-3	dB

**2. Typical Frequency Response Curve**

Frequency Response

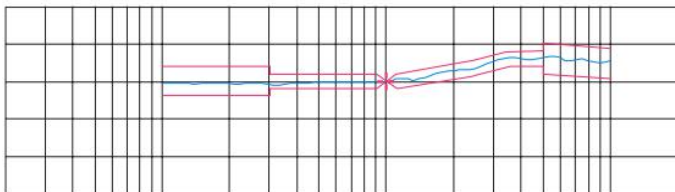
Microphone Response Tolerance Window

2.1 Frequency Response (L=50CM)



Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
200	-18	-10
800	-6	+2
1000	0	0
1200	-4	+4
3000	+2	+18
5000	+2	+18
10000	+2	+18

2.2 Frequency Response (L=2.54CM)

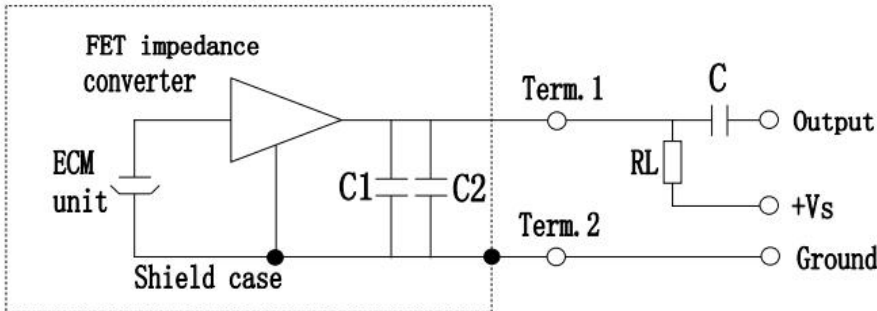


Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
100	-4	+4
300	-2	+2
1000	0	0
5000	+4	+8
10000	+1	+9

◎Frequency: 50Hz~16,000Hz

◎Max Operatint Voltage: 10V

### 3. Circuit Diagram



$$R_L = 2.2K\Omega$$

$$V_S = 2.0V$$

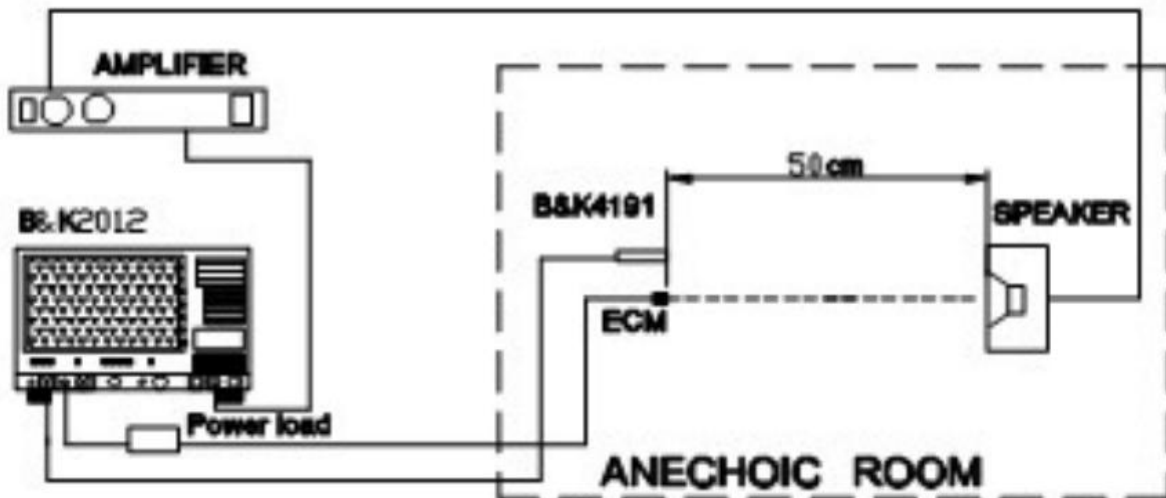
$$C1 = 10PF$$

$$C2 = 33PF$$

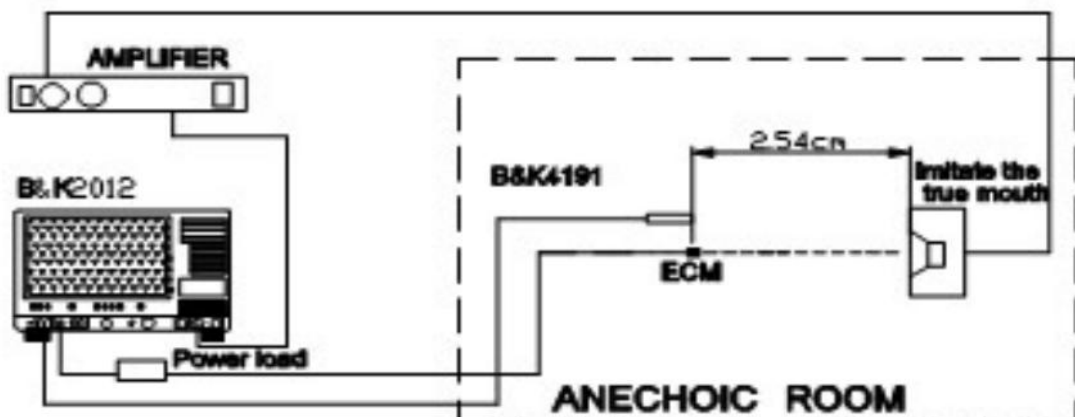
$$C = 1\mu F$$

### 4. Measurement Setup Drawing

4.1 L=50CM



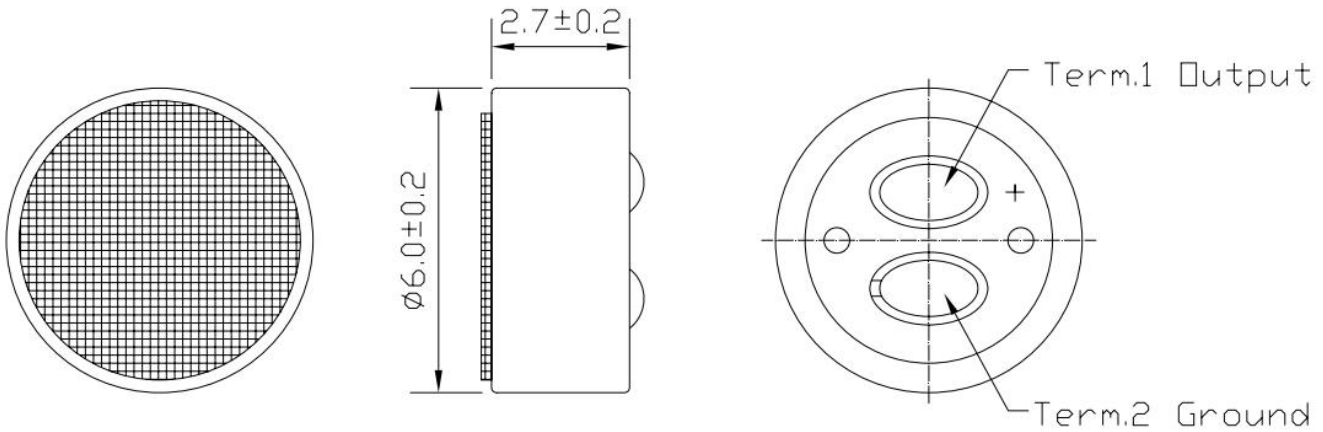
4.2 L=2.54CM



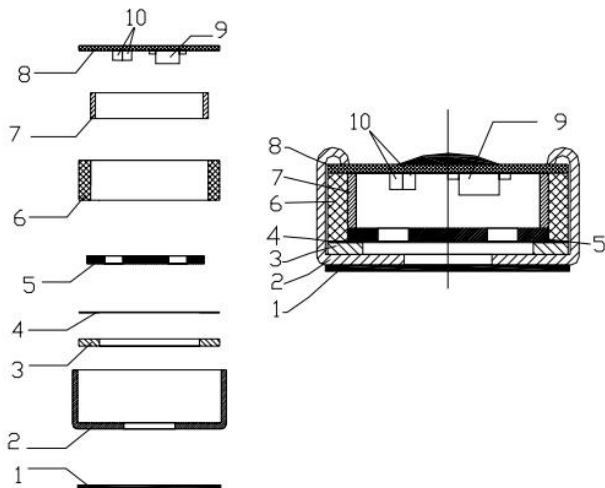
**5. ASS'Y DRAWING**

- 5.1 Soldering Standard : 330±5°C / Max. 2 seconds
- 5.2 Mechanical Layout and Dimensions :

Unit : mm



**6. Material And Structure**



10	Capacitor	10PF+33PF	1	
9	FET		1	
8	PCB		1	
7	Copper ring		1	
6	Chamber		1	
5	Electret Plate		1	
4	Spacer		1	
3	Diaphragm		1	
2	Case	Al-Mg alloy	1	
1	Dustproof gauze		1	
<b>No.</b>	<b>Name</b>	<b>material</b>	<b>QTY</b>	<b>Remark</b>



# SPECIFICATIONS

MODEL NO  
OBO-64DN-0C-002

PART NAME  
ELECTRET CONDENSER MICROPHONE

SHEET  
OBO PRO.2 INC.

2013. MAR. 16

文件发行章

## 7. TEMPERATURE CONDITIONS

- 7.1 Operating Temperature Range: -40°C ~ +85°C
- 7.2 Storage Temperature Range: -40°C ~ +85°C

## 8. RELIABILITY TEST

Vibration Test	To be no interference in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.5mm, for 2 hours at 3 axes .
Drop Test	The microphone unit without packaged must be subjected to each 3one time from 1 drops at 3 axes,the height of 1 meter to 20 mm thick wooden board.
Temperature	(a) After exposure at +85°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (b) After exposure at -40°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)
Humidity Test	After exposure at +60°C and 90%~95% relative humidity for 240hours. sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)
Temperature Cycle Test	After exposure at +40°C for 1 hr, from +40°C to +20°C for 0.5 hr ,at +20°C for 1 hr, from +20°C to-40 °C for 0.5 hr ,at -40°C for 1 hr, from -40°C to +20°C for 0.5 hr , after 10 cycles , sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)

## 9. CONCEPT OF UNIT

The difference between concept of unit "Pascal" and the one of unit " μbar". can be explained as follows. in calibrating the sensitivity of ECMS. the sensitivity is manifested differently according as the unitis "Pascal" or " μbar". That is the sensitivity will be increased by 20dB in the usage of unit "Pascal". Example : -71dB(0dB=1V/μbar)=-51dB(0dB=1V/Pa)

**10. PACKAGING**

Model Number:  
OBO-64DN-0C-002

**DIMENSION:(LENGTH\*WIDTH \*HEIGHT)**

- a) AVOID STATIC SPONGE:  
80mm\*80mm\*2m
- b) SMALL PACKET  
85mm\*85mm\*10mm
- c) MID PACKET:  
175mm\*85mm\*50mm
- d) PAPER CASE:  
550mm\*230mm\*235mm

**EQUIPMENT**

- a) ADHENSIVE TAPE MACHINE
- b) AUTO PACKER

**PACKING INTRODUCTION**

- a) 100PCS/ SMALL PACKET
- a) 1000PCS/MID PACKET
- b) 30000PCS/PAPER CASE

**QUANTITY INTRODUCTION**

- a) 1PC=0.23g
- b) NET WEIGHT : 6.9Kg  
GROSS WEIGHT . 9.9kg

**LABEL STIPULATION**

- a) LABEL EVERY BOXES  
(SEE THE CHART)
- b) DIMENSION SHOULD BE SEEN EASILY.

