



# OBO Pro.2

## SPECIFICATIONS

MODEL NO  
OBO-48KP-0B-014

PART NAME  
ELECTRET CONDENSER MICROPHONE

SHEET  
OBO PRO.2 INC.  
2 OF 6

2016.01.15

文件发行章

MODEL NO : OBO-48KP-0B-114

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

### 1. ELECTRICAL CHARACTERISTICS

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

Directivity : Omnidirectional

No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	-47	-44	-41	dB
1.2	<del>Output Impedance</del>	<del>Zout</del>	<del>F=1KHz</del>			2.2	<del>KΩ</del>
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)	60			dB
1.5	Decreasing Voltage	ΔS-VS	VS=1.5V to 3.0V			-3	dB

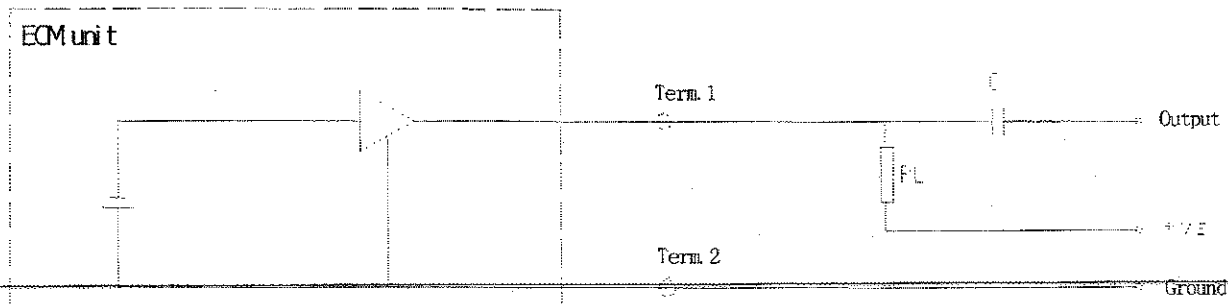
#### 1.6 Typical Frequency Response Curve Limit

◎Frequency: 50~16,000Hz

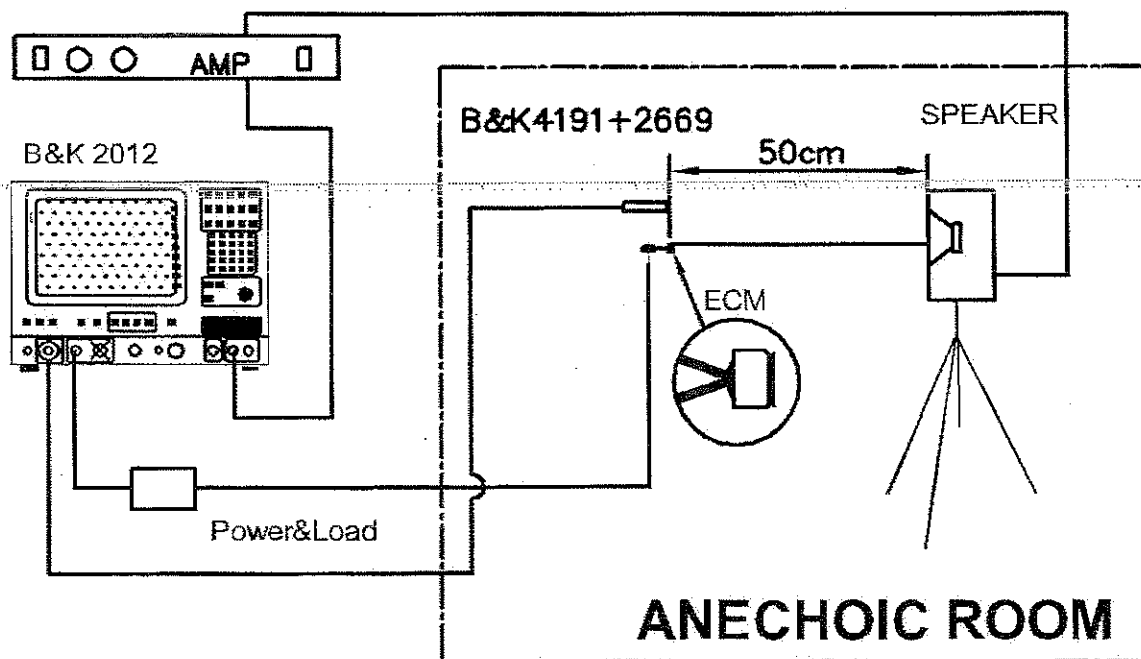
◎ Max Operatint Voltage: 10V

### 2. MEASUREMENT CIRCUIT

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### 3. MEASUREMENT METHOD



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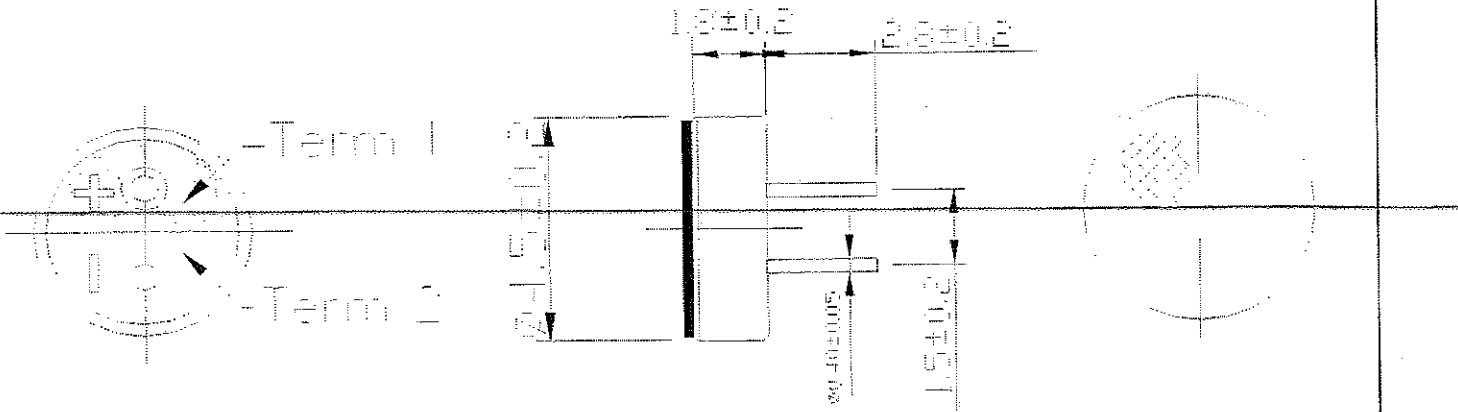
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**4. ASS'Y DRAWING**

4.1 Soldering Standard :  $330 \pm 5^{\circ}\text{C}$  / Max. 2 seconds

4.2 Mechanical Layout and Dimensions :

Unit:mm



**5. TEMPERATURE CONDITIONS**

- 5.1 Operating Temperature Range: -20°C ~ +60°C
- 5.2 Storage Temperature Range: -25°C ~ +70°C

**6. 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 3 drops at 3 axes,the height of 1 meter to 20 mm thick wooden board.
Temperature	(a) After exposure at +70°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (b) After exposure at -25°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 +70°C for 1 hr, from +70°C to +25°C for 0.5 hr ,at +25°C for 1 hr, from +25°C to-20 °C for 0.5 hr ,at -20°C for 1 hr, from -20°C to +25°C for 0.5 hr , after 10 cycles , The sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C)

**7. 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 unit is "Pascal" or " μbar". That is the sensitivity will be increased by 20dB in the usage of unit "Pascal". Example : -56dB(0dB=1V/μbar)=-36dB(0dB=1V/Pa)

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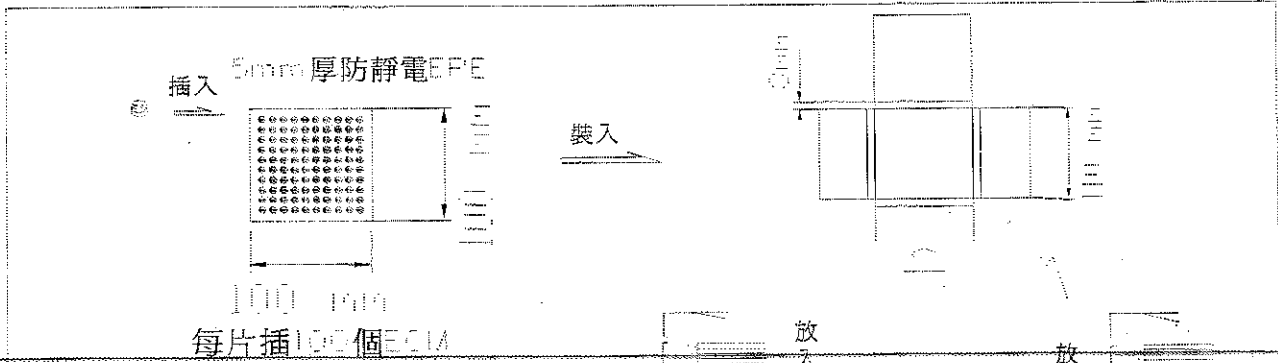
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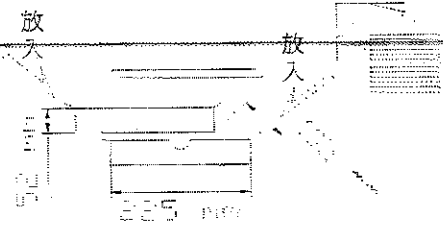
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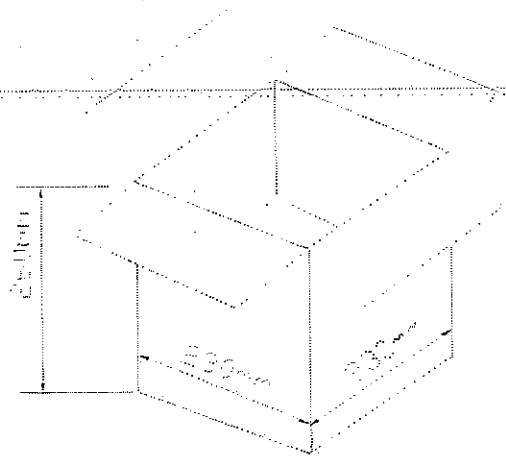
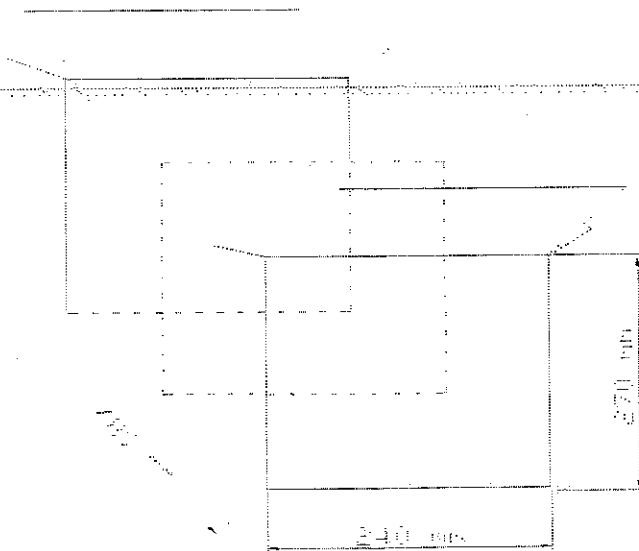
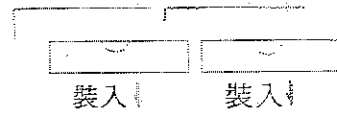
### 8. PACKAGING



\*小包裝盒及中包裝  
盒使用230克牛皮箱  
板  
\*中包裝箱 大包裝箱  
使用二層瓦楞制作。  
進口紙。



10小盒 每中包裝盒 1000只



每大包裝箱 10000只

三個中箱/每大箱(20000只)

編號: E2-604 版本: 2.1