

OBO Pro.2	SPECIFICATIONS	MODEL NO. OBO-04FP-0B-0N0
	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 1 OF 6

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV.	Description	Page	PREPARE BY	APPROVE BY
※1	MAR,06'06	0603003	B	Conformity RoHS Directive (2002/95/EC) Requests.	6	馮仁如	蕭可致 3/10 ⁰²

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
B	MAR,06,2006	LULU	蕭沛玲 25/3/9	蕭可致 3/10 ⁰²

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MODEL NO : OBO-04FP-0B-0N0

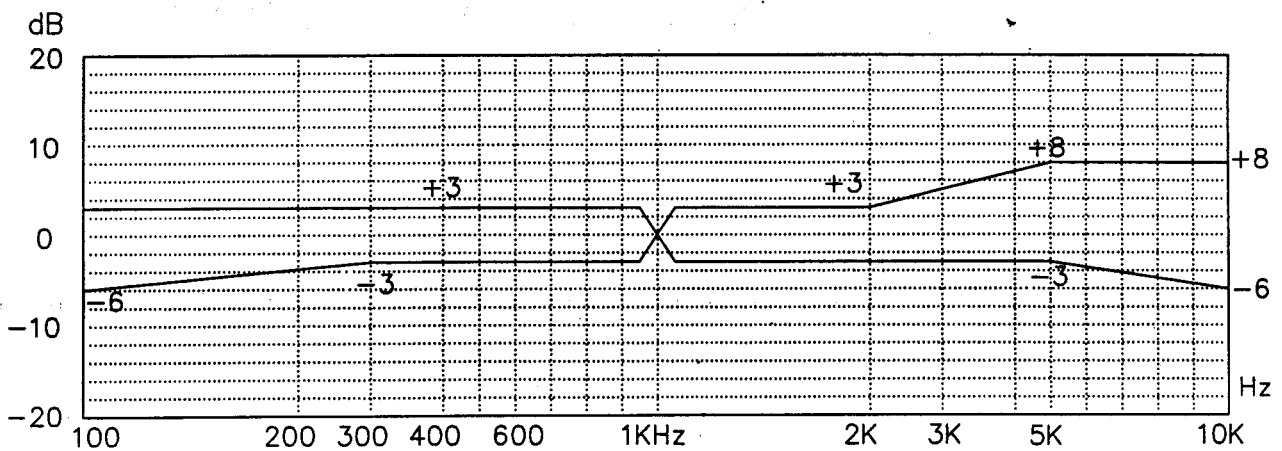
Features : Conformity RoHS Directive (2002/95/EC.) Requests. ※1

1. ELECTRICAL CHARACTERISTICS

Test Condition : (Vs=4.5V,RL=2.2KΩ ,Ta=20±2°C,R.H.=65±5%)

Directivity : Omnidirectional							
No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	-43	-40	-37	dB
1.2	Output Impedance	Zout	F=1KHz			2.2	KΩ
1.3	Current Consumption	I _{oss}	VS=4.5V, RL=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	Δ S-VS	VS=3.0V to 1.5V			-3	dB

1.6 Typical Frequency Response Curve Limit

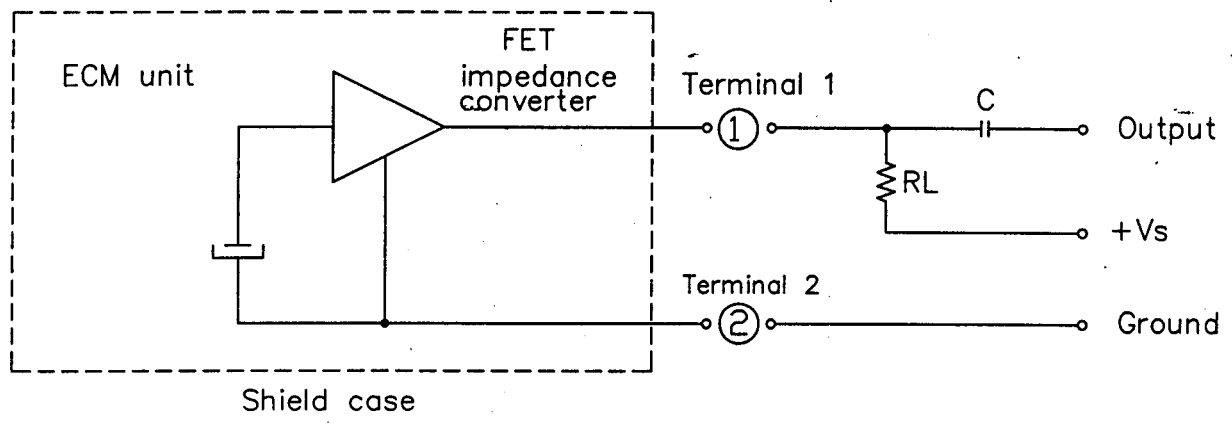


◎ Frequency : 50~16,000Hz

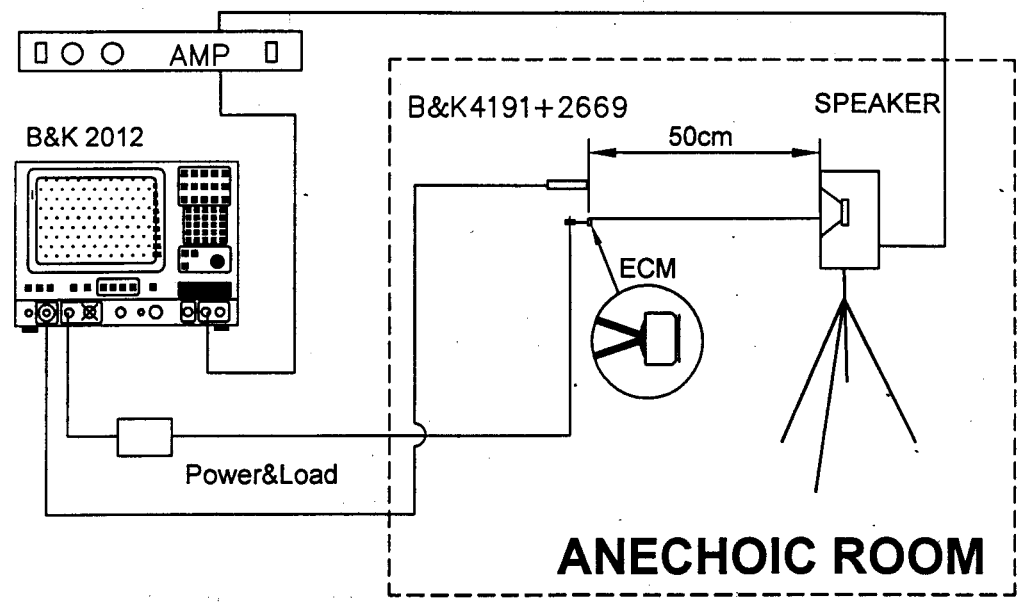
◎ Operating Voltage : 1.0V to 10V

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2. MEASUREMENT CIRCUIT



3. MEASUREMENT METHOD

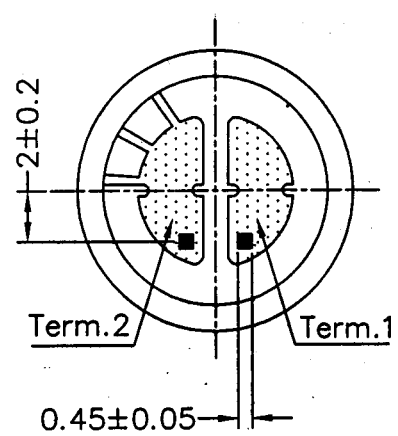
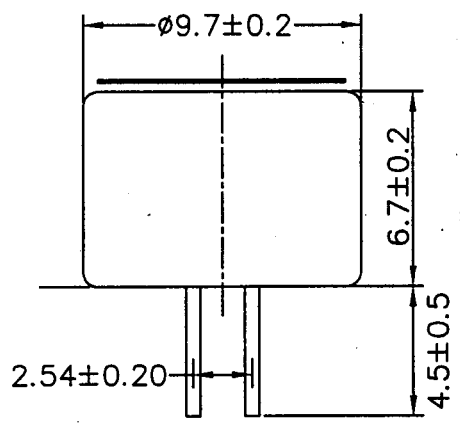
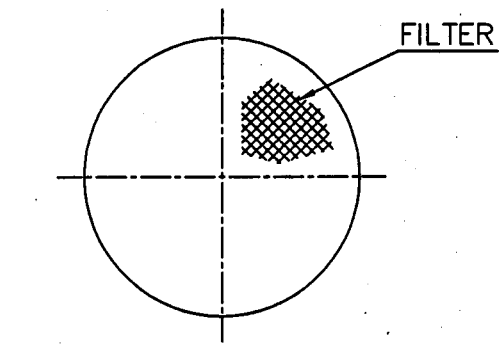


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4.MECHANICAL CHARACTERISTICS

- 4.1 Soldering Standard : $300\pm 5^{\circ}\text{C}$ / Max. 2 seconds ※1
- 4.2 Weight : Appr.1.0g
- 4.3 Mechanical Layout and Dimensions :

Unit : mm



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5. TEMPERATURE CONDITIONS

5.1 Operating Temperature Range : $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$

5.2 Storage Temperature Range : $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$

6. RELIABILITY TEST

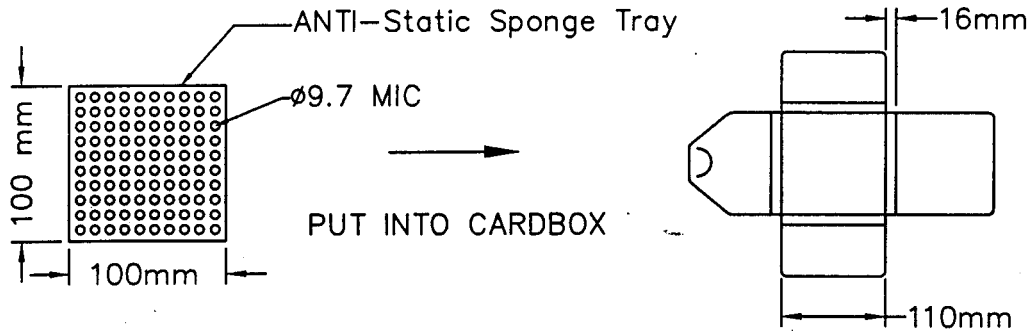
Vibration Test	To be no interference in operation after vibrations, 10Hz to 55Hz for 1 minute full amplitude 1.5mm, for 2 hours at 3 axes.
Drop Test	The microphone unit without packaged must be subjected to each 3 drops at 3 axes, the height of 1 meter to 20 mm thick wooden board.
Temperature Test	(a) After exposure at 70°C for 72 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (b) After exposure at -25°C for 72 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)
Humidity Test	After exposure at 60°C and $90 \pm 5\%$ relative humidity for 240 hours. sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)
Temperature Cycle Test	After exposure at $+70^{\circ}\text{C}$ for 1 hr, from $+70^{\circ}\text{C}$ to $+25^{\circ}\text{C}$ for 0.5hr, at $+25^{\circ}\text{C}$ for 1hr, from $+25^{\circ}\text{C}$ to -20°C for 0.5hr, at -20°C for 1hr, from -20°C to $+25^{\circ}\text{C}$ for 0.5hr, at $+25^{\circ}\text{C}$ for 1hr, after 10 cycles, the sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity. (The measurement to be done after 6 hours of conditioning at 25°C .)

7. CONCEPT OF UNIT

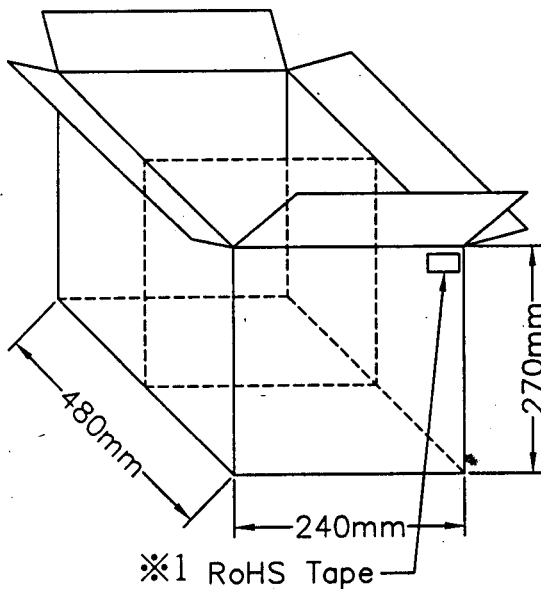
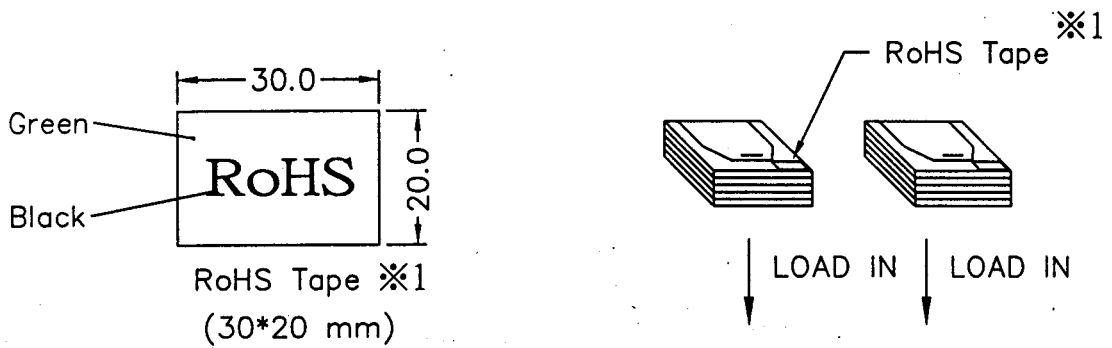
The difference between concept of unit "Pascal" and the one of unit " μbar " can be explained as follows. in calibrating the sensitivity of ECMS. the sensitivity is manifested differently according as the unit is "Pascal" or " μbar ". That is the sensitivity will be increased by 20dB in the usage of unit "Pascal". Example : $-62\text{dB}(\text{OdB}=1\text{V}/\mu\text{bar}) = -42\text{dB}(\text{OdB}=1\text{V}/\text{Pa})$

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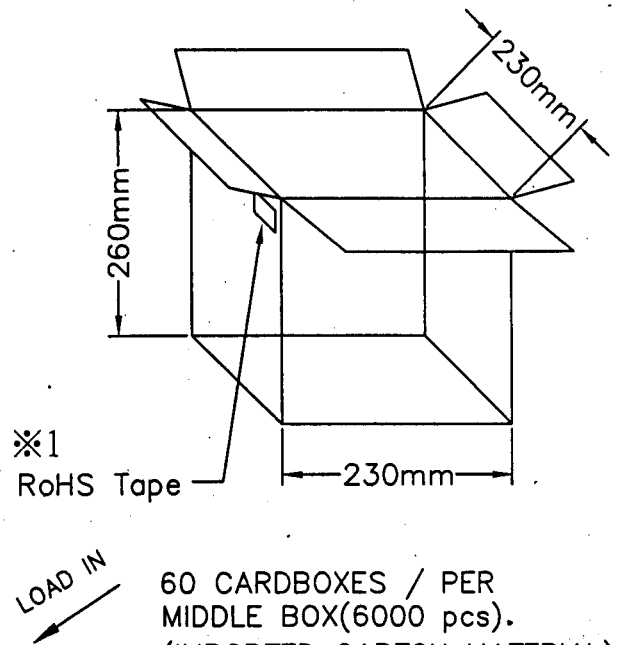
8. PACKAGING



100 pcs / 1 Sponge Tray



*1 RoHS Tape
2 MIDDLE BOXES / PER
CARTON (12000 pcs)
(IMPORTED CARTON MATERIAL)



*1 RoHS Tape
60 CARDBOXES / PER
MIDDLE BOX (6000 pcs).
(IMPORTED CARTON MATERIAL)