OBO Pro.2	SPECIFICATIONS	MODEL NO. OBO-B20BN-0C-0H7
	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 1 OF 6

OBO PRO INC.
2008.9.13
文件专用章

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV.	Description	Page	PREPARE. BY	APPROVE BY
——	SEP,10,2008	———	A	Newl Document	6	杨冉	

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
A	SEP,10,2008	杨冉		

OBO Pro.2	SPECIFICATIONS	MODEL NO. OBO-B20BN-0C-0H7
	PART NAME ELECTRET CONDENSER MICROPHONE	SHEET 2 OF 6

MODEL NO :

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

1. ELECTRICAL CHARACTERISTICS

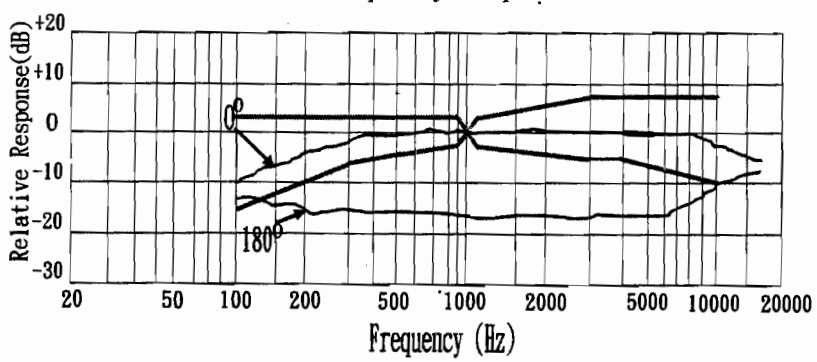
Test Condition : (Vs=1.5V,RL=0.68KΩ,Ta=20±2°C,R.H.=65%±5%)

Directivity : Unidirectional

No	Parameter	Symbol	Condition	Limit			Unit
				Min	Center	Max	
1.1	Sensitivity	S	F=1KHz,S.P.L.=1Pa 0dB=1V/Pa	−51	−47	−43	dB
1.2	Output Impedance	Zout	F=1KHz			0.68	KΩ
1.3	Current Consumption	Idss	VS=1.5V, RL=0.68KΩ			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=2.0V to 1.0V			−3	dB

1.6 Typical Frequency Response Curve Limit

Frequency Response



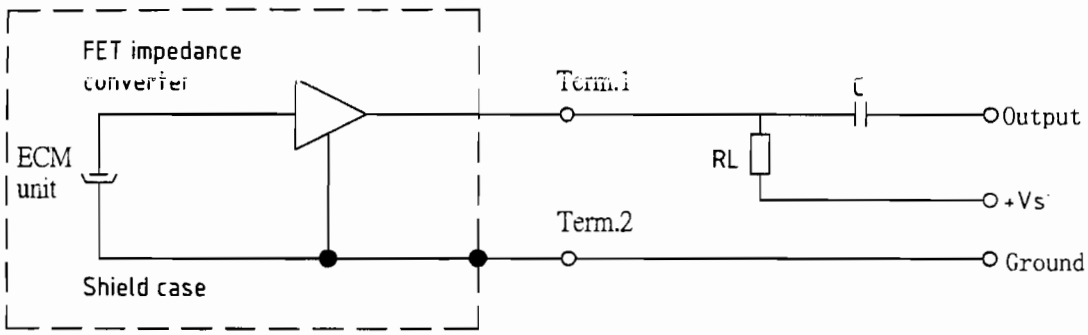
Microphone Response Tolerance Window

Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
100	-15	+3
800	-4	+3
1000	0	0
1200	-4	+4
3000	-5	+8
5000	-6	+8
10000	-10	+8

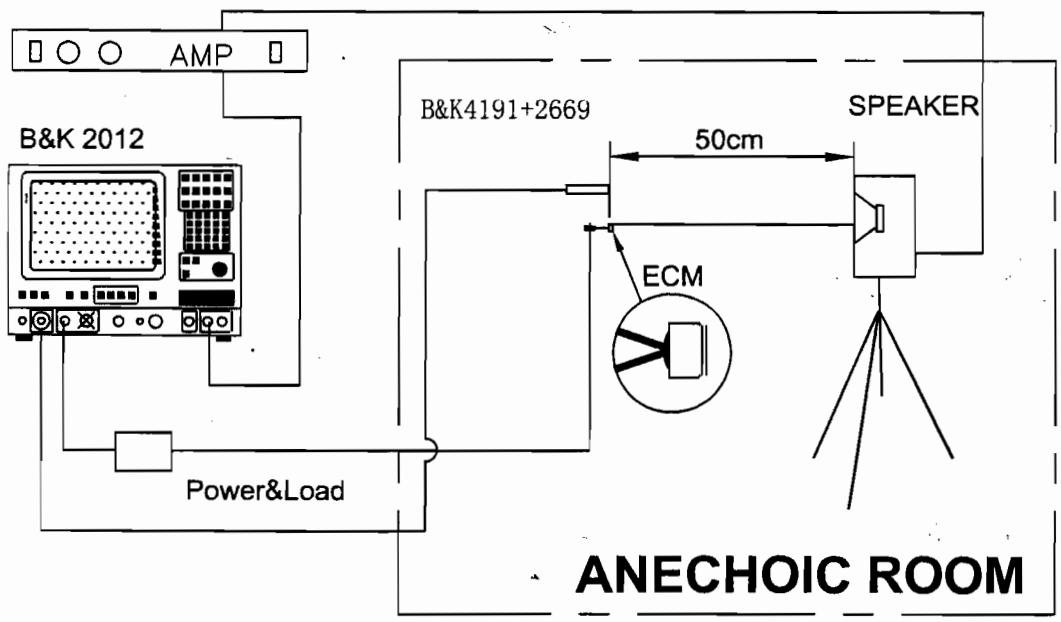
◎ Frequency : 100~10,000Hz

◎ Operating Voltage : 1.0V to 10V

2. MEASUREMENT CIRCUIT



3. MEASUREMENT METHOD

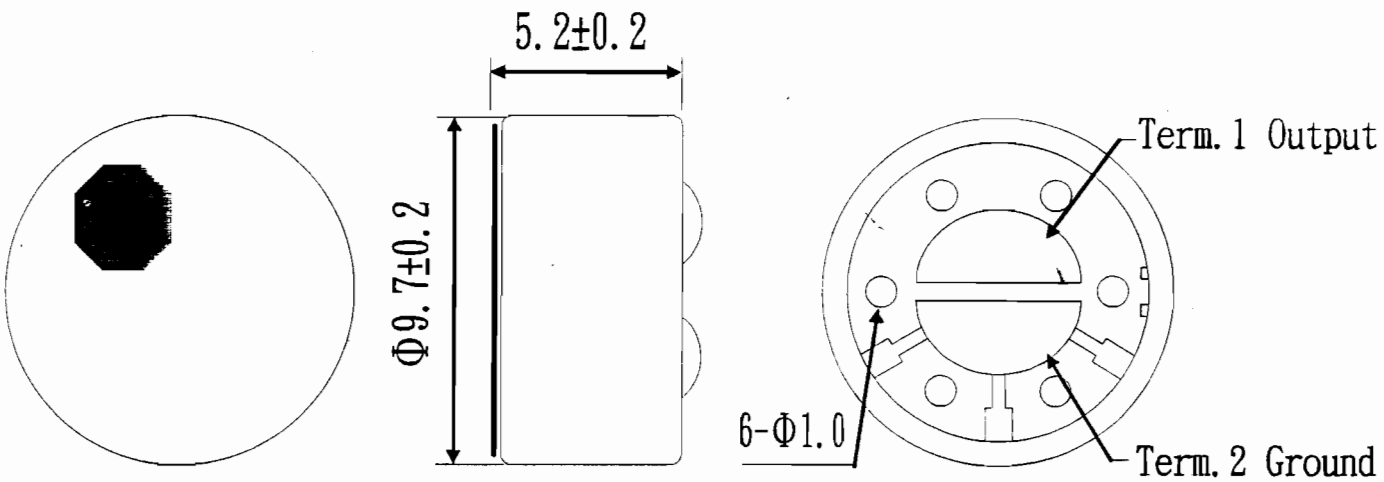


4. MECHANICAL CHARACTERISTICS

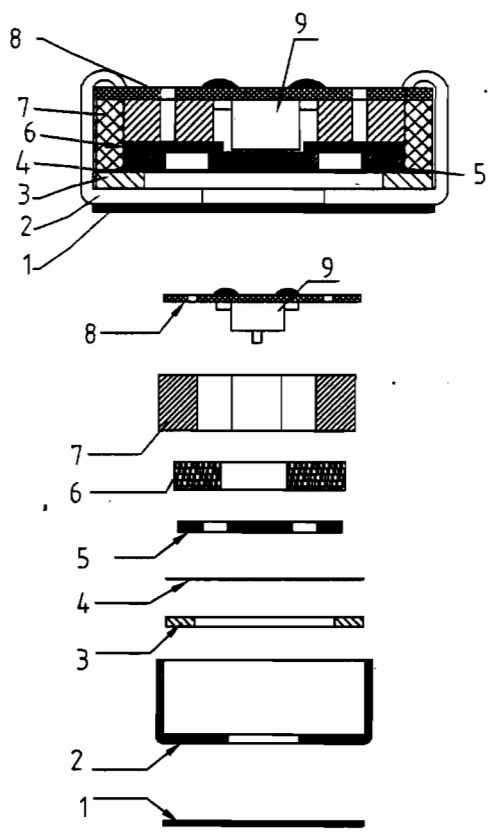
4.1 Soldering Standard : 260±20℃ /Max. 2 seconds

4.2 Mechanical Layout and Dimensions:

Unit : mm Tolerance: ±0.2



4.3 Drawing:



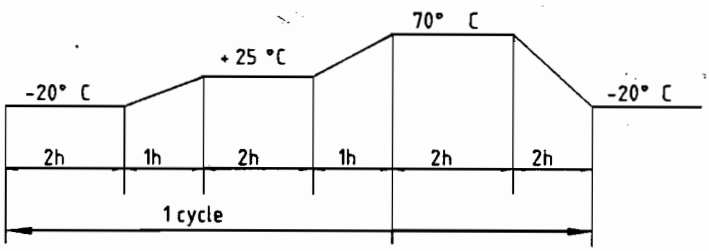
No.	Name	material	QTY	Remark
9	FET		1	NEC
8	P.C.B		1	FR-4
7	HOUSPING CHAMBER	Gather formaldehyde	1	
6	Damping cotton		1	
5	ELECTRET	Copper blank	1	
4	SPACER	Mylar	1	
3	POLARIZED DIAPHRAGM	DUPONT	1	
2	CASE	Al-Mg alloy	1	
1	FELT	Fabric cloth	1	

5. TEMPERATURE CONDITIONS

5.1 Operating Temperature Range : −20°C ~+60°C

5.2 Storage Temperature Range : −20°C ~+60°C

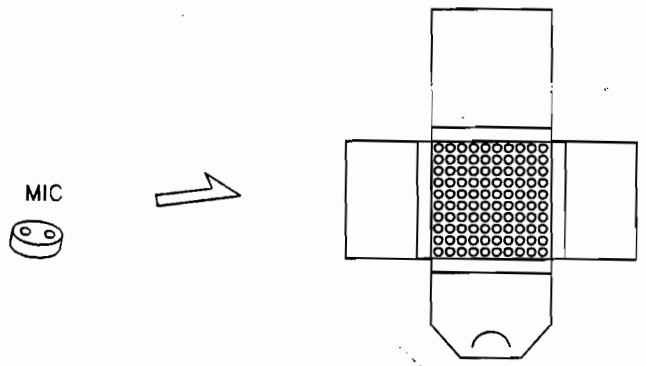
6. RELIABILITY TEST

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 axises.
Drop Test	The microphone unit without packaged must be subjected to each 3 drops at three axises from the height of 1 meter to 20mm thick wooden board
Temperature Test	(a)After exposure at 70°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (b)After exposure at −20°C for 72 hours, sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at 20°C.)
Humidity Test	After exposure at 40°C and 90±5% relative humidity for 240 hours. sensitivity to be within ±3dB from initial sensitivity. (The measurement to be done after 2 hours of conditioning at 20°C.)
Temperature Cycle Test	The part shall be subjected to 10 cycles.One cycle shall be consist of: 

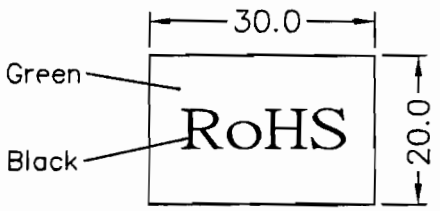
7. REFLOW PROFILE

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 : −62dB(0dB=1V/μbar)=−42dB(0dB=1V/Pa)

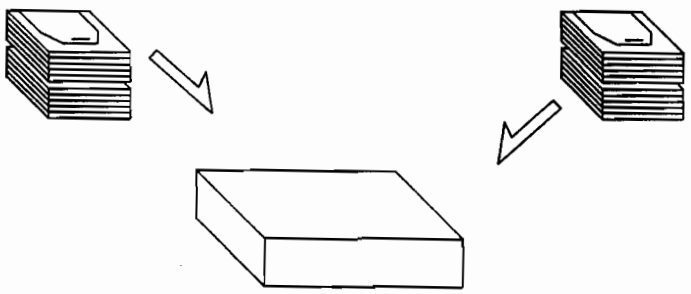
8. PACKAGING



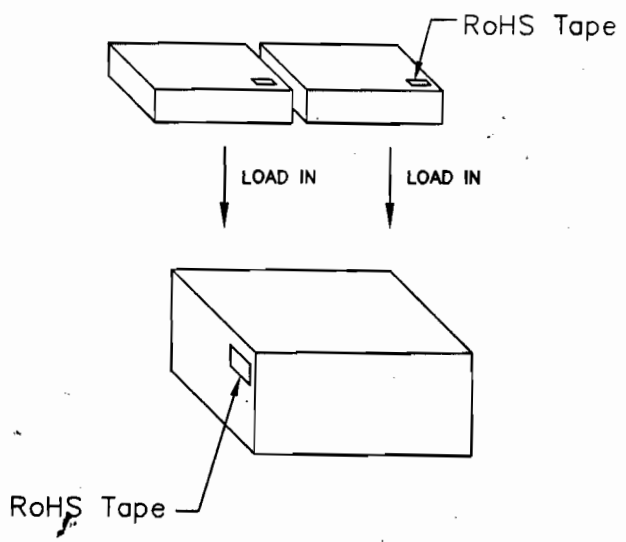
100 PCS/ SMALL PACKET
100*100*10mm



RoHS Tape
(30*20 mm)



1000 PCS/ MID PACKET
205*150*50mm



20000 PCS/ PAPER CASE
550*230*235mm