

OBO Pro.2**SPECIFICATIONS**MODEL NO
OBO-B62SW-3B-012PART NAME
ELECTRET CONDENSER MICROPHONESHEET
1 OF 9

ALTERNATION HISTORY

Marking	Date	ECN NO.	REV	Description	Page	PREPARE BY	APPROVE BY
--	NOV,16,2013	---	A	New Document	9	甘健霞	
※1	JAN,7,2014	---	B	The wire type changed to: UL3302 AWG # 28 Change for halogen free product	9	甘健霞	林建良

REV.	DATE	PREPARED BY	CHECKED BY	APPROVED BY
B	JAN,7,2014	甘健霞	林建良	林建良



SPECIFICATIONS

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SHEET
2 OF 9

Type: Omni directional Back Electret Condenser Microphone

Model Number: OBO-B62SW-3B-012

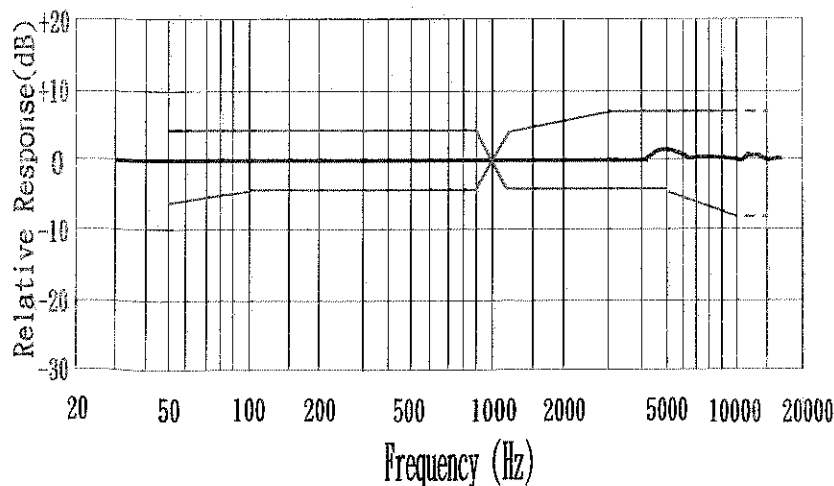
1. Electrical Characteristics (Temperature =20±2°C Humidity=65±5%)

	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
1.1	Sensitivity	S	0dB=1V/Pa at 1kHz	-45	-42	-39	dB
1.2	Output impedance	Z out	f=1kHz			2.2	KΩ
1.3	Current Consumption	I _{DSS}	V _{CC} =2.0V, R _L =2.2KΩ			500	μA
1.4	Signal to Noise Ratio	S/N	at 1kHz S.P.L=1Pa (A-Weighted Curve)	58			dB
1.5	Decreasing Voltage	ΔS	V _{CC} =3.0V to 2.0V			-3	dB
1.6	Operating Voltage			1.0		10	V
1.7	Maximum input S.P.L					110	dB

2. Typical Frequency Response Curve

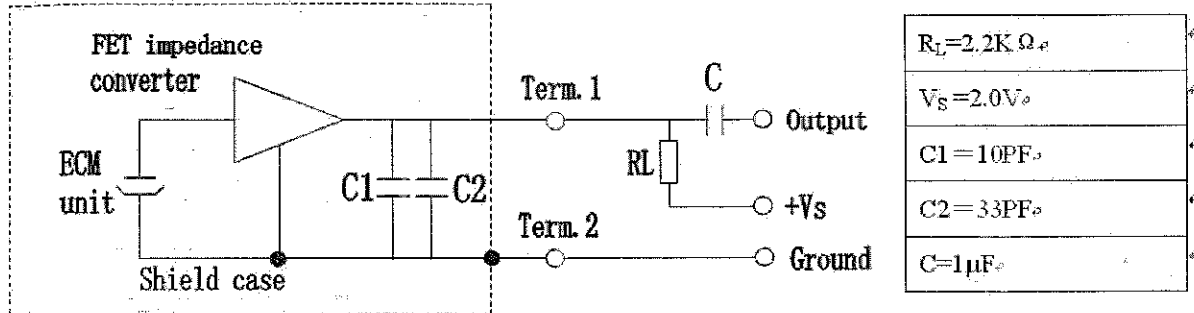
Frequency Response

Microphone Response Tolerance Window

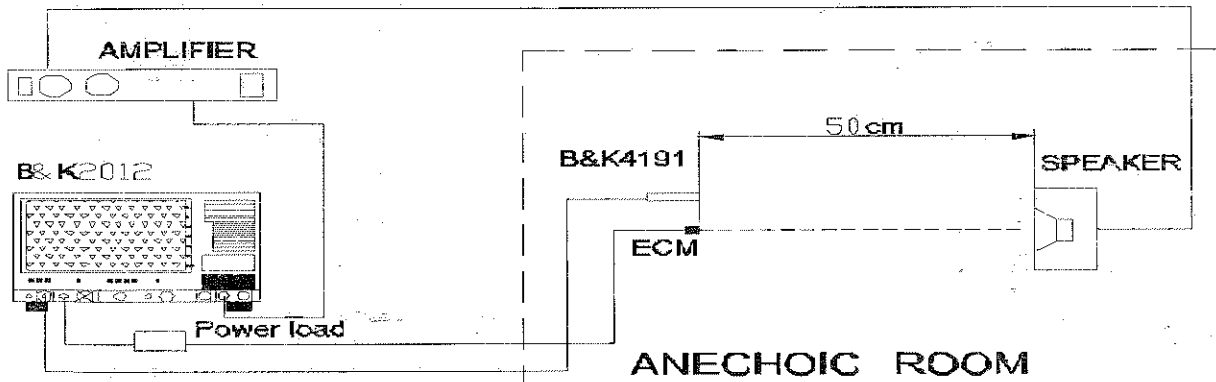


Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
50	-6	+3
100	-3	+3
800	-3	+3
1000	0	0
1200	-3	+3
3000	-3	+8
5000	-3	+8
10000	-8	+8

3. Measurement Circuit.

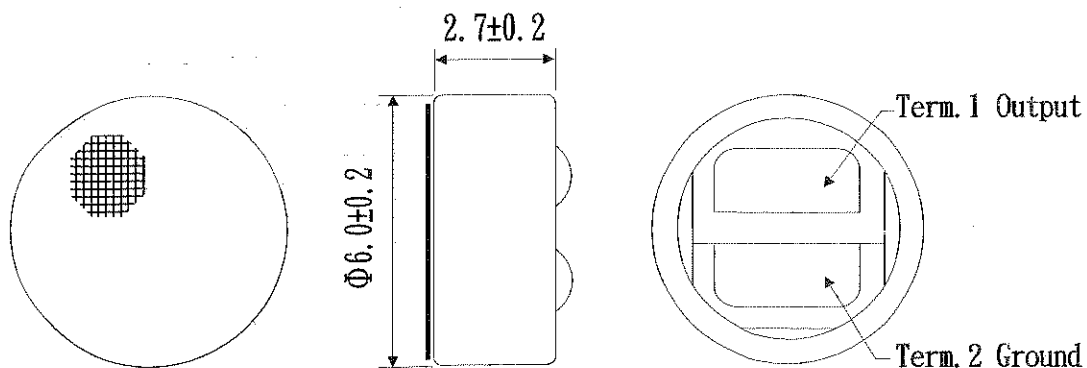


4. Measurement Setup Drawing

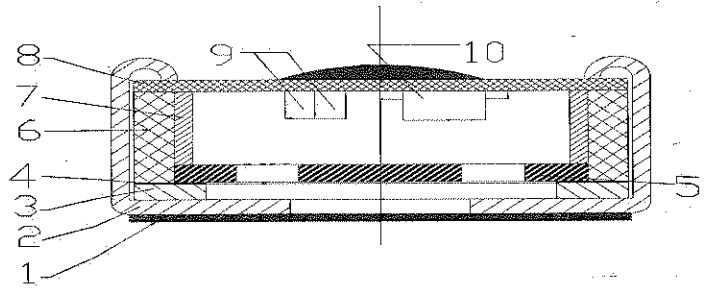
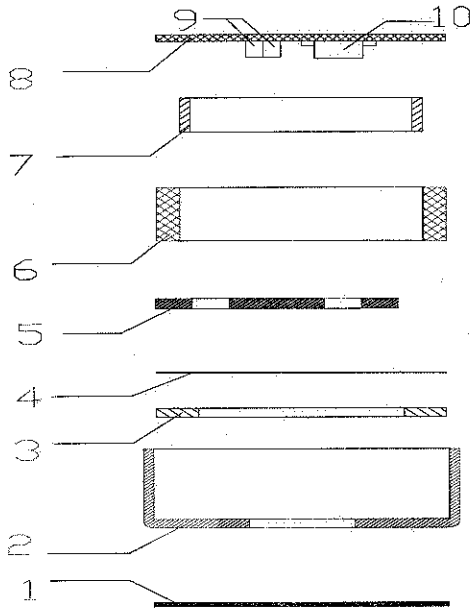


5. Appearance And Dimension

Unit : mm



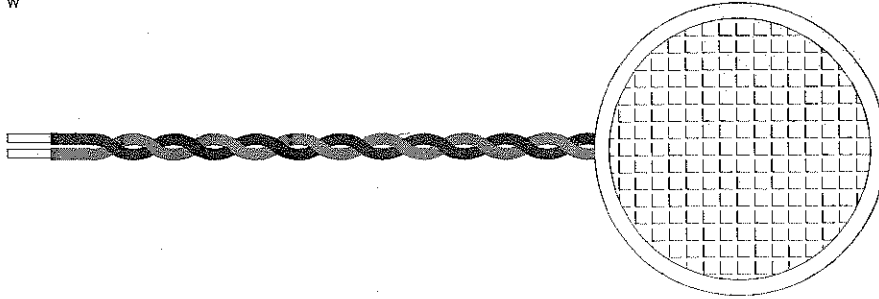
6. Material And Structure



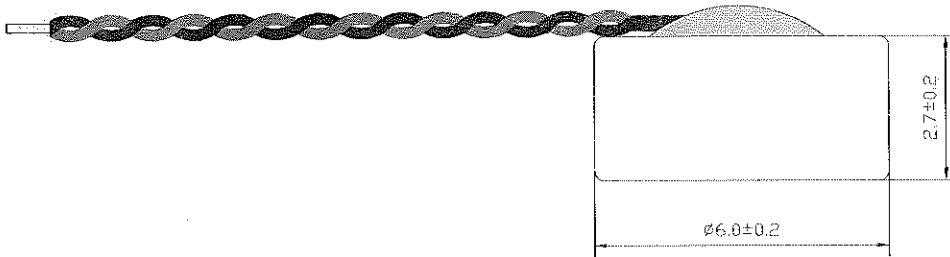
10	FET		1	
9	Chip Capacitor		2	10+33pF
8	P.C.B	FR-4	1	
7	Copper ring		1	
6	Chamber		1	
5	Electret Back		1	
4	Spacer		1	
3	Polarized Diaphragm		1	
2	Case	Al-Mg alloy	1	
1	Felt	Non-weave cloth	1	
No.	Name	material	QTY	Remark

7. Accessory Drawing (Unit: mm) ※1

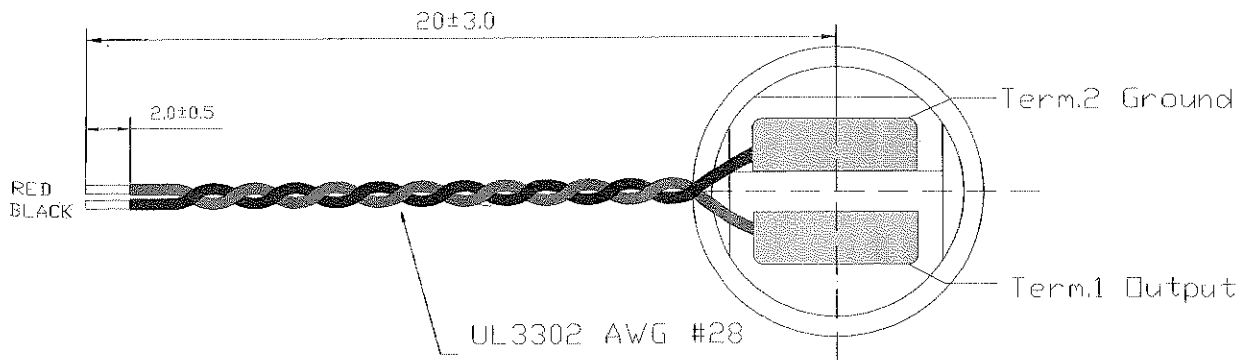
TOP VIEW



SIDE VIEW



BOTTOM VIEW





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SHEET
6 OF 9

8. Temperature Conditions

Storage Temperature Range	Operation Temperature Range
-40°C ~ +85°C	-40°C ~ +85°C

Note: Store in electronic warehouse.

9. Terminal Mechanical Strength

Terminal should be no interference in operation after pulled the terminal with 1kg for 1 minute.

10. Reliability Test

After each of following test, the sensitivity of the microphone should be within $\pm 3\text{dB}$ of initial sensitivity after 3hours of conditioning at 20°C.

1. Vibration Test

Frequency : 10Hz~55Hz

Amplitude : 1.52mm

Change of Frequency : 1 octave/min

2 hours in each of axes

2. High Temperature Test

+85°C for 240 hours.

3. Low Temperature Test

-40°C for 240 hours.

4. Humidity Test

90%~95%RH,+60°C for 240 hours.

5. Thermal shocking test

-40°C, 30 minutes \leftrightarrow +80°C, 30 minutes, repeated 32 cycles \rightarrow room temperature, 3 hours.



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SHEET
7 OF 9

6. Temperature Cycles

-40°C ↔ +20°C ↔ +85°C ↔ +20°C ↔ -40°C
(2h) (0.5h) (2h) (0.1h) (2h) (0.5h) (2h) (0.5h) (2h) for 5 cycles.

7. Packing Drop Test

Height : 1.5m

Procedure: 5 times from each of axes

8. Electrostatic discharge

Tested to IEC61000-4-2 level 3 :

a) Contact discharge

The microphone shall operate normally after 10 discharges to is 6KV DC and the discharge network is 150pF and 330O.

b) Air discharge

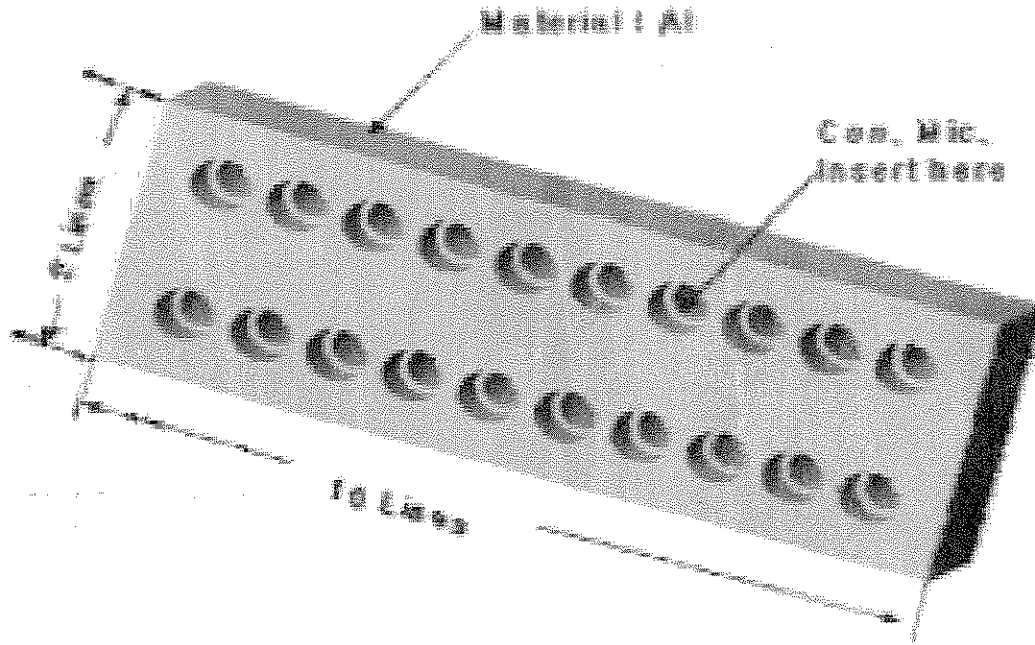
The microphone shall operate normally after 10 discharges to is 8KV DC and the discharge network is 150pF and 330O

11. Soldering Condition

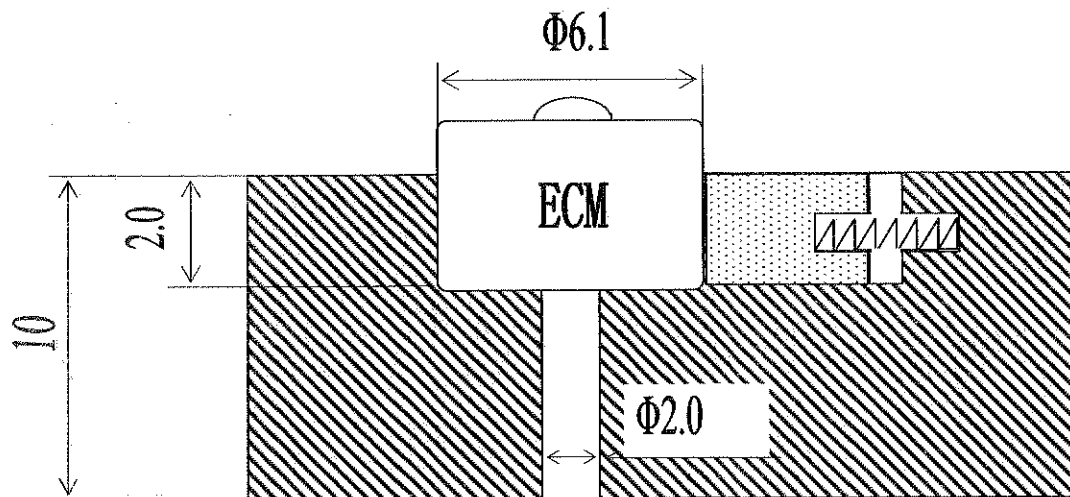
1. We suggest using anti-static welding machine which can control soldering temperature automatically.
2. Soldering temperature should be controlled under 320°C and soldering time for each terminal should be 1~2 sec..
3. Microphone should be fixed on the metal block (heat sink), which has high radiation effects, and heat sink shall contact with MIC tightly.
4. Microphone may easily be destroyed by the static electricity and the countermeasure for eliminating the static electricity shall be executed (worktable and human body shall be ground connection).

5. Heat Sink

Shape of heat sink



Shape of hole at fixed part



12. Packing

1. MODEL NUMBER :
OBO-B62SW-3B-012

**2. DIMENSION:(LENGTH*WIDTH
*HEIGHT)**

2.1 Anti-Static Bag

100mm*100mm*2mm

2.2 SMALL BOX

100mm*100mm*10mm

2.3 MIDDLE BOX:

205mm*105mm*50mm

2.4 CARTON SIZE:

550mm*230mm*235mm

3. QUANTITY AND WEIGHT

3.1 100PCS/SMALL BOX

3.2 100PCS/MID BOX

3.3 20000PCS/CARTON

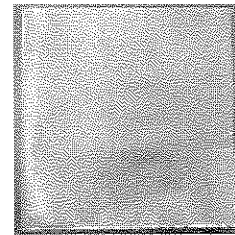
3.4 1PC=0.2g

3.5 NET WEIGHT : 4kg

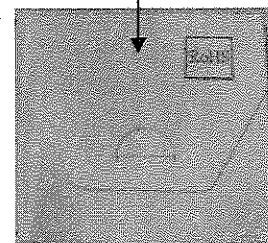
3.6 GROSS WEIGHT : 8kg

4. LABEL STIPULATION

4.1 CONTENTS SHOULD BE SEEN CLEAR.

Packing chart

X1



100PCS

X8



100PCS

X20



20000PCS