

VECO VANSONIC ENTERPRISE CO., LTD.

8F., No.7, Lane 16, Sec.2, Szechwan Road, Panchiao, Taipei Hsien, TAIWAN.

E-mail: Vansonic@ms4.hinet.net Homepage: <http://www.veco.com.tw>

TEL: +886-2-8966 6335 FAX: +886-2-8966 5220

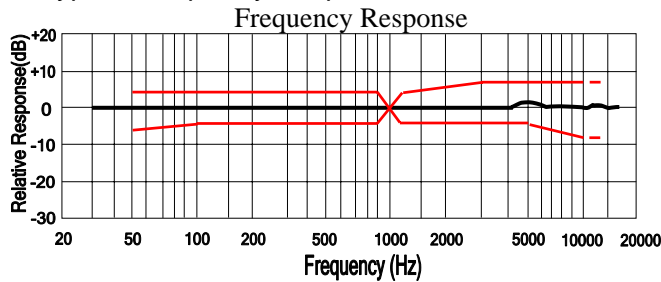
1.	Scope	This specification applies back electret condenser microphone			
----	-------	---	--	--	--

2.	Model No.	PVM-6022B-4PC402G	PIN=2.8mm	C1=10PF	C2=33PF
----	-----------	-------------------	-----------	---------	---------

3. **Name:** Omnidirectional Back Electret Condenser Microphone (Temp=20±2°C Room Humidity=65±5%)

No	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
3.1	Sensitivity	S	0dB=1V/Pa, at 1kHz	-42	-40	-38	dB
3.2	Output impedance	Z out	f=1kHz			2.2	K Ω
3.3	Current Consumption	I _{DSS}	V _{CC} =2.0V, R _L =2.2K Ω			500	μA
3.4	Signal to Noise Ratio	S/N	at 1kHz S.P.L=1Pa (A-Weighted Curve)	58			dB
3.5	Decreasing Voltage	Δ S-VS	V _{CC} =2.0V to 1.0V			-3	dB
3.6	Operating Voltage			1.0		10	V
3.7	Maximum input S.P.L					110	dB

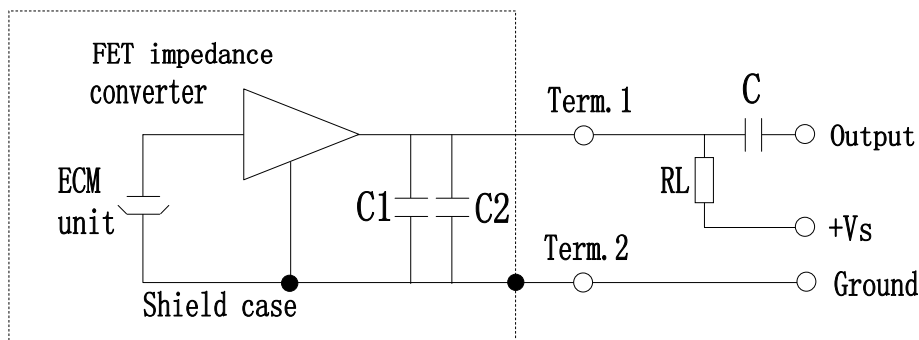
3.8 Typical Frequency Response Curve



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

3.9 Measurement Circuit



Explain

R_L=2.2K Ω

V_S =2.0V

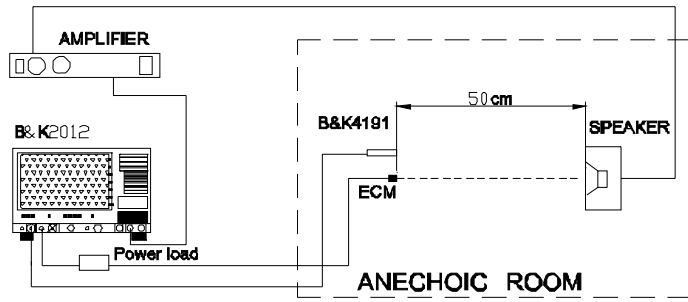
C1 = 10PF

C2=33PF

C=1μF

4.

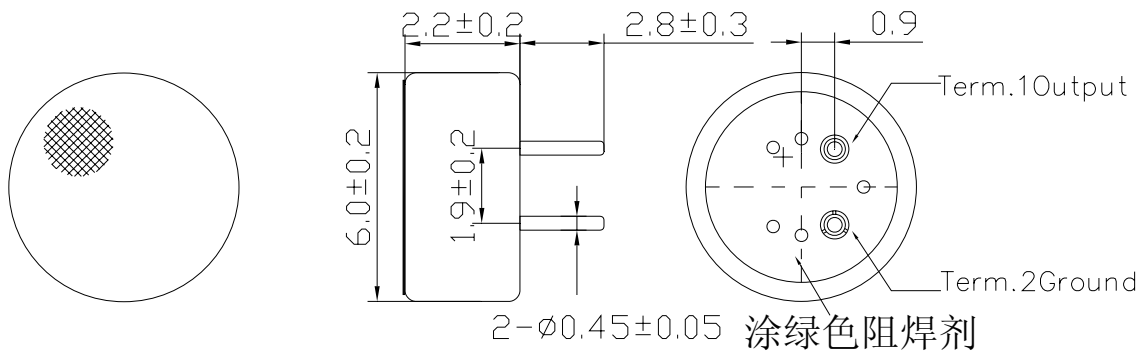
Test Setup Drawing



5.

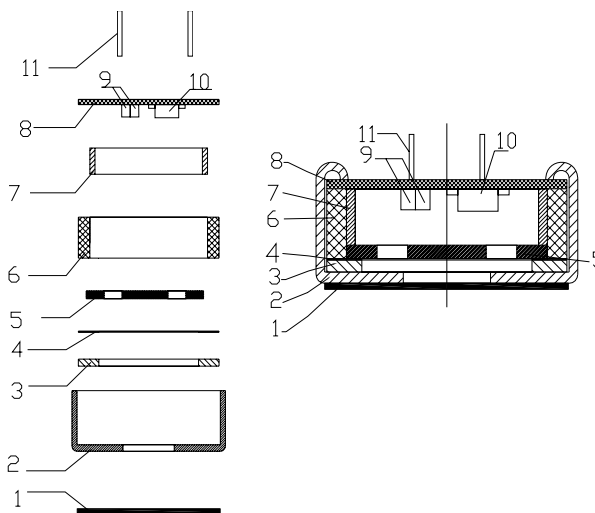
Appearance And Dimension

Unit: mm



6.

Drawing



11	PIN	Copper	2	
10	FET		1	SANYO
9	CHIP CAPACITOR	10 PF +33PF	2	0402
8	P.C.B		1	FR-4
7	Copper ring	Copper tube	1	
6	HOUSPING CHAMBER	Gather formaldehyde	1	
5	ELECTRET BACK	Copper blank	1	
4	SPACER	Mylar	1	
3	POLARIZED DIAPHRAGM	DUPONT	1	
2	CASE	AL	1	
1	FELT	Fabric cloth	1	
No.	Name	material	QTY	Remark

7.

Temperature Conditions

Storage Temperature Range	Operation Temperature Range
-40°C ~ +75°C	-20°C ~ +60°C

8.

Terminal Mechanical Strength

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

9.

Reliability Test

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

9-1 Vibration

Frequency1 : 10Hz~55Hz
Amplitude : 1.52mm
Change of Frequency : 1 octave/min
2 hours in each of 3 axes

9-2 Dry Heat / Cold

$+70^\circ\text{C}$ / -20°C for 72 hours

9-3 Damp Heat

90%~95%RH, $+40^\circ\text{C}$ for 240 hours

9-4 Temperature Cycles

-20°C \longleftrightarrow 25°C \longleftrightarrow 70°C \longleftrightarrow -20°C
(2h) (1h) (2h) (1h) (2h) (2h) \times 10 cycles

9-5 Packing Drop Test

Height: 1m
Procedure: 5 times from each of 3 axis's

10.

Soldering Condition

10-1 we use anti-static welding machine which can control soldering temperature automatically.

10.2 Soldering temperature should be controlled under 320°C .

10.3 MIC shall be fixed on the metal block (heat sink), which has high radiation effects, and heat sink shall contact with MIC tightly.

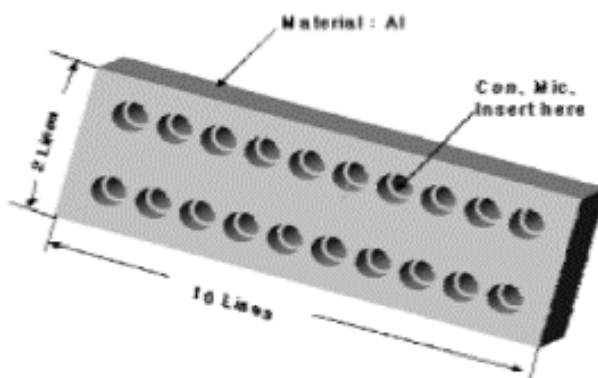
10.4 Soldering time for each terminal shall be 1~2 sec.

10.5 Soldering pinhole shall be avoided.

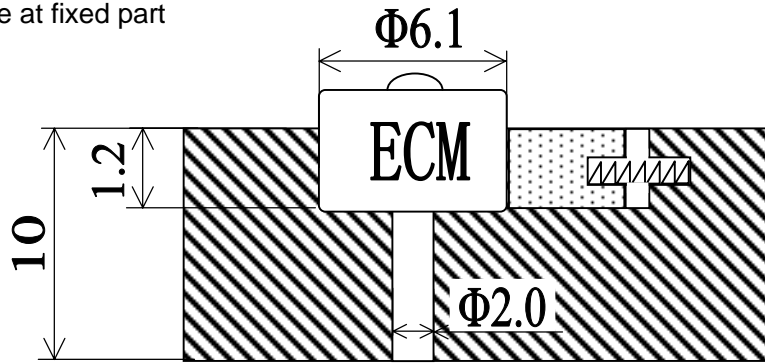
10.6 MIC may easily be destroyed by the static electricity and the countermeasure for eliminating the static electricity shall be executed (worktable and human body shall be ground connection).

10-7 Heat Sink

Shape of heat sink



Shape of hole at fixed part



11.

Packing Introduction

一. DIMENSION:(LENGTH*WIDTH*HEIGHT)

- a) SMALL PACKET
100mm*100mm*7mm
- b) MID PACKET:
205mm*105mm*50mm
- c) PAPER CASE:
550mm*230mm*235mm

二. EQUIPMENT

- a) ADHENSIVE TAPE MACHINE
- b) AUTO PACKER

三. PACKING INTRODUCTION

- a) 100PCS/ INHALE PLASTIC BOX
- b) 1400PCS/MID PACKET
- c) 28000PCS/PAPER CASE

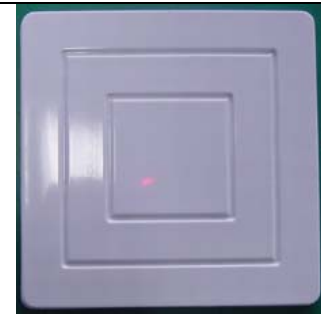
四. QUANTITY INTRODUCTION

- a) 1PC=0.2g
- b) NET WEIGHT
PAPER CASE: 5.6kg
GROSS WEIGHT: 8.6kg

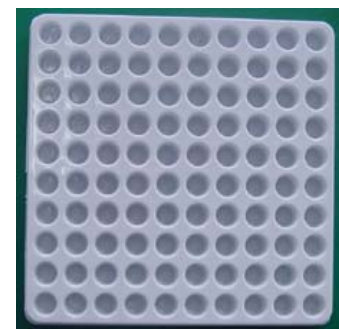
五. LABEL STIPULATION

- a. LABELEDEVERY BOXES
(SEE THE CHART)
- b. DIMENSIONS SHOULD BE SEEN
EASILY

Packing chart



X1



100PCS →

X14



1400PCS →

X20



28000PCS →