



# Specification For Approval

## 承認書

客 戶 (Customer)			
品 名 (Product Name)	ECM		
機 種 (Model No.)			
客戶料號 (Customer Parts No.)			
供應商料號 (Supplier Model No.)	PVM6027B-2PC363S050		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

### Revision History

Version	Date	Description	Author
V 001	2013.03.11	Creation	VIVIAN

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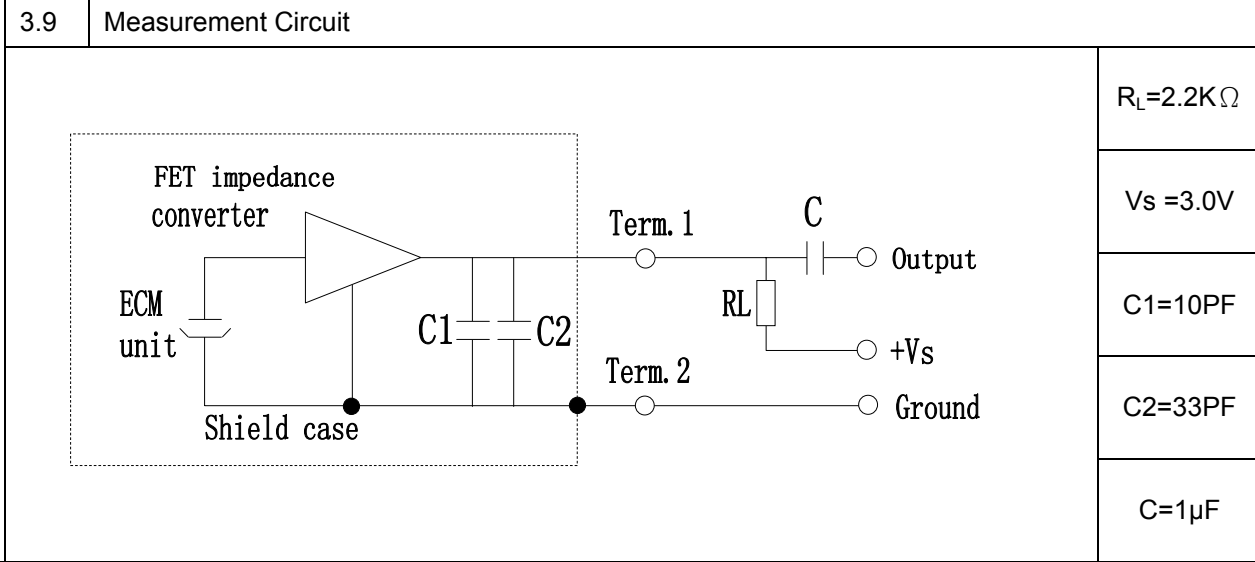
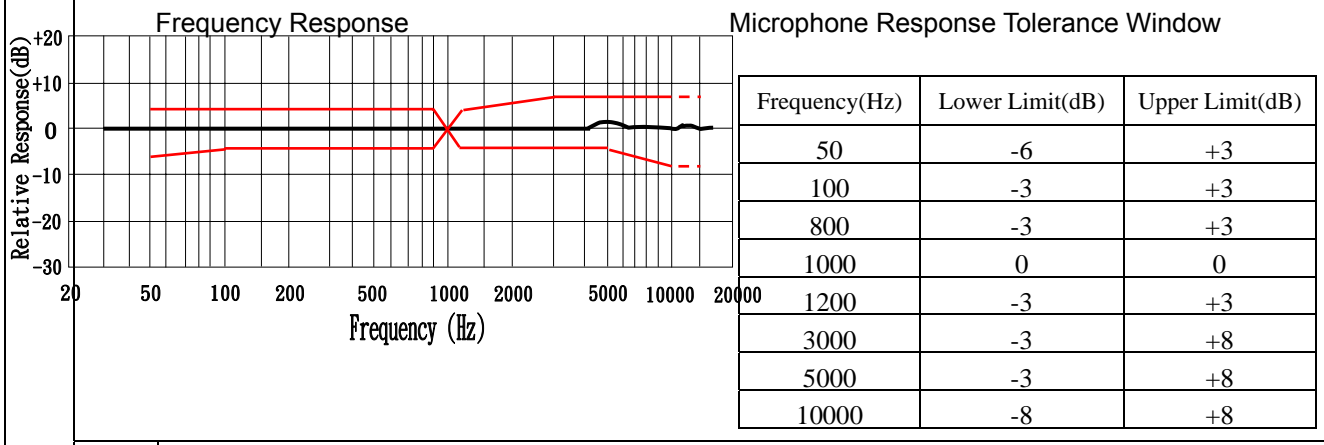
# VECO VANSONIC ENTERPRISE CO., LTD.

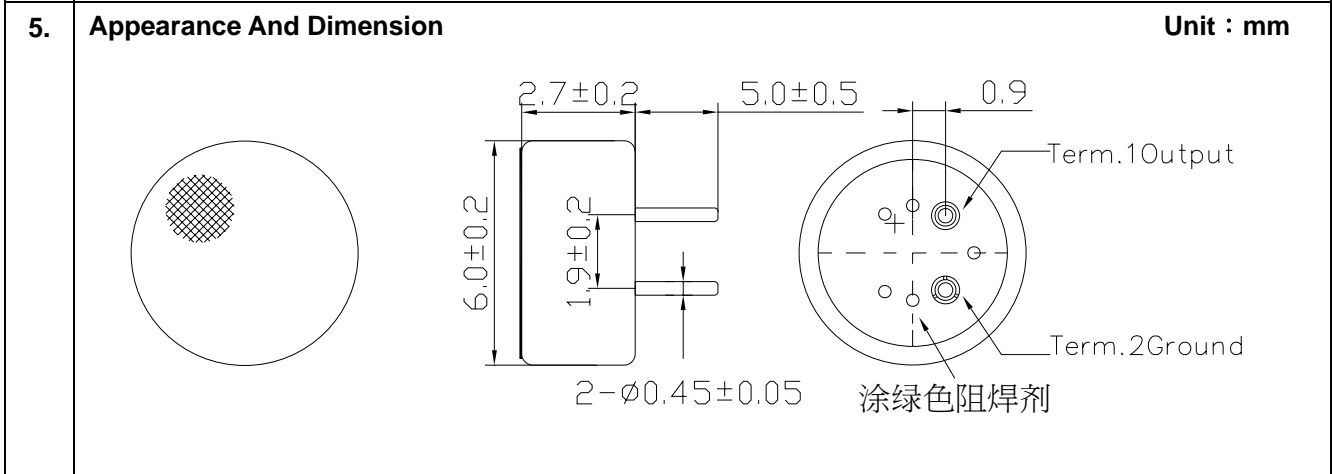
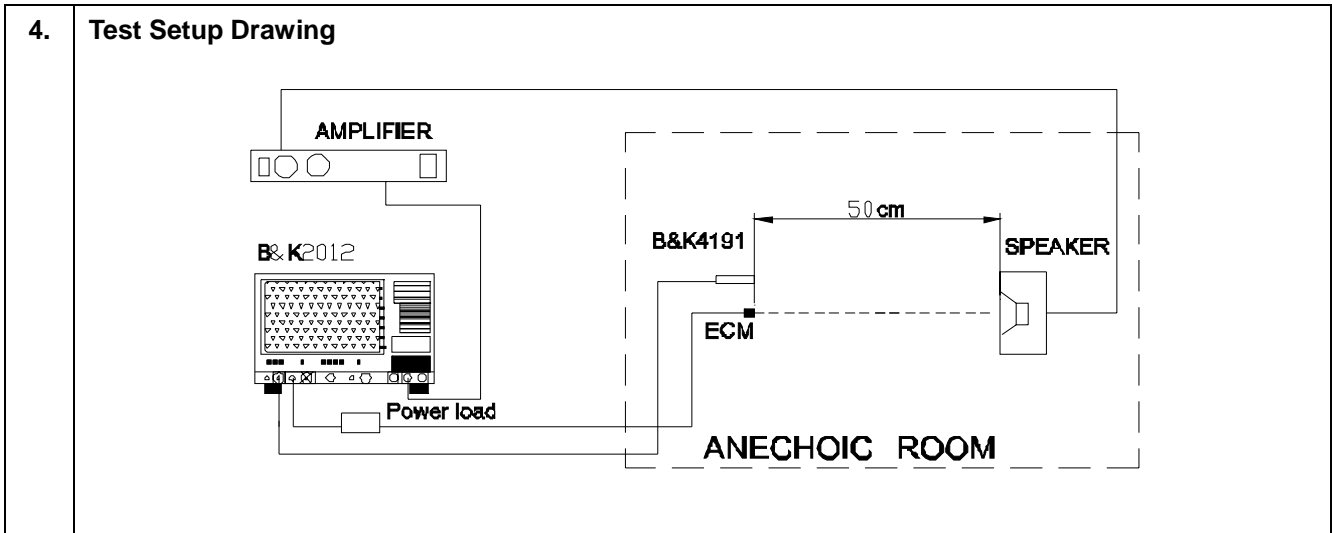
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<b>1.</b>	<b>Name :</b>	Omni directional Back Electret Condenser Microphone			
<b>2.</b>	<b>Model No.</b>	<b>PVM6027B-2PC363S050</b>	<b>C1=10PF</b>	<b>C2=33PF</b>	<b>PIN=5.0mm</b>
<b>3.</b>	<b>Scope :</b>	This specification applies back electret condenser 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	-39	-36	-33	dB
3.2	Output impedance	Z out	f=1kHz			2.2	KΩ
3.3	Current Consumption	I <sub>DSS</sub>	V <sub>CC</sub> =3.0V,R <sub>L</sub> =2.2KΩ			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 <sub>CC</sub> =2.0V to1.0V			-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						





**6. Drawing**

11	PIN		2	
10	ELECTRET BACK		1	
9	FET		1	
8	CHIP CAPACITOR		2	10PF+33PF
7	P.C.B		1	FR-4
6	Copper ring		1	
5	HOUSING CHAMBER		1	
4	SPACER		1	
3	POLARIZED DIAPHRAGM		1	
2	CASE	Al-Mg alloy	1	
1	FELT	Fabric cloth	1	
No.	Name	material	QTY	Remark

**7. Temperature Conditions**

Storage Temperature Range	Operation Temperature Range
-40°C ~ +85°C	-40°C ~ +85°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 each of following test, the sensitivity of the microphone should be within  $\pm 3\text{dB}$  of initial sensitivity after 3 hours of conditioning at  $20^\circ\text{C}$ .

1. Vibration Test

Frequency :  $10\text{Hz}\sim 55\text{Hz}$

Amplitude :  $1.52\text{mm}$

Change of Frequency : 1 octave/min

2 hours in each of axes

2. High Temperature Test

$+85^\circ\text{C}$  for 240 hours.

3. Low Temperature Test

$-40^\circ\text{C}$  for 240 hours.

4. Humidity Test

$90\%\sim 95\%\text{RH}$ ,  $+60^\circ\text{C}$  for 240 hours.

5. Thermal shocking test

$-40^\circ\text{C}$ , 30 minutes  $\leftrightarrow$   $+80^\circ\text{C}$ , 30 minutes, repeated 32 cycles  $\rightarrow$  room temperature, 3 hours.

6. Temperature Cycles

$-40^\circ\text{C}$   $\leftrightarrow$   $+20^\circ\text{C}$   $\leftrightarrow$   $+85^\circ\text{C}$   $\leftrightarrow$   $+20^\circ\text{C}$   $\leftrightarrow$   $-40^\circ\text{C}$   
(2h) (0.5h) (2h) (0.1h) (2h) (0.5h) (2h) (0.5h) (2h) for 5 cycles.

7. Packing Drop Test

Height :  $1.5\text{m}$

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  $6\text{KV DC}$  and the discharge network is  $150\text{pF}$  and  $330\Omega$ .

b) Air discharge

The microphone shall operate normally after 10 discharges to is  $8\text{KV DC}$  and the discharge network is  $150\text{pF}$  and  $330\Omega$

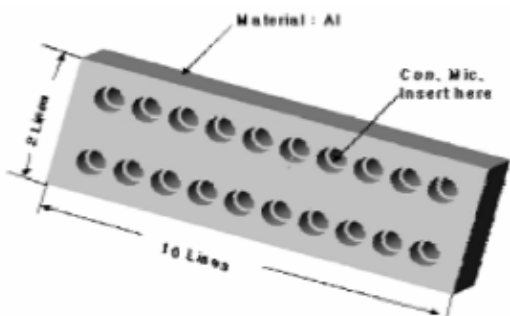
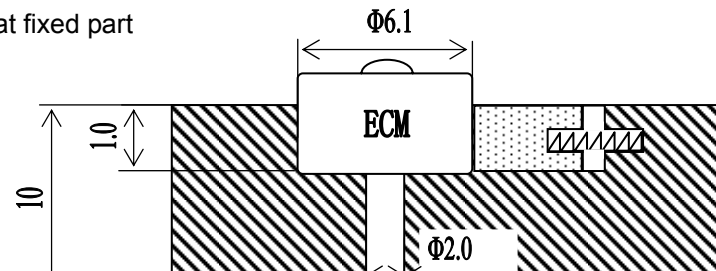
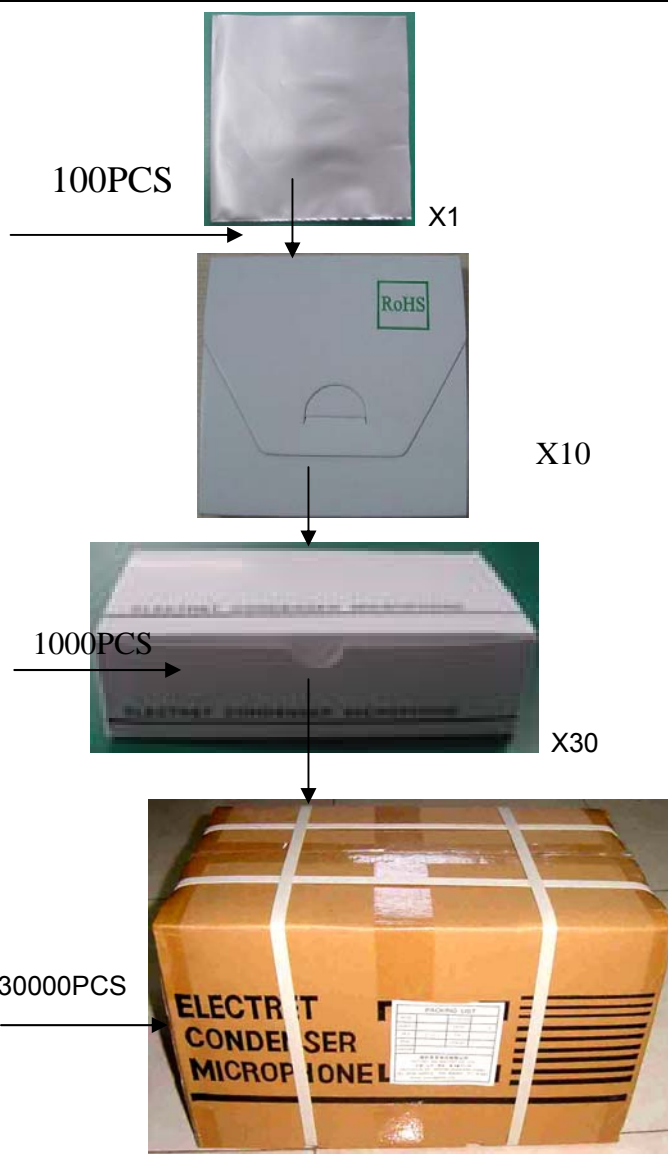
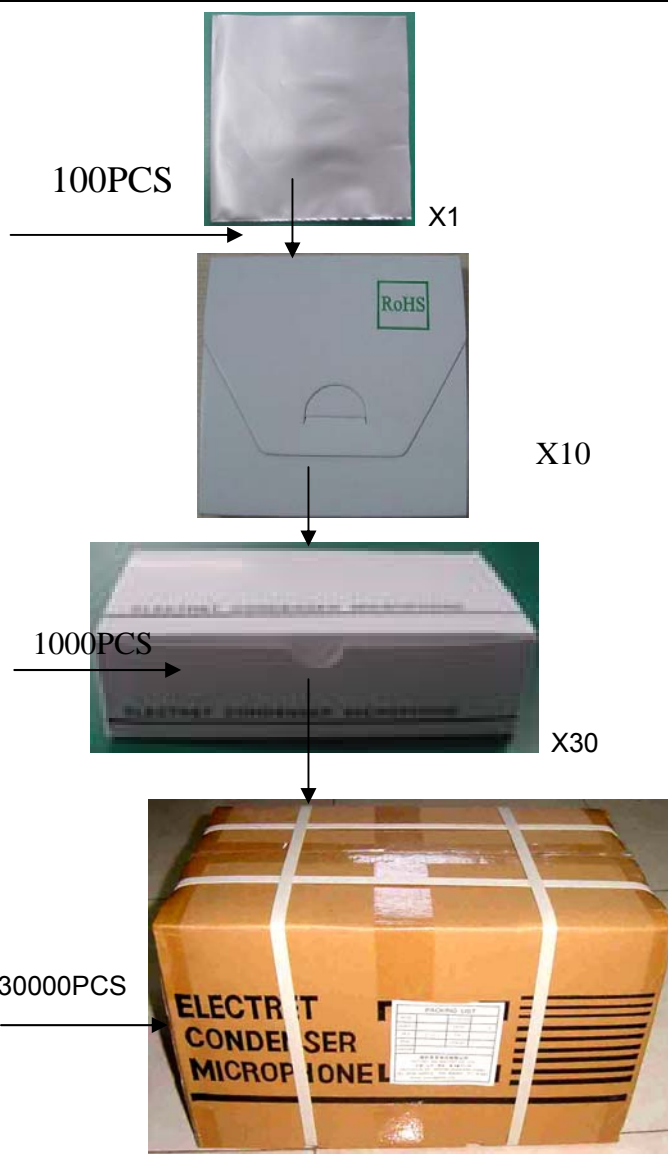
**10. Soldering Condition**

1. We suggest using anti-static welding machine which can control soldering temperature automatically.

2. Soldering temperature should be controlled under  $320^\circ\text{C}$  and soldering time for each terminal should be  $1\sim 2$  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).

10.	<p>5. Shape of heat sink</p> 				
	<p>Shape of hole at fixed part</p> 				
11.	<table border="1"> <thead> <tr> <th data-bbox="204 824 762 873">Packing Introduction</th> <th data-bbox="762 824 1465 873">Packing chart</th> </tr> </thead> <tbody> <tr> <td data-bbox="204 873 762 2065"> <p><b>DIMENSION:(LENGTH*WIDTH *HEIGHT)</b></p> <p>AVOID STATIC BAG: 80mm*80mm*2mm</p> <p>SMALL PACKET 85mm*85mm*10mm</p> <p>MID PACKET: 170mm*85mm*50mm</p> <p>PAPER CASE: 550mm*230mm*235mm</p> <p><b>EQUIPMENT</b></p> <p>ADHENSIVE TAPE MACHINE AUTO PACKER</p> <p><b>PACKING INTRODUCTION</b></p> <p>100PCS/ INHALE PLASTIC BOX 1000PCS/MID PACKET 30000PCS/PAPER CASE</p> <p><b>QUANTITY INTRODUCTION</b></p> <p>1PC=0.2g NET WEIGHT : 6.0 kg GROSS WEIGHT : 9.0kg</p> <p><b>LABEL STIPULATION</b></p> <p>LABELEDEVERY BOXES (SEE THE CHART) DIMENSIONSSHOULDBESEEN EASILY</p> </td> <td data-bbox="762 873 1465 2065">  </td> </tr> </tbody> </table>	Packing Introduction	Packing chart	<p><b>DIMENSION:(LENGTH*WIDTH *HEIGHT)</b></p> <p>AVOID STATIC BAG: 80mm*80mm*2mm</p> <p>SMALL PACKET 85mm*85mm*10mm</p> <p>MID PACKET: 170mm*85mm*50mm</p> <p>PAPER CASE: 550mm*230mm*235mm</p> <p><b>EQUIPMENT</b></p> <p>ADHENSIVE TAPE MACHINE AUTO PACKER</p> <p><b>PACKING INTRODUCTION</b></p> <p>100PCS/ INHALE PLASTIC BOX 1000PCS/MID PACKET 30000PCS/PAPER CASE</p> <p><b>QUANTITY INTRODUCTION</b></p> <p>1PC=0.2g NET WEIGHT : 6.0 kg GROSS WEIGHT : 9.0kg</p> <p><b>LABEL STIPULATION</b></p> <p>LABELEDEVERY BOXES (SEE THE CHART) DIMENSIONSSHOULDBESEEN EASILY</p>	
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