



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.)	PVM4530B-4PC403S050		
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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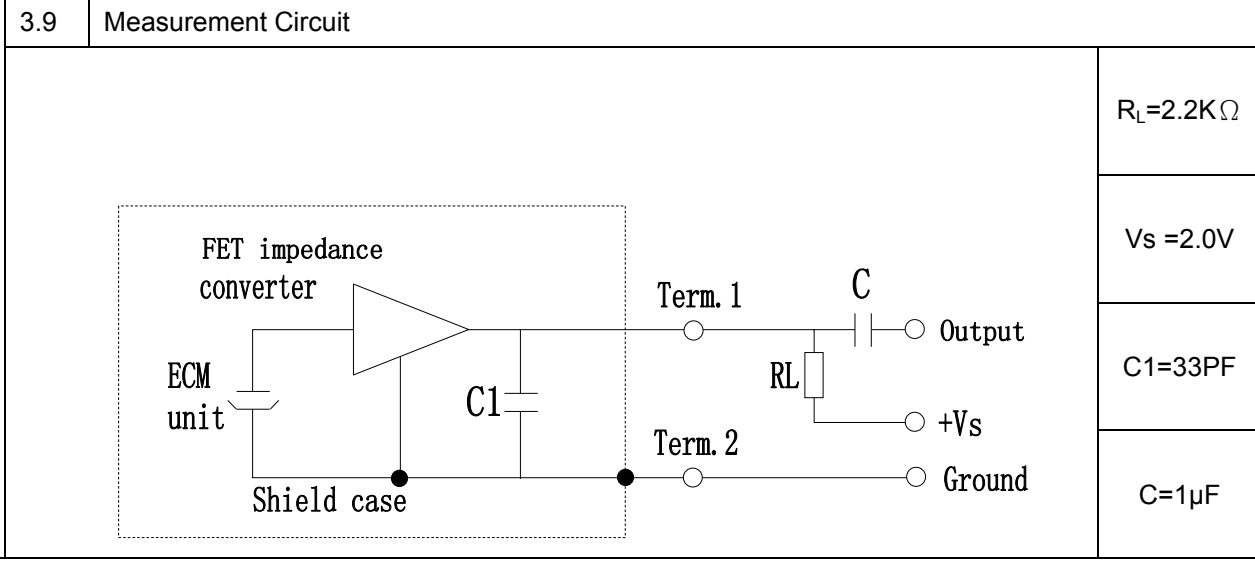
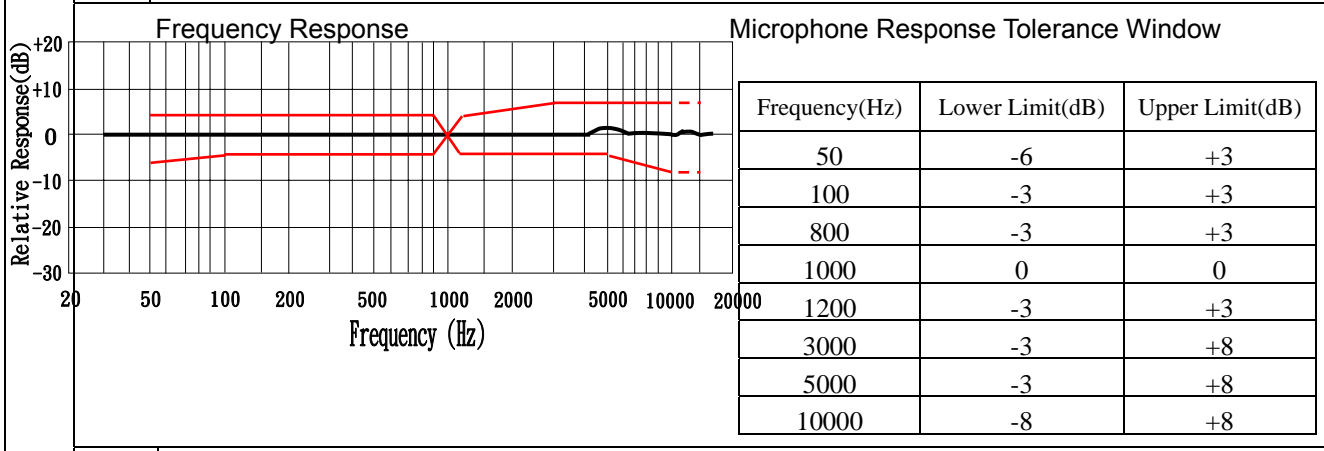
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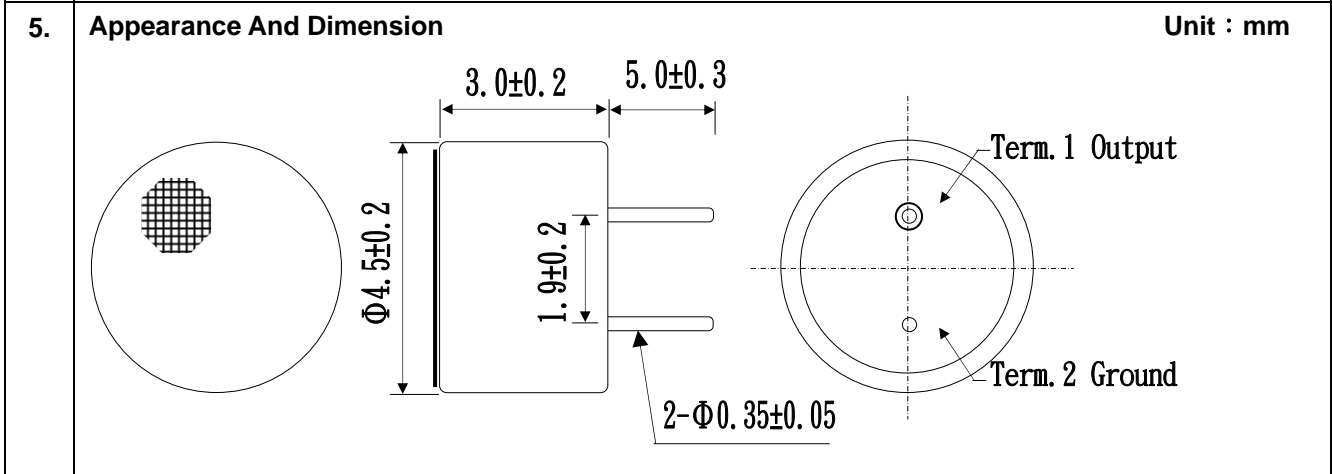
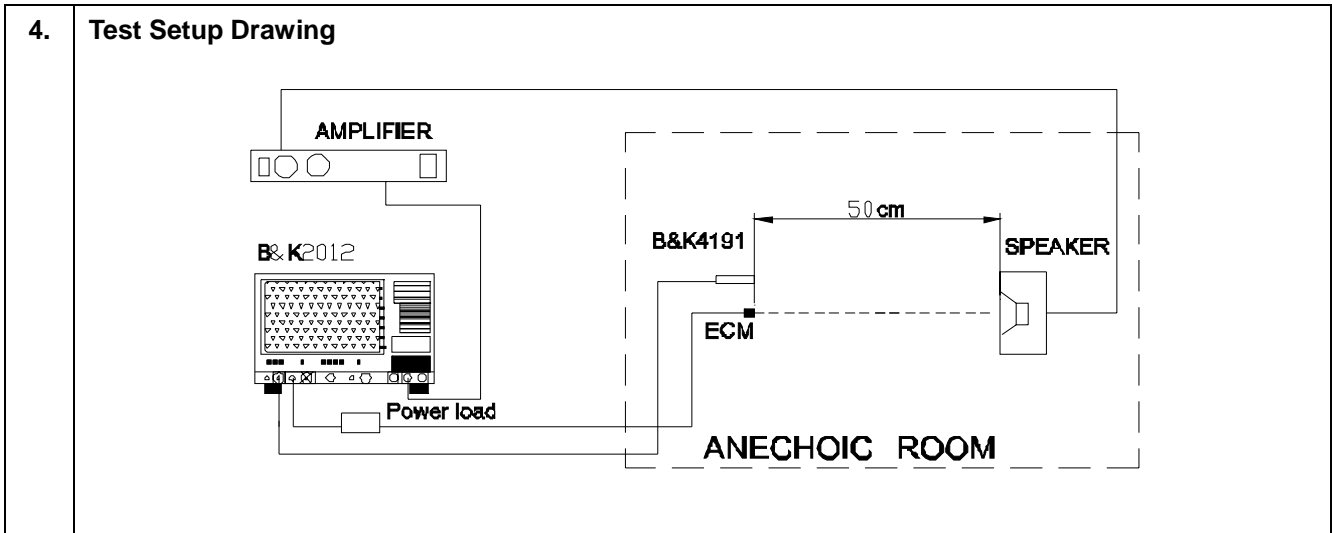
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1.	Name :	Omni directional Back Electret Condenser Microphone
2.	Model No.	PVM4530B-4PC403S050 C1=33PF PIN=5.0mm
3.	Scope :	This specification applies back electret condenser microphone (Temp=20±2°C Room Humidity=65±5%)

No	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
3.1	Sensitivity	S	0dB=1V/Pa · at 1kHz	-43	-40	-37	dB
3.2	Output impedance	Z out	f=1kHz			2.2	KΩ
3.3	Current Consumption	I _{DSS}	V _{CC} =3.0V,R _L =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	ΔS	V _{CC} =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	Chip Capacitor		1	33PF
10	PIN		2	
9	Electret Plate		1	
8	FET		1	
7	PCB	FR4	1	
6	Copper ring		1	
5	Chamber		1	
4	Spacer		1	
3	Diaphragm		1	
2	Case	Al-Mg alloy	1	
1	Dustproof gauze	Nonweave 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°C .

1. Vibration Test

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

Amplitude : 1.52mm

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°C for 240 hours.

4. Humidity Test

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

5. Thermal shocking test

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

6. Temperature Cycles

-40°C \leftrightarrow $+20^\circ\text{C}$ \leftrightarrow $+85^\circ\text{C}$ \leftrightarrow $+20^\circ\text{C}$ \leftrightarrow -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 330Ω .

b) Air discharge

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

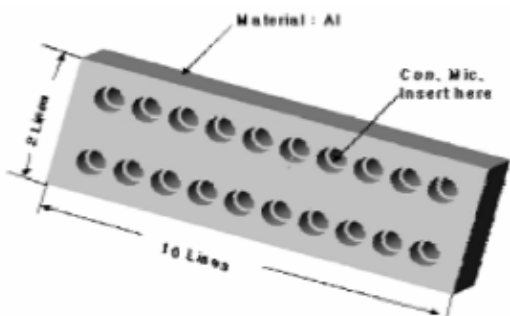
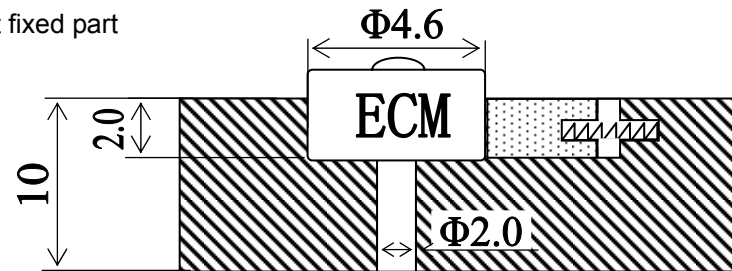
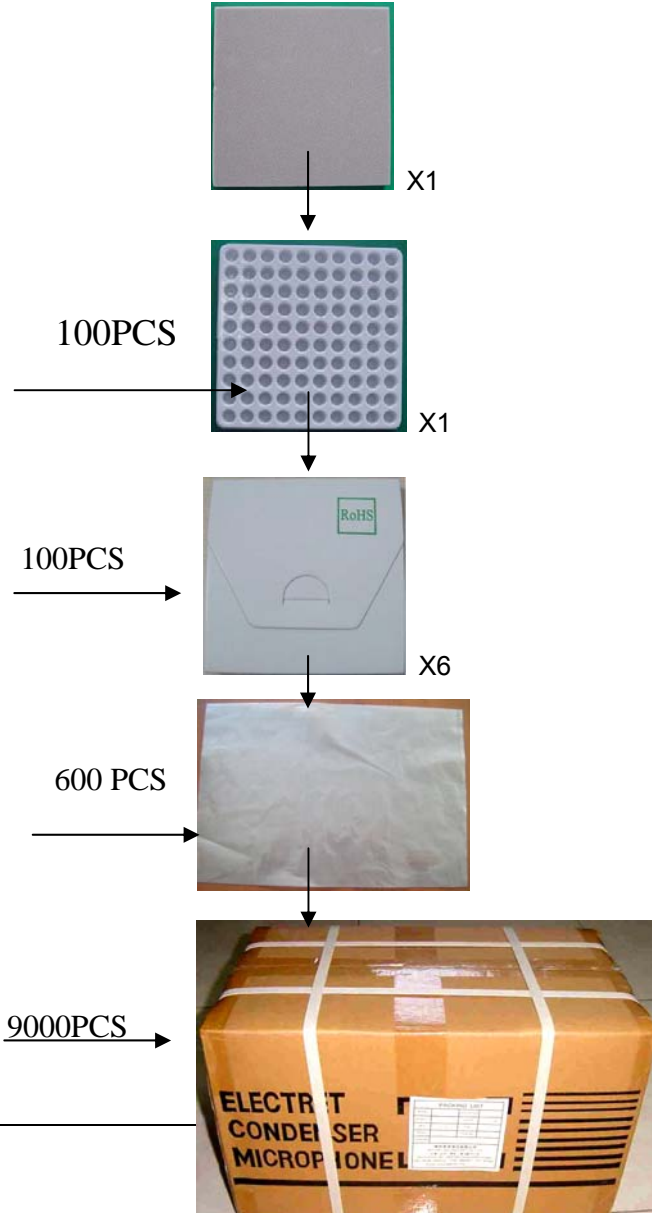
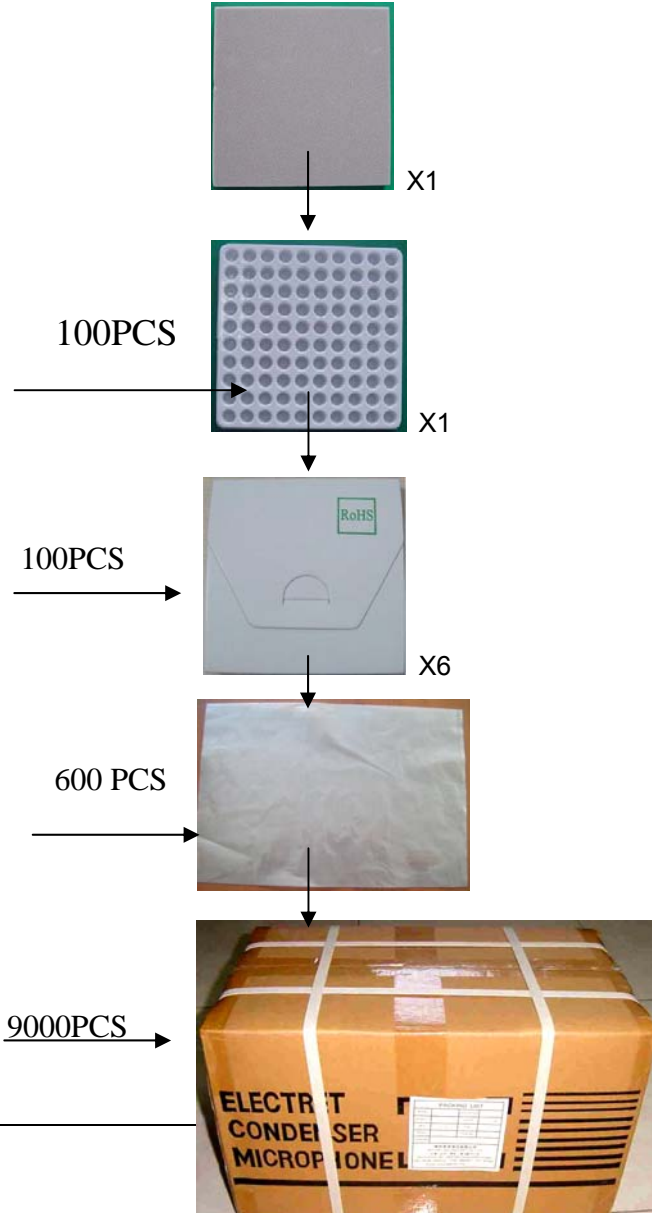
10. Soldering Condition

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

2. Soldering temperature should be controlled under 320°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 2116"> <p>DIMENSION:(LENGTH*WIDTH *HEIGHT)</p> <p>SMALL PACKET 100mm*100mm*17mm</p> <p>PLASTIC BAG: 200mm*300mm*5mm</p> <p>PAPER CASE: 550mm*230mm*235mm</p> <p>EQUIPMENT</p> <p>ADHENSIVE TAPE MACHINE AUTO PACKER</p> <p>PACKING INTRODUCTION</p> <p>100PCS/ INHALE PLASTIC BOX 600PCS/MID PACKET 12000PCS/PAPER CASE</p> <p>QUANTITY INTRODUCTION</p> <p>1PC=0.1g NET WEIGHT : 0.9kg GROSS WEIGHT : 4.9kg</p> <p>LABEL STIPULATION</p> <p>LABELEDEVERY BOXES (SEE THE CHART) DIMENSIONS SHOULD BE SEEN EASILY.</p> </td> <td data-bbox="762 873 1465 2116">  </td> </tr> </tbody> </table>	Packing Introduction	Packing chart	<p>DIMENSION:(LENGTH*WIDTH *HEIGHT)</p> <p>SMALL PACKET 100mm*100mm*17mm</p> <p>PLASTIC BAG: 200mm*300mm*5mm</p> <p>PAPER CASE: 550mm*230mm*235mm</p> <p>EQUIPMENT</p> <p>ADHENSIVE TAPE MACHINE AUTO PACKER</p> <p>PACKING INTRODUCTION</p> <p>100PCS/ INHALE PLASTIC BOX 600PCS/MID PACKET 12000PCS/PAPER CASE</p> <p>QUANTITY INTRODUCTION</p> <p>1PC=0.1g NET WEIGHT : 0.9kg GROSS WEIGHT : 4.9kg</p> <p>LABEL STIPULATION</p> <p>LABELEDEVERY BOXES (SEE THE CHART) DIMENSIONS SHOULD BE SEEN EASILY.</p>	
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