



# 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.)	PVM-6050UB-5C473G		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

### Revision History

Version	Date	Description	Author
V 001	2011.02.24	Creation	LJM

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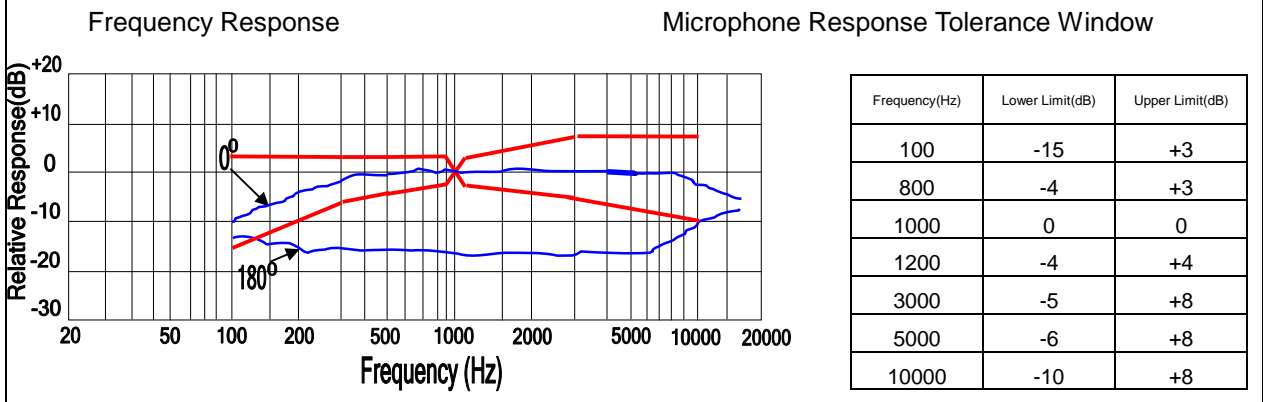
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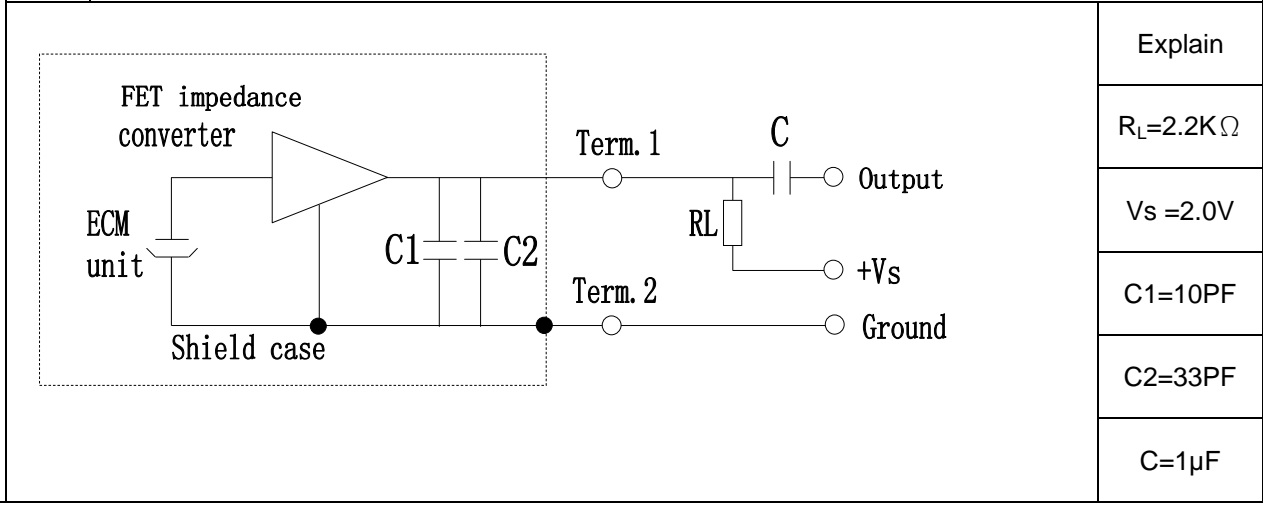
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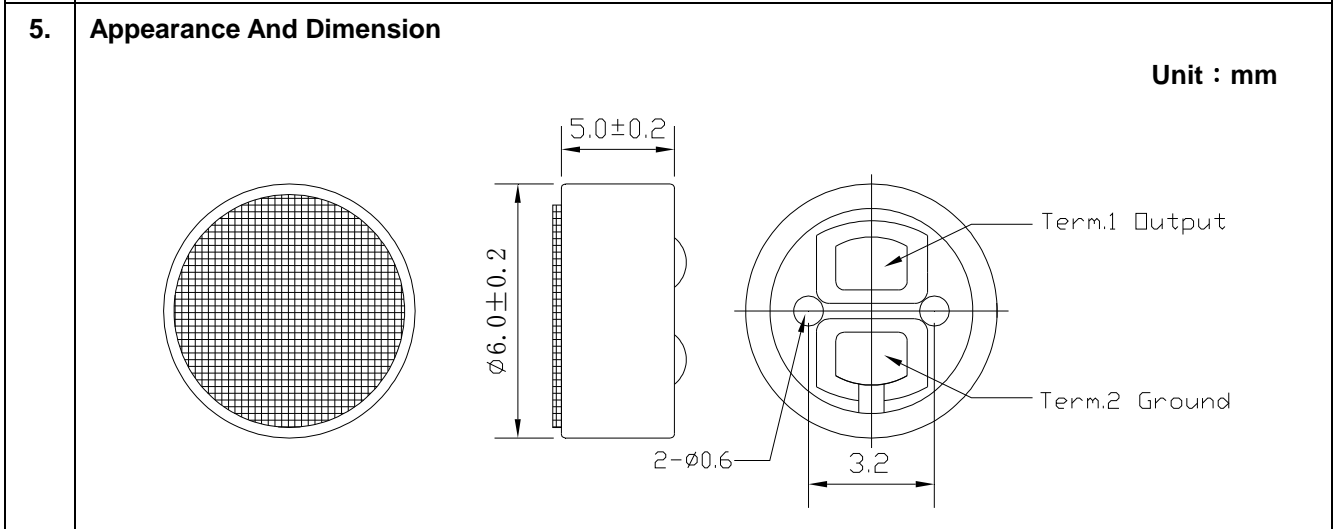
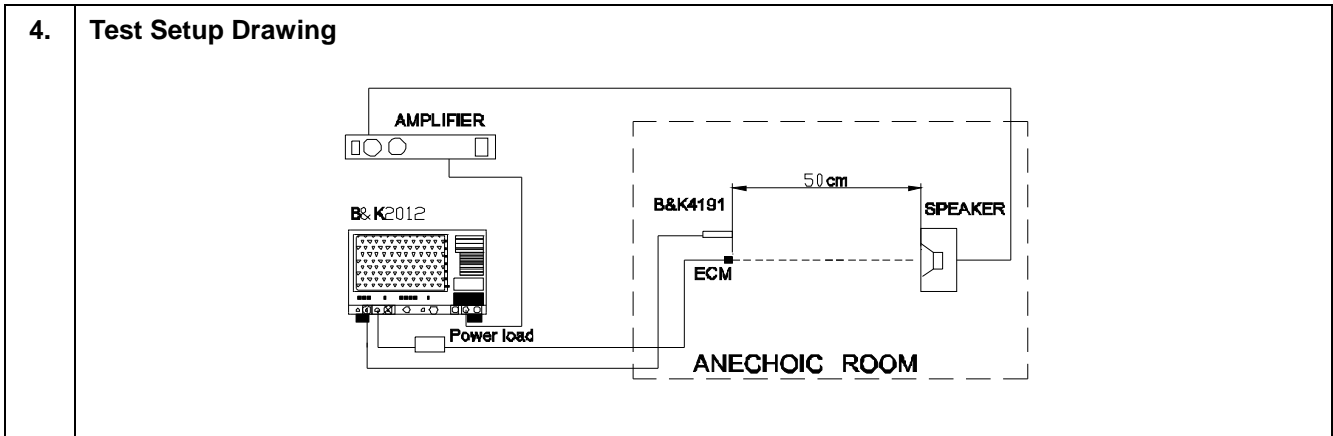
1.	<b>Name :</b>	Unidirectional Back Electret Condenser Microphone
2.	<b>Model No.</b>	PVM-6050UB-5C473G <span style="margin-left: 100px;"><b>C1=10PF</b></span> <span style="margin-left: 100px;"><b>C2=33PF</b></span>
3.	<b>Scope :</b>	This specification applies back electret condenser microphone (Temp=20±2°C Room Humidity=65±5%)

No	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
3.1	Sensitivity	S	0dB=1V/Pa · at 1kHz	-50	-47	-44	dB
3.2	Output impedance	Z out	f=1kHz			2.2	KΩ
3.3	Current Consumption	I <sub>DSS</sub>	V <sub>CC</sub> =2.0V,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	ΔS	V <sub>CC</sub> =3.0V to2.0V			-3	dB
3.6	Operating Voltage			1.4		5.0	V
3.7	Maximum input S.P.L					110	dB
3.8	Directional Sensitivity		1kHz@180 degree	10			dB
3.9	Typical Frequency Response Curve						



3.10 Measurement Circuit





**6. Drawing**

12	CAP	10+33PF	2	
11	FET		1	
10	P.C.B		1	FR-4
9	Copper ring		1	
8	One bore pole blank		1	
7	Chamber		1	
6	Damping net		1	
5	Electret Plate		1	
4	Spacer		1	
3	Diaphragm		1	
2	Case	Al-Mg alloy	1	
1.	Dustproof gauze	Non-weave 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  $20^\circ\text{C}$ .

9-1 Vibration

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

9-2 High Temperature Test

$+70^\circ\text{C}$  for 72 hours.

9-3 Low Temperature Test

$-20^\circ\text{C}$  for 72 hours.

9-4 Humidity Test

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

9-5 Temperature Cycles

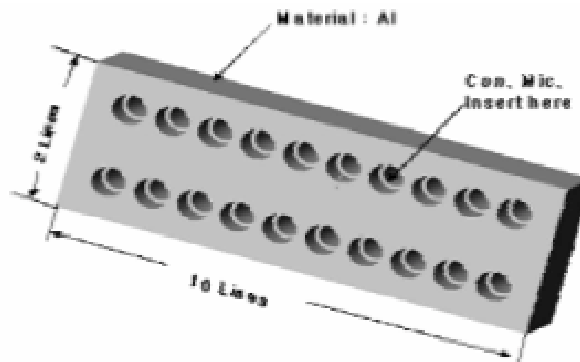
$-20^\circ\text{C}$   $\longleftrightarrow$   $25^\circ\text{C}$   $\longleftrightarrow$   $70^\circ\text{C}$   $\longleftrightarrow$   $-20^\circ\text{C}$   
(2h) (1h) (2h) (1h) (2h) (2h) x 10 cycles

9-6 Packing Drop Test

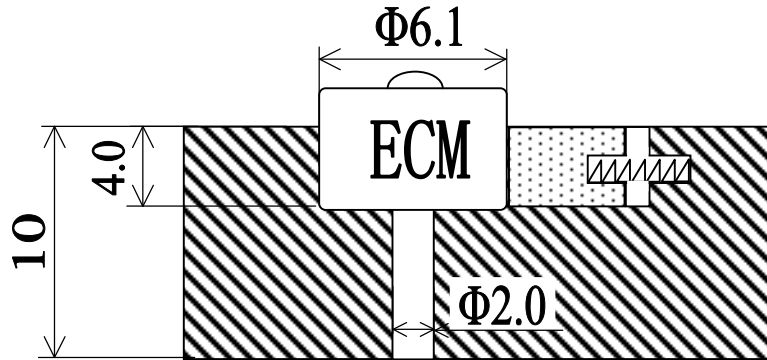
Height : 1m  
Procedure: 5 times from each of axes

**10. Soldering Condition**

- 10.1 We suggest using anti-static welding machine which can control soldering temperature automatically.
- 10.2 Soldering temperature should be controlled under  $320^\circ\text{C}$  and soldering time for each terminal should be 1~2 sec..
- 10.3 Microphone should be fixed on the metal block (heat sink), which has high radiation effects, and heat sink shall contact with MIC tightly.
- 10.4 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)
- 10.5 Heat Sink  
Shape of heat sink



Shape of hole at fixed part



11.	Packing Introduction	Packing chart
	<p><b>DIMENSION:(LENGTH*WIDTH *HEIGHT)</b></p> <p>Anti-Static Bag:: 80mm*80mm*2mm</p> <p>SMALL BOX 85mm*85mm*10mm</p> <p>MID BOX: 175mm*85mm*50mm</p> <p>CARTON SIZE: 550mm*230mm*235mm</p> <p><b>QUANTITY AND WEIGHT</b></p> <p>100PCS/ SMALL BOX</p> <p>1000PCS/MID BOX</p> <p>30000PCS/CARTON</p> <p>1PC=0.3g</p> <p>NET WEIGHT : 9.0kg</p> <p>GROSS WEIGHT : 13.0kg</p> <p><b>Label Stipulation</b></p> <p>CONTENTS SHOULD BE SEEN CLEAR.</p>	<p><b>Packing chart</b></p> <p>X1</p> <p>100PCS → X10</p> <p>1000PCS → X30</p> <p>30000PCS →</p>