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.）	PVM6050UB-5C504S		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

Revision History			
Version	Date	Description	Author
V 00	2022.08.02	Creation	VIVIAN

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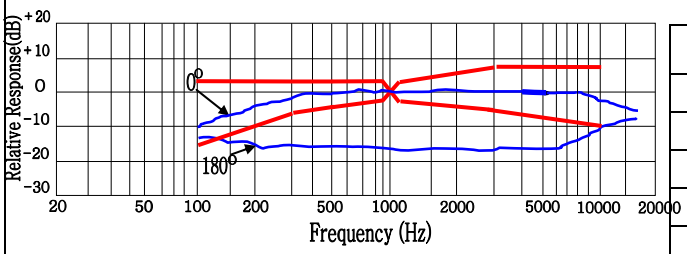
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1.	**Name：**	Unidirectional Back Electret Condenser Microphone		
2.	**Model No.**	**PVM6050UB-5C504S**	**C1=10PF**	**C2=33PF**
3.	**Scope：**	This specification applies back electret condenser microphone（Temp=20±2℃Room Humidity=65±5%）		

No	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
3.1	Sensitivity	S	0dB=1V/Pa，at 1kHz	-54	-50	-46	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}=3.0V to2.0V			-3	dB
3.6	Operating Voltage			1.0		10	V
3.7	Maximum input S.P.L					110	dB
3.8	Directional Sensitivity		1 kHz @ 180 degree	10			dB
3.9	Typical Frequency Response Curve						

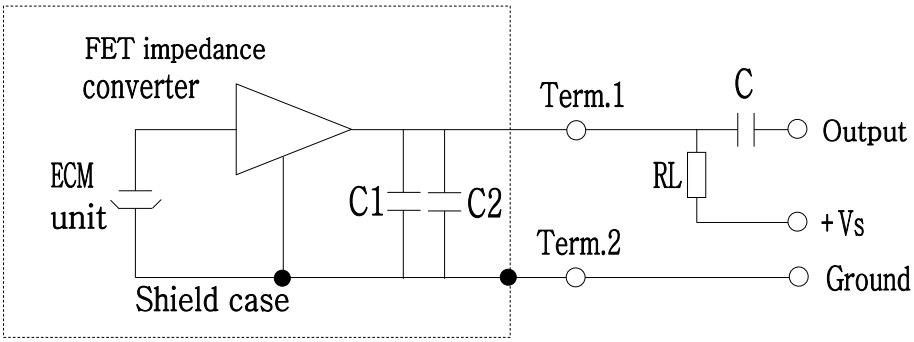
Frequency Response



Microphone Response Tolerance Window

Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
100	-15	+3
800	-4	+3
1000	0	0
1200	-4	+4
3000	-5	+8
5000	-6	+8
10000	-10	+8

3.9 Measurement Circuit



R_L=2.2KΩ

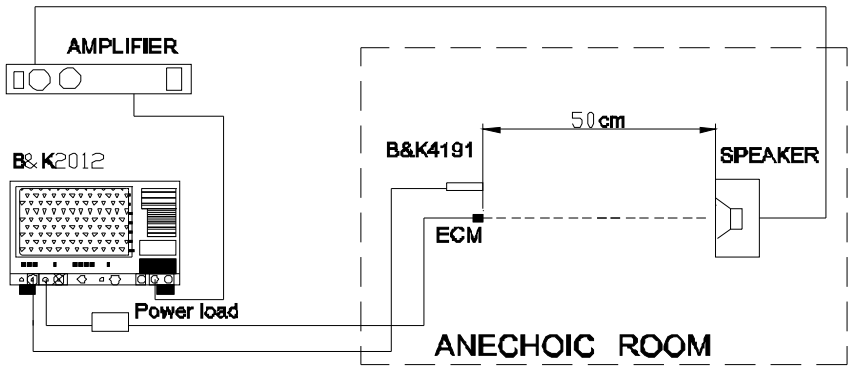
Vs =2.0V

C1=10PF

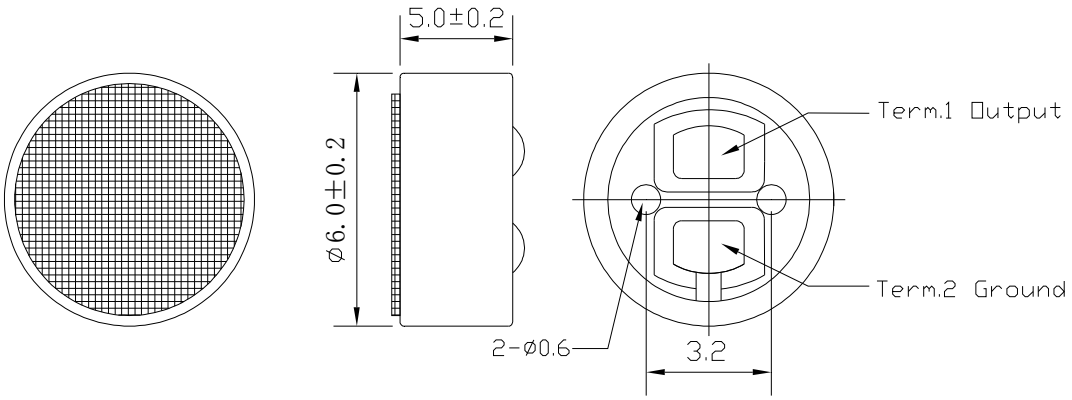
C2=33PF

C=1μF

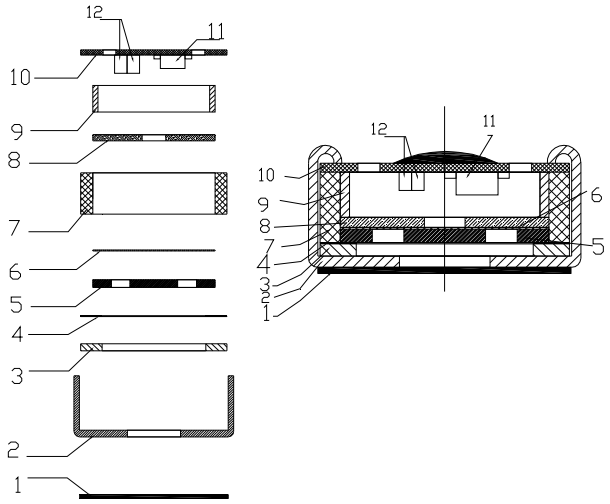
4. **Test Setup Drawing**



5. **Appearance And Dimension** **Unit：mm**



6. **Drawing**



No.	Name	Material	QTY	Remark
12	CAP	10 PF +33PF	2	0402
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	

7. **Temperature Conditions**

Storage Temperature Range	Operation Temperature Range
-40℃ ~ +85℃	-40℃ ~ +85℃

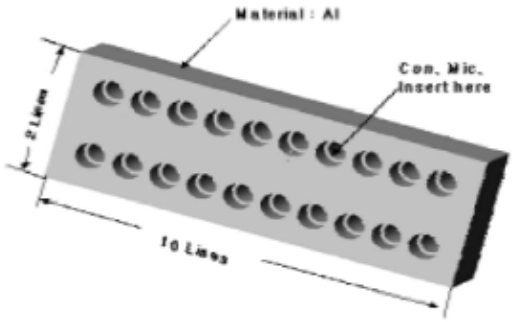
8. **Terminal Mechanical Strength**

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

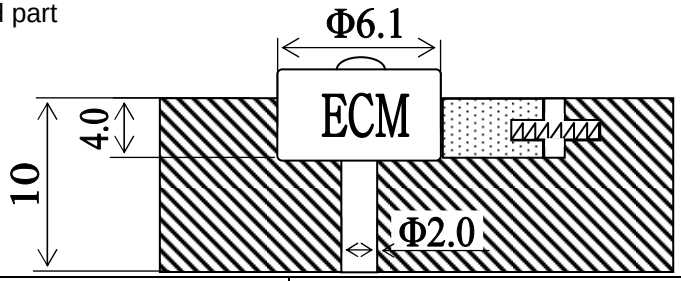
9.	**Reliability Test** After each of following test, the sensitivity of the microphone should be within ±3dB of initial sensitivity after 3hours of conditioning at 20℃. 1. Vibration Test Frequency : 10Hz~55Hz Amplitude : 1.52mm Change of Frequency : 1 octave/min 2 hours in each of axes 2. High Temperature Test +85℃ for 240 hours. 3. Low Temperature Test -40℃ for 240 hours. 4. Humidity Test 90%～95%RH,+60℃ for 240 hours. 5. Thermal shocking test –40°C, 30 minutes ↔ +80°C, 30 minutes, repeated 32 cycles → room temperature, 3 hours. 6.Temperature Cycles -40℃ ⟷ +20℃ ⟷ +85℃ ⟷ +20℃ ⟷ -40℃ (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℃ 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).

10.

5. Shape of heat sink



Shape of hole at fixed part



11.

Packing Introduction

DIMENSION:(LENGTH*WIDTH *HEIGHT)

Anti-Static Bag::

80mm*80mm*2mm

SMALL BOX

85mm*85mm*10mm

MID BOX:

175mm*85mm*50mm

CARTON SIZE:

550mm*230mm*235mm

QUANTITY AND WEIGHT

100PCS/ SMALL BOX

1000PCS/MID BOX

30000PCS/CARTON

1PC=0.30g

NET WEIGHT：9.0kg

GROSS WEIGHT：12.0kg

Label Stipulation

CONTENTS SHOULD BE SEEN CLEAR.

Packing chart

