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.）	PVM8050UB-3504A		
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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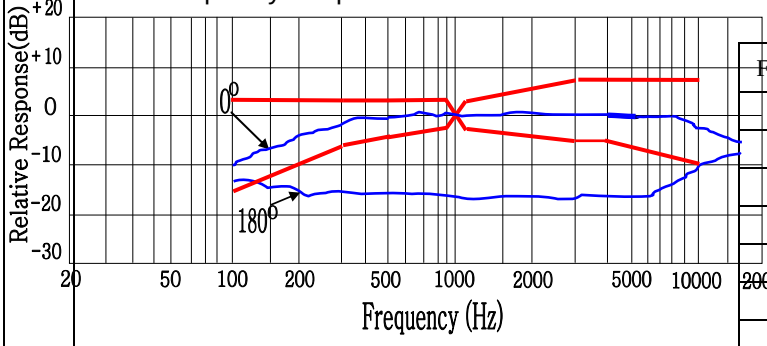
Design：*VIVIAN* **Checked：*VIVIAN*** **Approval：*VIVIAN***

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1.	**Name：**	Unidirectional Back Electret Condenser Microphone
2.	**Model No.**	**PVM8050UB-3504A**
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} =1.5V,R_L=680Ω			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 to 2.0V			-3	dB
3.6	Operating Voltage			1.0		10	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						

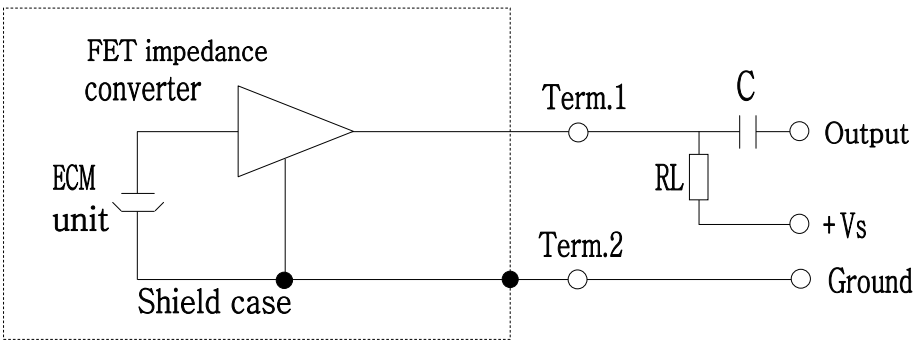
Frequency Response



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

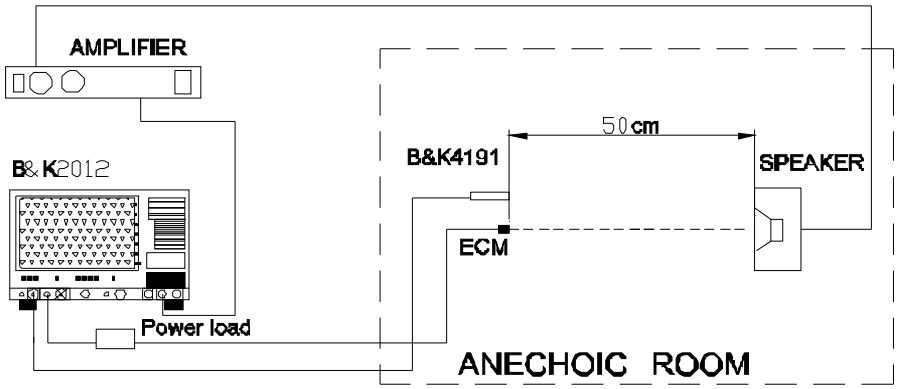


R_L=680KΩ

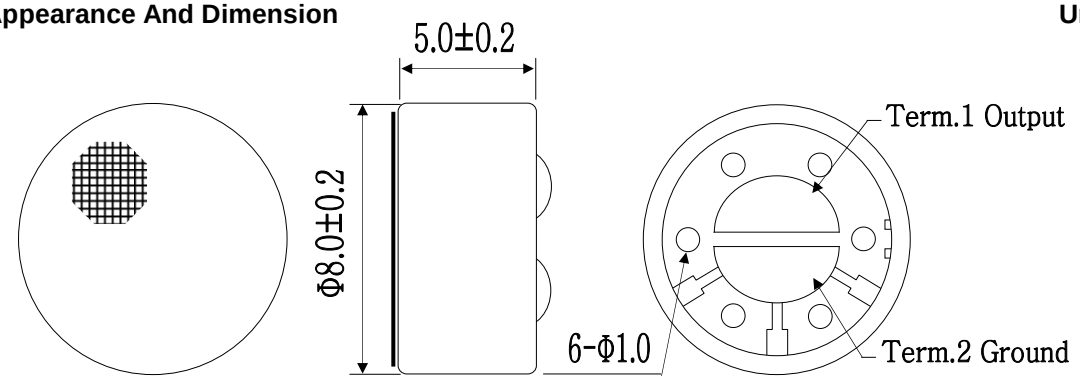
Vs =1.5V

C=1μF

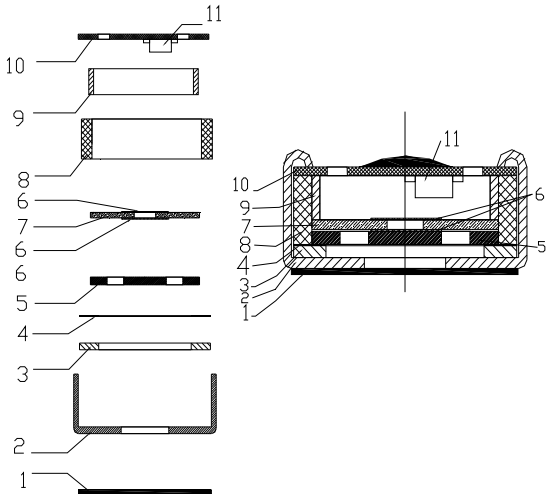
4. **Test Setup Drawing**



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



6. **Drawing**



No.	Name	Material	QTY	Remark
11	FET		1	
10	P.C.B		1	FR-4
9	Copper ring	Copper tube	1	
8	HOUSPING CHAMBER	Gather formaldehyde	1	
7	one bore pole blank	Copper blank	1	
6	Damping net		1	
5	ELECTRET BACK	Copper blank	1	
4	SPACER	Mylar	1	
3	POLARIZED DIAPHRAGM	DUPONT	1	
2	CASE	Al-Mg alloy	1	
1	FELT	Fabric cloth	1	

7. **Temperature Conditions**

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

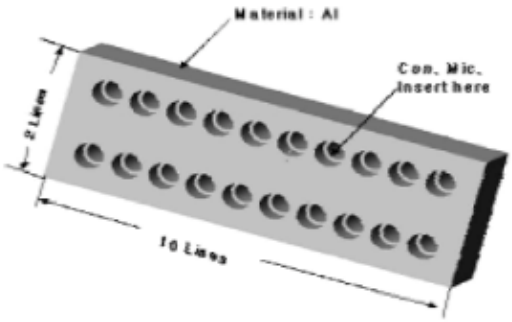
8. **Terminal Mechanical Strength**

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

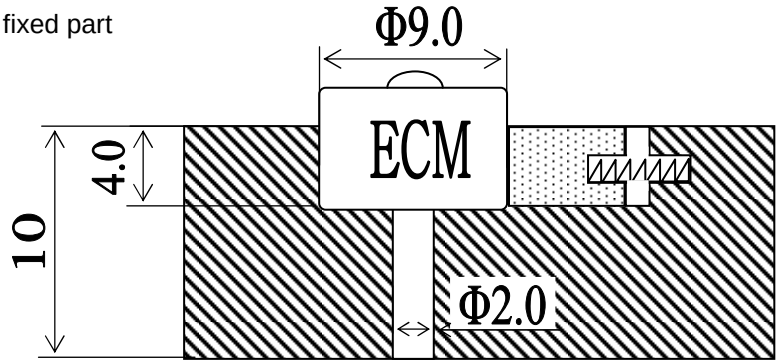
9.	**Reliability Test** After each of following test, the sensitivity of the microphone should be within ±3dB of initial sensitivity after 3hours of conditioning at 20℃. 1. Vibration Test Frequency : 10Hz~55Hz Amplitude : 1.52mm Change of Frequency : 1 octave/min 2 hours in each of axes 2. High Temperature 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	**Packing chart**
DIMENSION:(LENGTH*WIDTH *HEIGHT) a. SMAIL PACKET 100mm*100mm*10mm b. MID PACKET: 205mm*150mm*50mm c. PAPER CASE: 550mm*230mm*235mm **EQUIPMENT** a) ADHENSIVE TAPE MACHINE b) AUTO PACKER **PACKING INTRODUCTION** c) 100PCS/ SMAIL PACKET d) 1000PCS/MID PACKET e) 20000PCS/PAPER CASE **QUANTITY INTRODUCTION** f) 1PC=0.6g g) NET WEIGHT：12.0kg GROSS WEIGHT：15.0kg **LABEL STIPULATION** LABELEDEVERY BOXES (SEE THE CHART) DIMENSIONS SHOULD BE SEEN EASILY.	