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.）	PVM6027NB-DC514S		
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

❑紘立企業有限公司 *E-mail:* vecot@veco.com.tw

Vansonic Enterprise Co., Ltd. Tel: +886-2-2267 2389 Fax: +886-2-2267 2588

✓佛山鋐利電子有限公司 *E-mail*: vecof@vansonic.net *Office*: fs_sales@veco.com.cn

Vanson Electronics(Nanhai)Co., Ltd. Tel: +86-757-8853 6828 Fax: +86-757-8853 6826

❑重慶弘立電子有限公司 *E-mail*: cq_sales@veco.com.cn

Vanson Electronics (ChongQing)Co.,Ltd. Tel: +86-023-49521999 Fax: +86-023-49655990

❑合肥宏立電子有限公司 *E-mail*: reception@veco-hf.com

HeFei Vanson Electronics Inc. Tel: +86-551-568 9589 Fax: +86-551-568 9593

Design：*VIVIAN* **Checked：*VIVIAN*** **Approval：*VIVIAN***

VANSONIC ENTERPRISE CO.,LTD.
3F., No. 123, Zhongcheng Rd., Tucheng Dist., New Taipei City, Taiwan.
E-mail: vecot@veco.com.tw http://www.veco.com.tw
TEL: +886-2-2267 2389 FAX: +886-2-2267 2588

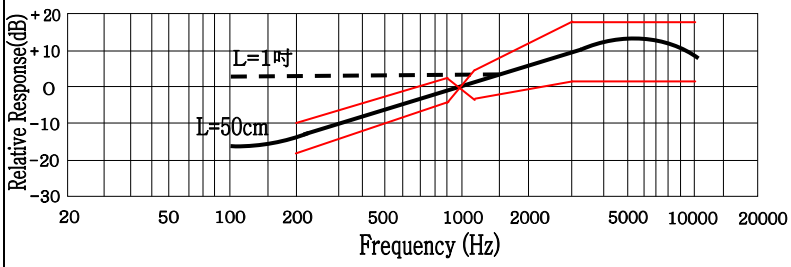
1.	**Name：**	Noise Cancelling Back Electret Condenser Microphone	
2.	**Model No.**	**PVM6027NB-DC514S**	**C1=33PF**

3. Electrical characteristics （Temp=20±2℃Room Humidity=65±5%）

	Parameter	Symbol	Condition	Limits			Unit
				Min.	Center	Max.	
3.1	Sensitivity	S	0dB=1V/Pa，at 1kHz	-55	-51	-47	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)	50			dB
3.5	Decreasing Voltage	ΔS	V_{CC}=2.0V to1.5V			-3	dB
3.6	Operating Voltage			1.0		10	V
3.7	Maximum input S.P.L					110	dB
3.9	Typical Frequency Response Curve						

Typical Frequency Response Curve

Frequency Response （L=50CM）

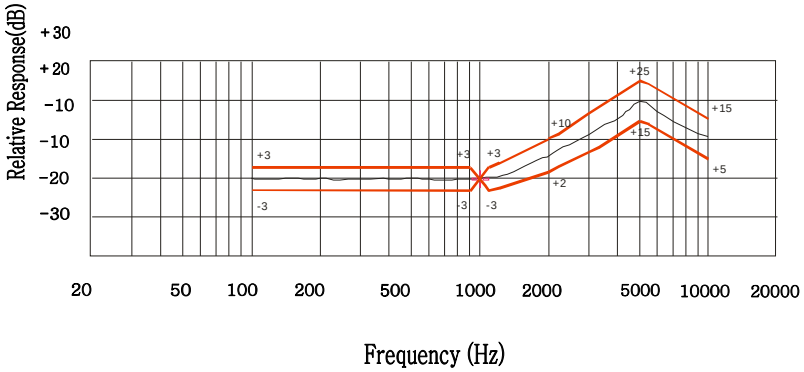


Microphone Response Tolerance Window

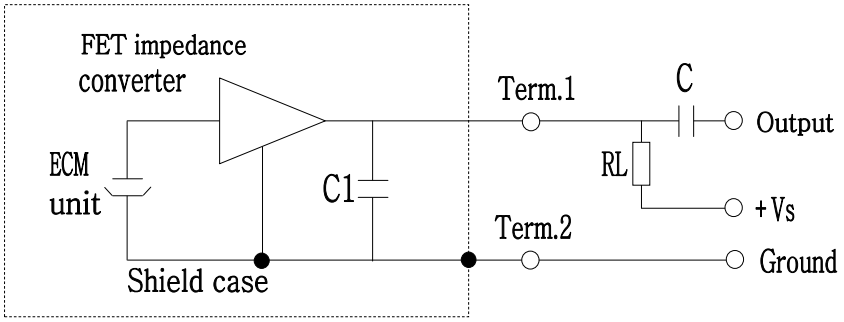
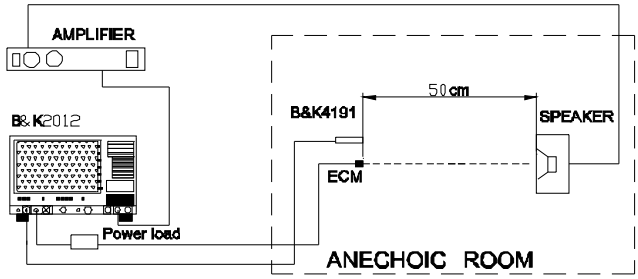
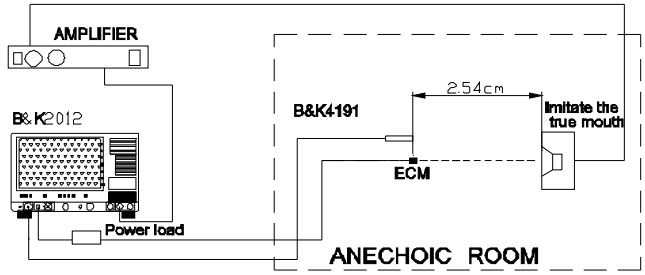
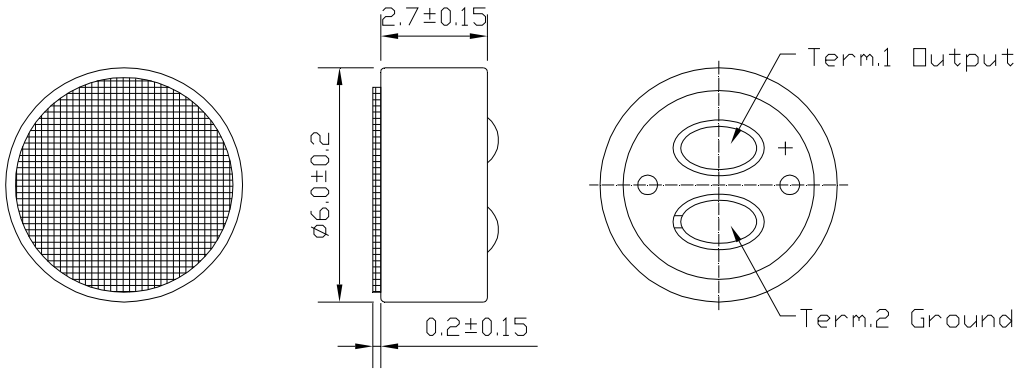
Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
200	-18	-10
800	-6	+2
1000	0	0
1200	-4	+4
3000	+2	+18
5000	+2	+18
10000	+2	+18

Frequency Response （L=2.54CM）

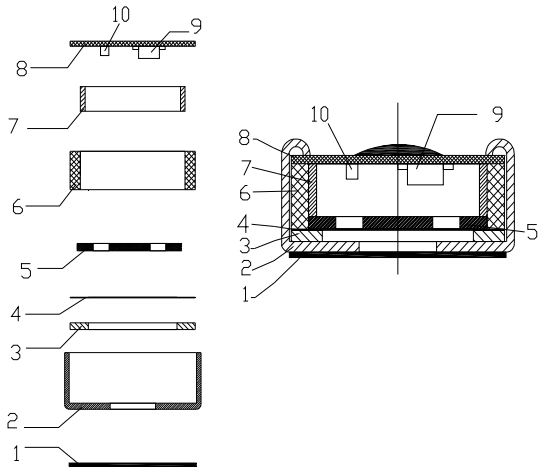
Microphone Response Tolerance Window



Frequency(Hz)	Lower Limit(dB)	Upper Limit(dB)
100	-3	+3
1000	0	0
2000	+2	+10
5000	+15	+25
10000	+5	+15

	3.9	Measurement Circuit	
			R_L=2.2KΩ Vs =3.0V C1=33PF C=1μF
4.	**Test Setup Drawing** **L=50CM**  **L=2.54CM** 		
5.	**Appearance And Dimension** **Unit：mm** 		

6. Drawing



No.	Name	material	QTY	Remark
10	Capacitor	33pf	1	
9	FET		1	
8	PCB		1	
7	Copper ring		1	
6	Chamber		1	
5	Electret Plate		1	
4	Spacer		1	
3	Diaphragm		1	
2	Case	Al-Mg alloy	1	
1.	Dustproof gauze		1	

7. Temperature Conditions

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

Note: Store in electronic warehouse.

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.

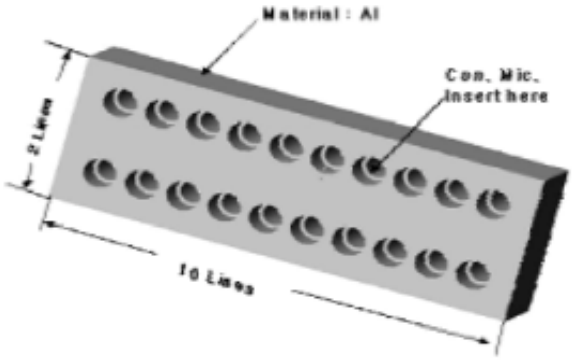
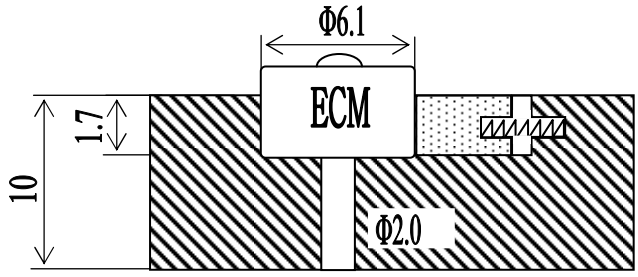
6. Temperature Cycles

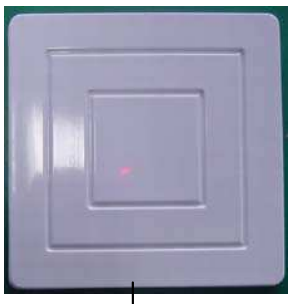
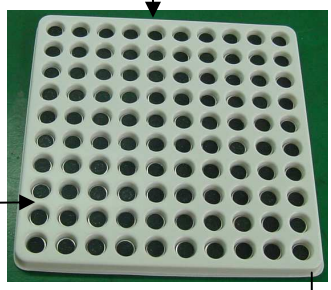
   -40℃ ⟷ +20℃ ⟷ +85℃ ⟷ +20℃ ⟷ -40℃

   (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
	1. DIMENSION:(LENGTH*WIDTH *HEIGHT) 2.1 SMALL PACKET 100mm*100mm*7mm 2.2 MID PACKET: 205mm*105mm*50mm 2.3 PAPER CASE: 550mm*230mm*235mm **2. EQUIPMENT** 2.1 ADHENSIVE TAPE MACHINE 2.2 AUTO PACKER **3. PACKING INTRODUCTION** 2.1 100PCS/ INHALE PLASTIC BOX 2.2 1400PCS/MID PACKET 2.3 28000PCS/PAPER CASE **4. QUANTITY INTRODUCTION** 2.1 1PC=0.25g 2.2 NET WEIGHT：7.0kg GROSS WEIGHT：10 kg **6. LABEL STIPULATION** a) LABELEDEVERY BOXES (SEE THE CHART) b) DIMENSIONSSHOULDBESEEN EASILY.	 X1  100PCS X14 注意麦克风的防尘布向上  1400PCS X20  28000PC ELECTRET CONDENSER MICROPHONE