



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.)	PVM9750NB-7383G		
客戶承認簽章 Customer Approval Signature	In Charge	Checked	Approval

Revision History			
Version	Date	Description	Author
V 00	2023.05.29	creation	VIVIAN

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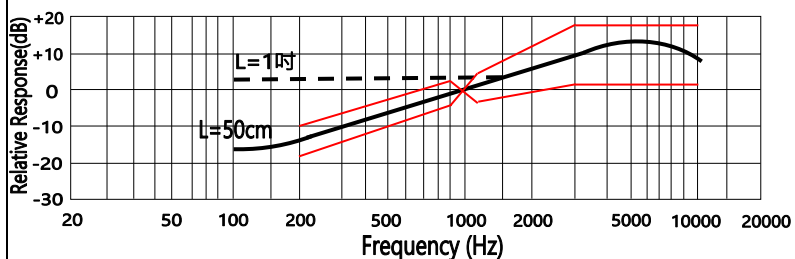
VANSONIC ENTERPRISE CO.,LTD.

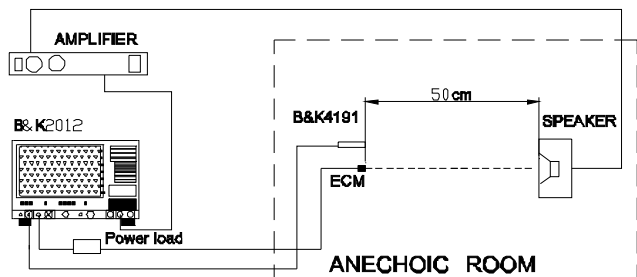
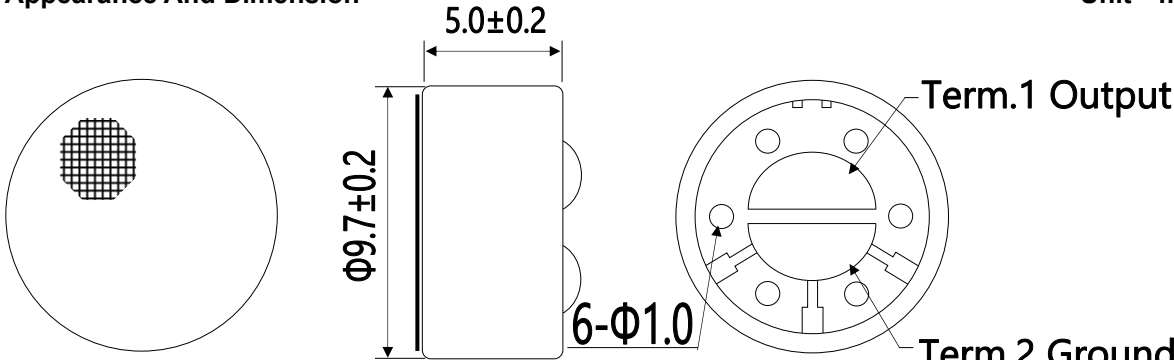
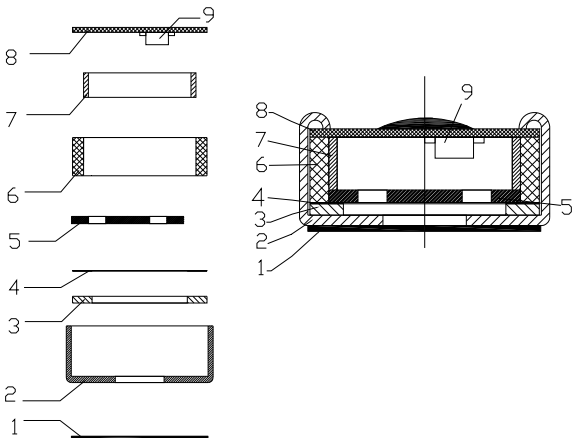
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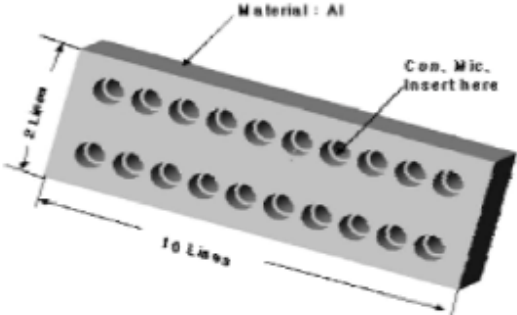
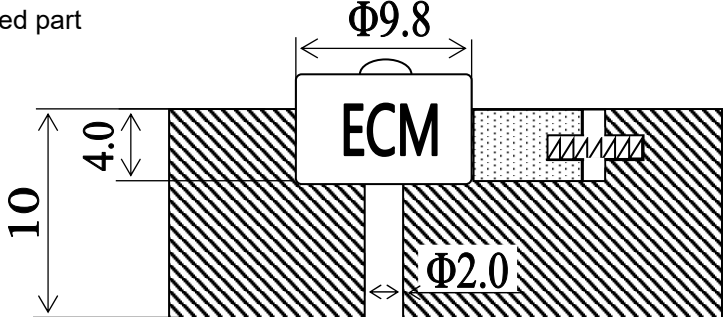
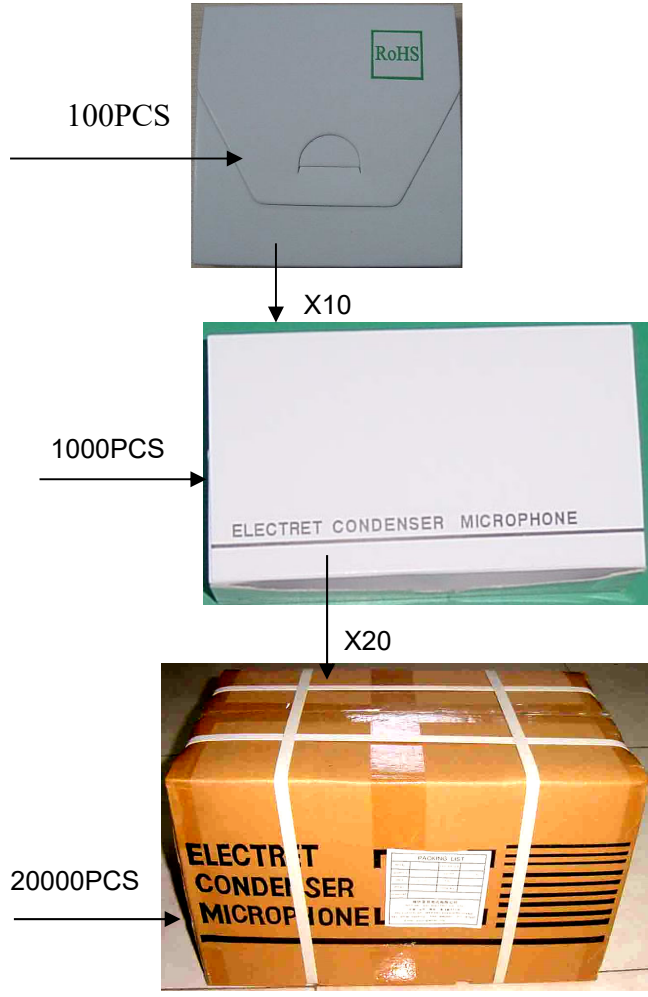
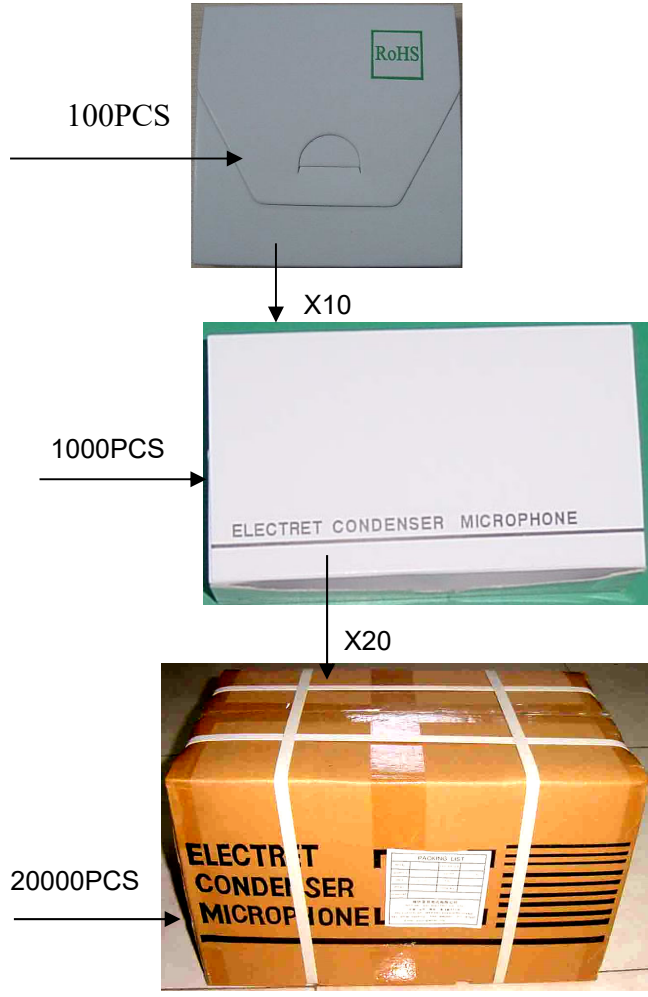
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1.	Name :	Noise Cancelling Back Electret Condenser Microphone																													
2.	Model No.	PVM9750NB-7383G																													
3.	Electrical characteristics		(Temp=20±2℃ Room Humidity=65±5%)																												
	Parameter	Symbol	Condition	Limits			Unit																								
				Min.	Center	Max.																									
3.1	Sensitivity	S	0dB=1V/Pa · at 1kHz	-41	-38	-35	dB																								
3.2	Output impedance	Z out	f=1kHz			2.2	KΩ																								
3.3	Current Consumption	I _{DSS}				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																								
3.9	Typical Frequency Response Curve																														
Typical Frequency Response Curve Frequency Response (L=50CM)  Microphone Response Tolerance Window <table><thead><tr><th>Frequency(Hz)</th><th>Lower Limit(dB)</th><th>Upper Limit(dB)</th></tr></thead><tbody><tr><td>200</td><td>-18</td><td>-10</td></tr><tr><td>800</td><td>-6</td><td>+2</td></tr><tr><td>1000</td><td>0</td><td>0</td></tr><tr><td>1200</td><td>-4</td><td>+4</td></tr><tr><td>3000</td><td>+2</td><td>+18</td></tr><tr><td>5000</td><td>+2</td><td>+18</td></tr><tr><td>10000</td><td>+2</td><td>+18</td></tr></tbody></table>								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
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3.9	Measurement Circuit																														
FET impedance converter ECM unit Shield case Term.1 Term.2 C RL Output +Vs Ground							RL=2.2KΩ																								
							Vs =2.0V																								
							C=1μF																								

4.	Test Setup Drawing L=50CM 																																																		
5.	Appearance And Dimension Unit : mm 																																																		
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7.	Temperature Conditions <table><tr><td>Storage Temperature Range</td><td>Operation Temperature Range</td></tr><tr><td>-40℃ ~ +85℃</td><td>-40℃ ~ +85℃</td></tr></table> Note: Store in electronic warehouse.	Storage Temperature Range	Operation Temperature Range	-40℃ ~ +85℃	-40℃ ~ +85℃																																														
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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 $\pm 3\text{dB}$ 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 $-40^{\circ}\text{C} \longleftrightarrow +20^{\circ}\text{C} \longleftrightarrow +85^{\circ}\text{C} \longleftrightarrow +20^{\circ}\text{C} \longleftrightarrow -40^{\circ}\text{C}$ (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 1~2 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.	<table border="1"> <thead> <tr> <th data-bbox="210 878 801 922">Packing Introduction</th><th data-bbox="807 878 1457 922">Packing chart</th></tr> </thead> <tbody> <tr> <td data-bbox="210 931 801 1924"> DIMENSION:(LENGTH*WIDTH *HEIGHT) Small box 100mm*100mm*10mm Middle box : 205mm*150mm*50mm Carton size: 550mm*230mm*235mm Quantity and Weight 100PCS/ Small box 1000PCS/ Middle box 20000PCS/ Carton 1PC=0.7g NET WEIGHT : 14.0kg GROSS WEIGHT : 16.0kg Label Stipulation CONTENTS SHOULD BE SEEN CLEAR. </td><td data-bbox="807 931 1457 1924">  </td></tr> </tbody> </table>	Packing Introduction	Packing chart	DIMENSION:(LENGTH*WIDTH *HEIGHT) Small box 100mm*100mm*10mm Middle box : 205mm*150mm*50mm Carton size: 550mm*230mm*235mm Quantity and Weight 100PCS/ Small box 1000PCS/ Middle box 20000PCS/ Carton 1PC=0.7g NET WEIGHT : 14.0kg GROSS WEIGHT : 16.0kg Label Stipulation CONTENTS SHOULD BE SEEN CLEAR.	
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