

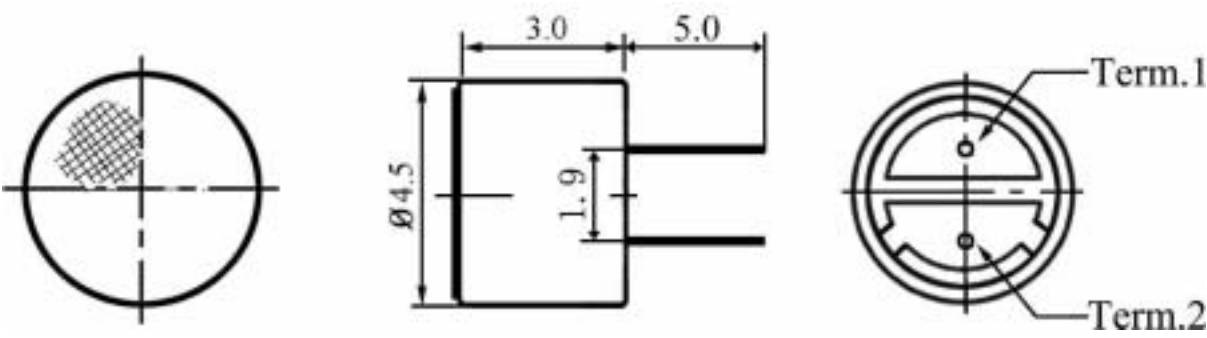
VECO VANSONIC ENTERPRISE CO.,LTD.

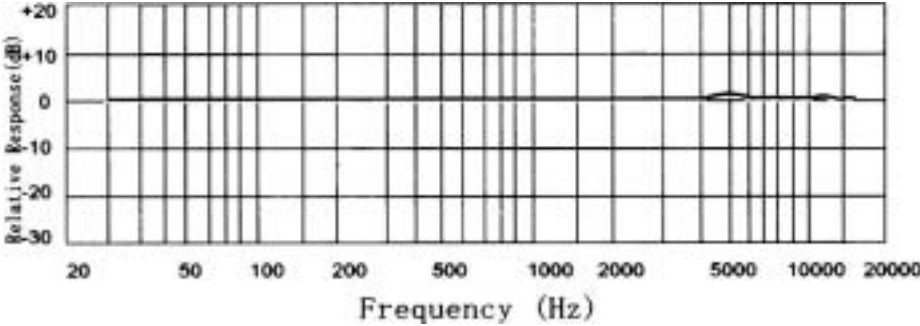
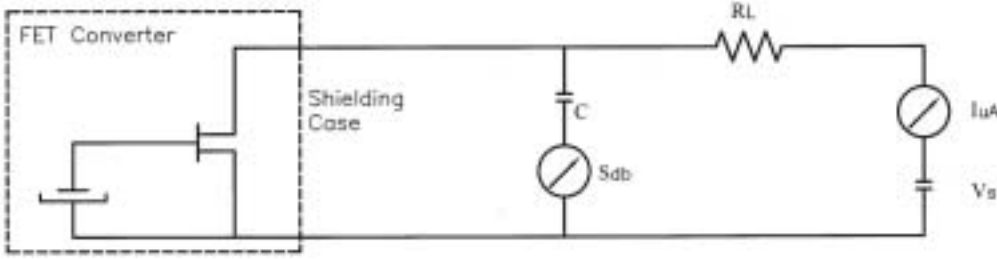
8F., No.7, Lane 16, Sec.2, Szechwan Road, Panchiao, Taipei Hsien, TAIWAN.

E-mail: Vansonics@ms4.hinet.net Homepage: <http://www.vecoco.com.tw>

TEL: +886-2-962 6335

FAX: +886-2-962 5220

1.	適用範圍 Scope	本規格書適用於駐極體電容式麥克風 This specification applies electret condenser microphone					
2.	型號 Model No.	VM-4530-2P ()					
3.	試驗條件 Test Condition						
	3-1 標準試驗條件 Standard Test Condition	溫度 / Temperature : 5~35 相對濕度/Rel. Humidity : 45~85%(RH) 氣壓 / Pressure : 86~106KPa					
	3-2 判定試驗條件 Judgment Test Condition	溫度 / Temperature : 20±2 相對濕度/Rel. Humidity : 60~70%(RH) 氣壓 / Pressure : 86~106Kpa					
4.	規格 Specifications						
	4-1 尺寸 Dimension	4.5×3.0(±0.2)mm					
	4-2 FET Model:	SANYO TF-202					
	4-3 指向性 Directivity	Omni-directional					
	4-4 靈敏度 Sensitivity						at L=50cm
		-36±3dB	-38±3dB	-40±3dB	-42±3dB	-44±3dB	-46±3dB 0dB=1V/Pa, 1KHz
	4-5 尺寸圖 Appearance and Dimension	Unit : mm					
							
	4-6 負載阻抗 Operating Impedance	2.2K					
	4-7 基準電壓 standard Power Supply	3.0V					
	4-8 操作電壓 Operating Voltage	D.C 1~10V (Sensitivity Reduction: Within -3dB at 1.0V Compare to 3.0V)					
	4-9 頻響特性 Frequency	50-20,000Hz					
	4-10 耗電流 Current Consumption	Max. 0.5mA					

4-11 信噪比 S/N Ratio	More than 58dB																
4-12 最大輸入聲壓 Max input sound level	120dB SPL																
4-13 周波數特性	Typical Frequency Response Curve <div style="text-align: center;">全指向性</div> 																
4-14 回路圖	Test Circuit 																
5.	信賴性試驗 Reliability Test 經過以下所有試驗在 20 的條件下放置 3 小時後，麥克風的靈敏度與試驗前比較變化在± 3dB 以內。 After any following tests, the sensitivity of the microphone to be within ±3dB of initial sensitivity after 3hours of conditioning at 20 . <table border="1" data-bbox="188 1388 1493 2161"> <tr> <td data-bbox="188 1388 517 1641">5-1 振動試驗 Vibration</td> <td colspan="2" data-bbox="517 1388 1493 1641"> 周波數 1/ Frequency1 : 10Hz~55Hz 振幅 / Amplitude : ±0.15mm 周波數 2/ Frequency2 : 55Hz~150Hz 加速度 /Acceleration : 20m/s² 變化 /Change of Frequency : 1 octave/min 3 方向，各 2 小時/2 hours in each of 3 axes </td> </tr> <tr> <td data-bbox="188 1641 517 1845">5-2 衝擊試驗 Shocks</td> <td colspan="2" data-bbox="517 1641 1493 1845"> 脈衝波形 /Pulse shape : half sinusoidal 脈衝幅 / Pulse duration : 11ms 加速度 /Acceleration : 150m/s² 回數 /Number of jolts : 10 in each of 3 axes (5 in positive and 5 in negative direction) </td> </tr> <tr> <td data-bbox="188 1845 517 1962">5-3 高溫試驗/低溫試驗 Dry Heat/Cold</td> <td colspan="2" data-bbox="517 1845 1493 1962"> +70 for 72 hours -20 for 72 hours </td> </tr> <tr> <td data-bbox="188 1962 517 2063">5-4 高溫高濕試驗 Damp Heat</td> <td colspan="2" data-bbox="517 1962 1493 2063"> 90% RH,+40 for 240 hours </td> </tr> <tr> <td data-bbox="188 2063 517 2161">5-5 溫度迴圈試驗 Temperature cycles</td> <td colspan="2" data-bbox="517 2063 1493 2161"> -20 ↔ 25 ↔ 70 (2H) (1H) (2H) (1H) (2H) 10 cycles </td> </tr> </table>		5-1 振動試驗 Vibration	周波數 1/ Frequency1 : 10Hz~55Hz 振幅 / Amplitude : ±0.15mm 周波數 2/ Frequency2 : 55Hz~150Hz 加速度 /Acceleration : 20m/s ² 變化 /Change of Frequency : 1 octave/min 3 方向，各 2 小時/2 hours in each of 3 axes		5-2 衝擊試驗 Shocks	脈衝波形 /Pulse shape : half sinusoidal 脈衝幅 / Pulse duration : 11ms 加速度 /Acceleration : 150m/s ² 回數 /Number of jolts : 10 in each of 3 axes (5 in positive and 5 in negative direction)		5-3 高溫試驗/低溫試驗 Dry Heat/Cold	+70 for 72 hours -20 for 72 hours		5-4 高溫高濕試驗 Damp Heat	90% RH,+40 for 240 hours		5-5 溫度迴圈試驗 Temperature cycles	-20 ↔ 25 ↔ 70 (2H) (1H) (2H) (1H) (2H) 10 cycles	
5-1 振動試驗 Vibration	周波數 1/ Frequency1 : 10Hz~55Hz 振幅 / Amplitude : ±0.15mm 周波數 2/ Frequency2 : 55Hz~150Hz 加速度 /Acceleration : 20m/s ² 變化 /Change of Frequency : 1 octave/min 3 方向，各 2 小時/2 hours in each of 3 axes																
5-2 衝擊試驗 Shocks	脈衝波形 /Pulse shape : half sinusoidal 脈衝幅 / Pulse duration : 11ms 加速度 /Acceleration : 150m/s ² 回數 /Number of jolts : 10 in each of 3 axes (5 in positive and 5 in negative direction)																
5-3 高溫試驗/低溫試驗 Dry Heat/Cold	+70 for 72 hours -20 for 72 hours																
5-4 高溫高濕試驗 Damp Heat	90% RH,+40 for 240 hours																
5-5 溫度迴圈試驗 Temperature cycles	-20 ↔ 25 ↔ 70 (2H) (1H) (2H) (1H) (2H) 10 cycles																

	5-6 熱衝擊試驗 Rapid Temperature Change	Low:-20 , high:+70 放置時間 /Dwell time :30 min 10 cycles 移行時間 /Transfer time (-20~70):30 sec
6	備註 Note	
	6-1 動作溫度範圍 Operation Temperature	-20 ~70
	6-2 保存溫度範圍 Storage Temperature	-20 ~70
7.	焊接條件 Soldering Condition	
	7-1 焊接使用小於 20W 的電烙鐵。 The soldering copper of a small type of less than 20W shall be applied.	
	7-2 電烙鐵表面溫度低於 270 。 The temperature of the working surface of the soldering copper shall be below 270	
	7-3 焊接時把麥克風嵌入散熱能力強的金屬塊內。 ECM shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects said heat sink shall contact with of ECM.	
	7-4 焊接時間控制在 3 秒內。 The soldering time for each terminal shall be 3 sec max.	
	7-5 焊接後不能出現針孔。 The pinhole after soldering shall be avoided.	
	7-6 靜電容易破壞麥克風必須採取措施避免（電烙鐵接地，戴靜電環等。） ECM may easily destroyed by the static electricity and the countermeasure for eliminating the static electricity (the ground for soldering copper, for worktable and for human body) shall be executed.	
	7-7 放熱板形狀 Shape of heat sink 	
	7-8 固定部孔形狀 Shape of hole at fixed part 