

# VECO VANSONIC ENTERPRISE CO., LTD.

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

E-mail: [Vansonc@ms4.hinet.net](mailto:Vansonc@ms4.hinet.net) Homepage: <http://www.veco.com.tw>

TEL: +886-2-962 6335

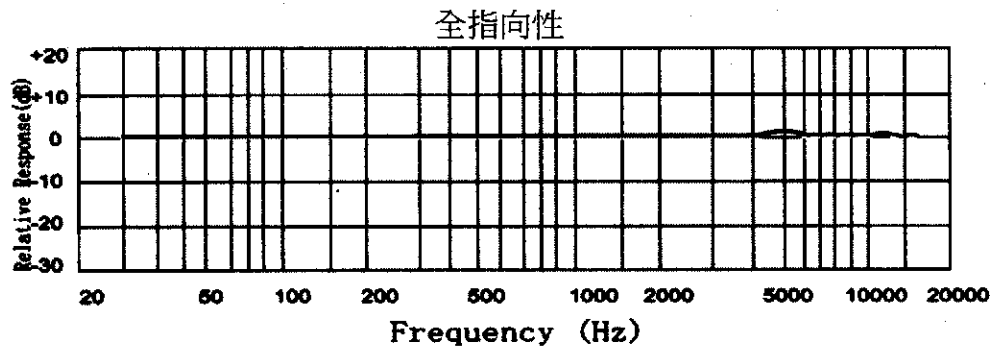
FAX: +886-2-962 5220

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.	<b>VM-6015-1PC</b>					
3.	試驗條件 Test Condition						
	3-1 標準試驗條件 Standard Test Condition	溫度 / Temperature : 5~35°C 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°C 相對濕度/Rel. Humidity : 60~70%(RH) 氣壓 / Pressure : 86~106Kpa					
4.	規格 Specifications						
	4-1 尺寸 Dimension	φ 6.0x1.5(±0.2)mm					
	4-2 FET Model:	SANYO TF-218					
	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
	4-5 尺寸圖 Appearance and Dimension	Unit : mm					
	4-6 負載阻抗 Operating Impedance	2.2KΩ					
	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	50-16,000Hz						
4-10 耗電流 Current Consumption	Max. 0.5mA						
4-11 信噪比 S/N Ratio	More than 58dB						

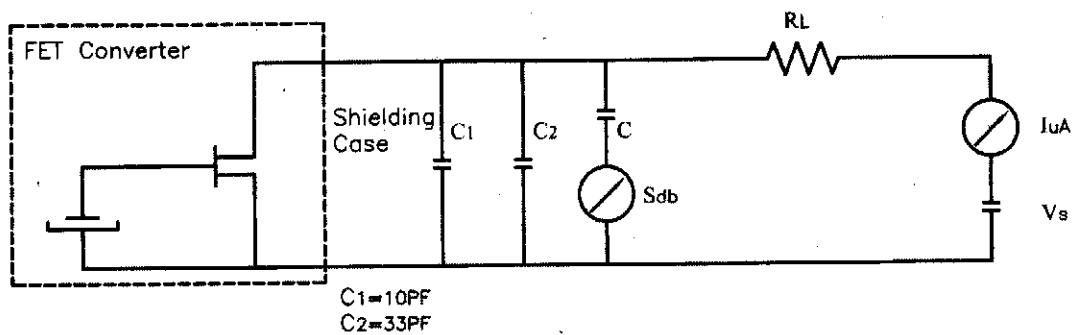
4-12 最大輸入聲壓  
Max input sound level

120dB SPL

4-13 周波數特性 Typical Frequency Response Curve



4-14 回路圖 Test Circuit

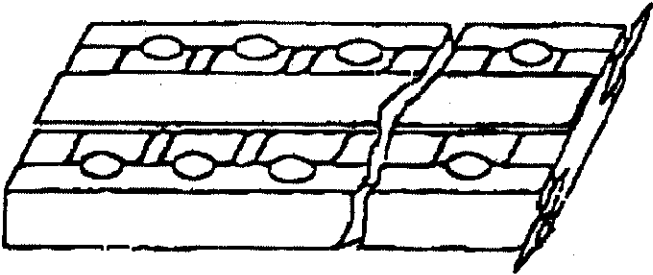


5. 信賴性試驗 Reliability Test

經過以下所有試驗在 20°C 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 3 hours of conditioning at 20°C.

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 <sup>2</sup> 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 <sup>2</sup> 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°C for 72 hours -20°C for 72 hours
5-4 高溫高濕試驗 Damp Heat	90% RH, +40°C for 240 hours
5-5 溫度迴圈試驗 Temperature cycles	-20°C ↔ 25°C ↔ 70°C (2H) (1H) (2H) (1H) (2H) 10 cycles

	5-6 熱衝擊試驗 Rapid Temperature Change	Low:-20°C, high:+70°C 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°C~70°C
	6-2 保存溫度範圍 Storage Temperature	-20°C~70°C
7.	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°C。 The temperature of the working surface of the soldering copper shall be below 270°C	
	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 