

VECO VANSONIC ENTERPRISE CO.,LTD.

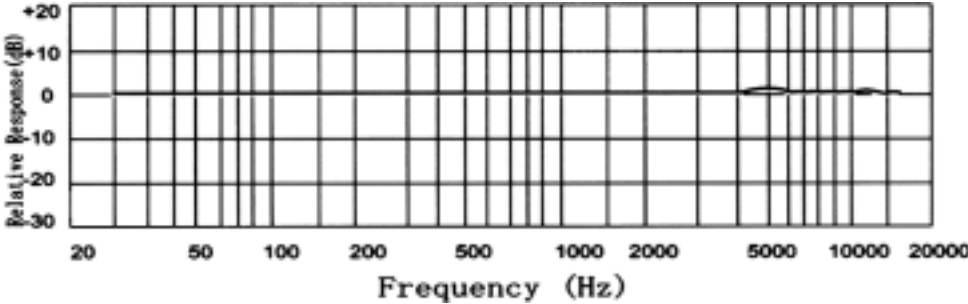
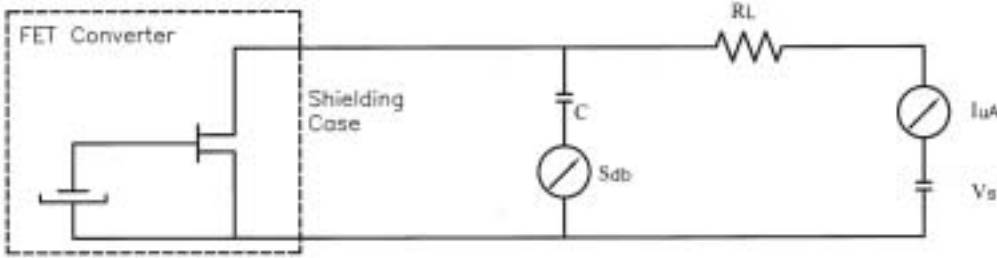
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|----|---------------------------------------|---|---------|---------|---------|---------|----------------------------|
| 1. | 適用範圍 Scope | 本規格書適用於駐極體電容式麥克風 This specification applies electret condenser microphone | | | | | |
| 2. | 型號 Model No. | VM-4020-1P443 | | | | | |
| 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 | 4.5x2.0(±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 | | | | | |

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| 4-11 信噪比 S/N Ratio | More than 60dB | |
| 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 . | | |
| 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 | |

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| | 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  | |