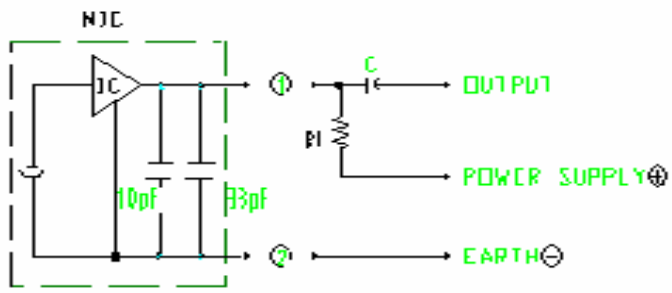
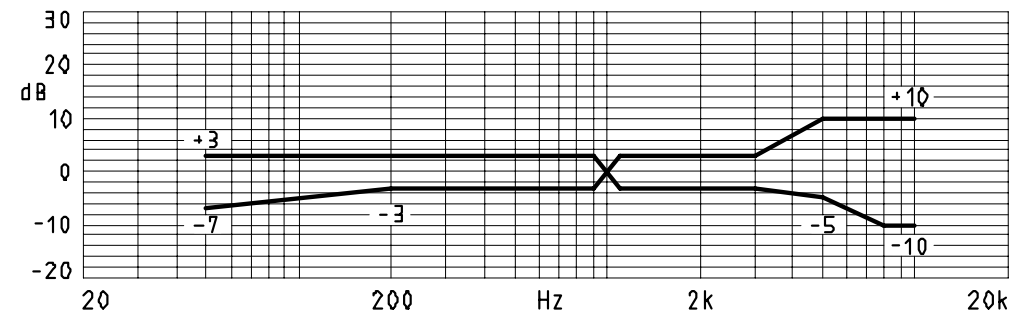
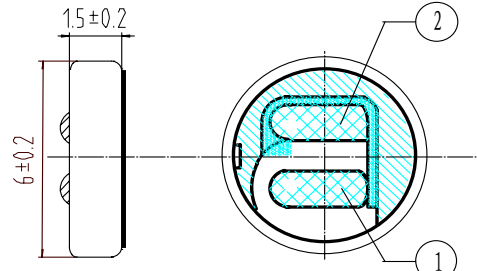


## SPECIFICATION FOR P/N MWB-6015-OX-N (General)

|    |                                |  |
|----|--------------------------------|--|
| 1. | Scope                          | This specification applies electret condenser microphone(E.C.M)  |
| 2. | Model No.                      | MWB-6015-OX-N (General)  |
| 3. | Operation Condition            |  |
|    | 3.1 Temperature                | -20~+70℃   |
|    | 3.2 Rel. Humidity              | 35%~85%RH  |
|    | 3.3 Pressure                   | 86~106KPa  |
|    | 3.4 Environmental Noise        | 36dB(Maximum)  |
|    | 3.5 Operation Voltage          | +1~+10VDC  |
|    | 3.6 Earth                      | ⊖  |
| 4. | Electrical Characteristics     |  |
|    | 4.1 Standard Operation Voltage | +2.0VDC  |
|    | 4.2 Impedance                  | 2.2k Ω (Maximum)   |
|    | 4.3 Current Consumption        | 0.6mA(Maximum)   |
|    | 4.4 Sensitivity                | (0dB=1V/0.1Pa,1KHz)<br>-62±2dB   |
|    | 4.5 Directivity                | Omni-directional   |
|    | 4.6 S/N Ratio                  | 40dB(Minimum)(A-Curve at 1KHz,0.1Pa)   |
|    | 4.7 Test Temperature           | 20℃±2℃   |
|    | Test Rel. Humidity             | 45%~65%RH  |
|    | 4.8 Schematic Diagram          | <div style="text-align: center;">  <p style="text-align: center;">C=1 μ F R1=2.2k Ω</p> </div> |

|  |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
|--|---|-------------|-----------|-----------|--------------|-------------|------------|--------------|-----------|---------------------|-------------|-------------------------|--|
| 4.9 Frequency Response   |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
|                    |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 5. Mechanical Characteristics  |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 5.1 Dimension  | $\phi 6.0 \times 1.5$   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 5.2 Mass   | $\leq 0.5g$   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 5.3 Dimensional Drawing  |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
|                  |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 6. Reliability Tests   |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| The sensitivity to be within $\pm 3dB$ of initial sensitivity after 3 hours of conditioning at 20°C. |   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 6.1 Vibration  | <table border="0"> <tr> <td>Frequency 1</td> <td>10Hz~55Hz</td> </tr> <tr> <td>Amplitude</td> <td><math>\pm 0.15mm</math></td> </tr> <tr> <td>Frequency 2</td> <td>55Hz~150Hz</td> </tr> <tr> <td>Acceleration</td> <td><math>20m/s^2</math></td> </tr> <tr> <td>Change of Frequency</td> <td>1octave/min</td> </tr> <tr> <td colspan="2">2 hrs in each of 3 axes</td> </tr> </table> | Frequency 1 | 10Hz~55Hz | Amplitude | $\pm 0.15mm$ | Frequency 2 | 55Hz~150Hz | Acceleration | $20m/s^2$ | Change of Frequency | 1octave/min | 2 hrs in each of 3 axes |  |
| Frequency 1  | 10Hz~55Hz   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| Amplitude  | $\pm 0.15mm$  |             |           |           |              |             |            |              |           |                     |             |                         |  |
| Frequency 2  | 55Hz~150Hz  |             |           |           |              |             |            |              |           |                     |             |                         |  |
| Acceleration   | $20m/s^2$   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| Change of Frequency  | 1octave/min   |             |           |           |              |             |            |              |           |                     |             |                         |  |
| 2 hrs in each of 3 axes  |   |             |           |           |              |             |            |              |           |                     |             |                         |  |

|                        |  |  |
|------------------------|--|--|
| 6.2 Shocks             | Pulse Shape<br>Pulse Duration<br>Acceleration<br>Number of Jolts   | Half Sinusoidal<br>11ms<br>150m/s <sup>2</sup><br>10 in each of 3 axes |
| 6.3 Dry Heat/Cold      | 70°C for 72 hrs  | -20°C for 72 hrs   |
| 6.4 Damp Heat          | 90%RH,+40°C for 120 hrs  |  |
| 6.5 Temperature Cycles | -20°C ↔ 25°C ↔ 70°C<br>(2h) (1h) (2h) (1h) (2h) 10cycles   |  |
| 7.                     | Cautions   |  |
|                        | 7.1 The soldering copper of a smaller type of less than 20W shall be applied.  |  |
|                        | 7.2 The temperature of the working surface of the soldering copper shall be below 270 °C.  |  |
|                        | 7.3 E.C.M shall be soldered fixed on the metal block (heat sink) which has the higher radiation effects. Said heat sink shall contact with each of E.C.M.  |  |
|                        | 7.4 The soldering time for each terminal shall be 1~2 sec.   |  |
|                        | 7.5 The pin hole soldering shall be avoided.   |  |
|                        | 7.6 E.C.M 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. |  |

| WRTN | CHKD | APVD | DESCRIPTION |
|------|------|------|-------------|
|      |      |      |             |
|      |      |      |             |