

## Microphone RMIC-110-5-4015-NS3

## **General Description**

Ø4.0mm x 1.5mm, Unidirectional Microphone

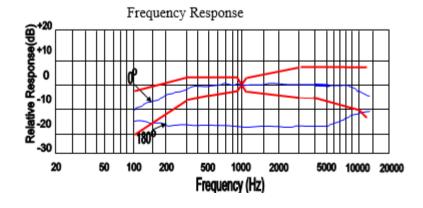




#### **ELECTRICAL SPECIFICATIONS**

| Parameters                  |  |     | Value  |     |      |
|-----------------------------|--|-----|--------|-----|------|
|                             |  | min | center | max | Unit |
| Sensitivity                 | @ 0dB=1V/Pa, @ 1kHz                    | -45 | -42    | -39 | dB   |
| Current Consumption         | @ Vcc =2.0V,RL=2.2kΩ                   |     |        | 500 | μΑ   |
| Output Impedance            | @ f=1kHz                               |     |        | 2.2 | kΩ   |
| Decreasing Voltage          | @ V <sub>CC</sub> =3.0V ~ 2.0V         |     |        | -3  | dB   |
| Signal to Noise Ratio       | @ 1kHz S.P.L=1Pa<br>(A-Weighted Curve) | 58  |        |     | dB   |
| Operating Voltage           |  | 1.4 |        | 5   | V    |
| Input S.P.L, max            |  |     |        | 110 | dB   |
| T-t-111                     | @ 94dB SPL at 1KHz                     |     |        | 1   | %    |
| Total Harmonic Distortion   | @ 115dB SPL at 1kHz                    |     |        | 3   | %    |
| Directional Sensitivity     | @1 kHz @ 180°                          | 10  |        |     | dB   |
| Operating Temperature Range |  | -40 |        | +85 | °C   |
| Storage Temperature Range   |  | -40 |        | +85 | °C   |

### FREQUENCY CHARACTERISTICS



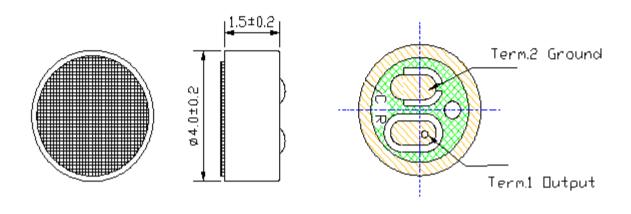
Microphone Response Tolerance Window

| Frequency<br>(Hz) | Lower<br>Limit(dB) | Upper<br>Limit(dB) |
|-------------------|--------------------|--------------------|
| 100               | -20                | -3                 |
| 800               | -4                 | +3                 |
| 1000              | 0                  | 0                  |
| 1200              | -3                 | +3                 |
| 3000              | -5                 | +8                 |
| 5000              | -6                 | +8                 |
| 10000             | -10                | +8                 |

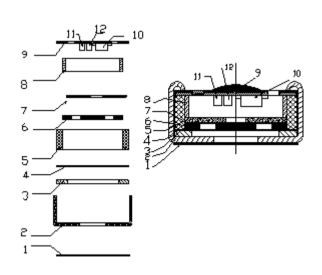


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### **DIMENSIONS AND MATERIAL/STRUCTURE**



Unit: mm

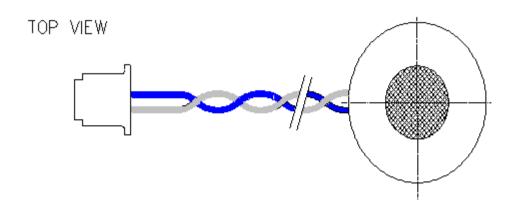


| 12  | Resistance             |          | 1   |
|-----|------------------------|----------|-----|
| 11  | Chip capacitance       |          | 1   |
| 10  | IC                     |          | 1   |
| 9   | P.C.B                  |          | 1   |
| 8   | Copper Ring            |          | 1   |
| 7   | Damping Net            |          | 1   |
| 6   | One Bore Pole<br>Blank |          | 1   |
| 5   | Housping<br>Chamber    |          | 1   |
| 4   | Spacer                 |          | 1   |
| 3   | Polarized<br>Diaphragm |          | 1   |
| 2   | Case                   |          | 1   |
| 1.  | Felt                   |          | 1   |
| No. | Name                   | Material | QTY |

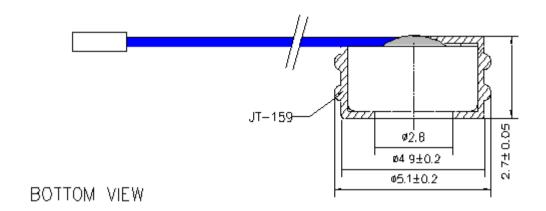


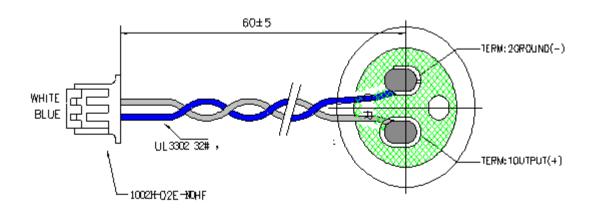
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SIDE VIEW



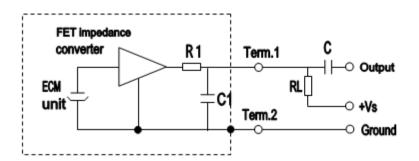




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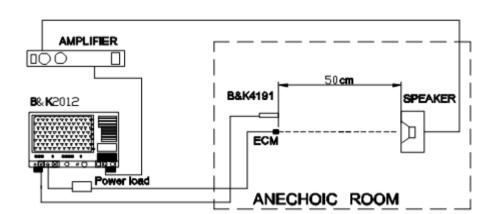
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### MEASUREMENT CIRCUIT



| RL=2.2KΩ |  |
|----------|--|
| Vs =2.0V |  |
| C1=10nF  |  |
| R1=330Ω  |  |

#### MEASUREMENT SETUP DRAWING



### **APPROVAL**

| DRAWN BY    | AR, December 12, 2023 |  |
|-------------|-----------------------|--|
| APPROVED BY | CP, December 12, 2023 |  |
| REVISION    | A, Initial Release    |  |





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