| Miniature Speaker<br>8ohm, 32mm dia.<br>Encased with PCB pins | Part No. | ABS-225-RC |
|---|---|---|
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# 1. ELECTRICAL AND ACOUSTICAL SPECIFICATION

| | Item | Specifications |
|---|---|---|
| 1 | Model: | |
| 2 | Rated Impedance: | 8 ohm ± 15% at 1 V 1kHz |
| 3 | Rated Input Power: | 0.15W |
| 4 | Max Input Power: | 0.3 W Must be normal at a white noise (0.2 W) for one min. |
| 5 | Rated Resonant Frequency: | 1500 Hz ± 20% at 1V |
| 6 | Sensitivity (S.P.L) | 84 dB ± 3 dB (1 W 1 M) Average at 1.2,1.5,1.8,2.2 kHz |
| 7 | Frequency Range: | Fo to 20000 Hz 10 dB Dev |
| 8 | Distortion: | < 5% at 1 kHz 1 V |
| 9 | Magnet: | 16×7×5mm 2 .5g |
| 10 | Housing Material: | ABS |
| 11 | Net Weight: | 12 g |
| 12 | Operating Temperature: | -10 ~ +40 ℃ |
| 13 | Storge Temperature: | -20 ~ +50 ℃ |

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## **2.**ENVIRONMENTAL TEST

| | Item | Specifications |
|---|---|---|
| 2-1 | High temp. Test | Keep 96 hours at +50℃±3℃ and leave 3 hours in normal temperature and then check |
| 2-2 | Low temp. Test | Keep 96 hours at -20℃±3℃ and leave 3 hours in normal temperature and then check |
| 2-3 | Humidity test | Keep 96 hours at + 40℃±3℃ relative humidity 95% and leave 3 hours in normal temperature and then checked. |
| 2-4 | Thermal cycle test. | Low temperature: -20℃±3℃, temperature:+50℃±3℃, cycle: 1 hour/cycle each, and then keep 5 cycles in a room. |
| 2-5 | Vibration | 10~55~10Hz sin-wave sweep 15min. 5G(constant)<br>X,Y, Z 3 direction. 2 hours each, total 6 hours. |
| 2-6 | Drop test | Free drop a unit from 100cm height to a board of 20mm thick x,y, z 6 direction. 1 times each, total 6 times. |
| 2-7 | Load test | Rated Power white noise is applied for 96 hours |
| 2-8 | Max Power test | Max power 1 min on – 2 min off 10 cycles. |
| 2-9 | Terminal strength test | Capable of withstand 1kg load for 15seconds without resulting in any damage or rejection. |

PASS CRITERION :

After these test , the change of S.P.L shall be within ±3 dB .


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# 3.MEASURING METHOD

## 3-1 .Test Condition

**STANDARD**

Temperature : 23 ~ 25℃

Relative humidity : 55% MAX,

Atmospheric pressure : 860mbar to 1060mbar.

**JUDGEMENT**

Temperature : 20±3℃

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

## 3-2 . Standard Test Fixture

1.Input Power :0.1W

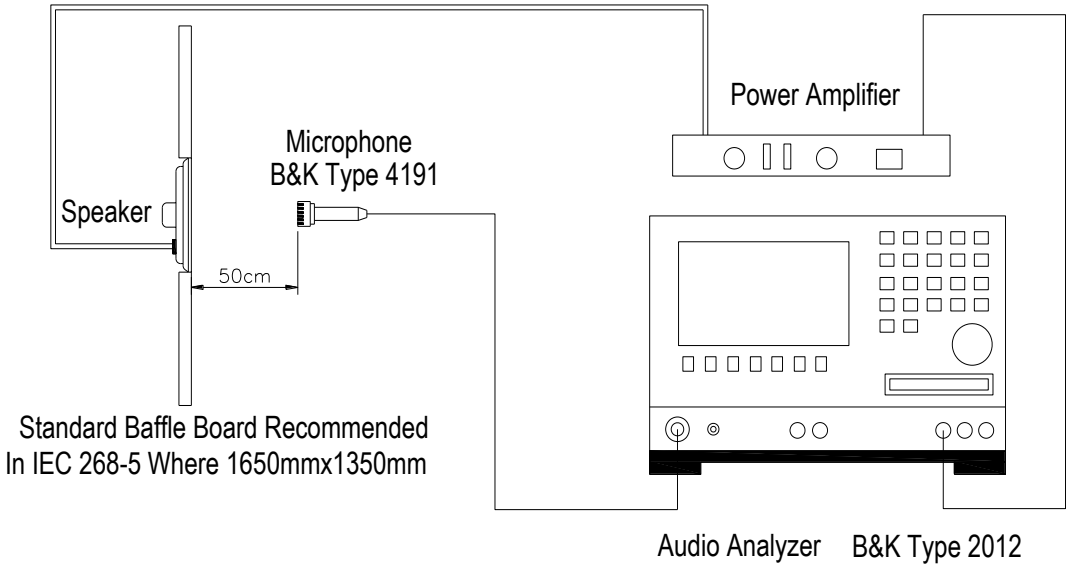
2.Zero Level : -dB

3.Mode : TSR

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

Standard test condition of speaker





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| SPECIFICATIONS | Part No. | ABS-225-RC |
|---|---|---|
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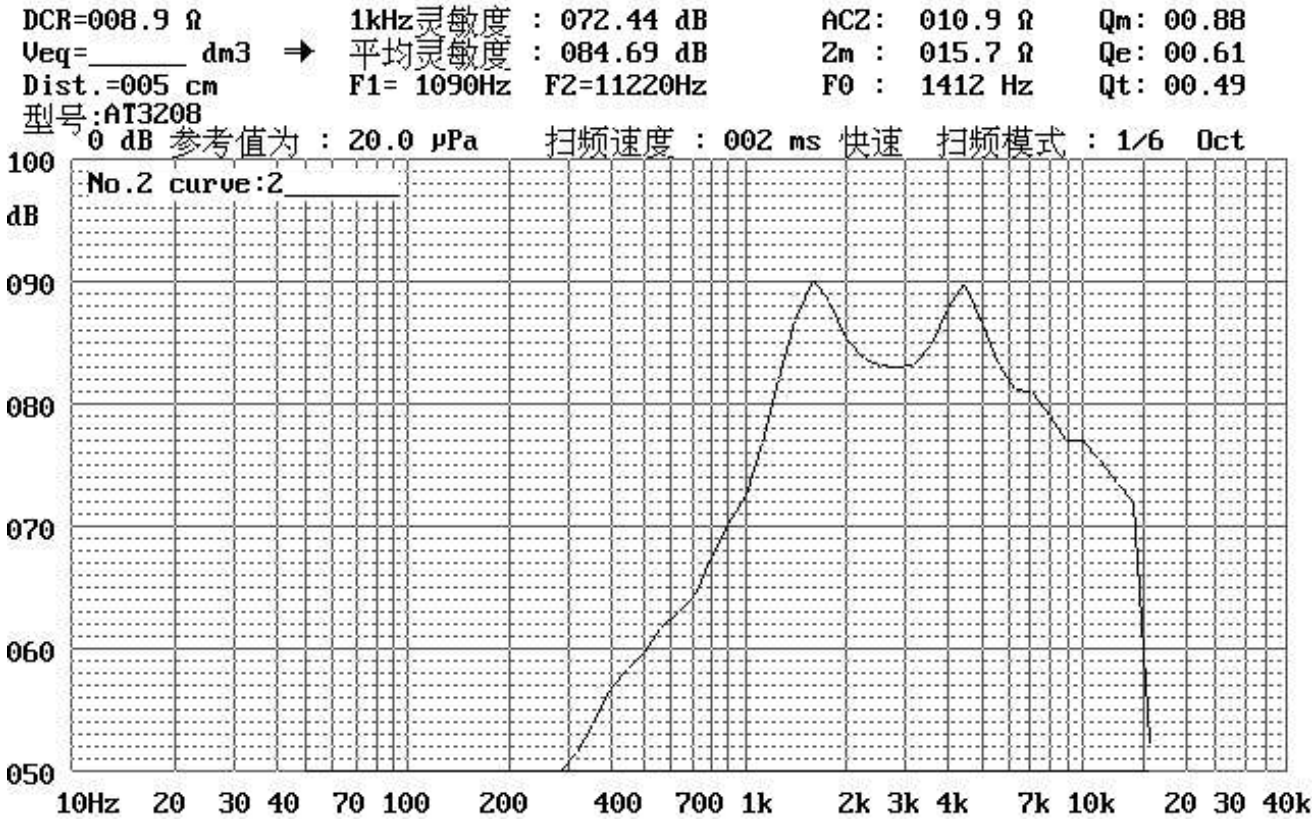
## **4.**FREQUENCY RESPONSE CURVE

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| SPECIFICATIONS | Part No. | ABS-225-RC |
|---|---|---|
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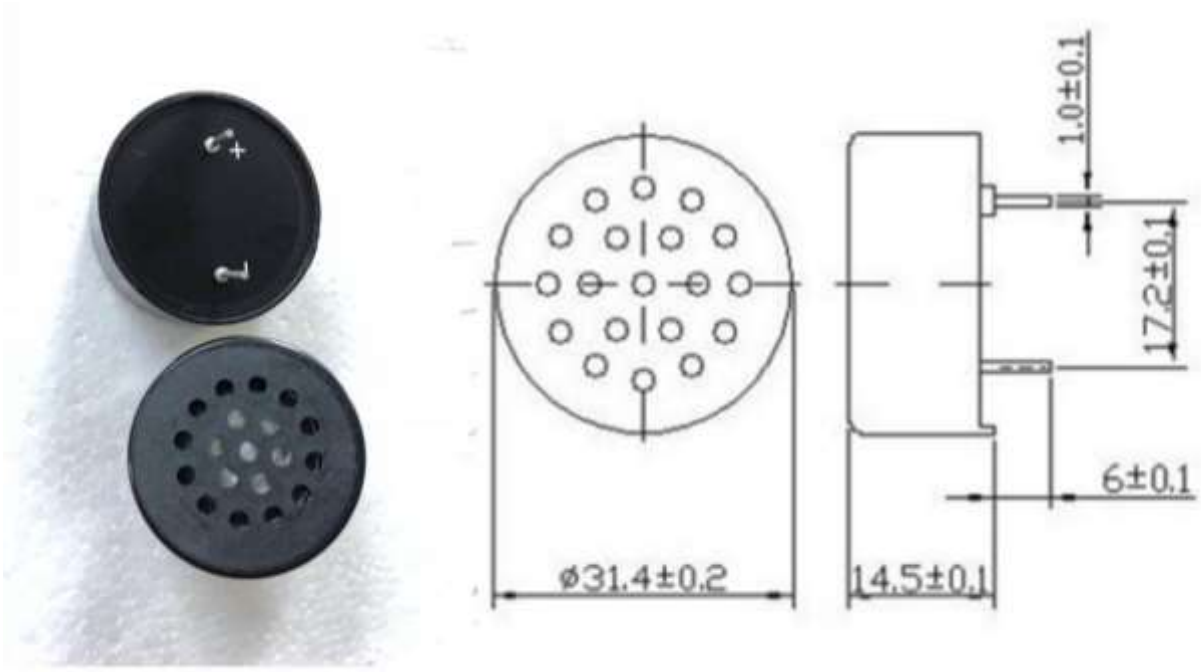
## **5.**DIMENSIONS

Unless otherwise specified,tolerance:±0.5 (unit:mm)




| 9 | Housing | 1 | ABS | GU-001 |
|---|---|---|---|---|
| 8 | Pin | 2 | phosphor bronze | GU-001 |
| 7 | Labels | 1 | PET | GU-001 |
| 6 | PCB | 1 | FR4 | GU-001 |
| 5 | Magnet | 1 | NdFeB | GU-001 |
| 4 | Plate | 1 | SPCC | GU-001 |
| 3 | Voice coil | 1 | Copper | GU-001 |
| 2 | Diaphragm | 1 | PET | GU-001 |
| 1 | Frame | 1 | ABS+SPCC | GU-001 |
| The material must be meet to GU-001 | | | | |
| PART NO. | PART NAME | Q'TY | MATERIAL | REMARK |

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