

MESSRS.

SPECIFICATION FOR APPROVAL

承 認 書

| | | | |
|---------------|-----------------|---------------|--|
| Product Name | Dynamic speaker | | |
| P/N AATC | AK-1008RA-8W | (RoHS) | |
| Approved AATC | Checked AATC | Made AATC | |
| | | | |

| | |
|--------------------------|--|
| Customer Approval Result | |
|--------------------------|--|



Advanced Acoustic Technology Corporation

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ISO 9001 Certified

ISO 14001 Certified

RoHS – Compliant

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EDITION:1.2

1.SPECIFICATION

AK-1008RA-8W (RoHS)

| ITEM | | SPECIFICATIONS | |
|------|----------------------------|---|-------------------------------|
| 01 | Type | Dynamic speaker | |
| 02 | Dimension | External diameter 10 mm | |
| 03 | Rated Input Power | 0.3W | |
| 04 | Max. Input Powe | 0.5W | |
| 05 | Impedance | 8 ohm \pm 15% at 1500Hz. | |
| 06 | Resonance Frequency (Fo) | 1050Hz \pm 20% at Fo, 1V | |
| 07 | Sensitivity (S.P.L.) | 84dB (0.1W / 0.1m) \pm 3 dB | at AVE 1.2K 1.5K 2.0K 2.5KHz. |
| | | 88dB (0.3W / 0.1m) \pm 3 dB | |
| 08 | Frequency Range | Fo – 20KHz | |
| 09 | Total Harmonics Distortion | Max 8 % at 1 KHz,0.5W. | |
| 10 | Voice Coil | Diameter 5.7 mm | |
| 11 | Magnet | Rare earth permanent (Nd-Fe-B) magnet Φ 5.2 x 0.8 t mm | |
| 12 | Weight | 0.6g | |
| 13 | Appearance | Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc. | |
| 14 | Operation Test | Must be normal at program source – 0.5W | |
| 15 | Buzz, Rattle, etc. | Should not be audible at 2.0V sine Wave between Fo to 20KHz | |
| 16 | Polarity | When positive voltage is applied to the terminal marked (+), diaphragm should move to the front. | |
| 17 | Terminal Strength | Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection. | |
| 18 | Temperature | Operating temperature: -20°C to +60°C | |
| | | Storage temperature: -30°C to +70°C | |

1. MEASURING METHOD

2-1 .Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

2-2 . Standard Test Fixture

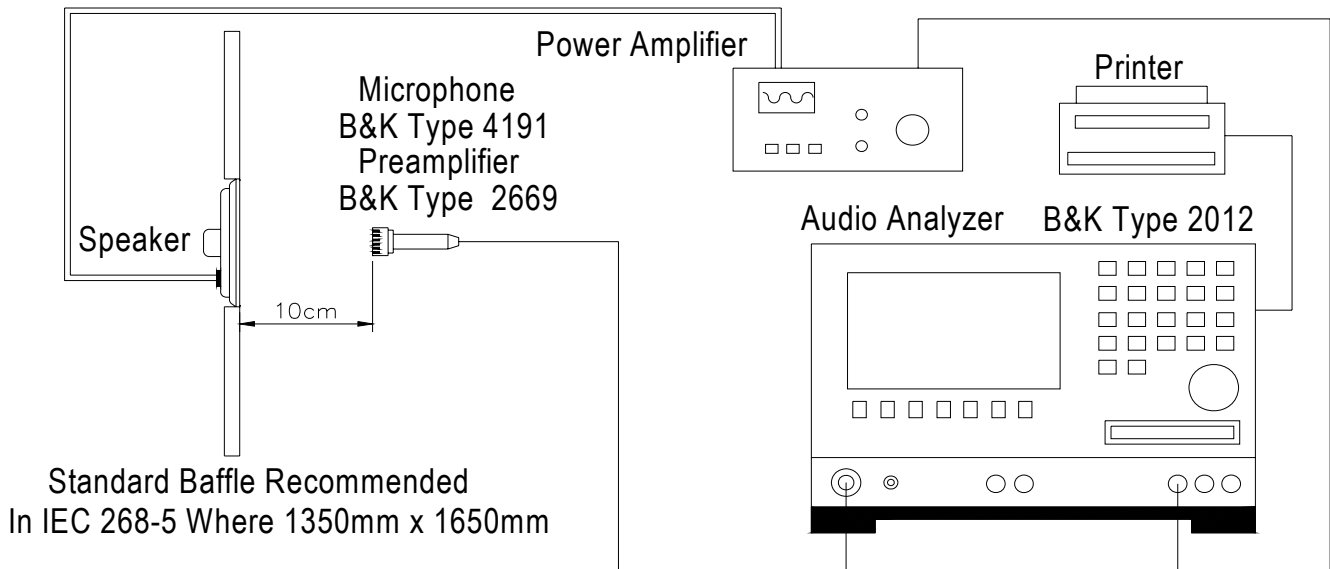
1.Input Power : 0.3W (2.0 V)

2.Zero Level : -dB

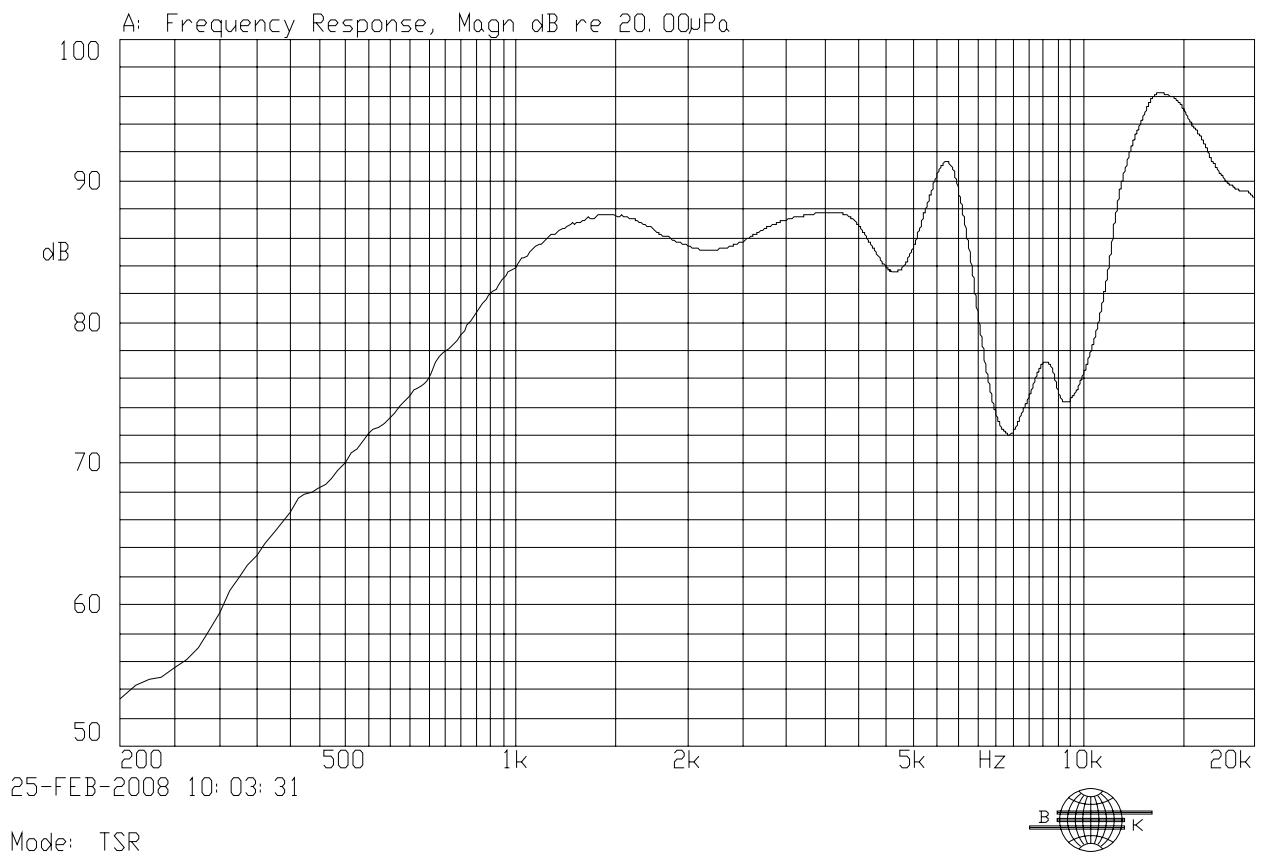
3.Mode : SPEAKER

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec

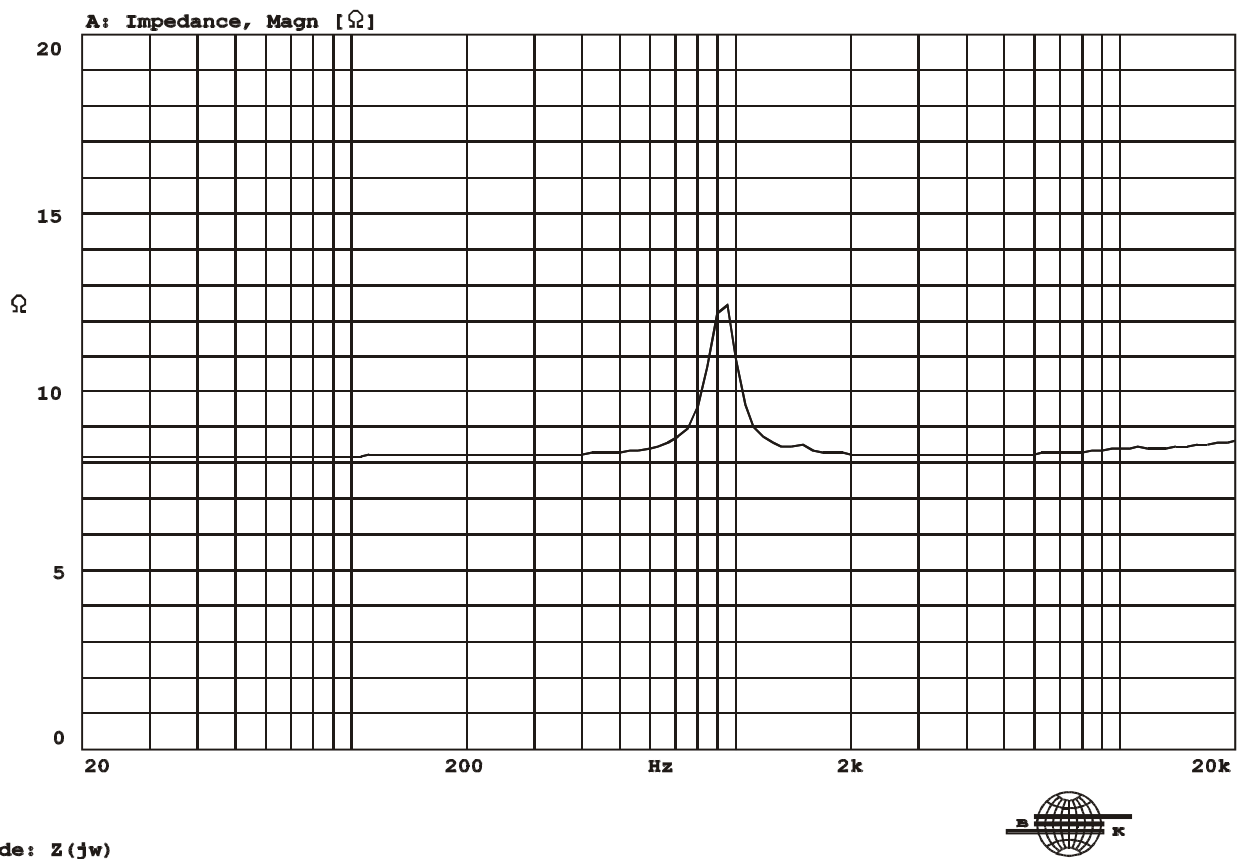


2-3. Frequency Response Curve

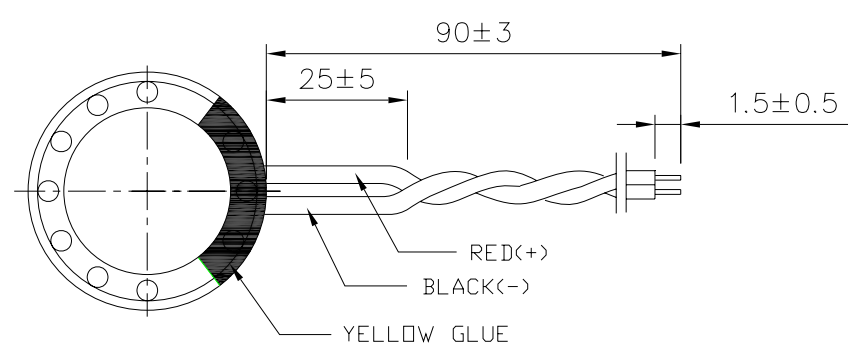
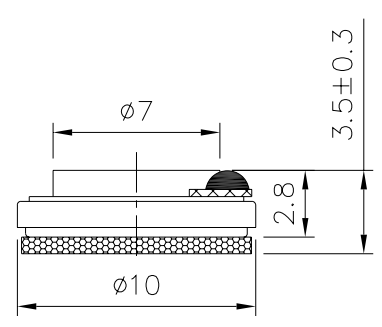
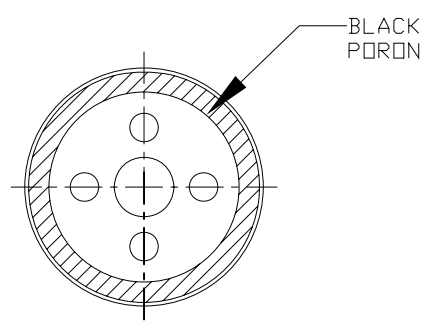


2-4. Impedance Curve

IMPEDANCE MEASUREMENTS: Measurement of Impedance $Z(j\omega)$
ZA:Live Curve Impedance Ω



| | | | |
|---------|---------------|----------|------|
| REV NO. | REVISION NOTE | APPROVAL | DATE |
|---------|---------------|----------|------|



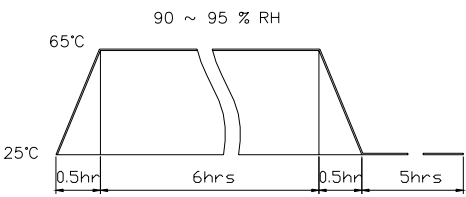
WIRE:UL1571 AWG32#
 焊线方式为内八字, 并排出线。

| | | | | | | | |
|----------|-----------------|-----------|------------------|-----------------------------|-----|-----------------|--------|
| TITLE: | DYNAMIC SPEAKER | DRAWN: | Lemon 2008/02/27 | SCALE: | 2:1 | SHEET: | 1 of 1 |
| PART NO. | AK-1008RA-8W | DESIGNED: | R&D OF AAT | UNITS: | mm | TOLERANCE ± 0.3 | |
| DWG NO. | AEK-08022701 | 1 | CHECKED: | UNLESS OTHERWISE SPECIFIED: | | | |
| | | REV | APPROVAL: | ONE PLACE DECIMAL ± *** | | | |
| | | | MATERIAL: | TWO PLACE DECIMAL ± *** | | | |
| | | | | THREE PLACE DECIMAL ± *** | | | |



ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

2. RELIABILITY TESTS

| Items. | | Specifications |
|---|------------------------|---|
| 01 | High temp. Test | Keep 96 hours at $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check |
| 02 | Low temp. Test | Keep 96 hours at $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check |
| 03 | Humidity test | Keep 96 hours at $+60^{\circ}\text{C}\pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked. |
| 04 | Temp./Humidity cycle | <p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p>  |
| 05 | Thermal cycle test. | Low temperature: $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C}\pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room. |
| 06 | Vibration | 10~200~10Hz sin-wave sweep 15min. 5G(constant) X,Y, Z 3 direction. 2 hours each, total 6 hours. |
| 07 | Fix drop test | Fix on jig. Then drop from 152cm height to the concrete floor X,y, z 6 direction. 5 times each, total 30 times. |
| 08 | Free drop test | Free drop from 100cm height to the concrete floor X,y, z 6 direction. 1 times each, total 6 times. |
| 09 | Rated Power test | Rated Power white noise is applied for 96 hours |
| 10 | Max Power test | Max power 1 min on – 2 min off 10 cycles. |
| 11 | Terminal strength test | Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection. |
| <p>Criterion:</p> <p>After these test , the change of S.P.L shall be within ± 3 dB .</p> | | |