

MESSRS

SPECIFICATION FOR APPROVAL

承 認 書

Product	DYNAMIC SPEAKER
Part No.	AK-703008BC-2
Customer Approval	

Approved By	Checked By	Made By
工程部 王台平 OCT-27-2004	工程部 劉民祥 OCT-27-2004	工程部 許俊程 OCT-27-2004



ADVANCED ACOUSTIC TECHNOLOGY CORP.

苙 翔 科 技 股 份 有 限 公 司



ISO 9001 Certified

2F, No.207, Sec. 6, Chung Shan N. Rd., Taipei, Taiwan

Tel: +886-2-88665255

Fax: +886-2-88665250

<http://www.aatc.com.tw>

1. SPECIFICATION

AK-703008BC-2

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 70 x 30 mm	
03	Rated Input Power	2.0 W	
04	Impedance	8 ohm \pm 15% at 1 KHz	
05	Resonance Frequency (Fo)	300 Hz \pm 20% at Fo, 1V	
06	Sensitivity (S.P.L.)	80dB(W/m) \pm 3 dB	at AVE 0.6K,0.8K,1.0K,1.2K(Hz).
		103dB(2W/0.1m) \pm 3 dB	
07	Frequency Range	Fo – 20KHz	
08	Total Harmonics Distortion	Less than 8 % at 1K Hz ,1.0V.	
09	Max. Input Power	Must be normal at 3.0 W white noise for 1 minute.	
10	Voice Coil	Diameter 13.5 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 12.5 x 2.5mm	
12	Weight	35 g \pm 2g	
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 2.0 W	
15	Buzz, Rattle, etc.	Should not be audible at 4.0 V 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	

2. 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 : 2.0W(4.0V)

2.Zero Level : -dB

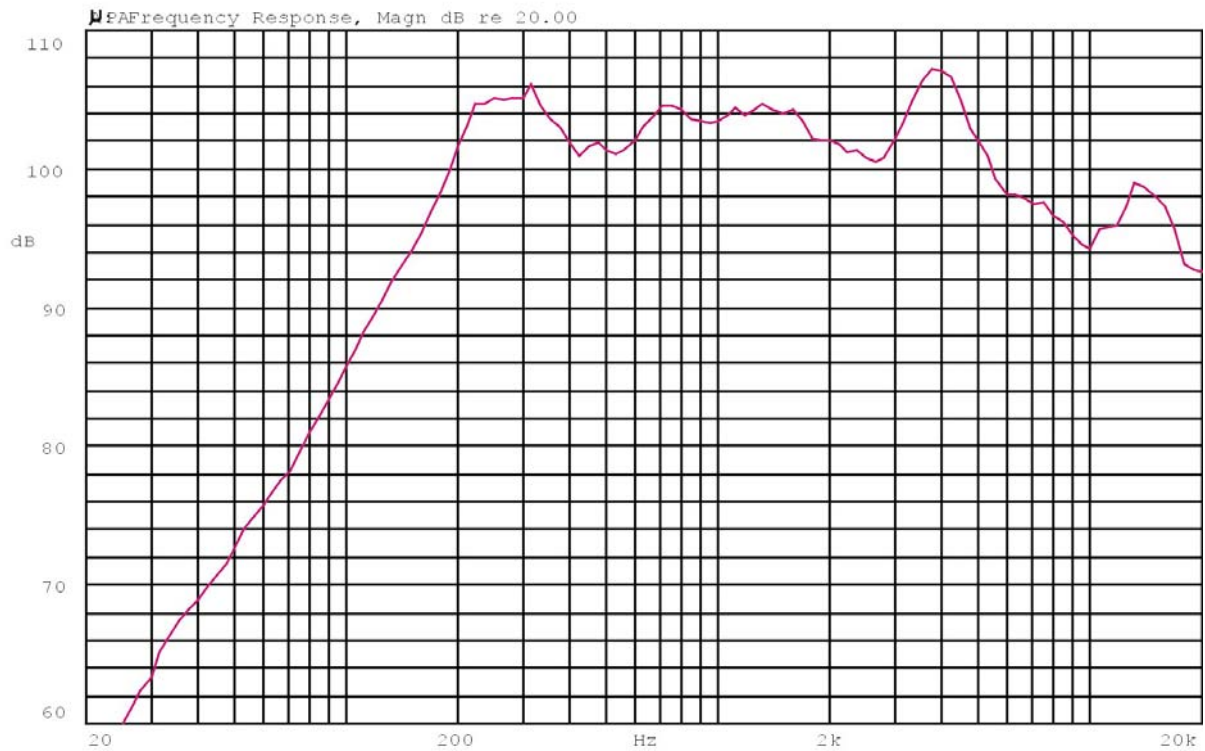
3.Mode : SPEAKER

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



2-3. Frequency Response Curve

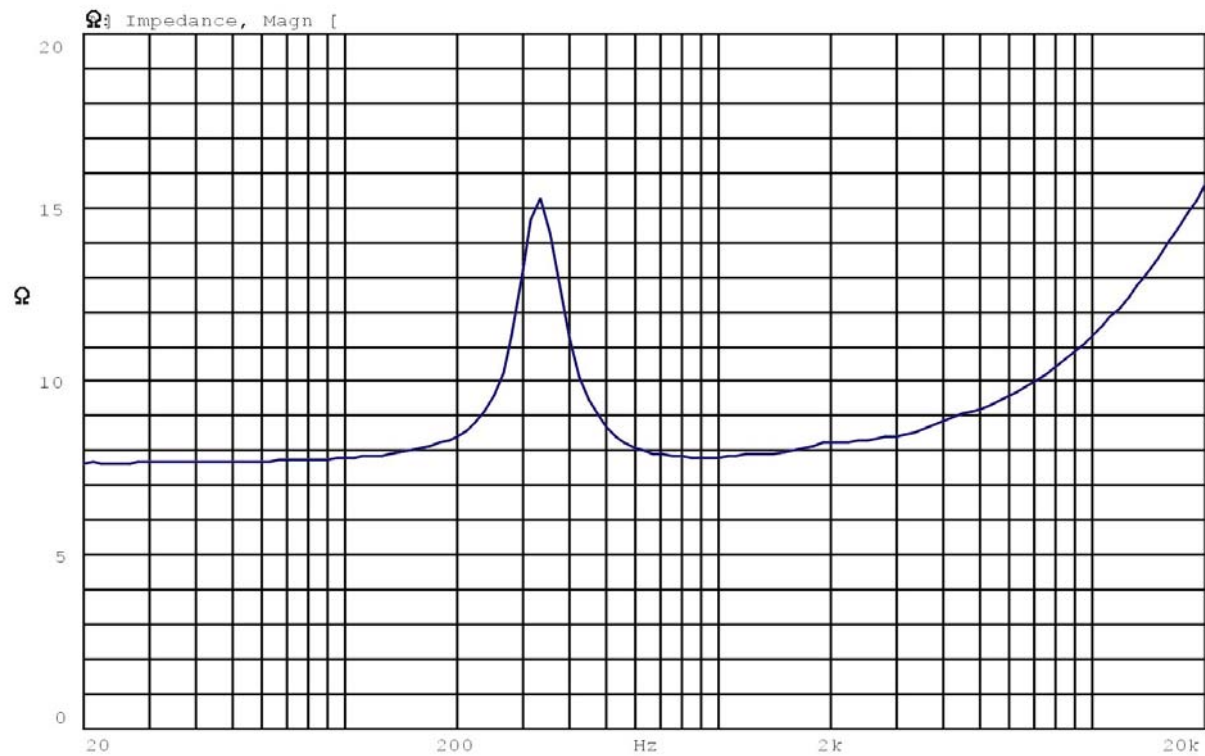


Mode: SPEAKER



2-4. Impedance Curve

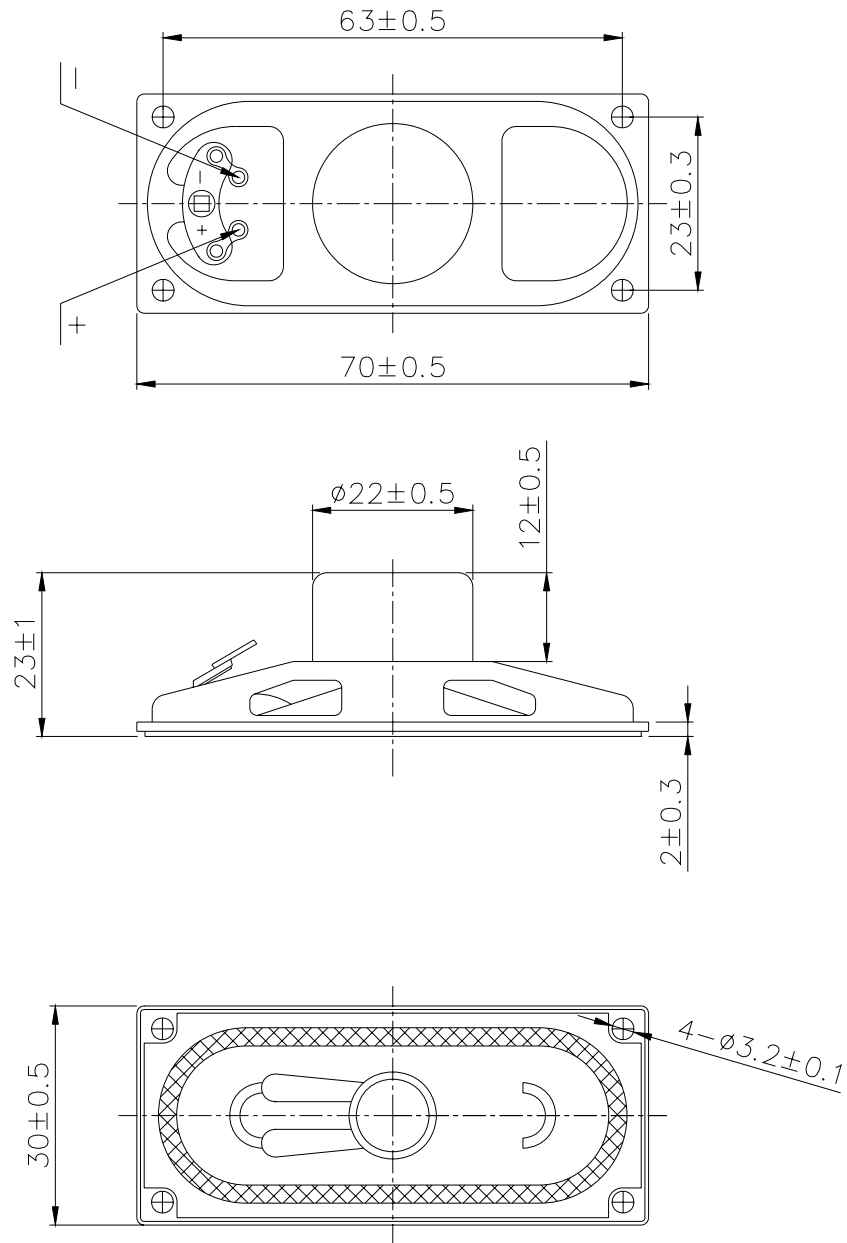
IMPEDANCE MEASUREMENTS: Measurement of Impedance Z(jw)



Mode: Z(jw)



REV NO.	REVISION NOTE	APPROVAL	DATE
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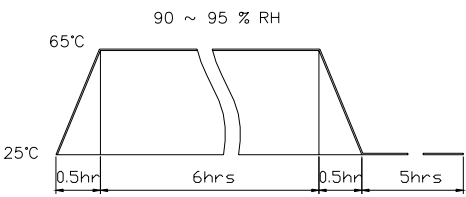


TITLE: DYNAMIC SPEAKER	DRAWN: JOYEN 10/27/2004	SCALE: 1:1	SHEET: 1 of 1
PART NO. AK-703008BC-2	DESIGNED: R&D OF AAT	UNITS: mm	TOLERANCE ± 0.2
DWG NO. DTS-1396	1 REV	CHECKED:	UNLESS OTHERWISE SPECIFIED:
		APPROVAL:	ONE PLACE DECIMAL ± ***
	MATERIAL: *****	TWO PLACE DECIMAL ± ***	THREE PLACE DECIMAL ± ***



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3. 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 $-20^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 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: $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$, 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.
10 Load test	Rated Power White Noise is applied for 96 hours
11 Max Power test	Max power 1 min on – 2 min off 10 cycles.
12 Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.