

MESSRS

SPECIFICATION FOR APPROVAL

承 認 書

Product	DYNAMIC SPEAKER
Part No.	AK-352008CC-3W5
Customer Approval	

Approved By	Checked By	Made By
工程部 王台平 MAY-12-2005	工程部 劉民祥 MAY-12-2005	工程部 許俊程 MAY-12-2005



ADVANCED ACOUSTIC TECHNOLOGY CORP.

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1. SPECIFICATION

AK-352008CC-3W5

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 35 x 20 mm	
03	Rated Input Power	1.0 W	
04	Impedance	8 ohm \pm 15% at 1500 Hz	
05	Resonance Frequency (Fo)	520 Hz \pm 20% at Fo, 1V	
06	Sensitivity (S.P.L.)	79 dB(W/m) \pm 3 dB	at AVE 0.8 K,1.0 K,1.2 K,1.5 K Hz.
		98dB(1.0W/0.1m) \pm 3 dB	
07	Frequency Range	Fo – 20 KHz	
08	Total Harmonics Distortion	Less than 8 % at 1K Hz,1.0V.	
09	Max. Input Power	Must be normal at 2.0 W white noise for 1 minute.	
10	Voice Coil	Diameter 11.8 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 11 x 2mm	
12	Weight	7 g \pm 1 g	
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 –1.0 W	
15	Buzz, Rattle, etc.	Should not be audible at 2.83V 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

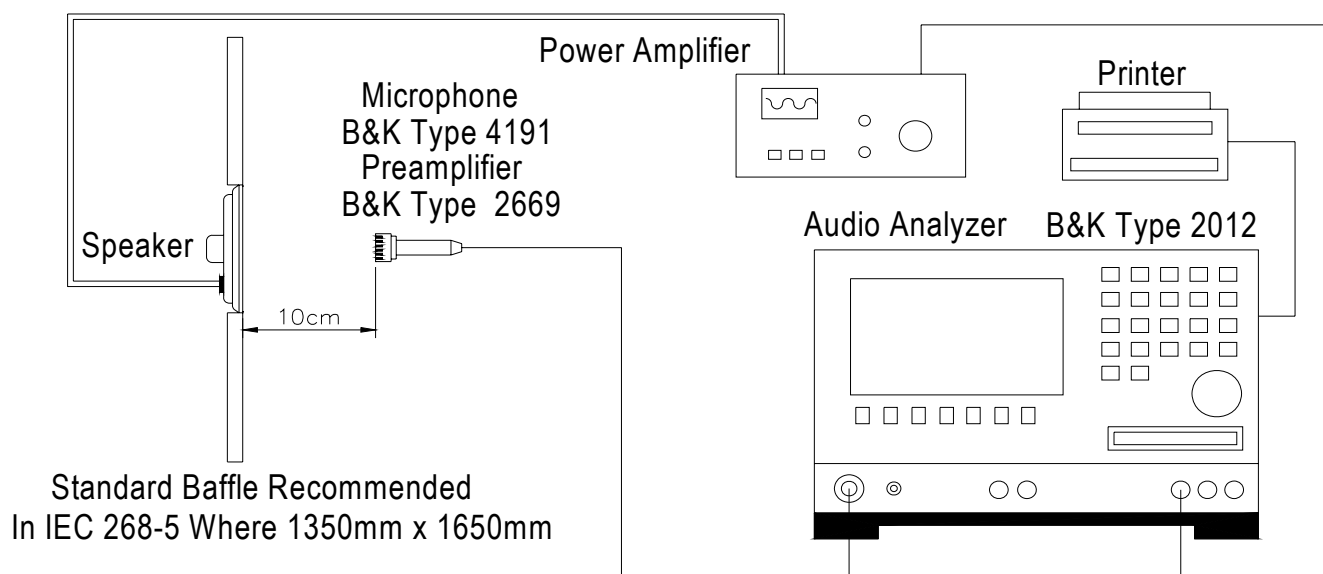
1.Input Power : 1.0W(2.83V)

2.Zero Level : -dB

3.Mode : SPEAKER

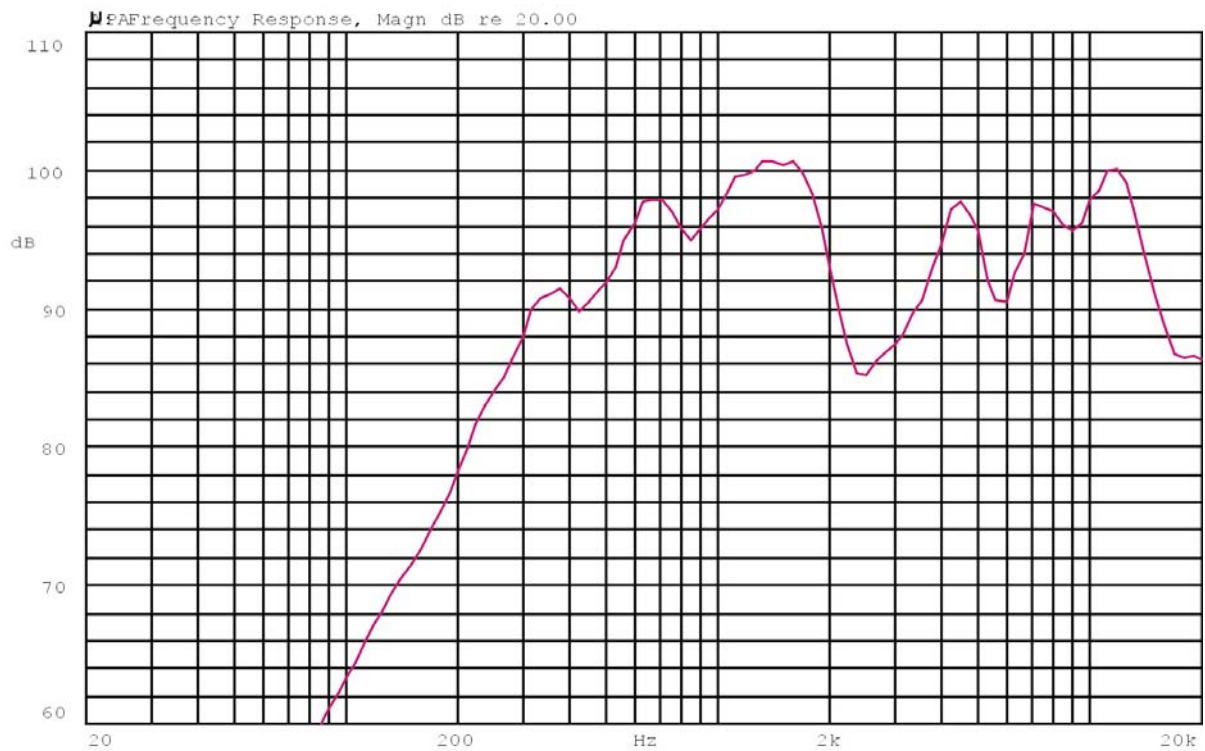
4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



2-3. Frequency Response Curve

AK-352008CC-3W

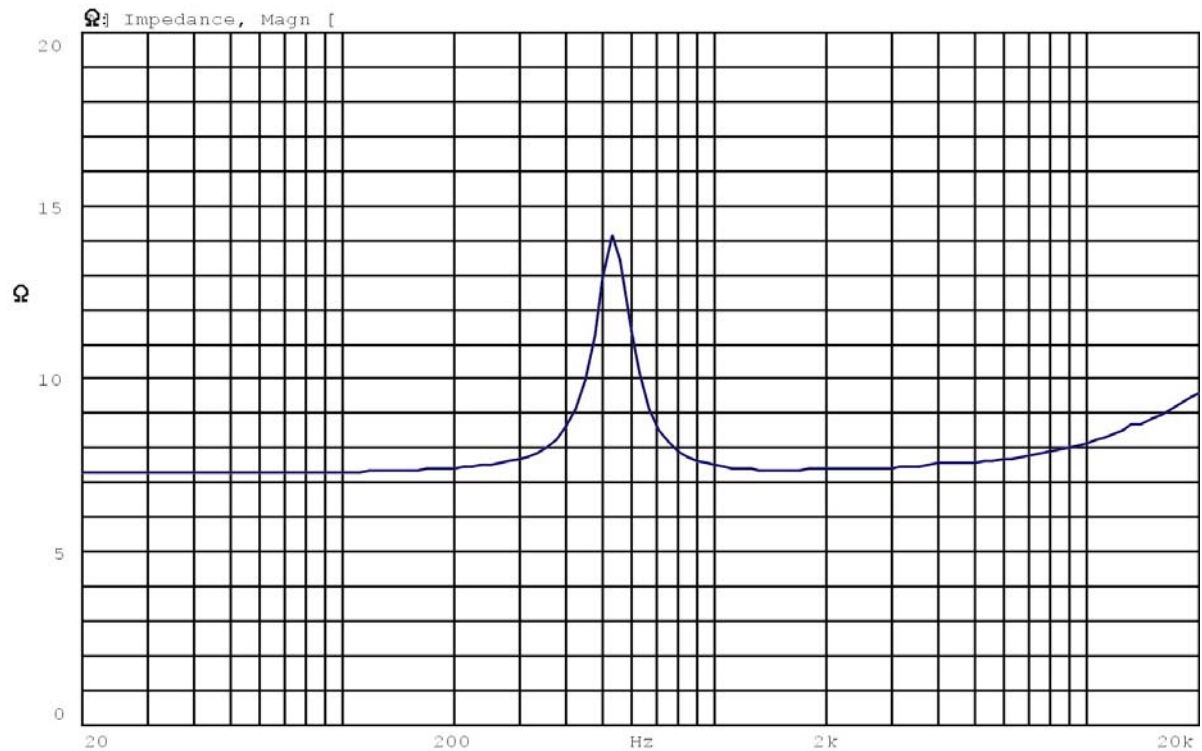


Mode: SPEAKER



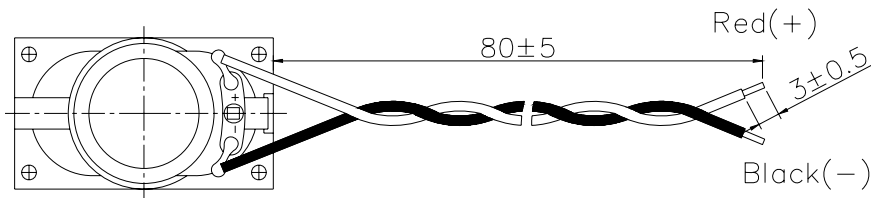
2-4. Impedance Curve

IMPEDANCE MEASUREMENTS: Measurement of Impedance (Z(jw))

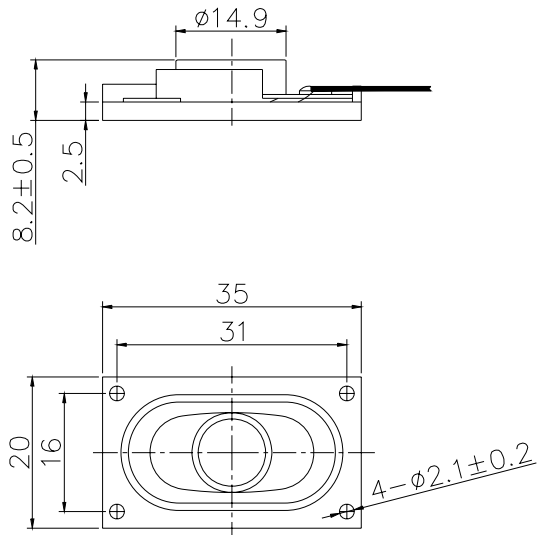


Mode: Z(jw)





WIRE : UL 1095 , 28AWG .

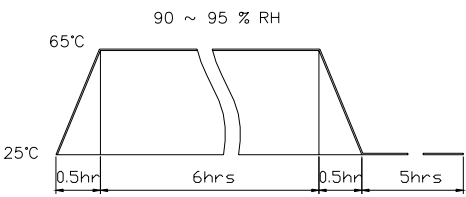


TITLE: DYNAMIC SPEAKER		DRAWN: JOHN 05/12/2005	SCALE: 1:1	SHEET: 1 of 1
PART NO. AK-352008CC-3W5		DESIGNED: R&D OF AAT	UNITS: mm	
DWG NO. DTS-1389		CHECKED:	TOLERANCE ± 0.3	
		APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
REV 1		MATERIAL: *****		



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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>  <p>The graph illustrates a temperature and humidity cycle. The temperature starts at 25°C, rises to 65°C in 0.5 hours, stays at 65°C for 6 hours, then drops back to 25°C in 0.5 hours. The humidity is 90-95% RH during the 6-hour high temperature plateau. After the 0.5-hour drop, there is a 5-hour dwell at 25°C.</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.
09	Load 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.