

MESSRS

SPECIFICATION FOR APPROVAL

承 認 書

Product	DYNAMIC SPEAKER
Part No.	AK-352008CC-6-LF (RoHS)
Customer Approval	

Approved By	Checked By	Made By



ADVANCED ACOUSTIC TECHNOLOGY CORP.

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1. SPECIFICATION

AK-352008CC-6-LF

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 35.2 x 20 mm	
03	Rated Input Power	1.0 W	
04	Max. Input Power	2.0 W	
05	Impedance	8 ohm \pm 15% at 2K Hz	
06	Resonance Frequency (Fo)	650 Hz \pm 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	78 dB(W/m) \pm 3 dB	at AVE 0.8 K,1.0 K,1.2 K,1.6 K Hz.
		97dB(1.0W/0.1m) \pm 3 dB	
08	Frequency Range	Fo – 20 KHz	
09	Total Harmonics Distortion	Max. 8 % at 1K Hz,1.0W.	
10	Voice Coil	Diameter 11.8 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 11 x 1.5mm	
12	Weight	4.3 g \pm 0.5 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

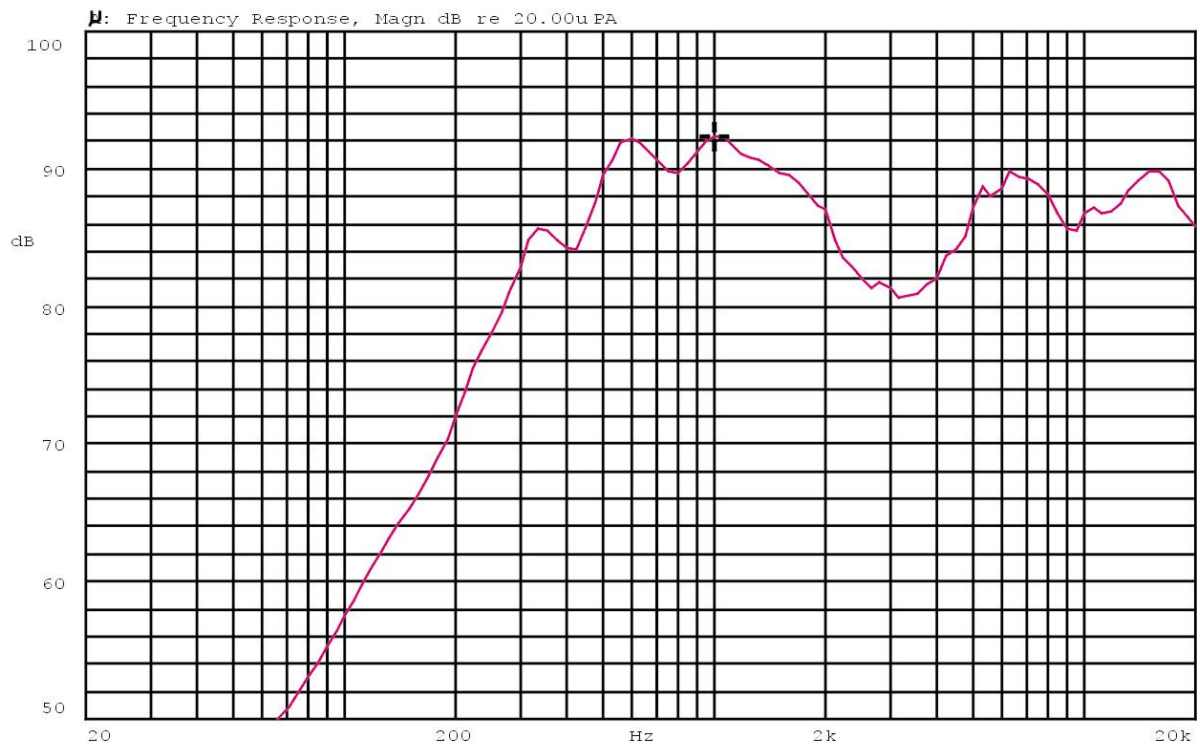
AK-352008CC-5

X:1.0000kHz

*Y:92.27dB

EA:Live Curve

SSR Fund.



Mode: SPEAKER



2-4. Impedance Curve

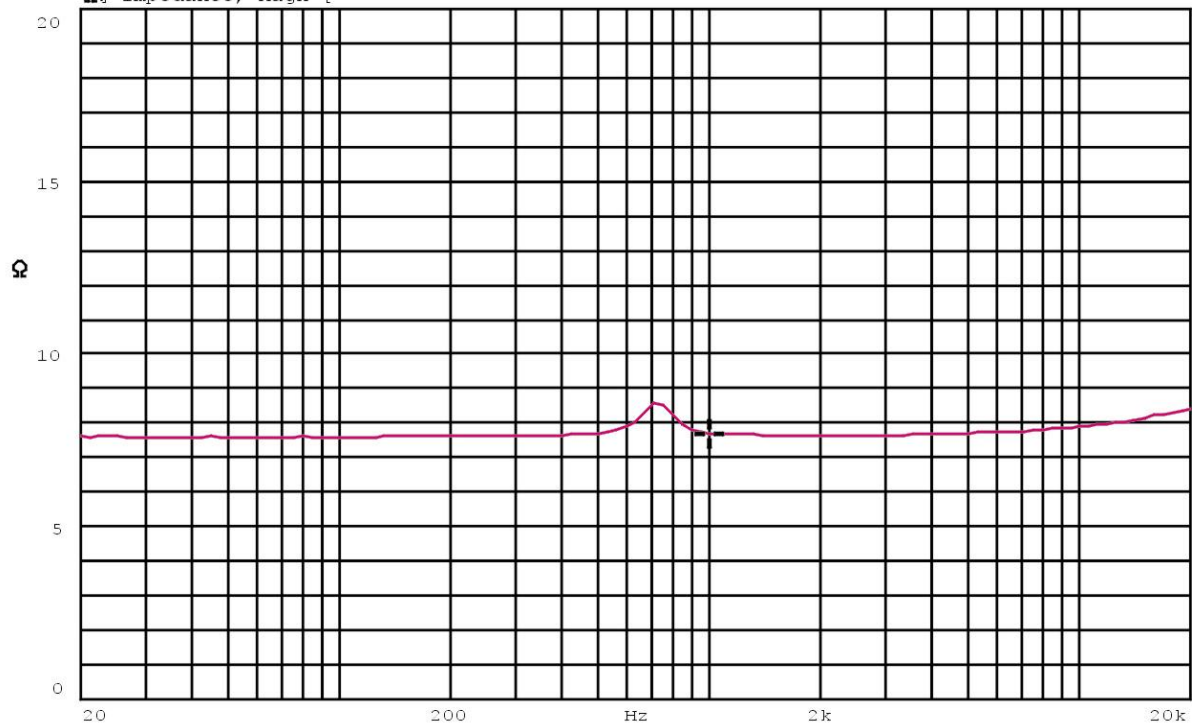
IMPEDANCE MEASUREMENTS: Measurement of Impedance $Z(j\omega)$

EA:Live Curve Impedance

X:1.0000kHz

Y:7.713 Ω

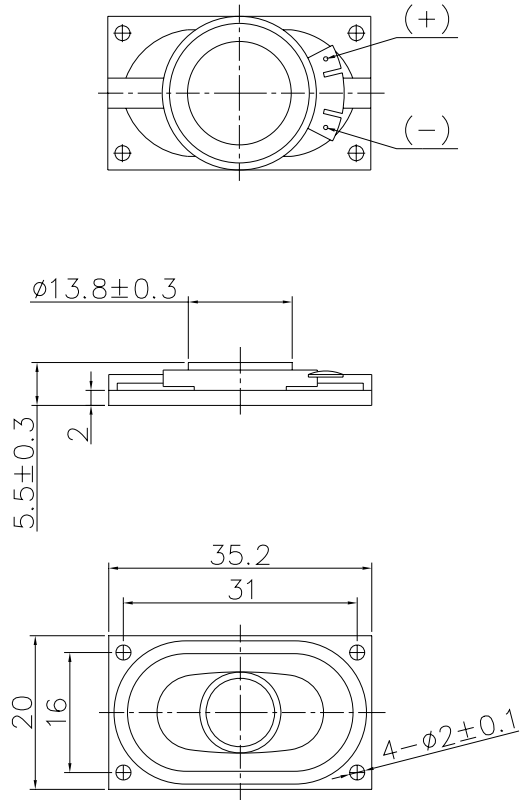
Impedance, Magn [Ω]



Mode: $Z(j\omega)$



REV NO.	REVISION NOTE	APPROVAL	DATE
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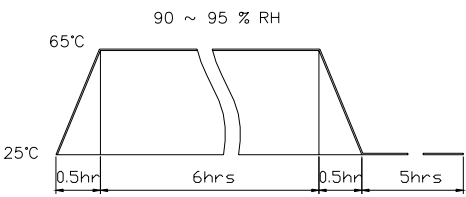
CASE: ABS
 DIAPHRAGM: PAPER DIAPHRAGM

TITLE:	DYNAMIC SPEAKER	DRAWN:	<i>Sily</i> 2006-04-20	SCALE:	***	SHEET:	1 of 1
PART NO.	AK-352008CC-6-LF	DESIGNED:	R&D OF AAT	UNITS:	mm	TOLERANCE	± 0.2
DWG NO.	DTS-1390	CHECKED:		UNLESS OTHERWISE SPECIFIED:			
		APPROVAL:		ONE PLACE DECIMAL \pm ***			
		MATERIAL:	*****	TWO PLACE DECIMAL \pm ***			
				THREE PLACE DECIMAL \pm ***			



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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 $-30^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 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>  <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, drops to 25°C in 0.5 hours, and then stays at 25°C for 5 hours. The humidity is 90-95% RH during the 6-hour high temperature plateau.</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	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.
<p>CRITERION :</p> <p>After these test , the change of S.P.L shall be within ± 3 dB .</p>		