




MESSRS.

SPECIFICATION FOR APPROVAL

承 認 書

Product	Dynamic Speaker		
Part No.	AK-3208BB-2		(RoHS)
Approved By	Checked By	Made By	
			

Customer Approval Result	
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Advanced Acoustic Technology Corporation

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EDITION:1.2

1.SPECIFICATION

AK-3208BB-2(RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 32 mm	
03	Rated Input Power	2.0W	
04	Max. Input Powe	2.5W	
05	Impedance	8 ohm \pm 15% at 2000Hz.	
06	Resonance Frequency (Fo)	520Hz \pm 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	87dB(0.1W/0.1m) \pm 3 dB	at AVE0.8K 1.0K 1.2K 1.5K Hz.
		100dB (2.0W / 0.1m) \pm 3 dB	
08	Frequency Range	Fo – 20KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz,2.0W.	
10	Voice Coil	Diameter 13.4 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 12.5 x 1.5 mm	
12	Weight	8g \pm 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 – 2.0W	
15	Buzz, Rattle, etc.	Should not be audible at 4.0V 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

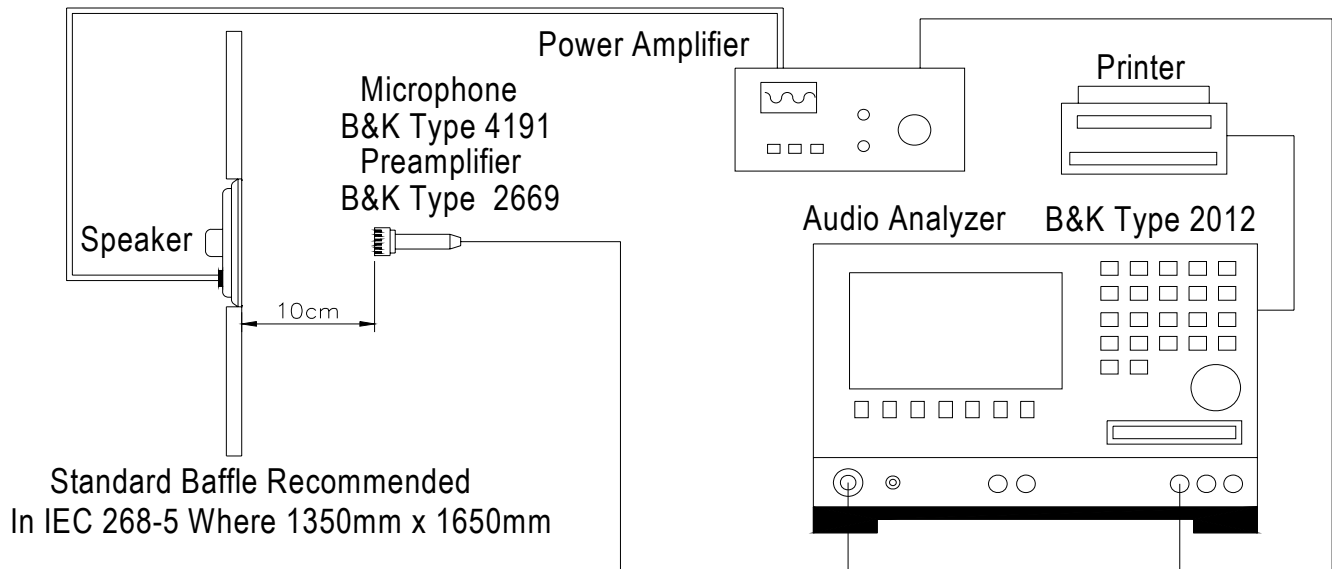
1.Input Power : 2.0W (4.0V)

2.Zero Level : -dB

3.Mode : SPEAKER

4.potentiometer Range : 50dB

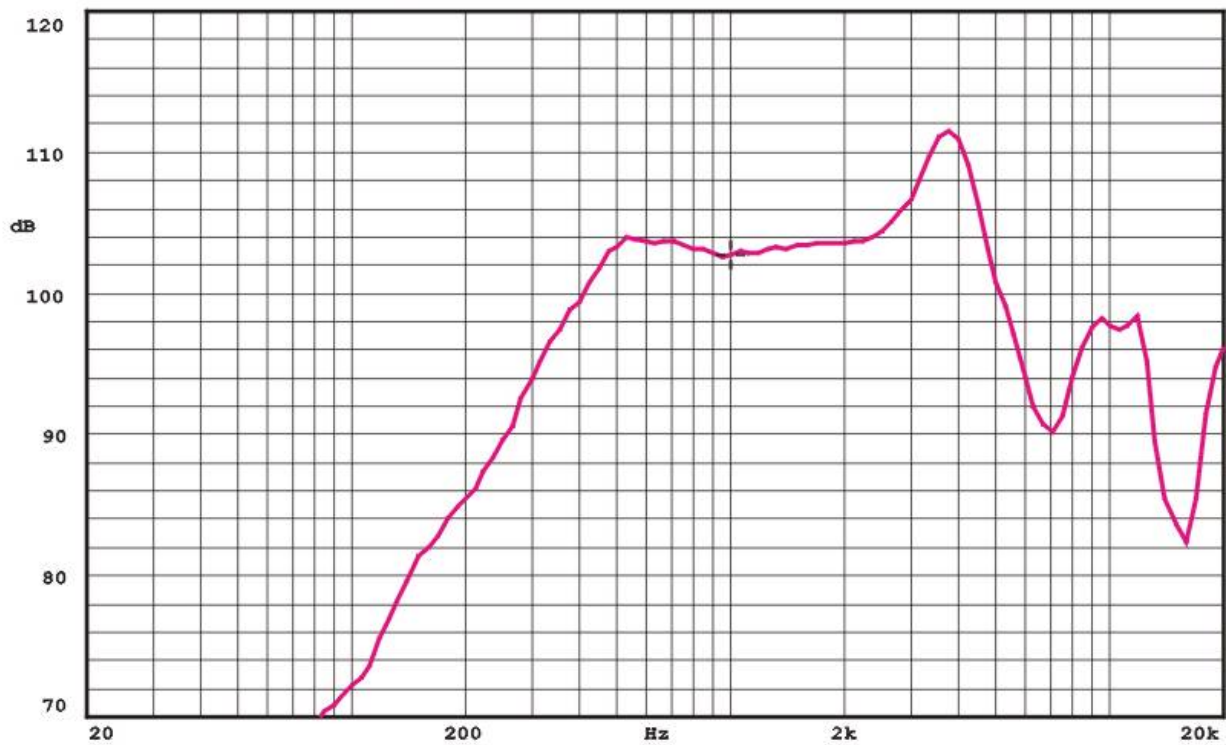
5.Sweep Time : 0.5sec



2-3. Frequency Response Curve

X:1.0000kHz *Y:102.69dB ZA:Live Curve SSR Fund.

A: Frequency Response, Magn dB re 20.00 μ PA



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Mode: SPEAKER

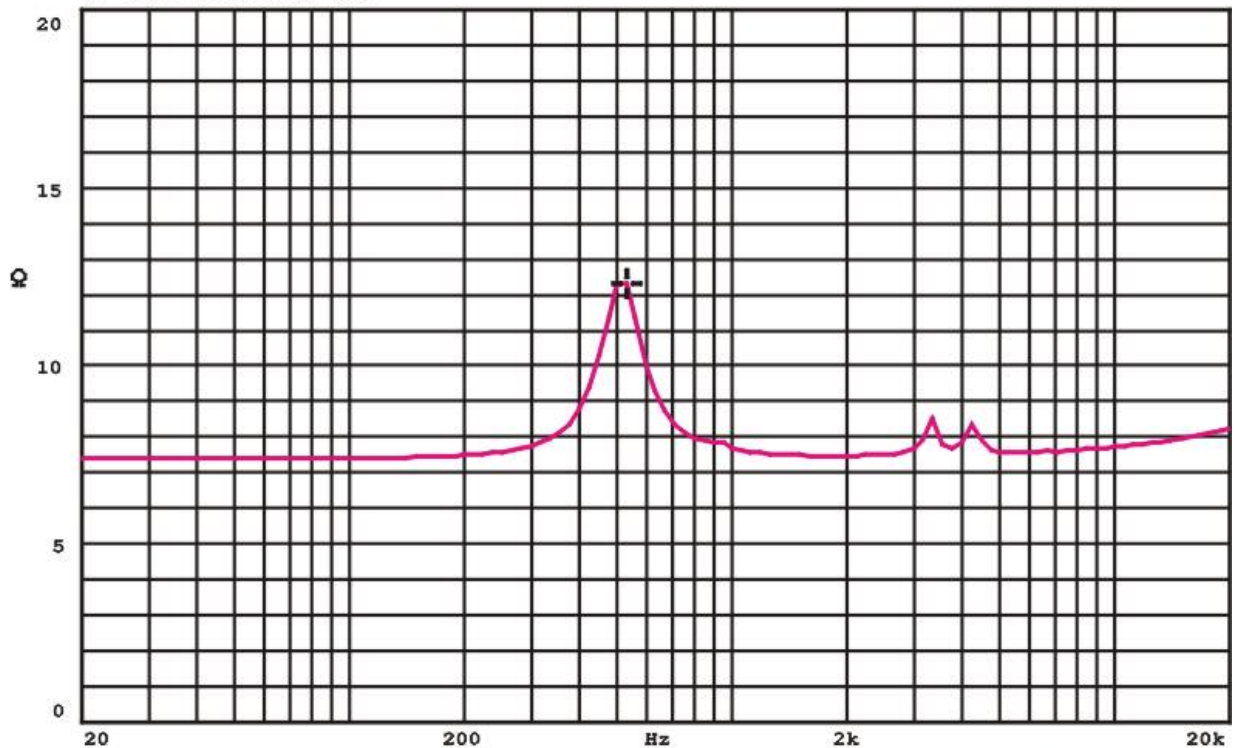


2-4. Impedance Curve

IMPEDANCE MEASUREMENTS: Measurement of Impedance Z(jw)

X:530.00Hz Y:12.30 Ω ZA:Live Curve Impedance

A: Impedance, Magn [Ω]

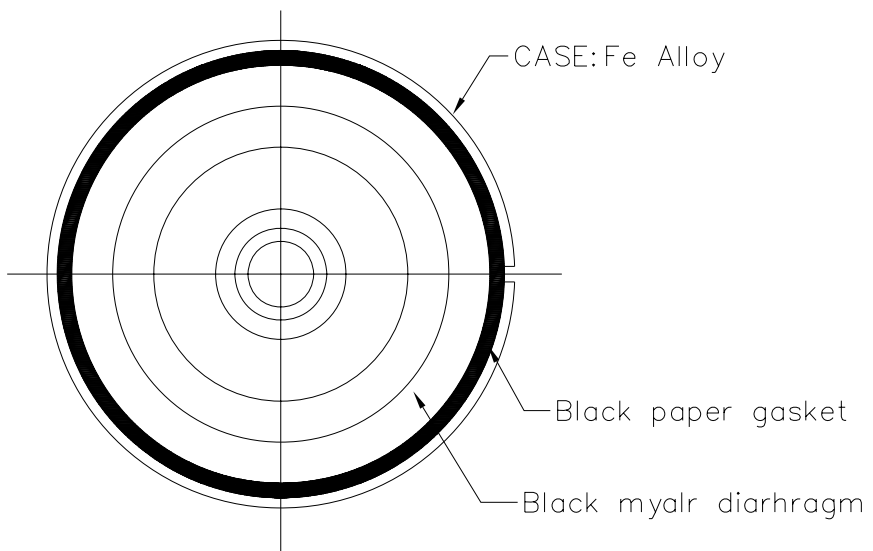
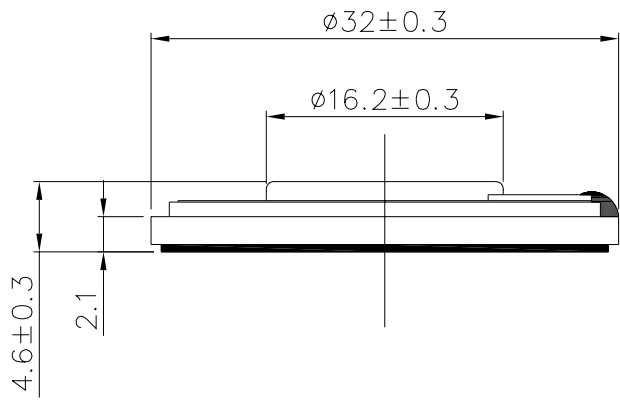
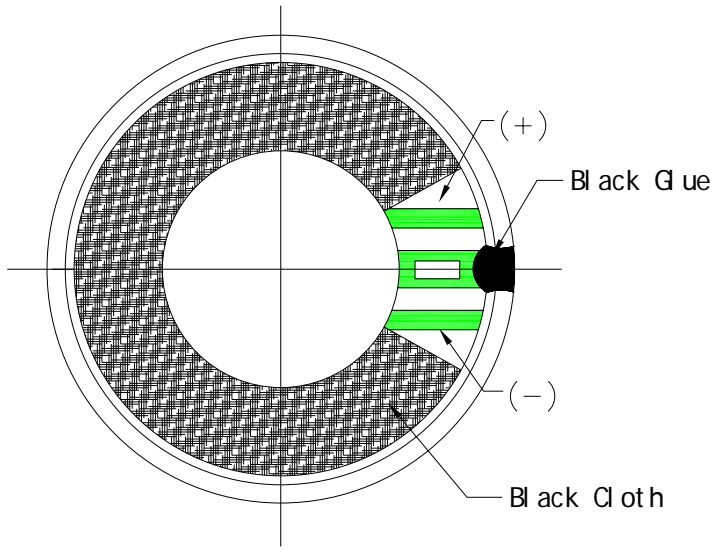


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Mode: Z(jw)



REV NO.	REVISION NOTE	APPROVAL	DATE
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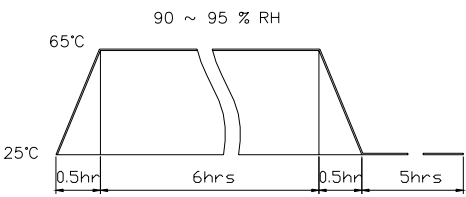


TITLE: DYNAMIC SPEAKER	DRAWN: Lemon 2009-7-3	SCALE: 2:1	SHEET: 1 of 1
PART NO. AK-3208BB-2	DESIGNED: R&D OF AAT	UNITS: mm	
DWG NO. CA-K09070301	1	TOLERANCE ± 0.3	UNLESS OTHERWISE SPECIFIED:
	REV	ONE PLACE DECIMAL \pm ***	TWO PLACE DECIMAL \pm ***
		THREE PLACE DECIMAL \pm ***	



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ADVANCED ACOUSTIC TECHNOLOGY CORPORATION

4.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 anyone test above , the change of S.P.L shall be within ± 3 dB</p>		

SOLDERING CONDITION

Recommend using constant searing-iron in temperature range $360\pm 5^{\circ}\text{C}$.

Soldering time 2 seconds.