SPECIFICATION FOR APPROVAL

Product	DYNAMIC SPEAKER
Part No.	AS-5030120B08-R1T
Customer Approval	

Approved By	Checked By	Made By

A & B Components

http://www.speaker-tw.com

1.SPECIFICATION

AS-5030120B08-R1T

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 50*30*11.8 mm	
03	Rated Input Power	1 W	
04	Max. Input Power	1.5 W for 1 minute.	
05	Impedance	8 ohm ± 15% at 800 Hz	
06	Resonance Frequency (Fo)	450 Hz ± 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	85 dB(1W/0.5m) ± 3 dB	at 1K Hz.
		99 dB(1W/0.1m) ± 3 dB	
08	Frequency Range	Fo – 20 K Hz	
09	Total Harmonics Distortion	Max 10 % at 1 KHz,1W.	
10	Voice Coil	Diameter 13.28 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ12.5x2.0mm	
12	Weight	13g ± 0.2g	
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 1W	
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℃ to +60℃ Storage temperature: -30℃ to +70℃	

1. MEASURING METHOD

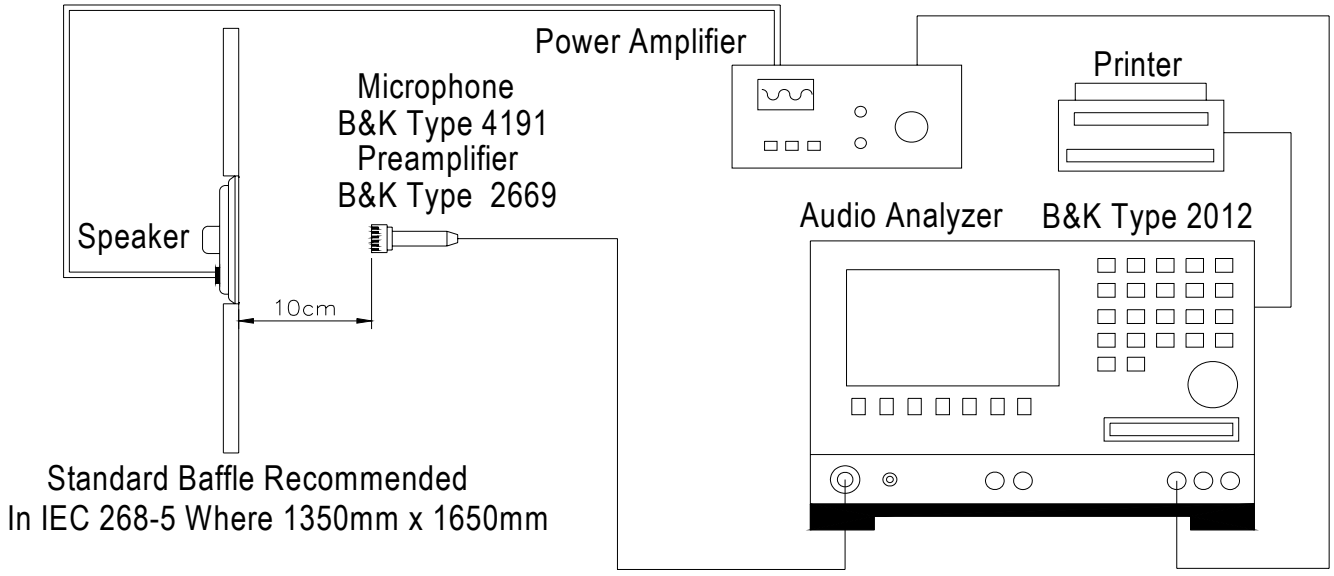
2-1 .Test Condition

STANDARD
Temperature : 15 ~ 35℃
Relative humidity : 45% ~ 85%,
Atmospheric pressure : 860mbar to 1060mbar.

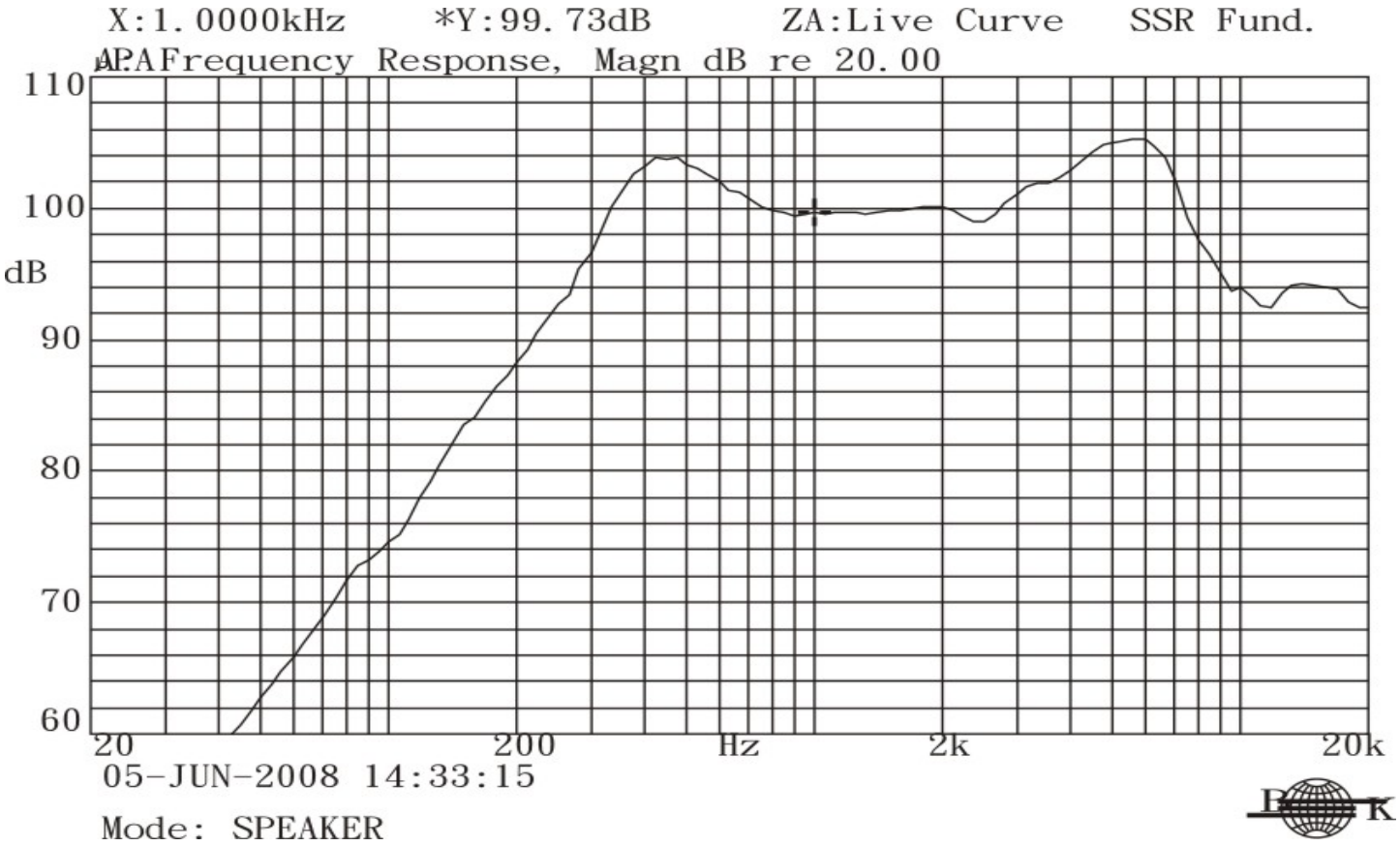
JUDGEMENT
Temperature : 20±3℃
Relative humidity : 60% ~ 70%,
Atmospheric pressure : 860mbar to 1060mbar

2-2 . Standard Test Fixture

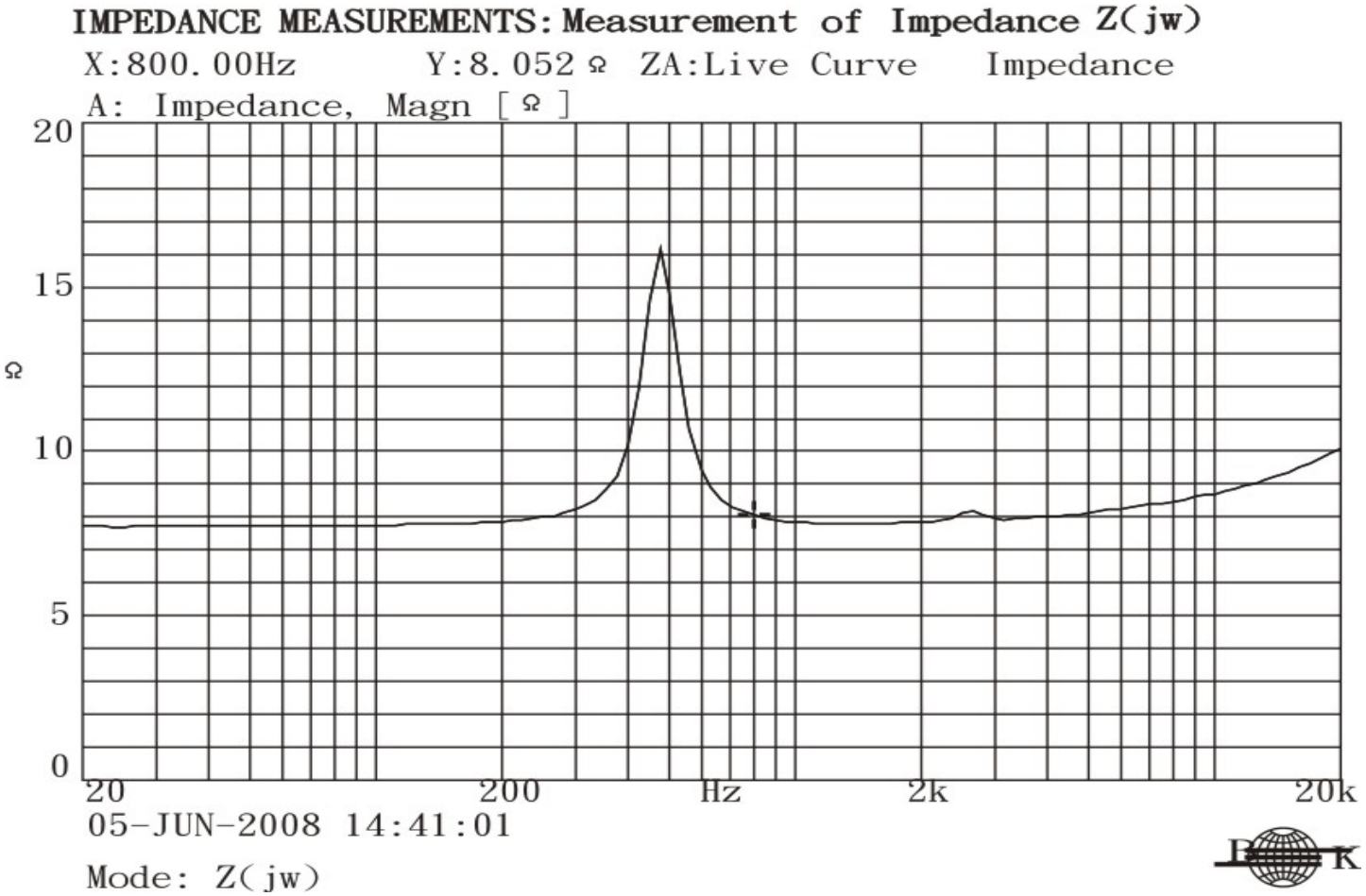
1.Input Power : 1W(2.83V)
2.Zero Level : -dB
3.Mode : SPEAKER
4.potentiometer Range : 50dB
5.Sweep Time : 0.5sec



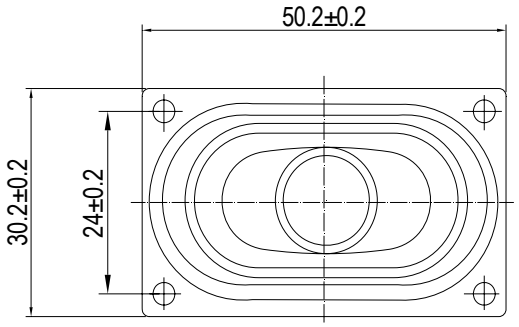
2-3. Frequency Response Curve

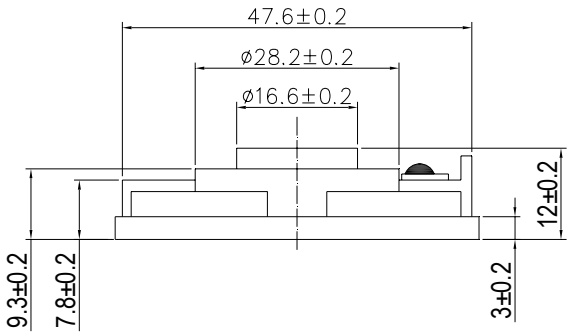


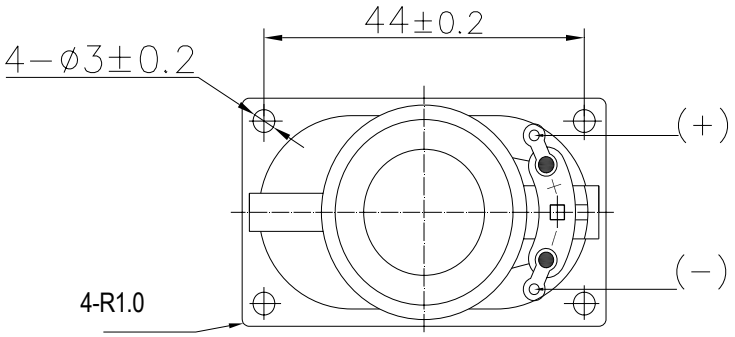
2-4. Impedance Curve



REV NO.	REVISION NOTE	APPROVAL	DATE



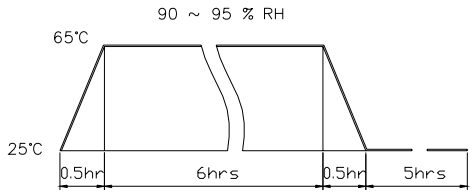




TITLE: DYNAMIC SPEAKER		DRAWN: Richard 06/06/2008	SCALE: 1:1	SHEET: 1 of 1
PART NO. AS-5030120B08-R1T	1	DESIGNED: R&D DEP.	UNITS: mm	
		CHECKED:	TOLERANCE ± 0.3	
DWG NO. DTS-1411	REV	APPROVAL:	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
		MATERIAL: *****		

A & B Components

4.RELIABLITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at +70℃±3℃ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at -30℃±3℃ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at + 60℃±3℃ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of; 
05	Thermal cycle test.	Low temperature: -30℃±3℃, temperature:+70℃±3℃, 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.
Criterion : After these test , the change of S.P.L shall be within ±3 dB		

SOLDERING CONDITION

Recommend using constant branding iron in 30W, and in temperature range 360±10°C.
Soldering time 2 seconds.