
SPECIFICATION FOR APPROVAL

Product	DYNAMIC SPEAKER
Part No.	AS-1645E08-A4T
Customer Approval	

Approved By	Checked By	Made By



A & B Components

<http://www.speaker-tw.com>

1.SPECIFICATION

AS-1645E08-A4T

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter Φ 16 mm	
03	Rated Input Power	1.0W	
04	Max. Input Power	1.2W for 1 minute.	
05	Impedance	8 ohm \pm 20% at 2000Hz.	
06	Resonance Frequency (Fo)	1200Hz \pm 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	85dB(1.0W/1.0m) \pm 3 dB	at AVE 1.5K 2.0K 2.5K 3.0KHz.
		91dB (1W / 0.1m) \pm 3 dB	
08	Frequency Range	Fo – 20KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz,1.0W.	
10	Voice Coil	Diameter Φ 8.35 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 7.9 x 1.2 mm	
12	Weight	5.6g \pm 0.3g	
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 – 1.0W	
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 $^{\circ}$ C to +60 $^{\circ}$ C	
		Storage temperature: -30 $^{\circ}$ C to +70 $^{\circ}$ 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

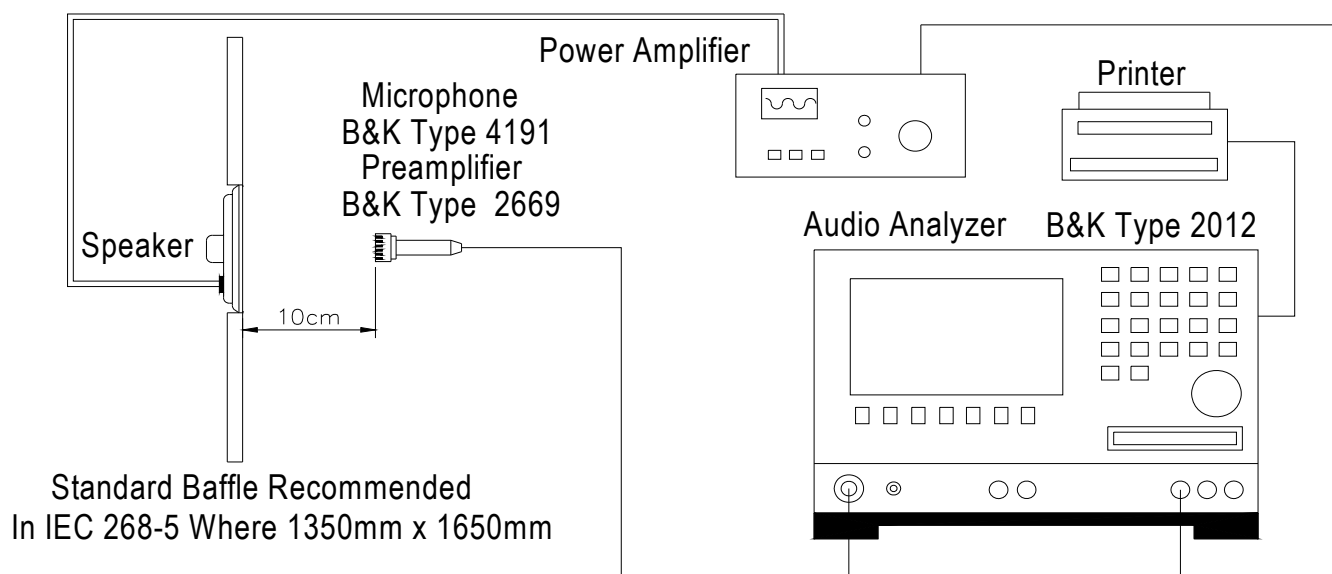
1.Input Power : 1.0W (2.83V)

2.Zero Level : -dB

3.Mode : SPEAKER

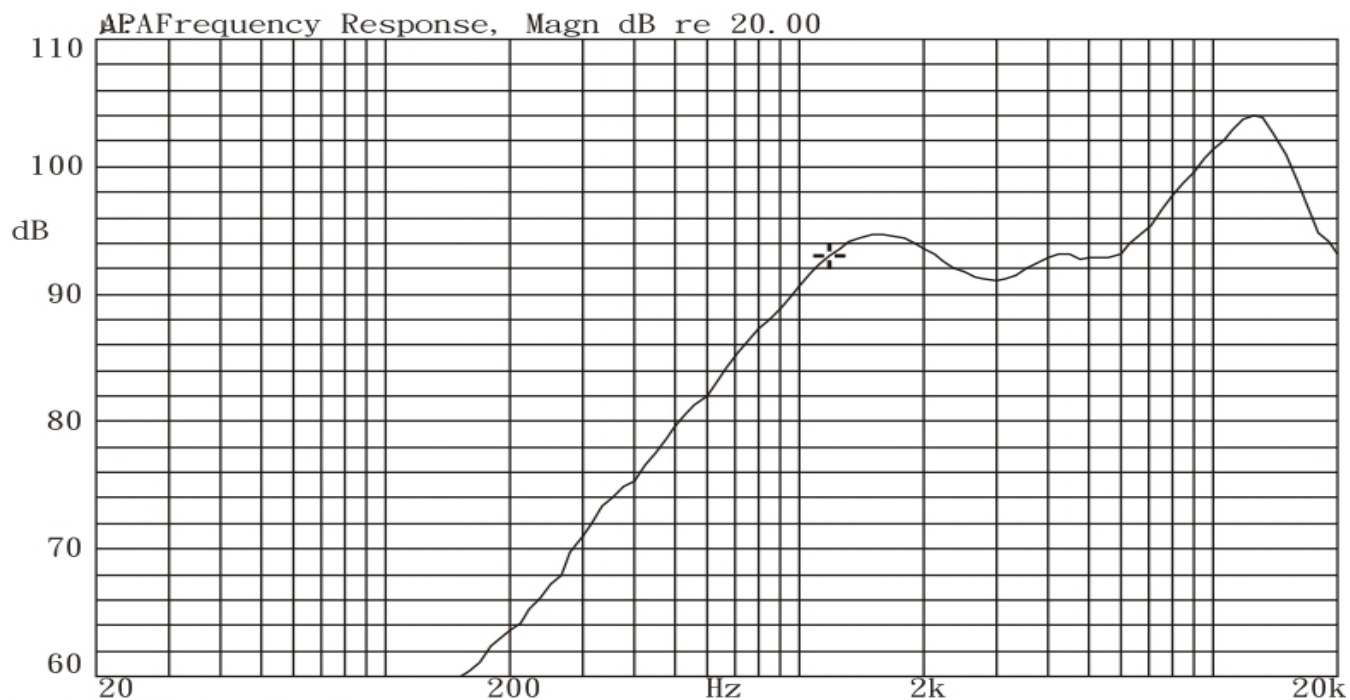
4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



2-3. Frequency Response Curve

X:1.1800kHz *Y:92.95dB ZA:Live Curve SSR Fund.



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Mode: SPEAKER



2-4. Impedance Curve

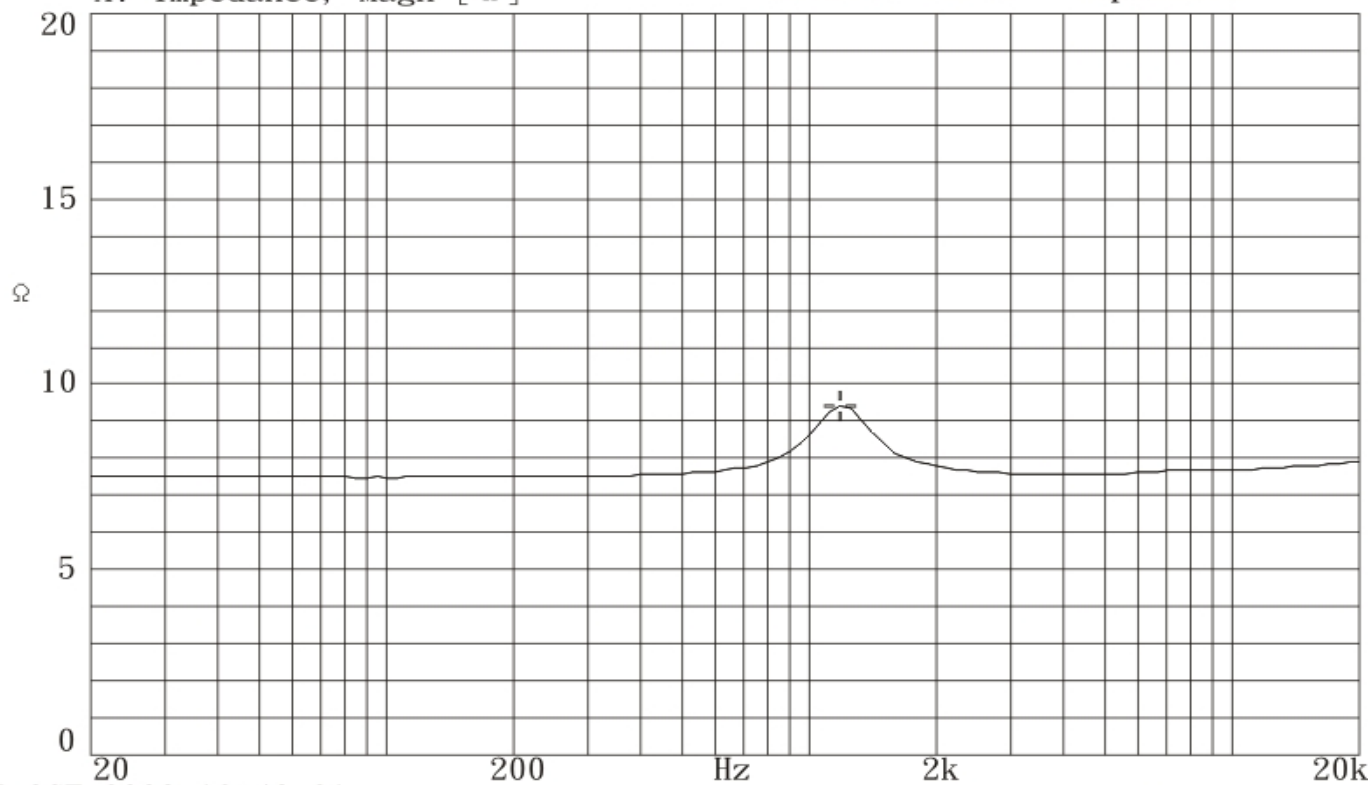
IMPEDANCE MEASUREMENTS: Measurement of Impedance $Z(j\omega)$

X:1.1800kHz Y:9.413 Ω

A: Impedance, Magn [Ω]

ZA:Live Curve

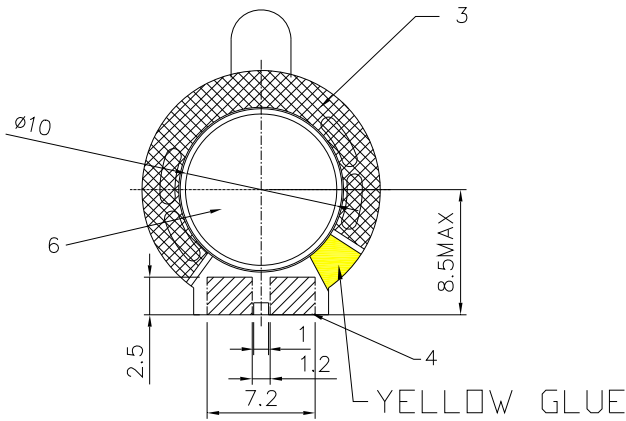
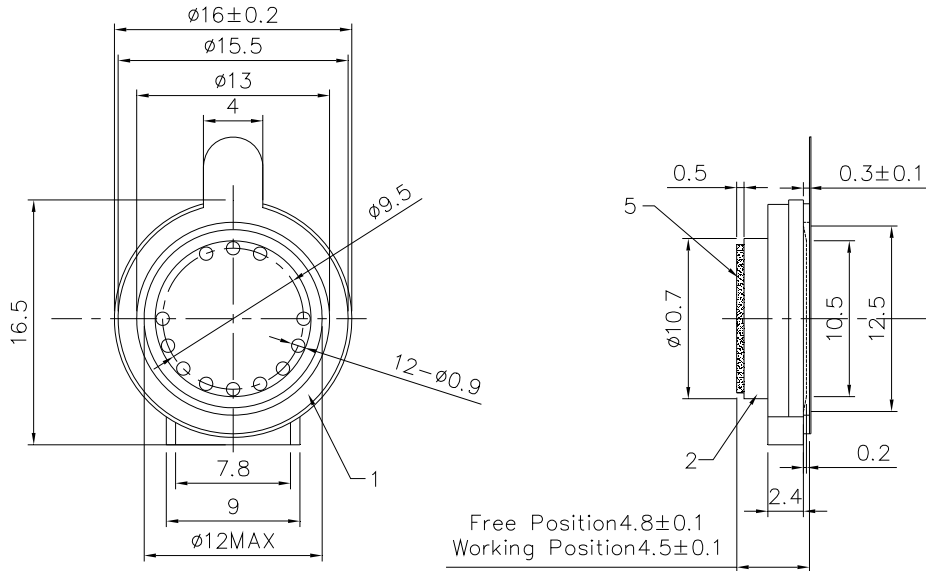
Impedance



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Mode: Z(j ω)



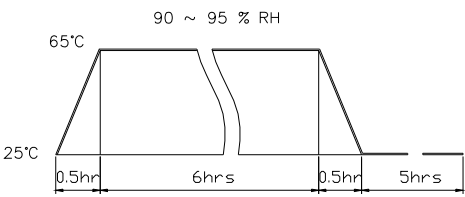


- 1. CAP
- 2. Frame
- 3. Screen
- 4. PCB
- 5. Sponge+Adhesive
- 6. Sponge

鍍金工藝：掛鍍（吊鍍）
 鍍金厚度：0.15~0.35 μ
 振膜材料：MYLAR

TITLE:	DYNAMIC SPEAKER	DRAWN:	Richard 2008/07/18	SCALE:	***	SHEET:	1 of 1
PART NO.	AS-1645E08-A4T	DESIGNED:	R&D DEP.	UNITS:	mm	TOLERANCE	$\pm 0.3mm$
DWG NO.	2	CHECKED:		UNLESS OTHERWISE SPECIFIED:			
		APPROVAL:		ONE PLACE DECIMAL \pm ***			
	REV	MATERIAL:	***	TWO PLACE DECIMAL \pm ***			
				THREE PLACE DECIMAL \pm ***			

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 240 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>	