

MESSRS.**SPECIFICATION FOR APPROVAL****承 认 书**

Product	DYNAMIC SPEAKER
Part No.	HDK-1308DA-5W (RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 JUL-19-2014	曹丽萍 JUL-19-2014	LILY JUL-19-2014

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EDITION:1.1

1.SPECIFICATION
HDK-1308DA-5W (RoHS)

ITEM		SPECIFICATIONS
01	Type	Dynamic speaker
02	Dimension	External diameter 13.0 mm
03	Rated Input Power	1.0W
04	Max. Input Power	1.2W for 1 minute
05	Impedance	8 ohm \pm 15% at 2000Hz.
06	Resonance Frequency (Fo)	1100Hz \pm 20% at Fo, 1V
07	Sensitivity (S.P.L.)	88dB (0.8W / 0.1m) \pm 3 dB at AVE 1.0– 2.0KHz.
08	Frequency Range	Fo – 20KHz
09	Total Harmonics Distortion	Max 8 % at 1 KHz, 0.8W.
10	Voice Coil	Diameter 7.4 mm
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 6.8x 0.7mm
12	Weight	1.1g \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 – 0.8W
15	Buzz, Rattle, etc.	Should not be audible at 2.53V 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

2-1 .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

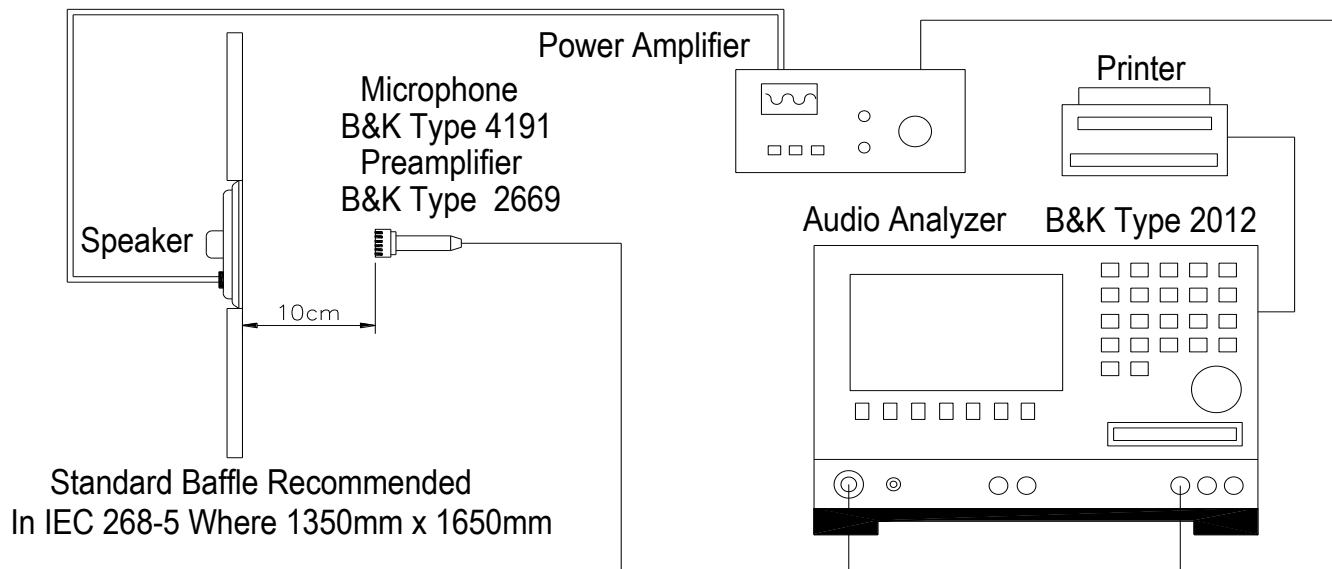
1.Input Power : 0.8W (2.53V)

2.Zero Level : -dB

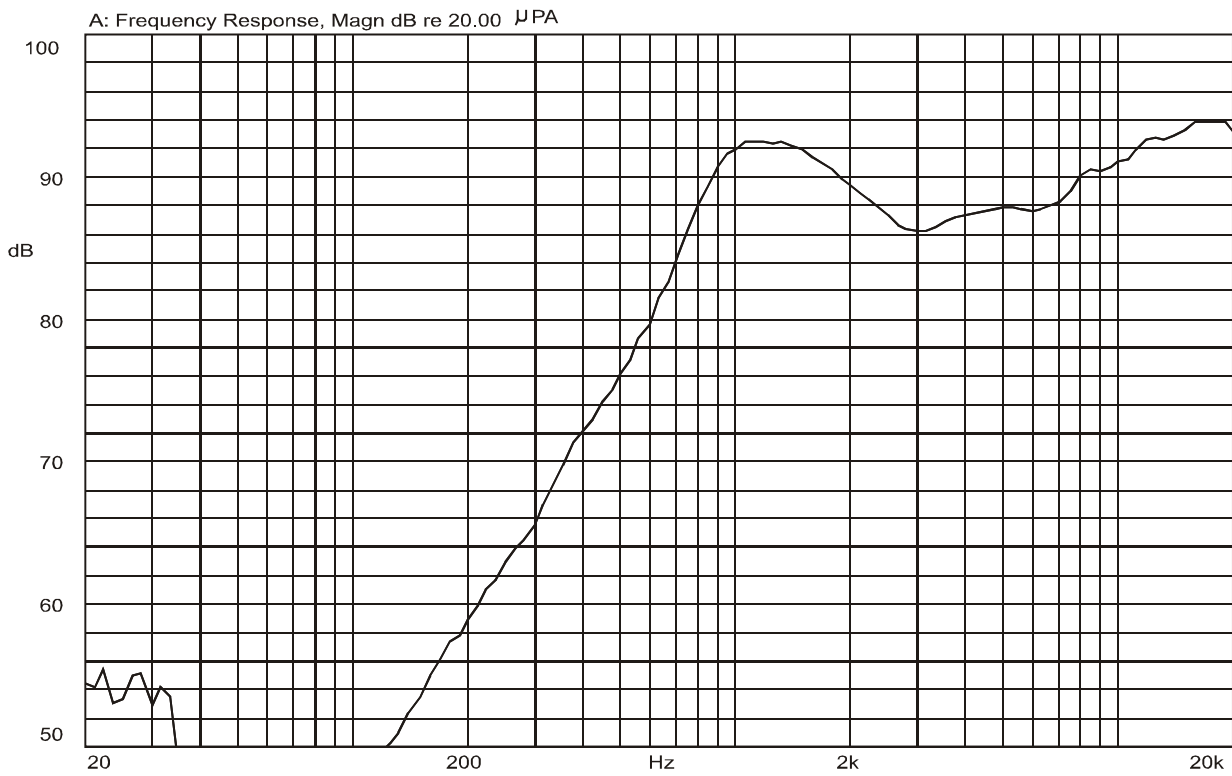
3.Mode : SPEAKER

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



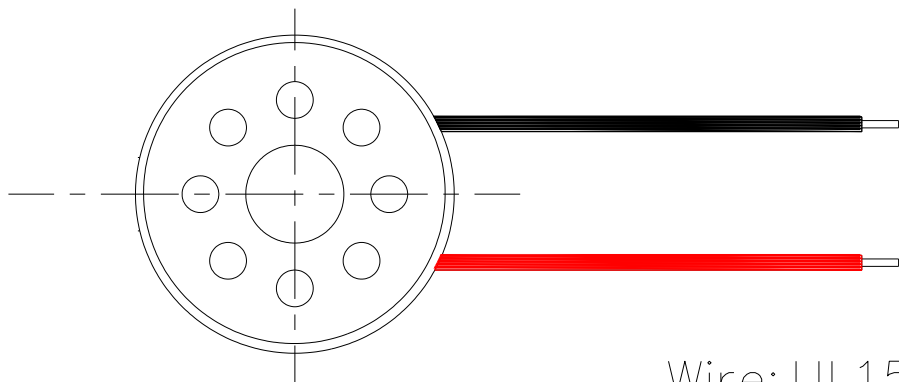
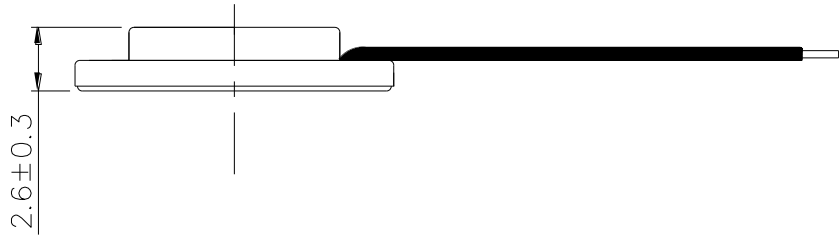
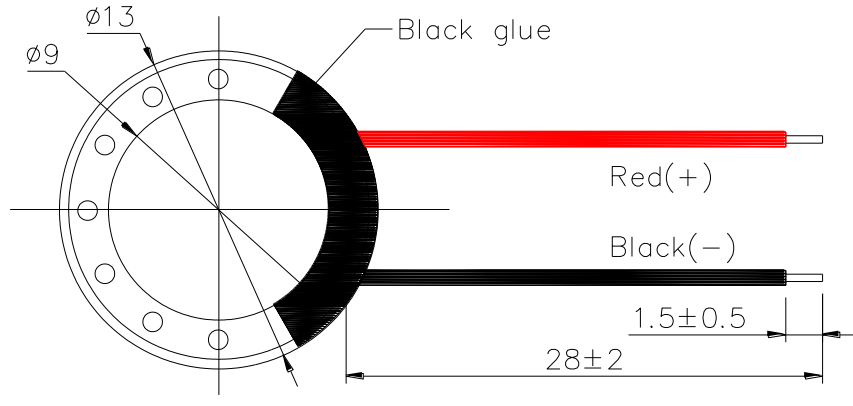
2-3. Frequency Response Curve



Mode: SSR



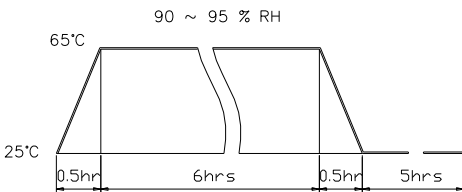
REV NO.	REVISION NOTE	APPROVAL	DATE
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Wire: UL1571, AWG32
Diaphragm: MYLAR
Case: Fe alloy

TITLE: DYNAMIC SPEAKER		DRAWN: Lily	2014/07/19	SCALE: 4:1	SHEET: 1 of 1
PART NO. HDK-1308DA-5W		DESIGNED: R&D OF D.S.	UNITS: mm		
DWG NO. DSE-1161		CHECKED: Emily	TOLERANCE ± 0.3		
		APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***		
		REV: 1	MATERIAL: SPCC		

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

5. SOLDERING CONDITION

Recommend using constant branding iron in **30W**, and in temperature range **$350\pm 10^{\circ}\text{C}$** .

Soldering time **2** seconds.