

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

Product	DYNAMIC SPEAKER
Part No.	HDK-1308DA-3W2 (RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 MAY-29-2012	曹丽萍 MAY-29-2012	LILY MAY-29-2012

常 州 华 龙 电 子 有 限 公 司**DRAGONSTATE ELECTRONIC CORPORATION**

中国江苏省常州市新区电子园新四路 36 号

Tel: +86-519-8510078. 86-519-85106698, Fax: +86-519-85101081

EDITION:1.1

1.SPECIFICATION
HDK-1308DA-3W2(RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 13.0 mm	
03	Rated Input Power	0.5W (Long Time)	
04	Max. Input Powe	0.8W (Short Time)	
05	Impedance	8 ohm ± 15% at 2000Hz.	
06	Resonance Frequency (Fo)	1100Hz ± 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	86dB(0.1W/0.1m) ± 3 dB	at AVE 1.2K,1.5K,2.0K,2.5KHz.
		93dB (0.5W / 0.1m) ± 3 dB	
08	Frequency Range	Fo – 6KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz,0.5W.	
10	Voice Coil	Diameter 7.4 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ6.8 x 0.9mm	
12	Weight	2.0g ± 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 – 0.5W	
15	Buzz, Rattle, etc.	Should not be audible at 2.0V 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℃ to +60℃	
		Storage temperature: -30℃ to +70℃	

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

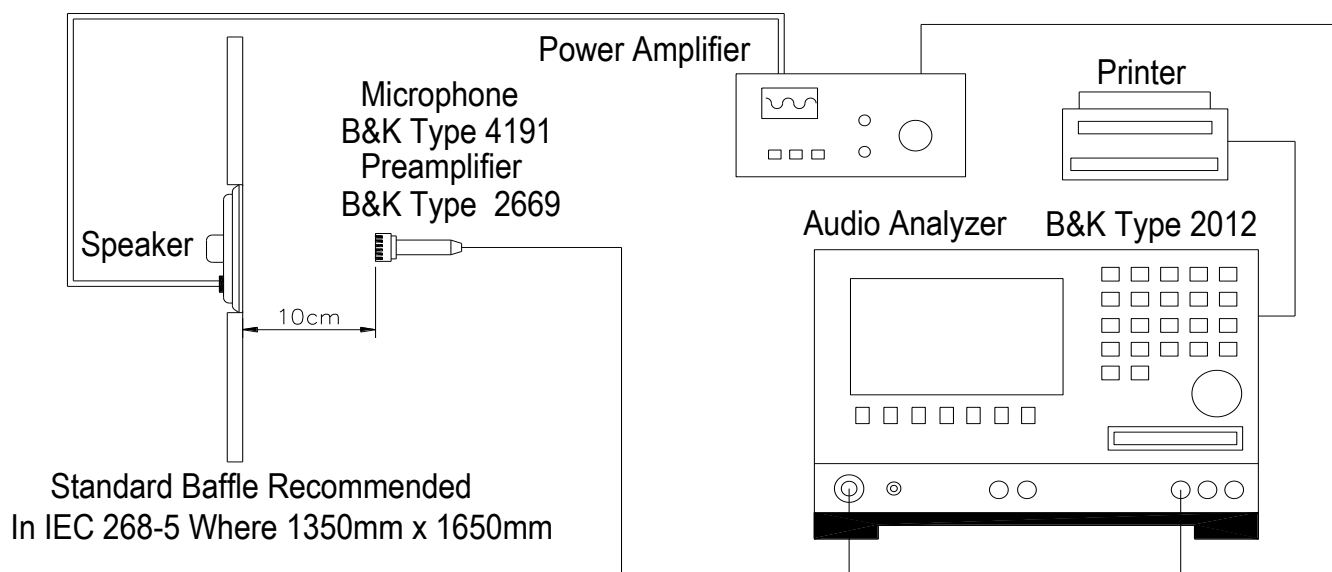
1.Input Power : 0.5W (2.0V)

2.Zero Level : -dB

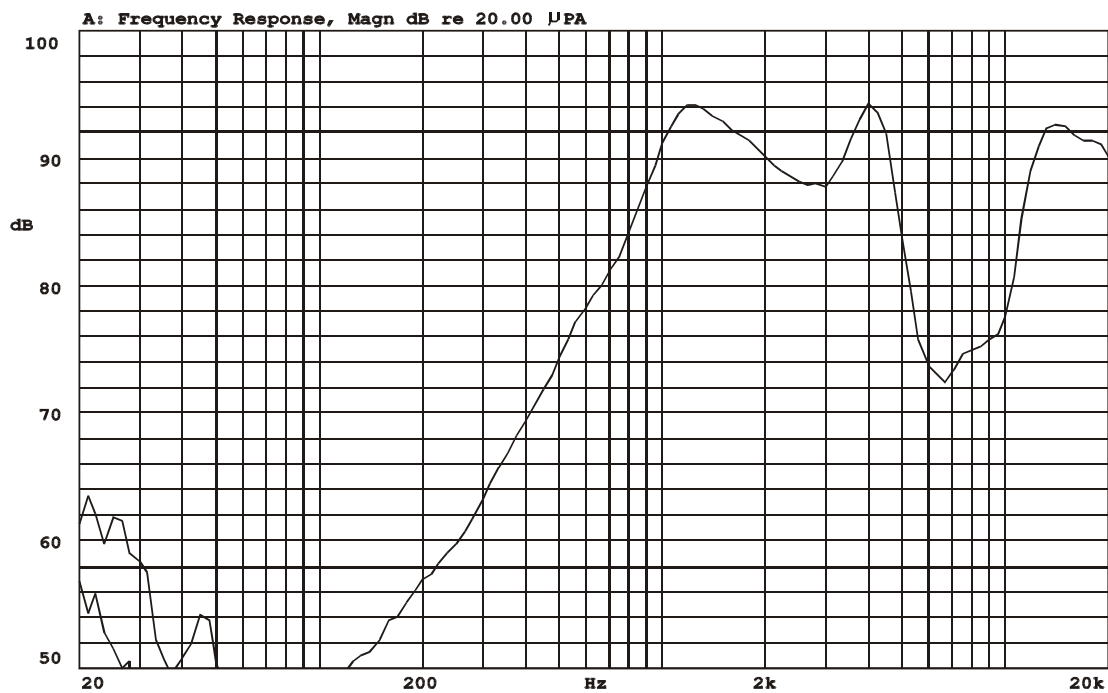
3.Mode : SPEAKER

4.potentiometer Range : 50dB

5.Sweep Time : 0.5sec



2-3. Frequency Response Curve



Mode: SSR

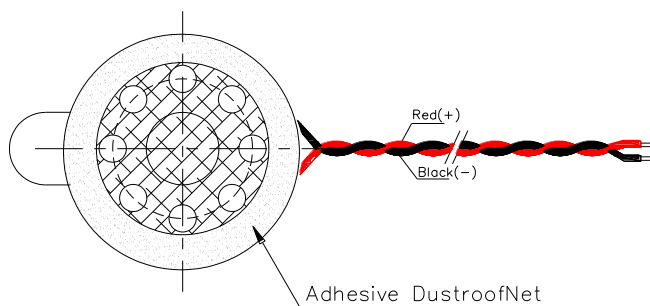
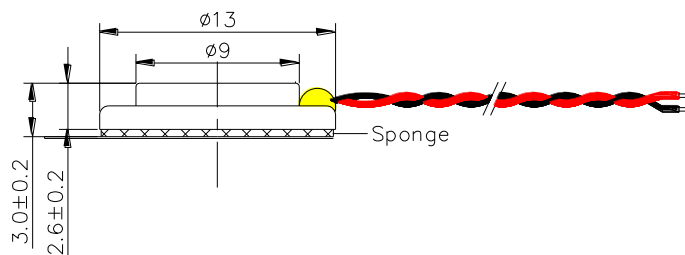
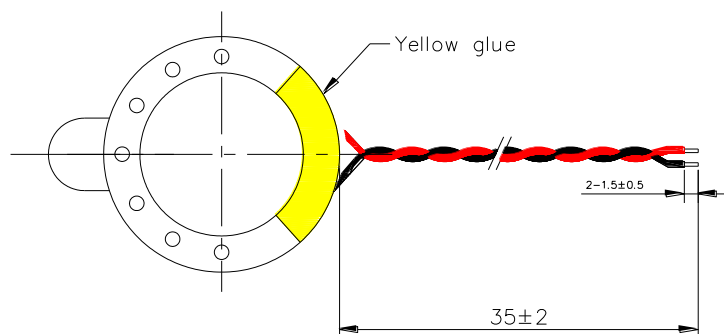


REV NO.

REVISION NOTE

APPROVAL

DATE



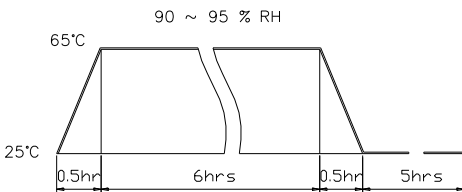
Wire: UL1571AWG32
Diaphragm: MYLAR
Case: Fe alloy

TITLE: DYNAMIC SPEAKER		DRAWN: Lily	2012/05/29	SCALE: 2.5/1	SHEET: 1 OF 1
PART NO. HDK-1308DA-3W2	1	DESIGNED: R&D OF DS		UNITS: mm	
DWG NO. DSE-1078		CHECKED: Emily		TOLERANCE ± 0.2	
		APPROVAL: Eric		UNLESS OTHERWISE SPECIFIED:	
	REV	MATERIAL: Fe alloy		ONE PLACE DECIMAL \pm ***	
				TWO PLACE DECIMAL \pm ***	
				THREE PLACE DECIMAL \pm ***	

DS

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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.
Criterion: After these test , the change of S.P.L shall be within $\pm 3 \text{ dB}$.		