

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

Product	DYNAMIC SPEAKER
Part No.	HDK-251308ZA-2A (RoHS)
Customer	
Customer Part No.	BV5800

Approved By	Checked By	Made By
王台平 DEC-19-2017	曹丽萍 DEC-19-2017	LILY DEC-19-2017

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

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EDITION:1.1

1. Specification

HDK-251308ZA-2A (RoHS)

ITEM		SPECIFICATIONS
01	Type	Dynamic speaker
02	Dimension	External diameter 25*13 mm
03	Rated Input Power	0.8W
04	Max. Input Power	1.0W For 1 Minute
05	Impedance	6 ohm \pm 15% at 2000Hz 0.5V
06	Resonance Frequency (Fo)	420 \pm 20% Hz (in free air)
07	Resonance Frequency (Fo)	800 \pm 20 %Hz (in Box)
08	Sensitivity (S.P.L.)	97 \pm 3dB/0.1M/1.0W 800---2.0KHz AV In Box
09	Frequency Range	Fo – Fh Hz
10	Weight	7.7g \pm 5%g
11	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
12	Operation Test	Must be normal at program source – 0.8W
13	Buzz, Rattle, etc.	Must be normal at sine wave 1.5Vrms (in free air) /2.2Vrms(in box) from 200~5K Hz
13	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
14	Terminal Strength	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
15	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C

2. Test Condition

2.1 Standard

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

Basic

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

2.2 Standard Test Fixture

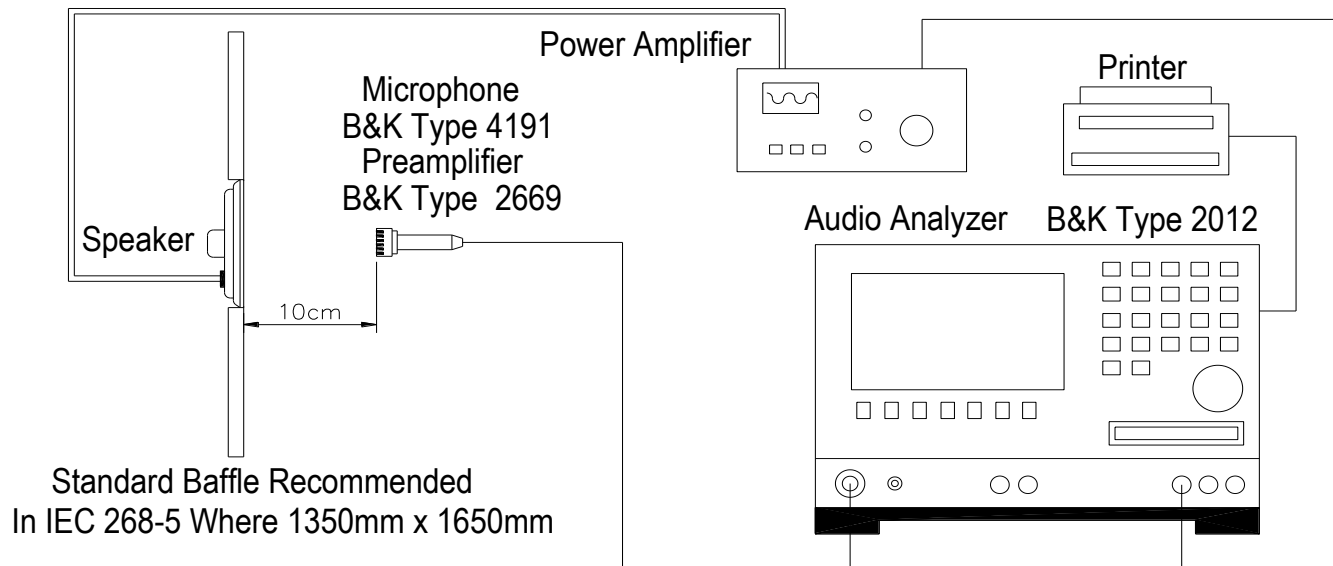
1. Input Power : 1.0W (2.2V)

2. Zero Level : -dB

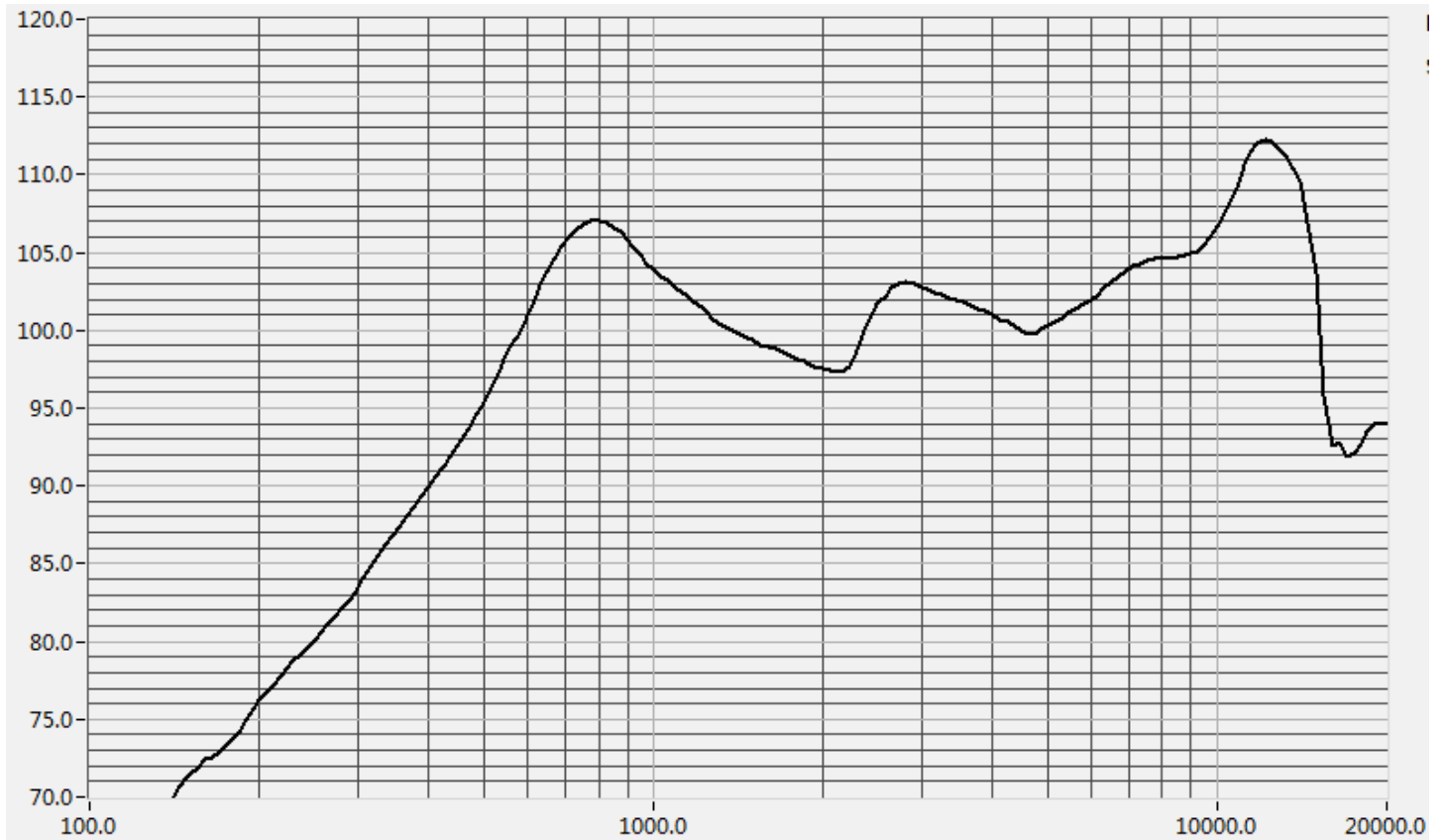
3. Mode : SPEAKER

4. potentiometer Range : 50dB

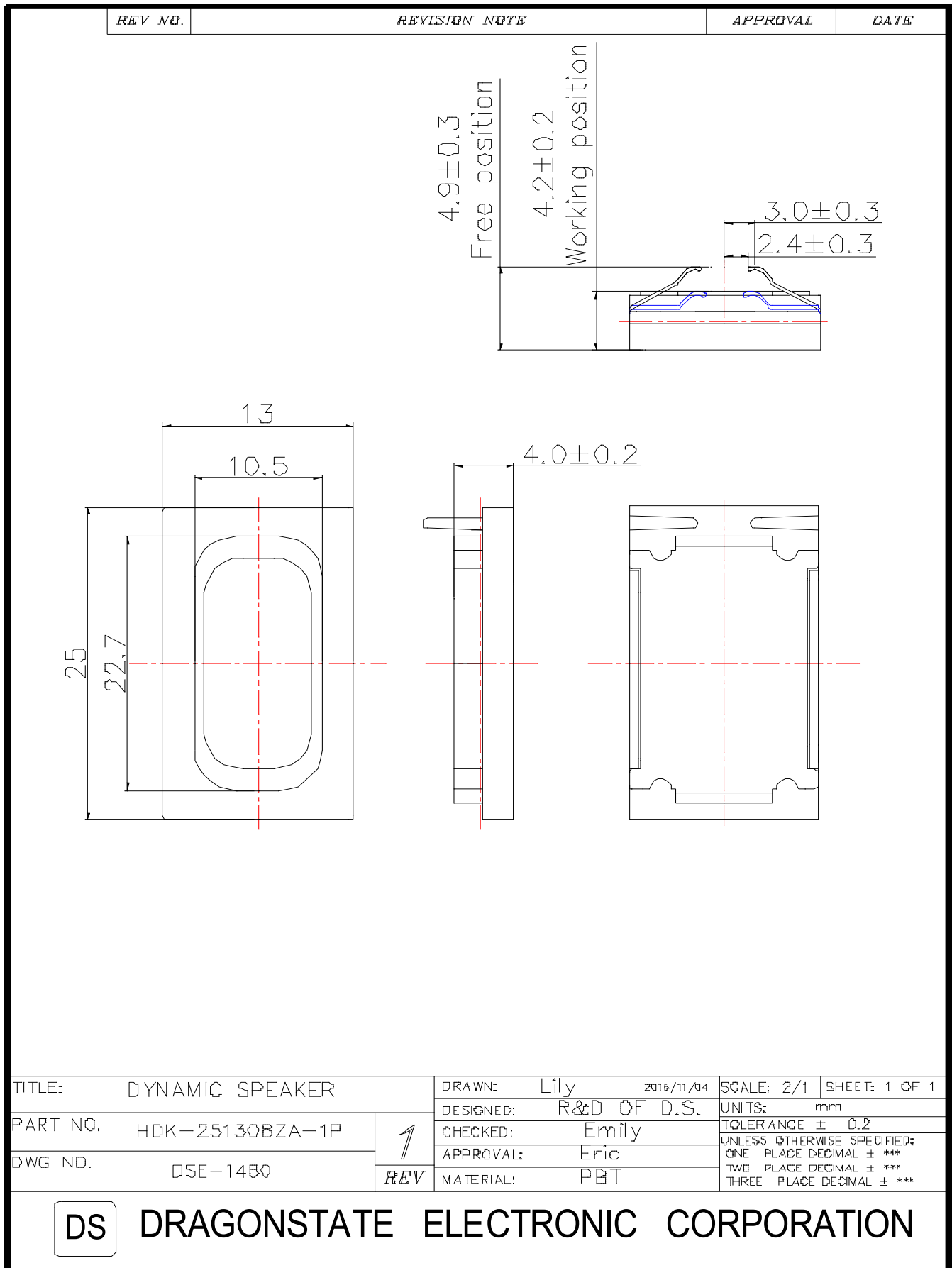
5. Sweep Time : 0.5sec



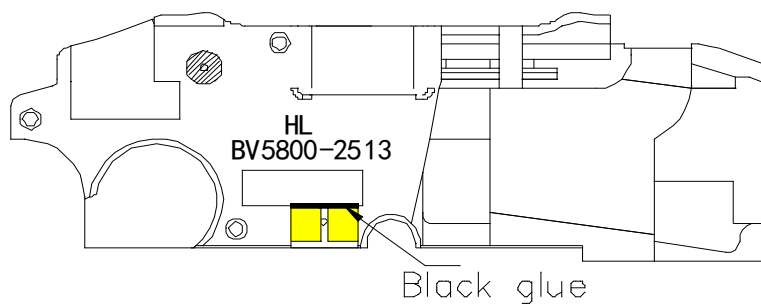
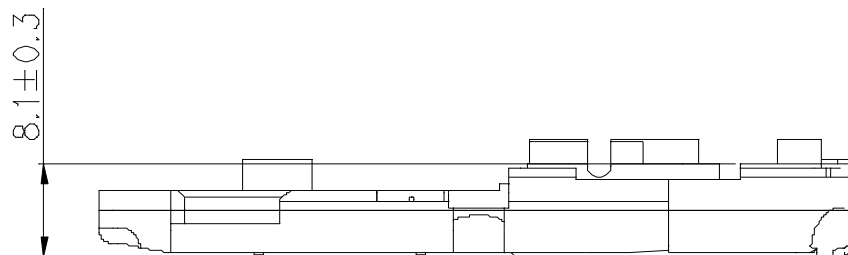
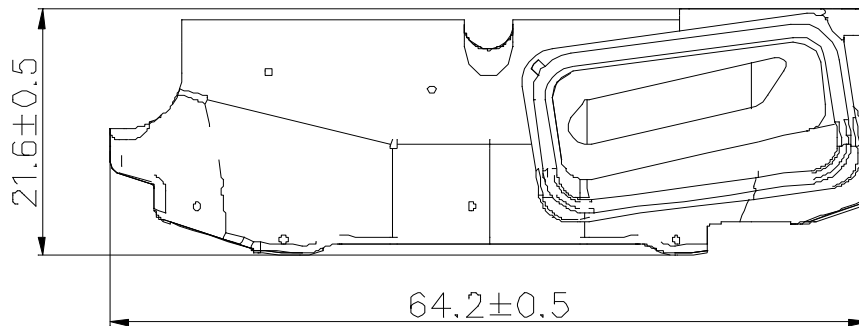
2.3 Frequency Response Curve



3.Dimension



REV NO.	REVISION NOTE	APPROVAL	DATE
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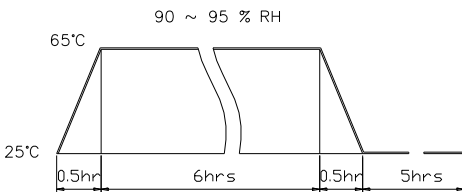


TITLE: DYNAMIC SPEAKER	DRAWN: Lily	2017/12/19	SCALE: 2/1	SHEET: 1 OF 1
PART NO. HDK-251308ZA-2A	DESIGNED: R&D OF D.S.		UNITS: mm	
DWG NO. DSE-2616	CHECKED: Emily		TOLERANCE ± 0.2	
	APPROVAL: Eric		UNLESS OTHERWISE SPECIFIED:	
	MATERIAL: ABS		ONE PLACE DECIMAL ± ***	
			TWO PLACE DECIMAL ± ***	
			THREE PLACE DECIMAL ± ***	

DS

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4. Reliability tests

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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 $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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: $+85^{\circ}\text{C} \pm 3^{\circ}\text{C}$, 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 in 1.5cc closebox
10	Protection against liquids	Protected against 30 minutes of immersion under 1M pressure Product without leakage
11	Max Power test	Max power 1 min on – 2 min off 10 cycles.
12	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 **15 ~ 30W**, and in temperature range **$350 \pm 10^{\circ}\text{C}$** .

[illegible]