

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

Product	DYNAMIC SPEAKER
Part No.	HDK-181308ZA-4W6 (RoHS)
Customer	
Customer Part No.	

Approved By	Checked By	Made By
王台平 JUN-20-2018	曹丽萍 JUN-20-2018	LILY JUN-20-2018

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EDITION:1.1

1. Specification

HDK-181308ZA-4W6 (RoHS)

ITEM		SPECIFICATIONS
01	Type	Dynamic speaker
02	Dimension	External diameter 18*13 mm
03	Rated Input Power	0.7W In Box
04	Max. Input Power	1.0W In Box For 1 Minute
05	Impedance	8 ohm $\pm$ 15% at 1000Hz.
06	Resonance Frequency (Fo)	550Hz $\pm$ 20% (in free air)
	Resonance Frequency (Fo)	900Hz $\pm$ 20% (in box)
07	Sensitivity (S.P.L.)	93 $\pm$ 3 dB /1.0W/0.1m at 2.0KHz
08	Frequency Range	Fo -20KHz
09	Total Harmonics Distortion	Max 5% at 1 KHz,0.1W.
10	Weight	4.4g $\pm$ 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 – 0.7W
13	Buzz, Rattle, etc.	Must be normal at sine wave 0.89Vrms (in free air) /2.37Vrms(in box) from 300~3.4KHz
14	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.
15	Terminal Strength	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.
16	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -30°C to +70°C

2-1. Test Condition

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

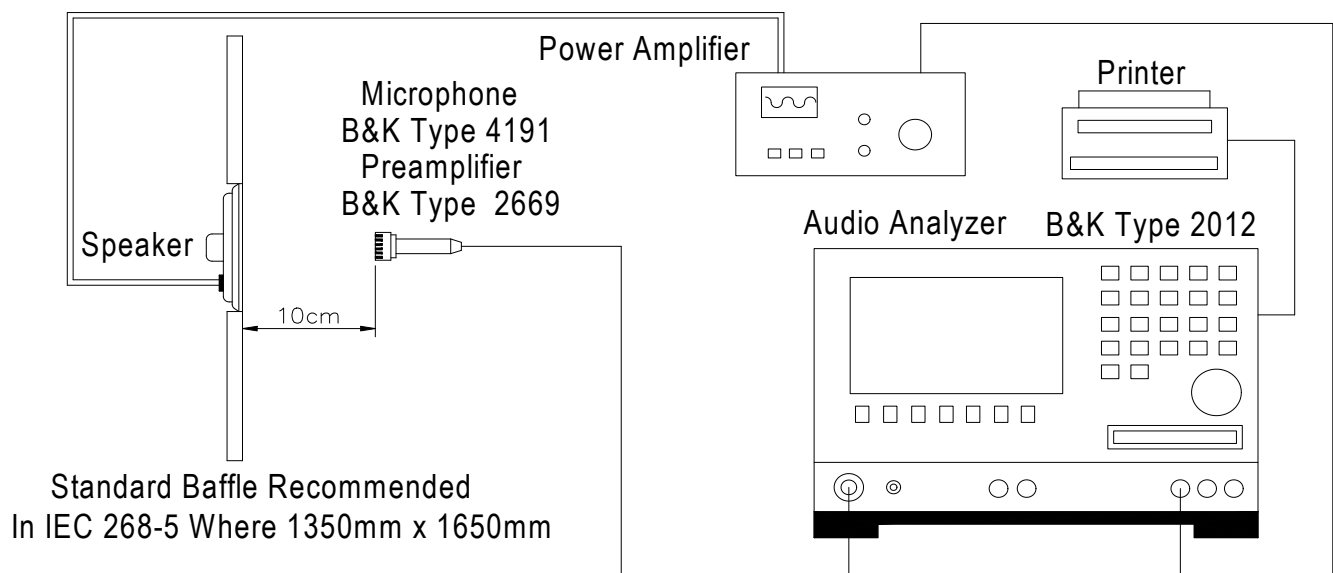
1.Input Power : 0.7W (2.37V)

2.Zero Level : -dB

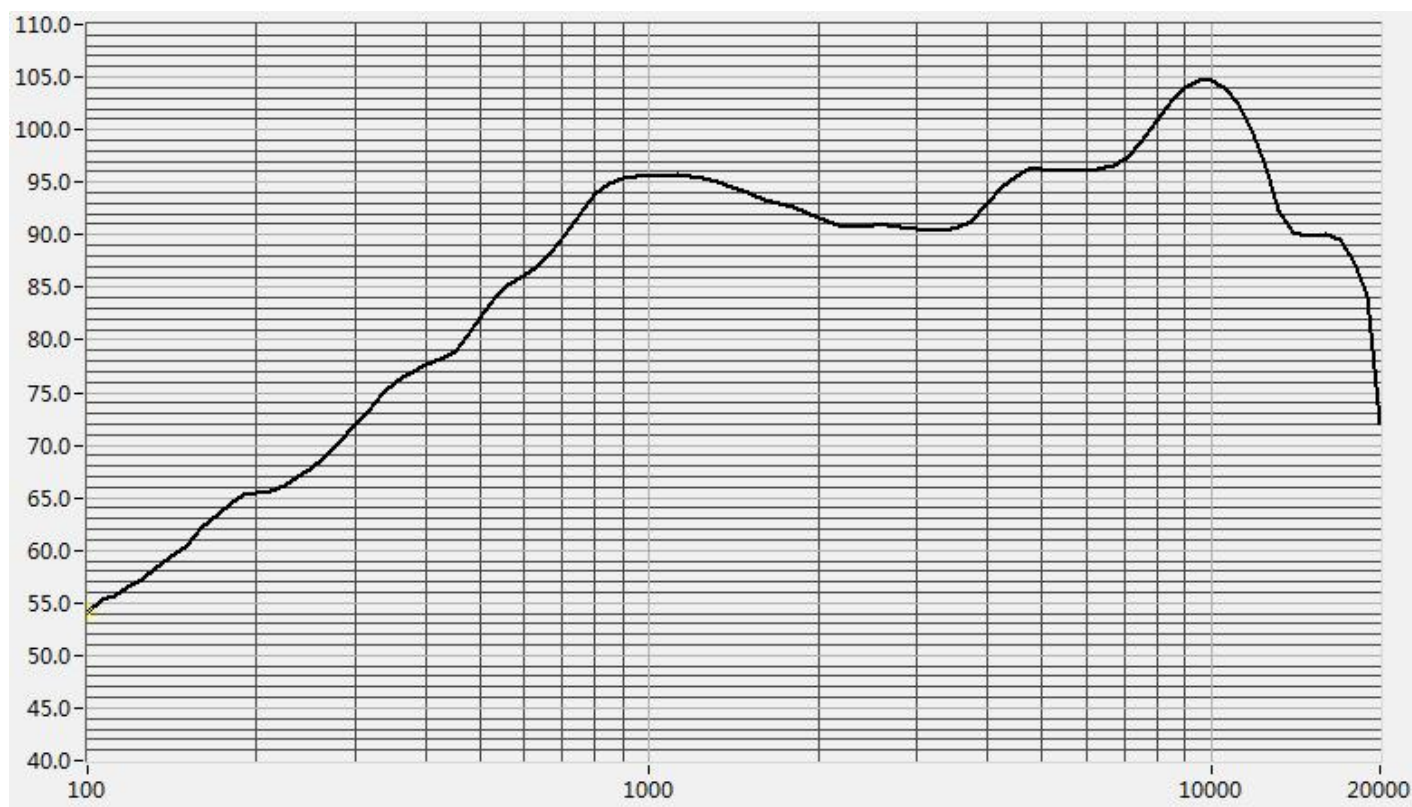
3.Mode : SPEAKER

4.potentiometer Range : 50dB

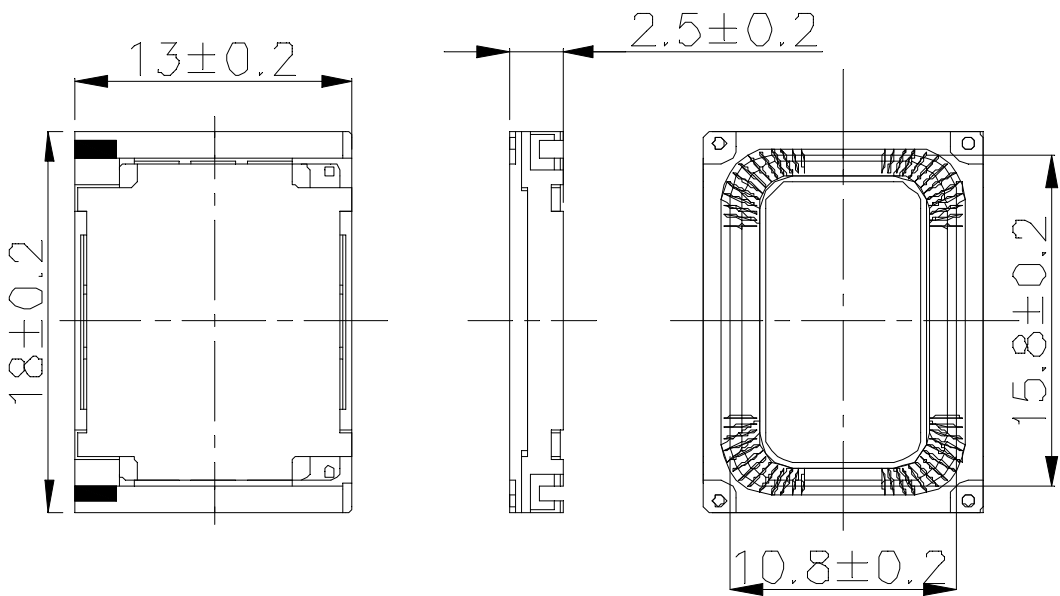
5.Sweep Time : 0.5sec

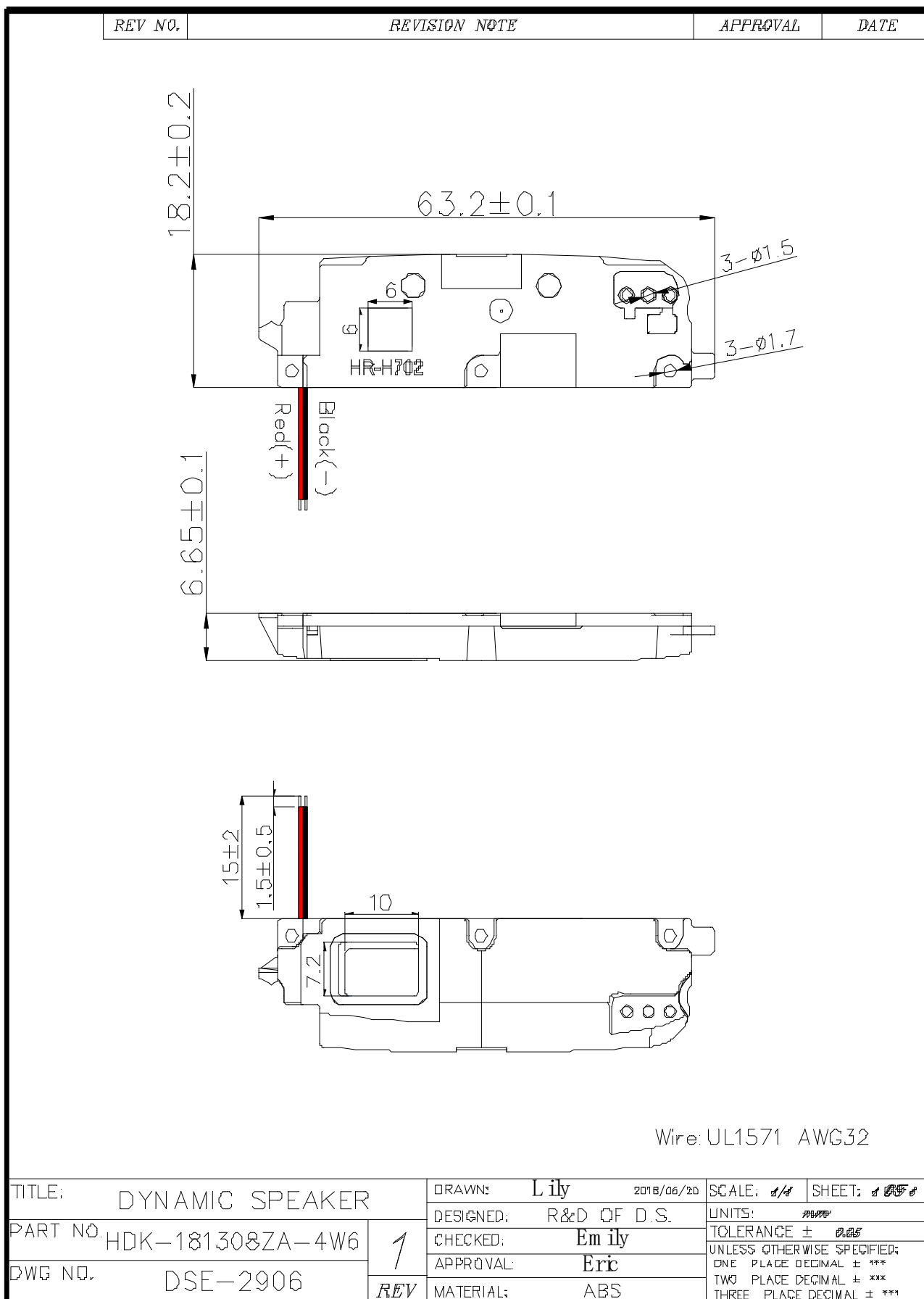


2-3. Frequency Response Curve

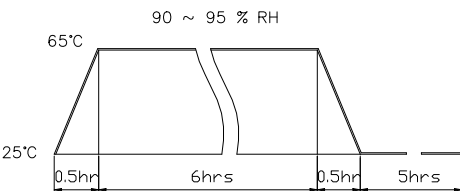


3.Dimension

REV NO.	REVISION NOTE	APPROVAL	DATE
			
TITLE: DYNAMIC SPEAKER		DRAWN: L ily 2016/05/20	SCALE: 2:1 SHEET: 1/1
PART NO. HDK-181308ZA-4	1	DESIGNED: R&D OF D.S.	UNITS: mm
		CHECKED: Em ily	TOLERANCE ± 0.2
DWG NO. DSE-2426	REV	APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± ***
		MATERIAL: PBT	TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ****



4. Reliability Test

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 $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of; 
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 $\pm 3 \text{ dB}$.		

SOLDERING CONDITION

Recommend using constant branding iron in **15 ~ 30W**, and in temperature range **$350 \pm 10^{\circ}\text{C}$** .

Soldering time not over **3 seconds**.



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