

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

Product	DYNAMIC SPEAKER
Part No.	HDK-1804AA-1W (RoHS)
Customer	
Customer Part No.	

Approved By	Checked By	Made By
王台平 APR-26-2018	曹丽萍 APR-26-2018	LILY APR-26-2018

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1. Specification

HDK-1804AA-1W (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 18 mm	
03	Rated Input Power	0.8W	
04	Max. Input Power	1.0W for 1 minute	
05	Impedance	4 ohm ± 15% at 1500Hz.	
06	Resonance Frequency (Fo)	900Hz ± 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	90dB(0.1W/0.1m) ± 3 dB	at AVE 0.8K 1.0K 1.2K 1.5KHz
		95dB (1.0W / 0.1m) ± 3 dB	
08	Frequency Range	Fo – 20KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz,1.0W.	
10	Voice Coil	Diameter 10.25 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ9.7 x 1.3 mm	
12	Weight	2.5g ± 0.2g	
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 2.0V 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℃	

2. Test Condition

2.1 STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

2.2 BASIC

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Test Fixture

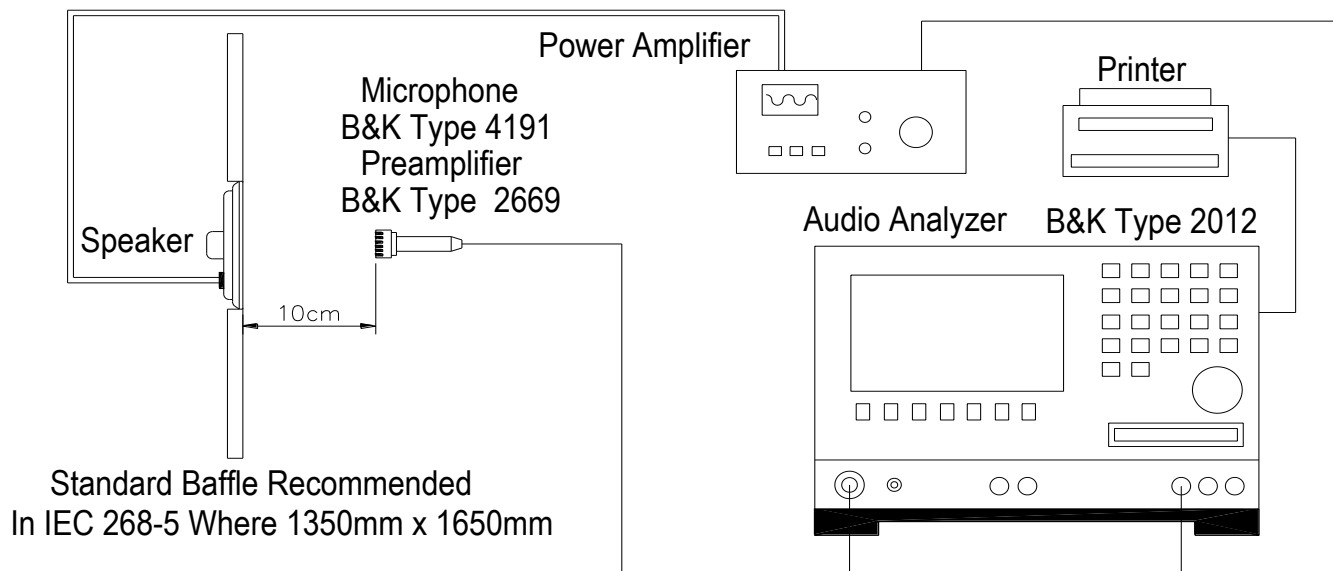
1. Input Power : 1.0W (2.0V)

2. Zero Level : -dB

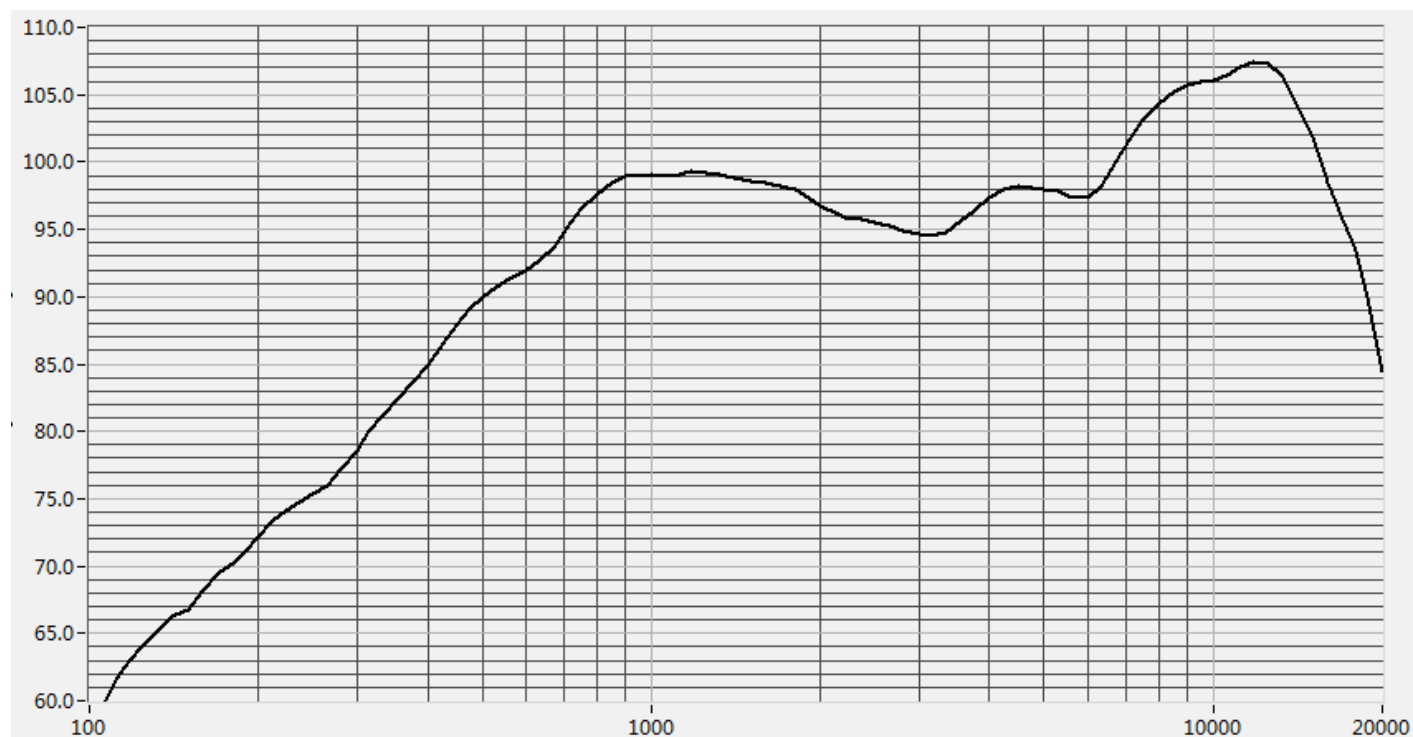
3. Mode : SPEAKER

4. potentiometer Range : 50dB

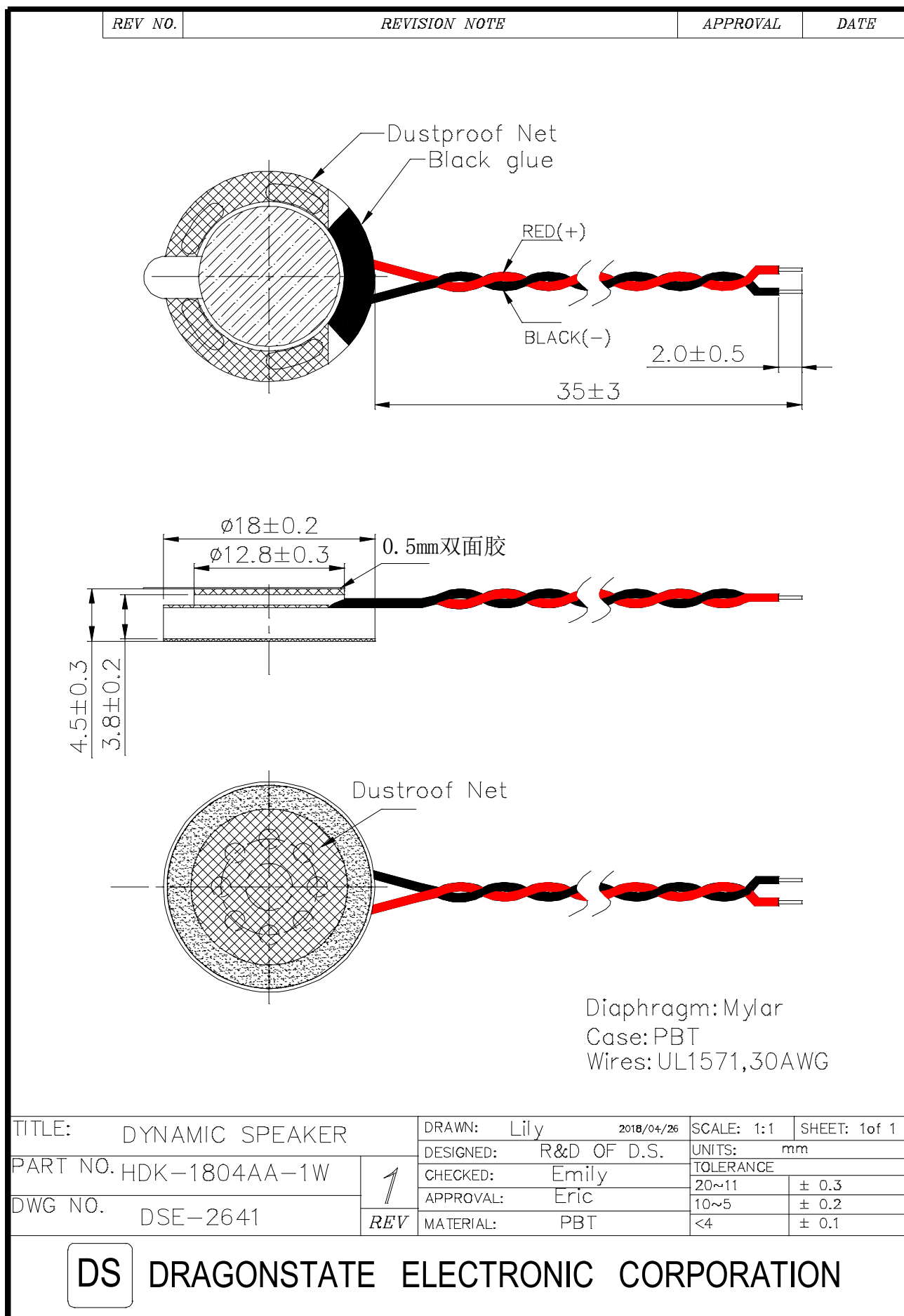
5. Sweep Time : 0.5sec



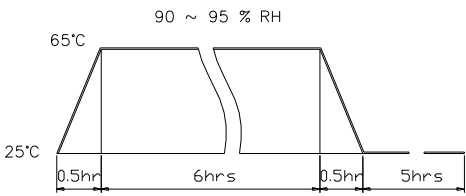
2.3 Frequency Response Curve



3.Dimension



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 3. 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	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:

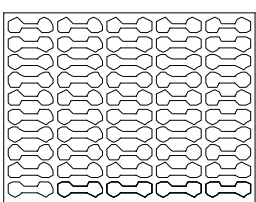
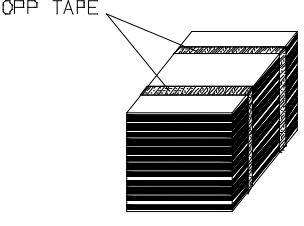
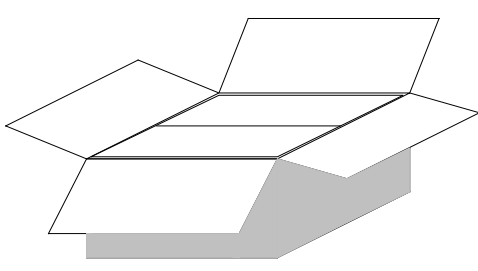
After these test , the change of S.P.L shall be within $\pm 3 \text{ dB}$.

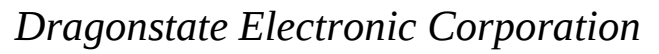
SOLDERING CONDITION

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

Soldering time not over 3 seconds.

5.Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
	 Cover(325*245*5mm) Material: Paper		
	 Box(325*245*13mm) 100pcs Material: Paper+Epe		
	 Middle(325*245*155mm) 1000pcs(10*100pcs) Material: Paper+Epe		
	 Outer Box(490*360*350mm) 4000pcs(4*1000pcs) Material: Paper		
单位: mm			
TITLE: packing		DRAWN: Lily 2016/08/25	
PART NO.		DESIGNED: R&D OF D.S.	
		CHECKED: Emily	
DWG NO.		APPROVAL: Eric	
		MATERIAL: ***	
DS DRAGONSTATE ELECTRONIC CORPORATION		SCALE: 2:1	
		SHEET: 1 of 1	
		UNITS: mm	
		TOLERANCE	
		20~11	± 0.3
		10~5	± 0.2
		<4	± 0.1

[illegible]