

MESSRS.

SPECIFICATION FOR APPROVAL

承 认 书

Product	DYNAMIC SPEAKER
Part No.	HDK-2008AA-5C1 (RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 FEB-26-2016	曹丽萍 FEB-26-2016	LILY FEB-26-2016

常 州 华 龙 电 子 有 限 公 司

DRAGONSTATE ELECTRONIC CORPORATION

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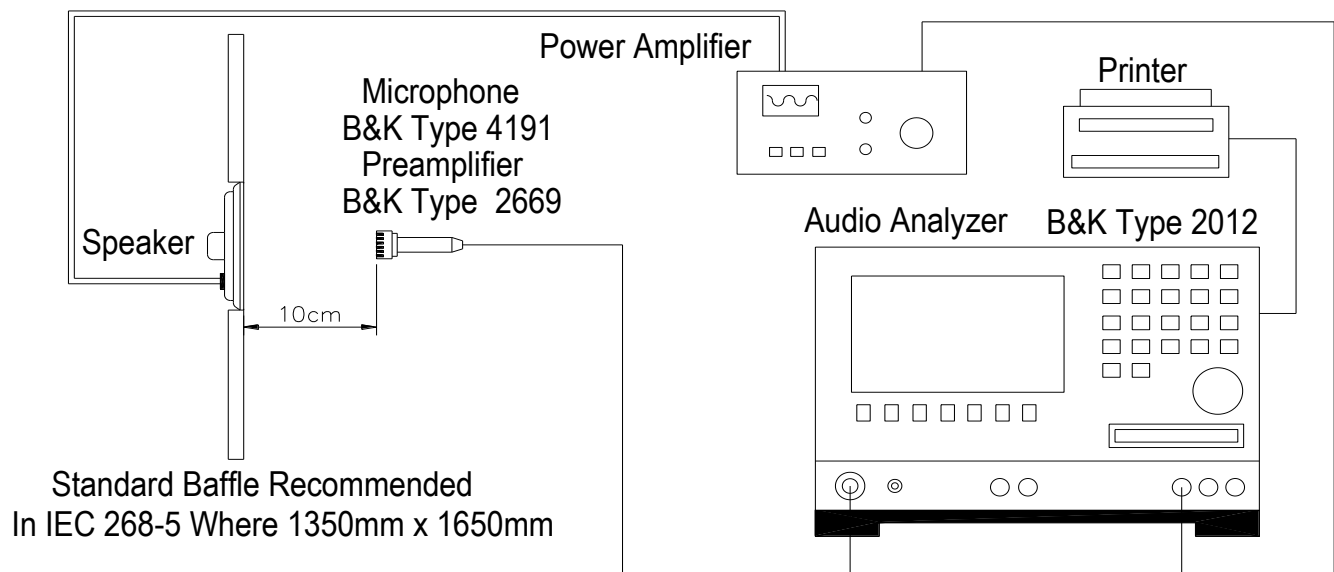
Tel: +86-519-85110078. 86-519-85106698, Fax: +86-519-85101081

EDITION:1.2

1. SPECIFICATION

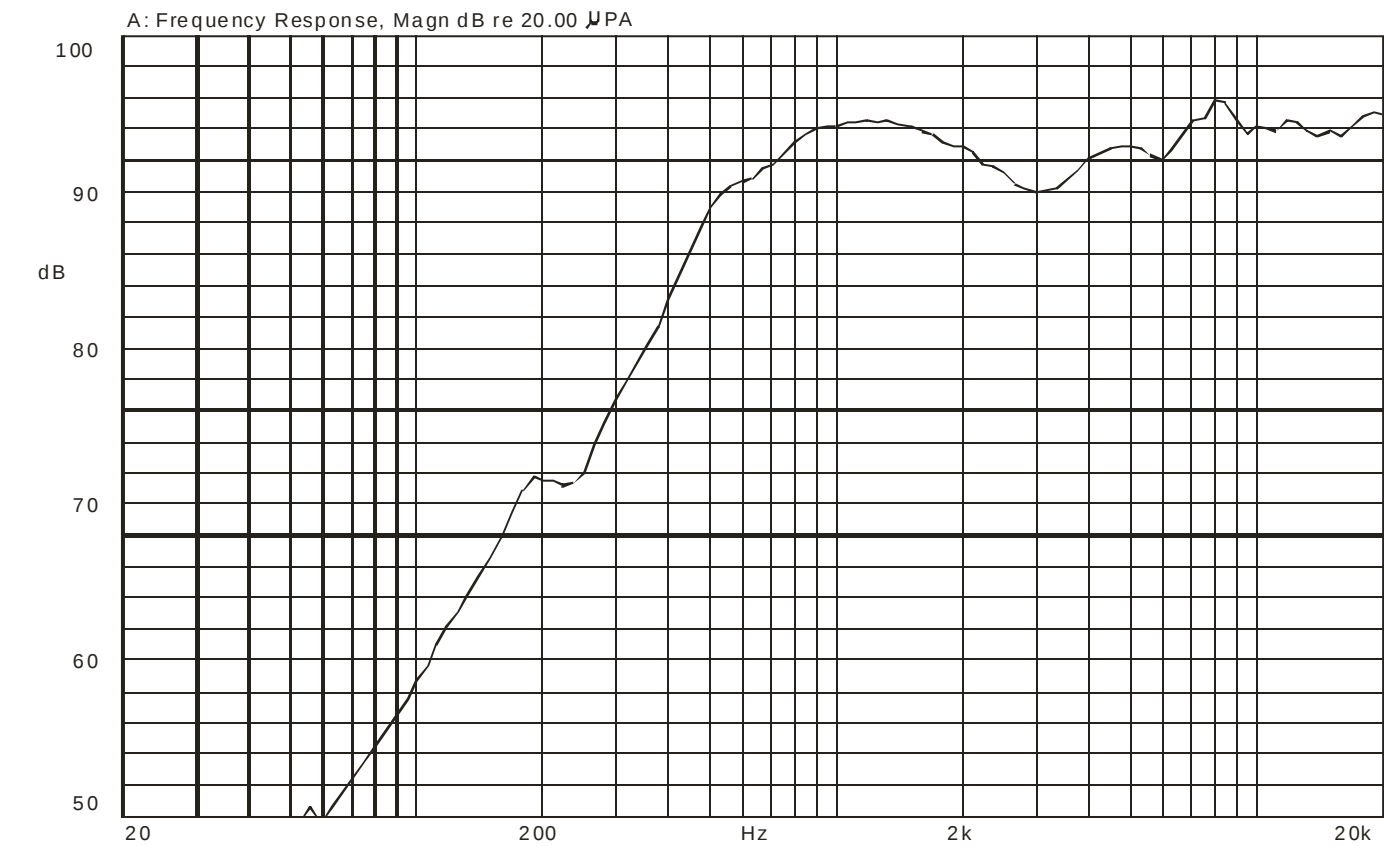
HDK-2008AA-5C1 (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 20 mm	
03	Rated Input Power	0.8W	
04	Max. Input Power	1.0W for 1 minute	
05	Impedance	8 ohm $\pm$ 15% at 1500Hz.	
06	Resonance Frequency (Fo)	850Hz $\pm$ 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	95dB (0.8W / 0.1m) $\pm$ 3 dB	at AVE 0.8,1.0,1.2,1.5 KHz
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 Φ 9.6x0.9 mm	
12	Weight	1.5g $\pm$ 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 – 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°C to +60°C Storage temperature: -30°C to +70°C	



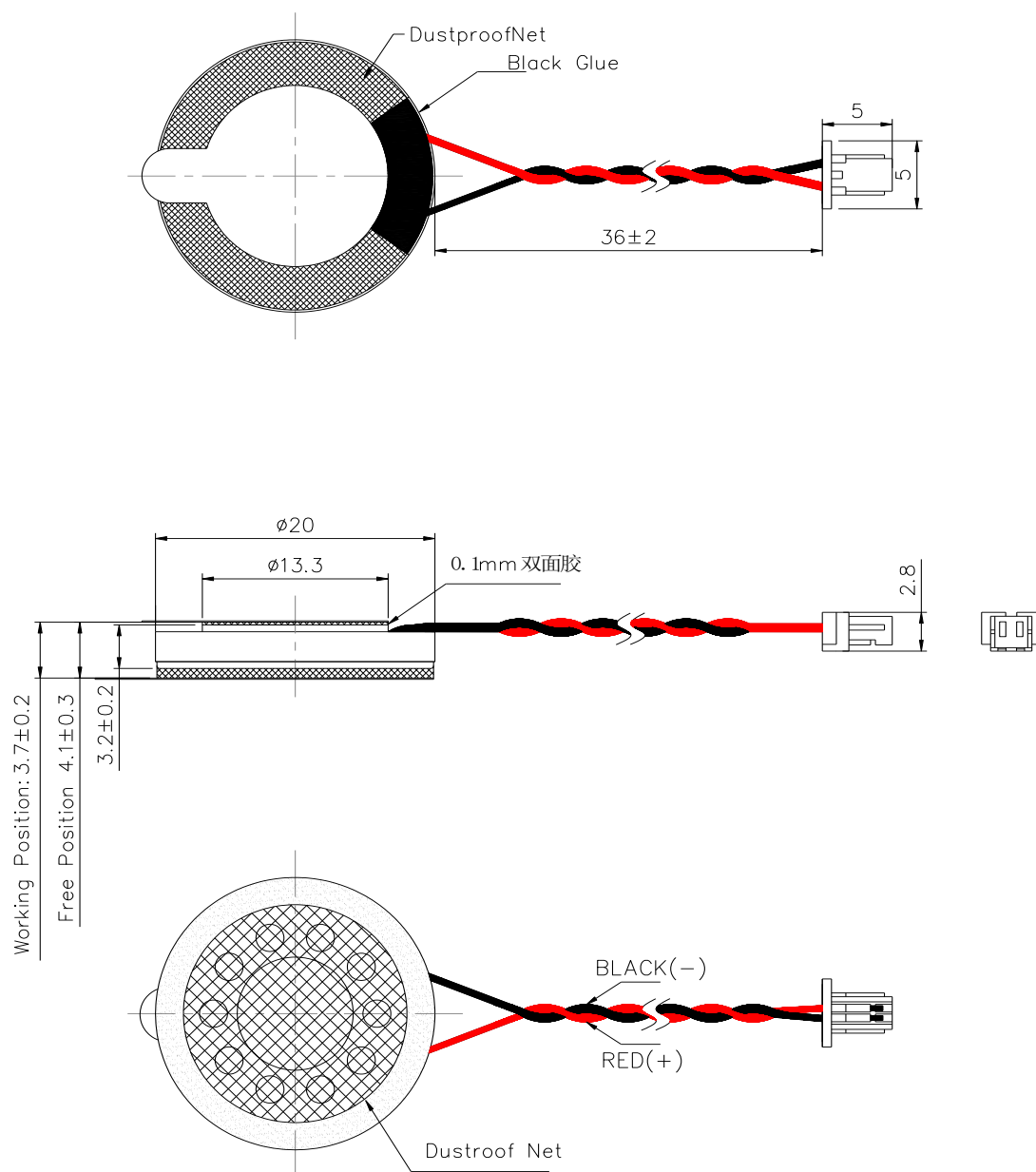
Frequency Response Curve

X:2.0000kHz *Y:92.83dB ZA:Live Curve SSR Fund.



Mode: SPEAKER

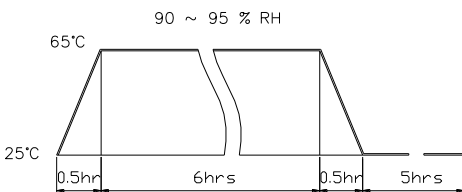




Case: PBT
 Diaphragm: Mylar
 WIRE.: UL1571 AWG30
 TERMINAL JST SHR-02V-S-B

TITLE: DYNAMIC SPEAKER		1	DRAWN: Lily	2016/02/26	SCALE: 2:1	SHEET: 1 of 1
PART NO. HDK-2008AA-5C1	DESIGNED: R&D OF D.S.		UNITS: mm			
DWG NO. DSE-1807	CHECKED: Emily		TOLERANCE			
	APPROVAL: Eric		20~11	± 0.3		
	MATERIAL: PBT		10~5	± 0.2		
		REV		<4	± 0.1	

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	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.