MESSRS.

SPECIFICATION FOR APPROVAL
承 认 书

Product	**DYNAMIC SPEAKER**
Part No.	**HDK-5204KC-4W (RoHS)**
Customer Approval	

Approved By	Checked By	Made By
王台平 MAR-23-2020	曹丽萍 MAR-23-2020	LILY MAR-23-2020

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

EDITION:1.1

File Name:

1. SPECIFICATION

HDK-5204KC-4W

ITEM		SPECIFICATIONS	
01	**Type**	Dynamic speaker	
02	**Dimension**	External diameter 52 mm	
03	**Rated Input Power**	3W	
04	**Max. Input Power**	4W for 1 minute	
05	**Impedance**	4 ohm ± 15% at 1000Hz.	
06	**Resonance Frequency (Fo)**	200Hz ± 20% at Fo, 1V	
07	**Sensitivity (S.P.L.)**	89.5dB (1.0W / 1.0m) ± 3dB	at AVE 0.6K,0.8K,1.0K,1.2KHz
08	**Frequency Range**	Fo– 13KHz	
09	**Total Harmonics Distortion**	Max 5% at 1 KHz,3W.	
10	**Weight**	g ± 5g	
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 – 3W	
13	**Buzz, Rattle, etc.**	Should not be audible at 3.46V sine Wave between Fo to 10KHz	
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: -30℃ to +70℃ Storage temperature: -30℃ to +70℃	

(RoHS)

2.TEST CONDITION

STANDARD

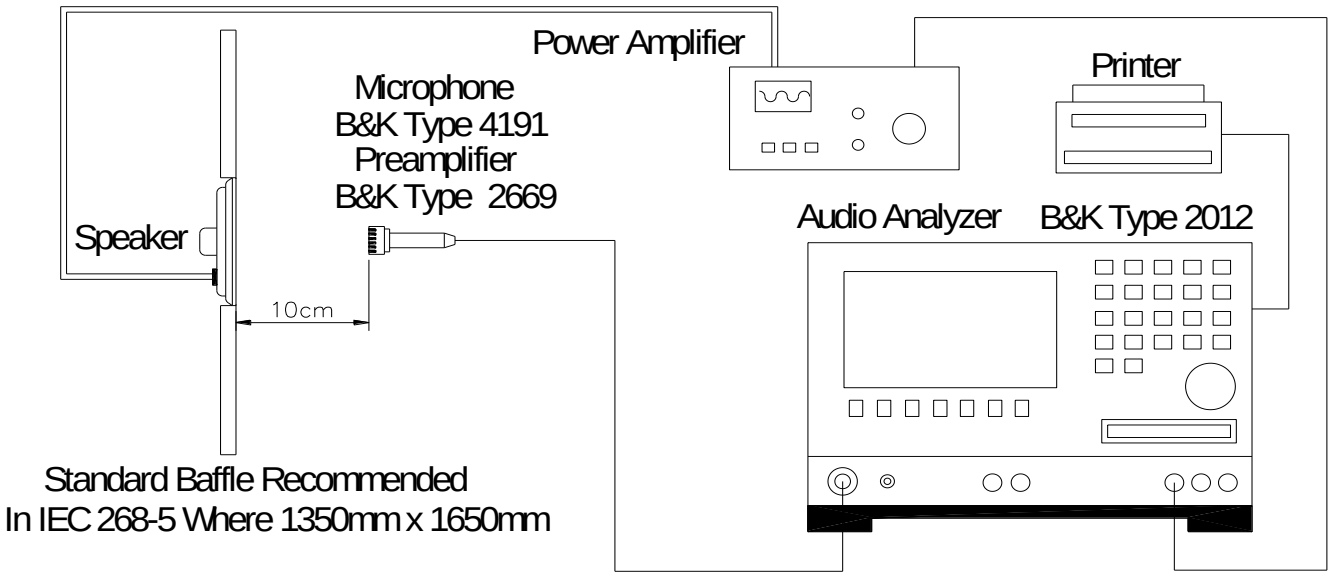
Temperature : 15 ~ 35℃
Relative humidity : 25% ~ 85%,
Atmospheric pressure : 860mbar to 1060mbar.

BASIC

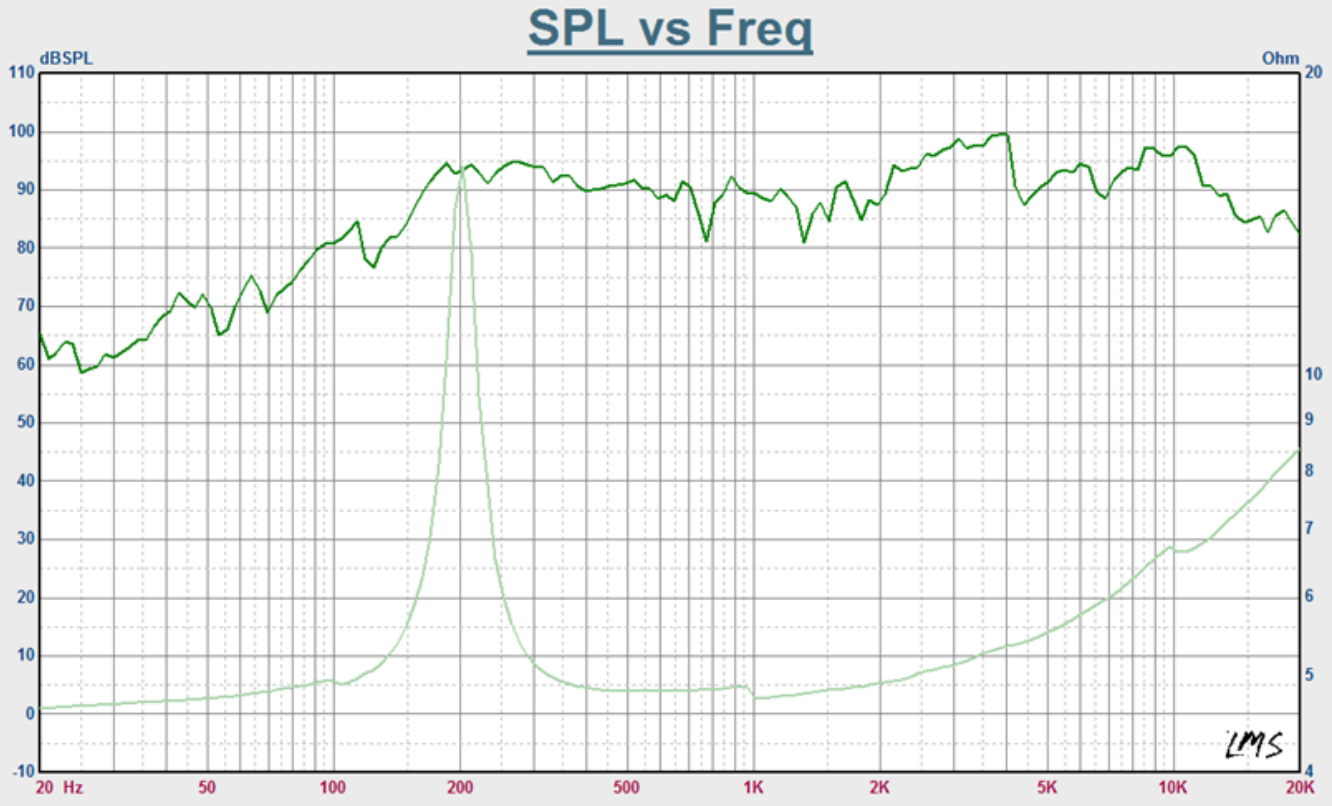
Temperature : 20±3℃
Relative humidity : 60% ~ 70%,
Atmospheric pressure : 860mbar to 1060mbar

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

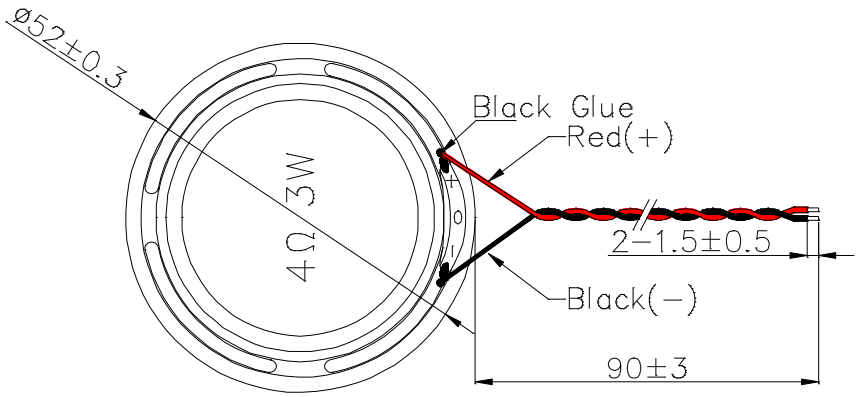


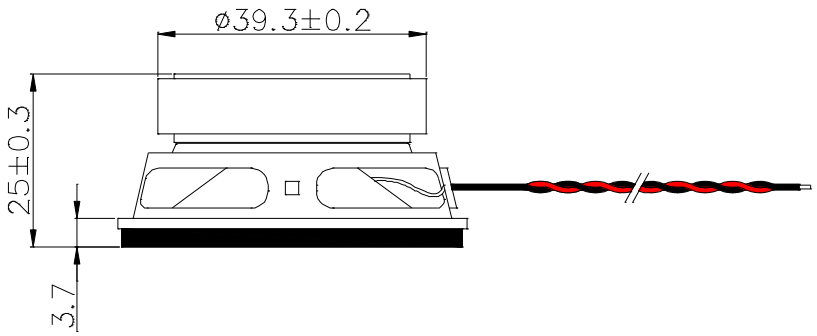
2.Frequency Response Curve

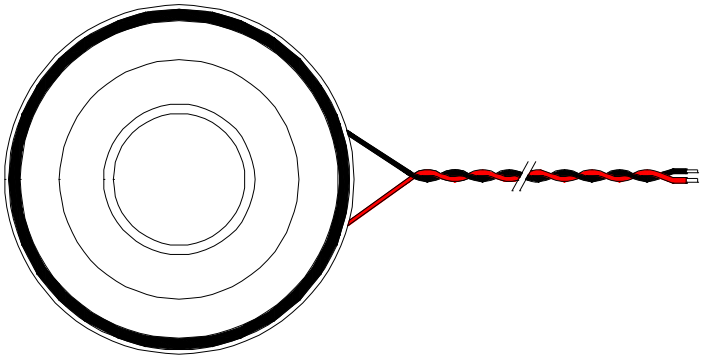


3.DIMENSION

REV NO.	REVISION NOTE	APPROVAL	DATE





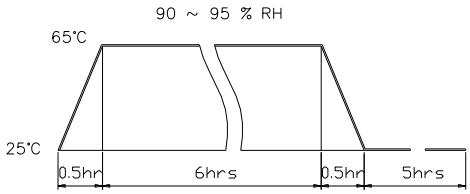


Wire: 1571 AWG30

TITLE: DYNAMIC SPEAKER	DRAWN: Lily 2020/03/23	SCALE: 1:1	SHEET: 1 of 1
PART NO. HDK-5204KC-4W 1	DESIGNED: R & D OF D.S.	UNITS: mm	
	CHECKED: Emily	TOLERANCE ± ****	
DWG NO. DSE-4029 REV	APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
	MATERIAL: *****		

DS DRAGONSTATE ELECTRONIC CORPORATION

4.RELIABLITY TESTS

Items.		Specifications
01	**High temp. Test**	Keep 24 hours at +70℃±2℃ and leave 3 hours in normal temperature and then check
02	**Low temp. Test**	Keep 24 hours at -30℃±3℃ and leave 3 hours in normal temperature and then check
03	**Humidity test**	Keep 24 hours at + 40℃±2℃ relative humidity 90~95% 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℃±3℃, temperature:+70℃±3℃, 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 24 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 ±3 dB .		

SOLDERING CONDITION

Recommend using constant branding iron in **15 ~ 30W**, and in temperature range **350**

±**10°C**.

Soldering time not over **3** seconds.