

MESSRS.

SPECIFICATION FOR APPROVAL
承 认 书

Product	DYNAMIC SPEAKER
Part No.	HDK-302008ZA-27W (RoHS)
Customer	
Customer Part No.	

Approved By	Checked By	Made By
王台平 MAR-14-2015	曹丽萍 MAR-14-2015	LILY MAR-14-2015

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EDITION:1.1

1. SPECIFICATION

HDK-302008ZA-27W (RoHS)

ITEM		SPECIFICATIONS
01	Type	Dynamic speaker
02	Dimension	External diameter 30×20 mm
03	Rated Input Power	2.0W
04	Max. Input Power	2.2W
05	Impedance	8 ohm $\pm$ 15% at 1500Hz.
06	Resonance Frequency (Fo)	1200Hz $\pm$ 20% at Fo, 1V
07	Sensitivity (S.P.L.)	102dB(1.0W/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 13.3mm
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet 12.5*2.2mm
12	Weight	8.2g $\pm$ 0.3g
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 - 2.0W
15	Buzz, Rattle, etc.	Should not be audible at 4.0V 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°C to +60°C Storage temperature: -30°C to +70°C

Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

BASIC

Temperature : $20 \pm 3^\circ\text{C}$

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Test Fixture

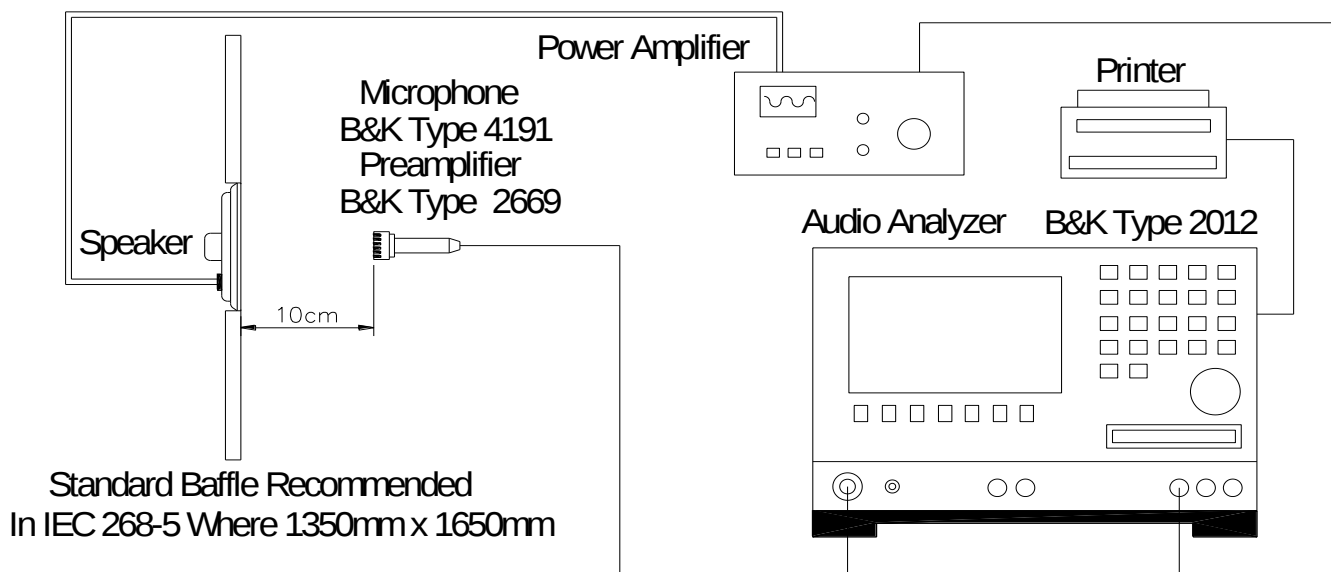
1. Input Power : 1.0W (2.83V)

2. Zero Level : -dB

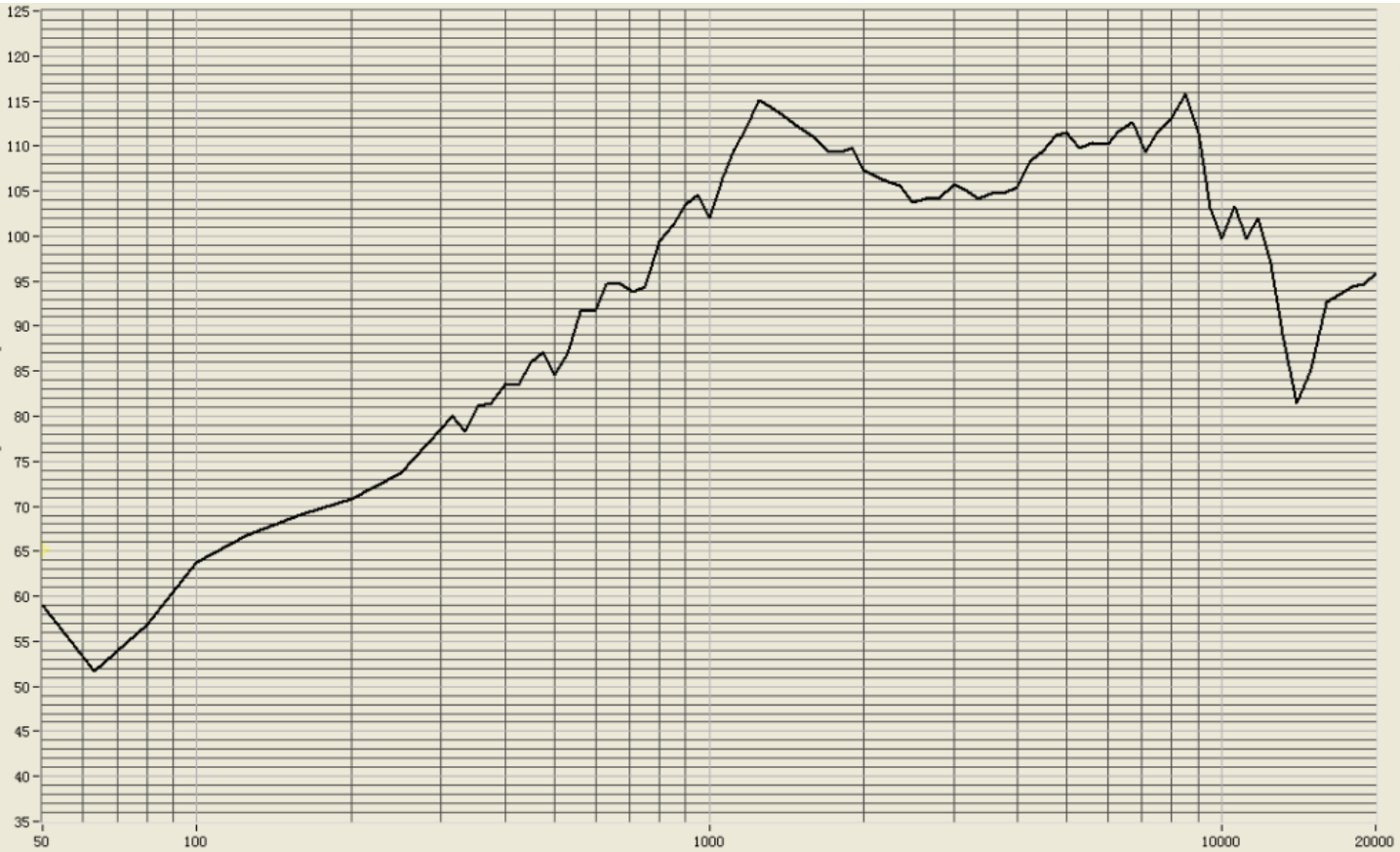
3. Mode : SPEAKER

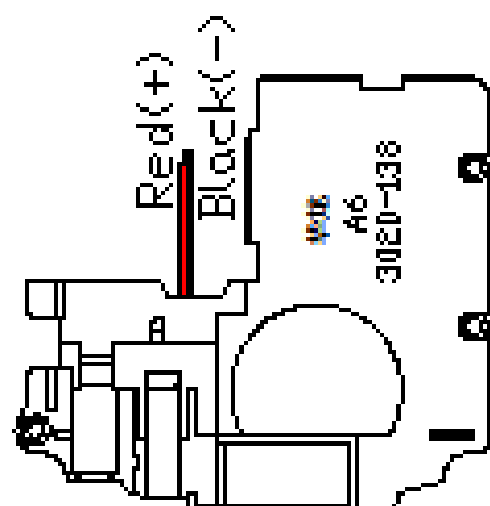
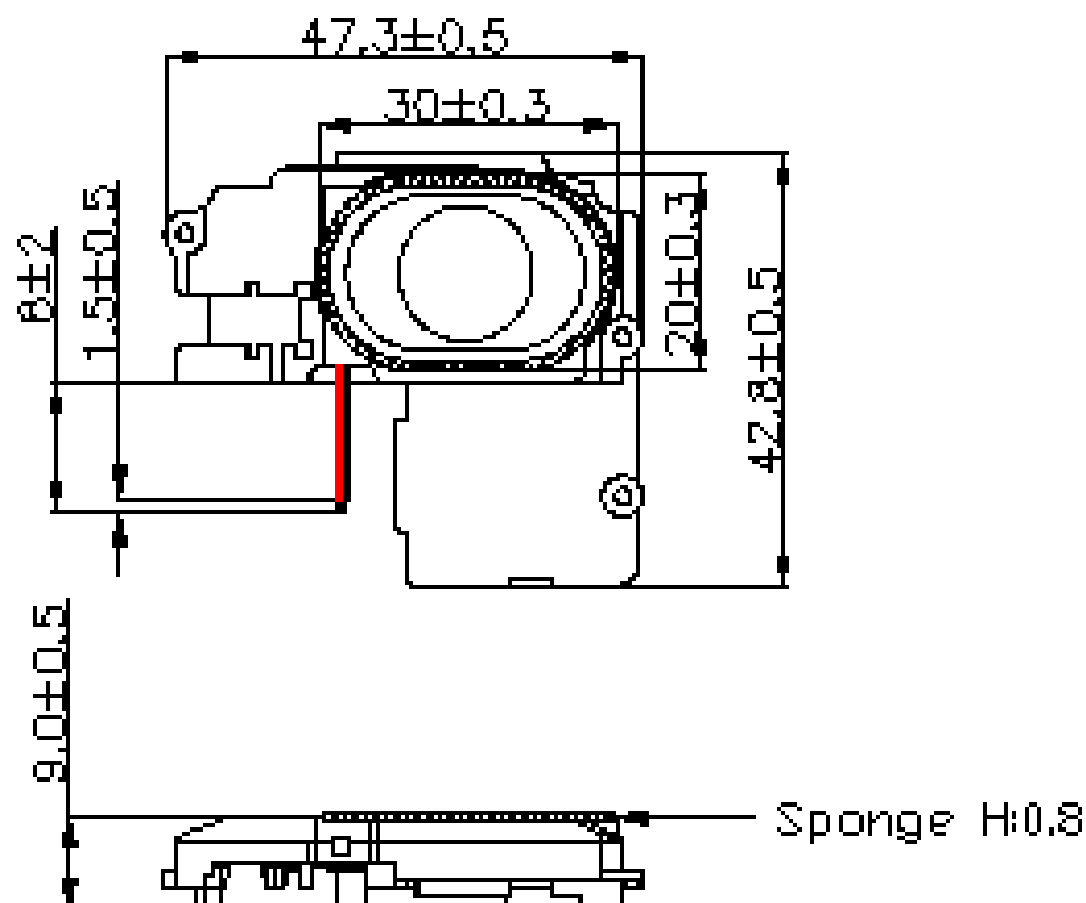
4. potentiometer Range : 50dB

5. Sweep Time : 0.5sec



2-3. Frequency Response Curve



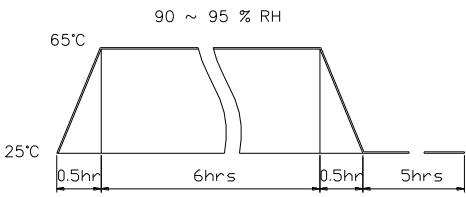


Wire: UL1571 WAG32

FILE: DYNAMIC SPEAKER		DATE: 2014/1/14	SCALE: 2/1	SHEET: 1 OF 1
PART NO. HDK-30200814-27W	1	DESIGNED: A43 OF DS	CHECK: YES	
		DESIGNED: 2014/1/14	PROCESSING: ± 0.5	
		APPROVAL: 2014/1/14	OVERALL DIMENSIONAL TOLERANCE	
DWG NO. DSZ-1838	REV	APPROVAL: 183	DIM. PLACES DIMENSIONAL ± 0.5	
			DIM. PLACES DIMENSIONAL ± 0.5	

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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 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 ± 3 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.