

*MESSRS.*SPECIFICATION FOR APPROVAL
承 認 书

Product	DYNAMIC SPEAKER
Part No.	HDK-181308ZA-2W (RoHS)
Customer	
Customer Part No.	S920

Approved By	Checked By	Made By
王台平 OCT-14-2014	曹丽萍 OCT-14-2014	LILY OCT-14-2014

常州华龙电子有限公司

DRAGONSTATE ELECTRONIC CORPORATION

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1. SPECIFICATION

HDK-181308ZA-2W (RoHS

ITEM		SPECIFICATIONS
01	Type	Dynamic speaker
02	Dimension	External diameter 18*13 mm
03	Rated Input Power	0.8W In 1cc Box
04	Max. Input Power	1.0W In 1cc Box For 1 Minute
05	Impedance	8 ohm $\pm$ 15% at 1000Hz.
06	Resonance Frequency (Fo)	450Hz $\pm$ 20% (in free air)
	Resonance Frequency (Fo)	950Hz $\pm$ 20% (in 1cc air)
07	Sensitivity (S.P.L.)	83 $\pm$ 3 dB /0.1W/0.1m at 2.0KHz
08	Frequency Range	Fo - 20KHz
09	Total Harmonics Distortion	Max 5% at 1 KHz, 0.8W.
10	Weight	3.5g $\pm$ 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 - 0.8W
13	Buzz, Rattle, etc.	Should not be audible at 2.53V sine Wave between Fo to 20KHz
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 $^{\circ}$ C to +70 $^{\circ}$ C Storage temperature: -40 $^{\circ}$ C to +80 $^{\circ}$ C

2. 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

Standard Test Fixture

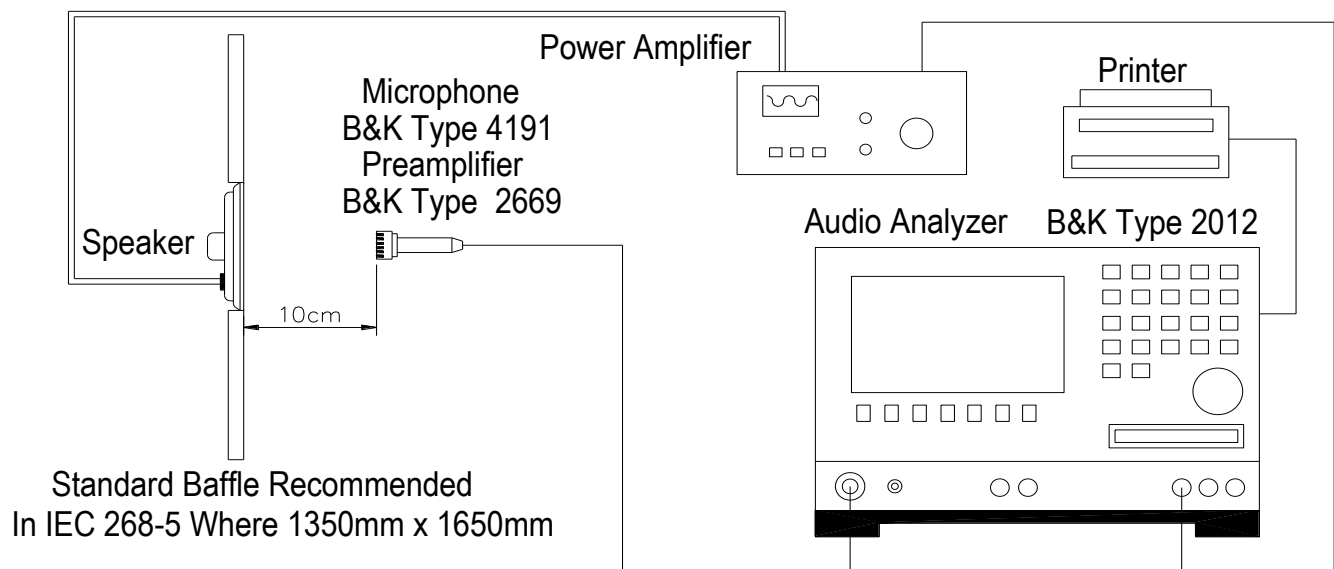
1. Input Power : 0.1W (0.89V)

2. Zero Level : -dB

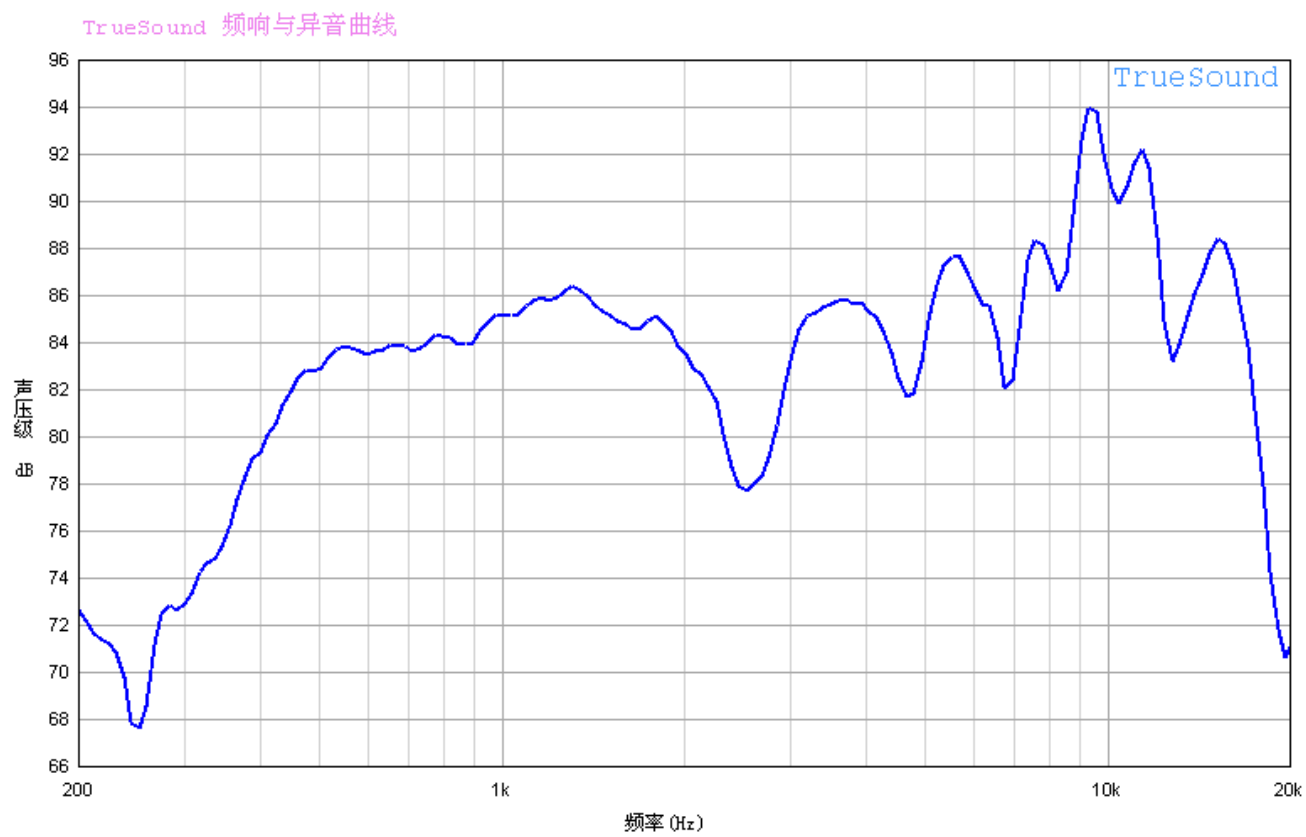
3. Mode : SPEAKER

4. potentiometer Range : 50dB

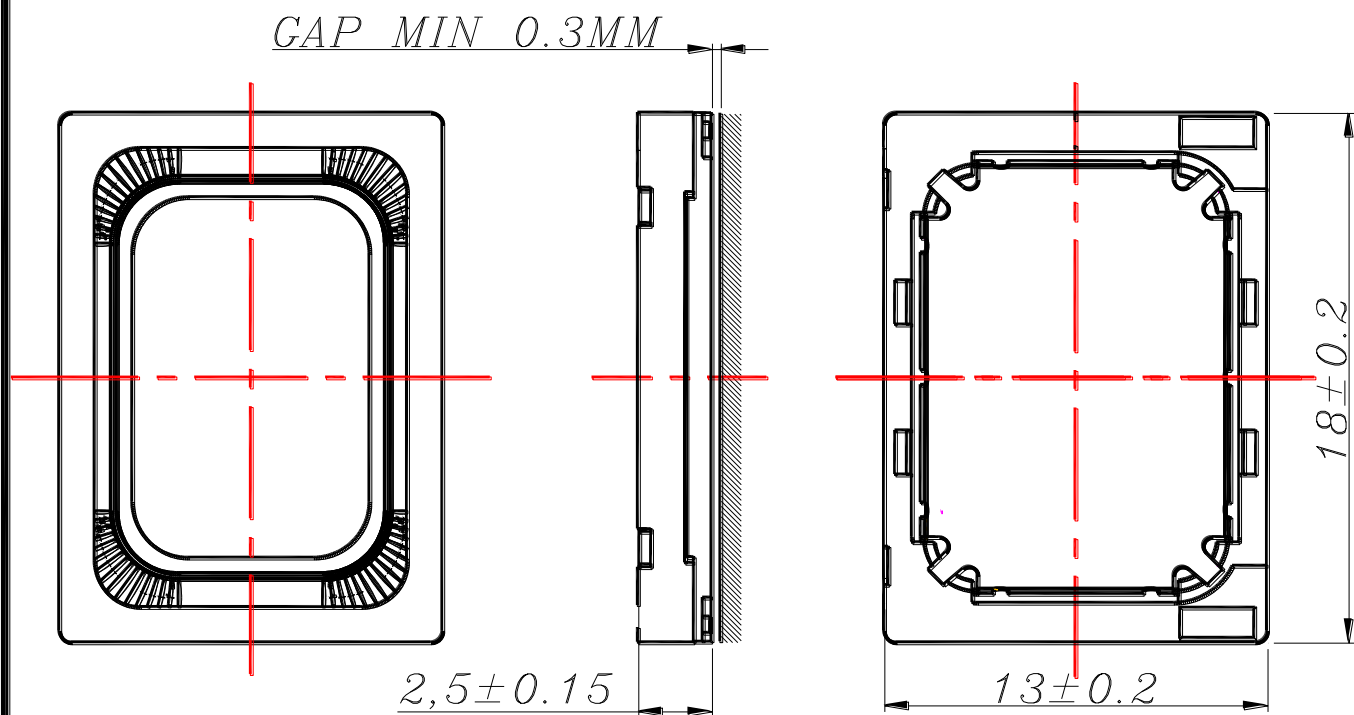
5. Sweep Time : 0.5sec



2. Frequency Response Curve 0.1W/10cm

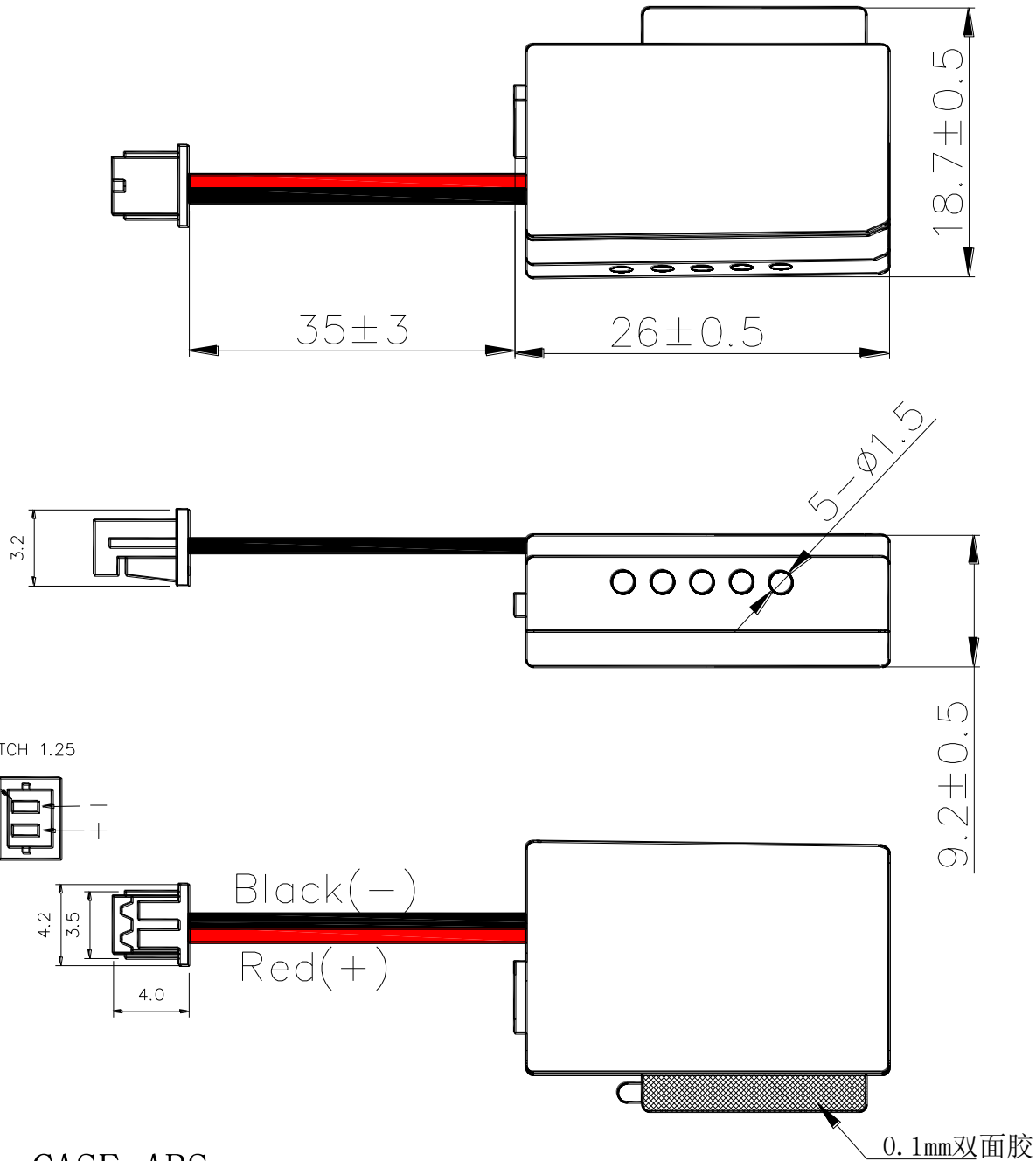


REV NO.	REVISION NOTE	APPROVAL	DATE
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TITLE: DYNAMIC SPEAKER		DRAWN: Lily	2013/10/17	SCALE: 2/1	SHEET: 1 OF 1
PART NO. HDK-181308ZA-1	1 REV	DESIGNED: R&D OF D.S.	UNITS: mm		
DWG NO. DSE-1688		CHECKED: Emily	TOLERANCE ± 0.2		
		APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED:		
		MATERIAL: PBT	ONE PLACE DECIMAL $\pm$ ***		
			TWO PLACE DECIMAL $\pm$ ***		
			THREE PLACE DECIMAL $\pm$ ***		

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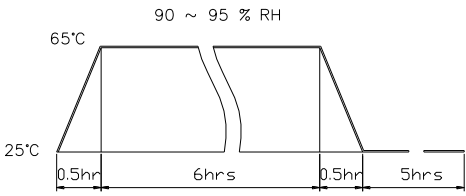


CASE:ABS

WRIE:UL1571AWG30

TITLE:	DYNAMIC SPEAKER	DRAWN:	Lily	2014/11/18	SCALE:	2/1	SHEET:	1 OF 1
PART NO.	HDK-181308ZA-2W	DESIGNED:	R&D OF D.S.		UNITS:	mm		
DWG NO.	DSE-1886	CHECKED:	Emily		TOLERANCE	± 0.2		
		APPROVAL:	Eric		UNLESS OTHERWISE SPECIFIED:	ONE PLACE DECIMAL ± ***		
		MATERIAL:	ABS		TWO PLACE DECIMAL ± ***			
					THREE PLACE DECIMAL ± ***			

4. RELIABILITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+80^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-40^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 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.

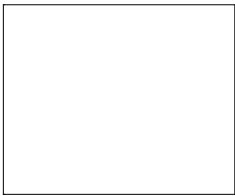
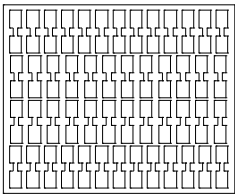
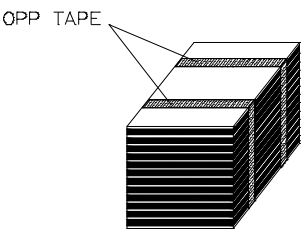
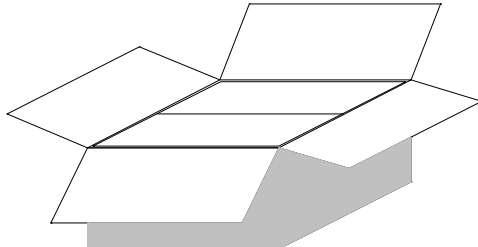
Criterion:

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.

5. Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
	 Cover(350*280*5mm) Material: Paper		
	  Box(350*285*16mm) 100pcs Material: Paper+Epe		
	 Middle(350*285*170mm) 1000pcs(10*100pcs) Material: Paper+Epe		
	  Outer Box(590*360*405mm) 4000pcs(4*1000pcs) Material: Paper		
单位: mm			
TITLE: packing		DRAWN: Lily 2014/10/17	
PART NO. HDK-181308ZA-2W		DESIGNED: R&D OF D.S.	
DWG NO.		CHECKED: Emily	
		APPROVAL: Eric	
		MATERIAL: ***	
1 REV		SCALE: 2:1	
		SHEET: 1 of 1	
		UNITS: mm	
		TOLERANCE	
		20~11 ± 0.3	
		10~5 ± 0.2	
		<4 ± 0.1	
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