

MESSRS.

SPECIFICATION FOR APPROVAL
承 认 书

Product	DYNAMIC SPEAKER
Part No.	ADK-3608BB-BOX (RoHS)
Customer	
Customer Part No.	

Approved By	Checked By	Made By
王台平 NOV-28-2013	曹丽萍 NOV-28-2013	LILY NOV-28-2013

常州华龙电子有限公司
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EDITION: 1. 1

1. SPECIFICATION

ADK-3608BB-BOX (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 36 mm	
03	Rated Input Power	1.0W	
04	Max. Input Power	1.5W	
05	Impedance	8 ohm \pm 15% at 1500Hz.	
06	Resonance Frequency (Fo)	800Hz \pm 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	100dB(1.0W/0.1m) \pm 3 dB	at AVE0.8K, 1.0K, 1.5K, 2.0KHz.
08	Frequency Range	Fo - 20KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz, 1.0W.	
10	Voice Coil	Diameter 13.3 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 12.6 x 1.6 mm	
12	Weight	15g \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 - 1.0W	
15	Buzz, Rattle, etc.	Should not be audible at 2.83V 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

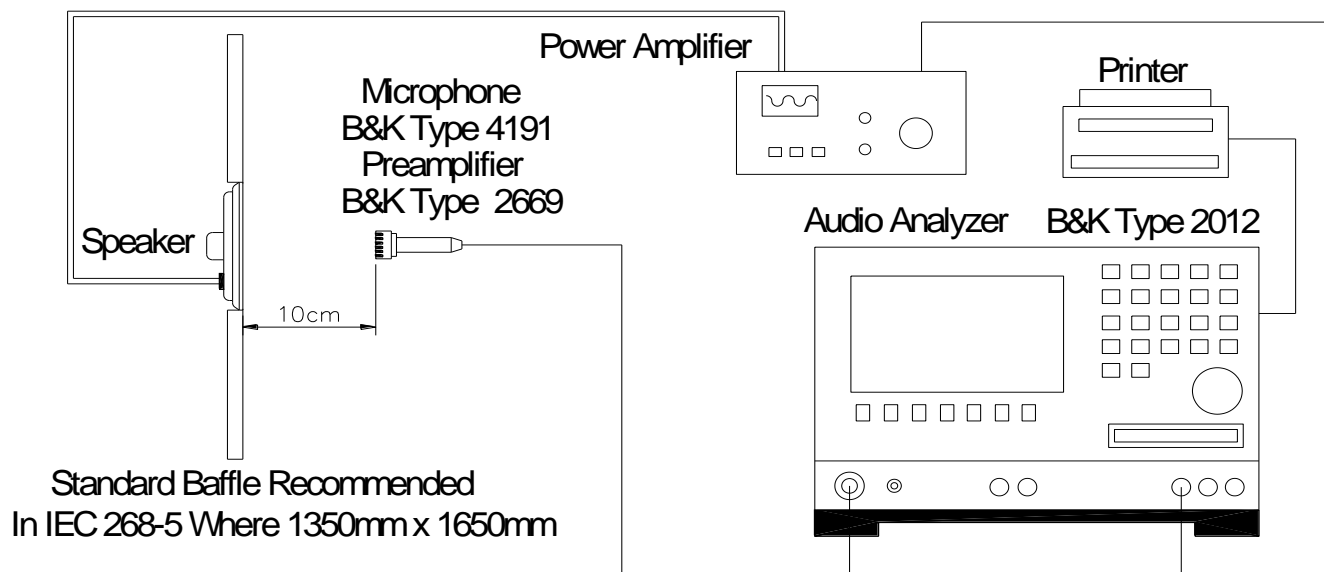
Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Test Fixture

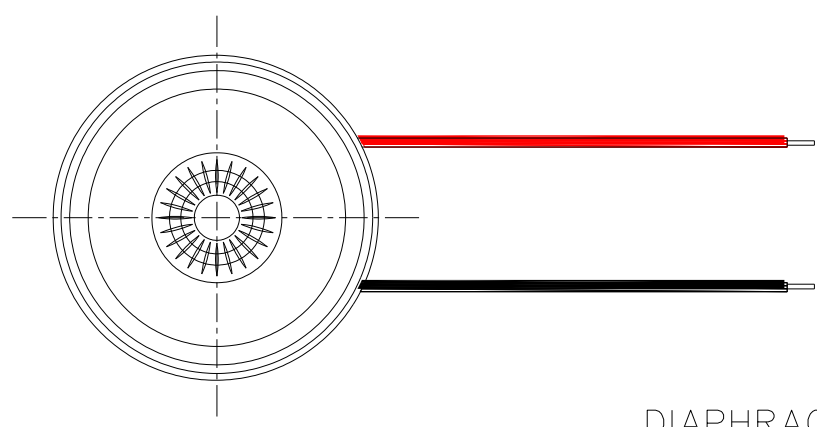
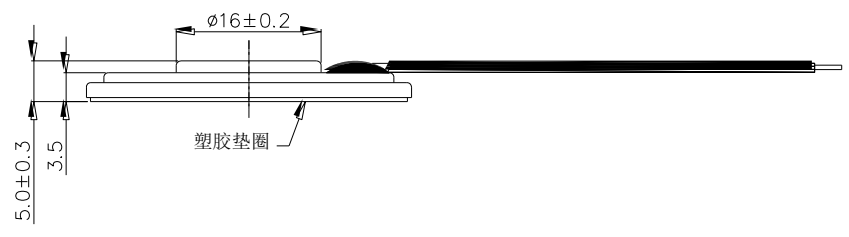
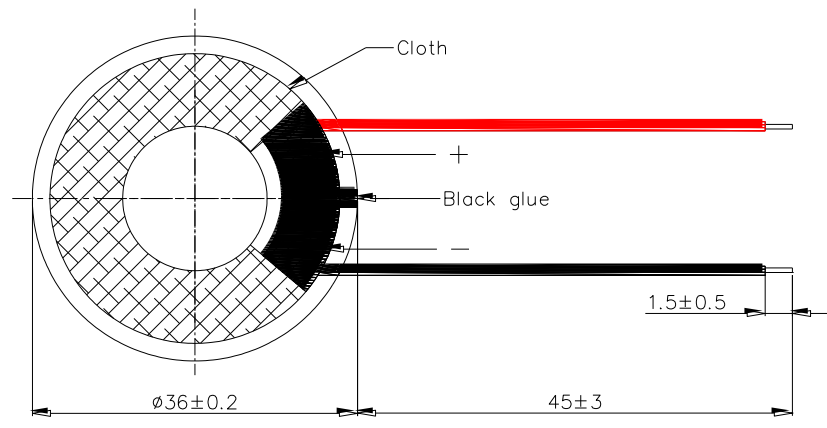
1. Input Power : 1.0W (2.83V)
2. Zero Level : -dB
3. Mode : SPEAKER
4. potentiometer Range : 50dB
5. Sweep Time : 0.5sec



Frequency Response Curve



REV NO.	REVISION NOTE	APPROVAL	DATE
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DIAPHRAGM: MYLAR
CASE: PET
WIRE: UL1571AWG28

TITLE: DYNAMIC SPEAKER		DRAWN: Lily	2013/05/20	SCALE: 1/1	SHEET: 1 OF 1
PART NO. ADK-3608BB-BOX		DESIGNED: R&D OF D.S.	UNITS: mm		
DWG NO. DSE-1078		CHECKED: Emily	TOLERANCE ± 0.5		
		APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED.		
REV 1		MATERIAL: Fe alloy	ONE PLACE DECIMAL ± ***		
			TWO PLACE DECIMAL ± ***		
			THREE PLACE DECIMAL ± ***		

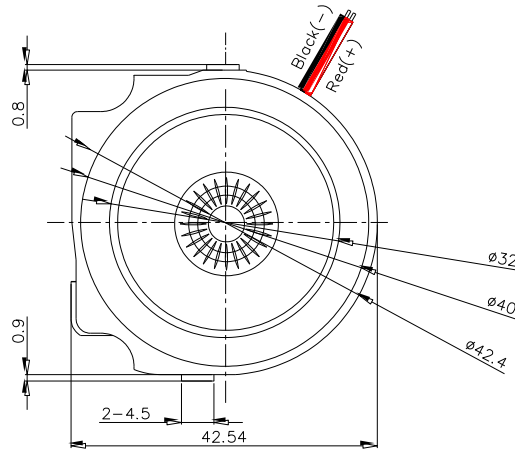
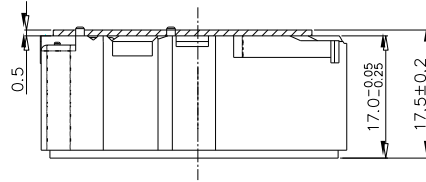
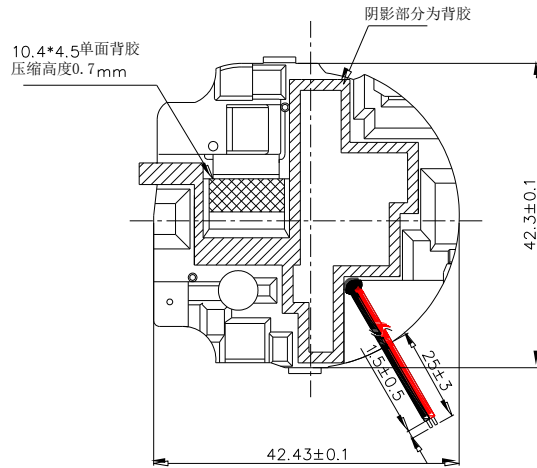
DS DRAGONSTATE ELECTRONIC CORPORATION

REV NO.

REVISION NOTE

APPROVAL

DATE

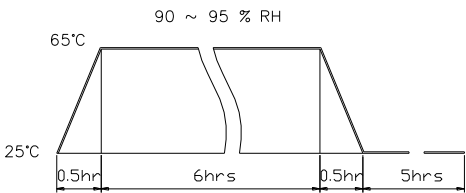


TITLE:	DYNAMIC SPEAKER	DRAWN:	Lily	2013/11/25	SCALE: 1/1	SHEET: 1 OF 1
PART NO.	ADK-3608BB-BOX	DESIGNED:	R&D OF D.S.		UNITS:	mm
DWC NO.	DSE-1078	CHECKED:	Emily		TOLERANCE ± 0.5	
		APPROVAL:	Eric		UNLESS OTHERWISE SPECIFIED:	
		MATERIAL:	ABS		ONE PLACE DECIMAL ± ***	
					TWO PLACE DECIMAL ± ***	
					THREE PLACE DECIMAL ± ***	



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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	<p>The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of;</p> 
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.
<p>Criterion: After these test , the change of S.P.L shall be within ± 3 dB .</p>	

SOLDERING CONDITION

Recommend using constant branding iron in 15 ~ 30W, and in temperature range 350°C .
Soldering time not over 3 seconds.