

MESSRS.

SPECIFICATION FOR APPROVAL

承 认 书

Product	DYNAMIC SPEAKER
Part No.	HDK-32200BA-1W(RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 SEP-15-2014	曹丽萍 SEP-15-2014	LILY SEP-15-2014

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EDITION:1.1

1. SPECIFICATION

HDK-32200BA-1W (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 32 mm	
03	Rated Input Power	3mW (Long Time)	
04	Max. Input Power	5mW for 1 minute	
05	Impedance	200 ohm \pm 15%	
06	Sensitivity (S.P.L.)	123 \pm 3.0dB	at 1.0mW/ 1.0KHz.
07	Frequency Range	20Hz - 20KHz	
08	Total Harmonics Distortion	Max \leq 5.0 % at 1.0 mW/ 1.0KHz.	
09	Voice Coil	Diameter Φ 13.3 mm	
10	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ 12.5x2.0mm	
11	Weight	9g \pm 0.1g	
12	Buzz, Rattle, etc.	Should not be audible at 0.77V sine Wave between 20 to 5KHz	
13	Temperature	Operating temperature: -20°C to +60°C Storage temperature: -20°C to +60°C	

Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

BASIC

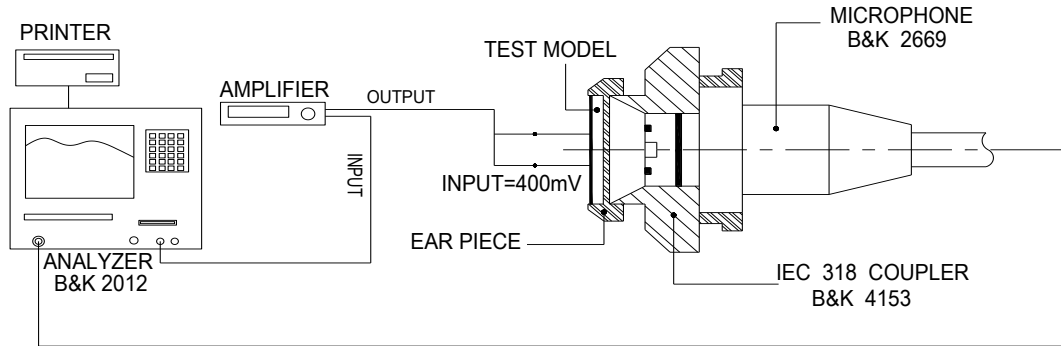
Temperature : 20 \pm 3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

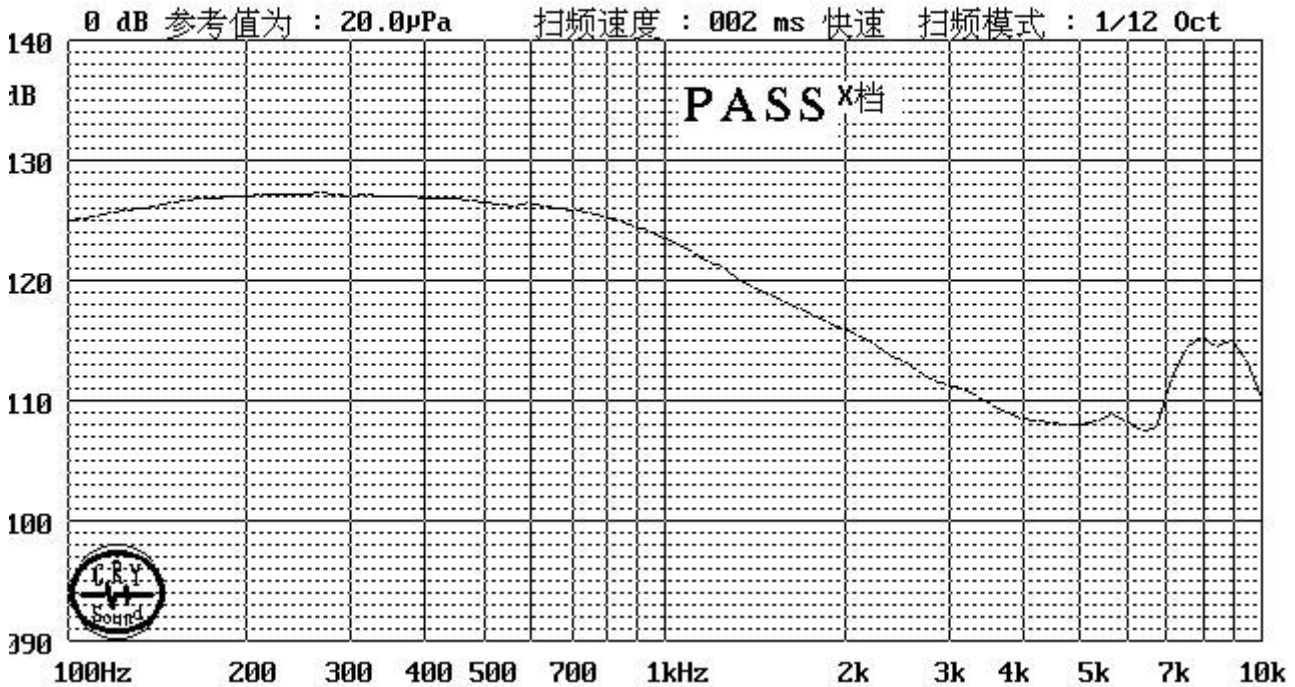
Standard Test Fixture

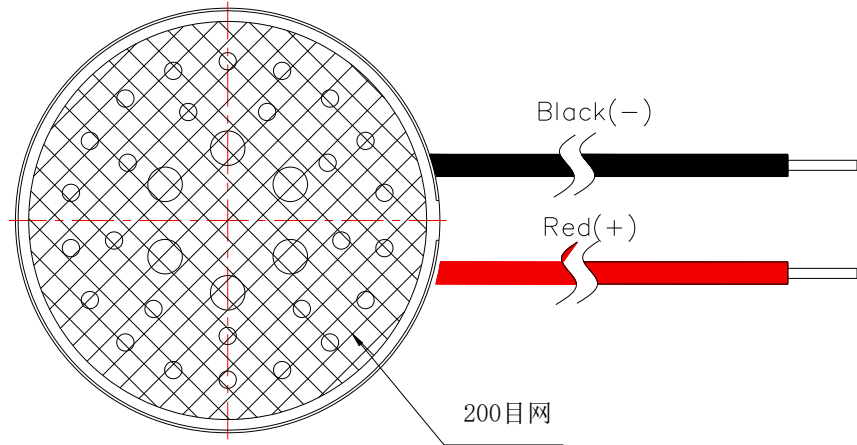
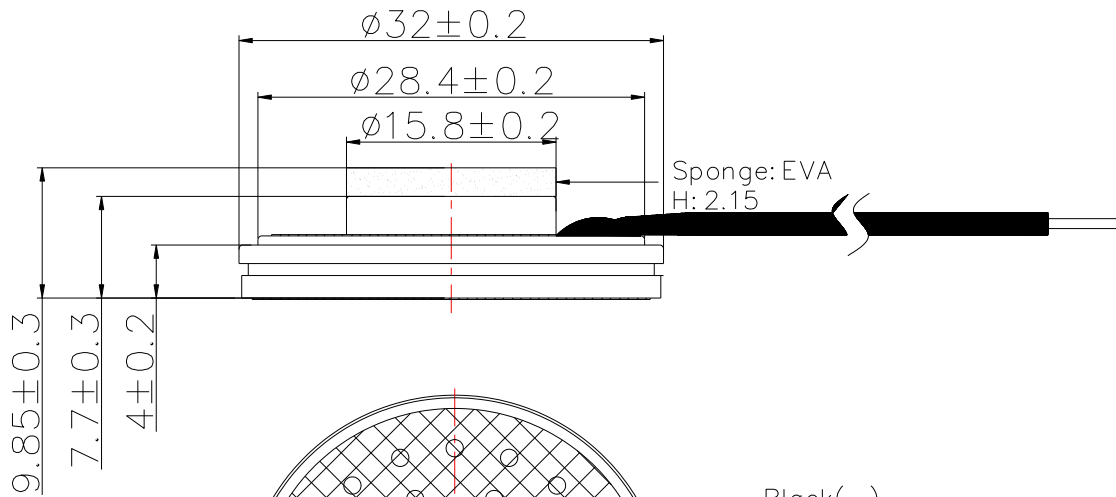
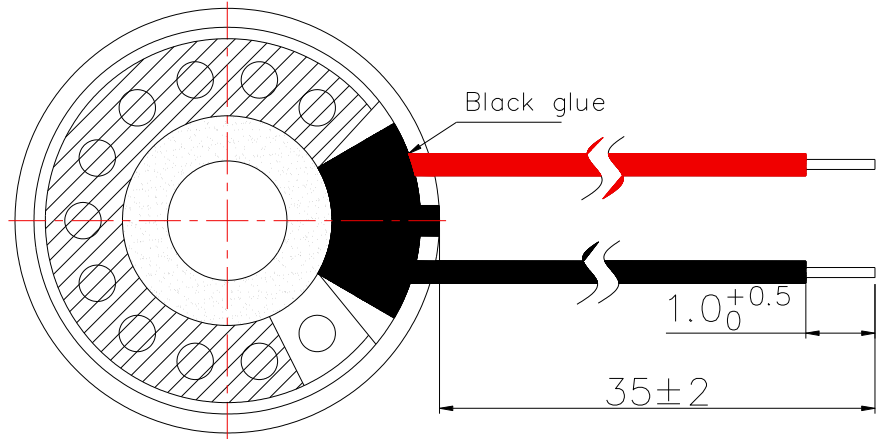
Input signal : 400mV



Frequency Response Curve

型号: _____ → 1000Hz灵敏度 : 123.45 dB 1000Hz阻抗 : _____ Ω 滤波器无
 电压: 0400 mV 70Hz灵敏度 : _____ dB Fv= 1200 Hz : 000.34 dB 无框
 2000Hz灵敏度 : 115.94 dB 4000Hz灵敏度 : 108.42 dB





Case: Fe Alloy
 Diaphragm: Black Mylar
 Wire: UL3302AWG32

TITLE: DYNAMIC SPEAKER		DRAWN: Lily	2014/09/15	SCALE: 1:1	SHEET: 1 of 1
PART NO. HDK-32200BA-1W		DESIGNED: R&D OF D.S.	UNITS: mm		
DWG NO. DSE-1821		CHECKED: Emily	TOLERANCE		
		APPROVAL: Eric	20~11	± 0.3	
REV 1		MATERIAL: Fe Alloy	10~5	± 0.2	
			<4	± 0.1	

RELIABILITY TESTS

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+60^{\circ}\text{C}\pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-20^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 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: $-20^{\circ}\text{C}\pm 3^{\circ}\text{C}$, temperature: $+60^{\circ}\text{C}\pm 3^{\circ}\text{C}$, 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.