

MESSRS.**SPECIFICATION FOR APPROVAL****承 认 书**

Product	DYNAMIC SPEAKER
Part No.	HDK-5704BA-7 (RoHS)
Customer Approval	

Approved By	Checked By	Made By
王台平 NOV-03-2025	曹丽萍 NOV-03-2025	LILY NOV-03-2025

常 州 华 龙 电 子 有 限 公 司

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1. Specification

HDK-5704BA-7 (RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 57 mm	
03	Rated Input Power	3.0W	
04	Max. Input Power	4W for 1 minute	
05	Impedance	4ohm $\pm$ 15% at 1000Hz.	
06	Resonance Frequency (Fo)	550Hz $\pm$ 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	96dB (3.0W / 0.5m) $\pm$ 2dB	at AVE 0.6K · 0.8K · 1.0K · 1..2 KHz
08	Frequency Range	Fo – 10KHz	
09	Total Harmonics Distortion	Max 10 % at 1KHz,3.0W.	
10	Weight	18.2g $\pm$ 0.5g	
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 –3.0W	
13	Buzz, Rattle, etc.	Should not be audible at V sine 3.46V Wave between 100 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: -25℃ to +55℃ Storage temperature: -30℃ to +70℃	

2. Test Condition

2.1. STANDARD

Temperature : 17 ~ 25℃

Relative humidity : 45% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

2.2 BASIC

Temperature : 25±5℃

Relative humidity : 50% ~ 80%,

Atmospheric pressure : 860mbar to 1060mbar

Standard Test Fixture

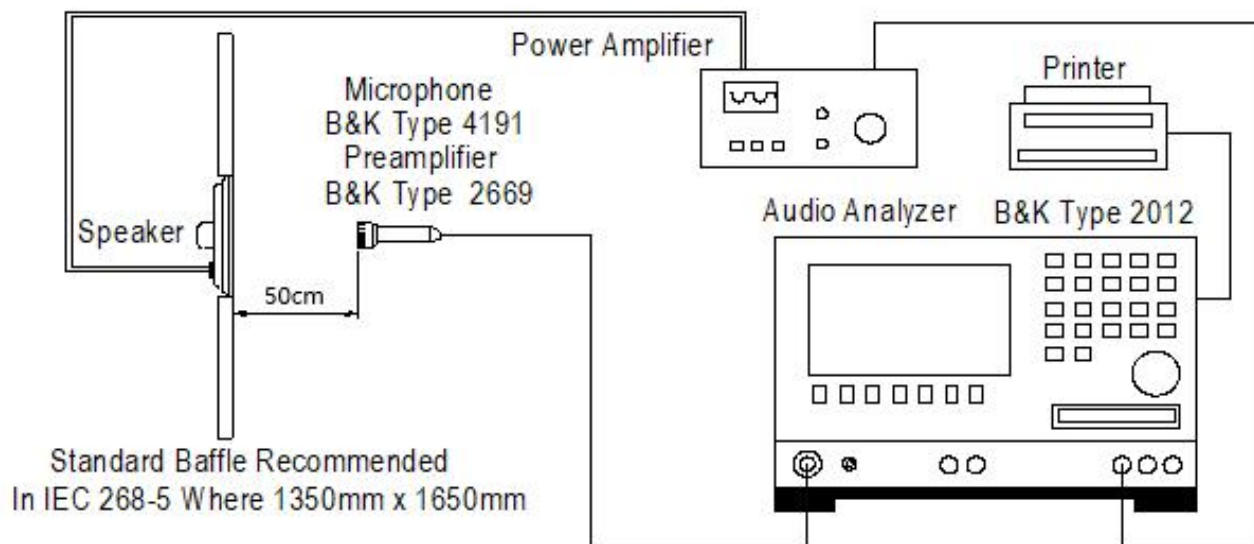
1. Input Power : 3.0W (3.46V)

2. Zero Level : -dB

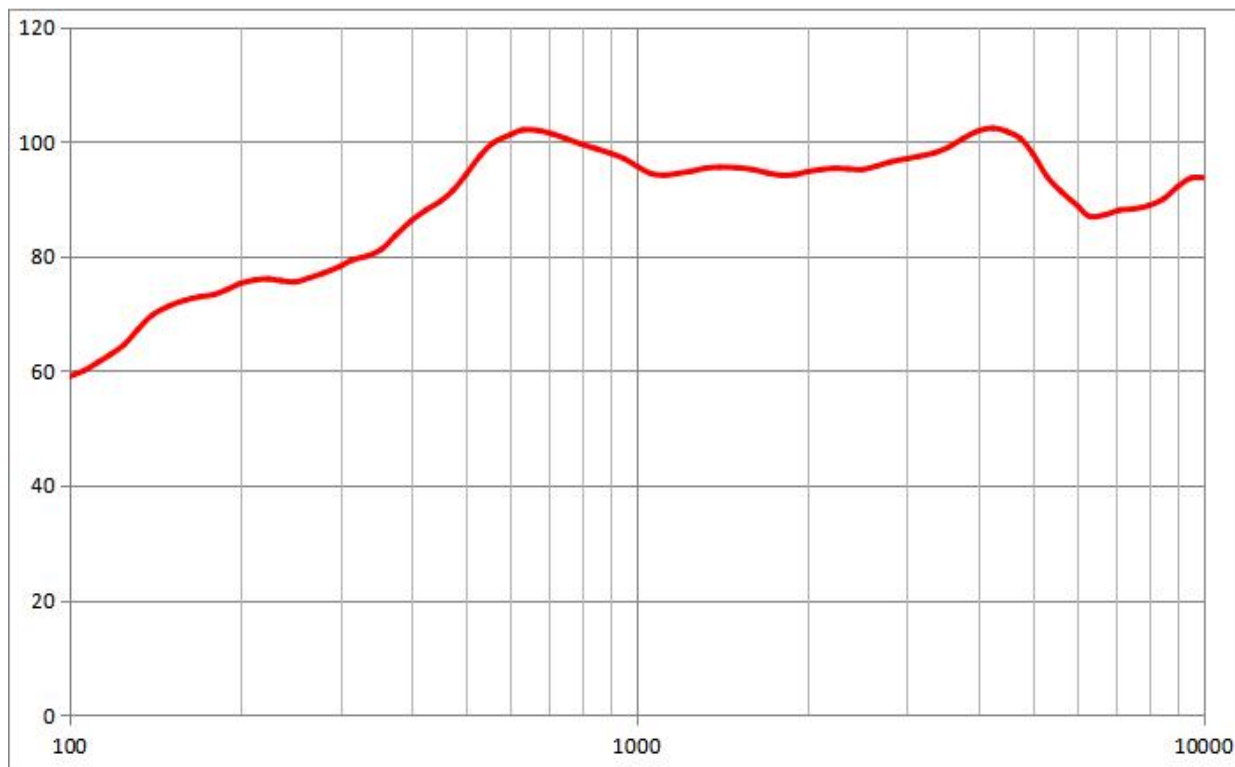
3. Mode : SPEAKER

4. potentiometer Range : 50dB

5. Sweep Time : 0.5sec



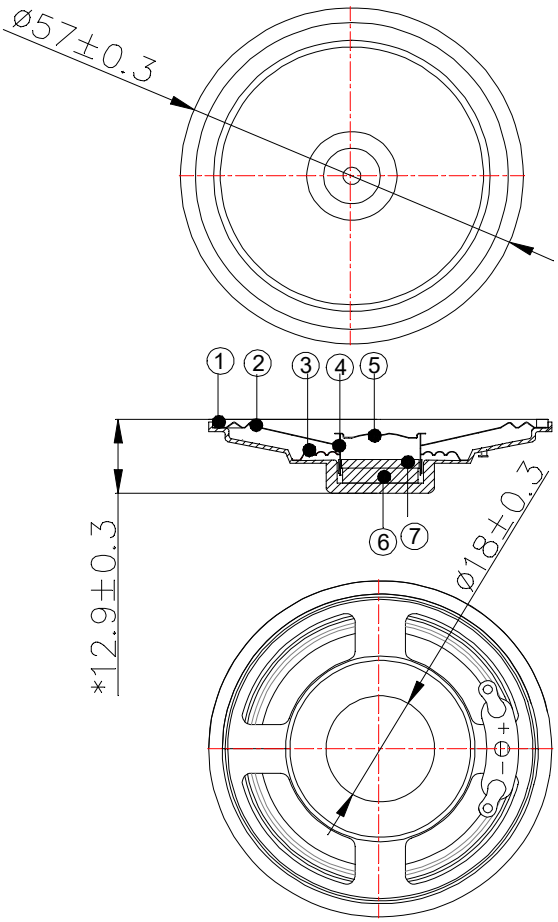
2.3.Frequency Response Curve (3.46V/50cm)



THD Response Curve (3.46V/50cm)

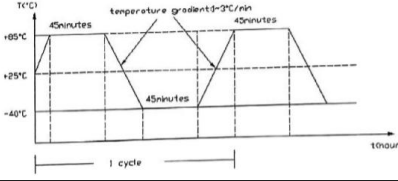


3.Dimension

REV NO.	REVISION NOTE	APPROVAL	DATE																																
																																			
技术要求: - 产品尺寸用于检验外形、功能或装配等, 未注尺寸可参考3D drawing - 带 *尺寸为关键尺寸 - 成品外观清洁、无划伤、无毛刺等瑕疵 - 符合ROHS标准 - 壳料平整度控制在0.2以内																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">7</td> <td style="width: 60%;">极片</td> <td style="width: 10%;">1</td> <td style="width: 25%;"></td> </tr> <tr> <td>6</td> <td>磁钢</td> <td>1</td> <td></td> </tr> <tr> <td>5</td> <td>帽子</td> <td>1</td> <td></td> </tr> <tr> <td>4</td> <td>音圈</td> <td>1</td> <td></td> </tr> <tr> <td>3</td> <td>弹波</td> <td>1</td> <td></td> </tr> <tr> <td>2</td> <td>音膜</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>压边</td> <td>1</td> <td></td> </tr> <tr> <td>序号</td> <td>名称</td> <td>数量</td> <td>备注</td> </tr> </table>				7	极片	1		6	磁钢	1		5	帽子	1		4	音圈	1		3	弹波	1		2	音膜	1		1	压边	1		序号	名称	数量	备注
7	极片	1																																	
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序号	名称	数量	备注																																
TITLE: DYNAMIC SPEAKER BOX		DRAWN: Lily 2025/11/03																																	
PART NO. HDK-5704BA-7		DESIGNED: R & D OF D.S.																																	
DWG NO. DSE-9177		CHECKED: Emily																																	
1 REV		APPROVAL: Eric																																	
		MATERIAL: ****																																	
		SCALE: 2:1 SHEET: 1 of 1 UNITS: mm TOLERANCE ± 0.1 UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***																																	
DS Changzhou Dragon State Electronic Co., Ltd																																			

No.	Part Name	Material	Quantity
1	盆架	Φ57/SPCC+内铆U 杯/电镀彩锌三价铬	1
2	华司	SPHC/蓝锌三价铬	1
3	磁铁	Nd-Fe-B/N35/蓝锌三价铬	1
4	接线板	月牙形/白板+焊片	1
5	音圈	Φ13.28*2F/LOCK+PL 骨架, 接锦丝线	1
6	振膜	PET/黑亮	1
7	防尘帽	PET/黑色	1
8	弹波	COTTOM	1
9	垫片 1	黑色ABS	1

4. Reliability tests

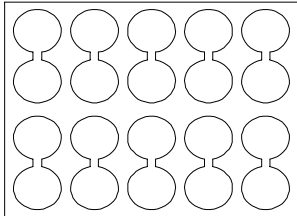
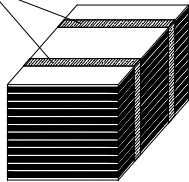
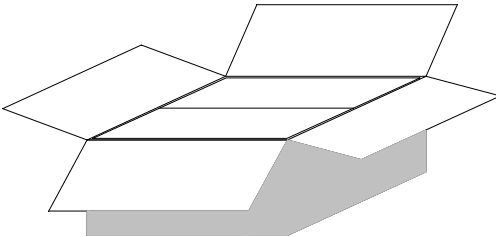
Items.		Specifications
01	High temp. Test	Keep 96 hours at $+55^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and leave 96 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-25^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and leave 96 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ relative humidity 90%-95% and leave 96 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 6 cycles. One cycle shall be 12 hours and consist of; 
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 2^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C} \pm 2^{\circ}\text{C}$, cycle: 45 Min/cycle each, and then keep 6 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 $\pm 3 \text{ dB}$.		

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*285*5mm) Material: Eps  Box(350*285*25mm) 20pcs Material: Eps OPP TAPE  Middle(350*285*300mm) 240pcs Material: Eps  Outer Box(365*300*285mm) 240PCS Material: Paper 单位：mm			
TITLE: packing		DRAWN: Lily 2025/11/03	
PART NO.		DESIGNED: R&D OF D.S.	
DWG NO.		CHECKED: Emily	
REV		APPROVAL: Eric	
MATERIAL: ***		SCALE: 2:1	
SHEET: 1 of 1		UNITS: mm	
TOLERANCE		20~11 ± 0.3	
10~5 ± 0.2		<4 ± 0.1	

DS

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