

## 请承认书

Version No.: <u>V2.0</u>

常州	昊 翔 电	子 有 限	公 司				
Changzhou HaoXiang Electronic Co., LTD							
客户名称							
CUSTOME	R NAMER :						
产品名	名 称						
COMMOD]	тту :	Box Speake	<u>r</u>				
产品型	및 号						
MODEL NO	: <u>TDA</u>	-B91CC6H230W3	<u>0L80</u>				
客户料	4号						
PART NO	:						
审 核	秦皓	主办	牛成洋 Nov.1.2023				

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## TABLE OF CONTENTE

No.	ITEM	PAGE
1	Table Of Contente	1
2	General Specifications	2
3	Environmental Characteristics	3/4
4	Messuring Methong	5
5	Speaker specialty	6
6	Apperrance Drawing	7
7	Details Of Raw Materials	8
8	Packing Drawing	9
9	Notice On Product Storage	10
10	Revision	11

## **A.MODEL:** TDA-B91CC6H230W30L80

## **B. SPECIFICATION**

Test condition: Temperature: 15~35℃ Related Humidity:25~75% (GB/T9396-1996)

No.	Item	Specification	Condition	
1	Dimension	⊄ 91xH23mm		
2	Impedance	6±15%Ω	At 1KHz	
3	Output Sound Pressure Level	105±3dB (3W, 0.1M)	At 1 KHz	
4	Response Frequency	500±20%Hz	参考 LMS 的阻抗曲线	
5	Frequency Range	F0 ~ 20KHz		
6	Distortion	≤10%	At 1KHz	
7	Dower Pating	Normal: 3W		
/	Power Rating	Maximum4W		
8	Storage temperature	- 25 ~ + 70 ℃		
9	Operating temperature	- 25 ~ + 70 ℃		
9	Abnormal Sound test	Must be normal at sine wave 4.89@100~5KHz		
		When a positive current is supplied form the speaker the terminal marked		
10 Polarity (+) and a negative to the other terminal the		I the diaphragm must move toward		
		the front.		
11	RoHS	The Speaker is RoHS compliant.		

## **C.RELIABILTY TEST**

No.	Item	Test conditions	Evaluation standard
1	Ordinary temp life	Room temperature sine wave F0-20KHz (4.25Vrms) input 96 hours frequency scanning speed 1.5s, and pink noise was set.At the end of the experiment,	without obnormal sound EO should most the
2	High temp life	Under the condition of high temperature +85°C, the frequency band F0-20KHz was set, and the sinusoidal wave signal of 10W(4.25Vrms) was input into the product for frequency scanning test. The frequency scanning speed was 1.5 seconds for 16 hours continuously. At the end of the experiment,	the product was placed at room temperature for 2 hours, and then the abnormal sound frequency sweep and acoustic parameters were tested. Sinusoidal wave 4.25Vrms (F0-20KHz) sweeps without abnormal sound, F0 should meet the original specifications, and the output sound pressure variation is within $\pm 6 \mathrm{dB}$ .
3	Low temp life	Under the condition of low temperature -40°C, the frequency band F0-20kHz was set, and the sinusoidal wave signal of 10W(4.25Vrms) was input into the product for frequency scanning test. The frequency scanning speed was 1.5 seconds for 16 hours	continuously. At the end of the experiment, the product was placed at room temperature for 2 hours, and then the abnormal sound frequency sweep and acoustic parameters were tested. Sinusoidal wave 4.25Vrms (F0-20KHz) sweeps without abnormal sound, F0 should meet the original specifications, and the output sound pressure variation is within $\pm 6 \mathrm{dB}$ .
4	Constant temp and humidity load test	Under the condition of constant temperature +40±2°C relative humidity of 90%-95%RH, the frequency band F0-20KHz was set, and the sinusoidal wave signal of 10W(4.25Vrms) was input into the product for frequency sweep at a frequency speed of 1.5 seconds for 96 hours continuously.	At the end of the experiment, the product was placed at room temperature for 2 hours, and then the abnormal sound frequency sweep and acoustic parameters were tested. Sinusoidal wave 4.25Vrms (F0-20KHz) sweeps without abnormal sound, F0 should meet the original specifications, and the output sound pressure variation is within $\pm 6 dB$ .

High temp preservation test	The product was placed in an environment of +85 ℃ for 96 hours.	After the end of the experiment, the product was placed in room temperature for 2 hours and then tested for abnormal sound frequency sweep and acoustic parameters. Sinusoidal wave 4.25Vrms (F0-20KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within $\pm 3 \text{dB}.4.6$
Low temp preservation test	The product was placed in an environment of -40℃ for 96 hours.	After the end of the experiment, the product was placed in room temperature for 2 hours and then tested for abnormal sound frequency sweep and acoustic parameters. Sinusoidal wave 4.25Vrms (F0-20KHz) sweeps without abnormal sound, F0 should meet the original specification requirements, and the output sound pressure variation is within ±3dB.
Thermal shock test	The product is subjected to 5 times of temperature cycling impact, and the cycling content is as shown in the figure.	After the end of the experiment, the product is placed at room temperature for 2 hours, and then abnormal sound frequency sweep and acoustic parameters are tested. Sinusoidal wave4.25Vrms (F0-20KHz) sweeps without abnormal sound,F0 should meet the original specifications, and the output sound pressure variation is within $\pm 6 dB$ .
Drop test	Free fall on concrete 1m high with angle 75° for 1 time.	After the test, there is no separation, deformation, clearance or cracking in part of the product. The sinusoid wave sweeps 4.25Vrms (F0-20KHz) without abnormal sound. F0 should meet the original specifications and the variation of output sound pressure is within $\pm 3 \mathrm{dB}$ .
	Low temp preservation test  Thermal shock test  Drop test	High temp preservation test  Low temp preservation test  The product was placed in an environment of -40°C for 96 hours.  The product is subjected to 5 times of temperature cycling impact, and the cycling content is as shown in the figure.  Drop test  Free fall on concrete 1m high with

## **E. MEASURING METHOD(SPEAKER MODE)**

#### F-1.Test Condition

#### (a)STANDARD:

Temperature :  $15 \sim 35^{\circ}$ °C, Relative humidity :  $45\% \sim 85\%$ ,

Atmospheric pressure: 860mbar to 1060mbar

#### (b)JUDGEMENT:

Temperature :  $20\pm3^{\circ}$ C, Relative humidity :  $60\% \sim 70\%$ ,

Atmospheric pressure: 860mbar to 1060mbar

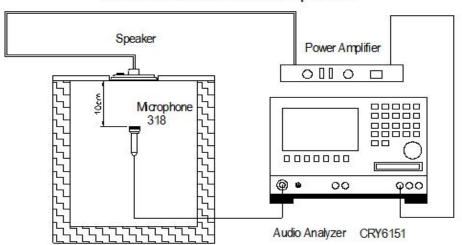
#### F-2.Standard Test Fixture

1.Input Power :3W 2.Zero Level : -dB 3.Mode : TSR

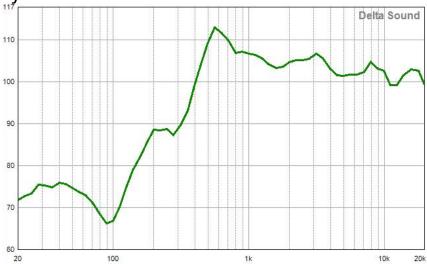
4.potentiometer Range: 50dB

5.Sweep Time: 0.5sec

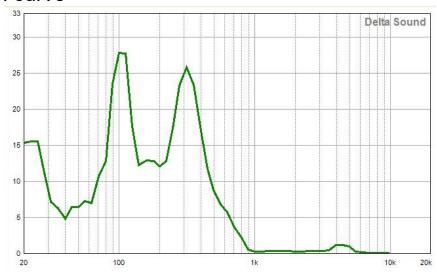
#### Standard test condition of speaker



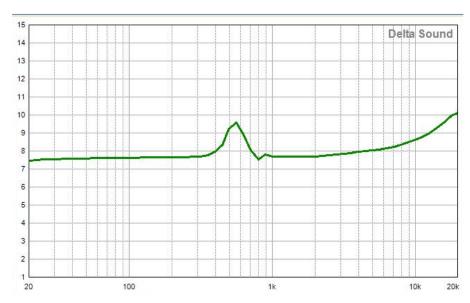
# **F.FREQUENCY CURVE**(1) frequency curve

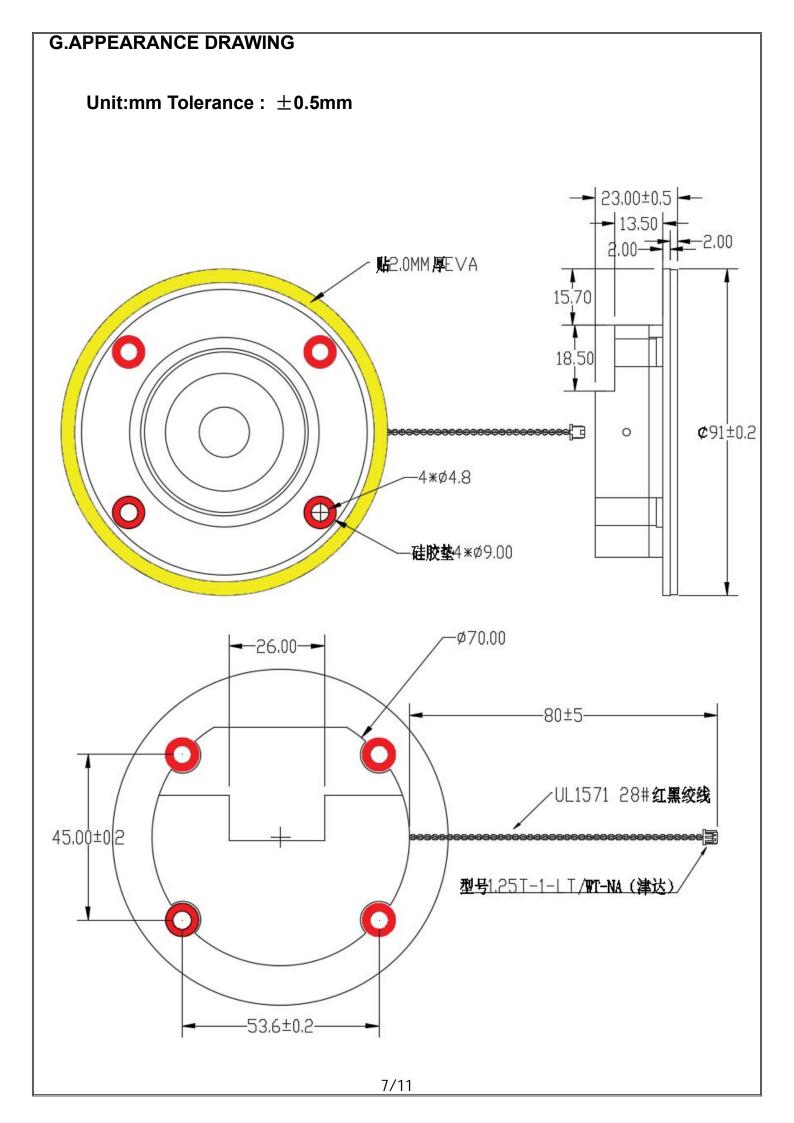


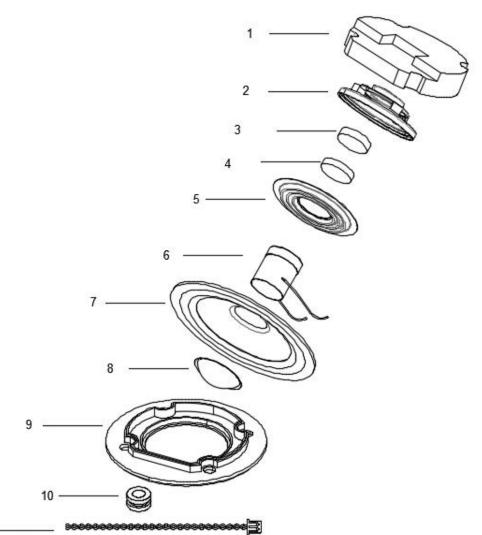
## (2) distortion curve



## (3) Impedance curve







No.	Name	specifications	quantity
1	Lower housing	ABS	1
2	Frame	ABS	1
3	Magnet	NdFeB	1
4	Plate	Spcc	1
5	Damper	CONEX	1
6	Voice coil	KAPTON0.075t+PESVW0.10t	1
7	Waterproof	Paper+Rubber	1
8	Dust cap	Paper	1
9	Upper housing	ABS	1
10	Silicone pad	Silica gel	4
11	Leadwire	UL1571 28#+NYLON	1
	1	Q /11	

8/11

H. PACKING DRAWING	
	9/11

#### I. NOTICE ON PRODUCT STORAGE

**a**. Please store the products in room where the temperature / humidity is stable. And avoid such places where there are large temperature changes. Please store the products under the following conditions :

Temperature : -10 to +40 (degree C)

Humidity: 15 to 85% R.H.

b. Expire date (Shelf life) of the products is 6 months after delivery under the conditions of a sealed and an unopened package. Please use the products within 6 months after delivery. If you store the products for a long time (more than 6months), use carefully because the products may be degraded in the solder-ability and/or rusty.

Please confirm solder-ability and characteristics for the products regularly.

C. Please use the products immediately after the package is opened, because the characteristics may be reduced in quality, and/or be degraded in the solder-ability due to storage under the poor condition.

## J. REVISION

No.	DATE	DESCRIPTION	REMARK	VERSION
1	Nov.1.2023	Initial condition	TDA-B91CC6H1230W30L80	V2.0