

# SPECIFICATION

Daxian Communication Technology Limited



**Shenzhen Daxian Technology Co., Ltd.**

lchse 22261 Right ear  
Bluetooth headset antenna

## Material Recognition Letter

Guest households	lchse	frequency band	2400MHz~2500MHz
Project name	22261	version	V2.0
Material No.	22-2261X-010	color	Black
R F design	Peng.Hu	structure design	YeZhi.Bi
Quality Manager	Ziyin.Hu	R & D director	Lei.Zhang
Date	2023-07-10		

client confirmation:

Whether the assembly meets your requirements: OK NG

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## Change resume

version number	Change content	Reason for change	Initiate change Party	date	Modifier
V1.0	create			2023.07.10	

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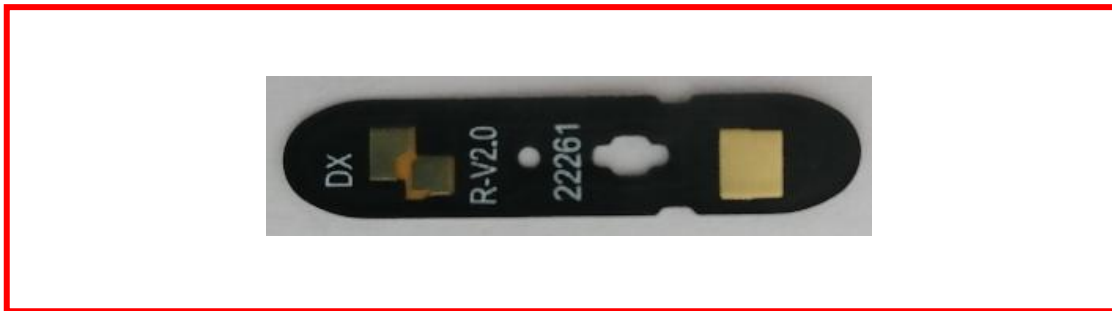
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## – Project description

<b>Customer name:</b>	lchse
<b>Whole machine type:</b>	Bluetooth headset
<b>Antenna band:</b>	2400 ~ 2500MHz
<b>Antenna form:</b>	FPC
<b>Feed form:</b>	welding
<b>Number of feed feet:</b>	2 left and right ears
<b>Hardware version:</b>	<b>motherboard:</b>

## 一、BT antenna

This report provides a variety of measurements of the electrical performance of the 22261 antenna. Figure 1 shows the antenna designed by the display.



antenna appearing diagram

Figure 1

### 1.1 Electrical specification standard

The frequency range of the antenna is 2400 ~ 2500 MHz. The following table indicates the electrical performance specifications of the antenna. The antenna is designed and manufactured by a large display.

Frequency Range	Frequency (MHz)	VSWR
Right ear BT	2400 ~ 2500	≤ 2

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## 1.2 Antenna composition

The antenna is mainly composed of FPC.

## 2、 The Equipment of Active Test

Satimo 3D Chamber 6×4×4( m )

Agilent 8960 E5515c

Network analyzer-R&S ZVL



Figure 2

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### 3 test

#### 3.1 The Test of standing Wave (VSWR)

**3.1.1 The Test of standing Wave (VSWR):** In turn, the connection of the VSWR testing device is as follows: RES ZVL Network Analyzer / testing Line / testing tool

Actual measurement (with diagram)

#### 3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS)

##### 3.2.1 Test site:

Large-scale microwave darkroom. The test frequency range is 400MHz / 6GHz, the static range is 50cm circumferential and the reflectivity is less than-50 dB..

##### 3.2.2 Test instrument:

Rs ZVL Network Analyzer, Agilent8960 E5515C, Standard Horn Antenna, French SATIMO-SG24SYSTEM system, Printer, etc.

**3.2.3 test data :** In microwave anechoic chambers, the power and sensitivity values measured are shown in the following table:

OTA free space active test:

R-Free Space			
BAND	CH	TRP (dBm)	TIS (dBm)
BT	0	12.17	-92.31
	39	12.08	-92.03
	78	12.20	-92.54

OTA head mold active test:

R-Headfrom			
BAND	CH	TRP (dBm)	TIS (dBm)
BT	0	2.01	-83.21
	39	2.31	-83.66
	78	2.63	-83.51

### 4、 conclusion:

This antenna is designed on the basis of the prototype provided by the customer, electrical parameters and structural performance have reached the technical requirements, please confirm!

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## 5、Passive Efficiency&Gain

### Free Space

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	51.07	-2.92	1.24
2410	51.47	-2.88	1.25
2420	51.71	-2.86	1.31
2430	54.09	-2.67	1.57
2440	53.53	-2.71	1.42
2450	52.49	-2.8	1.31
2460	51.67	-2.87	1.21
2470	50.35	-2.98	0.89
2480	50.93	-2.93	0.91
2490	50.48	-2.97	0.87
2500	48.06	-3.18	0.69

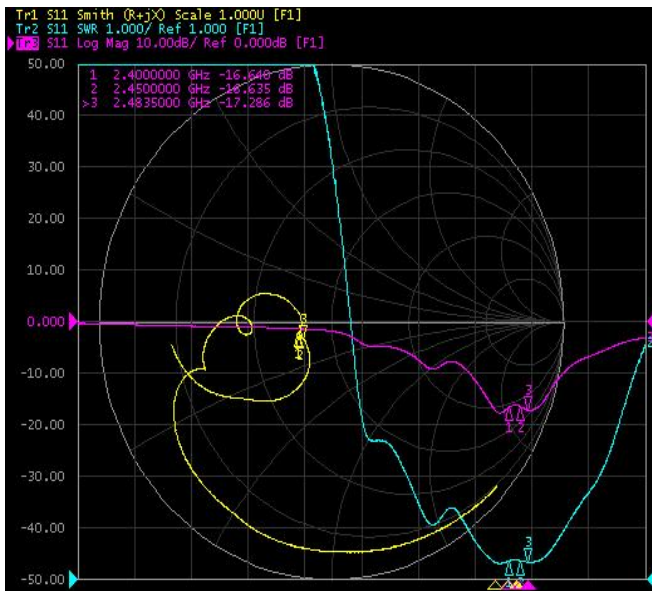
### headform

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	8.85	-10.53	-6.51
2410	9.87	-10.06	-6.09
2420	10.35	-9.85	-5.67
2430	11.17	-9.52	-5.42
2440	12.66	-8.98	-4.25
2450	12.32	-9.1	-4.82
2460	11.19	-9.51	-4.15
2470	10.42	-9.82	-5.74
2480	9.03	-10.44	-6.2
2490	8.85	-10.53	-6.58
2500	7.19	-11.43	-7.07

## 6、Attachment chart

### 6.1 VSWR parameter diagram

#### Free Space



#### headform

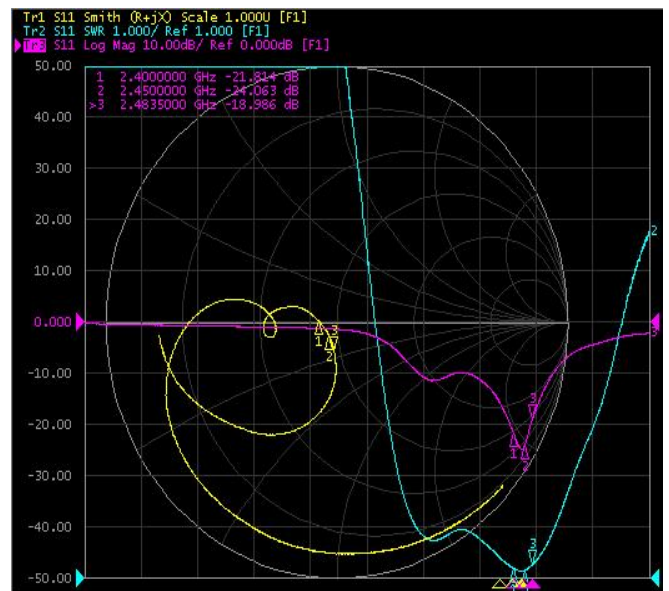


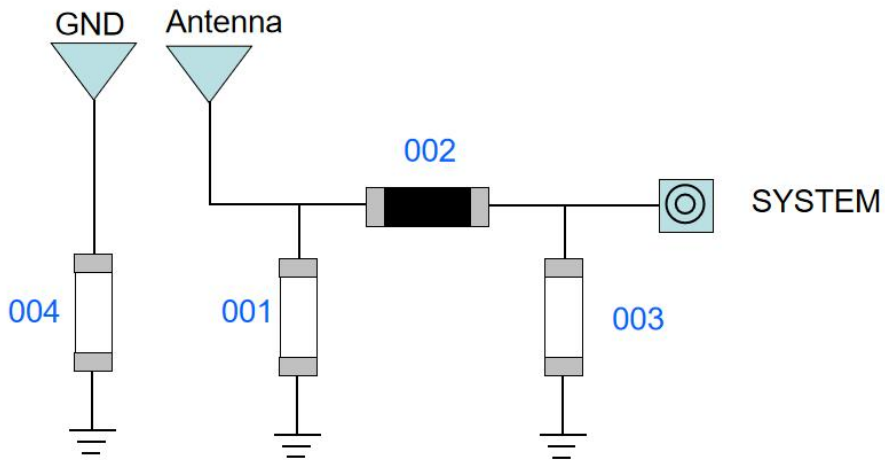
Figure 3

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## 6.2 Matching circuit



Element	Left	Right
001	N/C	N/C
002	0Ω	0Ω
003	N/C	N/C
004	0Ω	0Ω

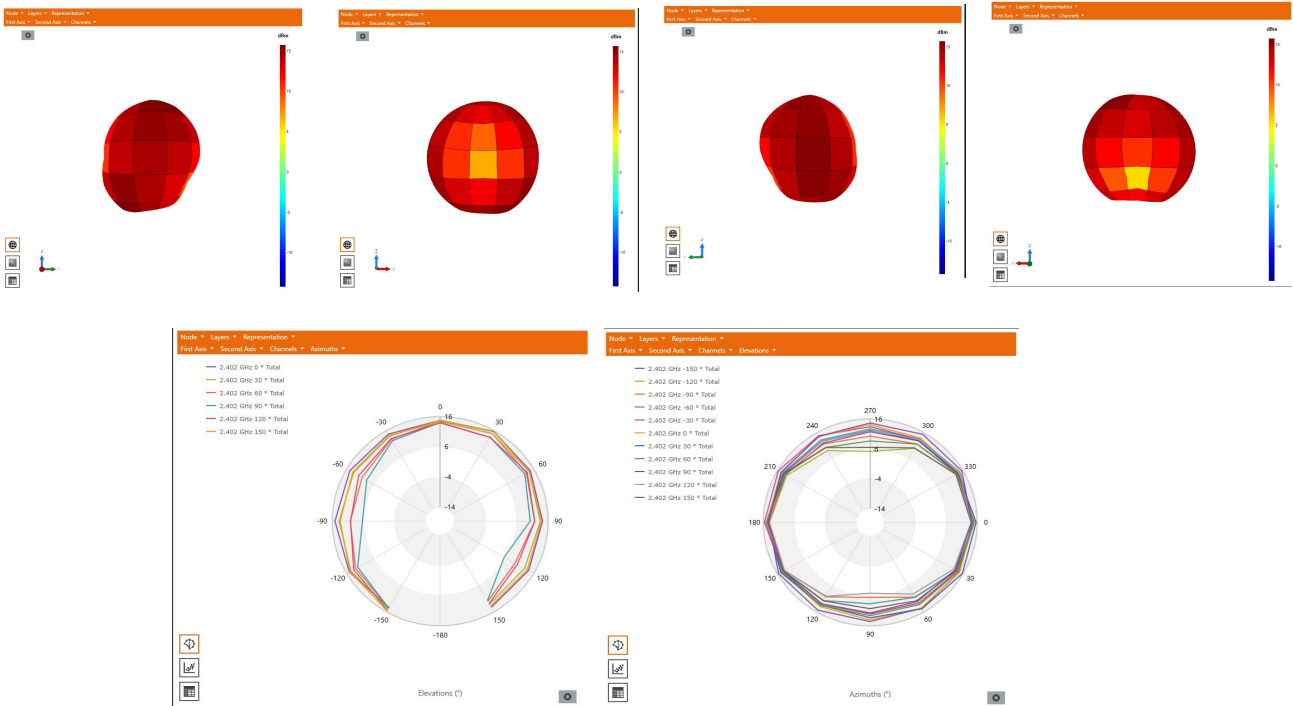
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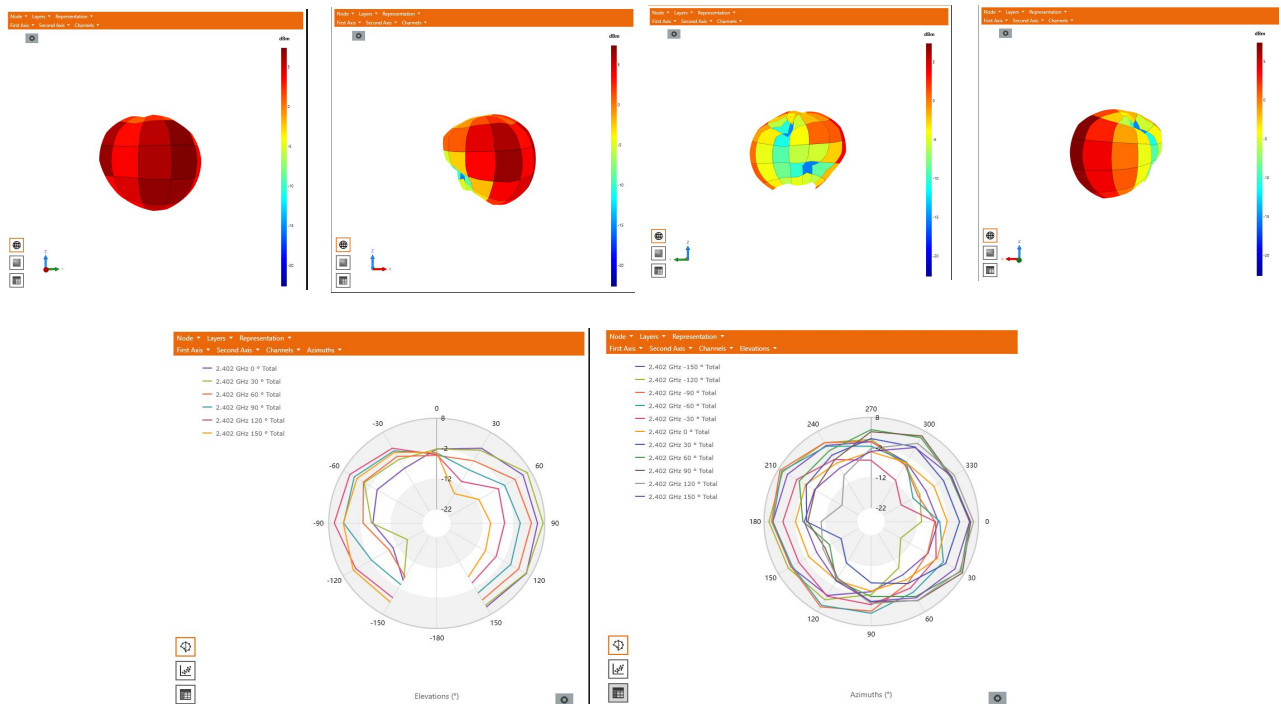
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## 7、Active Field Pattern Diagram – Free Space:



## 7.1、Active Field Pattern Diagram – Headform:

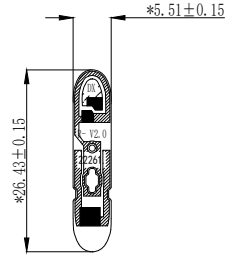


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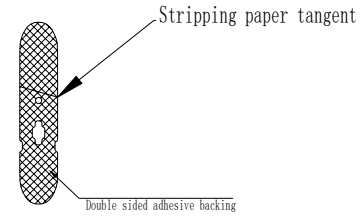
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0~10	10~30	30~50	50~	angle	○	◎	⊥	▱
0.05	0.10	0.15	0.20	1°	0.02	0.02	0.03	0.05



Black ink  
White silk screen printing

TOP


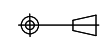


BOT

technical requirement:

1. "\*" is the key dimension;
2. Please refer to the drawing for unspecified dimensions;
3. Meet RoHS requirements.

A	Initial Issue	2023.07.08	
edition	describe	date	Note

 Shenzhen Topant Technology Co., Ltd.					
Machine model	22261	Product Color	black	date	2023/07/08
Project Code	C2-2261X-010	Mold surface treatment	NA	MD	BI YE ZHI
Part Name	BT-R antenna	unit	mm	scale	1:1
Part Number	22-2261X-010-1	Third perspective		check	ZHOU KANG
material	Electrolytic copper PI			ratify	ZHANG LEI
Save Path				current version	A

A

B

C

D

A

B

C

D