

SPECIFICATION

Daxian Communication Technology Limited



Shenzhen Daxian Technology Co., Ltd.

Eastech TW2110 Left ear
Bluetooth headset antenna

Material Recognition Letter

Guest households	Eastech	frequency band	2400MHz~2500MHz
Project name	TW2110	version	V2
Material No.	1T-W2110-101	color	Yellow
R F design	Qiang.Wang	structure design	Yezhi.Bi
Quality Manager	Ziyin.Hu	R & D director	Lei.Zhang
Date	2022-12-02		

client confirmation:

Whether the assembly meets your requirements: OK NG

Shenzhen Topant Technology Co., Ltd.

Shangshuijing Village, No. 513, ihua Road, BujiTown, Longgang District, Shenzhen (opposite to theNational Defense Training Base)reached the 7thfloor of the Industrial Park Complex

TEL:0755-28576002

FAX:0755-84276383

Shanghai Branch: Room 201, Building 8 No, 3000Longdong Avenue, Integrated Circuit IndustrialZone, Zhangjiang Hi-tech Park, Shanghai

TEL:021-61630552

FAX:755-84276383

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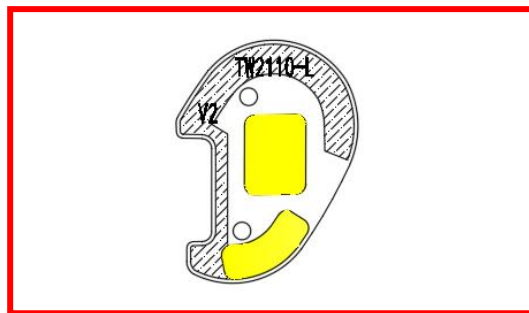
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– Project description

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

一、 BT antenna

This report provides a variety of measurements of the electrical performance of the TW2110 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
Left ear BT	2400 ~ 2500	≤ 3

1.2 Antenna composition

The antenna is mainly composed of FPC.

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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:

Passive testing:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	19.44	-7.11	-2.63
2410	19.93	-7.01	-2.27
2420	21.54	-6.67	-1.96
2430	22.98	-6.39	-1.44
2440	23.25	-6.34	-1.41
2450	24.03	-6.19	-1.27
2460	24.03	-6.19	-1.26
2470	23.69	-6.26	-1.32
2480	23.83	-6.23	-1.35
2490	22.54	-6.47	-1.51
2500	21.07	-6.76	-1.88

Active test:

Left ear			
BAND	CH	TRP (dBm)	TIS (dBm)
BT	0	1.35	-89.45
	39	2.08	-89.88
	78	2.85	-90.12

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、 Attachment chart

5.1 VSWR parameter diagram

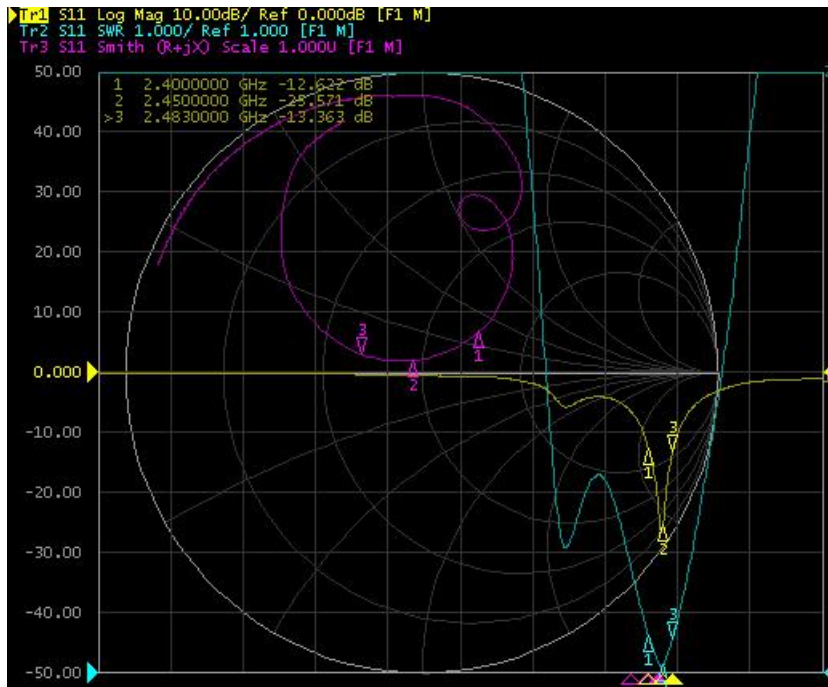
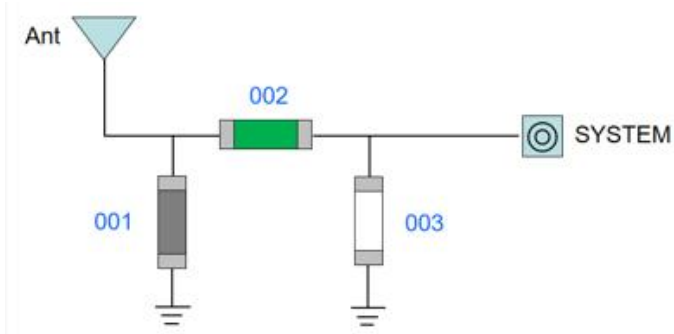


Figure 3

5.2 Matching circuit



Element	Left	Right
001	N/C	N/C
002	0欧姆	1.8PF
003	N/C	N/C

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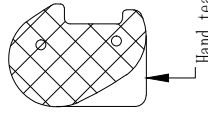
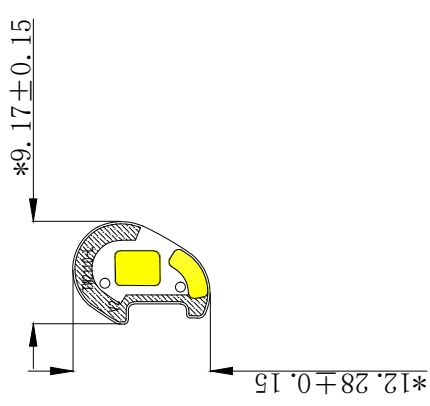
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1		2		3		4		5		6	
The third perspective								Angle		⊥	
Unit	mm	Proportion		0~10		10~30		30~50		50~	
		1:1		0.05		0.10		0.15		0.20	
				0.02		0.02		1°		0.02	
				0.02		0.02		0.02		0.03	
				0.02		0.02		0.02		0.05	

A

*0.13±0.03



B

C

Note:

- "*" for the key size;
- FPC Material Science:Electrolytic copper
- 3m300 series double-sided adhesive tape is pasted on the back of the product
- No tolerance dimension is marked, and the tolerance of die stamping dimension is ± 0.1
- Gold plated area, Copper foil area, Gum;



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Model	TW2110	Product color	yellow	Date	2022/11/01
Project Coding	CT-W2110-101	MoI dsurfacetreat ment		Structural Design	biyezhi
Part Name	BT-L FPC			RF design	wangqiang
Parts coding	IT-W2110-101-1			Check	zhoukang
Material	PI Electrolytic copper			Approve	zhanglei
Save Path				current version	A

A

B

C

D

1		2		3		4		5		6	
version		Description		Date		Remark					