SPECIFICATION

Daxian Communication Technology Limited

Shenzhen Daxian Technology Co., Ltd.

Eastech TW2110 Right ear Bluetooth headset antenna

Material Recognition Letter

Guest households	Eastech	frequency band	2400MHz～2500MHz
Project name	TW2110	version	V2
Material No.	2T-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

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Change resume

version number	Change content	Reason for change	Initiate change Party	date	Modifier
V1.0	create			2022.12.02	

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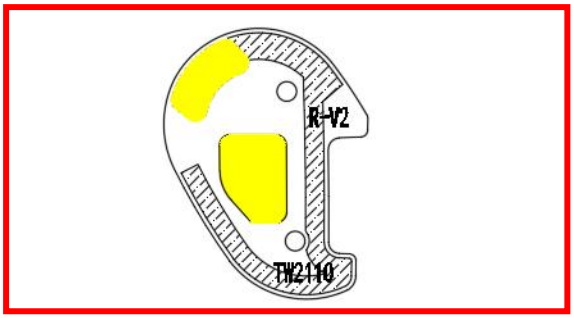
一 Project description

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 theTW2110 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**	**≤ 3**

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

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	19.76	-7.04	-3.2
2410	22.63	-6.45	-2.75
2420	24.51	-6.11	-2.42
2430	25.93	-5.86	-2.33
2440	25.43	-5.95	-2.25
2450	25.63	-5.91	-2.13
2460	24.59	-6.09	-2.15
2470	23.97	-6.20	-2.18
2480	23.23	-6.34	-2.23
2490	23.41	-6.31	-2.09
2500	21.55	-6.67	-2.41

Active test：

Right ear			
BAND	CH	TRP (dBm)	TIS (dBm)
BT	0	1.08	-90.17
	39	2.70	-90.92
	78	2.91	-90.71

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!

5、Attachment chart

5.1 VSWR parameter diagram

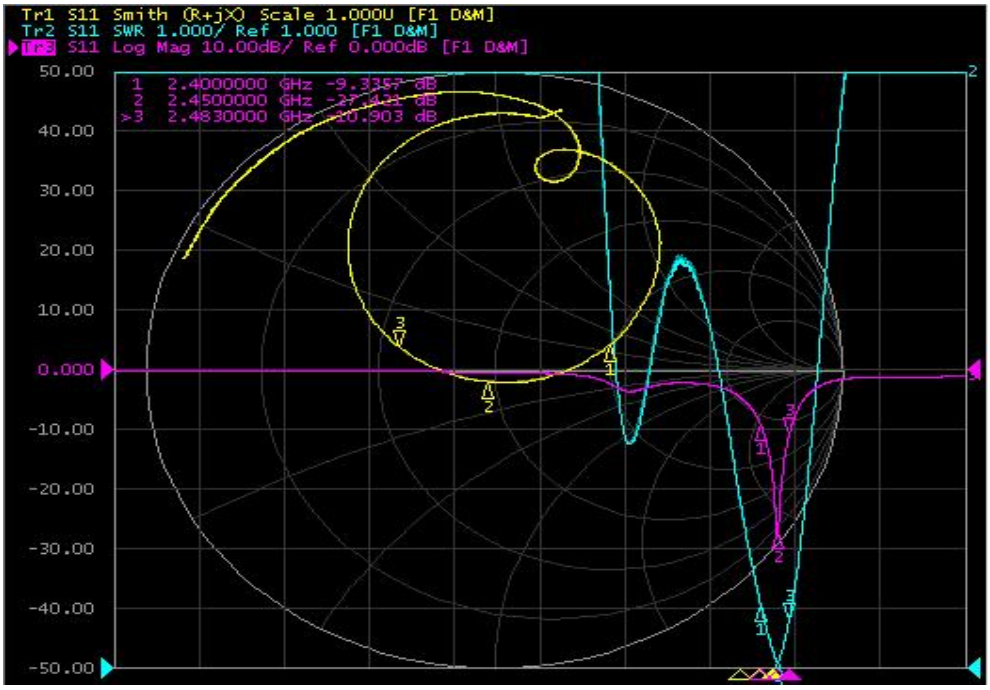
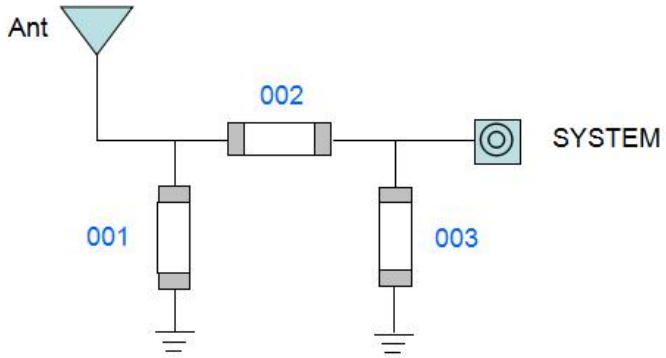


Figure 3

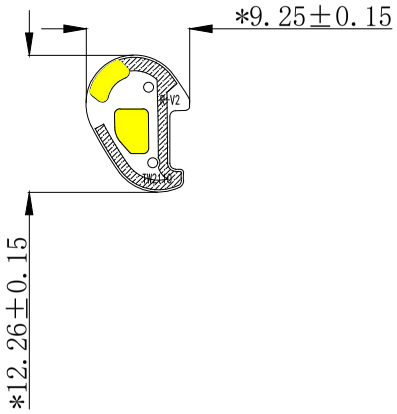
5.2 Matching circuit

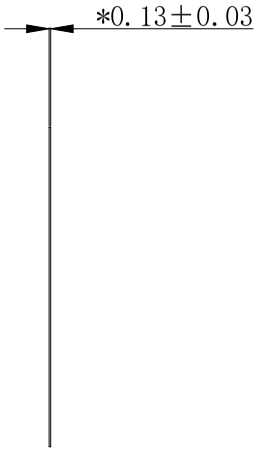


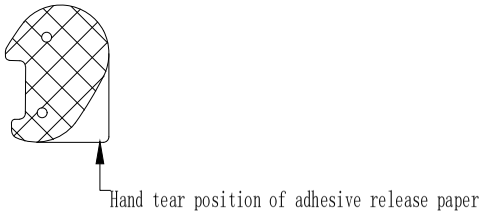
Element	Left	Right
001	N/C	N/C
002	0欧姆	1.8PF
003	N/C	N/C

The third perspective			
Unit	mm	Proportion	1:1

	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







Note:

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

A	New Figure		
version	Description	Date	Remark

TOPANT

Shenzhen Daxian Technology Co., Ltd.

Model	TW2110	Product color	yellow	Date	2022/11/01
Project Coding	CT-W2110-101	Mol dsurfacetreat ment		Structural Design	biyezhi
Part Name	BT-R FPC			RF design	wangqiang
Parts coding	2T-W2110-101-1			Check	zhoukang
Material	PI Electrolytic copper			Approve	zhanglei
Save Path				current version	A