

SPECIFICATION



ShenZhen TianDa Communication Co,LTD

C8E Antenna

Product Specification

Customer	Zhi Ling	Frequency band	2400-2500MHz
Project name	C8E	Edition	B
Item number	ZL-C8-E0-P1-B	Colour	Green
R F design	Wangxinchuang	Structural design	Zhouluhong
Date	2024.09.06		

Customer confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

ShenZhen TianDa Communication CO., LTD.

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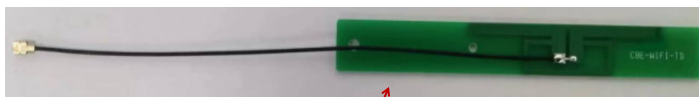
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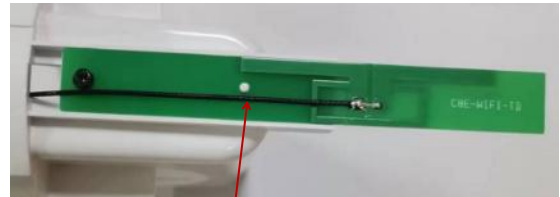
WIFI Antenna

1、Specifications

The specification mainly provides the test status of electrical and structural performance parameters of WIFI antenna in C8E project。 The picture below shows the antenna designed by Tianda.



WIFI



antenna position

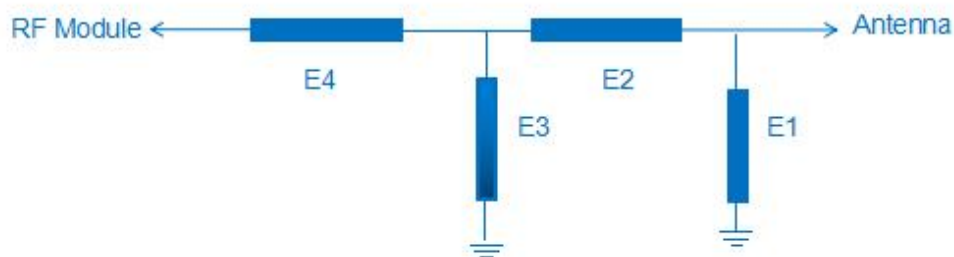
1.1、Electrical specifications

1.1.1、Electrical performance index

The operating frequency band of the antenna 2400MHz—2500MHz, The following is the electrical performance index of the antenna designed and produced by Tianda.

WIFI		
Frequency band	Frequency (MHz)	VSWR
2.4G	2400~2500	≤ 2.0

1.1.2、Matching circuit diagram

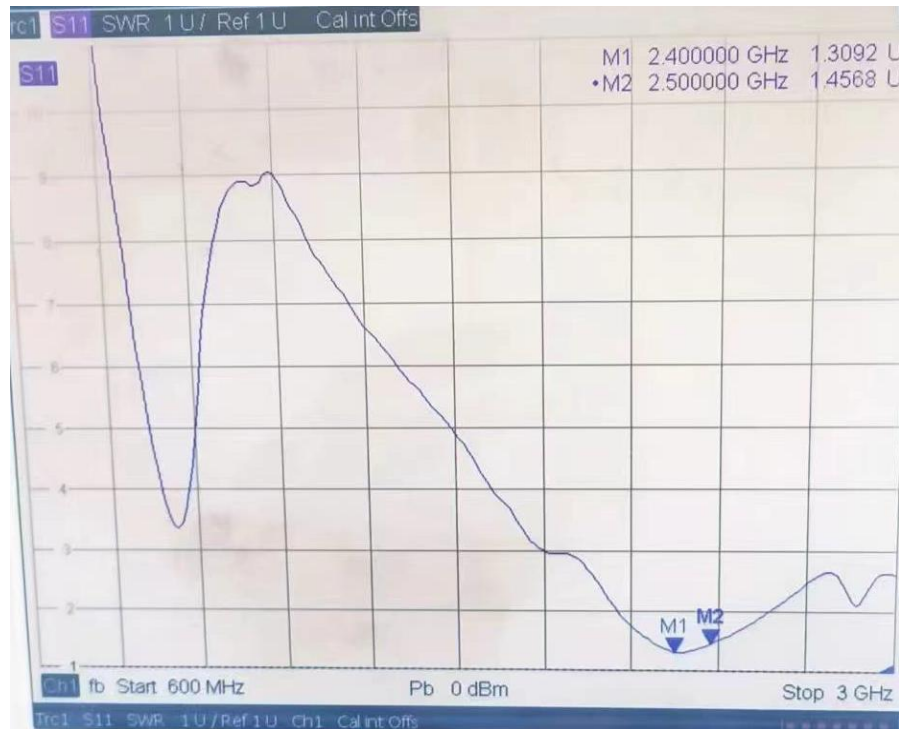


The matching circuit of WIFI is the original matching of the motherboard, and there is no change.

1.2、Testing

1.2.1、Passive test data

1.2.1.1、VSWR



1.2.1.2、Antenna Gain and Efficiency

Passive Test For 2.4G-2.5G							
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	AttH (dB)	AttV (dB)
2400	62.04	3.06	0.91	30.752	31.289	46.87	46.81
2410	64.21	3.2	1.05	31.942	32.27	47.08	47.17
2420	62.43	3	0.85	31.003	31.427	47.06	47.12
2430	66.81	3.22	1.07	33.364	33.445	47	47.09
2440	65.81	3.05	0.9	32.955	32.859	47.5	47.69
2450	65.75	2.87	0.72	32.972	32.774	47.48	47.63
2460	67.97	2.79	0.64	34.194	33.779	47.73	47.89
2470	65.63	2.49	0.34	32.989	32.637	47.81	48.06
2480	66.78	2.38	0.23	33.501	33.275	47.79	47.96
2490	70.15	2.89	0.74	34.826	35.324	48.2	48.46
2500	66.97	2.54	0.39	32.987	33.986	47.83	48.01

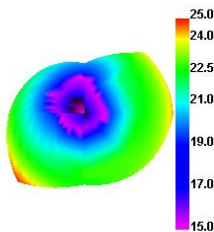
1.2.2、OTA test data

OTA Date			
SN-C8E...0068			
Test	Wifi 2.4G b (11M)		
Result	1	7	13
Frequency (MHz)	2412	2442	2472
TRP(dBm)	21.5	21.1	21.1
TIS(dBm)	-88.2	-88.6	-87.8

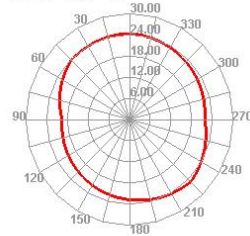
The above is the OTA data of the customer-supplied trial production machine tested in our company's microwave anechoic chamber.

1.2.3、Antenna pattern

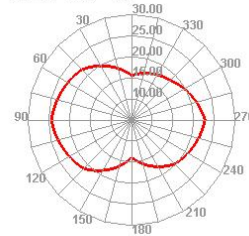
Wifi 1 TRP



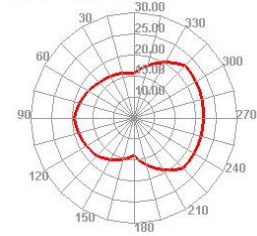
Wifi 1 TRP H



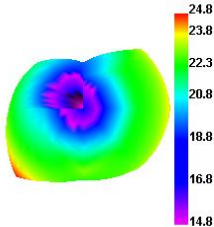
Wifi 1 TRP E1



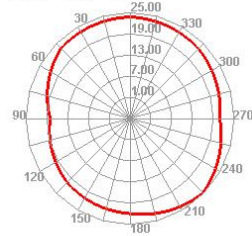
Wifi 1 TRP E2



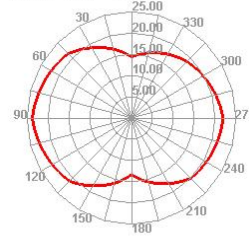
Wifi 7 TRP



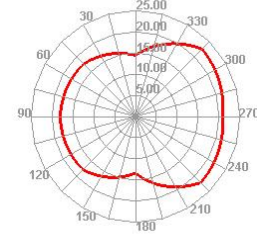
Wifi 7 TRP H



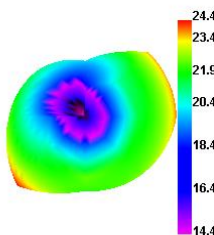
Wifi 7 TRP E1



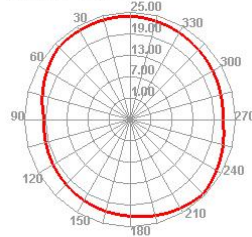
Wifi 7 TRP E2



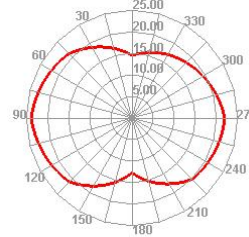
Wifi 13 TRP



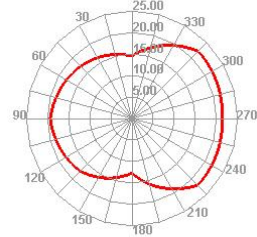
Wifi 13 TRP H



Wifi 13 TRP E1



Wifi 13 TRP E2

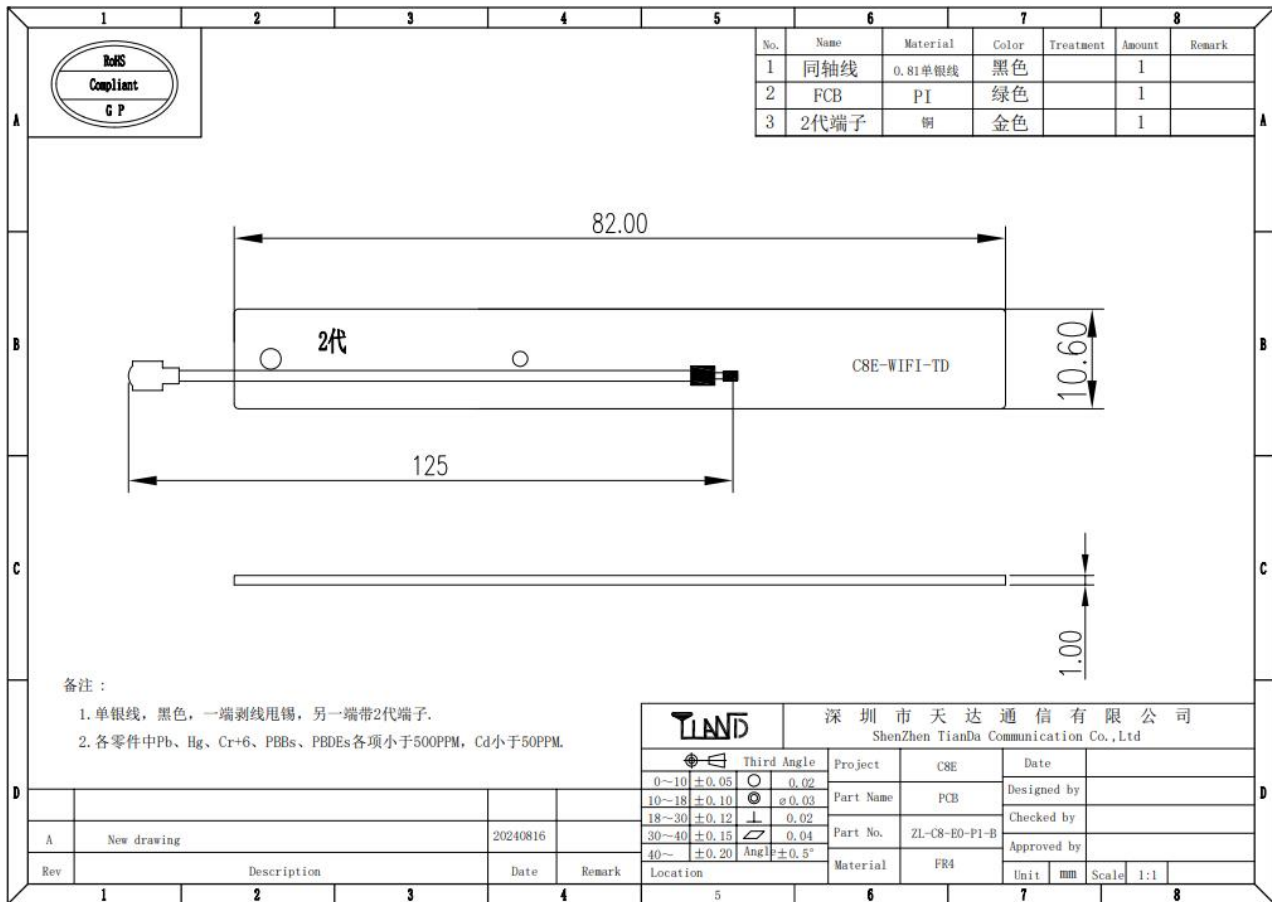


2、Structural specifications

2.1、Antenna composition

WIFI antenna is mainly composed of PCB+Cable lines.

2.2、Drawings



2.3、Dimension Measurement

Quantity	1	2	3	4
Critical dimensions				
82.00±0.20	82.00	82.03	82.00	81.98
10.60±0.20	10.61	10.64	10.60	10.58
125.00±2.0	125.17	125.09	125.00	124.96

3、Conclusion

This antenna was designed on the trial production machine provided by the customer, and its electrical parameters and structural dimensions have met the technical requirements, Please confirm.

4、Packaging

The antenna is packed in PE bags and cartons.