

SPECIFICATION



ShenZhen TianDa Communication Co,LTD

B51-5G Antenna

Product Specification

Customer	Xmitech Electronic	Frequency band	5150MHz-5850MHz
Project name	B51-5G	Edition	A
Item number	XM-B5-10-5G-A	Colour	Silver
R Fdesign	Wang Xinchuang	Structural design	Zhou Luhong
Date	2026.01.06		

Customer confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

ShenZhen TianDa Communication CO., LTD.

No.902, Shifeng Building, No.6267, Ba'ao Avenue, Fuhai Sub-district, Bao'an District, Shenzhen City.

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5G WIFI Antenna

1、Specifications

The specification mainly provides the test status of electrical and structural performance parameters of 5G WIFI antenna in B51 project。The picture below shows the antenna designed by Tianda.



WIFI

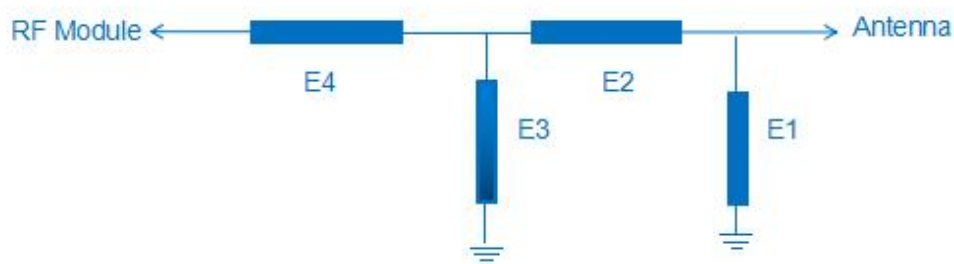
1.1、Electrical specifications

1.1.1、Electrical performance index

The operating frequency band of the antenna 5150MHz--5850MHz,The following is the electrical performance index of the antenna designed and produced by Tianda.

WIFI		
Frequency band	Frequency (MHz)	VSWR
5G	5150~5850	≤ 2.0

1.1.2、Matching circuit diagram

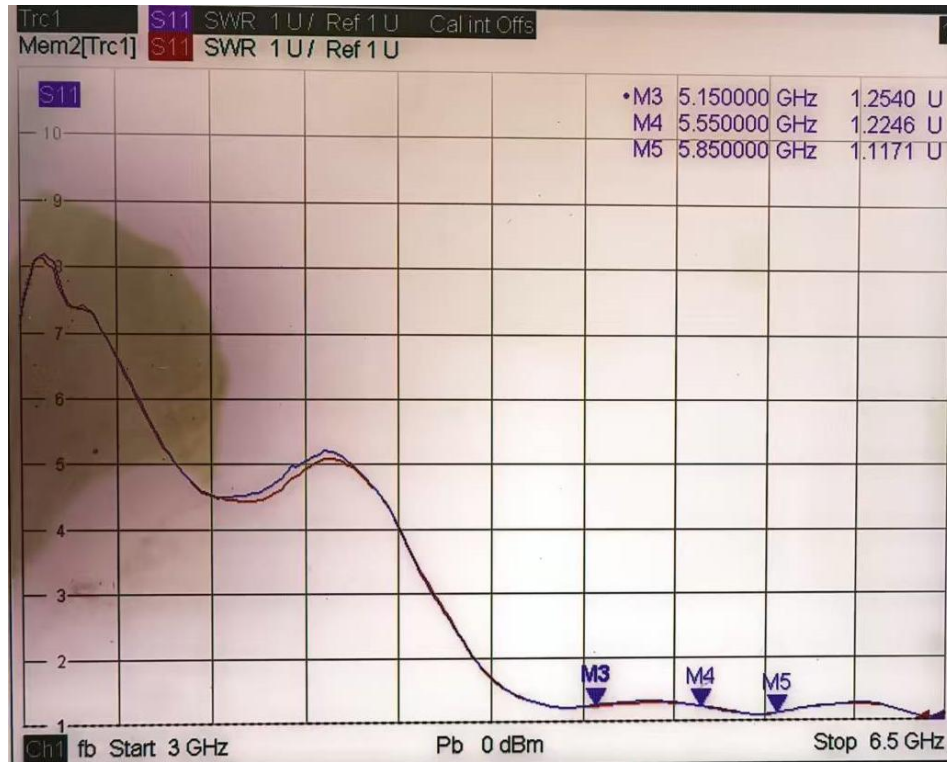


The matching circuit of the WiFi 5G antenna is the original motherboard matching circuit, with no modifications.

1.2、Testing

1.2.1、Passive test data

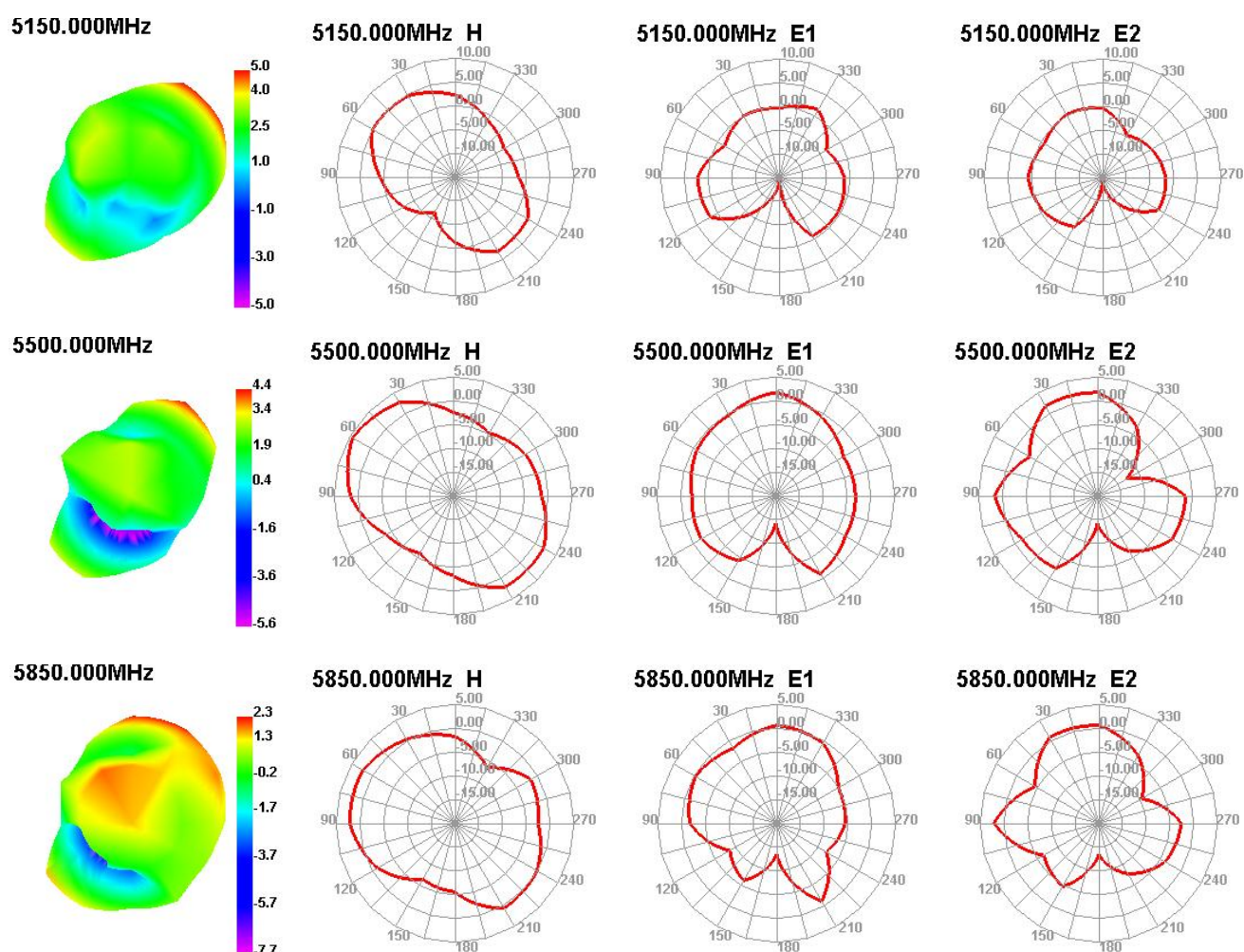
1.2.1.1、VSWR



1.2.1.2、Antenna Gain and Efficiency

Passive Test For WIFI5G							
Freq (MHz)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	AttH (dB)	AttV (dB)
5150	69.56	5.01	2.86	35.016	34.54	53.2	53.14
5200	71.2	5.34	3.19	36.593	34.603	53.06	53.2
5250	75.9	5.43	3.28	38.453	37.444	53.7	53.97
5300	73.91	5.22	3.07	38.437	35.471	53.79	54.11
5350	64.66	4.78	2.63	33.546	31.11	53.56	53.8
5400	58.67	4.43	2.28	30.279	28.394	53.85	54.01
5450	71.14	4.77	2.62	37.465	33.678	54.57	54.61
5500	73.07	4.36	2.21	38.136	34.936	54.91	54.94
5550	72.76	4.48	2.33	39.569	33.188	55.26	55.31
5600	59.47	3.61	1.46	33.018	26.452	54.43	54.52
5650	59.22	3.5	1.35	33.376	25.849	54.76	54.94
5700	54.28	2.95	0.8	31.682	22.597	54.83	55.05
5750	55.9	2.55	0.4	32.52	23.381	55.03	55.32
5800	54.58	2.14	-0.01	32.097	22.486	54.22	54.54
5850	58.58	2.3	0.15	34.074	24.506	54.05	54.27

1.2.1.3、Antenna pattern



1.2.2、OTA test data

a (54M)	暗室 ■ 三角锥 □ 屏蔽箱 □		
Band	5G		
Channel	36	149	165
TRP	16.3	20.6	20.5
TIS	-75.0	-74.2	-75.3

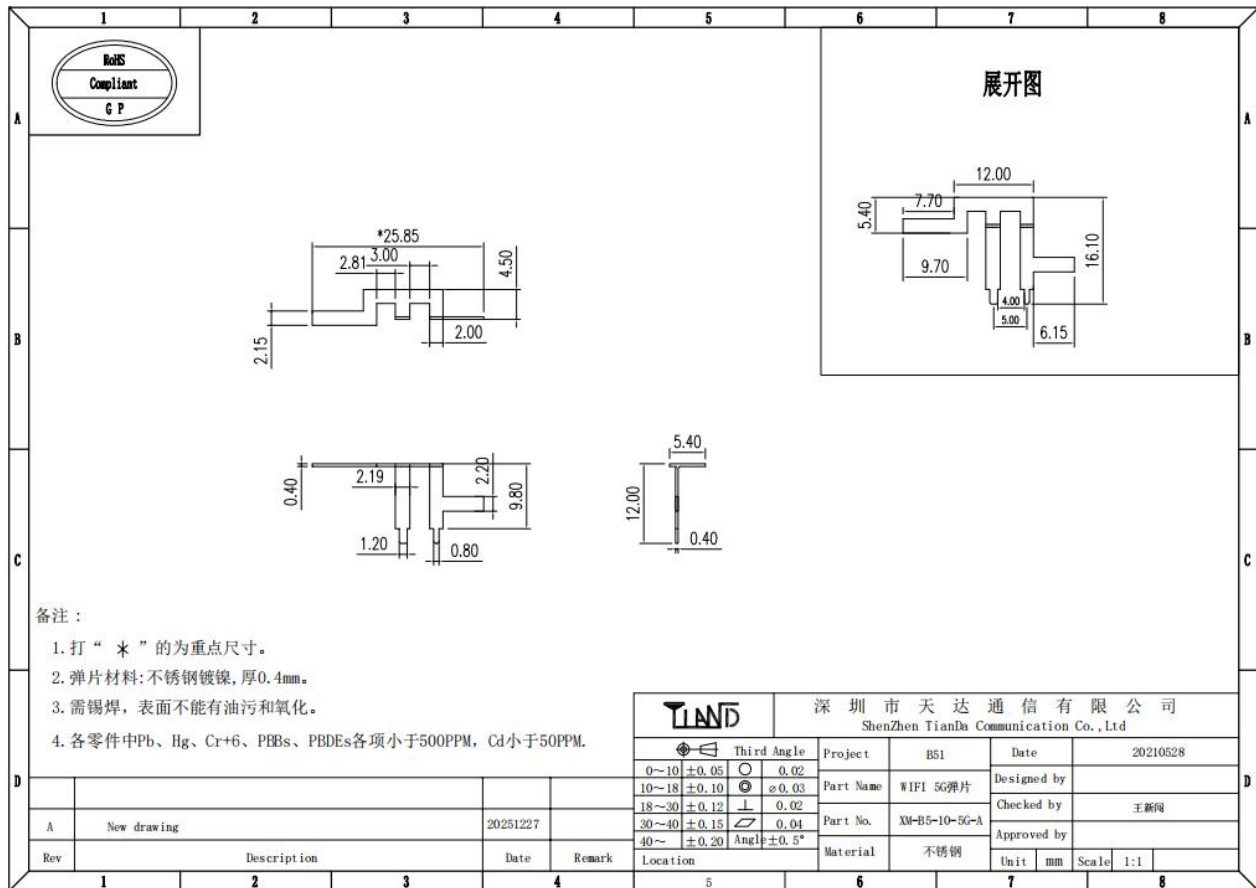
The above is the OTA data of the customer-supplied trial production machine tested in our company's microwave anechoic chamber.

2、Structural specifications

2.1、Antenna composition

The WiFi antenna is mainly composed of nickel-plated stainless steel.

2.2、Drawings



2.3、Dimensional measurement

Quantity Key dimensions	1	2	3	4
25.85±0.1	25.86	25.83	25.78	25.91
16.10±0.1	16.11	16.08	16.10	16.13
0.40±0.05	0.40	0.37	0.41	0.39

3、 Conclusion

This antenna was designed based on the prototype provided by the customer, and the electrical parameters and structural dimensions have met the technical requirements. Please confirm!

4、 Packaging

Pack in plastic boxe and cartons.