

SPECIFICATION



ShenZhen TianDa Communication Co,LTD

SU7 Antenna

Product Specification

Customer	Da Xiang	Frequency band	2400-2500MHz
Project name	SU7	Edition	A
Item number	DX-SU-70-WF-A	Colour	Black
R F design	Huang Zhilin	Structural design	Zhou Luhong
Date	2025.04.22		

Customer confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG

ShenZhen TianDa Communication CO., LTD.

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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 SU7 project。 The picture below shows the antenna designed by Tianda.



WIFI

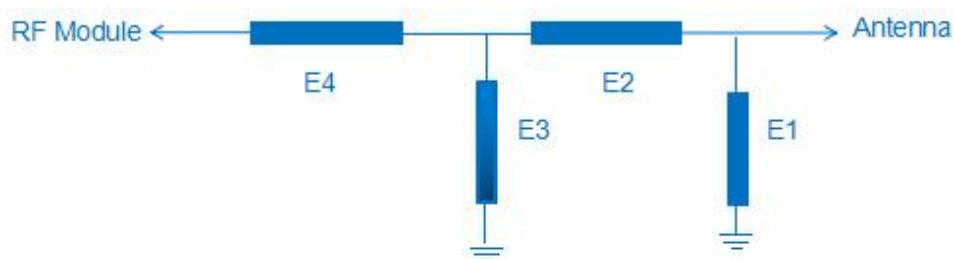
1.1、Electrical specifications

1.1.1、Electrical performance index

The operating frequency band of the antenna 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



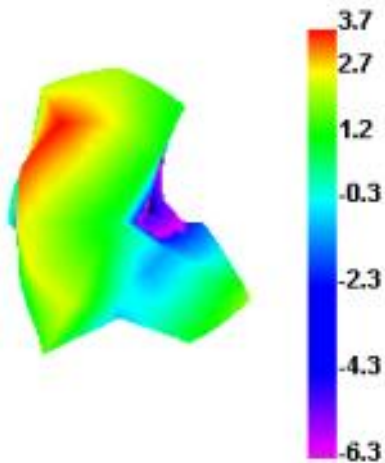
1.2.1.2、Antenna Gain and Efficiency

Passive Test For WiFi Antenna(2.4G)			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	67.07	-1.73	3.72
2410	66.35	-1.78	3.57
2420	66.79	-1.75	3.5
2430	67.83	-1.69	3.52
2440	70.09	-1.54	3.57
2450	69.89	-1.56	3.46
2460	71.52	-1.46	3.5
2470	72.42	-1.4	3.49
2480	68.73	-1.63	3.13
2490	68.9	-1.59	3.5
2500	66.44	-1.78	2.79

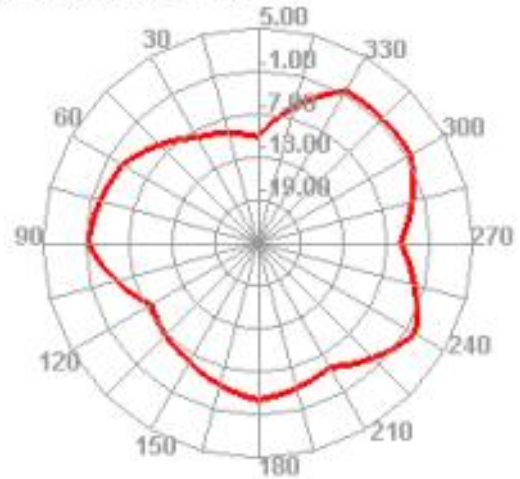
1.2.1.3、Antenna pattern

Radiation Pattern For WiFi Antenna(2400MHz)

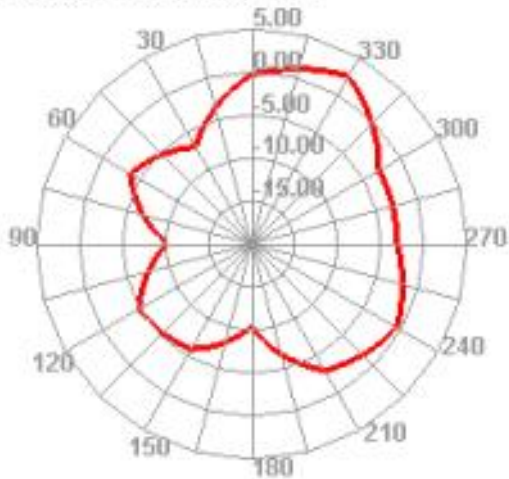
2400.000MHz



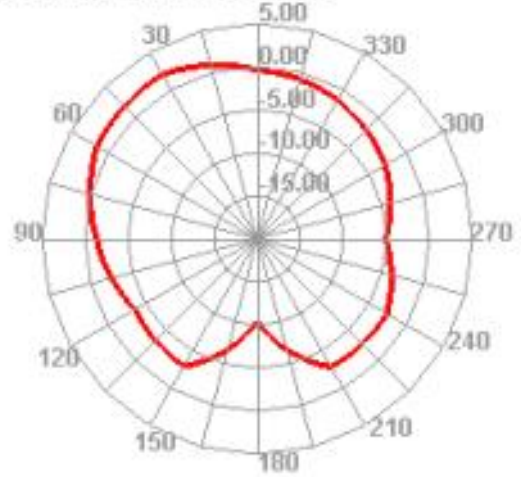
2400.000MHz H



2400.000MHz E1

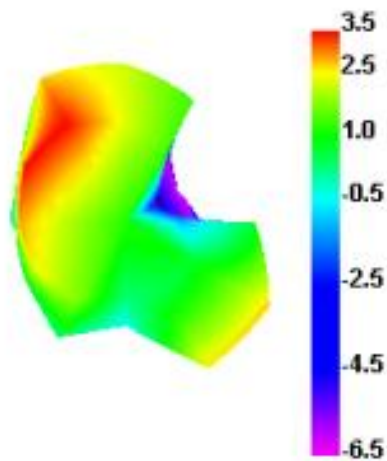


2400.000MHz E2

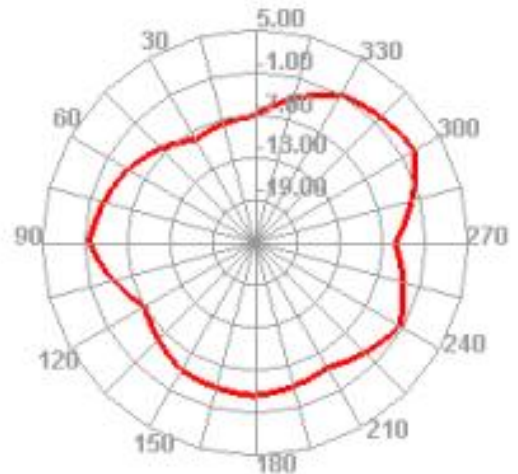


Radiation Pattern For WiFi Antenna(2450MHz)

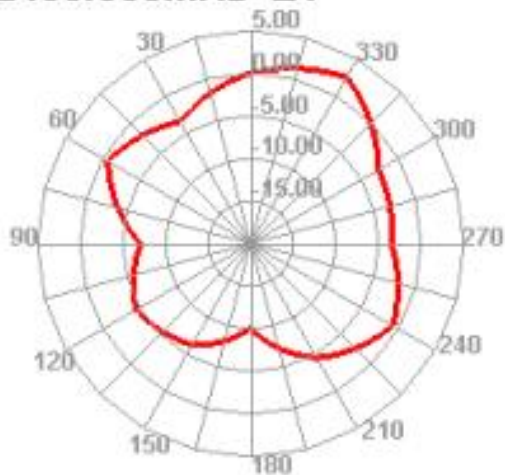
2450.000MHz



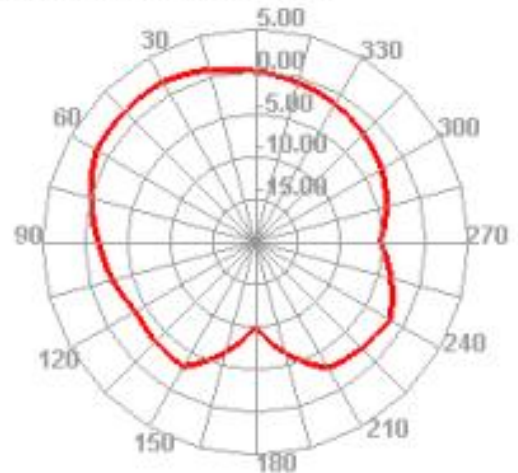
2450.000MHz H



2450.000MHz E1

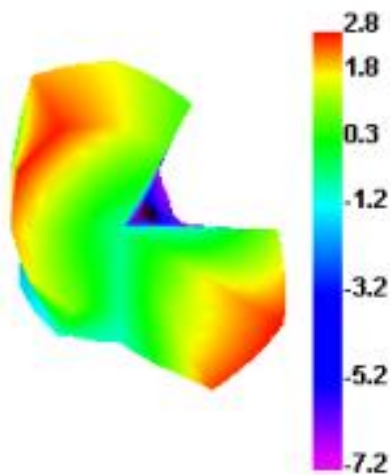


2450.000MHz E2

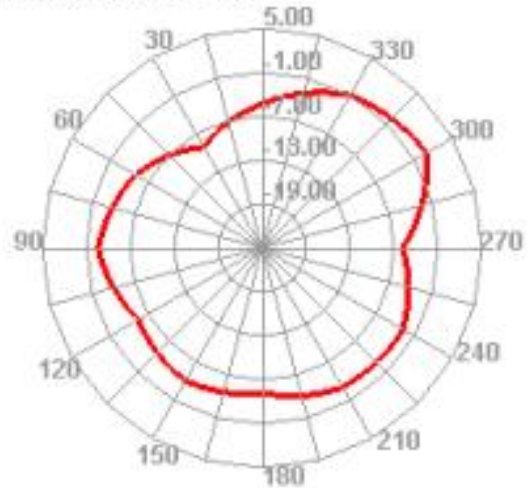


Radiation Pattern For WiFi Antenna(2500MHz)

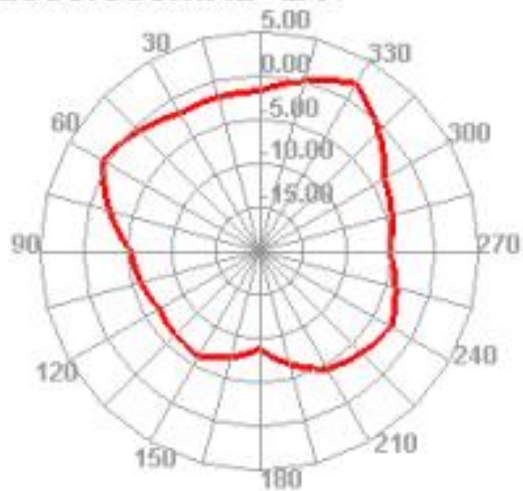
2500.000MHz



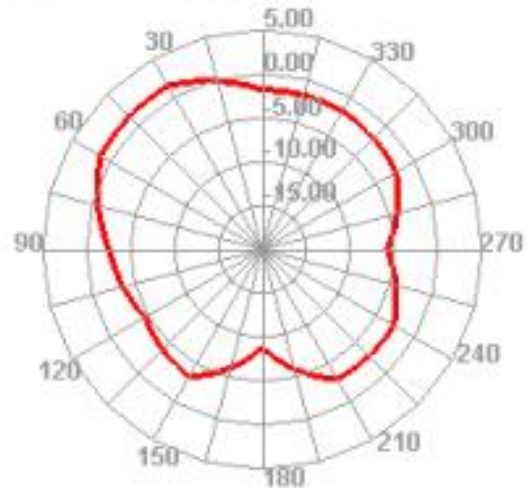
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



1.2.2、OTA test data

b (11M)	OTA		
Band	2. 4G		
Channel	1	7	13
TRP	18.34	17.69	17.55
TIS	-89.73	-89.76	-89.64
g (54M)	OTA		
Band	2. 4G		
Channel	1	7	13
TRP	16.11	15.65	15.29
TIS	-74.94	-76.99	-76.36
n (MCS7)	OTA		
Band	2. 4G		
Channel	1	7	13
TRP	15.95	15.61	15.14
TIS	-70.29	-70.12	-69.48

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

WIFI antenna is mainly composed of FPC+Cable lines.

2.2、Drawings

