

Manufacturer	Shenzhen Tianyiyuan Elec&Technology CO.,Ltd
address	6th Floor, Building A, Xinlongxin Industrial Park, No. 50 Fengtang Avenue, Fuhai Street, Bao'an District, Shenzhen
Model	TTY-TX3905
Antenna type	FPC antenna
Antenna Gain	3.80 dBi(Max.) for 2.4G Band and 3.80 dBi(Max.) for 5G Band

WIFI Specification

The finished product features			
电 性 能 指 标		Electrical Specifications	
频率范围	2450/5250MHz	Frequency Range	2450/5250MHz
电压驻波比	≤1.5	VSWR	≤1.5
最大增益	3.80DBI	Max GAIN	3.80DBI
输入阻抗	50 Ω	Input Impedance	50 Ω
机 械 指 标		Mechanical Specifications	
天线颜色	黑色	Antenna Color	BLACK
接口形式	IPEX-3	Input connector	IPEX-3
线长度	60mm	Cable length	60mm
工作温度	-40°C~+85°C	Working Temperature	-40°C~+85°C
工作湿度	20~80%	Working Humidity	20~80%

1. Test equipment and conditions:

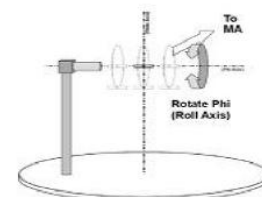
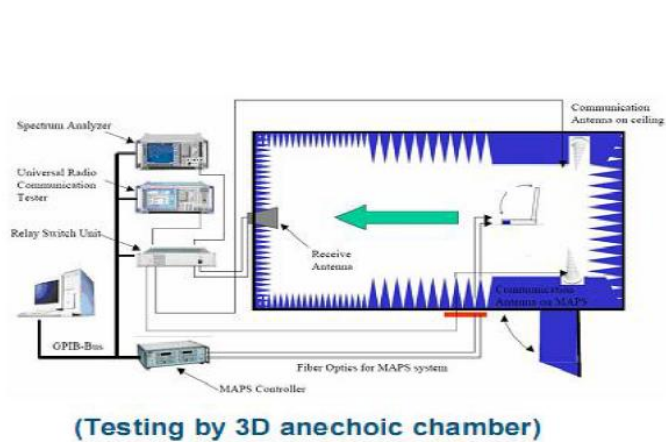
1.1. Network Analyzer

Agilent 8753D Agilent 5071B

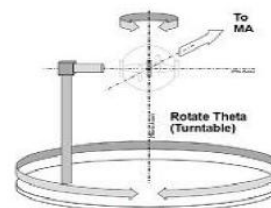
1.2. Communication test equipment

Agilent E5515C R&S CMW500

1.3. Test system

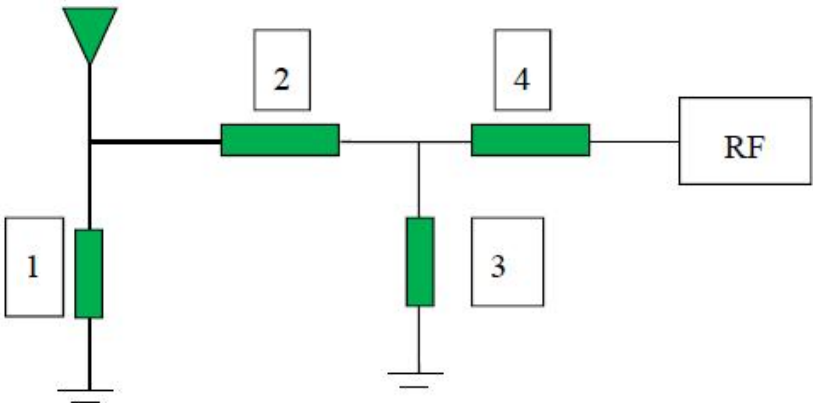


Phi axis test



Theta axis test

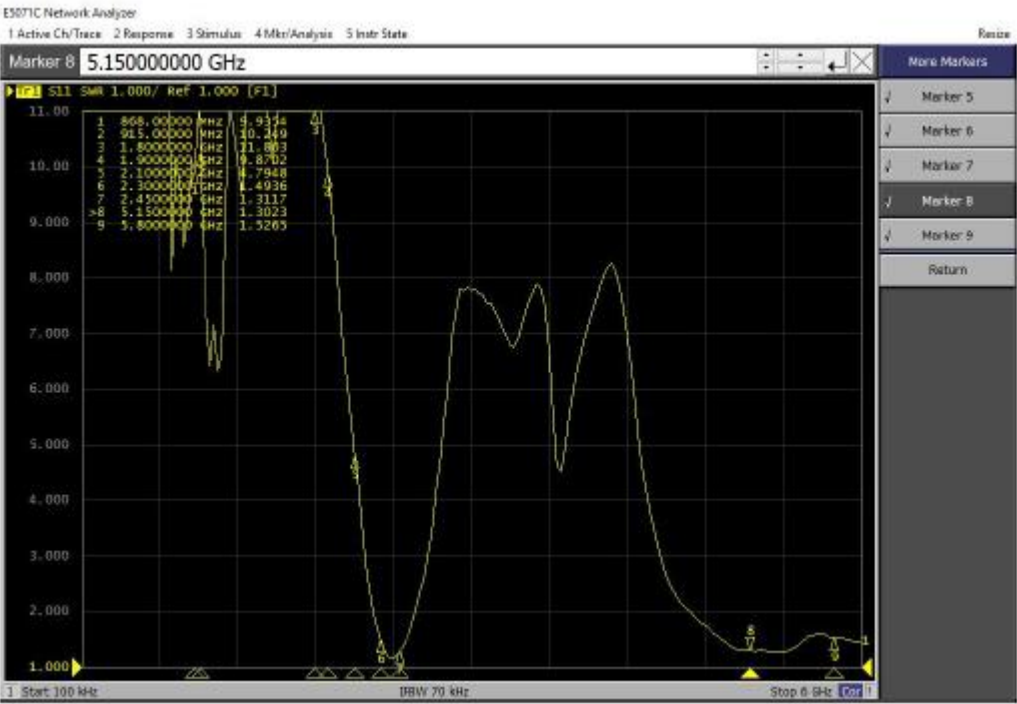
1.4. Matching circuit



元件编号	1	2	3	4
WIFI 最佳	NC	0 欧姆	NC	
原始（备用）	50 欧姆匹配			

2. Test Data:

2.1. Standing wave ratio



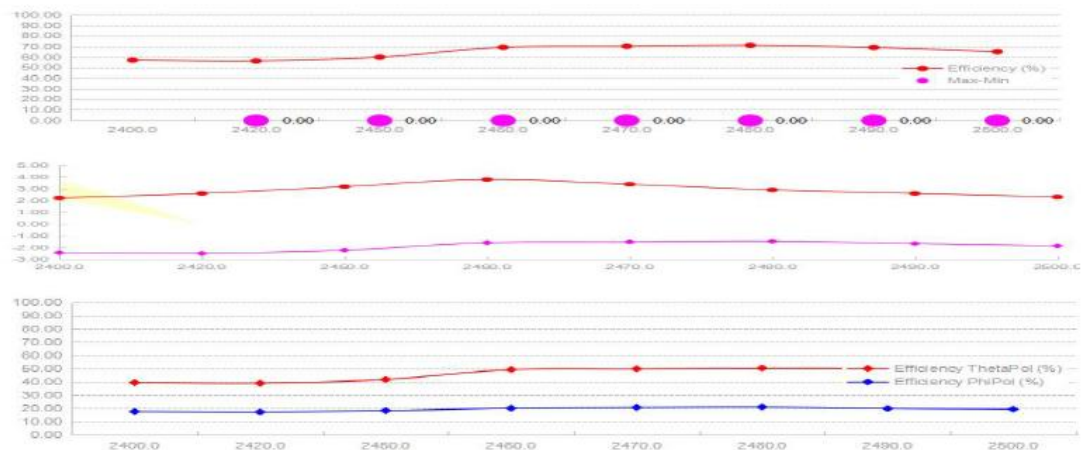
2.2.Efficiency

FETUKEJI								
Frequency ID	1	3	4	7	8	9	10	10
Frequency (MHz)	2400.0	2420.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-2.44	-2.50	-2.22	-1.59	-1.52	-1.47	-1.66	-1.86
Gain (dBi)	2.22	2.61	3.19	3.80	3.39	2.91	2.61	2.31
Efficiency (%)	57.02	56.28	59.97	69.33	70.41	71.29	69.19	65.19
Directivity (dB)	4.66	5.11	5.41	5.39	4.92	4.38	4.27	4.17
Peak Gain Position (Theta)	144.00	141.00	144.00	124.00	144.00	144.00	144.00	144.00
Peak Gain Position (Phi)	180.00	180.00	180.00	210.00	180.00	180.00	180.00	180.00
Efficiency ThetaPol (%)	39.41	39.00	41.74	49.26	49.81	50.37	49.84	45.84
Efficiency PhiPol (%)	17.60	17.28	18.23	20.07	20.59	20.92	19.85	19.35
Upper Hem. Efficiency (%)	21.62	20.70	21.72	25.75	26.56	27.24	24.81	24.88
Lower Hem. Efficiency (%)	35.39	35.57	38.25	43.58	43.84	44.04	42.30	40.30

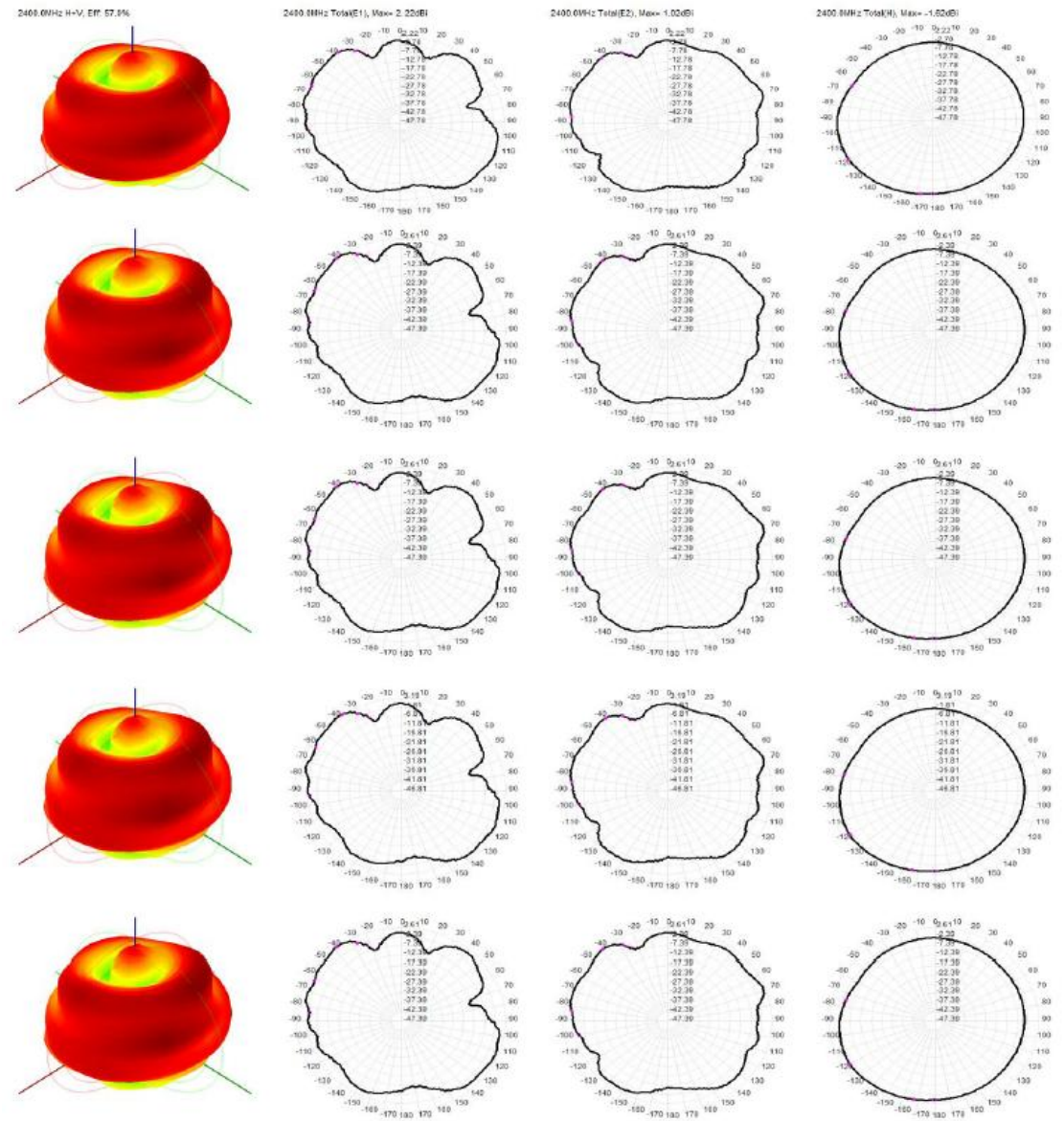
Passive Test For WiFi Antenna(5G)

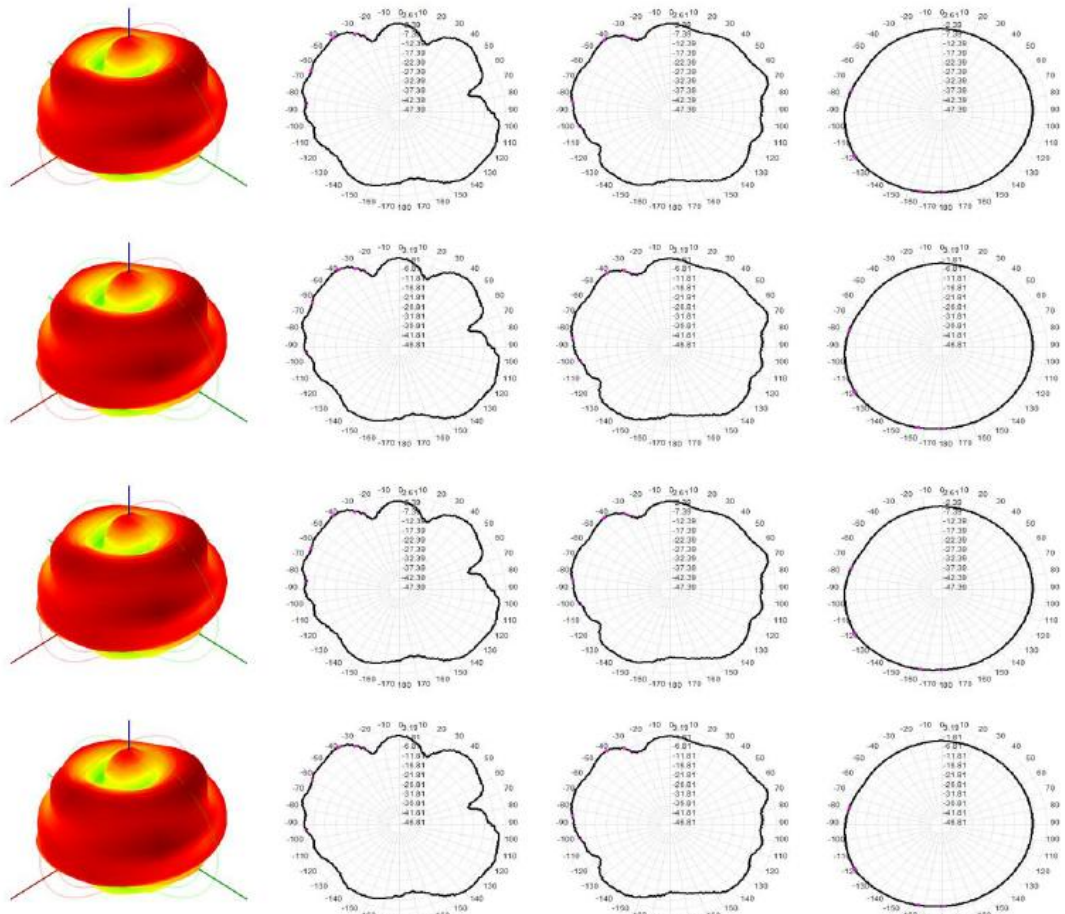
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5150	49.49	-3.05	3.80
5250	51.23	-3.07	3.77

2.3.Directivity diagram



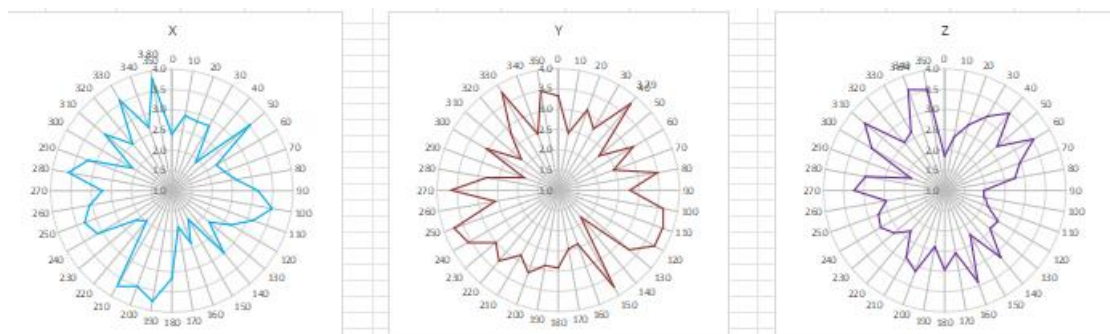
2.4G WIFI



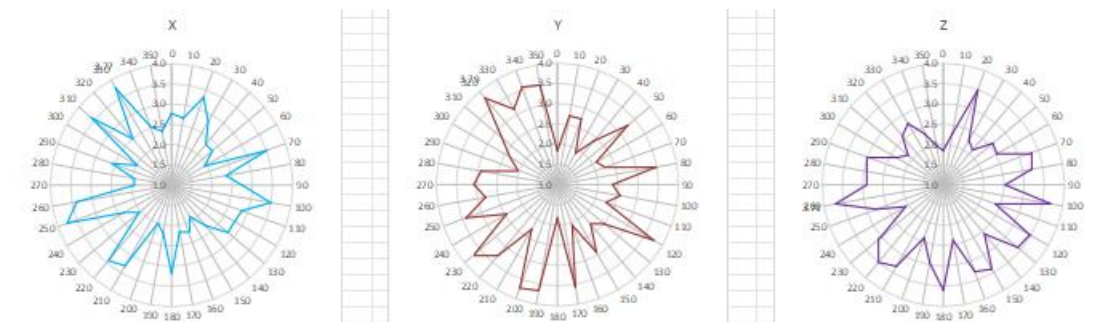


5G WIFI

5150



5250



3. Antenna drawing (mm) :

