

Antenna Test Report

1. Product Features Specification Table

Manufacturer	Shenzhen Xinfei Cheung Communication Technology Co., Ltd.
Address	Room 302, No. 49 Yangtai Mountain Road, Guantian Community, Shiyan Street, Bao'an District, Shenzhen, China
Antenna Model	ST1
Antenna Type	PIFA Antenna
Antenna Frequency Band	2400-2500/5150-5850MHz
Impedance	50 Ω
VSWR	≤ 2.3
Maxim Peak Gain	2.39dBi for 2400-2500MHz 0.74dBi for 5150-5850MHz
Radiation	Omni-directional
Omni-Directional	linear Vertical
Powers	1W
Operating Temperature	- 45 °C~+ 85 °C
Storage Temperature	- 45 °C~+ 85 °C

2. Antenna Diminon

3. Summary

This report to account for the measurement setup and result of the Antenna. The measurement setup includes s-parameter, The measured data for Antenna are presented and analysis.

4. S-Parameter Measurement S:

A. Reflection coefficient:

(a) Instrument: Network Analyzer

(b) Setup:

- (1) Calibrate the Network Analyzer by one port calibration using O.S.L. calibration kits
- (2) Connect the antenna under test to the Network Analyzer.
- (3) Measure the S₁₁(reflection coefficient) shown in Fig. 1.
- (4) Generally, the S₁₁ is less than -10dB to ensure the 90% VSWR 2.0:1 power into antenna and only less than 10% power back to system.

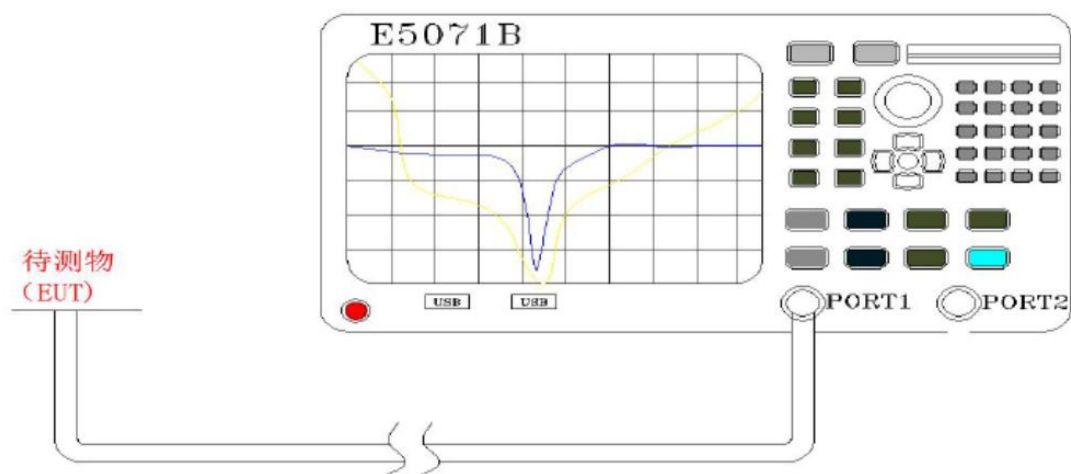


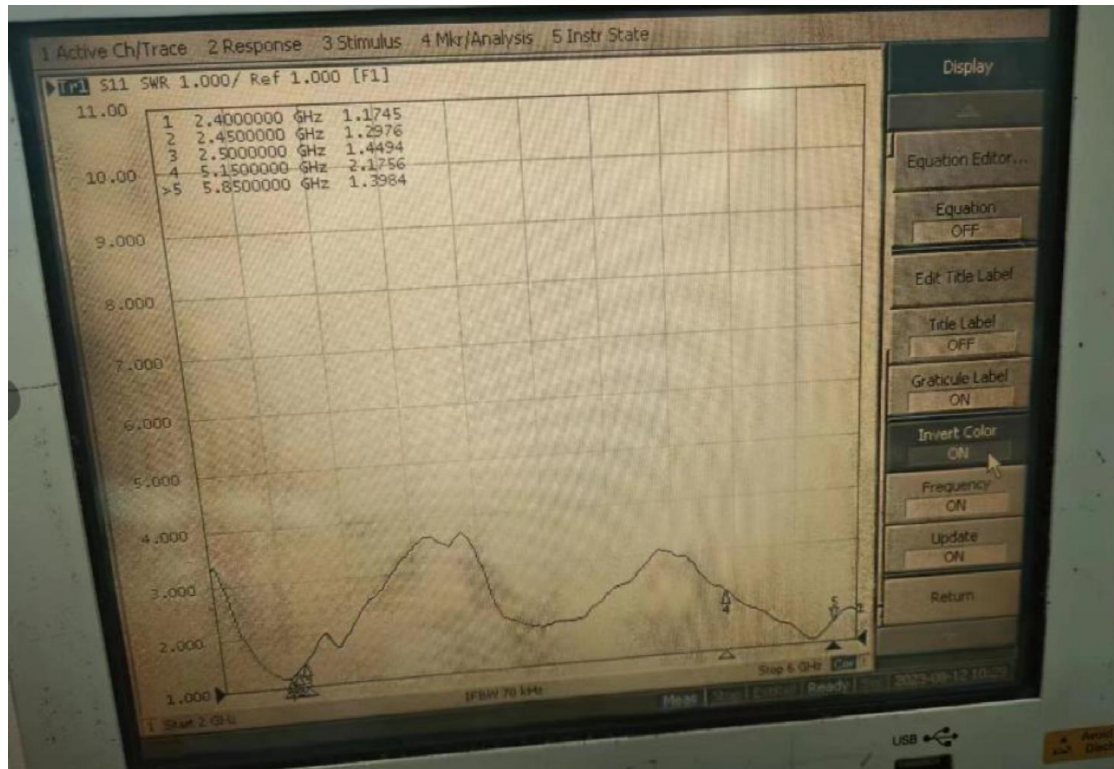
Fig.1 Antenna measured in Network Analyzer

5. S-Parameter Measurement Result S:

S-Parameter test data:

Frequency MHz	2400	2450	2500	5150	5850
Loss DB Value	1.1745	1.2976	1.4494	2.1756	1.3984

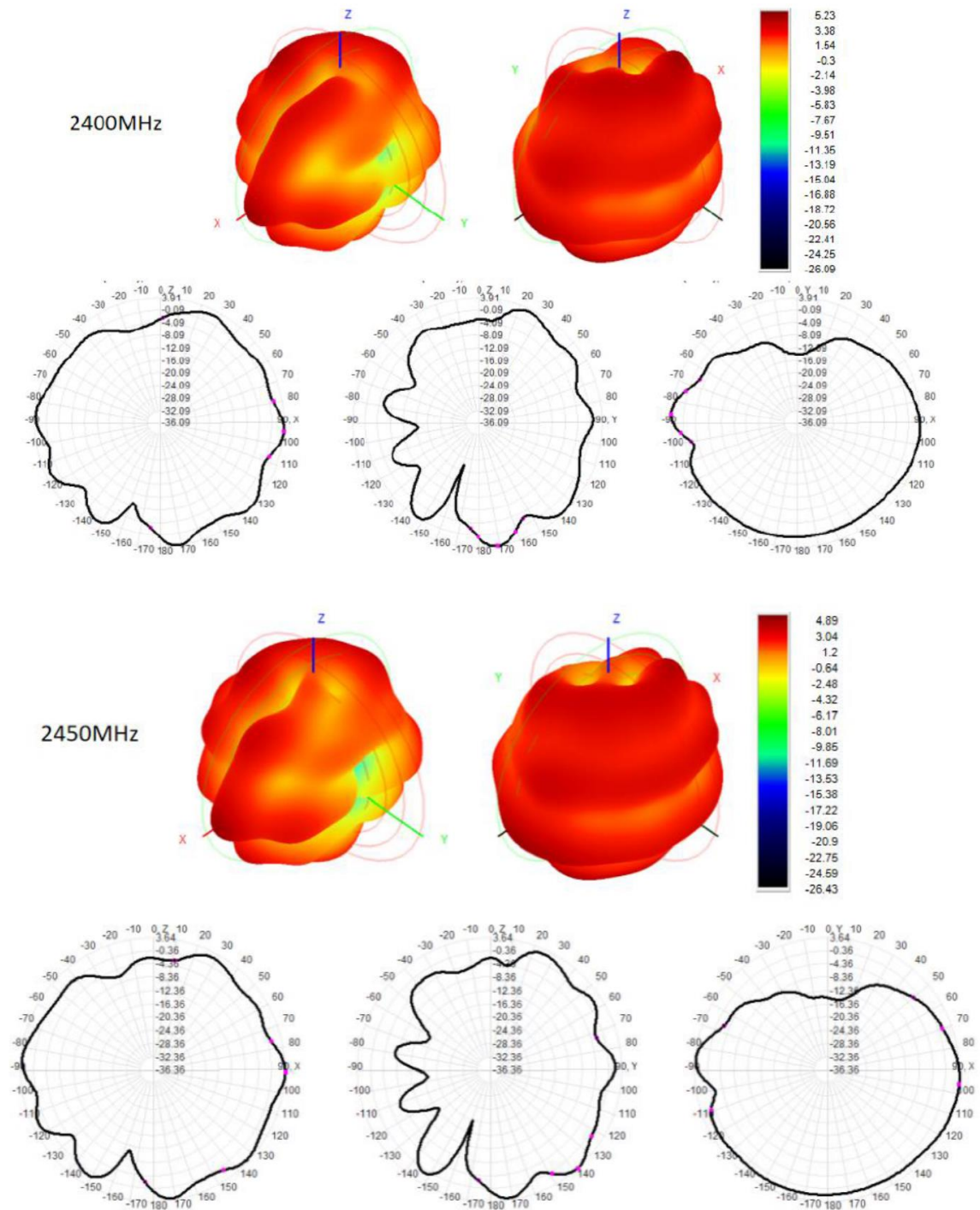
S-Parameter test image



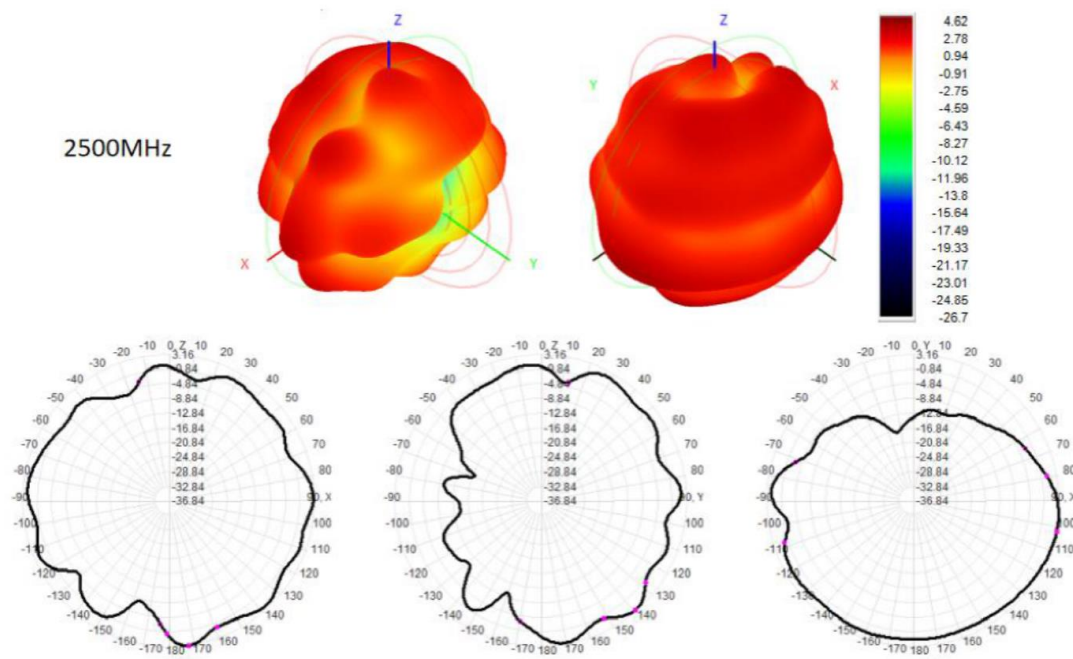
6. Passive Numerical Value:

Frequency (MHz)	Efficiency (%)	Efficiency (dBi)	Gain (dBi)
2400	41.25	-16.15	1.68
2410	41.89	-16.22	1.53
2420	42.22	-16.26	1.92
2430	42.05	-16.24	1.77
2440	41.78	-16.21	2.21
2450	42.01	-16.23	2.39
2460	41.56	-16.19	2.17
2470	41.72	-16.20	1.92
2480	42.08	-16.24	1.82
2490	41.38	-16.17	1.72
2500	41.25	-16.15	1.65
5150	60.34	-17.81	0.14
5250	60.87	-17.84	0.35
5350	61.02	-17.85	0.48
5450	60.69	-17.83	0.61
5550	60.82	-17.84	0.74
5650	60.55	-17.82	0.57
5750	60.43	-17.81	0.49
5850	60.17	-17.79	0.38

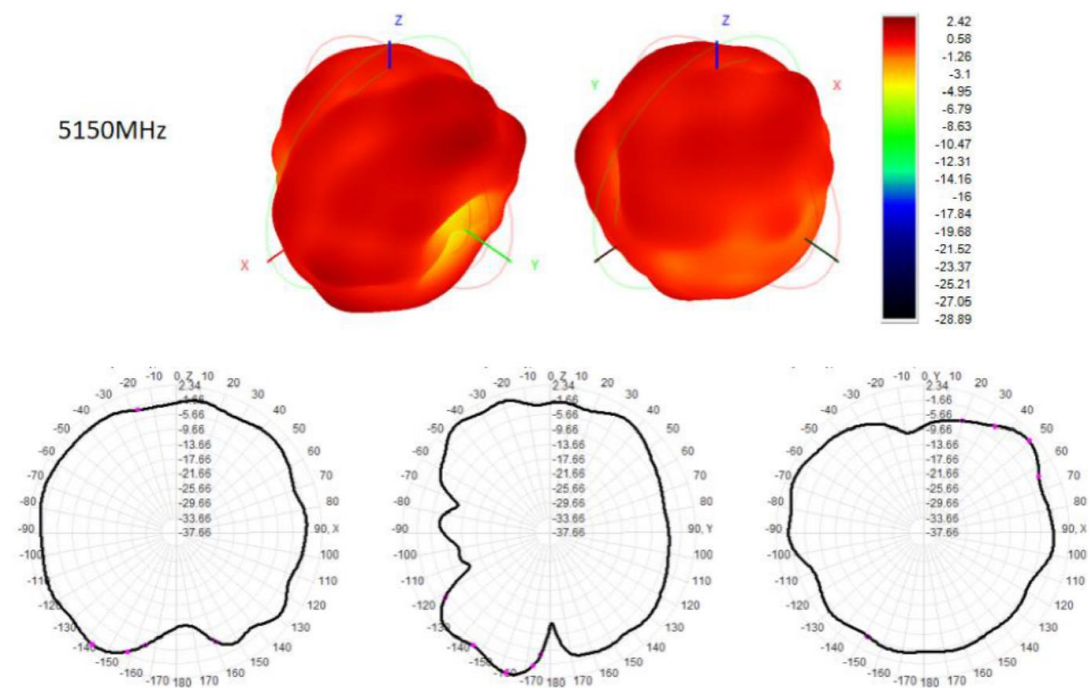
7. Antenna Pattern



2500MHz



5150MHz



5850MHz

