深圳信诺山通信技术有限公司

Shenzhen Signalsen Telecom Technology Co , .Ltd

Antenna specification

Model number：AT-1

Catalogue

1. PROJECT INFORMATION AND ELECTRICAL SPECIFICATION.....

2.VSWR.....

3. EFFICIENCY AND GAIN.....

4. THE PRODUCTION INDEX.....

5. STRUCTURAL DRAWINGS.....

1. Project information and Electrical Specification

Those specifications were specially defined for ***CX552-A133-WIFI-V1.0*** *2.4G/5G model, and all characteristics were measured under the model's handset testing jig .*

1-1 Project picture:

1-2 Frequency Band:

Frequency Band	MHz
2.4G/5G	2400-2500/5050-5850

1-3 Impedance matching

天线原匹配

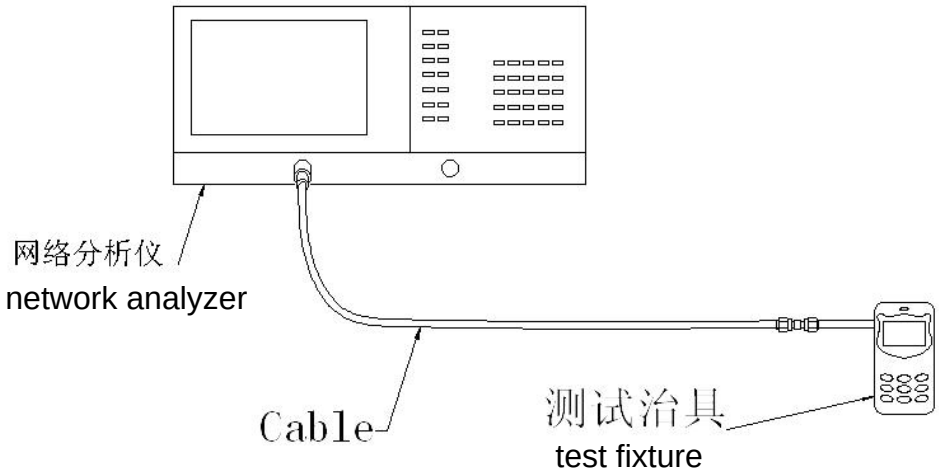
2.VSWR

2-1 Measuring Method:

1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,

2. Keeping this jig away from metal at least 20cm.

The test diagram is as follows:



2-2 S11 parameter values-WIFI：

Frequency（MHZ）	2400	2500	4950	5400	5850
standing wave	1.3	1.2	1.78	1.63	1.23

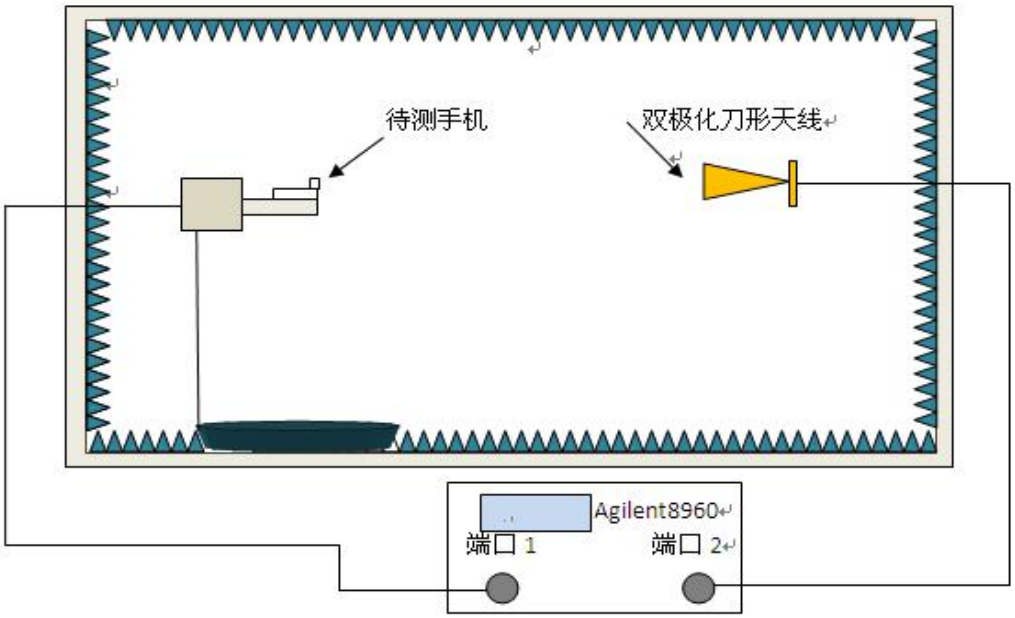
3. Efficiency and Gain

3-1 measuring and test instruments:

Microwave darkroom, Agilent network analyzer, Agilent spectrum analyzer, 8960 compr ehensive tester, standard antenna

3-2 test method:

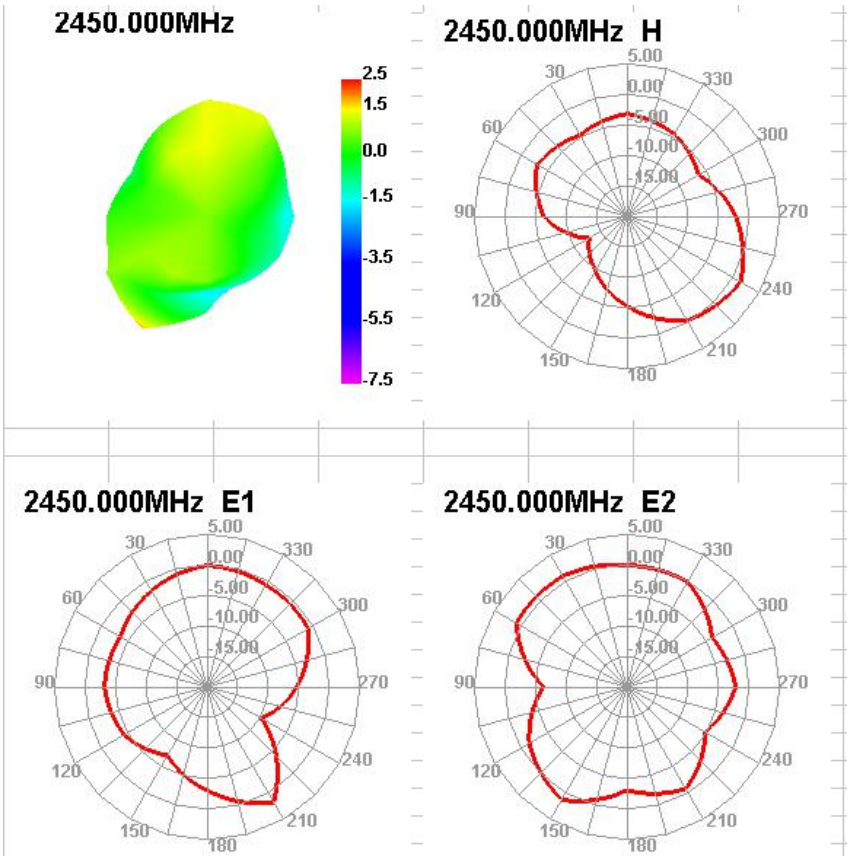
The equipment is fixed in the center position of the turntable with plane H, on the same horizon tal line with the center position of the horn antenna.



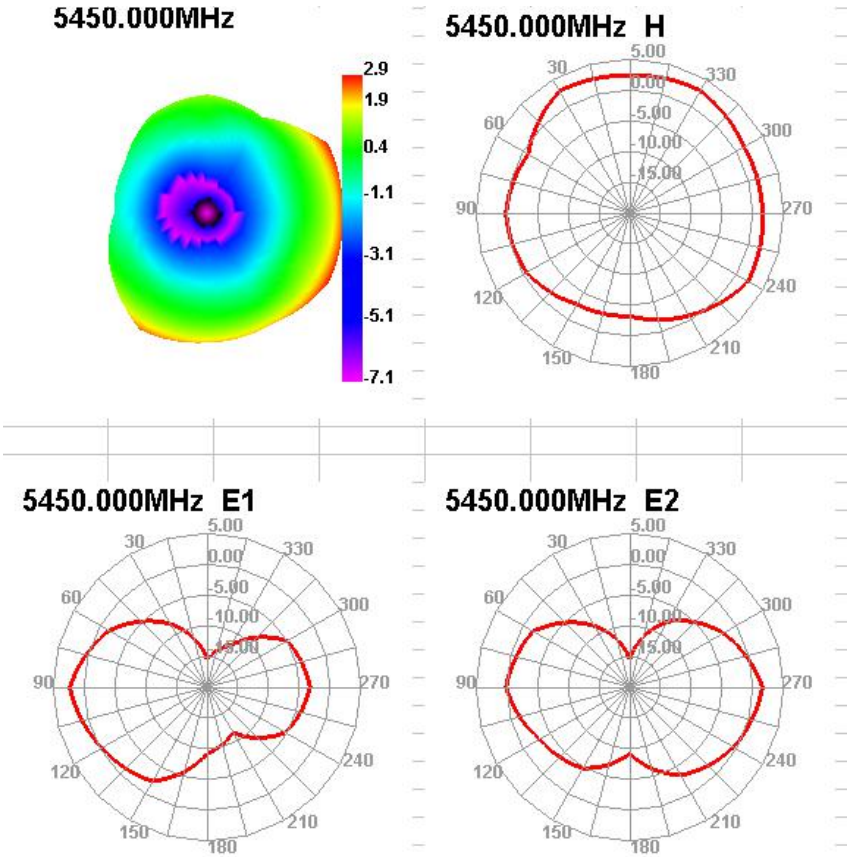
3-3 Efficiency/Gain- WIFI：

The following tests gain and efficiency in 3D testing:

Passive Test For wifi2.4G-2								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)
2400	57.95	-2.37	2.39	0.24	30.152	27.801	2.39	-15.42
2450	61.35	-2.12	2.53	0.38	34.547	26.807	2.53	-12.94
2500	62.98	-2.01	2.78	0.63	35.877	27.106	2.78	-12.16

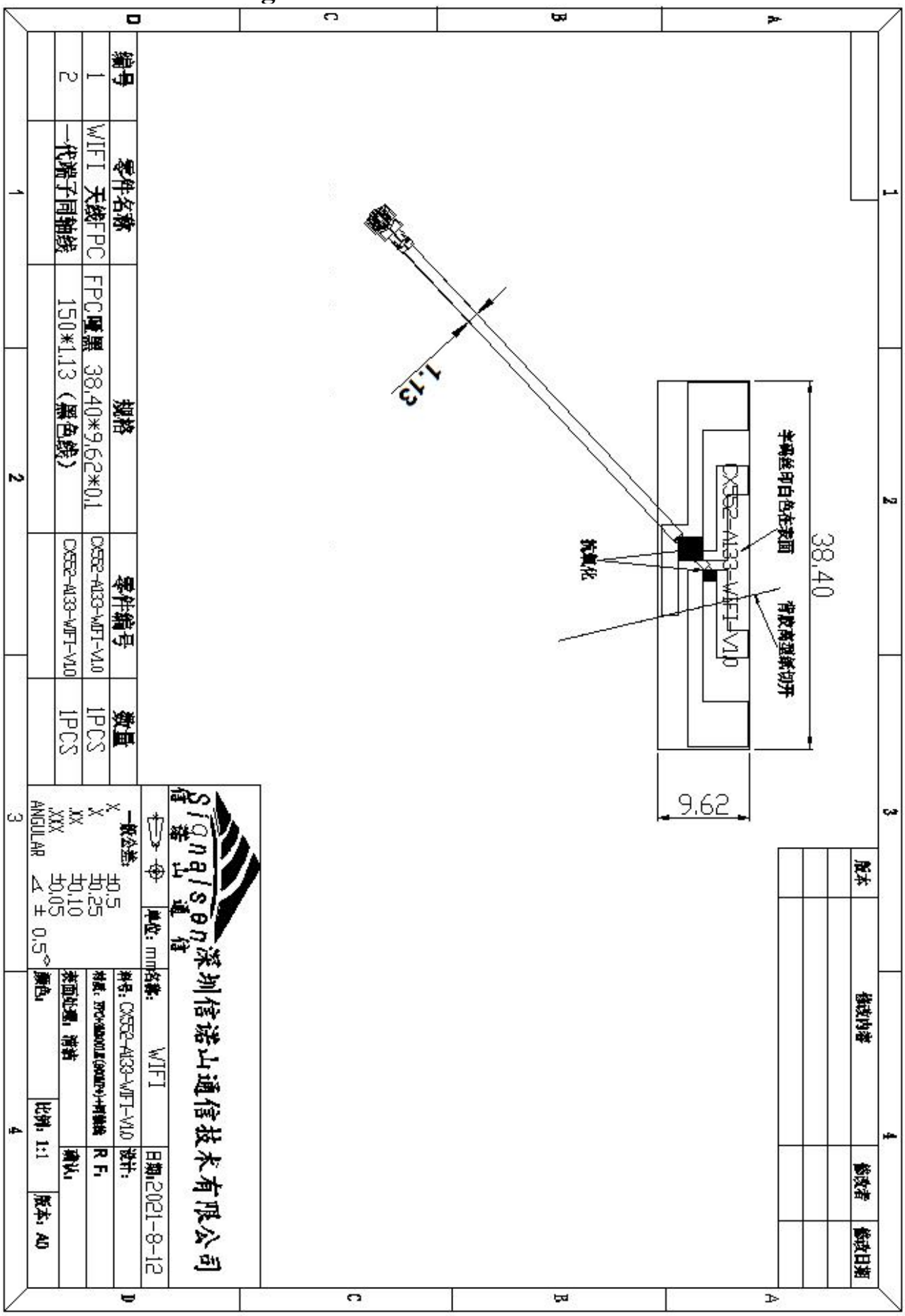


Passive Test For WIFI5.8-2								
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)
5050	62.97	-2.01	2.46	0.31	24.759	38.212	2.46	-21.52
5450	68.18	-1.66	2.92	0.77	29.253	38.929	2.92	-15.51
5850	69.47	-1.58	2.97	0.82	29.949	39.522	2.97	-18.48



4. The production index

In the mass production of antenna, the standing wave ratio is used as the mass production test standard. According to the differences of the project itself, the following criteria are given:

Frequency	Mass production standard
WIFI (2400-2500Mhz/5050-5850MHZ)	VSWR(Mass production sample)< VSWR(Design sample)+0.5

5. structural drawings