



SPECIFICATION

Customer: HUATO SYSTEM

Product: S1500

Model: 2022042506

Part Number: HCT-WIFI-V1.0

Written By : Houwang Yuan

Issued Date: 2022-04-25

CUSTOMER

ENGINEER R&D DEPT	QUALITY DEPT	APPROVED

HCT

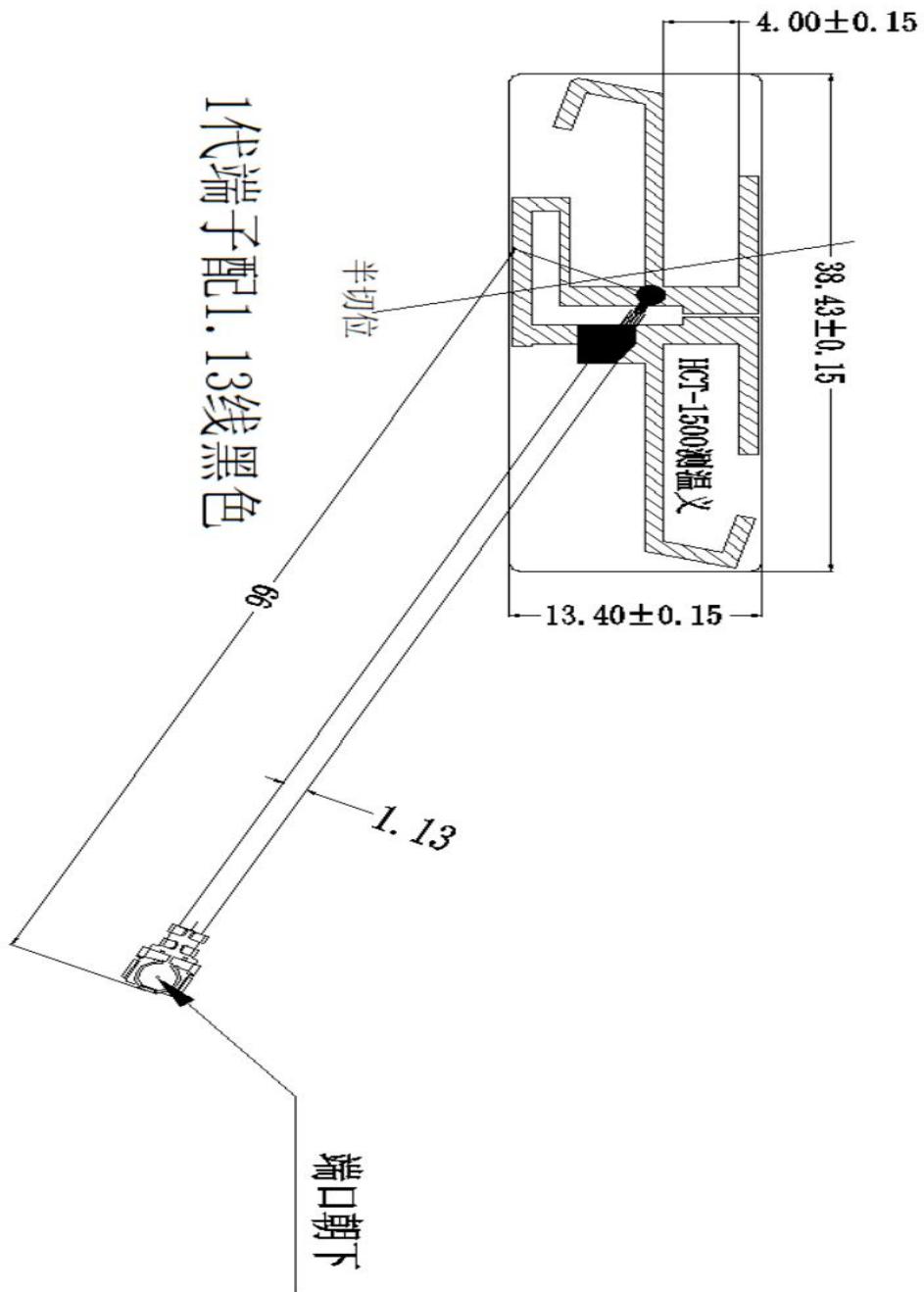
R&D DEPT	ENGINEER R&D DEPT	APPROVED
Houwang Yuan	Zhaobin Hu	Haiyi Duan



1、The basic parameters

A. Electrical Characteristics	
Frequency	2400 MHz~2500MHz
VSWR	≤2
Efficiency	40%~50%
Impedance	50 Ohm
Polarization	Linear
B. Material& Mechanical Characteristics	
Material	FPC
Cable Type	/
Connector Type	Φ 1.13
C. Environmental	
Working Temperature	- 40 °C ~ + 60 °C
Storage Temperature	- 40 °C ~ + 60 °C

2、Product Drawing



3、Test Equipment & Conditions

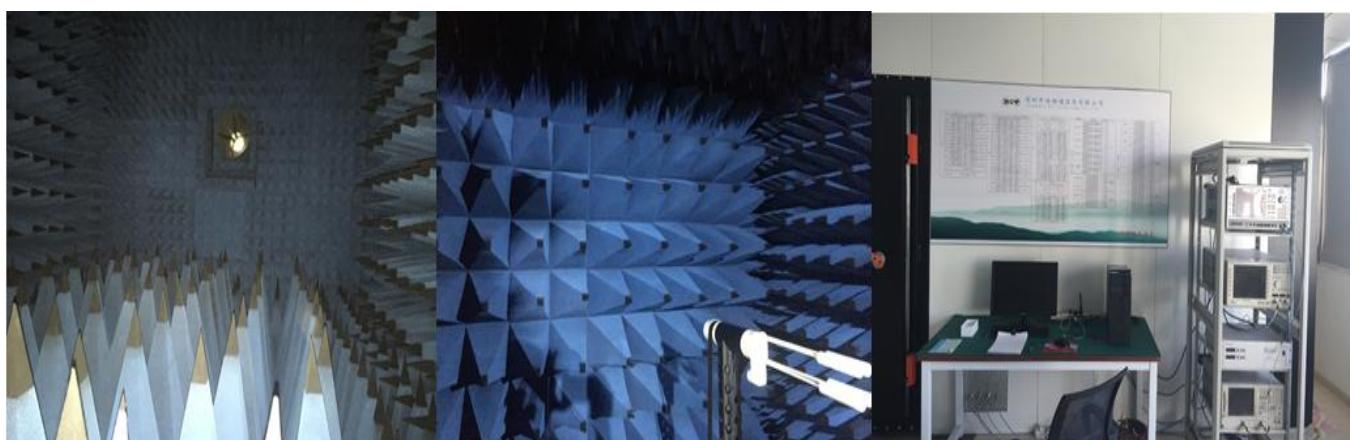
- (1) Network Analyzers: Agilent E5071C



(2) Communications Test Set: Agilent 8960 8820C



(3) 3D microwave anechoic chamber





4、Test Report

Test instructions:

The passive testing device is sequentially connected as follows: E5071B network analyzer → 50 ohm coaxial cable → 170mm long copper tube → testing fixture.

Treatment of test fixture: use a hard cable to lead out the SMA-J connector from the 50 ohm Test point of the antenna on the PCB, connect it with the copper pipe with a choke ring, and then connect other devices in turn

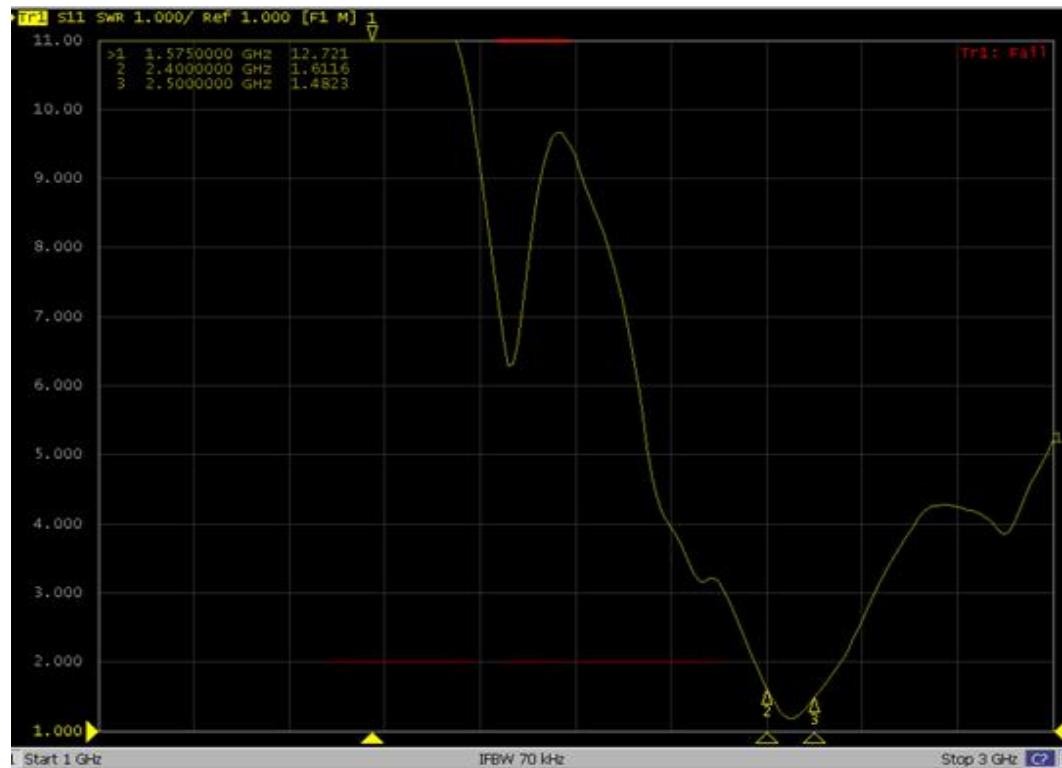
The active testing device is sequentially connected as follows: Agilent E5062A → 50 ohm coaxial cable → EST far-field testing system → mobile phone to be tested.

Haimagong adopts the most advanced 3D/2D ETS microwave anechoic chamber testing system in China. The testing method belongs to far-field testing, with a frequency range of 600MHz to 6GHz and anechoic chamber shielding attenuation of -120dBm.

4-1. testing fixture

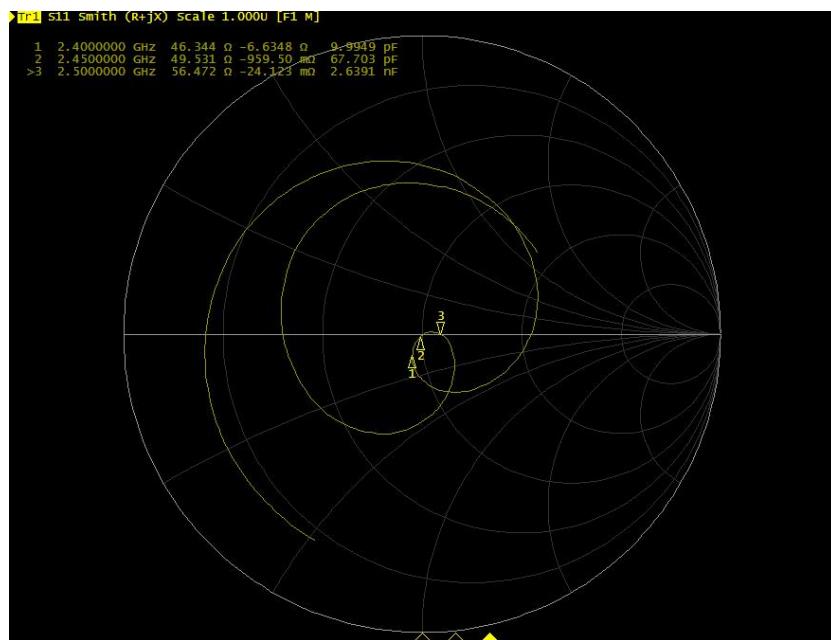
nothing

4-2. Passive Test



VSWR

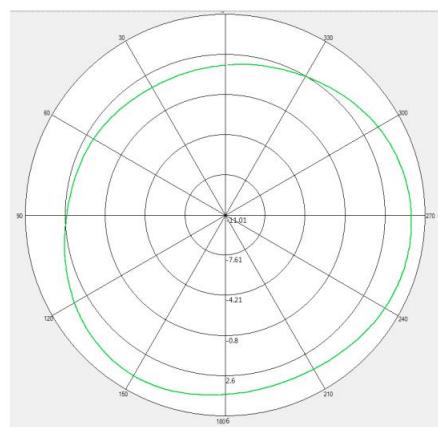
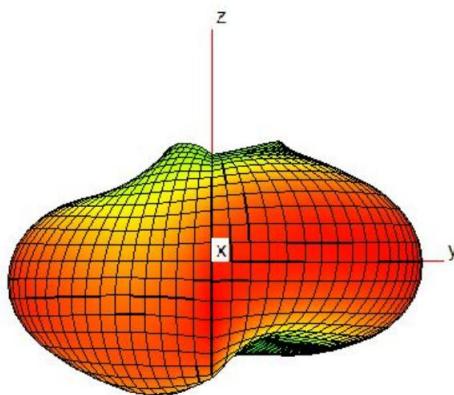
4-3. 2.4G Smith Chart



4-4. Efficiency&Gain

frequency MHz	efficiency	Gain
2400	70. 34	3. 21
2450	79. 85	3. 41
2500	78. 41	3. 16

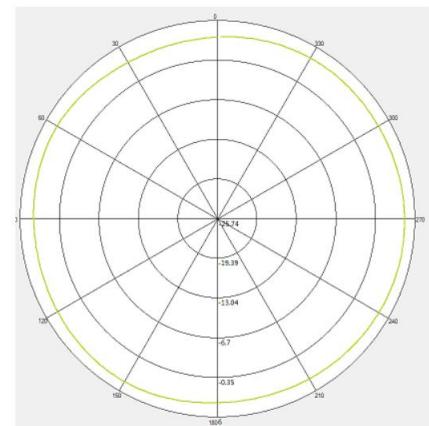
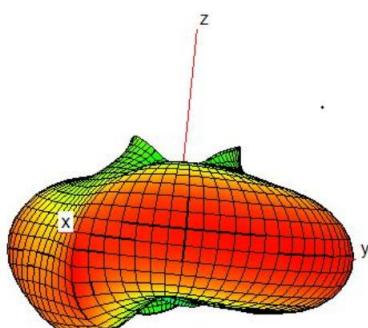
4-5. 2.4G pattern



2400MHz

Efficiency: 70.34%

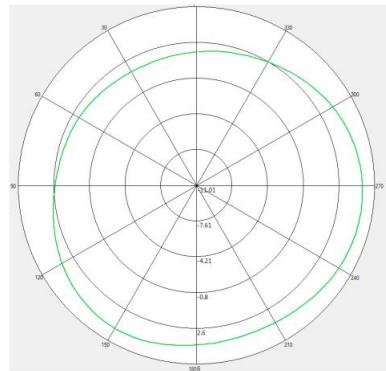
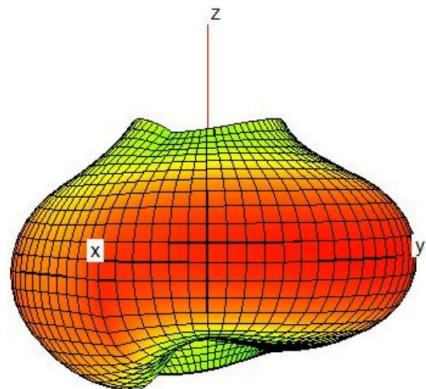
GAIN: 3.21dBi



2450MHz

Efficiency:79.85 %

GAIN: 3.41 dBi



2500MHz

Efficency: 78.41%

GAIN: 3.16 dBi

5、Assembly and environmental treatment

nothing

6、Summary

From the above test data, it can be seen that this antenna provides good electrical performance.

Shenzhen Haimagnetics Technology Co., Ltd. is looking forward to your confirmation for research and development. Thank you for your cooperation!