



# Antenna Approval Sheet

## For **I50** Project

Customer	富士伟业	Project	I50
Band	WiFi 2.4G		
ZC PN	FC008-CA-93		
Version	R:A	Data	2022-10-11

RF		ME	
Checked By			
Confirmed By			
Cust Confirm			



## 1. Summary of the DUT



**Antenna Picture**



## 2. Electrical Specification:

Antenna types	Built-in wifi 2.4GHZ antenna
Frequency	2400-2500 MHz
Impedance	50 $\Omega$
VSWR	2.4GHZ < 2.0,
Peak Gain	2.8 dBi REF
Efficiency	>40 %
Antenna Material	FPC+同轴线
Connector Type	1.13 MHF-1-Plug



### 3. Test Condition

3.1	测试项目	测试设备和型号	备注
1.有源测试	1.TRP 2.TIS	1. 3D microwave darkroom (Satimo SG24) 2. Comprehensive test instrument (CMW500) 3. Agilent 8960 E5515C	
2.无源测试	1. Antenna Gain 2. S.W.R 3. Return Loss 4. Radiation Pattern	1. Network analyzer (R&S ZVL6) 2. Network analyzer (HP 8753D)	

**3.2 Matching Circuit** The matching circuit was Default

**3.3 Antenna installation diagram:**



### 4. RF Performance

#### 4.1 Active test data

Item	Standard	Band	Channel	Frequency	最大功率	最小灵敏度	TRP	TIS
1	WIFI (AP)	WIFI_B (11M)	1	2412	21.07	-90.67	<b>15.91</b>	<b>-85.51</b>
2	WIFI (AP)	WIFI_B (11M)	6	2437	20.8	-90.6	<b>15.56</b>	<b>-85.31</b>
3	WIFI (AP)	WIFI_B (11M)	11	2462	20.72	-90.46	<b>15.65</b>	<b>-85.39</b>

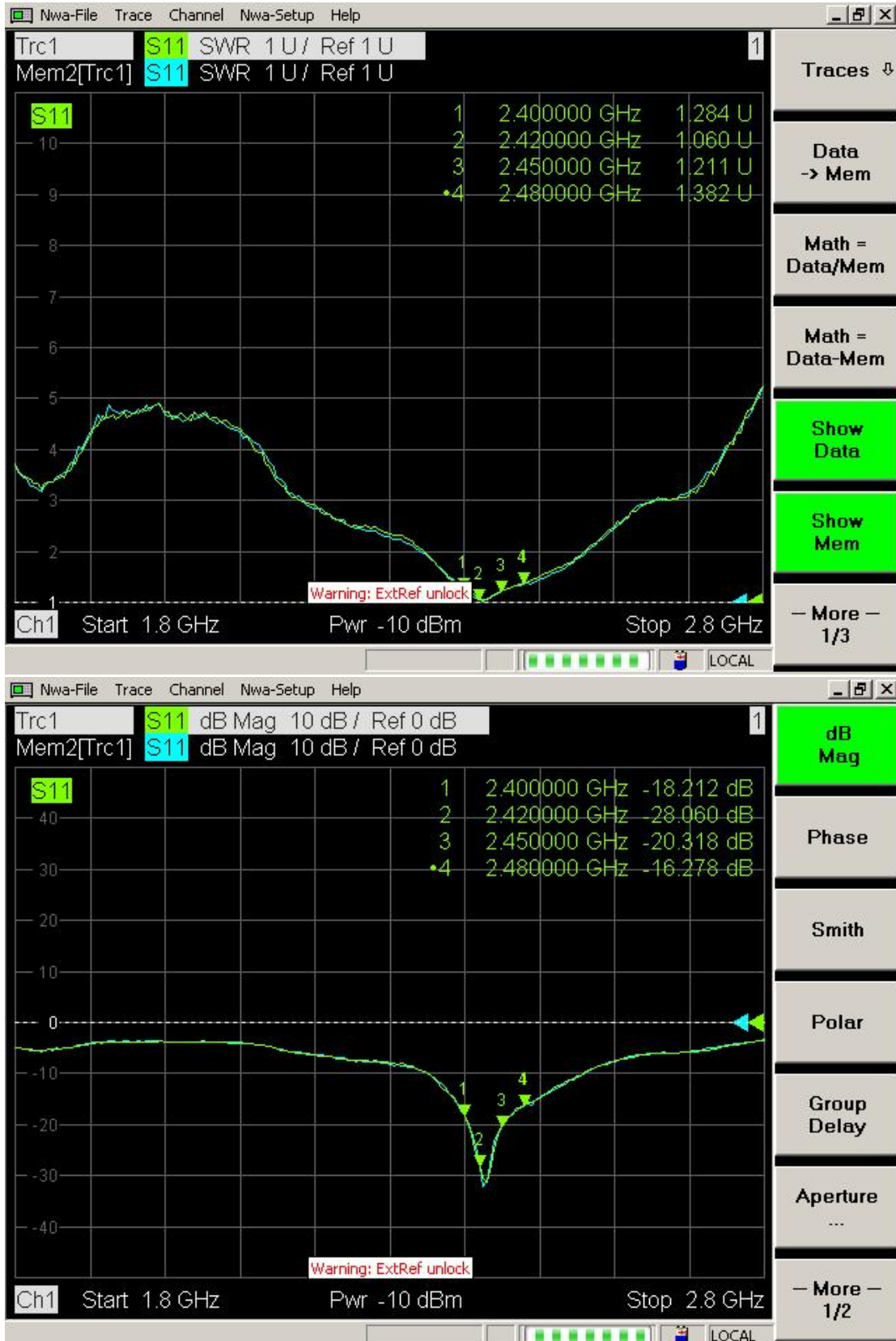
#### 4.2 Measurement

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	0.26	1.8	2.13	2.56	2.53	2.85	2.88	2.45	1.99	1.98	1.95
Efficiency (%)	43.5	43.2	45.5	47.3	50.2	52.1	53.8	52.7	51.4	51.6	48.3



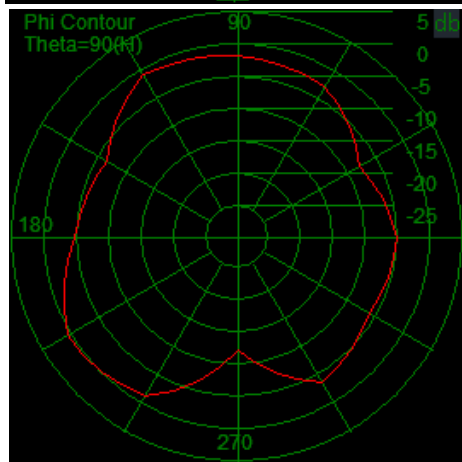
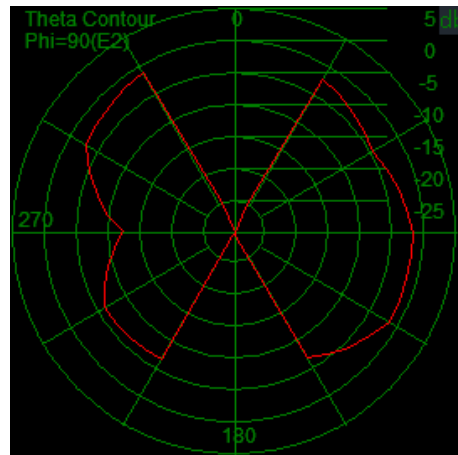
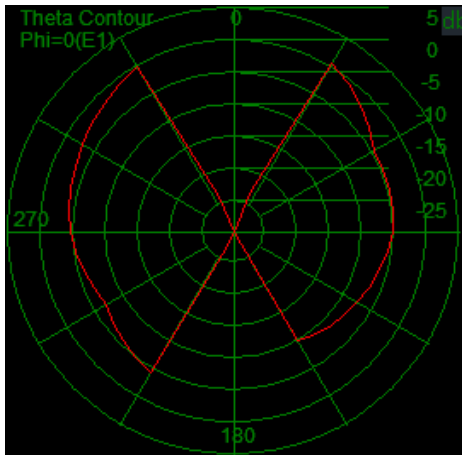
## 4.3 S Parameter

Frequency (MHz)	2400	2450	2480
Return Loss (dB)	-18.2	-20.3	-16.2
VSWR	1.28	1.21	1.38

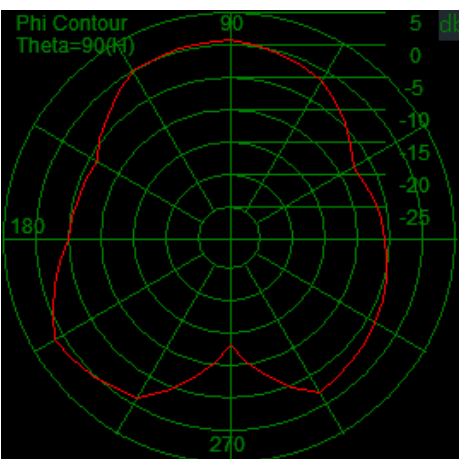
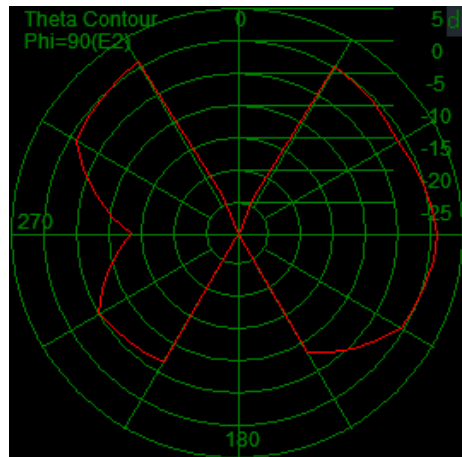
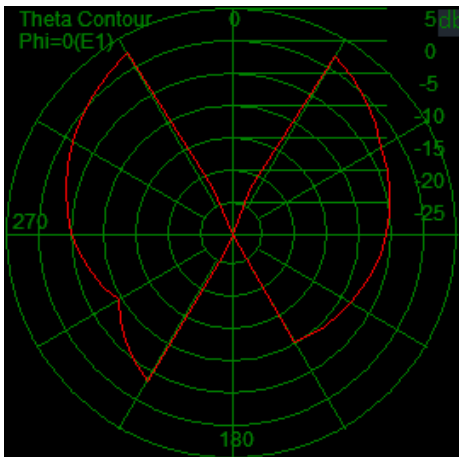




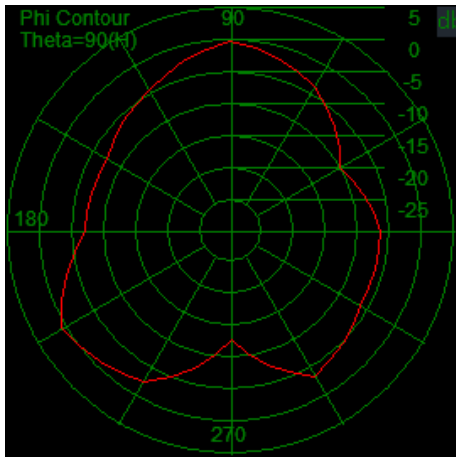
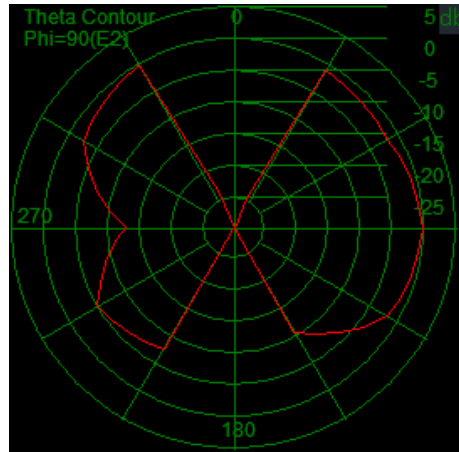
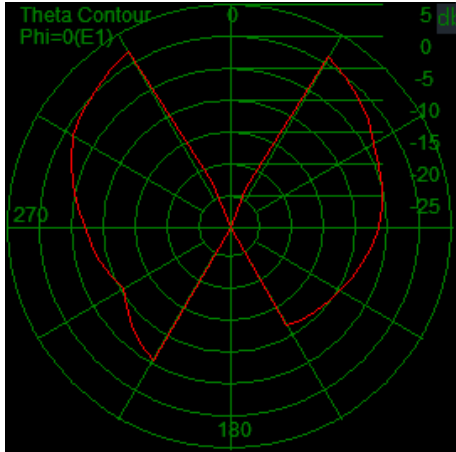
## 4.4.1 Antenna 2D Radiation Pattern



**2400MHZ**



**2460MHZ**



**2500 MHZ**



## 5. ME Drawing for the antenna

