



Antenna Approval Sheet

For

T31-MINI-WIFI Project

Customer	庆祝	Project	T31-MINI-WIFI
Band	WiFi 2.4GHZ		
ZC PN	QC001-PA-96		
Version	R:A	Data	2023-4-21

RF	
Checked By	
Confirmed By	
Cust Confirm	



1. Summary of the DUT

T31-MINI -WIFI Picture



Antenna Picture



2. Electrical Specification:

Antenna types	Built-in wifi 2.4GHZ antenna
Frequency	2400-2500 MHz
Impedance	50 Ω
VSWR	< 2.0
Gain	2.4GHZ 2.4 dbi
Efficiency	>40 %
Antenna Material	FPC+同轴线
Connector Type	1.13 MHF-1-Plug

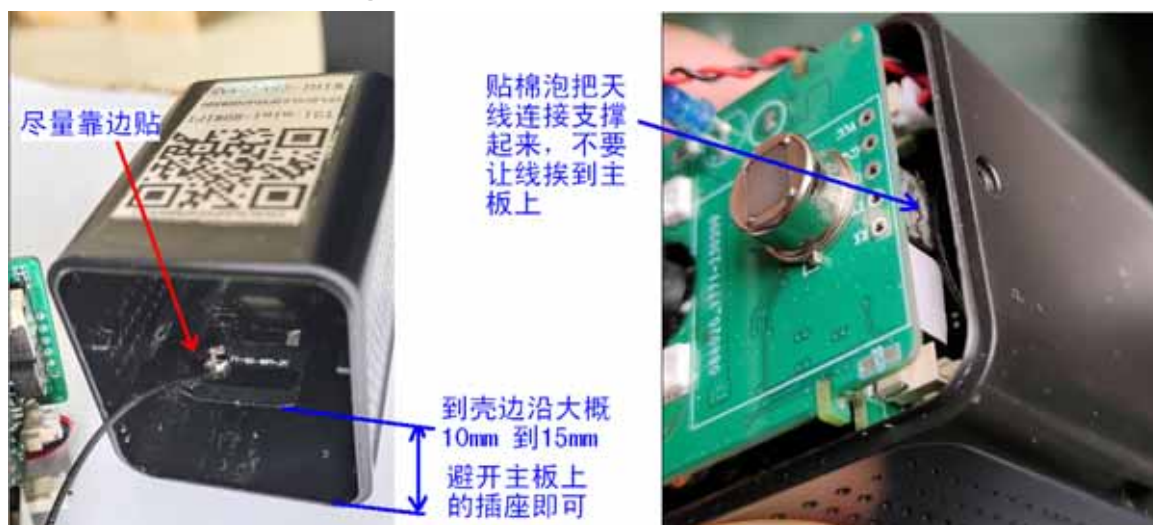
3. Test Condition

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

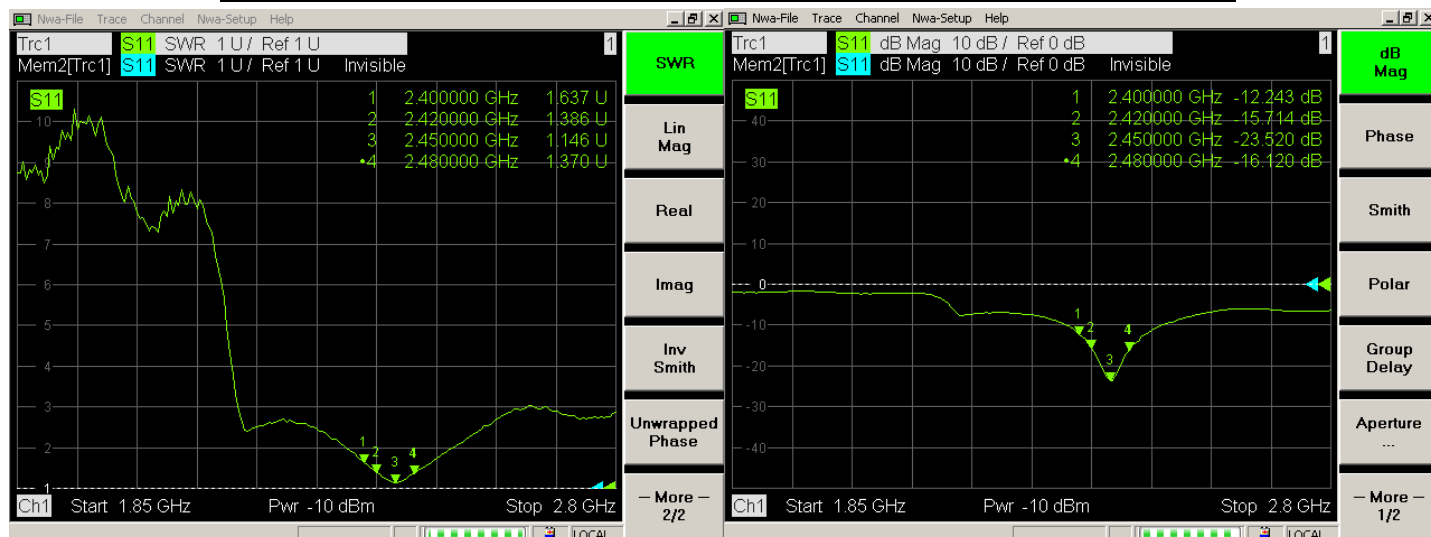
Item	Standard	Band	Channel	Frequency	最大功率	最小灵敏度	TRP	TIS
1	WIFI (AP)	WIFI_B (11M)	1	2412	24.55	-90.21	16.63	-80.24
2	WIFI (AP)	WIFI_B (11M)	6	2437	24.89	-87.4	16.57	-80.73
3	WIFI (AP)	WIFI_B (11M)	11	2462	24.44	-89.54	16.4	-80.6

4.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.09	2.18	2.23	2.44	2.38	2.28	2.13	1.78	1.21	1.16	0.75

4.3 S Parameter

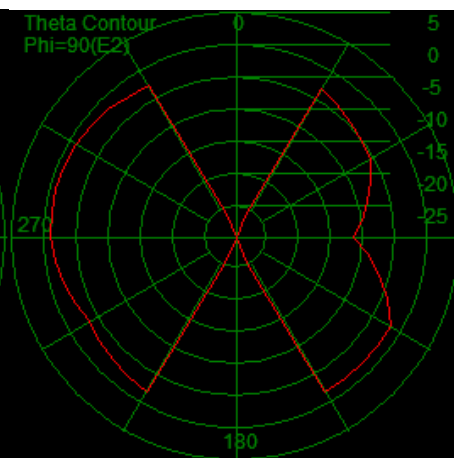
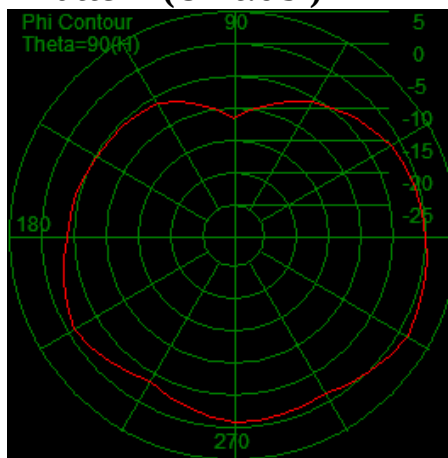
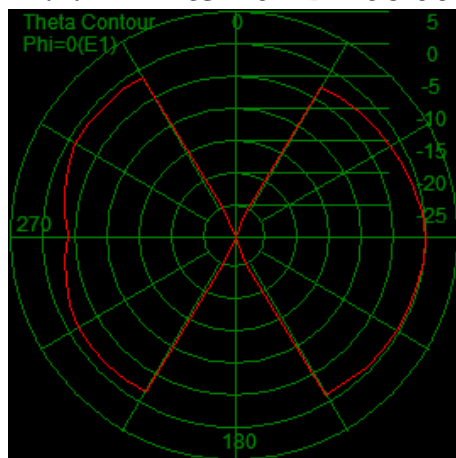
Frequency (MHz)	2400	2450	2480
Return Loss(dB)	-12.24	-23.52	-16.12
VSWR	1.63	1.14	-1.37



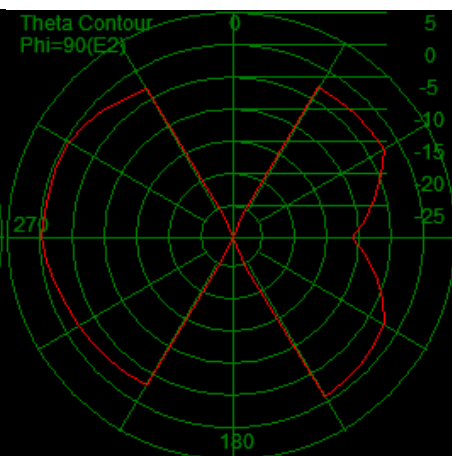
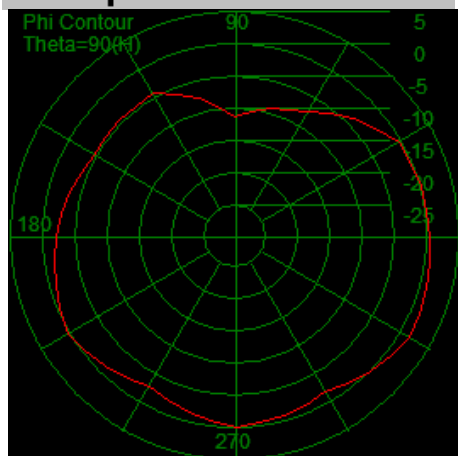
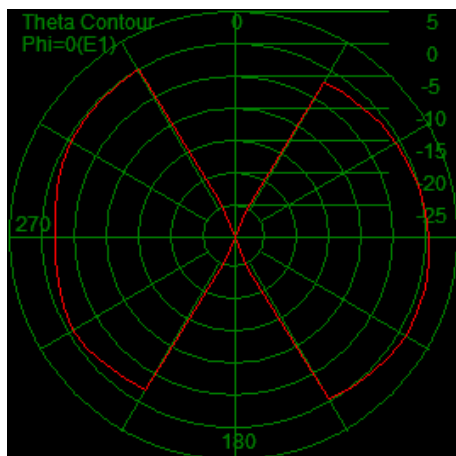


4.4 Radiation Pattern

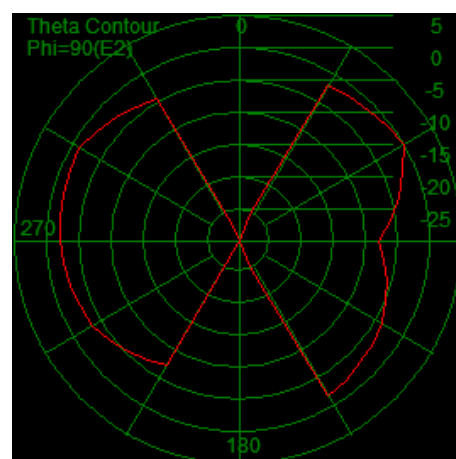
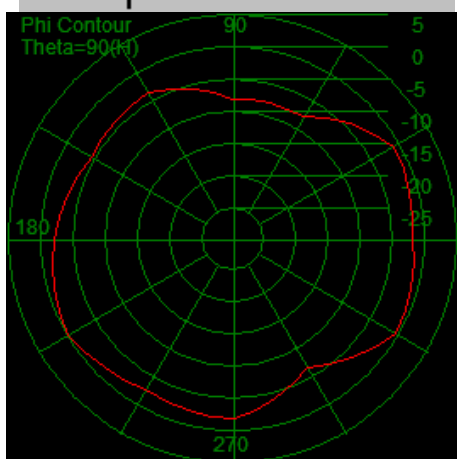
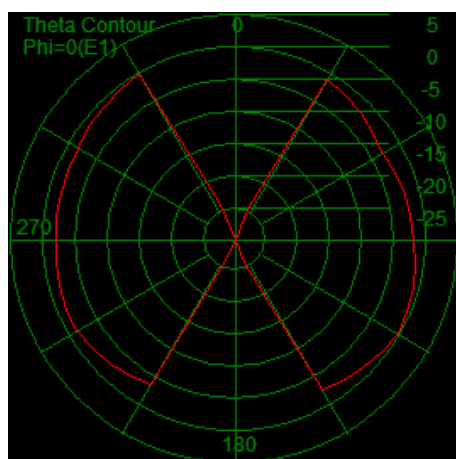
4.4.1 Antenna 2D Radiation Pattern (Unit:dbi)



Freq2400.00MHZ



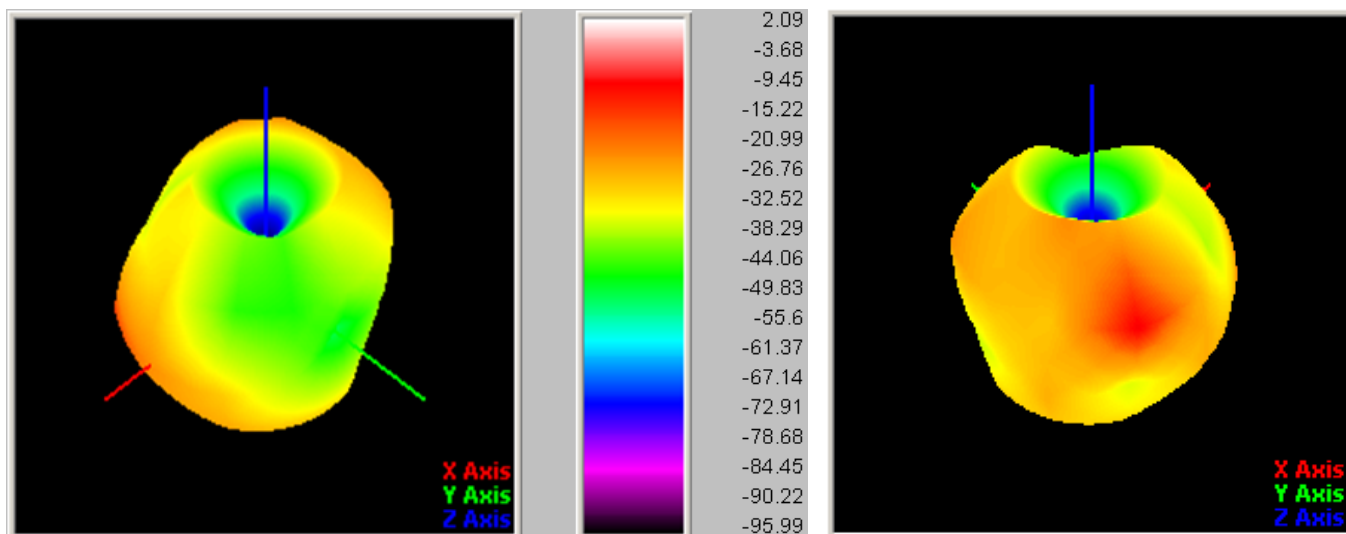
Freq2430.00MHZ



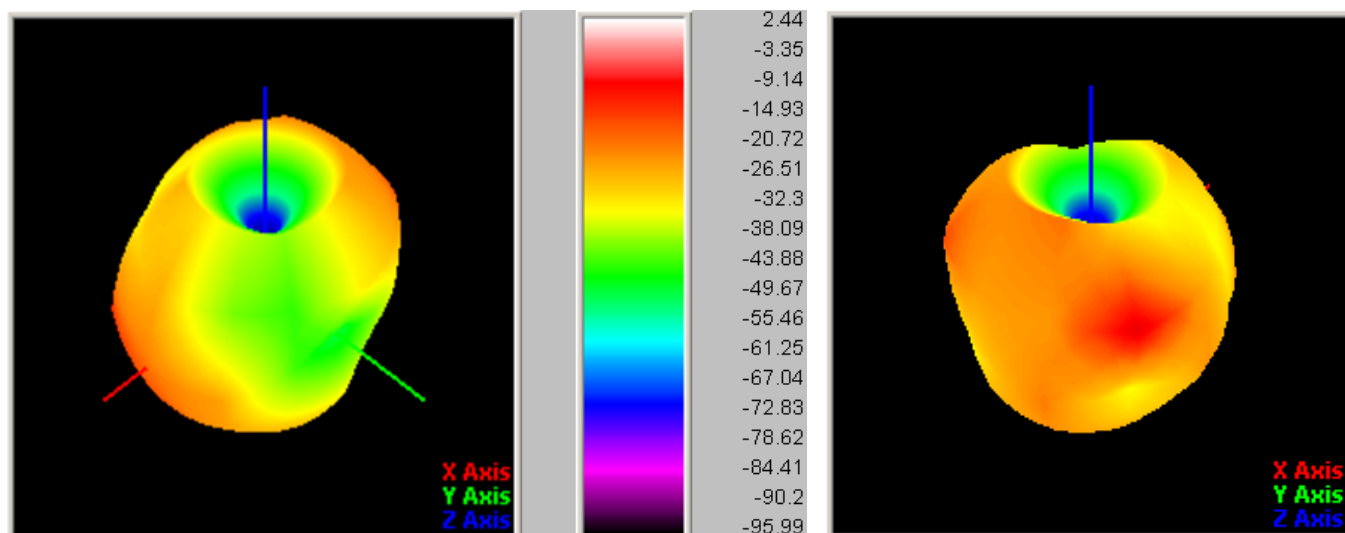
Freq2500.00MHZ



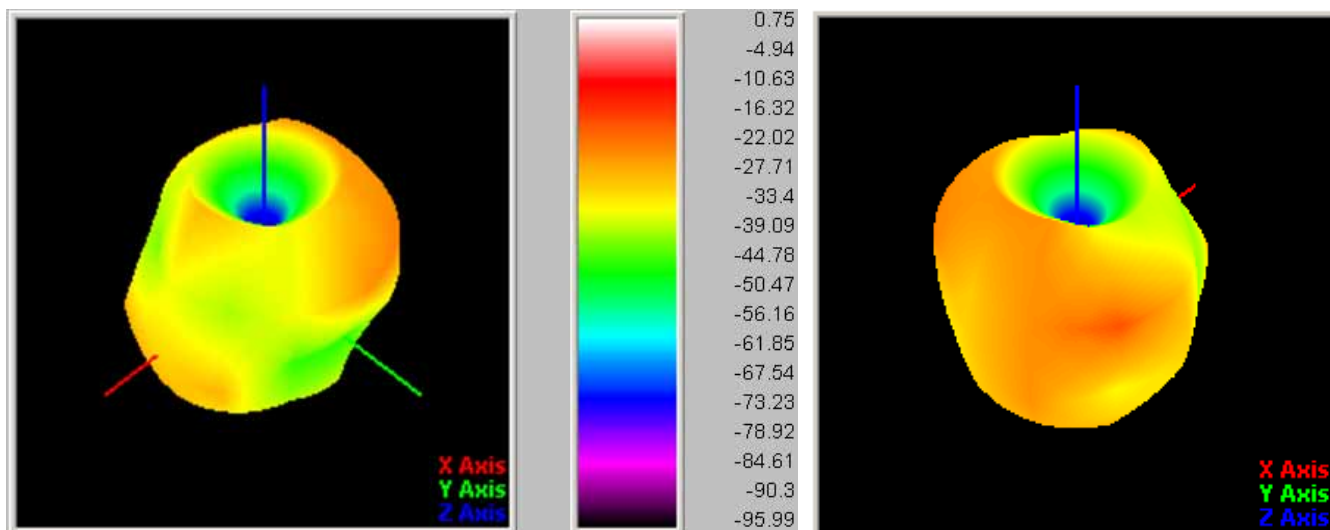
4.4.2 Antenna 3D Radiation Pattern (Unit:dbi)



Freq2400.00MHZ



Freq2430.00MHZ



Freq2500.00MHZ



5. ME Drawing for the antenna

