



Antenna Approval Sheet

For **X1-Awit** Project

Customer	永福昌	Project	X1-Awit
Band	WiFi 2.4G		
ZC PN	YC044-CA-93		
Version	R:A	Data	2024-8-15

RF		ME	
Checked By			
Confirmed By			
Cust Confirm			



1.Manufacturer information

Company name: Shenzhen Zhongcheng communication products Co., Ltd

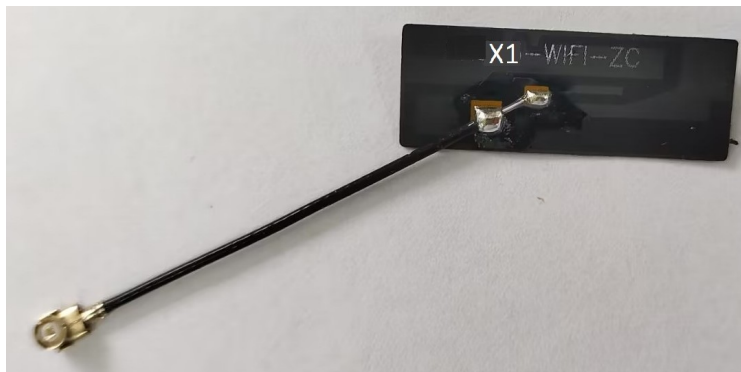
Address: 5th floor, building C, Huafeng Industrial Zone, Liuxian Road, 71 District, Bao' an, Shenzhen

2. Summary of the DUT

X1-Awit Picture



Antenna Picture



3. Electrical Specification:

Antenna types	Built-in WIFI antenna
Frequency	2400-2500 MHz
Impedance	50 Ω
VSWR	< 2.0
Peak Gain	1.73 dBi
Antenna Material	FPCB+Coaxial Cable
Connector Type	0.81 MHF-2-Plug



4. Test Condition

4.1	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)	

4.2 Antenna installation diagram:

5. RF Performance

5.1 Active test data

Item	Standard	Band	Channel	Frequency	TRP	TIS
1	WIFI (AP)	WIFI_B (11M)	1	2412	17.13	-84.94
2	WIFI (AP)	WIFI_B (11M)	6	2437	17.35	-84.82
3	WIFI (AP)	WIFI_B (11M)	11	2462	16.85	-84.3

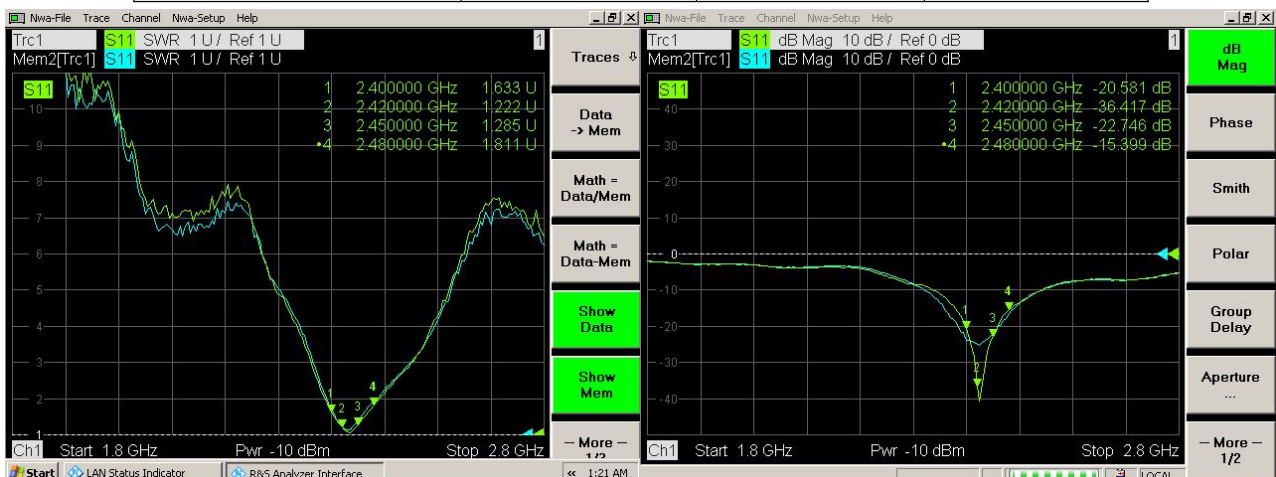


5.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	0.58	0.66	1.1	1.02	1.17	1.59	0.72	0.08	0.72	1.19	1.73

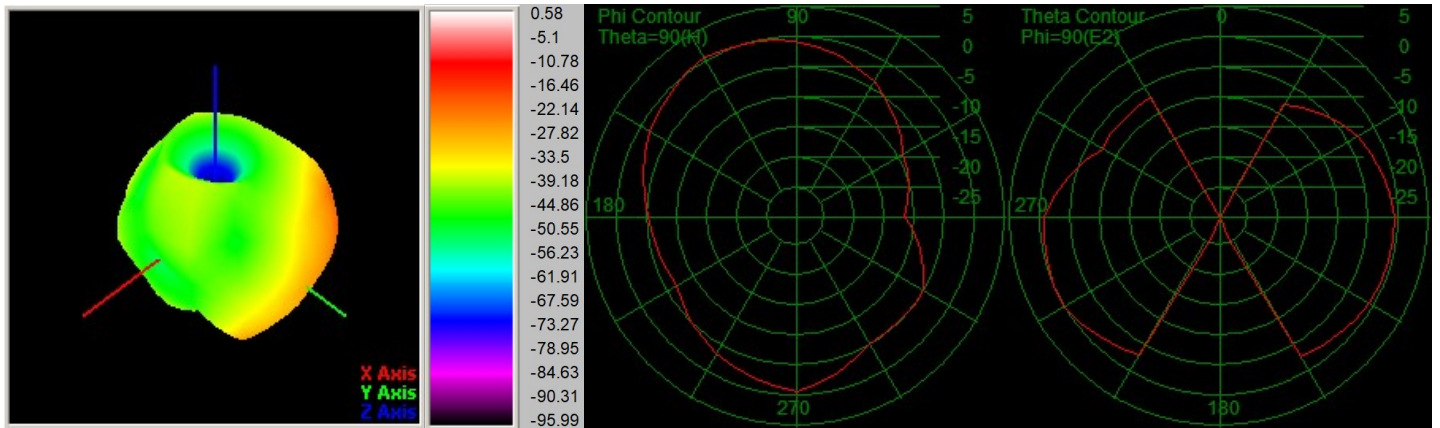
5.3 S Parameter

Frequency (MHz)	2400	2450	2480
Return Loss (dB)	-20.58	-22.74	-15.39
VSWR	1.63	1.28	1.81



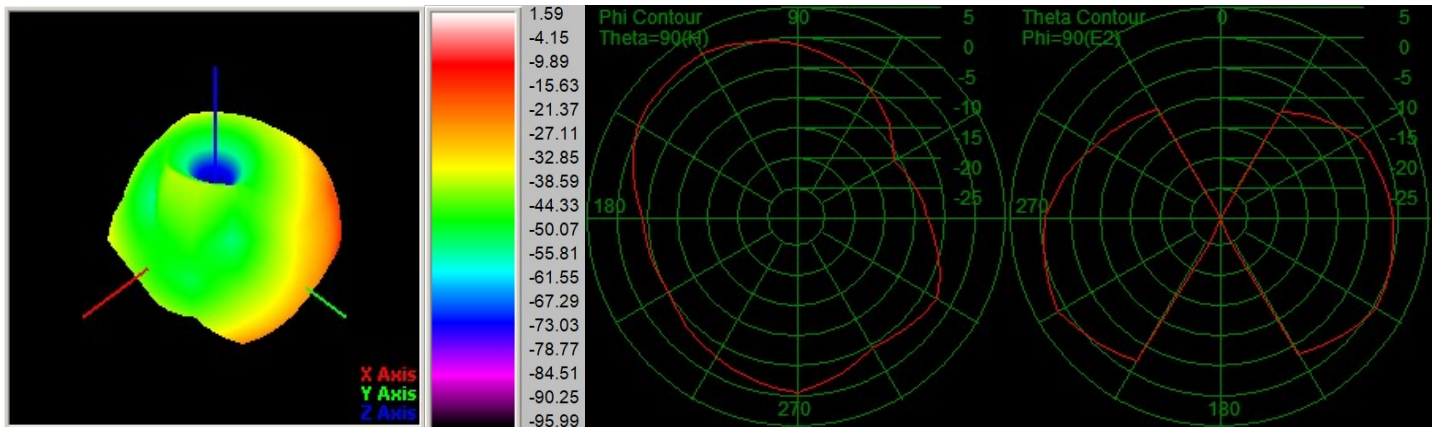


5.4 Radiation Pattern



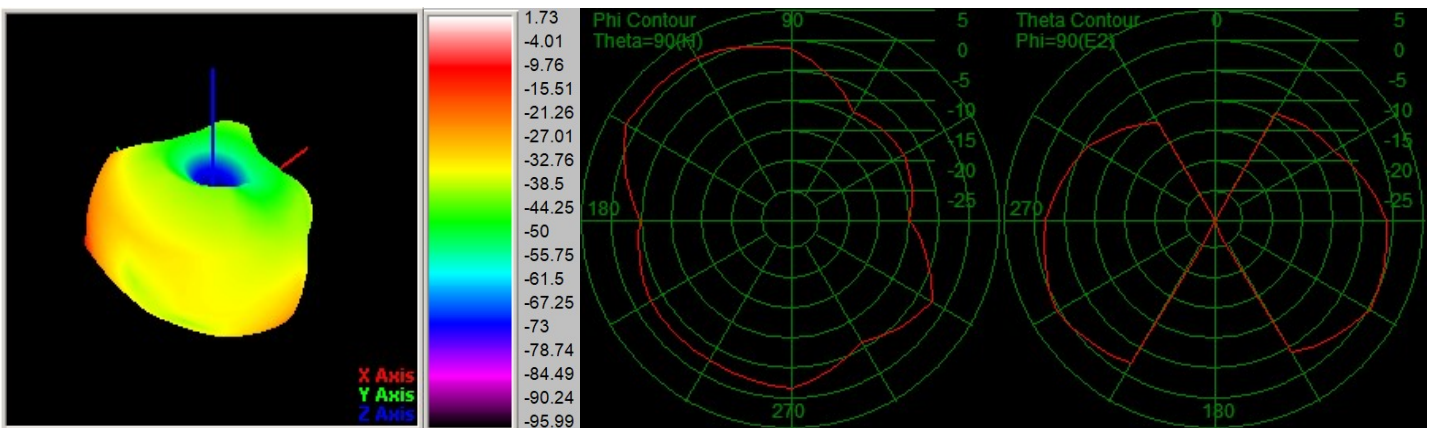
Passive -Freq2400.00MHZ

Gain:0.58(dBi)



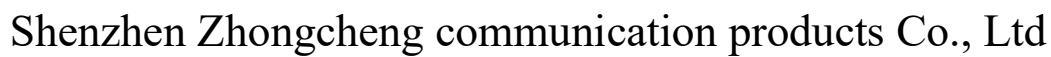
Passive -Freq2450.00MHZ

Gain: 1.59(dBi)



Passive -Freq2500.00MHZ

Gain: 1.73(dBi)



Technical note:

1. The total length of the coaxial cable is 48 mm.
2. Can not burn PVC, can not cause PVC deformation, wrinkle, indentation.
3. Stripping wire can not be deformed or broken.
4. Add "*" size as the important dimensions, add "()" as the reference dimension.

NO.	Product Name	Part NO.	Material	Color
1	Cable	T13-188	TP4FEP	Black
2	PVC	Y0044-F4-13	PI	

REV	Description of change	BY	DATE
T: A	New drawings	GUO	2024-8-15

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