



Antenna Approval Sheet

For **E301W** Project

Customer	Fowke Innovation	Project	E301W
Band	WiFi 2.4G		
ZC PN	FD013-CA-93		
Version	R:A	Data	2025-2-21

RF		ME	
Checked By			
Confirmed By			
Cust Confirm			



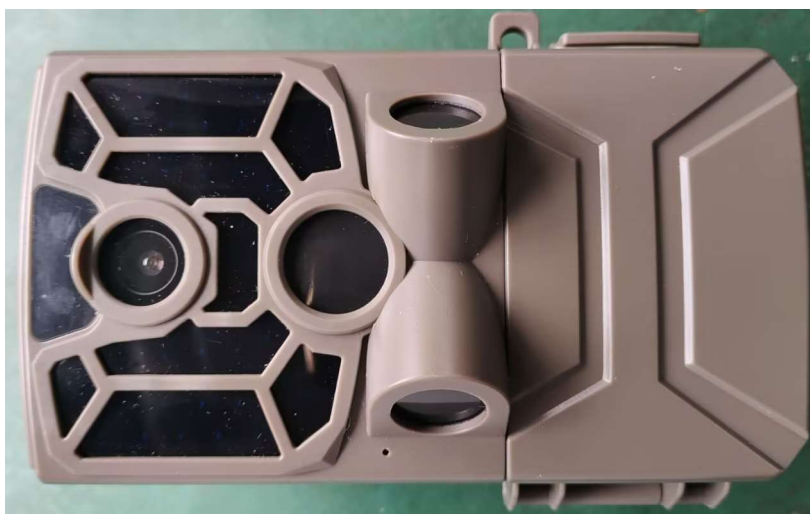
1.Manufacturer information

Company name: Shenzhen Zhongxinrui communication products Co., Ltd

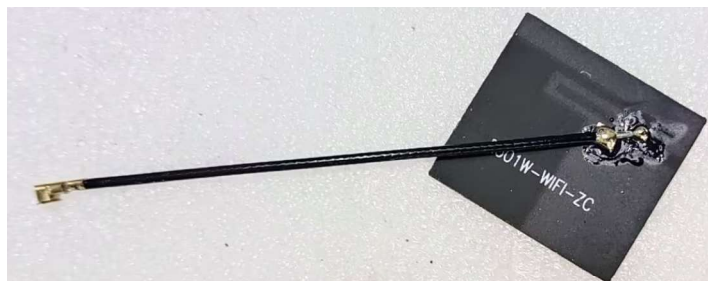
Address: 5th floor, building C, Huafeng Industrial Zone, Liuxian Road, 71 District, Bao' an, Shenzhen

2. Summary of the DUT

E301W Picture



Antenna Picture



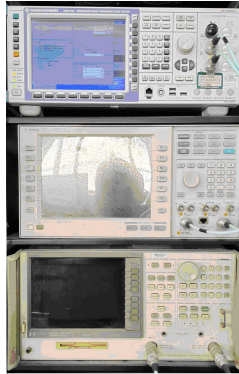
3. Electrical Specification:

Antenna types	Built-in WIFI antenna
Frequency	2400-2500 MHz
Impedance	50 Ω
VSWR	< 2.0
Peak Gain	2.4GHZ 1.73 dbi
Efficiency	>35 %
Antenna Material	FPCB+Coaxial Cable
Connector Type	1.13 MHF-1-Plug



4. Test Condition

4.1	TEST ITEM	TESTING INSTRUMENT	REMARKS
PASSIVE TEST	1.Radiation Pattern 2.Antenna Gain 3. Return Loss 4. S.W.R	1.Satimo SG24(3D) 2. Agilent 8960 E5515C 3. R&S ZVL6	



4.2 Antenna installation diagram:

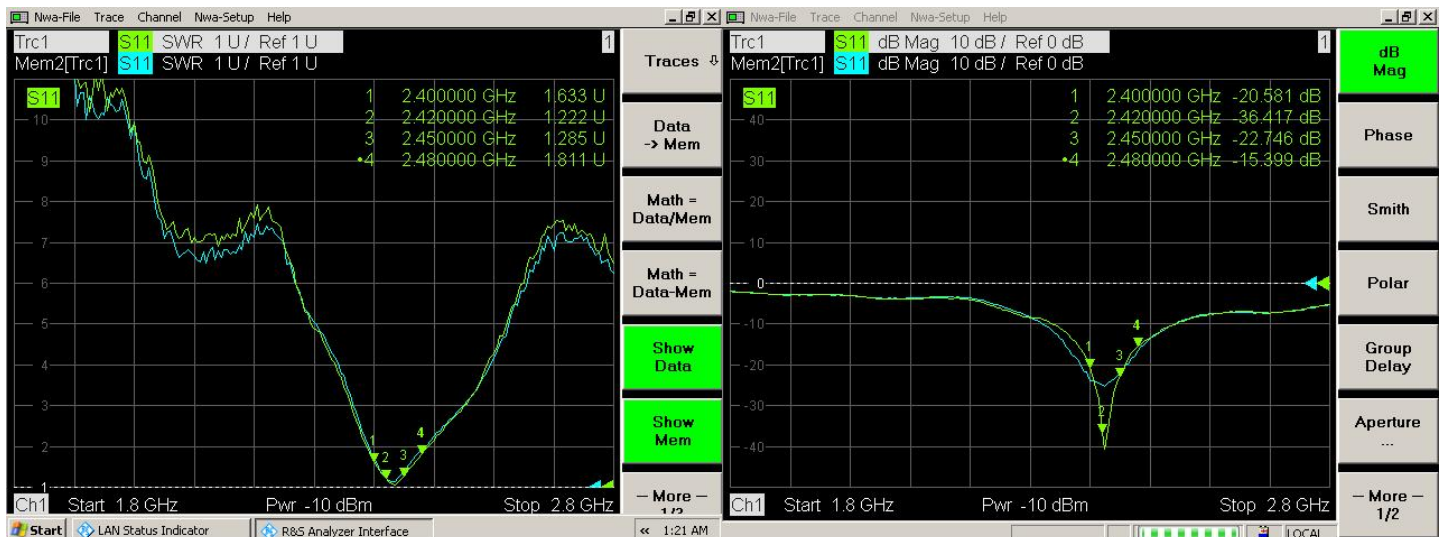
5. RF Performance

5.1 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

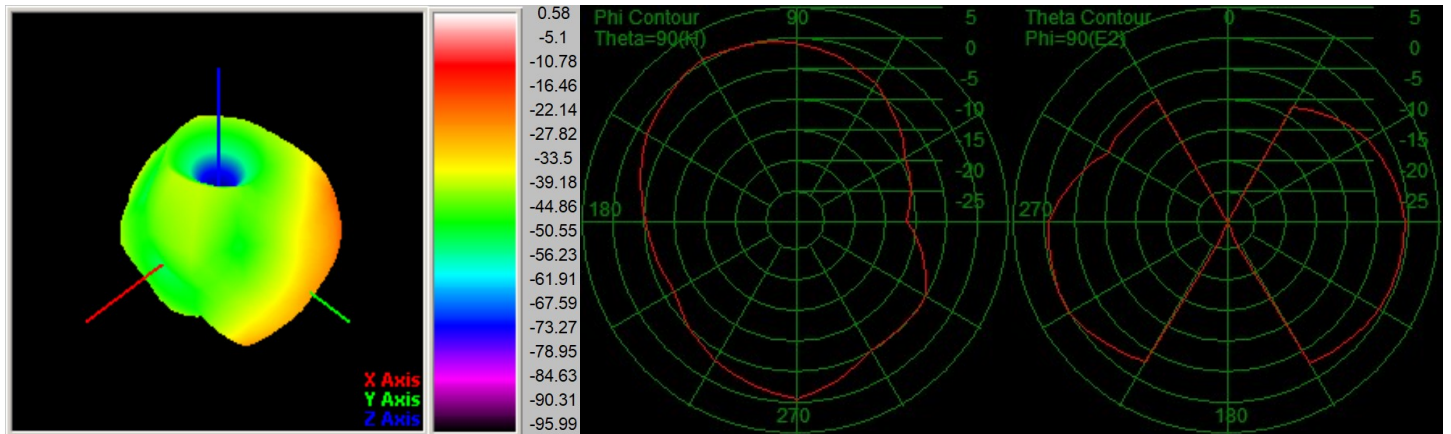
5.2 S Parameter

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

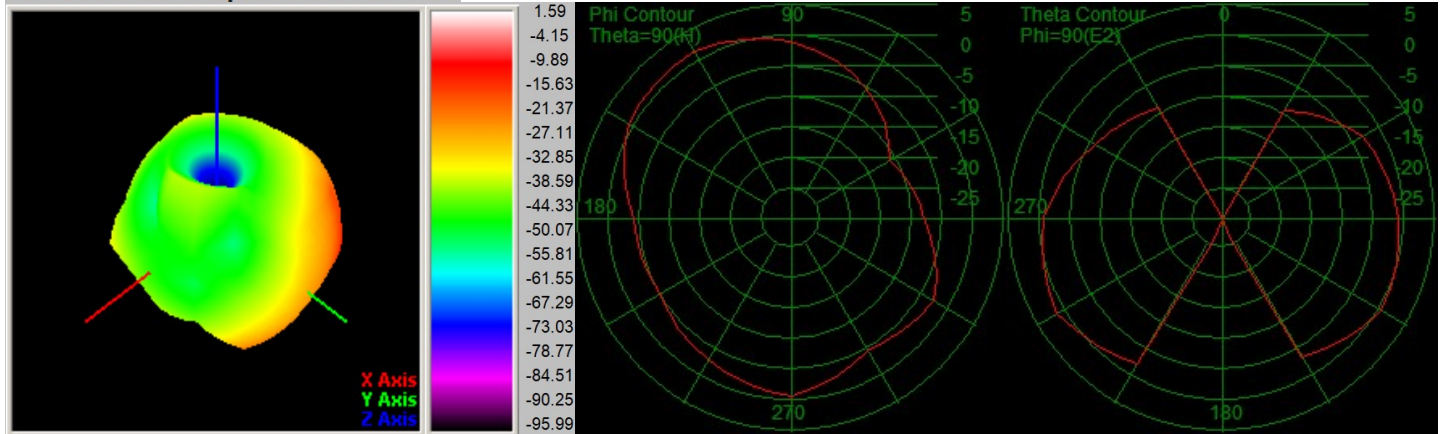




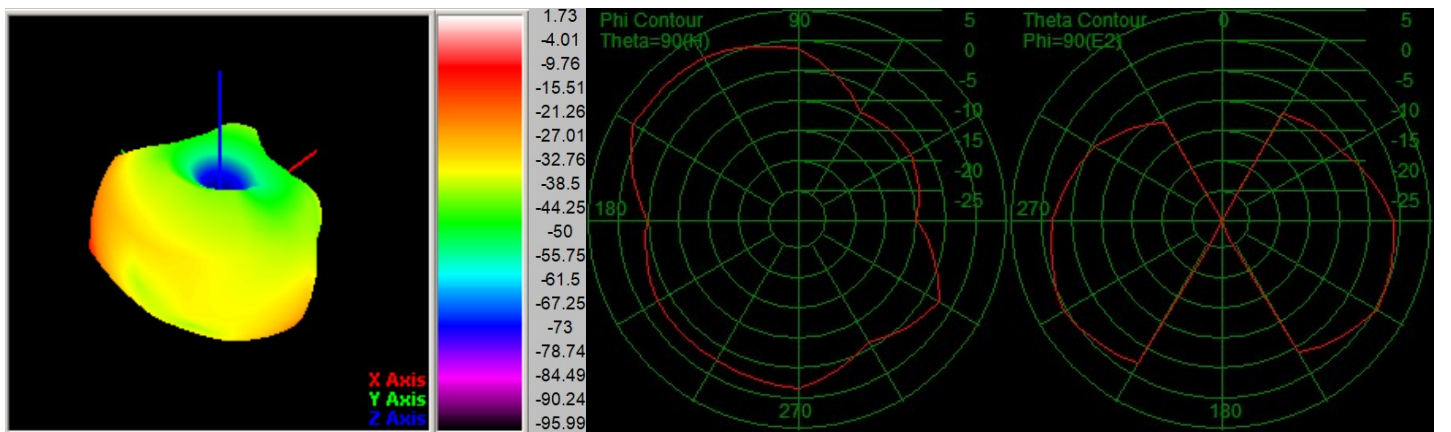
5.3 Antenna 3D Radiation Pattern (Unit:dbi)



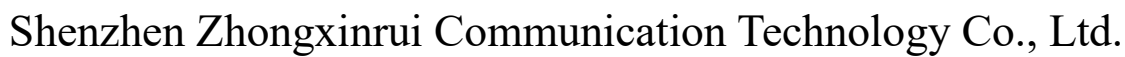
Passive -Freq2400.00MHZ



Passive -Freq2450.00MHZ



Passive -Freq2500.00MHZ



Technical drawing of a first generation connector. The drawing shows a perspective view of a rectangular component with a circular feature on its top surface. Dimensions are provided: a length of 64.00±0.2, a width of 20.40±0.2, and a height of 22.40±0.2. A circular feature with a diameter of Ø1.13 is located on the top surface. A label "E301W-WIFI-2G" is placed near the circular feature. A note "Back adhesive" points to the bottom surface. A table of technical specifications is located at the bottom right, and a table of dimensions is at the bottom left.

REV	Description of change	BY	DATE
T.A	New drawings	GUO	2025-02-21

NO.	Product Name	Part NO.	Material	Color
1	Cable	T13-T14	TC+EP	Black
2	FPC	FD013-PA-13	PI	—

NAME:	Antenna	DATE:	2025-02-21
PART NO.	FD013-CA-93-TA	DRWN:	
MATERIAL:		CHKD:	
SURFACE:		APPD:	
COLOR:		SCALE:	1.5:1
		REV:	T.A