



# Antenna Approval Sheet

For  
**X70** Project

Customer	Fowke Innovation	Project	X70
Band	WiFi 2.4G		
ZC PN	FD003-CA-93		
Version	R:A	Data	2023-12-21

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

### X70 Picture



### Antenna Picture



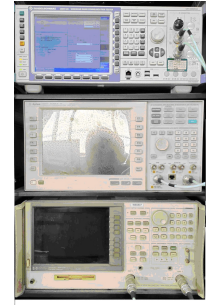
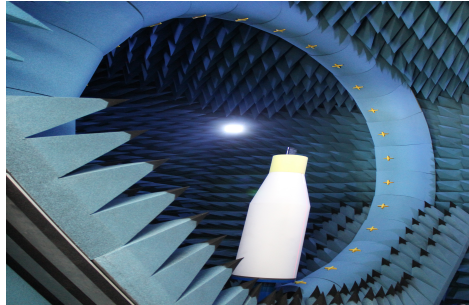
## 3. Electrical Specification:

Antenna types	Built-in WIFI antenna
Frequency	2400-2500 MHz
Impedance	50 $\Omega$
VSWR	< 2.0
Peak Gain	2.4GHZ 1.5 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 Matching Circuit The matching circuit was Default

4.3 Antenna installation diagram:



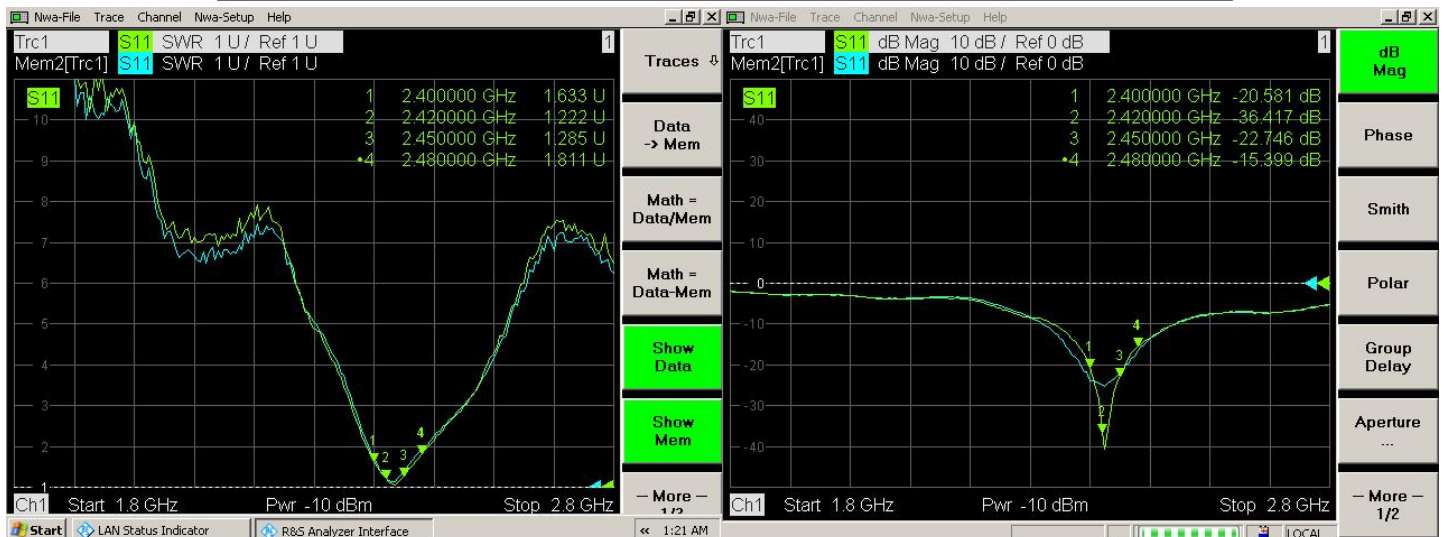
5. RF Performance

5.1 Passive parameters

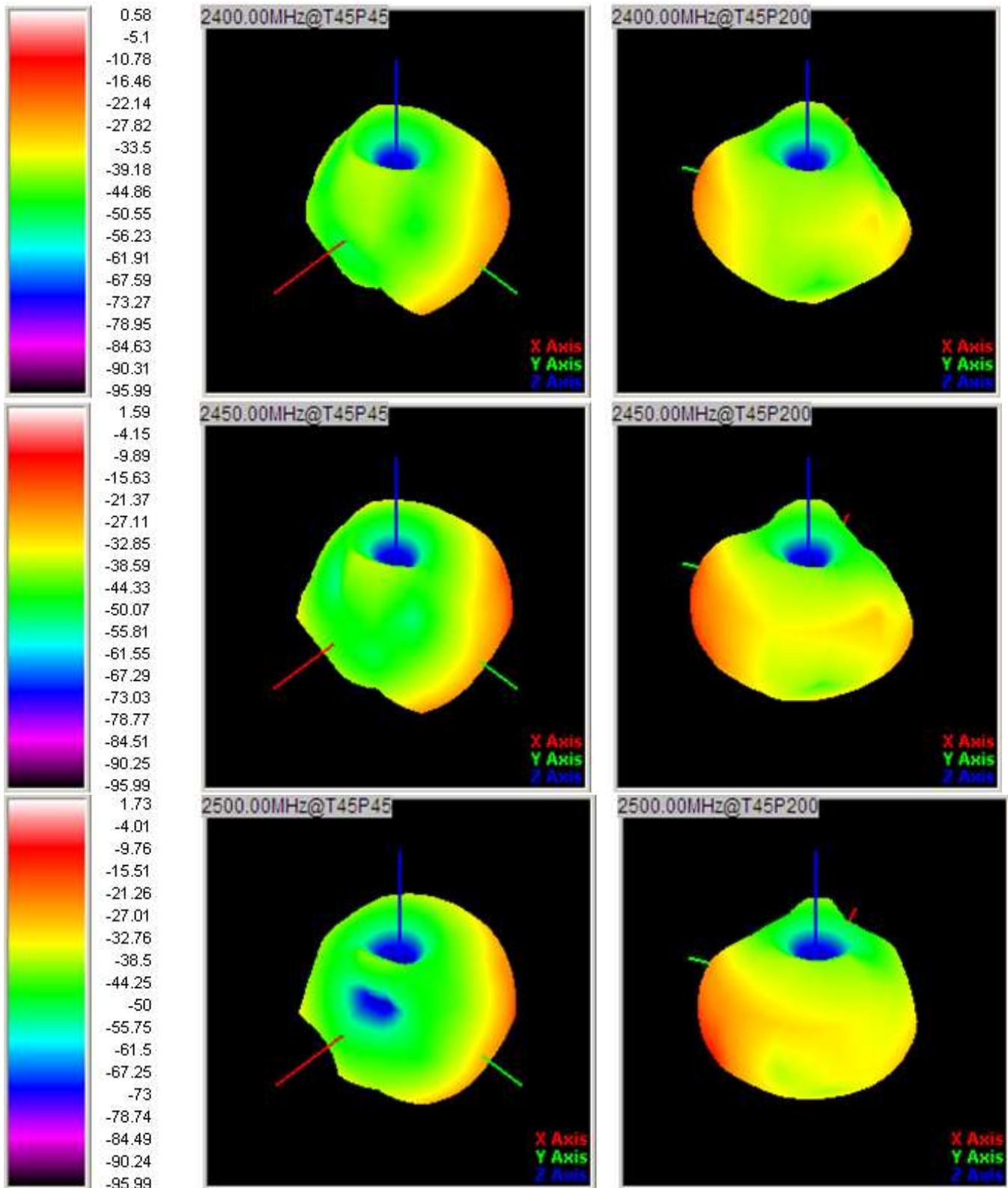
Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	0.58	0.66	1.1	1.02	1.17	1.59	0.72	0.08	0.72	1.19	1.73

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

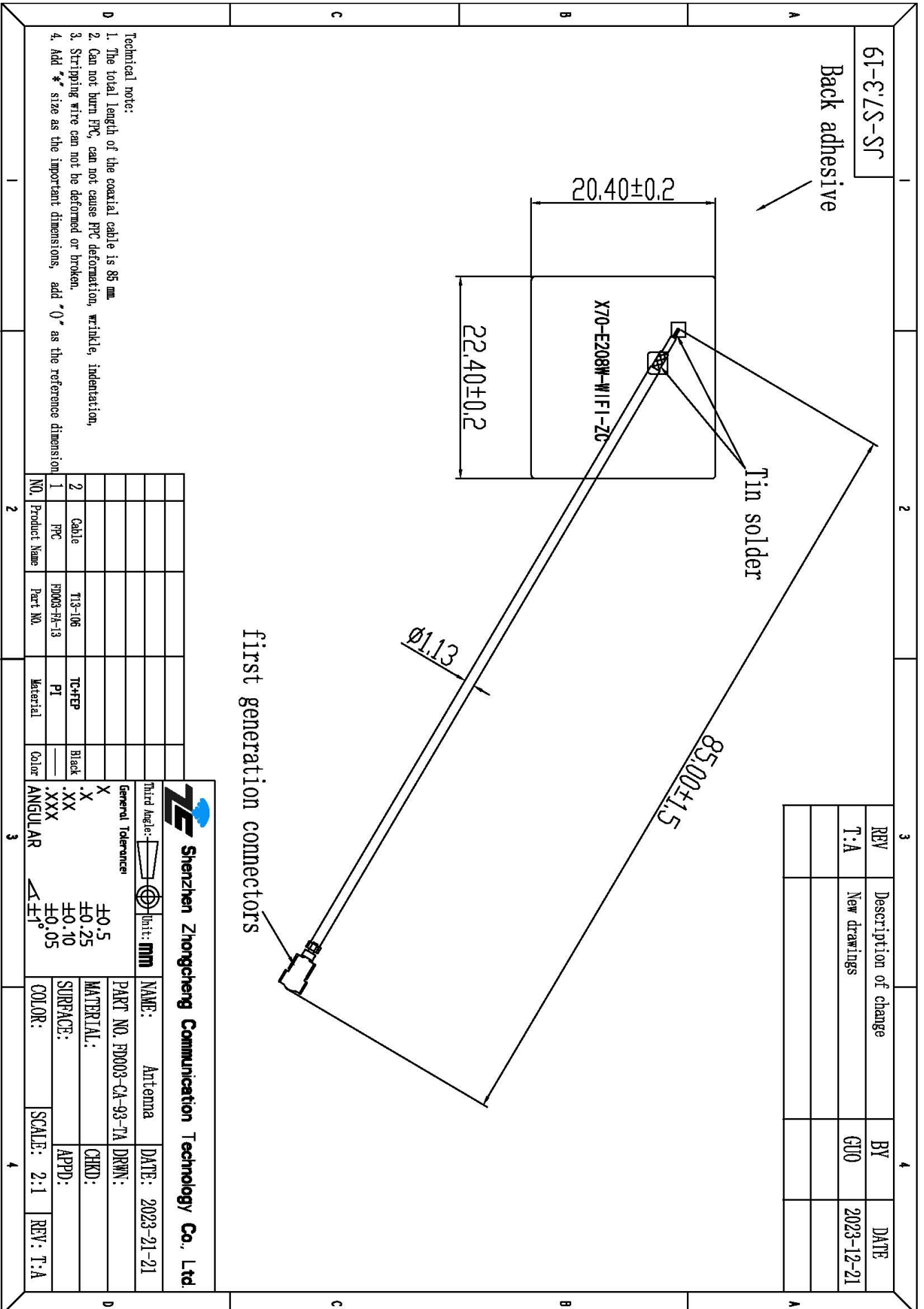


### 5.3 Antenna 3D Radiation Pattern (Unit:dbi)





6. ME Drawing for the antenna



- Technical note:
1. The total length of the coaxial cable is 85 mm.
  2. Can not burn PVC, can not cause PVC deformation, wrinkle, indentation.
  3. Stripping wire can not be deformed or broken.
  4. Add "φ" size as the important dimensions, add "0°" as the reference dimension.

NO.	Product Name	Part No.	Material	Color
1	PVC	F0003-FR-13	PI	
2	Cable	T13-106	TC+PEP	Black

**Shenzhen Zhongcheng Communication Technology Co., Ltd.**

Third Angle: Unit: **mm**

General Tolerance:

X	±0.5
XX	±0.25
.XXX	±0.10
ANGULAR	±1°

NAME: Antenna DATE: 2023-21-21

PART NO. F0003-CA-93-TA DRAWN:

MATERIAL: CHKD:

SURFACE: APPD:

COLOR: SCALE: 2:1 REV: T:A

REV	Description of change	BY	DATE
T:A	New drawings	GUO	2023-12-21