



深圳市星通无线技术有限公司

Shenzhen Xingtong Wieress Technology Co.,Ltd

Phone: +86-755- 27850514 Fax: +86- 0755-27850514

Adress: 3rd Floor, Building A1, Qiangrong East Industrial Zone,
Jiuwei, Xixiang, Baoan District, Shenzhen

Product Specification

Name of: F3-BT

Product part : 2.4GHZ/BT Shrapnel

Producer	Ex St	Su A
Huang	Wu	2023-11-09

Customer

Customer	Shanghai Feizhi Electronic
Approval	
Time:	
Note:	

Please sign and seal it and return a copy to our company for file.



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Date

2023-4-25

versions

A0

File NO.

XT-YF-004

Model

F3-BT

Code

XT028-BT-2.4GHZ

1.Product structure (Product Constrution)

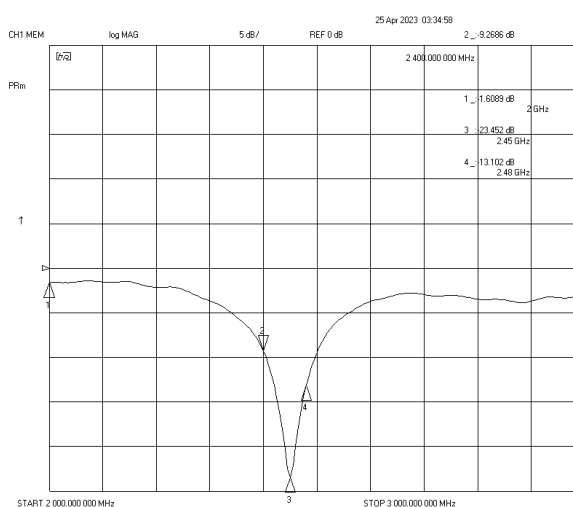
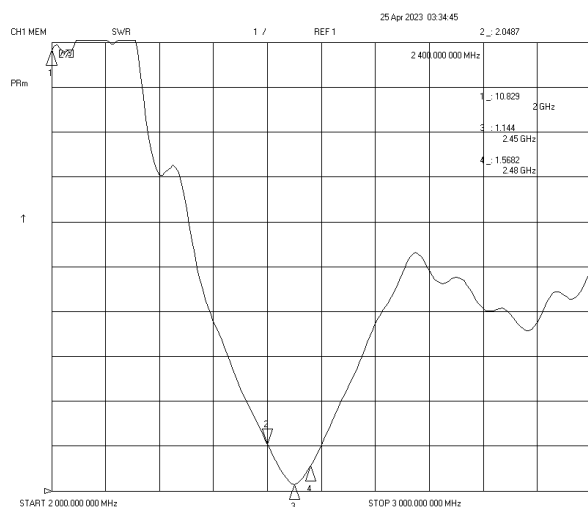
- 1. Antenna material: white copper
- 2. Back glue model: none
- 3. Antenna size: 16.7*13*0.3mm (To ± 0.1)
- 4. Appearance treatment: surface antioxidant treatment

2.Basic information (Parameters)

- Scope of use: customer-supplied machines
- Antenna frequency: 2.4-2.48GHz
- Average gain of antenna free space: $2.4 \geq 2.0$ dbi
- Antenna impedance: 50ohm
- Installation method: direct plug-in welding
- Packaging method: use Polyethylene Bag + Packing box

3. Aerial S11 Value

3.1: Antenna standing wave ratio/Loss value



3.2: antenna parameter

:

Fre.	2400mhz	2450mhz	2480mhz
SWR(dbm)	2.0	1.1	1.5
LOG (dbm)	-9.26	-23.4	-13.1



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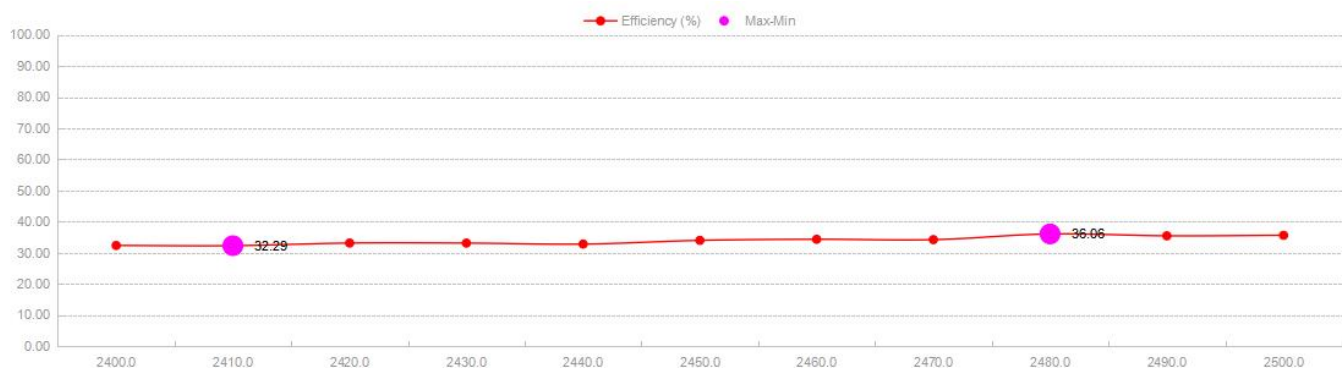
XT028-BT-2.4GHZ

4. Antenna performance(OTA)

■ 4.1: Antenna matching suggestion

Vector impedance modulation is possible

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-4.90	-4.91	-4.80	-4.80	-4.84	-4.69	-4.64	-4.66	-4.43	-4.50	-4.48
Gain (dBi)	0.47	0.48	0.41	0.43	0.45	0.60	0.69	0.86	1.11	1.04	1.12
Efficiency (%)	32.35	32.29	33.13	33.12	32.80	33.99	34.34	34.23	36.06	35.46	35.62
Directivity (dB)	4.43	4.73	5.01	5.13	5.29	5.29	5.33	5.51	5.55	5.54	5.60
Peak Gain Position (Theta)	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00	165.00
Peak Gain Position (Phi)	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Efficiency ThetaPol (%)	14.50	14.50	15.15	15.37	15.42	15.94	16.20	16.50	17.37	17.18	17.36
Efficiency PhiPol (%)	17.86	17.79	17.98	17.75	17.38	18.05	18.14	17.73	18.68	18.28	18.26
Upper Hem. Efficiency (%)	17.51	17.43	17.83	17.77	17.52	18.05	18.25	18.25	19.35	19.14	19.30
Lower Hem. Efficiency (%)	14.84	14.86	15.30	15.35	15.28	15.94	16.09	15.97	16.71	16.32	16.33





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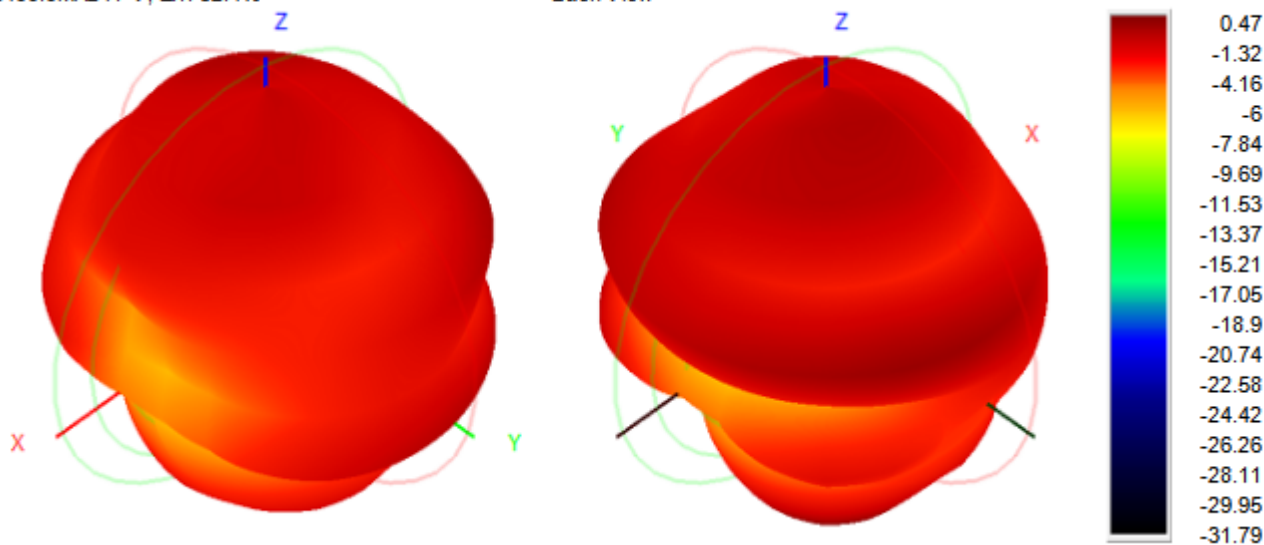
XT028-BT-2.4GHZ

■ 4.3: OTA-2.4G-3D

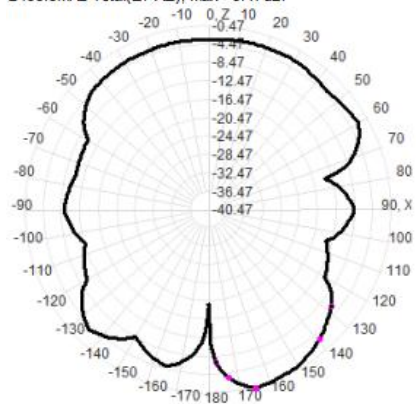
2.4GHz: -0.47dBi

2400.0MHz H+V, Eff: 32.4%

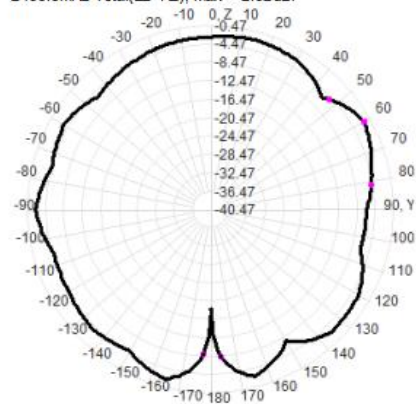
Back View



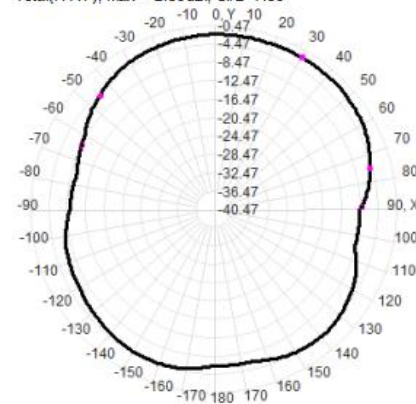
2400.0MHz Total(E1-XZ), Max= 0.47dBi



2400.0MHz Total(E2-YZ), Max= -2.02dBi



Total(H-XY), Max= -2.30dBi, CirD=7.30





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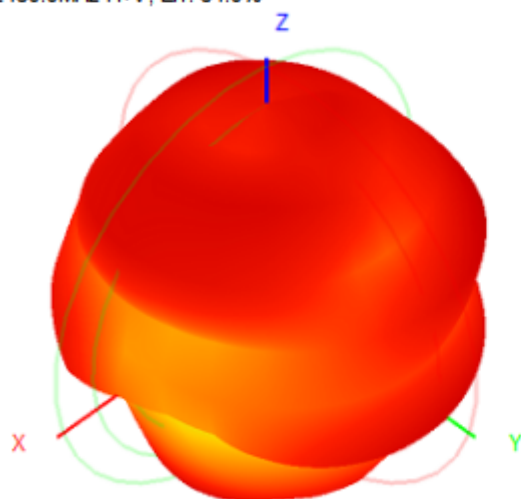
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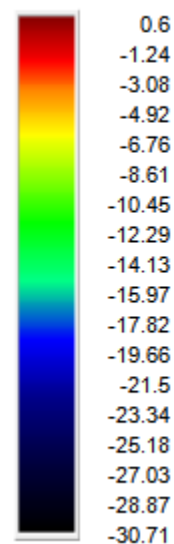
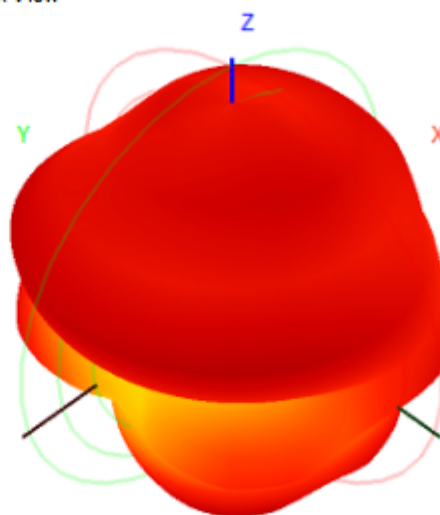
XT028-BT-2.4GHZ

2.45GHz: 0.6dBi

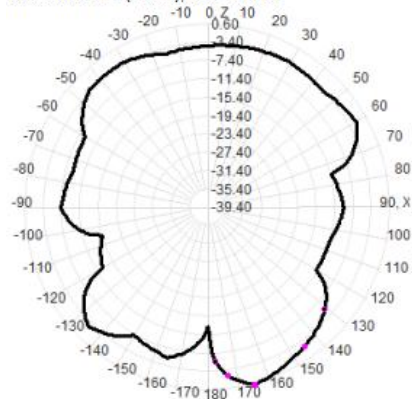
2450.0MHz H+V, Eff: 34.0%



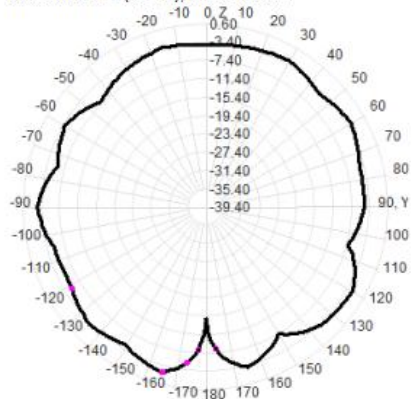
Back View



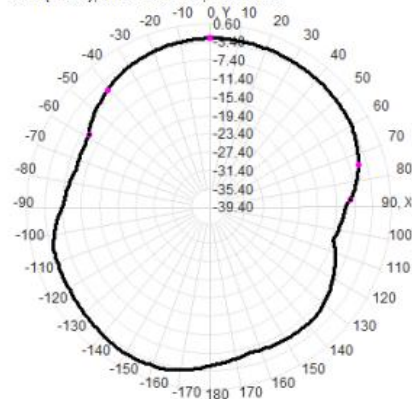
2450.0MHz Total(E1-XZ), Max= 0.60dBi



2450.0MHz Total(E2-YZ), Max= -2.19dBi



Total(H-XY), Max= -2.55dBi, CirD=8.86





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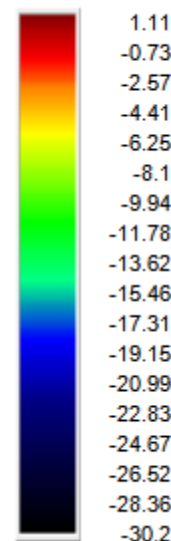
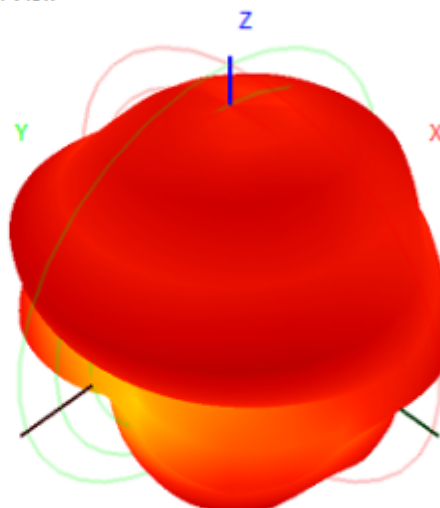
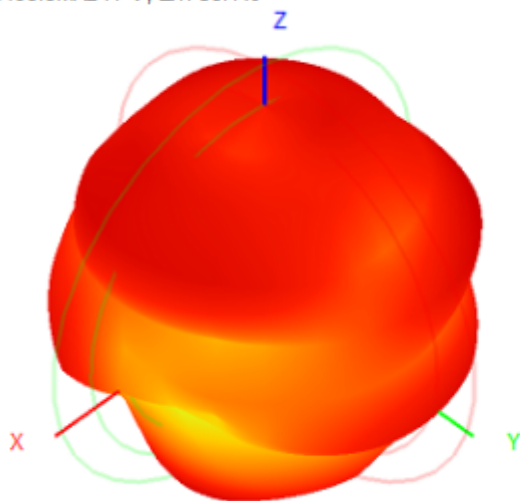
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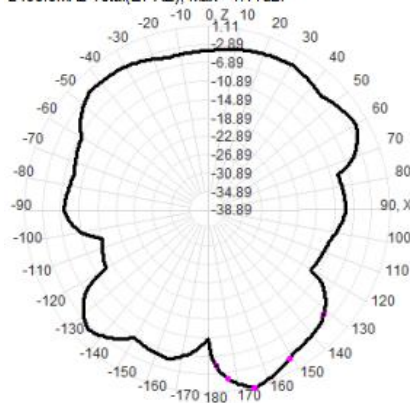
2.48GHz: 1.11dBi

2480.0MHz H+V, Eff: 36.1%

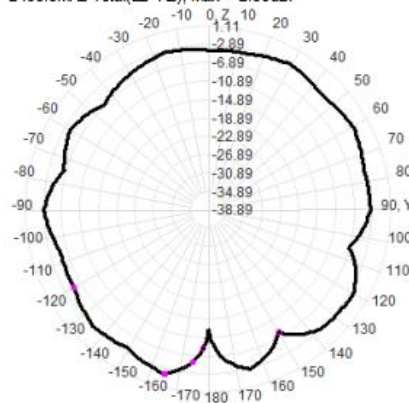
Back View



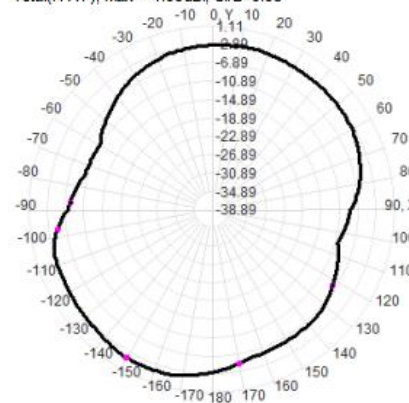
2480.0MHz Total(E1-XZ), Max= 1.11dBi



2480.0MHz Total(E2-YZ), Max= -2.06dBi



Total(H-XY), Max= -1.80dBi, CirD=8.95





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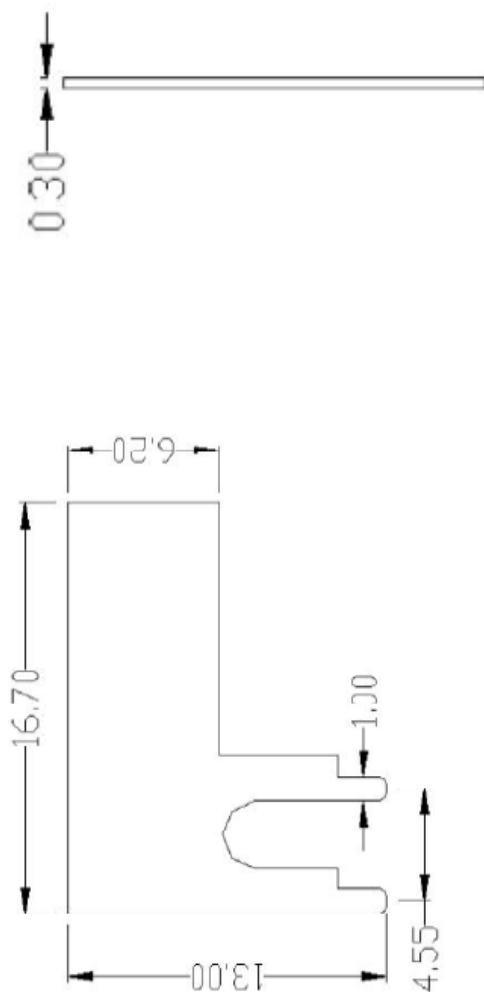
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5. Figure:

■ 5.1: Antenna diagram

Unit:mm





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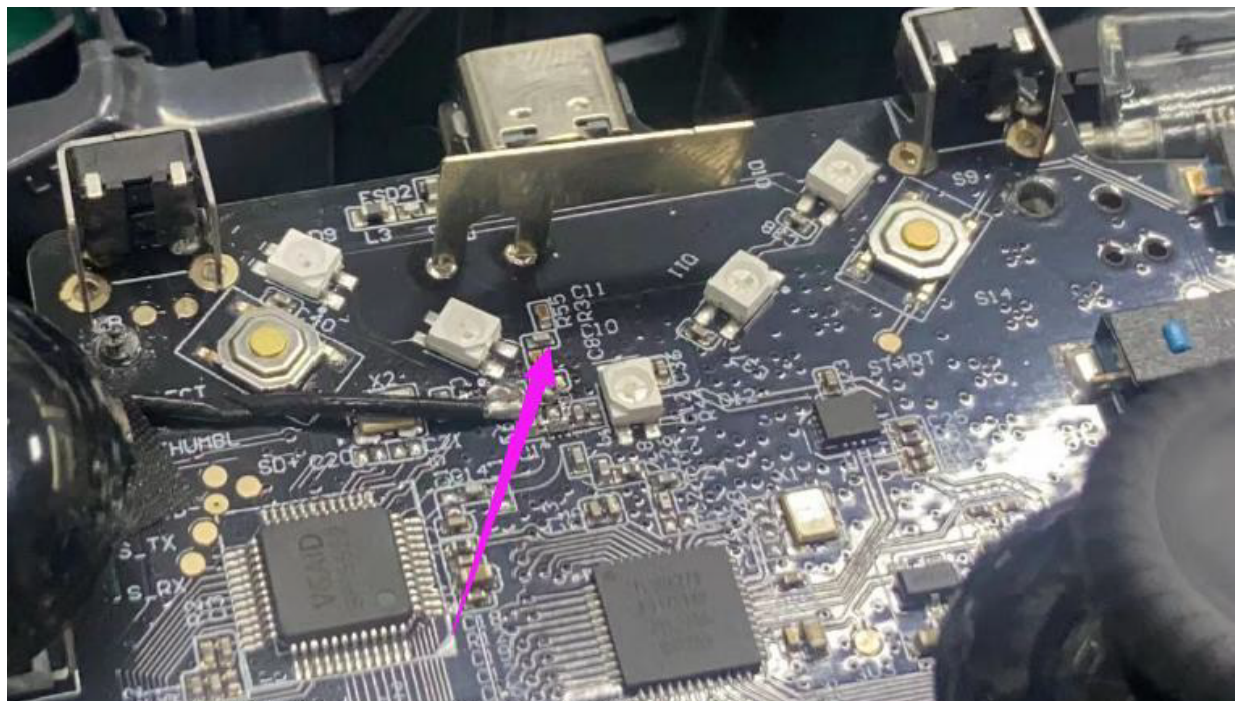
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6 matters need attention:



After opening, please carefully check whether the item is complete, if there is damage, please contact us immediately.