

PRODUCT SPECIFICATION

Customer Name: BOE

Product Name: TC643(FF88)

Customer Material Number: 405-000037

Rui Xiang material number: F158F8801111000

Versions: V01

Authorizer	Check	Compile
Xudong.Zhang	Bo.Li	Xiangyang.Ye
2024.07.18	2024.07.18	2024.07.18

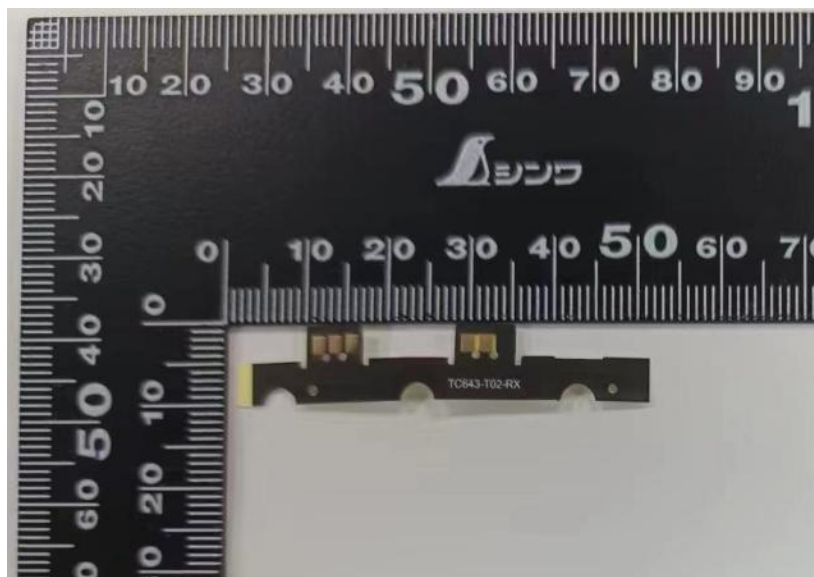
Manufacturer: Kunshan innowave Communication Technology Co., Ltd.

Address: Building H, Jintu Zhizao Garden, No. 55 Shengchuang Road, Yushan Town, Kunshan City, Jiangsu Province

1.Antenna specification

Antenna Type	IFA FPC Antenna		
Frequency	2400MHz-2500MHz 5150MHz~5850MHz		
VSWR	3.0 Max		
Impedance	50Ω		
Polarization	Linear		
Radiation pattern	Omni-directional		
Antenna size (mm)	48.4*9.44		
Antenna Gain(dbi)	BT	2.4G WiFi	5G WiFi
	-1.5	-1.2	0.8
Working Temperature (°C)	-20~65		
Storage Temperature (°C)	-20~85		

2.Antenna Photo



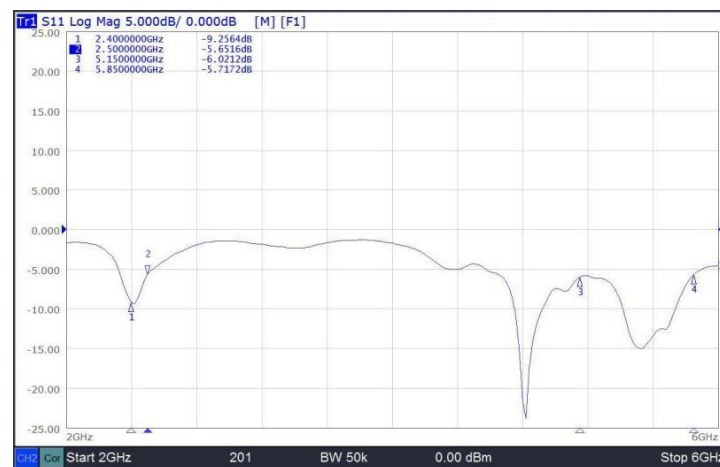
3. Antenna Return loss

The Return loss test device is connected as follows: E5071B network analyzer → 50 ohm coaxial Cable → test fixture

BT



Wifi



4. Antenna Efficiency

	WiFi	BT
Frequency (MHz)	Efficiency (dB)	Efficiency (dB)
2400	-7.1	-9.2
2410	-7.3	-9.1
2420	-7.3	-9.0
2430	-7.2	-8.8
2440	-7.6	-8.7
2450	-8.1	-8.8
2460	-8.5	-9.0
2470	-8.6	-9.2
2480	-8.8	-9.4
2490	-8.8	-9.5
2500	-8.8	-9.7
5150	-8.2	
5200	-7.6	
5250	-8.0	
5300	-7.7	
5350	-8.6	
5400	-8.5	
5450	-8.7	
5500	-7.9	
5550	-7.6	
5600	-7.5	
5650	-7.9	
5700	-8.6	
5750	-8.5	
5800	-8.7	
5850	-8.6	

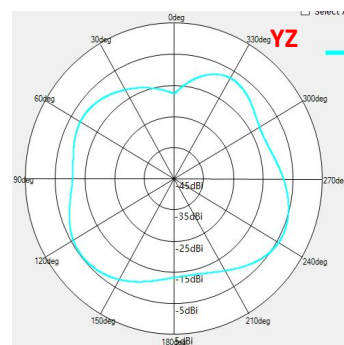
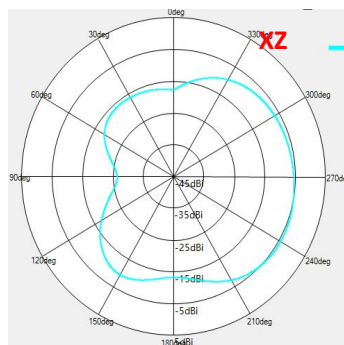
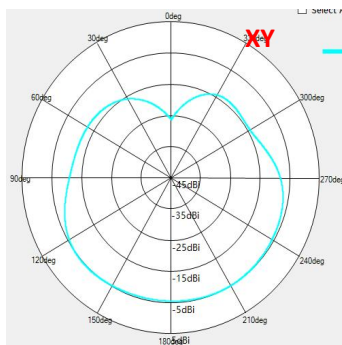
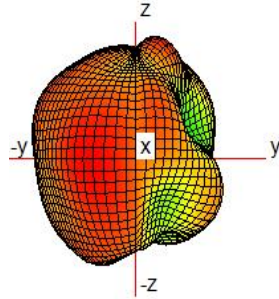
5. Antenna OTA

Band	Channel	TRP	TIS (Screen is light on)
		6M	54M
11G	1	12.6	-70.0
	6	12.2	-70.4
	11	13.9	-70.0
Band	Channel	TRP	TIS (Screen is light on)
		11M	11M
11B	1	11.2	-83.3
	6	11.1	-82.2
	11	10.6	-81.3
Band	Channel	TRP	TIS (Screen is light on)
		6M	54M
11A	36	11.0	-68.2
	64	10.5	-69.3
	165	9.7	-67.9

6. Antenna Radiation Pattern

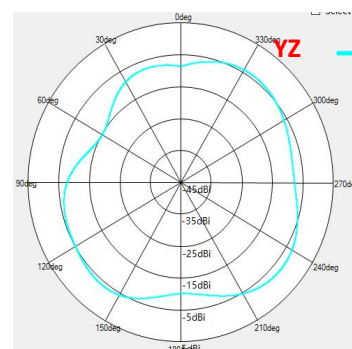
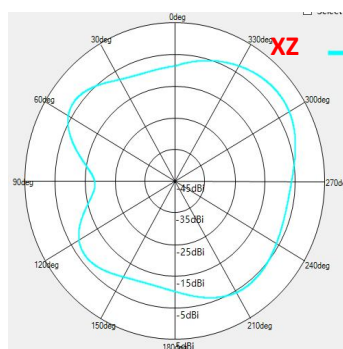
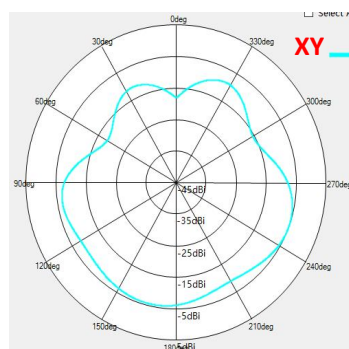
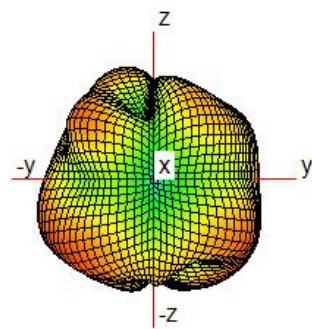
6.1 BT Antenna

2450MHz

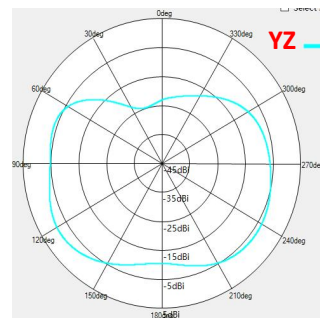
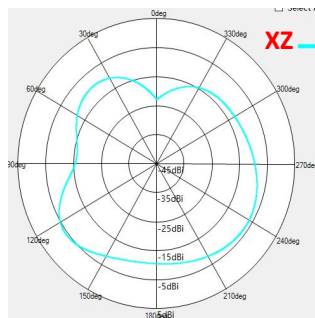
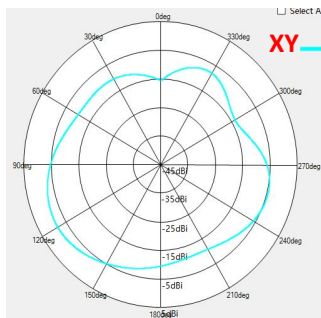
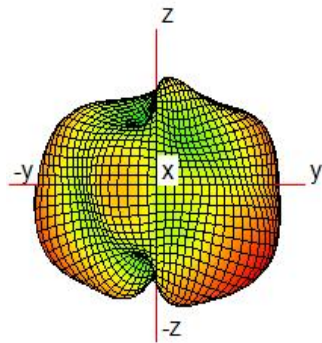


6.2 WIFI Antenna

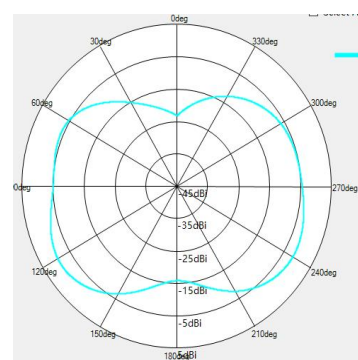
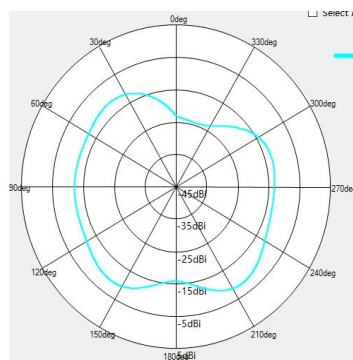
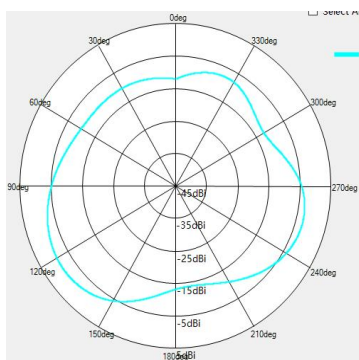
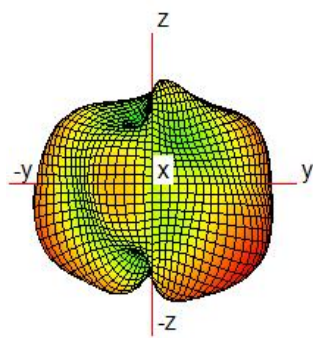
2450MHz



5180MHz



5825MHz



7. Antenna Drawing

