

Shenzhen yosong Communication Technology Co., Ltd

Antenna Test Report

Model BF02 for WIFI/Bluetooth module
Model BF03 for Bluetooth module



Date: September 28, 2024

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1.Introduction to Project Debugging

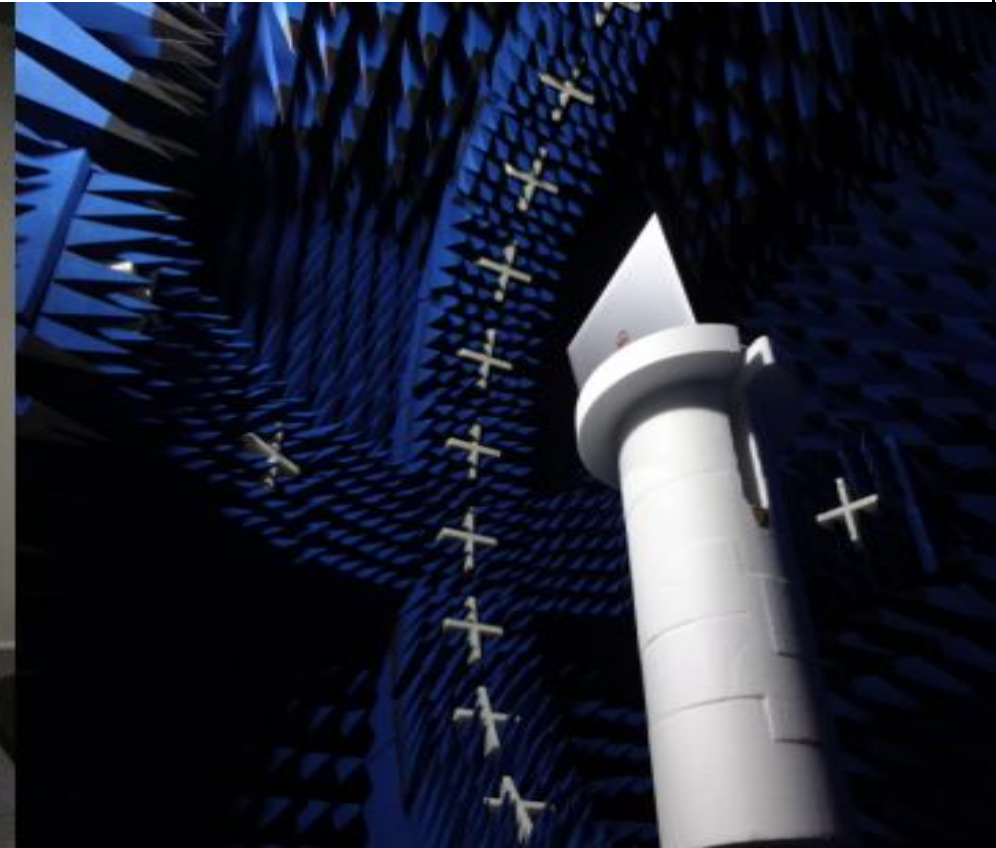
Customer name	Thousandshores	Project name	BF02,BF03Electronic watch		
model aircraft	BF02,BF03	Antenna material	FPC+Cable		
Antenna overview	Antenna frequency band		Antenna area	Antenna form	Whether the antenna configuration has been changed
	2.4G WIFI	2400MHz-2500MHz	side wall	Monopolar	No
	5GWiFi	5.0MHz-2.8GMHz	side wall	Monopolar	No
	2.4G BT	2400MHz-2500MHz	side wall	Monopolar	No

2.Project leader contact information

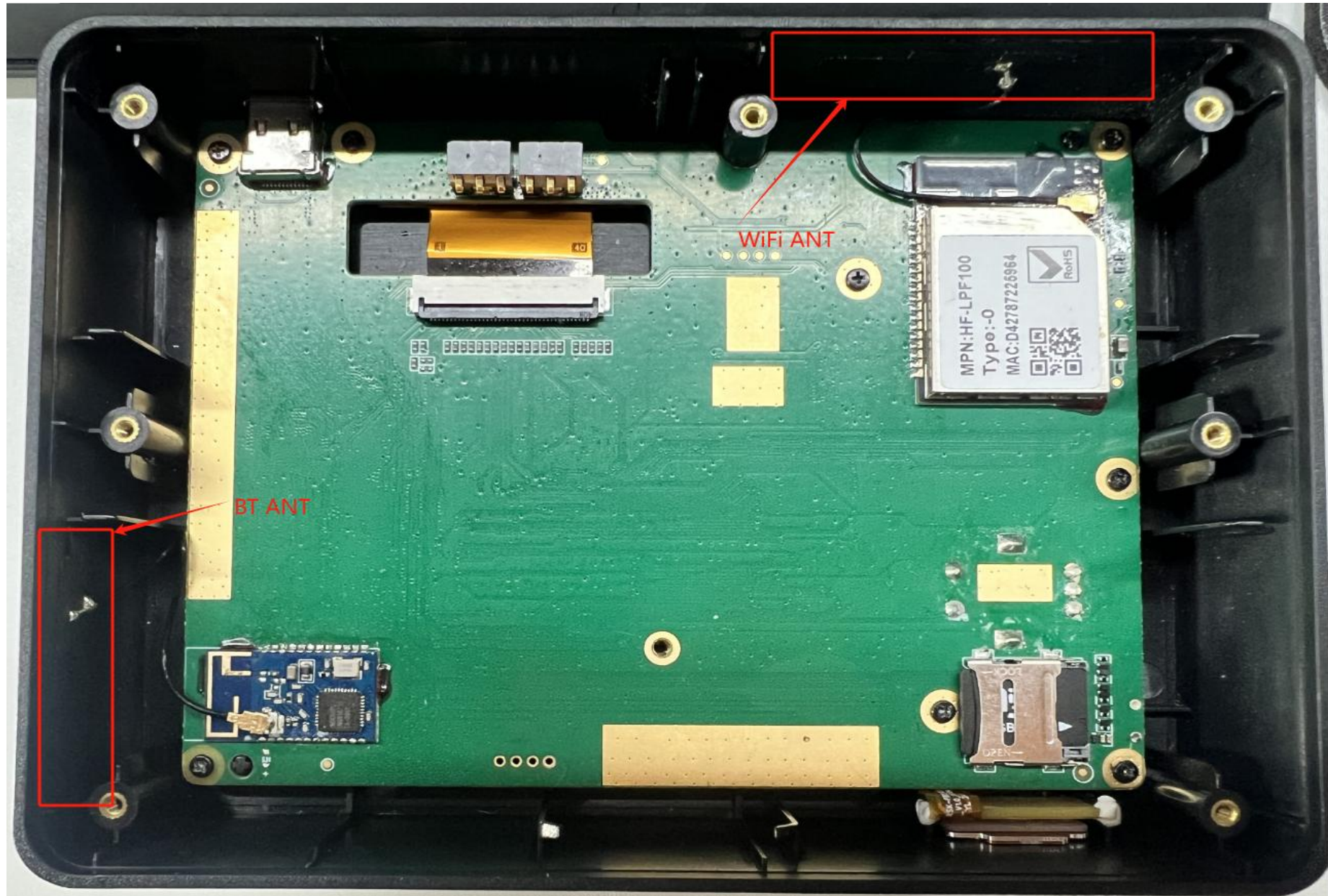
Business Engineer	mingxing Dong	13823366570	mxtianxian@163.com
RF Engineer	chao Chen	13030583363	mxtainxian@163.com
ME Engineer	ye He	18576423302	mxtainxian@163.com

3.testing environment

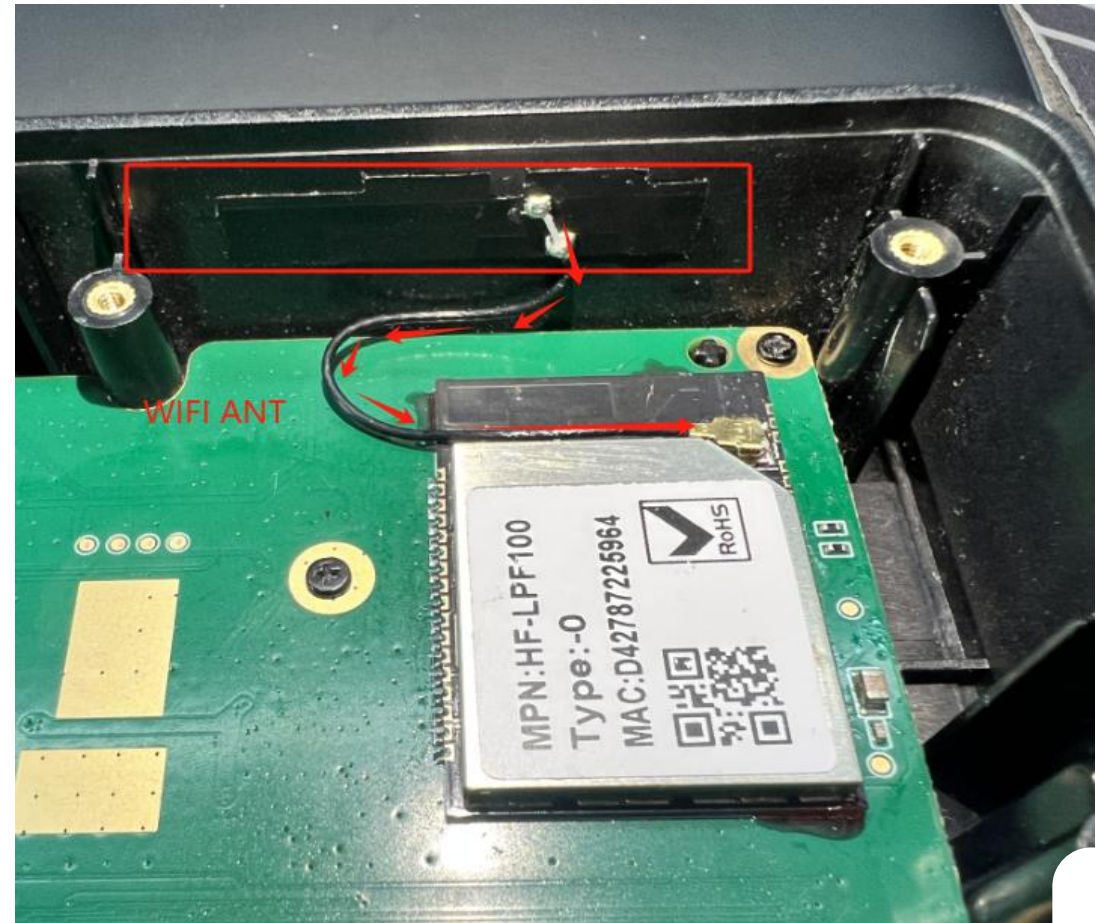
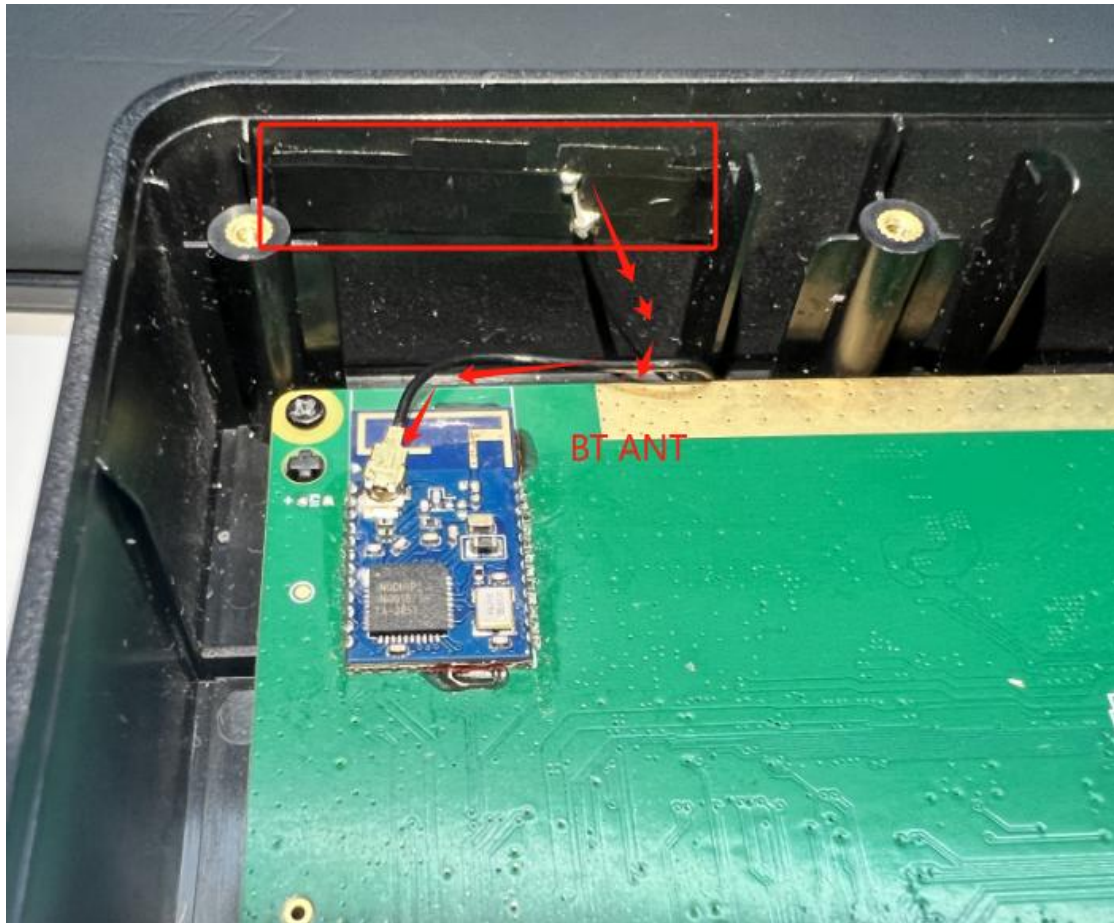
Comprehensive Tester	CMW500
Darkroom	ETS
Test Engineer	wei Yi
temperature	25°C
Humidity	65% (RH)



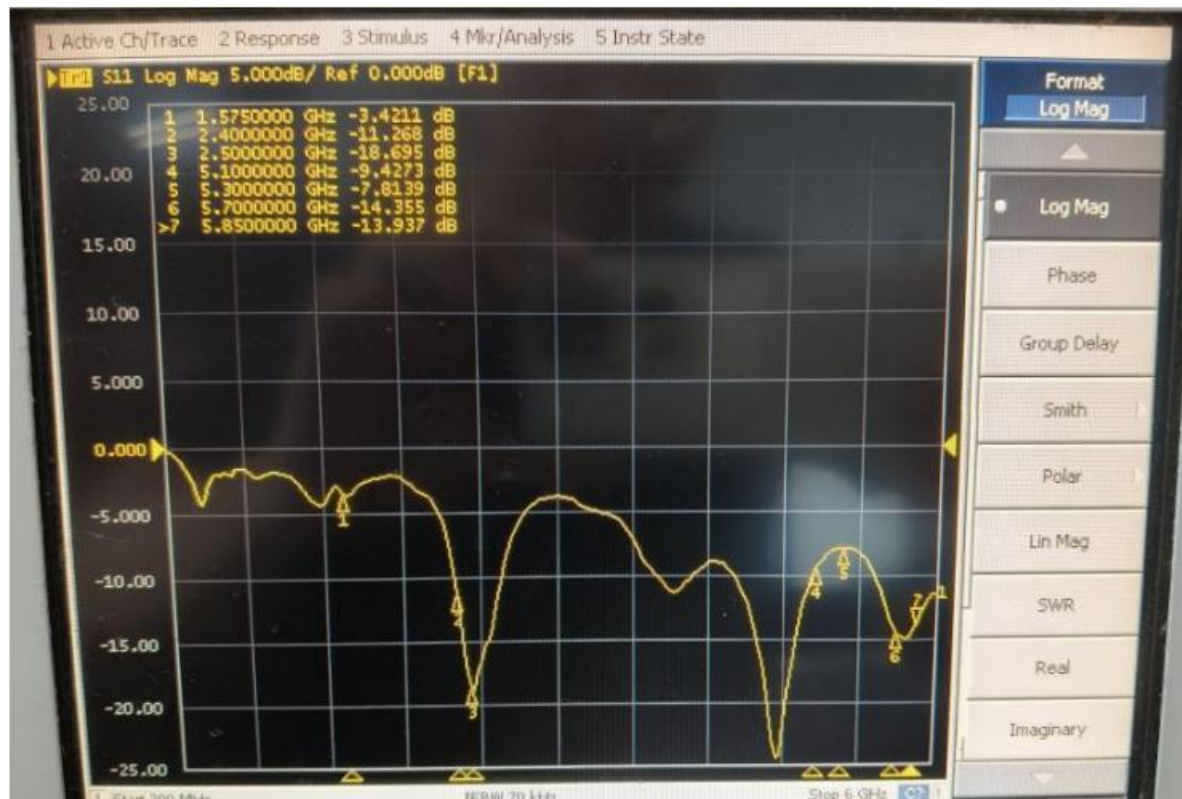
4. 1 Antenna Position Diagram



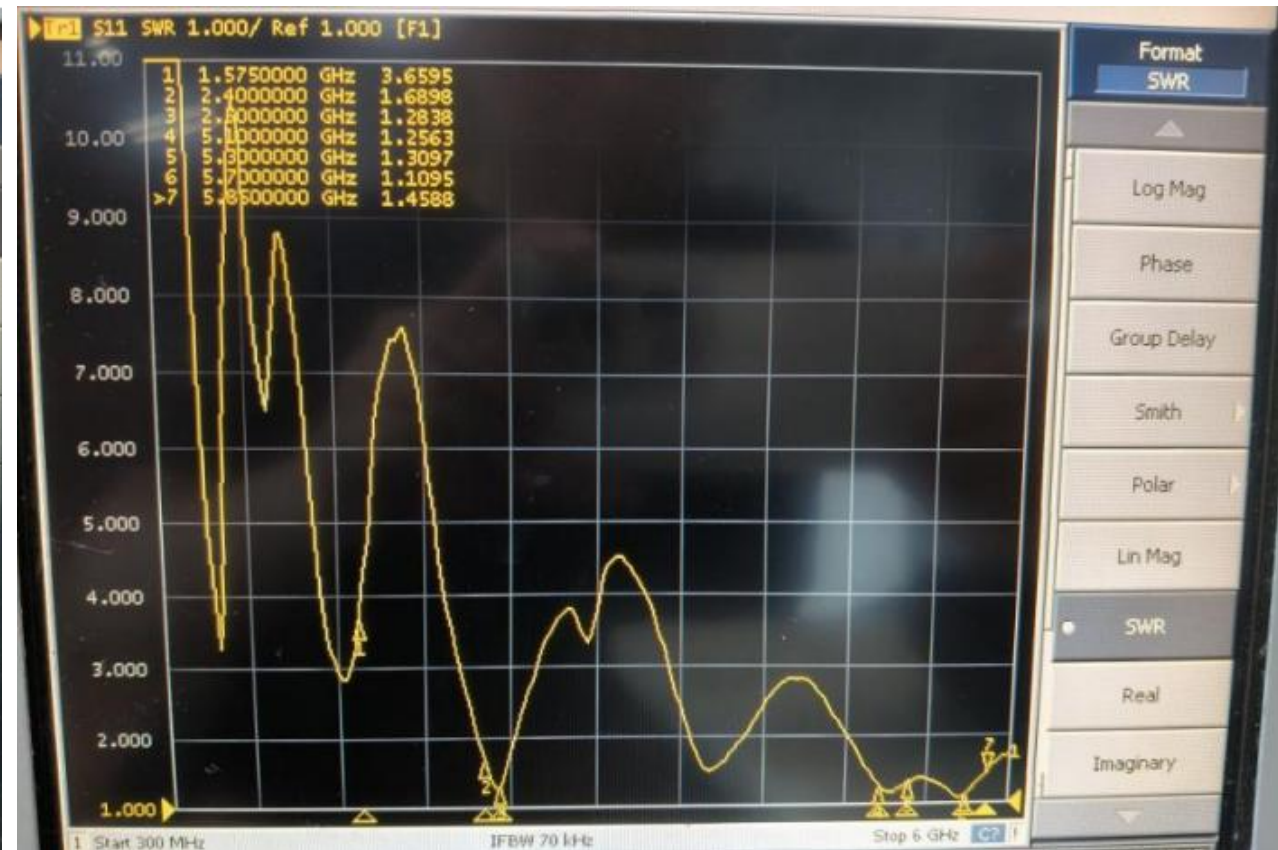
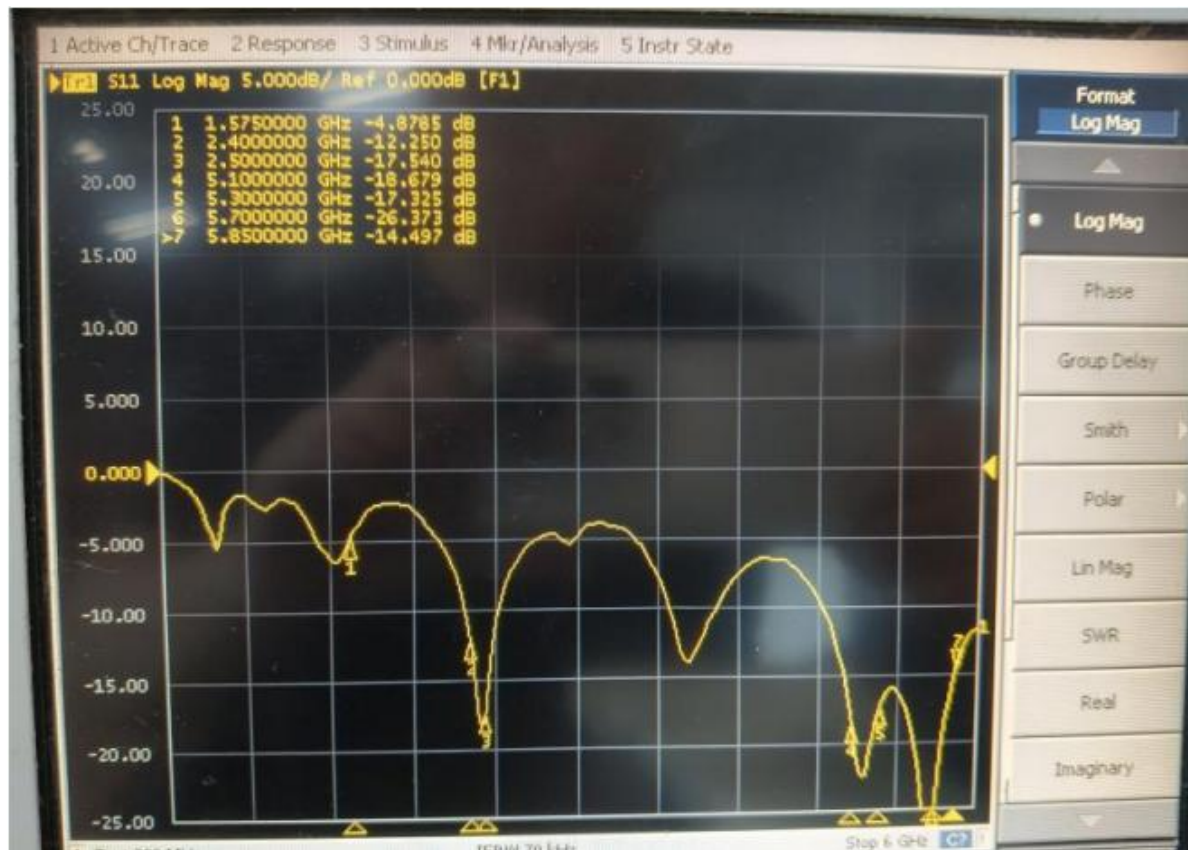
4.2.Details of the antenna location diagram



5.1 WIFI Antenna LOG and SWR



5.2 BT Antenna LOG and SWR



5.3 ANT Efficiency and gain

Passive Test For 2.4 WIFI			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	35.79	-4.46	0.96
2410	38.76	-4.12	1.14
2420	35.41	-4.51	1.33
2430	37.12	-4.30	1.21
2440	35.12	-4.54	1.18
2450	36.18	-4.42	1.29
2460	39.17	-4.07	1.47
2470	38.41	-4.16	1.3
2480	37.64	-4.24	1.35
2490	38.14	-4.19	1.42
2500	36.52	-4.37	1.28

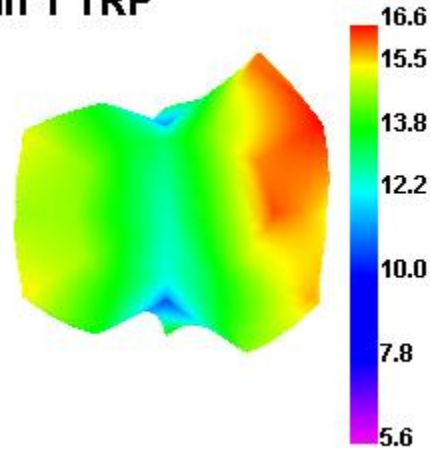
Passive Test For 5G WiFi			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5000	32.87	-4.83	0.62
5100	30.64	-5.14	0.6
5200	31.00	-5.09	0.59
5300	30.88	-5.10	0.43
5400	34.87	-4.58	0.78
5500	35.34	-4.52	0.73
5600	32.14	-4.93	0.68
5700	30.19	-5.20	0.42
5800	32.92	-4.83	0.74

Passive Test For 2.4 BT			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	40.11	-3.97	1.51
2410	41.32	-3.84	1.55
2420	42.81	-3.68	1.61
2430	43.55	-3.61	1.66
2440	45.21	-3.45	1.85
2450	44.69	-3.50	1.62
2460	40.11	-3.97	1.55
2470	41.32	-3.84	1.48
2480	42.81	-3.68	1.52
2490	39.17	-4.07	1.42
2500	38.41	-4.16	1.28

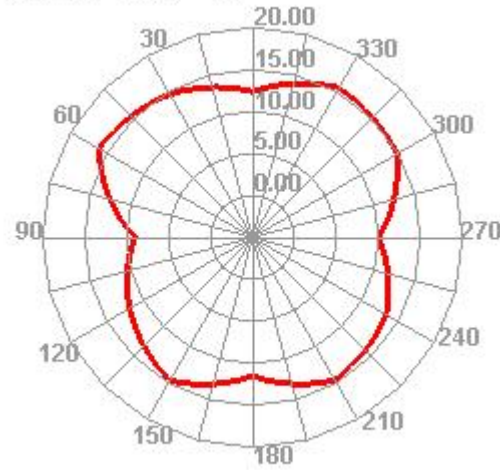


5.4 2.4G WiFi Antenna radiation

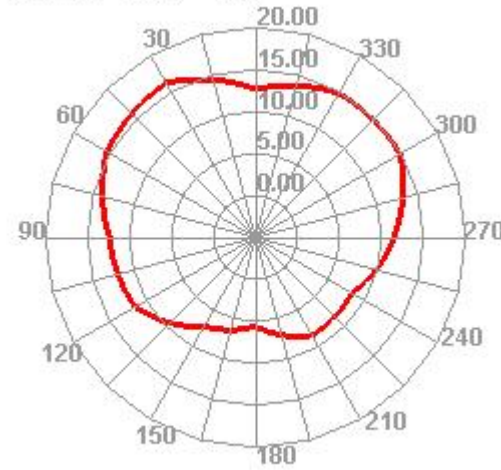
Wifi 1 TRP



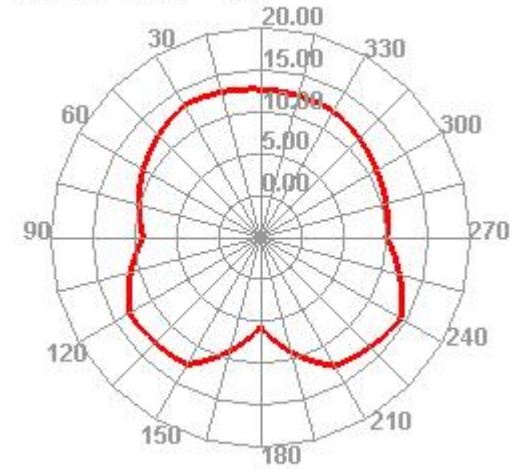
Wifi 1 TRP H



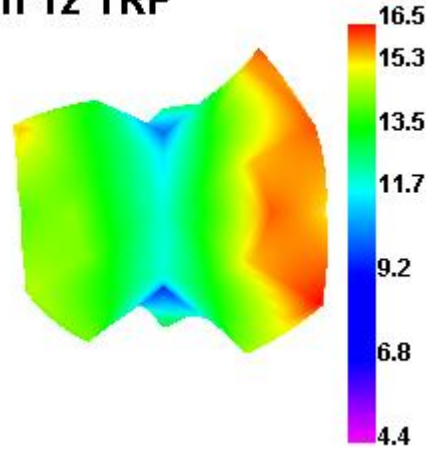
Wifi 1 TRP E1



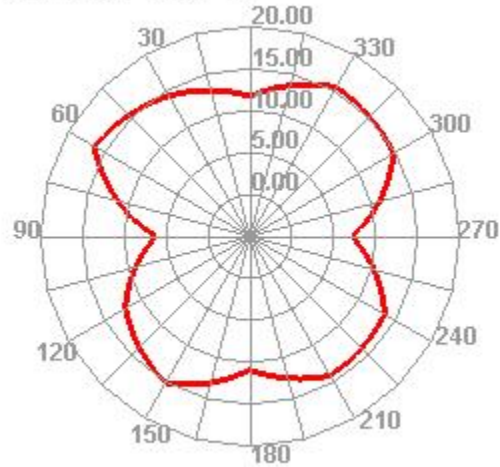
Wifi 1 TRP E2



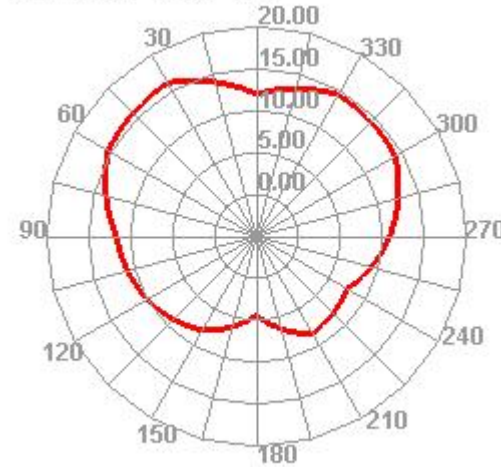
Wifi 12 TRP



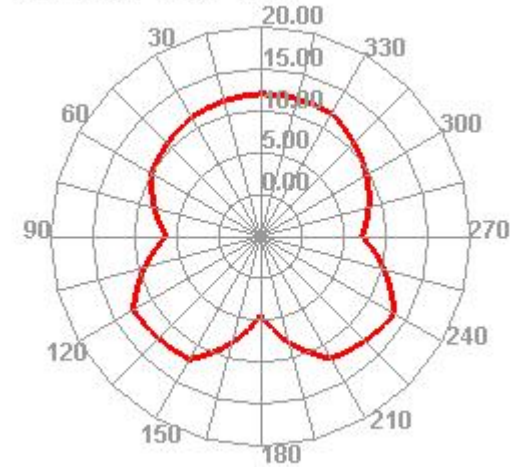
Wifi 12 TRP H



Wifi 12 TRP E1

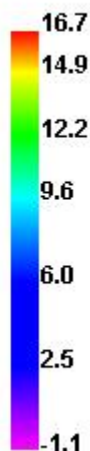
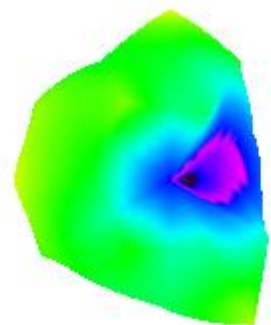


Wifi 12 TRP E2

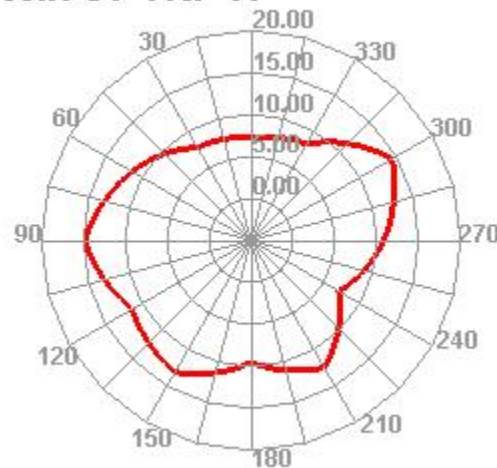


5.5 5G WiFi Antenna radiation pattern

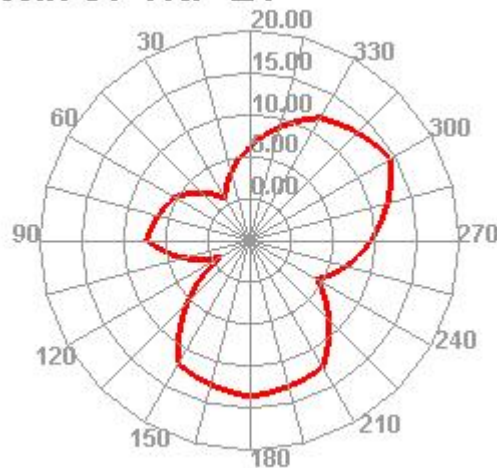
Wifi 36 TRP



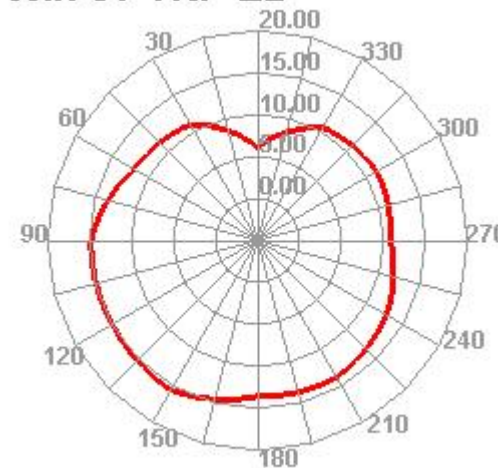
Wifi 36 TRP H



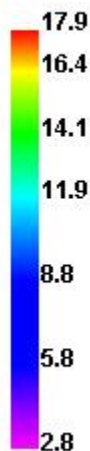
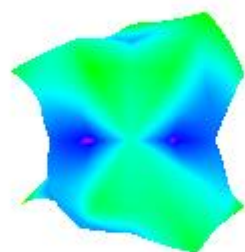
Wifi 36 TRP E1



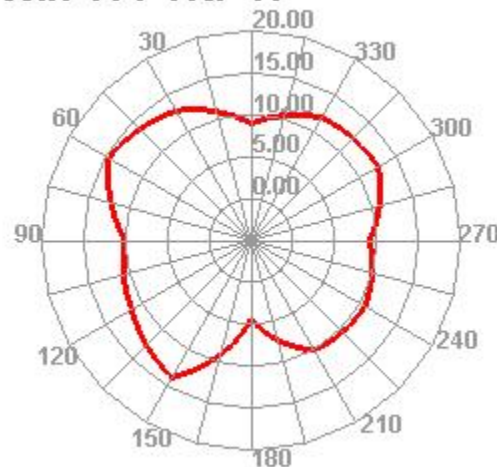
Wifi 36 TRP E2



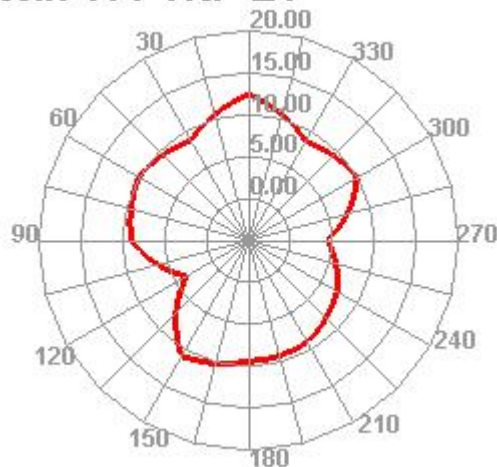
Wifi 161 TRP



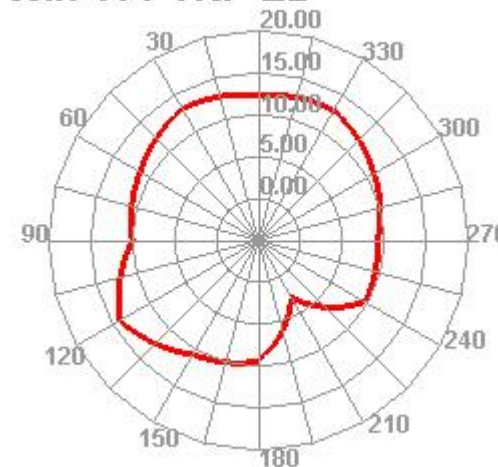
Wifi 161 TRP H



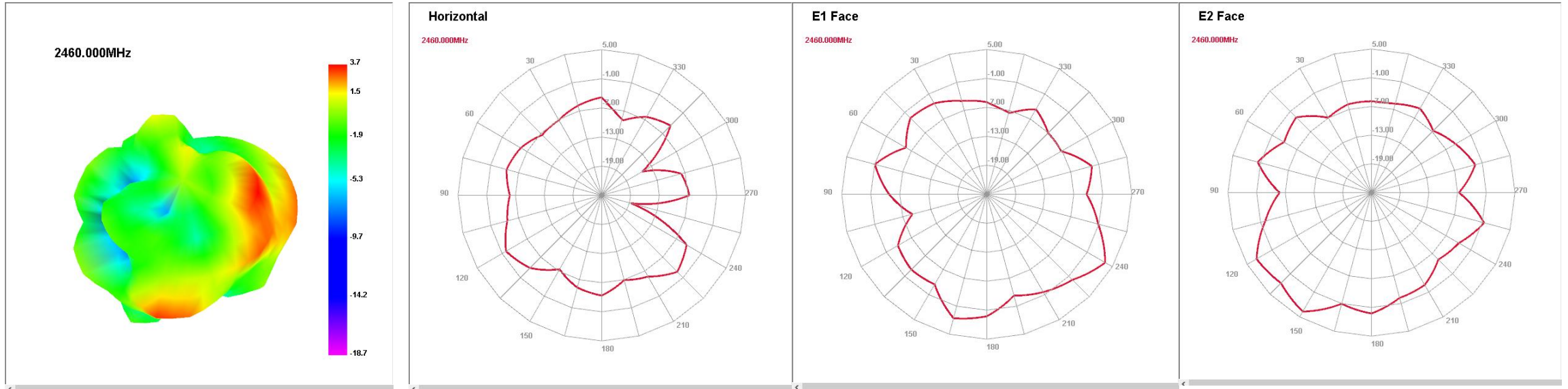
Wifi 161 TRP E1



Wifi 161 TRP E2



5.6 BT Antenna radiation pattern



THANK YOU



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