



Antenna test report

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Project name: F1
Report version: V2.0
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Tel: 13530159694
Test time: 2025-11-10



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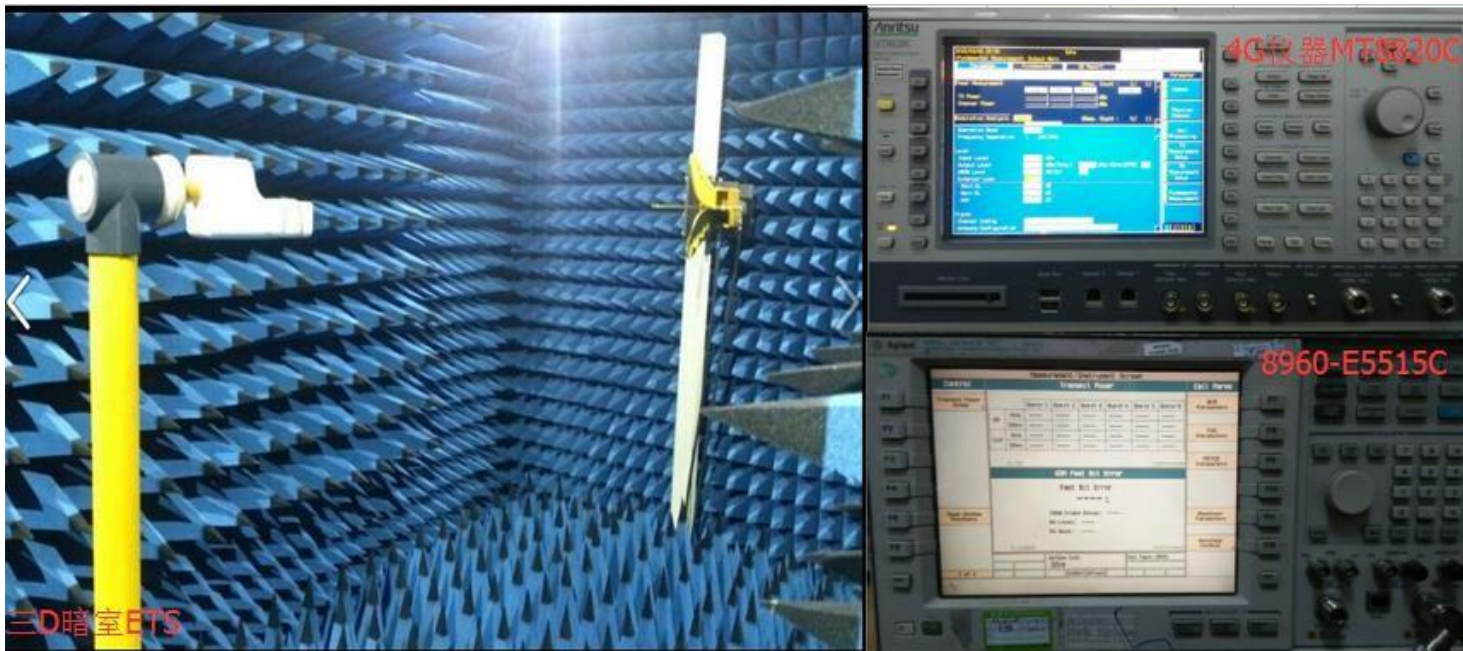
Testing facility (testing equipment)

Test system: 3D dark room

Test environment: temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test equipment: Use network analyzer Agilent E5062C for testing passive data

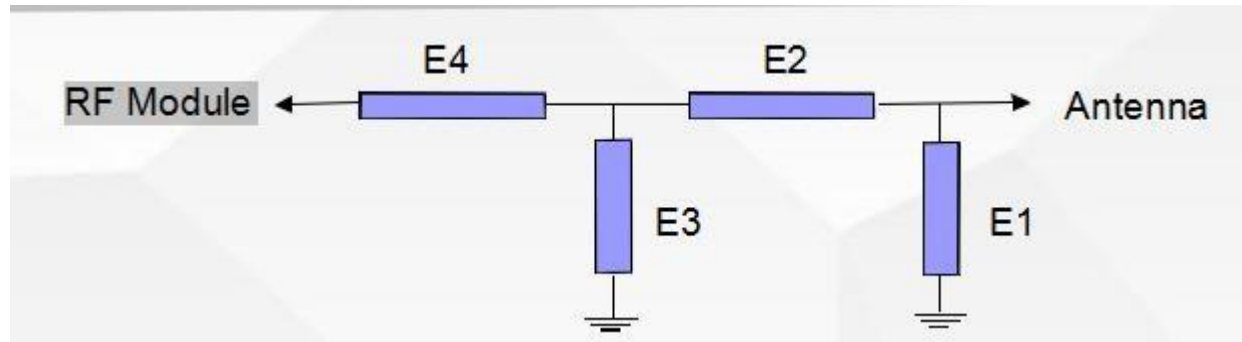
When testing active data, use the comprehensive tester Agilent 8960/4G instrument MT8820C



Antenna frequency band (antenna band)

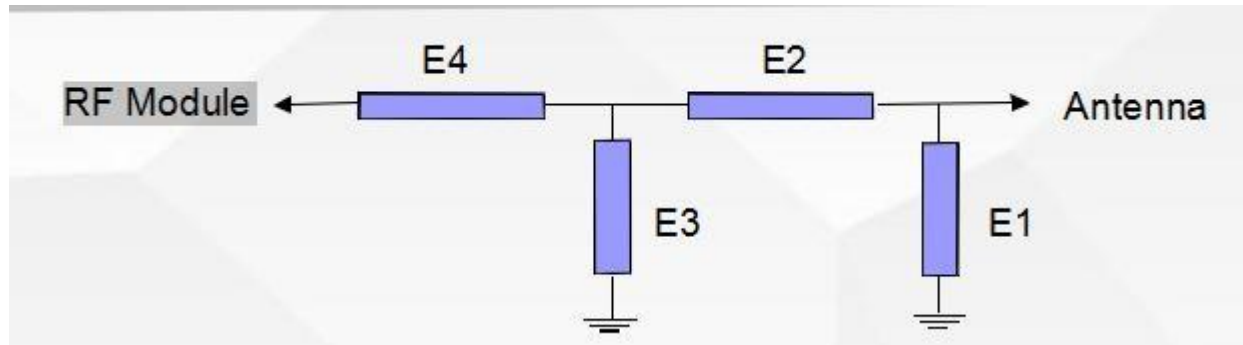
Machine type	Smart straight board				
		Band information	Trapezoidal form	Matching changes	
Information about antenna types and frequency bands	main antenna	GSM. 2. 3.5.8 WCDMA B1. B2. B5.B8 LTE. B38 B39 B40 B41 B1 B2 .B3 B4 B5 B7. B8 B12 B17 B20	PIFA	deny	
	slave antenna	WiFi BT gps NFC	PIFA	deny	
	diversity antenna				
Antenna material	Main antenna FPC; secondary antenna FPC.				

Building-out circuit (matching circuit)



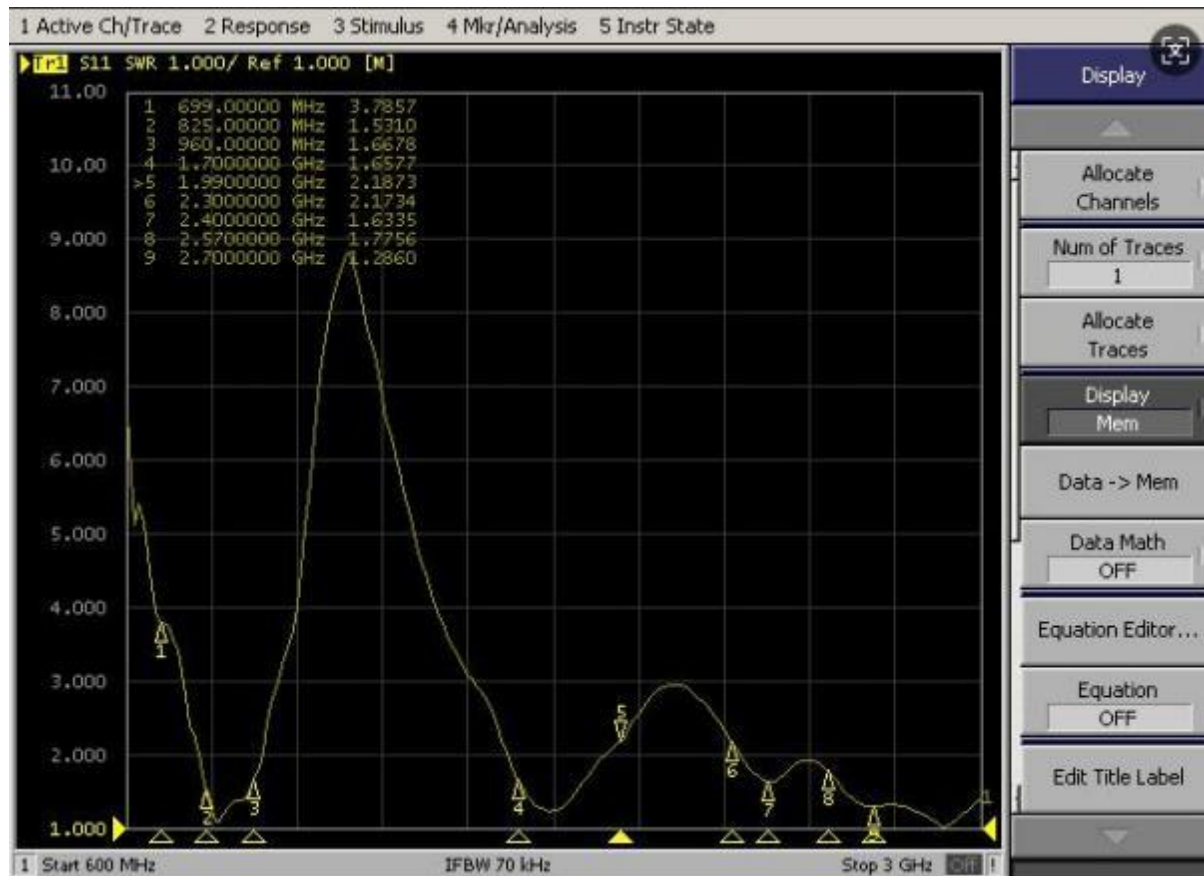
		Element	Value	Illustration of the drawings
main antenna		E 1 (0201)		The original matching circuit of the motherboard is unmodified
		E2(0201)		
		E3(0201)		
		E4(0201)		

Building-out circuit (matching circuit)



Three-in-one antenna	Element	Value	Illustration of the drawings
	E1(0201)		The original matching circuit of the motherboard has not been modified.
	E2(0201)		
	E3(0201)		
	E4(0201)		

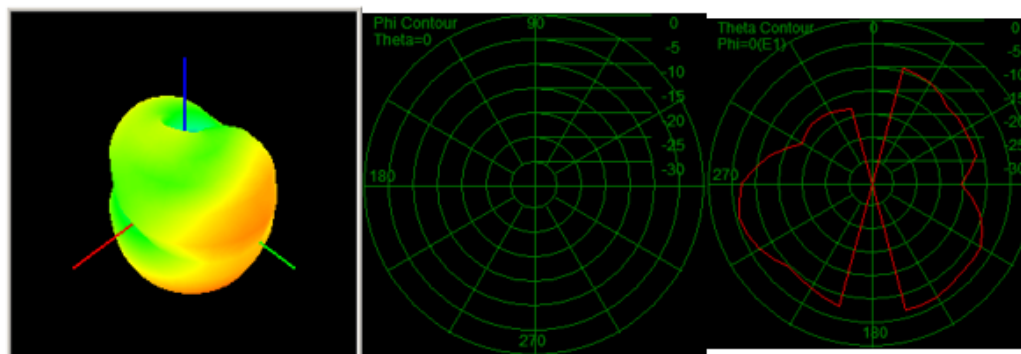
2G/3G/4G antenna



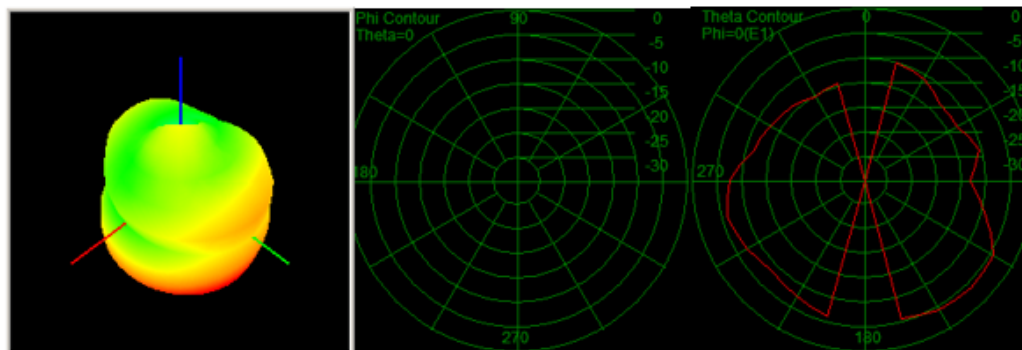
2G/3G/4G antenna

Channel	Gain(dBi)	Efficiency(%)
704	-2.3	15.6
730	-2.2	15.8
760	-2.0	16.5
790	-1.8	16.2
824	-1.2	17.5
850	-1.3	18.9
880	-1.0	22.4
910	-1.8	26.5
940	-2.0	25.4
960	-2.2	22.0
1700	1.2	38.5
1750	1.6	39.2
1800	1.8	40.2
1850	1.92	37.6
1900	1.34	35.2
1950	0.92	33.8
2000	0.76	32.6
2050	0.46	30.6
2100	0.37	30.0
2150	0.21	29.6

700-800M



820-960

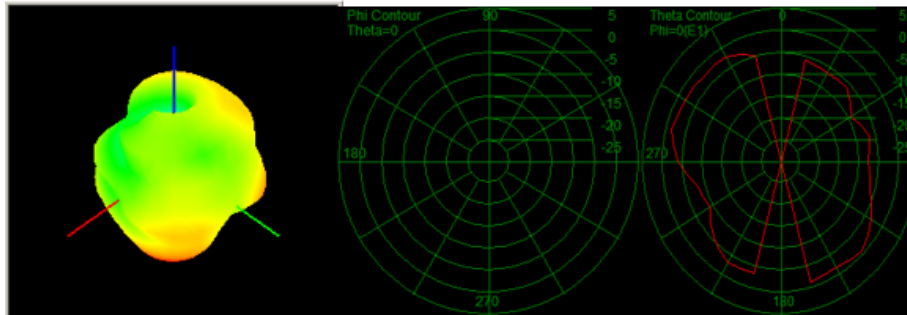


880-960

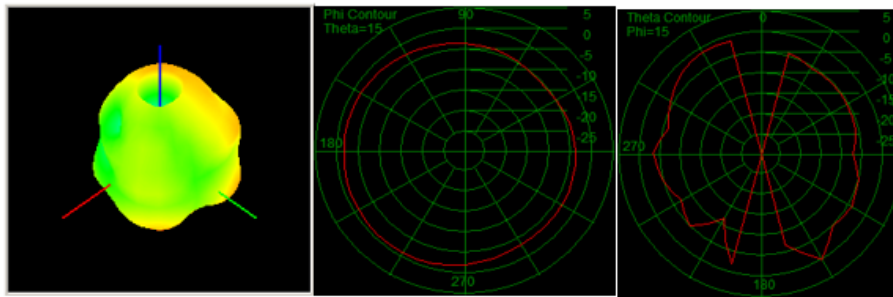


2G/3G/4G antenna

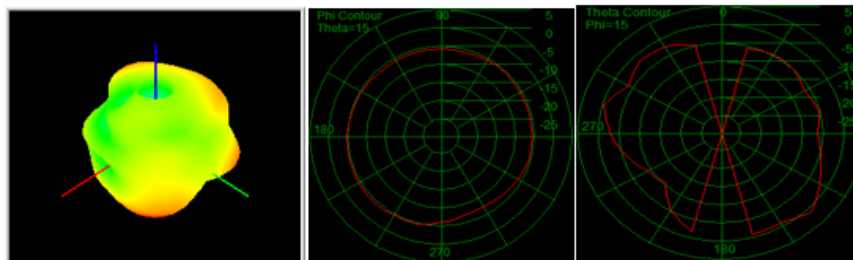
1880-1998



1920-2170



1880-1920



2G/3G/4G antenna

Frequency band	Channel	TRP(dBm)	TIS(dBm)	Frequency band	Channel	TRP(dBm)	TIS(dBm)
EGSM 900	Low	26.5	-103.5	DCS 1800	Low	24.4	-104.3
	Mid	26.5	-103.2		Mid	24.6	-104.2
	Hig	25.8	-102.2		Hig	25.3	-105.5
EGSM 850	Low	25.3	-105.4	PCS 1900	Low	24.5	-105.2
	Mid	25.6	-105.3		Mid	24.8	-105.2
	Hig	25.8	-102.6		Hig	24.8	-105.5
WCDMA Band 1	Low	18.2	-103.6	WCDMA Band 5	Low	16.2	-105.3
	Mid	18.3	-103.4		Mid	16.4	-105.2
	Hig	18.2	-103.5		Hig	16.6	-105.2
WCDMA Band 2	Low	19.2	-104.3	WCDMA Band 8	Low	17.6	-104.5
	Mid	18.7	-104.2		Mid	18.2	-103.6
	Hig	18.0	-104.3		HIG	18.3	-102.3
WCDMA Band 4	Low	17.3	-104.6				
	Mid	17.3	-104.8				
	Hig	17.2	-104.3				

2G/3G/4G antenna

Frequency band	Channel	TRP(dBm)	TIS(dBm)	Frequency band	Channel	TRP(dBm)	TIS(dBm)
LTE B34	Low	17.8	-89.6	LTE B38	Low	18.2	-89.3
	Mid	18.0	-89.8		Mid	18.4	-89.2
	Hig	17.3	-89.3		Hig	18.8	-89.3
LTE B39	Low	18.7	-91.3	LTE B40	Low	16.8	-90.1
	Mid	18.5	-91.1		Mid	17.5	-90.2
	Hig	17.6	-91.2		Hig	17.8	-90.2
LTE B41	Low	18.3	-89.5				
	Mid	18.8	-89.3				
	Hig	19.0	-89.6				
LTE B1	Low	18.9	-94.2	LTE B2	Low	18.2	-91.2
	Mid	18.7	-94.4		Mid	17.2	-91.3
	Hig	19.2	-94.2		Hig	16.8	-91.6
LTE B3	Low	16.0	-94.3	LTE B4	Low	16.0	-93.2
	Mid	16.8	-94.5		Mid	16.5	-93.3
	Hig	17.5	-94.2		Hig	17.2	-93.4

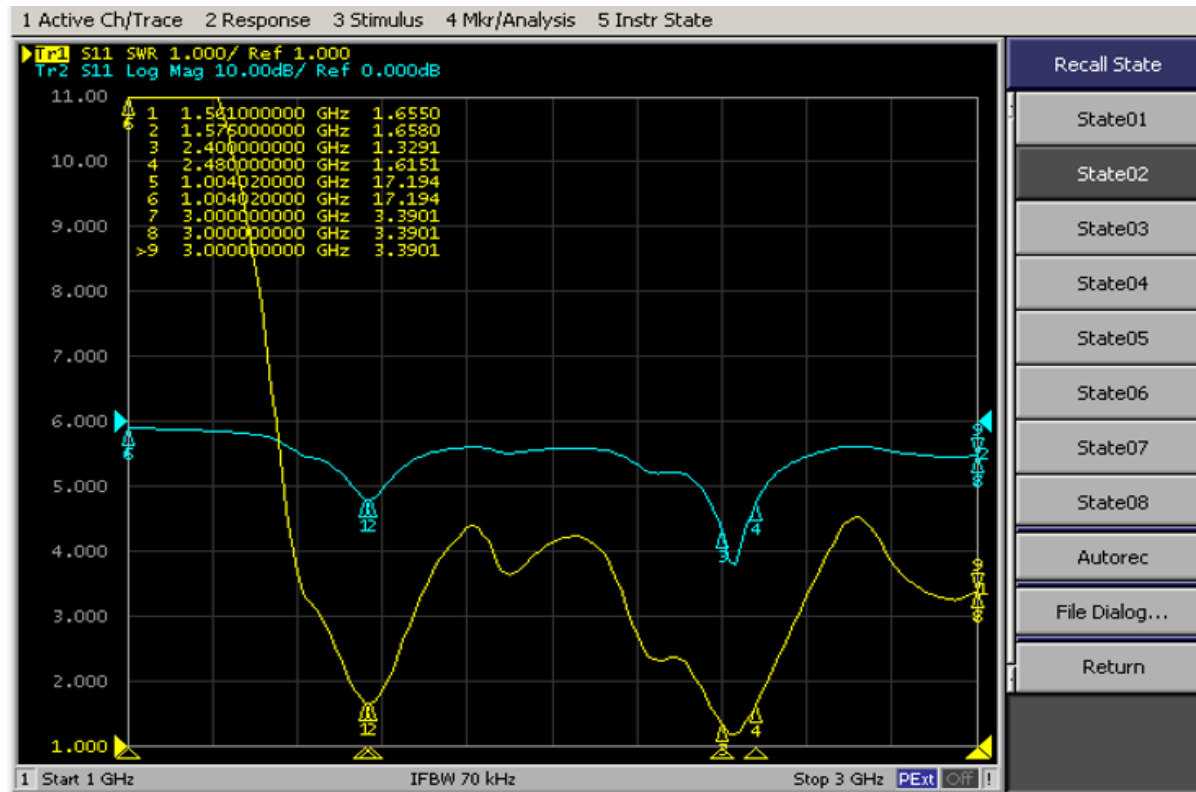
2G/3G/4G antenna

Frequency band	Channel	TRP(dBm)	TIS(dBm)	Frequency band	Channel	TRP(dBm)	TIS(dBm)
LTE B5	Low	15.6	-92.2	LTE B7	Low	16.8	-91.3
	Mid	16.3	-92.9		Mid	17.3	-91.5
	Hig	16.4	-92.0		Hig	18.2	-91.2
LTE B8	Low	17.8	-90.3	LTE B12	Low	16.5	-93.1
	Mid	18.2	-90.5		Mid	17.2	-93.2
	Hig	17.6	-90.3		Hig	16.3	-93.5
				LTE B17	Low	17.3	-93.2
					Mid	17.0	-93.3
					Hig	16.2	-93.5
LTE B20	Low	15.6	-90.5		Low		
	Mid	16.5	-90.2		Mid		
	Hig	16.3	-90.3		Hig		
	Low				Low		
	Mid				Mid		
	Hig				Hig		

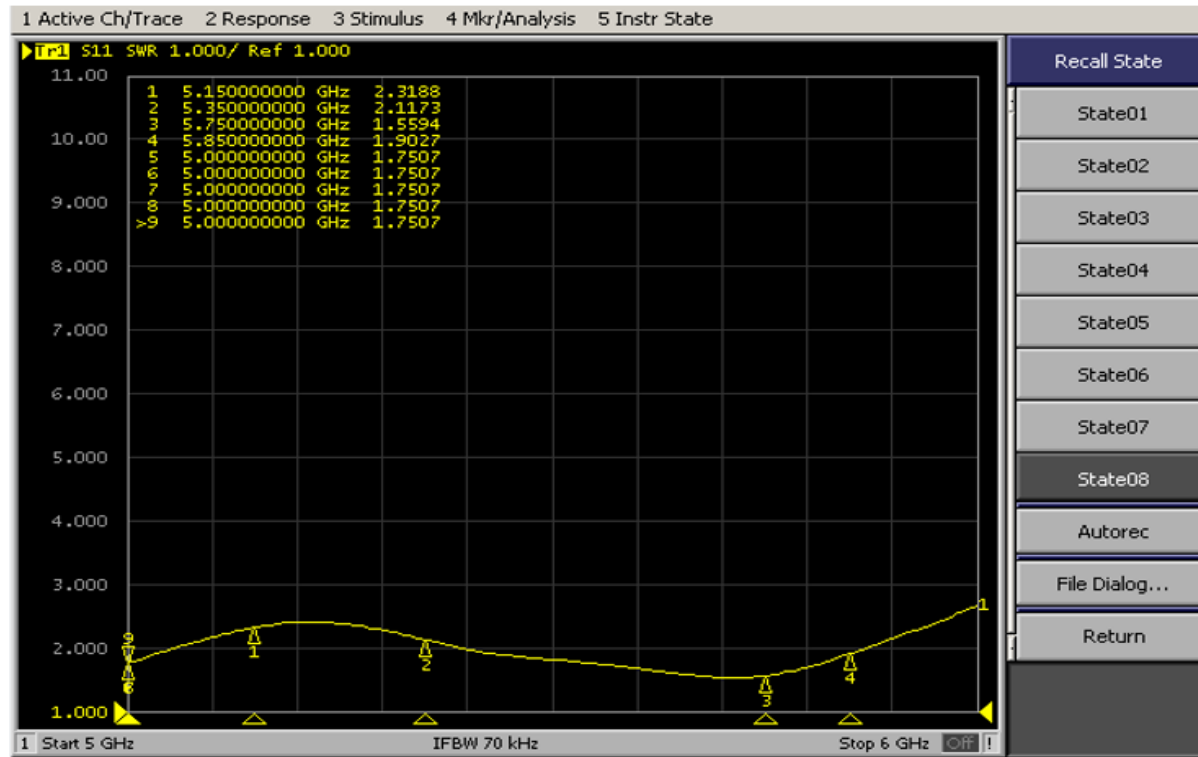
GPS/WIFI/BT antenna

GPS	Maximum signal strength	Number of stars searched	average positioning time	weather regime	GP S
	42	7	58	clear day	
WIFI	Receive signal strength at 10m from WIFI router		Normal distance for barrier-free Internet access		
	49		20		
BT	Clear communication distance for the disabled				
	10m				

WIFI GPS BT antenna



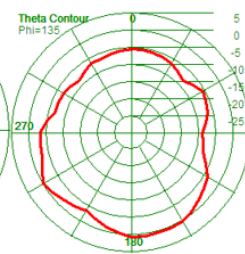
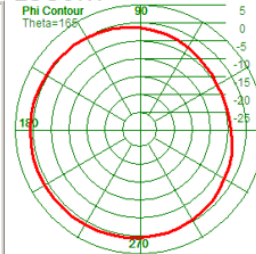
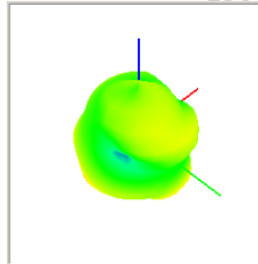
WIFI antenna



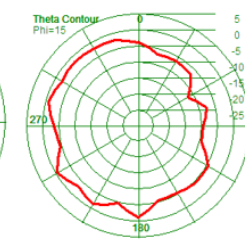
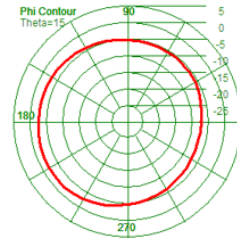
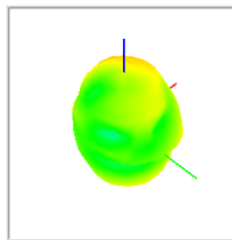
WIFI BT antenna

Channel	增益(dBi)	效率(%)
1560	0.97	42.6
1570	0.91	44.3
1580	0.9	44.3
2400	0.96	40.9
2450	1.12	42.3
2480	1.06	41.2
5150	1.41	45.6
5200	0.97	44.8
5250	0.52	43.5
5300	0.38	41.1
5350	0.36	41.8
5400	0.15	41.4
5450	0.61	42.2
5600	0.29	40.7
5650	0.42	41.6
5700	0.24	42.6
5750	0.56	43.2
5800	0.7	44.2
5850	0.79	46.2

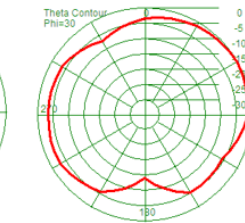
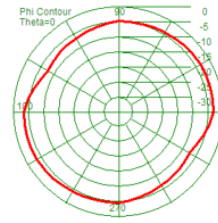
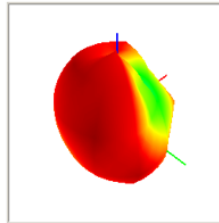
1560-1580M



2400-2480M



5150-5850M

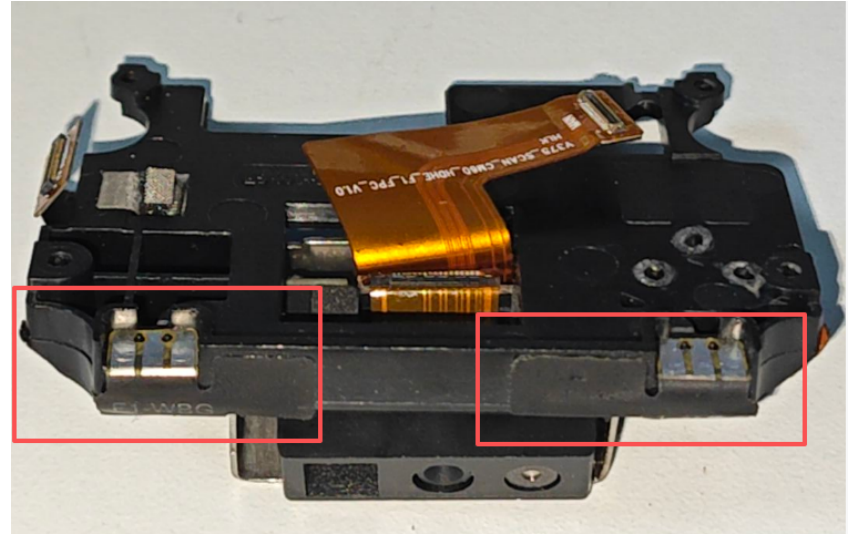


WIFI antenna

Frequency band	Channel	TRP(dBm)	TIS(dBm)	Frequency band	Channel	TRP(dBm)	TIS(dBm)
802.11 B	1	12.2	-81.5	802.11 A	36	11.3	-70.5
	6	12.8	-81.4		149	13.5	-70.6
	11	12.5	-80.9		165	14.6	-70.4



2/3/4G antenna



WIFI/BT antenna

分集 antenna