

U1053 Antenna Report Project Antenna R&D Report

Main purpose of this report: Antenna test data based on the latest software version

Key notes of this report: Pay attention to the antenna environmental processing.

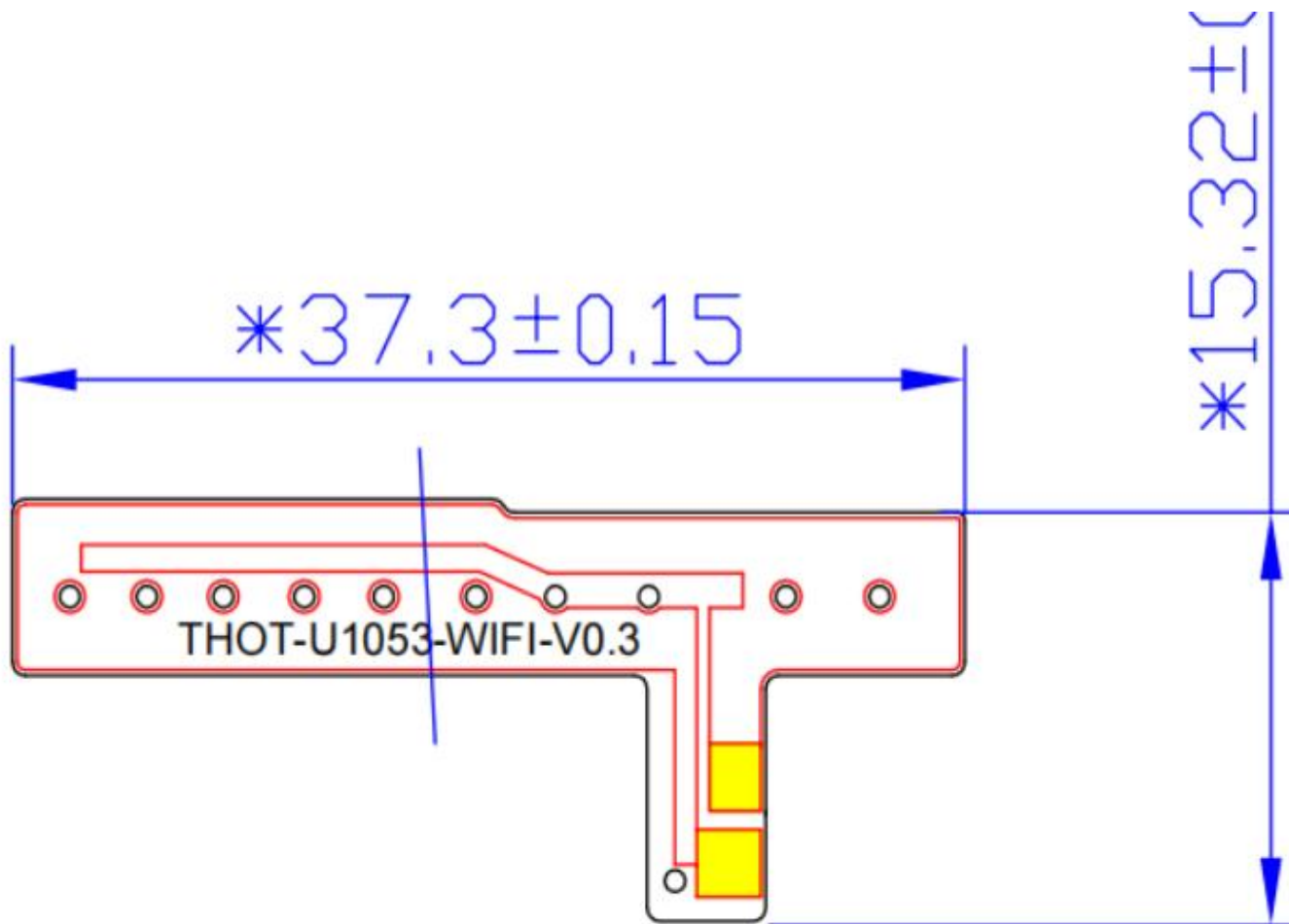
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Brief Introduction to Project Debugging

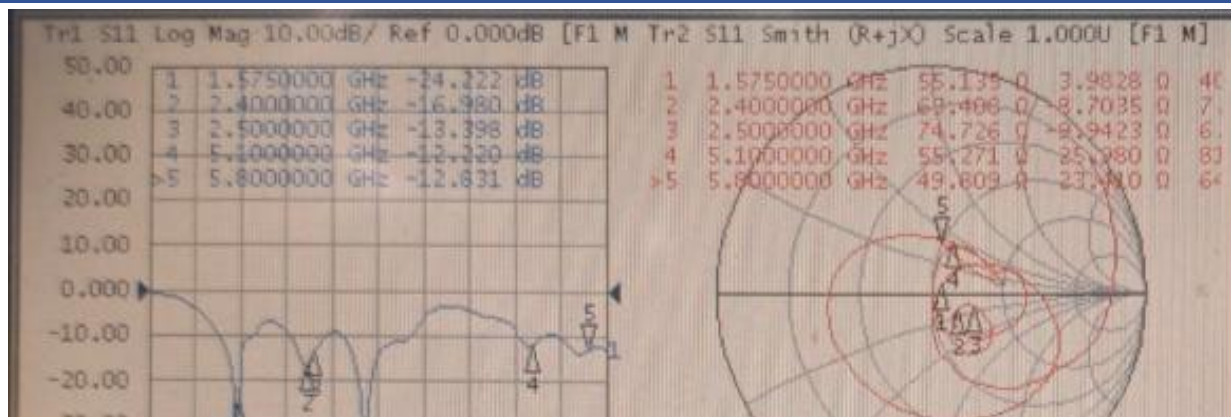
机 型	Tablet			
	Mainboard			
Frequency Band & Antenna Material		Frequency Band		Material
	Main Antenna	GWB	1575.42Mhz 2400-2500Mhz 5100-5800Mhz	FPC
Performance Requirements				

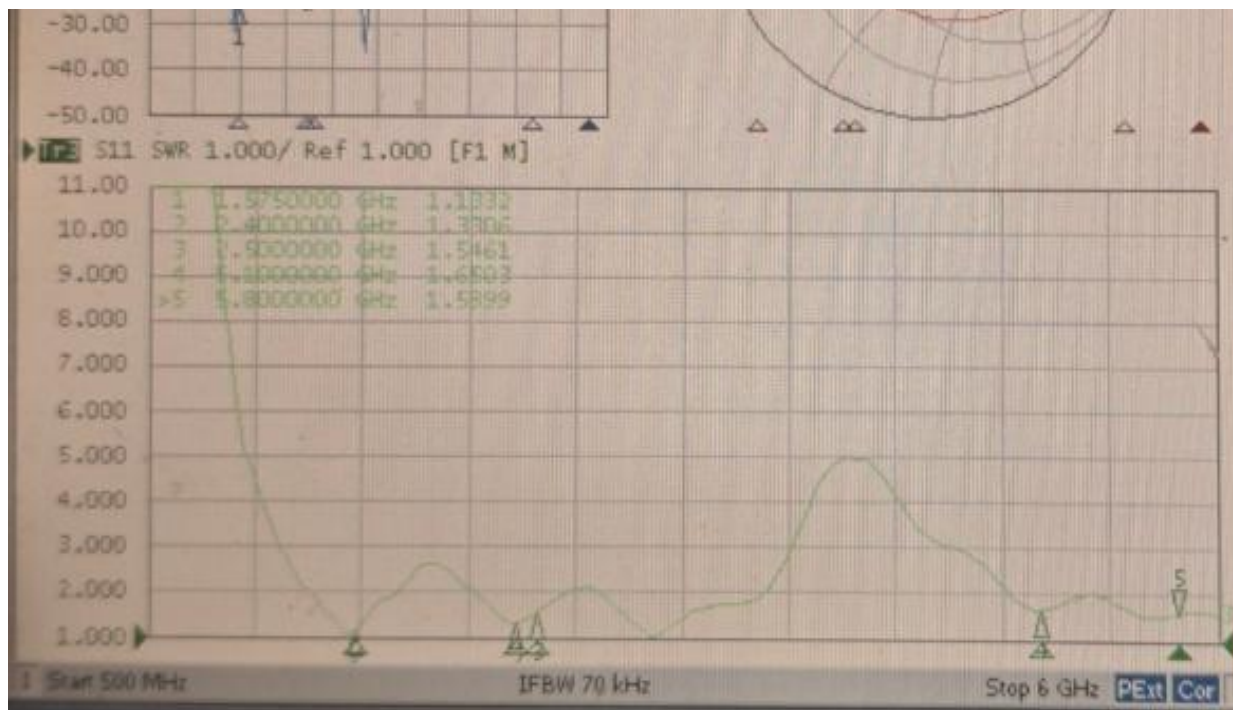
Antenna Schematic Diagram

0.15



Passive Antenna S11 Parameters





Passive Antenna Parameters-Eff%

Freq. (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
1550	0.55	42.23%	-3.74
1555	0.58	43.54%	-3.61
1560	0.63	43.89%	-3.58
1565	0.69	44.47%	-3.52
1570	0.75	45.12%	-3.46
1575	0.81	45.48%	-3.42
1580	0.76	44.86%	-3.48
1585	0.61	44.32%	-3.53
1590	0.49	43.67%	-3.60

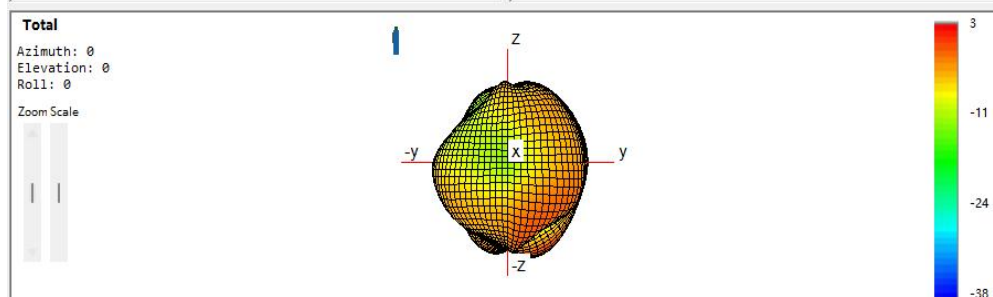
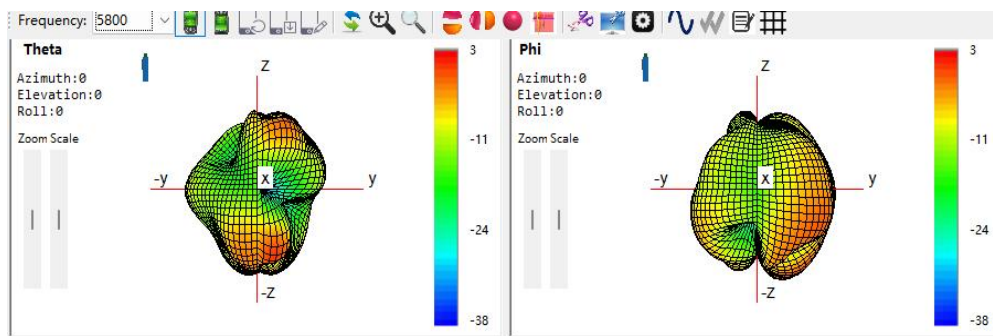
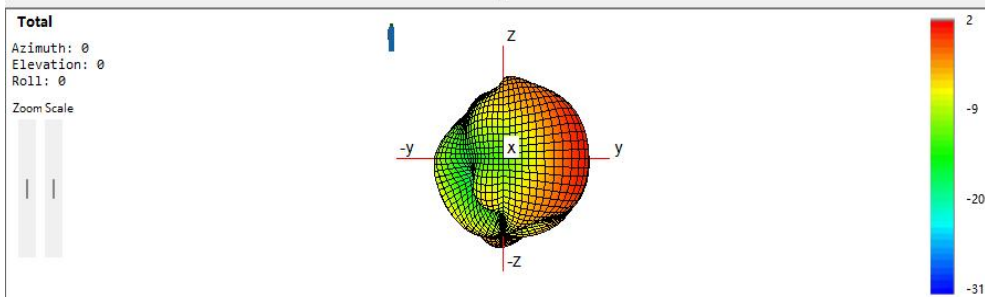
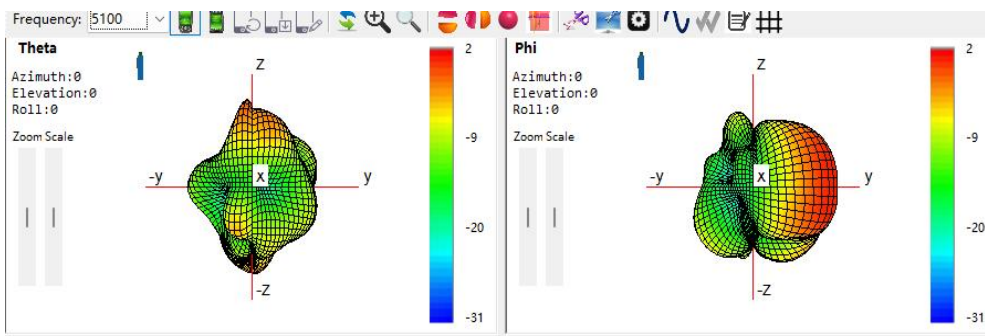
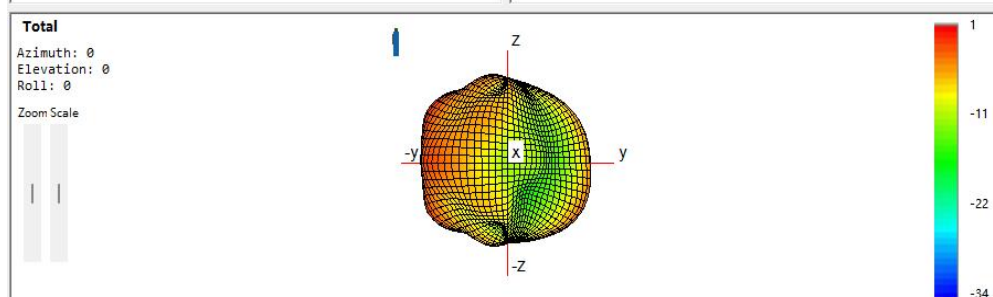
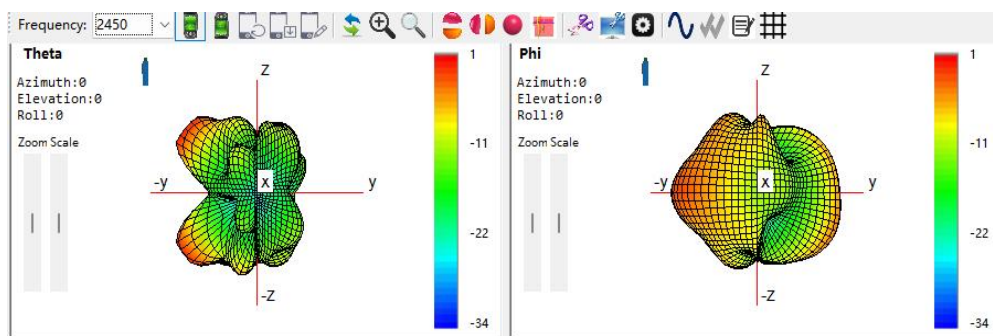
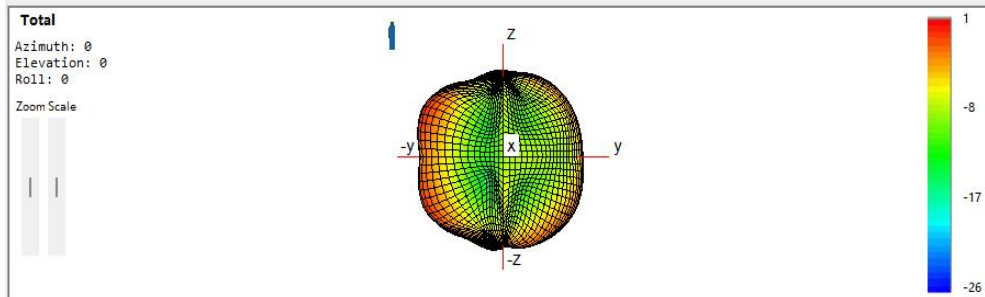
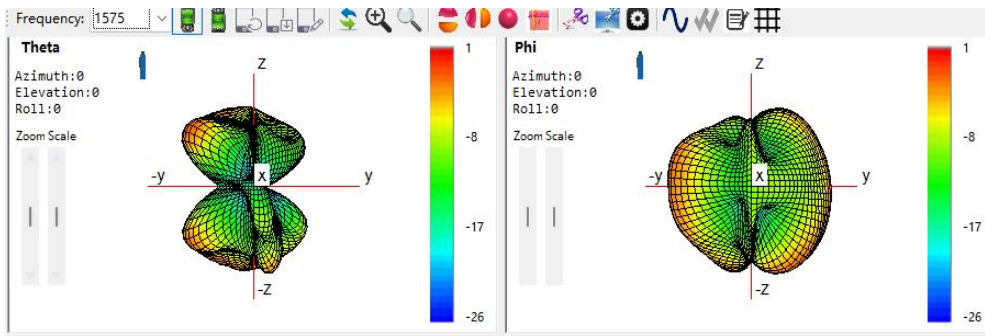
Freq. (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
2400	0.86	31.45%	-5.02
2410	0.91	32.48%	-4.88
2420	0.97	33.61%	-4.74
2430	1.04	34.28%	-4.65
2440	1.09	34.65%	-4.60
2450	1.12	35.27%	-4.53
2460	1.03	34.76%	-4.59
2470	0.95	33.89%	-4.70
2480	0.89	33.52%	-4.75

1595	0.45	42.58%	-3.71
1600	0.37	42.17%	-3.75
1605	0.32	41.65%	-3.80

2490	0.82	32.76%	-4.85
2500	0.76	32.43%	-4.89

Freq. (MHz)	Gain (dBi)	Efficiency (%)	Efficiency (dB)
5050	0.82	31.58%	-5.01
5100	0.97	32.66%	-4.86
5150	1.05	32.85%	-4.83
5200	1.09	33.27%	-4.78
5250	1.13	34.82%	-4.58
5300	1.17	35.68%	-4.48
5350	1.20	35.53%	-4.49
5400	1.23	35.27%	-4.53
5450	1.18	34.78%	-4.59
5500	1.13	34.39%	-4.64
5550	1.07	34.21%	-4.66
5600	1.01	33.85%	-4.70
5650	0.96	33.47%	-4.75
5700	0.91	32.87%	-4.83
5750	0.87	32.44%	-4.89
5800	0.81	32.16%	-4.93
5850	0.75	31.97%	-4.95

Passive Antenna Radiation Pattern



Active Antenna Parameters

	Frequency Band	CH	TRP (db)	TIS (dbm) Screen Off	TIS (dbm) Screen On	TIS (dbm) Front Camera Enabled	TIS (dbm) Rear Camera Enabled
WiFi	11b (11M)	1	13.02				
		6	13.48				
		11	13.15	-83.24	-82.88	-82.68	-81.17
	11g (54M)	1	12.28				
		6	12.33				
		11	12.16	-71.29	-70.63	-70.25	-69.34
	11n (MCS7)	1	12.29				
		7	12.31				
		13	12.1	-68.12	-67.73	-67.45	-66.33
	11a (54M)	36	11.69				
		149	11.76				
		165	11.82	-72.35	-71.69	-71.45	-70.54

Outdoor GPS Satellite Acquisition

高度: 20.4 m	H/V 精度: 12.2/7.5 m
高度(MSL): 20.4 m	卫星数量: 6/32/32
速度: 0.7 m/s	方位: 190.6°
速度精度: 0.7 m/s	方位精度: 90.9°
PDOP: 3.3	H/V DOP: 2.4/2.3

ID	GNSS	CF	C/N0	标识	高度角	方位角
10		L1	46.0	AEU	34°	330°
12		L1	39.0	AEU	27°	116°
15		L1	38.0	AE		
18		L1	35.0	AE		
23		L1	38.0	AE		
24		L1	43.0	AEU	43°	37°
25		L1	29.0	AE		
28		L1	31.0	AE		
32		L1	37.0	AE	25°	286°
12		E1	33.0	AE		
19		E1	36.0	AEU	54°	346°
21		E1	42.0	AE		
26		E1	18.0	AE		
27		E1	37.0	AE		
28		E1	42.0	AE		
29		E1	42.0	AE		
33		E1	35.0	AE		
194		L1	27.0	AE		
195		L1	35.0	AE		
1		B1	38.0	AE	50°	128°
3		B1	20.0	AE		
4		B1	35.0	AE		
6		B1	36.0	AE		
7		B1	38.0	AE		
9		B1	39.0	AE		
10		B1	32.0	AE		
13		B1	36.0	AE		
24		B1	39.0	AE		
25		B1	40.0	AE		
26		B1	43.0	AEU	6°	39°
27		B1	39.0	AE	17°	291°
33		B1	44.0	AEU	49°	22°

星基增强系统 (SBAS) 卫星不可用