



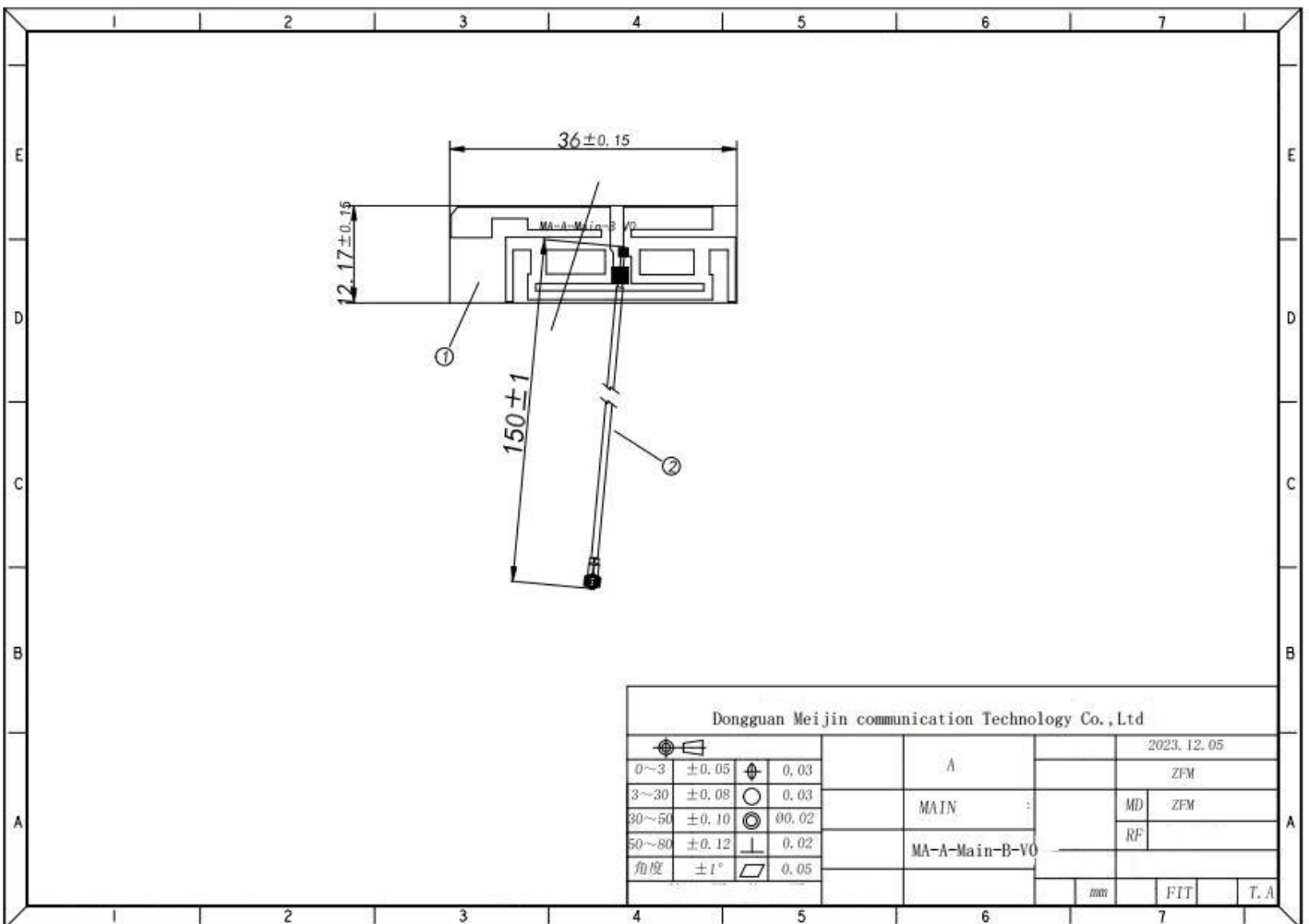
SER Antenna Test Report

Date: 2023-12-05

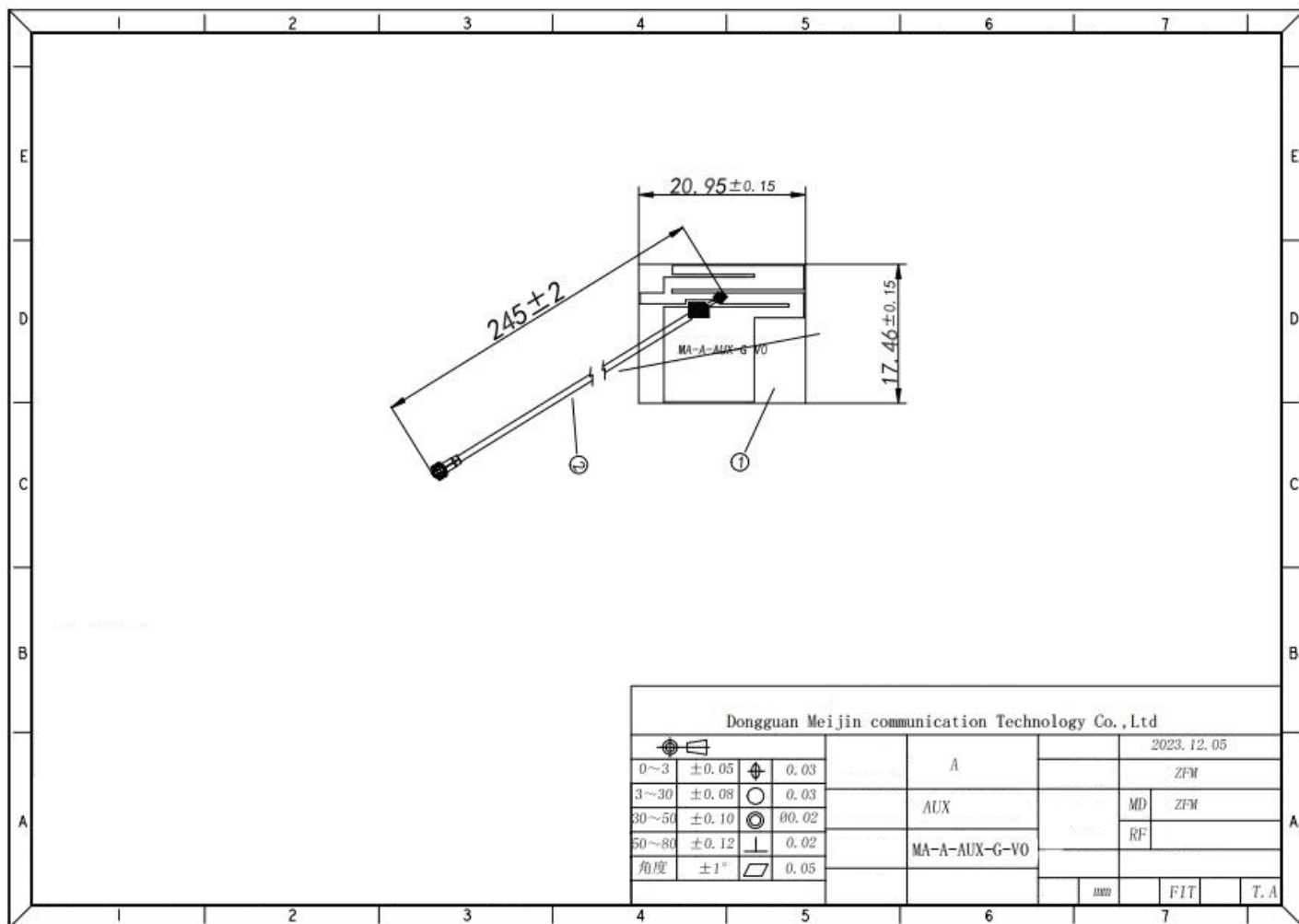
RF: Li Gong

1. ANT Photo

BT ANT

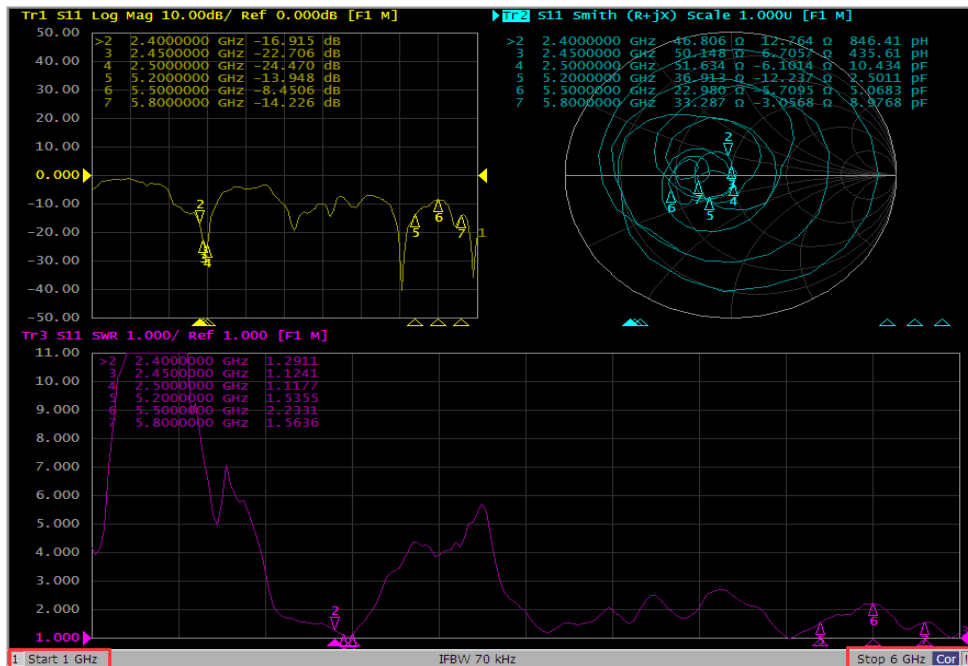


WIFI ANT



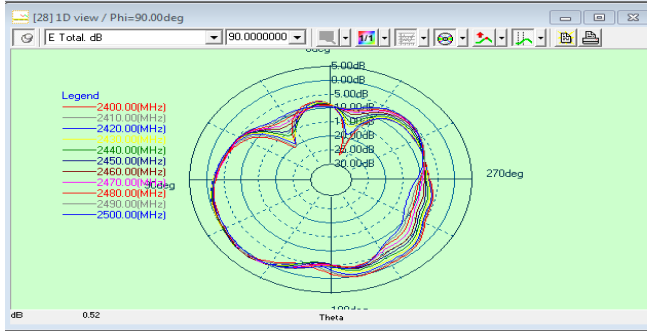
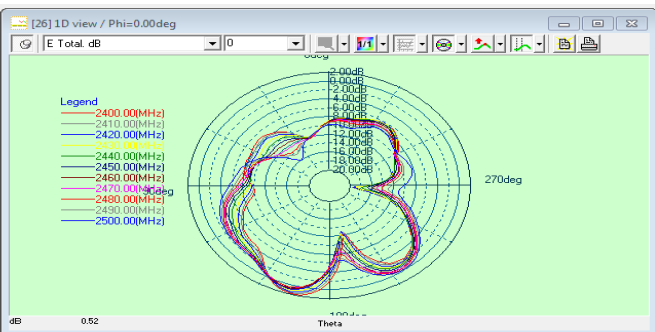
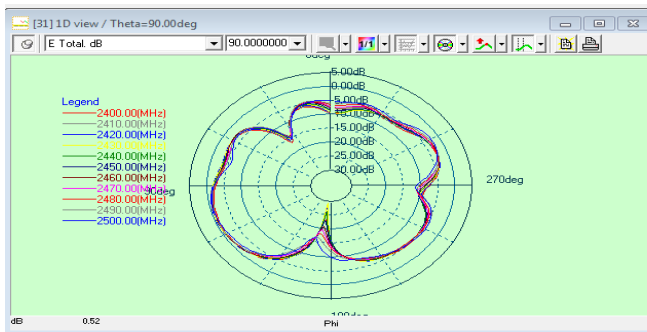
2. BT Antenna passive data: (SWR/Log Mag /Smith/Efficiency/gain/direction chart)

2.1 VSWR



3.2 Gain, efficiency and direction chart

2400-2500MHz					
Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
2400MHz	47%	3.04	2460MHz	48%	2.58
2410MHz	47%	2.98	2470MHz	46%	2.21
2420MHz	47%	2.96	2480MHz	46%	2.02
2430MHz	47%	2.84	2490MHz	48%	2.11
2440MHz	47%	2.71	2500MHz	47%	1.87
2450MHz	47%	2.60			



SatEnv hierarchy

- Project
 - [3] ART
 - [4] Measurement setup
 - [5] Macros
 - [10] Post processing_SatEnv2b23_allreq.txt
 - [11] SPM Post processing
 - [12] Project
 - [13] Security
 - [15] Input
 - [16] Macros
 - [17] folder
 - [18] Measurement
 - [19] NF to FF transform
 - [20] G1G2
 - [25] Phi=0.00deg
 - [26] Phi=0.00deg
 - [27] Phi=90.00deg
 - [28] Phi=90.00deg
 - [34] NF to FF transform Maximum
 - [35] NF to FF transform Maximum Maximum
 - [36] NF to FF transform Maximum Maximum
 - [29] NF to FF transform Expanded

Search

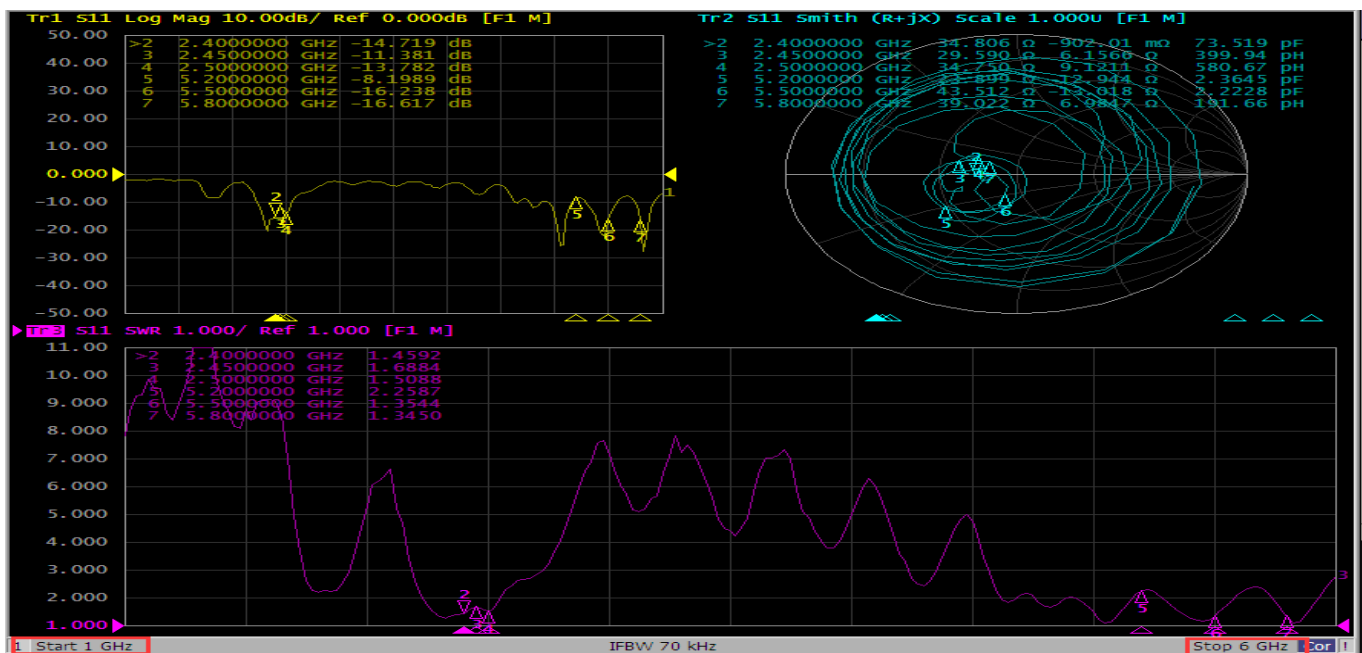
Next

1D view
Measurement
NF to FF transform
NF to FF transform Maximum
NF to FF transform Maximum
Maximum

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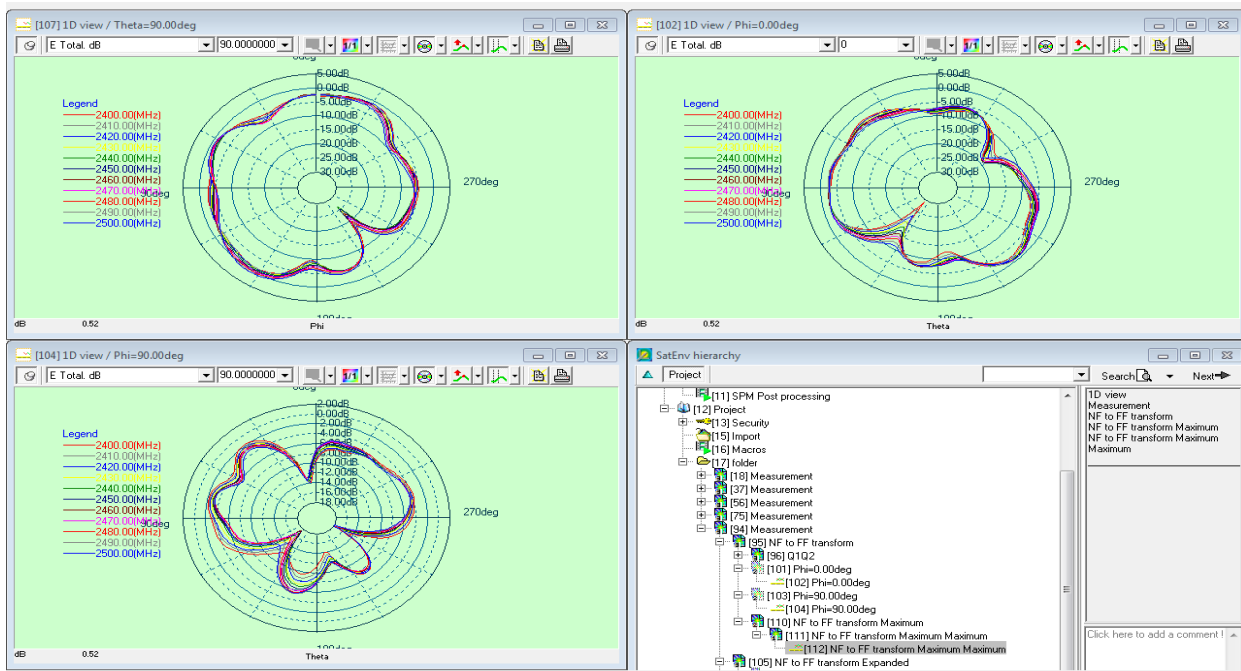
4. WIFI Antenna passive dat: (SWR/Log Mag /Smith/Efficiency/gain/direction chart)

4.1 VSWR



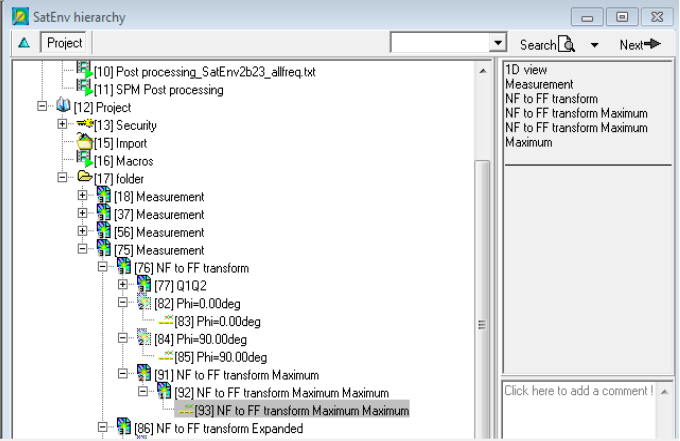
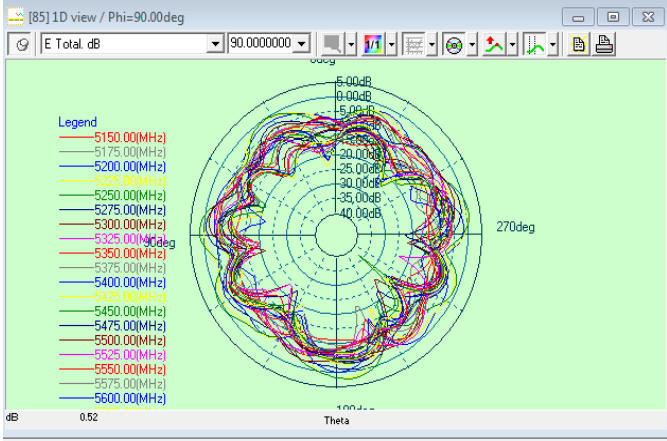
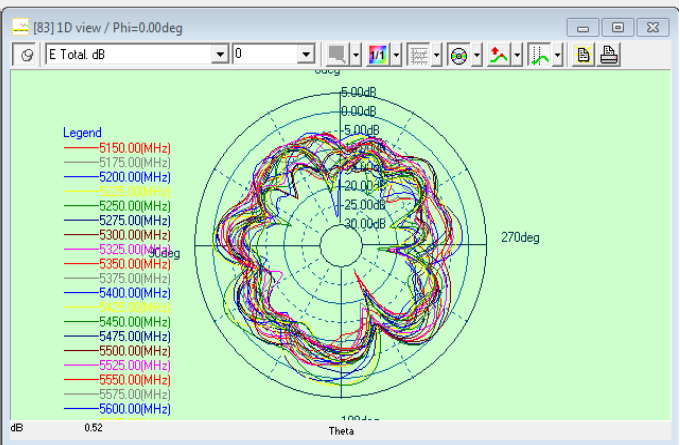
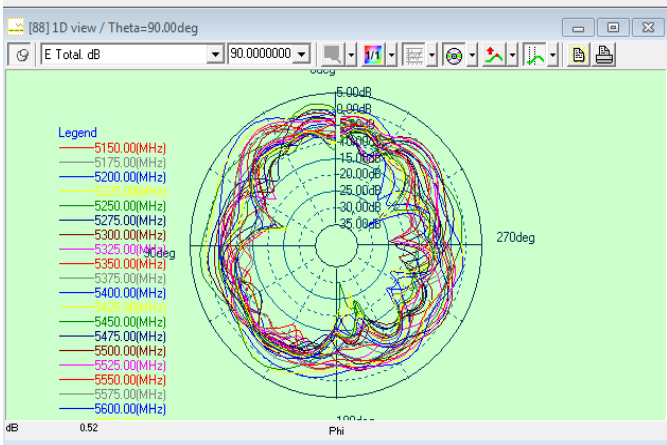
4.2 Gain, efficiency and direction chart

2400-2500MHz					
Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
2400MHz	45%	2.04	2460MHz	46%	2.28
2410MHz	43%	2.76	2470MHz	46%	2.20
2420MHz	45%	2.91	2480MHz	45%	2.11
2430MHz	43%	2.65	2490MHz	45%	1.94
2440MHz	44%	2.77	2500MHz	45%	1.69
2450MHz	45%	2.67			



5150-5850MHZ

Frequency	Efficiency	Gain.dBi	Frequency	Efficiency	Gain.dBi
5150MHz	20%	-1.92	5525MHz	34%	1.59
5175MHz	20%	-1.56	5550MHz	32%	0.64
5200MHz	21%	-0.99	5575MHz	27%	-0.69
5225MHz	23%	-1.35	5600MHz	22%	-1.59
5250MHz	22%	-1.53	5625MHz	21%	-1.65
5275MHz	23%	-1.02	5650MHz	22%	-1.48
5300MHz	23%	-0.93	5675MHz	21%	-1.13
5325MHz	27%	0.30	5700MHz	21%	-1.54
5350MHz	37%	1.22	5725MHz	20%	-1.34
5375MHz	33%	0.50	5750MHz	21%	-1.02
5400MHz	43%	2.79	5775MHz	22%	-1.29
5425MHz	44%	2.58	5800MHz	20%	-1.50
5450MHz	45%	2.23	5825MHz	21%	-1.93
5475MHz	37%	0.94	5850MHz	20%	-1.76
5500MHz	39%	2.43			



5. Antenna active debugging data:

BT Ant Freespace data

Band	Channel	Free Space Optitec	
		TRP	TIS
BT	0	12.73	3MBps
	19	12.47	
	39	11.23	-78.81
	AVE	12.14	

WIFI Ant Freespace data

Band	Channel	Free Space Optitec	
		TRP	TIS
WIFI2.4G (G)	1	11.48	54MBps
	6	12.34	
	11	7.77	-67.47
	AVE	10.53	
Band	Channel	Free Space Optitec	
		TRP	TIS
WIFI5G	36	11.73	54MBps
	149	12.57	
	165	12.39	-68.40
	AVE	12.23	