

Antenna Test Report

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Project Name:

Author: YangYongCheng

Update: 2023-07-20

Overview

CUSTOMER NAME		PROJECT NAME	
Items		Details	
• FREQUENCY		2400MHz-2500MHz;5100MHz-5900MHz	
• PROJECT TYPE			
• ANTENNA SPACE			
• FEED & GROUND PAD			
• SENSITIVE ELEMENTS			
• ANTENNA TYPE			
• PCB			
• OTHERS			

Revision History

Date	Revision	Author	Description of changes
20230719	A	YangYongCheng	Passive Antenna Test

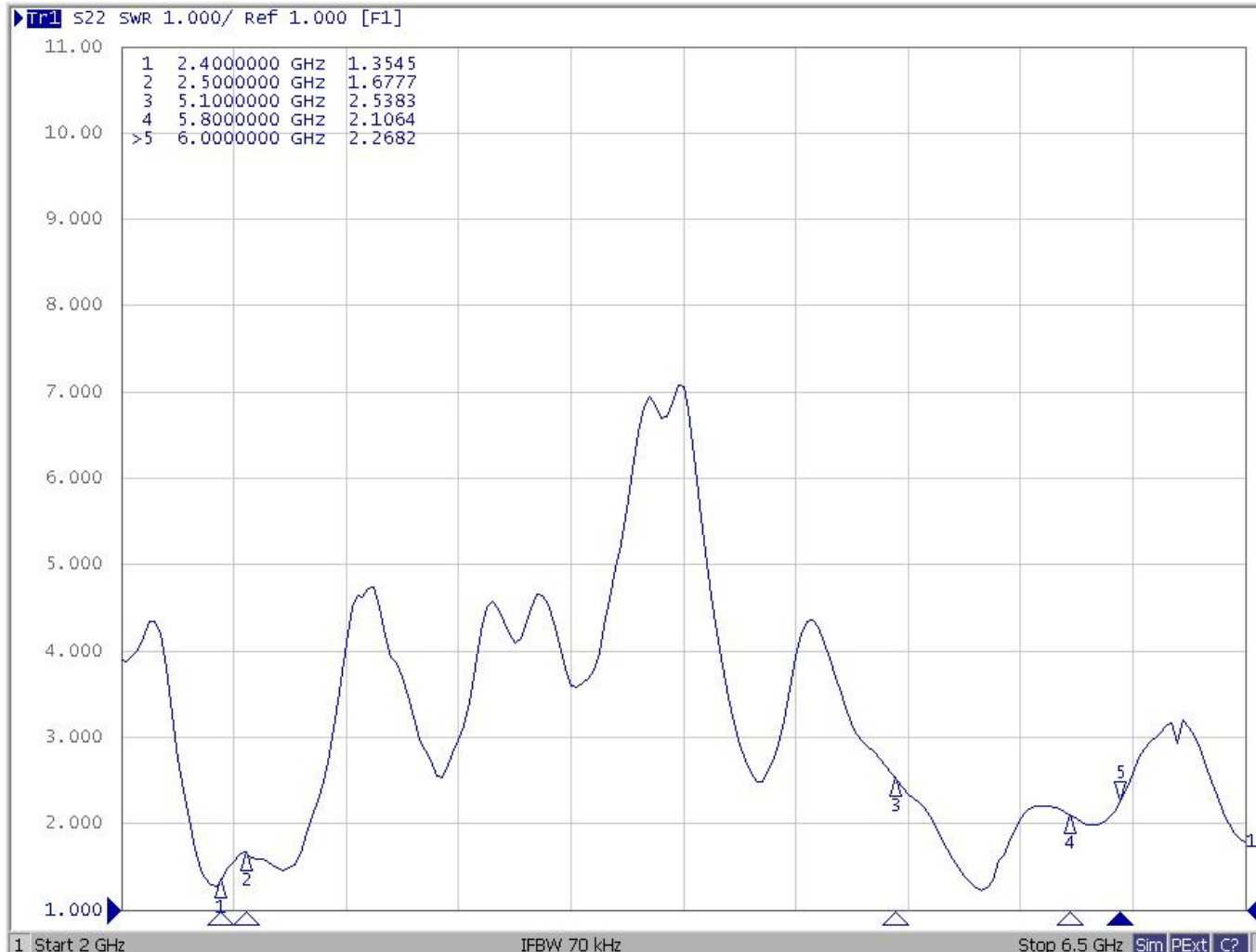
Test Item & Equipment

List	Test Item	Equipment	
1.S Parameter	VSWR, Return Loss	Agilent VNA	
2.Active Test	TRP, TIS	Agilent 8960	RayZone1800
3.Passive Test	Gain, Efficiency, Pattern	Agilent E5071C	



VSWR

Main Antenna

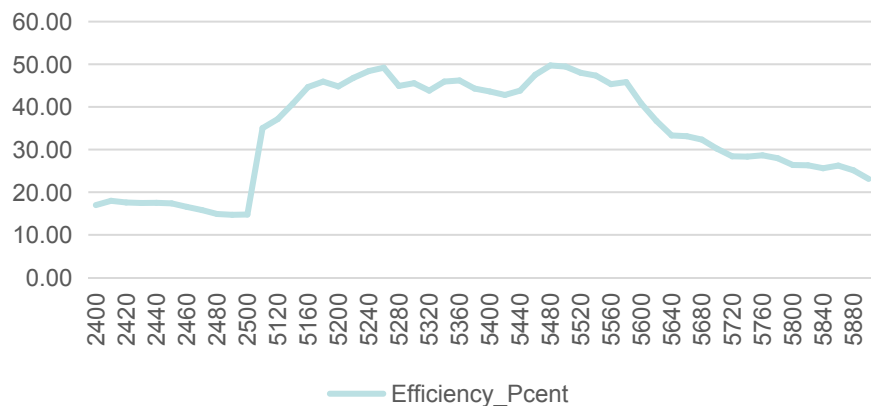


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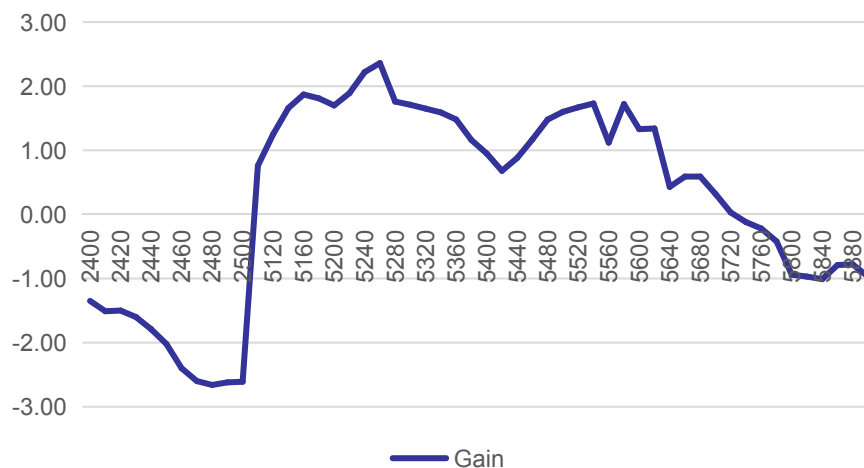
Passive Antenna Test

Main Antenna

Efficiency_Pcent

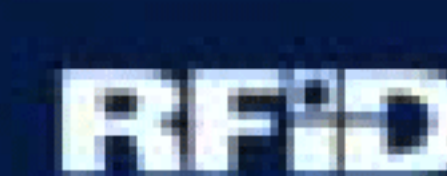


Gain



Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)
2400	16.98	-1.35	5100	35.03	0.76	5380	44.30	1.16	5660	33.13	0.59
2410	17.98	-1.51	5120	37.14	1.25	5400	43.62	0.95	5680	32.33	0.59
2420	17.59	-1.50	5140	40.76	1.66	5420	42.80	0.68	5700	30.19	0.32
2430	17.47	-1.60	5160	44.66	1.87	5440	43.82	0.88	5720	28.42	0.03
2440	17.51	-1.79	5180	45.93	1.81	5460	47.53	1.17	5740	28.34	-0.12
2450	17.38	-2.02	5200	44.81	1.70	5480	49.72	1.48	5760	28.65	-0.22
2460	16.56	-2.40	5220	46.81	1.89	5500	49.46	1.60	5780	27.97	-0.42
2470	15.81	-2.60	5240	48.39	2.22	5520	48.00	1.67	5800	26.38	-0.94
2480	14.89	-2.66	5260	49.19	2.36	5540	47.34	1.73	5820	26.31	-0.97
2490	14.70	-2.62	5280	44.92	1.76	5560	45.34	1.12	5840	25.62	-1.01
2500	14.77	-2.61	5300	45.56	1.71	5580	45.82	1.72	5860	26.24	-0.79
			5320	43.82	1.65	5600	40.76	1.33	5880	25.14	-0.78
			5340	45.94	1.59	5620	36.71	1.34	5900	23.12	-0.97
			5360	46.20	1.48	5640	33.31	0.43			
				TEST Frequency (M hz)		Gain test Value (dBi)	Efficiency test value (%)				
				2400-2490		-1.35	16.98				
				5120-5870		2.36	49.19				

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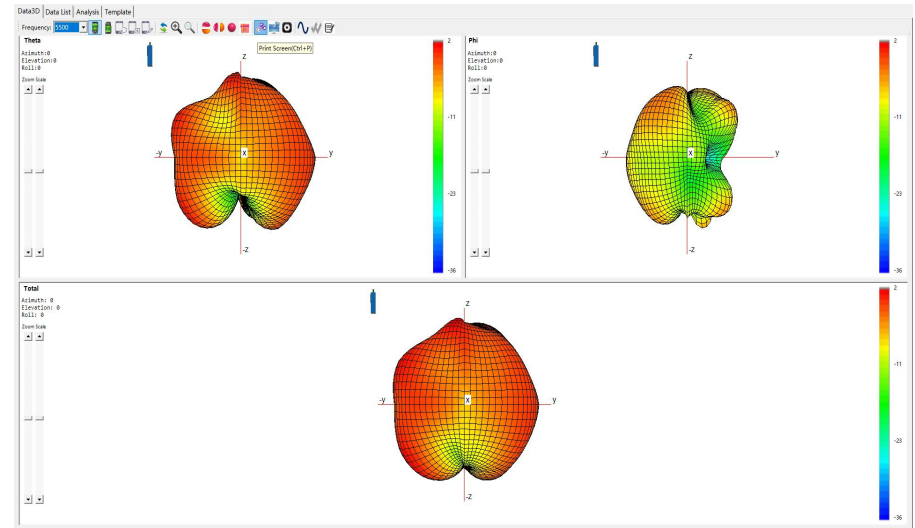
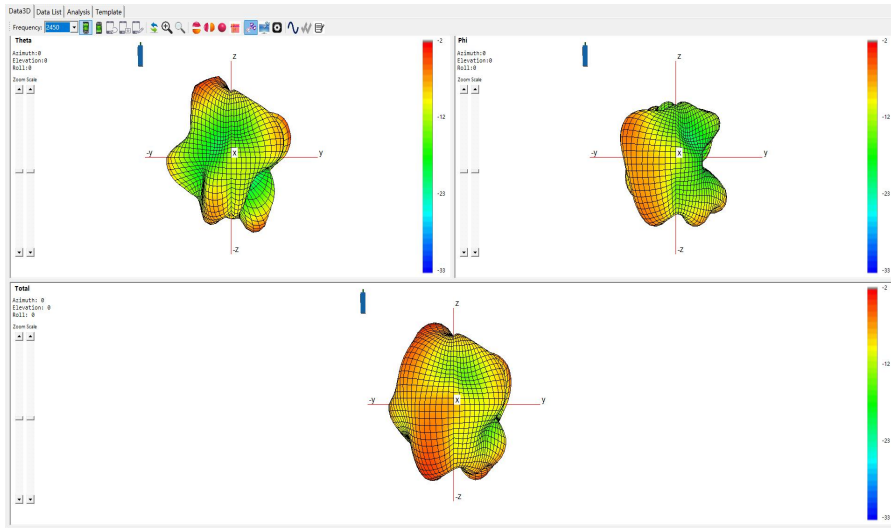
Confidential Data

3D Antenna Radiation Pattern

Main Antenna

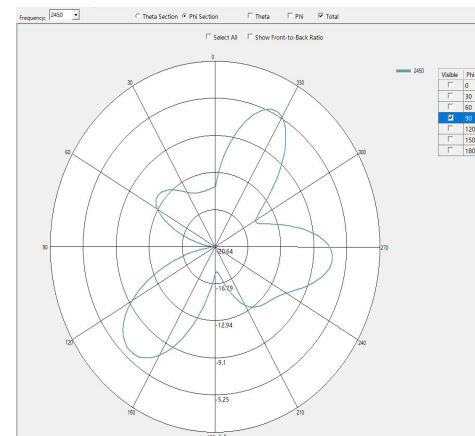
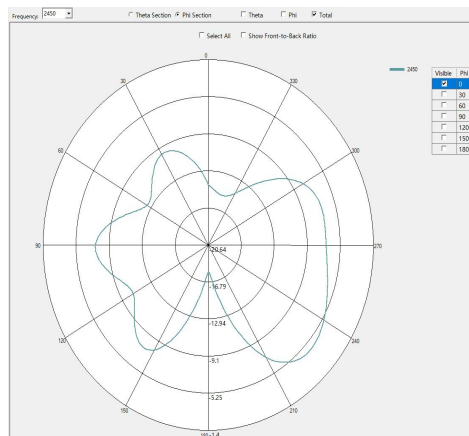
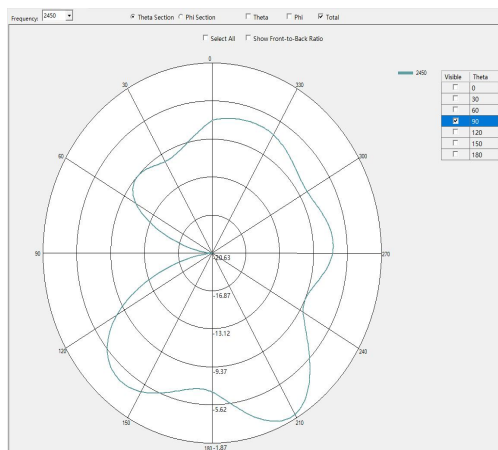
2.4G

5.8G

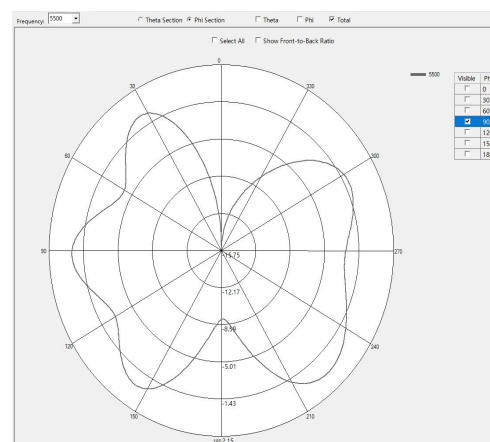
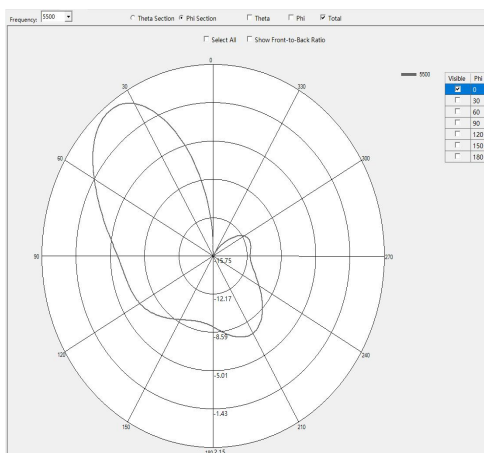
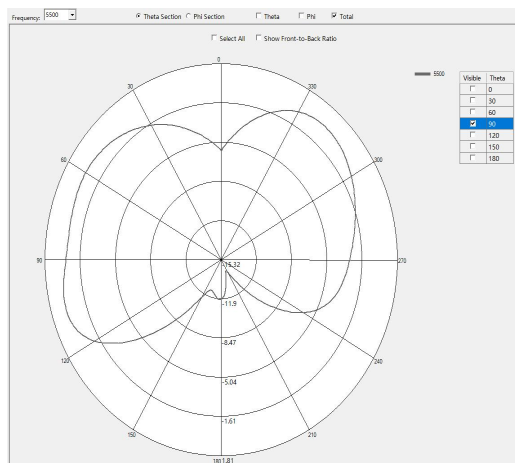


2D Antenna Radiation Pattern

Main Antenna 2.4G

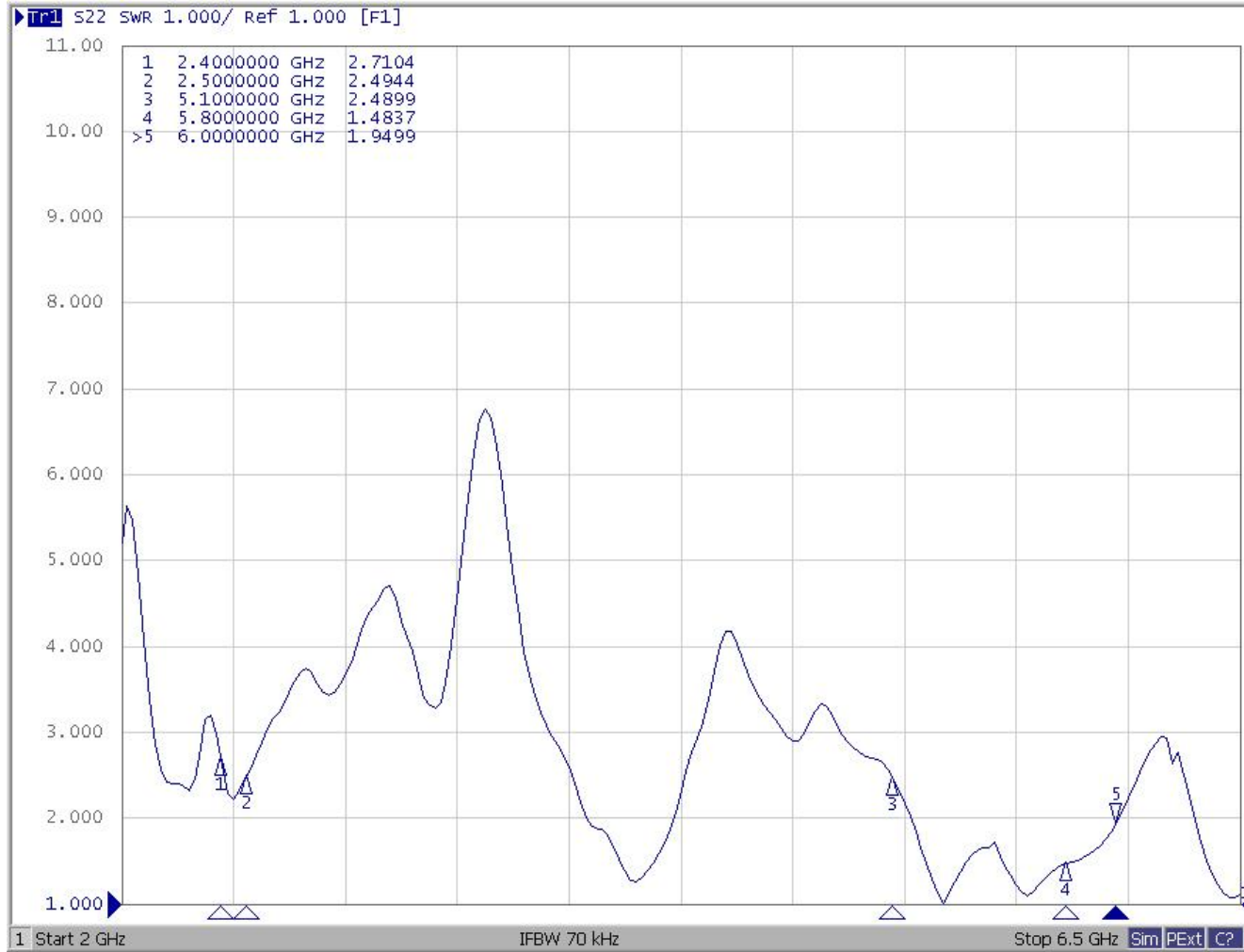


5.8G



VSWR

Aux Antenna

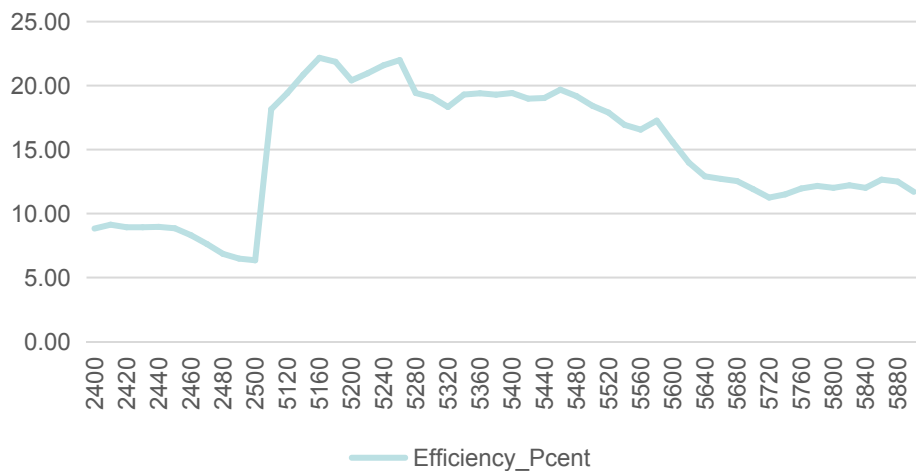


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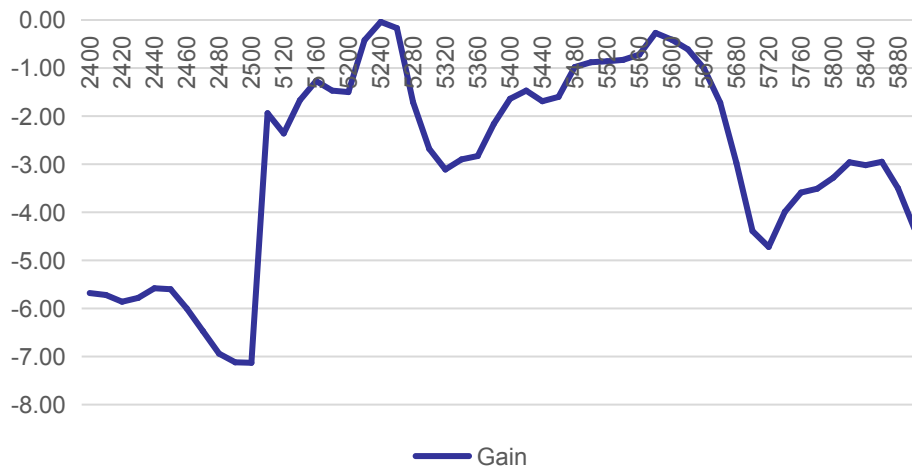
Passive Antenna Test

Aux Antenna

Efficiency_Pcent



Gain



Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)	Freq	Efficiency (%)	Gain (dBi)
2400	8.83	-5.68	5100	18.15	-1.94	5380	19.29	-2.16	5660	12.71	-1.72
2410	9.13	-5.72	5120	19.41	-2.36	5400	19.42	-1.64	5680	12.54	-2.97
2420	8.93	-5.86	5140	20.86	-1.67	5420	18.98	-1.47	5700	11.91	-4.39
2430	8.93	-5.78	5160	22.17	-1.27	5440	19.03	-1.69	5720	11.25	-4.72
2440	8.96	-5.58	5180	21.86	-1.47	5460	19.68	-1.60	5740	11.50	-3.99
2450	8.85	-5.60	5200	20.41	-1.50	5480	19.18	-0.98	5760	11.96	-3.59
2460	8.31	-6.00	5220	20.96	-0.42	5500	18.42	-0.88	5780	12.16	-3.51
2470	7.62	-6.47	5240	21.59	-0.04	5520	17.89	-0.86	5800	12.01	-3.28
2480	6.85	-6.94	5260	21.99	-0.17	5540	16.93	-0.83	5820	12.21	-2.96
2490	6.48	-7.12	5280	19.42	-1.71	5560	16.56	-0.72	5840	12.01	-3.02
2500	6.35	-7.13	5300	19.09	-2.68	5580	17.26	-0.27	5860	12.65	-2.95
			5320	18.33	-3.11	5600	15.58	-0.41	5880	12.50	-3.50
			5340	19.30	-2.90	5620	13.98	-0.61	5900	11.70	-4.33
			5360	19.40	-2.83	5640	12.91	-1.01			
				TEST Frequency (Mhz)		Gain test Value (dBi)	Efficiency test value (%)				
				2400-2490		-5.58	8.96				
				5120-5870		-0.04	21.59				

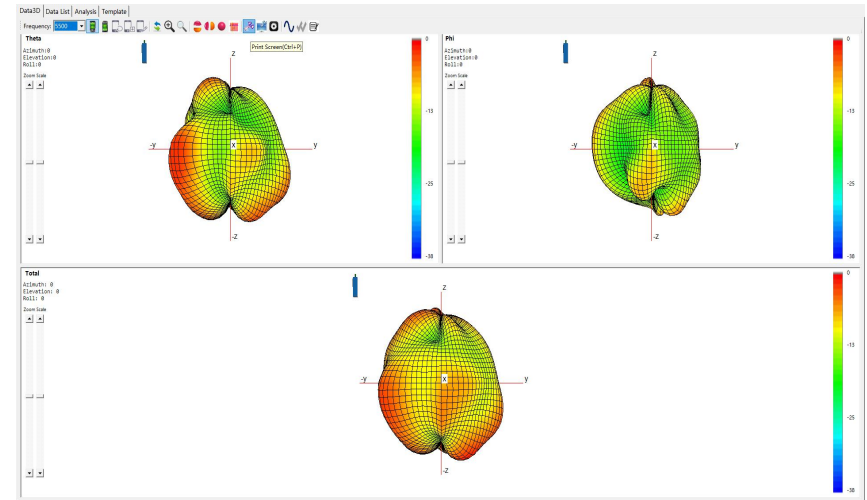
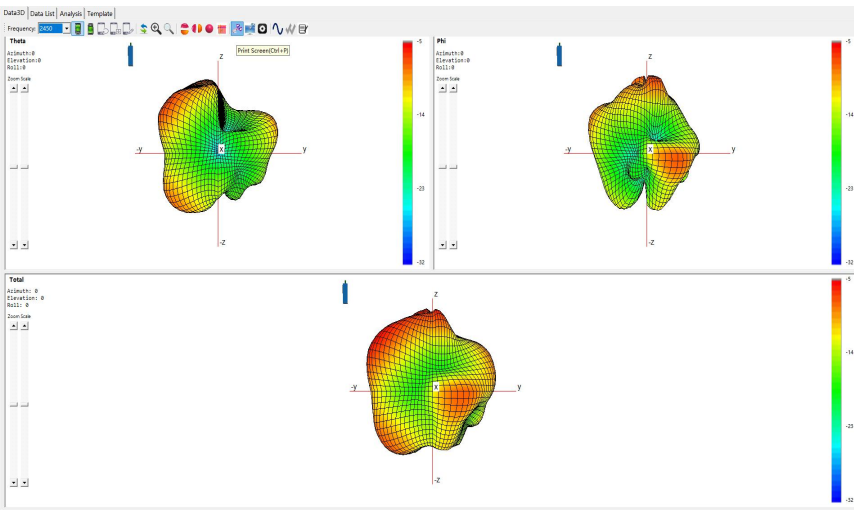
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3D Antenna Radiation Pattern

Aux Antenna

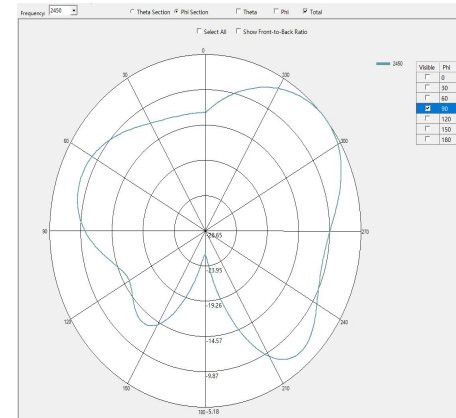
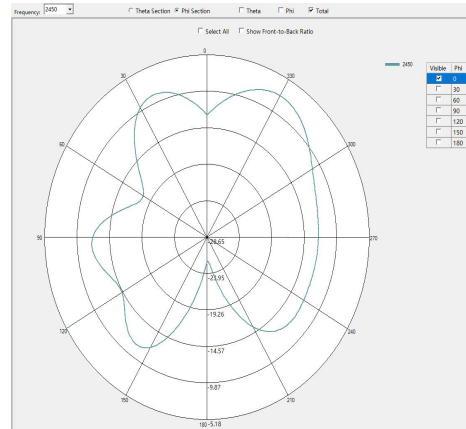
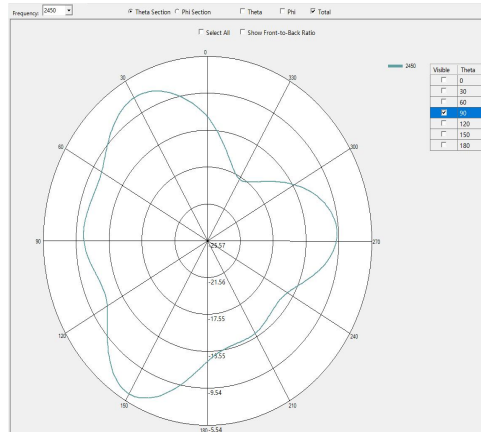
2.4G

5.8G

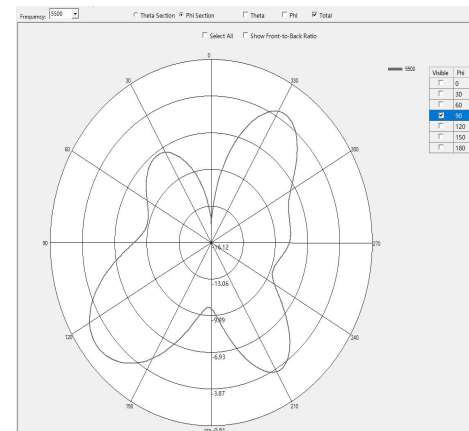
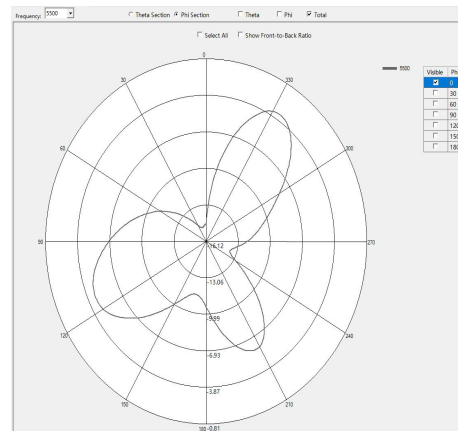
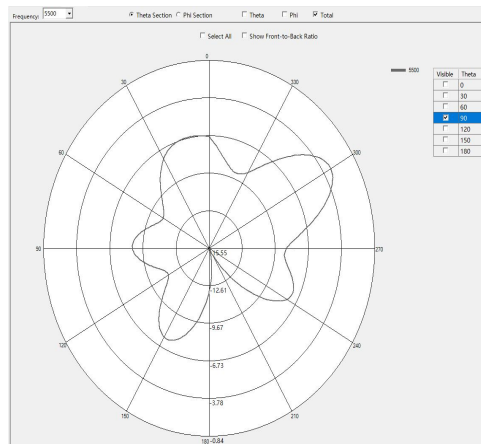


2D Antenna Radiation Pattern

Aux Antenna
2.4G



5.8G



Engineering drawing

