



AnJie
Electronics Co.

Evaluation Test Report of 2.4GHz Internal Antenna

Project :CGA0101

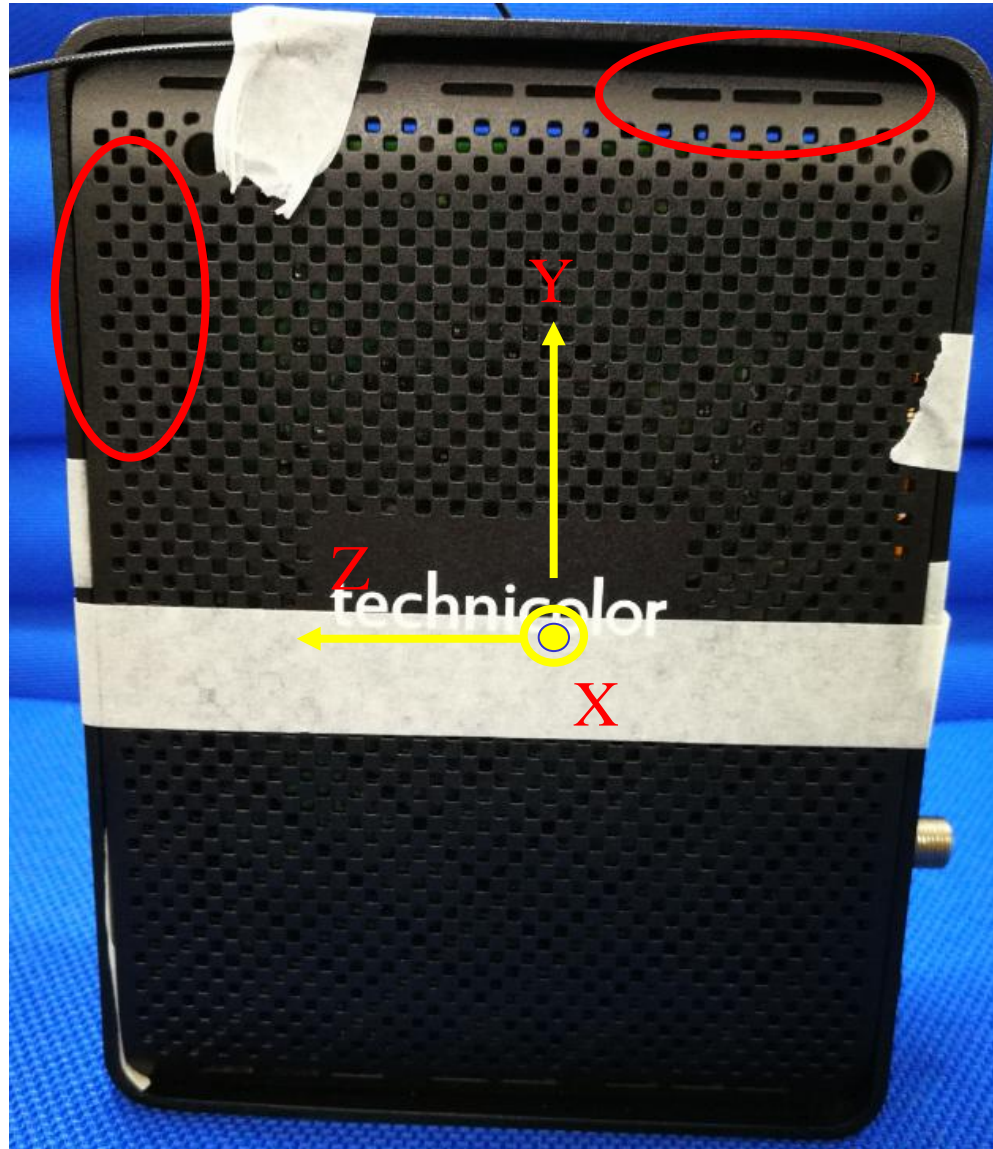
Date 2017/03/01

Anders

1. Antenna Configuration

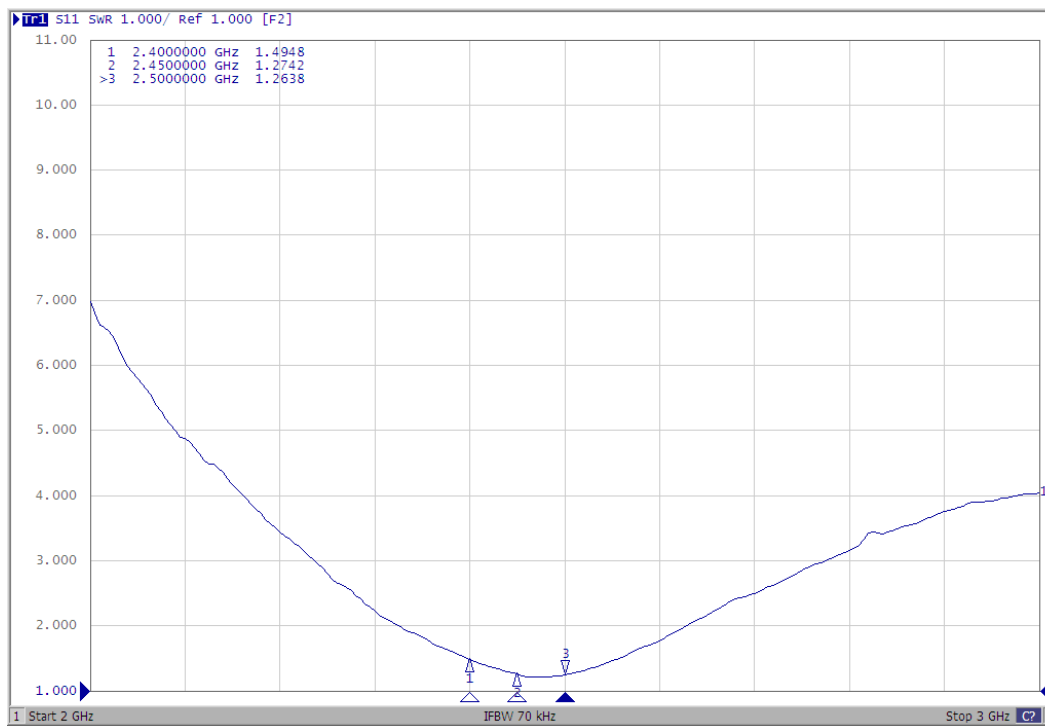
Antenna_Printing

Antenna_PCB

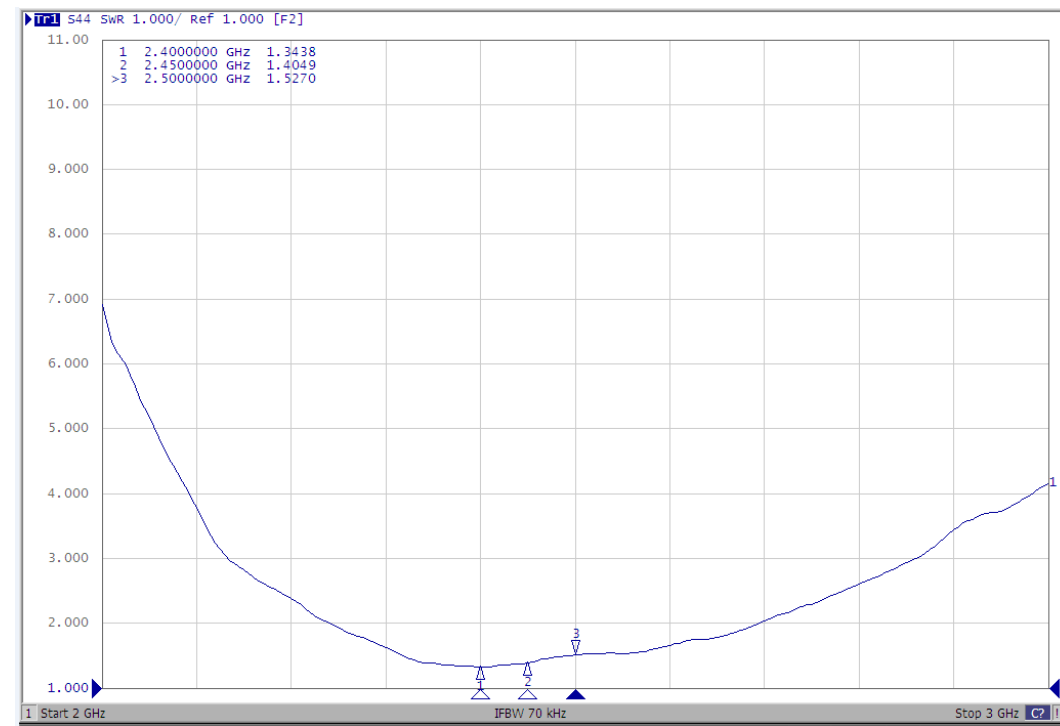


2. SWR / Return Loss Test Data

Antenna_Printing



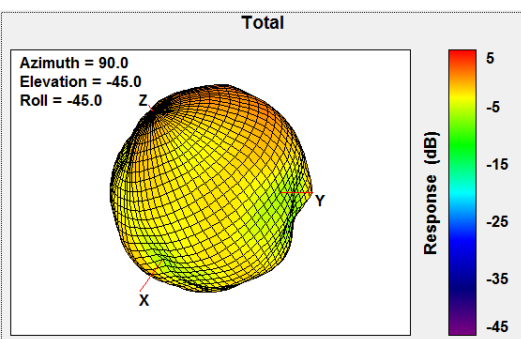
Antenna_PCB



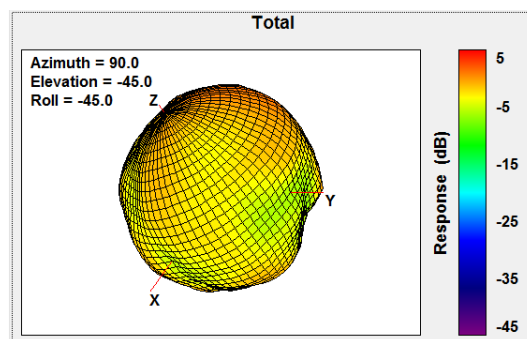
3. 3D Radiation Pattern

Antenna_Printing

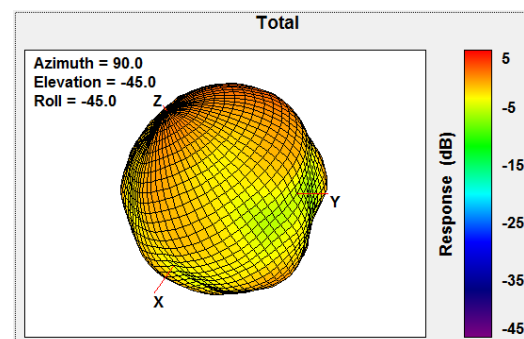
2400MHz



2450MHz

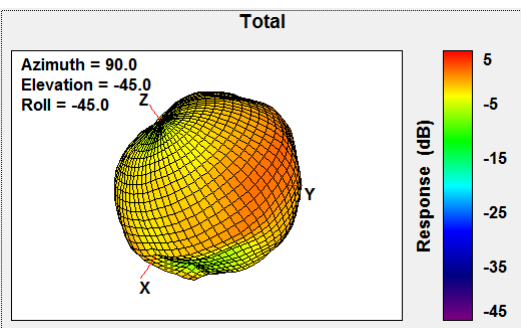


2500MHz

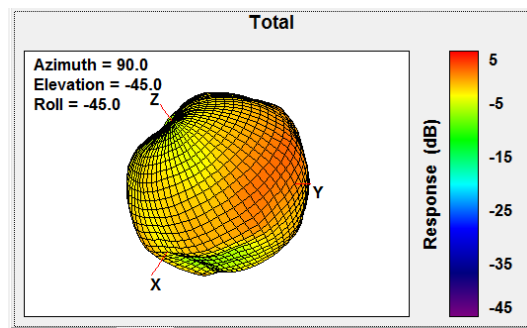


Antenna_PCB

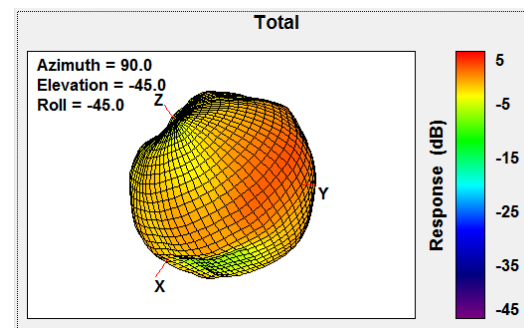
2400MHz



2450MHz

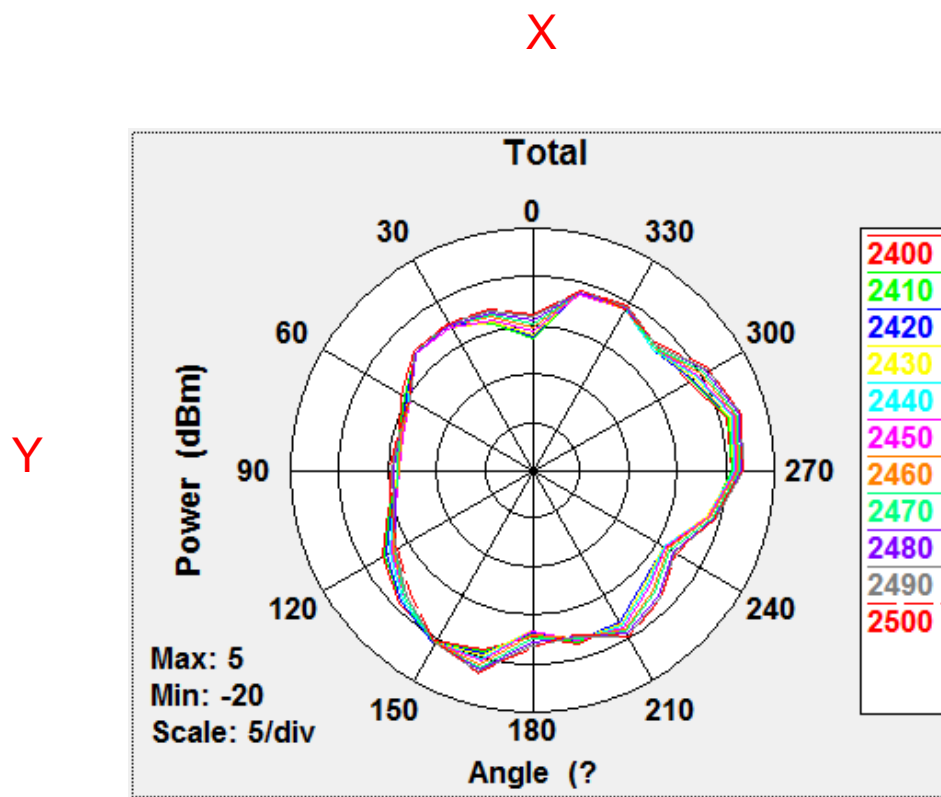


2500MHz



4. 2D Radiation Pattern

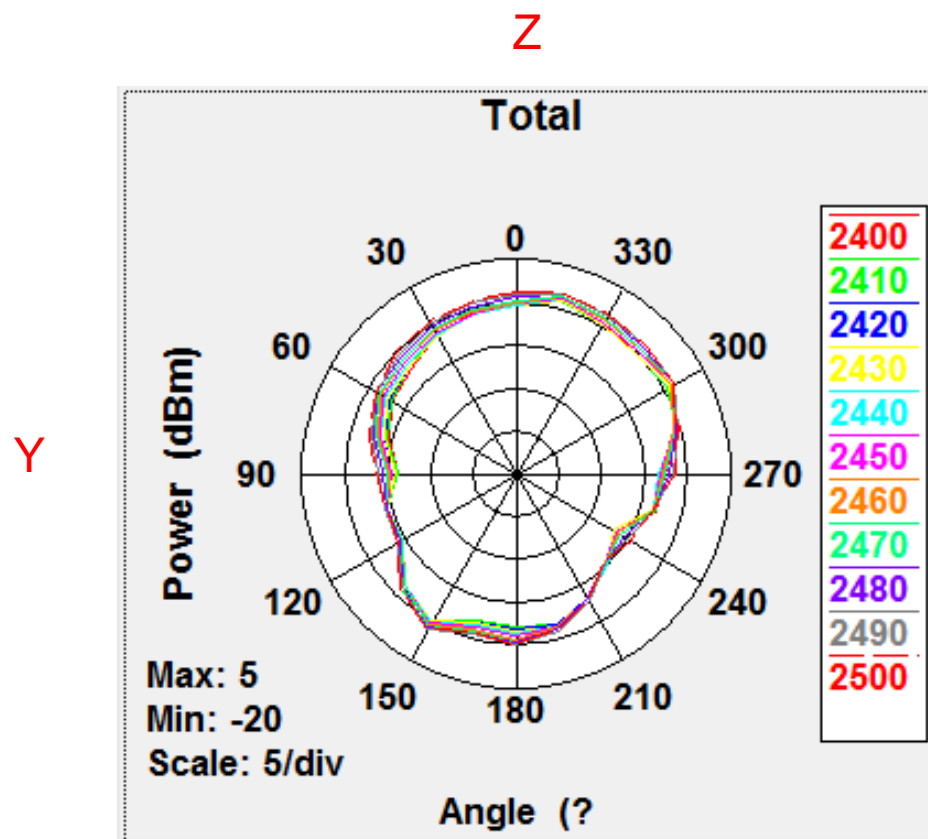
Antenna_Printing



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	-2.13	-2.17	-2.16	-2.20	-2.11	-2.04	-1.87	-1.73	-1.62	-1.42	-1.41
Gain (dBi)	0.55	0.72	0.89	1.04	1.26	1.40	1.64	1.81	1.94	2.19	2.21

4. 2D Radiation Pattern

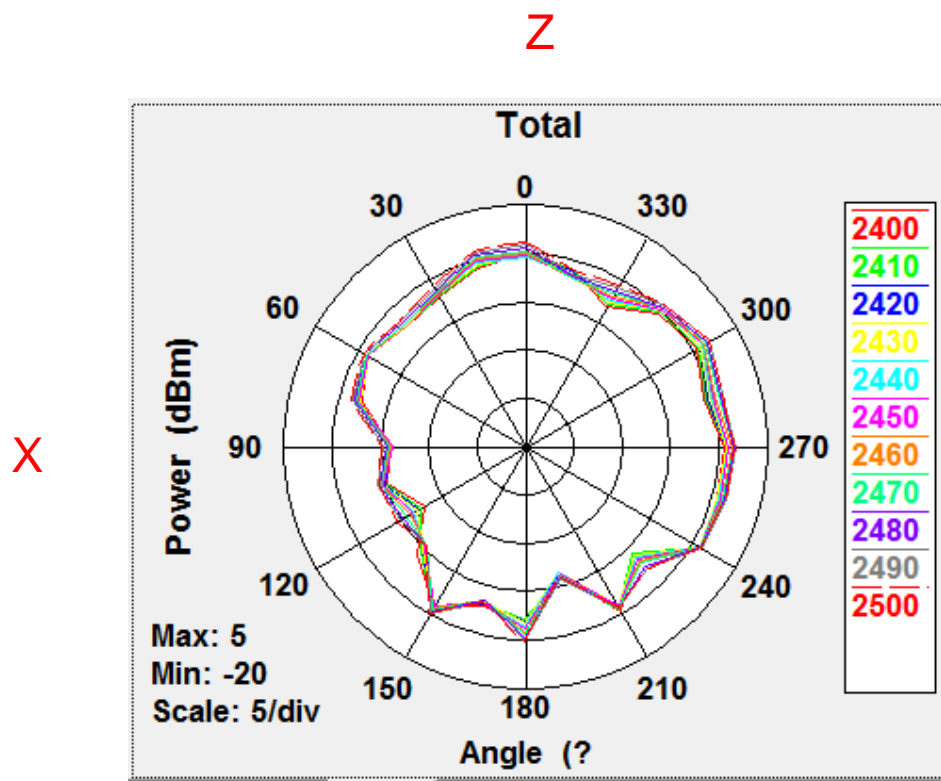
Antenna_Printing



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	-2.03	-2.09	-2.06	-2.06	-1.93	-1.84	-1.67	-1.49	-1.29	-1.04	-0.95
Gain (dBi)	0.54	0.49	0.61	0.69	0.81	0.93	1.06	1.15	1.28	1.44	1.33

4. 2D Radiation Pattern

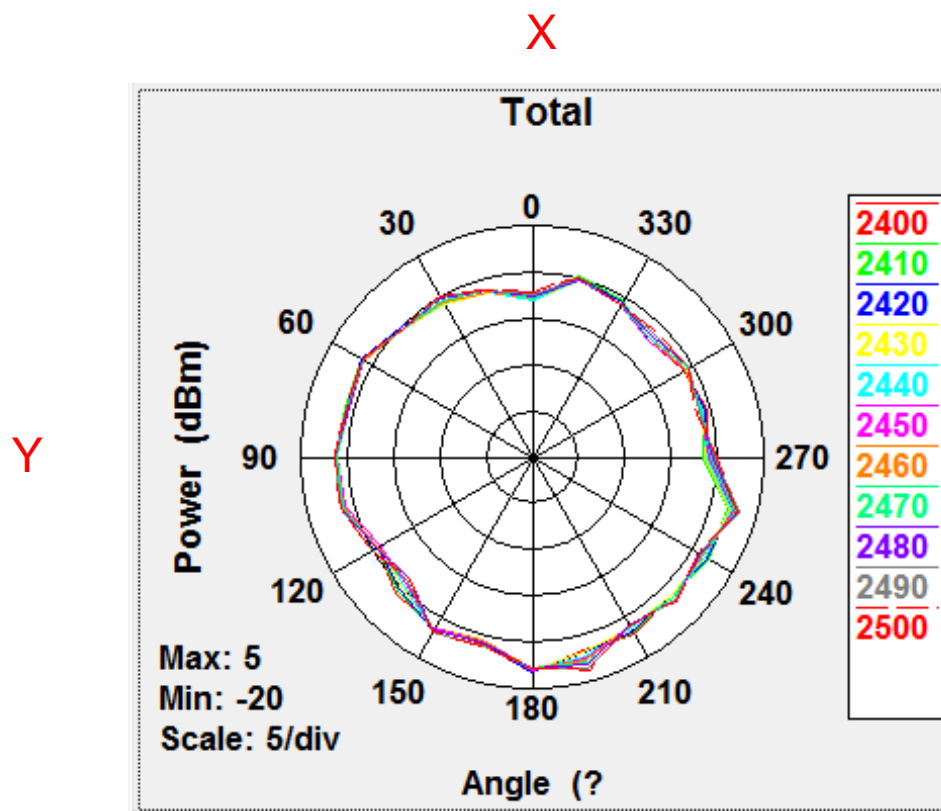
Antenna_Printing



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	-1.85	-1.83	-1.75	-1.78	-1.67	-1.60	-1.46	-1.28	-1.14	-0.92	-0.83
Gain (dBi)	0.66	0.66	0.70	0.67	0.85	0.98	1.14	1.33	1.42	1.62	1.66

4. 2D Radiation Pattern

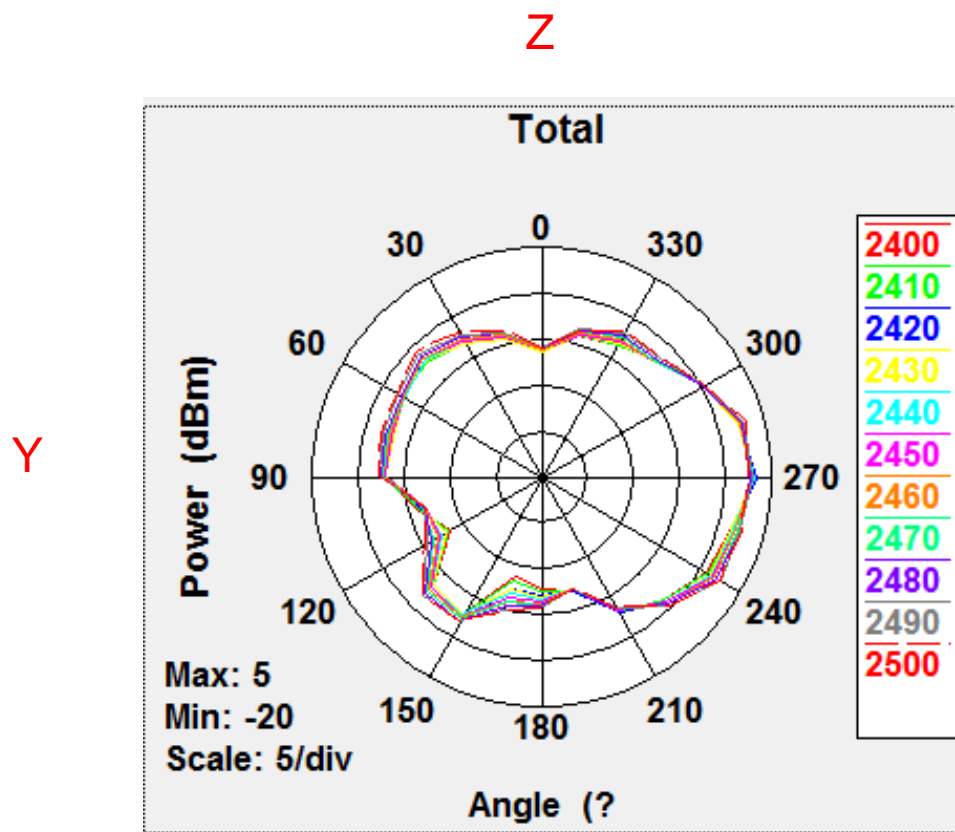
Antenna_PCB



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	0.37	0.34	0.31	0.18	0.20	0.18	0.23	0.32	0.37	0.54	0.55
Gain (dBi)	3.05	3.08	3.08	2.91	2.90	2.78	2.65	2.78	3.04	3.40	3.57

4. 2D Radiation Pattern

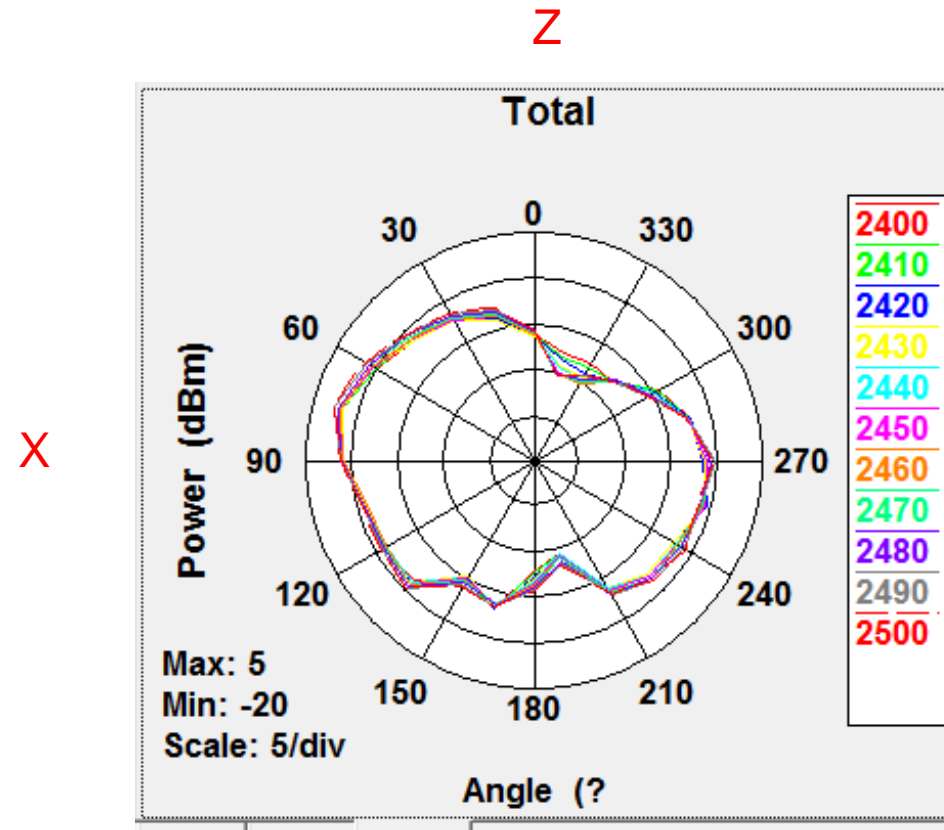
Antenna_PCB



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	-2.18	-2.14	-2.08	-2.17	-2.05	-2.01	-1.92	-1.75	-1.67	-1.45	-1.35
Gain (dBi)	3.05	3.08	3.08	2.91	2.90	2.78	2.65	2.68	2.58	2.69	2.80

4. 2D Radiation Pattern

Antenna_PCB



Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Average Gain (dBi)	-2.53	-2.54	-2.56	-2.64	-2.57	-2.54	-2.46	-2.34	-2.23	-2.04	-2.00
Gain (dBi)	1.57	1.60	1.63	1.53	1.64	1.66	1.76	1.95	2.07	2.32	2.44



5. Gain & Efficiency Test Data

Antenna_Printing

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.64	1.63	1.69	1.66	1.73	1.80	1.95	2.05	2.12	2.29	2.41
Directivity (dBi)	3.39	3.38	3.38	3.37	3.33	3.31	3.33	3.27	3.20	3.16	3.23
Efficiency (dB)	-1.74	-1.75	-1.69	-1.71	-1.60	-1.52	-1.38	-1.21	-1.08	-0.87	-0.82
Efficiency (%)	66.91	66.91	67.77	67.39	69.21	70.50	72.85	75.62	77.90	81.79	82.77

Antenna_PCB

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	3.10	3.12	3.09	3.07	3.26	3.35	3.42	3.58	3.60	3.73	3.78
Directivity (dBi)	4.66	4.70	4.68	4.77	4.89	4.97	4.98	5.00	4.92	4.86	4.83
Efficiency (dB)	-1.57	-1.58	-1.58	-1.71	-1.63	-1.62	-1.55	-1.42	-1.33	-1.13	-1.04
Efficiency (%)	69.72	69.43	69.44	67.53	68.64	68.87	69.92	72.18	73.70	77.17	78.65

6. Isolation

