

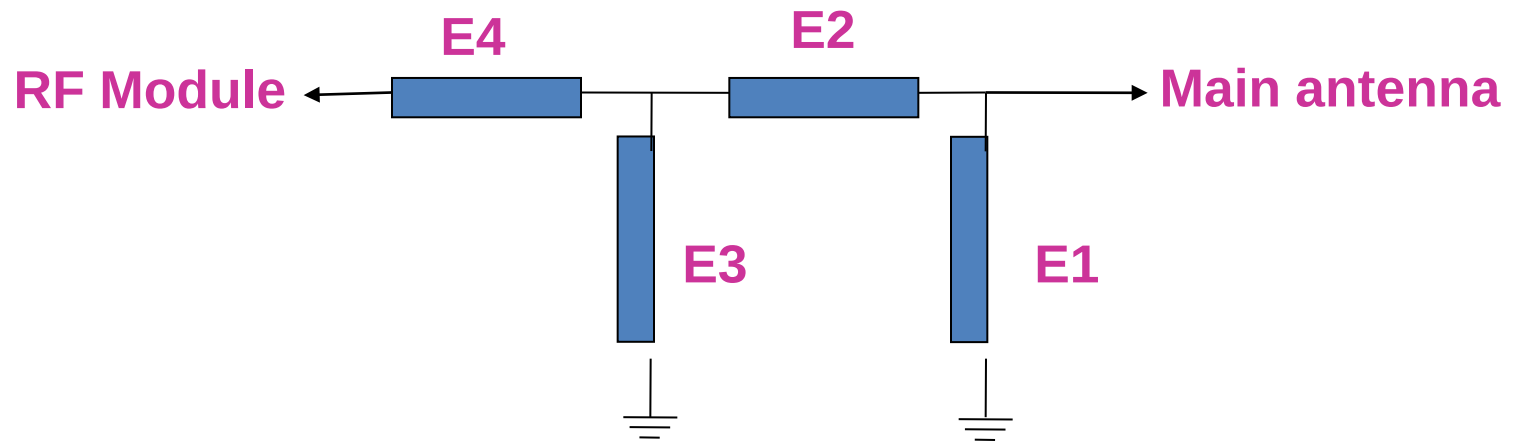
SHENZHEN VLG WIRELESS TECHNOLOGY CO.,LTD

Antenna Test Report

Project name : UZT

Date: 2022年07月26日

ME: zengcong RF: hushuai



Element	Value
E1(0402)	NA
E2(0402)	0Ω
E3(0402)	NA
E4(0402)	0Ω

Model:	A					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band1	18050	1925	17.1	50	2115	
	18300	1950	16.61	300	2140	
	18550	1975	16.23	550	2165	-92.34
LTE Band2	18650	1855	17.2	650	1935	
	18900	1880	17.68	900	1960	
	19150	1905	17.25	1150	1985	-91.36
LTE Band3	19250	1715	17.67	1250	1810	
	19575	1747.5	17.89	1575	1842.5	
	19900	1780	15.35	1900	1875	-91.21
LTE Band4	2000	1715	18.53	2000	2155	
	20175	1732.5	18.63	2175	2132.5	
	20350	1750	17.32	2350	2150	-92.02
LTE Band5	21500	829	15.01	2450	874	
	21625	936.5	16.17	2525	881.5	
	21750	844	15.24	2600	889	-91.43

Model:	A					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band7	20850	2510	17.07	2850	2630	
	21100	2535	17.13	3100	2655	
	21350	2560	17.71	3350	2680	-91.03
LTE Band8	21500	885	18.23	3500	930	
	21625	897.5	18.66	3625	942.5	
	21750	910	17.0	3750	955	-91.7
LTE Band11	22850	1437.9	17.34	4850	1485.9	-91.87
LTE Band12	23095	707.5	11.57	5095	737.5	84.32
LTE Band 18	23925	822.5	16.03	5925	867.5	-89.05
LTE Band 19	24075	837.5	16.48	6075	882.5	-90.38
LTE Band20	24200	837	15.34	6200	796	
	24300	847	16.01	6300	806	
	24400	857	16.36	6400	816	-89.73
LTE Band21	24525	1455.4	17.31	6525	1503.4	-91.48

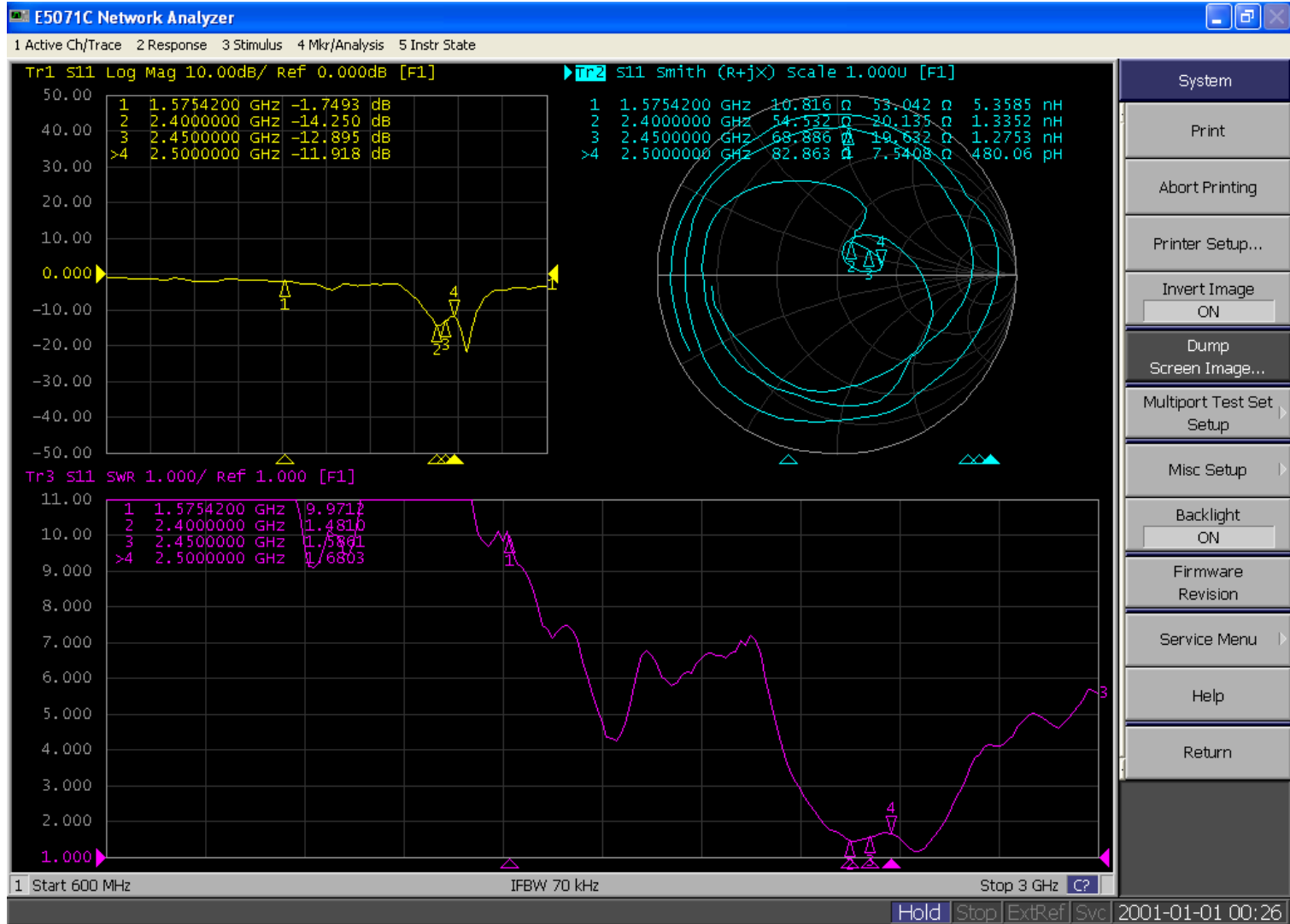
Model:	A					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band38	37850	2580	17.57	37850	2580	
	38000	2595	18.16	38000	2595	
	38150	2610	17.29	38150	2610	-88.48
LTE Band39	38350	1890	16.74	38350	1890	
	38450	1900	16.89	38450	1900	
	3855	1910	17.1	3855	1910	-89.57
LTE Band40	38750	2310	18.61	38750	2310	
	39150	2350	17.95	39150	2350	
	39550	2390	17.78	39550	2390	-84.03
LTE Band41	39750	2506	16.12	39750	2506	
	40620	2593	17.68	40620	2593	
	41490	2680	16.47	41490	2680	-86.49

Model:	B					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band1	18050	1925	17.77	50	2115	
	18300	1950	17.12	300	2140	
	18550	1975	16.53	550	2165	-89.06
LTE Band2	18650	1855	17.61	650	1935	
	18900	1880	17.31	900	1960	
	19150	1905	17.03	1150	1985	-88.68
LTE Band3	19250	1715	16.5	1250	1810	
	19575	1747.5	17.0	1575	1842.5	
	19900	1780	16.16	1900	1875	-88.41
LTE Band4	2000	1715	17.78	2000	2155	
	20175	1732.5	17.63	2175	2132.5	
	20350	1750	17.76	2350	2150	-87.64
LTE Band5	21500	829	11.33	2450	874	
	21625	936.5	12.31	2525	881.5	
	21750	844	11.63	2600	889	-85.43

Model:	B					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band7	20850	2510	11.3	2850	2630	
	21100	2535	11.22	3100	2655	
	21350	2560	12.1	3350	2680	-85.66
LTE Band8	21500	885	14.3	3500	930	
	21625	897.5	12.17	3625	942.5	
	21750	910	11.05	3750	955	-83.2
LTE Band11	22850	1437.9	15.86	4850	1485.9	-89.25
LTE Band 18	23925	822.5	12.2	5925	867.5	-84.0
LTE Band 19	24075	837.5	13.4	6075	882.5	-85.17
LTE Band21	24525	1455.4	15.61	6525	1503.4	-89.15

Model:	B					
Test Condition:	3D chamber					
Band	Channel	Frequency (MHz)	TRP	Channel	Frequency (MHz)	TIS
LTE Band38	37850	2580	12.1	37850	2580	
	38000	2595	13.29	38000	2595	
	38150	2610	13.0	38150	2610	-83.1
LTE Band39	38350	1890	16.57	38350	1890	
	38450	1900	16.32	38450	1900	
	3855	1910	16.56	3855	1910	-87.28
LTE Band40	38750	2310	15.76	38750	2310	
	39150	2350	15.48	39150	2350	
	39550	2390	13.46	39550	2390	-80.35
LTE Band41	39750	2506	11.42	39750	2506	
	40620	2593	13.3	40620	2593	
	41490	2680	12.43	41490	2680	-80.51

WIFI S11



WIFI Efficiency

Frequency (MHZ)	Efficiency	Gain (dBi)
2400	32.60%	1.61
2410	33.09%	1.62
2420	33.94%	1.62
2430	34.20%	1.55
2440	34.35%	1.42
2450	34.65%	1.25
2460	34.02%	0.87
2470	33.26%	0.45
2480	33.02%	0.13
2490	32.44%	-0.14
2500	32.24%	-0.26

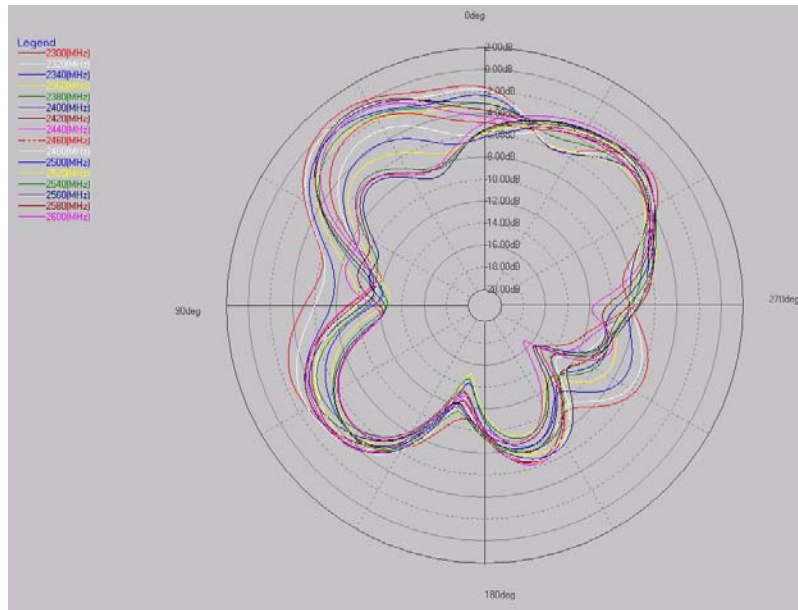
Frequency (MHZ)	Efficiency	Gain (dBi)
5150	20.33%	-1.32
5200	21.33%	-1.20
5250	22.46%	-1.05
5300	25.06%	-1.09
5350	27.55%	-0.83
5400	28.44%	-0.66
5450	29.81%	-0.10
5500	30.52%	0.22
5550	32.92%	0.42
5600	34.02%	0.69
5650	33.24%	0.66
5700	31.65%	1.50
5750	30.90%	2.14
5800	29.95%	2.34
5850	28.89%	2.28

WIFI antenna photo

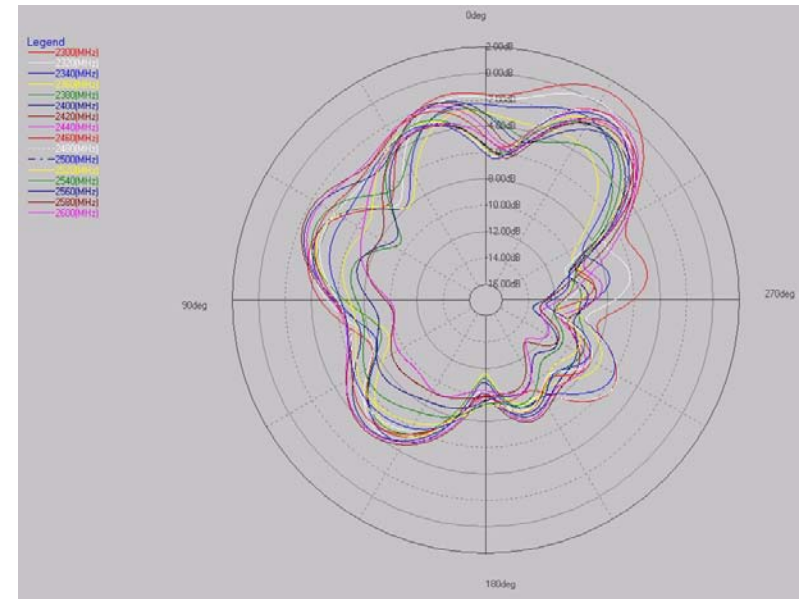


WIFI 2D pattern 2400~2500MHz

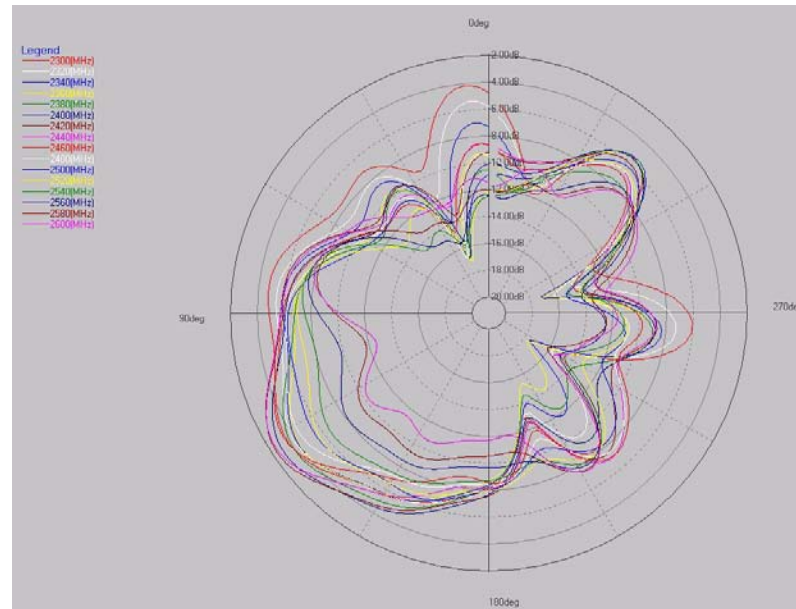
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Phi=90

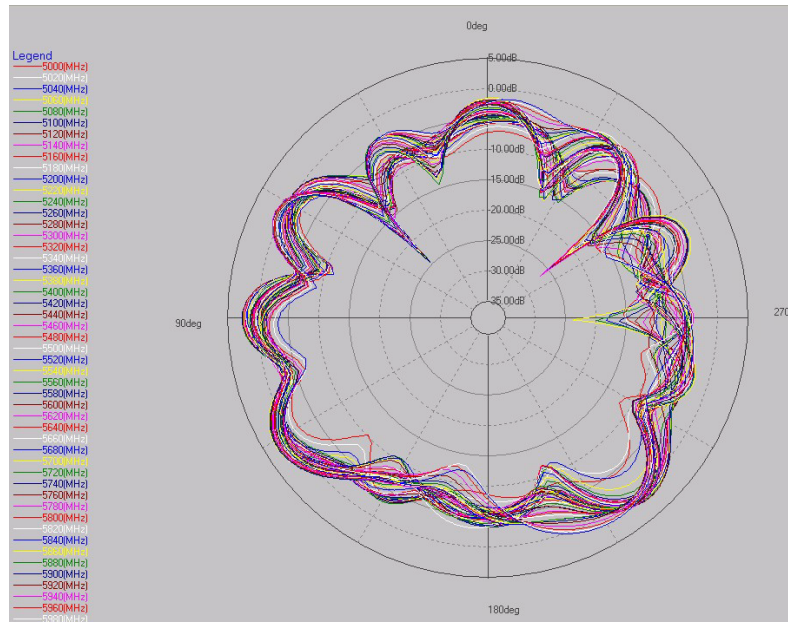


Theta=90

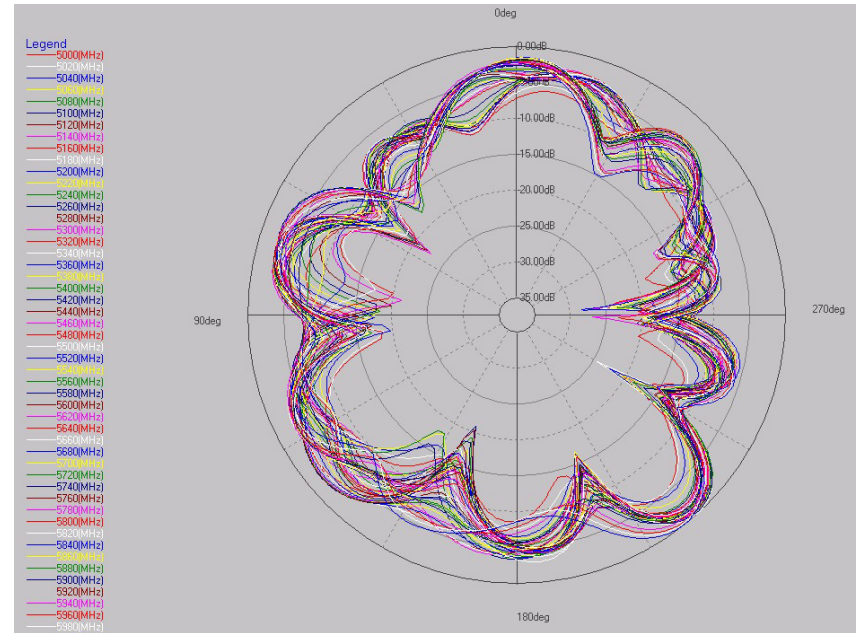


WIFI 2D pattern 5150~5850MHz

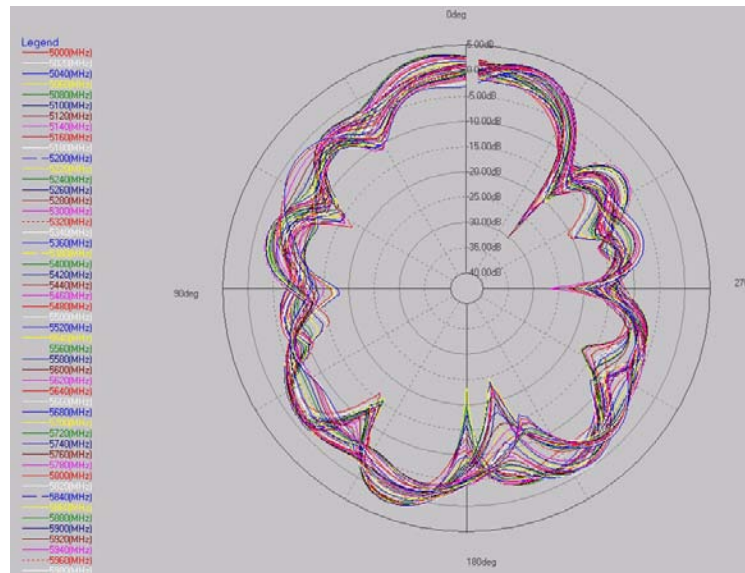
Phi=0



Phi=90



Theta=90



4G A Main ANT Efficiency

Frequency (MHZ)	Efficiency	Gain (dBi)
700	11%	-4.5
710	11%	-4.8
820	12.09%	-8.95
830	13.63%	-7.94
840	14.30%	-6.55
850	16.08%	-5.58
860	17.02%	-5.24
870	19.41%	-4.77
880	19.88%	-4.30
890	21.76%	-3.93
900	22.67%	-3.74
910	21.95%	-3.85
920	21.68%	-3.94
930	21.60%	-3.80
940	20.39%	-3.92
950	18.54%	-4.18
960	16.49%	-4.66

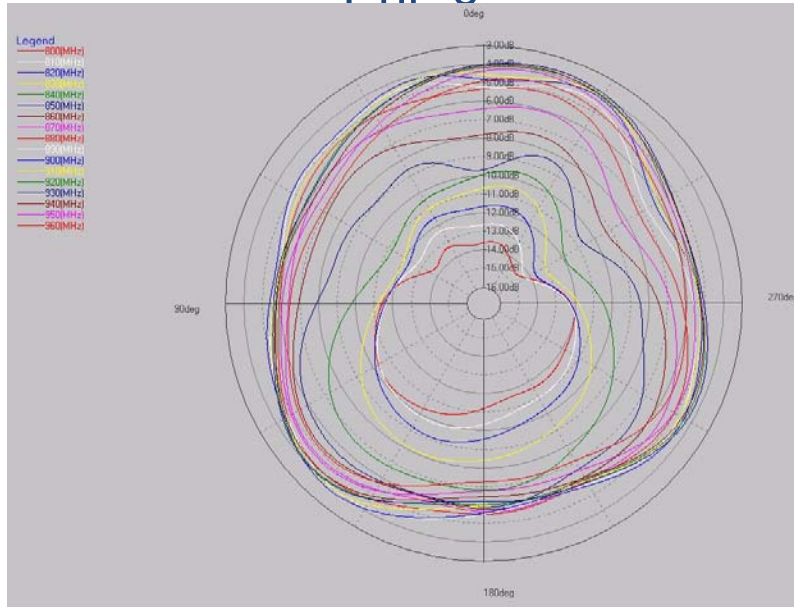
Frequency (MHZ)	Efficiency	Gain (dBi)
1400	22.08%	-3.05
1450	32.68%	-1.91
1500	41.34%	-0.78
1550	50.46%	0.01
1600	45.41%	-0.27
1650	39.31%	-1.06
1700	32.71%	-1.64
1750	30.01%	-1.61
1800	27.32%	-1.69
1850	21.13%	-3.27
1900	17.45%	-3.35
1950	19.54%	-3.41
2000	25.48%	-2.24
2050	31.16%	-0.28
2100	33.26%	0.48
2150	35.30%	0.86
2200	37.11%	1.32
2250	37.87%	1.24
2300	39.53%	1.07
2350	40.85%	1.68
2400	37.15%	1.48
2450	30.37%	0.49
2500	27.47%	-0.16
2550	27.72%	-0.28
2600	31.44%	0.41
2650	35.41%	1.49
2700	39.36%	1.48

4G A Main antenna photo

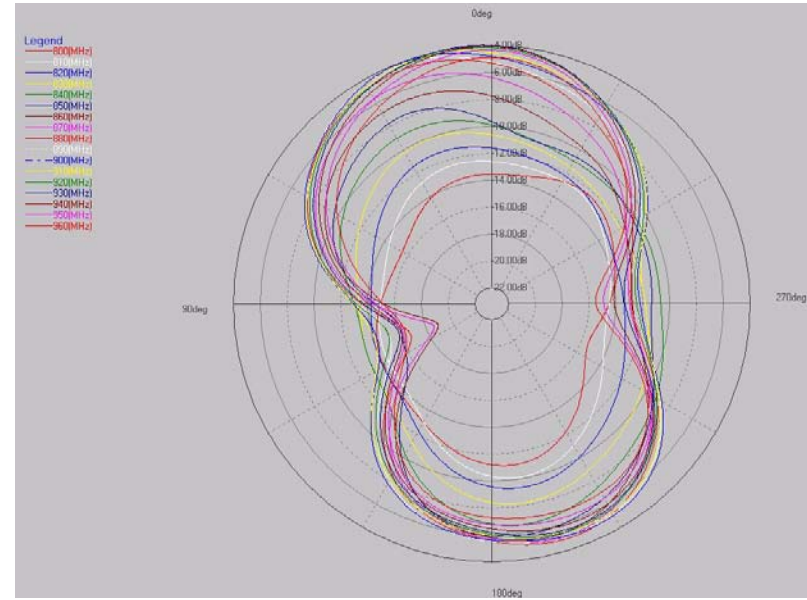


4G A Main ANT 2D Pattern 820~960MHz

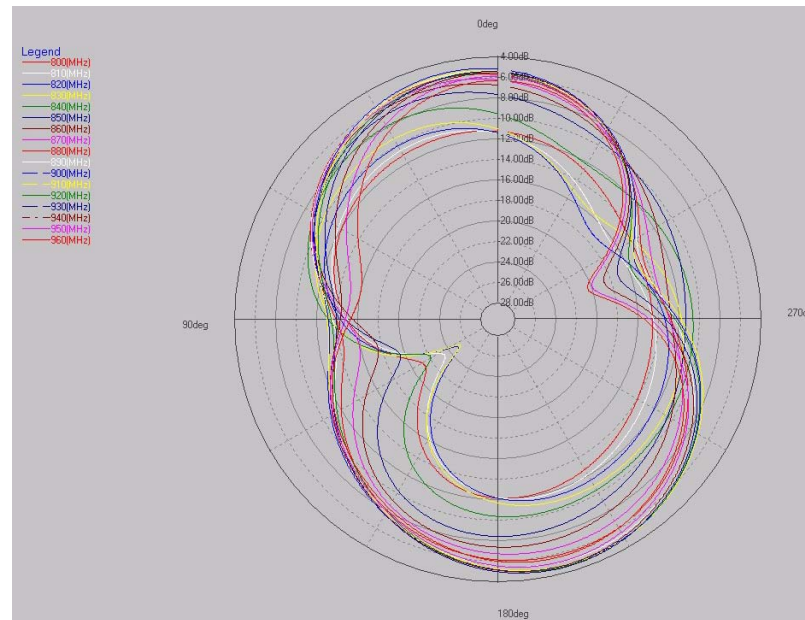
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Phi=90

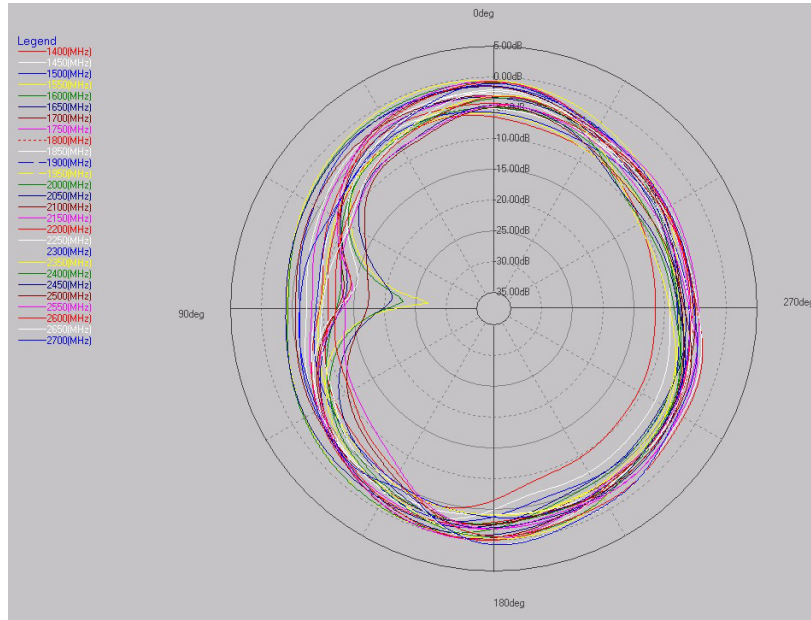


Theta=90

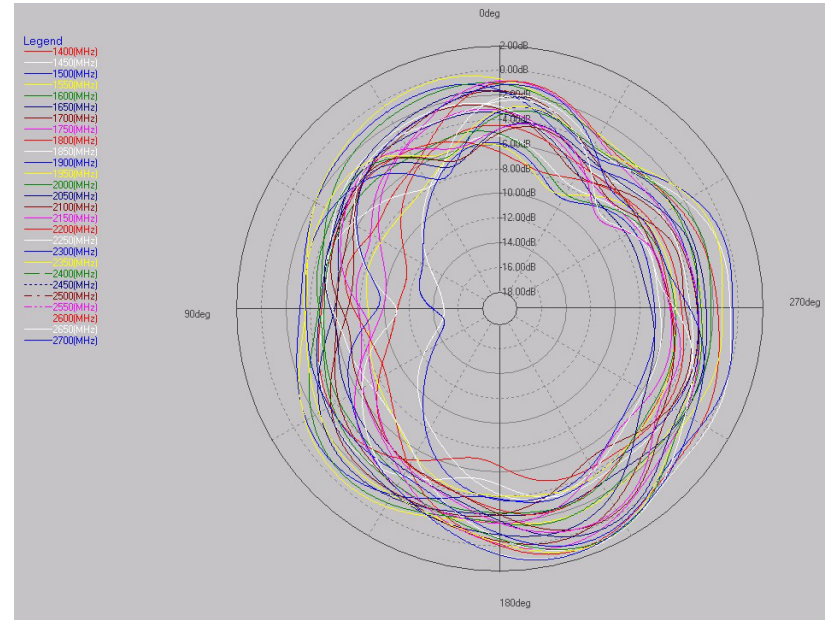


4G A Main ANT 2D Pattern 1450~2690MHz

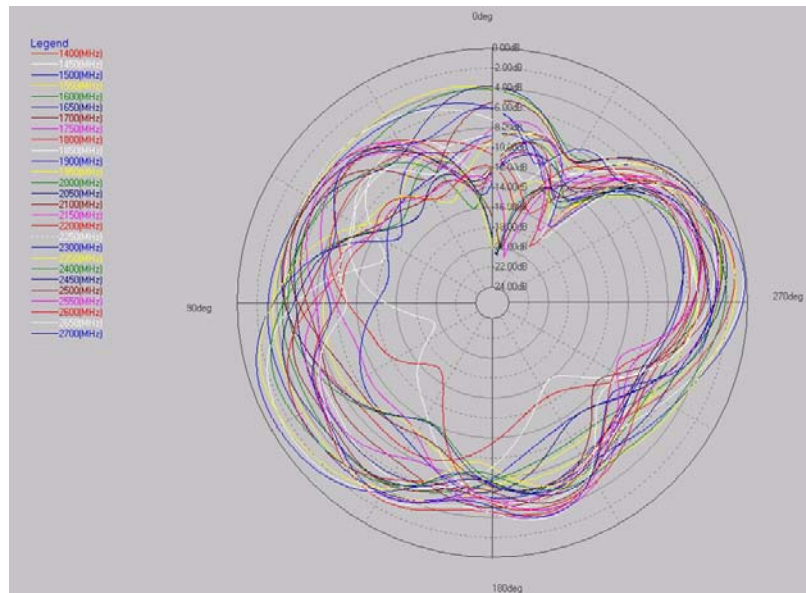
Phi=0



Phi=90



Theta=90



4G A DIV ANT Efficiency

Frequency (MHZ)	Efficiency	Gain (dBi)
700	1%	-13.2
710	2%	-10.9
820	12.09%	-8.95
830	13.63%	-7.94
840	14.30%	-6.55
850	16.08%	-5.58
860	17.02%	-5.24
870	19.41%	-4.77
880	19.88%	-4.30
890	21.76%	-3.93
900	22.67%	-3.74
910	21.95%	-3.85
920	21.68%	-3.94
930	21.60%	-3.80
940	20.39%	-3.92
950	18.54%	-4.18
960	16.49%	-4.66

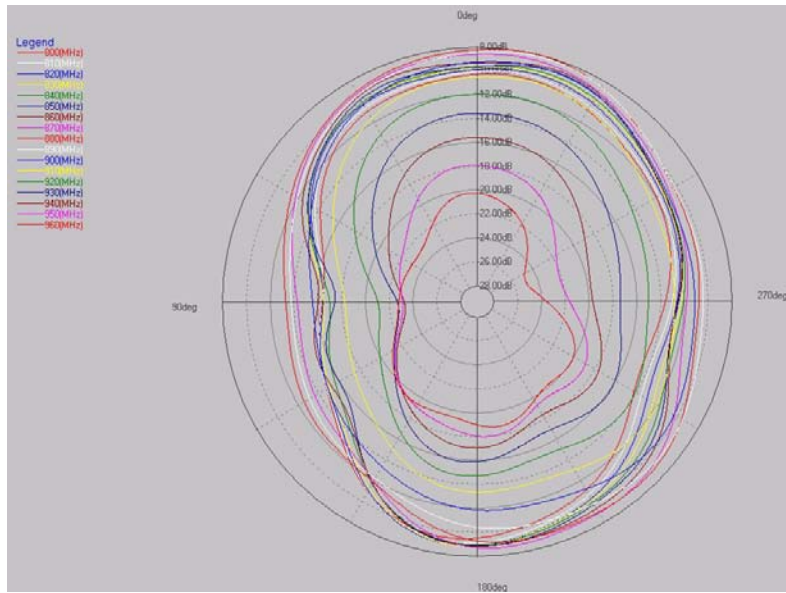
Frequency (MHZ)	Efficiency	Gain (dBi)
1400	10.99%	-5.51
1450	9.32%	-5.51
1500	12.40%	-4.30
1550	13.98%	-4.10
1600	12.79%	-3.77
1650	16.75%	-3.50
1700	22.00%	-3.03
1750	28.36%	-1.88
1800	31.40%	-1.20
1850	35.61%	-0.92
1900	37.07%	-1.28
1950	37.68%	-1.40
2000	40.22%	-0.35
2050	41.76%	0.40
2100	42.14%	0.29
2150	42.73%	1.00
2200	40.52%	0.76
2250	39.86%	0.53
2300	38.38%	-0.33
2350	31.20%	-0.64
2400	22.68%	-2.46
2450	17.09%	-4.59
2500	14.52%	-3.81
2550	18.76%	-2.75
2600	28.45%	-1.03
2650	32.35%	-0.69
2700	29.36%	-0.83

4G A DIV antenna photo

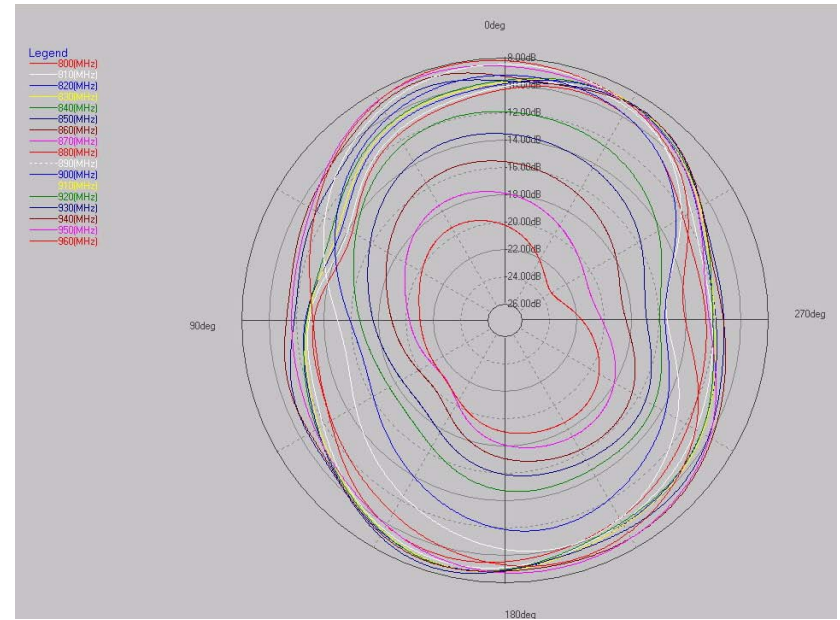


4G A DIV ANT 2D Pattern 820~960MHz

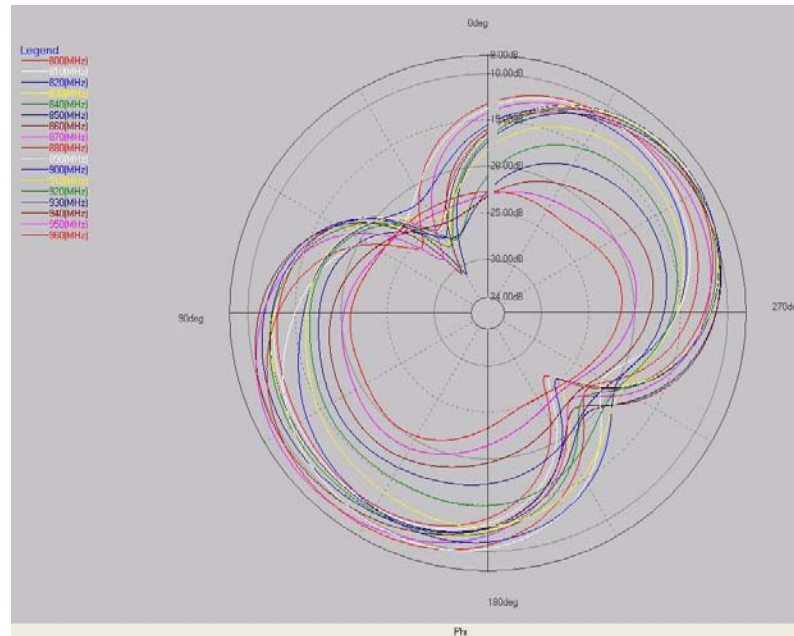
Phi=0



Phi=90

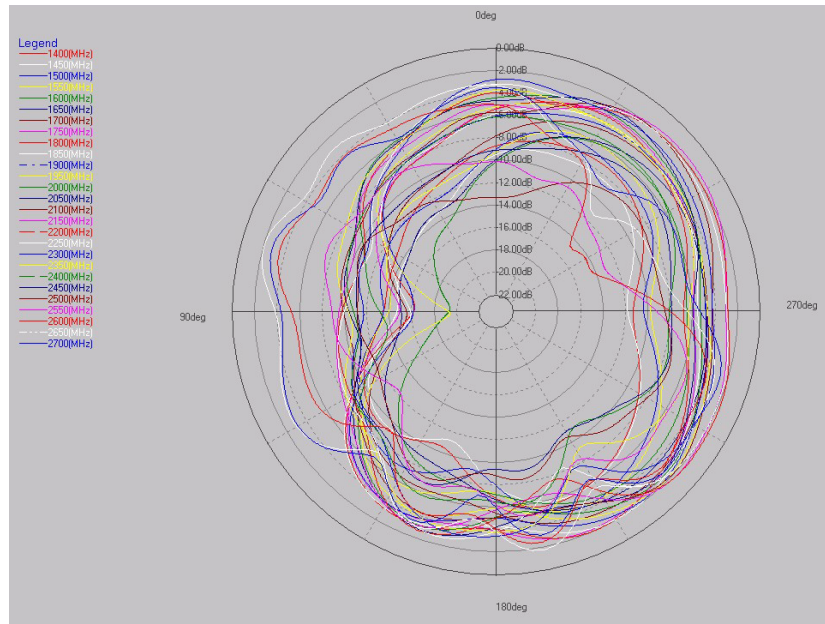


Theta=90

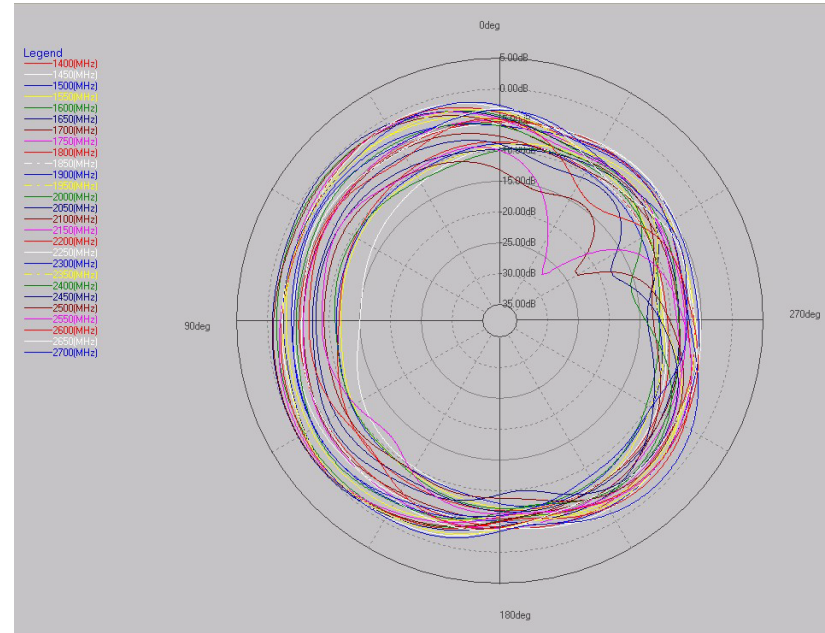


4G A DIV ANT 2D Pattern 1450~2690MHz

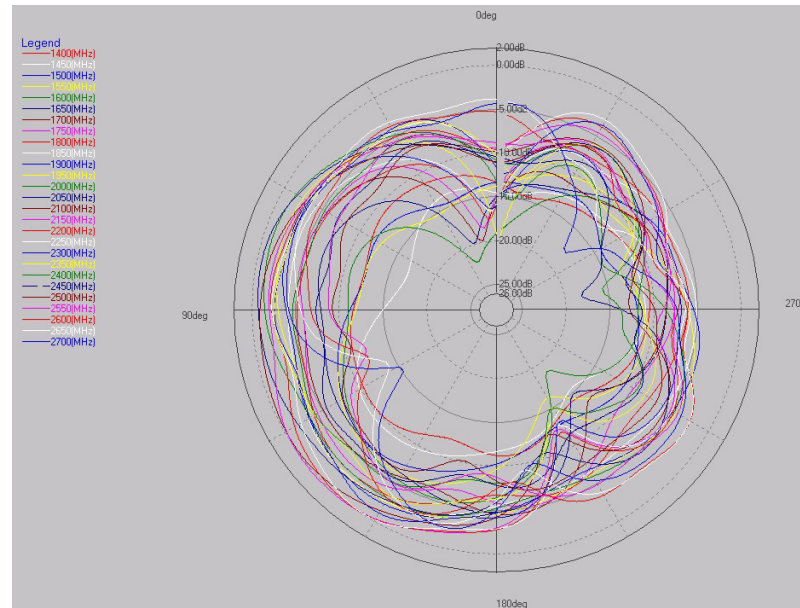
Phi=0



Phi=90



Theta=90



4G B Main ANT Efficiency

Frequency (MHZ)	Efficiency	Gain (dBi)
820	9.35%	-8.74
830	10.68%	-7.51
840	11.79%	-8.63
850	13.52%	-7.47
860	15.80%	-6.68
870	18.02%	-5.74
880	18.98%	-5.16
890	17.35%	-5.53
900	14.19%	-6.46
910	11.11%	-7.83
920	8.78%	-9.90
930	6.98%	-9.63
940	6.22%	-9.81
950	5.86%	-9.36
960	5.62%	-9.94

Frequency (MHZ)	Efficiency	Gain (dBi)
1420	17.29%	-4.72
1440	18.71%	-4.35
1460	19.62%	-3.93
1480	21.08%	-3.51
1500	22.78%	-3.01
1520	22.94%	-2.72

4G B Main ANT Efficiency

Frequency (MHZ)	Efficiency	Gain (dBi)
1700	31.66%	-1.00
1720	33.06%	-0.75
1740	33.66%	-0.59
1760	34.18%	-0.42
1780	34.15%	-0.34
1800	32.77%	-0.41
1820	31.88%	-0.38
1840	30.54%	-0.31
1860	29.50%	-0.16
1880	31.46%	0.17
1900	34.82%	0.77
1920	36.29%	0.97
1940	37.47%	0.96
1960	38.19%	0.86
1980	39.08%	0.73
2000	40.22%	0.64
2020	41.75%	0.69
2040	43.19%	0.83
2060	44.16%	1.10
2080	44.11%	1.38
2100	44.05%	1.68
2120	43.51%	1.59
2140	42.73%	1.52
2160	41.54%	1.70
2180	39.94%	1.68

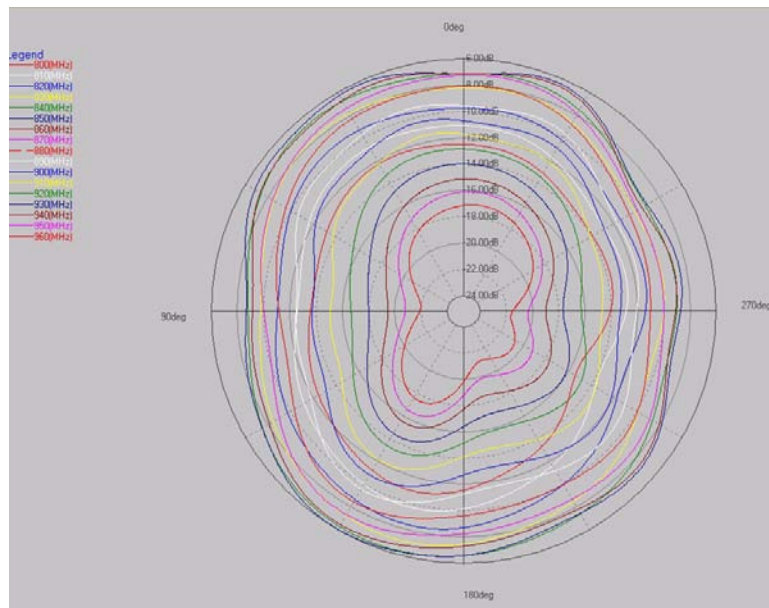
4G B Main antenna photo



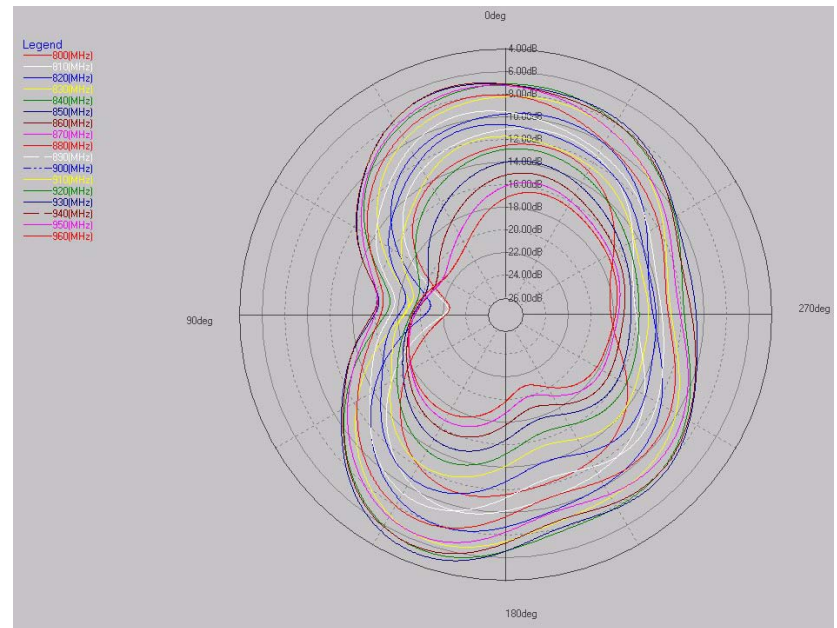
Frequency (MHZ)	Efficiency	Gain (dBi)
2200	37.39%	1.66
2220	34.21%	1.34
2240	31.03%	1.06
2260	27.93%	0.61
2280	25.00%	-0.05
2300	22.70%	-0.55
2320	20.90%	-1.04
2340	18.82%	-1.70
2360	18.79%	-2.28
2380	17.69%	-2.79
2400	16.37%	-3.36
2420	16.97%	-4.30
2440	17.72%	-5.56
2460	16.26%	-6.85
2480	16.24%	-7.52
2500	17.55%	-7.51
2520	18.92%	-6.59
2540	18.09%	-4.75
2560	19.20%	-3.57
2580	19.56%	-2.70
2600	23.04%	-1.88
2620	25.28%	-1.29
2640	26.77%	-0.75
2660	27.14%	-0.46
2690	26.75%	-0.62

4G B Main 2D Pattern 820~960MHz

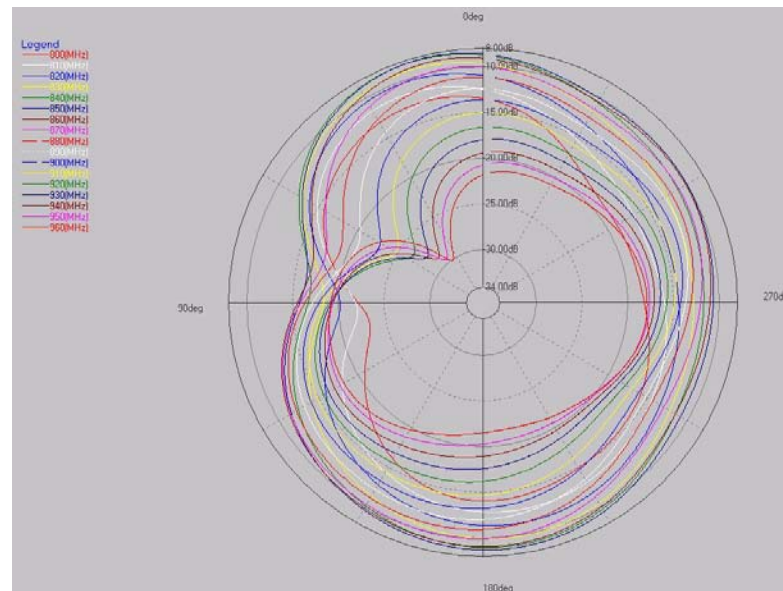
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Phi=90

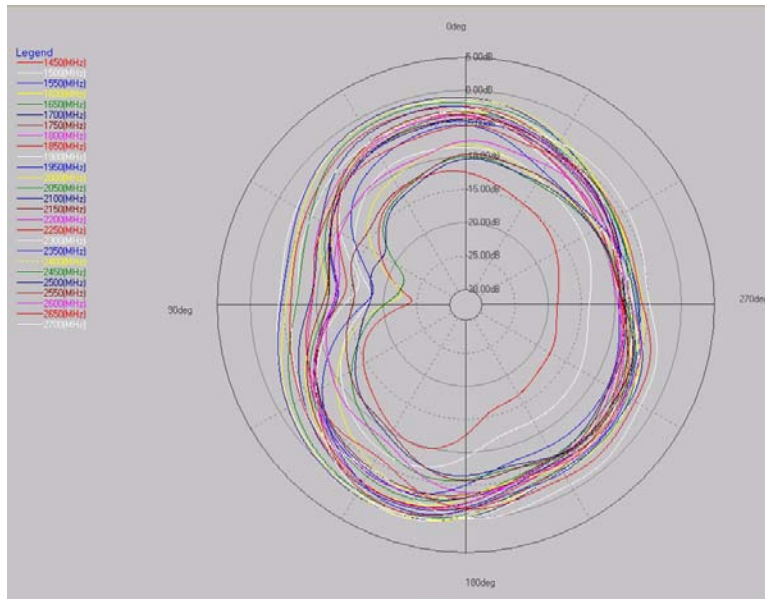


Theta=90

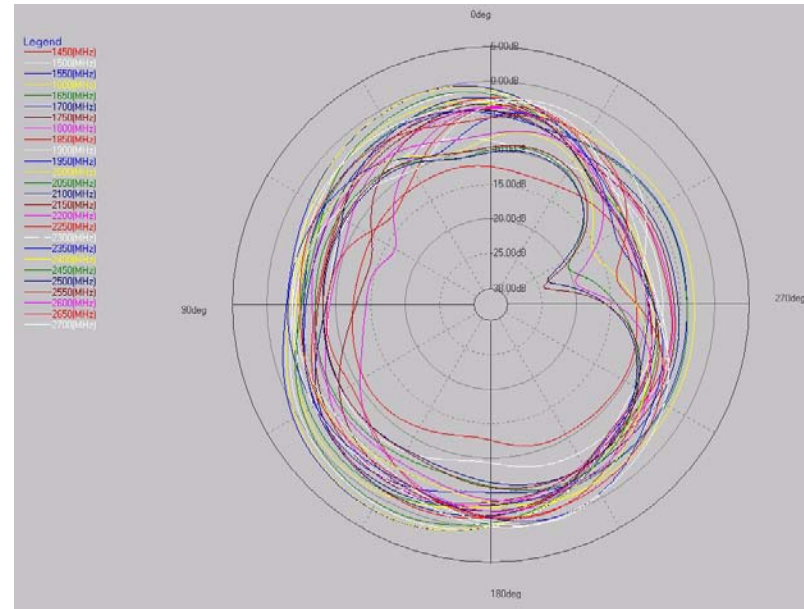


4G B Main 2D Pattern 1450~2690MHz

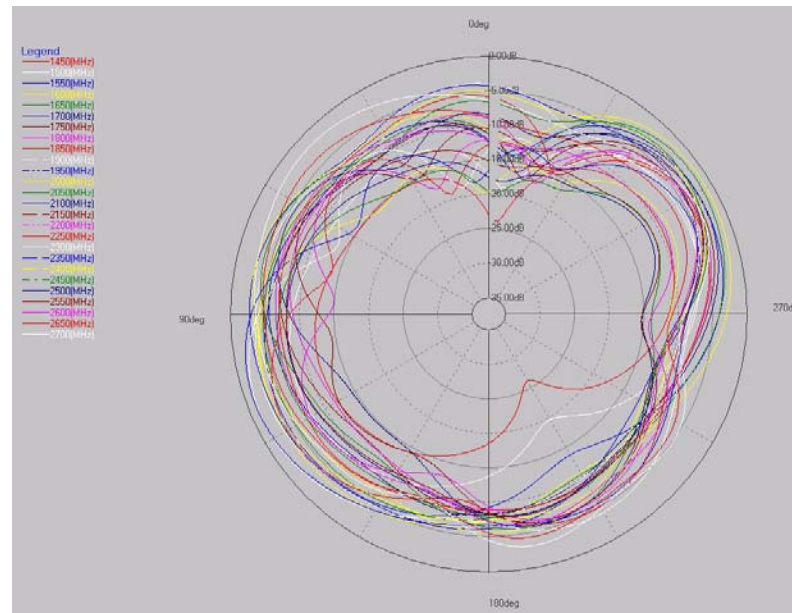
Phi=0



Phi=90



Theta=90



Thanks for your valuable comment!