

Antenna Report

Brand Name	Brain
Model Name	BGX5
Manufacturer	Brain Technologies, Inc.

1. Test Lab

Test	Antenna Test
Test Lab	BYD Precision Manufacture CO.,LTD OTA Lab
Operator	Gou Wenxiang
Signature	<i>Gou Wen Xiang</i>

2. Test Equipment

Equipment name	Brand	Model	SN	Calibration	SW
Network Analyzer	KEYSIGHT	E5071C	MY46528824	2025.01.14-2026.01.13	Version 1.15 Build 27347
ETS AMS8923 OTA System	ETS-LINDGREN	AMS-8923	/	2025.03.11-2026.03.10	/

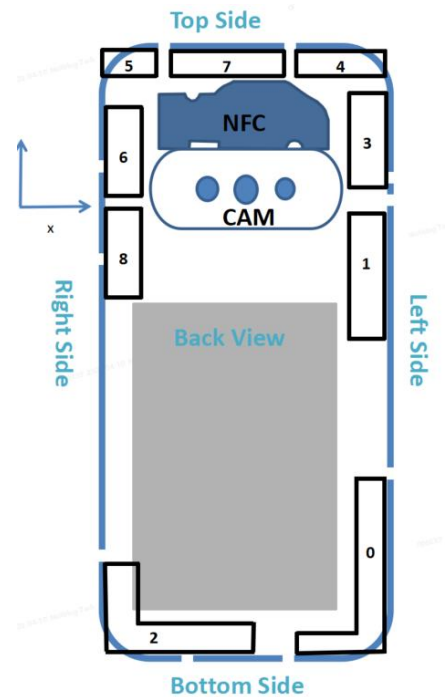
3. Test Environment

Lab Temp: 23.5℃
Lab relative humidity: 39RH%

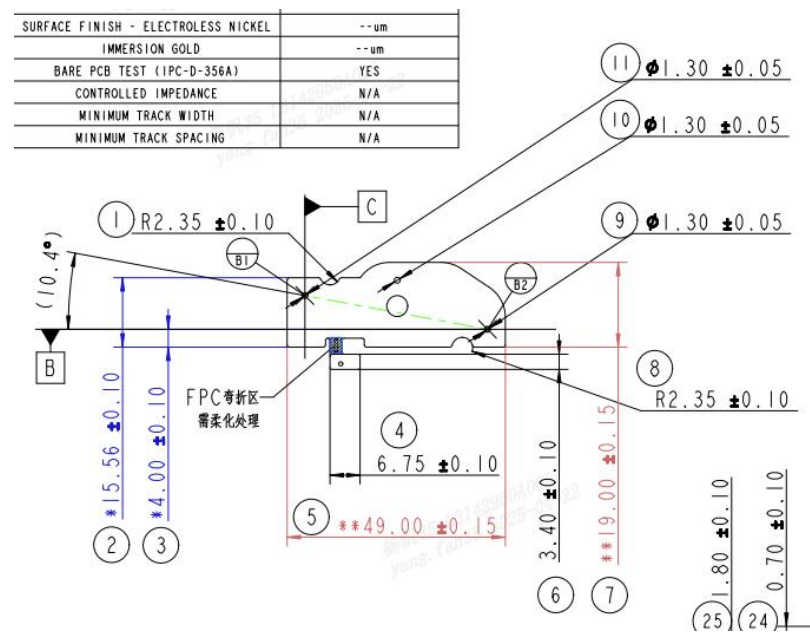
4. Antenna Information

ANT Number	Model Name	Antenna type	Dimension x/mm	Dimension y/mm
ANT 0	N/A	Metal frame	29.6	48.97
ANT 1	N/A	Metal frame	2	48.02
ANT 2	N/A	Metal frame	38.9	19.37
ANT 3	N/A	Metal frame	1.5	21.22
ANT 4	N/A	Metal frame	26.4	4.92
ANT 5	N/A	Metal frame	9.43	4.52
ANT 6	N/A	Metal frame	1.2	18.02

ANT 7	N/A	Metal frame	19.5	1.77
ANT 8	N/A	Metal frame	1.2	30.92

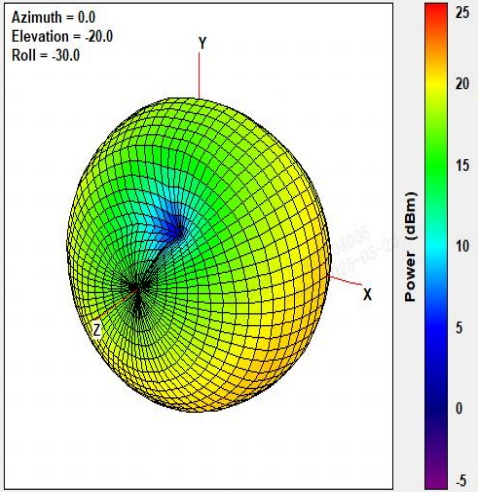
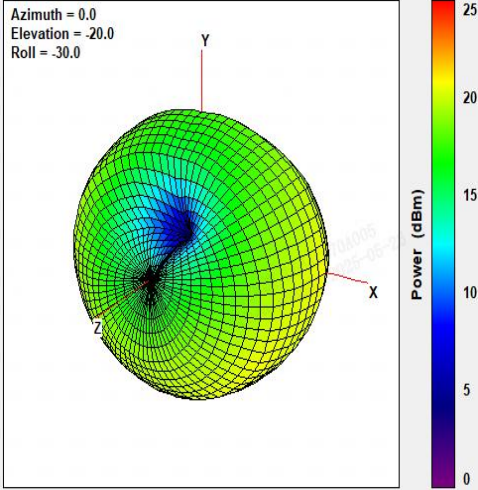


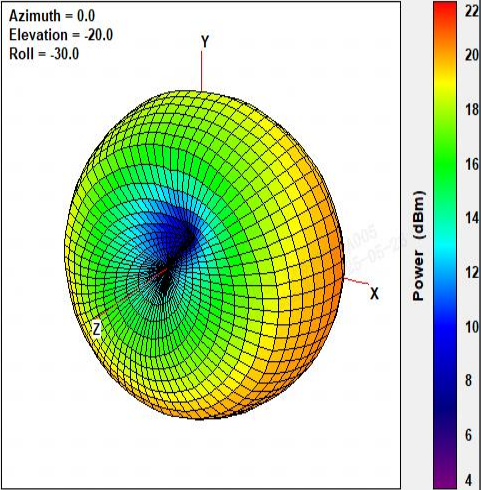
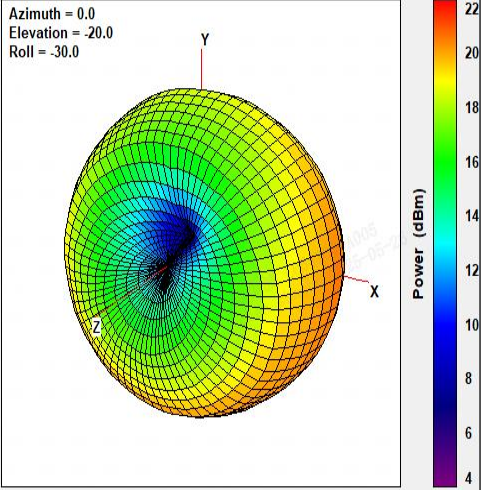
NFC Antenna Type: Loop Antenna
Dimension: 49mm*19mm

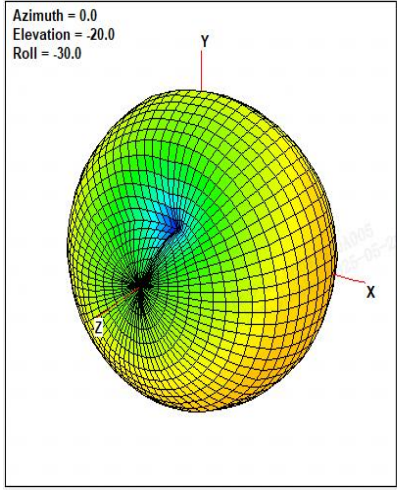
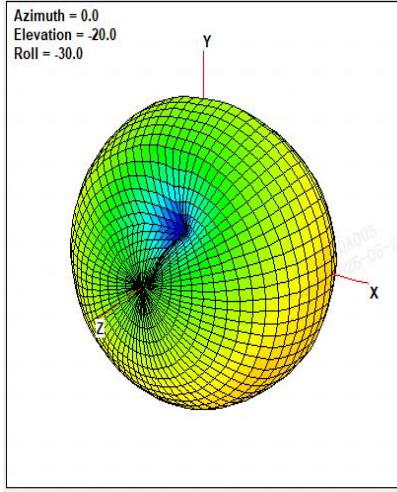


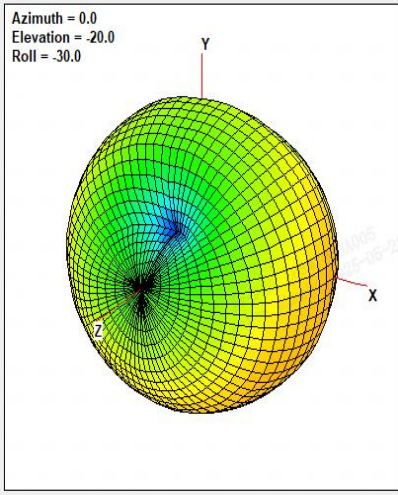
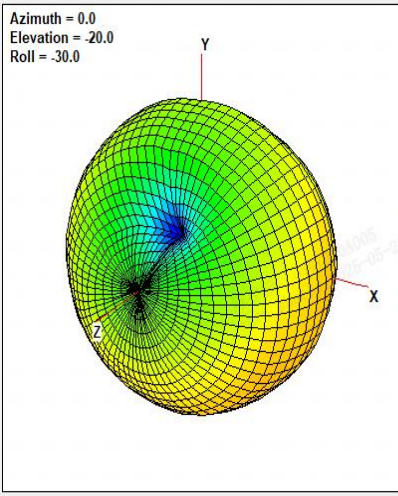
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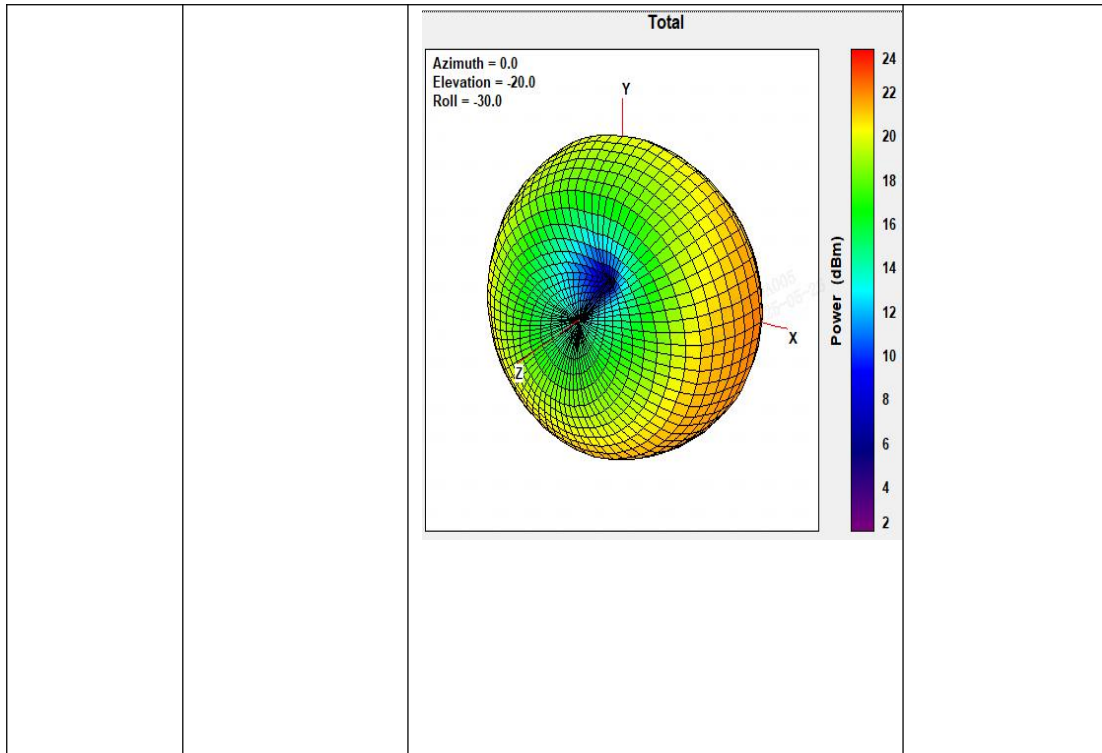
Band	Freq	radiation pattern	gain
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B5(10M)	844	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-2.79
B8(10M)	885	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-3.27
B12(5M)	704		-3.53

		Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
B17(10M)	709	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.53
B18(10M)	820		-3.23

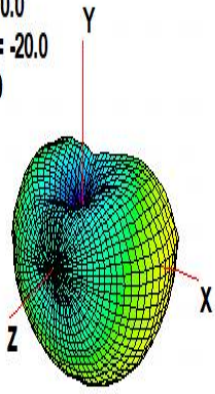
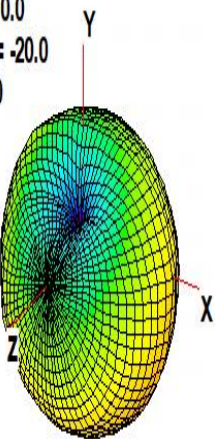
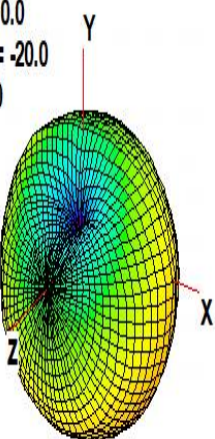
		Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	
B19(10M)	840	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-3.04
B20(10M)	847		-2.67

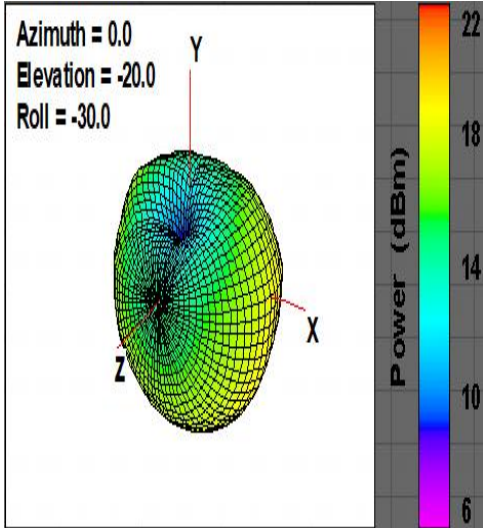
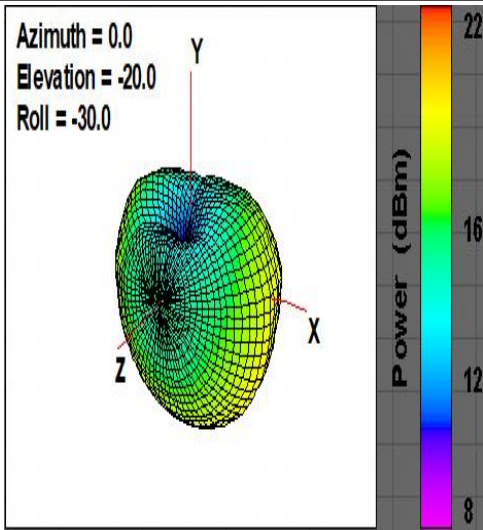
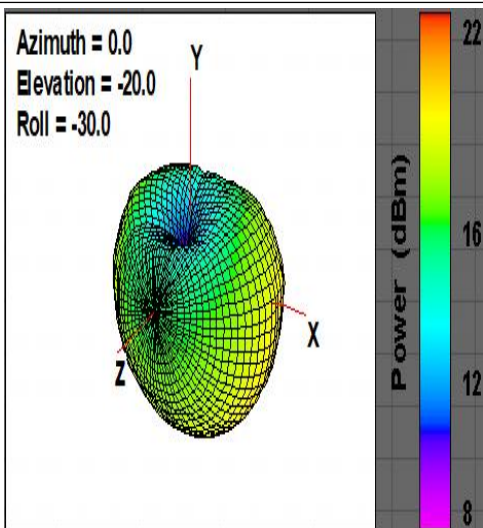
		Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	
B26 (5M)	844	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-2.81
B28(10M)	743		-1.78

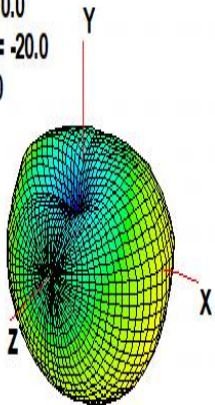
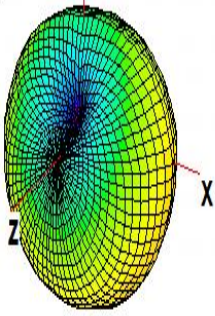


ANT1

Band	Freq	radiation pattern	gain
B5 (10M)	844	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0	-3.49
B8(10M)	885		-3.14

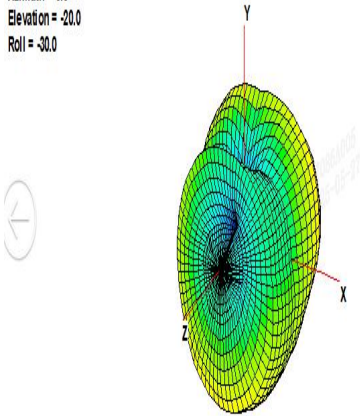
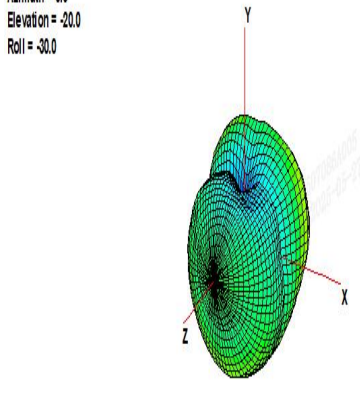
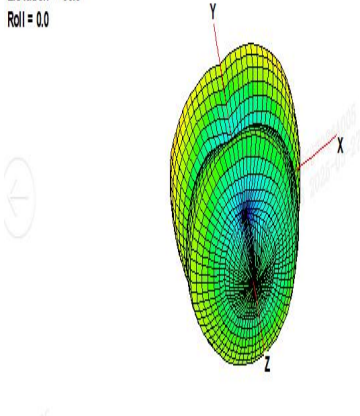
		Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
B12(5M)	711	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.45
B17(10M)	711	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.45

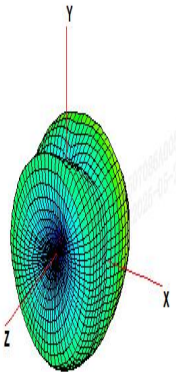
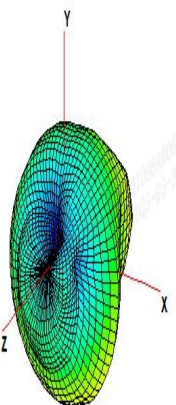
B18(10M)	820	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.08
B19(10M)	840	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.16
B20(10M)	857	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-3.14

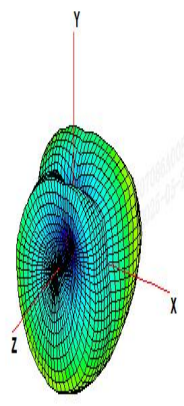
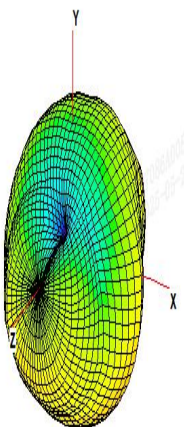
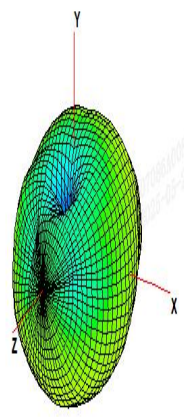
B26 (5M)	819	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-3.06
B28(10M)	725.5	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-3.31

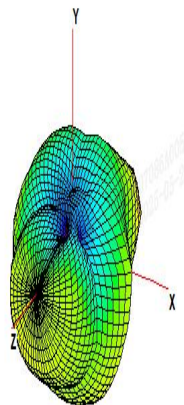
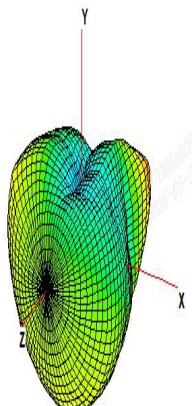
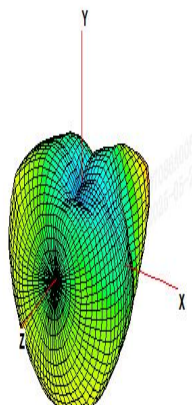
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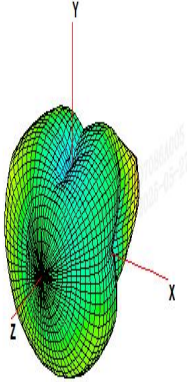
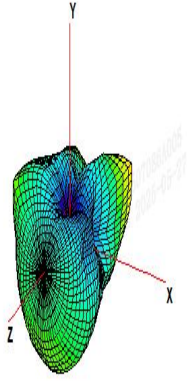
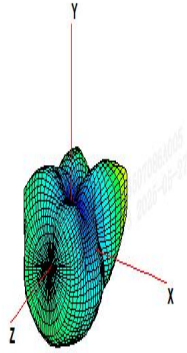
Band	Freq		
		radiation pattern	Gain
B1(10M)	1950		1.34

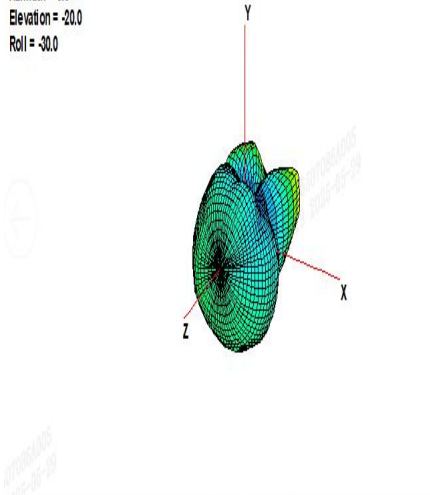
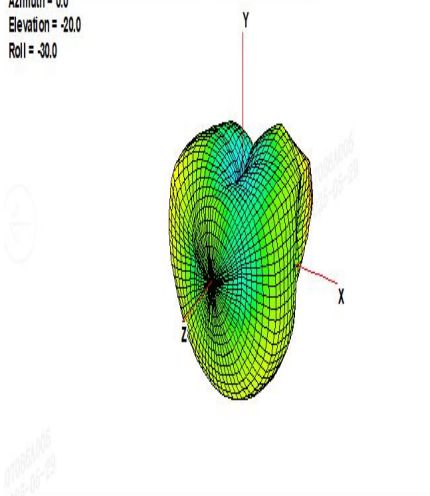
		Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
B2(10M)	1855	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.73
B3(10M)	1715	Azimuth = -20.0 Elevation = -30.0 Roll = 0.0 	1.04

B4(10M)	1750	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.81
B7(10M)	2560	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	4.72
B66(10M)	1775		1.31

		Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
B38(20M)	2610	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	2.15
B40(20M)	2310	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	2.83
B41(20M)	2680		0.41

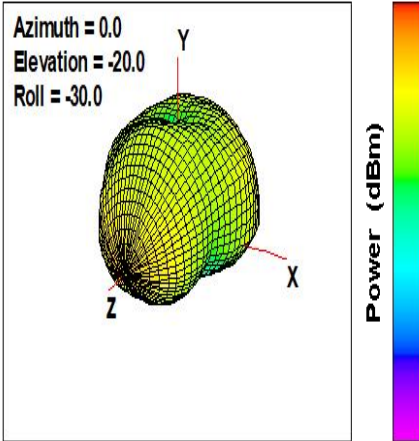
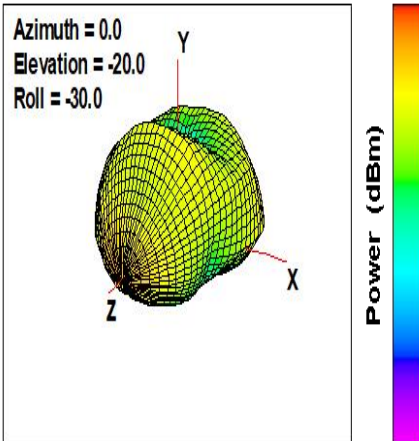
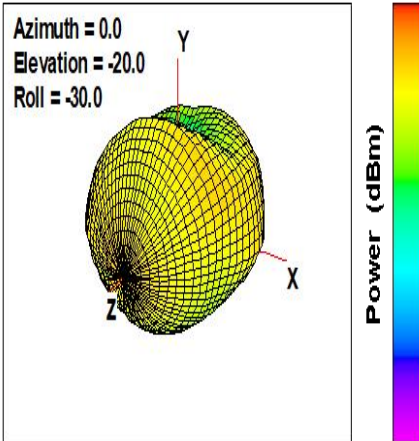
		Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
B42(10M)	3590	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.92
B48(10M)	3625	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.72
n77(100M)	3350		1.72

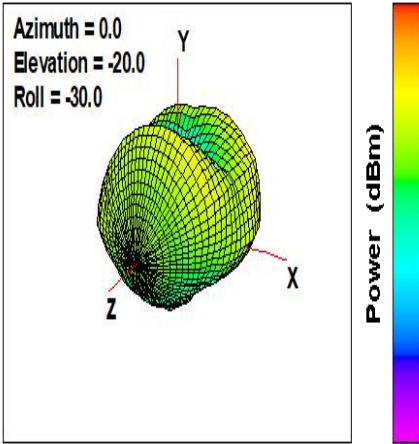
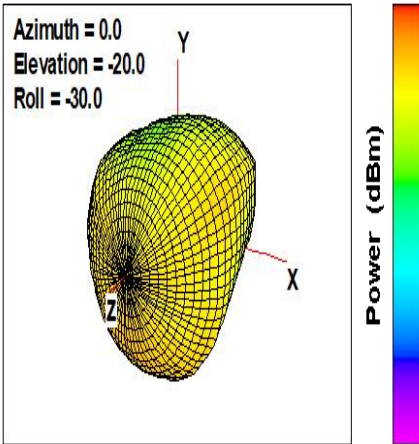
		Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	
	3750	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.92
	4000	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.85

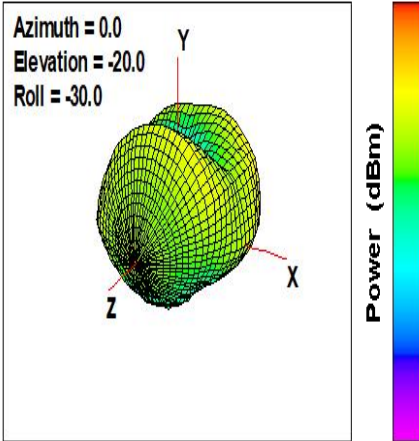
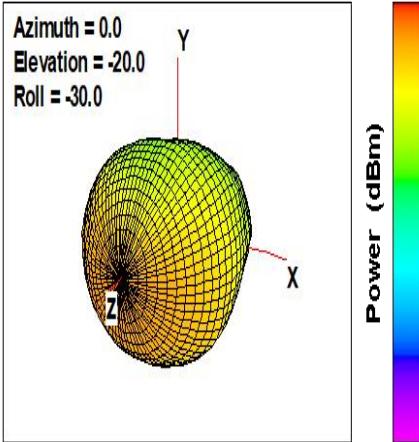
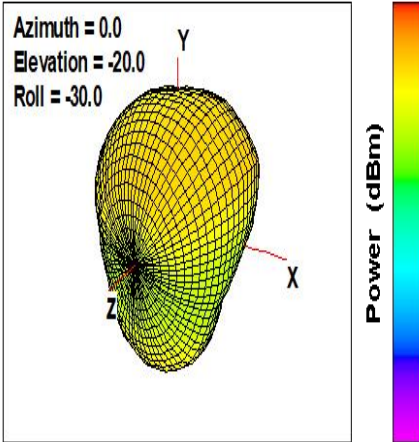
	4150	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	2.28
n78(100M)	3350	Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	1.72

ANT4

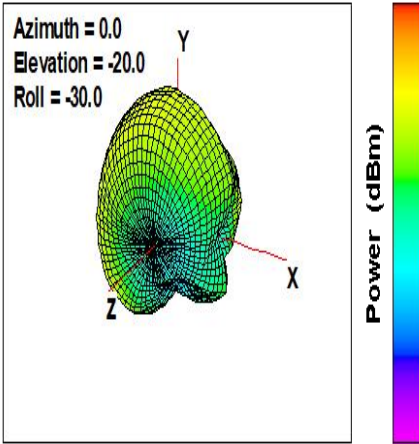
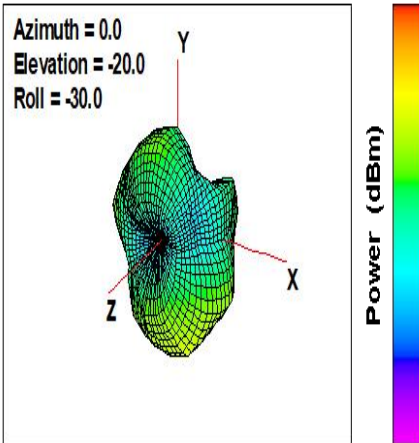
Band	Freq		
		radiation pattern	Gain

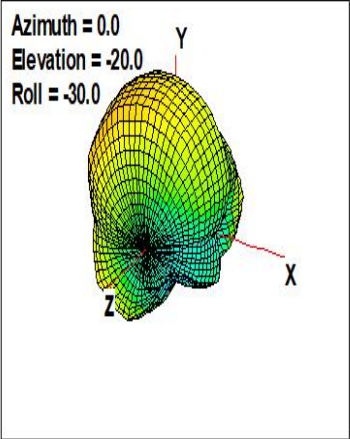
B1(10M)	1950	Total 	-0.70
B2(10M)	1880	Total 	-0.77
B3(10M)	1715	Total 	-1.99

B4(10M)	1715	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-0.42
B7(10M)	2510	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0  Power (dBm)	-0.80
B66(10M)	1715		-0.39

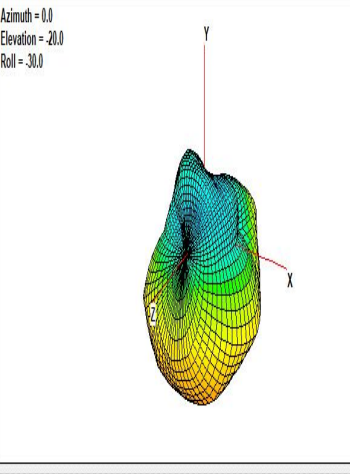
		Total 	
B38(20M)	2580	Total 	-0.15
B40(20M)	2350	Total 	-2.54
B41(20M)	2506		-0.77

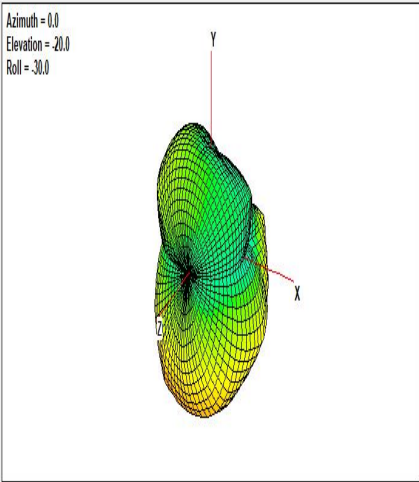
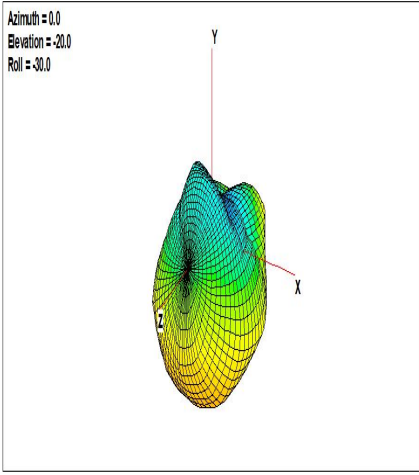
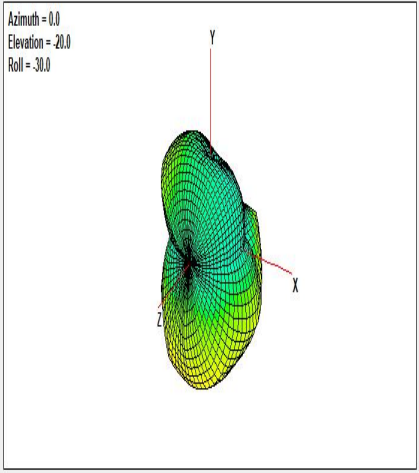
		Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 Power (dBm)	
B42(10M)	3590	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 Power (dBm)	-0.66
n77(100M)	3350	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 Power (dBm)	1.23

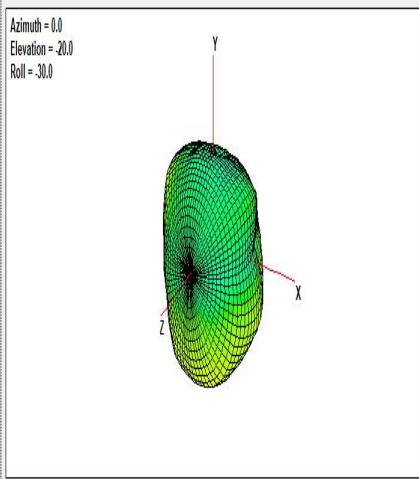
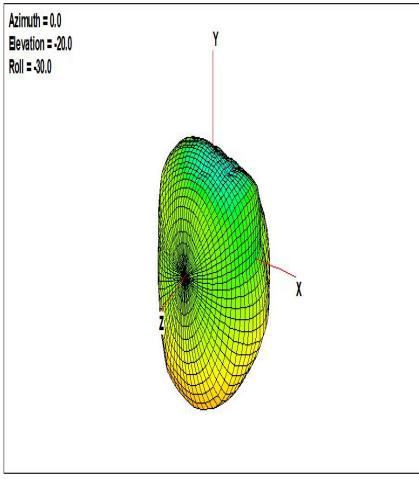
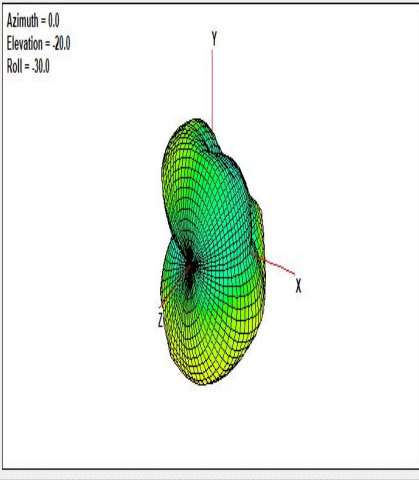
	3750	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-0.66
	4000	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	0.12
	4150		0.67

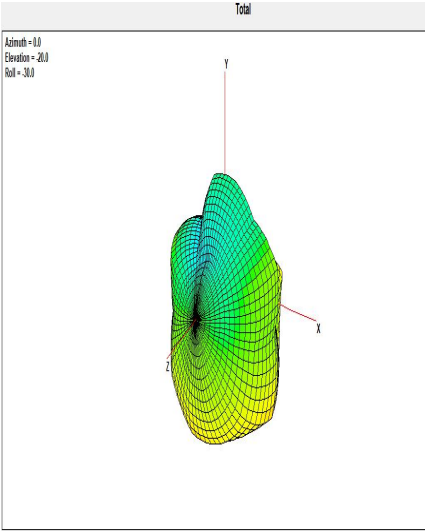
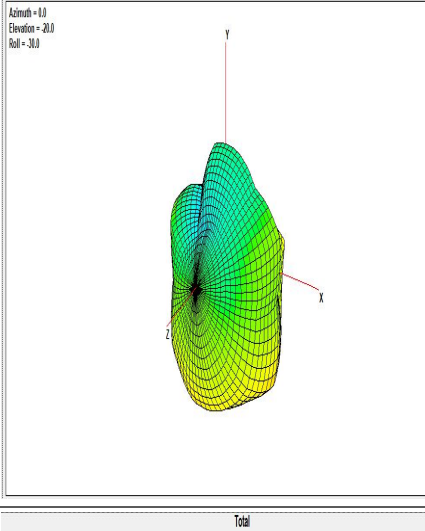
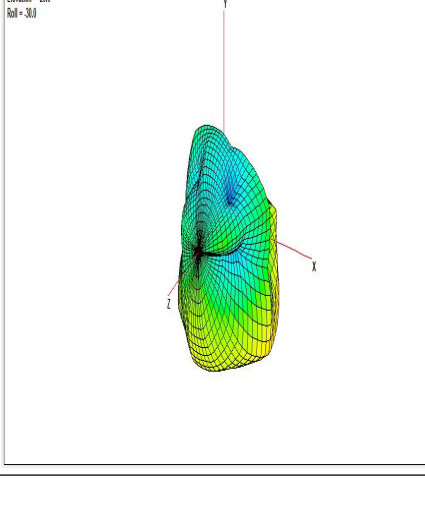
n78(100M)	3750	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-0.66
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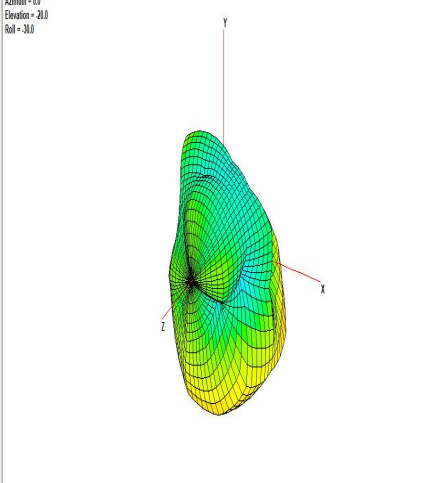
ANT5

Band	Freq		
		radiation pattern	Gain
B42(10M)	3410	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-1.25
B48 (10M)	3690		-2.65

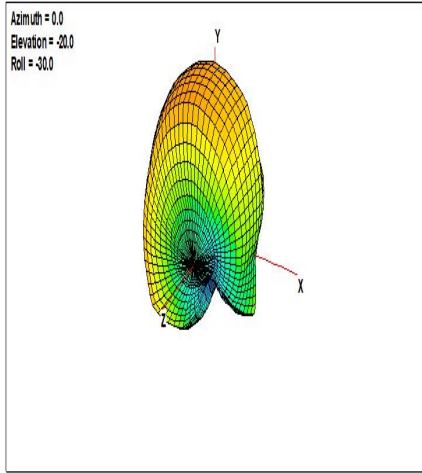
		Total Azimuth = 0.0 Elevation = -20.0 Roll = 30.0 	
n77(100M)	3350	Total Azimuth = 0.0 Elevation = -20.0 Roll = 30.0 	-1.25
	3750	Total Azimuth = 0.0 Elevation = -20.0 Roll = 30.0 	-2.65

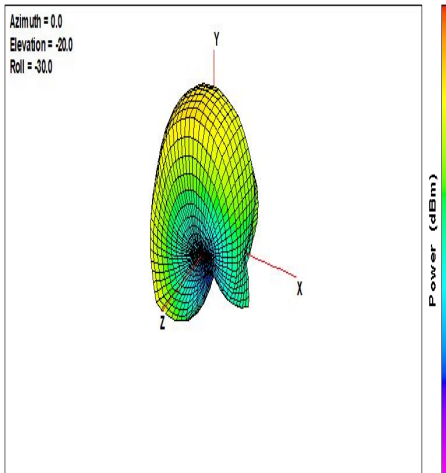
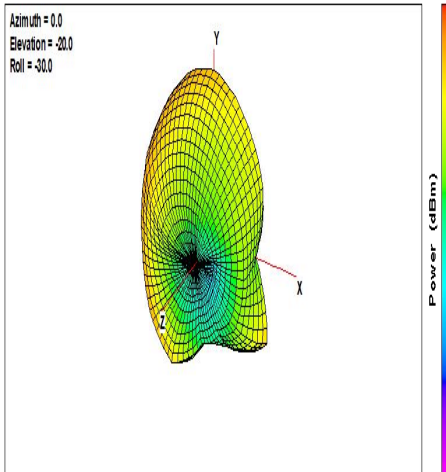
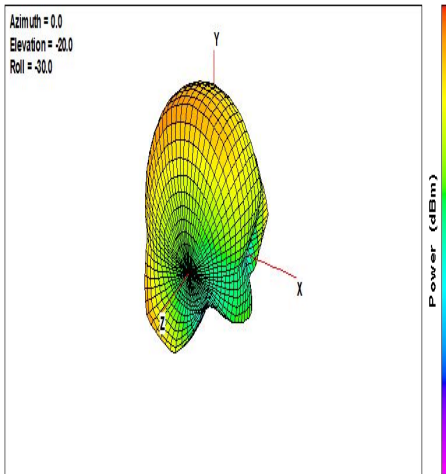
	4000	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-2.89
	4150	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-1.71
n78(100M)	3750	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-2.65

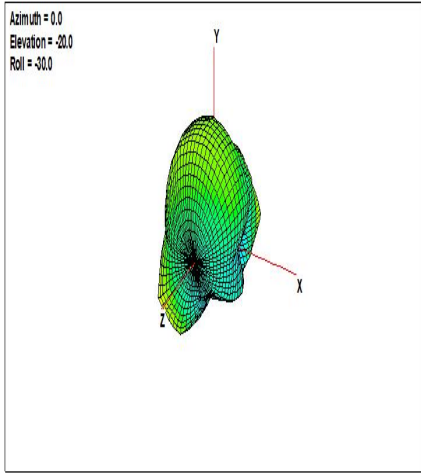
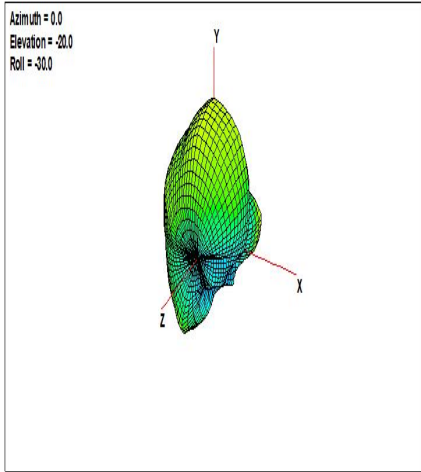
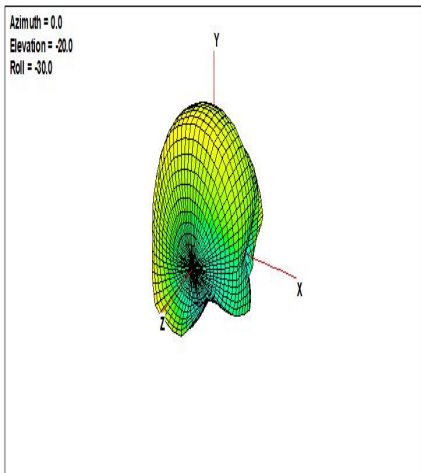
802.11a 54Mbps	5170	Total Altitude = 0.0 Elevation = 20.0 Roll = 30.0 	0.38
	5300	Total Altitude = 0.0 Elevation = 20.0 Roll = 30.0 	-0.18
	5510	Total Altitude = 0.0 Elevation = 20.0 Roll = 30.0 	-1.85

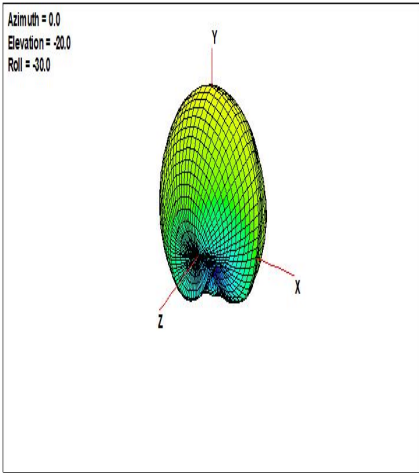
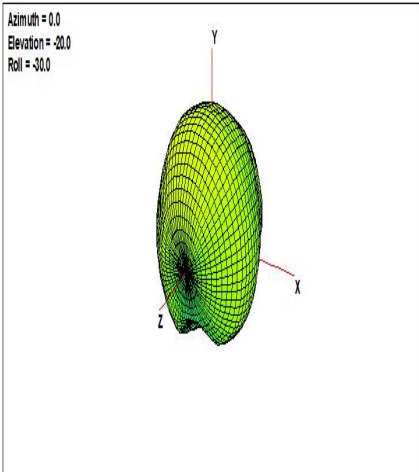
	5825	Total Azimuth = 0.0 Elevation = 20.0 Roll = 30.0 	-3.91
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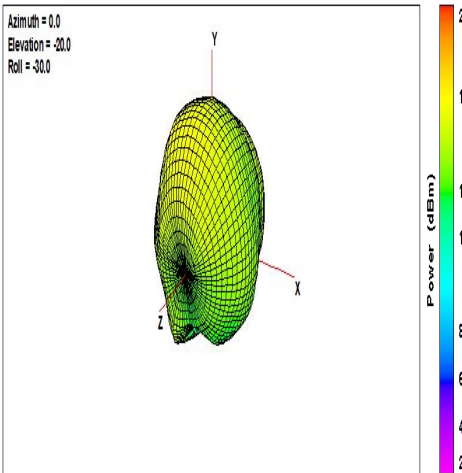
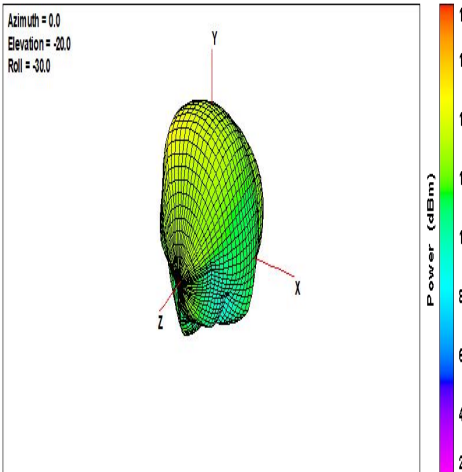
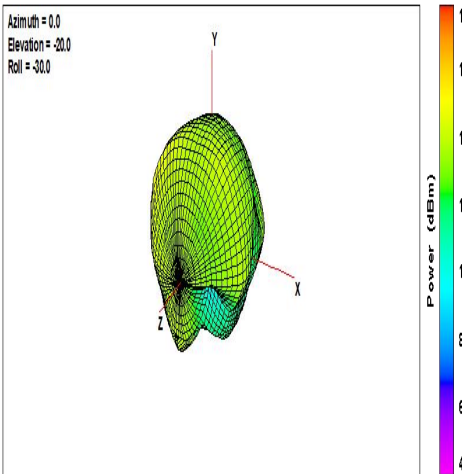
ANT6

Band	Freq		
		radiation pattern	Gain
B42(10M)	3590	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	0.40

B48 (10M)	3625	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	0.40
n77(100M)	3350	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	0.63
	3750	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	0.40
	4000		1.00

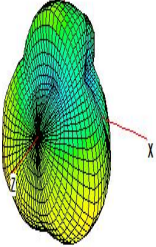
n78(100M)		Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	
	4150	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	-0.37
	3750	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	0.40

802.11b 11Mbps	2442	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	0.65
802.11a 54Mbps	5170	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	0.08
	5300		0.69

		Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	
	5510	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	1.00
	5825	Total Azimuth = 0.0 Elevation = -30.0 Roll = -30.0 	0.21

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ANT7

Band	Freq	radiation pattern	Gain
802.11b 11Mbps	2412	Total Azimuth = 0.0 Elevation = -20.0 Roll = -30.0 	-1.76

6. Test Photos

