

LGSBWAC24 Antenna



Catalogue

- Test site, equipment, test method
- Module physical picture
- Matching spec
- Test environment
- Antenna passive data

Test site, equipment, test method

Site: No. 34 Shilong Avenue, Shiyan Street, Baoan District, Shenzhen City;
Zhongtian Xun SATIMO SG24 darkroom

Experimental software: Satimo.Spm Version: 1.5.5

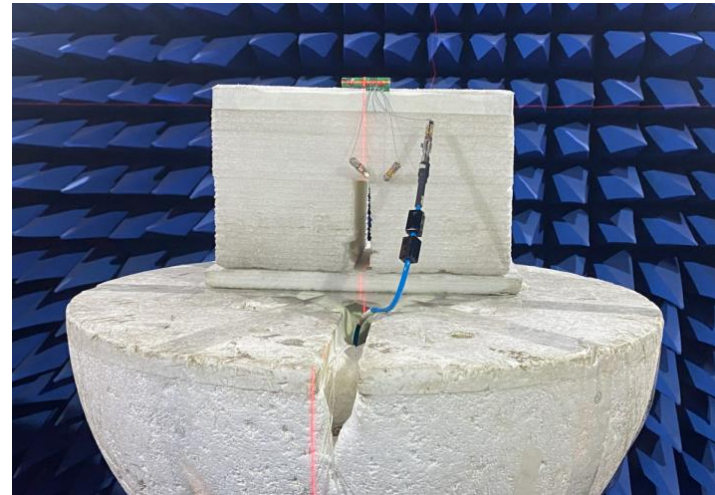
Standard of experiment: GB/T 9410-2008

Table of experimental equipment

Test instrument	Manufacturer	Type	Series No.
Network analyzer	Keysight	E5071C	MY47002902
	Agilent	E5071C	MY46521960
SG24 antenna test system	SATIMO	SG24	

Test setup photo

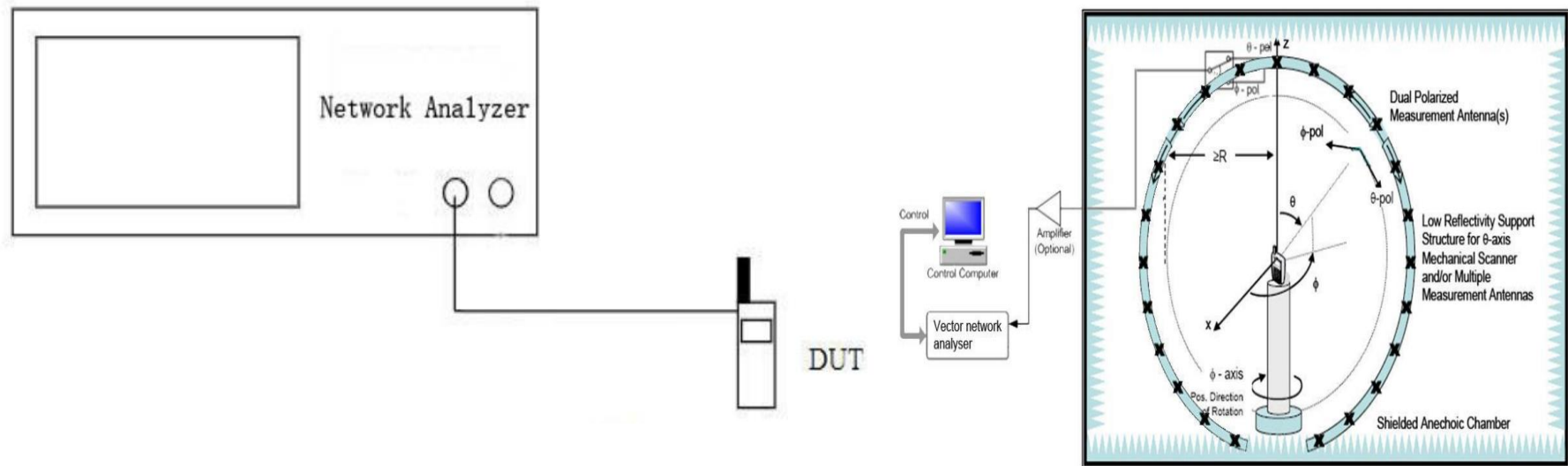
1. Antenna s11, s12 parameters testing:



Test program

1. Antenna s_{11} , s_{12} parameters testing:

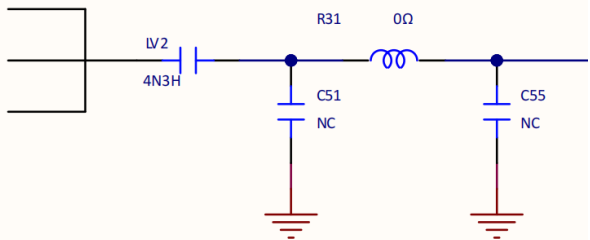
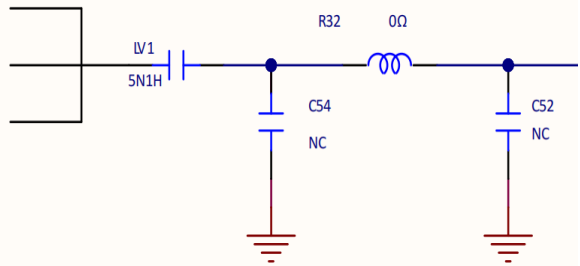
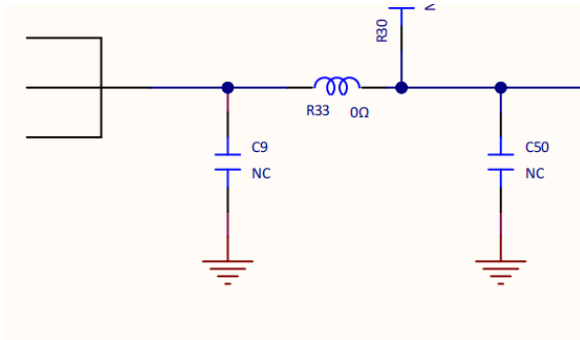
2. Antenna efficiency, gain and pattern test:



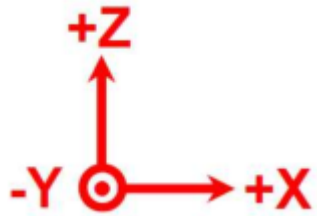
ANT

ANT	Description	Vendor
ANT1	DCT54/9.25/T0.3	GSD
ANT2	DCT54/10.25/T0.3	GSD
BT	DCT54/BT/T0.3	GSD

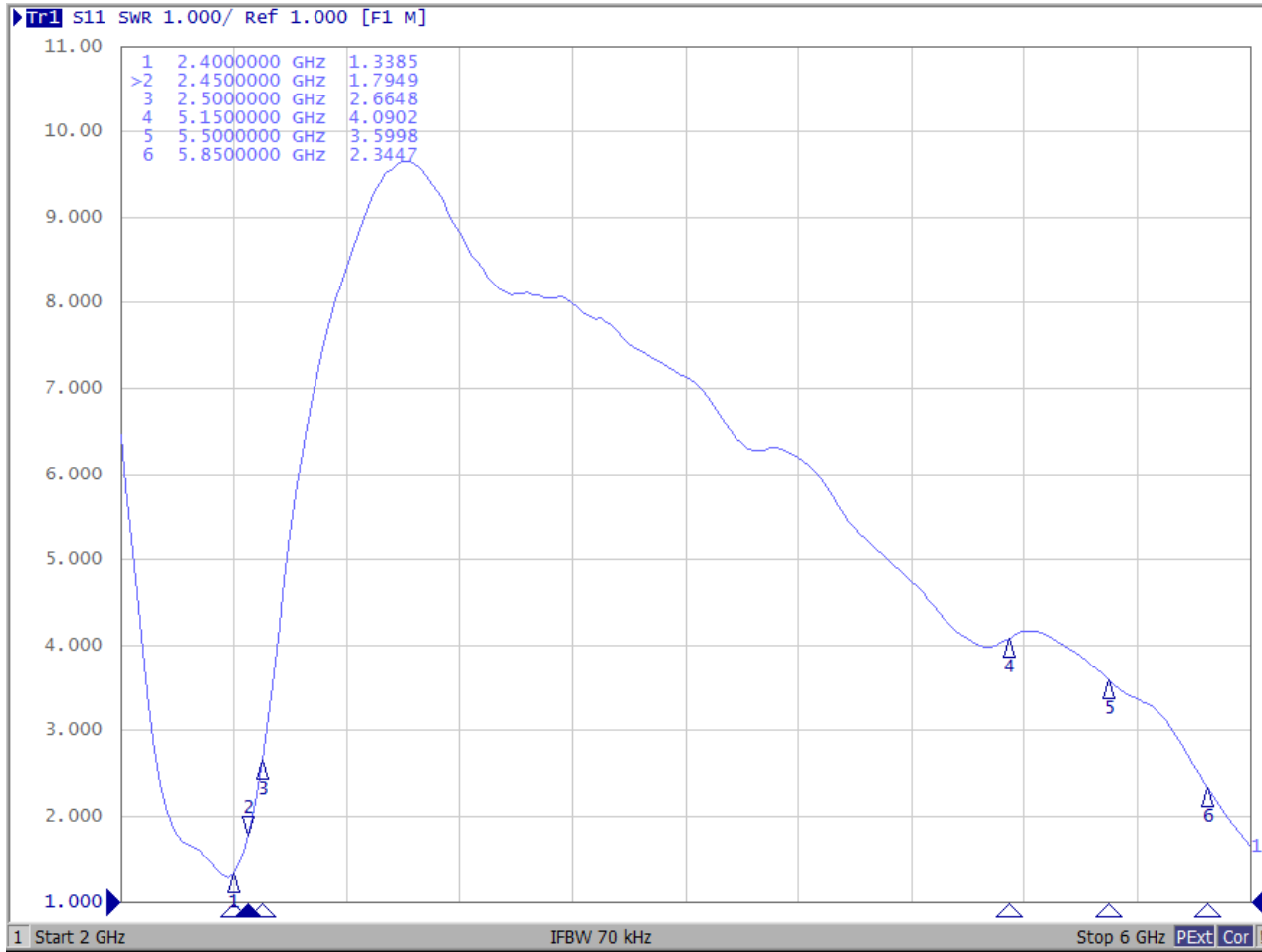
Matching spec



Test environment



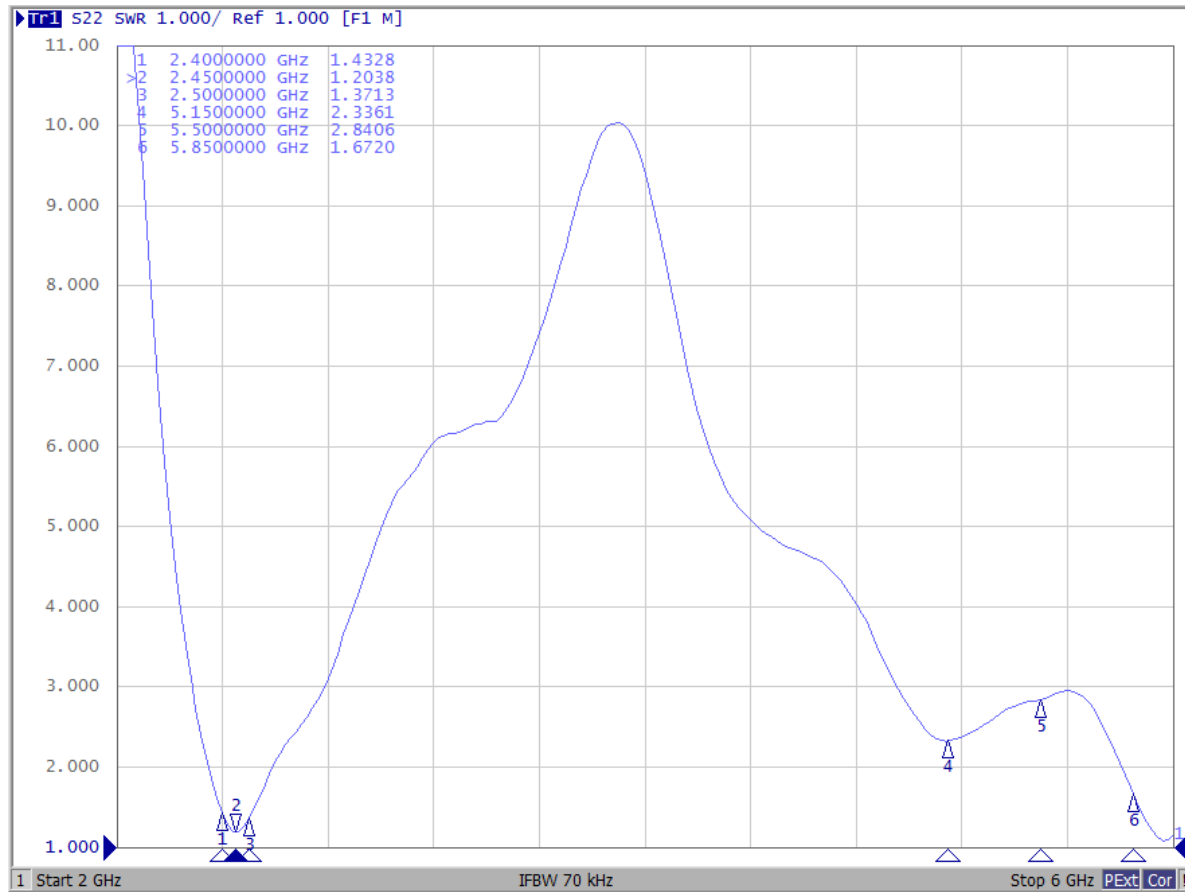
ANT1-S11



ANT1-Efficiency/Peak Gain

Frequency		Efficiency		Peak Gain	Frequency		Efficiency		Peak Gain
Mhz	%	dB		dB	Mhz	%	dB		dB
2400	36.76	-4.35		1.87	5150	34.28	-4.65		-0.41
2410	35.93	-4.44		1.68	5200	34.39	-4.64		-0.16
2420	34.43	-4.63		1.55	5250	33.98	-4.69		-0.11
2430	33.16	-4.79		1.59	5300	33.04	-4.81		-0.18
2440	31.16	-5.06		1.47	5350	32.09	-4.94		-0.23
2450	29.51	-5.30		1.23	5400	31.54	-5.01		-0.31
2460	27.43	-5.62		0.84	5450	30.43	-5.17		-0.39
2470	26.37	-5.79		0.59	5500	30.06	-5.22		-0.43
2480	24.74	-6.07		0.29	5550	31.46	-5.02		-0.10
2490	22.93	-6.40		-0.05	5600	32.41	-4.89		-0.01
2500	21.18	-6.74		-0.48	5650	33.82	-4.71		0.45
					5700	36.02	-4.43		0.79
					5750	37.36	-4.28		0.96
					5800	40.63	-3.91		1.43
					5850	44.68	-3.50		1.74

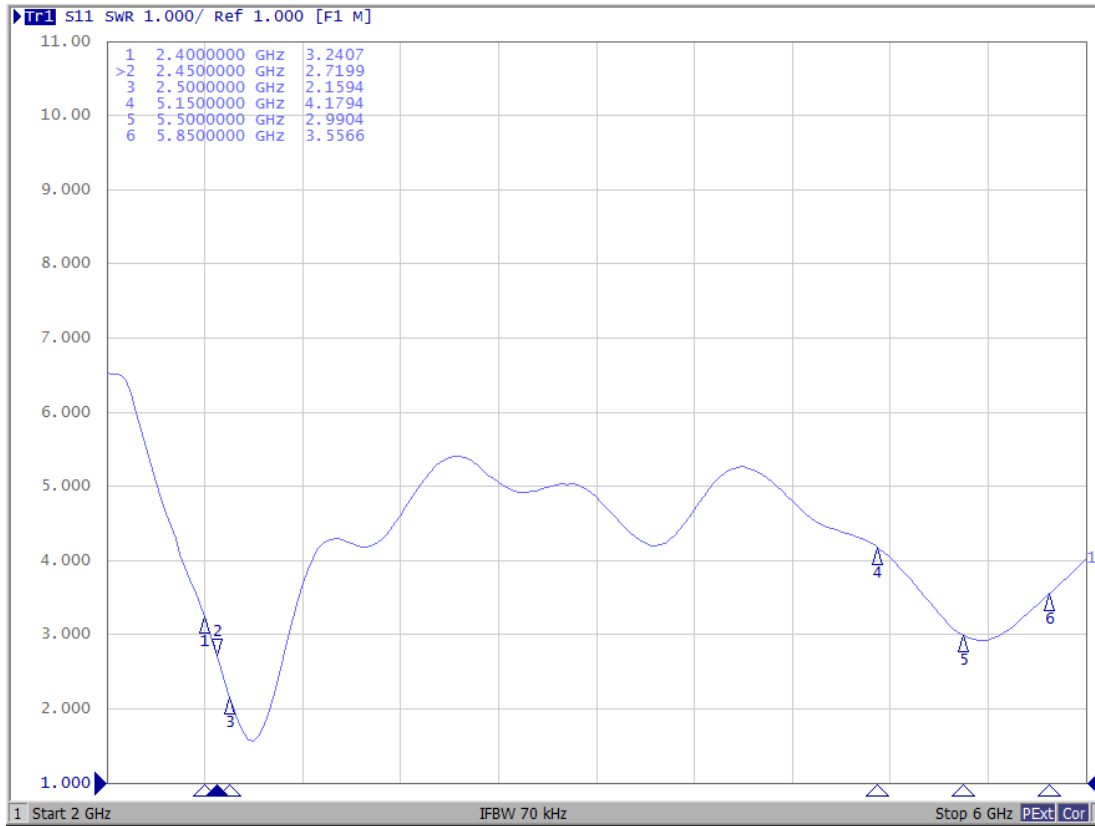
ANT2-S22



ANT2-Efficiency/Peak Gain

Frequency		Efficiency		Peak Gain	Frequency		Efficiency		Peak Gain
Mhz	%	dB		dB	Mhz	%	dB		dB
2400	36.64	-4.36		1.54	5150	49.32	-3.07		1.72
2410	37.99	-4.20		1.60	5200	48.31	-3.16		1.80
2420	39.18	-4.07		1.79	5250	47.66	-3.22		1.84
2430	39.60	-4.02		1.85	5300	46.36	-3.34		1.86
2440	39.91	-3.99		1.75	5350	45.21	-3.45		1.67
2450	40.05	-3.97		1.71	5400	44.75	-3.49		1.61
2460	40.52	-3.92		1.79	5450	42.84	-3.68		1.32
2470	41.75	-3.79		1.83	5500	43.87	-3.58		1.32
2480	42.35	-3.73		1.97	5550	45.22	-3.45		1.34
2490	42.47	-3.72		1.95	5600	46.73	-3.30		1.17
2500	42.27	-3.74		1.92	5650	49.09	-3.09		1.34
					5700	51.39	-2.89		1.41
					5750	53.15	-2.74		1.19
					5800	56.32	-2.49		1.60
					5850	58.34	-2.34		1.78

BT-S11

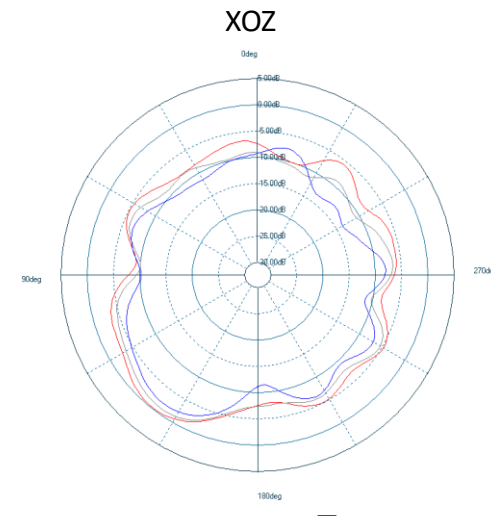
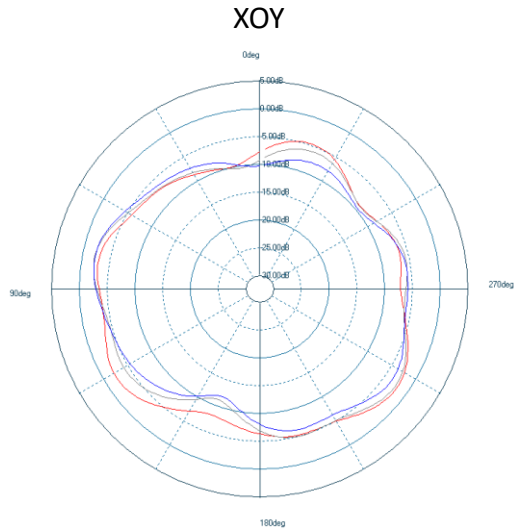


BT-Efficiency/Peak Gain

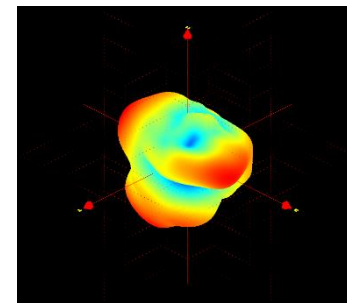
Frequency Mhz	Efficiency		Peak Gain
	%	dB	dB
2400	15.80	-8.01	-3.14
2410	15.52	-8.09	-2.77
2420	16.25	-7.89	-2.34
2430	16.22	-7.90	-2.32
2440	16.79	-7.75	-2.28
2450	17.18	-7.65	-2.17
2460	18.26	-7.38	-1.77
2470	19.43	-7.12	-1.34
2480	20.26	-6.93	-1.01
2490	21.39	-6.70	-0.65
2500	22.26	-6.53	-0.41

Radiation Pattern-ANT1

ANT1-2.4G

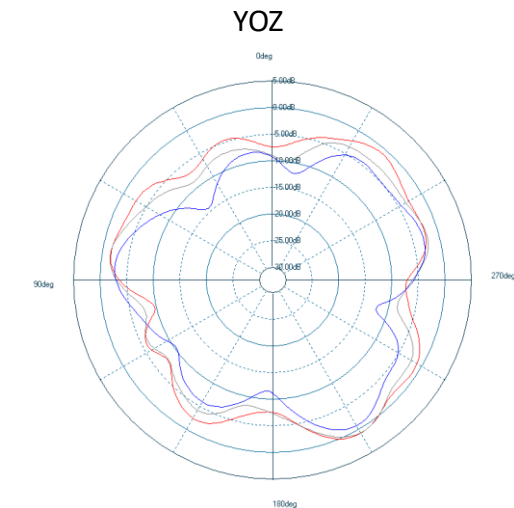


Z



X

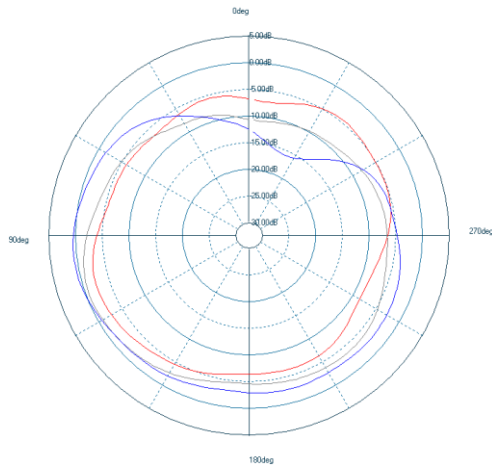
Y



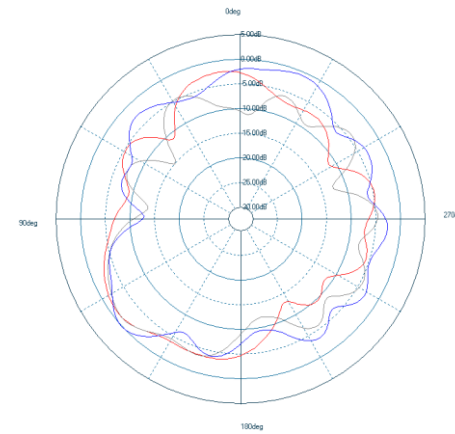
Radiation Pattern-ANT1

ANT1-5G

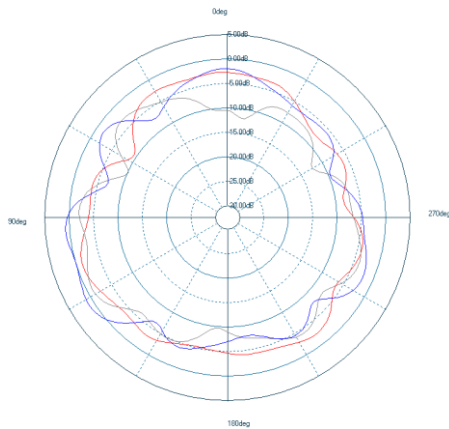
XOY



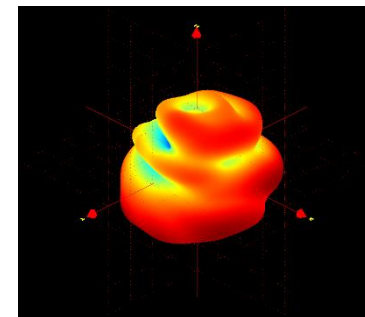
XOZ



YOZ



Z



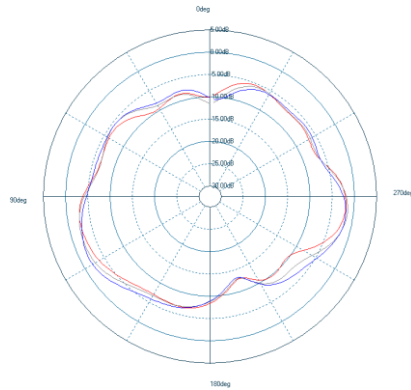
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Y

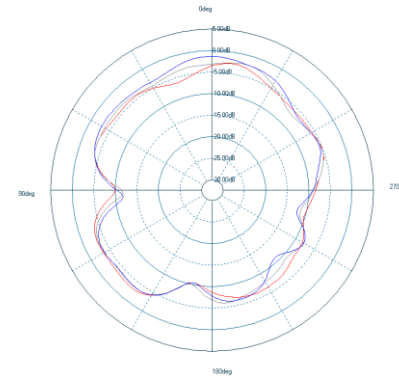
Radiation Pattern-ANT2

ANT2-2.4G

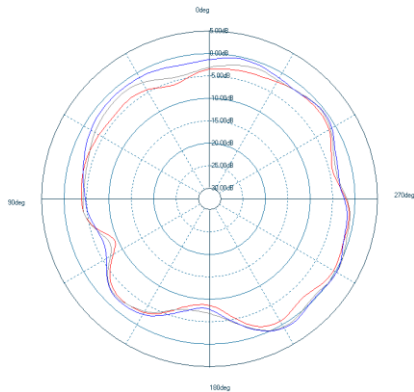
XOY



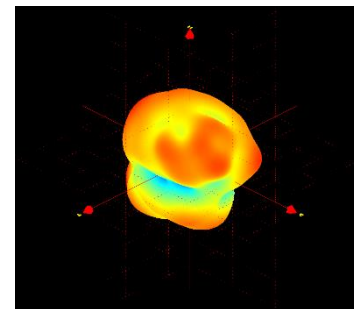
XOZ



YOZ



Z



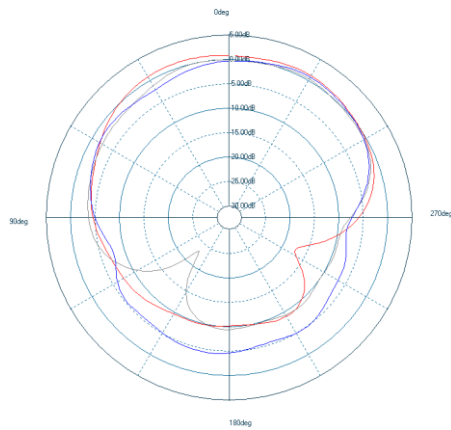
X

Y

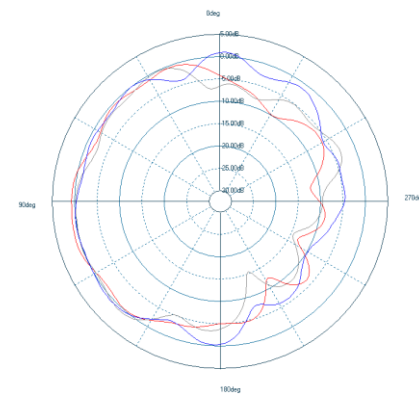
Radiation Pattern-ANT2

ANT2-5G

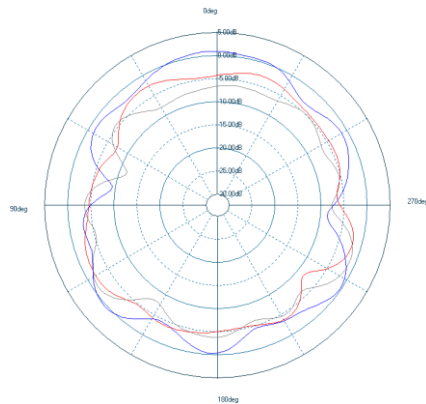
XOY



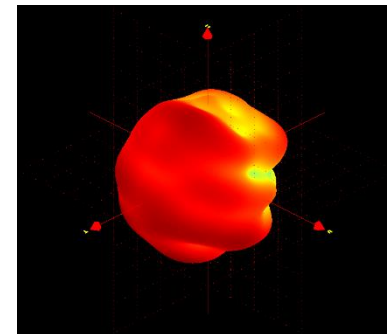
XOZ



YOZ



Z

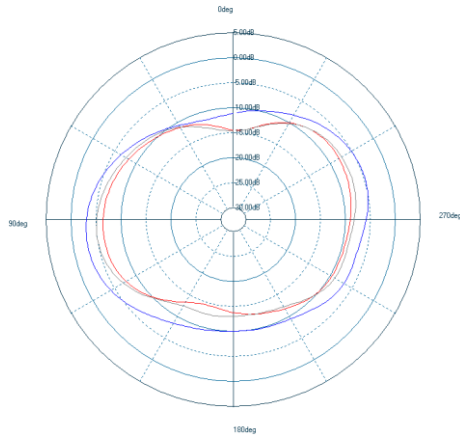


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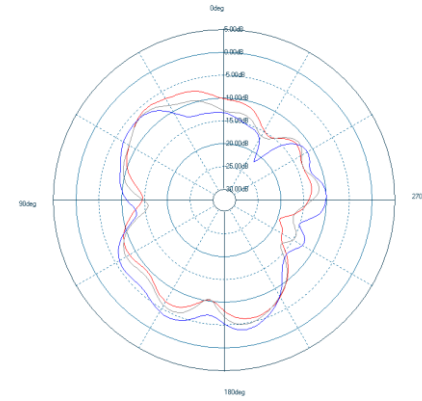
Y

Radiation Pattern-BT

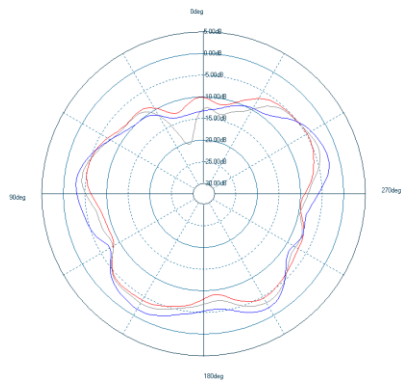
XOY



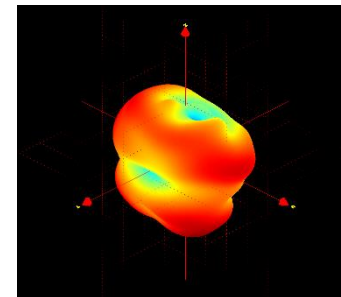
XOZ



YOZ



Z



X

Y



Thanks