

# 2.4/5G/6/7G Wifi-6 Antenna

MODEL: TH-2458S



## 1. GENERAL DESCRIPTION

Model No
TH-2458S-SMA(M)

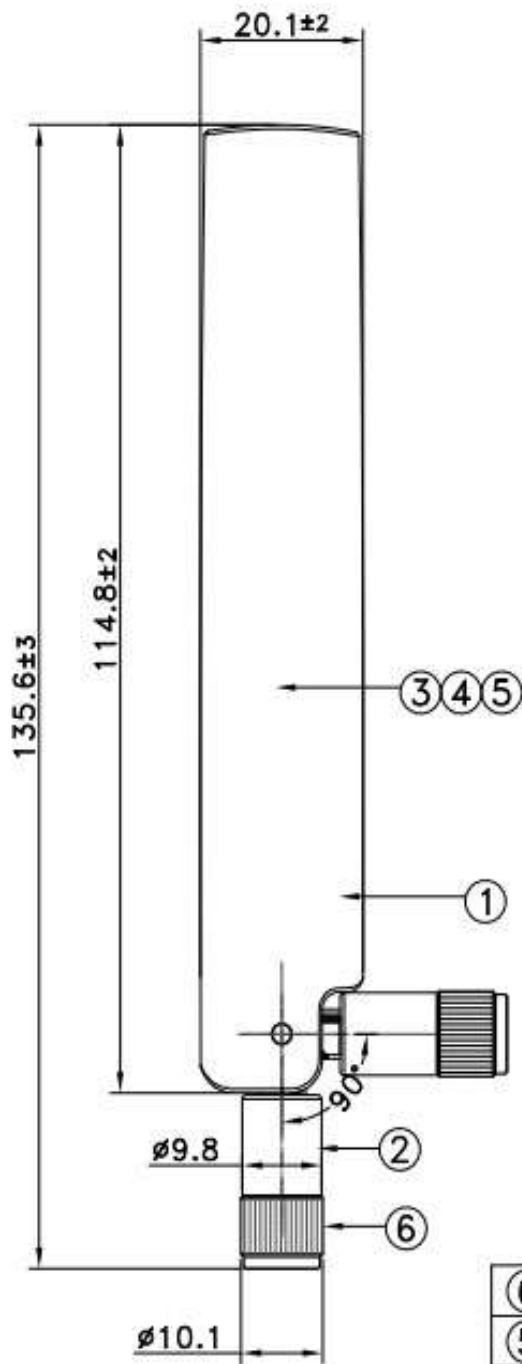
### 1.1 Electrical Properties

Parameter	Description
Frequency Band	2.4~2.5/5.1~5.85/6~7.125GHz
Nominal Impedance	50 ohm
Polarization	Vertical
V.S.W.R	2.5:1

### 1.2 Mechanical Properties

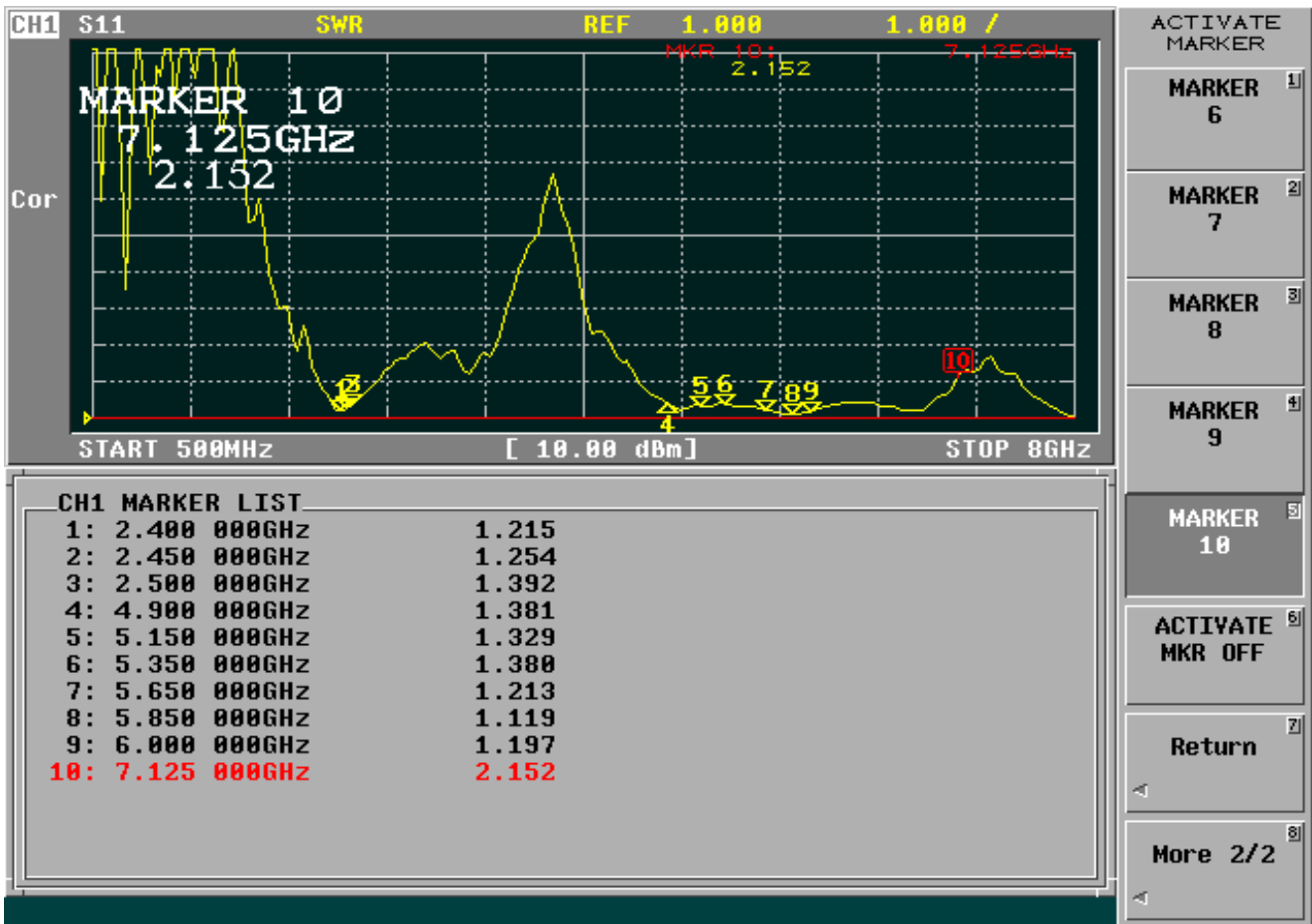
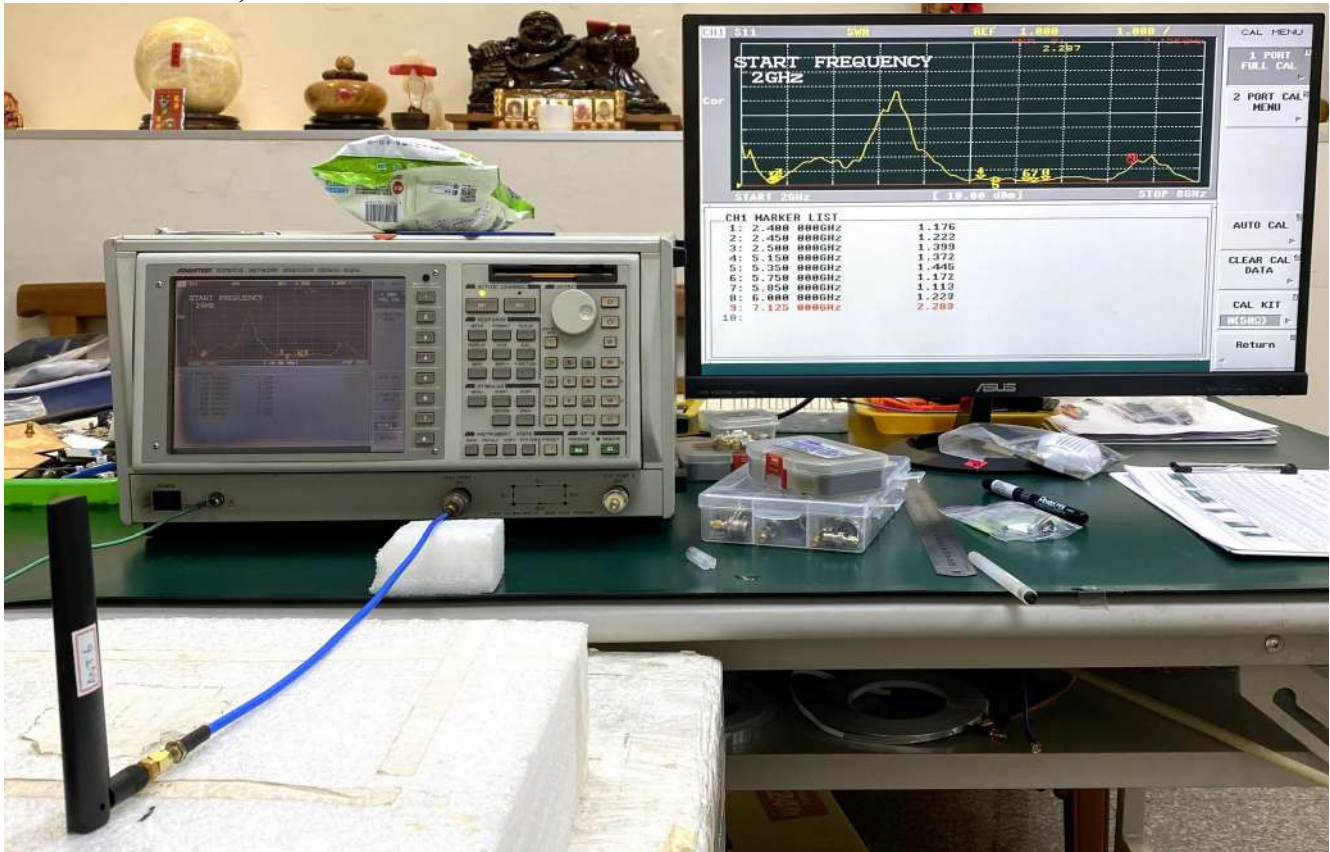
Parameter	Description
Antenna Type	External Antenna
Touch Type	Screw Type
Connector Type	SMA(M) or RP-SMA(M)
Antenna Dimensions	20 x 135.6 mm ±3
Antenna Color	Black
Operating Temperature Range	-40°C~+85°C
Storage Temperature Range	-40°C~+85°C

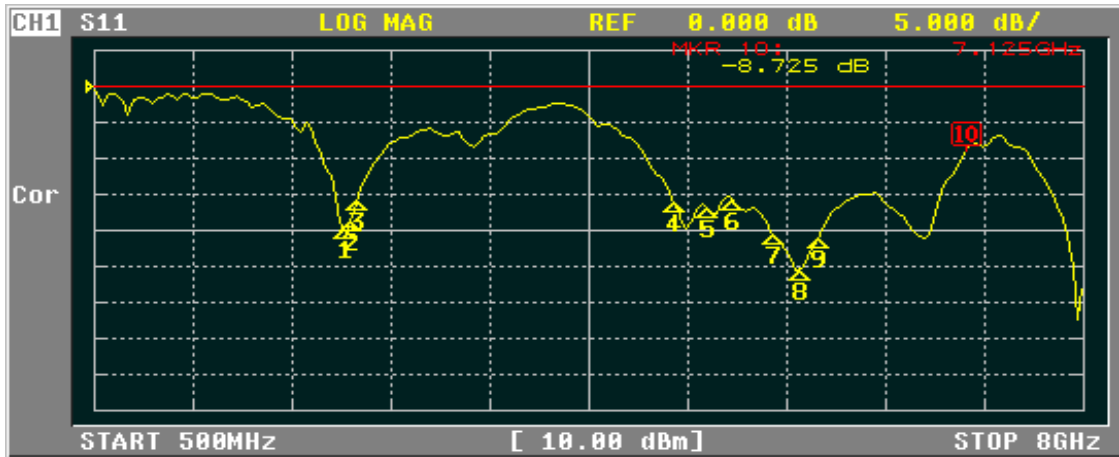
## 2. Appearance



⑥	SMA PLUG	Brass	Ni	1
⑤	Cable	RG178	Brown	1
④	Sponge	EVA	Black	1
③	PCB	FR4	Black	1
②	Antenna Base	PC	Black	1
①	Antenna Cover	ABS	Black	1
ITEM	Name	Material	Finish	QTY

### 3. Return Loss, V.S.W.R. and Smith Chart





CH1 MARKER LIST

1:	2.400 000GHz	-19.828 dB
2:	2.450 000GHz	-18.615 dB
3:	2.500 000GHz	-15.642 dB
4:	4.900 000GHz	-16.077 dB
5:	5.150 000GHz	-16.916 dB
6:	5.350 000GHz	-15.889 dB
7:	5.650 000GHz	-20.589 dB
8:	5.850 000GHz	-25.452 dB
9:	6.000 000GHz	-21.069 dB
10:	7.125 000GHz	-8.727 dB

FORMAT

LOG MAG 1

PHASE 2

DELAY 3

SMITH (R+jX) 4

SMITH (G+jB) 5

POLAR 6

LIN MAG 7

More 1/2 8



CH1 MARKER LIST

1:	2.400 000GHz	52.318 Ω	-8.653 Ω	7.663pF
2:	2.450 000GHz	41.031 Ω	-5.733 Ω	11.330pF
3:	2.500 000GHz	36.467 Ω	2.987 Ω	190.176pH
4:	4.900 000GHz	67.615 Ω	3.696 Ω	120.053pH
5:	5.150 000GHz	38.713 Ω	-6.156 Ω	5.019pF
6:	5.350 000GHz	38.730 Ω	8.843 Ω	263.085pH
7:	5.650 000GHz	56.226 Ω	7.523 Ω	211.921pH
8:	5.850 000GHz	55.092 Ω	2.501 Ω	68.053pH
9:	6.000 000GHz	58.519 Ω	4.128 Ω	109.519pH
10:	7.125 000GHz	38.312 Ω	-32.071 Ω	696fF

FORMAT

LOG MAG 1

PHASE 2

DELAY 3

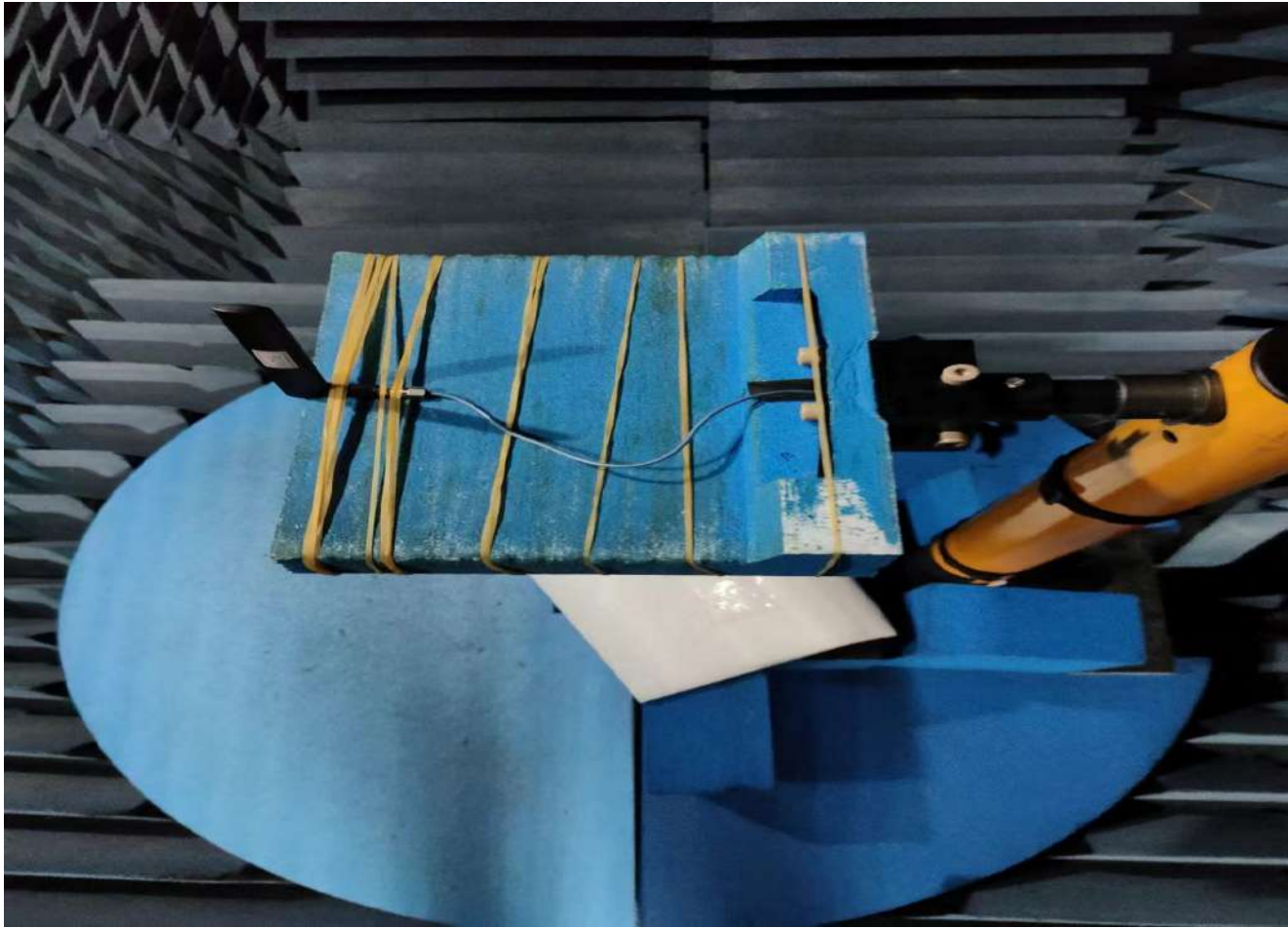
SMITH (R+jX) 4

SMITH (G+jB) 5

POLAR 6

LIN MAG 7

More 1/2 8

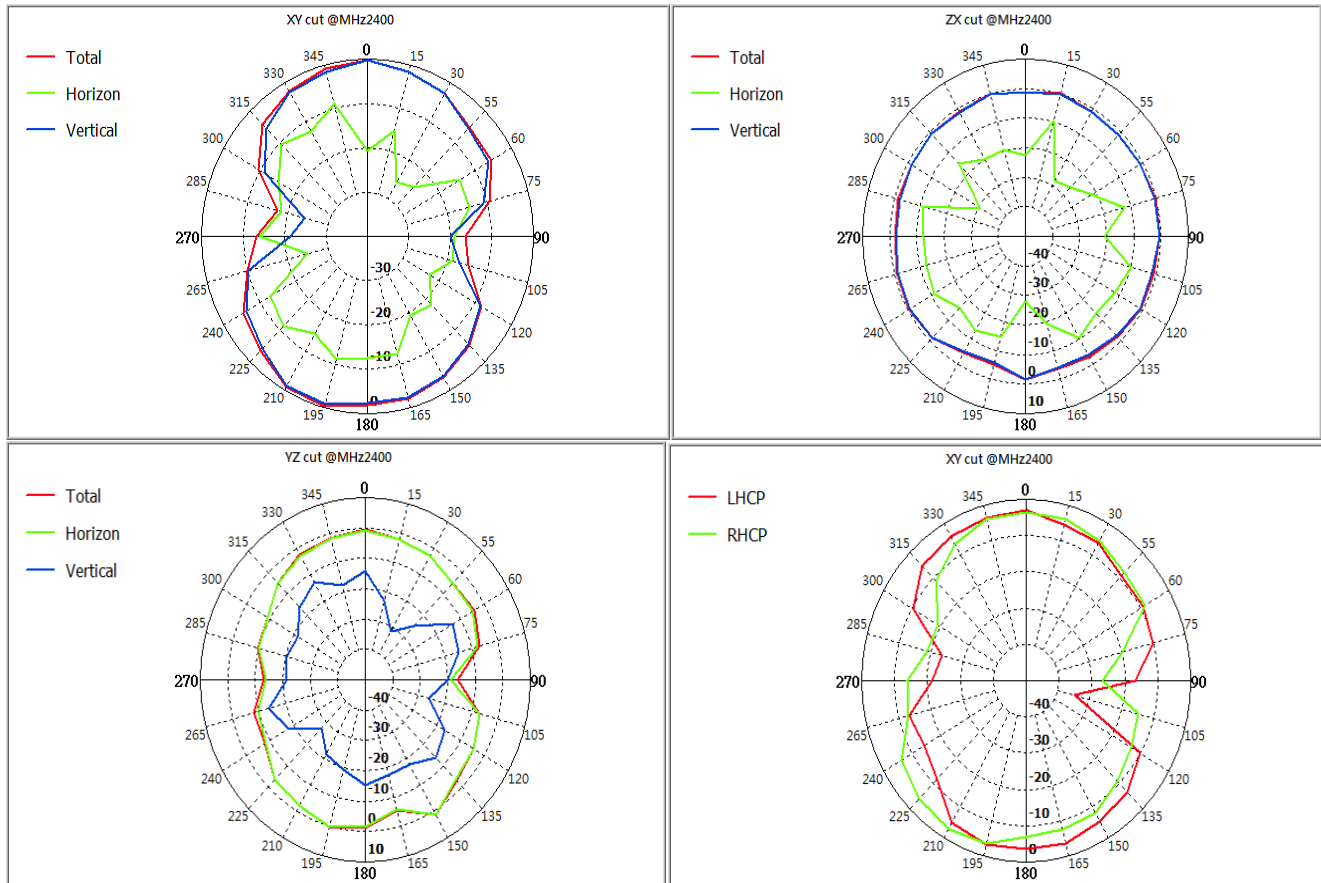


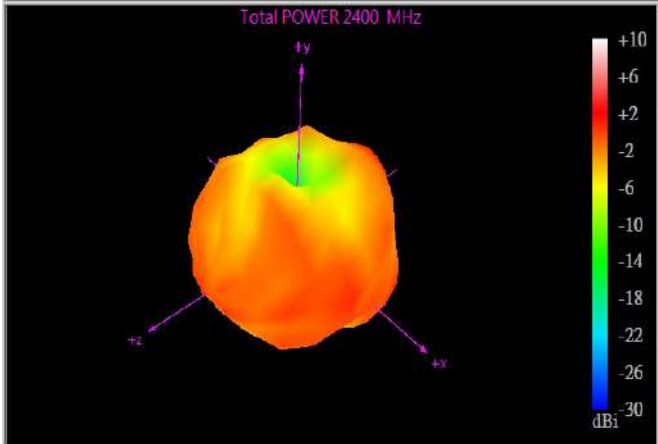
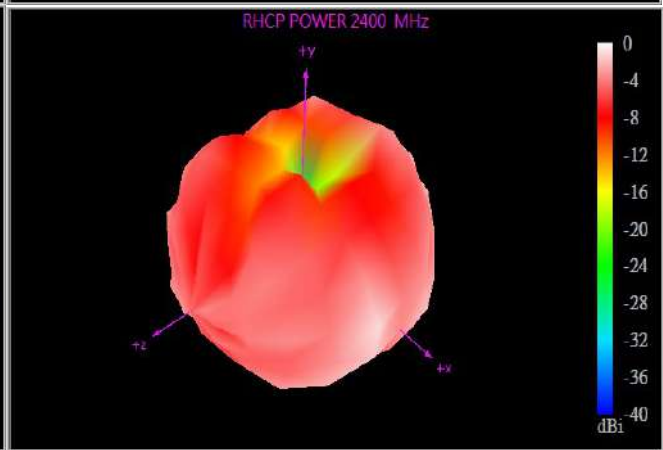
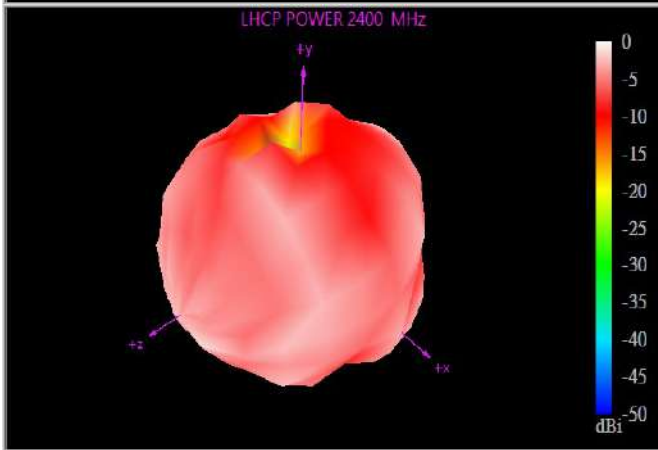
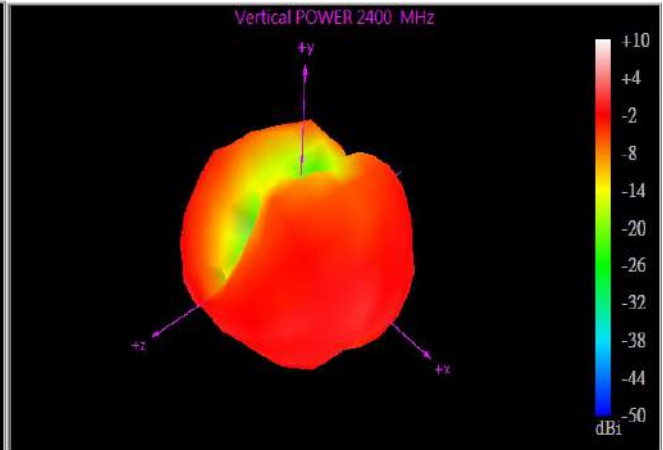
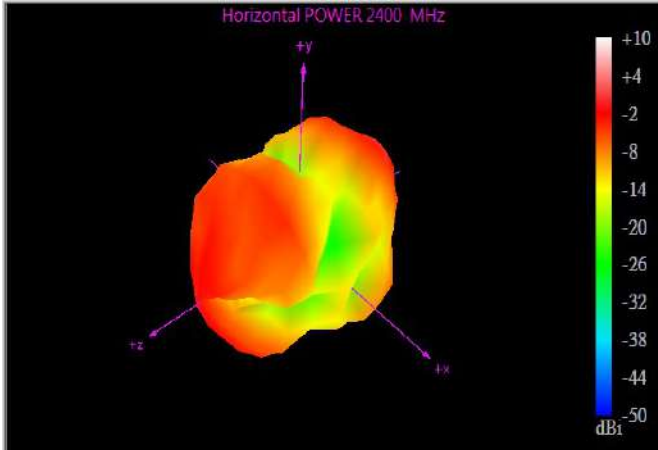
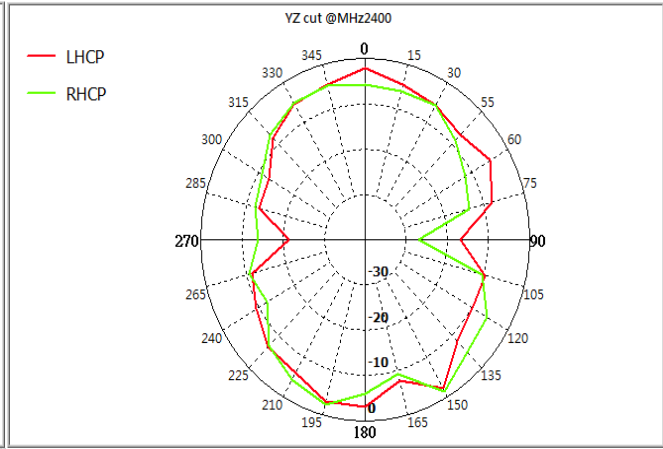
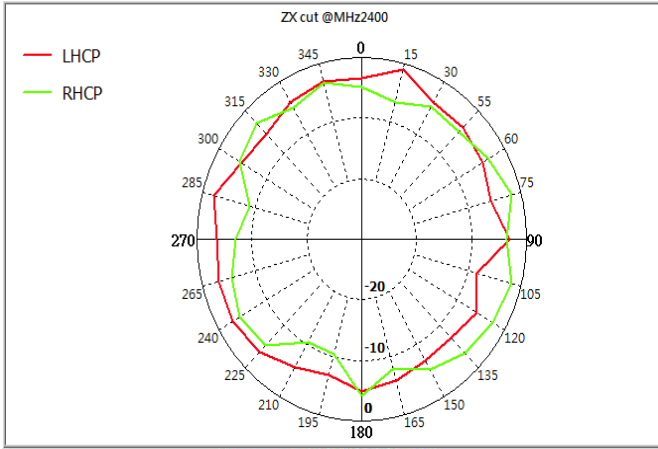
### 3D Total

Frequency (MHz)	Upper Hem. PRP (dBm)	Lower HEM. PRP (dBm)	Efficiency (dB)	Efficiency (%)	Gain (dBi)	Tot. Rad.Pwr. (dBm)
2400 MHz	-6.14	-5.91	-3.01	49.99	1.25	-3.01
2450 MHz	-5.51	-5.33	-2.41	57.41	1.68	-2.41
2500 MHz	-6.39	-6.01	-3.18	48.07	1.16	-3.18
4800 MHz	-6.74	-6.50	-3.61	43.57	1.40	-3.61
4850 MHz	-5.84	-5.63	-2.72	53.40	1.80	-2.72
4900 MHz	-4.41	-4.28	-2.34	58.34	3.16	-2.34
4950 MHz	-3.99	-3.93	-2.95	50.70	4.11	-2.95
5050 MHz	-6.48	-6.47	-3.46	45.05	1.72	-3.46
5150 MHz	-5.84	-5.55	-2.68	53.92	2.10	-2.68
5250 MHz	-7.51	-7.31	-4.40	36.32	1.19	-4.40
5350 MHz	-6.99	-7.09	-4.03	39.56	2.14	-4.03
5470 MHz	-6.95	-7.04	-3.98	39.96	1.77	-3.98
5597.5 MHz	-6.60	-7.00	-3.79	41.80	1.34	-3.79
5725 MHz	-6.87	-6.98	-3.92	40.59	1.37	-3.92
5785 MHz	-7.26	-7.63	-4.43	36.05	1.97	-4.43
5850 MHz	-6.87	-7.43	-4.13	38.62	1.67	-4.13
5895 MHz	-6.01	-6.41	-3.19	47.93	2.15	-3.19

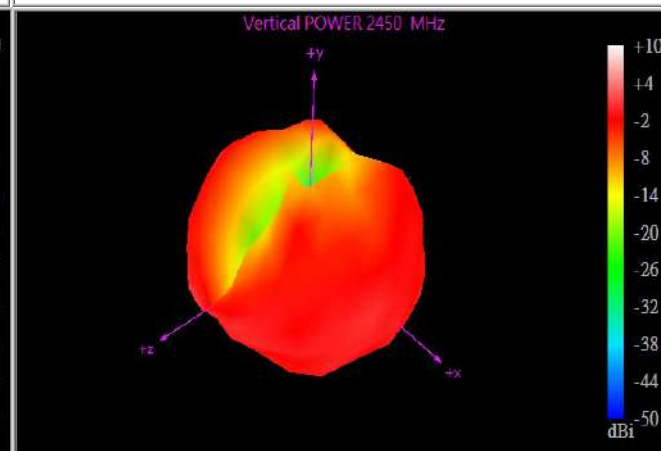
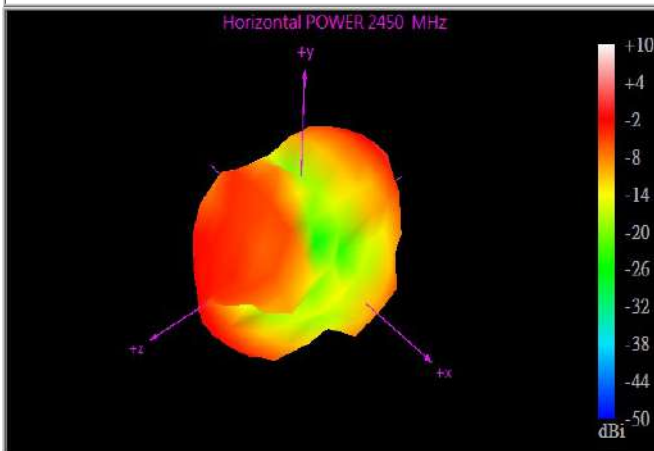
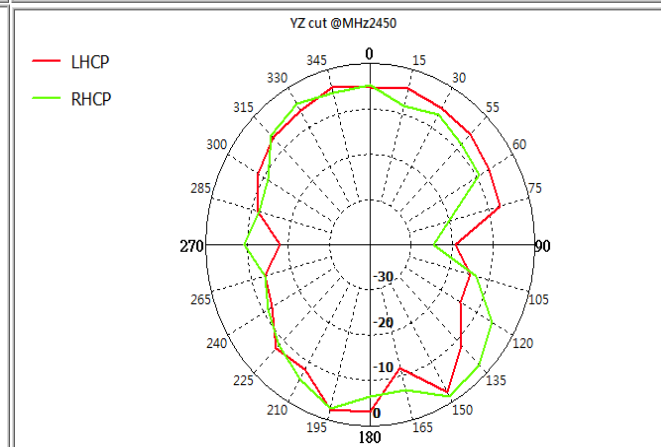
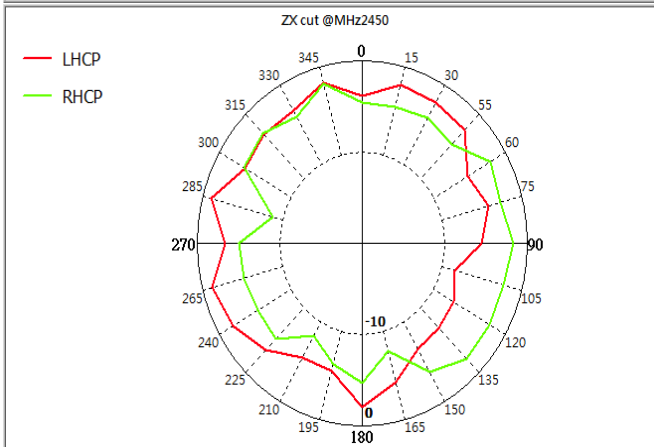
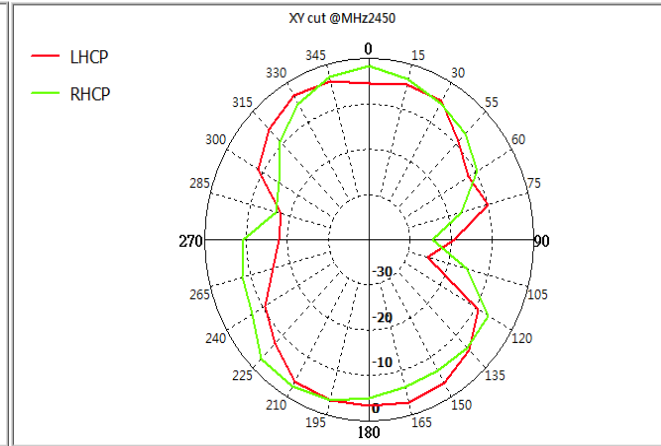
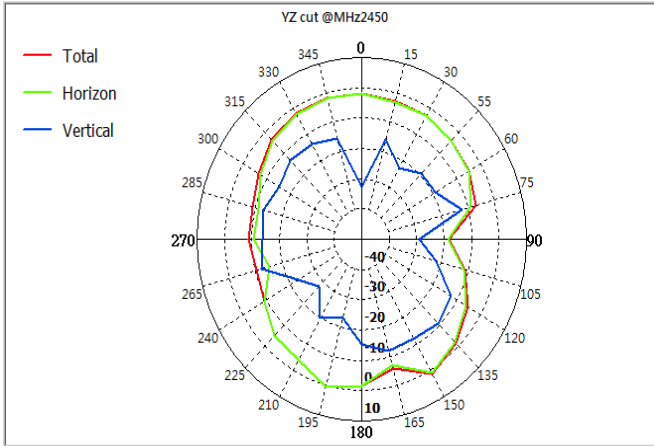
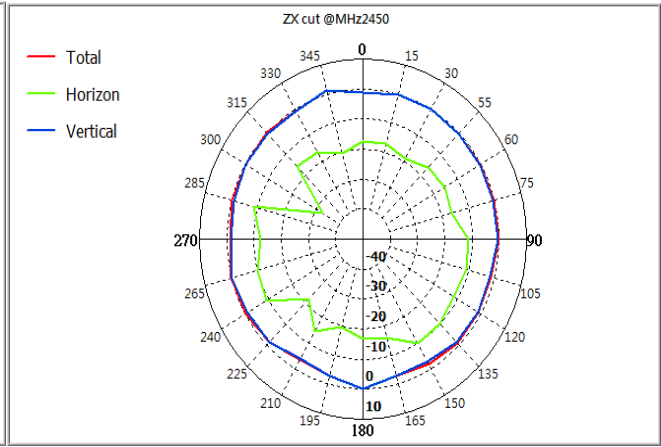
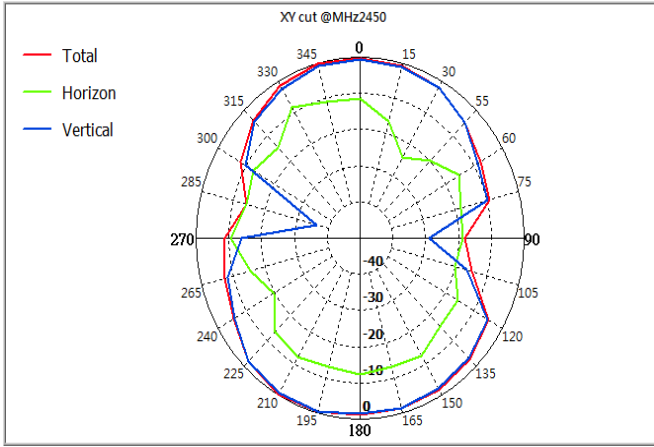
5925 MHz	-5.79	-6.76	-3.24	47.45	2.67	-3.24
6000 MHz	-6.59	-7.01	-3.78	41.84	1.85	-3.78
6125 MHz	-6.15	-6.40	-3.26	47.21	2.43	-3.26
6225 MHz	-5.23	-5.91	-2.54	55.69	3.66	-2.54
6325 MHz	-5.43	-5.54	-2.47	56.60	3.13	-2.47
6425 MHz	-4.53	-4.84	-2.67	54.08	4.96	-2.67
6525 MHz	-6.86	-7.19	-4.01	39.71	2.00	-4.01
6625 MHz	-6.16	-6.25	-3.19	47.92	3.12	-3.19
6725 MHz	-6.91	-7.29	-4.09	39.04	3.38	-4.09
6875 MHz	-7.55	-7.28	-4.41	36.26	3.02	-4.41
7000 MHz	-6.77	-6.61	-3.68	42.89	2.17	-3.68
7125 MHz	-5.61	-5.38	-4.48	35.65	5.57	-4.48

**2400MHz:**

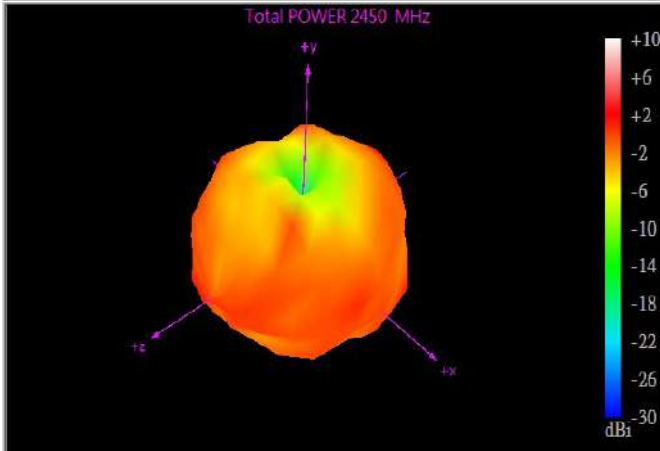
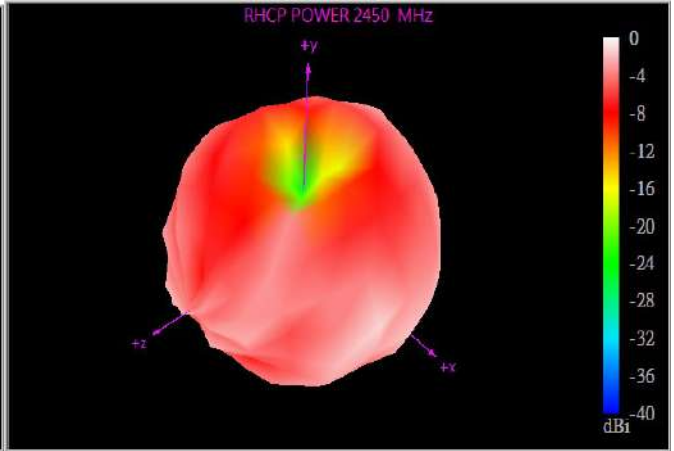
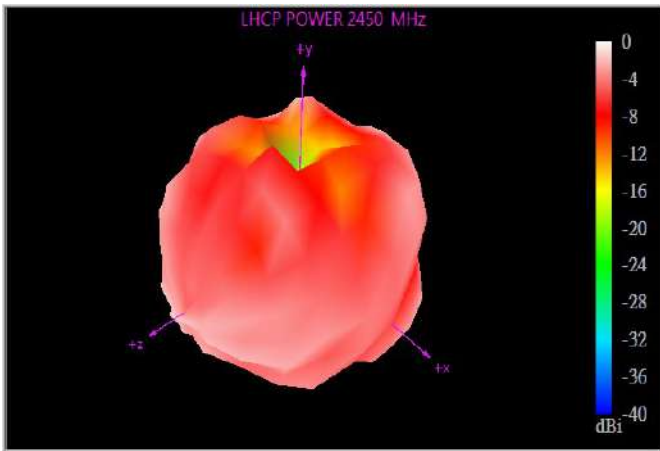




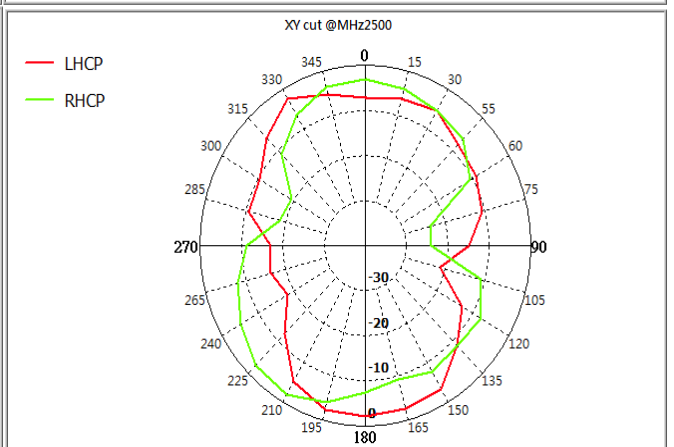
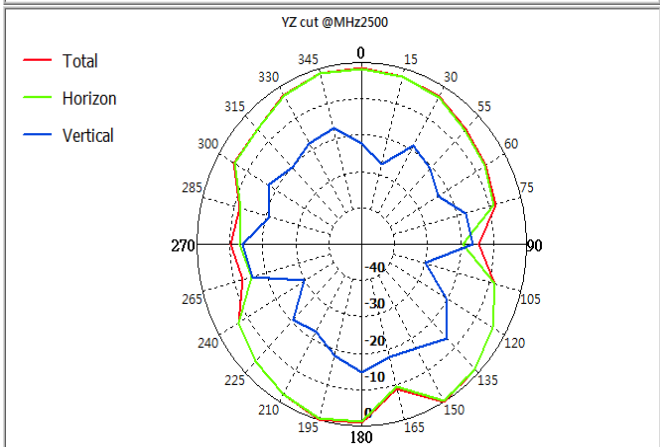
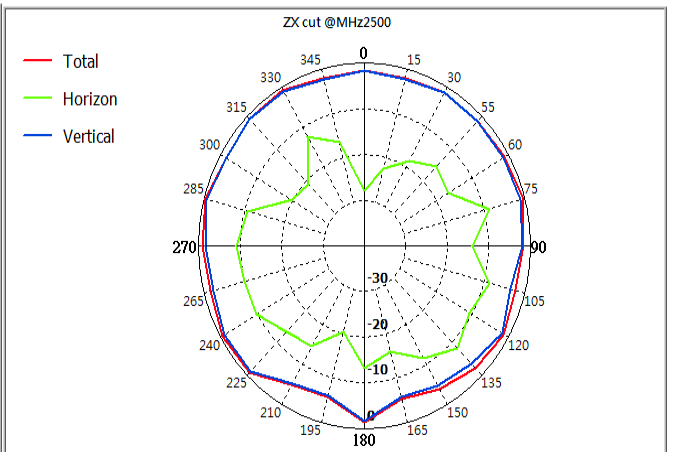
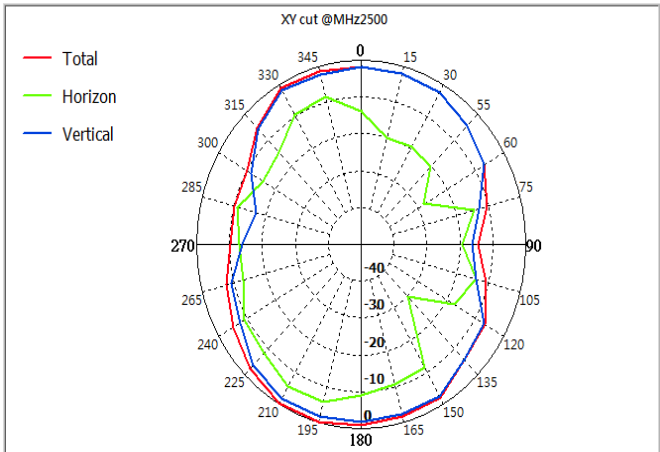
2450Mhz:

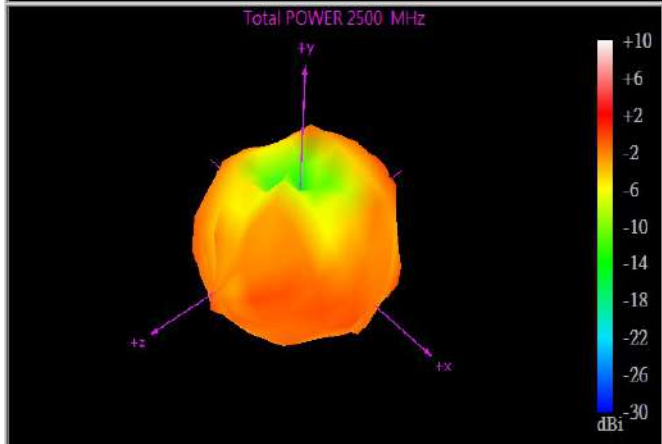
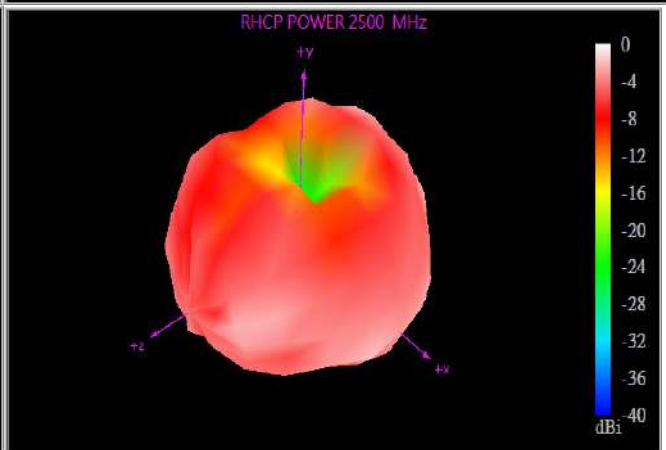
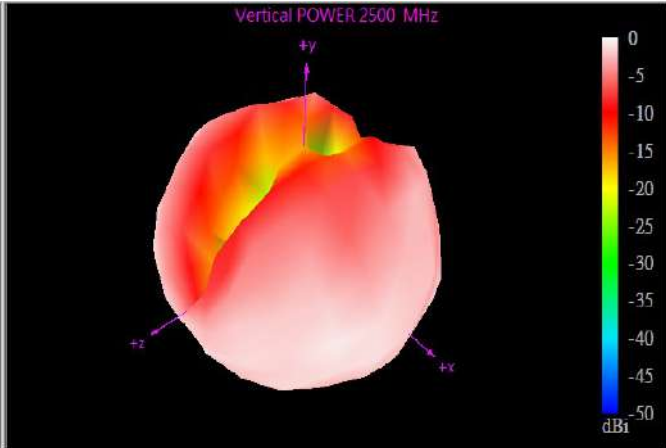
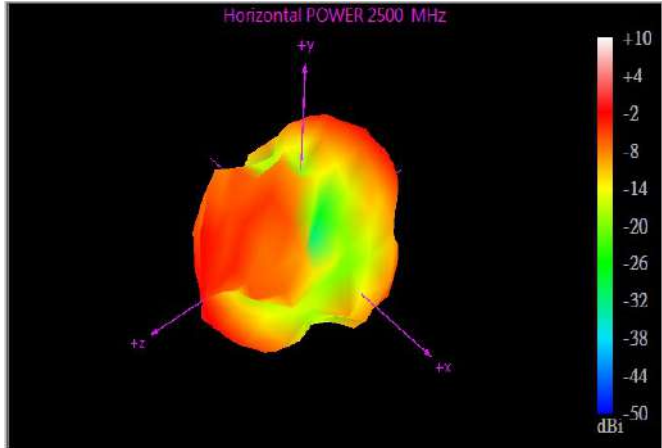
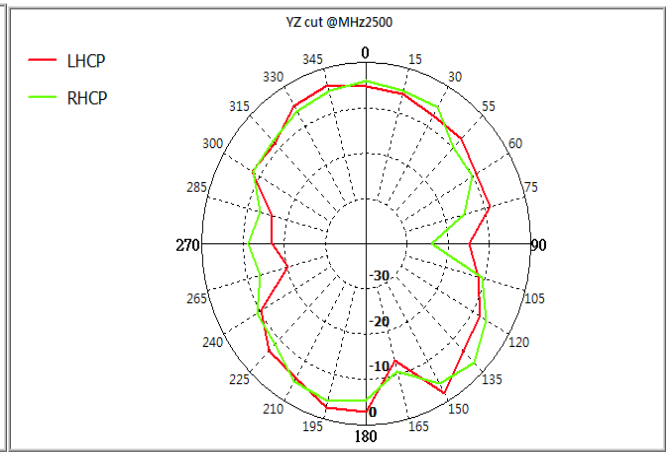
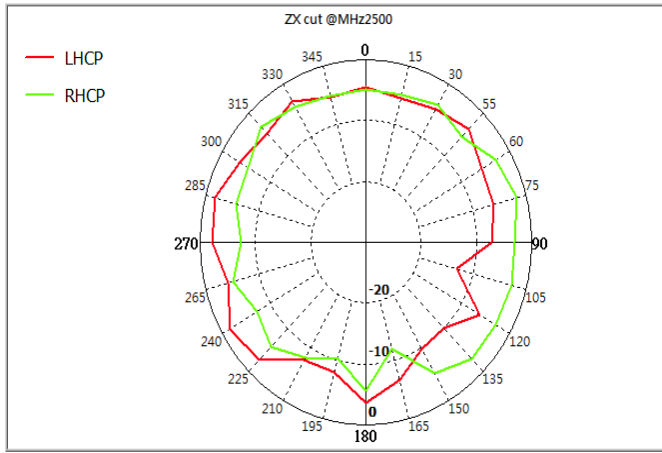




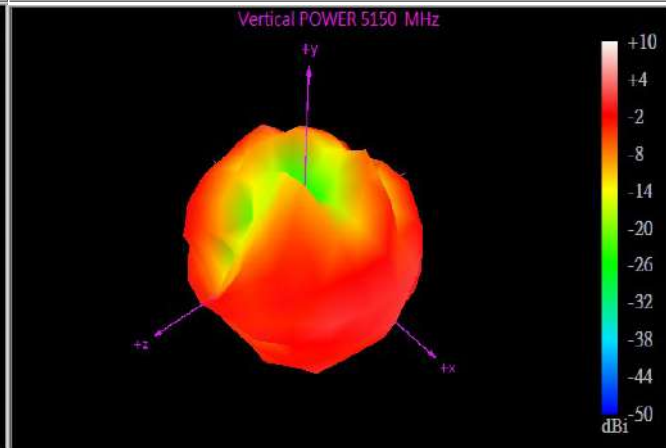
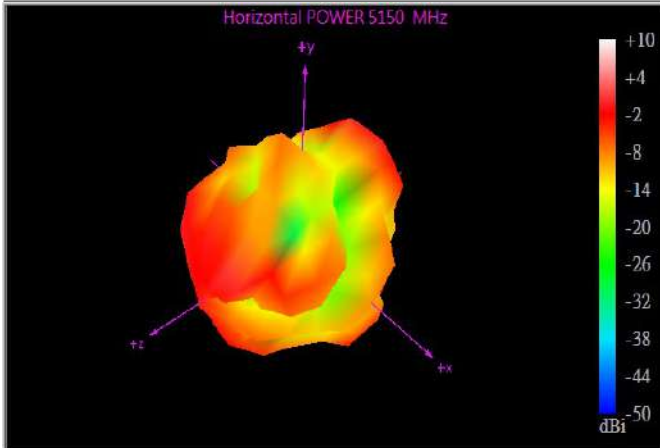
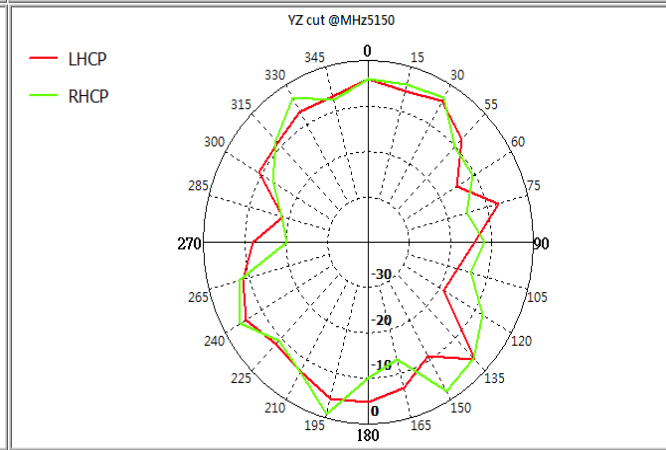
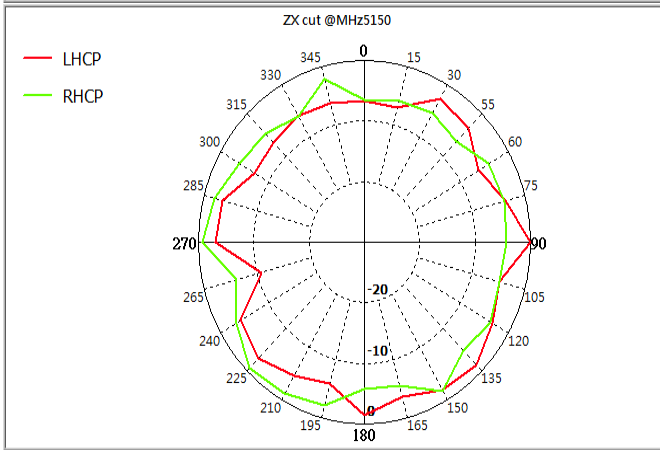
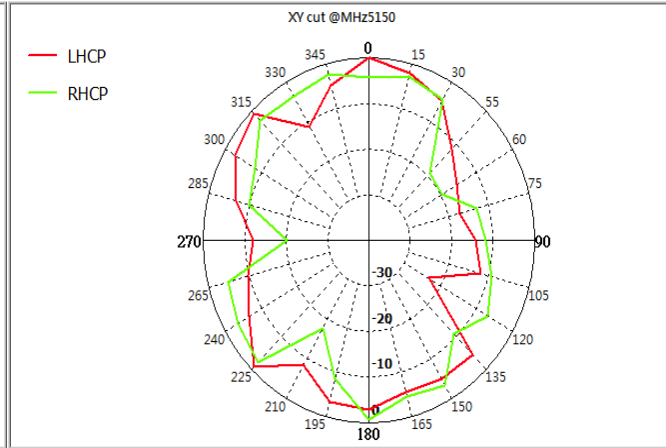
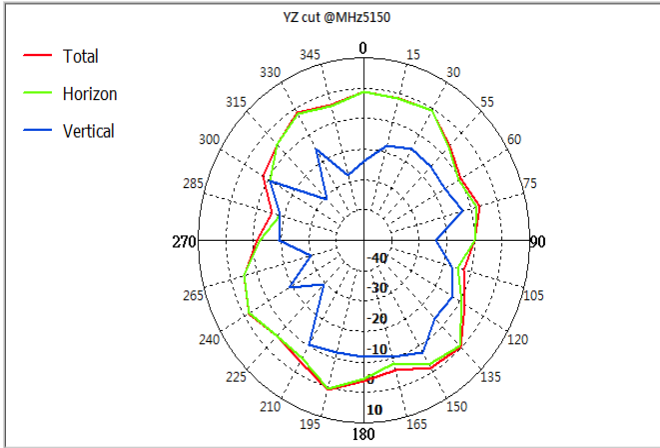
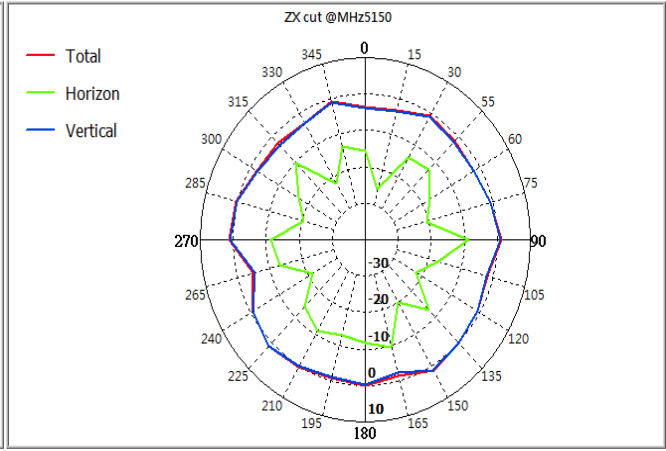
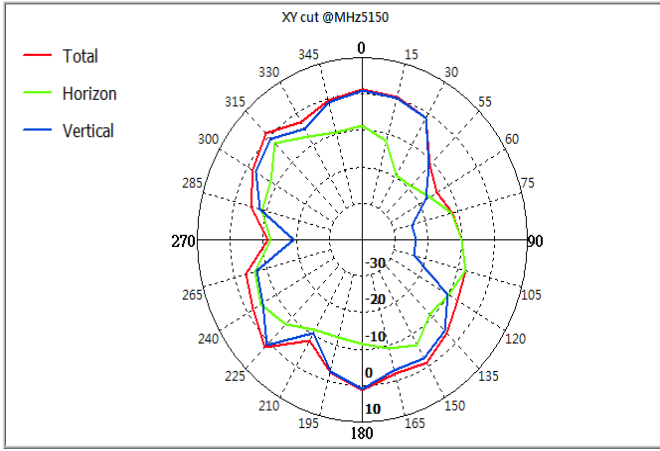


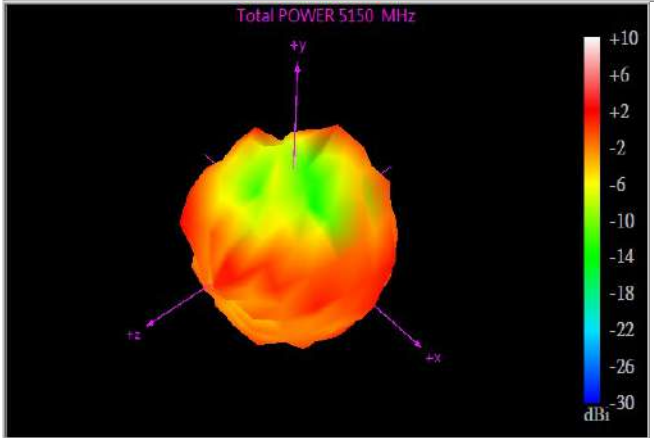
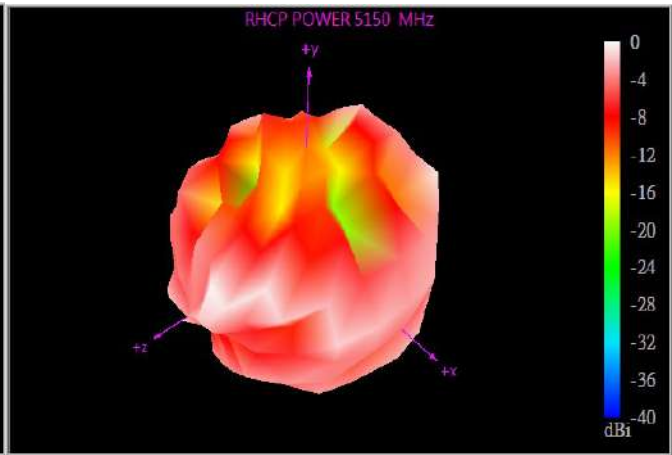
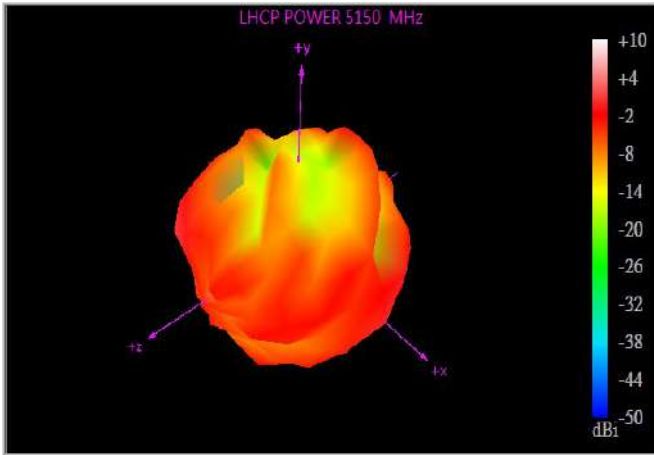
## 2500MHz:



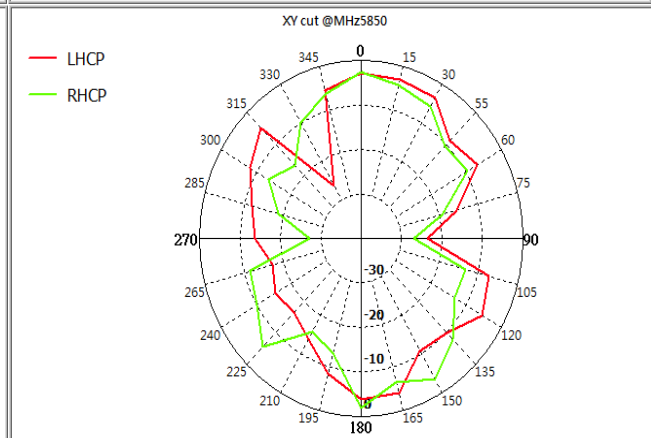
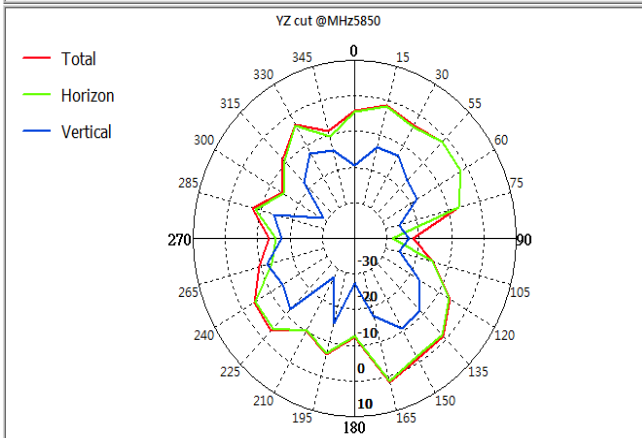
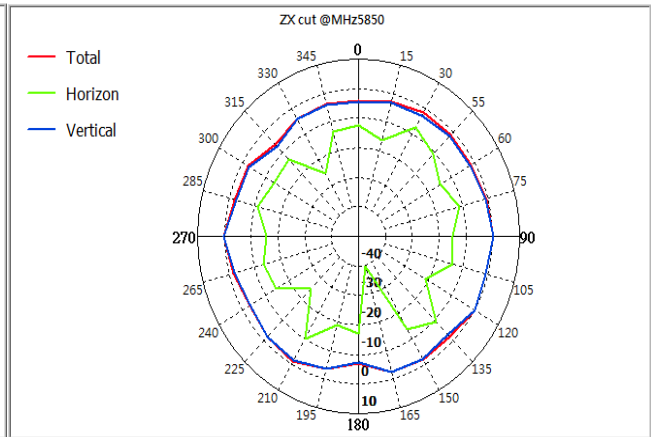
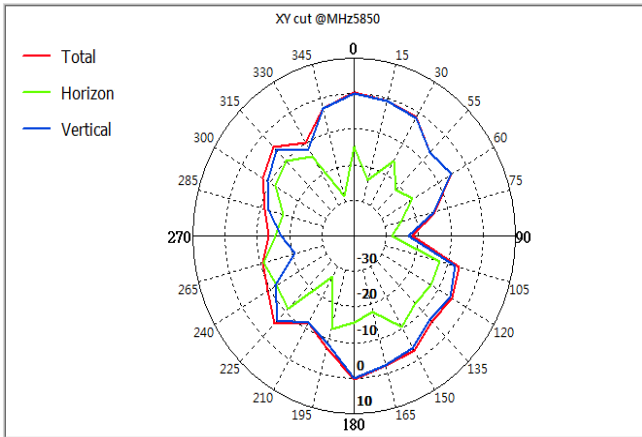


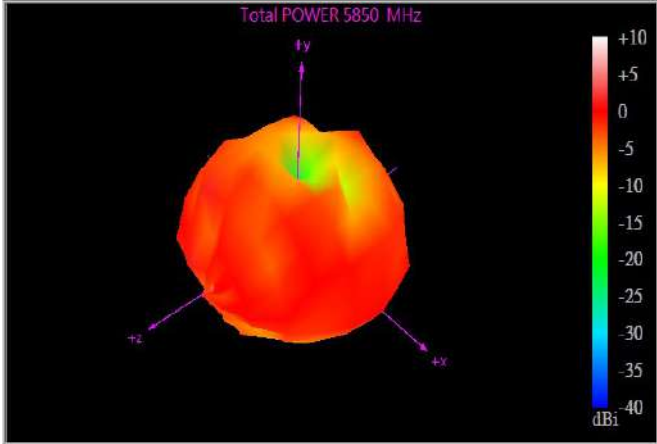
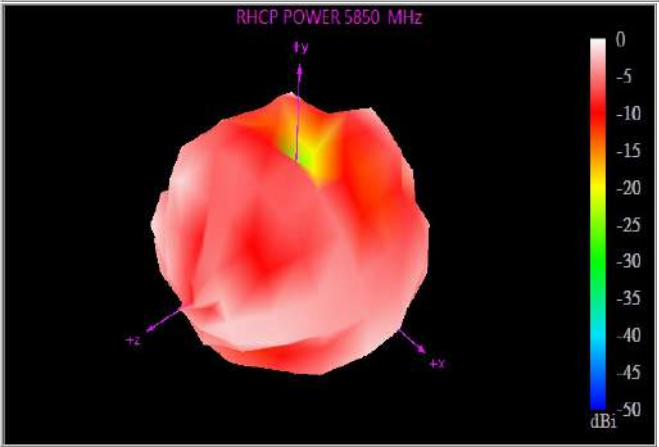
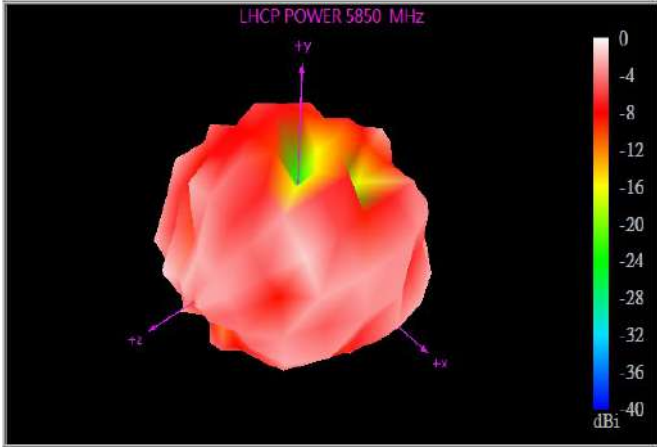
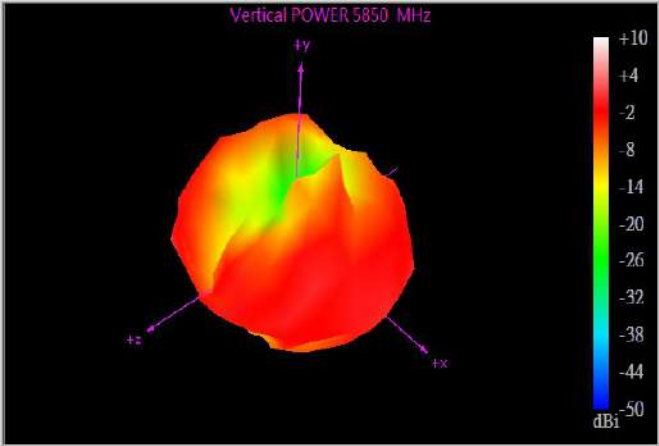
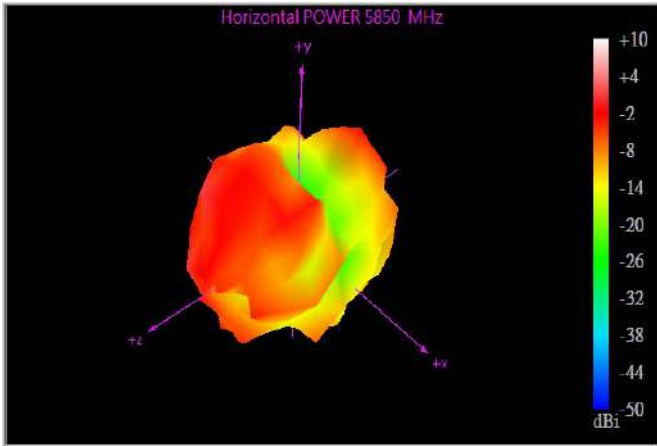
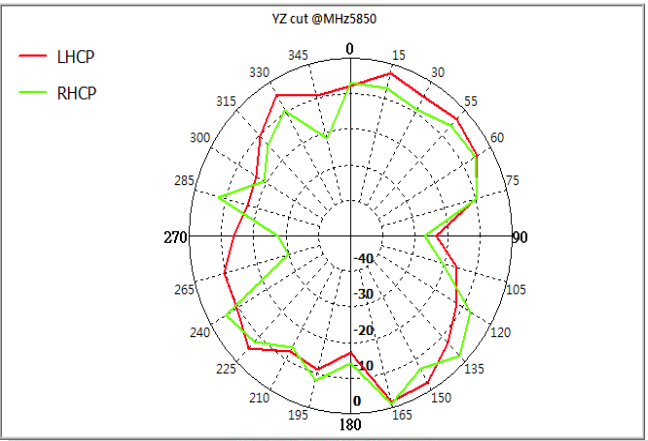
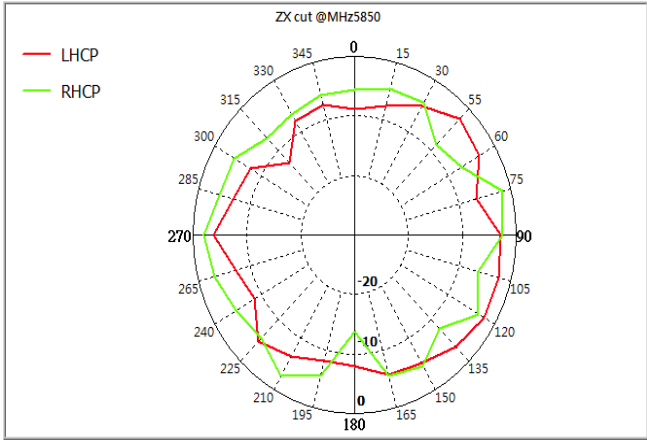
5150MHz:



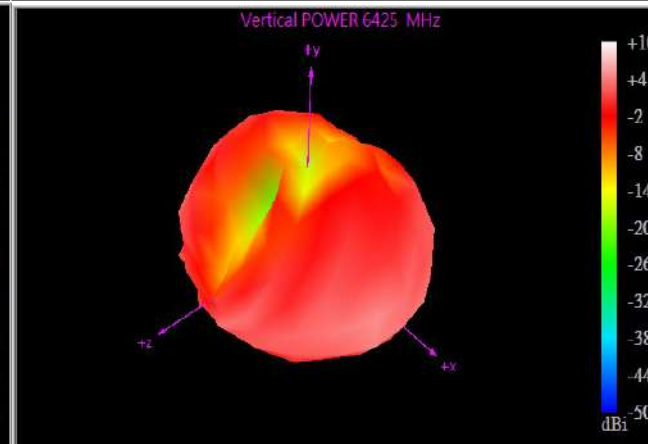
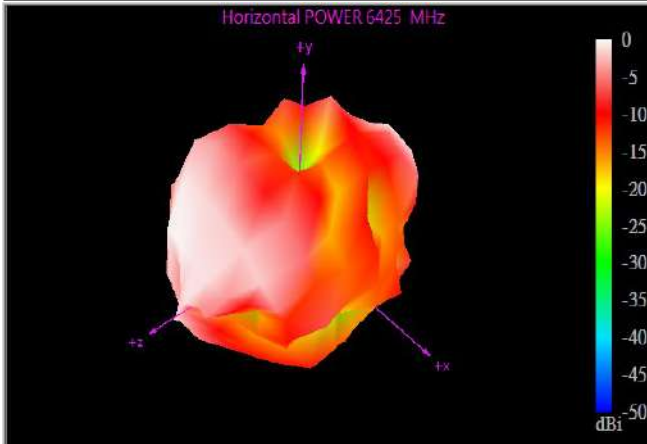
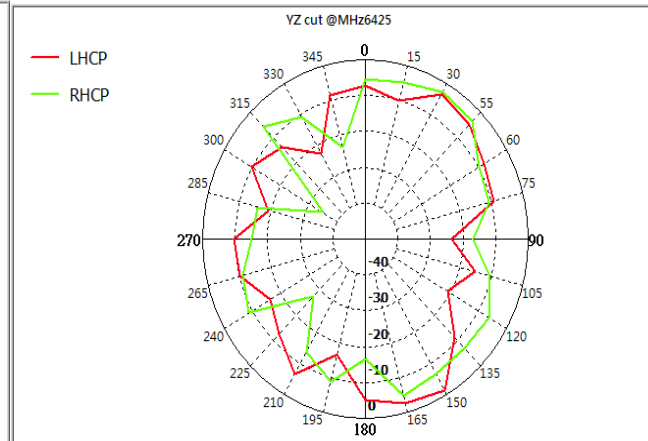
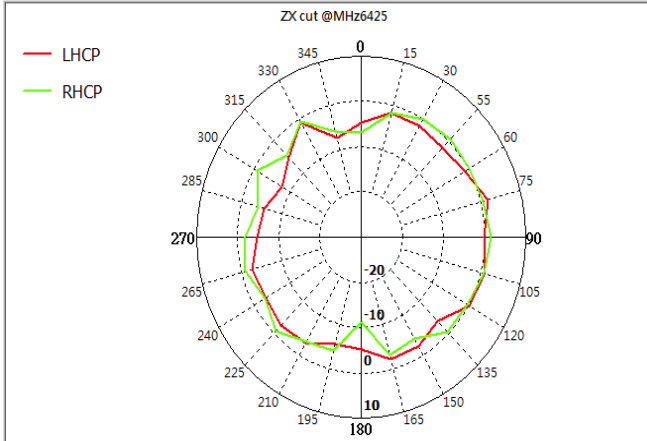
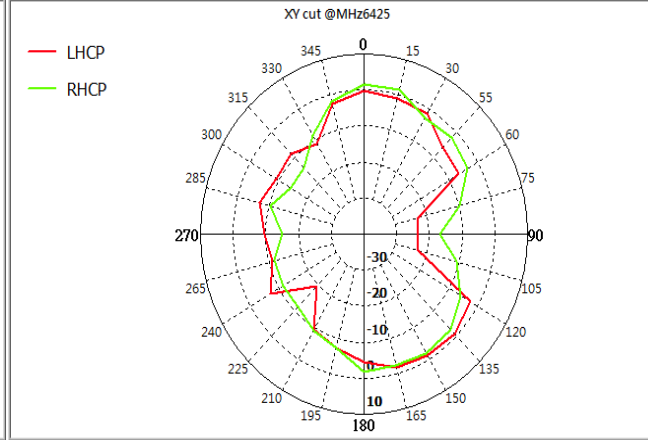
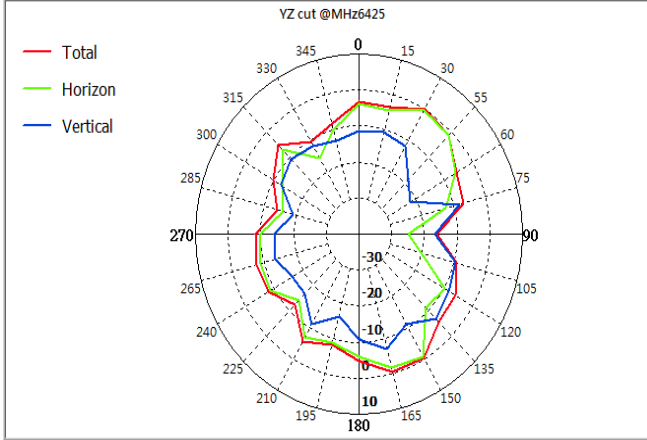
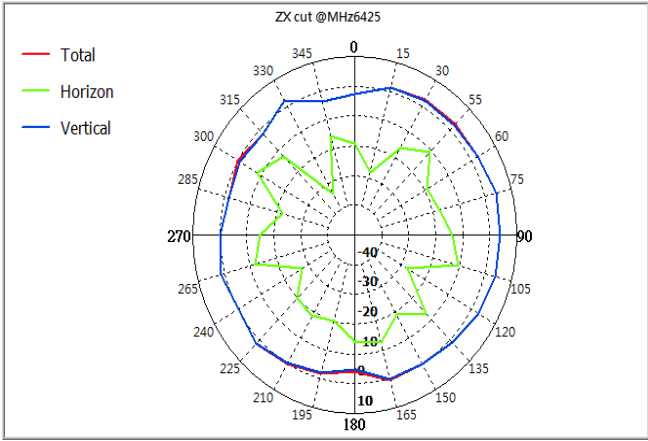
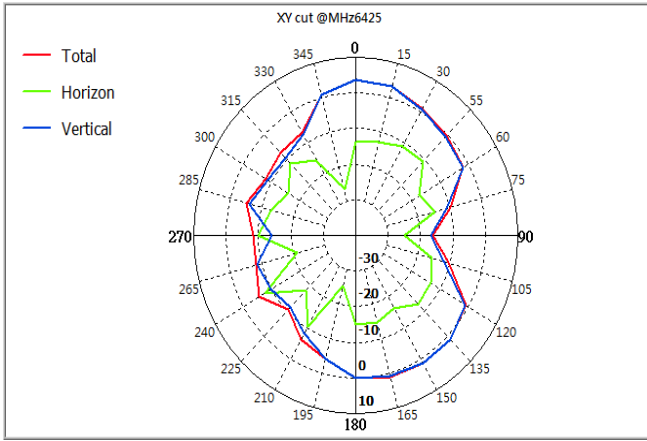


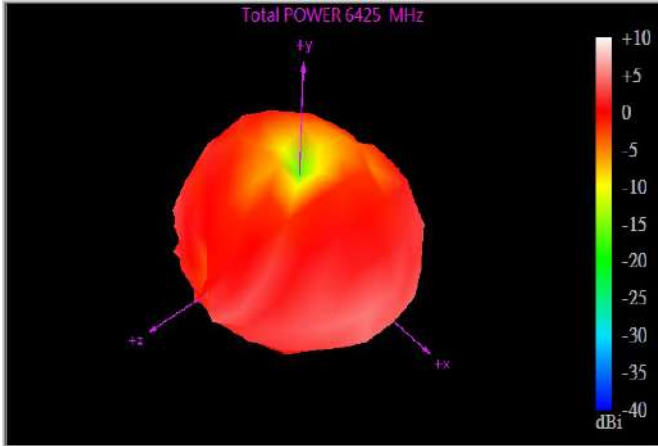
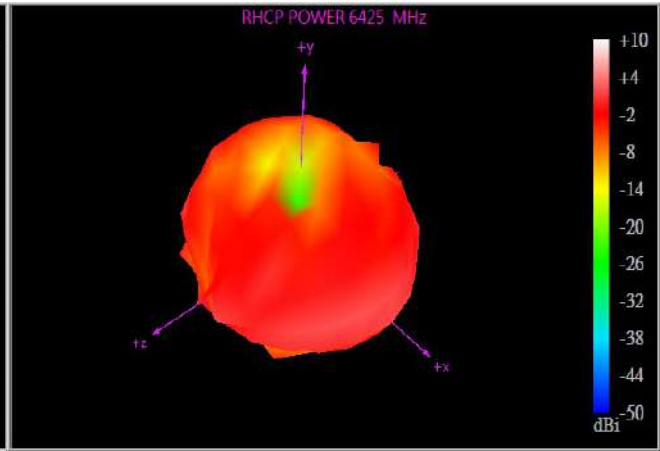
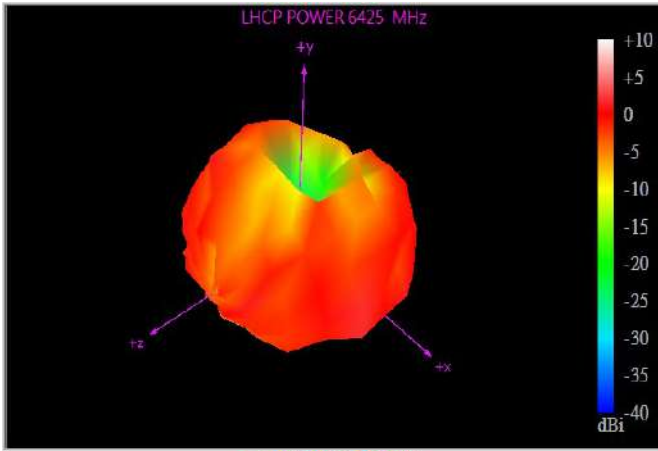
### 5850MHz:





6425Mhz:





**7125Mhz:**

