

# 4-axis Helix BDS/GNSS/Iridium Passive Antenna Module

**MODEL: IA-100P-4**



## 1.. GENERAL DESCRIPTION

Model No	P/N
IA-100P-4	IA-100P-4

Below is a table summarizing the antenna design specification.

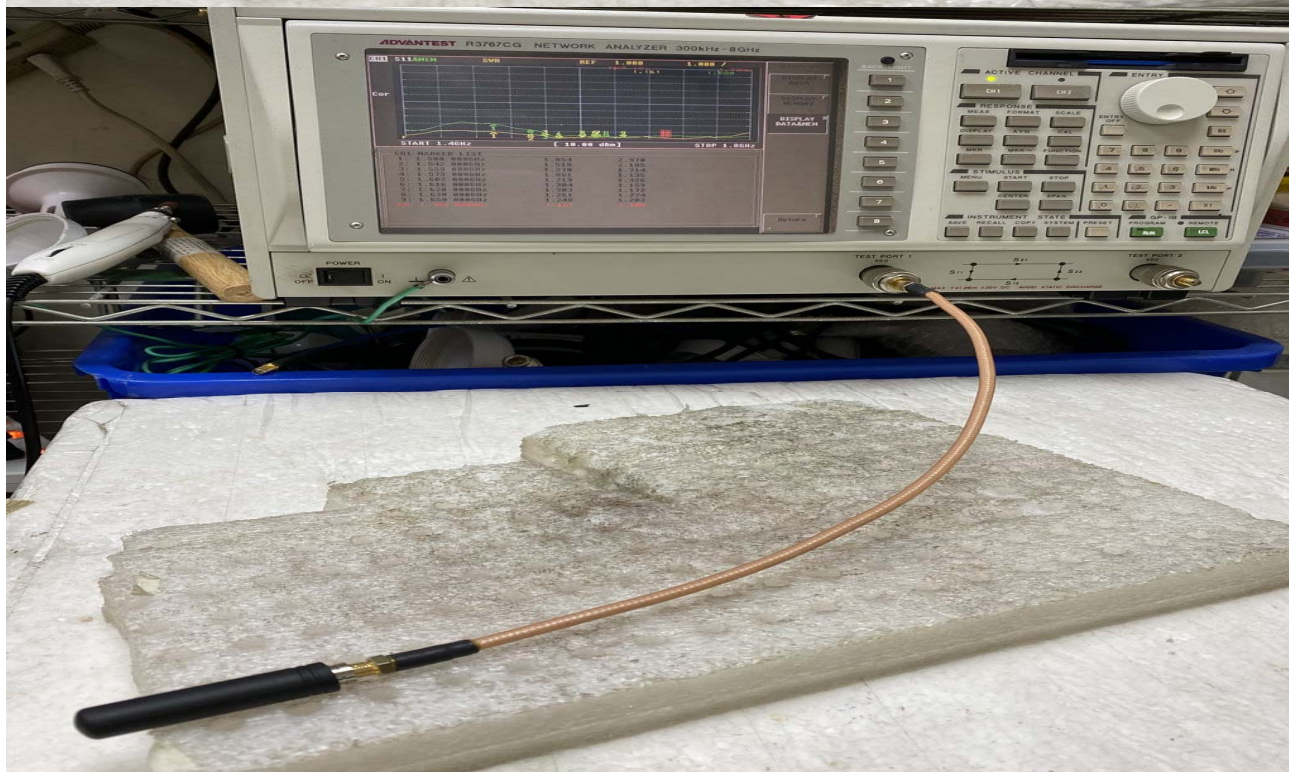
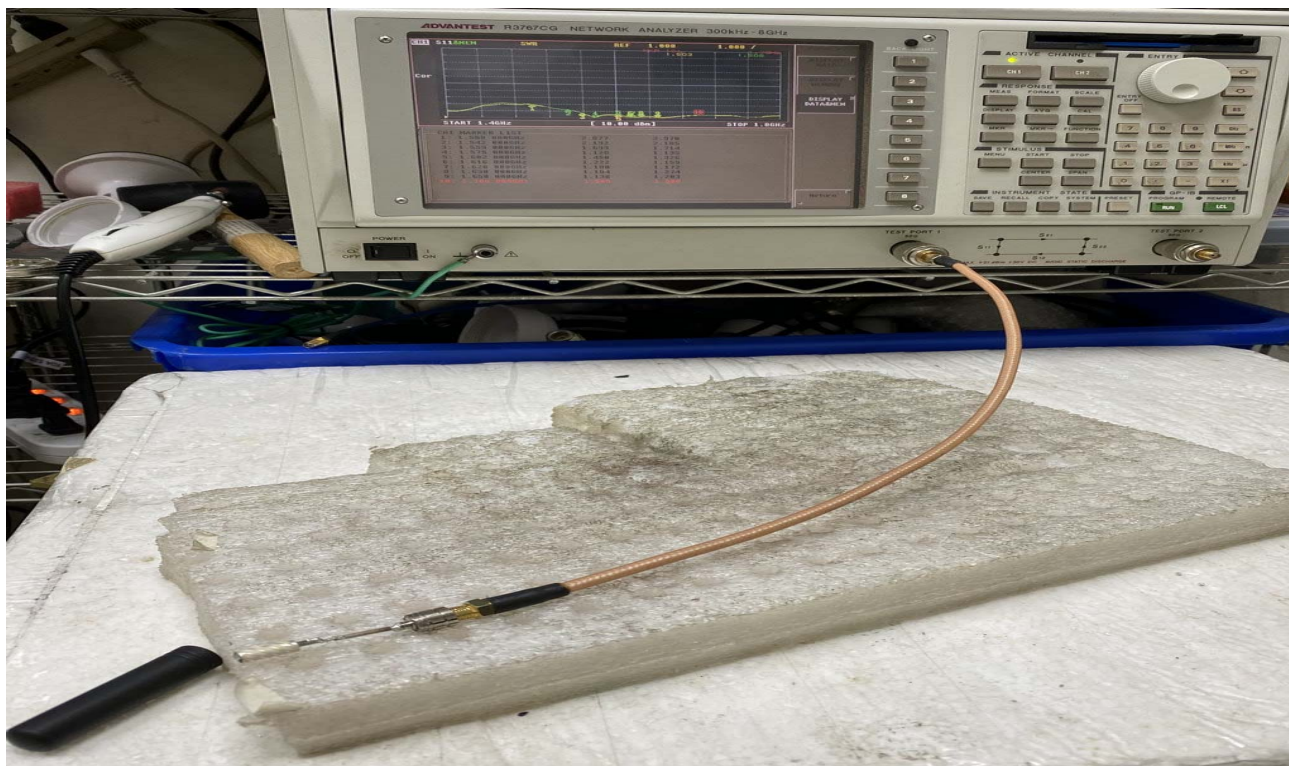
### 1.1 Electrical Properties

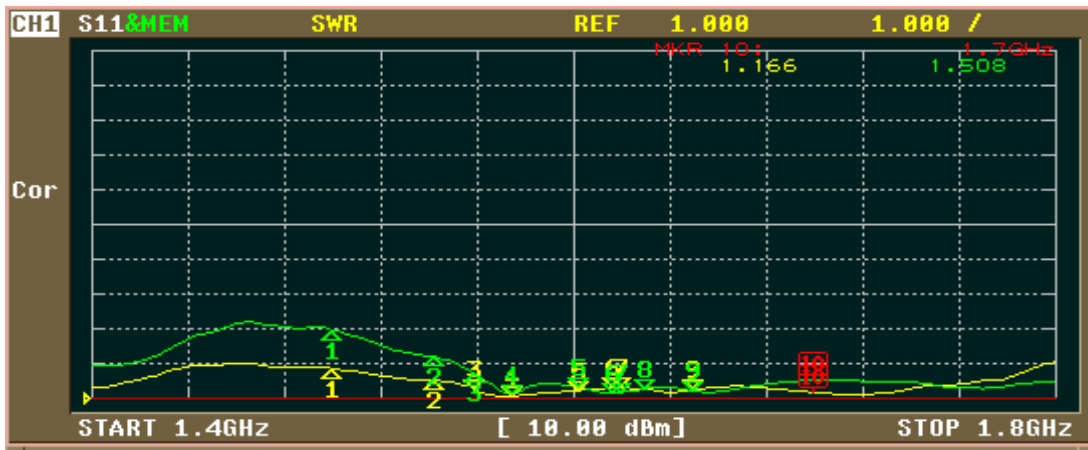
Parameter	Description
Frequency Band	1500~1700MHz
Nominal Impedance	50 ohm
Polarization	R.H.C.P. 4-axis Ceramic helix antenna
Admitted Power radiation	1W
V.S.W.R	2.0:1 Max
Antenna Gain	4 dB
Note: Gain includes the cable loss	

### 1.2 Mechanical Properties

Parameter	Description
Antenna Type	internal Antenna
Material	Ceramics + FR4
Touch Type	SMD Type

Antenna Dimensions	OD5 x 17.3mm±0.5
Antenna Color	Black
Operating Temperature Range	-40°C~+85°C
Storage Temperature Range	-40°C~+85°C



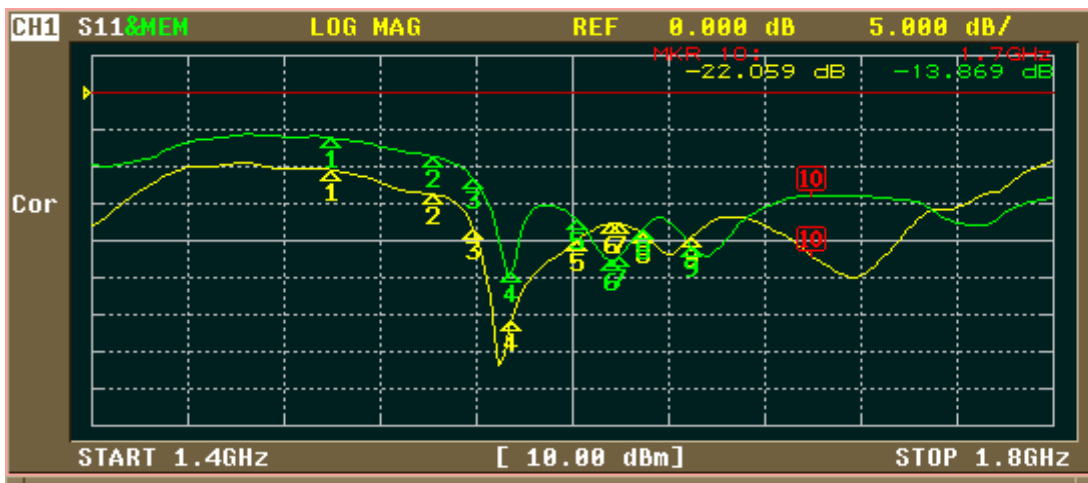


- DISPLAY
- 1 DISPLAY DATA
  - 2 DISPLAY MEMORY
  - 3 DISPLAY DATA&MEM

CH1 MARKER LIST

1:	1.500 000GHz	1.844	2.970
2:	1.542 000GHz	1.513	2.185
3:	1.559 000GHz	1.263	1.714
4:	1.575 000GHz	1.069	1.135
5:	1.602 000GHz	1.227	1.326
6:	1.616 000GHz	1.300	1.159
7:	1.620 000GHz	1.297	1.172
8:	1.630 000GHz	1.256	1.274
9:	1.650 000GHz	1.240	1.203
10:	1.700 000GHz	1.166	1.508

Return

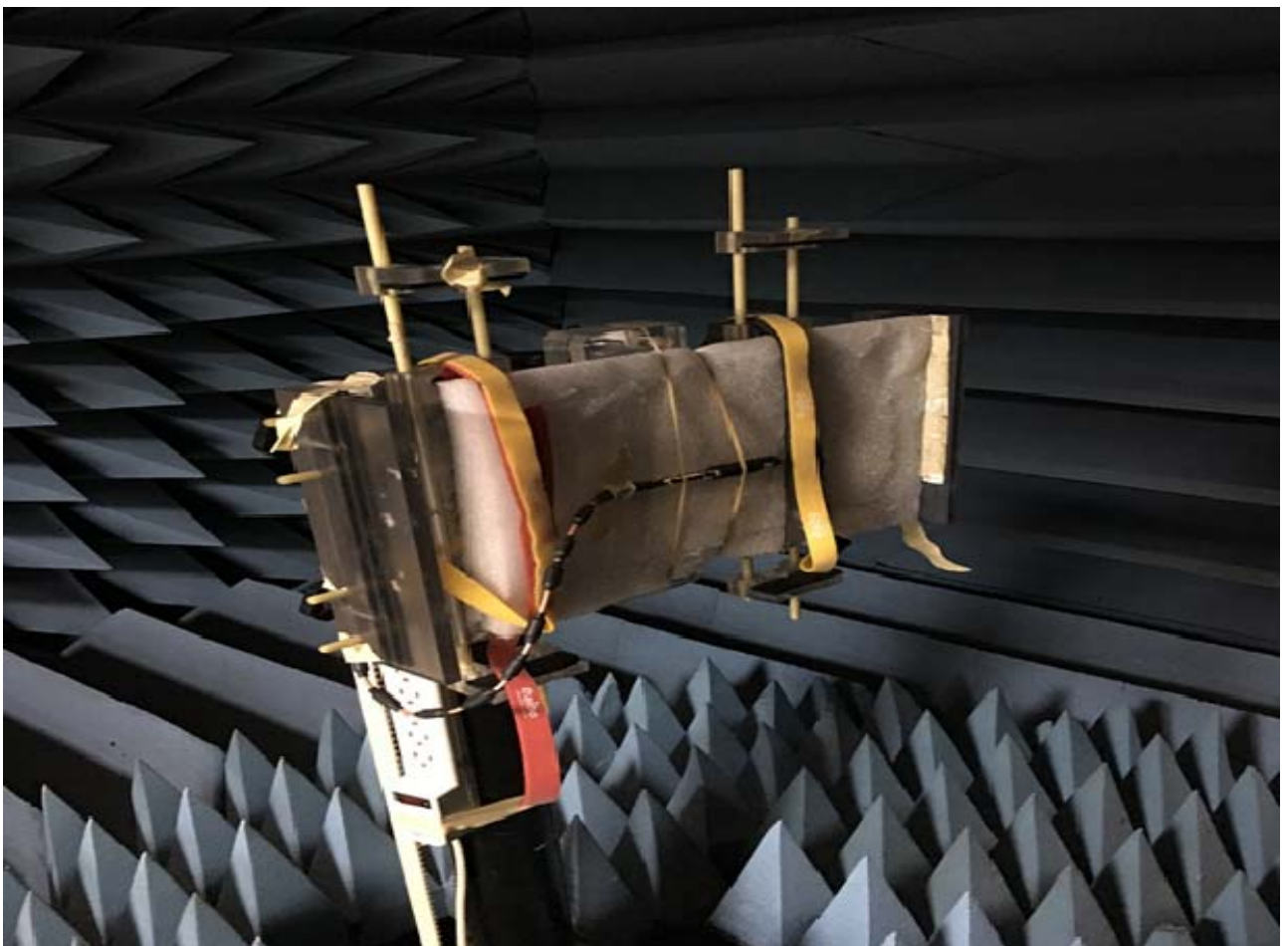
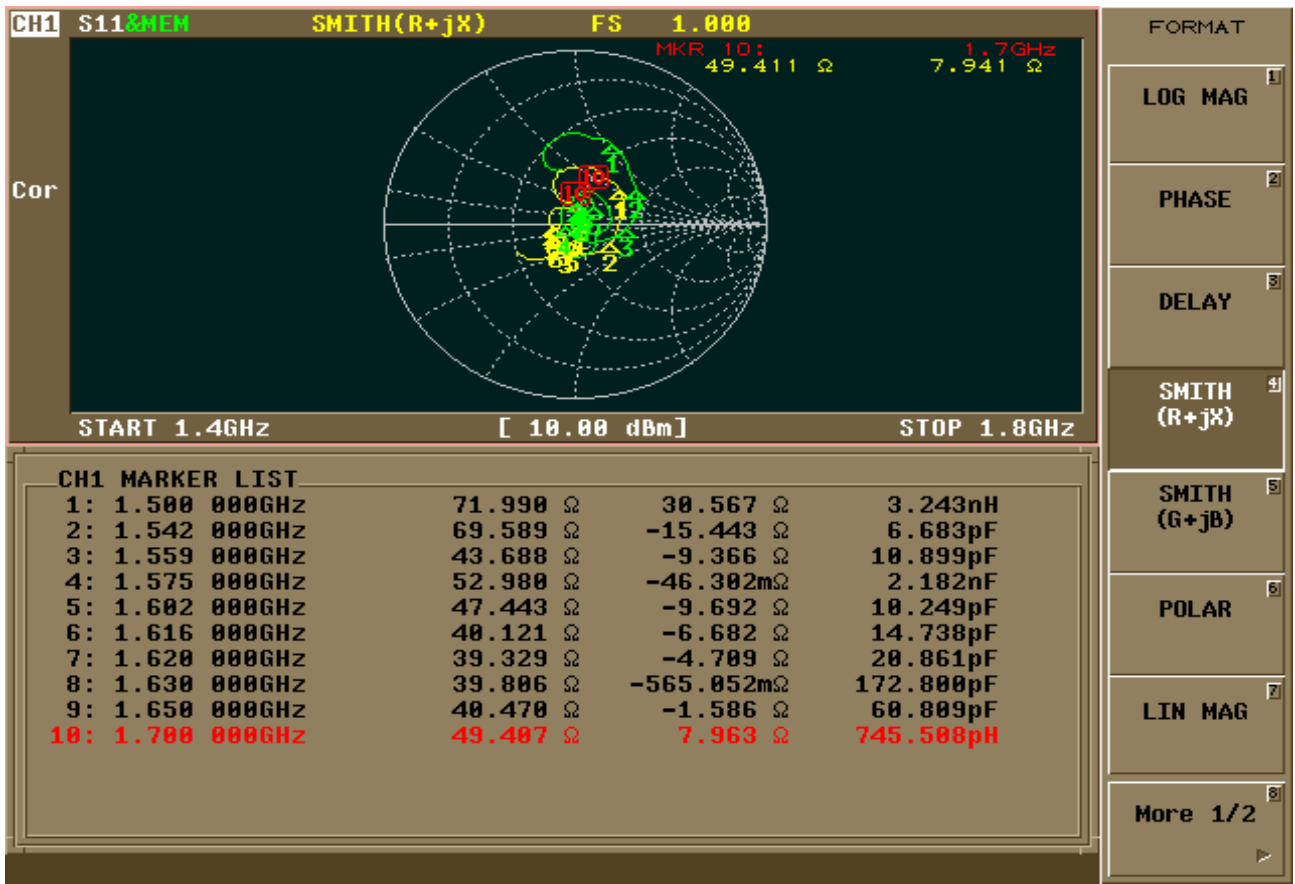


- FORMAT
- 1 LOG MAG
  - 2 PHASE
  - 3 DELAY
  - 4 SMITH (R+jX)
  - 5 SMITH (G+jB)
  - 6 POLAR
  - 7 LIN MAG
  - 8 More 1/2

CH1 MARKER LIST

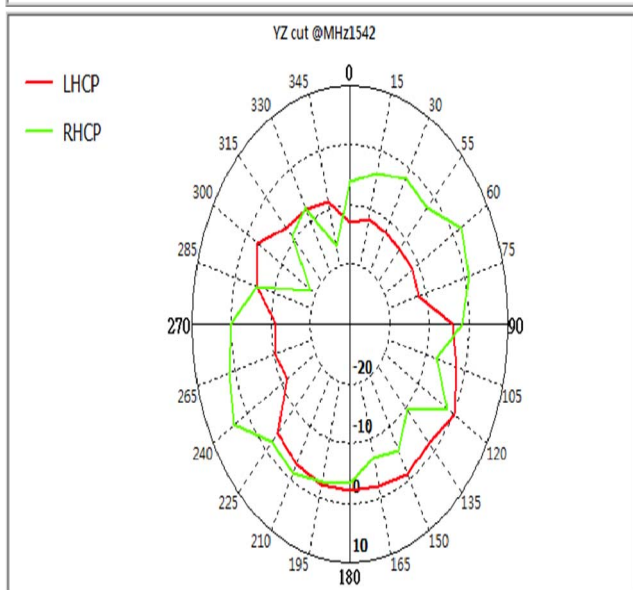
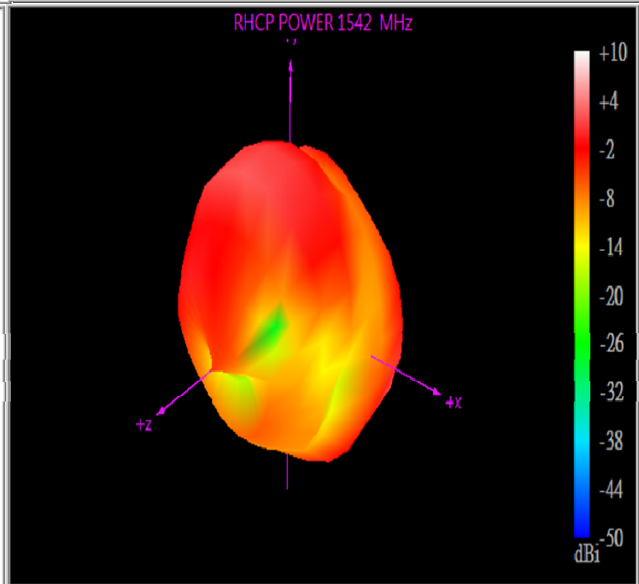
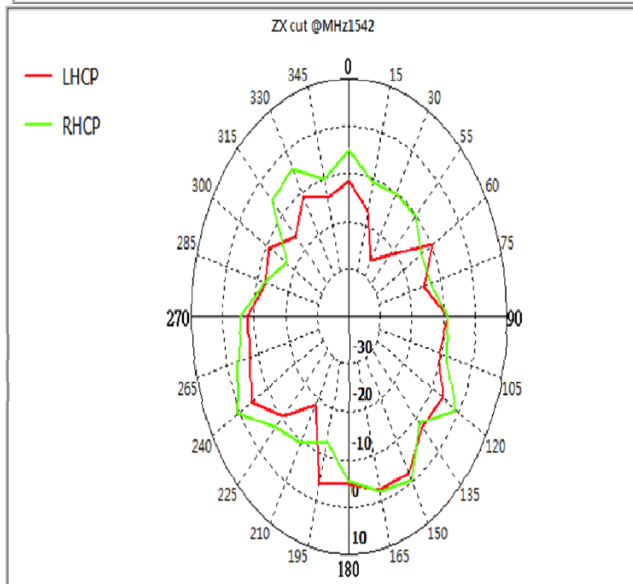
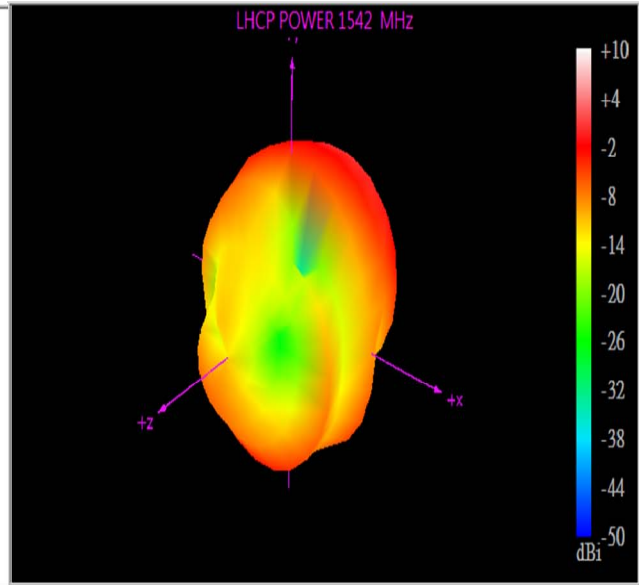
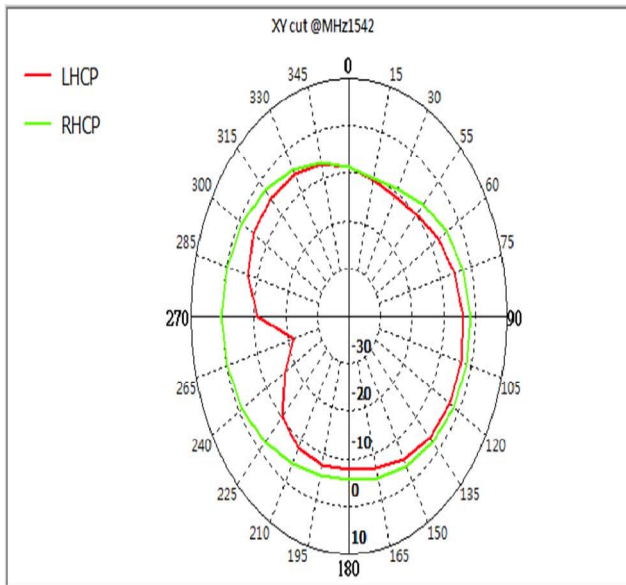
1:	1.500 000GHz	-10.478 dB	-6.085 dB
2:	1.542 000GHz	-13.721 dB	-8.587 dB
3:	1.559 000GHz	-18.488 dB	-11.608 dB
4:	1.575 000GHz	-30.602 dB	-24.029 dB
5:	1.602 000GHz	-19.926 dB	-17.064 dB
6:	1.616 000GHz	-17.699 dB	-22.656 dB
7:	1.620 000GHz	-17.752 dB	-21.993 dB
8:	1.630 000GHz	-18.940 dB	-18.362 dB
9:	1.650 000GHz	-19.551 dB	-20.684 dB
10:	1.700 000GHz	-22.059 dB	-13.869 dB



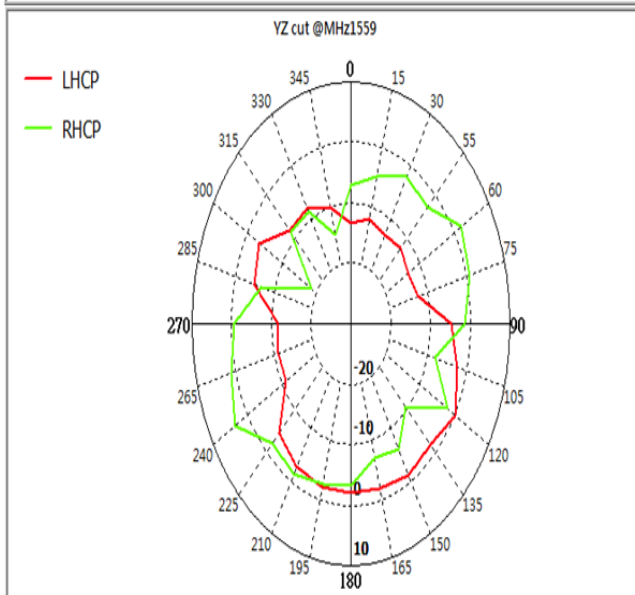
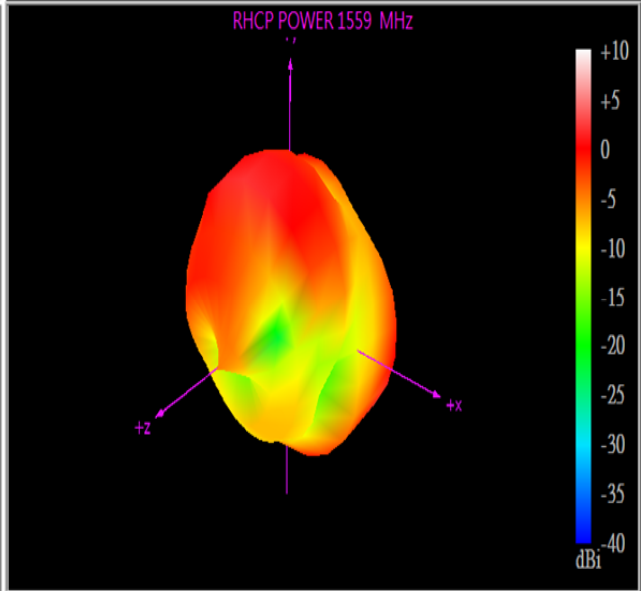
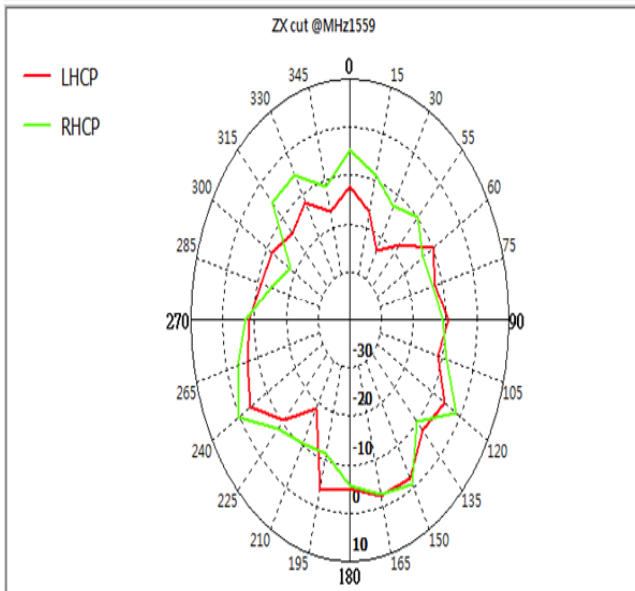
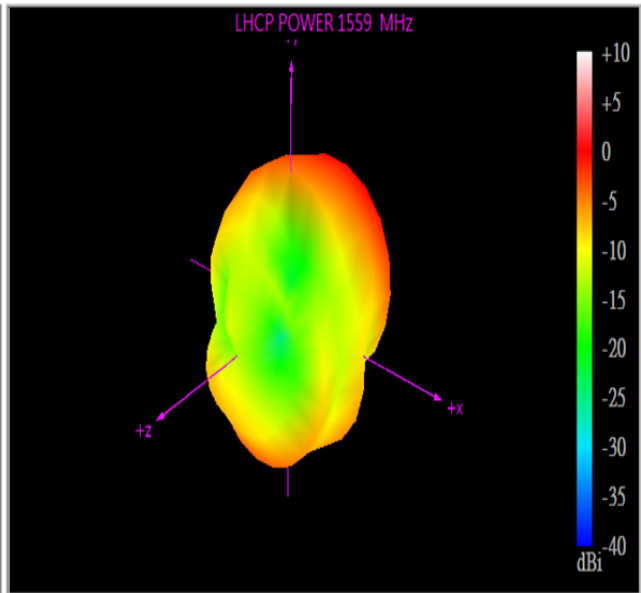
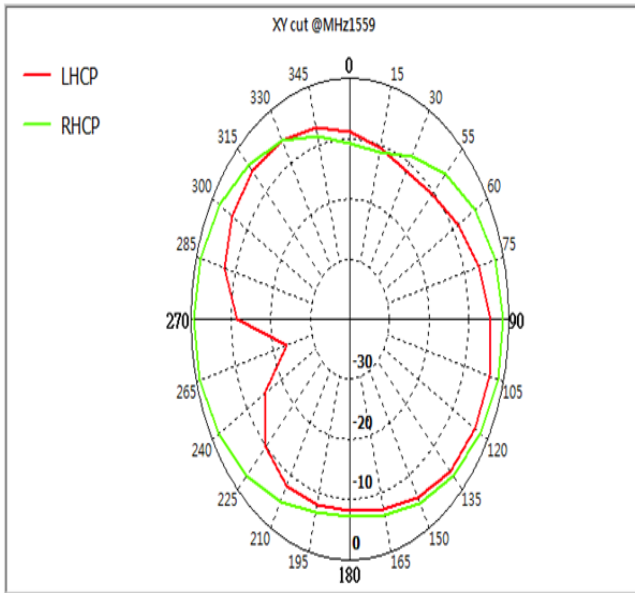


3D Total						
Frequency (MHz)	Upper Hem. PRP (dBm)	Lower HEM. PRP (dBm)	Efficiency (dB)	Efficiency (%)	Gain (dBi)	Tot. Rad.Pwr. (dBm)
1450 MHz	-8.54	-5.55	-3.78	41.88	1.57	-3.78
1500 MHz	-8.15	-5.22	-3.43	45.36	2.05	-3.43
1542 MHz	-6.37	-3.41	-1.63	68.71	4.03	-1.63
1559 MHz	-6.68	-3.63	-1.88	64.88	3.82	-1.88
1561 MHz	-6.68	-3.61	-1.87	65.01	3.85	-1.87
1575 MHz	-6.67	-3.50	-1.79	66.21	4.03	-1.79
1602 MHz	-6.89	-3.49	-1.86	65.22	4.16	-1.86
1616 MHz	-7.58	-4.07	-2.47	56.62	3.64	-2.47
1620 MHz	-7.68	-4.13	-2.54	55.69	3.58	-2.54
1626 MHz	-7.93	-4.33	-2.76	53.00	3.37	-2.76
1630 MHz	-7.92	-4.29	-2.73	53.35	3.41	-2.73
1642 MHz	-8.96	-5.25	-3.71	42.54	2.34	-3.71
1650 MHz	-9.41	-5.68	-4.15	38.49	1.82	-4.15
1700 MHz	-8.09	-4.23	-2.73	53.32	2.31	-2.73

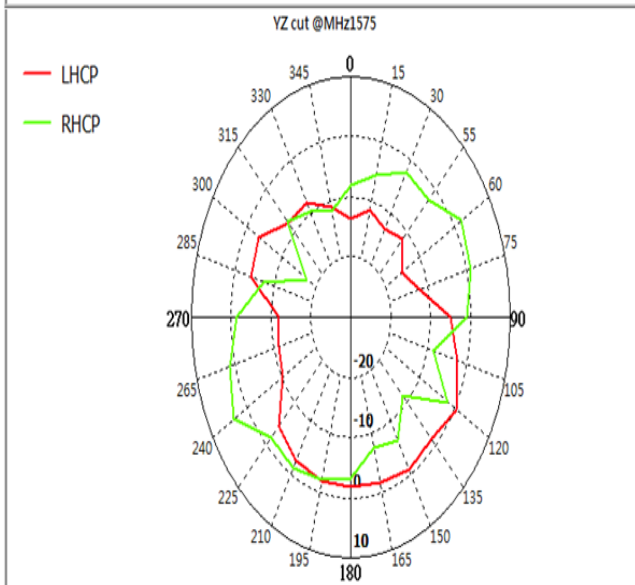
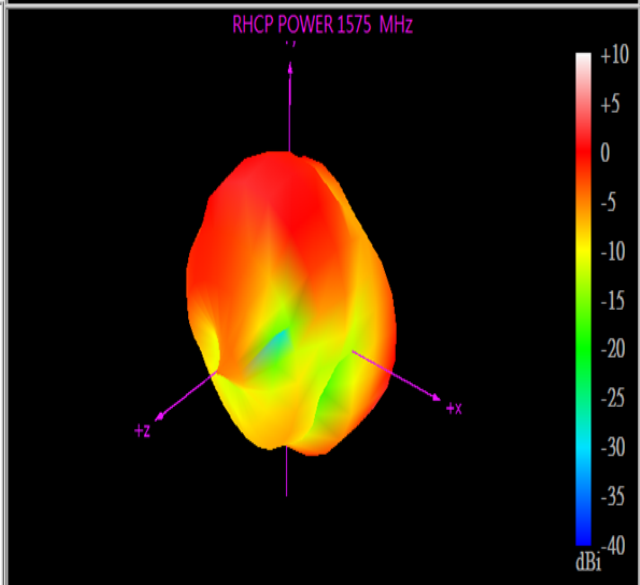
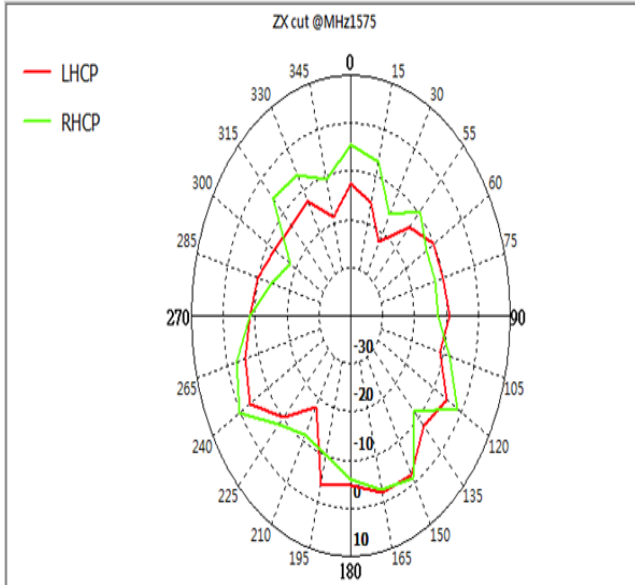
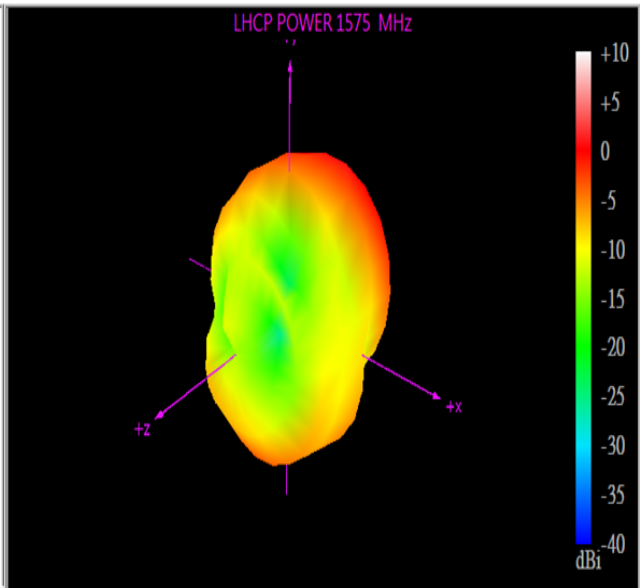
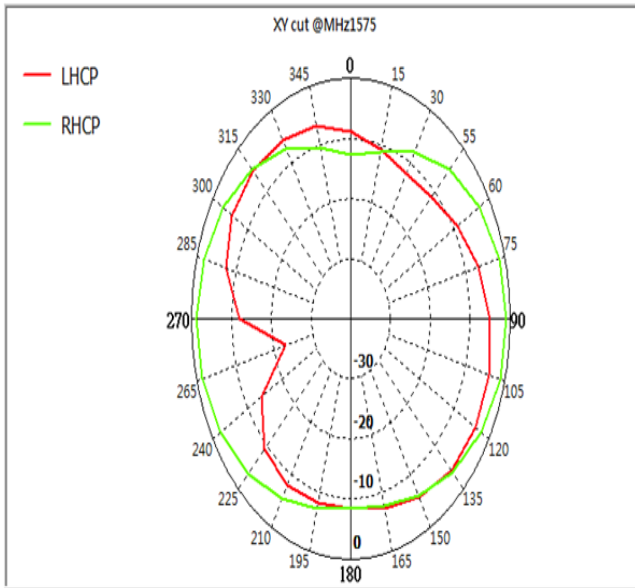
# 1542Mhz:



# 1559Mhz :

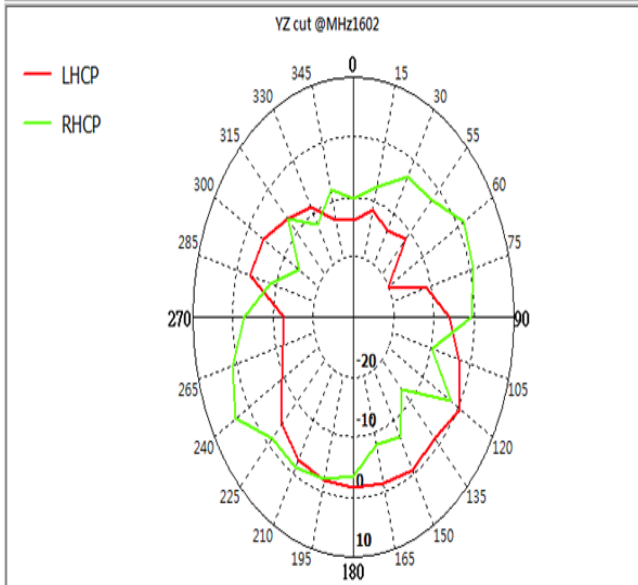
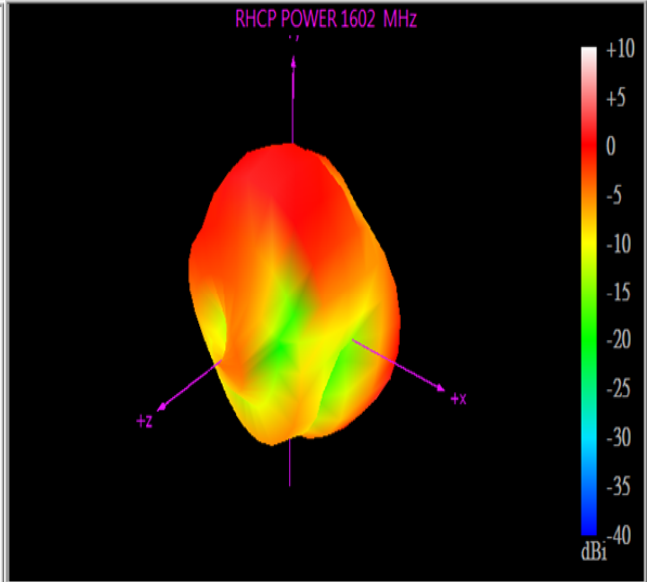
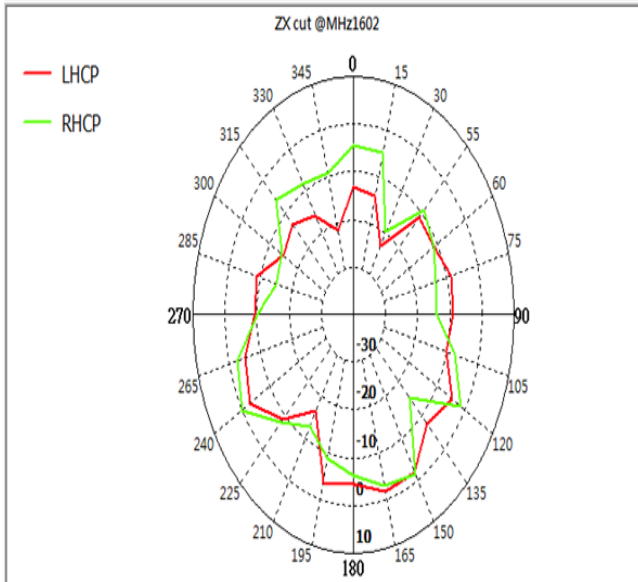
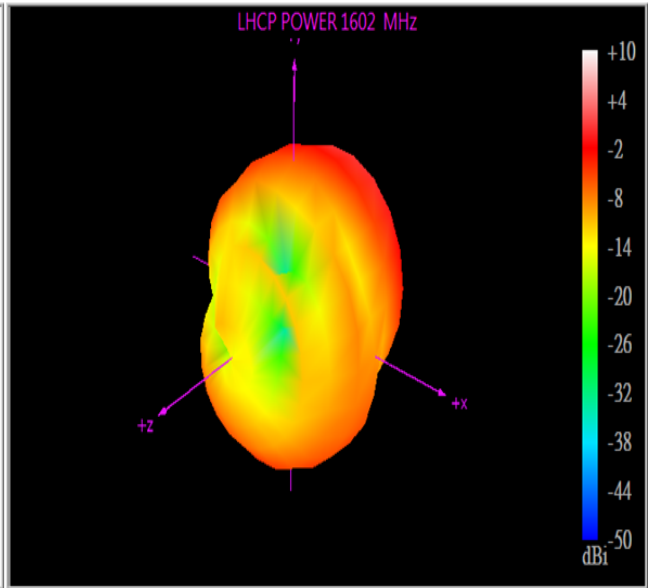
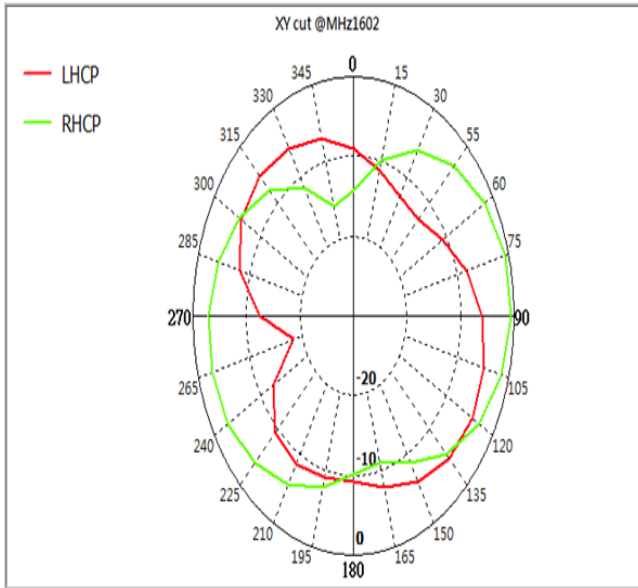


# 1575Mhz:





# 1602MHz:



1620MHz:

