

BJTEK NAVIGATION , INC.

GSM/GPS/GLONASS/3G/LTE Passive Antenna

MODEL: TH-81J



1.. GENERAL DESCRIPTION

Model No	P/N
TH-81J-T3	TH-81J-RP-SMA(M)-T3

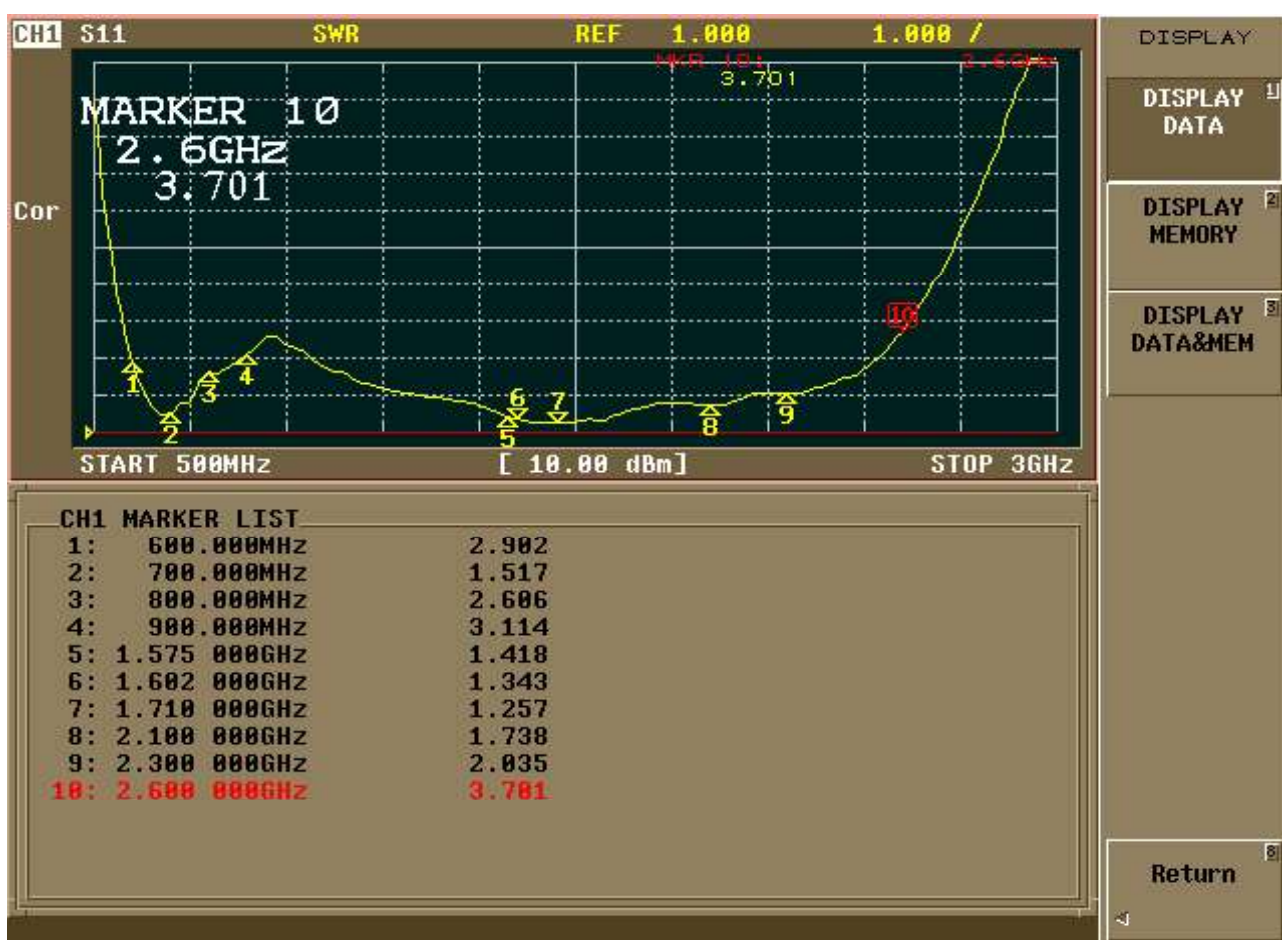
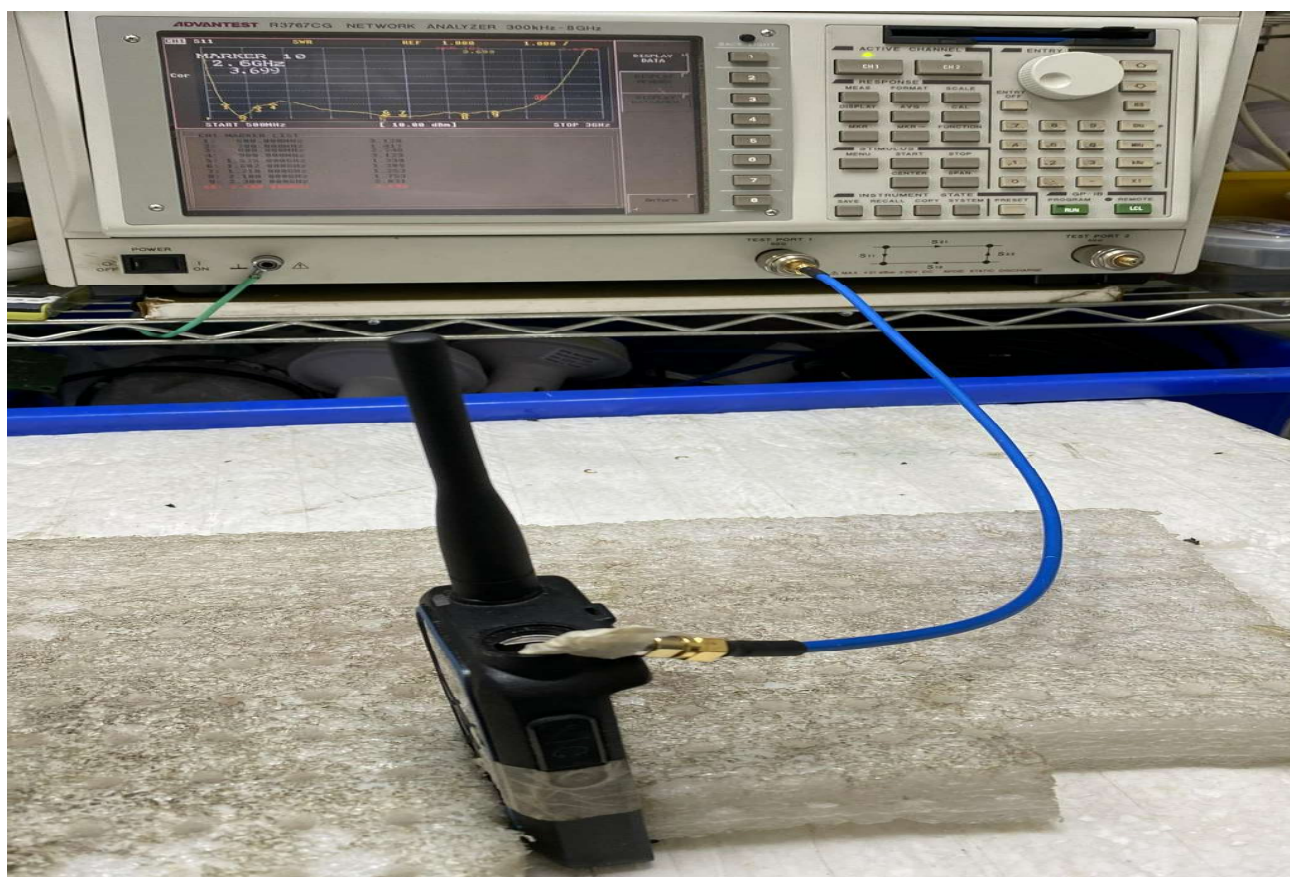
Below is a table summarizing the antenna design specification.

1.1 Electrical Properties

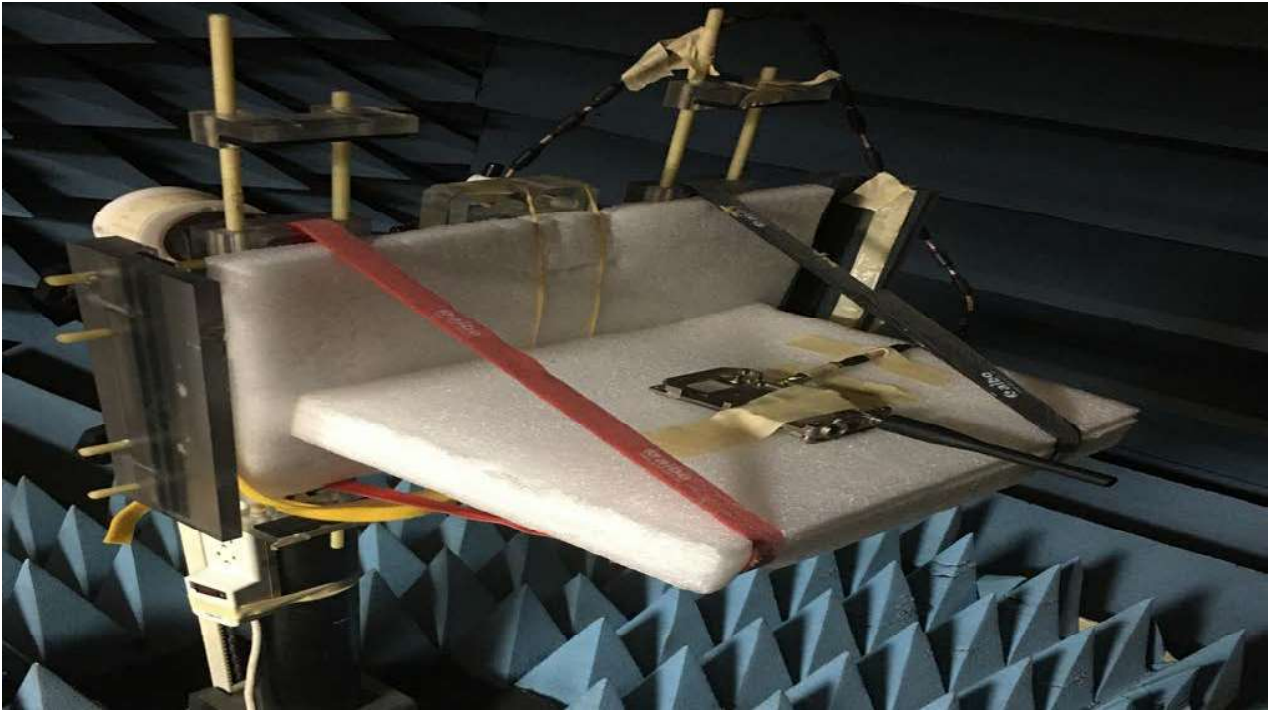
Parameter	Description
Frequency Band	LTE: 600 、 700 、 800 、 900 、 1700 、 2200 、 2300 、 2600MHz GPS: 1575 ,1602MHz ON Customer Machine GND
Nominal Impedance	50 ohm
Polarization	Vertical
Admitted Power radiation	1W
V.S.W.R	600 & 900Mhz : 4.0:1 700 、 800 、 1575 、 1602 、 1700 、 2200 、 2300 Mhz: 3.5:1 2600Mhz: 5.0:1
Antenna Peak Gain	0 ~2.8dBi

1.2 Mechanical Properties

Parameter	Description
Antenna Type	External Antenna
Material	TPU50D-10 (& 3403 Glue)
Touch Type	Screw Type
Connector Type	OD8.75-10 RP-SMA (Male) , Center PIN offset +/-0.08mm
Antenna Dimensions	OD13.8 x 100.9mm±0.5
Antenna Color	Black
Operating Temperature Range	-30°C~+80°C
Storage Temperature Range	-30°C~+80°C





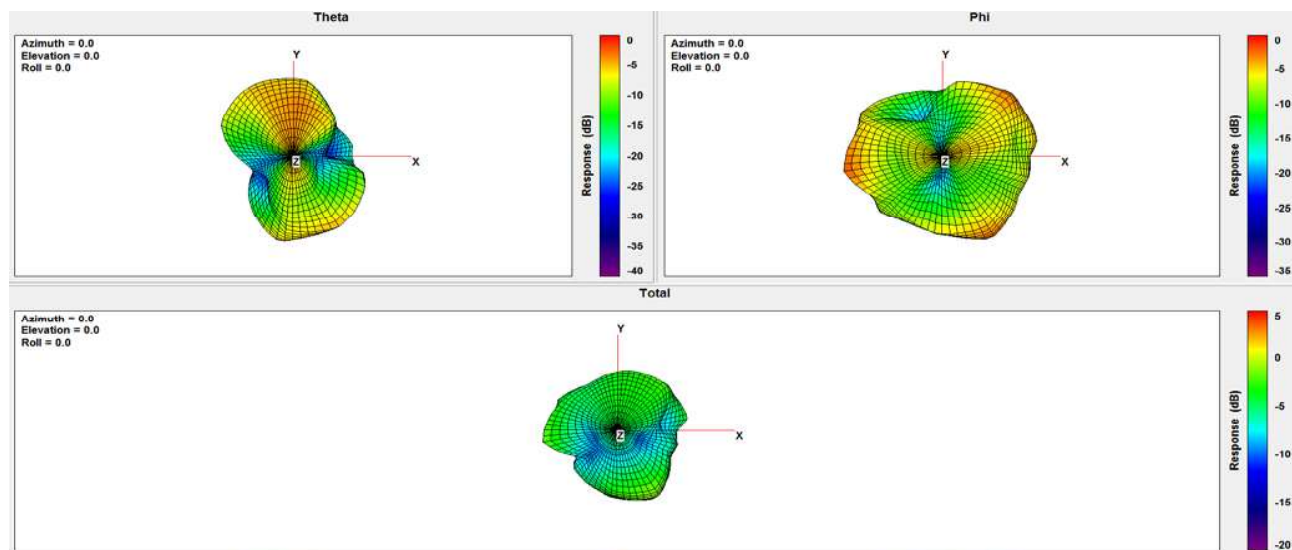


Frequency (MHz)	600	700	710	716	720	725	730	734	740	746
Peak Gain (dBi)	0.44	0.76	0.46	0.79	0.58	0.69	0.56	0.93	0.79	0.93
Efficiency (%)	53.76	52.12	59.38	62.63	65.24	69.01	62.16	64.16	66.21	64.13
Frequency (MHz)	756	765	772	777	782	787	800	806	821	824
Peak Gain (dBi)	1.78	1.78	1.03	1.24	1.47	1.56	1.65	1.93	1.58	1.44
Efficiency (%)	66.39	66.35	62.63	59.68	56.58	55.53	54.35	50.97	53.88	55.29
Frequency (MHz)	836	849	862	869	880	894	900	915	925	940
Peak Gain (dBi)	0.40	0.38	0.38	0.68	0.29	0.34	0.35	0.32	0.21	0.15
Efficiency (%)	55.74	55.95	55.97	52.81	57.24	56.85	56.71	56.99	57.96	45.31
Frequency (MHz)	960	1561	1575	1602	1750	1770	1785	1805	1840	1850
Peak Gain (dBi)	0.06	2.50	2.18	1.76	2.64	2.63	2.80	2.29	2.38	2.73

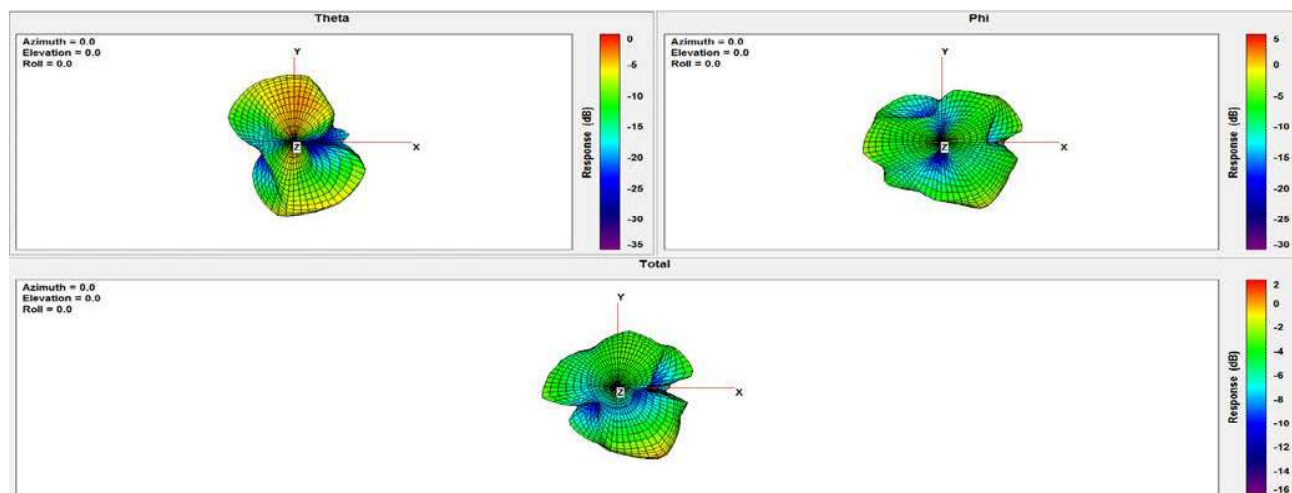
Efficiency (%)	44.67	48.04	52.94	54.40	54.52	52.48	56.90	53.17	53.28	54.67
Frequency (MHz)	1880	1910	1920	1930	1950	1960	1980	1990	2100	2140
Peak Gain (dBi)	1.59	1.43	1.60	1.94	1.60	1.88	1.05	1.61	1.27	1.57
Efficiency (%)	43.71	45.38	43.67	40.40	44.70	42.54	41.29	44.62	47.13	43.91
Frequency (MHz)	2200	2300	2600							
Peak Gain (dBi)	1.13	1.07	0.84							
Efficiency (%)	45.82	43.67	40.3							

3D Radiation Patterns

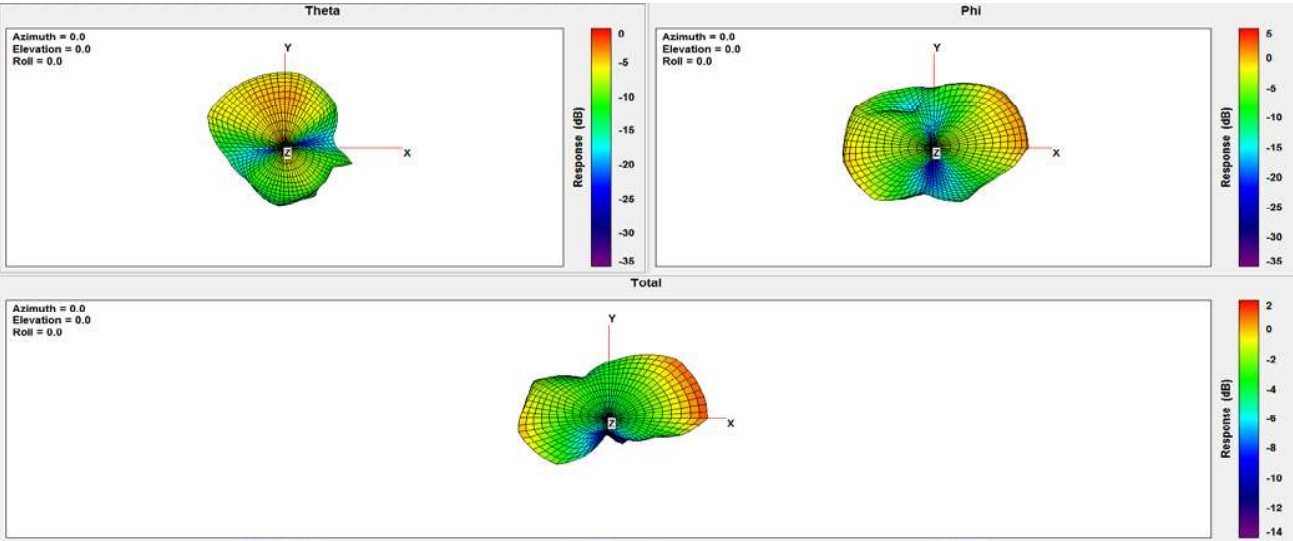
600Mhz:



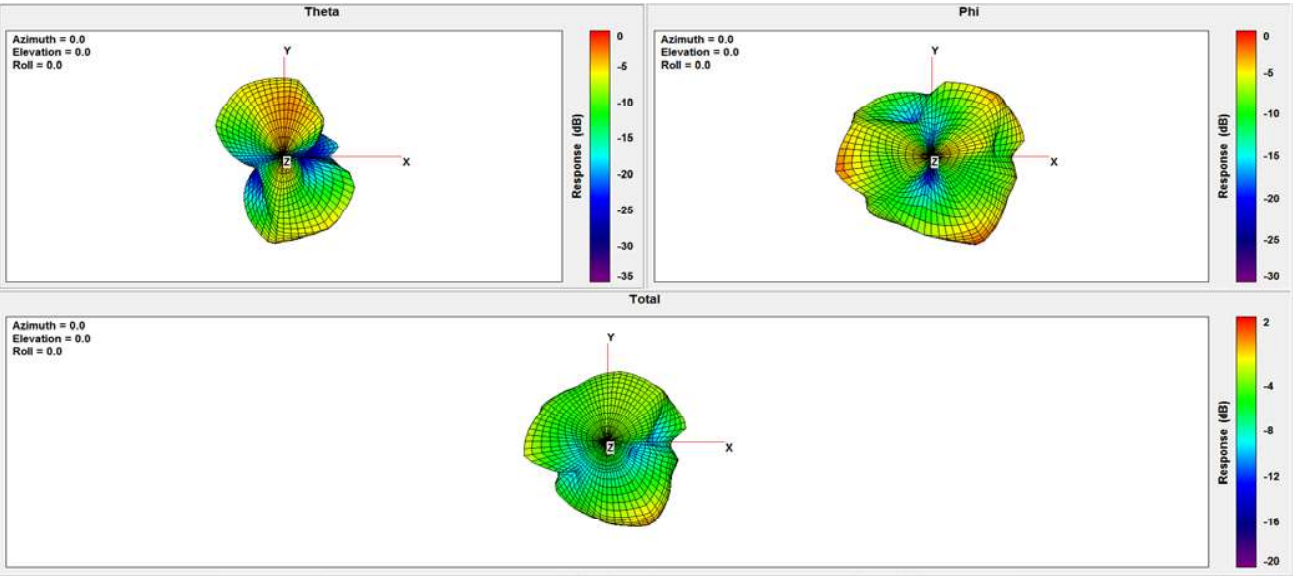
700Mhz:



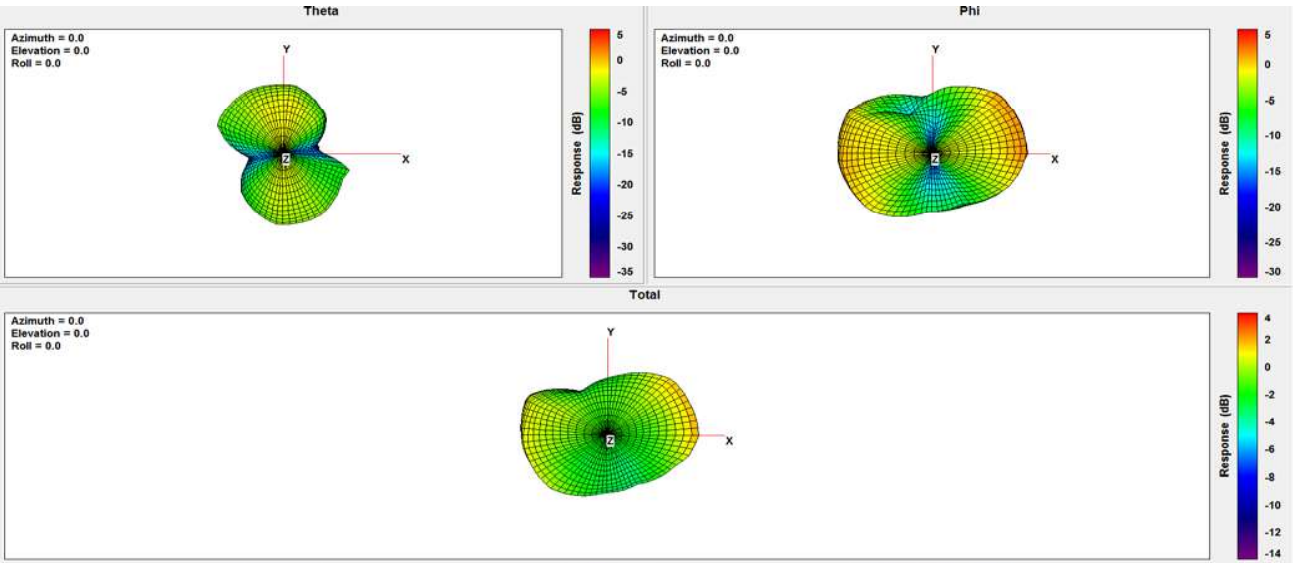
800Mhz:



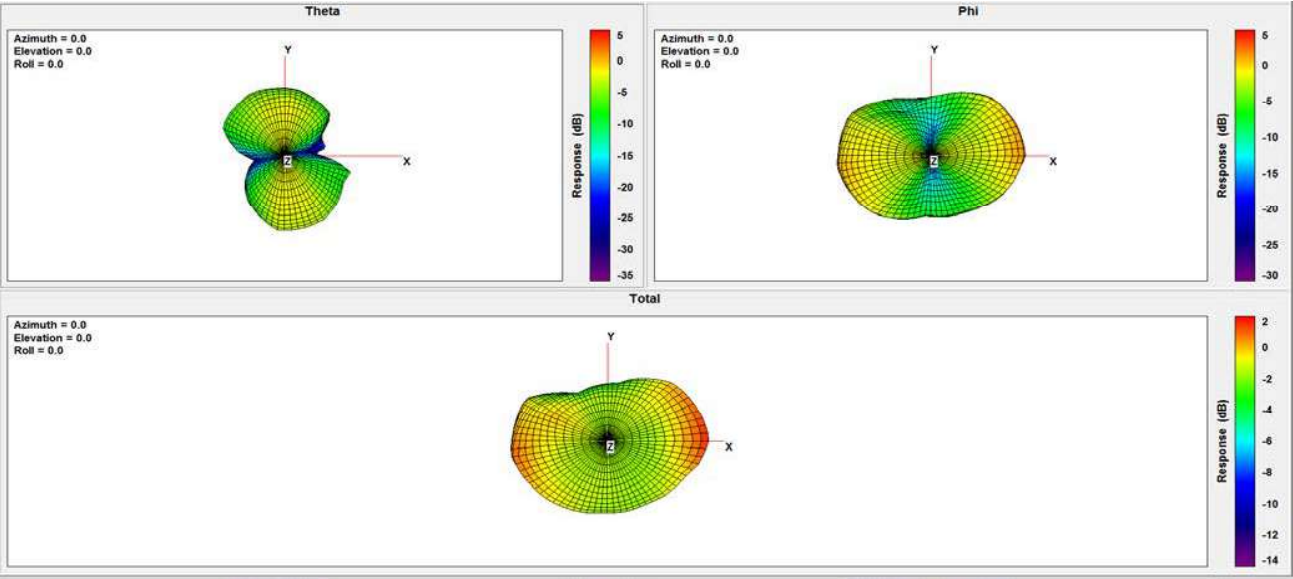
900Mhz:



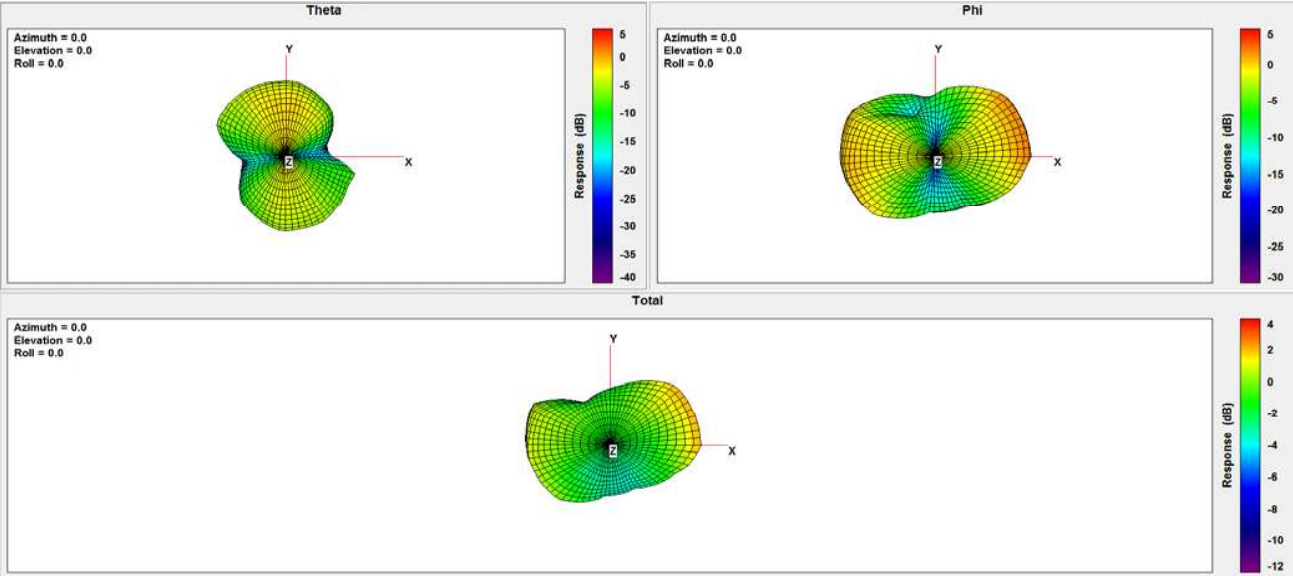
1575Mhz:



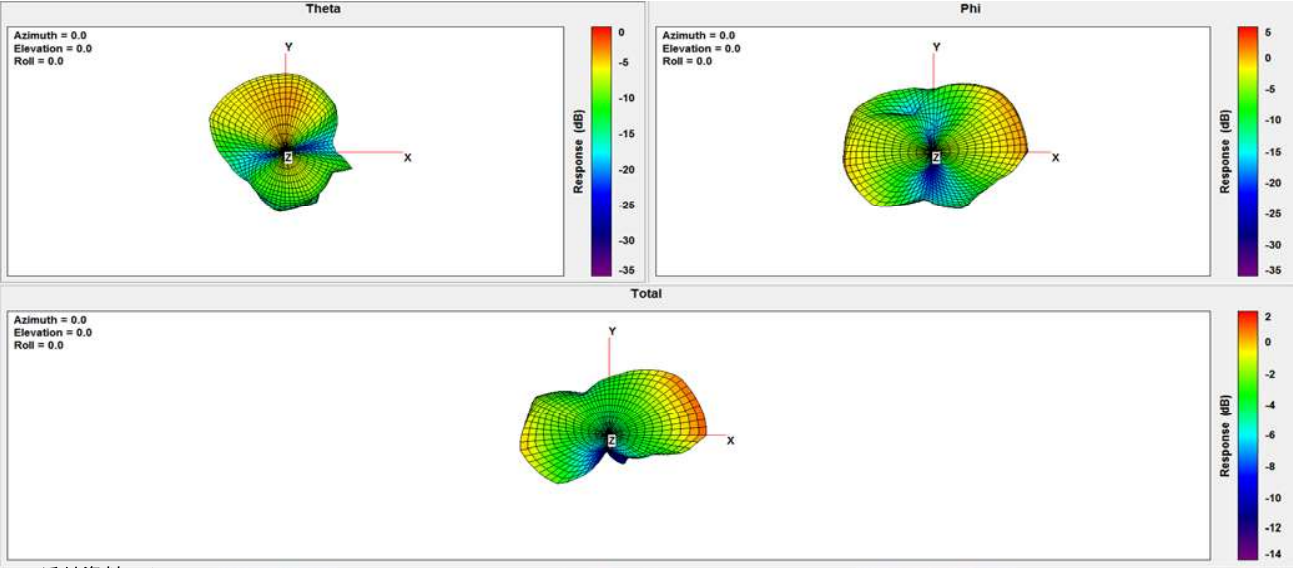
1602Mhz:



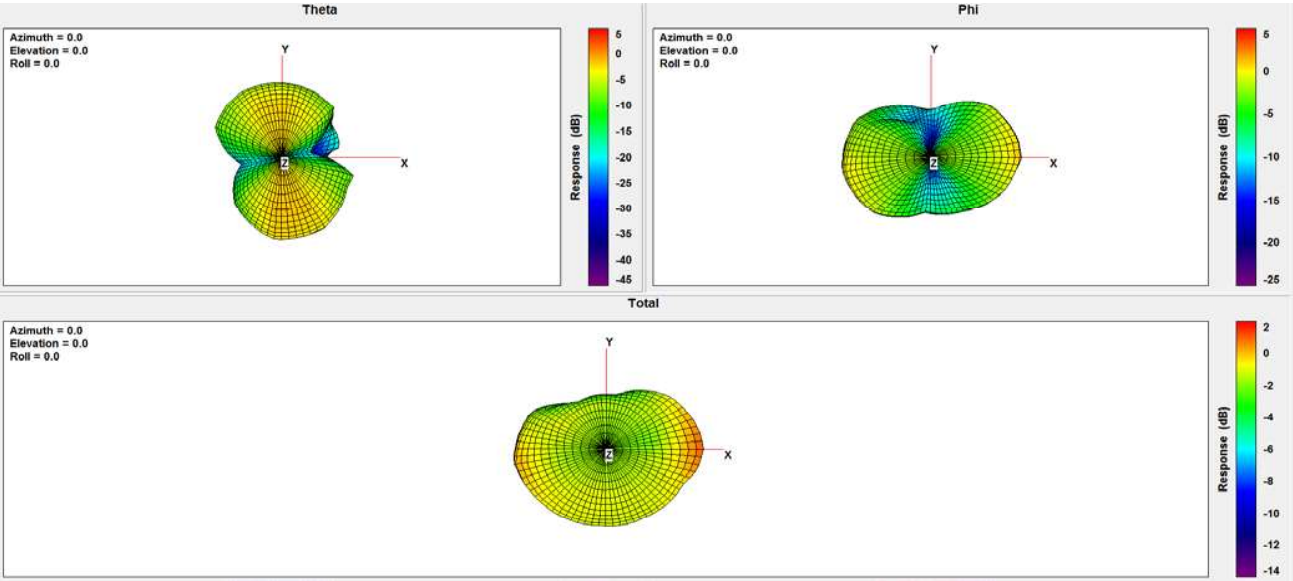
1750Mhz:



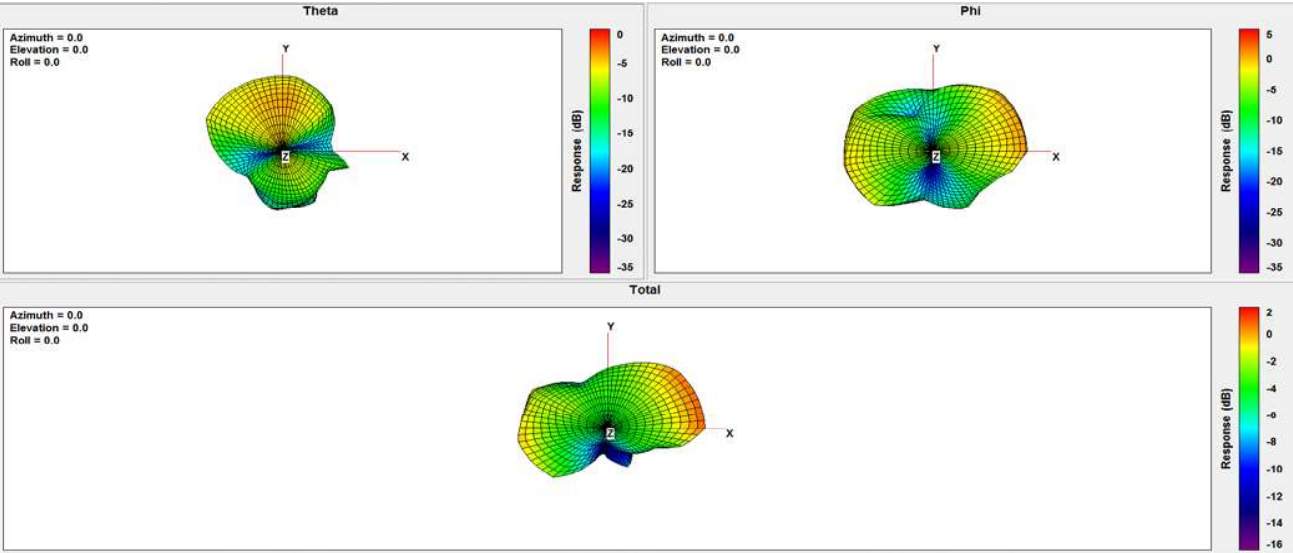
1990Mhz:



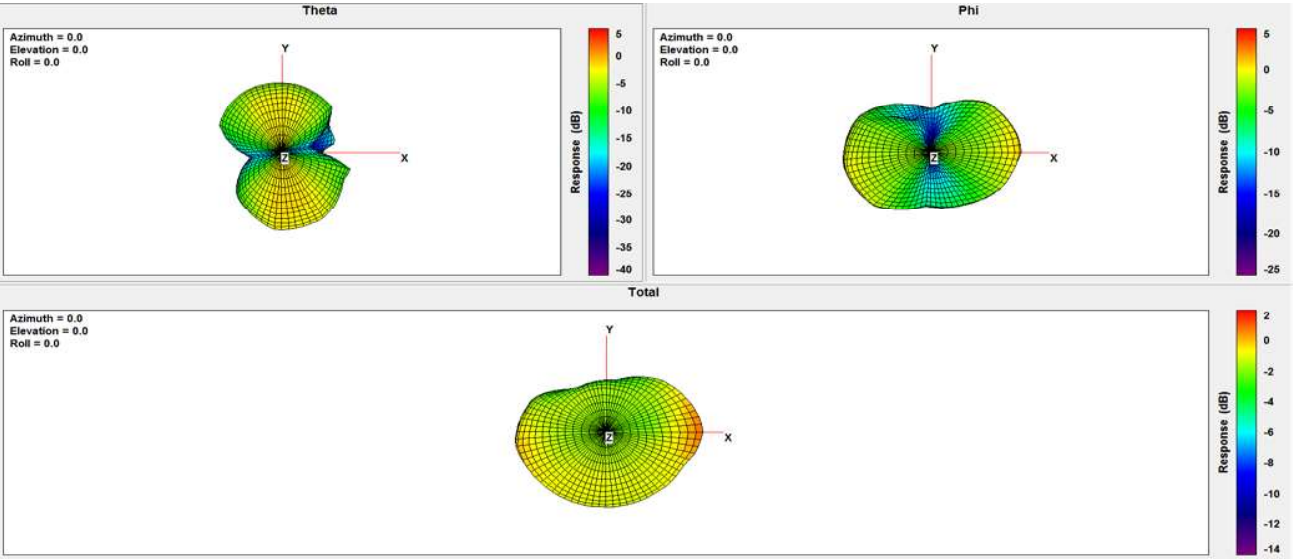
2100Mhz:



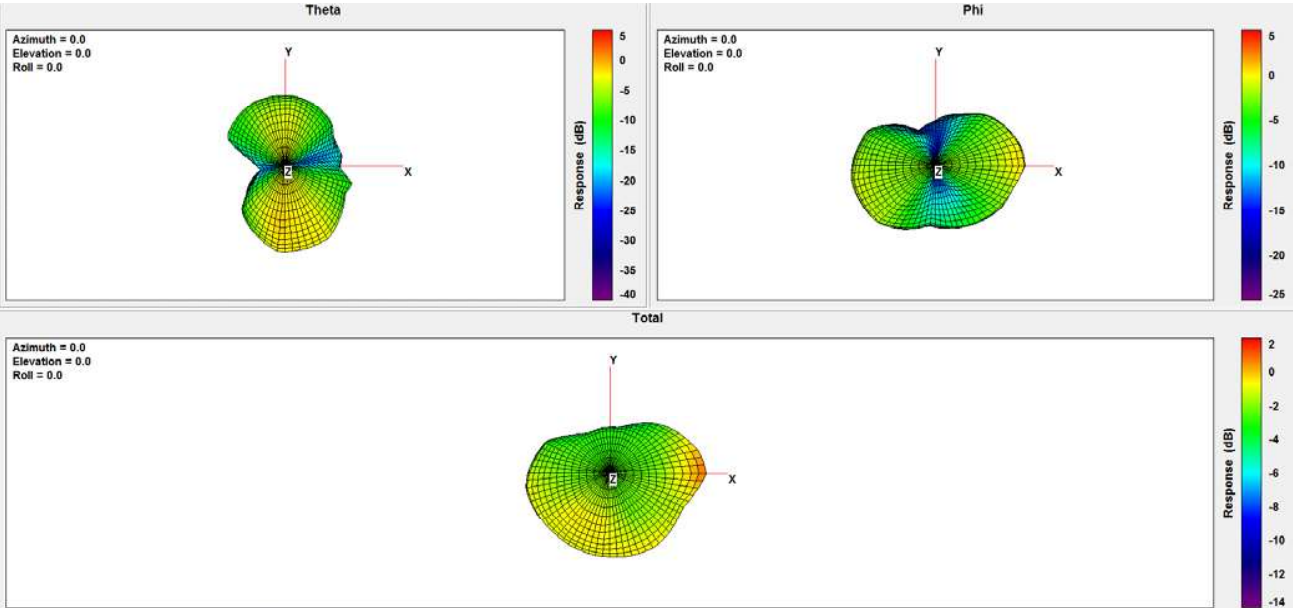
2200Mhz:



2300Mhz:

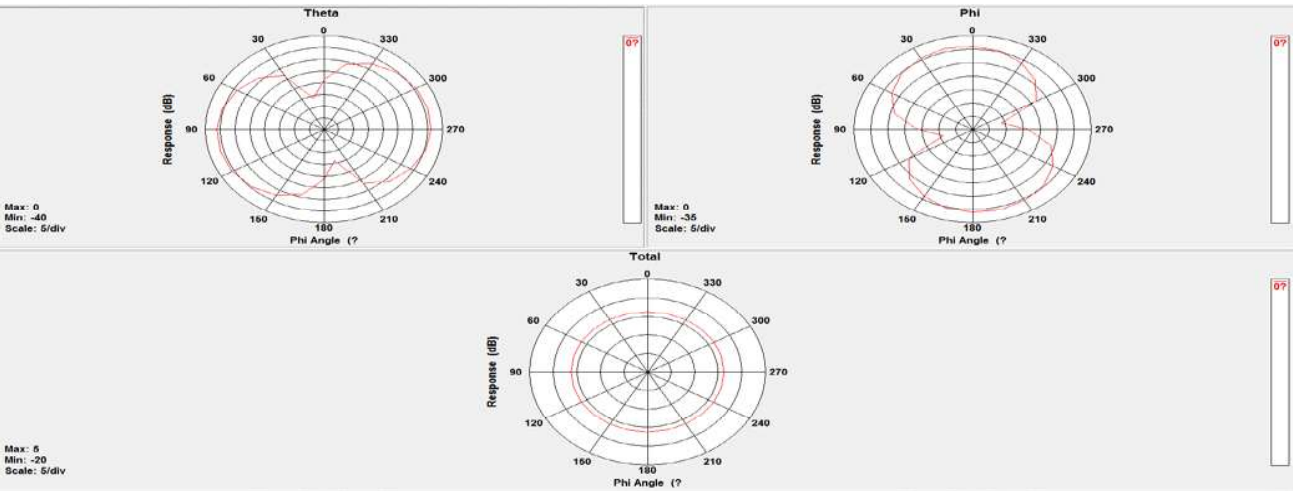


2600Mhz:

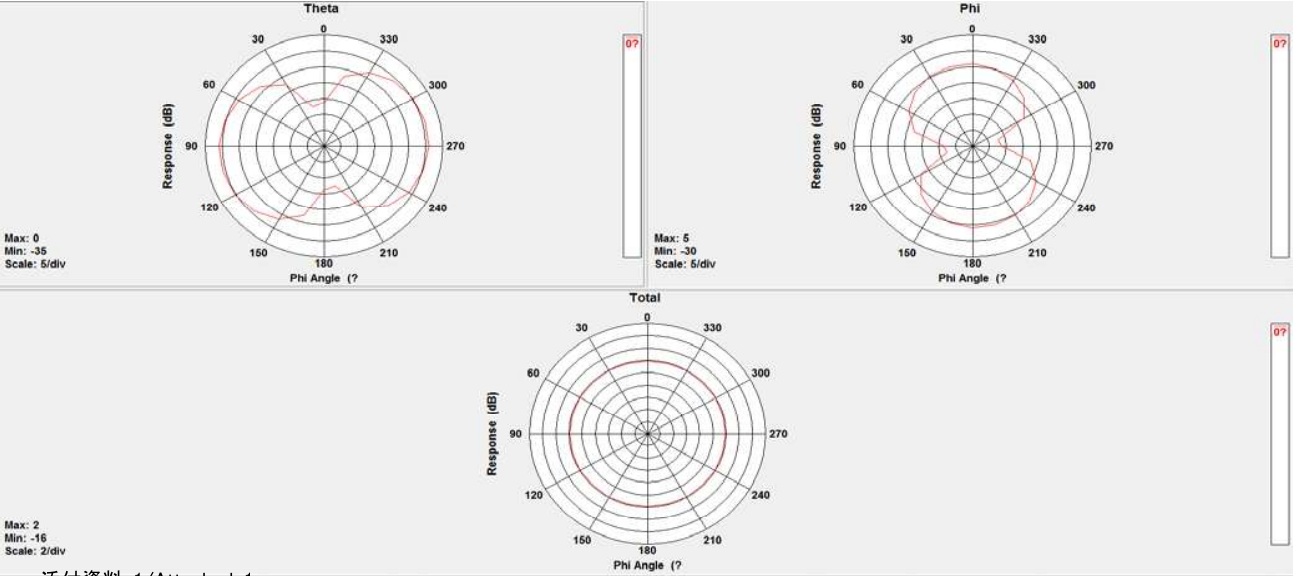


2D Radiation Patterns

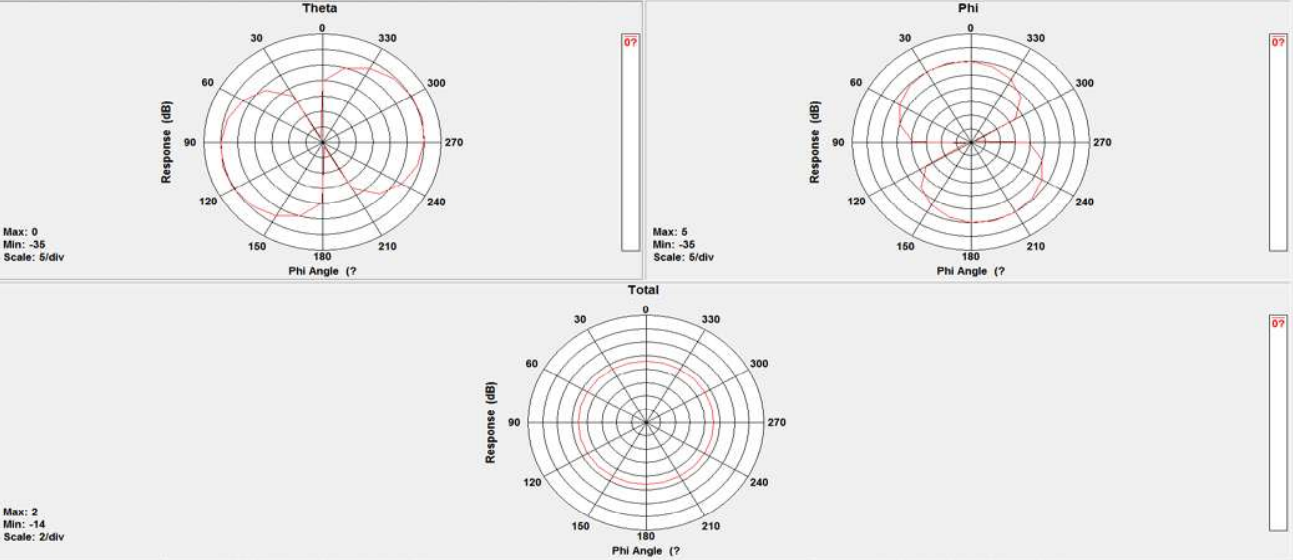
600Mhz:



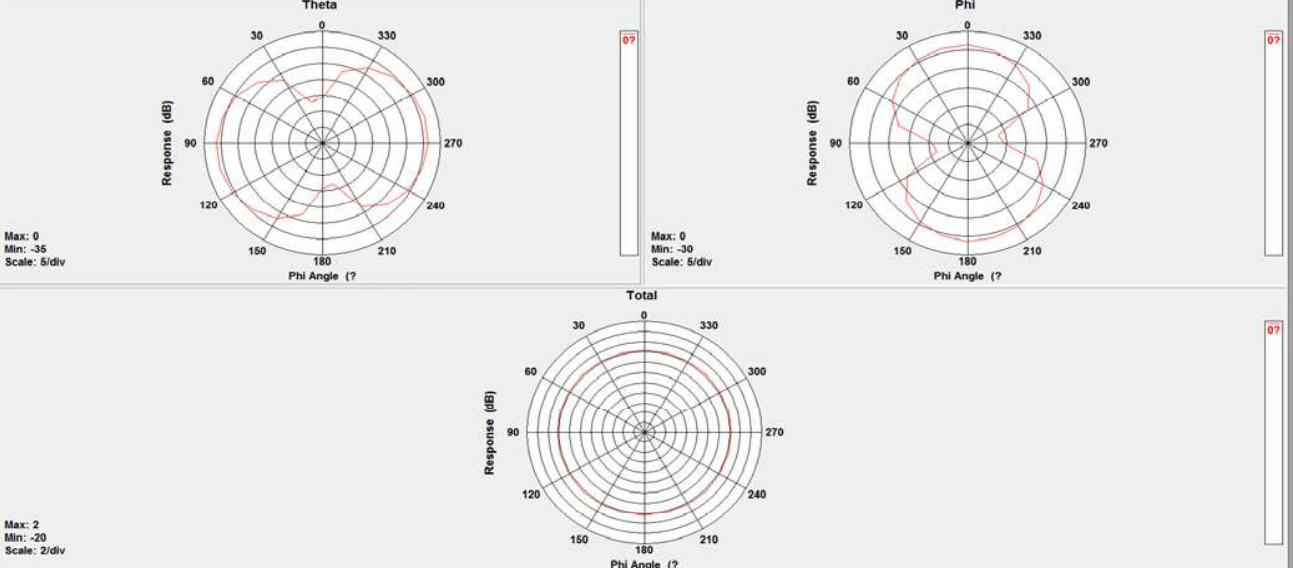
700Mhz:



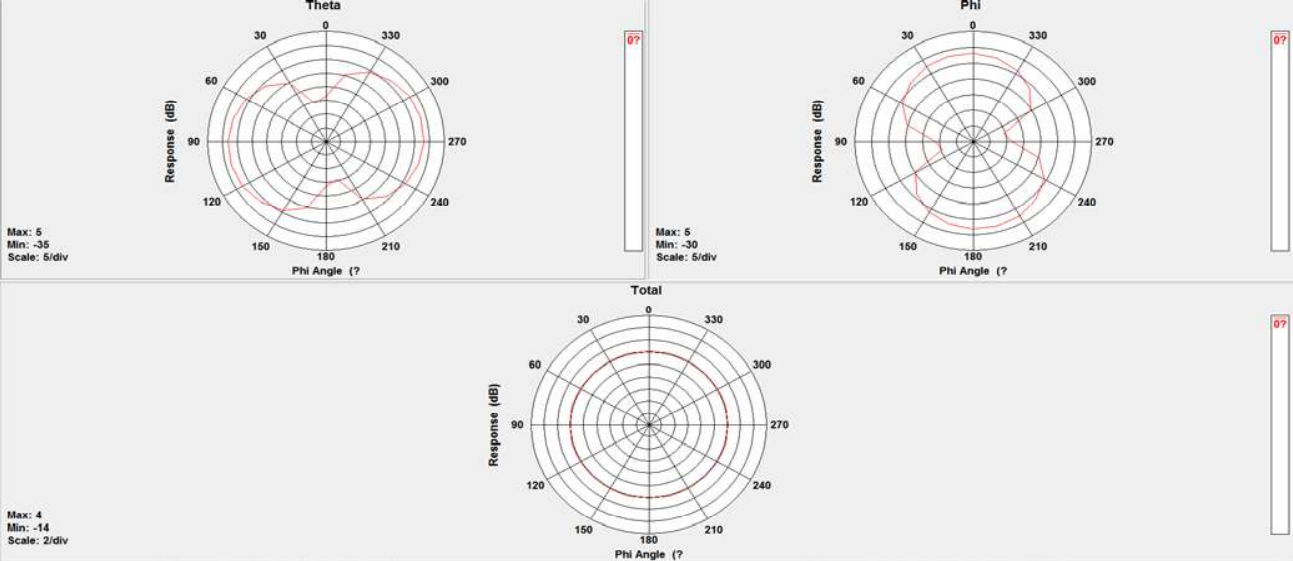
800Mhz:



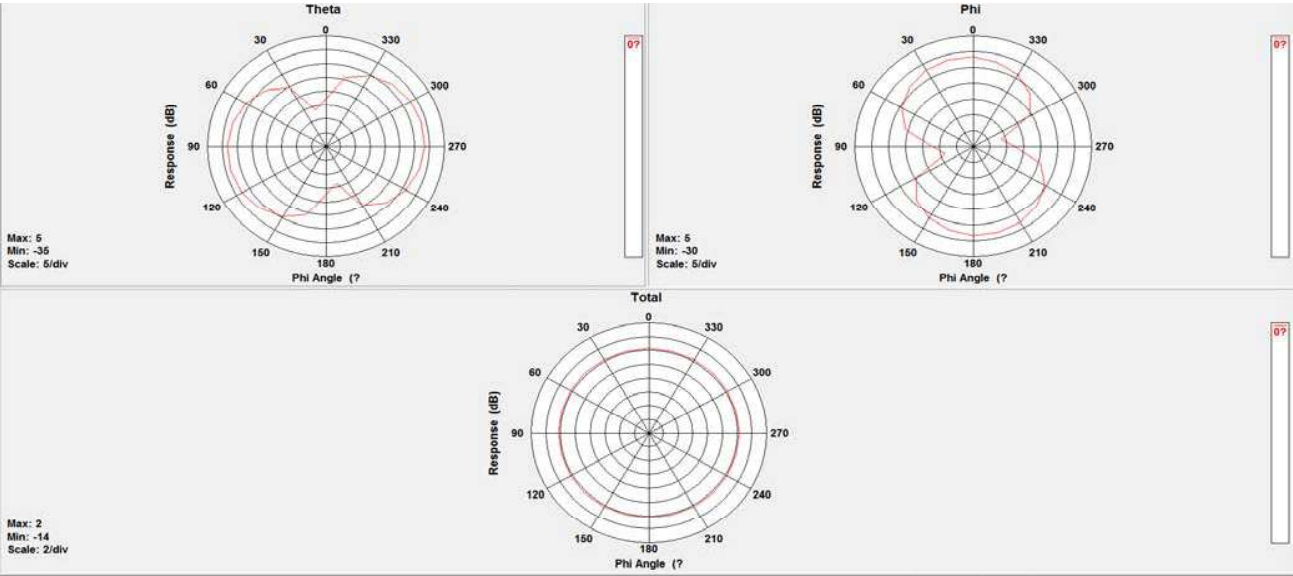
900Mhz:



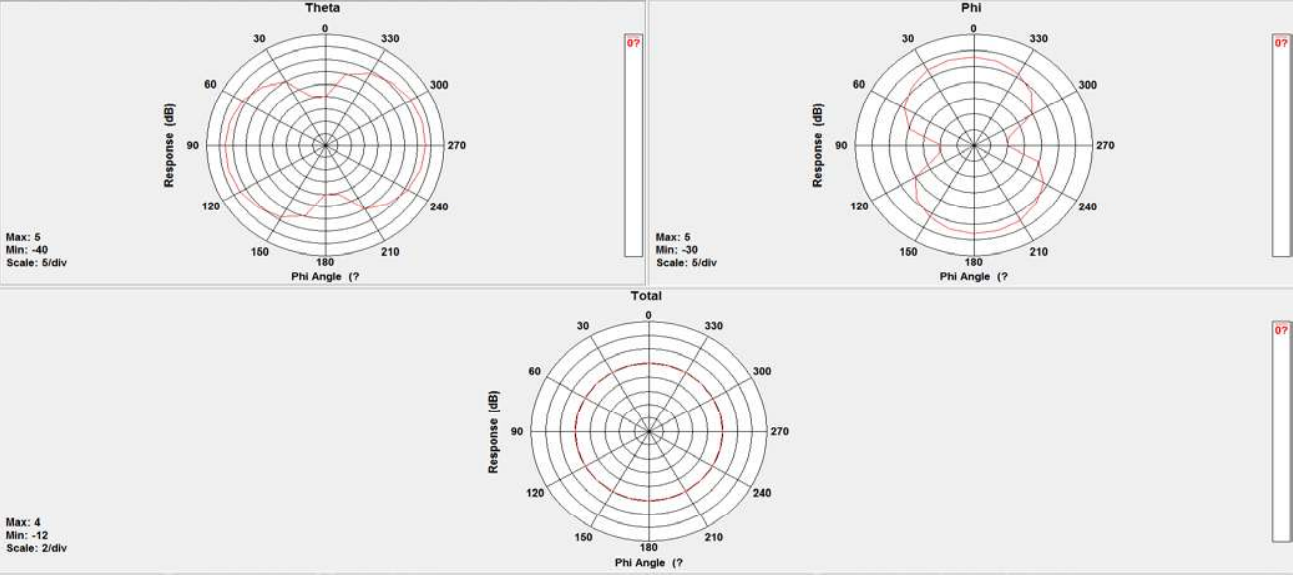
1575Mhz:



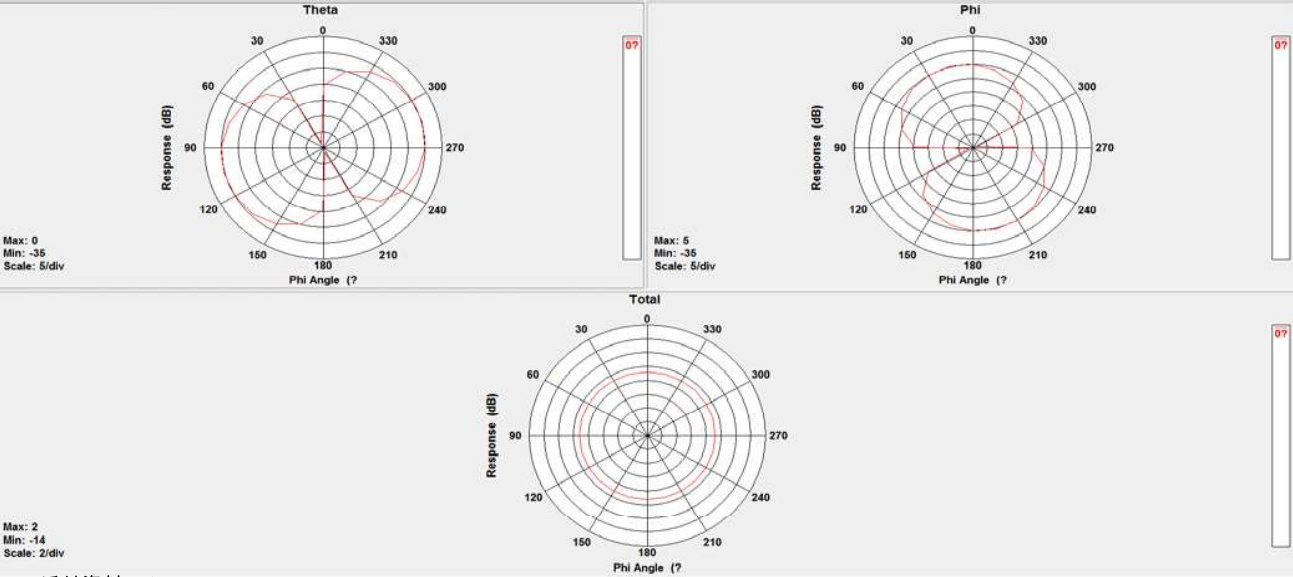
1602Mhz:



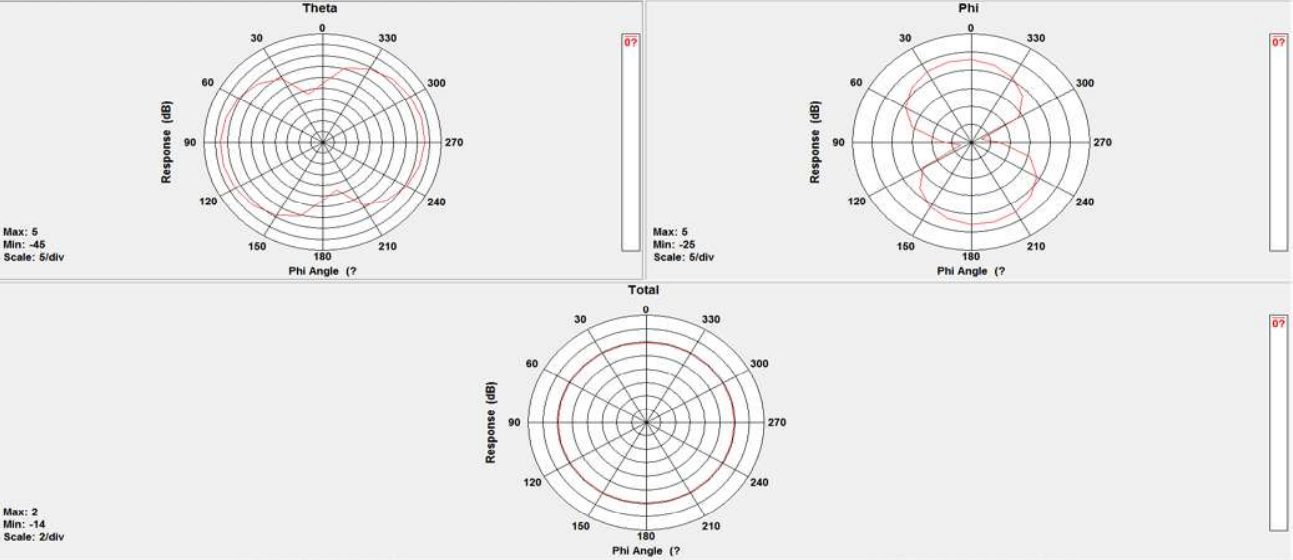
1750Mhz:



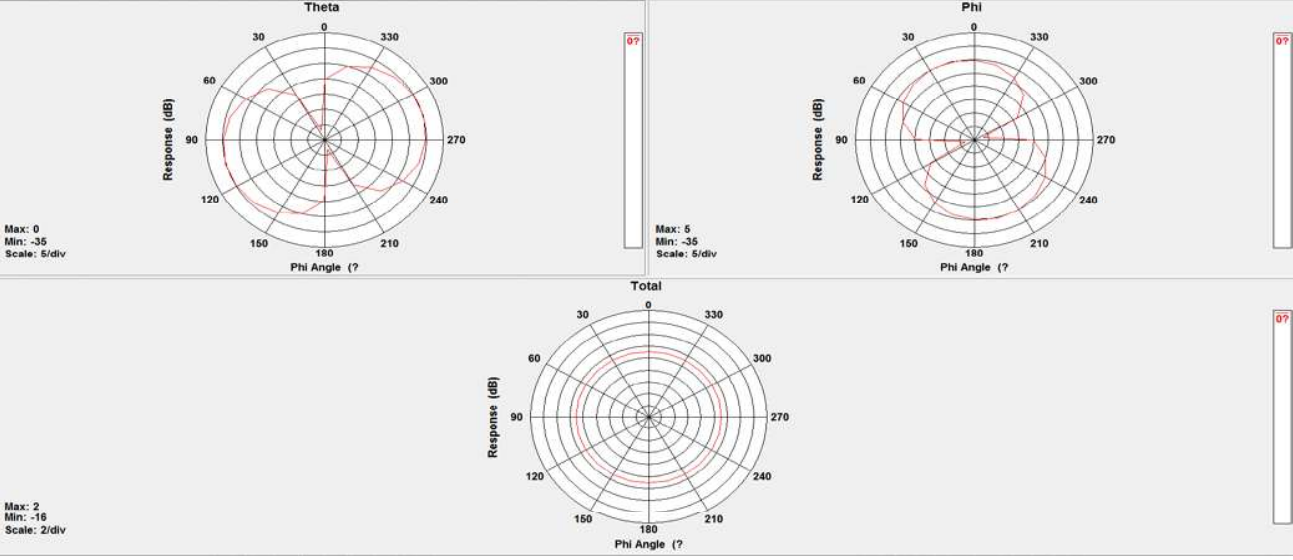
1990Mhz:



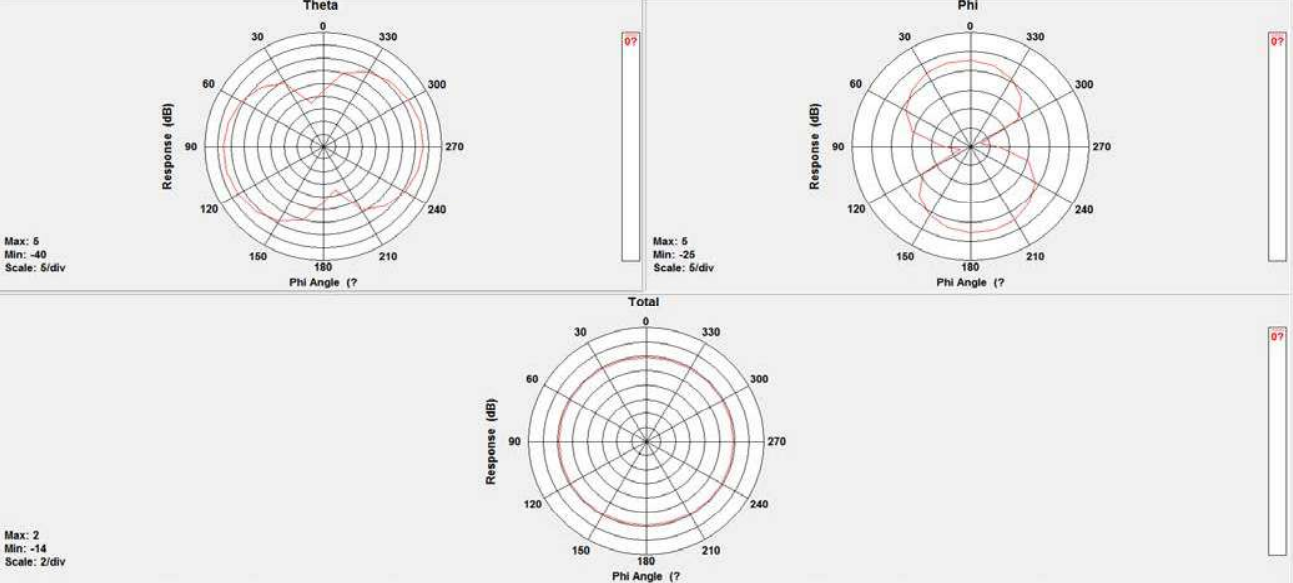
2100Mhz:



2200Mhz:



2300Mhz:



2600Mhz:

