

Zhongshan Lafeiku Electronic Co.,Ltd

Passive antenna test report



Customer :

Project Name:

Mobile phone type: GPS Wireless Dog Fence

Date: 2024-04-30

Structure mode: PCB

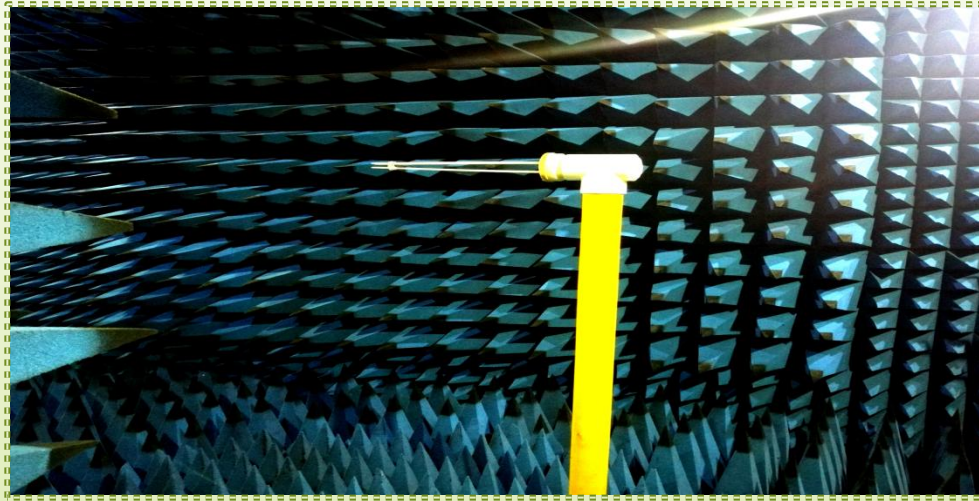
Antenna type: PCB ANTENNA

Frequency Range : 2400MHz-2500MHz



1.0 test equipment

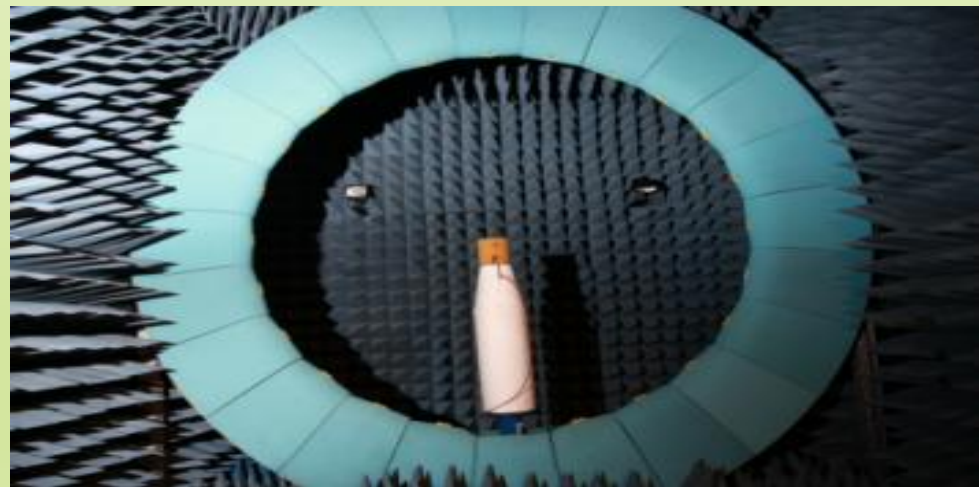
ETS

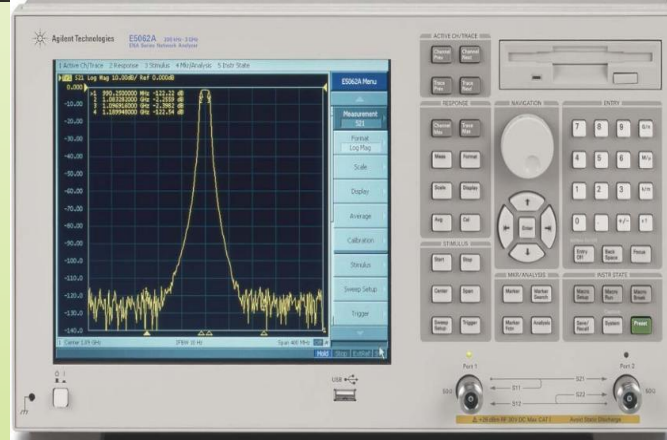
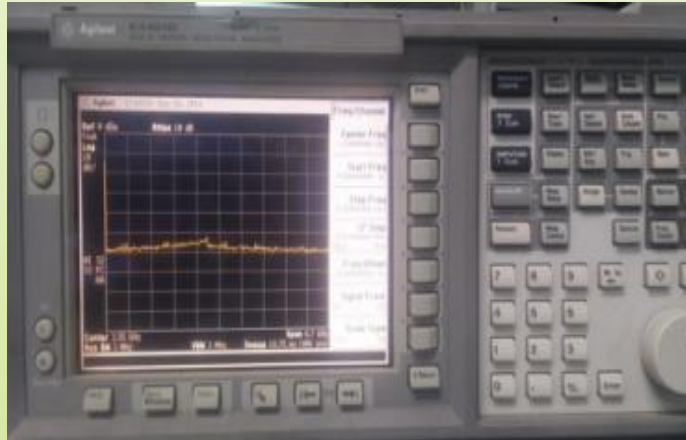
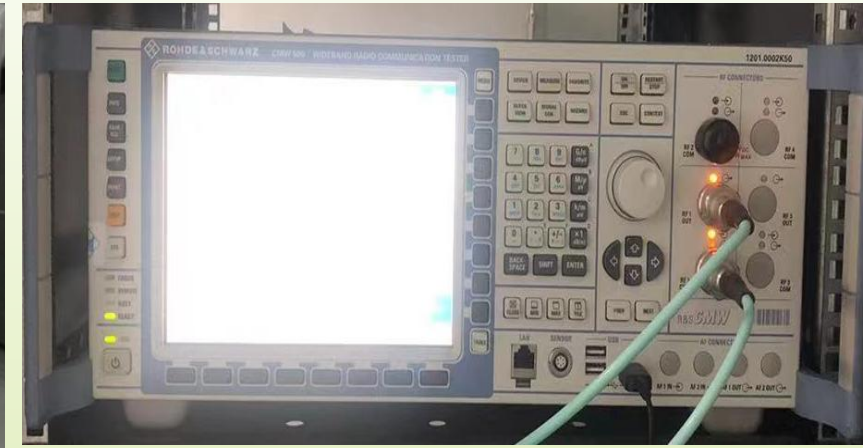


SATIMO--24



Rohde & Schwarz shielding box





test system

Active testing

Passive testing

SATIMO

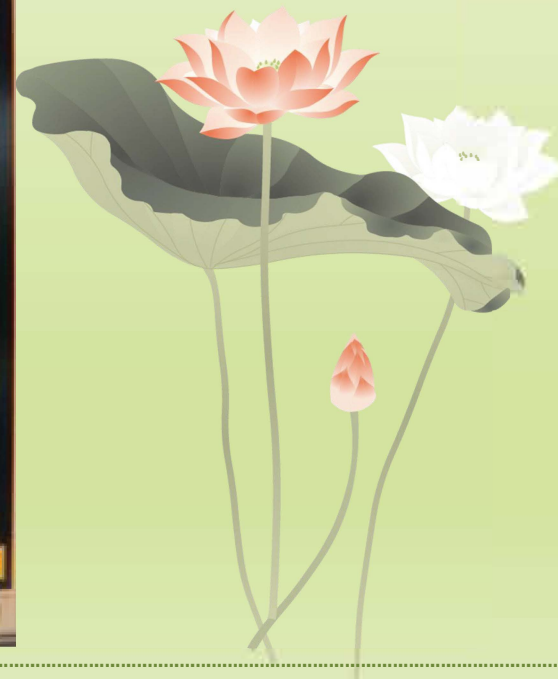
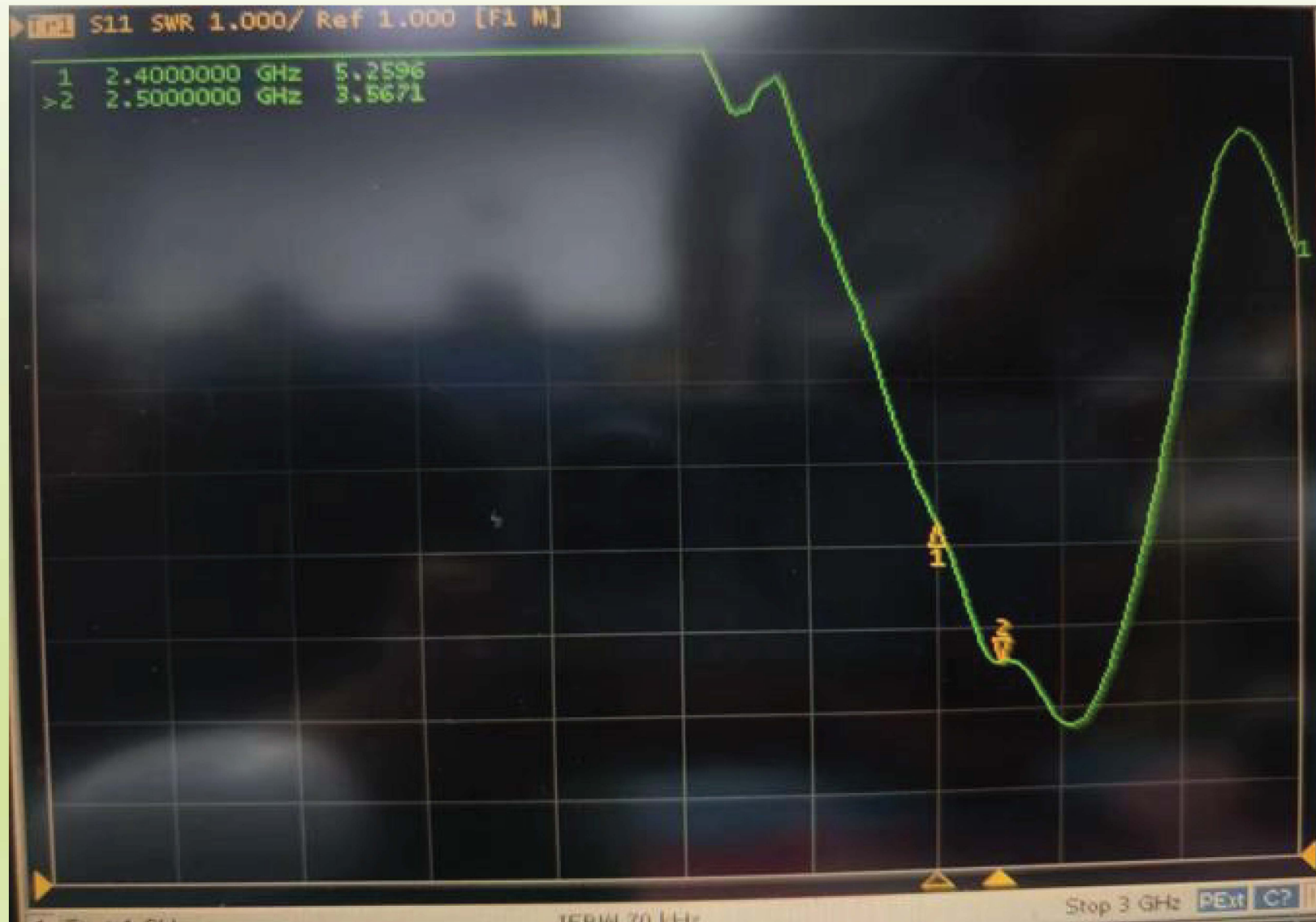
support 2G/3G/4G

600MHZ-----6G

ETS

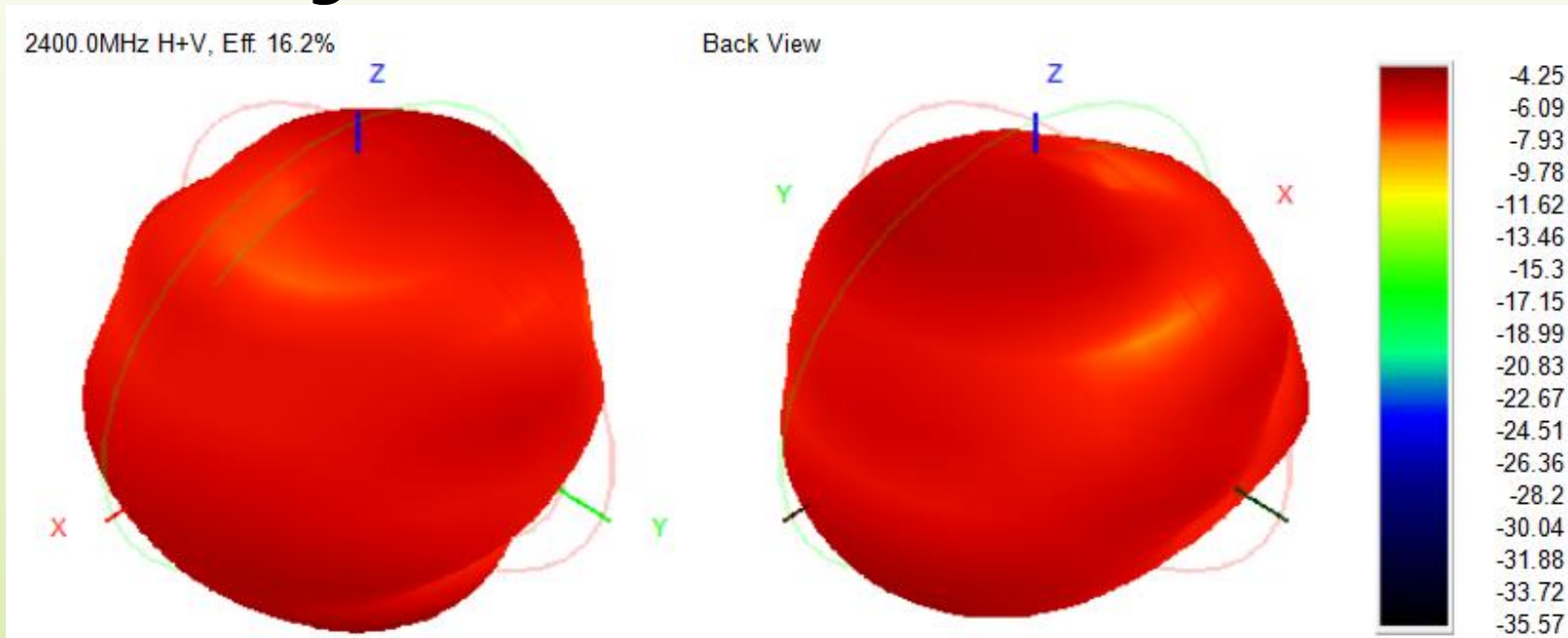
3.0

WSR

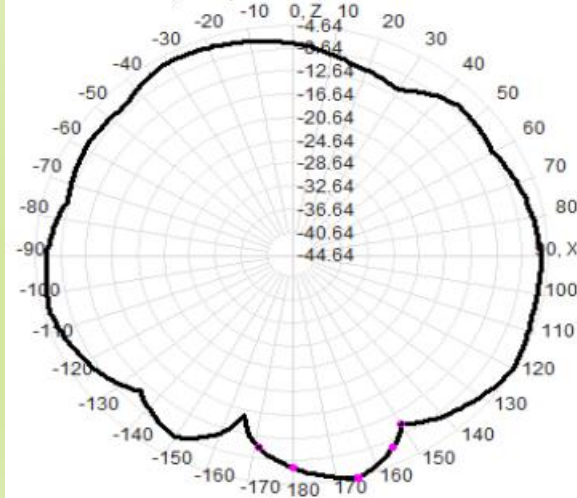


4.0 Gain efficiency

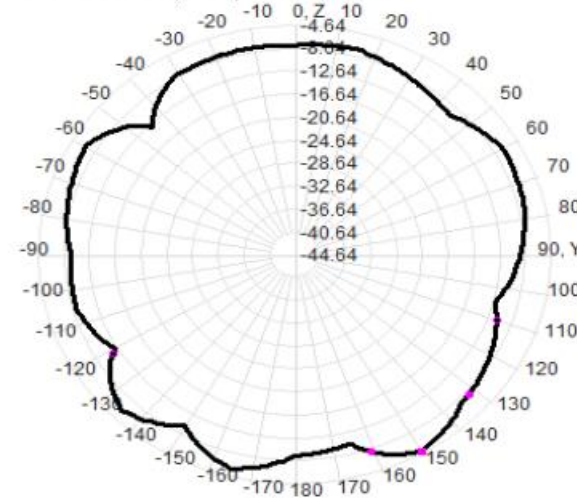
Frequency ID	1	2	3	4	5	6
Frequency (MHz)	2400.0	2420.0	2440.0	2460.0	2480.0	2500.0
Efficiency (dBi)	-7.91	-8.06	-8.11	-7.46	-7.49	-7.38
Gain (dBi)	-4.25	-4.25	-3.97	-2.90	-2.58	-2.27
Efficiency (%)	16.19	15.63	15.46	17.95	17.81	18.28
Directivity (dB)	3.66	3.81	4.14	4.56	4.91	5.11
Peak Gain Position (Theta)	165.00	165.00	165.00	165.00	165.00	165.00
Peak Gain Position (Phi)	345.00	345.00	345.00	345.00	345.00	330.00
Efficiency ThetaPol (%)	11.45	11.06	11.39	13.09	13.14	13.61
Efficiency PhiPol (%)	4.74	4.57	4.08	4.85	4.67	4.67
Upper Hem. Efficiency (%)	7.53	6.94	6.69	7.59	7.21	7.22
Lower Hem. Efficiency (%)	8.65	8.69	8.77	10.36	10.61	11.06



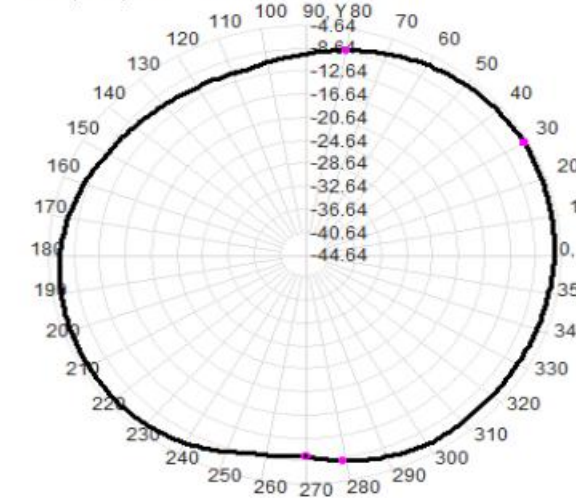
2400.0MHz Total(E1-XZ), Max= -4.64dBi

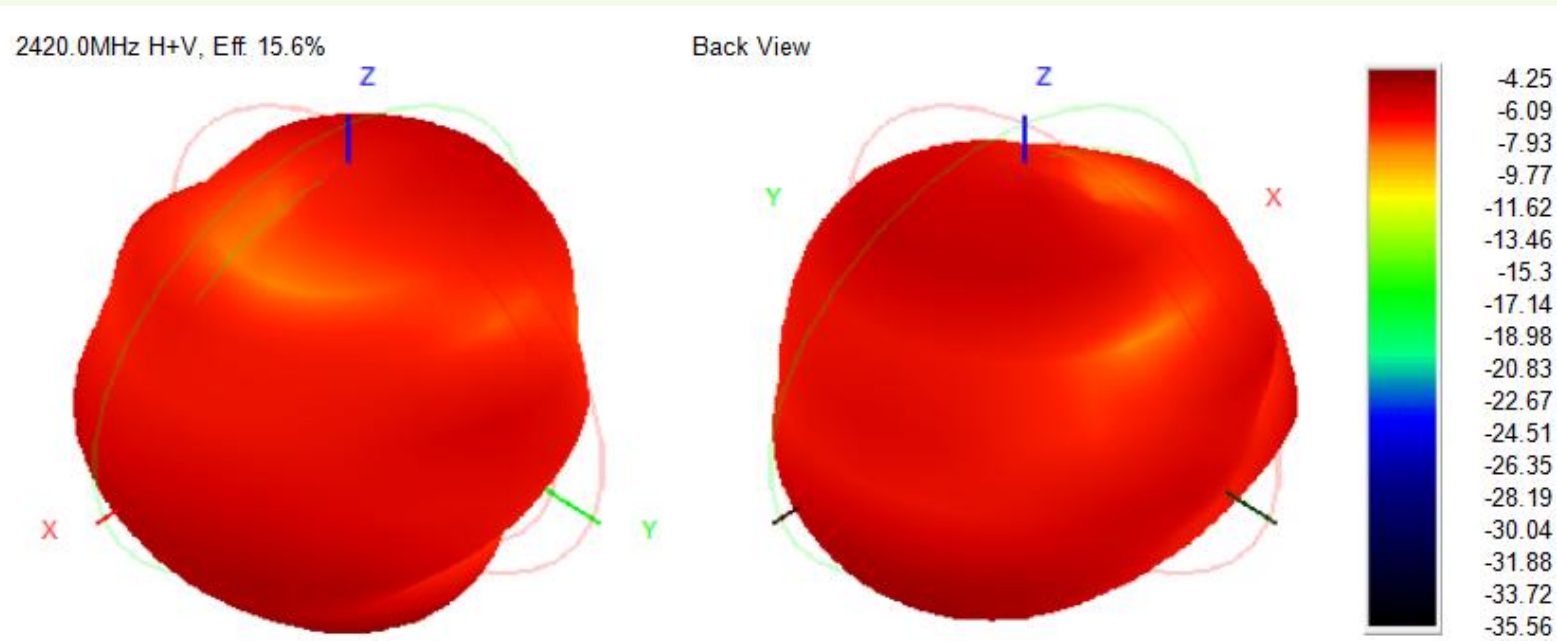


2400.0MHz Total(E2-YZ), Max= -5.29dBi

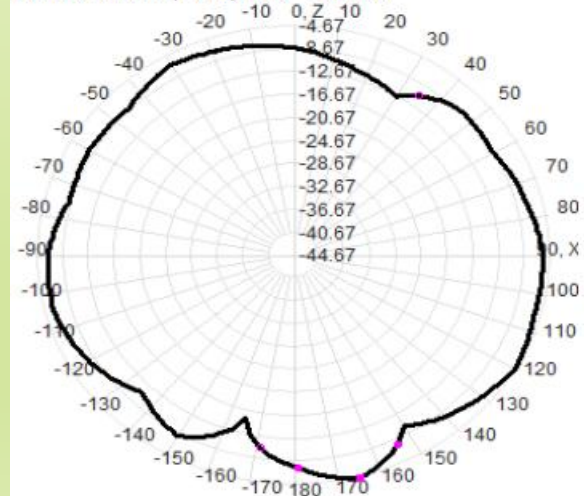


Total(H-XY), Max= -5.43dBi, CirD=5.72

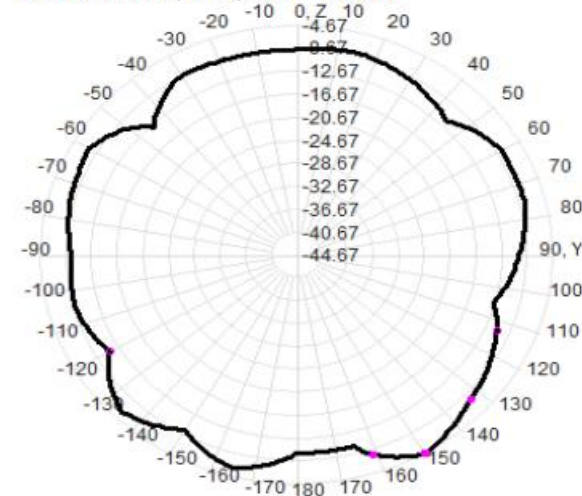




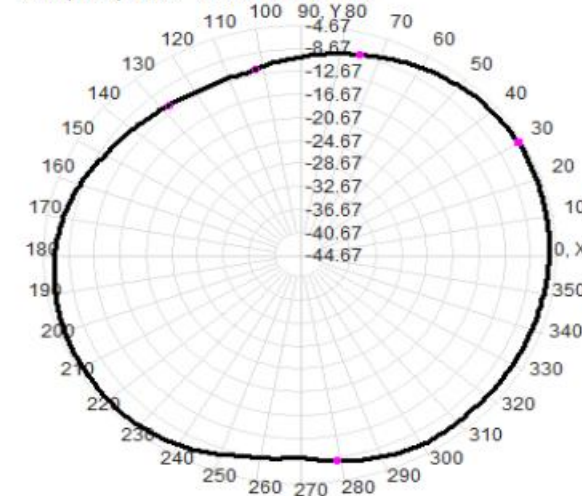
2420.0MHz Total(E1-XZ), Max= -4.67dBi



2420.0MHz Total(E2-YZ), Max= -4.88dBi

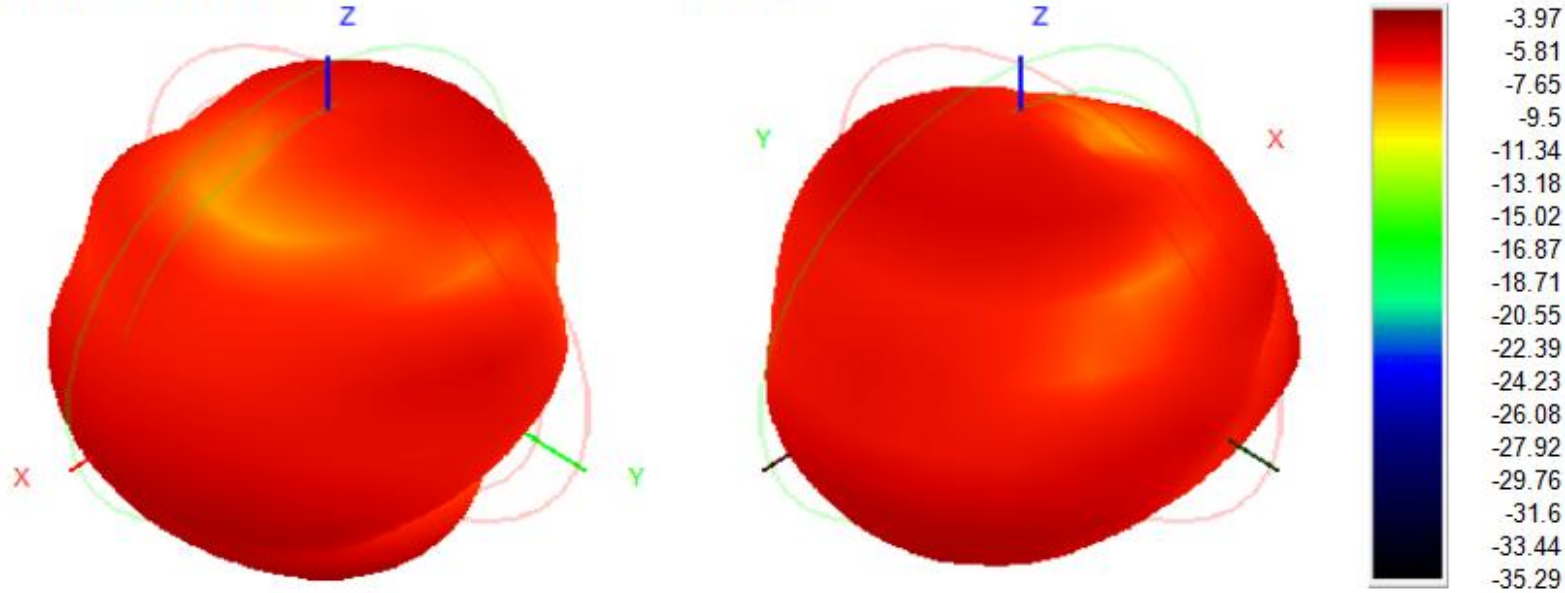


Total(H-XY), Max= -5.50dBi, CirD=6.47

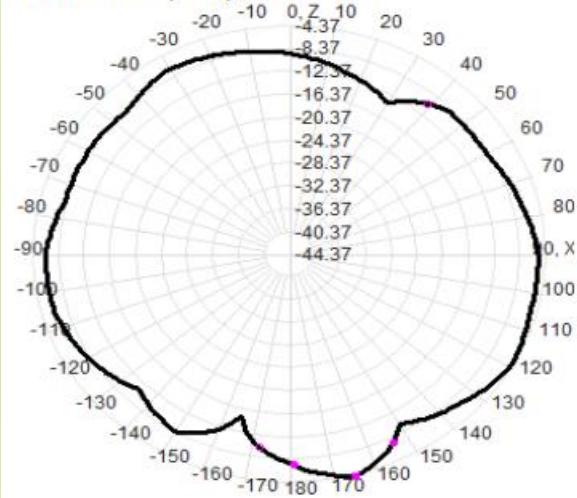


2440.0MHz H+V, Eff. 15.5%

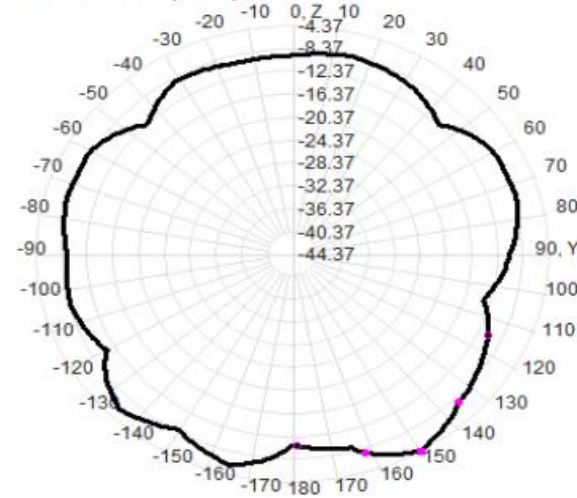
Back View



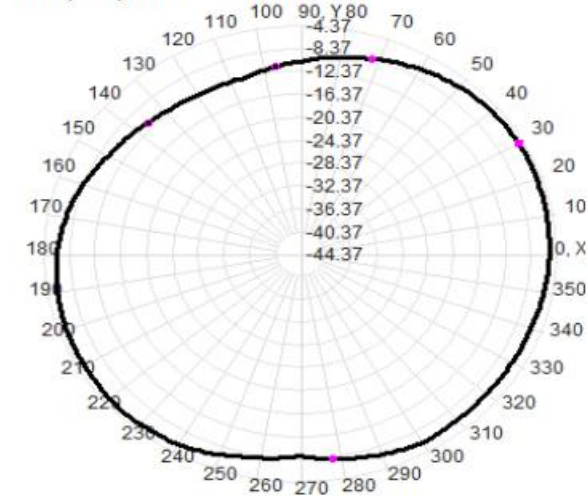
2440.0MHz Total(E1-XZ), Max= -4.37dBi



2440.0MHz Total(E2-YZ), Max= -4.80dBi

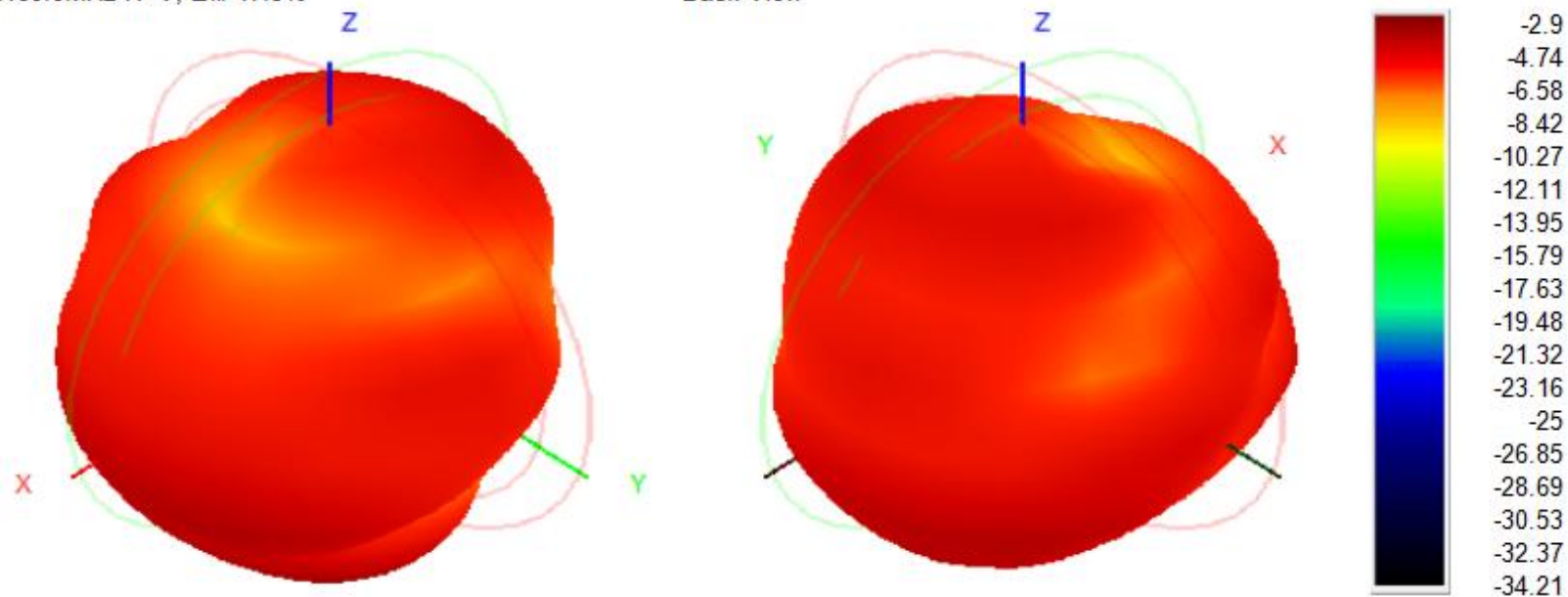


Total(H-XY), Max= -5.32dBi, CirD=7.08

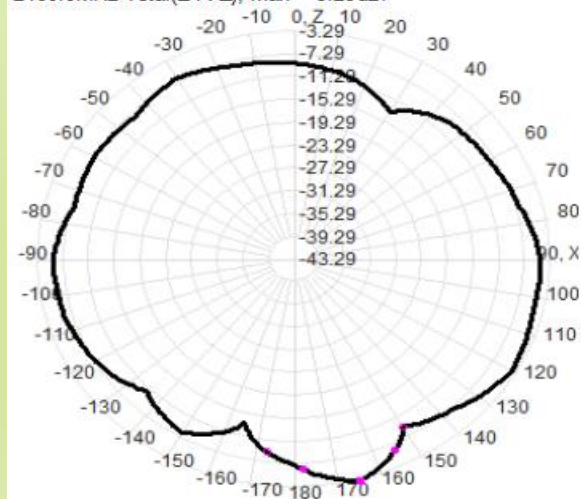


2460.0MHz H+V, Eff. 17.9%

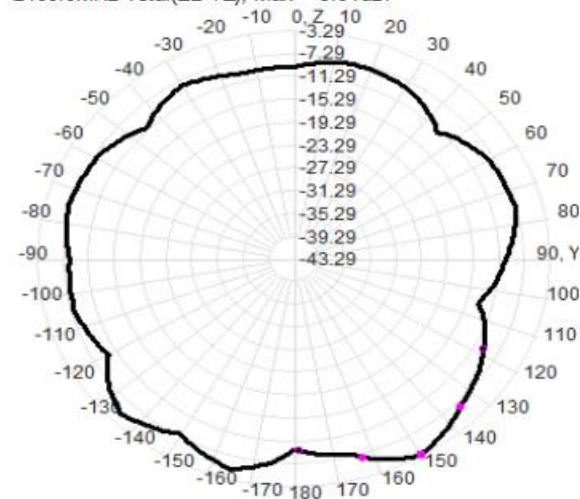
Back View



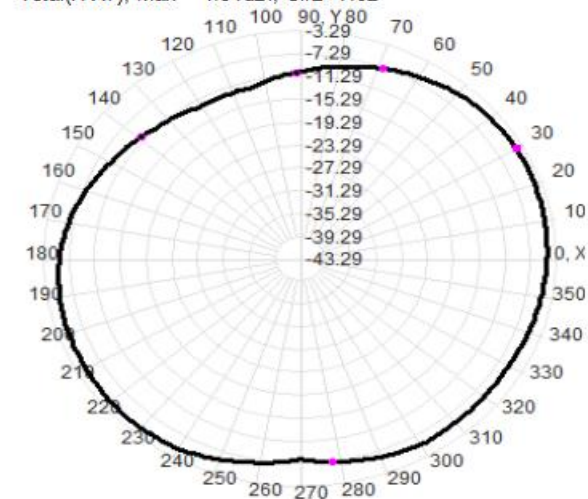
2460.0MHz Total(E1-XZ), Max= -3.29dBi



2460.0MHz Total(E2-YZ), Max= -3.81dBi

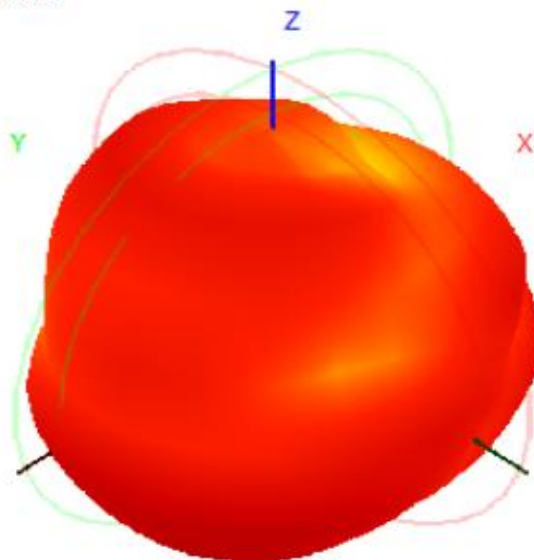
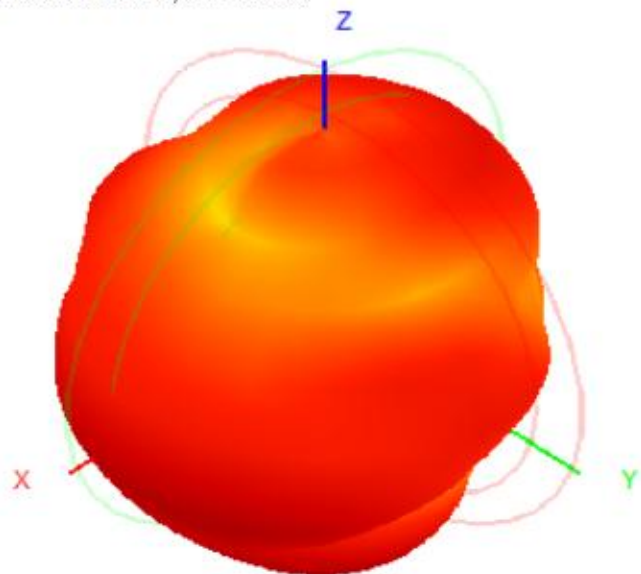


Total(H-XY), Max= -4.54dBi, CirD=7.82

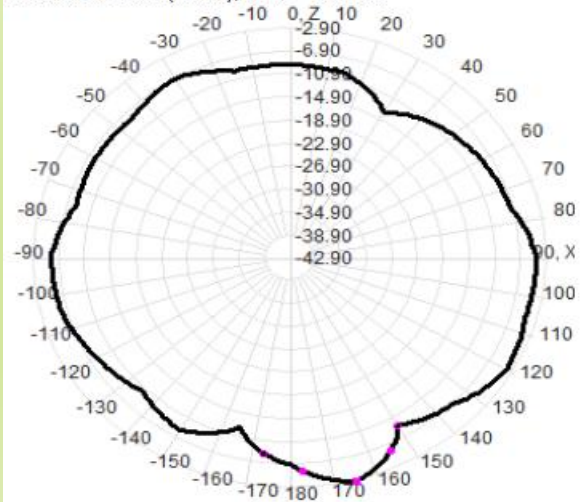


2480.0MHz H+V, Eff. 17.8%

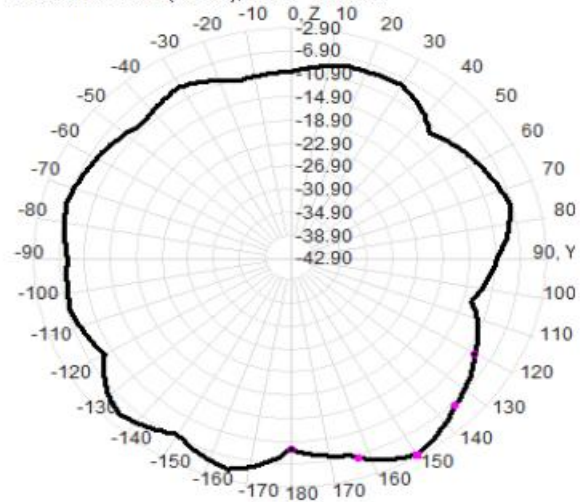
Back View



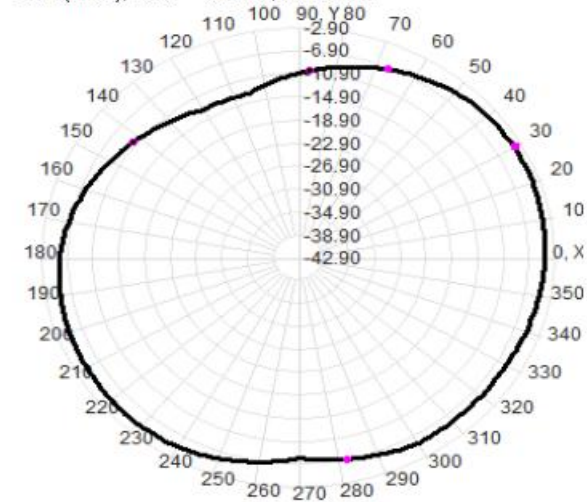
2480.0MHz Total(E1-XZ), Max= -2.90dBi



2480.0MHz Total(E2-YZ), Max= -3.60dBi

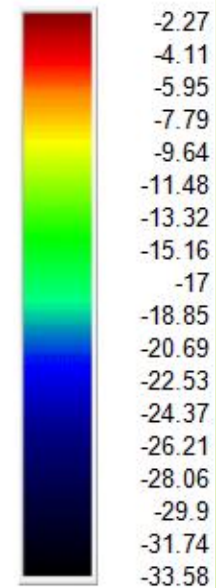
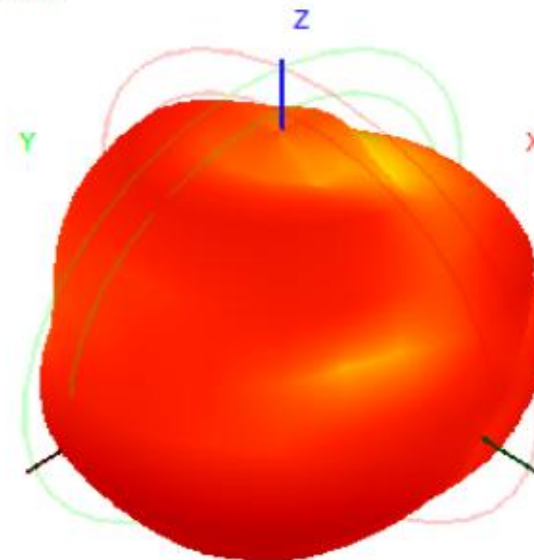
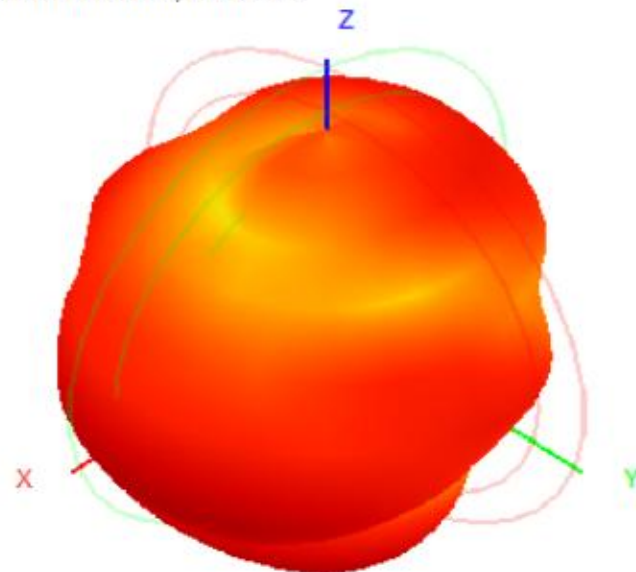


Total(H-XY), Max= -4.22dBi, CirD=9.11

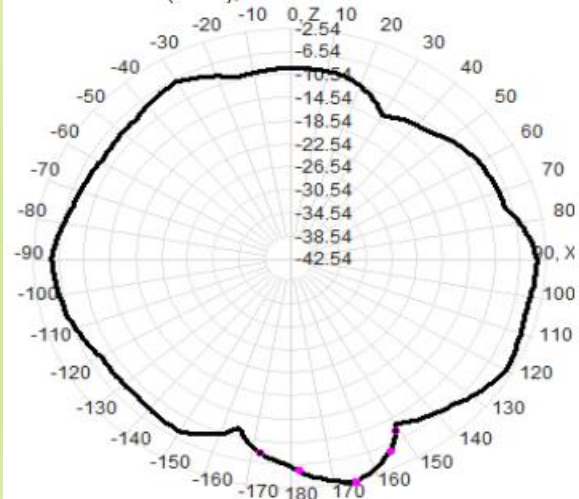


2500.0MHz H+V, Eff. 18.3%

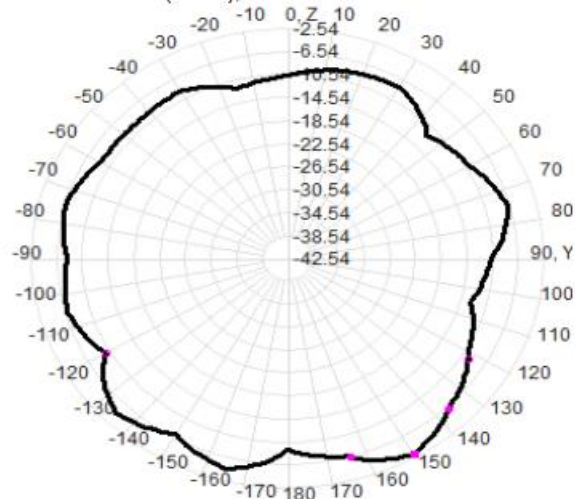
Back View



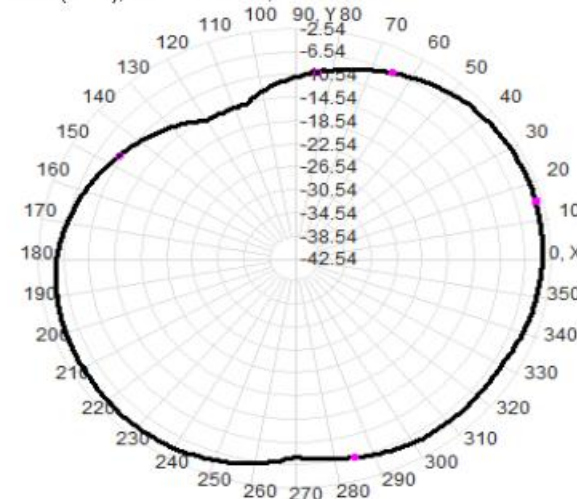
2500.0MHz Total(E1-XZ), Max= -2.54dBi



2500.0MHz Total(E2-YZ), Max= -3.42dBi



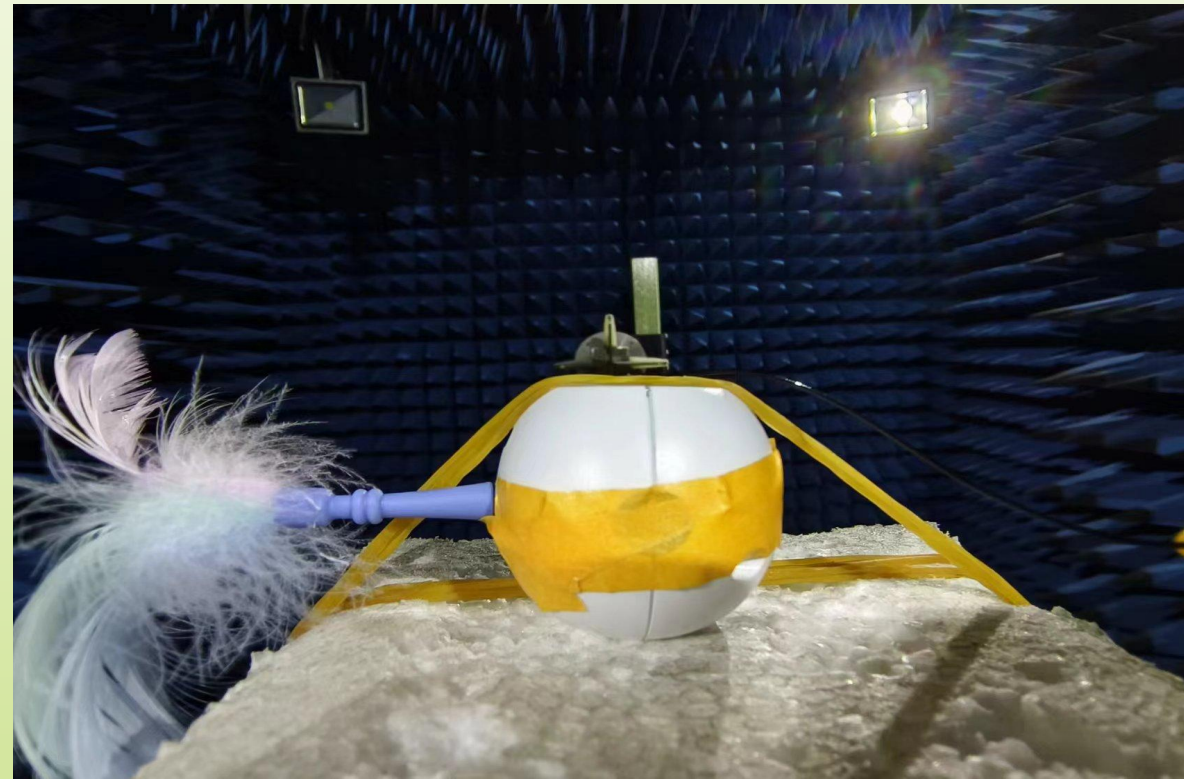
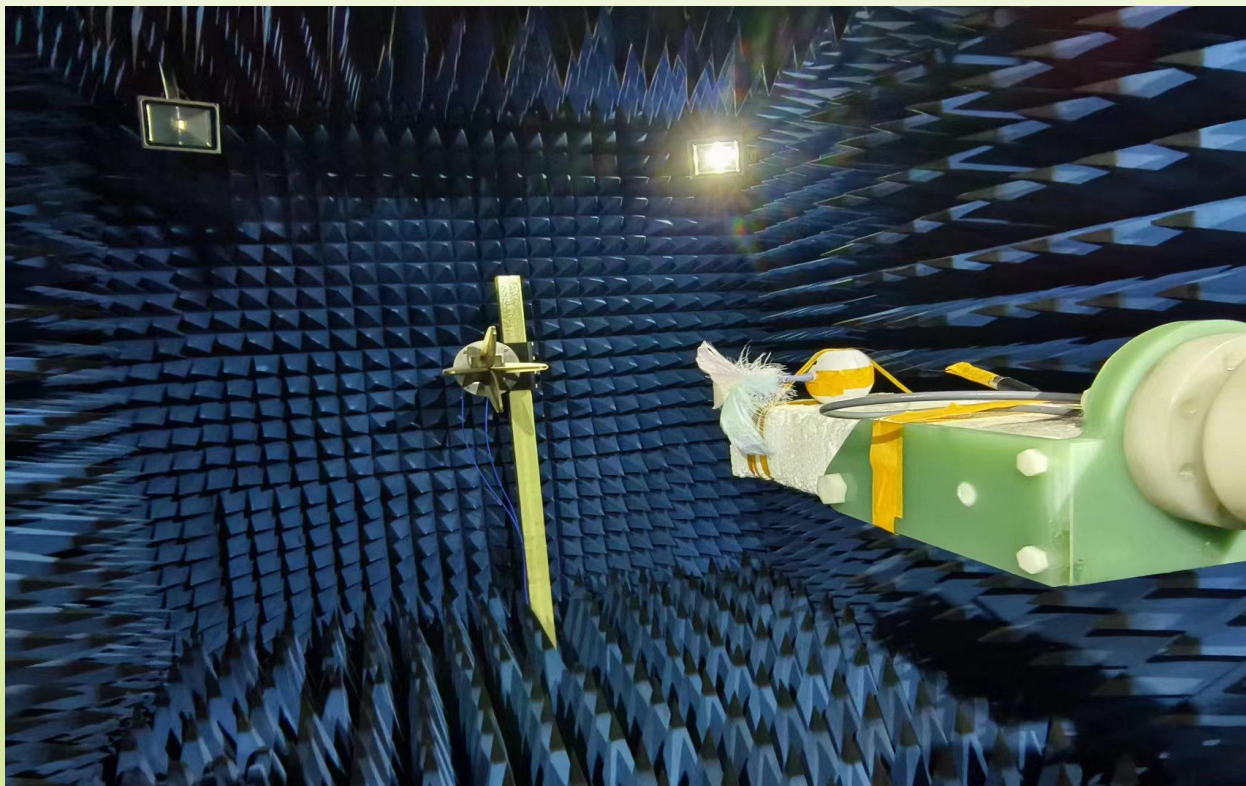
Total(H-XY), Max= -3.85dBi, CirD=11.08



6.0 Antenna sample diagram



7.0 testing environment



5.0

Test version record

versions	date	summary of the content
V1.0	2024-04-30	Passive test data
V2.0		
V3.0		
V4.0		
V5.0		
V6.0		
V7.0		
V8.0		
V9.0		
V10.0		
V11.0		
V12.0		
V13.0		
V14.0		

