

DJI Antenna Datasheet

RM700 4G antenna

2022-02-24



Revision history

Version	Change notes	Modifier	Date
V1.0	First draft.	Dave.li	2022.02.24

DJI Antenna Datasheet

1、 Basic Specifications

No.	Specification	Descriptions	Notes	
1	Antenna Name	RM700 4G Ant		
2	Brand	DJI		
3	Operation Frequency	700~960MHz 1710~2690MHz		
4	Connector Type	TS5		
5	Impedance	50ohm		
6	Gain	$\leq 0\text{dBi}$ @ 617~960MHz $\leq 2.5\text{dBi}$ @ 1710~2690MHz		
7	Efficiency	$\geq 15\%$		
8	VSWR	≤ 3		
9	Polarization type	Linear		
10	3dB Beam width	Omnidirectional		
11	Weight	1g		
12	Antenna type	IFA antenna		

4G antenna efficiency and gain:

Frequency	Efficiency	Gain . dB
700	17.78	-3.86
710	20.24	-3.32
720	24.50	-2.23
730	28.11	-1.76
740	28.36	0.19



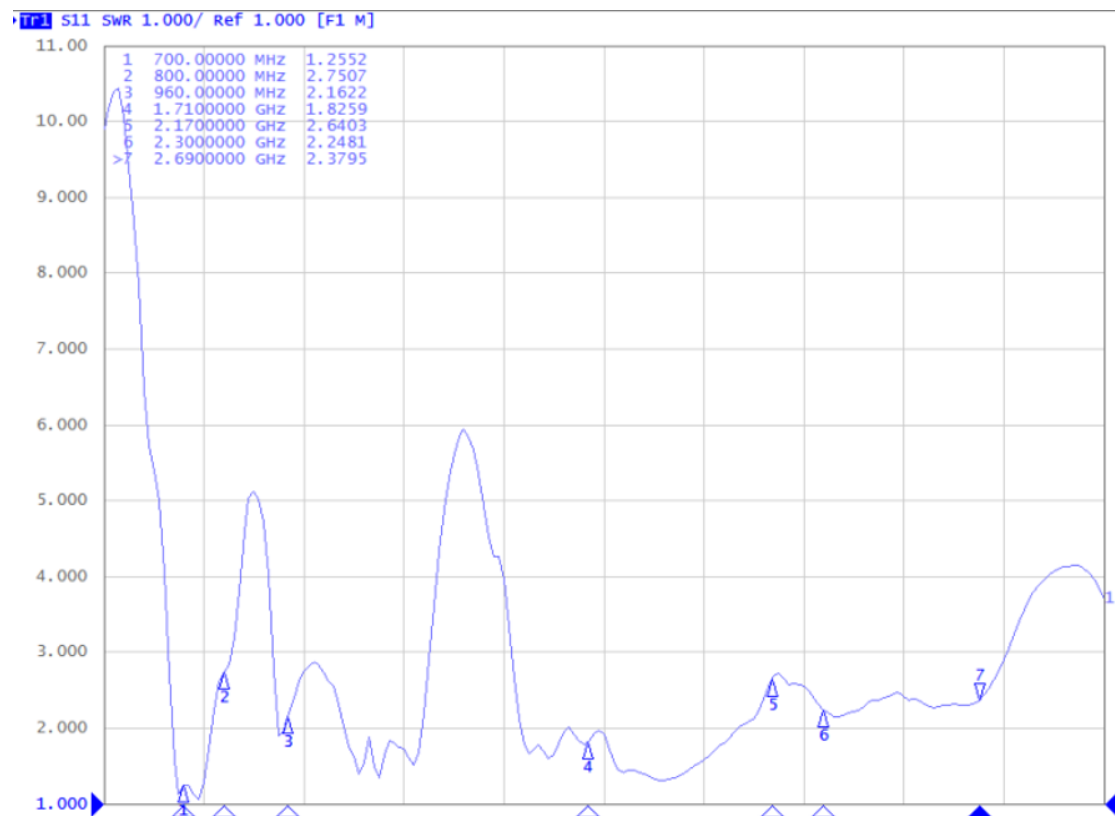
750	30.12	-0.60
760	31.76	-1.04
770	34.06	-1.56
780	34.90	-0.74
790	31.57	-1.53
800	30.00	-1.91
810	26.25	-2.44
820	24.80	-2.00
830	24.60	-1.71
840	24.98	-1.99
850	25.89	-1.54
860	27.34	-1.29
870	24.08	-1.73
880	20.42	-2.82
890	17.95	-3.30
900	18.90	-2.98
910	21.56	-2.88
920	27.22	-1.74
930	30.00	-1.12
940	31.09	-0.67
950	29.94	-0.45
960	29.38	-0.84
1700	48.19	1.18
1720	47.90	1.76
1740	47.13	1.44
1760	44.75	0.89
1780	44.69	0.60
1800	46.21	0.72
1820	44.77	0.86
1840	43.38	0.87
1860	44.29	0.74
1880	42.07	0.20
1900	40.94	0.38
1920	40.92	0.63
1940	40.37	0.81
1960	40.03	0.88
1980	39.65	0.73
2000	40.06	0.79
2020	41.88	1.06
2040	42.50	1.35
2060	42.88	1.45



2080	43.86	1.62
2100	44.61	1.65
2120	42.25	1.26
2140	42.05	1.07
2160	42.49	0.97
2180	39.69	0.39
2200	40.06	0.08
2220	39.19	0.05
2240	39.24	0.40
2260	38.37	0.23
2280	40.00	0.32
2300	40.96	0.58
2320	43.64	1.08
2340	43.59	1.02
2360	43.89	1.05
2380	45.12	1.41
2400	45.58	1.52
2420	46.66	2.10
2440	46.42	1.79
2460	45.14	1.66
2480	43.86	2.12
2500	43.85	2.70
2520	41.55	2.56
2540	42.00	2.53
2560	41.55	2.49
2580	41.95	2.35
2600	41.60	2.14
2620	41.44	1.99
2640	39.53	1.40
2660	39.01	1.29
2680	37.07	0.94
2700	36.82	0.79

2、 Antenna Return Loss/VSWR

4G antenna



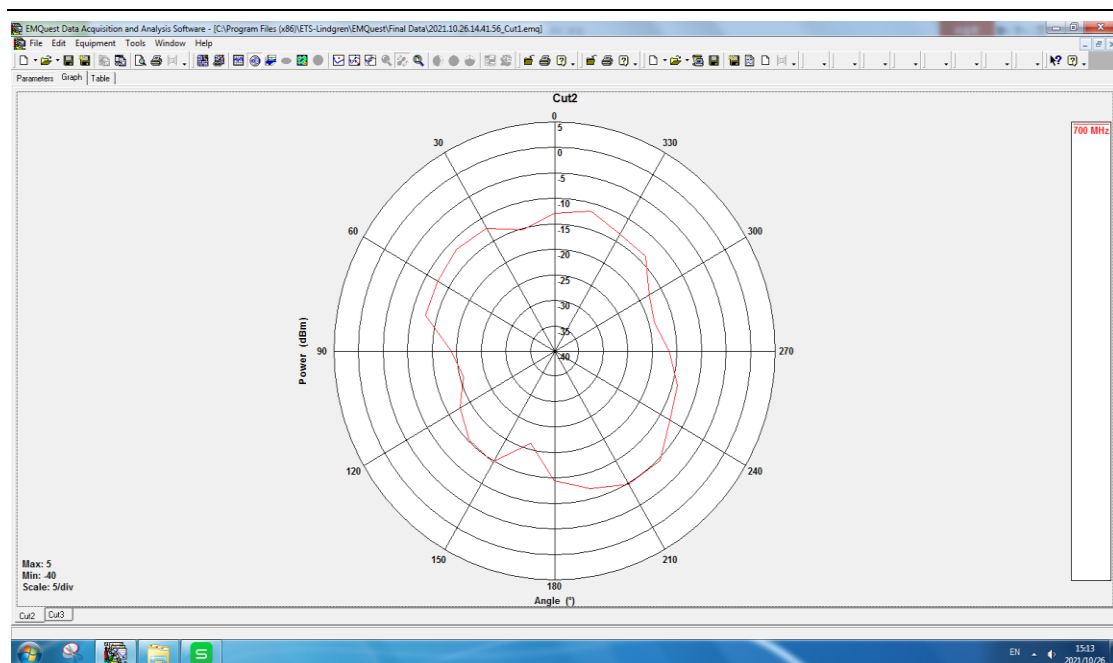
3、 Radiation Pattern

Test lab: ETS OTA chamber

Test date: 2021/10/19

3.1 700MHz radiation pattern

Phi=0



EMQuest Data Acquisition and Analysis Software - [C:\Program Files (x86)\ETS-Lindgren\EMQuest\Final Data\2021.10.26.14.41.56_Cut3.pat]

File Edit Equipment Tools Window Help

Parameters Graph Table

Power (dBm)

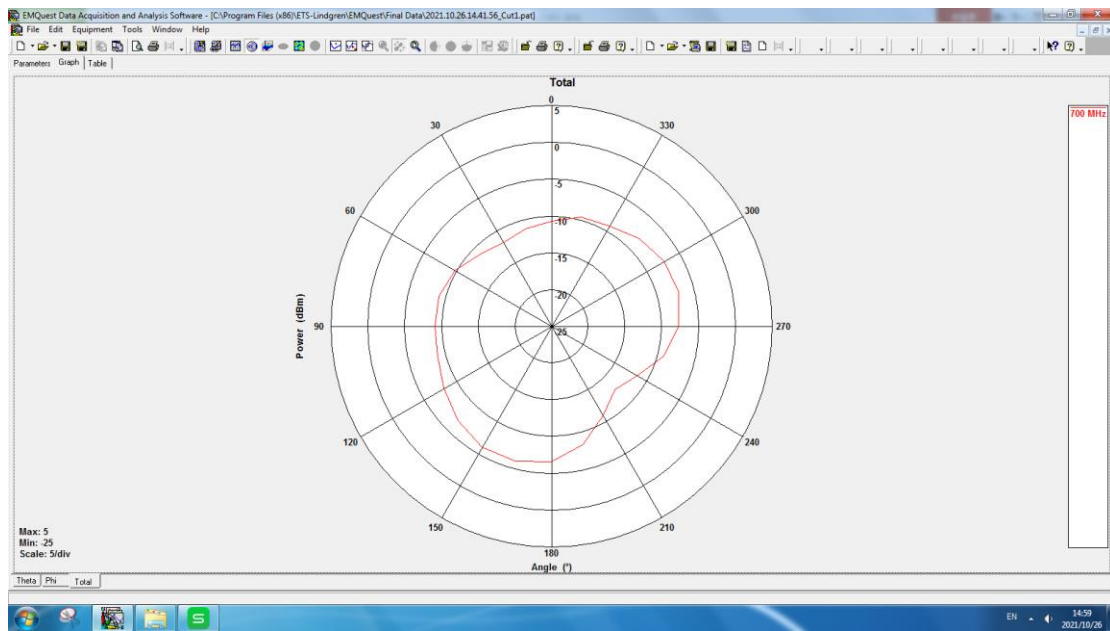
Angle (°)

Max: 5
Min: 40
Scale: 5/div

Theta Phi Total

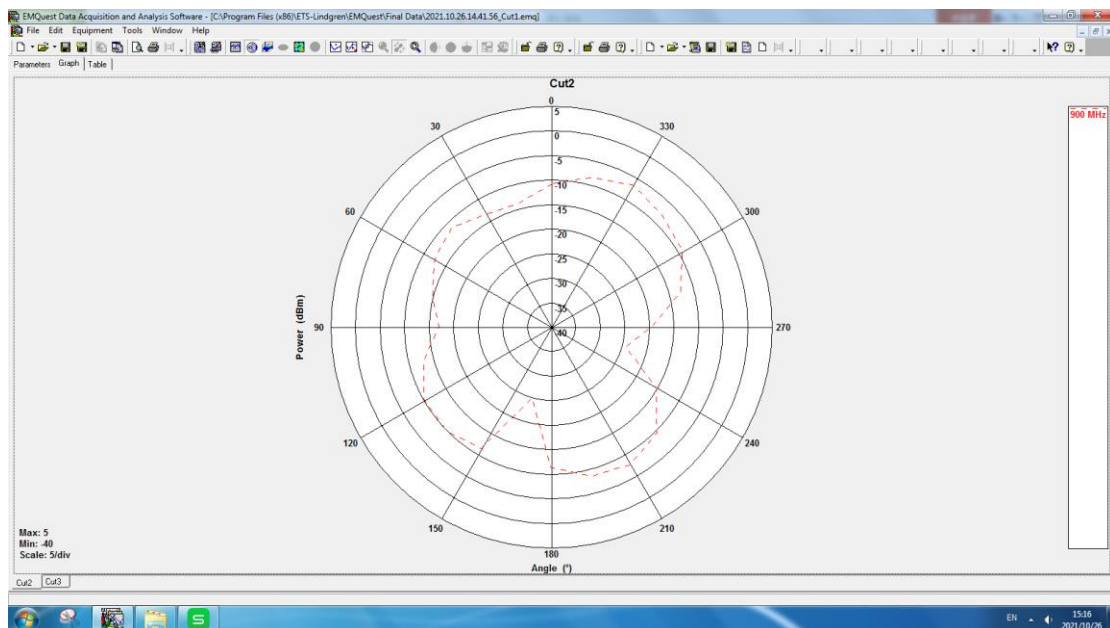
15:21
2021.09.02

Theta=90

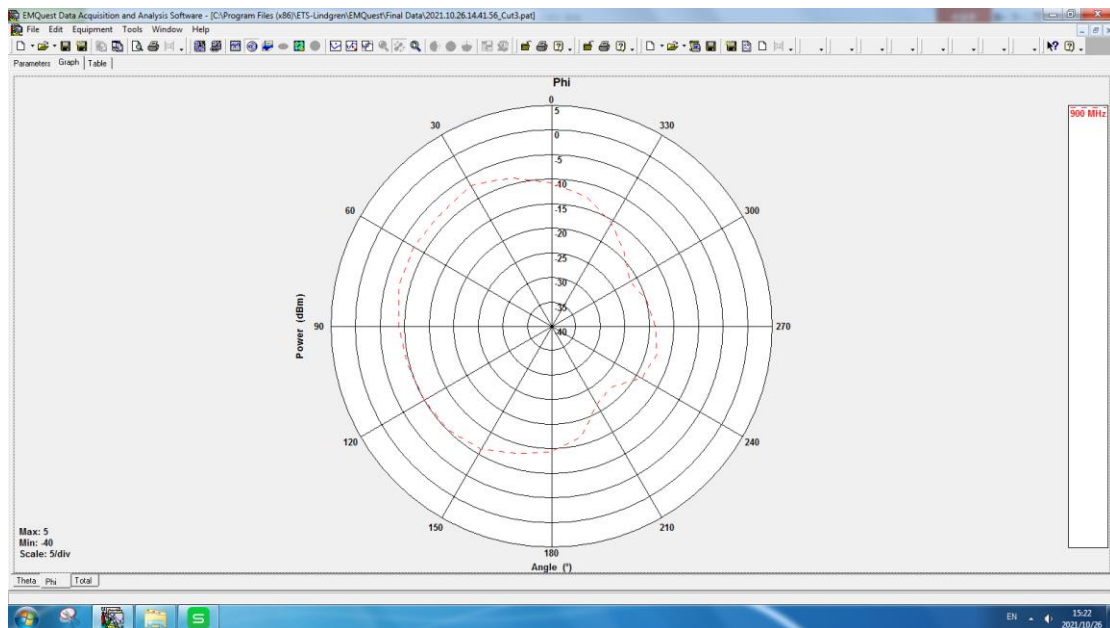


3.2 900MHz radiation pattern

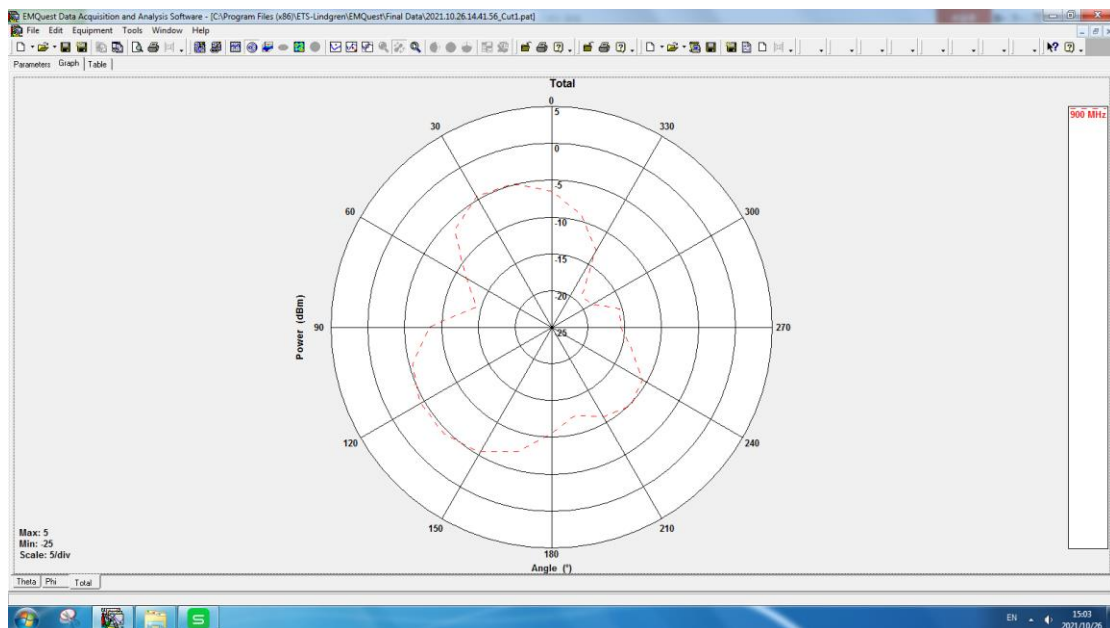
Phi=0



Phi=90

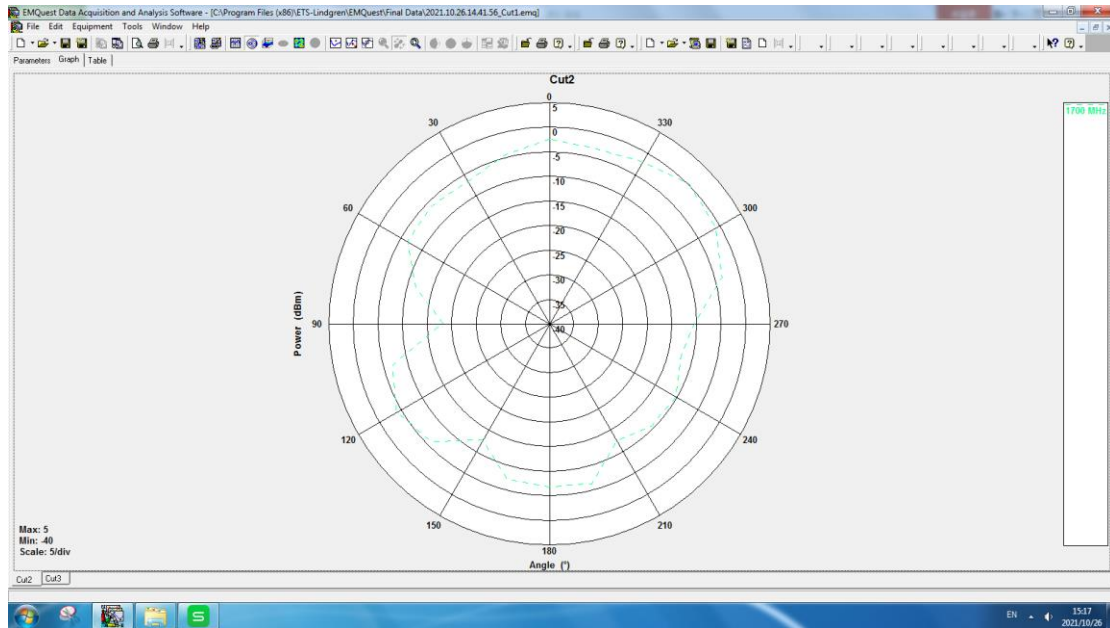


Theta=90

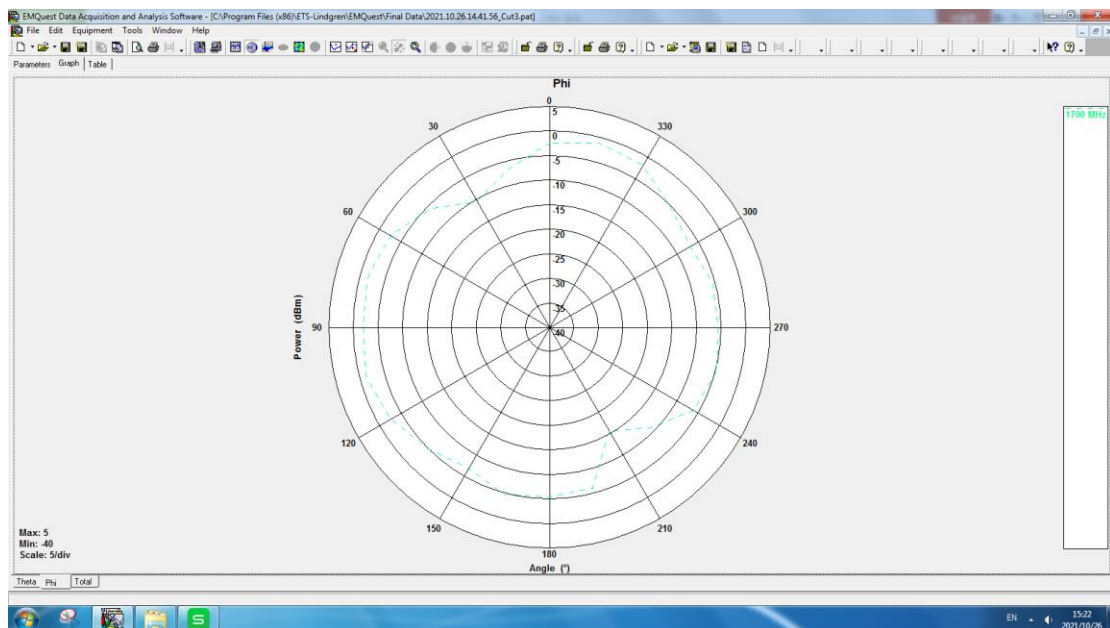


3.3 1710MHz radiation pattern

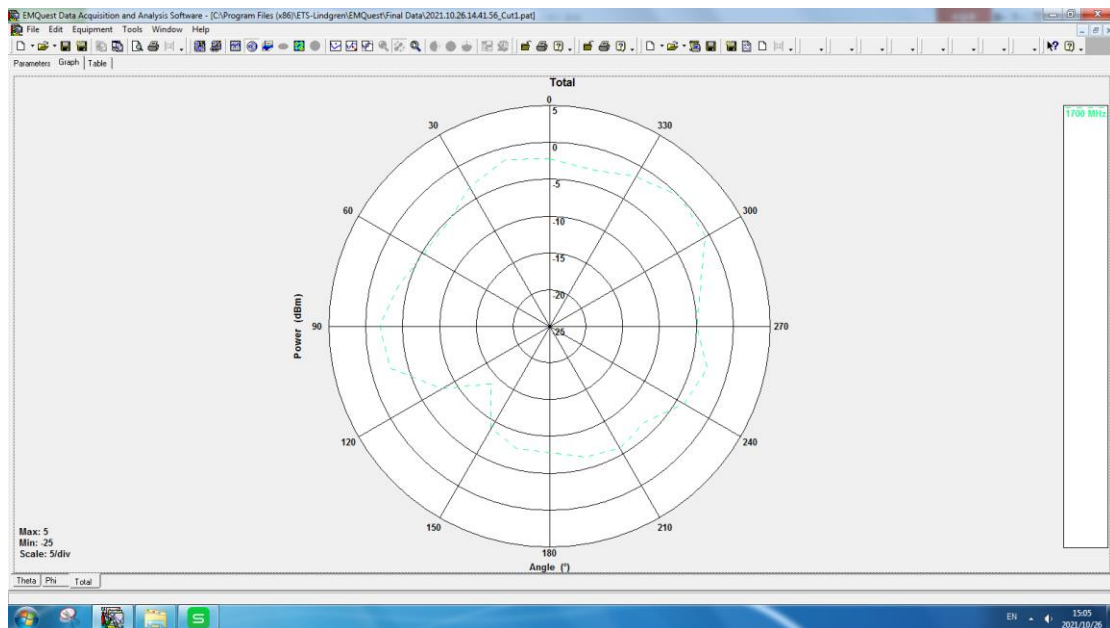
Phi=0



Phi=90

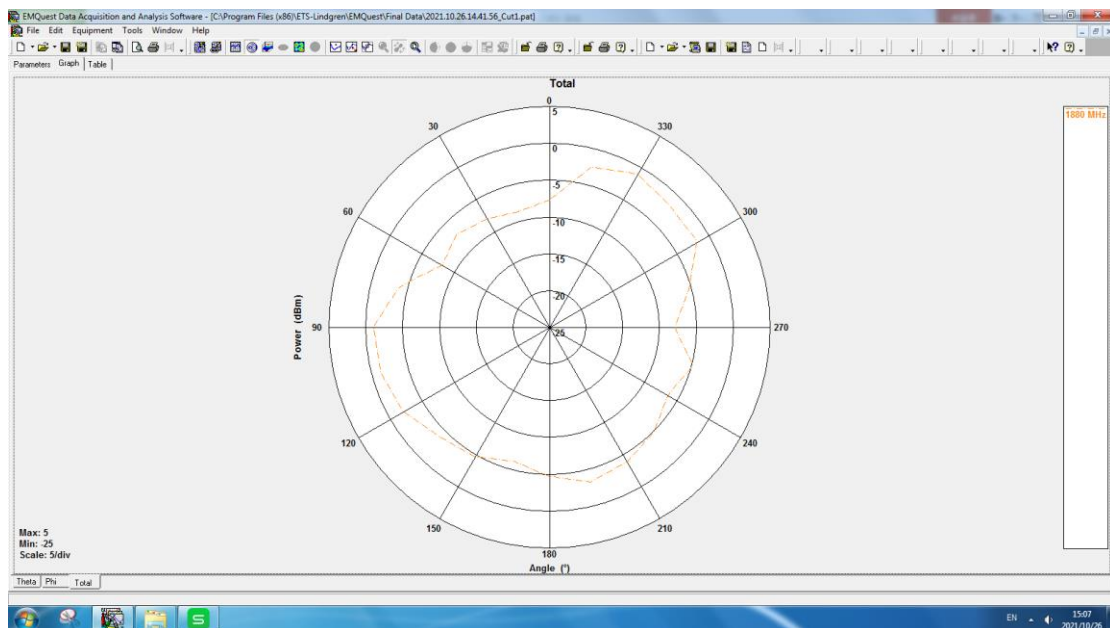


Theta=90

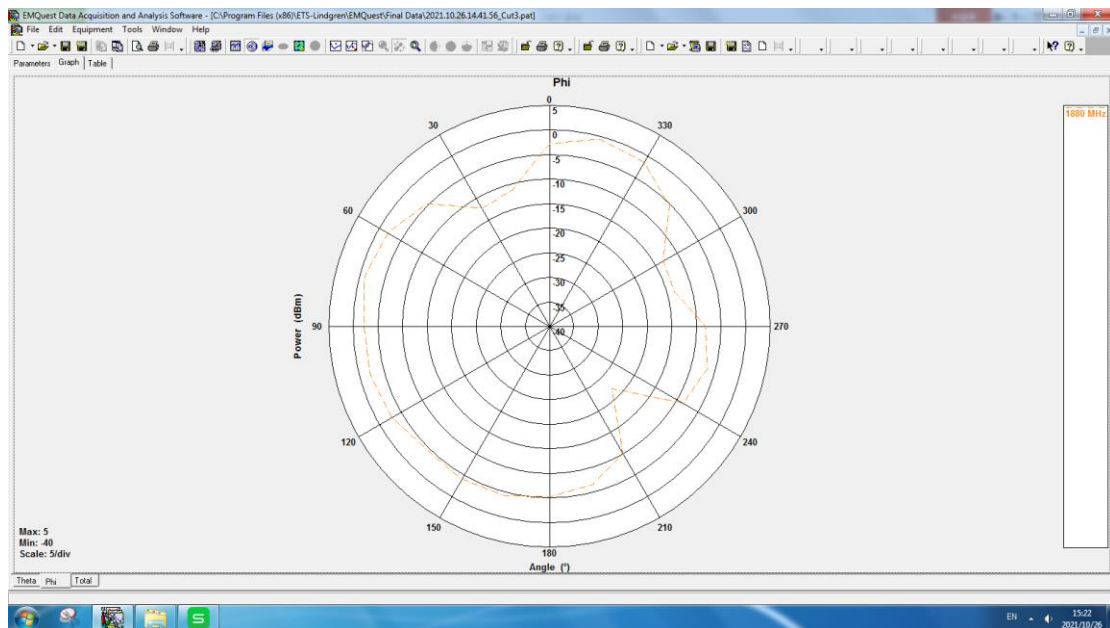


3.4 1880MHz radiation pattern

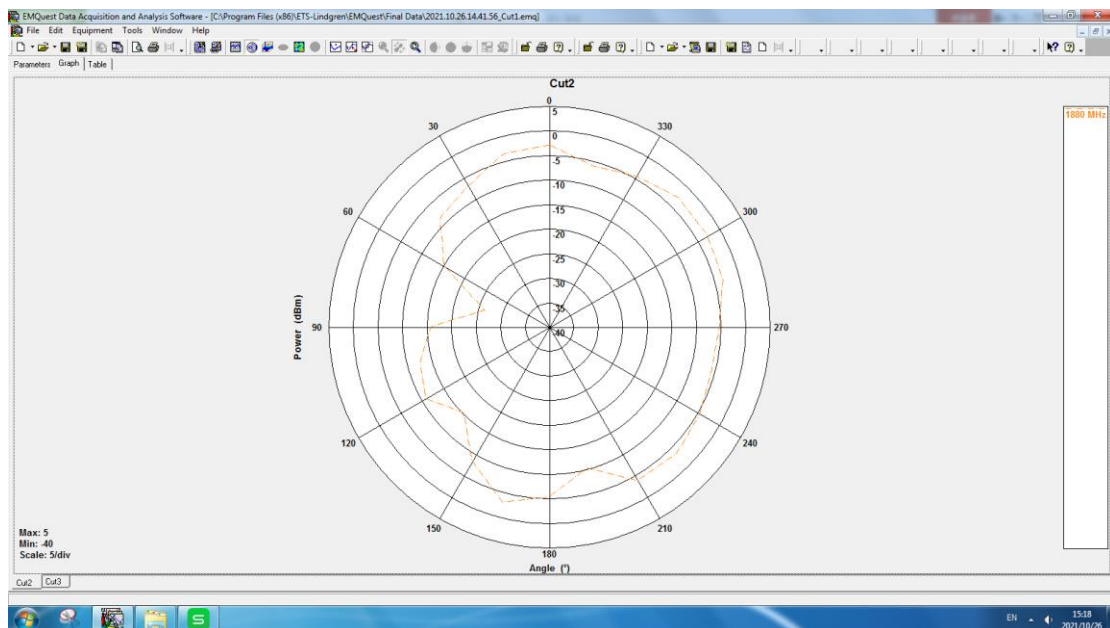
Phi=0



Phi=90

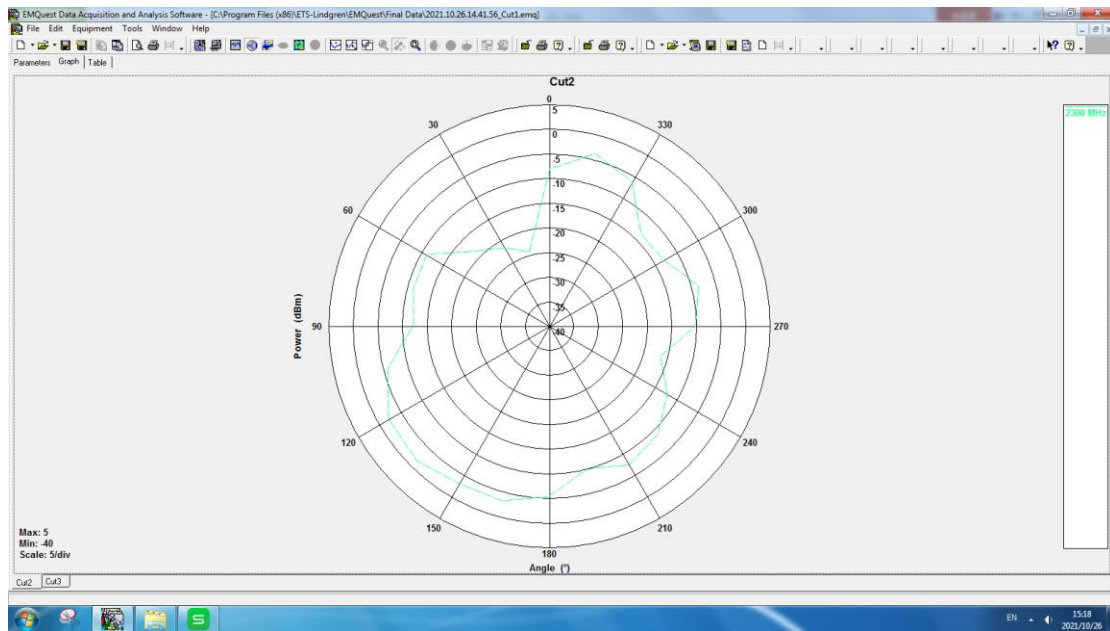


Theta=90

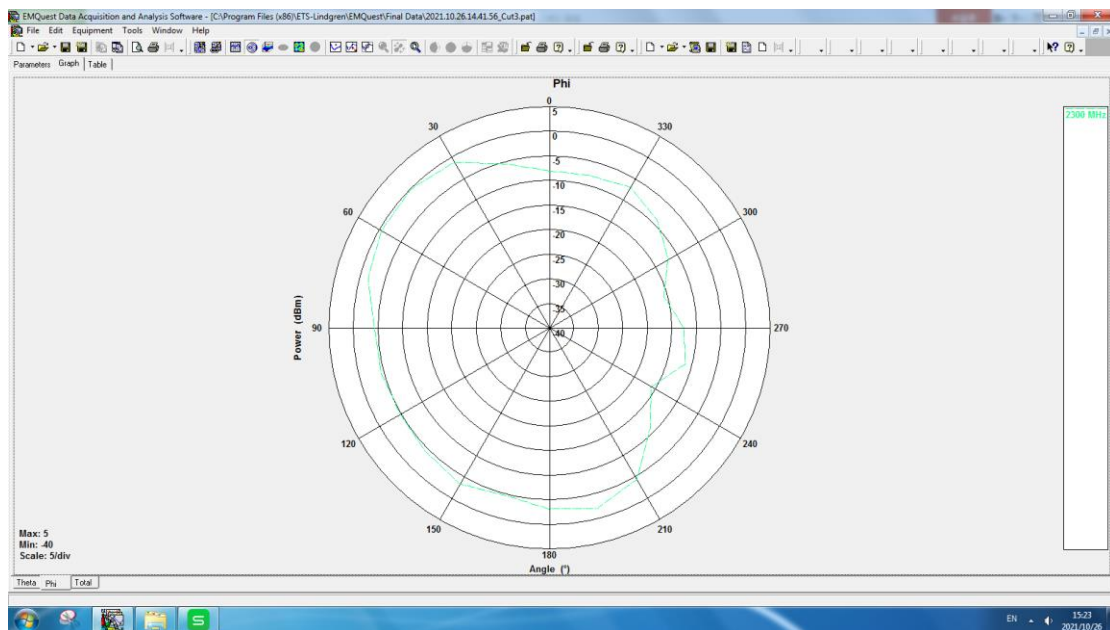


3.5 2300MHz radiation pattern

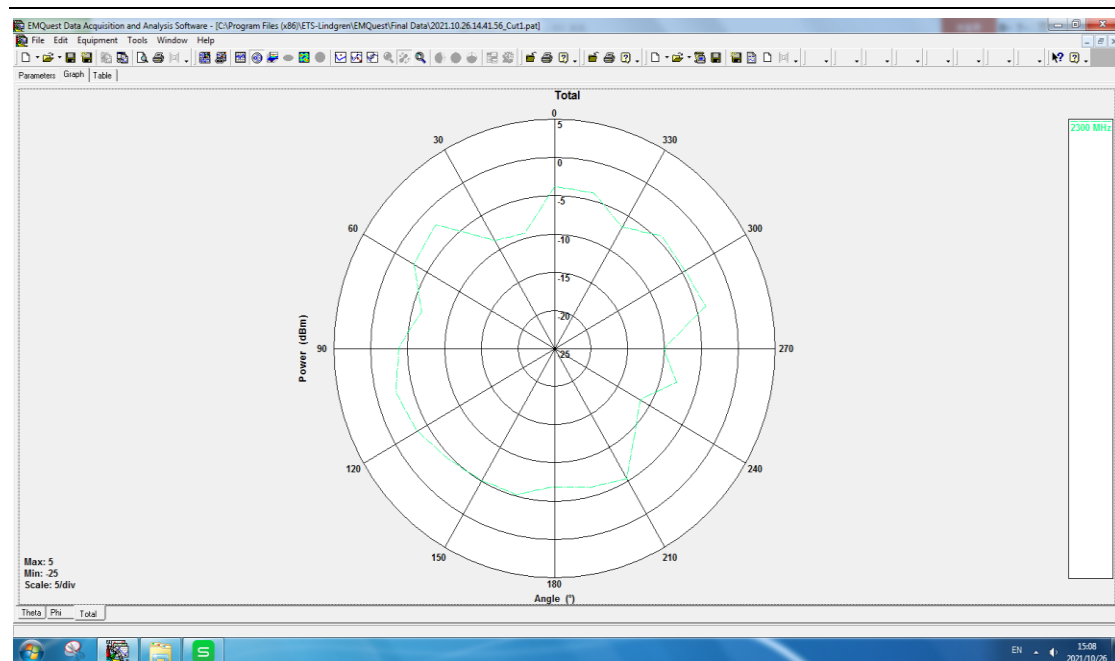
Phi=0



Phi=90

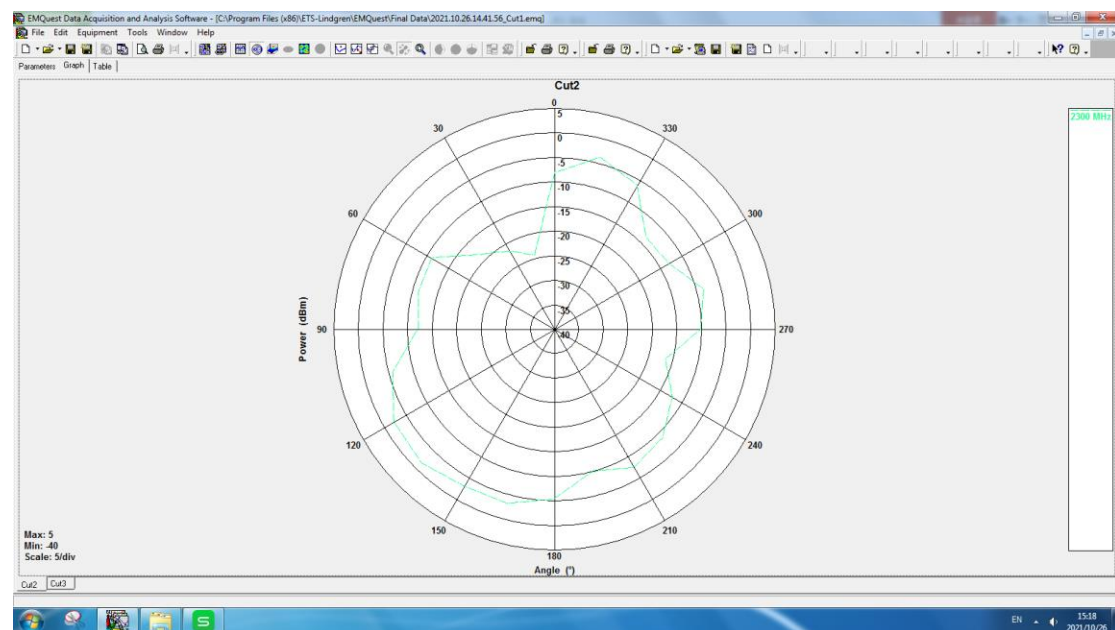


Theta=90

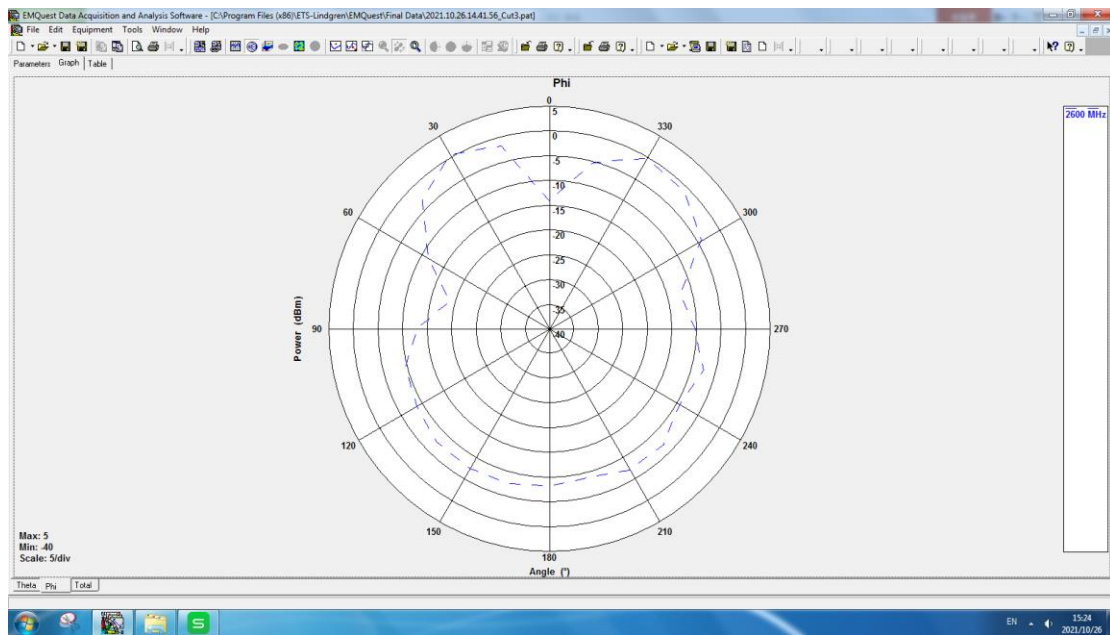


3.6 2600MHz radiation pattern

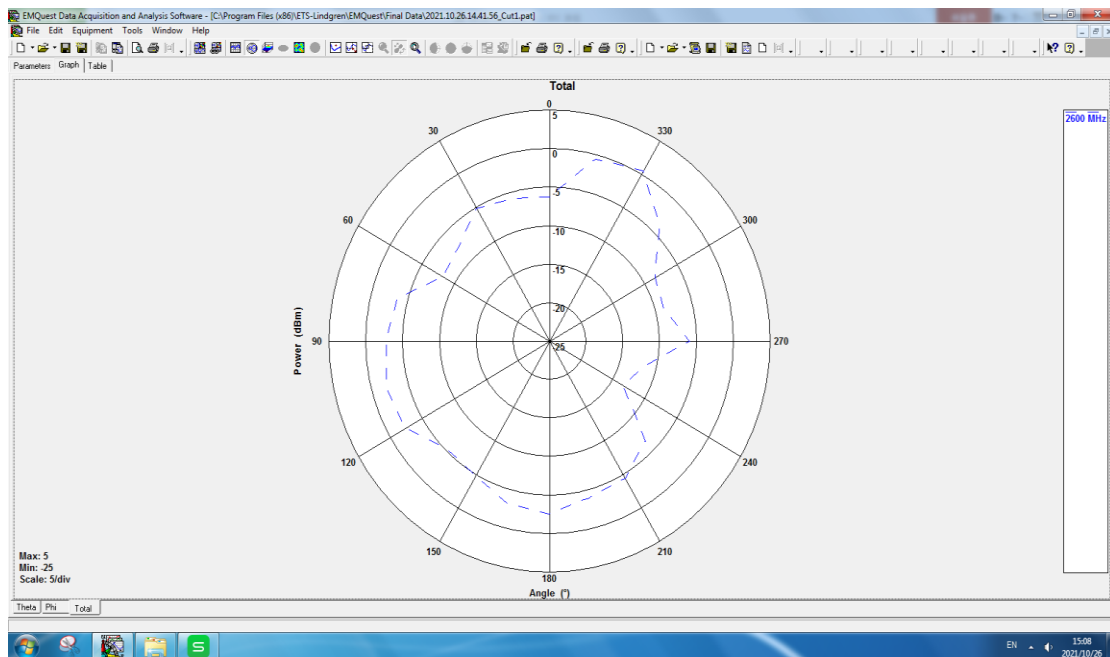
Phi=0



Phi=90



Theta=90



4 Structure drawing

4G antenna

