CW-WZ-0187

4G LTE External Antenna

Key Features

Frequency: 698-960/1710-2700MHz

SMA Male Connector

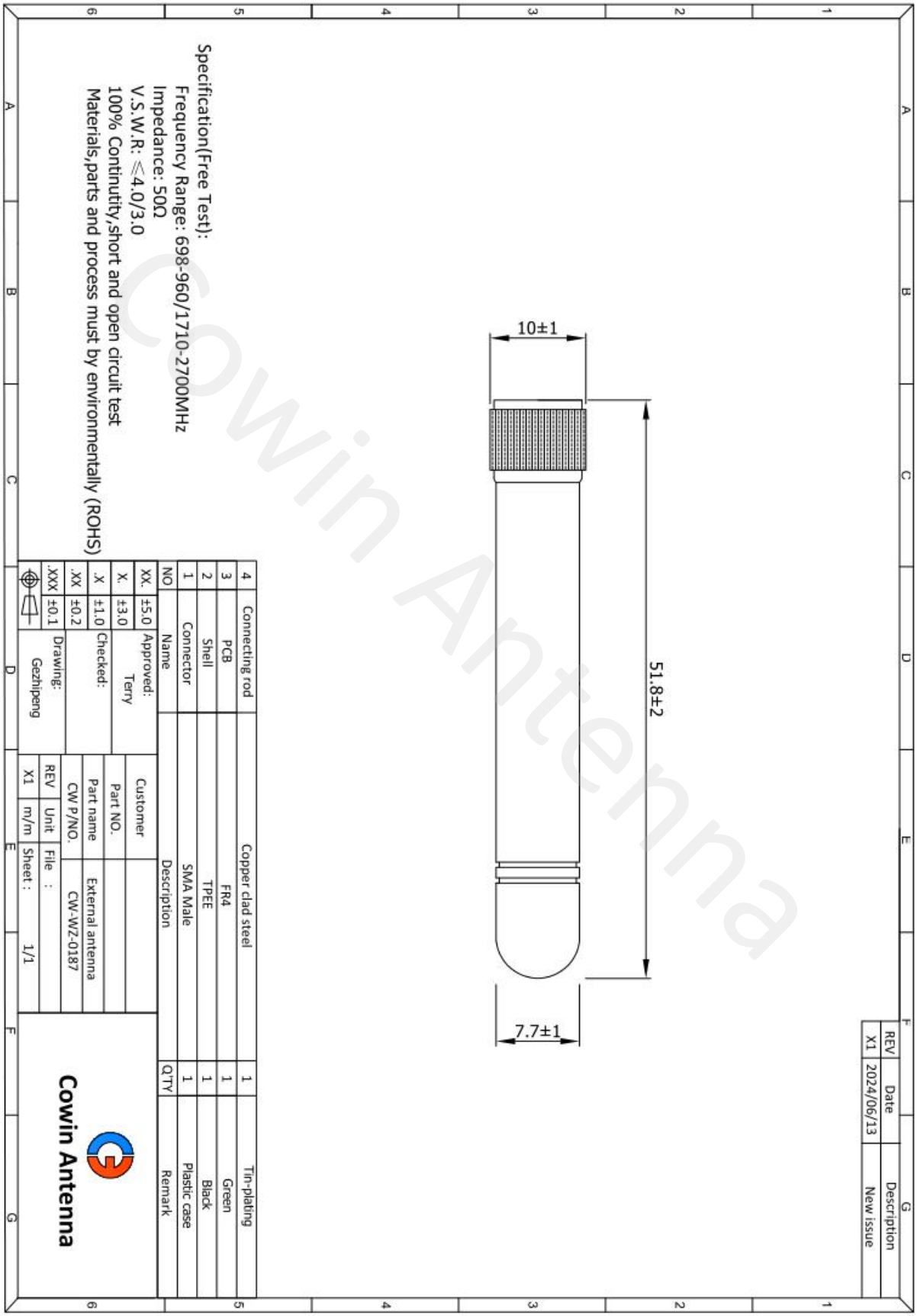
Dimensions: 50*10 mm

1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	698-960/1710-2700
VSWR	≤4.0/3.0
Efficiency (%)	43.79/61.39
Peak Gain (dBi)	0/2.97
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

2. Material and environmental characteristics

External structure	TPEE
Inner structure	PCB
Cable Type	N/A
Connector Type	SMA Male
Dimensions (mm)	50*10
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS


10±1
51.8±2
7.7±1
Specification(Free Test):
Frequency Range: 698-960/1710-2700MHz
Impedance: 50Ω
V.S.W.R: ⩽4.0/3.0
100% Continutity,short and open circuit test
Materials,parts and process must by environmentally (ROHS)
REV
Date
Description
X1
2024/06/13
New issue
NO
Name
Description
QTY
Remark
4 Connecting rod Copper clad steel 1 Tin-plating
3 PCB FR4 1 Green
2 Shell TPEE 1 Black
1 Connector SMA Male 1 Plastic case
XX. ±5.0
X. ±3.0
.X ±1.0
.XX ±0.2
.XXX ±0.1
Approved: Terry
Checked:
Drawing: Gezhipeng
Customer
Part NO.
Part name External antenna
CW P/NO. CW-WZ-0187
REV X1
Unit m/m
File :
Sheet : 1/1
Cowin Antenna
Cowin Antenna

4. Antenna test parameters

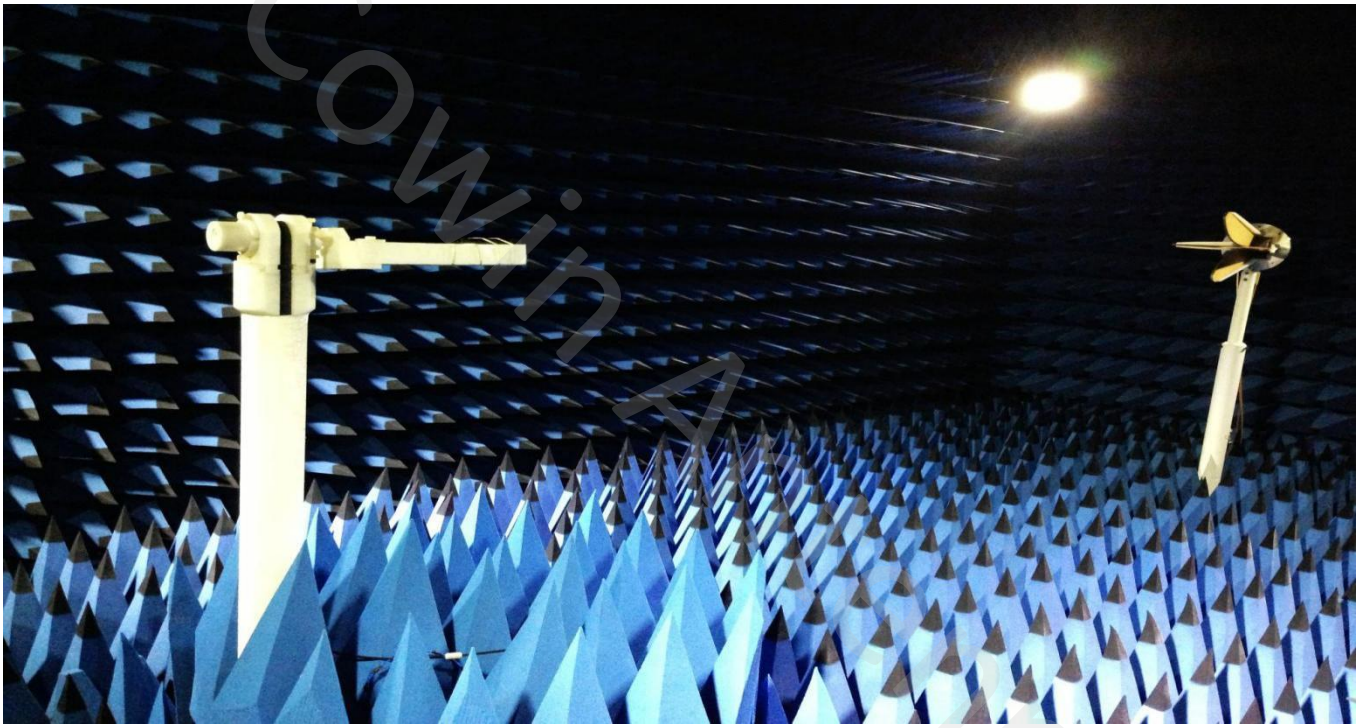
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

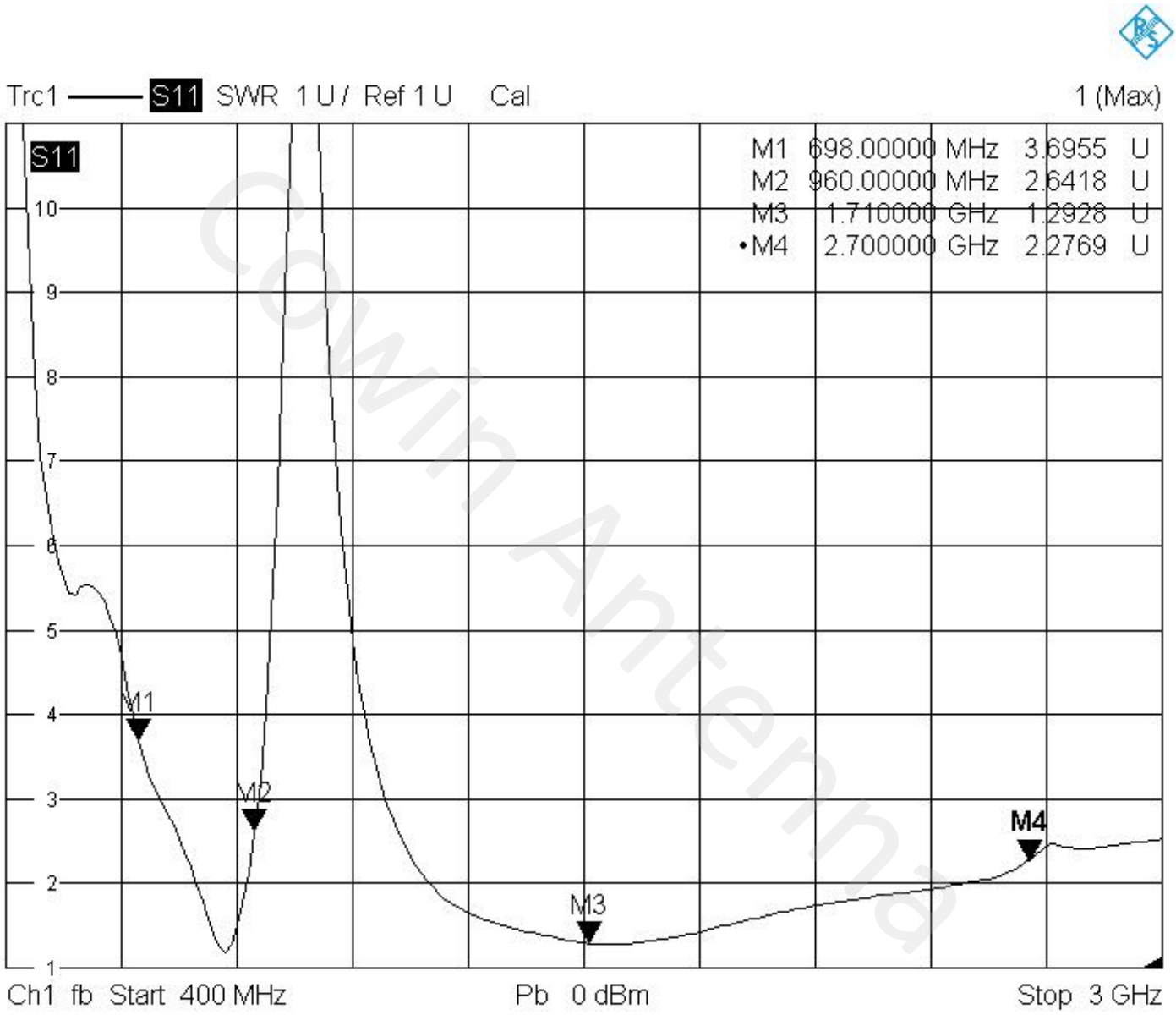
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

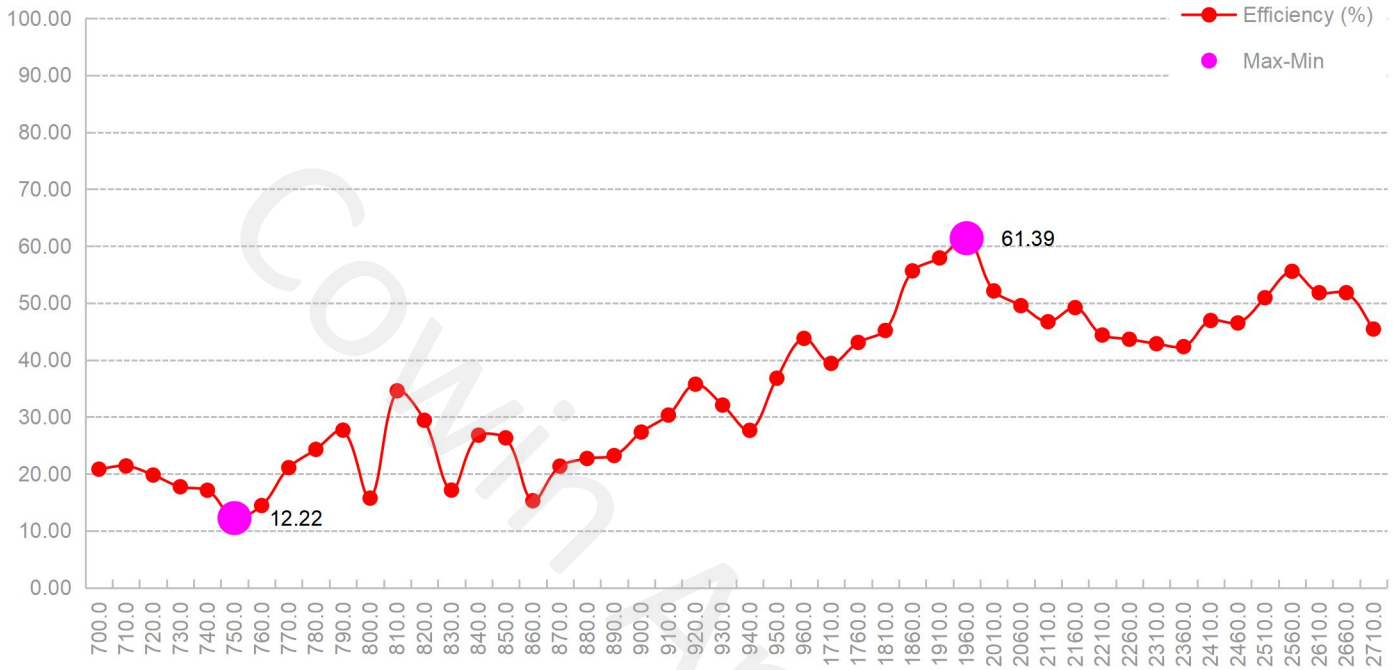
The comprehensive tester is Agilent cmv500



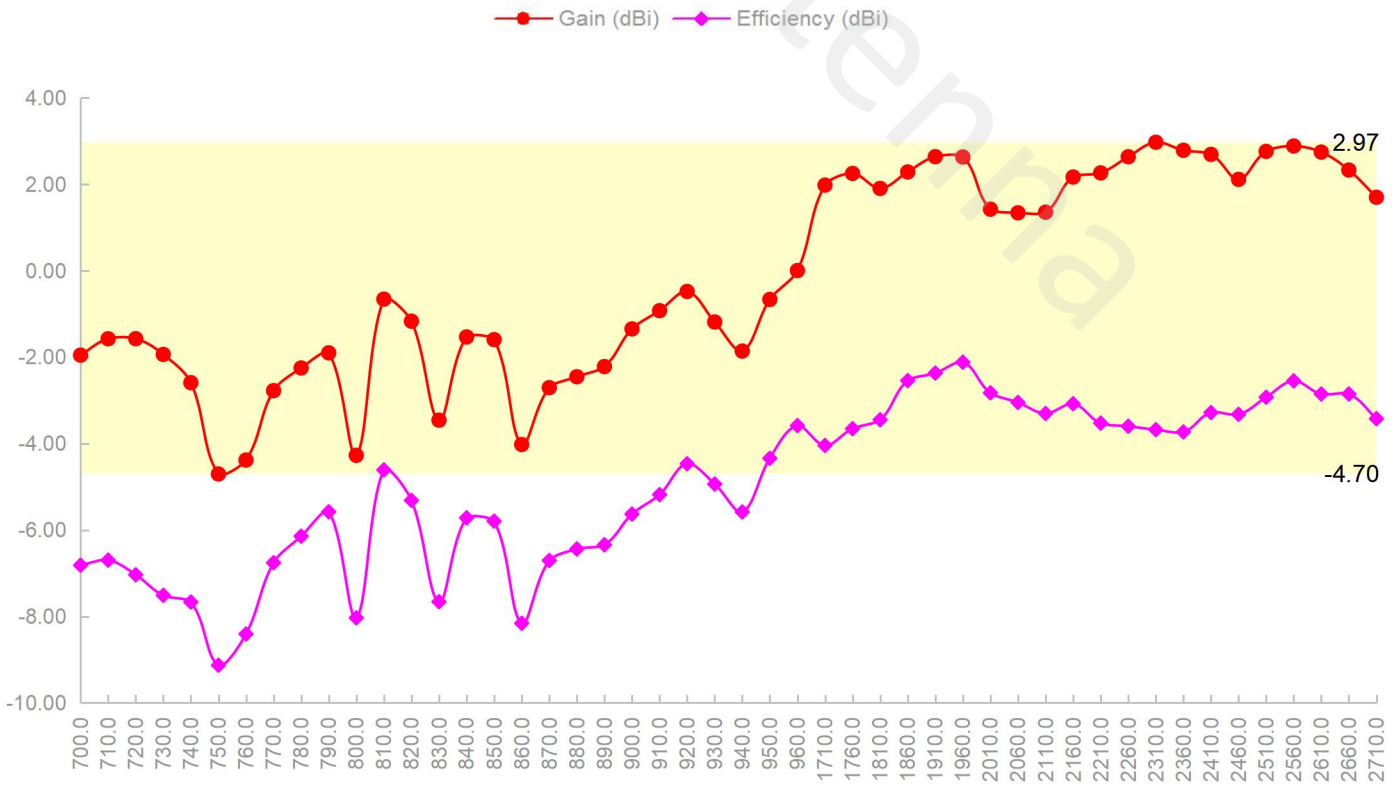
4.1 VSWR



4.2 Efficiency



4.3 Peak gain



4.4 Data summary

Frequency (MHz)	Gain (dBi)	Efficiency (%)
700.0	-1.96	20.82
710.0	-1.58	21.38
720.0	-1.58	19.79
730.0	-1.94	17.73
740.0	-2.59	17.11
750.0	-4.70	12.22
760.0	-4.38	14.43
770.0	-2.78	21.09
780.0	-2.25	24.30
790.0	-1.90	27.67
800.0	-4.27	15.73
810.0	-0.66	34.58
820.0	-1.17	29.41
830.0	-3.46	17.14
840.0	-1.54	26.79
850.0	-1.60	26.32
860.0	-4.02	15.28
870.0	-2.71	21.35
880.0	-2.46	22.70
890.0	-2.22	23.21
900.0	-1.35	27.33
910.0	-0.93	30.32
920.0	-0.48	35.74
930.0	-1.19	32.08
940.0	-1.86	27.64

950.0	-0.67	36.79
960.0	0.00	43.79
1710.0	1.98	39.40
1760.0	2.25	43.08
1810.0	1.90	45.18
1860.0	2.28	55.65
1910.0	2.63	57.93
1960.0	2.63	61.39
2010.0	1.42	52.13
2060.0	1.34	49.54
2110.0	1.35	46.72
2160.0	2.16	49.20
2210.0	2.26	44.38
2260.0	2.63	43.64
2310.0	2.97	42.85
2360.0	2.78	42.34
2410.0	2.69	46.93
2460.0	2.11	46.50
2510.0	2.76	50.94
2560.0	2.88	55.57
2610.0	2.74	51.82
2660.0	2.33	51.82
2710.0	1.70	45.43

4.5 3D&2D Radiation Patterns