

CW-WZ-0185

4G LTE External Antenna

Key Features

Frequency: 698-960/1710-2700MHz

SMA Male Connector

Dimensions: 167*83mm

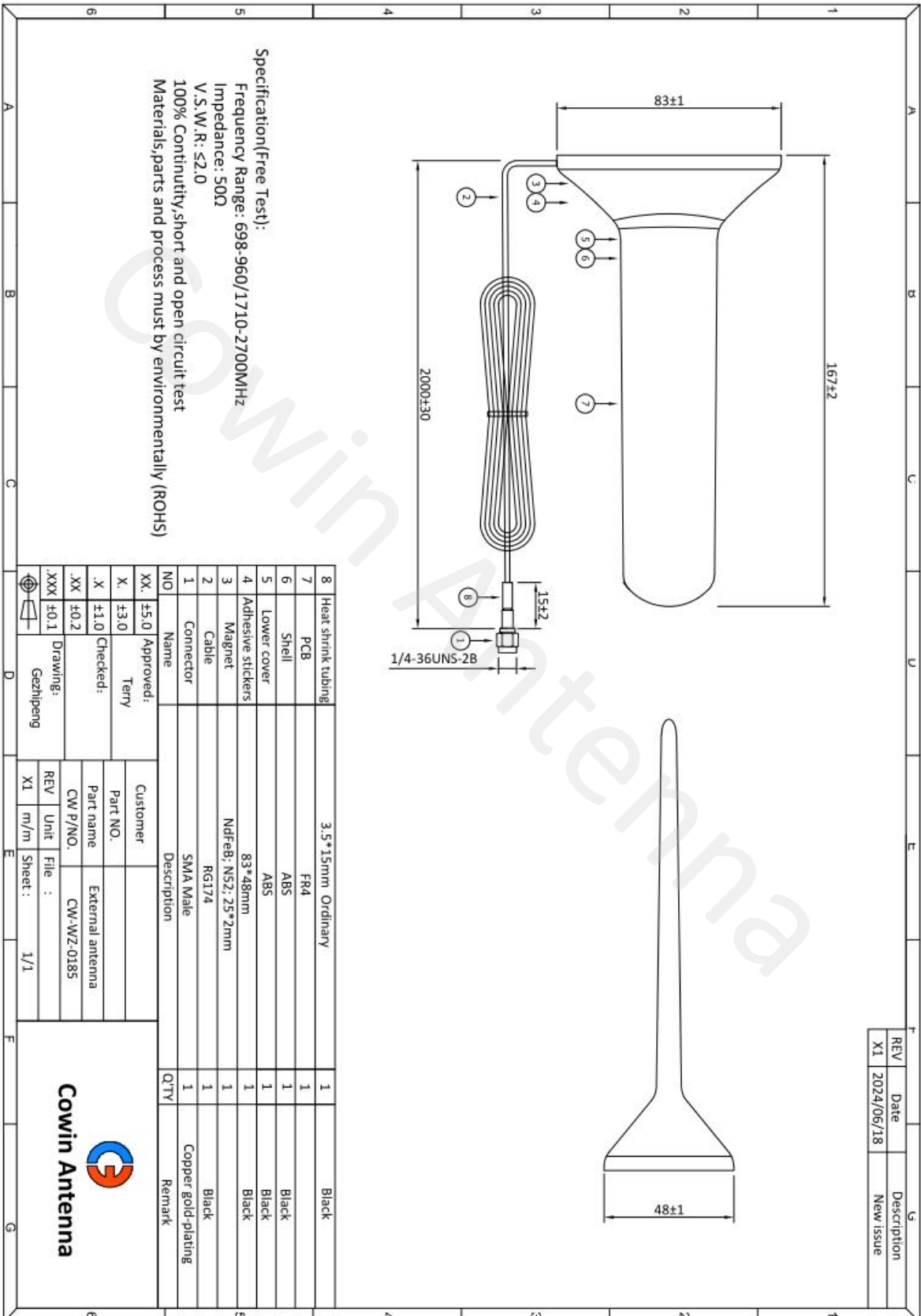


1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	698-960/1710-2700
VSWR	≤2.0
Efficiency (%)	47.12/50.22
Peak Gain (dBi)	0.8/2.2
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

2. Material and environmental characteristics

External structure	ABS
Inner structure	PCB
Cable Type	RG174
Connector Type	SMA Male
Dimensions (mm)	167*83mm
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS



Specification(Free Test):
 Frequency Range: 698-960/1710-2700MHz
 Impedance: 50Ω
 V.S.W.R: ≤2.0
 100% Continuity,short and open circuit test
 Materials,parts and process must by environmentally (ROHS)

8	Heat shrink tubing	3.5*15mm Ordinary	1	Black
7	PCB	FR4	1	Black
6	Shell	ABS	1	Black
5	Lower cover	ABS	1	Black
4	Adhesive stickers	83*48mm	1	Black
3	Magnet	NdFeB; N52; 25*2mm	1	Black
2	Cable	RG174	1	Black
1	Connector	SMA Male	1	Copper gold-plating
NO	Name	Description	QTY	Remark
XX	±5.0	Approved:		
X	±3.0	Terry		
.X	±1.0	Checked:		
.XX	±0.2	Drawing:		
.XXX	±0.1	Gezhilpeng		
REV	Unit	File		
X1	m/m	Sheet :	1/1	



REV	Date	Description
X1	2024/06/18	New issue

4. Antenna test parameters

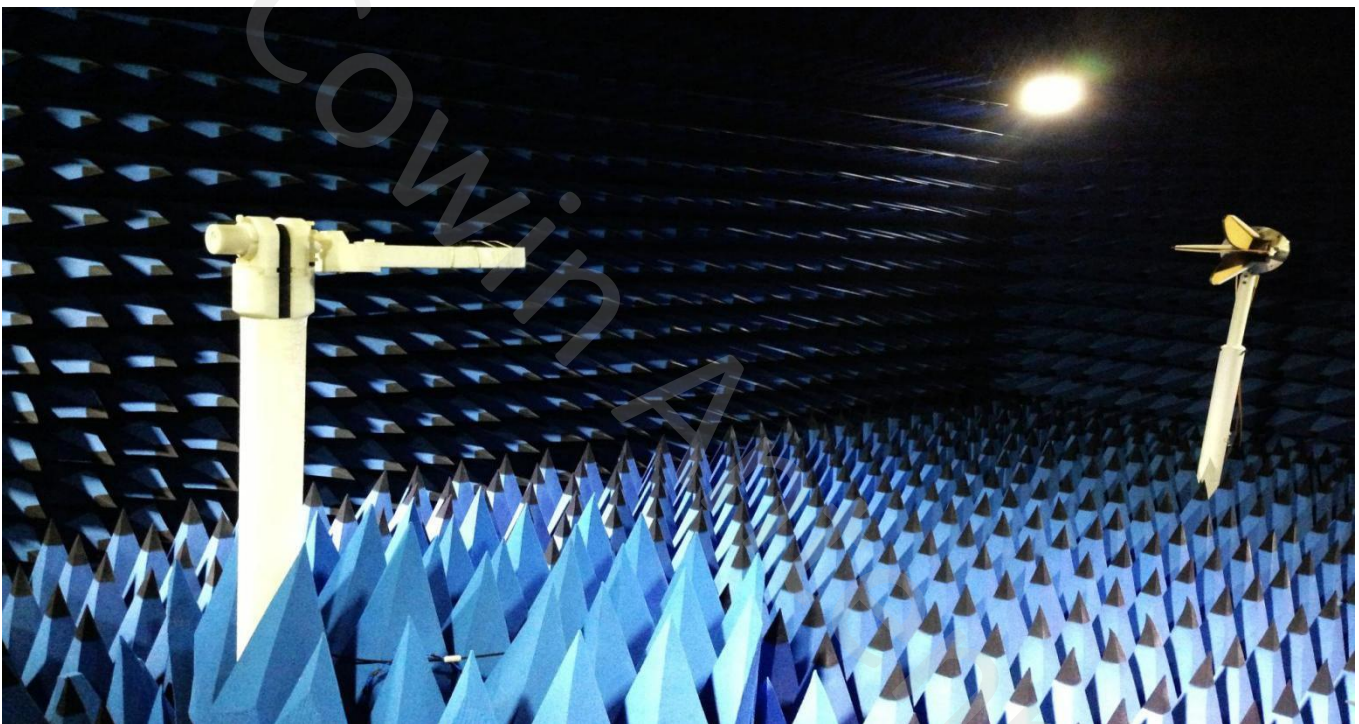
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

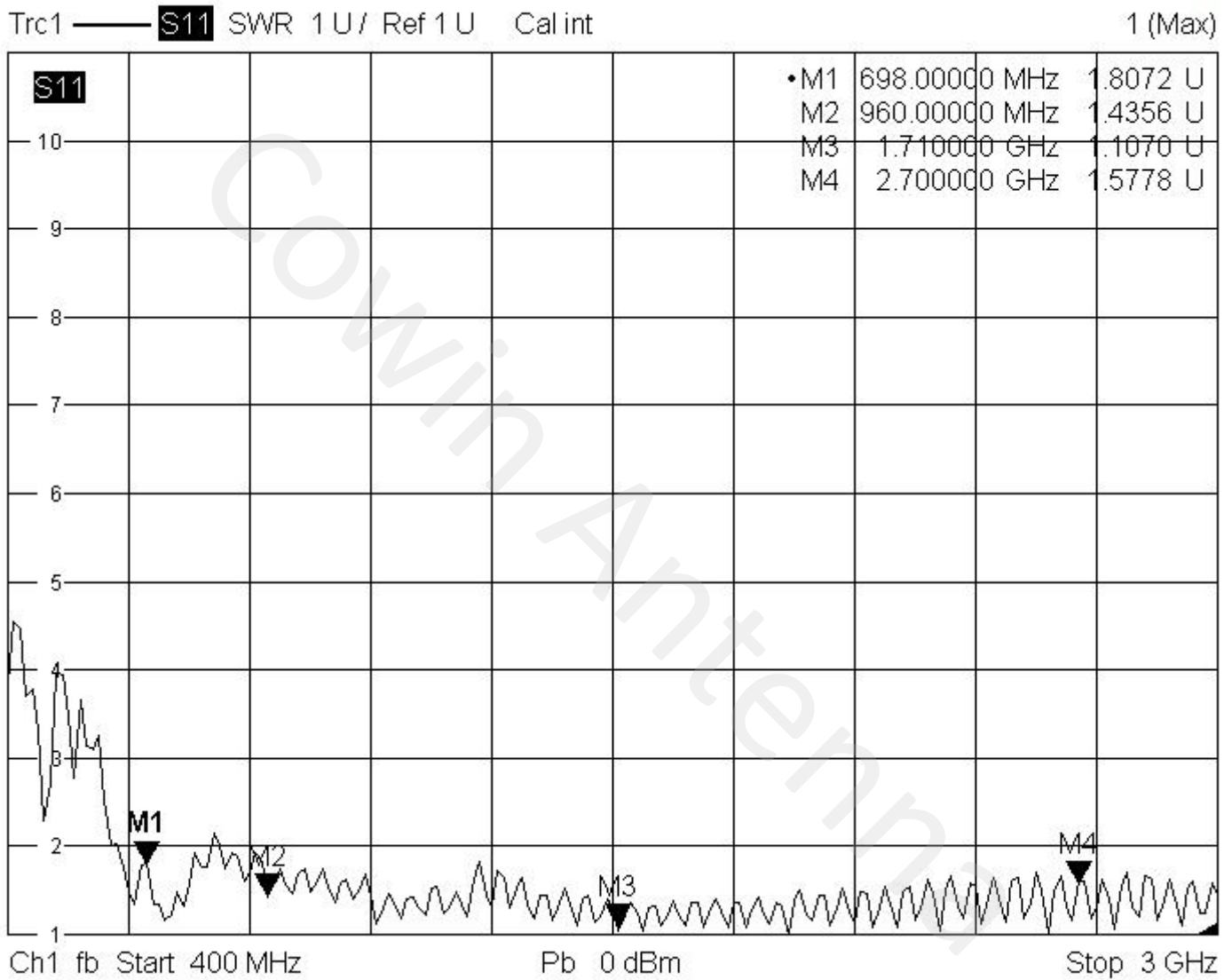
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

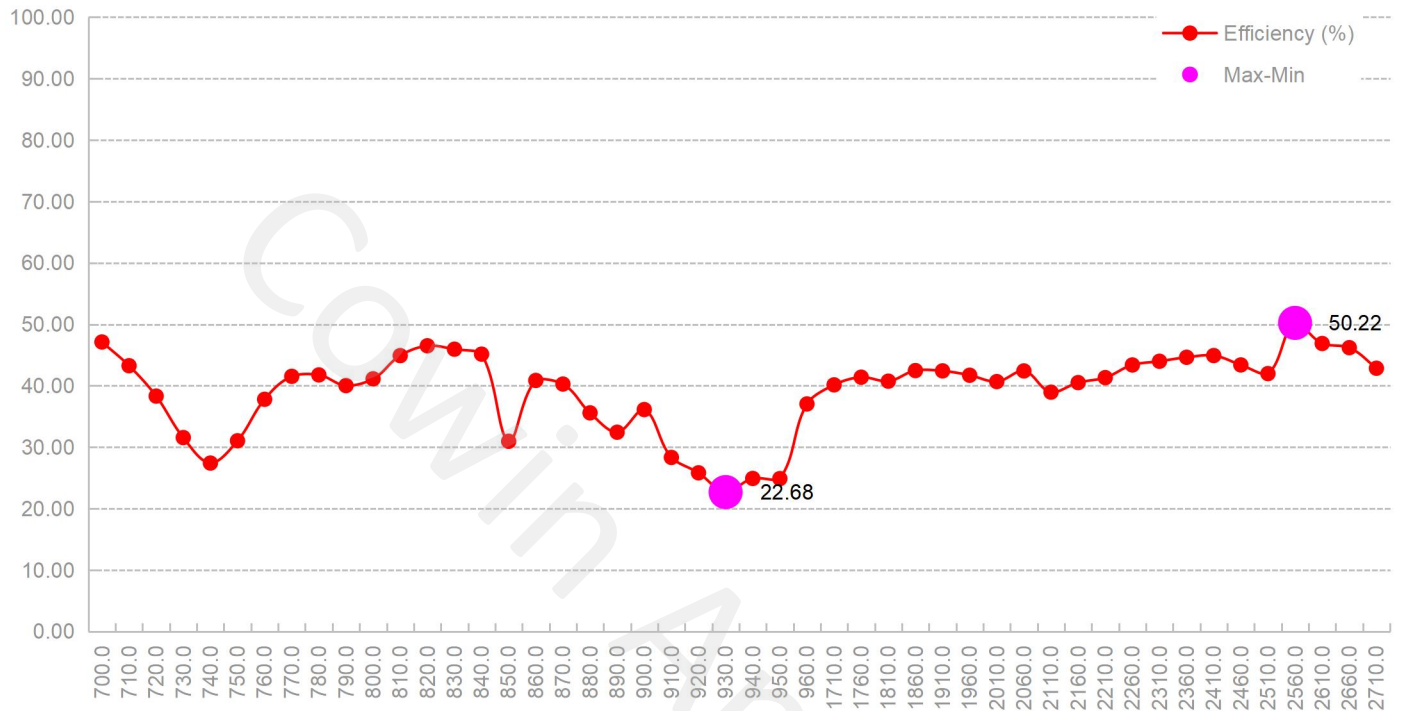
The comprehensive tester is Agilent cmv500



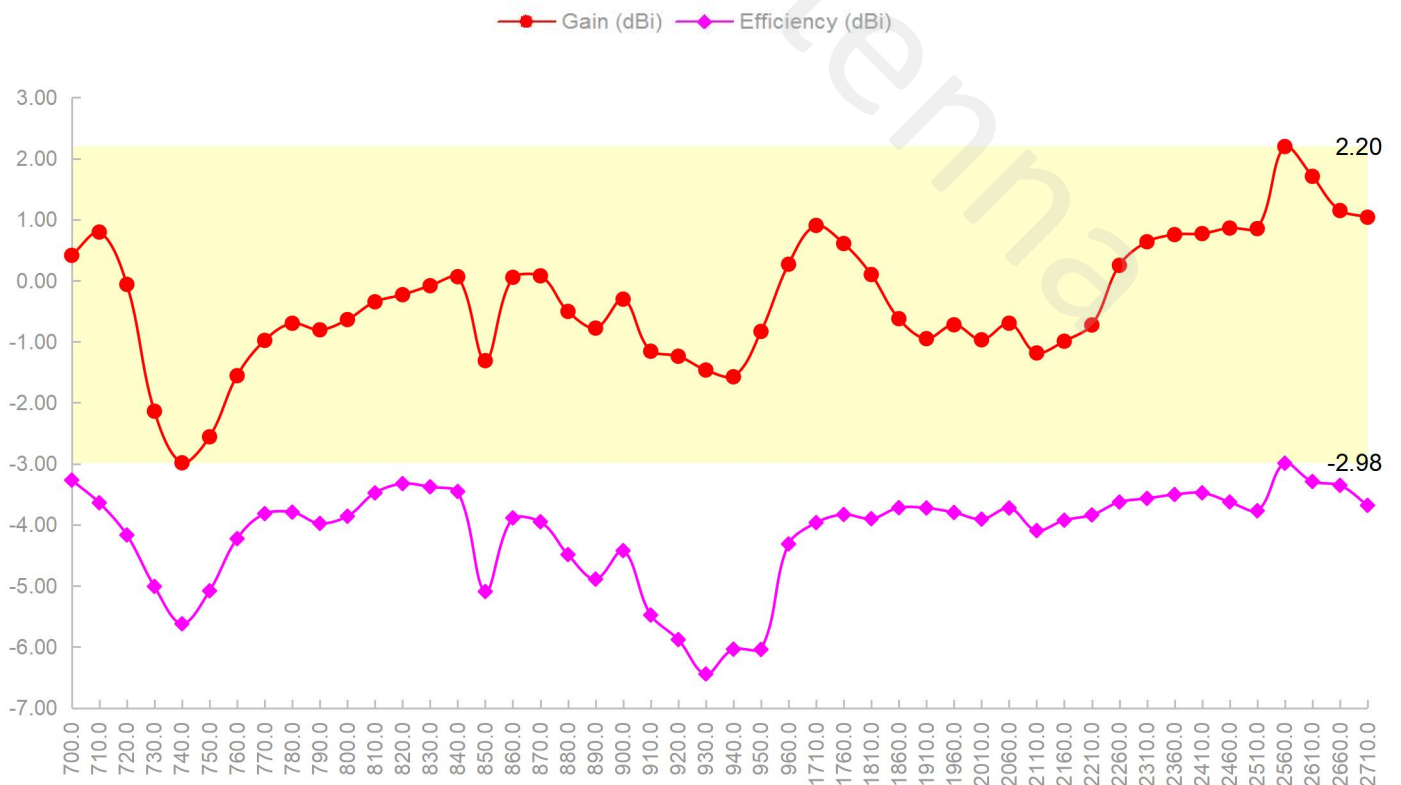
4.1 VSWR



4.2 Efficiency



4.3 Peak gain



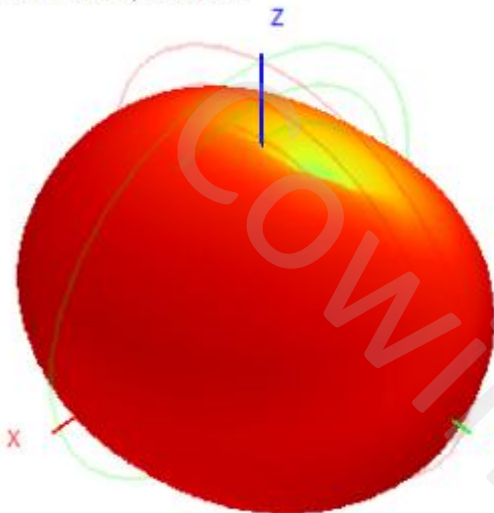
4.4 Data summary

Frequency (MHz)	Gain (dBi)	Efficiency (%)
700.0	0.41	47.12
710.0	0.80	43.25
720.0	-0.06	38.31
730.0	-2.14	31.56
740.0	-2.98	27.40
750.0	-2.56	31.04
760.0	-1.56	37.78
770.0	-0.98	41.53
780.0	-0.70	41.75
790.0	-0.81	40.02
800.0	-0.64	41.12
810.0	-0.35	44.90
820.0	-0.23	46.50
830.0	-0.08	45.94
840.0	0.06	45.14
850.0	-1.31	30.95
860.0	0.05	40.86
870.0	0.08	40.27
880.0	-0.50	35.58
890.0	-0.78	32.43
900.0	-0.30	36.11
910.0	-1.16	28.32
920.0	-1.24	25.82
930.0	-1.47	22.68
940.0	-1.58	24.90

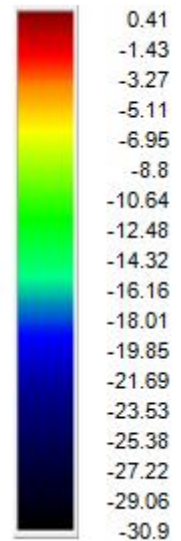
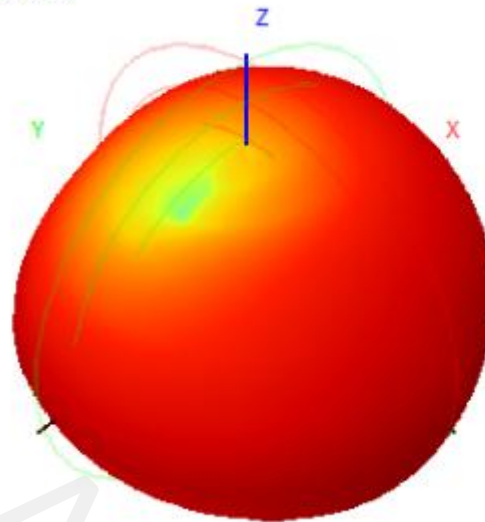
950.0	-0.83	24.88
960.0	0.27	37.03
1710.0	0.90	40.14
1760.0	0.61	41.39
1810.0	0.10	40.74
1860.0	-0.62	42.46
1910.0	-0.95	42.42
1960.0	-0.72	41.70
2010.0	-0.97	40.67
2060.0	-0.70	42.41
2110.0	-1.19	38.95
2160.0	-0.99	40.50
2210.0	-0.73	41.32
2260.0	0.25	43.38
2310.0	0.64	43.98
2360.0	0.75	44.63
2410.0	0.77	44.91
2460.0	0.86	43.38
2510.0	0.85	41.97
2560.0	2.20	50.22
2610.0	1.71	46.87
2660.0	1.15	46.19
2710.0	1.04	42.84

4.5 3D&2D Radiation Patterns

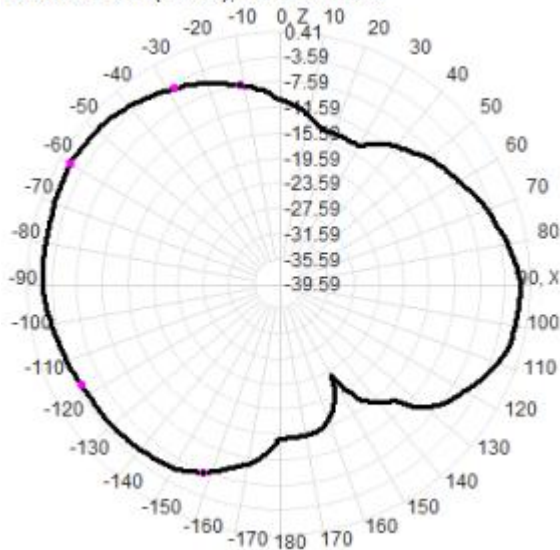
700.0MHz H+V, Eff: 47.1%



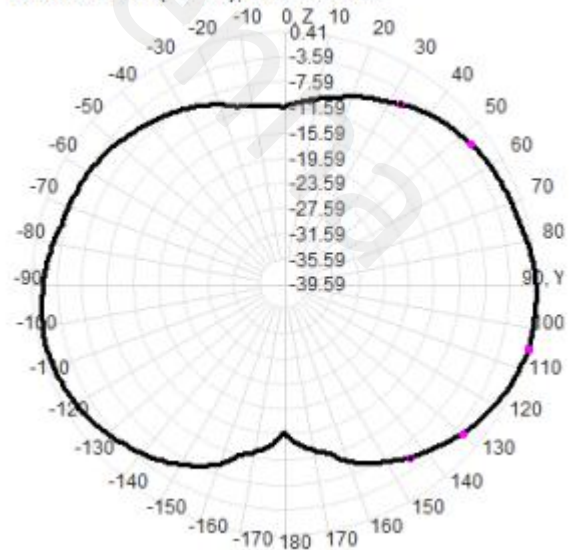
Back View



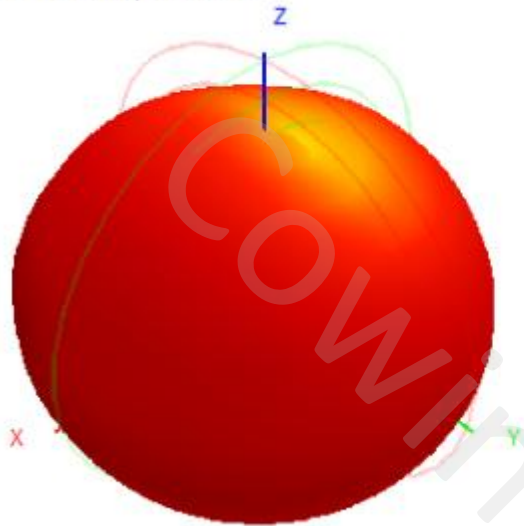
700.0MHz Total(E1-XZ), Max= -1.35dBi



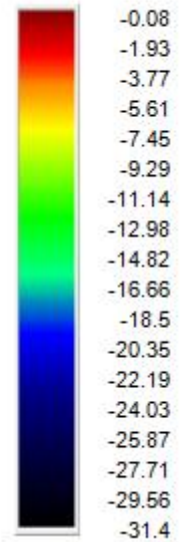
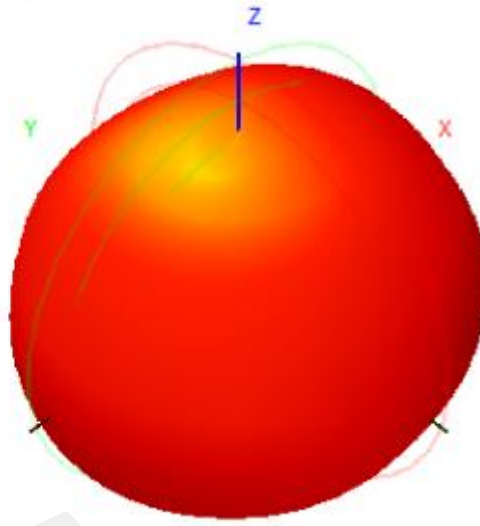
700.0MHz Total(E2-YZ), Max= 0.41dBi



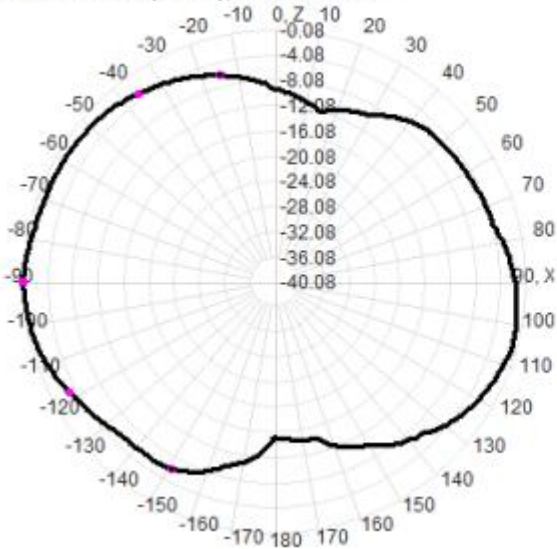
830.0MHz H+V, Eff: 45.9%



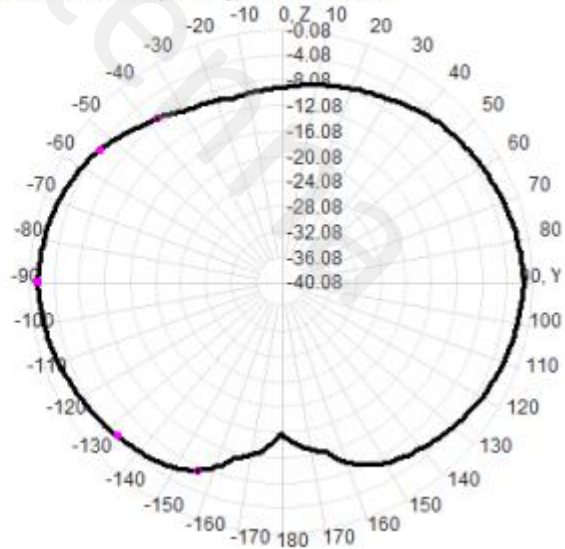
Back View



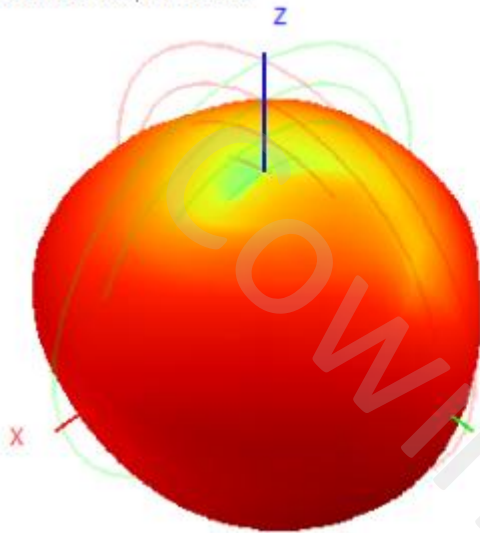
830.0MHz Total(E1-XZ), Max=-0.14dBi



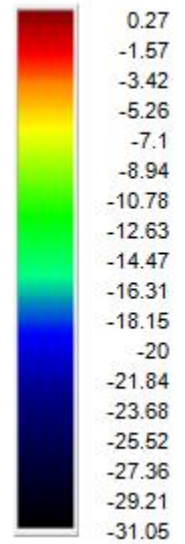
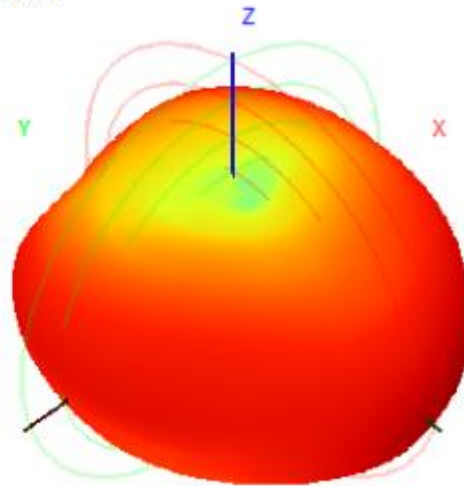
830.0MHz Total(E2-YZ), Max=-1.48dBi



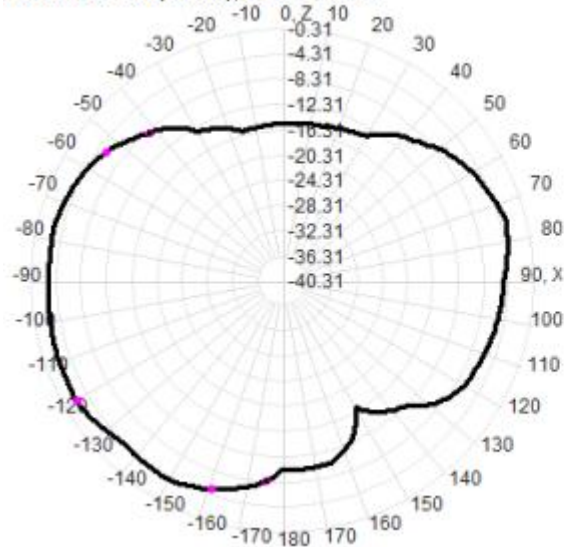
960.0MHz H+V, Eff: 37.0%



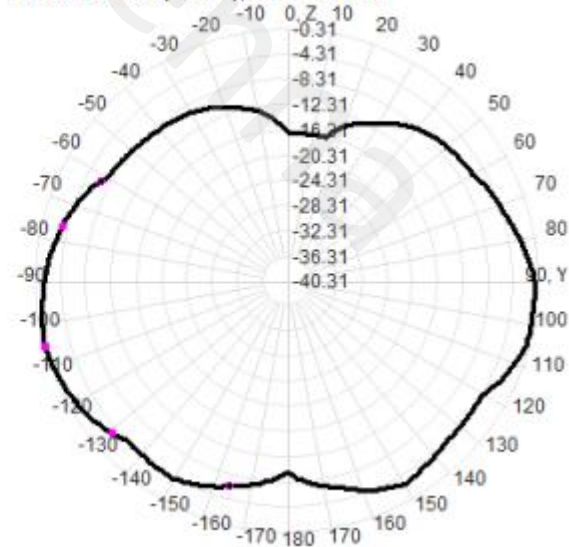
Back View



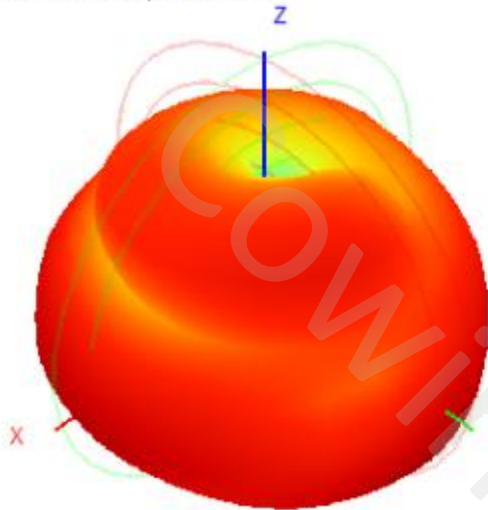
960.0MHz Total(E1-XZ), Max= -2.54dBi



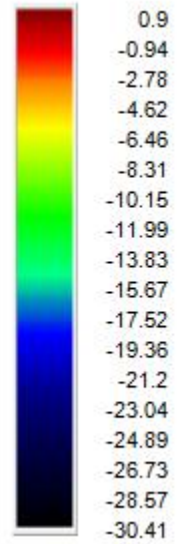
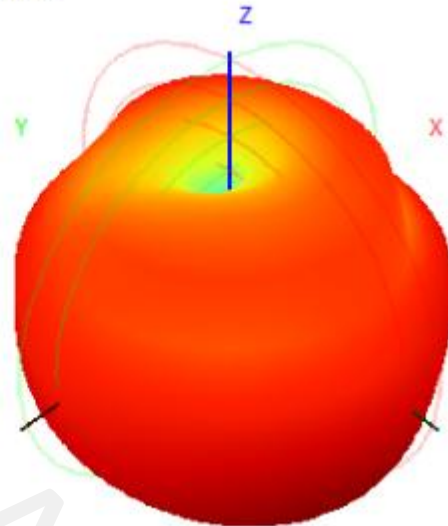
960.0MHz Total(E2-YZ), Max= -0.48dBi



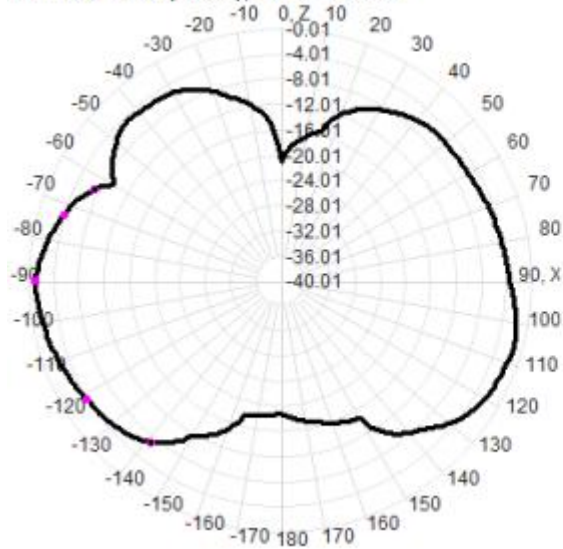
1710.0MHz H+V, Eff: 40.1%



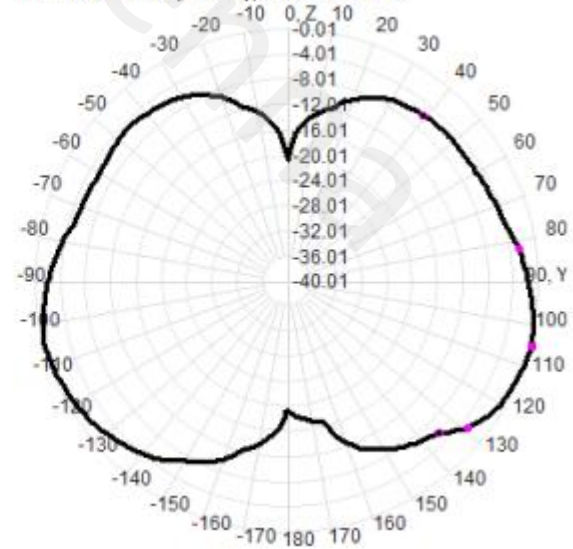
Back View



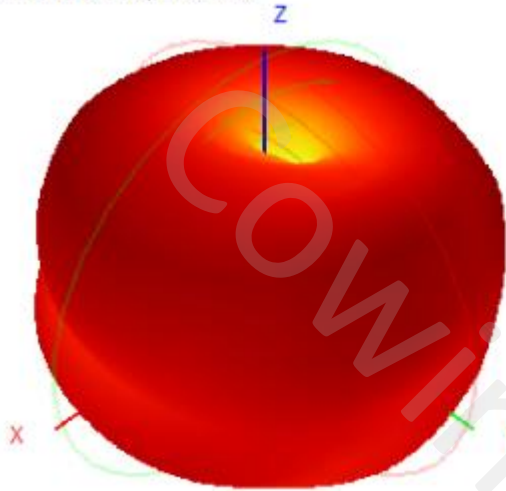
1710.0MHz Total(E1-XZ), Max= -1.03dBi



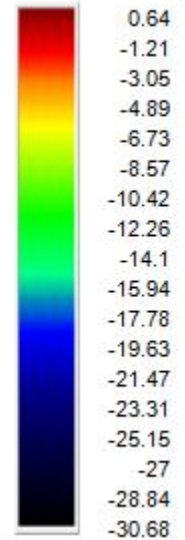
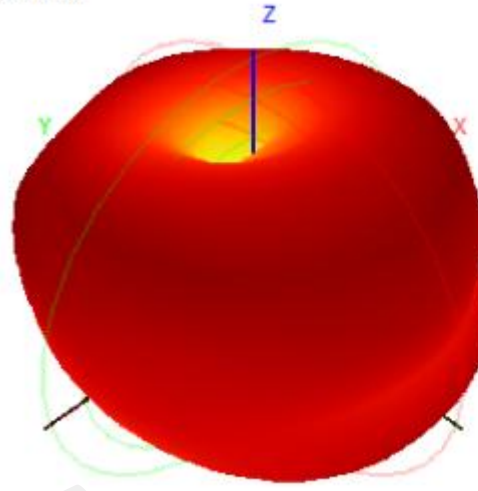
1710.0MHz Total(E2-YZ), Max= -0.01dBi



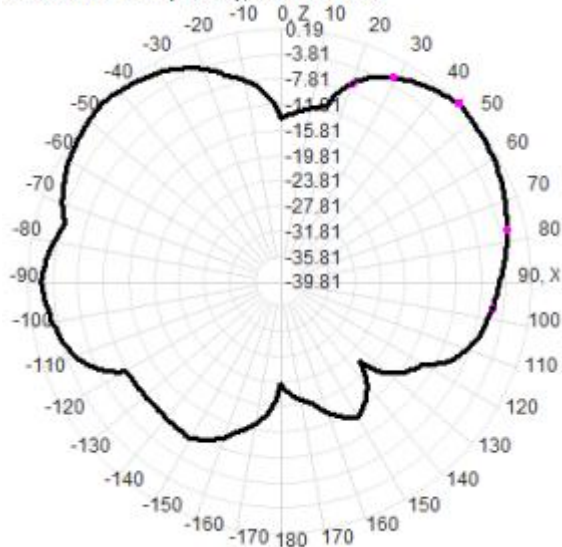
2310.0MHz H+V, Eff: 44.0%



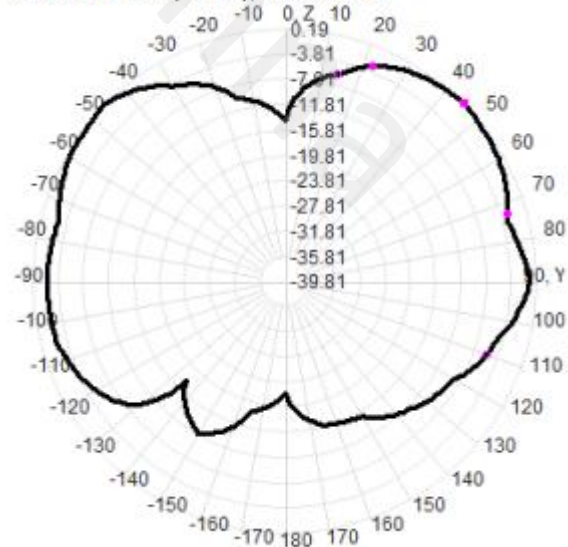
Back View



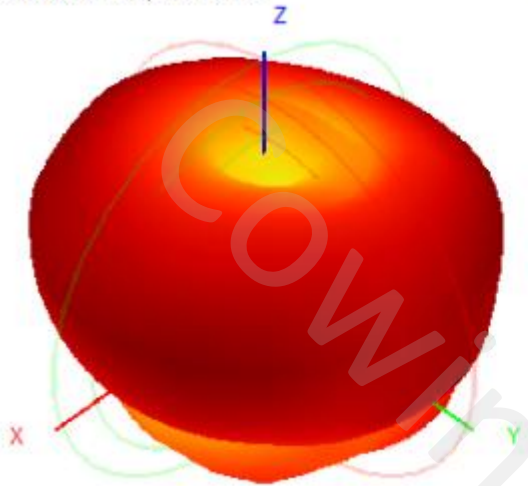
2310.0MHz Total(E1-XZ), Max= 0.09dBi



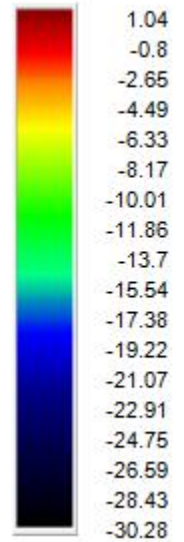
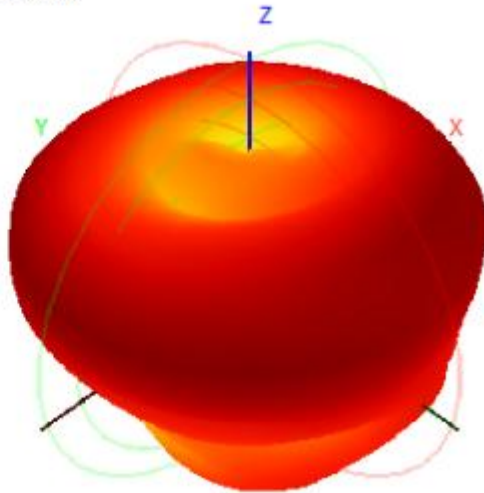
2310.0MHz Total(E2-YZ), Max= 0.19dBi



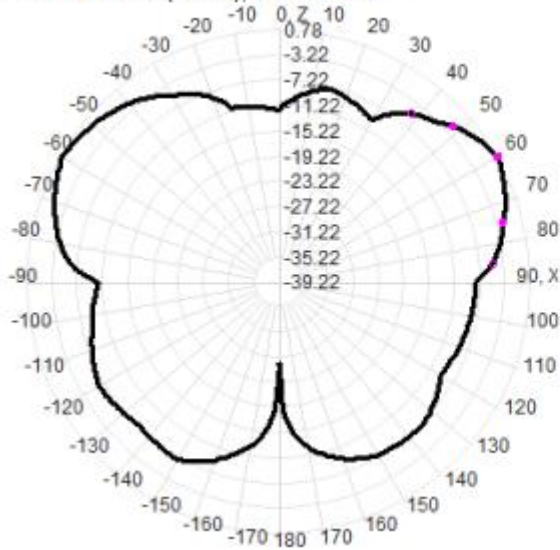
2710.0MHz H+V, Eff: 42.8%



Back View



2710.0MHz Total(E1-XZ), Max= 0.78dBi



2710.0MHz Total(E2-YZ), Max= 0.52dBi

