

CW-NZ-0218

5G Internal Antenna

Key Features

Frequency: 617-960/1575-2700/3300-3800/5150-5925MHz

SMA Male connector

RF1.37 Low loss cable

Dimensions: 112.5*16*0.6mm



1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	617-960/1575-2700/3300-3800/5150-5925
VSWR	$\leq 2.5/2.5/2.5/2.0$
Efficiency (%)	95.26
Peak Gain (dBi)	5.39
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male

2. Material and environmental characteristics

External Structure	N/A
Inner Structure	PCB
Cable Type	RF1.37 Low loss cable
Connector Type	SMA Male
Dimensions (mm)	112.5*16*0.6
Antenna Color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage Life(year)	10
Substance Compliance	ROHS

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4. Antenna test parameters

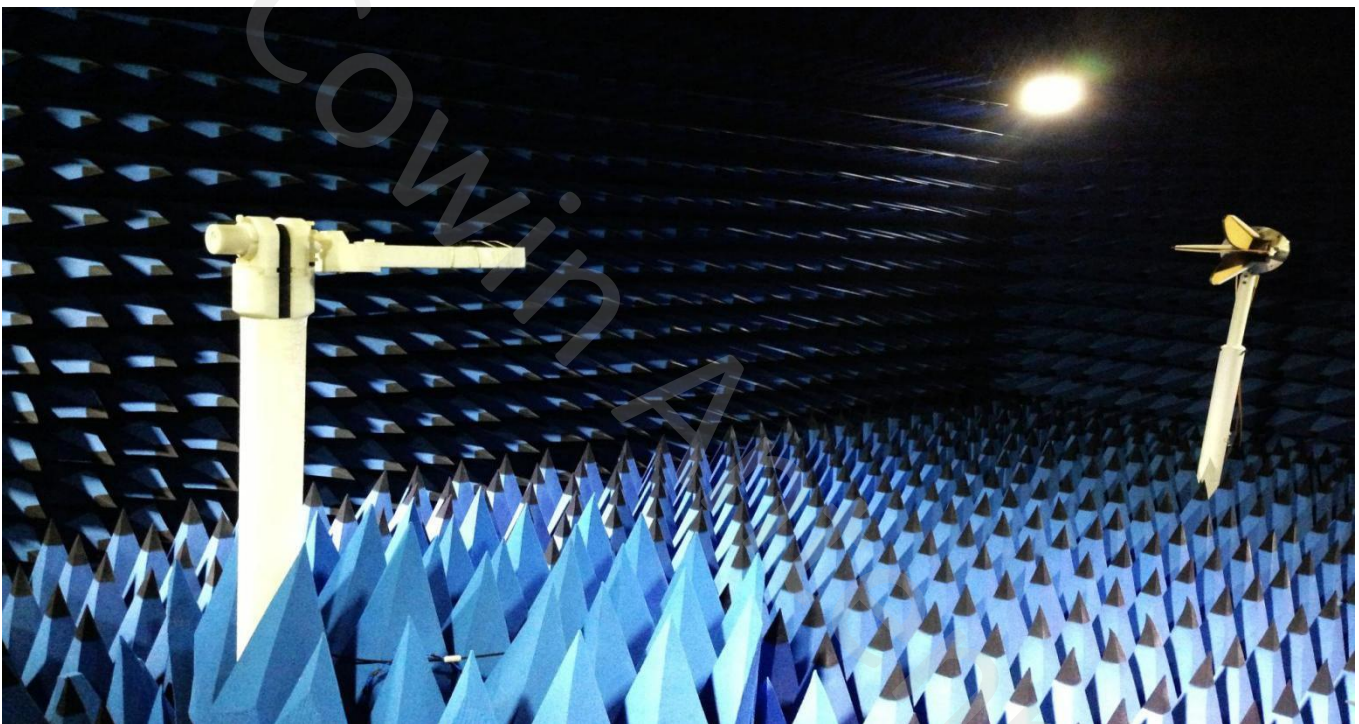
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

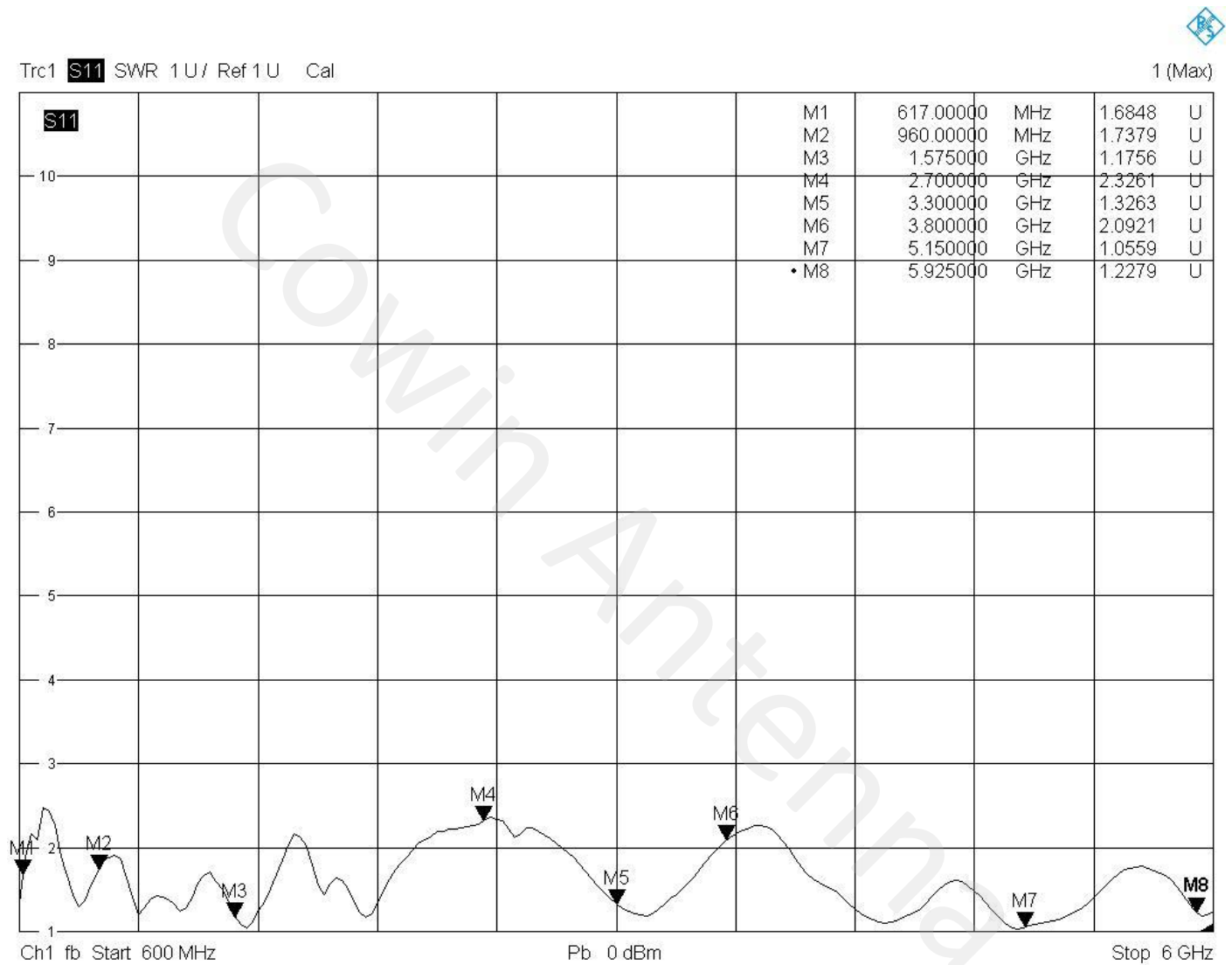
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

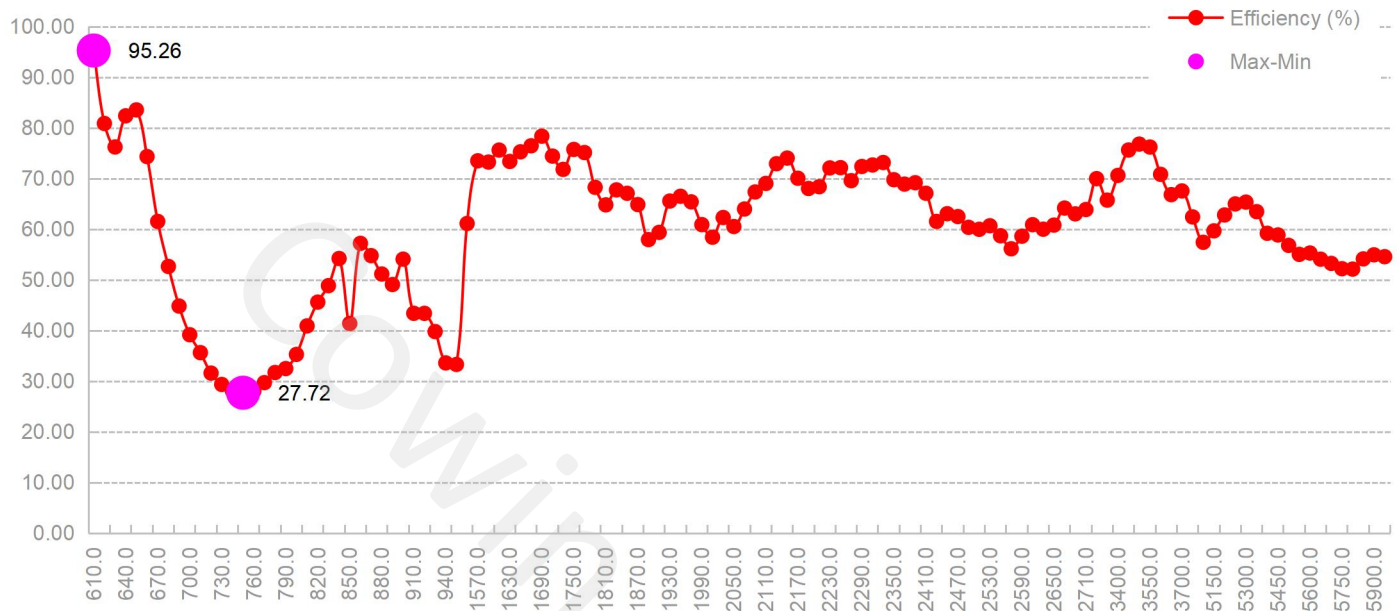
The comprehensive tester is Agilent cmv500



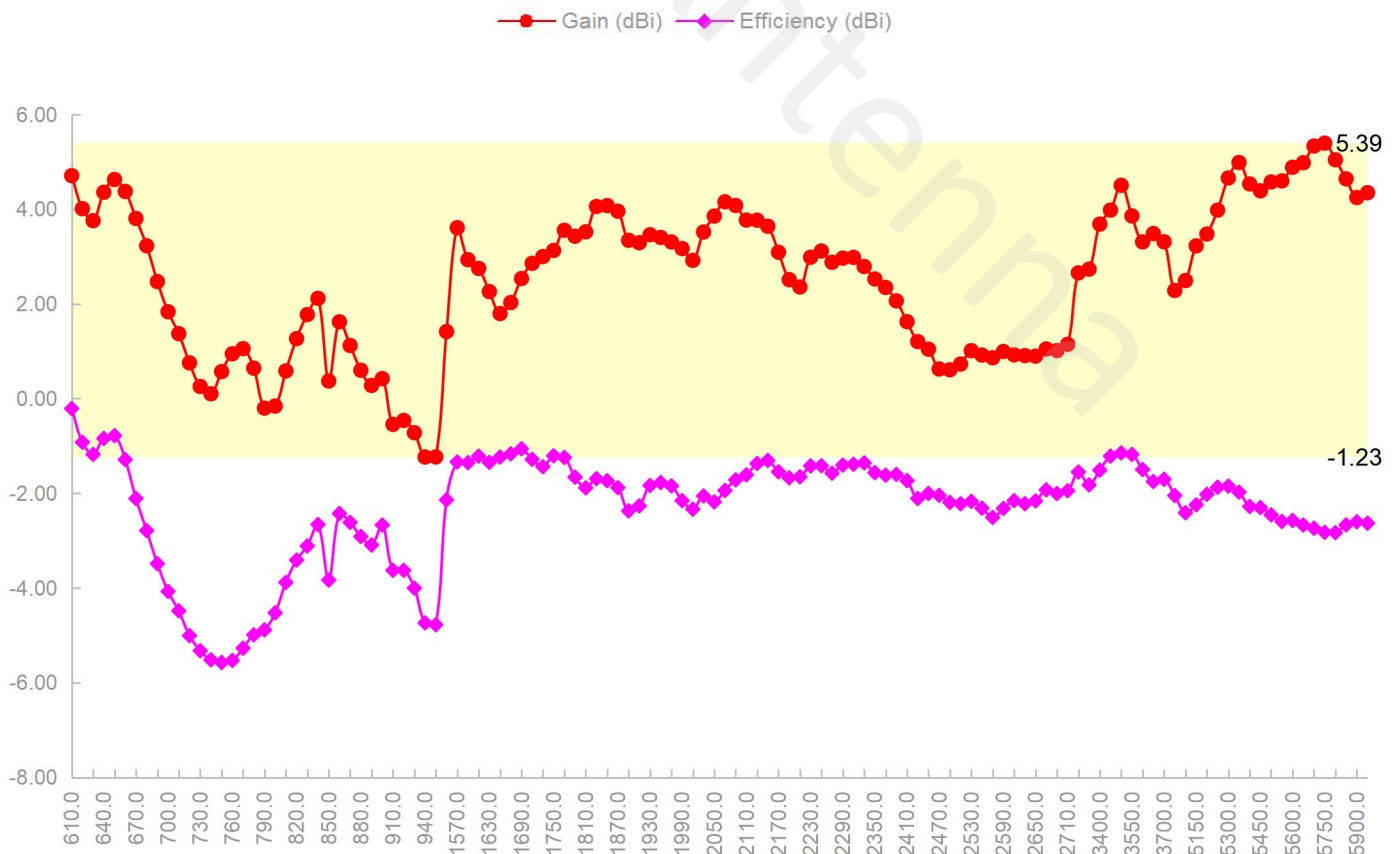
4.1 VSWR



4.2 Efficiency



4.3 Peak gain



4.4 Data summary

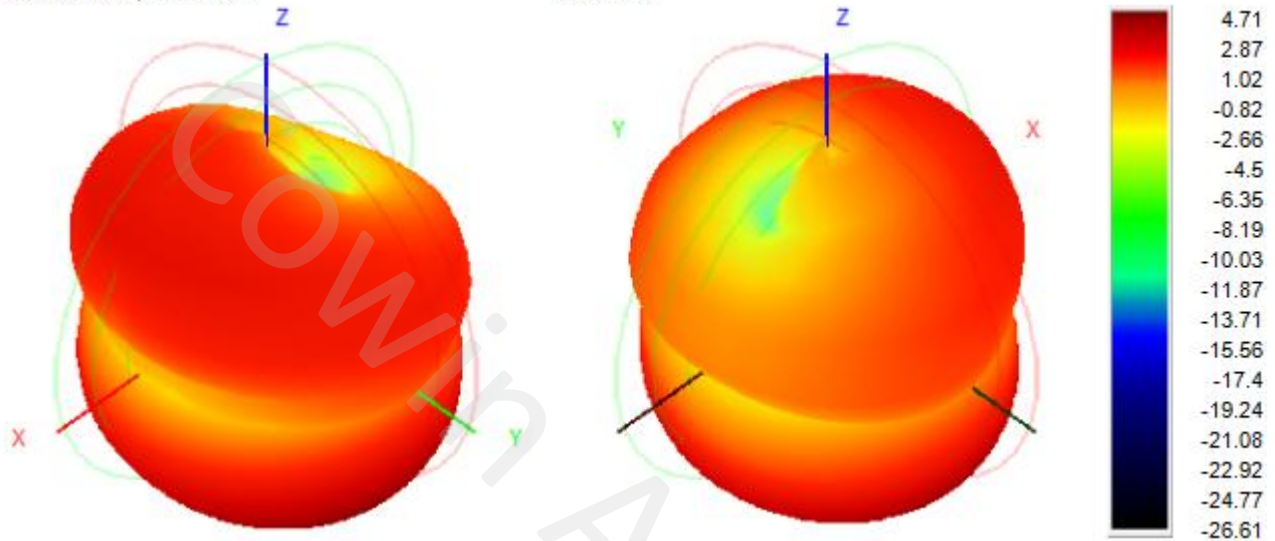
Frequency (MHz)	Gain (dBi)	Efficiency (%)
610.0	4.71	95.26
650.0	4.63	83.55
700.0	1.83	39.17
750.0	0.57	27.72
800.0	-0.16	35.29
850.0	0.37	41.38
900.0	0.42	54.08
950.0	-1.23	33.30
960.0	1.42	61.12
1570.0	3.61	73.50
1610.0	2.75	75.61
1650.0	1.80	75.27
1710.0	2.86	74.43
1750.0	3.13	75.74
1810.0	3.52	64.80
1850.0	4.08	67.08
1910.0	3.29	59.37
1950.0	3.40	66.49
2010.0	2.92	58.41
2110.0	3.77	69.03
2210.0	2.36	68.39
2310.0	2.98	72.67
2410.0	1.62	67.09
2510.0	0.73	59.97

2610.0	0.92	60.89
2710.0	1.15	63.88
3300.0	2.65	69.98
3400.0	3.68	70.62
3500.0	4.50	76.79
3600.0	3.31	70.82
3700.0	3.31	67.55
3800.0	2.49	57.41
5150.0	3.23	59.67
5200.0	3.48	62.81
5300.0	4.66	65.35
5400.0	4.53	59.19
5500.0	4.57	56.81
5600.0	4.88	55.29
5700.0	5.33	53.24
5800.0	5.04	52.12
5900.0	4.25	54.94
5950.0	4.35	54.57

4.5 3D&2D Radiation Patterns

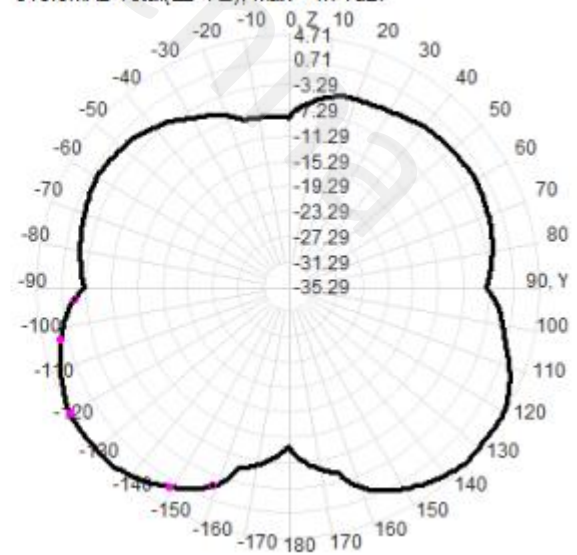
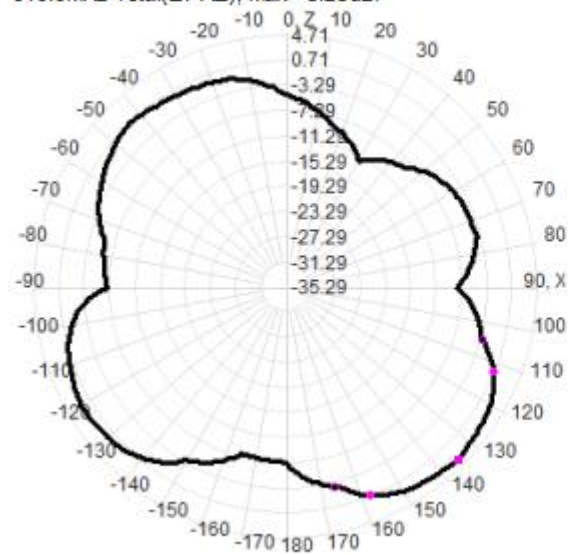
610.0MHz H+V, Eff: 95.3%

Back View



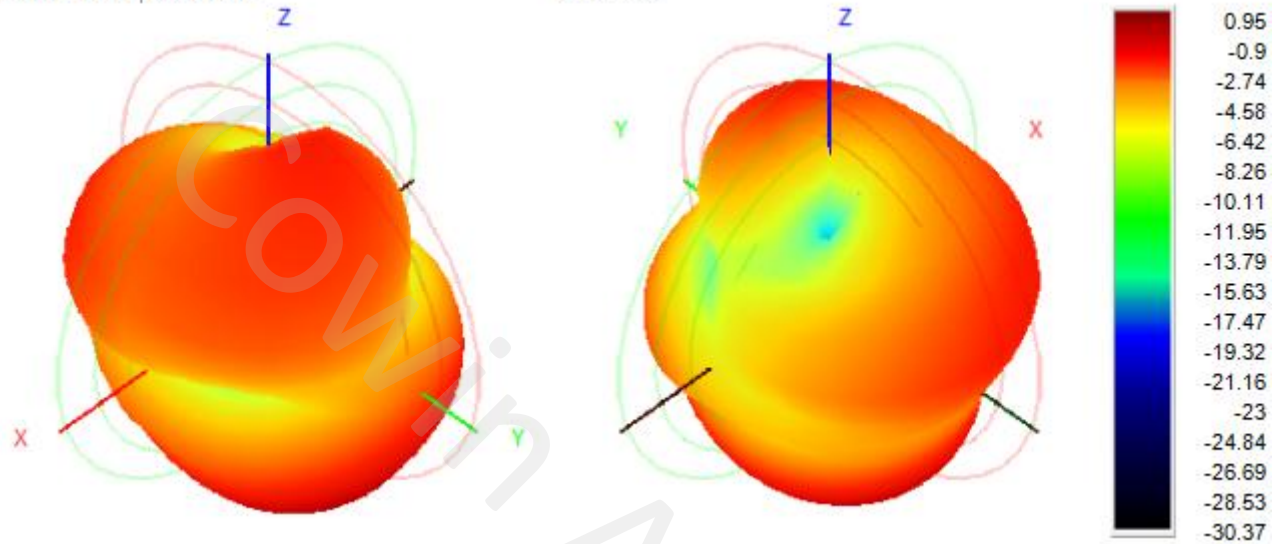
610.0MHz Total(E1-XZ), Max= 3.23dBi

610.0MHz Total(E2-YZ), Max= 4.71dBi



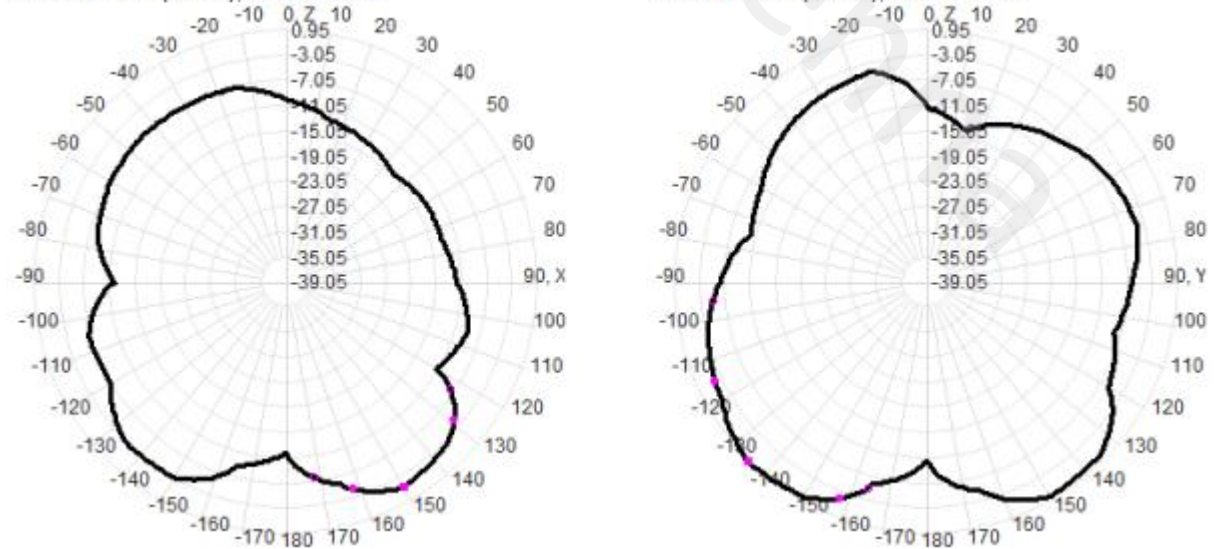
760.0MHz H+V, Eff: 28.0%

Back View



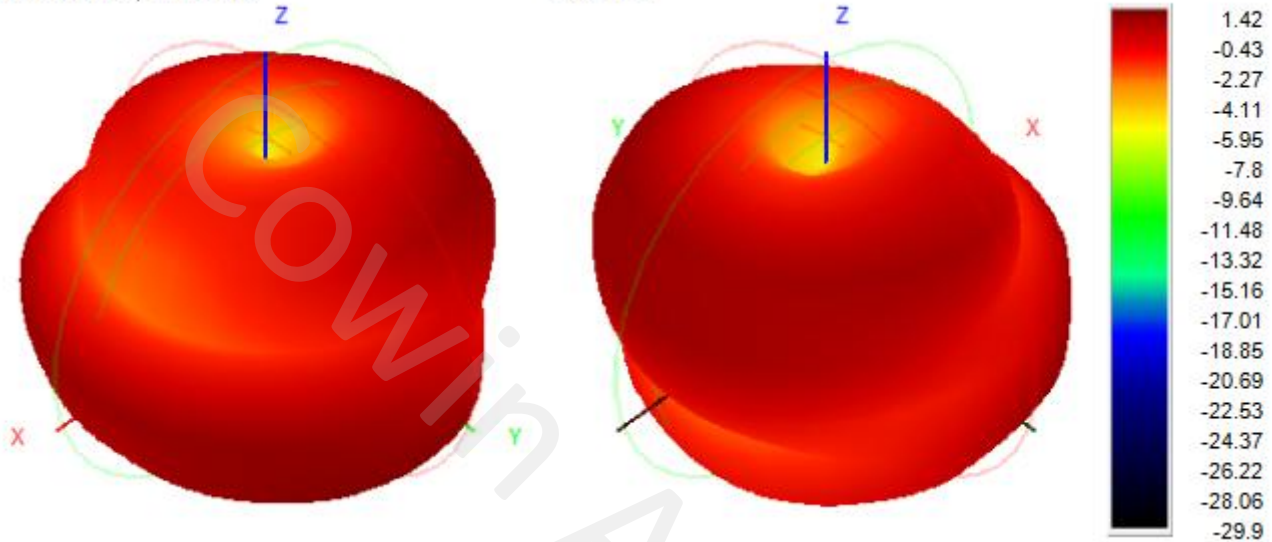
760.0MHz Total(E1-XZ), Max= -1.60dBi

760.0MHz Total(E2-YZ), Max= 0.95dBi



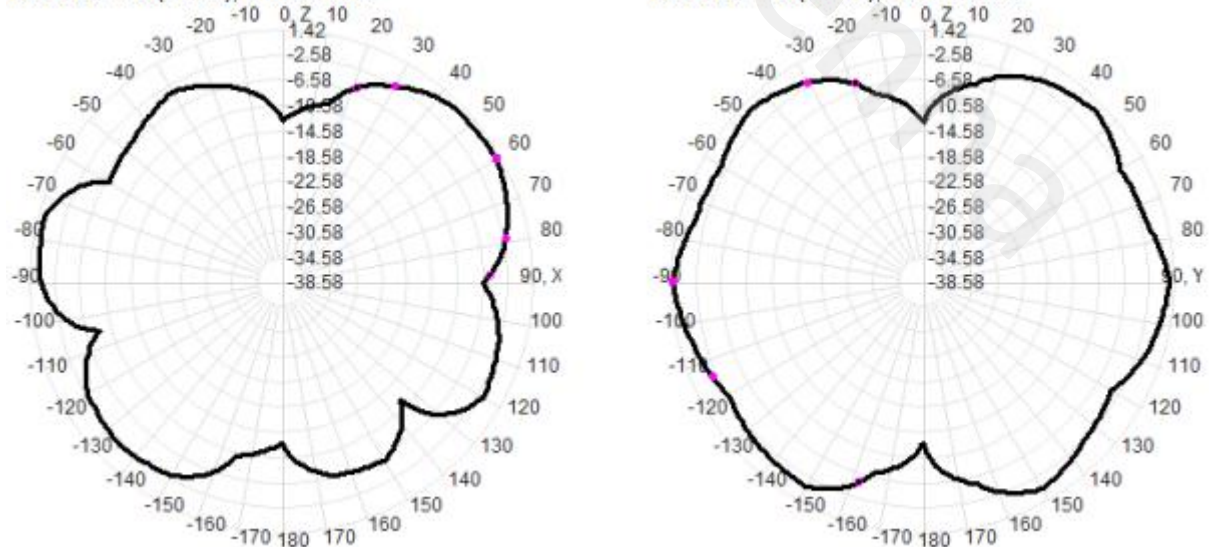
960.0MHz H+V, Eff: 61.1%

Back View

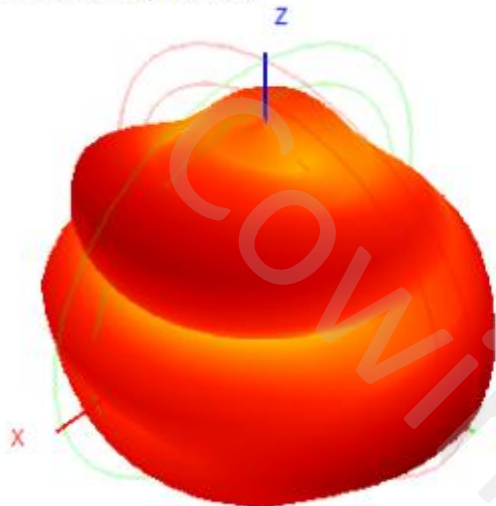


960.0MHz Total(E1-XZ), Max= 0.50dBi

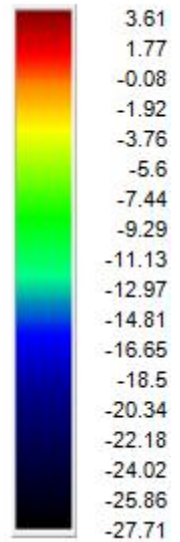
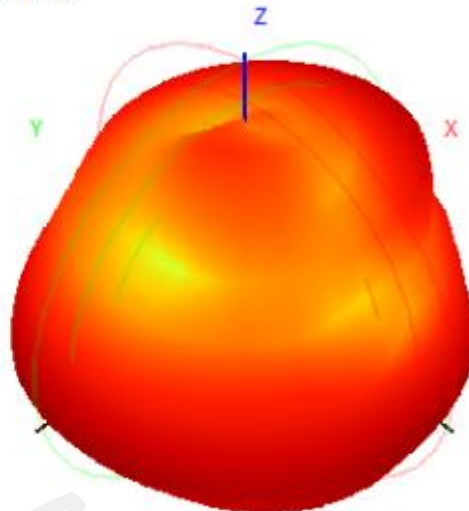
960.0MHz Total(E2-YZ), Max= 1.01dBi



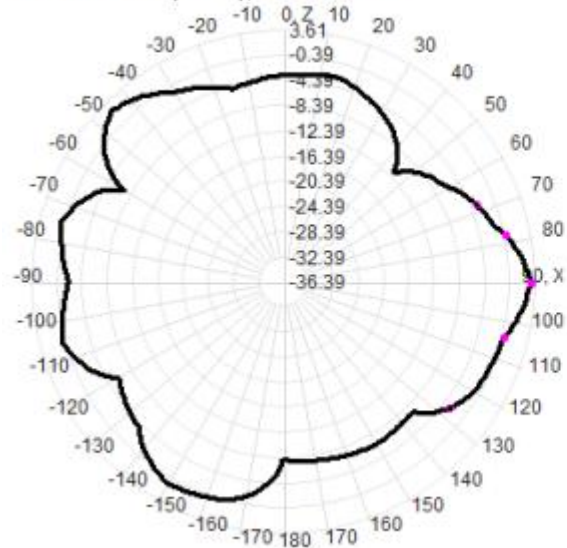
1570.0MHz H+V, Eff: 73.5%



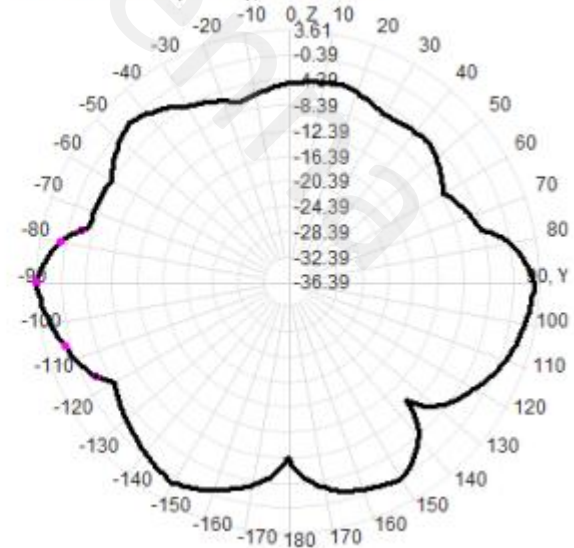
Back View



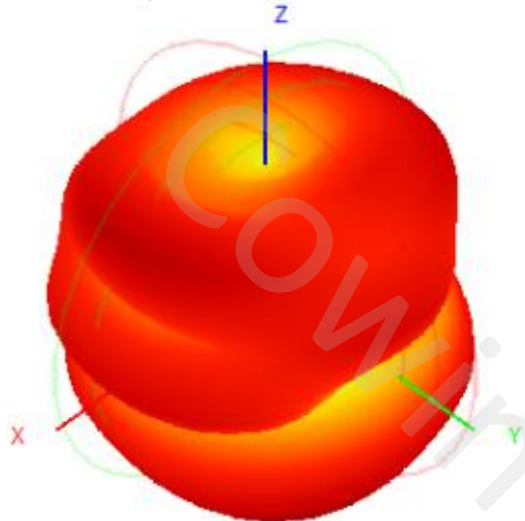
1570.0MHz Total(E1-XZ), Max= 2.71dBi



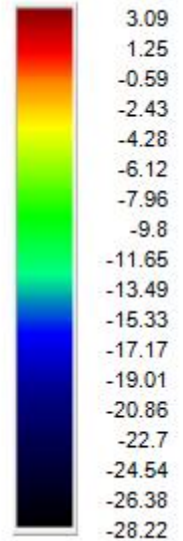
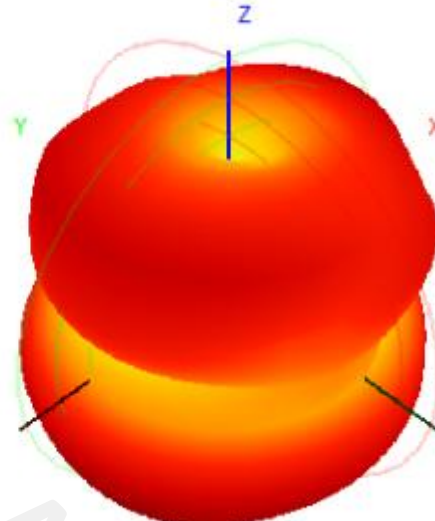
1570.0MHz Total(E2-YZ), Max= 3.61dBi



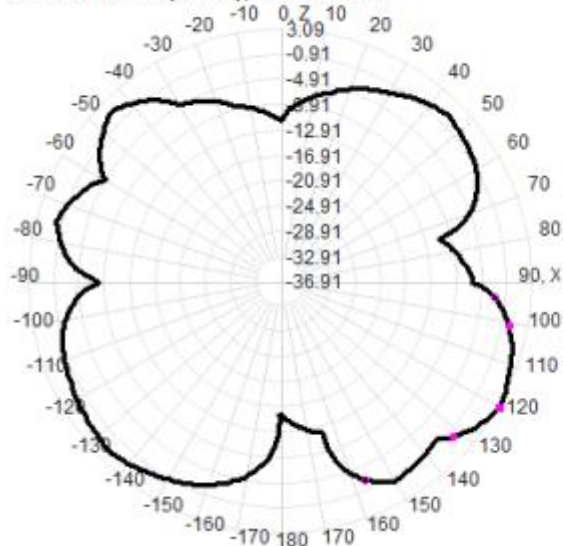
2170.0MHz H+V, Eff: 70.1%



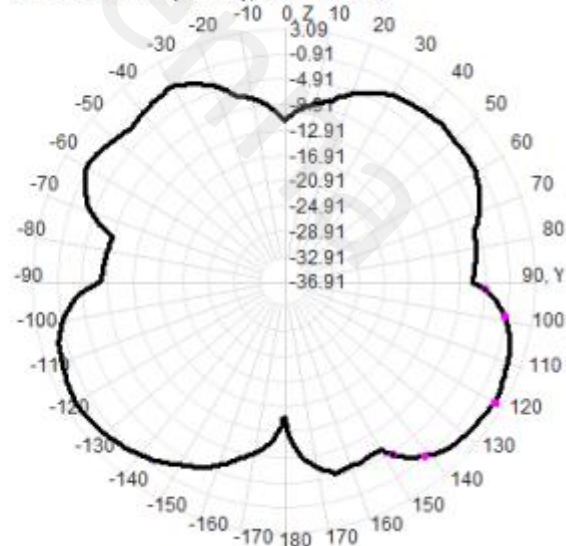
Back View



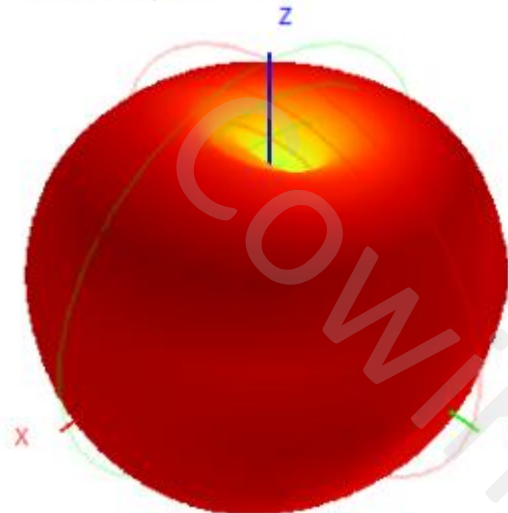
2170.0MHz Total(E1-XZ), Max= 3.09dBi



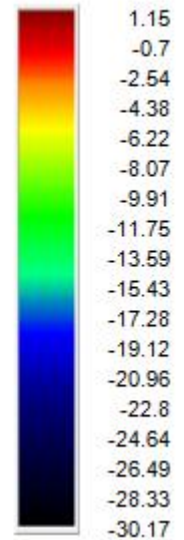
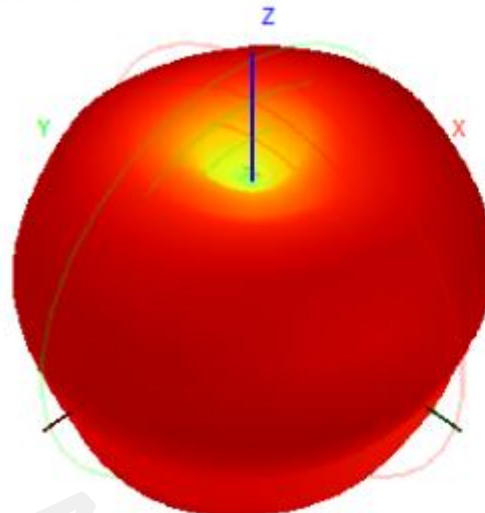
2170.0MHz Total(E2-YZ), Max= 1.52dBi



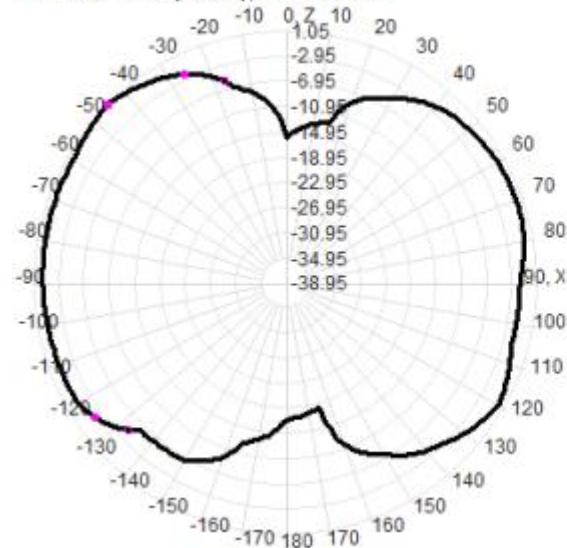
2710.0MHz H+V, Eff: 63.9%



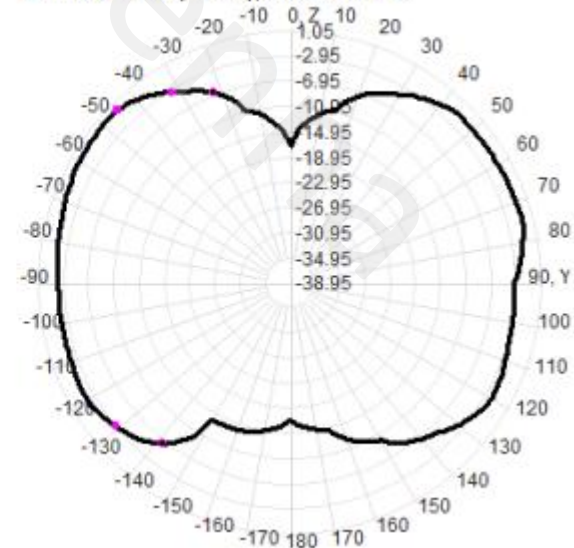
Back View



2710.0MHz Total(E1-XZ), Max= 1.05dBi

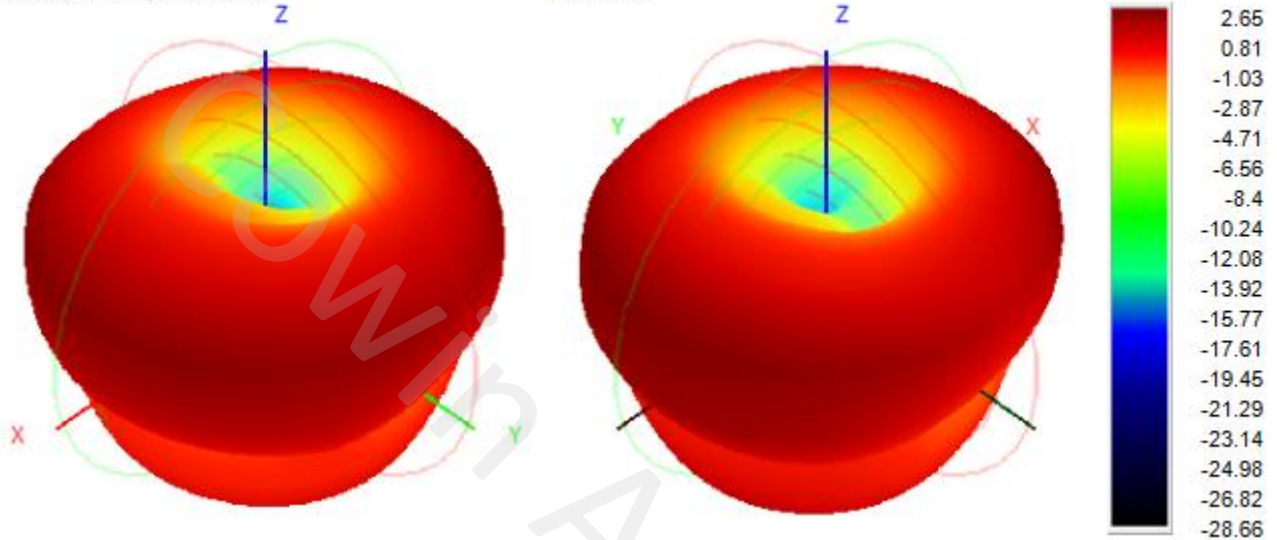


2710.0MHz Total(E2-YZ), Max= -0.11dBi



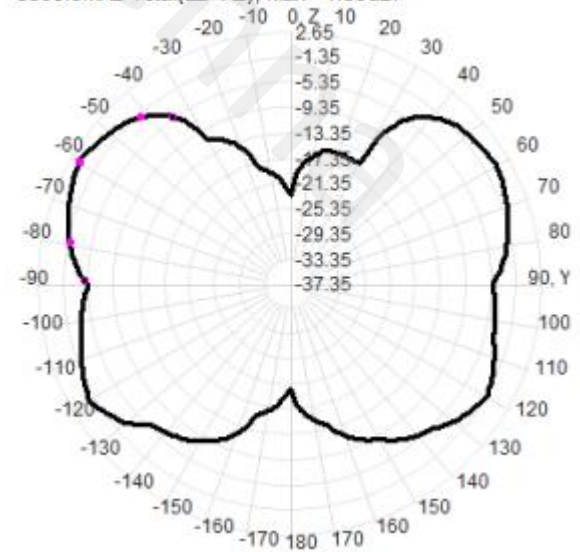
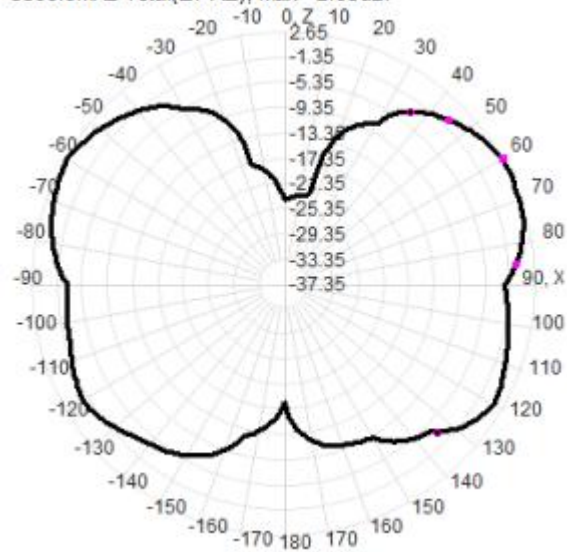
3300.0MHz H+V, Eff: 70.0%

Back View



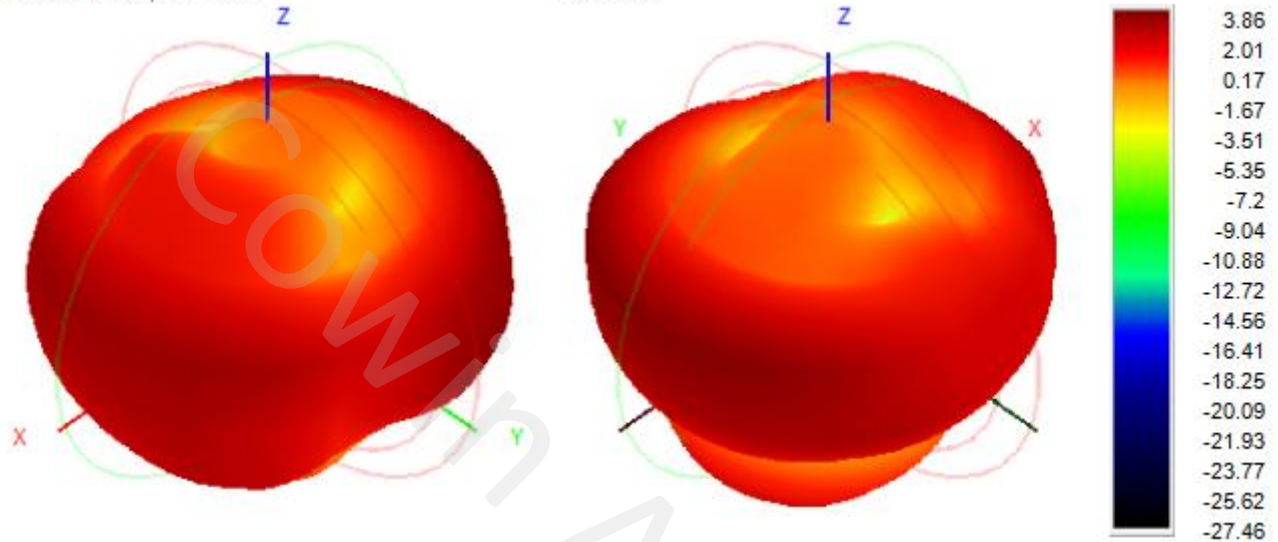
3300.0MHz Total(E1-XZ), Max= 2.65dBi

3300.0MHz Total(E2-YZ), Max= 1.30dBi



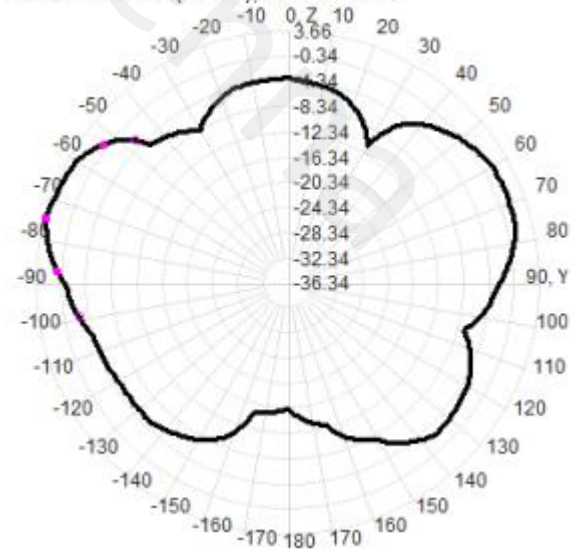
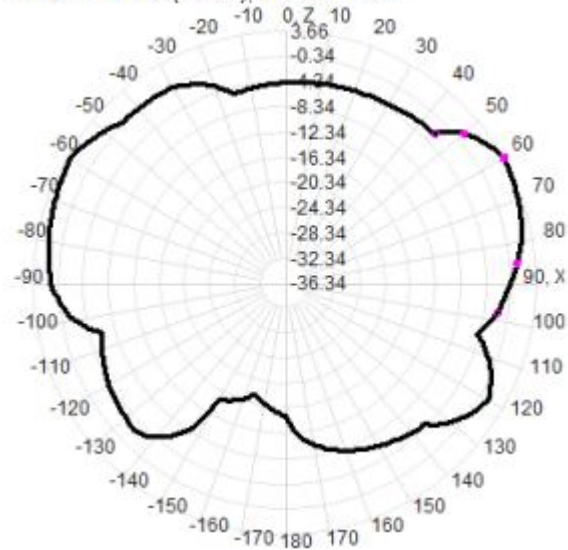
3550.0MHz H+V, Eff: 76.2%

Back View



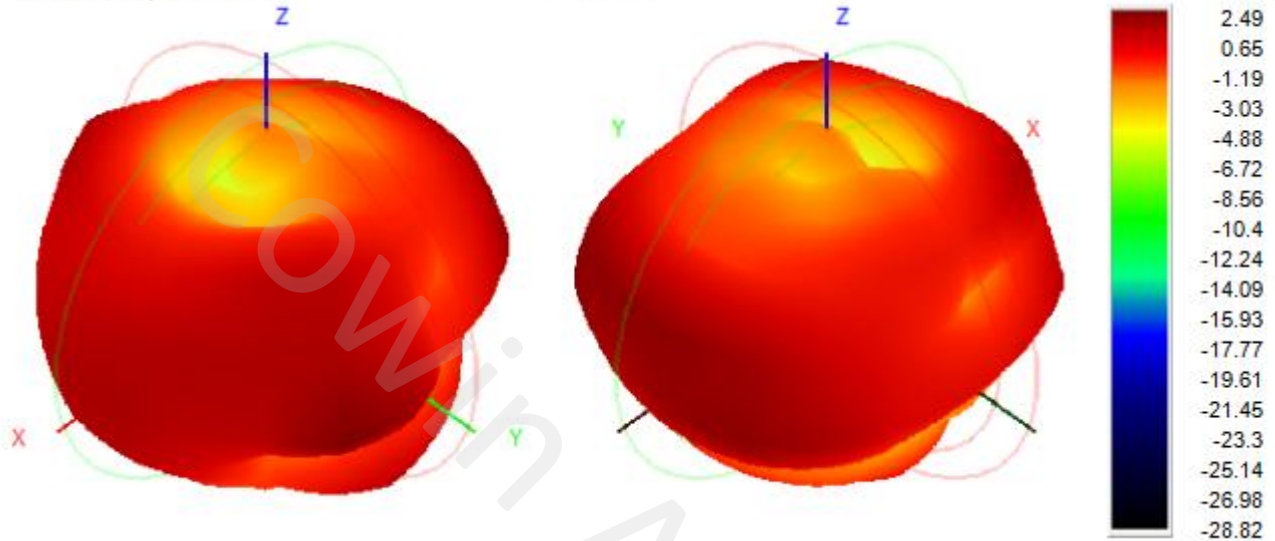
3550.0MHz Total(E1-XZ), Max= 3.66dBi

3550.0MHz Total(E2-YZ), Max= 3.37dBi

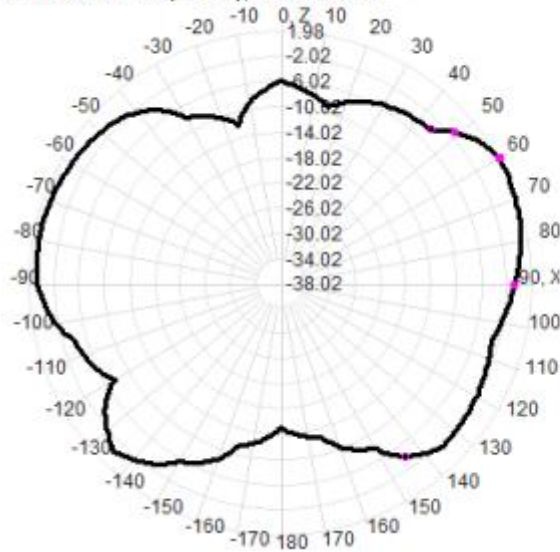


3800.0MHz H+V, Eff: 57.4%

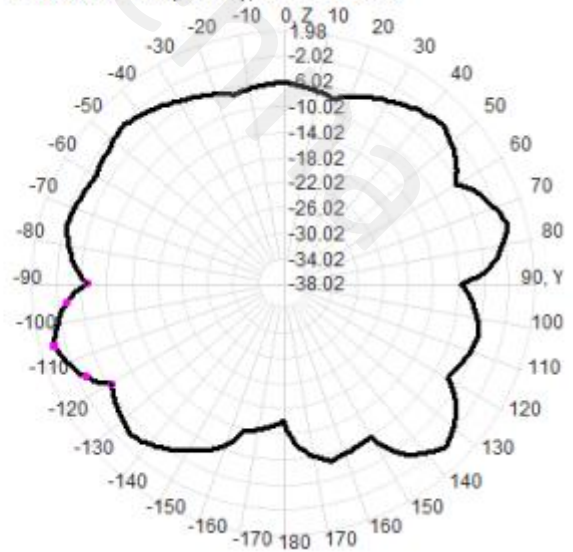
Back View



3800.0MHz Total(E1-XZ), Max= 1.98dBi

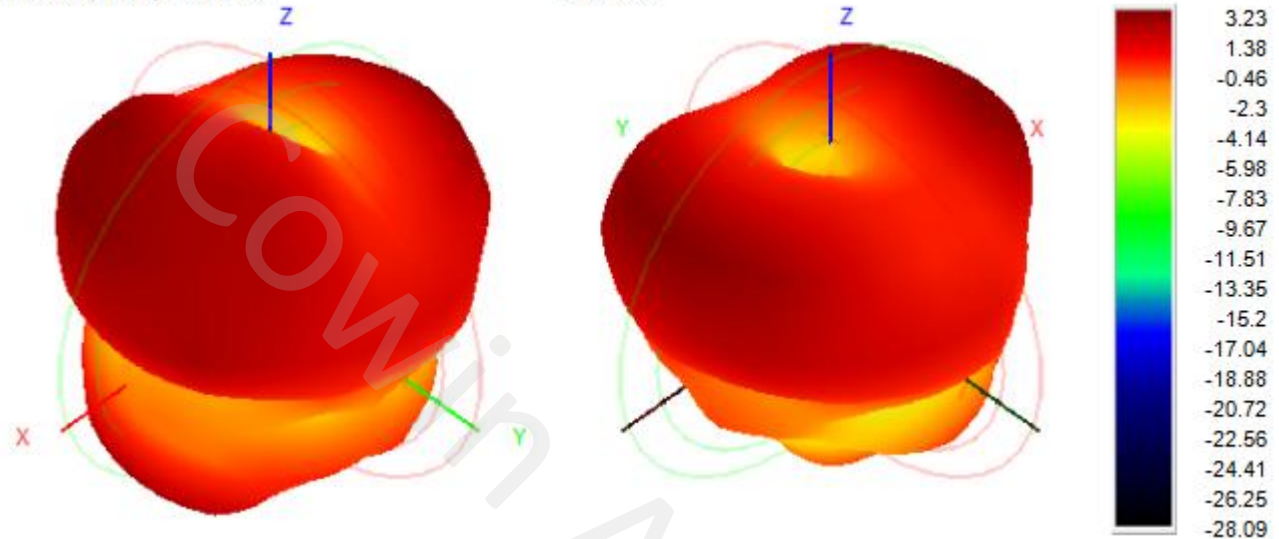


3800.0MHz Total(E2-YZ), Max= -0.42dBi



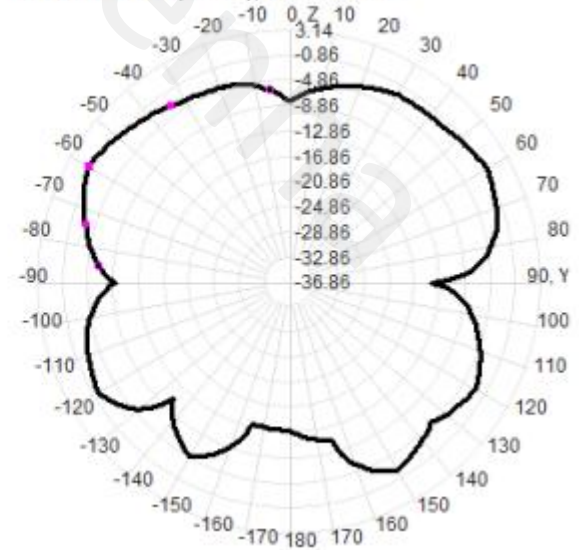
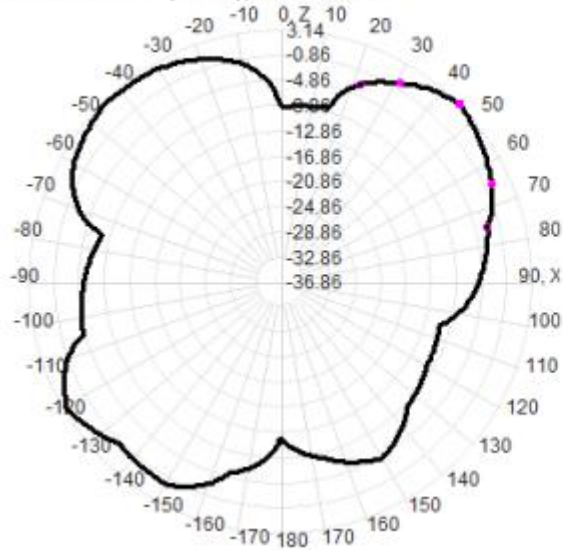
5150.0MHz H+V, Eff: 59.7%

Back View



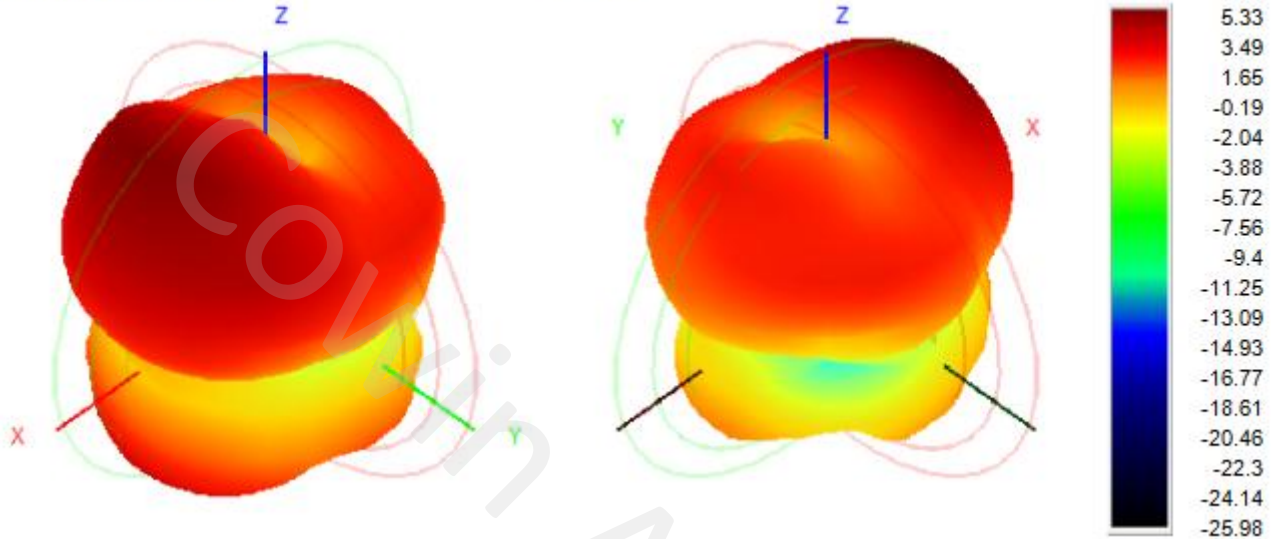
5150.0MHz Total(E1-XZ), Max= 3.14dBi

5150.0MHz Total(E2-YZ), Max= -0.12dBi



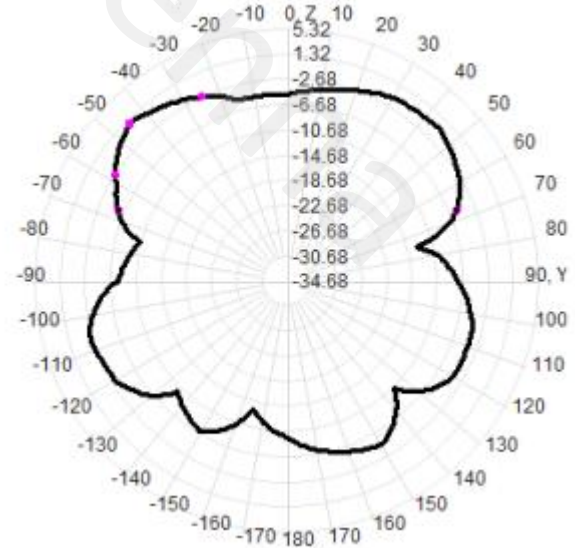
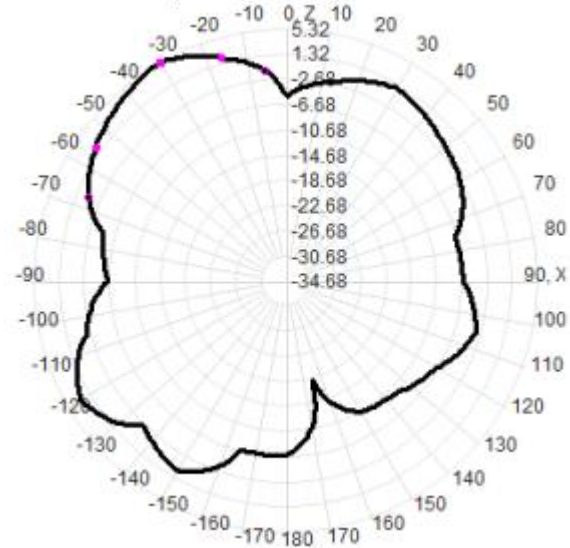
5700.0MHz H+V, Eff: 53.2%

Back View



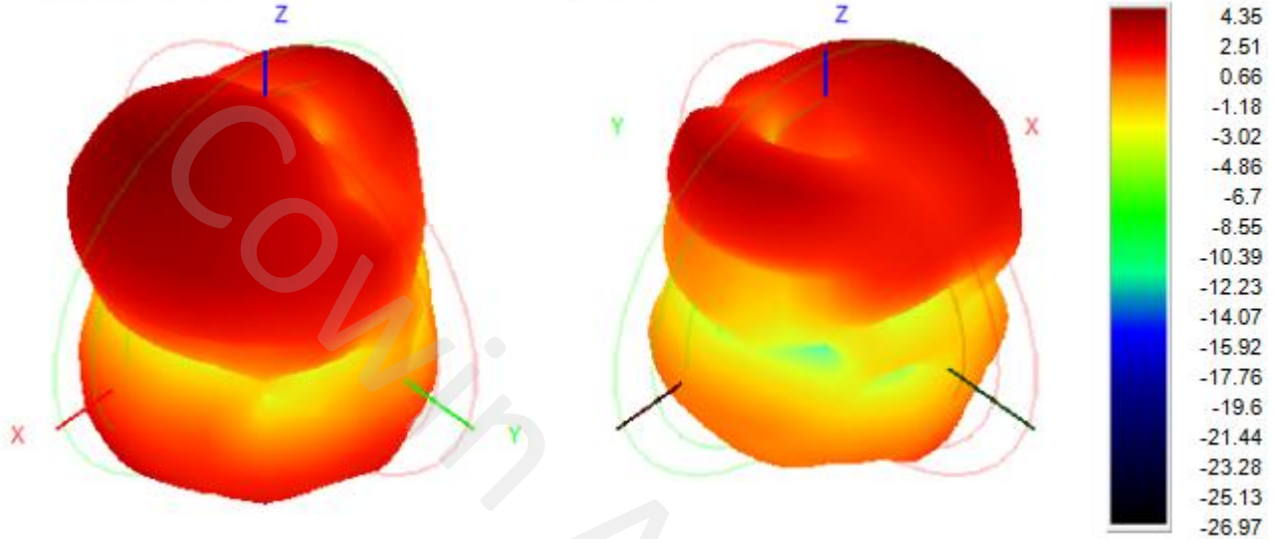
5700.0MHz Total(E1-XZ), Max= 5.32dBi

5700.0MHz Total(E2-YZ), Max= 0.64dBi

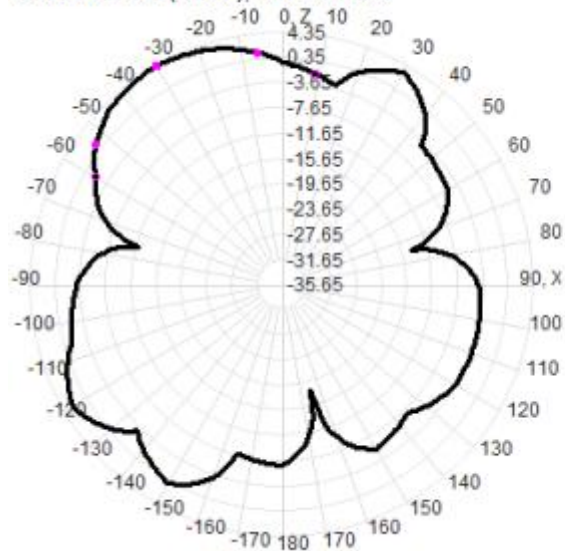


5950.0MHz H+V, Eff: 54.6%

Back View



5950.0MHz Total(E1-XZ), Max= 4.35dBi



5950.0MHz Total(E2-YZ), Max= -0.17dBi

