CW-WZ-0029

4G External antenna

Key Features

Frequency: 698-960MHz/1710-2700MHz

SMA Male Connector

External Paddle

Dimensions 196*38mm

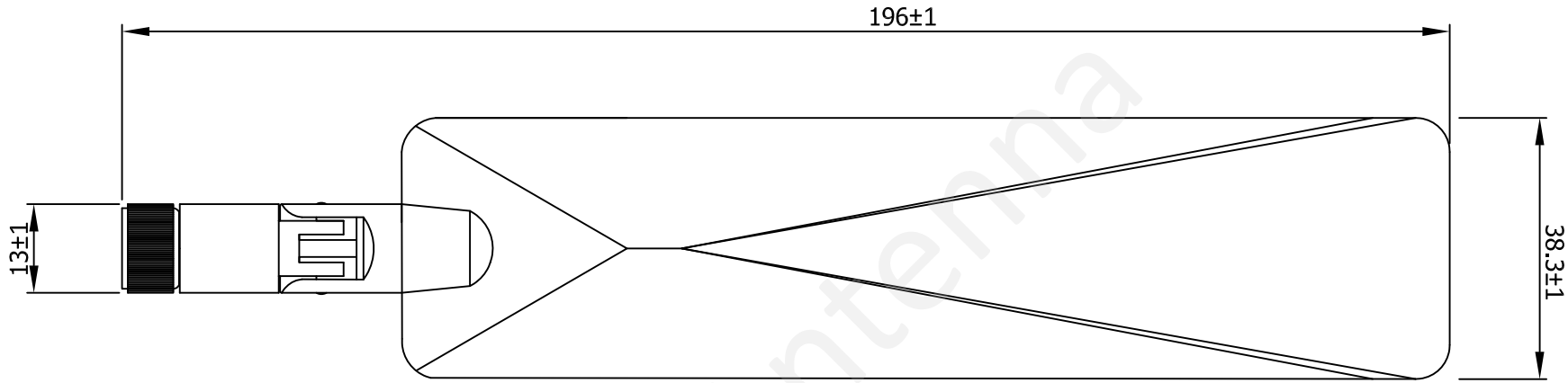
1. Antenna Electrical Characteristics

Frequency (MHz)	698-960MHz	710-2700MHz
VSWR	3:1	3:1
Efficiency (%)	76.68%	71.82%
Peak Gain (dBi)	3.64	3.44
Impendance (Ohm)	50	
Polarisation	Vertical	
Max. Input Power (W)	10	
Connector Type	SMA male	

2. Material and environmental characteristics

Material of PCB	FR4
Material of Plastic	PC+PBT/ABS
Cable Type	RG178
Connector Type	SMA male
Dimensions (mm)	196*38
Antenna color	White
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

REV	Date	Description
X1	2021/07/28	New issue



Specification(Free Test):

Frequency Range: 698-960MHZ/1710-2700MHZ

Impedance: 50Ω

V.S.W.R: ≤3

NO	Name	Description	Q'TY	Remark
6	Radome	White ABS	1	
5	Lower fixing seat	White PC+PBT	1	
4	Upper fixing seat	White PC+PBT	1	
3	Connector	White SMA male	1	
2	Cable	RG316 Brown double silver wire	1	
1	PCB	FR4	1	

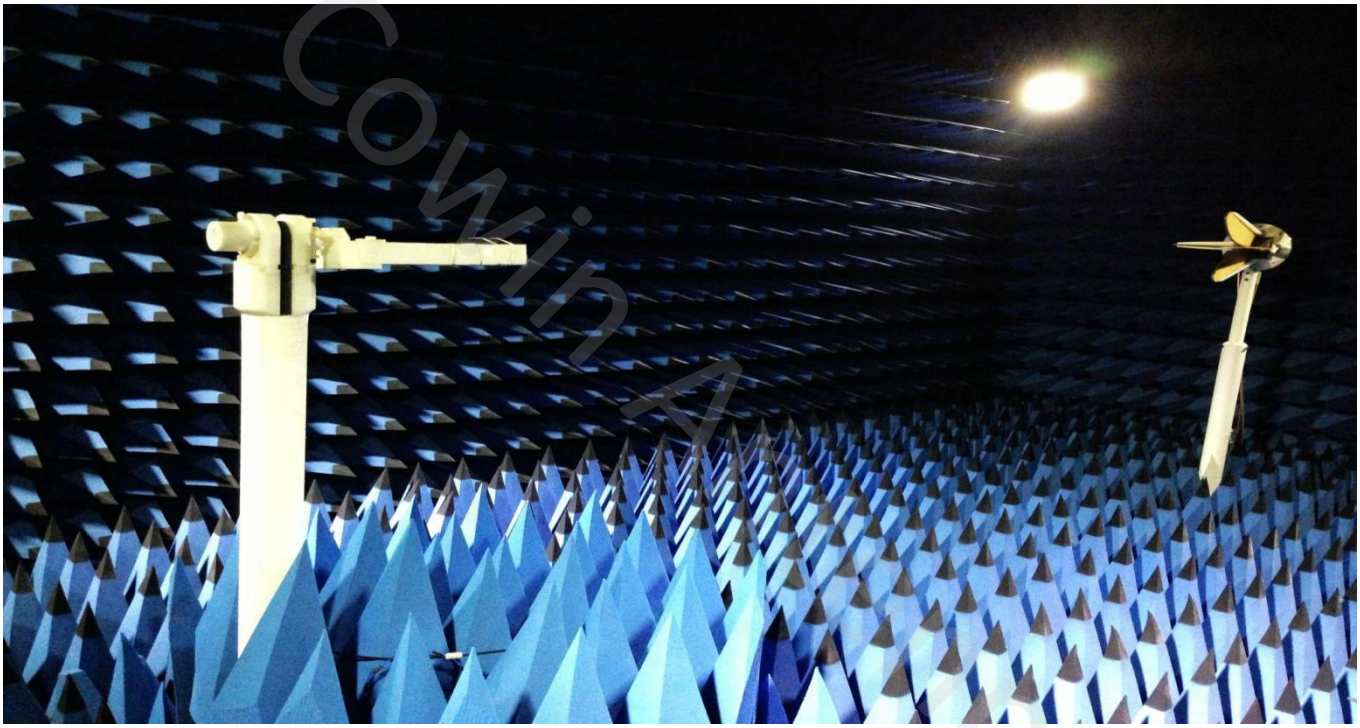
XX.	±5.0	Approved	Customer		
X.	±3.0		Part NO.		
.X	±1.0	Checked	Part name	External antenna	
.XX	±0.2		CW P/NO.	CW-WZ-0029	
.XXX	±0.1	Drawing	REV	Unit	File :
			X1	m/m	Sheet : 1/1

Cowin Antenna

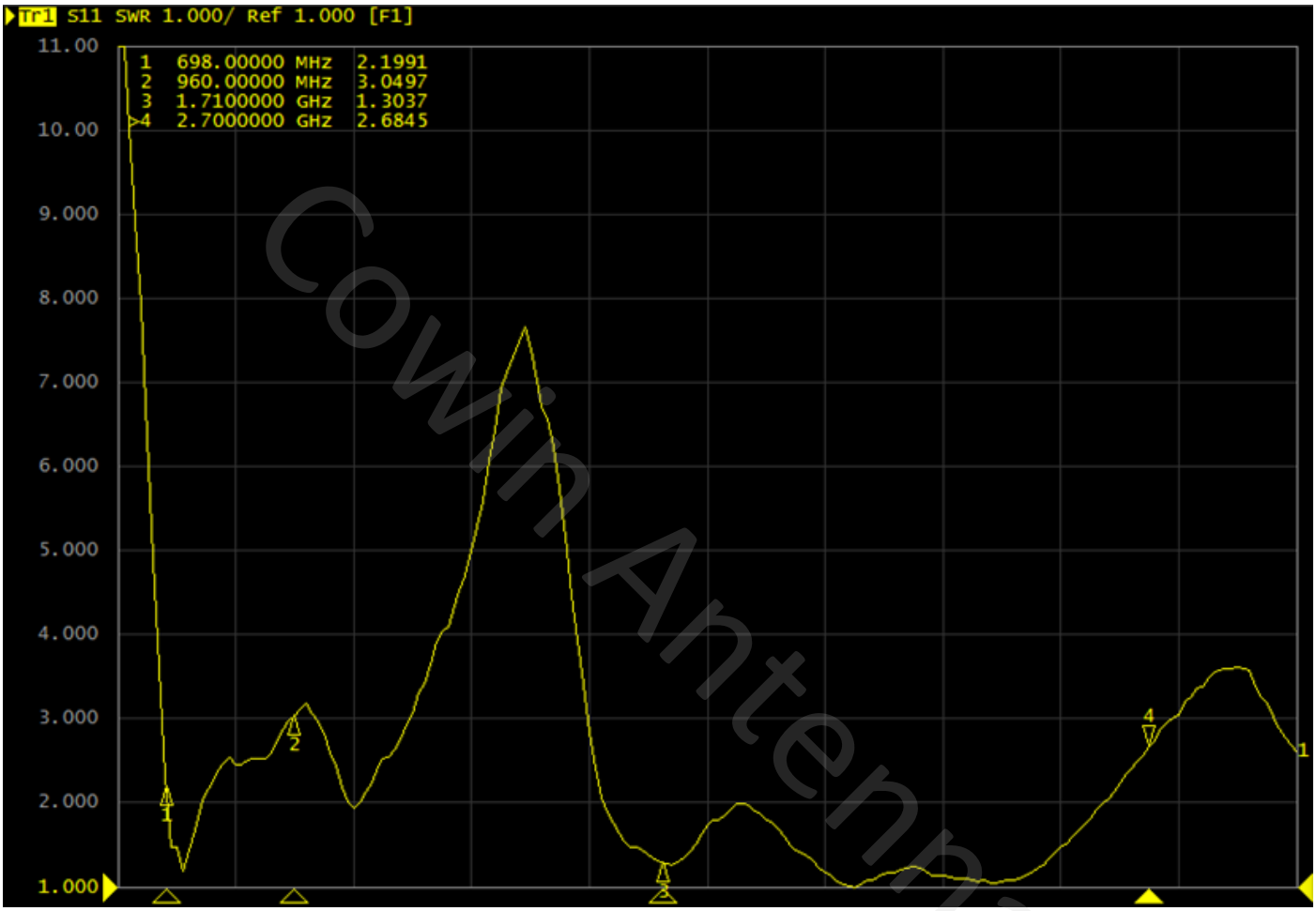
4. Antenna test parameters

Antenna Measurement Conditions:

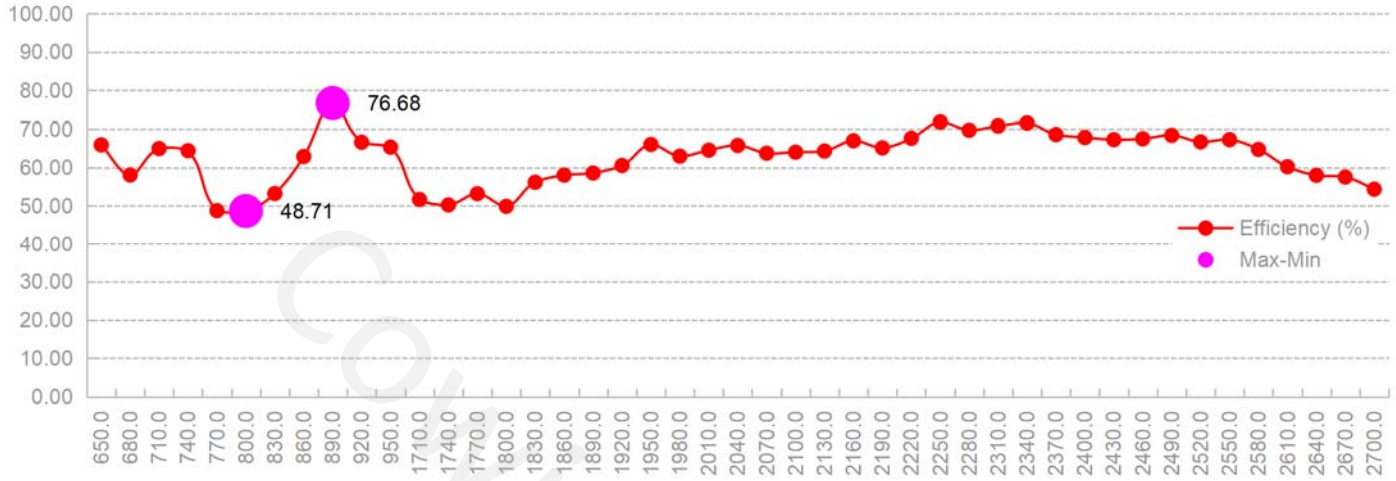
Mounted on Ground Plane of 280 x 80 mm
Measured in Certified 3D Anechoic Chamber
The network analyzer is Agilent 5071c
The comprehensive tester is Agilent cmv500



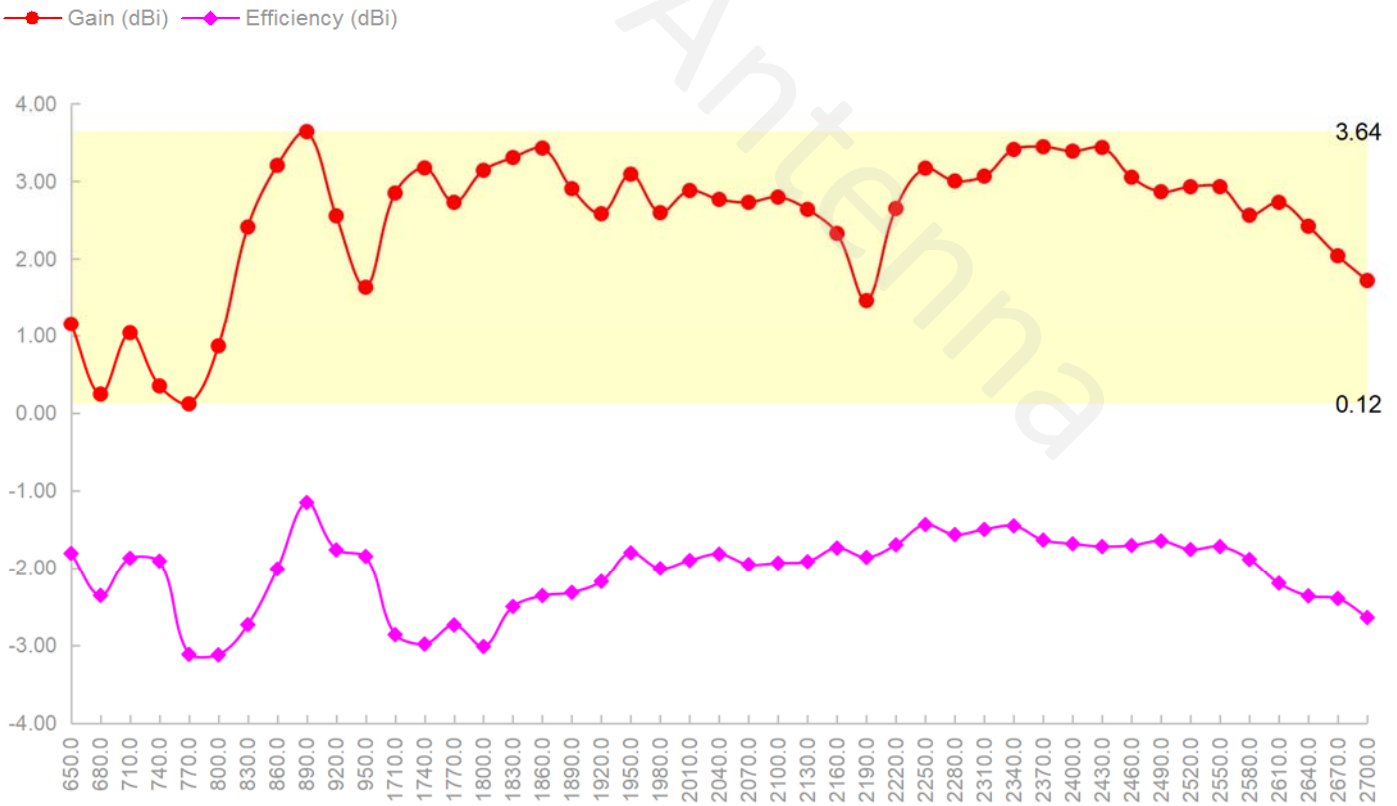
4.1 VSWR



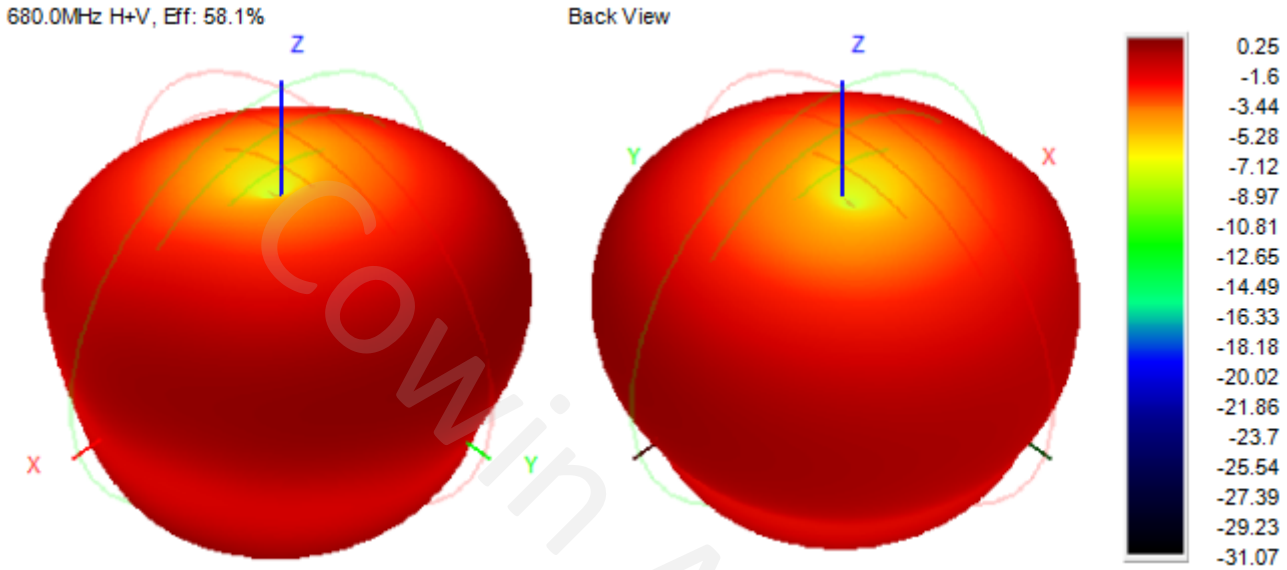
4.2 Efficiency

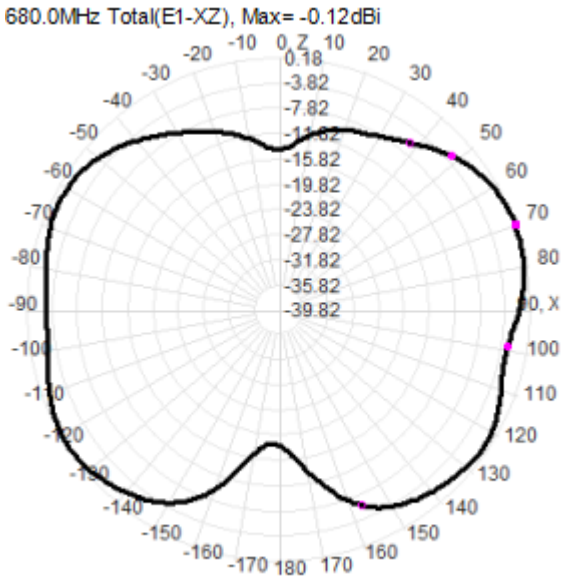


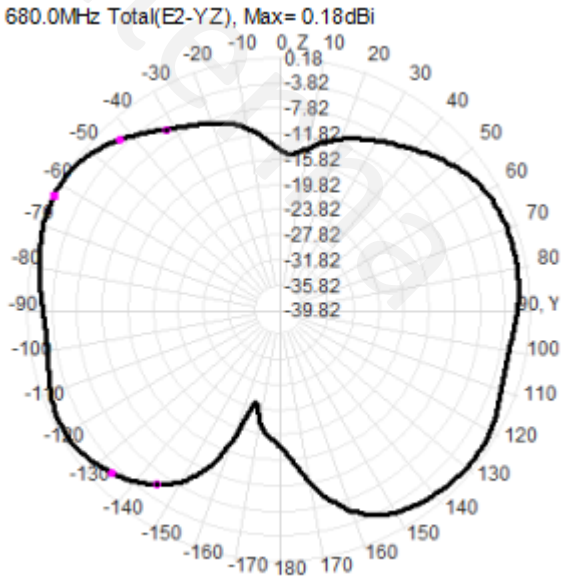
4.3 Peak gain

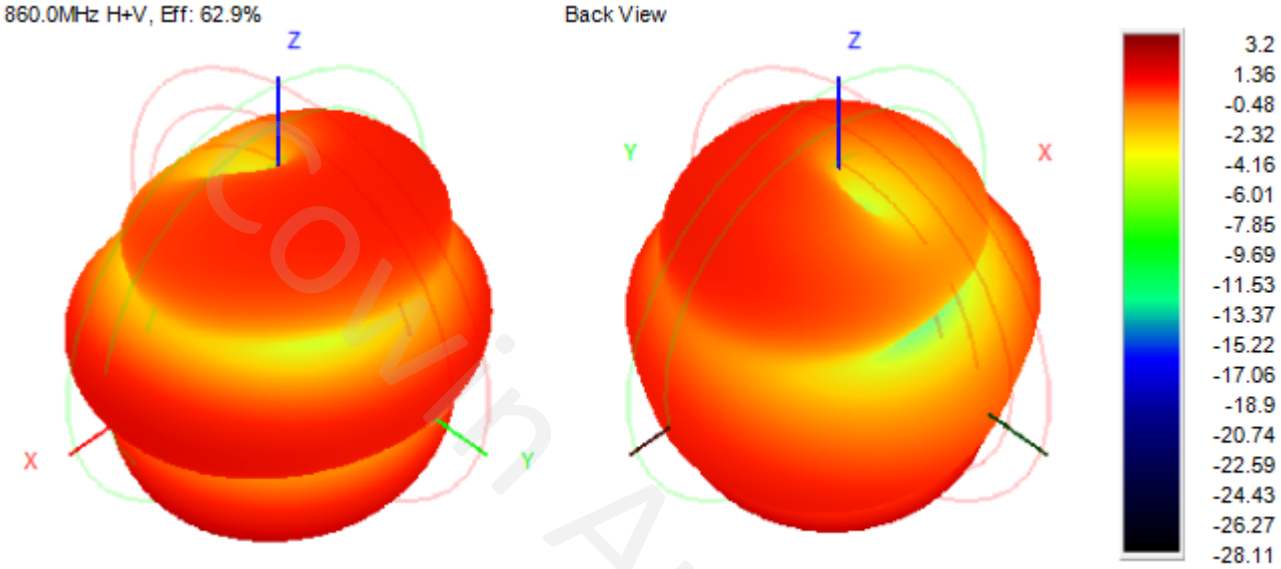


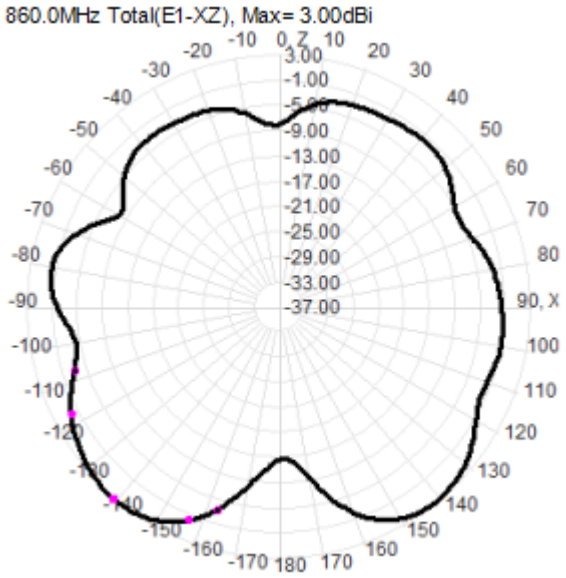
4.4 3D&2D Radiation Patterns

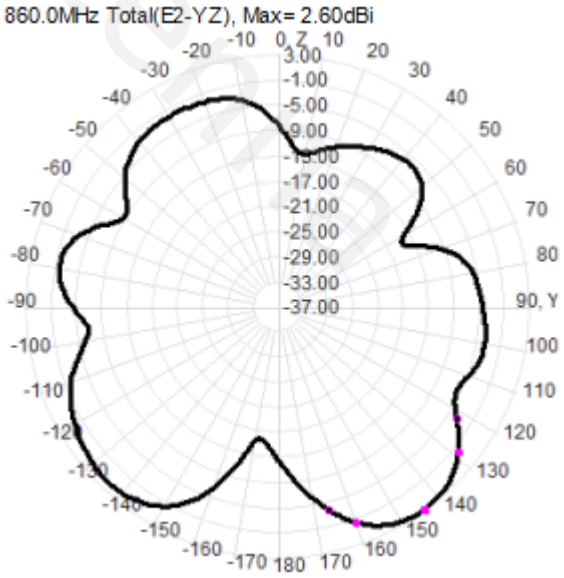


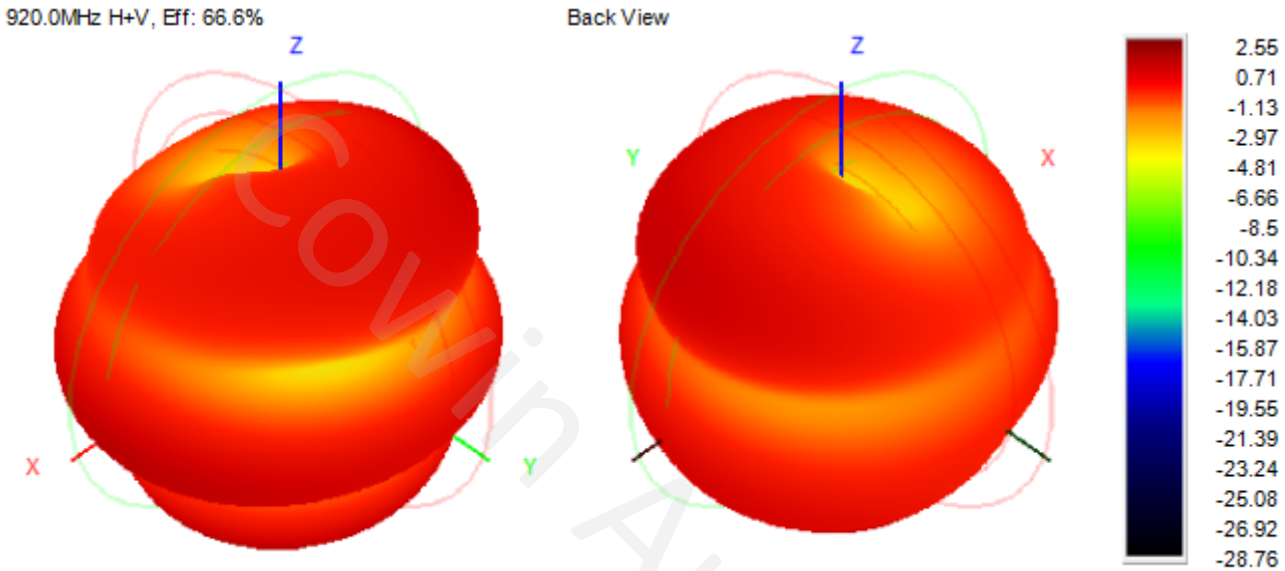


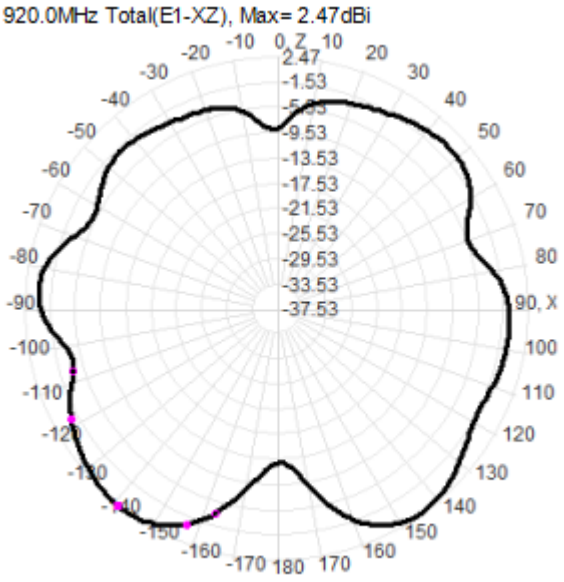


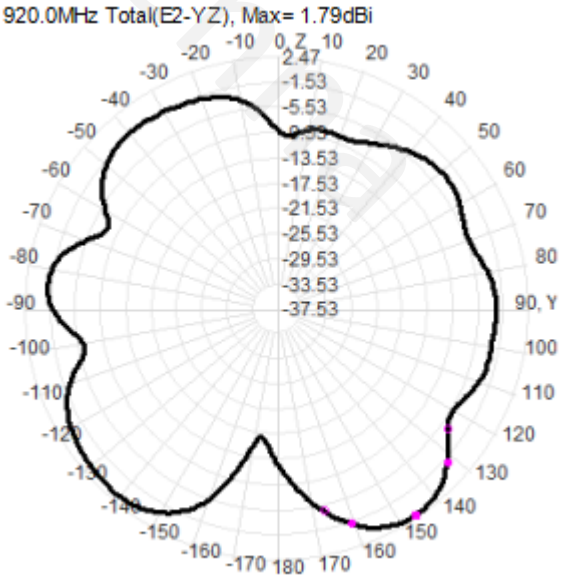


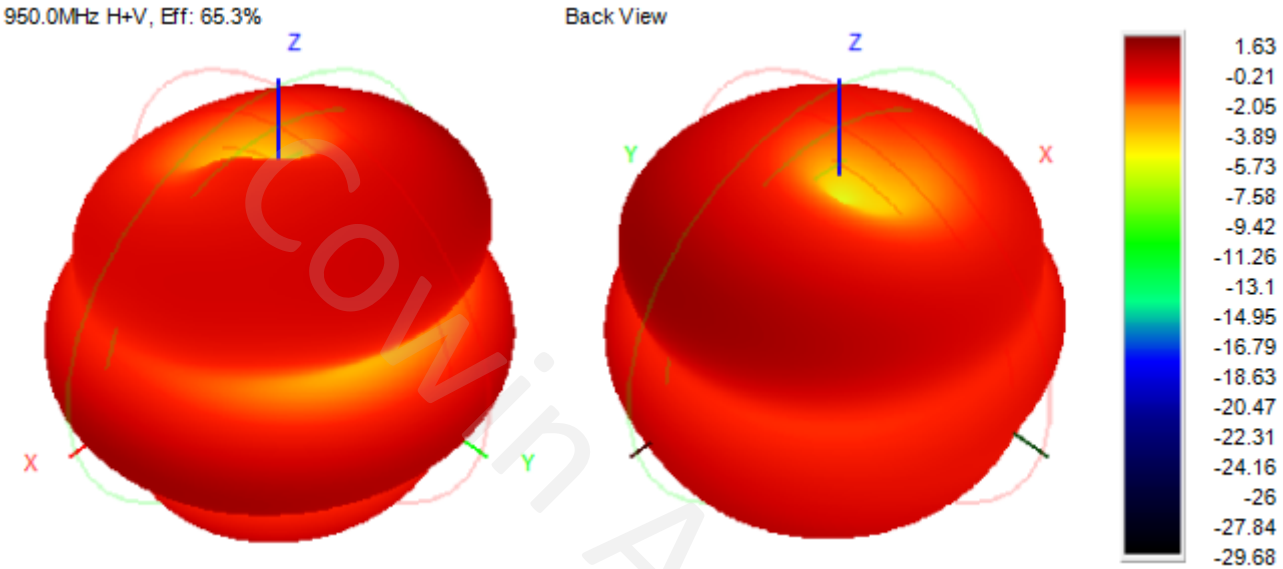


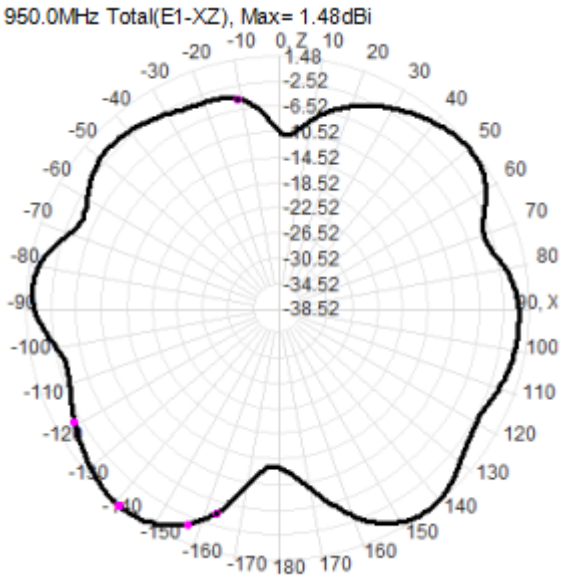


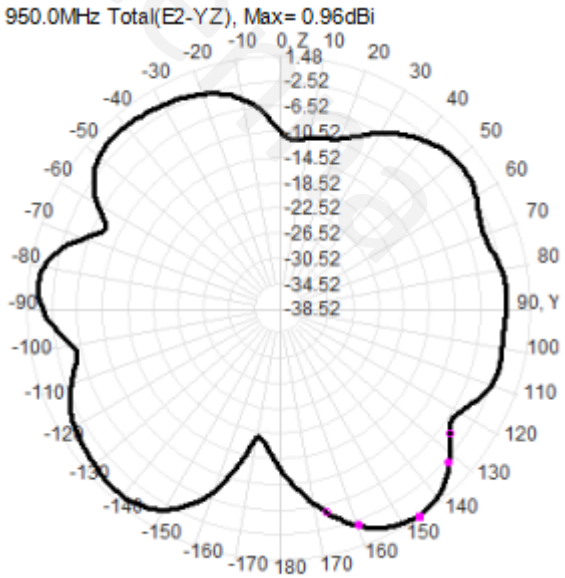

920.0MHz H+V, Eff: 66.6%
Z
X
Y
Back View
Z
Y
X
2.55
0.71
-1.13
-2.97
-4.81
-6.66
-8.5
-10.34
-12.18
-14.03
-15.87
-17.71
-19.55
-21.39
-23.24
-25.08
-26.92
-28.76

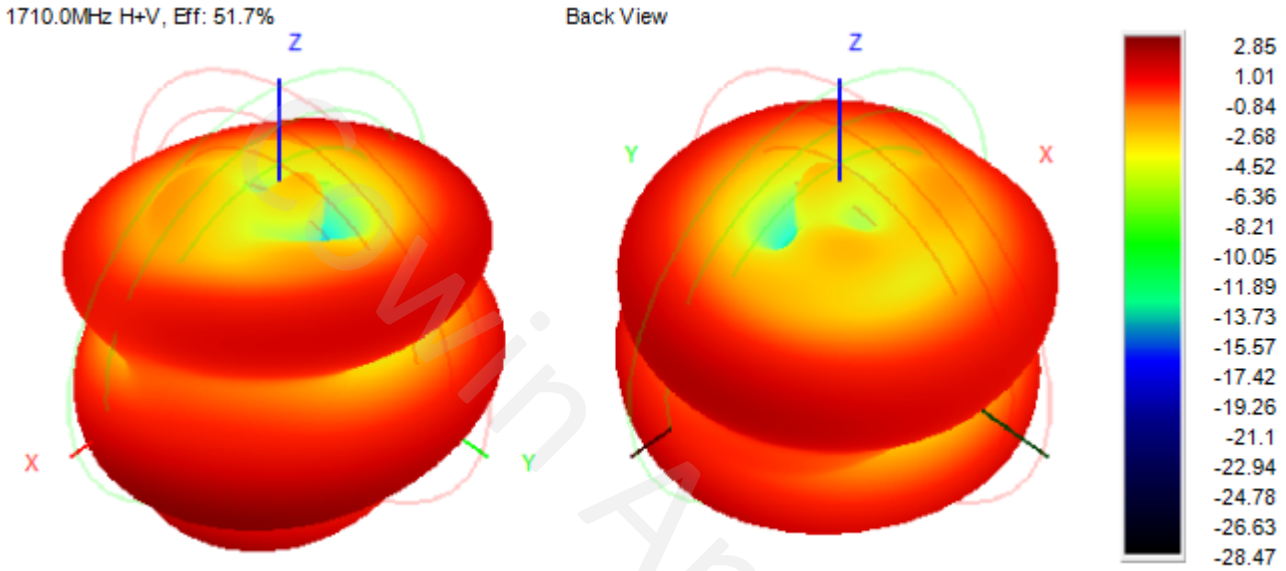

920.0MHz Total(E1-XZ), Max= 2.47dBi
2.47
-1.53
-5.53
-9.53
-13.53
-17.53
-21.53
-25.53
-29.53
-33.53
-37.53
90, X

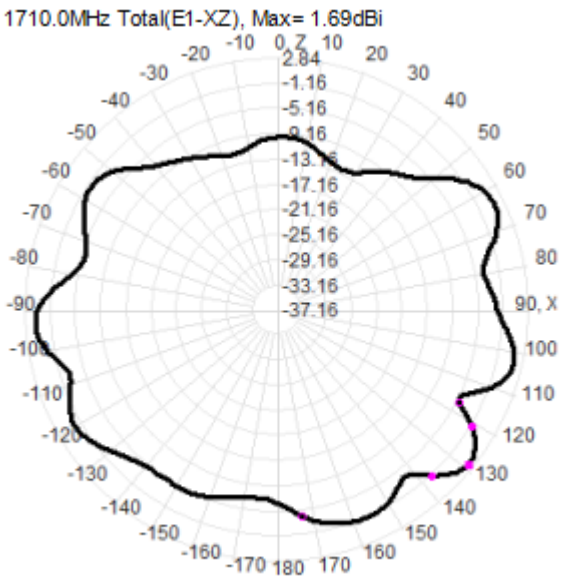

920.0MHz Total(E2-YZ), Max= 1.79dBi
2.47
-1.53
-5.53
-13.53
-17.53
-21.53
-25.53
-29.53
-33.53
-37.53
90, Y

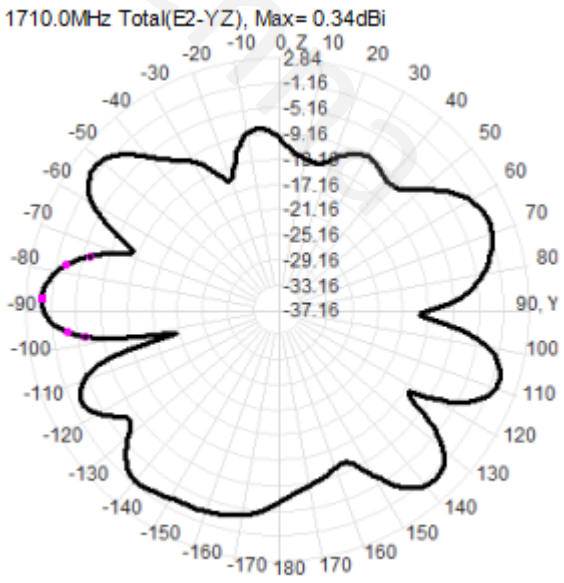







1710.0MHz H+V, Eff: 51.7%
Z
X
Y
Back View
Z
Y
X
2.85
1.01
-0.84
-2.68
-4.52
-6.36
-8.21
-10.05
-11.89
-13.73
-15.57
-17.42
-19.26
-21.1
-22.94
-24.78
-26.63
-28.47


1710.0MHz Total(E1-XZ), Max= 1.69dBi
2.84
-1.16
-5.16
-9.16
-13.16
-17.16
-21.16
-25.16
-29.16
-33.16
-37.16
90, X


1710.0MHz Total(E2-YZ), Max= 0.34dBi
2.84
-1.16
-5.16
-9.16
-17.16
-21.16
-25.16
-29.16
-33.16
-37.16
90, Y