Product Datasheet

CW-WZ-0135

4G Magnetic Antenna

Key Features

Frequency: 700-960/1710-2700MHz

90° SMA Male Connector

External Magnetic Base

Dimensions 470*62mm

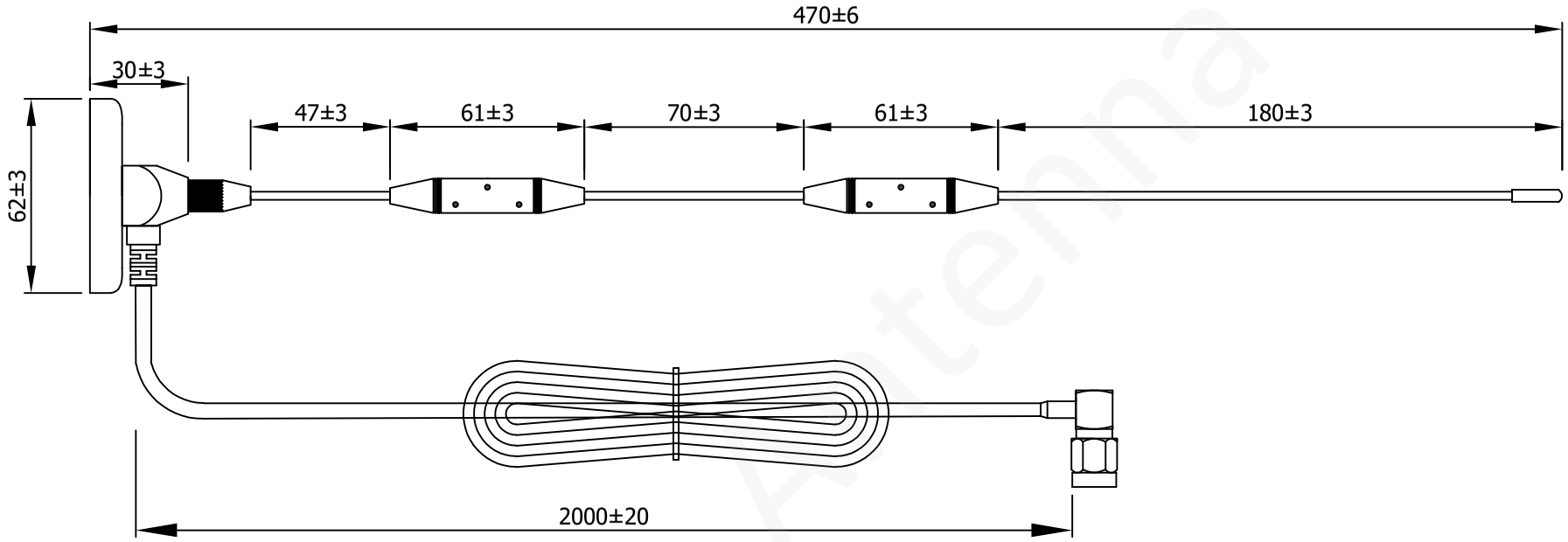
1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	700-960/1710-2700MHz
VSWR	4/2
Efficiency (%)	80.5%/91.57%
Peak Gain (dBi)	2.89/5.43
Impendance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	90° SMA Male

2. Material and environmental characteristics

Inner structure	N/A
Material of Plastic	N/A
Cable Type	LMR200
Connector Type	90° SMA Male
Dimensions (mm)	470*62MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

REV	Date	Description
X1	2023/10/24	New issue



Specification(Free Test):

Frequency Range:700-960MHZ/1710-2700MHZ
Impedance: 50Ω
V.S.W.R:≤4/2
100% Continutity,short and open circuit test
Materials,parts and process must by environmentally (ROHS)

NO	Name	Description	Q'TY	Remark
7	3M double-sided adhesive	60*1MM	2	
6	Magnet	Magnet	1	
5	Tube	ϕ7.0mm ordinary White	1	
4	Signal Pole	Black steel wire	1	
3	Bottom cover	Iron/Black Paint	1	
2	Cable	LMR 200 Black	1	
1	Connector	90° SMA Male	1	

XX.	±5.0	Approved
X.	±3.0	
.X	±1.0	Checked
.XX	±0.2	
.XXX	±0.1	Drawing

Customer	
Part NO.	
Part name	External antenna
CW P/NO.	CW-WZ-0135

REV	Unit	File :
X1	m/m	Sheet : 1/1

Cowin Antenna

4. Antenna test parameters

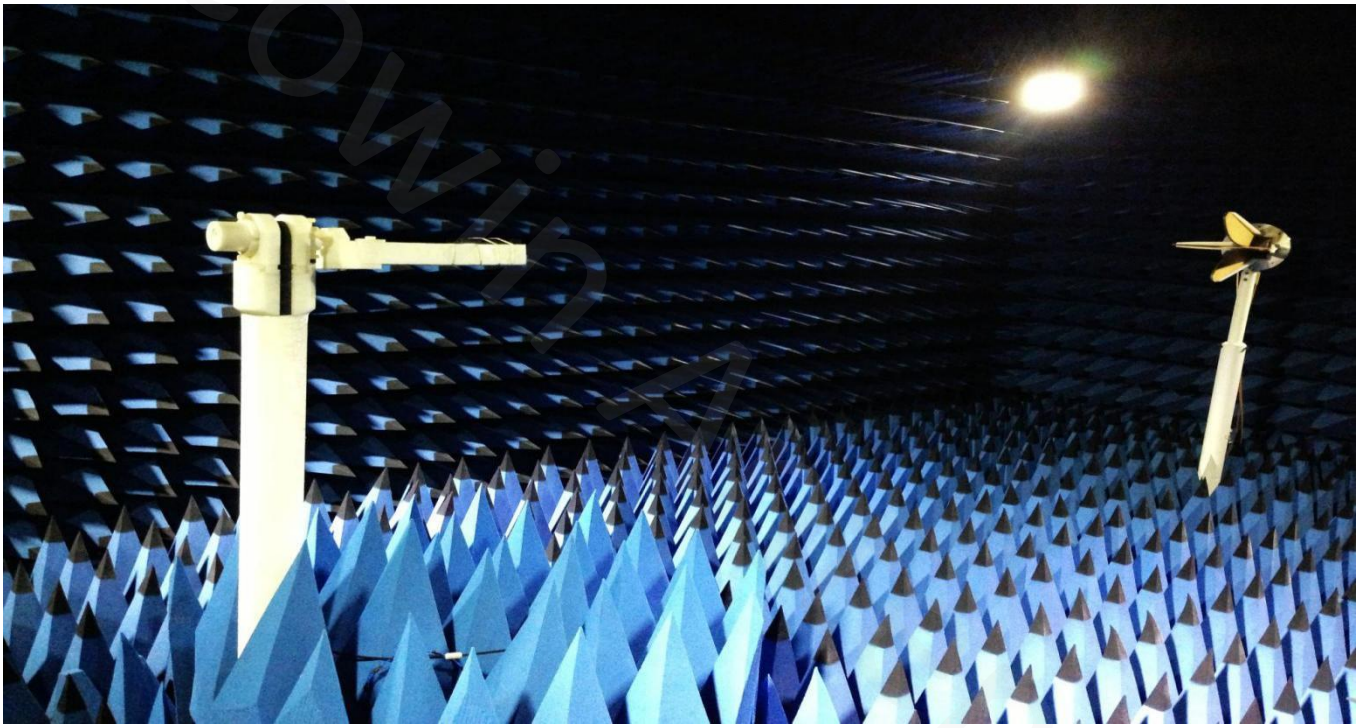
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

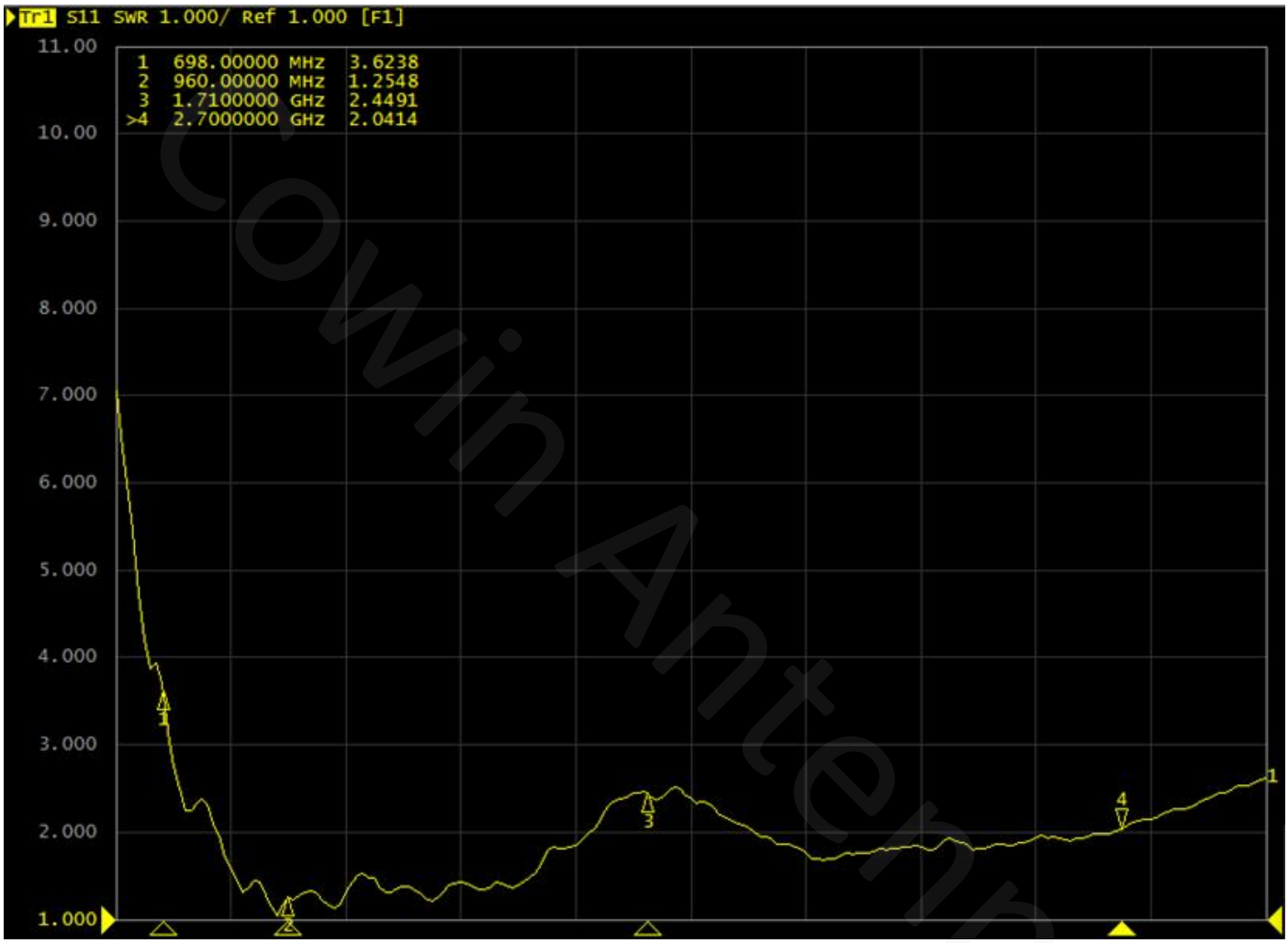
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

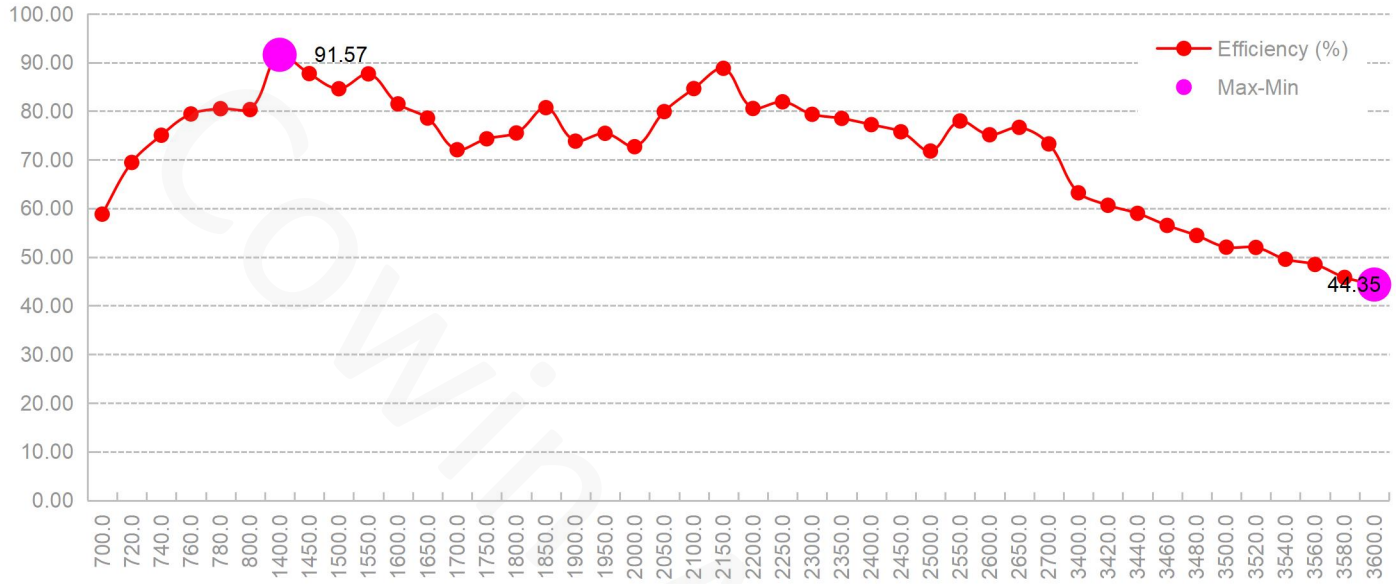
The comprehensive tester is Agilent cmv500



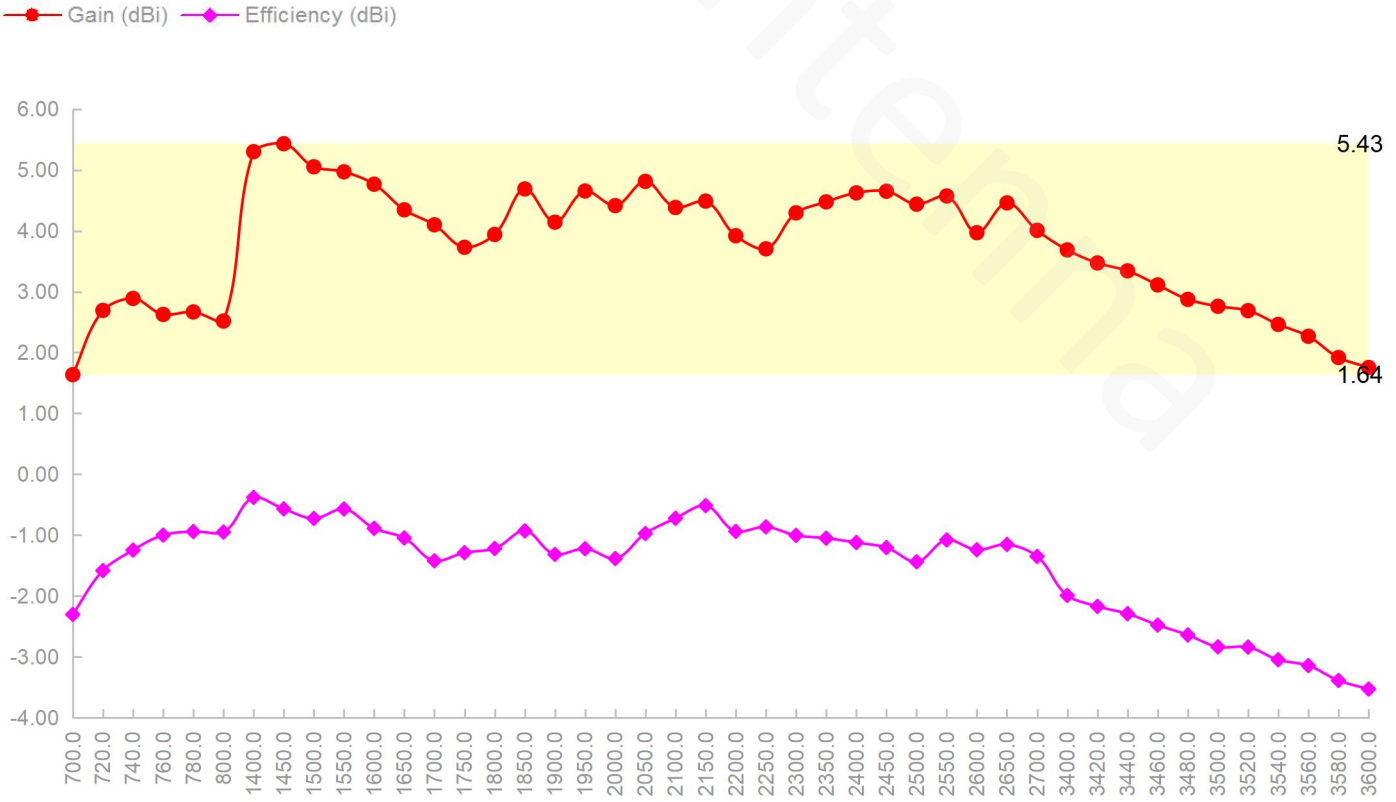
4.1 VSWR



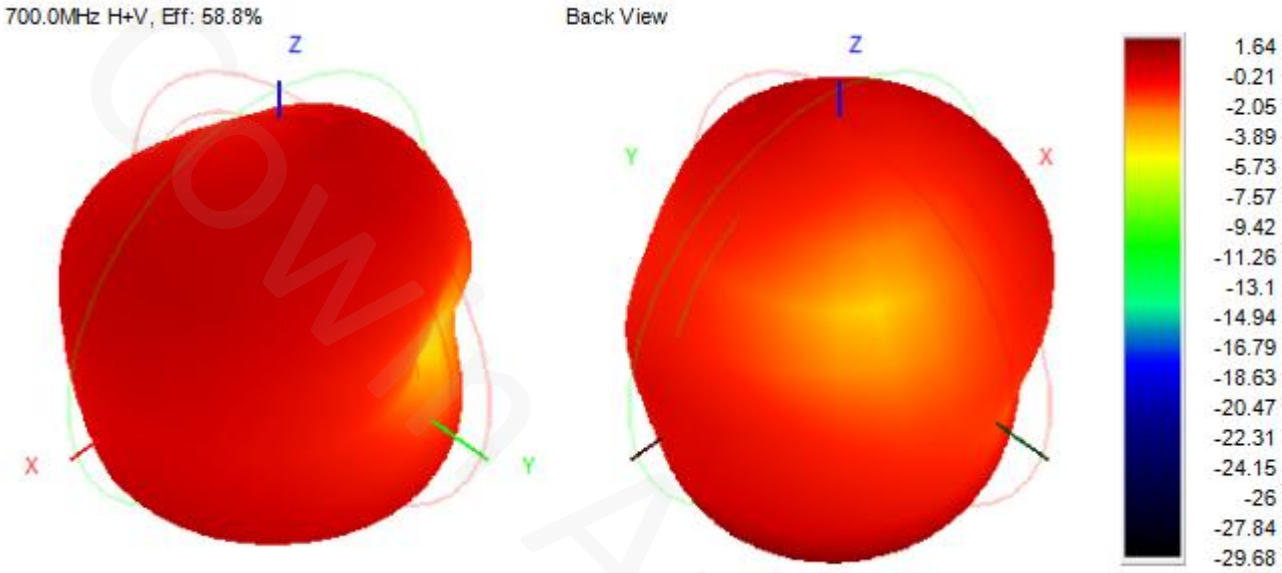
4.2 Efficiency

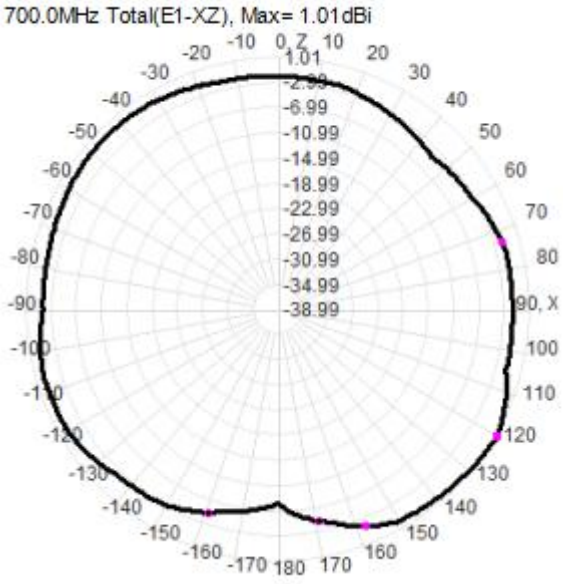


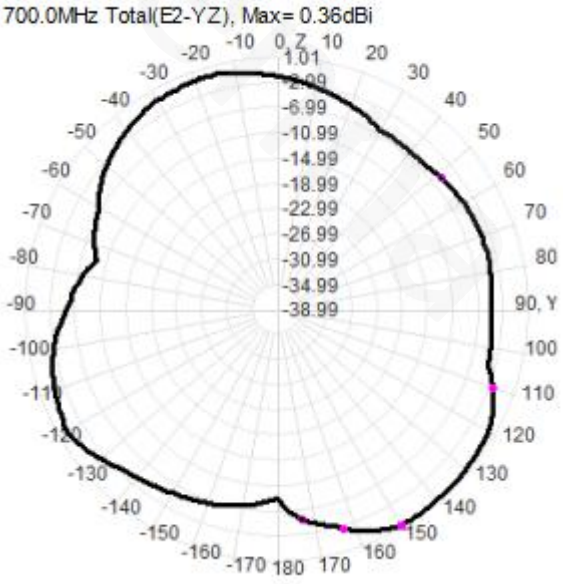
4.3 Peak gain

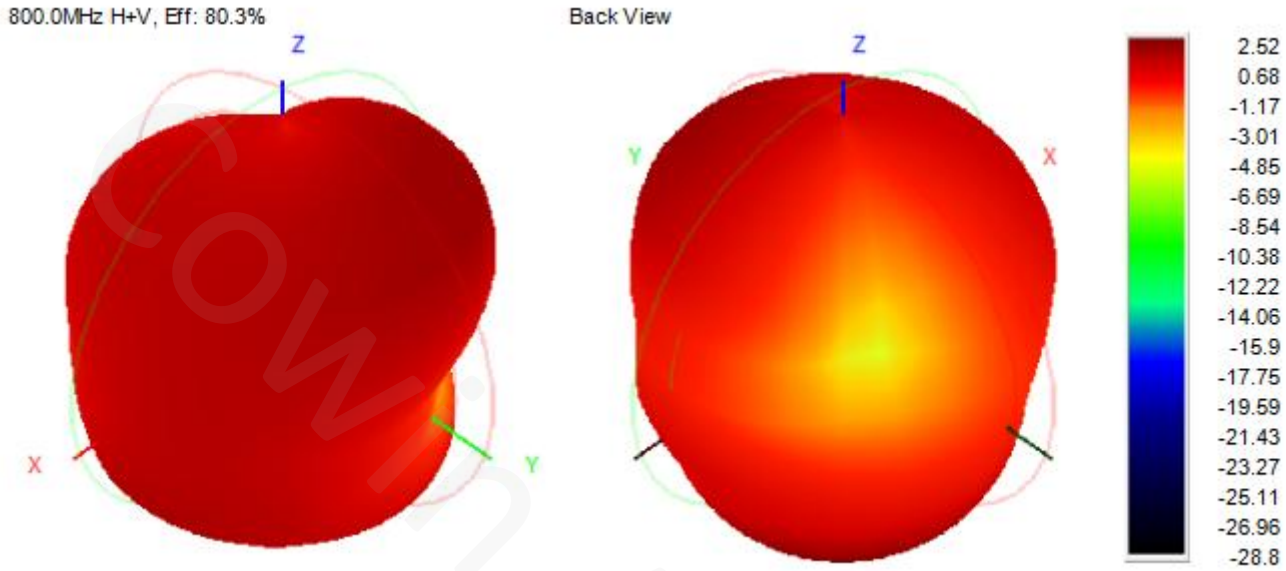


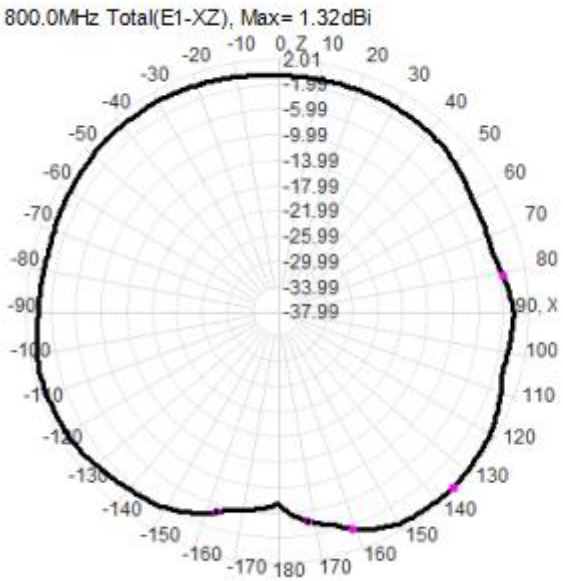
4.4 3D&2D Radiation Patterns

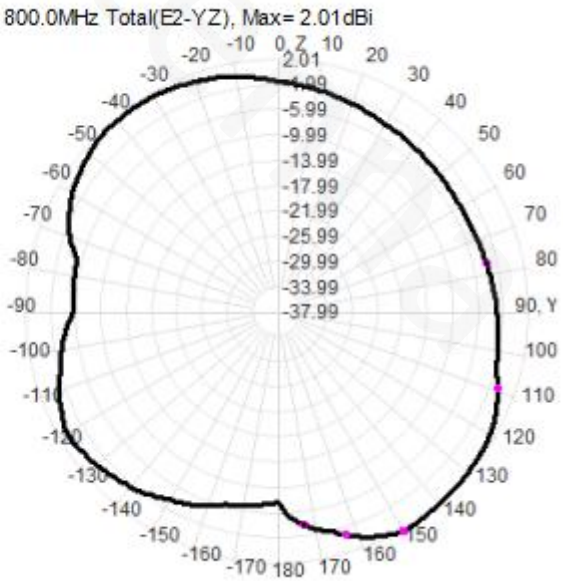


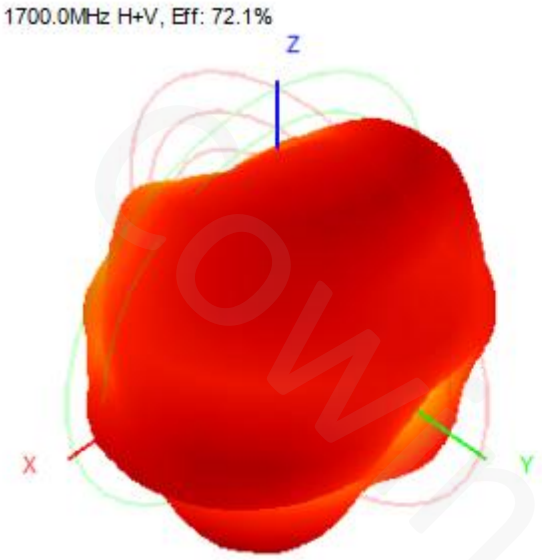


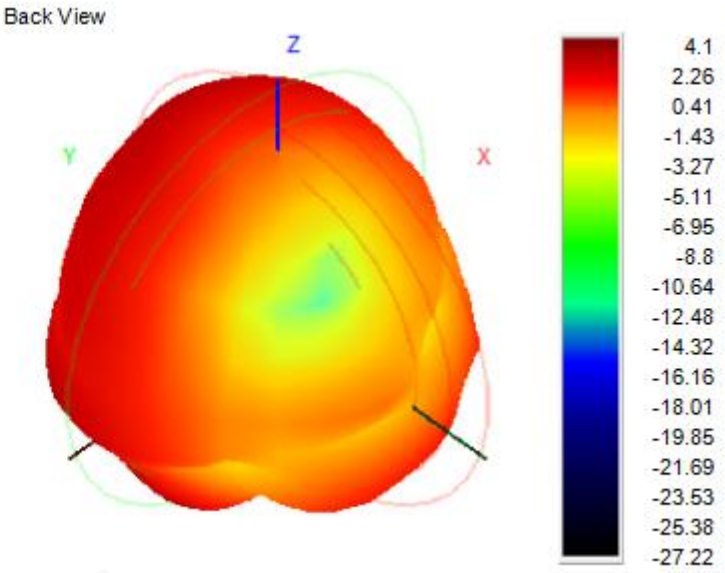


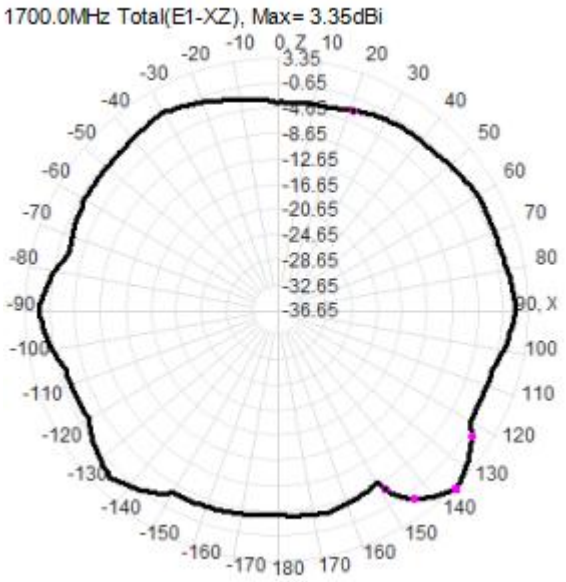

800.0MHz H+V, Eff: 80.3%
Z
X
Y
Back View
Z
Y
X
2.52
0.68
-1.17
-3.01
-4.85
-6.69
-8.54
-10.38
-12.22
-14.06
-15.9
-17.75
-19.59
-21.43
-23.27
-25.11
-26.96
-28.8

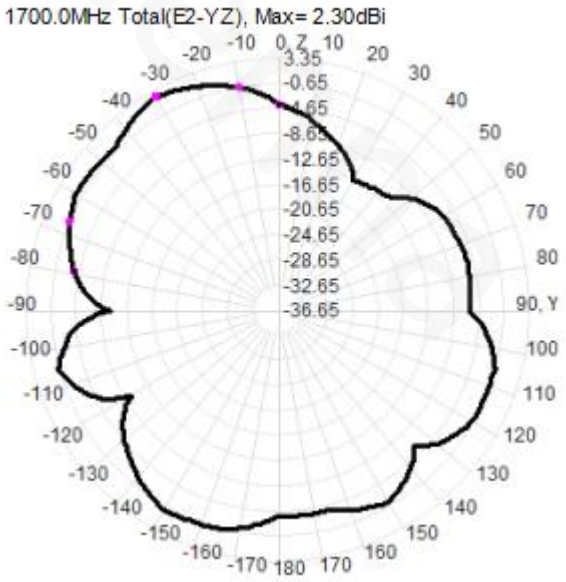

800.0MHz Total(E1-XZ), Max= 1.32dBi
2.01
-5.99
-9.99
-13.99
-17.99
-21.99
-25.99
-29.99
-33.99
-37.99
90, X

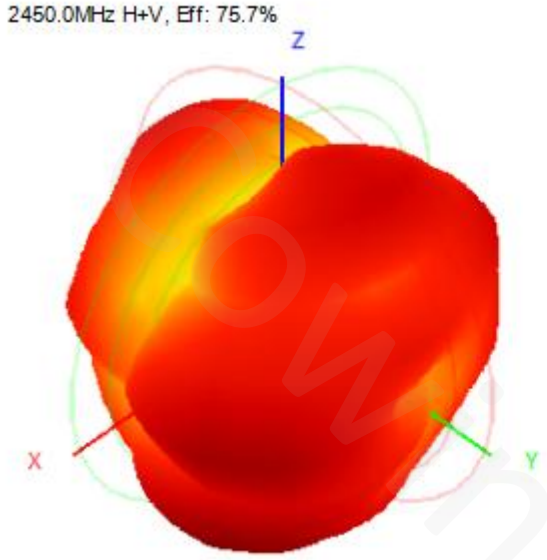

800.0MHz Total(E2-YZ), Max= 2.01dBi
2.01
-5.99
-9.99
-13.99
-17.99
-21.99
-25.99
-29.99
-33.99
-37.99
90, Y

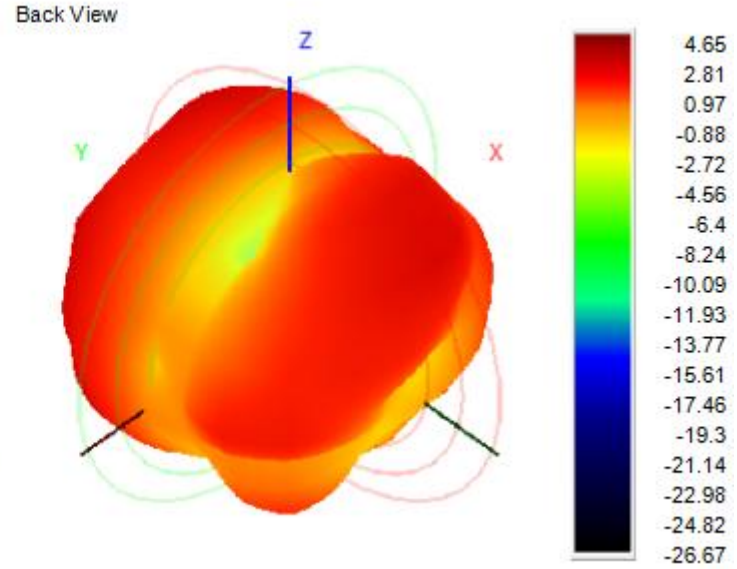

1700.0MHz H+V, Eff: 72.1%
Z
X
Y

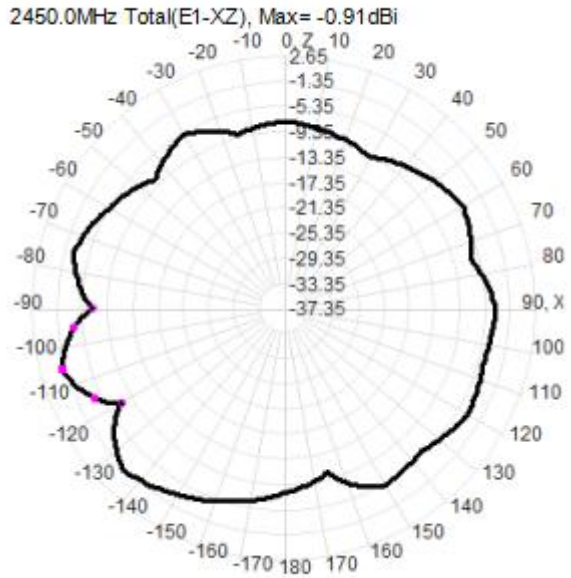

Back View
Z
Y
X
4.1
2.26
0.41
-1.43
-3.27
-5.11
-6.95
-8.8
-10.64
-12.48
-14.32
-16.16
-18.01
-19.85
-21.69
-23.53
-25.38
-27.22

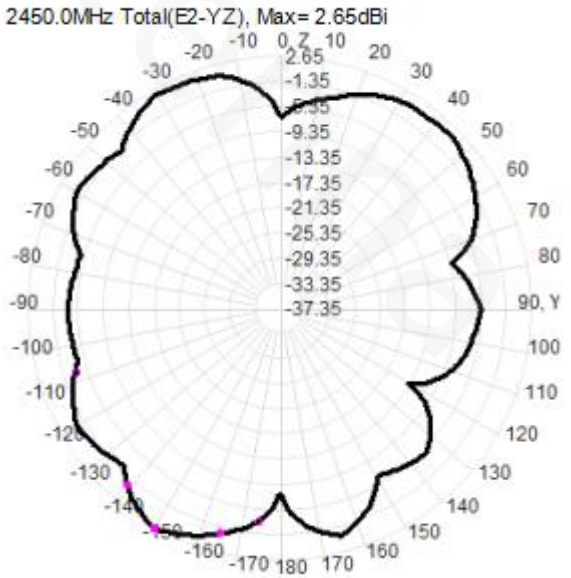

1700.0MHz Total(E1-XZ), Max= 3.35dBi
0, Z
90, X
3.35
-0.65
-4.65
-8.65
-12.65
-16.65
-20.65
-24.65
-28.65
-32.65
-36.65

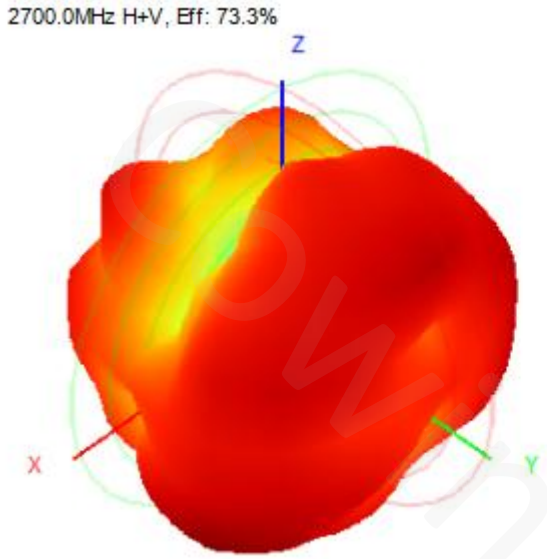

1700.0MHz Total(E2-YZ), Max= 2.30dBi
0, Z
90, Y
3.35
-0.65
-4.65
-8.65
-12.65
-16.65
-20.65
-24.65
-28.65
-32.65
-36.65

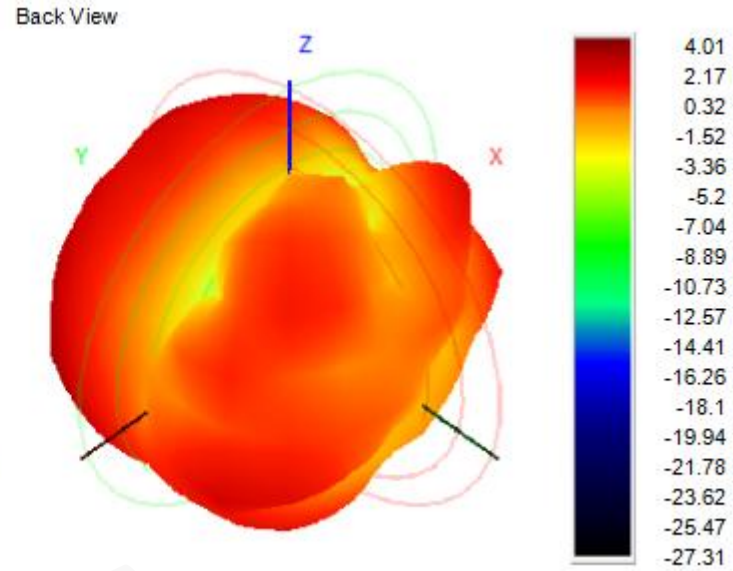

2450.0MHz H+V, Eff: 75.7%
Z
X
Y

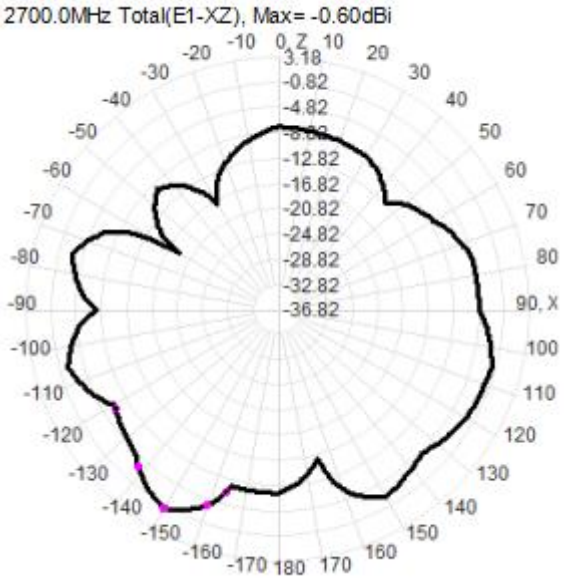

Back View
Z
Y
X
4.65
2.81
0.97
-0.88
-2.72
-4.56
-6.4
-8.24
-10.09
-11.93
-13.77
-15.61
-17.46
-19.3
-21.14
-22.98
-24.82
-26.67

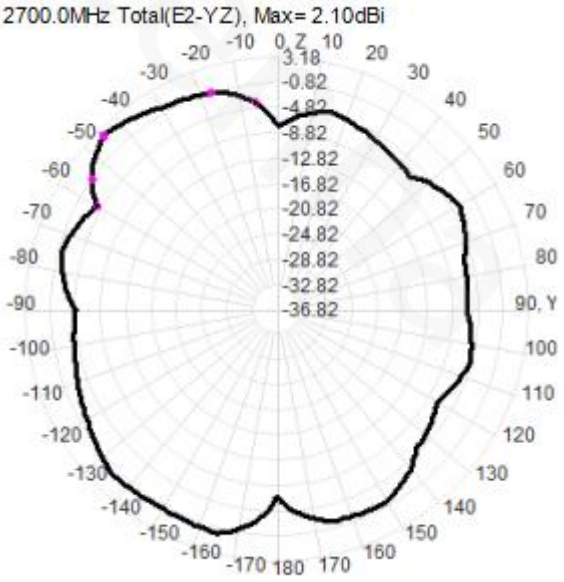

2450.0MHz Total(E1-XZ), Max= -0.91dBi
2.65
-1.35
-5.35
-9.35
-13.35
-17.35
-21.35
-25.35
-29.35
-33.35
-37.35
90, X


2450.0MHz Total(E2-YZ), Max= 2.65dBi
2.65
-1.35
-9.35
-13.35
-17.35
-21.35
-25.35
-29.35
-33.35
-37.35
90, Y


2700.0MHz H+V, Eff: 73.3%
Z
X
Y


Back View
Z
Y
X
4.01
2.17
0.32
-1.52
-3.36
-5.2
-7.04
-8.89
-10.73
-12.57
-14.41
-16.26
-18.1
-19.94
-21.78
-23.62
-25.47
-27.31


2700.0MHz Total(E1-XZ), Max= -0.60dBi
3.18
-0.82
-4.82
-8.82
-12.82
-16.82
-20.82
-24.82
-28.82
-32.82
-36.82
90, X


2700.0MHz Total(E2-YZ), Max= 2.10dBi
3.18
-0.82
-4.82
-8.82
-12.82
-16.82
-20.82
-24.82
-28.82
-32.82
-36.82
90, Y