Product Datasheet

CW-WZ-0135

4G Magnetic Antenna

Cowin Antenna

Key Features

Frequency: 700-960/1710-2700MHz

90° SMA Male Connector

External Magnetic Base

Dimensions 470*62mm

1. Antenna Electrical Characteristics

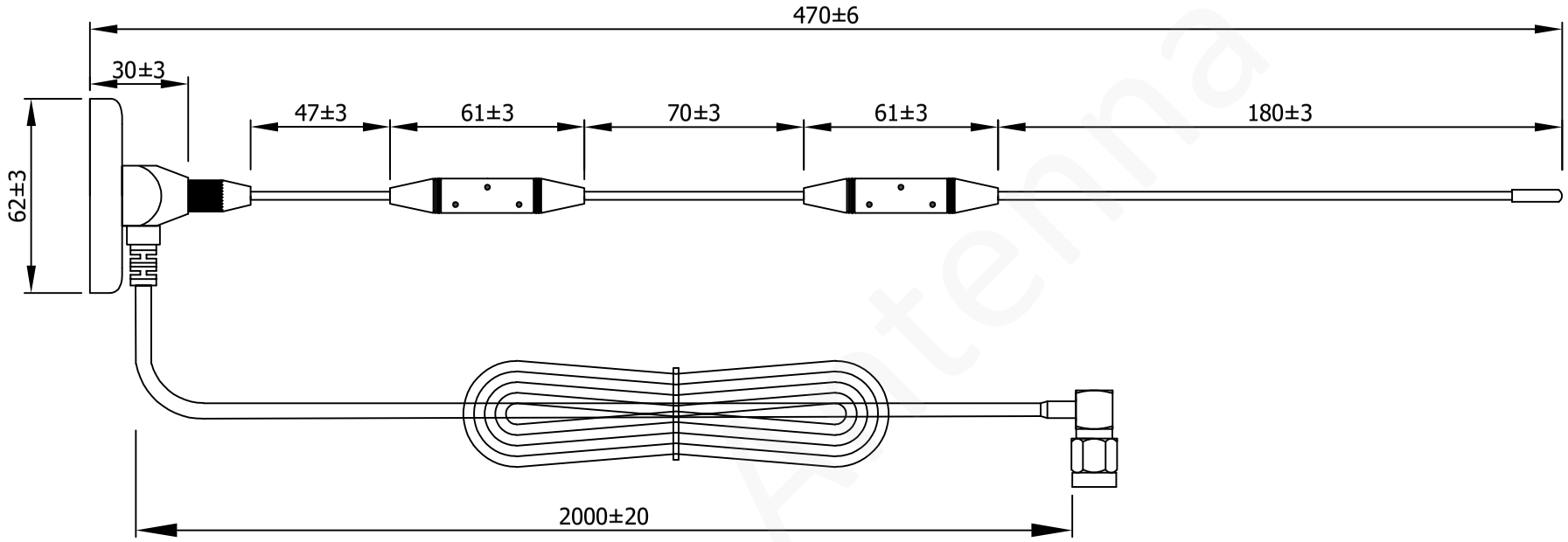
Band (MHz)	
Frequency (MHz)	700-960/1710-2700MHz
VSWR	4/2
Efficiency (%)	80.5%/91.57%
Peak Gain (dBi)	2.89/5.43
Impendance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	90° SMA Male

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

Cowin Antenna

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

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4. Antenna test parameters

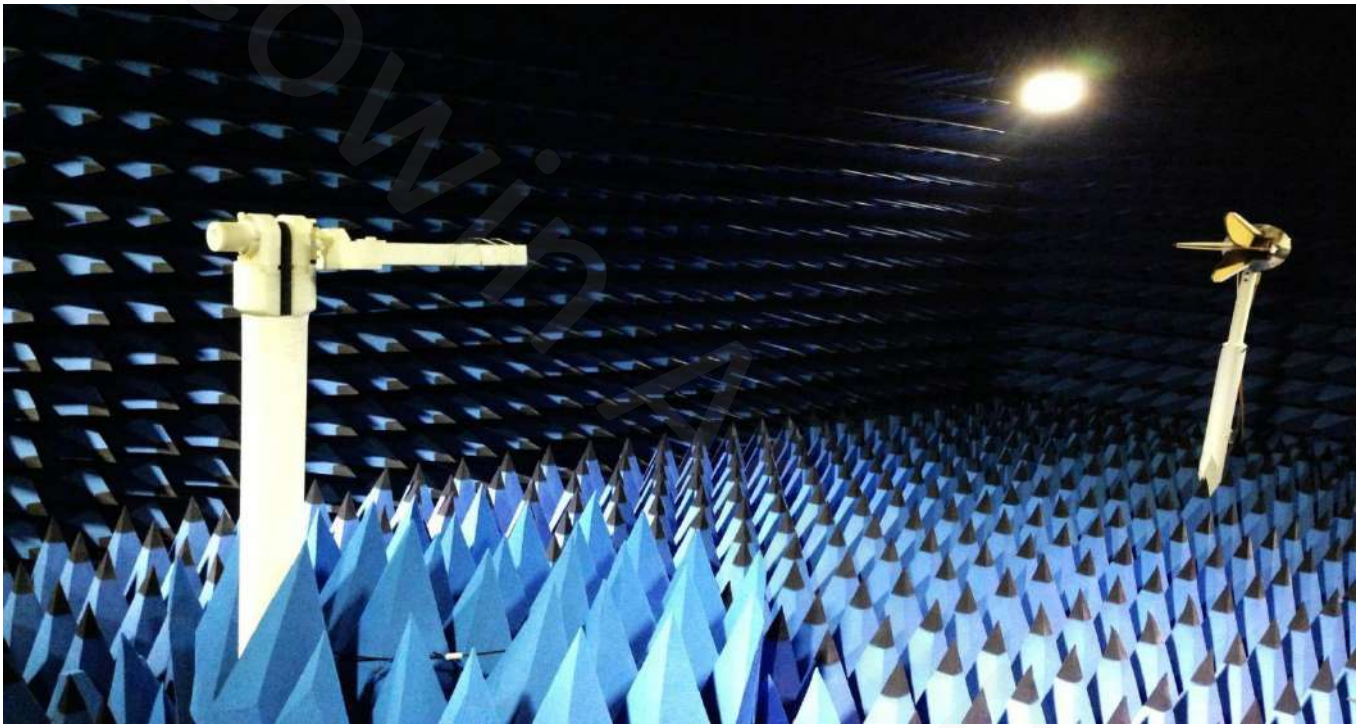
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

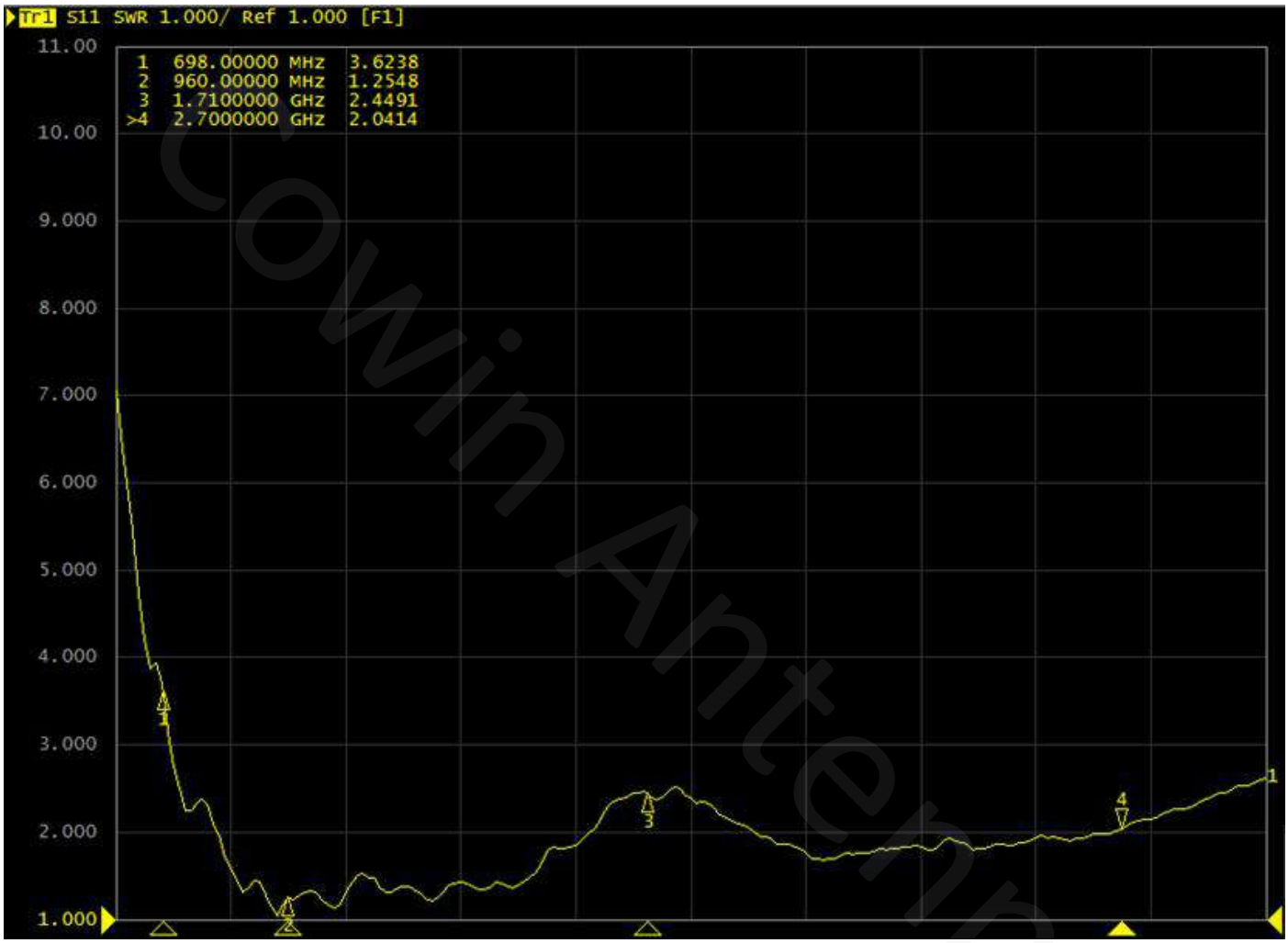
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500



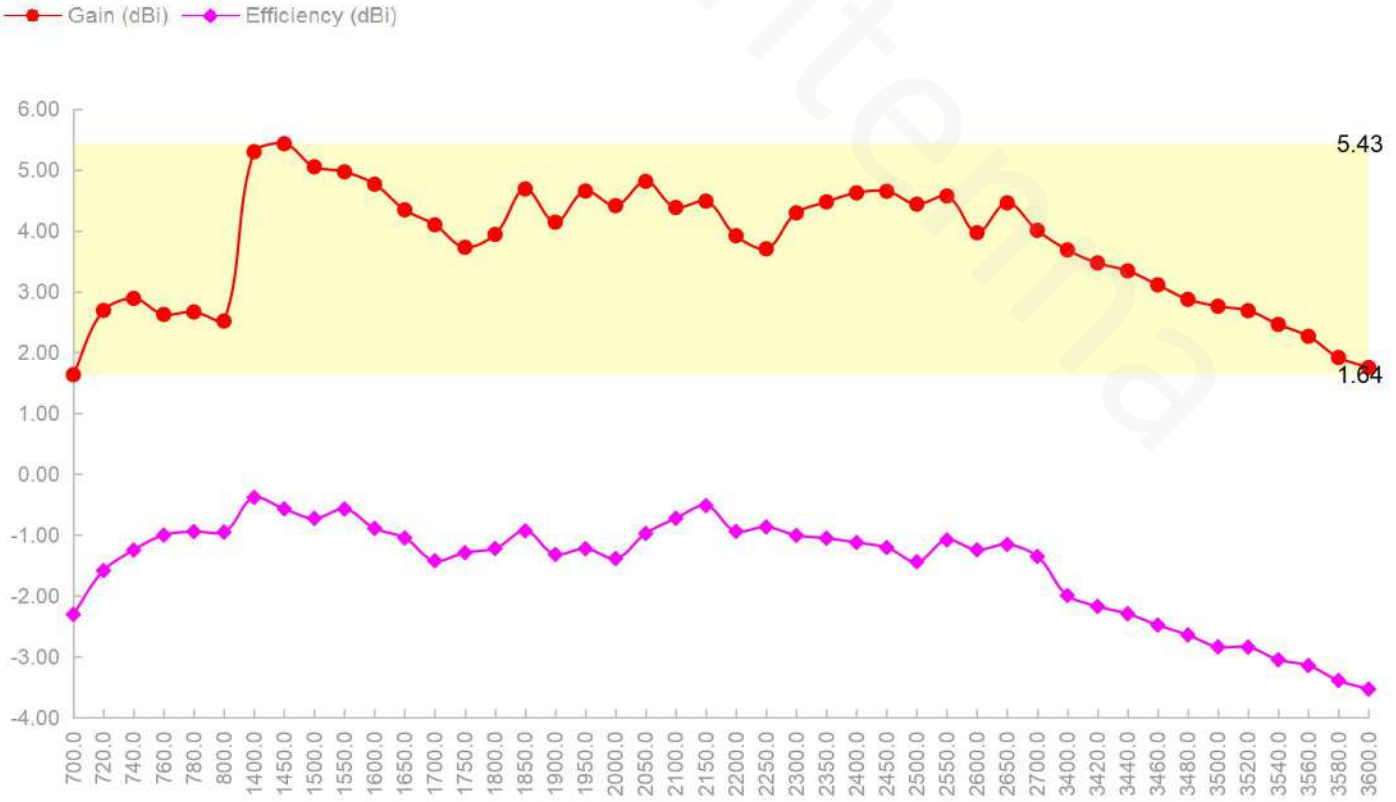
4.1 VSWR



Cowin Antenna

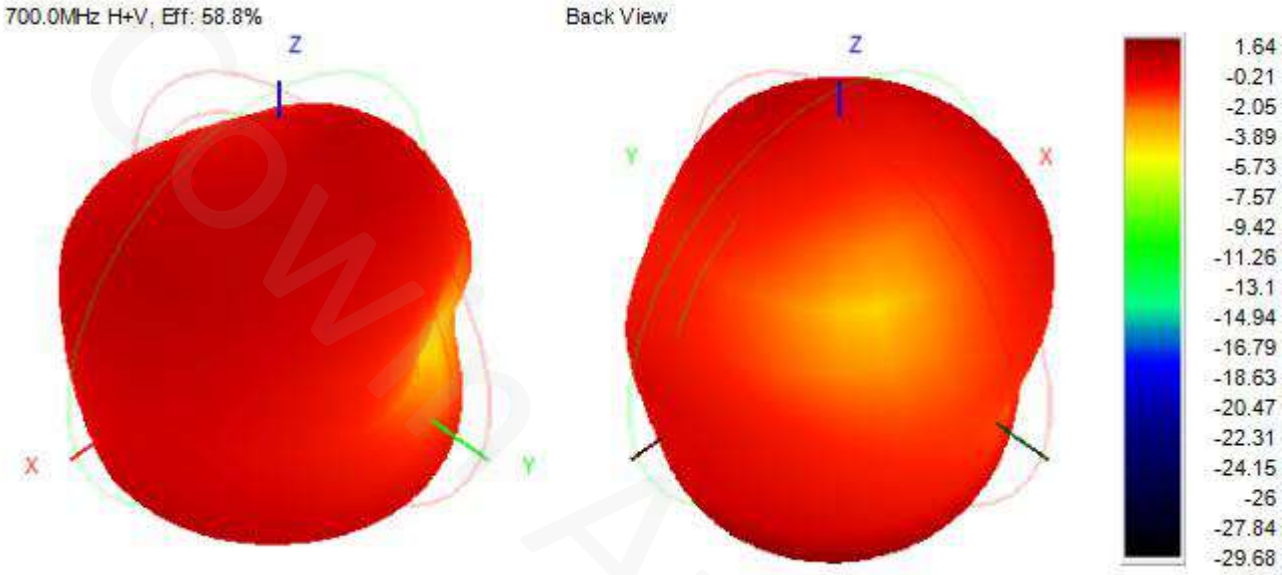
4.2 Efficiency

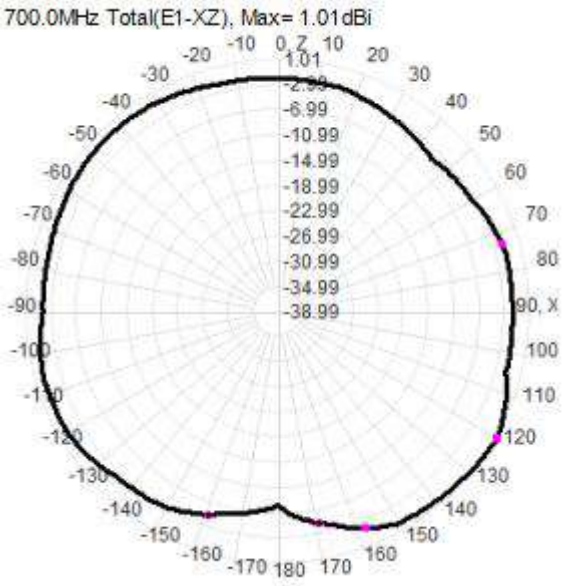
4.3 Peak gain

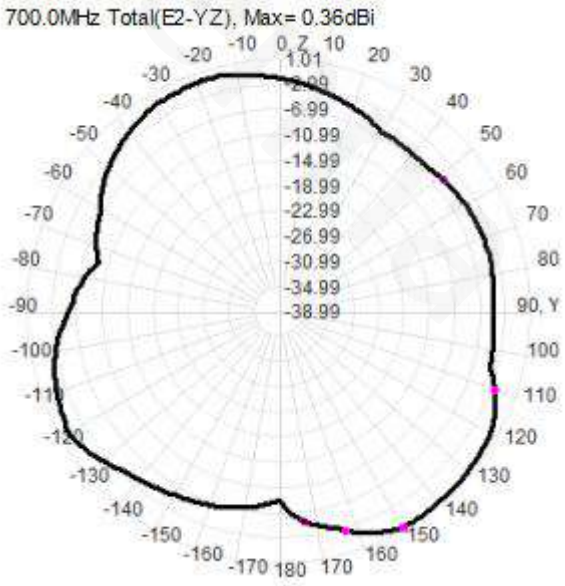


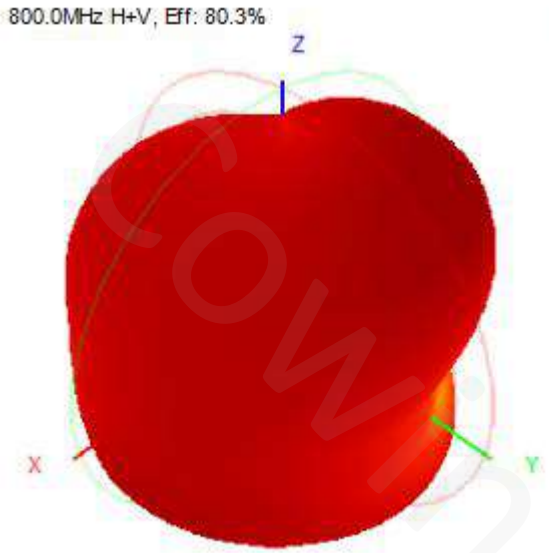
Cowin Antenna

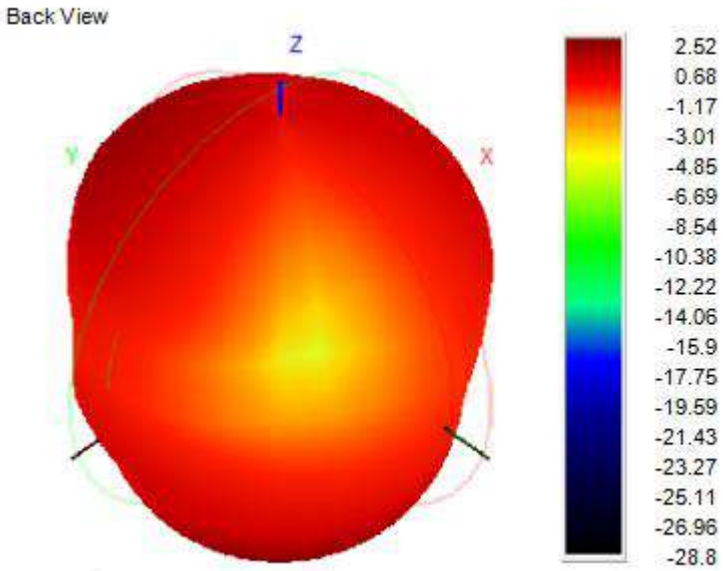
4.4 3D&2D Radiation Patterns

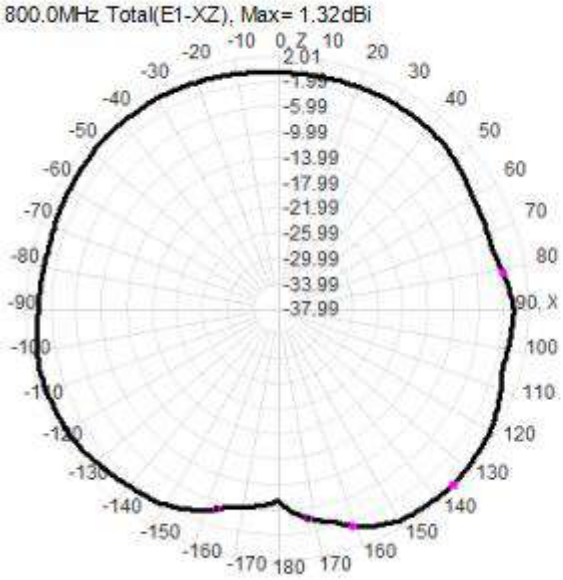


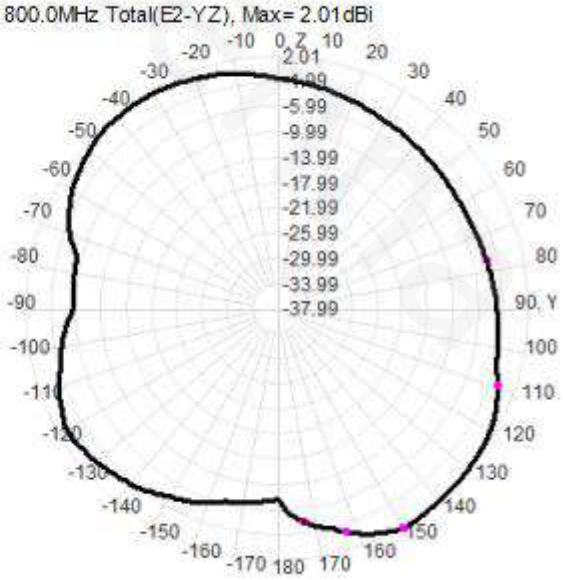


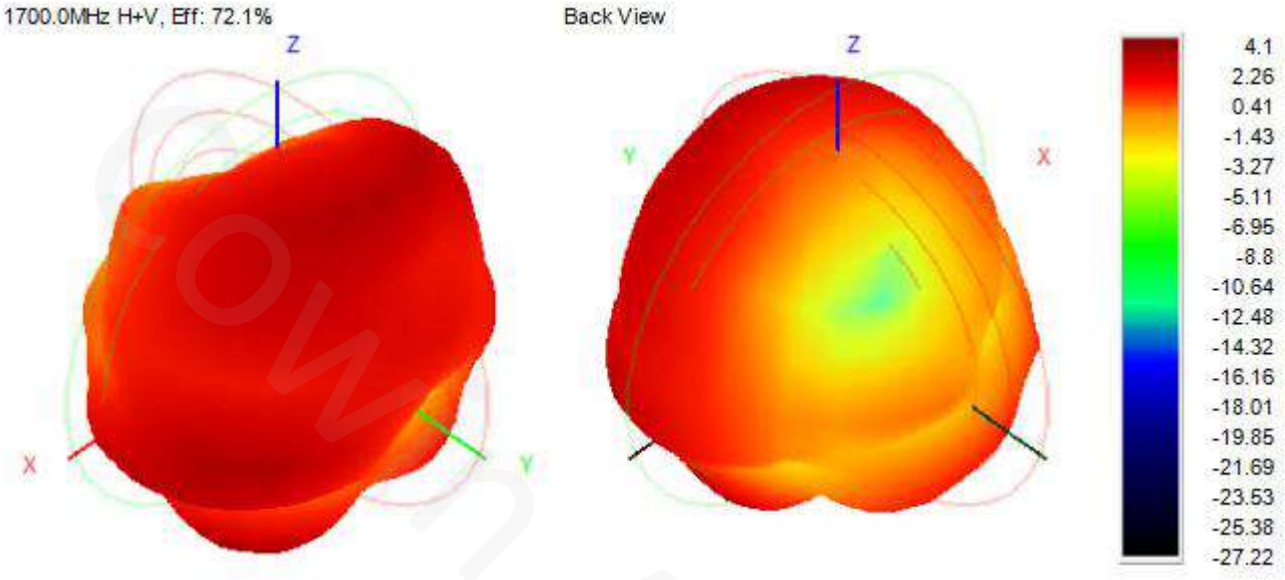


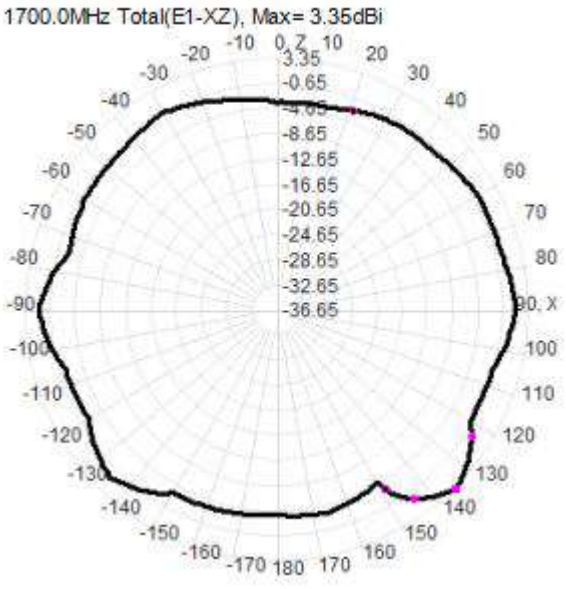

800.0MHz H+V, Eff: 80.3%
Z
X
Y

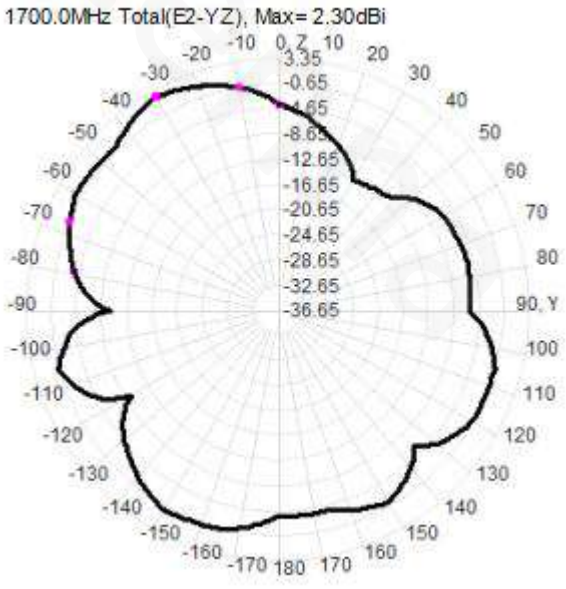

Back View
Z
Y
X
2.52
0.68
-1.17
-3.01
-4.85
-6.69
-8.54
-10.38
-12.22
-14.06
-15.9
-17.75
-19.59
-21.43
-23.27
-25.11
-26.96
-28.8

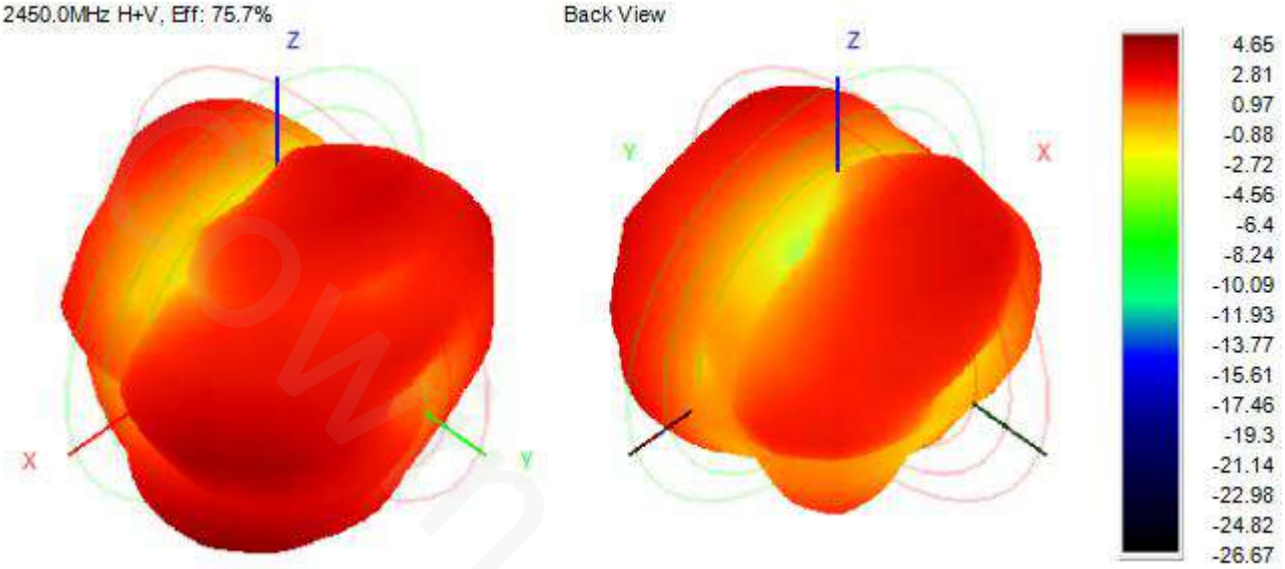

800.0MHz Total(E1-XZ), Max= 1.32dBi
2.01
-5.99
-9.99
-13.99
-17.99
-21.99
-25.99
-29.99
-33.99
-37.99
90, X

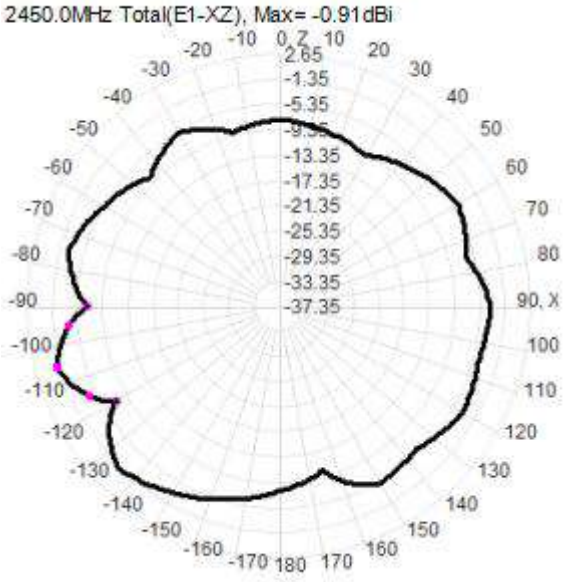

800.0MHz Total(E2-YZ), Max= 2.01dBi
2.01
-5.99
-9.99
-13.99
-17.99
-21.99
-25.99
-29.99
-33.99
-37.99
90, Y

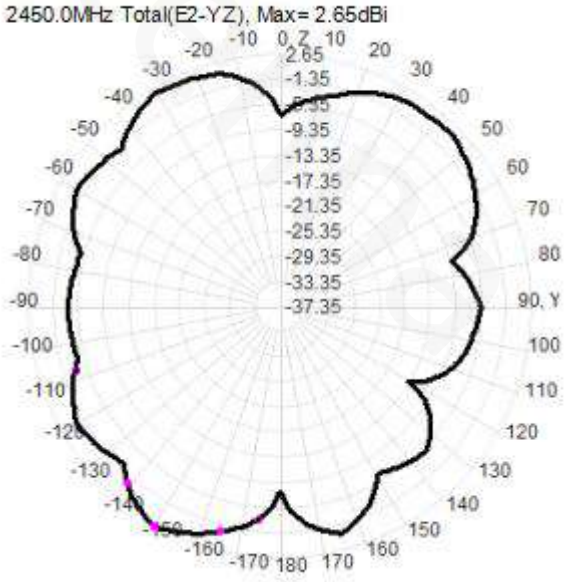

1700.0MHz H+V, Eff: 72.1%
Z
X
Y
Back View
Z
Y
X
4.1
2.26
0.41
-1.43
-3.27
-5.11
-6.95
-8.8
-10.64
-12.48
-14.32
-16.16
-18.01
-19.85
-21.69
-23.53
-25.38
-27.22

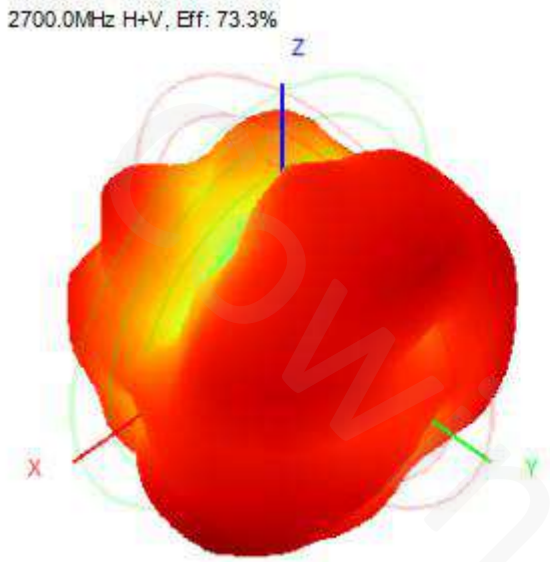

1700.0MHz Total(E1-XZ), Max= 3.35dBi
0, Z
90, X
3.35
-0.65
-4.65
-8.65
-12.65
-16.65
-20.65
-24.65
-28.65
-32.65
-36.65

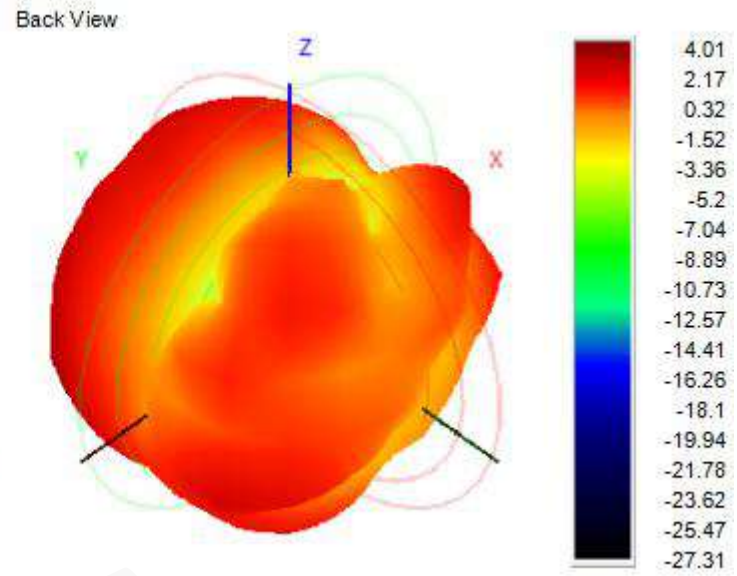

1700.0MHz Total(E2-YZ), Max= 2.30dBi
0, Z
90, Y
3.35
-0.65
-4.65
-8.65
-12.65
-16.65
-20.65
-24.65
-28.65
-32.65
-36.65

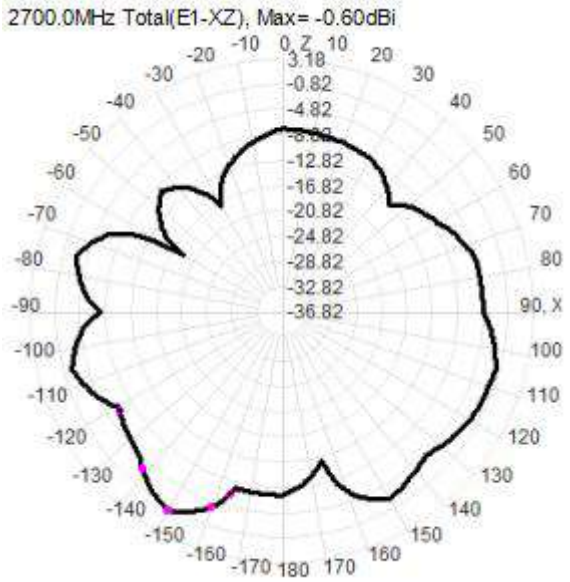

2450.0MHz H+V, Eff: 75.7%
Z
X
Y
Back View
Z
Y
X
4.65
2.81
0.97
-0.88
-2.72
-4.56
-6.4
-8.24
-10.09
-11.93
-13.77
-15.61
-17.46
-19.3
-21.14
-22.98
-24.82
-26.67

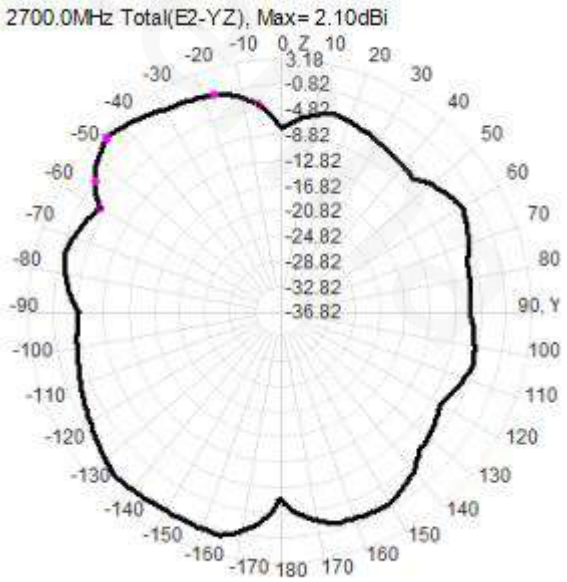

2450.0MHz Total(E1-XZ), Max= -0.91dBi
2.65
-1.35
-5.35
-9.35
-13.35
-17.35
-21.35
-25.35
-29.35
-33.35
-37.35
90, X


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