

CW-WZ-0107

Lora External Antenna

Key Features

Frequency: 868MHz/915MHz

Right Angle SMA Male Connector

External Rubber

Dimensions 115mm



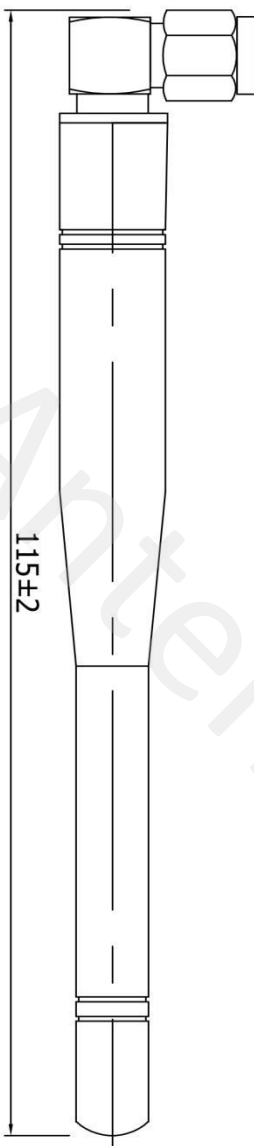
1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	868MHz/915MHz
VSWR	2
Efficiency (%)	67.44%
Peak Gain (dBi)	2.69
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	90° SMA male

2. Material and environmental characteristics

Material of PCB	N/A
Material of Plastic	TPEE
Cable Type	2.8mm insulated wire
Connector Type	90° SMA male
Dimensions (mm)	115*10.3MM
Antenna color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

					F		G	
					REV	Date	Description	
					X1	2023/02/02	New issue	



115±2

Specification(Free Test):
 Frequency Range: 868MHZ/915MHZ
 Impedance: 50Ω
 V.S.W.R: ≤2
 100% Continuity/short and open circuit test
 Materials,parts and process must by environmentally (ROHS)

NO	Name	Description	QTY	Remark
4	Radome	Black TPEE	1	
3	Signal tube	Copper	2	
2	Cable	2.8mm insulated wire	1	
1	Connector	90° SMA male	1	

XX	±5.0	Approved	Customer	Part NO.
X	±3.0			
.X	±1.0	Checked		
.XX	±0.2		Part name	External antenna
.XXX	±0.1	Drawing	CW P/NO.	CW-WZ-0107

REV	Unit	File
X1	m/m	Sheet :

1/1



Cowin Antenna

4. Antenna test parameters

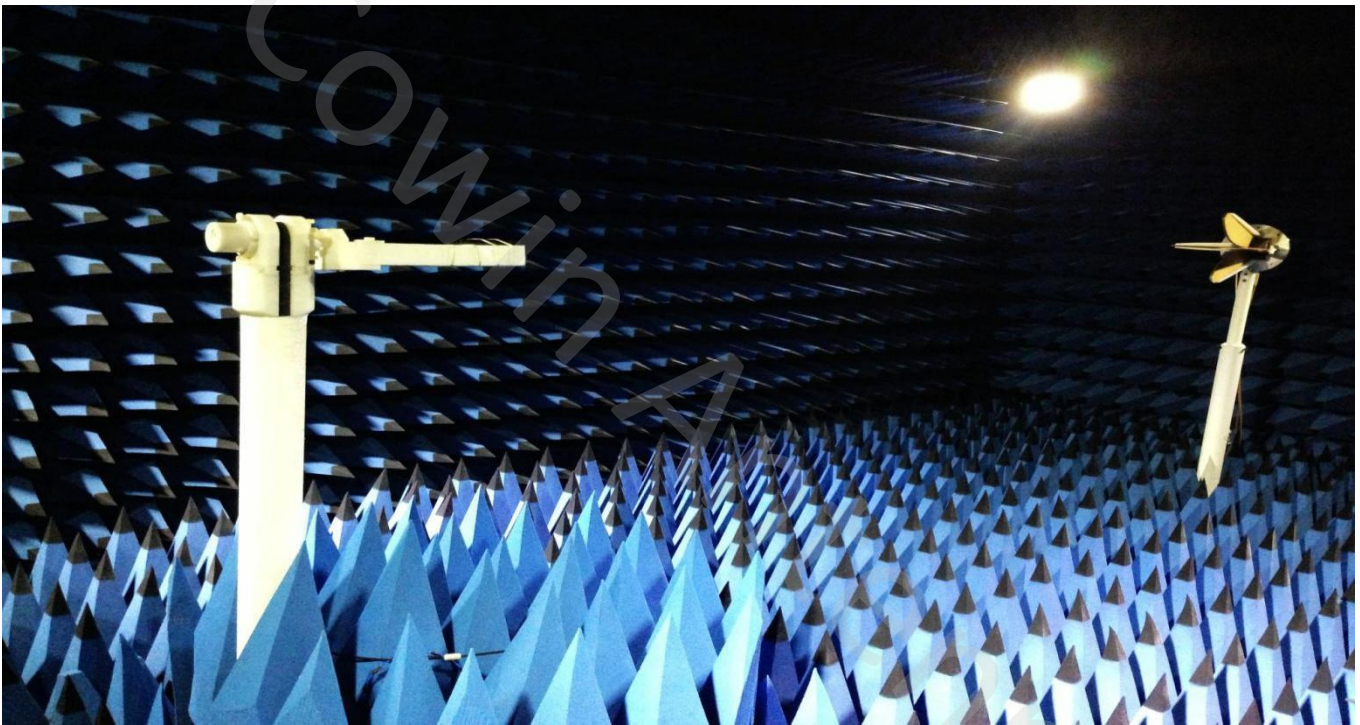
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

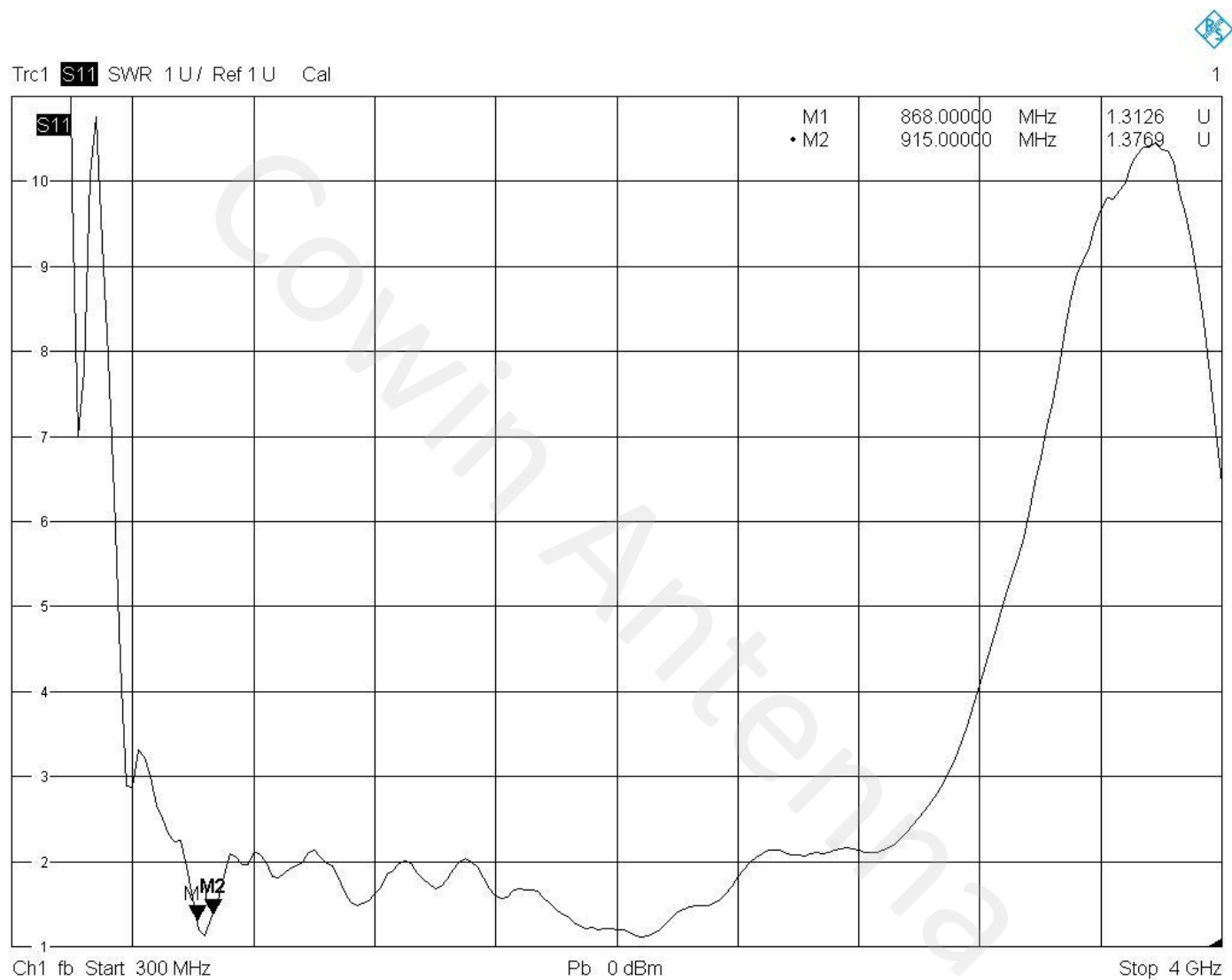
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

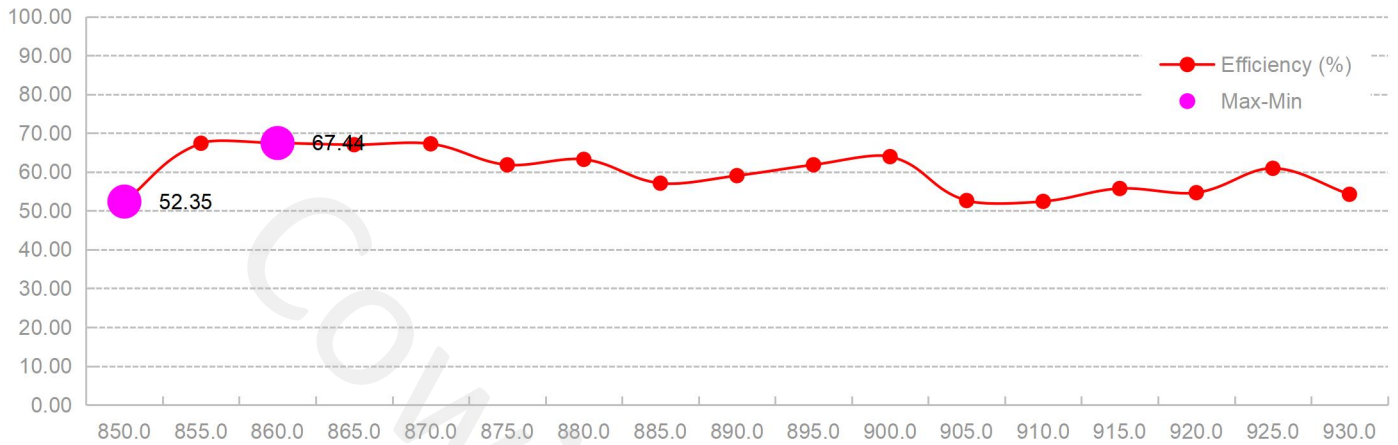


4.1 VSWR

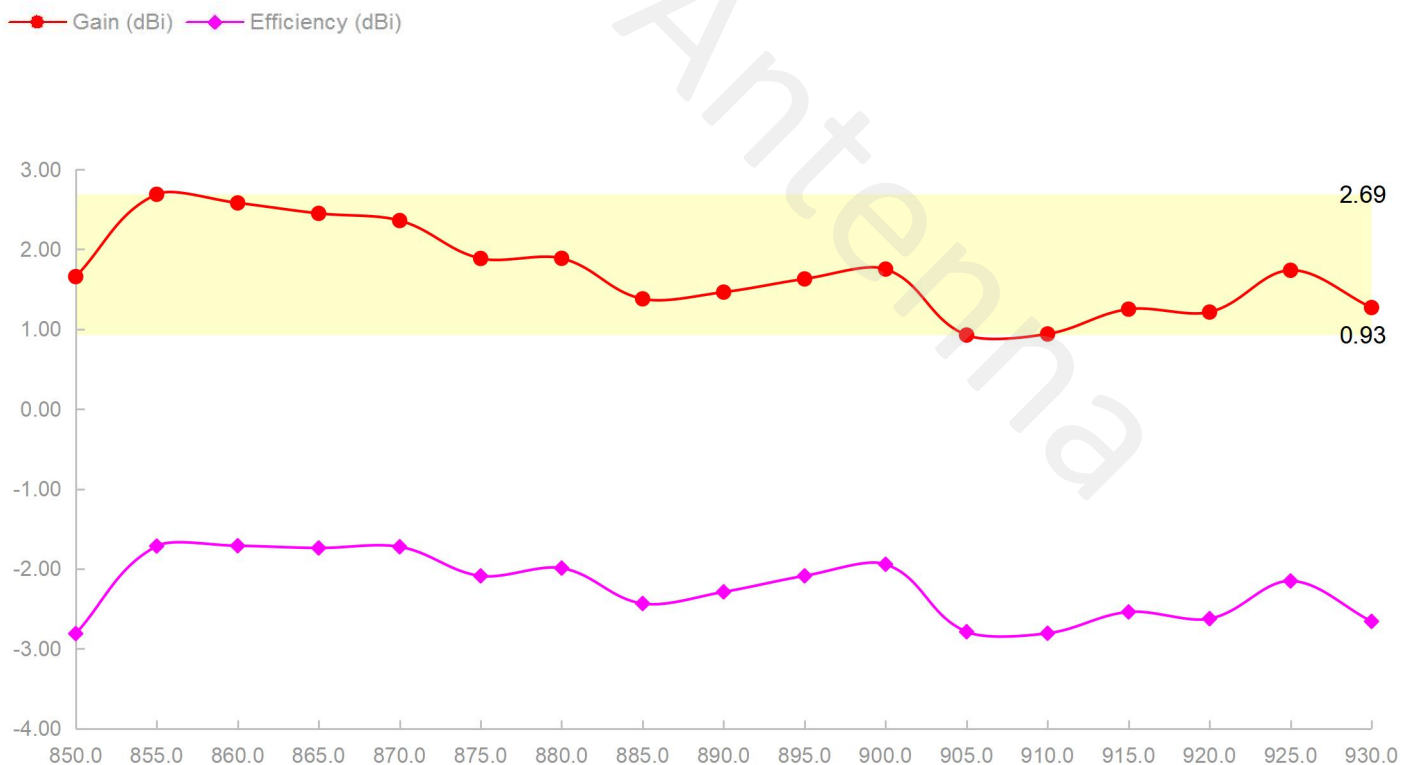


2/1/2023, 9:42 PM

4.2 Efficiency

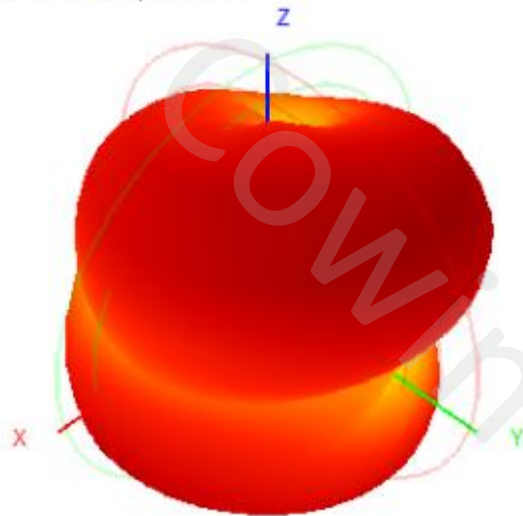


4.3 Peak gain

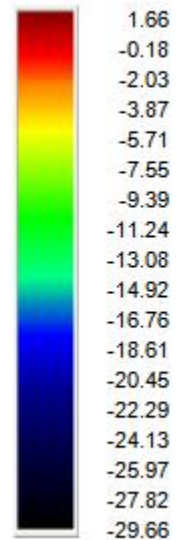
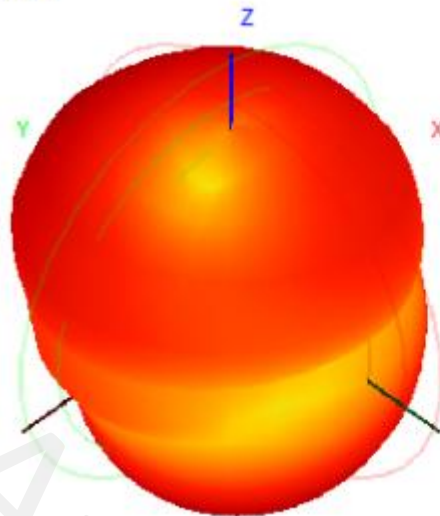


4.4 3D&2D Radiation Patterns

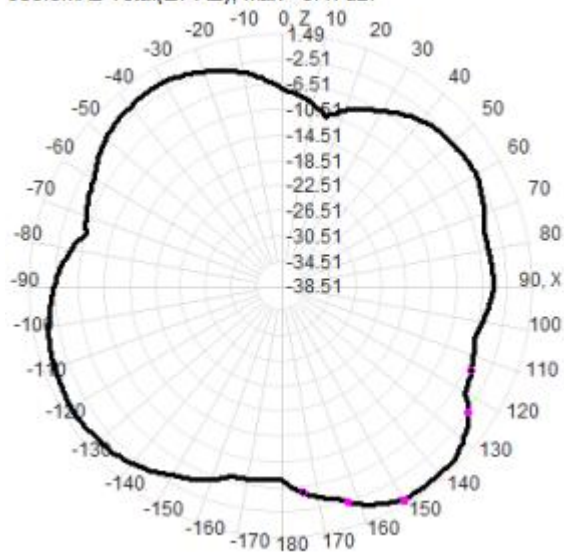
850.0MHz H+V, Eff: 52.4%



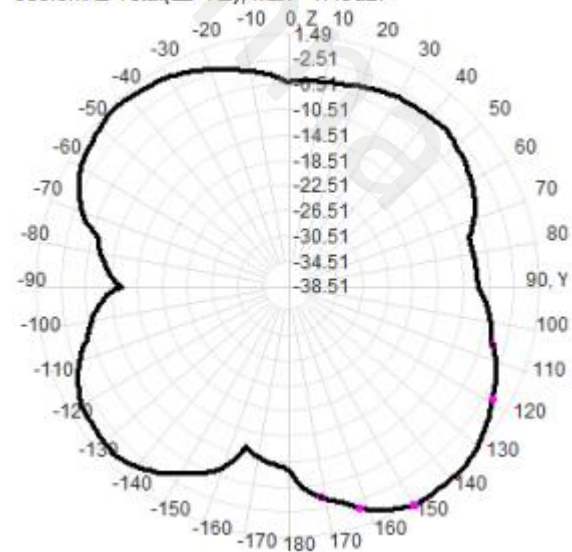
Back View



850.0MHz Total(E1-XZ), Max= 0.47dBi

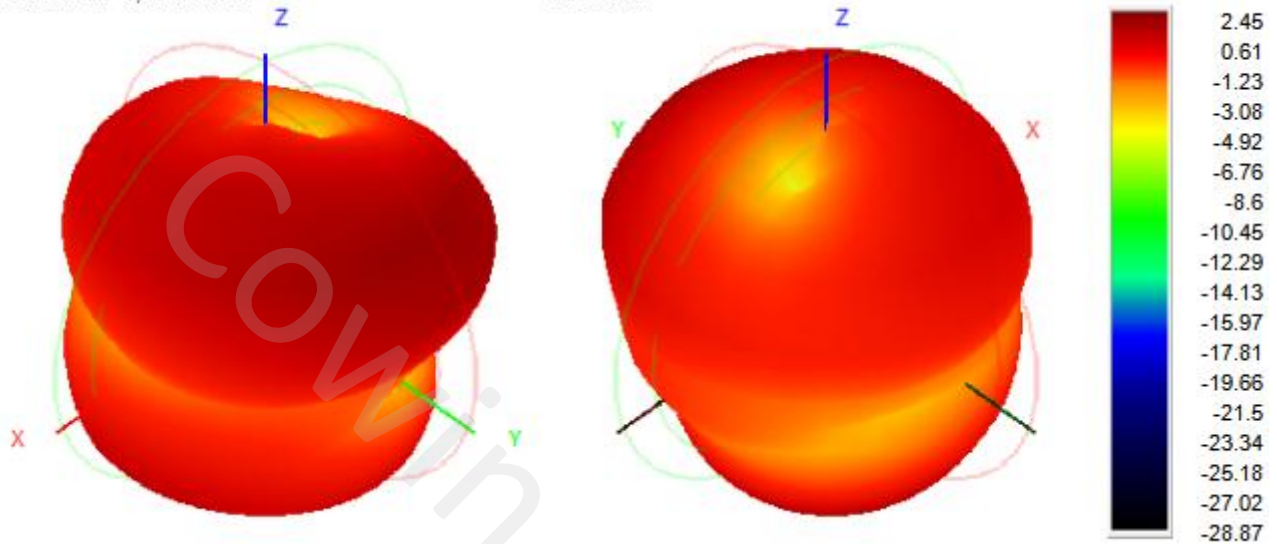


850.0MHz Total(E2-YZ), Max= 1.49dBi



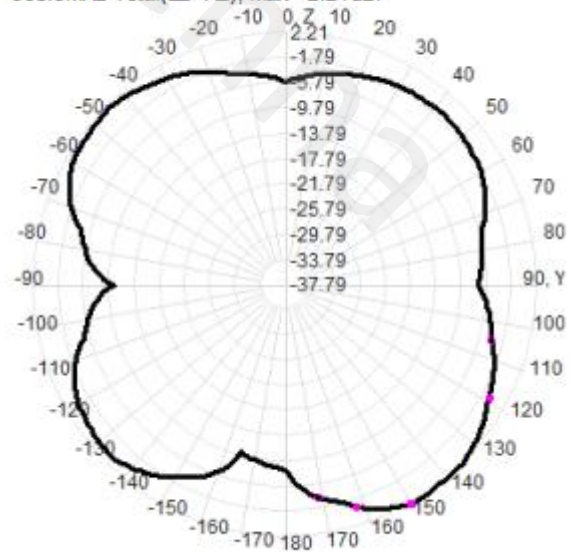
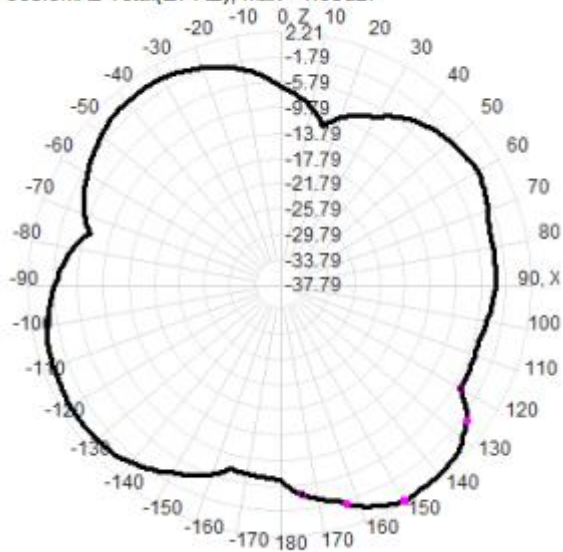
865.0MHz H+V, Eff: 67.0%

Back View

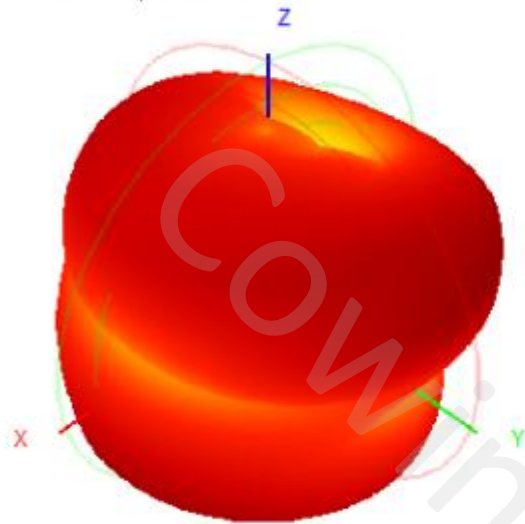


865.0MHz Total(E1-XZ), Max= 1.65dBi

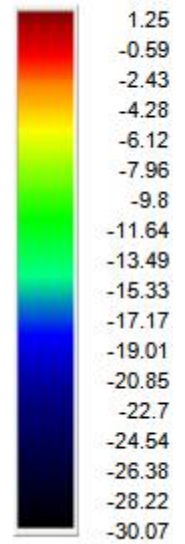
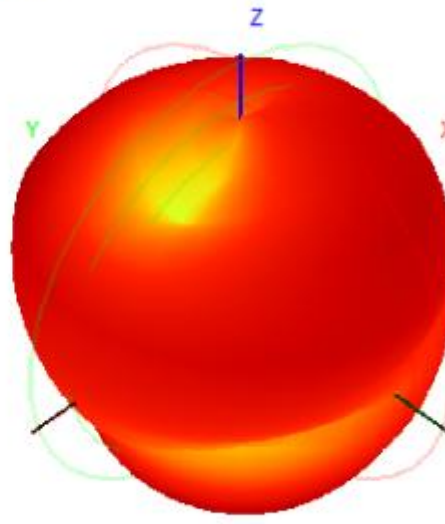
865.0MHz Total(E2-YZ), Max= 2.21dBi



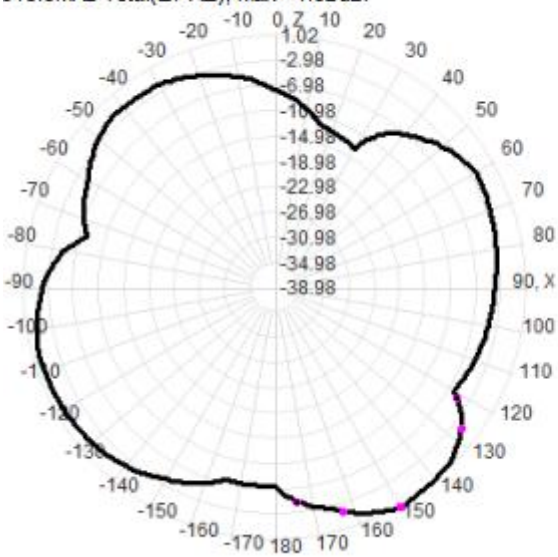
915.0MHz H+V, Eff: 55.7%



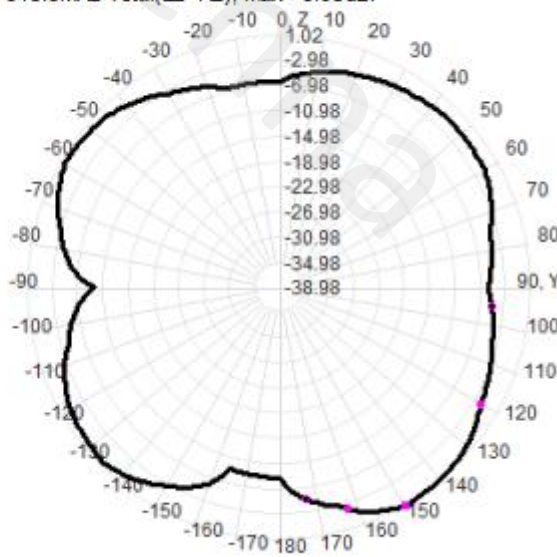
Back View



915.0MHz Total(E1-XZ), Max= 1.02dBi

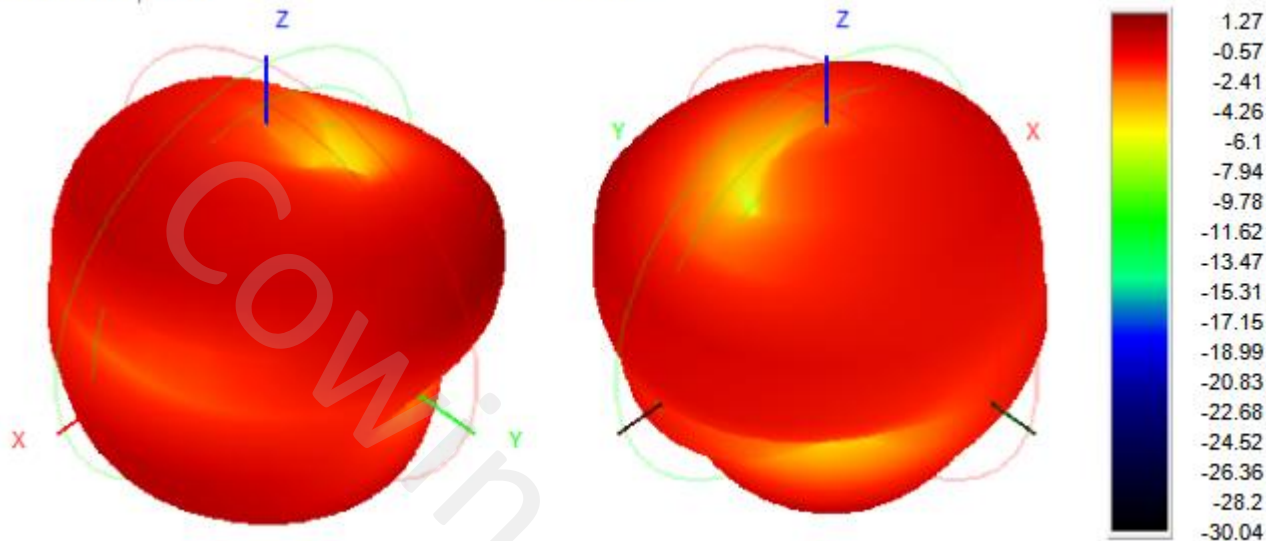


915.0MHz Total(E2-YZ), Max= 0.85dBi

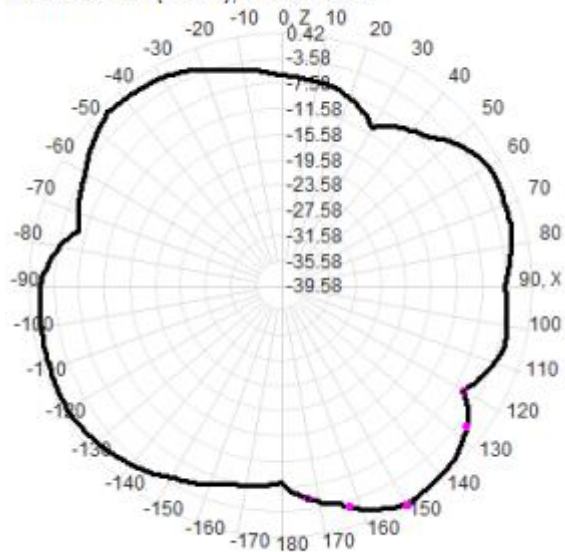


930.0MHz H+V, Eff: 54.2%

Back View



930.0MHz Total(E1-XZ), Max= 0.32dBi



930.0MHz Total(E2-YZ), Max= 0.42dBi

