

CW-WZ-0055

4G External Antenna

Key Features

Frequency: 698-960MHz/1710-2700MHz

Right Angle SMA Male Connector

External Rubber

Dimensions 115*10.3mm

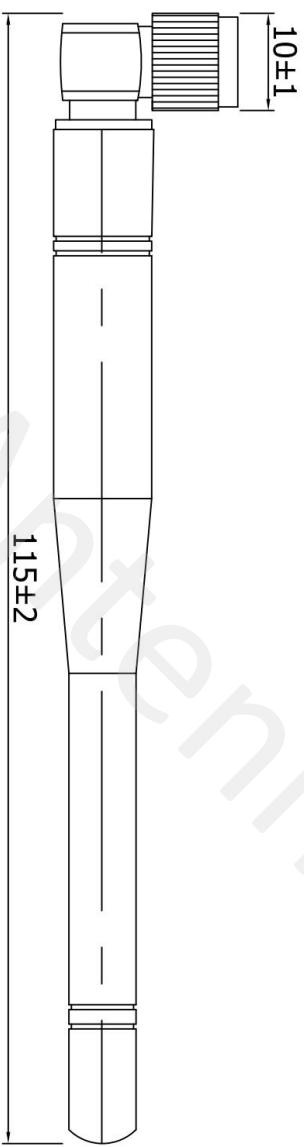


1. Antenna Electrical Characteristics

Band (MHz)		
Frequency (MHz)	698-960MHz	1710-2700MHz
VSWR	4:1	2.5:1
Efficiency (%)	69.2%	66.07%
Peak Gain (dBi)	3.56	4.79
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	White
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS

												<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV</th> <th>Date</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>X1</td> <td>2021/08/12</td> <td>New issue</td> </tr> </tbody> </table>		REV	Date	Description	X1	2021/08/12	New issue																																																																																																
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Specification(Free Test): Frequency Range: 698-960MHZ/1710-2700mhz Impedance: 50Ω V.S.W.R: ≤4/2.5																																																																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">4</th> <th colspan="2">Radome</th> <th colspan="2">White TPPE</th> <th colspan="2">1</th> </tr> </thead> <tbody> <tr> <td colspan="2">3</td> <td colspan="2">Signal tube</td> <td colspan="2">Copper</td> <td colspan="2">2</td> </tr> <tr> <td colspan="2">2</td> <td colspan="2">Cable</td> <td colspan="2">2.8mm insulated wire</td> <td colspan="2">1</td> </tr> <tr> <td colspan="2">1</td> <td colspan="2">Connector</td> <td colspan="2">90° SMA male (Nickel)</td> <td colspan="2">1</td> </tr> <tr> <td colspan="2">NO</td> <td colspan="2">Name</td> <td colspan="2">Description</td> <td colspan="2">QTY</td> </tr> <tr> <td colspan="2">XX</td> <td colspan="2">±5.0</td> <td colspan="2">Approved</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">X</td> <td colspan="2">±3.0</td> <td colspan="2">Customer</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">X</td> <td colspan="2">±1.0</td> <td colspan="2">Part NO.</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">XX</td> <td colspan="2">±0.2</td> <td colspan="2">Part name</td> <td colspan="2">External antenna</td> </tr> <tr> <td colspan="2">XXX</td> <td colspan="2">±0.1</td> <td colspan="2">CW P/NO.</td> <td colspan="2">CW-WZ-0055</td> </tr> <tr> <td colspan="2" rowspan="2">  Drawing </td> <td colspan="2">REV</td> <td colspan="2">Unit</td> <td colspan="2">File :</td> </tr> <tr> <td colspan="2">X1</td> <td colspan="2">m/m</td> <td colspan="2">Sheet :</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2">1/1</td> <td colspan="2"></td> </tr> </tbody> </table>														4		Radome		White TPPE		1		3		Signal tube		Copper		2		2		Cable		2.8mm insulated wire		1		1		Connector		90° SMA male (Nickel)		1		NO		Name		Description		QTY		XX		±5.0		Approved				X		±3.0		Customer				X		±1.0		Part NO.				XX		±0.2		Part name		External antenna		XXX		±0.1		CW P/NO.		CW-WZ-0055		 Drawing		REV		Unit		File :		X1		m/m		Sheet :						1/1			
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4. Antenna test parameters

Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

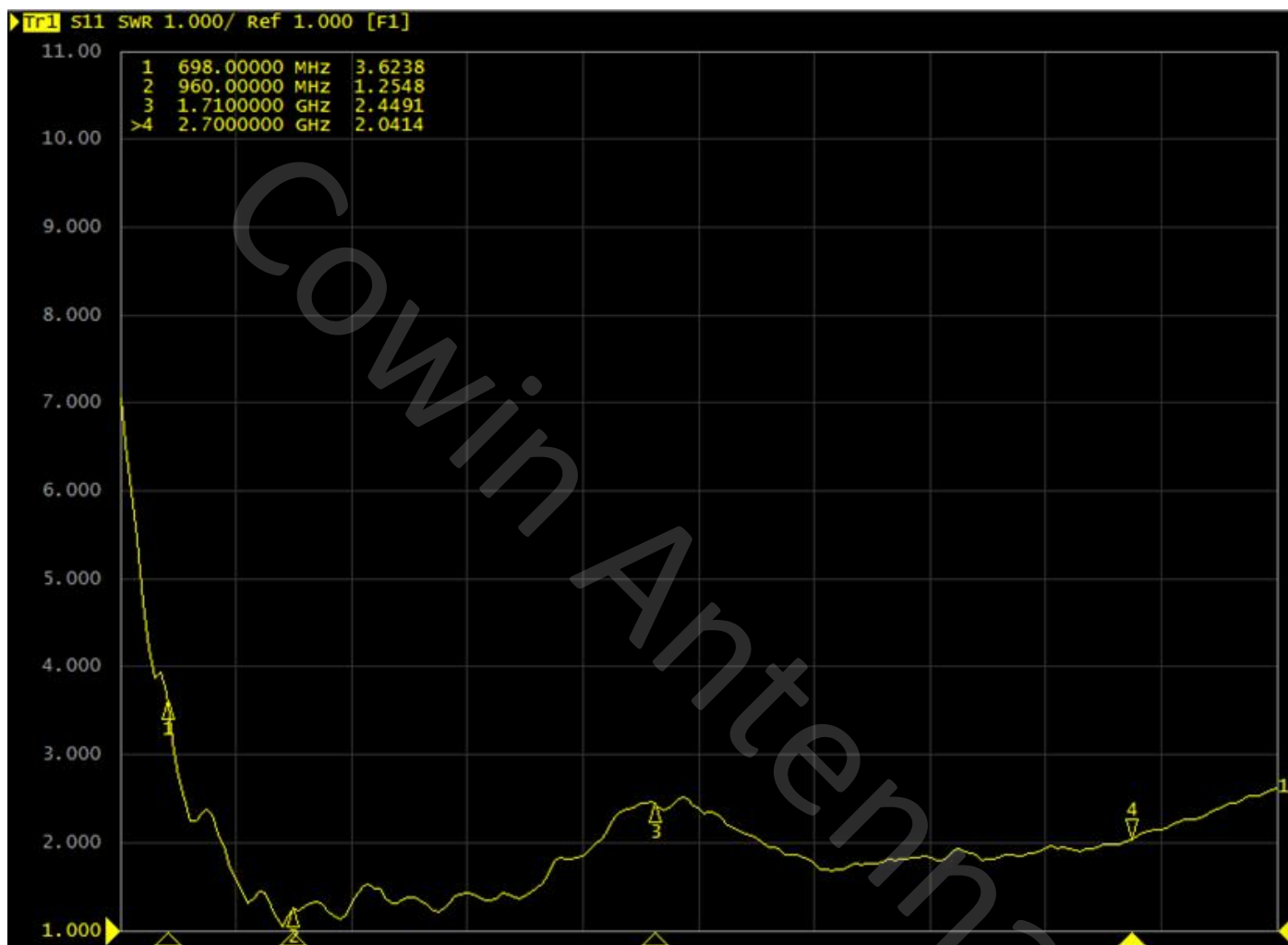
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

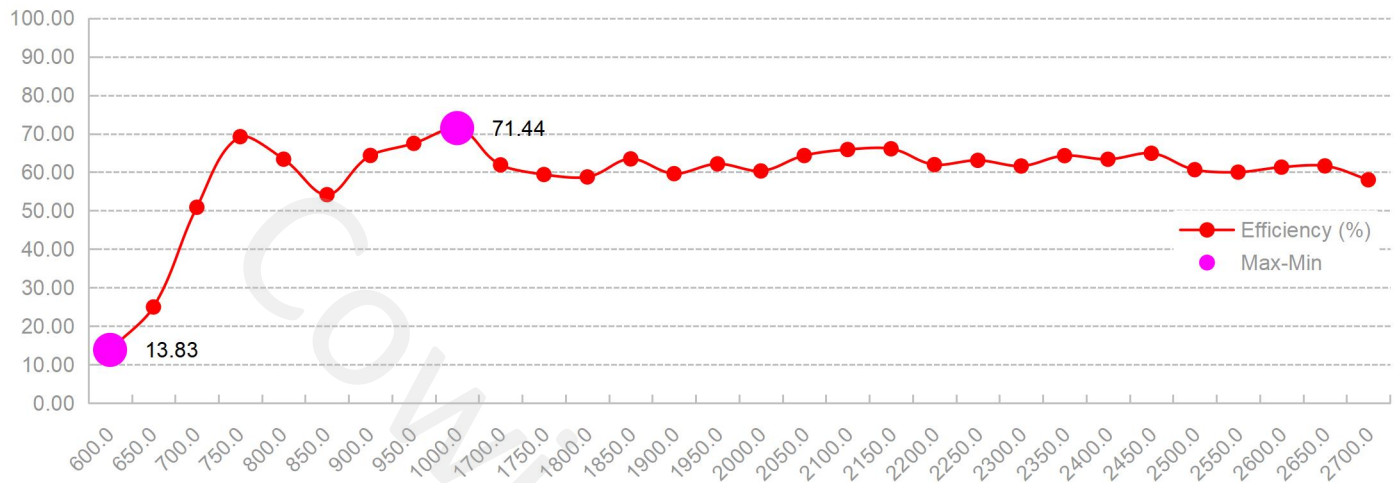
The comprehensive tester is Agilent cmv500



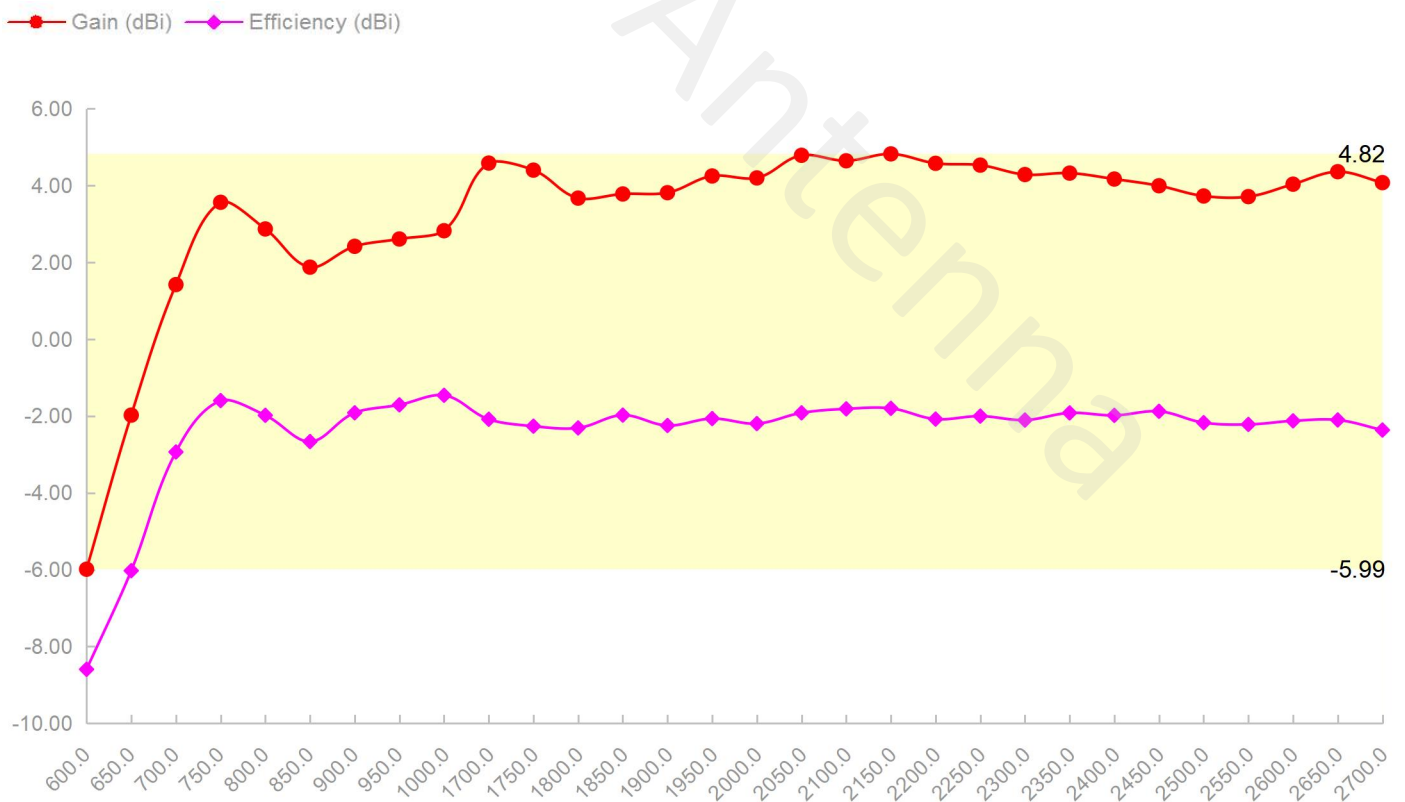
4.1 VSWR



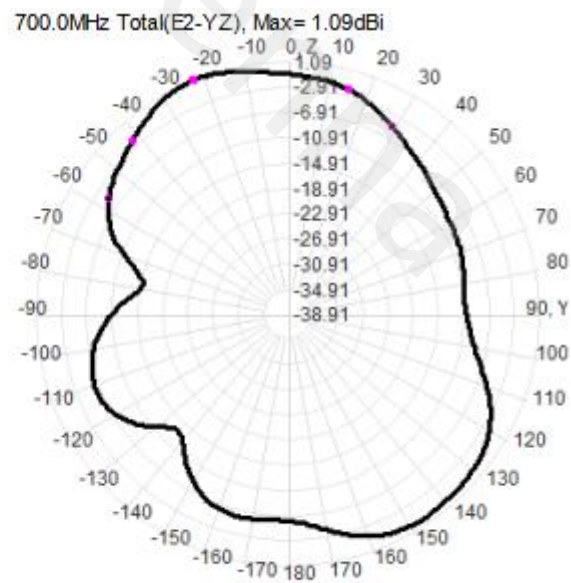
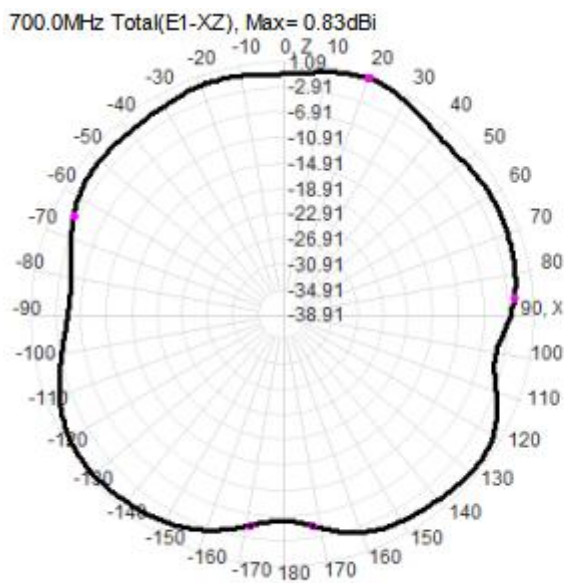
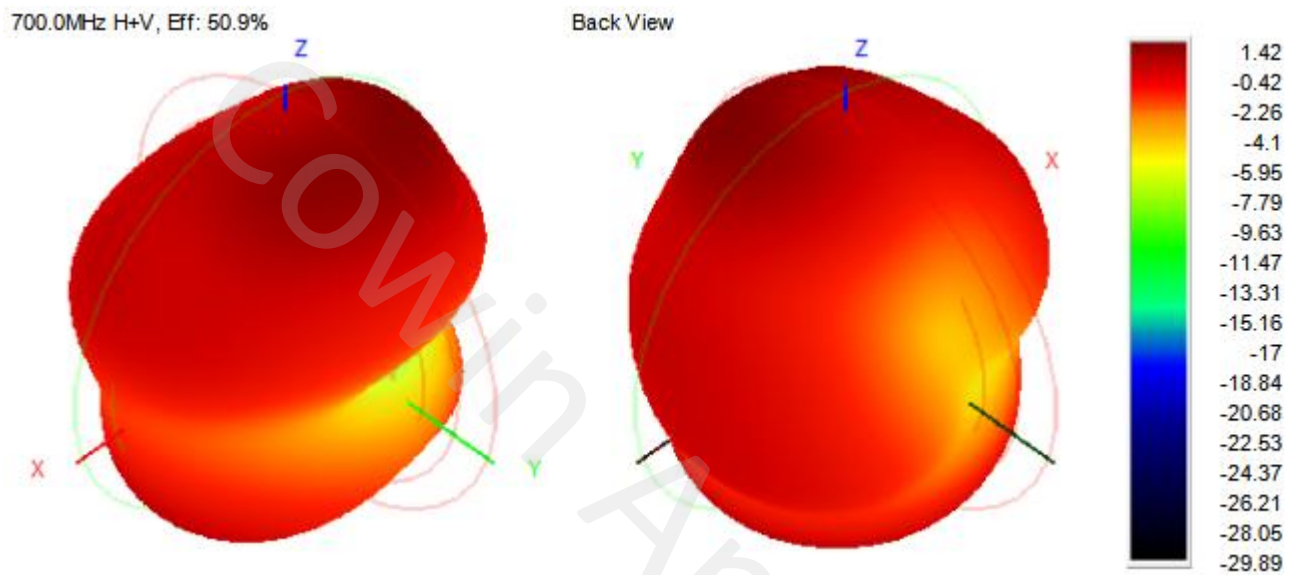
4.2 Efficiency



4.3 Peak gain

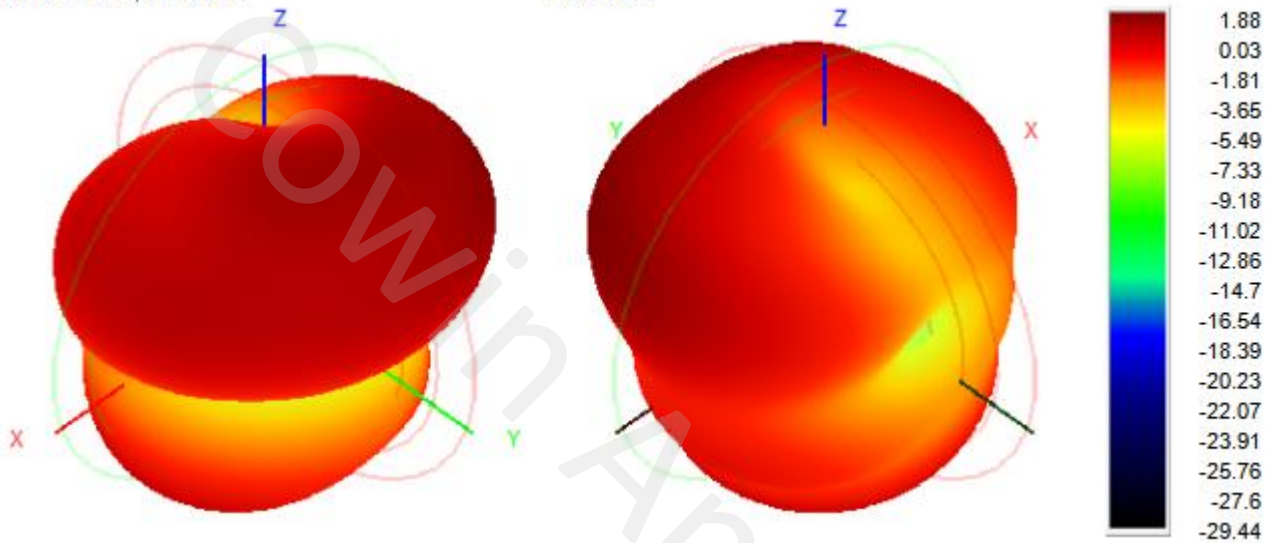


4.4 3D&2D Radiation Patterns



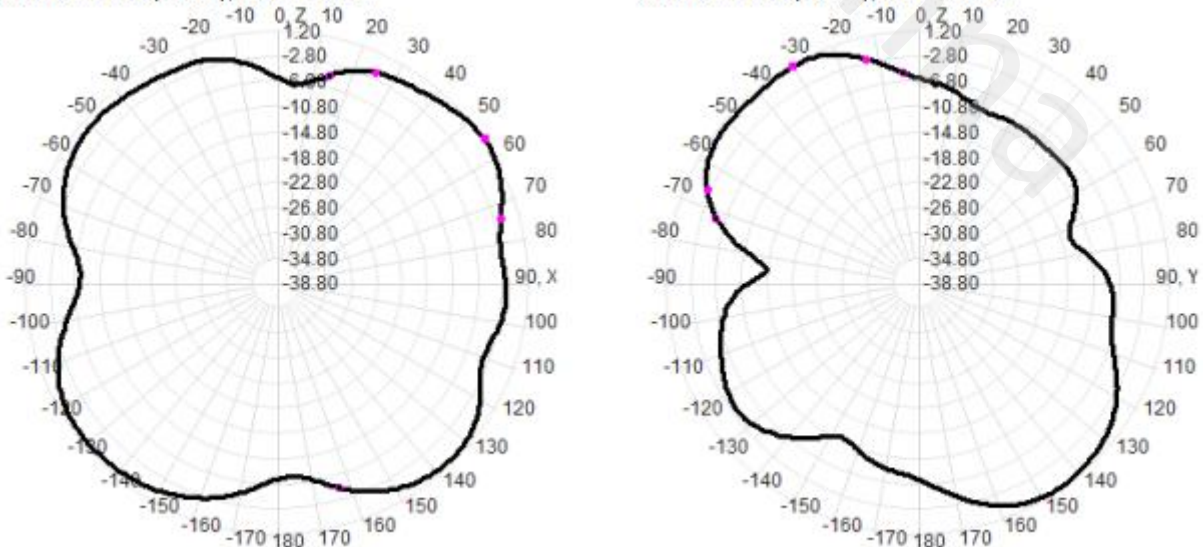
850.0MHz H+V, Eff: 54.1%

Back View



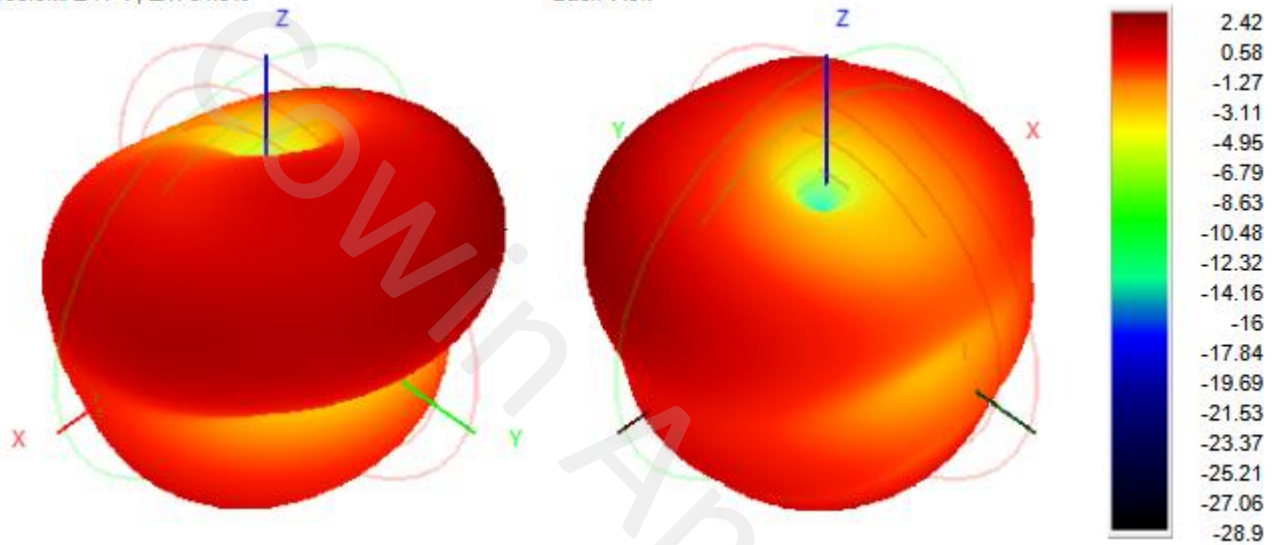
850.0MHz Total(E1-XZ), Max= 1.20dBi

850.0MHz Total(E2-YZ), Max= 0.84dBi



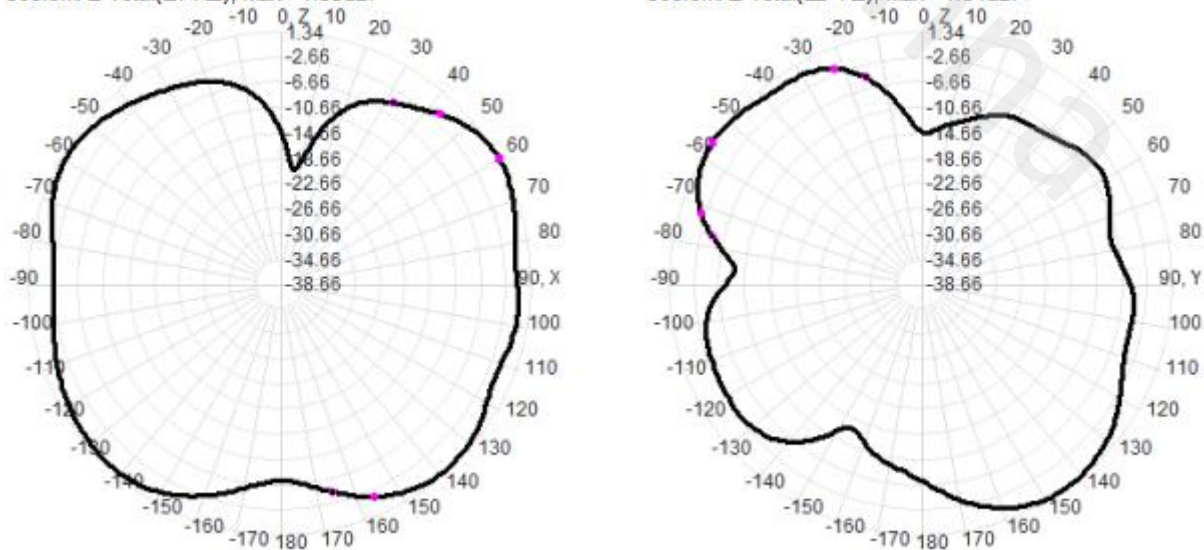
900.0MHz H+V, Eff: 64.3%

Back View

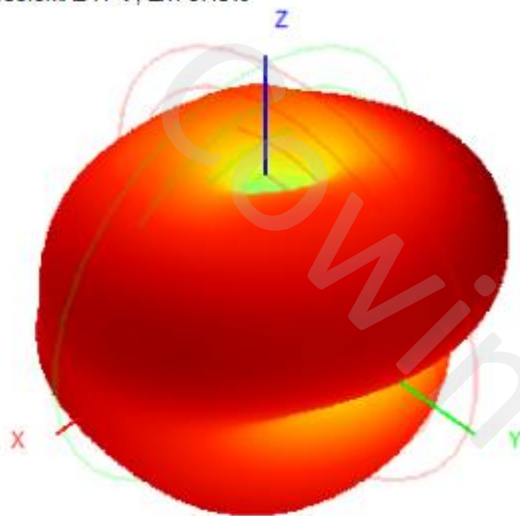


900.0MHz Total(E1-XZ), Max= 1.33dBi

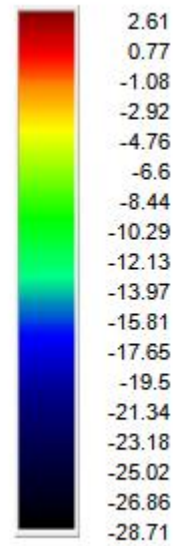
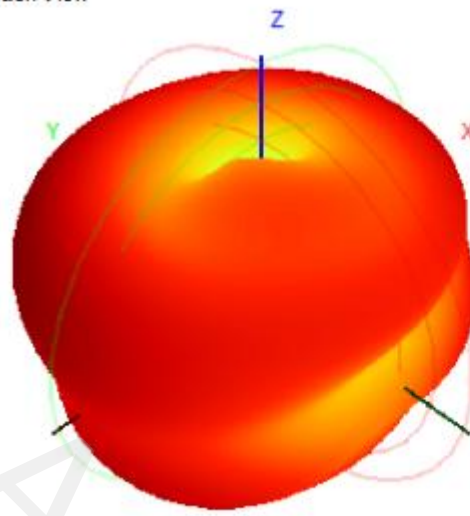
900.0MHz Total(E2-YZ), Max= 1.34dBi



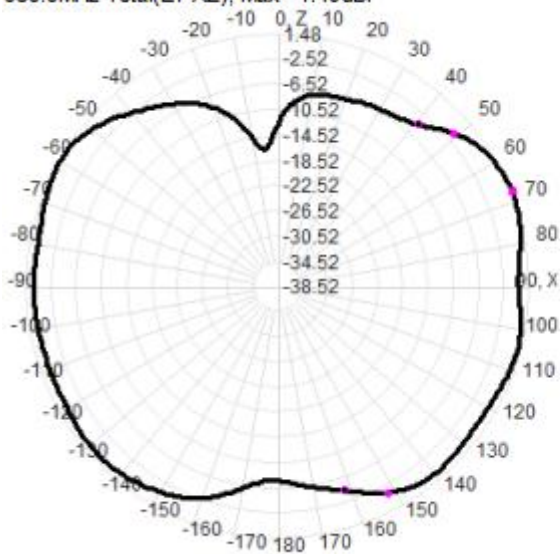
950.0MHz H+V, Eff: 67.5%



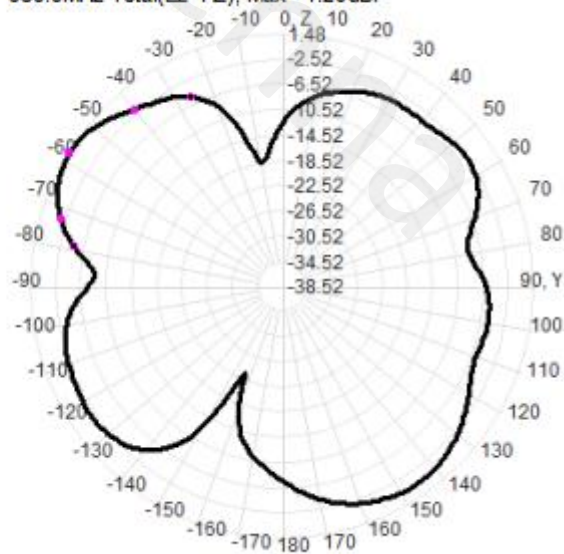
Back View



950.0MHz Total(E1-XZ), Max= 1.48dBi

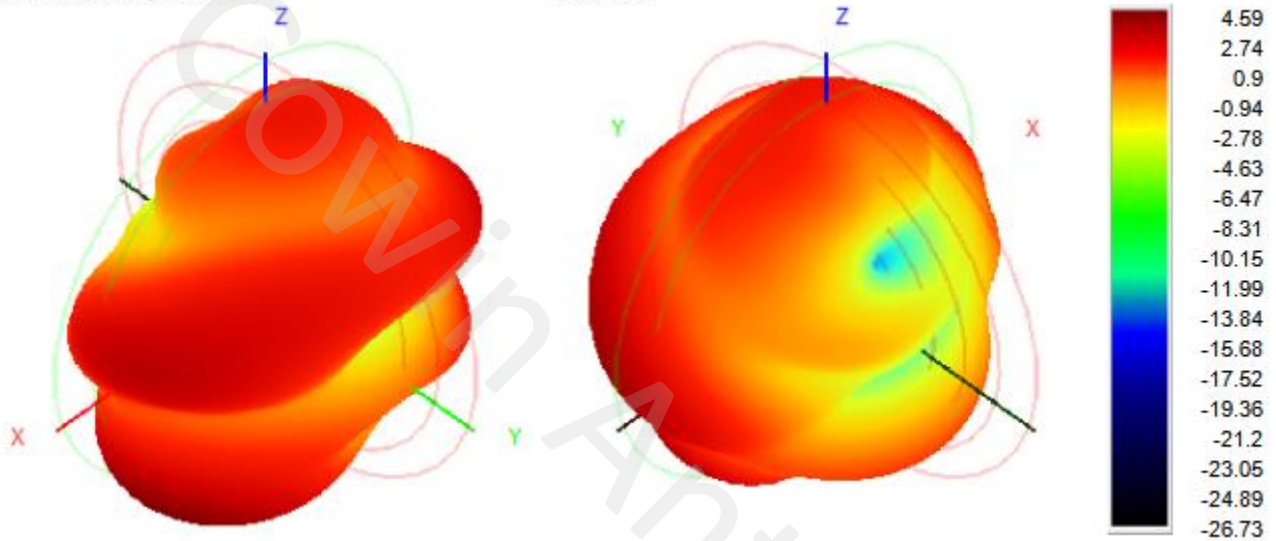


950.0MHz Total(E2-YZ), Max= 1.28dBi

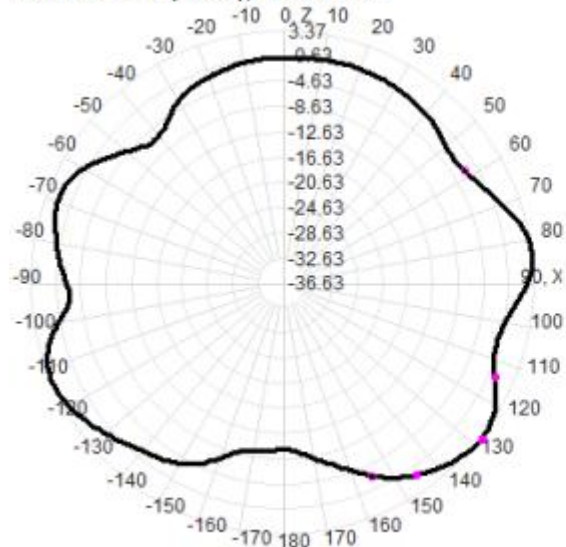


1700.0MHz H+V, Eff: 61.9%

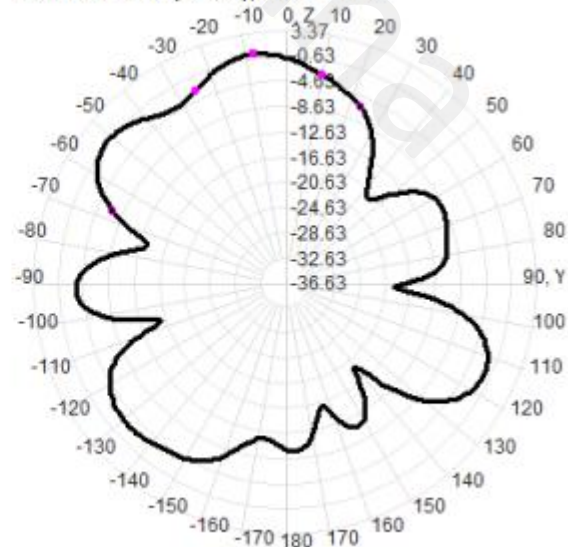
Back View



1700.0MHz Total(E1-XZ), Max= 3.37dBi

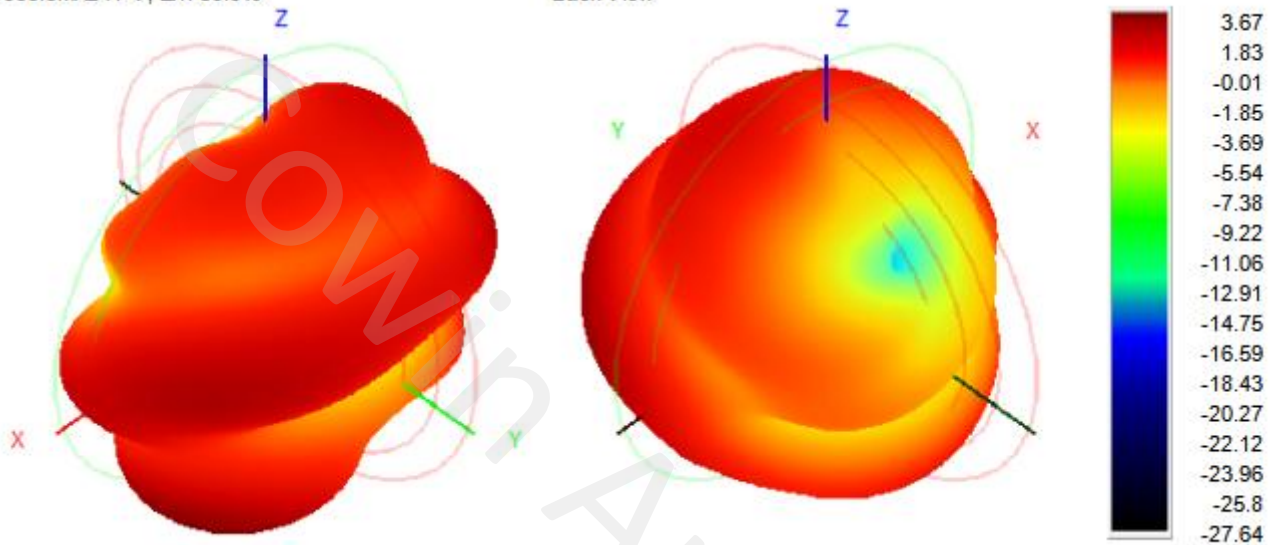


1700.0MHz Total(E2-YZ), Max= 0.00dBi



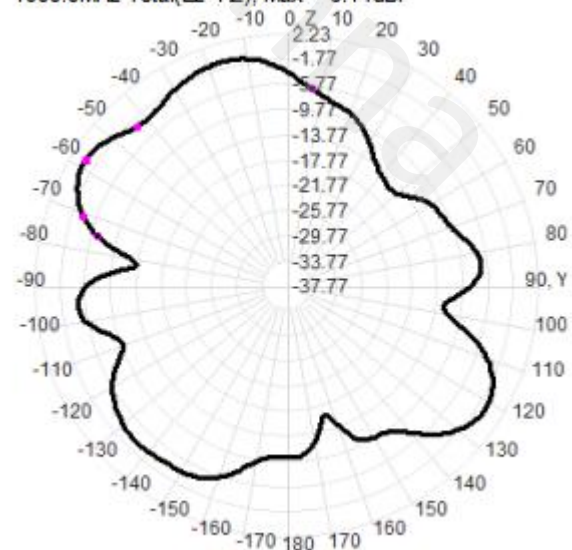
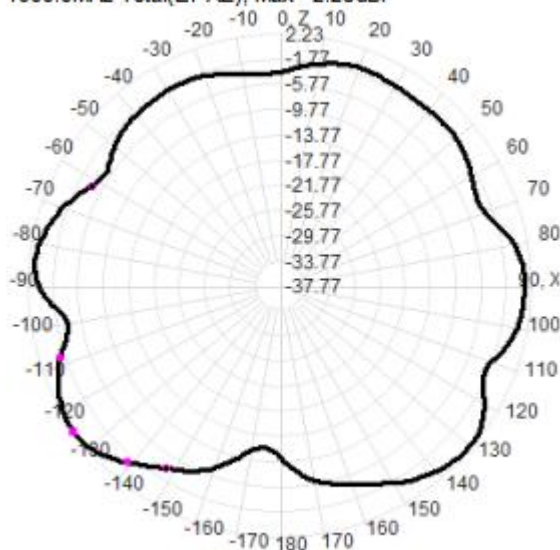
1800.0MHz H+V, Eff: 58.8%

Back View



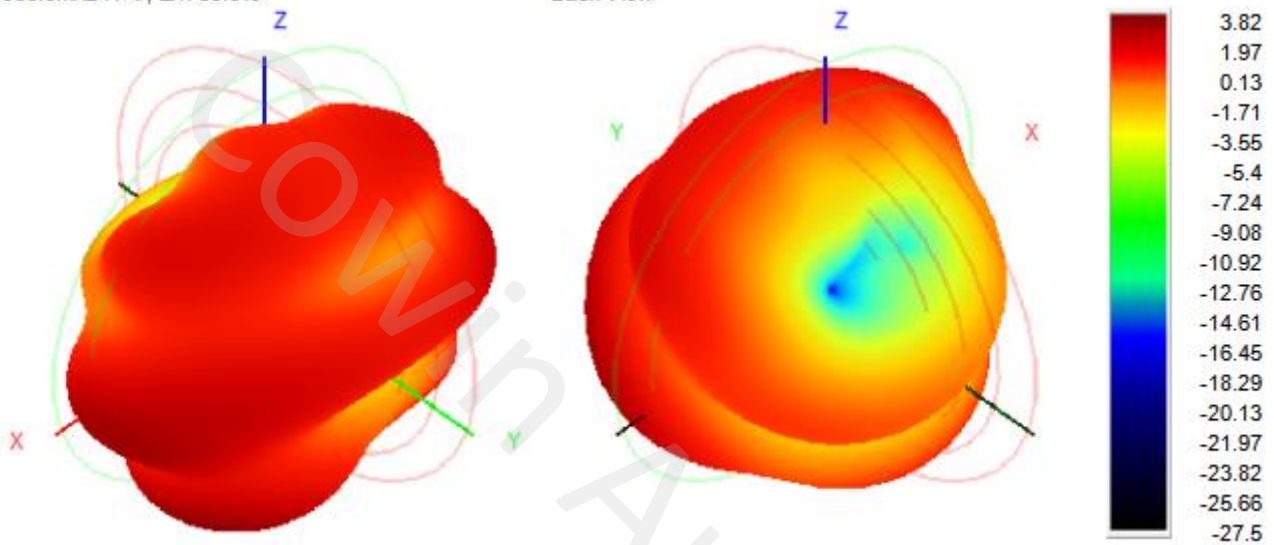
1800.0MHz Total(E1-XZ), Max= 2.23dBi

1800.0MHz Total(E2-YZ), Max= -0.14dBi



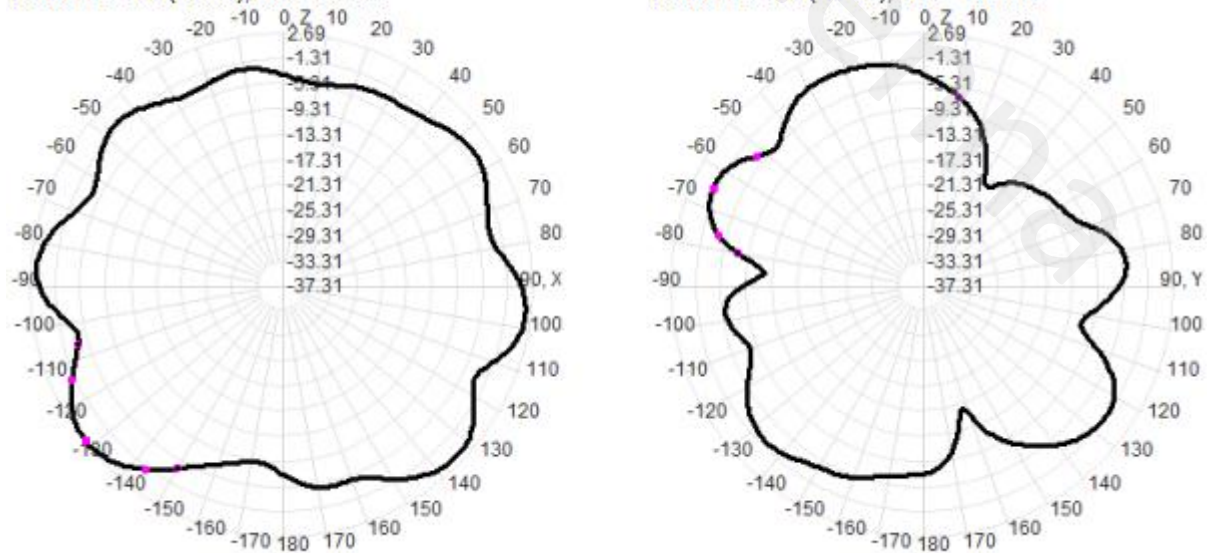
1900.0MHz H+V, Eff: 59.6%

Back View



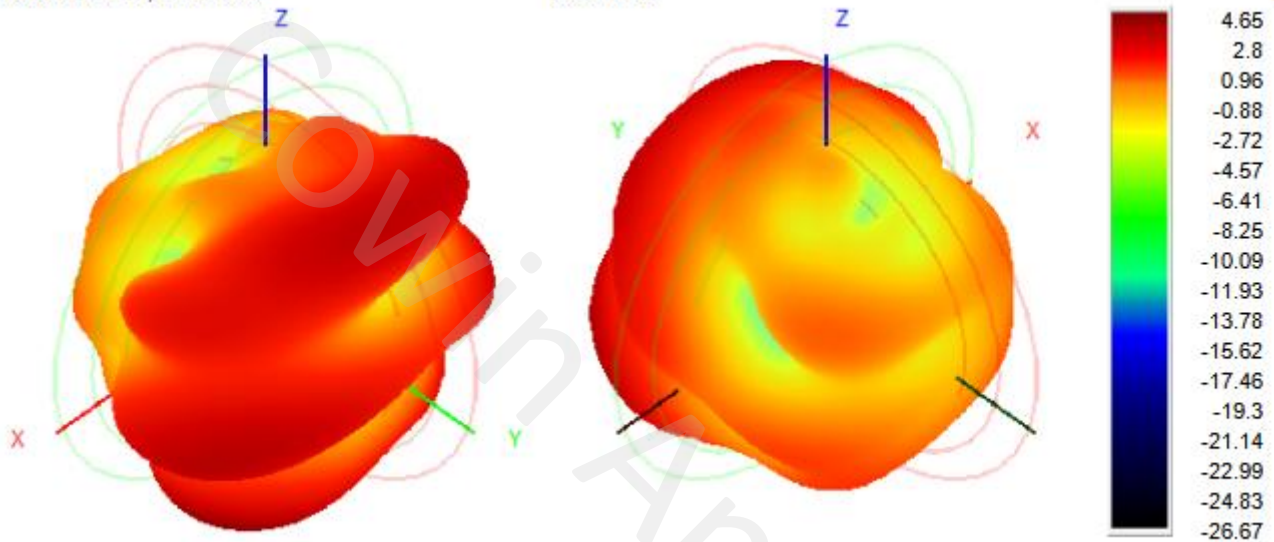
1900.0MHz Total(E1-XZ), Max= 2.25dBi

1900.0MHz Total(E2-YZ), Max= -0.71dBi

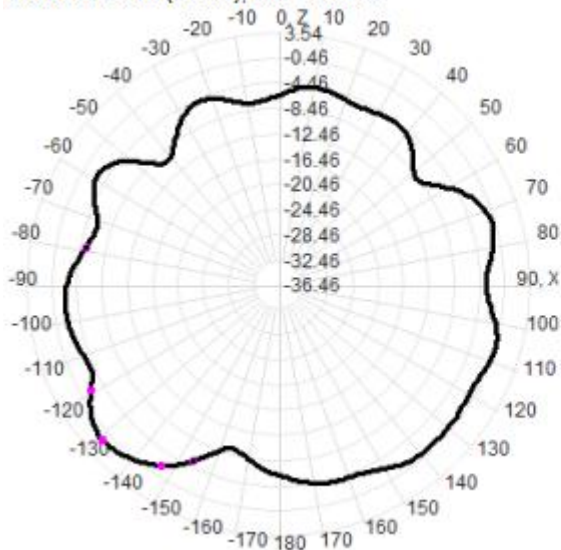


2100.0MHz H+V, Eff: 65.9%

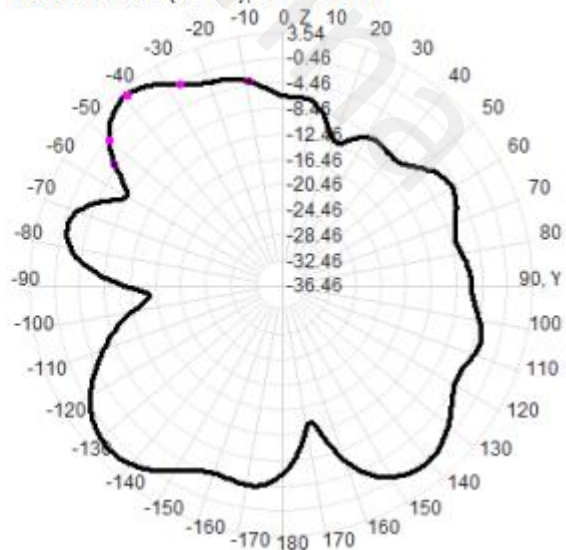
Back View



2100.0MHz Total(E1-XZ), Max= 0.68dBi

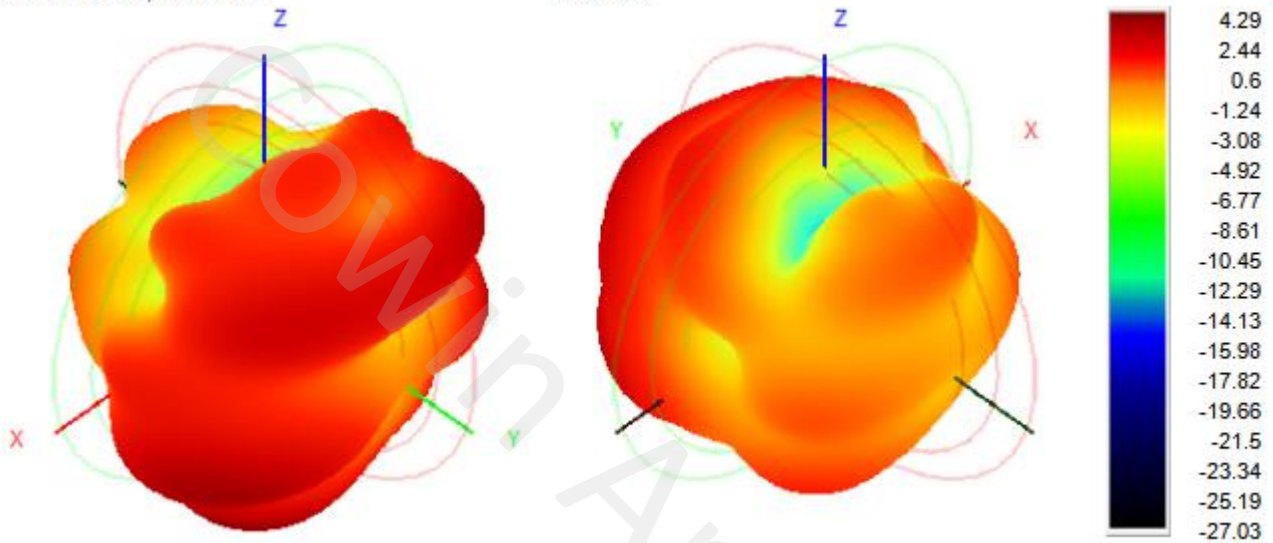


2100.0MHz Total(E2-YZ), Max= 2.34dBi



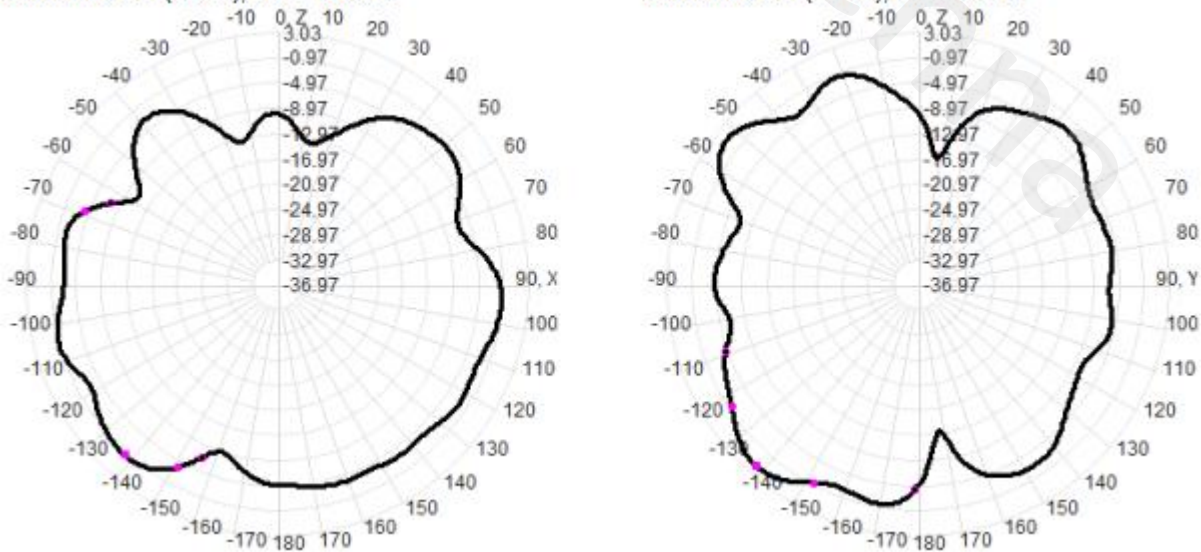
2300.0MHz H+V, Eff: 61.6%

Back View

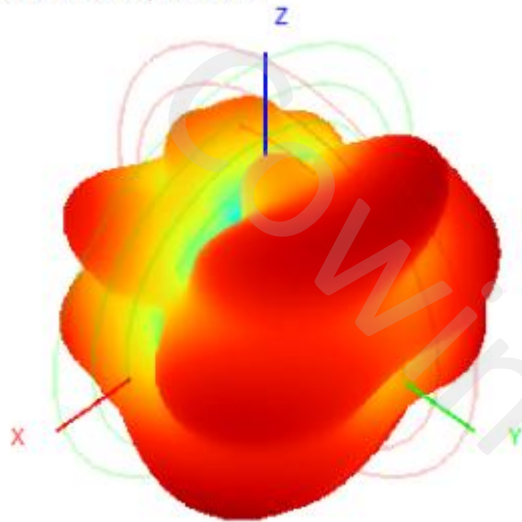


2300.0MHz Total(E1-XZ), Max=-0.80dBi

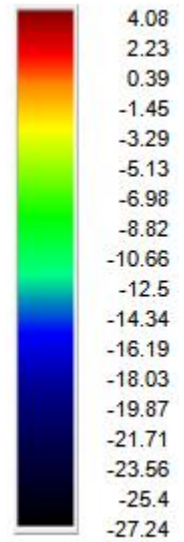
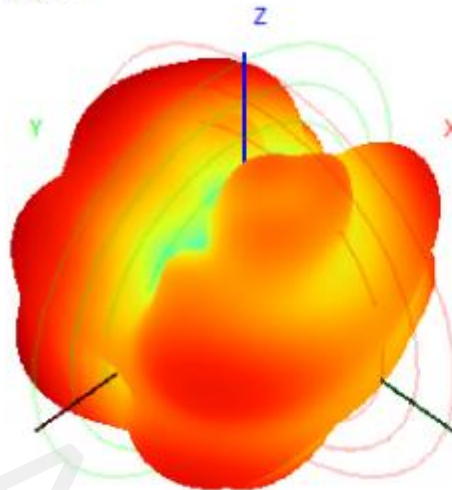
2300.0MHz Total(E2-YZ), Max= 1.47dBi



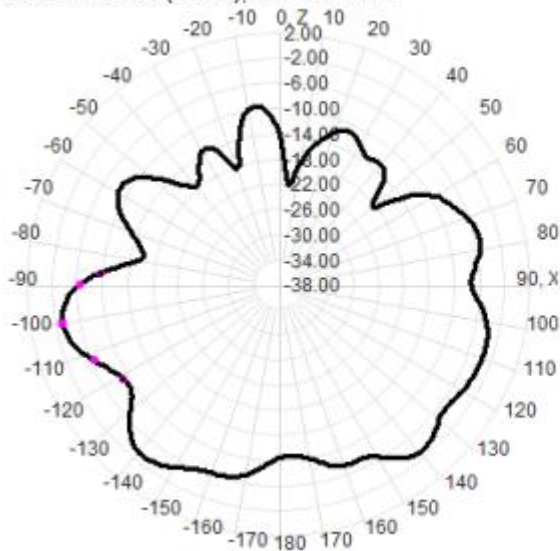
2700.0MHz H+V, Eff: 58.0%



Back View



2700.0MHz Total(E1-XZ), Max= -3.18dBi



2700.0MHz Total(E2-YZ), Max= 2.00dBi

