

## **CW-NZ-0154**

### **1.4-1.8G PCB Antenna**

#### **Key Features**

Frequency:1.4-1.8G

I-PEX Connector

1.13 Cable

Dimensions 73.5\*6.9\*0.6mm



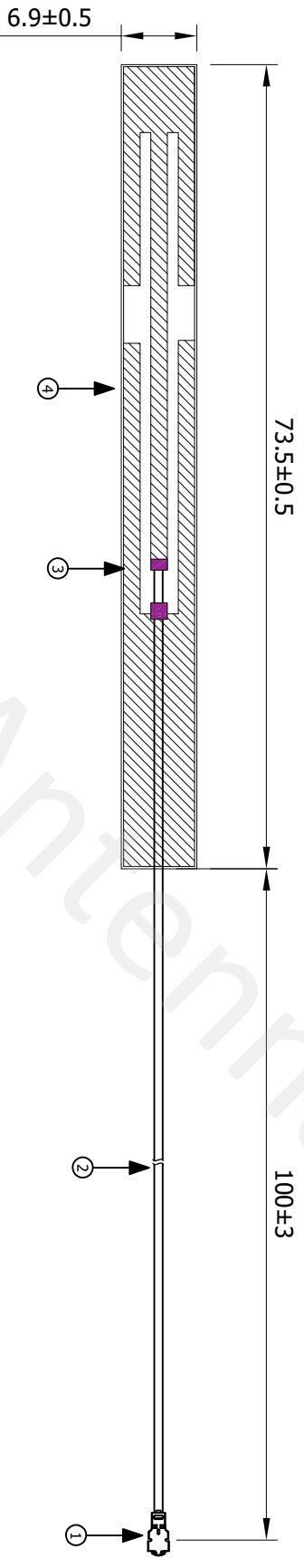
## 1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	1.4-1.8G
VSWR	≤2.0
Efficiency (%)	71.95%
Peak Gain (dBi)	3.49
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	I-PEX

## 2. Material and environmental characteristics

External structure	N/A
Inner structure	Connector/Cable/PCB
Cable Type	RF1.13
Connector Type	I-PEX
Dimensions (mm)	73.5*6.9*.06MM
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	2023/04/21	New issue



Specification(Free test):  
 Frequency Range: 1.4-1.8G  
 Impedance: 50Ω  
 V.S.W.R: ≤ 2.0  
 100% Continuity,short and open circuit test  
 Materials,parts and process must by environmentally (ROHS)

NO	Name	Description	Q'TY	Remark
4	Gum back	73*6*0.13MM	1	
3	PCB	73.5*6.9*0.6MM Green	1	
2	Cable	Ø1.13MM black double tin wire	1	
1	Connector	Ø1.13 I-PEX (Iequivalents)	1	


  

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

Customer	Part NO.	Part name	PCB P/NO.
		PCB Antenna	CW-NZ-0154
REV	Unit	File	
X1	m/m	Sheet :	1/1



**Cowin Antenna**

## 4. Antenna test parameters

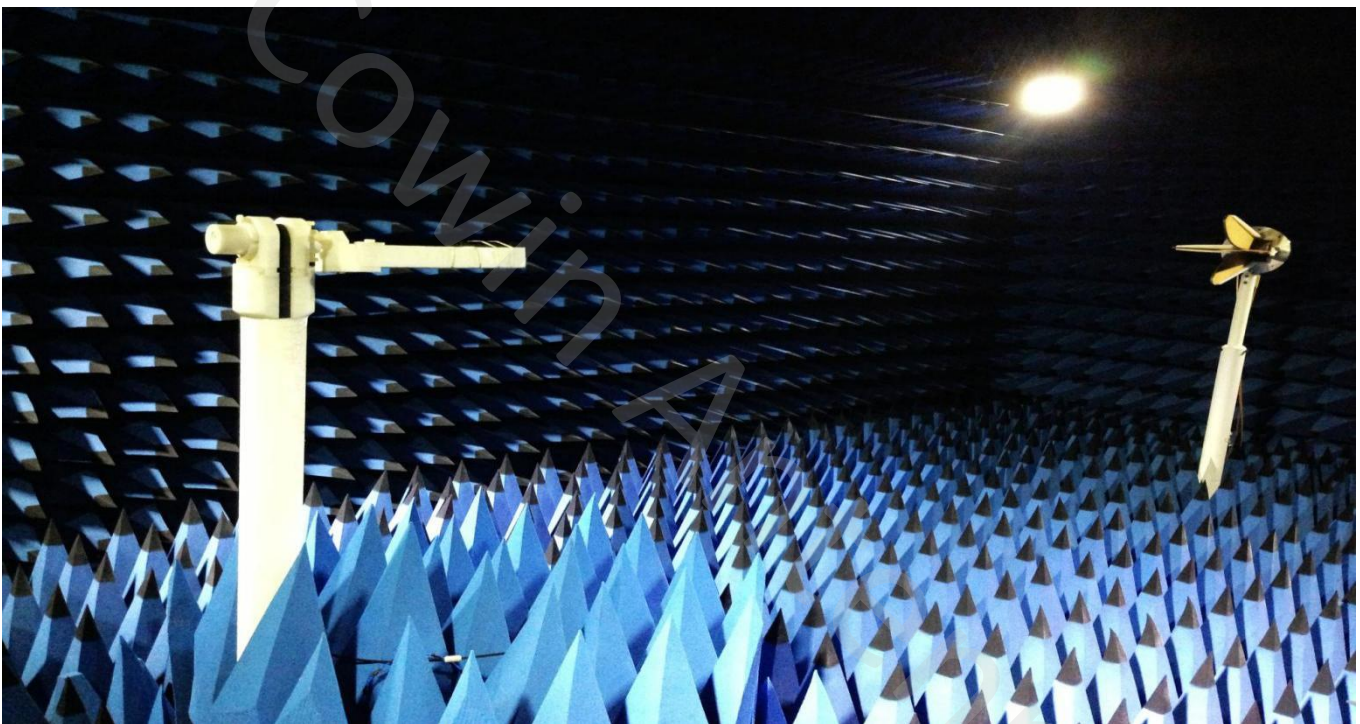
### Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

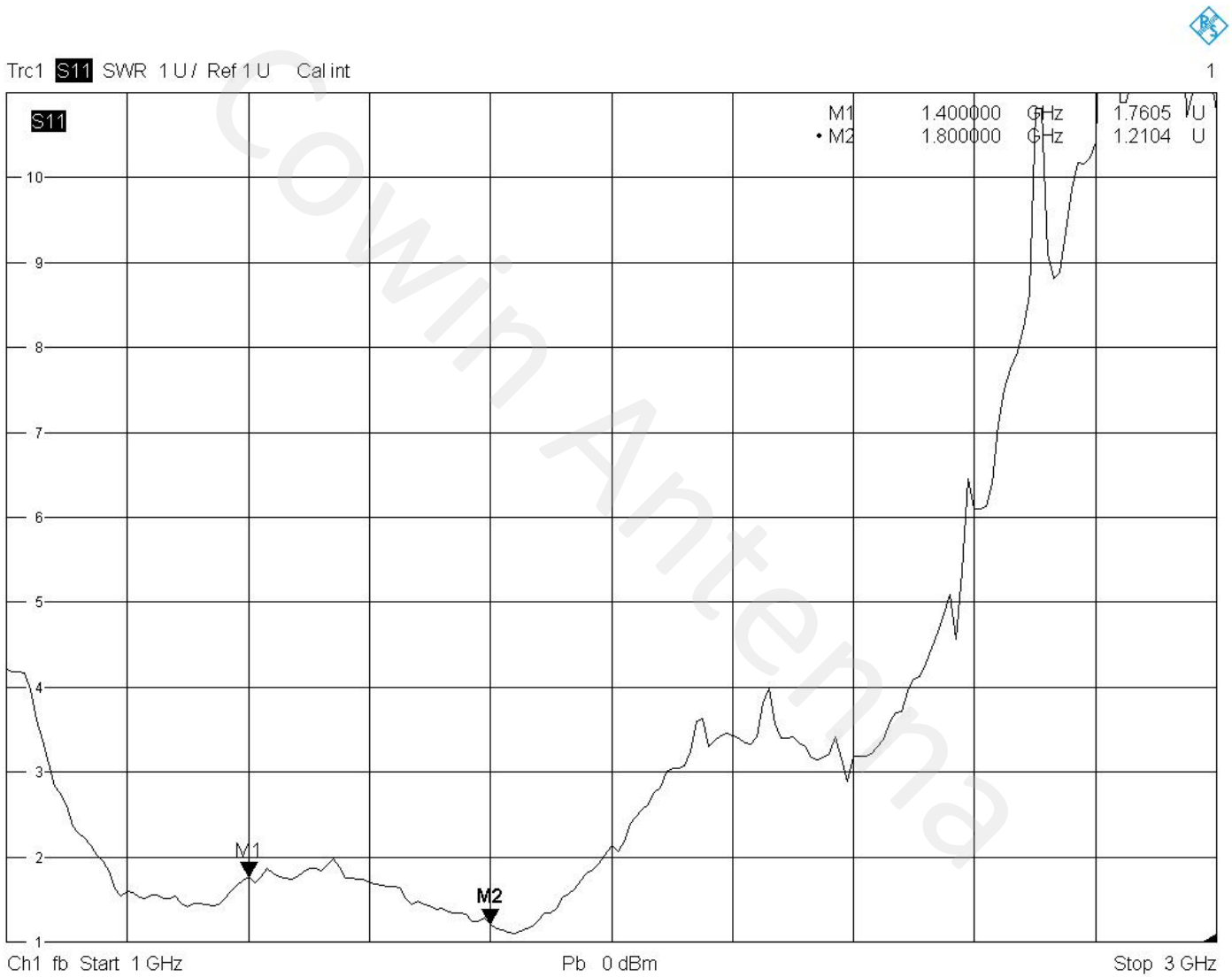
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

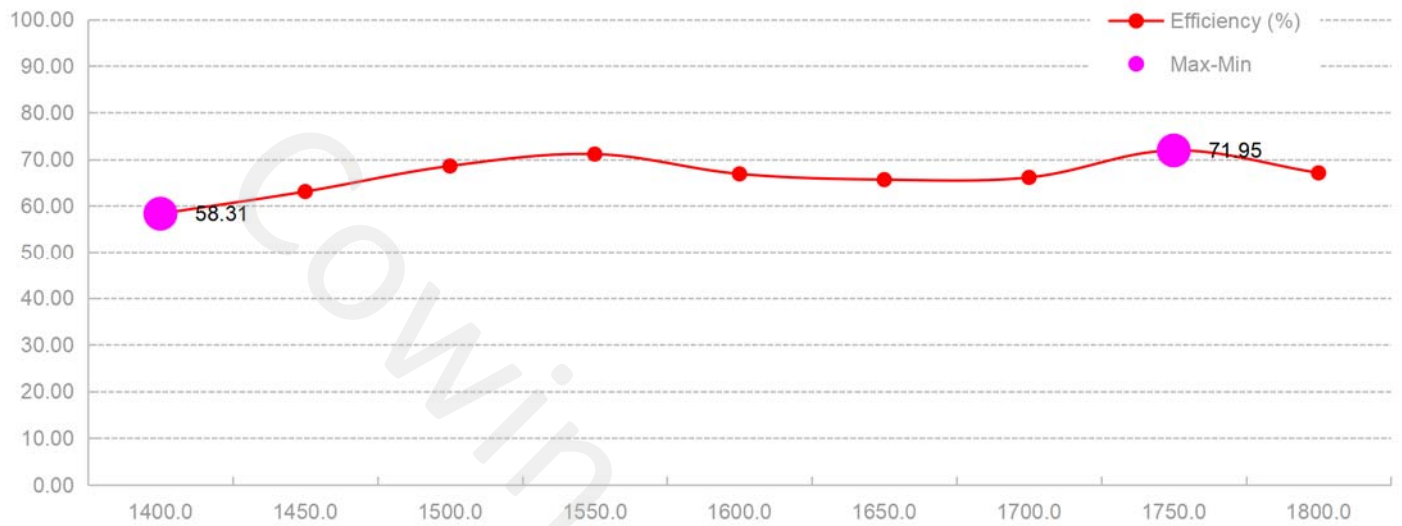


## 4.1 VSWR

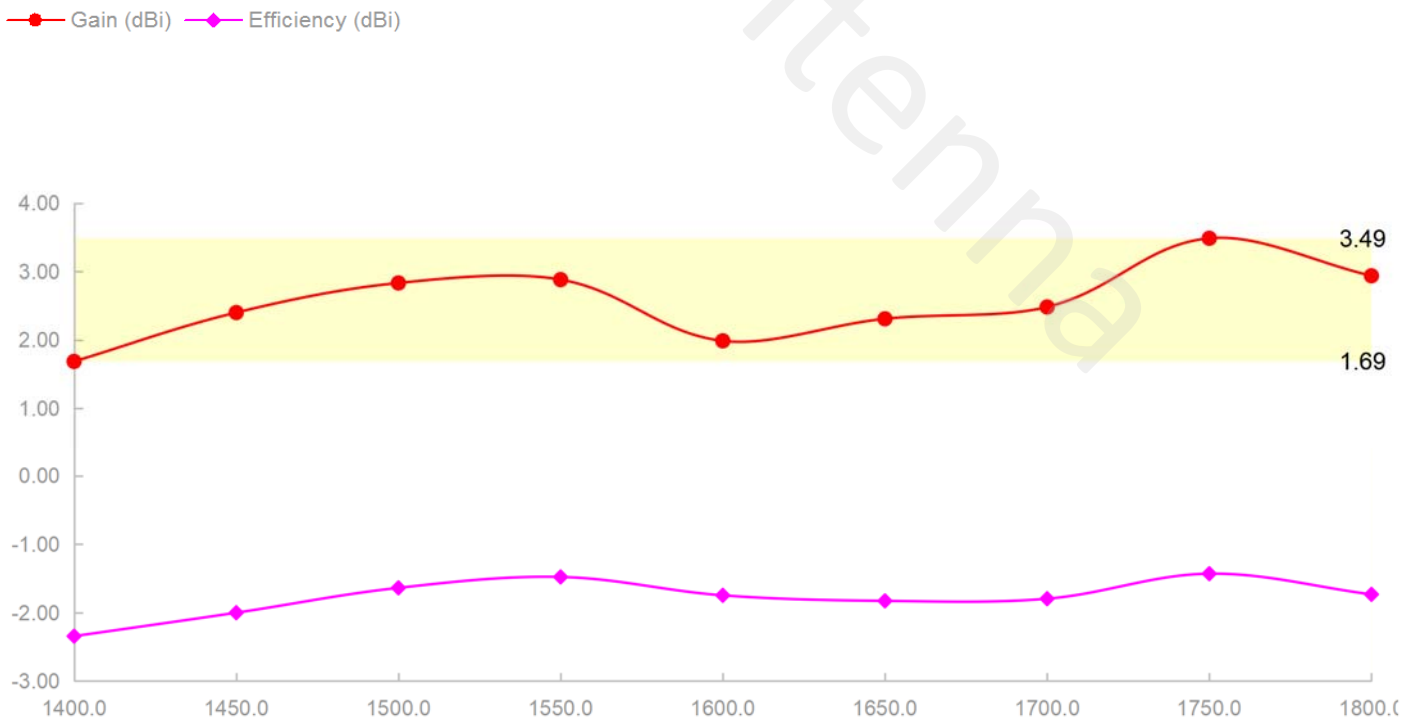


4/20/2023, 8:39 PM

## 4.2 Efficiency

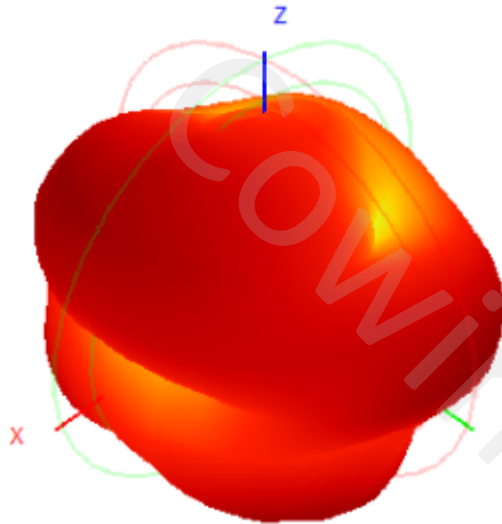


## 4.3 Peak gain

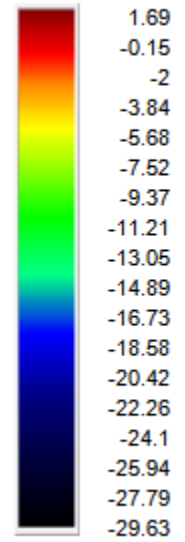
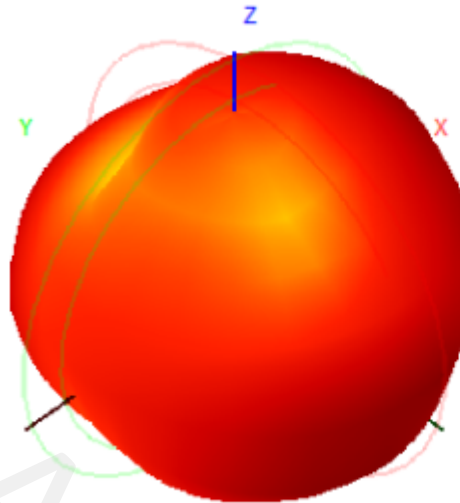


## 4.4 3D&2D Radiation Patterns

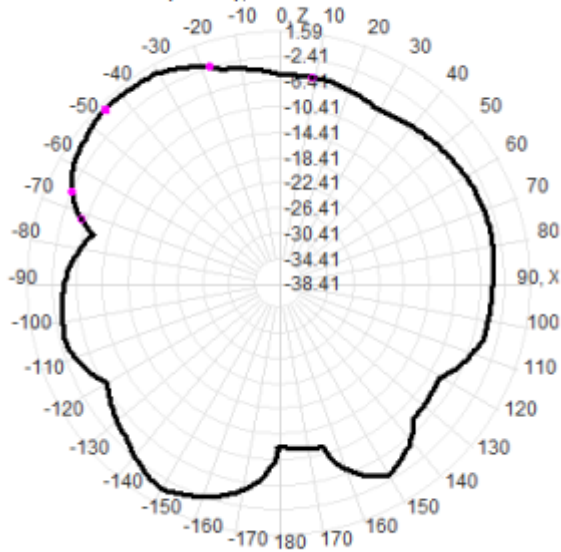
1400.0MHz H+V, Eff: 58.3%



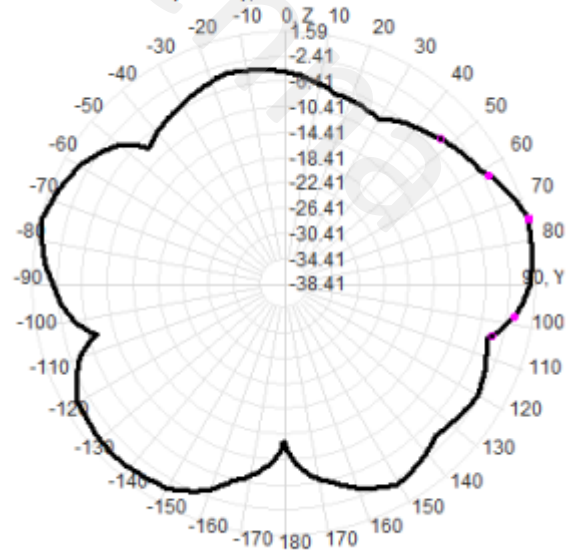
Back View



1400.0MHz Total(E1-XZ), Max= 0.64dBi



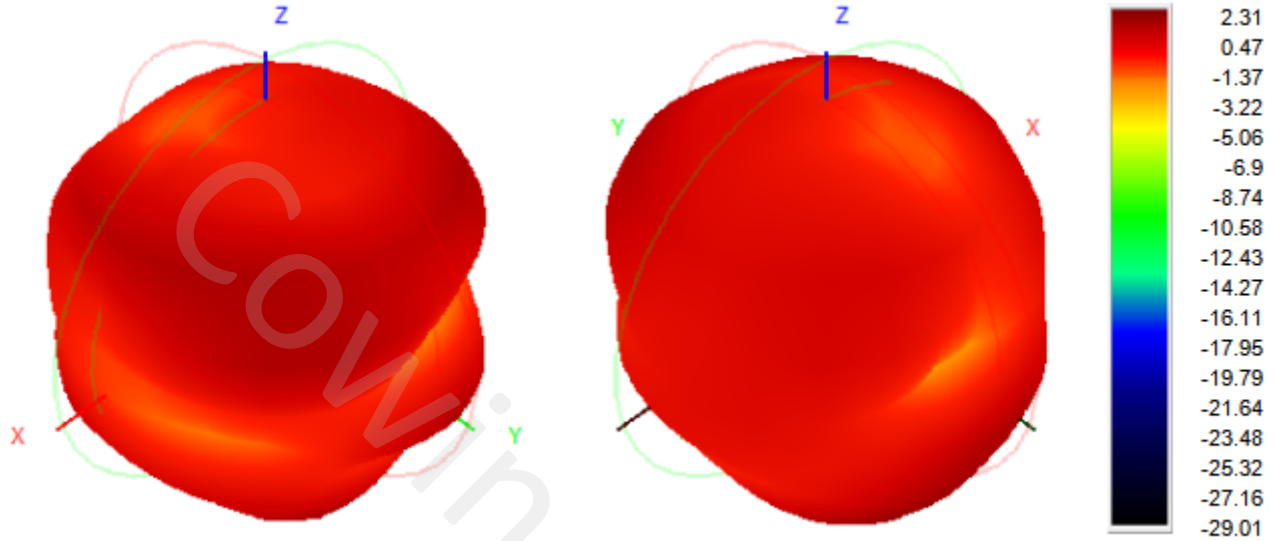
1400.0MHz Total(E2-YZ), Max= 1.50dBi





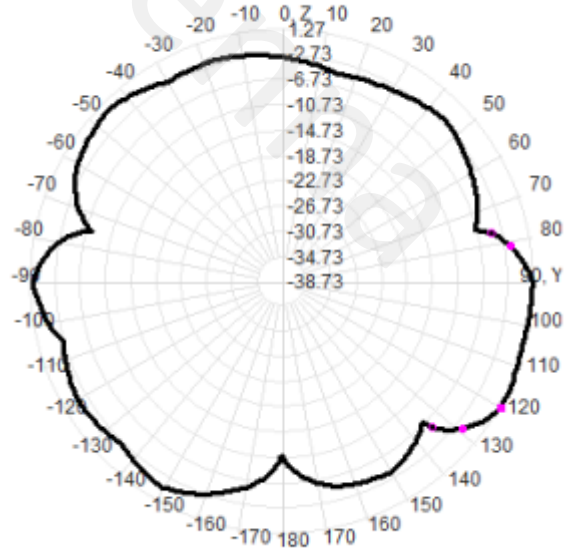
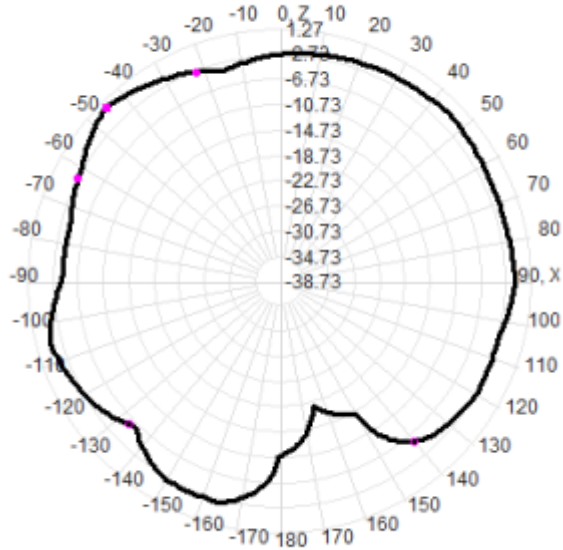
1650.0MHz H+V, Eff: 65.7%

Back View



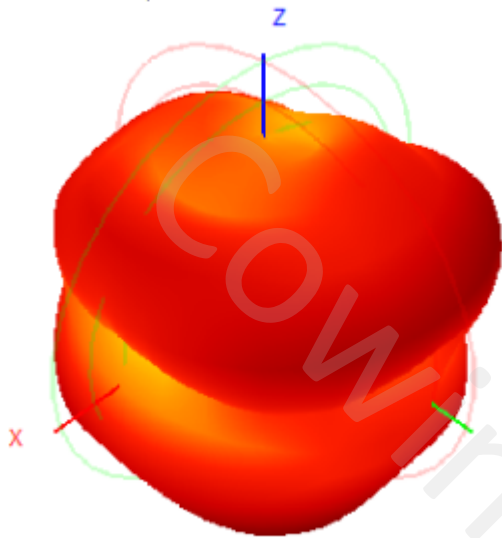
1650.0MHz Total(E1-XZ), Max= 0.22dBi

1650.0MHz Total(E2-YZ), Max= 1.27dBi

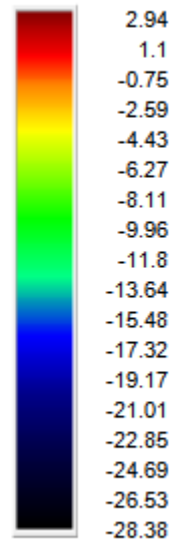
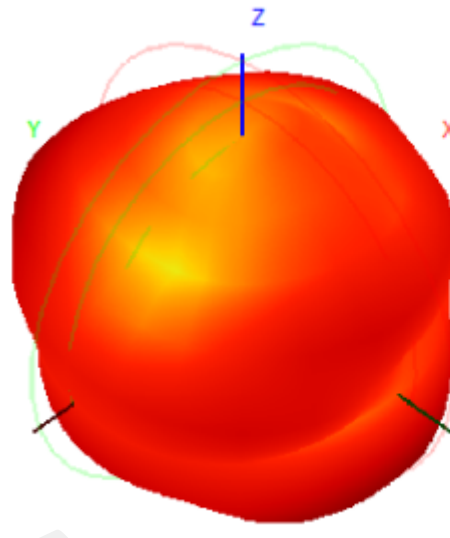




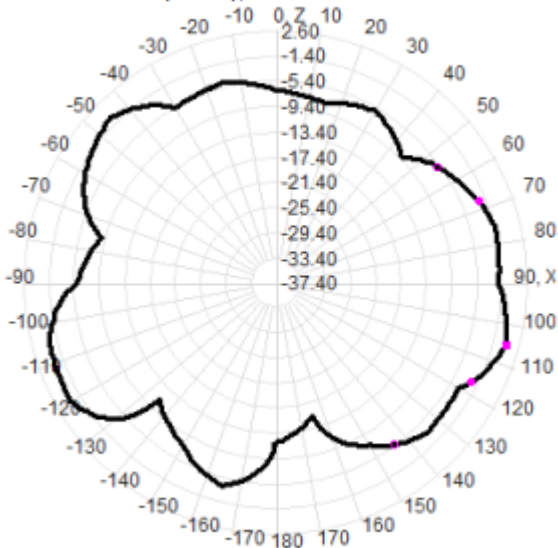
1800.0MHz H+V, Eff: 67.1%



Back View



1800.0MHz Total(E1-XZ), Max= 0.27dBi



1800.0MHz Total(E2-YZ), Max= 2.60dBi

