

## SPECIFICATION

- Part No.** : **OMB.6912.03F21**
- Description** : 4G 698-960Mhz and 1710-2700MHz  
4.5 dBi Omnidirectional Outdoor Antenna  
with N type Female Connector, U-Bolt
- Features** : Omni-Directional Radiation Pattern  
4.5 dBi Peak gain  
Covers all 4G/3G/2G bands  
Robust design for all weather operation  
IP65 waterproof  
320mm in length, 150g weight  
N type Female connector  
Mounting bracket Included  
RoHS compliant



## 1. Introduction

The OMB.6912.03F21 is a 4G fiberglass omnidirectional outdoor antenna, operating in the worldwide 4G 698-960 and 1710-2700MHz bands and has 4.5 dBi maximum gain. The collinear dipole array antenna is designed especially for outdoor applications connecting via 4G routers and modules. Its compact dimensions of 320mm in length and 70mm diameter allow it to be mounted conveniently and unobtrusively in any location, compared to traditional fiberglass omni antennas which are twice the size.

The omnidirectional antenna radiates uniformly in the azimuth providing long distance coverage, thus minimizing the amount of nodes needed for a radio network.

The UV resistant fiberglass housing enables this OMB series antenna to be used in harsh weather environments, making it more robust and safer than traditional whip antennas. The main band of operation is between 698MHz to 2170MHz, however it can also be used for shorter range 2600MHz applications.

The antenna can be mounted on a wall via the convenient pre-installed mounting bracket or on a pole with the additional supplied U-bolt . An industry standard N-type Female connector is used. The connector can be customized upon request subject to MOQ. Contact your regional Taoglas sales office for details.

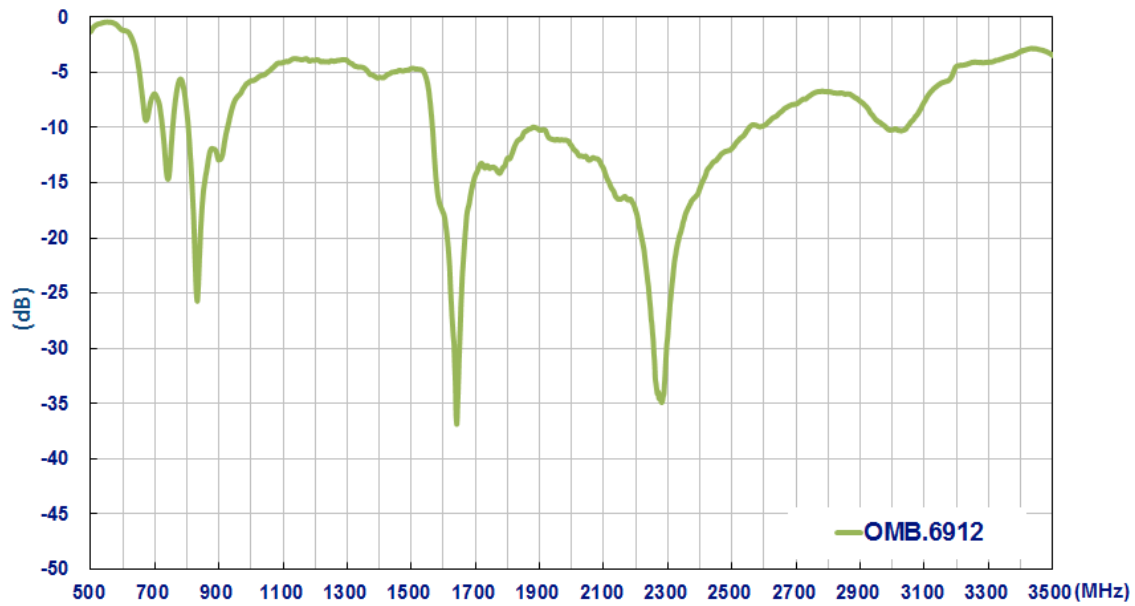
## 2. Specification

ELECTRICAL							
Frequency (MHz)	LTE 698	GSM 850	GSM 900	DCS	PCS	UMTS1	LTE 2600
	698-803	824-894	880-960	1710-1880	1850-1990	1920-2170	2490-2700
Peak Gain (dBi)	3.38	2.22	1.44	5.57	2.49	2.64	3.06
Average Gain (dBi)	-1.57	-1.28	-1.51	-1.39	-1.84	-1.39	-1.38
Effeciency(%)	70.19	74.54	70.72	73.07	65.60	72.89	72.93
Antenna Type	Collinear Dipole Array						
Polarization	Vertical (Linear)						
Impedance	50 ohms						
Max Input Power	150 watts						
Radiation	Omnidirectional						
Vertical Beamwidth	698-960MHz: 59 Deg 1710-2170 MHz: 37 Deg						
Horizontal Beamwidth	360 Deg						
MECHANICAL							
Length		320mm(Max)					
Bracket Dimension		70 x 53mm(Max)					
Antenna Diameter		Ø26 mm					
Antenna Weight		150g					
Mounting Accessories Weight		35g					
Application		Indoor/Outdoor					
Radome Material		White Fiberglass					
Bracket Material		Aluminum					
Mount Style		Pole Mount/Wall Mount					
Mount Hardware Material		Stainless Steel					
Wind Resistance		>150mph (>241km/h)					
Internal Material		Copper					
Connector		N Type Female					
Waterproof		IP65					

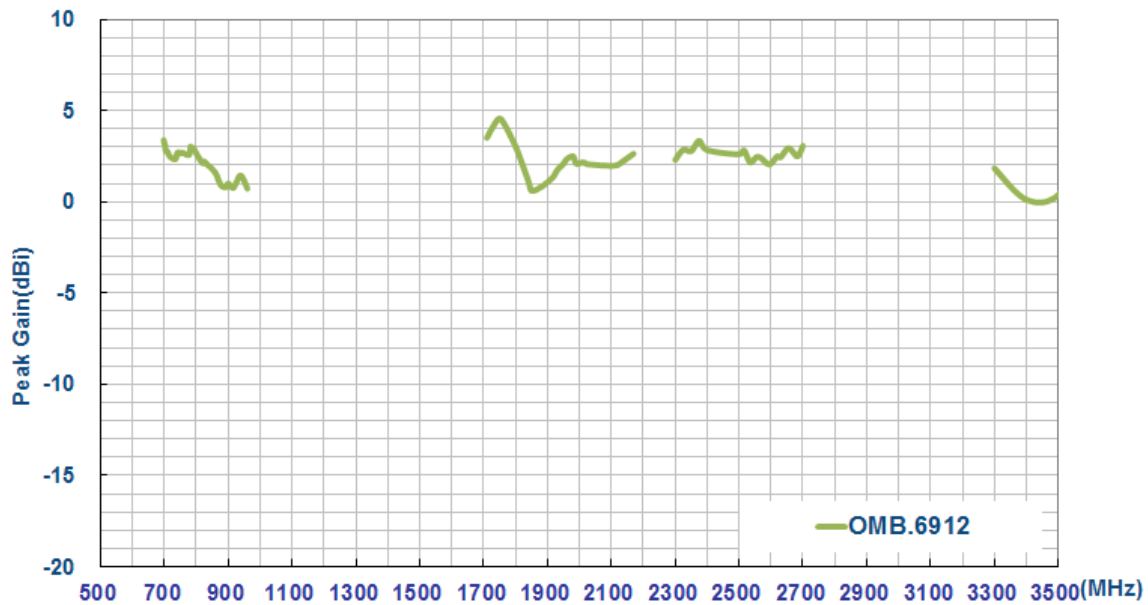
ENVIRONMENTAL	
Storage Temperature	-40°C to +80°C
Operating Temperature	-40°C to +60°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~80% non-condensing

## 3. Antenna Characteristics

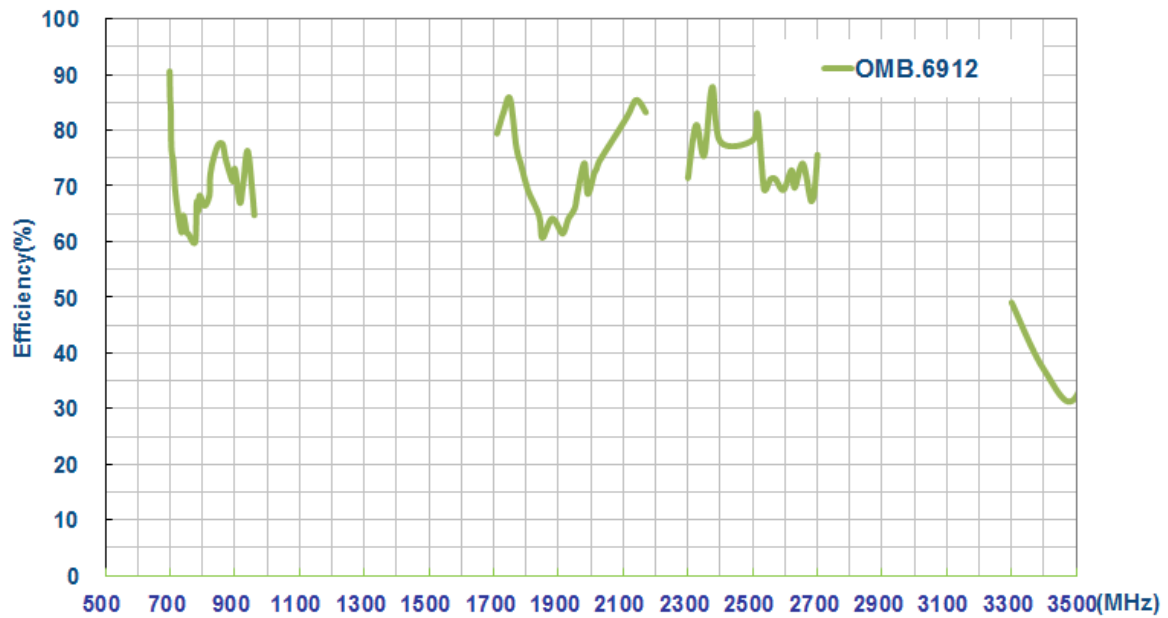
### 3.1 S11



### 3.2 Peak Gain

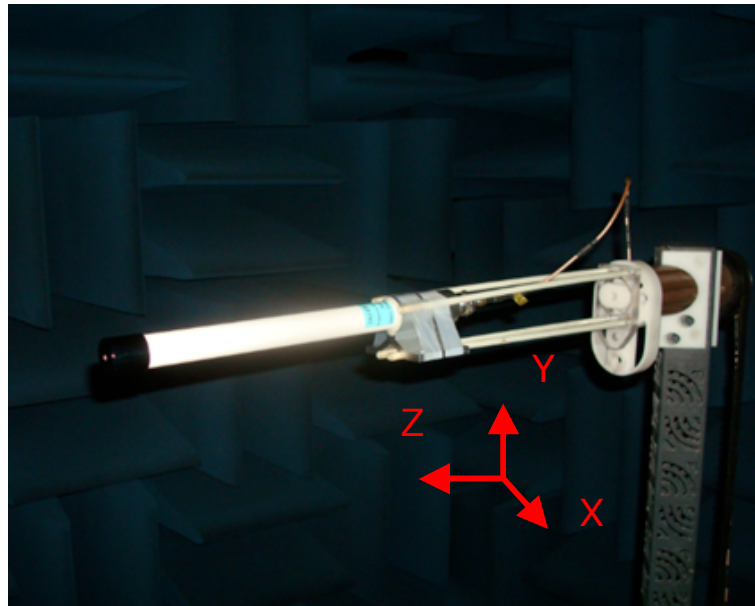


### 3.3 Efficiency



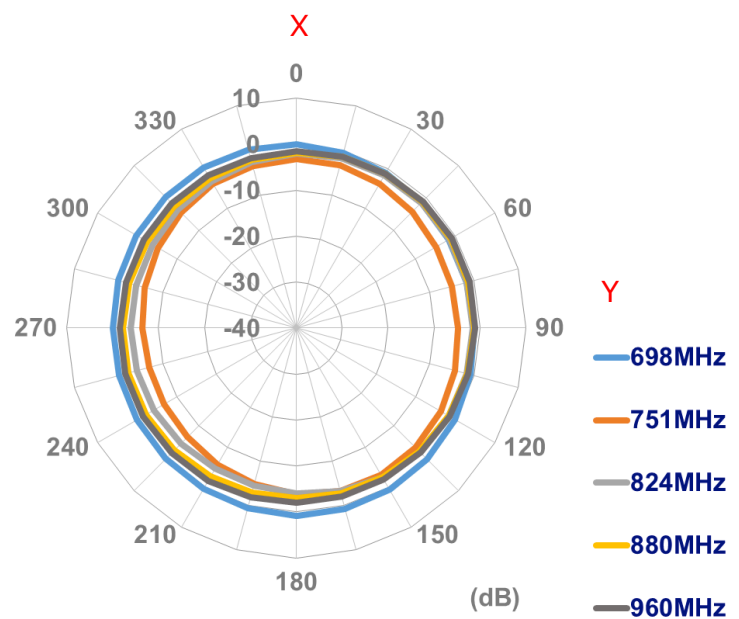
## 4. Radiation Properties

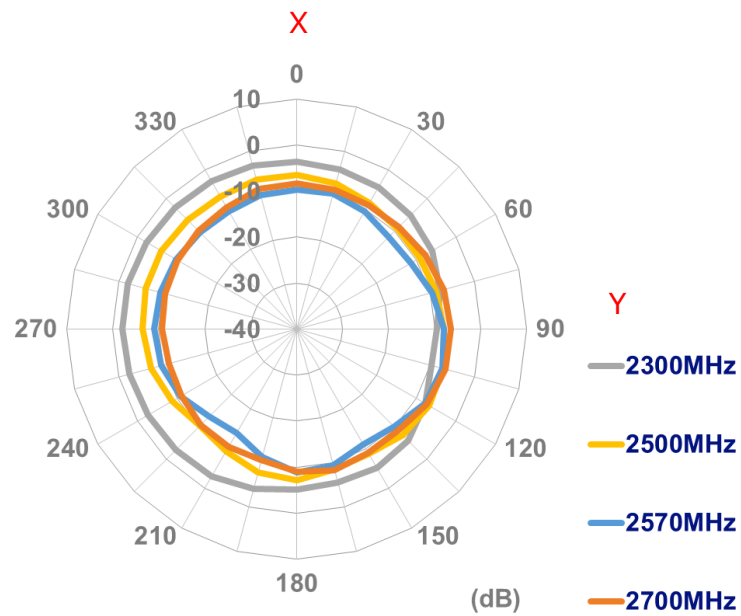
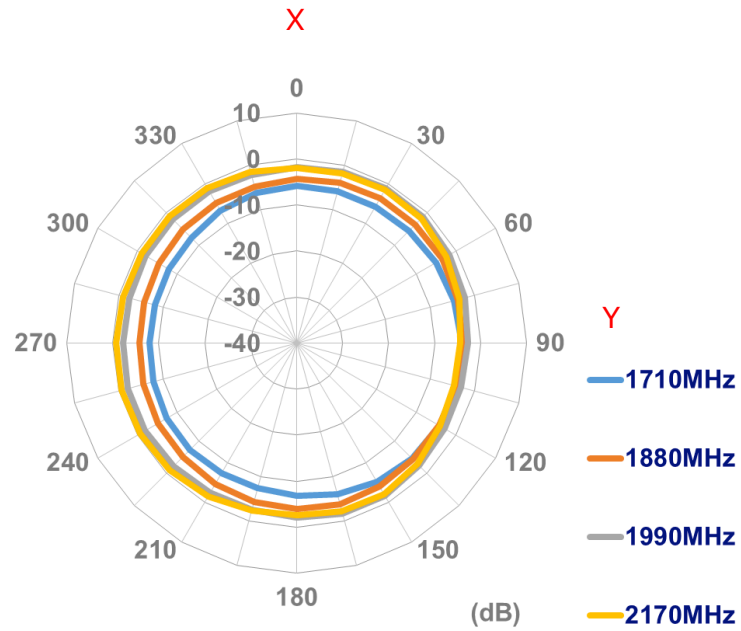
### 4.1 Measurement Setup



### 4.2 2D Radiation Pattern

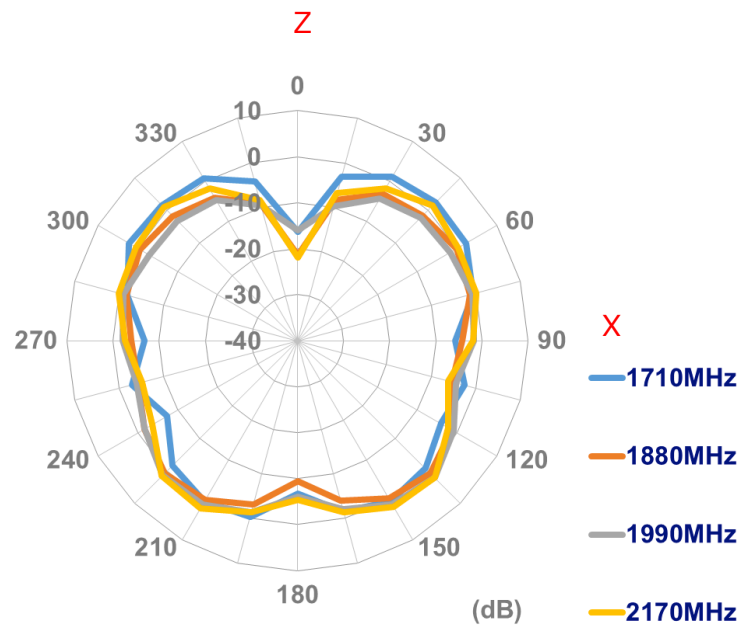
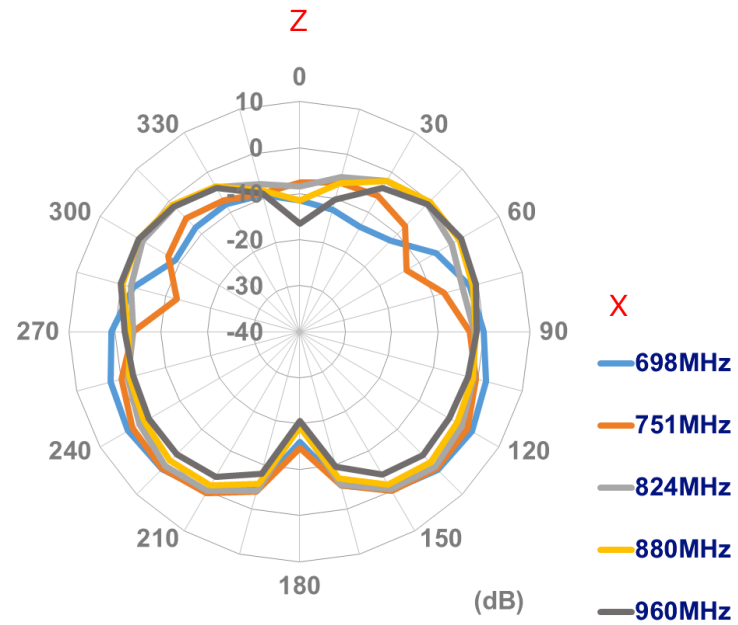
XY Plane

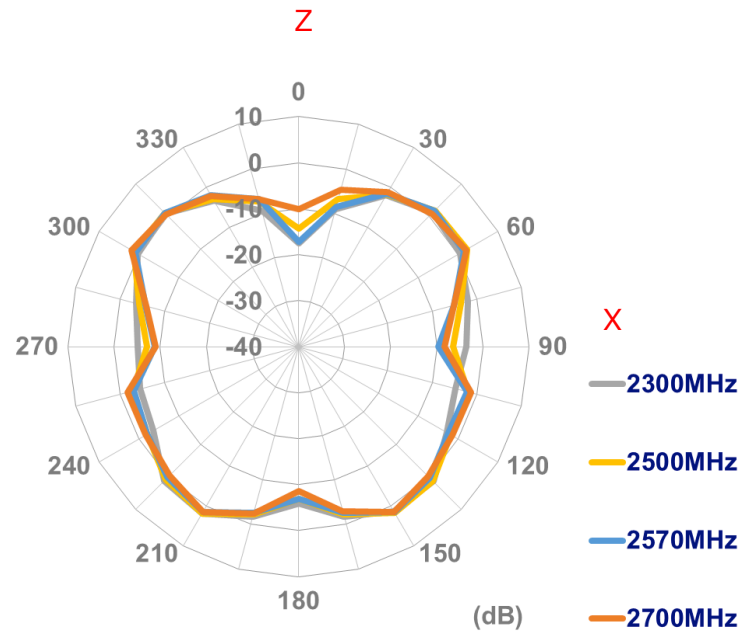




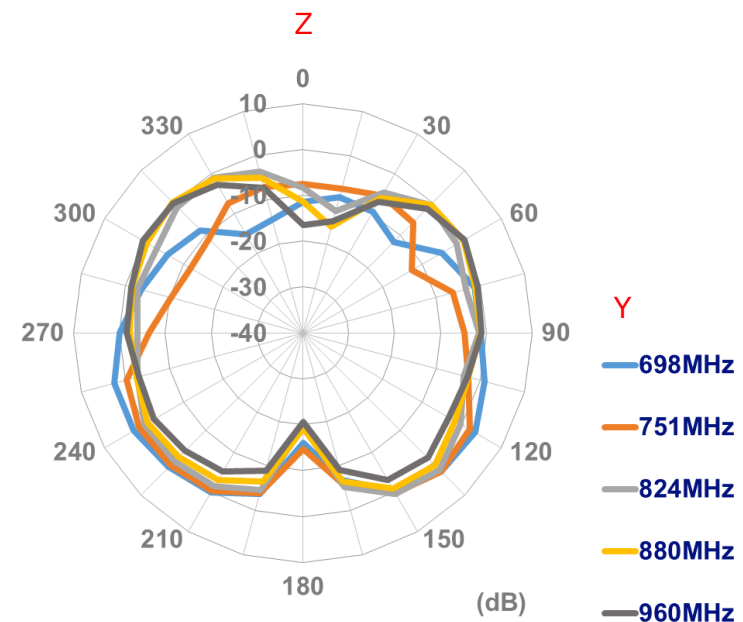


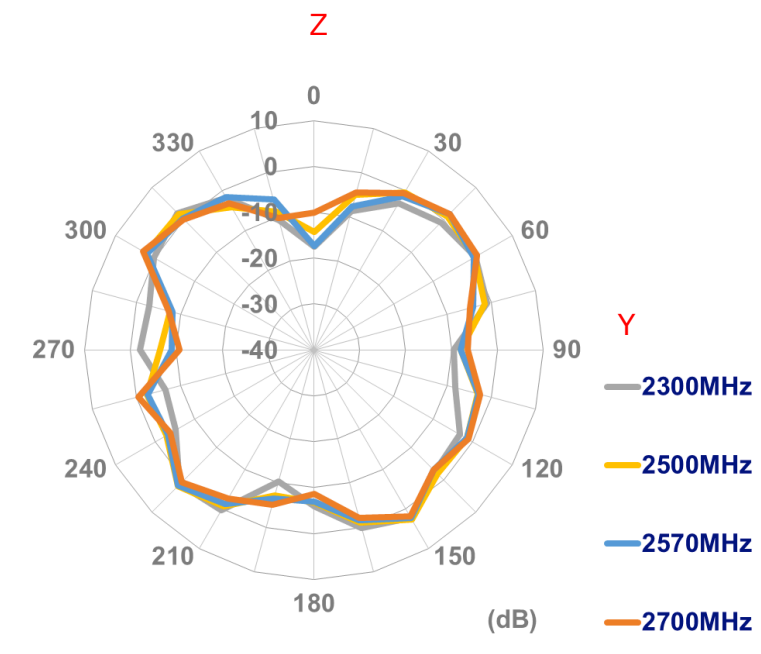
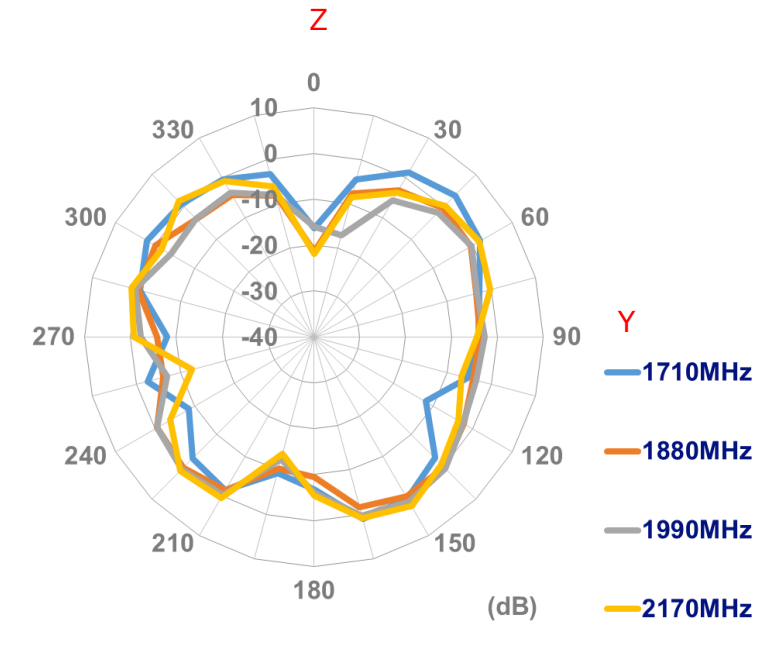
## XZ Plane





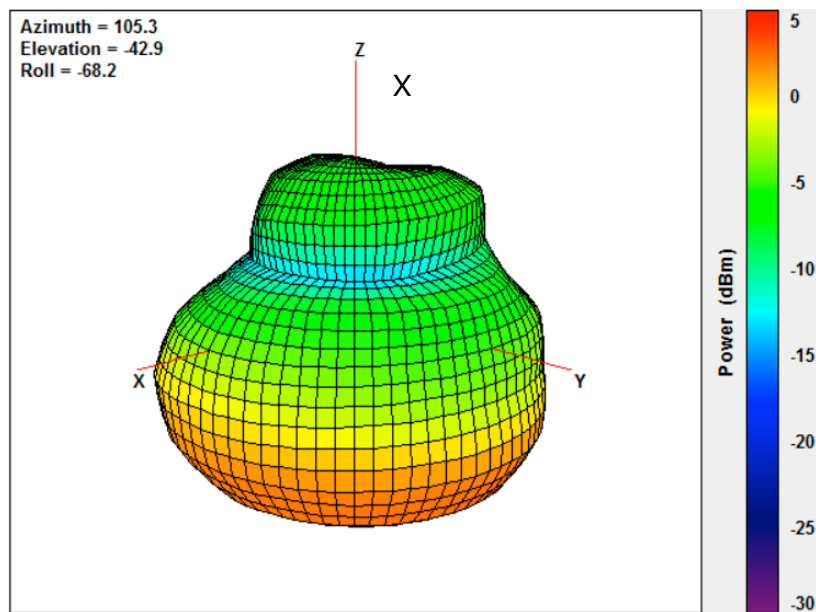
YZ Plane



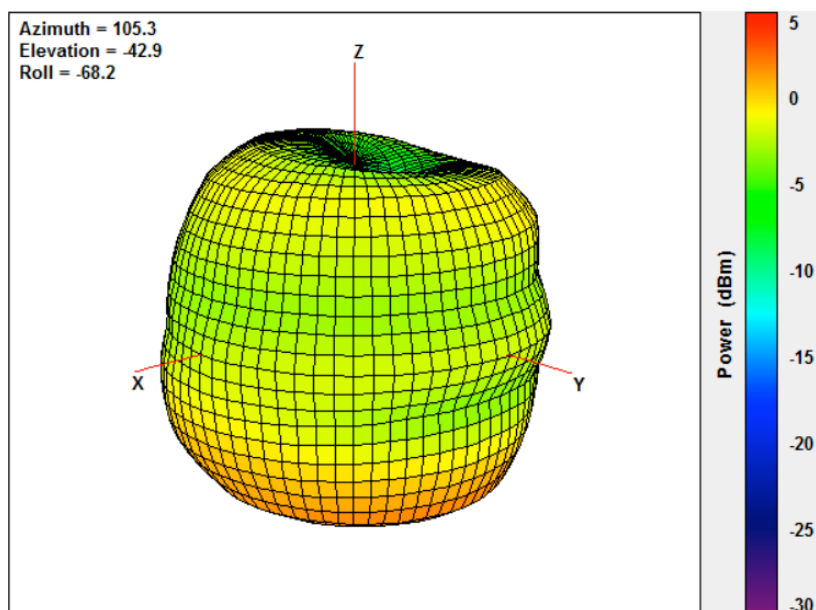


## 4.3 3D Radiation Pattern

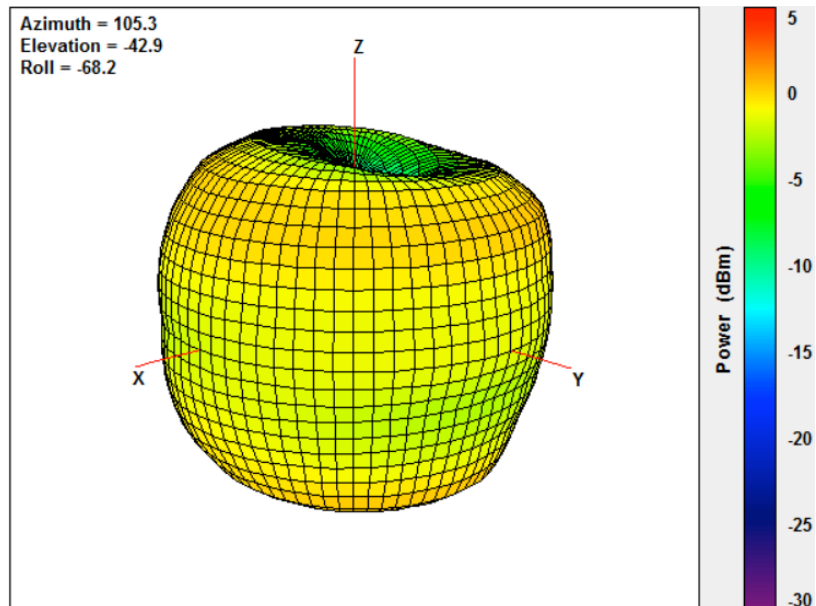
@751MHz



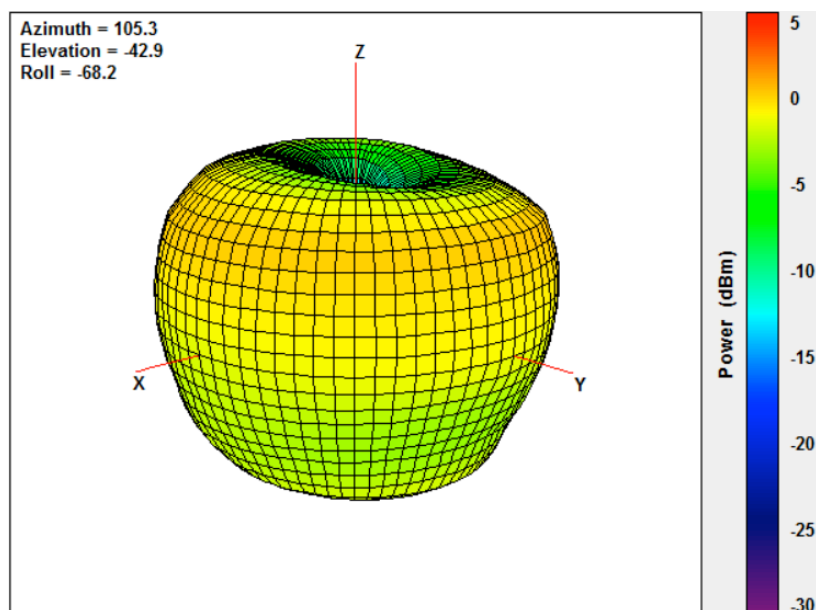
@824MHz



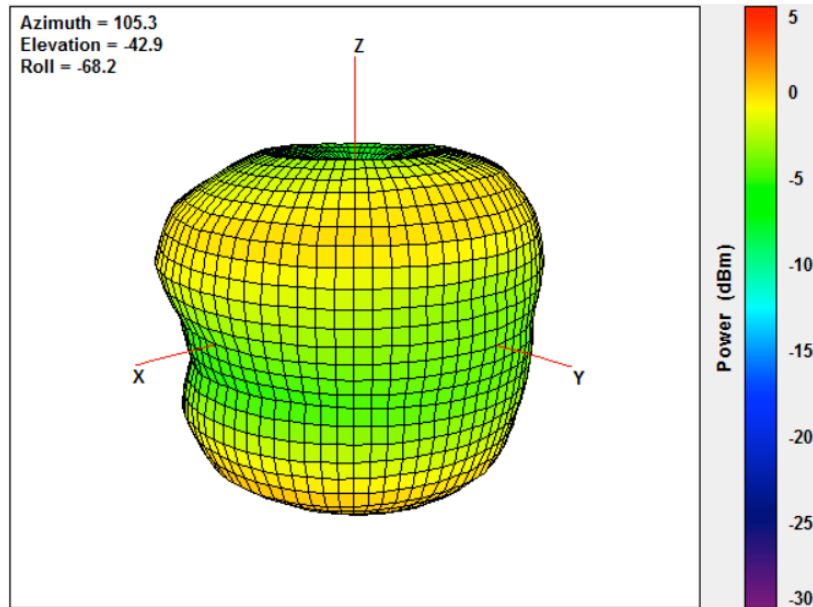
@880MHz



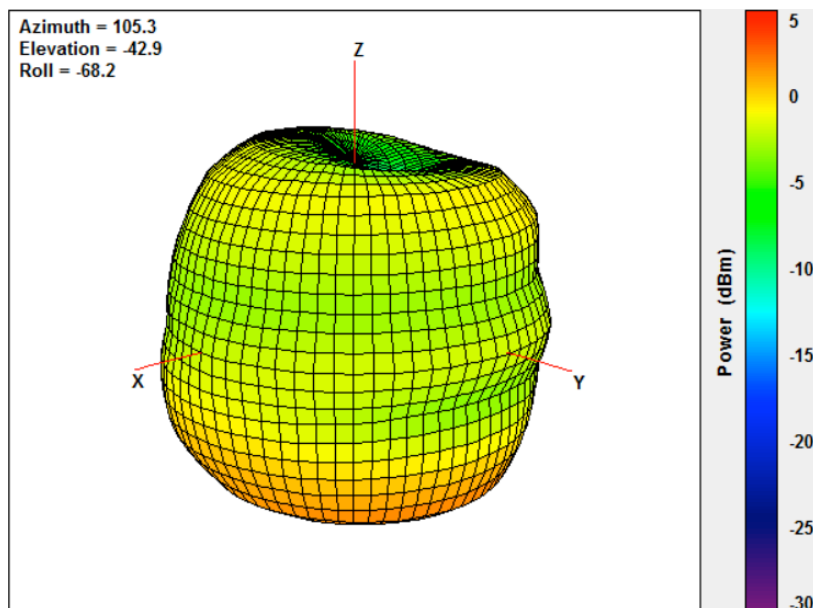
@960MHz



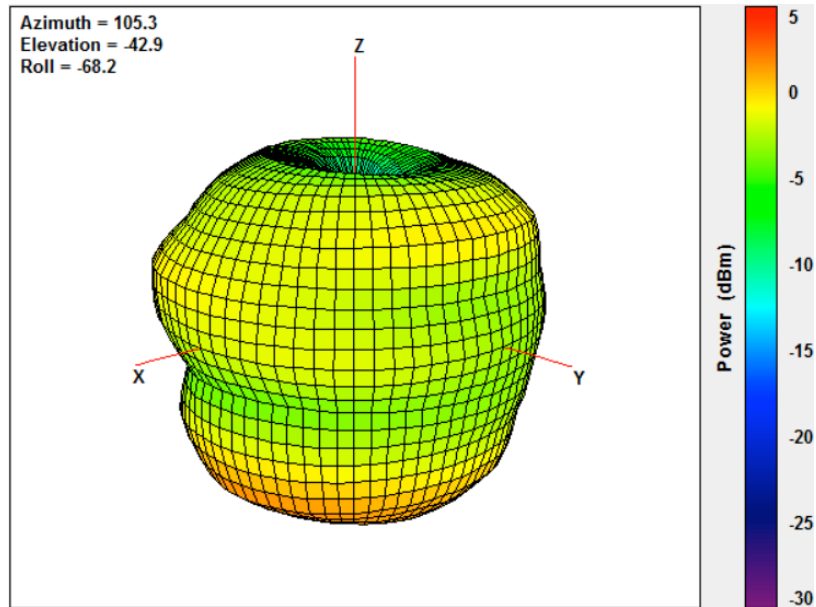
@1710MHz



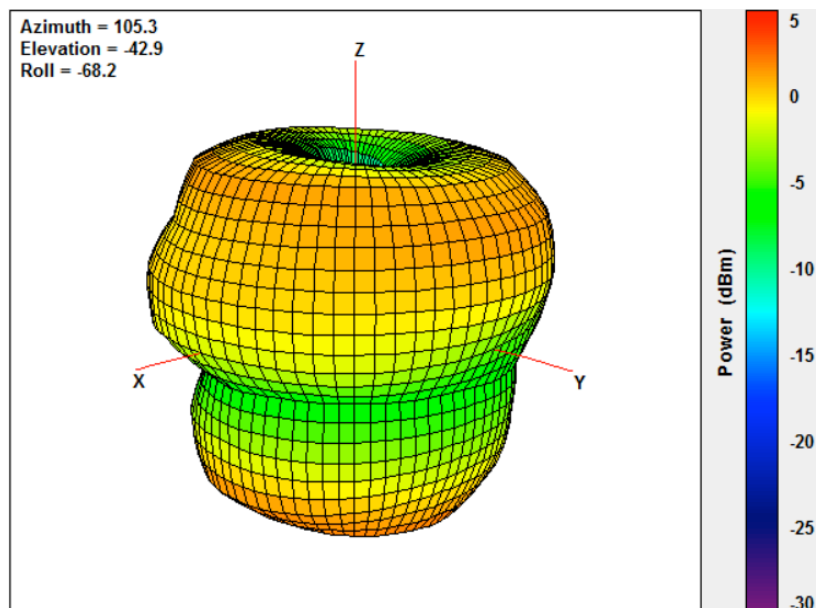
@1880MHz



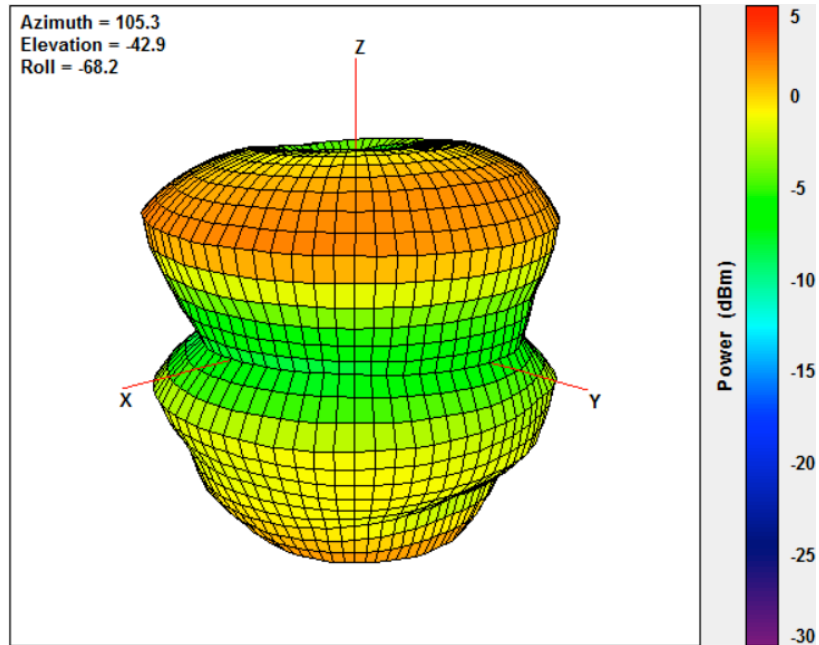
@1990MHz



@2170MHz

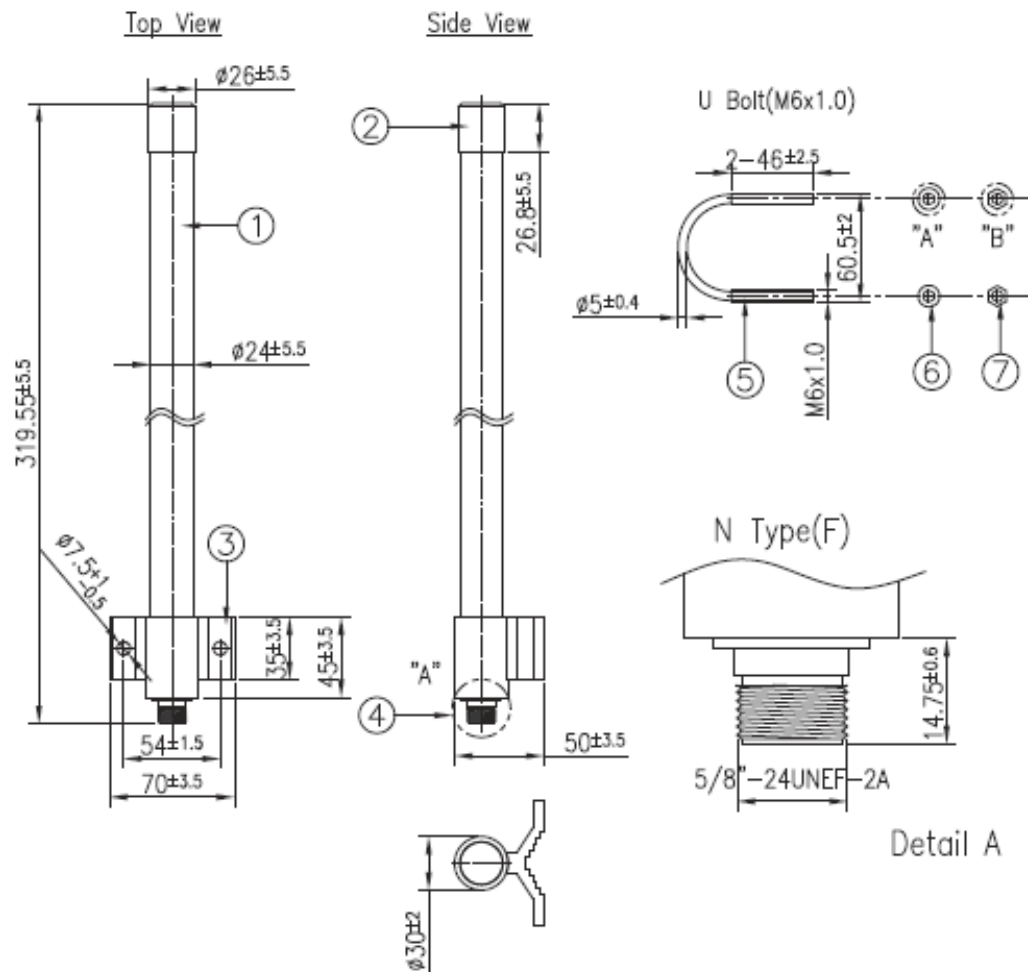


@2700MHz





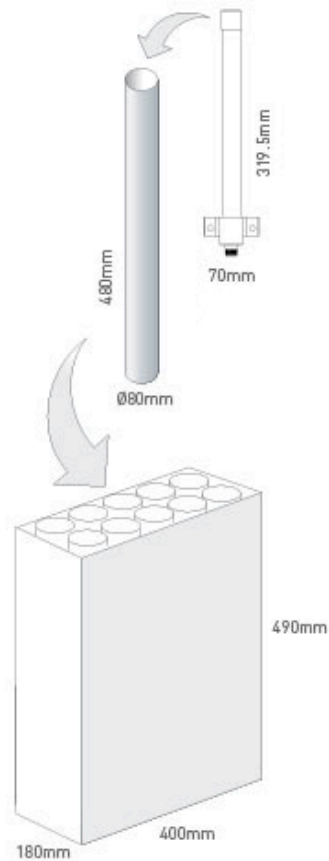
## 5. Mechanical Drawing (Unit: mm)



	Name	Material	Finish	QTY
1	OMB.6912 Antenna	Glass Fiber	White	1
2	Cover	ABS	Sliver	1
3	Bracket	Aluminum	Silver	1
4	N Type(F)	Brass	Ni Plated	1
5	M6 U Type Screw	Stainless Steel	Sliver	1
6	M6 Washer	Stainless Steel	Silver	2
7	M6 Nut	Stainless Steel	Sliver	2

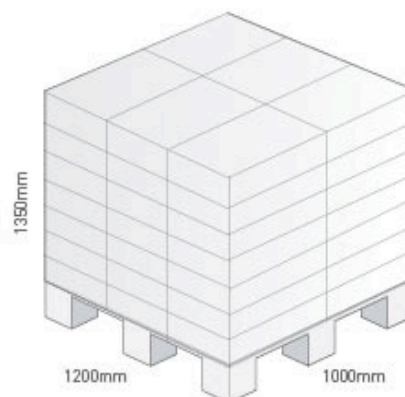
## 6. Packaging Specs

1 OMB.6912.03F21 per tube  
 Tube Dimensions - Ø80mm\*Height 480mm  
 Total Weight - 460g



10 tubes per carton  
 10 pcs OMB.6912.03F21 per carton  
 Carton Dimensions - 490\*400\*180mm  
 Weight - 5.4Kg

Pallet Dimensions 1200 x 1000 x 1350mm  
 42 Cartons per Pallet  
 6 Cartons per layer  
 7 Layers



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