

# Antenna

# YE0001BA Datasheet

OC: YE0001BA



Version	Date	Author	Note
1.0	2020-08-27	Kenny YIN	Initial

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## 1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

## 2 Product Features

- Cellular LTE 4G & 5G
- High efficiency
- Excellent performance



### 3 Product Specifications

#### Passive Electrical Specifications

Frequency Range	600~6000 MHz
Input Impedence	50 $\Omega$
VSWR	$\leq 3.0$
Gain	$\leq 5$ dBi
Polarization Type	Linear

#### Mechanical Specifications

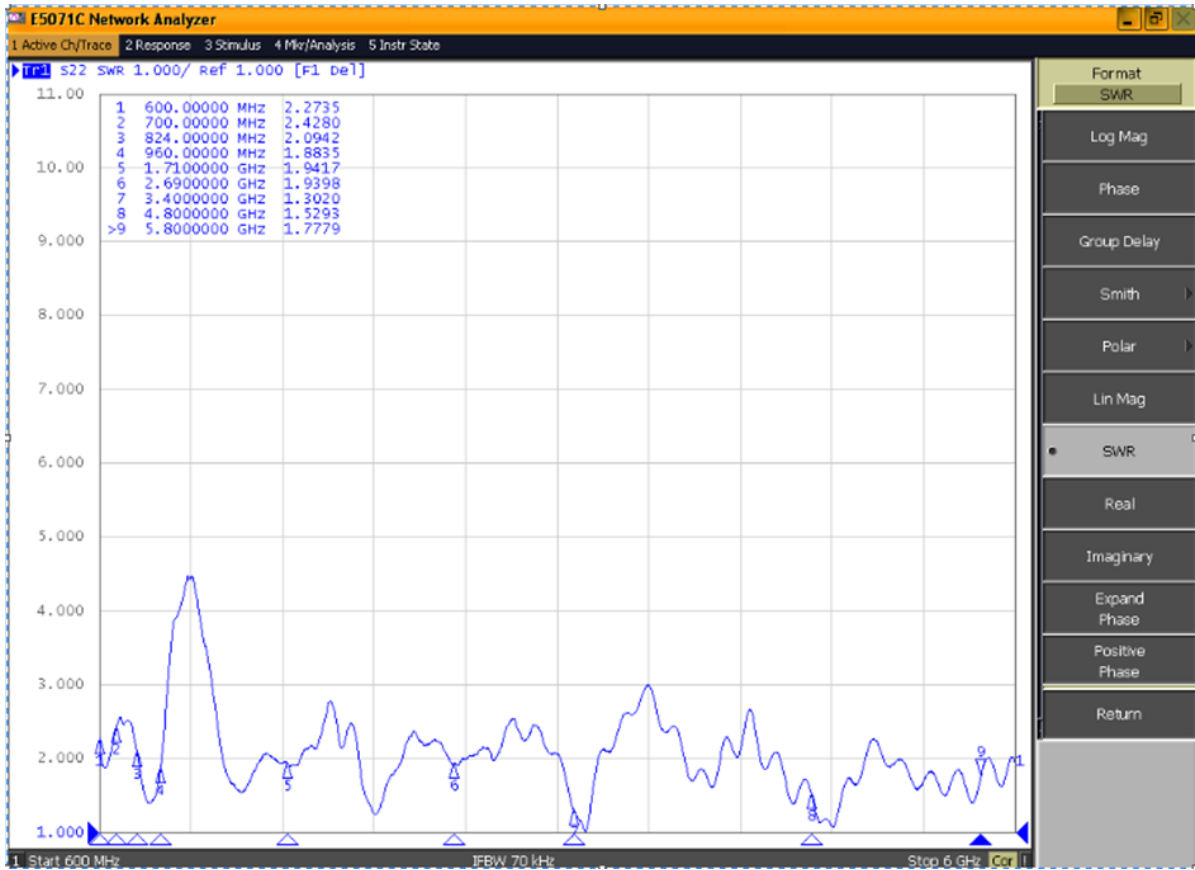
Antenna Size	221 mm x 26.95 mm x 13.5 mm
Casing	ABS
Radiator	Cuprum
Connect Type	SMA (Male pin with internal thread)
Working Temperature	-20 °C to +80 °C
Radome Color	Black

## 4 Overall Performance

- Test Environment
  - KEYSIGHT VNA Network Analyzer E5063A 100 kHz – 6.5 GHz.
  - RayZone® 2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.



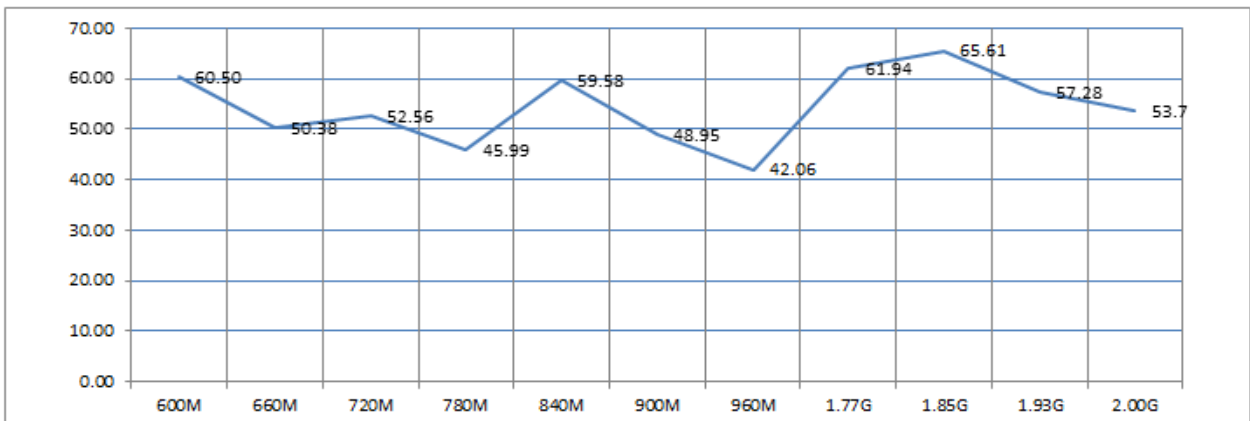
● VSWR



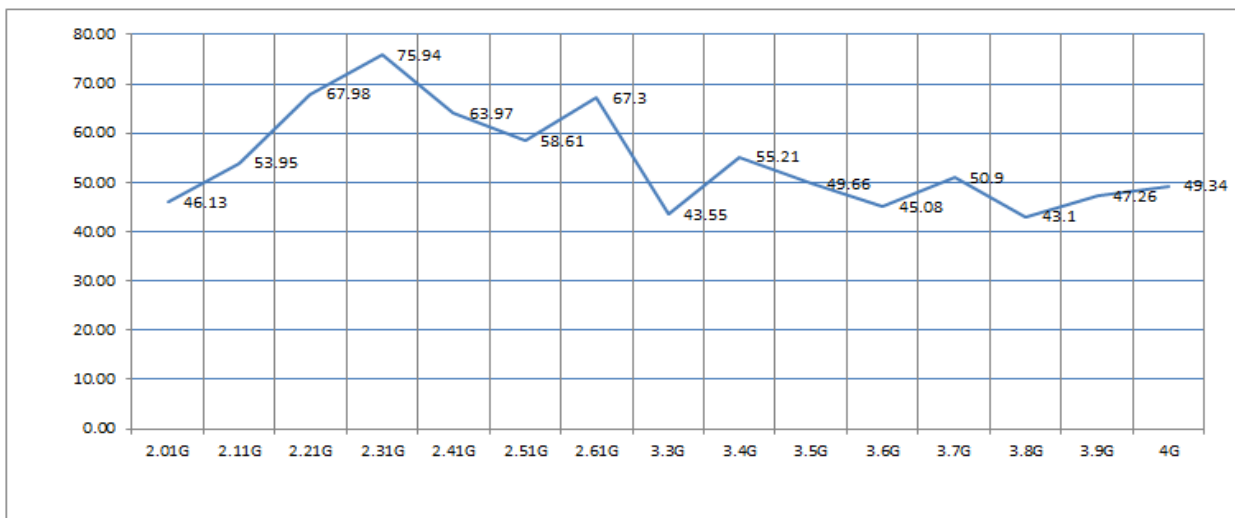
Frequency (MHz)	600	700	824	960	1710	2690	3400	4800	5800
VSWR	2.27	2.42	2.09	1.88	1.94	1.94	1.30	1.53	1.78

● Efficiency

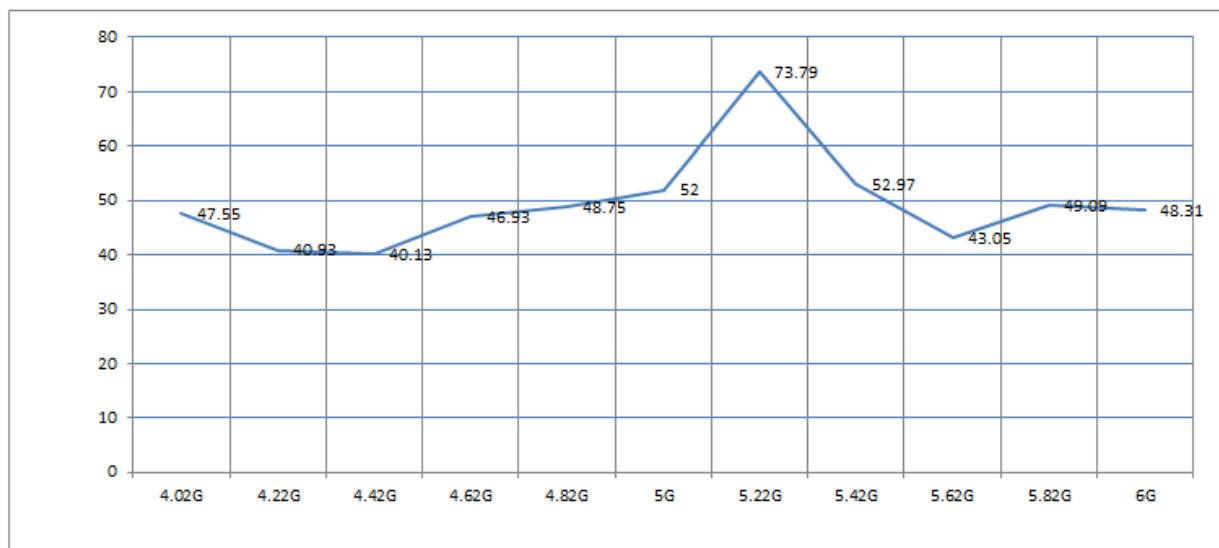
**600.00MHZ-2000.000MHZ Efficiency**



**2000.00MHZ-4000.000MHZ Efficiency**



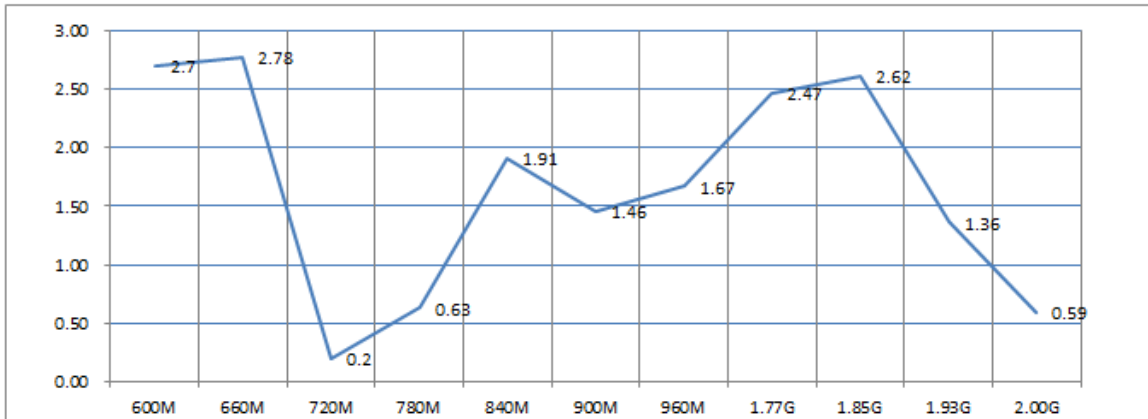
**4000.00MHZ-6000.000MHZ Efficiency**



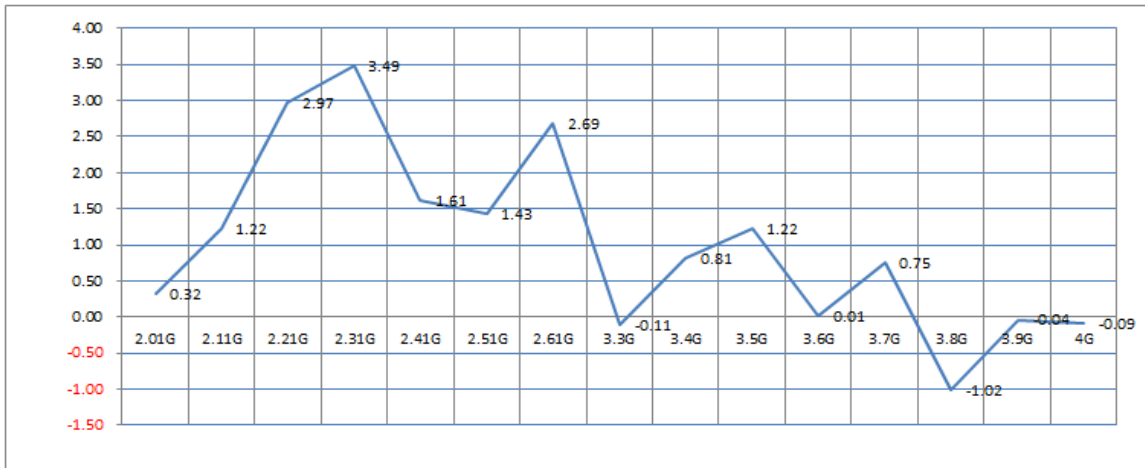
<b>Frequency (MHz)</b>	600	824	960	1710	1850	2150	2690	3500	5000	6000
<b>Efficiency (%)</b>	60.5	54.08	42.06	57.94	65.61	62.09	72.72	49.66	52.00	48.31

● Gain

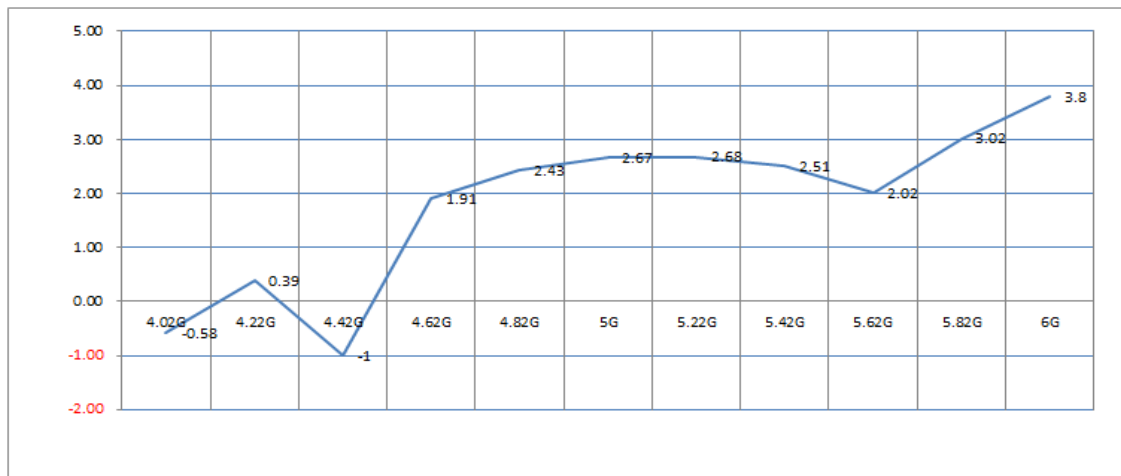
**600.00MHZ-2000.000MHZ Gain**



**2000.00MHZ-4000.000MHZ Gain**



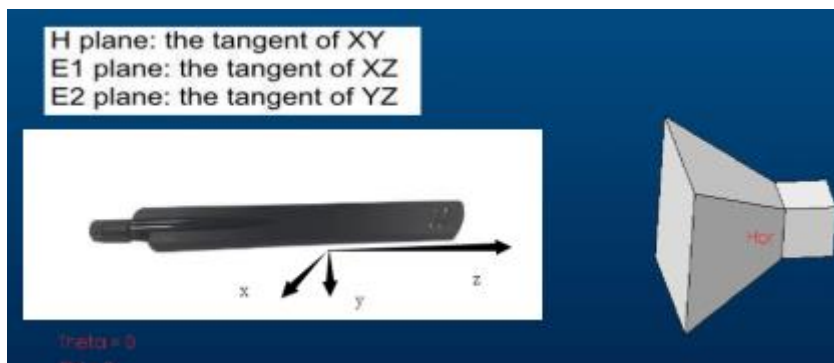
**4000.00MHZ-6000.000MHZ Gain**



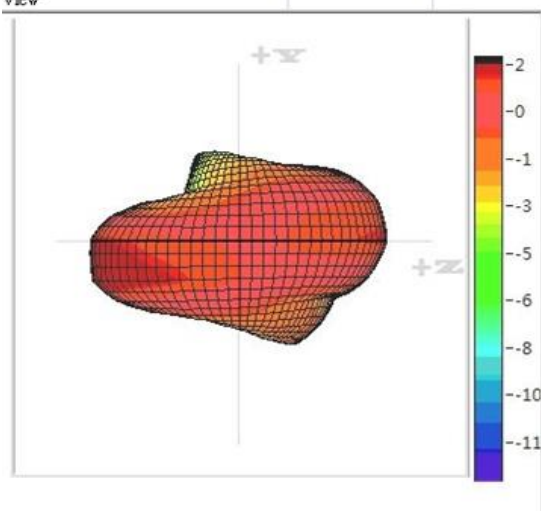


Frequency (MHz)	600	824	960	1710	1850	2150	2690	3500	5000	6000
Gain (dBi)	2.70	1.50	1.67	2.20	2.62	2.38	2.36	1.22	2.67	3.80

● Radiation Patterns

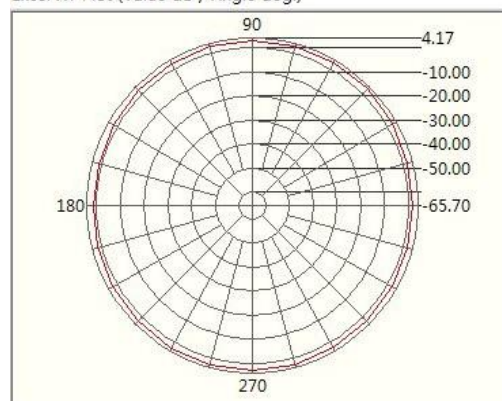


600MHzRight-Left View



600MHz@Theta 90.0

Horizontal Excel XY Plot (Value dB / Angle deg.)

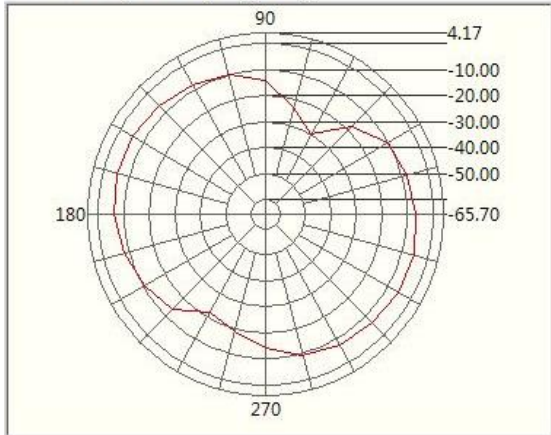


600MHz@Theta

90.0

Vertical

Excel XY Plot (Value dB / Angle deg.)

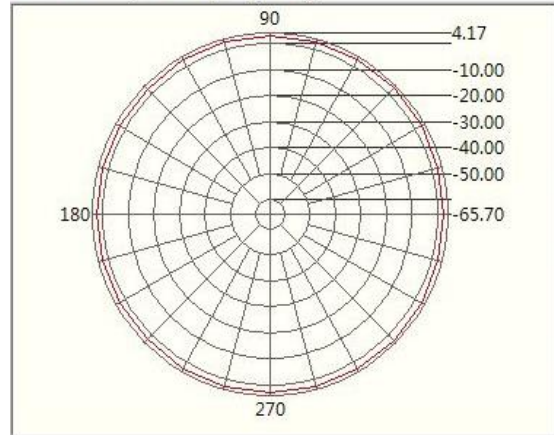


600MHz@Theta

90.0

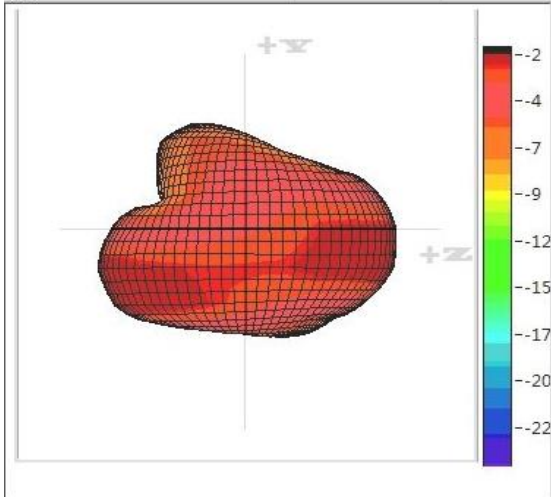
Total

Excel XY Plot (Value dB / Angle deg.)



705MHzRight-Left

View

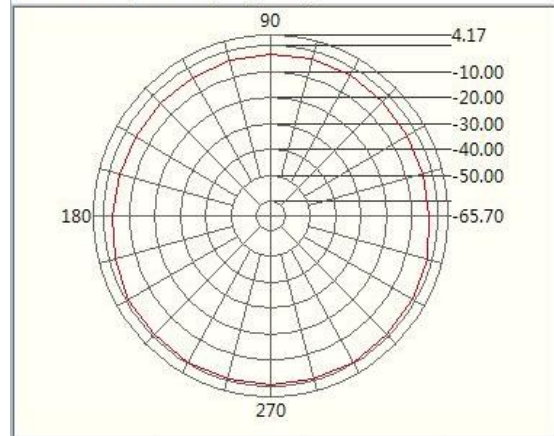


705MHz@Theta

90.0

Horizontal

Excel XY Plot (Value dB / Angle deg.)

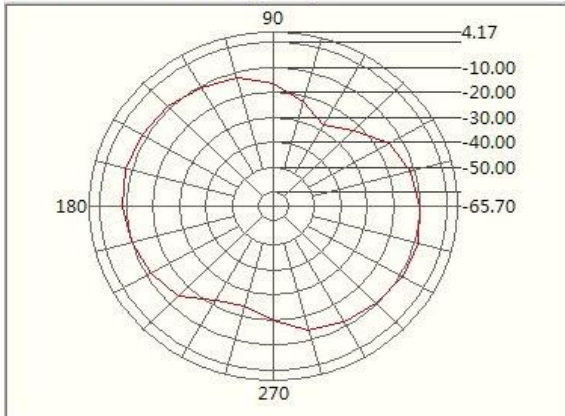


705MHz@Theta

90.0

Vertical

Excel XY Plot (Value dB / Angle deg.)

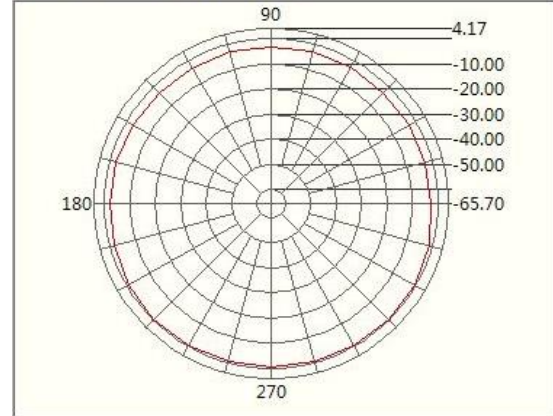


705MHz@Theta

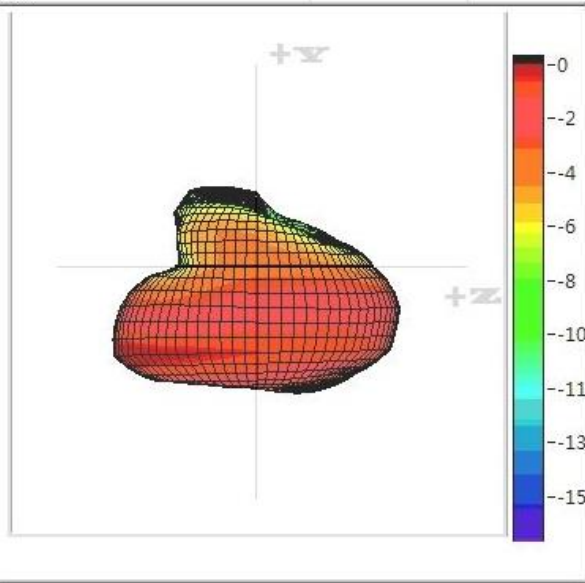
90.0

Total

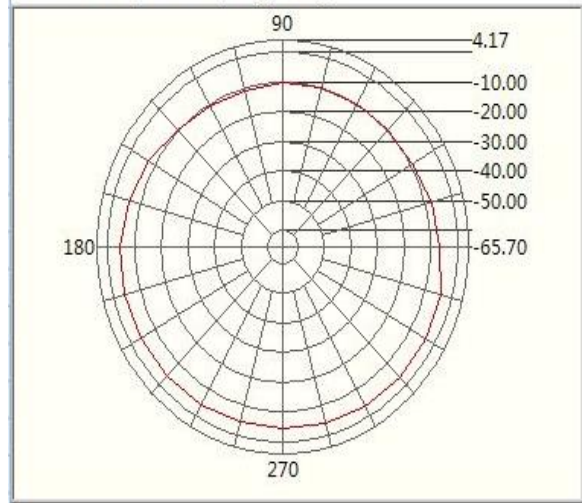
Excel XY Plot (Value dB / Angle deg.)



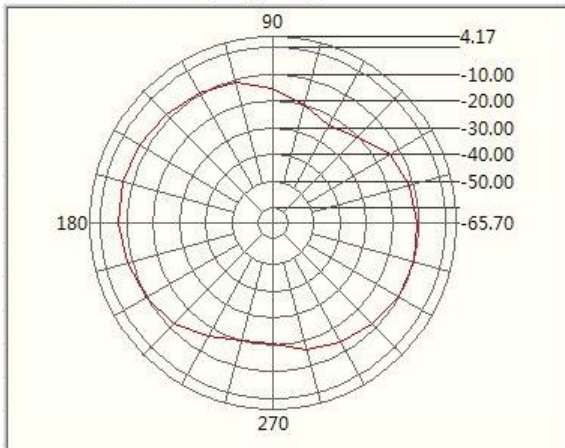
825MHzRight-Left  
View



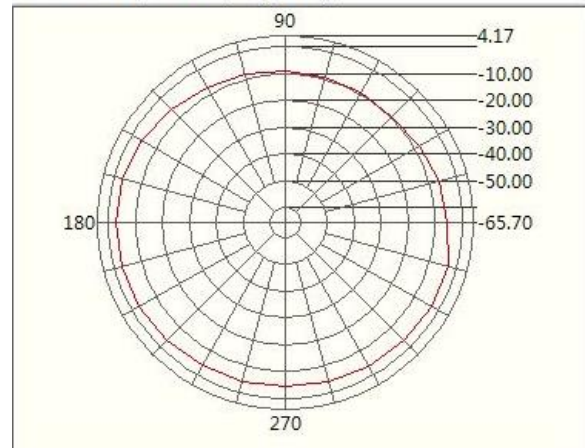
825MHz@Theta  
90.0  
Horizontal  
Excel XY Plot (Value dB / Angle deg.)



825MHz@Theta  
90.0  
Vertical  
Excel XY Plot (Value dB / Angle deg.)

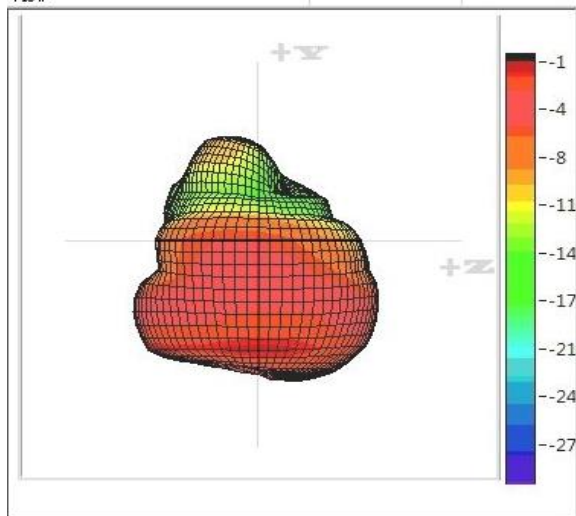


825MHz@Theta  
90.0  
Total  
Excel XY Plot (Value dB / Angle deg.)



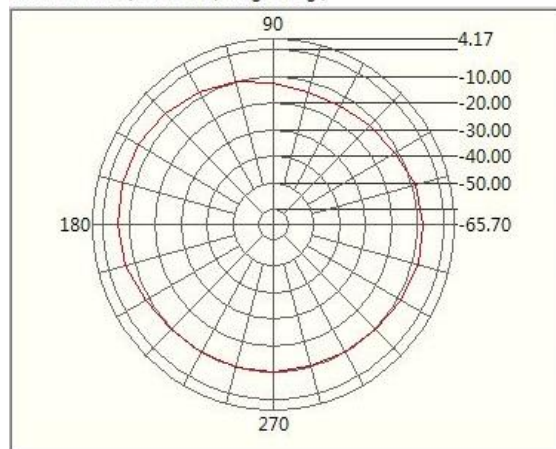


960MHzRight-Left  
View



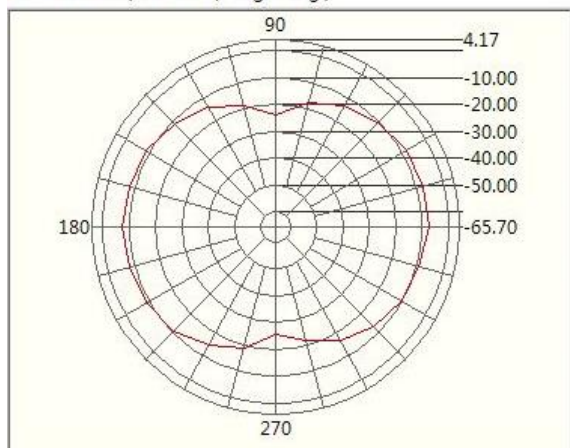
960MHz@Theta  
90.0

Horizontal  
Excel XY Plot (Value dB / Angle deg.)



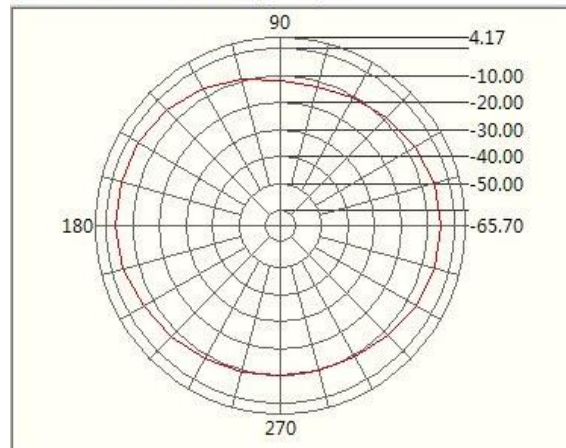
960MHz@Theta  
90.0

Vertical  
Excel XY Plot (Value dB / Angle deg.)

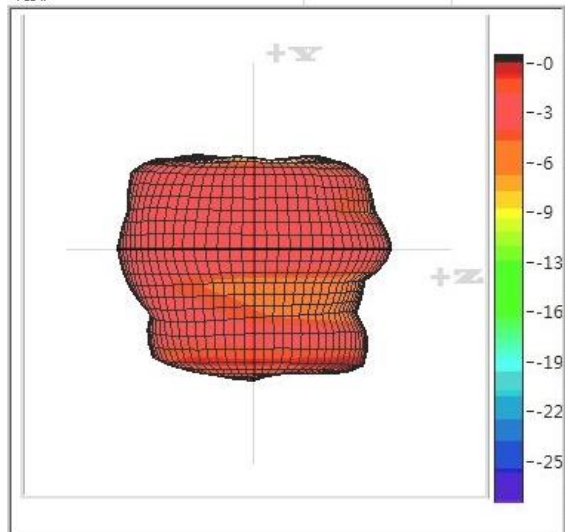


960MHz@Theta  
90.0

Total  
Excel XY Plot (Value dB / Angle deg.)

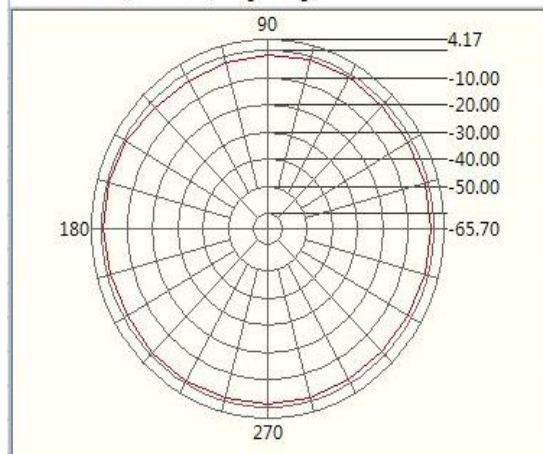


1.71GHzRight-Left  
View



1.71GHz@Theta  
90.0

Horizontal  
Excel XY Plot (Value dB / Angle deg.)

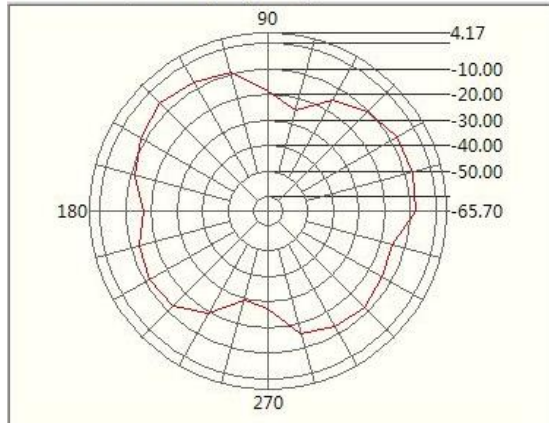


1.71GHz@Theta

90.0

Vertical

Excel XY Plot (Value dB / Angle deg.)

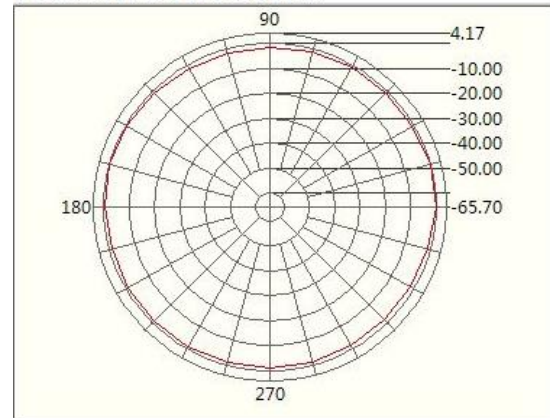


1.71GHz@Theta

90.0

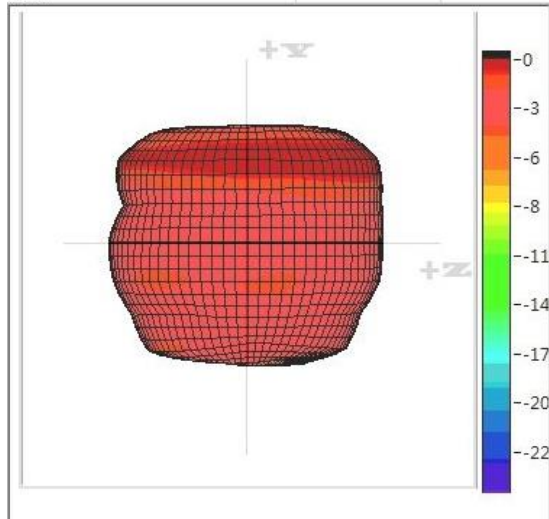
Total

Excel XY Plot (Value dB / Angle deg.)



2.69GHzRight-Left

View

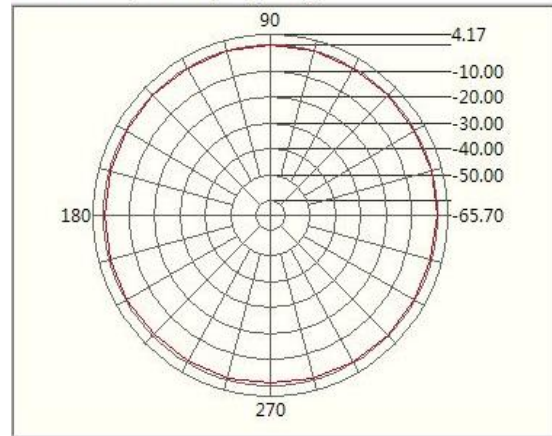


2.69GHz@Theta

90.0

Horizontal

Excel XY Plot (Value dB / Angle deg.)

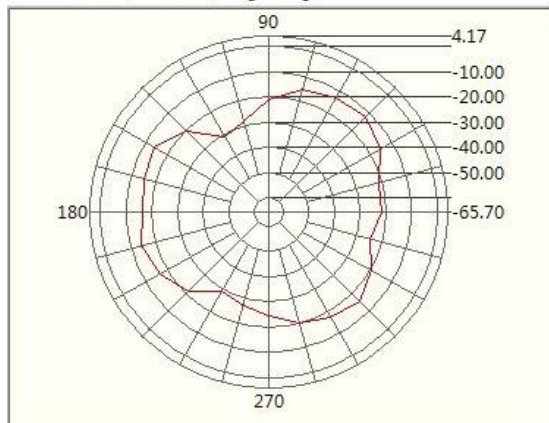


2.69GHz@Theta

90.0

Vertical

Excel XY Plot (Value dB / Angle deg.)

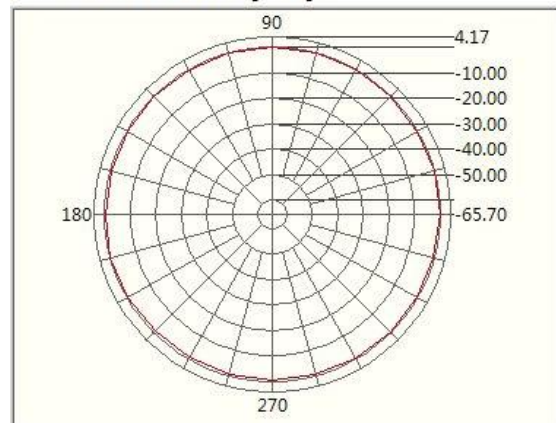


2.69GHz@Theta

90.0

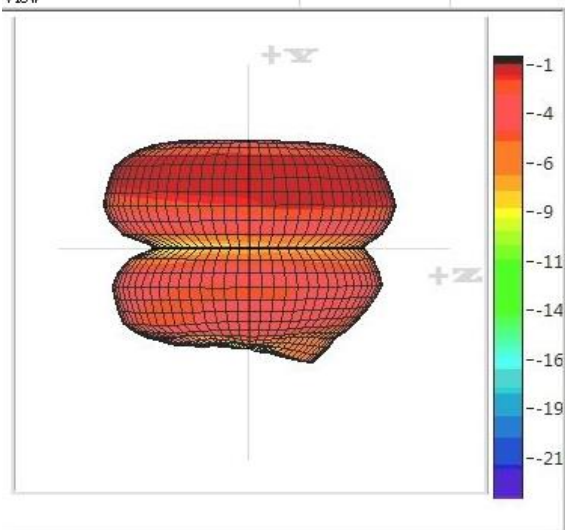
Total

Excel XY Plot (Value dB / Angle deg.)



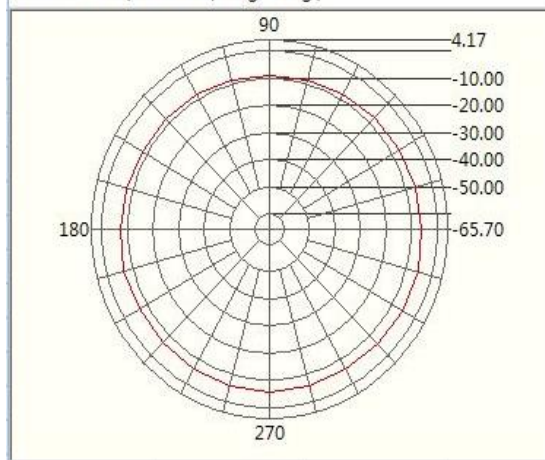


3.4GHzRight-Left  
View



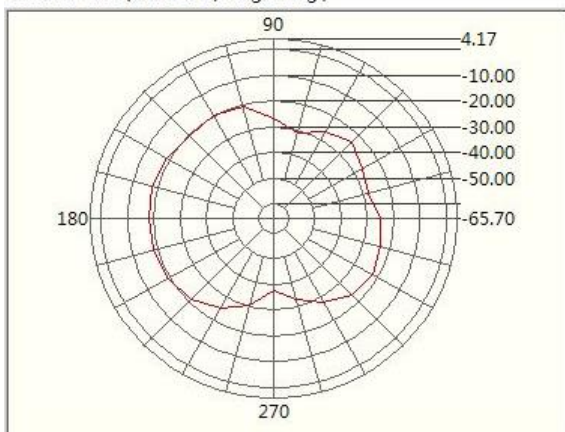
3.4GHz@Theta  
90.0

Horizontal  
Excel XY Plot (Value dB / Angle deg.)



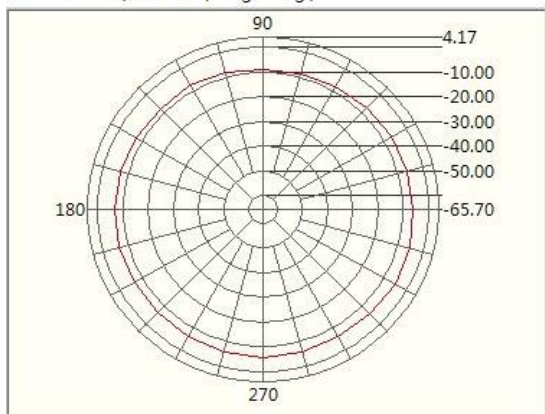
3.4GHz@Theta  
90.0

Vertical  
Excel XY Plot (Value dB / Angle deg.)

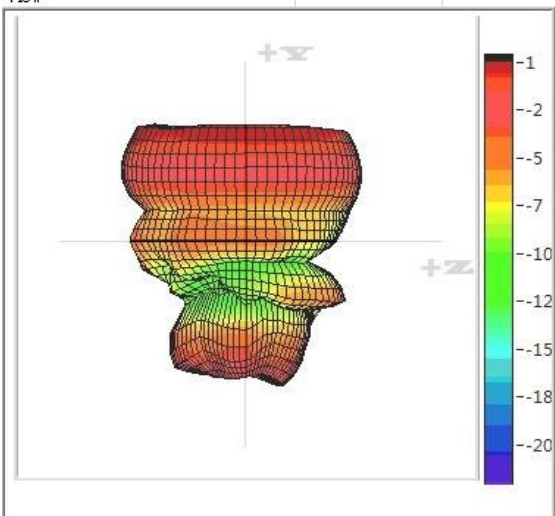


3.4GHz@Theta  
90.0

Total  
Excel XY Plot (Value dB / Angle deg.)

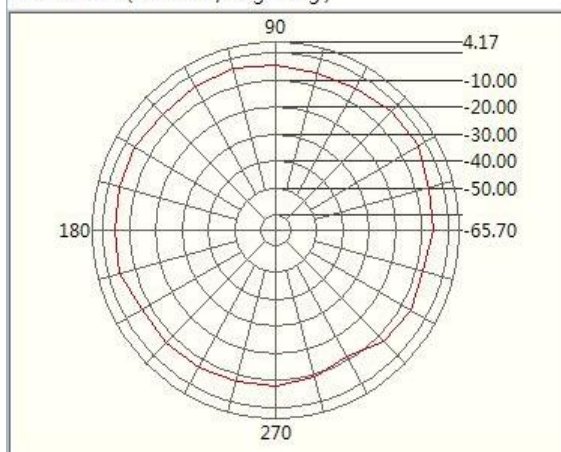


4.8GHzRight-Left  
View

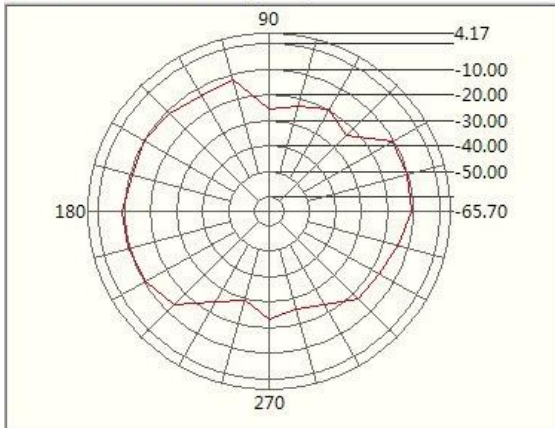


4.8GHz@Theta  
90.0

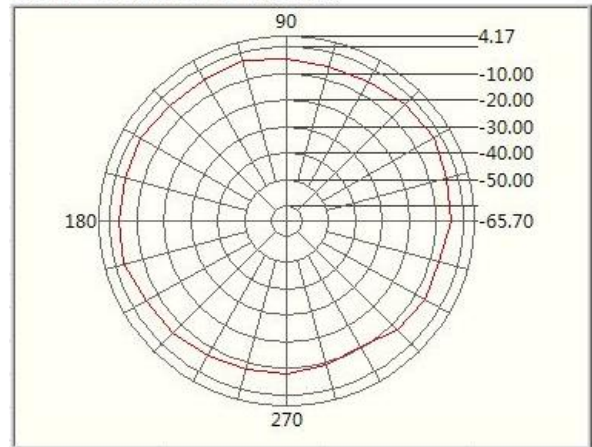
Horizontal  
Excel XY Plot (Value dB / Angle deg.)



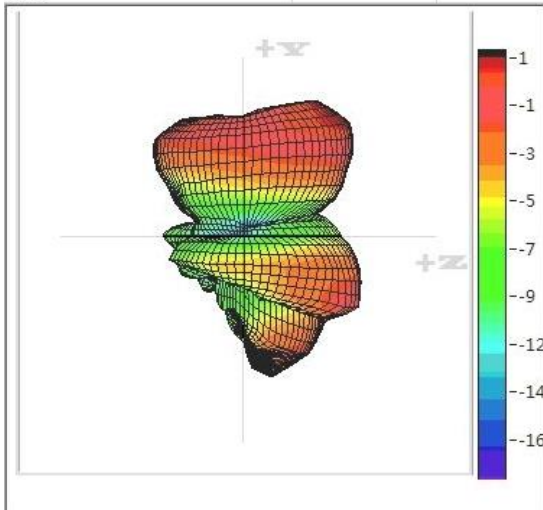
4.8GHz@Theta  
90.0  
Vertical  
Excel XY Plot (Value dB / Angle deg.)



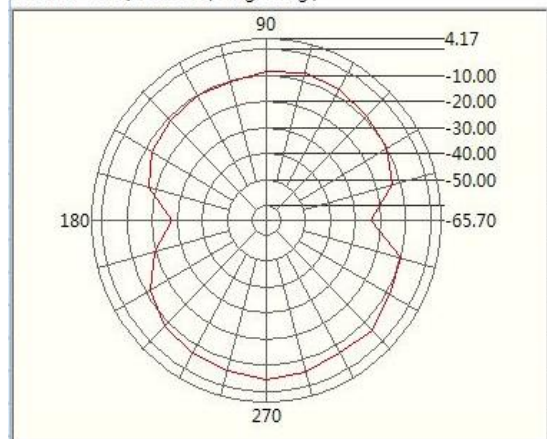
4.8GHz@Theta  
90.0  
Total  
Excel XY Plot (Value dB / Angle deg.)



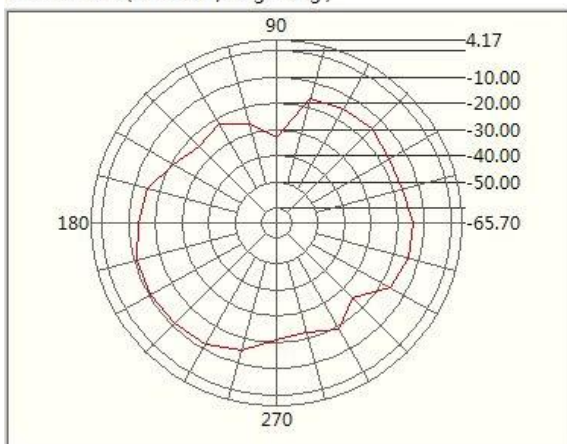
5.8GHzRight-Left  
View



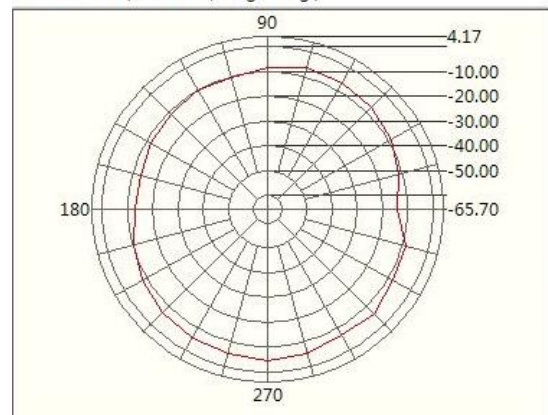
5.8GHz@Theta  
90.0  
Horizontal  
Excel XY Plot (Value dB / Angle deg.)



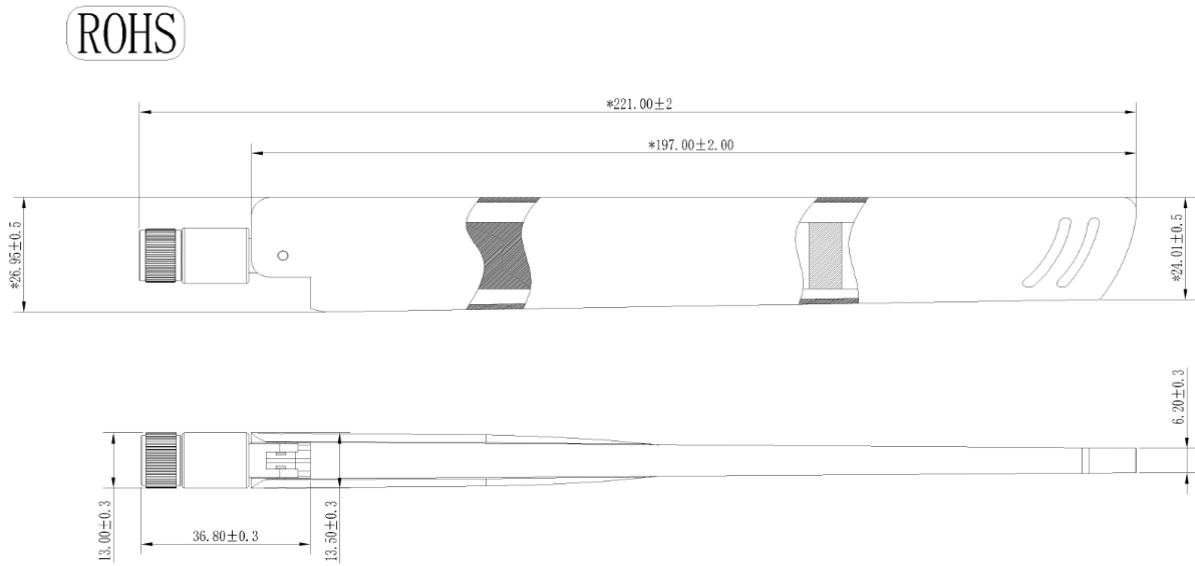
5.8GHz@Theta  
90.0  
Vertical  
Excel XY Plot (Value dB / Angle deg.)



5.8GHz@Theta  
90.0  
Total  
Excel XY Plot (Value dB / Angle deg.)



## 5 Product Size





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