



ShenZhen Huaxinwei communication technology  
Co.,Ltd.

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## Antenna test report

Customer Name: XunRui

Project Name: M9102C

Designer: Liu Chun Yun

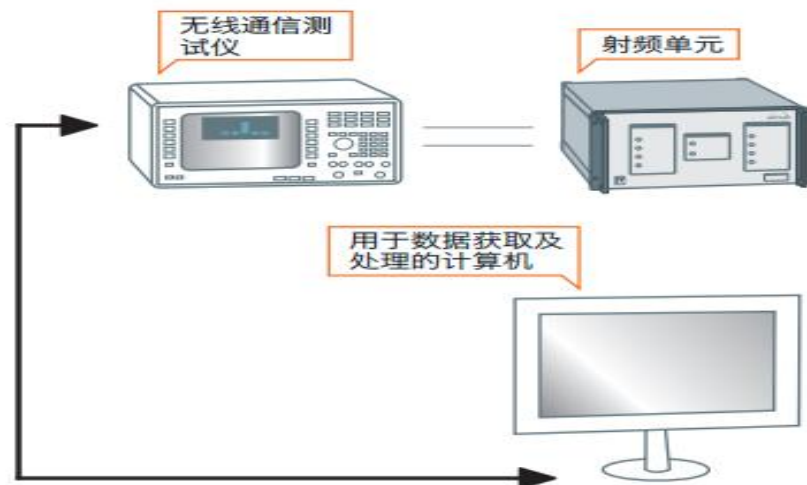
Date: 2025/7/3



|                   |                             |                                                                    |              |                   |
|-------------------|-----------------------------|--------------------------------------------------------------------|--------------|-------------------|
| The customer name |                             | XunRui                                                             | Project Name | M9102C            |
| NO.               | project                     | Detailed above                                                     |              |                   |
| 1                 | spectrum                    | GSM850/900/1800/1900+WCDMA-B1/B4/B5/B8+LTE-2/3/4/5/7/8+GPS/WIFI/BT |              |                   |
| 2                 | Project type                | The mobile phone                                                   |              |                   |
| 3                 | Antenna space area          |                                                                    |              |                   |
| 4                 | Feed point type             |                                                                    |              |                   |
| 5                 | The sensitivity             |                                                                    |              |                   |
| 6                 | Type of antenna             |                                                                    |              |                   |
| 7                 | The length of the PCB board |                                                                    |              |                   |
| 8                 | note                        | Debugging prototype                                                |              |                   |
| RF                |                             | Liu Chun Yun                                                       | 15112340864  | hxw_lcy@sz-hxw.cn |

## 1、Test system and test equipment

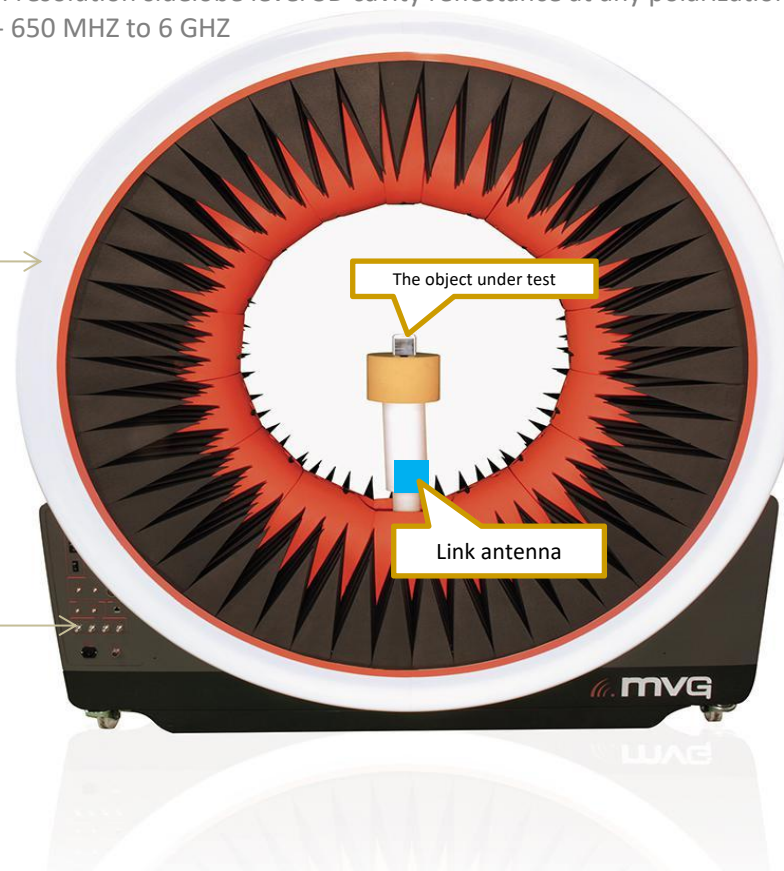
System Brand: MVG(SATIMO) measurement features: gain • pattern beamwidth cross polarization resolution sidelobe level 3D cavity reflectance at any polarization cavity reflectance (line or arc) antenna efficiency TRP, TIS, EIRP and EIS. Frequency band: StarLab 6 GHZ - 650 MHZ to 6 GHZ



**TIS预计测量时间** (一个信道每隔30° 取样)

| 灵敏度算法 \ 标准       | GSM<br>GPRS<br>EDGE | CDMA<br>1 x RTT<br>1 x EvDO | WCDMA<br>HSDPA<br>LTE FDD/TDD | Wi-Fi<br>802.11<br>a/b/g/n | CTIA<br>批准方法   |
|------------------|---------------------|-----------------------------|-------------------------------|----------------------------|----------------|
| RSSI模式+线性化+TIS补偿 | 8 min               |                             | 10 min                        |                            | 是              |
| EIS模式+TIS补偿      |                     | 5 min                       |                               | 5 min                      | 是 <sup>2</sup> |
| 快速CDMA           |                     | 8 min                       |                               |                            | No             |
| EIRP模式+TIS补偿     |                     |                             |                               | 10 min                     | No             |

1、根据RTC  
2、根据协议



TIS 3D方位切割强度图



TRP 3D方位切割强度图

# Test Equipment



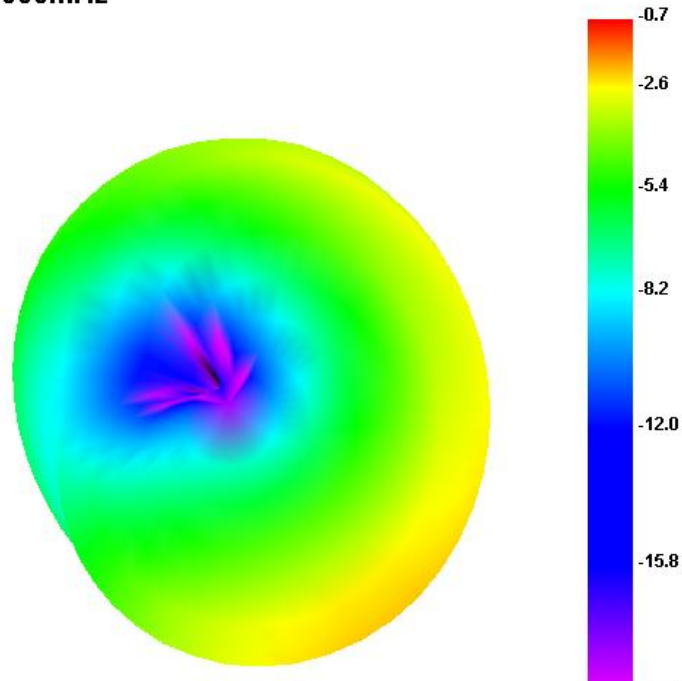
## Efficient ( 2G+3G+4G+2. 4G-WiFi /BT)

| PEAK GAIN  |                 |        |          |
|------------|-----------------|--------|----------|
| 2G:        | Frequency range | Effi % | Gaim dBi |
| GSM850     | 824~894Mhz      | 21. 80 | -0. 71   |
| GSM900     | 880~960Mhz      | 20. 84 | -1. 05   |
| DCS1800    | 1710~1880Mhz    | 28. 62 | +0. 63   |
| PCS1900    | 1850~1990Mhz    | 30. 81 | +0. 81   |
| 3G:        |                 |        |          |
| W2         | 1852~1932Mhz    | 30. 1  | +0. 81   |
| W4         | 1712~2112Mhz    | 31. 4  | +0. 85   |
| W5         | 826~871Mhz      | 21. 8  | +0. 71   |
| W8         | 880~960Mhz      | 20. 84 | -1. 05   |
| 4G:        |                 |        |          |
| LTE-B2     | 1850~1930Mhz    | 30. 1  | +0. 81   |
| LTE-B3     | 1710~1880Mhz    | 28. 62 | +0. 63   |
| LTE-B4     | 1710~2110Mhz    | 31. 4  | +0. 85   |
| LTE-B5     | 824~894Mhz      | 21. 80 | -0. 71   |
| LTE-B7     | 2500~2690Mhz    | 28. 01 | 1. 12    |
| LTE-B8     | 880~960Mhz      | 20. 84 | -1. 05   |
|            |                 |        |          |
| 2. 4G-WIFI | 2400~2500Mhz    | 42. 52 | +1. 37   |
| 5. 8G-WIFI | 5150~5850Mhz    | 49. 13 | +1. 29   |
| BT         | 2400~2500Mhz    | 42. 51 | +1. 37   |
| GPS        | 1575Mhz         | 38. 73 | +0. 43   |

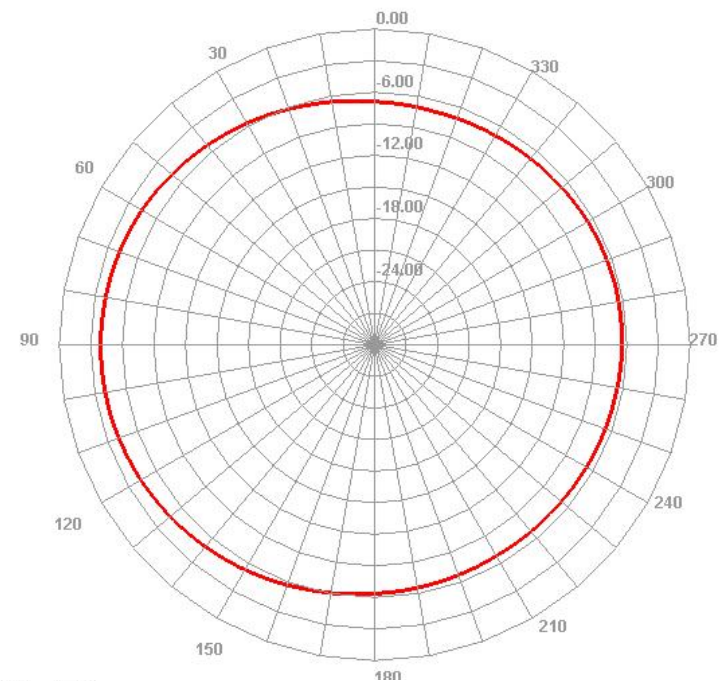


# Efficient ( 791-894MHz )

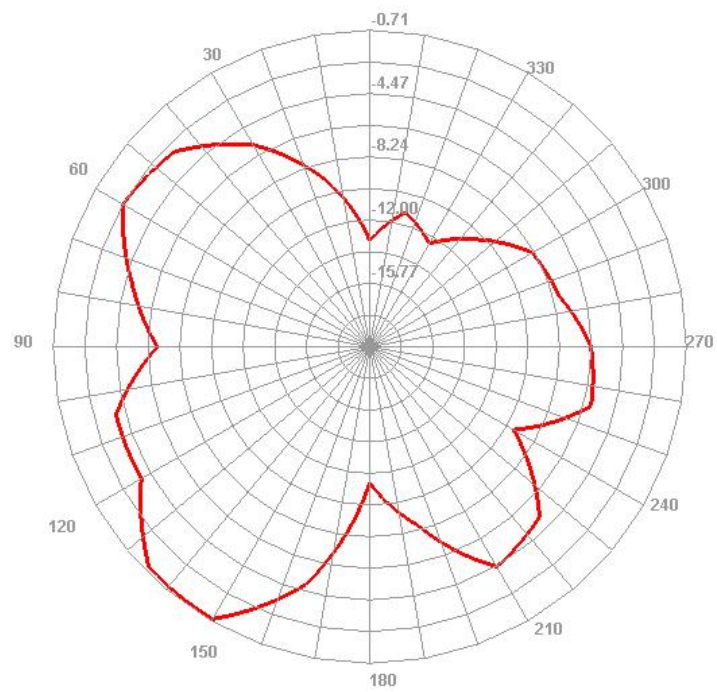
830.000MHz



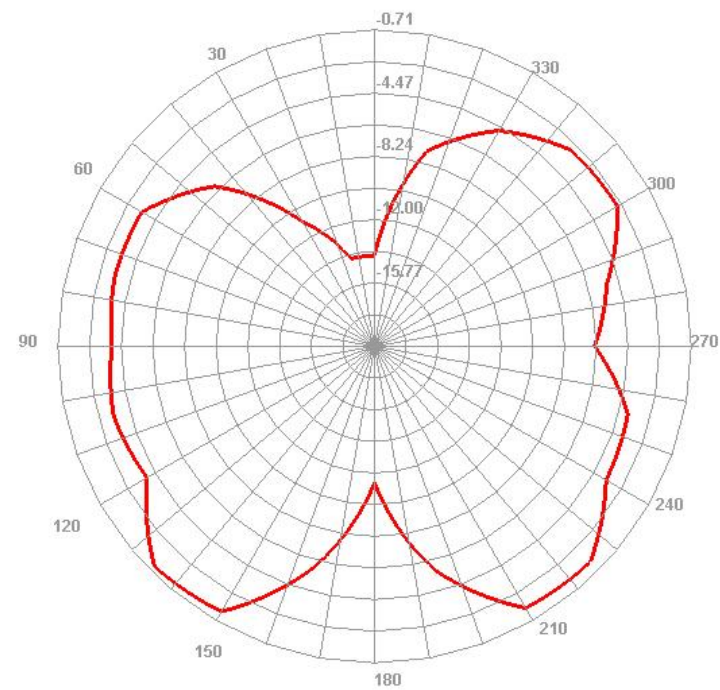
830.000MHz H



830.000MHz E1

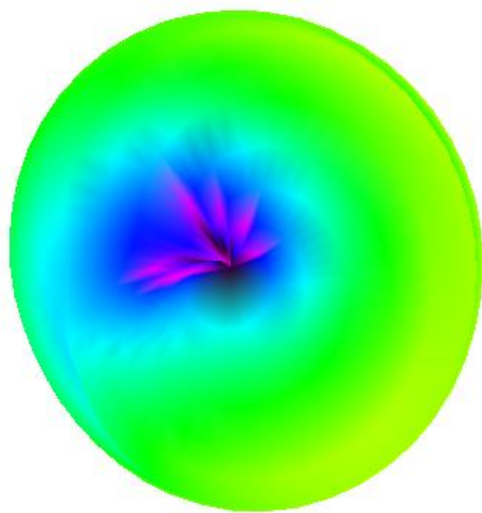


830.000MHz E2

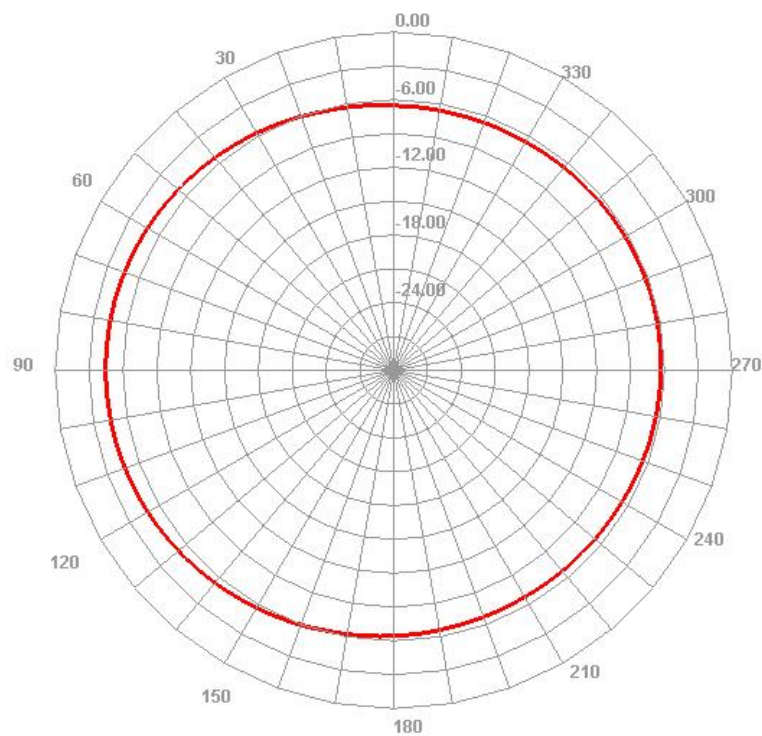


# Efficient ( 880-960MHz )

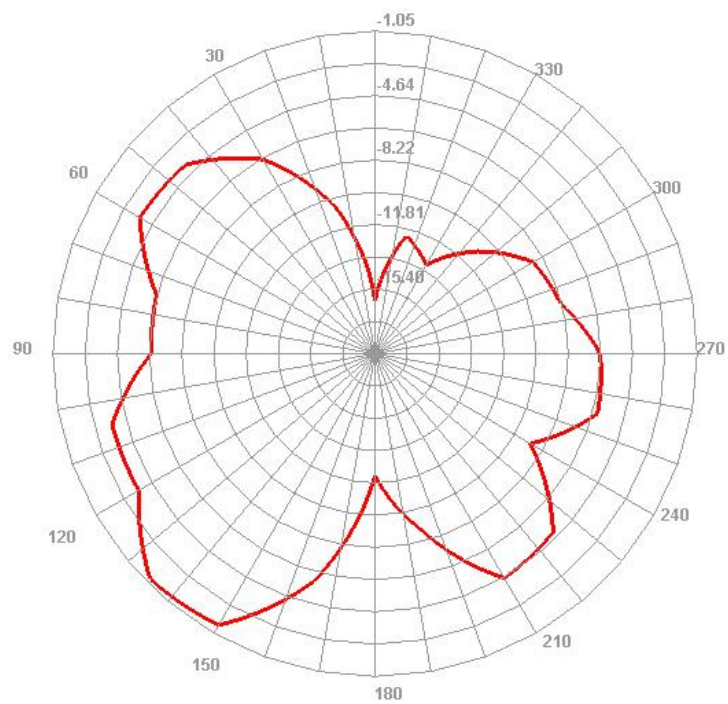
900.000MHz



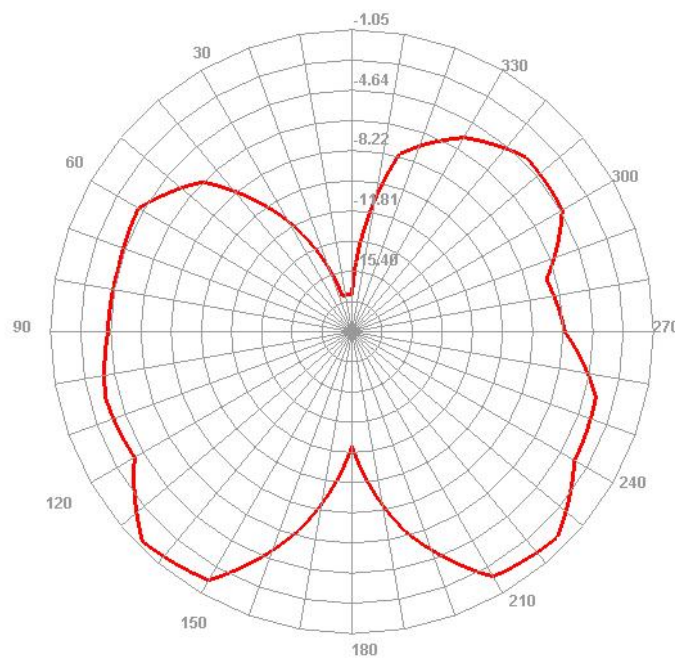
900.000MHz H



900.000MHz E1



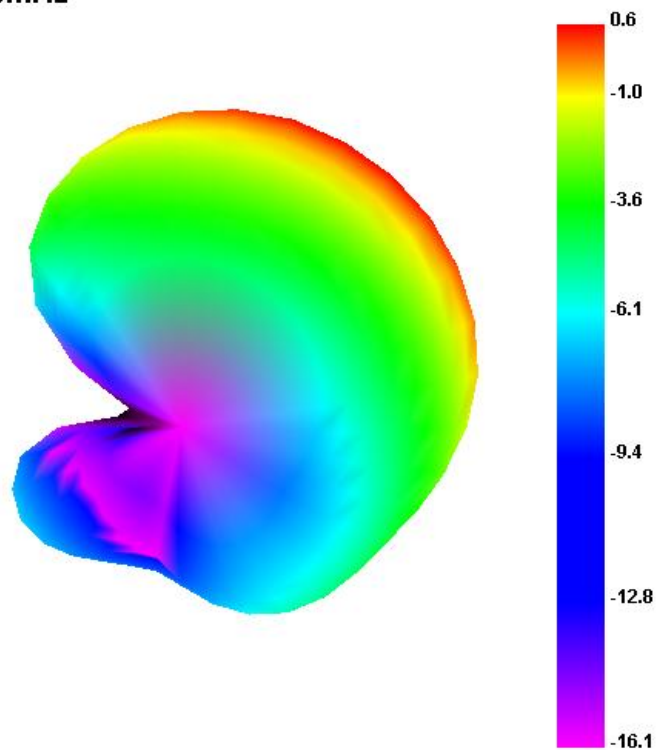
900.000MHz E2



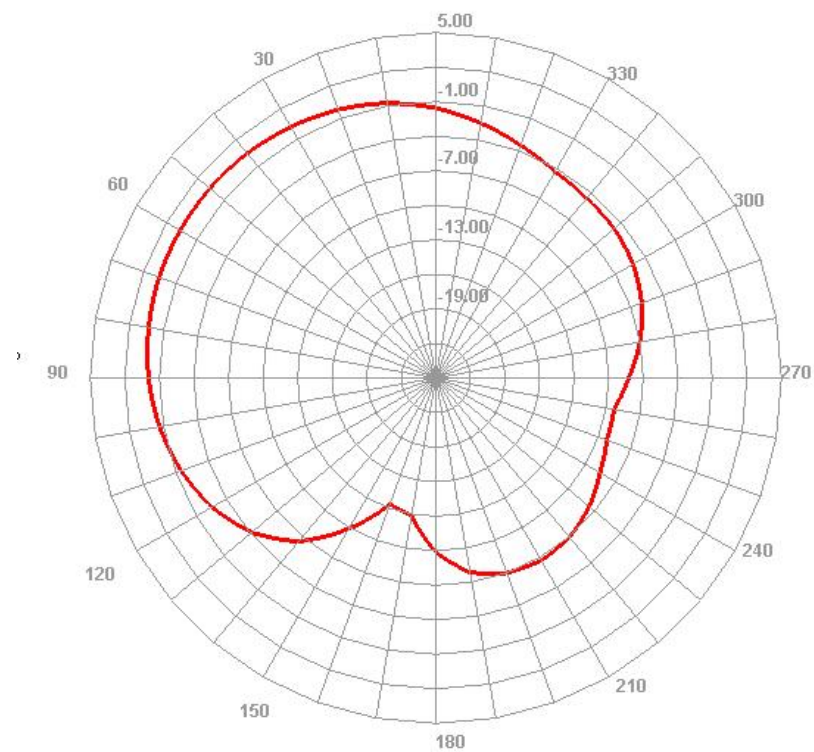


# Efficient (1710–1880MHz )

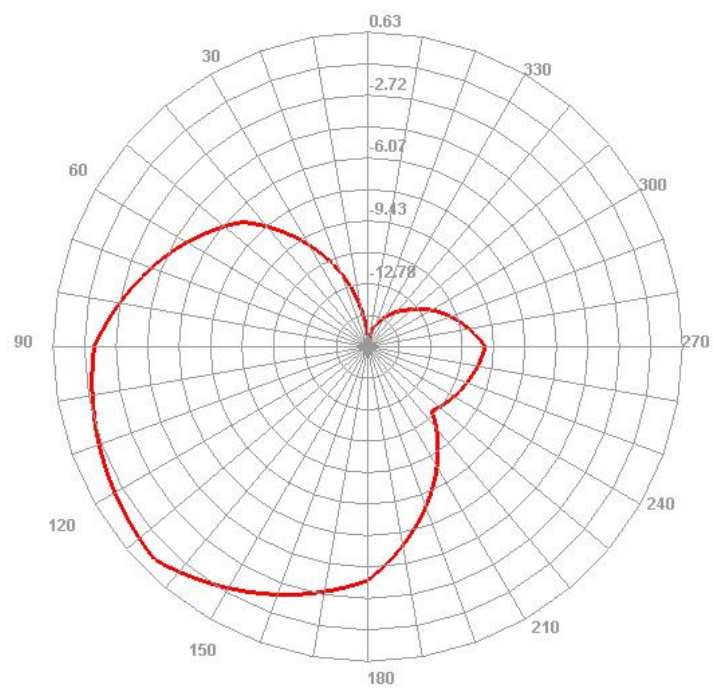
1820.000MHz



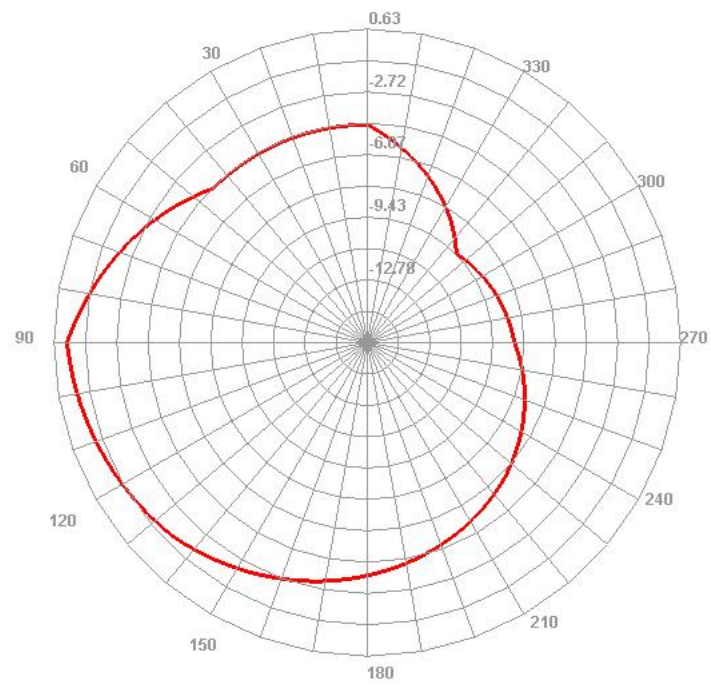
1820.000MHz H



1820.000MHz E1



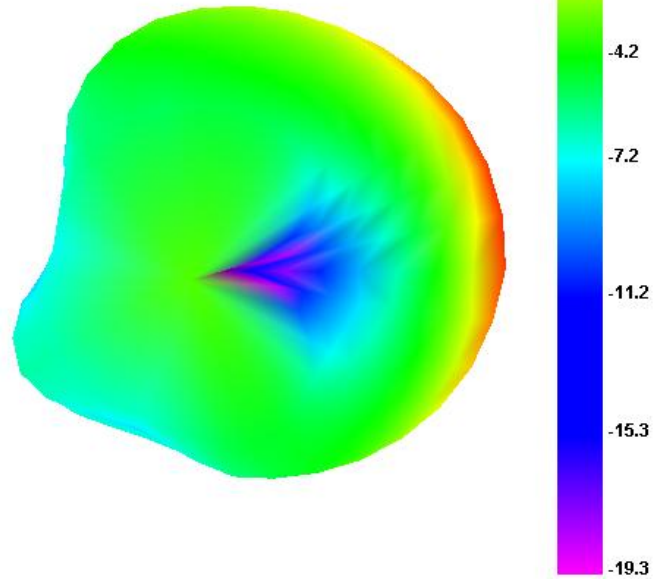
1820.000MHz E2



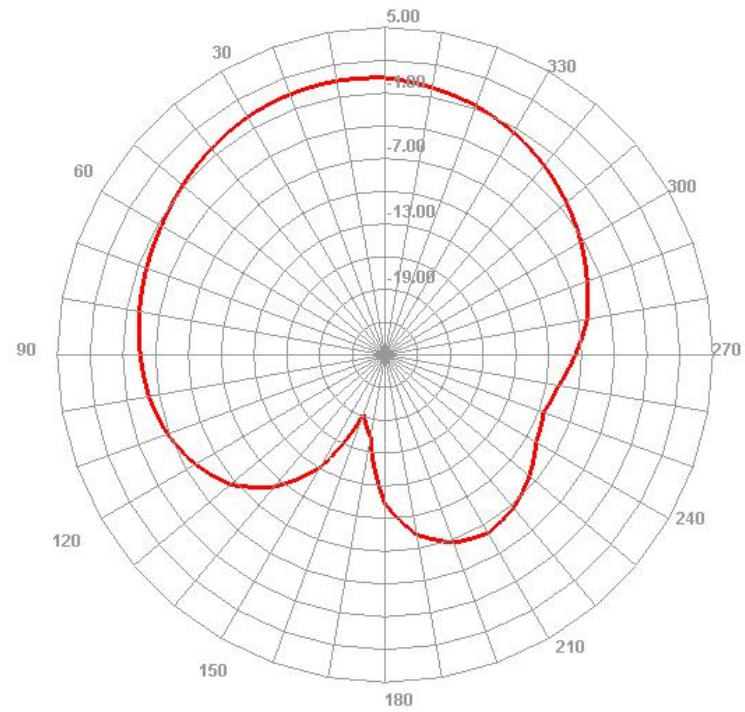


# Efficient ( 1880–2170MHz )

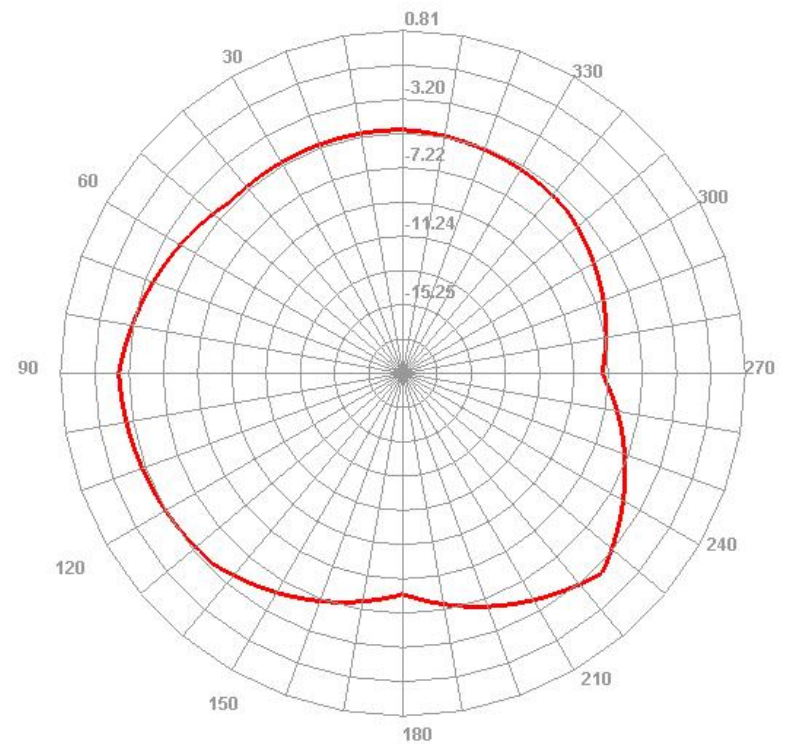
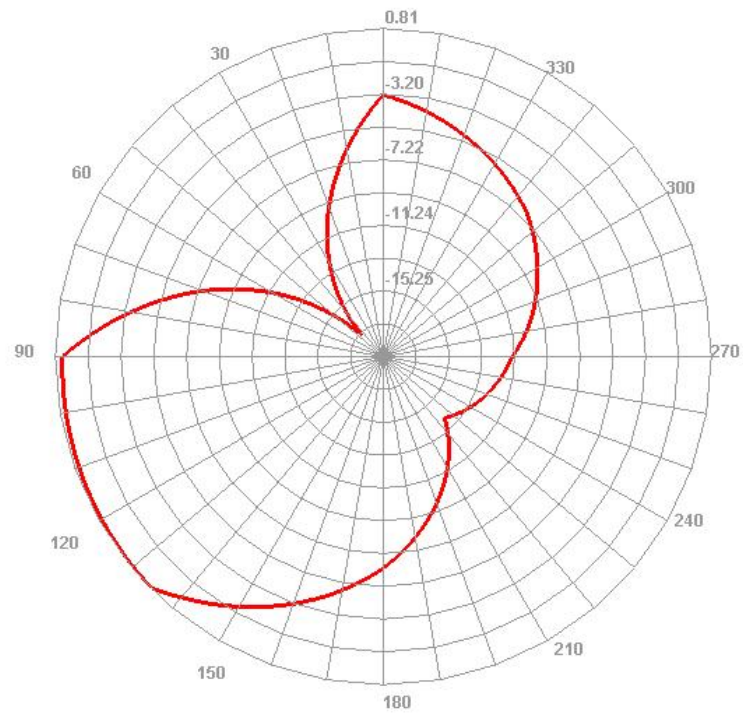
1920.000MHz



1920.000MHz H

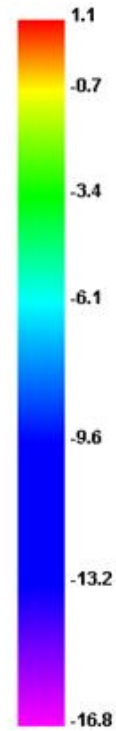
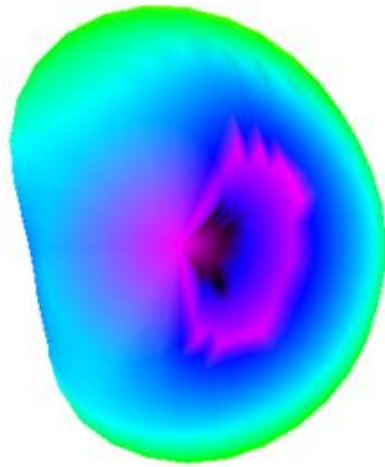


1920.000MHz E1

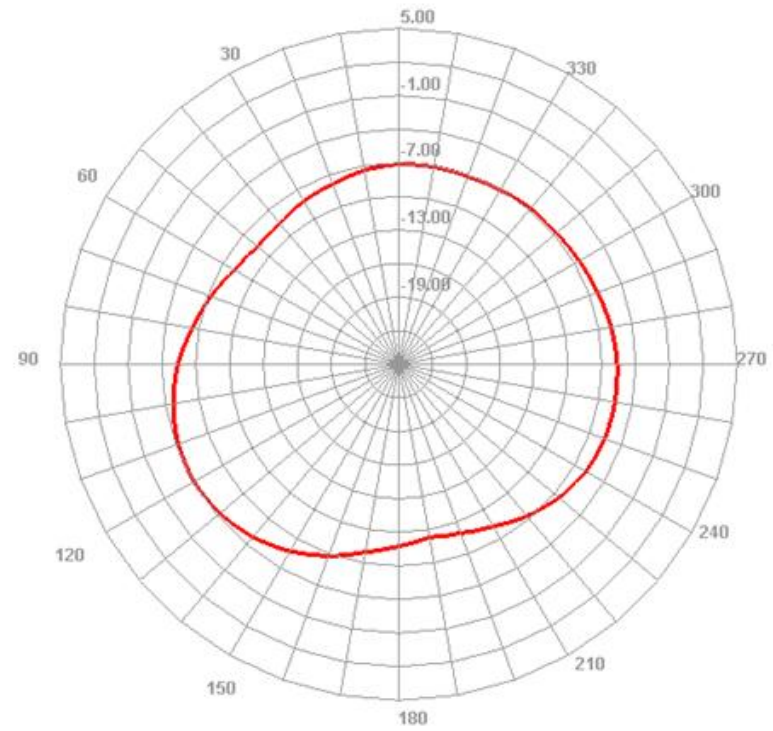


Efficient ( 2500–2690MHz )

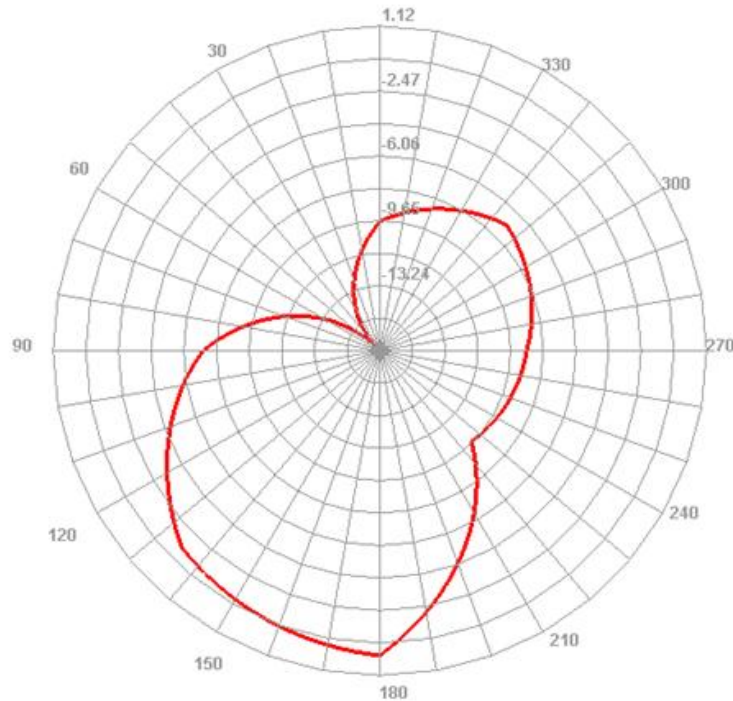
2660.000MHz



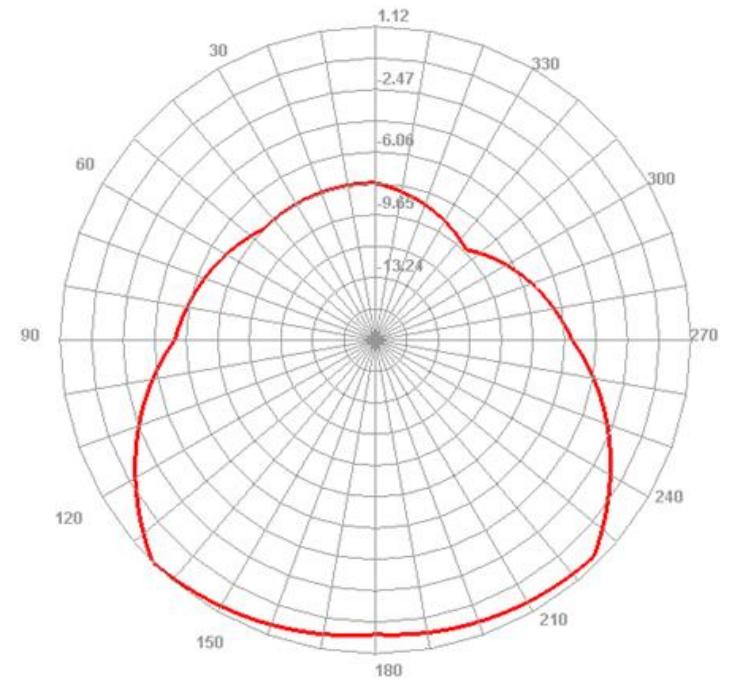
2660.000MHz H



2660.000MHz E1



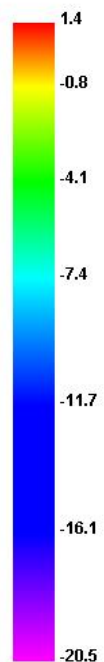
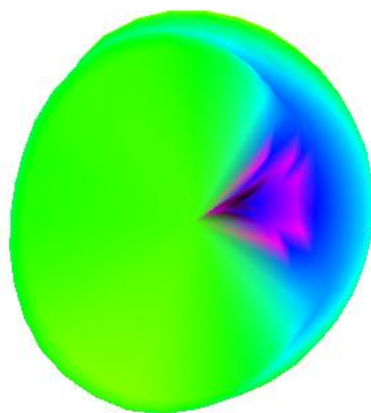
2660.000MHz E2



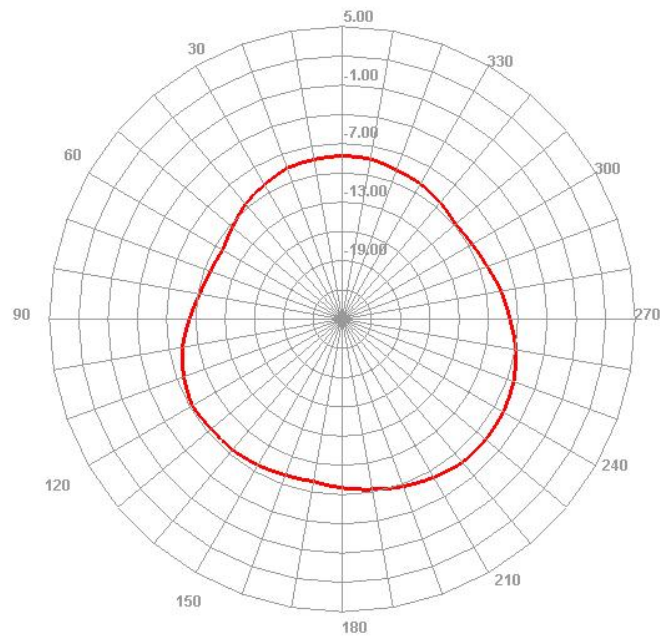


# Efficient ( 2. 4G-WIFI/BT 2400-2500MHz )

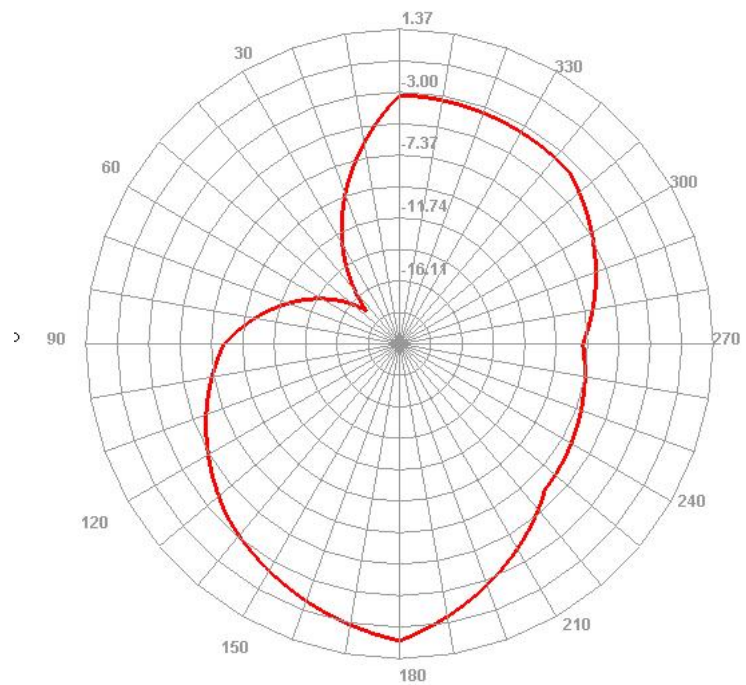
2450.000MHz



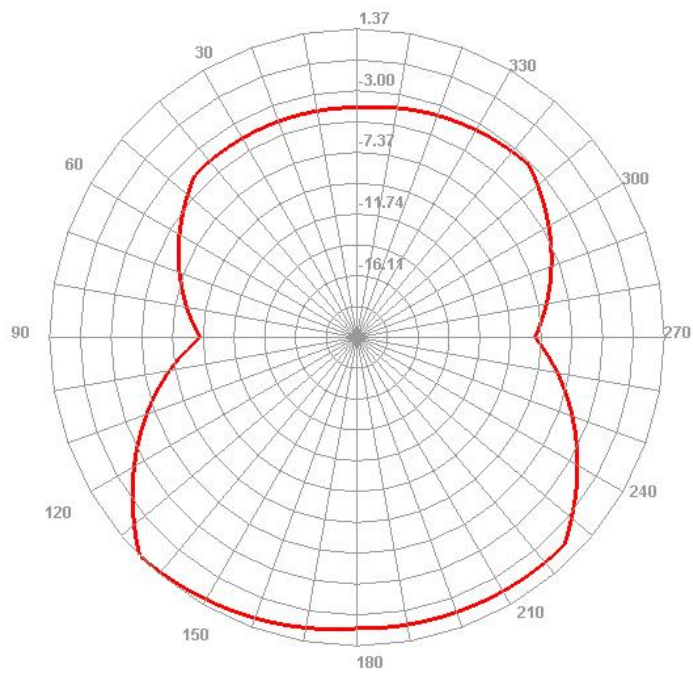
2450.000MHz H



2450.000MHz E1

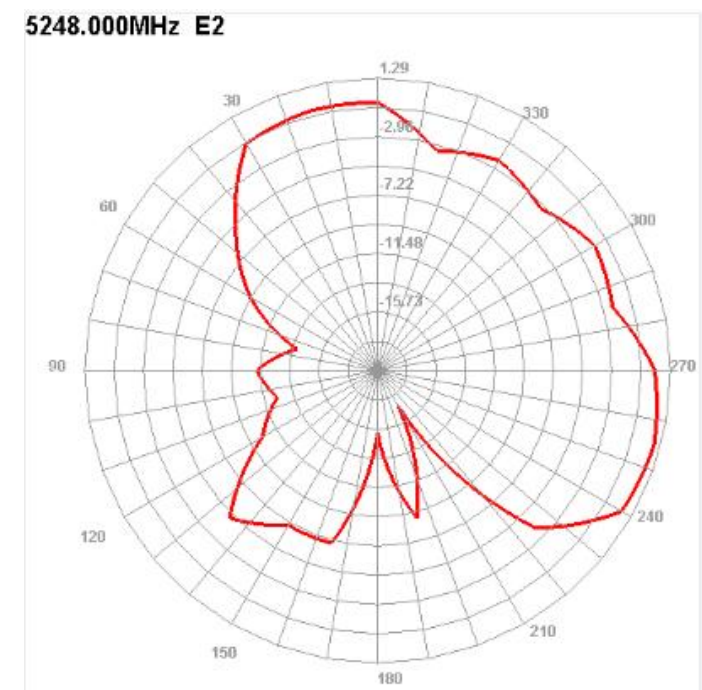
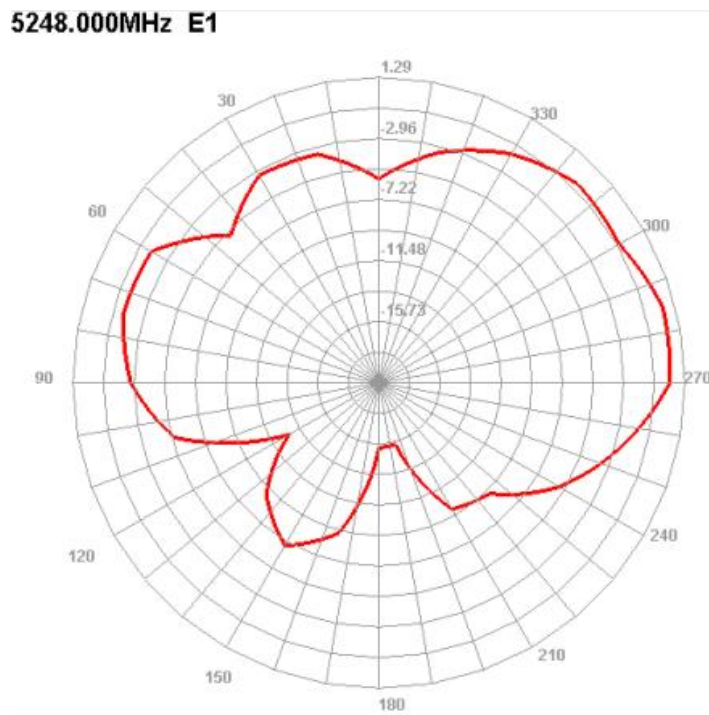
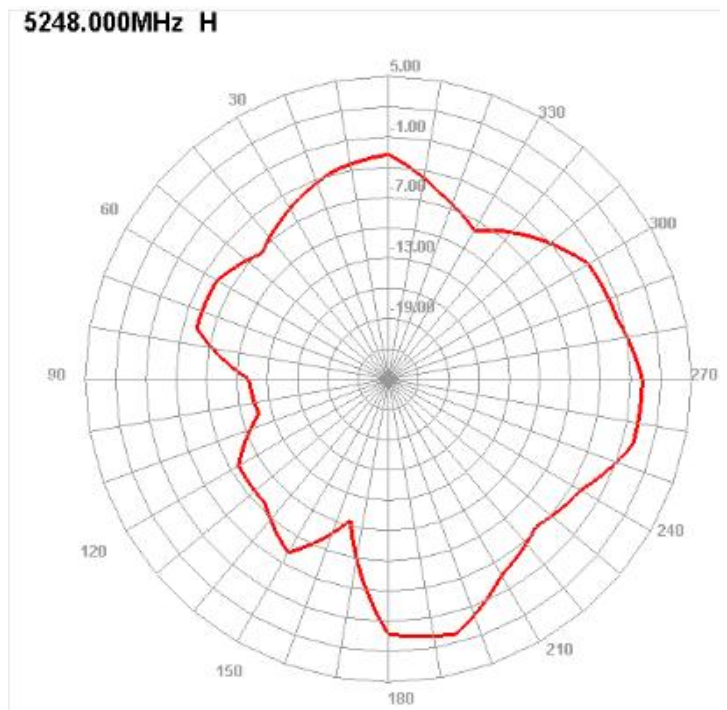
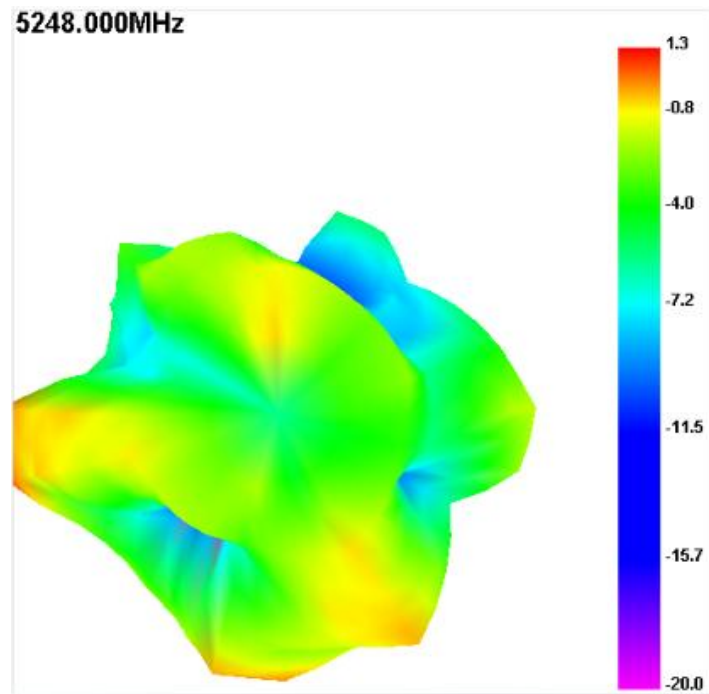


2450.000MHz E2



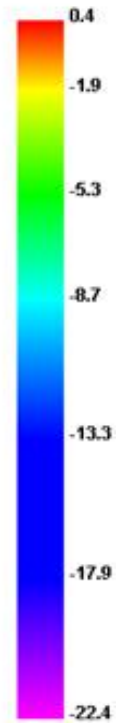
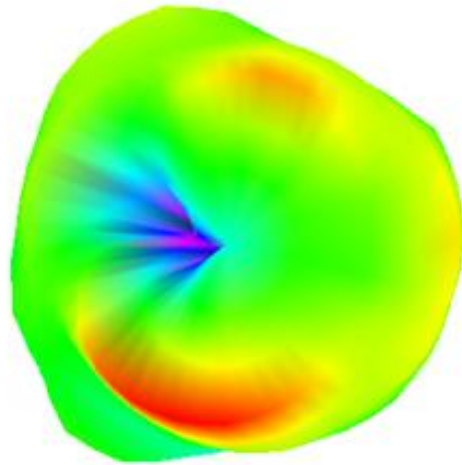


# Efficient ( 5.8-WIFI/5150~5850Mhz )

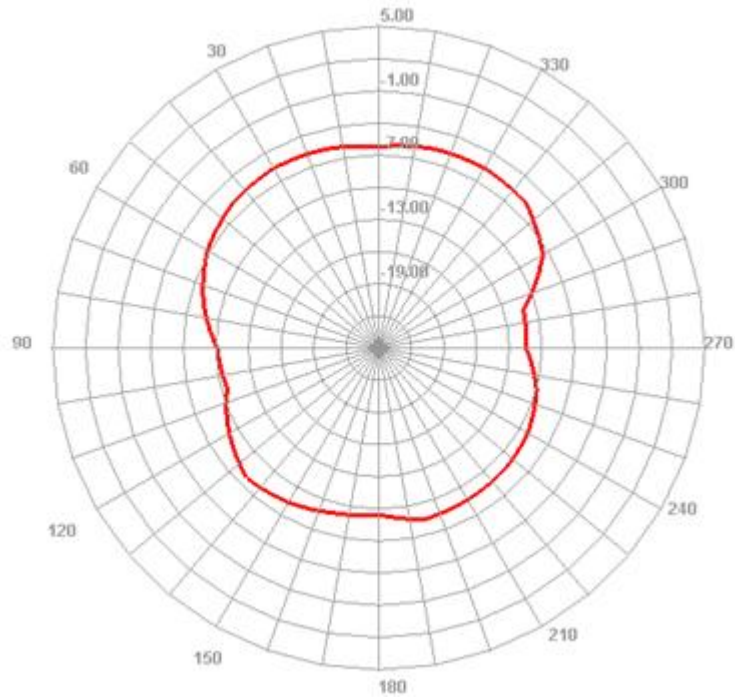


# Efficient ( GPS 1575.42MHz )

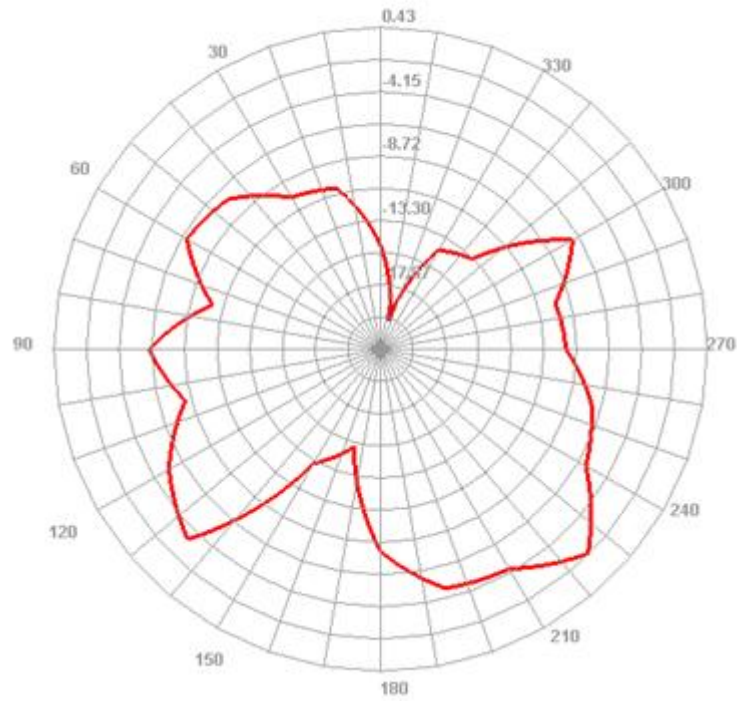
1575.491MHz



1575.491MHz H



1575.491MHz E1



1575.491MHz E2

