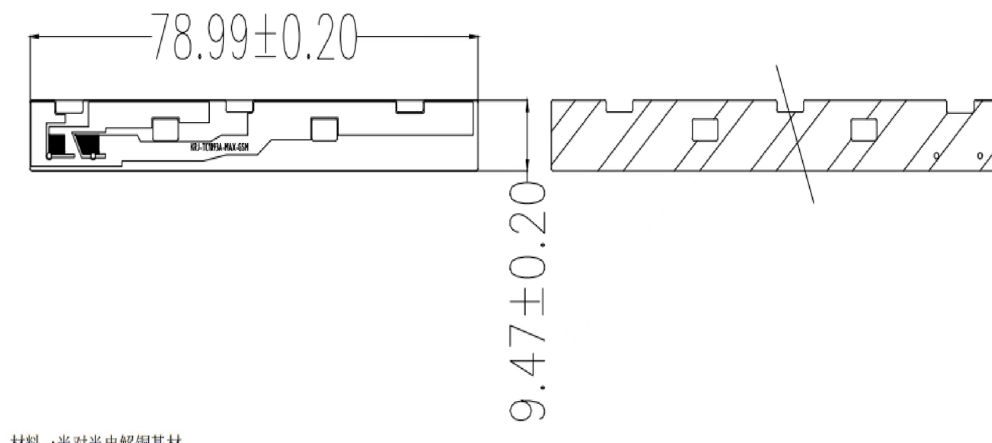


# *Antenna Test Report*

*Test Lab:Shenzhen Kuruijie Communication Technologies Co.,Ltd*

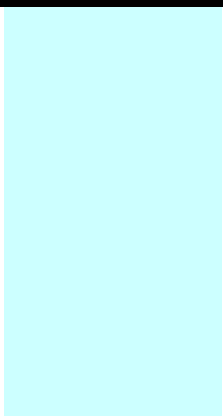
*manufacturer:Shenzhen Kuruijie Communication Technologies Co.,Ltd*  
*Project: TC1093A The beautiful version*

Antenna Model:JRJ-TC1093A-MAX-GSM

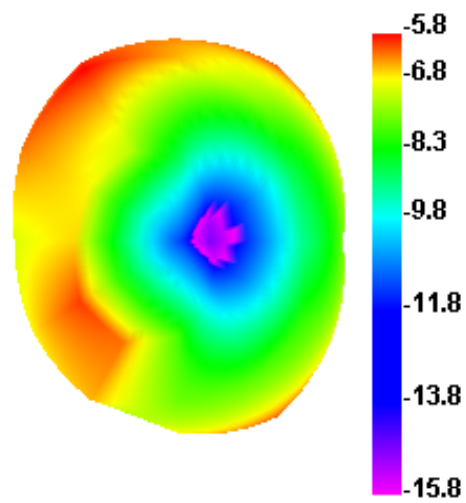


| Passive Test For 600–900 |             |              |               |               |             |             |                      |
|--------------------------|-------------|--------------|---------------|---------------|-------------|-------------|----------------------|
| Freq<br>(MHz)            | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) | Max<br>(dB) | Min<br>(dB) | Directivity<br>(dBi) |
| 650                      | 15.85       | −8.04        | −5.02         | −7.17         | −6.02       | −19.67      | 9.64                 |
| 660                      | 16.23       | −8.03        | −4.78         | −6.93         | −5.78       | −17.96      | 9.13                 |
| 670                      | 16.41       | −8.03        | −4.82         | −6.97         | −5.82       | −17.06      | 8.73                 |
| 680                      | 16.55       | −8.08        | −4.04         | −6.19         | −6.04       | −18.04      | 8.68                 |
| 690                      | 16.91       | −8.07        | −4.77         | −6.92         | −5.77       | −19.55      | 8.57                 |
| 700                      | 16.56       | −8.08        | −4.73         | −6.88         | −5.73       | −21.91      | 8.68                 |
| 710                      | 16.93       | −8.08        | −4.49         | −6.64         | −5.49       | −23.59      | 8.88                 |
| 720                      | 16.25       | −8.08        | −4.1          | −6.25         | −5.1        | −23.41      | 8.78                 |
| 730                      | 16.84       | −8.09        | −4.83         | −6.98         | −4.83       | −21.02      | 8.59                 |
| 740                      | 16.67       | −8.64        | −4.82         | −6.97         | −4.82       | −18.67      | 8.64                 |
| 750                      | 16.15       | −7.92        | −4.09         | −6.24         | −4.09       | −16.54      | 7.92                 |
| 760                      | 16.19       | −7.91        | −4.21         | −6.36         | −4.21       | −15.58      | 7.91                 |
| 770                      | 16.03       | −7.95        | −4.35         | −6.5          | −4.35       | −15.14      | 7.95                 |
| 780                      | 17.66       | −7.53        | −3.96         | −6.11         | −3.96       | −14.48      | 7.53                 |
| 790                      | 17.07       | −7.68        | −4.14         | −6.29         | −4.14       | −14.59      | 7.68                 |
| 800                      | 19.02       | −7.23        | −4.68         | −6.83         | −4.68       | −15.45      | 8.23                 |
| 810                      | 19.99       | −7.96        | −4.52         | −6.67         | −4.52       | −15.16      | 7.96                 |
| 820                      | 19.02       | −7.85        | −5.06         | −7.21         | −5.06       | −16.81      | 8.85                 |

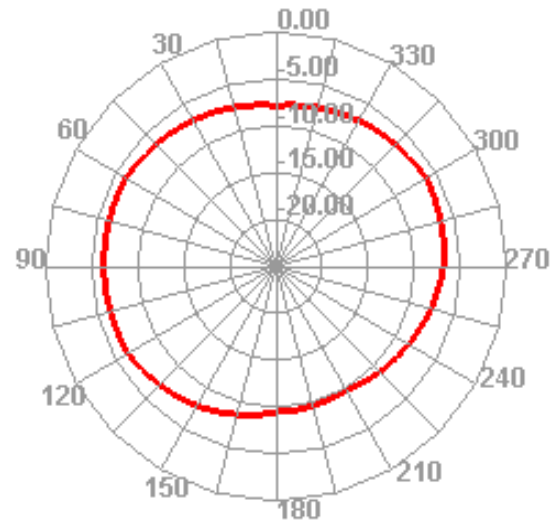
|     |       |       |       |       |       |        |      |
|-----|-------|-------|-------|-------|-------|--------|------|
| 830 | 20.54 | -7.69 | -4.65 | -6.8  | -4.65 | -18.22 | 8.69 |
| 840 | 20.17 | -7.65 | -4.09 | -6.24 | -4.09 | -16.91 | 7.65 |
| 850 | 20.94 | -7    | -3.49 | -5.64 | -3.49 | -15.94 | 7    |
| 860 | 23.11 | -6.36 | -2.68 | -4.83 | -2.68 | -15.57 | 6.36 |
| 870 | 24.02 | -6.19 | -2.34 | -4.49 | -2.34 | -15.48 | 6.19 |
| 880 | 27.77 | -5.56 | -1.52 | -3.67 | -1.52 | -14.94 | 5.56 |
| 890 | 27.7  | -5.58 | -1.36 | -3.51 | -1.36 | -14.24 | 5.58 |
| 900 | 29.49 | -5.3  | -0.88 | -3.03 | -0.88 | -13.21 | 5.3  |
| 910 | 29.63 | -5.28 | -0.6  | -2.75 | -0.6  | -12.53 | 5.28 |
| 920 | 28.78 | -5.41 | -0.65 | -2.8  | -0.65 | -12.11 | 5.41 |
| 930 | 31.57 | -5.01 | -0.18 | -2.33 | -0.18 | -11.04 | 5.01 |
| 940 | 27.68 | -5.58 | -0.66 | -2.81 | -0.66 | -12.15 | 5.58 |
| 950 | 25.15 | -6    | -1    | -3.15 | -1    | -13.56 | 6    |
| 960 | 22.27 | -6.52 | -1.54 | -3.69 | -1.54 | -15.46 | 6.52 |



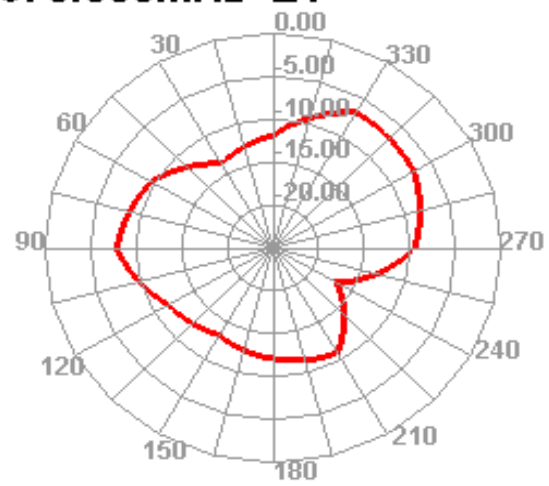
670.000MHz



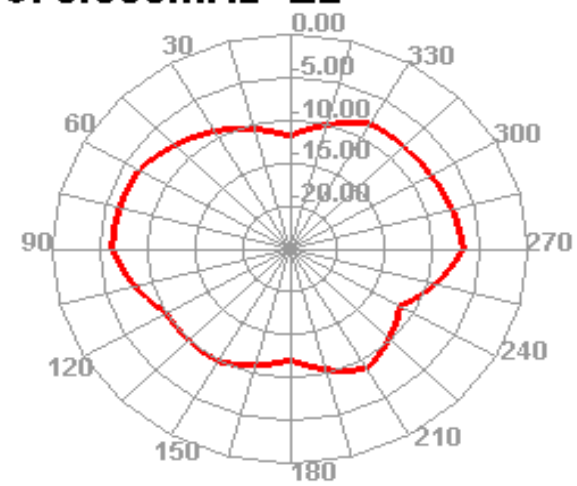
670.000MHz H



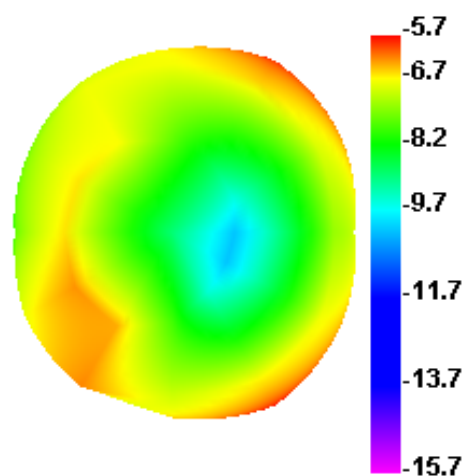
670.000MHz E1



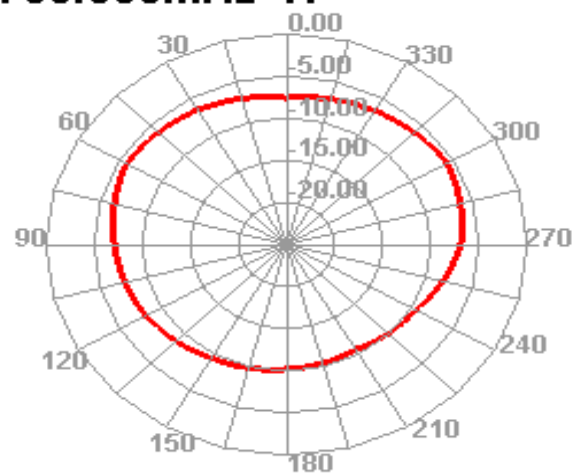
670.000MHz E2



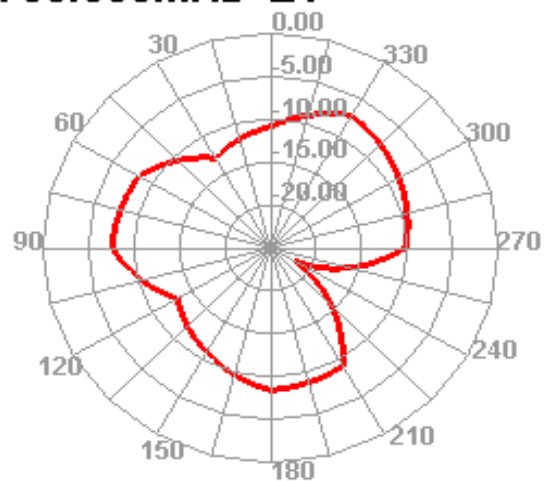
700.000MHz



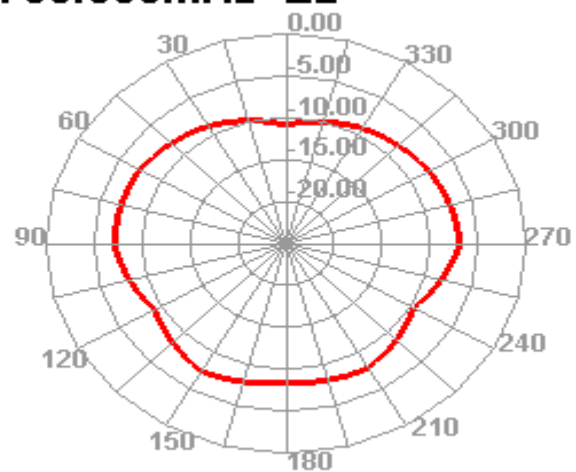
700.000MHz H



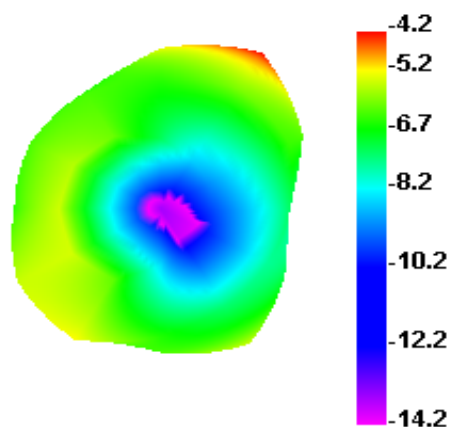
700.000MHz E1



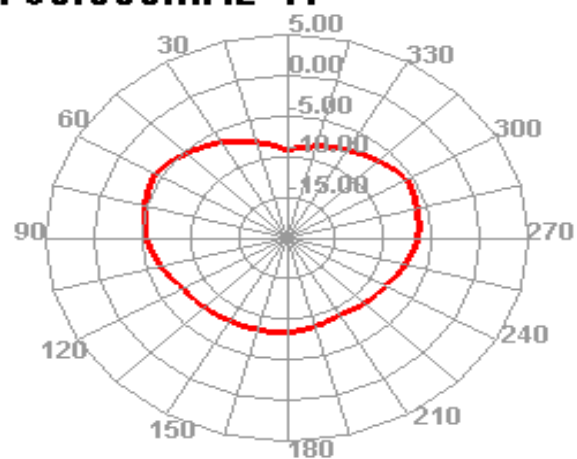
700.000MHz E2



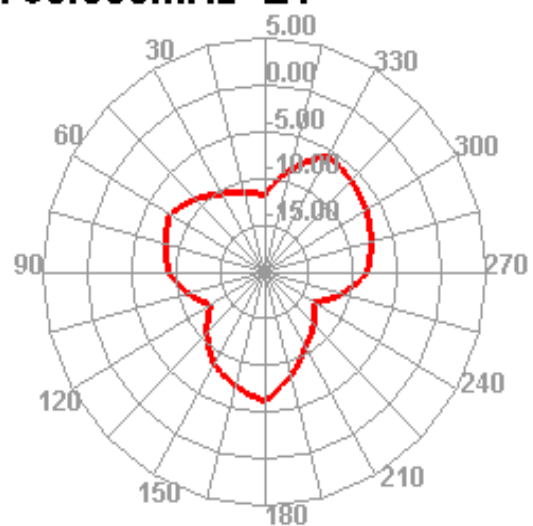
760.000MHz



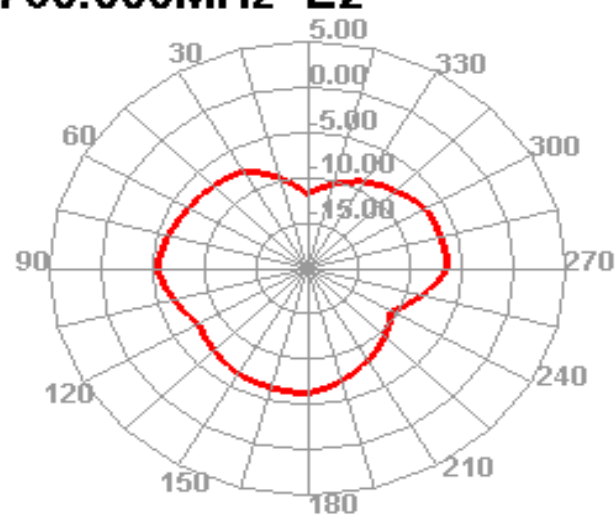
760.000MHz H



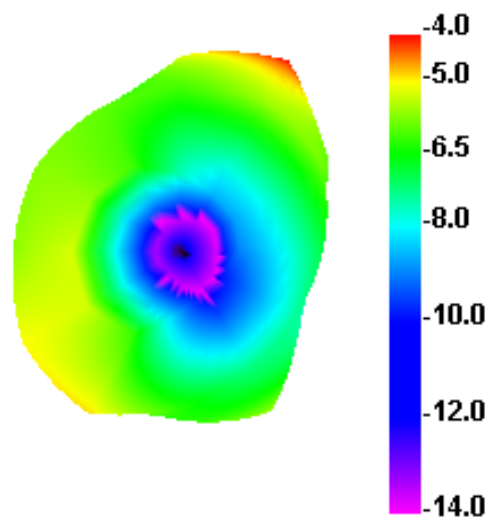
760.000MHz E1



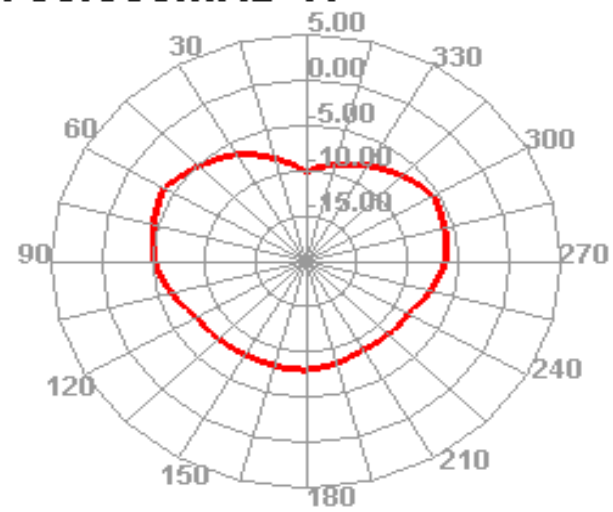
760.000MHz E2



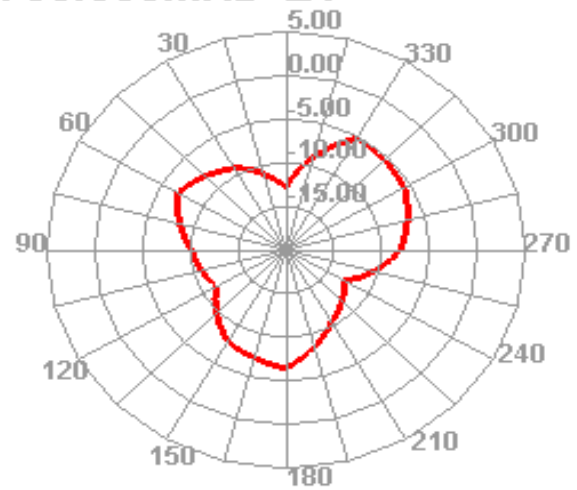
780.000MHz



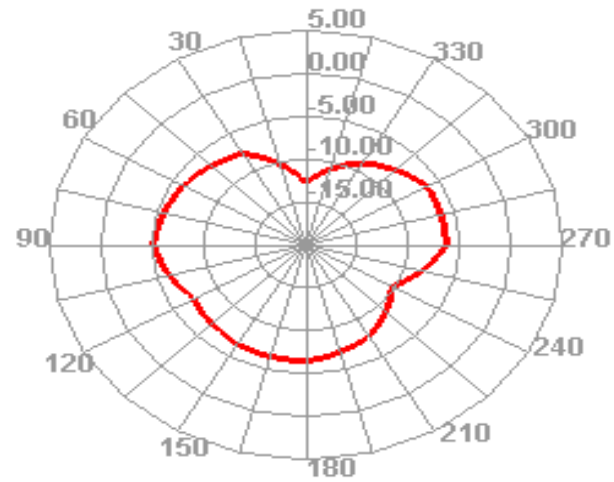
780.000MHz H



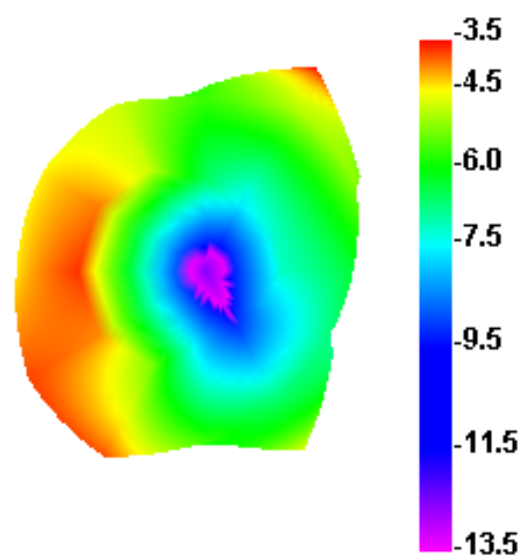
780.000MHz E1



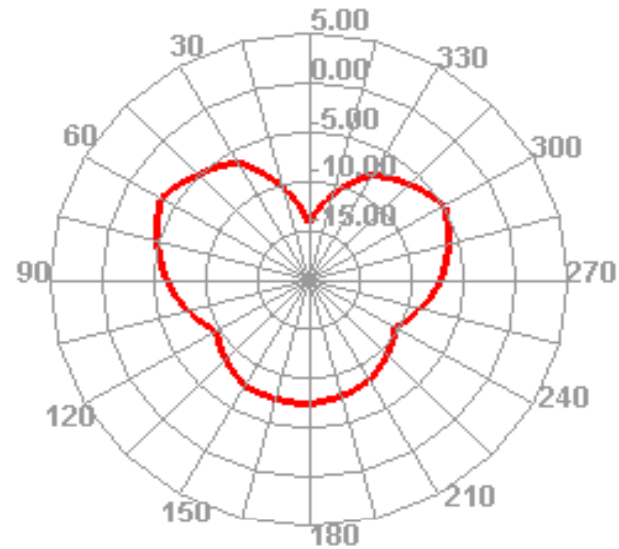
780.000MHz E2



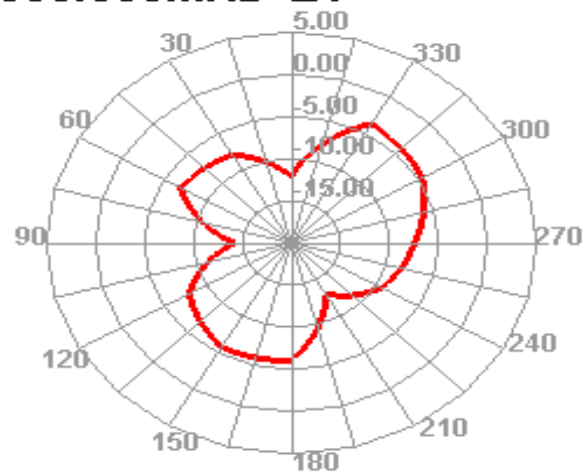
**850.000MHz**



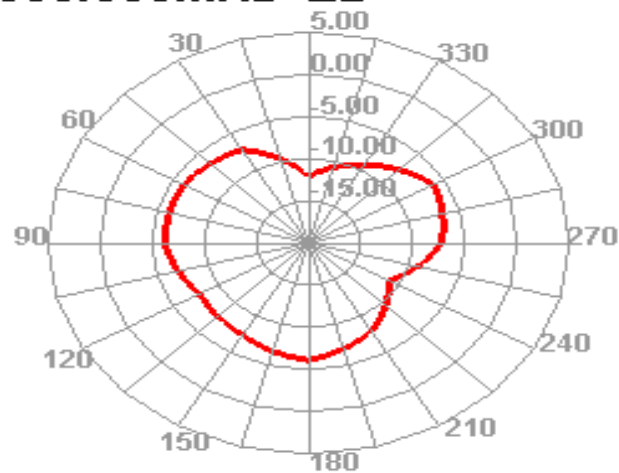
**850.000MHz H**



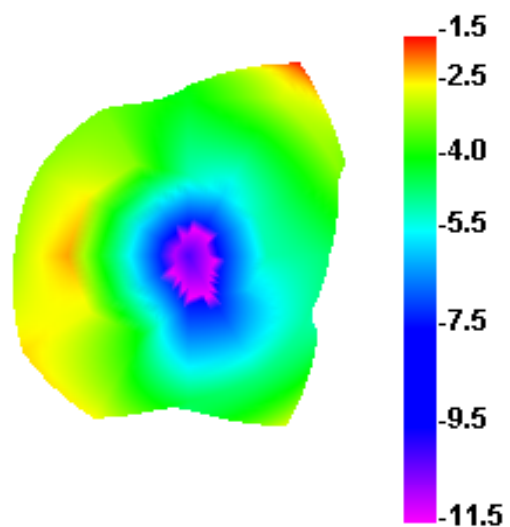
**850.000MHz E1**



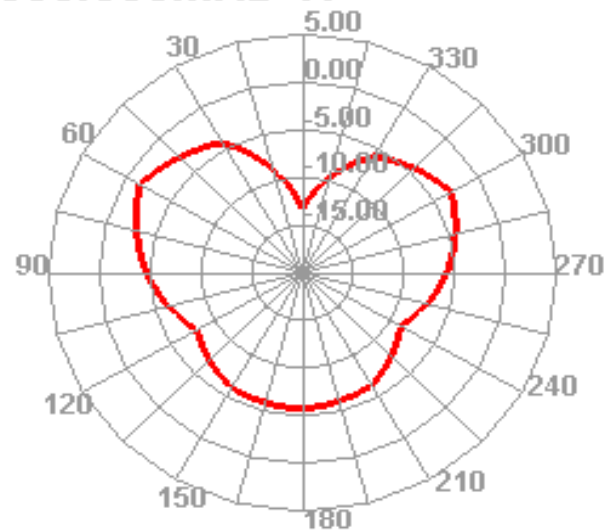
**850.000MHz E2**



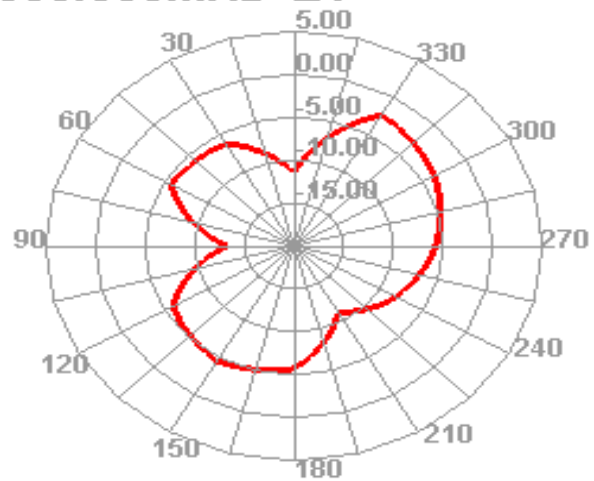
880.000MHz



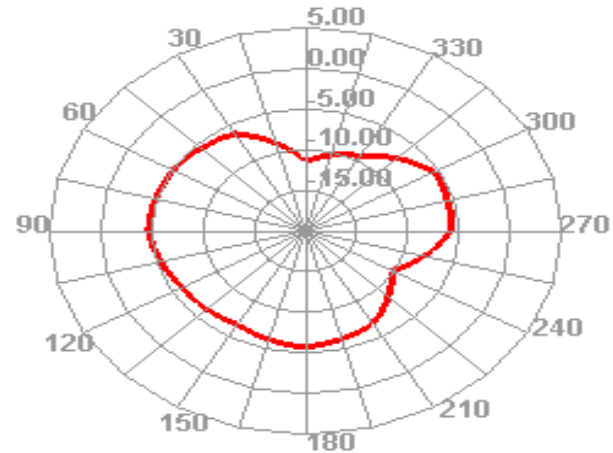
880.000MHz H



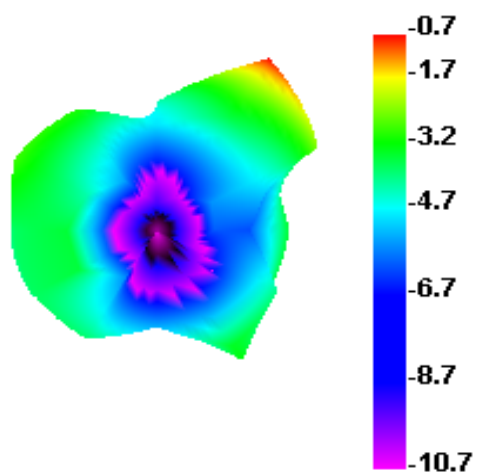
880.000MHz E1



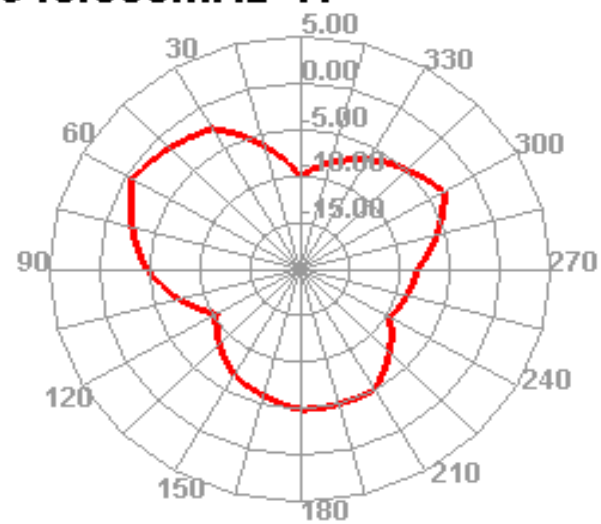
880.000MHz E2



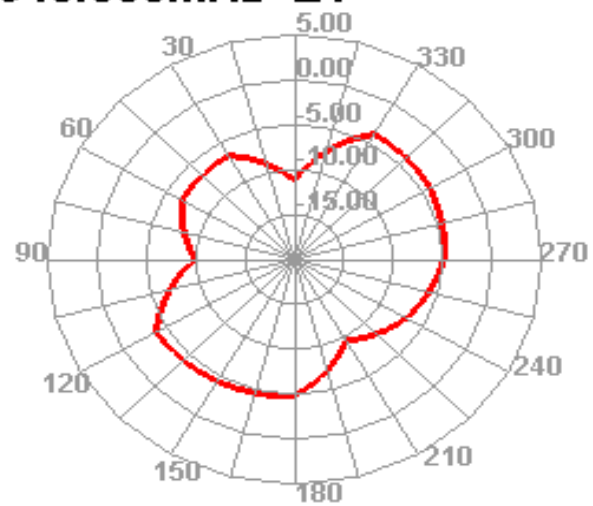
**940.000MHz**



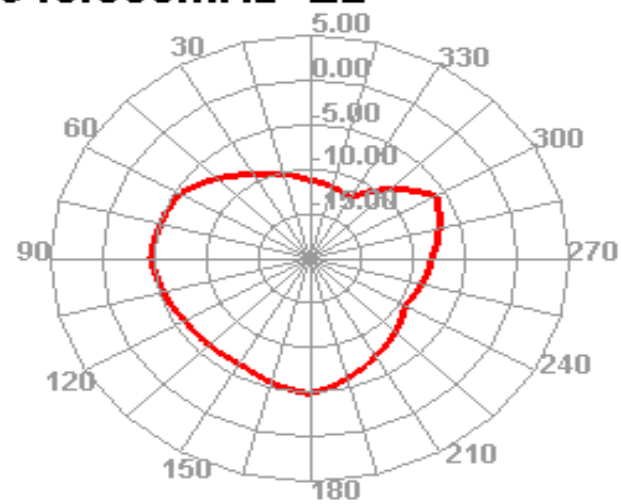
**940.000MHz H**



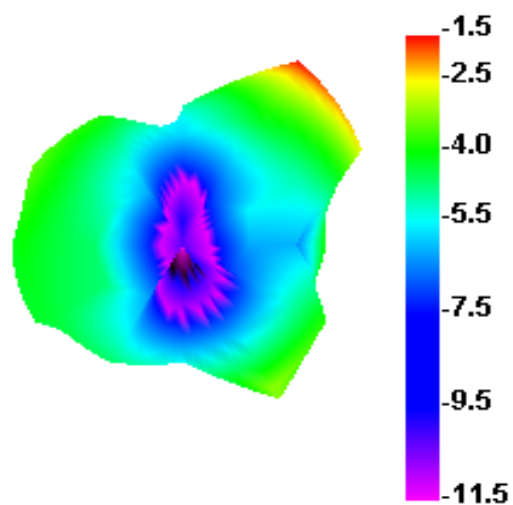
**940.000MHz E1**



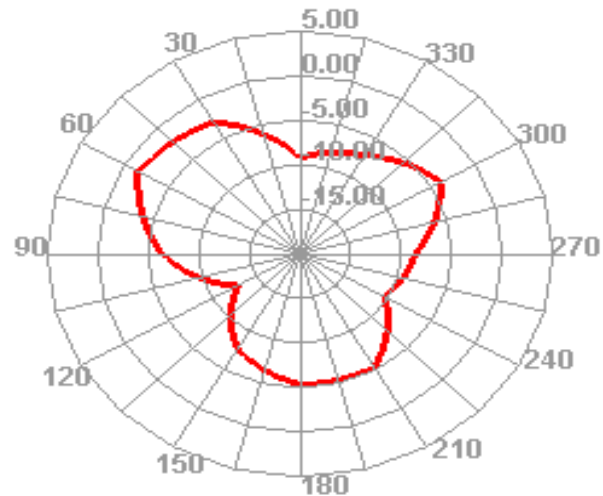
**940.000MHz E2**



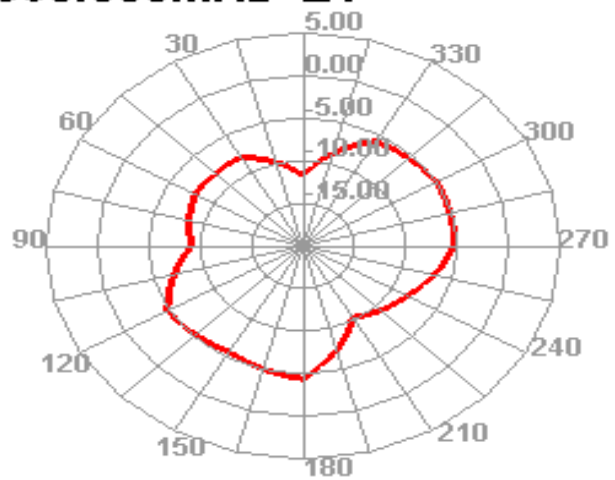
**960.000MHz**



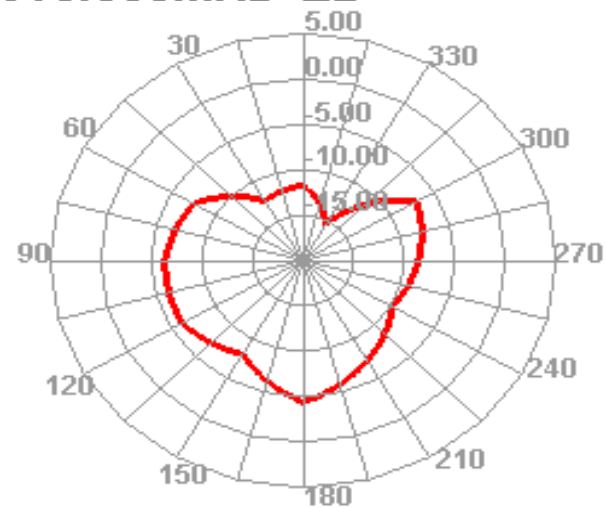
**960.000MHz H**



**960.000MHz E1**



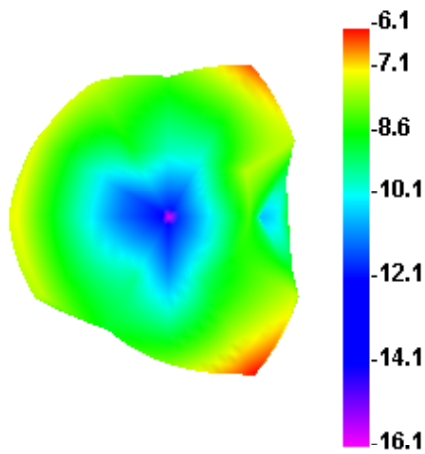
**960.000MHz E2**



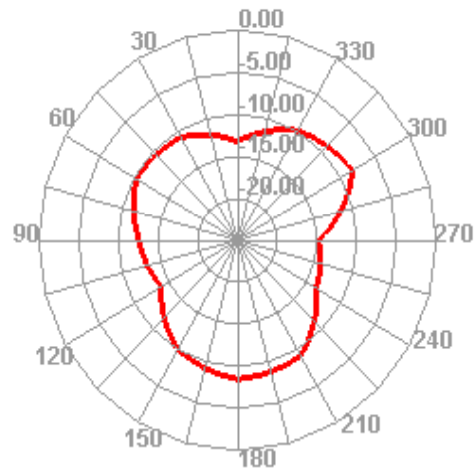
| Passive Test For 1710-2690 |             |              |               |               |             |             |                      |
|----------------------------|-------------|--------------|---------------|---------------|-------------|-------------|----------------------|
| Freq<br>(MHz)              | Effi<br>(%) | Effi<br>(dB) | Gain<br>(dBi) | Gain<br>(dBd) | Max<br>(dB) | Min<br>(dB) | Directivity<br>(dBi) |
| 1710                       | 8.45        | -10.73       | -6.15         | -8.3          | -6.15       | -23.62      | 10.73                |
| 1720                       | 9.61        | -10.17       | -5.69         | -7.84         | -5.69       | -23.85      | 10.17                |
| 1730                       | 10.64       | -9.73        | -5.2          | -7.35         | -5.2        | -25.15      | 9.73                 |
| 1740                       | 7.05        | -11.52       | -6.84         | -8.99         | -6.84       | -27.9       | 11.52                |
| 1750                       | 10.51       | -9.78        | -5.02         | -7.17         | -5.02       | -25.47      | 9.78                 |
| 1760                       | 7.17        | -11.45       | -6.45         | -8.6          | -6.45       | -26.36      | 11.45                |
| 1770                       | 6.79        | -11.68       | -6.52         | -8.67         | -6.52       | -25.96      | 11.68                |
| 1780                       | 9.84        | -10.07       | -4.9          | -7.05         | -4.9        | -24.19      | 10.07                |
| 1790                       | 7.67        | -11.15       | -6.07         | -8.22         | -6.07       | -23.71      | 11.15                |
| 1800                       | 9.14        | -10.39       | -5.51         | -7.66         | -5.51       | -22.62      | 10.39                |
| 1810                       | 14.59       | -8.36        | -3.26         | -5.41         | -3.26       | -21.27      | 8.36                 |
| 1820                       | 15.85       | -8           | -2.74         | -4.89         | -2.74       | -21.62      | 8                    |
| 1830                       | 16.82       | -7.74        | -2.42         | -4.57         | -2.42       | -21.02      | 7.74                 |
| 1840                       | 23.14       | -6.36        | -0.94         | -3.09         | -0.94       | -19.04      | 6.36                 |
| 1850                       | 21.07       | -6.76        | -1.35         | -3.5          | -1.35       | -18.33      | 6.76                 |
| 1860                       | 27.37       | -5.63        | -0.07         | -2.22         | -0.07       | -16.51      | 5.63                 |
| 1870                       | 34.28       | -4.65        | 1.01          | -1.14         | 1.01        | -14.46      | 4.65                 |
| 1880                       | 32.06       | -4.94        | 0.79          | -1.36         | 0.79        | -15.25      | 4.94                 |
| 1890                       | 33.85       | -4.7         | 1.13          | -1.02         | 1.13        | -15.05      | 4.7                  |
| 1900                       | 39.01       | -4.09        | 1.81          | -0.34         | 1.81        | -14.65      | 4.09                 |
| 1910                       | 36.54       | -4.37        | 1.54          | -0.61         | 1.54        | -15.21      | 4.37                 |
| 1920                       | 41.24       | -3.85        | 2.1           | -0.05         | 2.1         | -15.41      | 3.85                 |
| 1930                       | 42.06       | -3.76        | 2.13          | -0.02         | 2.13        | -15.69      | 3.76                 |
| 1940                       | 42.09       | -3.76        | 1.92          | -0.23         | 1.92        | -15.22      | 3.76                 |
| 1950                       | 45.32       | -3.44        | 1.98          | -0.17         | 1.98        | -15.11      | 3.44                 |
| 1960                       | 39.32       | -4.05        | 1.07          | -1.08         | 1.07        | -15.42      | 4.05                 |
| 1970                       | 38.41       | -4.16        | 0.61          | -1.54         | 0.61        | -15.43      | 4.16                 |
| 1980                       | 42.52       | -3.71        | 0.69          | -1.46         | 0.69        | -14.33      | 3.71                 |
| 1990                       | 42.55       | -3.71        | 0.36          | -1.79         | 0.36        | -14.3       | 3.71                 |
| 2000                       | 37.54       | -4.26        | -0.33         | -2.48         | -0.33       | -14.53      | 4.26                 |
| 2010                       | 36.9        | -4.33        | -0.09         | -2.24         | -0.09       | -15.07      | 4.33                 |
| 2020                       | 40.76       | -3.9         | 0.59          | -1.56         | 0.59        | -15.87      | 3.9                  |
| 2030                       | 44.62       | -3.51        | 1.24          | -0.91         | 1.24        | -15.99      | 3.51                 |
| 2040                       | 42.89       | -3.68        | 1.15          | -1            | 1.15        | -16.98      | 3.68                 |
| 2050                       | 40.81       | -3.89        | 1.04          | -1.11         | 1.04        | -17.47      | 3.89                 |
| 2060                       | 43.72       | -3.59        | 1.36          | -0.79         | 1.36        | -16.31      | 3.59                 |
| 2070                       | 48.02       | -3.19        | 1.78          | -0.37         | 1.78        | -14.92      | 3.19                 |
| 2080                       | 45.6        | -3.41        | 1.6           | -0.55         | 1.6         | -14.66      | 3.41                 |
| 2090                       | 42.36       | -3.73        | 1.24          | -0.91         | 1.24        | -14.11      | 3.73                 |
| 2100                       | 43.78       | -3.59        | 1.32          | -0.83         | 1.32        | -12.99      | 3.59                 |
| 2110                       | 49.75       | -3.03        | 1.69          | -0.46         | 1.69        | -11.84      | 3.03                 |
| 2120                       | 44.46       | -3.52        | 1.09          | -1.06         | 1.09        | -12.25      | 3.52                 |
| 2130                       | 43.86       | -3.58        | 0.84          | -1.31         | 0.84        | -12.46      | 3.58                 |
| 2140                       | 46.48       | -3.33        | 0.87          | -1.28         | 0.87        | -11.76      | 3.33                 |
| 2150                       | 43.02       | -3.66        | 0.54          | -1.61         | 0.54        | -11.54      | 3.66                 |
| 2160                       | 47.87       | -3.2         | 1.26          | -0.89         | 1.26        | -11.27      | 3.2                  |
| 2170                       | 42.19       | -3.75        | 0.95          | -1.2          | 0.95        | -12.23      | 3.75                 |
| 2500                       | 17.01       | -7.69        | -0.92         | -3.07         | -0.92       | -22.61      | 7.69                 |
| 2510                       | 16.55       | -7.81        | -1.02         | -3.17         | -1.02       | -23.4       | 7.81                 |
| 2520                       | 17.2        | -7.84        | -1.02         | -3.22         | -1.02       | -23.42      | 7.84                 |

|      |       |       |       |       |       |        |      |
|------|-------|-------|-------|-------|-------|--------|------|
| 2540 | 17.87 | -7.48 | -0.61 | -2.76 | -0.61 | -21.54 | 7.48 |
| 2550 | 18.11 | -7.42 | -0.6  | -2.75 | -0.6  | -22.14 | 7.42 |
| 2560 | 16.16 | -7.92 | -1    | -3.15 | -1    | -21.28 | 7.92 |
| 2570 | 17.81 | -7.49 | -0.56 | -2.71 | -0.56 | -23.72 | 7.49 |
| 2580 | 18.9  | -7.24 | -0.24 | -2.39 | -0.24 | -23.64 | 7.24 |
| 2590 | 16.93 | -7.71 | -0.65 | -2.8  | -0.65 | -23.93 | 7.71 |
| 2600 | 17.4  | -7.59 | -0.5  | -2.65 | -0.5  | -22.12 | 7.59 |
| 2610 | 16.56 | -7.81 | -0.65 | -2.8  | -0.65 | -20.39 | 7.81 |
| 2620 | 15.56 | -8.08 | -0.92 | -3.07 | -0.92 | -19.18 | 8.08 |
| 2630 | 18.56 | -7.31 | -0.08 | -2.23 | -0.08 | -18.65 | 7.31 |
| 2640 | 18.6  | -7.3  | -0.15 | -2.3  | -0.15 | -18.25 | 7.3  |
| 2650 | 16.34 | -7.87 | -0.55 | -2.7  | -0.55 | -18.55 | 7.87 |
| 2660 | 19.25 | -7.16 | 0.26  | -1.89 | 0.26  | -17.61 | 7.16 |
| 2670 | 19.48 | -7.1  | 0.3   | -1.85 | 0.3   | -18.45 | 7.1  |
| 2680 | 17.06 | -7.68 | -0.2  | -2.35 | -0.2  | -18.91 | 7.68 |
| 2690 | 20.73 | -6.83 | 0.71  | -1.44 | 0.71  | -18.75 | 6.83 |

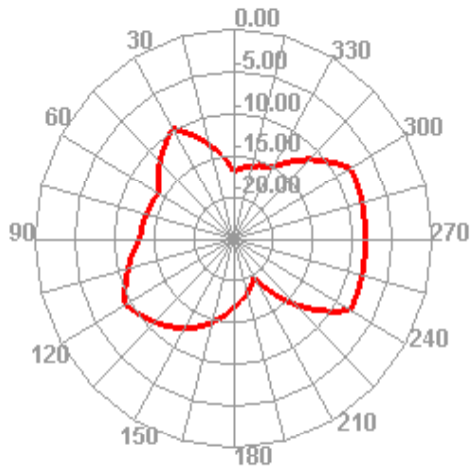
**1710.000MHz**



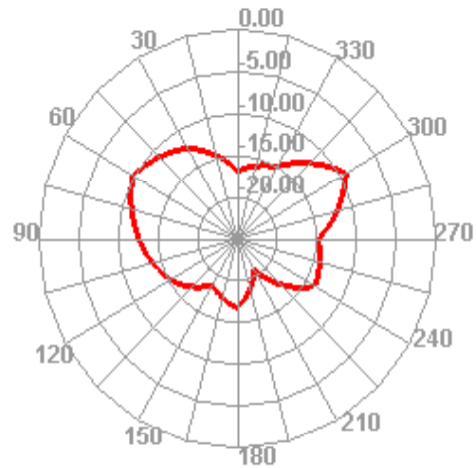
**1710.000MHz H**



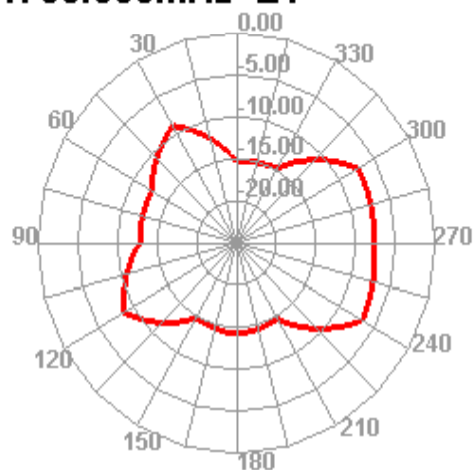
**1710.000MHz E1**



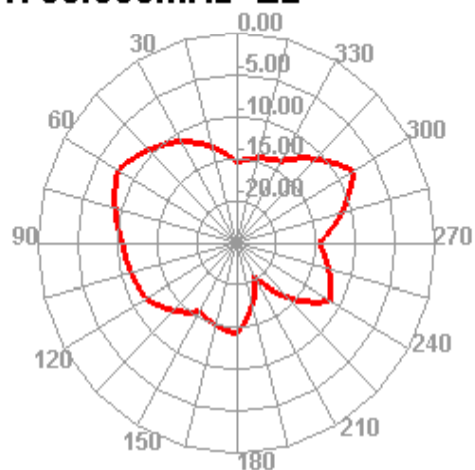
**1710.000MHz E2**



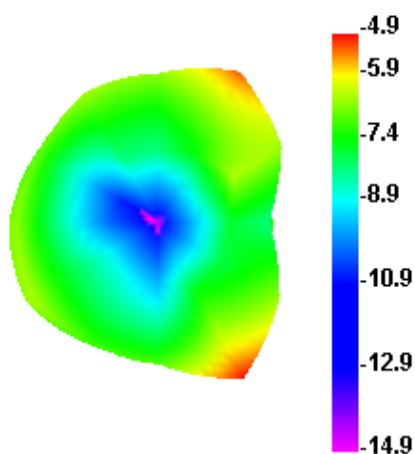
**1750.000MHz E1**



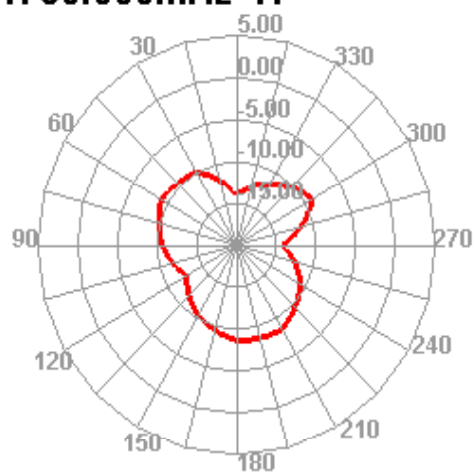
**1750.000MHz E2**



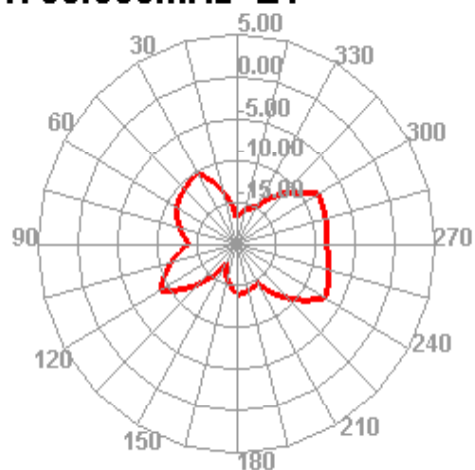
**1780.000MHz**



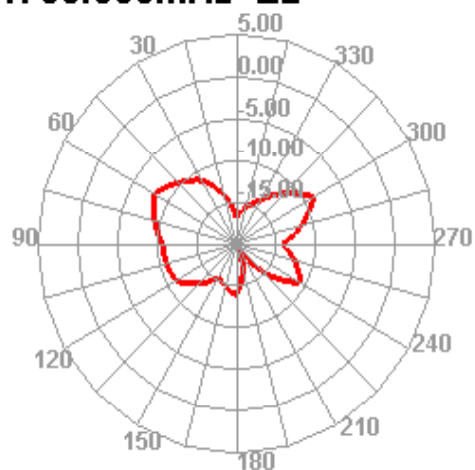
**1780.000MHz H**



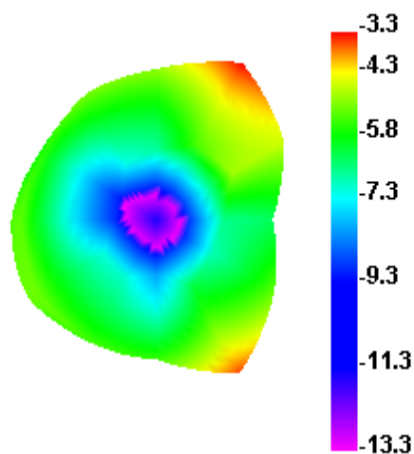
**1780.000MHz E1**



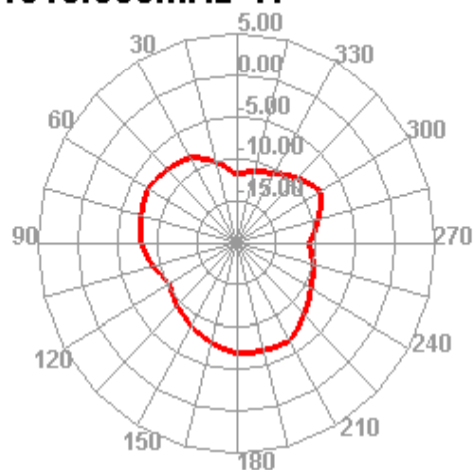
**1780.000MHz E2**



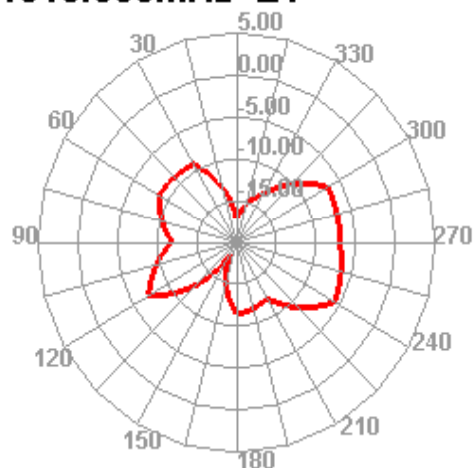
1810.000MHz



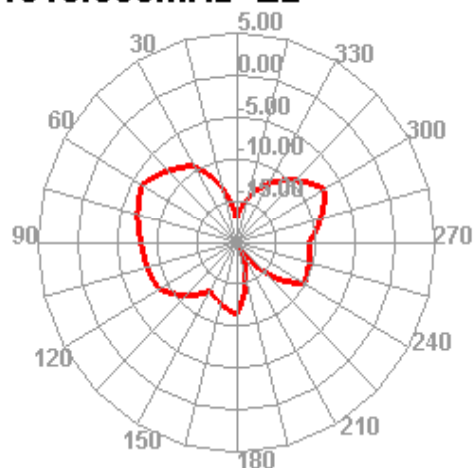
1810.000MHz H



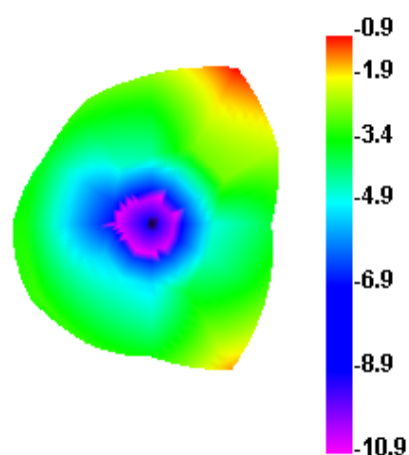
1810.000MHz E1



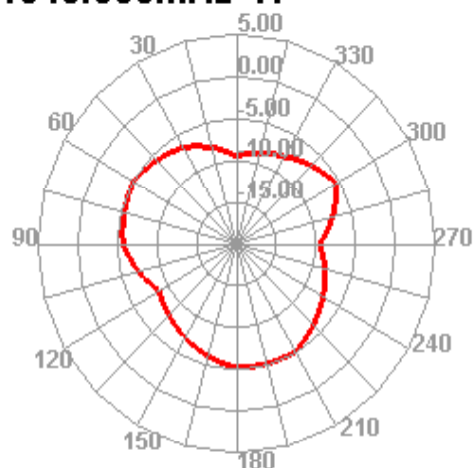
1810.000MHz E2



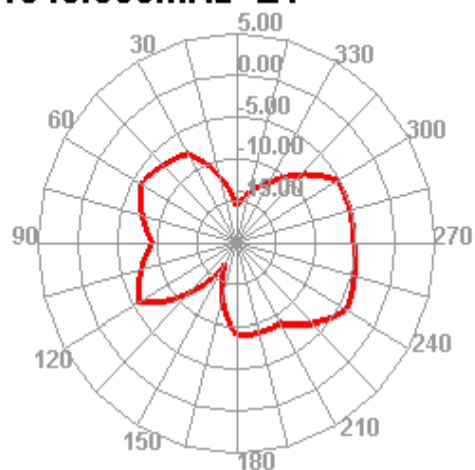
1840.000MHz



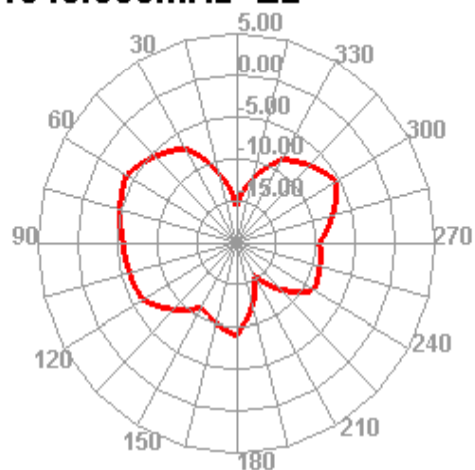
1840.000MHz H



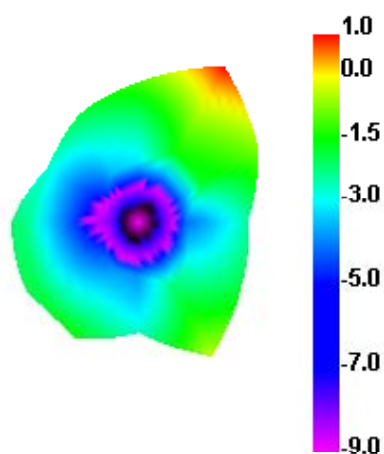
**1840.000MHz E1**



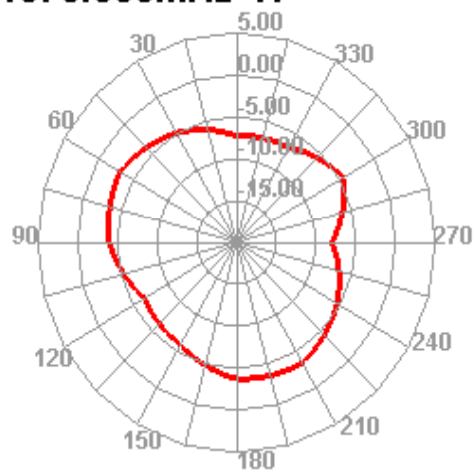
**1840.000MHz E2**



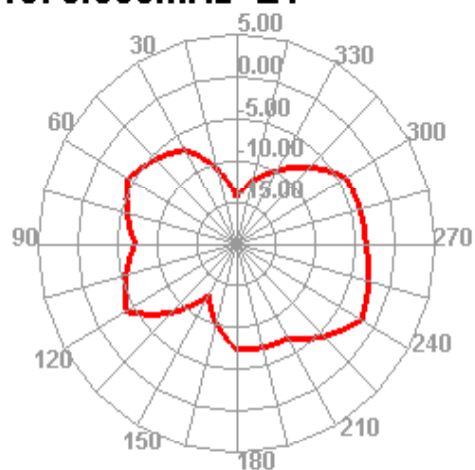
**1870.000MHz**



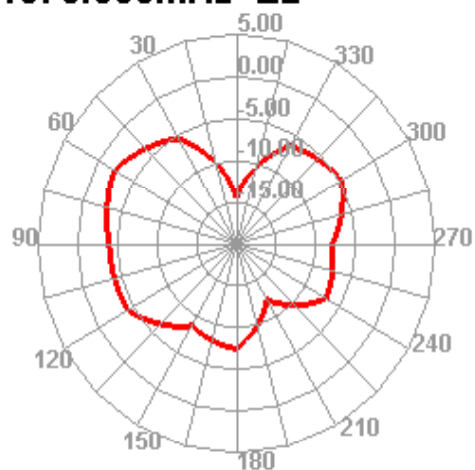
**1870.000MHz H**



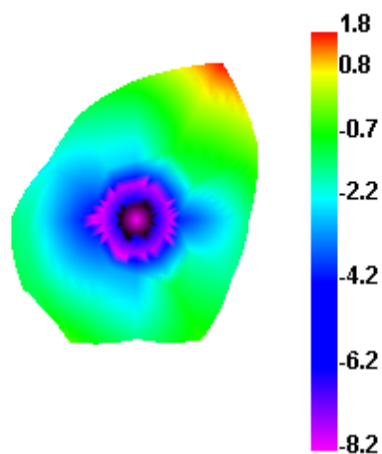
**1870.000MHz E1**



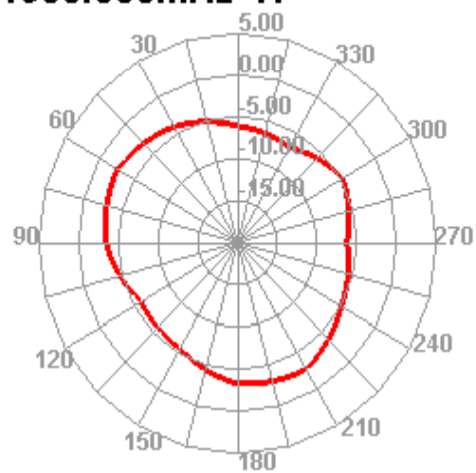
**1870.000MHz E2**



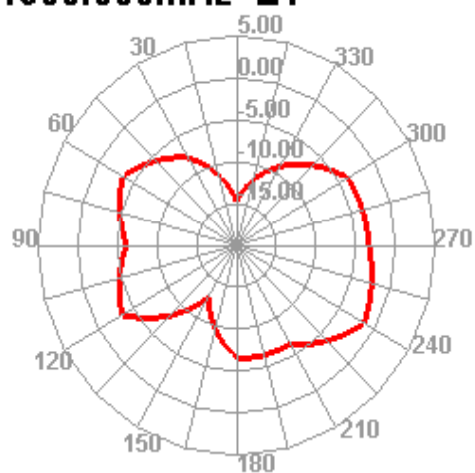
1900.000MHz



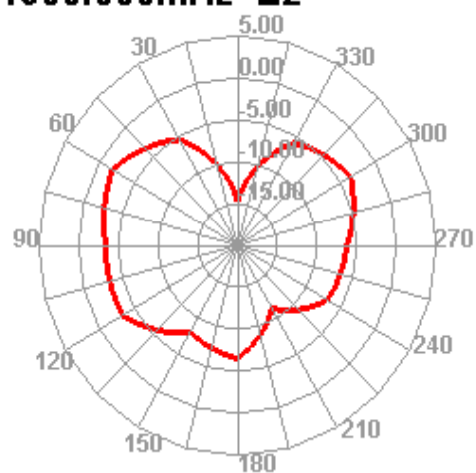
1900.000MHz H



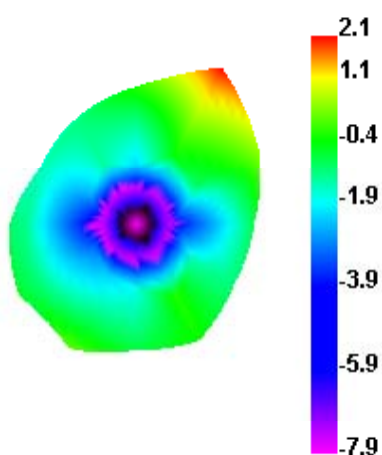
1900.000MHz E1



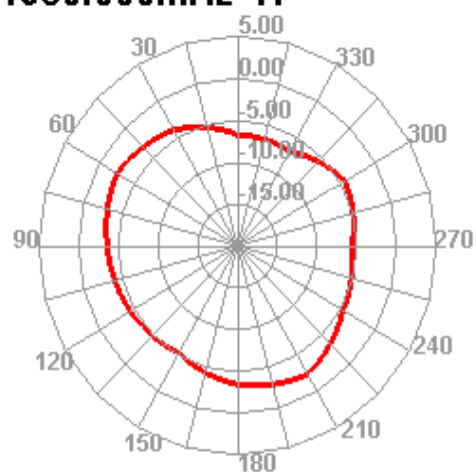
1900.000MHz E2



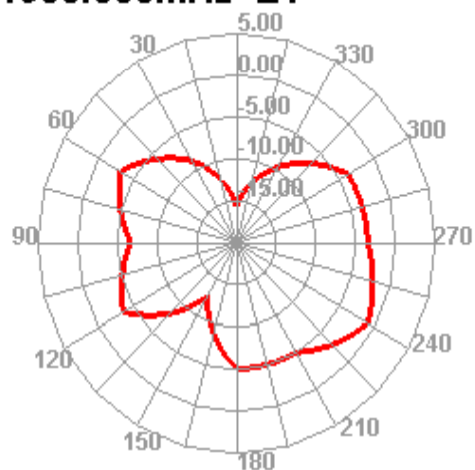
1930.000MHz



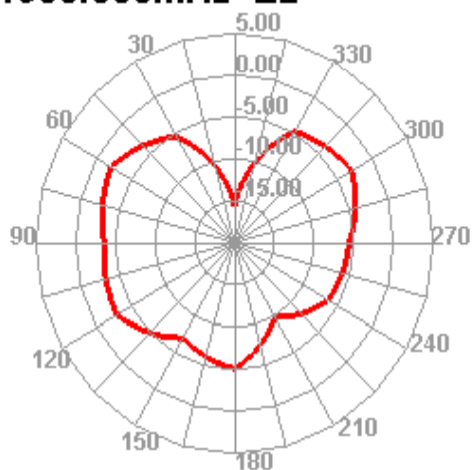
1930.000MHz H



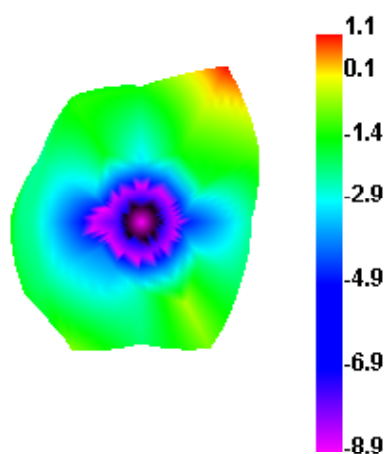
**1930.000MHz E1**



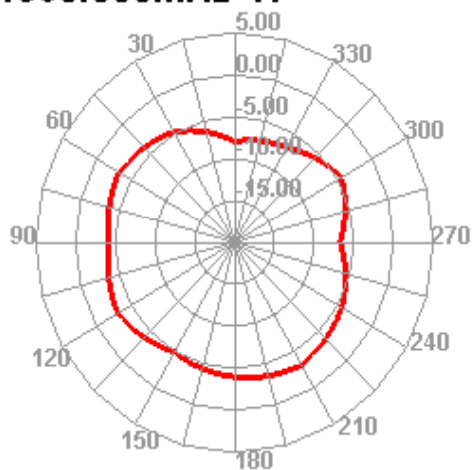
**1930.000MHz E2**



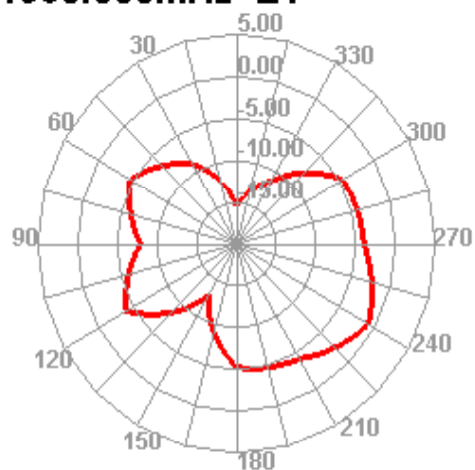
**1960.000MHz**



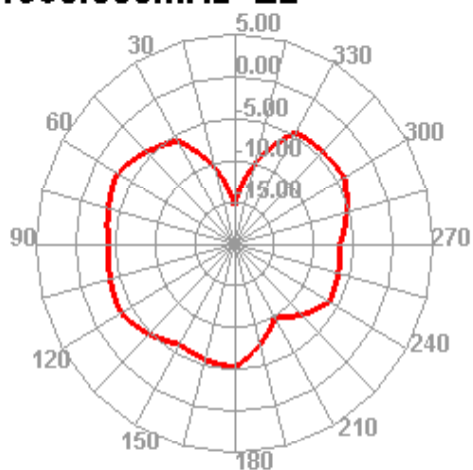
**1960.000MHz H**



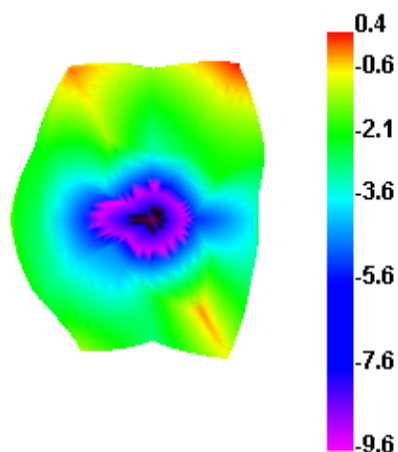
**1960.000MHz E1**



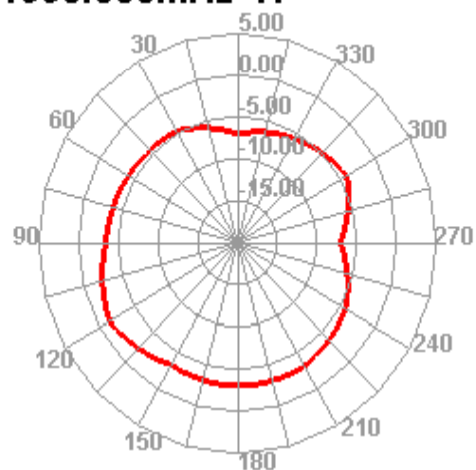
**1960.000MHz E2**



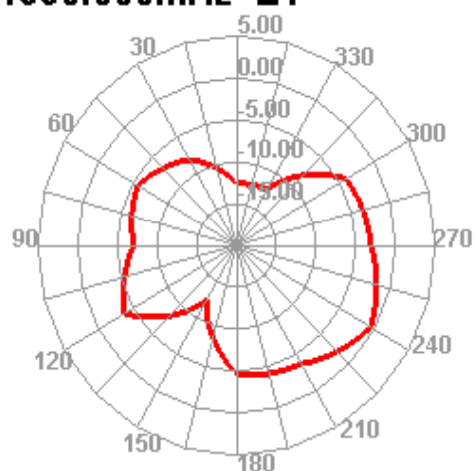
1990.000MHz



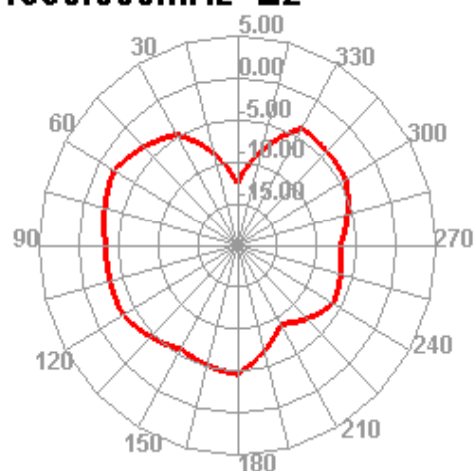
1990.000MHz H



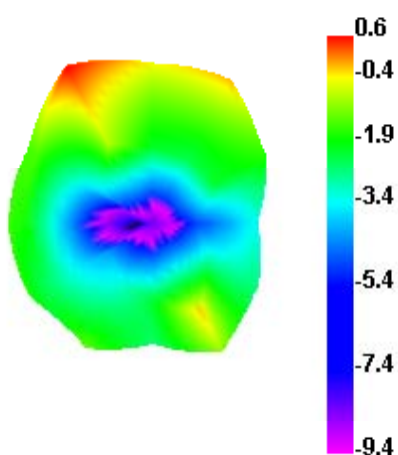
1990.000MHz E1



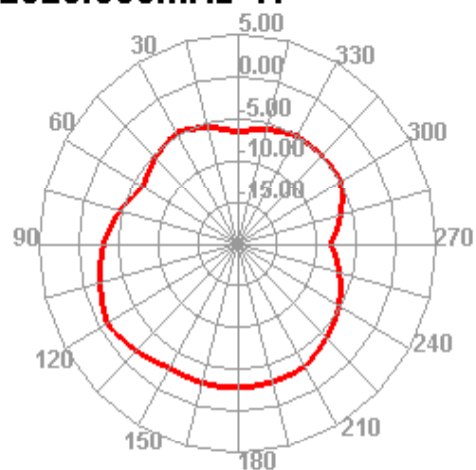
1990.000MHz E2



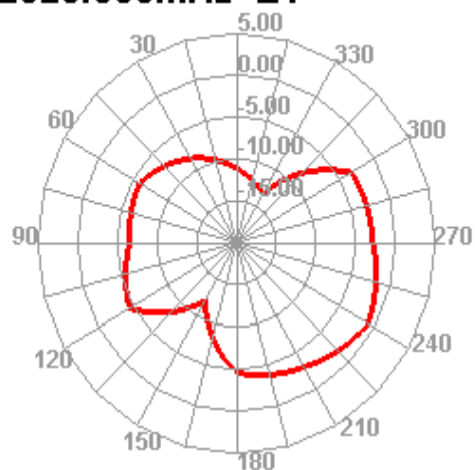
2020.000MHz



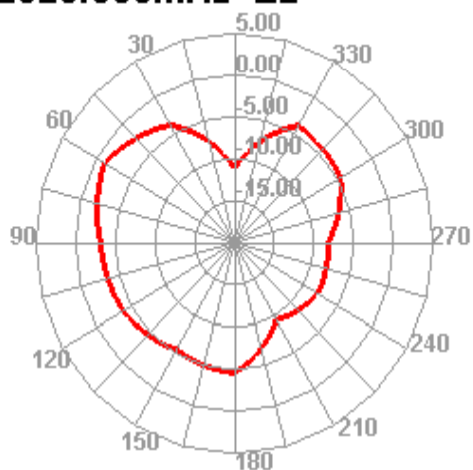
2020.000MHz H



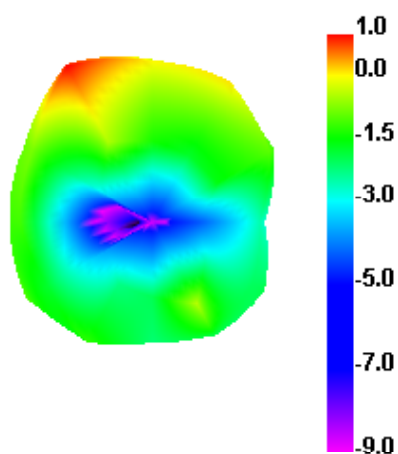
**2020.000MHz E1**



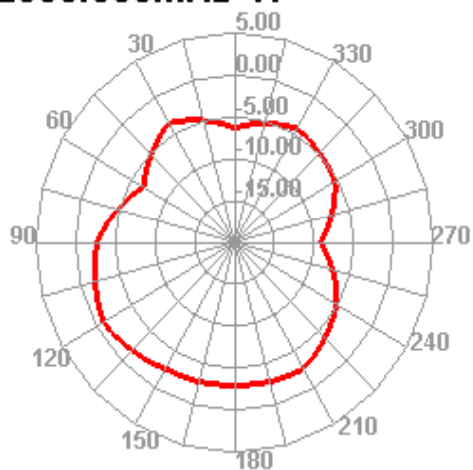
**2020.000MHz E2**



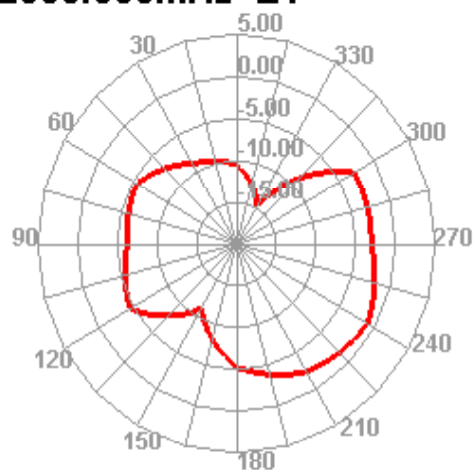
**2050.000MHz**



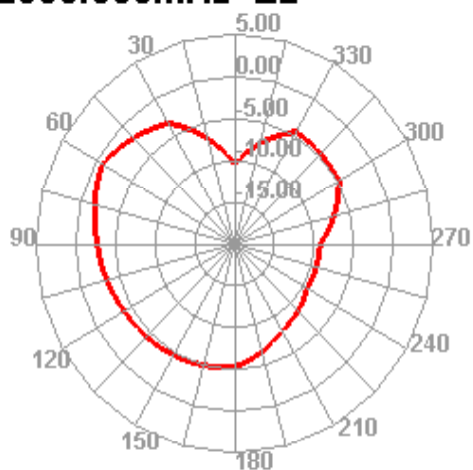
**2050.000MHz H**



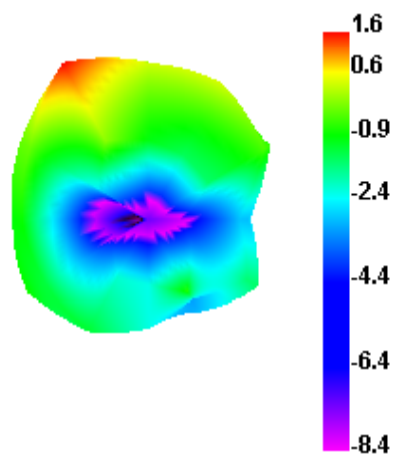
**2050.000MHz E1**



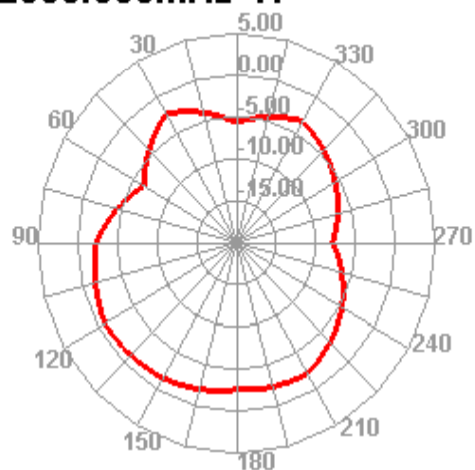
**2050.000MHz E2**



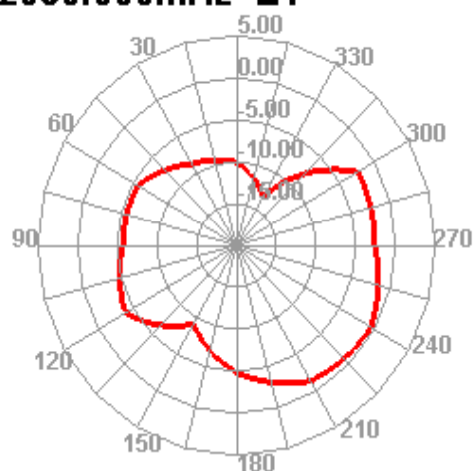
2080.000MHz



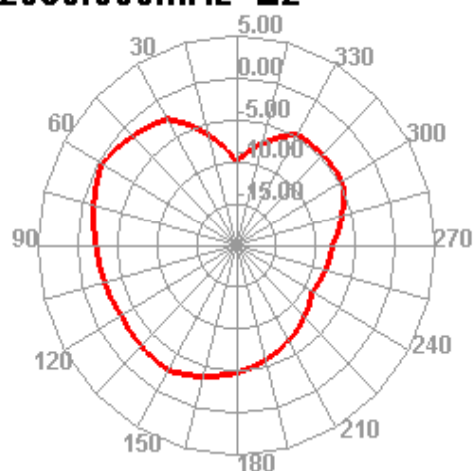
2080.000MHz H



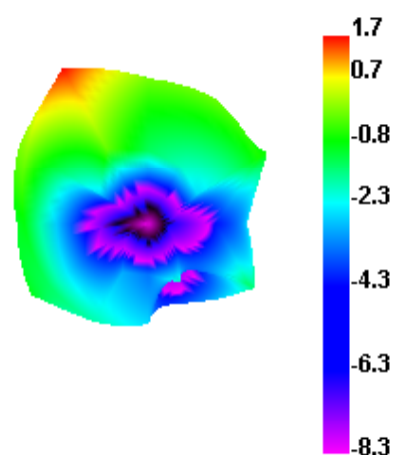
2080.000MHz E1



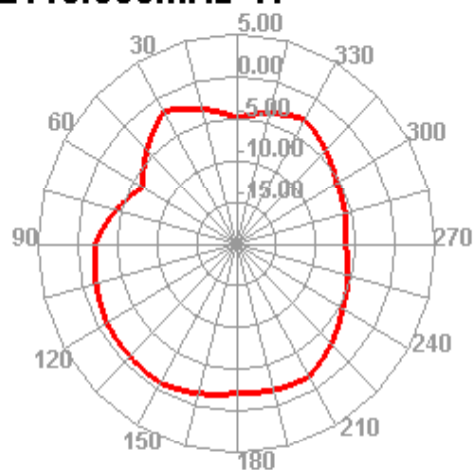
2080.000MHz E2



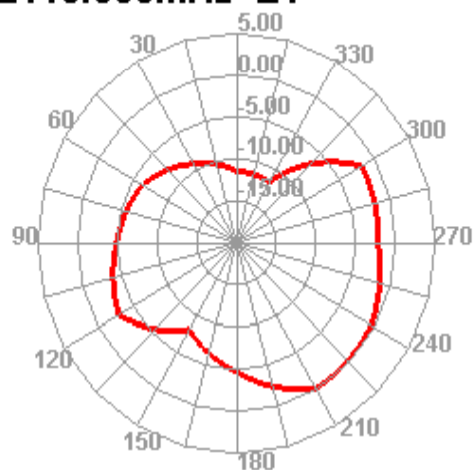
2110.000MHz



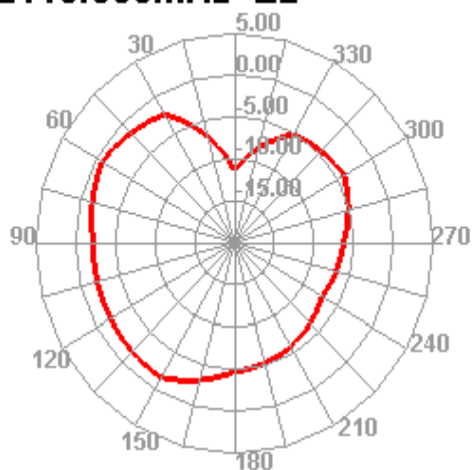
2110.000MHz H



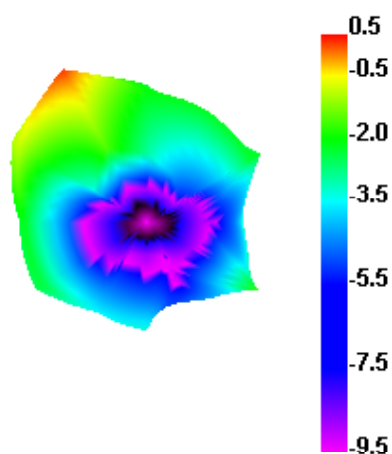
**2110.000MHz E1**



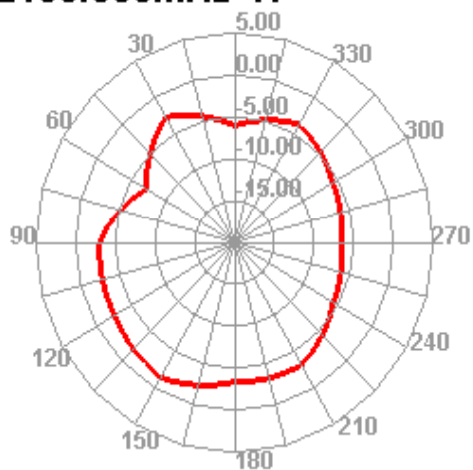
**2110.000MHz E2**



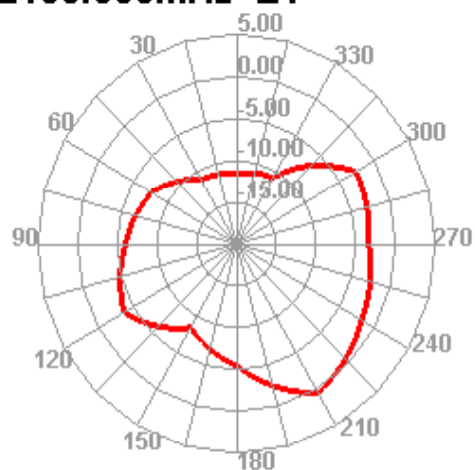
**2150.000MHz**



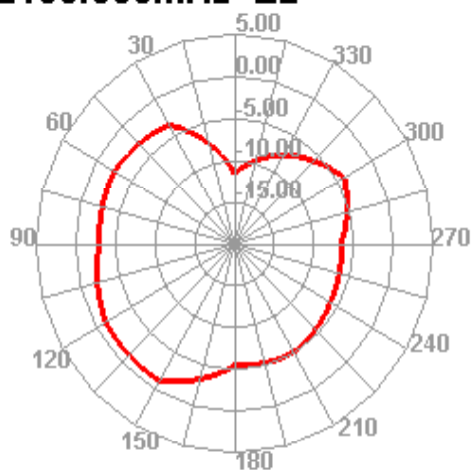
**2150.000MHz H**



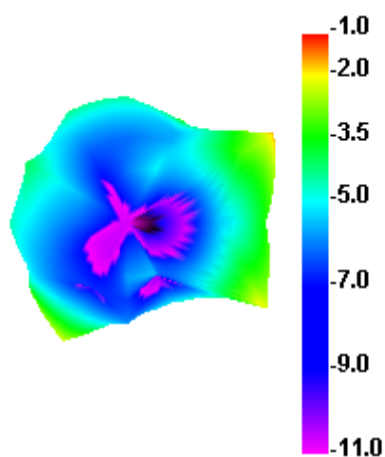
**2150.000MHz E1**



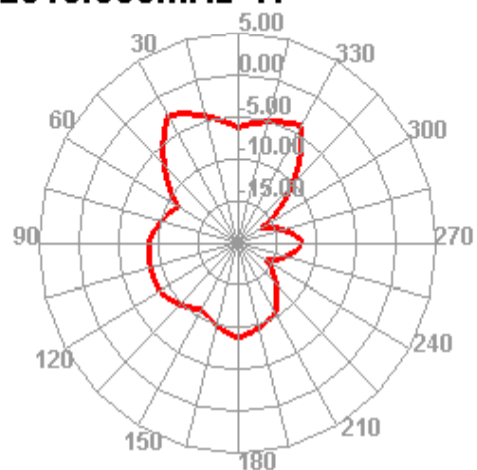
**2150.000MHz E2**



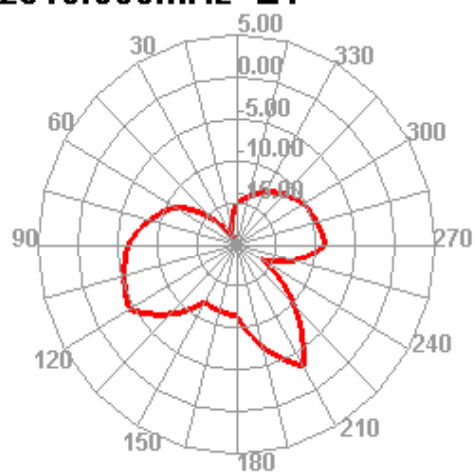
2510.000MHz



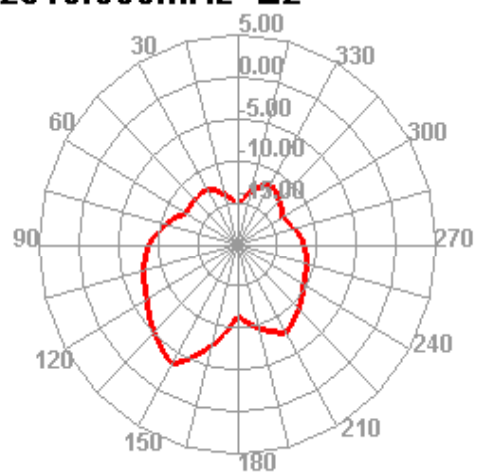
2510.000MHz H



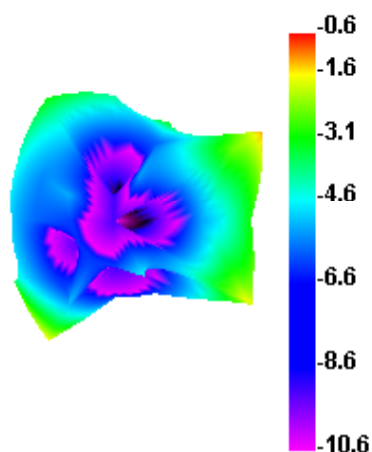
2510.000MHz E1



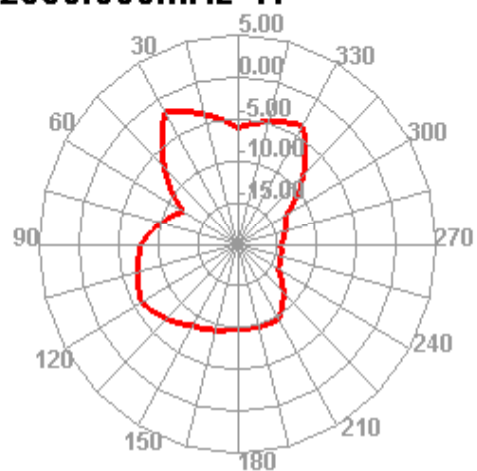
2510.000MHz E2



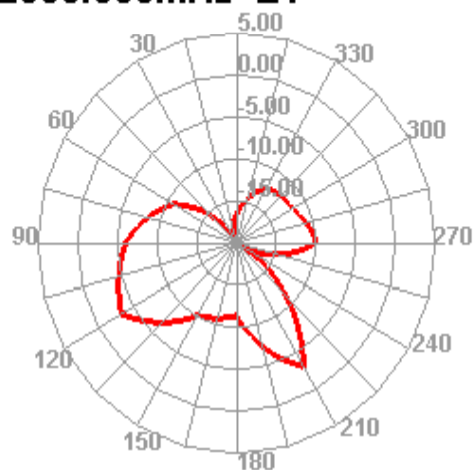
2550.000MHz



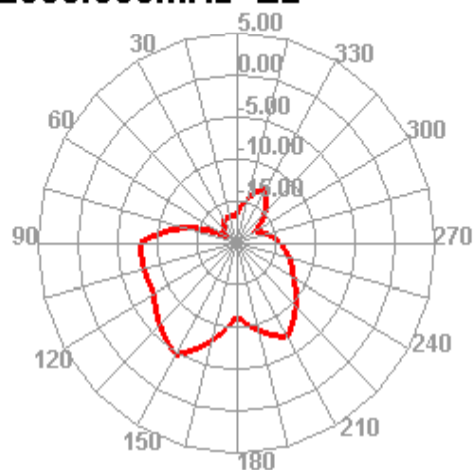
2550.000MHz H



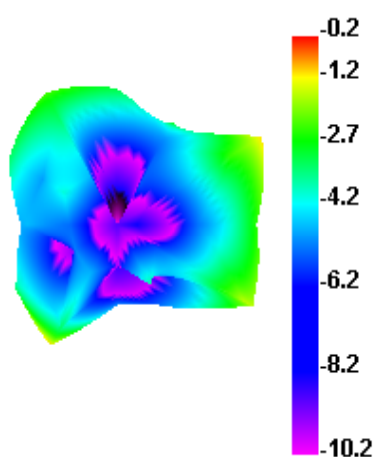
**2550.000MHz E1**



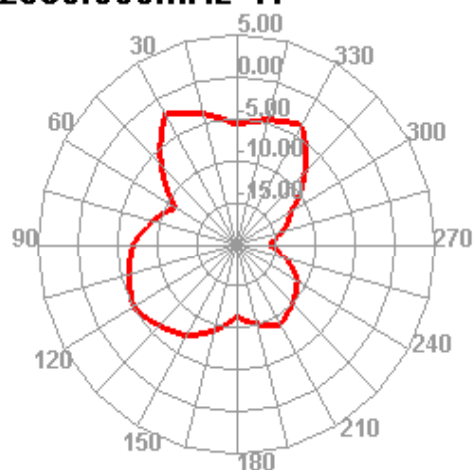
**2550.000MHz E2**



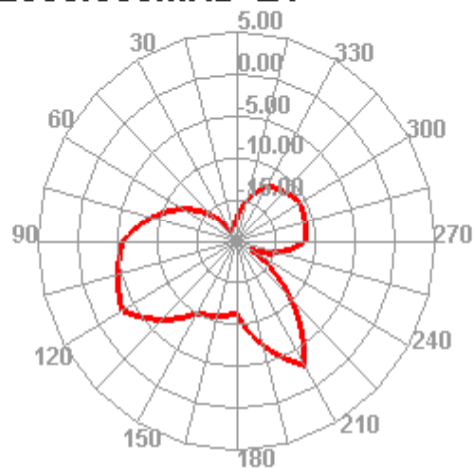
**2580.000MHz**



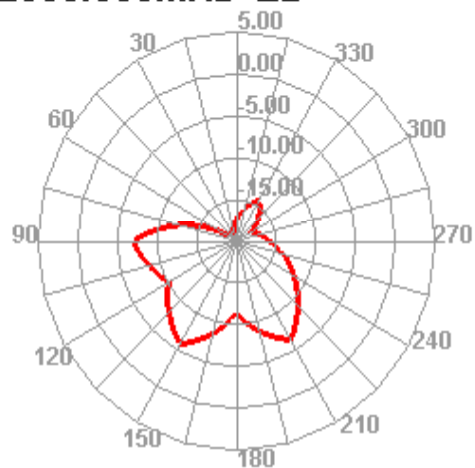
**2580.000MHz H**



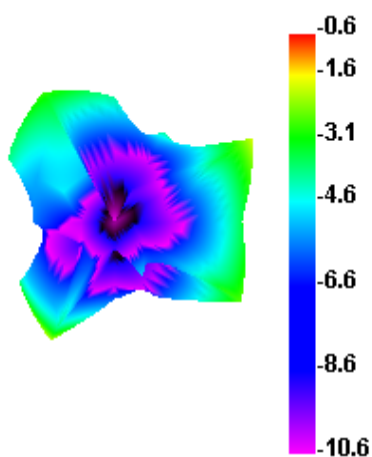
**2580.000MHz E1**



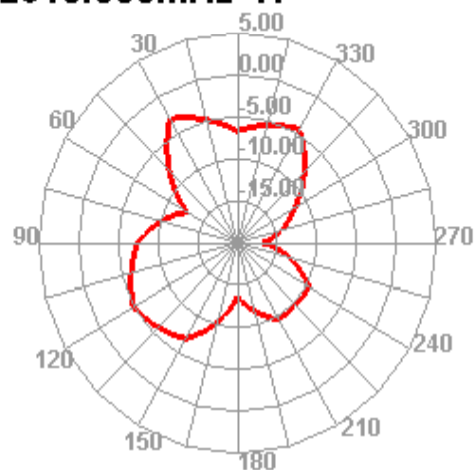
**2580.000MHz E2**



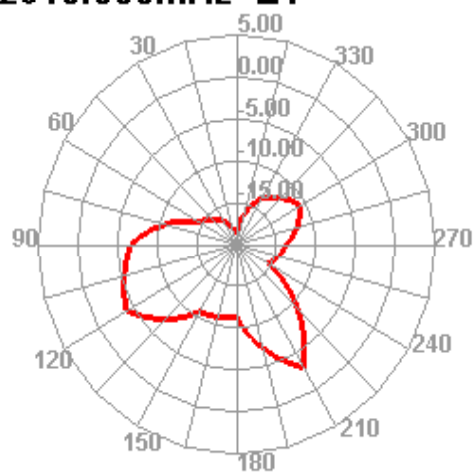
2610.000MHz



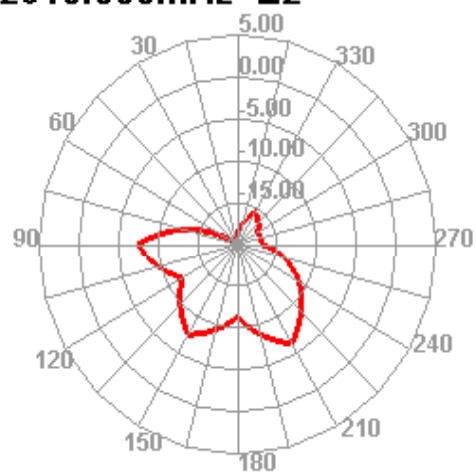
2610.000MHz H



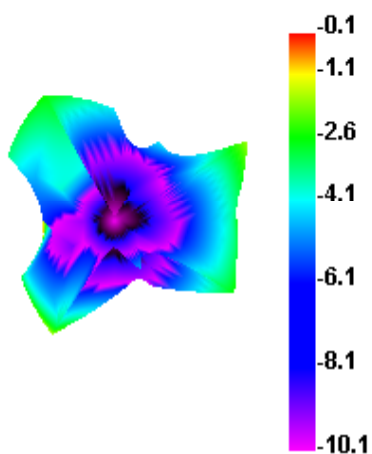
2610.000MHz E1



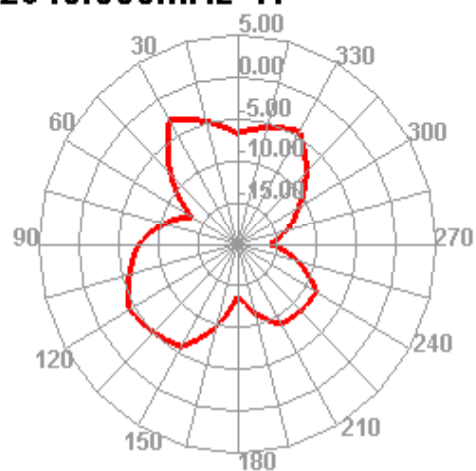
2610.000MHz E2



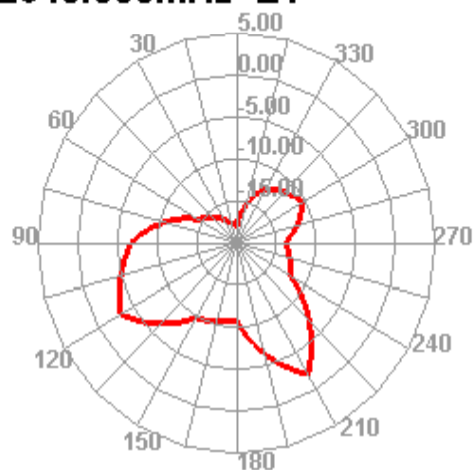
2640.000MHz



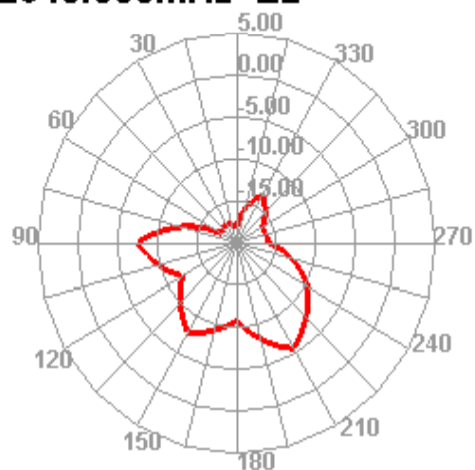
2640.000MHz H



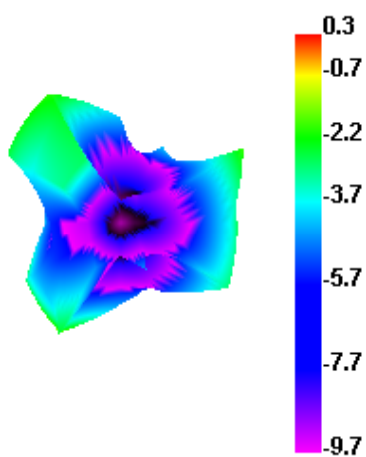
2640.000MHz E1



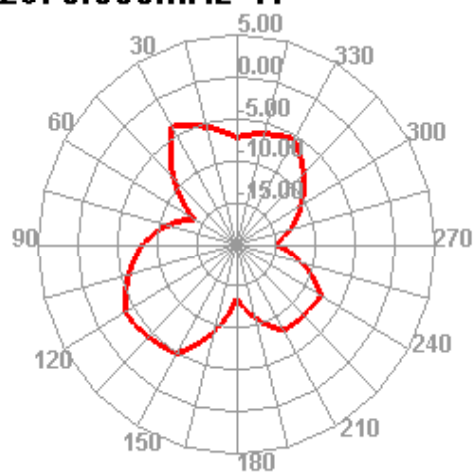
2640.000MHz E2



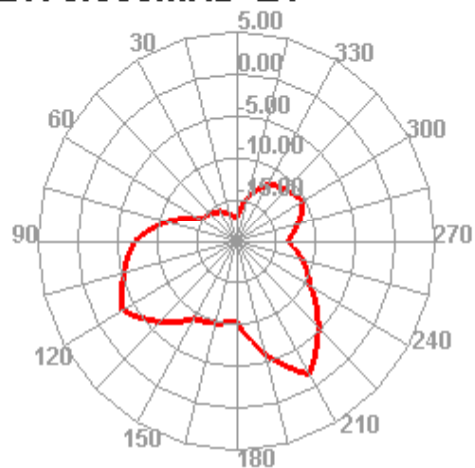
2670.000MHz



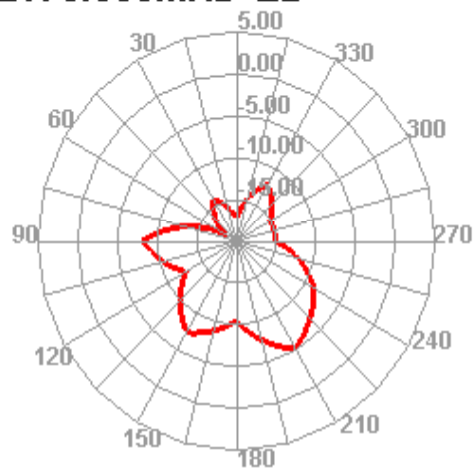
2670.000MHz H



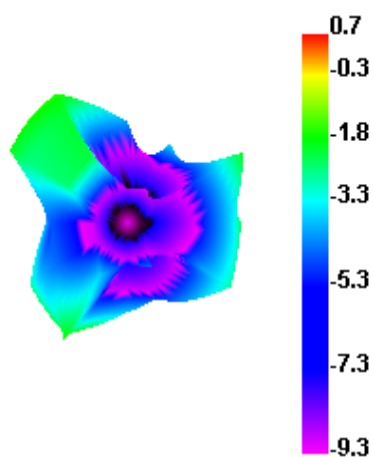
2670.000MHz E1



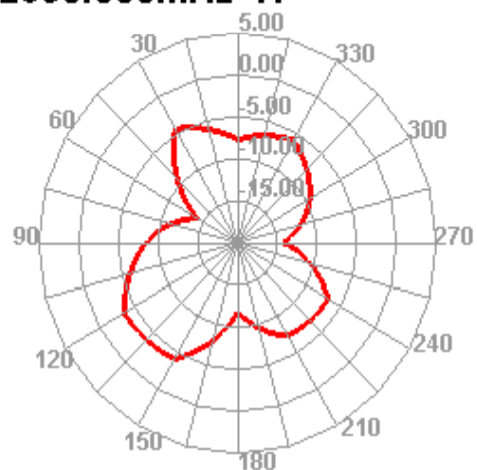
2670.000MHz E2



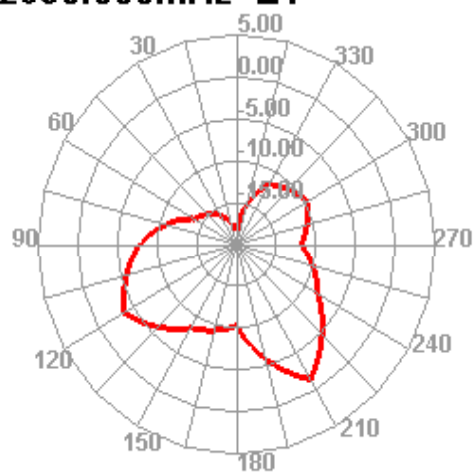
2690.000MHz



2690.000MHz H



2690.000MHz E1



2690.000MHz E2

