# RX50 Antenna Information

**1.Antenna Setup & measurement equipment**:

ETS Chamber/Keysight E5071C

**2.Antenna manufacturer:**

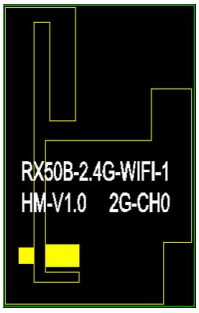
Suzhou Huimi Communication Technology Co.，Ltd

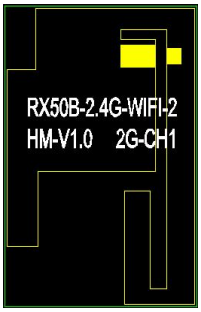
**3.Antenna Serial number**

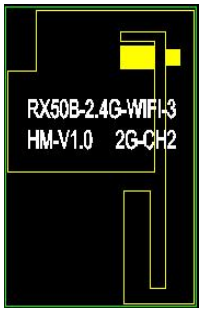
| Antenna number | Rev | Serial number |
|---|---|---|
| RX50B-2.4G-WIFI-1 | HM-V1.0 | HM10103-2.4G-WIFI-1 |
| RX50B-2.4G-WIFI-2 | HM-V1.0 | HM10103-2.4G-WIFI-2 |
| RX50B-2.4G-WIFI-3 | HM-V1.0 | HM10103-2.4G-WIFI-3 |
| RX50B-2.4G-WIFI-4 | HM-V1.0 | HM10103-2.4G-WIFI-4 |
| 5G-WIFI-1 | HM-V1.0 | HM10103-5G-WIFI-1 |
| 5G-WIFI-2 | HM-V1.0 | HM10103-5G-WIFI-2 |
| 5G-WIFI-3 | HM-V1.0 | HM10103-5G-WIFI-3 |
| 5G-WIFI-4 | HM-V1.0 | HM10103-5G-WIFI-4 |

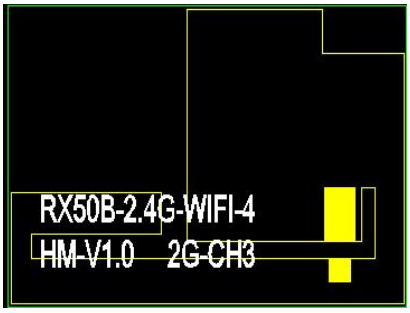
**4.Antenna Pattern summary**

a.2.4G-WIFI Antenna Pattern

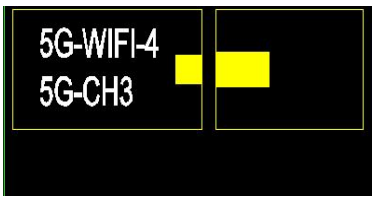


b.5G-WIFI  Antenna Pattern




**5.Antenna Gain**

| RX50B-2.4G-WIFI-1 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 2400 | 59.39 | 1.9 |
| 2410 | 59.74 | 1.9 |
| 2420 | 58.28 | 1.77 |
| 2430 | 57.19 | 1.66 |
| 2440 | 56.98 | 1.51 |
| 2450 | 60.67 | 1.84 |
| 2460 | 59.15 | 1.72 |
| 2470 | 62.85 | 2.03 |
| 2480 | 61.81 | 1.93 |
| 2490 | 55.65 | 1.36 |
| 2500 | 51.02 | 0.89 |

| RX50B-2.4G-WIFI-2 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 2400 | 64.58 | 1.92 |
| 2410 | 64.79 | 1.92 |
| 2420 | 63.46 | 1.8 |
| 2430 | 62.05 | 1.64 |
| 2440 | 61.57 | 1.51 |
| 2450 | 64.94 | 1.8 |
| 2460 | 63.1 | 1.7 |
| 2470 | 66.53 | 2.02 |
| 2480 | 65.81 | 1.96 |
| 2490 | 59.68 | 1.51 |
| 2500 | 55.12 | 1.17 |

| RX50B-2.4G-WIFI-3 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 2400 | 62.94 | 1.97 |
| 2410 | 63.11 | 1.93 |
| 2420 | 61.82 | 1.82 |
| 2430 | 60.79 | 1.59 |
| 2440 | 60.53 | 1.5 |
| 2450 | 64.19 | 1.83 |
| 2460 | 62.53 | 1.74 |
| 2470 | 65.86 | 2.05 |
| 2480 | 65.11 | 2.03 |
| 2490 | 58.85 | 1.54 |
| 2500 | 54.42 | 1.16 |

| RX50B-2.4G-WIFI-4 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 2400 | 63.66 | 1.98 |
| 2410 | 63.78 | 1.92 |
| 2420 | 62.43 | 1.8 |
| 2430 | 60.92 | 1.67 |
| 2440 | 60.41 | 1.54 |
| 2450 | 63.87 | 1.8 |
| 2460 | 62.14 | 1.71 |
| 2470 | 65.8 | 2.01 |
| 2480 | 64.99 | 1.99 |
| 2490 | 59.04 | 1.53 |
| 2500 | 54.49 | 1.14 |

| 5G-WIFI-1 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 5100 | 54.42 | 1.96 |
| 5150 | 50.05 | 0.08 |
| 5200 | 45.52 | 0.06 |
| 5250 | 52.82 | 0.59 |
| 5300 | 51.11 | 0.57 |
| 5350 | 53.42 | 0.74 |
| 5400 | 56.45 | 1.06 |
| 5450 | 49.17 | 0.89 |
| 5500 | 45.1 | 0.98 |
| 5550 | 37.47 | 0.42 |
| 5600 | 42.32 | 1.65 |
| 5650 | 40.23 | 1.49 |
| 5700 | 37.52 | 0.99 |
| 5750 | 38.13 | 1.71 |
| 5800 | 37.54 | -0.46 |
| 5850 | 35.93 | -0.96 |

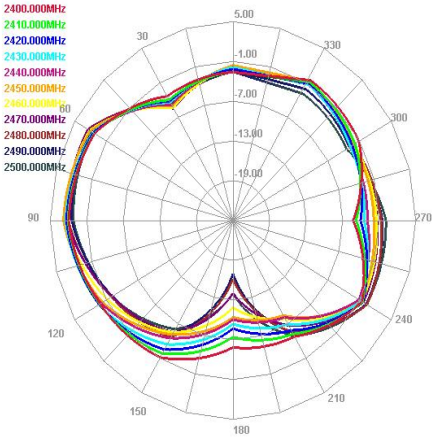
| 5G-WIFI-2 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 5100 | 54.64 | 1.91 |
| 5150 | 49.61 | 1.04 |
| 5200 | 44.13 | 0.87 |
| 5250 | 45.55 | 0.88 |
| 5300 | 36.67 | 0.05 |
| 5350 | 42.32 | 1.62 |
| 5400 | 40.79 | 1.54 |
| 5450 | 38.1 | 1.32 |
| 5500 | 39.11 | 0.25 |
| 5550 | 35.44 | 0.81 |
| 5600 | 35.14 | 0.87 |
| 5650 | 35.08 | -0.57 |
| 5700 | 34.76 | -0.83 |
| 5750 | 32.68 | 1.26 |
| 5800 | 33.47 | 2.04 |
| 5850 | 36.96 | 1.65 |

| 5G-WIFI-3 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 5100 | 55.09 | 2.03 |
| 5150 | 53.49 | 1.36 |
| 5200 | 49.6 | 1.01 |
| 5250 | 44.38 | 0.61 |
| 5300 | 46.75 | 0.95 |
| 5350 | 37.35 | 0.32 |
| 5400 | 41.89 | 1.54 |
| 5450 | 40.25 | 1.45 |
| 5500 | 38.17 | 1.4 |
| 5550 | 39.75 | 0.34 |
| 5600 | 35.41 | 0.9 |
| 5650 | 37.07 | 1.6 |
| 5700 | 35.6 | -0.59 |
| 5750 | 35.19 | -0.7 |
| 5800 | 35.39 | 0.93 |
| 5850 | 33.36 | 1.88 |

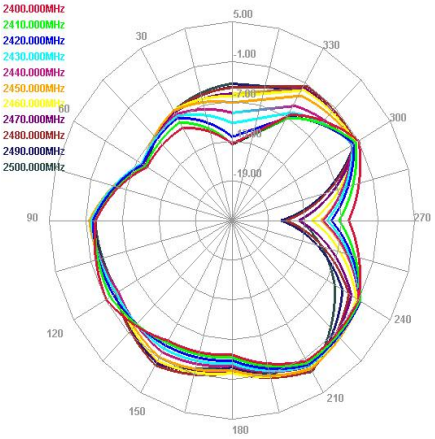
| 5G-WIFI-4 | | |
|---|---|---|
| Freq | Effi | Gain |
| (MHz) | (%) | (dBi) |
| 5100 | 54.8 | 1.85 |
| 5150 | 49.98 | 1.17 |
| 5200 | 44.58 | 0.74 |
| 5250 | 37.13 | 0.16 |
| 5300 | 42.21 | 1.44 |
| 5350 | 40.93 | 1.54 |
| 5400 | 38.21 | 1.35 |
| 5450 | 35.33 | 0.88 |
| 5500 | 37.65 | 0.15 |
| 5550 | 37.24 | 0.27 |
| 5600 | 38.61 | 0.77 |
| 5650 | 39.55 | 1.06 |
| 5700 | 37.05 | 1.54 |
| 5750 | 35.64 | 1.01 |
| 5800 | 34.93 | 0.32 |
| 5850 | 33.52 | 2.06 |

## 2.4G--WIFI-1

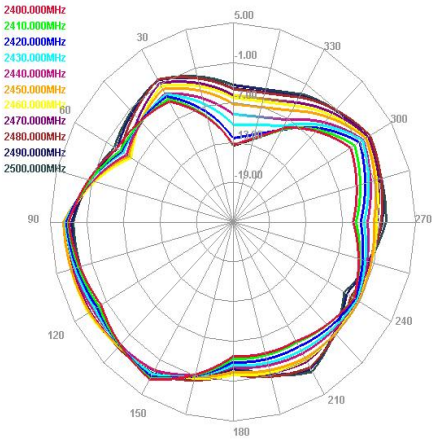
**Horizontal**




**E1 Face**

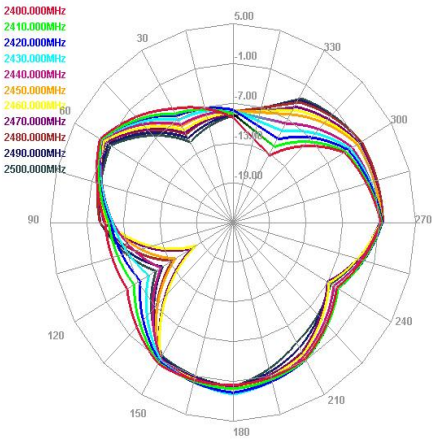



**E2 Face**

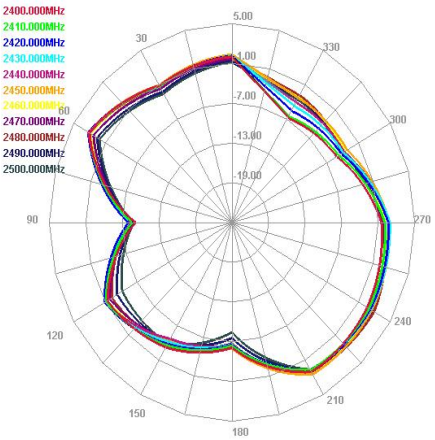



## 2.4G--WIFI-2

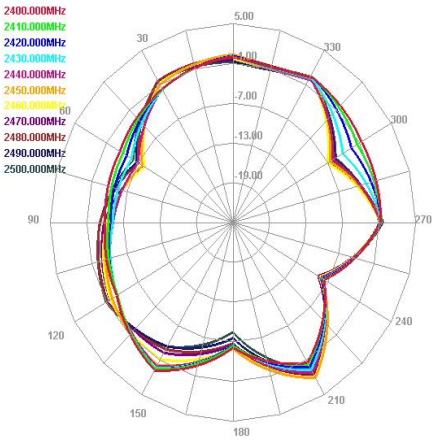
**Horizontal**




**E1 Face**

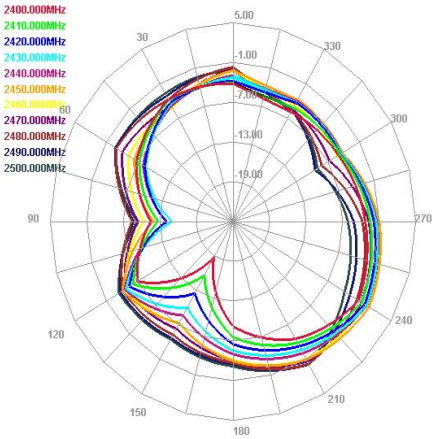


**E2 Face**

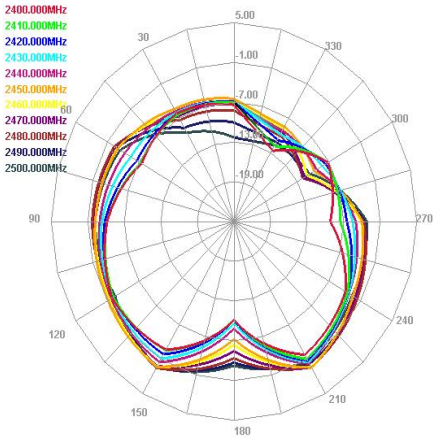



## 2.4G--WIFI-3

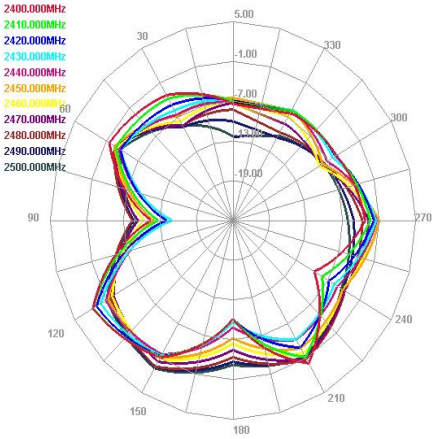
**Horizontal**




**E1 Face**

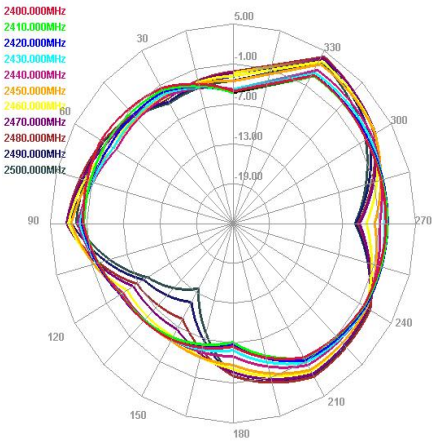



**E2 Face**

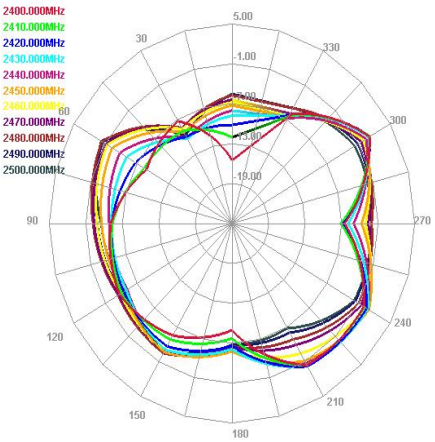


2.4G--WIFI-4

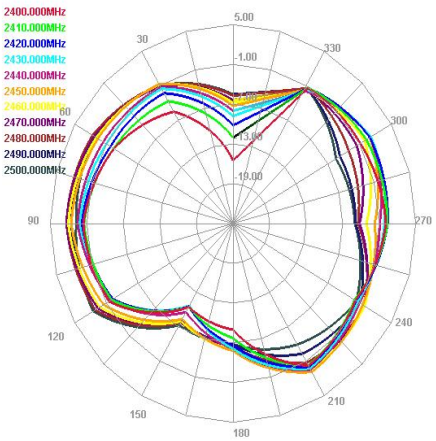
**Horizontal**




**E1 Face**

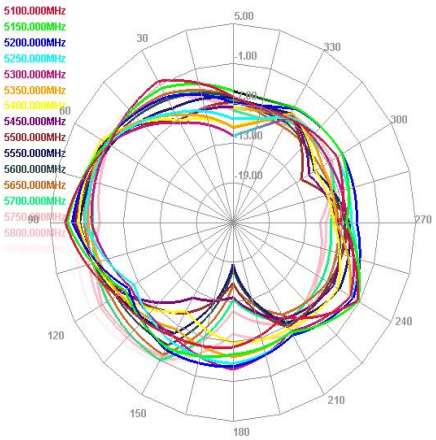



**E2 Face**

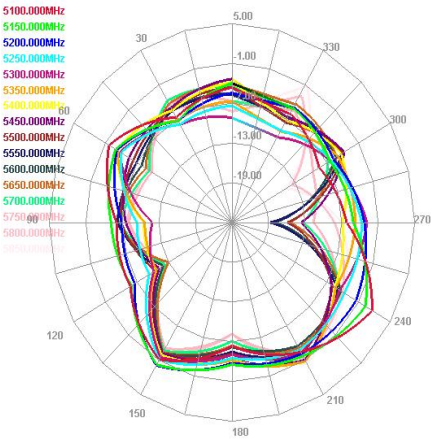



5g wifi-1

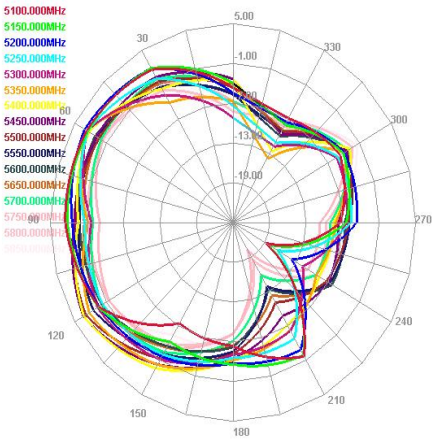
**Horizontal**




**E1 Face**

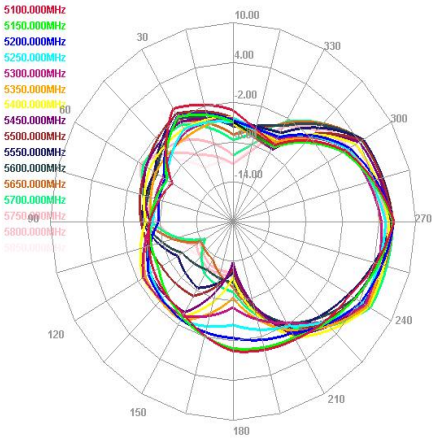


**E2 Face**

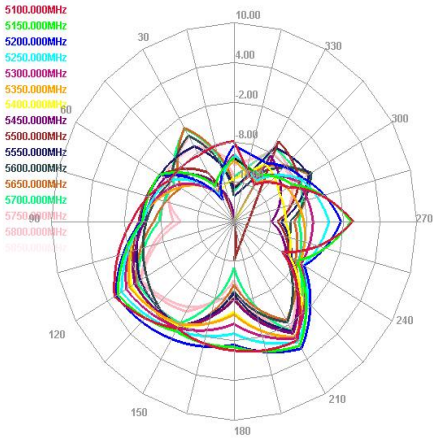



5g wifi-2

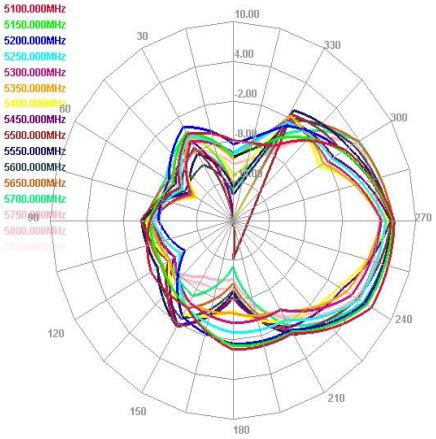
**Horizontal**




**E1 Face**

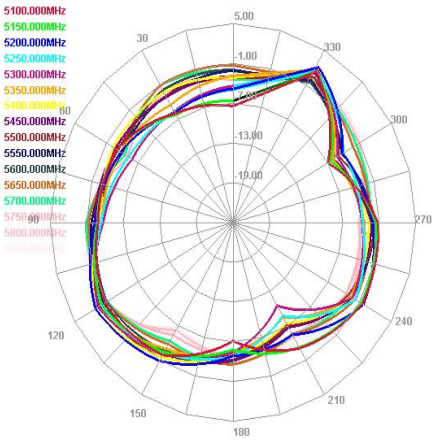



**E2 Face**

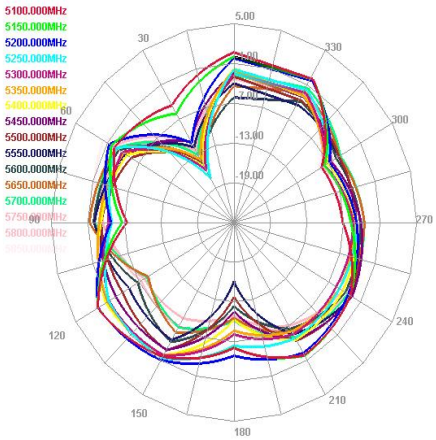


5g wifi-3

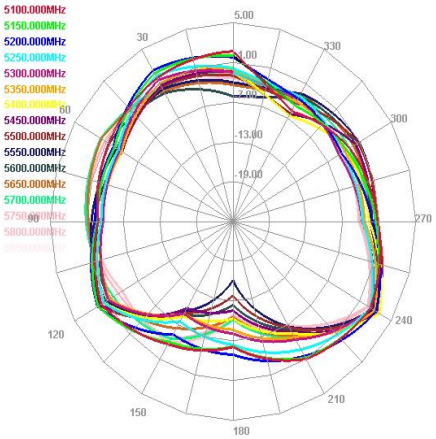
**Horizontal**




**E1 Face**

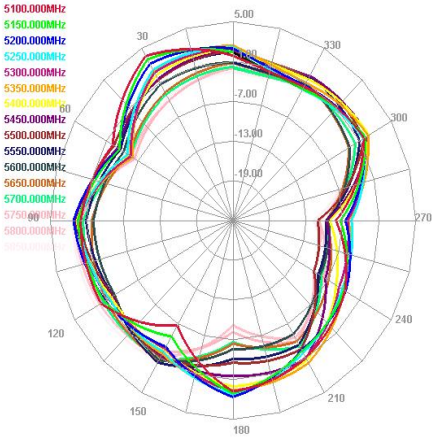



**E2 Face**

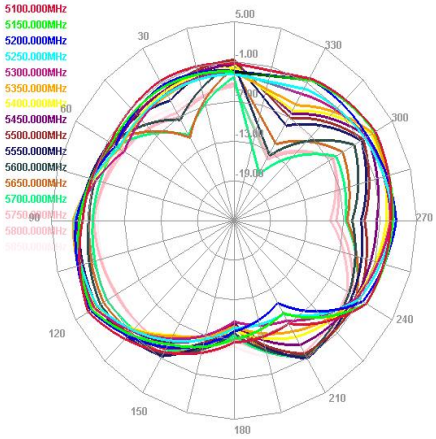



5g wifi-4

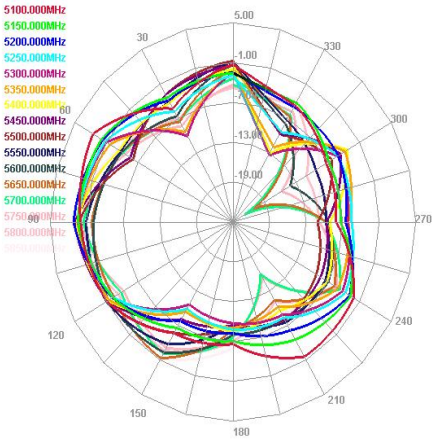
**Horizontal**




**E1 Face**



**E2 Face**


5100.000MHz
5150.000MHz
5200.000MHz
5250.000MHz
5300.000MHz
5350.000MHz
5400.000MHz
5450.000MHz
5500.000MHz
5550.000MHz
5600.000MHz
5650.000MHz
5700.000MHz
5750.000MHz
5800.000MHz
5850.000MHz
5.00
-1.00
-7.00
-13.00
-19.00
0
30
60
90
120
150
180
210
240
270
300
330