

# **Shenzhen Xiangboyi Technology Co. Ltd**

## **Specification**

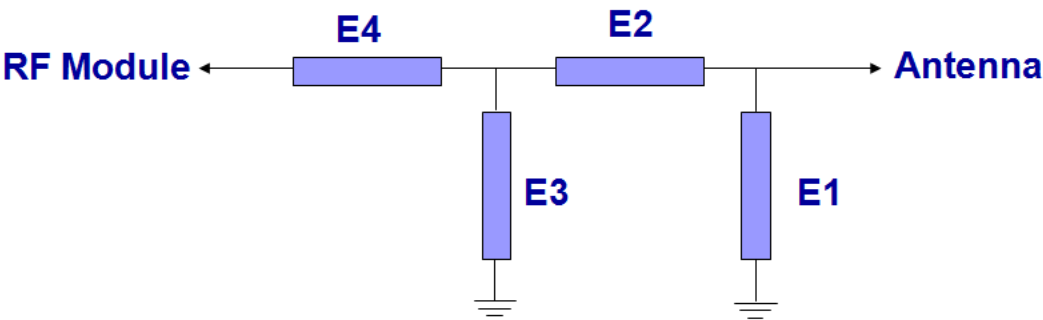
|                        |                                               |
|------------------------|-----------------------------------------------|
| <b>Customer</b>        | <b>Shenzhen Harvilon Technology Co., Ltd.</b> |
| <b>Name</b>            | <b>4G antenna</b>                             |
| <b>Customer Number</b> | <b>MF302-NA</b>                               |
| <b>Model No</b>        | <b>XBY240341</b>                              |

**Floor 1, Building 2, Haochuang Longhua Industrial Park, No. 95 Yousong Road, Fukang Community, Longhua Street, Longhua District, Shenzhen, China**

## TEST REPORTS

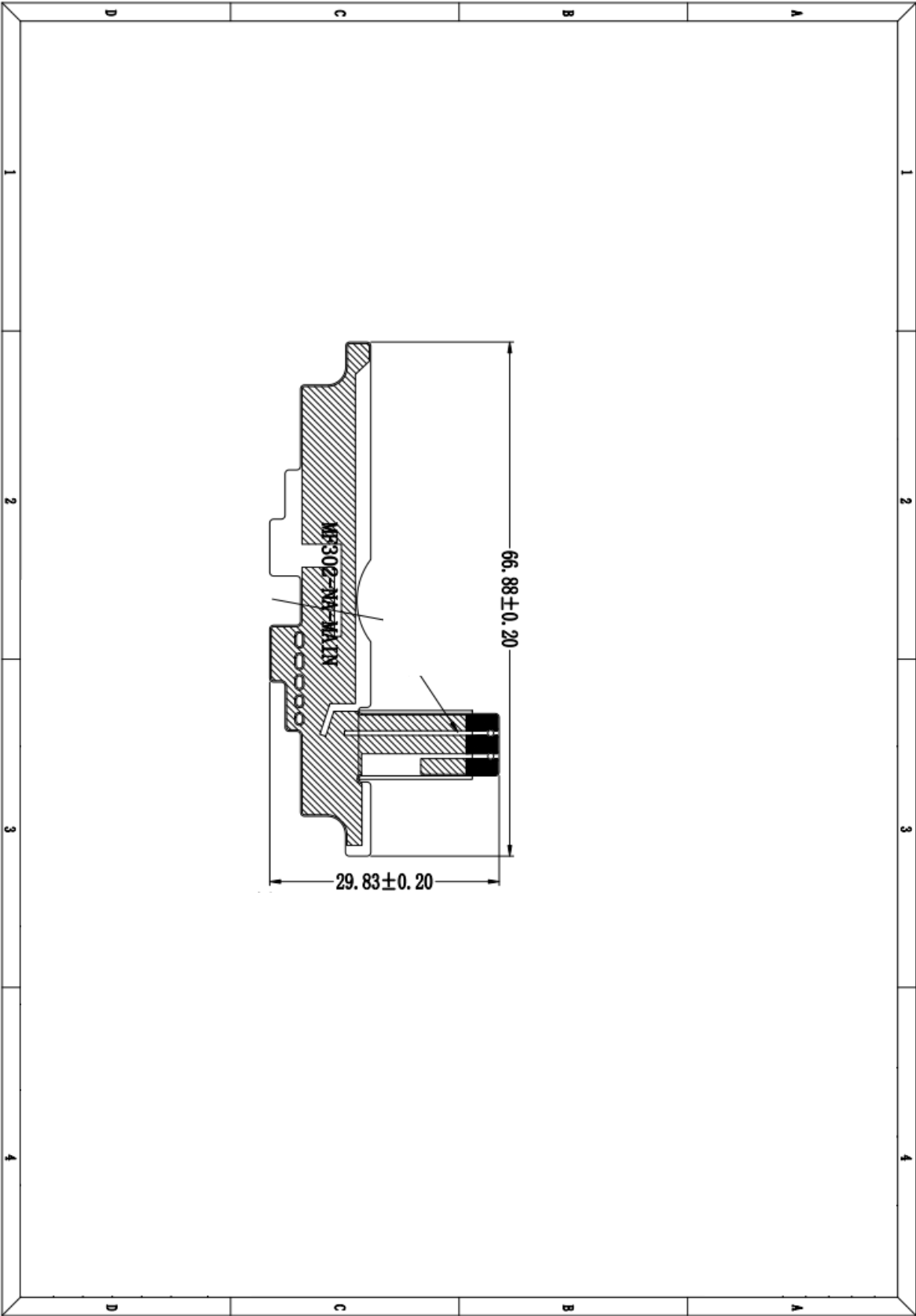
|                     |                                     |
|---------------------|-------------------------------------|
| Frequency           | 4G(700-960Mhz 1710-2690Mhz)         |
| Impedance           | 50 Ohm Nominal                      |
| V.S.W.R             | 5.94:1 Max                          |
| Return Loss         | -2.95dB Max                         |
| Radiation           | Omni-directional                    |
| Gain(Peak)          | 700~960 1.77dBi / 1710~2690 3.44dBi |
| Polarization        | Linear,Vertical                     |
| Admitted Power      | 1W                                  |
| Connector           | /                                   |
| Physical Properties |                                     |
| Antenna Material    | FPC                                 |
| Cable Type          | /                                   |
| Operating Temp.     | -10-+60℃                            |
| Storage Temp.       | -10-+70℃                            |
| Cable Color         | /                                   |

# Matching Circuits



| Element  | Value | Vender |
|----------|-------|--------|
| E1(0402) |       |        |
| E2(0402) |       |        |
| E3(0402) |       |        |
| E4(0402) |       |        |

# Drawings



# Test Data

| LTE BAND  | LTE-B2 (10M) |      |        | LTE-B3 (10M) |       |        |
|-----------|--------------|------|--------|--------------|-------|--------|
| Channel   | L            | M    | H      | L            | M     | H      |
| TRP (dBm) | 20.75        | 20.7 | 18.85  | 18.51        | 18.47 | 19.34  |
| TIS (dBm) |              |      | -92.71 |              |       | -96.89 |

| LTE BAND  | LTE-B4 (10M) |       |        | LTE-B5 (10M) |       |        |
|-----------|--------------|-------|--------|--------------|-------|--------|
| Channel   | L            | M     | H      | L            | M     | H      |
| TRP (dBm) | 18.05        | 20.08 | 19.93  | 19.21        | 18.62 | 18.2   |
| TIS (dBm) |              |       | -95.37 |              |       | -91.01 |

| LTE BAND  | LTE-B7 (10M) |       |        | LTE-B8 (10M) |       |        |
|-----------|--------------|-------|--------|--------------|-------|--------|
| Channel   | L            | M     | H      | L            | M     | H      |
| TRP (dBm) | 17.71        | 19.03 | 18.6   | 19.3         | 19.11 | 17.32  |
| TIS (dBm) |              |       | -93.09 |              |       | -90.86 |

| LTE BAND  | LTE-B12 (10M) |       |       | LTE-B17 (10M) |       |        |
|-----------|---------------|-------|-------|---------------|-------|--------|
| Channel   | L             | M     | H     | L             | M     | H      |
| TRP (dBm) | 17.82         | 18.46 | 18.24 | 17.25         | 18.44 | 18.52  |
| TIS (dBm) |               |       | -90.1 |               |       | -90.25 |

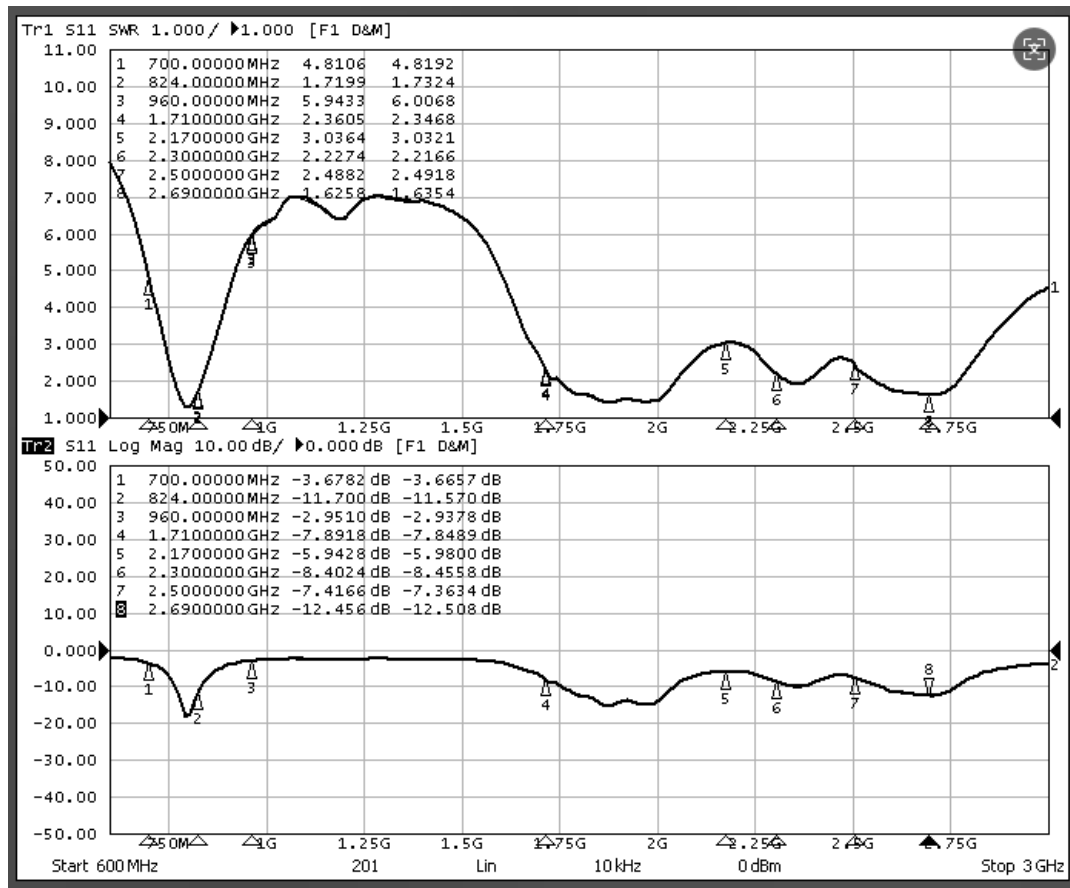
| LTE BAND  | LTE-B20 (10M) |       |        | LTE-B26 (10M) |       |       |
|-----------|---------------|-------|--------|---------------|-------|-------|
| Channel   | L             | M     | H      | L             | M     | H     |
| TRP (dBm) | 18.53         | 18.59 | 19.21  | 19.08         | 18.42 | 17.99 |
| TIS (dBm) |               |       | -91.11 |               |       | -91.6 |

| LTE BAND  | LTE-B66 (10M) |       |        |  |  |  |
|-----------|---------------|-------|--------|--|--|--|
| Channel   | L             | M     | H      |  |  |  |
| TRP (dBm) | 18.53         | 20.35 | 19.65  |  |  |  |
| TIS (dBm) |               |       | -96.77 |  |  |  |

| LTE BAND  | LTE-B38 (20M) |       |        | LTE-B41 (20M) |       |        |
|-----------|---------------|-------|--------|---------------|-------|--------|
| Channel   | L             | M     | H      | L             | M     | H      |
| TRP (dBm) | 17.84         | 18.45 | 19.11  | 18.41         | 18.87 | 18.62  |
| TIS (dBm) |               |       | -90.41 |               |       | -91.29 |

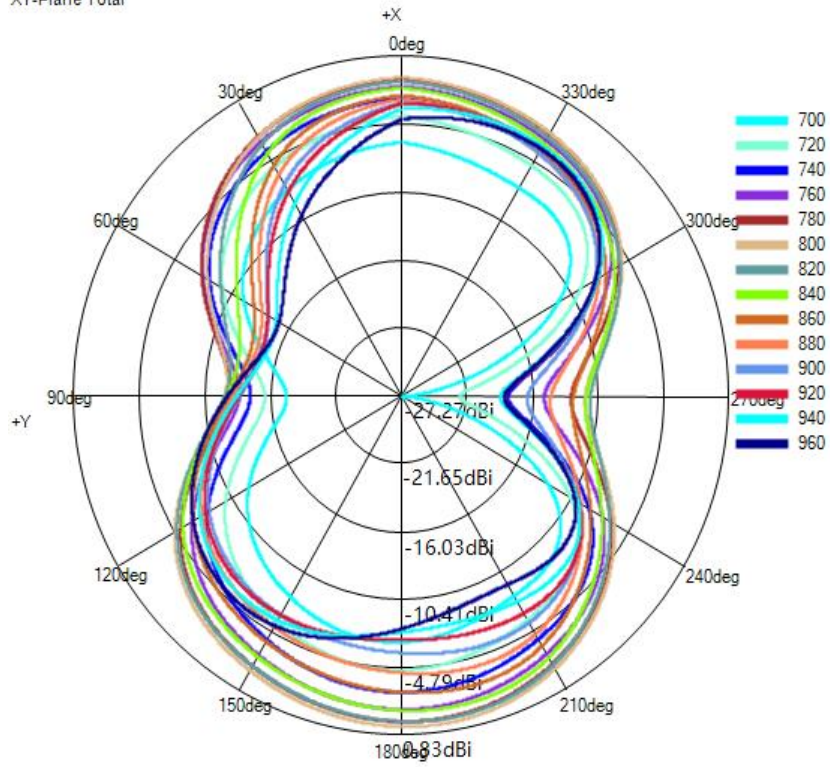
| WCDMA BAND | WCDMA-B2 |       |         | WCDMA-B4 |       |         |
|------------|----------|-------|---------|----------|-------|---------|
| Channel    | L        | M     | H       | L        | M     | H       |
| TRP (dBm)  | 18.29    | 18.86 | 19.47   | 18.42    | 19.21 | 19.73   |
| TIS (dBm)  |          |       | -104.52 |          |       | -104.41 |

| WCDMA BAND | WCDMA-B5 |       |         | WCDMA-B8 |       |         |
|------------|----------|-------|---------|----------|-------|---------|
| Channel    | L        | M     | H       | L        | M     | H       |
| TRP (dBm)  | 17.69    | 18.43 | 18.61   | 18.74    | 18.13 | 17.68   |
| TIS (dBm)  |          |       | -103.79 |          |       | -103.51 |

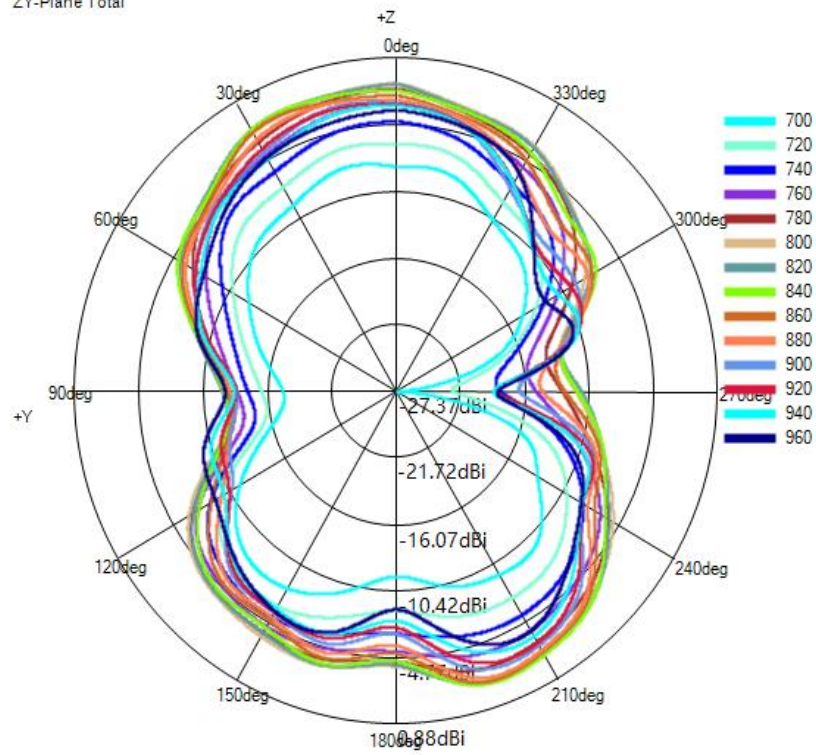


| Freq (MHz) | Gain (dBi) | Efficiency (%) | Freq (MHz) | Gain (dBi) | Efficiency (%) |
|------------|------------|----------------|------------|------------|----------------|
| 700        | -2.25      | 20.80          | 1900       | -0.13      | 37.90          |
| 720        | -1.87      | 23.69          | 1950       | 1.41       | 44.89          |
| 740        | -1.37      | 27.33          | 2000       | 3.44       | 50.32          |
| 760        | -0.16      | 36.26          | 2050       | 2.59       | 48.23          |
| 780        | 1.06       | 45.24          | 2100       | 2.22       | 45.86          |
| 800        | 1.67       | 50.88          | 2150       | 1.62       | 43.41          |
| 820        | 1.77       | 50.04          | 2200       | 0.49       | 42.08          |
| 840        | 1.66       | 47.56          | 2250       | 1.09       | 45.88          |
| 860        | 1.11       | 41.63          | 2300       | 0.82       | 46.95          |
| 880        | 0.56       | 36.50          | 2350       | 0.81       | 46.67          |
| 900        | 0.33       | 30.92          | 2400       | 0.96       | 24.84          |
| 920        | 0.19       | 29.38          | 2450       | 0.52       | 30.17          |
| 940        | -0.15      | 26.62          | 2500       | 0.23       | 25.30          |
| 960        | -0.83      | 24.52          | 2550       | 1.08       | 38.49          |
| 1700       | 0.19       | 37.48          | 2600       | 2.32       | 41.30          |
| 1750       | 0.59       | 39.61          | 2650       | 2.07       | 40.94          |
| 1800       | 1.22       | 42.69          | 2700       | 2.19       | 47.49          |
| 1850       | 0.62       | 38.44          | 2750       | 1.84       | 43.57          |

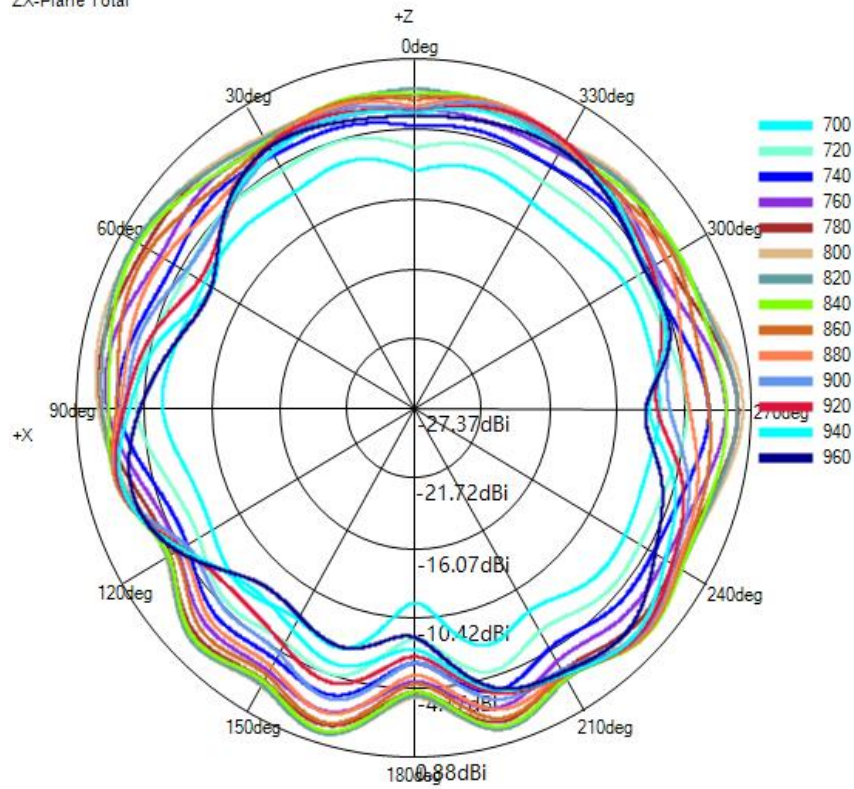
XY-Plane Total



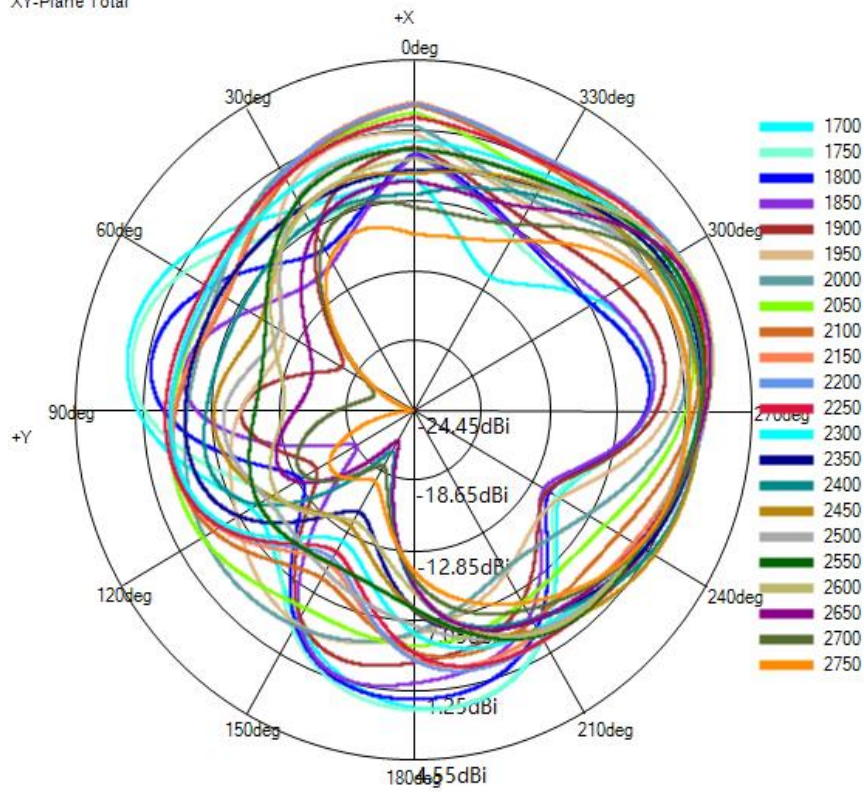
ZY-Plane Total



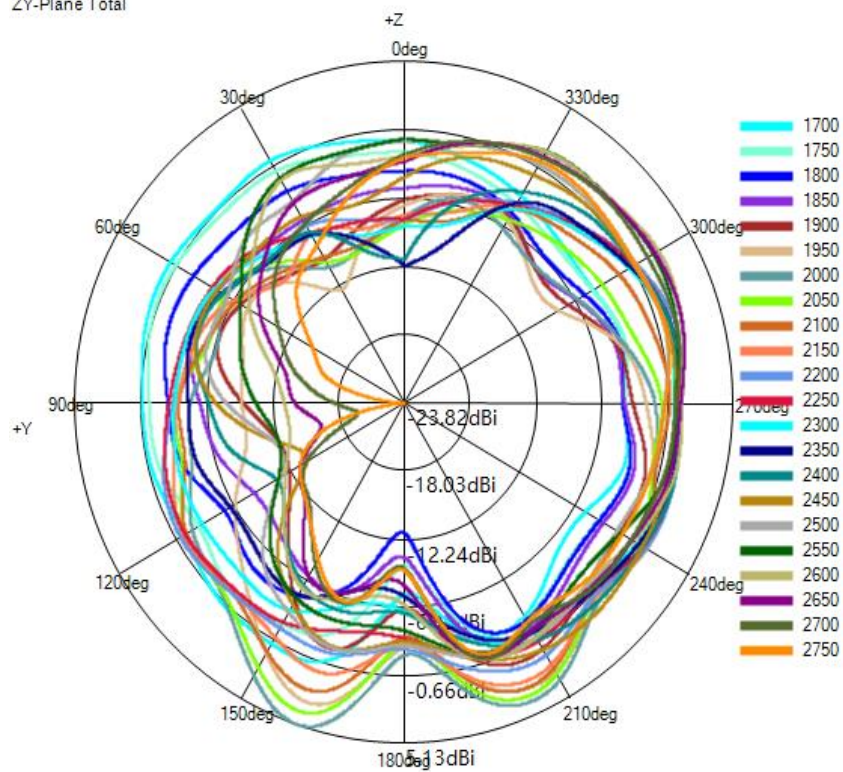
ZX-Plane Total



XY-Plane Total



ZY-Plane Total



ZX-Plane Total

