

# Data Sheet

CUSTOMER: ASUS

MODEL NAME: B7402

CUSTOMER P/N: 14008-04680300

ICT P/N: LA9RF340-CS-H

| APPROVED     |              |
|--------------|--------------|
| MANUFACTURER | CUSTOMER     |
|              |              |
| PREPARED BY: | APPROVED BY: |
| CHECK BY:    |              |
| APPROVED BY: |              |

# Description

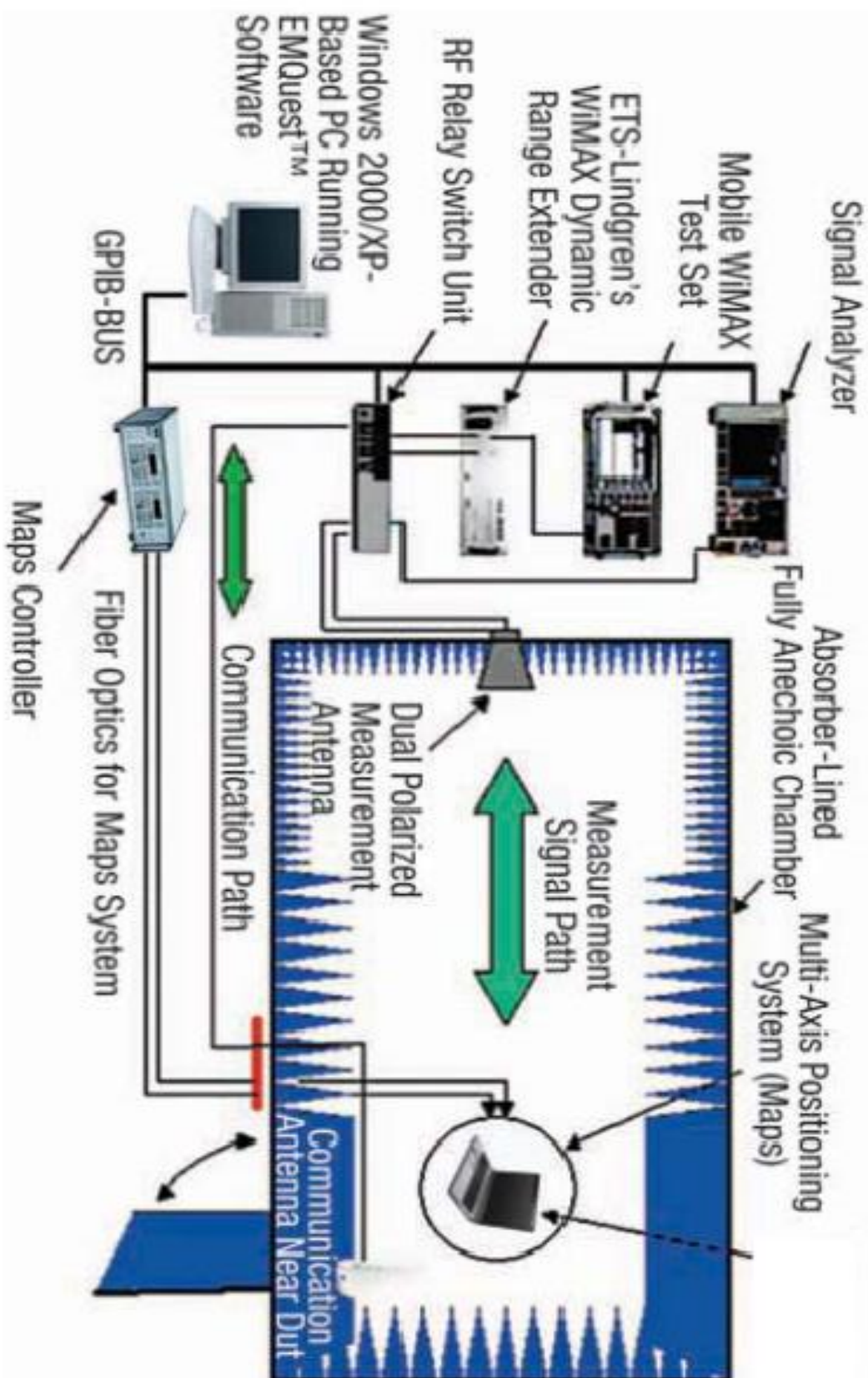
## Specifications

### ANT1 (M1) Antenna

| Antenna Part Number | Manufacturer  | Antenna Type                      | Cable Assembly Part Number and Information                                                                                                               | Frequency (MHz)                   |      | Cable Loss (dB) | PEAK GAIN (including cable loss) (dBi) | TX PEAK GAIN (dBi) |
|---------------------|---------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------|-----------------|----------------------------------------|--------------------|
| 14008-04680300      | LUXSHARE-ICT. | CoupleType FPCB ANTENNA ANT1 (M1) | 1. Cable P/N:<br>012-323H-0020<br>2. Diameter:1.13mm<br>50 ohm coaxial cable<br>3. Cable length:<br>161 mm<br>4. Connector P/N:<br>IPEX<br>20565-001R-13 | WCDMA I<br>Band 1<br>NR Band 1    | 1920 | 0.34            | 1.99                                   | 1.99               |
|                     |               |                                   |                                                                                                                                                          |                                   | 1950 | 0.35            | 1.93                                   |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 1980 | 0.35            | 1.10                                   |                    |
|                     |               |                                   |                                                                                                                                                          | WCDMA II<br>Band 2<br>NR Band 2   | 1850 | 0.34            | 1.23                                   | 1.51               |
|                     |               |                                   |                                                                                                                                                          |                                   | 1880 | 0.34            | 1.18                                   |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 1910 | 0.34            | 1.51                                   |                    |
|                     |               |                                   |                                                                                                                                                          | Band 3<br>NR Band 3               | 1710 | 0.32            | 1.31                                   | 1.88               |
|                     |               |                                   |                                                                                                                                                          |                                   | 1748 | 0.33            | 1.45                                   |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 1785 | 0.33            | 1.88                                   |                    |
|                     |               |                                   |                                                                                                                                                          | WCDMA IV<br>Band 4                | 1710 | 0.32            | 1.31                                   | 1.57               |
|                     |               |                                   |                                                                                                                                                          |                                   | 1733 | 0.33            | 1.29                                   |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 1755 | 0.33            | 1.57                                   |                    |
|                     |               |                                   |                                                                                                                                                          | WCDMA V<br>Band 5<br>NR Band 5    | 824  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 837  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 849  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          | Band 7<br>NR Band 7               | 2500 | 0.39            | 1.22                                   | 1.61               |
|                     |               |                                   |                                                                                                                                                          |                                   | 2535 | 0.40            | 1.61                                   |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 2570 | 0.40            | 1.06                                   |                    |
|                     |               |                                   |                                                                                                                                                          | WCDMA VIII<br>Band 8<br>NR Band 8 | 880  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 898  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 915  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          | Band 12                           | 698  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 708  |                 |                                        |                    |
|                     |               |                                   |                                                                                                                                                          |                                   | 716  |                 |                                        |                    |

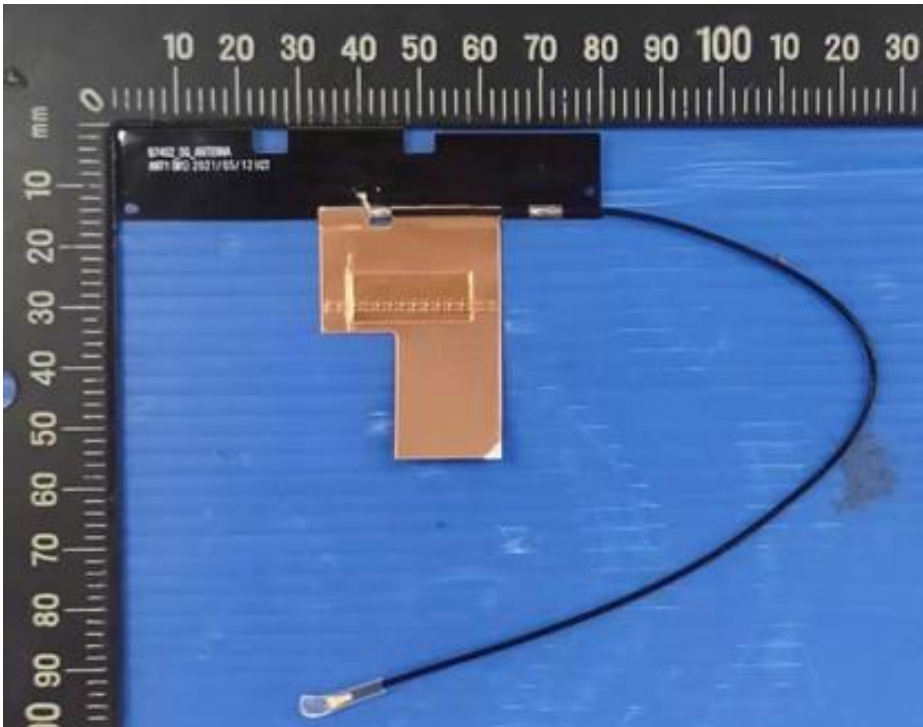
|  |  |  |  |                       |      |      |      |      |
|--|--|--|--|-----------------------|------|------|------|------|
|  |  |  |  | Band 13               | 777  |      |      |      |
|  |  |  |  |                       | 782  |      |      |      |
|  |  |  |  |                       | 787  |      |      |      |
|  |  |  |  | Band 14               | 788  |      |      |      |
|  |  |  |  |                       | 793  |      |      |      |
|  |  |  |  |                       | 798  |      |      |      |
|  |  |  |  | Band 17               | 704  |      |      |      |
|  |  |  |  |                       | 710  |      |      |      |
|  |  |  |  |                       | 716  |      |      |      |
|  |  |  |  | Band 18               | 815  |      |      |      |
|  |  |  |  |                       | 823  |      |      |      |
|  |  |  |  |                       | 830  |      |      |      |
|  |  |  |  | Band 19               | 830  |      |      |      |
|  |  |  |  |                       | 838  |      |      |      |
|  |  |  |  |                       | 845  |      |      |      |
|  |  |  |  | Band 20<br>NR Band 20 | 832  |      |      |      |
|  |  |  |  |                       | 847  |      |      |      |
|  |  |  |  |                       | 862  |      |      |      |
|  |  |  |  | Band 25               | 1850 | 0.34 | 1.23 | 1.77 |
|  |  |  |  |                       | 1883 | 0.34 | 1.64 |      |
|  |  |  |  |                       | 1915 | 0.34 | 1.77 |      |
|  |  |  |  | Band 26               | 814  |      |      |      |
|  |  |  |  |                       | 832  |      |      |      |
|  |  |  |  |                       | 849  |      |      |      |
|  |  |  |  | Band 28<br>NR Band 28 | 703  |      |      |      |
|  |  |  |  |                       | 726  |      |      |      |
|  |  |  |  |                       | 748  |      |      |      |
|  |  |  |  | Band 30               | 2305 | 0.38 | 1.14 | 1.27 |
|  |  |  |  |                       | 2310 | 0.38 | 1.27 |      |
|  |  |  |  |                       | 2315 | 0.38 | 1.20 |      |
|  |  |  |  | Band 34               | 2010 | 0.35 | 1.93 | 1.93 |
|  |  |  |  |                       | 2018 | 0.35 | 1.72 |      |
|  |  |  |  |                       | 2025 | 0.35 | 1.71 |      |
|  |  |  |  | Band 38<br>NR Band 38 | 2570 | 0.40 | 1.06 | 1.55 |
|  |  |  |  |                       | 2595 | 0.40 | 1.55 |      |

|  |  |  |  |                                     |      |      |      |      |
|--|--|--|--|-------------------------------------|------|------|------|------|
|  |  |  |  |                                     | 2620 | 0.41 | 1.51 |      |
|  |  |  |  | <b>Band 39</b>                      | 1880 | 0.34 | 1.18 | 1.99 |
|  |  |  |  |                                     | 1900 | 0.34 | 1.94 |      |
|  |  |  |  |                                     | 1920 | 0.34 | 1.99 |      |
|  |  |  |  |                                     |      |      |      |      |
|  |  |  |  | <b>Band 40</b><br><b>NR Band 40</b> | 2300 | 0.38 | 1.91 | 1.91 |
|  |  |  |  |                                     | 2350 | 0.38 | 1.62 |      |
|  |  |  |  |                                     | 2400 | 0.39 | 1.73 |      |
|  |  |  |  | <b>Band 41</b><br><b>NR Band 41</b> | 2496 | 0.39 | 1.57 | 1.98 |
|  |  |  |  |                                     | 2593 | 0.40 | 1.97 |      |
|  |  |  |  |                                     | 2690 | 0.41 | 1.98 |      |
|  |  |  |  | <b>Band 42</b>                      | 3400 | 0.47 | 1.85 | 1.85 |
|  |  |  |  |                                     | 3500 | 0.48 | 1.52 |      |
|  |  |  |  |                                     | 3600 | 0.49 | 1.80 |      |
|  |  |  |  | <b>Band 43</b>                      | 3600 | 0.49 | 1.80 | 1.80 |
|  |  |  |  |                                     | 3700 | 0.49 | 1.60 |      |
|  |  |  |  |                                     | 3800 | 0.50 | 1.14 |      |
|  |  |  |  | <b>Band 48</b><br><b>NR Band 48</b> | 3550 | 0.48 | 1.75 | 1.89 |
|  |  |  |  |                                     | 3625 | 0.49 | 1.89 |      |
|  |  |  |  |                                     | 3700 | 0.49 | 1.60 |      |
|  |  |  |  | <b>Band 66</b><br><b>NR Band 66</b> | 1710 | 0.32 | 1.31 | 1.75 |
|  |  |  |  |                                     | 1745 | 0.33 | 1.45 |      |
|  |  |  |  |                                     | 1780 | 0.33 | 1.75 |      |
|  |  |  |  | <b>NR Band 77</b>                   | 3300 | 0.46 | 1.58 | 1.91 |
|  |  |  |  |                                     | 3750 | 0.50 | 1.39 |      |
|  |  |  |  |                                     | 4200 | 0.53 | 1.91 |      |
|  |  |  |  | <b>NR Band 78</b>                   | 3300 | 0.46 | 1.58 | 1.75 |
|  |  |  |  |                                     | 3550 | 0.48 | 1.75 |      |
|  |  |  |  |                                     | 3800 | 0.50 | 1.14 |      |
|  |  |  |  | <b>NR Band 79</b>                   | 4400 | 0.54 | 1.10 | 1.82 |
|  |  |  |  |                                     | 4700 | 0.56 | 1.08 |      |
|  |  |  |  |                                     | 5000 | 0.58 | 1.82 |      |

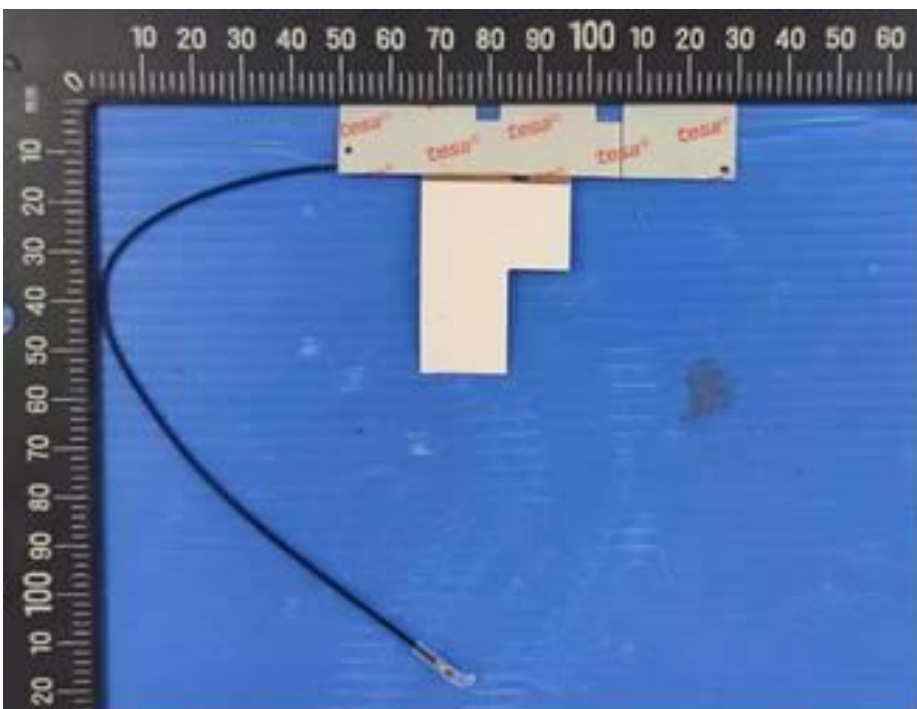


## Description

Antenna Picture1:

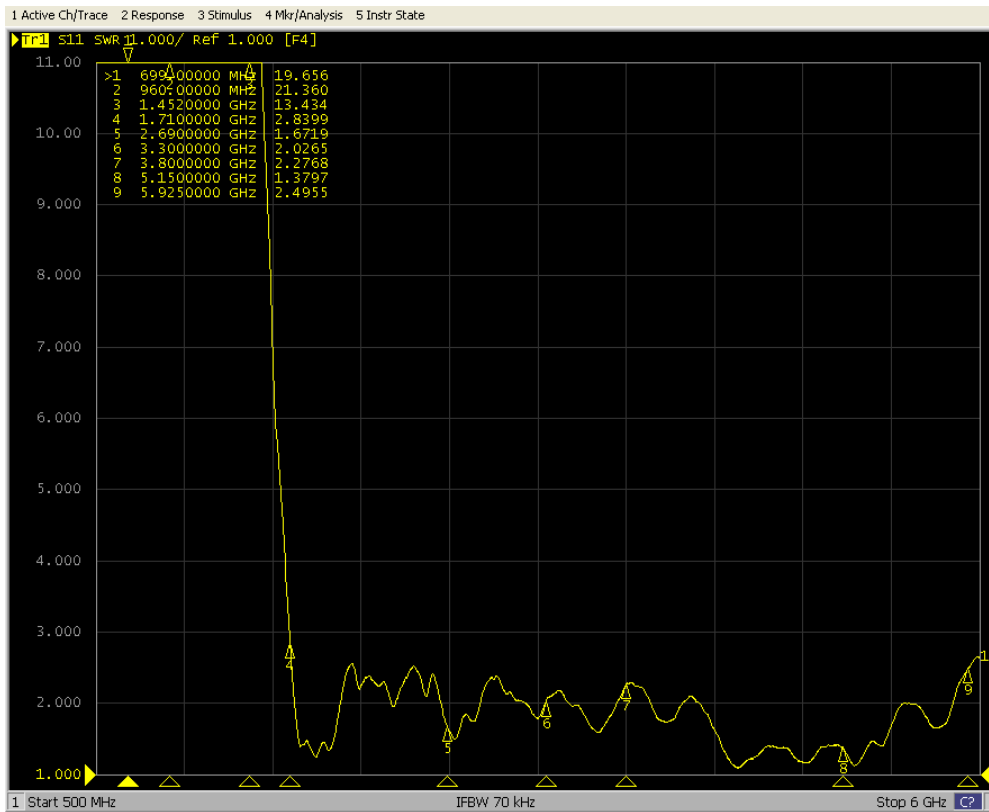


Antenna Picture2

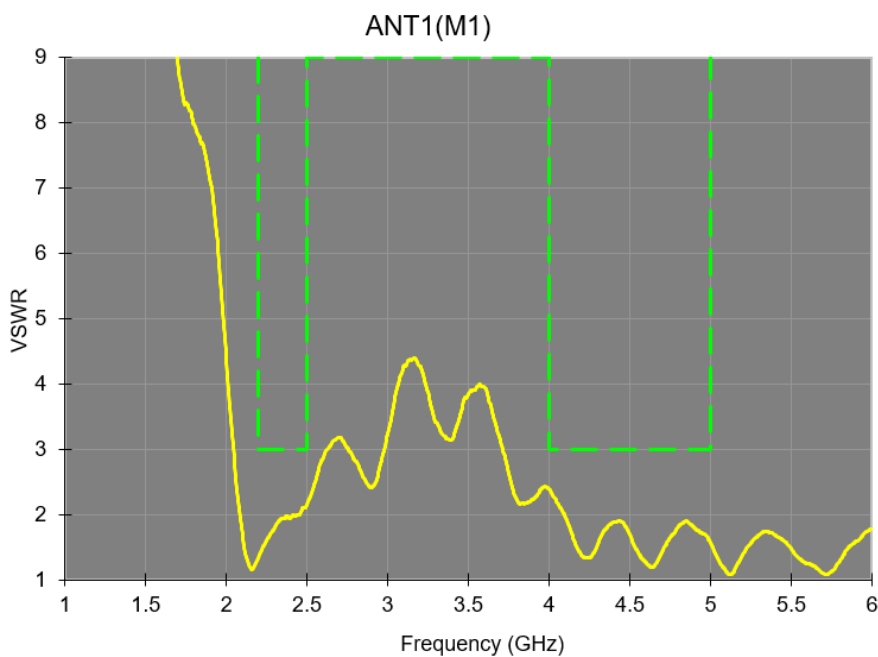


# Performance Data

## 1. VSWR



## 2. SPEC



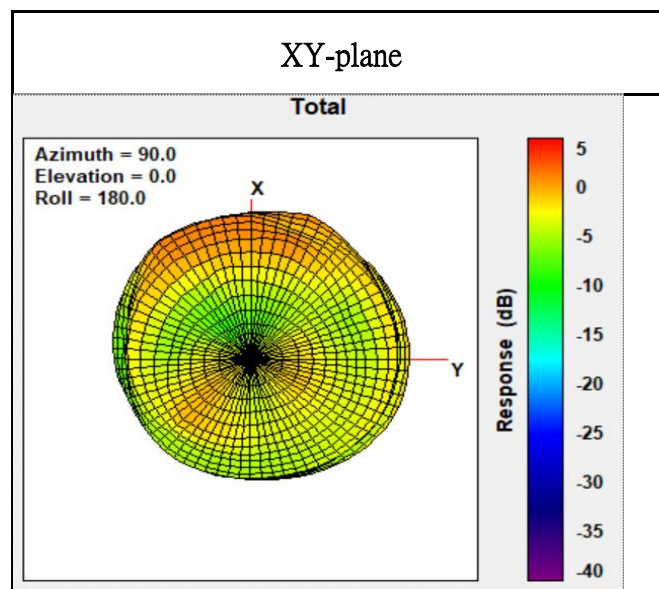
Spec:

2.20 ~ 2.50 GHz < 3

4.00 ~ 5.00 GHz < 3

## Radiation characteristic in 1920MHz ~ 1980MHz (WCDMA I ,Band 1, NR Band 1)

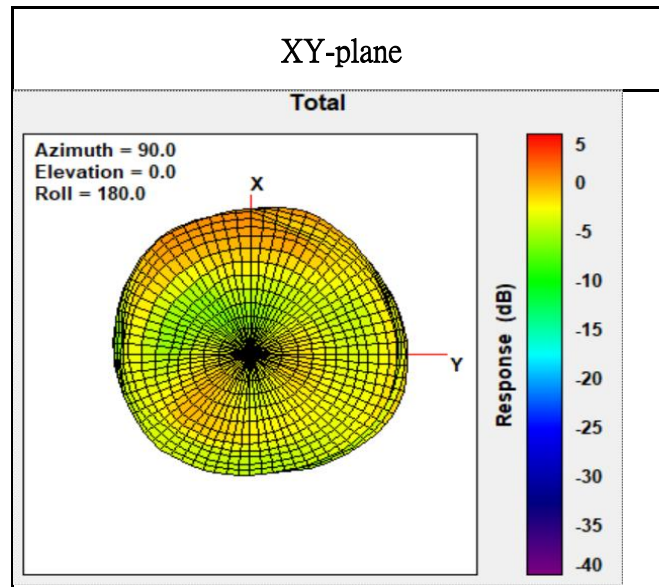
### Antenna: 1920MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1920 MHz |
| Three-dimensional (dBi) peak | 1.99     |

## Radiation characteristic in 1850MHz ~ 1910MHz (WCDMA II ,Band 2 ,NR Band 2)

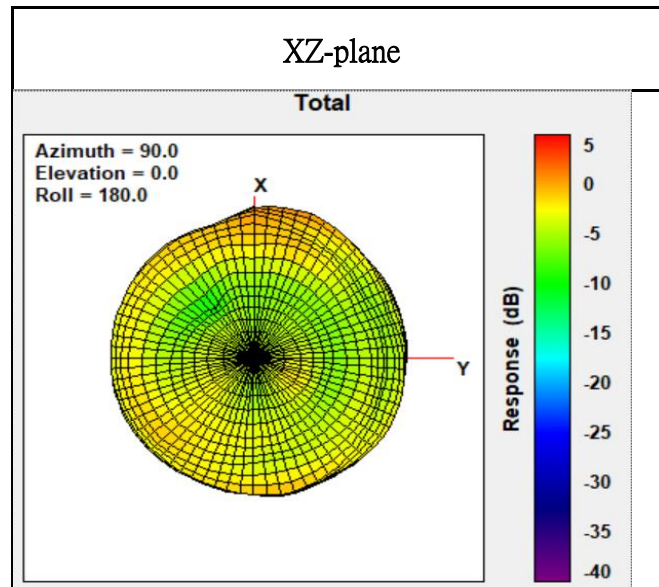
Antenna: 1910MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1910 MHz |
| Three-dimensional (dBi) peak | 1.51     |

## Radiation characteristic in 1710MHz ~ 1785MHz (Band 3 ,NR Band 3)

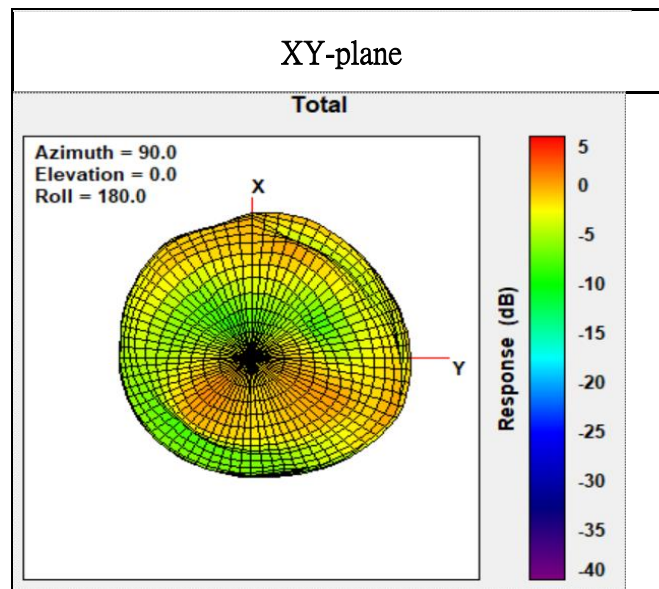
Antenna: 1785MHz



|                              |                 |
|------------------------------|-----------------|
| Center Frequency             | <b>1785 MHz</b> |
| Three-dimensional (dBi) peak | 1.88            |

## Radiation characteristic in 1710MHz ~ 1755MHz (WCDMA IV ,Band 4)

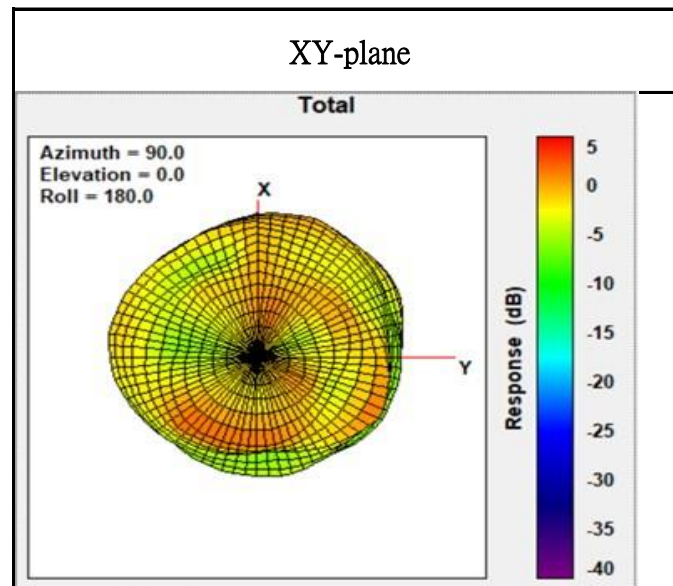
### Antenna: 1755MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1755 MHz |
| Three-dimensional (dBi) peak | 1.57     |

## Radiation characteristic in 2500MHz ~ 2570MHz (Band 7 ,NR Band 7)

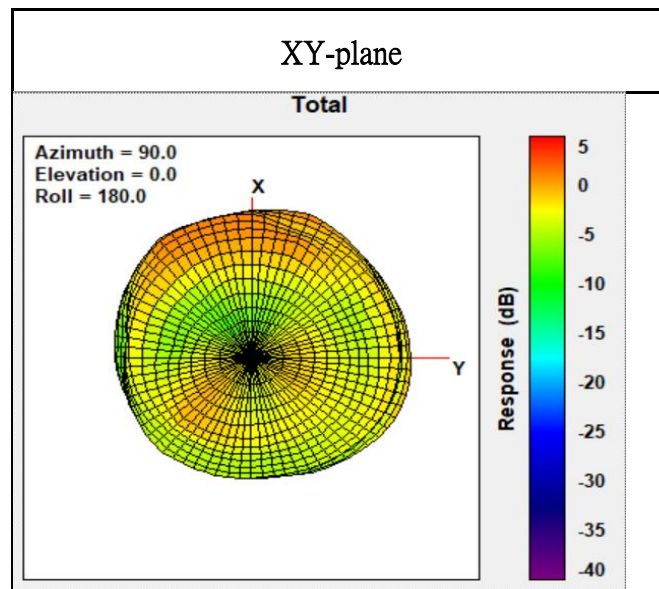
Antenna: 2535MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2535 MHz |
| Three-dimensional (dBi) peak | 1.61     |

## Radiation characteristic in 1850MHz ~ 1915MHz (Band 25)

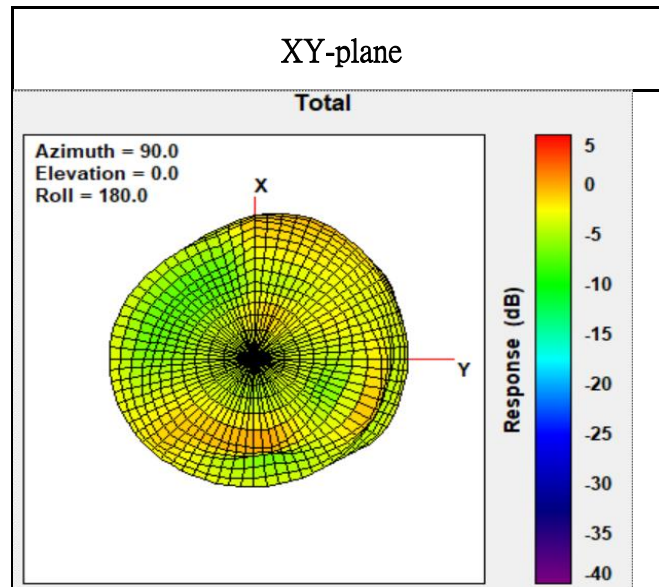
### Antenna: 1915MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1915 MHz |
| Three-dimensional (dBi) peak | 1.77     |

## Radiation characteristic in 2305MHz ~ 2315MHz (Band 30)

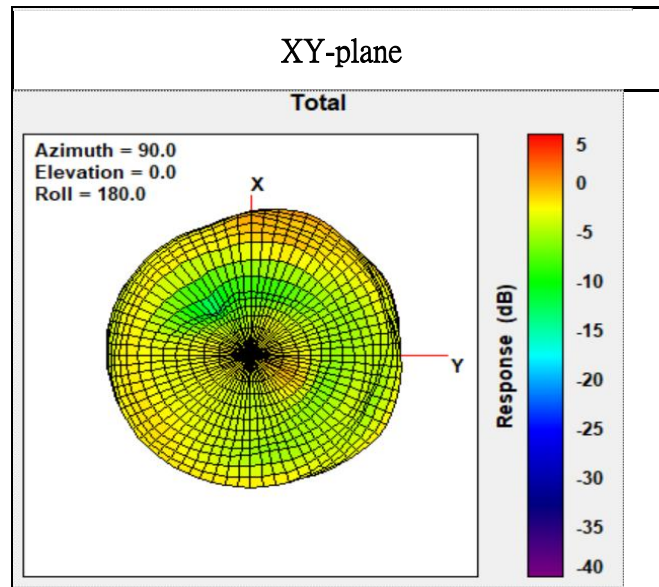
Antenna: 2310MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2310 MHz |
| Three-dimensional (dBi) peak | 1.27     |

## Radiation characteristic in 2010MHz ~ 2025MHz (Band 34)

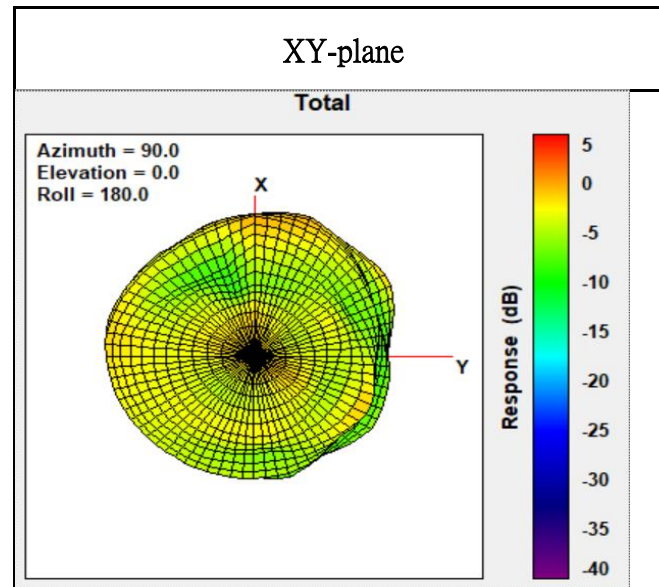
### Antenna: 2010MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2010 MHz |
| Three-dimensional (dBi) peak | 1.93     |

## Radiation characteristic in 2570MHz ~ 2620MHz (Band 38, NR Band 38)

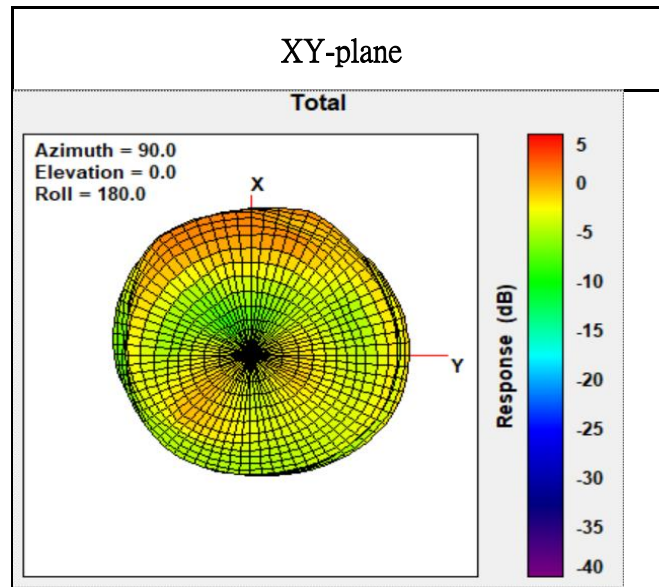
Antenna: 2595MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2595 MHz |
| Three-dimensional (dBi) peak | 1.55     |

## Radiation characteristic in 1880MHz ~ 1920MHz (Band 39)

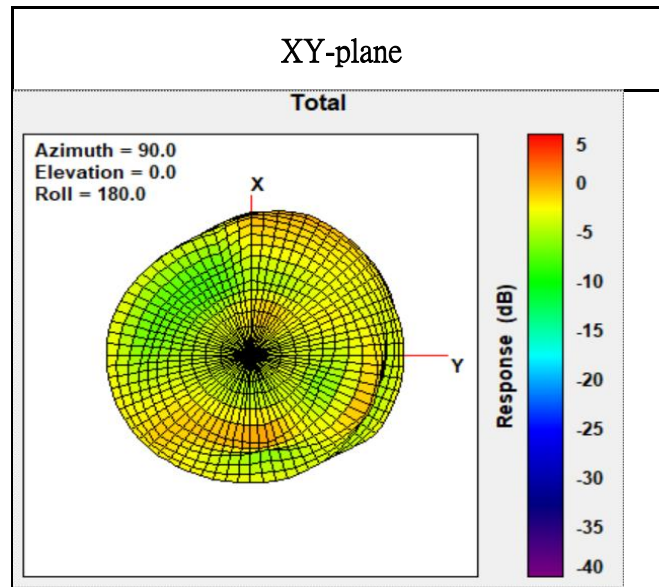
### Antenna: 1920MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1920 MHz |
| Three-dimensional (dBi) peak | 1.99     |

## Radiation characteristic in 2300MHz ~ 2350MHz (Band 40, NR Band 40)

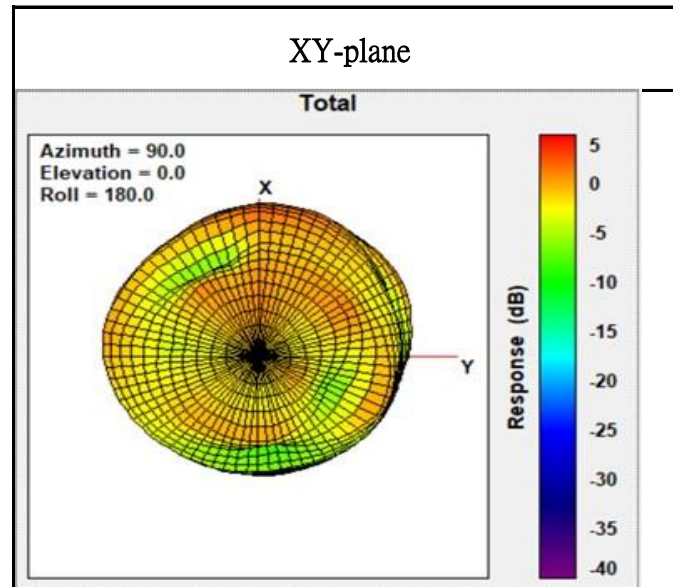
Antenna: 2300MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2300 MHz |
| Three-dimensional (dBi) peak | 1.91     |

## Radiation characteristic in 2496MHz ~ 2690MHz (Band 41, NR Band 41)

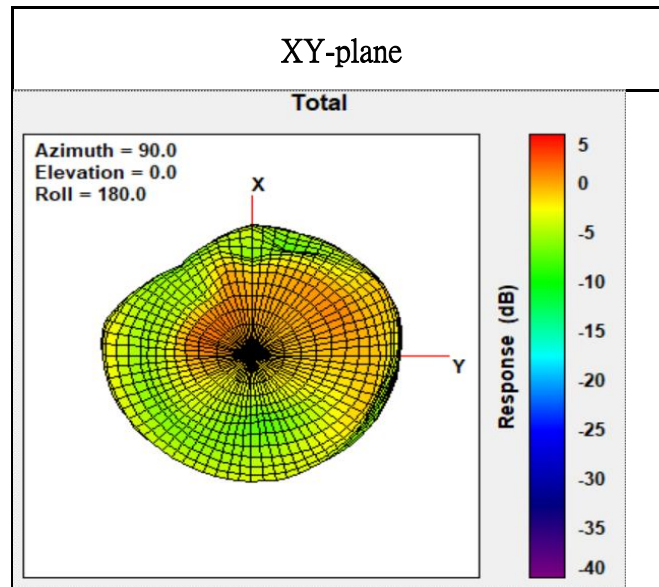
Antenna: 2690MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 2690 MHz |
| Three-dimensional (dBi) peak | 1.98     |

## Radiation characteristic in 3400MHz ~ 3600MHz (Band 42)

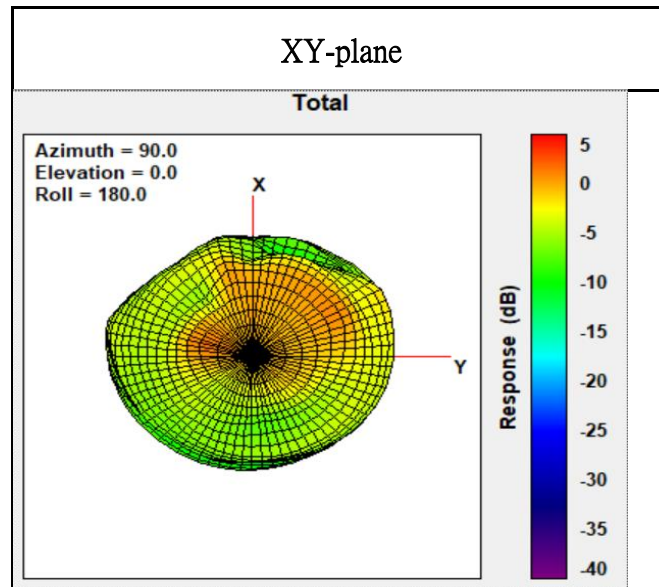
### Antenna: 3400MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 3400 MHz |
| Three-dimensional (dBi) peak | 1.85     |

## Radiation characteristic in 3600MHz ~ 3800MHz (Band 43)

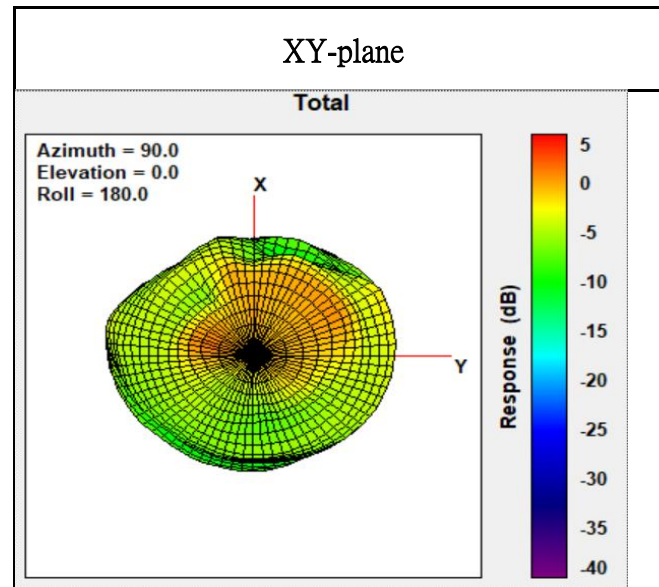
### Antenna: 3600MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 3600 MHz |
| Three-dimensional (dBi) peak | 1.80     |

## Radiation characteristic in 3550MHz ~ 3700MHz (Band 48, NR Band 48)

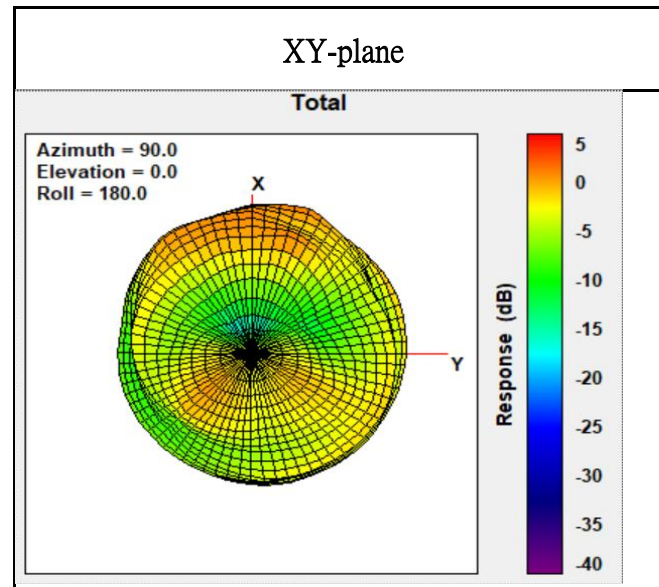
Antenna: 3625MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 3625 MHz |
| Three-dimensional (dBi) peak | 1.89     |

## Radiation characteristic in 1710MHz ~ 1780MHz (Band 66, NR Band 66)

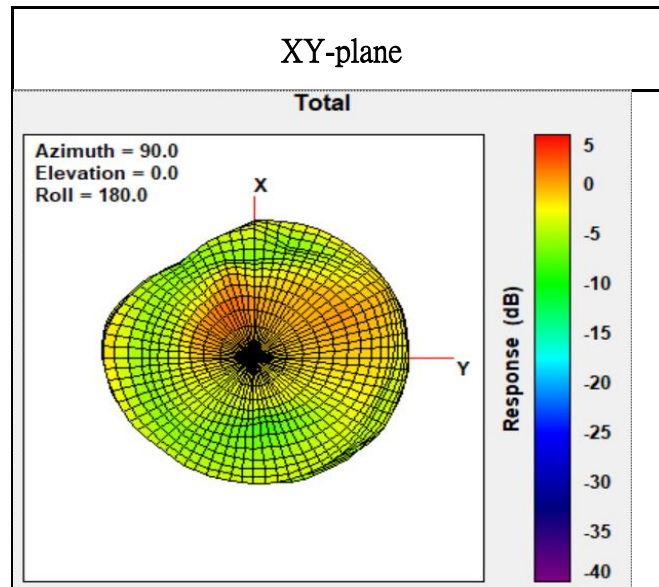
### Antenna: 1780MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 1780 MHz |
| Three-dimensional (dBi) peak | 1.75     |

## Radiation characteristic in 3300MHz ~ 4200MHz (NR Band 77)

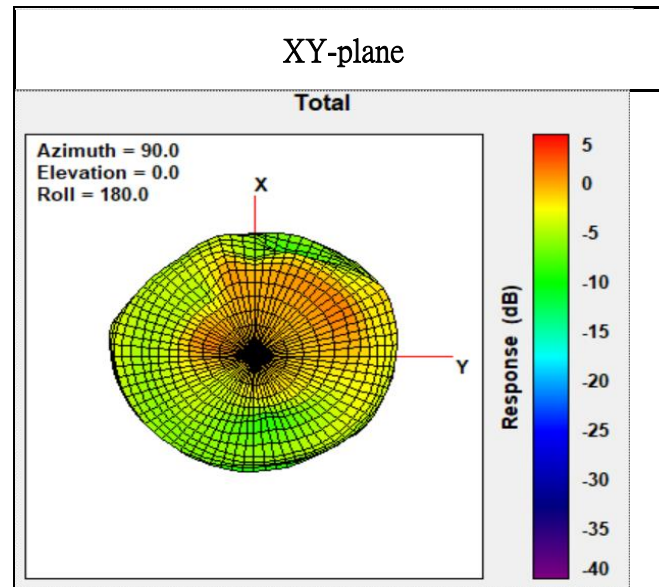
Antenna: 4200MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 4200 MHz |
| Three-dimensional (dBi) peak | 1.91     |

## Radiation characteristic in 3300MHz ~ 3800MHz (NR Band 78)

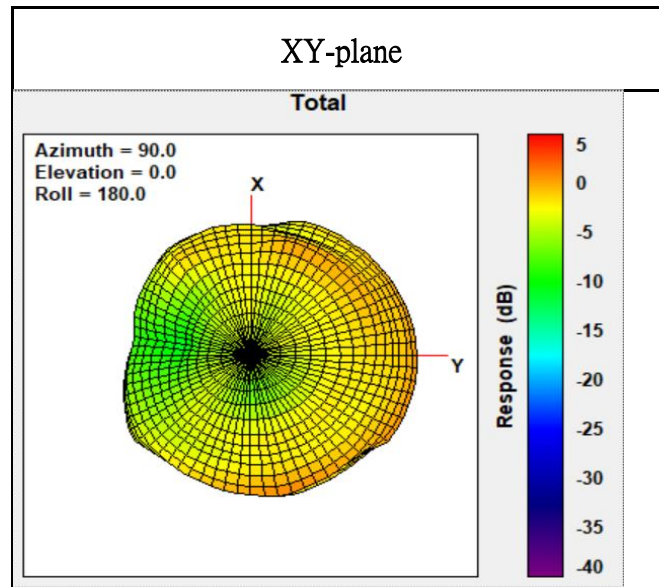
Antenna: 3550MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 3550 MHz |
| Three-dimensional (dBi) peak | 1.75     |

## Radiation characteristic in 4400MHz ~ 5000MHz (NR Band 79)

Antenna: 5000MHz



|                              |          |
|------------------------------|----------|
| Center Frequency             | 5000 MHz |
| Three-dimensional (dBi) peak | 1.82     |

## Open Mode Gain Table (dBi)

|                 | 3D Peak Gain | 3D Gain        | Cable Loss |
|-----------------|--------------|----------------|------------|
| Frequency (MHZ) | Total (dBi)  | Efficiency [%] | Loss (dBi) |
| 1920            | 1.99         | 59.51          | 0.34       |
| 1950            | 1.93         | 60.14          | 0.35       |
| 1980            | 1.10         | 59.94          | 0.35       |
| 1850            | 1.23         | 56.36          | 0.34       |
| 1880            | 1.18         | 57.76          | 0.34       |
| 1910            | 1.51         | 59.03          | 0.34       |
| 1710            | 1.31         | 45.73          | 0.32       |
| 1748            | 1.45         | 51.80          | 0.33       |
| 1785            | 1.88         | 57.30          | 0.33       |
| 1710            | 1.31         | 45.73          | 0.32       |
| 1733            | 3.29         | 42.75          | 0.33       |
| 1755            | 3.57         | 54.94          | 0.33       |
| 2500            | 1.22         | 51.17          | 0.39       |
| 2535            | 1.61         | 50.76          | 0.40       |
| 2570            | 1.06         | 55.65          | 0.40       |
| 1850            | 1.23         | 56.36          | 0.34       |
| 1883            | 1.64         | 57.73          | 0.34       |
| 1915            | 1.77         | 59.69          | 0.34       |

|      |      |       |      |
|------|------|-------|------|
| 2305 | 1.14 | 53.59 | 0.38 |
| 2310 | 1.27 | 52.74 | 0.38 |
| 2315 | 1.20 | 51.01 | 0.38 |
| 2010 | 1.93 | 58.77 | 0.35 |
| 2018 | 1.72 | 56.82 | 0.35 |
| 2025 | 1.71 | 55.67 | 0.35 |
| 2570 | 1.06 | 55.65 | 0.40 |
| 2595 | 1.55 | 54.96 | 0.40 |
| 2620 | 1.51 | 55.29 | 0.41 |
| 1880 | 1.18 | 57.76 | 0.34 |
| 1900 | 1.94 | 58.06 | 0.34 |
| 1920 | 1.99 | 59.51 | 0.34 |
| 2300 | 1.91 | 55.08 | 0.38 |
| 2350 | 1.62 | 58.47 | 0.38 |
| 2400 | 1.73 | 53.56 | 0.39 |
| 2496 | 1.57 | 51.80 | 0.39 |
| 2593 | 1.97 | 55.33 | 0.40 |
| 2690 | 1.98 | 59.33 | 0.41 |
| 3400 | 1.85 | 61.02 | 0.47 |
| 3500 | 1.52 | 55.78 | 0.48 |
| 3600 | 1.80 | 48.07 | 0.49 |
| 3600 | 1.80 | 48.07 | 0.49 |

|      |      |       |      |
|------|------|-------|------|
| 3700 | 1.60 | 47.95 | 0.49 |
| 3800 | 1.14 | 46.68 | 0.50 |
| 3550 | 1.75 | 50.74 | 0.48 |
| 3625 | 1.89 | 46.10 | 0.49 |
| 3700 | 1.60 | 47.95 | 0.49 |
| 1710 | 1.31 | 45.73 | 0.32 |
| 1745 | 1.45 | 51.34 | 0.33 |
| 1780 | 1.75 | 57.33 | 0.33 |
| 3300 | 1.58 | 63.99 | 0.46 |
| 3750 | 1.39 | 46.96 | 0.50 |
| 4200 | 1.91 | 50.71 | 0.53 |
| 3300 | 1.58 | 63.99 | 0.46 |
| 3550 | 1.75 | 50.74 | 0.48 |
| 3800 | 1.14 | 46.68 | 0.50 |
| 4400 | 1.10 | 59.54 | 0.54 |
| 4700 | 1.08 | 58.34 | 0.56 |
| 5000 | 1.82 | 61.59 | 0.58 |

## Assembly Drawing

