

# FCC Composite Gain Test Report

---

***TP-Link Systems Inc.***  
10 Mauchly, Irvine, CA 926187



Copyright © 2024 By TP-Link Systems Inc. All rights reserved.

The drawings, specifications and the data contained in this document are exclusively the property of TP-Link Systems Inc. The information is intended for internal use only and is subject to change without any notice.

With no written permission from TP-Link Systems Inc. this document, in parts or as a whole, shall not be reproduced, copied, or used in any form or by any means to make any derivatives such as translation, transformation, or adaptation, for any purpose whatever.

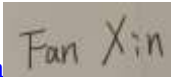


is a registered trademark of TP-Link Systems Inc. Other brands and product names mentioned herein are trademarks or registered trademarks of their respective holders.

### Warning

This document is intended for internal use only. A Non-Disclosure Agreement (NDA) approved by Chief Technology Officer (CTO) is required to release this document under any circumstances.

### Basic Information

|                  |                                                                                             |       |            |
|------------------|---------------------------------------------------------------------------------------------|-------|------------|
| EUT Description: | AX1500 Wi-Fi 6 Portable Router                                                              |       |            |
| Brand Name:      | tp-link                                                                                     |       |            |
| Model Name:      | WR1502X(US) 2.0                                                                             |       |            |
| Tested By:       | Fan Xin  | Date: | 2025/07/02 |

# CONTENTS

|          |                                                          |           |
|----------|----------------------------------------------------------|-----------|
| <b>1</b> | <b>Operation Mode and Antenna Information .....</b>      | <b>5</b>  |
| 1.1      | EUT Operation Mode .....                                 | 5         |
| 1.2      | Antenna Information .....                                | 5         |
| 1.3      | Test Frequency .....                                     | 6         |
| <b>2</b> | <b>Test System.....</b>                                  | <b>6</b>  |
| 2.1      | Test Equipment.....                                      | 6         |
| 2.2      | Test Software.....                                       | 6         |
| <b>3</b> | <b>Test Summary .....</b>                                | <b>7</b>  |
| 3.1      | Measurement Environment .....                            | 7         |
| 3.2      | Measurement Quantity .....                               | 9         |
| 3.3      | Test Method.....                                         | 9         |
| 3.4      | Directional Gain Calculations .....                      | 10        |
| 3.5      | Directional Gain ( $N_{ss}=N_{ant}$ ) Calculations ..... | 11        |
| 3.6      | Test Procedure .....                                     | 11        |
| <b>4</b> | <b>Measured Value and Maximum Gain Positions.....</b>    | <b>13</b> |
| 4.1      | Antenna Number .....                                     | 13        |
| 4.2      | 2G .....                                                 | 13        |
| 4.2.1    | DG_1SS Max Value Position .....                          | 13        |
| 4.2.2    | DG_1SS Max Value Position Calculation .....              | 13        |
| 4.2.3    | DG_NSSmax Max Value Position.....                        | 14        |
| 4.2.4    | DG_NSSmax Max Value Position Calculation .....           | 14        |
| 4.3      | 5G .....                                                 | 14        |
| 4.3.1    | DG_1SS Max Value Position .....                          | 14        |
| 4.3.2    | DG_1SS Max Value Position Calculation .....              | 15        |
| 4.3.3    | DG_NSSmax Max Value Position.....                        | 15        |
| 4.3.4    | DG_NSSmax Max Value Position Calculation .....           | 15        |
| <b>5</b> | <b>Test and Calculate Result .....</b>                   | <b>16</b> |
| 5.1      | Peak Antenna Gain (Single) .....                         | 16        |
| 5.2      | DG_1SS Calculate Result .....                            | 16        |
| 5.3      | DG_NSSmax Calculate Result.....                          | 16        |
| <b>6</b> | <b>Test Pattern .....</b>                                | <b>18</b> |
| 6.1      | Antenna Pattern .....                                    | 18        |

---

|          |                          |           |
|----------|--------------------------|-----------|
| <b>7</b> | <b>Test Pattern.....</b> | <b>18</b> |
| 7.1      | DG_1SS Test Data.....    | 18        |
| 7.2      | DG_NSSmax Test Data..... | 26        |

# 1 Operation Mode and Antenna Information

## 1.1 EUT Operation Mode

The **WR1502(US) 2.0**(MODEL NUMBER) is the Four-band wireless router of 12 internal antennas, of which 4 were 2.4G & 5GL Dual-Band antennas and 4 were 5GU antennas and 4 were 6G antennas

## 1.2 Antenna Information

The Antennas are internal , the Locations of Antennas are shown below:



Figure 1-1 Locations of Antennas

The Antenna Information was shown below:

Table 1-1 Antenna Information

| Antenna Position | Antenna Type | Connector | Mode of operation |
|------------------|--------------|-----------|-------------------|
| Ant1             | Dipole       | ipex      | 2.4G&5G           |
| Ant2             | Dipole       | ipex      | 2.4G&5G           |
|                  |              |           |                   |
|                  |              |           |                   |
|                  |              |           |                   |
|                  |              |           |                   |
|                  |              |           |                   |
|                  |              |           |                   |

## 1.3 Test Frequency

Test frequency bands are shown in *Table 1-2*.

Table 1-2 Test Frequency

| Frequency Band(MHz) |
|---------------------|
| 2400-2500           |
| 5150-5250           |
| 5250-5350           |
| 5470-5725           |
| 5725-5925           |

## 2 Test System

### 2.1 Test Equipment

Table 2-1 Test System

| Equipment                  | Model       | Manufacturer | S/N        | Cali. Interval | Cali. Due Date |
|----------------------------|-------------|--------------|------------|----------------|----------------|
| Chamber                    | Rayzone2800 | GTS          | MY53470435 | 12months       | 2026/04/15     |
| Vector<br>Network Analyzer | E5071C      | Keysight     | MY46315238 | 24months       | 2026/05/27     |

### 2.2 Test Software

Table 2-2 Test Software

| Software       | Version | Function                     |
|----------------|---------|------------------------------|
| GTS MaxSign100 | V2.1    | Passive Antenna Measurements |

## 3 Test Summary

### 3.1 Measurement Environment

This measurement experiment adopted an antenna near-field measurement system, and the diagram of the measurement system was shown in Figure 3-1. The excitation signal was generated by the Keysight E5071C (300kHz-20GHz). Under the control of the central computer, the probe rotated in the  $\theta$  direction, and the EUT rotated in the  $\phi$  direction with the turntable. The probe sampling frame received and collected signals in the near-field range of the EUT. The software system which was controlled by the central computer completed the processing, output and display of the test data.

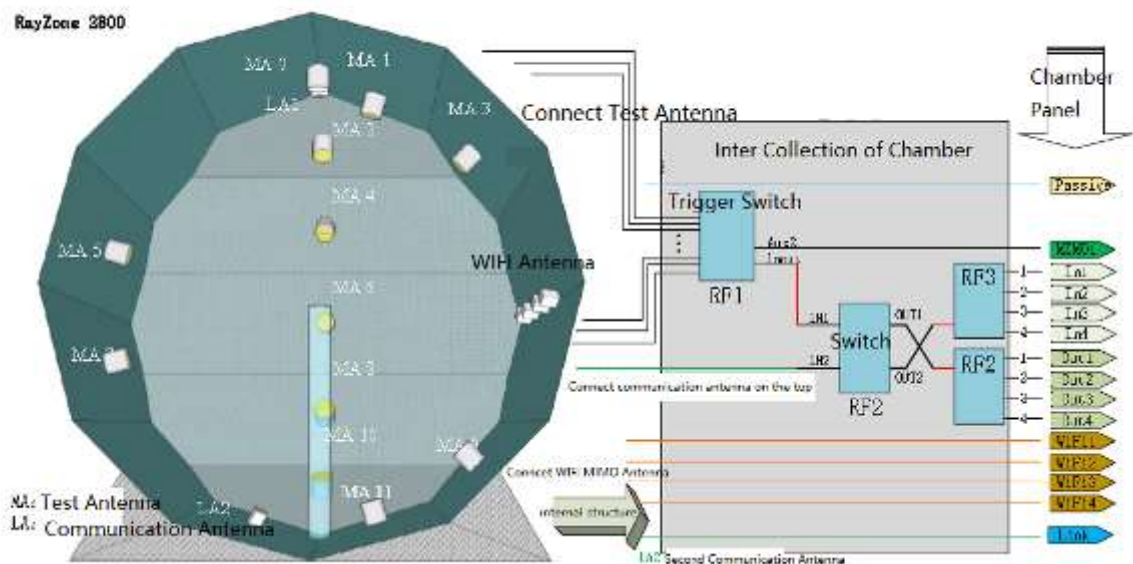


Figure 3-1 Schematic diagram of antenna near-field measurement system

The test site was a full anechoic chamber with a size of 3.0m×3.1m×2.97m, which was built by GTS Rayzone2800. All six surfaces of the anechoic chamber were pasted with absorbing materials. And the chamber was calibrated by the authoritative third-party lab every year. The antenna anechoic chamber measurement system adopted a 13-probe multi-probe system. The probe antennas were evenly distributed on the spherical surface surrounding the EUT, and their operating frequency was 600MHz~8.5GHz.

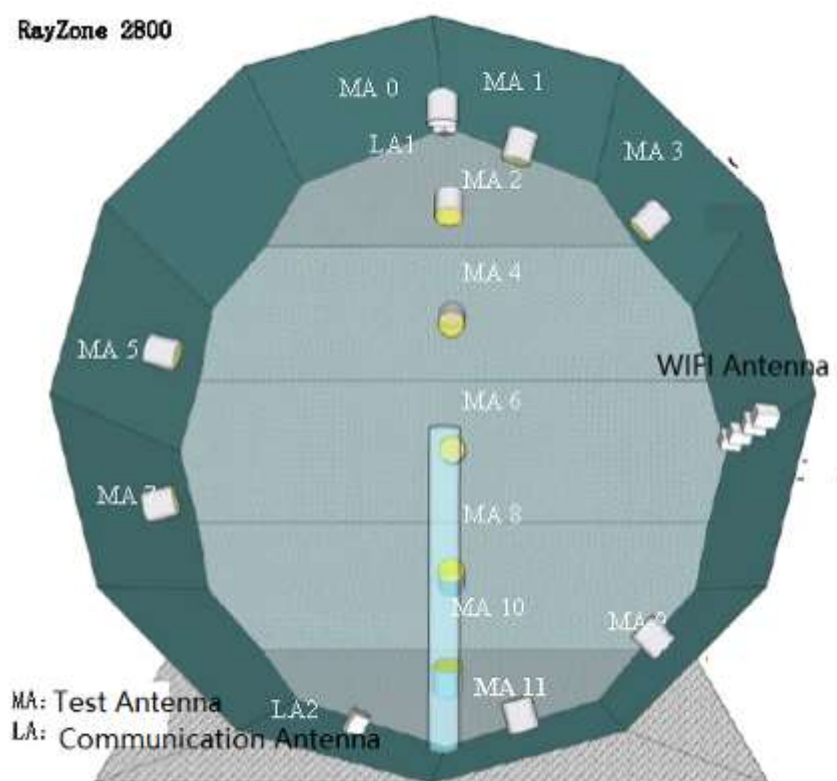


Figure 3-2 Antenna anechoic chamber for near-field measurement

During the measurement, the probe antennas were rotated in the  $\theta$  direction under the control of the probe holder to sample the near-field data at the  $\theta$  angle. At the same time, the EUT rotated with the turntable in the  $\phi$  direction to sample the near field data at the  $\phi$  angle. The system diagram was shown in Figure 3-3. From the sampling results, the EUT's near-field test data of  $\theta$  component,  $\phi$  component and total component could be obtained.

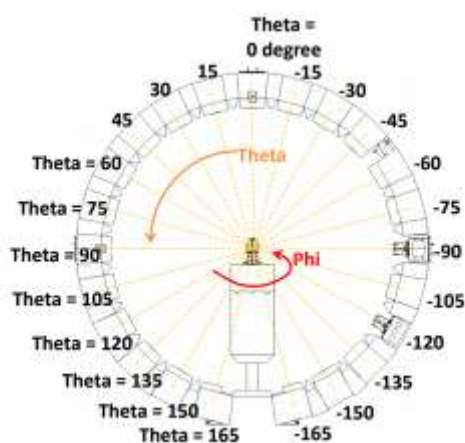


Figure 3-3 System diagram

Before the measurement, calibrated the vector network analyzer, and then connected the input end of each antenna to the output end of the vector network analyzer, and evenly the antennas to be measured. The Calibration information was shown in table 2-1.

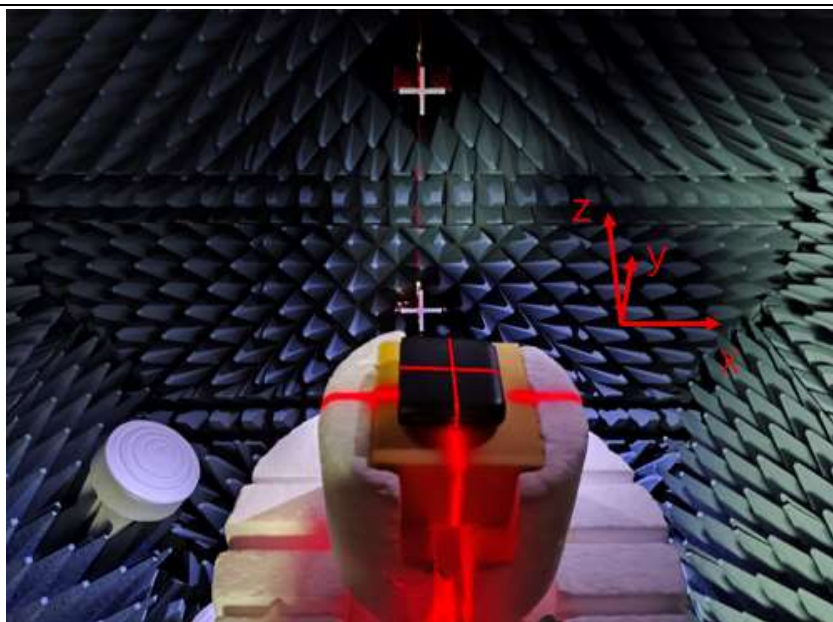


Figure 3-4 Antennas measurement diagram

Table 3-1 Calibration information

| Measurement Class | Standard |
|-------------------|----------|
| Cal Type          | 2p/1-2   |
| Cal Kit           | N4691B   |

## 3.2 Measurement Quantity

In this measurement experiment, the Directional Gain was measured at a certain frequency interval within the whole frequency range. The measurement frequency interval of the 2.4G antennas was 10MHz, while the 5GL and 5GU and 6G antennas was 50MHz.

## 3.3 Test Method

During the measurement, the probe antennas were rotated in the  $\theta$  direction under the control of the probe holder to sample the near-field data at the  $\theta$  angle. At the same time, the EUT rotated with the turntable in the  $\varphi$  direction to sample the near field data at the  $\varphi$  angle. The sampling accuracy was  $15^\circ$ . The system diagram was shown in Figure 2-6. From the sampling results, the EUT's near-field test data of  $\theta$  component,  $\varphi$  component and total component could be obtained.

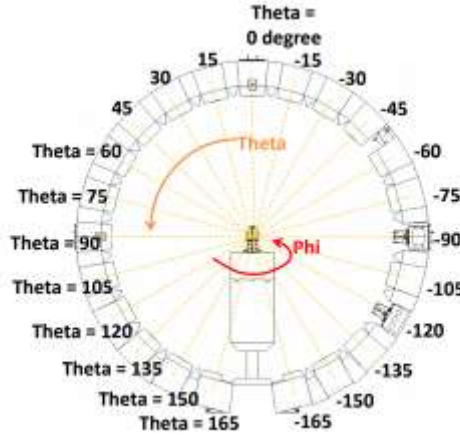


Figure 3-5 Test angle

### 3.4 Directional Gain Calculations

Multiple antennas system, each of which has one of two (or three) polarizations that are orthogonal to one another (i.e., cross polarized), The total gain—including array gain—is computed separately for each of the two (or three) polarizations using the procedures presented in this document. The highest of the total gains shall apply.

Theoretical Directional Gain represented the theoretical value calculated by formula 2-1. As we all know, the effect of array gain must be included in the calculation of overall directional antenna gain for devices that transmit on multiple outputs simultaneously in the same band, in the same or in overlapping frequency ranges. Therefore, in formula 2-1, the directional gain calculation needs to include all directions and all Frequencies and all Polarizations, and then take the maximum value as the final directional gain value. Therefore, the calculation formula of theoretical directional gain value can be modified as formula 2-2

$$\text{Directional Gain} = 10\log \left[ \frac{\sum_{j=1}^{N_{SS}} \left( \sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] \quad (2-1)$$

Where

Nss = the number of independent spatial streams of data; NSS =1.

Nant = the total number of antennas: NANT =4 for 2.4G & 5G antennas

$g_{j,k} = 10^{G_k/20}$  if the kth antenna is being fed by spatial stream j, or zero if it is not;

$G_k$  is the gain in dBi of the kth antenna .

$$\text{Directional Gain} = \text{Maximum} \left[ 10\log \left[ \frac{\sum_{j=1}^{N_{SS}} \left( \sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] \right] \quad (2-2)$$

**Maximum** function is the max directional gain overall directions and all frequency all polarizations.

### 3.5 Directional Gain (Nss=N<sub>ant</sub>) Calculations

Multiple antennas system, each of which has one of two (or three) polarizations that are orthogonal to one another (i.e., cross polarized), The total gain—including array gain—is computed separately for each of the two (or three) polarizations using the procedures presented in this document. The highest of the total gains shall apply.

Theoretical Directional Gain represented the theoretical value calculated by formula 2-1. As we all know, the effect of array gain must be included in the calculation of overall directional antenna gain for devices that transmit on multiple outputs simultaneously in the same band, in the same or in overlapping frequency ranges. Therefore, in formula 2-1, the directional gain calculation needs to include all directions and all Frequencies and all Polarizations, and then take the maximum value as the final directional gain value. Therefore, the calculation formula of theoretical combined gain value can be modified as formula 2-2

$$\text{Directional Gain} = 10\log \left[ \frac{\sum_{j=1}^{N_{ANT}} g_{j,k}}{N_{ANT}} \right] \quad (2-3)$$

Where

Nss = the number of independent spatial streams of data; NSS =Nant.

Nant = the total number of antennas: NANT =4 for 2.4G & 5G & 6G antennas

$$g_{j,k} = 10^{G_k/10} \quad \text{if the } k\text{th antenna is being fed by spatial stream } j, \text{ or zero if it is not;}$$

$G_k$  is the gain in dBi of the kth antenna .

$$\text{Directional Gain} = \text{Maximum} \left[ 10\log \left[ \frac{\sum_{j=1}^{N_{ANT}} g_{j,k}}{N_{ANT}} \right] \right] \quad (2-4)$$

**Maximum** function is the max directional gain overall directions and all frequency all polarizations.

### 3.6 Test Procedure

The calculation method of DG (Directional Gain) in this scheme is summarized as follows:

- 1) The antenna anechoic chamber is used to measure the gain of each antenna, the gain of each antenna at this angle is taken every 15 °to calculate the Directional Gain;
- 2) Use formula below to calculate and the DG\_Nss=1 of the system at this angle is obtained

$$\text{Directional Gain} = 10\log \left[ \frac{\sum_{j=1}^{N_{ss}} \left( \sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] \quad (2-5)$$

- 3) Use formula below to calculate and the DG\_Nssmax of the system at this angle is obtained

$$\text{Directional Gain} = 10\log\left[\frac{\sum_{j=1}^{N_{ANT}} g_{j,k}}{N_{ANT}}\right] \quad (2-6)$$

- 4) For each frequency point, the Directional Gain value under 24 different angles can be obtained, and finally the maximum value is taken as the system Directional Gain value.

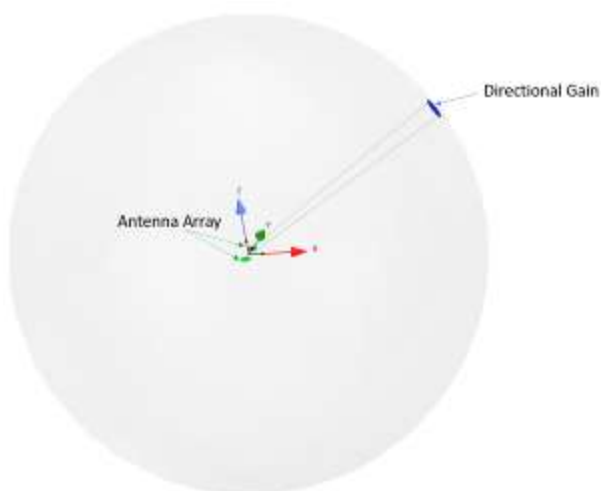


Figure 3-6 Directional Gain Calculation Sketch Map

## 4 Measured Value and Maximum Gain Positions

### 4.1 Antenna Number

The Antennas number for measured in the following section was shown below:

Table 4-1 Antennas number

| Antenna Number | Antenna Position |      |
|----------------|------------------|------|
|                | 2G               | 5G   |
| Ant1           | Ant1             | Ant1 |
| Ant2           | Ant2             | Ant2 |
|                |                  |      |
|                |                  |      |

### 4.2 2G

#### 4.2.1 DG\_1SS Max Value Position

Table 4-2 DG\_1SS Max Value Position

|                |           |
|----------------|-----------|
| Frequency(GHz) | 2.40~2.50 |
| Ant1(dBi)      | 3.02      |
| Ant2(dBi)      | 2.64      |
|                |           |
|                |           |
| Polarization   | Theta     |
| $\Phi$ (°)     | 315       |
| $\theta$ (°)   | 165       |

#### 4.2.2 DG\_1SS Max Value Position Calculation

Table 4-3 DG\_1SS Max Value Position Calculation

|                             |                  |
|-----------------------------|------------------|
| Frequency(GHz)              | 2.40~2.50        |
| Ant1[ $10^{(G/20)}$ ]       | $10^{(3.02/20)}$ |
| Ant2[ $10^{(G/20)}$ ]       | $10^{(2.64/20)}$ |
|                             |                  |
|                             |                  |
| Ant1[ $10^{(G/20)}$ ] value | 1.42             |
| Ant2[ $10^{(G/20)}$ ] value | 1.35             |
|                             |                  |

|                                             |      |
|---------------------------------------------|------|
| Ant4[10 <sup>(G/20)</sup> ] value           |      |
| Sum of Ants Value(Antmax)                   | 2.77 |
| DG[10*Log(Antmax <sup>2</sup> /Nant)] (dBi) | 5.84 |

### 4.2.3 DG\_NSSmax Max Value Position

Table 4-4 DG\_NSSmax Max Value Position

|                |           |
|----------------|-----------|
| Frequency(GHz) | 2.40~2.50 |
| Ant1(dBi)      | 3.02      |
| Ant2(dBi)      | 2.64      |
|                |           |
|                |           |
| Polarization   | Theta     |
| Φ (°)          | 315       |
| θ (°)          | 165       |

### 4.2.4 DG\_NSSmax Max Value Position Calculation

Table 4-5 DG\_NSSmax Max Value Position Calculation

|                                                 |                         |
|-------------------------------------------------|-------------------------|
| Frequency(GHz)                                  | 2.40~2.50               |
| Ant1[10 <sup>(G/10)</sup> ]                     | 10 <sup>(3.02/10)</sup> |
| Ant2[10 <sup>(G/10)</sup> ]                     | 10 <sup>(2.64/10)</sup> |
|                                                 |                         |
|                                                 |                         |
| Ant1[10 <sup>(G/10)</sup> ] value               | 2.00                    |
| Ant2[10 <sup>(G/10)</sup> ] value               | 1.84                    |
|                                                 |                         |
|                                                 |                         |
| Sum of Ants Value(Antmax)                       | 3.84                    |
| DG[10*Log <sub>10</sub> (Antmax/Nant)]<br>(dBi) | 2.83                    |

## 4.3 5G

### 4.3.1 DG\_1SS Max Value Position

Table 4-6 DG\_1SS Max Value Position

|                |           |           |            |             |
|----------------|-----------|-----------|------------|-------------|
| Frequency(GHz) | 5.15~5.25 | 5.25~5.35 | 5.47~5.725 | 5.725~5.925 |
| Ant1(dBi)      | 2.29      | 2.33      | 2.98       | 3.48        |
| Ant2(dBi)      | 4.21      | 4.15      | 2.03       | 1.76        |
|                |           |           |            |             |

|                                |       |       |       |       |
|--------------------------------|-------|-------|-------|-------|
|                                |       |       |       |       |
| <b>Polarization</b>            | Theta | Theta | Theta | Theta |
| <b><math>\Phi</math> (°)</b>   | 210   | 210   | 45    | 45    |
| <b><math>\theta</math> (°)</b> | 30    | 30    | 0     | 0     |

### 4.3.2 DG\_1SS Max Value Position Calculation

Table 4-7 DG\_1SS Max Value Position Calculation

|                                                      |                          |                          |                          |                          |
|------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Frequency(GHz)</b>                                | 5.15~5.25                | 5.25~5.35                | 5.47~5.725               | 5.725~5.925              |
| <b>Ant1[10<sup>^(G/20)</sup>]</b>                    | 10 <sup>^(2.29/20)</sup> | 10 <sup>^(2.33/20)</sup> | 10 <sup>^(2.98/20)</sup> | 10 <sup>^(3.48/20)</sup> |
| <b>Ant2[10<sup>^(G/20)</sup>]</b>                    | 10 <sup>^(4.21/20)</sup> | 10 <sup>^(4.15/20)</sup> | 10 <sup>^(2.03/20)</sup> | 10 <sup>^(1.76/20)</sup> |
|                                                      |                          |                          |                          |                          |
|                                                      |                          |                          |                          |                          |
| <b>Ant1[10<sup>^(G/20)</sup>] value</b>              | 1.30                     | 1.31                     | 1.41                     | 1.49                     |
| <b>Ant2[10<sup>^(G/20)</sup>] value</b>              | 1.62                     | 1.61                     | 1.23                     | 1.22                     |
|                                                      |                          |                          |                          |                          |
|                                                      |                          |                          |                          |                          |
| <b>Sum of Ants Value(Antmax)</b>                     | 2.92                     | 2.92                     | 2.67                     | 2.71                     |
| <b>DG[10*Log(Antmax<sup>2</sup>/Nant)]<br/>(dBi)</b> | 6.31                     | 6.30                     | 5.53                     | 5.67                     |

### 4.3.3 DG\_NSSmax Max Value Position

Table 4-8 DG\_NSSmax Max Value Position

|                                |           |           |            |             |
|--------------------------------|-----------|-----------|------------|-------------|
| <b>Frequency(GHz)</b>          | 5.15~5.25 | 5.25~5.35 | 5.47~5.725 | 5.725~5.925 |
| <b>Ant1(dBi)</b>               | 2.29      | 2.33      | 2.98       | 3.48        |
| <b>Ant2(dBi)</b>               | 4.21      | 4.15      | 2.03       | 1.76        |
|                                |           |           |            |             |
|                                |           |           |            |             |
| <b>Polarization</b>            | Theta     | Theta     | Theta      | Theta       |
| <b><math>\Phi</math> (°)</b>   | 210       | 210       | 45         | 45          |
| <b><math>\theta</math> (°)</b> | 30        | 30        | 0          | 0           |

### 4.3.4 DG\_NSSmax Max Value Position Calculation

Table 4-9 DG\_NSSmax Max Value Position Calculation

|                                   |                          |                          |                          |                          |
|-----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Frequency(GHz)</b>             | 5.15~5.25                | 5.25~5.35                | 5.47~5.725               | 5.725~5.925              |
| <b>Ant1[10<sup>^(G/10)</sup>]</b> | 10 <sup>^(2.29/10)</sup> | 10 <sup>^(2.33/10)</sup> | 10 <sup>^(2.98/10)</sup> | 10 <sup>^(3.48/10)</sup> |
| <b>Ant2[10<sup>^(G/10)</sup>]</b> | 10 <sup>^(4.21/10)</sup> | 10 <sup>^(4.15/10)</sup> | 10 <sup>^(2.03/10)</sup> | 10 <sup>^(1.76/10)</sup> |
|                                   |                          |                          |                          |                          |

| Ant1[10*(G/10)] value                           | 1.69 | 1.71 | 1.99 | 2.23 |
|-------------------------------------------------|------|------|------|------|
| Ant2[10*(G/10)] value                           | 2.64 | 2.60 | 1.59 | 1.50 |
|                                                 |      |      |      |      |
|                                                 |      |      |      |      |
| Sum of Ants Value(Antmax)                       | 4.33 | 4.31 | 3.58 | 3.73 |
| DG[10*Log <sub>10</sub> (Antmax/Nant)]<br>(dBi) | 3.36 | 3.33 | 2.53 | 2.70 |

## 5 Test and Calculate Result

### 5.1 Peak Antenna Gain (Single)

Table 5-1 Antenna Test Result

| Frequency Band(MHz) | Ant1 | Ant2 | Ant3 | Ant4 |
|---------------------|------|------|------|------|
| 2400-2500           | 3.35 | 3.18 |      |      |
| 5150-5250           | 2.78 | 4.21 |      |      |
| 5250-5350           | 3.15 | 4.17 |      |      |
| 5470-5725           | 3.02 | 4.84 |      |      |
| 5725-5925           | 3.48 | 3.92 |      |      |

### 5.2 DG\_1SS Calculate Result

Table 5-2 Test & Calculate Result

| Frequency Band(MHz) | Max Combined Gain | Polarization/ Φ (°) / θ (°) |
|---------------------|-------------------|-----------------------------|
| 2400-2450           | 5.84dBi           | Theta/165/315               |
| 5150-5250           | 6.31dBi           | Theta/210/30                |
| 5250-5350           | 6.30dBi           | Theta/210/30                |
| 5470-5725           | 5.53dBi           | Theta/0/45                  |
| 5725-5925           | 5.67dBi           | Theta/0/45                  |

### 5.3 DG\_NSSmax Calculate Result

Table 5-3Test & Calculate Result

| Frequency Band(MHz) | Max Combined Gain | Polarization/ Φ (°) / θ (°) |
|---------------------|-------------------|-----------------------------|
| 2400-2450           | 2.83dBi           | Theta/165/315               |
| 5150-5250           | 3.36dBi           | Theta/210/30                |
| 5250-5350           | 3.33dBi           | Theta/210/30                |

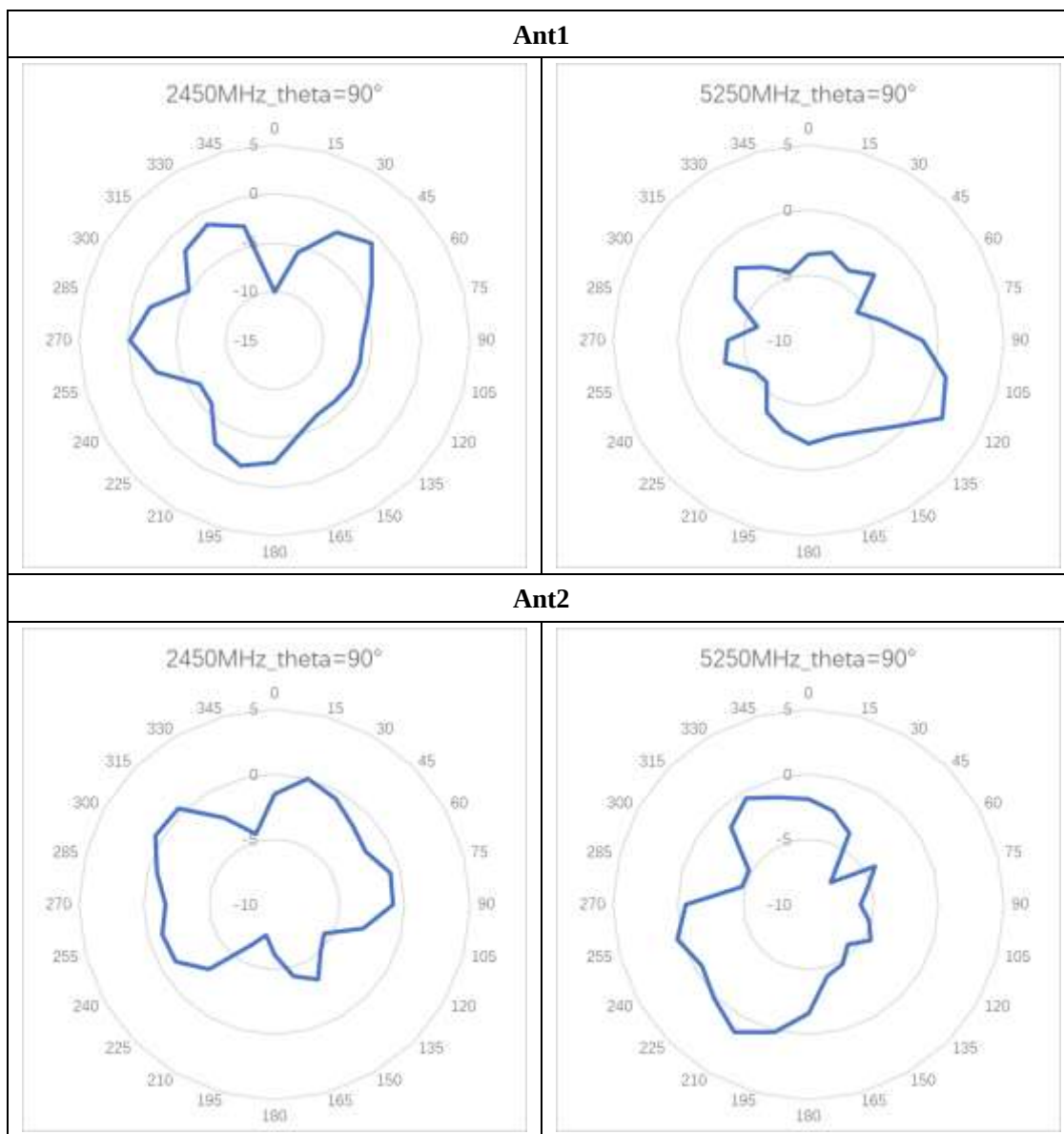


---

|           |         |            |
|-----------|---------|------------|
| 5470-5725 | 2.53dBi | Theta/0/45 |
| 5725-5925 | 2.70dBi | Theta/0/45 |

## 6 Test Pattern

### 6.1 Antenna Pattern



## 7 Test Pattern

### 7.1 DG\_1SS Test Data

| Ant1         |       |       |         |       |       |       |        |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 6     |       | Freq  | 2450   |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90     | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -2.38 | -3.67 | -3.27   | -4.49 | -5.18 | -5.63 | -10.01 | -5.95 | -4.77 | -5.65 | -3.45 | 0.09  | -6.43 |
| 15           | -2.38 | -4.73 | -4.61   | -3.61 | -3.79 | -4.78 | -5.72  | -5.43 | -7.04 | -4.01 | -2.88 | -0.06 | -6.43 |

|     |       |       |       |       |       |       |       |       |       |        |        |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| 30  | -2.38 | -5.3  | -5.05 | -3.84 | -1.95 | -1.18 | -2.22 | -2.66 | -1.68 | -2.64  | 0.59   | 0.85  | -6.43 |
| 45  | -2.38 | -4.92 | -3.22 | -2.22 | -2.05 | -1.33 | -0.94 | -1.5  | -1.08 | 0.24   | 1.73   | 1.68  | -6.43 |
| 60  | -2.38 | -4.1  | -1.69 | -0.94 | -1.85 | -2.89 | -3.5  | -1.56 | 0.15  | 1.55   | 1.44   | 1.66  | -6.43 |
| 75  | -2.38 | -3.36 | -1.12 | -1.24 | -1.91 | -4.57 | -5.15 | -2.56 | 0.64  | 1.08   | 0.49   | 0.71  | -6.43 |
| 90  | -2.38 | -2.92 | -1.22 | -2.37 | -3    | -4.8  | -6.03 | -1.89 | -1.21 | -0.73  | -1.69  | -0.91 | -6.43 |
| 105 | -2.38 | -2.76 | -1.91 | -4    | -4.84 | -4.2  | -5.92 | -2.11 | -3.96 | -4.59  | -5.3   | -2.87 | -6.43 |
| 120 | -2.38 | -2.88 | -2.92 | -5.78 | -5.91 | -4.6  | -6    | -3.47 | -7.05 | -10.24 | -10.64 | -4.6  | -6.43 |
| 135 | -2.38 | -3.29 | -3.76 | -6.43 | -5.69 | -6.31 | -6.24 | -5.57 | -7.74 | -7.92  | -8.71  | -4.98 | -6.43 |
| 150 | -2.38 | -3.91 | -4.21 | -5.27 | -5.89 | -6.82 | -6.19 | -5.38 | -6.81 | -3.25  | -5.22  | -4.21 | -6.43 |
| 165 | -2.38 | -4.86 | -4.95 | -3.71 | -3.63 | -3.35 | -5.03 | -3.17 | -3.2  | -1.66  | -3.72  | -3.69 | -6.43 |
| 180 | -2.38 | -5.86 | -5.46 | -1.47 | -1.33 | -1.21 | -2.56 | -0.7  | -1.33 | -0.84  | -3.64  | -4.47 | -6.43 |
| 195 | -2.38 | -6.3  | -4.8  | -0.03 | -1.56 | -0.72 | -1.73 | -0.84 | -1.47 | -1.34  | -4.05  | -6.04 | -6.43 |
| 210 | -2.38 | -5.69 | -3.74 | -0.56 | -1.1  | -3.71 | -2.82 | -4.72 | -1.6  | -2.34  | -4.36  | -6.43 | -6.43 |
| 225 | -2.38 | -4.57 | -3.38 | -2.07 | -2.35 | -5.36 | -5.88 | -3.16 | -2.16 | -3.72  | -3.93  | -4.8  | -6.43 |
| 240 | -2.38 | -3.69 | -3.42 | -2.29 | -3.91 | -3.22 | -6.15 | -3    | -2.06 | -2.31  | -2.9   | -3.13 | -6.43 |
| 255 | -2.38 | -3.24 | -2.55 | -0.75 | -1.88 | -2.29 | -2.47 | -1.14 | -1.07 | -2.37  | -1.67  | -1.9  | -6.43 |
| 270 | -2.38 | -2.95 | -1.39 | 0.29  | -0.14 | -0.45 | -0.24 | -0.23 | 0.08  | 0.05   | 0.16   | -0.28 | -6.43 |
| 285 | -2.38 | -2.82 | -0.89 | 0.44  | 0.17  | -0.28 | -1.84 | -2.21 | 1.08  | 2.36   | 1.9    | 1.48  | -6.43 |
| 300 | -2.38 | -2.52 | -1.04 | 0.03  | 0     | -1.82 | -4.91 | -8.72 | -1.21 | 2.34   | 2.84   | 2.53  | -6.43 |
| 315 | -2.38 | -2.27 | -2.06 | -0.3  | -0.23 | -2.13 | -2.12 | -5.66 | -5.18 | -0.72  | 2.44   | 2.76  | -6.43 |
| 330 | -2.38 | -2.24 | -3.25 | -1.25 | -1.09 | -0.93 | -1.3  | -2.25 | -1.7  | -4.06  | 0.75   | 2.27  | -6.43 |
| 345 | -2.38 | -2.69 | -3.17 | -3.86 | -2.31 | -3.05 | -2.94 | -2.18 | -3.87 | -1.88  | -1     | 1.27  | -6.43 |

| Ant2         |       |       |         |       |       |       |       |       |        |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 6     |       | Freq  | 2450  |       |        |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120    | 135   | 150   | 165   | 180   |
| 0            | -3.28 | -1.3  | 0.31    | 0.43  | 0.54  | -0.93 | -1.51 | -2.63 | -2.08  | -1.42 | 1.22  | 2.79  | -6.35 |
| 15           | -3.28 | -1.42 | 0.74    | 1.18  | 1.85  | 0.56  | 0     | -0.48 | -1.46  | -0.52 | 1.65  | 2.63  | -6.35 |
| 30           | -3.28 | -1.61 | 0.96    | 1.73  | 2.15  | 1.03  | -0.62 | -2.24 | -1.2   | 0.44  | 2.23  | 2.18  | -6.35 |
| 45           | -3.28 | -1.92 | 0.75    | 2.04  | 1.7   | 0.53  | -1.47 | -4.67 | -3.96  | 1.3   | 2.29  | 1.41  | -6.35 |
| 60           | -3.28 | -2.32 | 0.05    | 1.99  | 1.4   | 0.52  | -1.9  | -3.89 | -1.77  | 0.34  | 1.58  | 0.47  | -6.35 |
| 75           | -3.28 | -2.95 | -1.04   | 1.32  | 0.52  | 0.67  | -0.8  | -2.43 | -1.05  | -0.66 | 0.33  | -0.82 | -6.35 |
| 90           | -3.28 | -3.69 | -2.27   | 0.02  | -0.43 | -0.77 | -0.91 | -1.81 | -1.97  | -1.7  | -1.61 | -2.71 | -6.35 |
| 105          | -3.28 | -4.37 | -3.05   | -0.86 | -0.98 | -2.58 | -2.95 | -2.81 | -3.41  | -2.8  | -3.45 | -4.56 | -6.35 |
| 120          | -3.28 | -4.91 | -3.43   | -0.89 | -1.36 | -3.72 | -5.57 | -6.32 | -6.35  | -4.55 | -5.78 | -6.04 | -6.35 |
| 135          | -3.28 | -5.21 | -3.63   | -0.77 | -1.66 | -2.96 | -4.95 | -7.79 | -7.95  | -6.8  | -8.62 | -6.35 | -6.35 |
| 150          | -3.28 | -5.33 | -3.94   | -0.98 | -2.58 | -1.67 | -3.34 | -4.93 | -4.28  | -5.66 | -9.2  | -5.35 | -6.35 |
| 165          | -3.28 | -5.25 | -4.43   | -2.5  | -4.51 | -2.4  | -4.34 | -2.9  | -3.38  | -3.85 | -7.39 | -3.61 | -6.35 |
| 180          | -3.28 | -5.06 | -4.94   | -5.29 | -5.83 | -5.99 | -6.11 | -4.35 | -4.75  | -3.32 | -6.12 | -2.51 | -6.35 |
| 195          | -3.28 | -4.6  | -4.66   | -5.83 | -5.92 | -6.04 | -7.59 | -8.11 | -5.83  | -5.03 | -5.51 | -2.33 | -6.35 |
| 210          | -3.28 | -4.04 | -3.93   | -5.19 | -3.8  | -3.95 | -6.38 | -6.73 | -8.7   | -8.7  | -4.36 | -2.15 | -6.35 |
| 225          | -3.28 | -3.49 | -3.68   | -3.99 | -1.7  | -2.92 | -2.93 | -4.15 | -10.25 | -9.72 | -4.62 | -1.47 | -6.35 |
| 240          | -3.28 | -3.03 | -3.46   | -2.55 | -1.5  | -1.44 | -1.29 | -2.75 | -5.62  | -8.19 | -4.94 | -0.57 | -6.35 |

|     |       |       |       |       |       |       |       |       |       |       |       |      |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| 255 | -3.28 | -2.74 | -2.85 | -1.97 | -1.4  | -1.41 | -1.12 | -1.51 | -2.09 | -5.73 | -3.45 | 0.07 | -6.35 |
| 270 | -3.28 | -2.55 | -2.12 | -1.67 | -1.37 | -1.2  | -1.62 | -0.17 | -0.98 | -2.41 | -1.69 | 0.64 | -6.35 |
| 285 | -3.28 | -2.39 | -1.47 | -1.23 | -0.75 | -0.73 | -0.65 | 0.56  | 0.7   | 0.57  | -0.15 | 1.41 | -6.35 |
| 300 | -3.28 | -2.23 | -0.95 | -0.86 | 0.05  | 0.06  | 0.52  | 1.2   | 1.39  | 1.47  | 0.67  | 2.05 | -6.35 |
| 315 | -3.28 | -2.02 | -0.6  | -0.69 | 0.05  | 0.1   | 0.39  | 1.06  | -0.04 | 0.5   | 0.63  | 2.43 | -6.35 |
| 330 | -3.28 | -1.7  | -0.46 | -0.58 | -0.72 | -0.86 | -2.31 | -0.37 | -2.54 | -1.46 | 0.38  | 2.66 | -6.35 |
| 345 | -3.28 | -1.45 | -0.16 | -0.33 | -0.77 | -2.04 | -4.42 | -2.79 | -3.35 | -2.01 | 0.67  | 2.82 | -6.35 |

| 2450MHz Composite Gain |       |       |         |       |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization           | Total |       | Channel | 6     |       | Freq  | 2450  |       |       |       |       |       |       |
| Phi\Theta              | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0                      | 0.19  | 0.61  | 1.71    | 1.32  | 1.15  | 0.04  | -1.75 | -1.12 | -0.31 | -0.27 | 2.21  | 4.55  | -3.38 |
| 15                     | 0.19  | 0.09  | 1.48    | 2.12  | 2.49  | 1.30  | 0.61  | 0.40  | -0.80 | 0.92  | 2.69  | 4.40  | -3.38 |
| 30                     | 0.19  | -0.25 | 1.48    | 2.39  | 3.35  | 3.01  | 1.63  | 0.56  | 1.57  | 2.05  | 4.46  | 4.55  | -3.38 |
| 45                     | 0.19  | -0.28 | 2.00    | 3.18  | 3.04  | 2.66  | 1.81  | 0.07  | 0.61  | 3.80  | 5.02  | 4.56  | -3.38 |
| 60                     | 0.19  | -0.15 | 2.23    | 3.66  | 2.94  | 1.99  | 0.35  | 0.36  | 2.25  | 3.98  | 4.52  | 4.10  | -3.38 |
| 75                     | 0.19  | -0.14 | 1.93    | 3.14  | 2.40  | 1.45  | 0.30  | 0.52  | 2.85  | 3.26  | 3.42  | 2.99  | -3.38 |
| 90                     | 0.19  | -0.29 | 1.28    | 1.92  | 1.39  | 0.46  | -0.09 | 1.16  | 1.43  | 1.81  | 1.36  | 1.25  | -3.38 |
| 105                    | 0.19  | -0.52 | 0.55    | 0.72  | 0.31  | -0.34 | -1.30 | 0.56  | -0.67 | -0.64 | -1.32 | -0.66 | -3.38 |
| 120                    | 0.19  | -0.83 | -0.16   | 0.01  | -0.33 | -1.14 | -2.77 | -1.77 | -3.68 | -3.93 | -4.86 | -2.28 | -3.38 |
| 135                    | 0.19  | -1.19 | -0.68   | -0.14 | -0.43 | -1.46 | -2.56 | -3.60 | -4.83 | -4.33 | -5.65 | -2.63 | -3.38 |
| 150                    | 0.19  | -1.58 | -1.06   | 0.15  | -1.07 | -0.86 | -1.64 | -2.14 | -2.44 | -1.36 | -3.97 | -1.75 | -3.38 |
| 165                    | 0.19  | -2.04 | -1.68   | -0.07 | -1.05 | 0.15  | -1.67 | -0.02 | -0.28 | 0.32  | -2.35 | -0.64 | -3.38 |
| 180                    | 0.19  | -2.44 | -2.19   | -0.16 | -0.28 | -0.26 | -1.14 | 0.68  | 0.14  | 1.02  | -1.78 | -0.42 | -3.38 |
| 195                    | 0.19  | -2.40 | -1.72   | 0.56  | -0.46 | 0.03  | -1.16 | -0.73 | -0.37 | 0.02  | -1.74 | -0.98 | -3.38 |
| 210                    | 0.19  | -1.82 | -0.82   | 0.44  | 0.66  | -0.82 | -1.41 | -2.66 | -1.43 | -1.94 | -1.35 | -1.02 | -3.38 |
| 225                    | 0.19  | -1.00 | -0.52   | 0.03  | 0.99  | -1.04 | -1.27 | -0.63 | -2.29 | -3.20 | -1.26 | 0.03  | -3.38 |
| 240                    | 0.19  | -0.34 | -0.43   | 0.59  | 0.39  | 0.73  | -0.37 | 0.14  | -0.65 | -1.75 | -0.85 | 1.25  | -3.38 |
| 255                    | 0.19  | 0.02  | 0.31    | 1.67  | 1.37  | 1.17  | 1.24  | 1.69  | 1.45  | -0.88 | 0.50  | 2.15  | -3.38 |
| 270                    | 0.19  | 0.26  | 1.26    | 2.38  | 2.28  | 2.19  | 2.11  | 2.81  | 2.58  | 1.92  | 2.29  | 3.20  | -3.38 |
| 285                    | 0.19  | 0.41  | 1.84    | 2.66  | 2.73  | 2.51  | 1.79  | 2.30  | 3.90  | 4.52  | 3.95  | 4.46  | -3.38 |
| 300                    | 0.19  | 0.64  | 2.02    | 2.61  | 3.04  | 2.18  | 1.23  | 0.60  | 3.20  | 4.93  | 4.83  | 5.30  | -3.38 |
| 315                    | 0.19  | 0.87  | 1.71    | 2.52  | 2.92  | 2.07  | 2.24  | 1.34  | 0.78  | 2.92  | 4.59  | 5.61  | -3.38 |
| 330                    | 0.19  | 1.04  | 1.27    | 2.10  | 2.11  | 2.12  | 1.22  | 1.75  | 0.90  | 0.35  | 3.58  | 5.48  | -3.38 |
| 345                    | 0.19  | 0.96  | 1.48    | 1.09  | 1.50  | 0.48  | -0.64 | 0.53  | -0.60 | 1.07  | 2.89  | 5.09  | -3.38 |

| Ant1         |       |       |         |       |       |       |       |       |       |       |       |       |      |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Polarization | Total |       | Channel | 14    |       | Freq  | 5250  |       |       |       |       |       |      |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180  |
| 0            | -2.83 | -5.51 | -2.8    | 0.25  | -0.12 | -1.33 | -3.41 | -6.38 | -5.54 | -3.46 | -2.15 | -3.68 | -8.2 |
| 15           | -2.83 | -5.33 | -2.91   | 0.18  | -0.39 | -1.54 | -3.02 | -5.94 | -6.25 | -3.48 | -0.89 | -1.69 | -8.2 |
| 30           | -2.83 | -4.7  | -4.65   | -0.57 | -0.51 | -2.04 | -3.85 | -7.13 | -8.87 | -3.61 | 0.48  | -0.76 | -8.2 |

|     |       |       |       |       |       |       |       |       |        |        |        |       |      |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|------|
| 45  | -2.83 | -4.32 | -5.13 | -3.78 | -1.96 | -1.83 | -2.88 | -6.22 | -11.89 | -3.19  | 0.99   | -0.22 | -8.2 |
| 60  | -2.83 | -3.93 | -2.85 | -8.59 | -6.85 | -4.56 | -5.65 | -7    | -3.67  | -0.95  | 0.42   | 0.89  | -8.2 |
| 75  | -2.83 | -3.3  | -0.14 | -2.22 | -4.28 | -4.97 | -4.13 | -2.2  | 0.11   | -0.21  | -0.44  | 1.69  | -8.2 |
| 90  | -2.83 | -2.68 | 1.27  | 0.24  | -1.53 | -1.26 | -1.2  | -0.48 | 0.6    | -0.53  | -1.53  | 1.47  | -8.2 |
| 105 | -2.83 | -2.19 | 1.76  | 1.1   | 0.27  | 1.26  | 0.91  | 0.92  | 1.14   | -0.37  | -1.49  | 1.02  | -8.2 |
| 120 | -2.83 | -1.69 | 1.9   | 1.96  | 2.33  | 2.55  | 1.89  | 2.2   | 2.02   | 0.73   | -0.86  | 0.32  | -8.2 |
| 135 | -2.83 | -1.27 | 1.64  | 2.78  | 2.18  | 0.69  | -0.69 | -0.67 | -0.84  | 0.61   | -1.35  | -0.29 | -8.2 |
| 150 | -2.83 | -1    | 0.83  | 2.33  | -0.16 | -1.38 | -1.94 | -3.16 | -3.88  | -3.46  | -3.85  | -1.48 | -8.2 |
| 165 | -2.83 | -0.42 | 0.84  | 1.67  | -0.89 | -0.99 | -2.43 | -2.66 | -1.71  | -3.22  | -6     | -4.16 | -8.2 |
| 180 | -2.83 | 0.32  | 0.88  | 0.93  | -0.42 | -0.89 | -2.09 | -2.85 | -2.15  | -3.94  | -6.66  | -8.2  | -8.2 |
| 195 | -2.83 | 1.13  | 1.99  | 0.65  | -0.92 | -1.66 | -2.85 | -4.17 | -3.89  | -3.33  | -5.61  | -7.34 | -8.2 |
| 210 | -2.83 | 1.72  | 2.33  | 0.97  | -1.11 | -2.61 | -3.66 | -4.96 | -3.81  | -2.2   | -5.25  | -7.38 | -8.2 |
| 225 | -2.83 | 1.55  | 1.76  | 0.42  | -1.31 | -3.19 | -5.46 | -6.61 | -6.17  | -5.22  | -5.64  | -7.56 | -8.2 |
| 240 | -2.83 | 0.9   | 0.72  | -0.57 | 0.24  | -1.12 | -5.24 | -8.51 | -6.79  | -9.5   | -13.42 | -6.31 | -8.2 |
| 255 | -2.83 | 0.3   | -0.82 | -0.18 | 1.85  | 0.59  | -3.36 | -7.37 | -2.9   | -5.25  | -9.92  | -5.71 | -8.2 |
| 270 | -2.83 | -0.69 | -2.02 | 0.32  | 1     | -1    | -3.83 | -4.13 | -6.29  | -2.99  | -5.54  | -4.3  | -8.2 |
| 285 | -2.83 | -1.35 | -3.07 | -1.53 | -0.78 | -2.64 | -5.99 | -5.24 | -5.64  | -2.74  | -3.3   | -3.13 | -8.2 |
| 300 | -2.83 | -1.84 | -3.72 | -3.46 | -2.71 | -2.69 | -3.56 | -6.65 | -18.93 | -13.67 | -4.39  | -2.67 | -8.2 |
| 315 | -2.83 | -2.6  | -3.01 | -0.96 | -1.25 | -2.26 | -2.16 | -1.54 | -6.94  | -8.89  | -4.3   | -3.23 | -8.2 |
| 330 | -2.83 | -3.79 | -2.11 | 0.72  | 0.43  | -2.29 | -3.54 | -1.68 | -2.43  | -9.12  | -4.14  | -4.08 | -8.2 |
| 345 | -2.83 | -4.91 | -1.97 | 0.79  | 1.02  | -1.39 | -4.62 | -5.7  | -3.2   | -4.03  | -3.15  | -5.43 | -8.2 |

| Ant2         |       |      |         |       |       |       |       |        |        |        |        |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|
| Polarization | Total |      | Channel | 14    |       | Freq  | 5250  |        |        |        |        |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105    | 120    | 135    | 150    | 165   | 180   |
| 0            | -0.85 | 2.82 | 2.33    | 0.97  | -0.67 | -2.16 | -1.88 | -0.32  | -0.04  | -4.15  | -4.86  | -2.81 | -7.93 |
| 15           | -0.85 | 3.32 | 1.93    | 1.07  | -1.44 | -3.18 | -2.55 | -1.09  | -1.85  | -9.45  | -7.45  | -2.29 | -7.93 |
| 30           | -0.85 | 3.5  | 1.89    | 1.51  | -1.08 | -2.99 | -3.66 | -3.99  | -4.7   | -5.71  | -6.29  | -3.58 | -7.93 |
| 45           | -0.85 | 3.5  | 1.97    | 0.46  | -0.95 | -3.62 | -7.62 | -14.88 | -6.82  | -5.69  | -7.57  | -4.51 | -7.93 |
| 60           | -0.85 | 3.3  | 1.39    | -0.07 | -2.96 | -2.94 | -4.13 | -9.13  | -10.22 | -7.11  | -5.8   | -4.95 | -7.93 |
| 75           | -0.85 | 3.1  | 0.87    | -1.72 | -6.79 | -6.72 | -5.31 | -5.85  | -5.26  | -1.98  | -4.85  | -5.43 | -7.93 |
| 90           | -0.85 | 3.04 | 0.71    | -1.83 | -4.02 | -4.03 | -5.97 | -6.15  | -2.24  | -2.06  | -7.41  | -5.74 | -7.93 |
| 105          | -0.85 | 3.05 | 0.19    | -2.31 | -3.31 | -5.89 | -5.21 | -4.12  | -3.03  | -6.67  | -12.36 | -5.96 | -7.93 |
| 120          | -0.85 | 3    | -0.19   | -3.11 | -5.99 | -5.98 | -4.51 | -5.41  | -8.18  | -10.28 | -5.63  | -6.49 | -7.93 |
| 135          | -0.85 | 3.05 | 0.51    | -2.54 | -4.91 | -5.72 | -5.69 | -7.66  | -7.64  | -4.74  | -2.92  | -6.07 | -7.93 |
| 150          | -0.85 | 3.07 | 1.28    | -0.7  | -2.85 | -4.55 | -4.74 | -6.27  | -8.6   | -4.27  | -5     | -7.58 | -7.93 |
| 165          | -0.85 | 3.35 | 2.09    | 0.65  | -2.08 | -3.88 | -4.3  | -5.28  | -6.6   | -9.49  | -6.29  | -7.93 | -7.93 |
| 180          | -0.85 | 3.8  | 3.17    | 2.39  | 1.46  | 0.15  | -1.6  | -2.89  | -3.66  | -5.31  | -6.04  | -6.28 | -7.93 |
| 195          | -0.85 | 4.17 | 4.04    | 3.42  | 2.34  | 1.49  | 0.16  | -1.69  | -4.95  | -5.99  | -3.77  | -2.99 | -7.93 |
| 210          | -0.85 | 4.16 | 4.15    | 3.24  | 1.87  | 1.94  | 1.29  | 0.56   | -0.31  | -2.27  | -0.71  | -0.74 | -7.93 |
| 225          | -0.85 | 3.82 | 3.89    | 2.78  | 1.84  | 1.11  | 0.19  | 0.77   | 1.75   | 0.93   | -0.13  | -0.62 | -7.93 |
| 240          | -0.85 | 3.44 | 3.29    | 1.98  | 1.59  | 0.51  | -0.6  | -0.29  | 1.2    | -0.19  | -0.04  | -0.04 | -7.93 |
| 255          | -0.85 | 3.12 | 2.76    | 1.24  | 1.28  | 1.18  | 0.43  | 0.03   | 0.16   | -2.56  | -2.8   | 0.22  | -7.93 |

|     |       |      |      |      |      |       |       |       |       |       |       |       |       |
|-----|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 270 | -0.85 | 2.79 | 2.99 | 1.48 | 0.64 | 0.33  | -0.62 | -0.64 | 0.02  | -6.67 | -7.26 | 0.02  | -7.93 |
| 285 | -0.85 | 2.47 | 3.14 | 2.32 | 0.08 | -2.64 | -4.74 | -4.62 | -6.68 | -3.02 | -3.63 | -0.13 | -7.93 |
| 300 | -0.85 | 2.05 | 2.6  | 2.01 | 0.49 | -2.33 | -4.74 | -6.09 | -7.06 | -1.18 | -2.71 | -1.13 | -7.93 |
| 315 | -0.85 | 1.69 | 1.9  | 1.32 | 0.77 | -0.2  | -1.57 | -3.54 | -4.88 | -4.66 | -4.82 | -2    | -7.93 |
| 330 | -0.85 | 1.77 | 2.12 | 2    | 1.69 | 0.81  | -0.54 | -1.51 | -2.07 | -4.16 | -3.5  | -2.6  | -7.93 |
| 345 | -0.85 | 2.12 | 2.39 | 2.34 | 1.46 | -0.15 | -1.5  | -1    | 0.55  | -2.44 | -5.16 | -3.35 | -7.93 |

| 5250MHz Composite Gain |       |      |         |       |       |       |       |       |       |       |       |       |       |
|------------------------|-------|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization           | Total |      | Channel | 13    |       | Freq  | 5250  |       |       |       |       |       |       |
| Phi\Theta              | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0                      | 1.23  | 2.63 | 3.15    | 3.63  | 2.62  | 1.28  | 0.40  | 0.18  | 0.65  | -0.79 | -0.39 | -0.22 | -5.05 |
| 15                     | 1.23  | 3.04 | 2.85    | 3.65  | 2.11  | 0.69  | 0.23  | -0.17 | -0.76 | -2.95 | -0.55 | 1.03  | -5.05 |
| 30                     | 1.23  | 3.34 | 2.23    | 3.54  | 2.22  | 0.51  | -0.74 | -2.41 | -3.53 | -1.59 | 0.75  | 0.95  | -5.05 |
| 45                     | 1.23  | 3.45 | 2.14    | 1.61  | 1.57  | 0.33  | -1.92 | -6.50 | -5.98 | -1.34 | 0.73  | 0.91  | -5.05 |
| 60                     | 1.23  | 3.43 | 2.54    | -0.31 | -1.68 | -0.70 | -1.85 | -4.99 | -3.33 | -0.48 | 0.87  | 1.46  | -5.05 |
| 75                     | 1.23  | 3.49 | 3.39    | 1.04  | -2.43 | -2.79 | -1.69 | -0.82 | 0.84  | 1.96  | 0.64  | 1.85  | -5.05 |
| 90                     | 1.23  | 3.65 | 4.00    | 2.28  | 0.32  | 0.48  | -0.25 | 0.15  | 2.31  | 1.75  | -0.97 | 1.60  | -5.05 |
| 105                    | 1.23  | 3.83 | 4.02    | 2.57  | 1.67  | 1.41  | 1.39  | 1.77  | 2.31  | 0.05  | -2.31 | 1.22  | -5.05 |
| 120                    | 1.23  | 3.98 | 3.93    | 2.80  | 2.14  | 2.30  | 2.28  | 2.21  | 1.35  | -0.13 | 0.09  | 0.58  | -5.05 |
| 135                    | 1.23  | 4.17 | 4.10    | 3.53  | 2.35  | 1.07  | 0.18  | -0.47 | -0.58 | 1.35  | 0.91  | 0.30  | -5.05 |
| 150                    | 1.23  | 4.28 | 4.07    | 3.96  | 1.61  | 0.19  | -0.22 | -1.57 | -2.91 | -0.85 | -1.40 | -0.99 | -5.05 |
| 165                    | 1.23  | 4.68 | 4.50    | 4.19  | 1.55  | 0.69  | -0.30 | -0.86 | -0.81 | -2.79 | -3.13 | -2.83 | -5.05 |
| 180                    | 1.23  | 5.24 | 5.11    | 4.70  | 3.58  | 2.66  | 1.17  | 0.14  | 0.14  | -1.59 | -3.33 | -4.18 | -5.05 |
| 195                    | 1.23  | 5.79 | 6.09    | 5.16  | 3.87  | 3.07  | 1.80  | 0.17  | -1.39 | -1.55 | -1.63 | -1.89 | -5.05 |
| 210                    | 1.23  | 6.04 | 6.30    | 5.19  | 3.52  | 2.97  | 2.17  | 1.24  | 1.13  | 0.78  | 0.32  | -0.43 | -5.05 |
| 225                    | 1.23  | 5.77 | 5.90    | 4.69  | 3.42  | 2.23  | 0.83  | 0.85  | 1.67  | 1.40  | 0.56  | -0.40 | -5.05 |
| 240                    | 1.23  | 5.27 | 5.11    | 3.81  | 3.95  | 2.74  | 0.40  | -0.45 | 1.10  | -0.64 | -1.36 | 0.39  | -5.05 |
| 255                    | 1.23  | 4.83 | 4.16    | 3.57  | 4.58  | 3.90  | 1.75  | 0.11  | 1.77  | -0.79 | -2.64 | 0.76  | -5.05 |
| 270                    | 1.23  | 4.23 | 3.85    | 3.93  | 3.83  | 2.70  | 0.93  | 0.80  | 0.44  | -1.63 | -3.35 | 1.14  | -5.05 |
| 285                    | 1.23  | 3.78 | 3.59    | 3.62  | 2.67  | 0.37  | -2.33 | -1.91 | -3.13 | 0.13  | -0.45 | 1.51  | -5.05 |
| 300                    | 1.23  | 3.33 | 3.01    | 2.71  | 2.05  | 0.50  | -1.12 | -3.36 | -8.10 | -2.34 | -0.50 | 1.14  | -5.05 |
| 315                    | 1.23  | 2.82 | 2.80    | 3.26  | 2.83  | 1.84  | 1.15  | 0.53  | -2.84 | -3.51 | -1.55 | 0.42  | -5.05 |
| 330                    | 1.23  | 2.44 | 3.27    | 4.39  | 4.09  | 2.41  | 1.10  | 1.42  | 0.76  | -3.28 | -0.80 | -0.30 | -5.05 |
| 345                    | 1.23  | 2.31 | 3.49    | 4.61  | 4.25  | 2.26  | 0.09  | -0.03 | 1.89  | -0.19 | -1.09 | -1.32 | -5.05 |

| Ant1         |       |       |         |       |       |       |       |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 19    |       | Freq  | 5500  |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -6.97 | -6.12 | -1.13   | 0.62  | 0.39  | -1.37 | -3.24 | -4.3  | -3.38 | -4.55 | -3.56 | -1.99 | -8.39 |
| 15           | -6.97 | -6.58 | -1.49   | 1.04  | 0.9   | -0.92 | -3.02 | -5.39 | -6.87 | -5.67 | -1.91 | -1.21 | -8.39 |
| 30           | -6.97 | -6.55 | -3.57   | -1.06 | -0.21 | -1.56 | -3.2  | -6.74 | -11.8 | -6.47 | -0.94 | 0.01  | -8.39 |
| 45           | -6.97 | -5.3  | -7.37   | -5.91 | -3.02 | -2.55 | -2.86 | -4.86 | -7.76 | -5.64 | -0.32 | 0.74  | -8.39 |
| 60           | -6.97 | -3.35 | -5.9    | -5.52 | -4.45 | -3.99 | -4.58 | -6.86 | -4.08 | -1.96 | -1.79 | 1.37  | -8.39 |

|     |       |       |       |       |       |       |       |       |        |        |        |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|
| 75  | -6.97 | -1.61 | -1.93 | -3.07 | -4.12 | -4.18 | -5.4  | -4.72 | -1.39  | -0.84  | -1.93  | 2.2   | -8.39 |
| 90  | -6.97 | -0.63 | 0.45  | -1.16 | -0.44 | -0.53 | -0.65 | -0.95 | -0.48  | -0.46  | -2.03  | 1.96  | -8.39 |
| 105 | -6.97 | -0.34 | 1.75  | 0.82  | 0.56  | 0.92  | 0.67  | 0.33  | 0.65   | 0.13   | -2.16  | 1.74  | -8.39 |
| 120 | -6.97 | -0.8  | 2.33  | 2.36  | 1.92  | 1.56  | 0.35  | 0.9   | 1.48   | 0.54   | -2.21  | 0.79  | -8.39 |
| 135 | -6.97 | -1.82 | 2.06  | 3.02  | 1.88  | 0.19  | -1.53 | -1.63 | -1.34  | -0.59  | -3.03  | -0.41 | -8.39 |
| 150 | -6.97 | -3.03 | 1.6   | 2.87  | 0.6   | -1.91 | -2.51 | -2.87 | -3.53  | -4.54  | -5.31  | -1.97 | -8.39 |
| 165 | -6.97 | -3.77 | 0.16  | 1.26  | 0.13  | -0.12 | -1.89 | -3.2  | -3.29  | -4.22  | -6.15  | -4.19 | -8.39 |
| 180 | -6.97 | -2.87 | 0.53  | 0.47  | 0.29  | -0.45 | -2    | -3.7  | -2.42  | -3.95  | -6.29  | -8.38 | -8.39 |
| 195 | -6.97 | -1.13 | 0.66  | 0.39  | -0.27 | -0.96 | -2.28 | -3.67 | -4.02  | -4.82  | -5.92  | -8.39 | -8.39 |
| 210 | -6.97 | 0.18  | 1.37  | -0.13 | -1.34 | -2.32 | -2.81 | -4.8  | -5.58  | -3.5   | -5.16  | -6.39 | -8.39 |
| 225 | -6.97 | 1.01  | 1.05  | -1.3  | -2.01 | -3.15 | -4.56 | -5.87 | -5.55  | -4.47  | -4.89  | -8.06 | -8.39 |
| 240 | -6.97 | 1.06  | 0.13  | -1.56 | -0.91 | -1.54 | -4.61 | -7.27 | -9     | -12.71 | -11.51 | -5.97 | -8.39 |
| 255 | -6.97 | 0.29  | -0.96 | -0.68 | 0.46  | 0.11  | -2.52 | -4.87 | -2.71  | -5.99  | -9.34  | -4.22 | -8.39 |
| 270 | -6.97 | -0.51 | -2.58 | -1.05 | 0.17  | -1.43 | -5.45 | -6.88 | -4.61  | -2.51  | -5.28  | -3.13 | -8.39 |
| 285 | -6.97 | -1.62 | -4.3  | -3.33 | -1.27 | -2.15 | -4.32 | -5.54 | -6.01  | -1.2   | -2.66  | -2.08 | -8.39 |
| 300 | -6.97 | -3.16 | -4.69 | -3.77 | -2.49 | -1.72 | -2.4  | -3.89 | -10.99 | -15.11 | -2.75  | -1.69 | -8.39 |
| 315 | -6.97 | -4.6  | -4.55 | -1.56 | -0.88 | -1.51 | -1.51 | -0.91 | -4.81  | -9.06  | -4.13  | -2.17 | -8.39 |
| 330 | -6.97 | -5.65 | -3.87 | 0.66  | 0.4   | -2.21 | -3.69 | -2.52 | -2.23  | -8.75  | -5.04  | -3.38 | -8.39 |
| 345 | -6.97 | -5.94 | -2.25 | 0.59  | 0.02  | -1.93 | -4.62 | -5.52 | -2.98  | -4.1   | -4.96  | -4.32 | -8.39 |

| Ant2         |       |      |         |       |       |       |       |        |       |        |       |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
| Polarization | Total |      | Channel | 19    |       | Freq  | 5500  |        |       |        |       |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105    | 120   | 135    | 150   | 165   | 180   |
| 0            | 1.12  | 4.77 | 4.23    | 2.53  | 0.3   | -2.16 | -2.43 | -0.28  | 0.79  | -4.17  | -4.9  | -4.82 | -7.77 |
| 15           | 1.12  | 4.76 | 4.2     | 1.28  | -1.89 | -3.99 | -2.68 | -1.96  | -2.88 | -7.1   | -5.2  | -3.28 | -7.77 |
| 30           | 1.12  | 4.65 | 3.69    | 0.46  | -1.88 | -3.98 | -5.74 | -5.3   | -4.4  | -4.17  | -5.37 | -3.62 | -7.77 |
| 45           | 1.12  | 4.25 | 2.84    | 1.22  | -1.69 | -4.24 | -9.81 | -14.38 | -5.5  | -6.33  | -8.65 | -4.08 | -7.77 |
| 60           | 1.12  | 3.85 | 2.56    | -0.07 | -3.43 | -7    | -9.35 | -11.31 | -8    | -7.27  | -6.91 | -3.83 | -7.77 |
| 75           | 1.12  | 3.46 | 2.5     | 1.04  | -4.59 | -6.58 | -3.52 | -3.55  | -2.31 | -1.02  | -3.85 | -5.29 | -7.77 |
| 90           | 1.12  | 2.75 | 1.45    | 0.69  | -2.82 | -3.02 | -3.81 | -3.37  | -1.45 | -1.99  | -5.18 | -5.04 | -7.77 |
| 105          | 1.12  | 1.8  | -0.75   | -2.27 | -3.97 | -1.9  | -2.14 | -1.34  | -3.33 | -6.3   | -5.85 | -4.25 | -7.77 |
| 120          | 1.12  | 0.97 | -3.58   | -5.95 | -5.04 | -2.53 | -4.65 | -6.67  | -6.23 | -6.03  | -4.89 | -5.92 | -7.77 |
| 135          | 1.12  | 0.64 | -5.09   | -6.79 | -5.77 | -4.1  | -5    | -7.02  | -6.78 | -7.07  | -6.37 | -7.16 | -7.77 |
| 150          | 1.12  | 1.07 | -2.9    | -5.45 | -8.26 | -8.57 | -5.43 | -5.9   | -8.28 | -11.71 | -7.12 | -7.77 | -7.77 |
| 165          | 1.12  | 1.59 | 0.06    | -1.62 | -2.71 | -4.48 | -4.08 | -4.09  | -4.63 | -8.24  | -5.77 | -7.08 | -7.77 |
| 180          | 1.12  | 2.02 | 1.7     | 0.36  | -0.99 | -2.55 | -3.12 | -4.81  | -8.35 | -9.64  | -6.84 | -6.37 | -7.77 |
| 195          | 1.12  | 2.37 | 2.07    | -0.1  | -1.98 | -1.82 | -1.5  | -2.25  | -5.44 | -11.08 | -9.06 | -2.58 | -7.77 |
| 210          | 1.12  | 2.86 | 2.05    | 0.65  | 0.29  | 0.53  | 0.11  | -0.66  | -1.04 | -2.44  | -3.43 | -0.62 | -7.77 |
| 225          | 1.12  | 3.28 | 1.49    | 1.62  | 0.83  | 0.05  | -1.37 | -2.8   | -0.56 | 1.41   | -0.44 | -0.48 | -7.77 |
| 240          | 1.12  | 3.38 | 1.31    | 1.36  | 0.74  | -1.2  | -1.58 | -2.48  | -0.2  | 1.16   | -0.02 | 0.5   | -7.77 |
| 255          | 1.12  | 3.26 | 2.22    | 2.11  | 1.73  | 0.16  | -1.52 | -1.69  | 0.28  | -1.48  | -2.75 | 0.89  | -7.77 |
| 270          | 1.12  | 3.35 | 2.98    | 2.29  | 1.93  | 1.21  | -0.19 | -0.14  | 0.79  | -3.87  | -8.78 | 0.94  | -7.77 |
| 285          | 1.12  | 3.38 | 3.51    | 2.14  | 0.73  | -1.07 | -2.27 | -1.46  | -4.08 | -0.64  | -5.16 | 0.42  | -7.77 |

|     |      |      |      |      |      |       |       |       |        |       |       |       |       |
|-----|------|------|------|------|------|-------|-------|-------|--------|-------|-------|-------|-------|
| 300 | 1.12 | 3.4  | 3.43 | 2.87 | 1.14 | -1.82 | -4.61 | -6.95 | -10.51 | -0.43 | -2.48 | -0.58 | -7.77 |
| 315 | 1.12 | 3.51 | 2.59 | 2.43 | 2.03 | 0.98  | -0.75 | -2.32 | -3.97  | -2.47 | -2.86 | -2.07 | -7.77 |
| 330 | 1.12 | 3.82 | 2.2  | 1.24 | 1.34 | 0.63  | -0.8  | -1.7  | -2.42  | -2.98 | -1.96 | -4.4  | -7.77 |
| 345 | 1.12 | 4.36 | 3.53 | 2.58 | 1.49 | -0.18 | -1.79 | -0.94 | 0.19   | -3.76 | -6.22 | -5.95 | -7.77 |

| 5500MHz Composite Gain |       |      |         |      |       |       |       |       |       |       |       |       |       |
|------------------------|-------|------|---------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization           | Total |      | Channel | 13   |       | Freq  | 5500  |       |       |       |       |       |       |
| Phi\Theta              | 0     | 15   | 30      | 45   | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0                      | 0.99  | 3.94 | 4.97    | 4.64 | 3.36  | 1.25  | 0.18  | 0.95  | 1.96  | -1.35 | -1.19 | -0.28 | -5.06 |
| 15                     | 0.99  | 3.83 | 4.82    | 4.17 | 2.63  | 0.69  | 0.16  | -0.50 | -1.64 | -3.35 | -0.39 | 0.83  | -5.06 |
| 30                     | 0.99  | 3.75 | 3.81    | 2.74 | 2.01  | 0.32  | -1.37 | -2.98 | -4.32 | -2.23 | 0.13  | 1.39  | -5.06 |
| 45                     | 0.99  | 3.74 | 2.17    | 1.38 | 0.68  | -0.34 | -2.65 | -5.37 | -3.55 | -2.97 | -0.51 | 1.67  | -5.06 |
| 60                     | 0.99  | 3.99 | 2.33    | 0.64 | -0.91 | -2.35 | -3.63 | -5.79 | -2.81 | -1.21 | -0.97 | 2.16  | -5.06 |
| 75                     | 0.99  | 4.30 | 3.57    | 2.24 | -1.34 | -2.29 | -1.40 | -1.11 | 1.17  | 2.08  | 0.17  | 2.25  | -5.06 |
| 90                     | 0.99  | 4.23 | 3.97    | 2.82 | 1.46  | 1.32  | 0.92  | 0.93  | 2.06  | 1.82  | -0.45 | 2.16  | -5.06 |
| 105                    | 0.99  | 3.81 | 3.60    | 2.42 | 1.60  | 2.63  | 2.39  | 2.55  | 1.90  | 0.51  | -0.80 | 2.26  | -5.06 |
| 120                    | 0.99  | 3.14 | 2.88    | 2.17 | 2.13  | 2.76  | 1.22  | 0.93  | 1.46  | 0.87  | -0.44 | 1.08  | -5.06 |
| 135                    | 0.99  | 2.51 | 2.21    | 2.44 | 1.88  | 1.32  | -0.08 | -0.90 | -0.63 | -0.23 | -1.53 | -0.13 | -5.06 |
| 150                    | 0.99  | 2.27 | 2.65    | 2.68 | 0.26  | -1.61 | -0.84 | -1.24 | -2.57 | -4.39 | -3.16 | -1.38 | -5.06 |
| 165                    | 0.99  | 2.33 | 3.12    | 2.95 | 1.84  | 0.98  | 0.09  | -0.62 | -0.92 | -2.99 | -2.95 | -2.51 | -5.06 |
| 180                    | 0.99  | 2.92 | 4.14    | 3.43 | 2.68  | 1.57  | 0.47  | -1.23 | -1.88 | -3.33 | -3.55 | -4.31 | -5.06 |
| 195                    | 0.99  | 3.81 | 4.40    | 3.16 | 1.93  | 1.63  | 1.13  | 0.08  | -1.69 | -4.39 | -4.34 | -2.00 | -5.06 |
| 210                    | 0.99  | 4.63 | 4.73    | 3.28 | 2.52  | 2.23  | 1.78  | 0.52  | -0.01 | 0.06  | -1.24 | -0.02 | -5.06 |
| 225                    | 0.99  | 5.23 | 4.28    | 3.29 | 2.54  | 1.61  | 0.19  | -1.19 | 0.31  | 1.97  | 0.63  | -0.46 | -5.06 |
| 240                    | 0.99  | 5.31 | 3.75    | 3.03 | 2.96  | 1.64  | 0.05  | -1.54 | -0.52 | -0.25 | -0.98 | 0.86  | -5.06 |
| 255                    | 0.99  | 4.91 | 3.79    | 3.84 | 4.13  | 3.15  | 1.00  | -0.12 | 1.92  | -0.44 | -2.42 | 1.72  | -5.06 |
| 270                    | 0.99  | 4.64 | 3.65    | 3.79 | 4.10  | 3.00  | 0.58  | 0.14  | 1.51  | -0.15 | -3.84 | 2.15  | -5.06 |
| 285                    | 0.99  | 4.25 | 3.47    | 2.84 | 2.80  | 1.42  | -0.22 | -0.25 | -1.98 | 2.09  | -0.81 | 2.27  | -5.06 |
| 300                    | 0.99  | 3.74 | 3.30    | 3.18 | 2.52  | 1.24  | -0.42 | -2.28 | -7.74 | -1.97 | 0.40  | 1.89  | -5.06 |
| 315                    | 0.99  | 3.38 | 2.74    | 3.67 | 3.71  | 2.83  | 1.89  | 1.42  | -1.37 | -2.14 | -0.46 | 0.89  | -5.06 |
| 330                    | 0.99  | 3.33 | 2.70    | 3.97 | 3.89  | 2.34  | 0.88  | 0.91  | 0.69  | -2.38 | -0.35 | -0.86 | -5.06 |
| 345                    | 0.99  | 3.67 | 4.12    | 4.65 | 3.80  | 2.00  | -0.08 | 0.08  | 1.76  | -0.92 | -2.56 | -2.09 | -5.06 |

| Ant1         |       |       |         |       |       |       |       |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 24    |       | Freq  | 5750  |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -0.73 | -4.56 | 1.17    | 3.25  | 1.89  | -0.78 | -2.84 | -4.12 | -4.67 | -7.75 | -5.38 | -1.28 | -8.44 |
| 15           | -0.73 | -4.37 | -0.67   | 2.17  | 1.69  | -1.39 | -4.04 | -6.18 | -8.71 | -8.78 | -2.59 | -0.76 | -8.44 |
| 30           | -0.73 | -4.59 | -3.71   | -0.03 | 0.74  | -1.06 | -2.93 | -6.3  | -9.8  | -11.7 | -2.79 | 0.76  | -8.44 |
| 45           | -0.73 | -4.16 | -3.38   | -1.4  | -0.42 | -1.98 | -3.9  | -5.43 | -7.51 | -8.72 | -2.86 | 0.83  | -8.44 |
| 60           | -0.73 | -2.3  | 0.12    | -1.09 | -2.49 | -3.6  | -4.5  | -7.41 | -7.24 | -4.08 | -3.21 | 1.14  | -8.44 |
| 75           | -0.73 | -1.28 | 0.59    | -0.85 | -1.4  | -1.7  | -2.19 | -4.73 | -5.64 | -3.09 | -2.12 | 1.84  | -8.44 |
| 90           | -0.73 | -0.86 | -0.44   | -0.98 | 1.02  | 0.6   | 0.13  | -0.78 | -1.94 | -2.42 | -2.17 | 0.96  | -8.44 |

|     |       |       |       |       |       |       |       |       |        |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 105 | -0.73 | -0.62 | -1.03 | -1.19 | 0.68  | 0.14  | -0.22 | -1.46 | -1.29  | -1.35 | -3.1  | 0.77  | -8.44 |
| 120 | -0.73 | -0.66 | -0.74 | -1.41 | -1.34 | -0.97 | -1.81 | -1.67 | -0.37  | -0.74 | -3.37 | 0.79  | -8.44 |
| 135 | -0.73 | -1.45 | -0.5  | -0.26 | -1.04 | -3.04 | -2.64 | -2.81 | -3.16  | -1.29 | -4.03 | 0.18  | -8.44 |
| 150 | -0.73 | -2.9  | -1.58 | -0.32 | -1.39 | -2.04 | -2.49 | -2.96 | -1.86  | -2.53 | -5.34 | -1.5  | -8.44 |
| 165 | -0.73 | -4.03 | -2.16 | 0.02  | -1.12 | -0.24 | -1.23 | -2.63 | -3.32  | -5.48 | -7.15 | -3.89 | -8.44 |
| 180 | -0.73 | -3.6  | -4.15 | -1.17 | -0.8  | 0.23  | -0.71 | -3.57 | -4.42  | -4.89 | -6.9  | -6.51 | -8.44 |
| 195 | -0.73 | -2.4  | -2.64 | -1.98 | -0.63 | 0.05  | -1.07 | -2.91 | -3.05  | -4.11 | -5.3  | -8.44 | -8.44 |
| 210 | -0.73 | -1.7  | -1.51 | -2.36 | -1.55 | -1.19 | -1.92 | -3.84 | -5.34  | -5.07 | -4.23 | -6.19 | -8.44 |
| 225 | -0.73 | -1.04 | -0.57 | -2.33 | -3.59 | -3.43 | -2.85 | -3.82 | -3.41  | -4.44 | -5.3  | -8.13 | -8.44 |
| 240 | -0.73 | -0.12 | -1.64 | -3.93 | -3.13 | -3.12 | -4.22 | -6.48 | -7     | -8.34 | -8.76 | -7.64 | -8.44 |
| 255 | -0.73 | 0.62  | -2.64 | -3.38 | -0.16 | 0     | -2.27 | -4.89 | -4.27  | -6.13 | -9.41 | -5.31 | -8.44 |
| 270 | -0.73 | 0.34  | -2.51 | -2.79 | 0.02  | -0.64 | -3.71 | -6.92 | -5.17  | -3.85 | -5.12 | -3.81 | -8.44 |
| 285 | -0.73 | -0.38 | -1.53 | -2.77 | -1.55 | -1.99 | -3.88 | -5.44 | -7.65  | -0.26 | -2.07 | -2.44 | -8.44 |
| 300 | -0.73 | -0.95 | -1.46 | -2.4  | -2.52 | -2.11 | -2.23 | -2.68 | -10.23 | -8.45 | -1.35 | -2.12 | -8.44 |
| 315 | -0.73 | -1.62 | -1.43 | -1.28 | -2.8  | -2.9  | -2.13 | -1.55 | -3.91  | -7.09 | -3.35 | -2.75 | -8.44 |
| 330 | -0.73 | -2.42 | -0.06 | 0.3   | 0     | -1.6  | -3.56 | -3.64 | -2.88  | -8.86 | -6.12 | -4.21 | -8.44 |
| 345 | -0.73 | -3.62 | 0.94  | 2.29  | 1.37  | -0.99 | -3.98 | -4.84 | -4.69  | -7.09 | -8.27 | -3.03 | -8.44 |

| Ant2         |       |      |         |       |       |       |       |       |       |       |        |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| Polarization | Total |      | Channel | 24    |       | Freq  | 5750  |       |       |       |        |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150    | 165   | 180   |
| 0            | 1.02  | 2.38 | 2.5     | 1.55  | 0.5   | -1.37 | -3.18 | -2.02 | -0.37 | -4.2  | -6.22  | -5.79 | -8.51 |
| 15           | 1.02  | 2.98 | 3.67    | 1.25  | -2.03 | -3.87 | -3.45 | -3.57 | -4.9  | -6.21 | -6.05  | -5.45 | -8.51 |
| 30           | 1.02  | 3.44 | 3.92    | 1.83  | -0.94 | -4.06 | -6.67 | -6.84 | -4.02 | -3.26 | -6.14  | -5.13 | -8.51 |
| 45           | 1.02  | 3.65 | 3.5     | 1.76  | 0.33  | -2.32 | -9.97 | -10.9 | -6.06 | -6.73 | -8.36  | -3.95 | -8.51 |
| 60           | 1.02  | 3.53 | 2.66    | 1.25  | -1.49 | -5.59 | -7.91 | -7.82 | -8.7  | -8.91 | -7     | -3    | -8.51 |
| 75           | 1.02  | 2.86 | 1.4     | 0.18  | -3.53 | -7.64 | -3.34 | -2.43 | -1.46 | -1.92 | -5.02  | -4.31 | -8.51 |
| 90           | 1.02  | 2.07 | -0.45   | -1.82 | -6.51 | -6.29 | -3.61 | -3.07 | -1.17 | -1.97 | -6.36  | -6.23 | -8.51 |
| 105          | 1.02  | 1.42 | -2.74   | -4.28 | -6.85 | -3.42 | -1.52 | -0.97 | -2.17 | -4.83 | -7.93  | -7    | -8.51 |
| 120          | 1.02  | 1.19 | -3.91   | -5.88 | -6.83 | -4.8  | -2.91 | -2.92 | -3.71 | -7.9  | -8.09  | -8.51 | -8.51 |
| 135          | 1.02  | 1.36 | -1.89   | -4.46 | -5.51 | -7.37 | -3.13 | -3.75 | -7.64 | -8.5  | -7.04  | -7.69 | -8.51 |
| 150          | 1.02  | 1.81 | 0.03    | -1.78 | -2.96 | -4.43 | -4.07 | -5.49 | -4.75 | -6.79 | -4.99  | -5.56 | -8.51 |
| 165          | 1.02  | 2.52 | 1.11    | -0.38 | -0.06 | -1.48 | -3.29 | -5.28 | -4.15 | -6.93 | -5.35  | -5.51 | -8.51 |
| 180          | 1.02  | 3.07 | 1.39    | -0.71 | -1.01 | -0.84 | -2.14 | -4.43 | -6.84 | -12.2 | -10.64 | -5.38 | -8.51 |
| 195          | 1.02  | 3.18 | 2.13    | 0.64  | -0.18 | -0.7  | -1.22 | -2.03 | -3.75 | -5.47 | -7.96  | -2.58 | -8.51 |
| 210          | 1.02  | 2.9  | 2.21    | 2.89  | 2.88  | 2.15  | 1.45  | 1.08  | 0.71  | -2.78 | -3.15  | -0.56 | -8.51 |
| 225          | 1.02  | 2.55 | 1.63    | 2.22  | 2.14  | 1.72  | 1.99  | 0.56  | -0.08 | -0.13 | -1.02  | -0.08 | -8.51 |
| 240          | 1.02  | 2.34 | 0.76    | 0.49  | -0.25 | -1.41 | -1.37 | -1.47 | -1.71 | -0.68 | -0.46  | 0.34  | -8.51 |
| 255          | 1.02  | 2.51 | 1.41    | 1.47  | 0.39  | 0.33  | -0.49 | -0.84 | -0.27 | -1.88 | -3.22  | 0.62  | -8.51 |
| 270          | 1.02  | 2.79 | 2.19    | 1.9   | -0.58 | -1.64 | -1.82 | -2.81 | 0.03  | -6.13 | -13.04 | 0.86  | -8.51 |
| 285          | 1.02  | 3.03 | 2.45    | 1.04  | -0.27 | -1.64 | -3.2  | -2.23 | -4.61 | 0.11  | -8.99  | 0.32  | -8.51 |
| 300          | 1.02  | 2.94 | 2.9     | 0.81  | -1.39 | -1.59 | -3.82 | -5.42 | -9.78 | -0.21 | -5.63  | -0.39 | -8.51 |
| 315          | 1.02  | 2.45 | 2.97    | 1.53  | -0.1  | -0.78 | -1.67 | -2.71 | -5.07 | -4.65 | -4.3   | -1.84 | -8.51 |

|     |      |      |      |      |      |      |       |       |       |       |       |       |       |
|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 330 | 1.02 | 2.07 | 2.02 | 1.36 | 1.16 | 0.6  | -0.9  | -2    | -3.11 | -2.74 | -1.83 | -3.75 | -8.51 |
| 345 | 1.02 | 2.05 | 1.39 | 1.28 | 1.39 | 0.34 | -1.84 | -1.83 | -0.97 | -3.35 | -4.93 | -5.5  | -8.51 |

| Polarization |       |      |         |       |       |       |       |       |       |       |       |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |      | Channel | 13    |       | Freq  | 5750  |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | 3.20  | 2.60 | 4.87    | 5.45  | 4.23  | 1.94  | 0.00  | 0.00  | 0.75  | -2.78 | -2.78 | -0.24 | -5.46 |
| 15           | 3.20  | 3.07 | 4.78    | 4.73  | 3.04  | 0.47  | -0.73 | -1.77 | -3.59 | -4.39 | -1.14 | 0.22  | -5.46 |
| 30           | 3.20  | 3.33 | 3.93    | 3.96  | 2.95  | 0.58  | -1.59 | -3.56 | -3.43 | -3.48 | -1.29 | 1.32  | -5.46 |
| 45           | 3.20  | 3.61 | 3.73    | 3.33  | 2.97  | 0.86  | -3.40 | -4.73 | -3.74 | -4.66 | -2.17 | 1.78  | -5.46 |
| 60           | 3.20  | 4.11 | 4.49    | 3.17  | 1.03  | -1.53 | -3.03 | -4.60 | -4.93 | -3.15 | -1.89 | 2.32  | -5.46 |
| 75           | 3.20  | 4.04 | 4.01    | 2.69  | 0.61  | -1.16 | 0.26  | -0.49 | -0.29 | 0.52  | -0.44 | 2.31  | -5.46 |
| 90           | 3.20  | 3.74 | 2.57    | 1.62  | 1.06  | 0.83  | 1.47  | 1.16  | 1.46  | 0.82  | -1.00 | 1.10  | -5.46 |
| 105          | 3.20  | 3.47 | 1.17    | 0.41  | 0.72  | 1.55  | 2.16  | 1.80  | 1.29  | 0.09  | -2.17 | 0.74  | -5.46 |
| 120          | 3.20  | 3.32 | 0.83    | -0.35 | -0.65 | 0.33  | 0.67  | 0.74  | 1.13  | -0.59 | -2.40 | 0.34  | -5.46 |
| 135          | 3.20  | 3.08 | 1.84    | 0.90  | 0.02  | -1.93 | 0.13  | -0.26 | -2.10 | -1.16 | -2.39 | 0.12  | -5.46 |
| 150          | 3.20  | 2.78 | 2.27    | 1.99  | 0.87  | -0.14 | -0.23 | -1.12 | -0.18 | -1.39 | -2.15 | -0.28 | -5.46 |
| 165          | 3.20  | 2.86 | 2.64    | 2.83  | 2.44  | 2.17  | 0.81  | -0.84 | -0.71 | -3.16 | -3.19 | -1.65 | -5.46 |
| 180          | 3.20  | 3.37 | 2.06    | 2.07  | 2.11  | 2.72  | 1.61  | -0.98 | -2.54 | -4.79 | -5.56 | -2.92 | -5.46 |
| 195          | 3.20  | 3.84 | 3.08    | 2.44  | 2.61  | 2.69  | 1.87  | 0.55  | -0.38 | -1.75 | -3.52 | -2.01 | -5.46 |
| 210          | 3.20  | 3.91 | 3.56    | 3.67  | 3.95  | 3.65  | 2.94  | 1.97  | 1.21  | -0.84 | -0.66 | 0.08  | -5.46 |
| 225          | 3.20  | 3.95 | 3.61    | 3.25  | 2.75  | 2.53  | 2.91  | 1.65  | 1.42  | 0.99  | 0.11  | -0.19 | -5.46 |
| 240          | 3.20  | 4.21 | 2.65    | 1.57  | 1.44  | 0.79  | 0.33  | -0.61 | -0.95 | -0.68 | -0.64 | 0.25  | -5.46 |
| 255          | 3.20  | 4.63 | 2.63    | 2.39  | 3.13  | 3.18  | 1.68  | 0.38  | 0.97  | -0.74 | -2.76 | 1.16  | -5.46 |
| 270          | 3.20  | 4.66 | 3.16    | 2.88  | 2.74  | 1.88  | 0.30  | -1.61 | 0.82  | -1.91 | -5.20 | 1.85  | -5.46 |
| 285          | 3.20  | 4.50 | 3.70    | 2.35  | 2.12  | 1.20  | -0.52 | -0.68 | -2.99 | 2.94  | -1.85 | 2.06  | -5.46 |
| 300          | 3.20  | 4.22 | 4.00    | 2.36  | 1.07  | 1.16  | 0.02  | -0.93 | -6.99 | -0.38 | -0.22 | 1.80  | -5.46 |
| 315          | 3.20  | 3.66 | 4.06    | 3.25  | 1.66  | 1.23  | 1.11  | 0.90  | -1.46 | -2.77 | -0.80 | 0.73  | -5.46 |
| 330          | 3.20  | 3.12 | 4.05    | 3.86  | 3.61  | 2.58  | 0.88  | 0.23  | 0.02  | -2.26 | -0.70 | -0.97 | -5.46 |
| 345          | 3.20  | 2.68 | 4.18    | 4.81  | 4.39  | 2.71  | 0.17  | -0.19 | 0.38  | -2.01 | -3.43 | -1.17 | -5.46 |

## 7.2 DG\_NSSmax Test Data

| Ant1         |       |       |         |       |       |       |        |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 6     |       | Freq  | 2450   |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90     | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -2.38 | -3.67 | -3.27   | -4.49 | -5.18 | -5.63 | -10.01 | -5.95 | -4.77 | -5.65 | -3.45 | 0.09  | -6.43 |
| 15           | -2.38 | -4.73 | -4.61   | -3.61 | -3.79 | -4.78 | -5.72  | -5.43 | -7.04 | -4.01 | -2.88 | -0.06 | -6.43 |
| 30           | -2.38 | -5.3  | -5.05   | -3.84 | -1.95 | -1.18 | -2.22  | -2.66 | -1.68 | -2.64 | 0.59  | 0.85  | -6.43 |
| 45           | -2.38 | -4.92 | -3.22   | -2.22 | -2.05 | -1.33 | -0.94  | -1.5  | -1.08 | 0.24  | 1.73  | 1.68  | -6.43 |
| 60           | -2.38 | -4.1  | -1.69   | -0.94 | -1.85 | -2.89 | -3.5   | -1.56 | 0.15  | 1.55  | 1.44  | 1.66  | -6.43 |
| 75           | -2.38 | -3.36 | -1.12   | -1.24 | -1.91 | -4.57 | -5.15  | -2.56 | 0.64  | 1.08  | 0.49  | 0.71  | -6.43 |
| 90           | -2.38 | -2.92 | -1.22   | -2.37 | -3    | -4.8  | -6.03  | -1.89 | -1.21 | -0.73 | -1.69 | -0.91 | -6.43 |
| 105          | -2.38 | -2.76 | -1.91   | -4    | -4.84 | -4.2  | -5.92  | -2.11 | -3.96 | -4.59 | -5.3  | -2.87 | -6.43 |

|     |       |       |       |       |       |       |       |       |       |        |        |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| 120 | -2.38 | -2.88 | -2.92 | -5.78 | -5.91 | -4.6  | -6    | -3.47 | -7.05 | -10.24 | -10.64 | -4.6  | -6.43 |
| 135 | -2.38 | -3.29 | -3.76 | -6.43 | -5.69 | -6.31 | -6.24 | -5.57 | -7.74 | -7.92  | -8.71  | -4.98 | -6.43 |
| 150 | -2.38 | -3.91 | -4.21 | -5.27 | -5.89 | -6.82 | -6.19 | -5.38 | -6.81 | -3.25  | -5.22  | -4.21 | -6.43 |
| 165 | -2.38 | -4.86 | -4.95 | -3.71 | -3.63 | -3.35 | -5.03 | -3.17 | -3.2  | -1.66  | -3.72  | -3.69 | -6.43 |
| 180 | -2.38 | -5.86 | -5.46 | -1.47 | -1.33 | -1.21 | -2.56 | -0.7  | -1.33 | -0.84  | -3.64  | -4.47 | -6.43 |
| 195 | -2.38 | -6.3  | -4.8  | -0.03 | -1.56 | -0.72 | -1.73 | -0.84 | -1.47 | -1.34  | -4.05  | -6.04 | -6.43 |
| 210 | -2.38 | -5.69 | -3.74 | -0.56 | -1.1  | -3.71 | -2.82 | -4.72 | -1.6  | -2.34  | -4.36  | -6.43 | -6.43 |
| 225 | -2.38 | -4.57 | -3.38 | -2.07 | -2.35 | -5.36 | -5.88 | -3.16 | -2.16 | -3.72  | -3.93  | -4.8  | -6.43 |
| 240 | -2.38 | -3.69 | -3.42 | -2.29 | -3.91 | -3.22 | -6.15 | -3    | -2.06 | -2.31  | -2.9   | -3.13 | -6.43 |
| 255 | -2.38 | -3.24 | -2.55 | -0.75 | -1.88 | -2.29 | -2.47 | -1.14 | -1.07 | -2.37  | -1.67  | -1.9  | -6.43 |
| 270 | -2.38 | -2.95 | -1.39 | 0.29  | -0.14 | -0.45 | -0.24 | -0.23 | 0.08  | 0.05   | 0.16   | -0.28 | -6.43 |
| 285 | -2.38 | -2.82 | -0.89 | 0.44  | 0.17  | -0.28 | -1.84 | -2.21 | 1.08  | 2.36   | 1.9    | 1.48  | -6.43 |
| 300 | -2.38 | -2.52 | -1.04 | 0.03  | 0     | -1.82 | -4.91 | -8.72 | -1.21 | 2.34   | 2.84   | 2.53  | -6.43 |
| 315 | -2.38 | -2.27 | -2.06 | -0.3  | -0.23 | -2.13 | -2.12 | -5.66 | -5.18 | -0.72  | 2.44   | 2.76  | -6.43 |
| 330 | -2.38 | -2.24 | -3.25 | -1.25 | -1.09 | -0.93 | -1.3  | -2.25 | -1.7  | -4.06  | 0.75   | 2.27  | -6.43 |
| 345 | -2.38 | -2.69 | -3.17 | -3.86 | -2.31 | -3.05 | -2.94 | -2.18 | -3.87 | -1.88  | -1     | 1.27  | -6.43 |

| Ant2         |       |       |         |       |       |       |       |       |        |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 6     |       | Freq  | 2450  |       |        |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120    | 135   | 150   | 165   | 180   |
| 0            | -3.28 | -1.3  | 0.31    | 0.43  | 0.54  | -0.93 | -1.51 | -2.63 | -2.08  | -1.42 | 1.22  | 2.79  | -6.35 |
| 15           | -3.28 | -1.42 | 0.74    | 1.18  | 1.85  | 0.56  | 0     | -0.48 | -1.46  | -0.52 | 1.65  | 2.63  | -6.35 |
| 30           | -3.28 | -1.61 | 0.96    | 1.73  | 2.15  | 1.03  | -0.62 | -2.24 | -1.2   | 0.44  | 2.23  | 2.18  | -6.35 |
| 45           | -3.28 | -1.92 | 0.75    | 2.04  | 1.7   | 0.53  | -1.47 | -4.67 | -3.96  | 1.3   | 2.29  | 1.41  | -6.35 |
| 60           | -3.28 | -2.32 | 0.05    | 1.99  | 1.4   | 0.52  | -1.9  | -3.89 | -1.77  | 0.34  | 1.58  | 0.47  | -6.35 |
| 75           | -3.28 | -2.95 | -1.04   | 1.32  | 0.52  | 0.67  | -0.8  | -2.43 | -1.05  | -0.66 | 0.33  | -0.82 | -6.35 |
| 90           | -3.28 | -3.69 | -2.27   | 0.02  | -0.43 | -0.77 | -0.91 | -1.81 | -1.97  | -1.7  | -1.61 | -2.71 | -6.35 |
| 105          | -3.28 | -4.37 | -3.05   | -0.86 | -0.98 | -2.58 | -2.95 | -2.81 | -3.41  | -2.8  | -3.45 | -4.56 | -6.35 |
| 120          | -3.28 | -4.91 | -3.43   | -0.89 | -1.36 | -3.72 | -5.57 | -6.32 | -6.35  | -4.55 | -5.78 | -6.04 | -6.35 |
| 135          | -3.28 | -5.21 | -3.63   | -0.77 | -1.66 | -2.96 | -4.95 | -7.79 | -7.95  | -6.8  | -8.62 | -6.35 | -6.35 |
| 150          | -3.28 | -5.33 | -3.94   | -0.98 | -2.58 | -1.67 | -3.34 | -4.93 | -4.28  | -5.66 | -9.2  | -5.35 | -6.35 |
| 165          | -3.28 | -5.25 | -4.43   | -2.5  | -4.51 | -2.4  | -4.34 | -2.9  | -3.38  | -3.85 | -7.39 | -3.61 | -6.35 |
| 180          | -3.28 | -5.06 | -4.94   | -5.29 | -5.83 | -5.99 | -6.11 | -4.35 | -4.75  | -3.32 | -6.12 | -2.51 | -6.35 |
| 195          | -3.28 | -4.6  | -4.66   | -5.83 | -5.92 | -6.04 | -7.59 | -8.11 | -5.83  | -5.03 | -5.51 | -2.33 | -6.35 |
| 210          | -3.28 | -4.04 | -3.93   | -5.19 | -3.8  | -3.95 | -6.38 | -6.73 | -8.7   | -8.7  | -4.36 | -2.15 | -6.35 |
| 225          | -3.28 | -3.49 | -3.68   | -3.99 | -1.7  | -2.92 | -2.93 | -4.15 | -10.25 | -9.72 | -4.62 | -1.47 | -6.35 |
| 240          | -3.28 | -3.03 | -3.46   | -2.55 | -1.5  | -1.44 | -1.29 | -2.75 | -5.62  | -8.19 | -4.94 | -0.57 | -6.35 |
| 255          | -3.28 | -2.74 | -2.85   | -1.97 | -1.4  | -1.41 | -1.12 | -1.51 | -2.09  | -5.73 | -3.45 | 0.07  | -6.35 |
| 270          | -3.28 | -2.55 | -2.12   | -1.67 | -1.37 | -1.2  | -1.62 | -0.17 | -0.98  | -2.41 | -1.69 | 0.64  | -6.35 |
| 285          | -3.28 | -2.39 | -1.47   | -1.23 | -0.75 | -0.73 | -0.65 | 0.56  | 0.7    | 0.57  | -0.15 | 1.41  | -6.35 |
| 300          | -3.28 | -2.23 | -0.95   | -0.86 | 0.05  | 0.06  | 0.52  | 1.2   | 1.39   | 1.47  | 0.67  | 2.05  | -6.35 |
| 315          | -3.28 | -2.02 | -0.6    | -0.69 | 0.05  | 0.1   | 0.39  | 1.06  | -0.04  | 0.5   | 0.63  | 2.43  | -6.35 |
| 330          | -3.28 | -1.7  | -0.46   | -0.58 | -0.72 | -0.86 | -2.31 | -0.37 | -2.54  | -1.46 | 0.38  | 2.66  | -6.35 |

|     |       |       |       |       |       |       |       |       |       |       |      |      |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|
| 345 | -3.28 | -1.45 | -0.16 | -0.33 | -0.77 | -2.04 | -4.42 | -2.79 | -3.35 | -2.01 | 0.67 | 2.82 | -6.35 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|

| 2450MHz Composite Gain |       |       |         |       |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization           | Total |       | Channel | 6     |       | Freq  | 2450  | 6175  |       |       |       |       |       |
| Phi\Theta              | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0                      | -2.81 | -2.33 | -1.12   | -1.37 | -1.44 | -2.67 | -3.95 | -3.98 | -3.22 | -3.04 | -0.52 | 1.65  | -6.39 |
| 15                     | -2.81 | -2.77 | -1.16   | -0.59 | -0.11 | -1.34 | -1.98 | -2.28 | -3.41 | -1.92 | -0.05 | 1.49  | -6.39 |
| 30                     | -2.81 | -3.07 | -1.08   | -0.22 | 0.57  | 0.06  | -1.35 | -2.44 | -1.43 | -0.83 | 1.49  | 1.57  | -6.39 |
| 45                     | -2.81 | -3.17 | -0.80   | 0.41  | 0.22  | -0.30 | -1.20 | -2.80 | -2.29 | 0.80  | 2.02  | 1.55  | -6.39 |
| 60                     | -2.81 | -3.12 | -0.73   | 0.77  | 0.07  | -0.86 | -2.63 | -2.57 | -0.70 | 0.99  | 1.51  | 1.11  | -6.39 |
| 75                     | -2.81 | -3.15 | -1.08   | 0.23  | -0.53 | -1.20 | -2.45 | -2.49 | -0.12 | 0.30  | 0.41  | 0.01  | -6.39 |
| 90                     | -2.81 | -3.29 | -1.71   | -1.01 | -1.53 | -2.33 | -2.76 | -1.85 | -1.57 | -1.19 | -1.65 | -1.72 | -6.39 |
| 105                    | -2.81 | -3.49 | -2.44   | -2.15 | -2.49 | -3.31 | -4.19 | -2.45 | -3.68 | -3.60 | -4.28 | -3.63 | -6.39 |
| 120                    | -2.81 | -3.78 | -3.17   | -2.68 | -3.06 | -4.14 | -5.78 | -4.67 | -6.69 | -6.52 | -7.56 | -5.26 | -6.39 |
| 135                    | -2.81 | -4.14 | -3.69   | -2.74 | -3.22 | -4.32 | -5.55 | -6.54 | -7.84 | -7.32 | -8.66 | -5.61 | -6.39 |
| 150                    | -2.81 | -4.56 | -4.07   | -2.62 | -3.93 | -3.52 | -4.54 | -5.15 | -5.36 | -4.29 | -6.77 | -4.74 | -6.39 |
| 165                    | -2.81 | -5.05 | -4.68   | -3.06 | -4.05 | -2.85 | -4.67 | -3.03 | -3.29 | -2.62 | -5.18 | -3.65 | -6.39 |
| 180                    | -2.81 | -5.44 | -5.19   | -2.97 | -3.02 | -2.97 | -3.98 | -2.15 | -2.71 | -1.91 | -4.71 | -3.38 | -6.39 |
| 195                    | -2.81 | -5.37 | -4.73   | -2.03 | -3.21 | -2.61 | -3.74 | -3.10 | -3.12 | -2.80 | -4.72 | -3.80 | -6.39 |
| 210                    | -2.81 | -4.79 | -3.83   | -2.29 | -2.24 | -3.83 | -4.25 | -5.61 | -3.84 | -4.45 | -4.36 | -3.78 | -6.39 |
| 225                    | -2.81 | -4.00 | -3.53   | -2.92 | -2.01 | -3.97 | -4.16 | -3.63 | -4.54 | -5.76 | -4.26 | -2.82 | -6.39 |
| 240                    | -2.81 | -3.35 | -3.44   | -2.42 | -2.54 | -2.24 | -3.07 | -2.87 | -3.49 | -4.32 | -3.80 | -1.66 | -6.39 |
| 255                    | -2.81 | -2.98 | -2.70   | -1.32 | -1.63 | -1.83 | -1.74 | -1.32 | -1.55 | -3.73 | -2.47 | -0.80 | -6.39 |
| 270                    | -2.81 | -2.75 | -1.74   | -0.58 | -0.71 | -0.81 | -0.88 | -0.20 | -0.42 | -1.01 | -0.67 | 0.20  | -6.39 |
| 285                    | -2.81 | -2.60 | -1.17   | -0.32 | -0.27 | -0.50 | -1.20 | -0.61 | 0.89  | 1.56  | 0.99  | 1.45  | -6.39 |
| 300                    | -2.81 | -2.37 | -0.99   | -0.39 | 0.03  | -0.78 | -1.40 | -1.39 | 0.28  | 1.93  | 1.89  | 2.30  | -6.39 |
| 315                    | -2.81 | -2.14 | -1.27   | -0.49 | -0.09 | -0.87 | -0.69 | -1.11 | -1.89 | -0.07 | 1.63  | 2.60  | -6.39 |
| 330                    | -2.81 | -1.96 | -1.63   | -0.90 | -0.90 | -0.89 | -1.78 | -1.21 | -2.10 | -2.57 | 0.57  | 2.47  | -6.39 |
| 345                    | -2.81 | -2.03 | -1.41   | -1.75 | -1.47 | -2.52 | -3.62 | -2.47 | -3.60 | -1.94 | -0.09 | 2.11  | -6.39 |

| Ant1         |       |       |         |       |       |       |       |       |        |       |       |       |      |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|
| Polarization | Total |       | Channel | 14    |       | Freq  | 5250  |       |        |       |       |       |      |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120    | 135   | 150   | 165   | 180  |
| 0            | -2.83 | -5.51 | -2.8    | 0.25  | -0.12 | -1.33 | -3.41 | -6.38 | -5.54  | -3.46 | -2.15 | -3.68 | -8.2 |
| 15           | -2.83 | -5.33 | -2.91   | 0.18  | -0.39 | -1.54 | -3.02 | -5.94 | -6.25  | -3.48 | -0.89 | -1.69 | -8.2 |
| 30           | -2.83 | -4.7  | -4.65   | -0.57 | -0.51 | -2.04 | -3.85 | -7.13 | -8.87  | -3.61 | 0.48  | -0.76 | -8.2 |
| 45           | -2.83 | -4.32 | -5.13   | -3.78 | -1.96 | -1.83 | -2.88 | -6.22 | -11.89 | -3.19 | 0.99  | -0.22 | -8.2 |
| 60           | -2.83 | -3.93 | -2.85   | -8.59 | -6.85 | -4.56 | -5.65 | -7    | -3.67  | -0.95 | 0.42  | 0.89  | -8.2 |
| 75           | -2.83 | -3.3  | -0.14   | -2.22 | -4.28 | -4.97 | -4.13 | -2.2  | 0.11   | -0.21 | -0.44 | 1.69  | -8.2 |
| 90           | -2.83 | -2.68 | 1.27    | 0.24  | -1.53 | -1.26 | -1.2  | -0.48 | 0.6    | -0.53 | -1.53 | 1.47  | -8.2 |
| 105          | -2.83 | -2.19 | 1.76    | 1.1   | 0.27  | 1.26  | 0.91  | 0.92  | 1.14   | -0.37 | -1.49 | 1.02  | -8.2 |
| 120          | -2.83 | -1.69 | 1.9     | 1.96  | 2.33  | 2.55  | 1.89  | 2.2   | 2.02   | 0.73  | -0.86 | 0.32  | -8.2 |

|     |       |       |       |       |       |       |       |       |        |        |        |       |      |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|------|
| 135 | -2.83 | -1.27 | 1.64  | 2.78  | 2.18  | 0.69  | -0.69 | -0.67 | -0.84  | 0.61   | -1.35  | -0.29 | -8.2 |
| 150 | -2.83 | -1    | 0.83  | 2.33  | -0.16 | -1.38 | -1.94 | -3.16 | -3.88  | -3.46  | -3.85  | -1.48 | -8.2 |
| 165 | -2.83 | -0.42 | 0.84  | 1.67  | -0.89 | -0.99 | -2.43 | -2.66 | -1.71  | -3.22  | -6     | -4.16 | -8.2 |
| 180 | -2.83 | 0.32  | 0.88  | 0.93  | -0.42 | -0.89 | -2.09 | -2.85 | -2.15  | -3.94  | -6.66  | -8.2  | -8.2 |
| 195 | -2.83 | 1.13  | 1.99  | 0.65  | -0.92 | -1.66 | -2.85 | -4.17 | -3.89  | -3.33  | -5.61  | -7.34 | -8.2 |
| 210 | -2.83 | 1.72  | 2.33  | 0.97  | -1.11 | -2.61 | -3.66 | -4.96 | -3.81  | -2.2   | -5.25  | -7.38 | -8.2 |
| 225 | -2.83 | 1.55  | 1.76  | 0.42  | -1.31 | -3.19 | -5.46 | -6.61 | -6.17  | -5.22  | -5.64  | -7.56 | -8.2 |
| 240 | -2.83 | 0.9   | 0.72  | -0.57 | 0.24  | -1.12 | -5.24 | -8.51 | -6.79  | -9.5   | -13.42 | -6.31 | -8.2 |
| 255 | -2.83 | 0.3   | -0.82 | -0.18 | 1.85  | 0.59  | -3.36 | -7.37 | -2.9   | -5.25  | -9.92  | -5.71 | -8.2 |
| 270 | -2.83 | -0.69 | -2.02 | 0.32  | 1     | -1    | -3.83 | -4.13 | -6.29  | -2.99  | -5.54  | -4.3  | -8.2 |
| 285 | -2.83 | -1.35 | -3.07 | -1.53 | -0.78 | -2.64 | -5.99 | -5.24 | -5.64  | -2.74  | -3.3   | -3.13 | -8.2 |
| 300 | -2.83 | -1.84 | -3.72 | -3.46 | -2.71 | -2.69 | -3.56 | -6.65 | -18.93 | -13.67 | -4.39  | -2.67 | -8.2 |
| 315 | -2.83 | -2.6  | -3.01 | -0.96 | -1.25 | -2.26 | -2.16 | -1.54 | -6.94  | -8.89  | -4.3   | -3.23 | -8.2 |
| 330 | -2.83 | -3.79 | -2.11 | 0.72  | 0.43  | -2.29 | -3.54 | -1.68 | -2.43  | -9.12  | -4.14  | -4.08 | -8.2 |
| 345 | -2.83 | -4.91 | -1.97 | 0.79  | 1.02  | -1.39 | -4.62 | -5.7  | -3.2   | -4.03  | -3.15  | -5.43 | -8.2 |

| Ant2         |       |      |         |       |       |       |       |        |        |        |        |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|
| Polarization | Total |      | Channel | 14    |       | Freq  | 5250  |        |        |        |        |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105    | 120    | 135    | 150    | 165   | 180   |
| 0            | -0.85 | 2.82 | 2.33    | 0.97  | -0.67 | -2.16 | -1.88 | -0.32  | -0.04  | -4.15  | -4.86  | -2.81 | -7.93 |
| 15           | -0.85 | 3.32 | 1.93    | 1.07  | -1.44 | -3.18 | -2.55 | -1.09  | -1.85  | -9.45  | -7.45  | -2.29 | -7.93 |
| 30           | -0.85 | 3.5  | 1.89    | 1.51  | -1.08 | -2.99 | -3.66 | -3.99  | -4.7   | -5.71  | -6.29  | -3.58 | -7.93 |
| 45           | -0.85 | 3.5  | 1.97    | 0.46  | -0.95 | -3.62 | -7.62 | -14.88 | -6.82  | -5.69  | -7.57  | -4.51 | -7.93 |
| 60           | -0.85 | 3.3  | 1.39    | -0.07 | -2.96 | -2.94 | -4.13 | -9.13  | -10.22 | -7.11  | -5.8   | -4.95 | -7.93 |
| 75           | -0.85 | 3.1  | 0.87    | -1.72 | -6.79 | -6.72 | -5.31 | -5.85  | -5.26  | -1.98  | -4.85  | -5.43 | -7.93 |
| 90           | -0.85 | 3.04 | 0.71    | -1.83 | -4.02 | -4.03 | -5.97 | -6.15  | -2.24  | -2.06  | -7.41  | -5.74 | -7.93 |
| 105          | -0.85 | 3.05 | 0.19    | -2.31 | -3.31 | -5.89 | -5.21 | -4.12  | -3.03  | -6.67  | -12.36 | -5.96 | -7.93 |
| 120          | -0.85 | 3    | -0.19   | -3.11 | -5.99 | -5.98 | -4.51 | -5.41  | -8.18  | -10.28 | -5.63  | -6.49 | -7.93 |
| 135          | -0.85 | 3.05 | 0.51    | -2.54 | -4.91 | -5.72 | -5.69 | -7.66  | -7.64  | -4.74  | -2.92  | -6.07 | -7.93 |
| 150          | -0.85 | 3.07 | 1.28    | -0.7  | -2.85 | -4.55 | -4.74 | -6.27  | -8.6   | -4.27  | -5     | -7.58 | -7.93 |
| 165          | -0.85 | 3.35 | 2.09    | 0.65  | -2.08 | -3.88 | -4.3  | -5.28  | -6.6   | -9.49  | -6.29  | -7.93 | -7.93 |
| 180          | -0.85 | 3.8  | 3.17    | 2.39  | 1.46  | 0.15  | -1.6  | -2.89  | -3.66  | -5.31  | -6.04  | -6.28 | -7.93 |
| 195          | -0.85 | 4.17 | 4.04    | 3.42  | 2.34  | 1.49  | 0.16  | -1.69  | -4.95  | -5.99  | -3.77  | -2.99 | -7.93 |
| 210          | -0.85 | 4.16 | 4.15    | 3.24  | 1.87  | 1.94  | 1.29  | 0.56   | -0.31  | -2.27  | -0.71  | -0.74 | -7.93 |
| 225          | -0.85 | 3.82 | 3.89    | 2.78  | 1.84  | 1.11  | 0.19  | 0.77   | 1.75   | 0.93   | -0.13  | -0.62 | -7.93 |
| 240          | -0.85 | 3.44 | 3.29    | 1.98  | 1.59  | 0.51  | -0.6  | -0.29  | 1.2    | -0.19  | -0.04  | -0.04 | -7.93 |
| 255          | -0.85 | 3.12 | 2.76    | 1.24  | 1.28  | 1.18  | 0.43  | 0.03   | 0.16   | -2.56  | -2.8   | 0.22  | -7.93 |
| 270          | -0.85 | 2.79 | 2.99    | 1.48  | 0.64  | 0.33  | -0.62 | -0.64  | 0.02   | -6.67  | -7.26  | 0.02  | -7.93 |
| 285          | -0.85 | 2.47 | 3.14    | 2.32  | 0.08  | -2.64 | -4.74 | -4.62  | -6.68  | -3.02  | -3.63  | -0.13 | -7.93 |
| 300          | -0.85 | 2.05 | 2.6     | 2.01  | 0.49  | -2.33 | -4.74 | -6.09  | -7.06  | -1.18  | -2.71  | -1.13 | -7.93 |
| 315          | -0.85 | 1.69 | 1.9     | 1.32  | 0.77  | -0.2  | -1.57 | -3.54  | -4.88  | -4.66  | -4.82  | -2    | -7.93 |
| 330          | -0.85 | 1.77 | 2.12    | 2     | 1.69  | 0.81  | -0.54 | -1.51  | -2.07  | -4.16  | -3.5   | -2.6  | -7.93 |
| 345          | -0.85 | 2.12 | 2.39    | 2.34  | 1.46  | -0.15 | -1.5  | -1     | 0.55   | -2.44  | -5.16  | -3.35 | -7.93 |

| 5250MHz Composite Gain |       |       |         |       |       |       |       |       |       |       |       |       |       |
|------------------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization           | Total |       | Channel | 13    |       | Freq  | 5250  |       |       |       |       |       |       |
| Phi\Theta              | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0                      | -1.73 | 0.40  | 0.48    | 0.62  | -0.39 | -1.73 | -2.58 | -2.37 | -1.97 | -3.79 | -3.30 | -3.22 | -8.06 |
| 15                     | -1.73 | 0.87  | 0.15    | 0.65  | -0.88 | -2.28 | -2.78 | -2.87 | -3.52 | -5.51 | -3.03 | -1.98 | -8.06 |
| 30                     | -1.73 | 1.10  | -0.25   | 0.59  | -0.79 | -2.49 | -3.75 | -5.28 | -6.30 | -4.53 | -1.70 | -1.95 | -8.06 |
| 45                     | -1.73 | 1.15  | -0.27   | -1.16 | -1.43 | -2.63 | -4.63 | -8.68 | -8.65 | -4.26 | -1.45 | -1.86 | -8.06 |
| 60                     | -1.73 | 1.04  | -0.23   | -2.51 | -4.48 | -3.67 | -4.82 | -7.94 | -5.81 | -3.02 | -1.66 | -1.11 | -8.06 |
| 75                     | -1.73 | 0.99  | 0.39    | -1.96 | -5.36 | -5.76 | -4.68 | -3.65 | -1.79 | -1.01 | -2.11 | -0.55 | -8.06 |
| 90                     | -1.73 | 1.06  | 1.00    | -0.67 | -2.60 | -2.43 | -2.96 | -2.45 | -0.59 | -1.23 | -3.54 | -0.78 | -8.06 |
| 105                    | -1.73 | 1.18  | 1.05    | -0.28 | -1.16 | -0.98 | -1.15 | -0.91 | -0.46 | -2.47 | -4.16 | -1.20 | -8.06 |
| 120                    | -1.73 | 1.26  | 0.98    | 0.13  | -0.08 | 0.11  | -0.22 | -0.12 | -0.59 | -1.95 | -2.62 | -1.87 | -8.06 |
| 135                    | -1.73 | 1.41  | 1.11    | 0.89  | -0.06 | -1.43 | -2.51 | -2.89 | -3.03 | -1.29 | -2.06 | -2.28 | -8.06 |
| 150                    | -1.73 | 1.50  | 1.06    | 1.07  | -1.30 | -2.68 | -3.12 | -4.44 | -5.63 | -3.85 | -4.39 | -3.54 | -8.06 |
| 165                    | -1.73 | 1.86  | 1.51    | 1.19  | -1.44 | -2.20 | -3.27 | -3.78 | -3.50 | -5.31 | -6.14 | -5.65 | -8.06 |
| 180                    | -1.73 | 2.40  | 2.17    | 1.72  | 0.62  | -0.34 | -1.84 | -2.87 | -2.84 | -4.57 | -6.34 | -7.13 | -8.06 |
| 195                    | -1.73 | 2.91  | 3.13    | 2.25  | 1.01  | 0.19  | -1.09 | -2.76 | -4.39 | -4.46 | -4.59 | -4.64 | -8.06 |
| 210                    | -1.73 | 3.11  | 3.33    | 2.25  | 0.63  | 0.24  | -0.51 | -1.38 | -1.72 | -2.23 | -2.41 | -2.90 | -8.06 |
| 225                    | -1.73 | 2.83  | 2.95    | 1.76  | 0.54  | -0.53 | -1.77 | -1.51 | -0.61 | -1.14 | -2.06 | -2.83 | -8.06 |
| 240                    | -1.73 | 2.35  | 2.19    | 0.89  | 0.97  | -0.23 | -2.33 | -2.69 | -1.17 | -2.72 | -2.86 | -2.13 | -8.06 |
| 255                    | -1.73 | 1.93  | 1.33    | 0.59  | 1.57  | 0.90  | -1.06 | -2.25 | -1.11 | -3.70 | -5.04 | -1.80 | -8.06 |
| 270                    | -1.73 | 1.39  | 1.17    | 0.94  | 0.82  | -0.28 | -1.93 | -2.04 | -2.08 | -4.45 | -6.32 | -1.62 | -8.06 |
| 285                    | -1.73 | 0.97  | 1.06    | 0.81  | -0.33 | -2.64 | -5.32 | -4.92 | -6.13 | -2.88 | -3.46 | -1.38 | -8.06 |
| 300                    | -1.73 | 0.53  | 0.50    | 0.08  | -0.82 | -2.51 | -4.11 | -6.36 | -9.80 | -3.95 | -3.47 | -1.83 | -8.06 |
| 315                    | -1.73 | 0.05  | 0.10    | 0.33  | -0.12 | -1.11 | -1.85 | -2.43 | -5.79 | -6.28 | -4.55 | -2.57 | -8.06 |
| 330                    | -1.73 | -0.18 | 0.50    | 1.41  | 1.11  | -0.47 | -1.79 | -1.59 | -2.25 | -5.97 | -3.81 | -3.28 | -8.06 |
| 345                    | -1.73 | -0.11 | 0.74    | 1.63  | 1.25  | -0.73 | -2.79 | -2.74 | -0.93 | -3.16 | -4.04 | -4.27 | -8.06 |

| Ant1         |       |       |         |       |       |       |       |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 19    |       | Freq  | 5500  |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -6.97 | -6.12 | -1.13   | 0.62  | 0.39  | -1.37 | -3.24 | -4.3  | -3.38 | -4.55 | -3.56 | -1.99 | -8.39 |
| 15           | -6.97 | -6.58 | -1.49   | 1.04  | 0.9   | -0.92 | -3.02 | -5.39 | -6.87 | -5.67 | -1.91 | -1.21 | -8.39 |
| 30           | -6.97 | -6.55 | -3.57   | -1.06 | -0.21 | -1.56 | -3.2  | -6.74 | -11.8 | -6.47 | -0.94 | 0.01  | -8.39 |
| 45           | -6.97 | -5.3  | -7.37   | -5.91 | -3.02 | -2.55 | -2.86 | -4.86 | -7.76 | -5.64 | -0.32 | 0.74  | -8.39 |
| 60           | -6.97 | -3.35 | -5.9    | -5.52 | -4.45 | -3.99 | -4.58 | -6.86 | -4.08 | -1.96 | -1.79 | 1.37  | -8.39 |
| 75           | -6.97 | -1.61 | -1.93   | -3.07 | -4.12 | -4.18 | -5.4  | -4.72 | -1.39 | -0.84 | -1.93 | 2.2   | -8.39 |
| 90           | -6.97 | -0.63 | 0.45    | -1.16 | -0.44 | -0.53 | -0.65 | -0.95 | -0.48 | -0.46 | -2.03 | 1.96  | -8.39 |
| 105          | -6.97 | -0.34 | 1.75    | 0.82  | 0.56  | 0.92  | 0.67  | 0.33  | 0.65  | 0.13  | -2.16 | 1.74  | -8.39 |
| 120          | -6.97 | -0.8  | 2.33    | 2.36  | 1.92  | 1.56  | 0.35  | 0.9   | 1.48  | 0.54  | -2.21 | 0.79  | -8.39 |
| 135          | -6.97 | -1.82 | 2.06    | 3.02  | 1.88  | 0.19  | -1.53 | -1.63 | -1.34 | -0.59 | -3.03 | -0.41 | -8.39 |
| 150          | -6.97 | -3.03 | 1.6     | 2.87  | 0.6   | -1.91 | -2.51 | -2.87 | -3.53 | -4.54 | -5.31 | -1.97 | -8.39 |

|     |       |       |       |       |       |       |       |       |        |        |        |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|
| 165 | -6.97 | -3.77 | 0.16  | 1.26  | 0.13  | -0.12 | -1.89 | -3.2  | -3.29  | -4.22  | -6.15  | -4.19 | -8.39 |
| 180 | -6.97 | -2.87 | 0.53  | 0.47  | 0.29  | -0.45 | -2    | -3.7  | -2.42  | -3.95  | -6.29  | -8.38 | -8.39 |
| 195 | -6.97 | -1.13 | 0.66  | 0.39  | -0.27 | -0.96 | -2.28 | -3.67 | -4.02  | -4.82  | -5.92  | -8.39 | -8.39 |
| 210 | -6.97 | 0.18  | 1.37  | -0.13 | -1.34 | -2.32 | -2.81 | -4.8  | -5.58  | -3.5   | -5.16  | -6.39 | -8.39 |
| 225 | -6.97 | 1.01  | 1.05  | -1.3  | -2.01 | -3.15 | -4.56 | -5.87 | -5.55  | -4.47  | -4.89  | -8.06 | -8.39 |
| 240 | -6.97 | 1.06  | 0.13  | -1.56 | -0.91 | -1.54 | -4.61 | -7.27 | -9     | -12.71 | -11.51 | -5.97 | -8.39 |
| 255 | -6.97 | 0.29  | -0.96 | -0.68 | 0.46  | 0.11  | -2.52 | -4.87 | -2.71  | -5.99  | -9.34  | -4.22 | -8.39 |
| 270 | -6.97 | -0.51 | -2.58 | -1.05 | 0.17  | -1.43 | -5.45 | -6.88 | -4.61  | -2.51  | -5.28  | -3.13 | -8.39 |
| 285 | -6.97 | -1.62 | -4.3  | -3.33 | -1.27 | -2.15 | -4.32 | -5.54 | -6.01  | -1.2   | -2.66  | -2.08 | -8.39 |
| 300 | -6.97 | -3.16 | -4.69 | -3.77 | -2.49 | -1.72 | -2.4  | -3.89 | -10.99 | -15.11 | -2.75  | -1.69 | -8.39 |
| 315 | -6.97 | -4.6  | -4.55 | -1.56 | -0.88 | -1.51 | -1.51 | -0.91 | -4.81  | -9.06  | -4.13  | -2.17 | -8.39 |
| 330 | -6.97 | -5.65 | -3.87 | 0.66  | 0.4   | -2.21 | -3.69 | -2.52 | -2.23  | -8.75  | -5.04  | -3.38 | -8.39 |
| 345 | -6.97 | -5.94 | -2.25 | 0.59  | 0.02  | -1.93 | -4.62 | -5.52 | -2.98  | -4.1   | -4.96  | -4.32 | -8.39 |

| Ant2         |       |      |         |       |       |       |       |        |        |        |       |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|
| Polarization | Total |      | Channel | 19    |       | Freq  | 5500  |        |        |        |       |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105    | 120    | 135    | 150   | 165   | 180   |
| 0            | 1.12  | 4.77 | 4.23    | 2.53  | 0.3   | -2.16 | -2.43 | -0.28  | 0.79   | -4.17  | -4.9  | -4.82 | -7.77 |
| 15           | 1.12  | 4.76 | 4.2     | 1.28  | -1.89 | -3.99 | -2.68 | -1.96  | -2.88  | -7.1   | -5.2  | -3.28 | -7.77 |
| 30           | 1.12  | 4.65 | 3.69    | 0.46  | -1.88 | -3.98 | -5.74 | -5.3   | -4.4   | -4.17  | -5.37 | -3.62 | -7.77 |
| 45           | 1.12  | 4.25 | 2.84    | 1.22  | -1.69 | -4.24 | -9.81 | -14.38 | -5.5   | -6.33  | -8.65 | -4.08 | -7.77 |
| 60           | 1.12  | 3.85 | 2.56    | -0.07 | -3.43 | -7    | -9.35 | -11.31 | -8     | -7.27  | -6.91 | -3.83 | -7.77 |
| 75           | 1.12  | 3.46 | 2.5     | 1.04  | -4.59 | -6.58 | -3.52 | -3.55  | -2.31  | -1.02  | -3.85 | -5.29 | -7.77 |
| 90           | 1.12  | 2.75 | 1.45    | 0.69  | -2.82 | -3.02 | -3.81 | -3.37  | -1.45  | -1.99  | -5.18 | -5.04 | -7.77 |
| 105          | 1.12  | 1.8  | -0.75   | -2.27 | -3.97 | -1.9  | -2.14 | -1.34  | -3.33  | -6.3   | -5.85 | -4.25 | -7.77 |
| 120          | 1.12  | 0.97 | -3.58   | -5.95 | -5.04 | -2.53 | -4.65 | -6.67  | -6.23  | -6.03  | -4.89 | -5.92 | -7.77 |
| 135          | 1.12  | 0.64 | -5.09   | -6.79 | -5.77 | -4.1  | -5    | -7.02  | -6.78  | -7.07  | -6.37 | -7.16 | -7.77 |
| 150          | 1.12  | 1.07 | -2.9    | -5.45 | -8.26 | -8.57 | -5.43 | -5.9   | -8.28  | -11.71 | -7.12 | -7.77 | -7.77 |
| 165          | 1.12  | 1.59 | 0.06    | -1.62 | -2.71 | -4.48 | -4.08 | -4.09  | -4.63  | -8.24  | -5.77 | -7.08 | -7.77 |
| 180          | 1.12  | 2.02 | 1.7     | 0.36  | -0.99 | -2.55 | -3.12 | -4.81  | -8.35  | -9.64  | -6.84 | -6.37 | -7.77 |
| 195          | 1.12  | 2.37 | 2.07    | -0.1  | -1.98 | -1.82 | -1.5  | -2.25  | -5.44  | -11.08 | -9.06 | -2.58 | -7.77 |
| 210          | 1.12  | 2.86 | 2.05    | 0.65  | 0.29  | 0.53  | 0.11  | -0.66  | -1.04  | -2.44  | -3.43 | -0.62 | -7.77 |
| 225          | 1.12  | 3.28 | 1.49    | 1.62  | 0.83  | 0.05  | -1.37 | -2.8   | -0.56  | 1.41   | -0.44 | -0.48 | -7.77 |
| 240          | 1.12  | 3.38 | 1.31    | 1.36  | 0.74  | -1.2  | -1.58 | -2.48  | -0.2   | 1.16   | -0.02 | 0.5   | -7.77 |
| 255          | 1.12  | 3.26 | 2.22    | 2.11  | 1.73  | 0.16  | -1.52 | -1.69  | 0.28   | -1.48  | -2.75 | 0.89  | -7.77 |
| 270          | 1.12  | 3.35 | 2.98    | 2.29  | 1.93  | 1.21  | -0.19 | -0.14  | 0.79   | -3.87  | -8.78 | 0.94  | -7.77 |
| 285          | 1.12  | 3.38 | 3.51    | 2.14  | 0.73  | -1.07 | -2.27 | -1.46  | -4.08  | -0.64  | -5.16 | 0.42  | -7.77 |
| 300          | 1.12  | 3.4  | 3.43    | 2.87  | 1.14  | -1.82 | -4.61 | -6.95  | -10.51 | -0.43  | -2.48 | -0.58 | -7.77 |
| 315          | 1.12  | 3.51 | 2.59    | 2.43  | 2.03  | 0.98  | -0.75 | -2.32  | -3.97  | -2.47  | -2.86 | -2.07 | -7.77 |
| 330          | 1.12  | 3.82 | 2.2     | 1.24  | 1.34  | 0.63  | -0.8  | -1.7   | -2.42  | -2.98  | -1.96 | -4.4  | -7.77 |
| 345          | 1.12  | 4.36 | 3.53    | 2.58  | 1.49  | -0.18 | -1.79 | -0.94  | 0.19   | -3.76  | -6.22 | -5.95 | -7.77 |

5500MHz Composite Gain

| Polarization | Total |       | Channel | 13    |       | Freq  | 5500  |       |        |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120    | 135   | 150   | 165   | 180   |
| 0            | -1.26 | 2.10  | 2.33    | 1.68  | 0.35  | -1.75 | -2.82 | -1.84 | -0.81  | -4.36 | -4.18 | -3.18 | -8.07 |
| 15           | -1.26 | 2.06  | 2.23    | 1.16  | -0.27 | -2.19 | -2.85 | -3.34 | -4.43  | -6.33 | -3.25 | -2.12 | -8.07 |
| 30           | -1.26 | 1.96  | 1.43    | -0.23 | -0.97 | -2.60 | -4.29 | -5.96 | -6.68  | -5.17 | -2.61 | -1.44 | -8.07 |
| 45           | -1.26 | 1.70  | 0.22    | -1.02 | -2.30 | -3.31 | -5.07 | -7.41 | -6.48  | -5.97 | -2.74 | -1.03 | -8.07 |
| 60           | -1.26 | 1.60  | 0.13    | -1.99 | -3.91 | -5.24 | -6.34 | -8.54 | -5.61  | -3.85 | -3.64 | -0.49 | -8.07 |
| 75           | -1.26 | 1.63  | 0.83    | -0.55 | -4.35 | -5.22 | -4.36 | -4.10 | -1.83  | -0.93 | -2.78 | -0.10 | -8.07 |
| 90           | -1.26 | 1.38  | 0.98    | -0.14 | -1.47 | -1.60 | -1.95 | -1.99 | -0.94  | -1.16 | -3.33 | -0.26 | -8.07 |
| 105          | -1.26 | 0.86  | 0.68    | -0.46 | -1.14 | -0.27 | -0.51 | -0.43 | -0.90  | -1.99 | -3.62 | -0.30 | -8.07 |
| 120          | -1.26 | 0.17  | 0.31    | -0.05 | -0.29 | -0.02 | -1.47 | -1.41 | -0.85  | -1.61 | -3.35 | -1.38 | -8.07 |
| 135          | -1.26 | -0.42 | -0.18   | 0.44  | -0.44 | -1.45 | -2.93 | -3.54 | -3.26  | -2.72 | -4.39 | -2.59 | -8.07 |
| 150          | -1.26 | -0.51 | -0.09   | 0.46  | -1.88 | -4.07 | -3.73 | -4.13 | -5.29  | -6.79 | -6.12 | -3.97 | -8.07 |
| 165          | -1.26 | -0.31 | 0.11    | 0.05  | -1.06 | -1.77 | -2.85 | -3.62 | -3.91  | -5.78 | -5.96 | -5.40 | -8.07 |
| 180          | -1.26 | 0.23  | 1.15    | 0.42  | -0.30 | -1.37 | -2.52 | -4.22 | -4.44  | -5.92 | -6.56 | -7.26 | -8.07 |
| 195          | -1.26 | 0.96  | 1.42    | 0.15  | -1.04 | -1.37 | -1.87 | -2.90 | -4.67  | -6.91 | -7.21 | -4.58 | -8.07 |
| 210          | -1.26 | 1.72  | 1.72    | 0.28  | -0.45 | -0.67 | -1.11 | -2.25 | -2.74  | -2.94 | -4.21 | -2.61 | -8.07 |
| 225          | -1.26 | 2.29  | 1.28    | 0.40  | -0.36 | -1.26 | -2.68 | -4.07 | -2.37  | -0.60 | -2.12 | -2.79 | -8.07 |
| 240          | -1.26 | 2.37  | 0.76    | 0.14  | -0.01 | -1.37 | -2.84 | -4.25 | -2.67  | -1.68 | -2.73 | -1.63 | -8.07 |
| 255          | -1.26 | 2.02  | 0.91    | 0.94  | 1.14  | 0.14  | -1.99 | -3.00 | -0.96  | -3.17 | -4.90 | -0.95 | -8.07 |
| 270          | -1.26 | 1.84  | 1.03    | 0.93  | 1.14  | 0.09  | -2.07 | -2.32 | -1.12  | -3.14 | -6.69 | -0.63 | -8.07 |
| 285          | -1.26 | 1.56  | 1.17    | 0.21  | -0.16 | -1.58 | -3.18 | -3.04 | -4.94  | -0.91 | -3.73 | -0.65 | -8.07 |
| 300          | -1.26 | 1.26  | 1.04    | 0.71  | -0.31 | -1.77 | -3.37 | -5.16 | -10.74 | -3.29 | -2.61 | -1.10 | -8.07 |
| 315          | -1.26 | 1.12  | 0.35    | 0.88  | 0.81  | -0.09 | -1.11 | -1.56 | -4.37  | -4.62 | -3.45 | -2.12 | -8.07 |
| 330          | -1.26 | 1.27  | 0.15    | 0.96  | 0.90  | -0.56 | -2.01 | -2.09 | -2.32  | -4.97 | -3.23 | -3.86 | -8.07 |
| 345          | -1.26 | 1.74  | 1.54    | 1.70  | 0.82  | -0.97 | -2.98 | -2.65 | -1.11  | -3.93 | -5.54 | -5.06 | -8.07 |

| Ant1         |       |       |         |       |       |       |       |       |       |       |       |       |       |
|--------------|-------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Polarization | Total |       | Channel | 24    |       | Freq  | 5750  |       |       |       |       |       |       |
| Phi\Theta    | 0     | 15    | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150   | 165   | 180   |
| 0            | -0.73 | -4.56 | 1.17    | 3.25  | 1.89  | -0.78 | -2.84 | -4.12 | -4.67 | -7.75 | -5.38 | -1.28 | -8.44 |
| 15           | -0.73 | -4.37 | -0.67   | 2.17  | 1.69  | -1.39 | -4.04 | -6.18 | -8.71 | -8.78 | -2.59 | -0.76 | -8.44 |
| 30           | -0.73 | -4.59 | -3.71   | -0.03 | 0.74  | -1.06 | -2.93 | -6.3  | -9.8  | -11.7 | -2.79 | 0.76  | -8.44 |
| 45           | -0.73 | -4.16 | -3.38   | -1.4  | -0.42 | -1.98 | -3.9  | -5.43 | -7.51 | -8.72 | -2.86 | 0.83  | -8.44 |
| 60           | -0.73 | -2.3  | 0.12    | -1.09 | -2.49 | -3.6  | -4.5  | -7.41 | -7.24 | -4.08 | -3.21 | 1.14  | -8.44 |
| 75           | -0.73 | -1.28 | 0.59    | -0.85 | -1.4  | -1.7  | -2.19 | -4.73 | -5.64 | -3.09 | -2.12 | 1.84  | -8.44 |
| 90           | -0.73 | -0.86 | -0.44   | -0.98 | 1.02  | 0.6   | 0.13  | -0.78 | -1.94 | -2.42 | -2.17 | 0.96  | -8.44 |
| 105          | -0.73 | -0.62 | -1.03   | -1.19 | 0.68  | 0.14  | -0.22 | -1.46 | -1.29 | -1.35 | -3.1  | 0.77  | -8.44 |
| 120          | -0.73 | -0.66 | -0.74   | -1.41 | -1.34 | -0.97 | -1.81 | -1.67 | -0.37 | -0.74 | -3.37 | 0.79  | -8.44 |
| 135          | -0.73 | -1.45 | -0.5    | -0.26 | -1.04 | -3.04 | -2.64 | -2.81 | -3.16 | -1.29 | -4.03 | 0.18  | -8.44 |
| 150          | -0.73 | -2.9  | -1.58   | -0.32 | -1.39 | -2.04 | -2.49 | -2.96 | -1.86 | -2.53 | -5.34 | -1.5  | -8.44 |
| 165          | -0.73 | -4.03 | -2.16   | 0.02  | -1.12 | -0.24 | -1.23 | -2.63 | -3.32 | -5.48 | -7.15 | -3.89 | -8.44 |
| 180          | -0.73 | -3.6  | -4.15   | -1.17 | -0.8  | 0.23  | -0.71 | -3.57 | -4.42 | -4.89 | -6.9  | -6.51 | -8.44 |

|     |       |       |       |       |       |       |       |       |        |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 195 | -0.73 | -2.4  | -2.64 | -1.98 | -0.63 | 0.05  | -1.07 | -2.91 | -3.05  | -4.11 | -5.3  | -8.44 | -8.44 |
| 210 | -0.73 | -1.7  | -1.51 | -2.36 | -1.55 | -1.19 | -1.92 | -3.84 | -5.34  | -5.07 | -4.23 | -6.19 | -8.44 |
| 225 | -0.73 | -1.04 | -0.57 | -2.33 | -3.59 | -3.43 | -2.85 | -3.82 | -3.41  | -4.44 | -5.3  | -8.13 | -8.44 |
| 240 | -0.73 | -0.12 | -1.64 | -3.93 | -3.13 | -3.12 | -4.22 | -6.48 | -7     | -8.34 | -8.76 | -7.64 | -8.44 |
| 255 | -0.73 | 0.62  | -2.64 | -3.38 | -0.16 | 0     | -2.27 | -4.89 | -4.27  | -6.13 | -9.41 | -5.31 | -8.44 |
| 270 | -0.73 | 0.34  | -2.51 | -2.79 | 0.02  | -0.64 | -3.71 | -6.92 | -5.17  | -3.85 | -5.12 | -3.81 | -8.44 |
| 285 | -0.73 | -0.38 | -1.53 | -2.77 | -1.55 | -1.99 | -3.88 | -5.44 | -7.65  | -0.26 | -2.07 | -2.44 | -8.44 |
| 300 | -0.73 | -0.95 | -1.46 | -2.4  | -2.52 | -2.11 | -2.23 | -2.68 | -10.23 | -8.45 | -1.35 | -2.12 | -8.44 |
| 315 | -0.73 | -1.62 | -1.43 | -1.28 | -2.8  | -2.9  | -2.13 | -1.55 | -3.91  | -7.09 | -3.35 | -2.75 | -8.44 |
| 330 | -0.73 | -2.42 | -0.06 | 0.3   | 0     | -1.6  | -3.56 | -3.64 | -2.88  | -8.86 | -6.12 | -4.21 | -8.44 |
| 345 | -0.73 | -3.62 | 0.94  | 2.29  | 1.37  | -0.99 | -3.98 | -4.84 | -4.69  | -7.09 | -8.27 | -3.03 | -8.44 |

| Ant2         |       |      |         |       |       |       |       |       |       |       |        |       |       |
|--------------|-------|------|---------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| Polarization | Total |      | Channel | 24    |       | Freq  | 5750  |       |       |       |        |       |       |
| Phi\Theta    | 0     | 15   | 30      | 45    | 60    | 75    | 90    | 105   | 120   | 135   | 150    | 165   | 180   |
| 0            | 1.02  | 2.38 | 2.5     | 1.55  | 0.5   | -1.37 | -3.18 | -2.02 | -0.37 | -4.2  | -6.22  | -5.79 | -8.51 |
| 15           | 1.02  | 2.98 | 3.67    | 1.25  | -2.03 | -3.87 | -3.45 | -3.57 | -4.9  | -6.21 | -6.05  | -5.45 | -8.51 |
| 30           | 1.02  | 3.44 | 3.92    | 1.83  | -0.94 | -4.06 | -6.67 | -6.84 | -4.02 | -3.26 | -6.14  | -5.13 | -8.51 |
| 45           | 1.02  | 3.65 | 3.5     | 1.76  | 0.33  | -2.32 | -9.97 | -10.9 | -6.06 | -6.73 | -8.36  | -3.95 | -8.51 |
| 60           | 1.02  | 3.53 | 2.66    | 1.25  | -1.49 | -5.59 | -7.91 | -7.82 | -8.7  | -8.91 | -7     | -3    | -8.51 |
| 75           | 1.02  | 2.86 | 1.4     | 0.18  | -3.53 | -7.64 | -3.34 | -2.43 | -1.46 | -1.92 | -5.02  | -4.31 | -8.51 |
| 90           | 1.02  | 2.07 | -0.45   | -1.82 | -6.51 | -6.29 | -3.61 | -3.07 | -1.17 | -1.97 | -6.36  | -6.23 | -8.51 |
| 105          | 1.02  | 1.42 | -2.74   | -4.28 | -6.85 | -3.42 | -1.52 | -0.97 | -2.17 | -4.83 | -7.93  | -7    | -8.51 |
| 120          | 1.02  | 1.19 | -3.91   | -5.88 | -6.83 | -4.8  | -2.91 | -2.92 | -3.71 | -7.9  | -8.09  | -8.51 | -8.51 |
| 135          | 1.02  | 1.36 | -1.89   | -4.46 | -5.51 | -7.37 | -3.13 | -3.75 | -7.64 | -8.5  | -7.04  | -7.69 | -8.51 |
| 150          | 1.02  | 1.81 | 0.03    | -1.78 | -2.96 | -4.43 | -4.07 | -5.49 | -4.75 | -6.79 | -4.99  | -5.56 | -8.51 |
| 165          | 1.02  | 2.52 | 1.11    | -0.38 | -0.06 | -1.48 | -3.29 | -5.28 | -4.15 | -6.93 | -5.35  | -5.51 | -8.51 |
| 180          | 1.02  | 3.07 | 1.39    | -0.71 | -1.01 | -0.84 | -2.14 | -4.43 | -6.84 | -12.2 | -10.64 | -5.38 | -8.51 |
| 195          | 1.02  | 3.18 | 2.13    | 0.64  | -0.18 | -0.7  | -1.22 | -2.03 | -3.75 | -5.47 | -7.96  | -2.58 | -8.51 |
| 210          | 1.02  | 2.9  | 2.21    | 2.89  | 2.88  | 2.15  | 1.45  | 1.08  | 0.71  | -2.78 | -3.15  | -0.56 | -8.51 |
| 225          | 1.02  | 2.55 | 1.63    | 2.22  | 2.14  | 1.72  | 1.99  | 0.56  | -0.08 | -0.13 | -1.02  | -0.08 | -8.51 |
| 240          | 1.02  | 2.34 | 0.76    | 0.49  | -0.25 | -1.41 | -1.37 | -1.47 | -1.71 | -0.68 | -0.46  | 0.34  | -8.51 |
| 255          | 1.02  | 2.51 | 1.41    | 1.47  | 0.39  | 0.33  | -0.49 | -0.84 | -0.27 | -1.88 | -3.22  | 0.62  | -8.51 |
| 270          | 1.02  | 2.79 | 2.19    | 1.9   | -0.58 | -1.64 | -1.82 | -2.81 | 0.03  | -6.13 | -13.04 | 0.86  | -8.51 |
| 285          | 1.02  | 3.03 | 2.45    | 1.04  | -0.27 | -1.64 | -3.2  | -2.23 | -4.61 | 0.11  | -8.99  | 0.32  | -8.51 |
| 300          | 1.02  | 2.94 | 2.9     | 0.81  | -1.39 | -1.59 | -3.82 | -5.42 | -9.78 | -0.21 | -5.63  | -0.39 | -8.51 |
| 315          | 1.02  | 2.45 | 2.97    | 1.53  | -0.1  | -0.78 | -1.67 | -2.71 | -5.07 | -4.65 | -4.3   | -1.84 | -8.51 |
| 330          | 1.02  | 2.07 | 2.02    | 1.36  | 1.16  | 0.6   | -0.9  | -2    | -3.11 | -2.74 | -1.83  | -3.75 | -8.51 |
| 345          | 1.02  | 2.05 | 1.39    | 1.28  | 1.39  | 0.34  | -1.84 | -1.83 | -0.97 | -3.35 | -4.93  | -5.5  | -8.51 |

| Polarization |       |    |         |    |    |      |      |     |     |     |     |     |     |
|--------------|-------|----|---------|----|----|------|------|-----|-----|-----|-----|-----|-----|
| Polarization | Total |    | Channel | 13 |    | Freq | 5750 |     |     |     |     |     |     |
| Phi\Theta    | 0     | 15 | 30      | 45 | 60 | 75   | 90   | 105 | 120 | 135 | 150 | 165 | 180 |

|     |      |      |       |       |       |       |       |       |        |       |       |       |       |
|-----|------|------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 0   | 0.23 | 0.17 | 1.89  | 2.48  | 1.25  | -1.06 | -3.01 | -2.94 | -2.01  | -5.62 | -5.78 | -2.97 | -8.47 |
| 15  | 0.23 | 0.70 | 2.02  | 1.73  | 0.22  | -2.46 | -3.73 | -4.68 | -6.40  | -7.31 | -3.98 | -2.50 | -8.47 |
| 30  | 0.23 | 1.06 | 1.60  | 1.00  | -0.02 | -2.31 | -4.41 | -6.56 | -6.01  | -5.69 | -4.15 | -1.25 | -8.47 |
| 45  | 0.23 | 1.31 | 1.30  | 0.46  | -0.03 | -2.15 | -5.95 | -7.36 | -6.72  | -7.61 | -4.79 | -0.93 | -8.47 |
| 60  | 0.23 | 1.53 | 1.57  | 0.24  | -1.96 | -4.48 | -5.88 | -7.61 | -7.91  | -5.86 | -4.70 | -0.45 | -8.47 |
| 75  | 0.23 | 1.27 | 1.01  | -0.30 | -2.34 | -3.72 | -2.73 | -3.43 | -3.07  | -2.47 | -3.33 | -0.23 | -8.47 |
| 90  | 0.23 | 0.85 | -0.44 | -1.38 | -1.28 | -1.60 | -1.35 | -1.78 | -1.54  | -2.19 | -3.78 | -1.29 | -8.47 |
| 105 | 0.23 | 0.52 | -1.80 | -2.47 | -1.62 | -1.29 | -0.82 | -1.21 | -1.71  | -2.75 | -4.88 | -1.57 | -8.47 |
| 120 | 0.23 | 0.36 | -2.04 | -3.09 | -3.27 | -2.48 | -2.33 | -2.25 | -1.73  | -2.99 | -5.12 | -1.74 | -8.47 |
| 135 | 0.23 | 0.18 | -1.14 | -1.87 | -2.72 | -4.69 | -2.88 | -3.25 | -4.85  | -3.54 | -5.28 | -2.17 | -8.47 |
| 150 | 0.23 | 0.06 | -0.70 | -0.99 | -2.10 | -3.07 | -3.21 | -4.04 | -3.07  | -4.16 | -5.16 | -3.07 | -8.47 |
| 165 | 0.23 | 0.38 | -0.22 | -0.18 | -0.56 | -0.82 | -2.14 | -3.76 | -3.72  | -6.14 | -6.16 | -4.62 | -8.47 |
| 180 | 0.23 | 0.91 | -0.55 | -0.93 | -0.90 | -0.27 | -1.37 | -3.98 | -5.46  | -7.16 | -8.38 | -5.91 | -8.47 |
| 195 | 0.23 | 1.23 | 0.37  | -0.48 | -0.40 | -0.31 | -1.14 | -2.45 | -3.39  | -4.74 | -6.43 | -4.59 | -8.47 |
| 210 | 0.23 | 1.18 | 0.74  | 1.01  | 1.21  | 0.79  | 0.08  | -0.72 | -1.34  | -3.78 | -3.66 | -2.52 | -8.47 |
| 225 | 0.23 | 1.12 | 0.67  | 0.52  | 0.16  | -0.13 | 0.21  | -1.10 | -1.43  | -1.77 | -2.65 | -2.46 | -8.47 |
| 240 | 0.23 | 1.28 | -0.28 | -1.18 | -1.46 | -2.18 | -2.57 | -3.29 | -3.59  | -3.00 | -2.87 | -2.03 | -8.47 |
| 255 | 0.23 | 1.67 | -0.16 | -0.31 | 0.12  | 0.17  | -1.29 | -2.41 | -1.82  | -3.50 | -5.29 | -1.40 | -8.47 |
| 270 | 0.23 | 1.74 | 0.45  | 0.16  | -0.27 | -1.11 | -2.66 | -4.40 | -1.83  | -4.84 | -7.48 | -0.88 | -8.47 |
| 285 | 0.23 | 1.65 | 0.90  | -0.46 | -0.86 | -1.81 | -3.53 | -3.54 | -5.87  | -0.07 | -4.28 | -0.84 | -8.47 |
| 300 | 0.23 | 1.42 | 1.25  | -0.50 | -1.92 | -1.84 | -2.95 | -3.84 | -10.00 | -2.61 | -2.98 | -1.17 | -8.47 |
| 315 | 0.23 | 0.88 | 1.30  | 0.35  | -1.24 | -1.71 | -1.89 | -2.09 | -4.45  | -5.70 | -3.80 | -2.27 | -8.47 |
| 330 | 0.23 | 0.38 | 1.10  | 0.86  | 0.62  | -0.36 | -2.03 | -2.74 | -2.99  | -4.80 | -3.47 | -3.97 | -8.47 |
| 345 | 0.23 | 0.08 | 1.17  | 1.81  | 1.38  | -0.27 | -2.78 | -3.08 | -2.44  | -4.83 | -6.29 | -4.09 | -8.47 |