

Model Name:25053PC47G

FCC ID 2AFZZPC47G

# O10U Project FCC Part 15

## Antenna report\_WLAN\_20250109

### Antenna Performance Description

Applicant: Xiaomi Communications Co., Ltd

Product description: Mobile Phone

Model Name:25053PC47G

FCC ID: 2AFZZPC47G

Test date: 2025/01/09

### Test Engineer:

#### 1. Antenna information

| Antenna | Pattern     | model name | Antenna Type | Manufacturer/Address:                                                                                                                                           | Test party of Antenna gain              |
|---------|-------------|------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| ANT9    | Metal Frame | O10U       | PIFA Antenna | Bourne High - Tech (Huizhou) Co., Ltd.<br><br>Address:<br><br>Rongxin Road, Sanhe Economic Development Zone, Huiyang District, Huizhou City, Guangdong Province | Beijing Xiaomi Communications Co., Ltd. |

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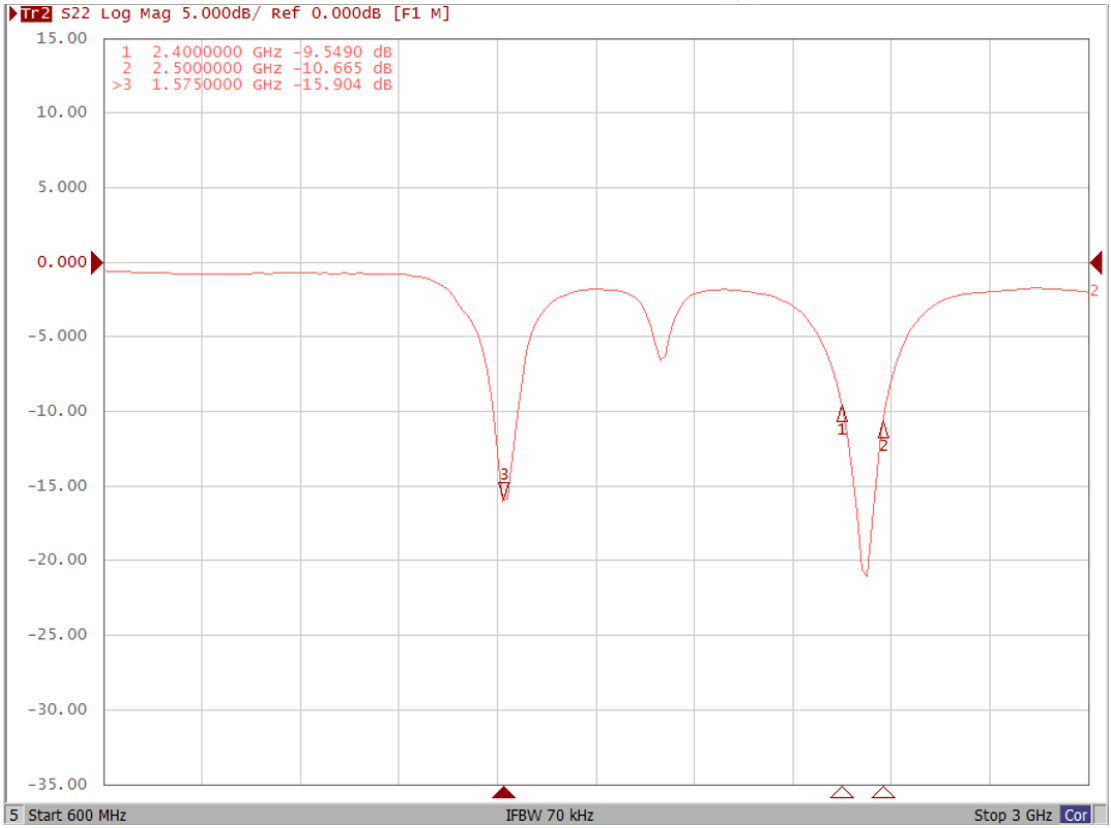
|       |             |      |              |                                                                                                                                                                                         |                                             |
|-------|-------------|------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| ANT11 | Metal Frame | O10U | PIFA Antenna | Bourne High - Tech (Huizhou) Co., Ltd.<br>Address:<br>Rongxin Road, Sanhe Economic Development Zone, Huiyang District, Huizhou City, Guangdong Province                                 | Beijing Xiaomi Communications Co., Ltd.     |
| ANT12 | Metal Frame | O10U | PIFA Antenna | Bourne High - Tech (Huizhou) Co., Ltd.<br>Address:<br>Rongxin Road, Sanhe Economic Development Zone, Huiyang District, Huizhou City, Guangdong Province                                 | Beijing Xiaomi Communications Co., Ltd.     |
| ANT13 | Metal Frame | O10U | PIFA Antenna | Bourne High - Tech (Huizhou) Co., Ltd.<br>Address:<br>Rongxin Road, Sanhe Economic Development Zone, Huiyang District, Huizhou City, Guangdong Province                                 | Beijing Xiaomi Communications Co., Ltd.     |
| NFC   | FPC         | O10U | PIFA Antenna | Rui Xiang Xun Tong Communication Technology Co.Ltd.<br>Address:<br>Jin Tudi Intelligent Manufacturing Park, Shengchuang Road, Yushan Town, Kunshan City, Suzhou City, Jiangsu Province. | Length :<br>34.4x28.5mm<br>Width:<br>2.44mm |

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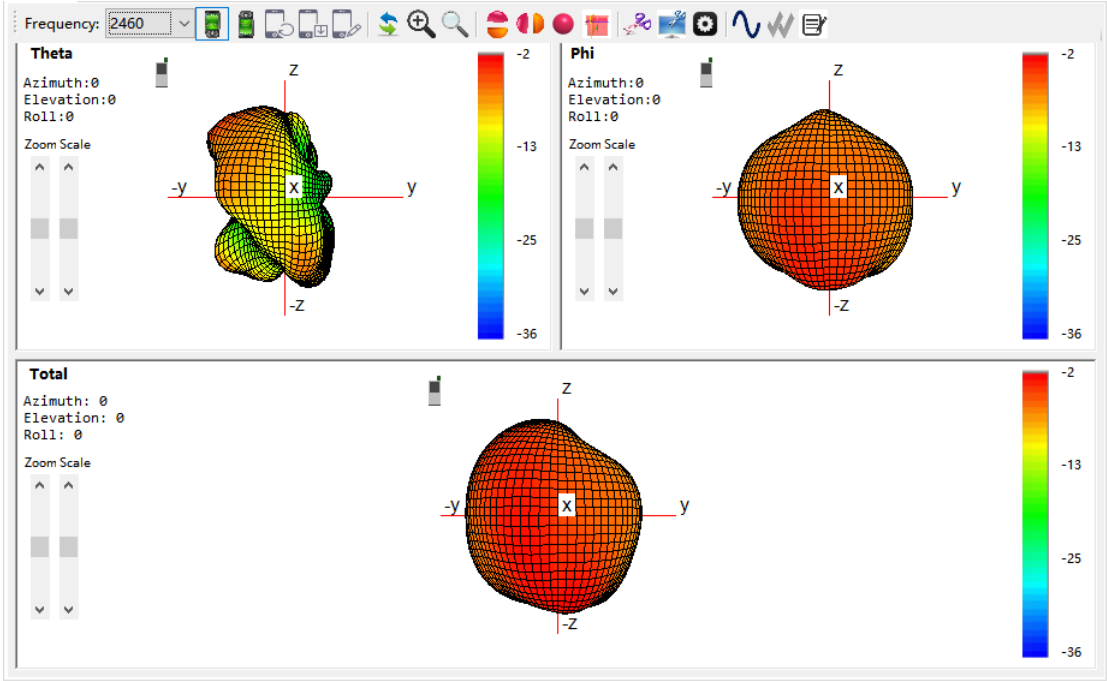
2. Test data

| Band for Antenna11      | WIFI_2.4G ANT CHAIN0 |           |                           |                |
|-------------------------|----------------------|-----------|---------------------------|----------------|
|                         | Avg.Effi.(dB)        | PEAK EIRP | Combined conduction power | Peak gain(dBi) |
| 2.4G<br>(2400~2485M Hz) | -6.7                 | 18.6      | 20                        | -2.74          |
| Bluetooth               | -6.7                 | /         | /                         | -2.74          |



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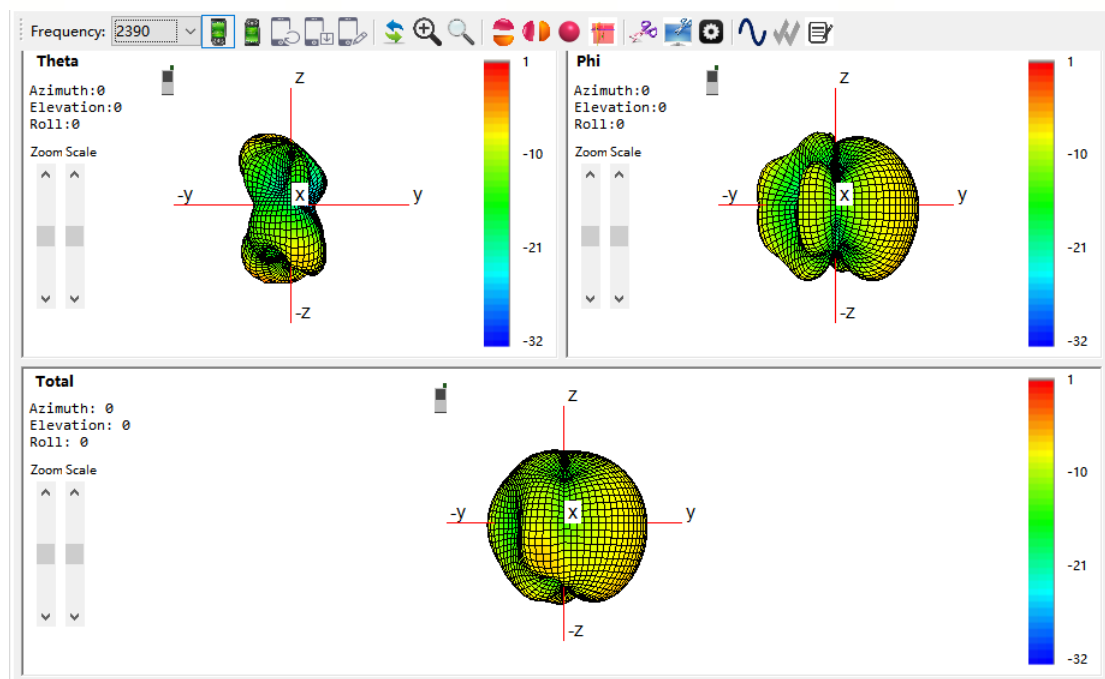
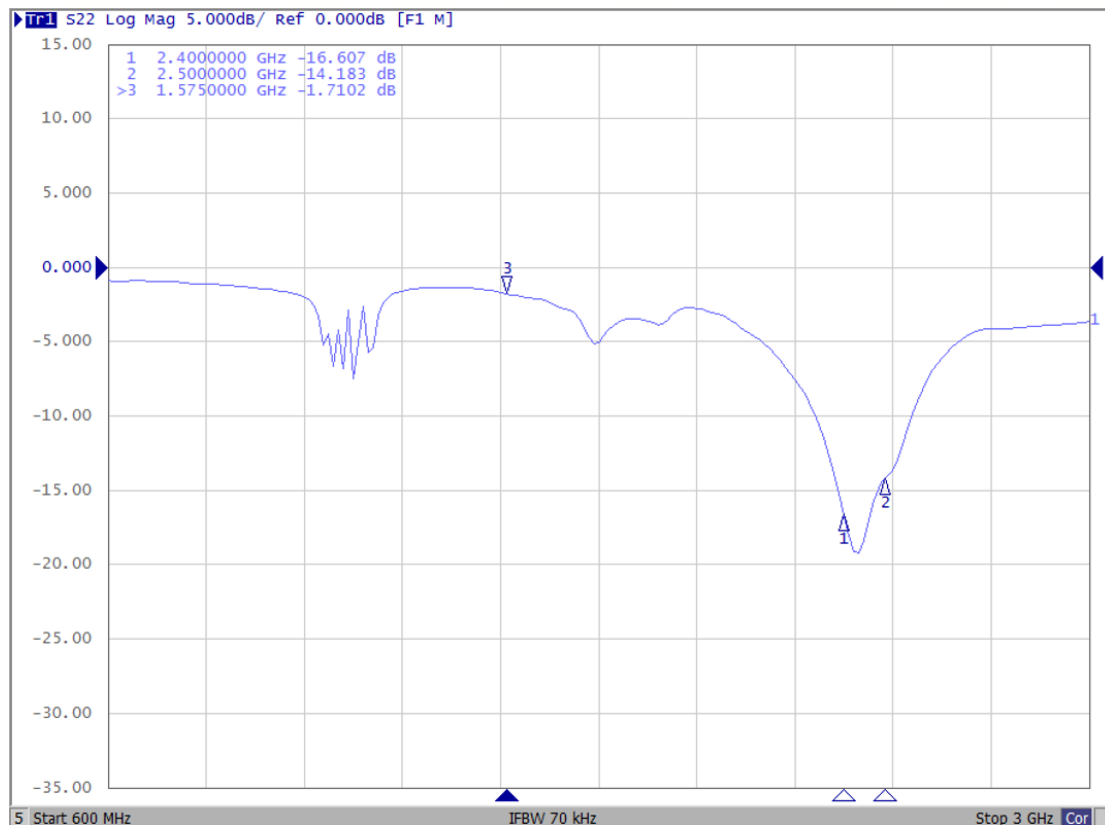
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| Band for Antenna 9      | WIFI_2.4G ANT CHAIN1 |           |                           |                |
|-------------------------|----------------------|-----------|---------------------------|----------------|
|                         | Avg.Effi.(dB)        | PEAK EIRP | Combined conduction power | Peak gain(dBi) |
| 2.4G<br>(2400~2485M Hz) | -5                   | 20.5      | 20                        | -0.02          |
| Bluetooth               | -5                   | /         | /                         | -0.02          |

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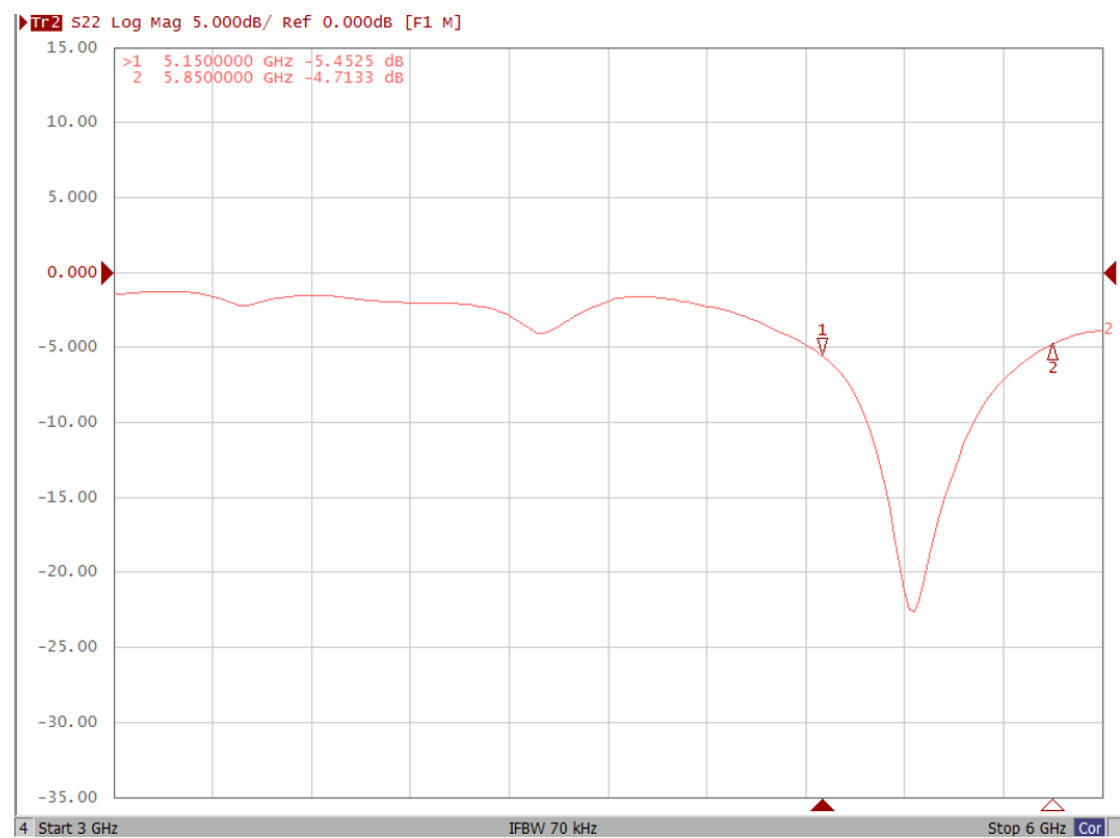
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| WIFI 5G ANT CHAIN0   |               |           |                           |                |
|----------------------|---------------|-----------|---------------------------|----------------|
| Bands for Antenna 13 | Avg.Effi.(dB) | PEAK EIRP | Combined conduction power | Peak gain(dBi) |

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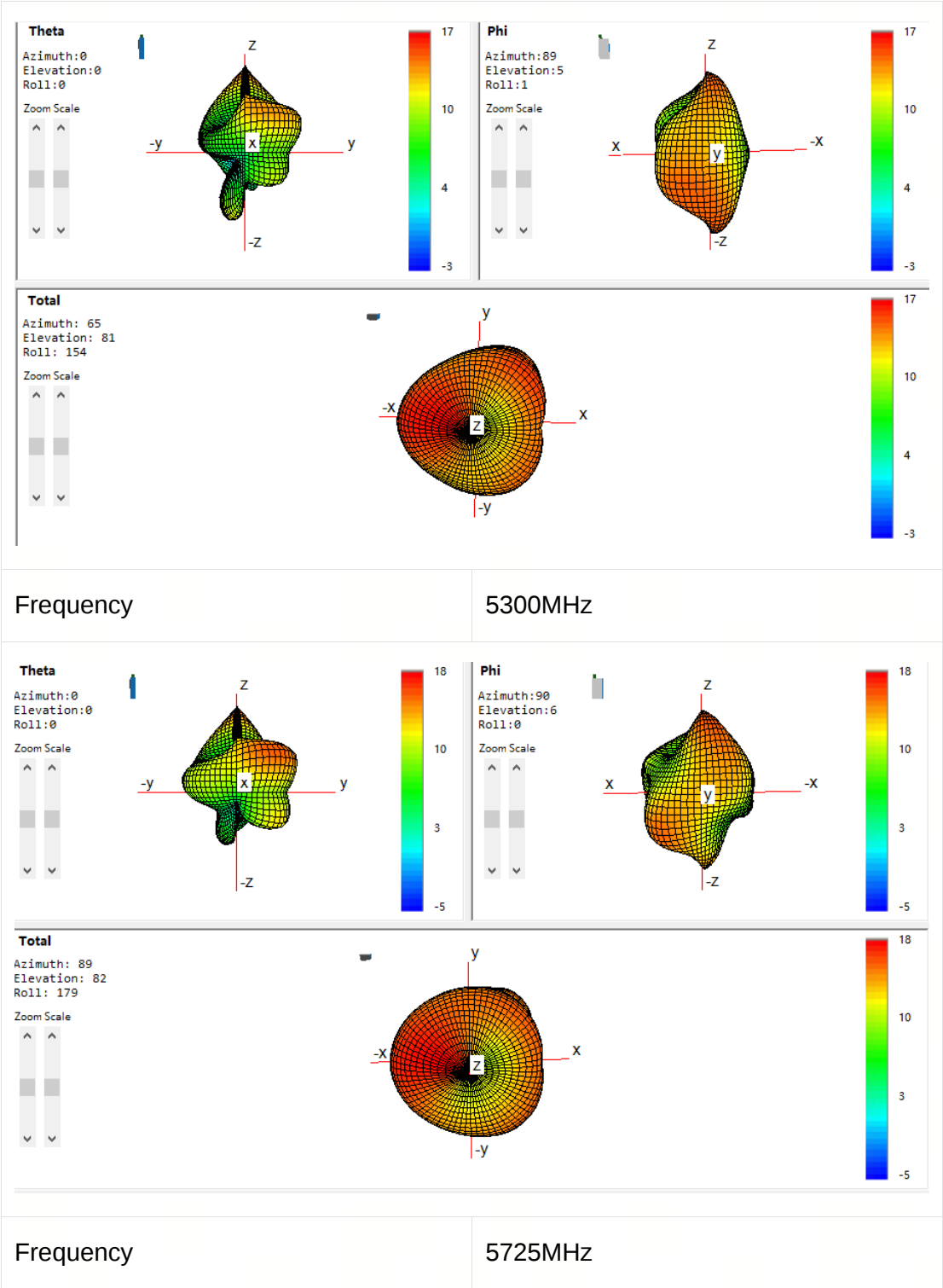
|                      |      |      |    |       |
|----------------------|------|------|----|-------|
| 5G<br>(5150~5250MHz) | -7.7 | 16.6 | 22 | -2.15 |
| 5G<br>(5250~5350MHz) | -6.8 | 17.5 | 22 | -0.77 |
| 5G<br>(5470~5725MHz) | -6.3 | 19.3 | 22 | -0.04 |
| 5G<br>(5470~5850MHz) | -6.6 | 20.5 | 22 | -1.94 |



|           |         |
|-----------|---------|
| Frequency | 5180MHz |
|-----------|---------|

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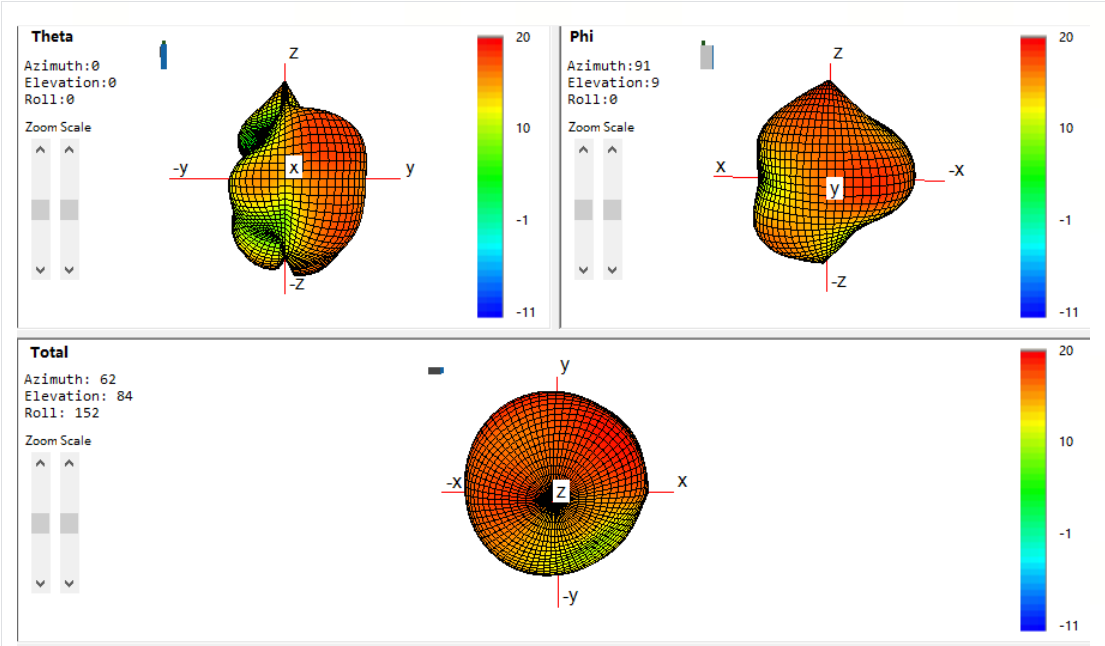


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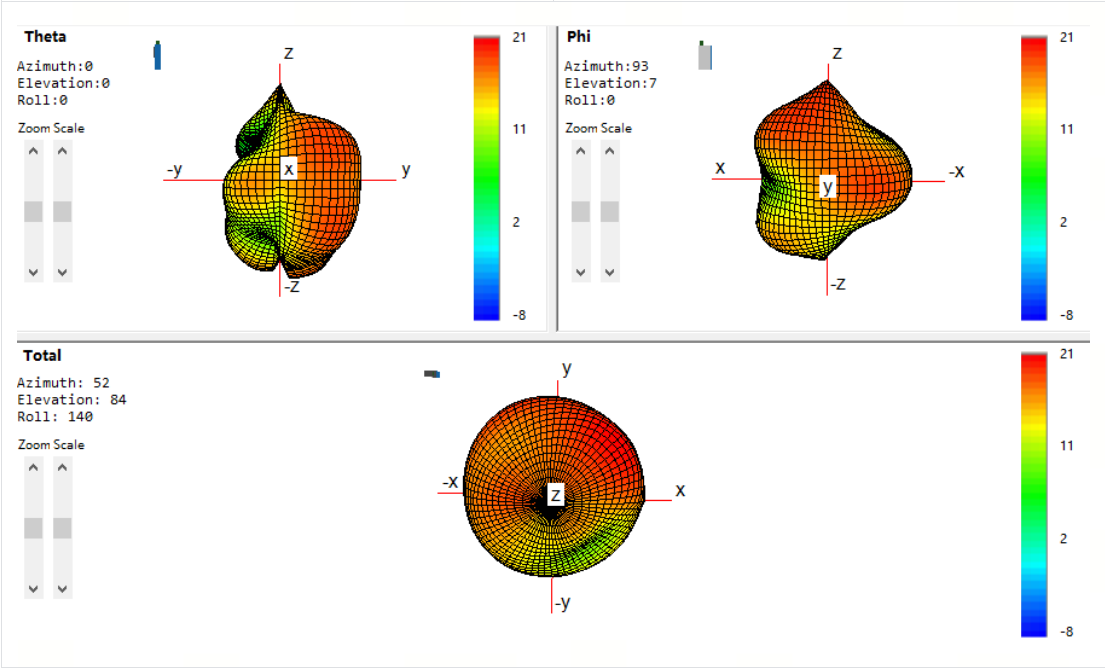
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Frequency

5785MHz



| WIFI 5G ANT CHAIN1            |                   |              |                                |                   |
|-------------------------------|-------------------|--------------|--------------------------------|-------------------|
| Bands<br>for<br>Antenna<br>12 | Avg.Effi.<br>(dB) | PEAK<br>EIRP | Combin<br>ed<br>conducti<br>on | Peak<br>gain(dBi) |
|                               |                   |              |                                |                   |

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|                      |      |      | power |       |
|----------------------|------|------|-------|-------|
| 5G<br>(5150~5250MHz) | -7.3 | 18.9 | 22    | -1.7  |
| 5G<br>(5250~5350MHz) | -7.6 | 18.9 | 22    | -1.33 |
| 5G<br>(5470~5725MHz) | -6.8 | 19.4 | 22    | -2.3  |
| 5G<br>(5470~5850MHz) | -6.8 | 20.1 | 22    | -2.7  |

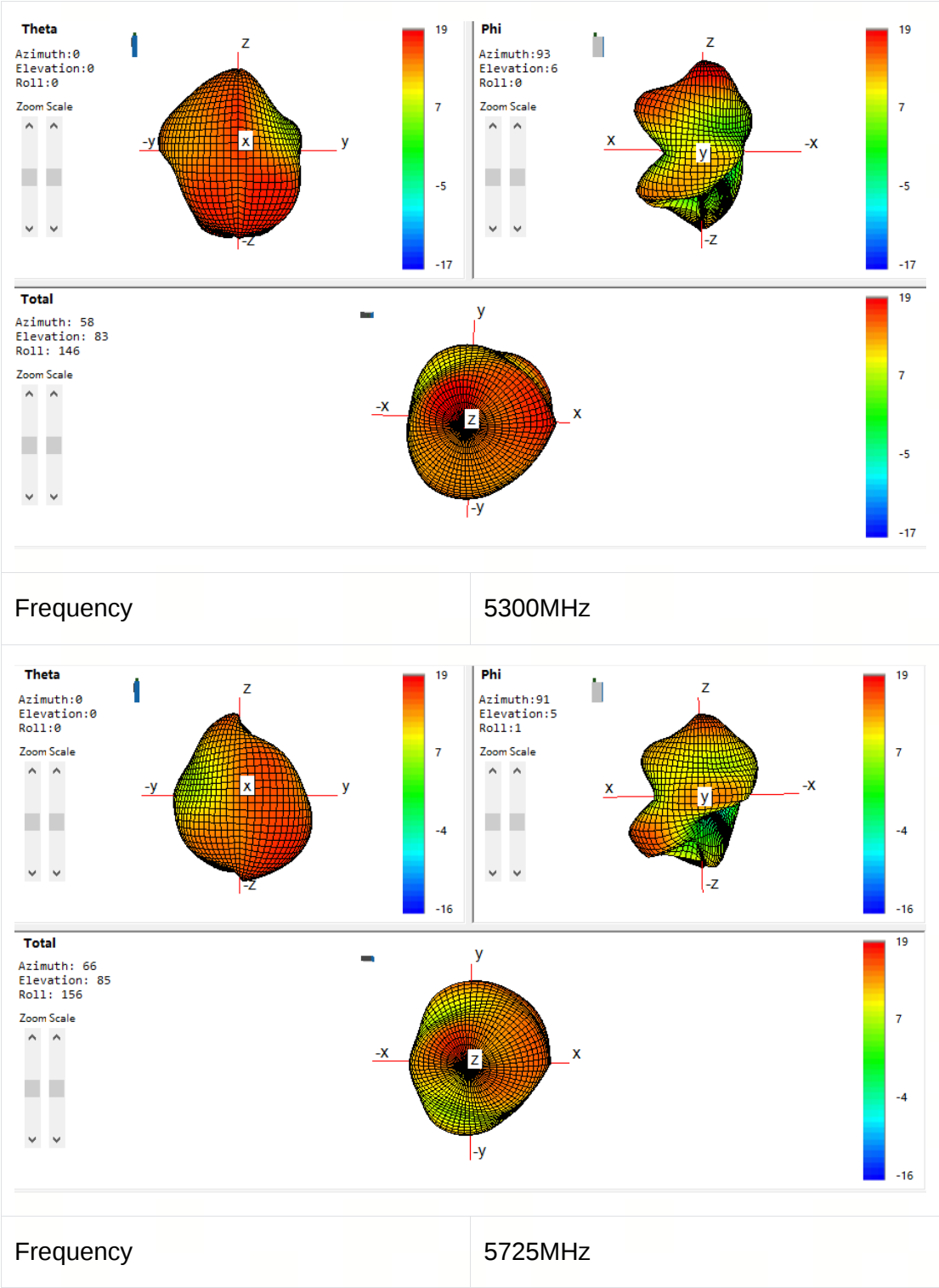


Frequency

5180MHz

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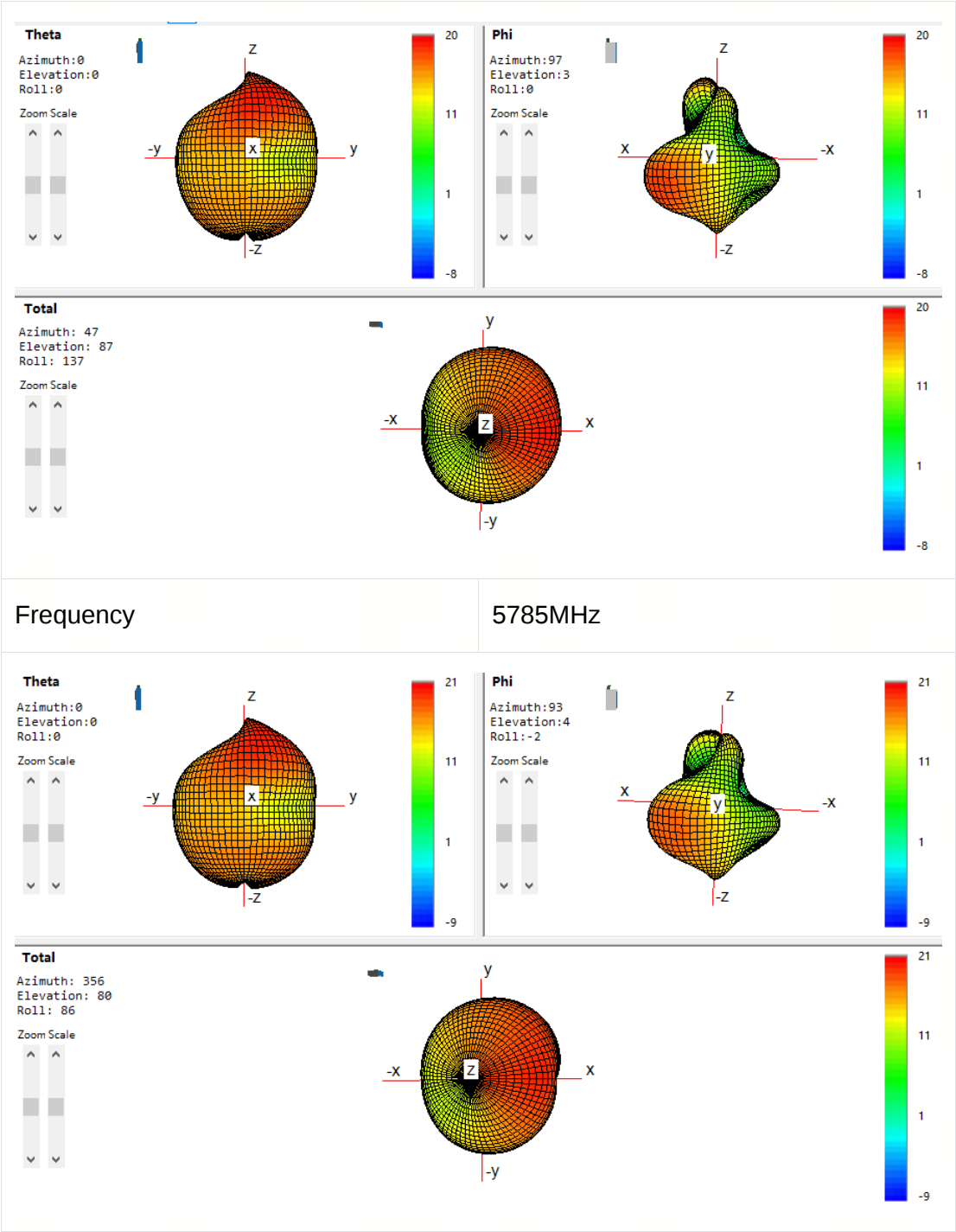


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### 3. Main Test Instruments

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| Name   | Manufact<br>urer | Model<br>name | Software<br>name | Serial<br>Number | Cal.,<br>Date  | Exp.,<br>Date  |
|--------|------------------|---------------|------------------|------------------|----------------|----------------|
| E5071C | KEYSIG<br>HT     | E5071C        | GTS Max<br>sign  | EQ80224          | 2024.12.<br>15 | 2025.06.<br>15 |
| 8000A  | Anritsu          | 8000A         | GTS Max<br>sign  | EQ80224          | 2024.12.<br>15 | 2025.06.<br>15 |

4. Test Site

Test software: GTS MaxSign-RayZone2800C\_Z

Signature of test engineer:

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Antenna test environment

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End of Test Report