TAOGLAS

Datasheet

# 10-in-1 Screwmount GNSS, Wi-Fi and 4G/5G Antenna

**Part No:**
**MA8010.A.001**

## Description

10in1 Screwmount 3m RG-174/TGC-1.5DS GNSS FAKRA C 5G/4G (1-4) FAKRA D Wi-Fi (1-5) FAKRA I

## Features:

1*GNSS L1/L5 Bands
4* 5G/4G LTE Cellular 600-6000MHz
5* Wi-Fi 2.4/5.8/7.125GHz
Dimensions: 350mm x 70mm x 39mm
M22 Thread
IP69K Rated Enclosure
Cable: GNSS- 3m of RG-174, Wi-Fi & 5G/4G –3m of TGC-1.5DS
IK10 Rated Enclosure
Connector: GNSS – FAKRA C, 5G/4G – FAKRA D, Wi-Fi – FAKRA I
Custom Cables and Connectors Available
RoHS & Reach Compliant

| | | |
|---|---|---|
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# 1. Introduction

The MA8010 is a 10-in-1 combination antenna that has been designed to be used in conjunction with the next generation of routers and gateways. The MA8010 has dual-band GNSS L1/L5 for precision navigational accuracy, high efficiency 5G/4G wideband cellular from 600-6000MHz for enhanced connectivity, and Tri-Band Wi-Fi for future-proof applications at 2.4/5.8/7.125GHz.

The MA8010 has an extremely small form factor of just 350 x 70 x 39mm, much smaller than the market standard size for a product containing up to 10 connections. At just 39mm in height, the MA8010 is perfect for mounting on roofs of vehicles where max height is often 80mm, and it's thin size of 70mm in width means it can be used on various NEMA cabinets.

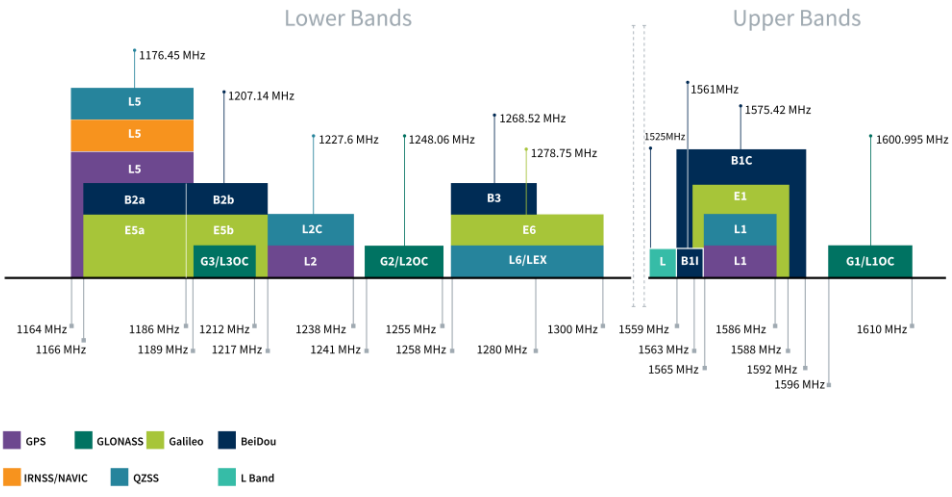
Typical applications include:

– Emergency and First Responder Vehicles
– EV Chargers
– Smart Industry
– Warehouses
– Private LTE Network

The MA8010 is IP69K rated and it's 10 connections can be customized to any requirements below 10-in-1 for specific router and customer configurations to include GNSS up to 4 cellular connections and 5 W-Fi connections. The cables and connectors are fully customizable, for further information, please contact your regional Taoglas customer support team.

# 2. Specification

| GNSS Frequency Bands | | | | | |
|---|---|---|---|---|---|
| GPS | L1<br>1575.42 MHz | L2<br>1227.6 MHz | L5<br>1176.45 MHz | | |
| | ■ | □ | ■ | | |
| GLONASS | G1<br>1602 MHz | G2<br>1248 MHz | G3<br>1207 MHz | | |
| | ■ | □ | □ | | |
| Galileo | E1<br>1575.24 MHz | E5a<br>1176.45 MHz | E5b<br>1201.5 MHz | E6<br>1278.75 MHz | |
| | ■ | ■ | □ | □ | |
| BeiDou | B1C<br>1575.42 MHz | B1I<br>1561 MHz | B2a<br>1176.45 MHz | B2b<br>1207.14 MHz | B3<br>1268.52 MHz |
| | ■ | ■ | ■ | □ | □ |
| L-Band | L-Band<br>1542 MHz | | | | |
| | □ | | | | |
| QZSS (Regional) | L1<br>1575.42 MHz | L2C<br>1227.6 MHz | L5<br>1176.45 MHz | L6<br>1278.75e6 | |
| | ■ | □ | ■ | □ | |
| IRNSS (Regional) | L5<br>1176.45 MHz | | | | |
| | ■ | | | | |
| SBAS | L1/E1/B1<br>1575.42 MHz | L5/B2a/E5a<br>1176.45 MHz | G1<br>1602 MHz | G2<br>1248 MHz | G3<br>1207 MHz |
| | ■ | ■ | ■ | □ | □ |




Bands and Constellations Table

| GNSS Electrical | | | | |
|---|---|---|---|---|
| Frequency (MHz) | GPS_L5 | BeiDou_B1 | GPS_L1 | GLONASS_G1 |
| | 1164-1189 | 1559-1592 | 1565-1586 | 1596-1610 |
| Average Gain (dB) | -2.95 | -2.00 | -1.77 | -2.62 |
| Efficiency (%) | 50.7 | 63.0 | 66.5 | 54.7 |
| Peak Gain (dBi) | 2.49 | 3.93 | 3.93 | 3.38 |
| Axial Ratio at Zenith | 5 | 4.8 | 11.7 | 13.1 |
| Impedance | 50 Ω | | | |
| Polarization | RHCP | | | |

| LNA and Filter Electrical Properties (3.3V Typ.) | | | |
|---|---|---|---|
| Frequency (MHz) | | High-Band | Low-Band |
| LNA Gain (dB) | | 32.3 | 26.3 |
| Current Consumption (mA) | | 16.8 | |
| Outer Band Attenuation (dB) | At 500 ~ 1000 MHz | 60 dB | |
| | At 2000 ~ 2690MHz | 60 dB | |
| | At 3300~ 6000MHz | 60 dB | |
| Output Impedance | | 50 ohm | |
| Input Voltage(V) | | +1.8 to 5.5 | |

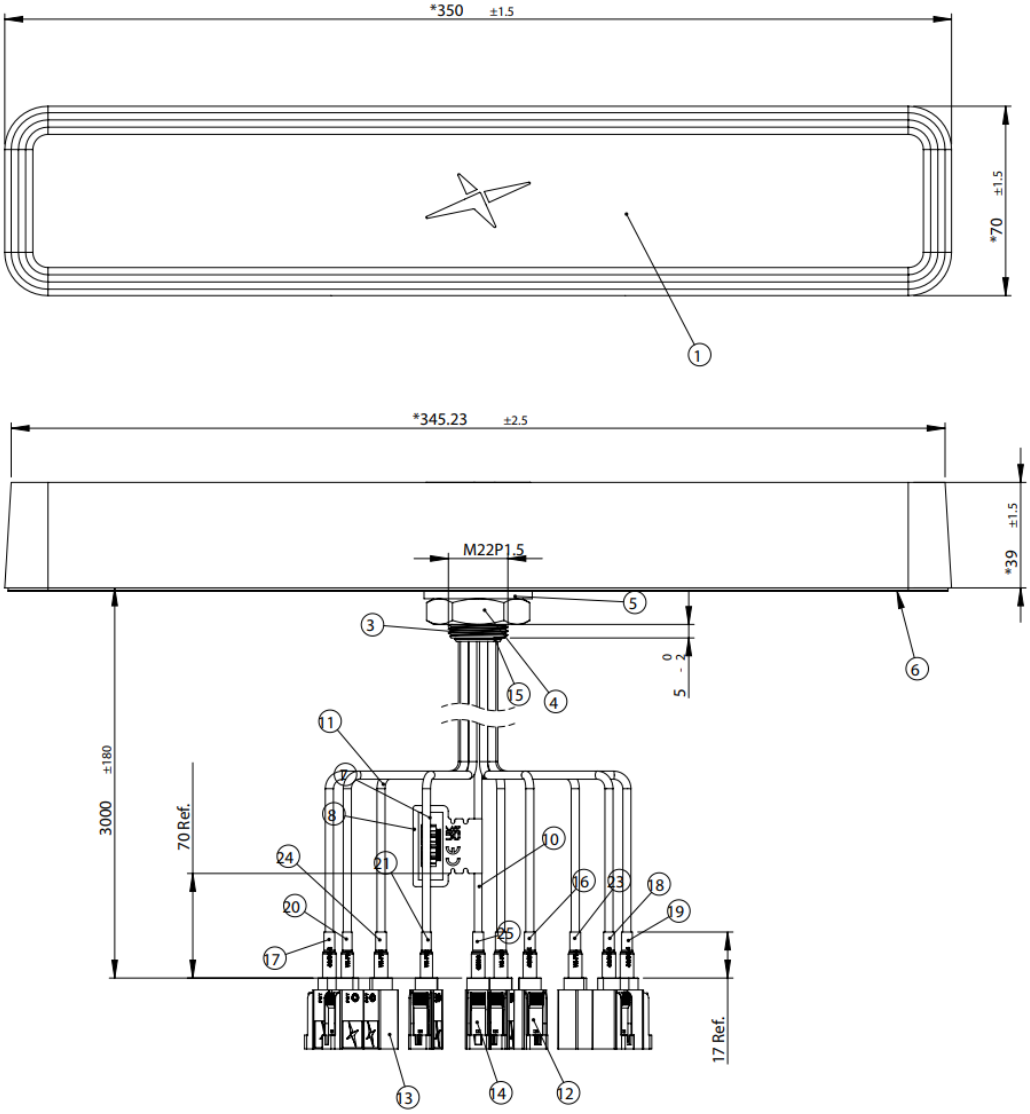
| LTE Electrical | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Band | Frequency (MHz) | Set-up | Efficiency (%) | Average Gain (dB) | Peak Gain (dBi) | Impedance | Polarization | Radiation Pattern |
| 5G NR Band 71 | 617-698 | 4G5G-1 | 49.8 | -3.03 | 0.87 | 50 Ω | Linear | Omni |
| | | 4G5G-2 | 36.6 | -4.37 | 0.91 | | | |
| | | 4G5G-3 | 36.4 | -4.38 | 1.03 | | | |
| | | 4G5G-4 | 44.5 | -3.52 | 2.25 | | | |
| LTE700 | 698-824 | 4G5G-1 | 49.7 | -3.04 | 2.94 | | | |
| | | 4G5G-2 | 39.5 | -4.03 | 2.11 | | | |
| | | 4G5G-3 | 35.4 | -4.51 | 1.97 | | | |
| | | 4G5G-4 | 50.3 | -2.99 | 2.25 | | | |
| GSM800 900 | 824-960 | 4G5G-1 | 50.8 | -2.94 | 2.64 | | | |
| | | 4G5G-2 | 43.7 | -3.60 | 2.18 | | | |
| | | 4G5G-3 | 37.5 | -4.26 | 2.17 | | | |
| | | 4G5G-4 | 48.0 | -3.19 | 2.25 | | | |
| 5G NR Band 1500 | 1427-1518 | 4G5G-1 | 27.9 | -5.54 | 1.01 | | | |
| | | 4G5G-2 | 27.8 | -5.56 | 1.21 | | | |
| | | 4G5G-3 | 24.5 | -6.10 | 1.11 | | | |
| | | 4G5G-4 | 26.7 | -5.74 | 0.99 | | | |
| 5GNR N66 | 1710-2200 | 4G5G-1 | 47.7 | -3.21 | 5.15 | | | |
| | | 4G5G-2 | 53.7 | -2.70 | 5.44 | | | |
| | | 4G5G-3 | 51.2 | -2.91 | 5.63 | | | |
| | | 4G5G-4 | 42.5 | -3.72 | 4.65 | | | |
| LTE2600 | 2300-2690 | 4G5G-1 | 45.2 | -3.45 | 6.16 | | | |
| | | 4G5G-2 | 56.8 | -2.45 | 6.97 | | | |
| | | 4G5G-3 | 52.6 | -2.79 | 6.72 | | | |
| | | 4G5G-4 | 47.0 | -3.28 | 6.15 | | | |
| 5GNR N77 | 3300-4200 | 4G5G-1 | 63.8 | -1.95 | 6.23 | | | |
| | | 4G5G-2 | 63.1 | -2.00 | 6.78 | | | |
| | | 4G5G-3 | 59.7 | -2.24 | 7.74 | | | |
| | | 4G5G-4 | 61.2 | -2.13 | 5.97 | | | |
| 5GNR N78 | 3300-3800 | 4G5G-1 | 64.2 | -1.92 | 6.23 | | | |
| | | 4G5G-2 | 63.5 | -1.97 | 6.78 | | | |
| | | 4G5G-3 | 60.3 | -2.20 | 7.74 | | | |
| | | 4G5G-4 | 61.7 | -2.10 | 5.97 | | | |
| 5GNR N79 | 4400-5000 | 4G5G-1 | 49.9 | -3.02 | 5.49 | | | |
| | | 4G5G-2 | 51.2 | -2.91 | 6.77 | | | |
| | | 4G5G-3 | 52.9 | -2.76 | 5.80 | | | |
| | | 4G5G-4 | 45.4 | -3.43 | 5.96 | | | |
| LTE5200 | 5150-5925 | 4G5G-1 | 48.9 | -3.11 | 5.76 | | | |
| | | 4G5G-2 | 41.2 | -3.86 | 4.93 | | | |
| | | 4G5G-3 | 43.5 | -3.62 | 6.48 | | | |
| | | 4G5G-4 | 40.1 | -3.97 | 4.44 | | | |

| Wi-Fi Electrical | | |
|---|---|---|
| Frequency (MHz) | Frequency (MHz) | |
| | 2400-2500 | 4900-5850 |
| **Efficiency (%)** | | |
| Wi-Fi-1 | 40.2 | 48.8 |
| Wi-Fi-2 | 53.7 | 45.8 |
| Wi-Fi-3 | 50.0 | 46.4 |
| Wi-Fi-4 | 38.8 | 39.4 |
| Wi-Fi-5 | 31.2 | 40.9 |
| **Average Gain (dB)** | | |
| Wi-Fi-1 | -3.96 | -3.12 |
| Wi-Fi-2 | -2.70 | -3.40 |
| Wi-Fi-3 | -3.01 | -3.34 |
| Wi-Fi-4 | -4.12 | -4.05 |
| Wi-Fi-5 | -5.05 | -3.89 |
| **Peak Gain (dBi)** | | |
| Wi-Fi-1 | 3.56 | 6.56 |
| Wi-Fi-2 | 6.71 | 6.82 |
| Wi-Fi-3 | 6.09 | 5.42 |
| Wi-Fi-4 | 2.54 | 5.61 |
| Wi-Fi-5 | 2.37 | 4.48 |
| Impedance | 50 Ω | |
| Polarization | Linear | |
| Radiation Pattern | Omni | |
| *Tested with 0.3m of Cable on a 30x30cm Ground Plane | | |

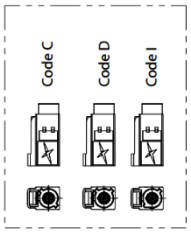
| Mechanical | |
|---|---|
| Dimensions | 350mm * 70mm * 39 mm |
| Weight | 1.05kg |
| Material | PC |
| Connector | GNSS: FAKRA C, 5G/4G(1-4): FAKRA D, Wi-Fi(1-5): – FAKRA I |
| Cable | GNSS:3m of RG-174, 5G/4G(1-4) Wi-Fi(1-5):3m of TGC-1.5DS |
| Enclosure Impact Rating | IK10 |

| Environmental | |
|---|---|
| Waterproof Rating | IP69K |
| Temperature Range | -40°C to + 85°C |
| Humidity | Non-condensing 65°C 95% RH |

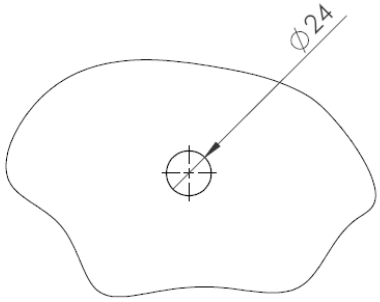
# 3. Mechanical Drawing




| | Name | Material | Finish | QTY |
|---|---|---|---|---|
| 1 | Top Housing | PC | Black | 1 |
| 2 | Bottom Housing | PC | Black | 1 |
| 3 | Metal Stem | Zinc Alloy | Ni Plated | 1 |
| 4 | Nut_M22x1.5P | Steel | Ni-Zn Plated | 1 |
| 5 | Washer_M22 | Steel | Ni-Zn Plated | 1 |
| 6 | Double Side Adhesive | 3M 9448HK + CR4305 2t | Black | 1 |
| 7 | Barcode Label | PET | White | 1 |
| 8 | CE,WEEE and UKCA mark Label | PEPA | White | 1 |
| 9 | Screw | SUS | N/A | 20 |
| 10 | RG174 Coaxial Cable | PVC | Black | 1 |
| 11 | LOW LOSS COAXIAL CABLE 1.5DS-QFB | PVC | Black | 9 |
| 12 | FAKRA Code D SMB(F)ST Bordeaux | PBT | Violet | 4 |
| 13 | FAKRA Code I SMB(F)ST | PBT | Beige | 5 |
| 14 | FAKRA Code C SMB(F)ST | PBT | Blue | 1 |
| 15 | Grommet | Silicone Rubber | Black | 1 |
| 16 | Heat Shrink Tube(4G/5G-1) | PE | Red Tube/White Text | 1 |
| 17 | Heat Shrink Tube(4G/5G-2) | PE | Red Tube/White Text | 1 |
| 18 | Heat Shrink Tube(4G/5G-3) | PE | Red Tube/White Text | 1 |
| 19 | Heat Shrink Tube(4G/5G-4) | PE | Red Tube/White Text | 1 |
| 20 | Heat Shrink Tube (WIFI-1) | PE | Yellow tube/ Black text | 1 |
| 21 | Heat Shink Tube (WIFI-2) | PE | Yellow Tube/Black Text | 1 |
| 22 | Heat Shrink Tube (Wi-Fi-3) | PE | Yellow Tube /Black Text | 1 |
| 23 | Heat Shrink Tube (Wi-Fi-4) | PE | Yellow Tube /Black Text | 1 |
| 24 | Heat Shrink Tube (Wi-Fi-5) | PE | Yellow Tube /Black Text | 1 |
| 25 | Heat Shrink Tube(GNSS) | PE | Blue Tube/White Text | 1 |

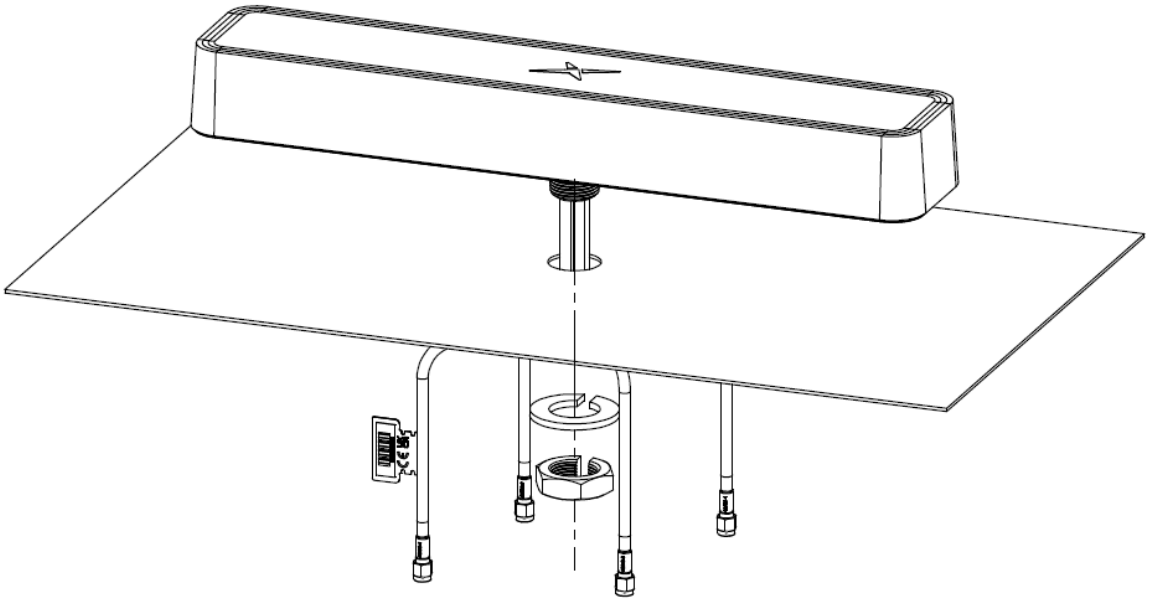


# 4. Installation Guide



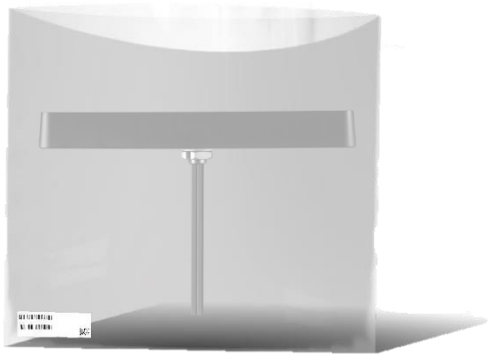

RECCOMMENDED HOLE SIZE FOR MOUNTING

MAX PANEL THICKNESS = 6MM



# 5. Packaging

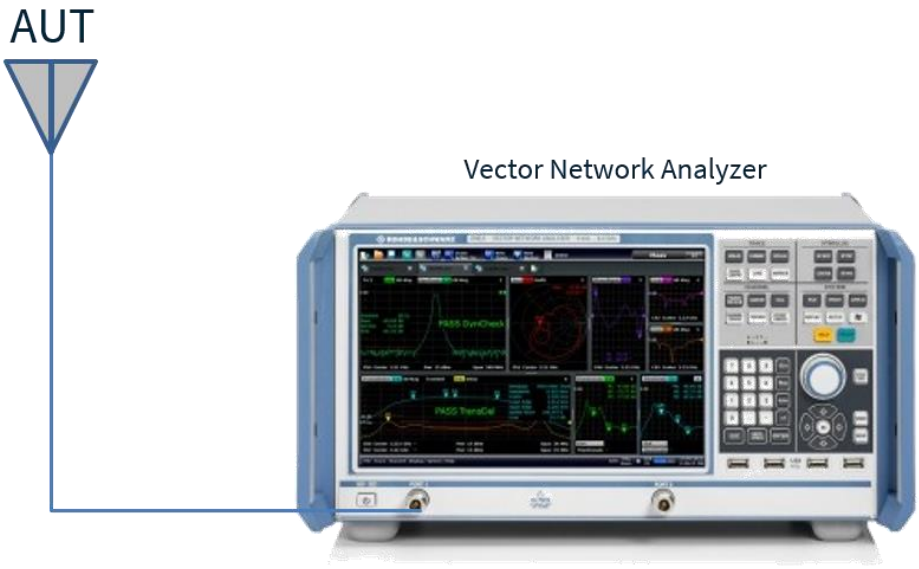
1pc MA8010.A.001 per PE Bag



10pcs MA8010.A.001 per carton
Dimensions 370 x 370 x 300mm

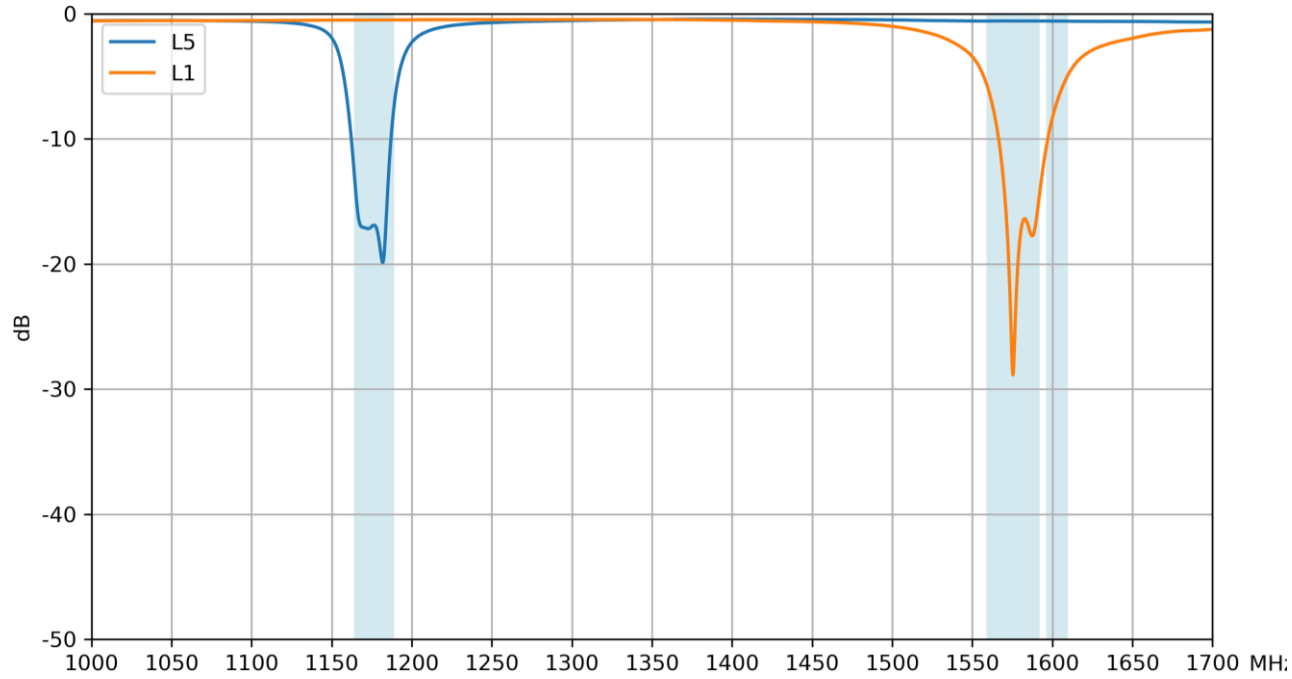
# 6. Antenna Characteristics

## 6.1 Test Set-up

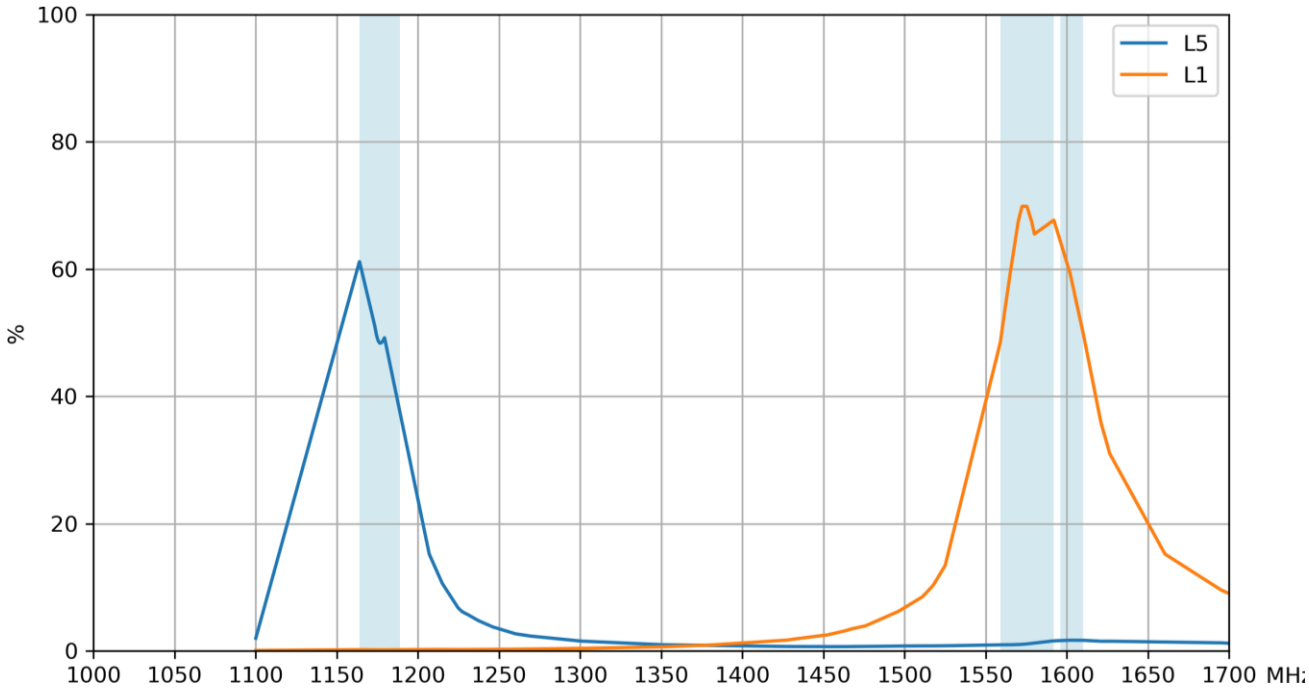


VNA Test Set up

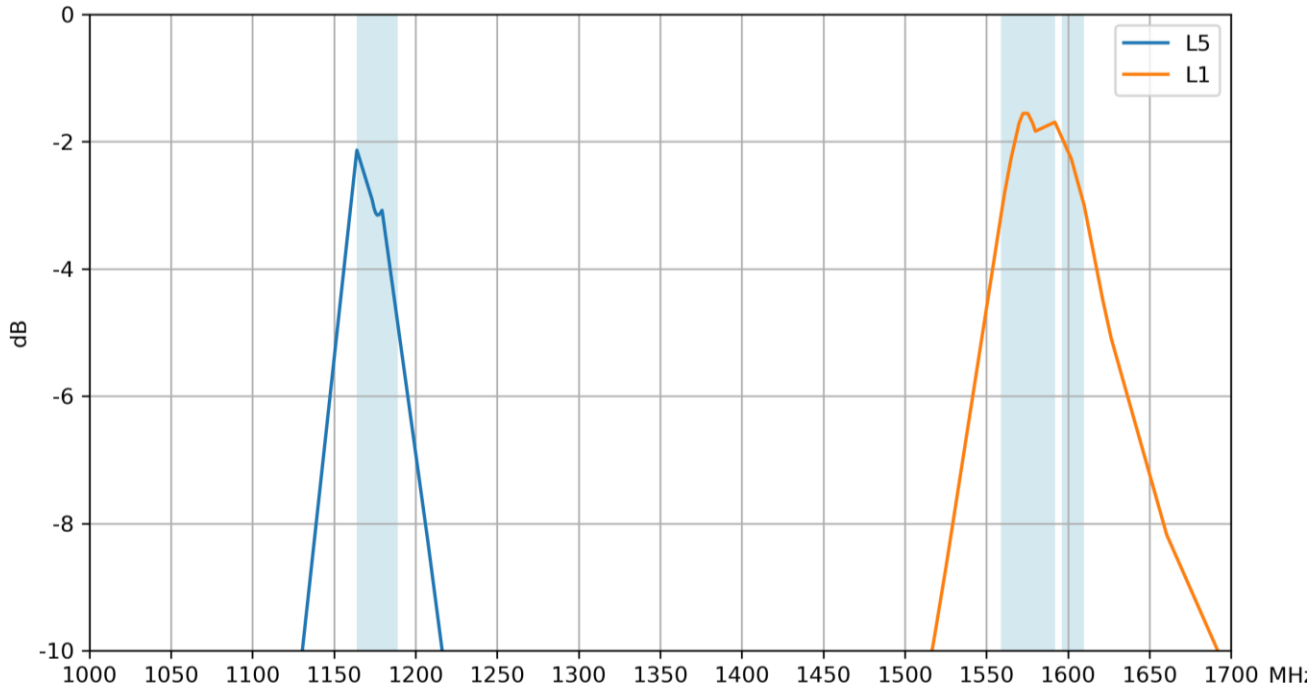
## 6.2 Return Loss (GNSS)



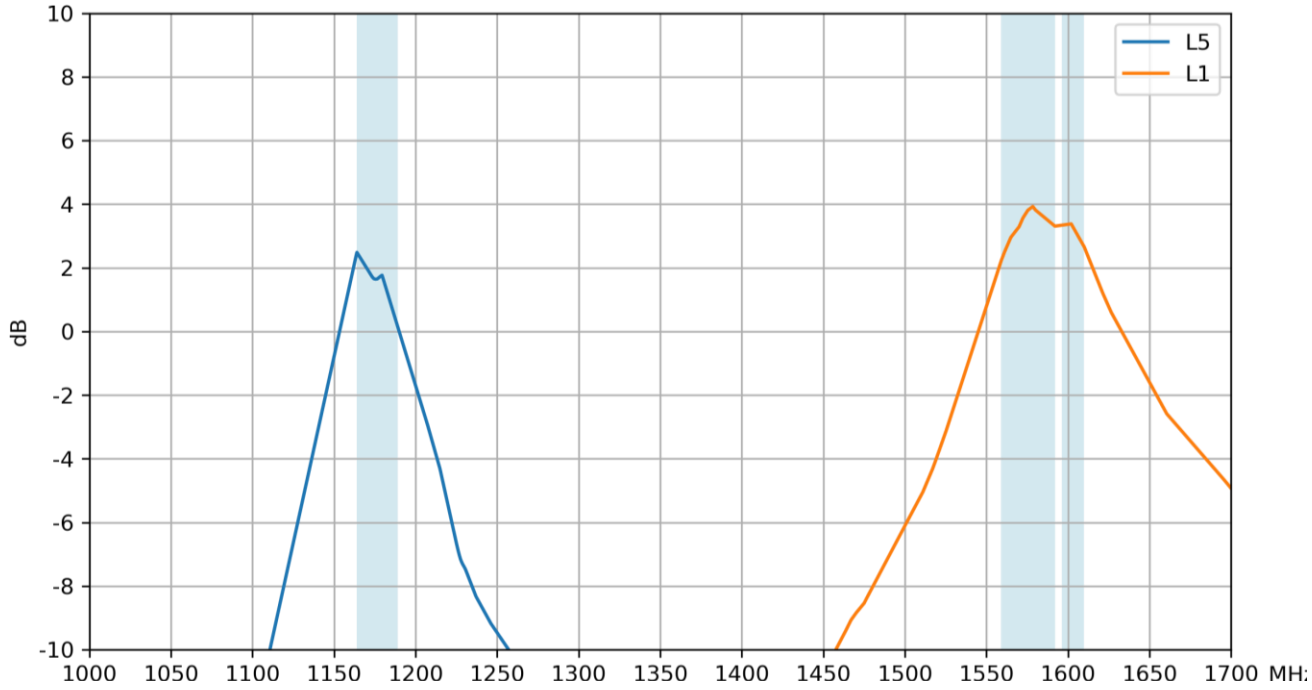

## 6.3 Efficiency (GNSS)



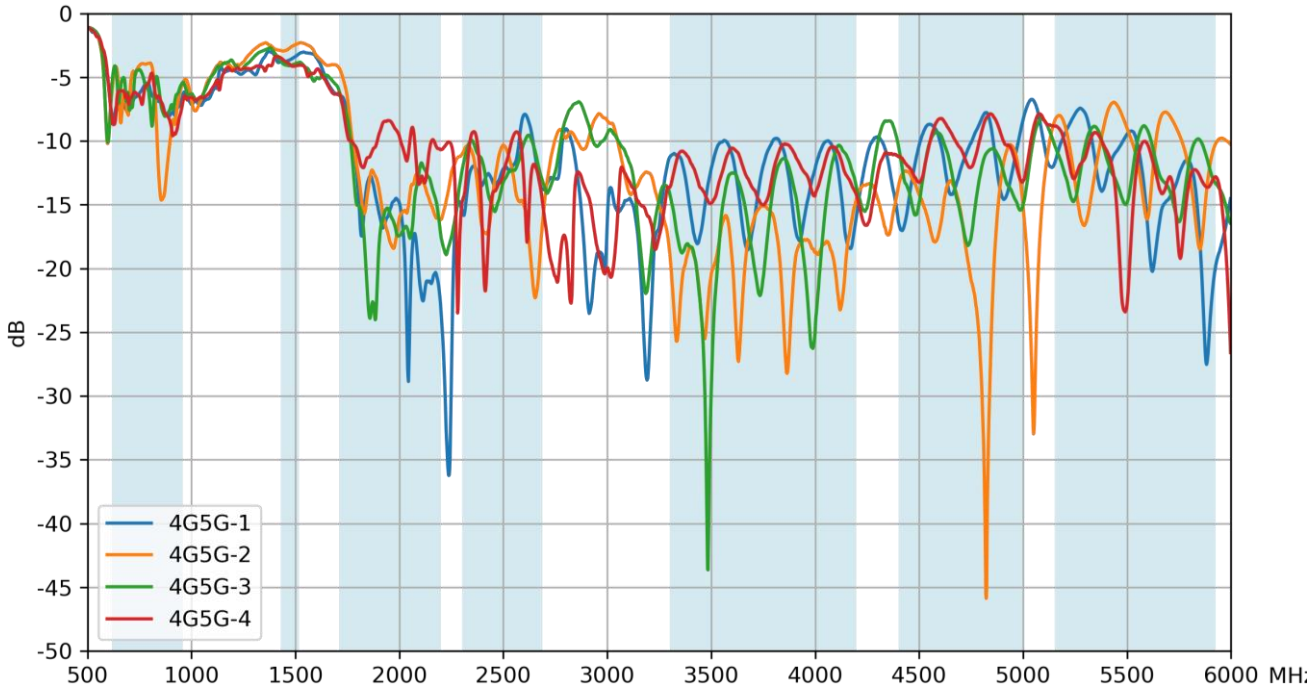
## 6.4 Average Gain (GNSS)



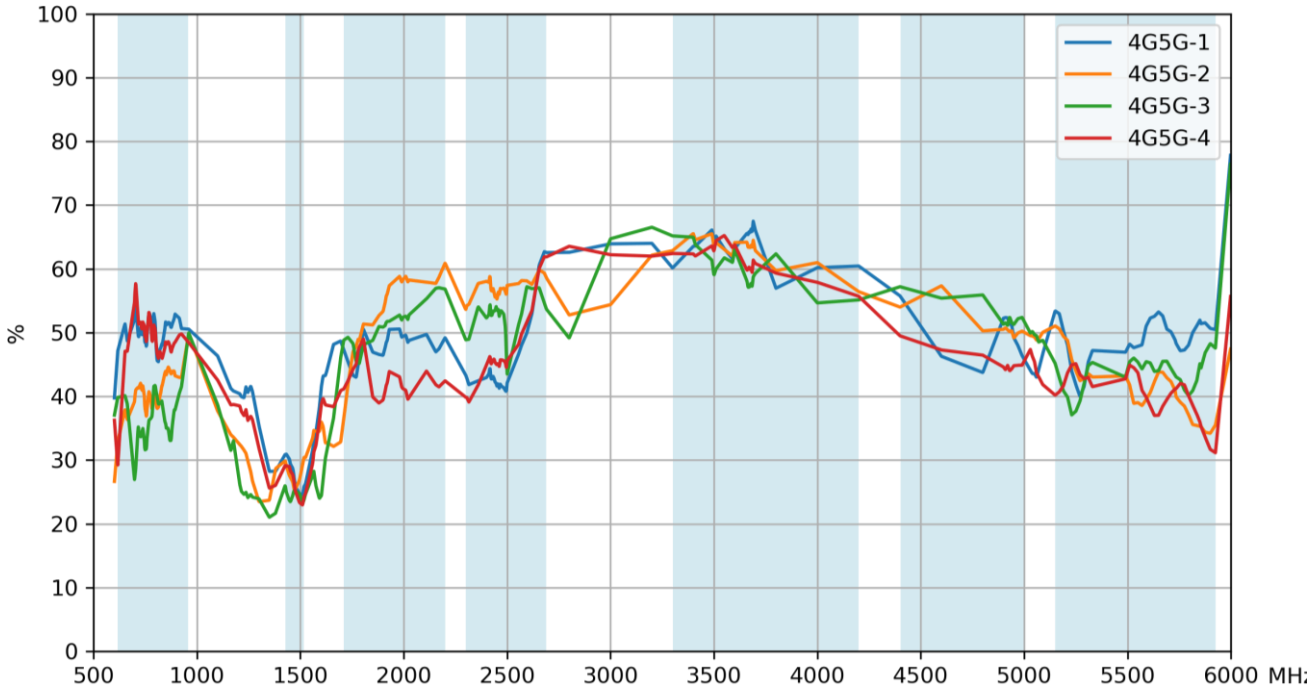

## 6.5 Peak Gain (GNSS)



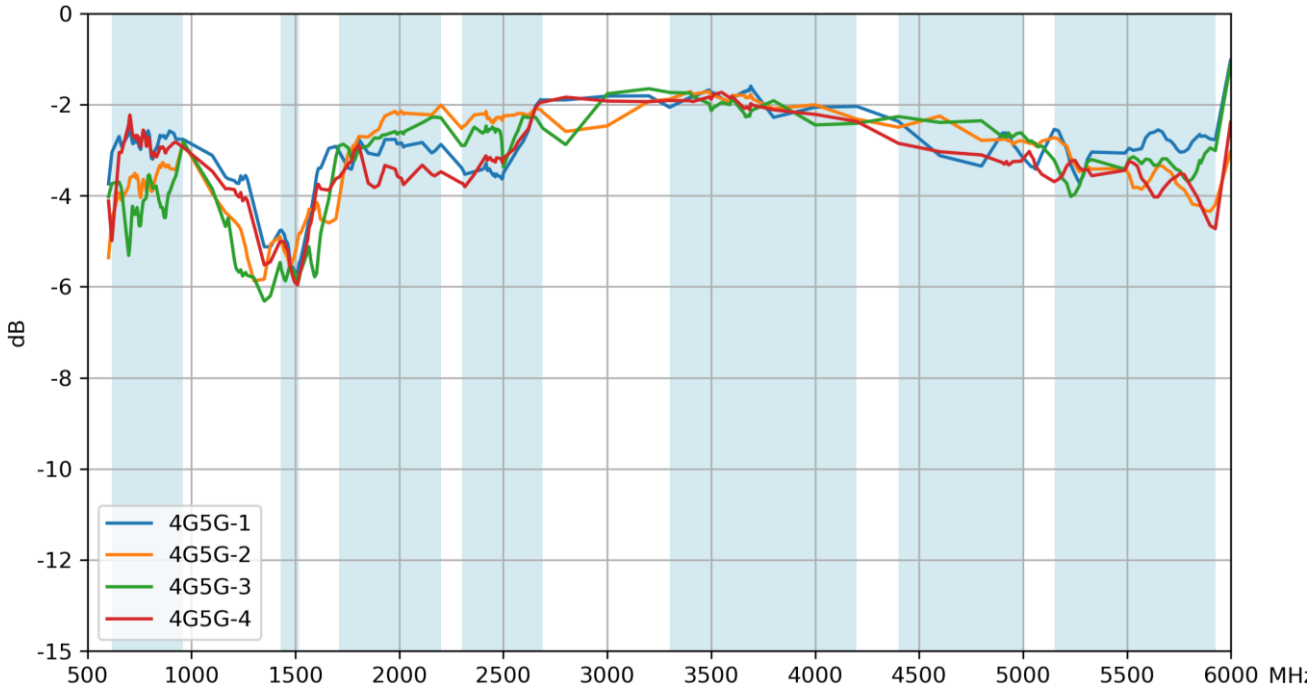
## 6.6 Return Loss (4G/5G)



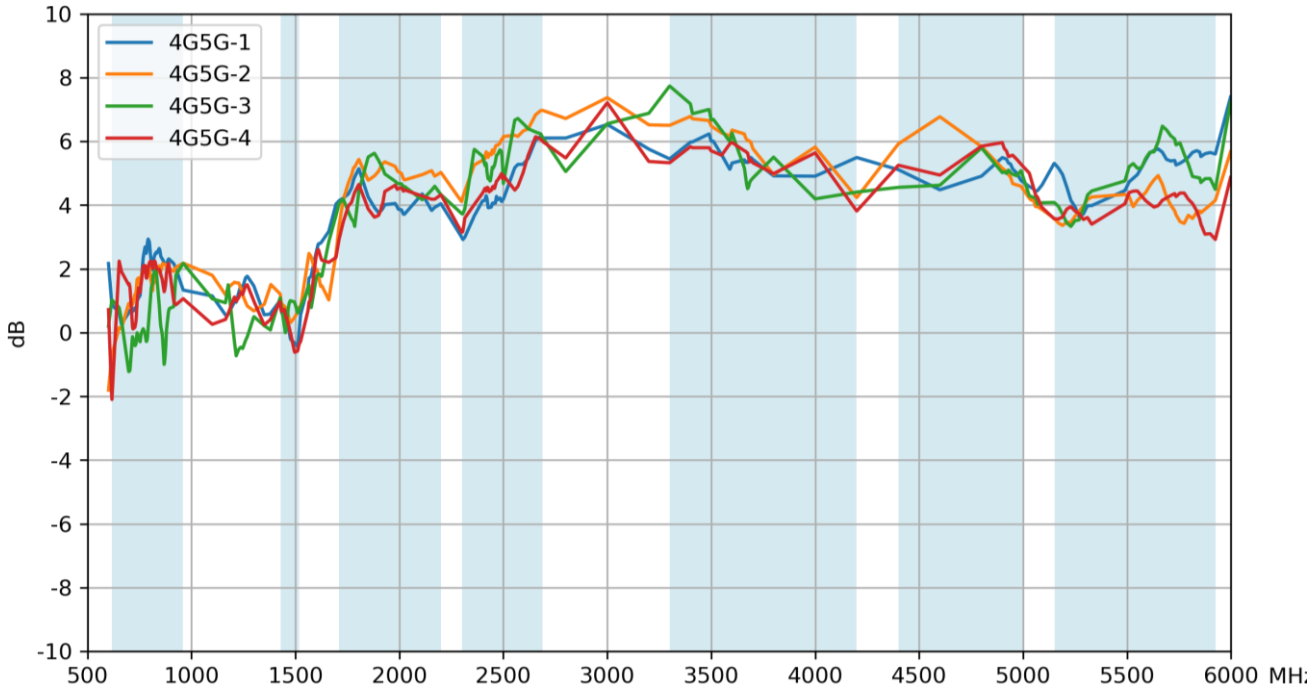

## 6.7 Efficiency (4G/5G)



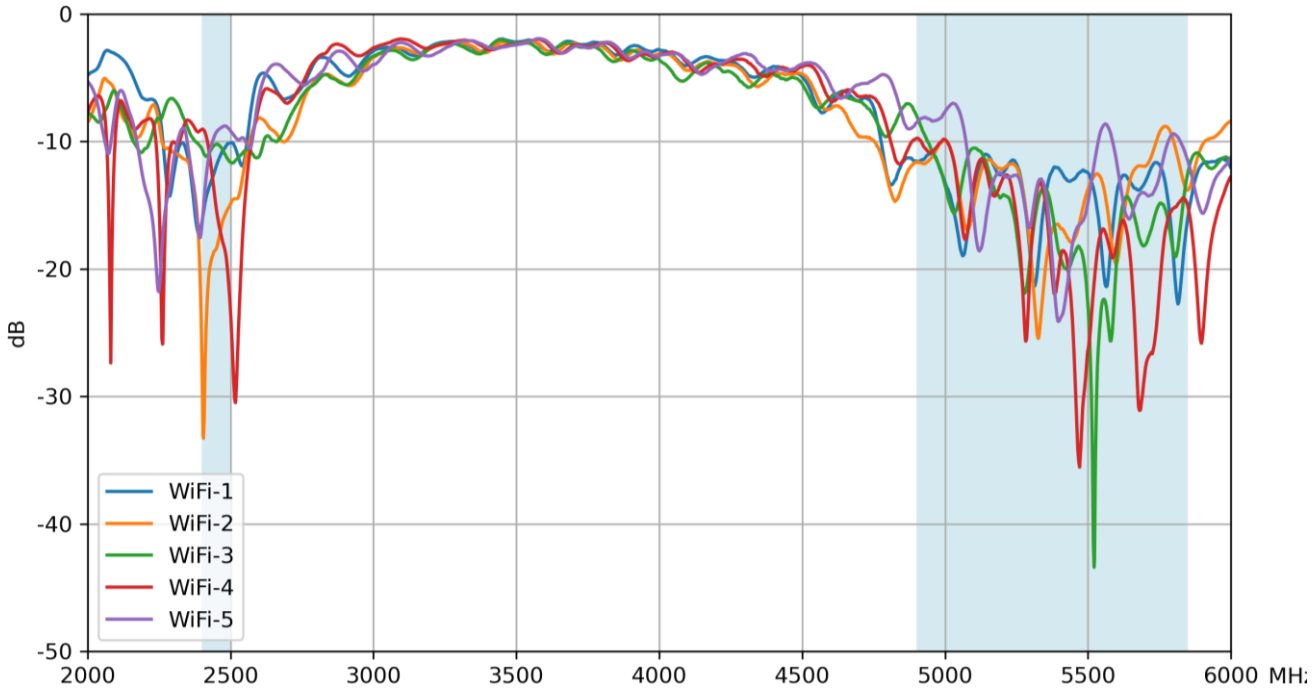
## 6.8 Average Gain (4G/5G)



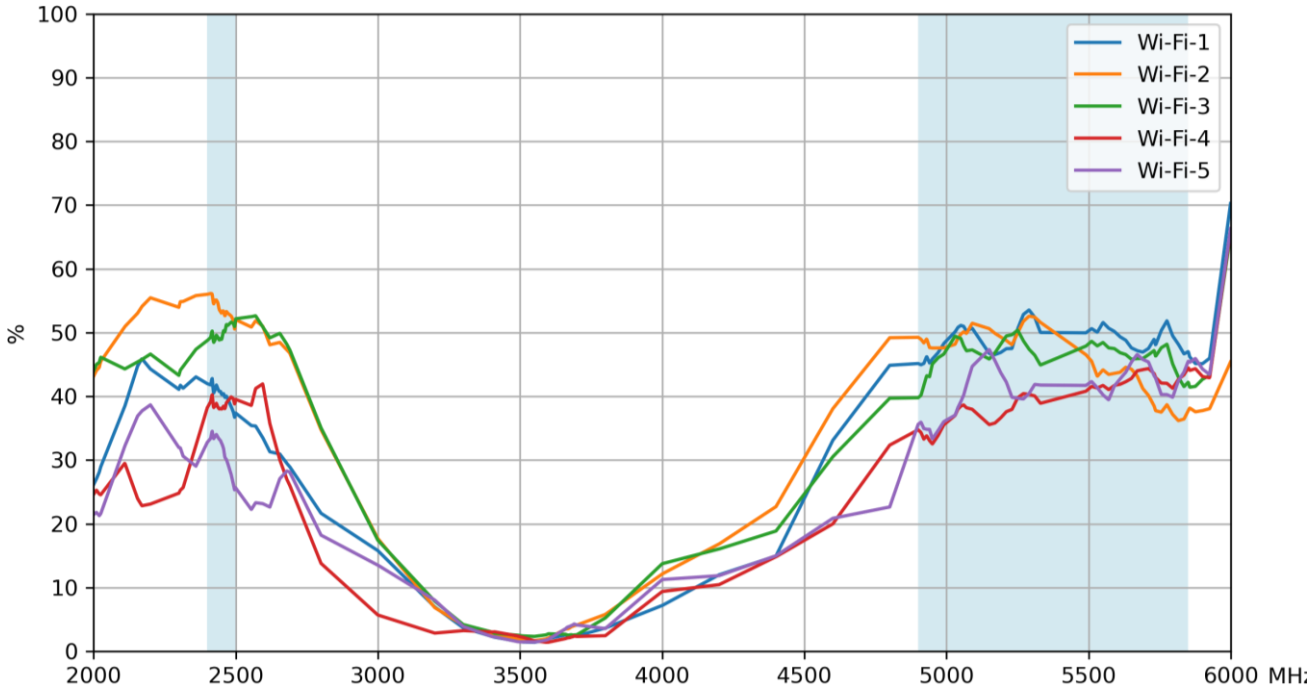

## 6.9 Peak Gain (4G/5G)



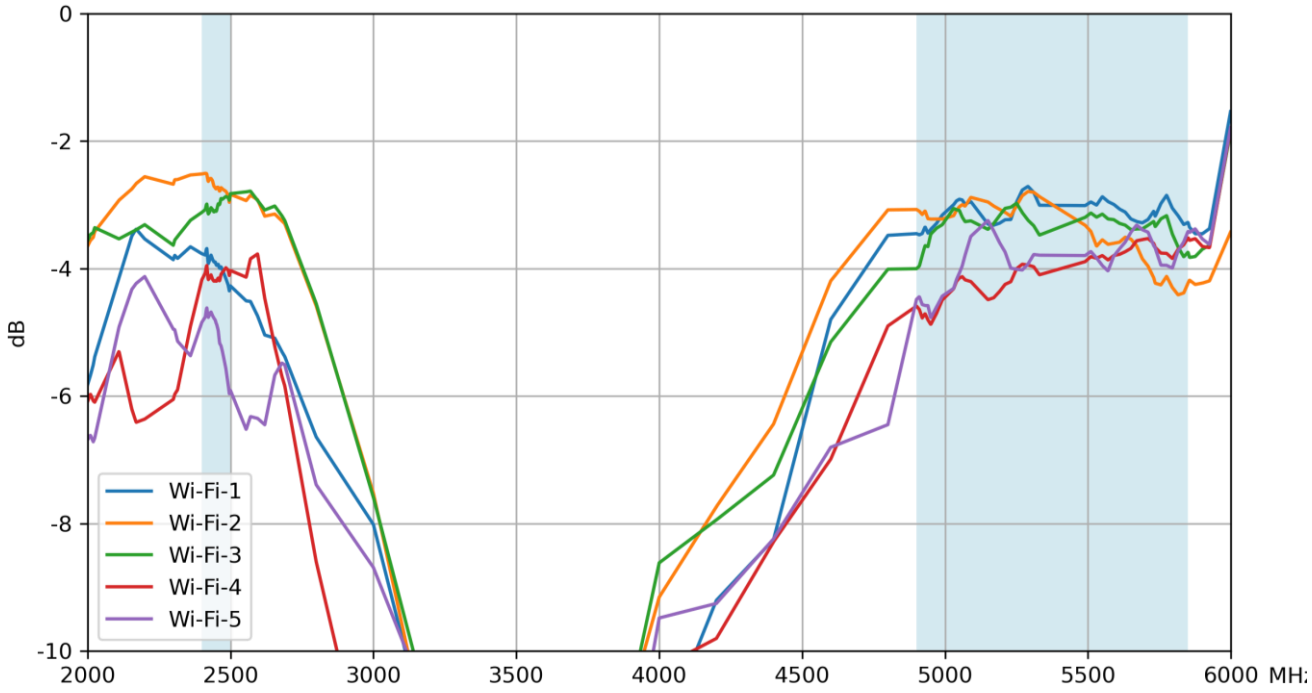
## 6.10 Return Loss (Wi-Fi)



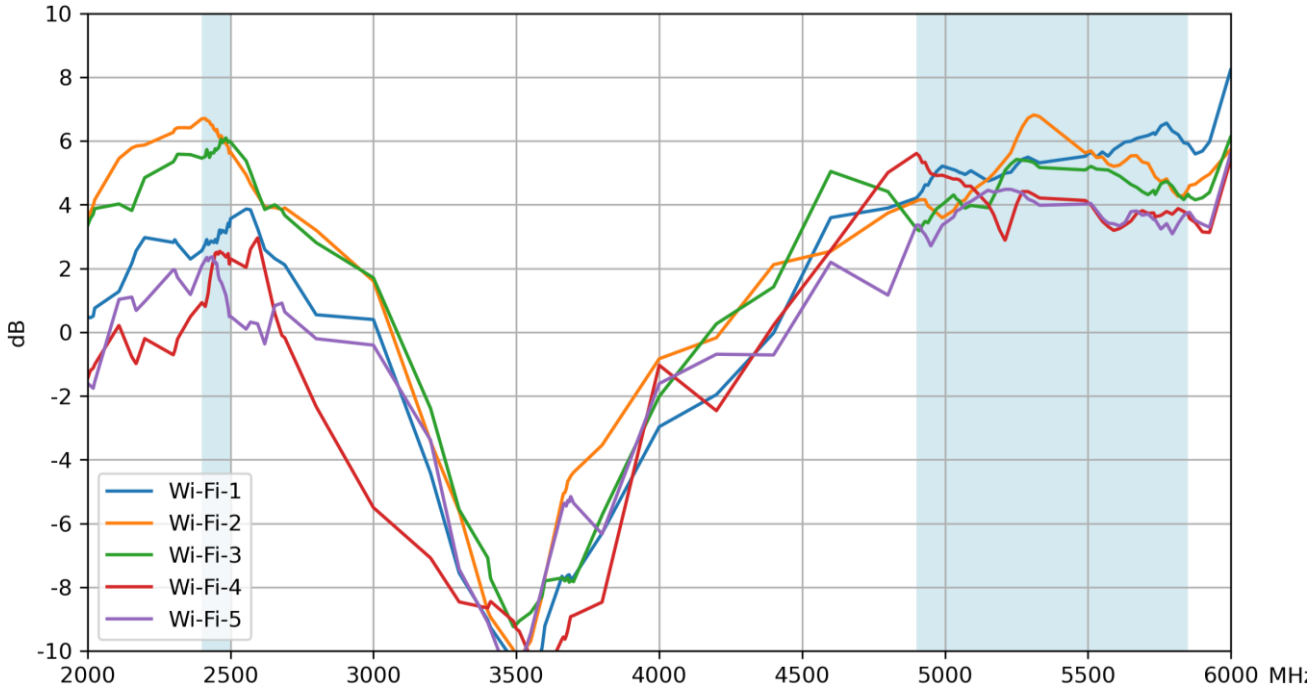

## 6.11 Efficiency (Wi-Fi)



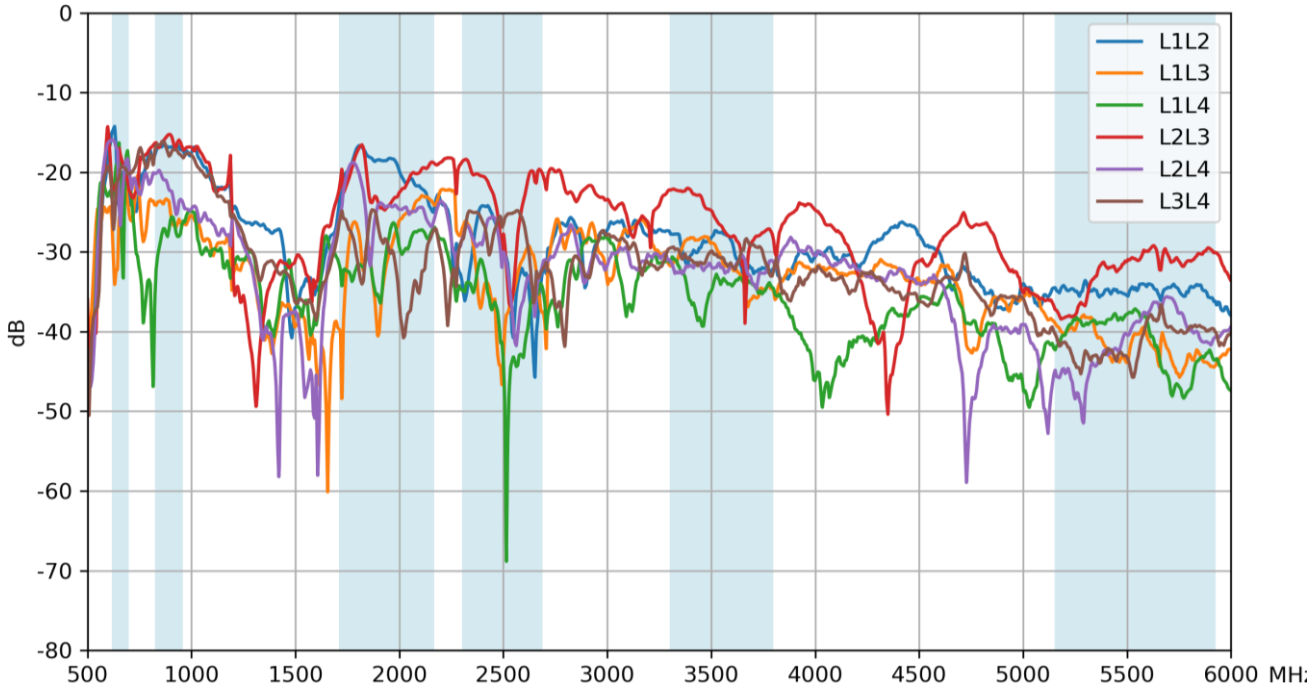
## 6.12 Average Gain (Wi-Fi)



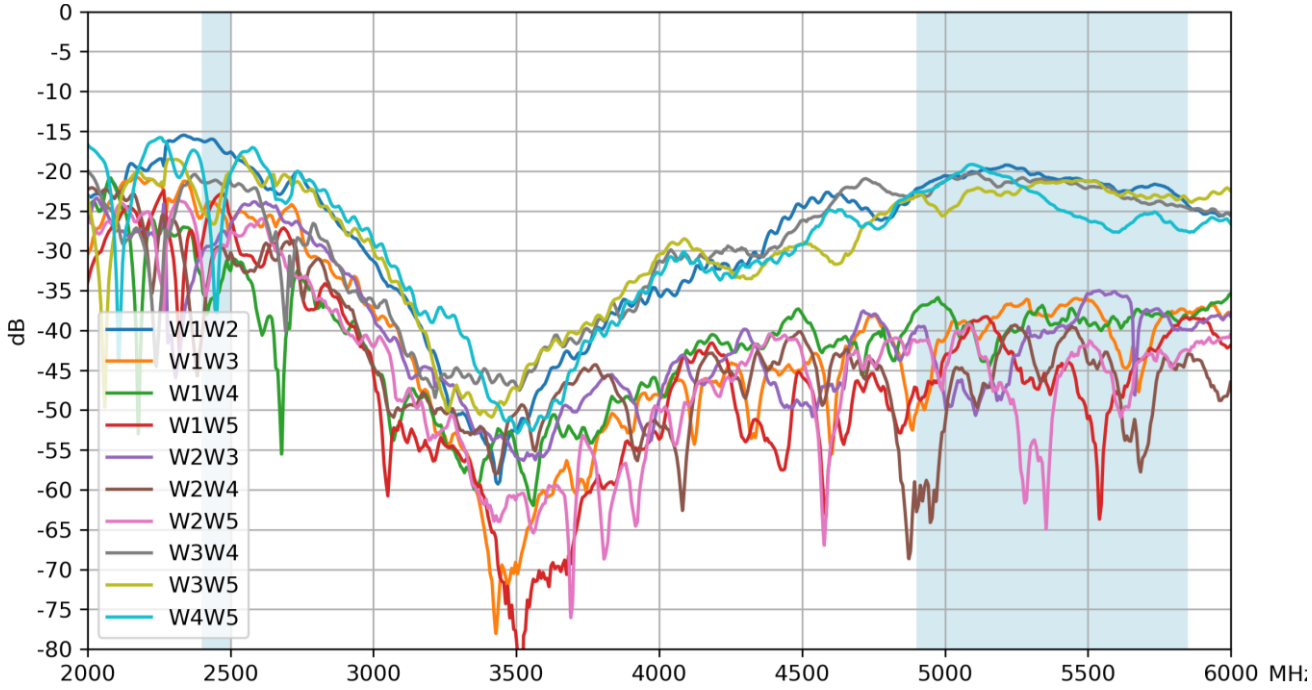

## 6.13 Peak Gain (Wi-Fi)



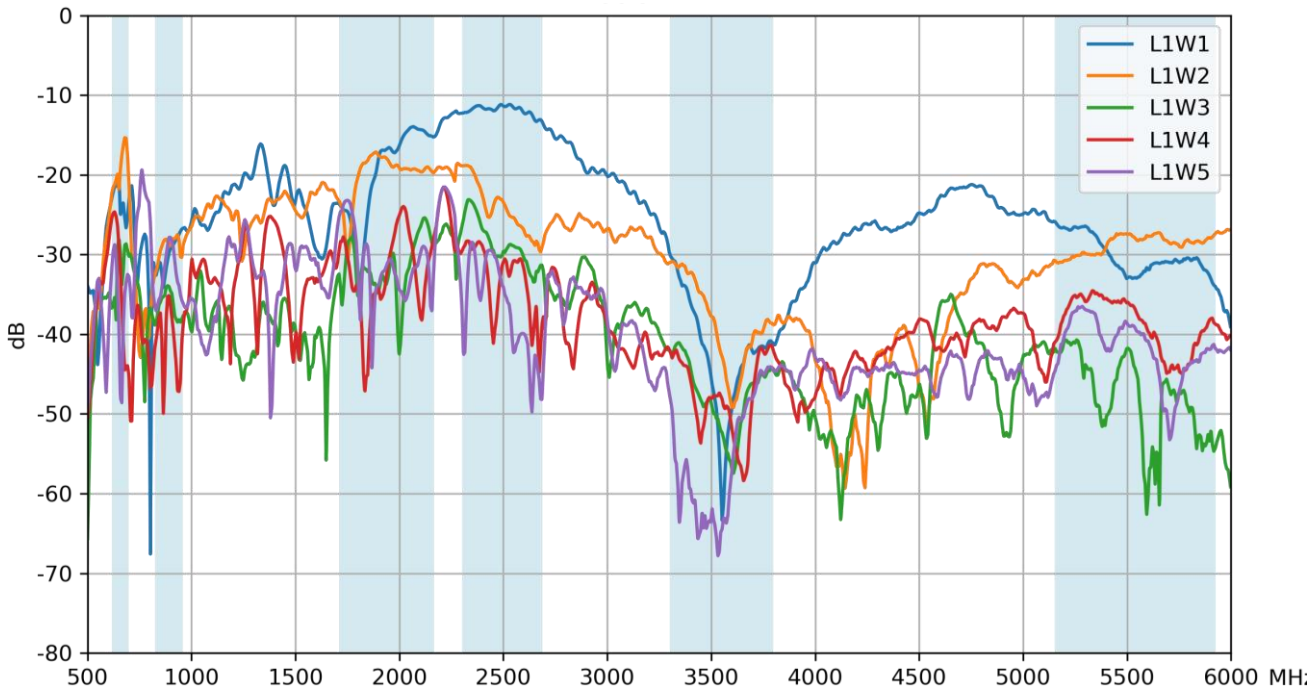
## 6.14 Isolation (4G/5G)



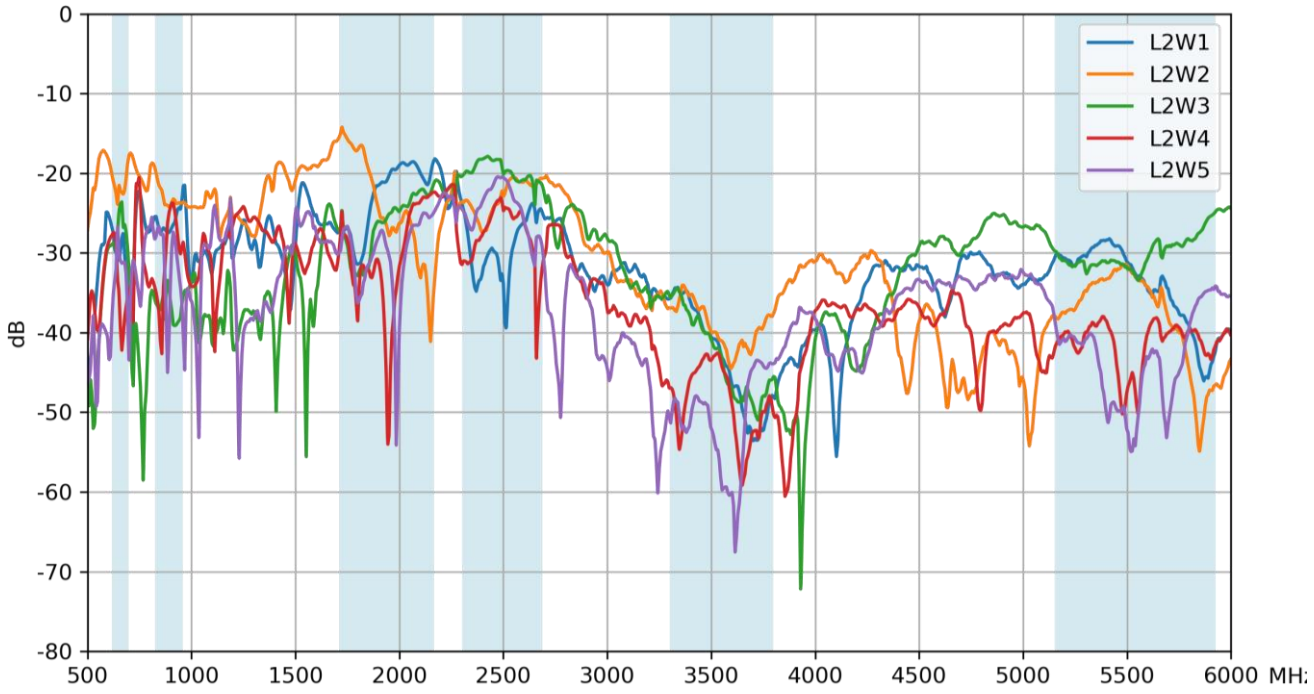

## 6.15 Isolation (Wi-Fi)



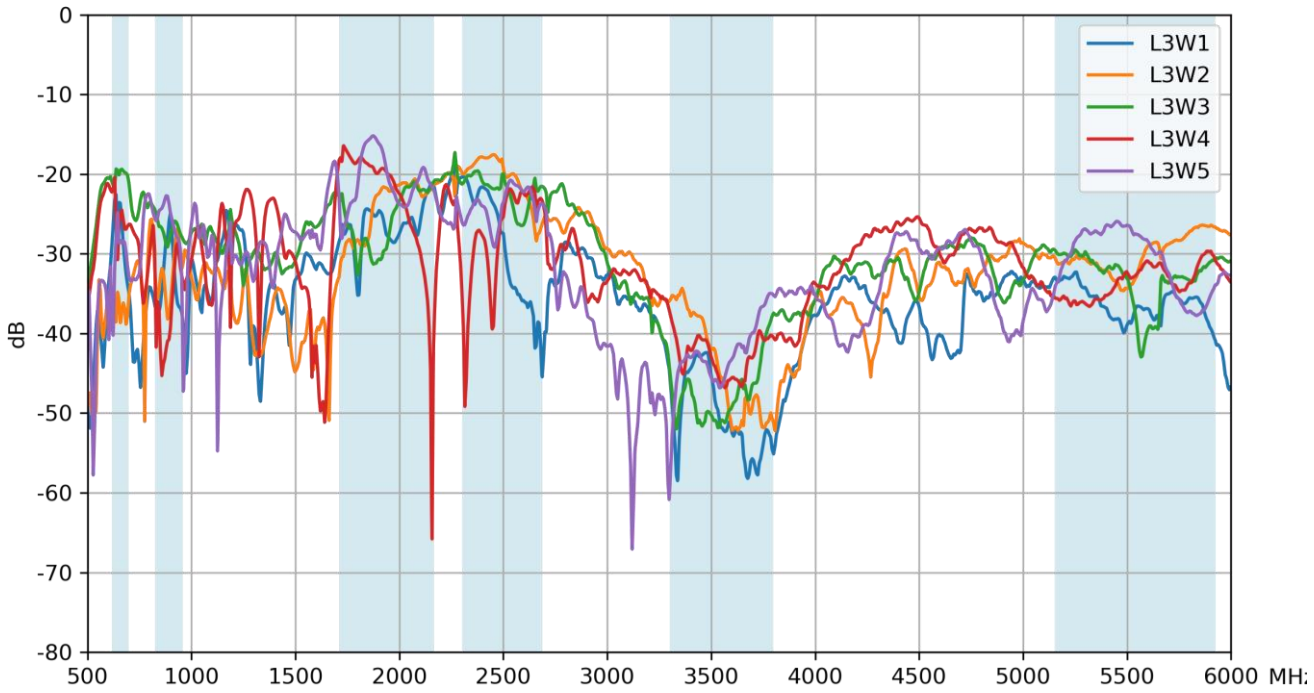
## 6.16 Isoalation (4G/5G-1 – Wi-Fi)



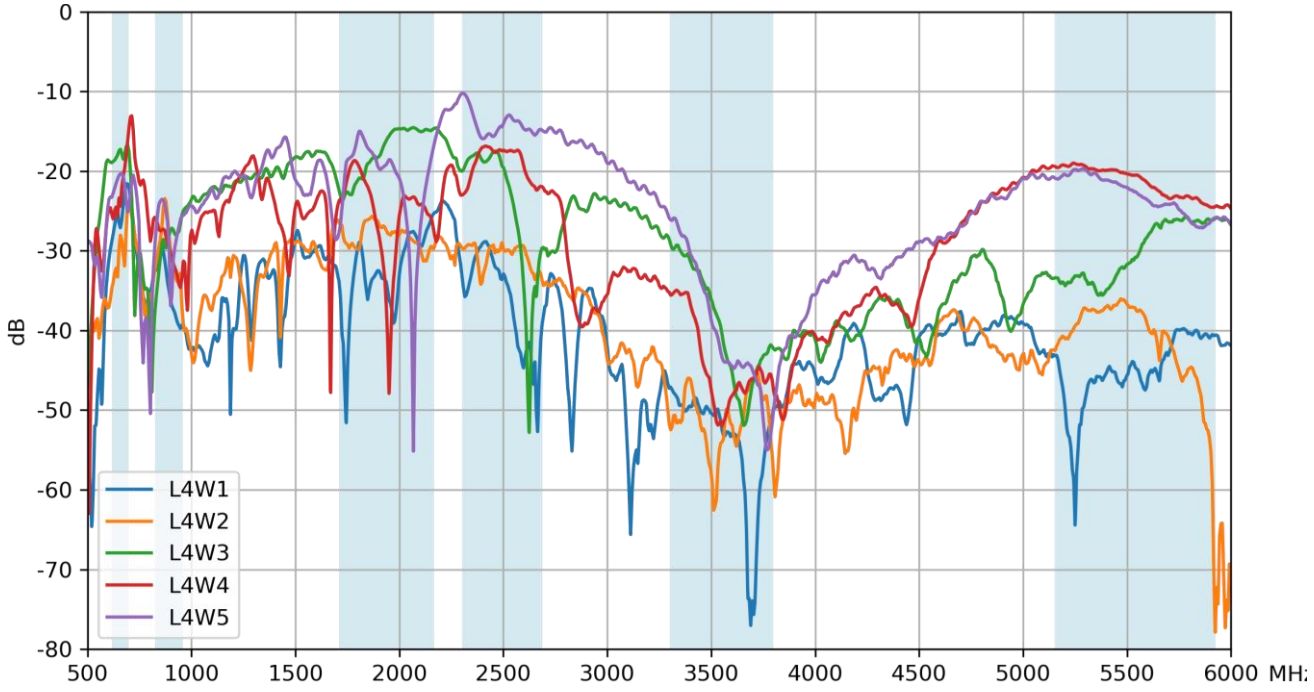

## 6.17 Isolation (4G/5G-2 – Wi-Fi))



## 6.18 Isoalation (4G/5G-3 – Wi-Fi)

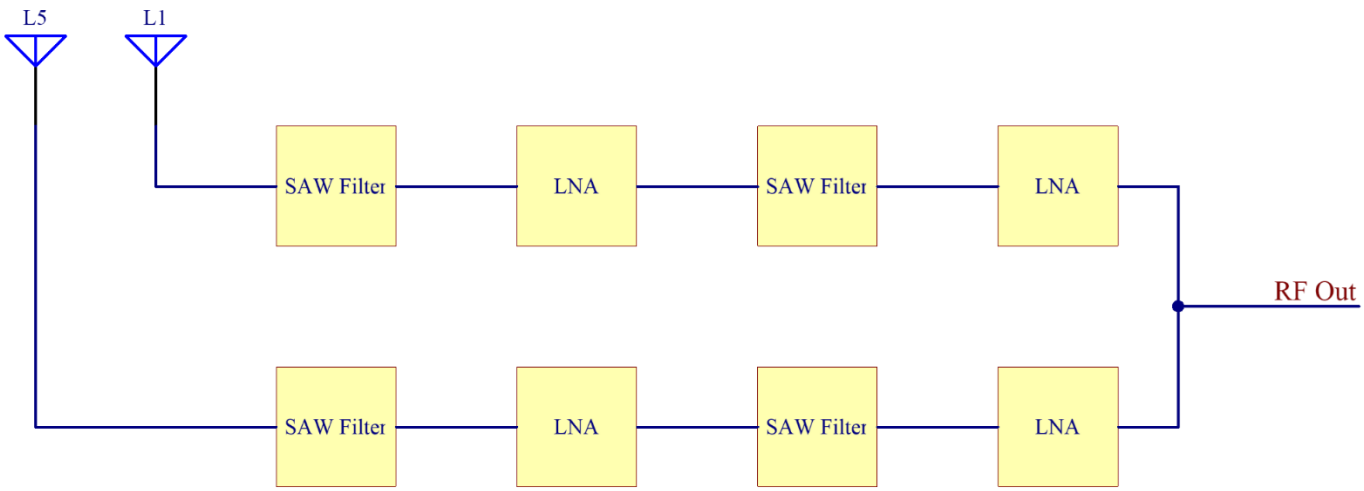



## 6.19 Isolation (4G/5G-4 – Wi-Fi))

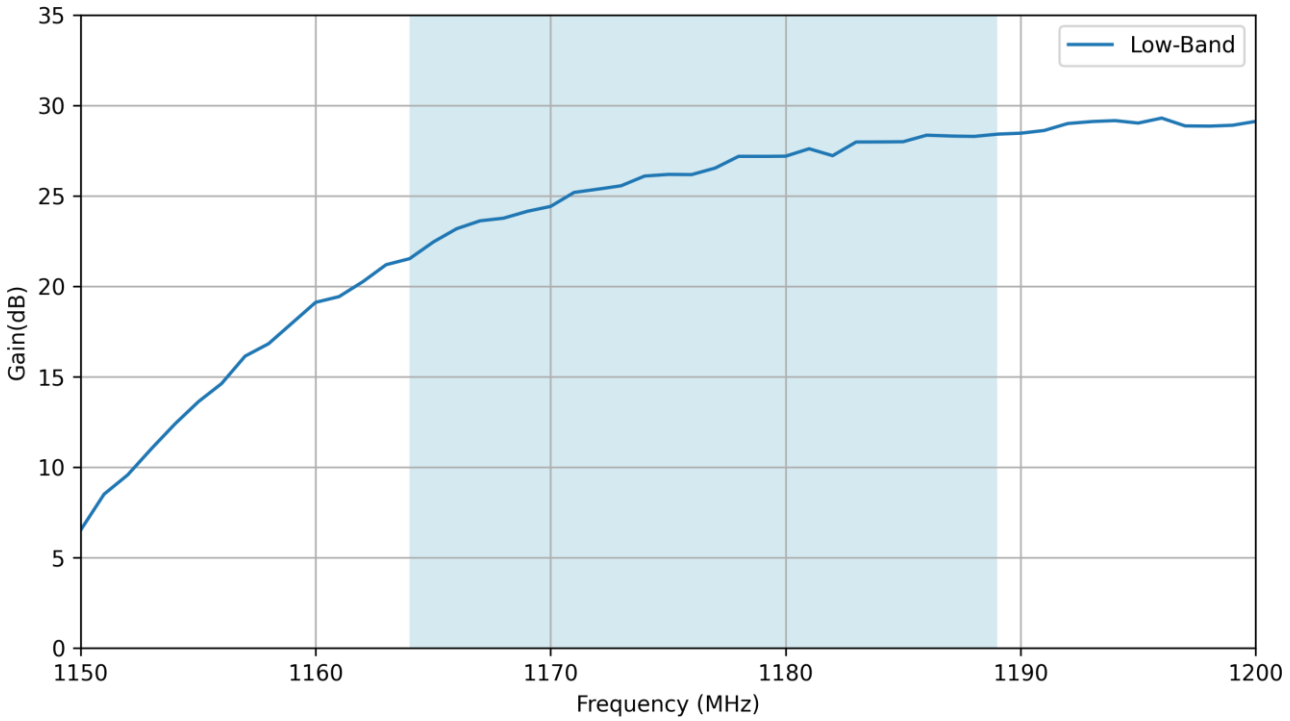


# 7. LNA Characteristics

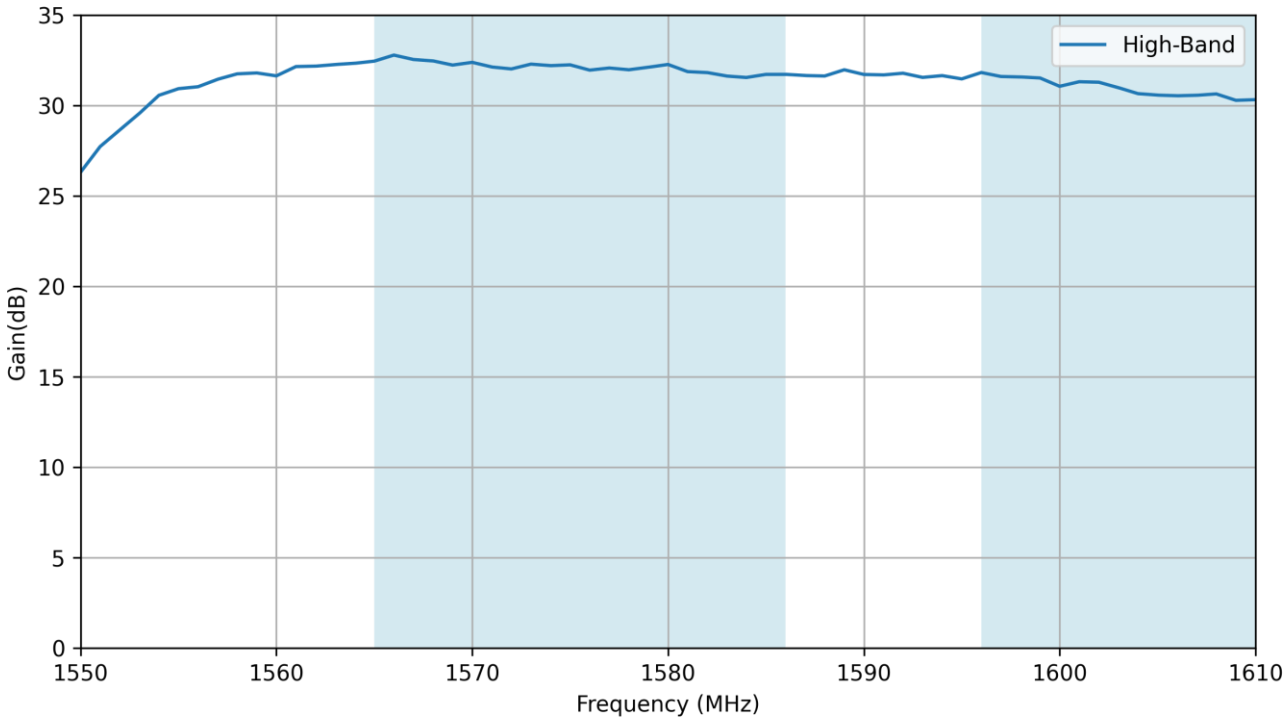
## 7.1 Block Diagram



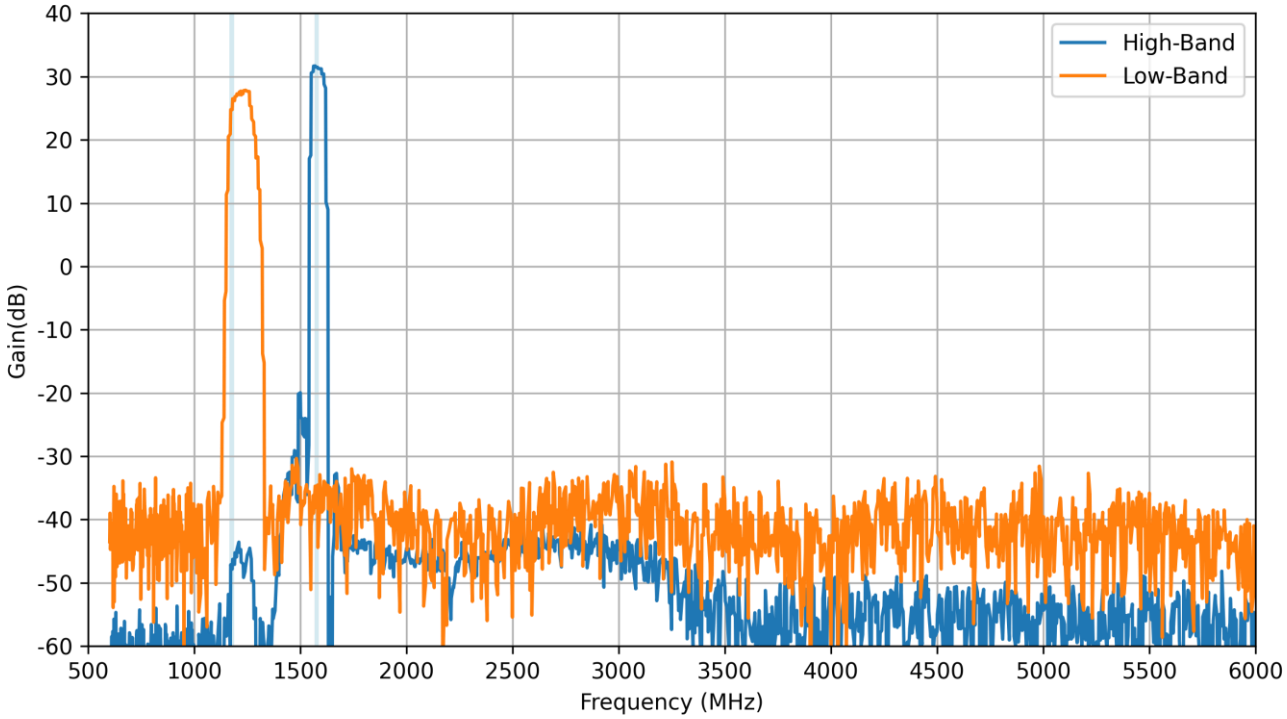

## 7.2 Gain – Low-Band



## 7.3 Gain – High-Band

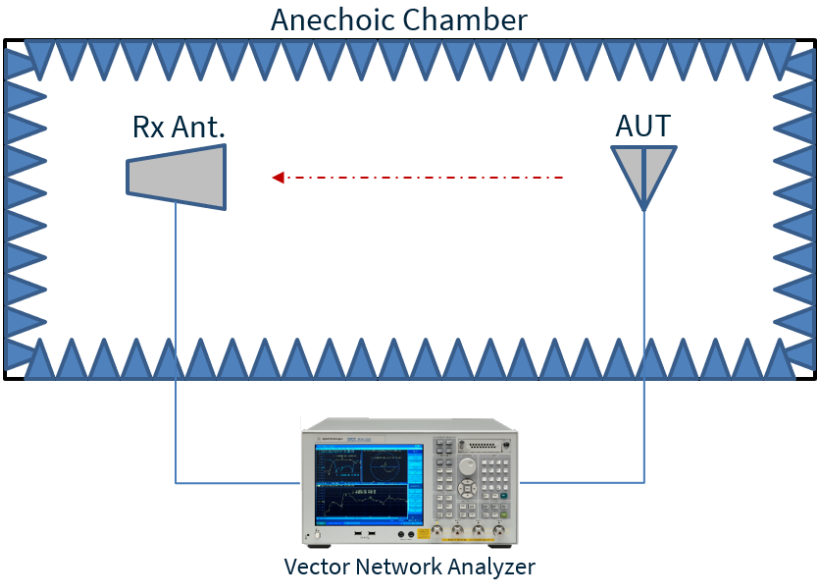


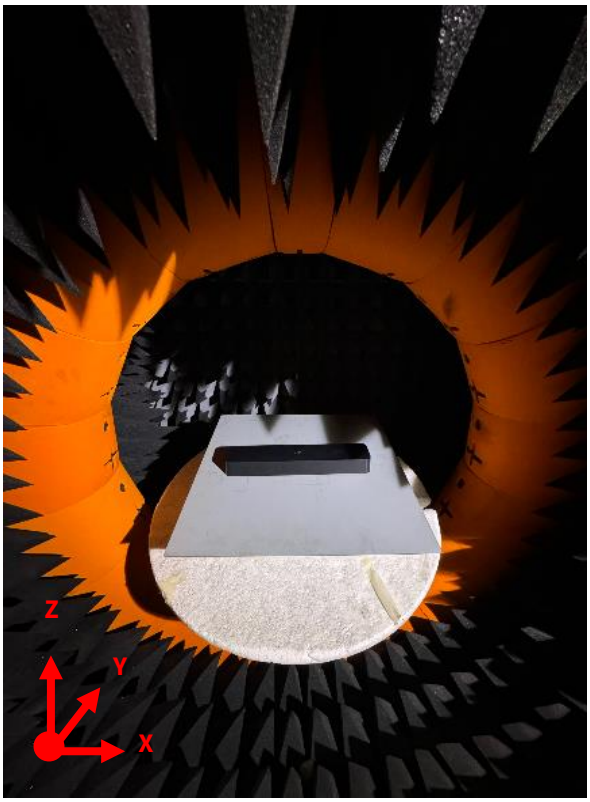

## 7.4 Out Of Band Attenuation



# 8. Radiation Patterns

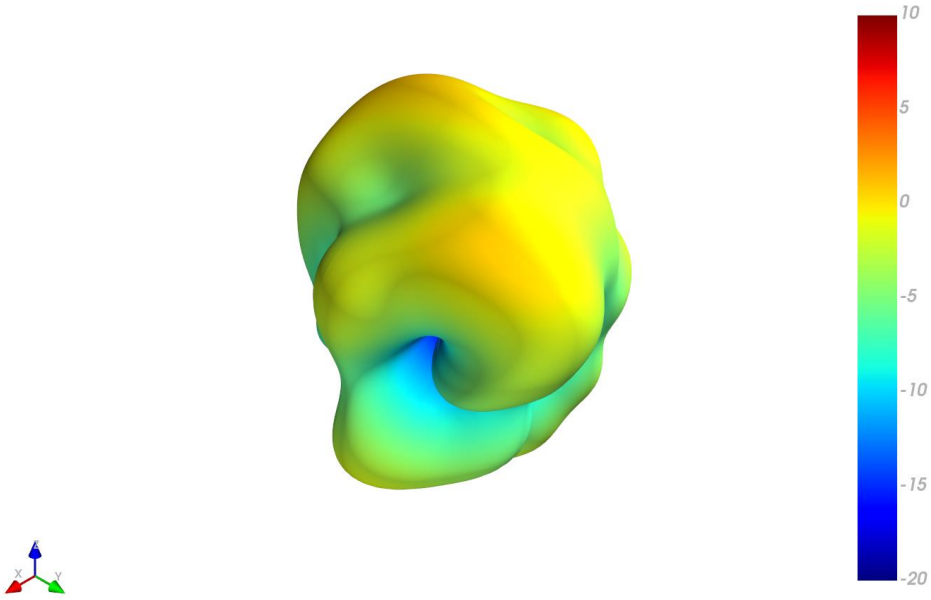
## 8.1 Test Setup

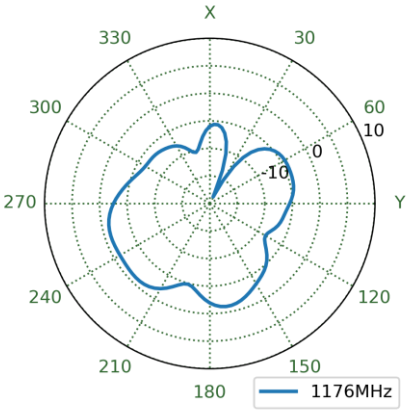
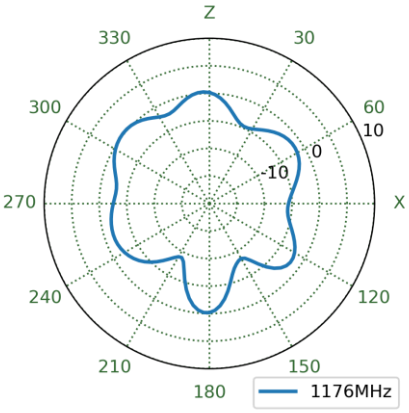
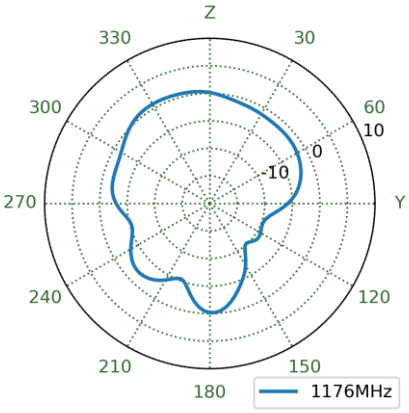


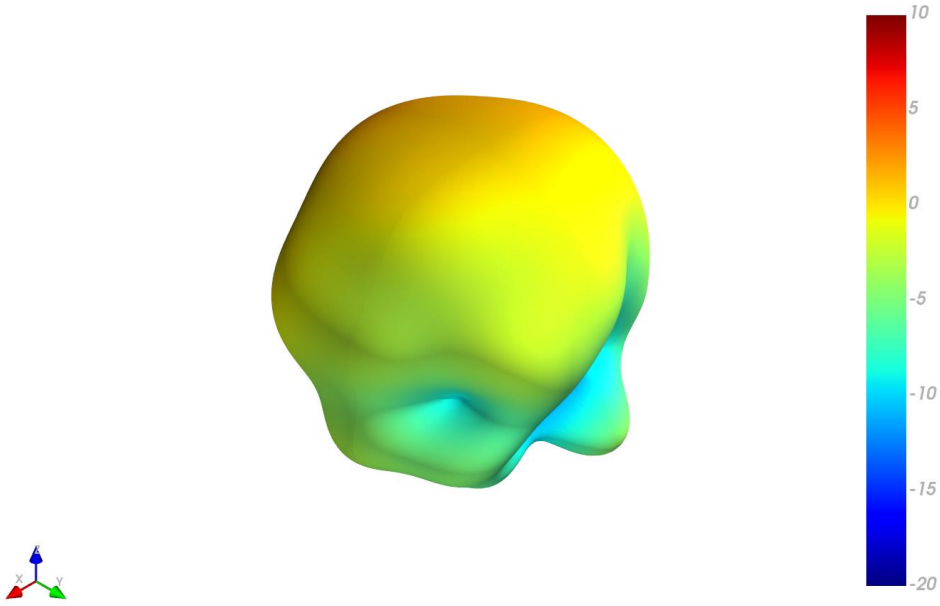

Chamber Test Set up

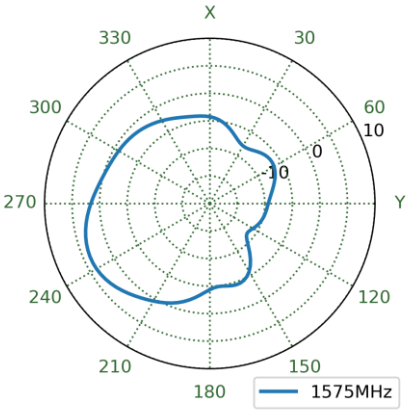
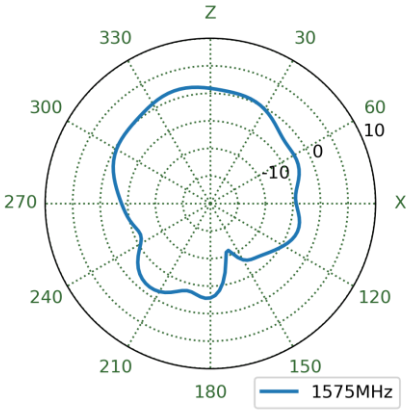
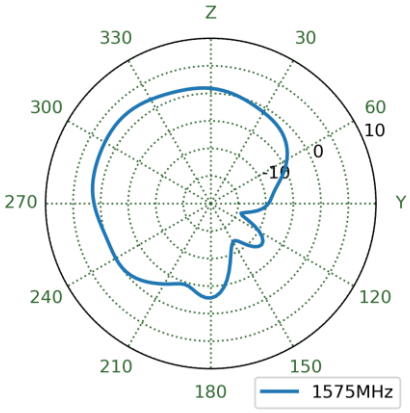
## 8.2 GNSS - Patterns at 1176 MHz



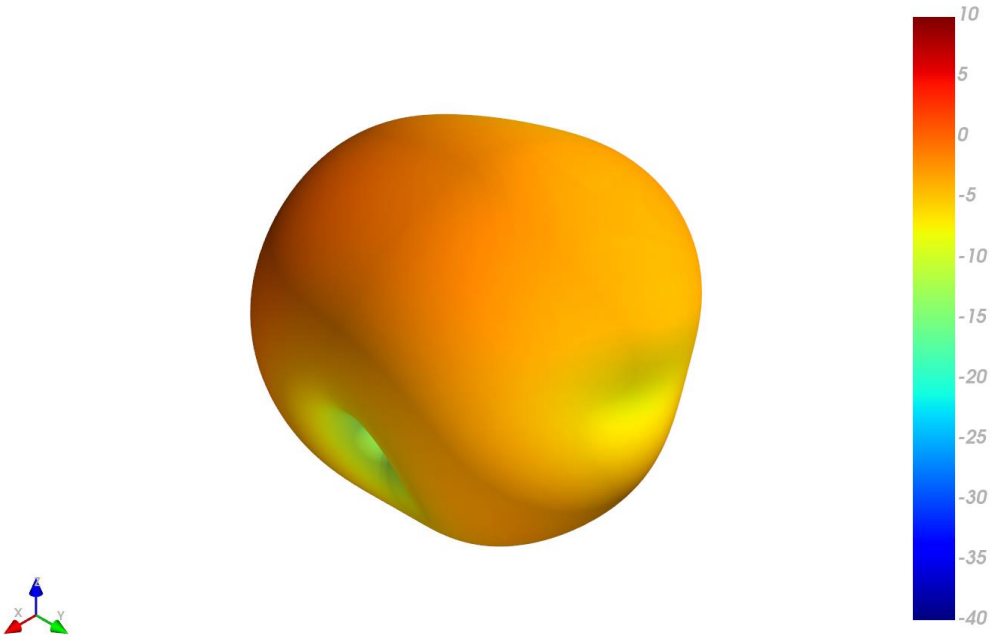

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

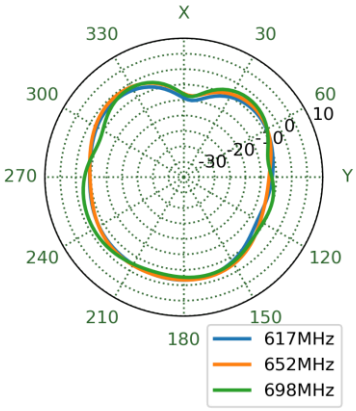
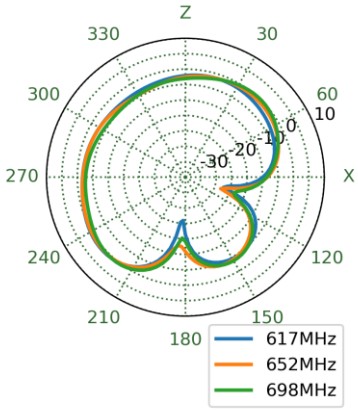
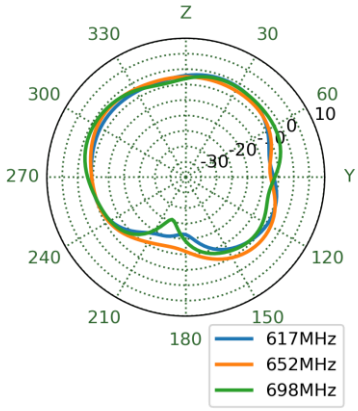
## 8.3 GNSS - Patterns at 1575 MHz



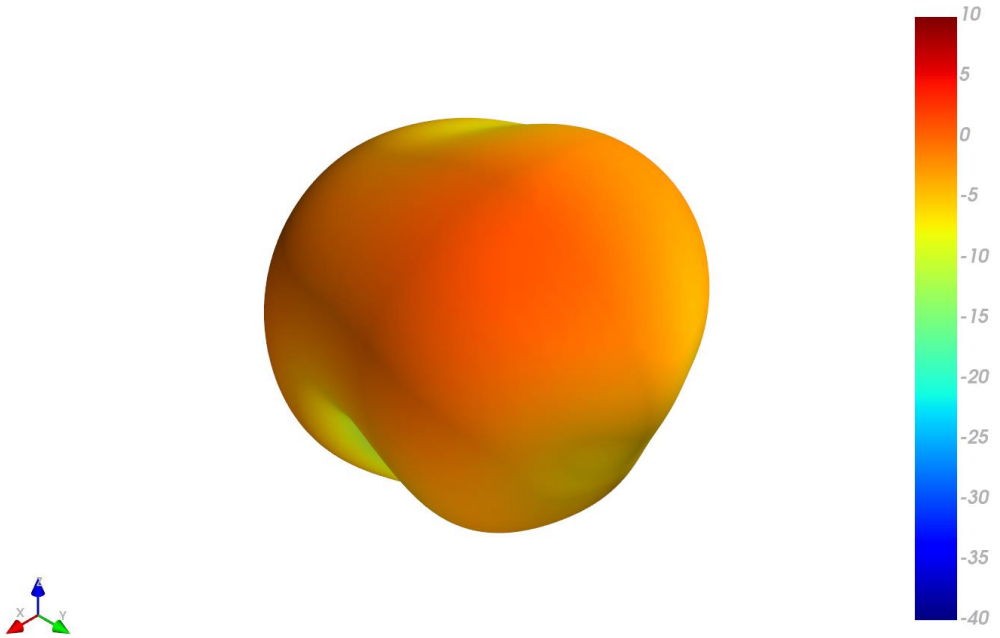

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

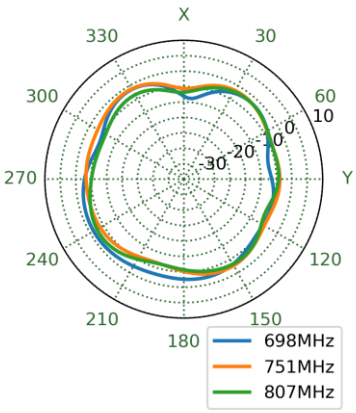
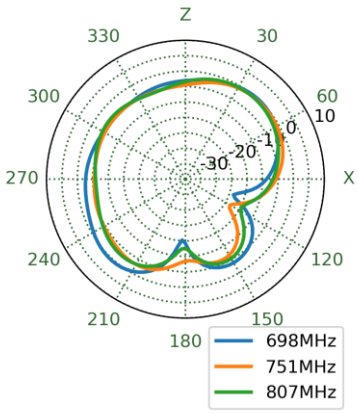
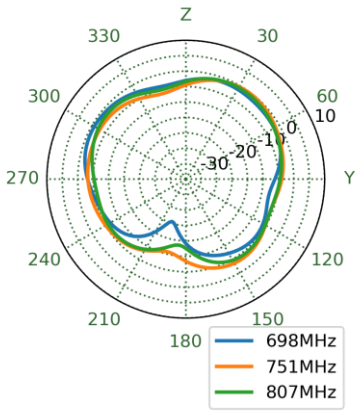
## 8.4 4G/5G-1 - Patterns at 652 MHz



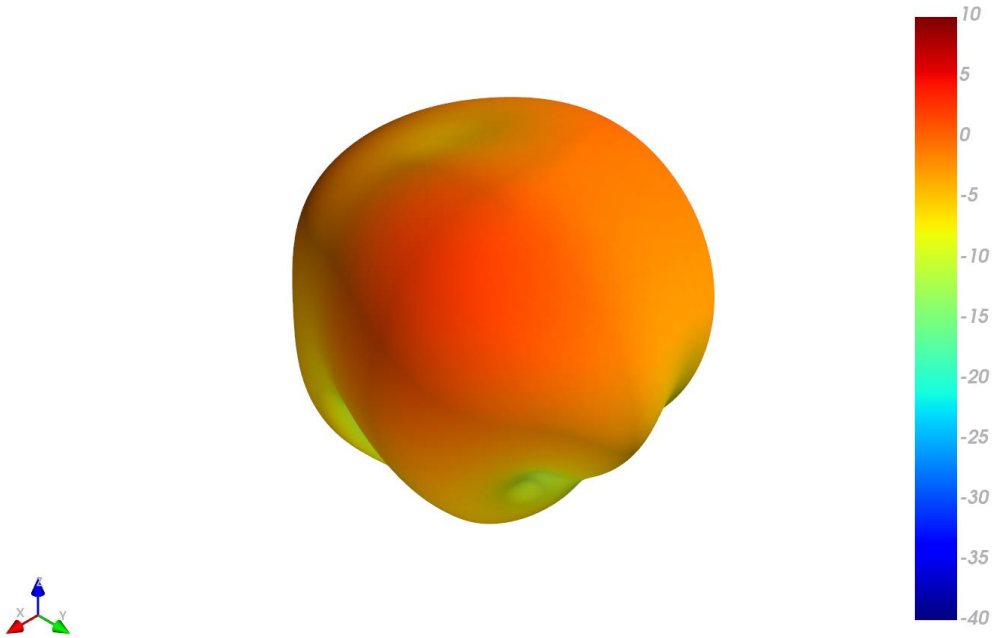

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

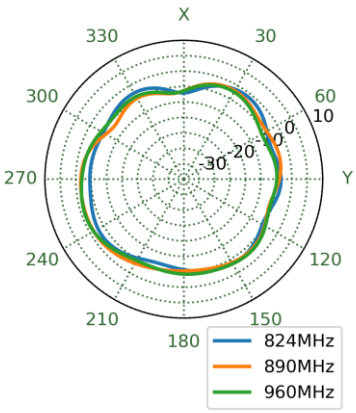
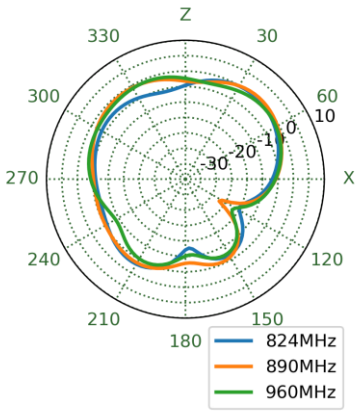
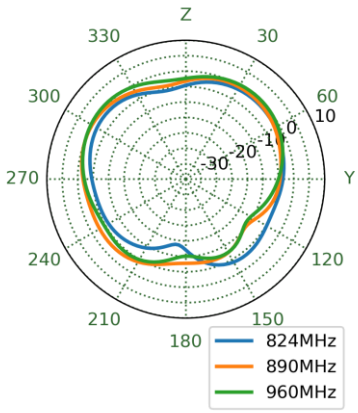
## 8.5 4G/5G-1 - Patterns at 751 MHz



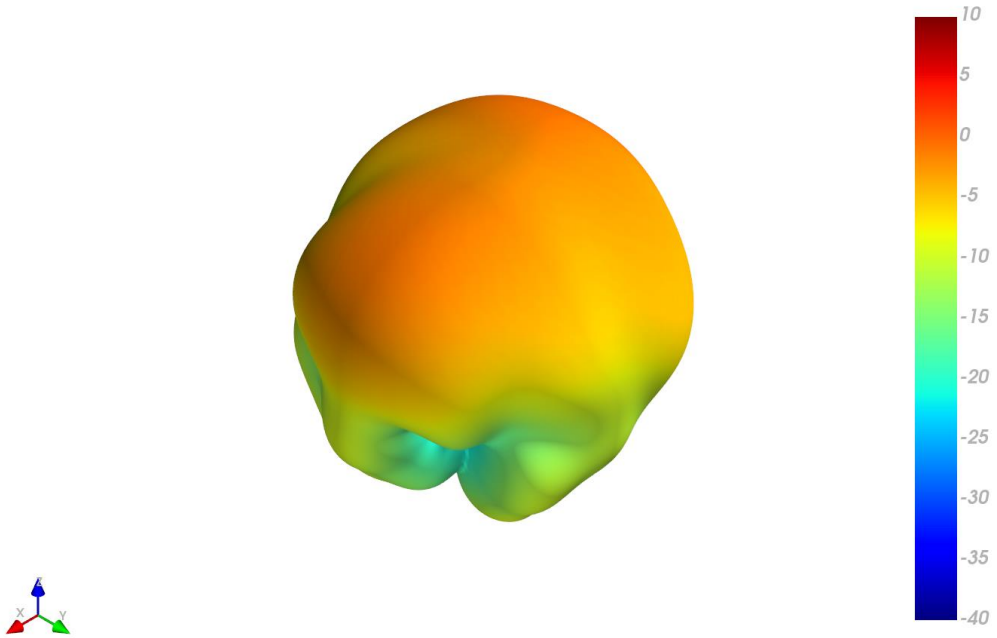

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

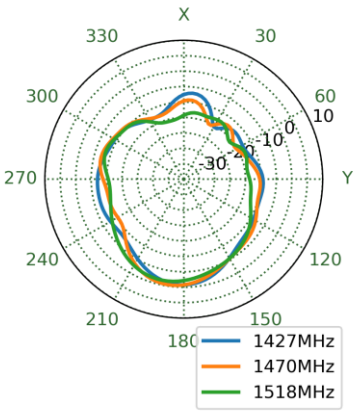
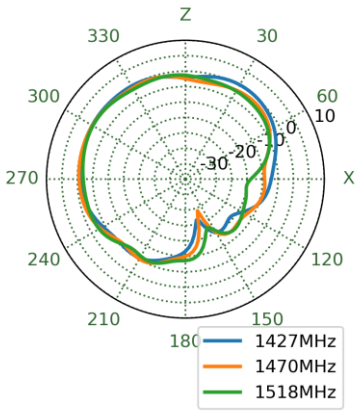
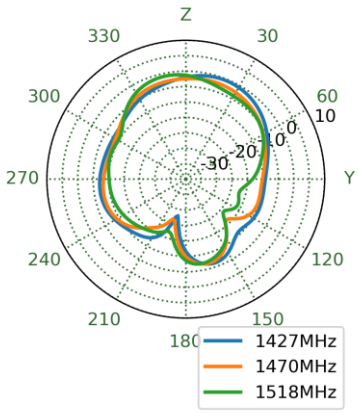
## 8.6 4G/5G-1 - Patterns at 890 MHz



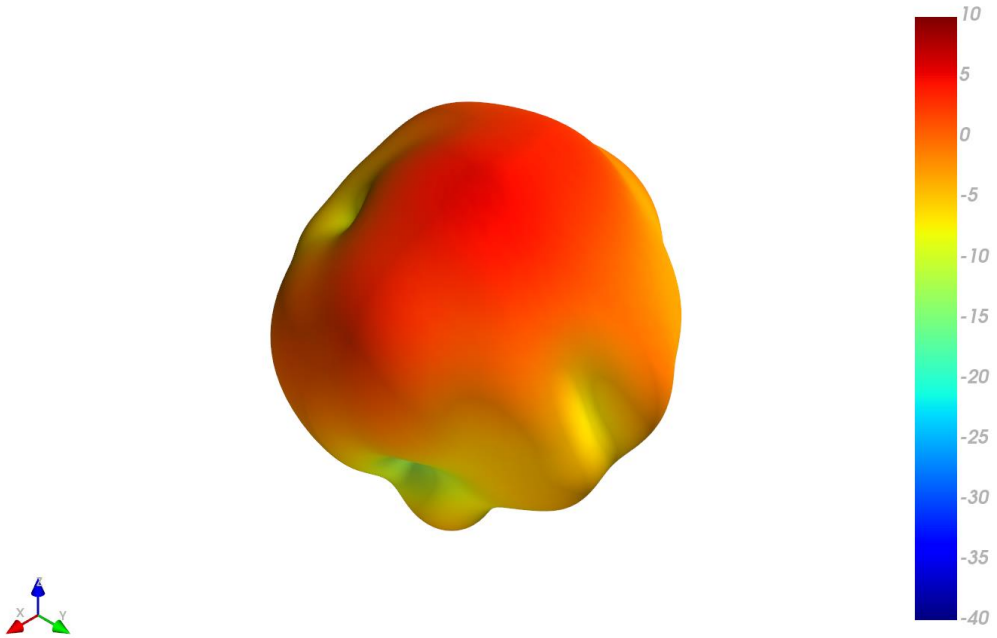

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

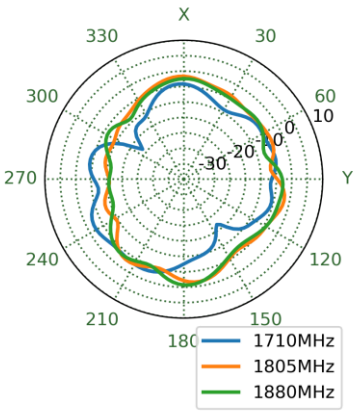
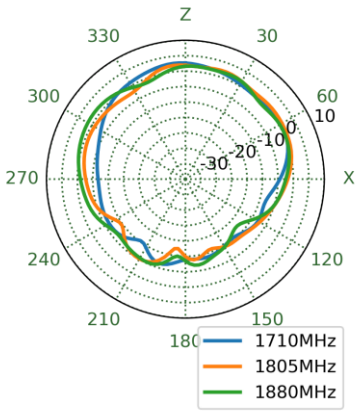
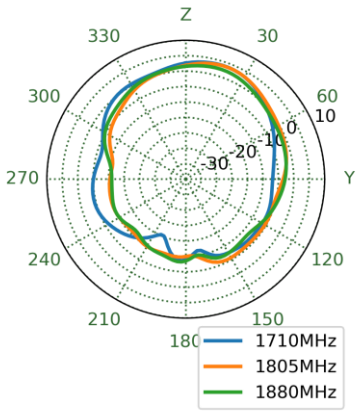
## 8.7 4G/5G-1 - Patterns at 1470 MHz



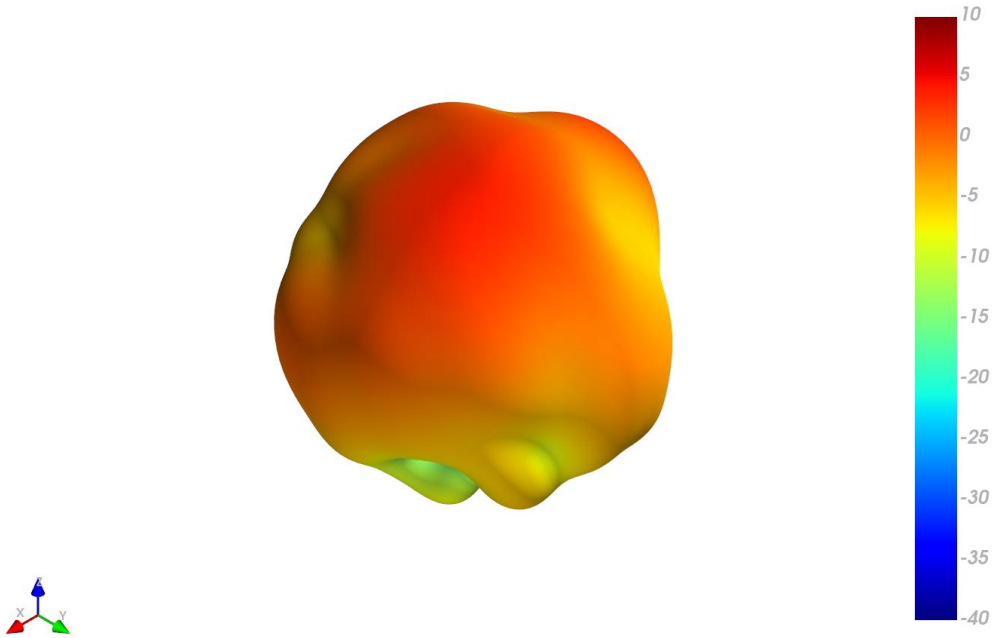

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

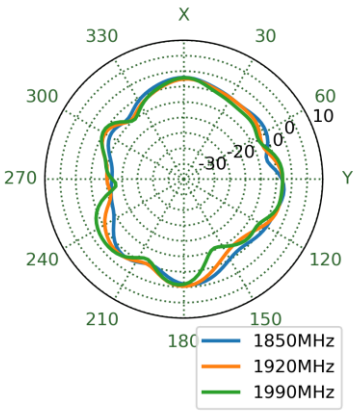
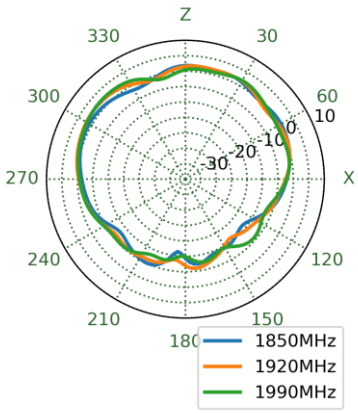
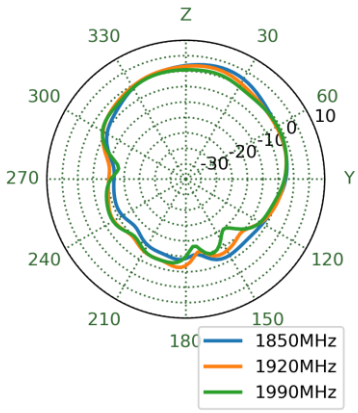
## 8.8 4G/5G-1 - Patterns at 1805 MHz



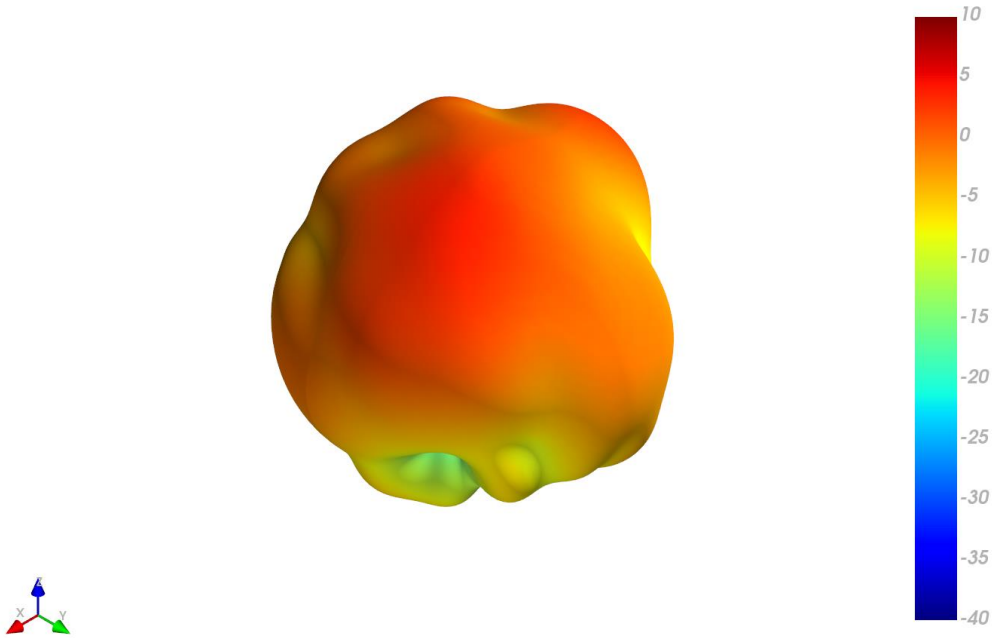

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

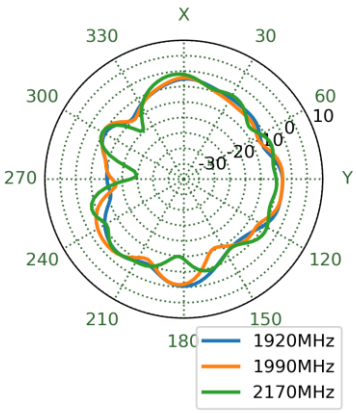
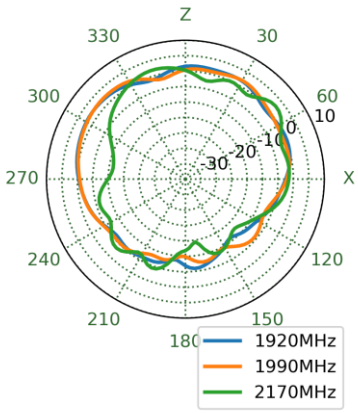
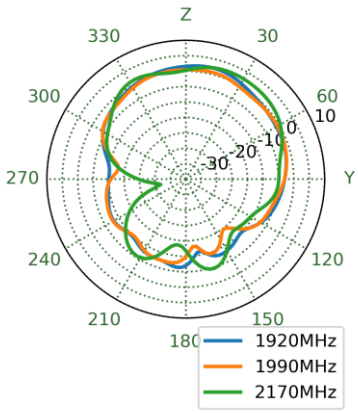
## 8.9 4G/5G-1 - Patterns at 1920 MHz



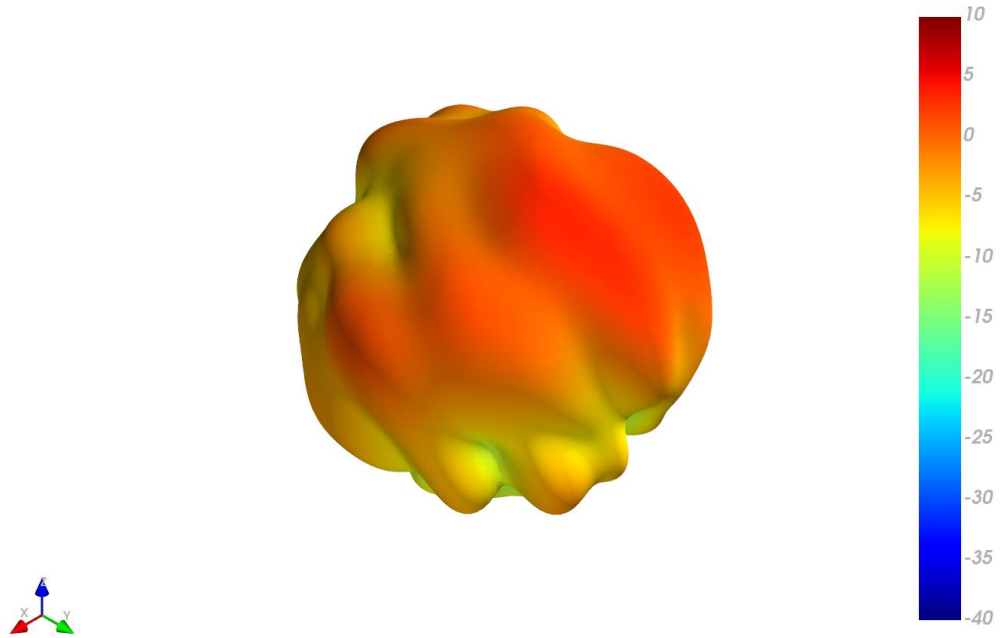

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

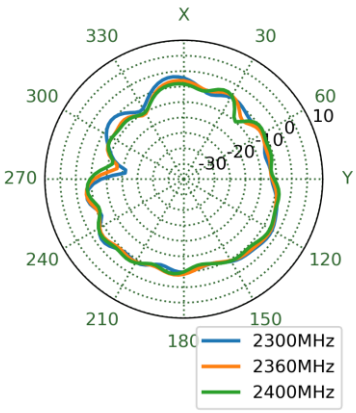
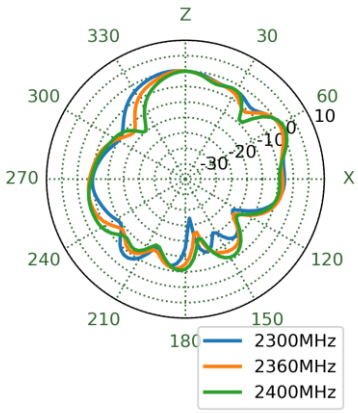
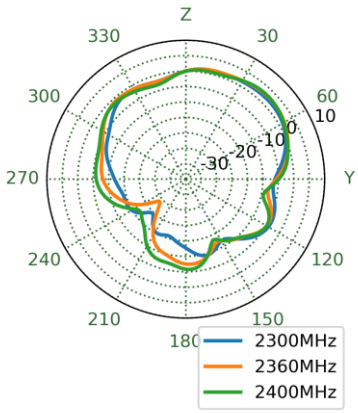
## 8.10 4G/5G-1 - Patterns at 1990 MHz



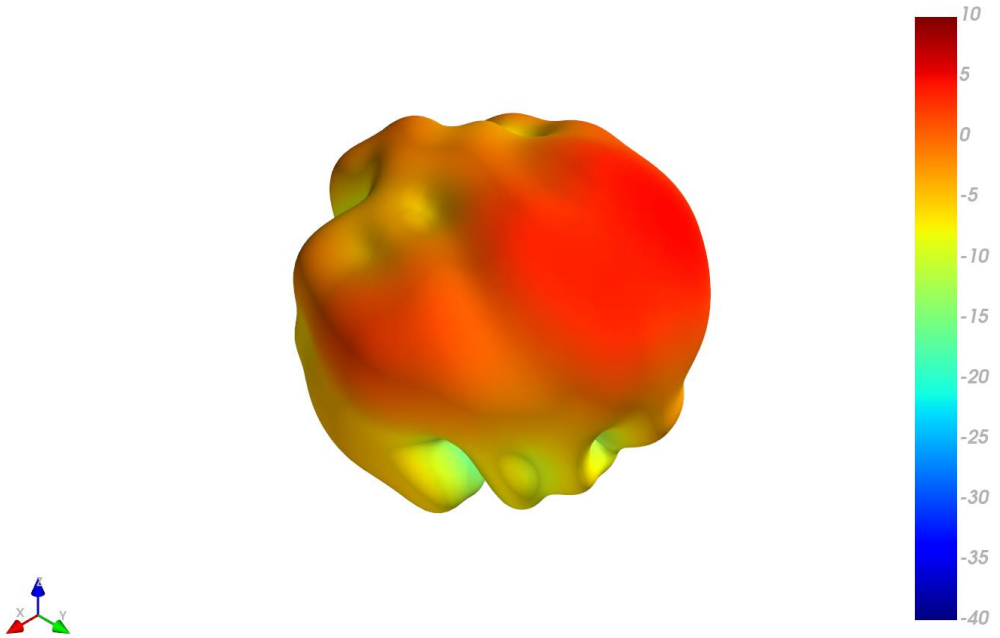

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

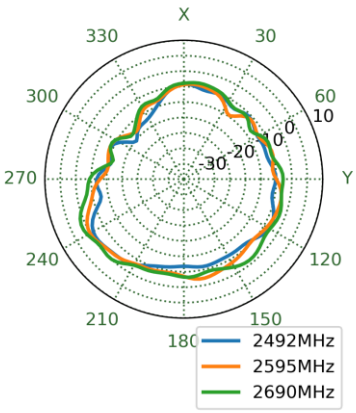
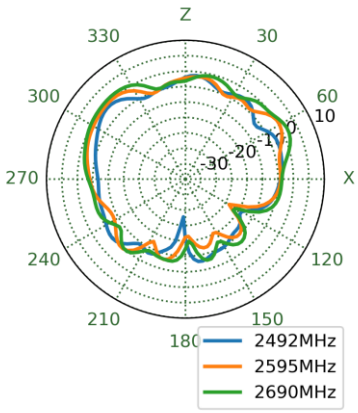
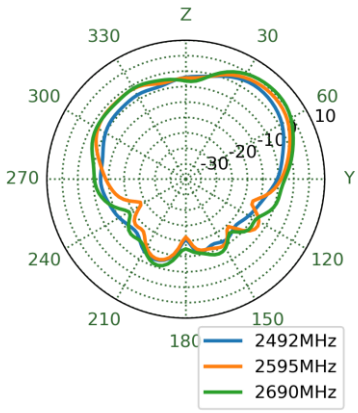
## 8.11 4G/5G-1 - Patterns at 2360 MHz



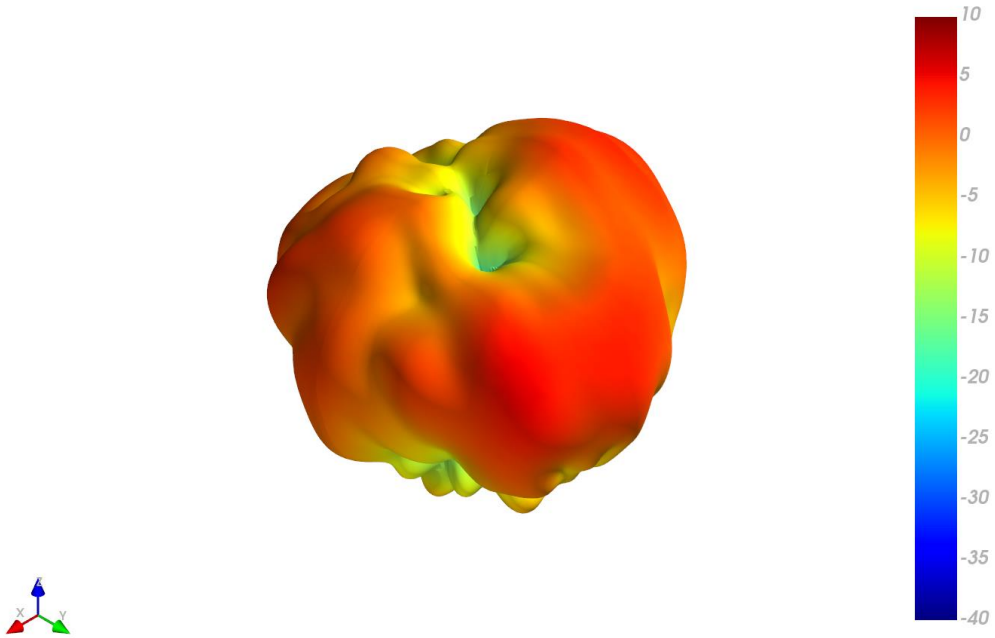

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

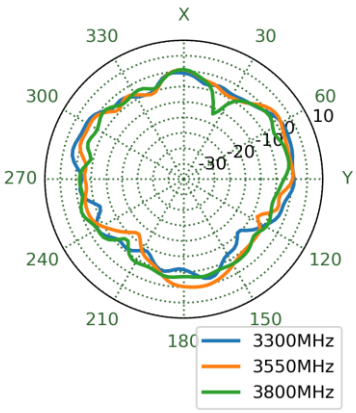
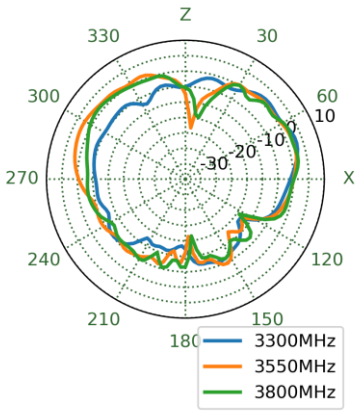
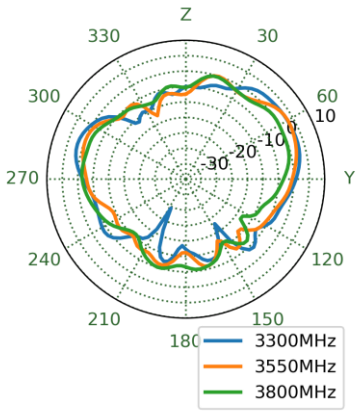
## 8.12 4G/5G-1 - Patterns at 2595 MHz



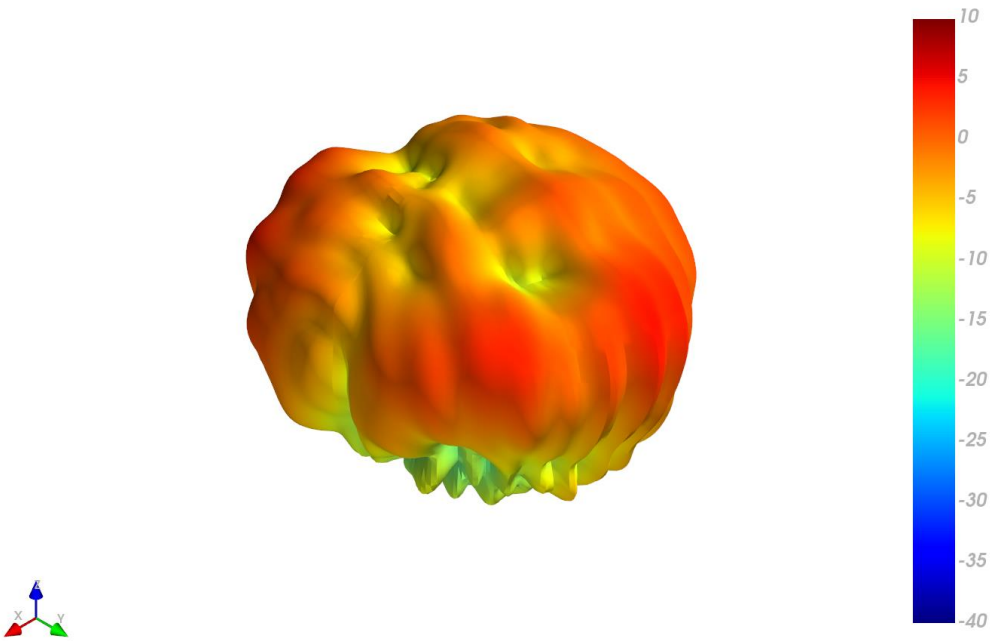

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

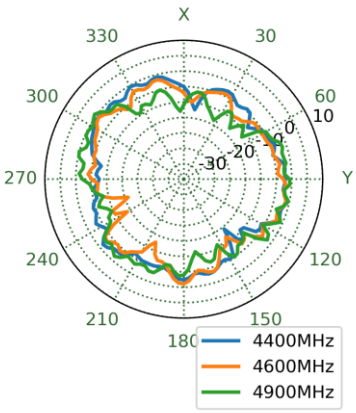
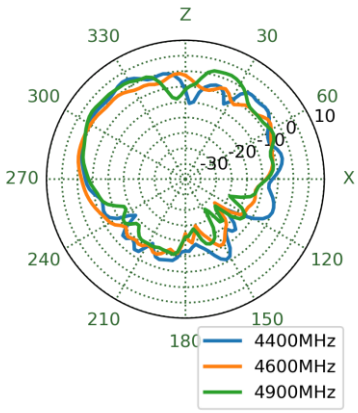
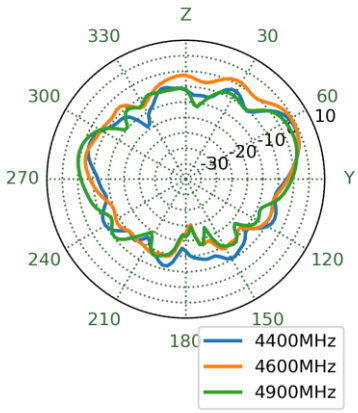
## 8.13 4G/5G-1 - Patterns at 3550 MHz



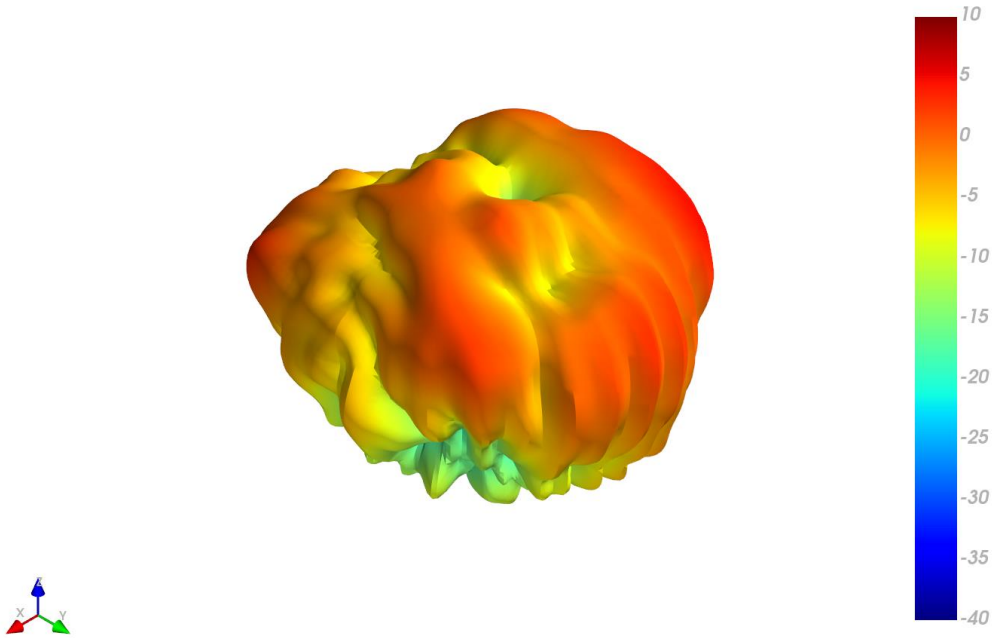

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

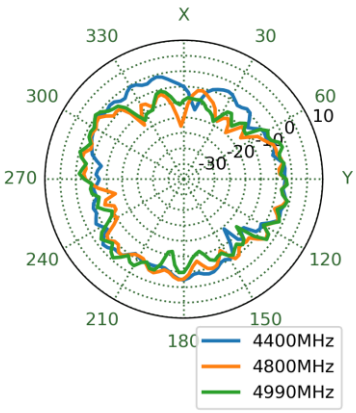
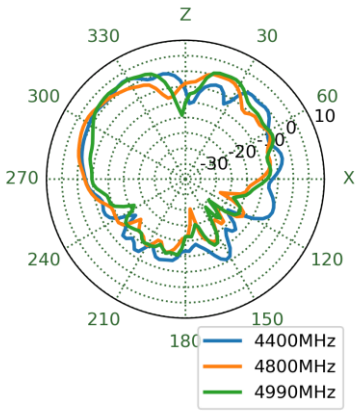
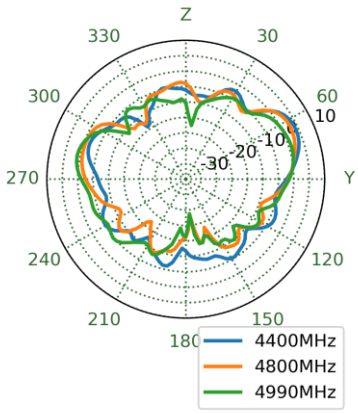
## 8.14 4G/5G-1 - Patterns at 4600 MHz



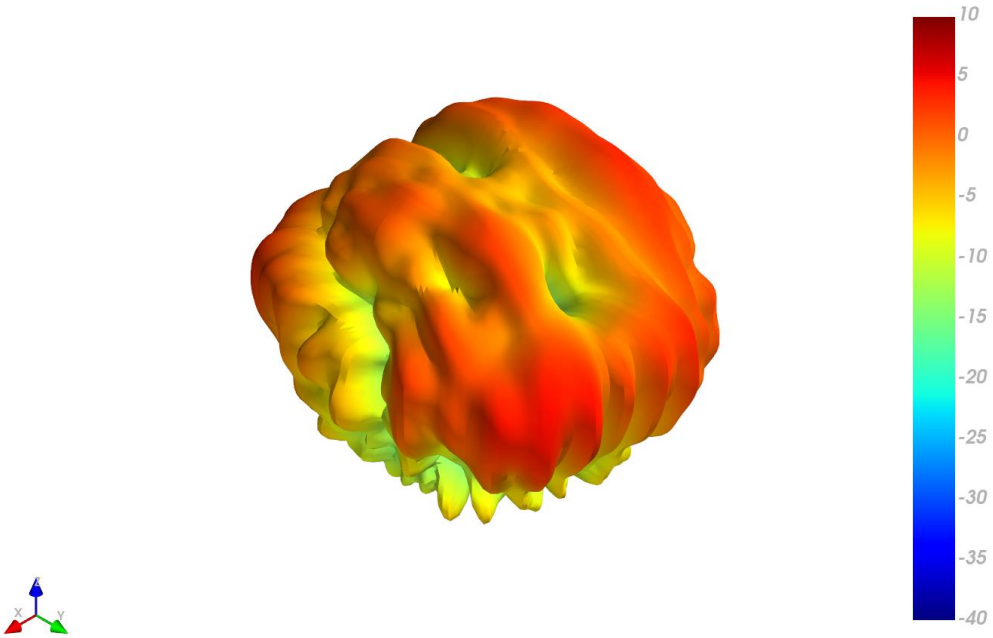

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

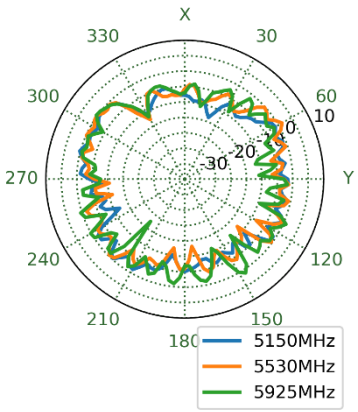
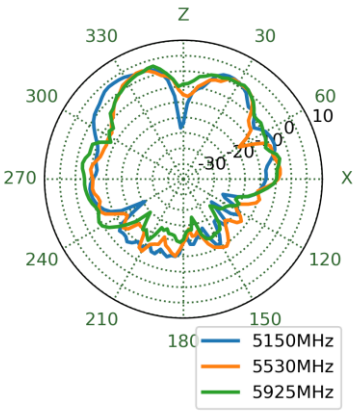
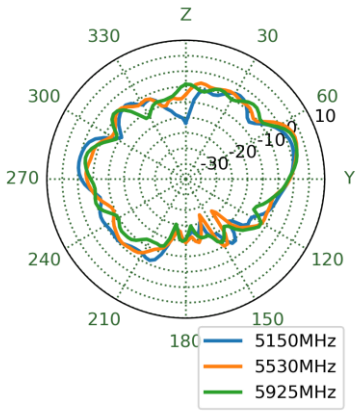
## 8.15 4G/5G-1 - Patterns at 4800 MHz



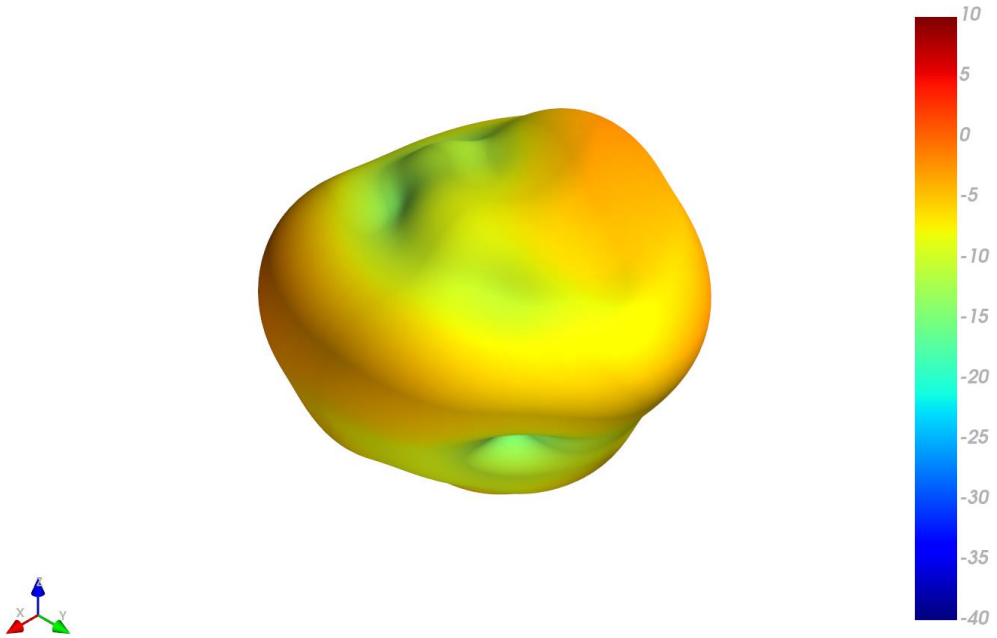

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

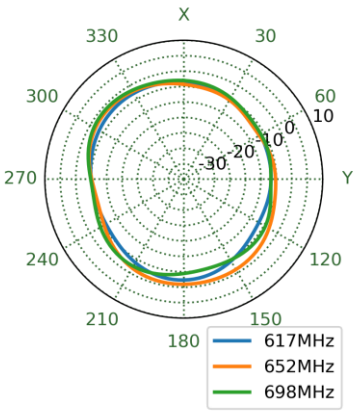
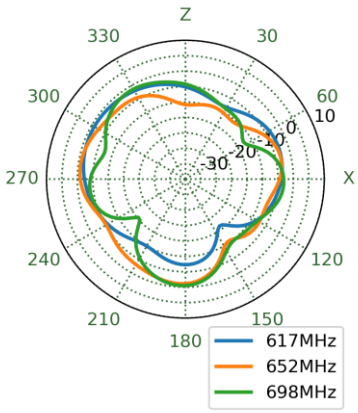
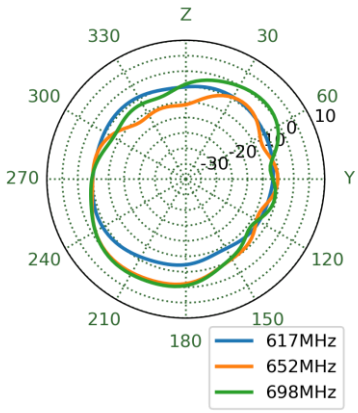
## 8.16 4G/5G-1 - Patterns at 5530 MHz



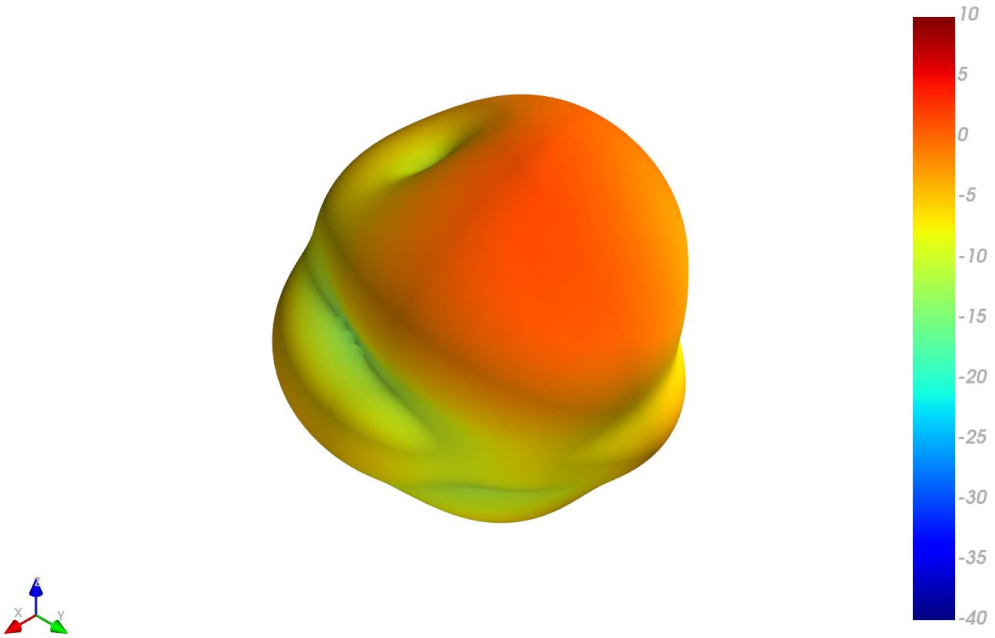

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

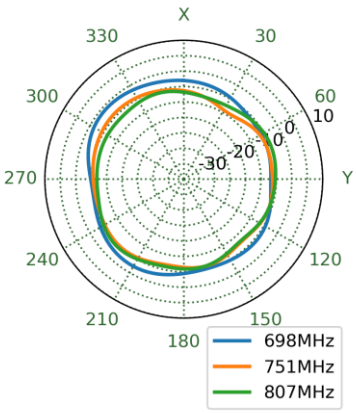
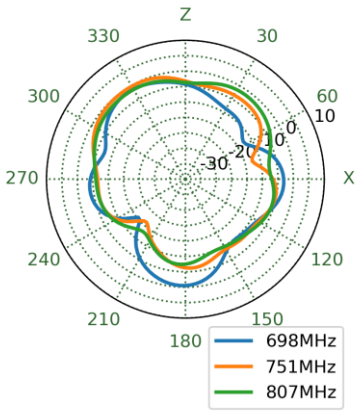
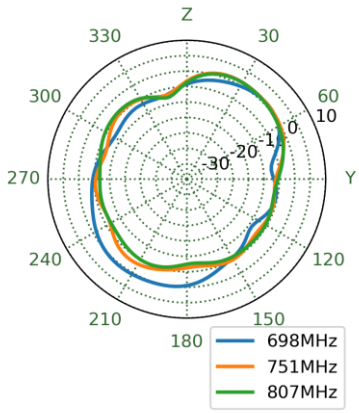
## 8.17 4G/5G-2 - Patterns at 652 MHz



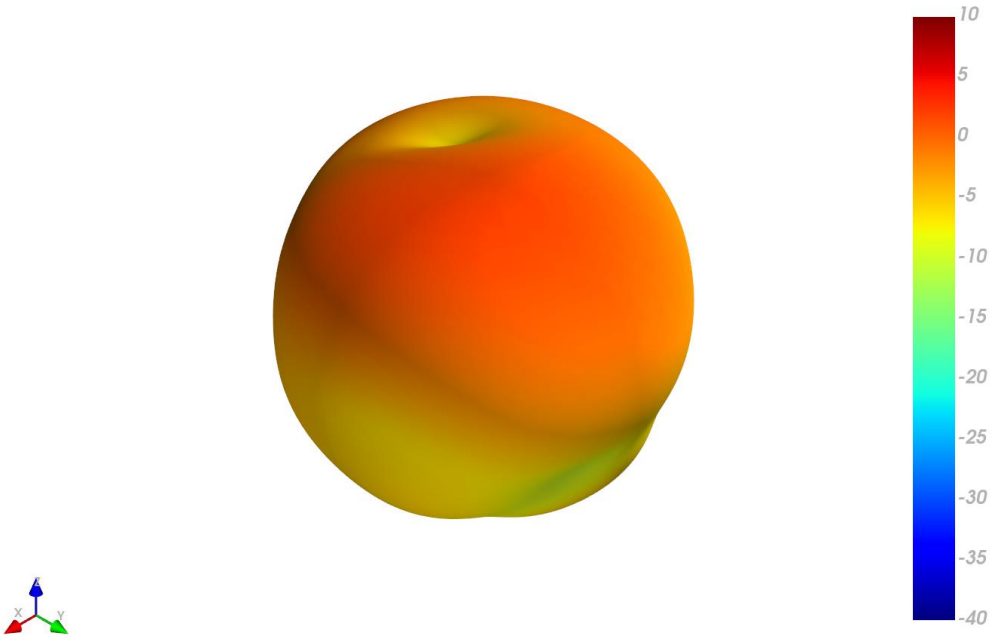

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

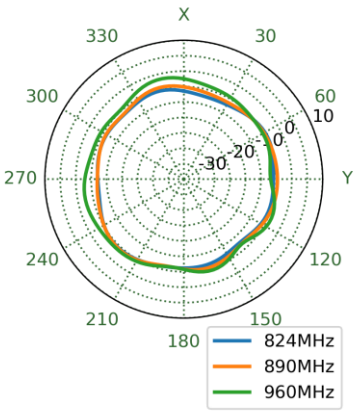
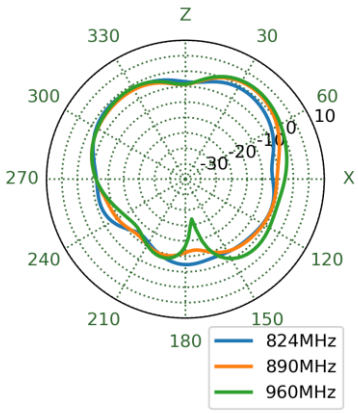
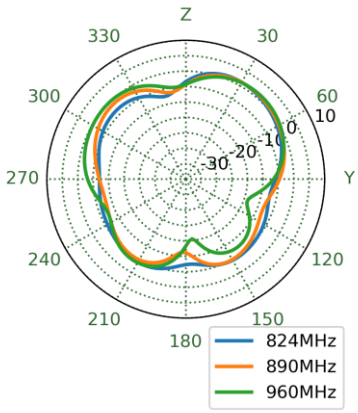
## 8.18 4G/5G-2 - Patterns at 751 MHz



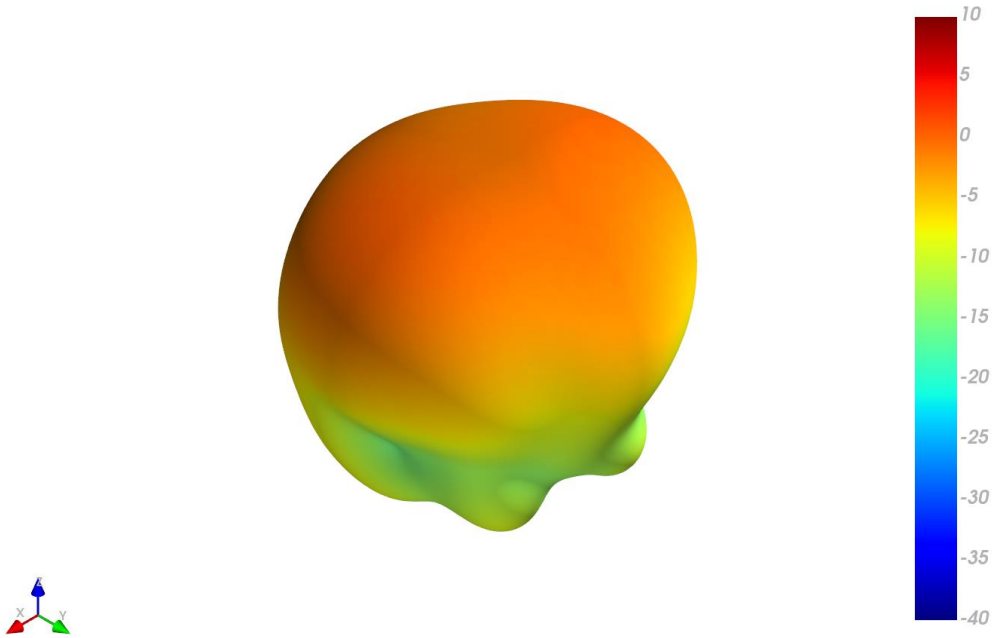

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.19 4G/5G-2 - Patterns at 890 MHz

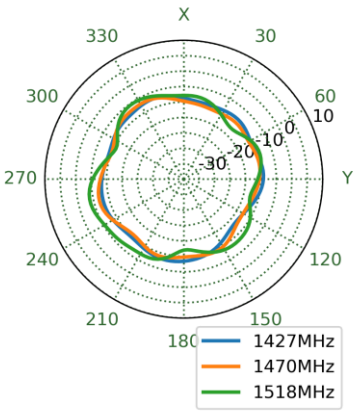


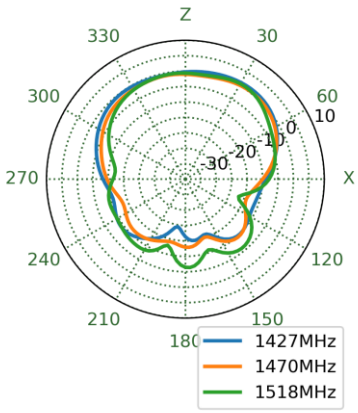

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

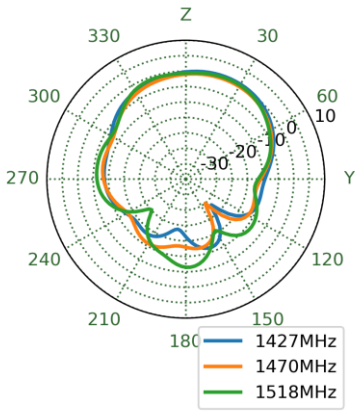
## 8.20 4G/5G-2 - Patterns at 1470 MHz



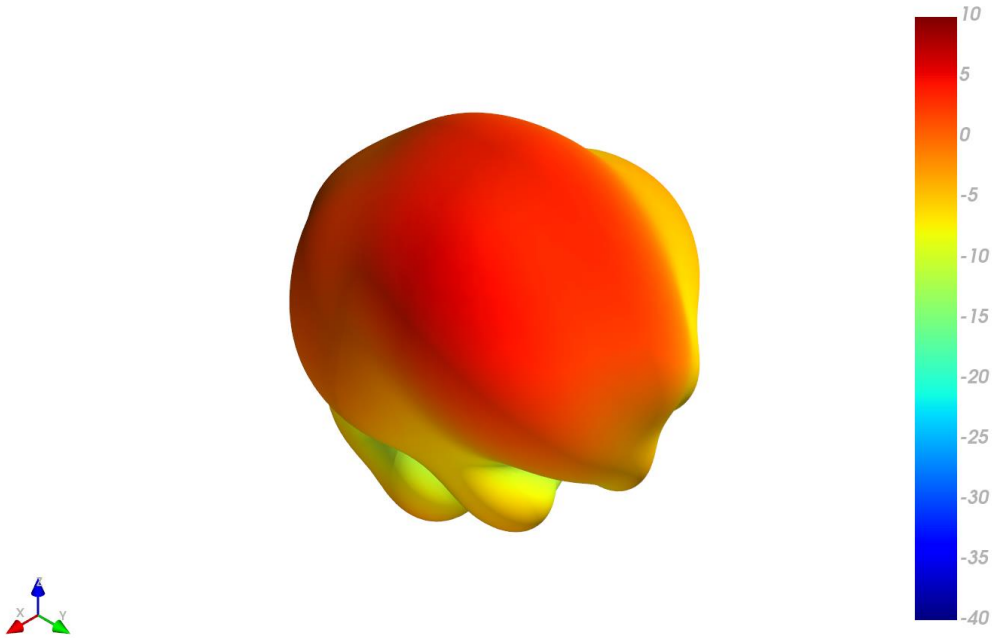

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

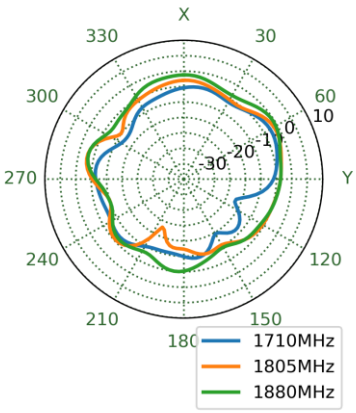
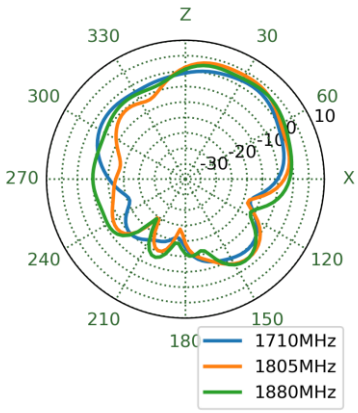
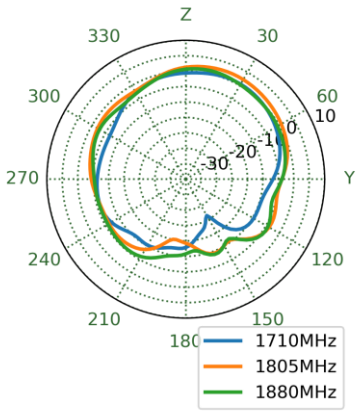


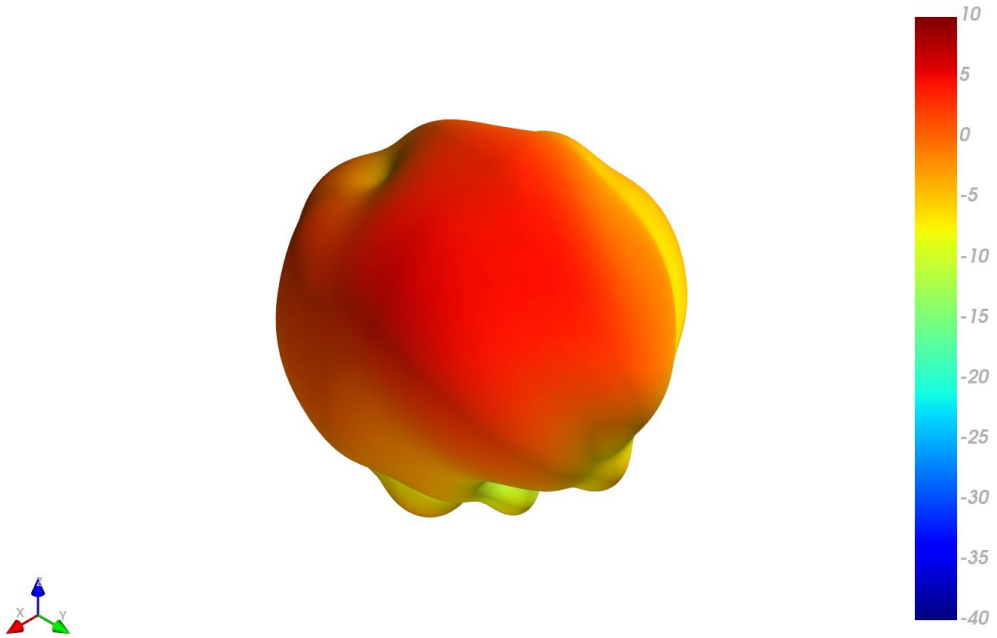



## 8.21 4G/5G-2 - Patterns at 1805 MHz

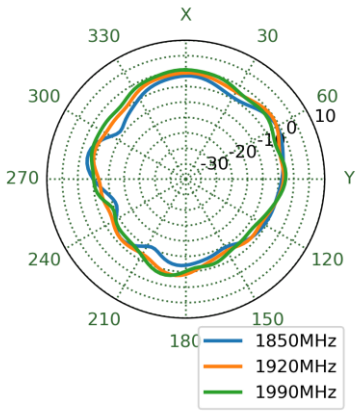


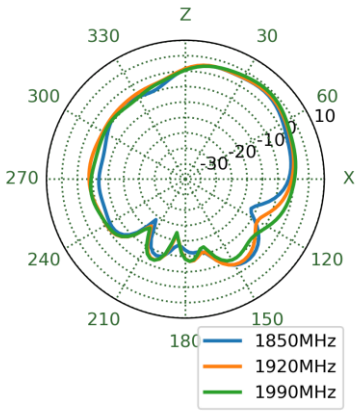

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

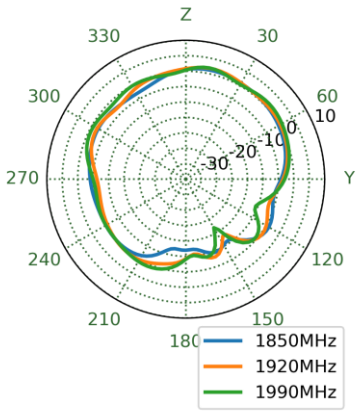
## 8.22 4G/5G-2 - Patterns at 1920 MHz



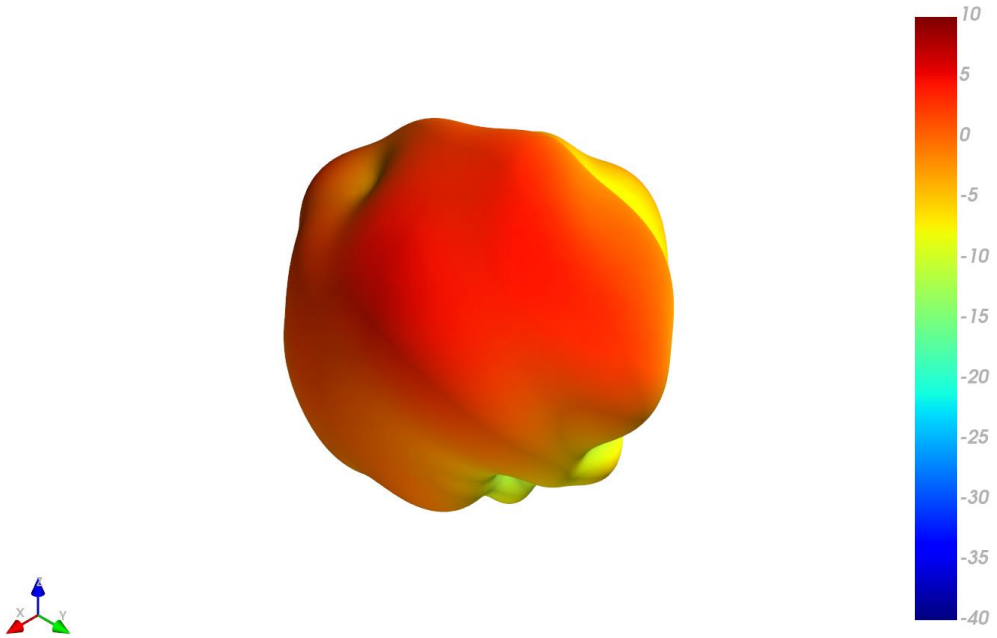

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

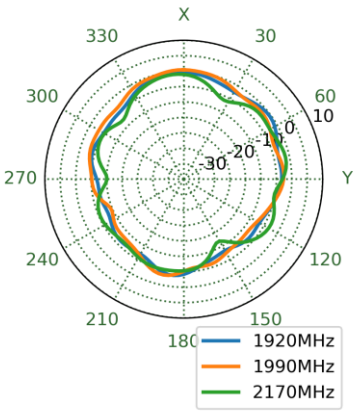
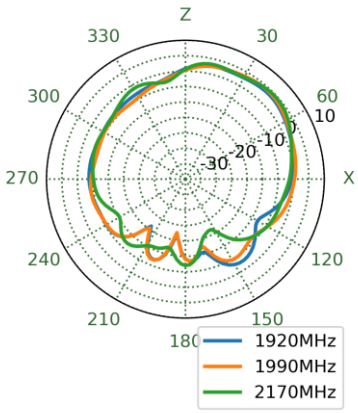
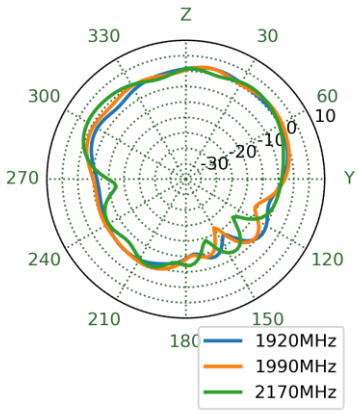


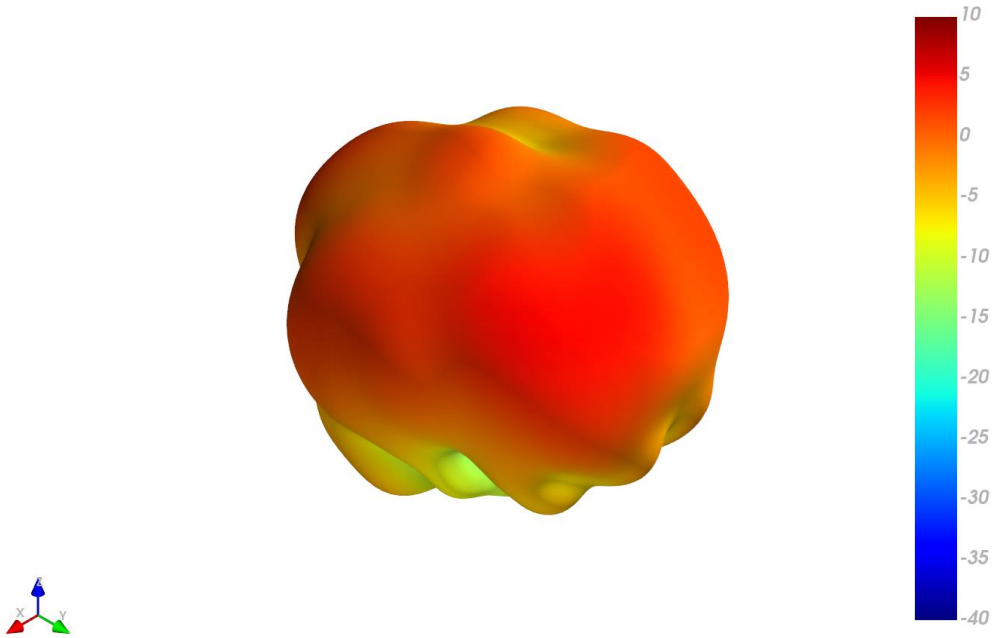



## 8.23 4G/5G-2 - Patterns at 1990 MHz

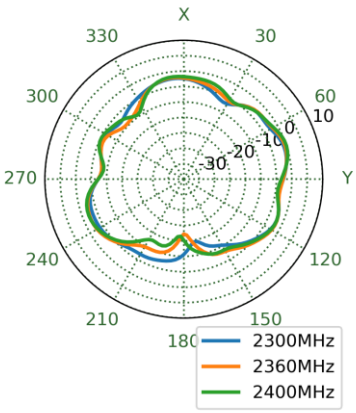


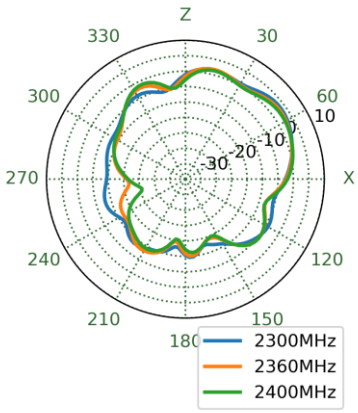

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

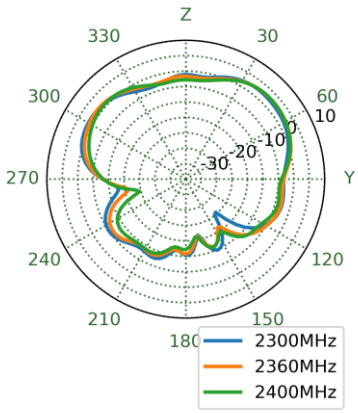
## 8.24 4G/5G-2 - Patterns at 2360 MHz



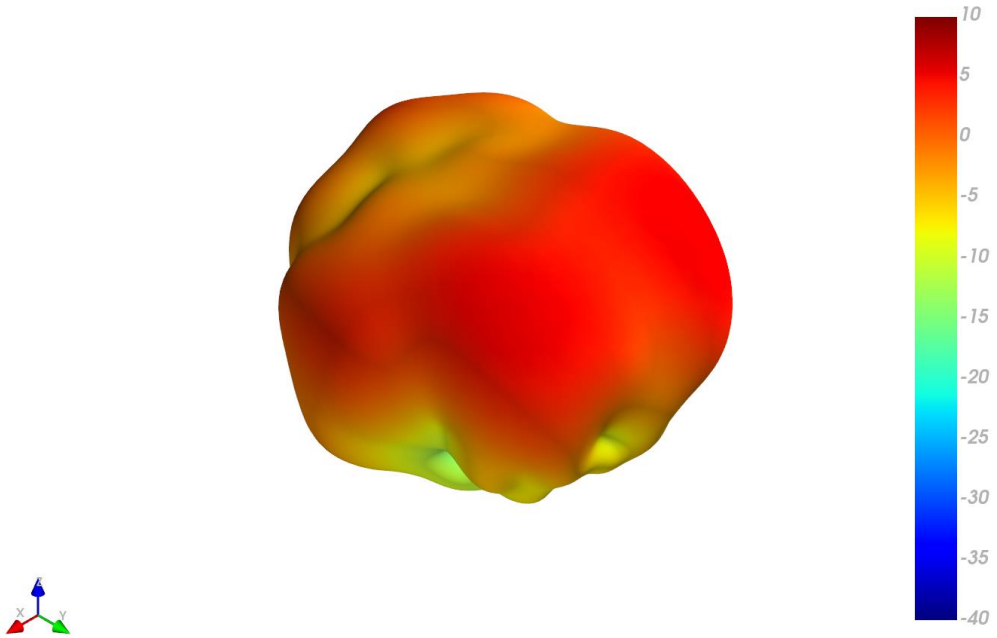

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

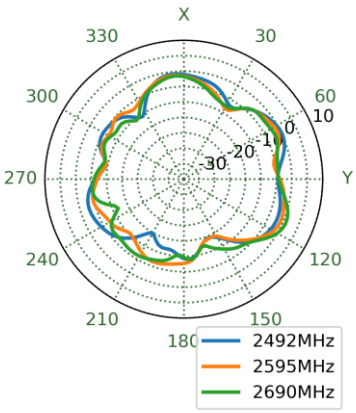
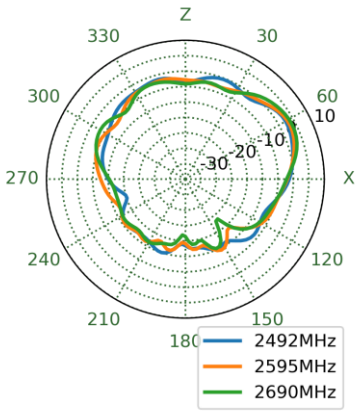
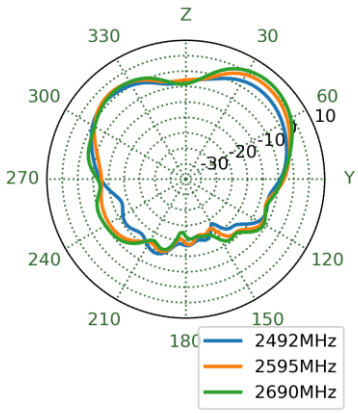


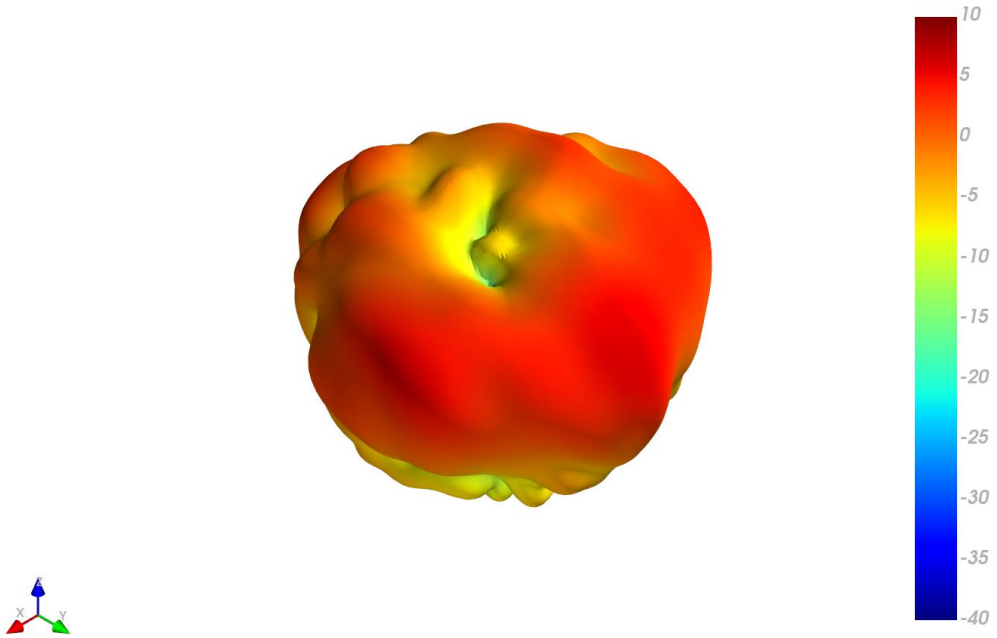



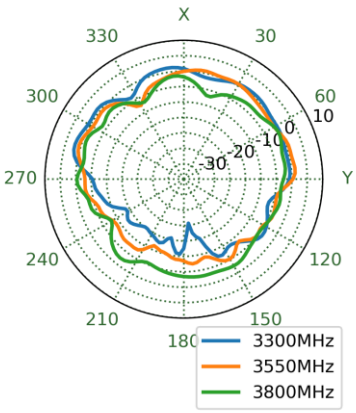
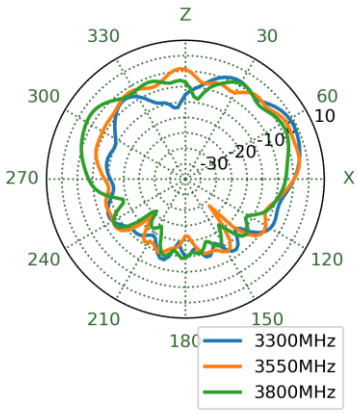
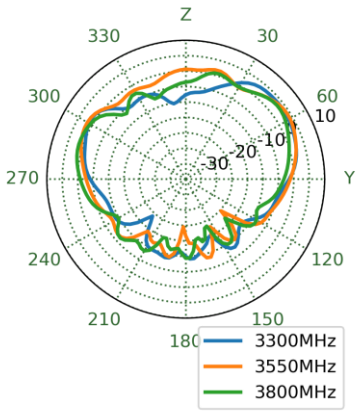
## 8.25 4G/5G-2 - Patterns at 2595 MHz



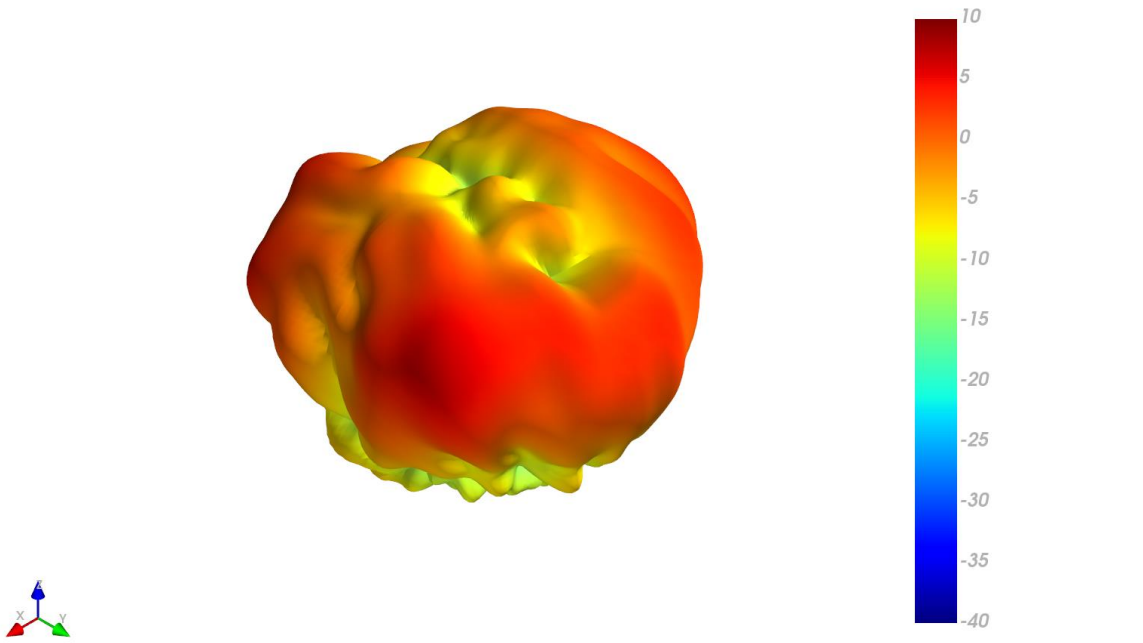

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

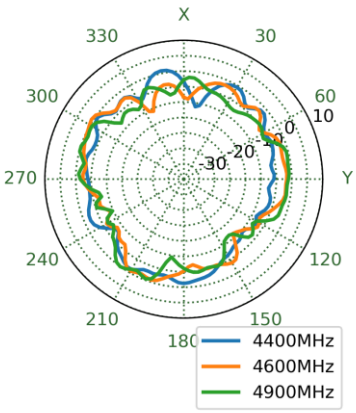
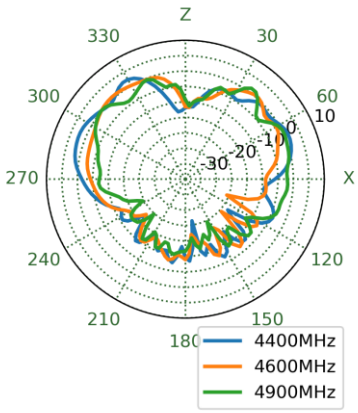
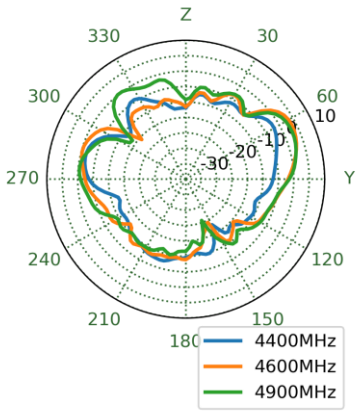
## 8.26 4G/5G-2 - Patterns at 3550 MHz



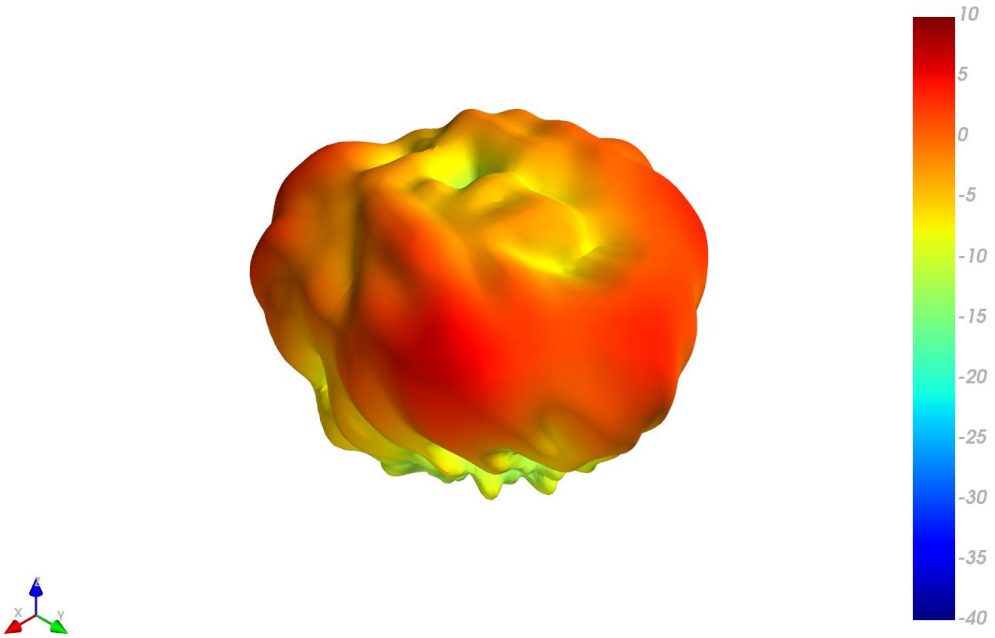

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

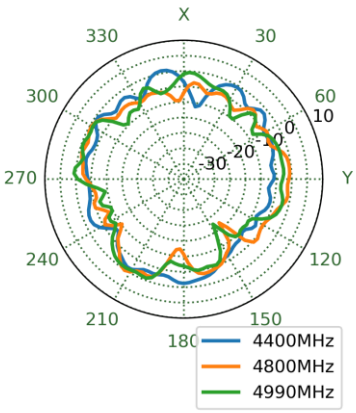
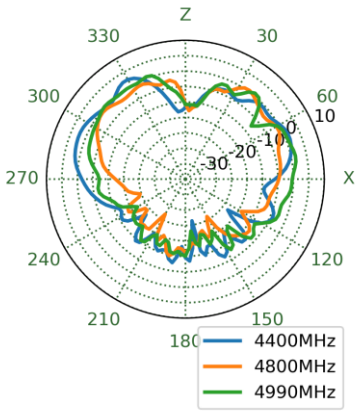
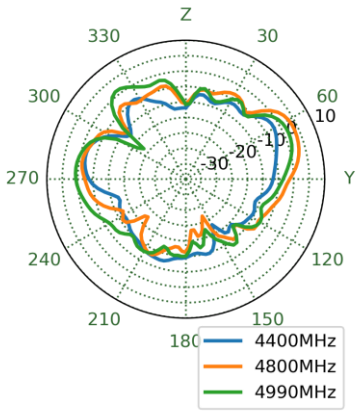
## 8.27 4G/5G-2 - Patterns at 4600 MHz



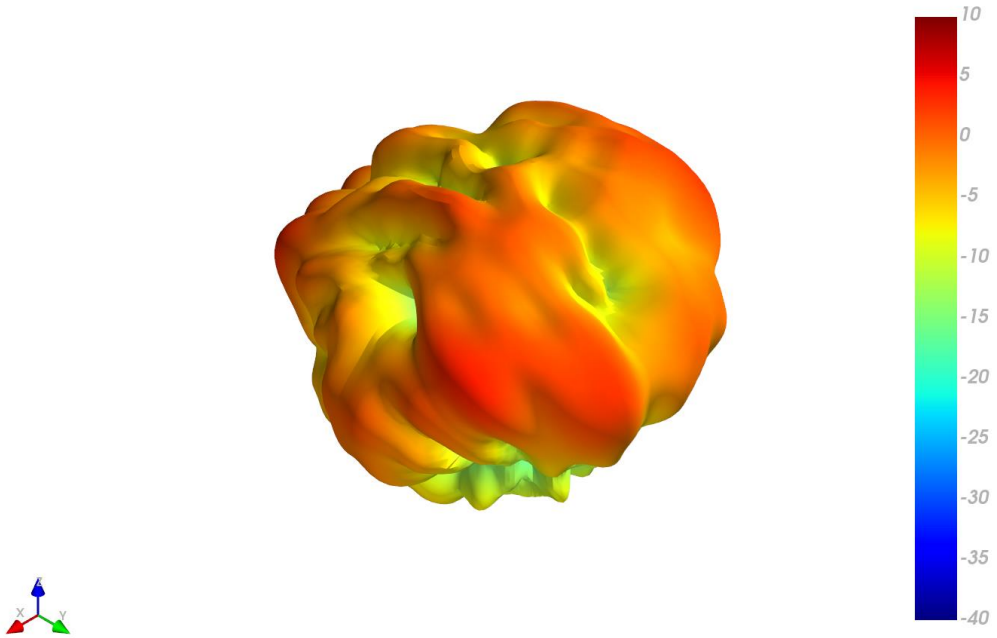

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

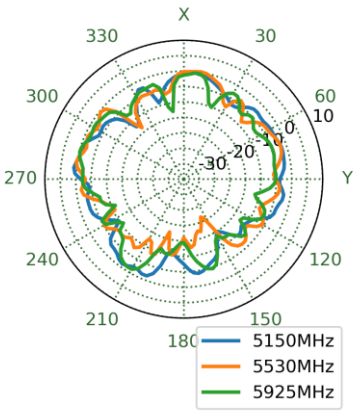
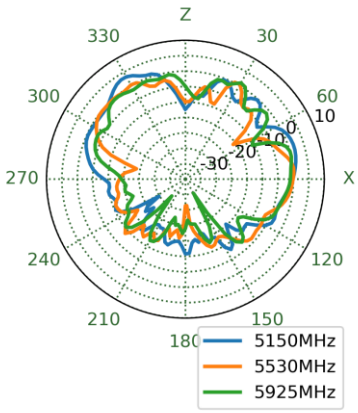
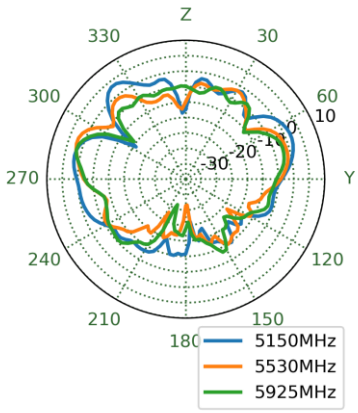
## 8.28 4G/5G-2 - Patterns at 4800 MHz



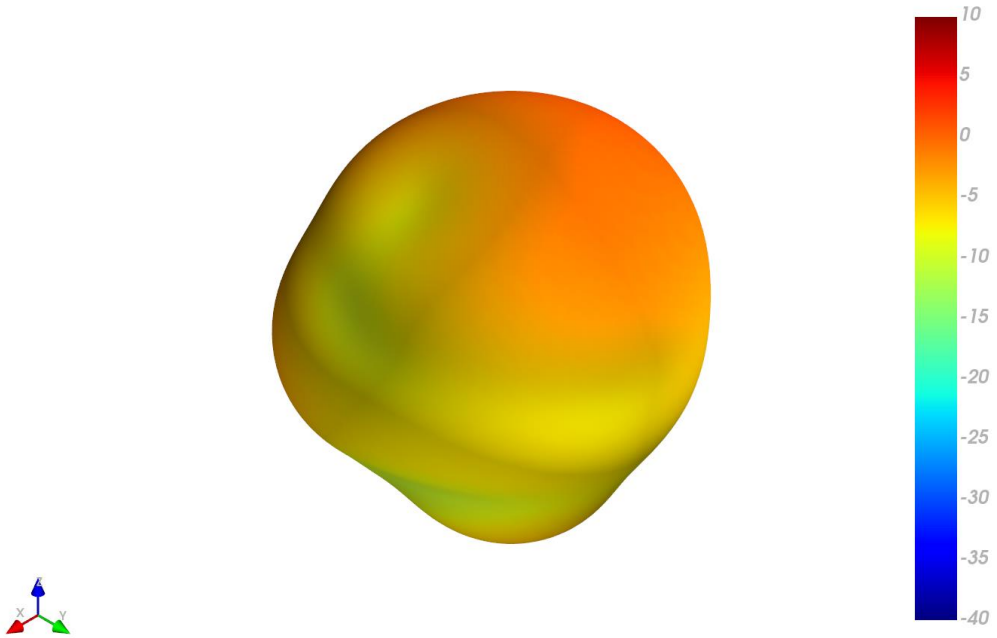

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

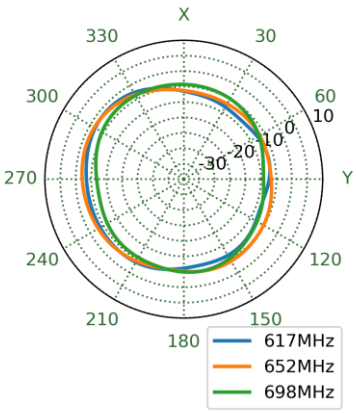
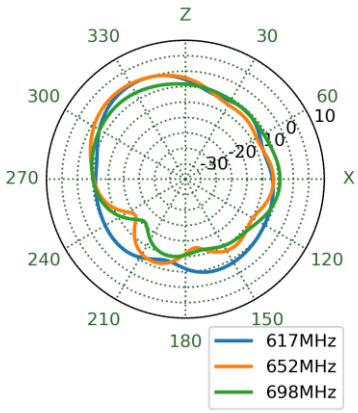
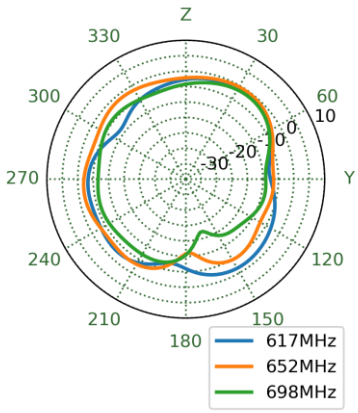
## 8.29 4G/5G-2 - Patterns at 5530 MHz



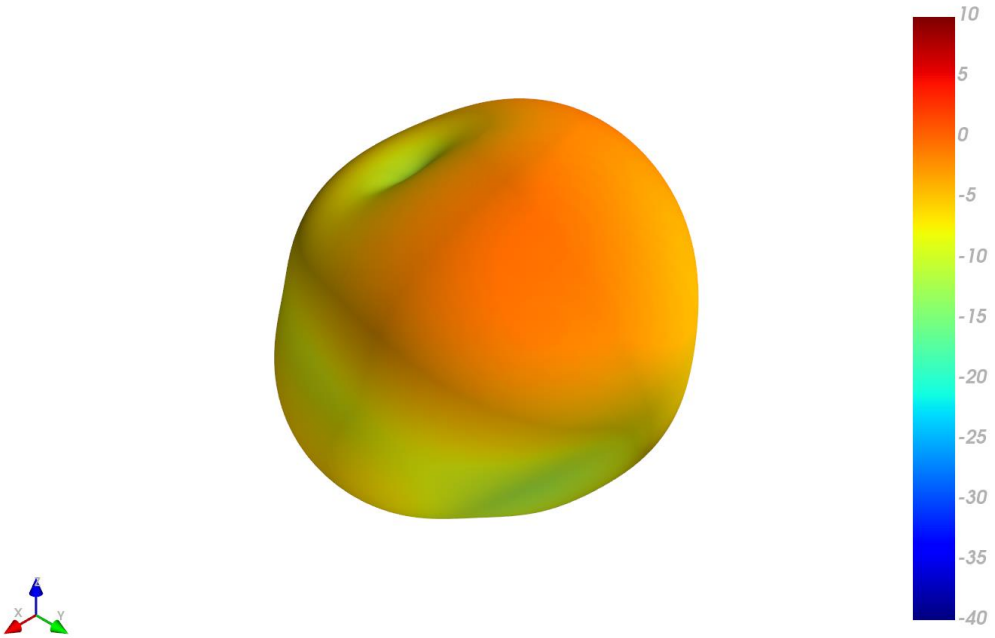

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

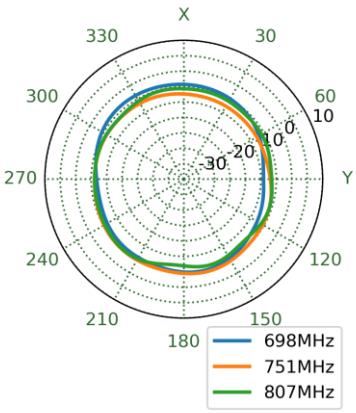
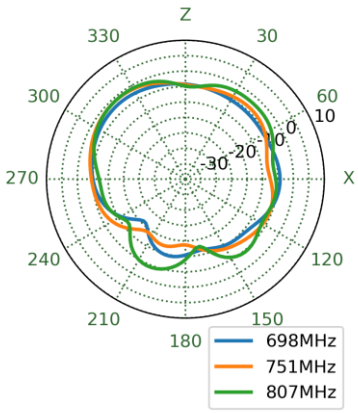
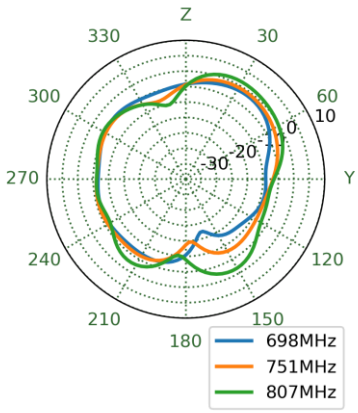
## 8.30 4G/5G-3 - Patterns at 652 MHz



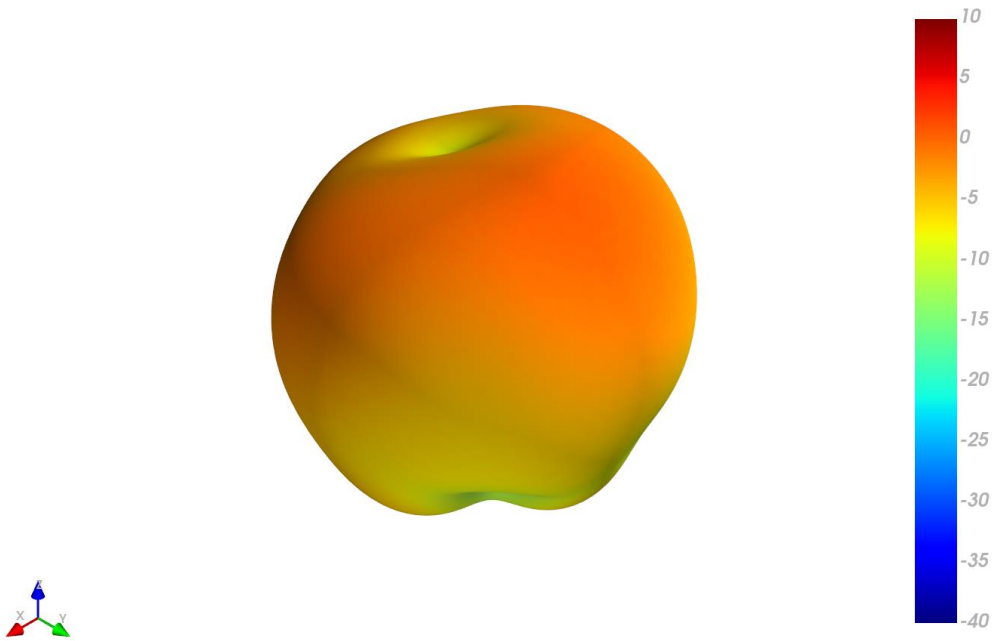

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

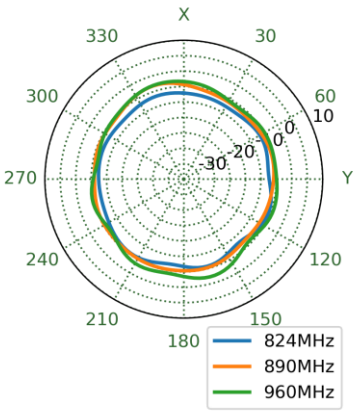
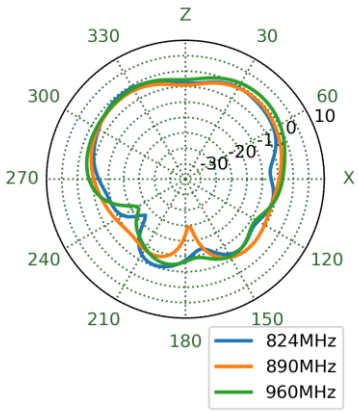
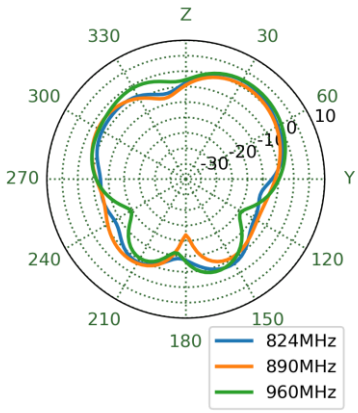
## 8.31 4G/5G-3 - Patterns at 751 MHz



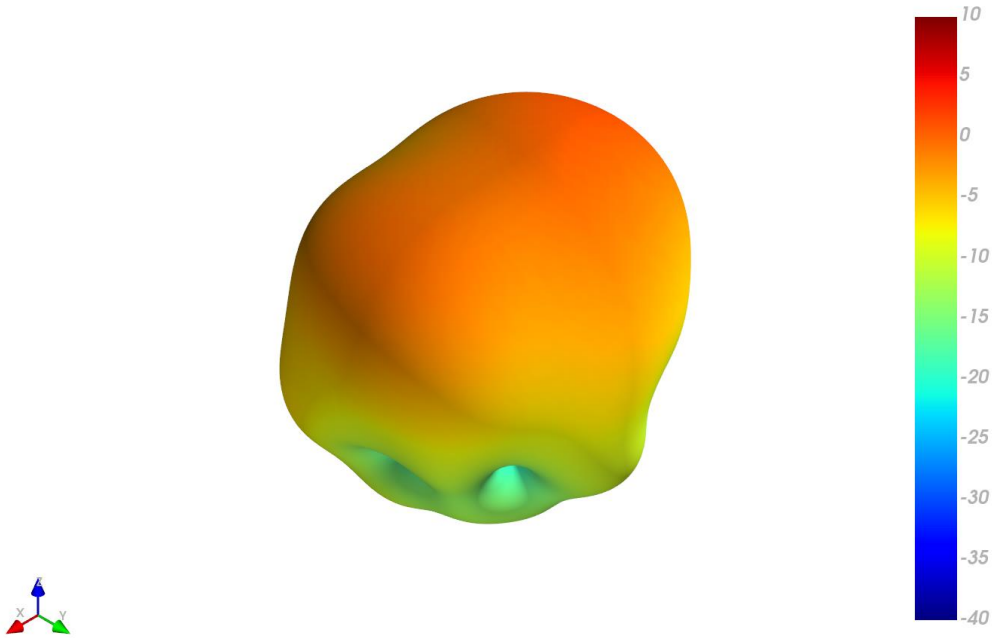

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

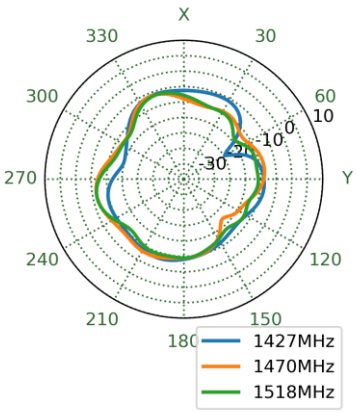
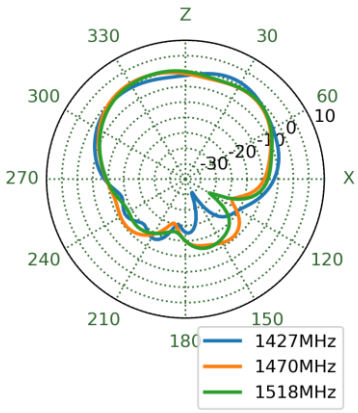
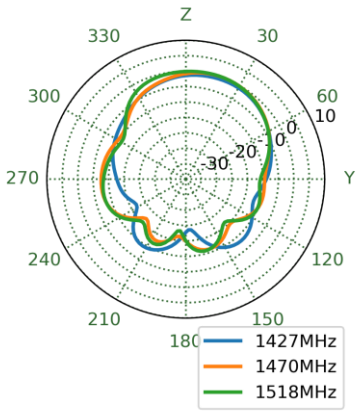
## 8.32 4G/5G-3 - Patterns at 890 MHz



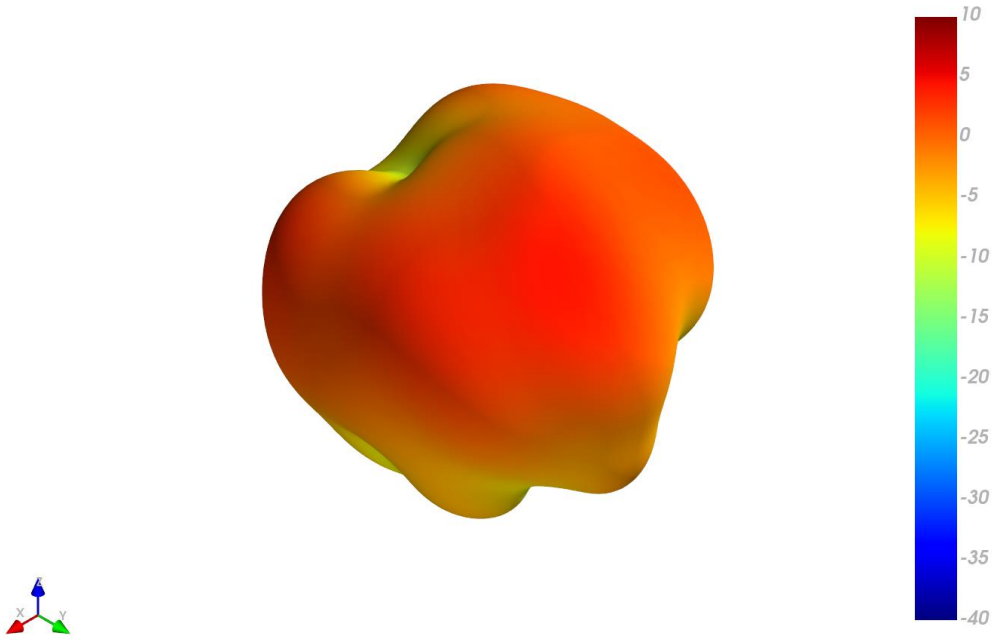

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.33 4G/5G-3 - Patterns at 1470 MHz

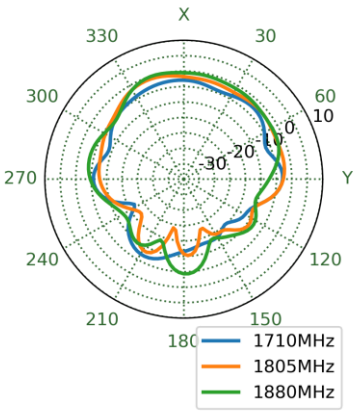


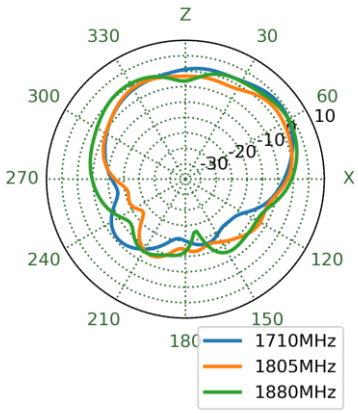

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

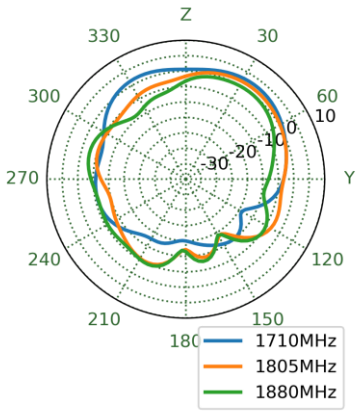
## 8.34 4G/5G-3 - Patterns at 1805 MHz



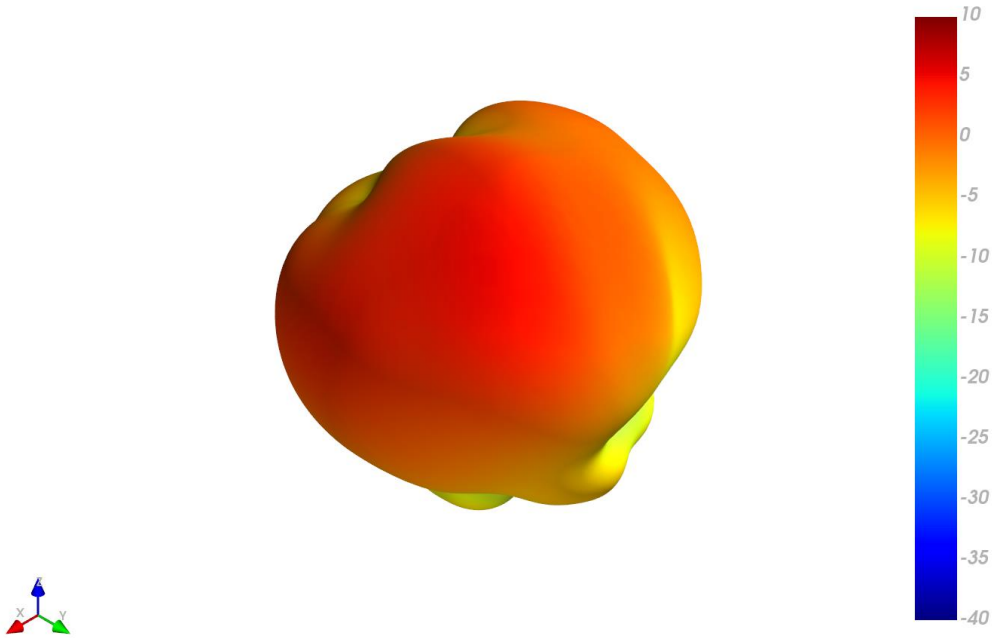

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|



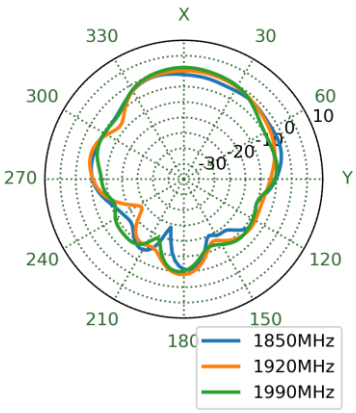



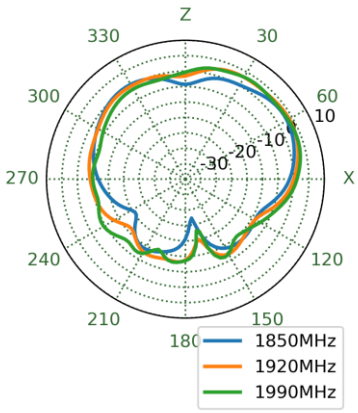



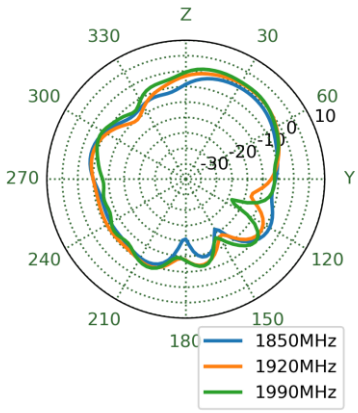
## 8.35 4G/5G-3 - Patterns at 1920 MHz



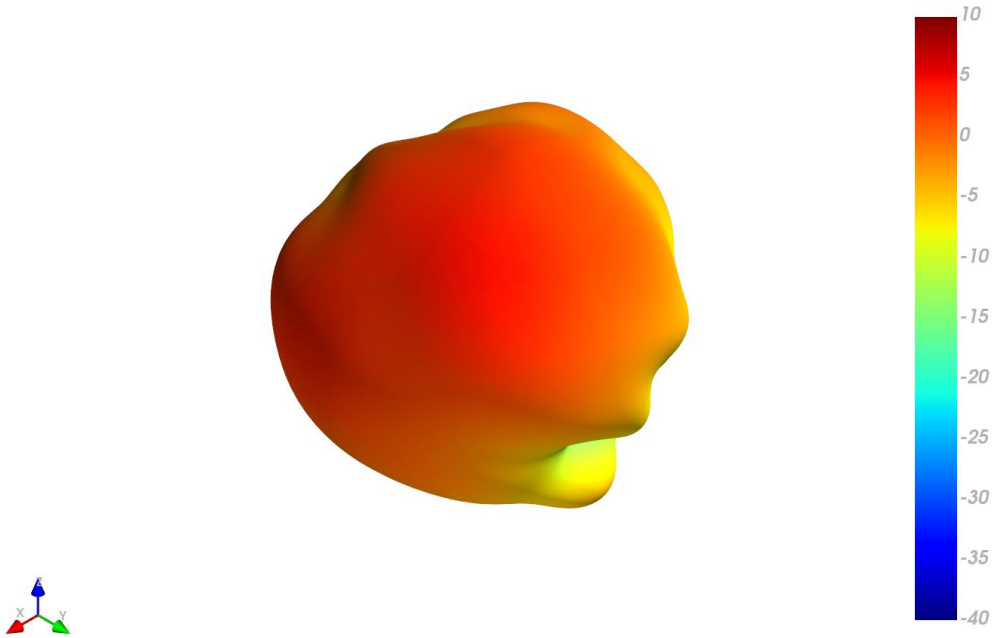

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|



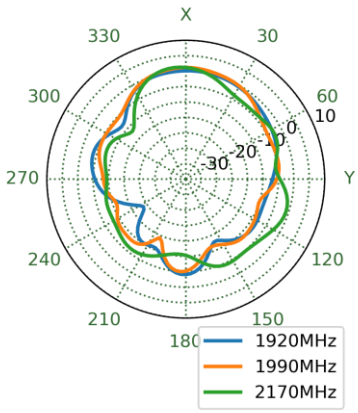



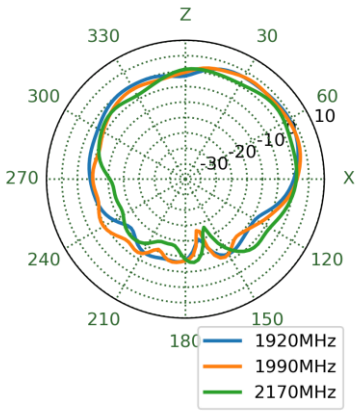



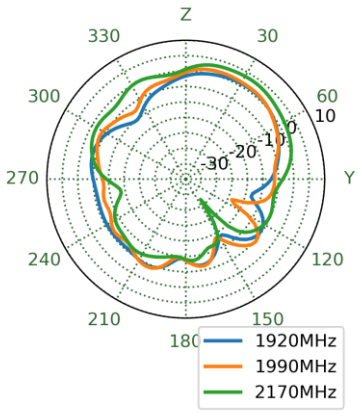
## 8.36 4G/5G-3 - Patterns at 1990 MHz



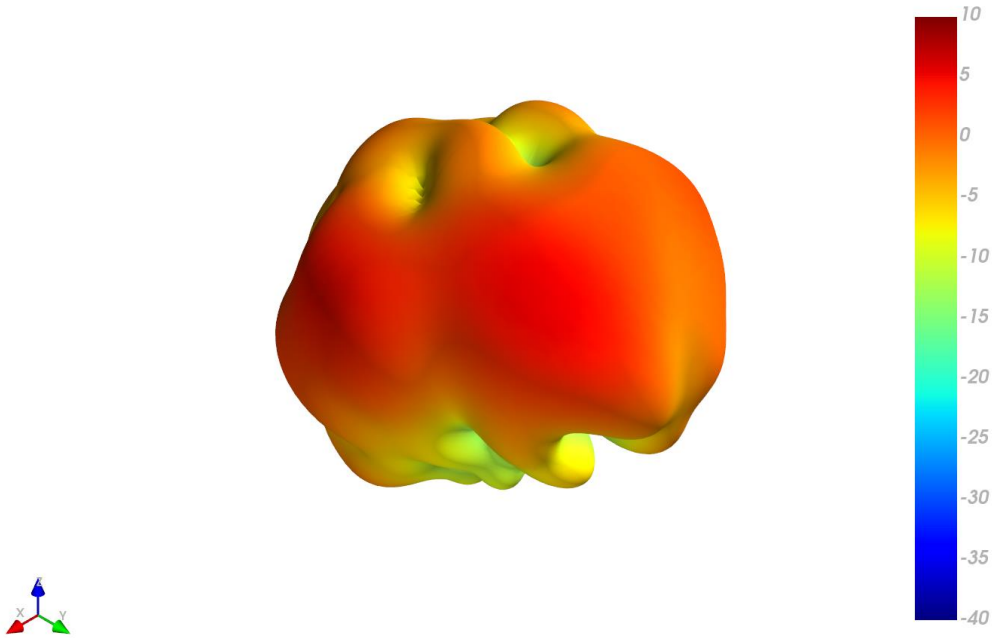

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|



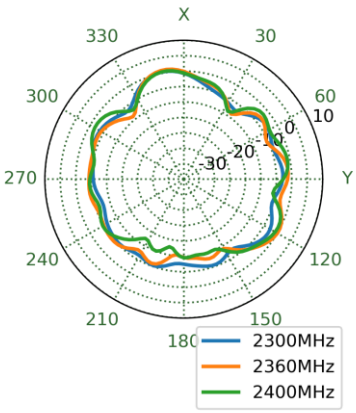



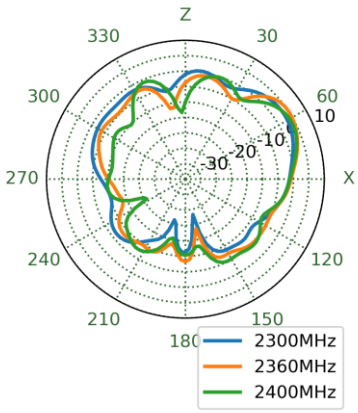



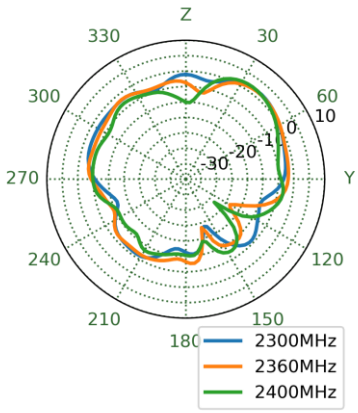
## 8.37 4G/5G-3 - Patterns at 2360 MHz



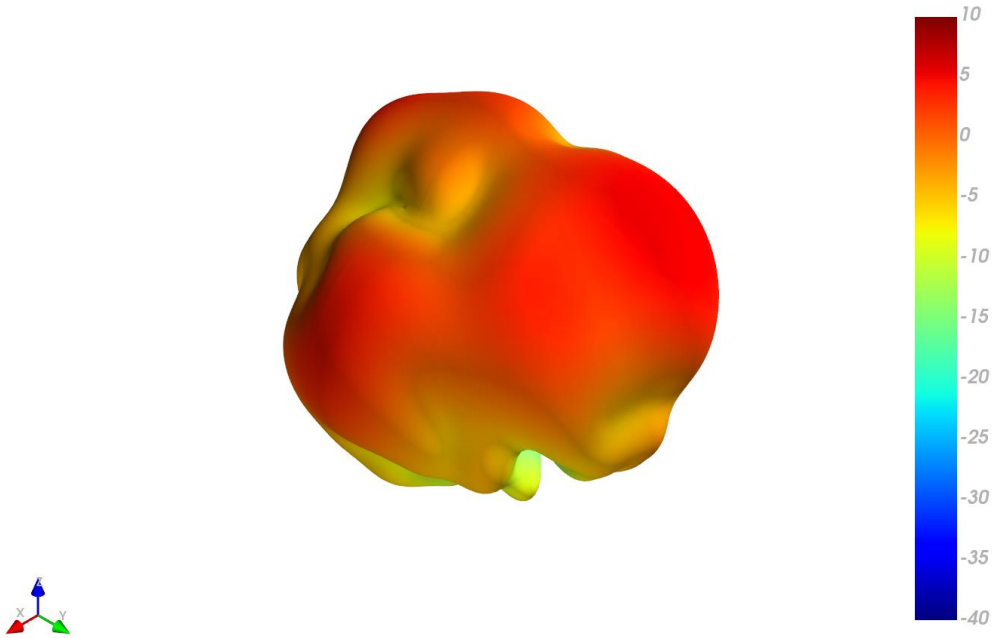

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

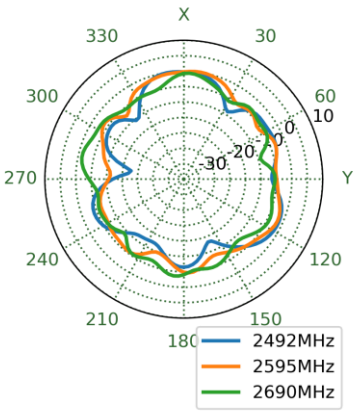
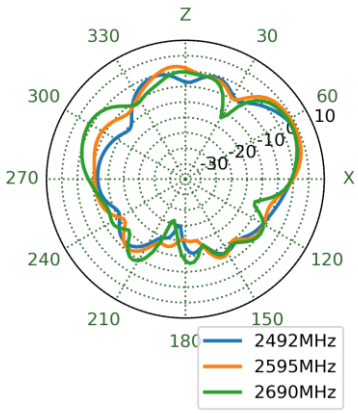
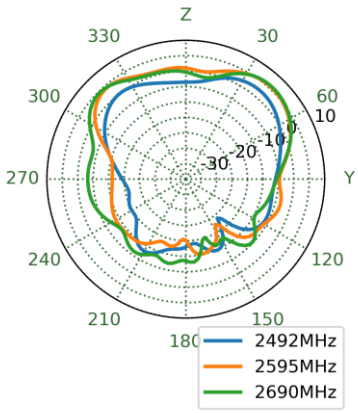


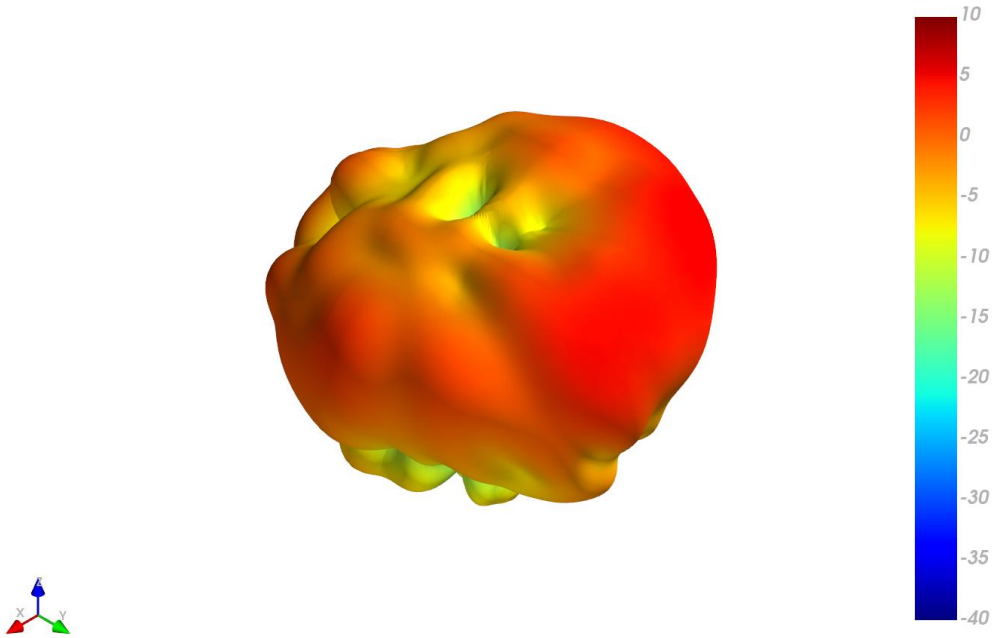



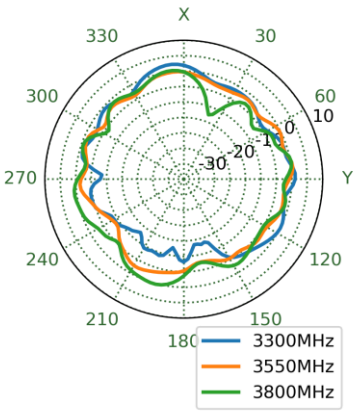
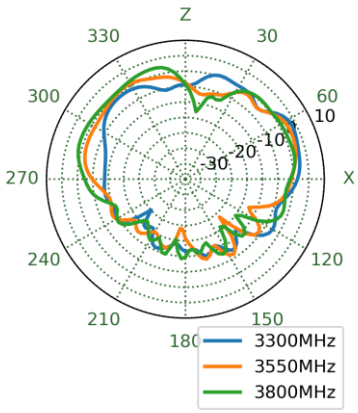
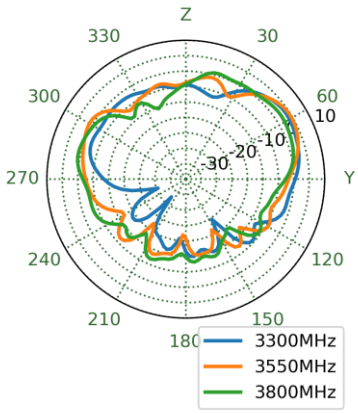
## 8.38 4G/5G-3 - Patterns at 2595 MHz



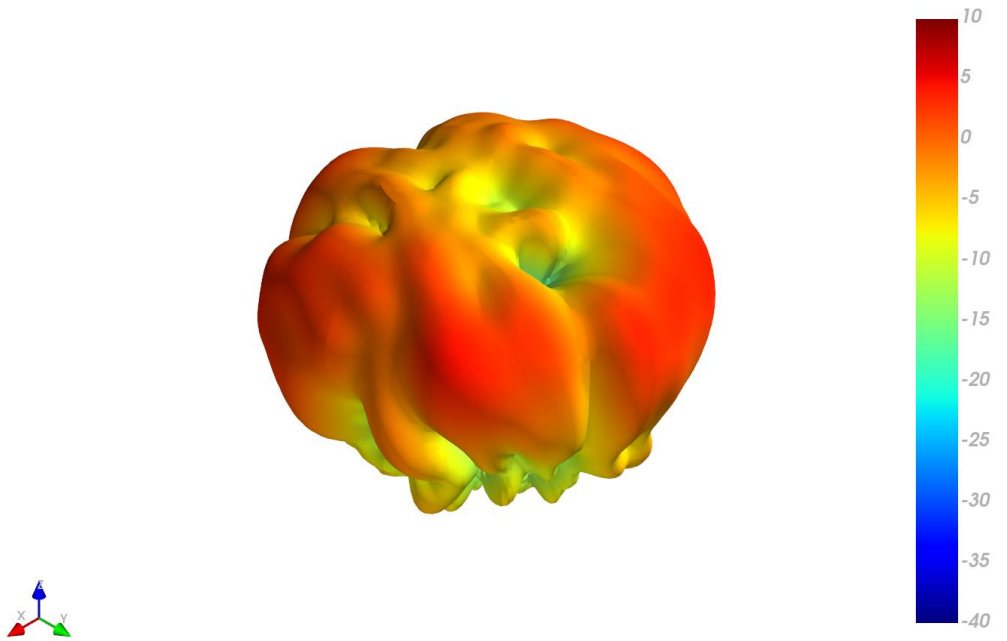

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

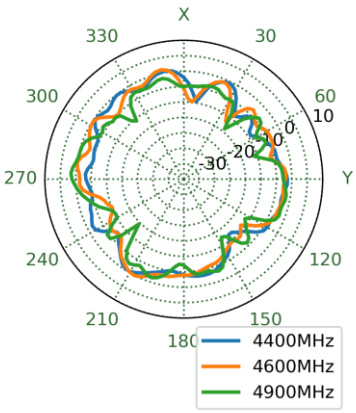
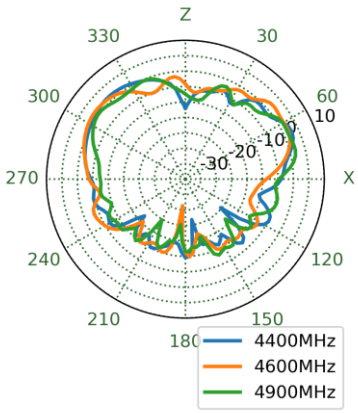
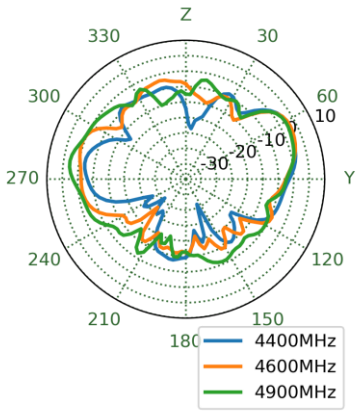
## 8.39 4G/5G-3 - Patterns at 3550 MHz



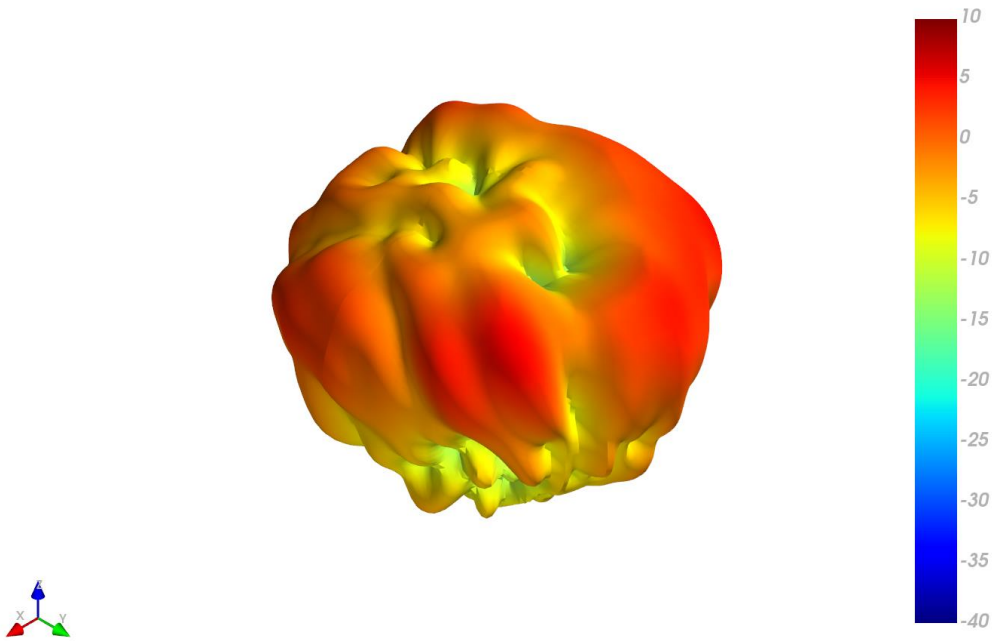

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.40 4G/5G-3 - Patterns at 4600 MHz

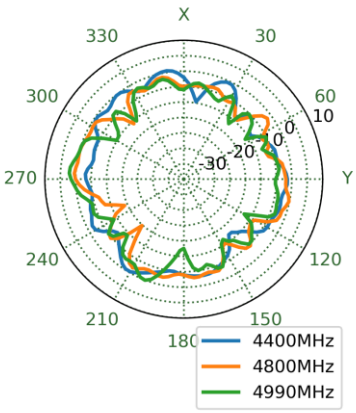


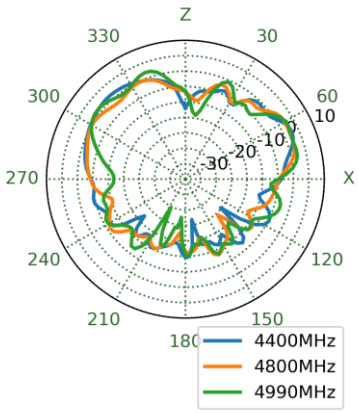

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

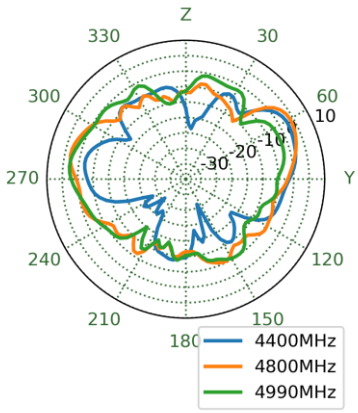
## 8.41 4G/5G-3 - Patterns at 4800 MHz



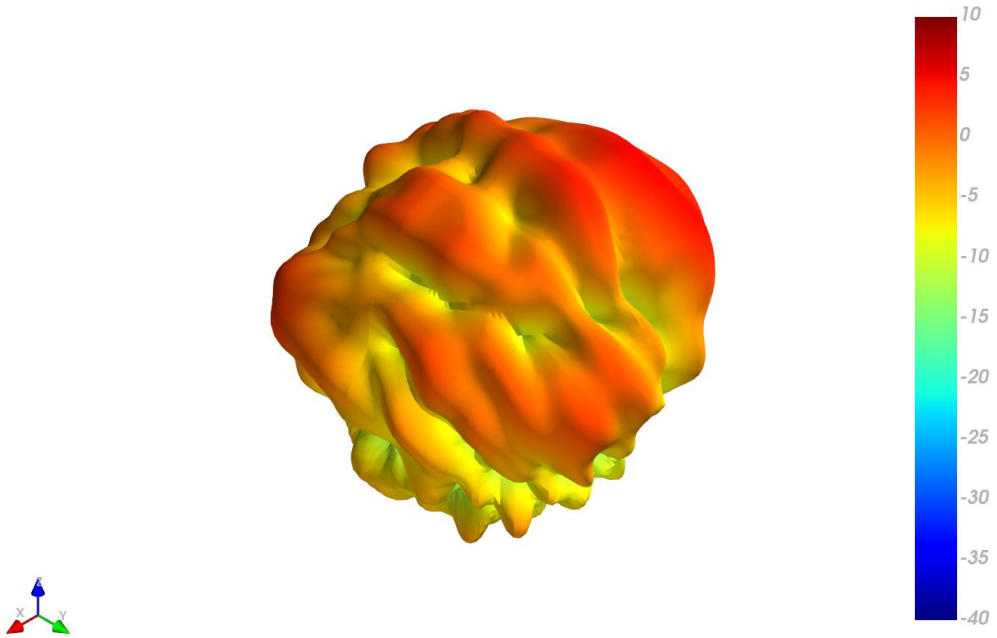

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|



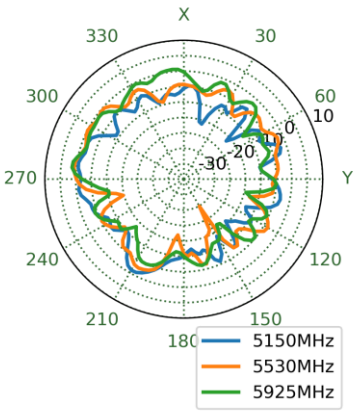



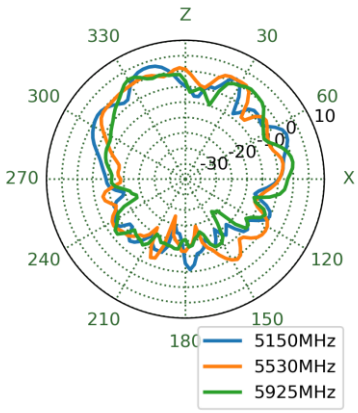



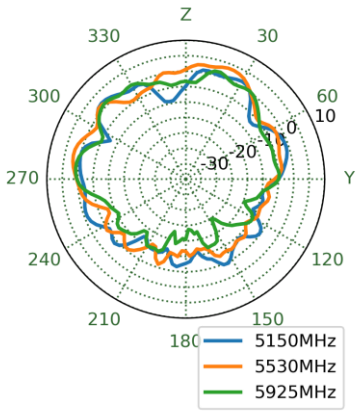
## 8.42 4G/5G-3 - Patterns at 5530 MHz



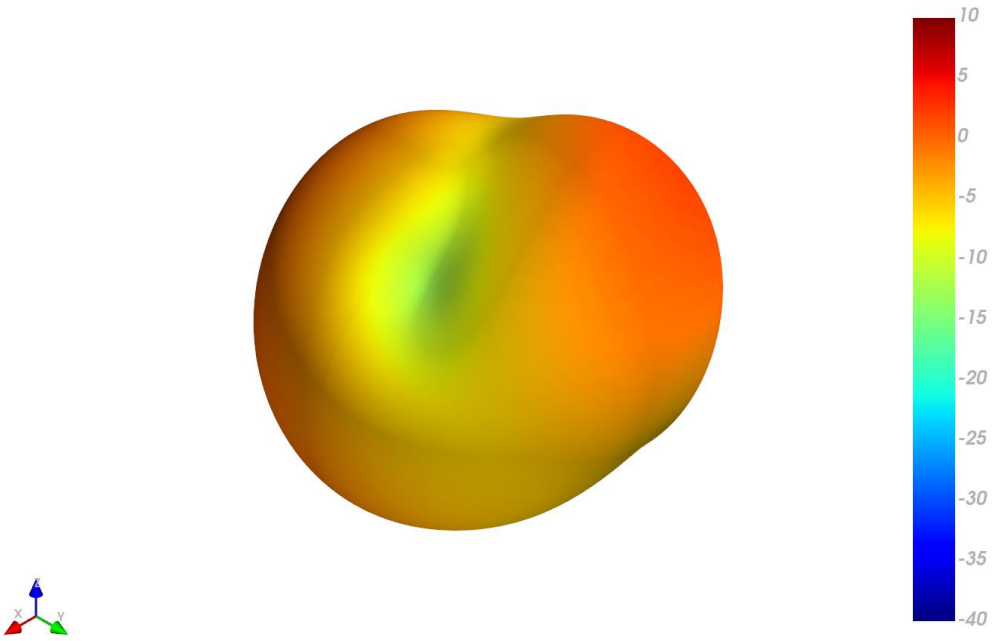

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

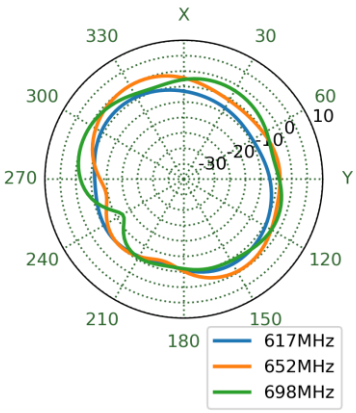
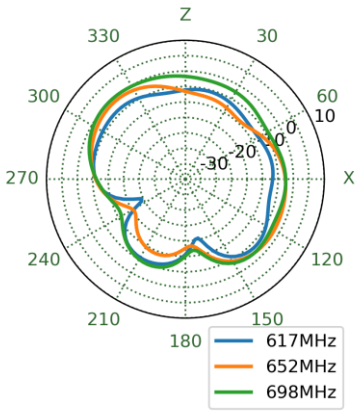
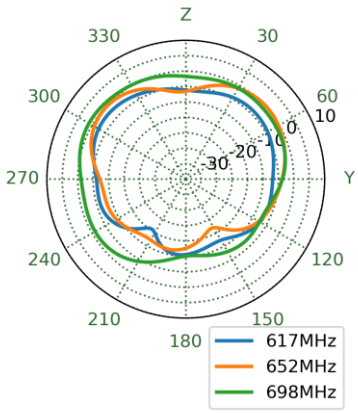


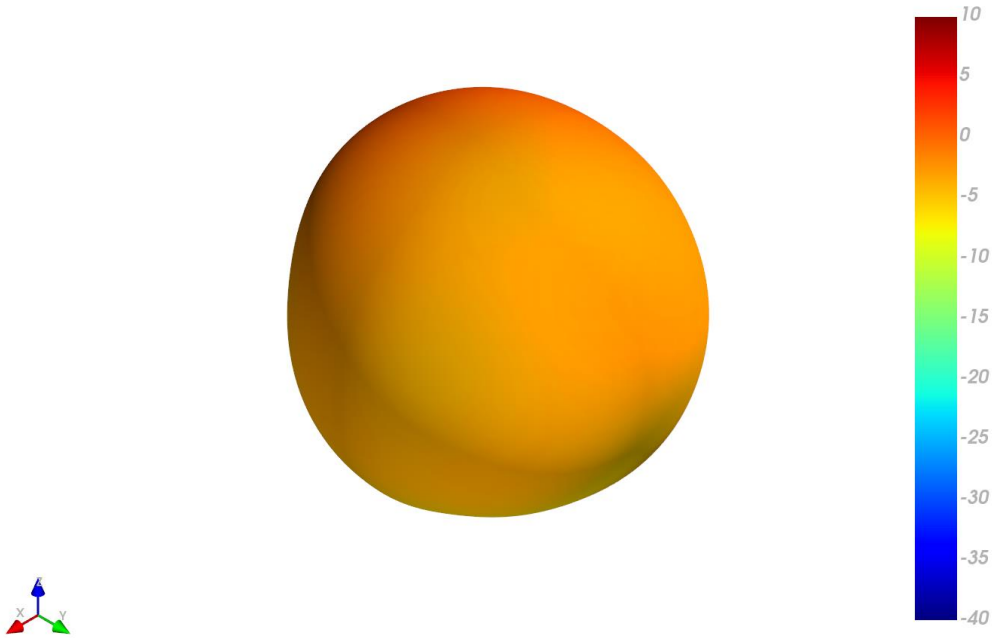



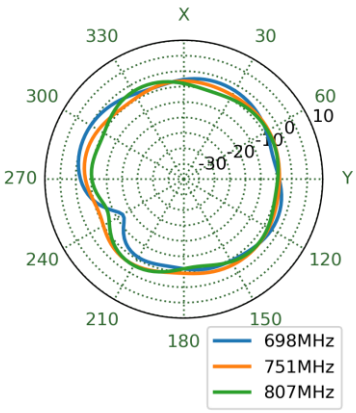
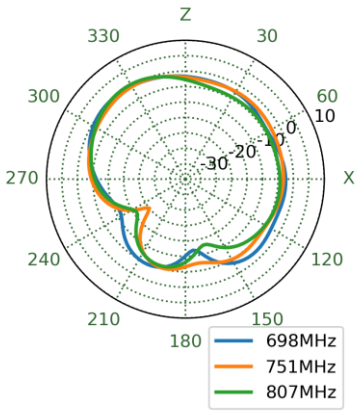
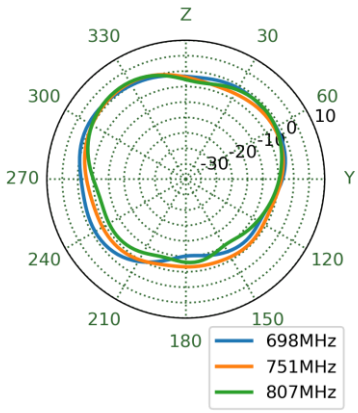
## 8.43 4G/5G-4 - Patterns at 652 MHz



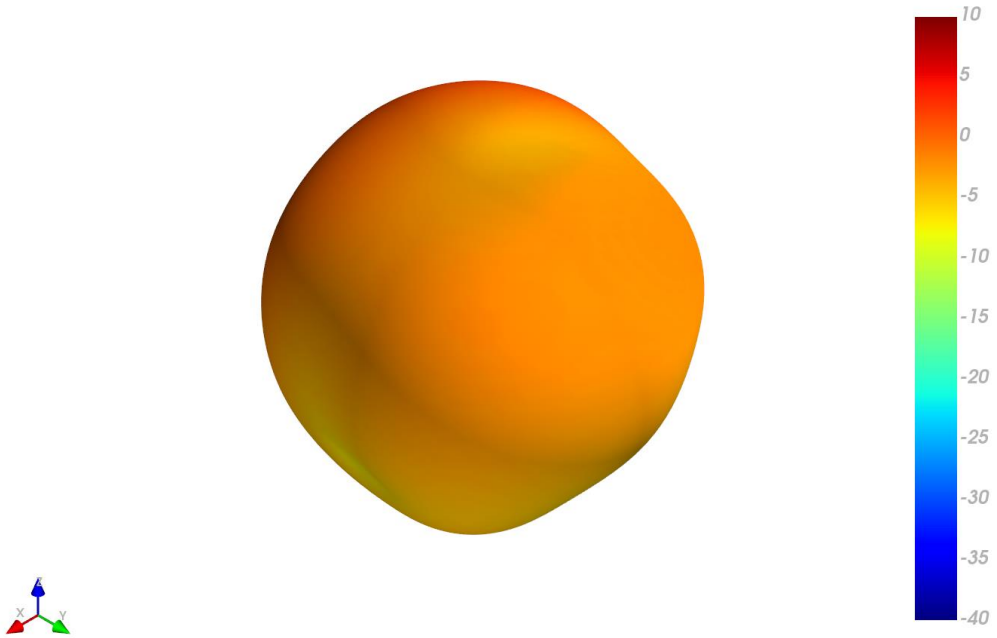

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

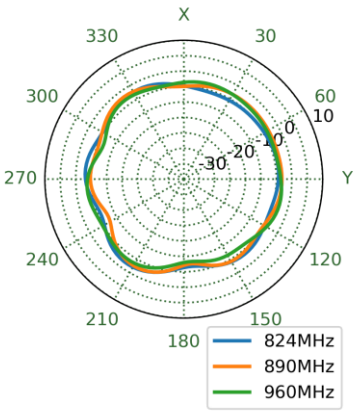
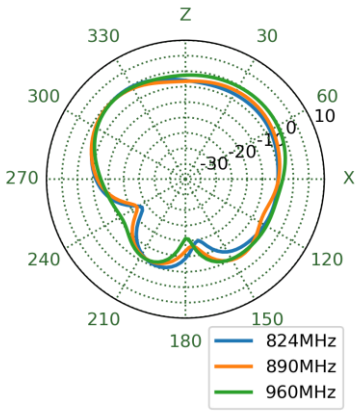
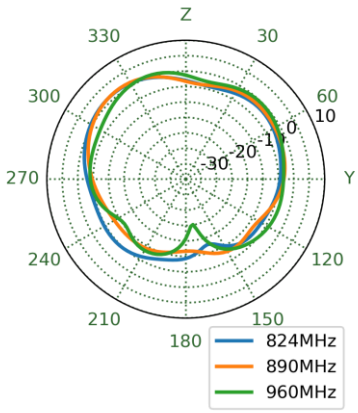
## 8.44 4G/5G-4 - Patterns at 751 MHz



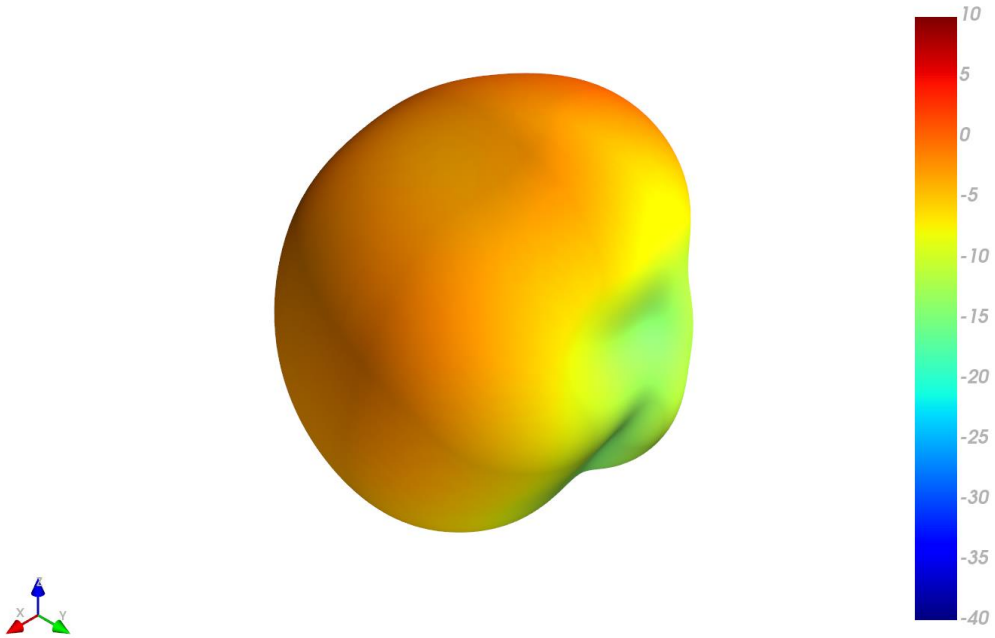

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

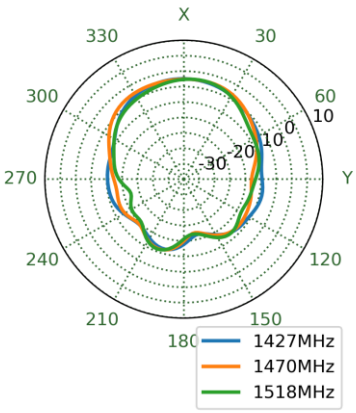
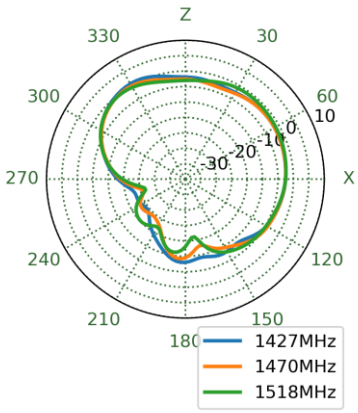
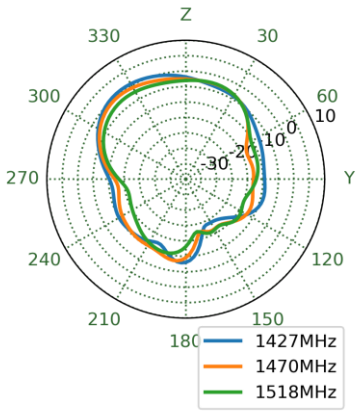
## 8.45 4G/5G-4 - Patterns at 890 MHz



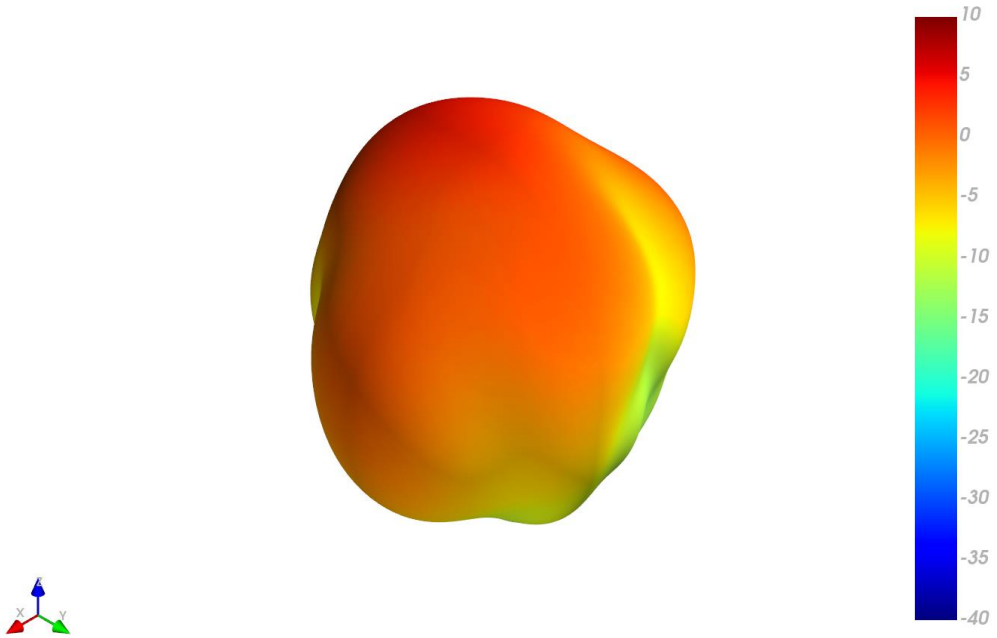

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.46 4G/5G-4 - Patterns at 1470 MHz

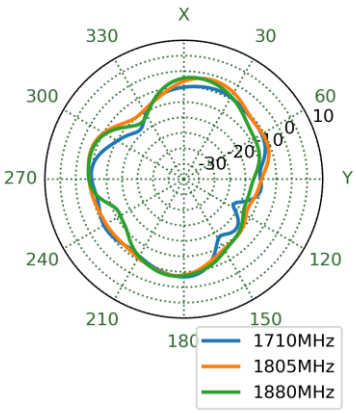


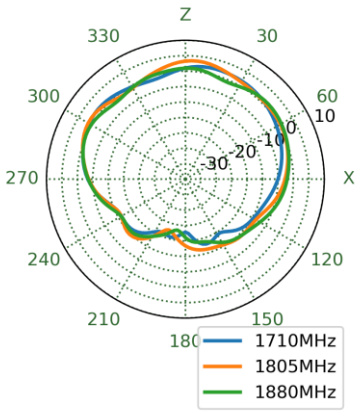

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

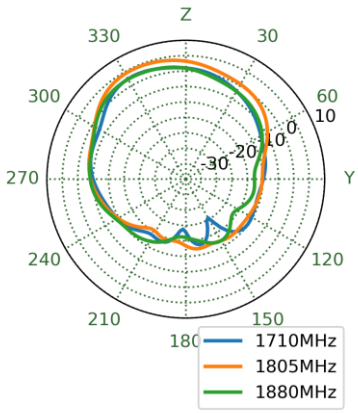
## 8.47 4G/5G-4 - Patterns at 1805 MHz



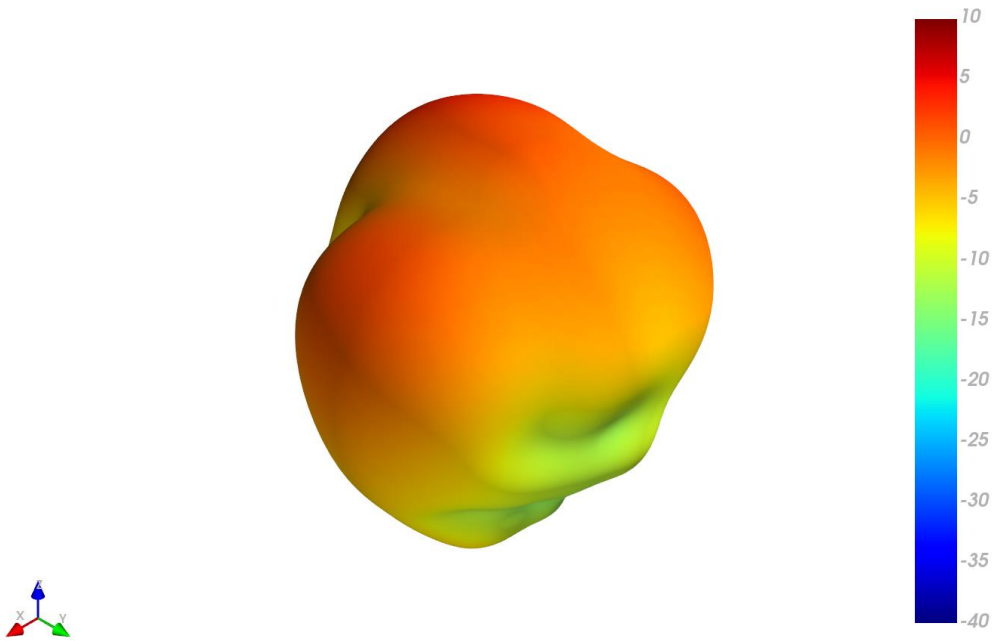

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

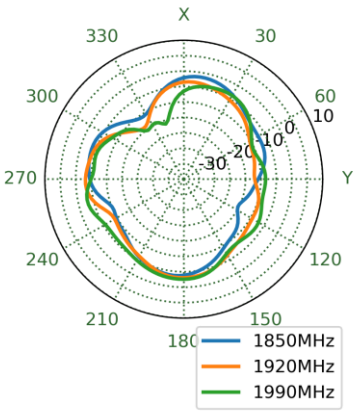
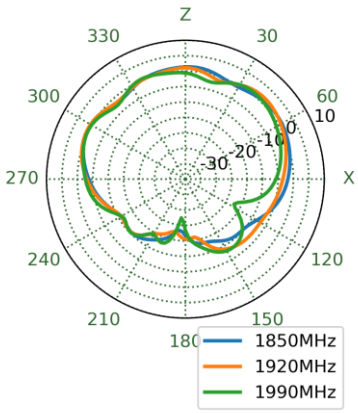
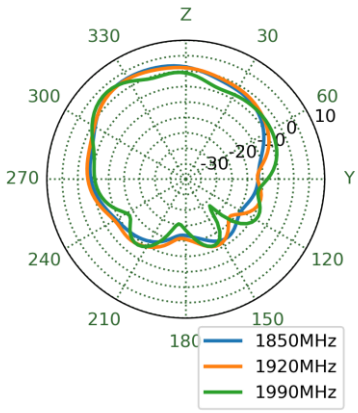


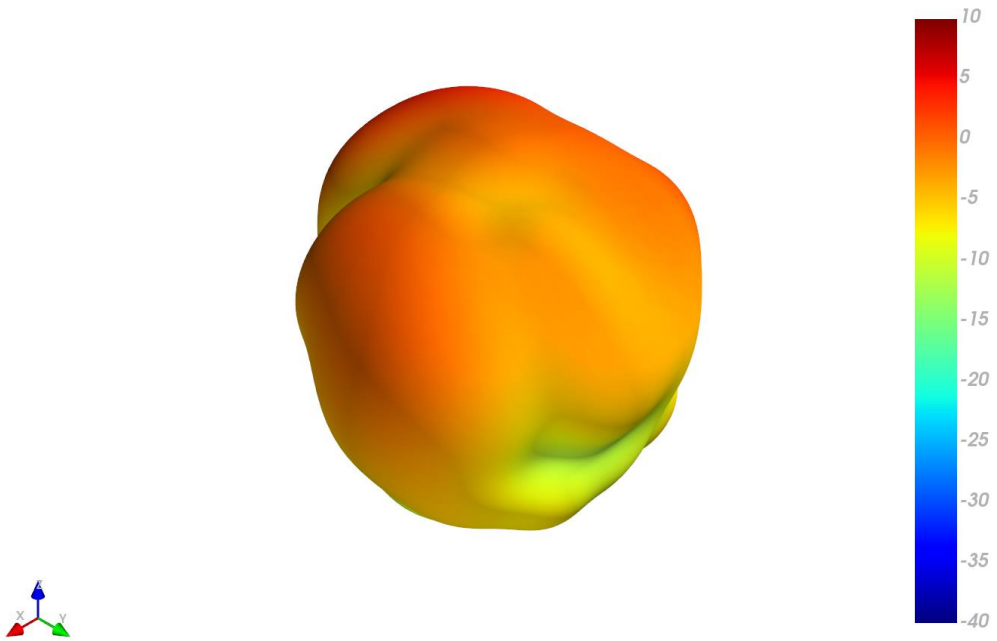



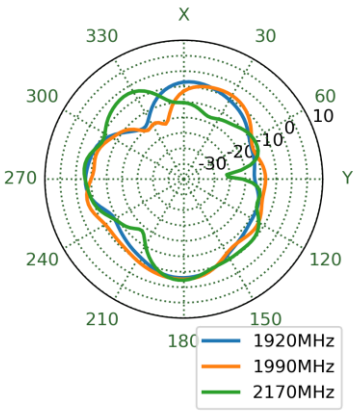
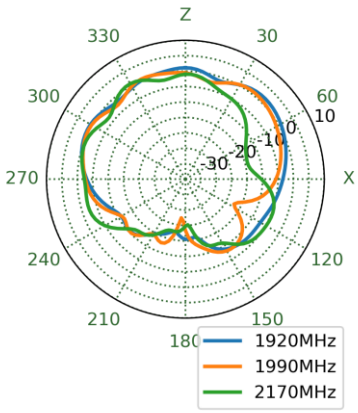
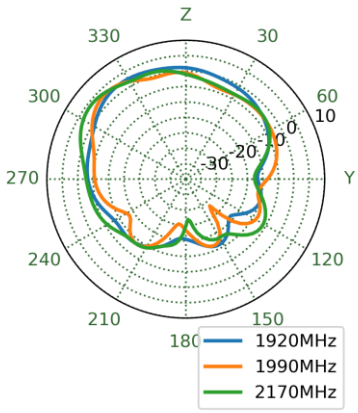
## 8.48 4G/5G-4 - Patterns at 1920 MHz



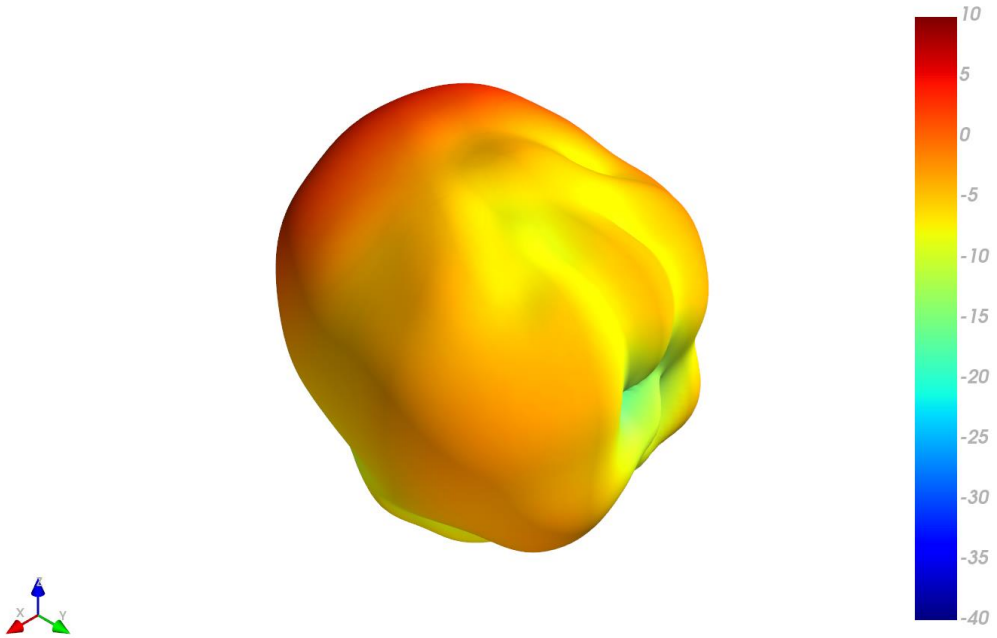

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.49 4G/5G-4 - Patterns at 1990 MHz

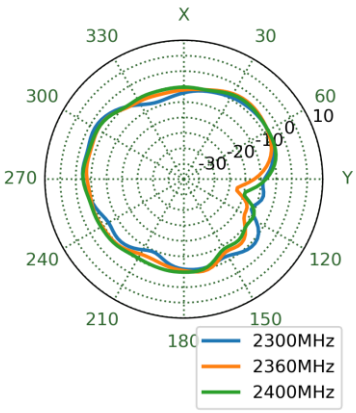


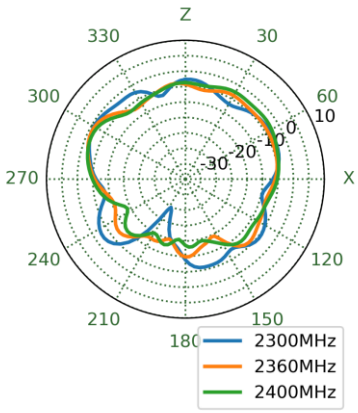

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

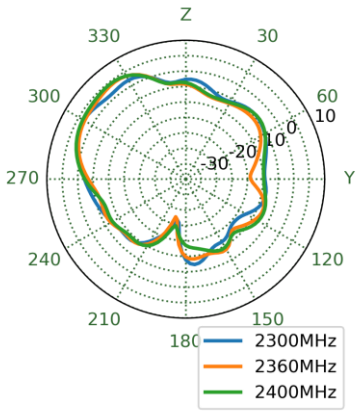
## 8.50 4G/5G-4 - Patterns at 2360 MHz



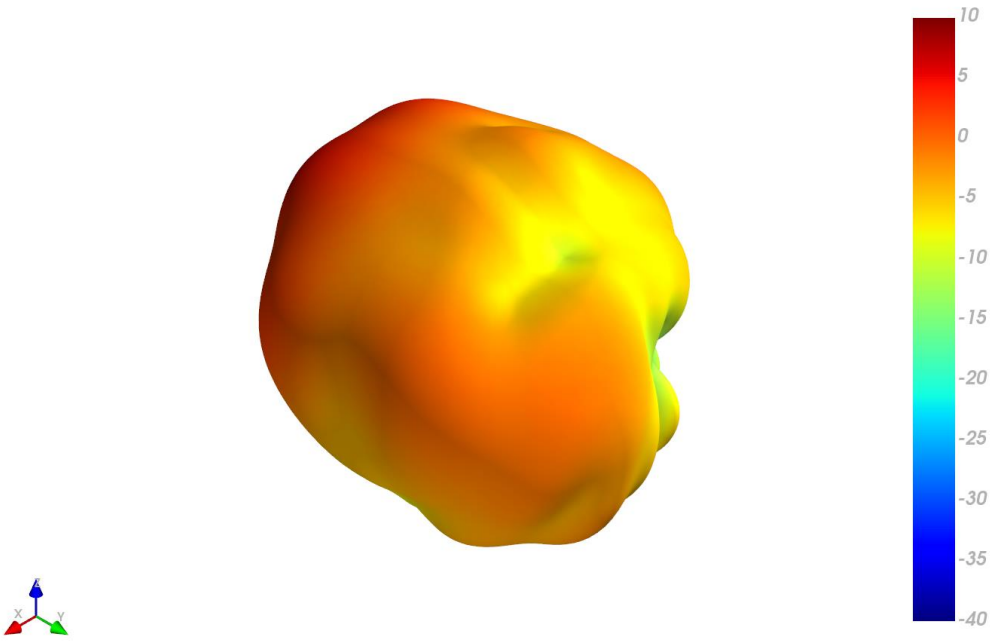

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|



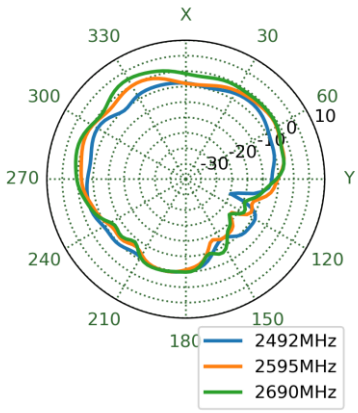



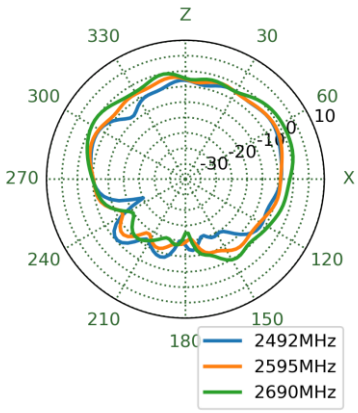



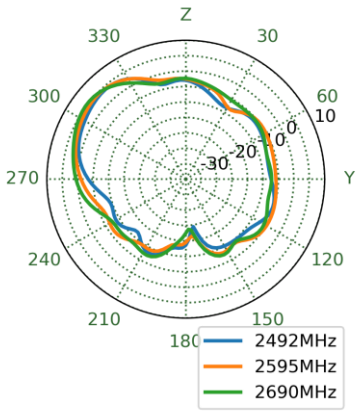
## 8.51 4G/5G-4 - Patterns at 2595 MHz



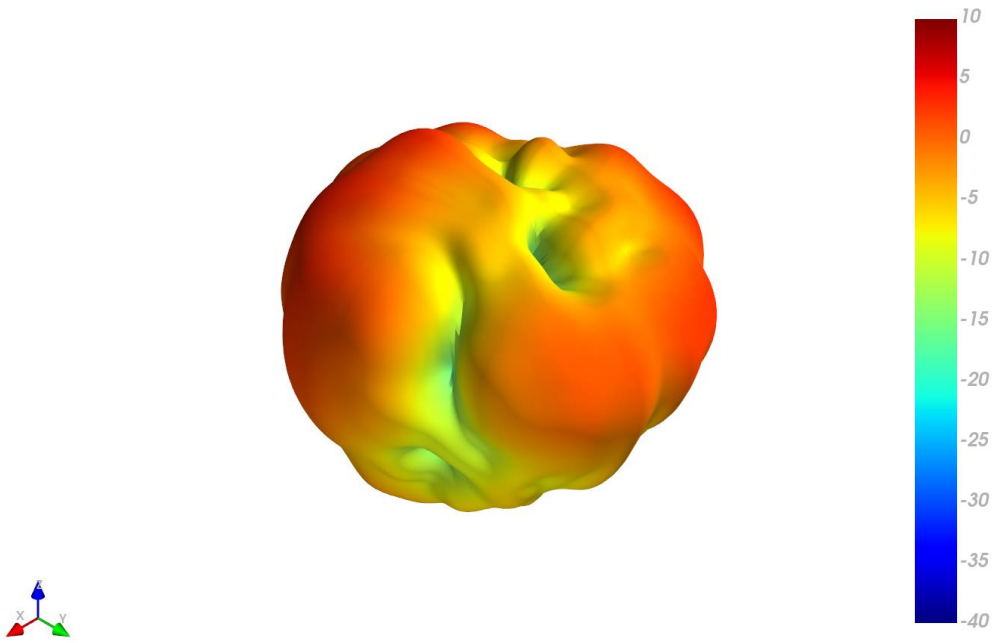

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

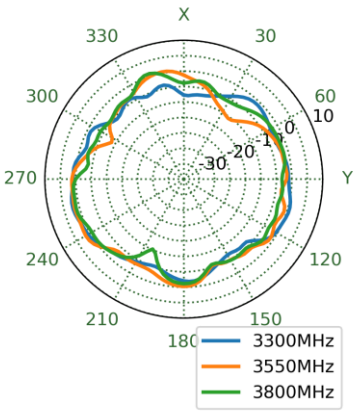
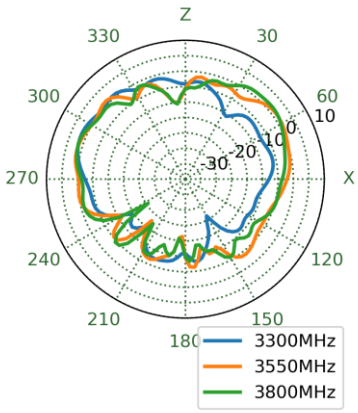
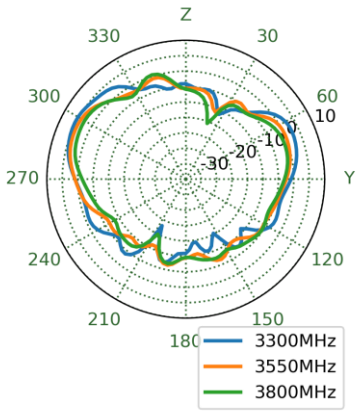


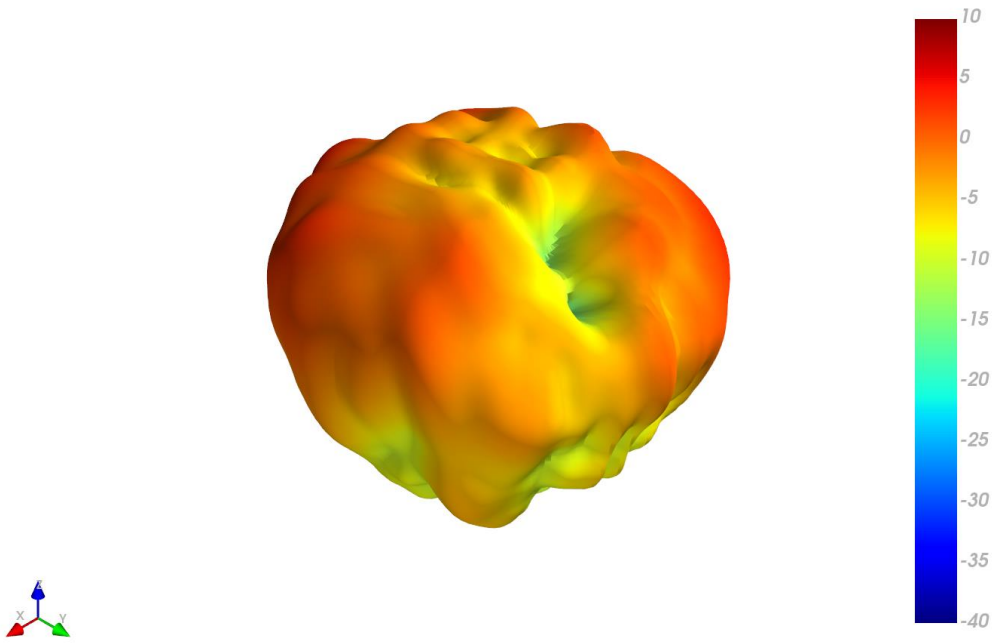



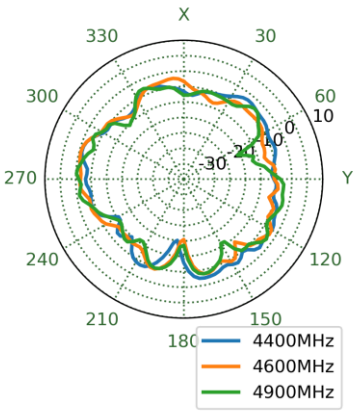
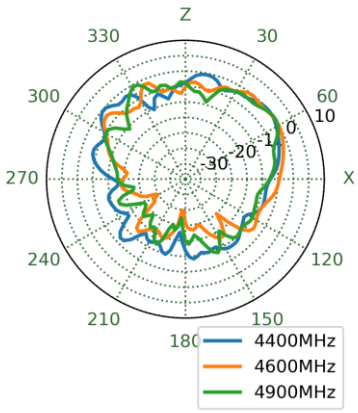
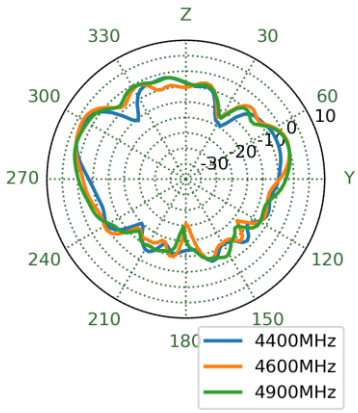
## 8.52 4G/5G-4 - Patterns at 3550 MHz



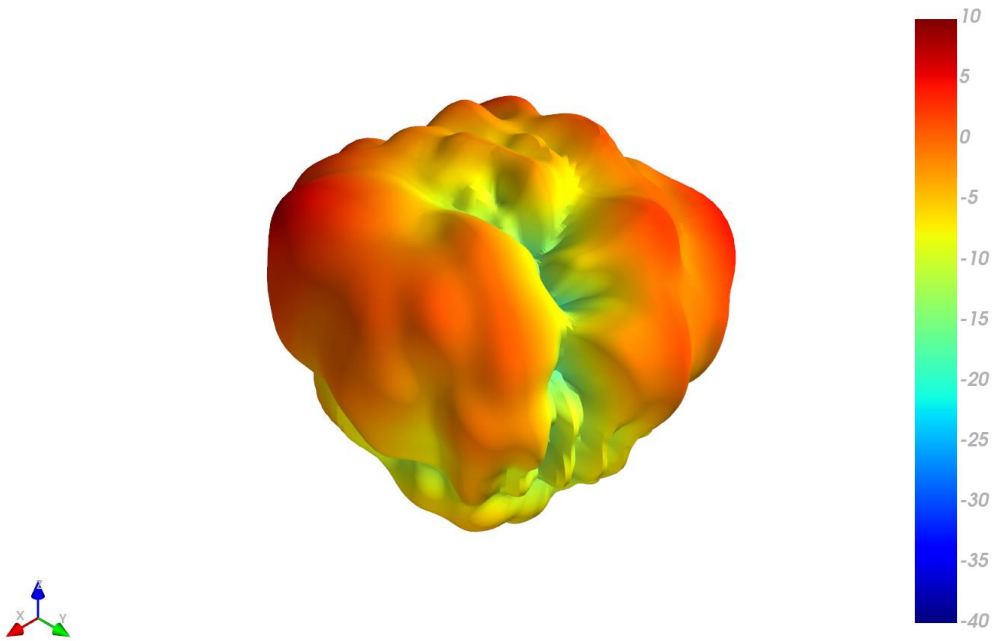

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

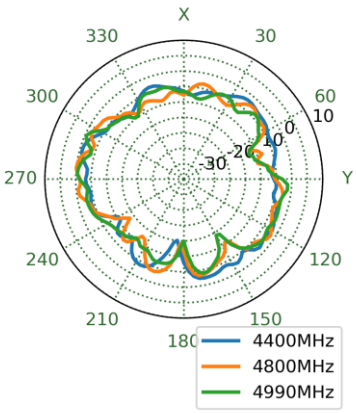
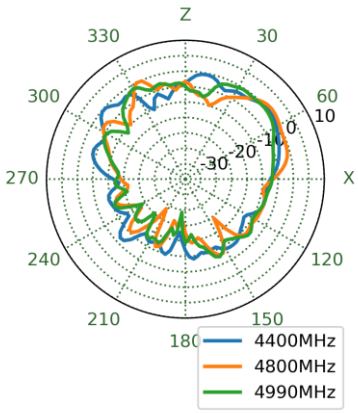
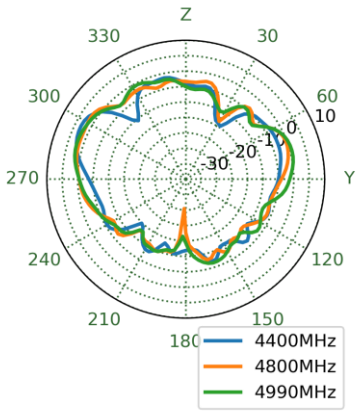
## 8.53 4G/5G-4 - Patterns at 4600 MHz



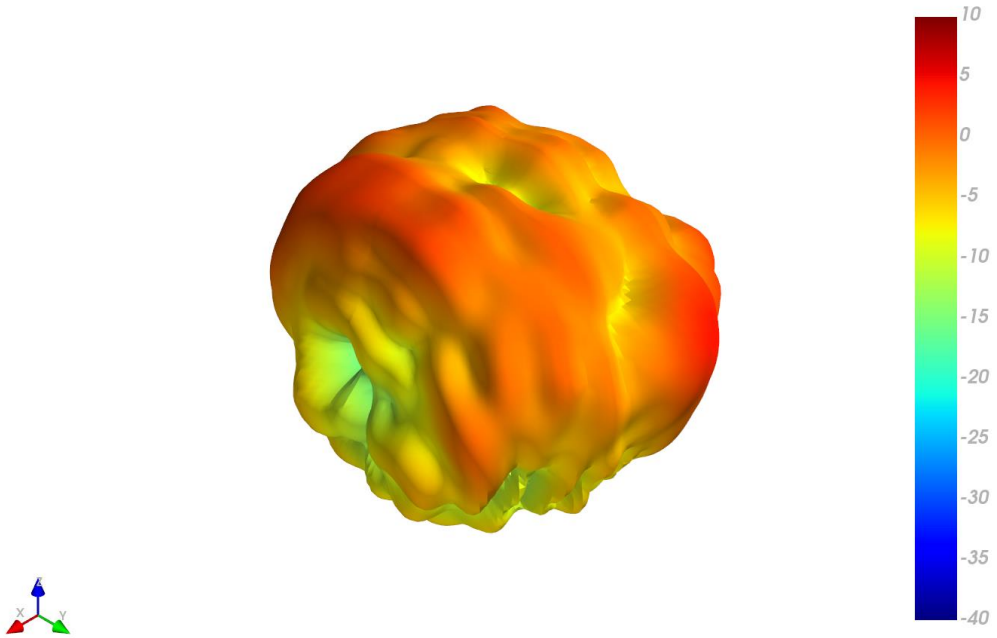

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.54 4G/5G-4 - Patterns at 4800 MHz

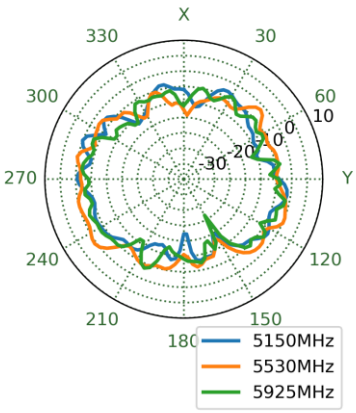


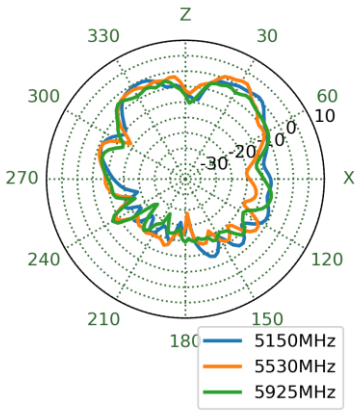

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

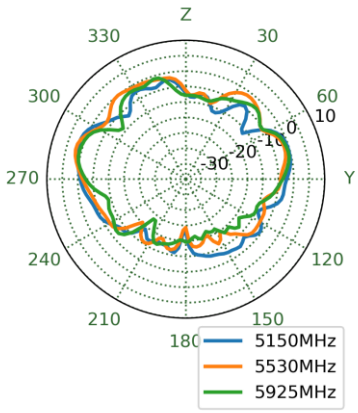
## 8.55 4G/5G-4 - Patterns at 5530 MHz



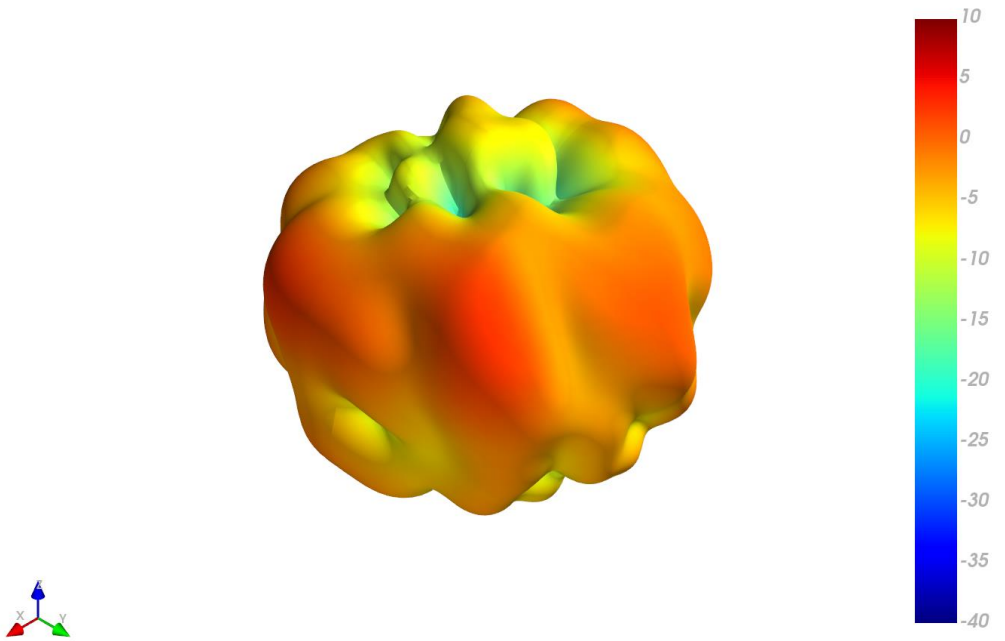

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|

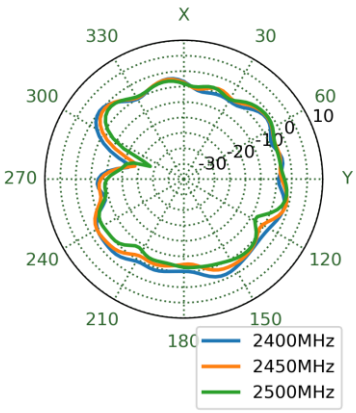
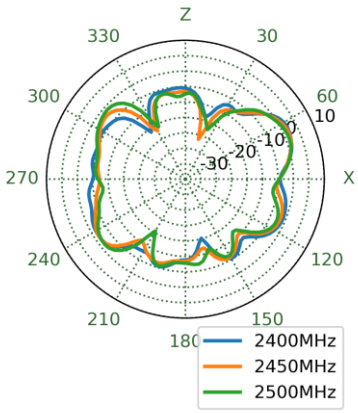
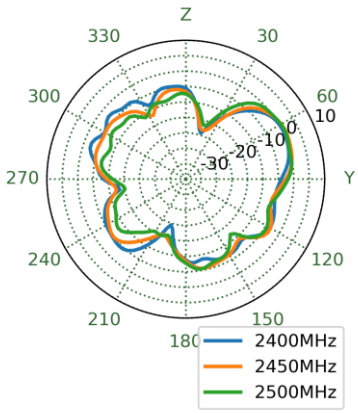


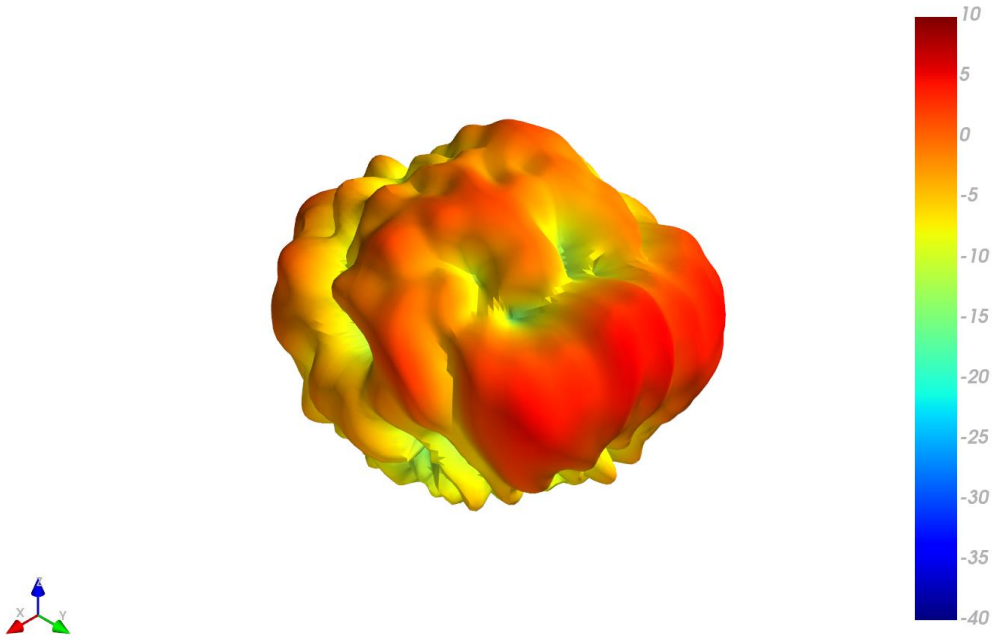



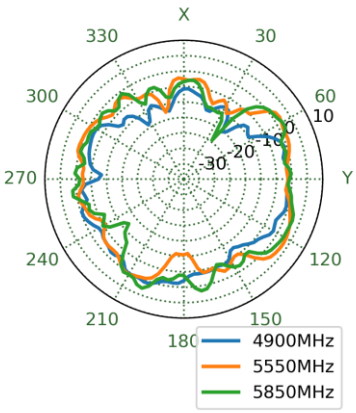
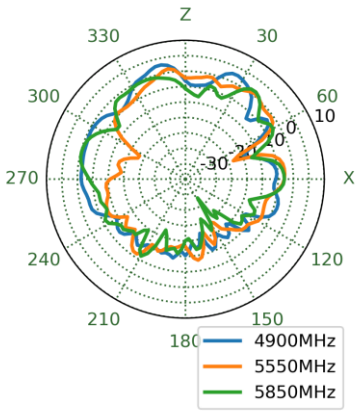
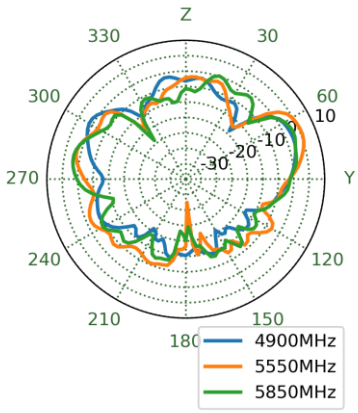
## 8.56 Wi-Fi-1 - Patterns at 2450 MHz



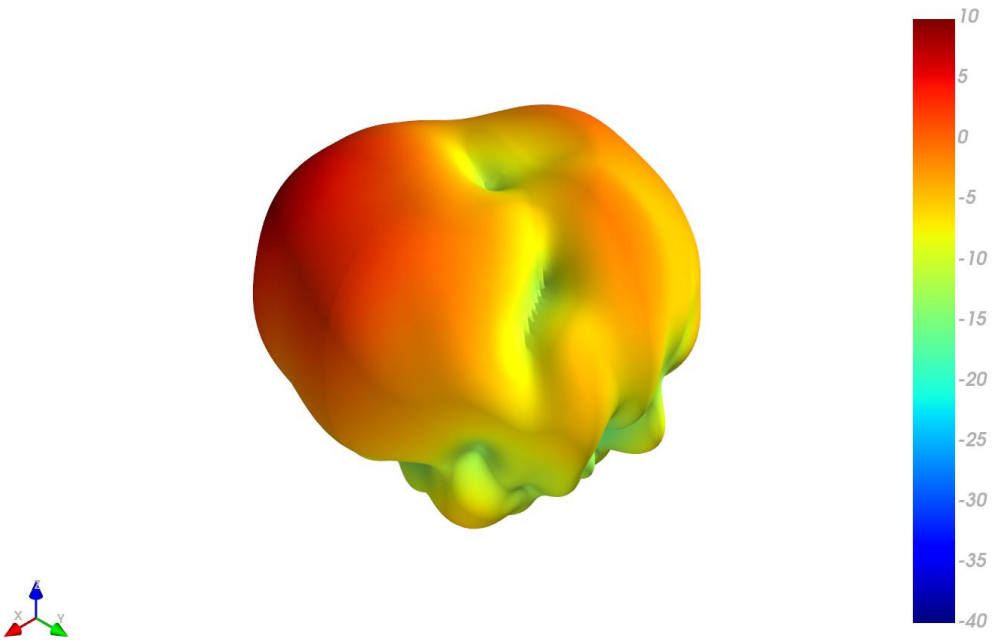

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

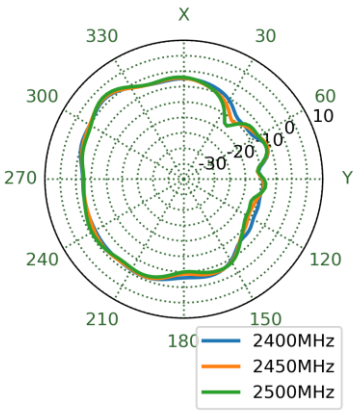
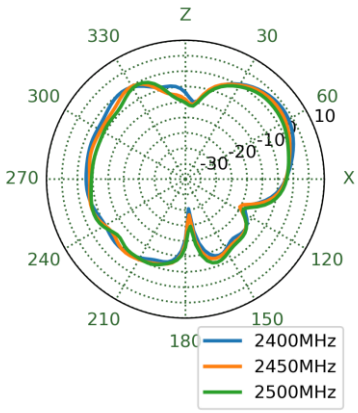
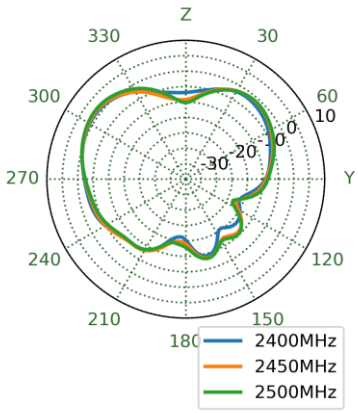
## 8.57 Wi-Fi-1 - Patterns at 5550 MHz



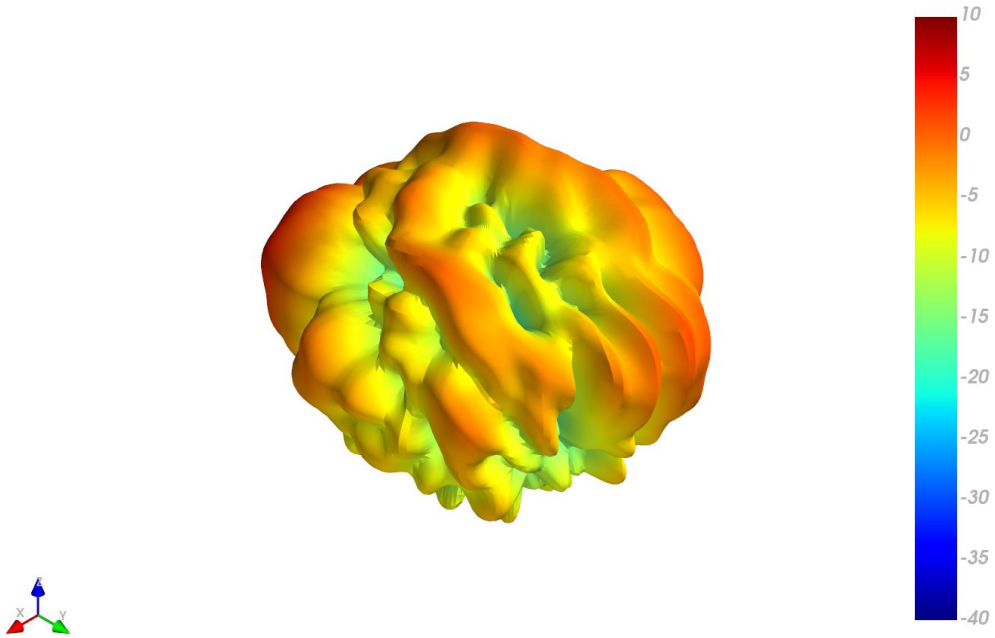

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

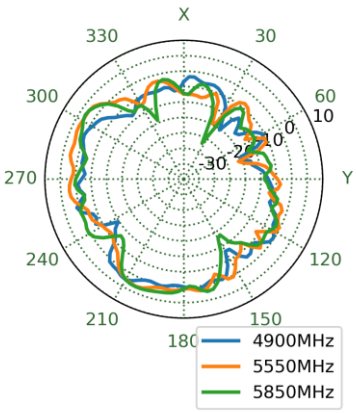
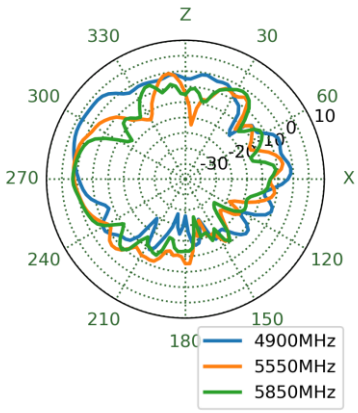
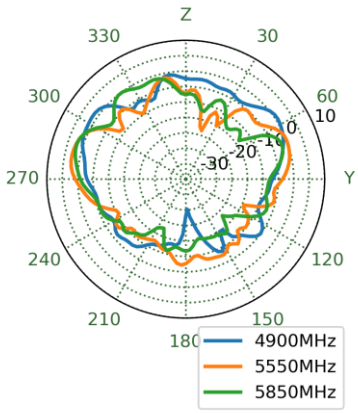
## 8.58 Wi-Fi-2 - Patterns at 2450 MHz



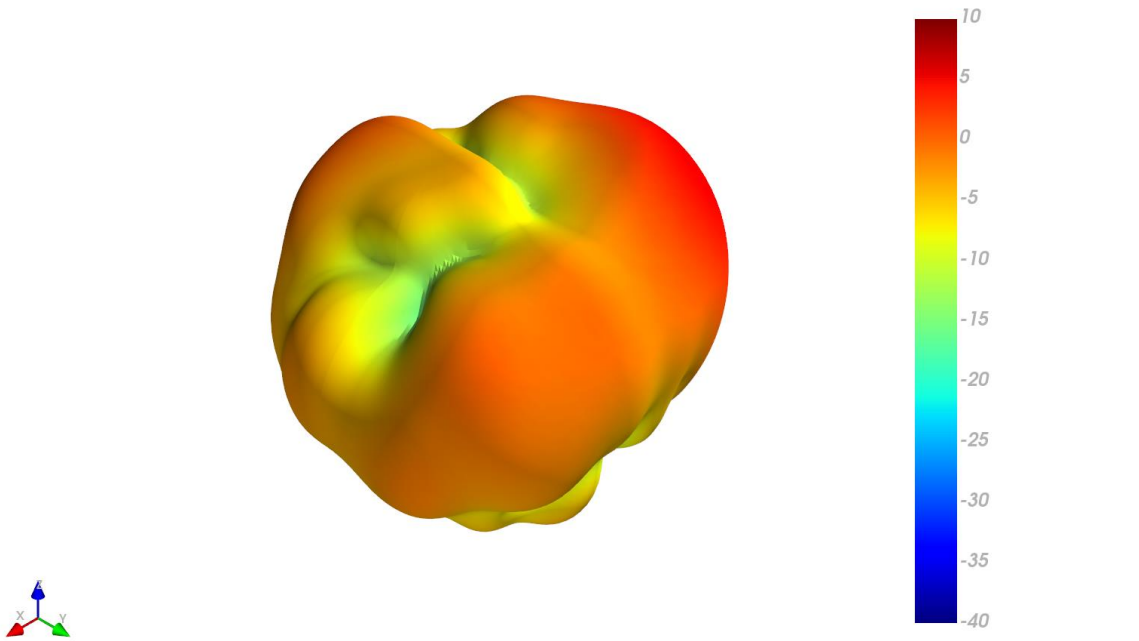

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

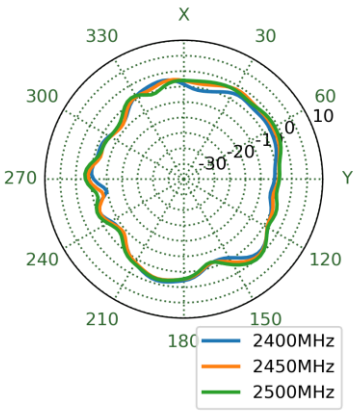
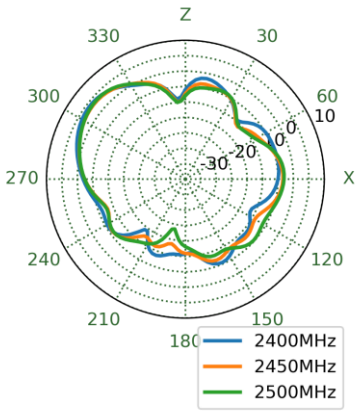
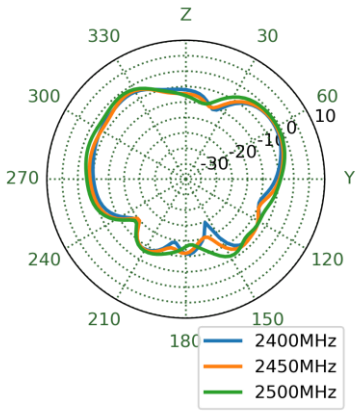
## 8.59 Wi-Fi-2 - Patterns at 5550 MHz



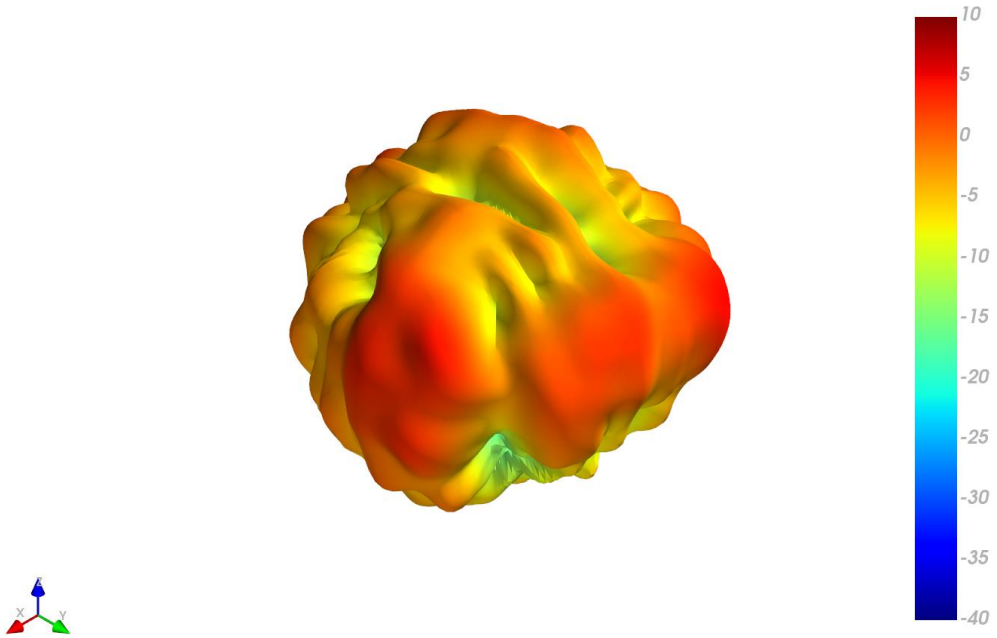

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

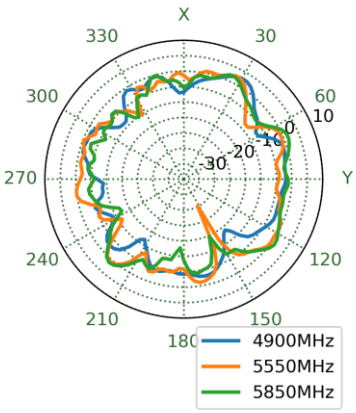
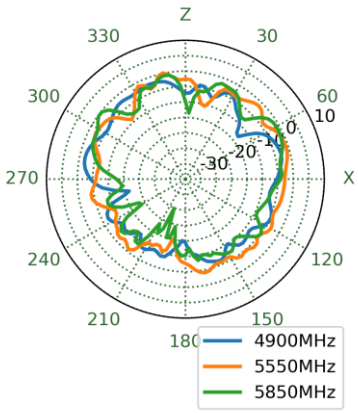
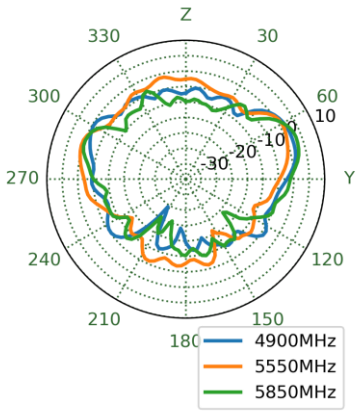
## 8.60 Wi-Fi-3 - Patterns at 2450 MHz



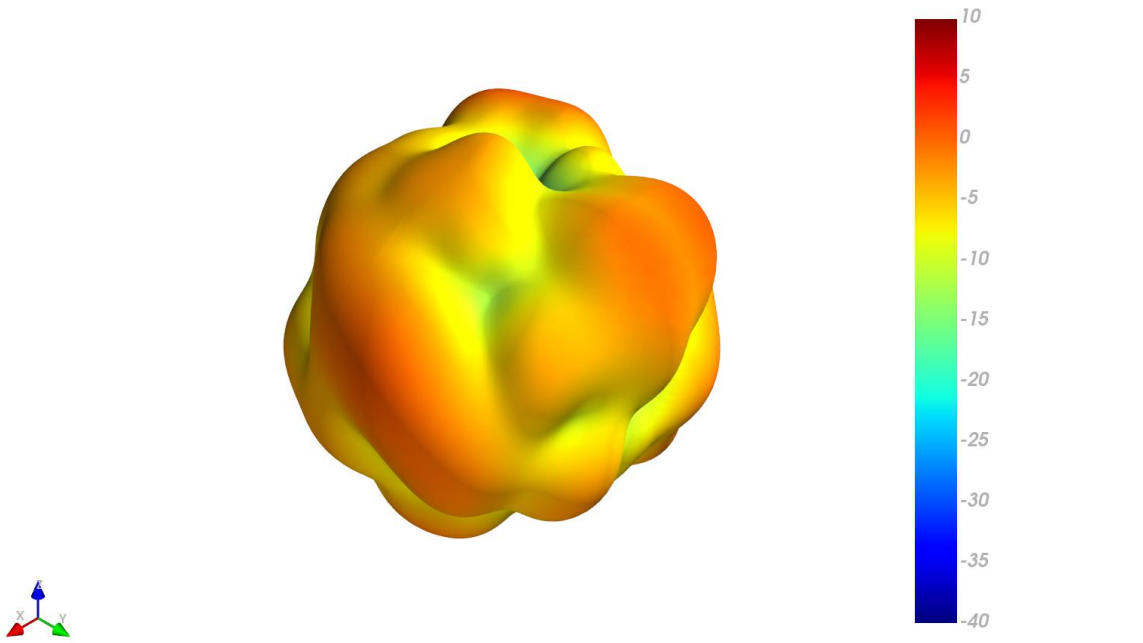

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

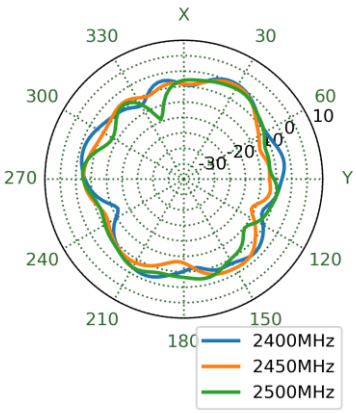
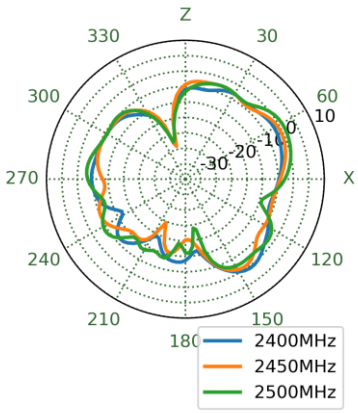
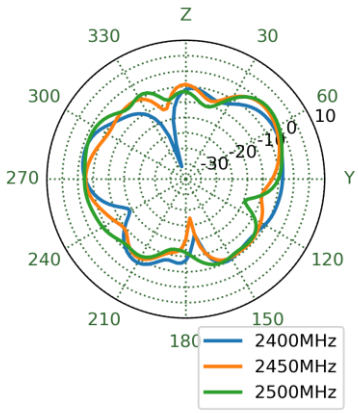
## 8.61 Wi-Fi-3 - Patterns at 5550 MHz



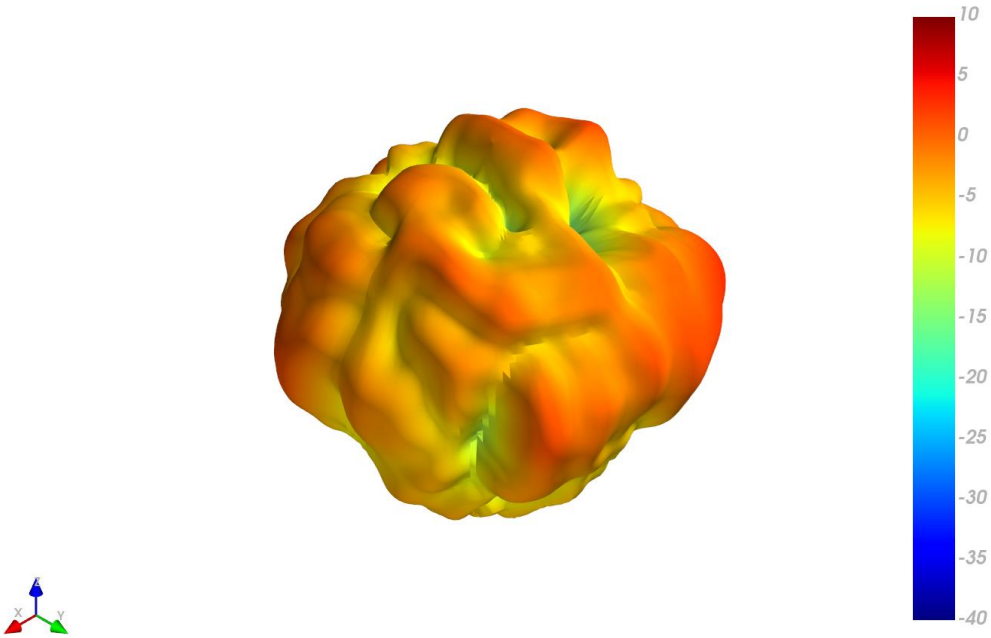

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

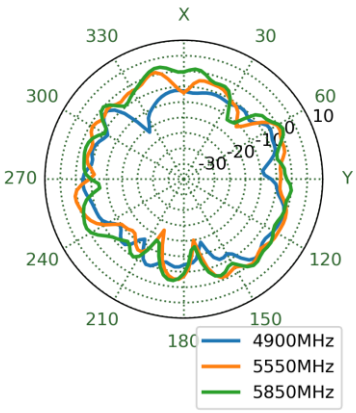
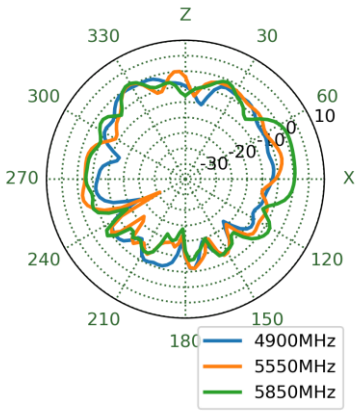
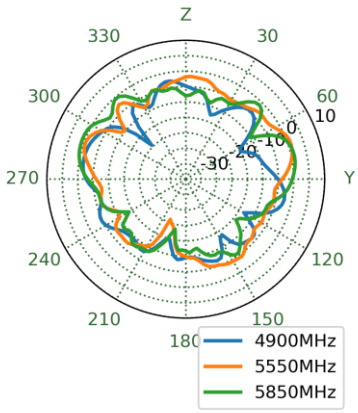
## 8.62 Wi-Fi-4 - Patterns at 2450 MHz



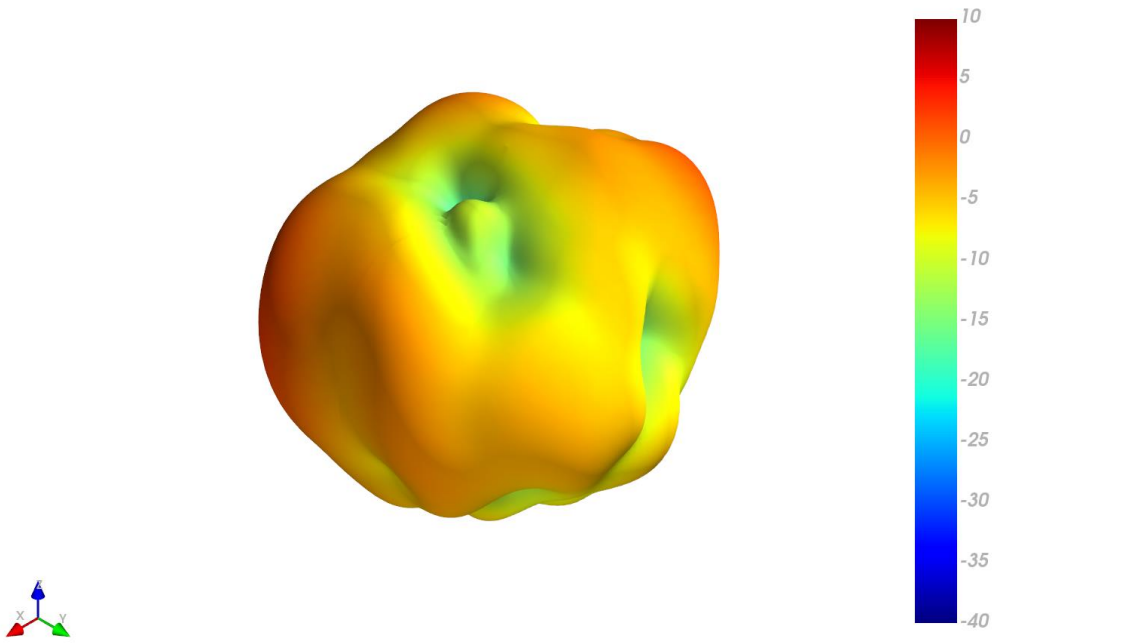

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

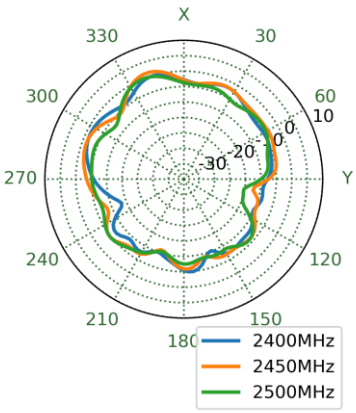
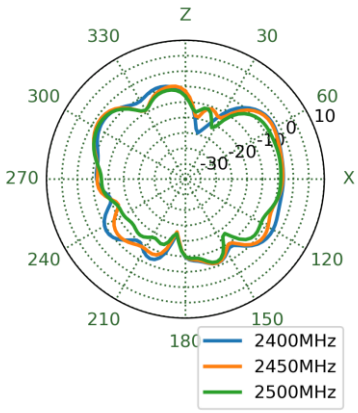
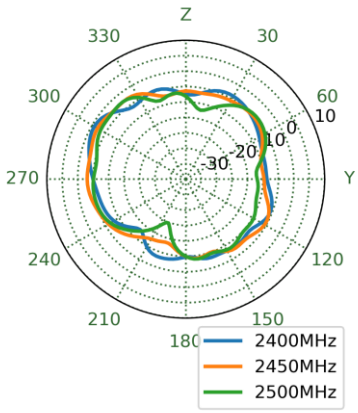
## 8.63 Wi-Fi-4 - Patterns at 5550 MHz



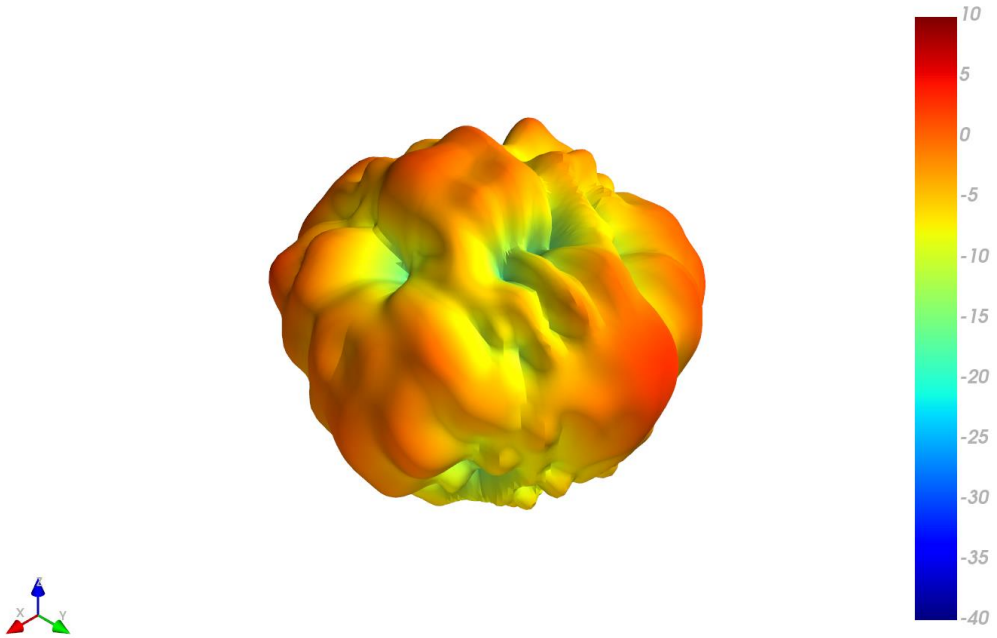

| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

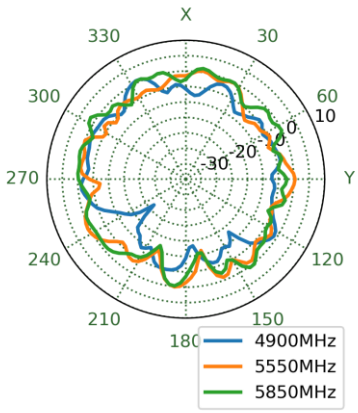
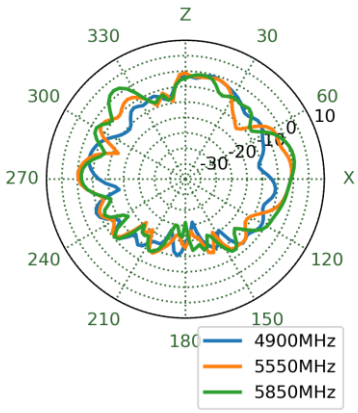
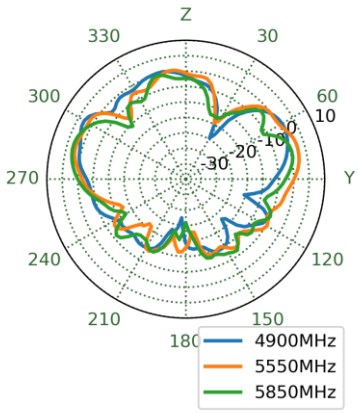
## 8.64 Wi-Fi-5 - Patterns at 2450 MHz




| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## 8.65 Wi-Fi-5 - Patterns at 5550 MHz




| XY Plane | XZ Plane | YZ Plane |
|---|---|---|
|  |  |  |

## Changelog for the datasheet

**SPE-24-8-008 - MA8010.A.001**

| Revision: C (Current Version) | |
|---|---|
| Date: | 2025-01-13 |
| Notes: | Updated drawing, reference to IK10 rating, product description, reference of PC Material on the enclosure and certification logos. |
| Author: | Conor McGrath |

**Previous Revisions**

| Revision: B | |
|---|---|
| Date: | 2024-04-17 |
| Notes: | Full datasheet and flow update |
| Author: | Gary West |

| Revision: A (Original First Release) | |
|---|---|
| Date: | 2024-01-12 |
| Notes: | Initial Release |
| Author: | Gary West |

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