

## 2J6552BGF

5GNR, Iridium and GNSS Screw Mount

### Key Features

**Cable 1: 5GNR**

- 617-960 MHz
- 1427-2690 MHz
- 3300-5000 MHz
- 5150-5925 MHz

**Cable 2: Iridium**

- 1616-1626 Mhz

**Cable 3: GPS/GLONASS/QZSS/Galileo**

- 1575-1606 MHz

Screw Mount

Anti-Rotation Mechanism

Ground Plane Dependent

Customizable Cable and Connector

Dimensions Ø 146 x 31.5 mm

Certificates: IK09, IP67, IP69K



# 1. Antenna and electrical specifications

|                      |                                                                                                     |                                                                                                                                                                                 |                                 |                      |
|----------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------|
| Cable 1              |                                                                                                     |                                                                                                                                                                                 |                                 |                      |
| Parameters           | 5GNR Antenna                                                                                        |                                                                                                                                                                                 |                                 |                      |
| Technologies         | 5G, 4G, 3G and 2G                                                                                   |                                                                                                                                                                                 |                                 |                      |
| Standards            | 5GNR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G                                     |                                                                                                                                                                                 |                                 |                      |
| Frequency (MHz)      | 617-960                                                                                             | 1427-2690                                                                                                                                                                       | 3300-5000                       | 5150-5925            |
| Band (MHz)           | 600, 700, 850, 900                                                                                  | 1500, 1600, 1700, 1800,<br>1900, 2000, 2100, 2300,<br>2500, 2600                                                                                                                | 3300, 3500, 3600,<br>3700, 4500 | 5200, 5500, 5800     |
| 5GNR Bands           | n5, n8 ,12, n20, n28, n71,<br>n81, n82, n83,                                                        | n1, n2, n3, n7, n25, n34,<br>n38, n39, n40, n41, n50,<br>n51, n66, n70, n74, n75,<br>n76, n80, n84, n86                                                                         | n77, n78, n79                   |                      |
| 4GLTE Bands          | B5, B6, B8, B12, B13, B14,<br>B17, B18, B19, B20, B26,<br>B27, B28, B29, B44, B67,<br>B68, B71, B85 | B1, B2, B3, B4, B7, B9,<br>B10, B11, B21, B23, B24,<br>B25, B30, B32, B33, B34,<br>B35, B36, B37, B38, B39,<br>B40, B41, B45, B50, B51,<br>B65, B66, B69, B70, B74,<br>B75, B76 | B22, B42, B43, B48,<br>B49, B52 | B46, B47, B252, B255 |
| 3GCELL Bands         | B5, B6, B8, B12, B13, B14,<br>B19, B20, B26                                                         | B1, B2, B3, B4, B7, B9,<br>B10, B11, B21, B25, B32,<br>B33, B34, B35, B36, B37,<br>B38, B39, B40                                                                                | B22                             |                      |
| 2GCELL Bands         | 710, 750, 810T, 850, 900P,<br>900E, 900R                                                            | 1800DCS, 1900PCS                                                                                                                                                                |                                 |                      |
| CDMACELL Bands       | BC0, BC2, BC3, BC7, BC9,<br>BC10, BC12, BC18, BC19                                                  | BC1, BC4, BC6, BC8,<br>BC13, BC14, BC15, BC16,<br>BC20, BC21                                                                                                                    |                                 |                      |
| Return Loss (dB)     | ~-7.5                                                                                               | ~-9.7                                                                                                                                                                           | ~-11.2                          | ~-14.2               |
| VSWR                 | ~3.3:1                                                                                              | ~2.3:1                                                                                                                                                                          | ~2.1:1                          | ~1.7:1               |
| Efficiency (%)       | ~22.4                                                                                               | ~20.0                                                                                                                                                                           | ~15.5                           | ~16.4                |
| Peak Gain (dBi)      | ~-1.5                                                                                               | ~-1.5                                                                                                                                                                           | ~-1.3                           | ~0.6                 |
| Average Gain (dB)    | ~-7.0                                                                                               | ~-7.6                                                                                                                                                                           | ~-8.3                           | ~-8.0                |
| Impedance (Ohm)      | 50                                                                                                  |                                                                                                                                                                                 |                                 |                      |
| Polarisation         | Linear                                                                                              |                                                                                                                                                                                 |                                 |                      |
| Radiation Pattern    | Omni-Directional                                                                                    |                                                                                                                                                                                 |                                 |                      |
| Max. Input Power (W) | 25                                                                                                  |                                                                                                                                                                                 |                                 |                      |
| Connector Type       | SMA-Male Standard (Other Connectors Available)                                                      |                                                                                                                                                                                 |                                 |                      |
| Cable Length         | 300 cm Standard (Any Cable Length Available)                                                        |                                                                                                                                                                                 |                                 |                      |
| Cable Type           | LL100 Standard (Other Cables Available)                                                             |                                                                                                                                                                                 |                                 |                      |

Antenna Measurement Conditions:

Mounted on 30 x 30 cm Metal Plate  
100 cm of LL100 Cable  
Measured in Certified CTIA 3D Anechoic Chamber

|                   |                                                |  |
|-------------------|------------------------------------------------|--|
| Cable 2           |                                                |  |
| Parameters        | Iridium Antenna                                |  |
| Standards         | Iridium                                        |  |
| Band (MHz)        | 1621                                           |  |
| Frequency (MHz)   | 1616-1627                                      |  |
| Patch Size (mm)   | 36 x 36 x 4                                    |  |
| Return Loss (dB)  | ~-18.8                                         |  |
| VSWR              | ~1.2:1                                         |  |
| Efficiency (%)    | ~76                                            |  |
| Peak Gain (dBic)  | ~4.5                                           |  |
| Average Gain (dB) | ~-1.1                                          |  |
| Impedance         | 50                                             |  |
| Axial Ratio (dB)  | 3 max                                          |  |
| Radiation Pattern | Hemispherical                                  |  |
| Polarization      | RHCP                                           |  |
| Connector Type    | SMA-Male Standard (Other Connectors Available) |  |
| Cable Length      | 300 cm Standard (Any Cable Length Available)   |  |
| Cable Type        | LL100 Standard (Other Cables Available)        |  |

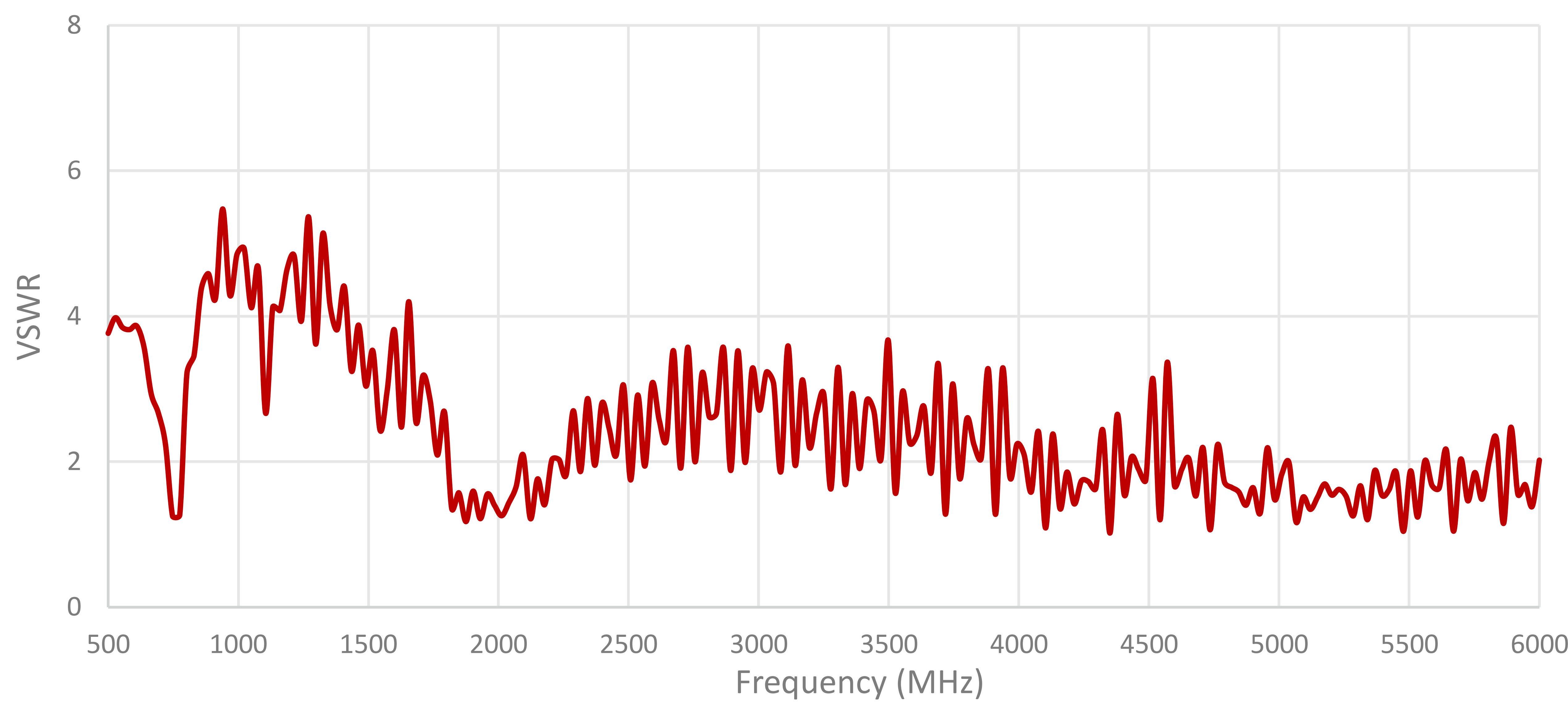
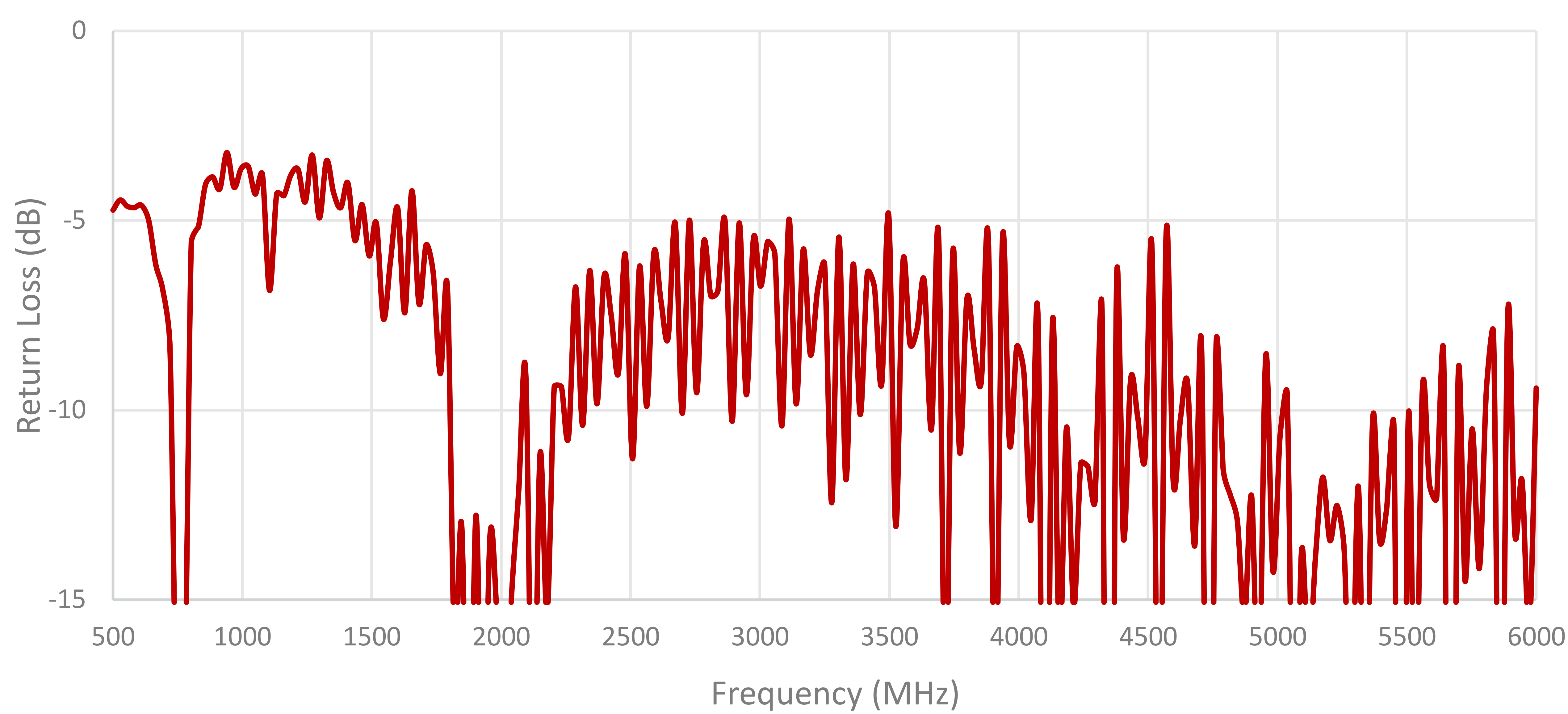
|                          |                                                |           |
|--------------------------|------------------------------------------------|-----------|
| Cable 3                  |                                                |           |
| Parameters               | GNSS Ceramic Active Antenna                    |           |
| Standards                | GPS/QZSS/Galileo                               | GLONASS   |
| Band (MHz)               | 1575                                           | 1602      |
| Frequency (Mhz)          | 1575.42                                        | 1598-1606 |
| Patch Size (mm)          | 25 x 25 x 4                                    |           |
| Passive Gain (dBi)       | ~3.6                                           |           |
| Impedance (Ohms)         | 50                                             |           |
| Radiation Pattern        | Hemispherical                                  |           |
| Voltage Range (V)        | 1.5 - 3.6                                      |           |
| Active Gain (dB)         | 28 @ 2.7 V                                     |           |
| Noise Figure (dB)        | 1.8 @ 2.7 V                                    |           |
| Current Consumption (mA) | 9 @ 2.7 V                                      |           |
| Power Consumption (mW)   | 24.3 @ 2.7 V                                   |           |
| Saw Filter Type          | Pre-Filter                                     |           |
| Connector Type           | SMA-Male Standard (Other Connectors Available) |           |
| Cable Length             | 300 cm Standard (Any Cable Length Available)   |           |
| Cable Type               | LL100 Standard (Other Cables Available)        |           |

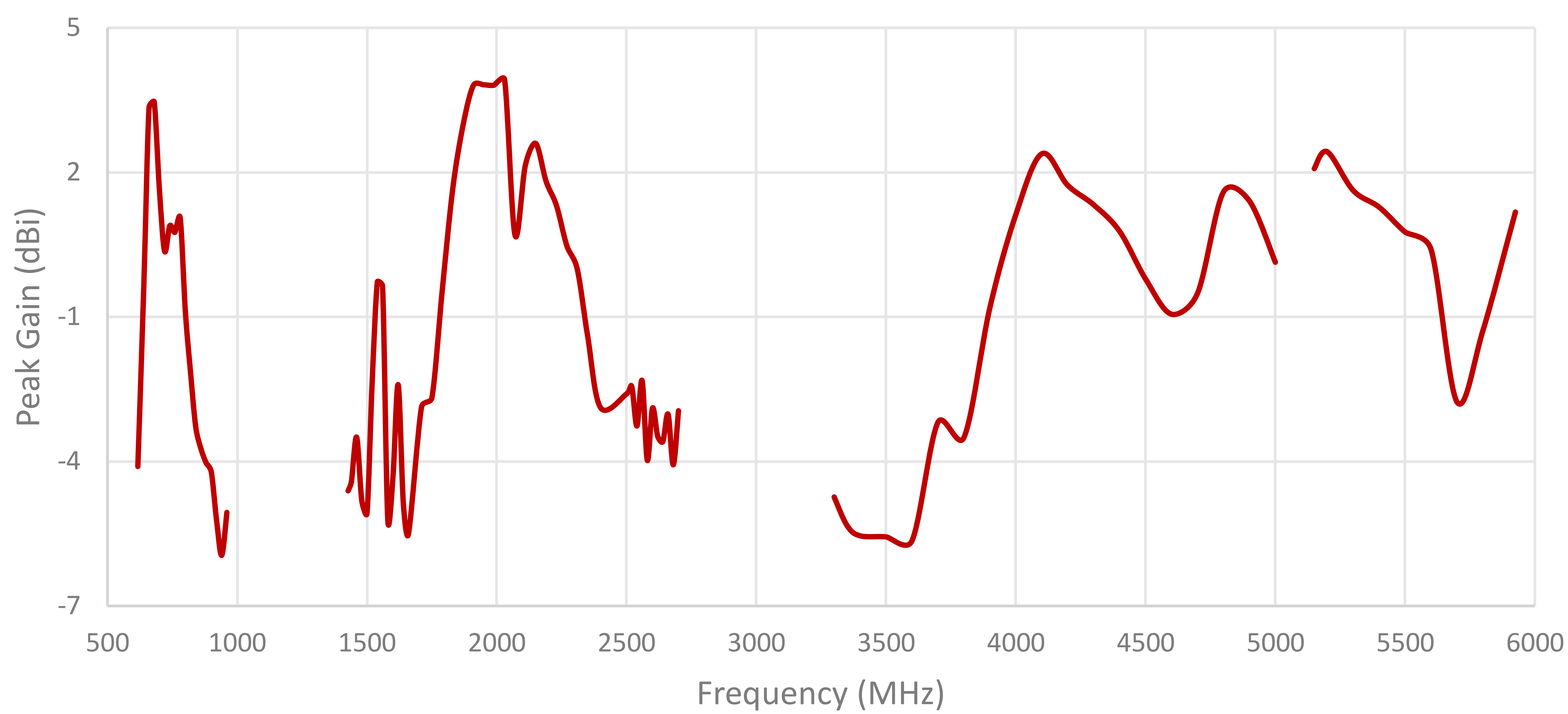
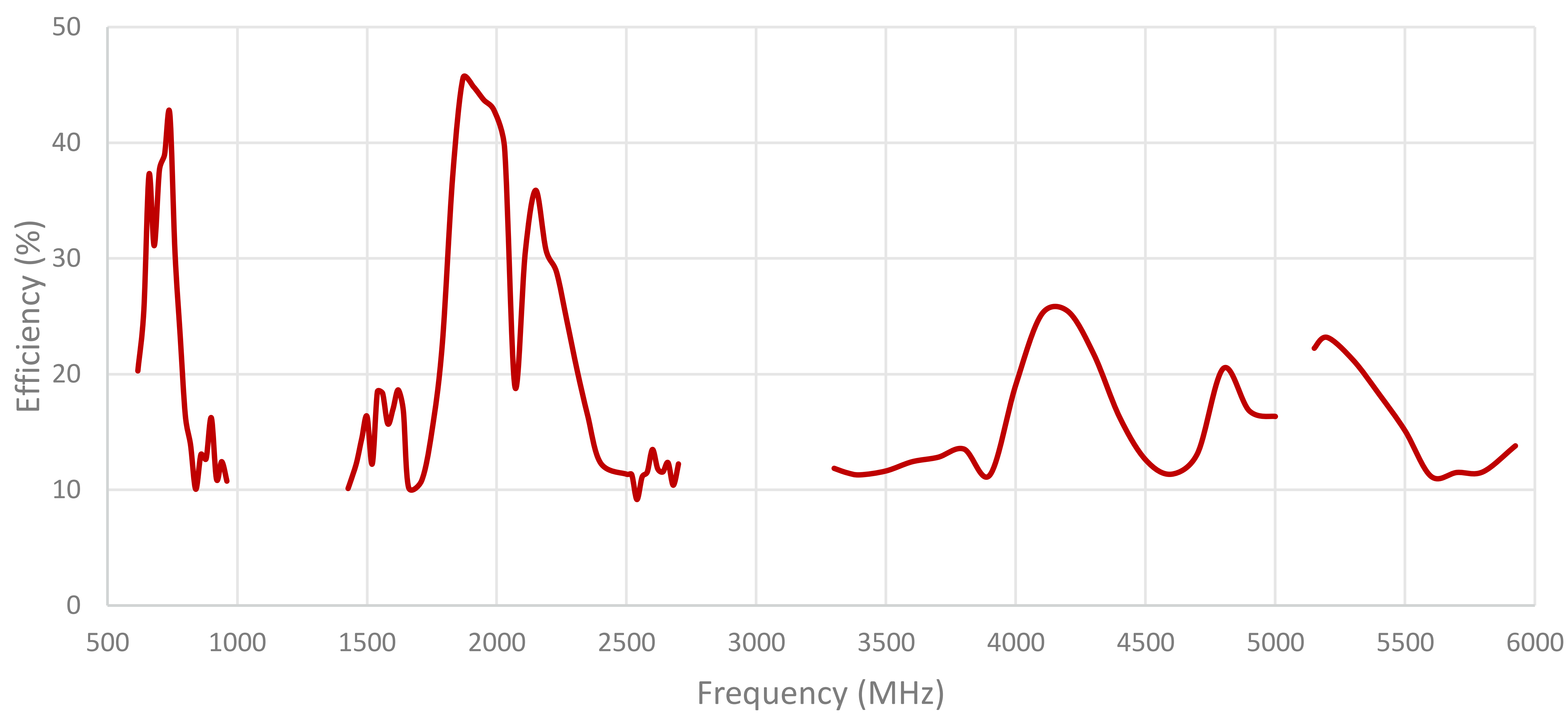
## 2. Mechanical and environmental specifications

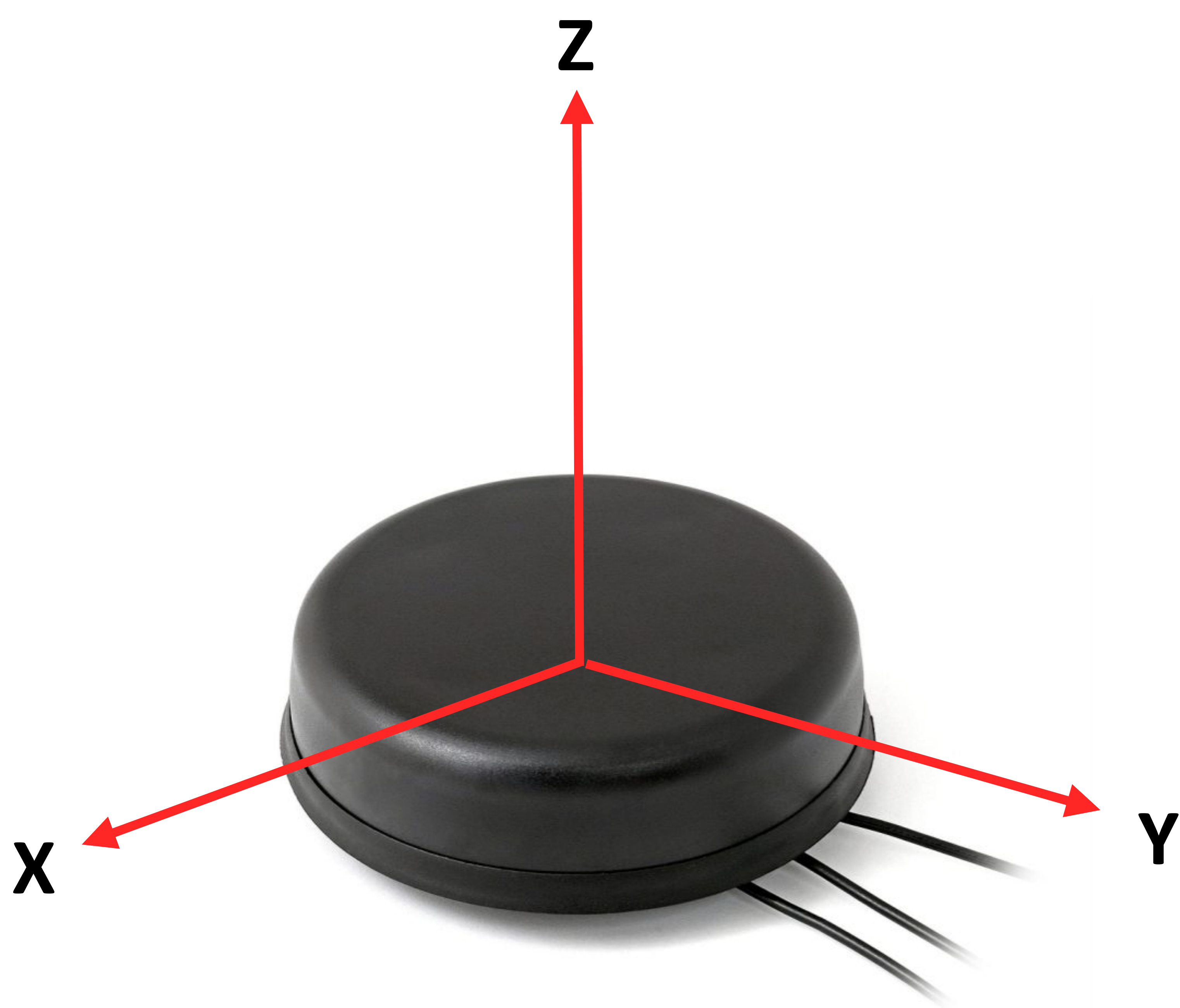
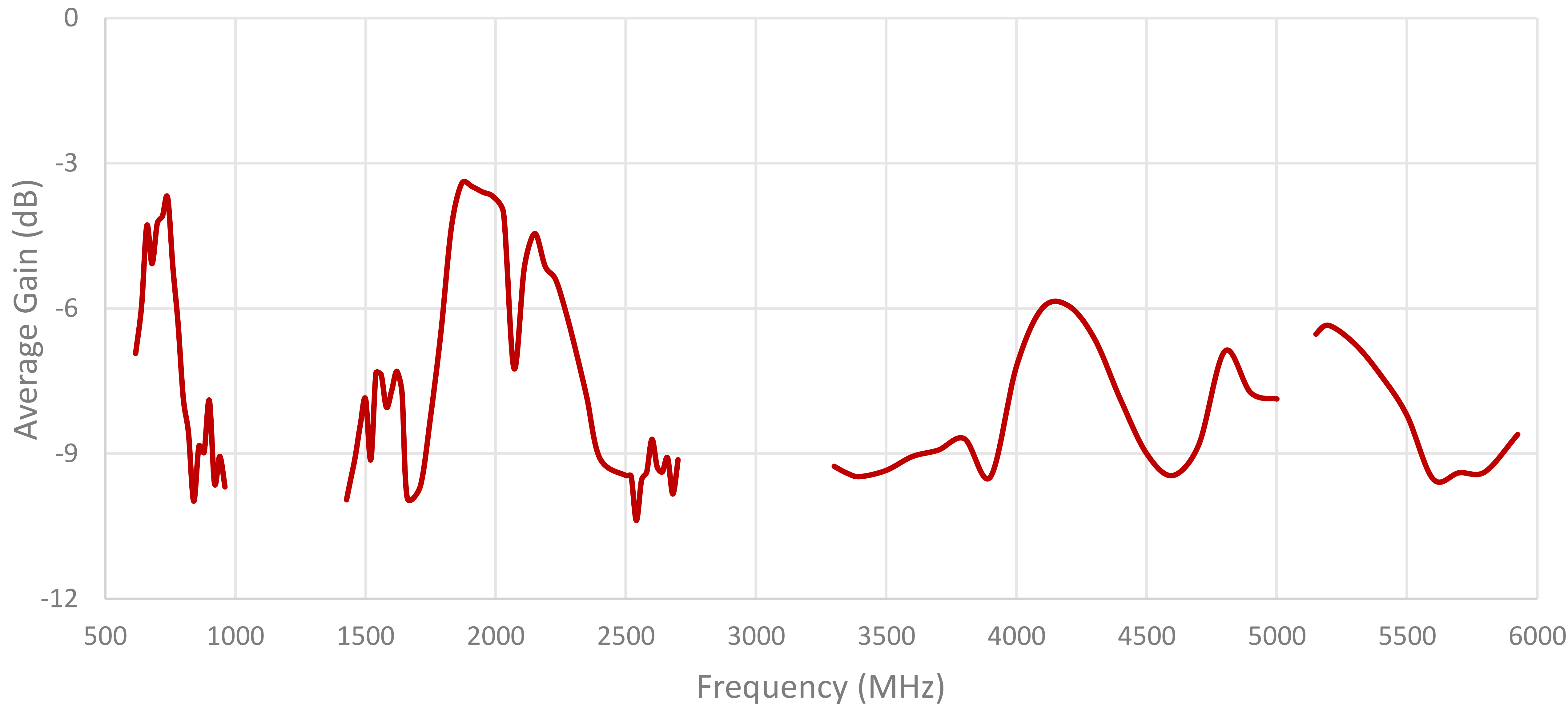
| Specifications            | 2J6552BGF         |
|---------------------------|-------------------|
| Mounting Type             | Screw Mount       |
| Dimensions (mm)           | Ø 146 x 31.5      |
| Max. Tighten Torque (Nm)  | 6 Nm              |
| Radome                    | ABS               |
| Radome color              | Black             |
| Antenna Base              | Zamak             |
| Gasket                    | TPE               |
| Operating Temperature (C) | -40 to +85        |
| Storage Temperature (C)   | -40 to +85        |
| Substance Compliance      | RoHS              |
| Certificates              | IK09, IP67, IP69K |

### 3. Antenna parameters

Cable 1: 5GNR

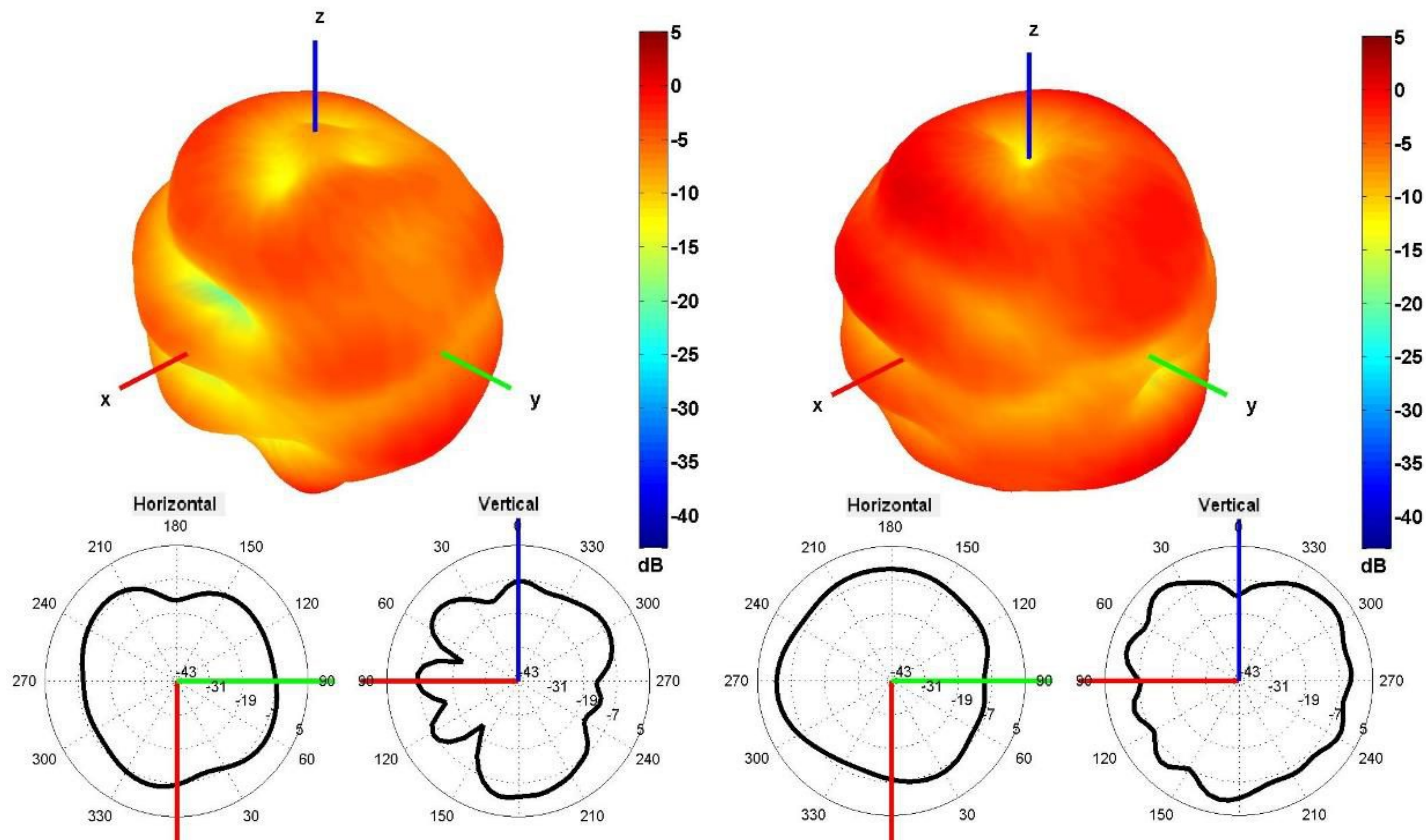




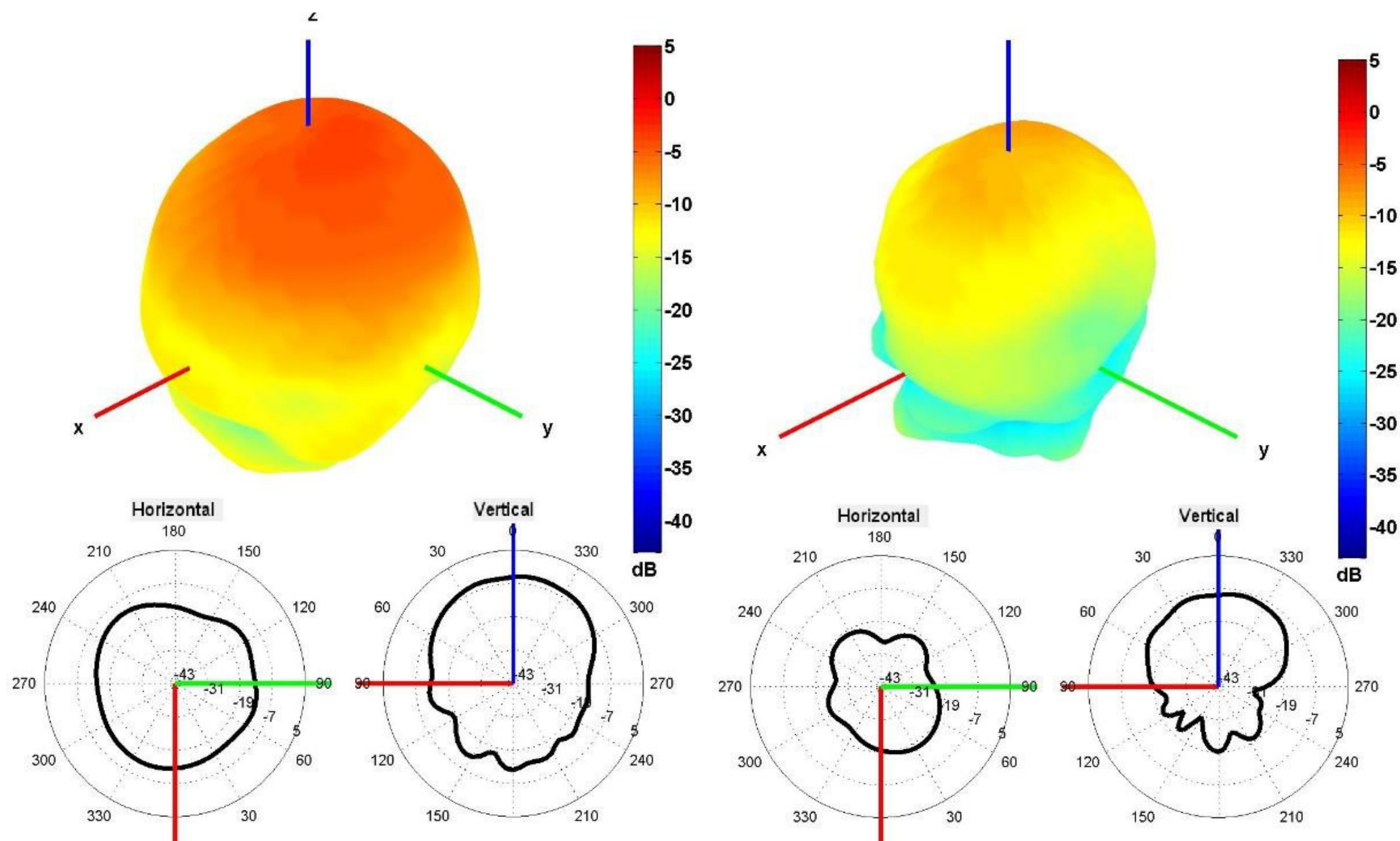


Radiation pattern reference

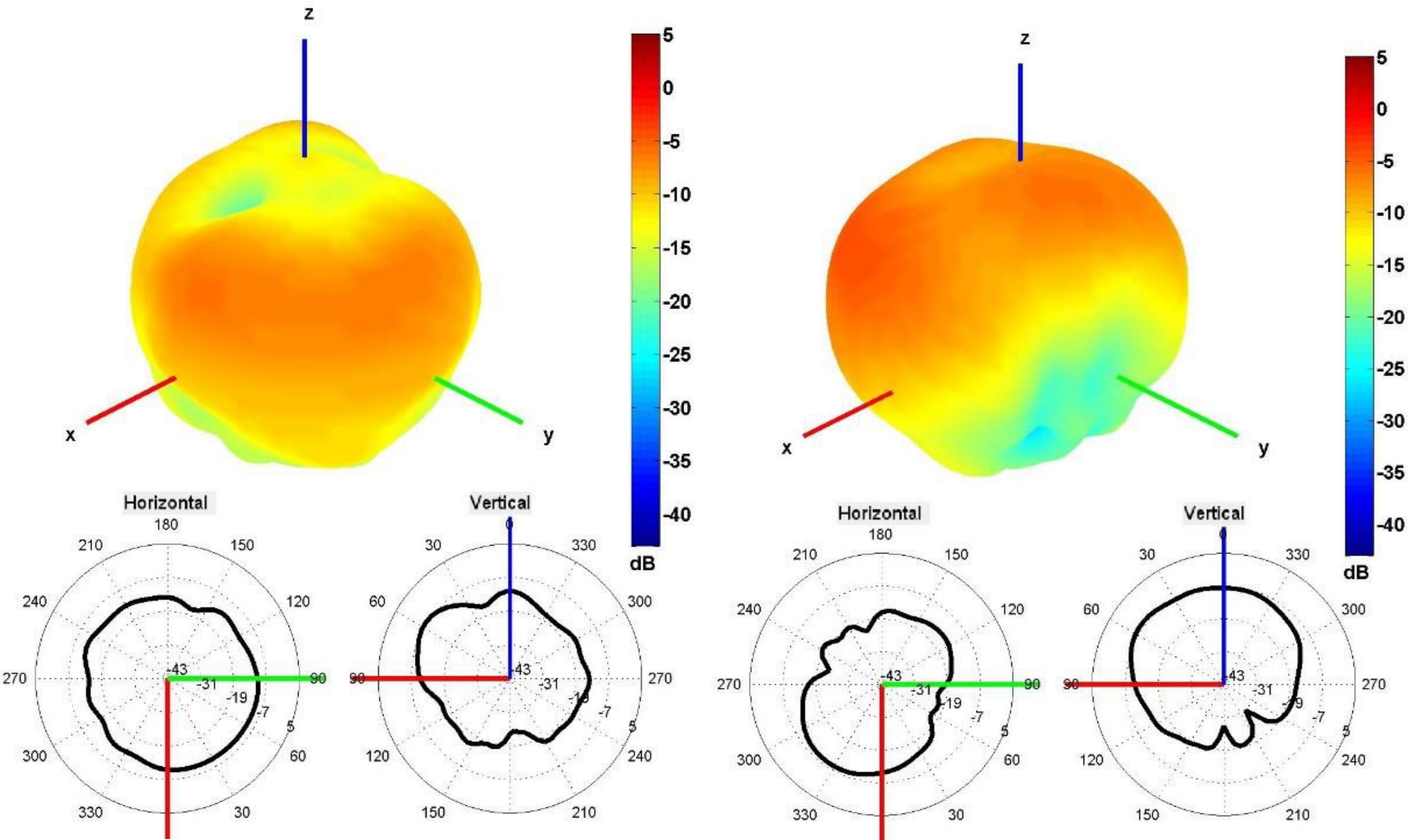
Cable 1: 5GNR



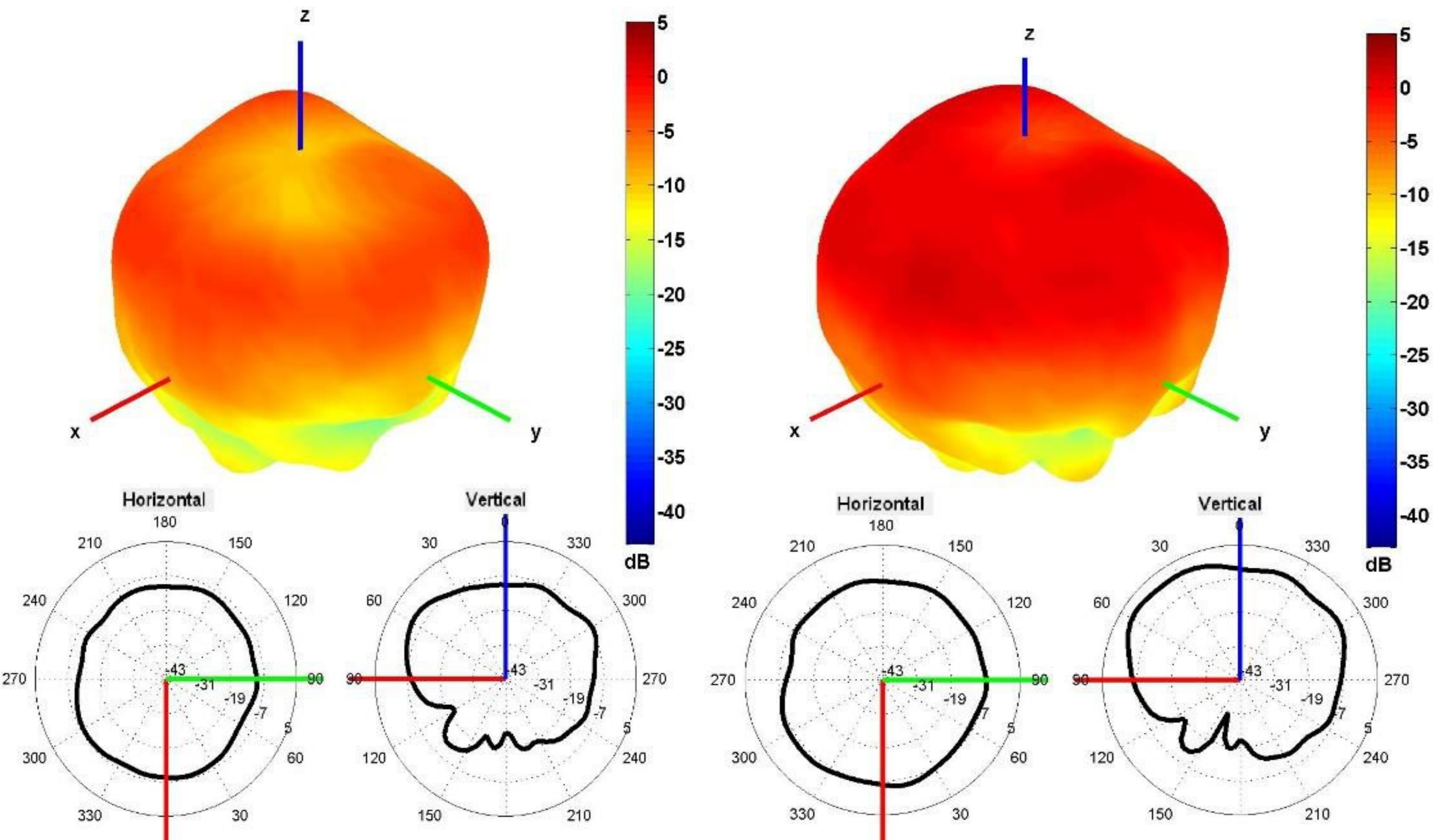
650 and 750 MHz Radiation pattern



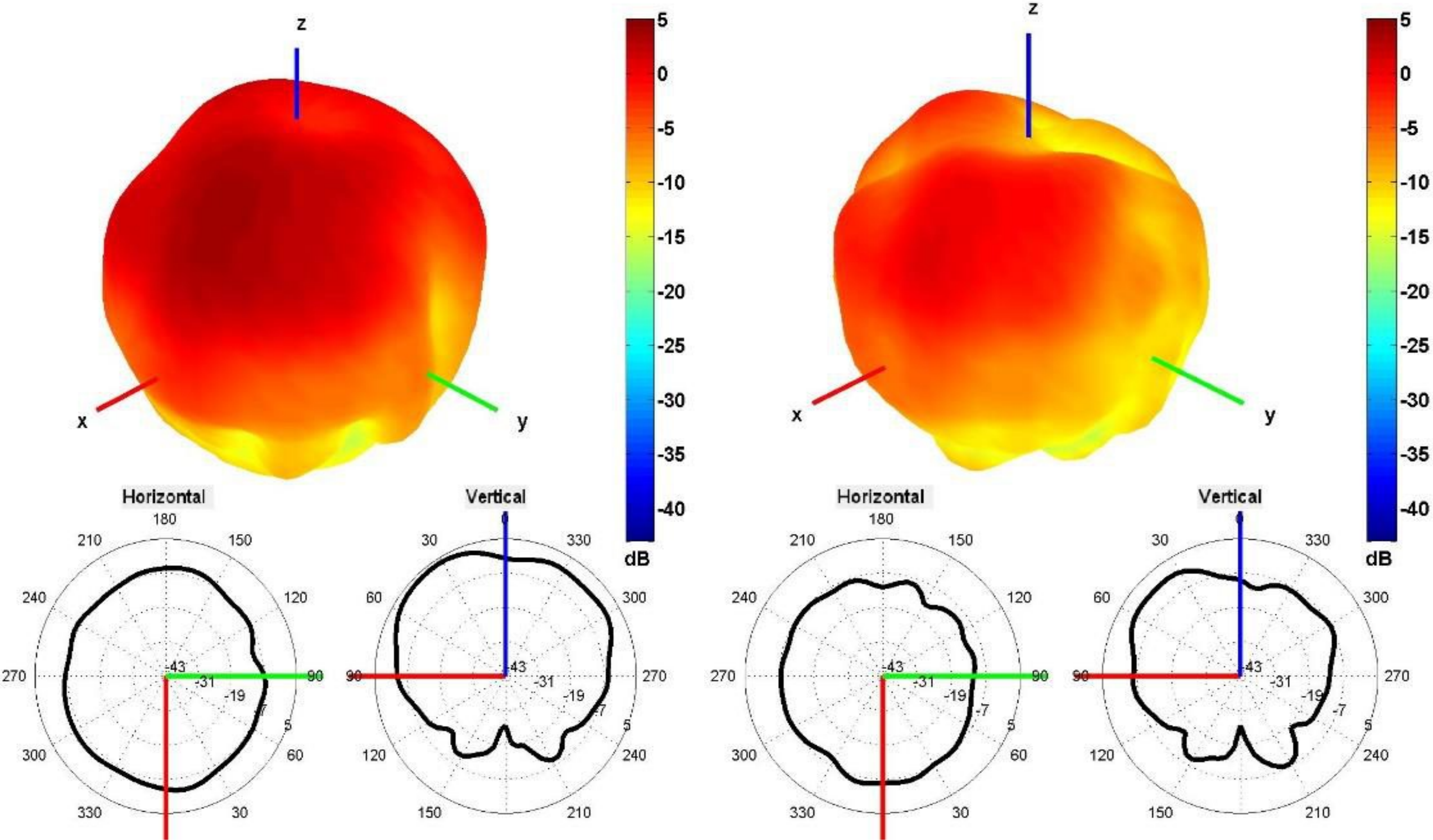
850 and 950 MHz Radiation pattern



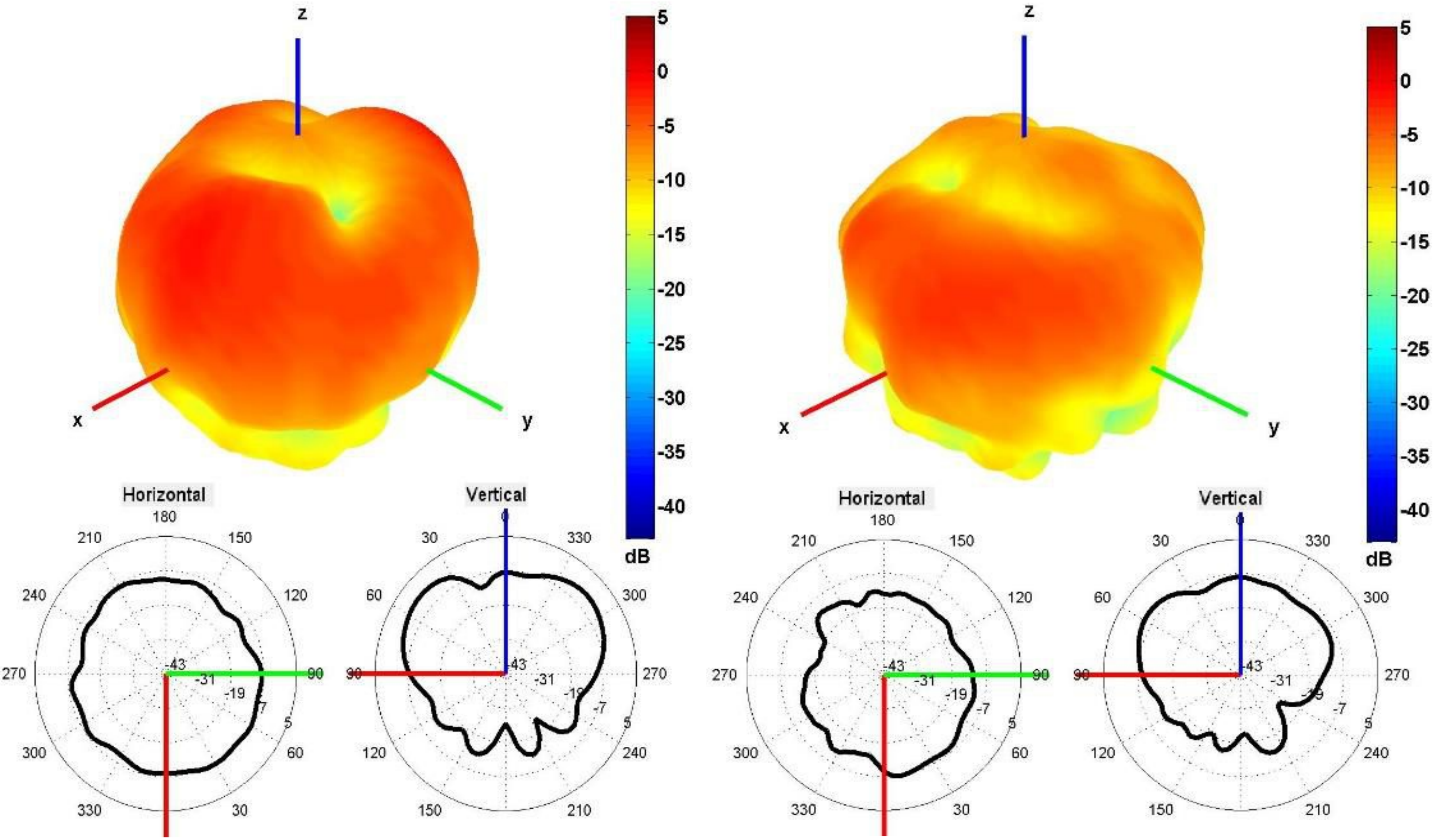
1500 and 1600 MHz Radiation pattern



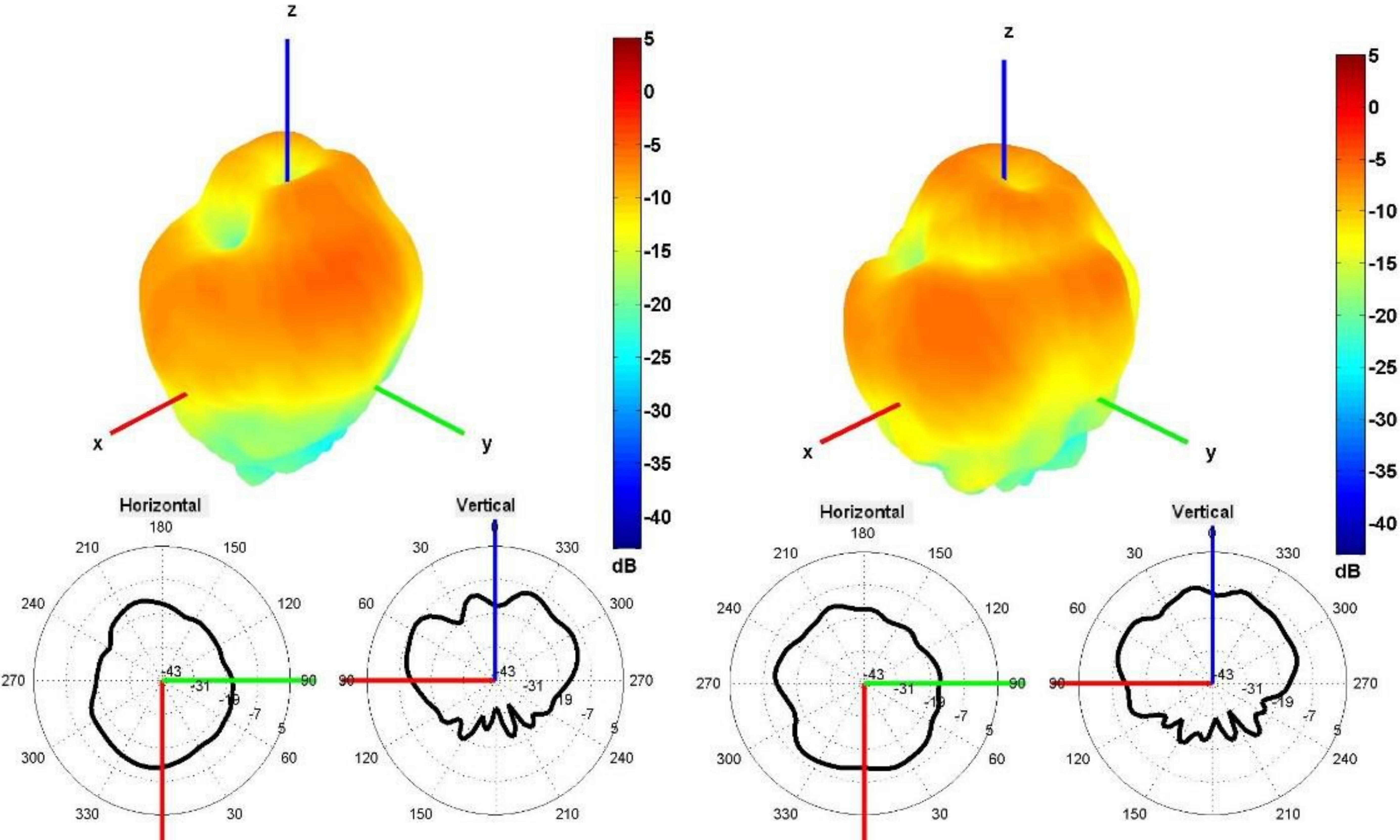
1750 and 1850 MHz Radiation pattern



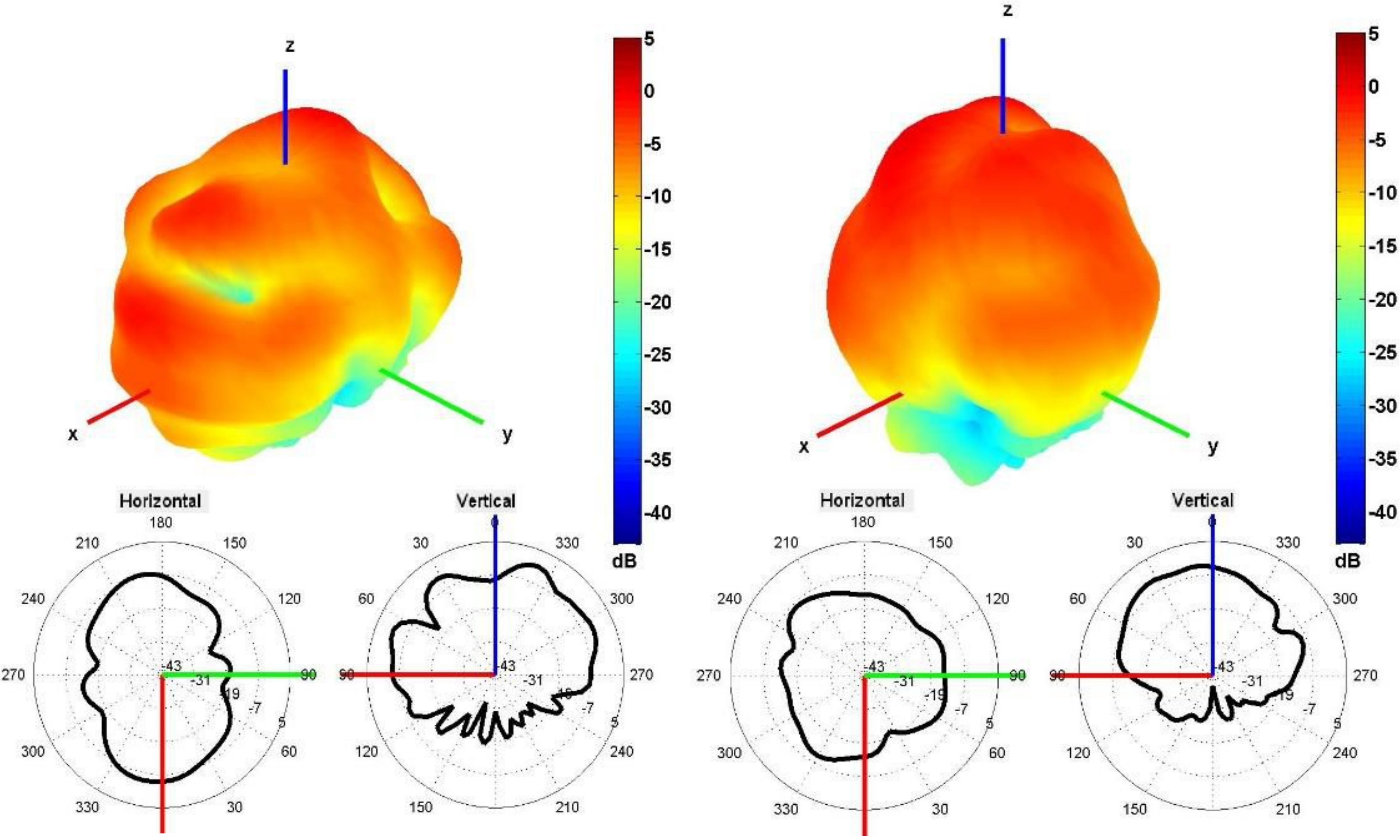
1950 and 2100 MHz Radiation pattern



2350 and 2600 MHz Radiation pattern

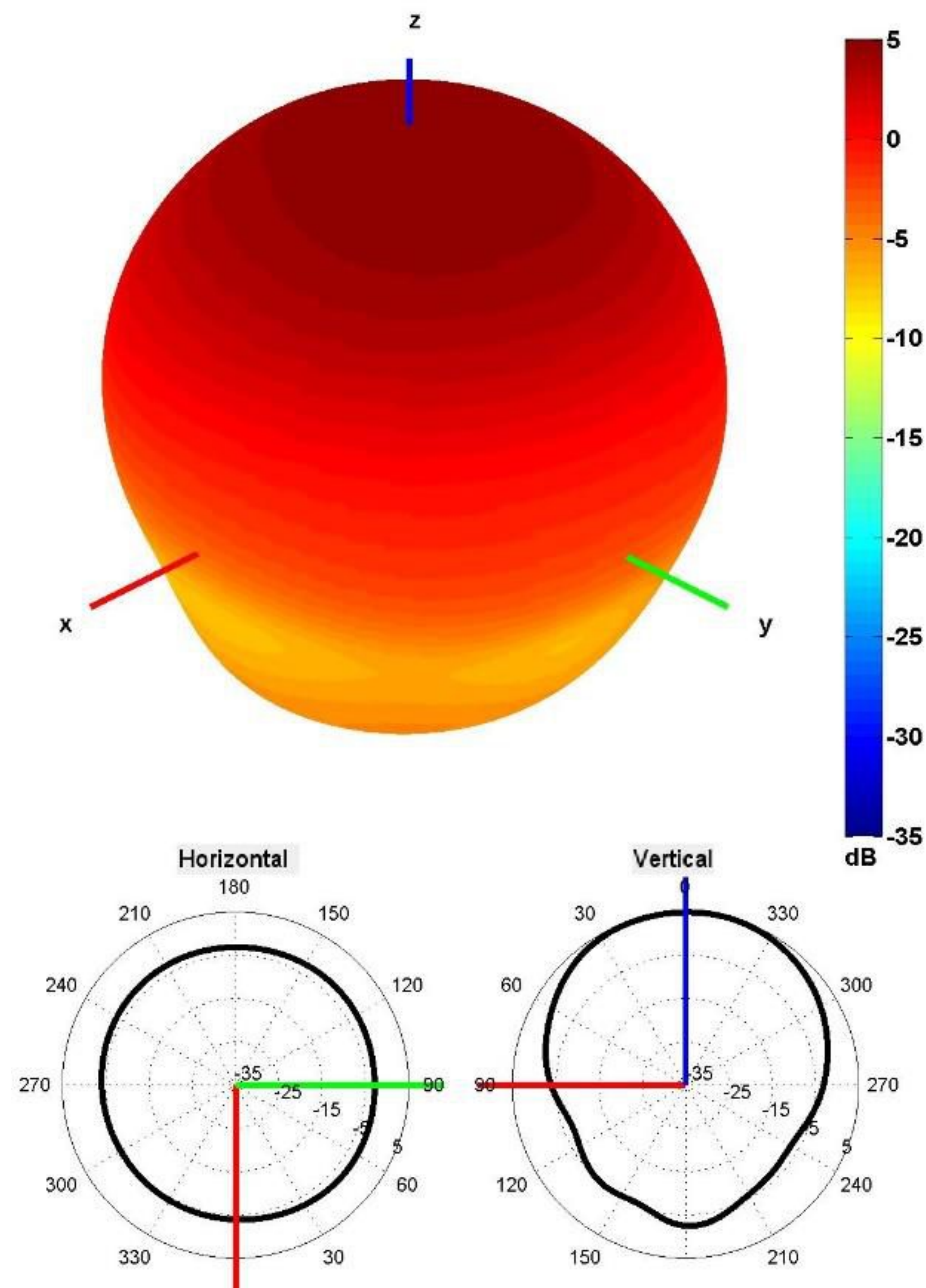


3350 and 3600 MHz Radiation pattern



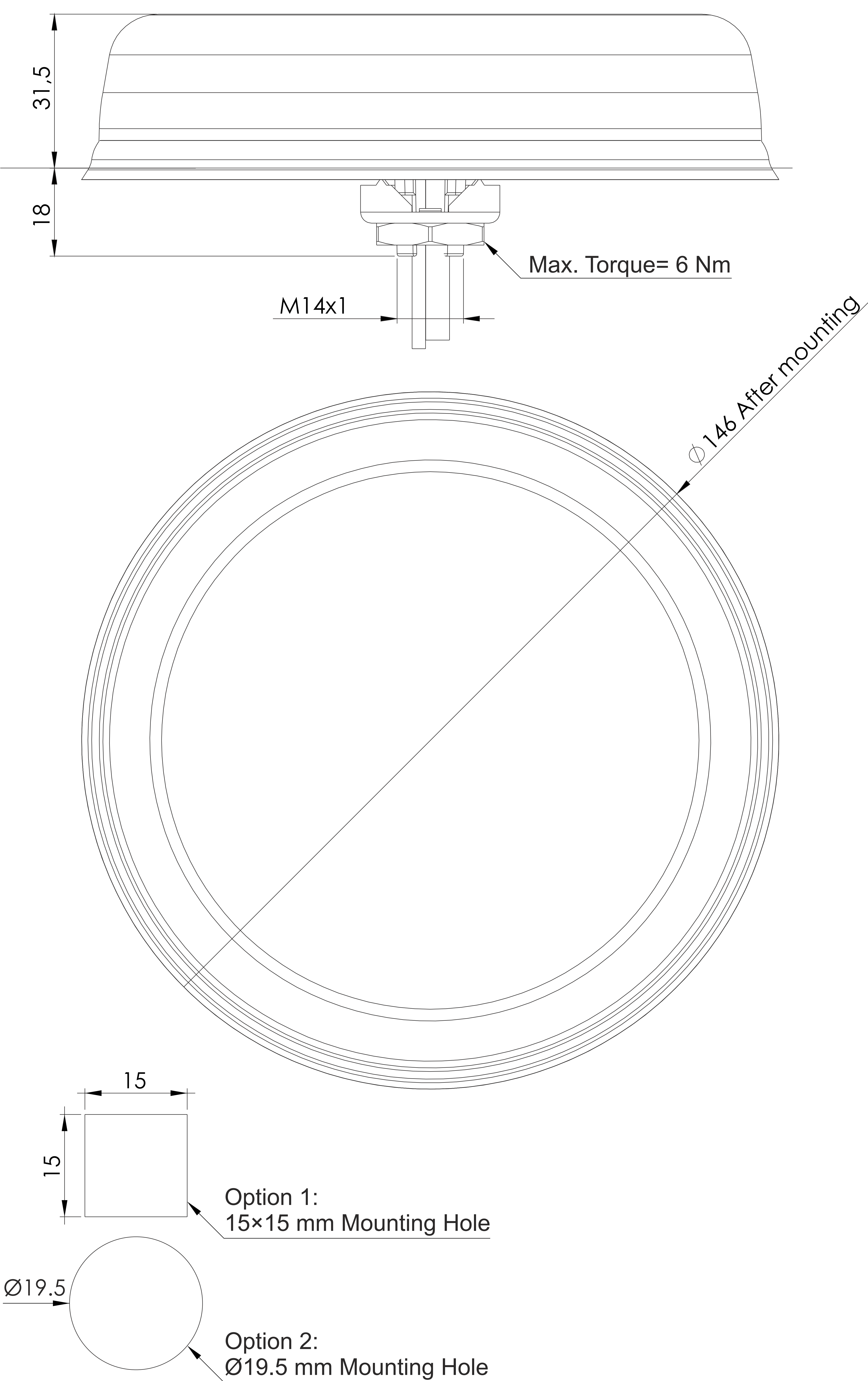
4500 and 5500 MHz Radiation pattern

Cable 1: IRIDIUM



1621 MHz Radiation pattern

# 4. Antenna drawings



**Note: Dimensions are in millimeters**  
**\*Dimensions are after mounting**  
**\*\*Max. Torque= 6 Nm**

## 5. Antenna Images



 **iridium**<sup>®</sup>  
Certified

