

# 2J6975MPGF

5GNR, Iridium and GNSS Magnetic/Adhesive Mount

## Key Features

### Cable 1: 5GNR

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

### Cable 2: Iridium

- 1616-1627 MHz

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

- 1575-1606 Mhz

Magnetic/Adhesive Mount

**Iridium Certified**

Low Profile

High Performance

Pre-Filtered GNSS

Ground Plane Independent

Customizable Cable and Connector

Dimensions 89 × 76 × 27/30 mm

Certificates: IP67, IP69



## 1. Antenna and electrical specifications

Cable 1				
Parameters	5G NR Antenna			
<b>Technologies</b>	5G, 4G, 3G and 2G			
<b>Standards</b>	5G NR/4G LTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
<b>Frequency (MHz)</b>	617-960	1427-2690	3300-5000	5150-5925
<b>Band (MHz)</b>	600, 700, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
<b>5G NR Bands</b>	n5, n8, n12, n20, n28, n71, n81, n82, n83,	n1, n2, n3, n7, n25, n34, n38, n39, n40, n41, n50, n51, n66, n70, n74, n75, n76, n80, n84, n86	n77, n78, n79	
<b>4G LTE Bands</b>	B5, B6, B8, B12, B13, B14, B17, B18, B19, B20, B26, B27, B28, B29, B44, B67, B68, B71, B85	B1, B2, B3, B4, B7, B9, B10, B11, B21, B23, B24, B25, B30, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B45, B50, B51, B65, B66, B69, B70, B74, B75, B76	B22, B42, B43, B48, B49, B52	B46, B47, B252, B255
<b>3G CELL Bands</b>	B5, B6, B8, B12, B13, B14, B19, B20, B26	B1, B2, B3, B4, B7, B9, B10, B11, B21, B25, B32, B33, B34, B35, B36, B37, B38, B39, B40	B22	
<b>2G CELL Bands</b>	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
<b>CDMA CELL Bands</b>	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, BC20, BC21		
<b>Return Loss (dB)</b>	~-8.9	~-9.2	~-8.2	~-7.5
<b>VSWR</b>	~2.6:1	~2.4:1	~2.7:1	~2.5:1
<b>Efficiency (%)</b>	~45.0	~53.2	~25.7	~28.3
<b>Peak Gain (dBi)</b>	~2.3	~5.1	~2.6	~2.7
<b>Average Gain (dB)</b>	~-3.4	~-2.8	~-6.0	~-5.5
<b>Impedance (Ohm)</b>	50			
<b>Polarisation</b>	Linear			
<b>Radiation Pattern</b>	Omni-Directional			
<b>Max. Input Power (W)</b>	25			
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)			
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)			
<b>Cable Type</b>	D302 Standard (Other Cables Available)			

### Antenna Measurement Conditions:

Mounted on 30 x 30 cm Metal Plate

100 cm of D302 Cable

Measured in Certified CTIA 3D Anechoic Chamber

## Cable 2

Parameters	Iridium Antenna
<b>Standards</b>	Iridium
<b>Band (MHz)</b>	1621
<b>Frequency (MHz)</b>	1616-1627
<b>Return Loss (dB)</b>	~-12.5
<b>VSWR</b>	~1.6:1
<b>Efficiency (%)</b>	~68.1
<b>Peak Gain (dBic)</b>	~5.2
<b>Average Gain (dB)</b>	~-1.8
<b>Radiation Pattern</b>	Hemispherical
<b>Polarization</b>	RHCP
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)
<b>Cable Type</b>	D302 Standard (Other Cables Available)

## Cable 3

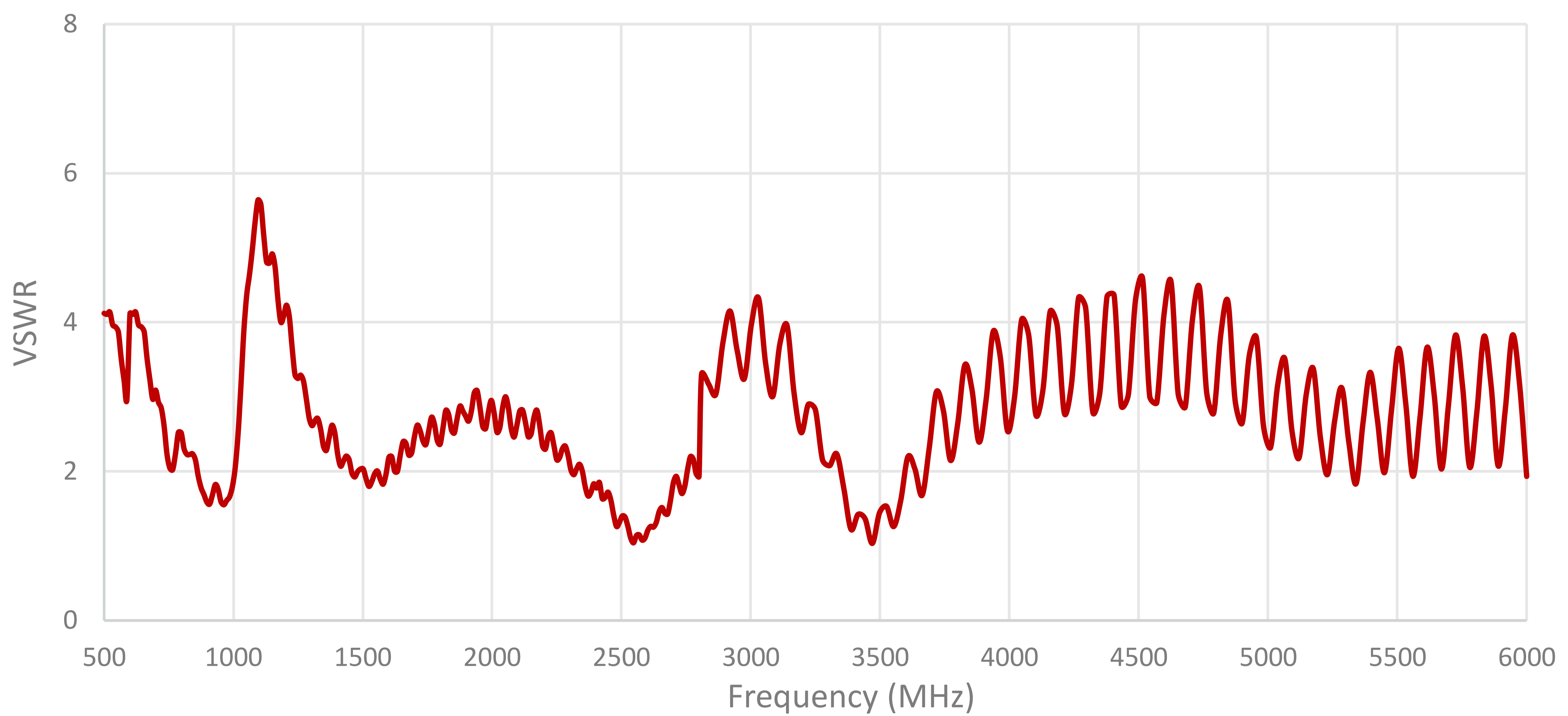
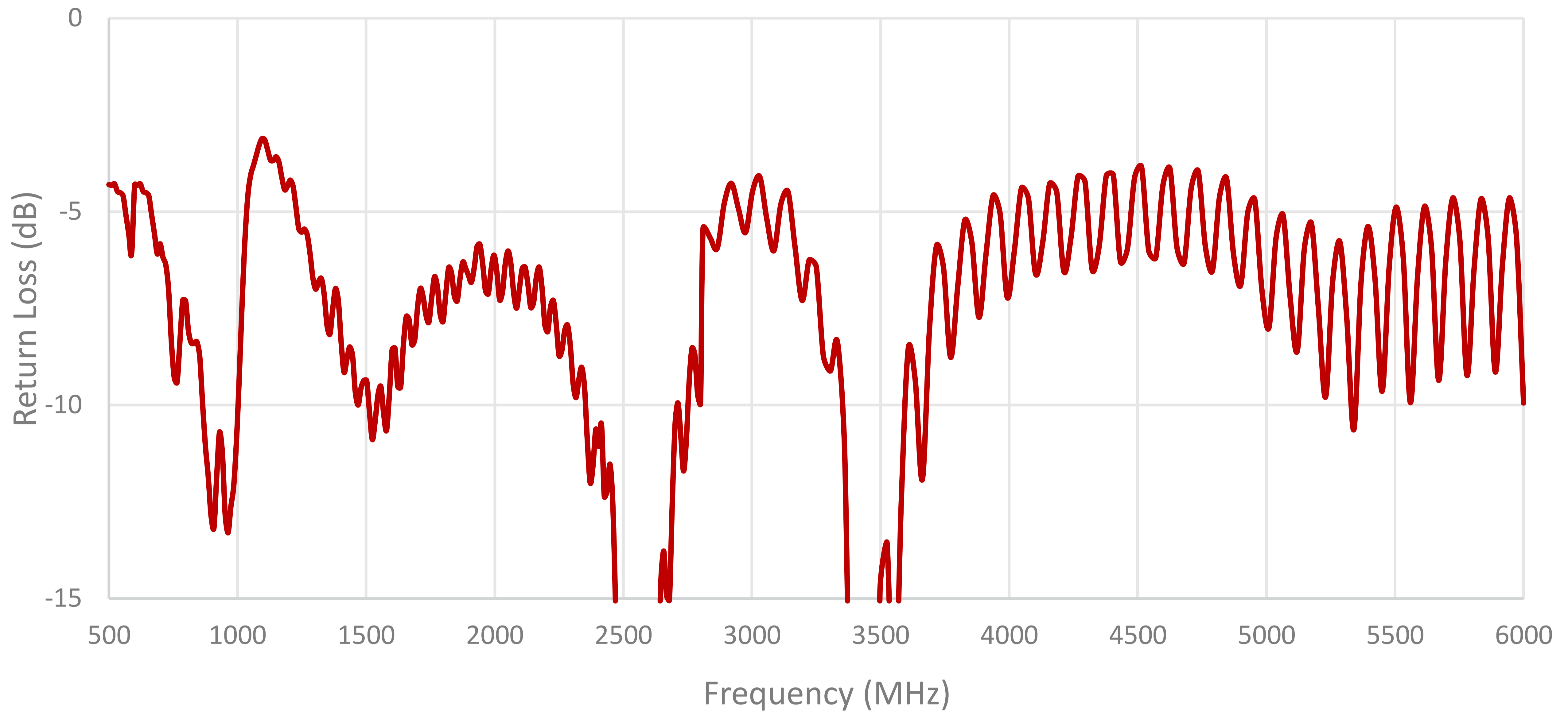
Parameters	GNSS Ceramic Active Antenna	
<b>Standards</b>	GPS/QZSS/Galileo	GLONASS
<b>Band (MHz)</b>	1575	1602
<b>Frequency (Mhz)</b>	1575.42	1598-1606
<b>Patch Size (mm)</b>	25 x 25 x 4	
<b>Return Loss (dB)</b>	<=-15.0 dB	
<b>VSWR</b>	<=1.4:1 dB	
<b>Impedance (Ohms)</b>	50	
<b>Radiation Pattern</b>	Hemispherical	
<b>Polarization</b>	RHCP	
<b>Saw Filter Type</b>	Pre-filter	
<b>Active Gain (dB)</b>	28 @ 2.7 V	
<b>Noise Figure (dB)</b>	1.5 Typ	
<b>Voltage (V)</b>	1.5 – 3.6	
<b>Current Consumption (mA)</b>	9 Typ	
<b>Power Consumption (mW)</b>	24.3 Typ	
<b>ESD Protection (kV)</b>	2kV	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	D100 Standard (Other Cables Available)	

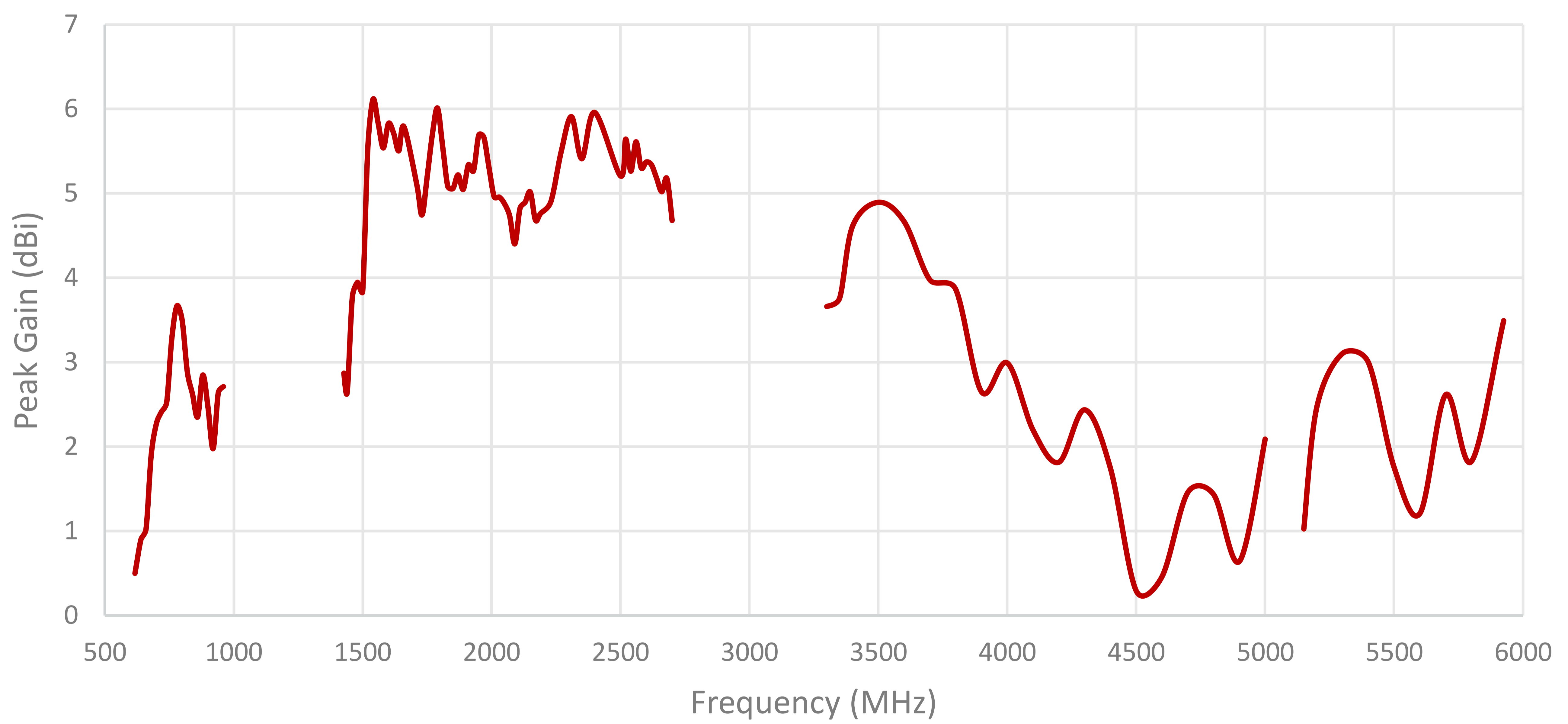
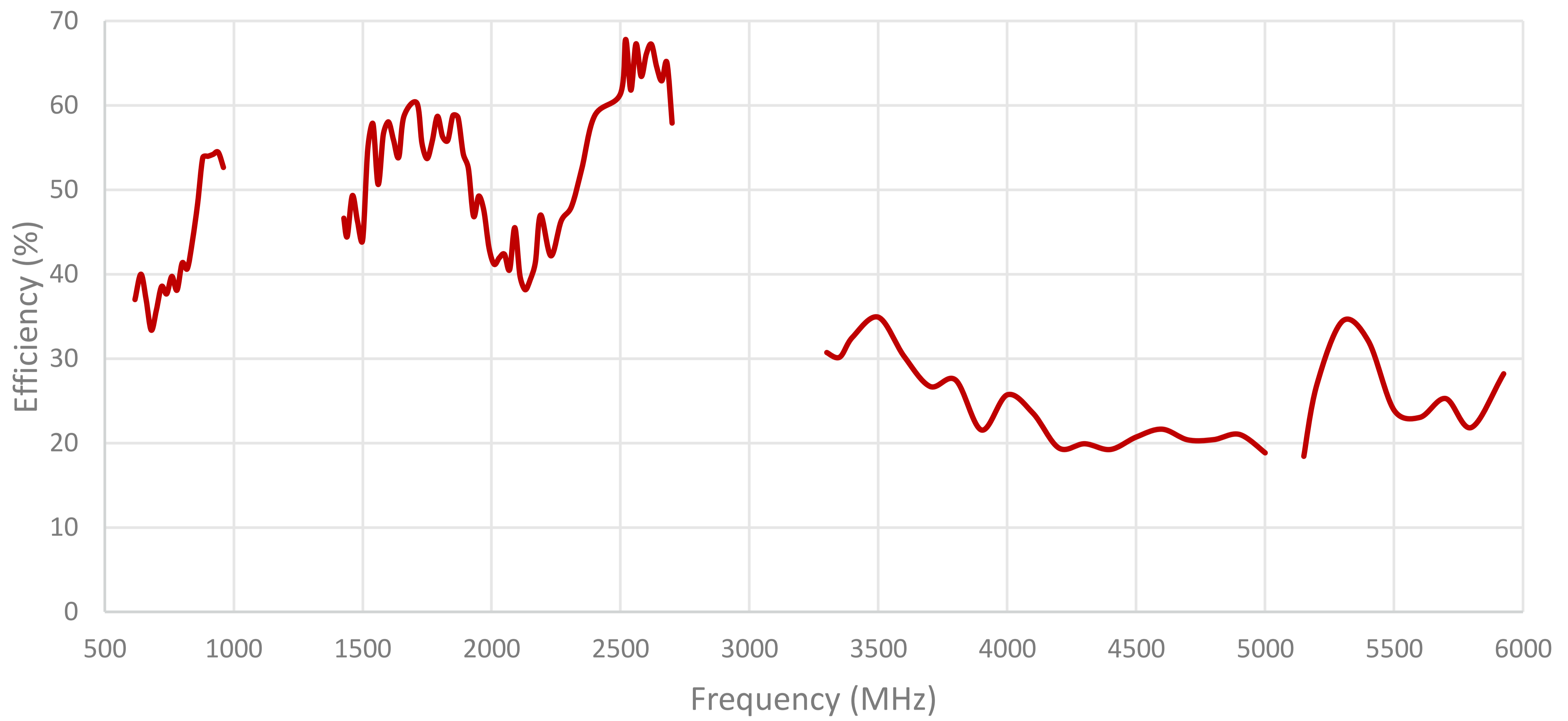
## 2. Mechanical and environmental specifications

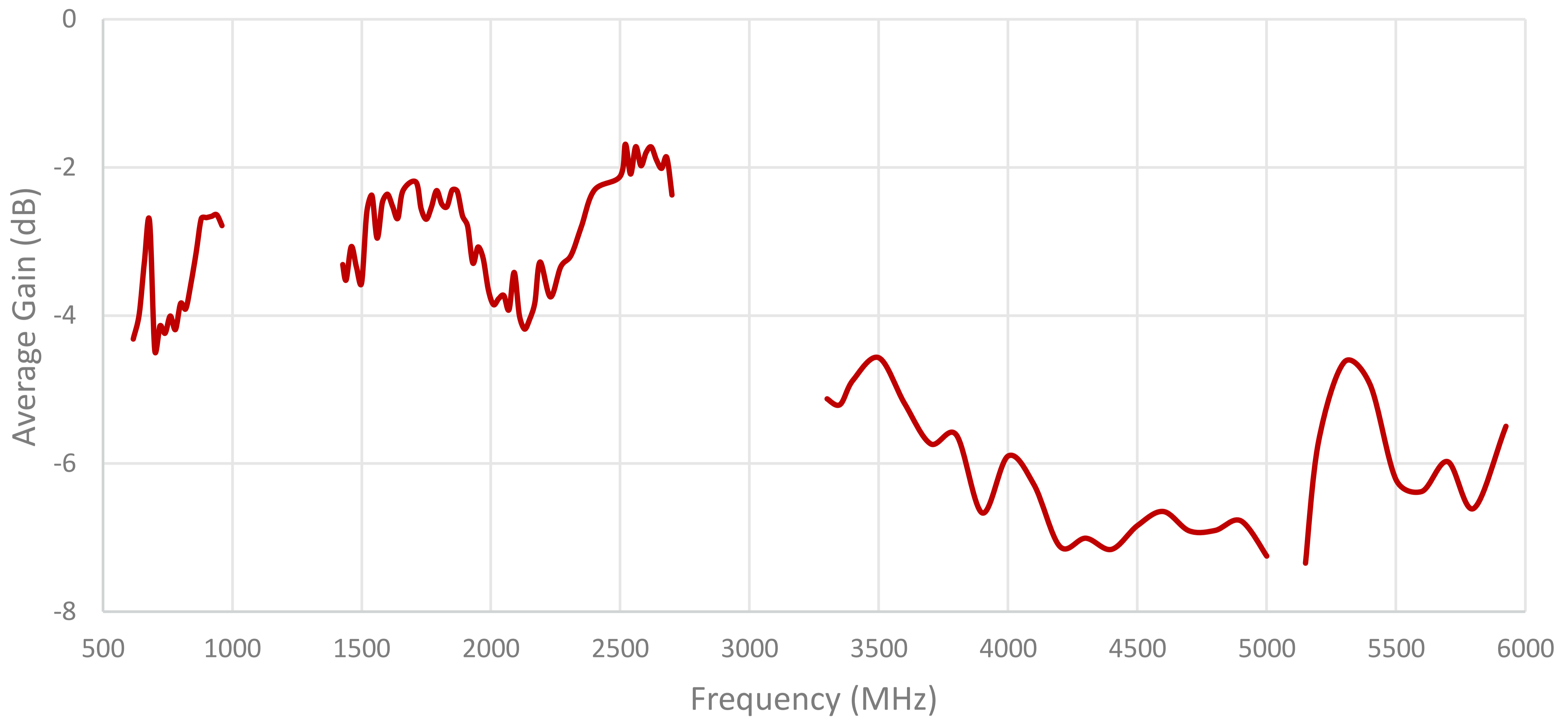
Specifications	2J6975MPGF
<b>Mounting Type</b>	Magnetic/Adhesive Mount
<b>Dimensions (mm)</b>	89 × 76 × 27/30
<b>Radome Type</b>	PC+ASA
<b>Radome Color</b>	Black, White
<b>Operating Temperature (C)</b>	-40 to +85
<b>Storage Temperature (C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Certificates</b>	Iridium Certified, IP67, IP69

### 3. Antenna parameters

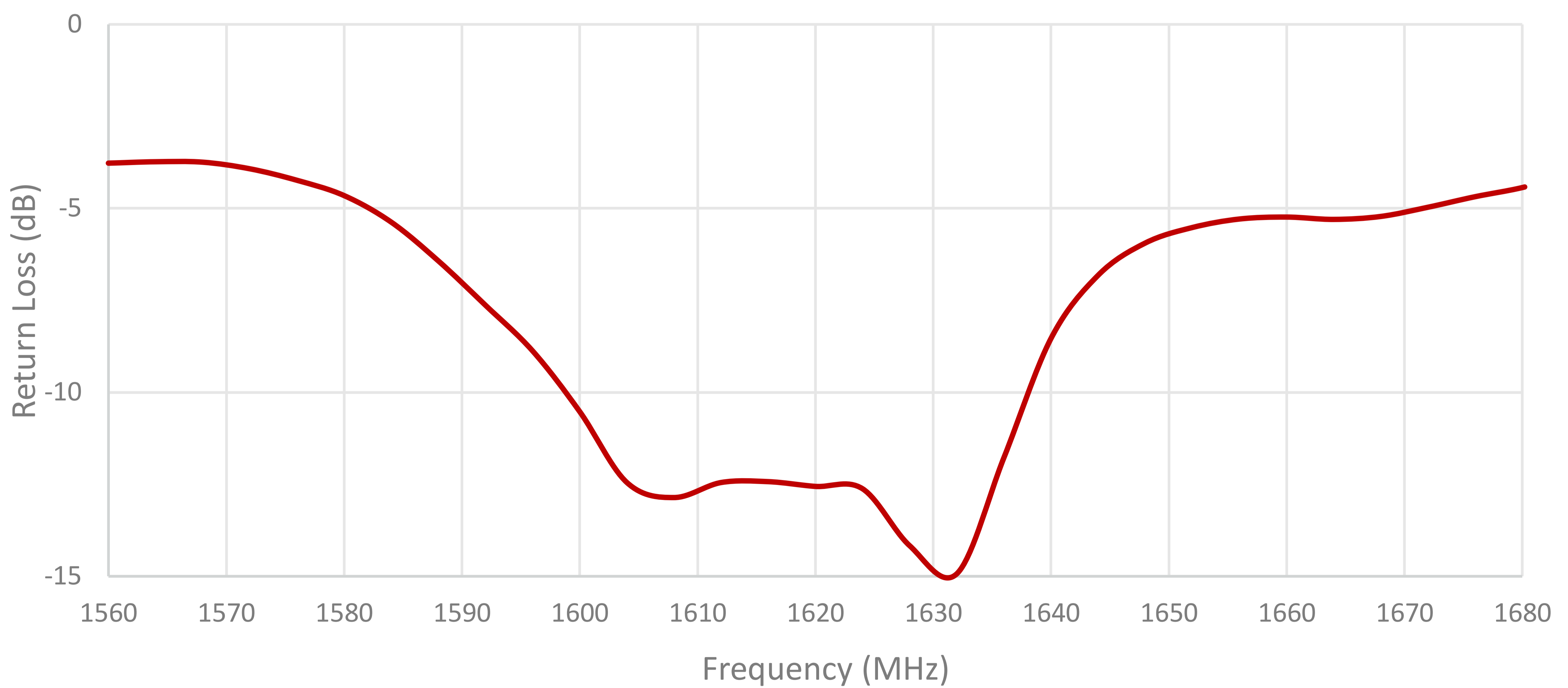
Cable 1: 5GNR

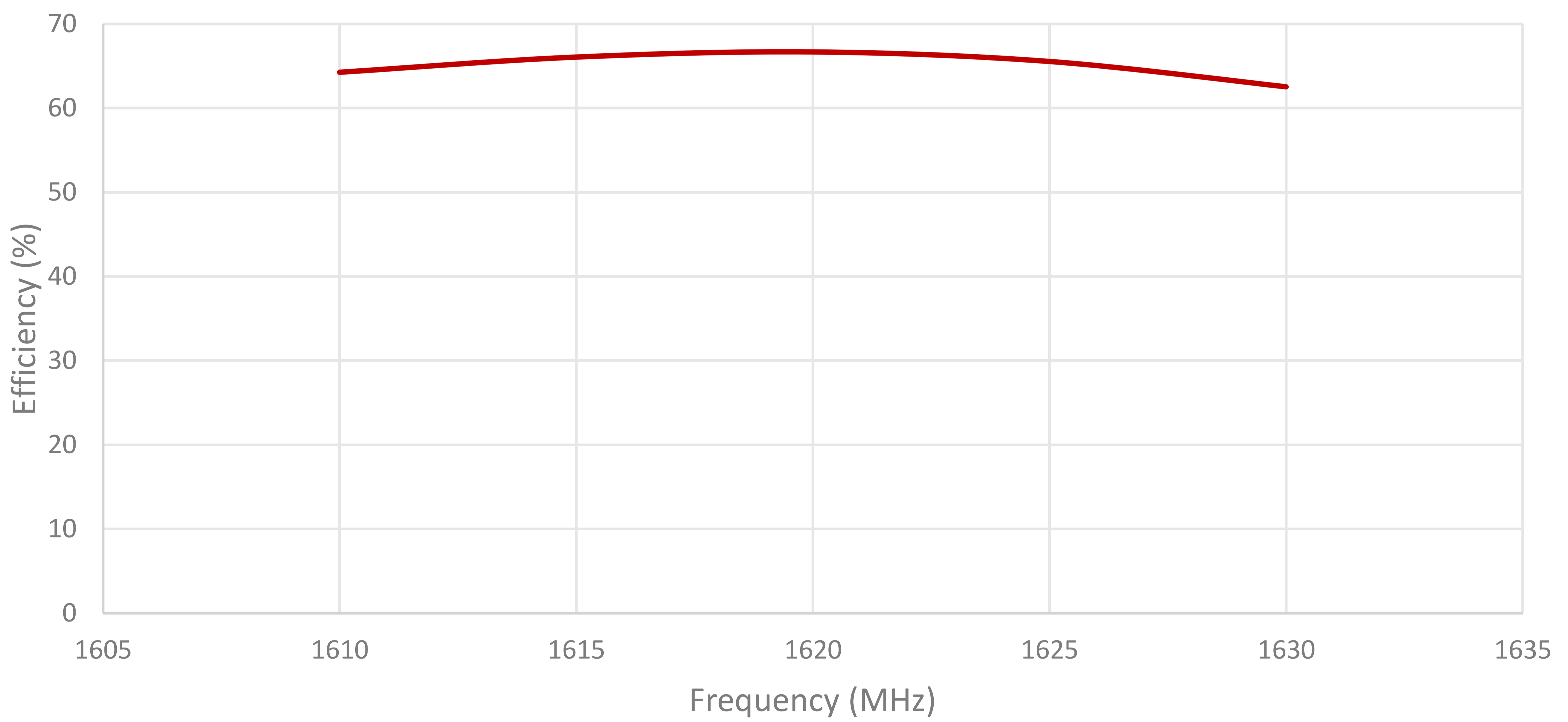
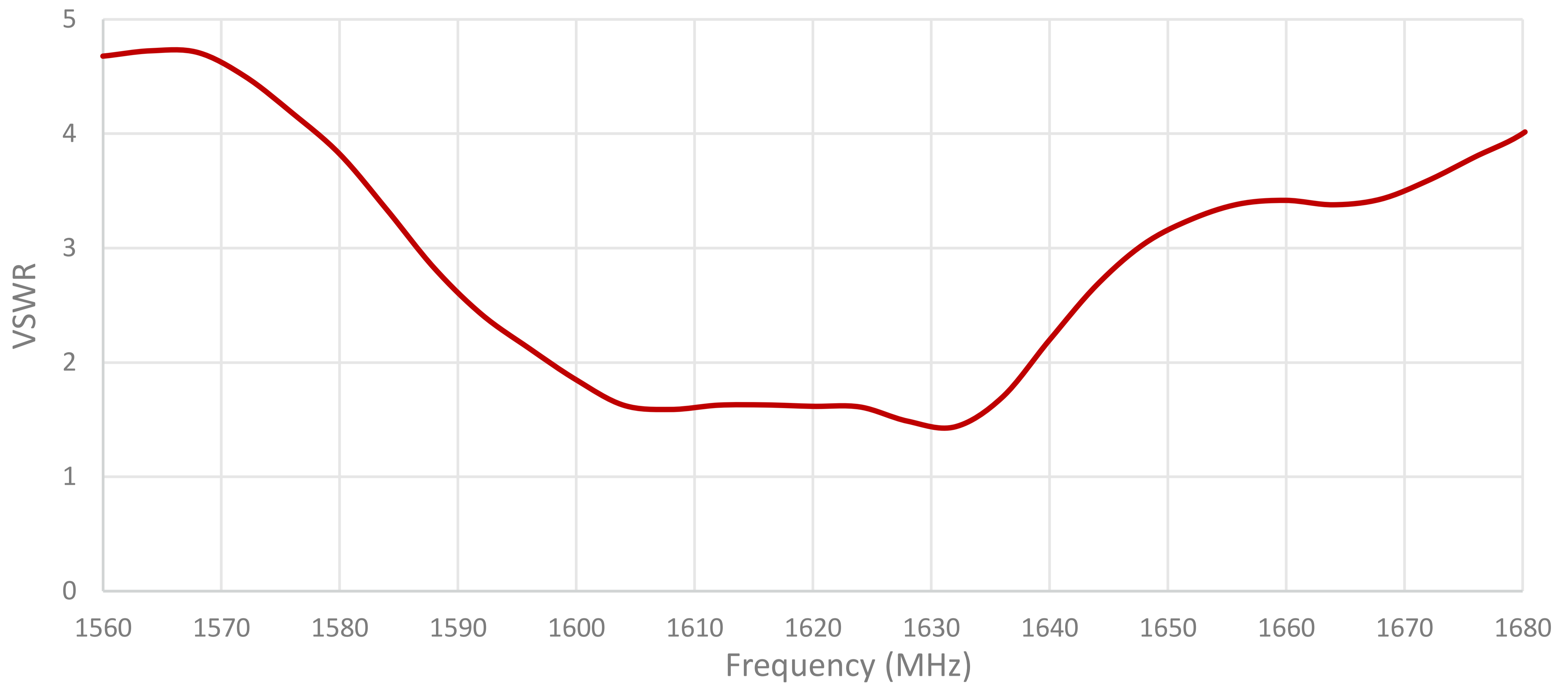




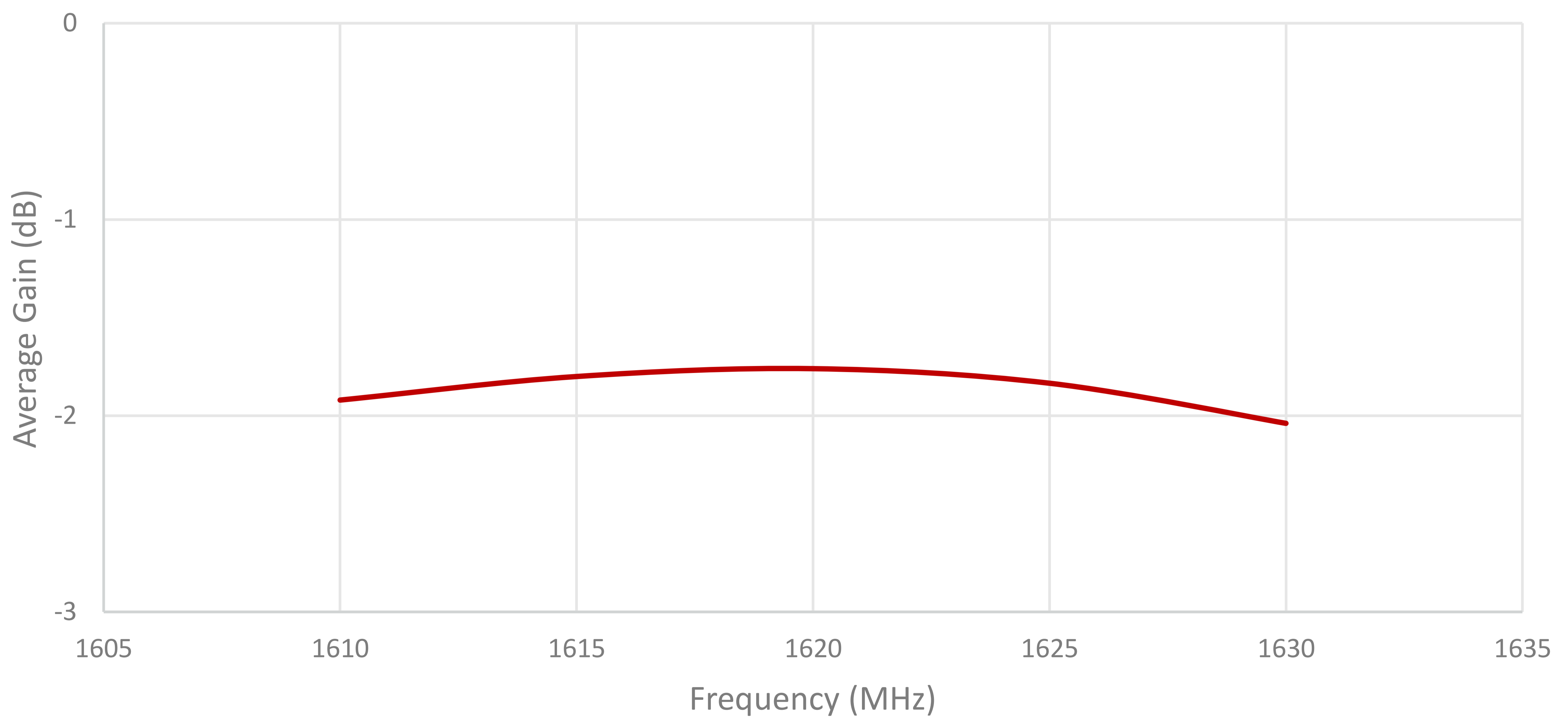
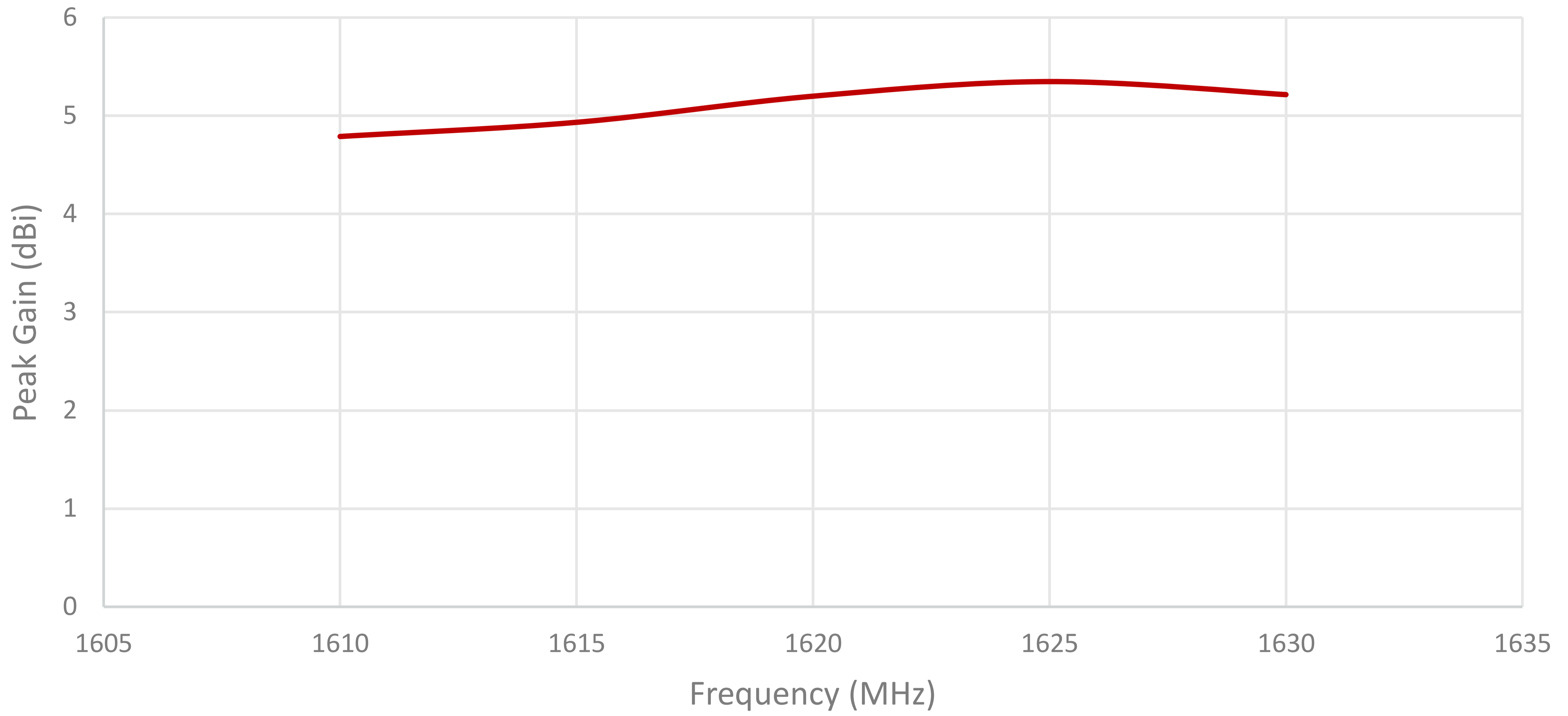


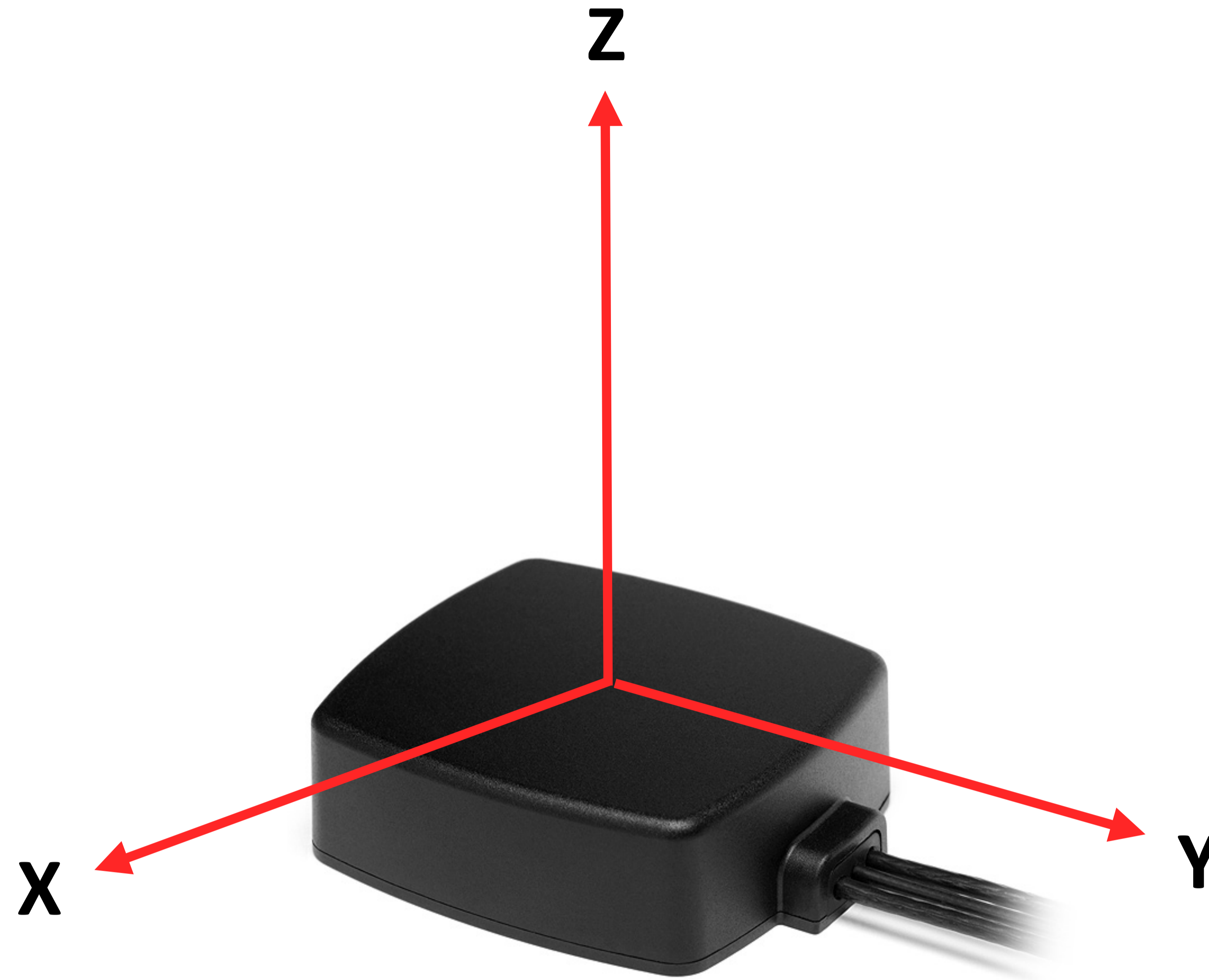
Cable 2: IRIDIUM





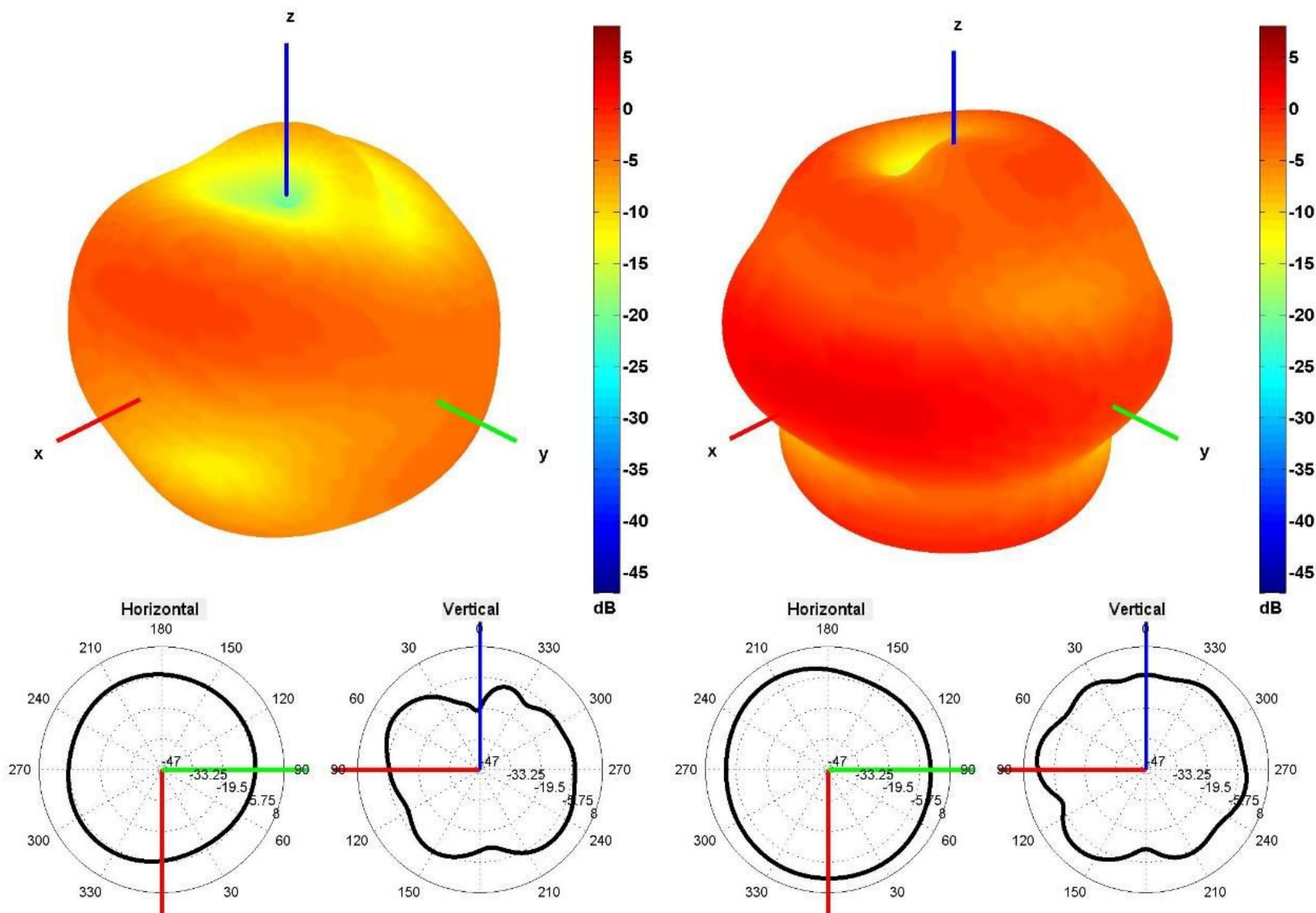




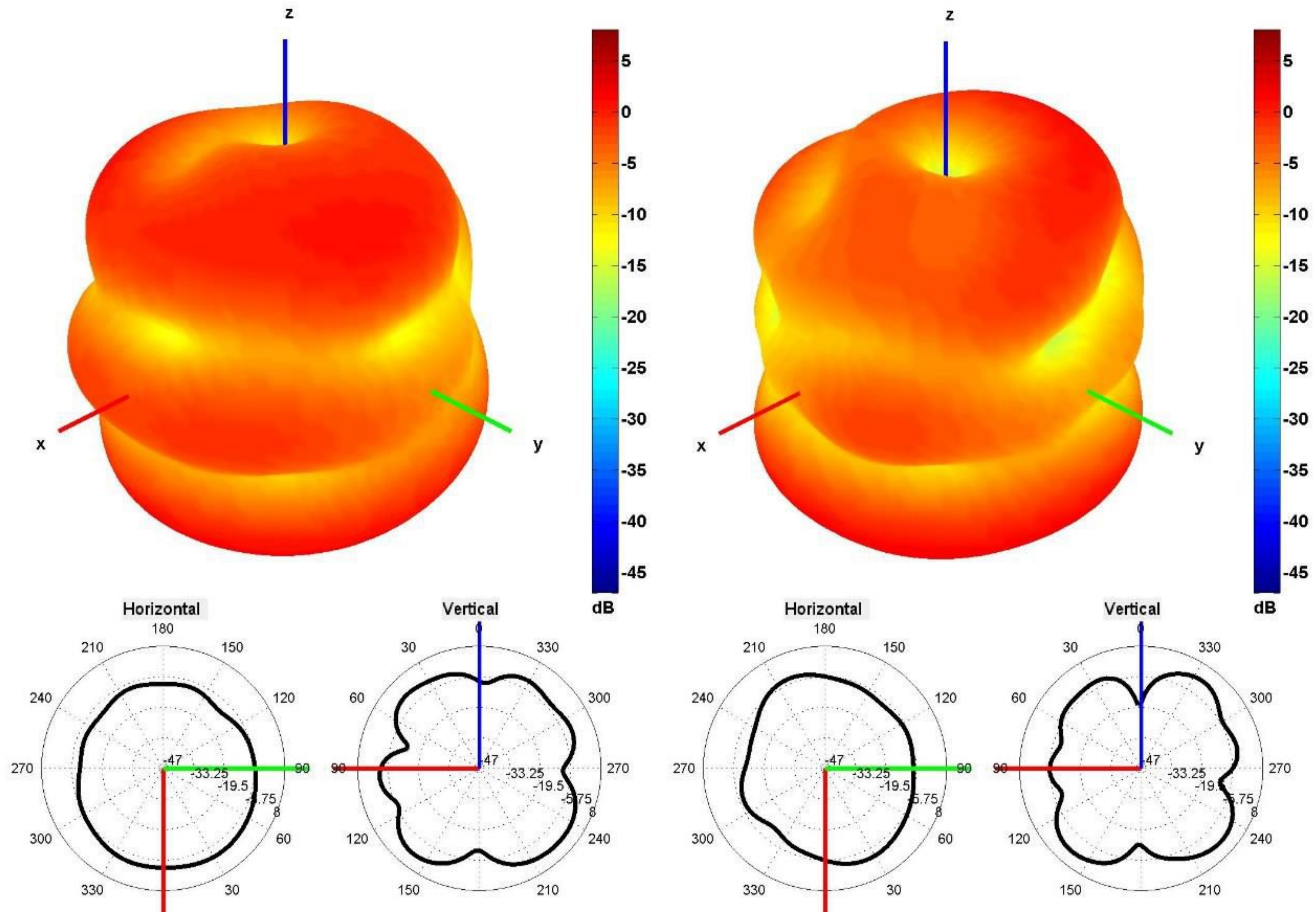


Radiation pattern reference

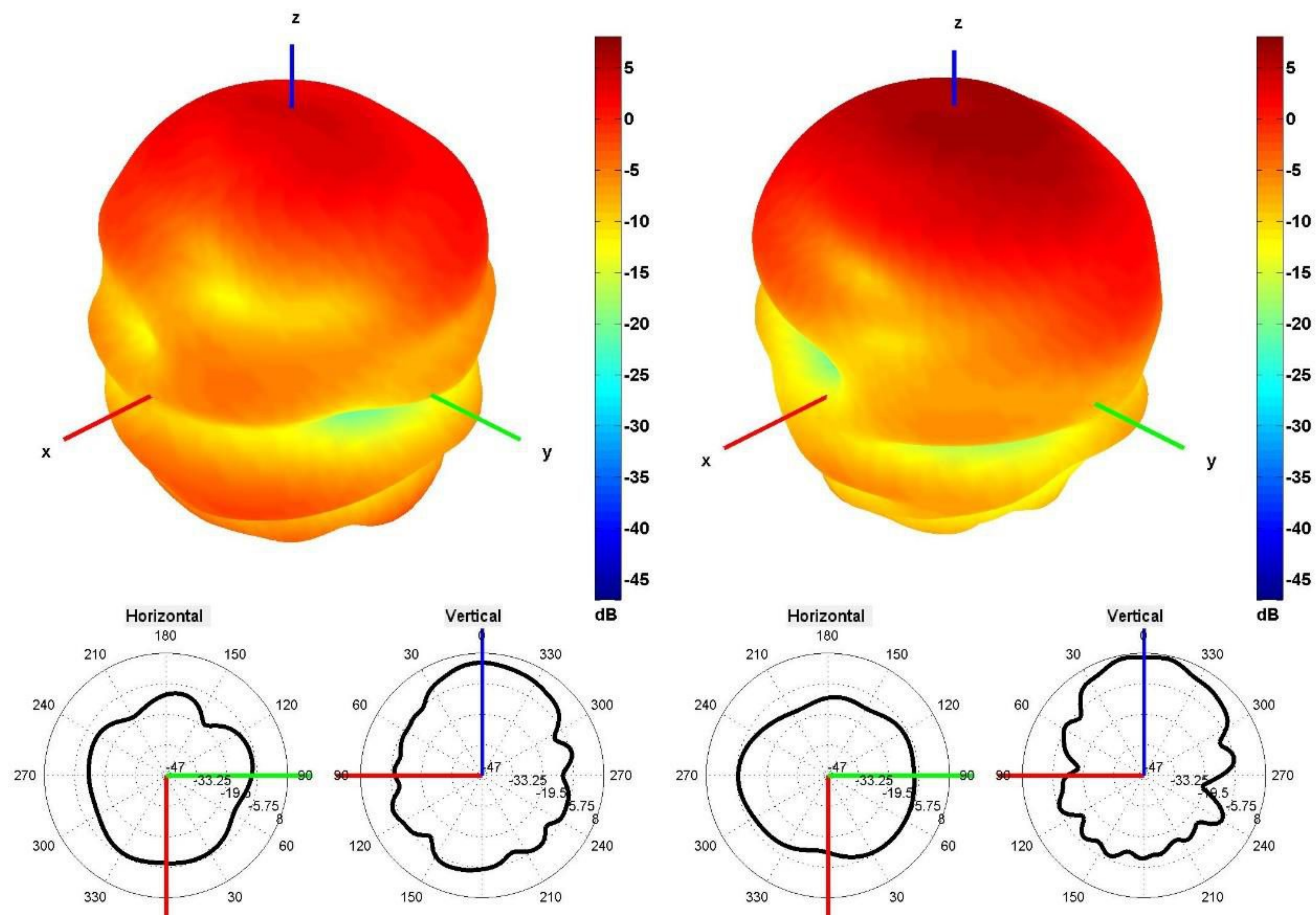
Cable 1: 5GNR



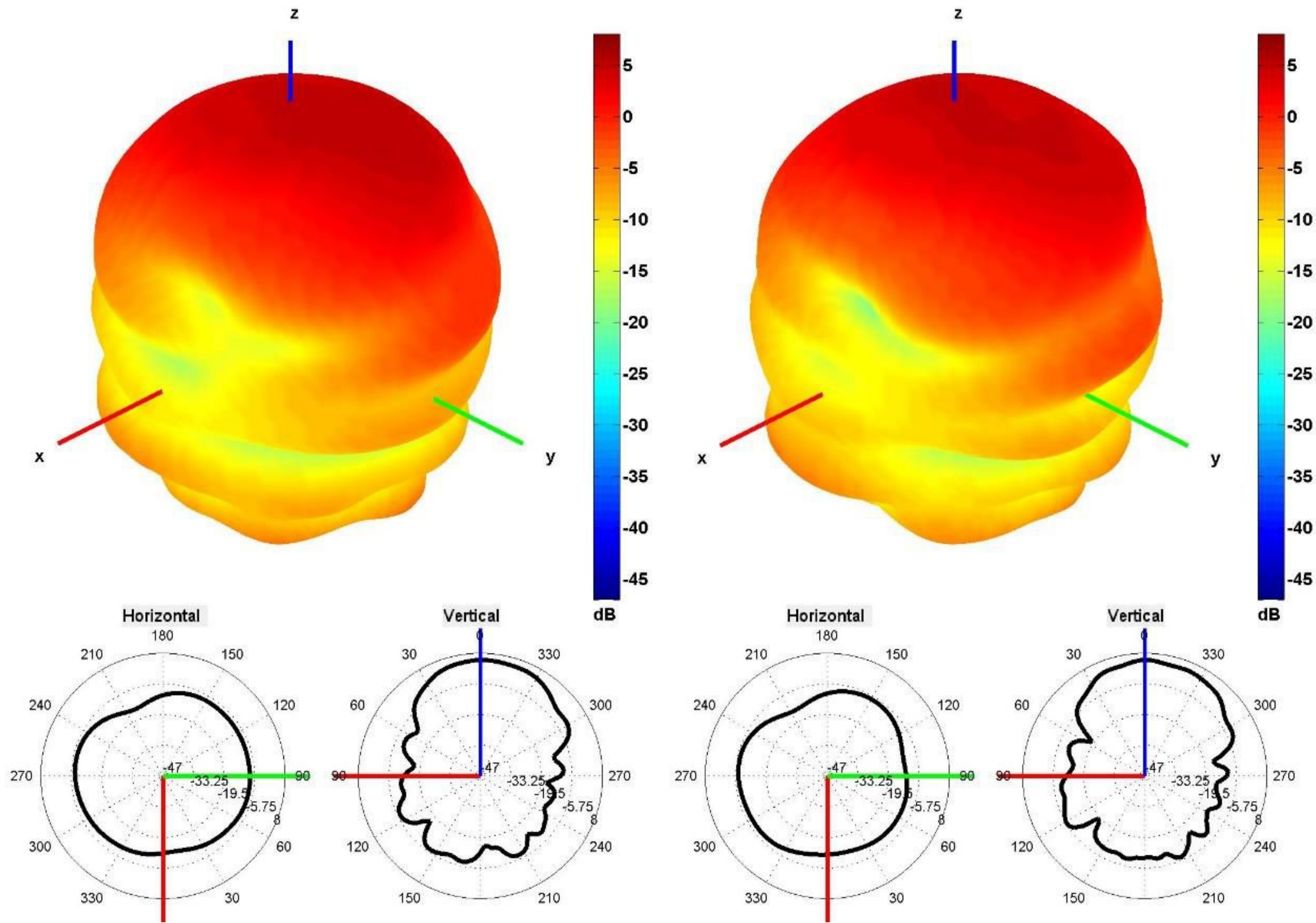
650 and 750 MHz Radiation pattern



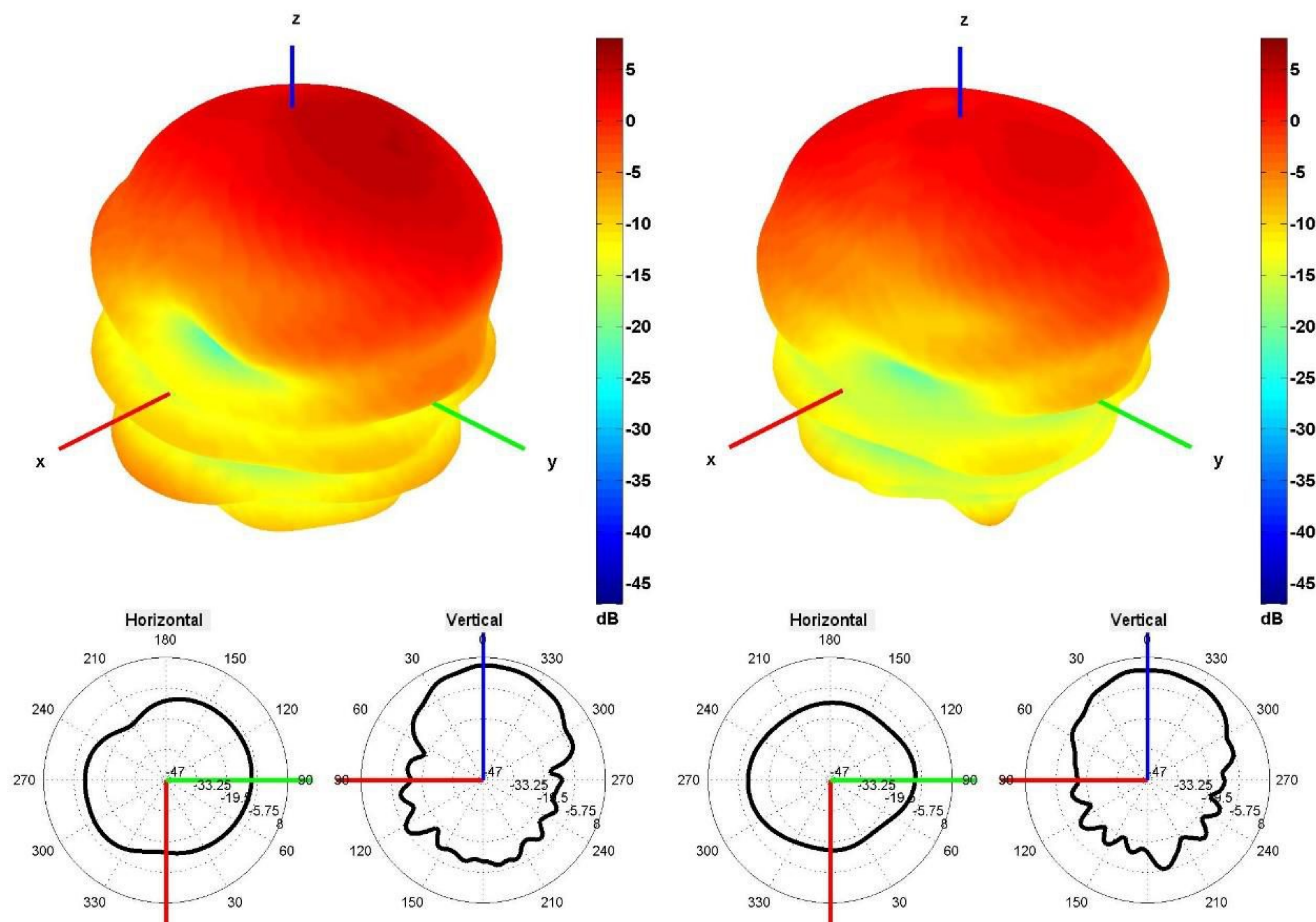
850 and 940 MHz Radiation pattern



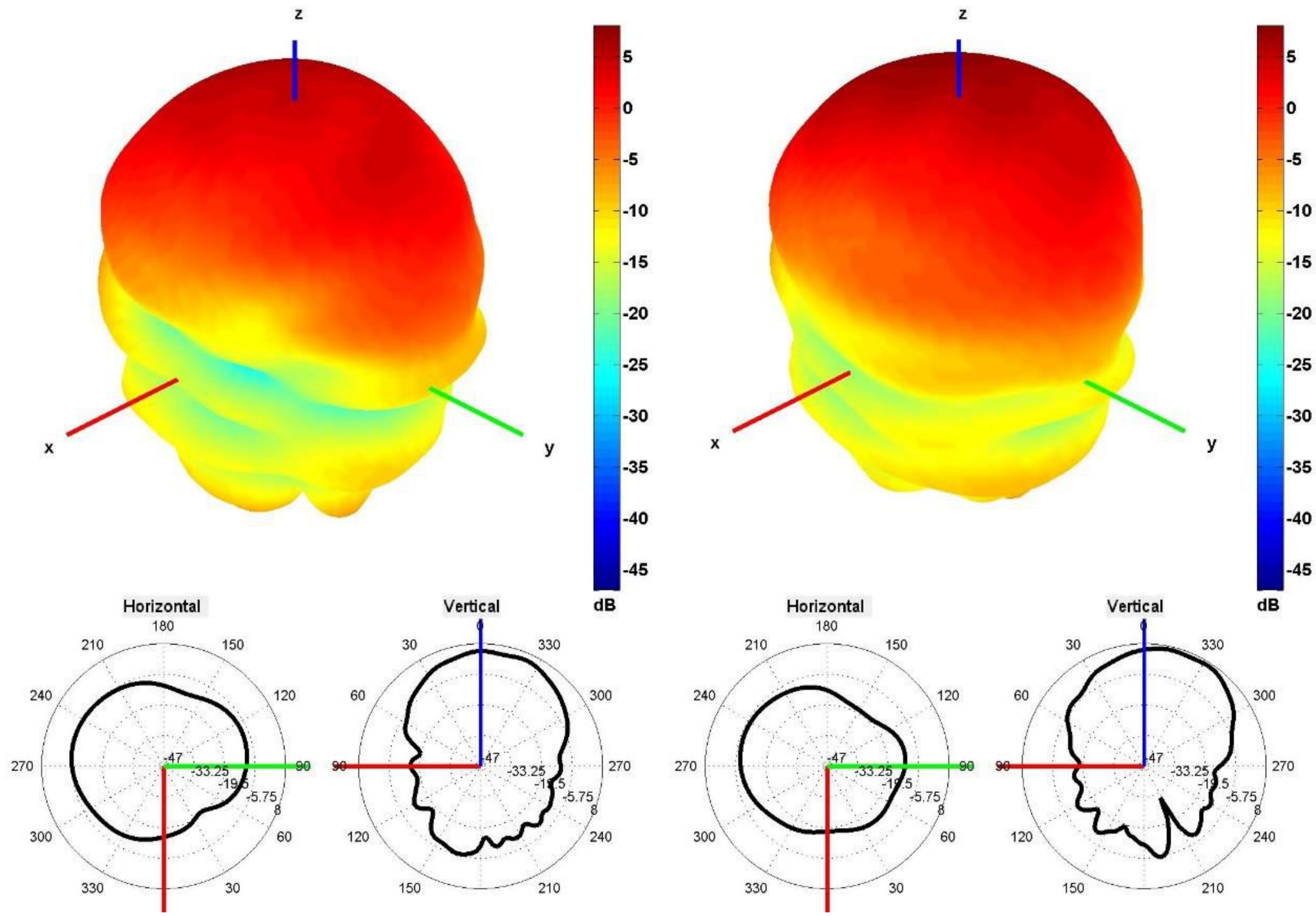
1500 and 1600 MHz Radiation pattern



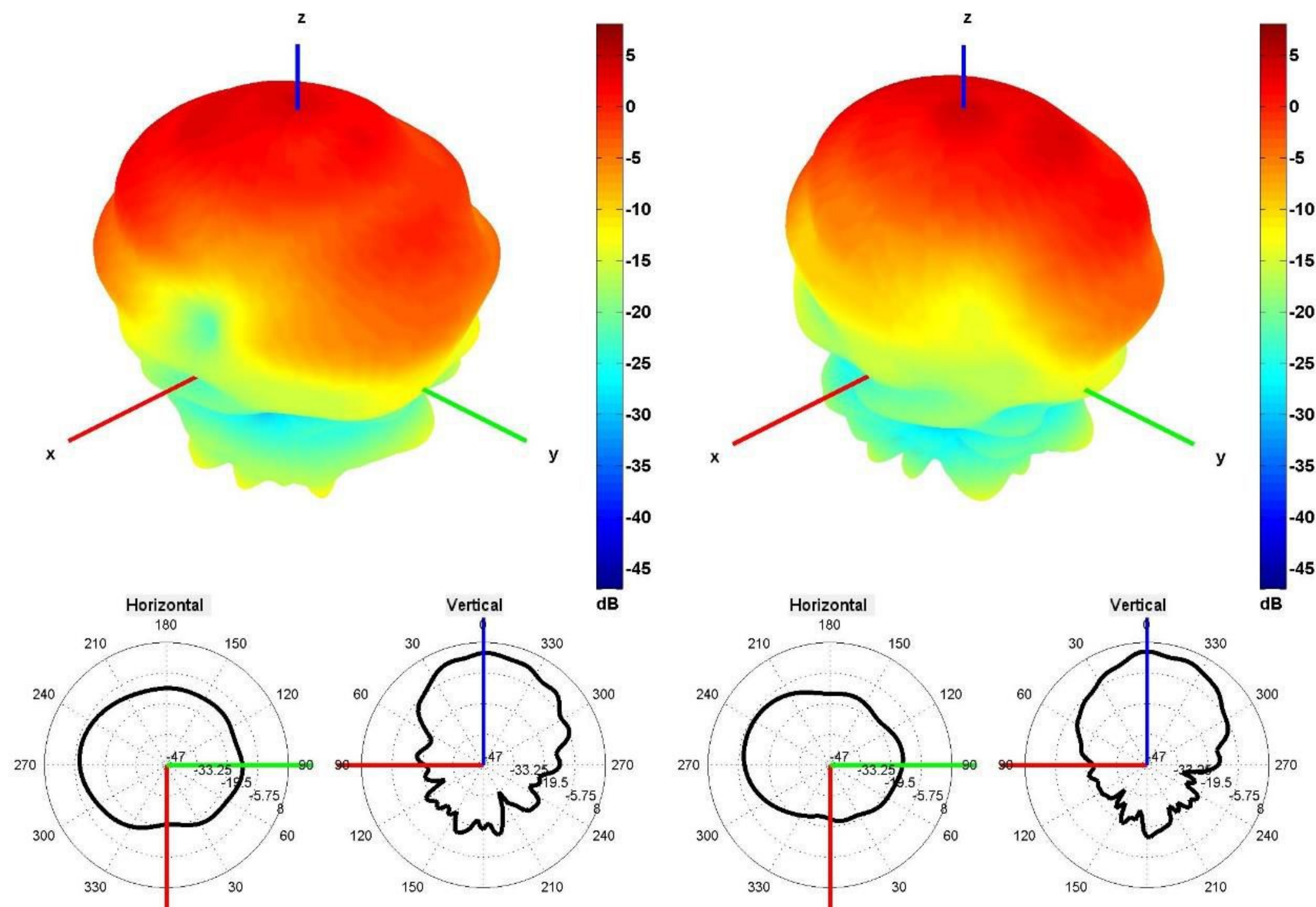
1750 and 1850 MHz Radiation pattern



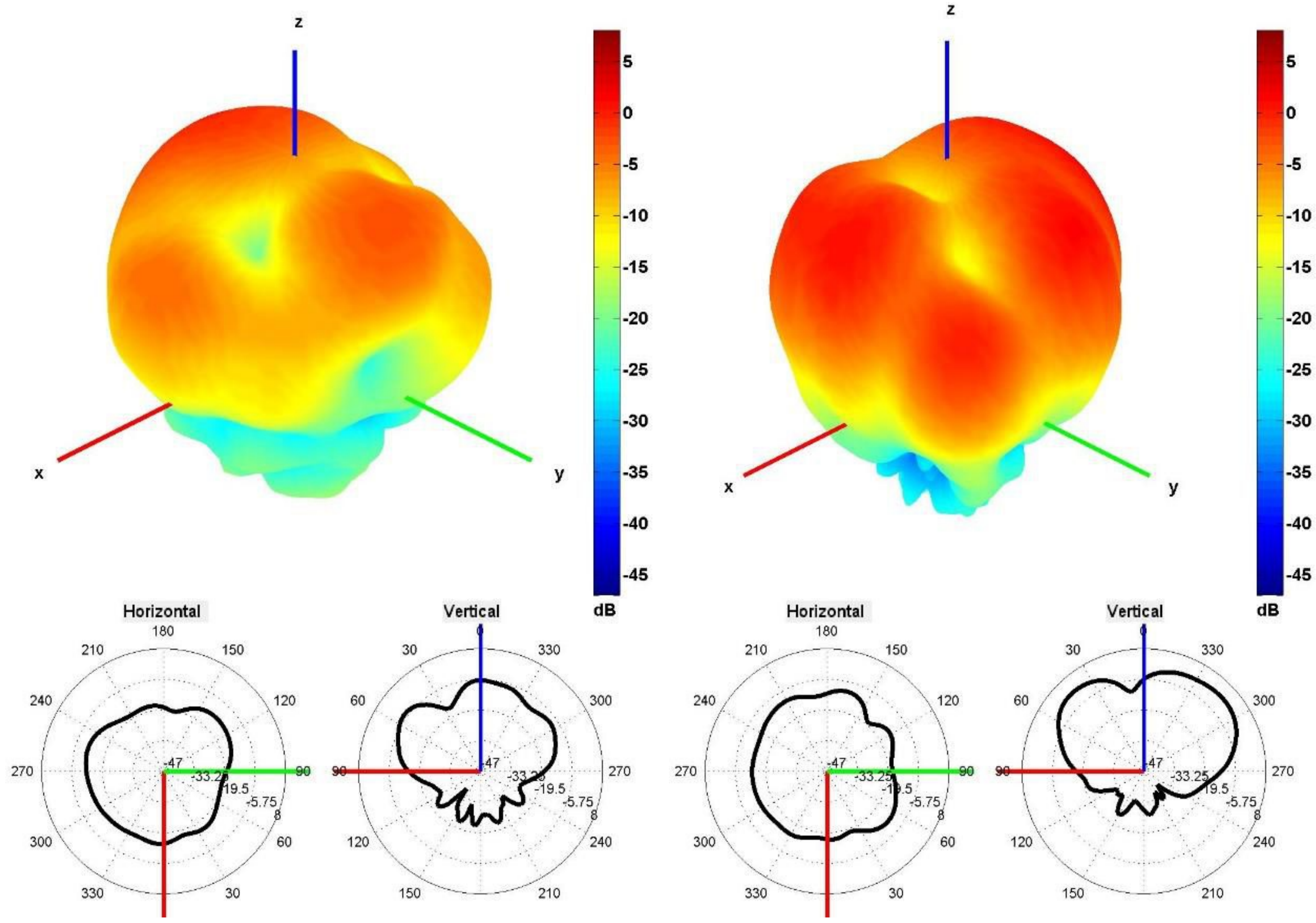
1950 and 2100 MHz Radiation pattern



2350 and 2600 MHz Radiation pattern

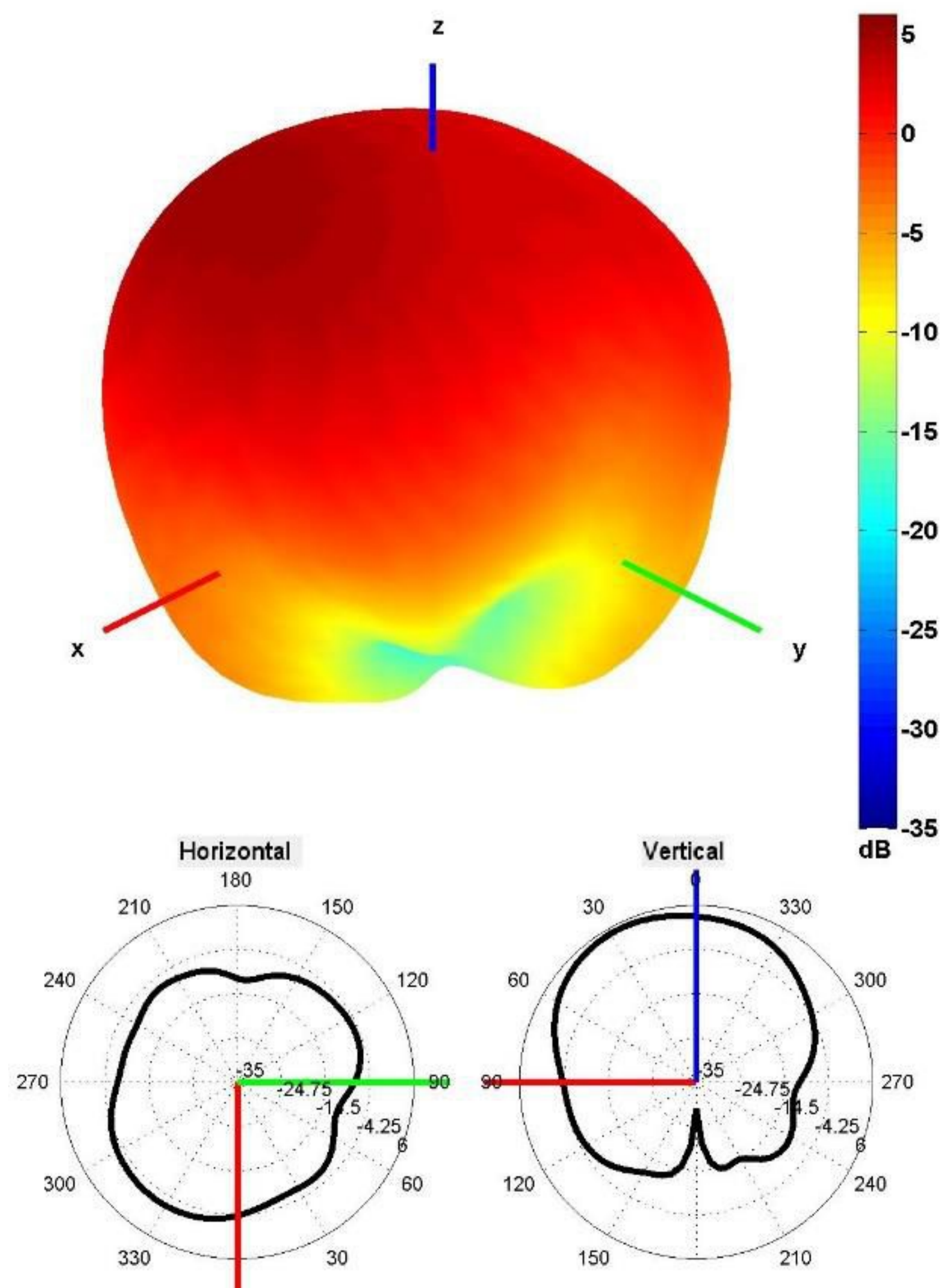


3350 and 3600 MHz Radiation pattern



4500 and 5500 MHz Radiation pattern

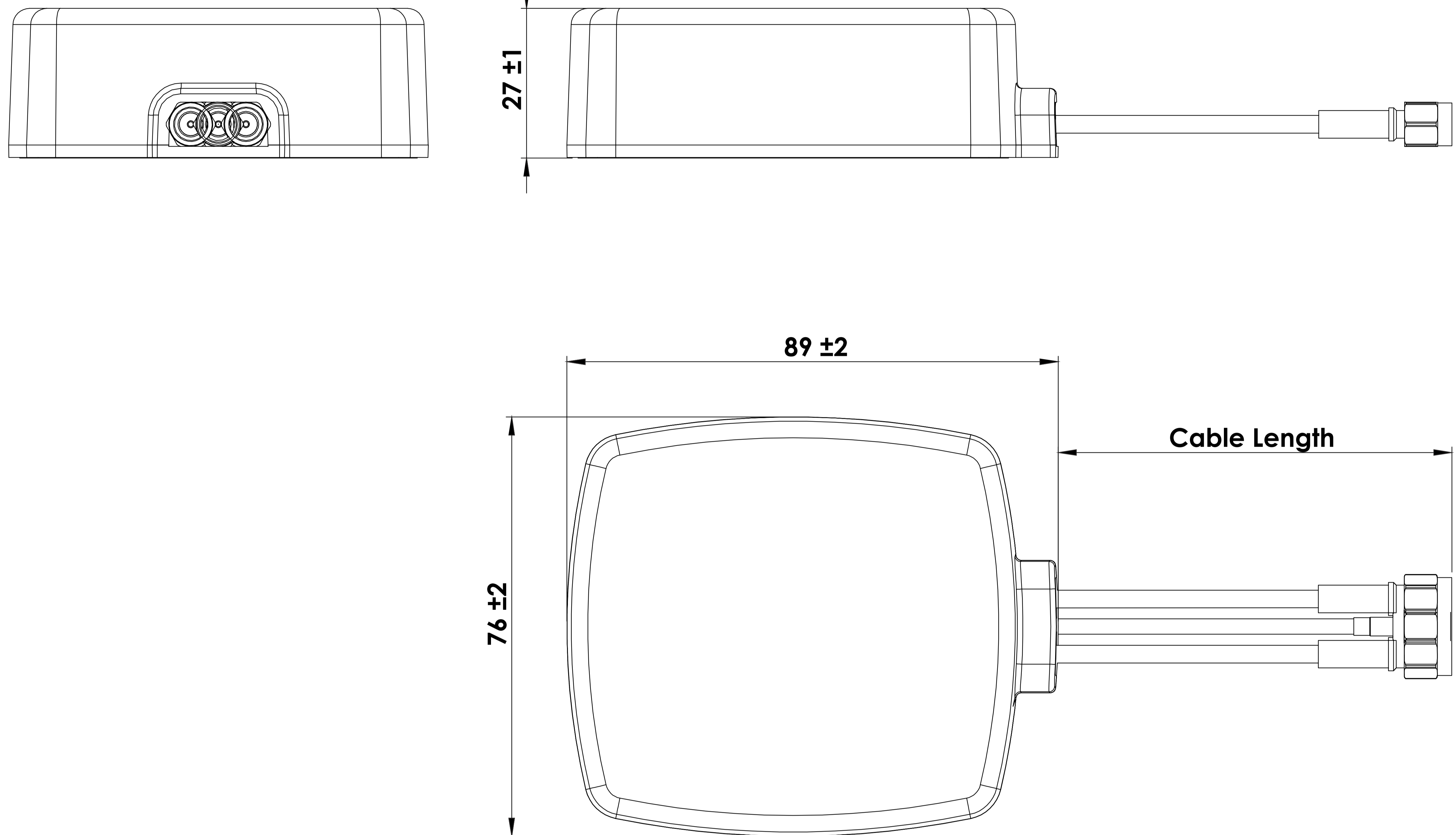
Cable 2: IRIDIUM



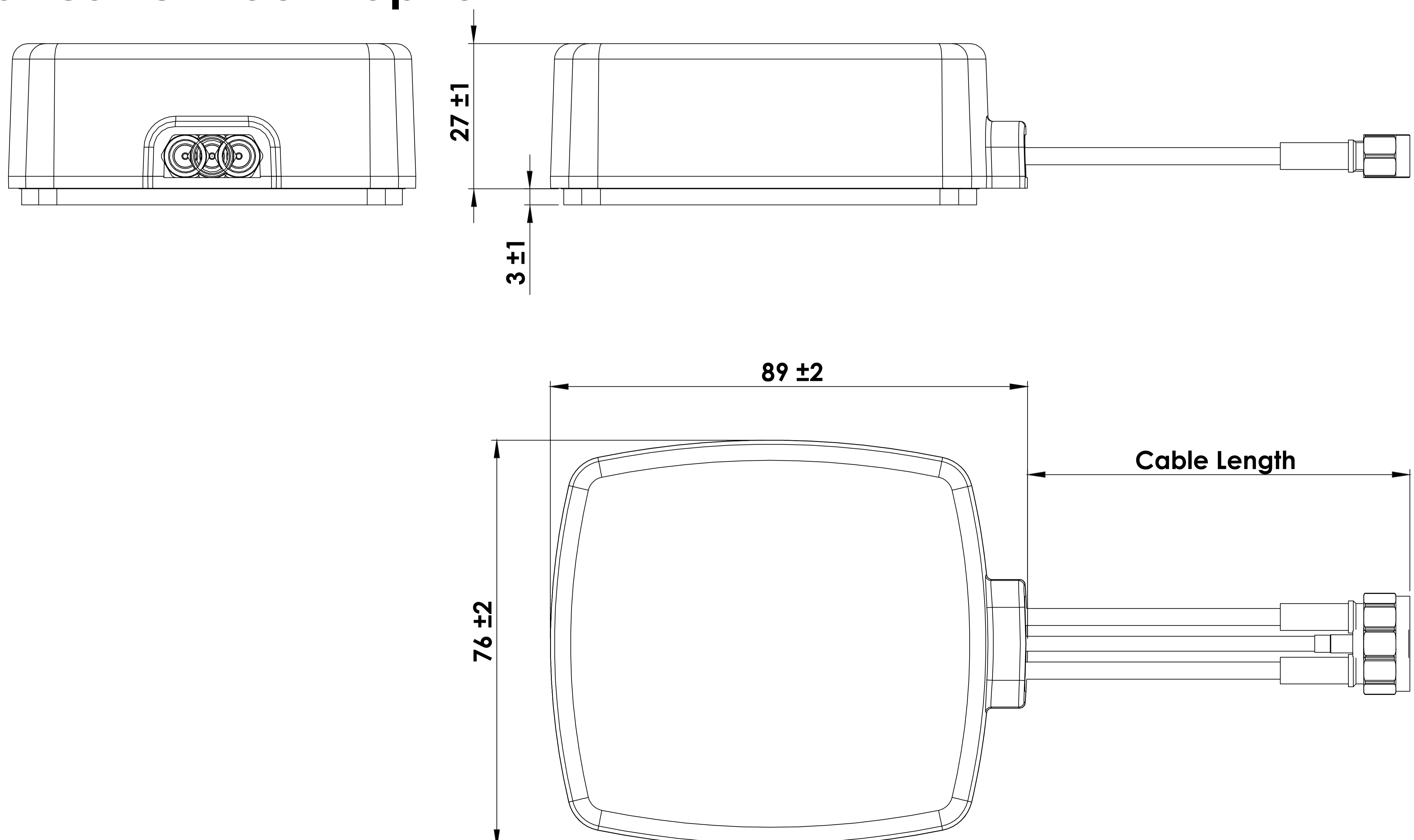
1621 MHz Radiation pattern

## 4. Antenna drawings

### Magnetic Mount option



### Adhesive Mount option



## 5. Antenna Images

