

## AMC-ANT-2J6552BGF

### 5G NR, Iridium and GNSS screw mount antenna

#### Features

- **Cable 1: 5G NR**
  - 617 – 960MHz
  - 1427 – 2690MHz
  - 3300 – 5000MHz
  - 5150 – 5925MHz
- **Cable 2: Iridium**
  - 1616 – 1627MHz
- **Cable 3: GPS/GLONASS/QZSS/Galileo**
  - 1575 – 1606MHz
- Screw mount
- Iridium certified
- Anti-rotation mounting
- Ground plane dependent
- Certificates: IP67, IP69K, IK09
- Dimensions:  $\varnothing$  146 x 31.5mm
- Customisable cables and connectors



## 1. Antenna and electrical specifications

**Cable 1**

Parameters	5G NR Antenna			
Technologies	5G, 4G, 3G, 2G			
Standards	5G NR/4G LTE/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, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
5G NR Bands	n5, n8, n12, n20, n28, n71, n81, n83	n1, n2, n3, n7, n25, n34, n38, n40, n41, n50, n51, n66, n70, n74, n75, n76, n80, n84, n86	n77, n78, n79	
4G LTE Bands	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, 43, B48, B49, B52	B46, B47, B252, B255
3G CELL Bands	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	
2G CELL Bands	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
CDMA CELL Bands	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, 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 (dBi)	~-7.0	~-7.6	~-8.3	~-8.0
Impedance (Ohms)	50			
Polarisation	Linear			
Radiation Pattern	Omni-directional			
Max I/P Power (W)	25			
Connector Type	SMA male standard (other connectors available)			
Cable Length	300cm standard (other lengths available)			
Cable Type	LMR100 (other cables available)			

**Measurement conditions:**

- Mounted on 30 x 30cm metal plate
- 100cm of LMR100 cable
- Measured in certified CTIA 3D Anechoic chamber

**Cable 2**

<b>Parameters</b>	Iridium antenna
<b>Standards</b>	Iridium
<b>Band (MHz)</b>	1621
<b>Frequency (MHz)</b>	1616 - 1627
<b>Patch Size (mm)</b>	36 x 36 x 4
<b>Return Loss (dB)</b>	~-18.8
<b>VSWR</b>	~1.2:1
<b>Efficiency (%)</b>	~76
<b>Peak Gain (dBic)</b>	~4.5
<b>Average Gain (dB)</b>	~-1.1
<b>Axial Ratio (dB)</b>	3 max
<b>Polarisation</b>	RHCP
<b>Radiation Pattern</b>	Hemispherical
<b>Connector Type</b>	SMA male standard (other connectors available)
<b>Cable Length</b>	300cm standard (other lengths available)
<b>Cable Type</b>	LMR100 standard (other cables available)

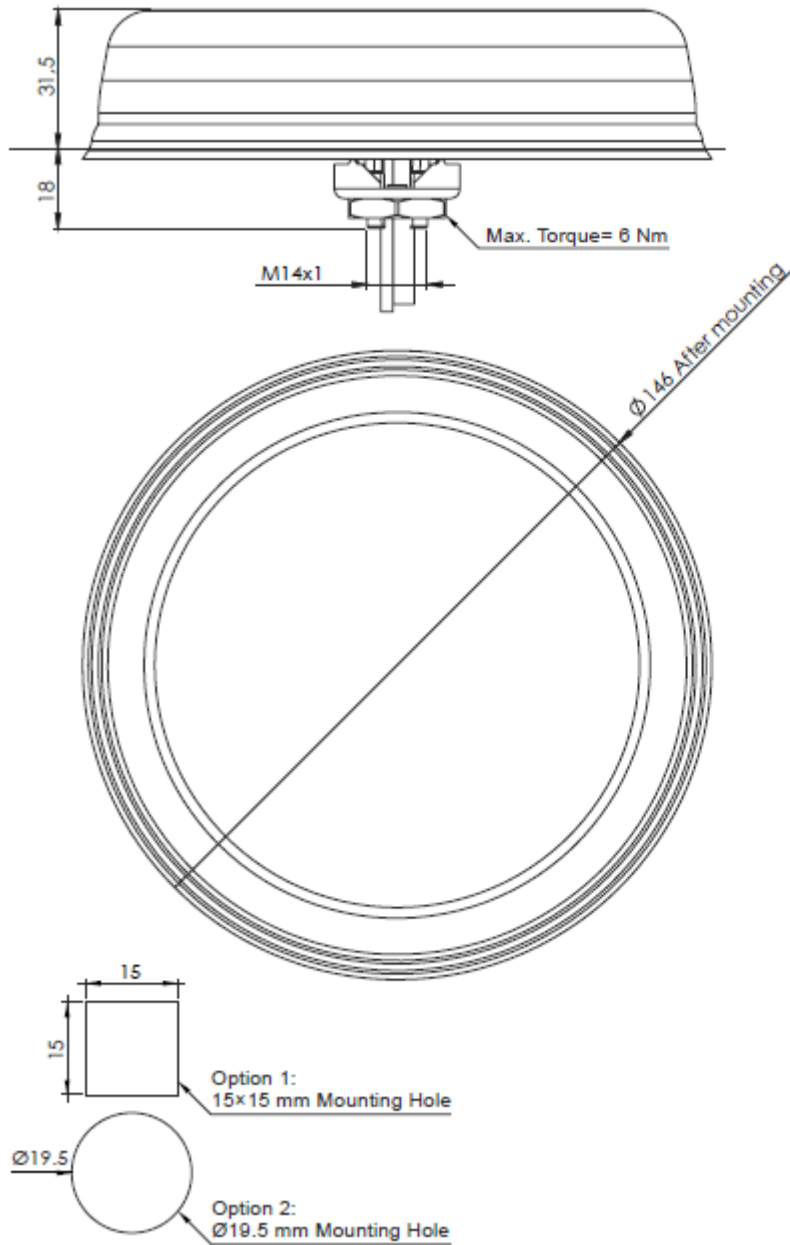
**Cable 3**

<b>Active Parameters</b>	<b>GNSS ceramic active antenna</b>	
<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>Passive Gain (dBi)</b>	~3.6	
<b>Impedance (Ohms)</b>	50	
<b>Radiation Pattern</b>	Hemispherical	
<b>Voltage Range (V)</b>	1.5 – 3.6	
<b>Active Gain (dB)</b>	28 @ 2.7V	
<b>Noise Figure (dB)</b>	1.8 @ 2.7V	
<b>Current Consumption (mA)</b>	9 @ 2.7V	
<b>Power Consumption (mW)</b>	24.3 @ 2.7V	
<b>SAW Filter Type</b>	Pre filter	
<b>Connector Type</b>	SMA male standard (other connectors available)	
<b>Cable Length</b>	300cm standard (other lengths available)	
<b>Cable Type</b>	LMR100 standard (other cables available)	

## 2. Mechanical and environmental specifications

<b>Mounting Type</b>	Screw mount
<b>Dimensions (mm)</b>	Ø 146 x 31.5
<b>Max. Tighten Torque (Nm)</b>	5
<b>Radome Type</b>	ABS
<b>Radome Colour</b>	Black
<b>Antenna Base</b>	Zamak
<b>Gasket</b>	TPE
<b>Operating Temperature (°C)</b>	-40 to +85
<b>Storage Temperature (°C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Certificates</b>	IP67, IP69K, IK09, Iridium Certified

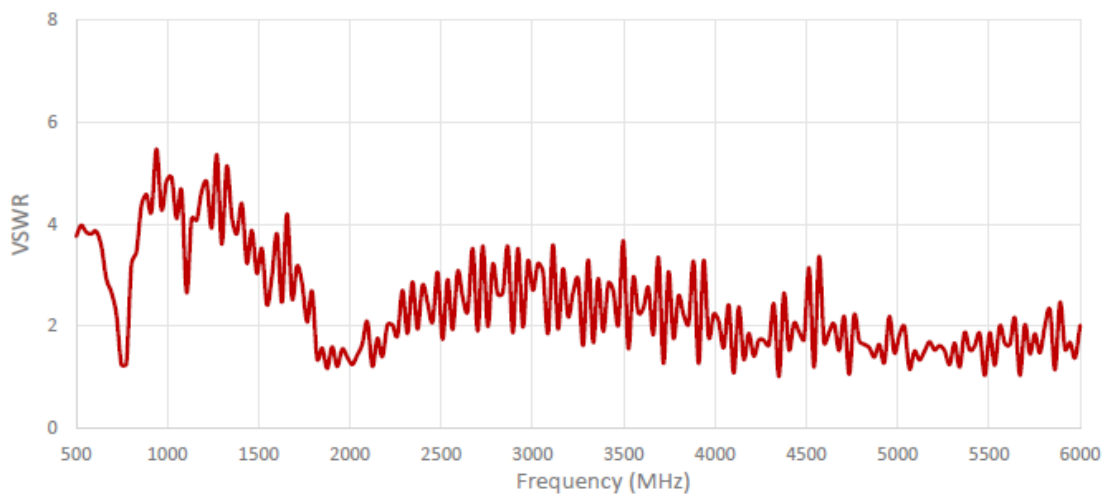
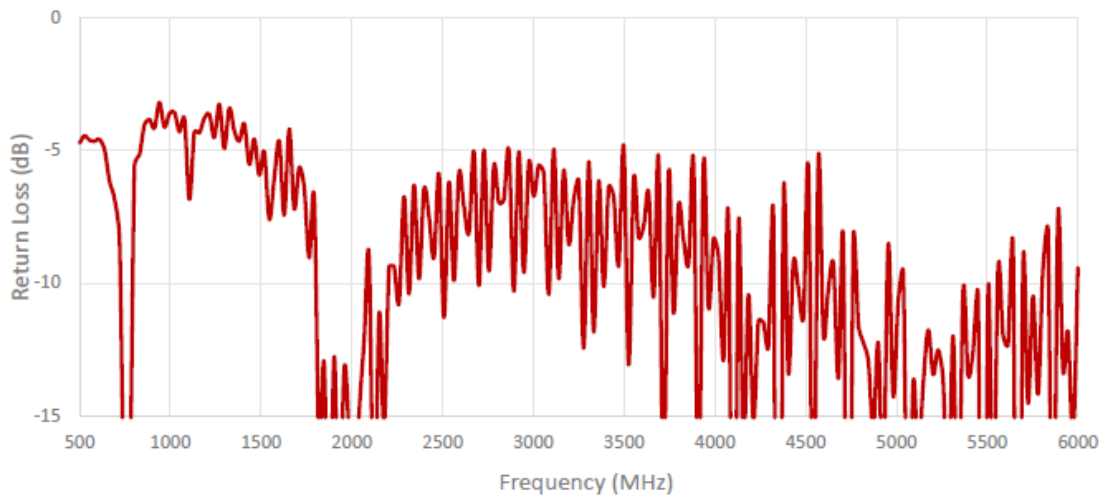
### 3. Antenna drawings

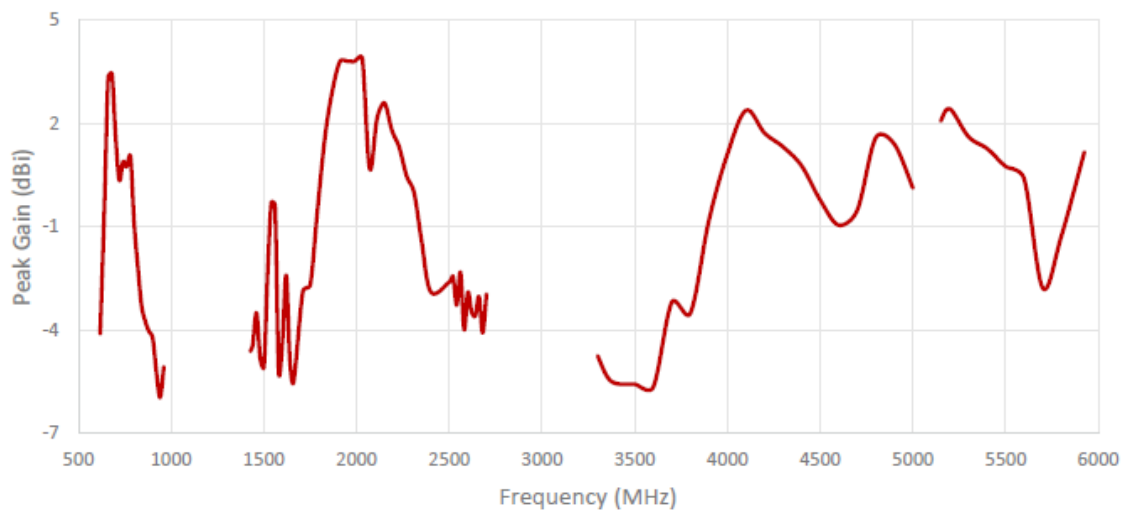
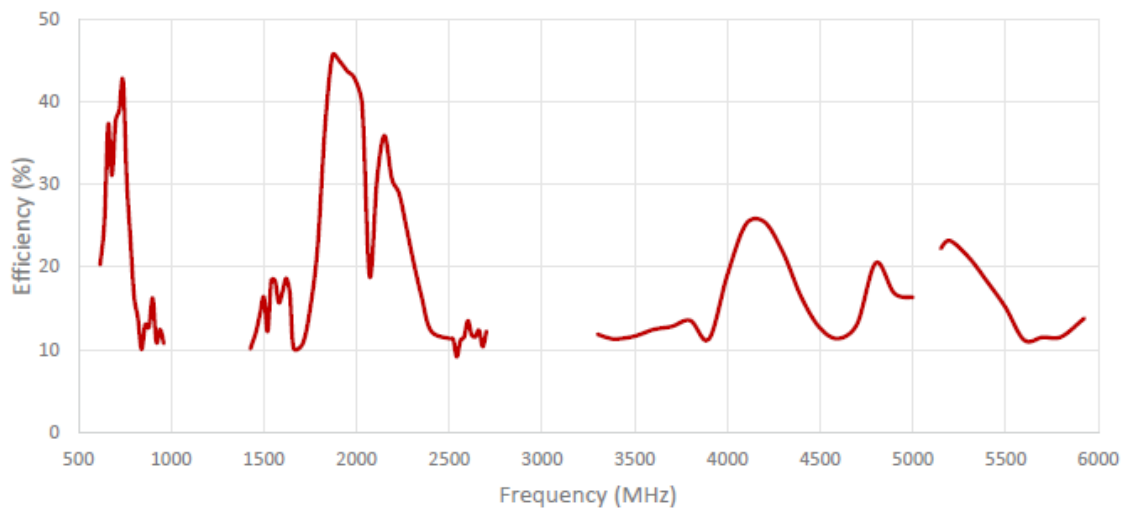


Note: Dimensions are in millimeters  
\*Dimensions are after mounting  
\*\*Max. Torque= 6 Nm

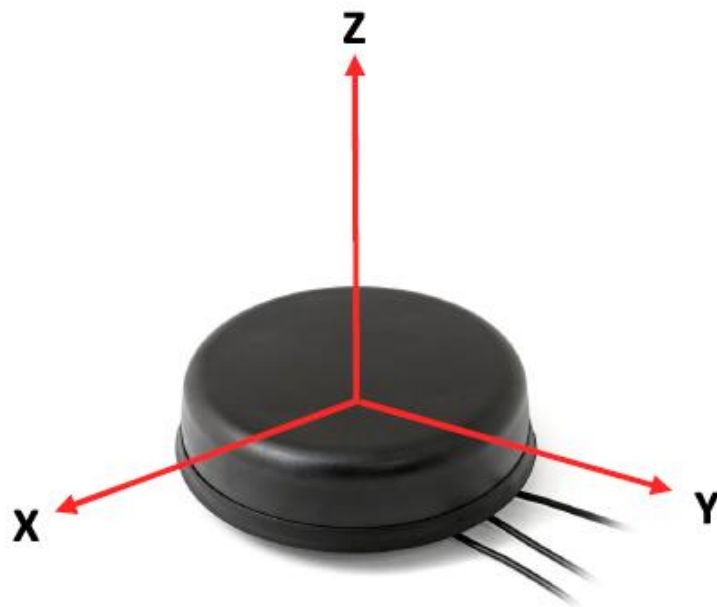
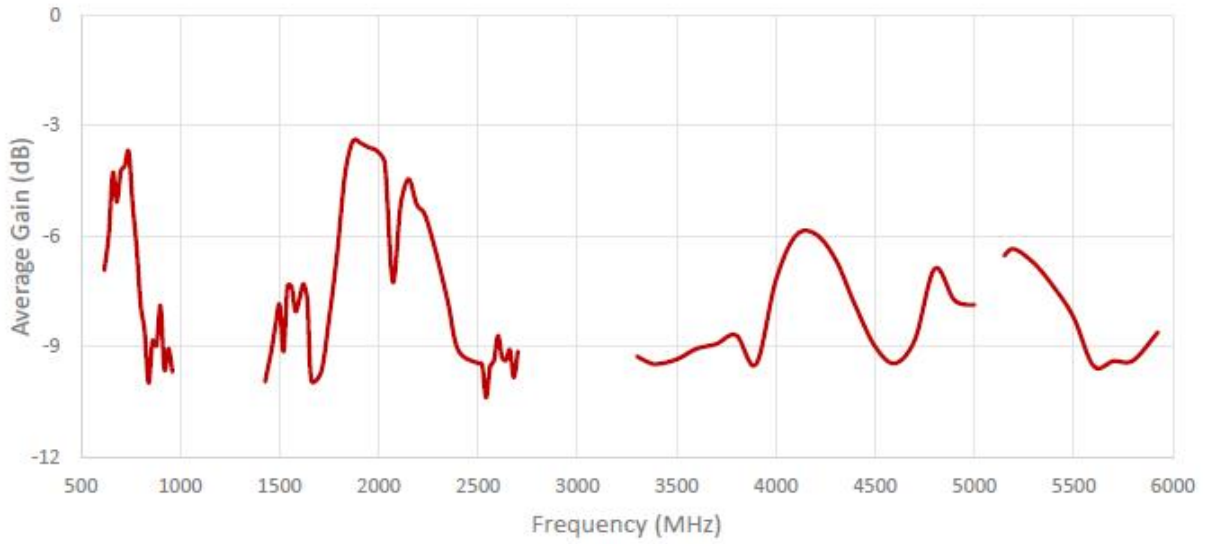
#### 4. Antenna parameters

Cable 1: 5GNR



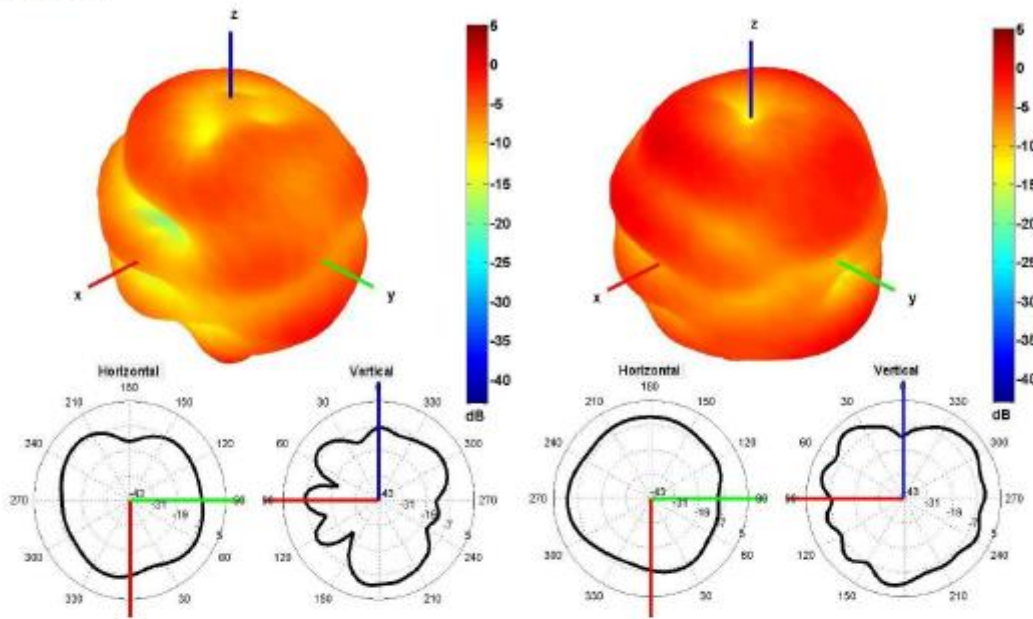




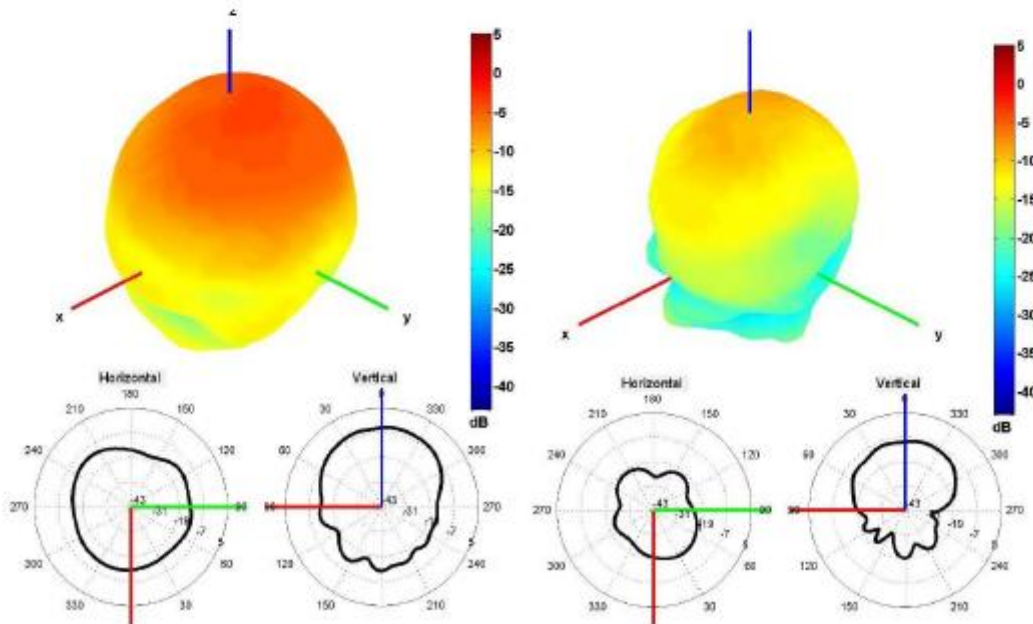


Radiation pattern reference

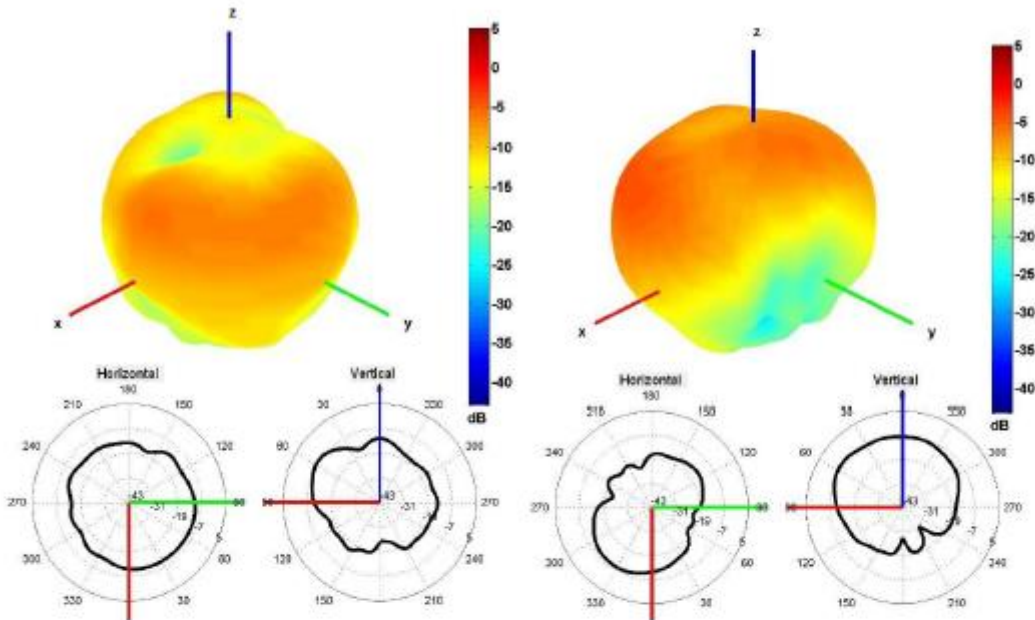
Cable 1: 5GNR



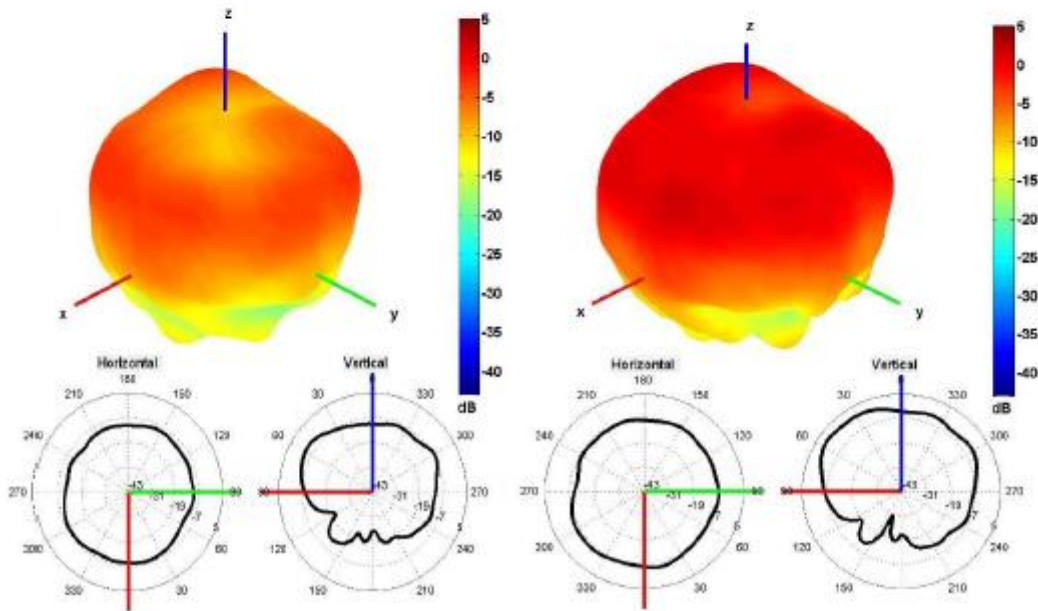
650 and 750 MHz Radiation pattern



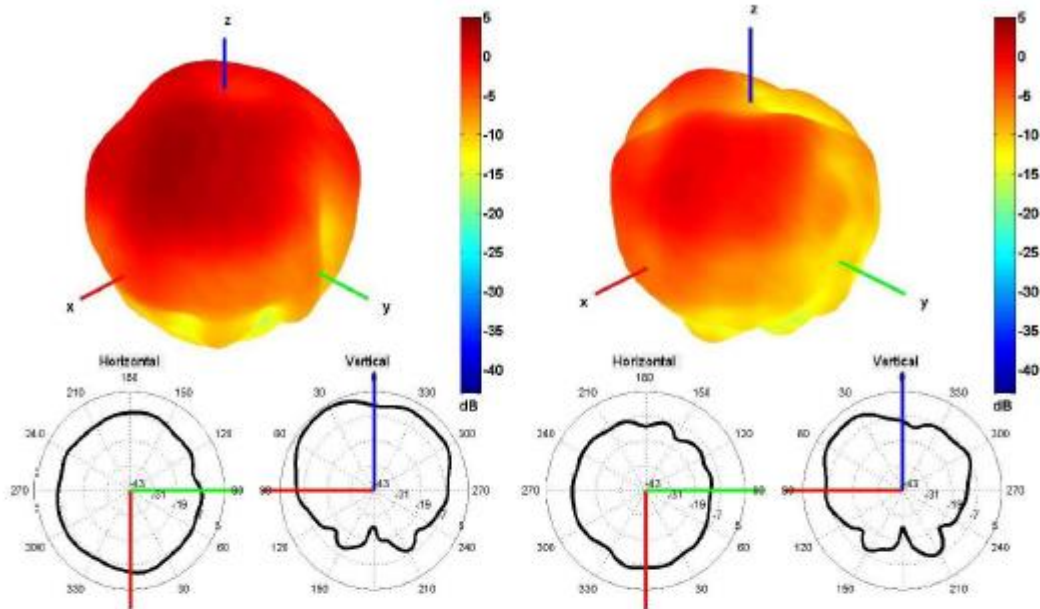
850 and 950 MHz Radiation pattern



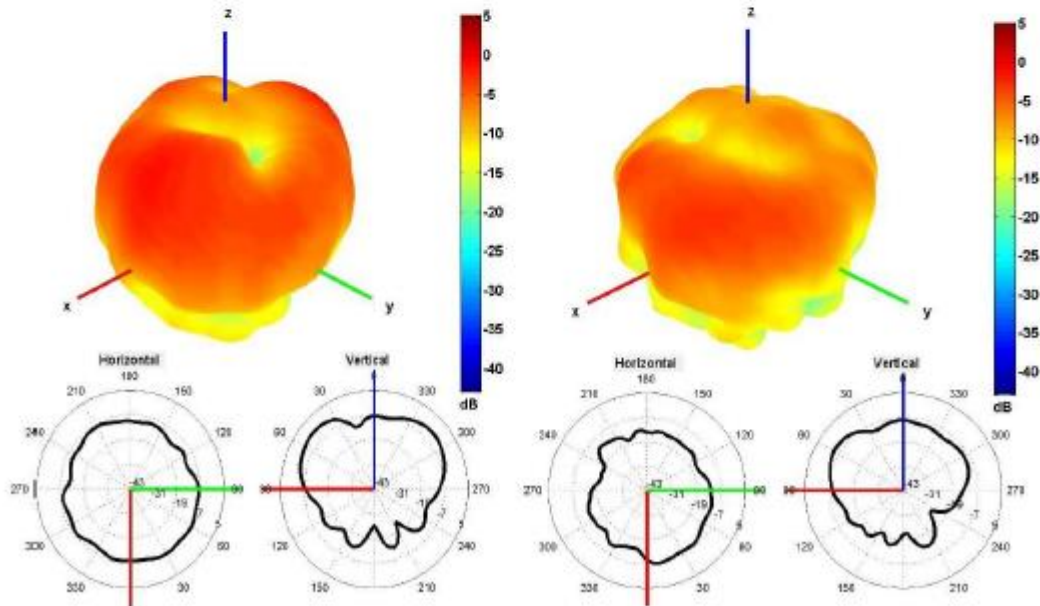
1500 and 1600 MHz Radiation pattern



1750 and 1850 MHz Radiation pattern

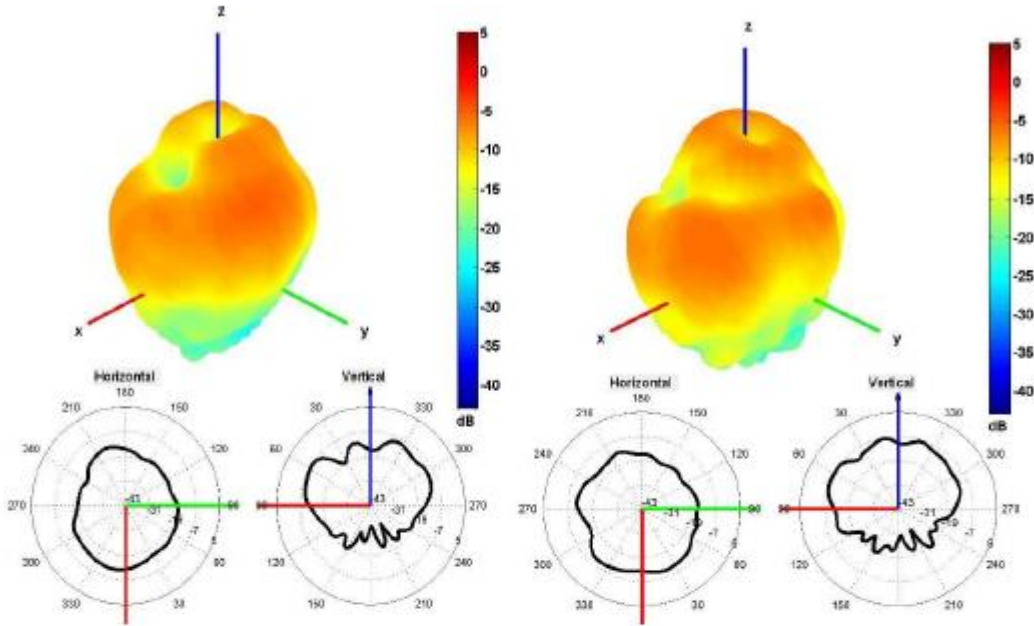


1950 and 2100 MHz Radiation pattern

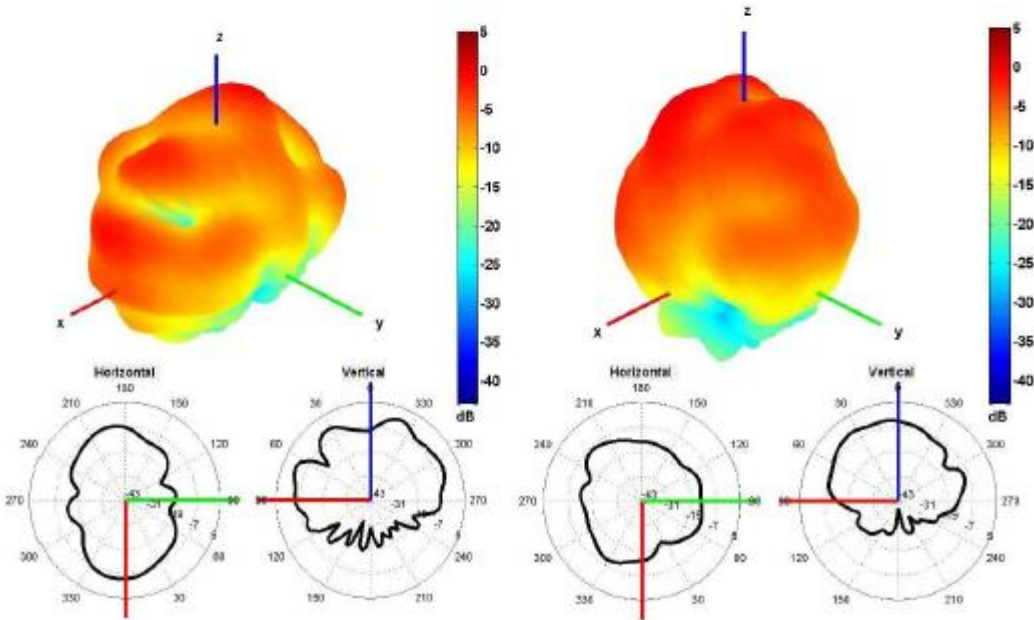


2350 and 2600 MHz Radiation pattern



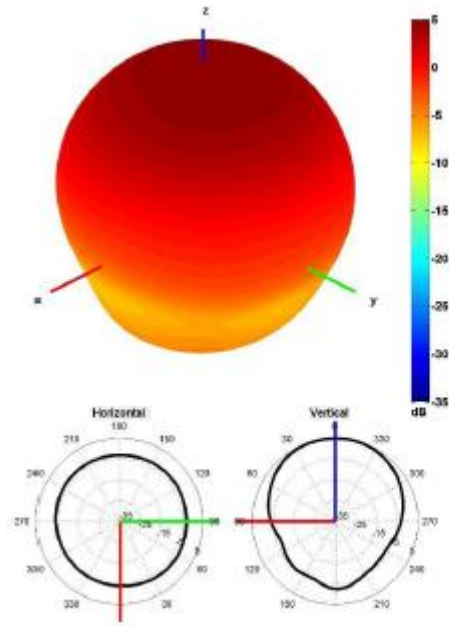


3350 and 3600 MHz Radiation pattern



4500 and 5500 MHz Radiation pattern

Cable 1: IRIDIUM



1621 MHz Radiation pattern