

# 2J6552MGF

5GNR, Iridium and GNSS Magnetic 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 Mount

Ground Plane Independent

Customizable Cable and Connector

Dimensions  $\varnothing$  137 x 36.5 mm

Certificates: IK09, IP67, IP69K



## 1. Antenna and electrical specifications

Cable 1

| Parameters                  | 5GNR Antenna  |   |                                 |                      |
|-----------------------------|---|---|---------------------------------|----------------------|
| <b>Technologies</b>         | 5G, 4G, 3G and 2G   |   |                                 |                      |
| <b>Standards</b>            | 5GNR/4GLTE/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,<br>1900, 2000, 2100, 2300,<br>2500, 2600  | 3300, 3500, 3600,<br>3700, 4500 | 5200, 5500, 5800     |
| <b>5GNR Bands</b>           | 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                   |                      |
| <b>4GLTE Bands</b>          | 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 |
| <b>3GCELL Bands</b>         | 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                             |                      |
| <b>2GCELL Bands</b>         | 710, 750, 810T, 850, 900P,<br>900E, 900R  | 1800DCS, 1900PCS  |                                 |                      |
| <b>CDMACELL Bands</b>       | BC0, BC2, BC3, BC7, BC9,<br>BC10, BC12, BC18, BC19  | BC1, BC4, BC6, BC8,<br>BC13, BC14, BC15, BC16,<br>BC20, BC21  |                                 |                      |
| <b>Return Loss (dB)</b>     | ~-7.4   | ~-9.7   | ~-11.2                          | ~-14.2               |
| <b>VSWR</b>                 | ~3.3:1  | ~2.3:1  | ~2.1:1                          | ~1.7:1               |
| <b>Efficiency (%)</b>       | ~20.7   | ~18.5   | ~15.3                           | ~15.9                |
| <b>Peak Gain (dBi)</b>      | ~-1.7   | ~-1.7   | ~-1.3                           | ~-0.6                |
| <b>Average Gain (dB)</b>    | ~-8.5   | ~-8.6   | ~-9.4                           | ~-8.2                |
| <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>           | LL100 Standard (Other Cables Available)   |   |                                 |                      |

### Antenna Measurement Conditions:

Mounted on 30 x 30 cm Metal Plate

200 cm of LL100 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>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>Impedance</b>         | 50   |
| <b>Axial Ratio (dB)</b>  | 3 max  |
| <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>        | LL100 Standard (Other Cables Available)        |

**Cable 3**

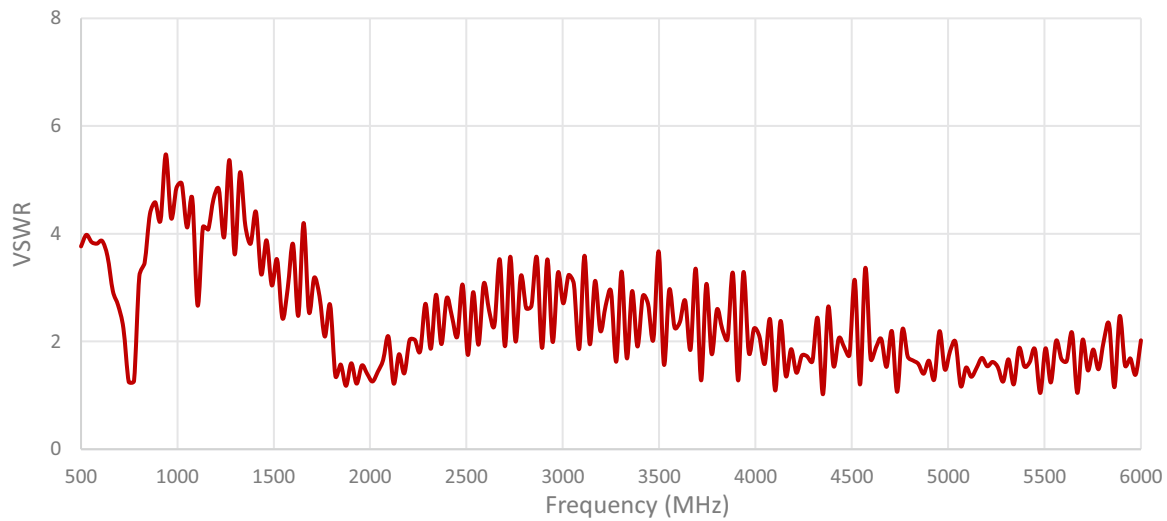
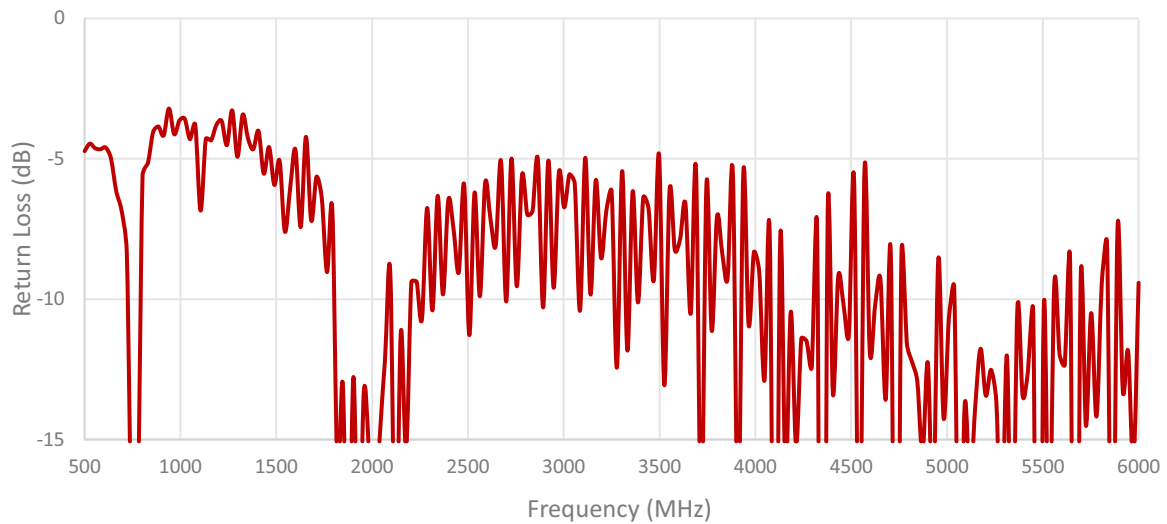
| Parameters                      | GNSS Ceramic Active Antenna                    |           |
|---------------------------------|--|-----------|
| <b>Standards</b>                | GPS/QZSS/Galileo                               | GLONASS   |
| <b>Band (MHz)</b>               | 1575   | 1602      |
| <b>Frequency (Mhz)</b>          | 1575.42  | 1598-1606 |
| <b>Patch Size (mm)</b>          | 25 x 25 x 4                                    |           |
| <b>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 @ 2.7 V                                     |           |
| <b>Noise Figure (dB)</b>        | 1.8 @ 2.7 V                                    |           |
| <b>Current Consumption (mA)</b> | 9 @ 2.7 V                                      |           |
| <b>Power Consumption (mW)</b>   | 24.3 @ 2.7 V                                   |           |
| <b>Saw Filter Type</b>          | Pre-Filter                                     |           |
| <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>               | LL100 Standard (Other Cables Available)        |           |

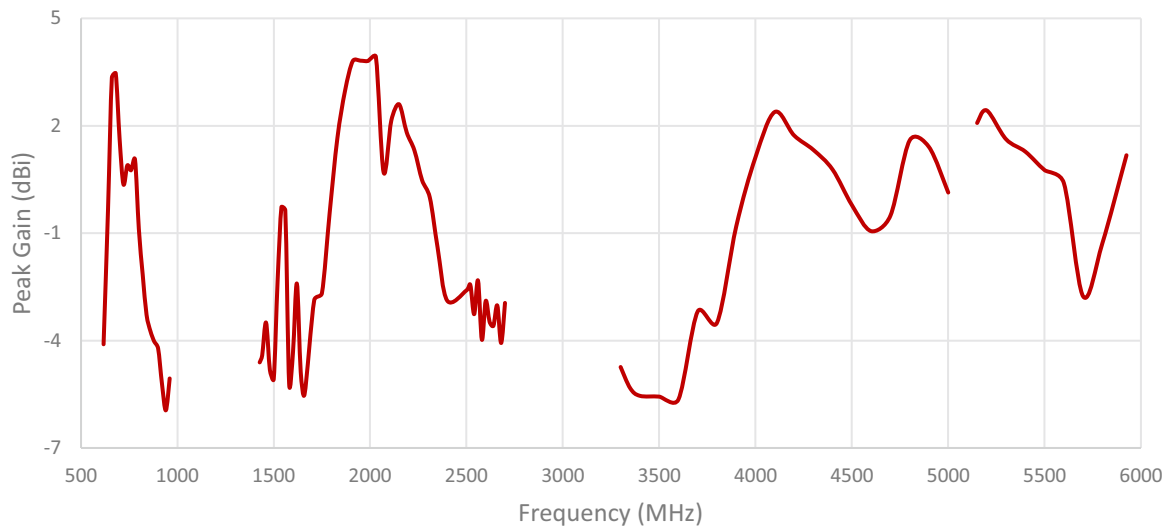
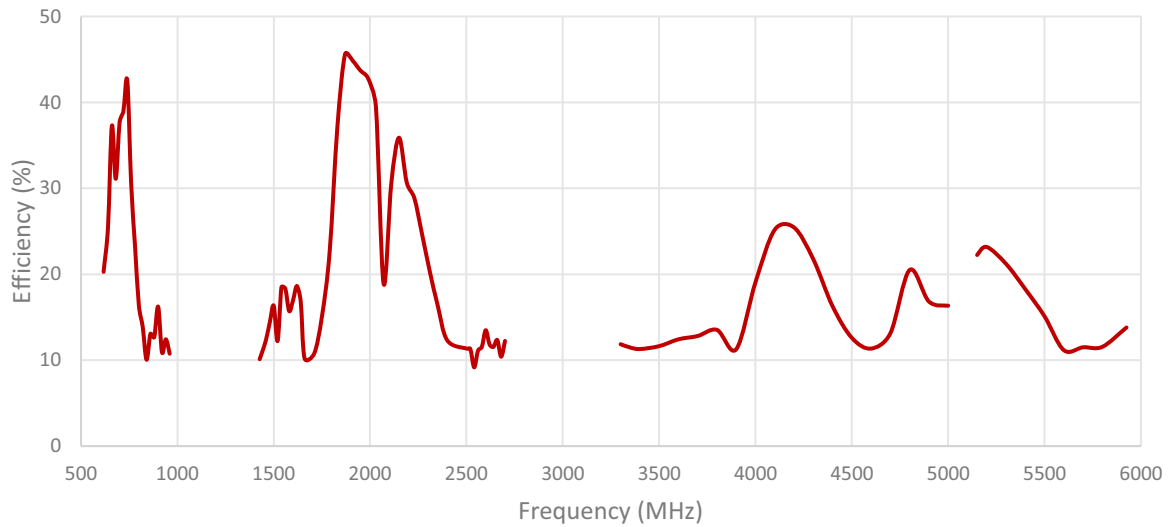
## 2. Mechanical and environmental specifications

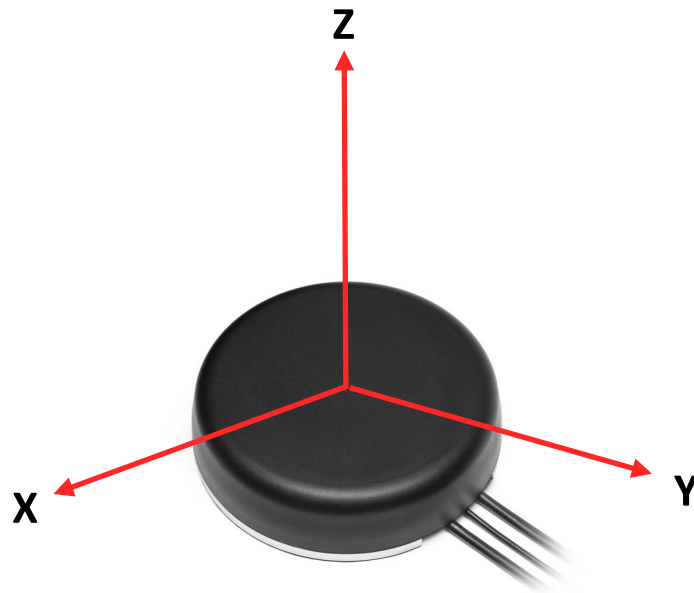
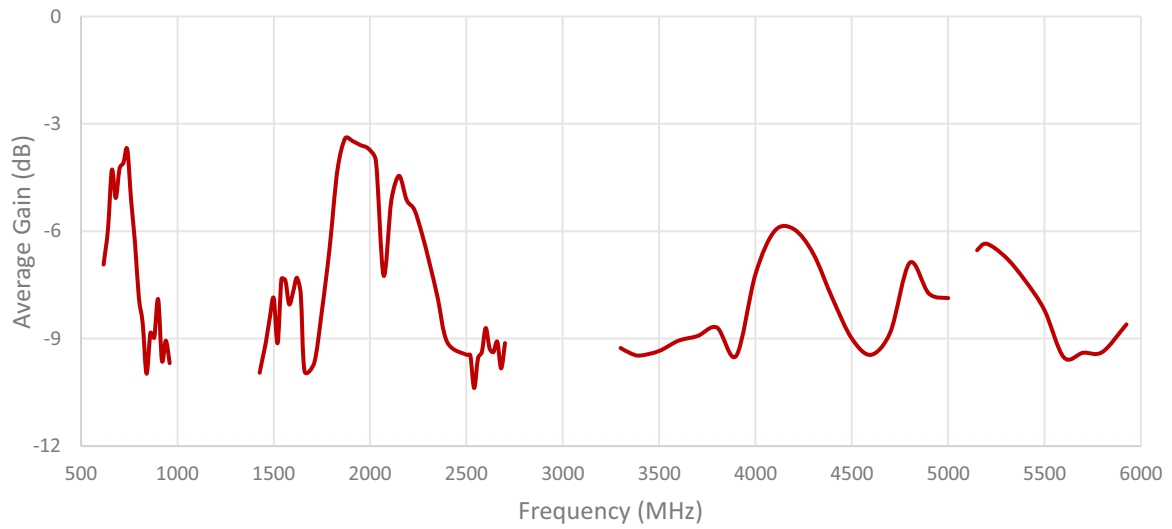
| Specifications                   | 2J6552MGF         |
|----------------------------------|-------------------|
| <b>Mounting Type</b>             | Magnetic Mount    |
| <b>Dimensions (mm)</b>           | Ø 137 x 36.5      |
| <b>Radome</b>                    | ASA               |
| <b>Radome color</b>              | Black             |
| <b>Antenna Base</b>              | Aluminum          |
| <b>Operating Temperature (C)</b> | -40 to +85        |
| <b>Storage Temperature (C)</b>   | -40 to +85        |
| <b>Substance Compliance</b>      | RoHS              |
| <b>Certificates</b>              | IK09, IP67, IP69K |

## 3. Antenna parameters

Cable 1: 5GNR

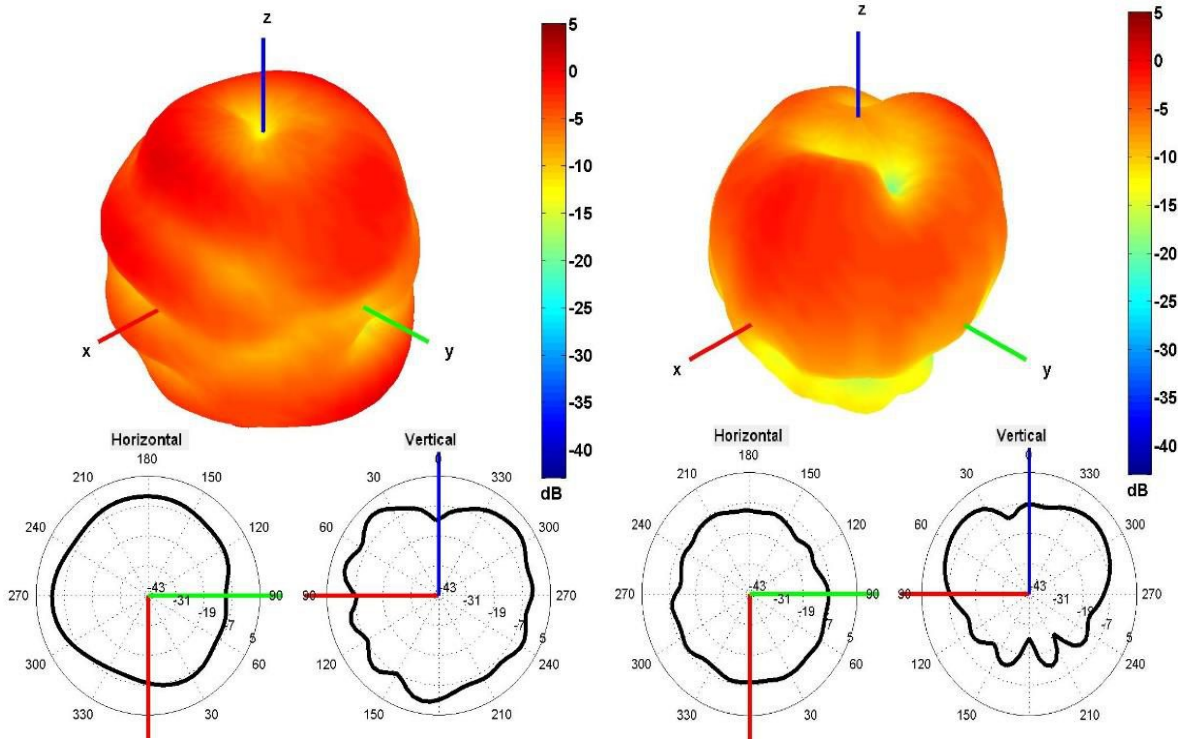




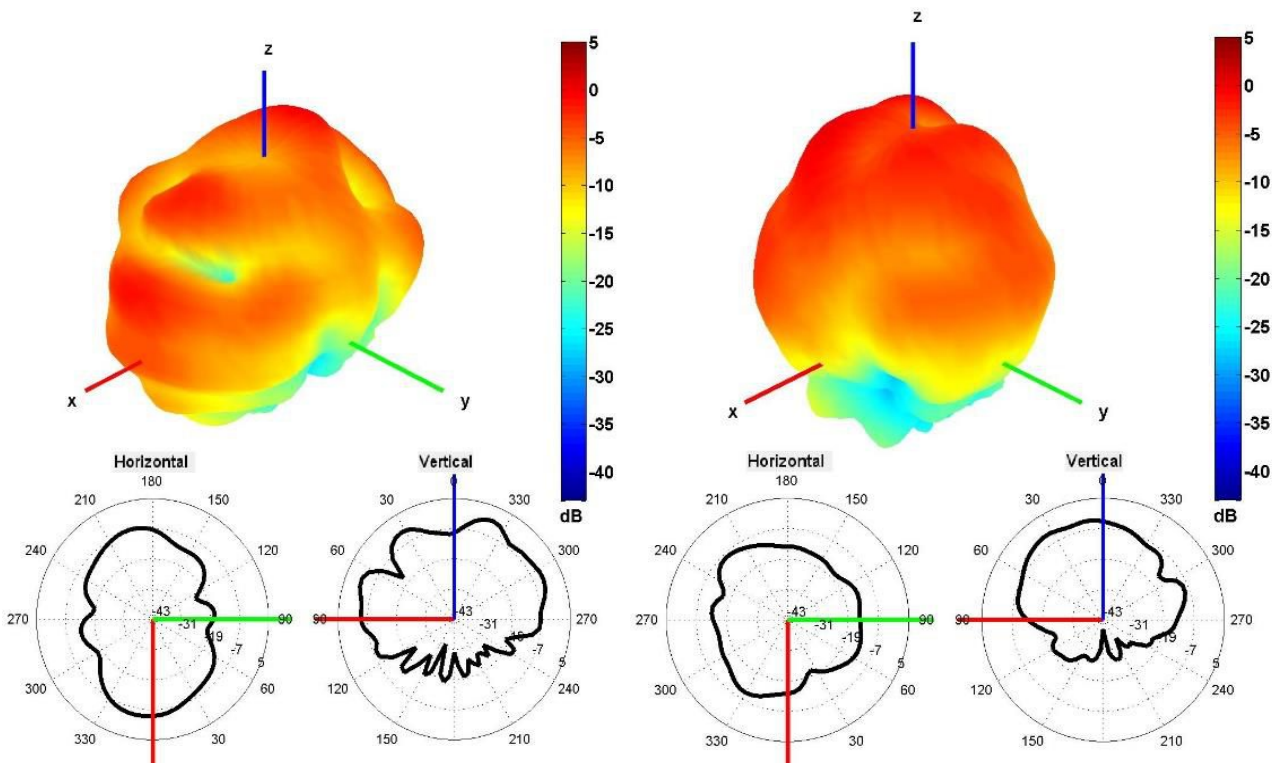


Radiation pattern reference

Cable 1: 5GNR

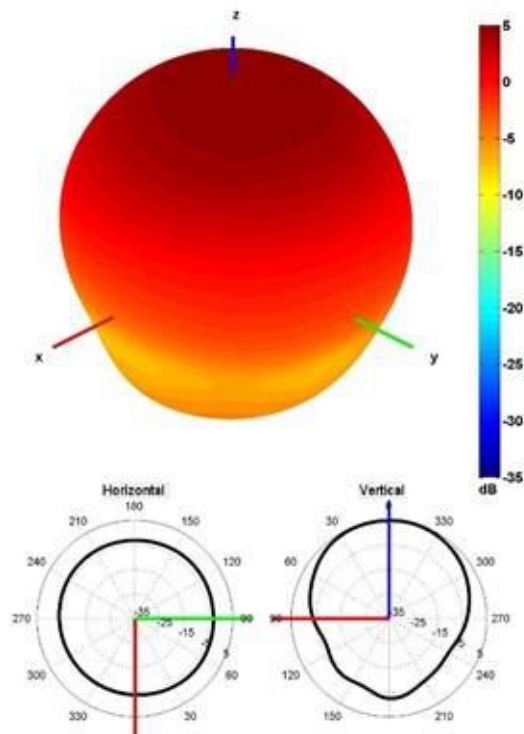


750 and 2500 MHz Radiation pattern



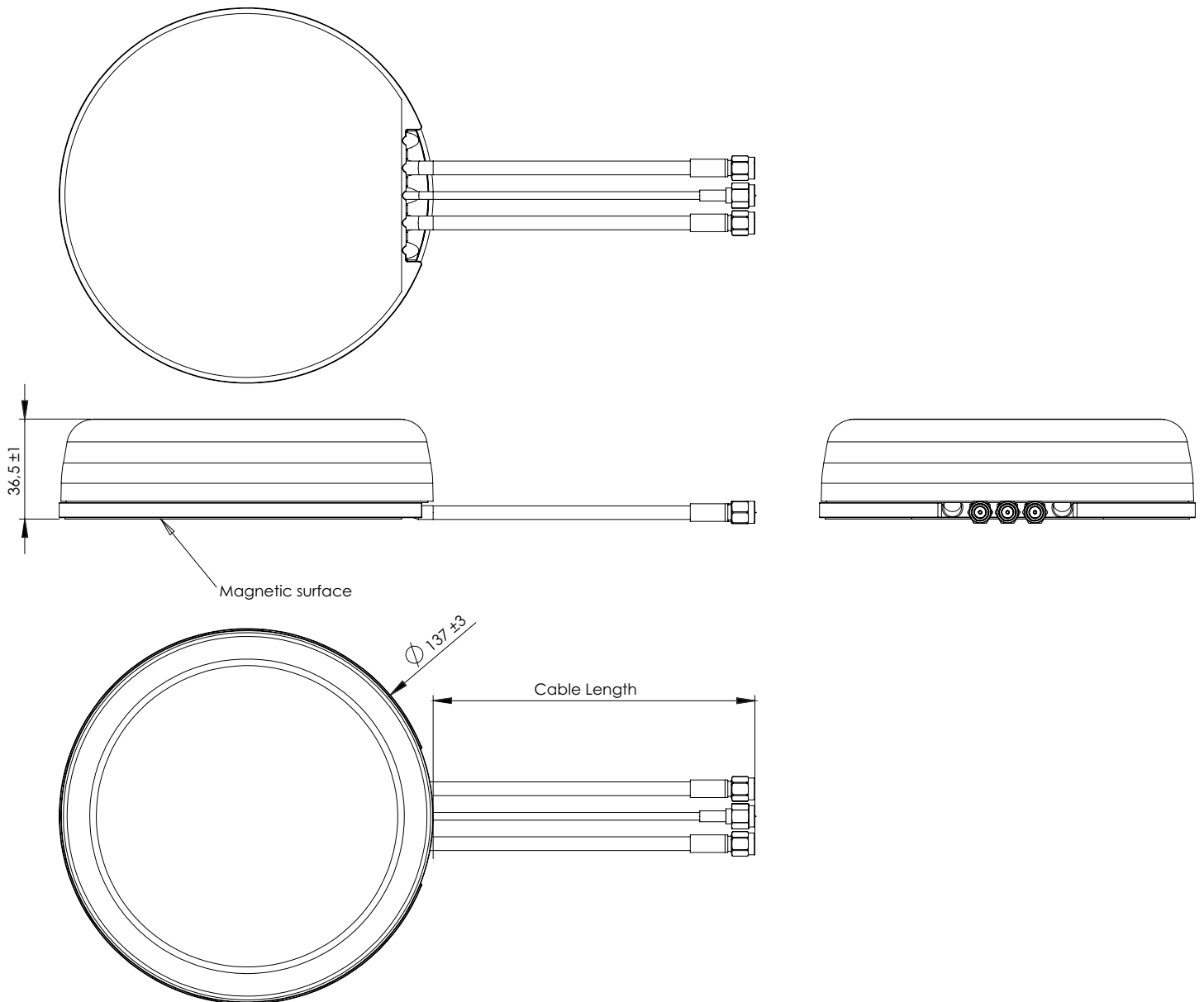
4500 and 5500 MHz Radiation pattern

Cable 3: IRIDIUM



1621 MHz Radiation pattern

## 4. Antenna drawings



**Note: Dimensions are in millimeters**

## 5. Antenna Images

