

2J6069BGF

CELLULAR/LTE, 868/915 MHz ISM and GNSS Screw Mount

Key Features

Cable 1: CELLULAR / LTE

- 698-960 MHz
- 1710-2170 MHz
- 2500-2700 MHz

Cable 2: 868/915 MHz ISM

- 863-870 MHz
- 902-928 MHz

Cable 3: GPS/GLONASS/QZSS/Galileo

- 1575-1606 MHz

Screw Mount

Ground Plane Independent

Customizable Cable and Connector

Dimensions: 80 x 74 x 14.7 mm

Certificates: IP67



Note: 19mm Thread is Default Option. See Drawing for other Thread Options available.



1. Antenna and electrical specifications

Cable 1

| Parameters | CELLULAR / LTE Antenna | | |
|-----------------------------|--|---------------------|-----------|
| Standards | 2G,3G and 4G | | |
| Band (MHz) | 700/850/900 | 1700/1800/1900/2100 | 2600 |
| Frequency (MHz) | 698-960 | 1710-2170 | 2500-2700 |
| Return Loss (dB) | ~-8.5 | ~-10.2 | ~-9.2 |
| VSWR | ~2.2:1 | ~2.1:1 | ~2.1:1 |
| Efficiency (%) | ~27.0 | ~28.8 | ~25.0 |
| Peak Gain (dBi) | ~-0.1 | ~2.5 | ~2.2 |
| Average Gain (dB) | ~-5.7 | ~-5.5 | ~-6.1 |
| 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) | | |

Cable 2

| Parameters | 868/915 MHz ISM Antenna | |
|-----------------------------|--|---------|
| Standards | ZigBee, ISM, SigFox, LoRa | |
| Band (MHz) | 868 | 915 |
| Frequency (MHz) | 863-870 | 902-928 |
| Return Loss (dB) | ~-7.8 | ~-8.7 |
| VSWR | ~2.3:1 | ~2.2:1 |
| Efficiency (%) | ~37.5 | ~44.5 |
| Peak Gain (dBi) | ~-3.3 | ~-2.1 |
| Average Gain (dB) | ~-4.2 | ~-3.5 |
| 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 x 0.25 cm Metal Plate

200 cm of Cable LL100

Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

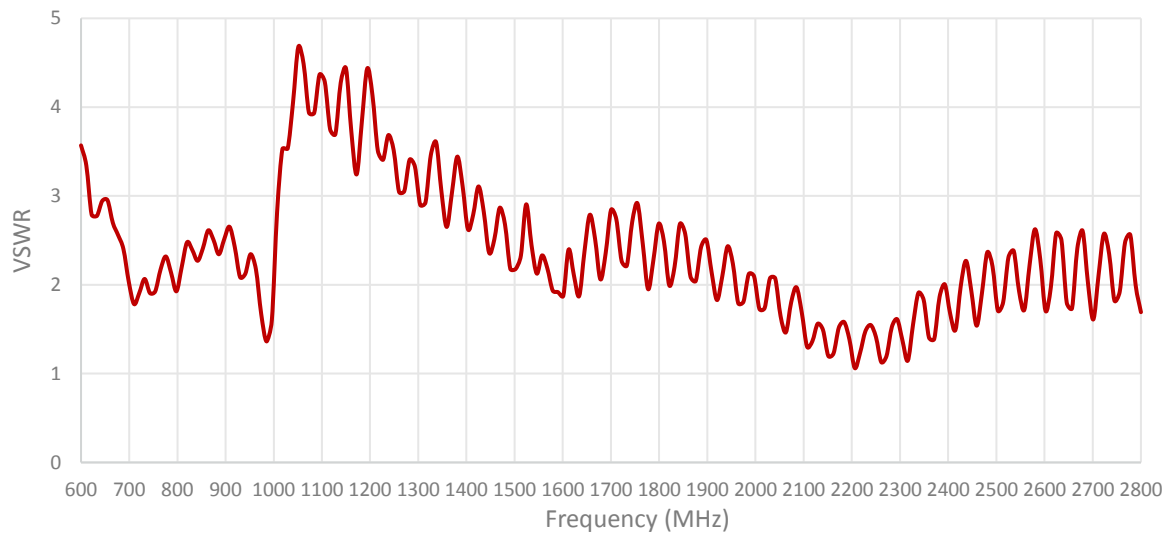
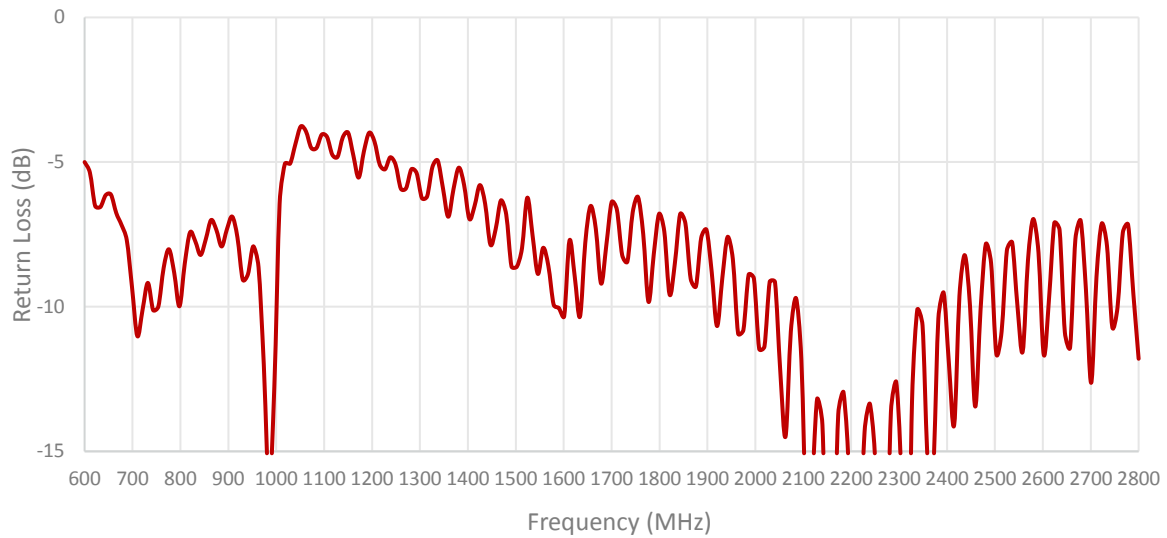
| Parameters | GPS/GLONASS Antenna | |
|-------------------------------|--|-----------|
| | GPS/QZSS/Galileo | GLONASS |
| Standard | | |
| Band (MHz) | 1575 | 1602 |
| Frequency(MHz) | 1575.42 | 1598-1606 |
| Patch Size (mm) | 25 x 25 x 4 | |
| Return Loss (dB) | <=-15.0 dB | |
| VSWR | <=1.4:1 dB | |
| Impedance | 50 | |
| Radiation Pattern | Hemispherical | |
| Polarization | RHCP | |
| Saw Filter | Pre-filter | |
| Active Gain (dB) | 28 @ 2.7 V | |
| Noise Figure (dB) | 1.5 Typ | |
| Voltage (V) | 1.5 – 3.6 | |
| Current (mA) | 9 Typ | |
| Power Consumption (mW) | 24.3 Typ | |
| ESD Protection (kV) | 2kV | |
| Connector Type | SMA-Male Standard (Other Connectors Available) | |
| Cable Length | 300 cm Standard (Any Cable Length Available) | |
| Cable Type | LL100 Standard (Other Cables Available) | |

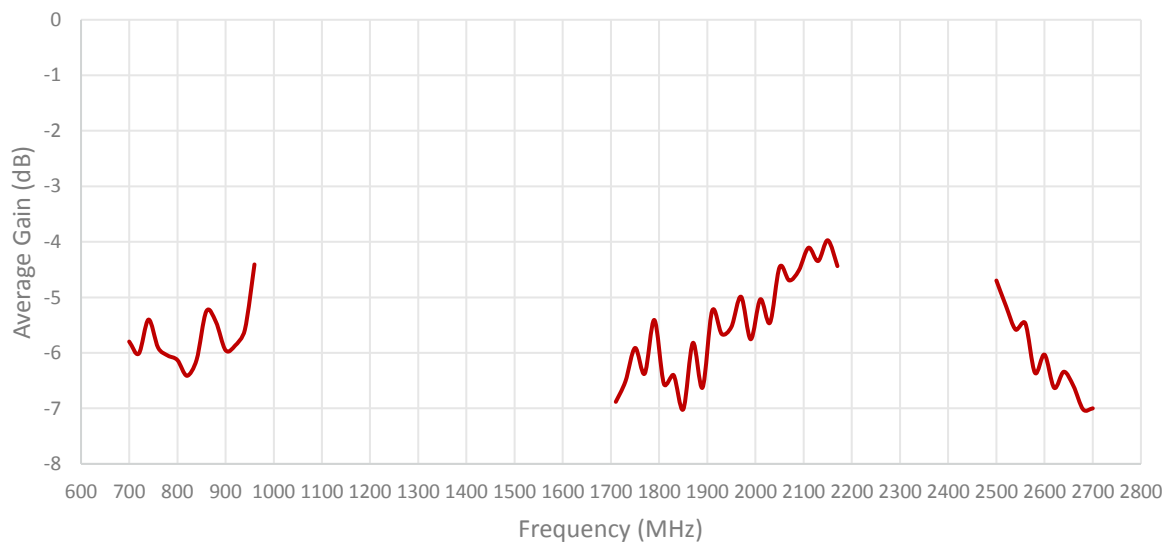
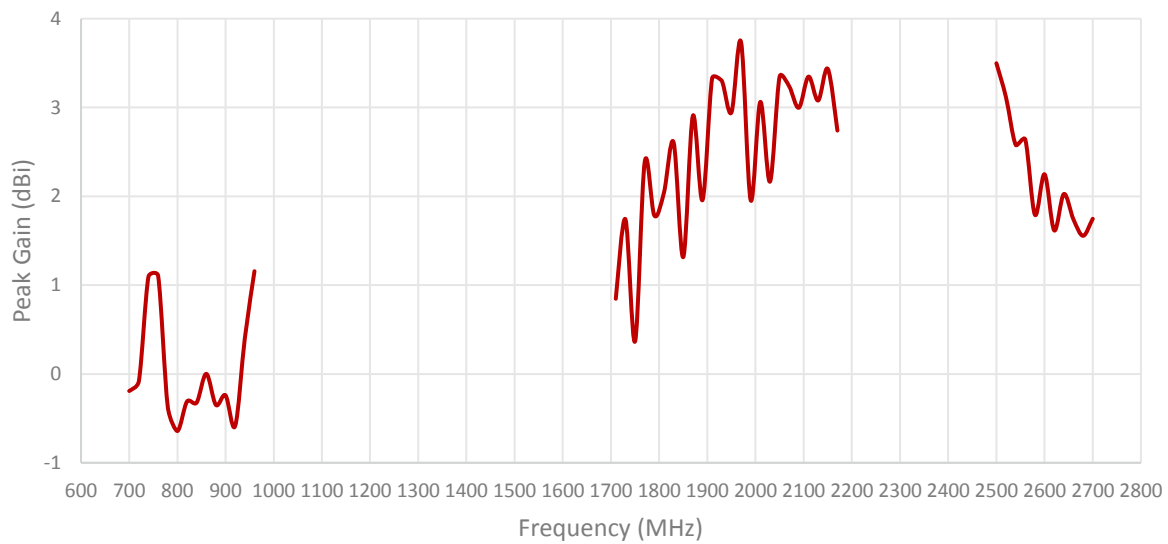
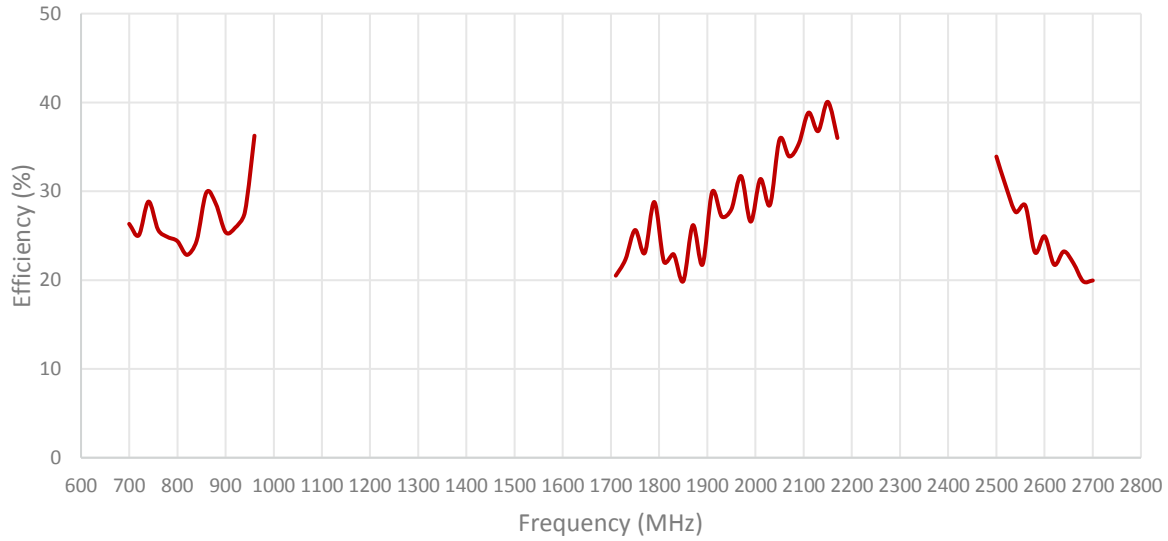
2. Mechanical and environmental specifications

| Specifications | 2J6069BGF |
|----------------------------------|----------------|
| Mounting Type | Screw Mount |
| Dimensions (mm) | 80 x 74 x 14.7 |
| Radome Type | ABS |
| Radome Color | Black |
| Operating Temperature (C) | -40 to +85 |
| Storage Temperature (C) | -40 to +85 |
| Substance Compliance | RoHS |
| Certificates | IP67 |

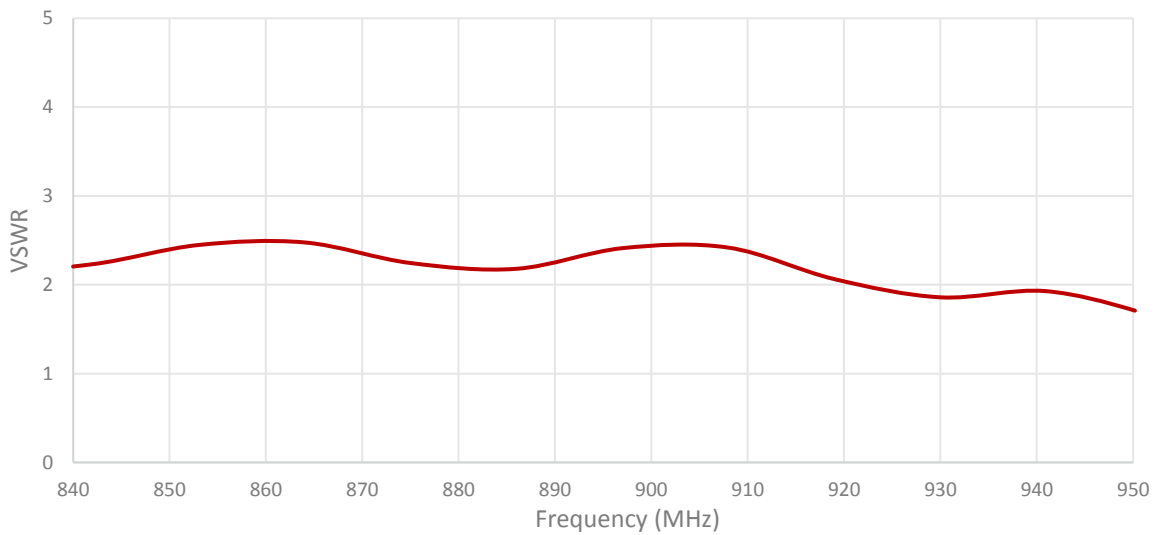
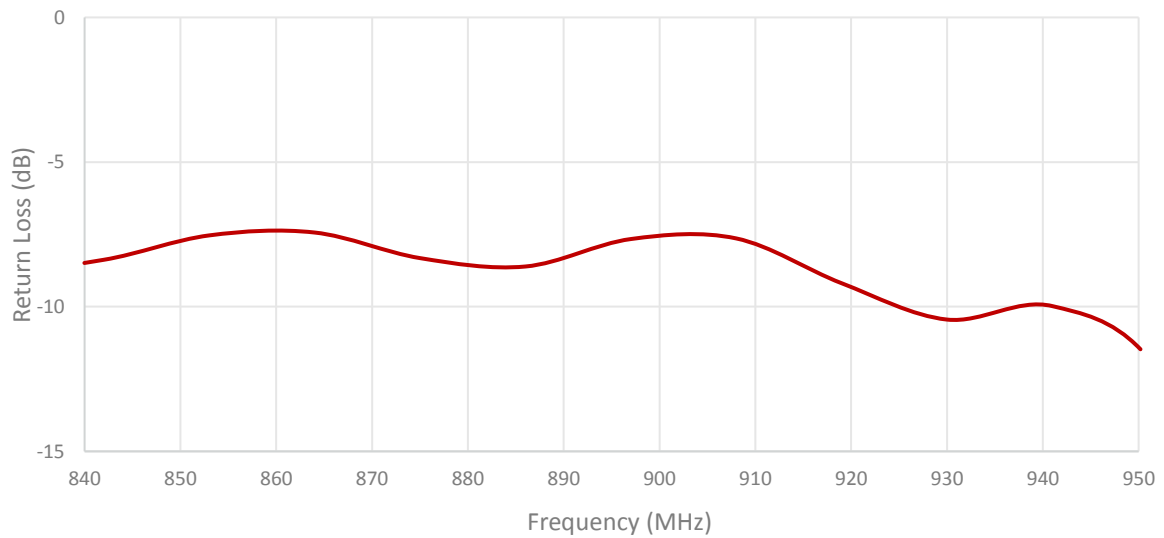
3. Antenna parameters

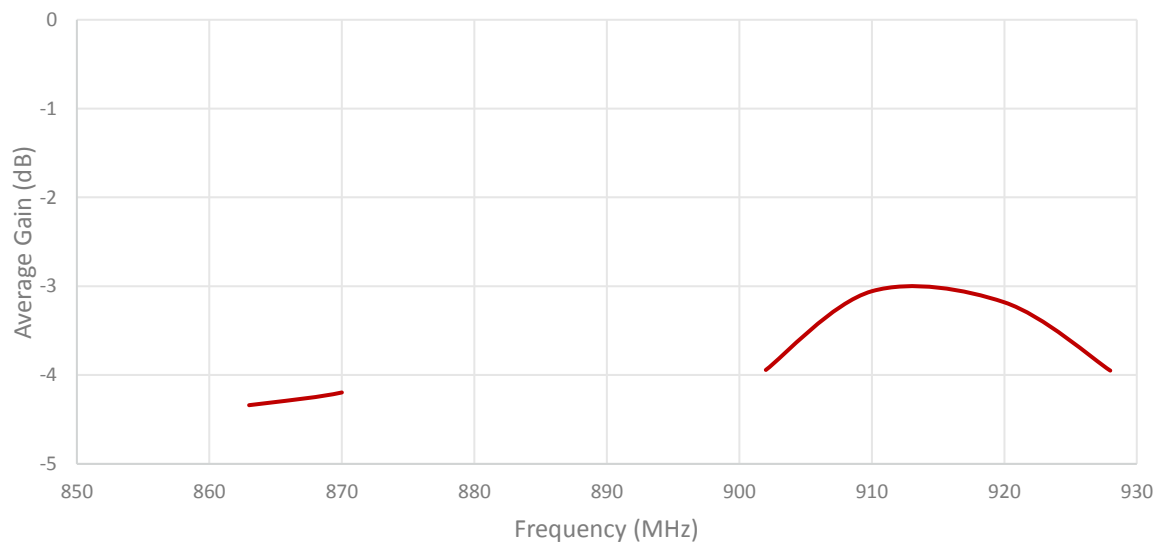
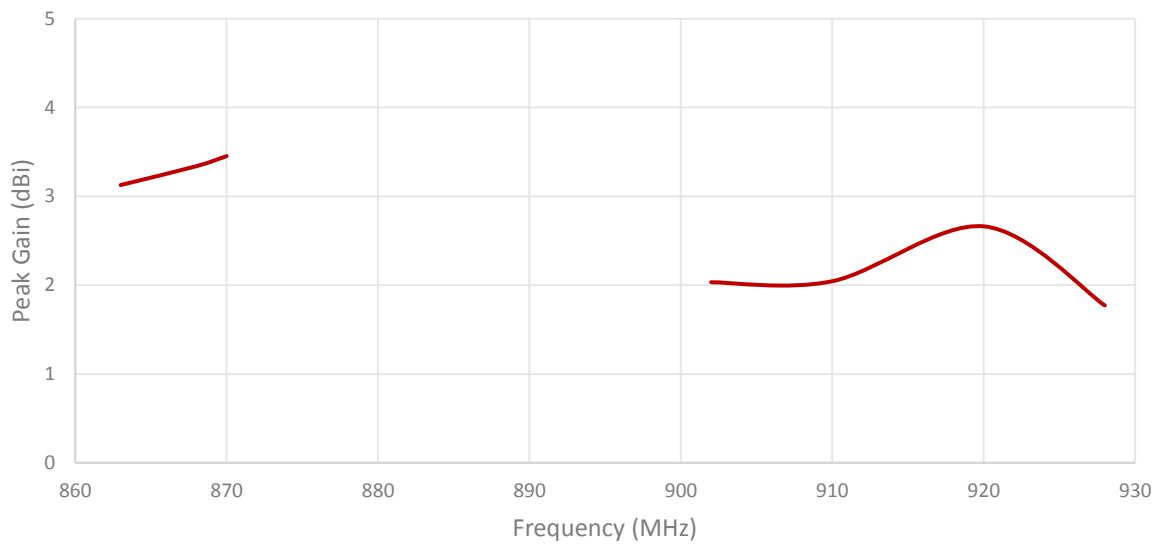
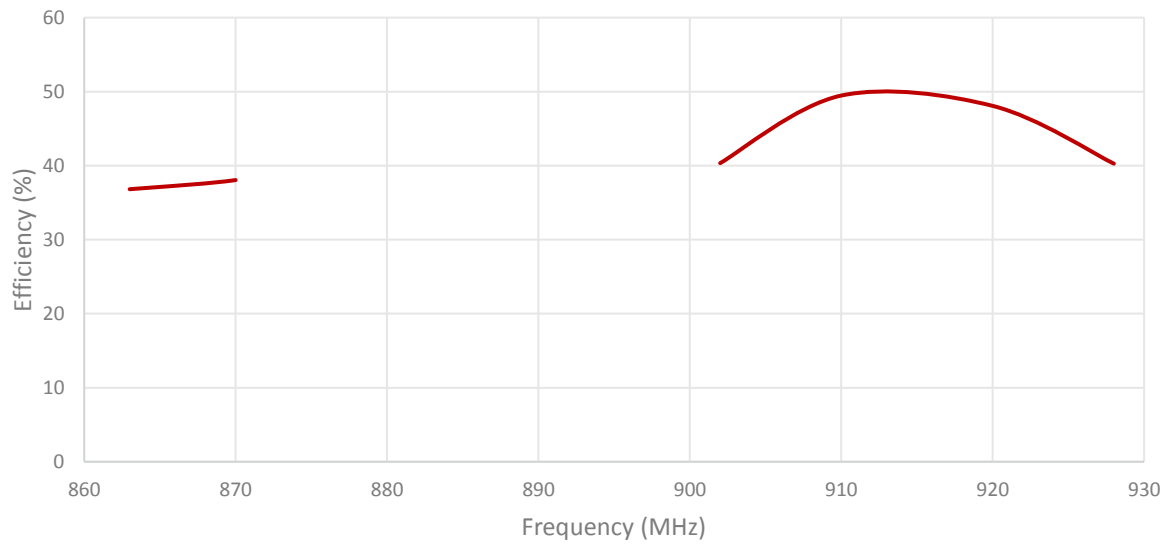
Cable 1: CELLULAR/LTE

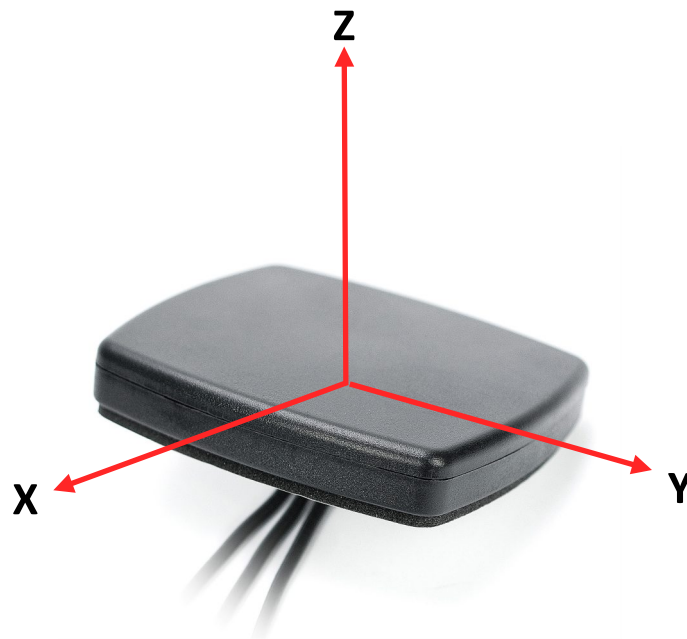




Cable 2: 868/915 MHz ISM

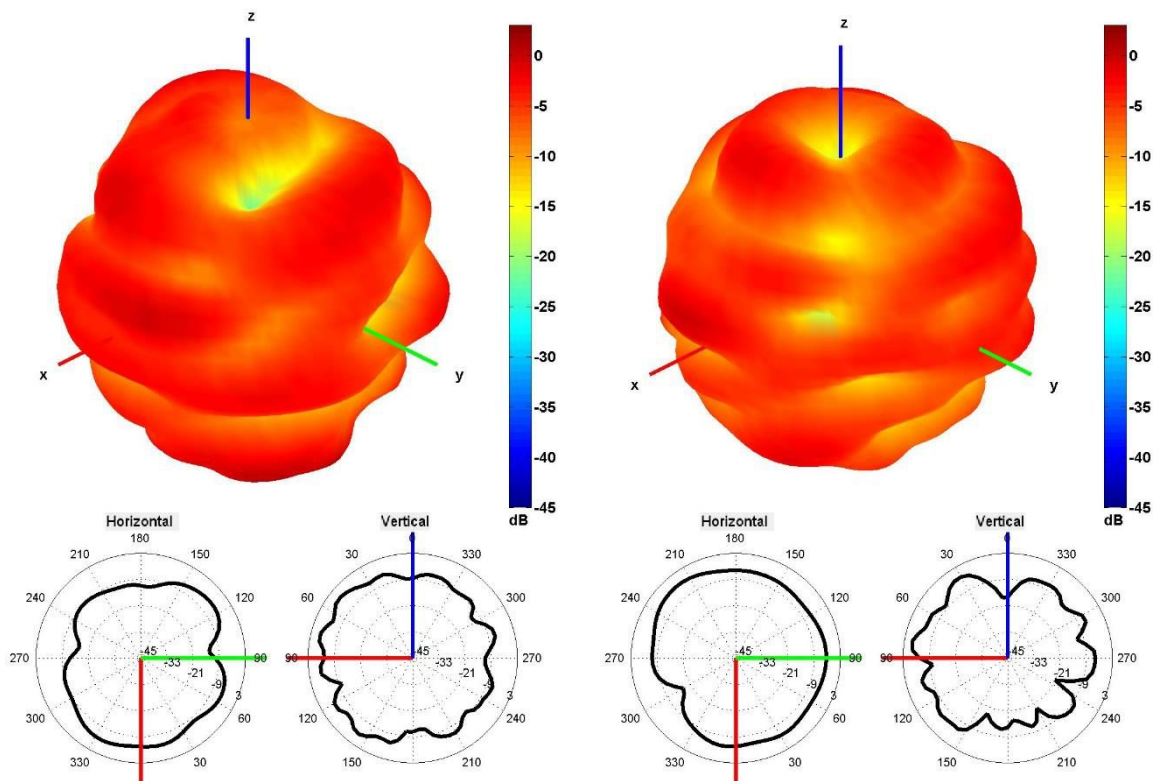




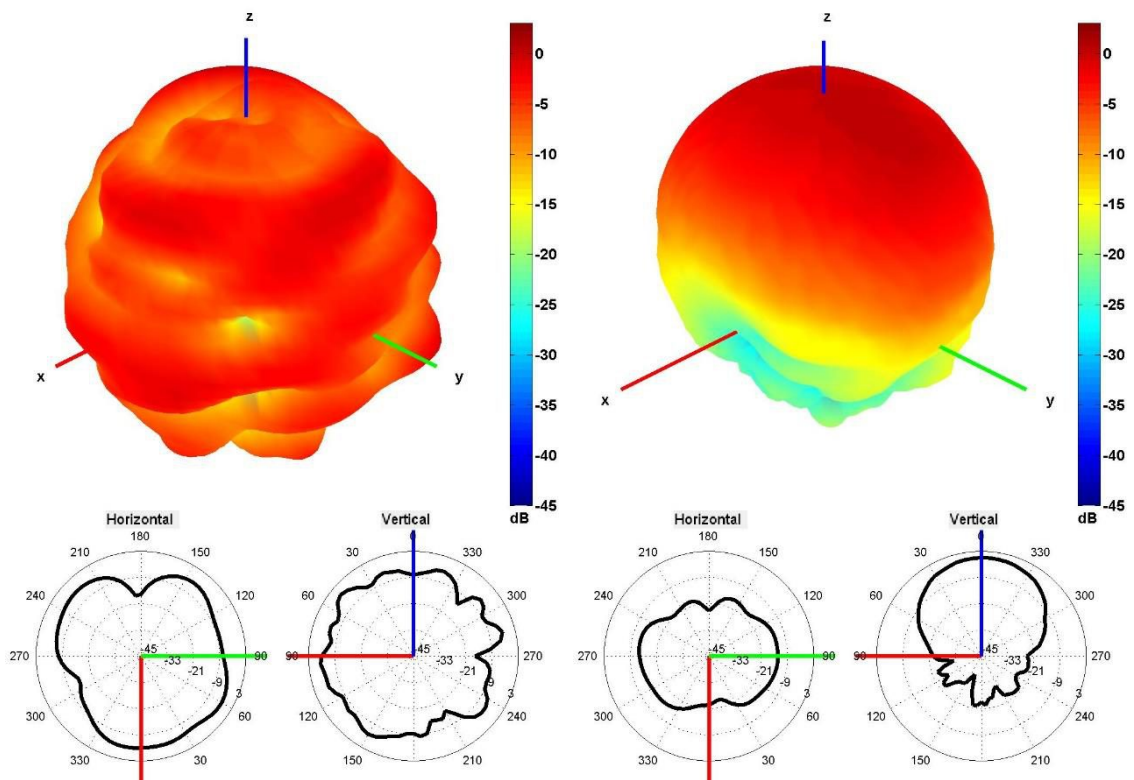


Radiation pattern reference

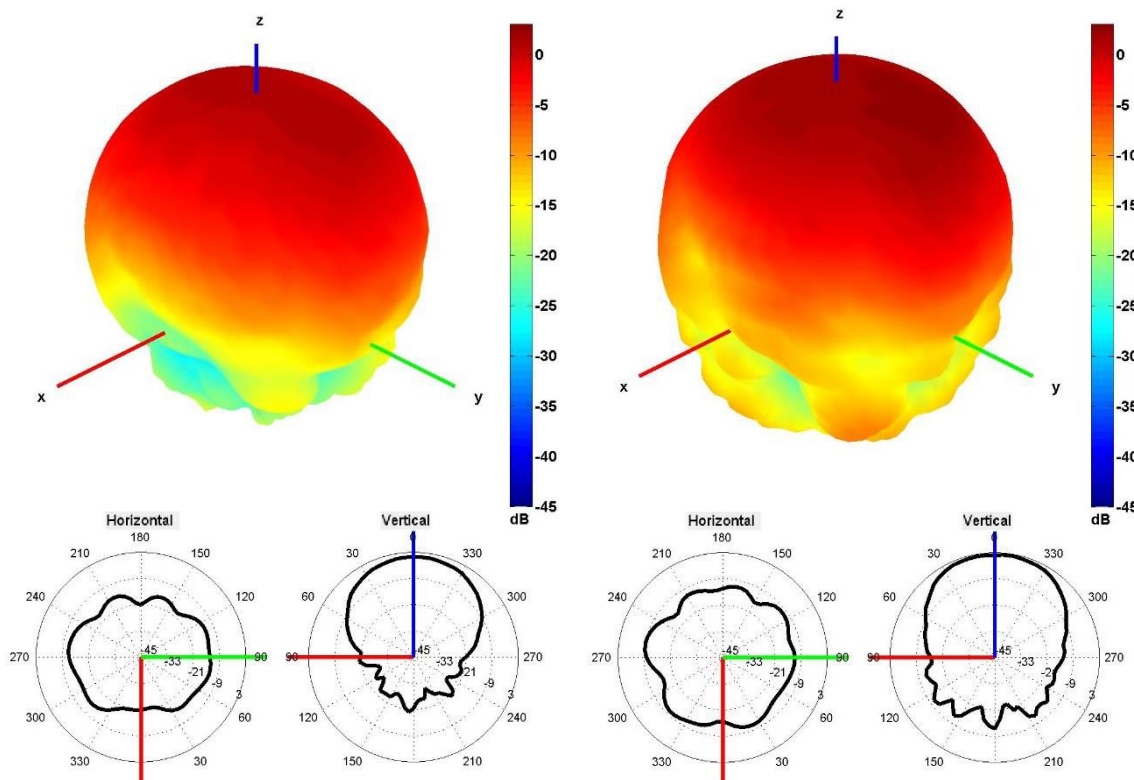
Cable 1: CELLULAR/LTE



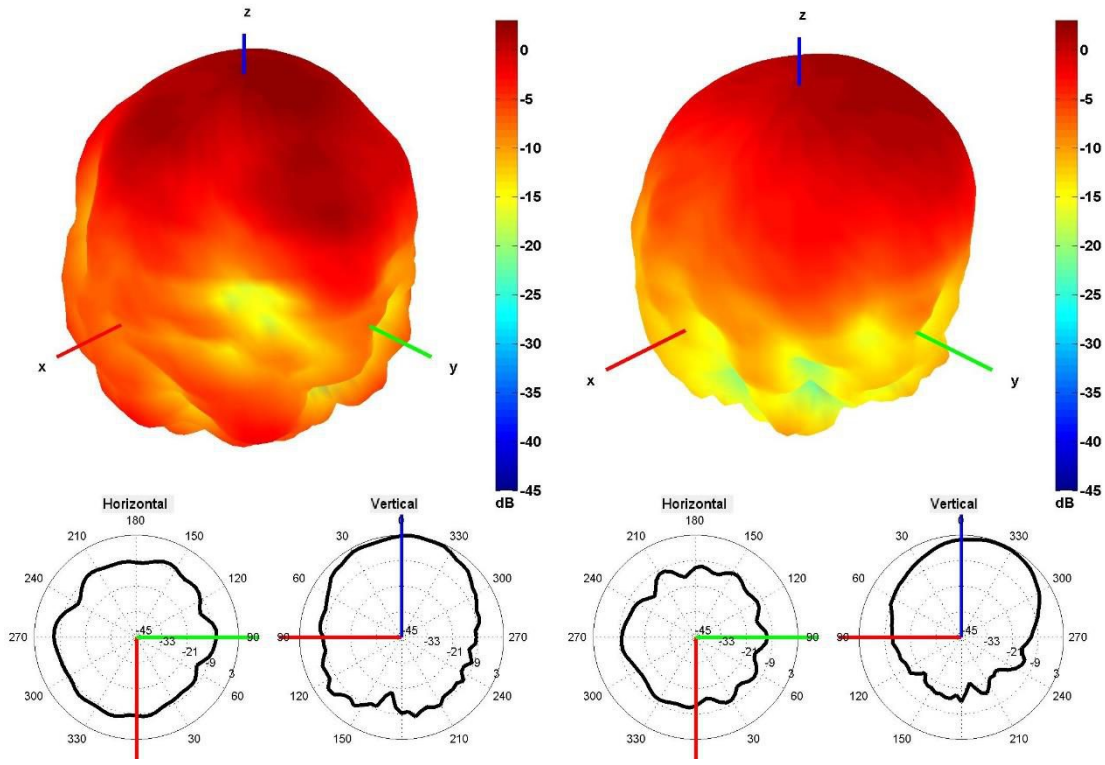
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

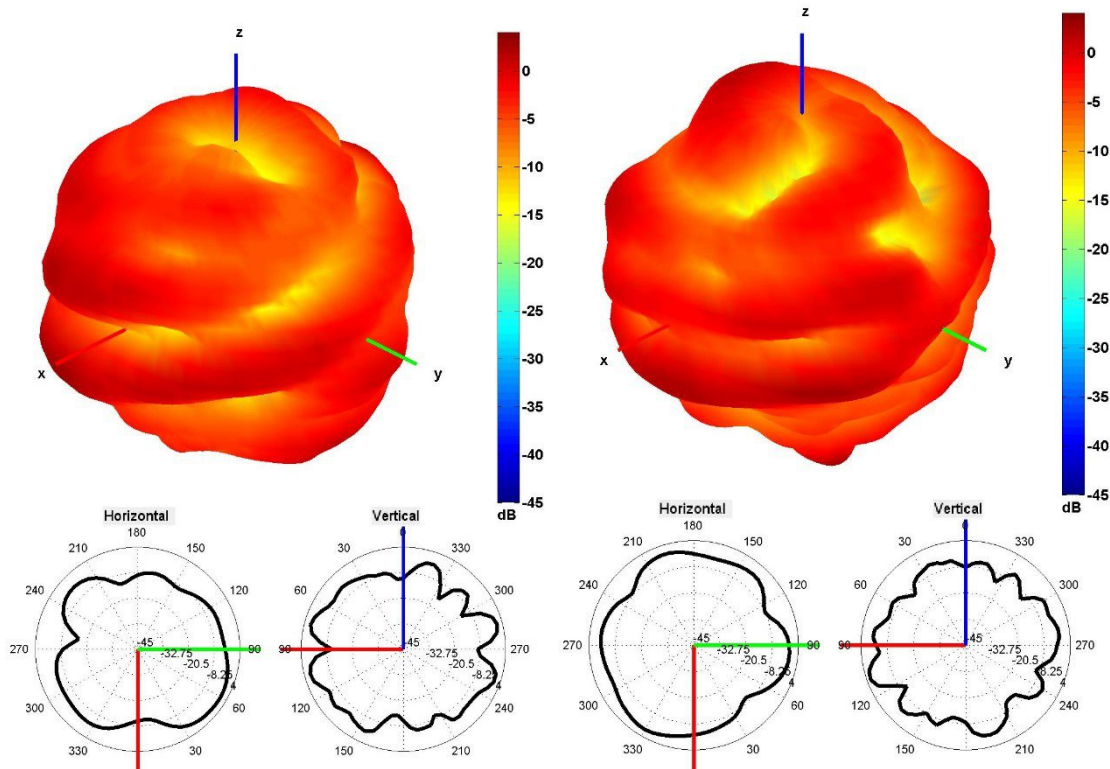


1850 and 1950 MHz Radiation pattern



2100 and 2600 MHz Radiation pattern

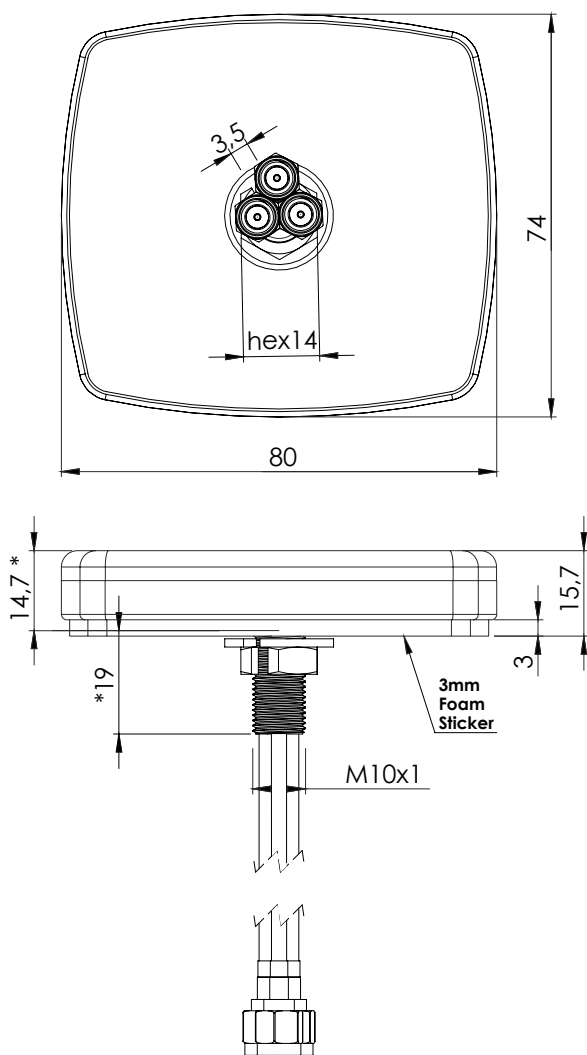
Cable 2: 868/915 MHz ISM



868 and 915 MHz Radiation pattern

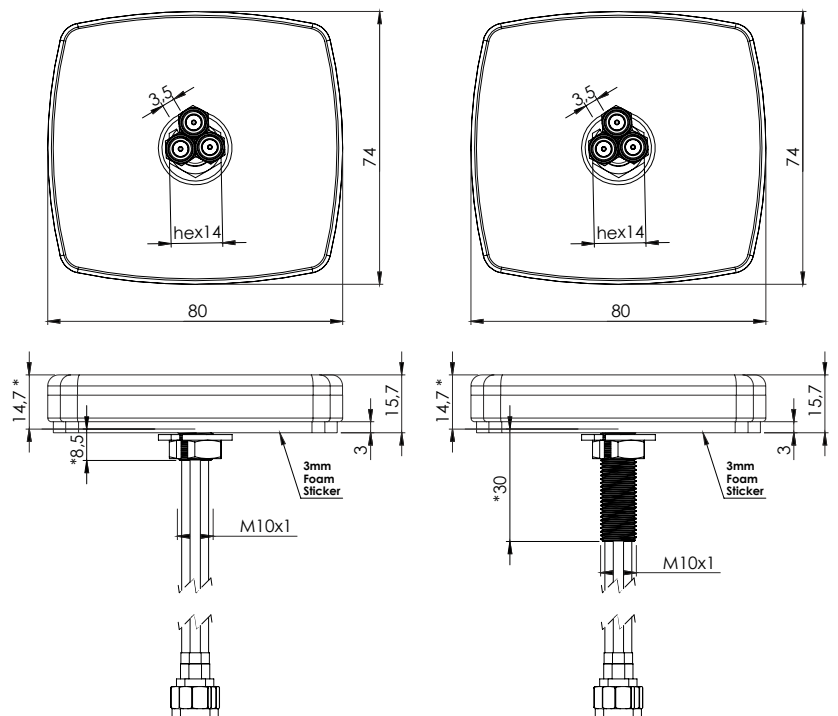
4. Antenna drawings

Default Thread Option



2J6069BGF-TH19
19 mm Thread
Default Option

Other Thread Options available



2J6069BGF-TH8,5
8,5 mm Thread

2J6069BGF-TH30
30 mm Thread

***Dimensions after mounting**

5. Antenna Images

