

2J6A50BGF

CELLULAR/LTE, 2.4/5.0 GHz ISM and GNSS Screw Mount

Key Features

Cable 1: CELLULAR / LTE

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

Cable 2: 2.4/5.0 GHz ISM

- 2410-2490 MHz
- 4920-5925 MHz

Cable 3: GPS/GLONASS/QZSS/Galileo

- 1575-1606 MHz

Screw Mount

Anti-Rotation Mechanism

Ground Plane Dependent

Customizable Cable and Connector

Dimensions: Ø 77.3 x 65.5 mm

Certificates: IP67, IK09, IP69K



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) | ~-10.3 | ~-14.8 | ~-15.1 |
| VSWR | ~2.1:1 | ~1.5:1 | ~1.5:1 |
| Efficiency (%) | ~52 | ~62 | ~50 |
| Peak Gain (dBi) | ~-0.7 | ~3.4 | ~4.0 |
| Average Gain (dB) | ~-2.9 | ~-2.1 | ~-3.0 |
| 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 | DACAR302 Standard (Other Cables Available) | | |

Cable 2

| Parameters | 2.4/5.0 GHz ISM Antenna | |
|-----------------------------|---|-----------|
| Standards | WiFi, BT, ZigBee, ISM | |
| Band (MHz) | 2.4 GHz | 5.0 GHz |
| Frequency (MHz) | 2410-2490 | 4920-5925 |
| Return Loss (dB) | ~-20.2 | ~-11.1 |
| VSWR | ~1.2:1 | ~1.8:1 |
| Efficiency (%) | ~60.5 | ~38.4 |
| Peak Gain (dBi) | ~-5.0 | ~-3.9 |
| Average Gain (dB) | ~-2.2 | ~-4.2 |
| Impedance (Ohm) | 50 | |
| Polarisation | Linear | |
| Radiation Pattern | Omni-Directional | |
| Max. Input Power (W) | 25 | |
| Connector Type | RP-SMA-Male Standard (Other Connectors Available) | |
| Cable Length | 300 cm Standard (Any Cable Length Available) | |
| Cable Type | DACAR302 Standard (Other Cables Available) | |

Antenna Measurement Conditions:

Mounted on 30 x 30 cm Ground Plane
 DACAR302 200 cm Cable Length
 Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

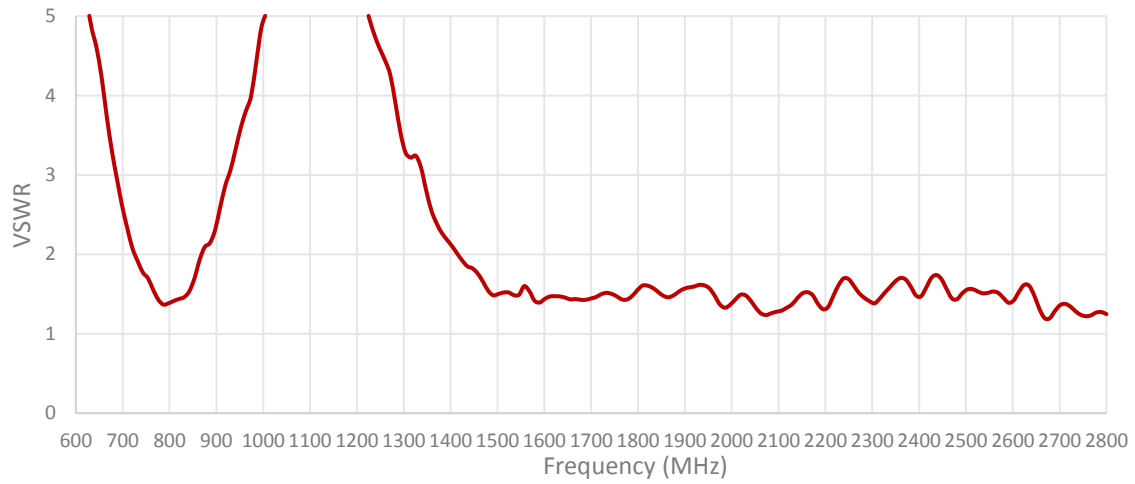
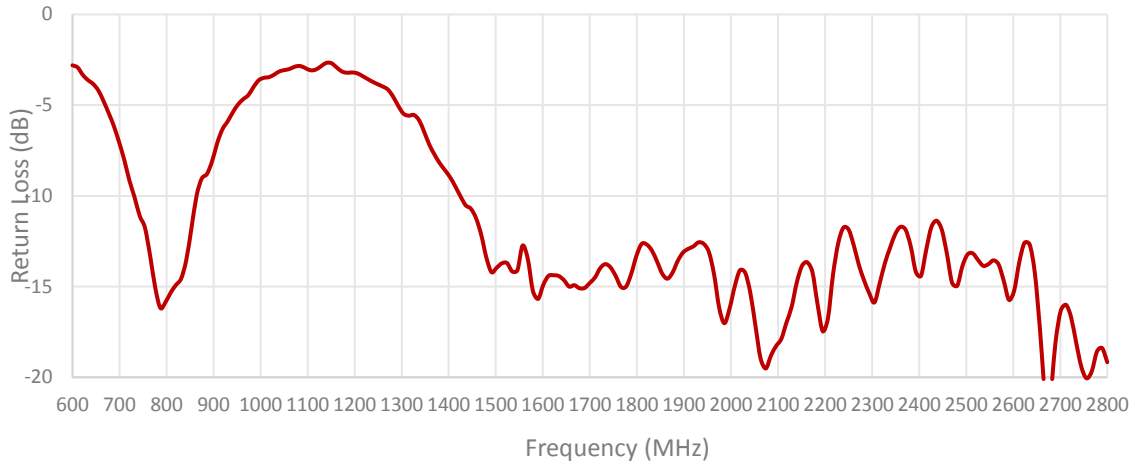
| Parameters | GPS/GLONASS Antenna | |
|-------------------------------|--|-----------|
| | GPS/QZSS/Galileo | GLONASS |
| Standard | | |
| Band (MHz) | 1575 | 1602 |
| Frequency(MHz) | 1575.42 | 1598-1606 |
| Patch Size (mm) | 25 x 25 x 4 | |
| Return Loss (dB) | <= -15.0 dB | |
| VSWR | <= 1.4:1 dB | |
| 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 | LMR100 Standard (Other Cables Available) | |

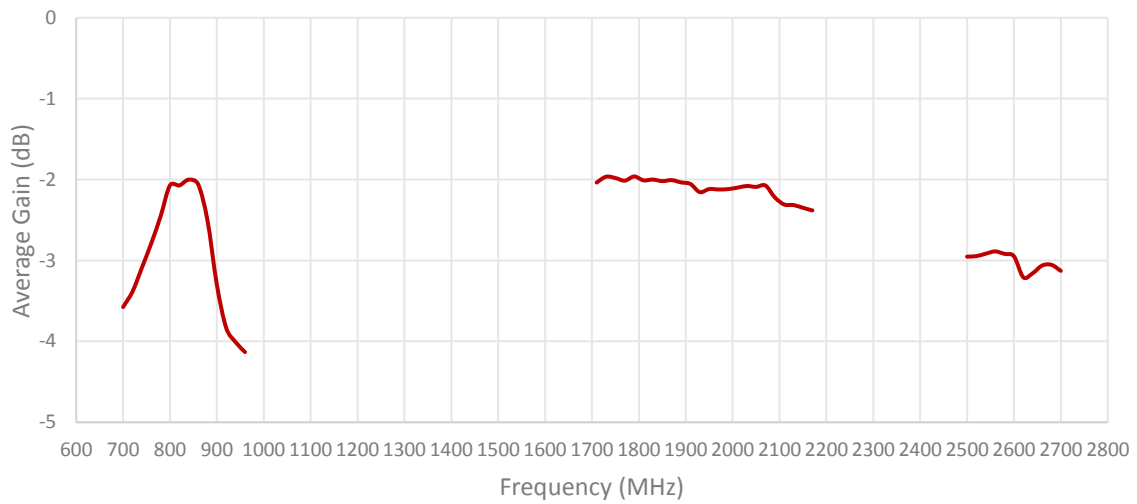
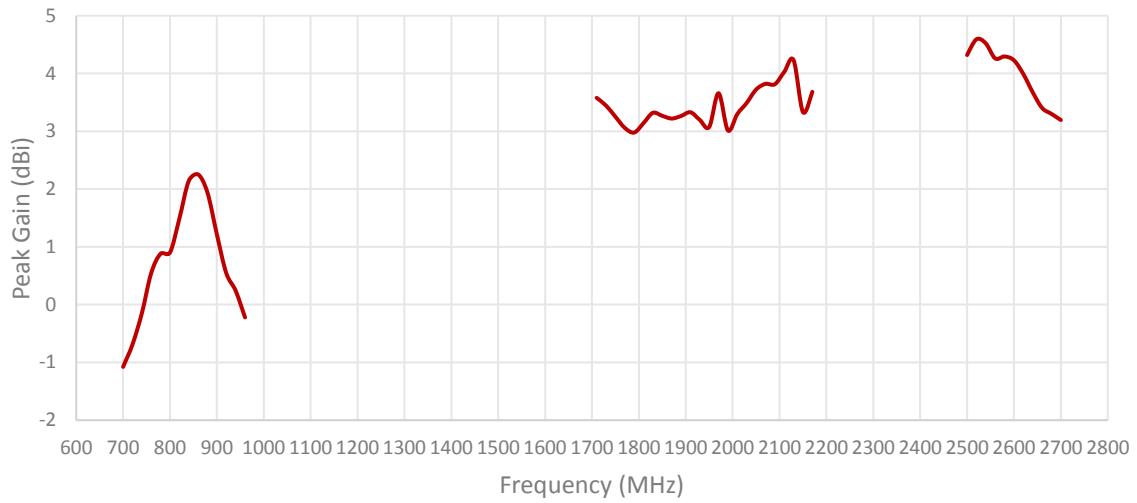
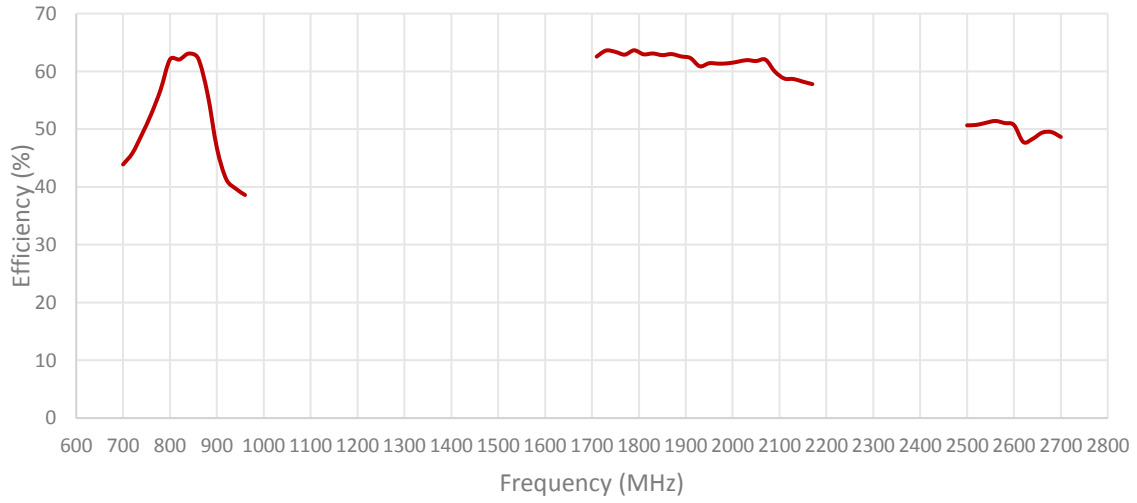
2. Mechanical and environmental specifications

| Specifications | 2J6A50BGF |
|----------------------------------|-------------------|
| Mounting Type | Screw Mount |
| Dimensions (mm) | Ø 77.3 x 65.5 |
| Max. Tighten Torque (Nm) | 6 Nm |
| Radome Type | PC/ABS UV Stable |
| Radome Color | Black or White |
| Antenna Base | Zamak |
| Gasket | TPE |
| Operating Temperature (C) | -40 to +85 |
| Storage Temperature (C) | -40 to +85 |
| Substance Compliance | RoHS |
| Certificates | IP67, IK09, IP69K |

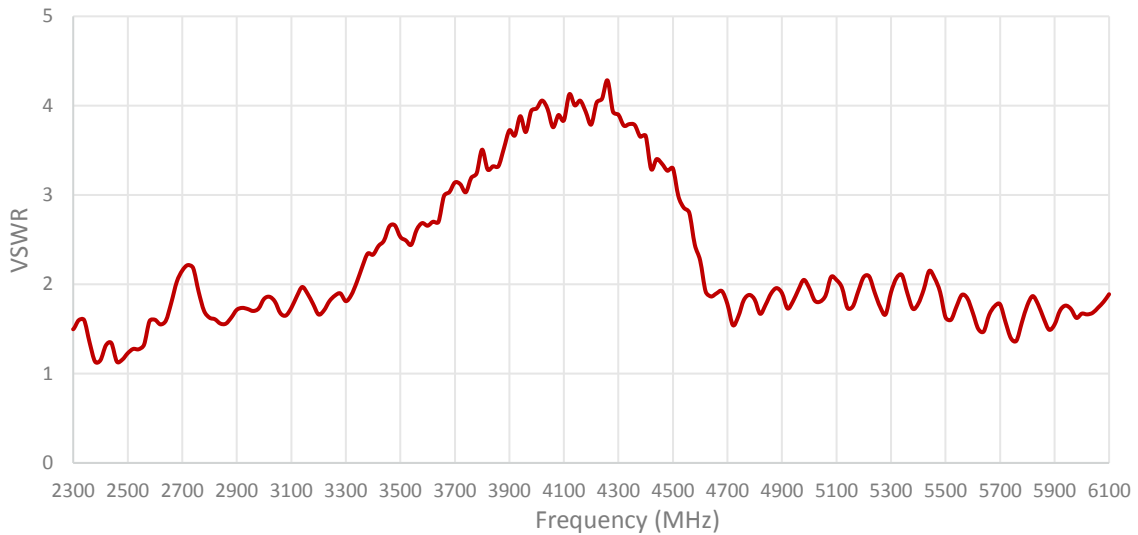
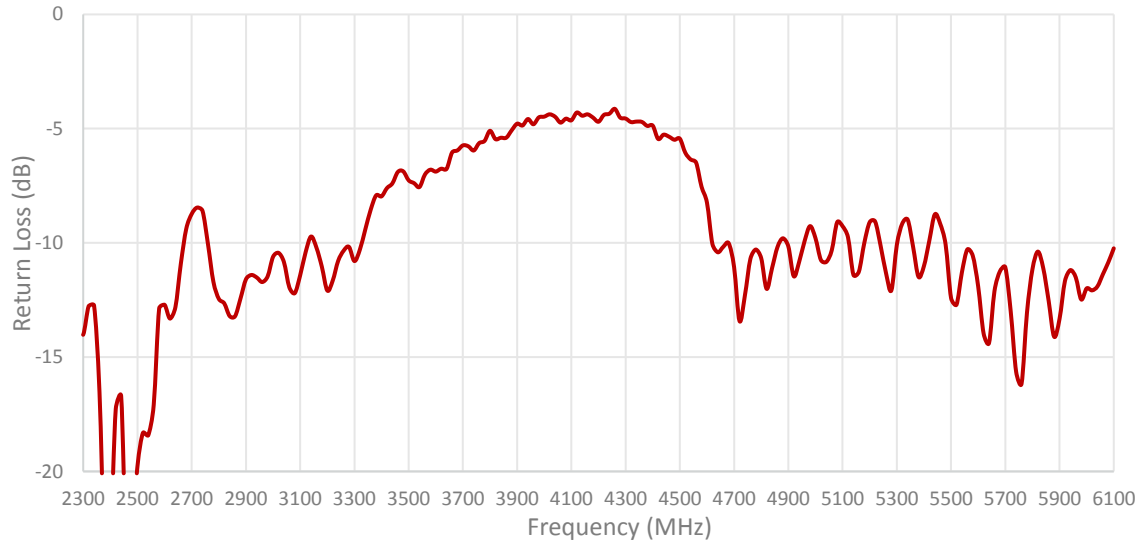
3. Antenna parameters

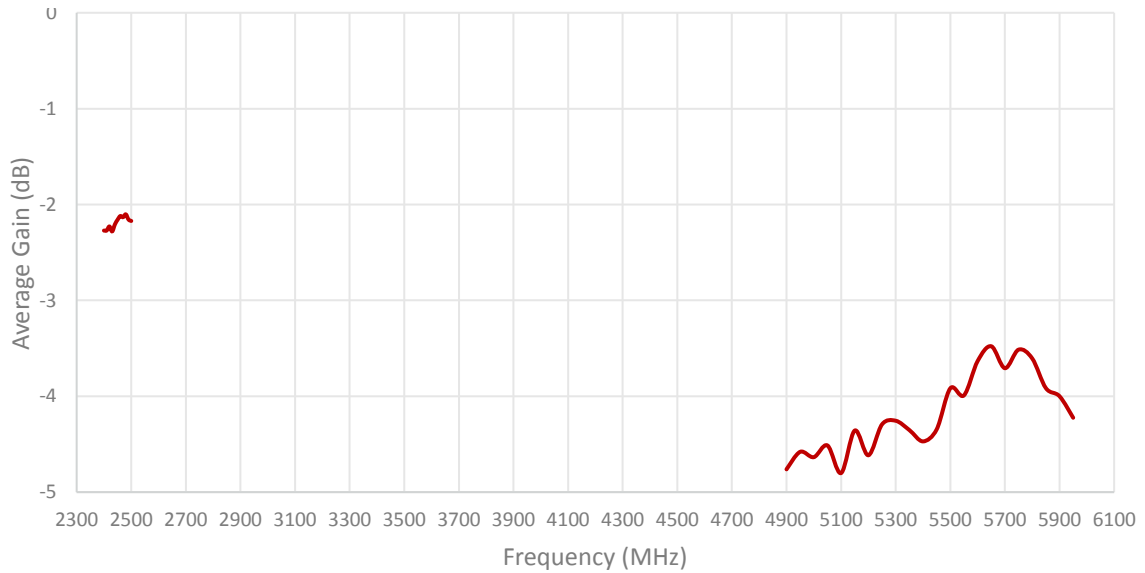
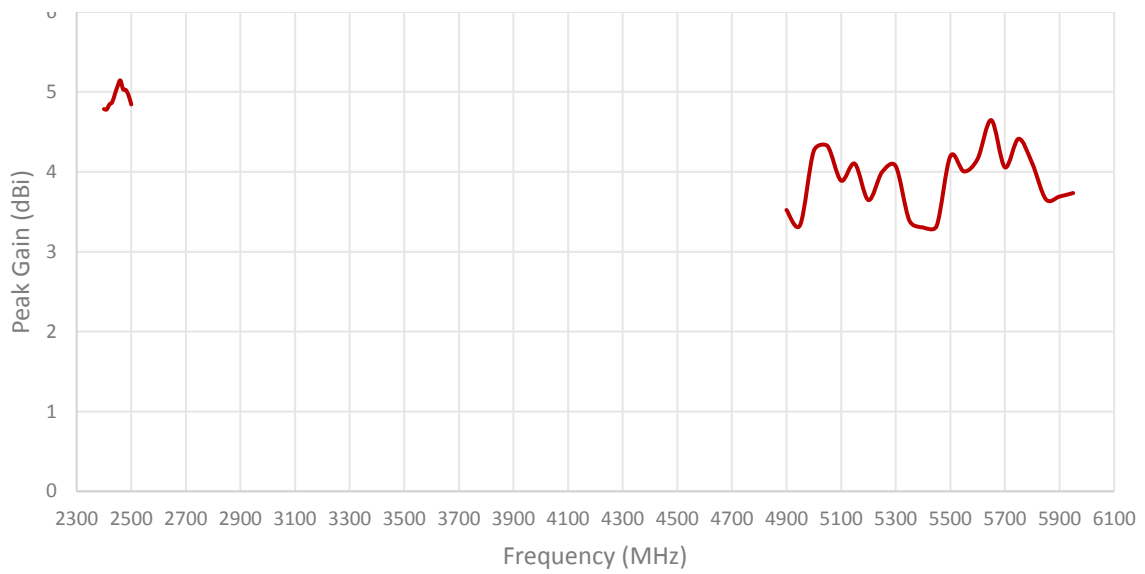
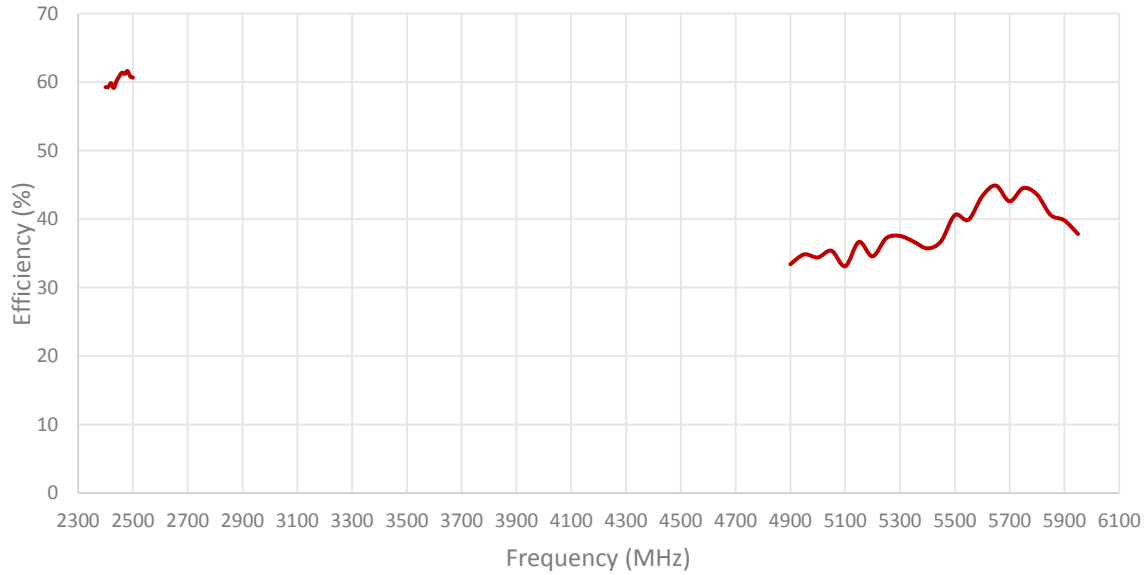
Table 1: CELLULAR/LTE

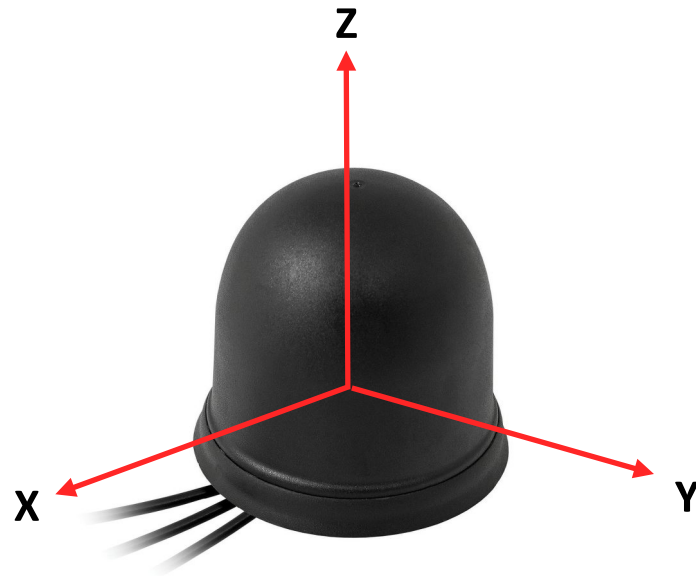




Cable 2: 2.4/5.0 GHz ISM

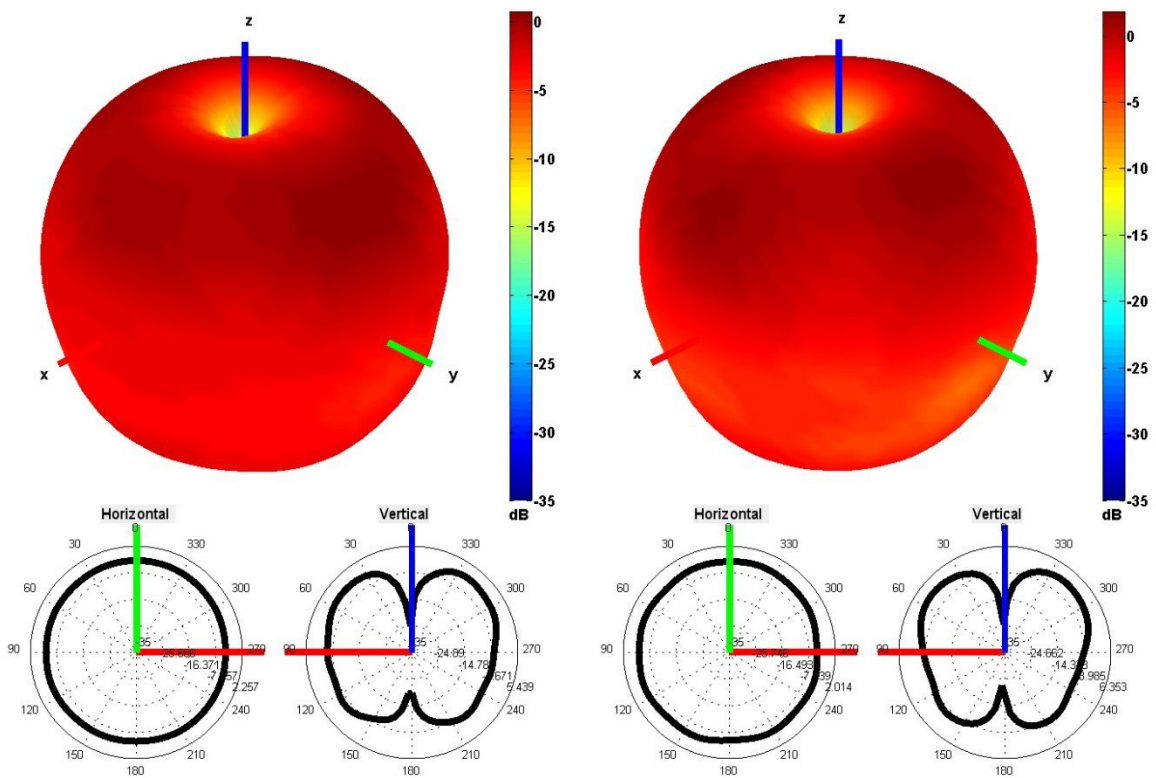




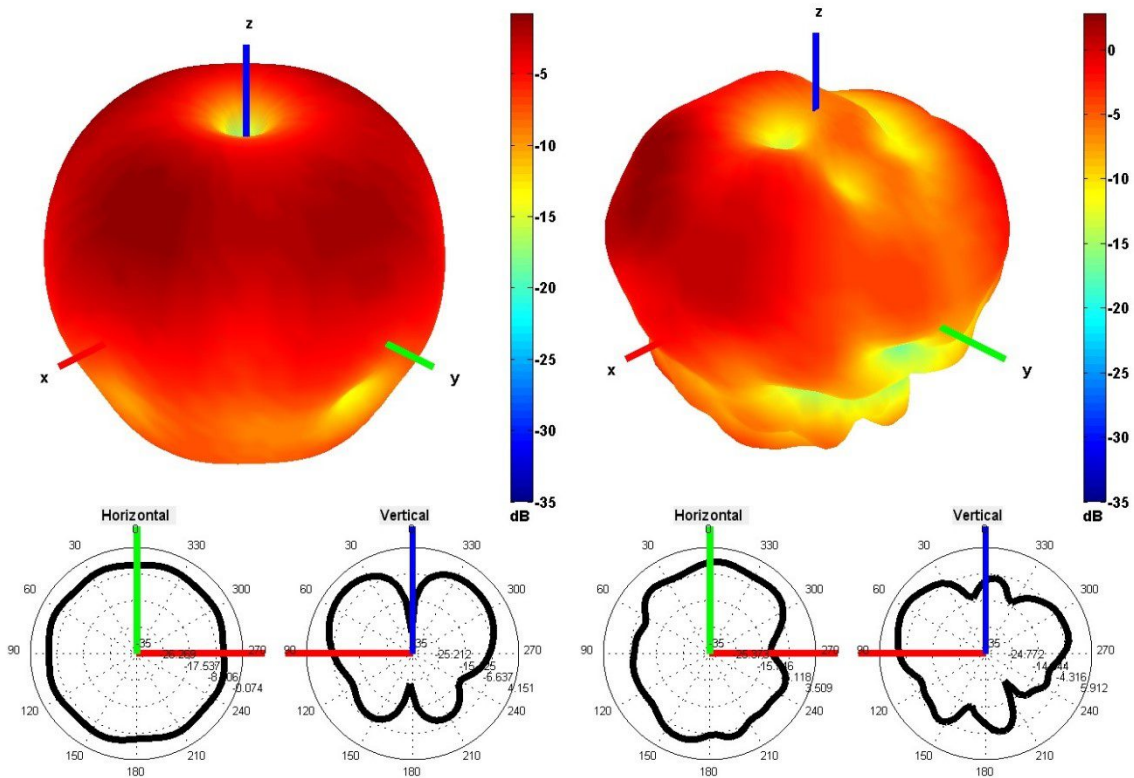


Radiation pattern reference

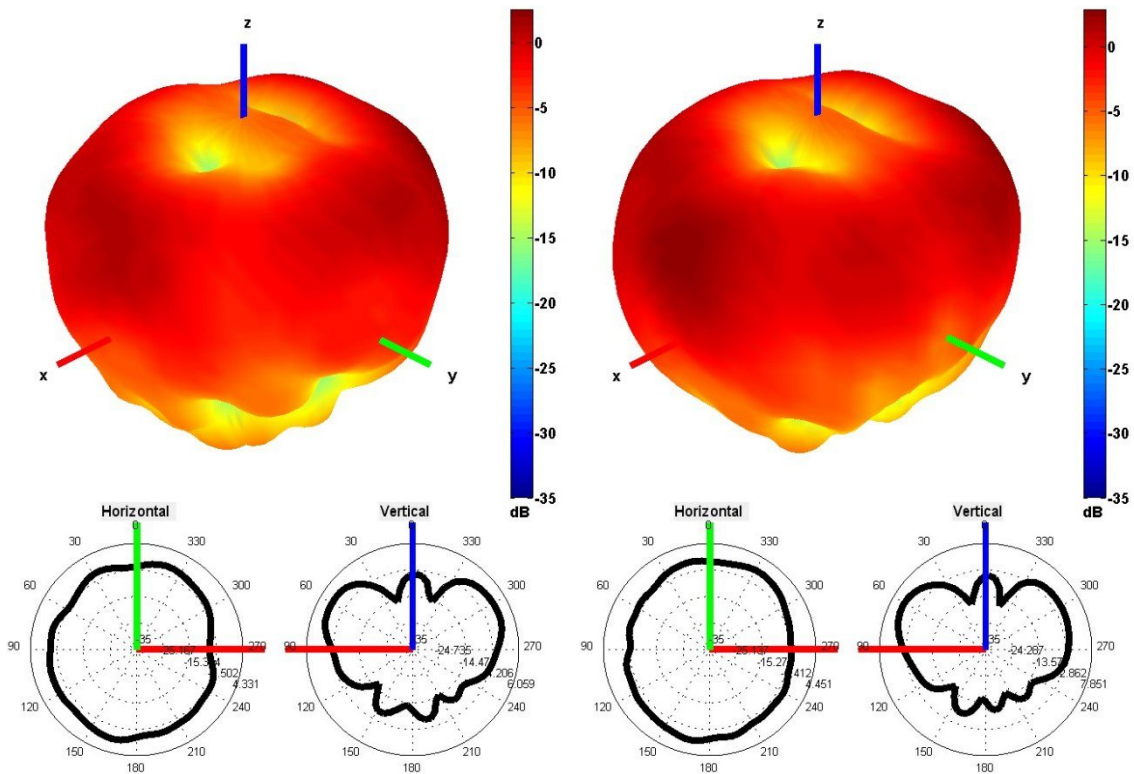
Table 1: CELLULAR/LTE



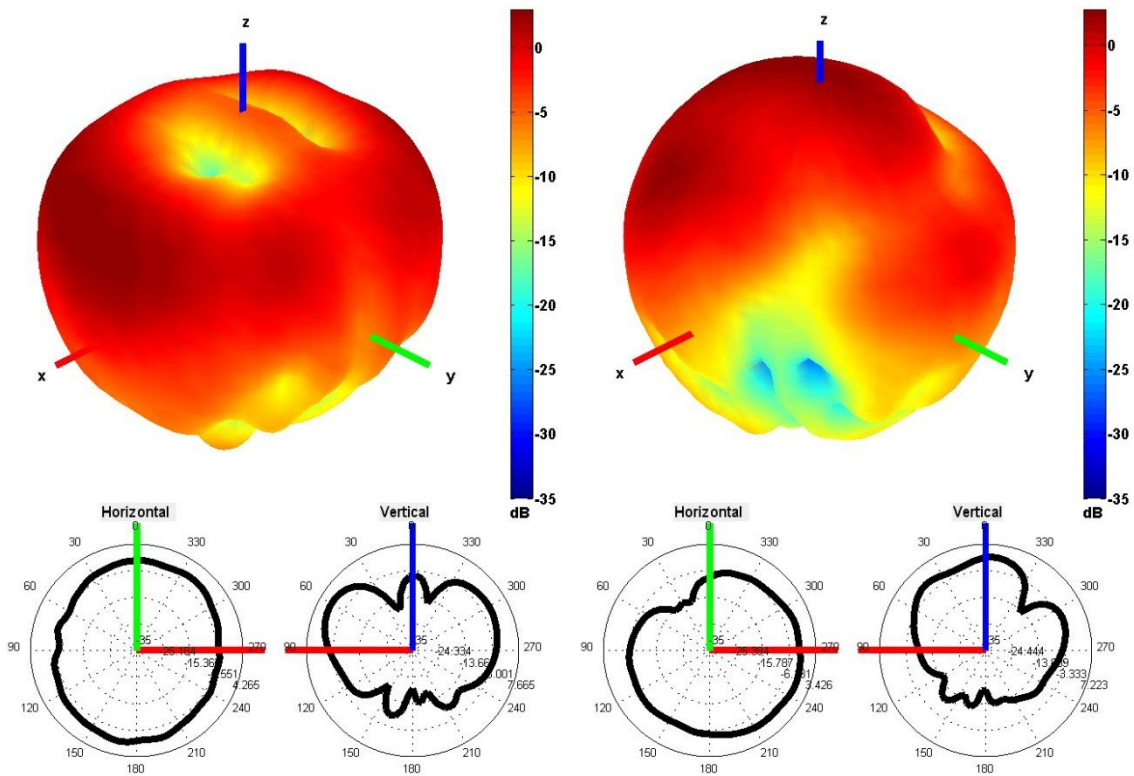
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

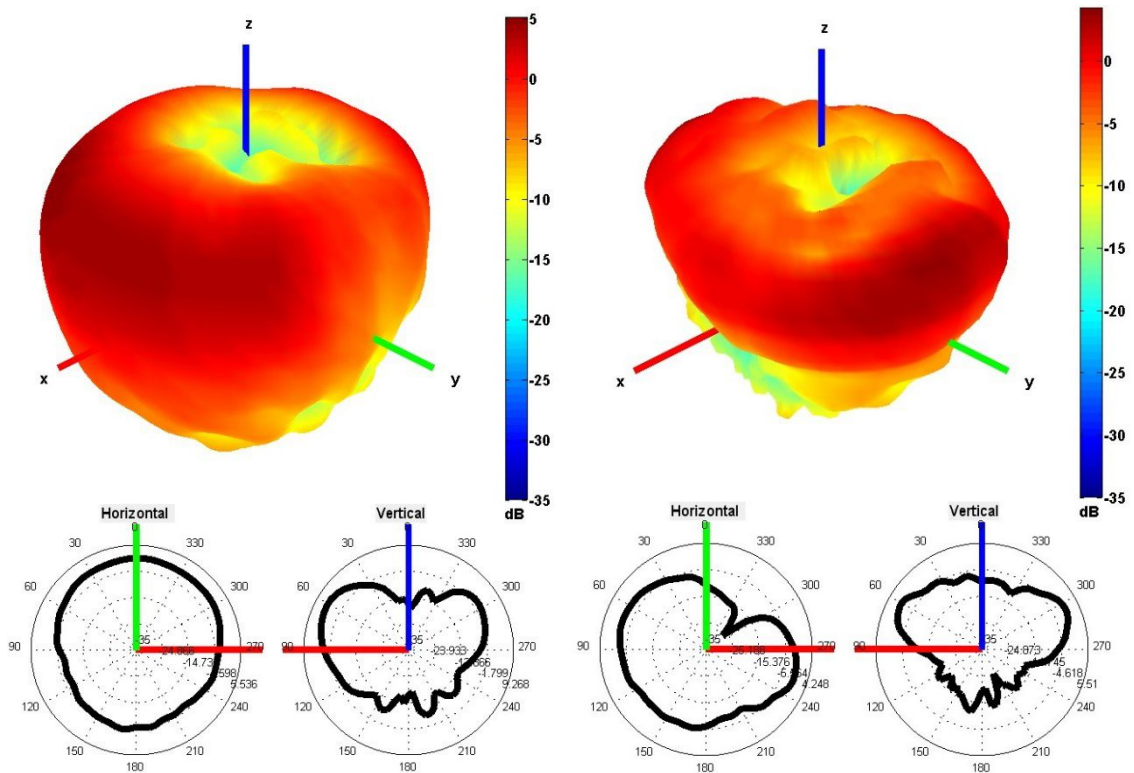


1850 and 1950 MHz Radiation pattern



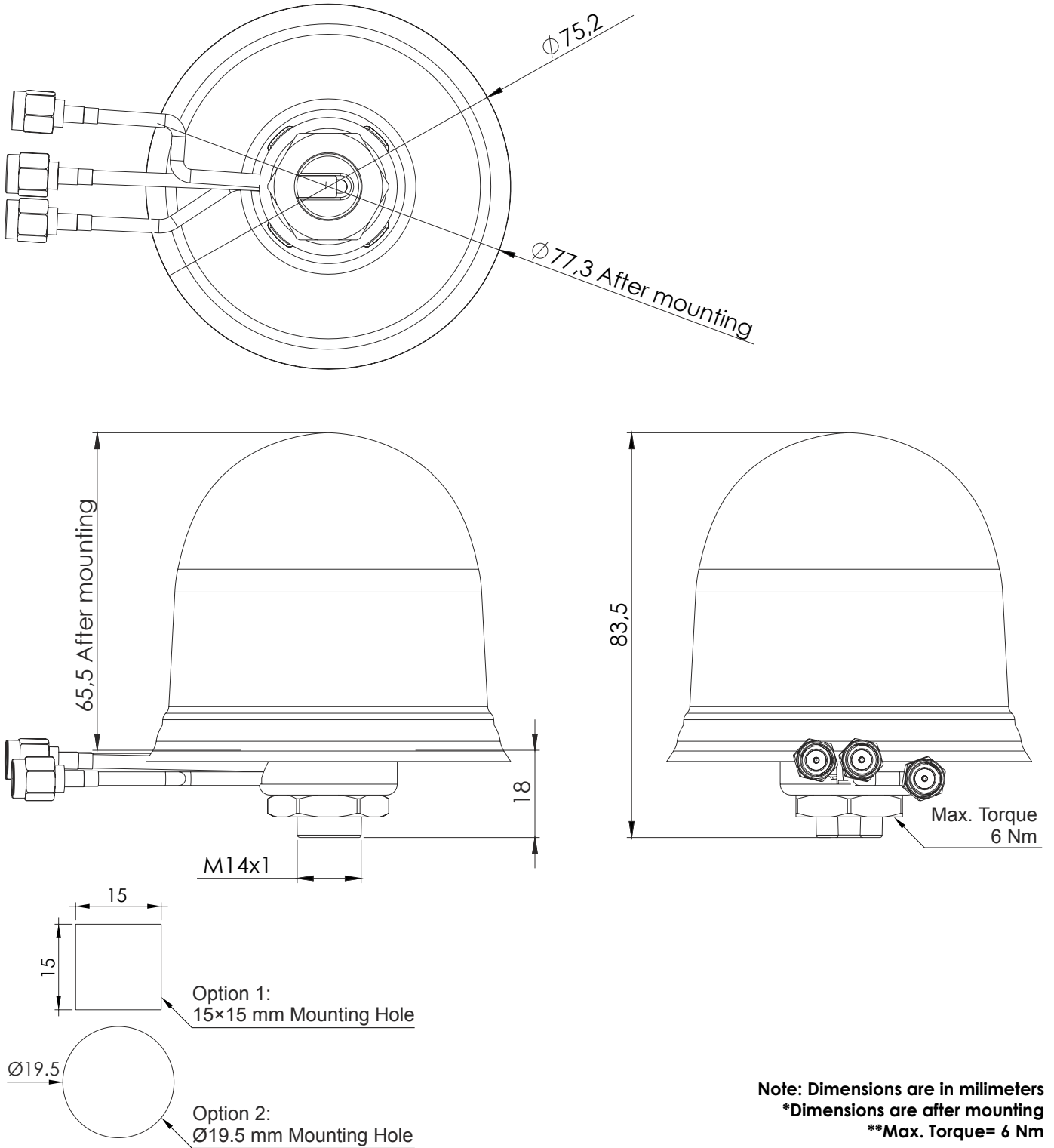
2100 and 2600 MHz Radiation pattern

Table 2: 2.4/5.0 GHz ISM



2450 and 5500 MHz Radiation pattern

4. Antenna drawings



5. Antenna Images

