

**ComAp:
CELLULAR/LTE &
GPS Antenna**



Order code: OT2A4GGPSCX

Combined antenna for Cellular/LTE and GPS (Screw mount)

Datasheet

Key Features

- ▶ Cable 1 and 2: CELLULAR / LTE
 - 698-960 MHz
 - 1710-2170 MHz
 - 2500-2700 MHz
- ▶ Cable 3: GPS/GLONASS/QZSS/Galileo
 - 1575-1606 MHz
- ▶ Screw Mount
- ▶ Anti-Rotation Mechanism
- ▶ High Performance
- ▶ Ground Plane Dependent
- ▶ Customizable Cable and Connector
- ▶ Dimensions: Ø 60 x 69 mm
- ▶ Certificates: IP67, IP69, IK09

Technical data

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) | ~-6.9 | ~-15.3 | ~-16.7 |
| VSWR | ~2.9:1 | ~1.4:1 | ~1.4:1 |
| Efficiency (%) | ~37.8 | ~53.3 | ~54.9 |
| Peak Gain (dBi) | ~0.8 | ~3.6 | ~4.1 |
| Average Gain (dB) | ~-4.3 | ~-2.7 | ~-2.6 |
| 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 | 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) | ~-6.8 | ~-14.3 | ~-9.3 |
| VSWR | ~2.8:1 | ~1.5:1 | ~2.1:1 |
| Efficiency (%) | ~38.7 | ~52.3 | ~42.1 |
| Peak Gain (dBi) | ~0.6 | ~2.9 | ~3.0 |
| Average Gain (dB) | ~-4.2 | ~-2.8 | ~-3.8 |
| Impedance (Ohm) | 50 | | |
| Polarisation | Linear | | |
| Radiation Pattern | Omni-Directional | | |
| Max. Input | 25 | | |

| Cable 2 | |
|----------------|--|
| Parameters | CELLULAR / LTE Antenna |
| Power (W) | |
| 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 3 | | |
|------------------------|--|-----------|
| Parameters | GPS / GLONASS Antenna | |
| Standards | GPS/QZSS/Galileo | GLONASS |
| 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 (Ohm) | 50 | |
| Radiation Pattern | Hemispherical | |
| Polarisation | 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) | 2 kV | |
| 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 cm Ground Plane

200 cm of Cable LL100

Measured in Certified CTIA 3D Anechoic Chamber

Mechanical and environmental specifications

| | |
|----------------------------------|------------------|
| Mounting Type | Screw mount |
| Dimensions (mm) | Ø 60 × 69 |
| Max. Tighten Torque (Nm) | 6 Nm |
| Radome Type | PC/ABS UV Stable |
| Radome color | Black |
| Antenna Base | Zamak |
| Gasket | TPE |
| Operating Temperature (C) | -40 to +85 |
| Storage Temperature (C) | -40 to +85 |
| Substance Compliance | RoHS |
| Certificates | IP67, IP69, IK09 |

Dimensions, terminals and mounting

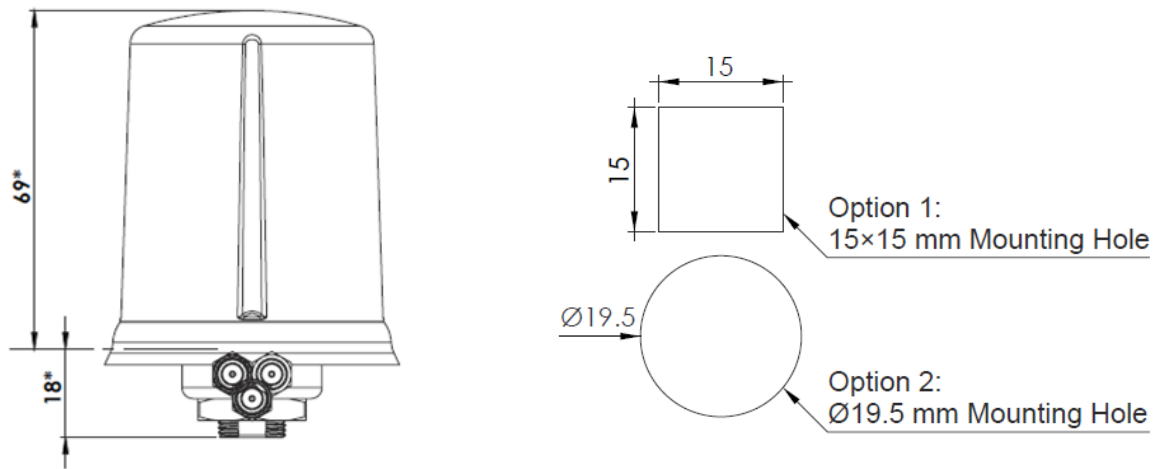
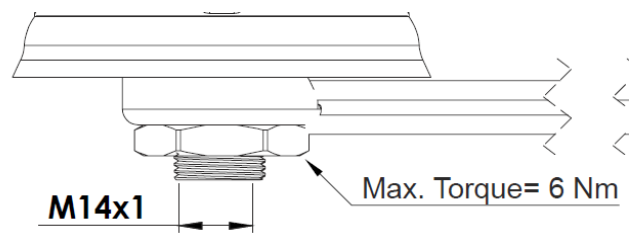
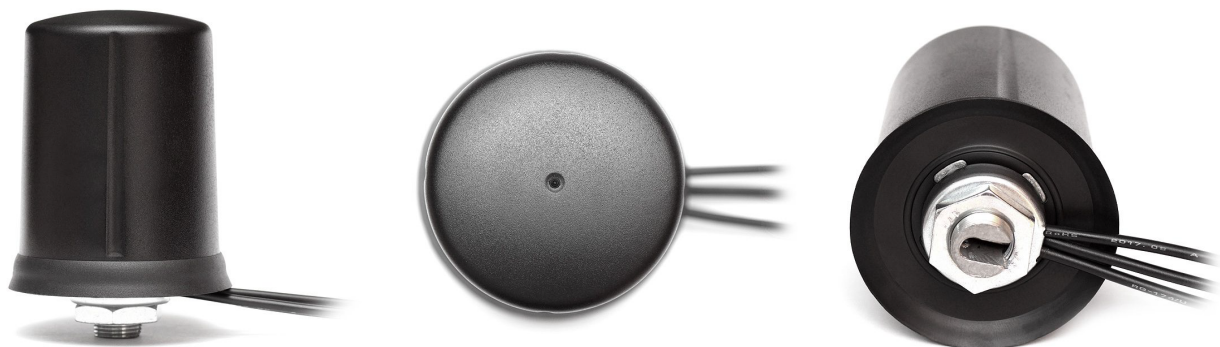


Image 1.1 Mounting holes

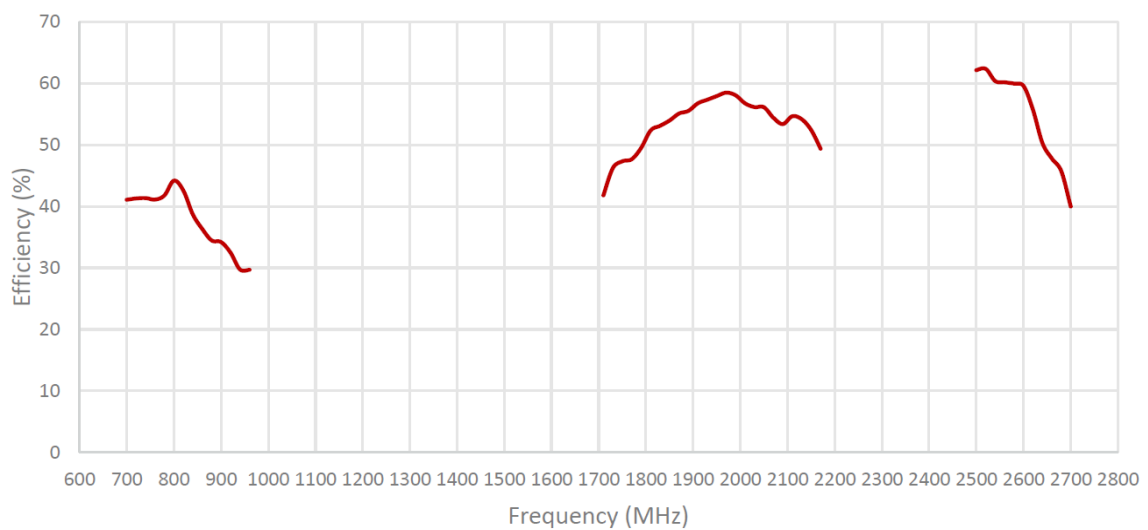
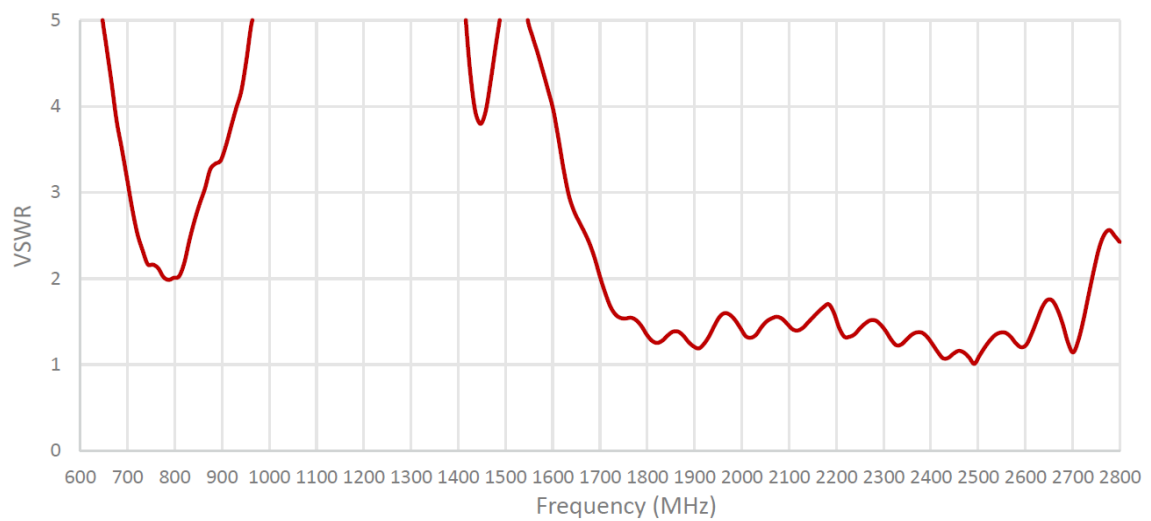
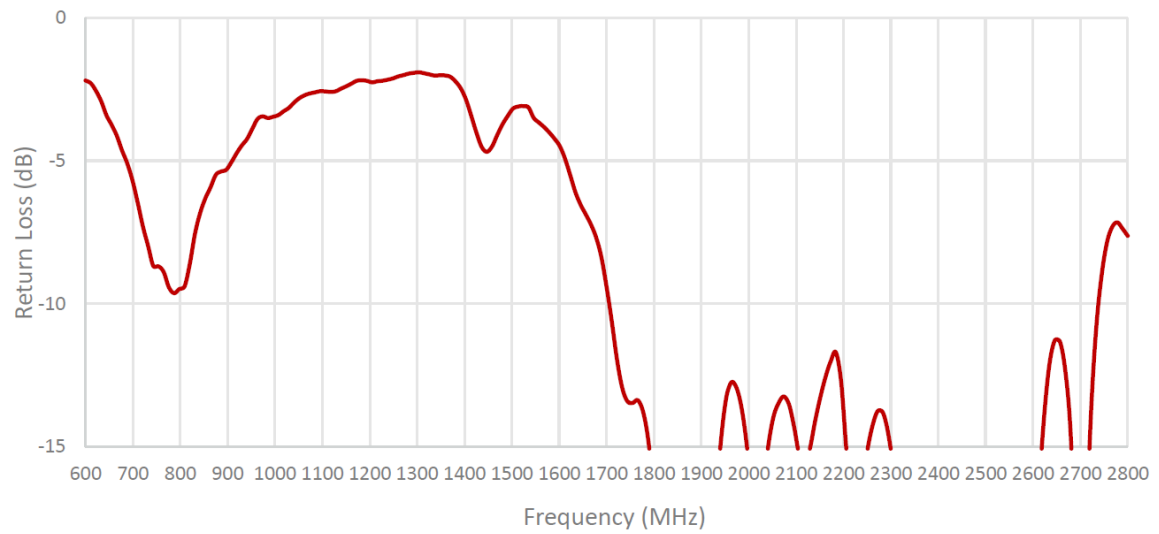


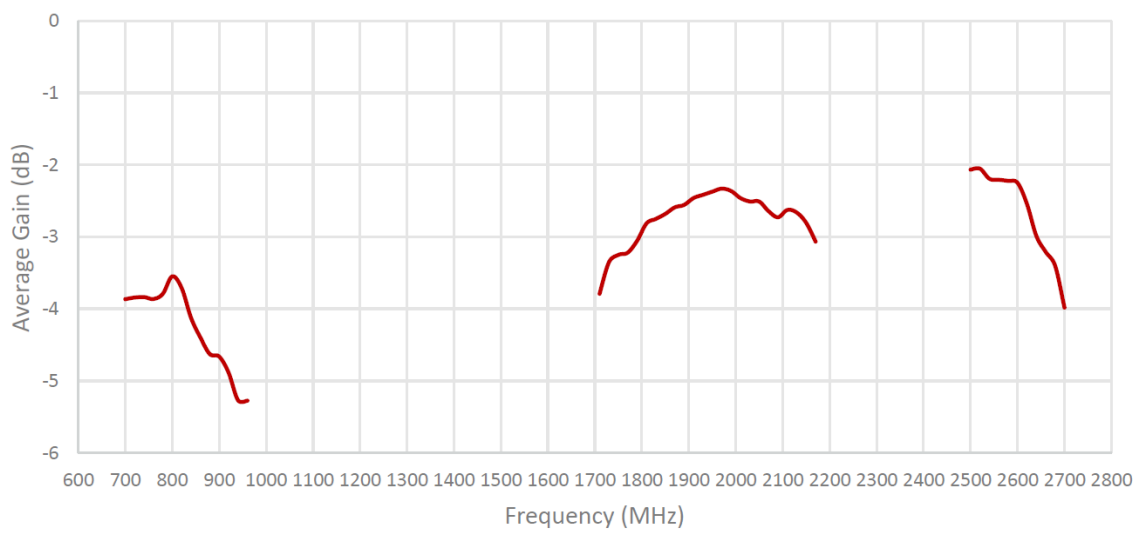
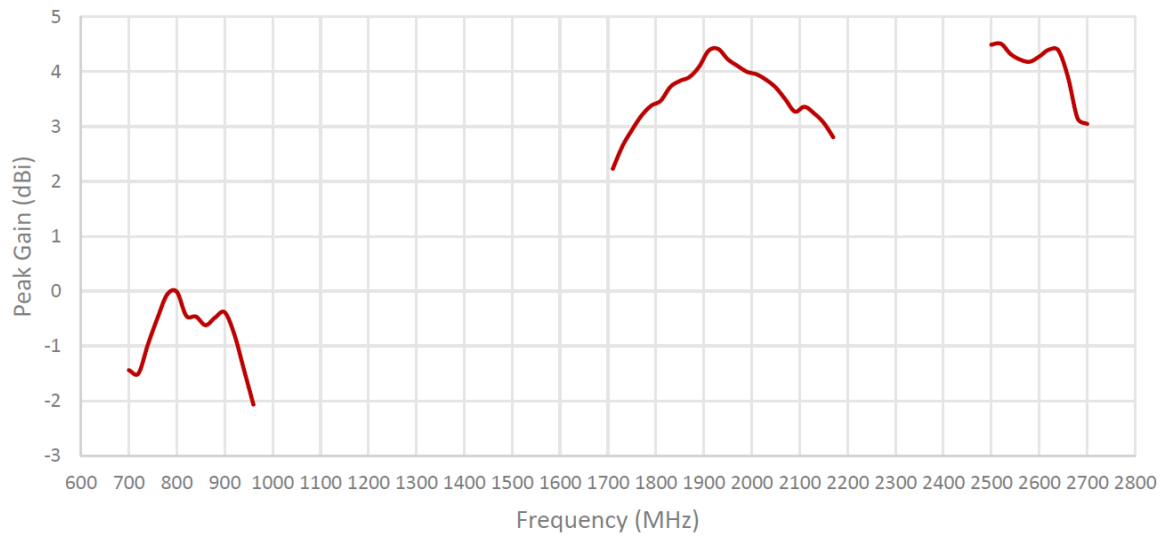
Basic shape of base (Screw M14x1)



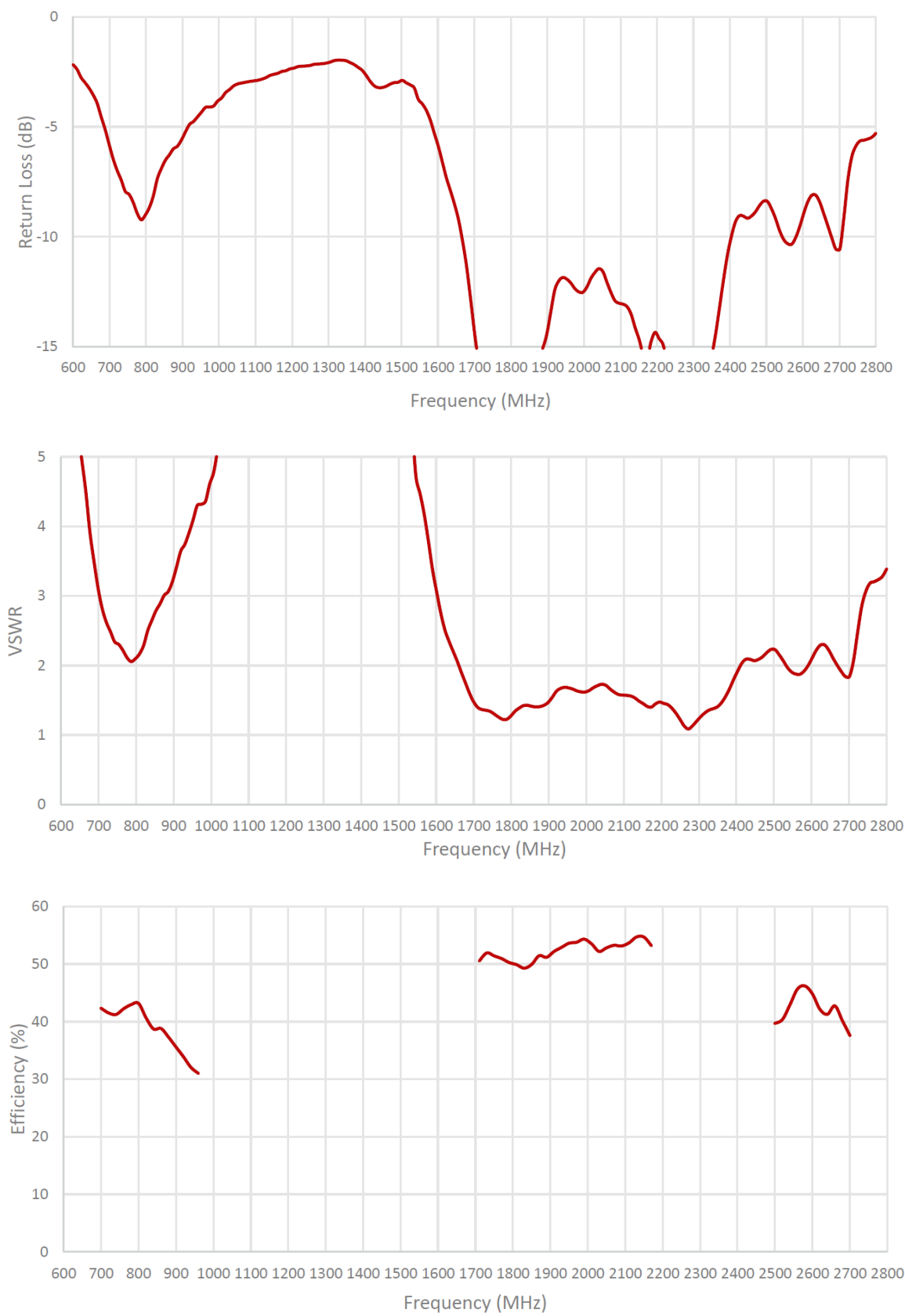
Antenna parameters

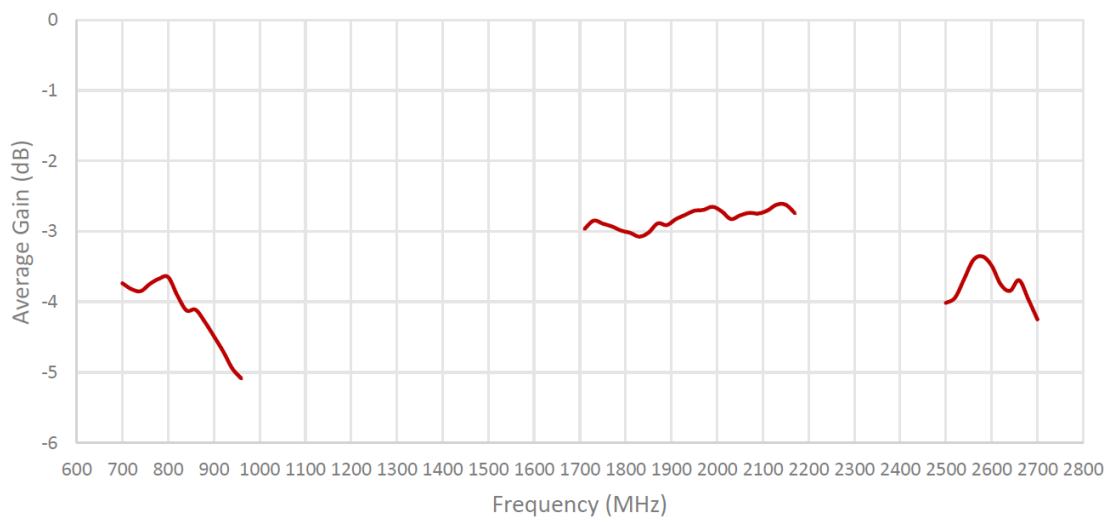
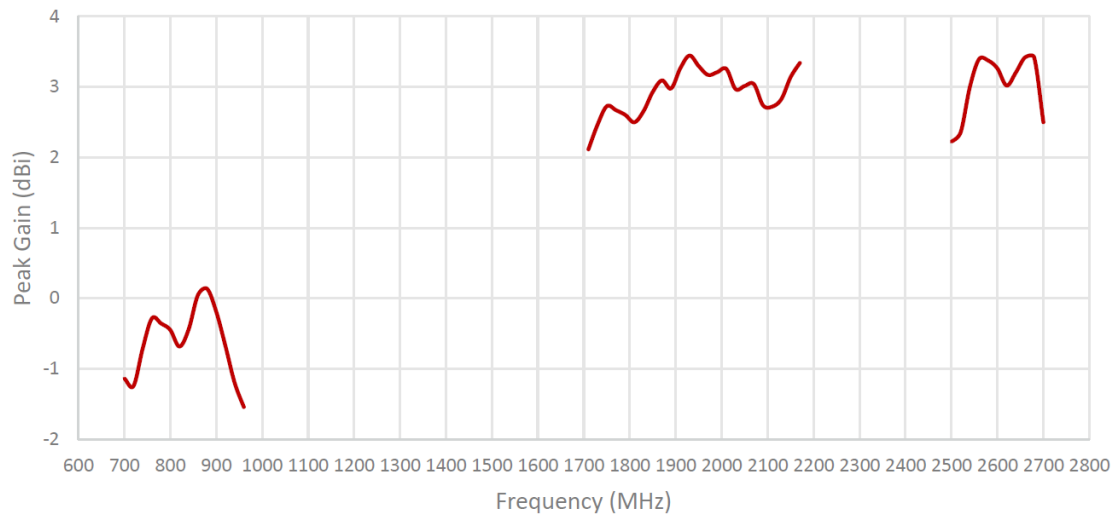
Cable 1: Cellular/LTE



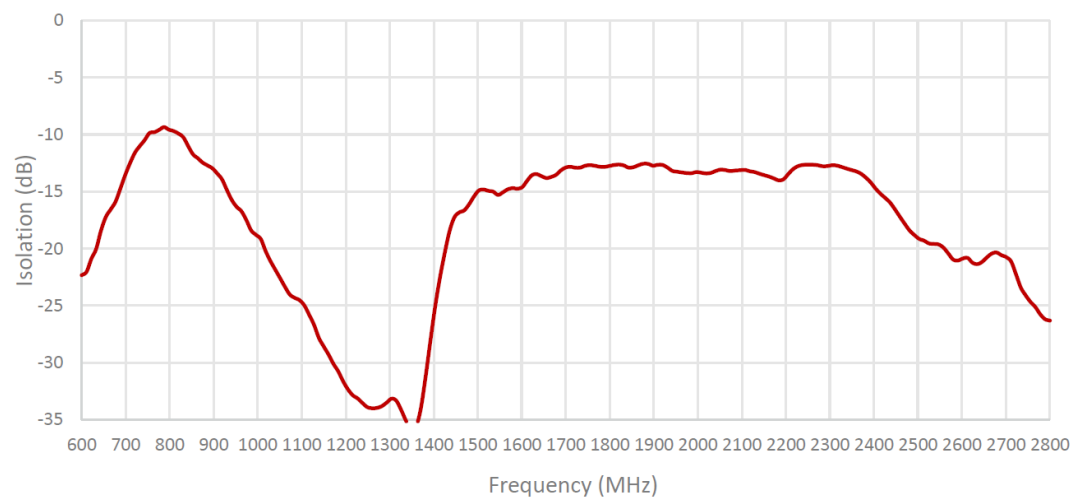


Cable 2: Cellular/LTE

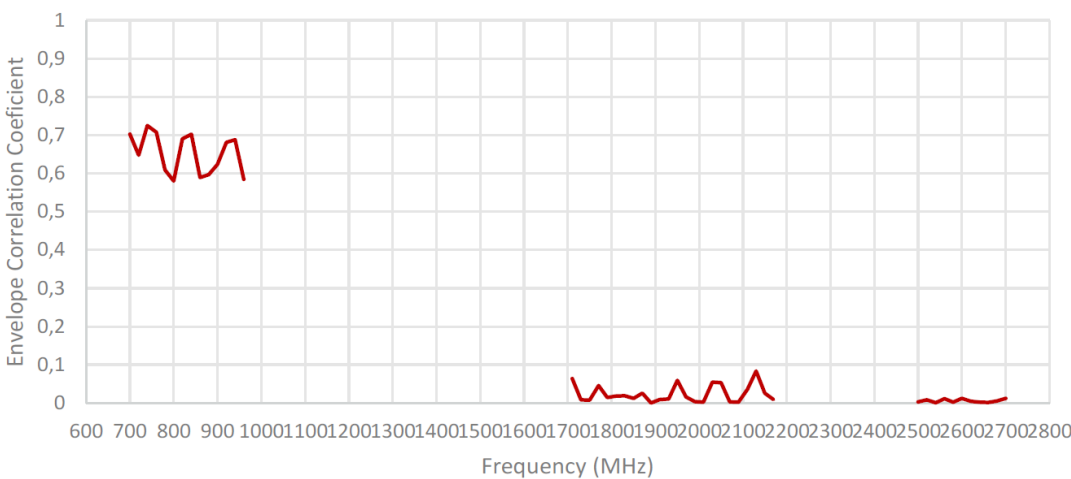




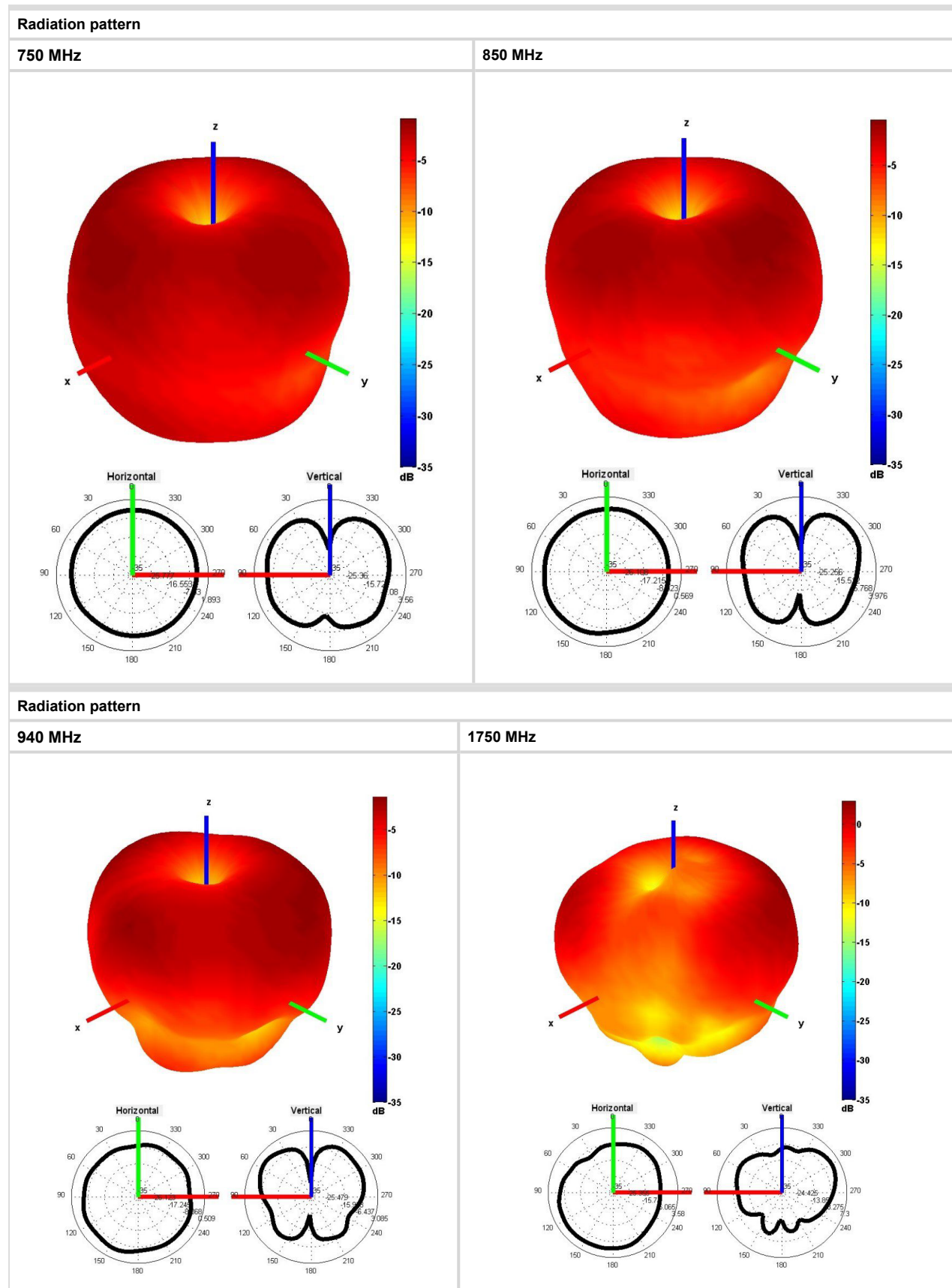
Isolation for cables 1 and 2



Envelope correlation coefficient for cables 1 and 2

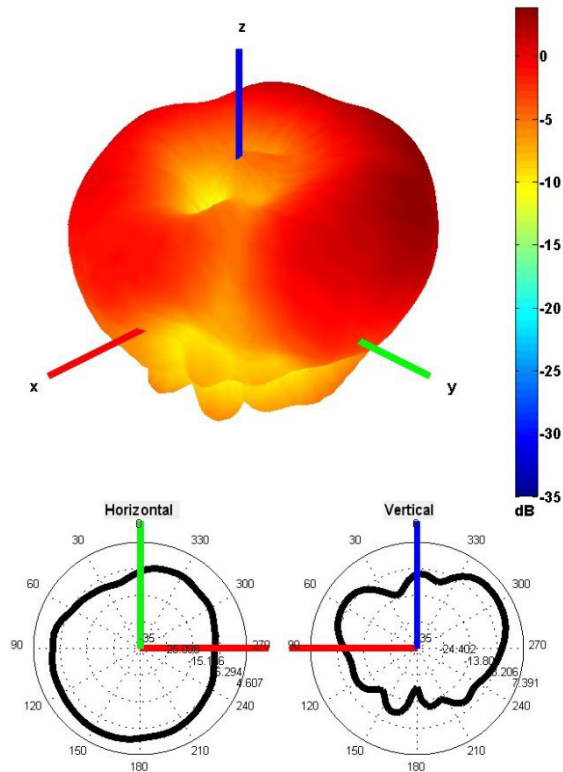


Cable 1: Cellular/LTE

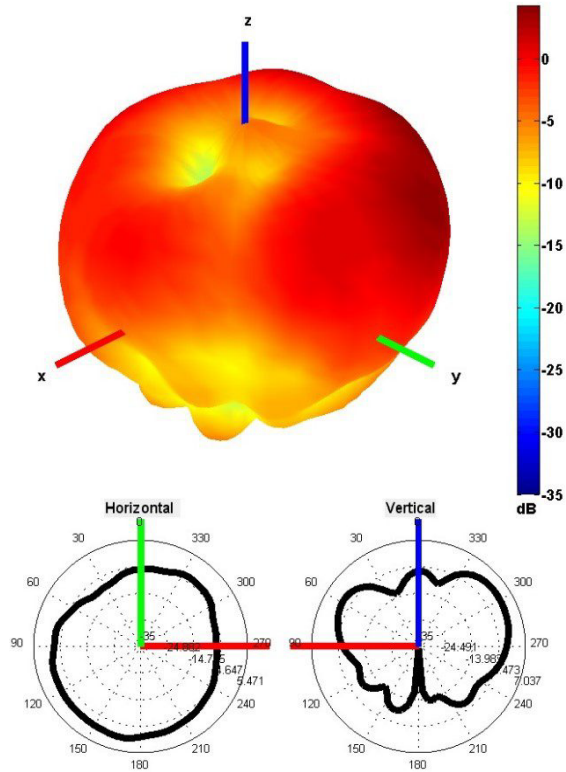


Radiation pattern

1850 MHz

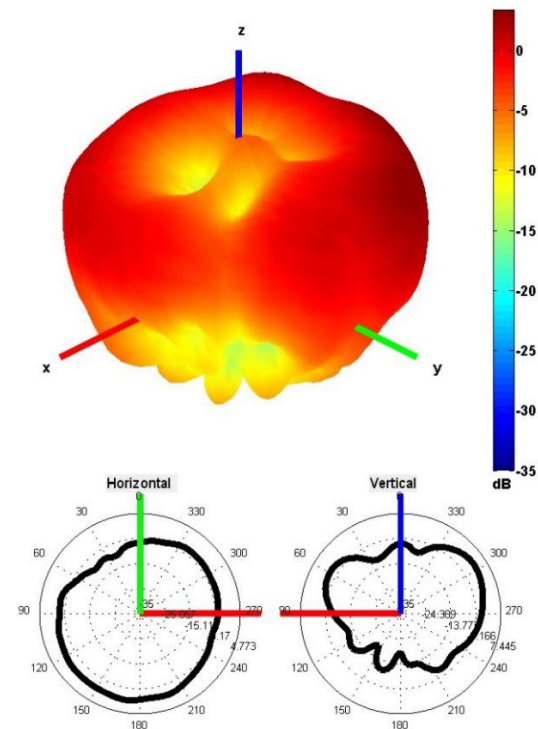


1950 MHz

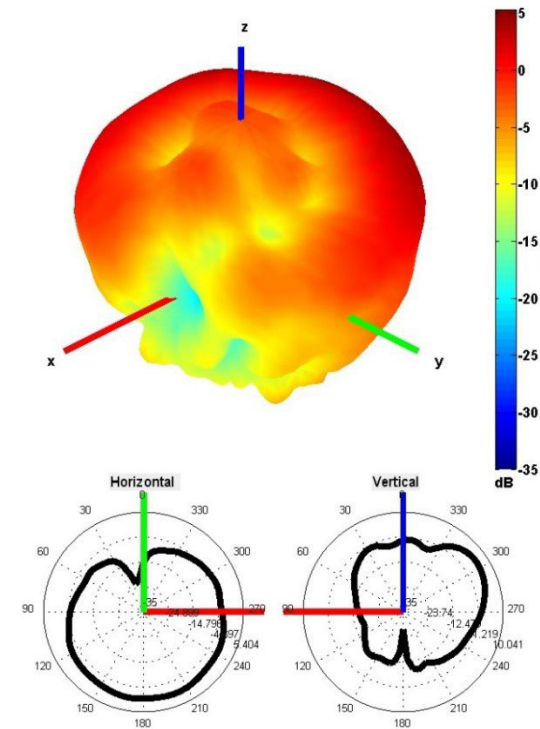


Radiation pattern

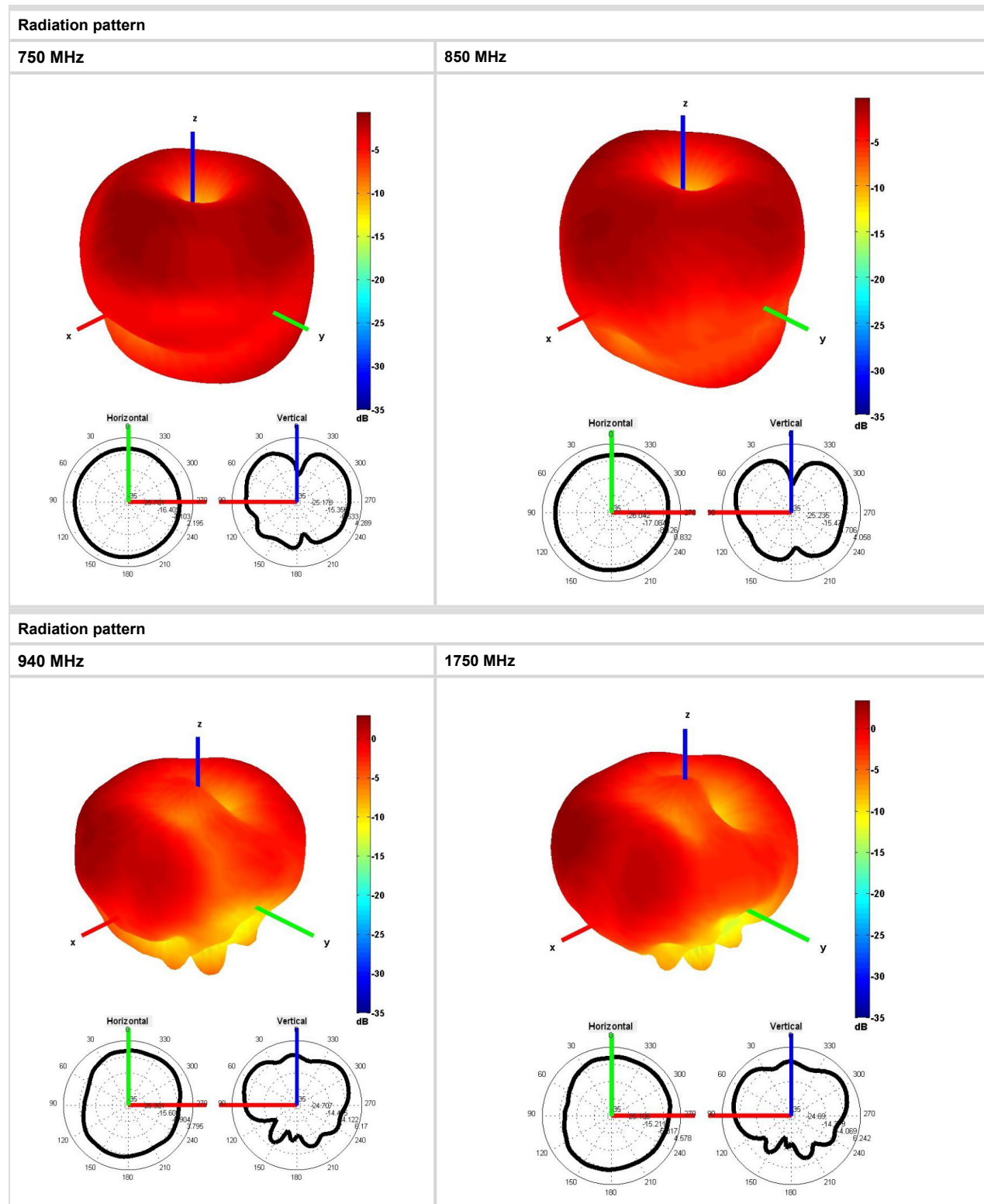
2100 MHz



2600 MHz

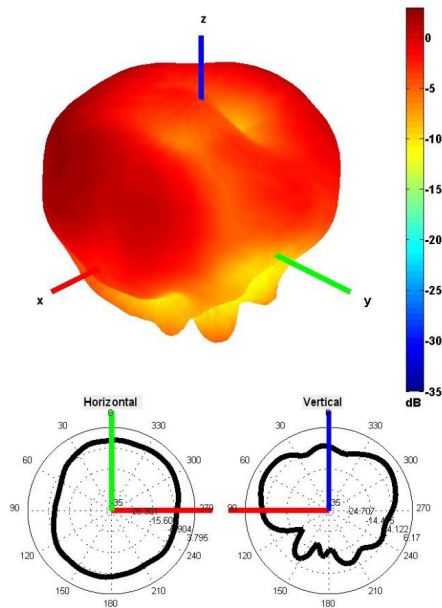


Cable 2: Cellular/LTE

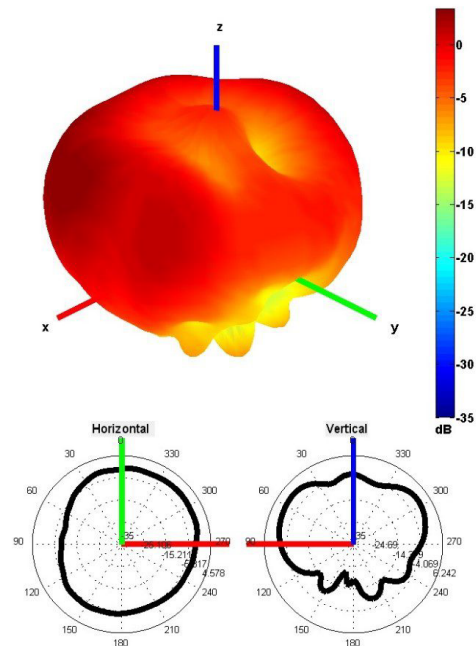


Radiation pattern

1850 MHz

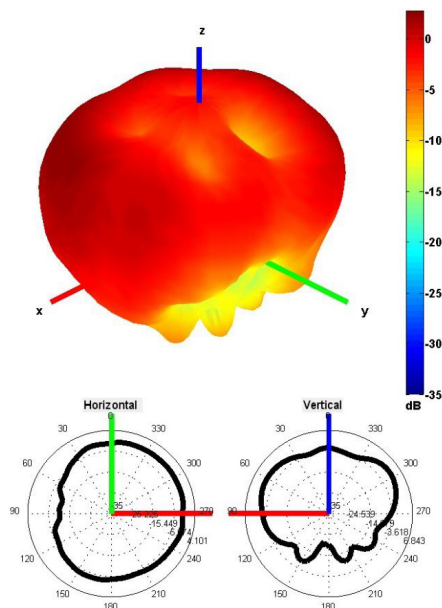


1950 MHz



Radiation pattern

2100 MHz



2600 MHz

