

2J6550BGFc-2.4

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

Key Features

Cable 1 and 2: CELLULAR / LTE

- 791-960 MHz
- 1710-2170 MHz
- 2500-2700 MHz

Cable 3: 2.4 GHz ISM

- 2410-2490 MHz

Cable 4: GPS/GLONASS/QZSS/Galileo

- 1575-1610 MHz

Screw Mount

Heavy Duty antenna

High Performance

Ground Plane Dependent

Anti-Rotation Mounting

Customizable Cable and Connector

Dimensions Ø 146 x 31.5 mm

Certificates: IK09



Note: This antenna is suitable only for European LTE frequency bands



1. Antenna and electrical specifications

Cable 1

Parameters	CELLULAR / LTE Antenna		
Standards	4G LTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G		
Band (MHz)	800/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	791-960	1710-2170	2500-2700
Return Loss (dB)	~-9.5	~-15.7	~-13.9
VSWR	~2.1:1	~1.4:1	~1.6:1
Efficiency (%)	~27.5	~30.7	~20.0
Peak Gain (dBi)	~-0.1	~2.1	~-0.8
Average Gain (dB)	~-5.9	~-5.1	~-7.1
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	RG174 Standard (Other Cables Available)		

Cable 2

Parameters	CELLULAR / LTE Antenna		
Standards	4G LTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G		
Band (MHz)	800/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	791-960	1710-2170	2500-2700
Return Loss (dB)	~-9.1	~-15.8	~-13.8
VSWR	~2.1:1	~1.5:1	~1.6:1
Efficiency (%)	~25.6	~30.4	~19.1
Peak Gain (dBi)	~-0.1	~1.5	~-0.7
Average Gain (dB)	~-6.2	~-5.2	~-7.2
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	RG174 Standard (Other Cables Available)		

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm
 200 cm of RG174 Cable
 Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

Parameters	2.4 GHz ISM Antenna
Standards	WiFi/Bluetooth/ZigBee/ISM
Band (MHz)	2.4GHz
Frequency (MHz)	2410-2490
Return Loss (dB)	~-19.9
VSWR	~1.3:1
Efficiency (%)	~26.8
Peak Gain (dBi)	~1.6
Average Gain (dB)	~-5.7
Impedance (Ohm)	50
Polarisation	Linear
Radiation Pattern	Omni-Directional
Max. Input Power (W)	25
Connector Type	SMA-Male-RP Standard (Other Connectors Available)
Cable Length	300 cm Standard (Any Cable Length Available)
Cable Type	RG174 Standard (Other Cables Available)

Cable 4

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	
Passive Gain (dBi)	~3.6	
Impedance (Ohms)	50	
Radiation Pattern	Hemispherical	
Voltage Range (V)	2.7 - 5.5	
Active Gain (dB)	23 @ 3V, 24 @ 5V	
Noise Figure (dB)	1.2	
Current Consumption (mA)	22 @ 5V	
Power Consumption (mW)	max 138mW	
Saw Filter Type	Post-Filter	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	RG174 Standard (Other Cables Available)	

Antenna Measurement Conditions:

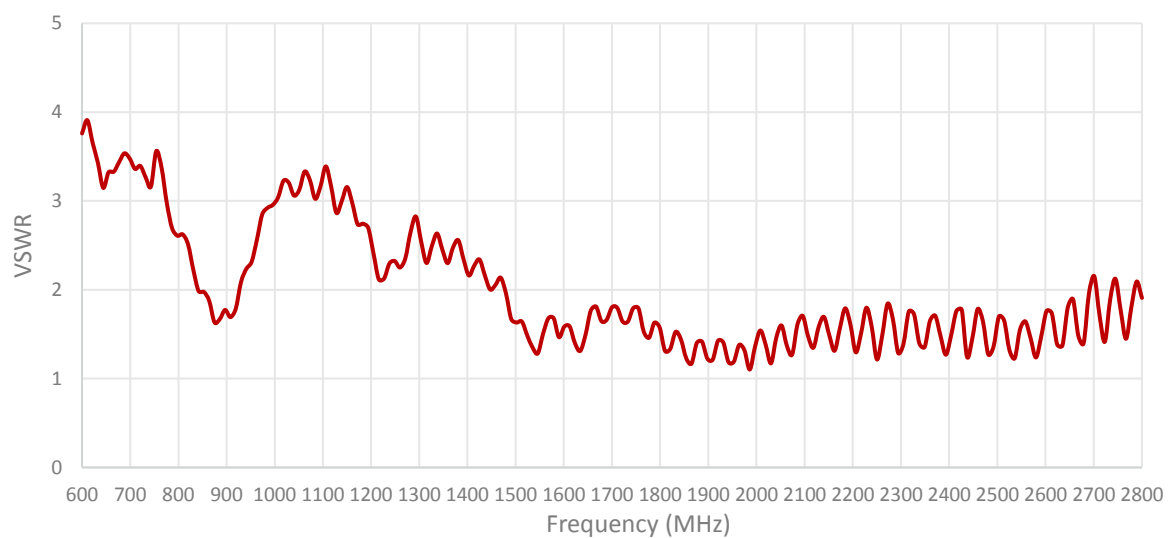
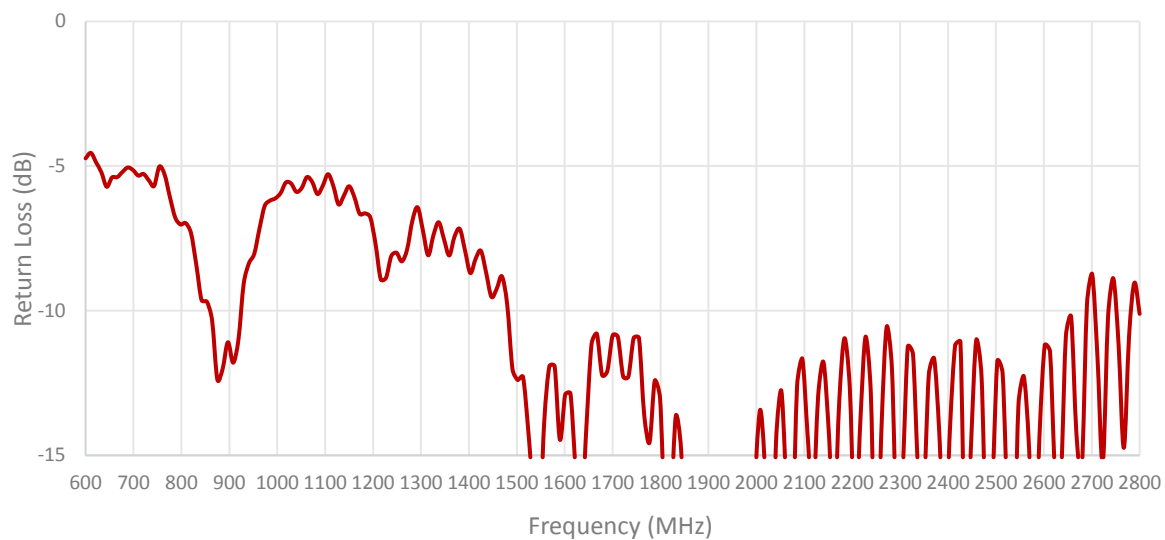
Mounted on Metal Plate of 30 x 30 cm
 200 cm of RG174 Cable
 Measured in Certified CTIA 3D Anechoic Chamber

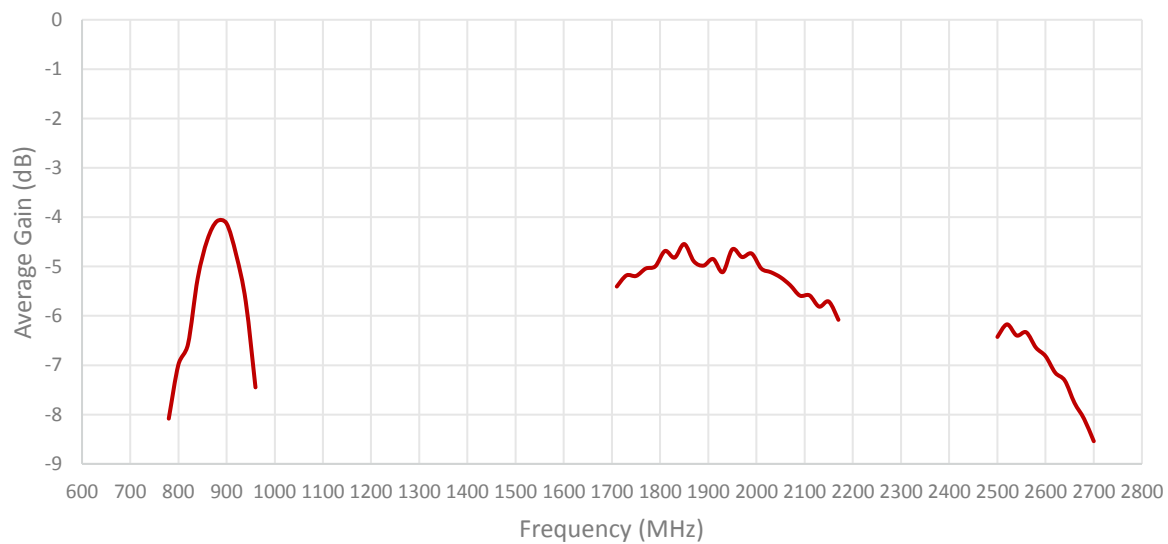
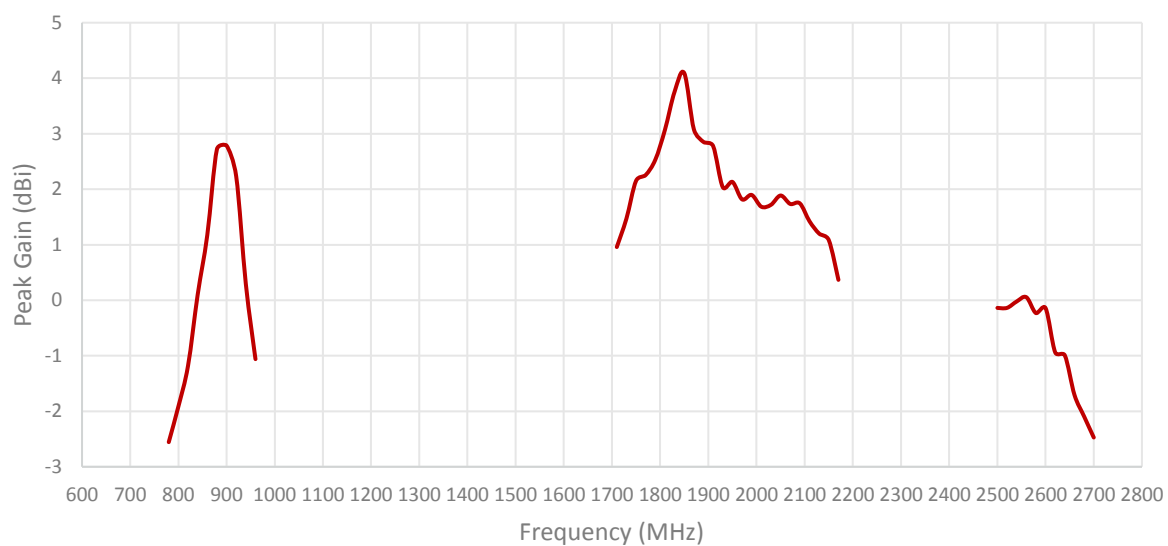
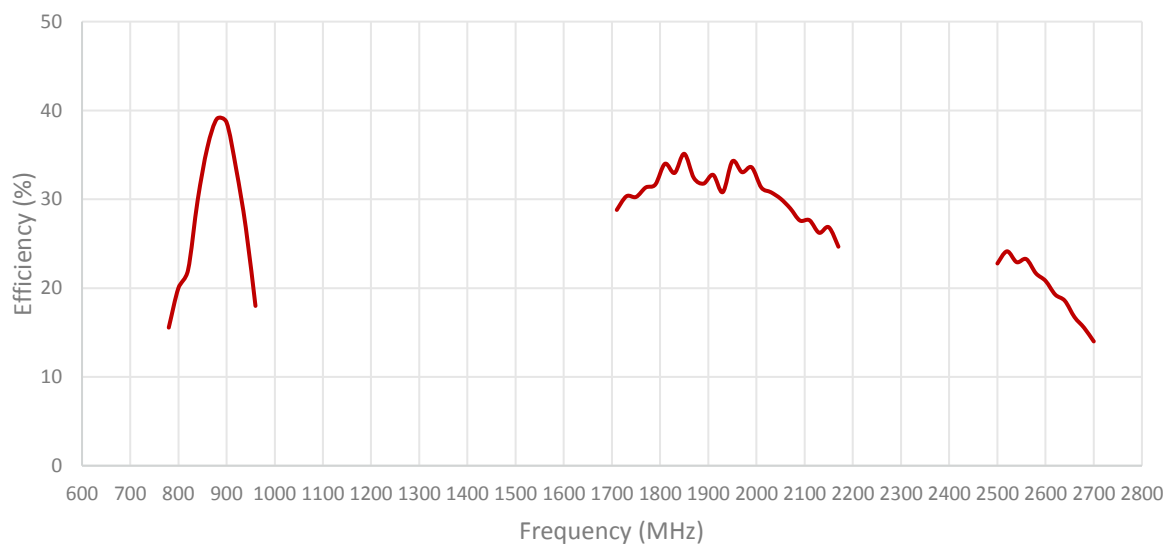
2. Mechanical and environmental specifications

Specifications	2J6550BGFc-2.4
Mounting Type	Screw Mount
Dimensions (mm)	Ø 146 x 31.5
Max. Tighten Torque (Nm)	6 Nm
Radome	ABS
Radome color	Black
Antenna Base	Zamak
Gasket	TPE
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IK09

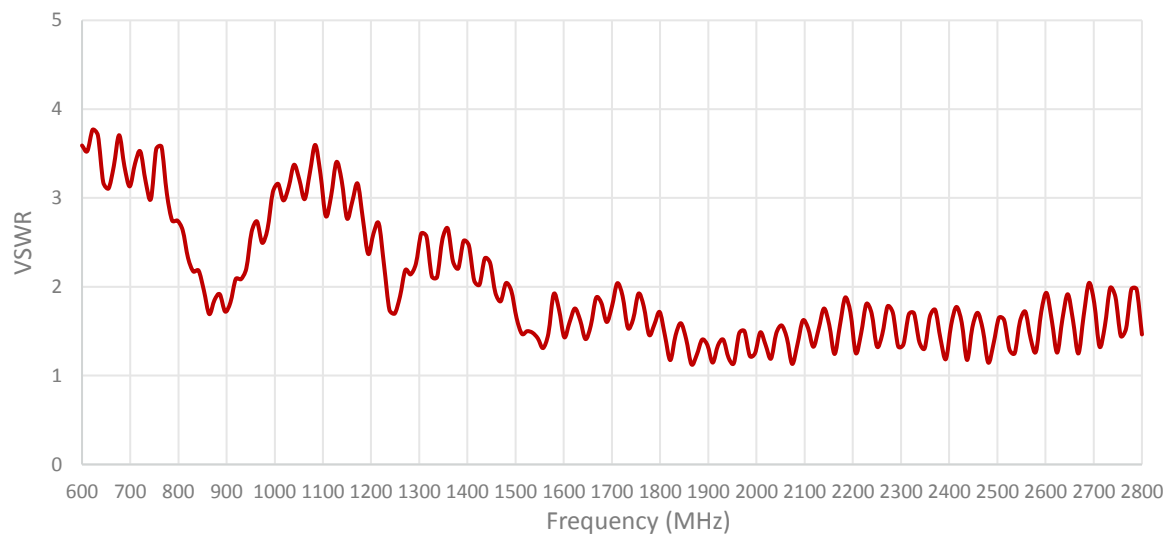
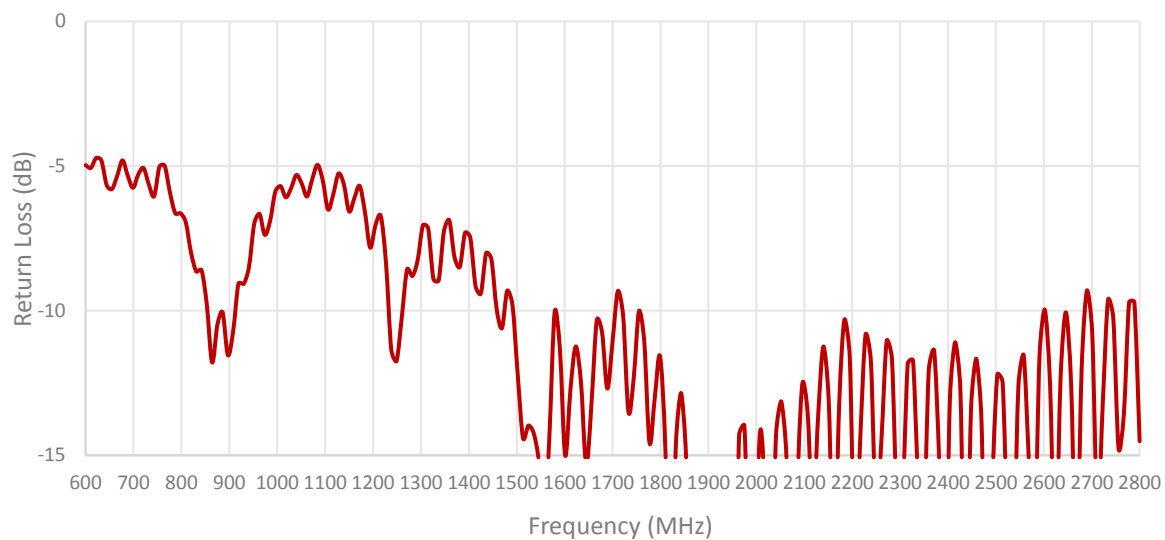
3. Antenna parameters

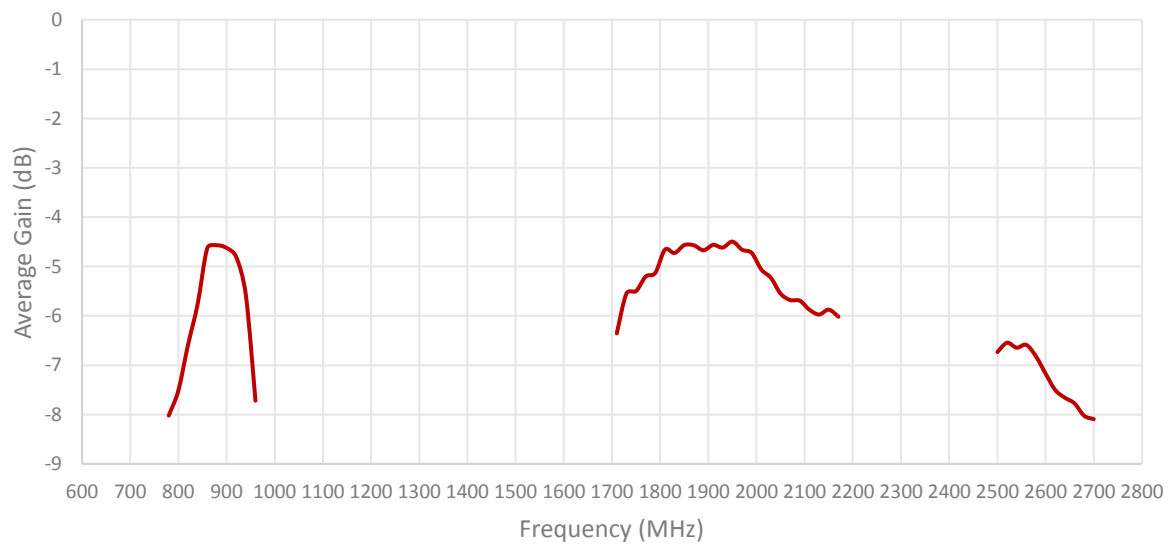
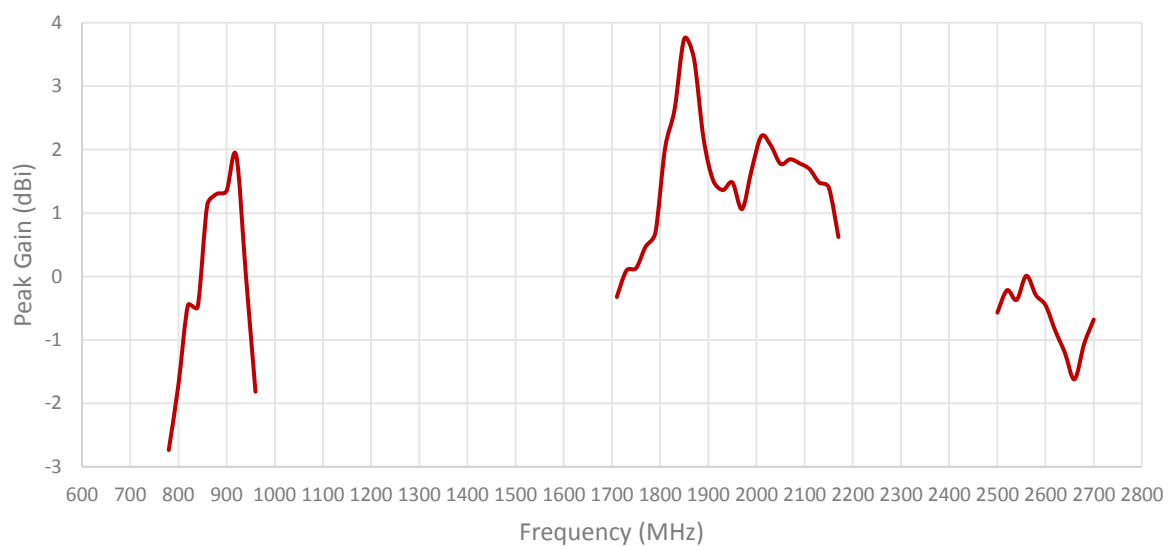
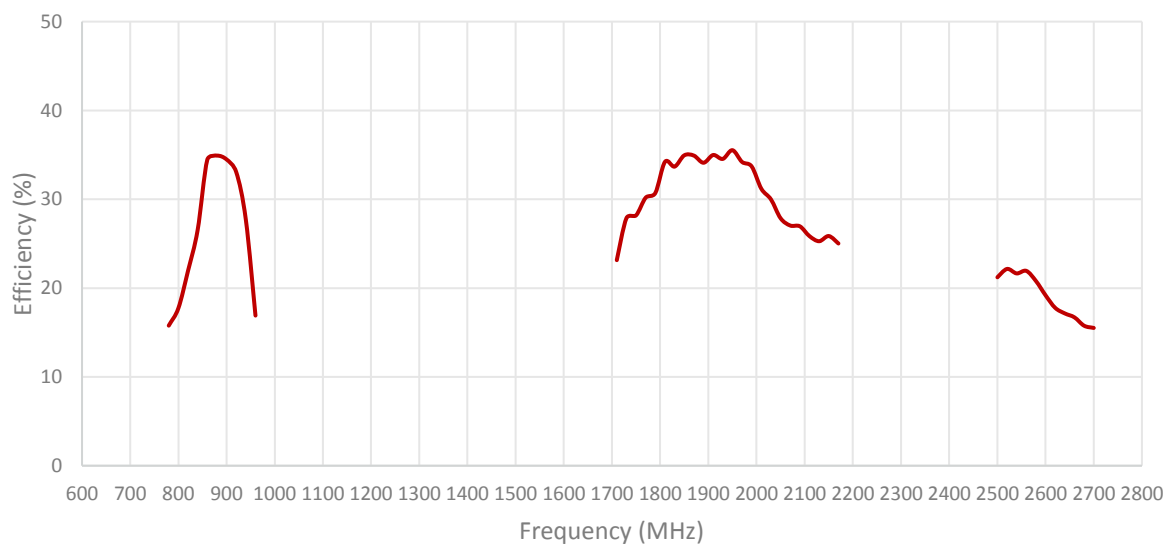
Cable 1: CELLULAR/LTE



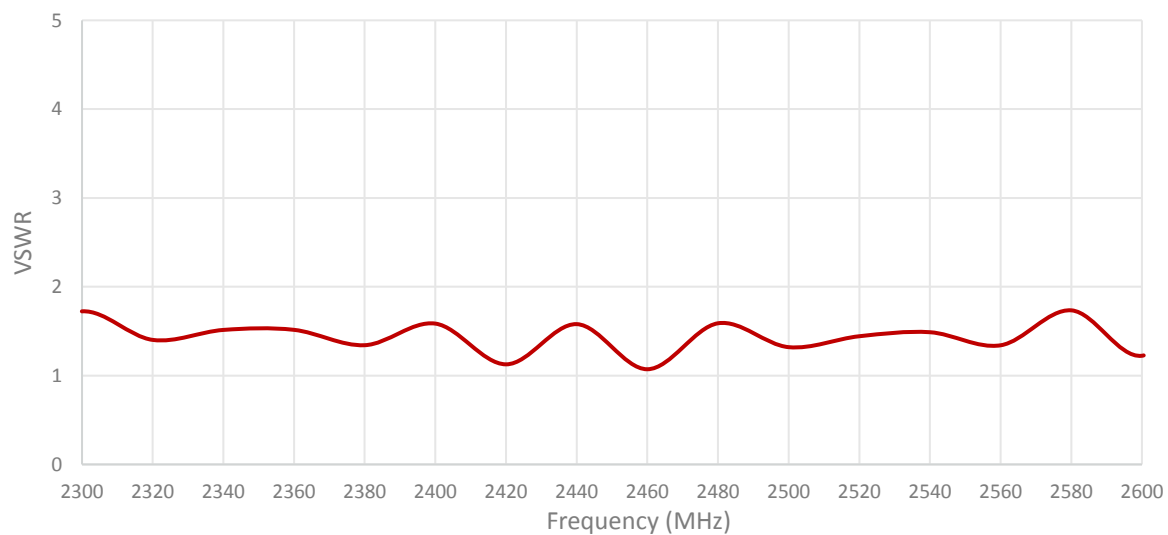
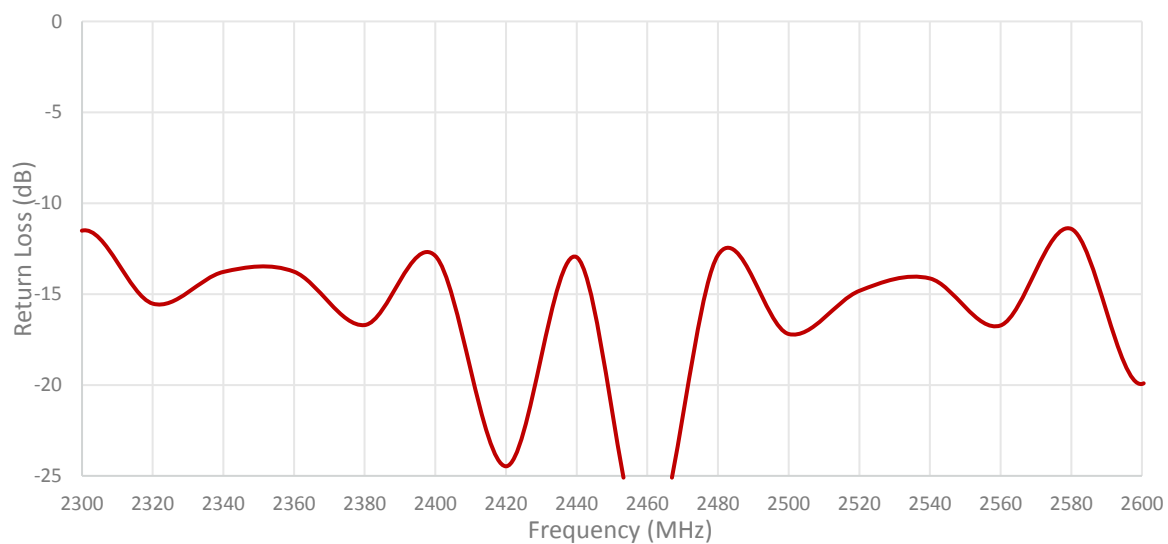


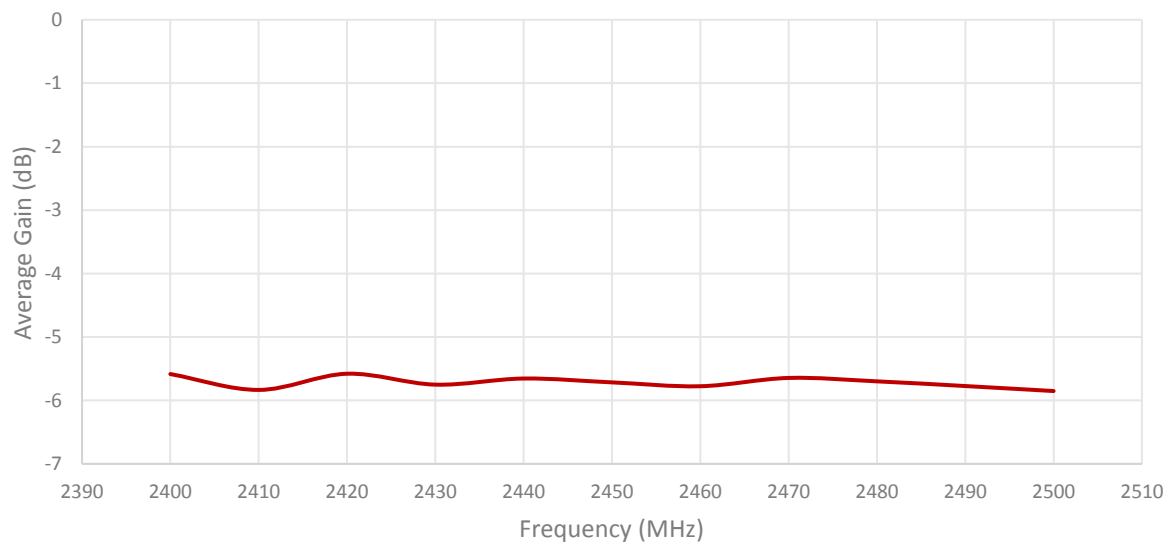
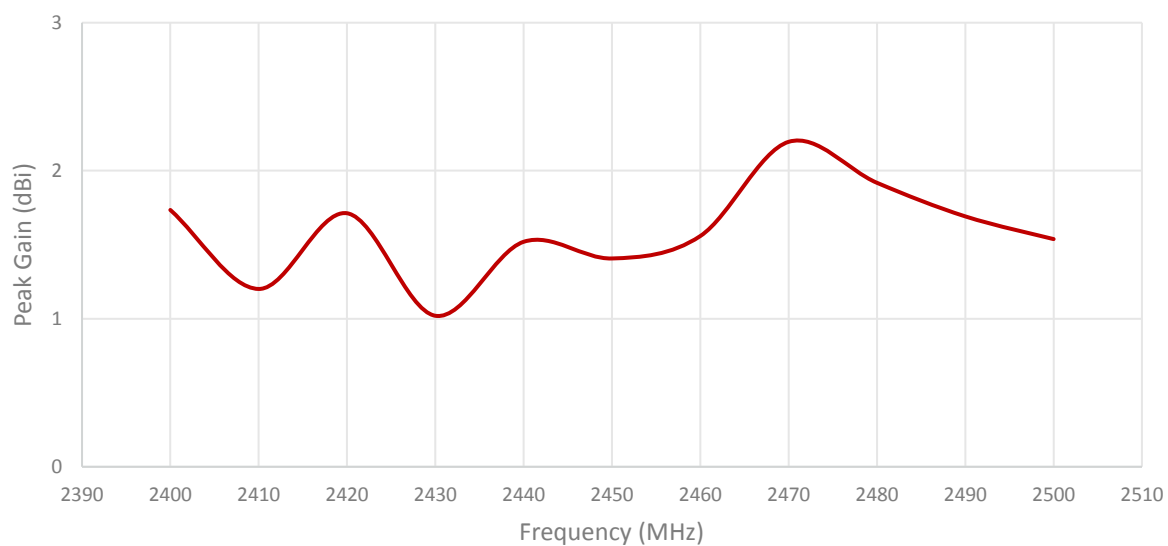
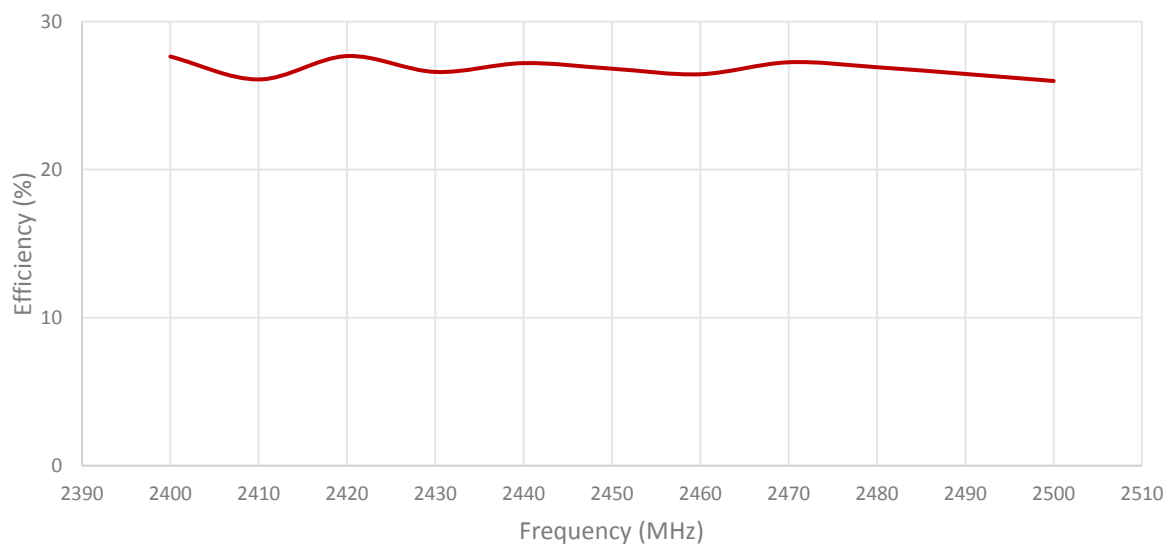
Cable 2: CELLULAR/LTE



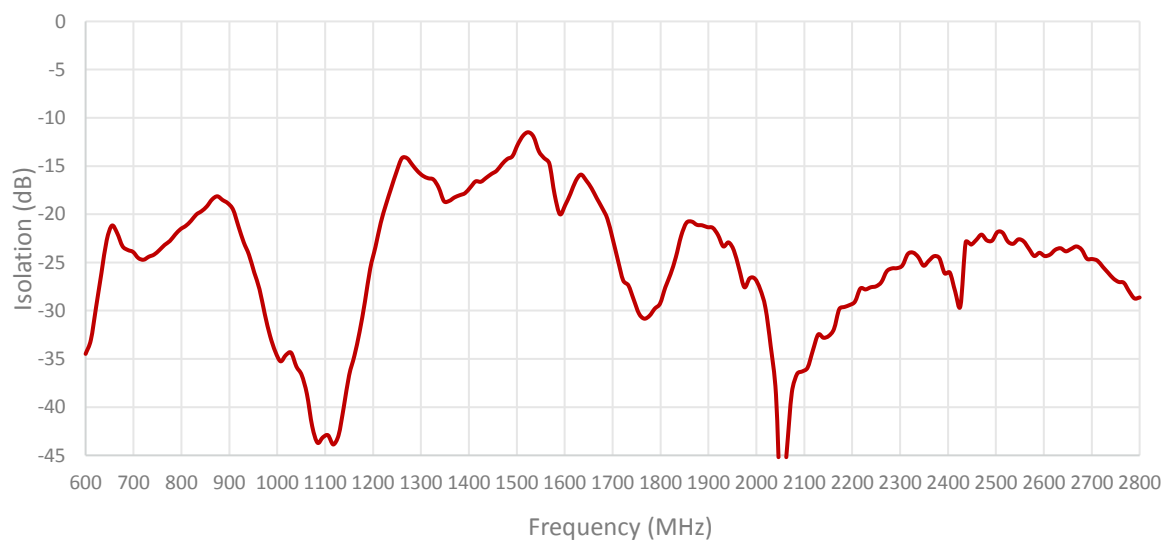


Cable 3: 2.4 GHz ISM

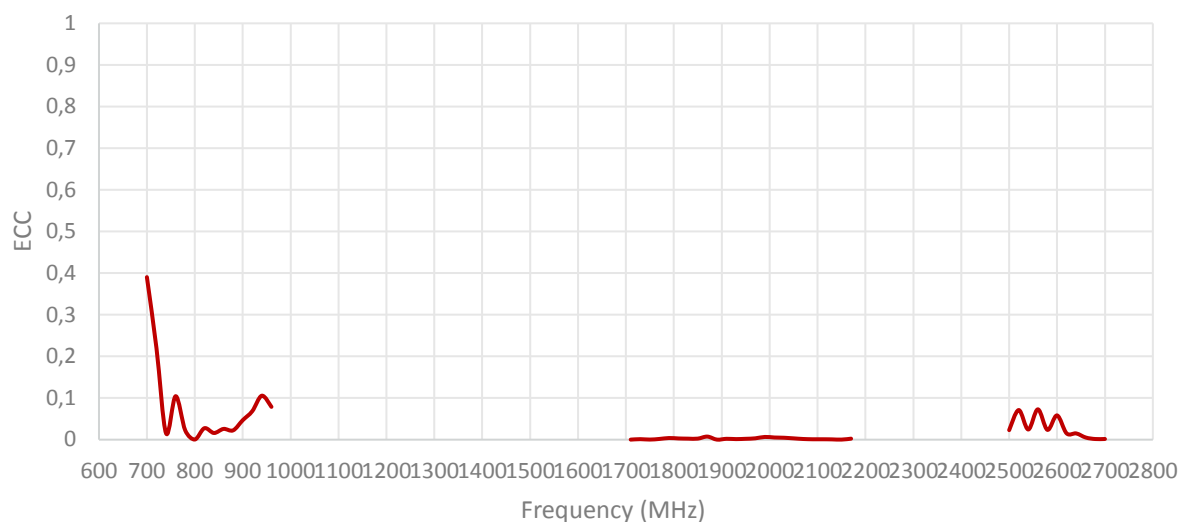


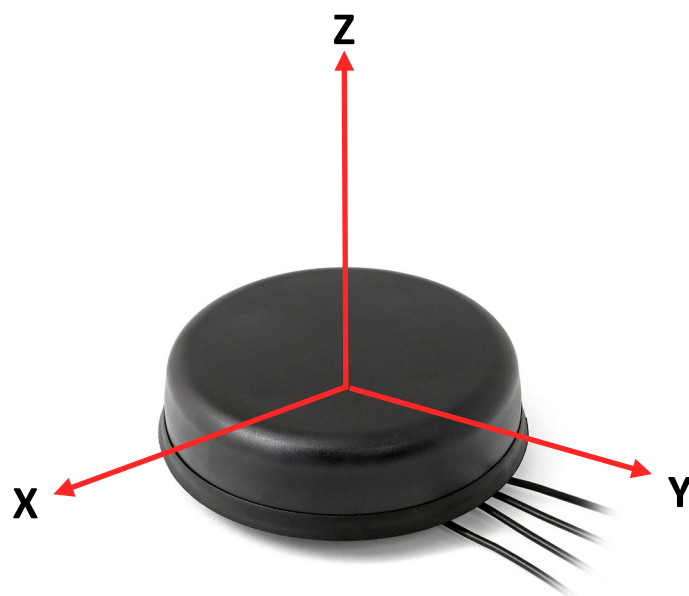


ISOLATION FOR CABLES 1 AND 2



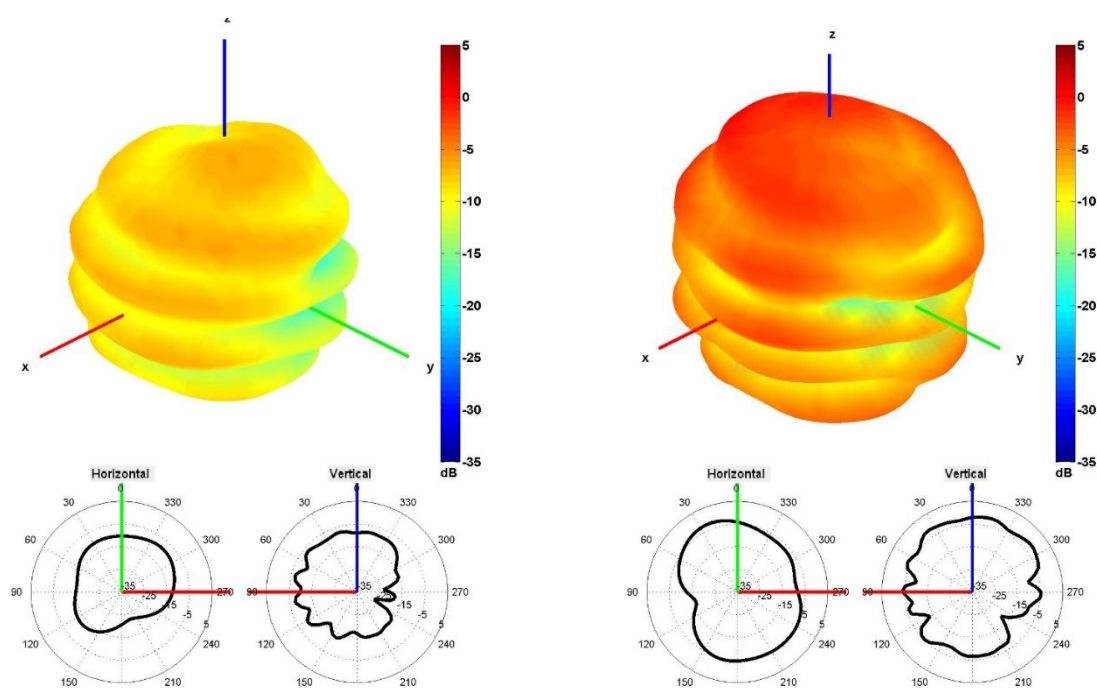
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



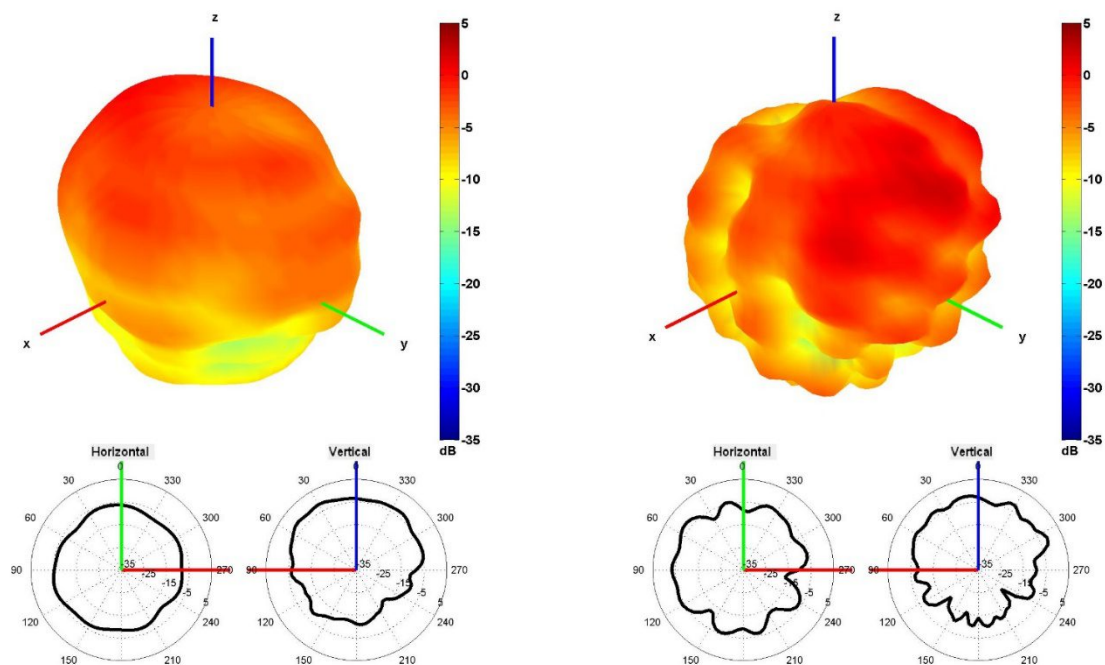


Radiation pattern reference

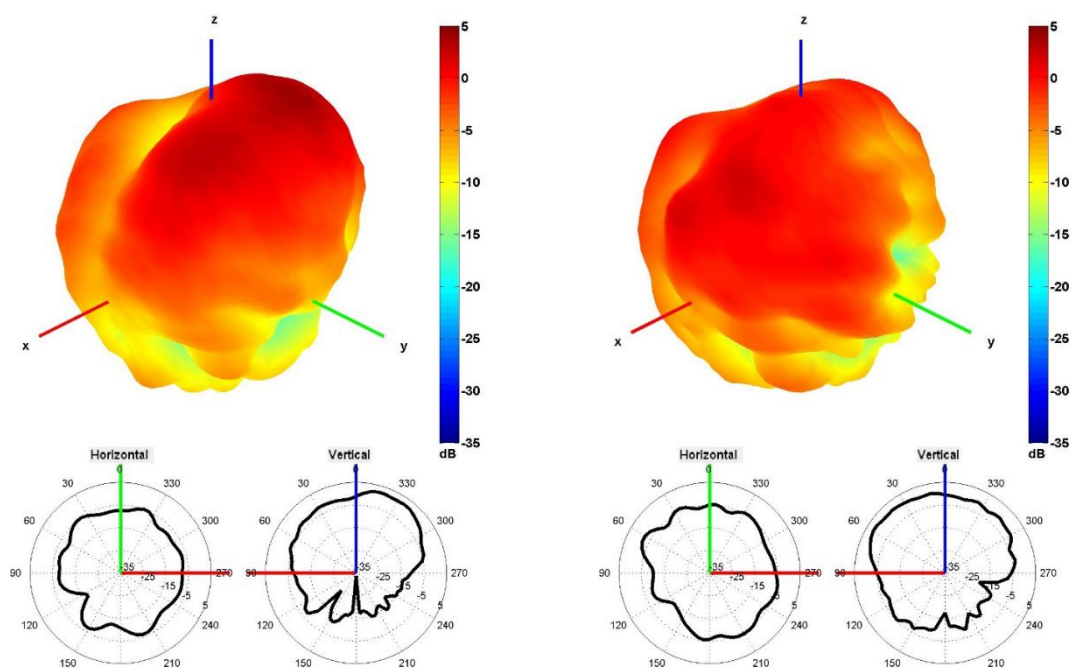
Cable 1: CELLULAR/LTE



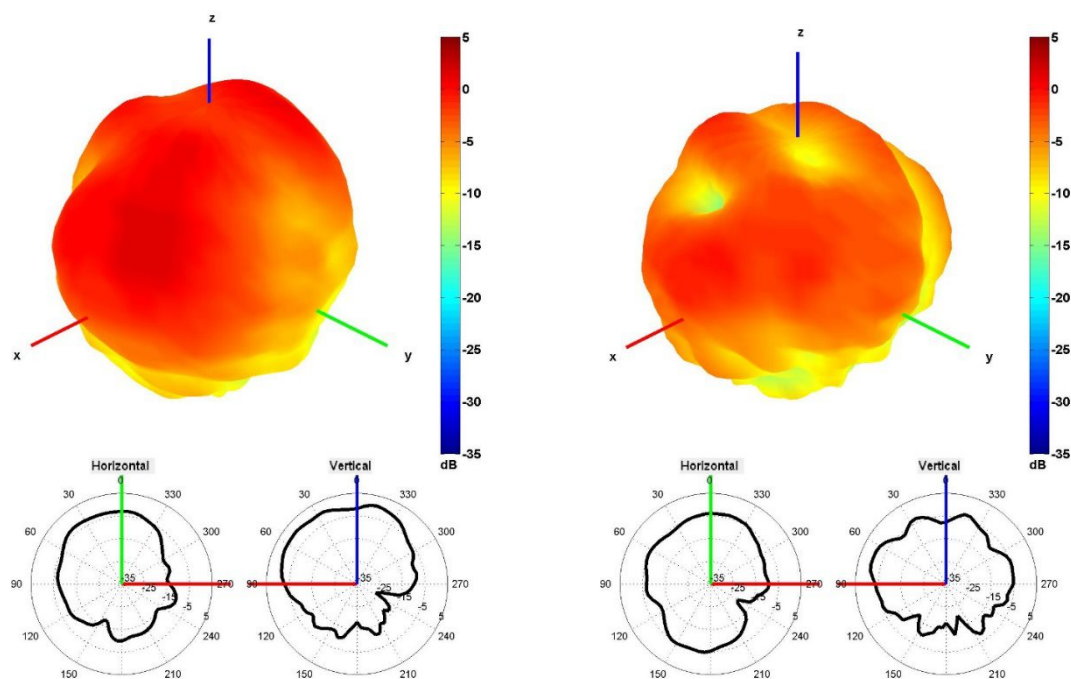
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

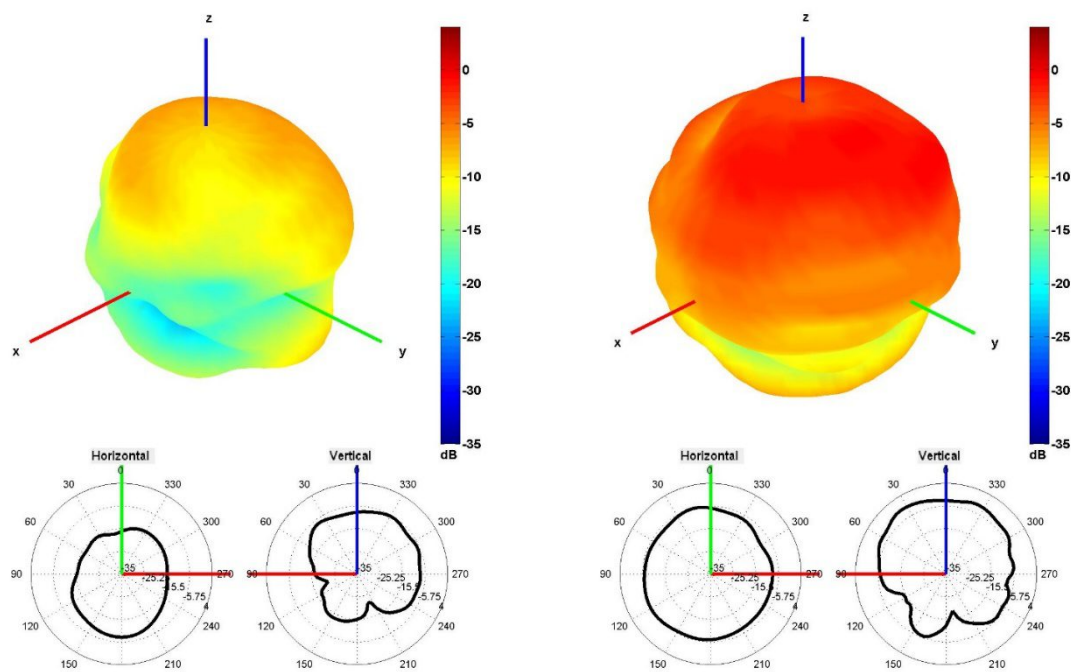


1850 and 1950 MHz Radiation pattern

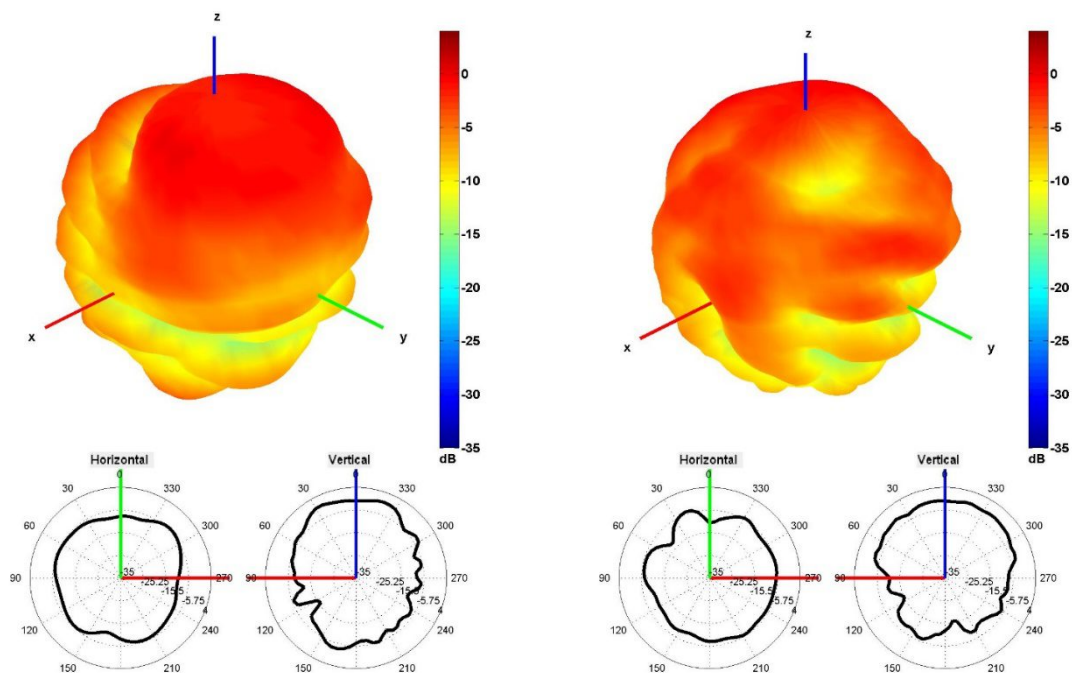


2100 and 2600 MHz Radiation pattern

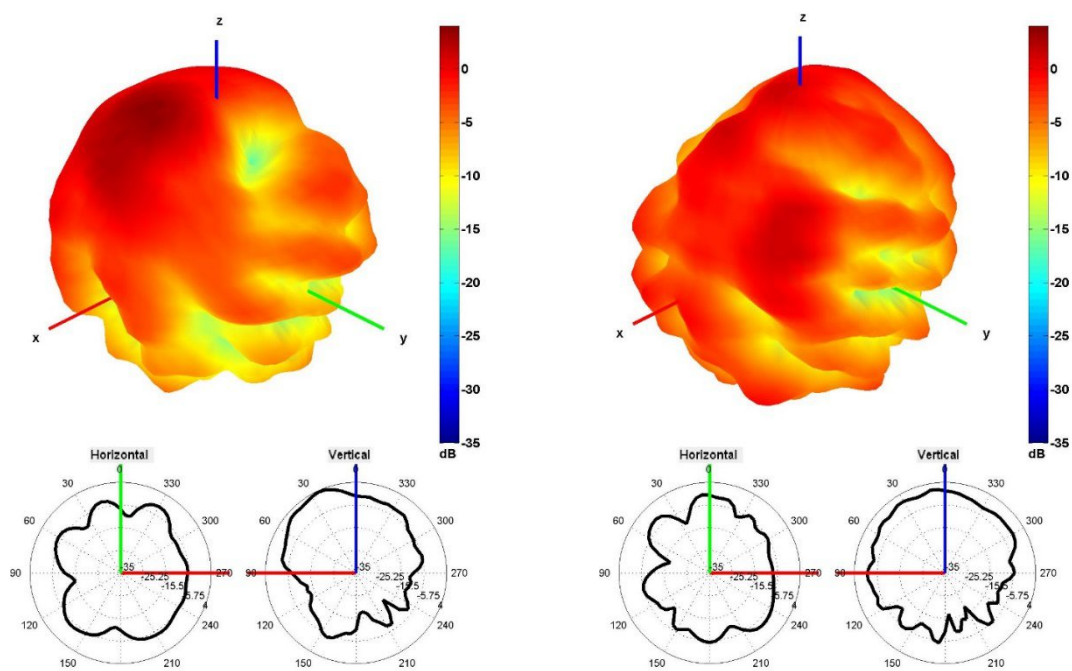
Cable 2: CELLULAR/LTE



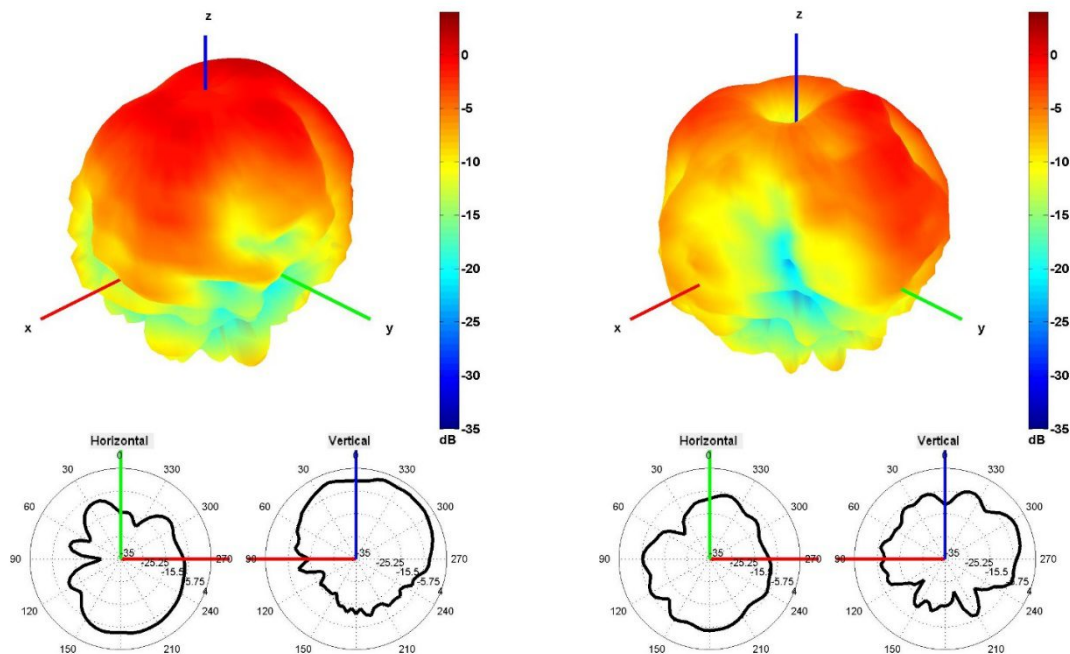
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

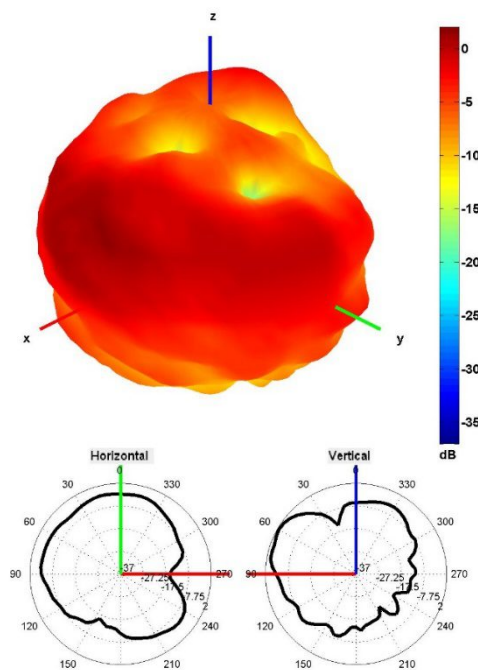


1850 and 1950 MHz Radiation pattern



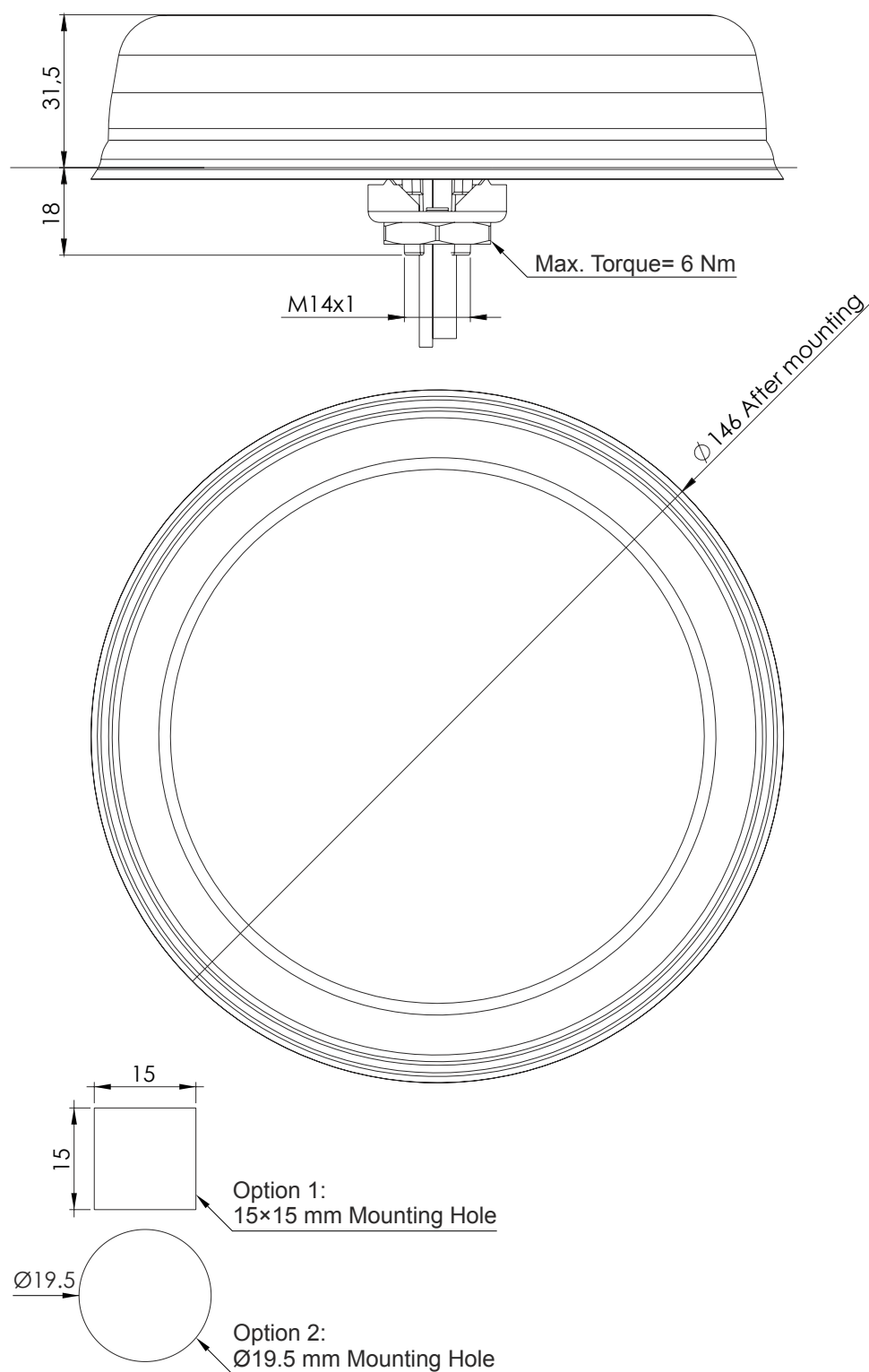
2100 and 2600 MHz Radiation pattern

Cable 3: 2.4 GHz ISM



2450 MHz Radiation pattern

4. Antenna drawings



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

5. Antenna Images

