

2J7050BGFc

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

Key Features

Cable 1 and 2: CELLULAR / LTE

Cable 3: 2.4/5.0 GHz ISM

Cable 4: GPS/GLONASS/QZSS/Galileo

Screw Mount

Heavy Duty antenna

High Performance

Ground Plane Independent

Anti-Rotation Mounting

Customizable Cable and Connector

Dimensions: Ø 96 x H 90 mm

Certificates: IP67, IP69, IK09



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)	~-10.6	~-15.6	~-11.7
VSWR	~1.9:1	~1.6:1	~1.7:1
Efficiency (%)	~57.4	~57.0	~47.0
Peak Gain (dBi)	~-2.1	~-4.2	~-3.1
Average Gain (dB)	~-2.4	~-2.5	~-3.3
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	LL195 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)	~-11.0	~-14.3	~-16.6
VSWR	~1.9:1	~1.6:1	~1.4:1
Efficiency (%)	~62.6	~54.0	~57.1
Peak Gain (dBi)	~-2.1	~-4.2	~-3.1
Average Gain (dB)	~-2.4	~-2.5	~-3.3
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	LL195 Standard (Other Cables Available)		

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm
 200 cm of LL195 Cable
 Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

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)	~-10.4	~-13.6
VSWR	~1.9:1	~1.6:1
Efficiency (%)	~58	~64
Peak Gain (dBi)	~5.6	~5.5
Average Gain (dB)	~-2.3	~-1.9
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	LL195 Standard (Other Cables Available)	

Cable 4

Parameters	GPS/GLONASS Antenna	
Standard	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1610
Return Loss (dB)	<=-14	
VSWR	<=1.5:1	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Post-Filter	
Active Gain (dB)	23 @ 3 V, 24 @ 5 V	
Noise Figure (dB)	1.2	
Voltage (V)	2.7 - 5.5	
Current Consumption (mA)	15 - 25	
Power Consumption (mW)	40.5 - 137.5	
Out of Band Rejection (dBc)	~32	
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:

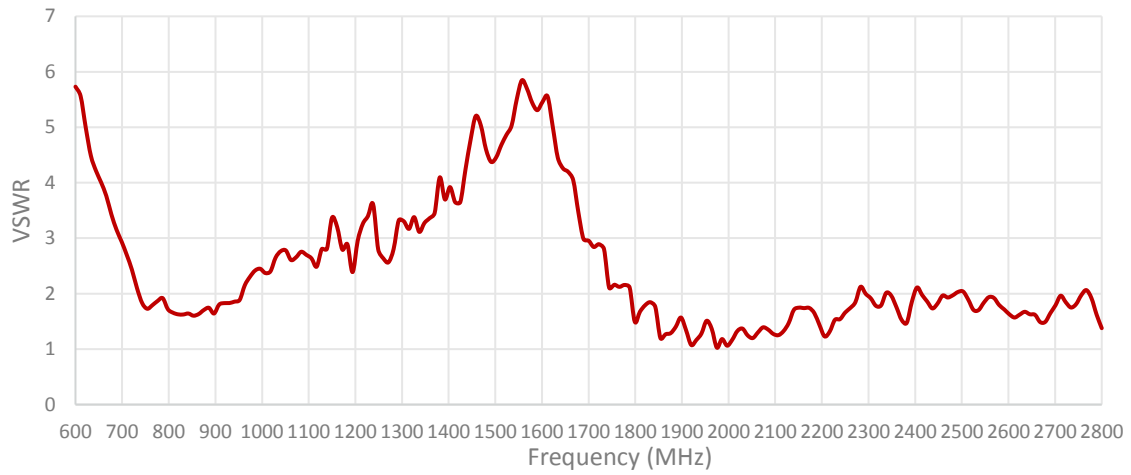
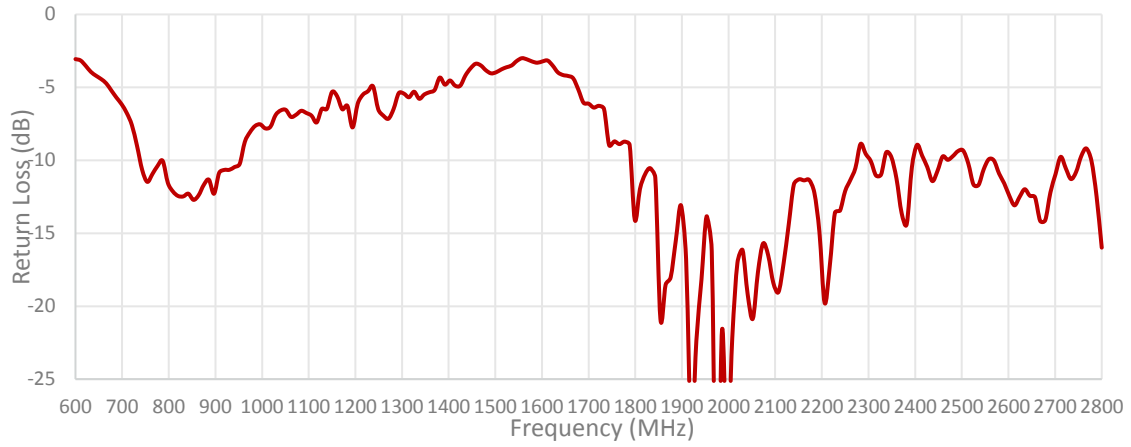
Mounted on Metal Plate of 30 x 30 cm
 200 cm of LL195 Cable
 Measured in Certified CTIA 3D Anechoic Chamber

2. Mechanical and environmental specifications

Specifications	2J7050BGFc
Mounting Type	Screw Mount
Dimensions (mm)	Ø 96 x H 90
Max. Tighten Torque (Nm)	15 Nm
Radome	ASA
Radome color	White, Black
Antenna Base	Alluminium alloy
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69, IK09

3. Antenna parameters

Table 1: CELLULAR/LTE



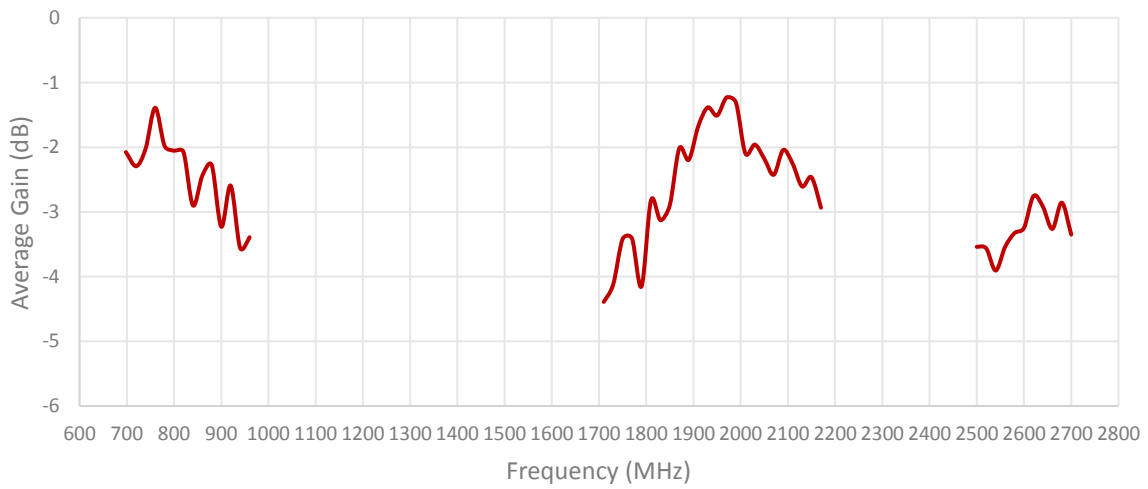
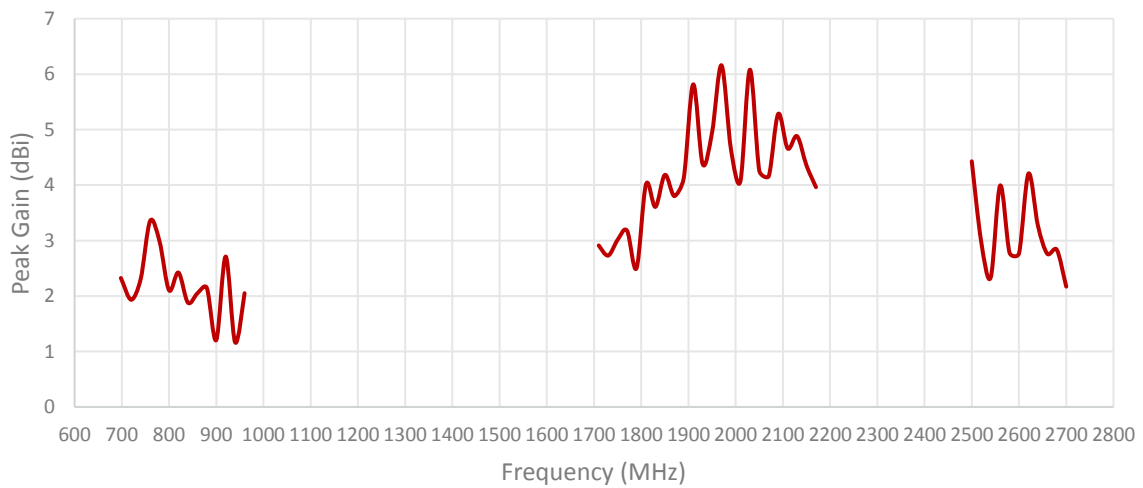
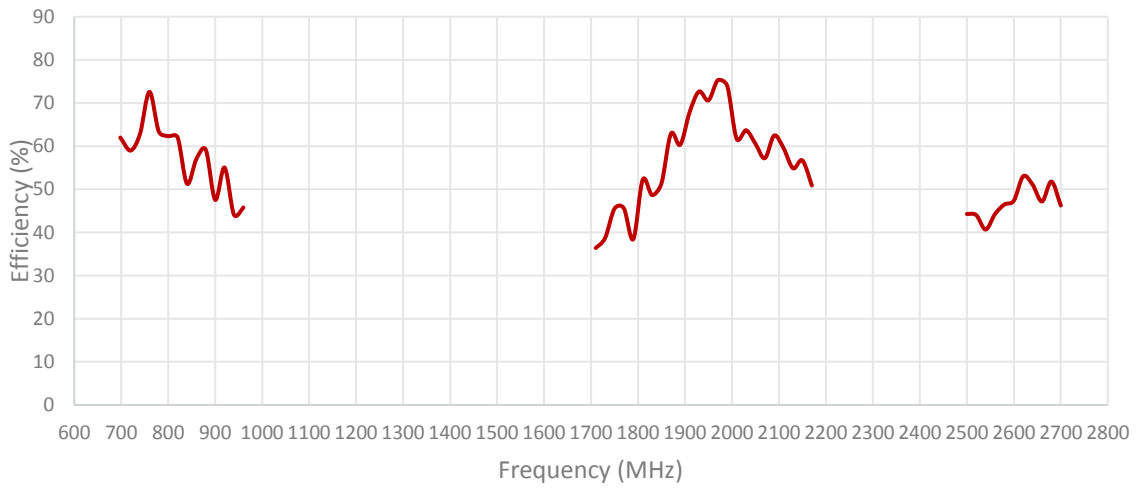
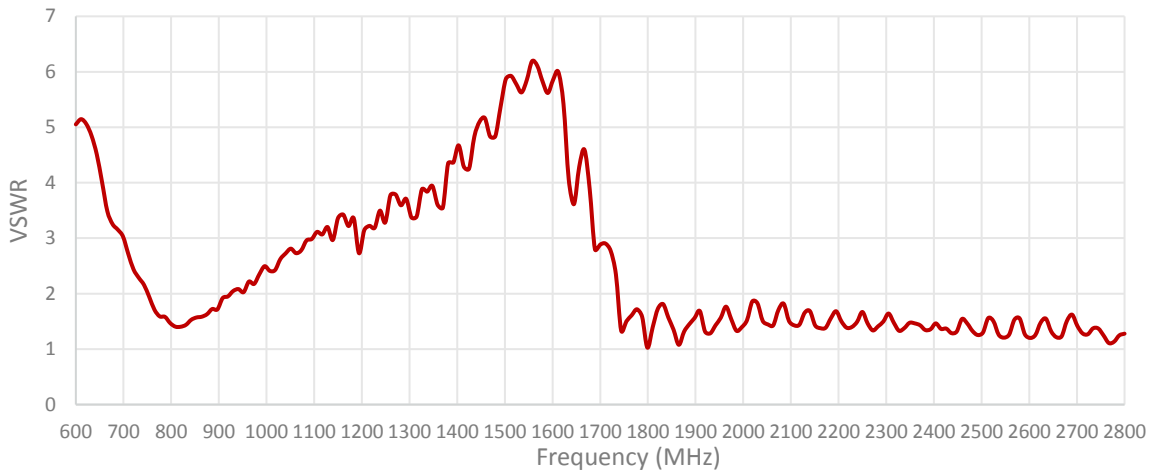
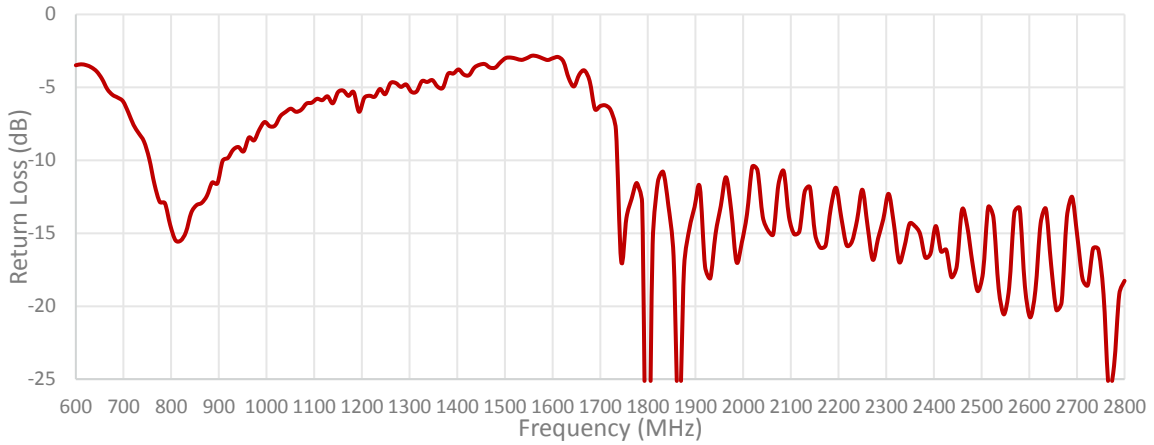
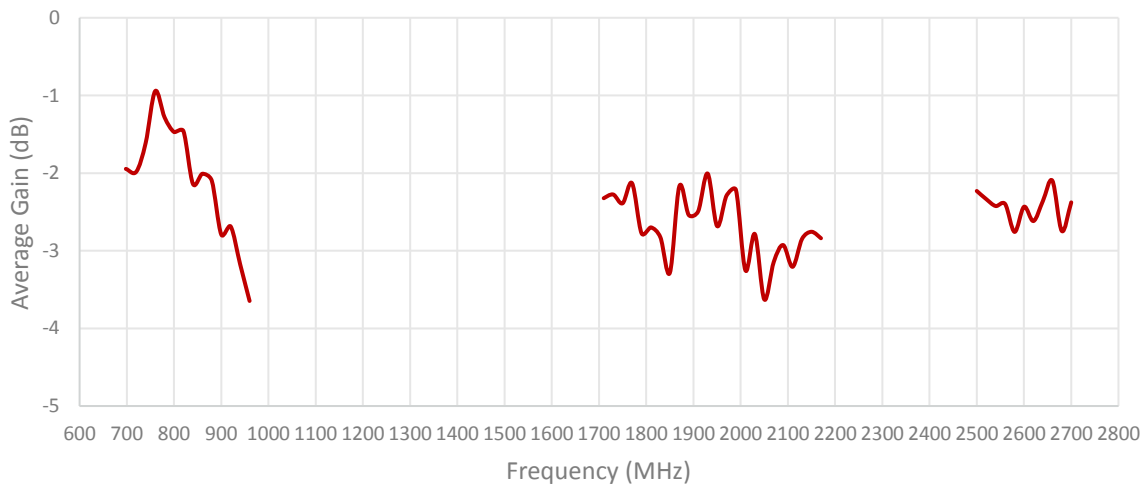
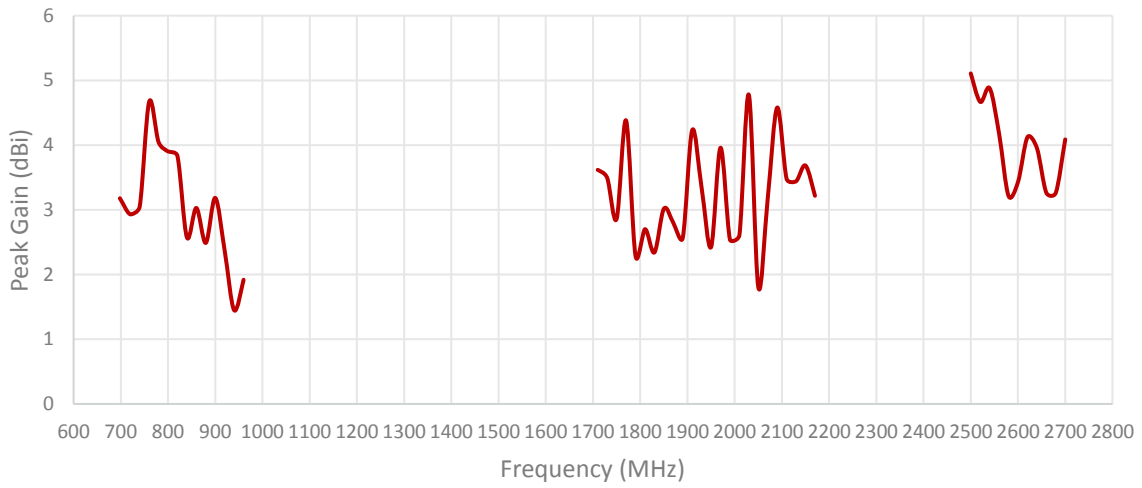
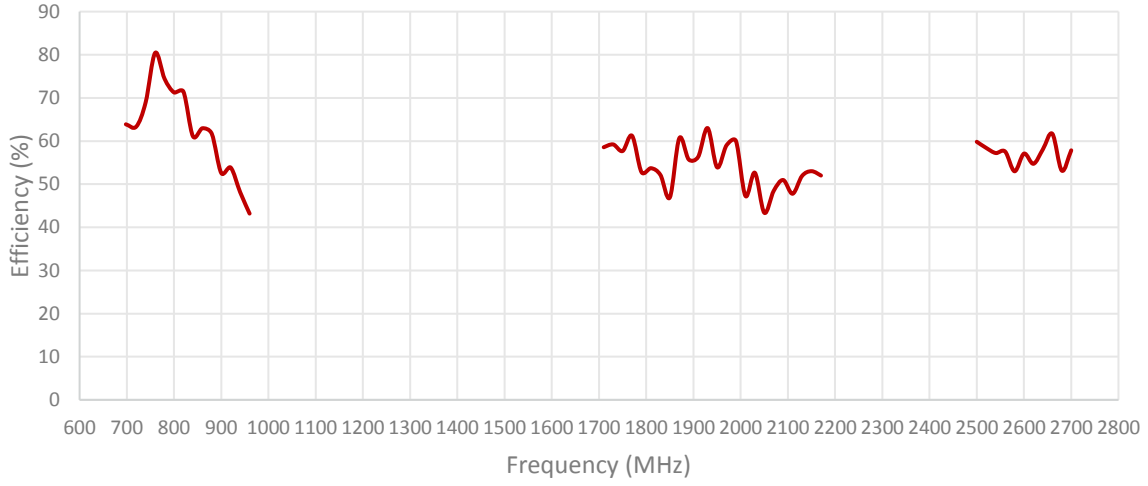
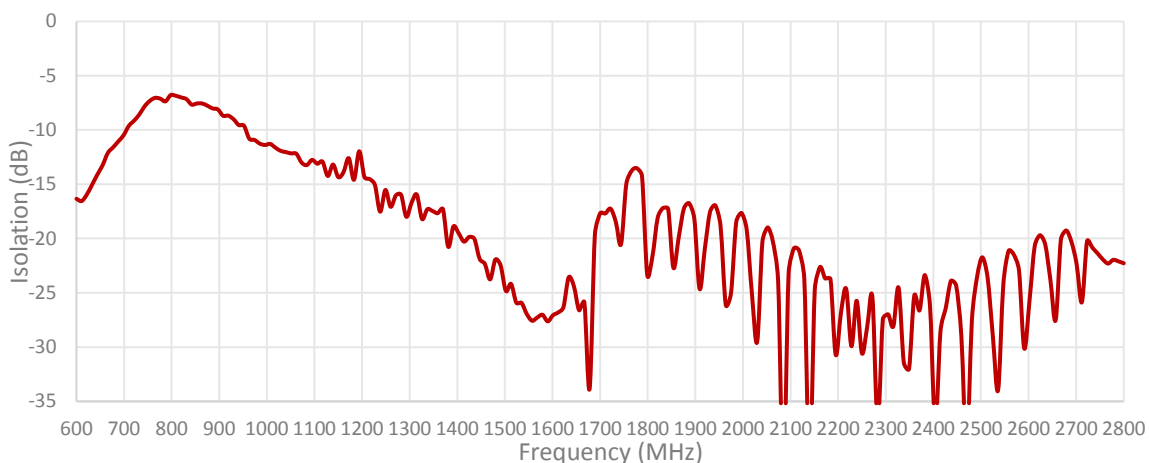


Table 2: CELLULAR/LTE

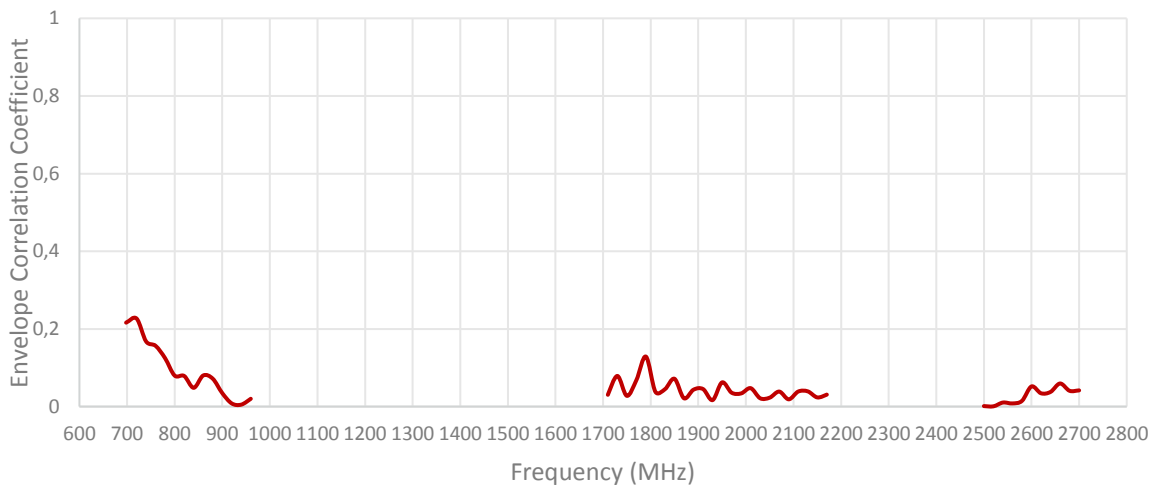




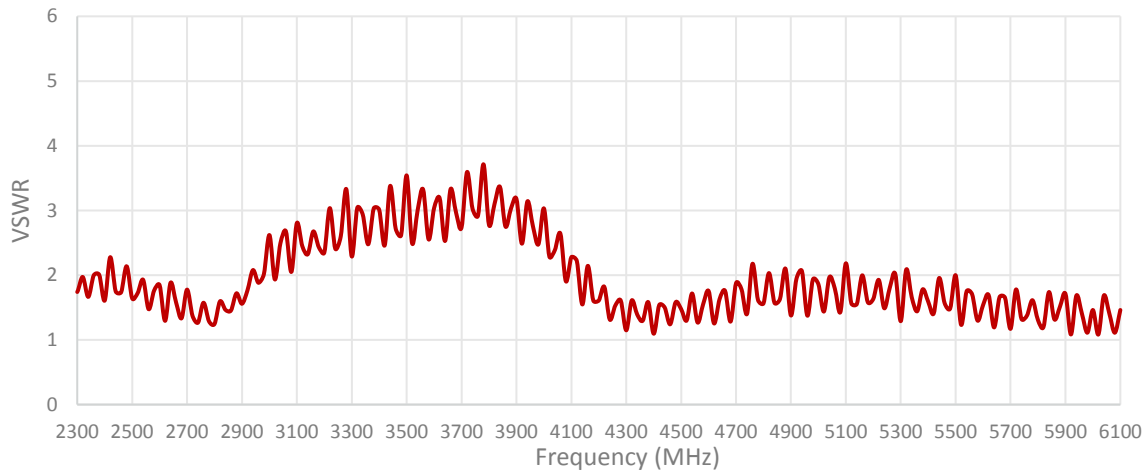
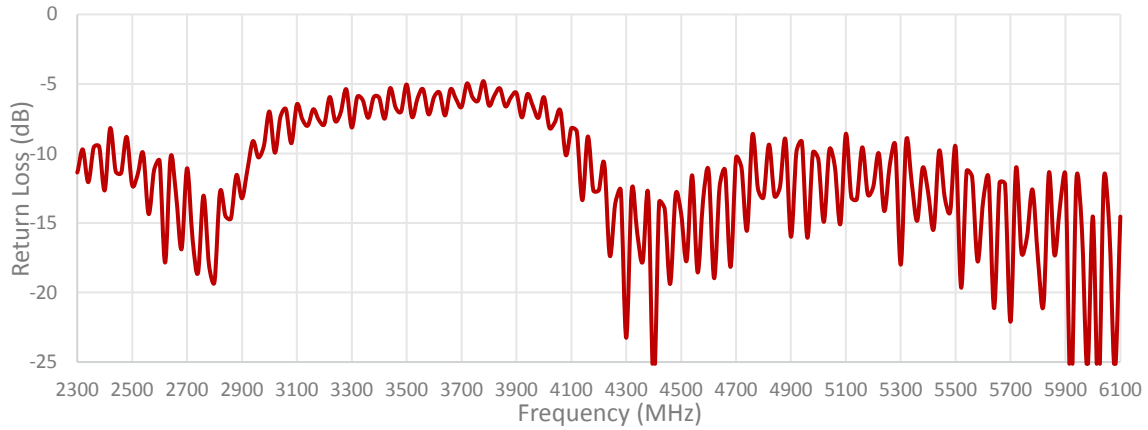
ISOLATION FOR CABLES 1 AND 2

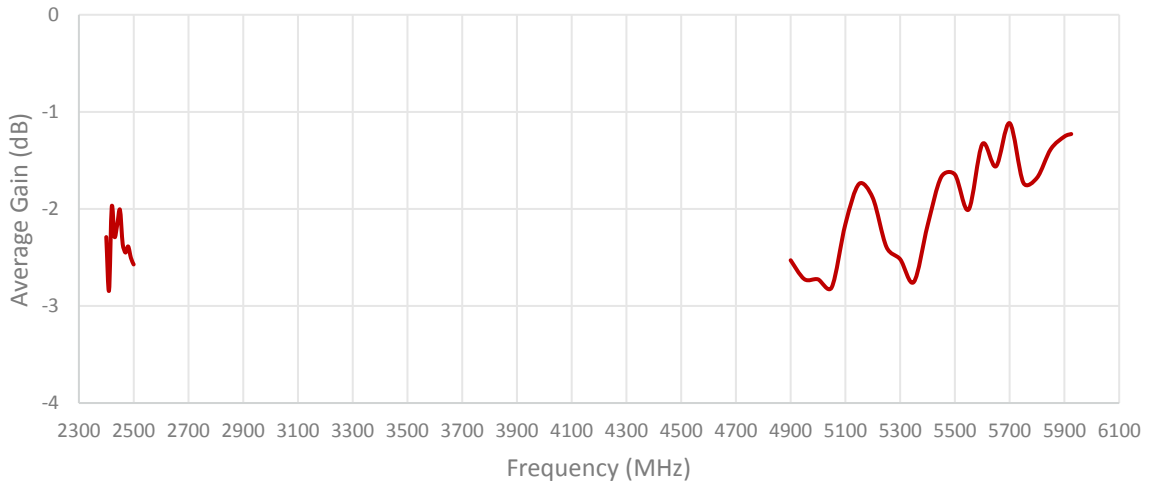
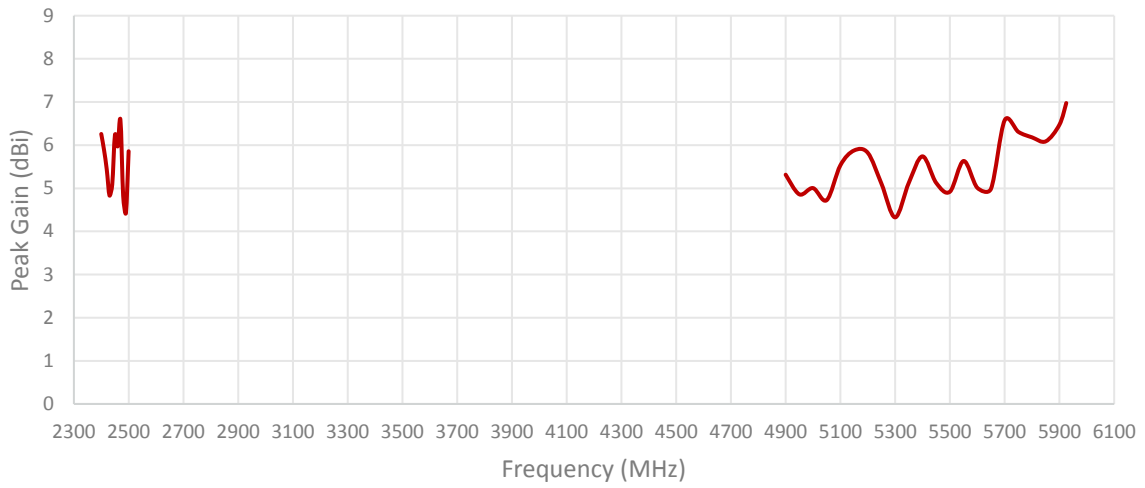
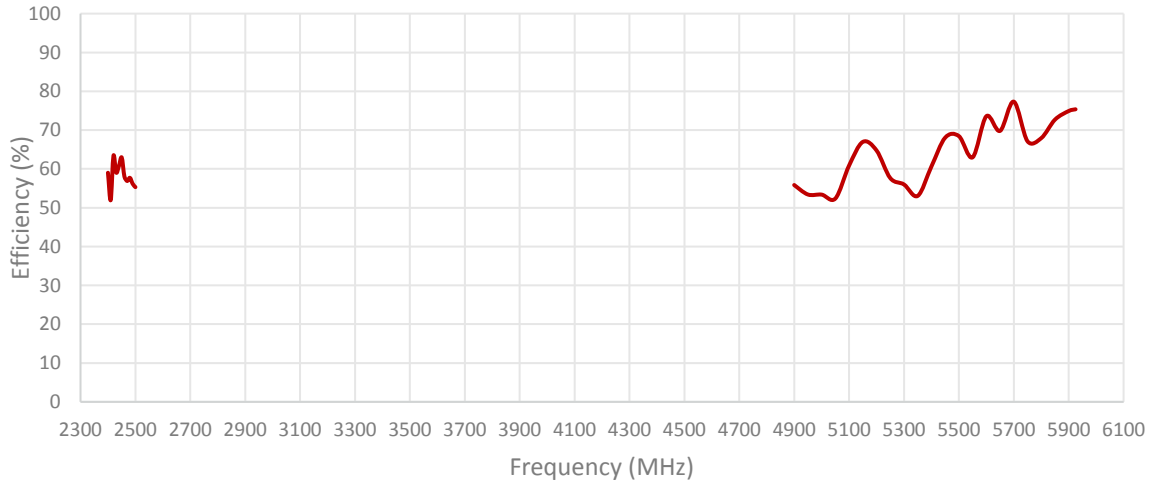


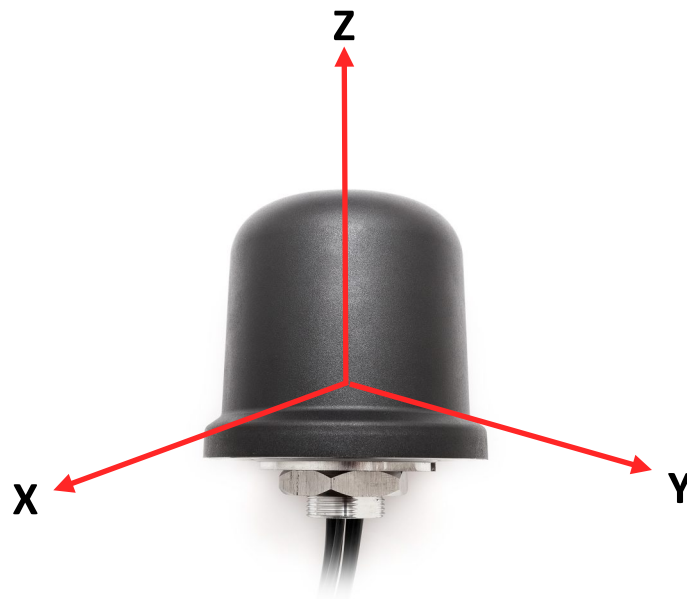
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



Cable 3: 2.4/5.0 GHz ISM

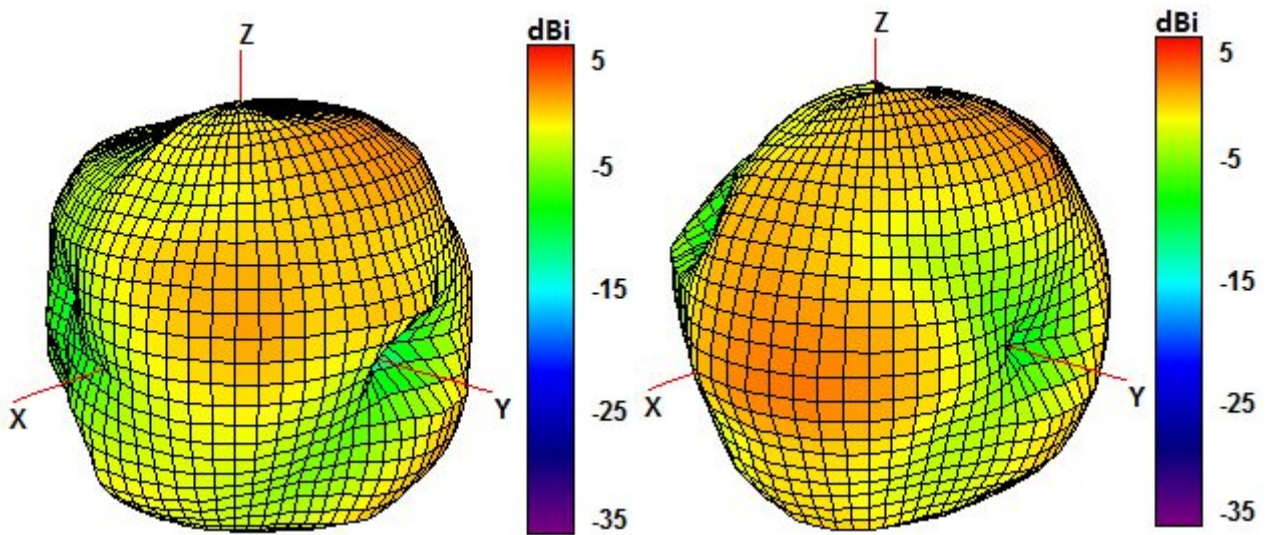




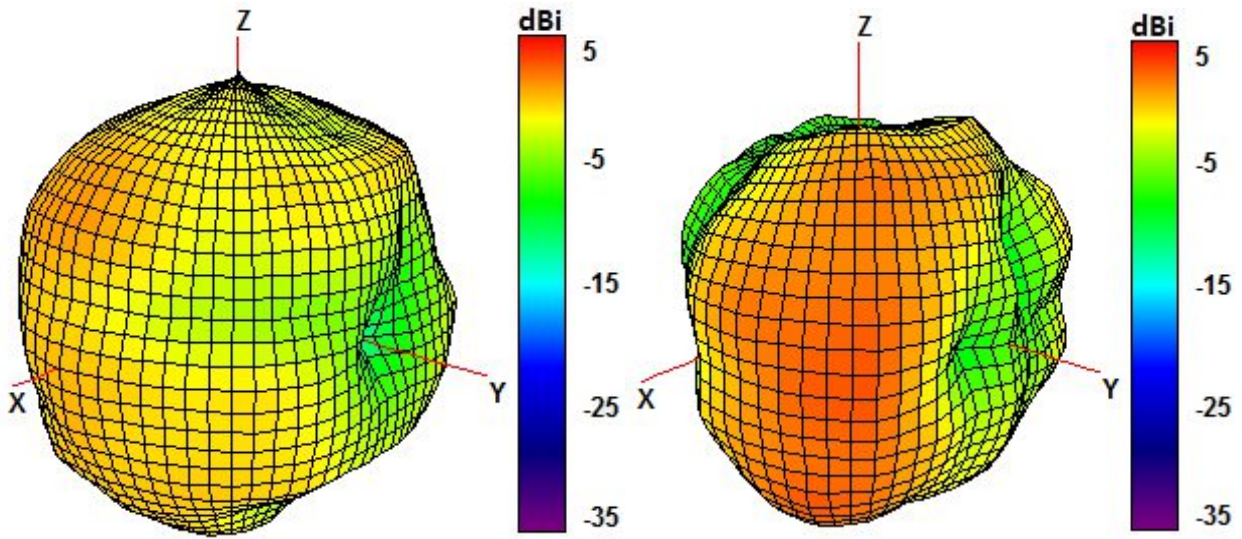


Radiation pattern reference

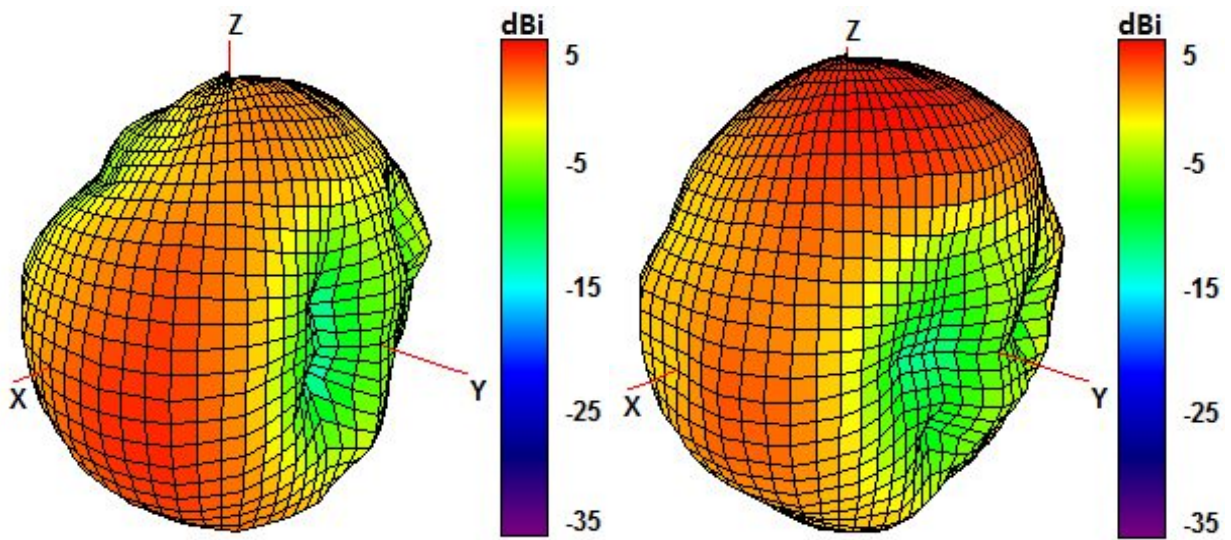
Cable 1: CELLULAR/LTE



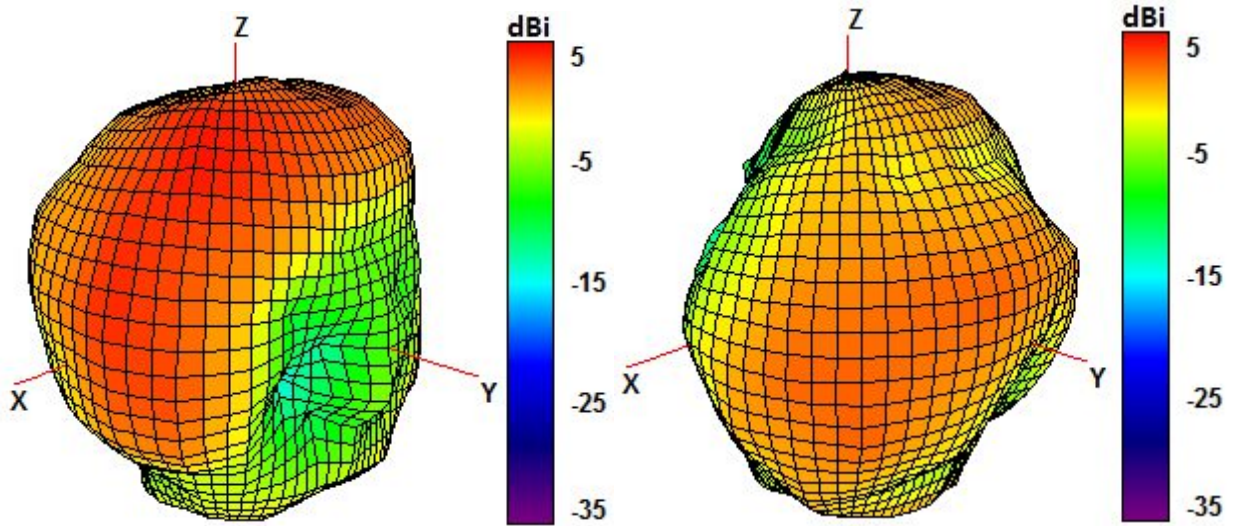
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

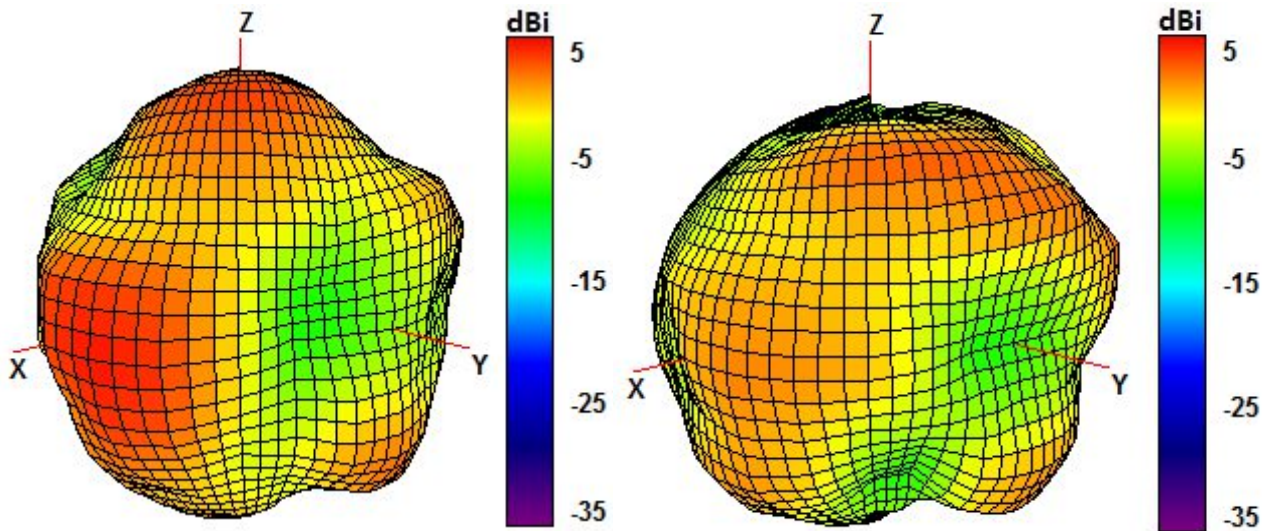


1850 and 1950 MHz Radiation pattern

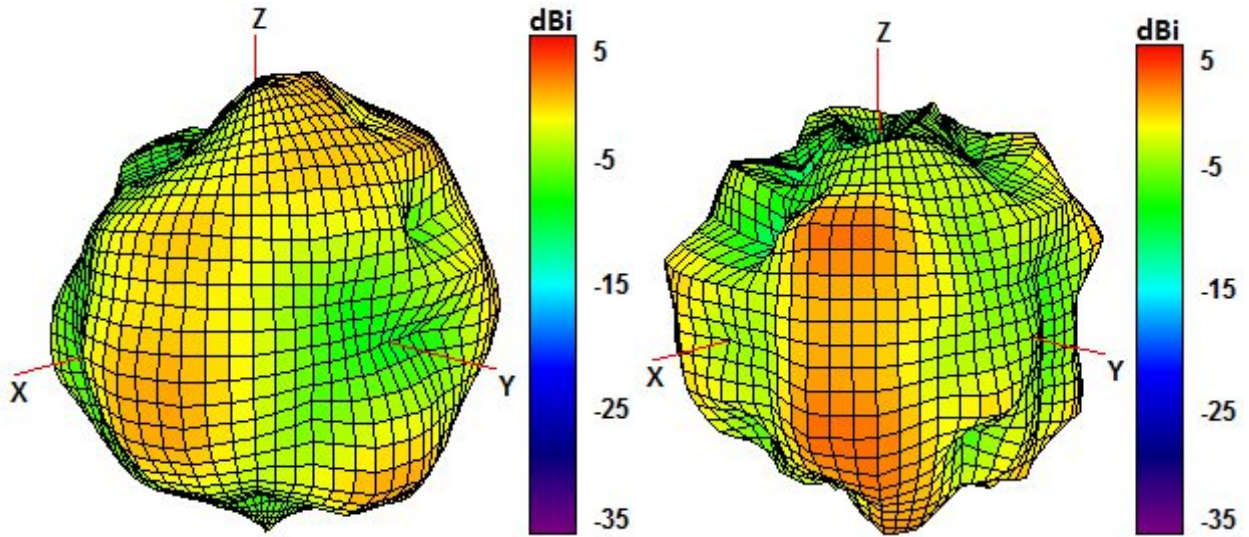


2100 and 2600 MHz Radiation pattern

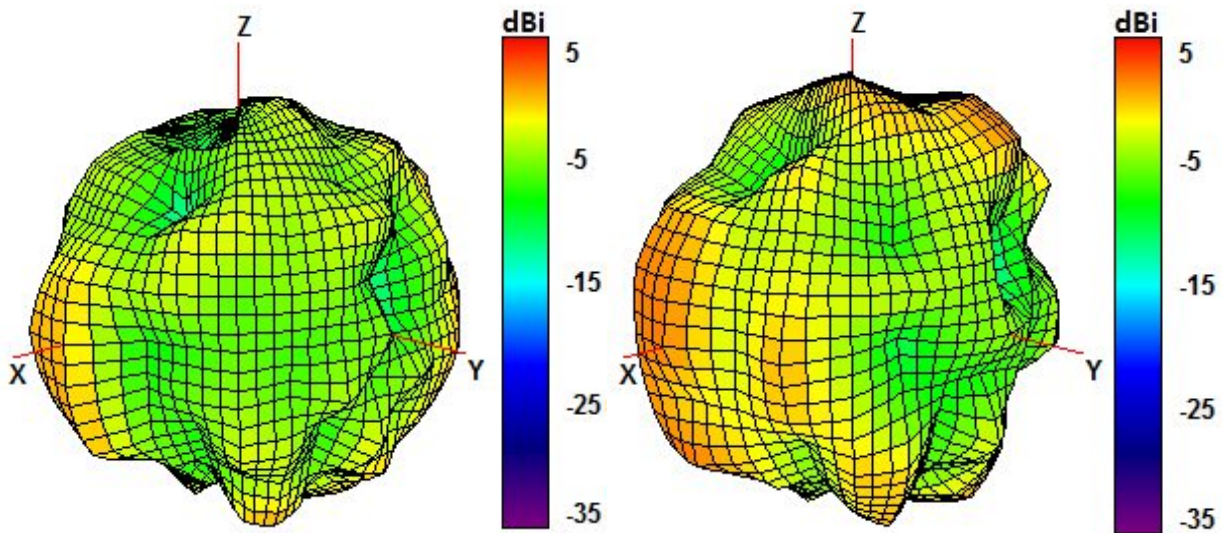
Cable 2: CELLULAR/LTE



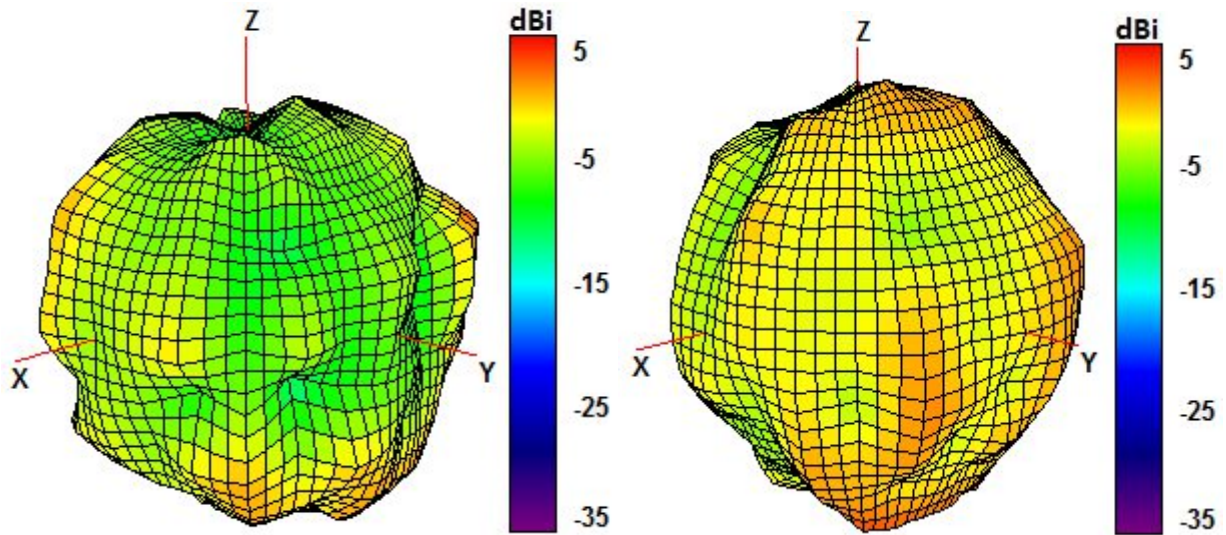
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

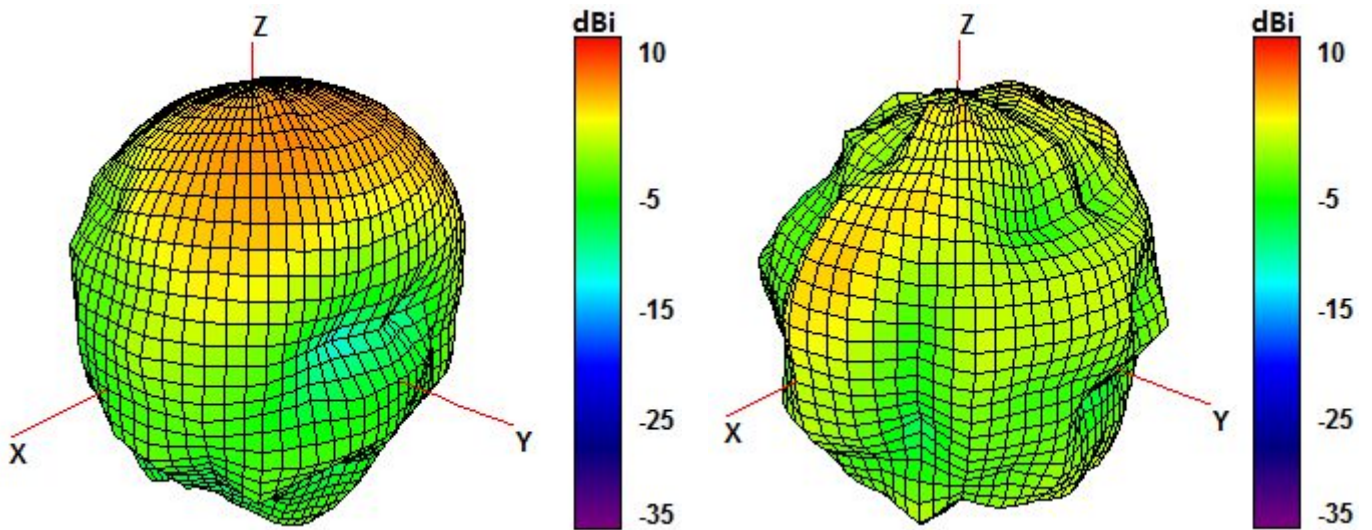


1850 and 1950 MHz Radiation pattern



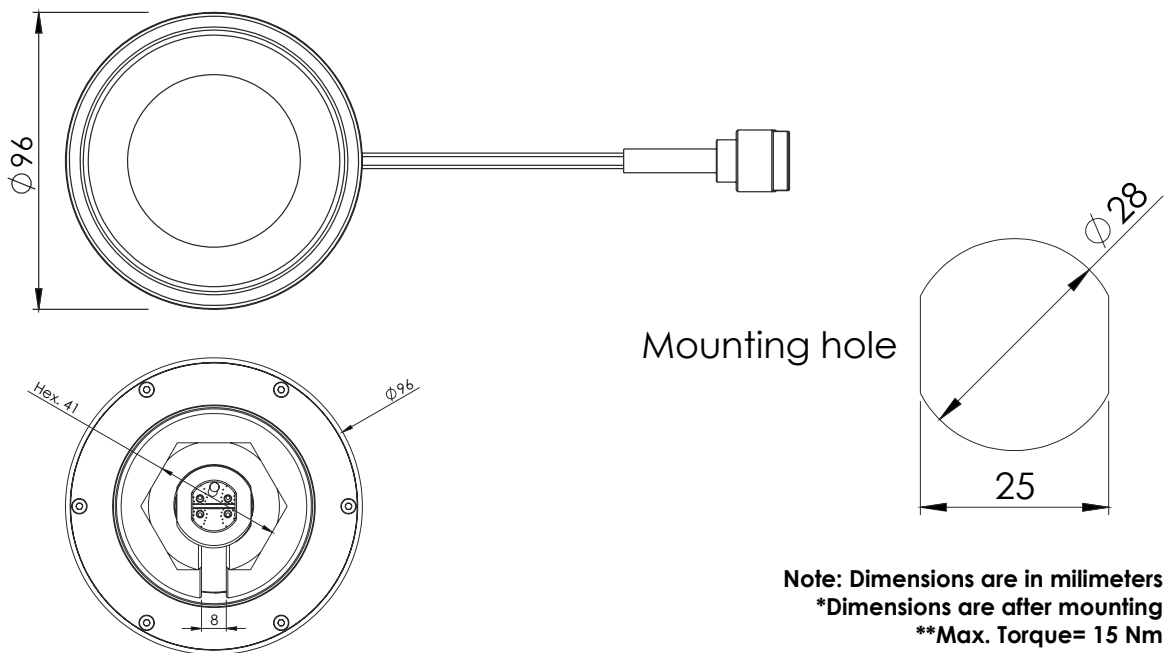
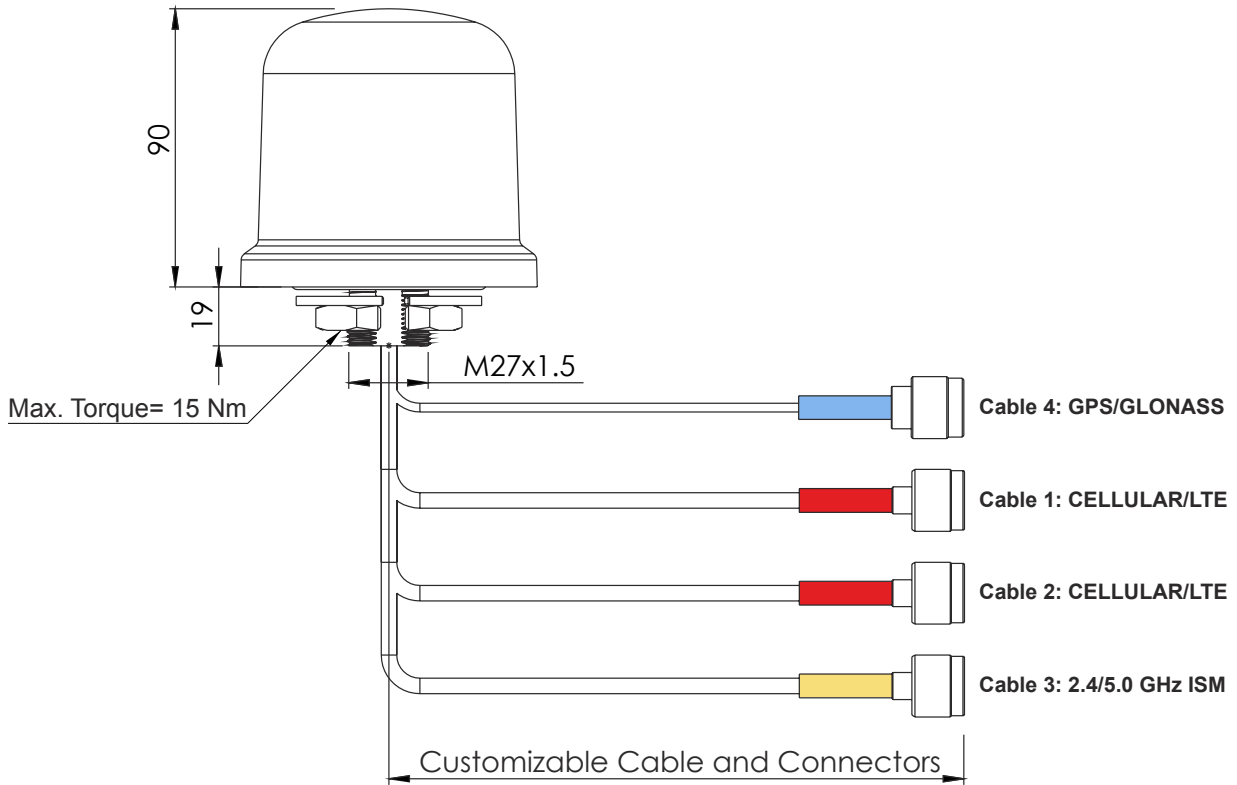
2100 and 2600 MHz Radiation pattern

Cable 3: 2.4/5.0 GHz ISM

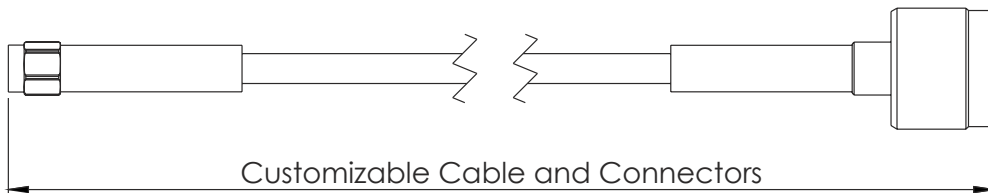


2450 and 5500 MHz Radiation pattern

4. Antenna drawings

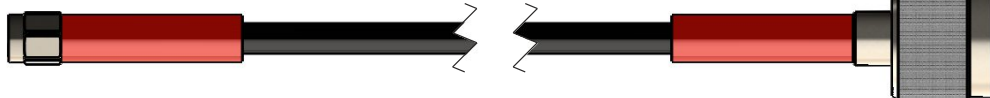


5. Jumper cables drawings - Optional



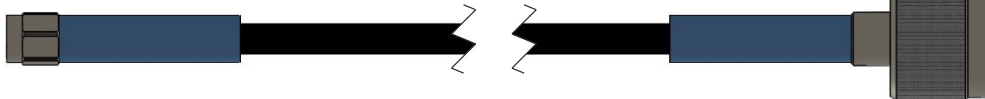
C318N-LMR195-C91N OST - 2x

Cable 1 and 2: CELLULAR/LTE - Shrink tube Orange d6,4



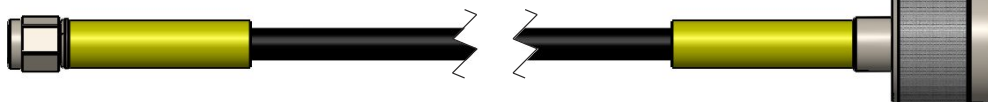
C318N-LMR195-C91N BST

Cable 5: GPS/GLONASS - Shrink tube Light blue d6,4



C318N-LMR195-C151N GST - 1x

Cable 3 and 4: 2.4/5.0 GHz ISM - Shrink tube yellow d6,4



6. Antenna Images

