

2J6947Ba

CELLULAR/LTE MIMO and 2.4/5.0/6.0 GHz ISM Screw Mount

Key Features

Cable 1 and 2: CELLULAR / LTE

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

Cable 3: 2.4/5.0/6.0 GHz ISM

- 2410-2490 MHz
- 4920-5925 MHz
- 5925-7125 MHz

Screw Mount

Anti-Rotation Mounting

Low Profile

Ground Plane Independent

Customizable Cable and Connector

Dimensions 80 × 74 × 25.6 mm

Certificates: IP67, IP69



1. Antenna and electrical specifications

Cable 1

Parameters	CELLULAR / LTE Antenna		
	4GLTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G2G		
Standards	4GLTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G2G		
Band (MHz)	700/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	698-960	1710-2170	2500-2700
Return Loss (dB)	~-11.7	~-7.9	~-21.6
VSWR	~2.0:1	~2.4:1	~1.2:1
Efficiency (%)	~42.5	~25.1	~30.0
Peak Gain (dBi)	~3.9	~2.0	~4.1
Average Gain (dB)	~-3.7	~-5.9	~-5.0
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	D302 Standard (Other Cables Available)		

Cable 2

Parameters	CELLULAR / LTE Antenna		
	4GLTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G2G		
Standards	4GLTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G2G		
Band (MHz)	700/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	698-960	1710-2170	2500-2700
Return Loss (dB)	~-12.0	~-7.9	~-20.7
VSWR	~1.9:1	~2.4:1	~1.2:1
Efficiency (%)	~35.2	~23.4	~38.0
Peak Gain (dBi)	~3.8	~2.1	~4.5
Average Gain (dB)	~-4.5	~-6.1	~-4.2
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	D302 Standard (Other Cables Available)		

Cable 3

Parameters	2.4/5.0/6.0 GHz ISM Antenna		
Standards	WiFi, BT, ZigBee, ISM, Sigfox, LoRa		
Band (MHz)	2.4GHz	5.0 GHz	6.0GHz
Frequency (MHz)	2410-2490	4920-5925	5925-7125
Return Loss (dB)	~-11.4	~-18.0	~-18.5
VSWR	~2.0:1	~1.3:1	~1.2:1
Efficiency (%)	~24.7	~27.4	~30.0
Peak Gain (dBi)	~-0.2	~1.7	~4.1
Average Gain (dB)	~-6.1	~-5.6	~-5.0
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	D302 Standard (Other Cables Available)		

Antenna Measurement Conditions:

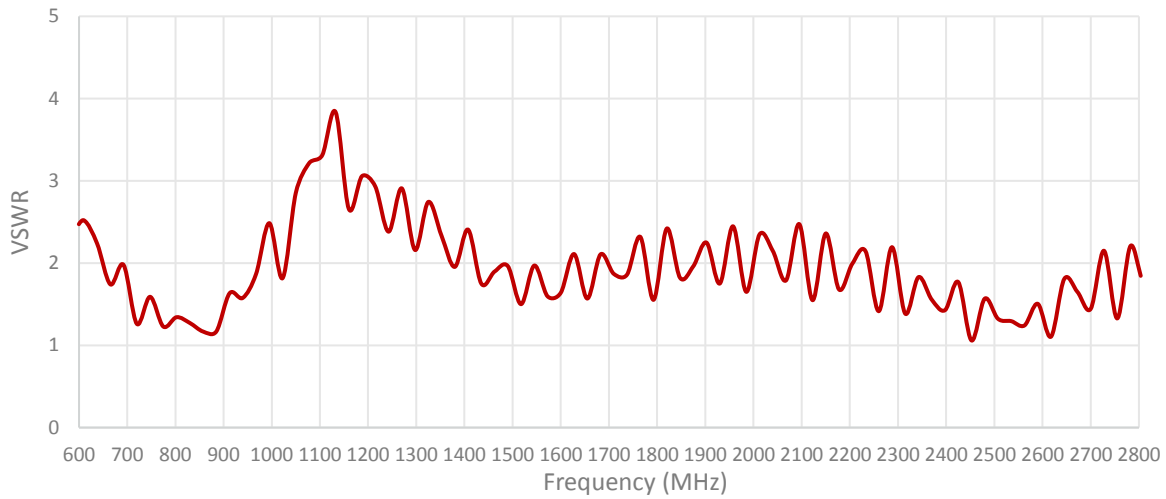
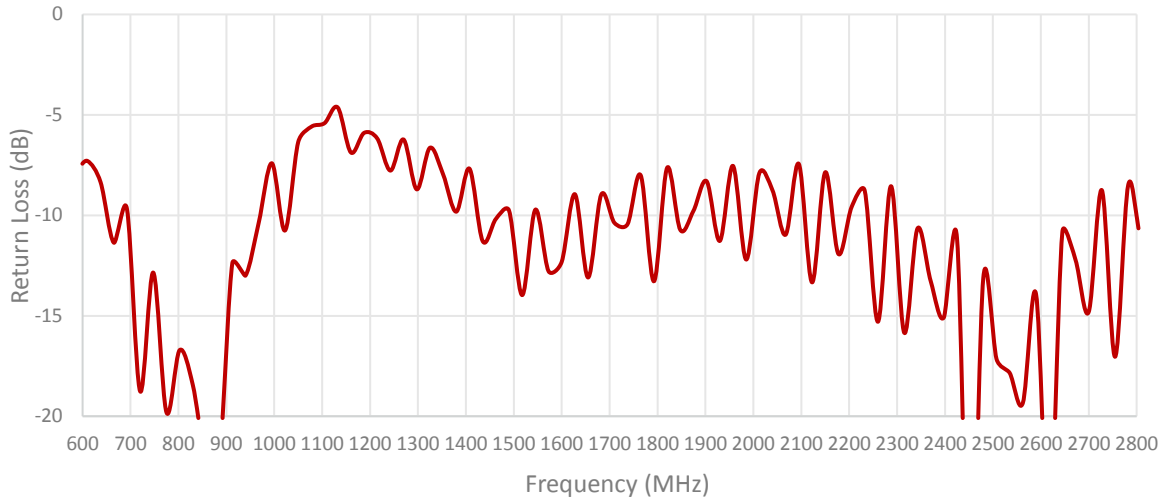
Mounted on Metal Plate of 30 x 30 cm
 200 cm of Cable D302
 Measured in Certified CTIA 3D Anechoic Chamber

2. Mechanical and environmental specifications

Specifications	2J6947Ba
Mounting Type	Screw Mount
Dimensions (mm)	80 × 74 × 25.6
Max. Tighten Torque (Nm)	5 Nm
Radome Type	PC+ASA
Radome Color	Black, White
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

3. Antenna parameters

Table 1: CELLULAR/LTE



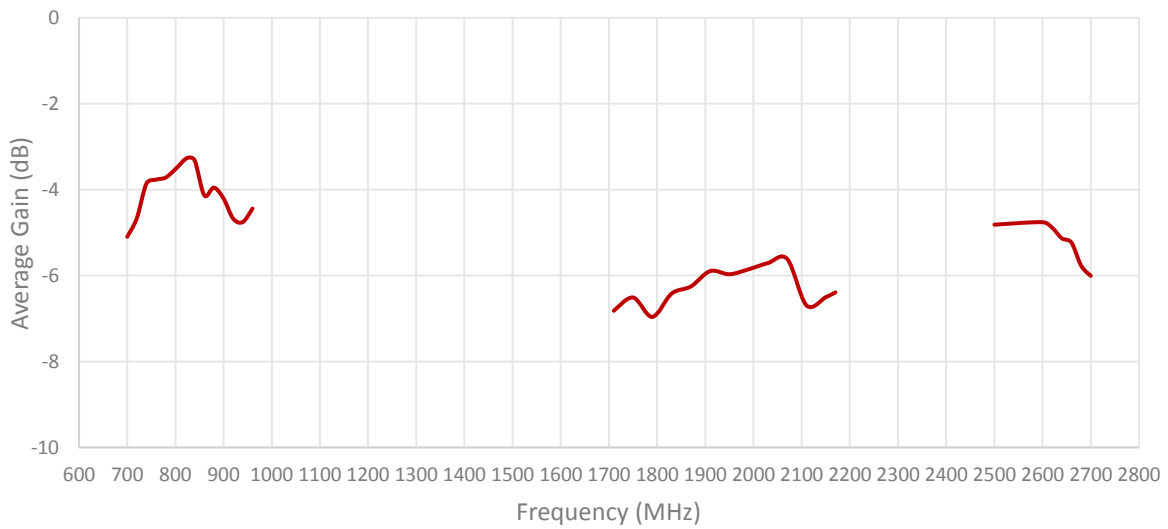
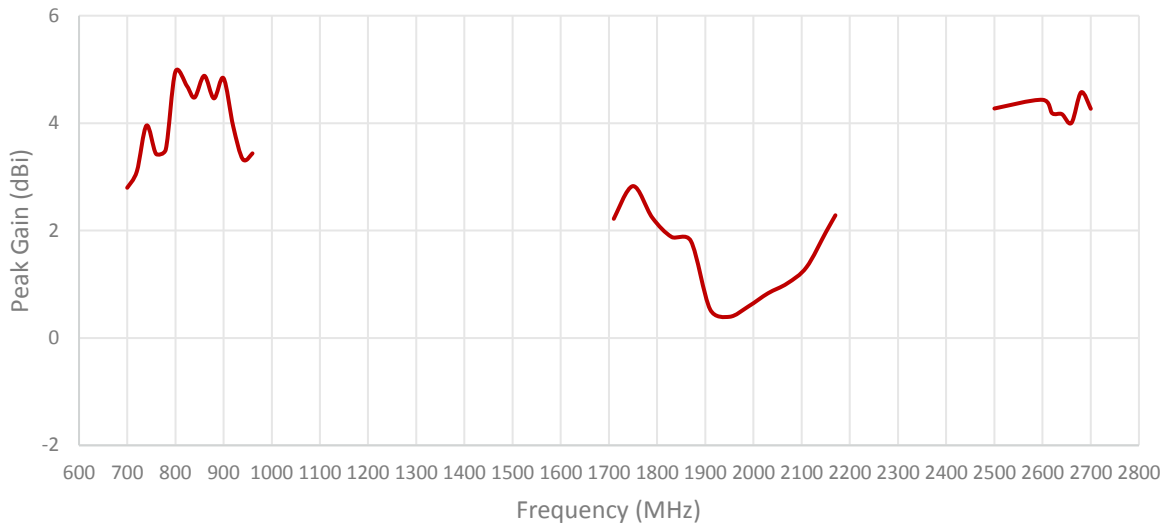
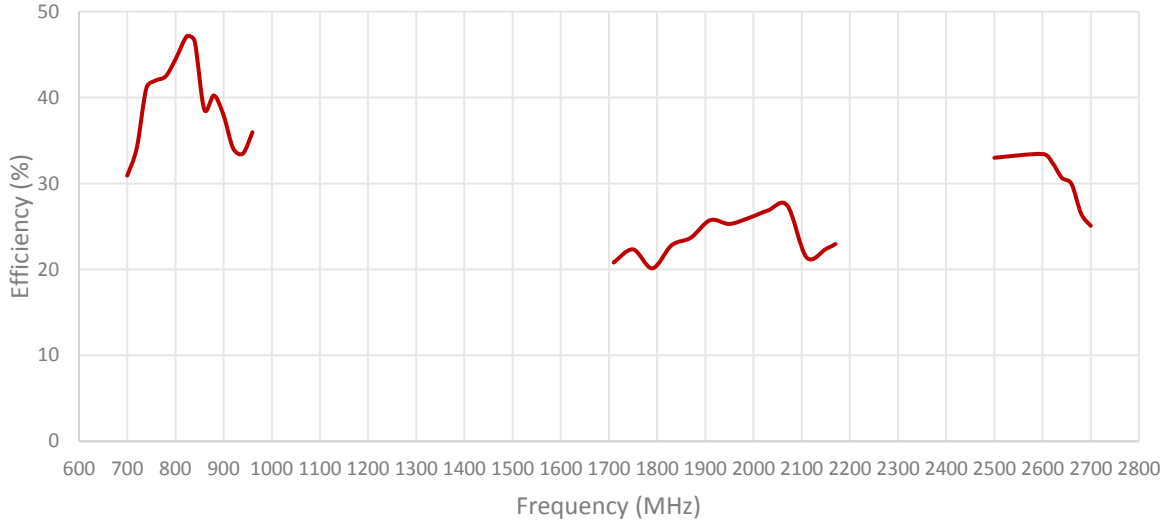
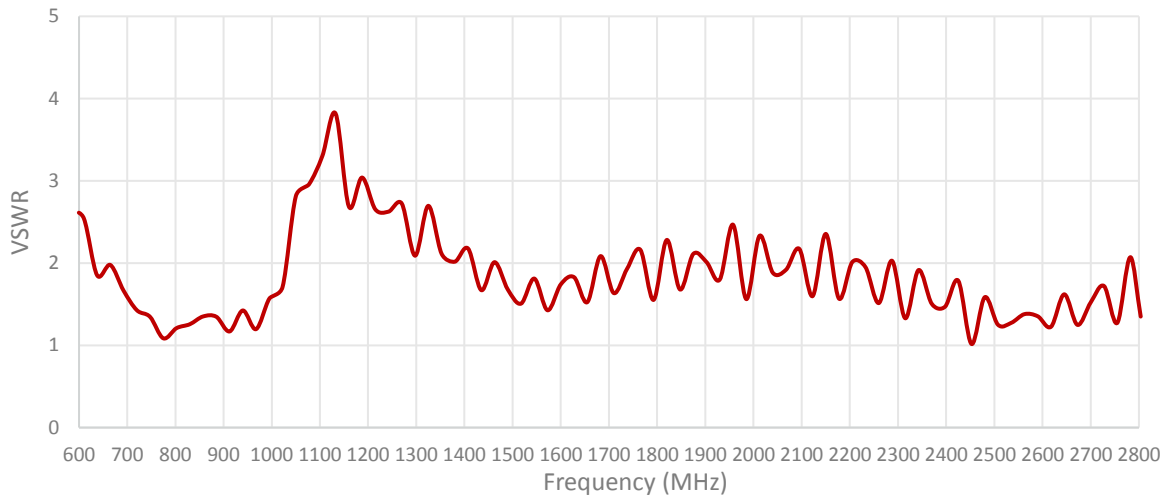
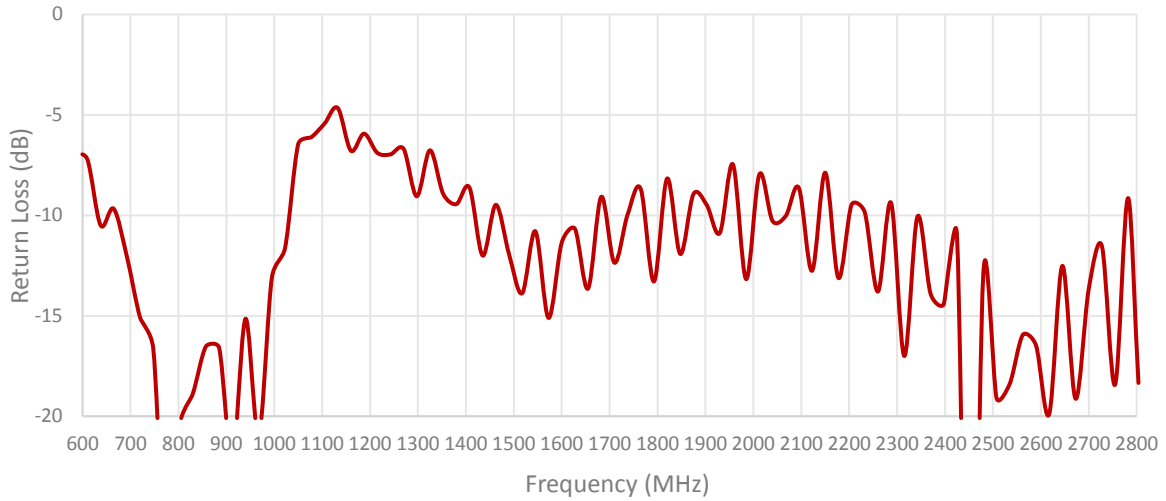
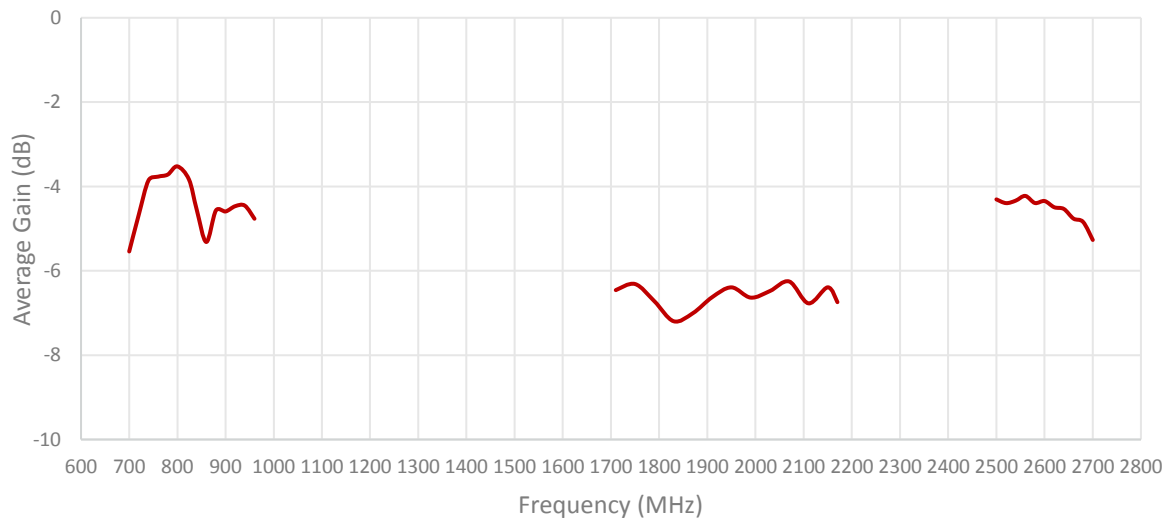
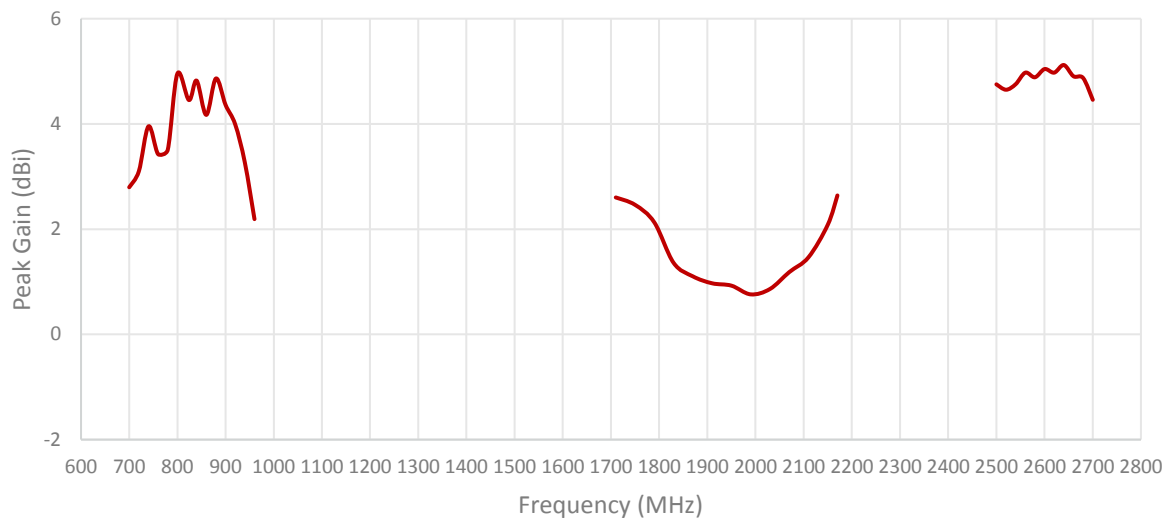
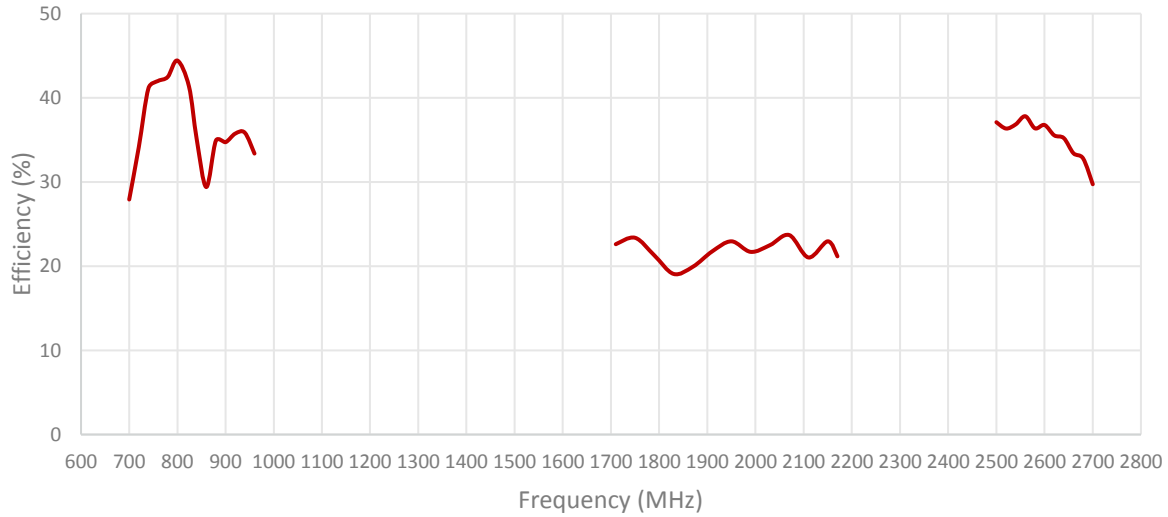
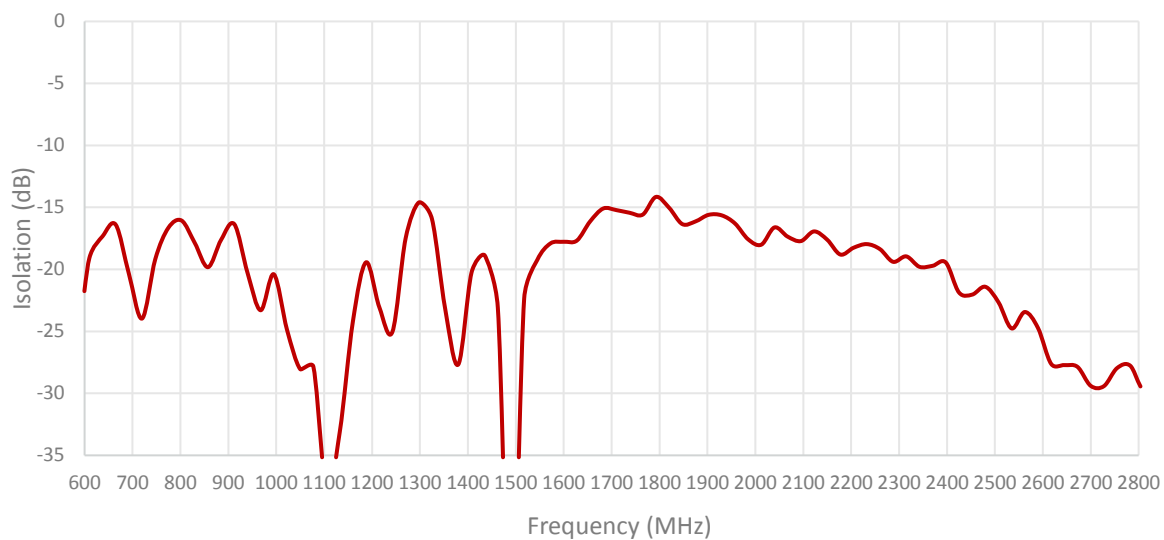


Table 2: CELLULAR/LTE





ISOLATION FOR CABLES 1 AND 2



ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2

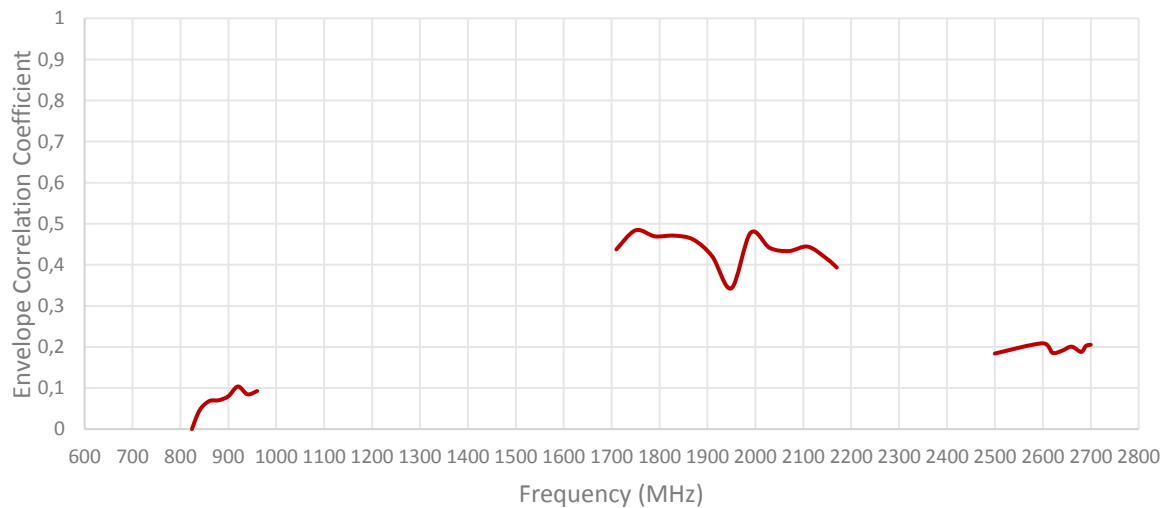
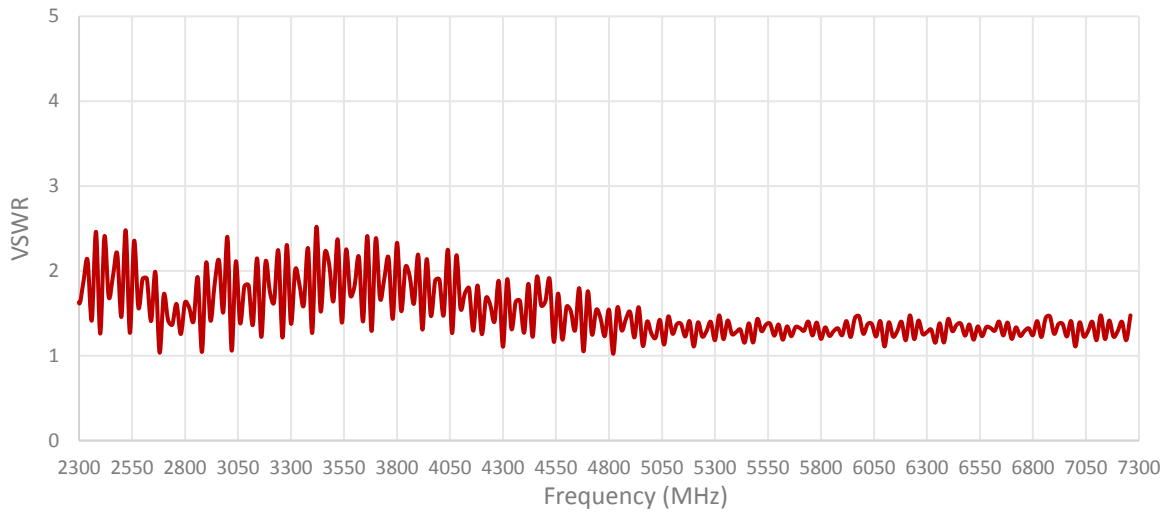
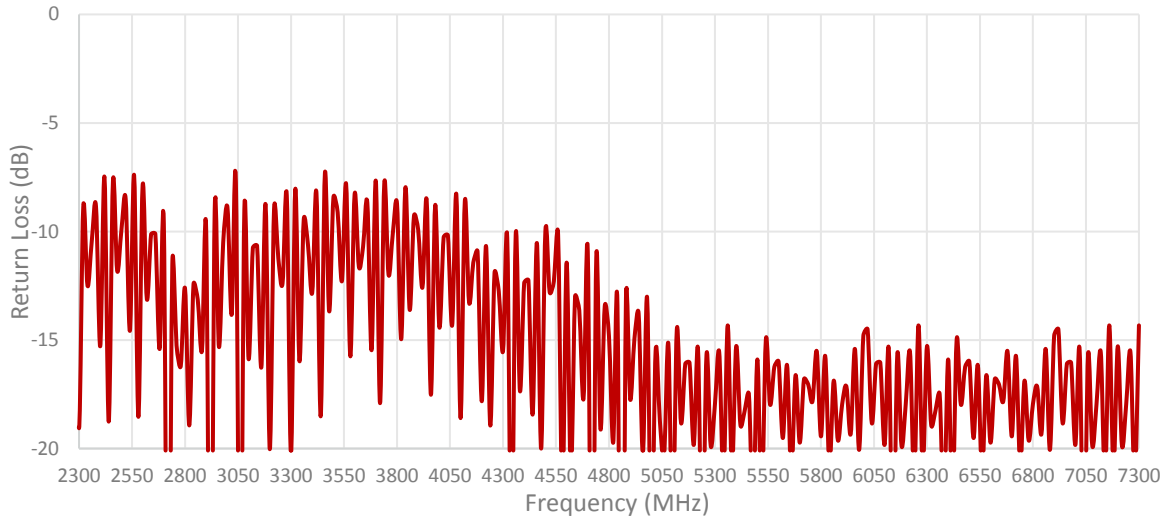
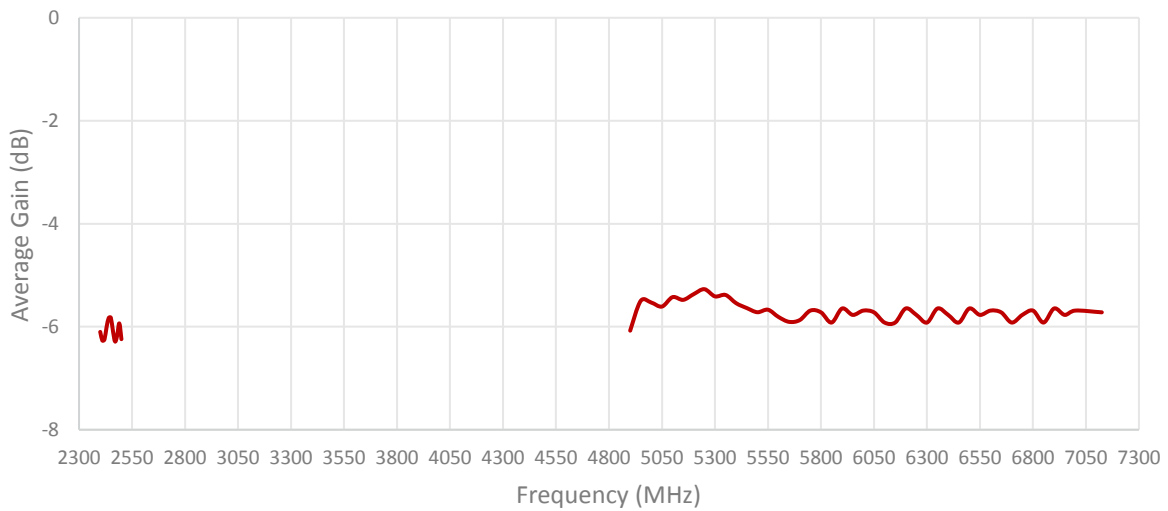
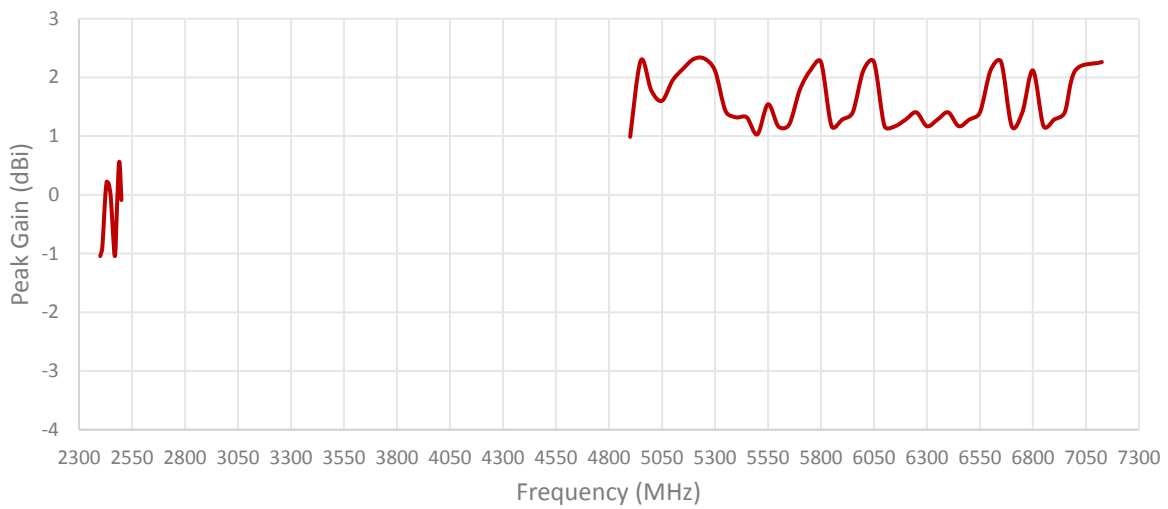
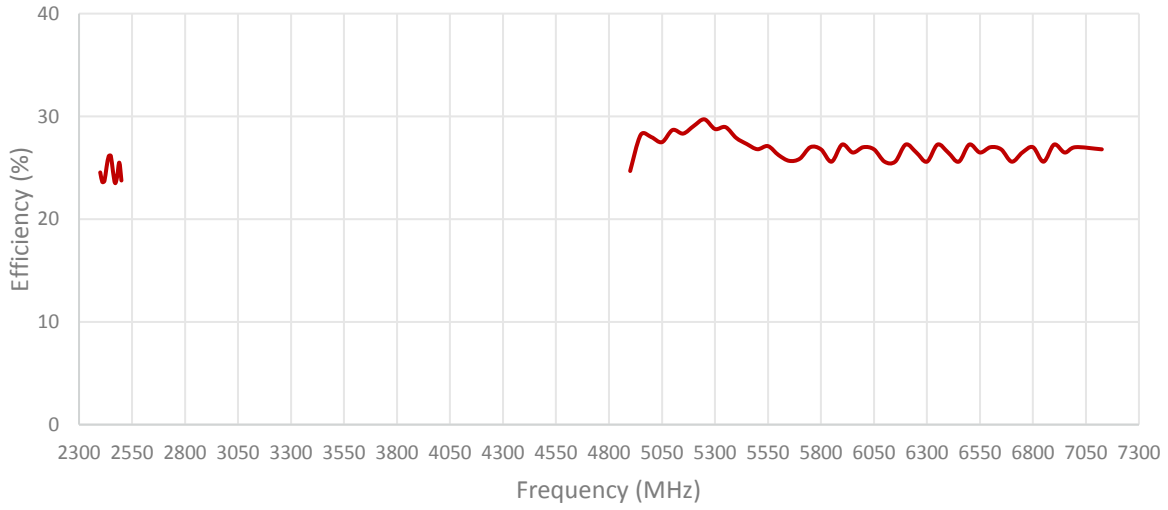


Table 3: 2.4/5.0/6.0 GHz ISM





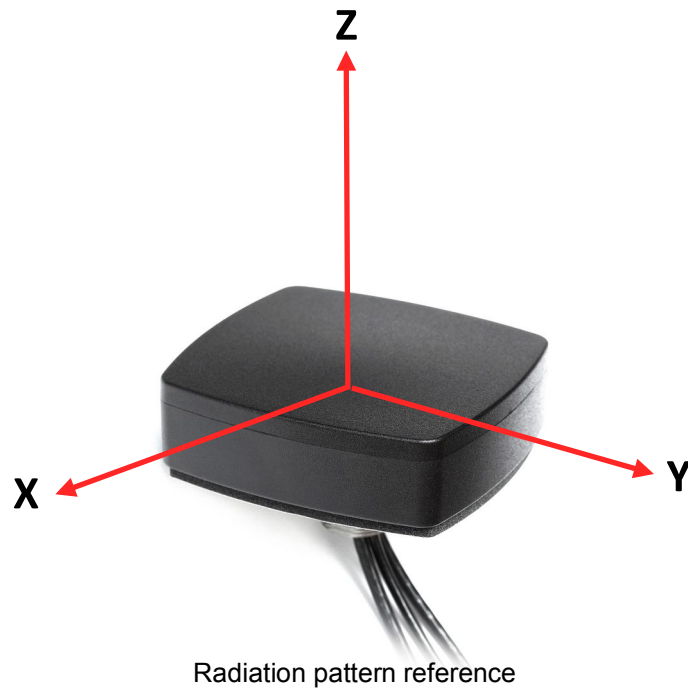
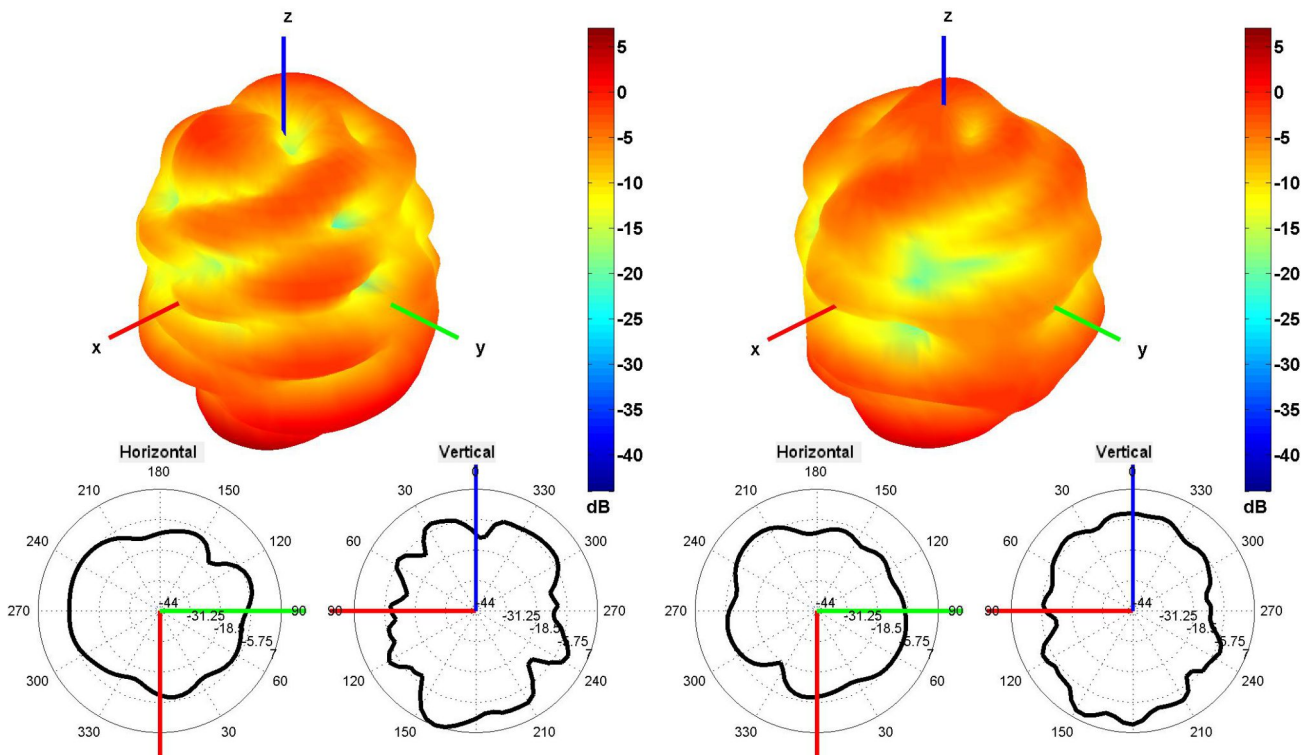
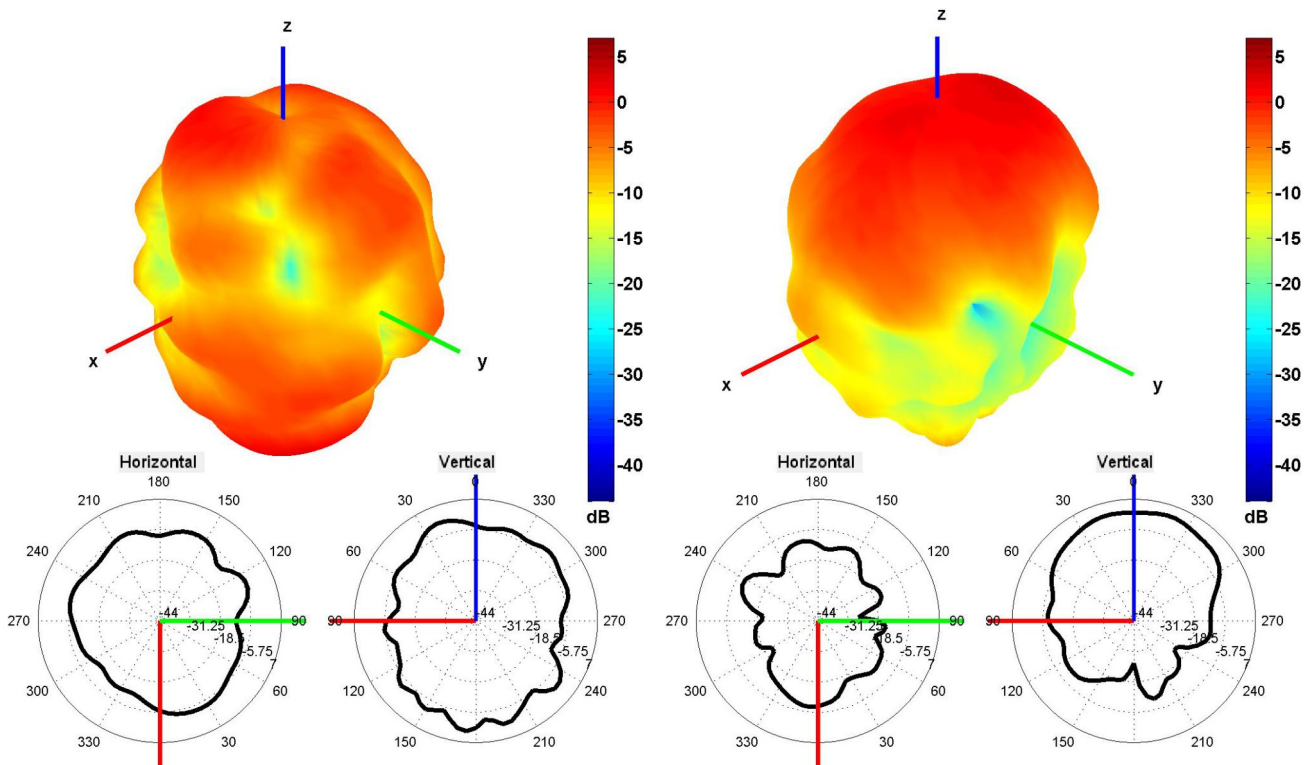


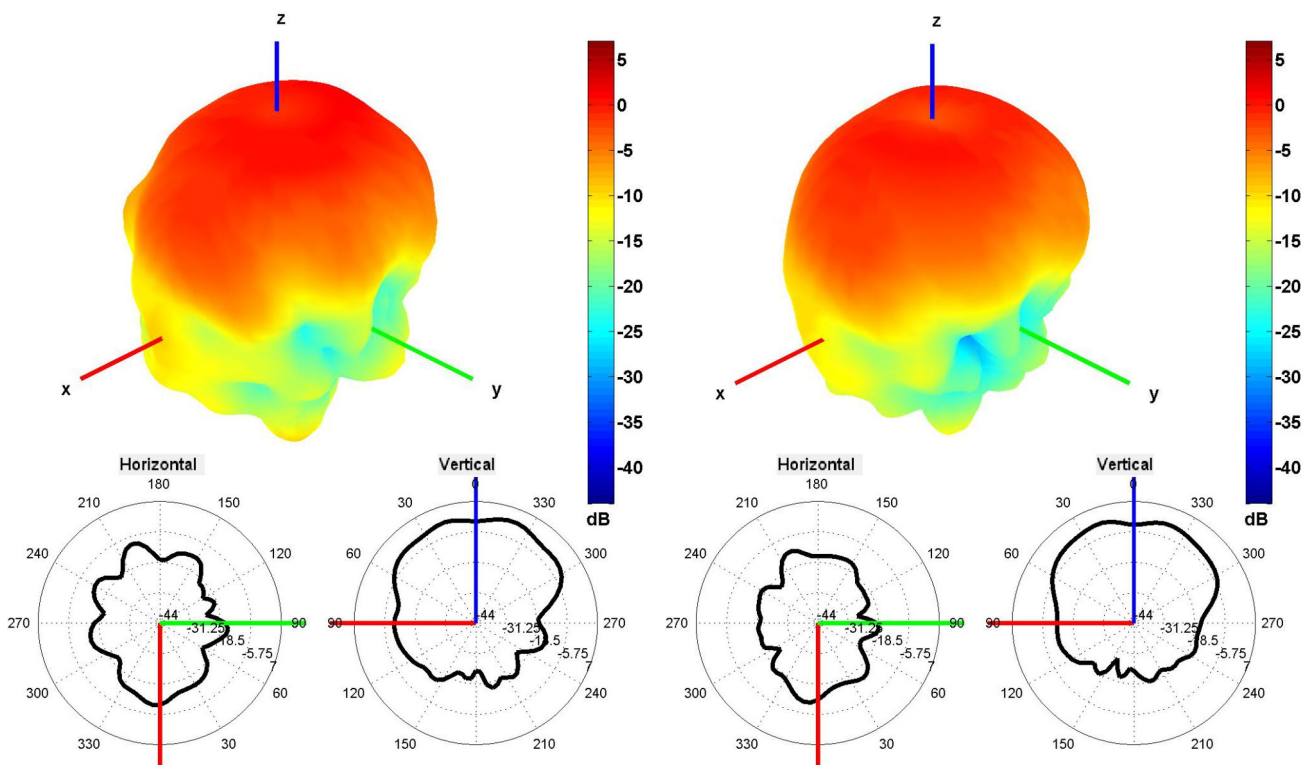
Table 1: CELLULAR/LTE



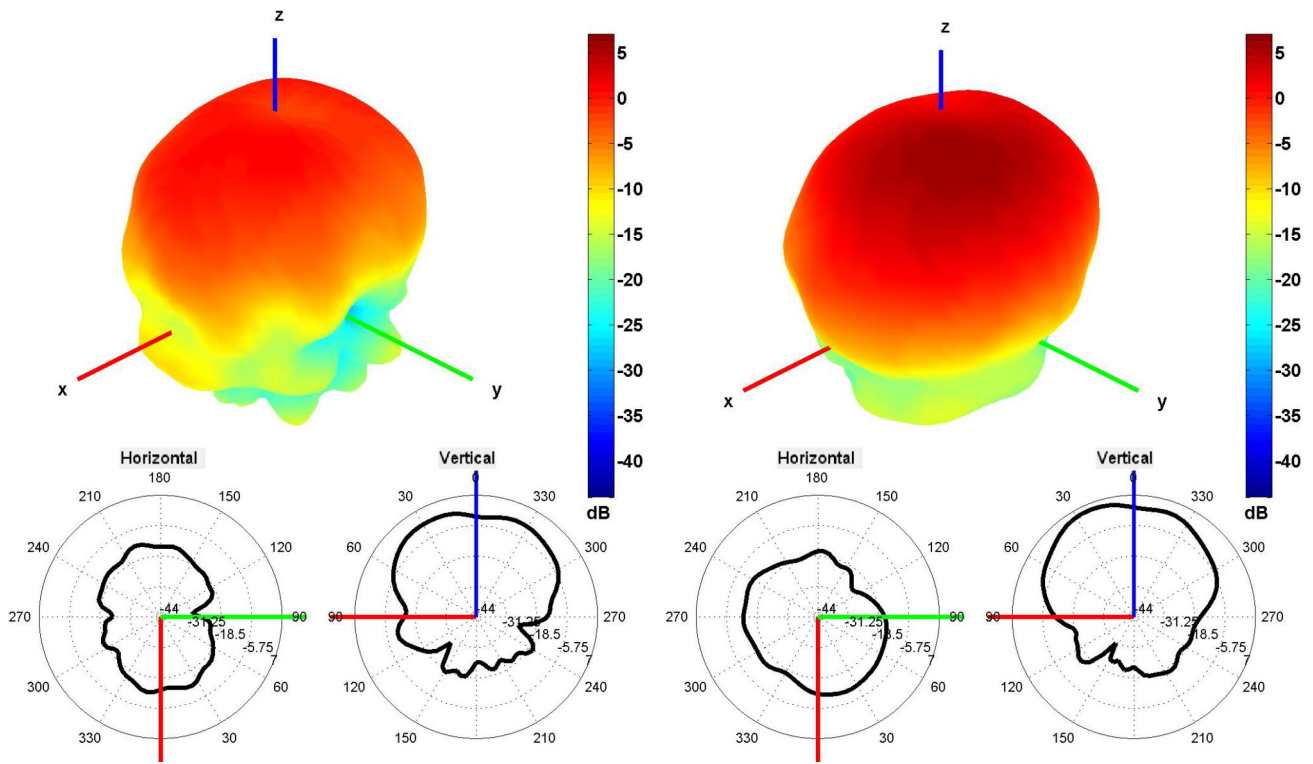
740 and 840 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

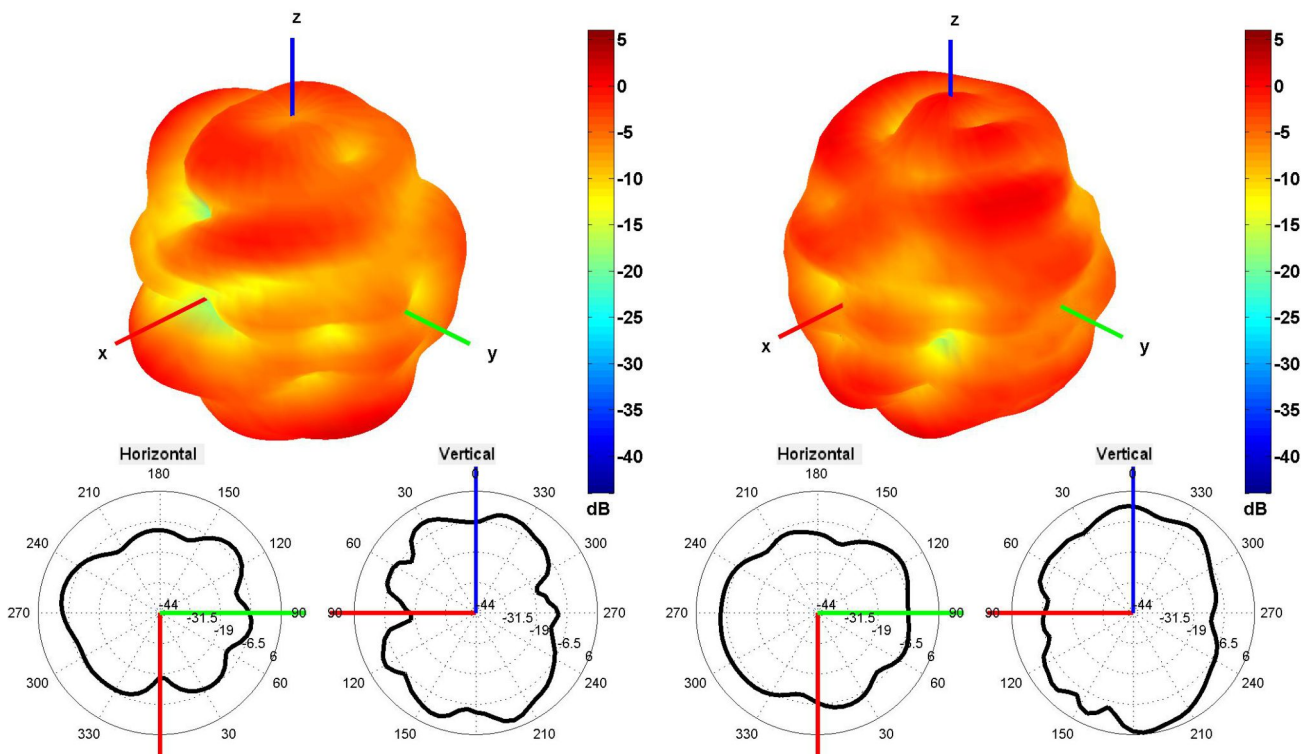


1850 and 1950 MHz Radiation pattern

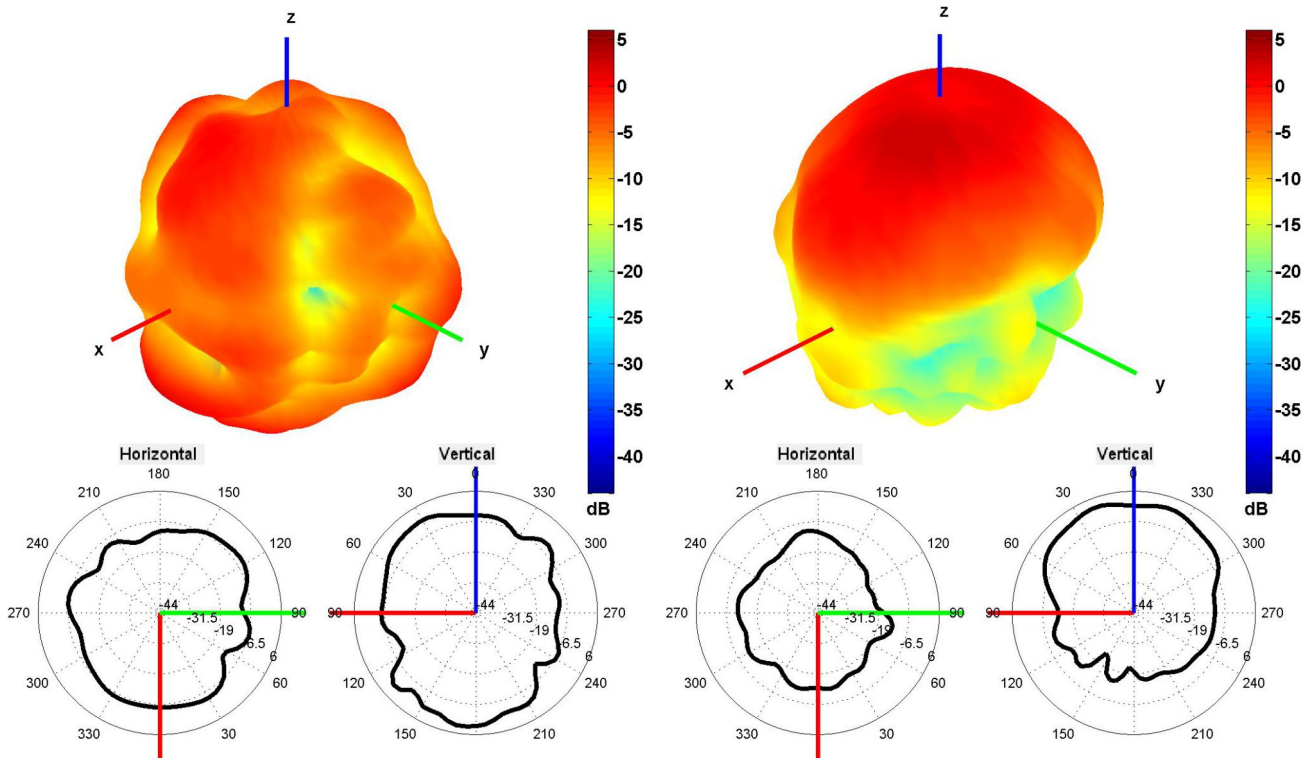


2100 and 2600 MHz Radiation pattern

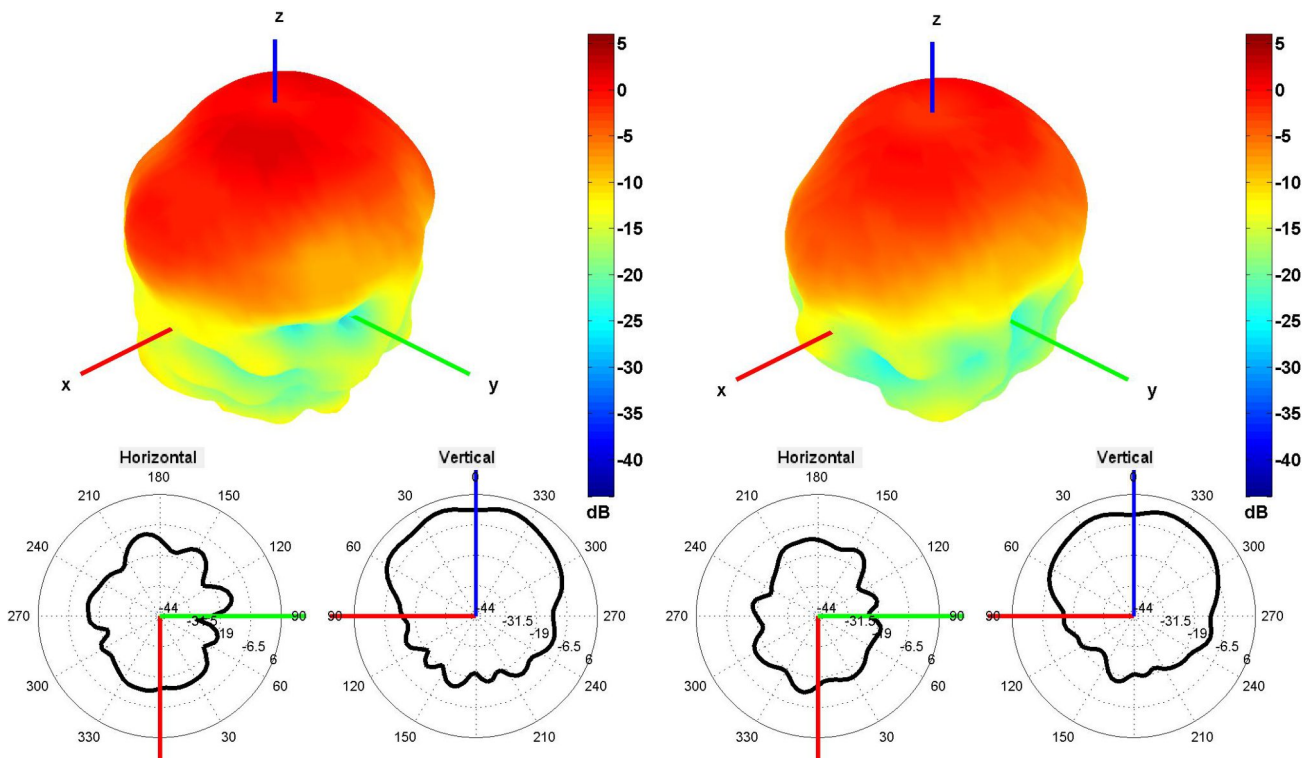
Cable 2: CELLULAR/LTE



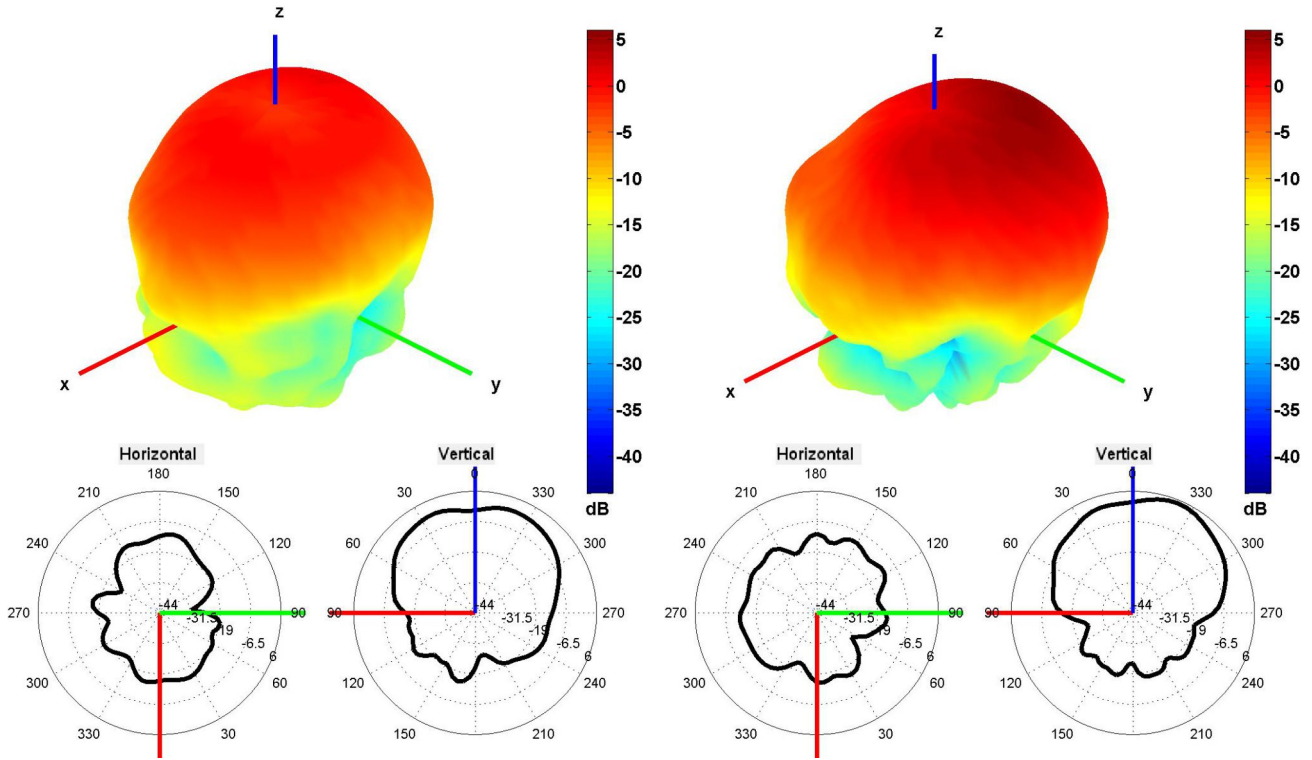
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

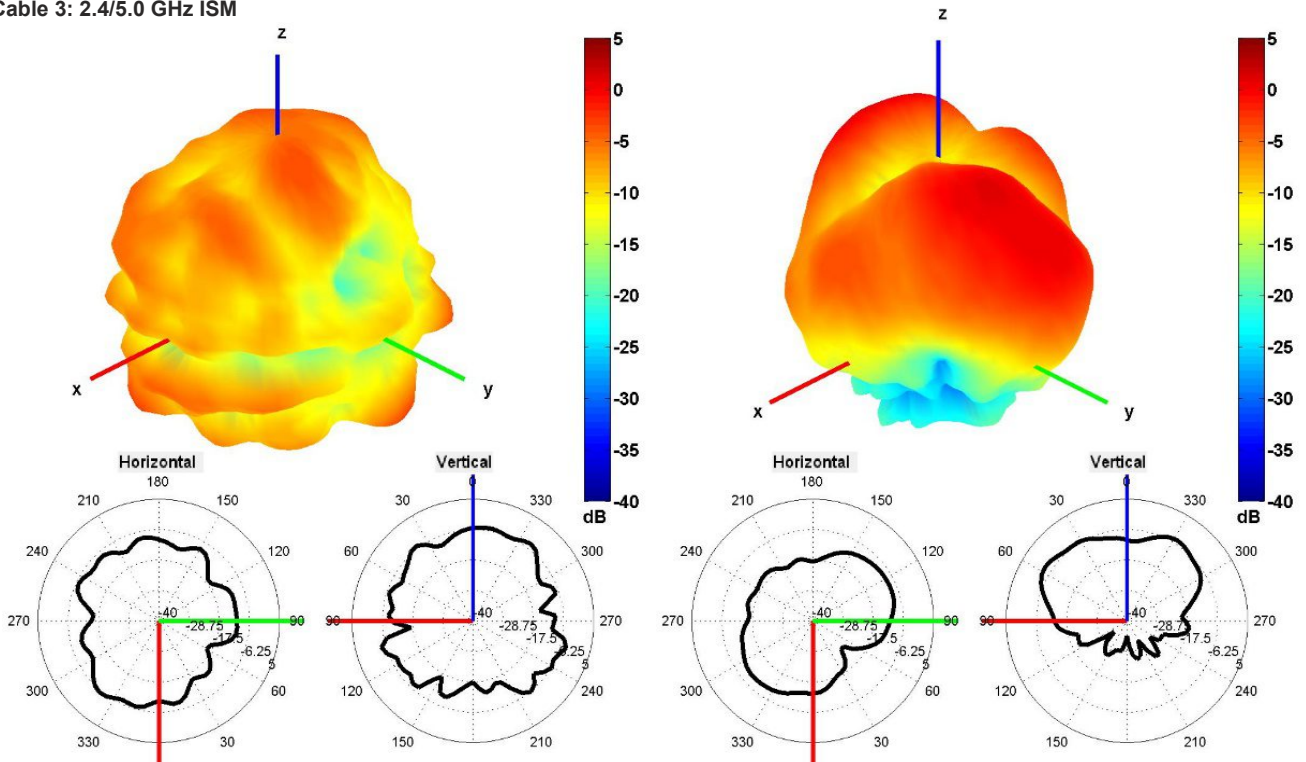


1850 and 1950 MHz Radiation pattern

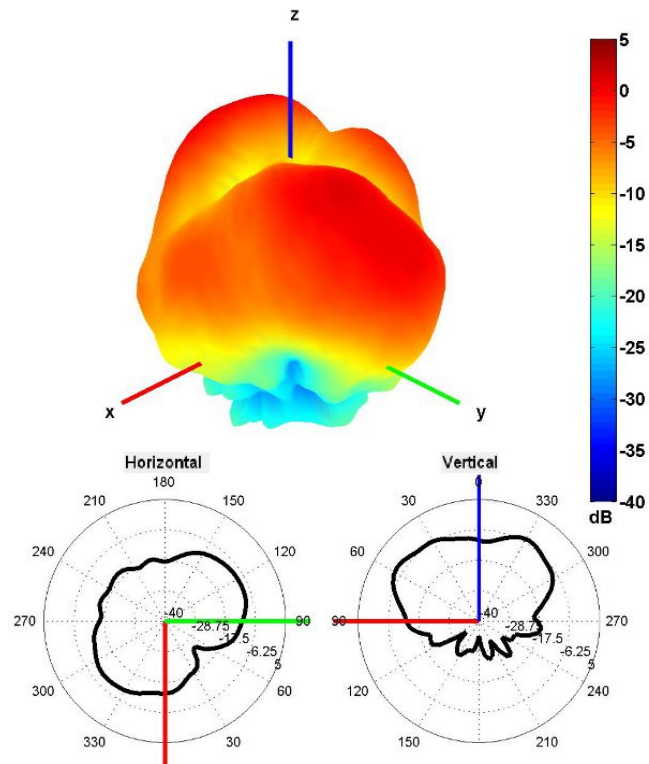


2100 and 2600 MHz Radiation pattern

Cable 3: 2.4/5.0 GHz ISM

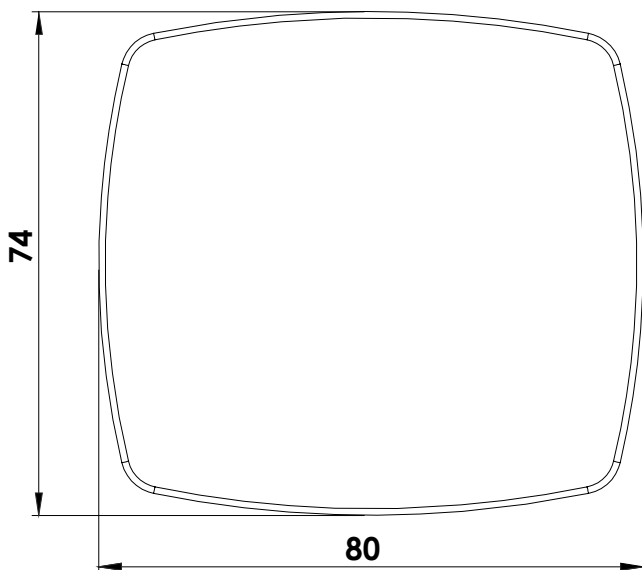
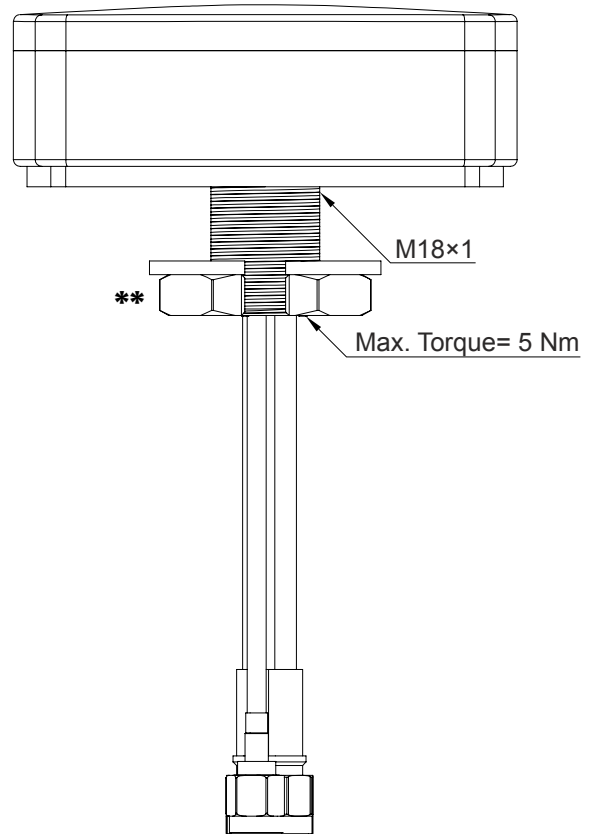
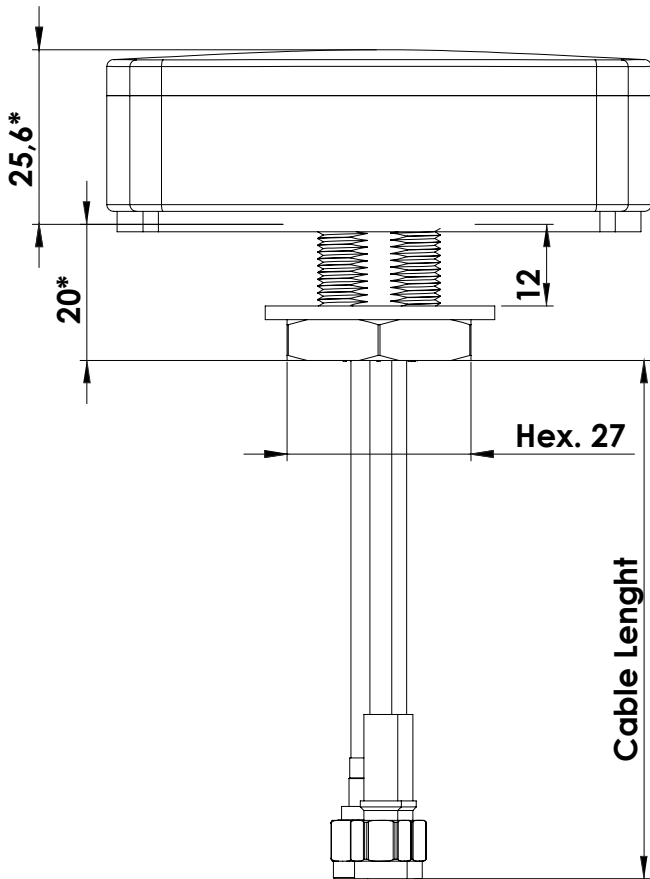


2450 and 5500 MHz Radiation pattern

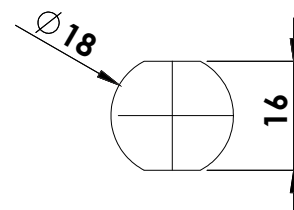


6500 MHz Radiation pattern

4. Antenna drawings



Mounting hole



Max. mounting thickness 12mm
 Note: Dimensions are in millimeters
 *Dimensions are after mounting
 **Max. Torque= 5 Nm

5. Antenna Images

