

2J6541MGFa

CELLULAR/LTE MIMO and GNSS Magnetic Mount

Key Features

Cable 1 and 2: CELLULAR / LTE

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

Cable 3: GPS/GLONASS/QZSS/Galileo

- 1575-1610 MHz

Magnetic Mount

Heavy Duty antenna

Ground Plane Dependent

Customizable Cable and Connector

Dimensions \varnothing 135.5 × 30 mm

Certificates: IP67, IP69K, IK09



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



1. Antenna and electrical specifications

Cable 1

Parameters	CELLULAR / LTE Antenna		
	4G LTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G		
Standards			
Band (MHz)	800/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	791-960	1710-2170	2500-2700
Return Loss (dB)	~-7.3	~-14.3	~-9.3
VSWR	~2.7:1	~1.6:1	~2.1:1
Efficiency (%)	~35.7	~39.8	~21.1
Peak Gain (dBi)	~-0.3	~-2.6	~-0.4
Average Gain (dB)	~-4.7	~-4.1	~-7.0
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	RG174 Standard (Other Cables Available)		

Cable 2

Parameters	CELLULAR / LTE Antenna		
	4G LTE/FirstNet/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G		
Standards			
Band (MHz)	800/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	791-960	1710-2170	2500-2700
Return Loss (dB)	~-8.9	~-17.1	~-15.2
VSWR	~2.1:1	~1.4:1	~1.5:1
Efficiency (%)	~23.9	~25.7	~14.1
Peak Gain (dBi)	~-1.2	~-0.9	~-1.5
Average Gain (dB)	~-6.4	~-5.9	~-8.6
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	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

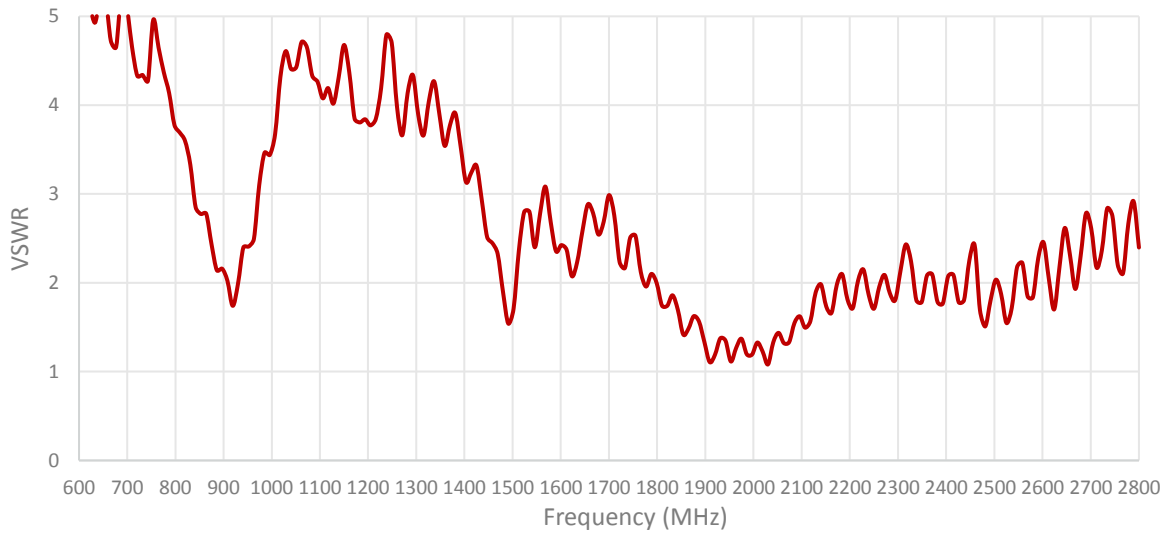
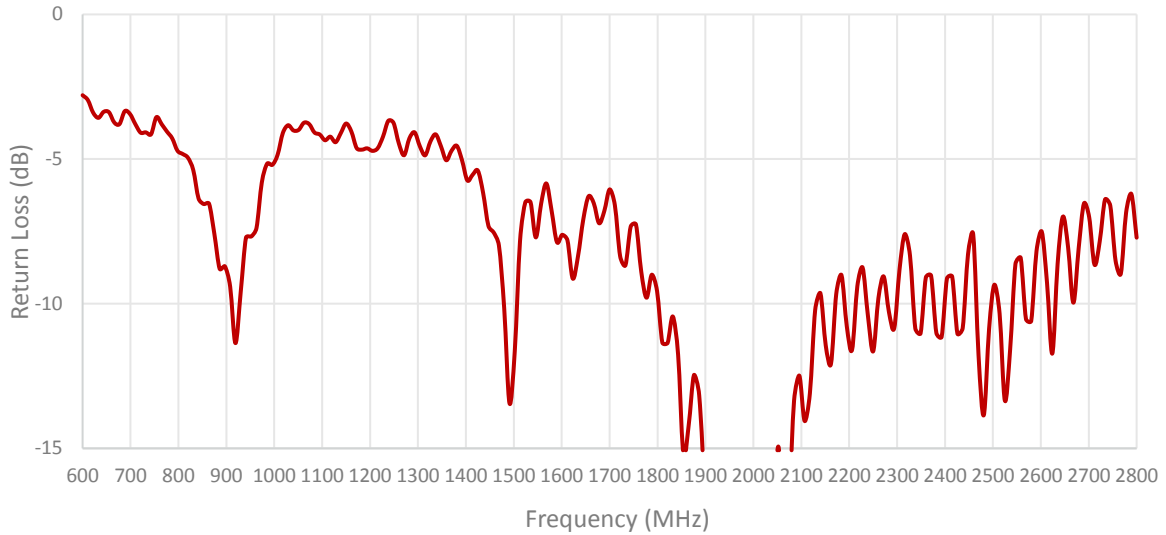
Parameters	GPS/GLONASS Antenna	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency (Mhz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Passive Gain (dBi)	~3.6	
Impedance (Ohms)	50	
Radiation Pattern	Hemispherical	
Voltage Range (V)	2.7 - 5.5	
Active Gain (dB)	23 @ 3V, 24 @ 5V	
Noise Figure (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)	

2. Mechanical and environmental specifications

Specifications	2J6541MGFa
Mounting Type	Magnetic Mount
Dimensions (mm)	Ø 135.5 x 30
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	IP67, IP69K, IK09

3. Antenna parameters

Cable 1: CELLULAR/LTE



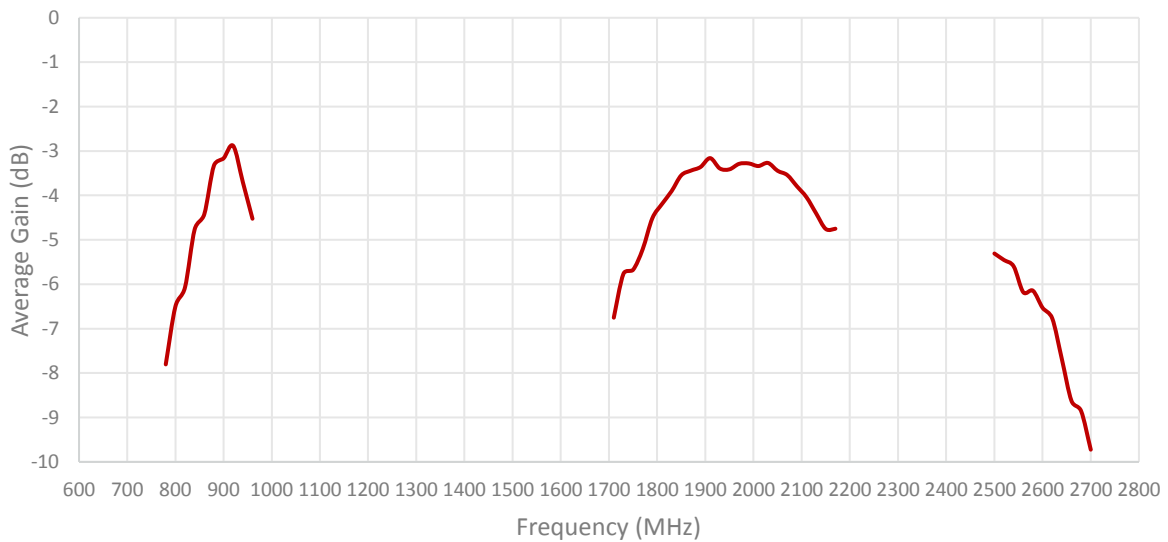
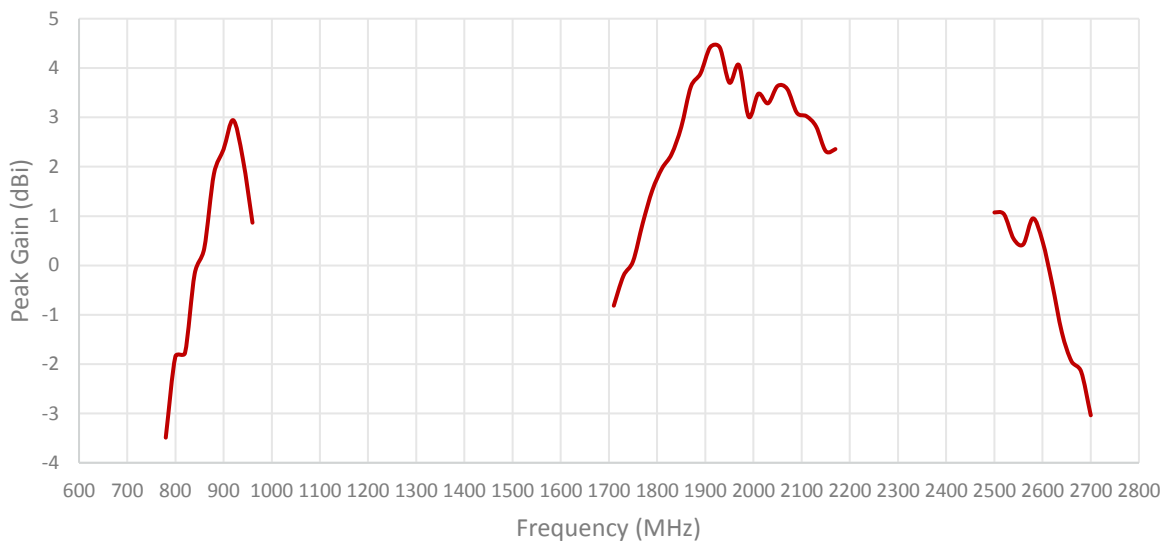
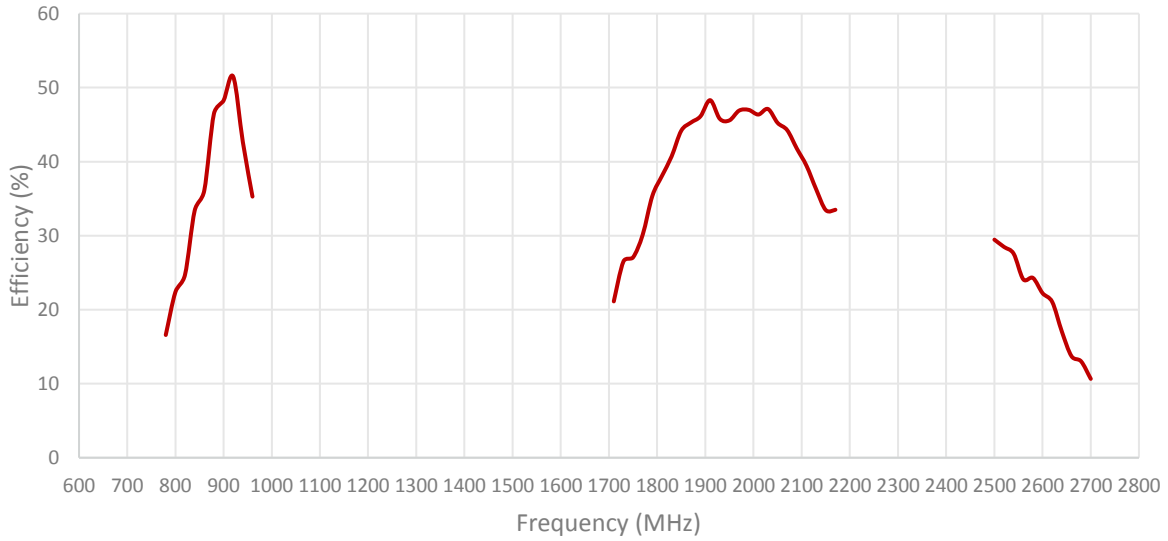
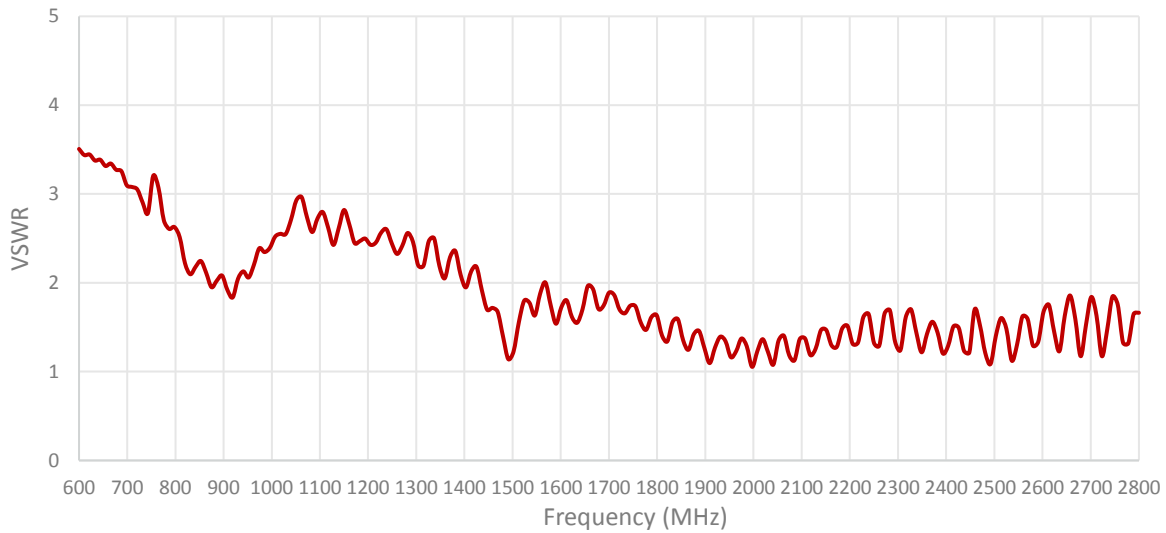
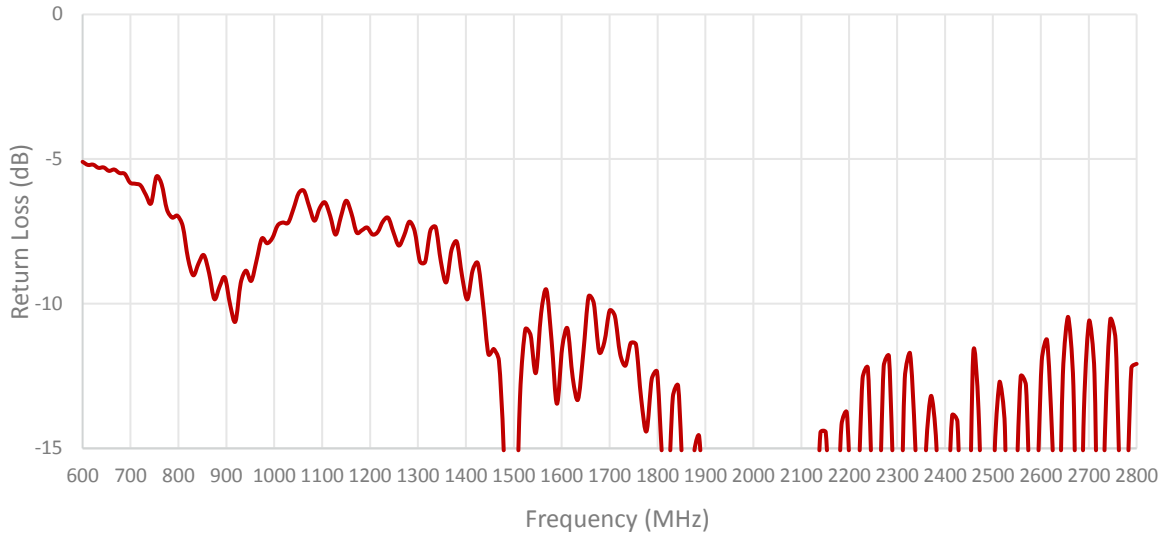
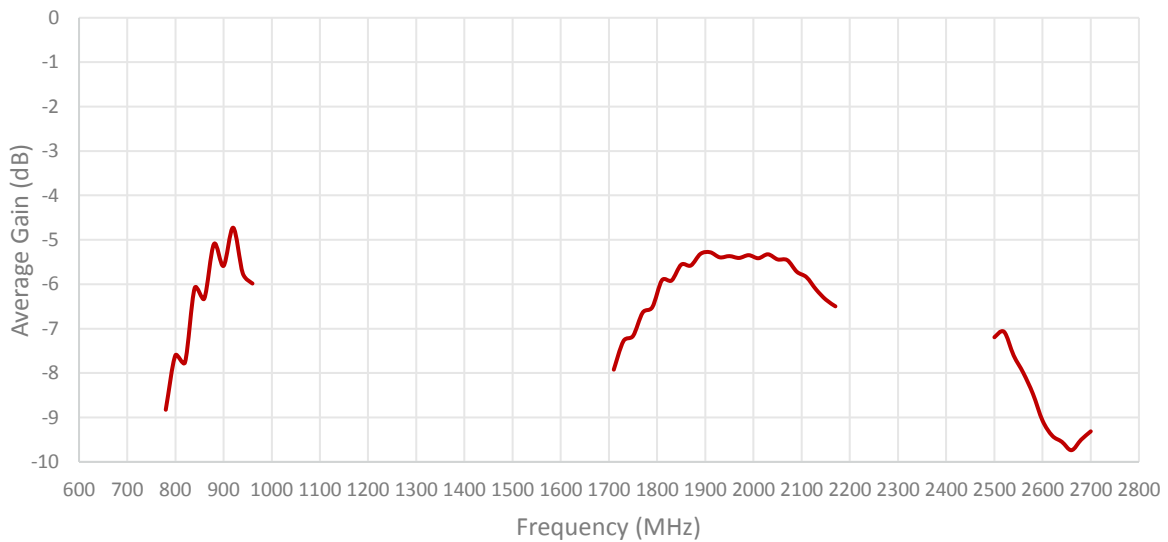
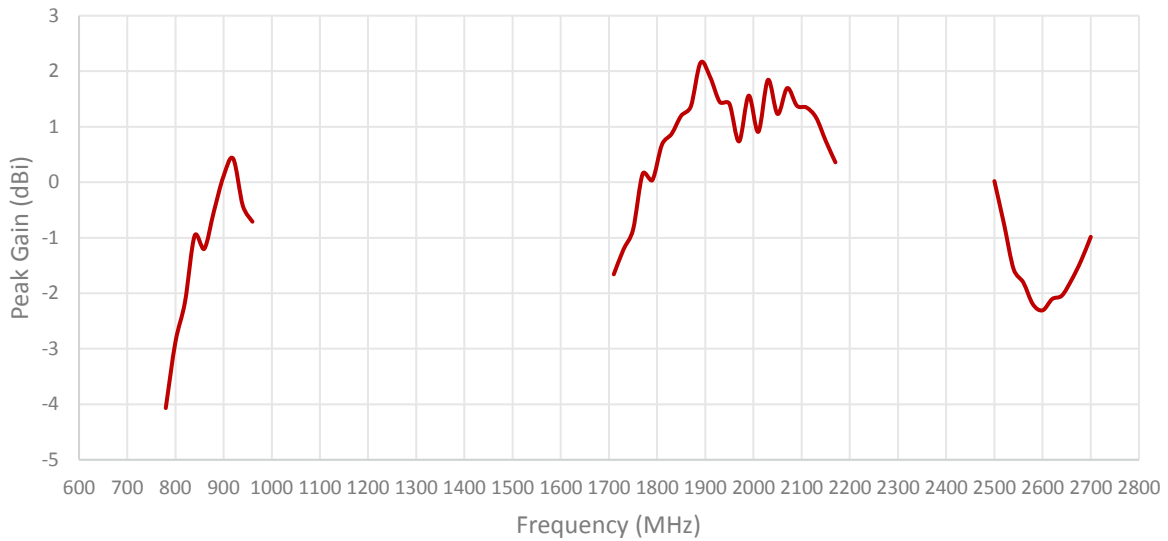
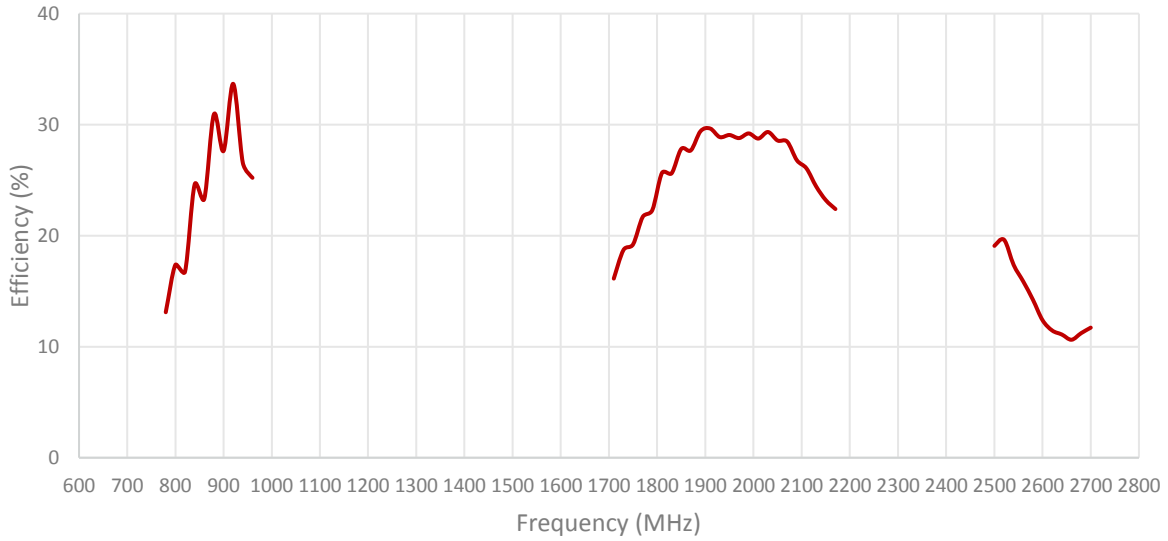
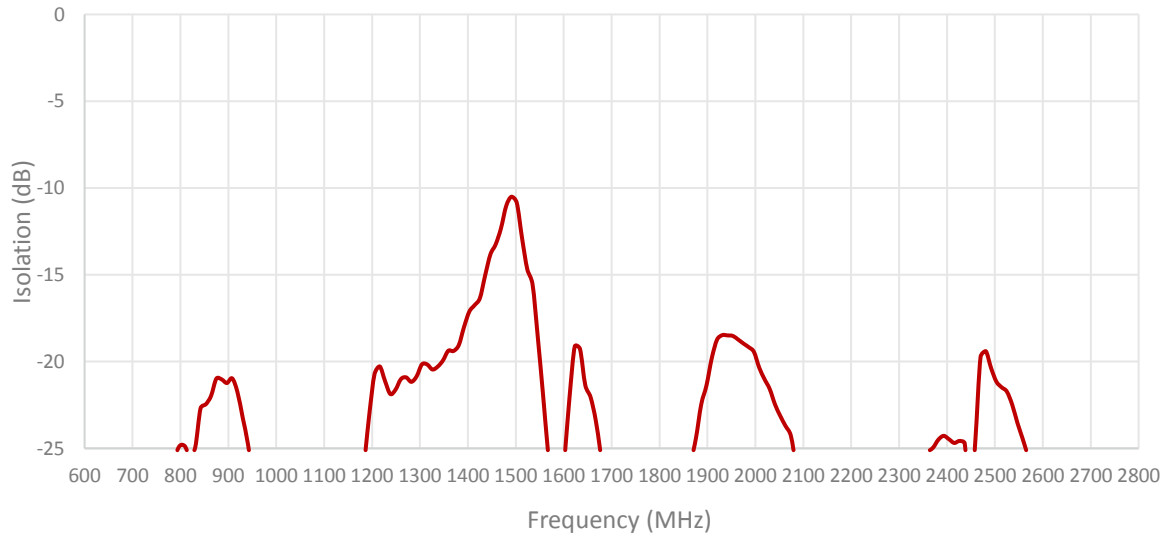


Table 2: CELLULAR/LTE

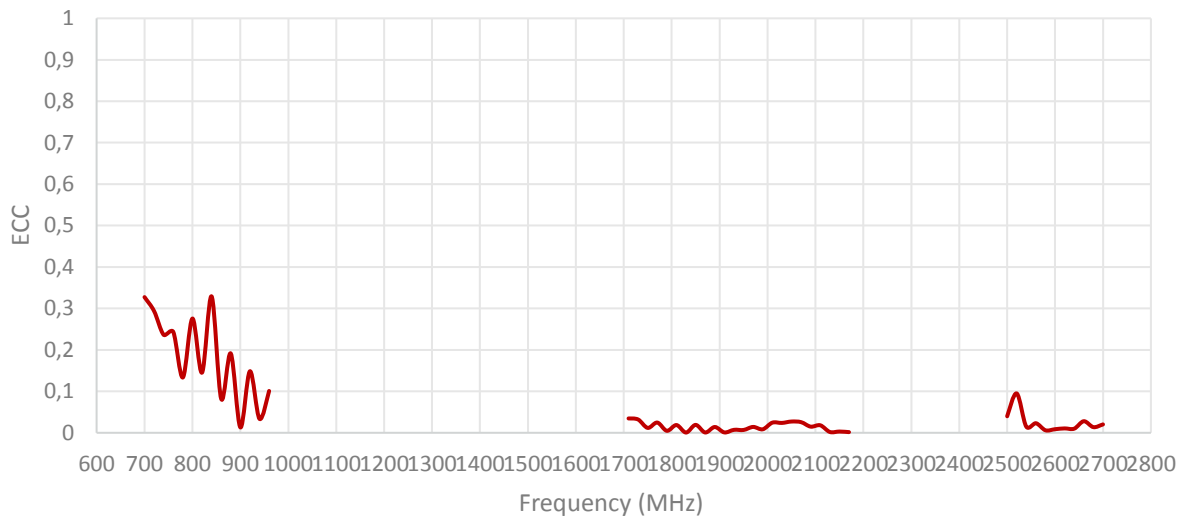


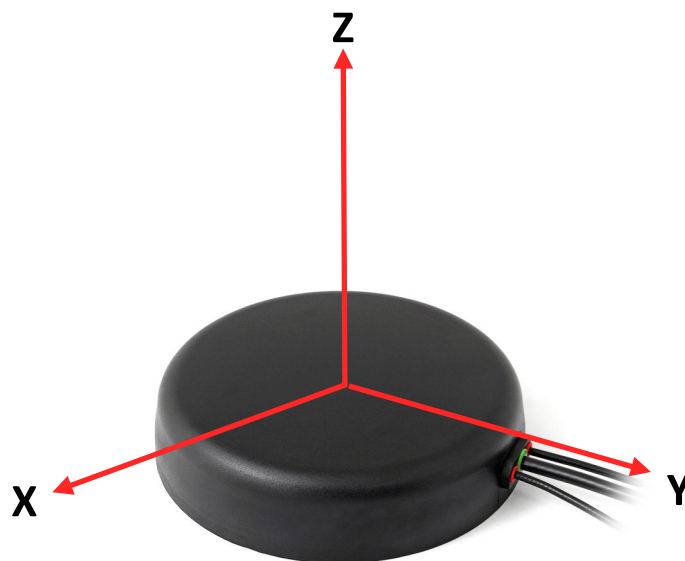


ISOLATION FOR CABLES 1 AND 2



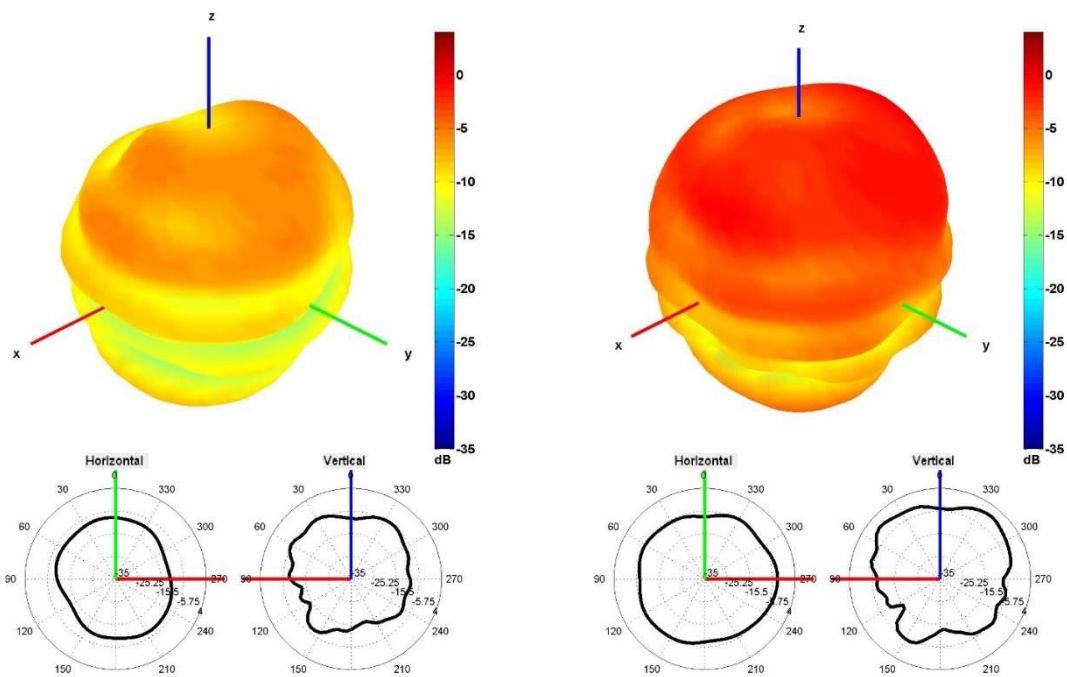
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



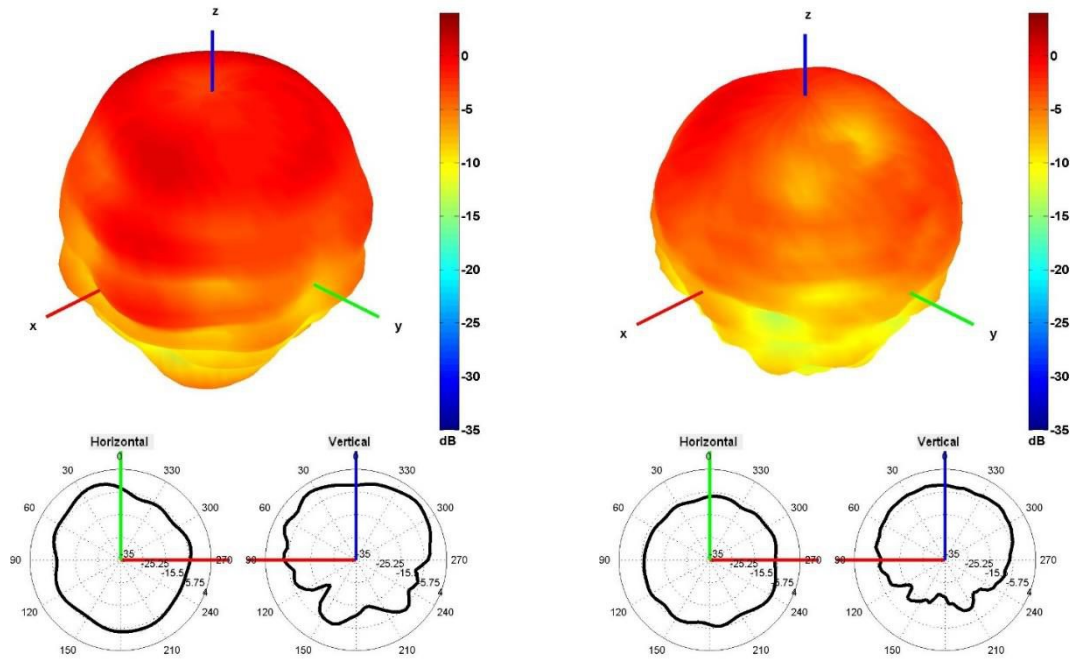


Radiation pattern reference

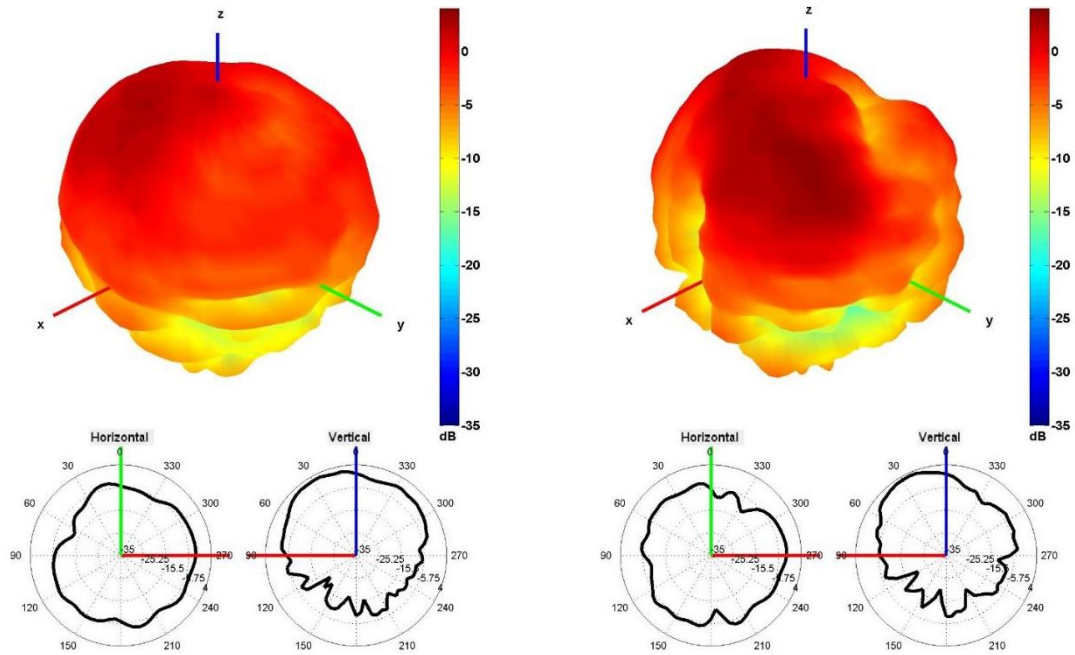
Table 1: CELLULAR/LTE



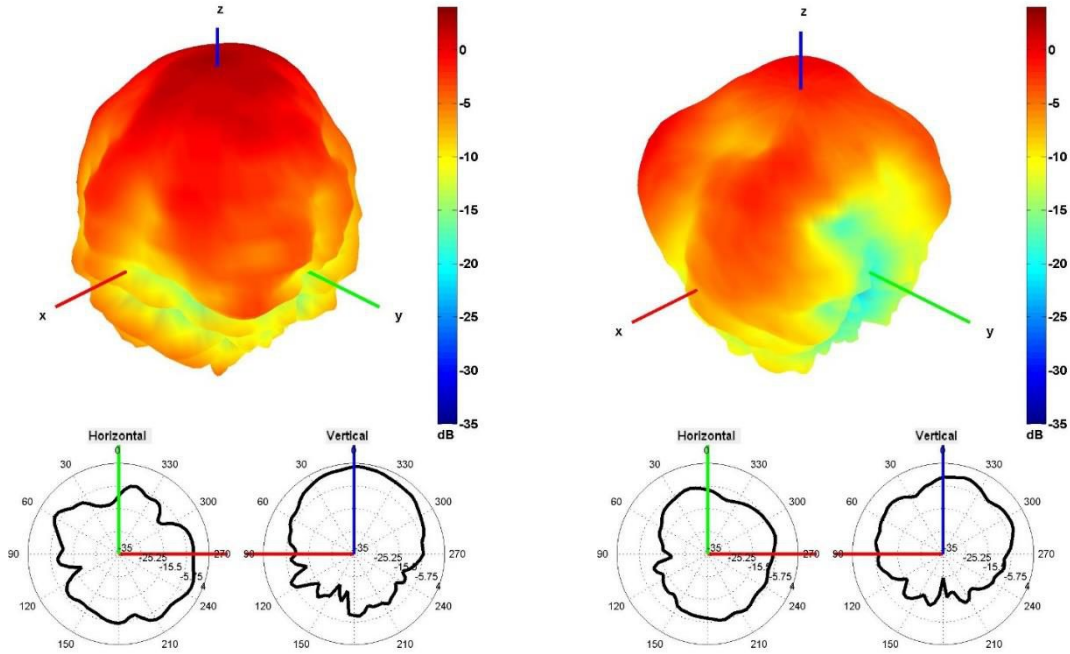
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

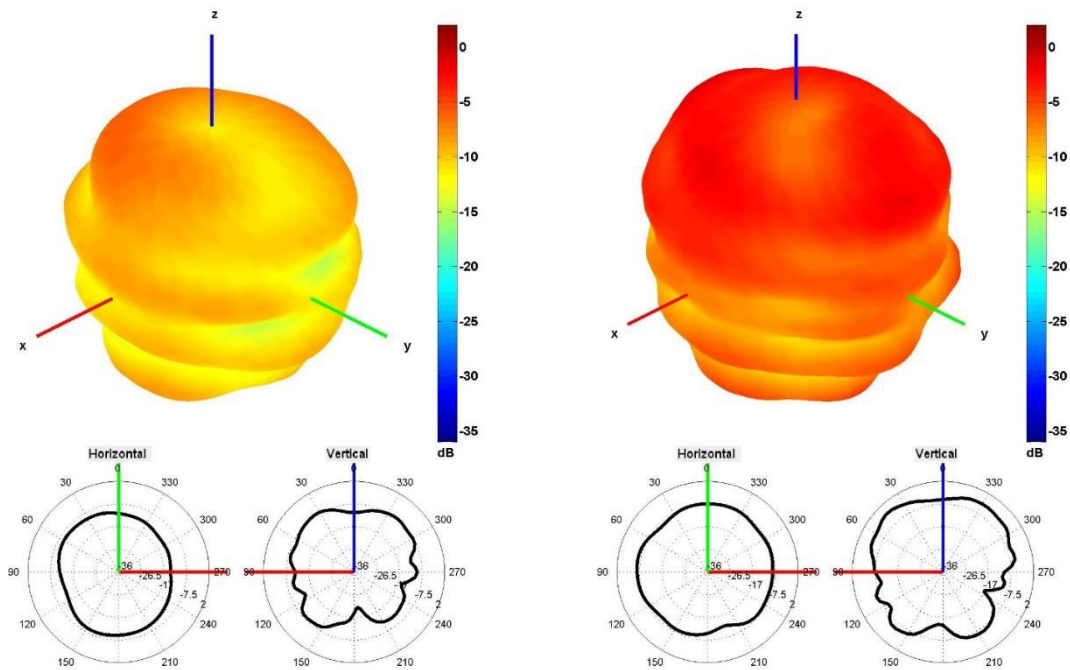


1850 and 1950 MHz Radiation pattern

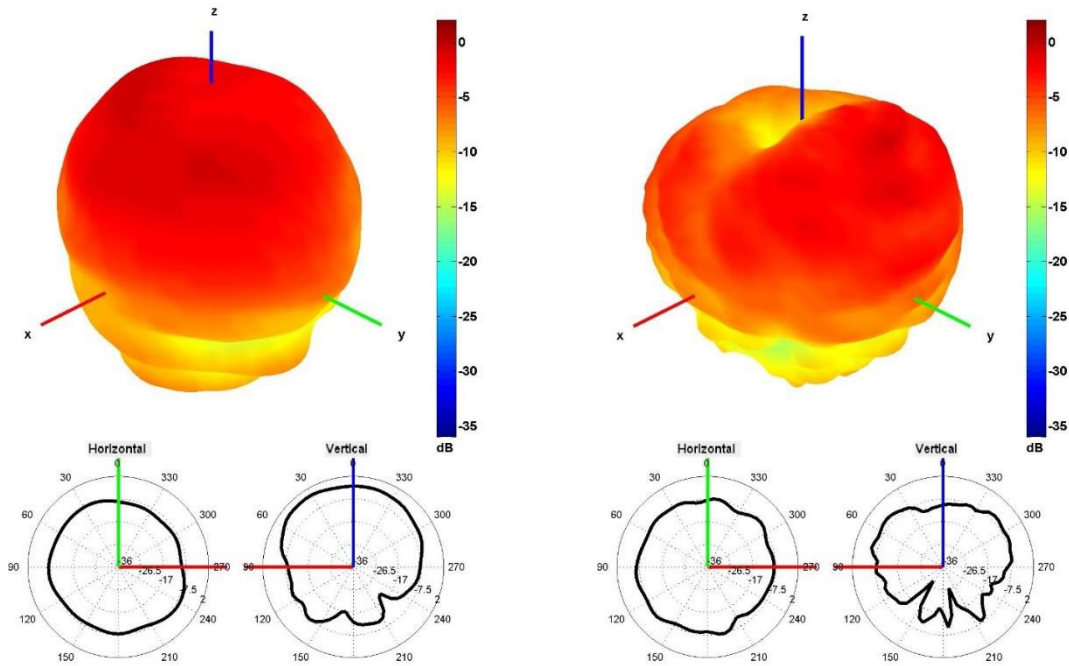


2100 and 2600 MHz Radiation pattern

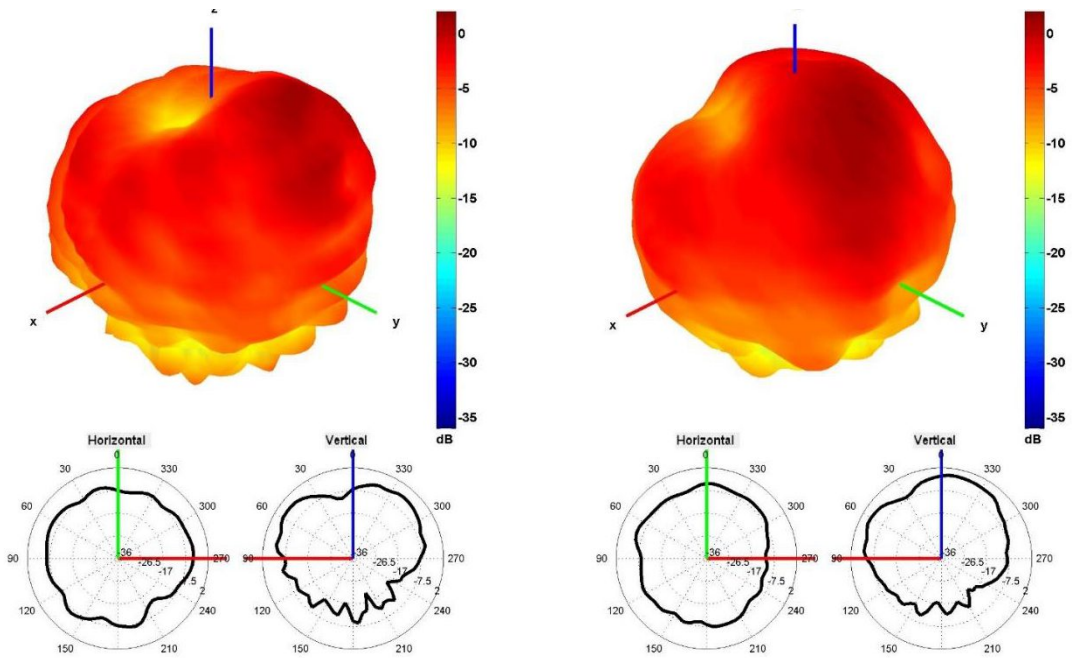
Cable 2: CELLULAR/LTE



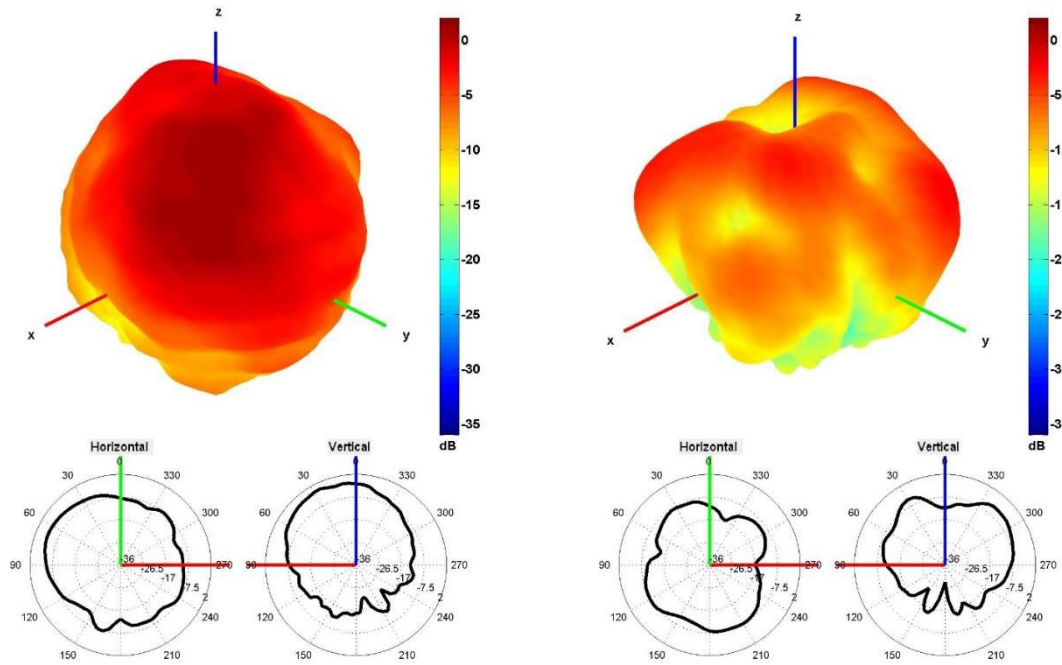
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

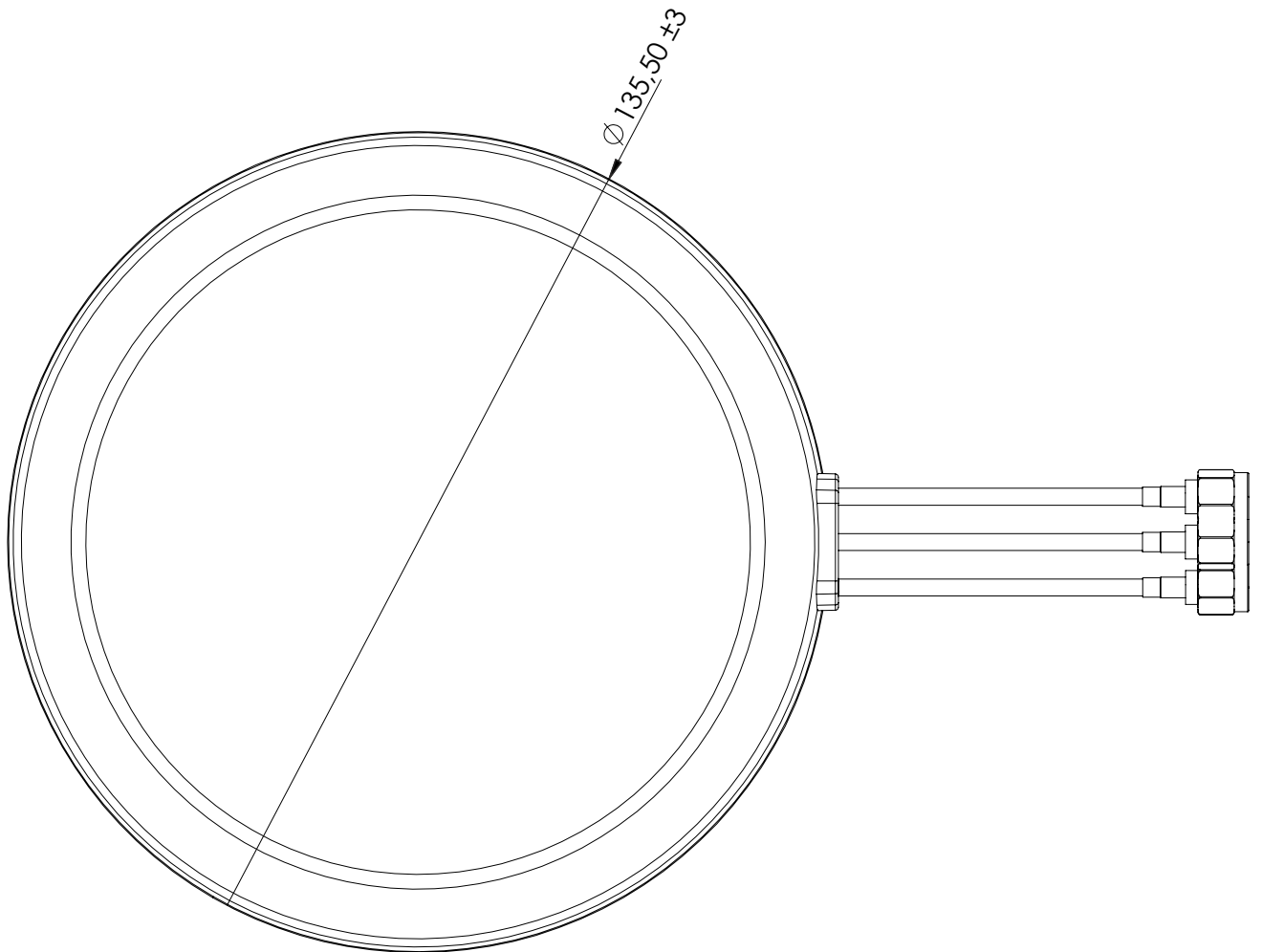


1850 and 1950 MHz Radiation pattern



2100 and 2600 MHz Radiation pattern

4. Antenna drawings



Note: Dimensions are in millimeters

5. Antenna Images

