

2J7050MGFa

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

Key Features

Cable 1 and 2: CELLULAR / LTE

Cable 3 and 4: 2.4/5.0 GHz ISM

Cable 5: GPS/GLONASS/QZSS/Galileo

Magnetic Mount

Heavy Duty antenna

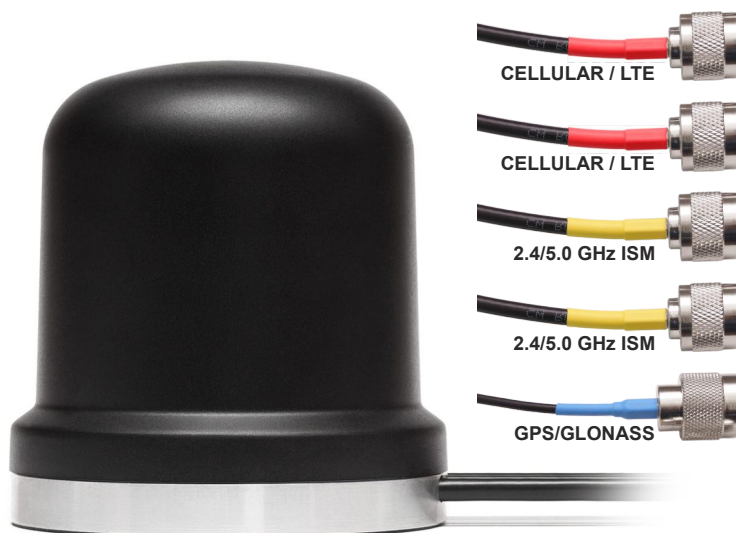
High Performance

Ground Plane Independent

Customizable Cable and Connector

Dimensions: Ø 96 × 102 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)	~-12.0	~-14.2	~-14.7
VSWR	~1.7:1	~1.7:1	~1.5:1
Efficiency (%)	~50.7	~52.6	~50.6
Peak Gain (dBi)	~1.3	~4.8	~5.0
Average Gain (dB)	~-3.0	~-2.8	~-3.2
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	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)	~-12.5	~-14.1	~-16.4
VSWR	~1.7:1	~1.7:1	~1.4:1
Efficiency (%)	~50.7	~52.7	~58.4
Peak Gain (dBi)	~-0.9	~4.4	~5.5
Average Gain (dB)	~-3.2	~-2.8	~-2.3
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 × 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)	~-10.3	~-15.5
VSWR	~1.9:1	~1.5:1
Efficiency (%)	~40.1	~45.2
Peak Gain (dBi)	~3.6	~5.4
Average Gain (dB)	~-4.0	~-3.5
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 4

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)	~-11.7	~-17.4
VSWR	~1.8:1	~1.4:1
Efficiency (%)	~45.4	~45.7
Peak Gain (dBi)	~4.3	~5.2
Average Gain (dB)	~-3.4	~-3.6
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	LL195 Standard (Other Cables Available)	

Antenna Measurement Conditions:

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

Cable 5

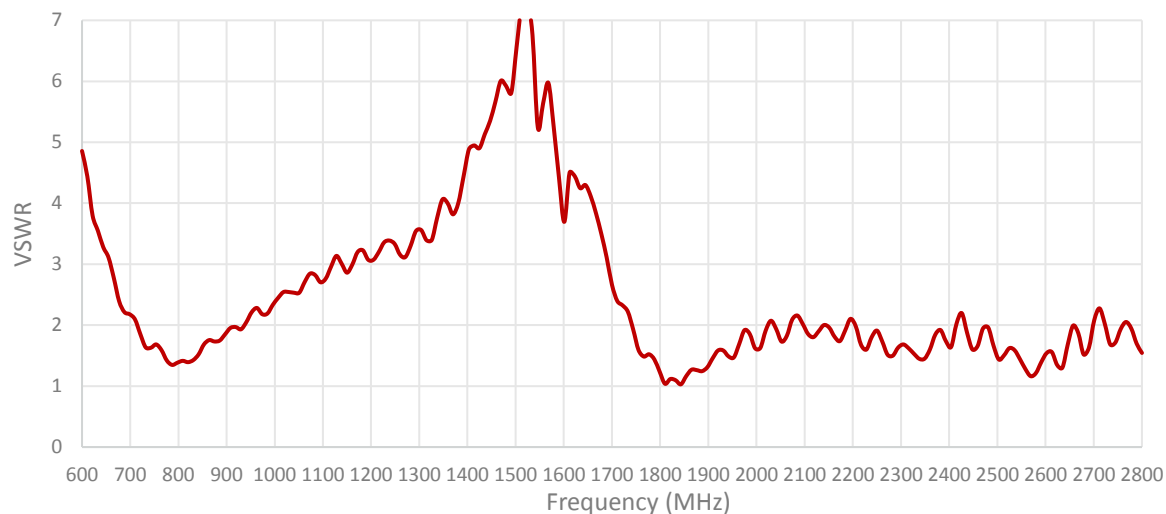
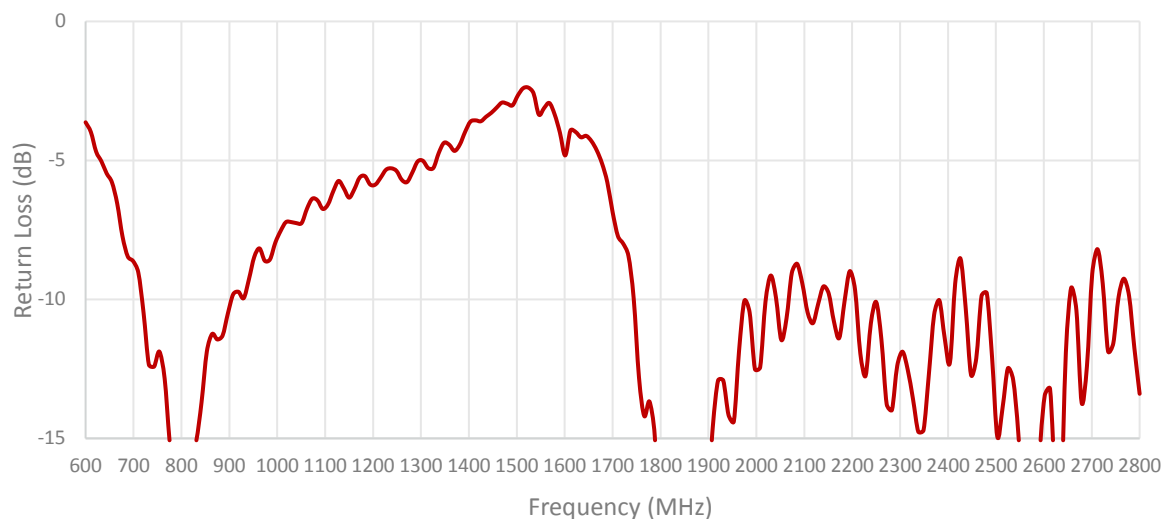
Parameters	GPS/GLONASS Antenna	
Standard	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1610
Return Loss (dB)	<=-14	
VSWR	<=1.5:1	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Post-Filter	
Active Gain (dB)	23 @ 3 V, 24 @ 5 V	
Noise Figure (dB)	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)	

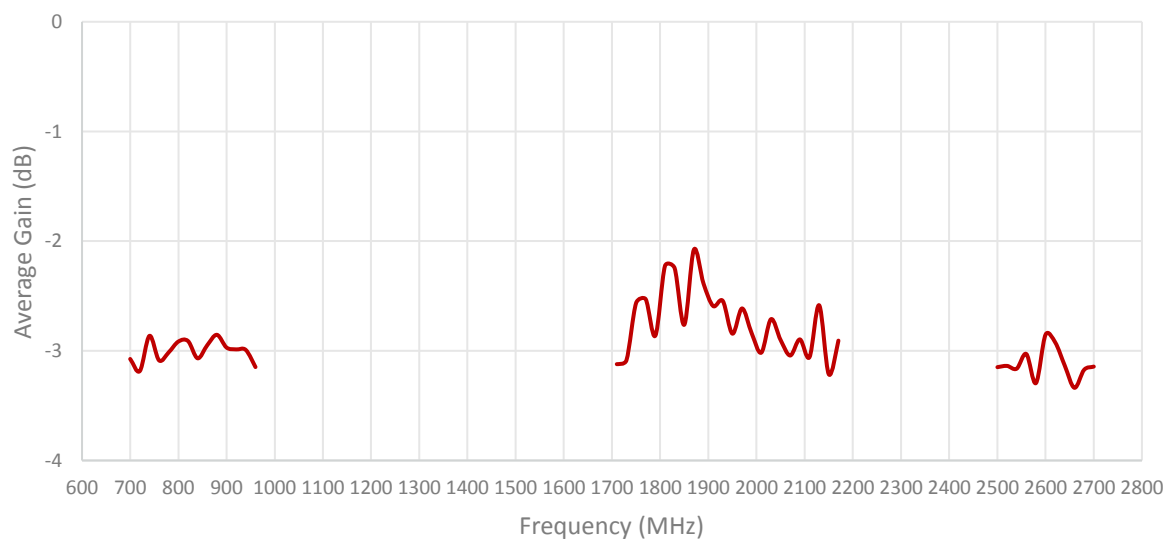
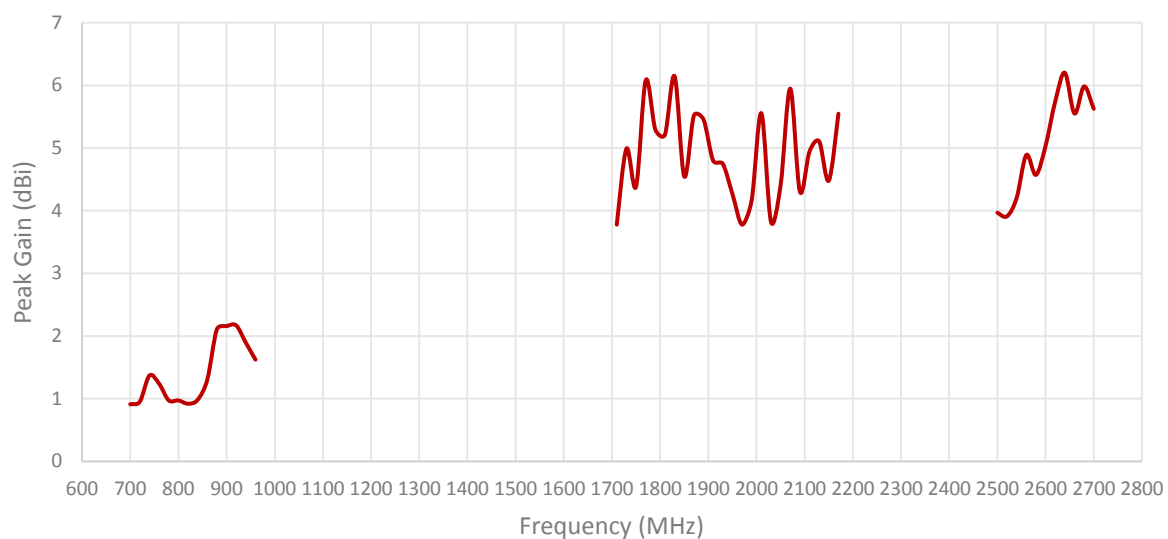
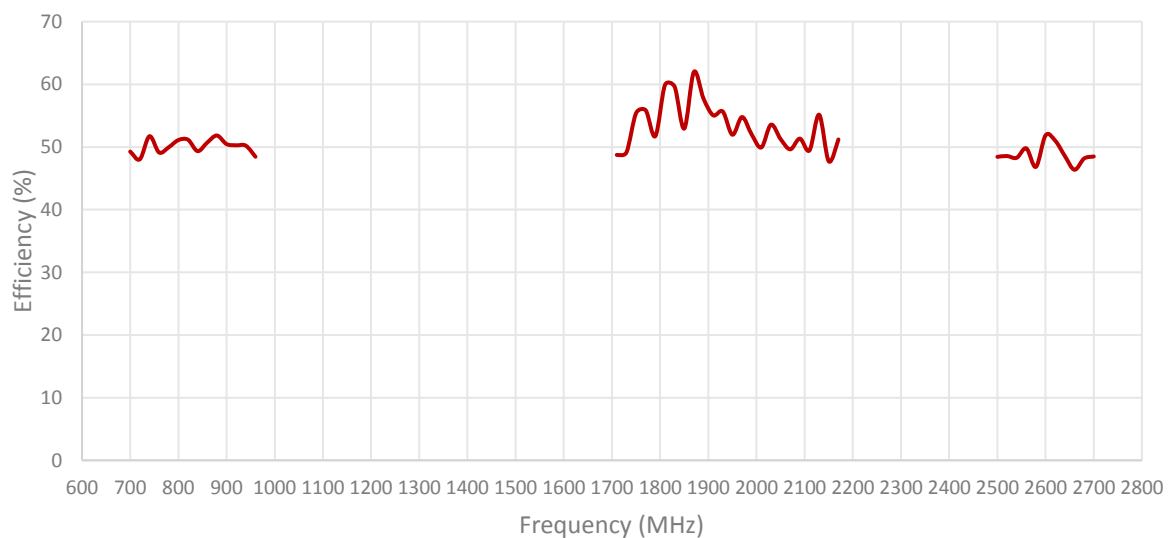
2. Mechanical and environmental specifications

Specifications	2J7050MGFa
Mounting Type	Magnetic Mount
Dimensions (mm)	Ø 96 × 102
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

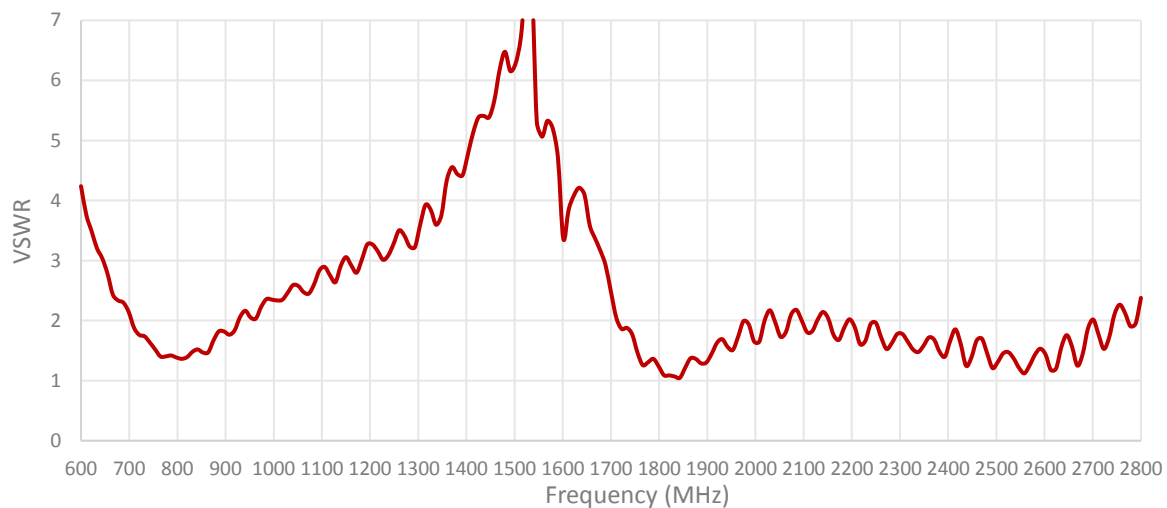
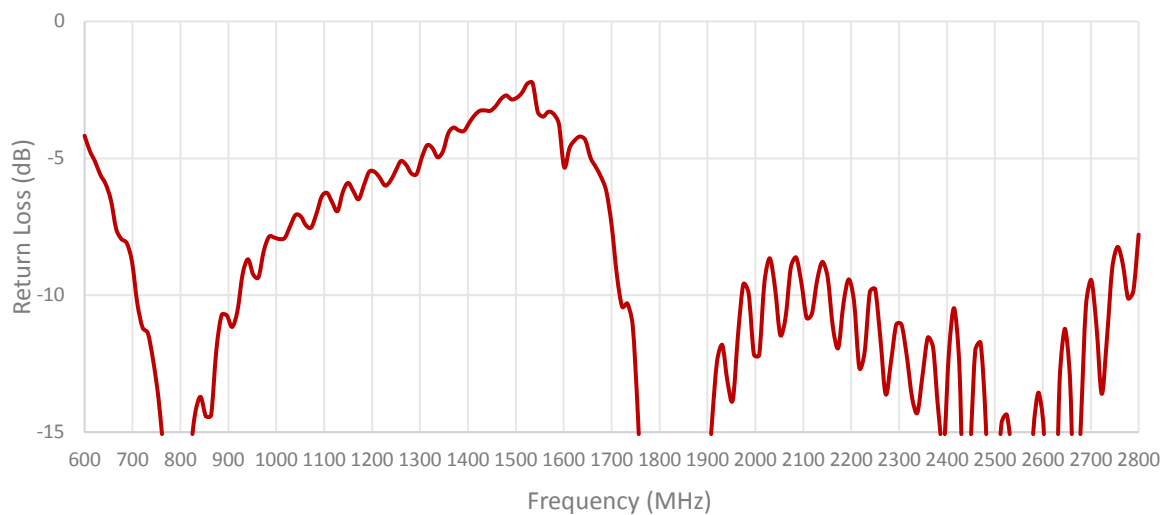
3. Antenna parameters

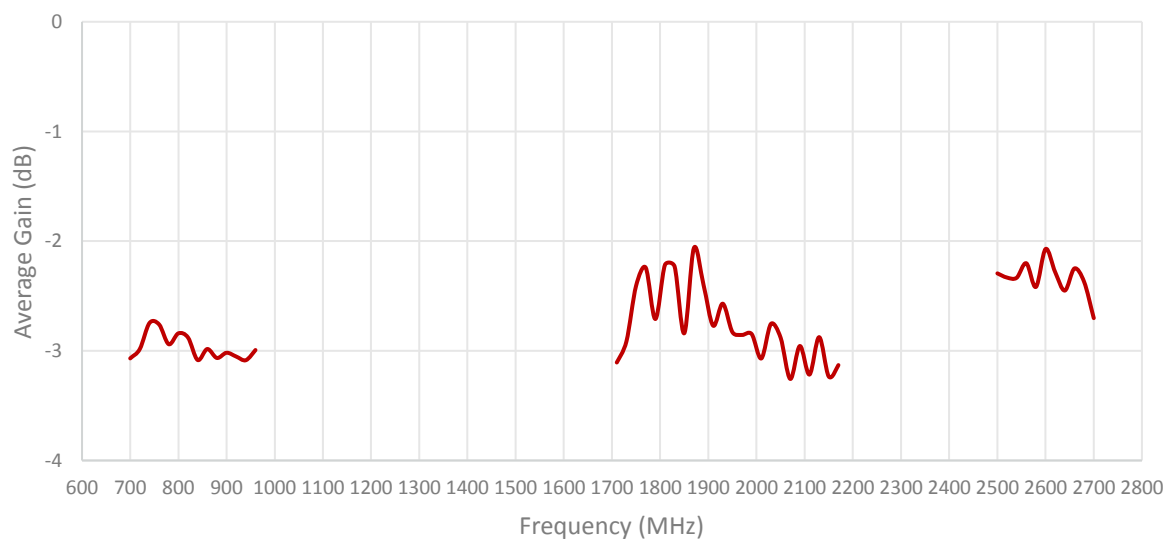
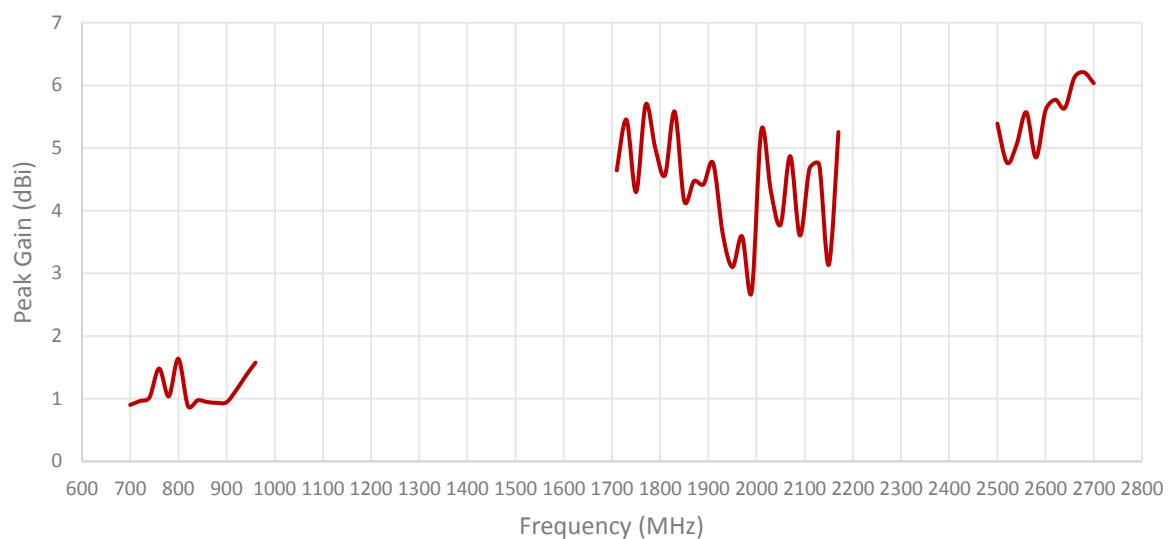
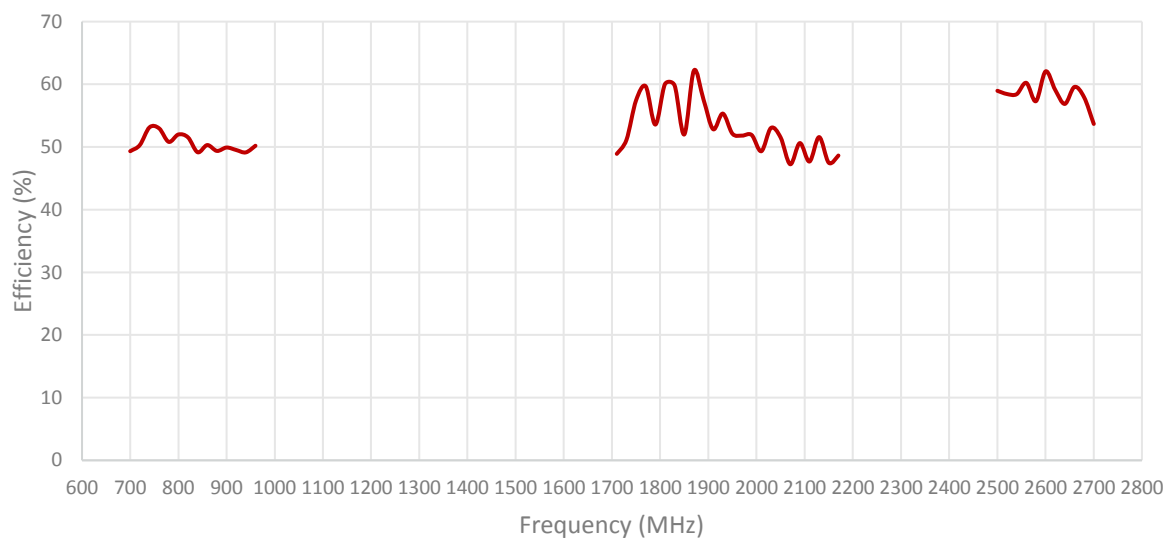
Cable 1: CELLULAR/LTE



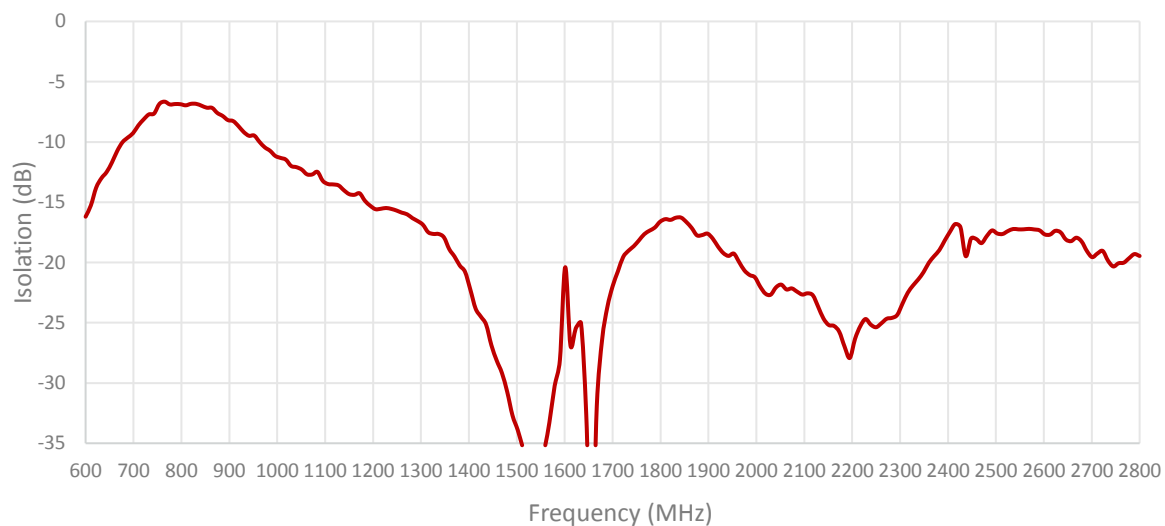


Cable 2: CELLULAR/LTE

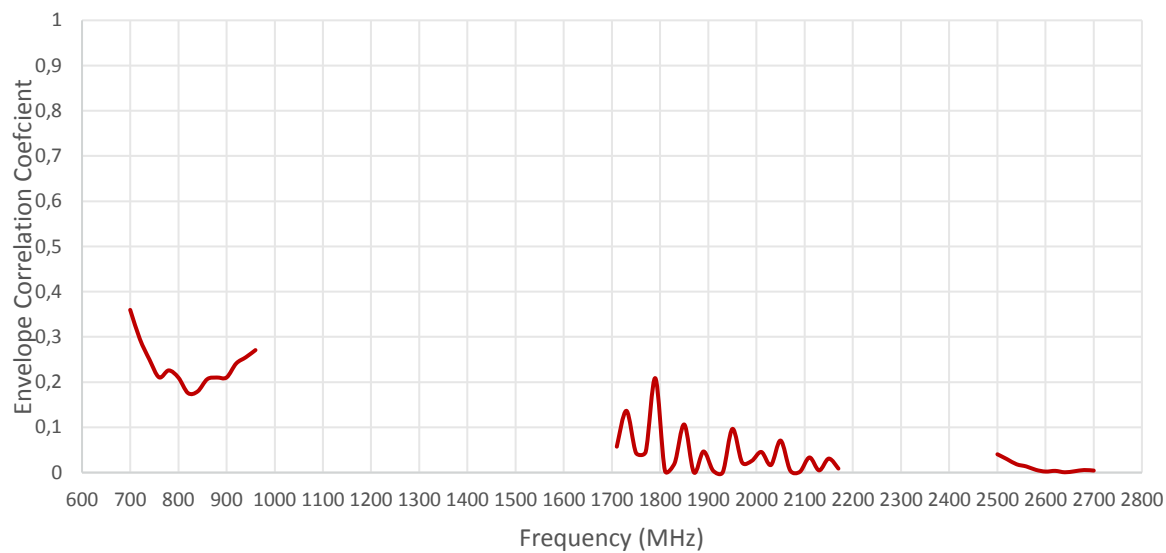




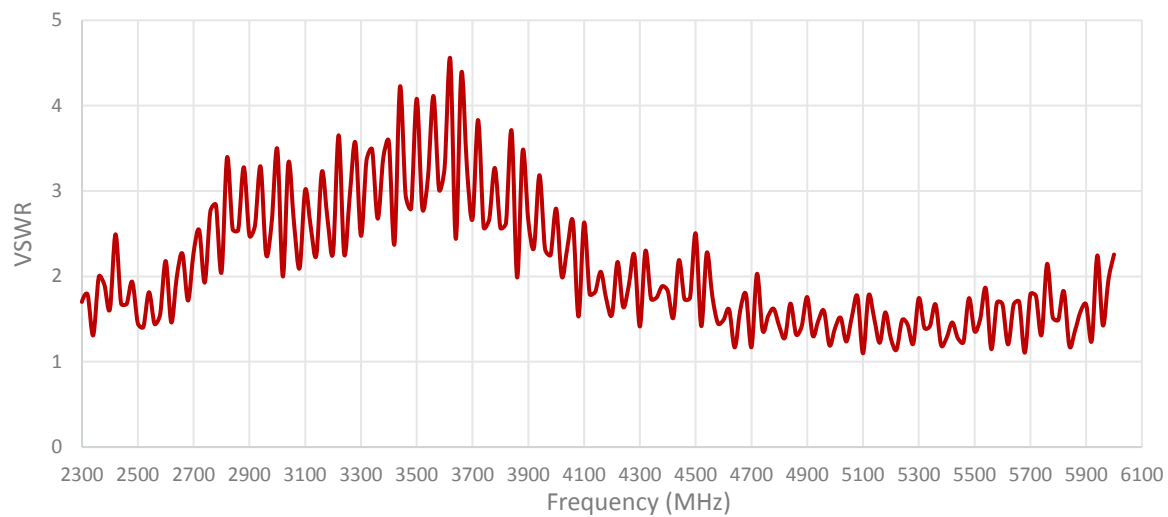
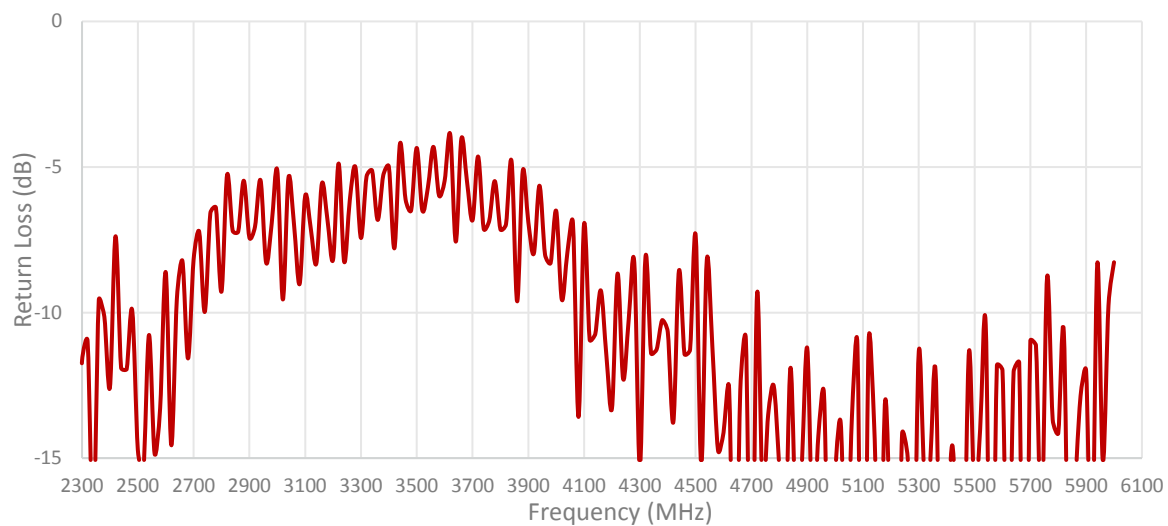
ISOLATION FOR CABLES 1 AND 2

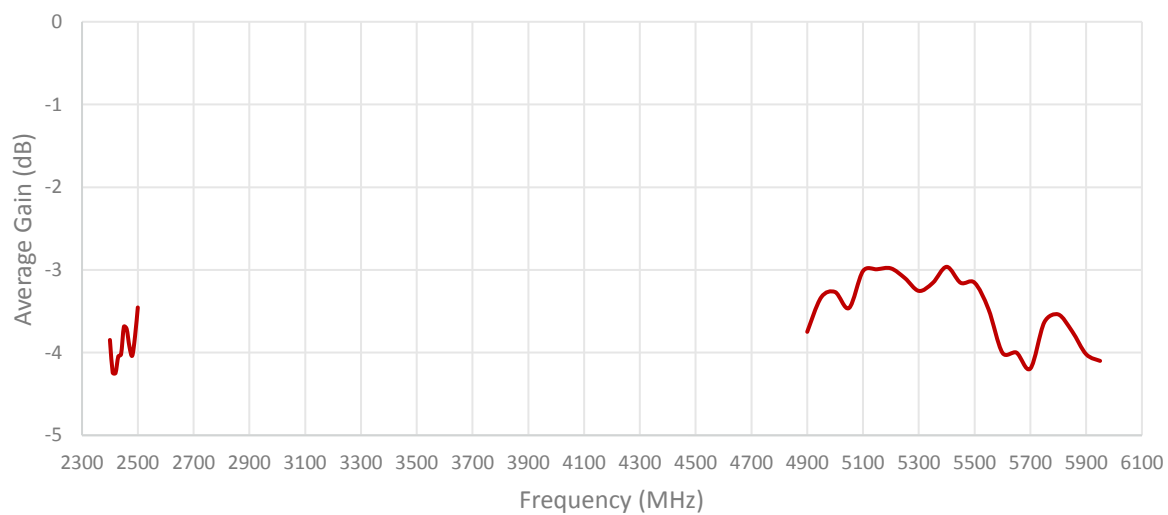
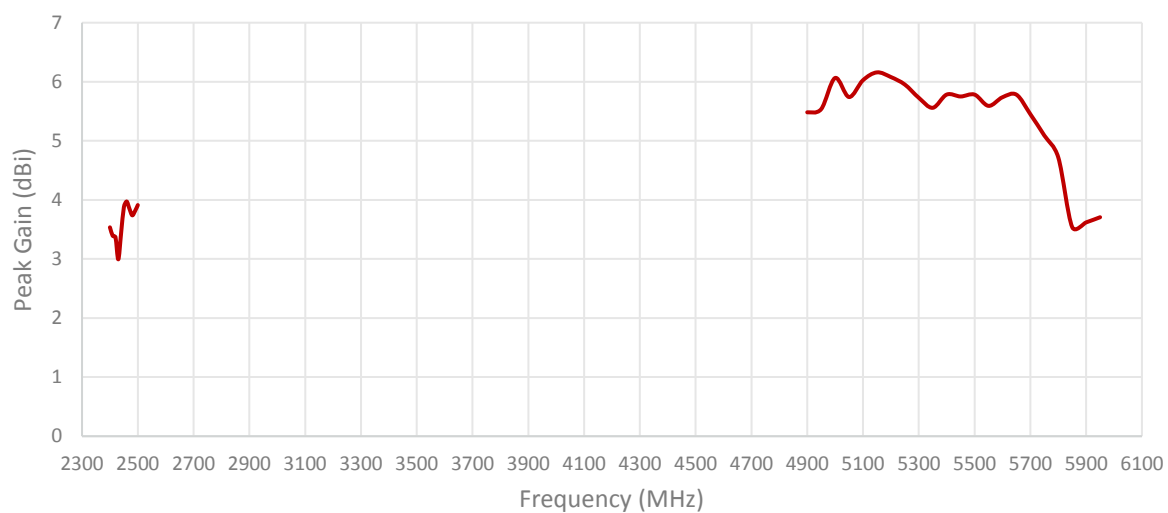
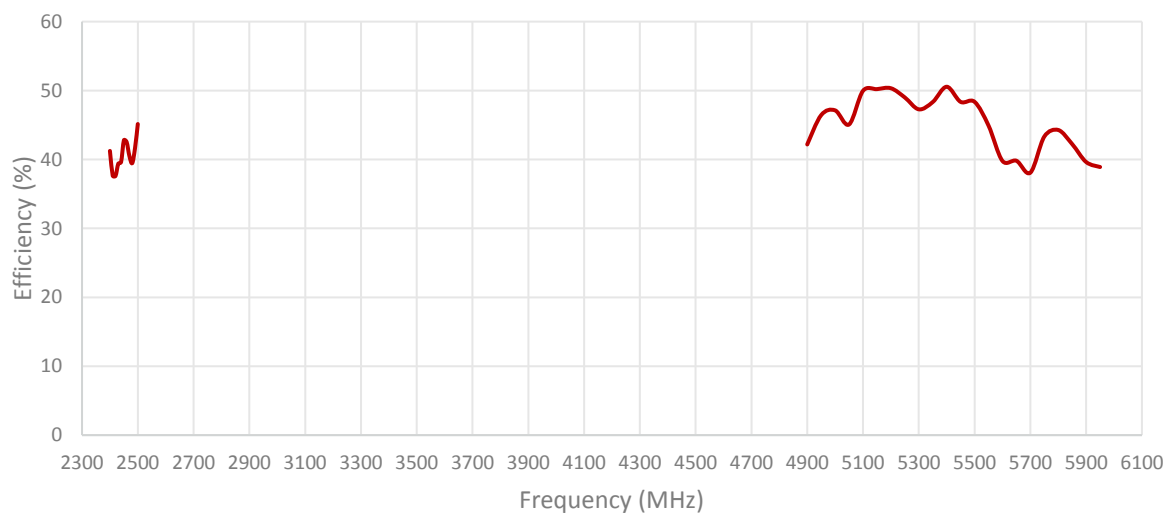


ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2

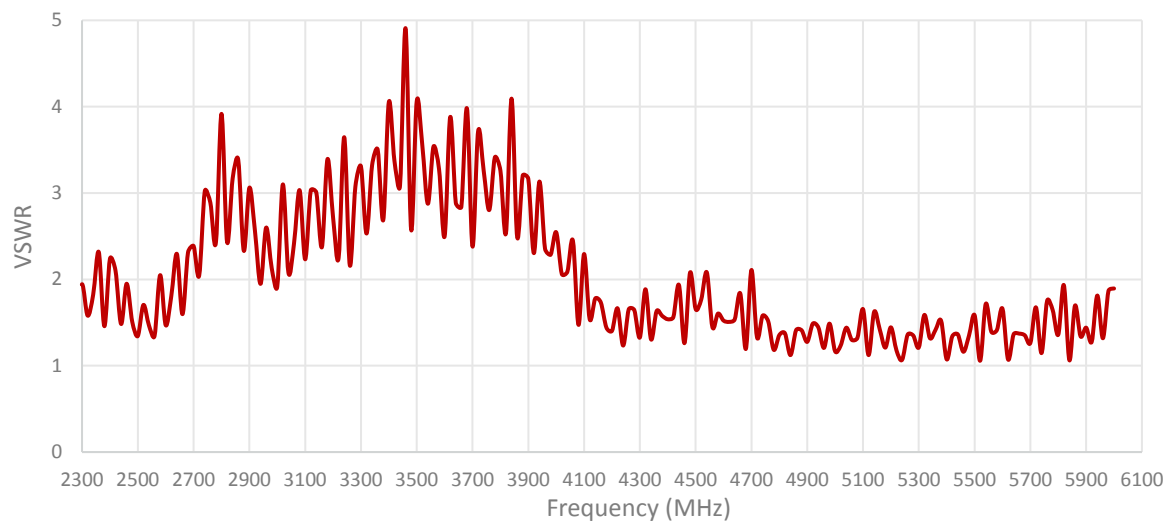
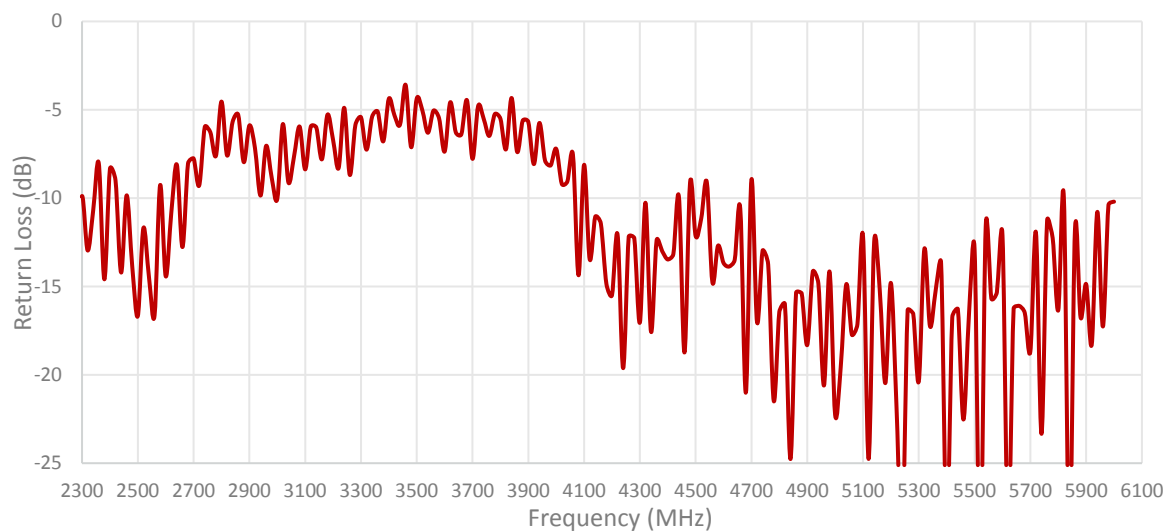


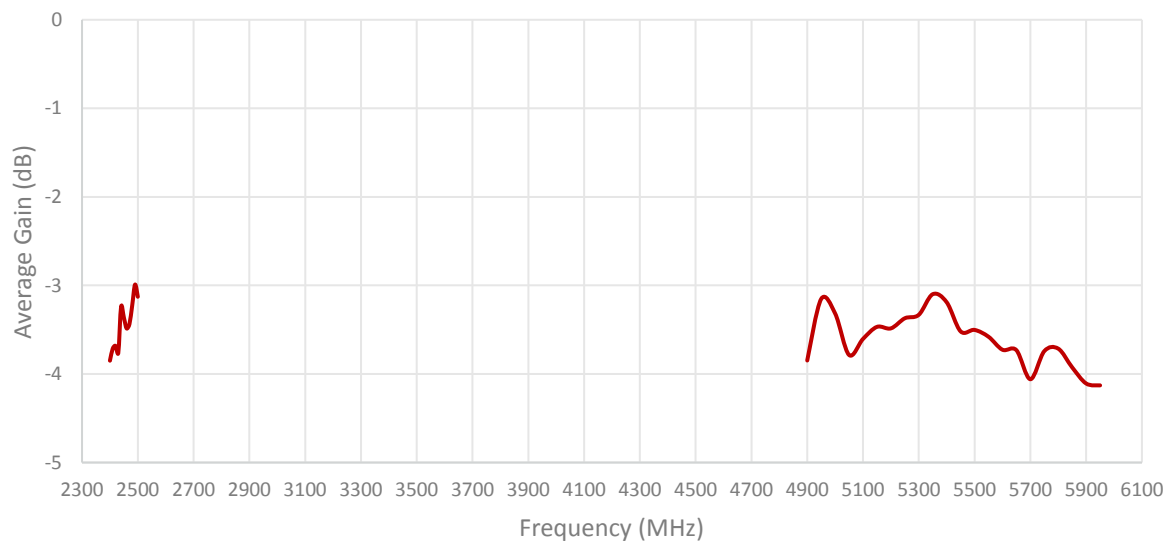
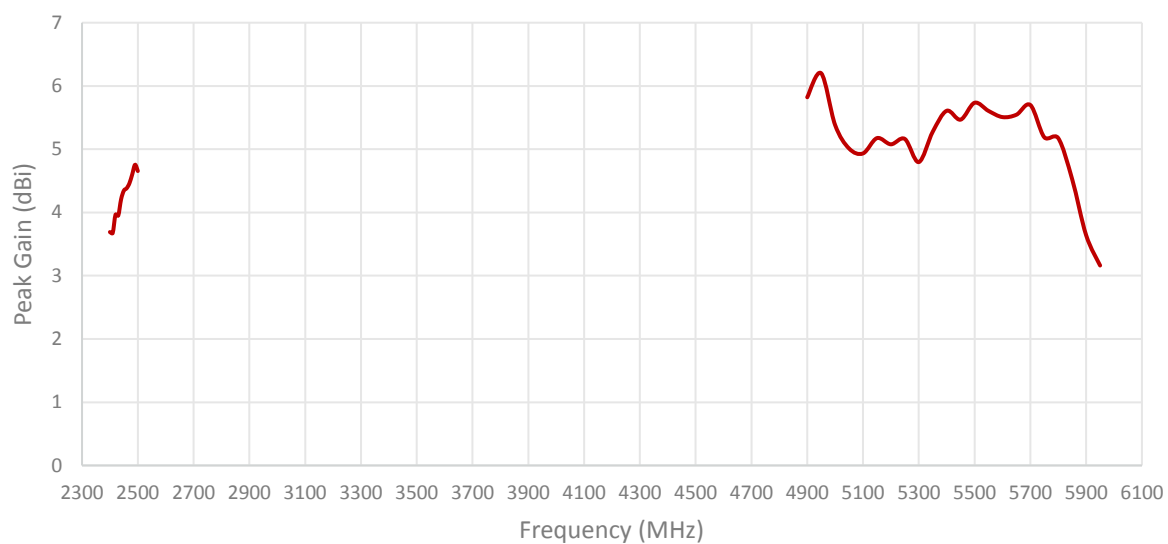
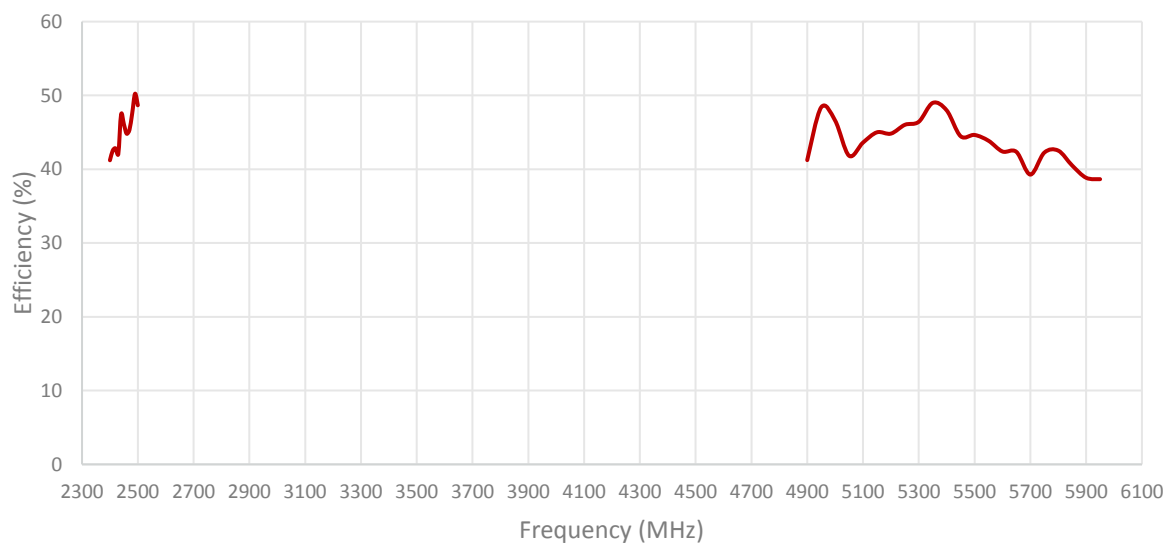
Cable 3: 2.4/5.0 GHz ISM



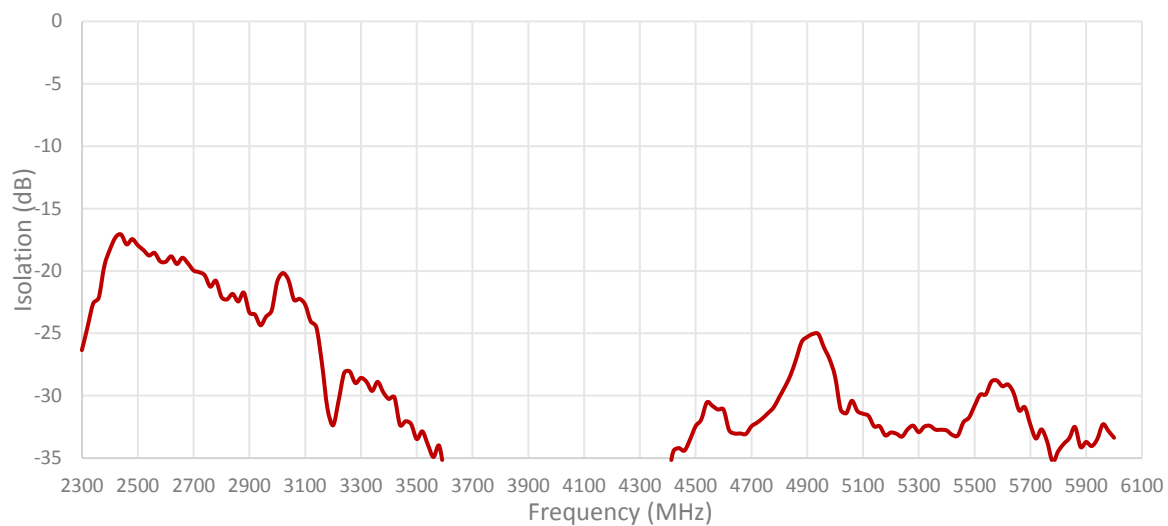


Cable 4: 2.4/5.0 GHz ISM

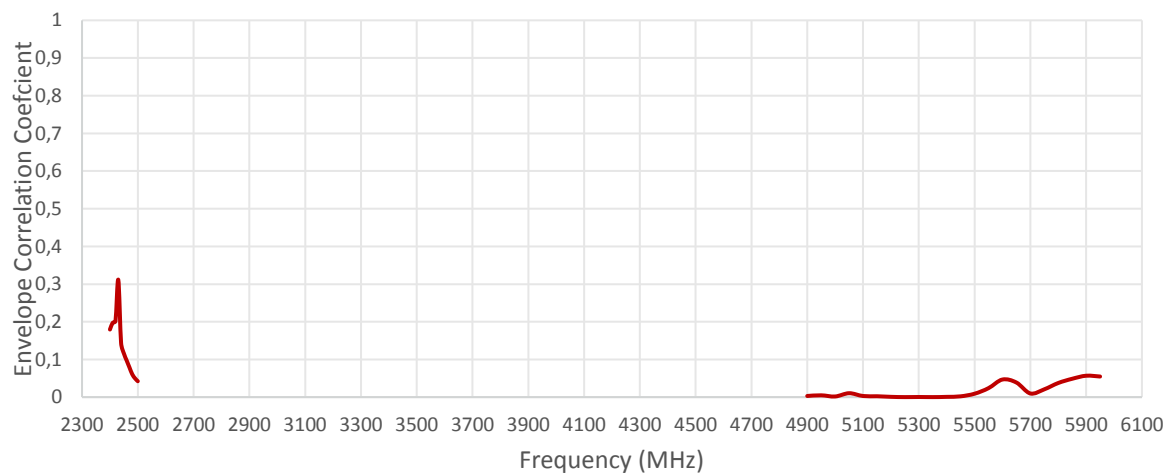


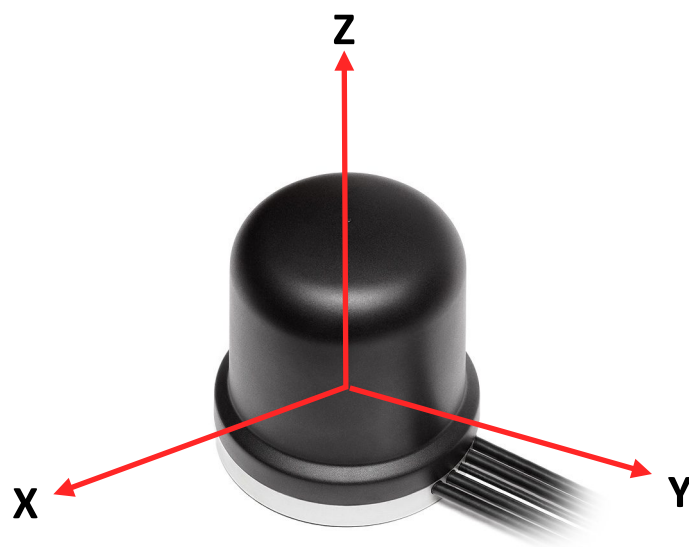


ISOLATION FOR CABLES 3 AND 4



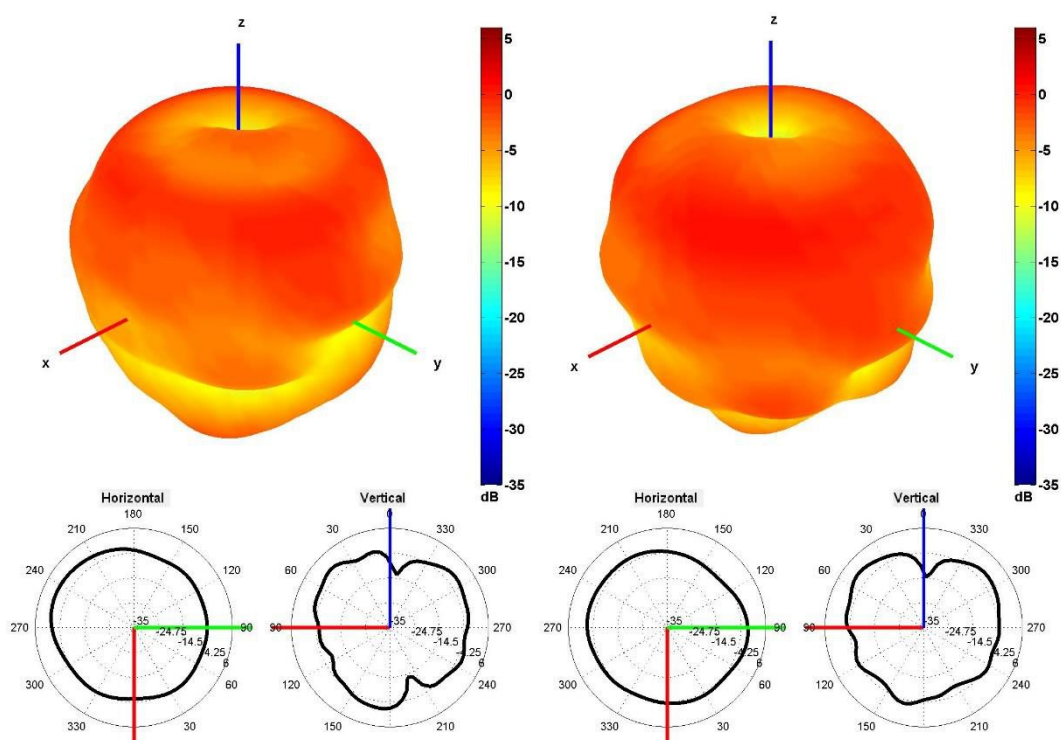
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 3 AND 4



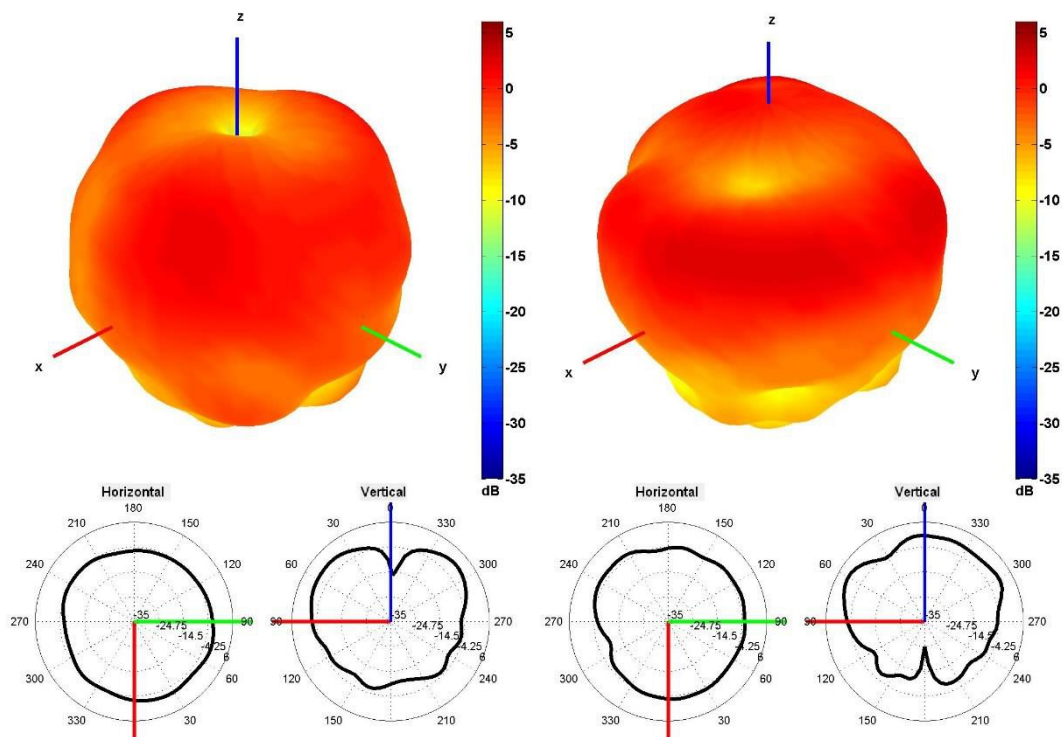


Radiation pattern reference

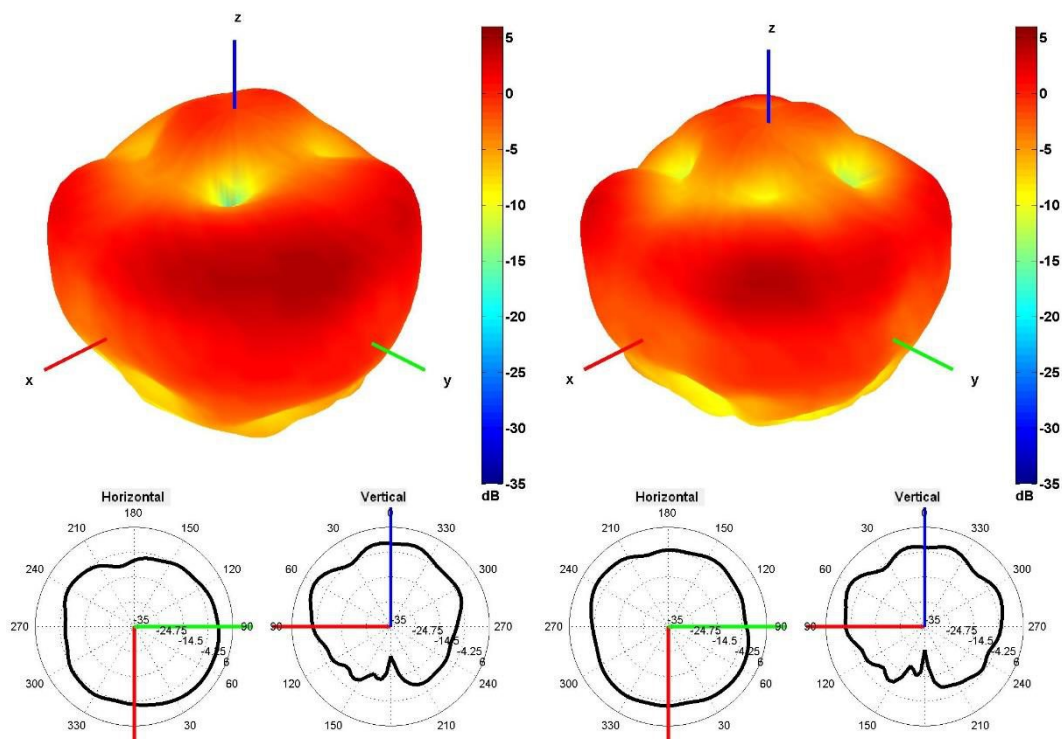
Cable 1: CELLULAR/LTE



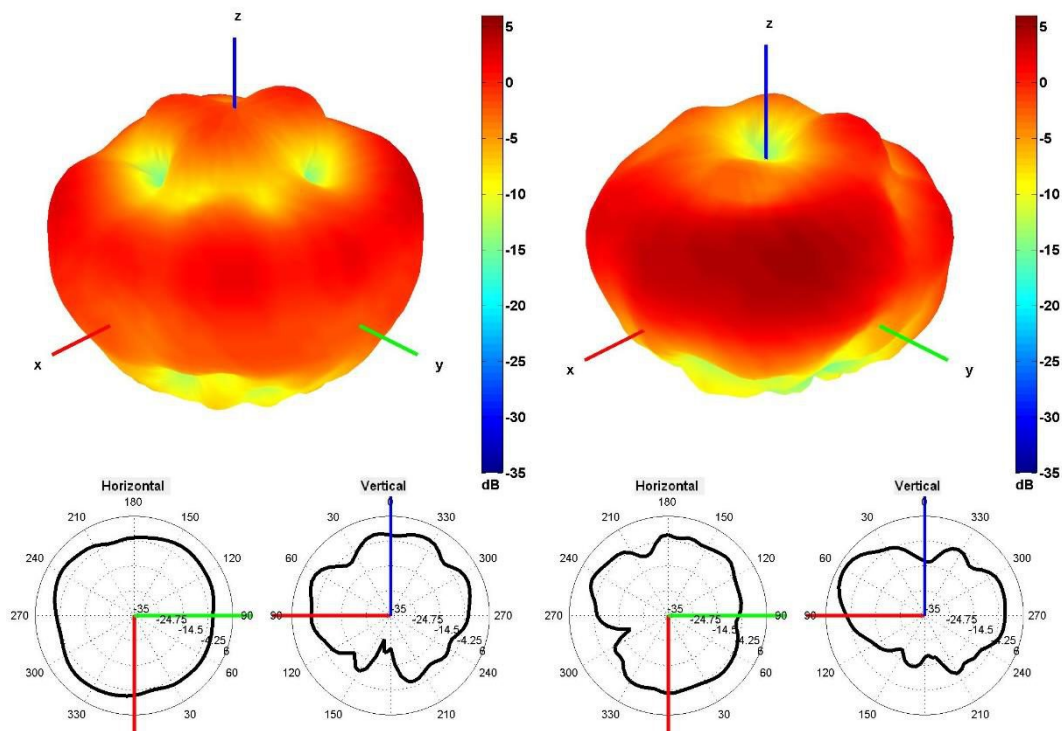
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

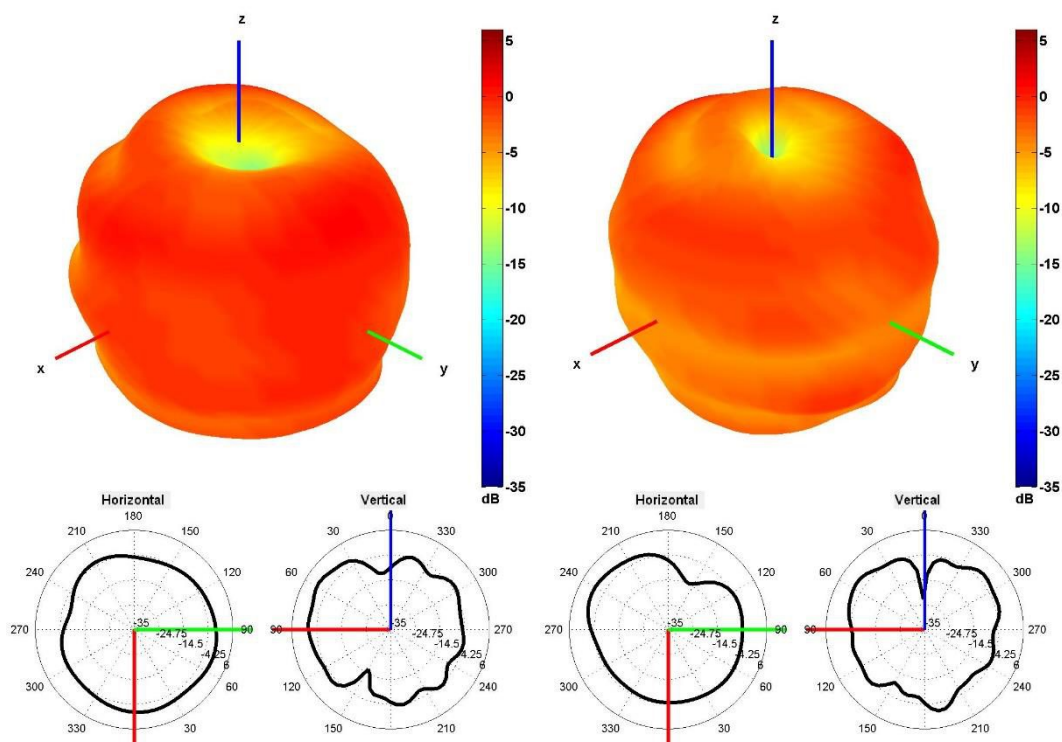


1850 and 1950 MHz Radiation pattern

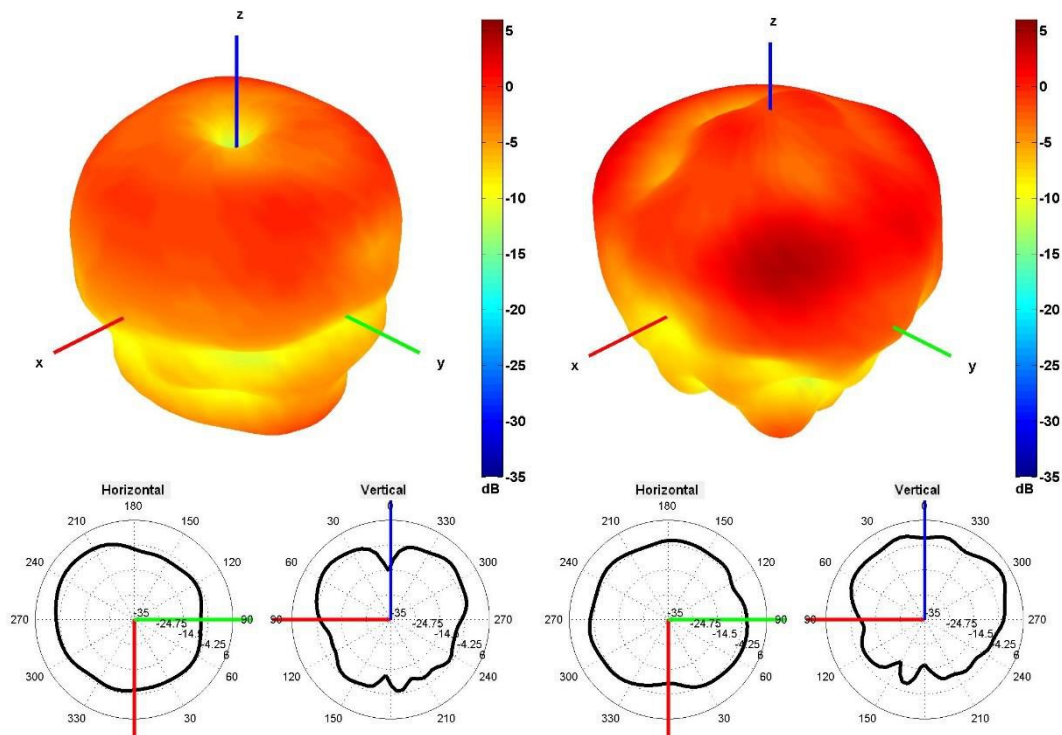


2100 and 2600 MHz Radiation pattern

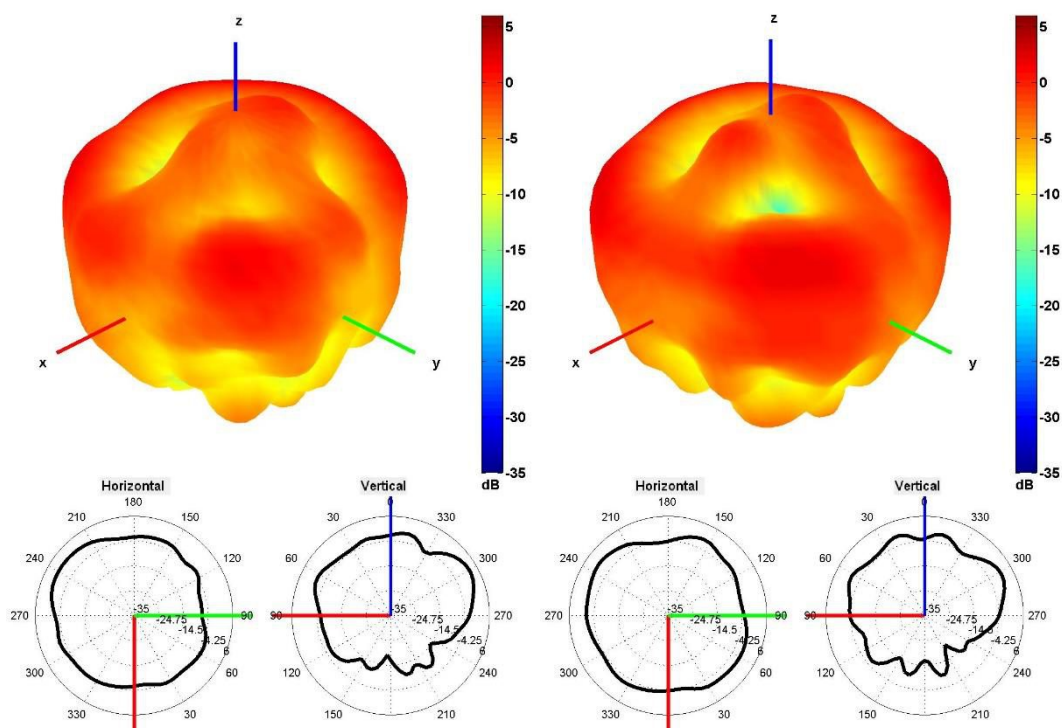
Cable 2: CELLULAR/LTE



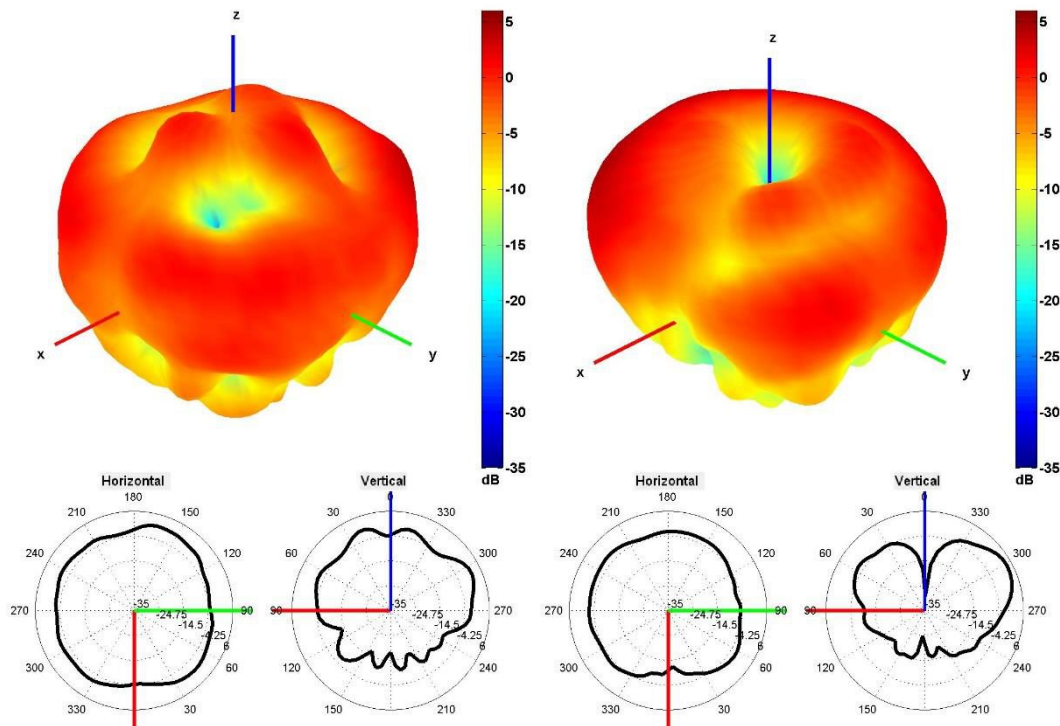
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

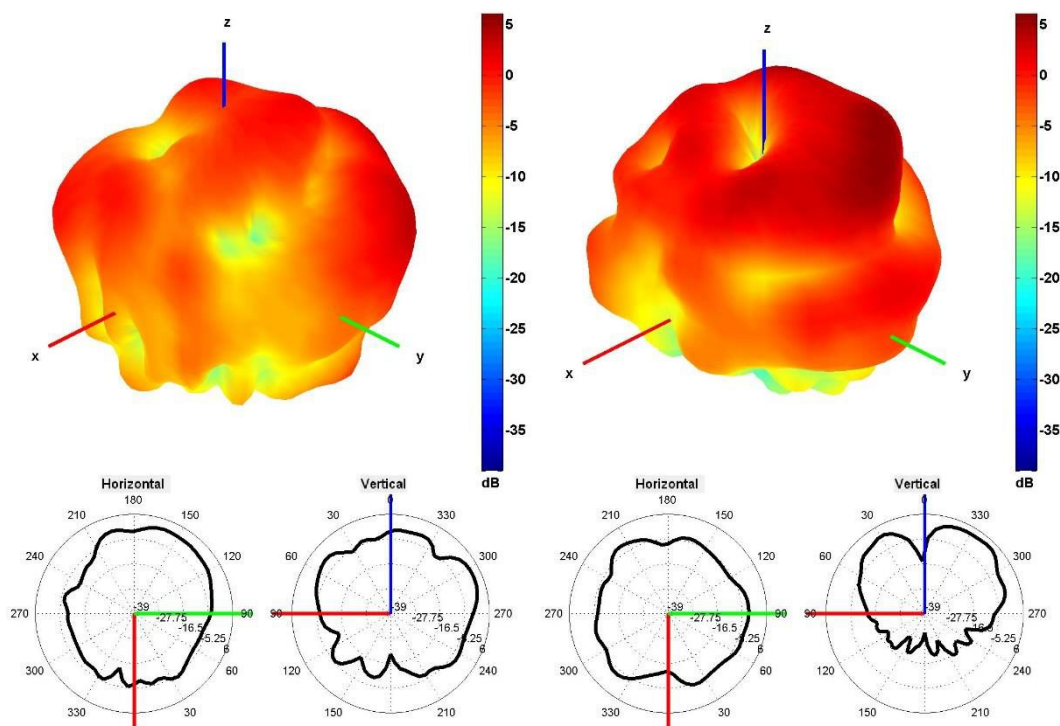


1850 and 1950 MHz Radiation pattern



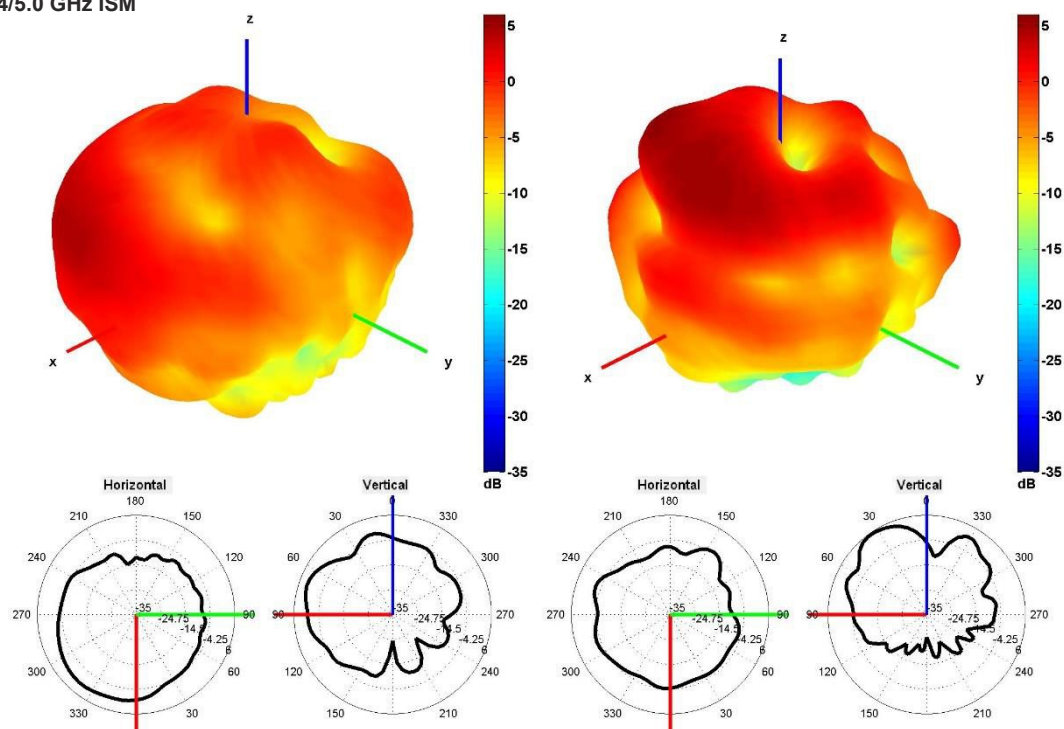
2100 and 2600 MHz Radiation pattern

Cable 3: 2.4/5.0 GHz ISM



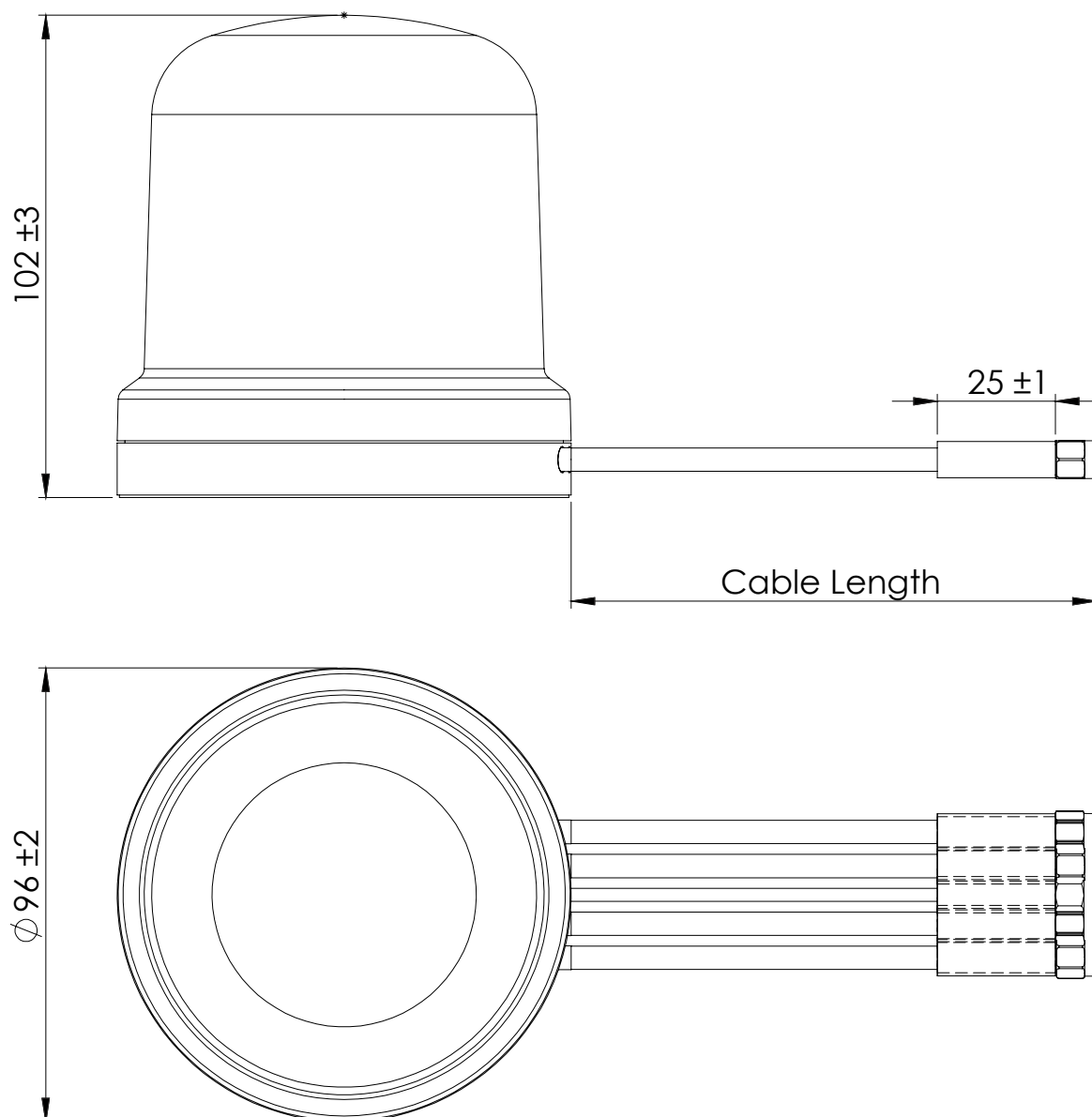
2450 and 5500 MHz Radiation pattern

Cable 4: 2.4/5.0 GHz ISM



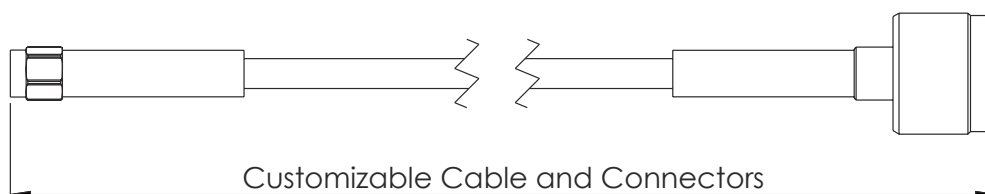
2450 and 5500 MHz Radiation pattern

4. Antenna drawings



Note: Dimensions are in millimeters

5. Jumper cables drawings - Optional



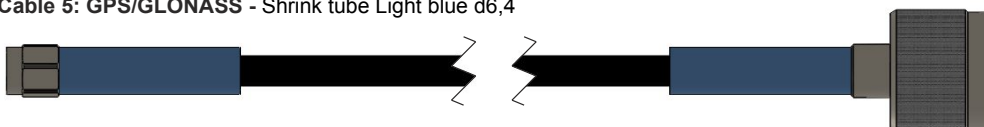
C318N-LMR195-C91N OST - 2×

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



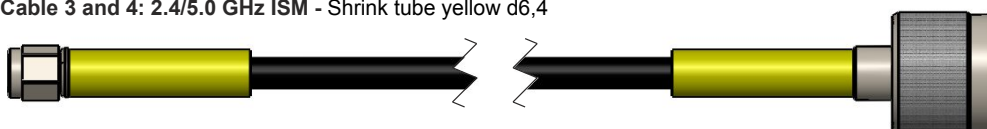
C318N-LMR195-C91N BST

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



C318N-LMR195-C151N GST - 2×

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



6. Antenna Images





Макро Групп – это:

- дистрибьютор электронных компонентов с 1994 года
- контрактный производитель электроники с 2007 года с собственным производством в Санкт-Петербурге (компания Макро ЕМС, входит в ГК Макро Групп)
- поставщик полупроводниковых материалов
- комплексный поставщик электронных компонентов
- моделирование и производство полупроводниковых эпитаксиальных гетероструктур для задач оптоэлектроники

Головной офис расположен в Санкт-Петербурге. Собственные представительства в крупных промышленных городах России и стран СНГ.

Преимущества для наших заказчиков:

- работа по тендерам с 2012 года
- оформление банковских гарантий
- отсрочки платежей
- поставка электронных компонентов по проектным ценам
- инженерная поддержка проектов заказчиков
- сертификат системы менеджмента качества ISO 9001-2015
- необходимые сертификаты и лицензии

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