

## 2J4941PGFa

CELLULAR/LTE MIMO and GNSS Adhesive Mount

### Key Features

**Cable 1 and 2: CELLULAR / LTE**

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

**Cable 3: GPS/GLONASS/QZSS/Galileo**

- 1575-1606 MHz

Adhesive Mount

High Performance

Ground Plane Independent

Customizable Cable and Connector

Dimensions: 150.5 x 42 x 15.3 mm

Certificates: IP67, IP69



## 1. Antenna and electrical specifications

Cable 1

Parameters	CELLULAR / LTE Antenna		
<b>Standards</b>	2G,3G and 4G		
<b>Band (MHz)</b>	700/850/900	1700/1800/1900/2100	2600
<b>Frequency (MHz)</b>	698-960	1710-2170	2500-2700
<b>Return Loss (dB)</b>	~-9.6	~-9.5	~-16.8
<b>VSWR</b>	~2.6:1	~2.2:1	~1.4:1
<b>Efficiency (%)</b>	~30.9	~35.6	~38.4
<b>Peak Gain (dBi)</b>	~-1.9	~-1.9	~-2.2
<b>Average Gain (dB)</b>	~-5.1	~-4.5	~-4.2
<b>Impedance (Ohm)</b>	50		
<b>Polarisation</b>	Linear		
<b>Radiation Pattern</b>	Omni-Directional		
<b>Max. Input Power (W)</b>	25		
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)		
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)		
<b>Cable Type</b>	LL195 Standard (Other Cables Available)		

Cable 2

Parameters	CELLULAR / LTE Antenna		
<b>Standards</b>	2G,3G and 4G		
<b>Band (MHz)</b>	700/850/900	1700/1800/1900/2100	2600
<b>Frequency (MHz)</b>	698-960	1710-2170	2500-2700
<b>Return Loss (dB)</b>	~-10.1	~-9.1	~-14.7
<b>VSWR</b>	~2.5:1	~2.3:1	~1.5:1
<b>Efficiency (%)</b>	~31.8	~35.6	~39.2
<b>Peak Gain (dBi)</b>	~-2.3	~-1.9	~-2.4
<b>Average Gain (dB)</b>	~-5.0	~-4.5	~-4.1
<b>Impedance (Ohm)</b>	50		
<b>Polarisation</b>	Linear		
<b>Radiation Pattern</b>	Omni-Directional		
<b>Max. Input Power (W)</b>	25		
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)		
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)		
<b>Cable Type</b>	LL195 Standard (Other Cables Available)		

**Antenna Measurement Conditions:**

Mounted on 30 x 30 x 0.25 cm ABS Plate

200 cm of Cable LL195

Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

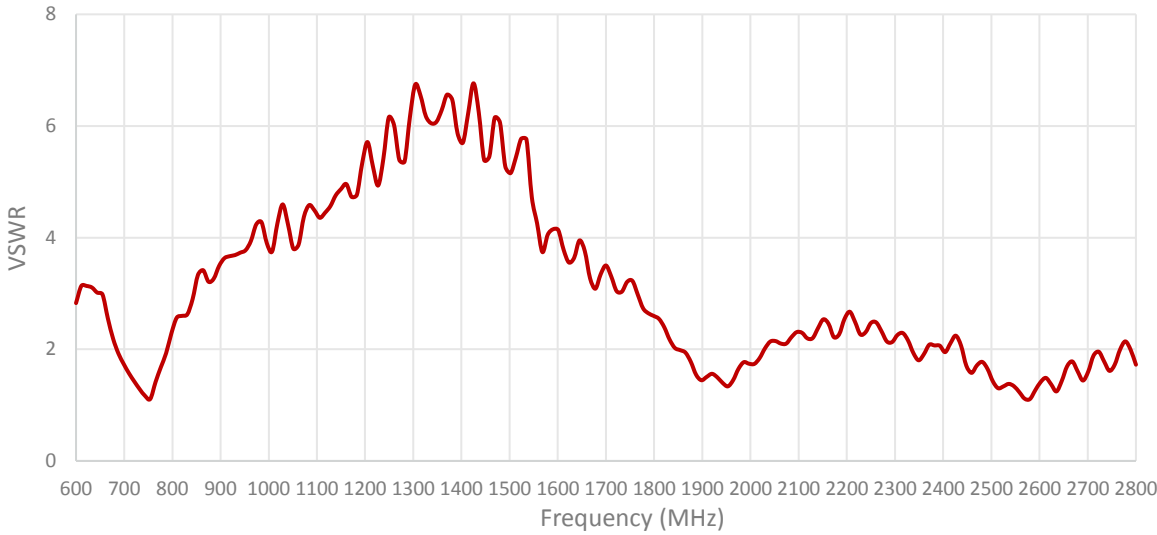
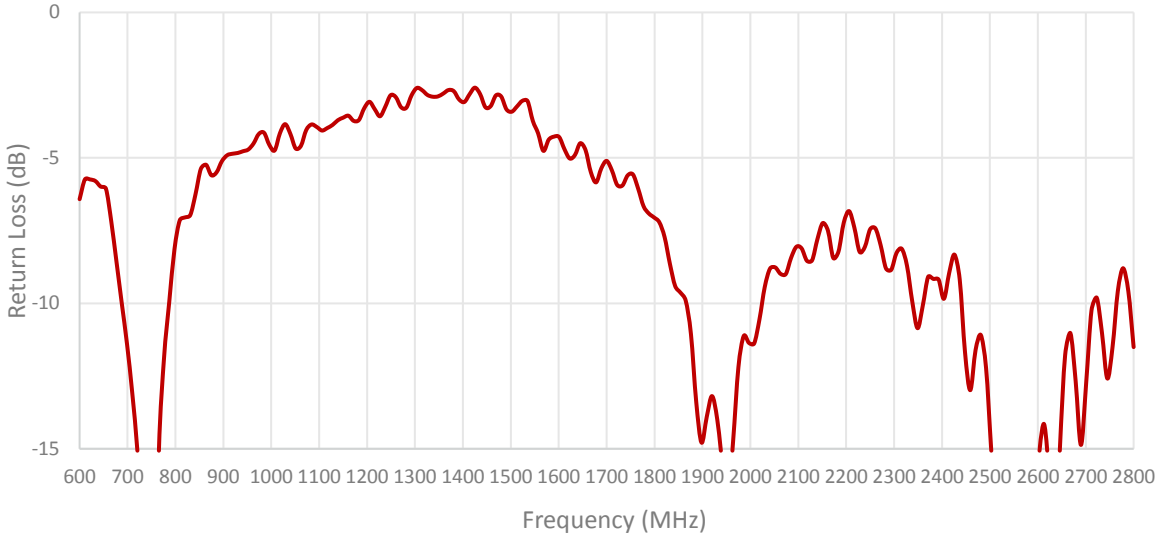
Parameters	GPS/GLONASS Antenna	
	GPS/QZSS/Galileo	GLONASS
<b>Standard</b>		
<b>Band (MHz)</b>	1575	1602
<b>Frequency(MHz)</b>	1575.42	1598-1606
<b>Return Loss (dB)</b>	~-15.0 dB	
<b>VSWR</b>	~1.4:1 dB	
<b>Impedance</b>	50	
<b>Radiation Pattern</b>	Hemispherical	
<b>Polarization</b>	RHCP	
<b>Saw Filter</b>	Pre-filter	
<b>Active Gain (dB)</b>	28 @ 2.7 V	
<b>Noise Figure (dB)</b>	1.5 Typ	
<b>Voltage (V)</b>	1.5 - 3.6	
<b>Current (mA)</b>	9 Typ	
<b>Power Consumption (mW)</b>	24.3 Typ	
<b>ESD Protection (kV)</b>	2kV	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	LL100 Standard (Other Cables Available)	

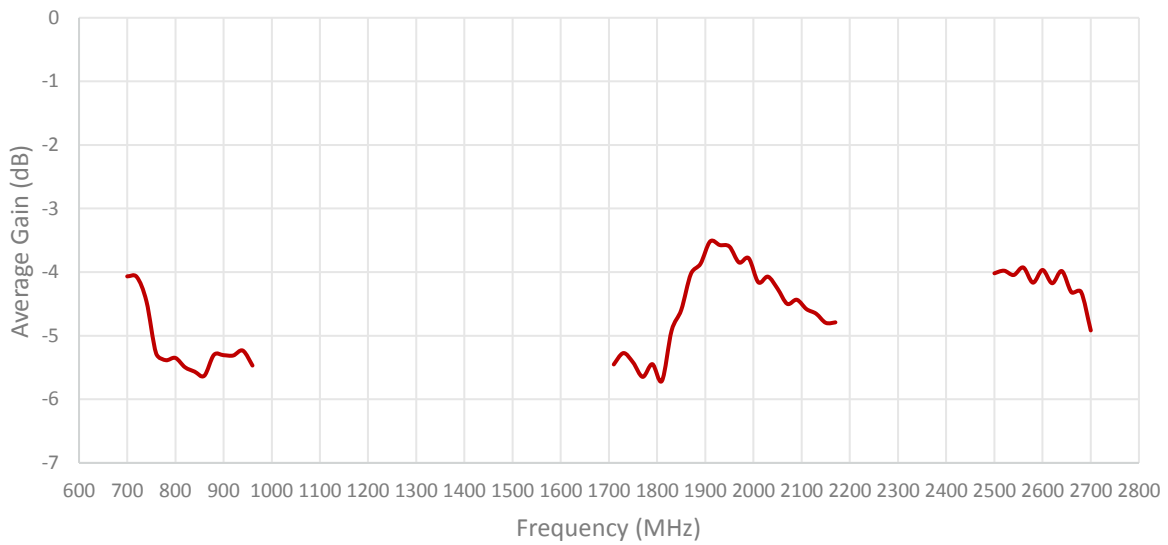
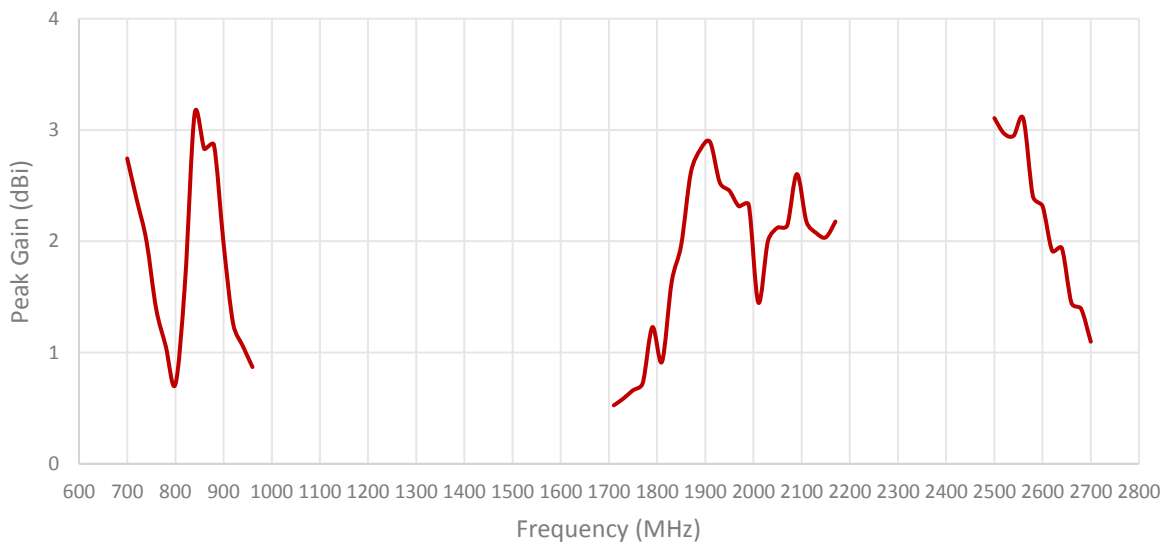
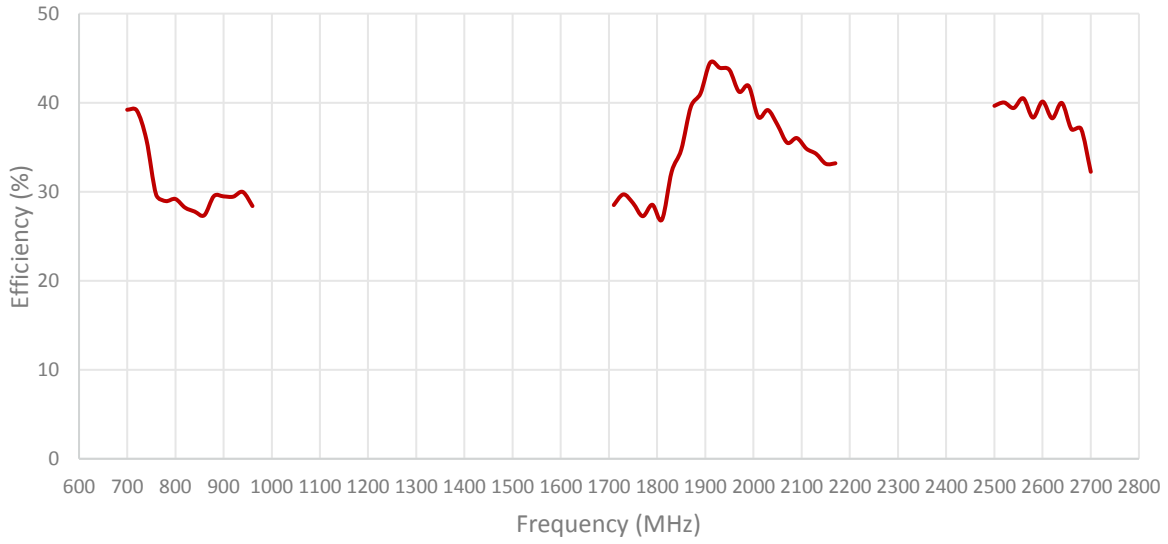
## 2. Mechanical and environmental specifications

Specifications	2J4941PGFa
<b>Mounting Type</b>	Adhesive Mount
<b>Dimensions (mm)</b>	150.5 x 42 x 15.3
<b>Radome Type</b>	ASA UV Stable
<b>Radome Color</b>	Black
<b>Operating Temperature (C)</b>	-40 to +85
<b>Storage Temperature (C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Certificates</b>	IP67, IP69

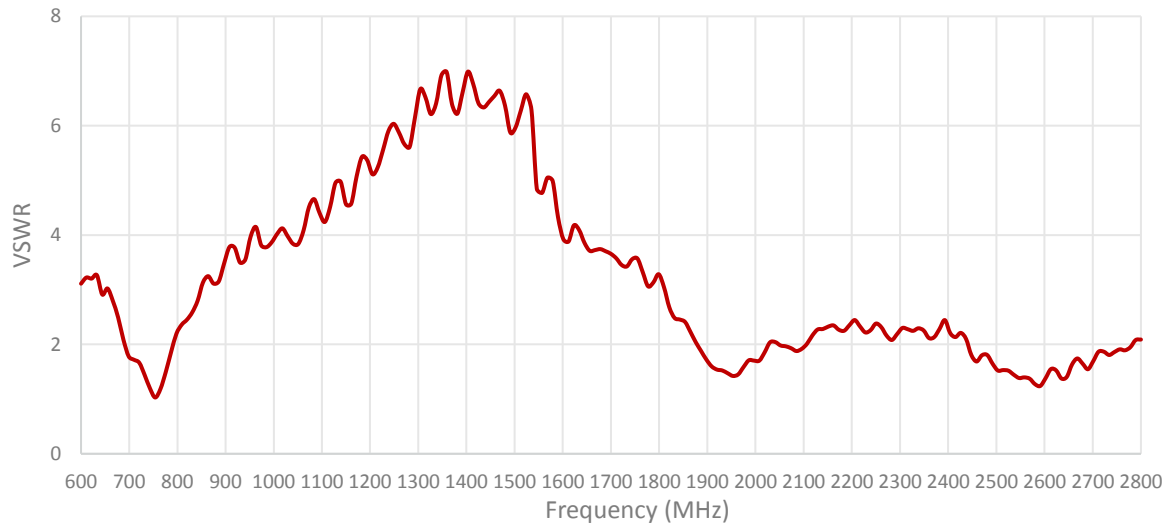
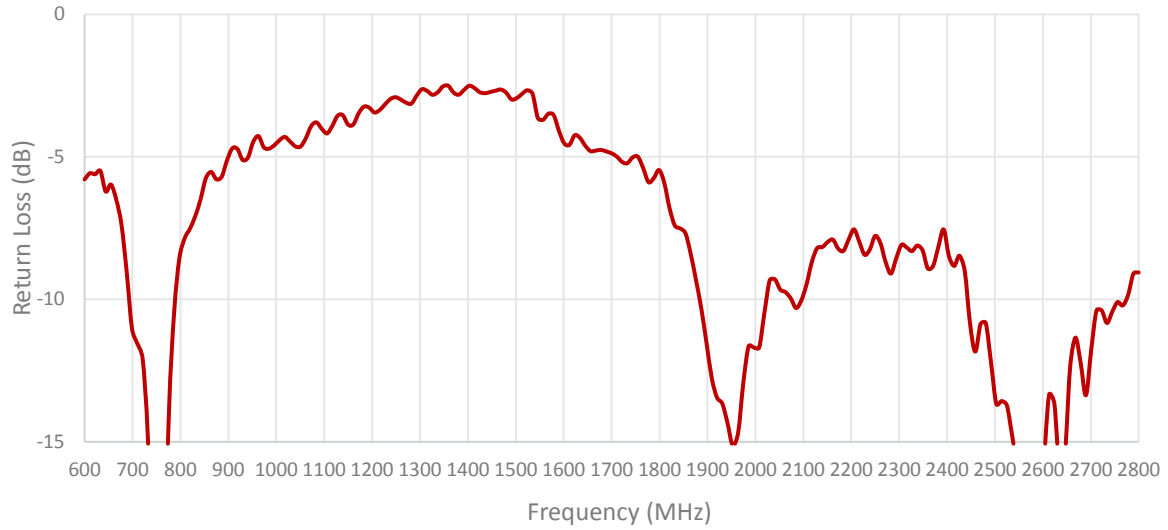
### 3. Antenna parameters

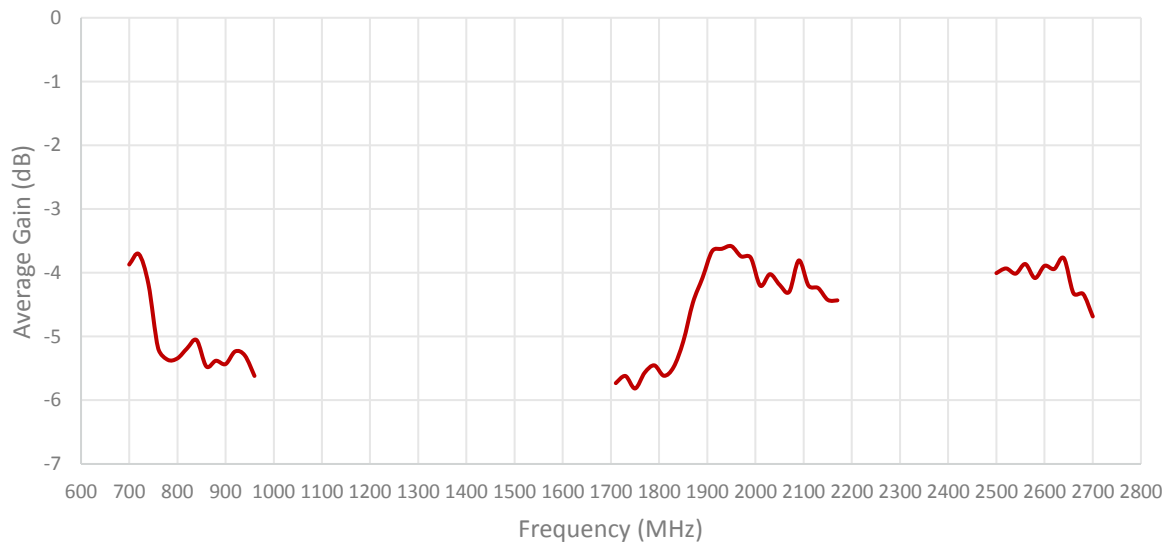
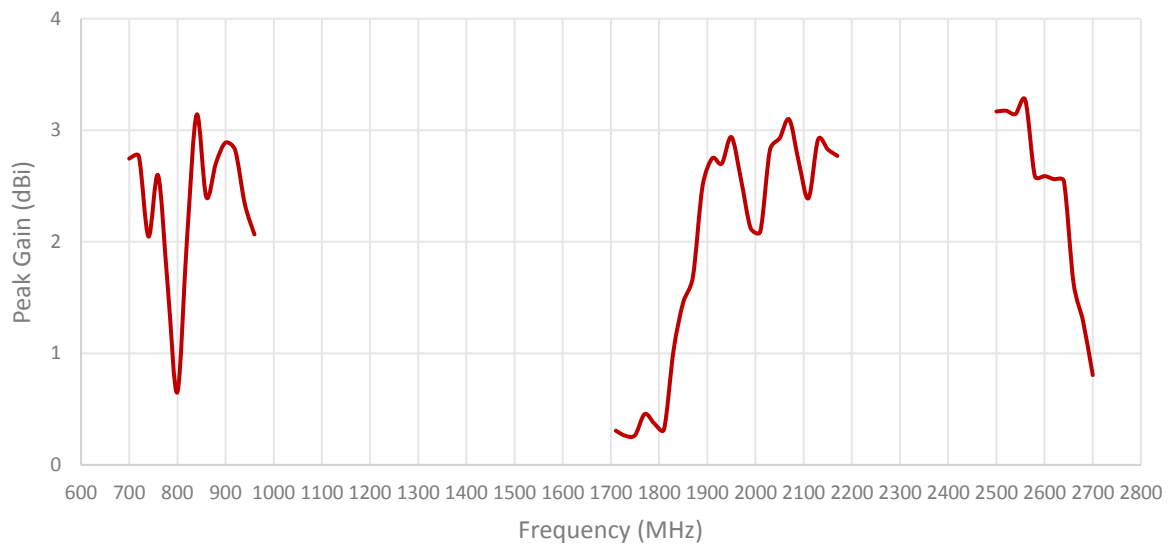
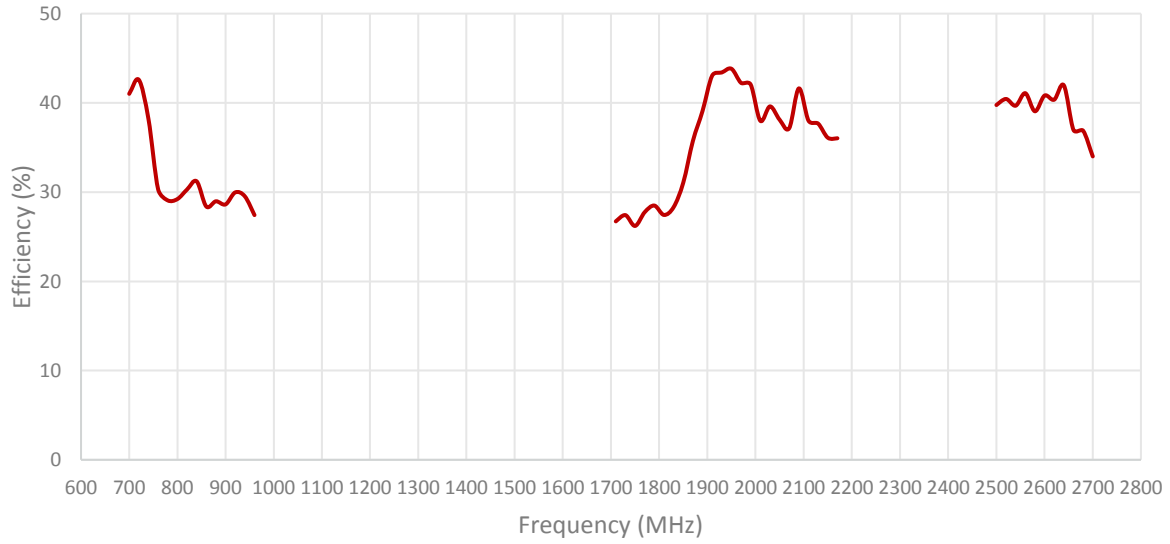
Cable 1: CELLULAR/LTE



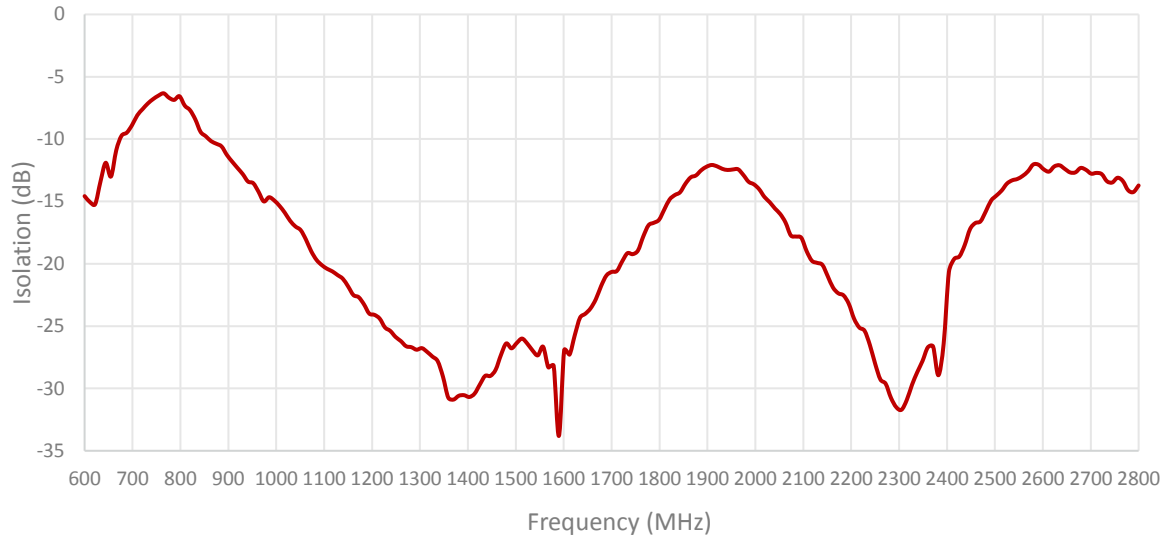


**Table 2: CELLULAR/LTE**

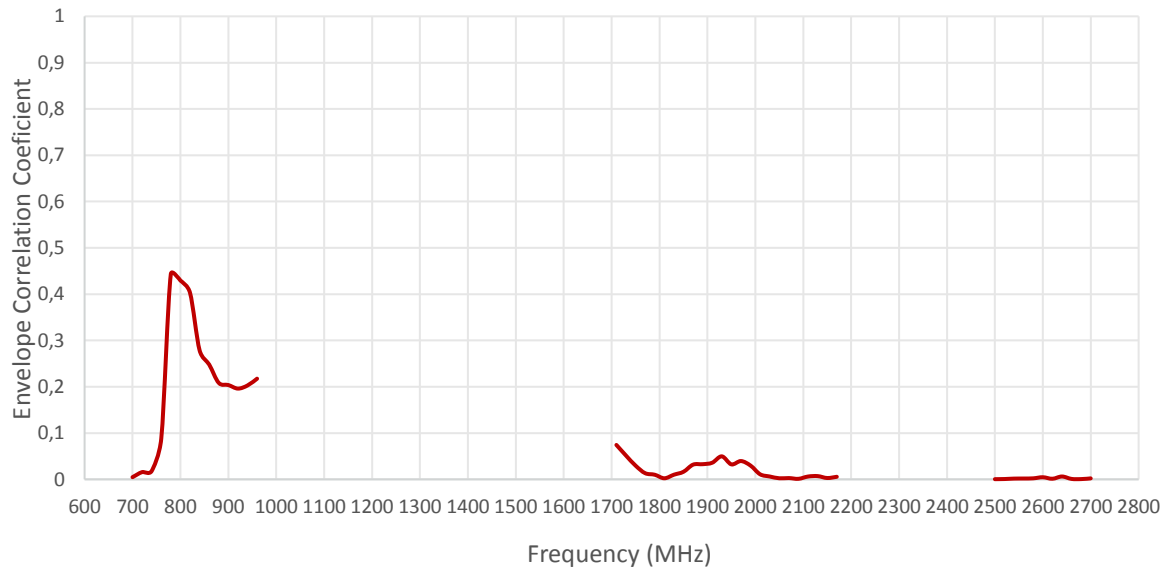




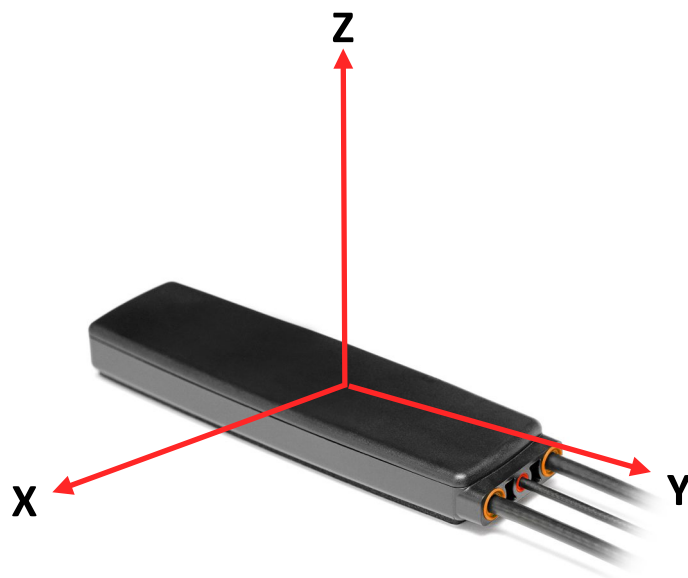
**ISOLATION FOR CABLES 1 AND 2**



**ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2**

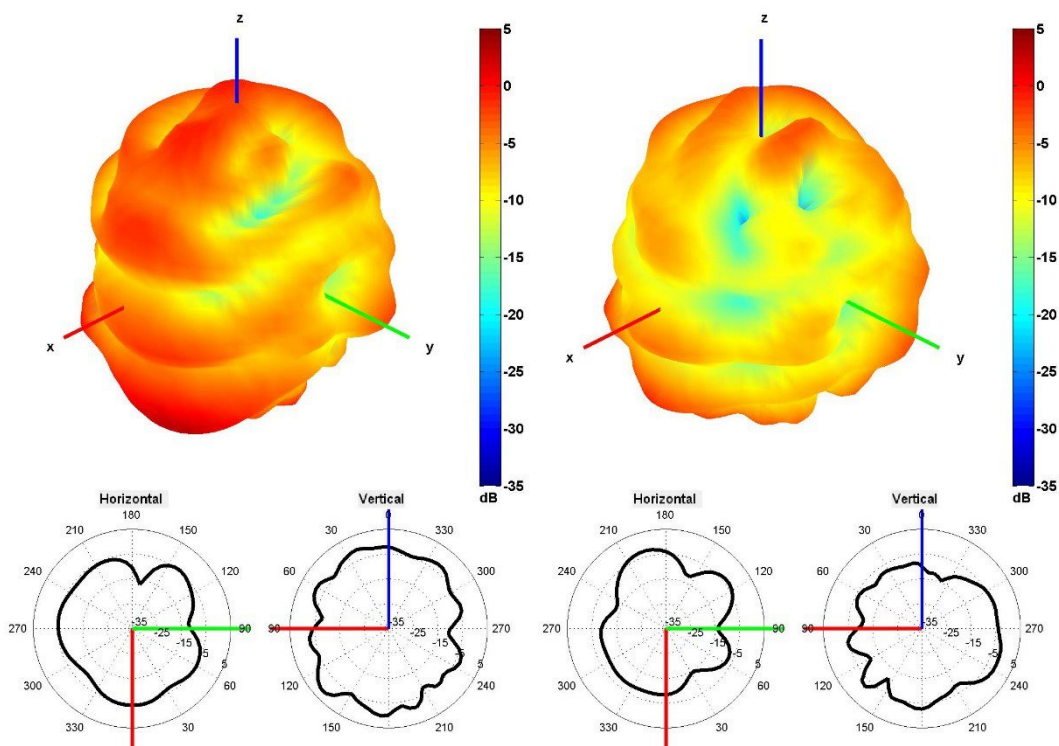




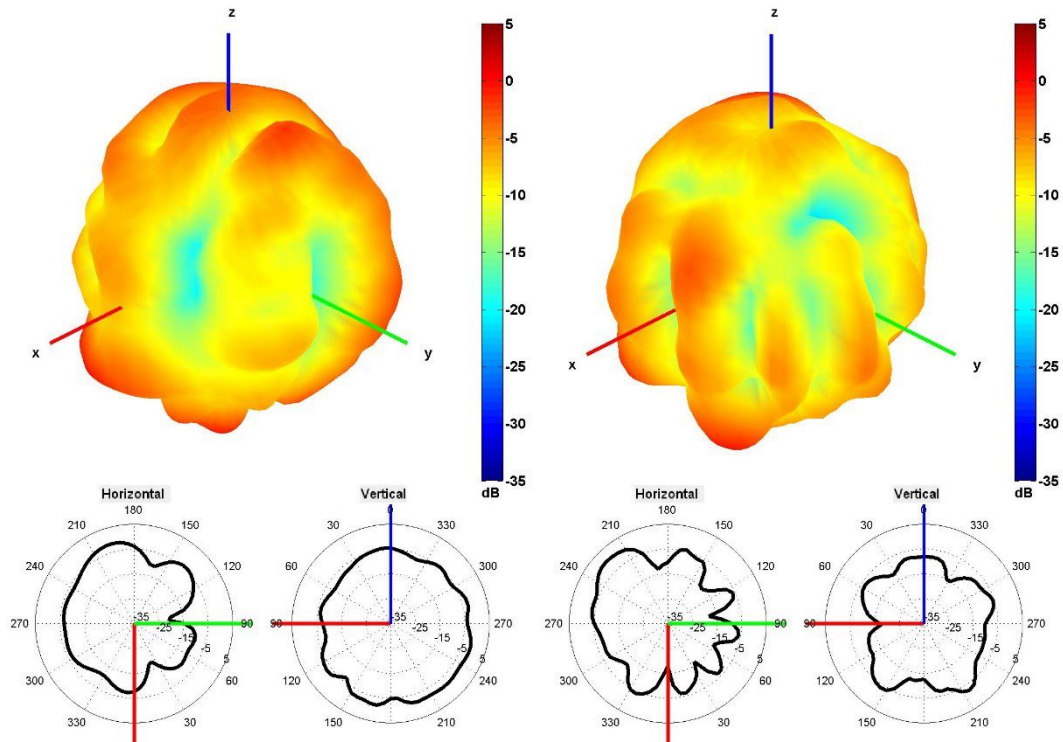


Radiation pattern reference

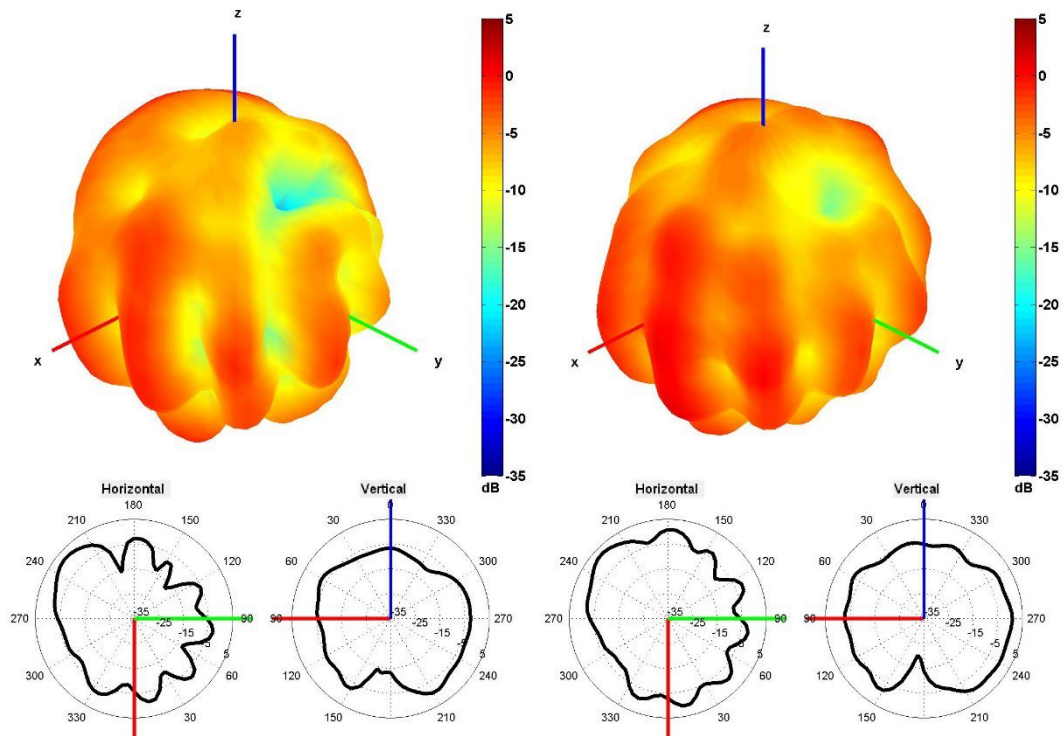
Cable 1: CELLULAR/LTE



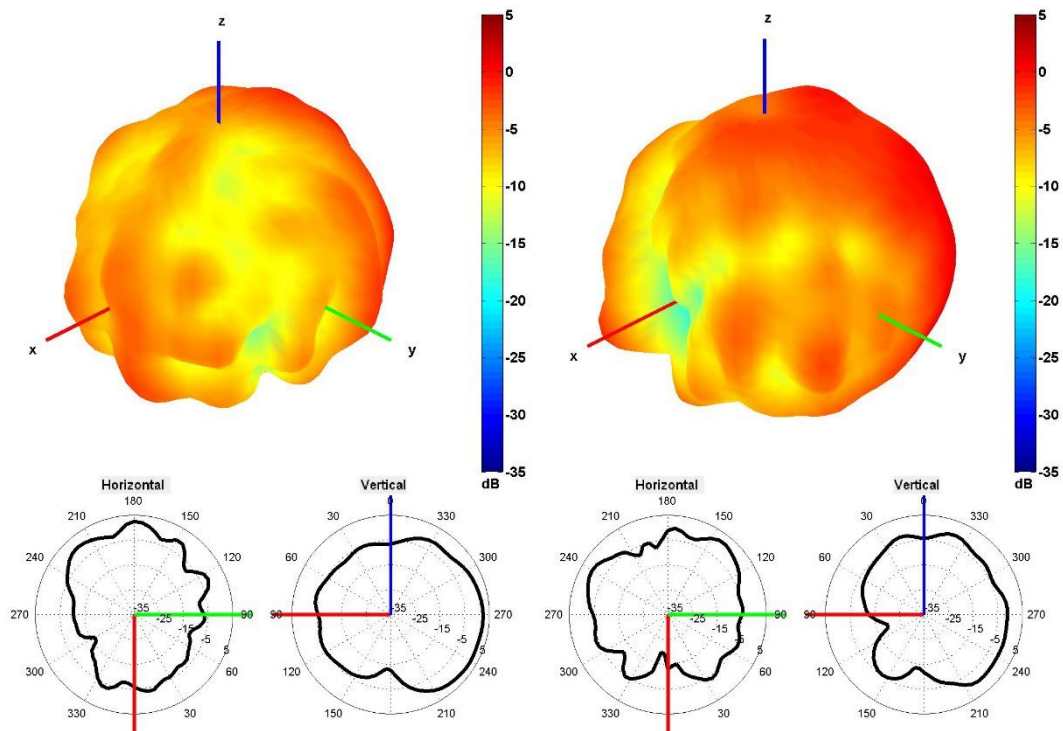
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

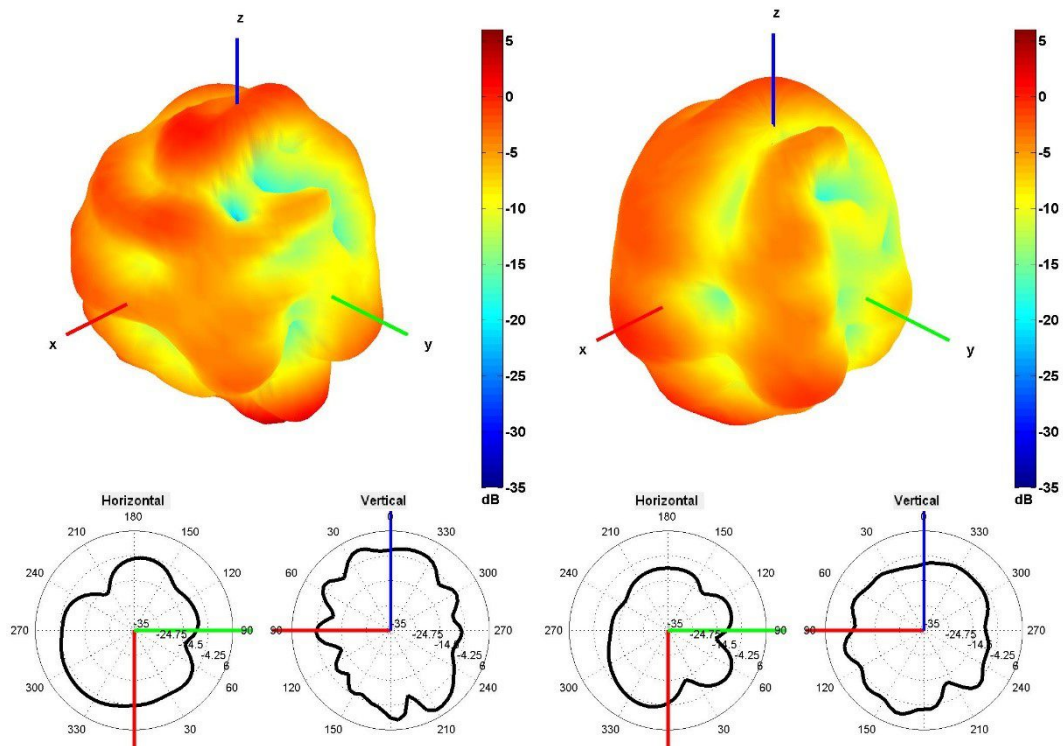


1850 and 1950 MHz Radiation pattern

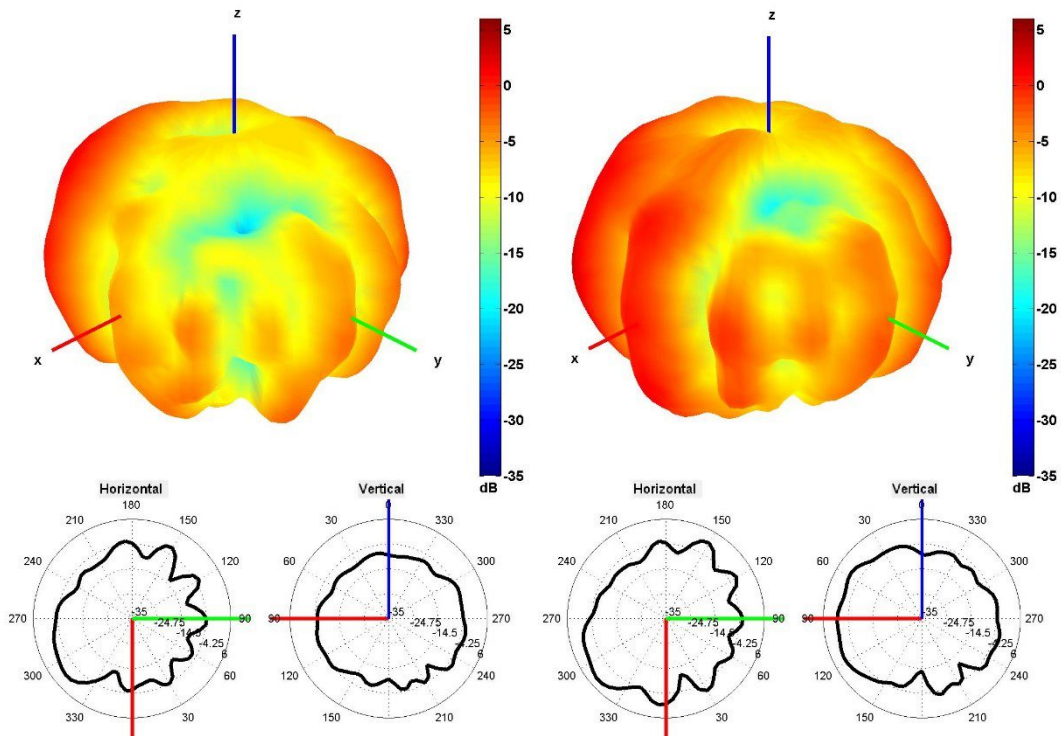
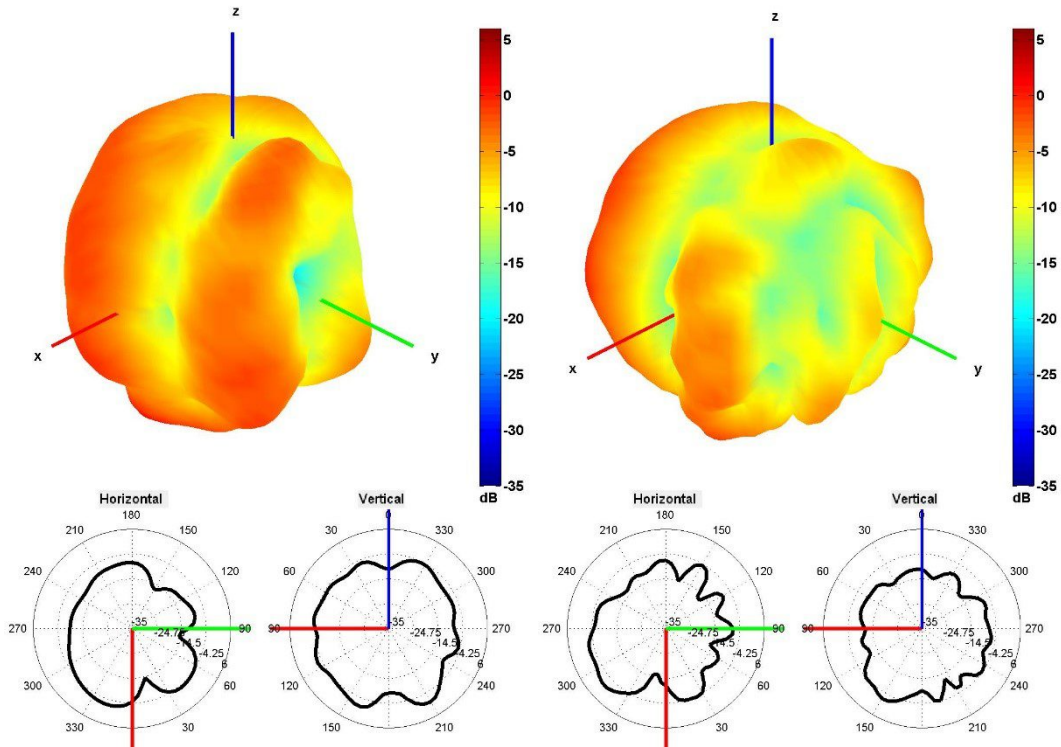


2100 and 2600 MHz Radiation pattern

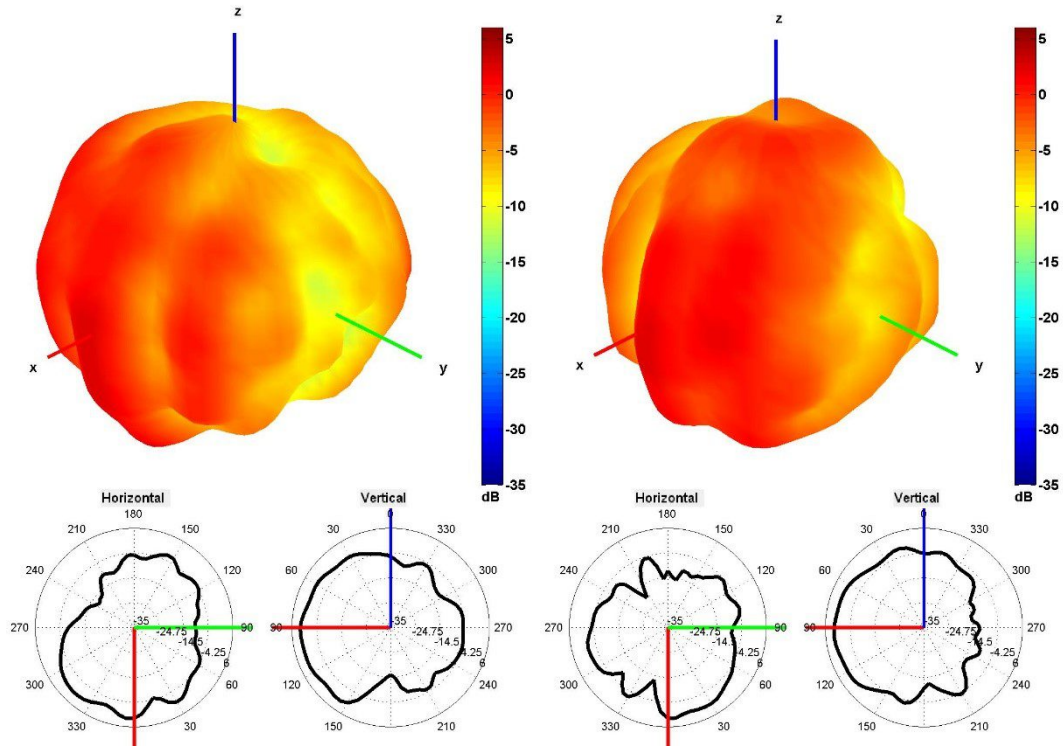
Table 2: CELLULAR/LTE



750 and 850 MHz Radiation pattern

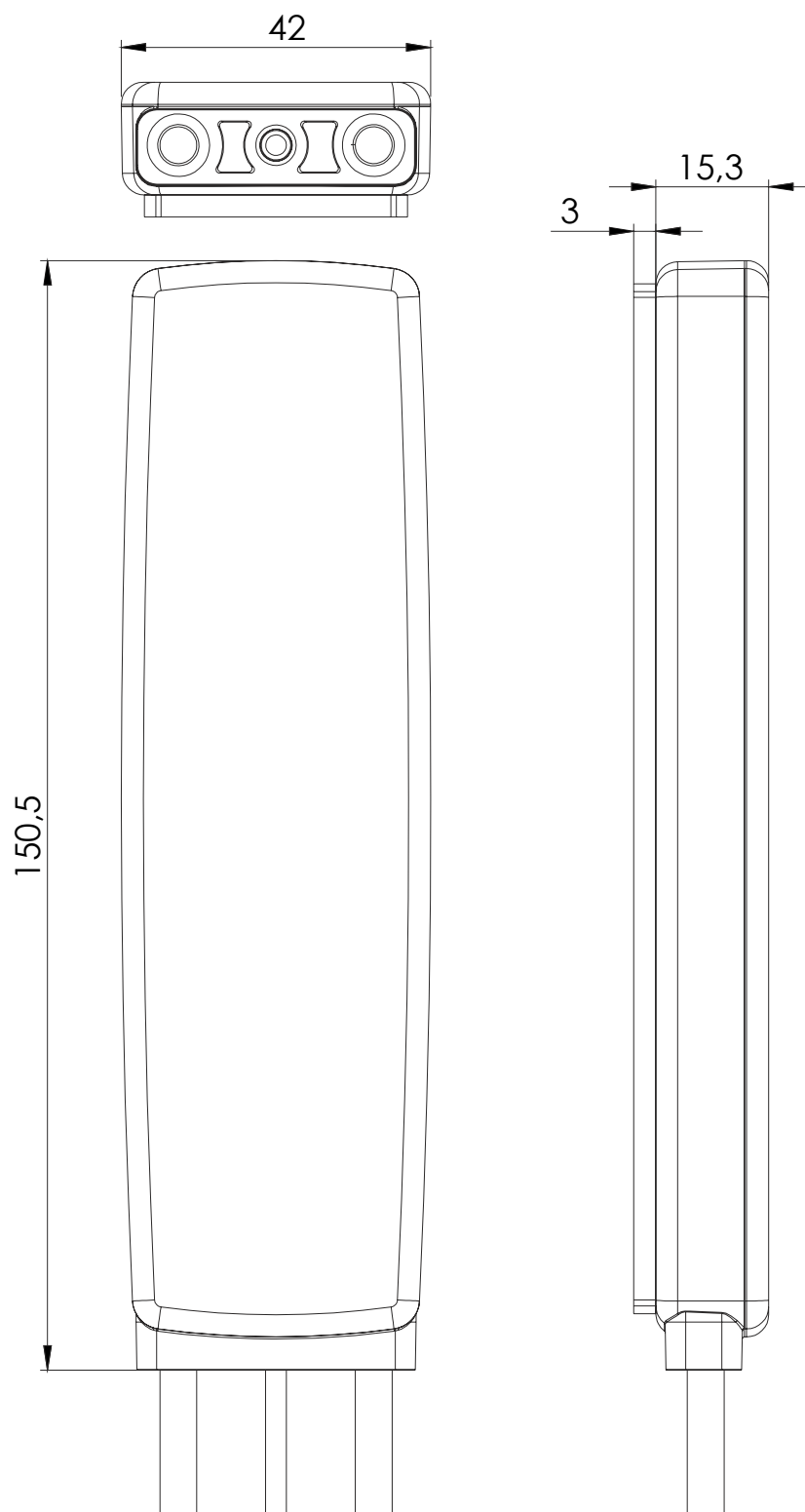






2100 and 2600 MHz Radiation pattern

## 4. Antenna drawings



## 5. 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 EMC, 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

Данный файл получен с сайта [www.macrogroup.ru](http://www.macrogroup.ru)