antenna conceptor

Product Datasheet

2J4250PGF-2.4

CELLULAR/LTE, 2.4 GHz ISM and GNSS Adhesive Mount

Key Features

Cable 1: CELLULAR / LTE
- 698-960 MHz
- 1710-2170 MHz
- 2500-2700 MHz

Cable 2: 2.4 GHz ISM
- 2410-2490 MHz

Cable 3: GPS/GLONASS/QZSS/Galileo
- 1575-1606 MHz

Adhesive Mount
High Performance
Compact Size
Ground Plane Independent
Customizable Cable and Connector
Dimensions: 77 × 34 × 14 mm
Certificates: IP67, IP69

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)	~-7.6	~-13.1	~-15.4
VSWR	~2.5:1	~1.6:1	~1.5:1
Efficiency (%)	~29.6	~27.0	~18.9
Peak Gain (dBi)	~2.4	~2.2	~2.1
Average Gain (dB)	~-5.5	~-5.7	~-7.2
Impendance (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	LL100 Standard (Other Cables Available)		

Cable 2

Parameters	2.4 GHz ISM Antenna
Standards	WiFi, BT, ZigBee, ISM
Band (MHz)	2.4 GHz
Frequency (MHz)	2410-2490
Return Loss (dB)	~-12.5
VSWR	~1.8:1
Efficiency (%)	~21.6
Peak Gain (dBi)	~-2.8
Average Gain (dB)	~-7.6
Impendance (Ohm)	50
Polarisation	Linear
Radiation Pattern	Omni-Directional
Max. Input Power (W)	25
Connector Type	RP-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 30 x 30 cm Plastic Plate

LL100 200 cm Cable Length

Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

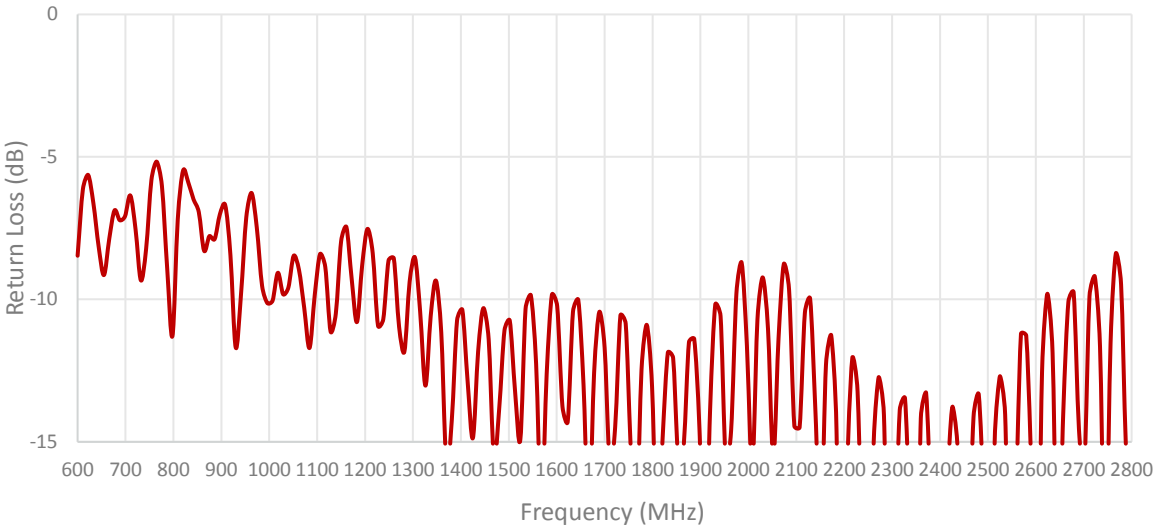
Parameters	GPS/GLONASS Antenna	
Standard	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	<=-15.0 dB	
VSWR	<=1.4:1 dB	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Pre-filter	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.5 Typ	
Voltage (V)	1.5 - 3.6	
Current (mA)	9 Typ	
Power Consumption (mW)	24.3 Typ	
ESD Protection (kV)	2kV	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	200 cm Standard (Any Cable Length Available)	
Cable Type	LL100 Standard (Other Cables Available)	

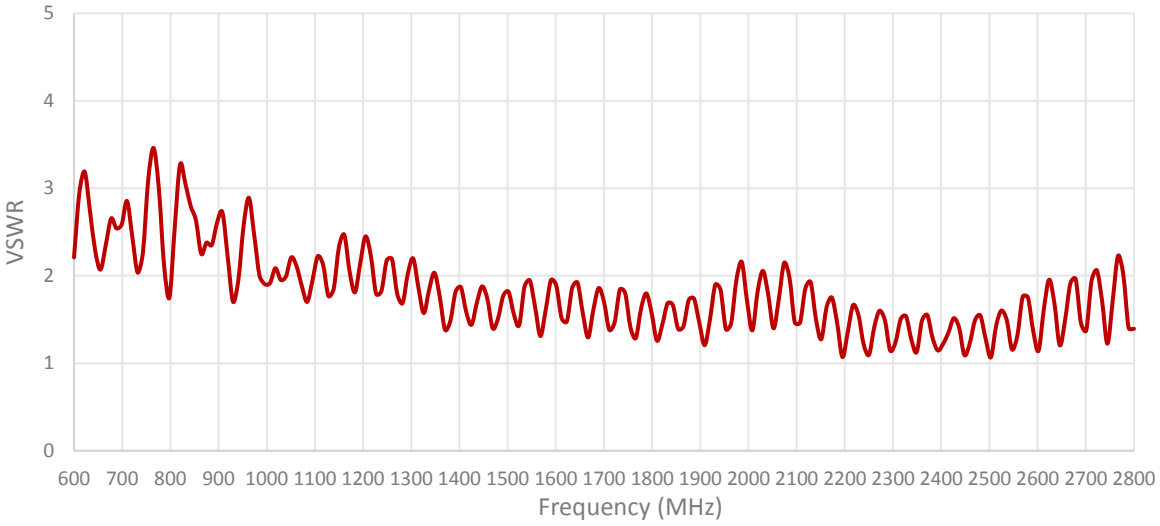
2. Mechanical and environmental specifications

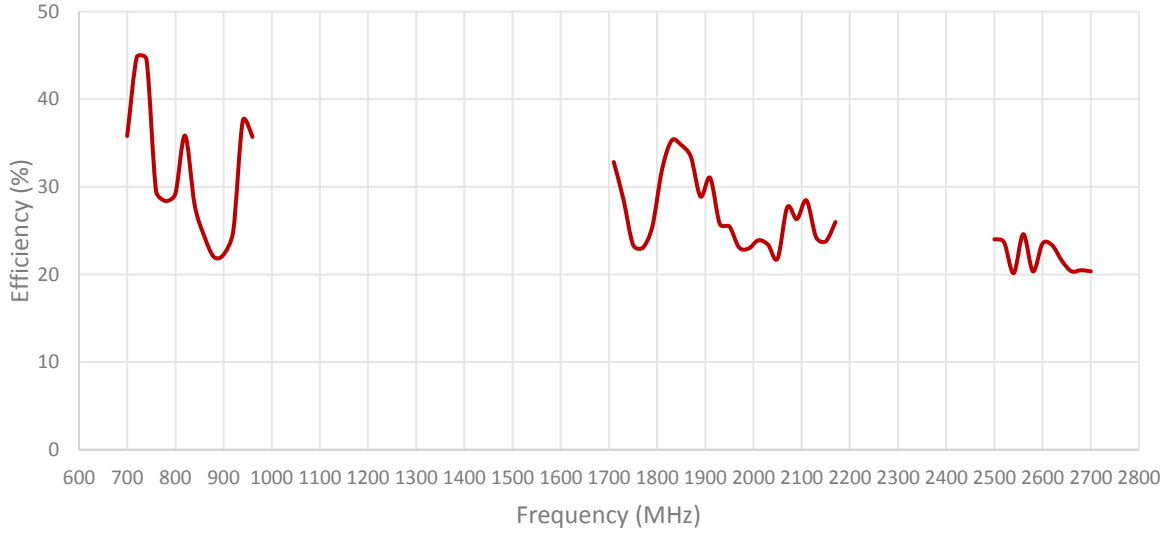
Specifications	2J4250PGF-2.4
Mounting Type	Adhesive Mount
Dimensions (mm)	77 × 34 × 14
Radome Type	ASA UV Stable
Radome Color	Black
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

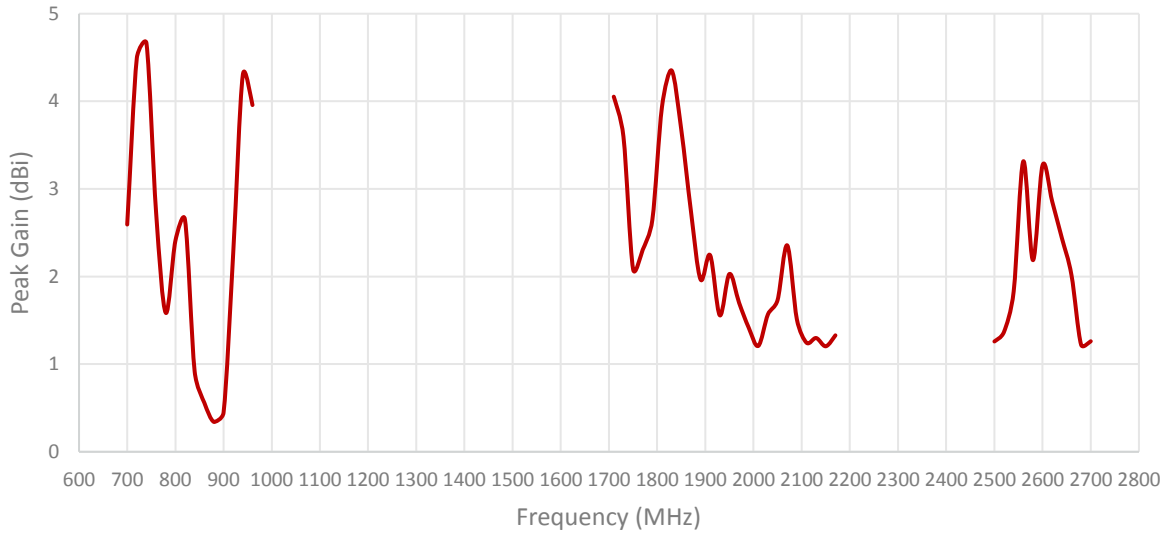
3. Antenna parameters

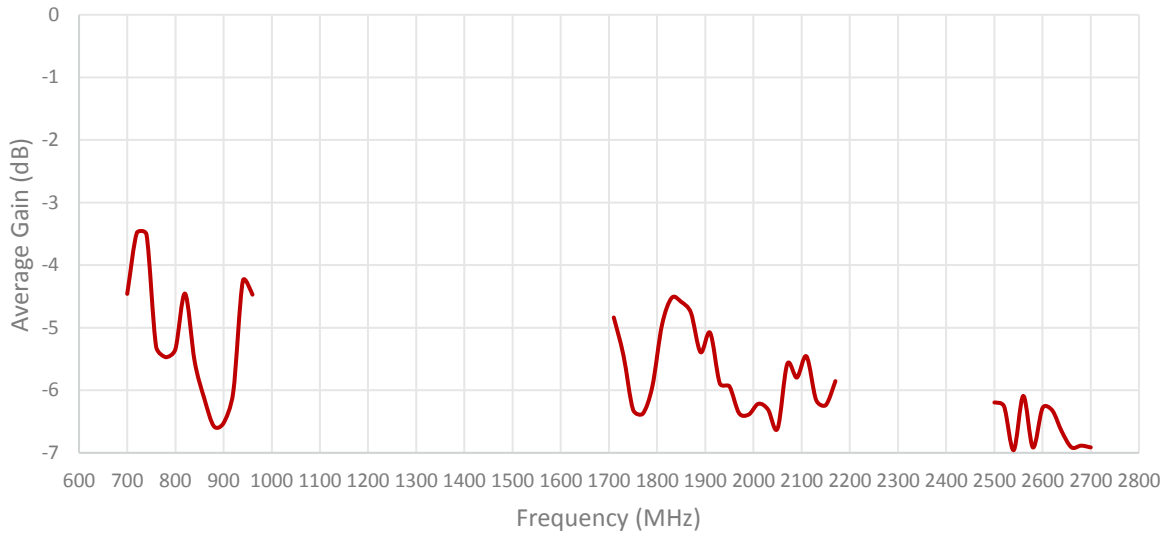
Cable 1: CELLULAR/LTE



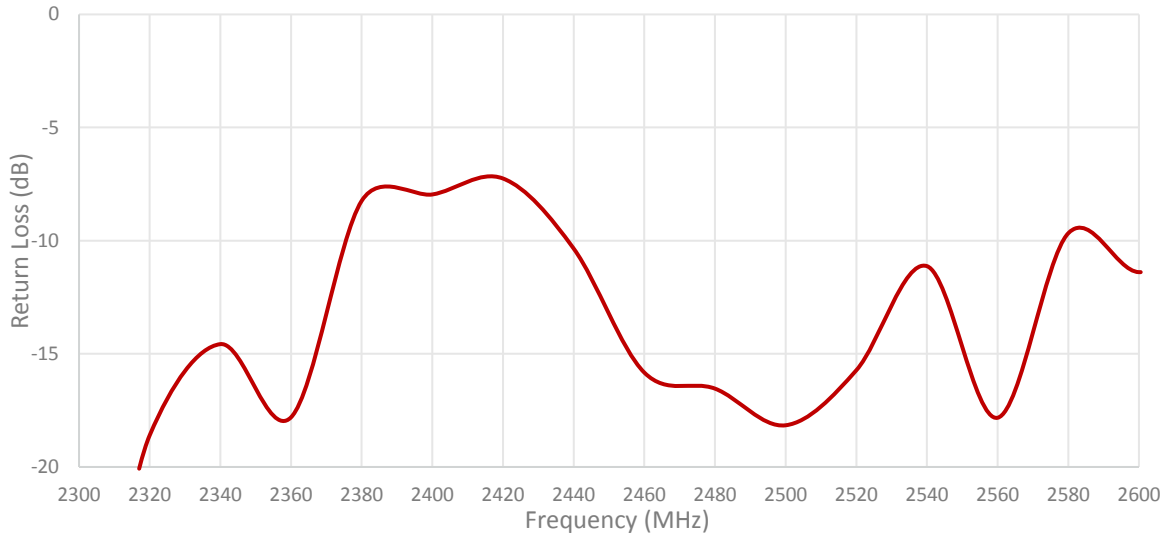


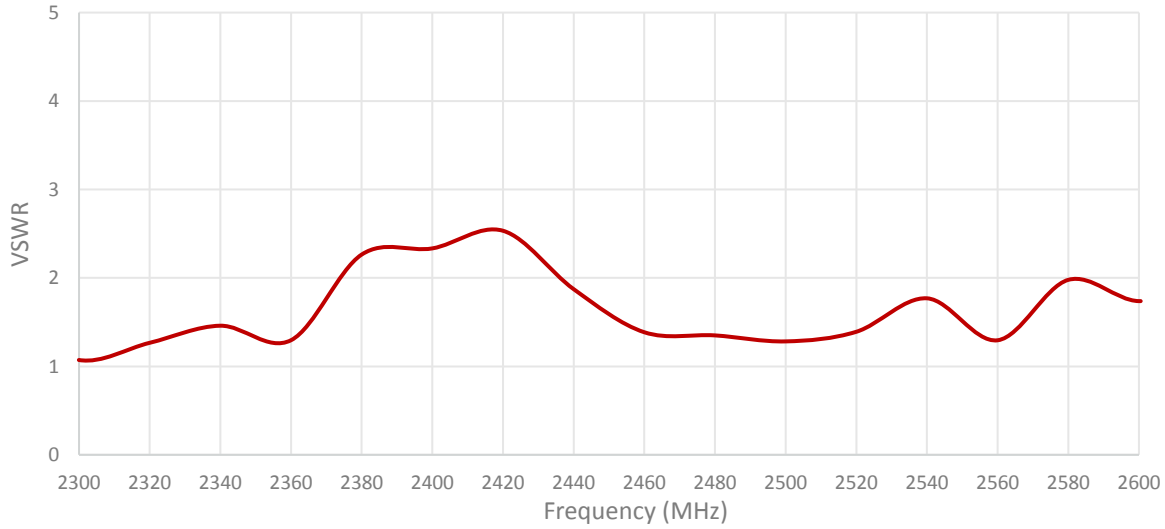

Efficiency (%)
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

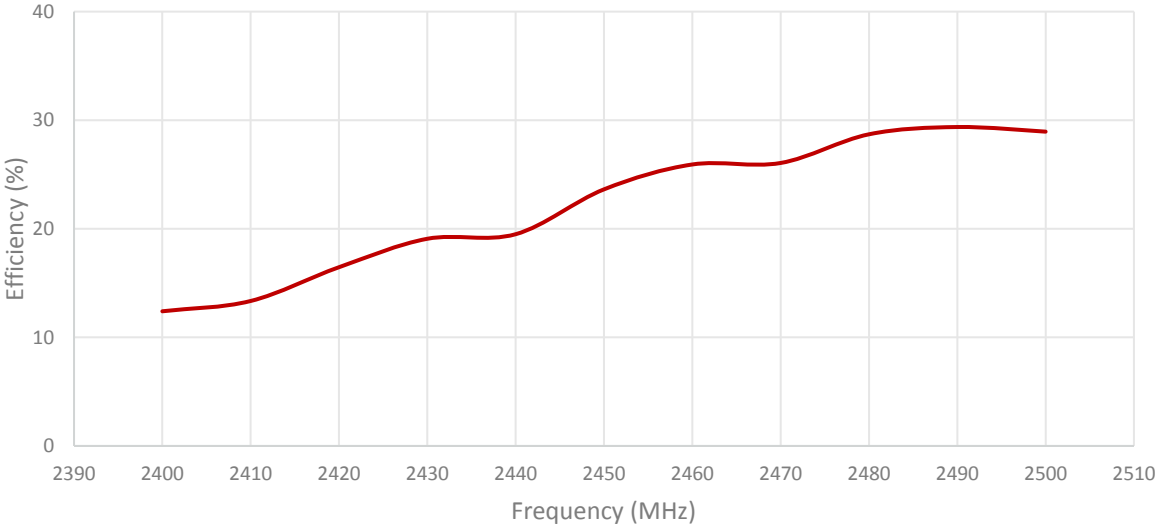

Peak Gain (dBi)
5
4
3
2
1
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

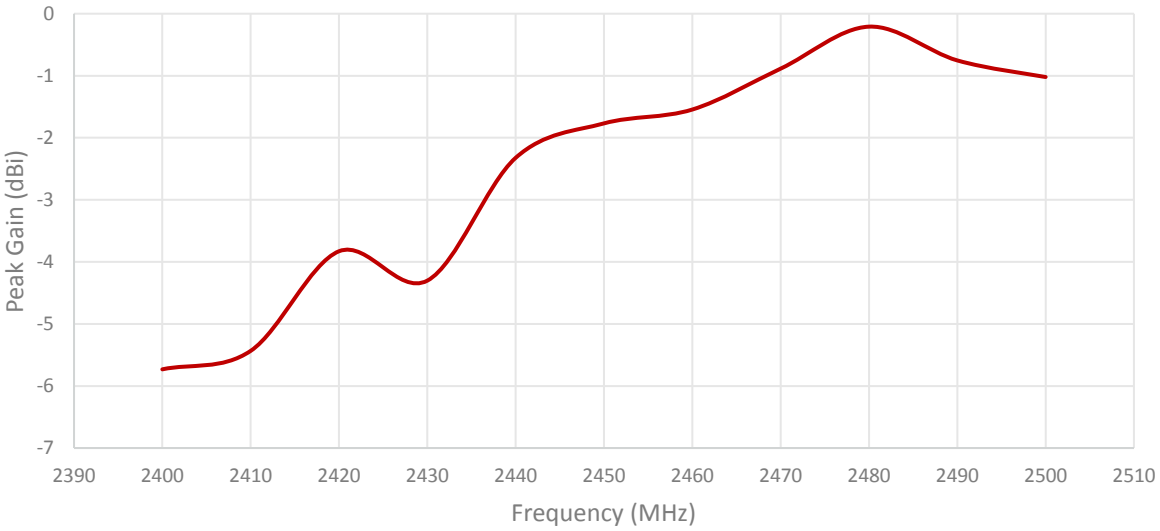

Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

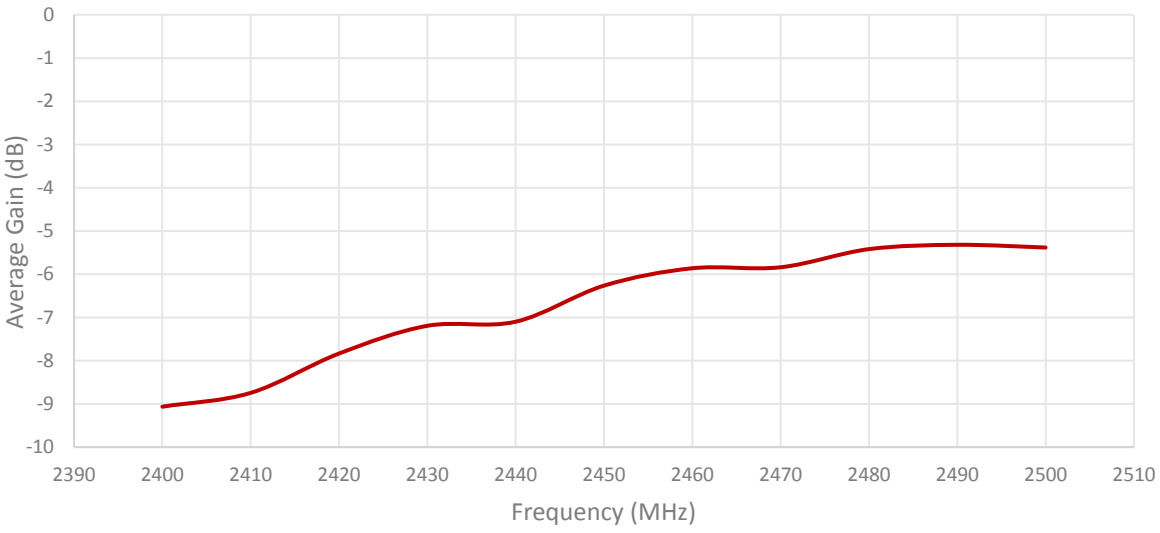
Cable 2: 2.4 GHz ISM

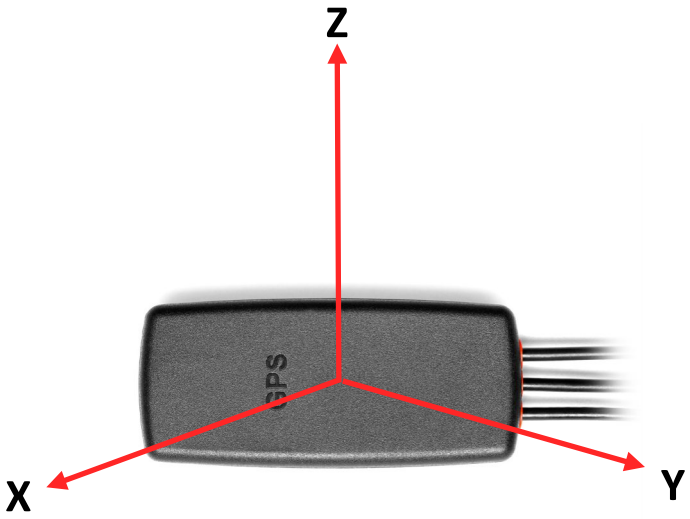





Efficiency (%)
40
30
20
10
0
2390
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
2510
Frequency (MHz)

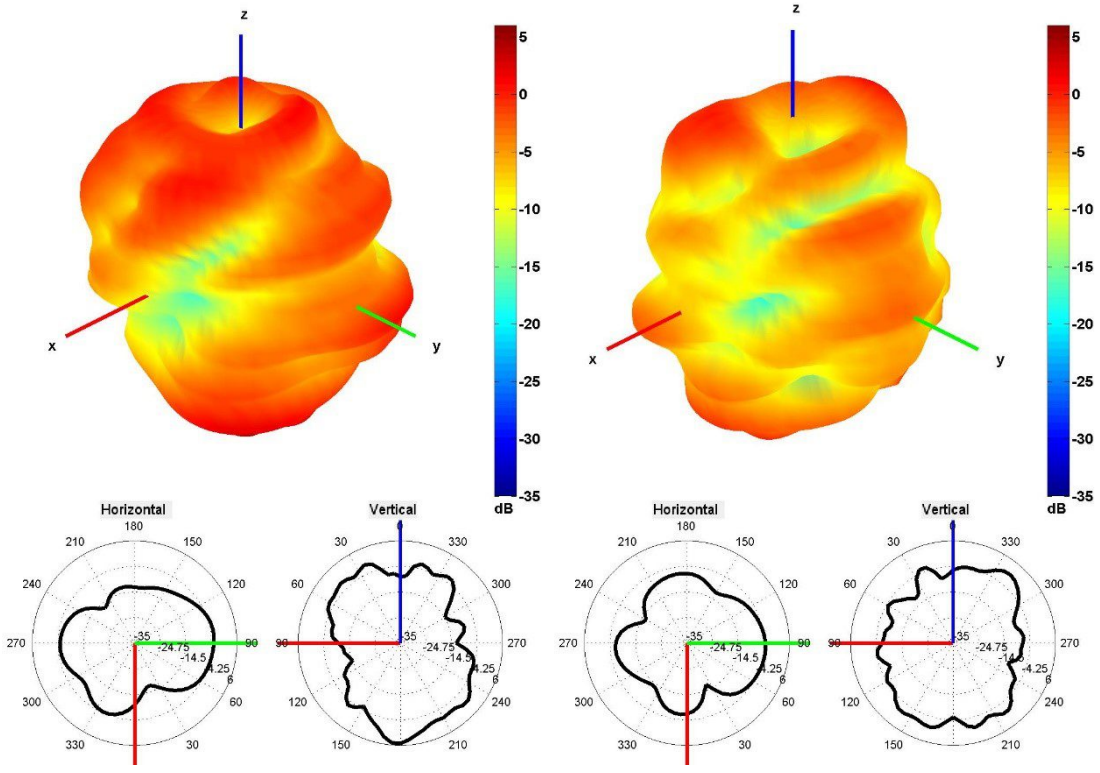

Peak Gain (dBi)
0
-1
-2
-3
-4
-5
-6
-7
2390
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
2510
Frequency (MHz)


Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
2390
2400
2410
2420
2430
2440
2450
2460
2470
2480
2490
2500
2510
Frequency (MHz)

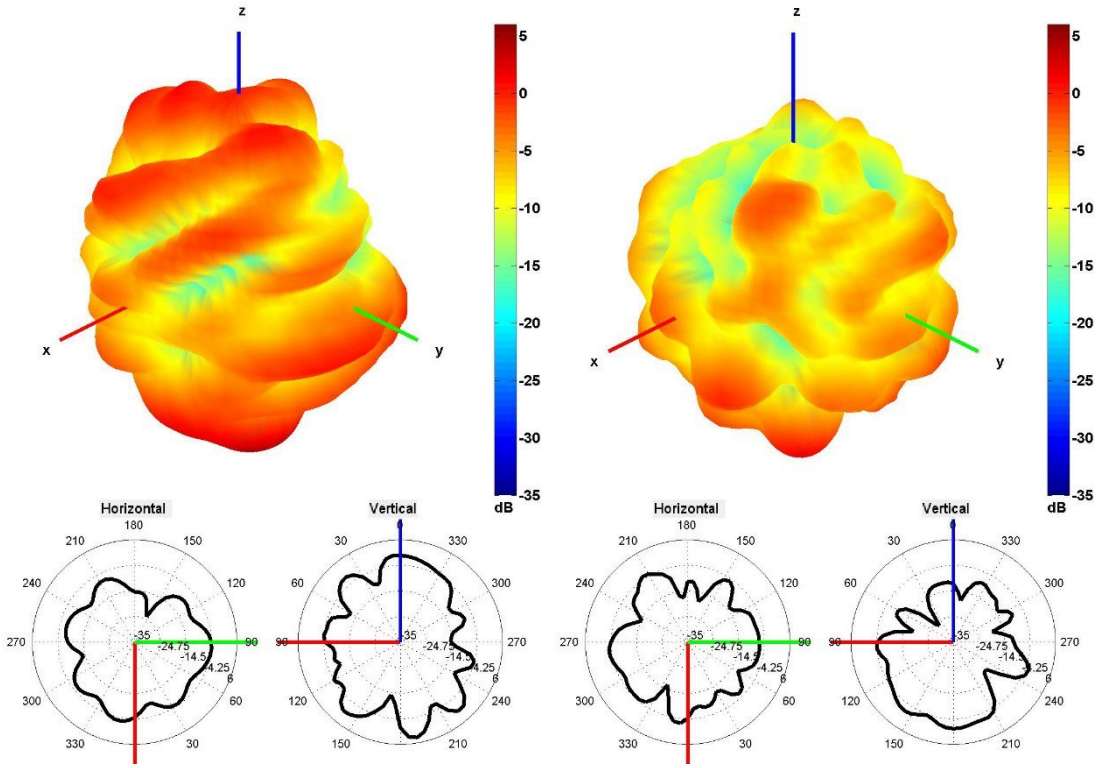


Radiation pattern reference

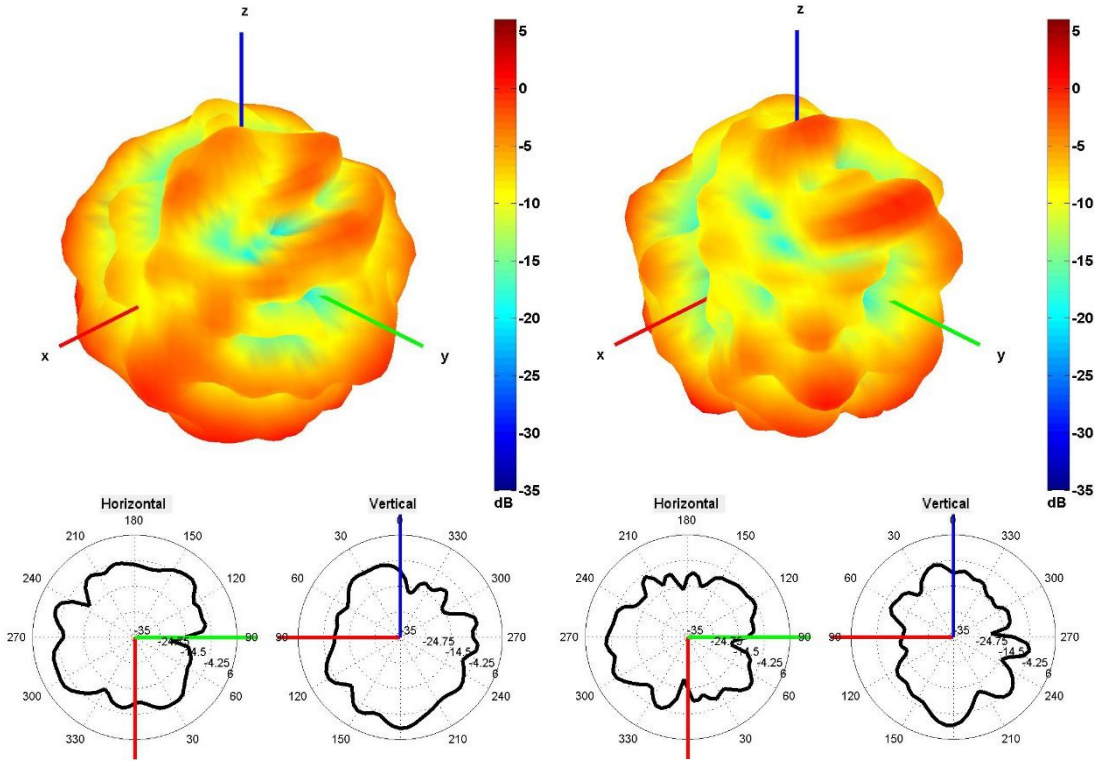
Cable 1: CELLULAR/LTE



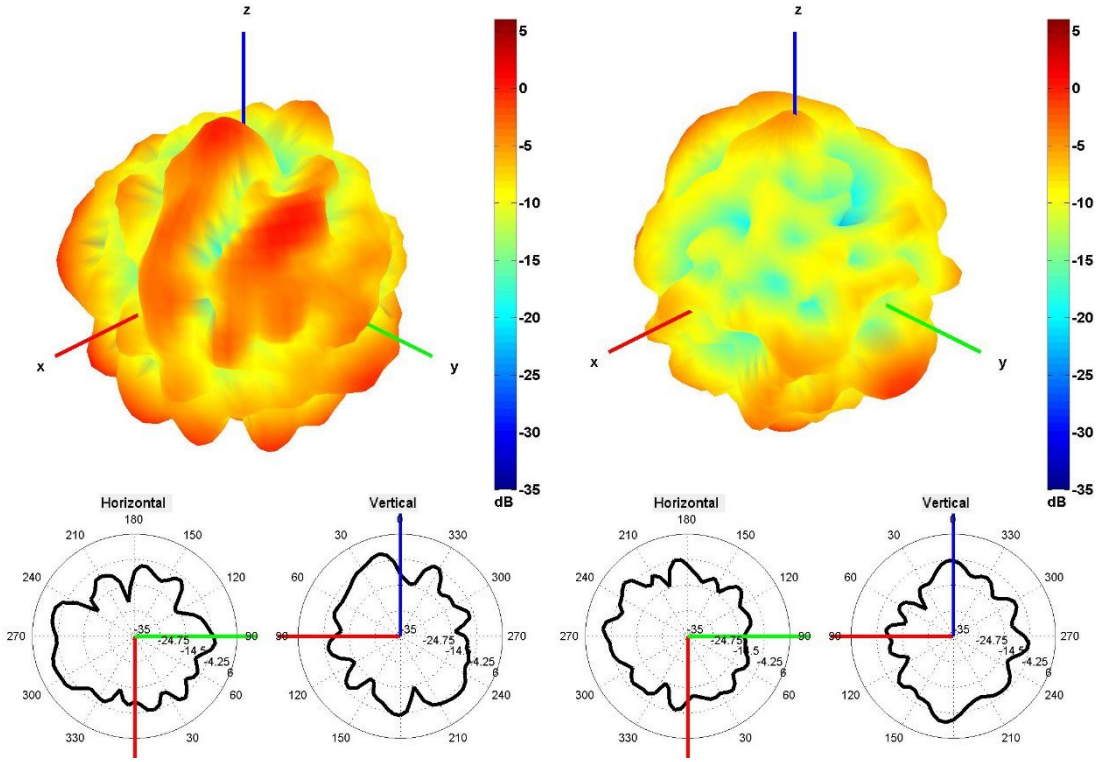
750 and 850 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

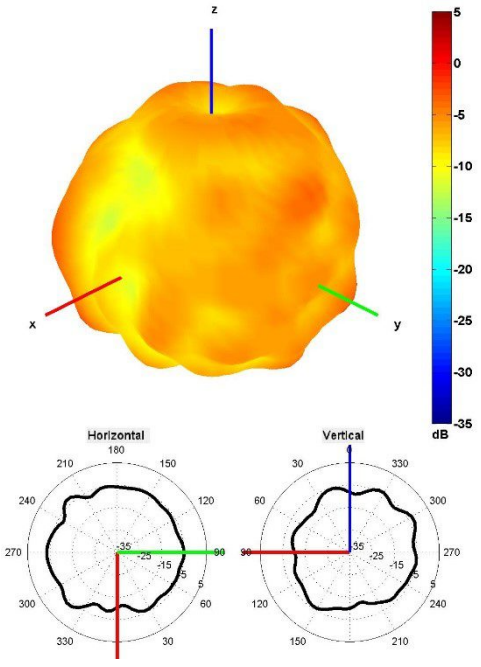


1850 and 1950 MHz Radiation pattern



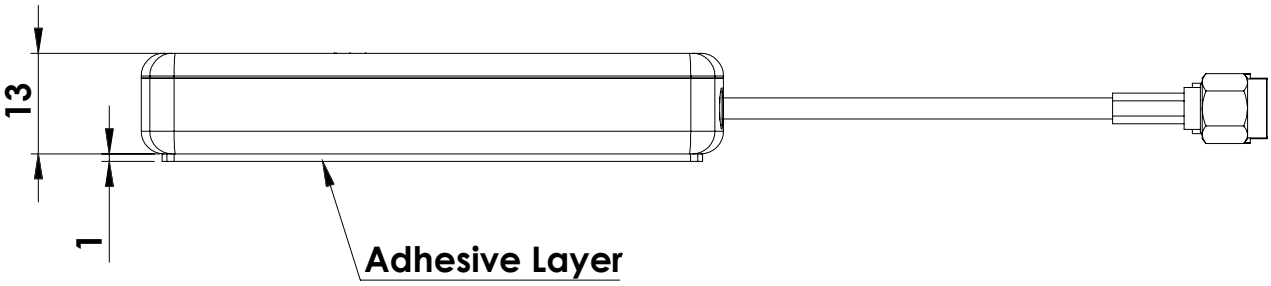
2100 and 2600 MHz Radiation pattern

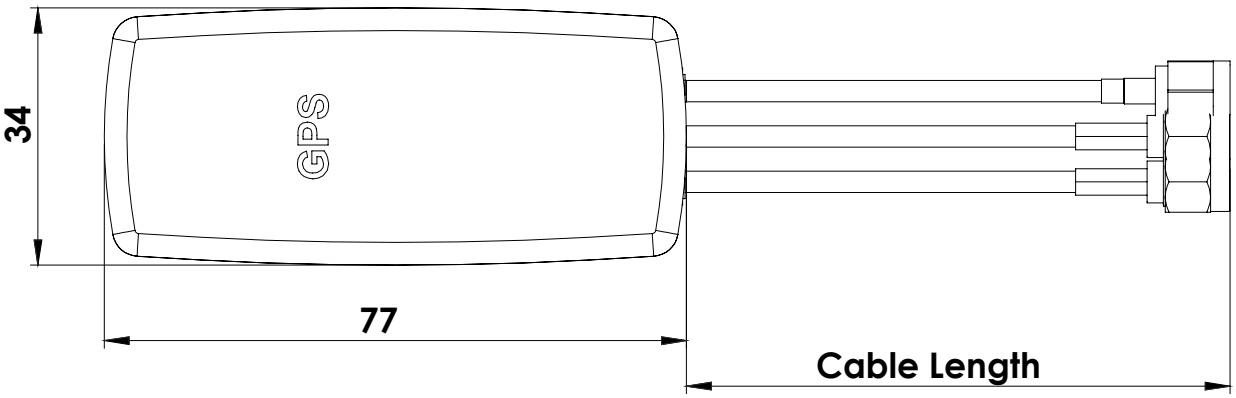
Cable 2: 2.4 GHz ISM



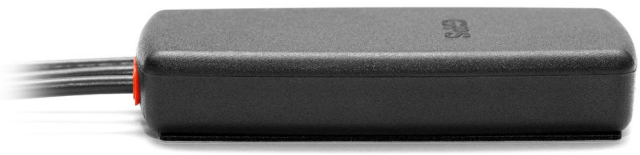
2450 MHz Radiation pattern

4. Antenna drawings





5. Antenna Images



МАКРО ГРУПП

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 качестве ISO 9001-2015
- необходимые сертификаты и лицензии