antenna conceptor

Product Datasheet

2J4847P

Cellular/LTE and 2.4/5.0 GHZ ISM Adhesive Mount

Key Features

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

Cable 2: 2.4/5.0 GHz ISM
- 2410-2490 MHz
- 4920-5925 MHz

Adhesive Mount
Ground Plane Independent
Customizable Cable and Connector
Dimensions 83 x 35 x 13.3 mm
Certificates: IP67, IP69



Note: Antenna 2J4847PR equipped with 10K resistor for antenna detection is available.

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)	~-13.1	~-16.7	~-11.6
VSWR	~1.9:1	~1.4:1	~1.8:1
Efficiency (%)	~50	~47	~27
Peak Gain (dBi)	~2.0	~1.0	~-0.6
Average Gain (dB)	~-3.0	~-3.2	~-5.6
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	LMR100 Standard (Other Cables Available)		

Cable 2

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)	~-20.5	~-18.5
VSWR	~1.2:1	~1.3:1
Efficiency (%)	~42	~27
Peak Gain (dBi)	~2.5	~-0.5
Average Gain (dB)	~-3.7	~-5.6
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	LMR100 Standard (Other Cables Available)	

Antenna Measurement Conditions:

Mounted on 30 x 30 x 0.25 cm ABS Plate

200 cm of Cable LMR100

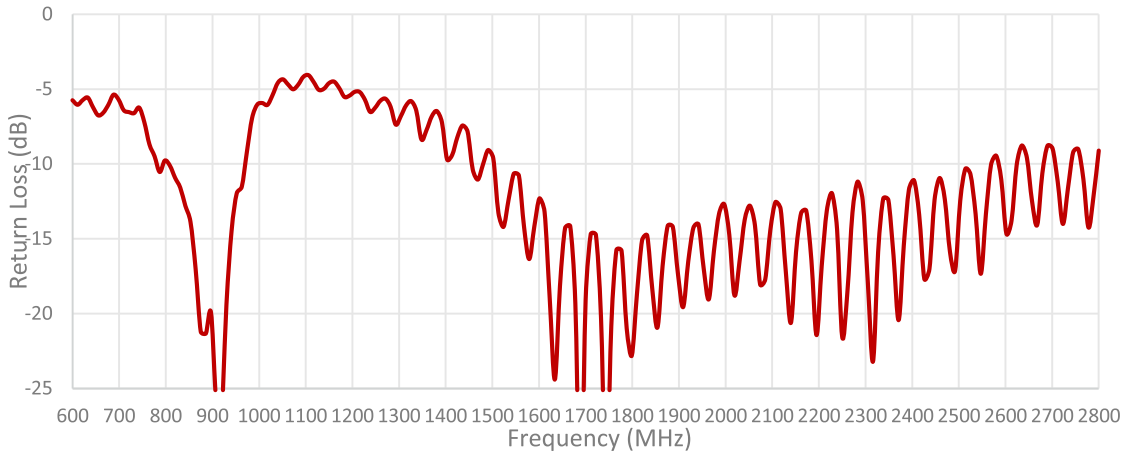
Measured in Certified CTIA 3D Anechoic Chamber

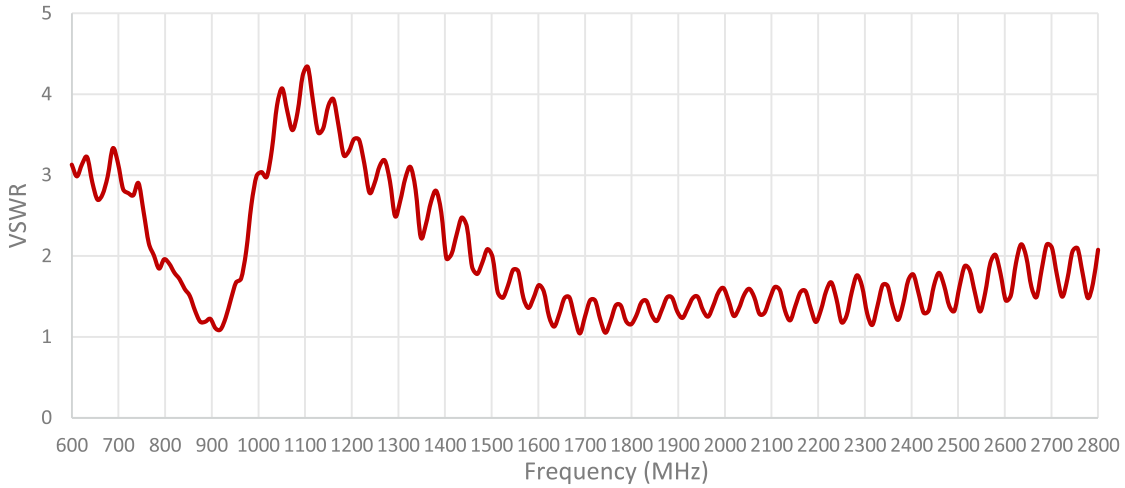
2. Mechanical and environmental specifications

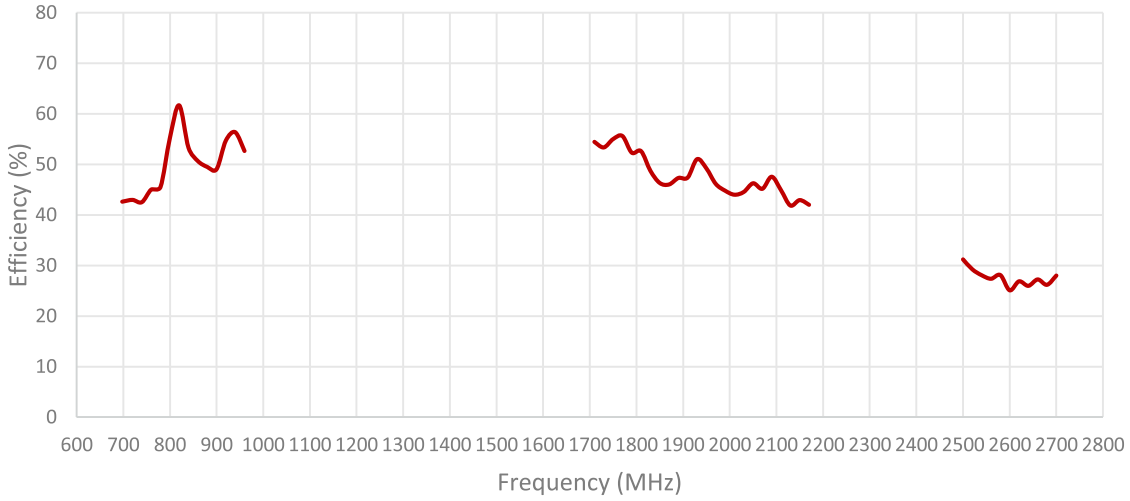
Specifications	2J4847P
Mounting Type	Adhesive Mount
Dimensions (mm)	83 x 35 x 13.3
Radome	ABS UV Stable
Radome color	Black
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

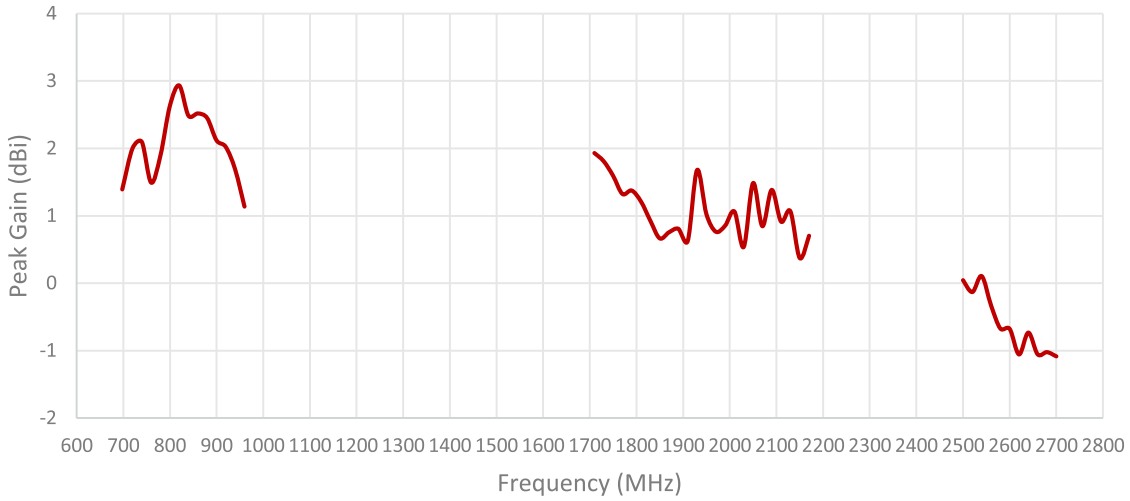
3. Antenna parameters

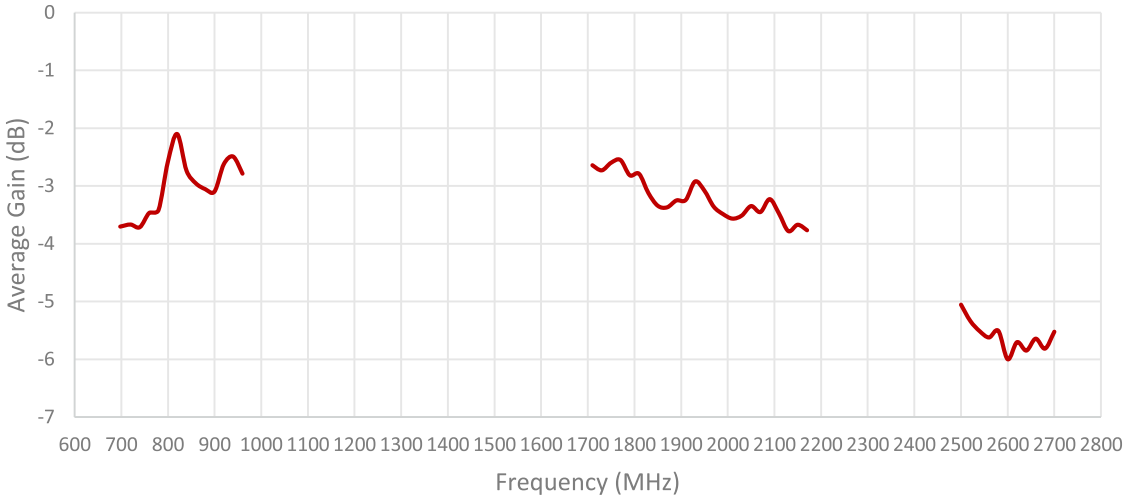
Cable 1: CELLULAR/LTE



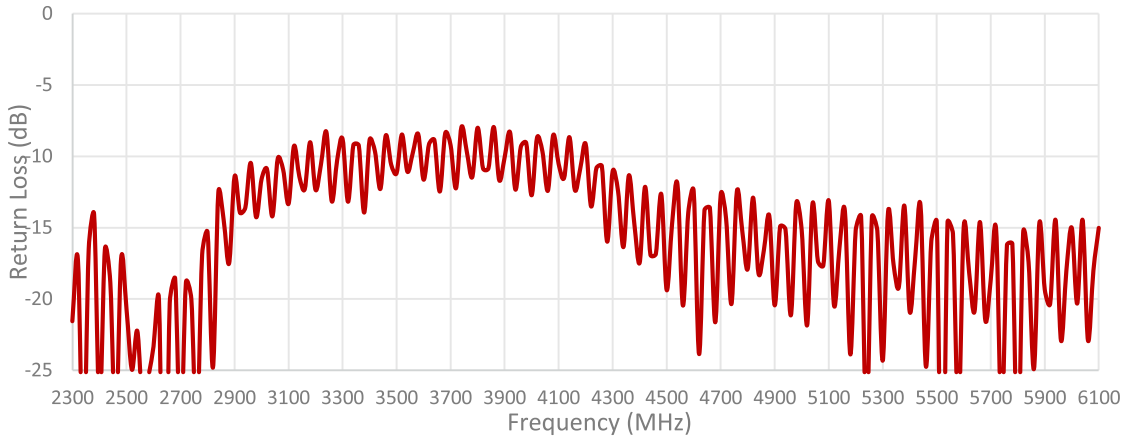


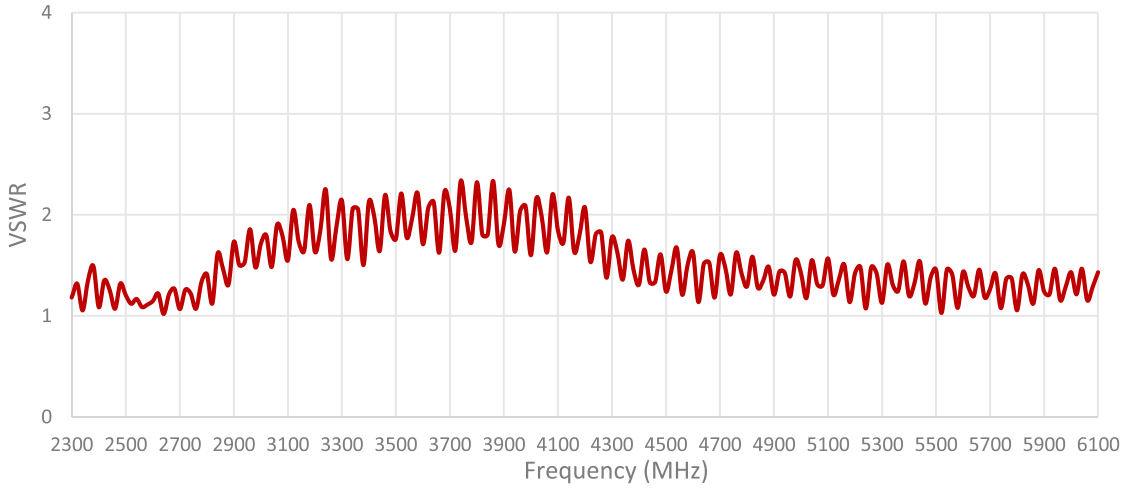

Efficiency (%)
80
70
60
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

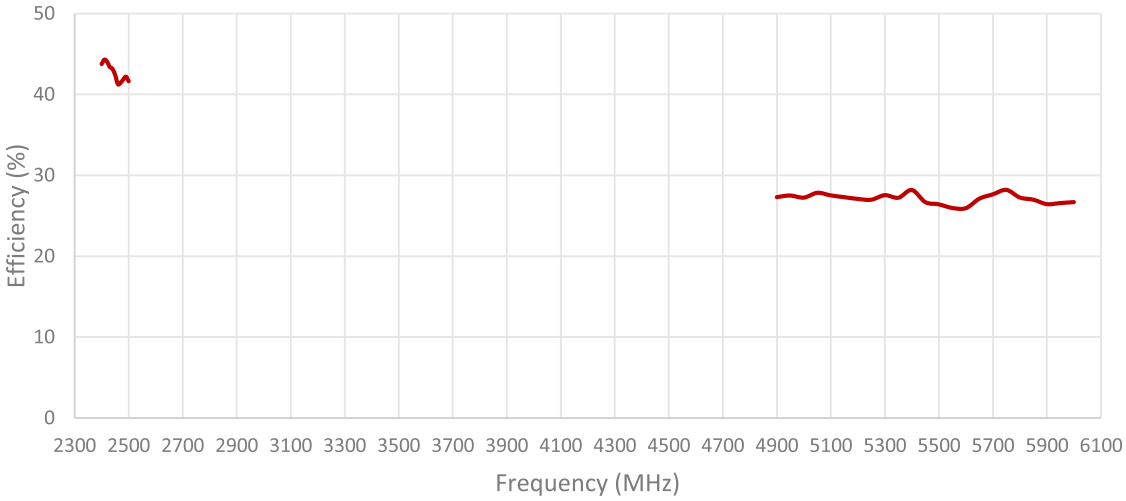

Peak Gain (dBi)
4
3
2
1
0
-1
-2
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

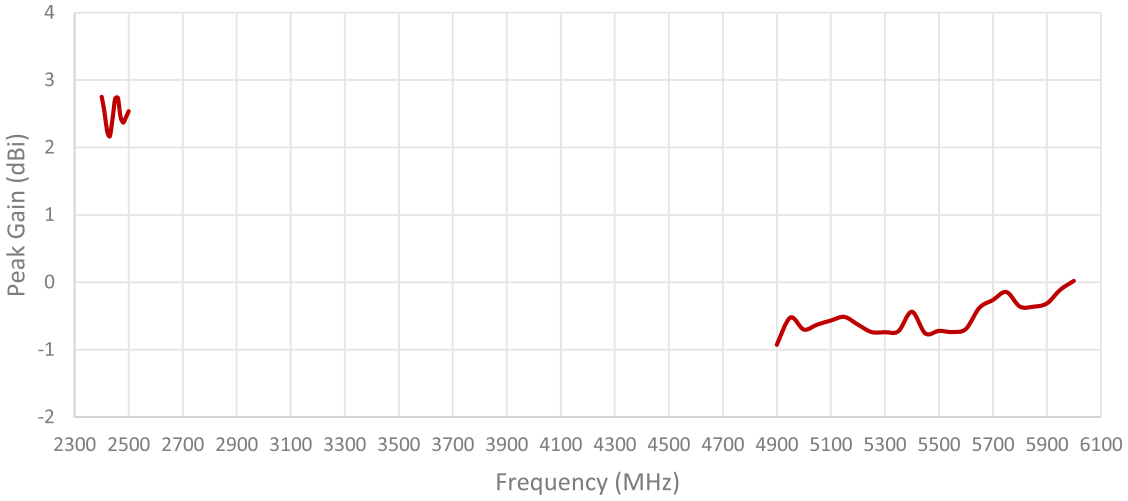


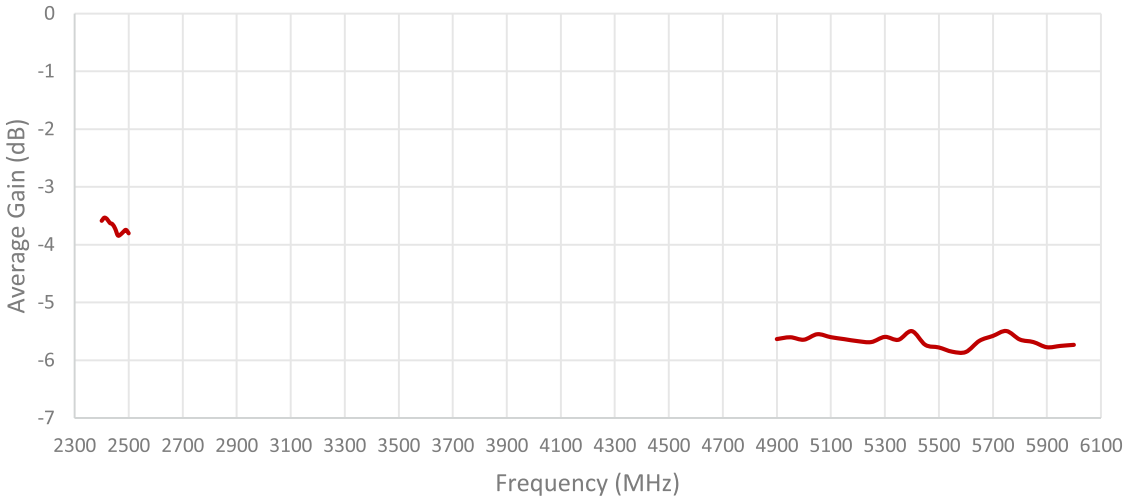
Cable 2: 2.4/5.0 GHz ISM

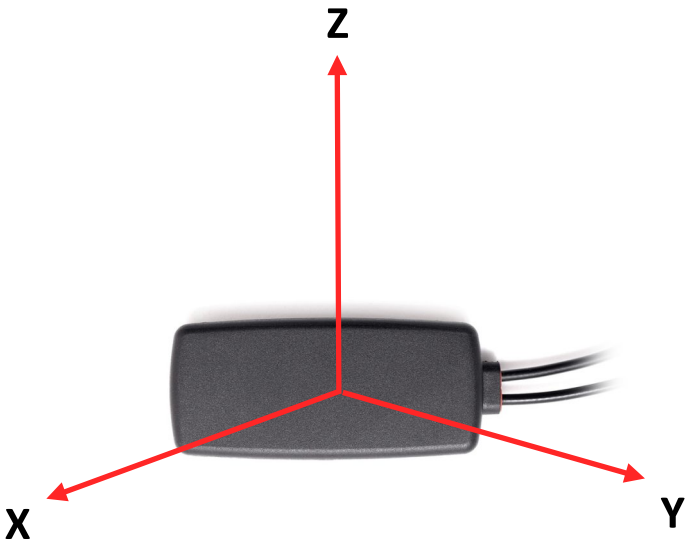



VSWR
4
3
2
1
0
2300 2500 2700 2900 3100 3300 3500 3700 3900 4100 4300 4500 4700 4900 5100 5300 5500 5700 5900 6100
Frequency (MHz)

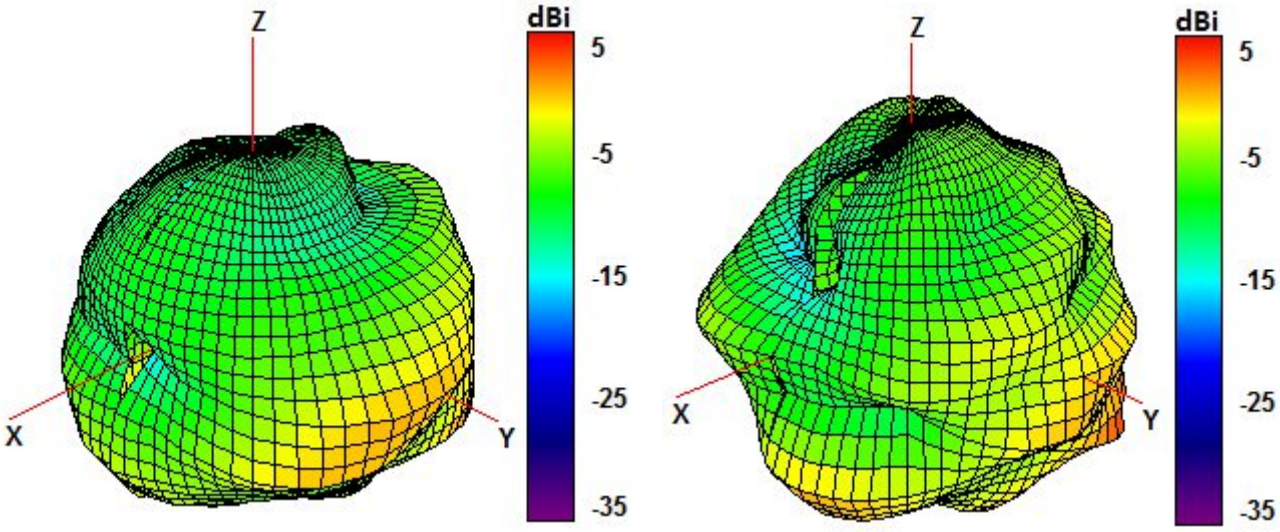

Efficiency (%)
50
40
30
20
10
0
2300 2500 2700 2900 3100 3300 3500 3700 3900 4100 4300 4500 4700 4900 5100 5300 5500 5700 5900 6100
Frequency (MHz)


Peak Gain (dBi)
4
3
2
1
0
-1
-2
2300 2500 2700 2900 3100 3300 3500 3700 3900 4100 4300 4500 4700 4900 5100 5300 5500 5700 5900 6100
Frequency (MHz)

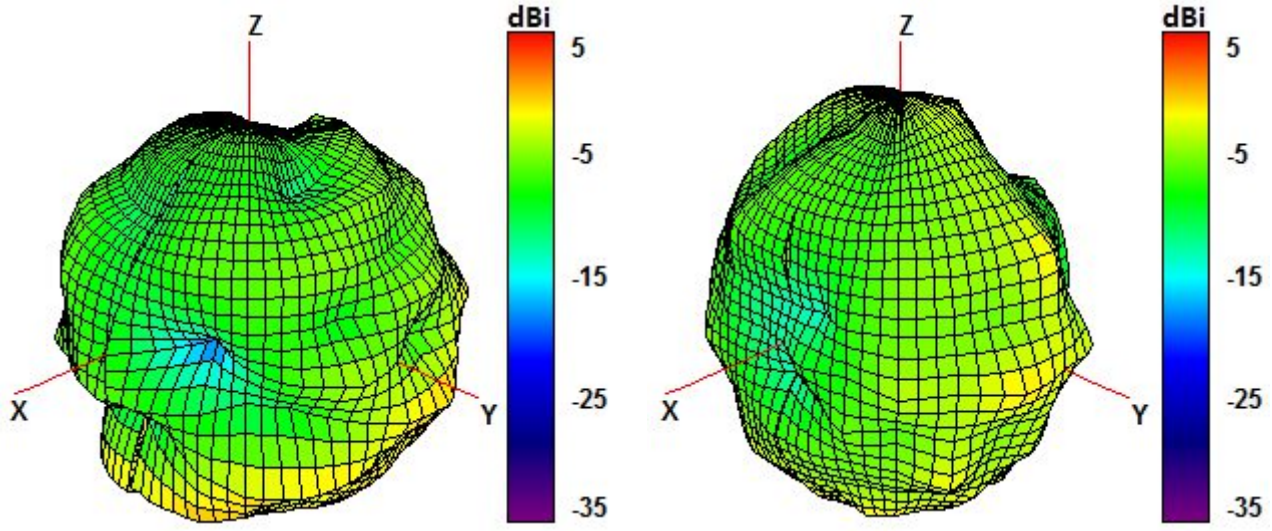

Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
2300 2500 2700 2900 3100 3300 3500 3700 3900 4100 4300 4500 4700 4900 5100 5300 5500 5700 5900 6100
Frequency (MHz)



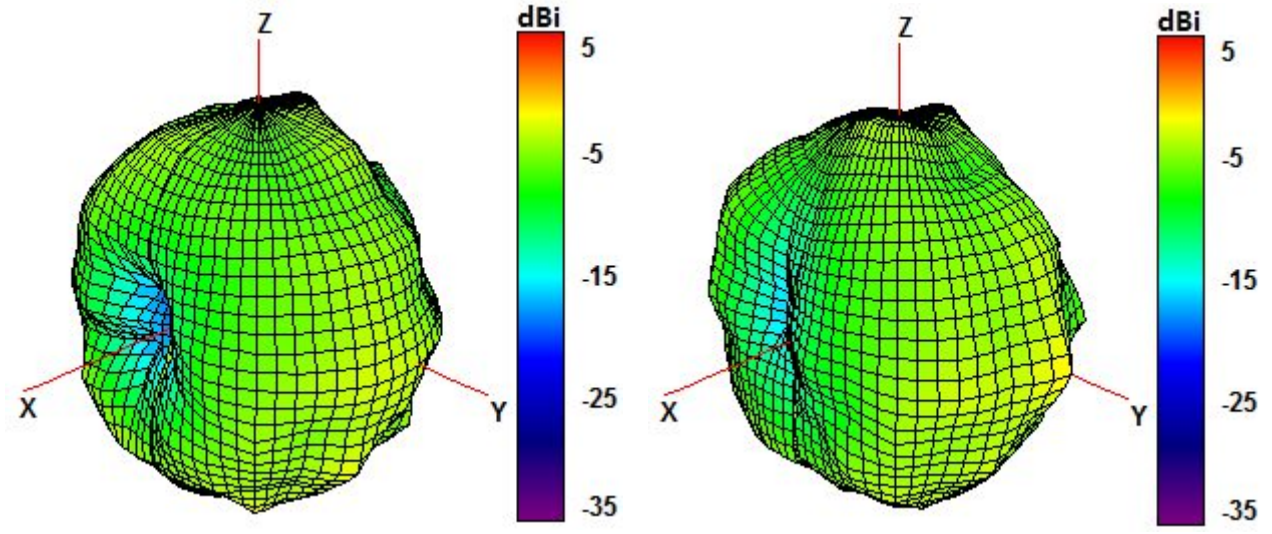
Radiation pattern reference



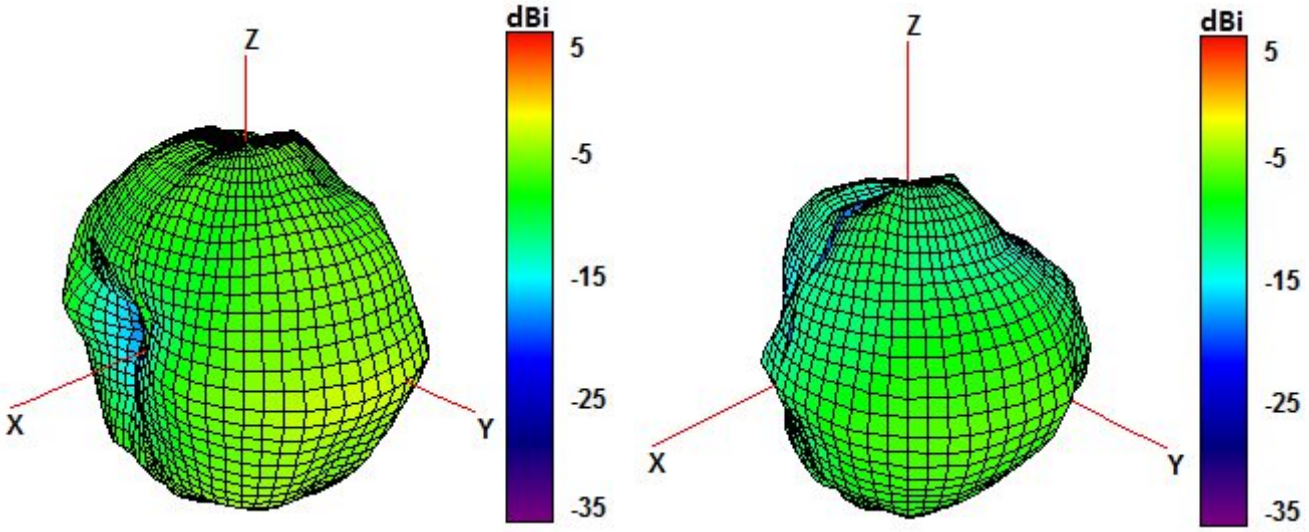
750 and 850 MHz Radiation pattern



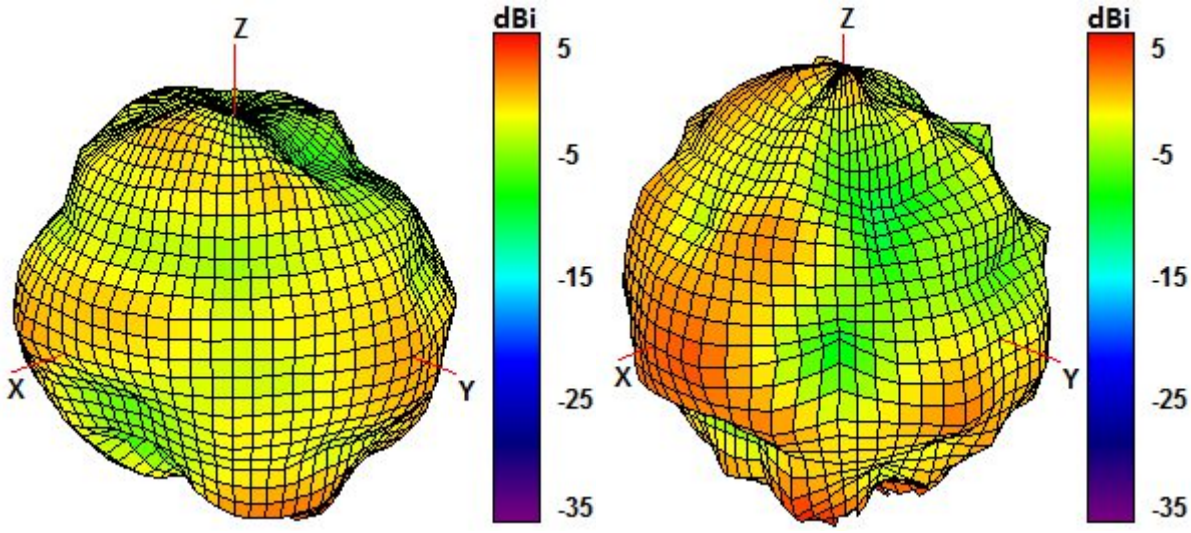
940 and 1750 MHz Radiation pattern



1850 and 1950 MHz Radiation pattern

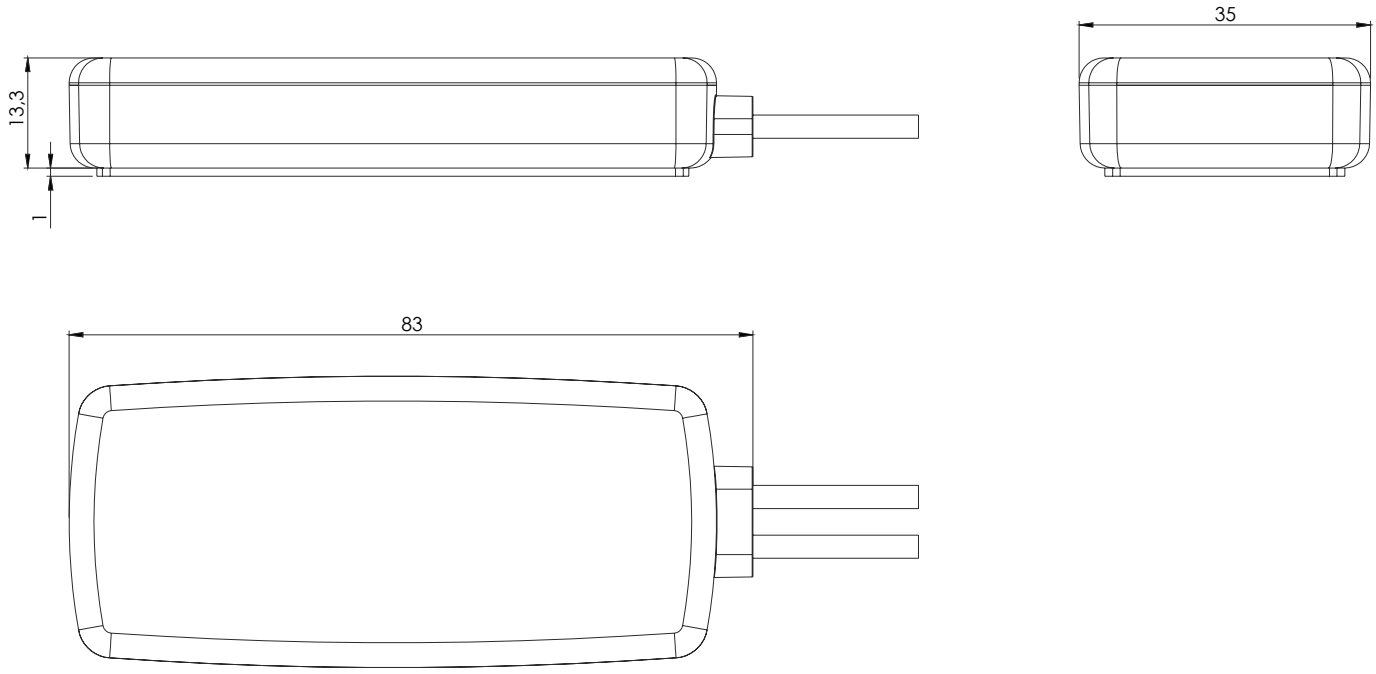


2100 and 2600 MHz Radiation pattern



2450 and 5500 MHz Radiation pattern

4. Antenna drawings



5. Antenna Images





