antenna conceptor

Product Datasheet

2J7A24Bc

CELLULAR/LTE MIMO Screw Mount

Key Features

Cable 1 - 4: CELLULAR / LTE
Screw Mount
Heavy Duty antenna
Lightweight Plastic Base
High Performance
Ground Plane Independent
Customizable Cable and Connector
Dimensions: Ø 96 x H 90 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)	~-6.5	~-11.1	~-14.4
VSWR	~2.8:1	~1.9:1	~1.6:1
Efficiency (%)	~30.7	~41.2	~56.1
Peak Gain (dBi)	~-1.5	~3.2	~6.5
Average Gain (dB)	~-5.3	~-3.9	~-2.5
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	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)	~-6.6	~-11.4	~-12.5
VSWR	~2.8:1	~1.8:1	~1.7:1
Efficiency (%)	~31.5	~40.0	~55.4
Peak Gain (dBi)	~-0.9	~3.0	~5.0
Average Gain (dB)	~-5.0	~-4.0	~-2.7
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	LL195 Standard (Other Cables Available)		

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm

200 cm of LL195 Cable

Measured in Certified CTIA 3D Anechoic Chamber

1. Antenna and electrical specifications

Cable 3

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)	~-6.6	~-11.2	~-12.9
VSWR	~2.8:1	~1.8:1	~1.7:1
Efficiency (%)	~30.8	~41.0	~55.0
Peak Gain (dBi)	~-1.3	~3.1	~5.7
Average Gain (dB)	~-5.3	~-3.9	~-2.7
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	LL195 Standard (Other Cables Available)		

Cable 4

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)	~-6.5	~-11.2	~-13.0
VSWR	~2.9:1	~1.8:1	~1.7:1
Efficiency (%)	~30.8	~41.4	~55.1
Peak Gain (dBi)	~-0.6	~3.3	~5.3
Average Gain (dB)	~-5.3	~-3.9	~-2.7
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	LL195 Standard (Other Cables Available)		

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm

200 cm of LL195 Cable

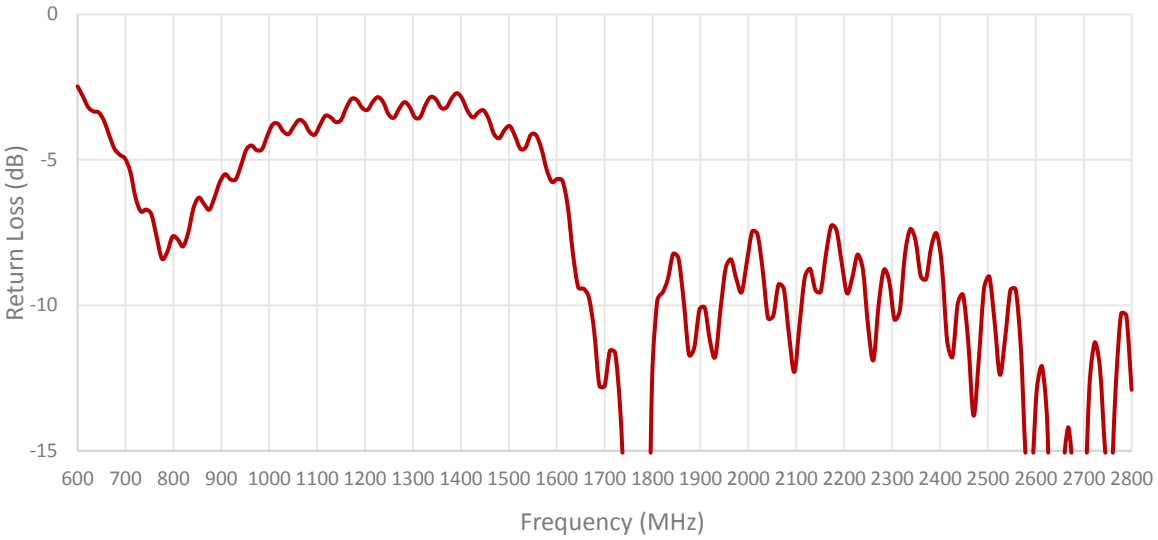
Measured in Certified CTIA 3D Anechoic Chamber

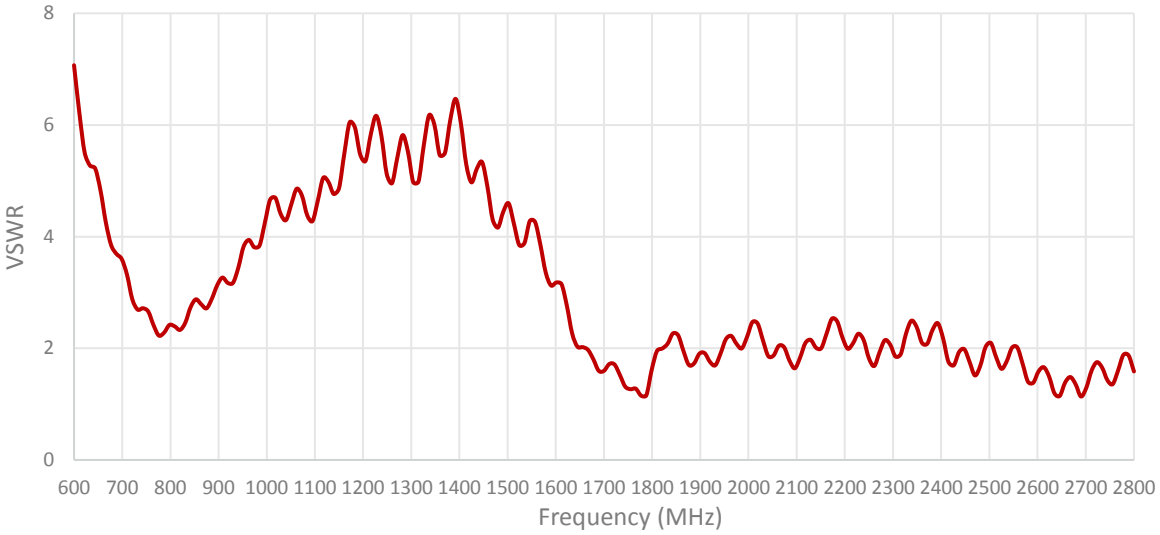
2. Mechanical and environmental specifications

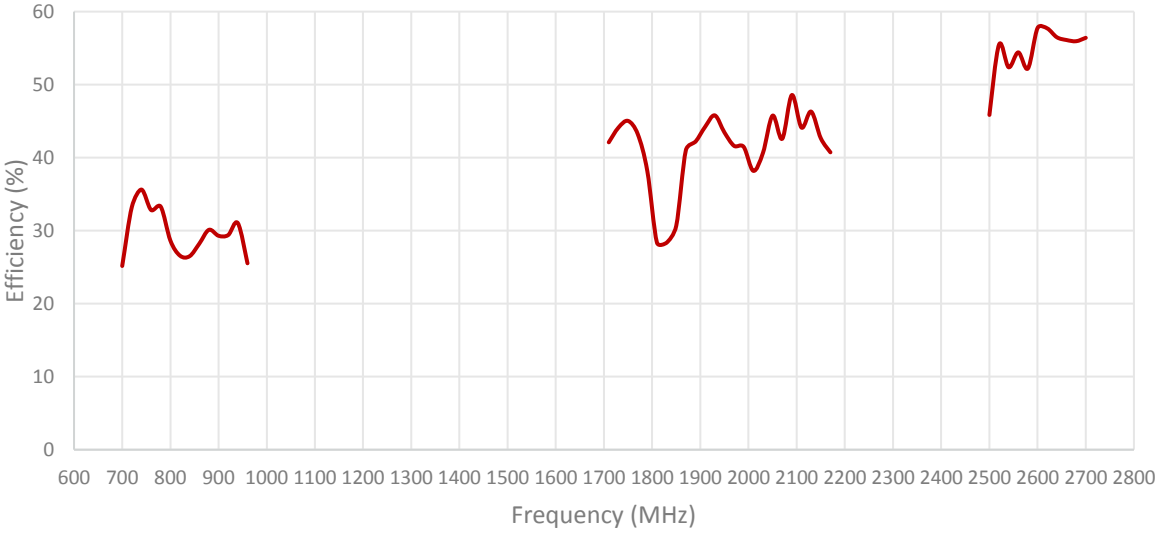
Specifications	2J7A24Bc
Mounting Type	Screw Mount
Dimensions (mm)	Ø 96 x H 90
Max. Tighten Torque (Nm)	6 Nm
Radome	ASA
Radome color	White, Black
Antenna Base	ASA
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69, IK09

3. Antenna parameters

Cable 1: CELLULAR/LTE






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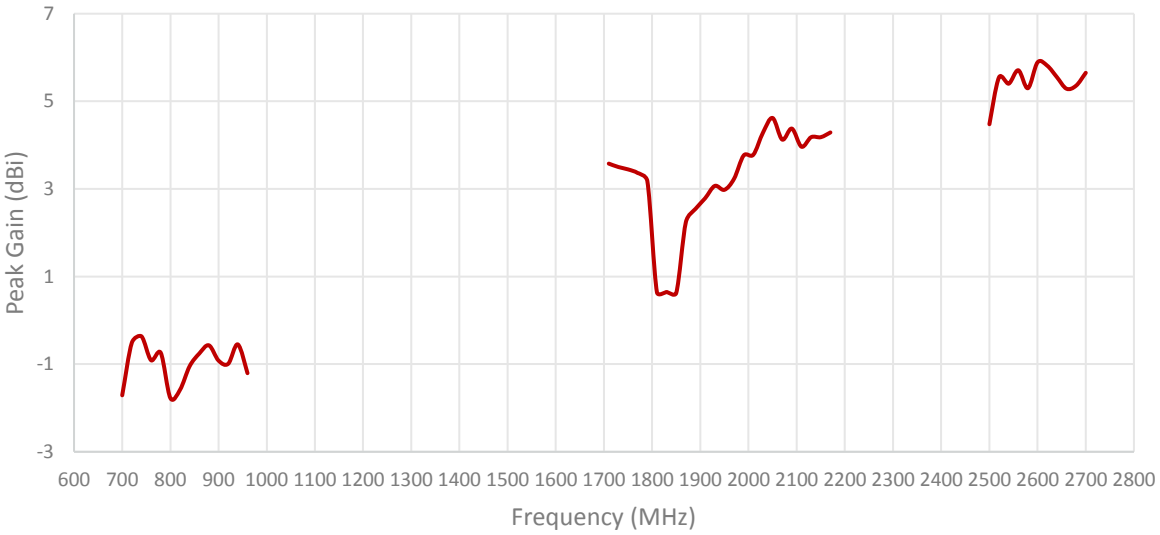
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)


Peak Gain (dBi)
7
5
3
1
-1
-3
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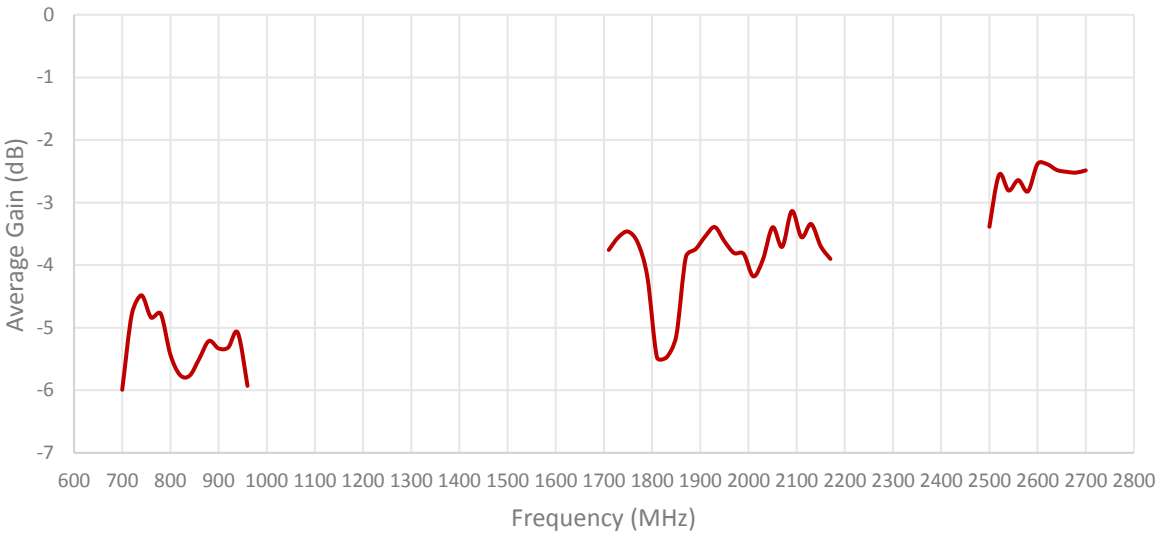
Frequency (MHz)


Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
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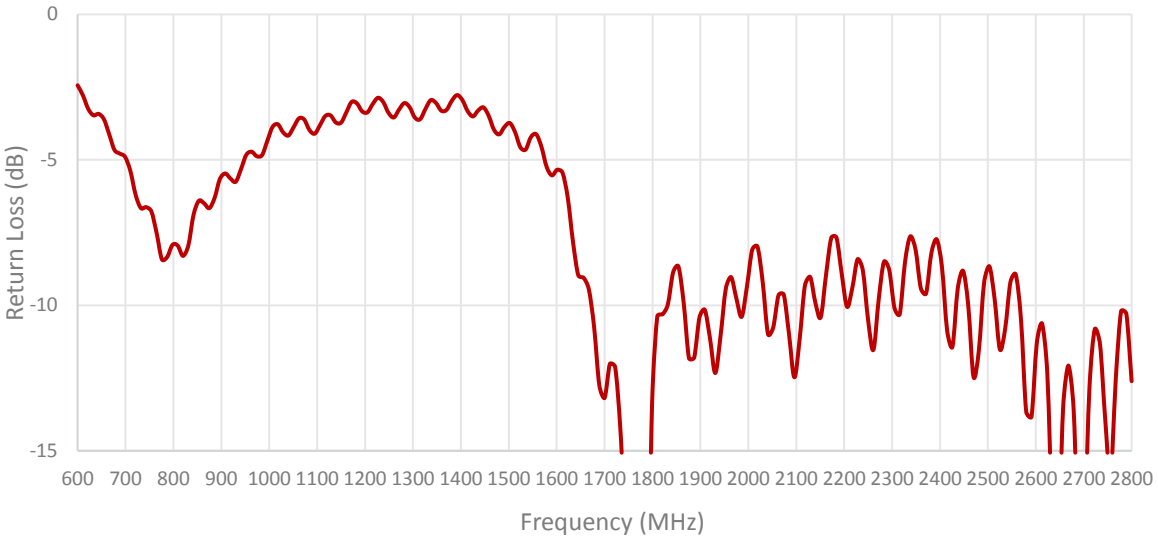
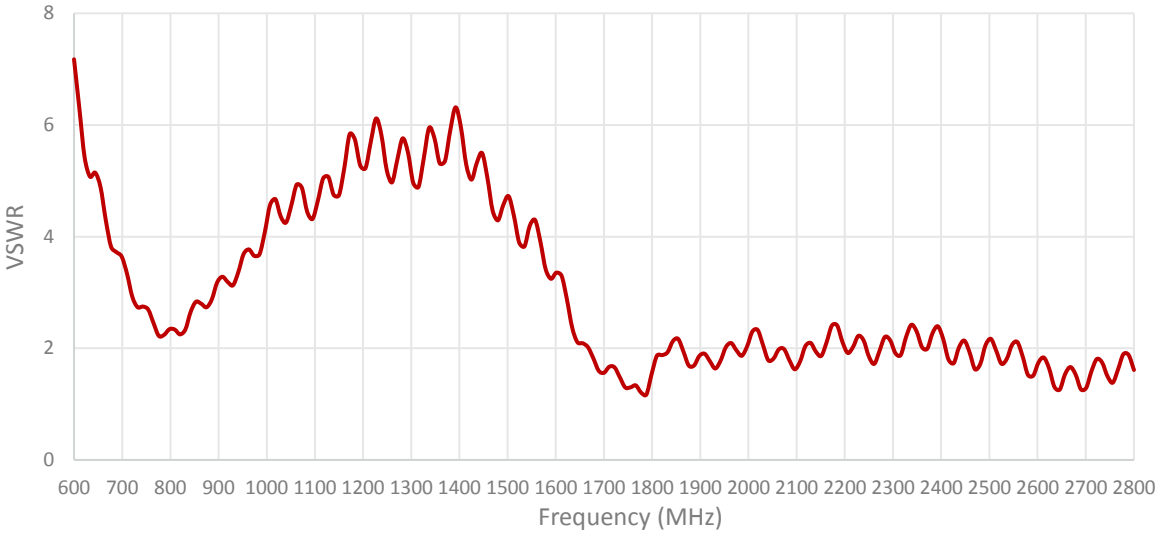
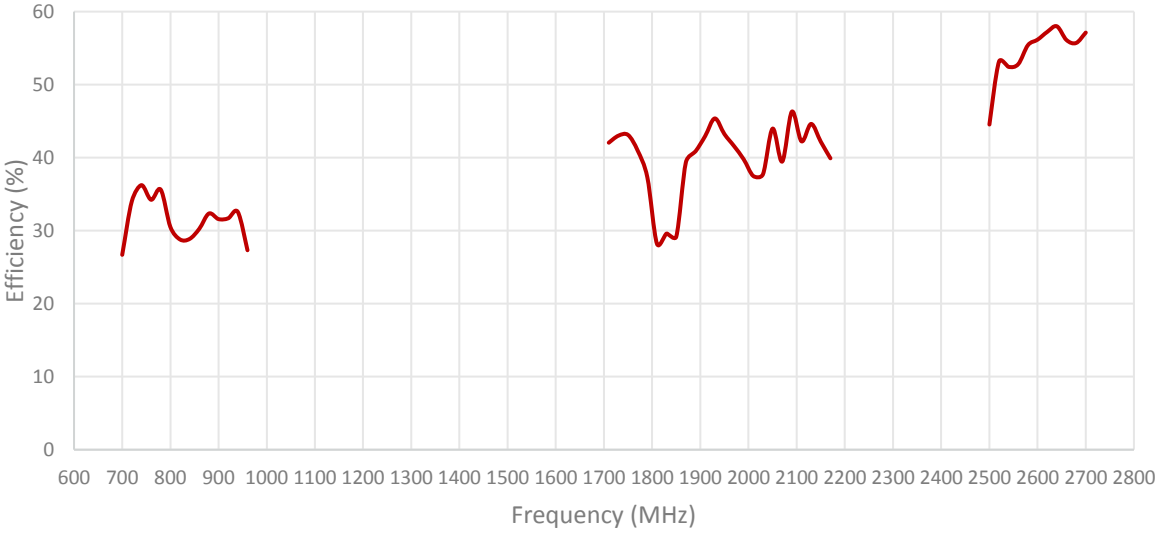
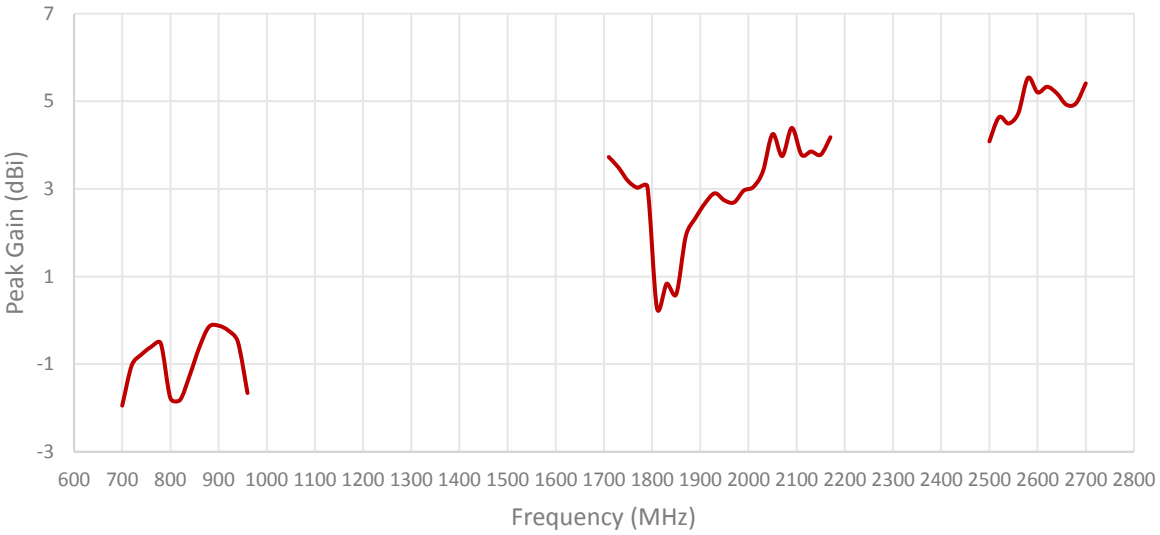
Frequency (MHz)

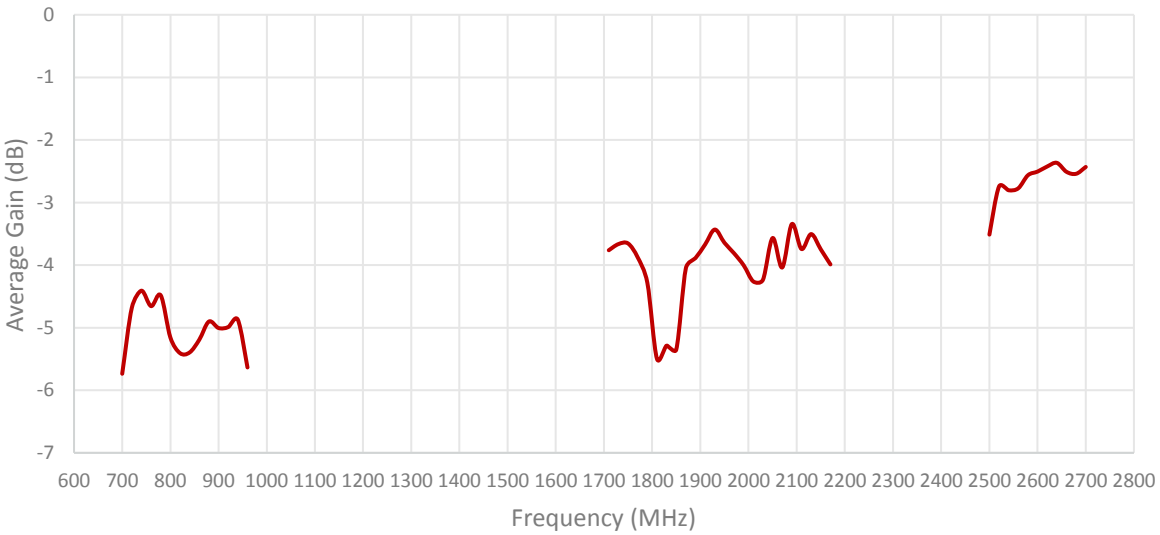
Cable 2: CELLULAR/LTE



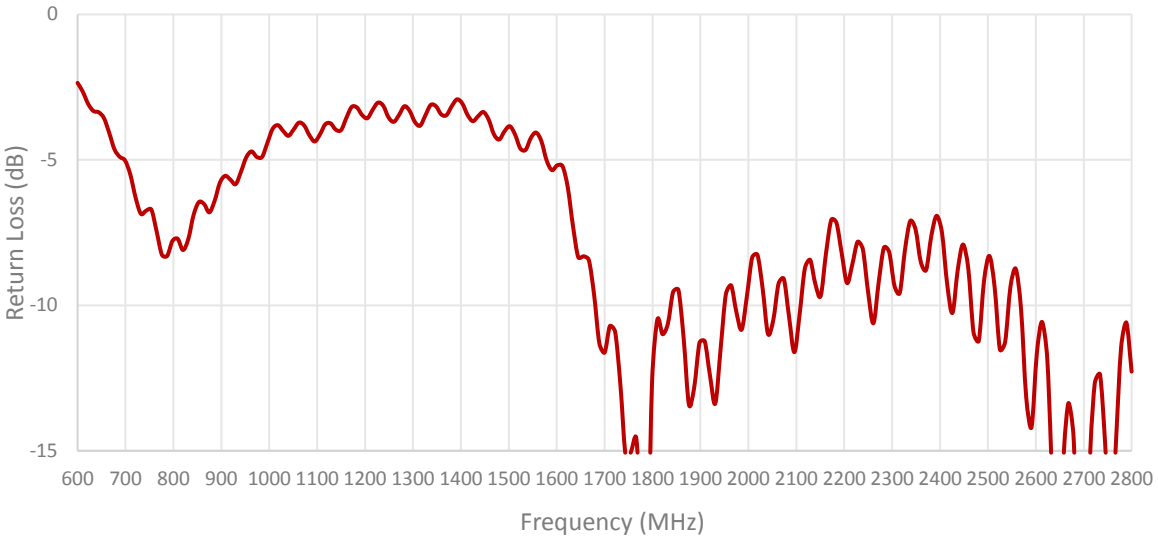


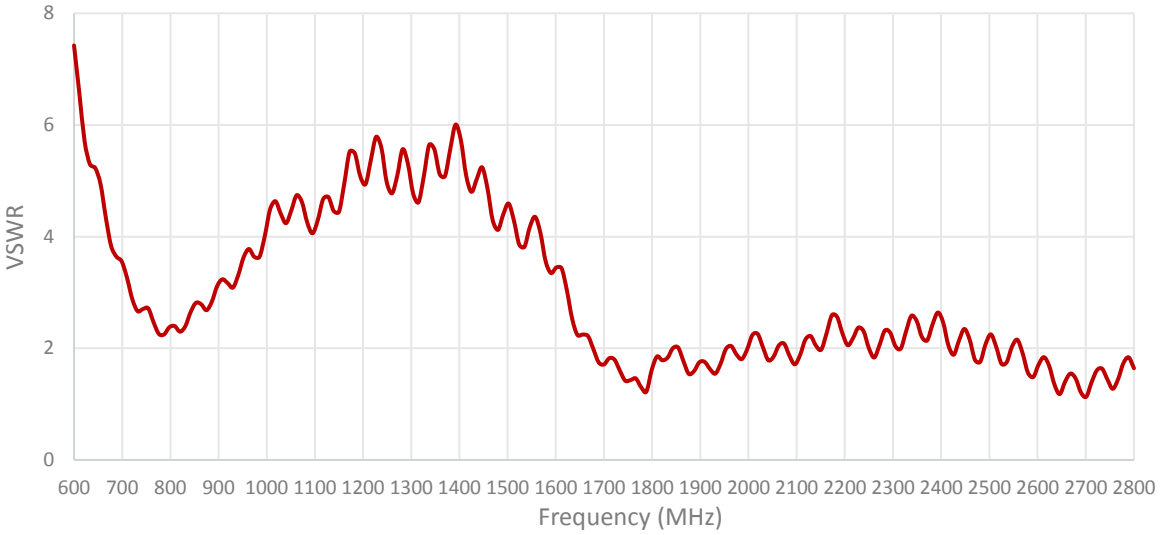

Efficiency (%)
60
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

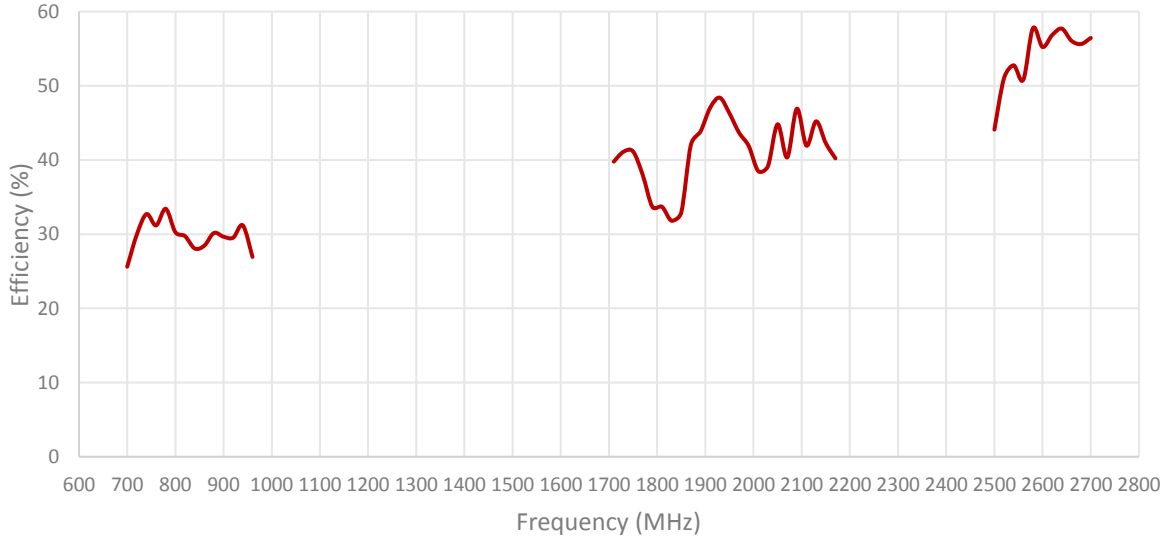

Peak Gain (dBi)
7
5
3
1
-1
-3
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

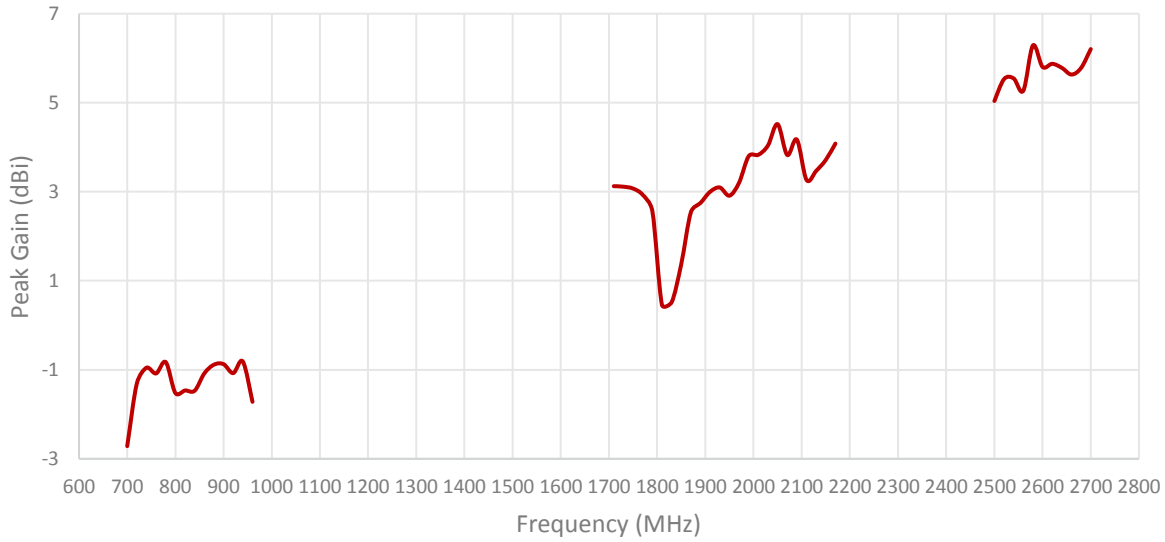

Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

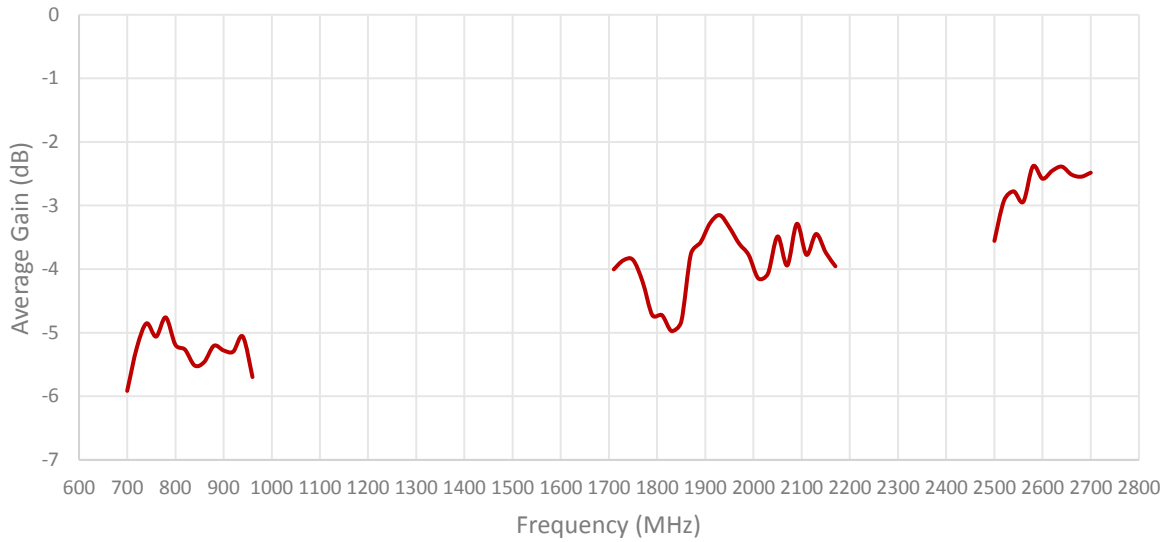
Cable 3: CELLULAR/LTE



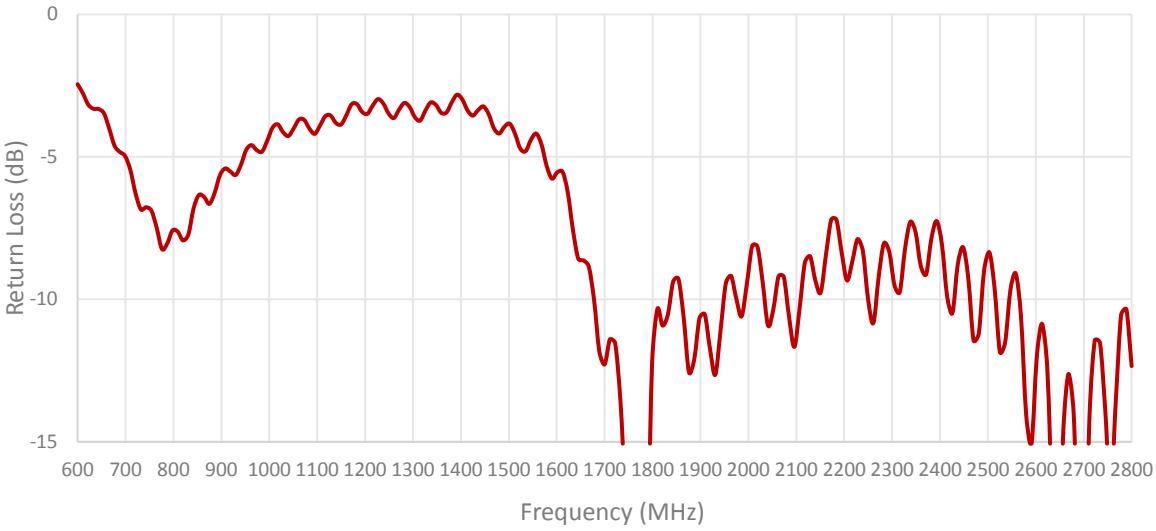


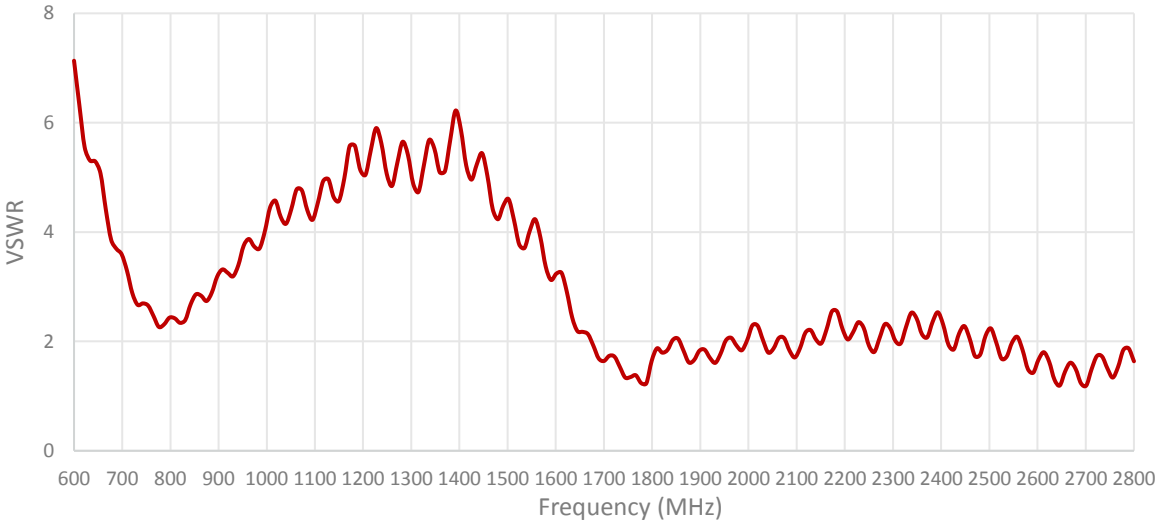

Efficiency (%)
60
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

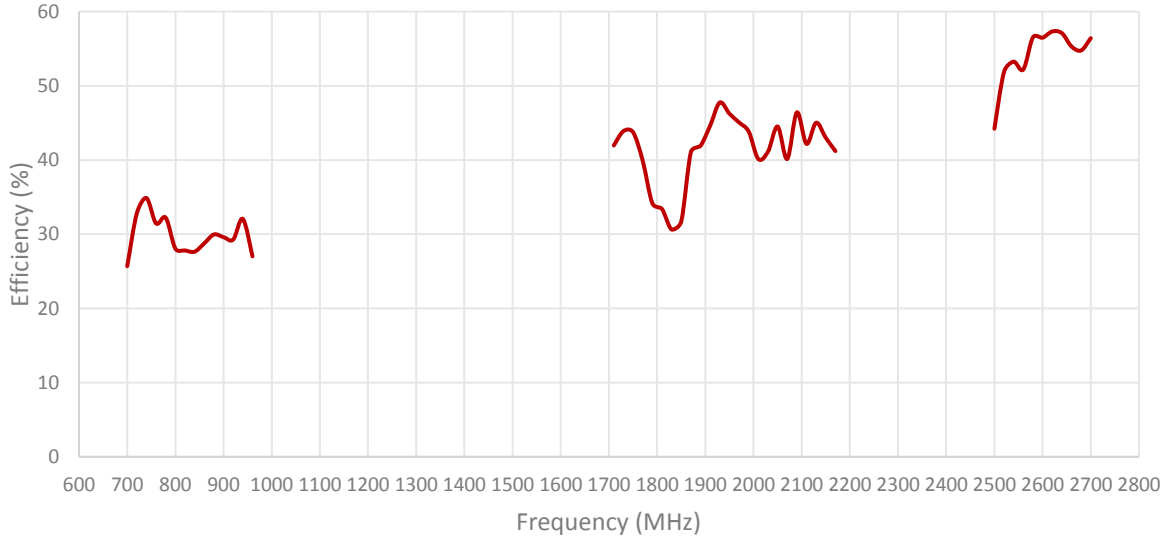

Peak Gain (dBi)
7
5
3
1
-1
-3
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

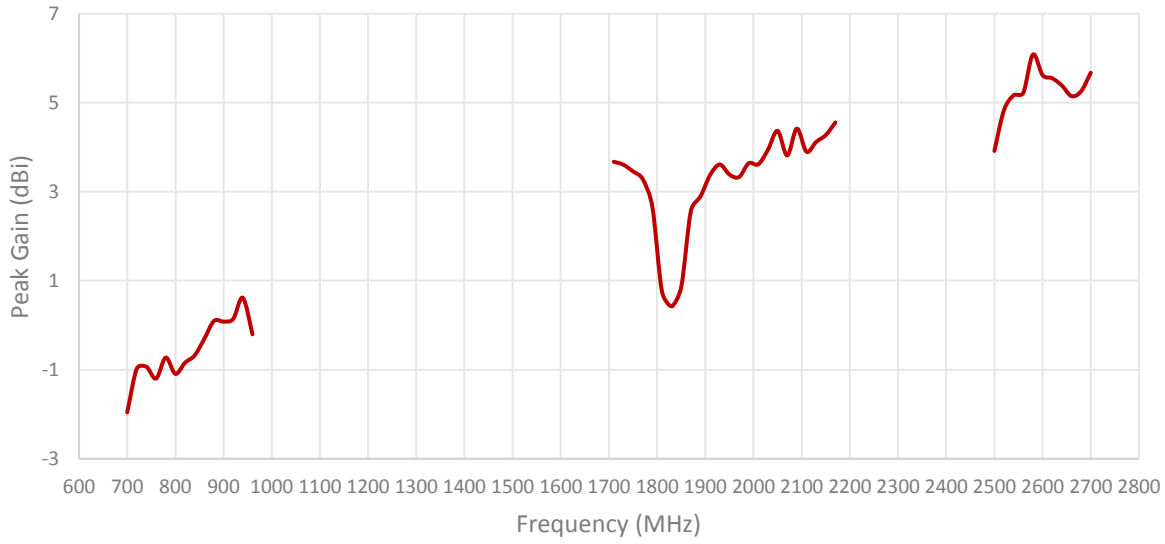

Average Gain (dB)
0
-1
-2
-3
-4
-5
-6
-7
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

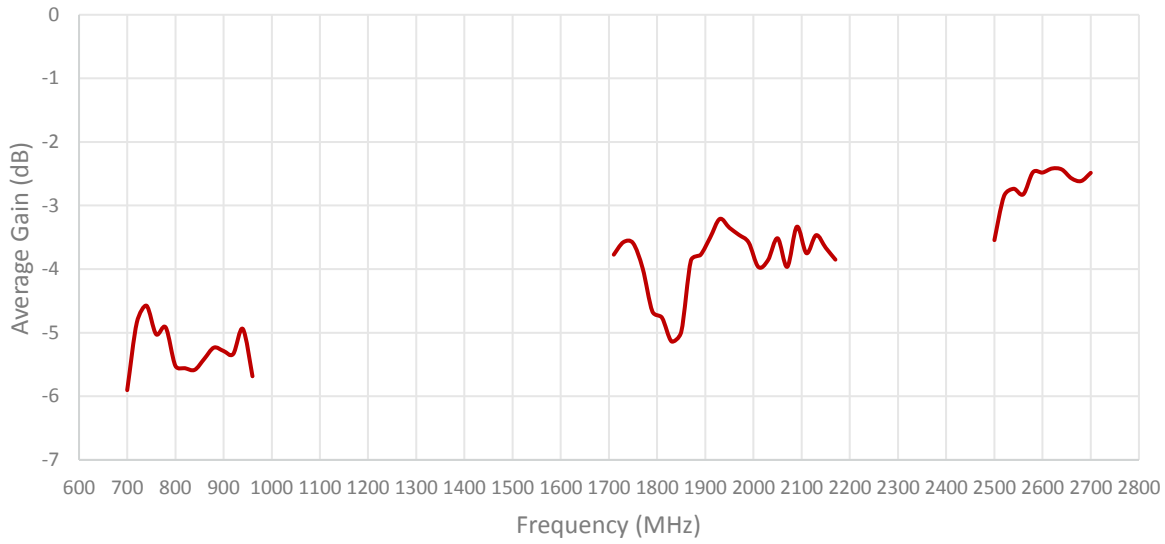
Cable 4: CELLULAR/LTE



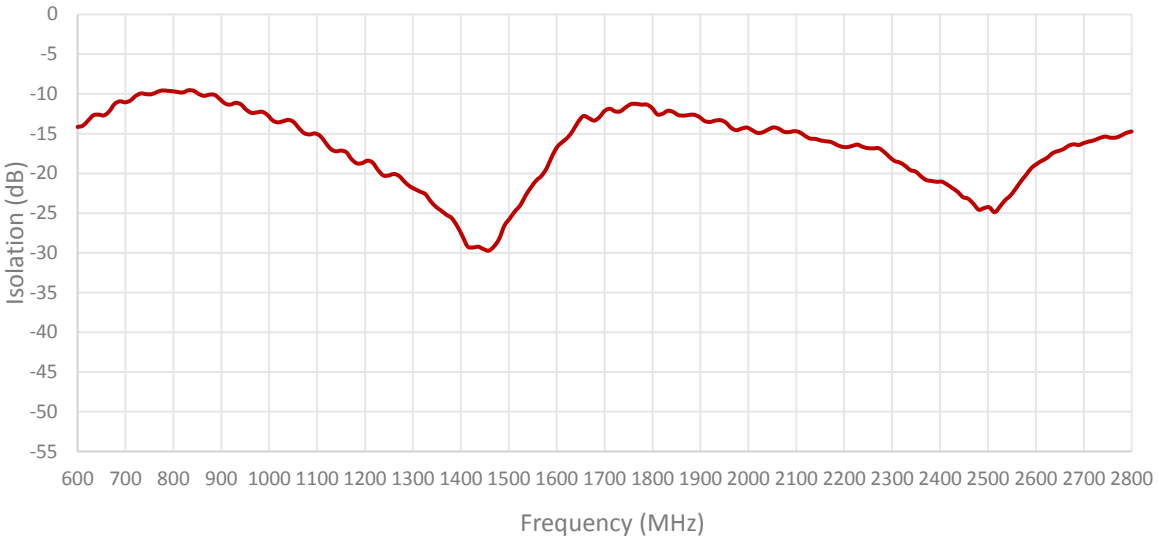



Efficiency (%)
60
50
40
30
20
10
0
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)

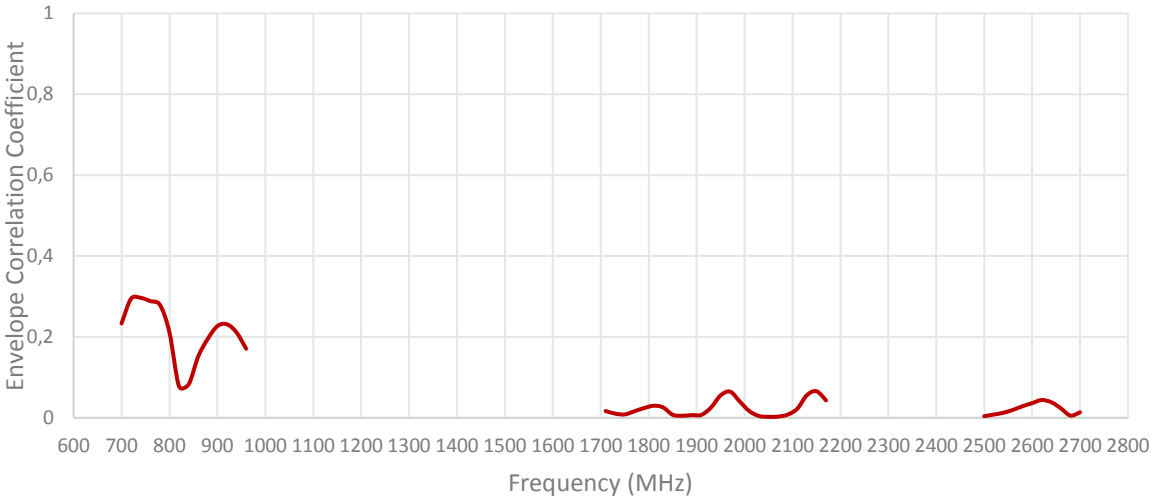

Peak Gain (dBi)
7
5
3
1
-1
-3
600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800
Frequency (MHz)


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)

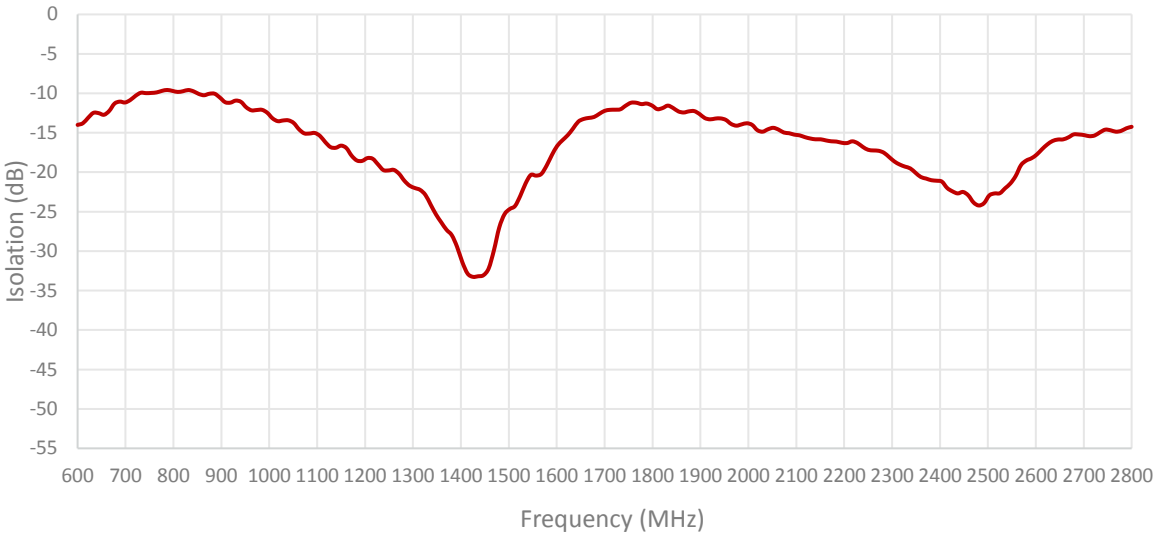
ISOLATION FOR CABLES 1 AND 3



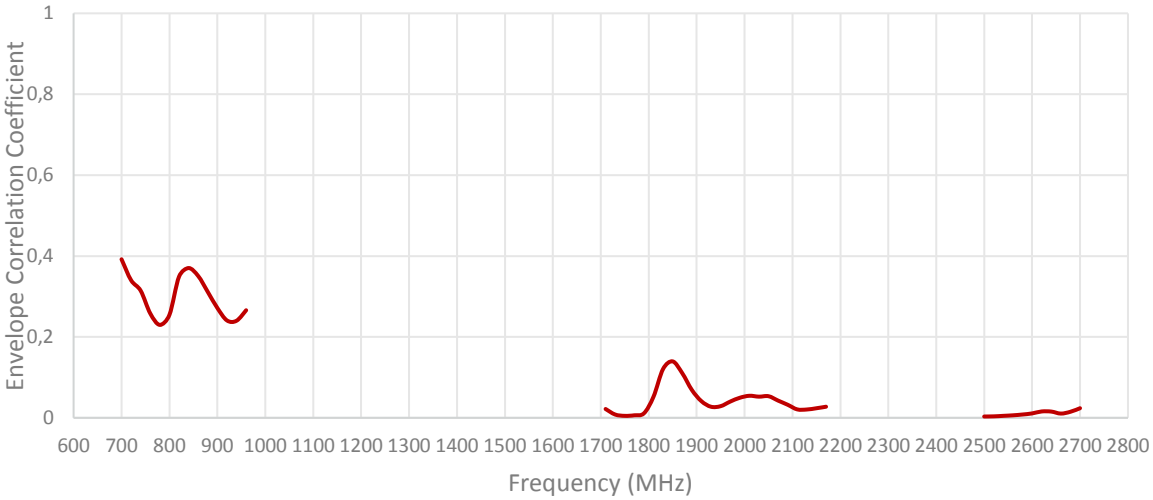
ENVELOPE CORRELATION COEFICIENT FOR CABLES 1 AND 3



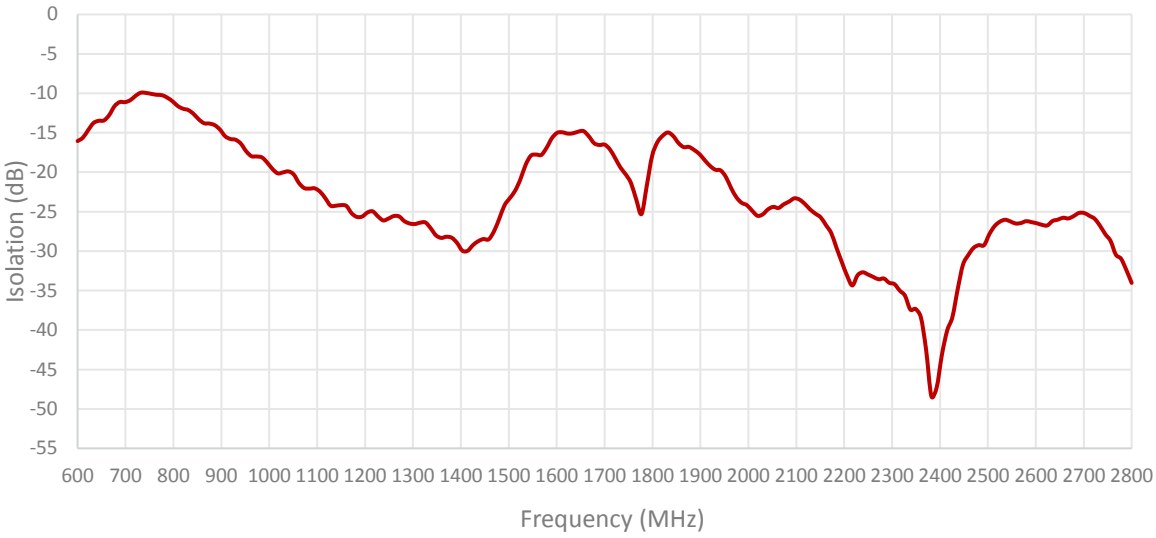
ISOLATION FOR CABLES 1 AND 4



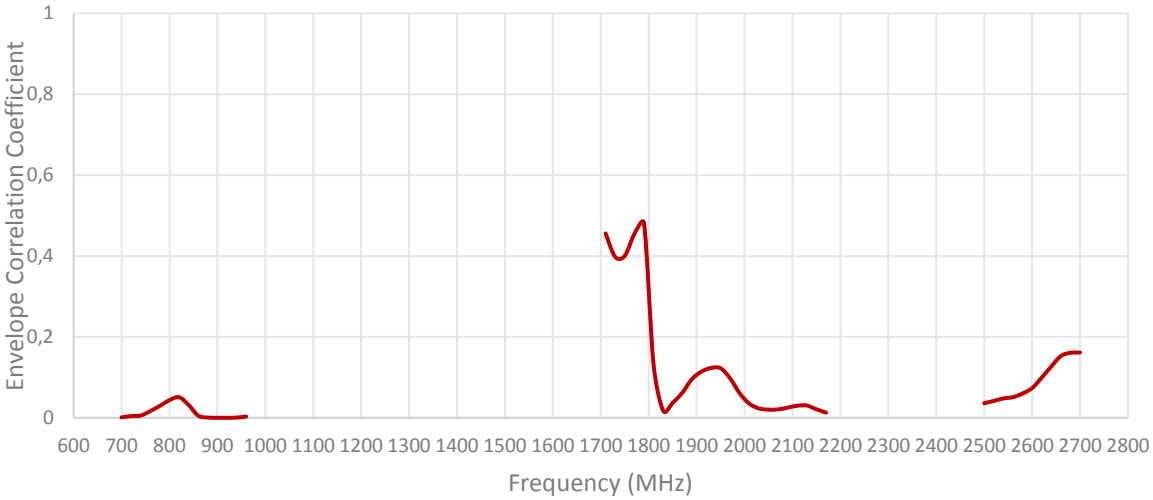
ENVELOPE CORRELATION COEFICIENT FOR CABLES 1 AND 4



ISOLATION FOR CABLES 3 AND 4

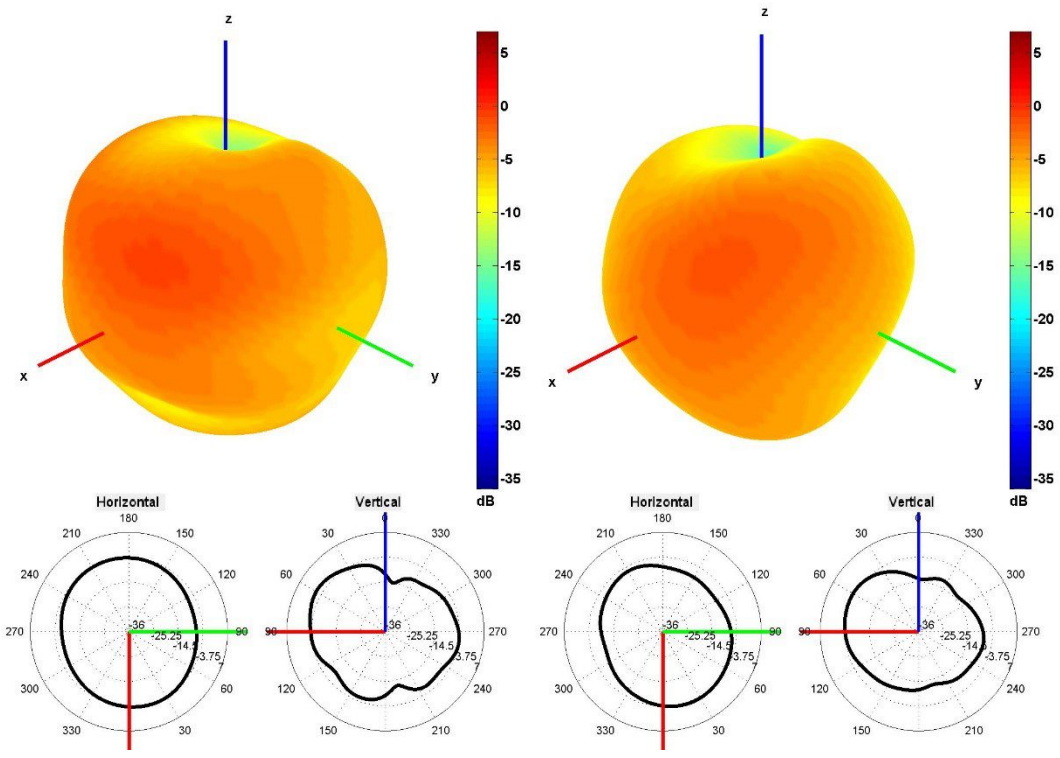


ENVELOPE CORRELATION COEFICIENT FOR CABLES 3 AND 4

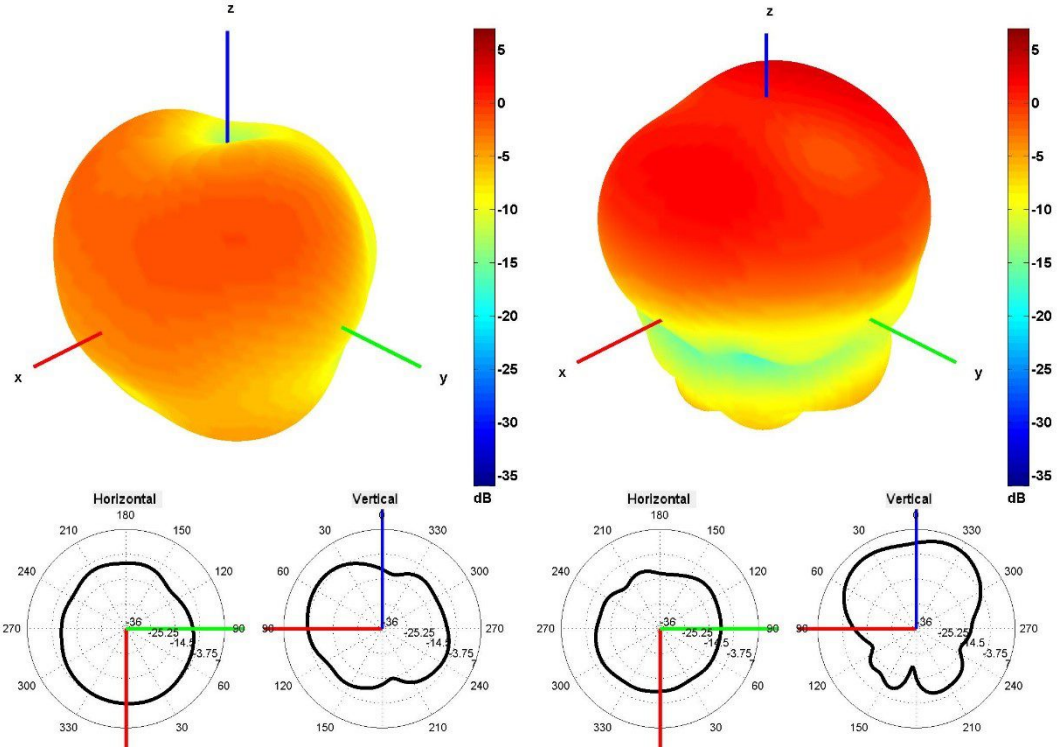


Radiation pattern reference

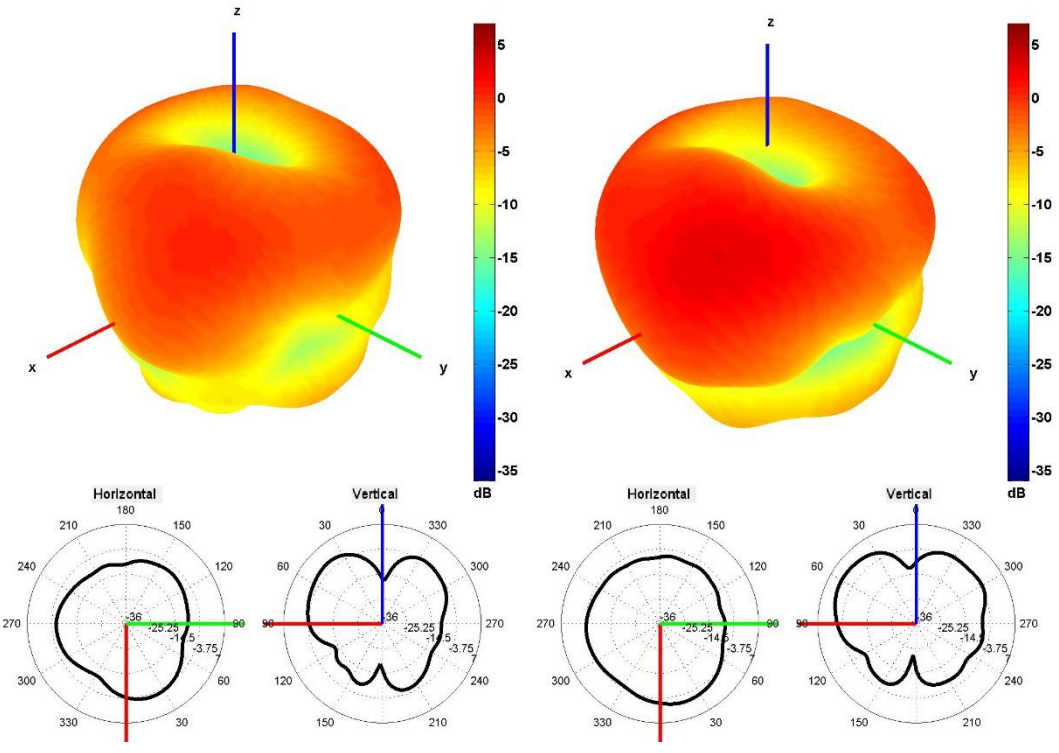
Cable 1: CELLULAR/LTE



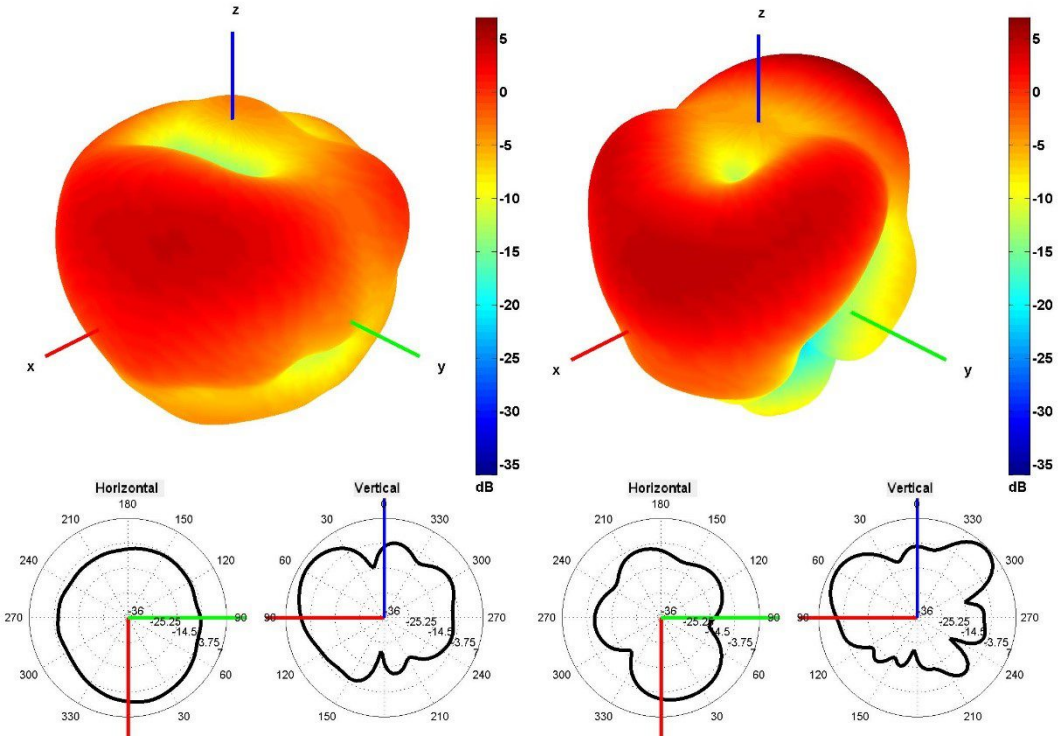
740 and 840 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

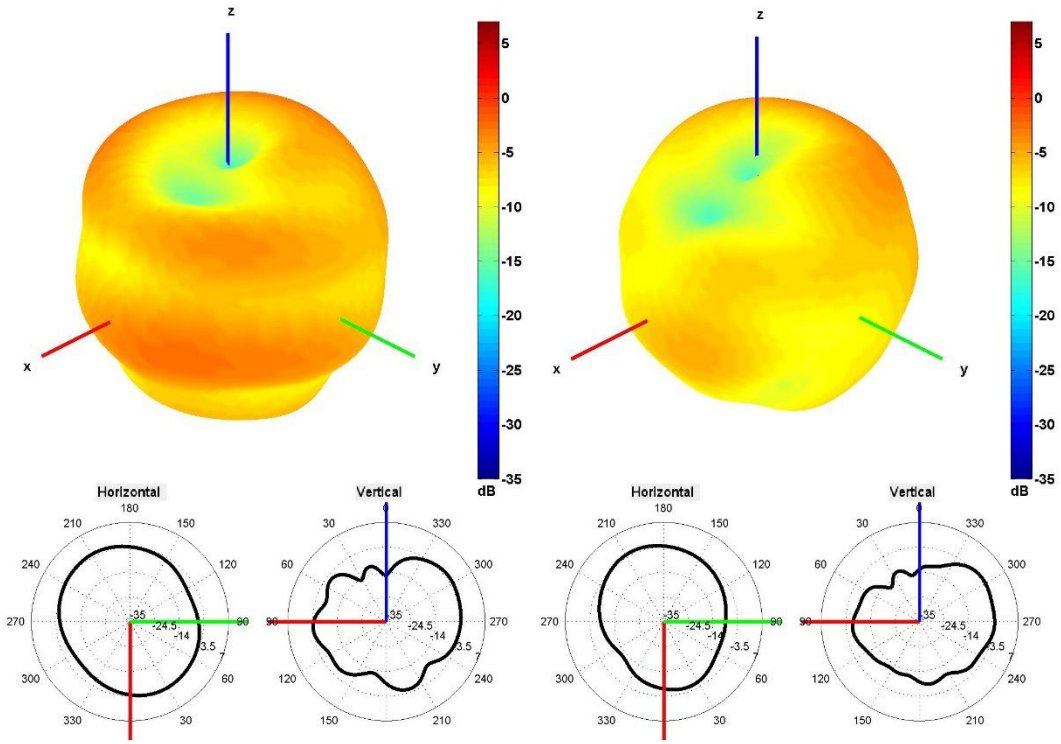


1850 and 1950 MHz Radiation pattern

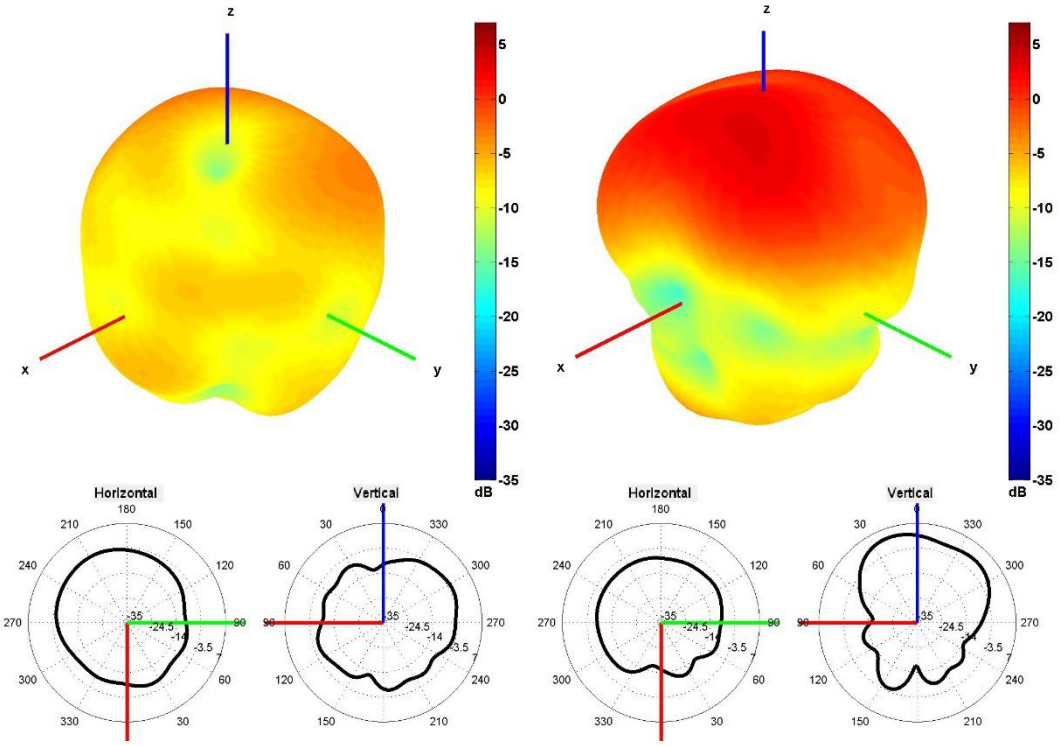


2100 and 2600 MHz Radiation pattern

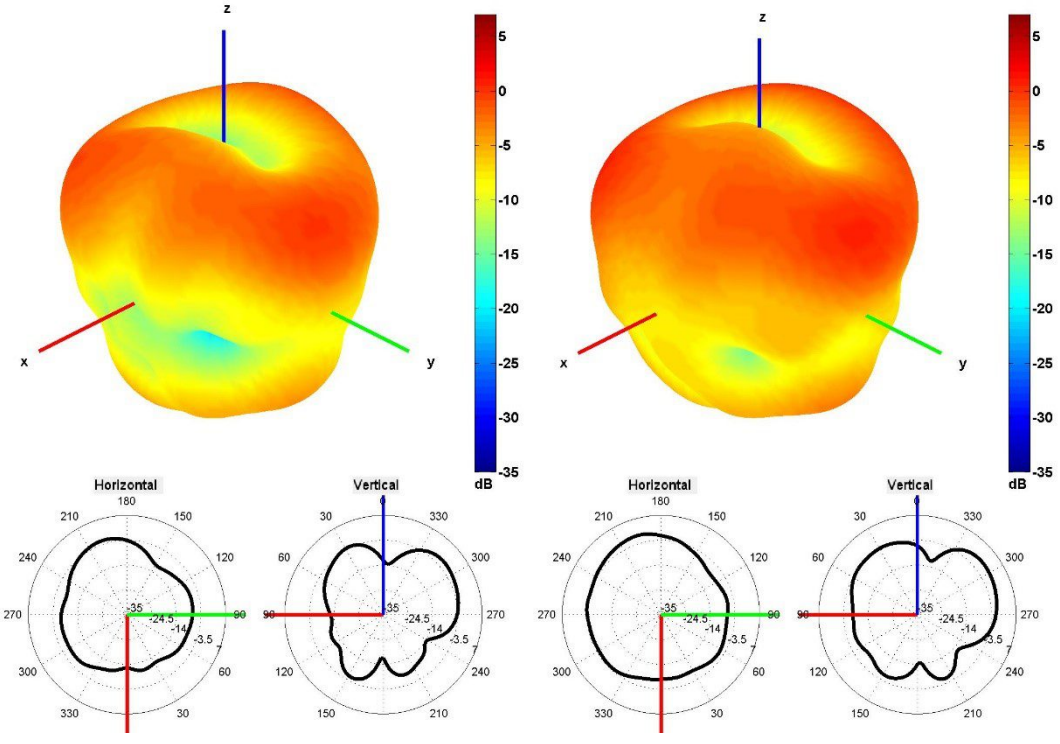
Cable 2: CELLULAR/LTE



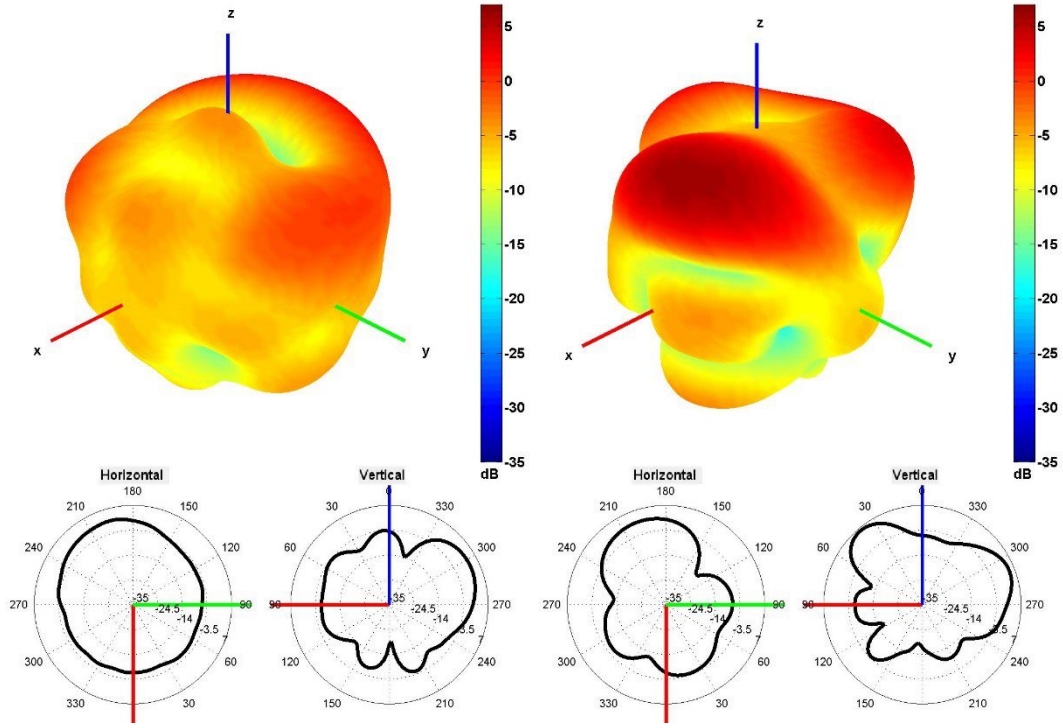
740 and 840 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

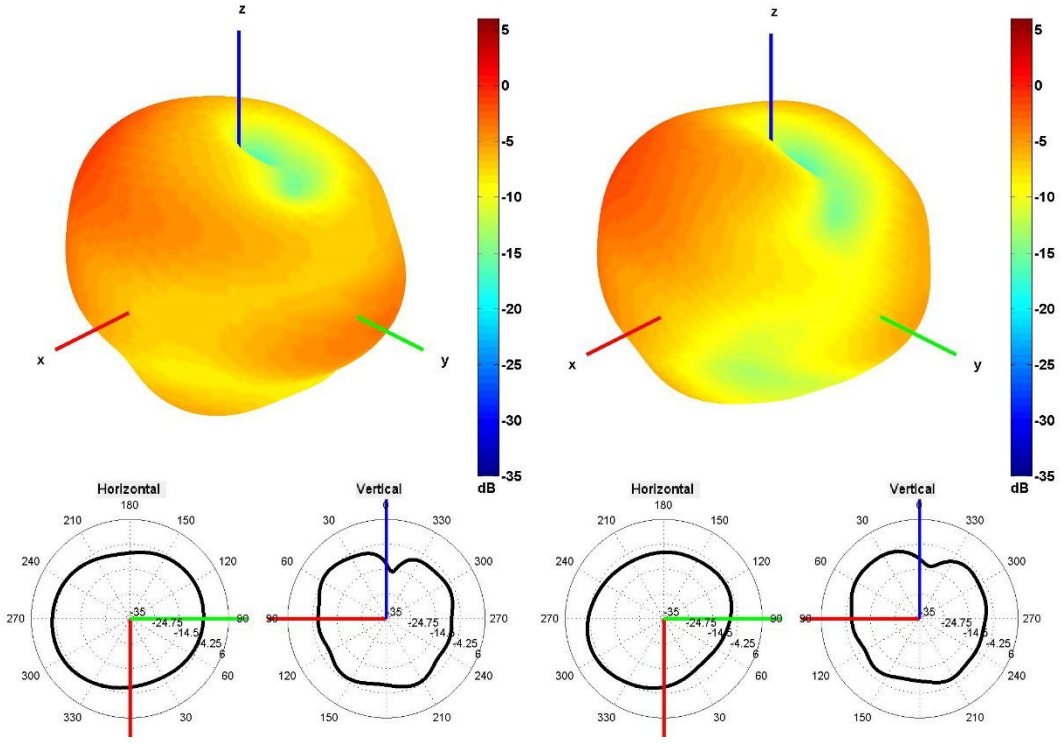


1850 and 1950 MHz Radiation pattern

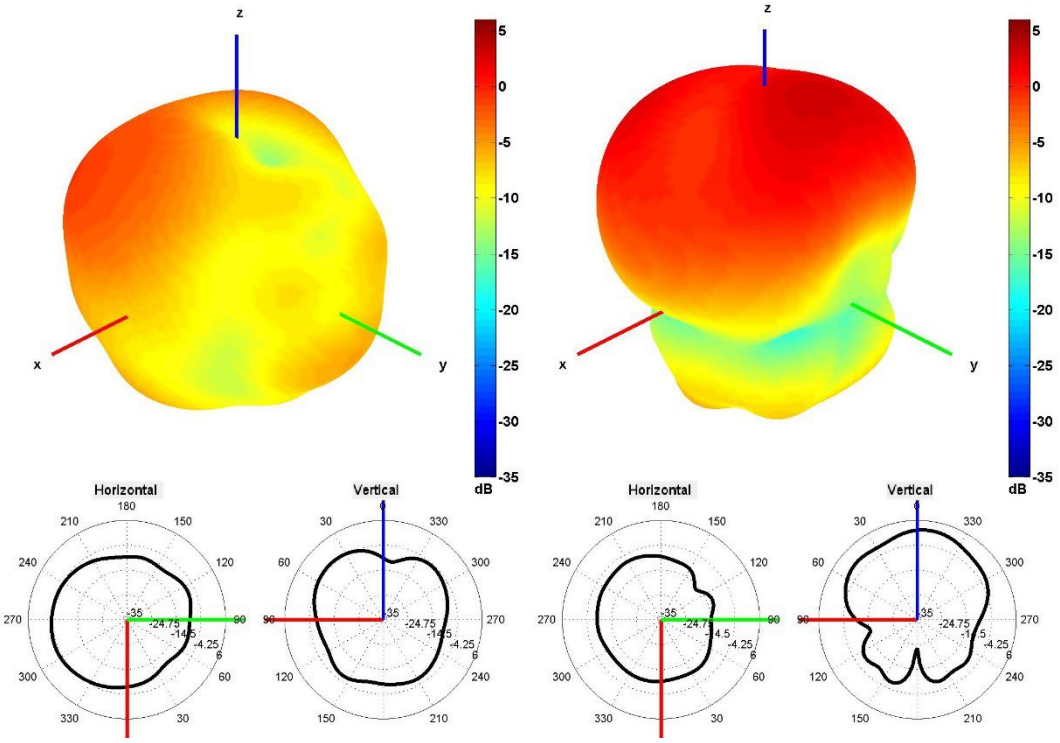


2100 and 2600 MHz Radiation pattern

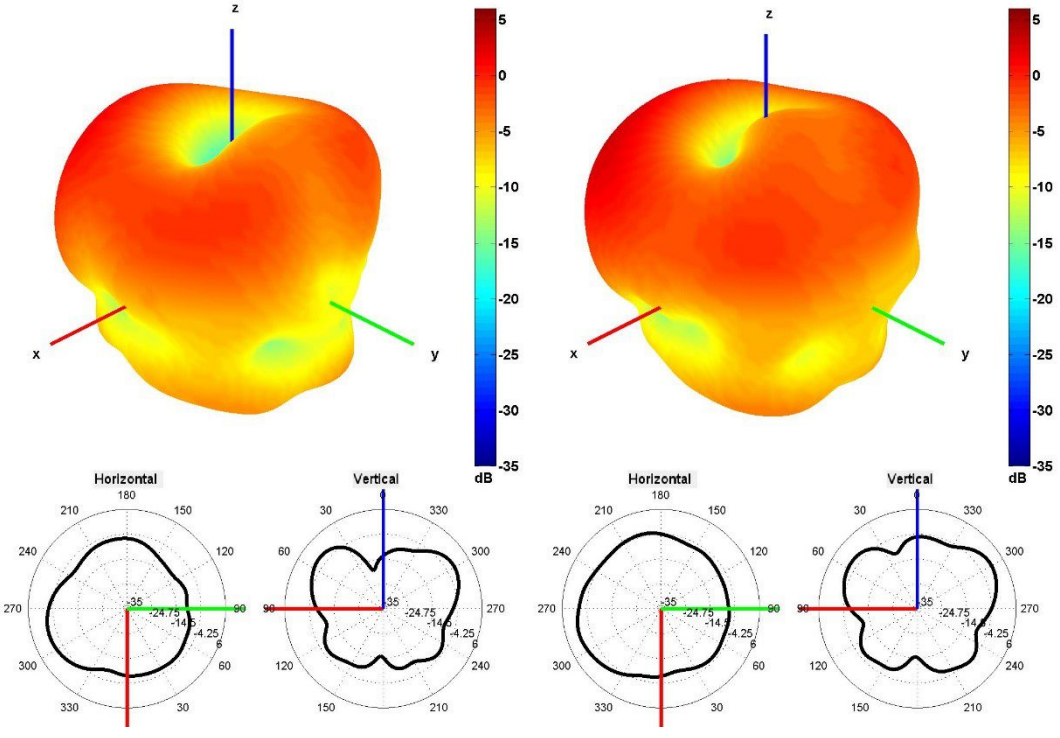
Cable 3: CELLULAR/LTE



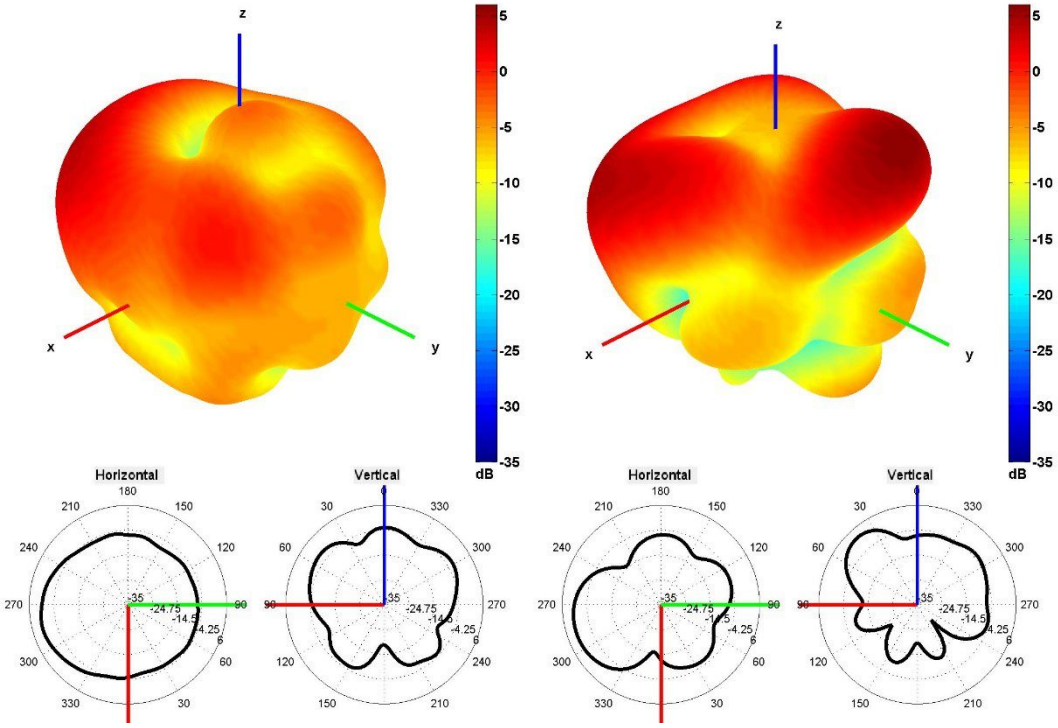
740 and 840 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

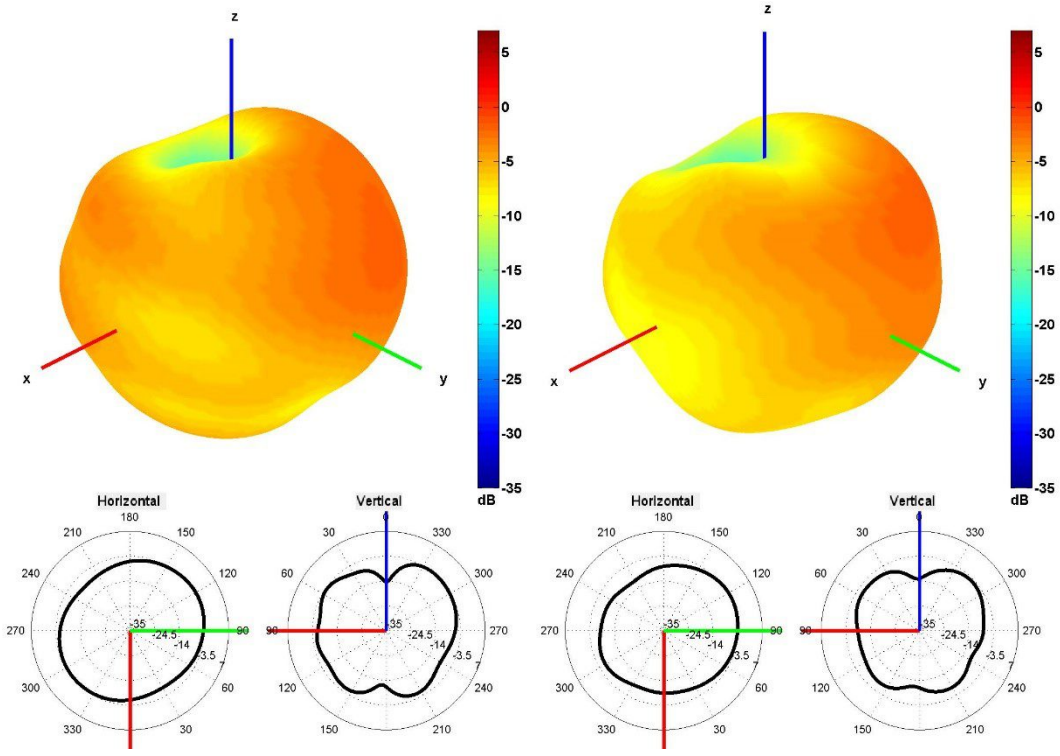


1850 and 1950 MHz Radiation pattern

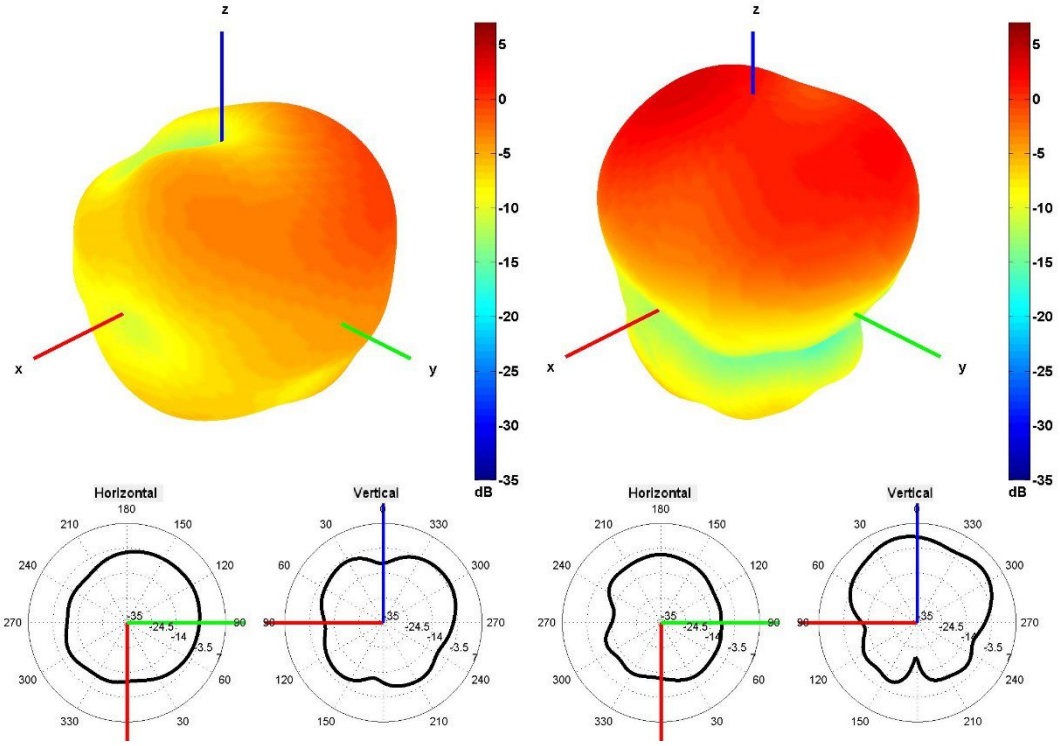


2100 and 2600 MHz Radiation pattern

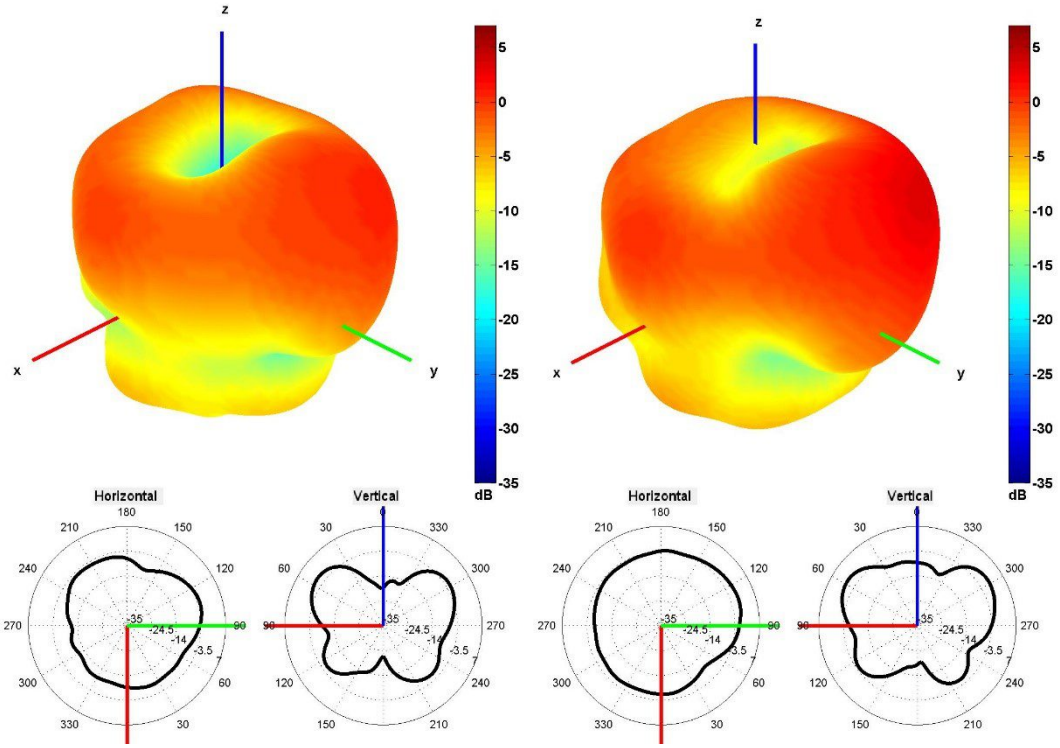
Cable 4: CELLULAR/LTE



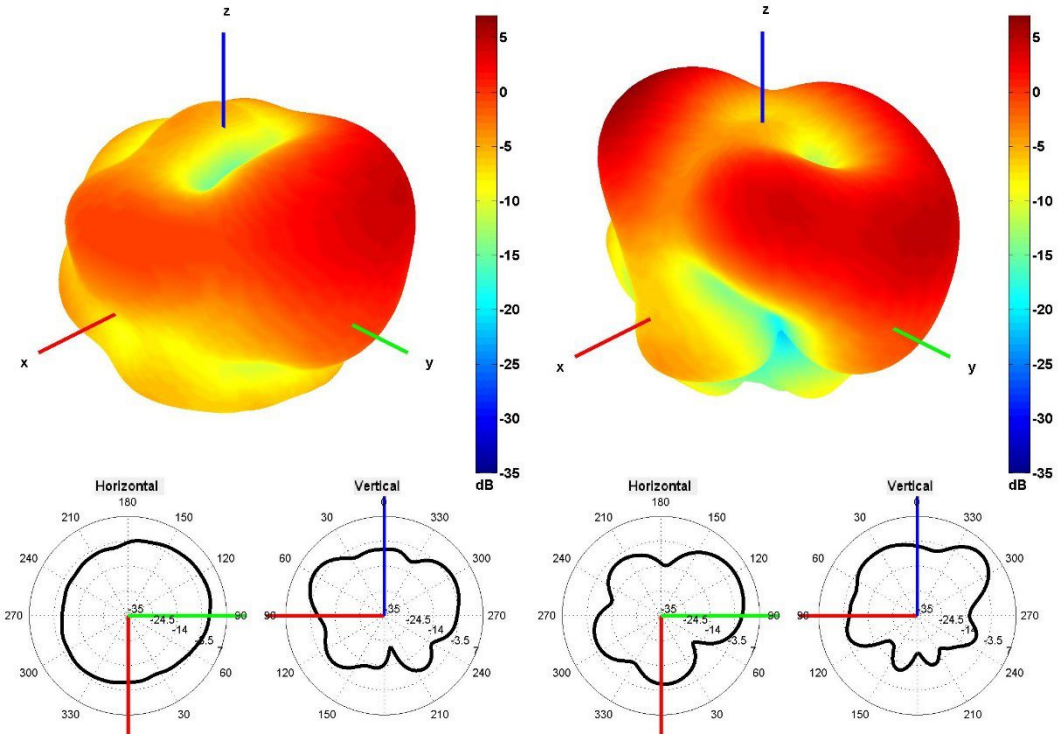
740 and 840 MHz Radiation pattern



940 and 1750 MHz Radiation pattern

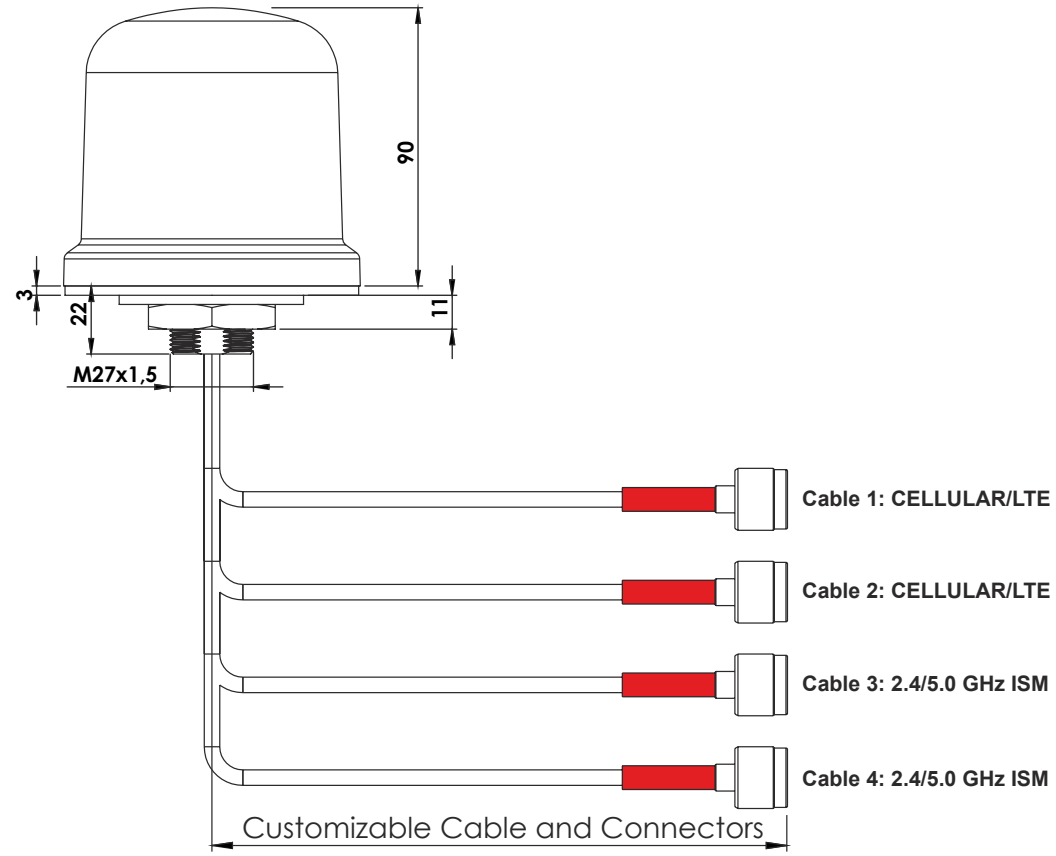


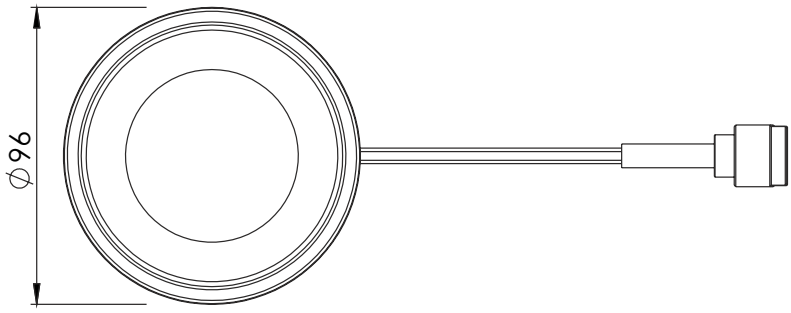
1850 and 1950 MHz Radiation pattern

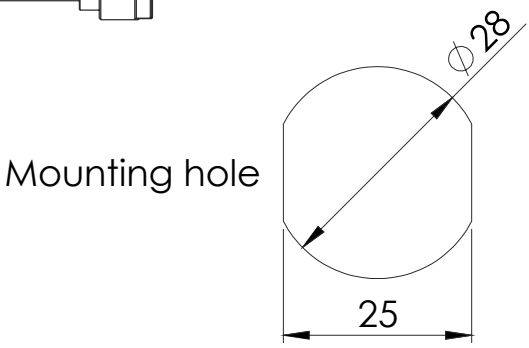


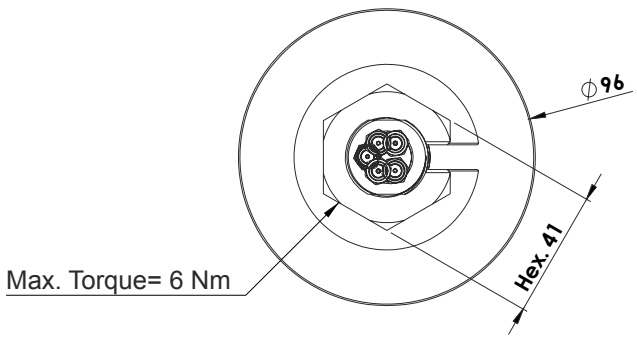
2100 and 2600 MHz Radiation pattern

4. Antenna drawings



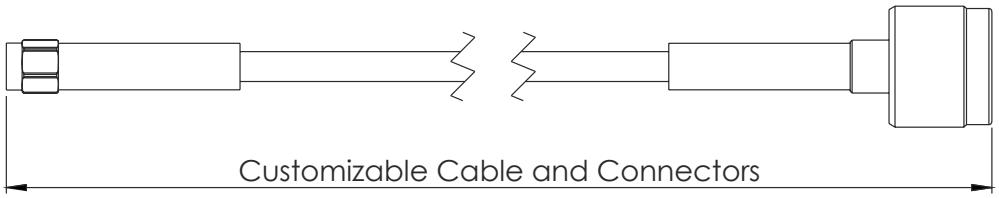






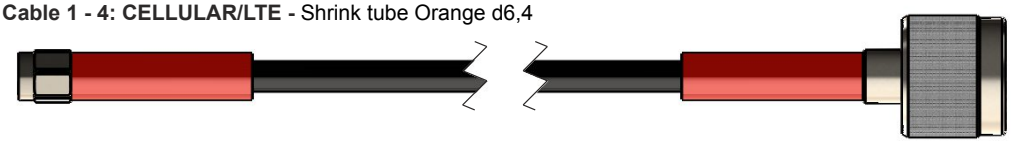
Note: Dimensions are in milimeters
***Dimensions are after mounting**
****Max. Torque= 6 Nm**

5. Jumper cables drawings - Optional



C318N-LMR195-C91N OST - 4×

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



5. Antenna Images