

AMC7041BGFa

Cellular/LTE MIMO and GNSS screw mount antenna

Features

- **Cables 1 and 2: Cellular/LTE**
- **Cable 3: GPS/Galileo/QZSS/GLONASS**
- Screw mount
- Heavy duty antenna
- High performance
- Ground plane independent
- Anti-rotation mounting
- Certificates: IP67, IP69, IK09
- Dimensions – Ø 96mm x H 90mm
- Customizable cables and connectors



Compact heavy duty antenna designed for 4G LTE and GNSS suitable for wide range of applications within industry. Antenna is made with specific anti-rotation mounting system. Housing of the antenna is certified for standards of IP67 for water resistance, IK09 for high impact resistance and IP69K standard for high pressure and hot water ingress.



1. Antenna and electrical specifications

Cable 1

Parameters	Cellular/LTE antenna		
Standards	2G, 3G, 4G		
Band (MHz)	700/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	698 - 960	1710 - 2170	2500 - 2700
Return Loss (dB)	~-10.6	~-15.6	~-11.7
VSWR	~1.9:1	~1.6:1	~1.7:1
Efficiency (%)	~57	~57	~47
Peak Gain (dBi)	~2.1	~4.2	~3.1
Average Gain (dB)	~-2.4	~-2.5	~-3.3
Impedance (Ohms)	50		
Polarisation	Linear		
Radiation Pattern	Omni-directional		
Max. Input Power (W)	25		
Connector Type	SMA male standard (other connectors available)		
Cable Length	3 meters standard (other lengths available)		
Cable Type	LMR195 standard (other cables available)		



Cable 2

Parameters	Cellular/LTE antenna		
Standards	2G, 3G, 4G		
Band (MHz)	700/850/900	1700/1800/1900/2100	2600
Frequency (MHz)	698 - 960	1710 - 2170	2500 - 2700
Return Loss (dB)	~-11.0	~-14.3	~-16.5
VSWR	~1.9:1	~1.6:1	~1.4:1
Efficiency (%)	~63	~54	~57
Peak Gain (dBi)	~3.0	~3.2	~4.0
Average Gain (dB)	~-2.0	~-2.6	~-2.4
Impedance (Ohms)	50		
Polarisation	Linear		
Radiation Pattern	Omni-directional		
Max. Input Power (W)	25		
Connector Type	SMA male standard (other connectors available)		
Cable Length	3 meters standard (other lengths available)		
Cable Type	LMR195 standard (other cables available)		

Antenna measurement conditions:

Mounted on metal plate 30 x 30cm

2 meters LMR195 cable

Measured in certified CTIA 3D anechoic chamber



Cable 3

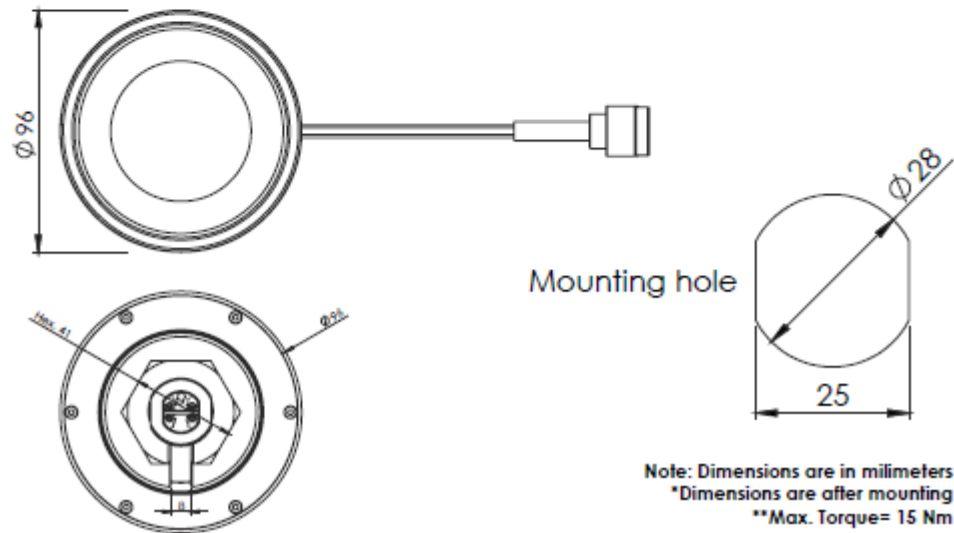
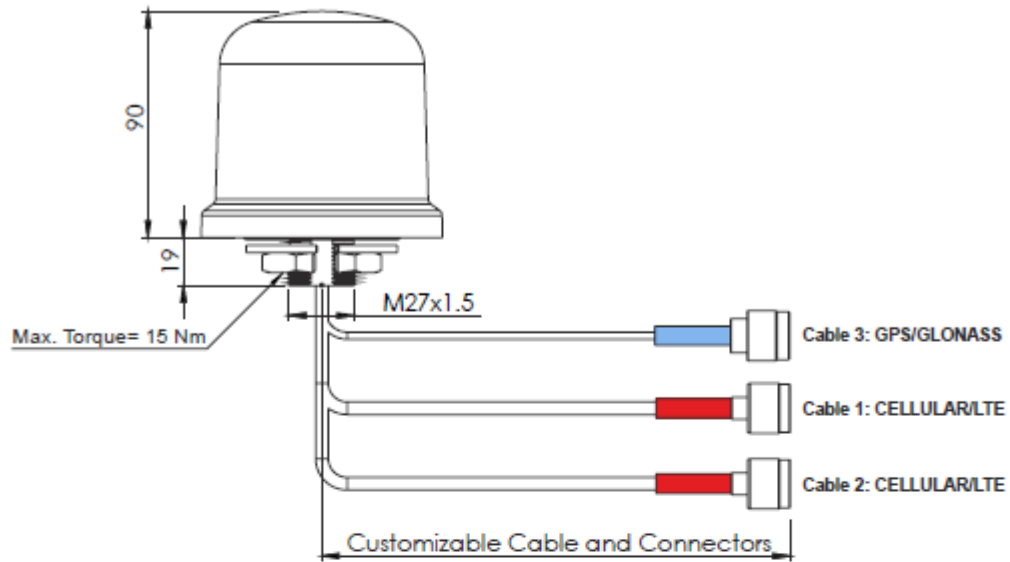
Parameters	GPS/GLONASS antenna	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency (MHz)	1575.42	1598 - 1610
Return Loss (dB)	<=-14	
VSWR	<=1.5:1	
Impedance (Ohms)	50	
Polarisation	RHCP	
Radiation Pattern	Hemispherical	
SAW Filter	Pre-filter	
Active Gain (dB)	23 @ 3V, 24 @ 5V	
Noise Figure (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	3 meters standard (other lengths available)	
Cable Type	LMR100 standard (other cables available)	



3. Mechanical and environmental specifications

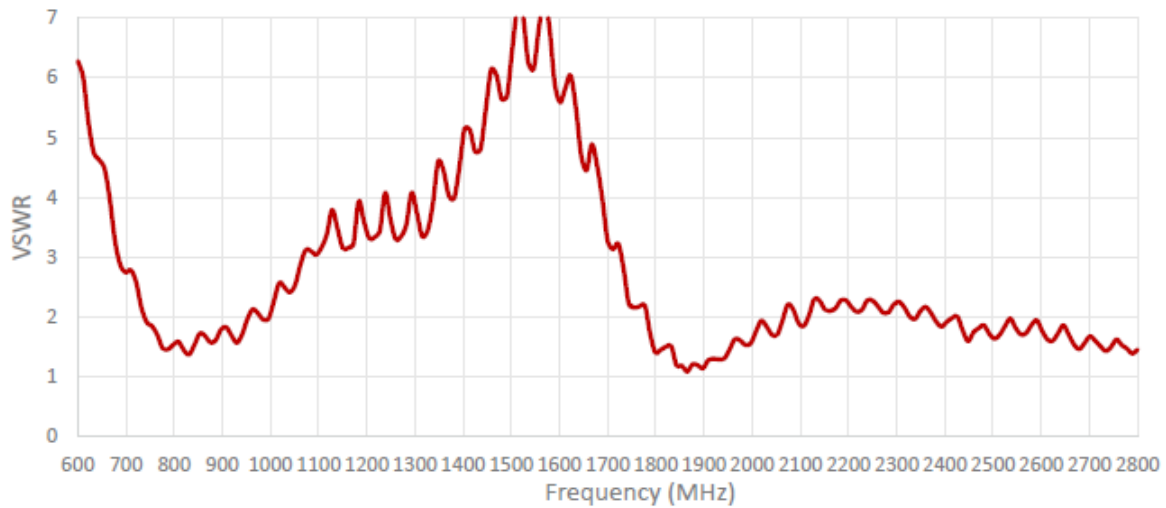
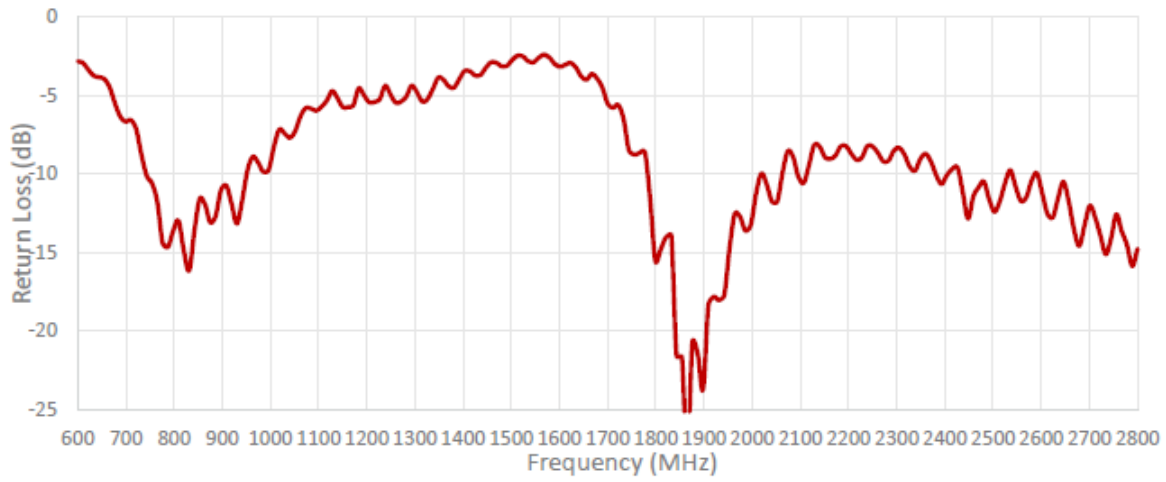
Mounting Type	Screw mount
Dimensions (mm)	Ø 96 x H 90
Radome	ASA UV Stable
Radome Colour	Black (White optional)
Antenna Base	Aluminium alloy
Operating Temperature (°C)	-40 to +85
Storage Temperature (°C)	-40 to +85
Certificates	IP67, IP69, IK09
Substance Compliance	RoHS

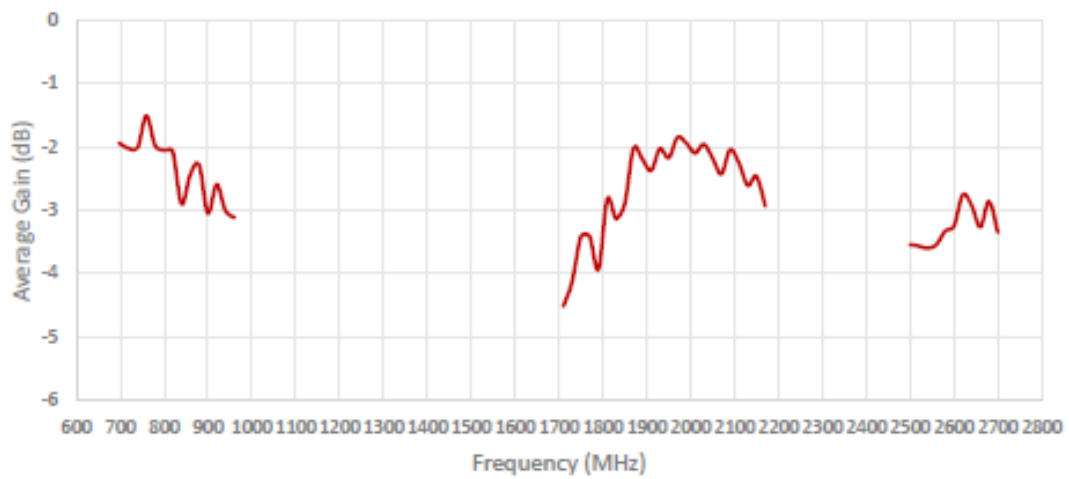
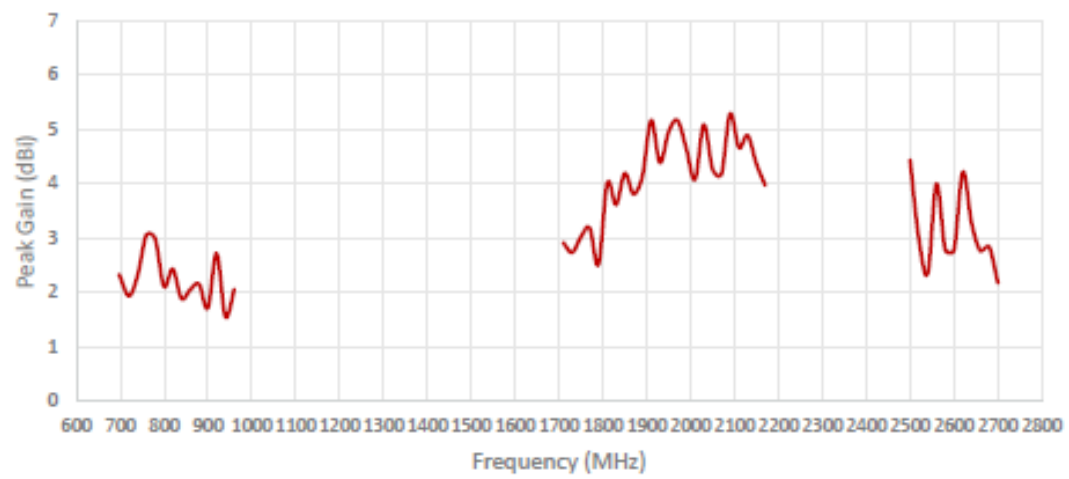
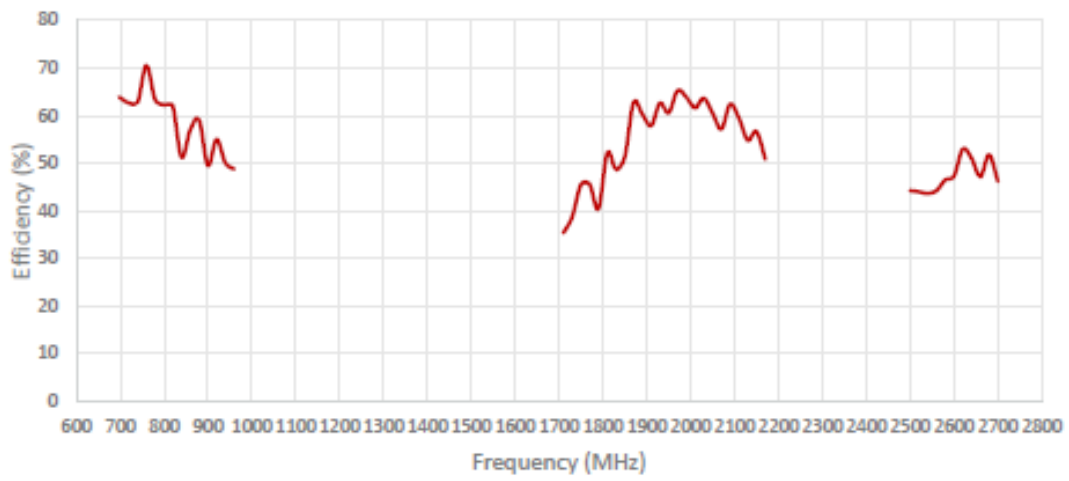




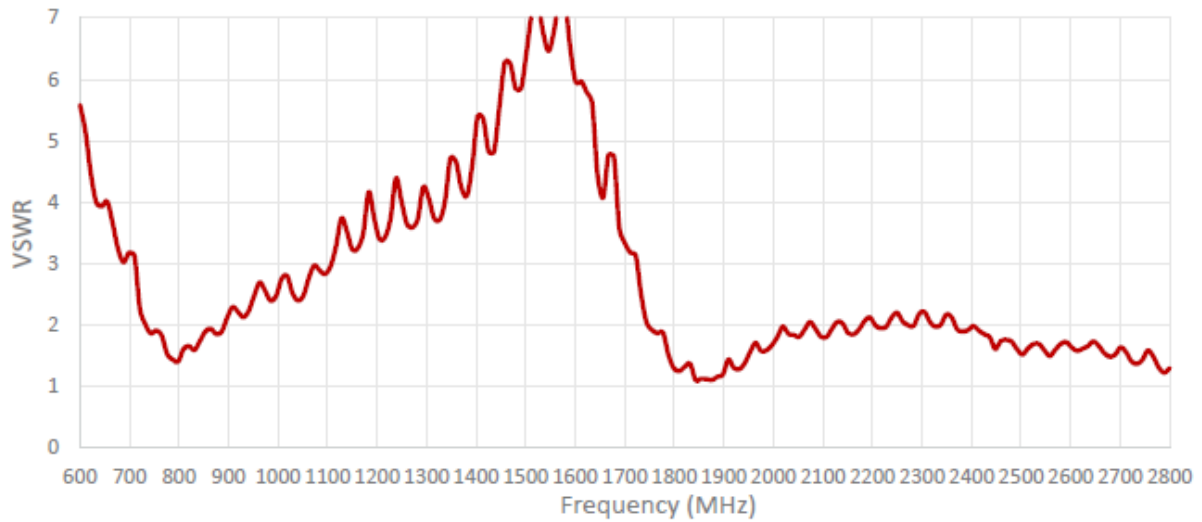
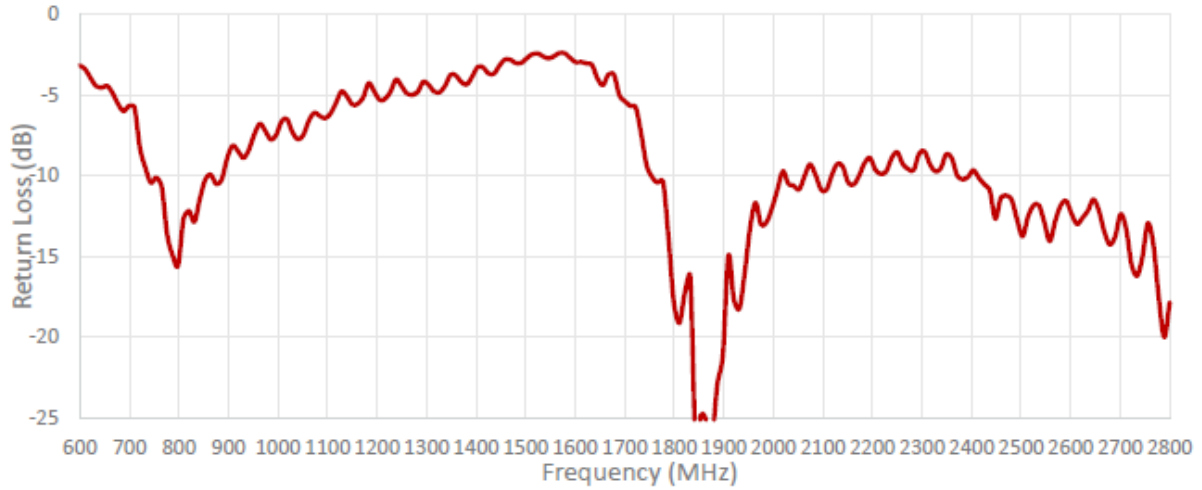
4. Antenna parameters

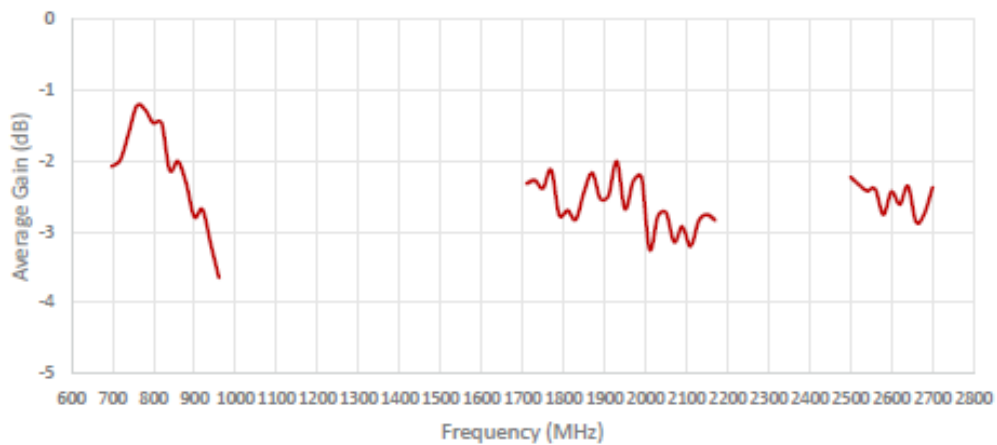
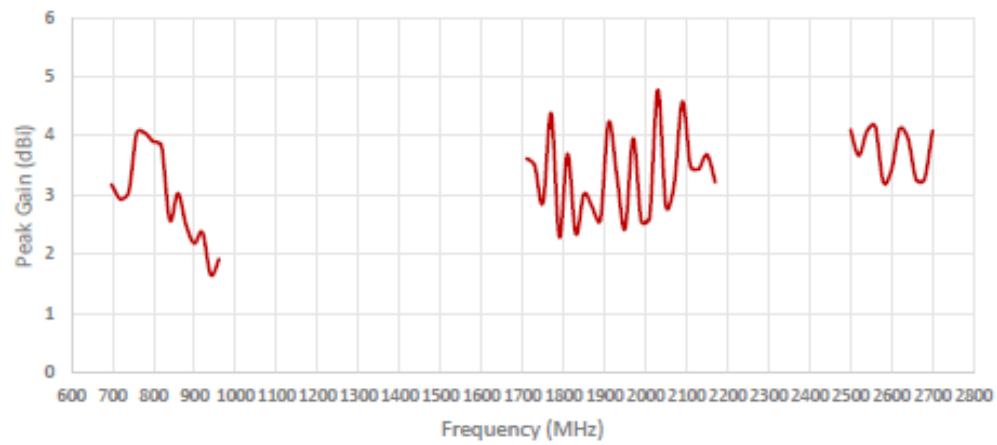
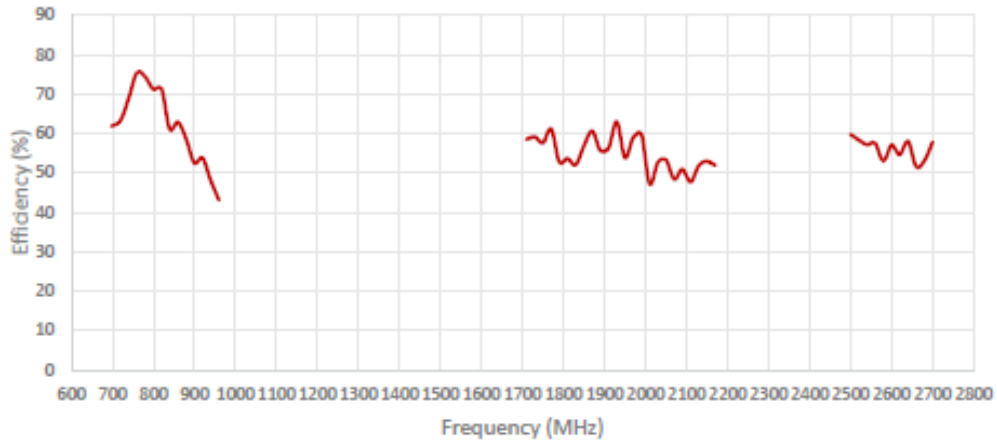
Cable 1: Cellular/LTE



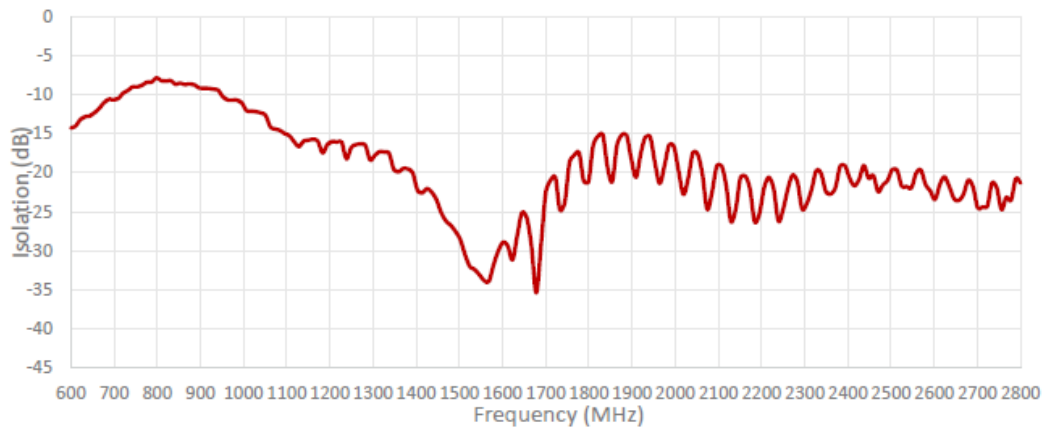


Cable 2: Cellular/LTE

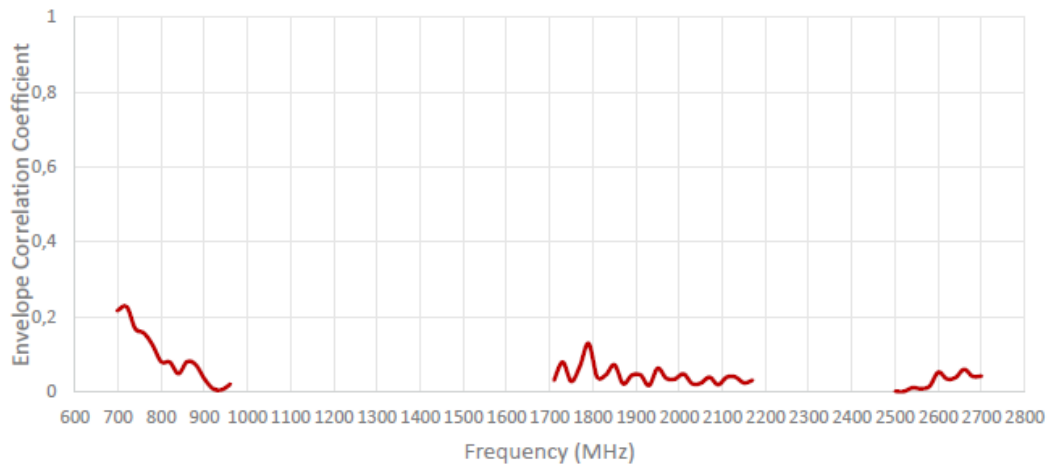




ISOLATION FOR CABLES 1 AND 2



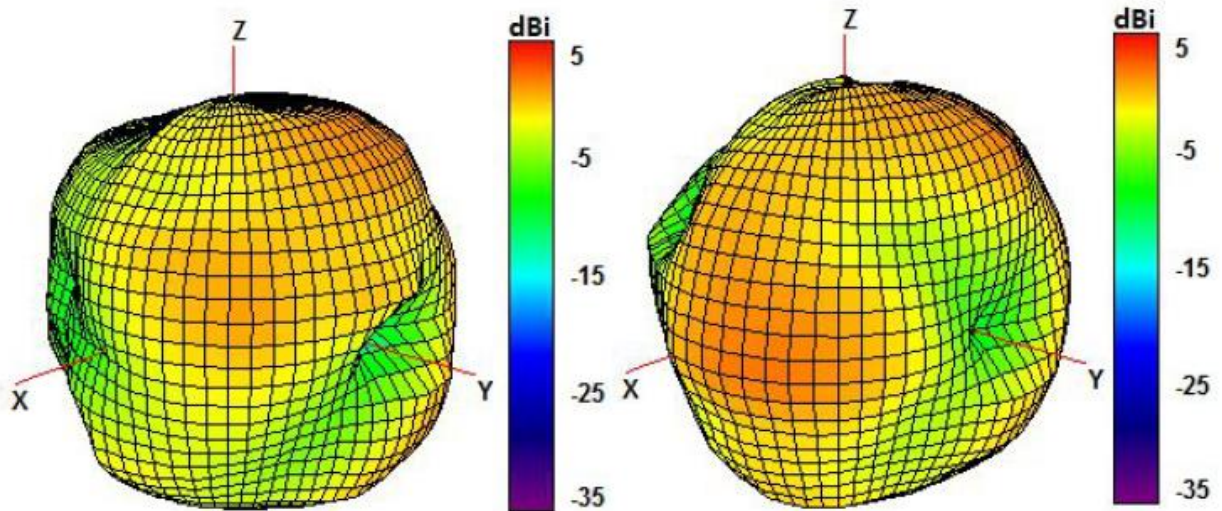
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2





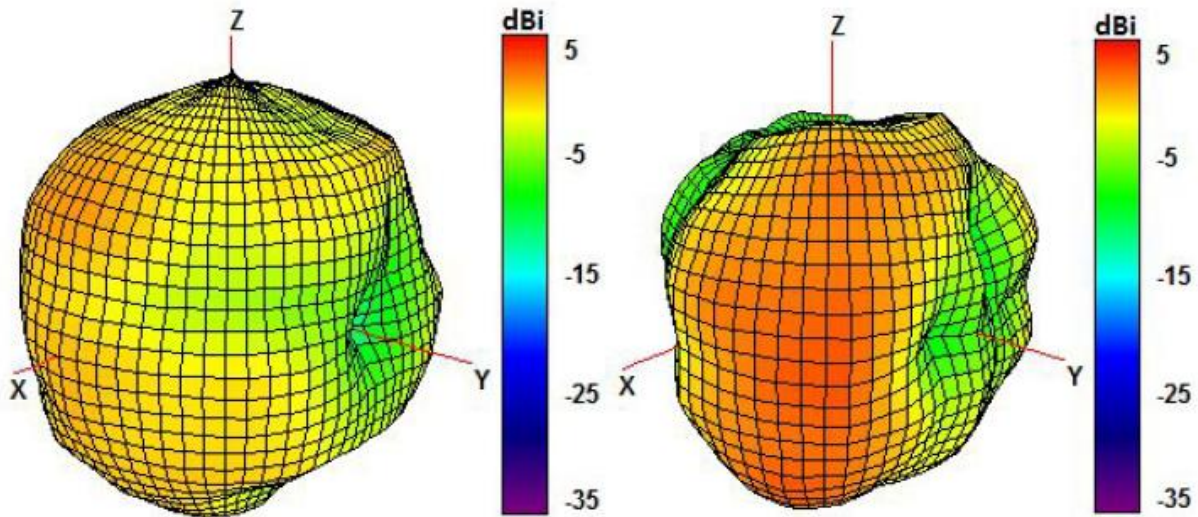
Radiation pattern reference

Cable 1: CELLULAR/LTE

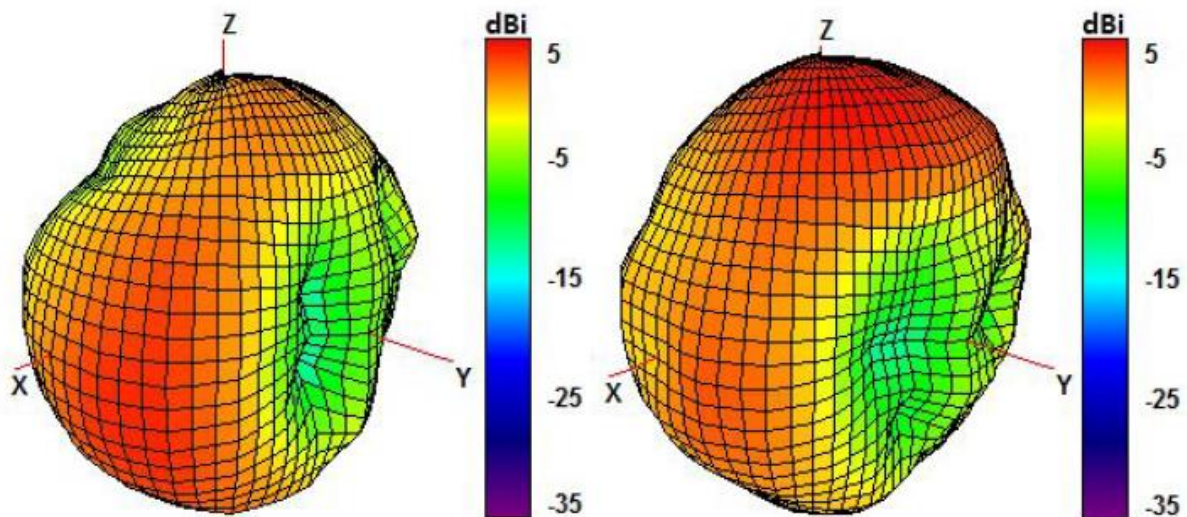


750 and 850 MHz Radiation pattern



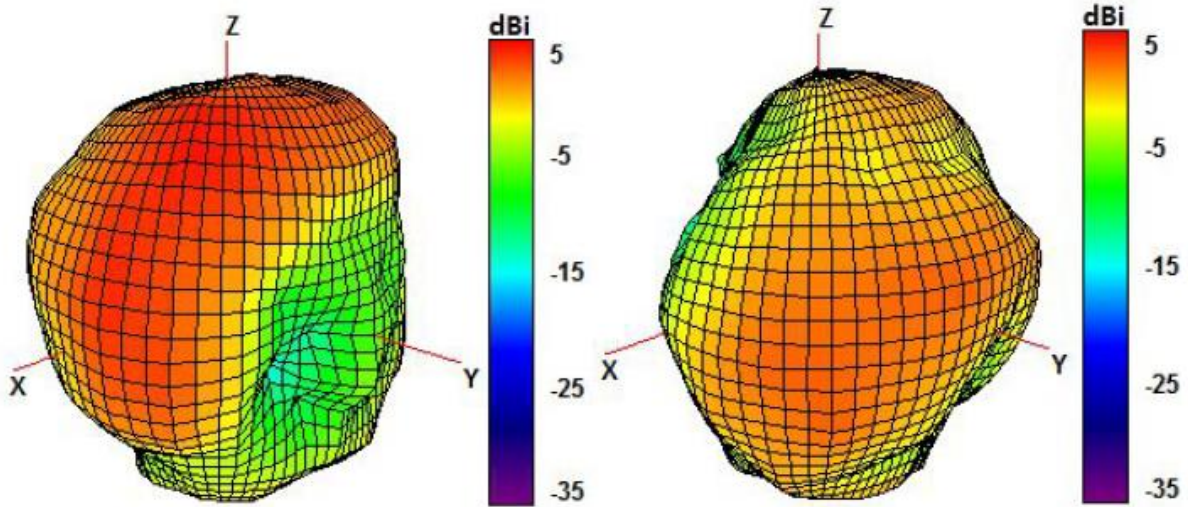


940 and 1750 MHz Radiation pattern



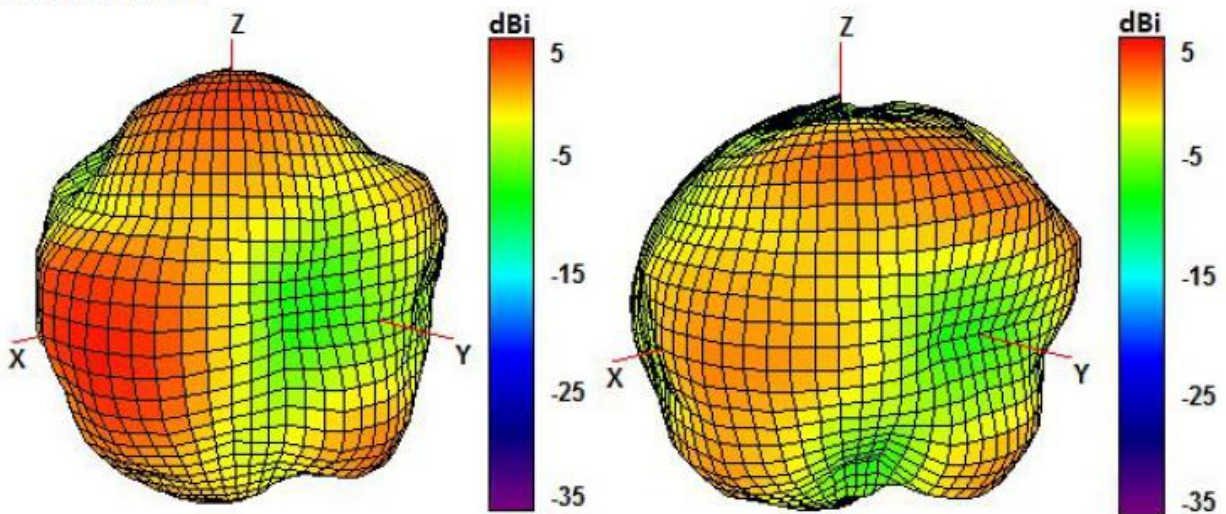
1850 and 1950 MHz Radiation pattern





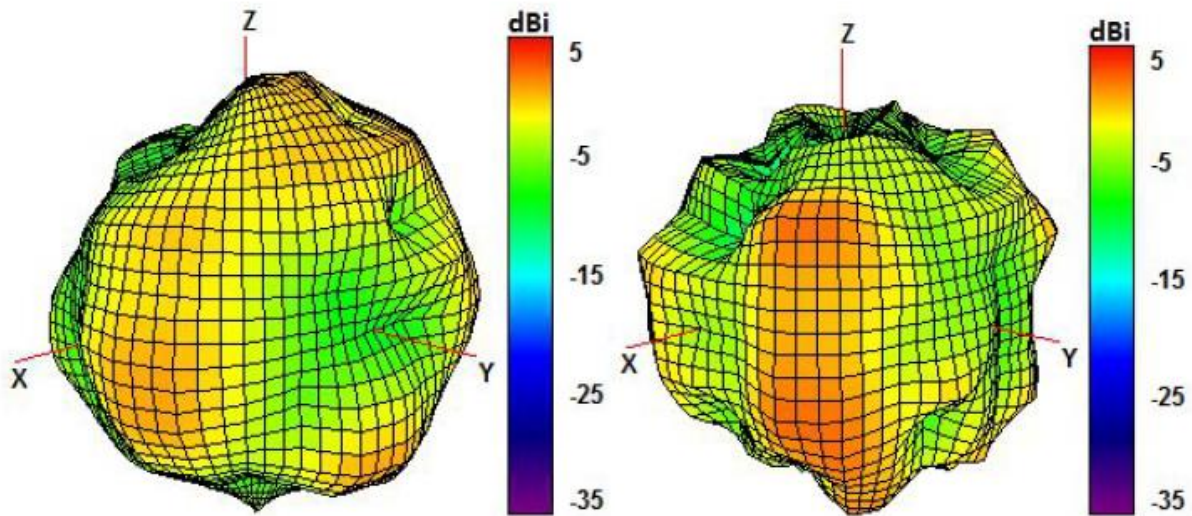
2100 and 2600 MHz Radiation pattern

Cable 2: CELLULAR/LTE

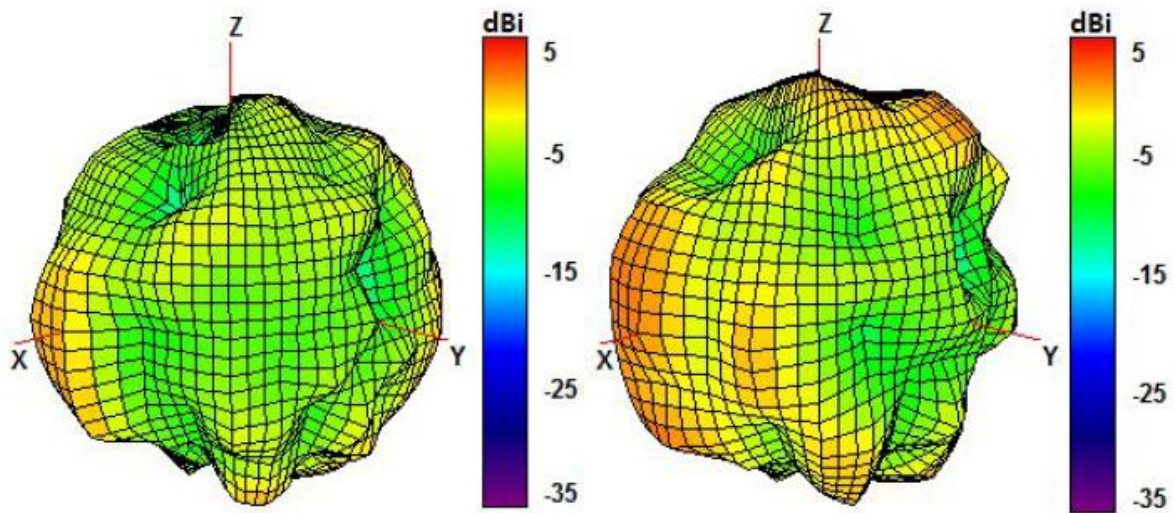


750 and 850 MHz Radiation pattern



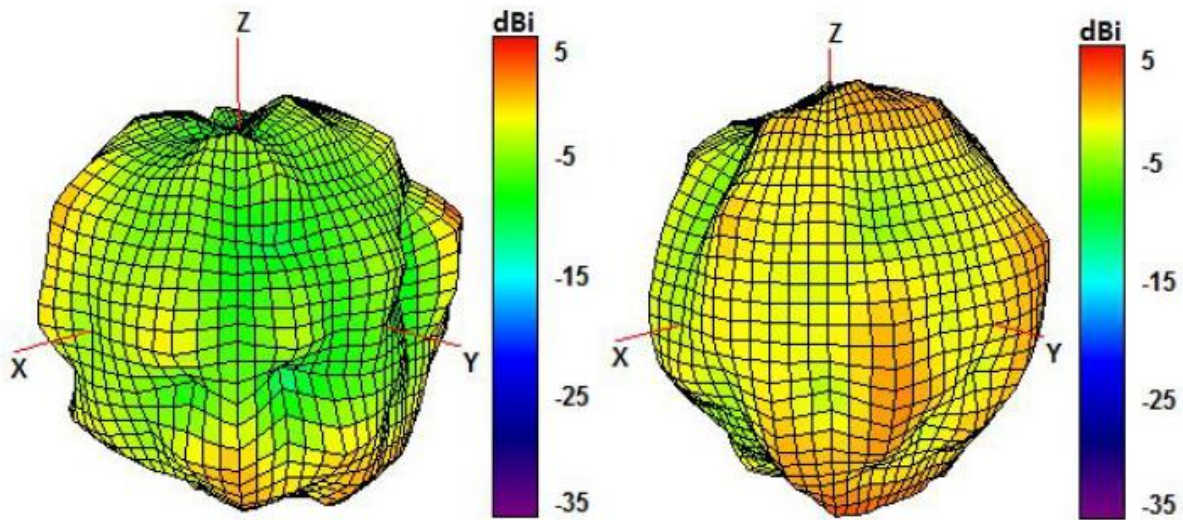


940 and 1750 MHz Radiation pattern



1850 and 1950 MHz Radiation pattern





2100 and 2600 MHz Radiation pattern

