

## AMC-ANT-2J4950PGF

Combi cellular/LTE, 2.4/5.0GHz ISM and GNSS adhesive mount antenna

### Features

- **Cable 1: Cellular/LTE**
  - 698 – 960MHz
  - 1710 – 2170MHz
  - 2500 – 2700MHz
- **Cable 2: 2.4/5.0GHz ISM**
  - 2410 – 2490MHz
  - 4920 – 5925MHz
- **Cable 3: GPS/Galileo/QZSS/GLONASS**
  - 1575 – 1606MHz
- Adhesive mount
- High performance
- Ground plane independent
- Certificates: IP67, IP69
- Dimensions: 150.5 x 42 x 15.3mm
- Customisable cable and connector



## 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	~-18.5	~-14.1
VSWR	~1.6:1	~1.3:1	~1.5:1
Efficiency (%)	~72	~67	~65
Peak Gain (dBi)	~5.1	~5.0	~4.2
Average Gain (dB)	~-1.5	~-1.8	~-1.9
Impedance (Ohms)	50		
Polarisation	Linear		
Radiation Pattern	Omni-directional		
Max. Input Power (W)	25		
Connector Type	SMA male standard (other connectors available)		
Cable Length	300cm standard (other lengths available)		
Cable Type	LMR195 standard (other cables available)		



**Cable 2**

Parameters	2.4/5.0GHz ISM Antenna	
Standards	Wi-Fi, Bluetooth, ZigBee, ISM	
Band (GHz)	2.4	5.0
Frequency (MHz)	2410 - 2490	4920 - 5925
Return Loss (dB)	~-19.0	~-14.3
VSWR	~1.3:1	~1.6:1
Efficiency (%)	~54	~64
Peak Gain (dBi)	~5.8	~6.3
Average Gain (dB)	~-2.7	~-2.0
Impedance (Ohms)	50	
Polarisation	Linear	
Radiation Pattern	Omni-directional	
Max. Input Power (W)	25	
Connector Type	SMA male standard (other connectors available)	
Cable Length	300cm standard (other lengths available)	
Cable Type	LMR195 standard (other cables available)	

**Antenna measurement conditions:**

Mounted on 30 x 30 x 0.25cm ABS plate

200cm LMR195 cable

Measured in certified CTIA 3D anechoic chamber



**Cable 3**

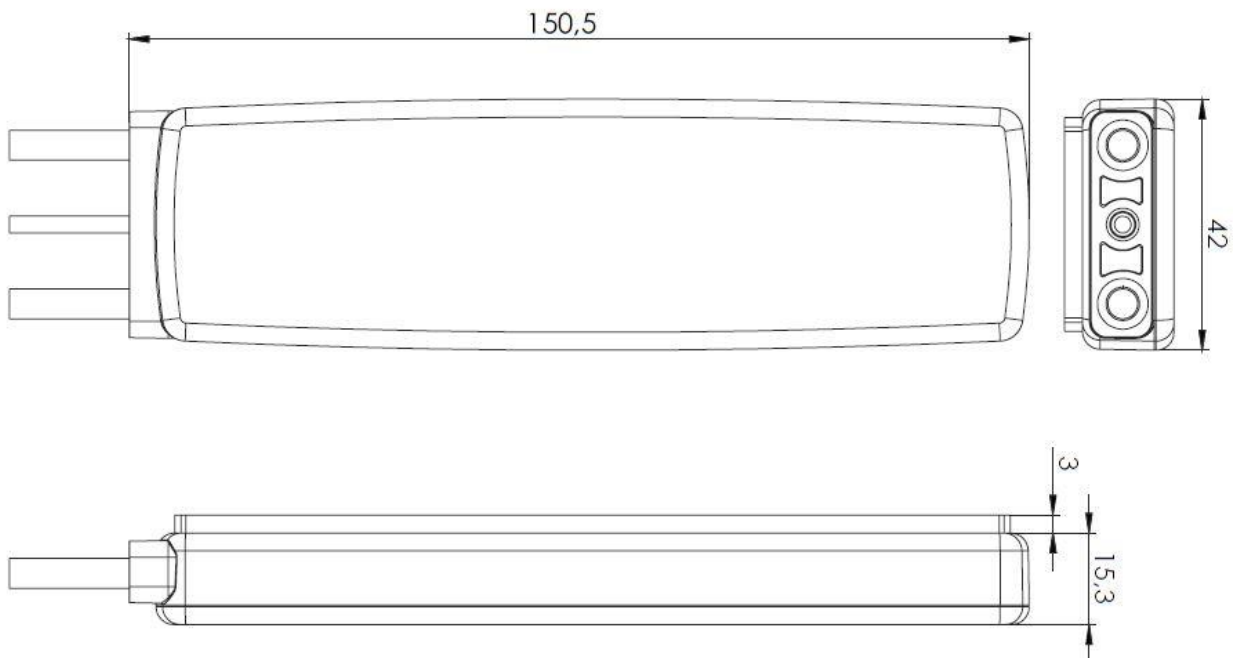
Parameters	GPS/GLONASS Antenna	
<b>Standards</b>	GPS/QZSS/Galileo	GLONASS
<b>Band (MHz)</b>	1575	1602
<b>Frequency (MHz)</b>	1575.42	1598 - 1606
<b>Return Loss (dB)</b>	<=15.0	
<b>VSWR</b>	<=1.4:1	
<b>Impedance (Ohms)</b>	50	
<b>Polarisation</b>	RHCP	
<b>Radiation Pattern</b>	Hemispherical	
<b>SAW Filter</b>	Pre-filter	
<b>Active Gain (dB)</b>	28 @ 2.7V	
<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>	2	
<b>Connector Type</b>	SMA male standard (other connectors available)	
<b>Cable Length</b>	300cm standard (other lengths available)	
<b>Cable Type</b>	LMR100 standard (other cables available)	



## 2. Mechanical and environmental specifications

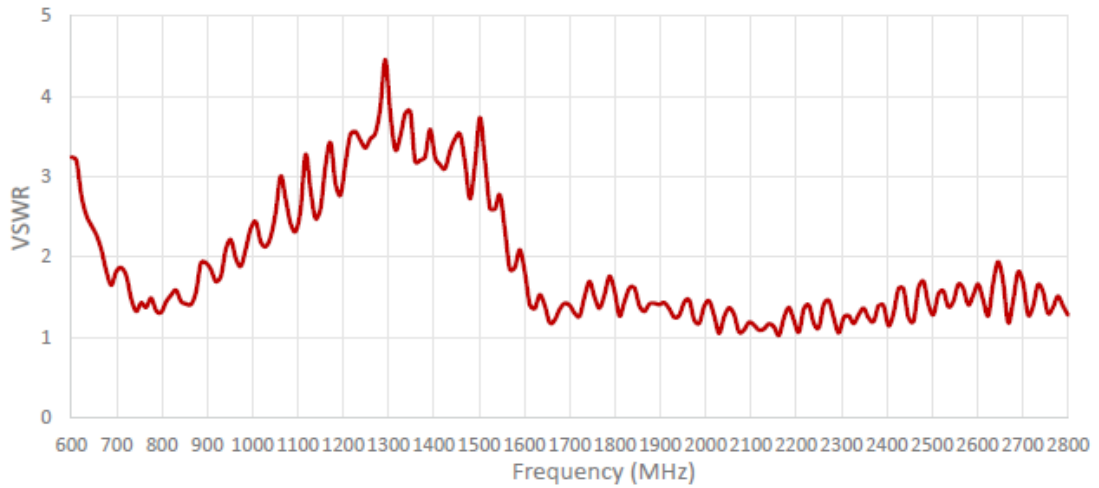
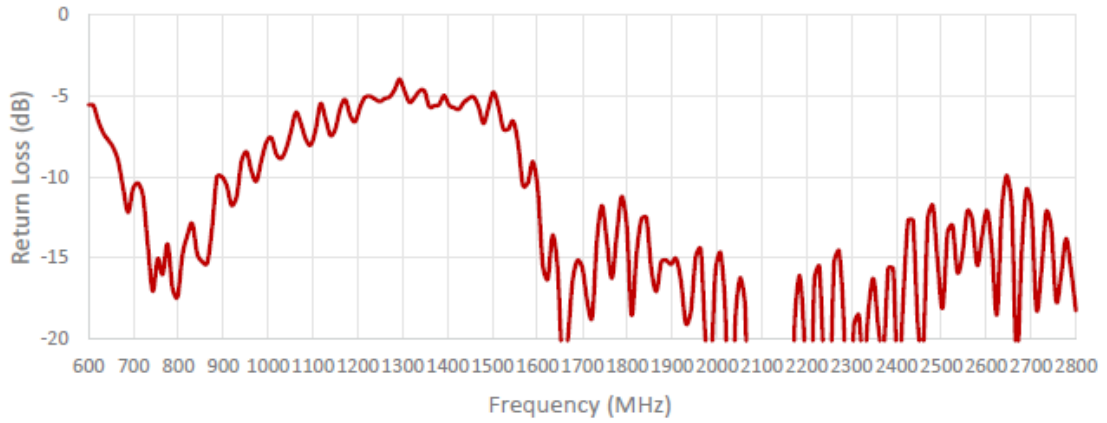
<b>Mounting Type</b>	Adhesive mount
<b>Dimensions (mm)</b>	150.5 x 42 x 15.3
<b>Radome Type</b>	ABS UV stable
<b>Radome Colour</b>	Black
<b>Operating Temperature (°C)</b>	-40 to +85
<b>Storage Temperature (°C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Certificates</b>	IP67, IP69

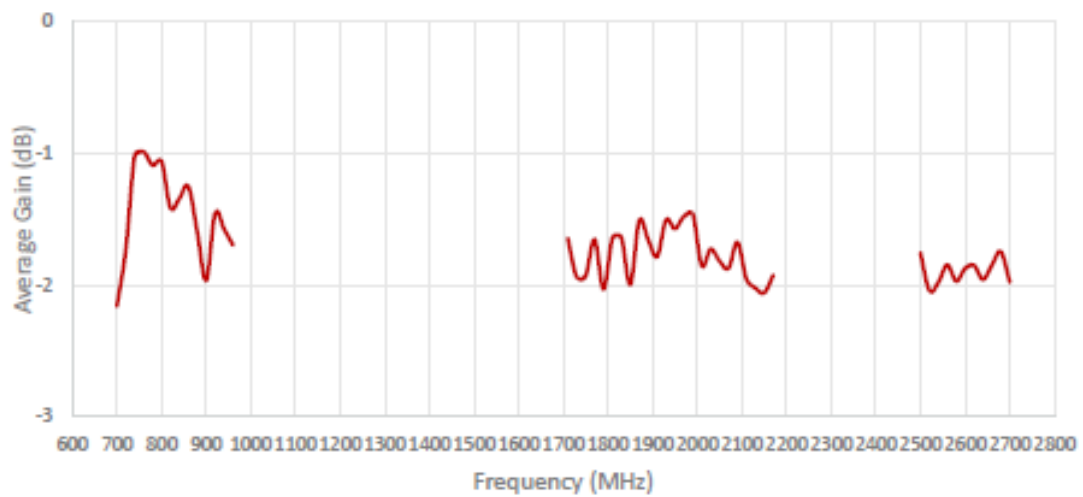
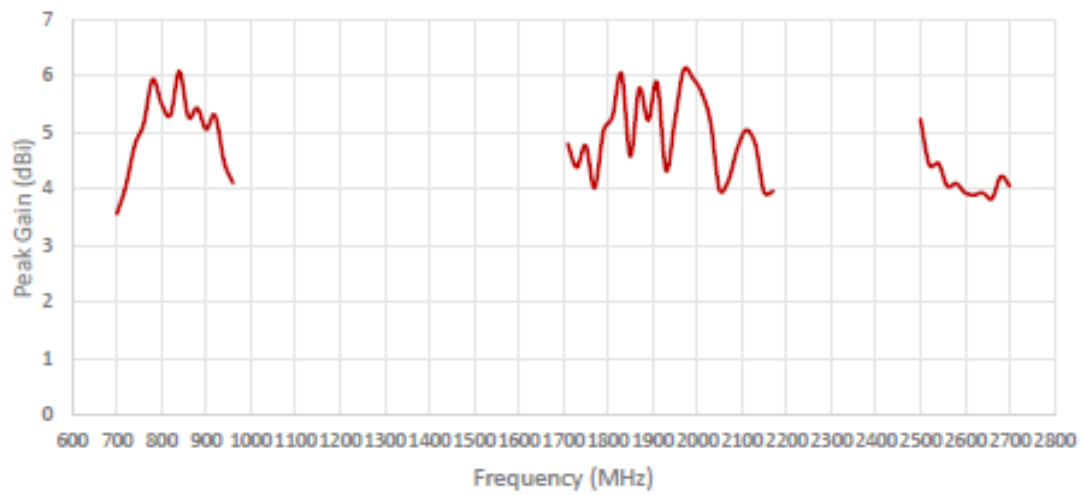
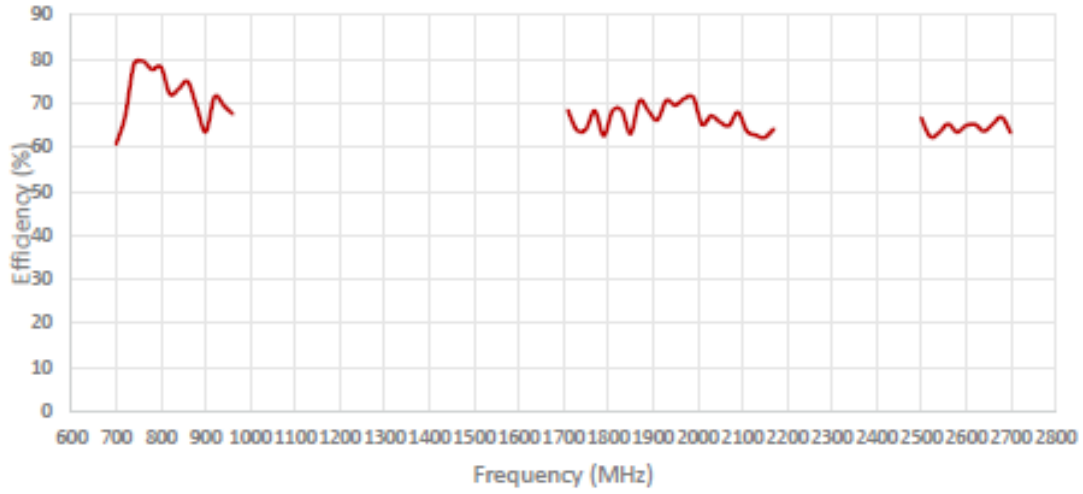
## 3. Antenna drawings



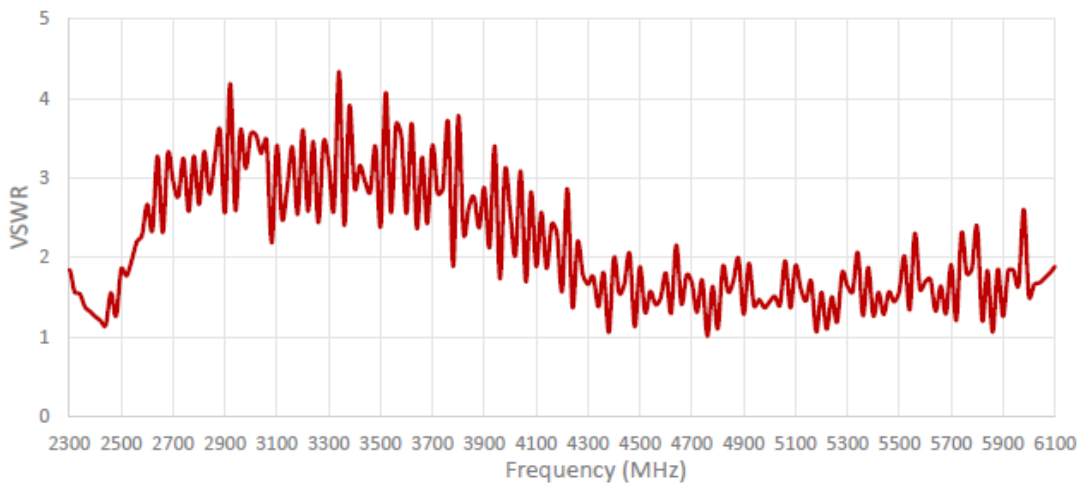
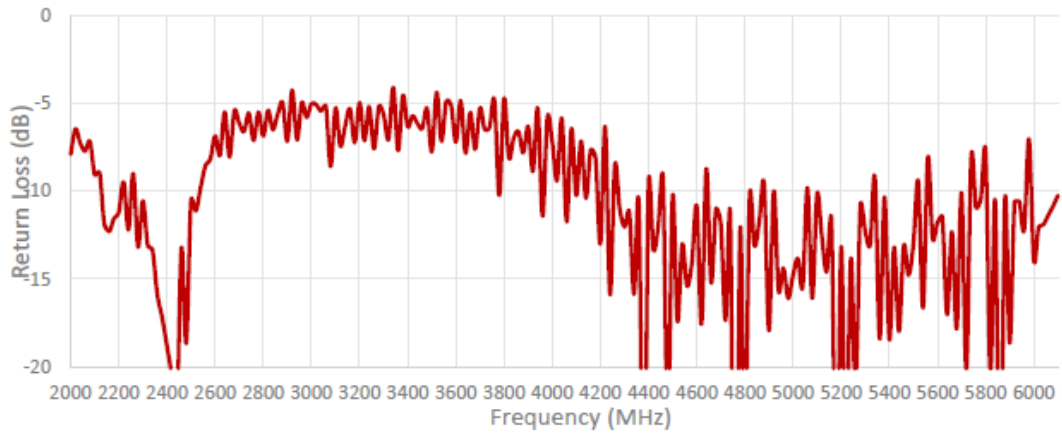
### 4. Antenna parameters

Cable 1: CELLULAR/LTE

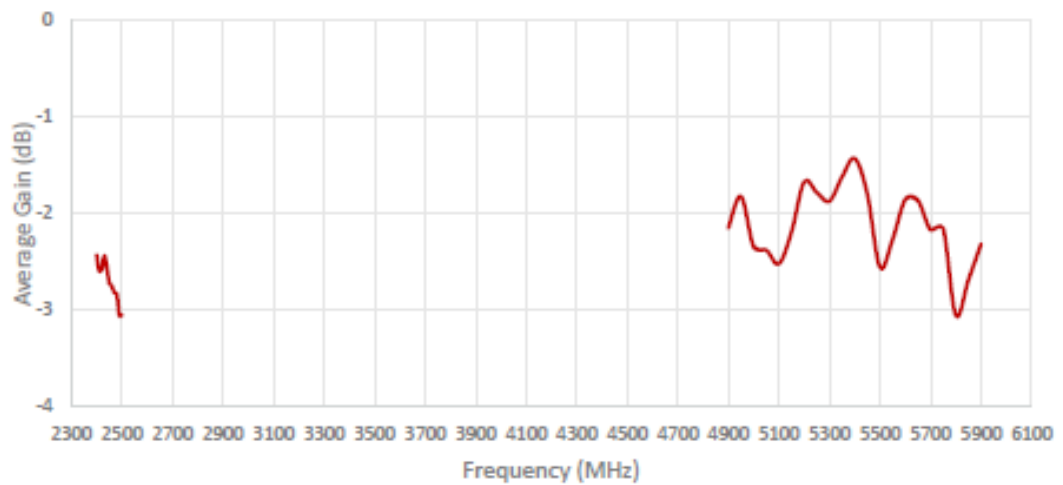
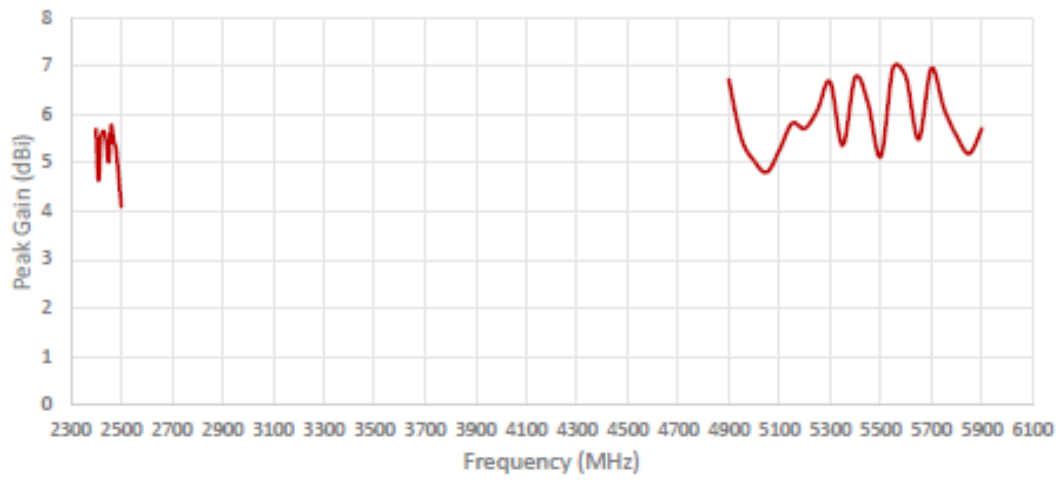
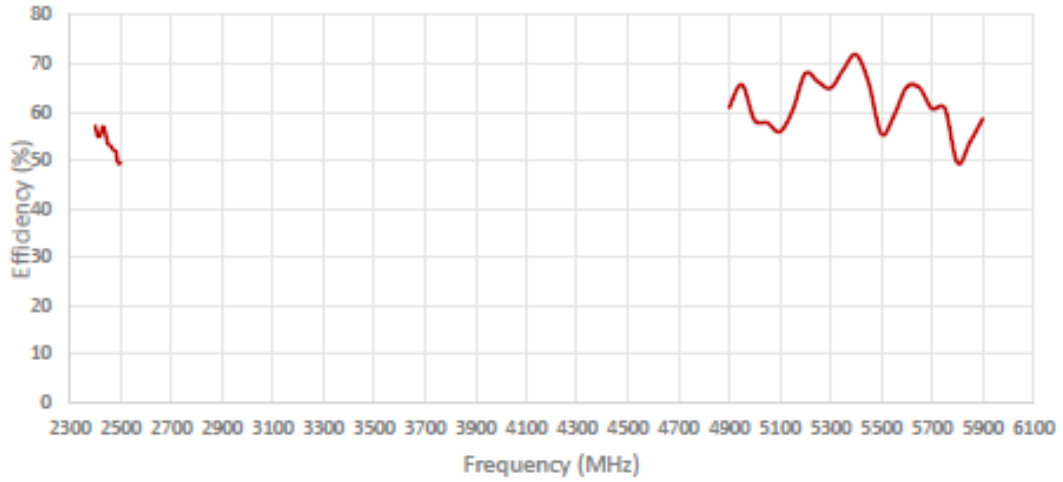


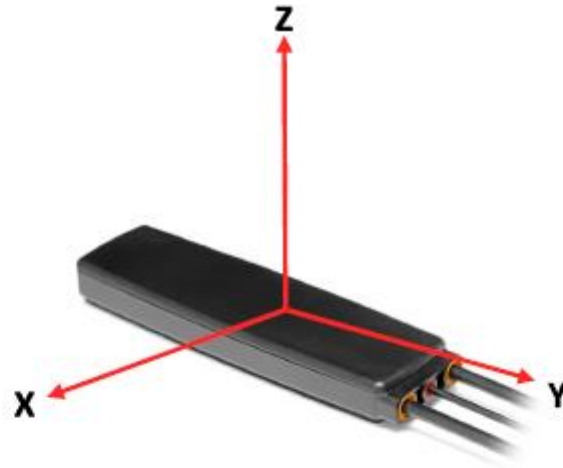


Cable 2: 2.4/5.0 GHz ISM



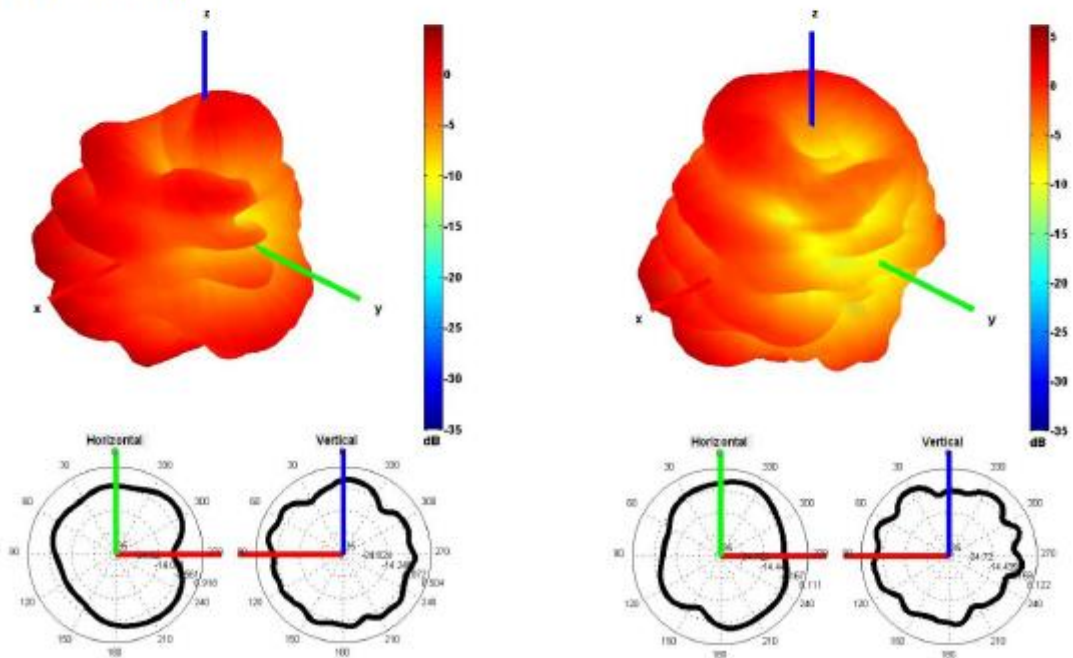






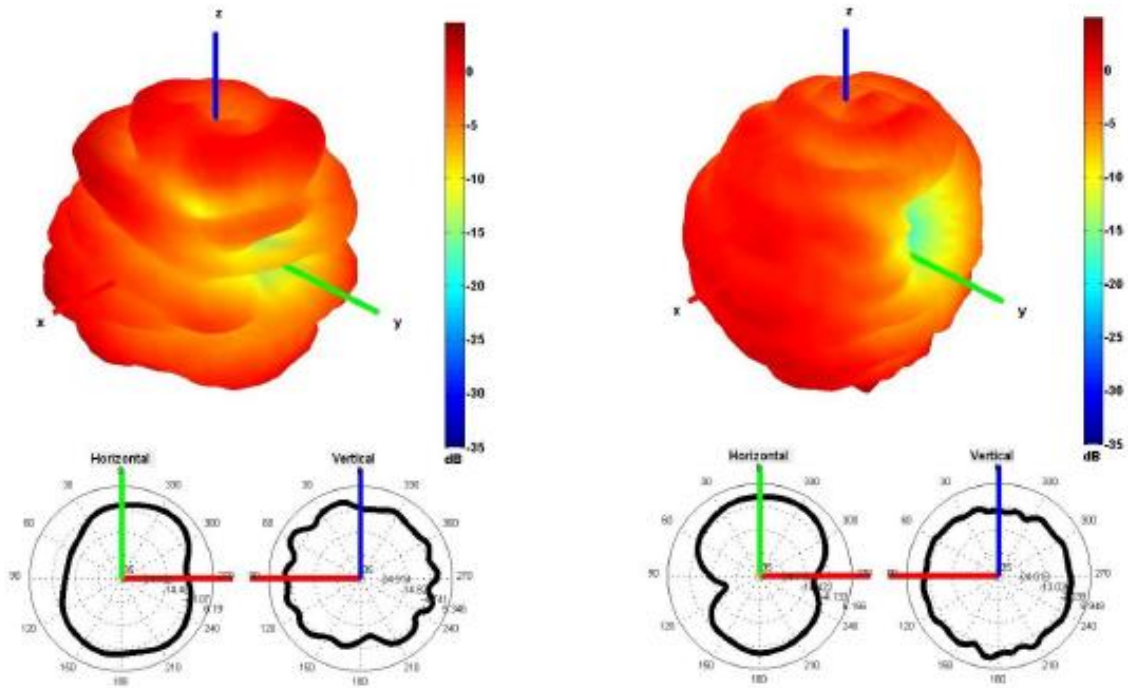
Radiation pattern reference

Cable 1: CELLULAR/LTE

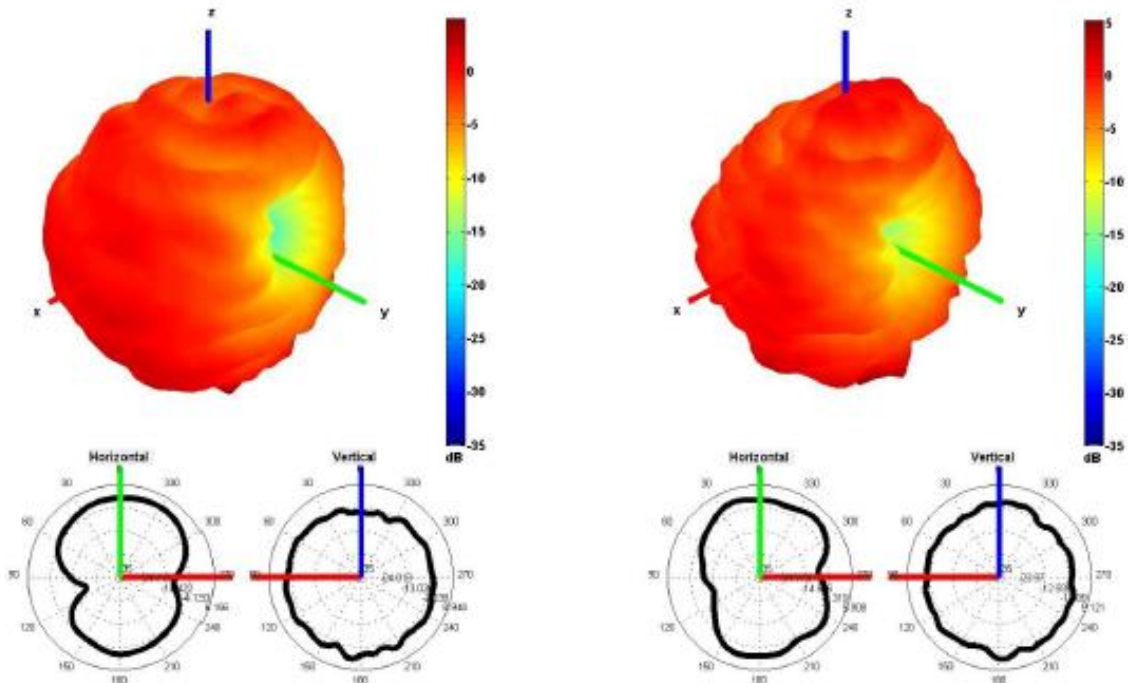


750 and 850 MHz Radiation pattern





940 and 1750 MHz Radiation pattern



1850 and 1950 MHz Radiation pattern



