

AMC-ANT-2J7750BGF

Cellular/LTE, 2.4/5.0GHz and GNSS screw mount antenna

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
- **Cable 3: GPS/GLONASS/QZSS/Galileo**
 - 1575-1606 MHz
- Screw mount
- Anti-rotation mechanism
- Ground plane dependent
- Dimensions: Ø 60 x 69mm
- Certificates: IP67, IP69, IK09
- Customisable cable and connectors



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)	~-9.4	~-16.0	~-13.1
VSWR	~2.2:1	~1.4:1	~1.6:1
Efficiency (%)	~67.0	~65.5	~50.0
Peak Gain (dBi)	~2.0	~4.5	~3.7
Average Gain (dB)	~-1.8	~-1.9	~-3.1
Impedance (Ohms)	50		
Polarisation	Linear		
Radiation Pattern	Omni-directional		
Max. Input Power (W)	25		
Connector Type	SMA male standard (other RF connectors available)		
Cable Length	300cm standard (other lengths available)		
Cable Type	LMR100 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)	~-13.3	~-7.4
VSWR	~1.5:1	~2.5:1
Efficiency (%)	~60.1	~31.4
Peak Gain (dBi)	~4.5	~2.5
Average Gain (dB)	~-2.2	~-5.0
Impedance (Ohms)	50	
Polarisation	Linear	
Radiation Pattern	Omni-directional	
Max. Input Power (W)	25	
Connector Type	RP-SMA male standard (other RF connectors available)	
Cable Length	300cm standard (other lengths available)	
Cable Type	LMR100 standard (other cables available)	

Antenna measurement conditions:

- Mounted on 30 x 30 x 0.25cm ground plane
- 200cm of LMR100 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 - 1606
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	<=15.0	
VSWR	<=1.4:1	
Impedance (Ohms)	50	
Polarisation	RHCP	
Radiation Pattern	Hemispherical	
SAW Filter	Pre-filter	
Active Gain (dB)	28 @ 2.7V	
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)	2	
Connector Type	SMA male standard (other RF connectors available)	
Cable Length	300cm standard (other lengths available)	
Cable Type	LMR100 standard (other cables available)	

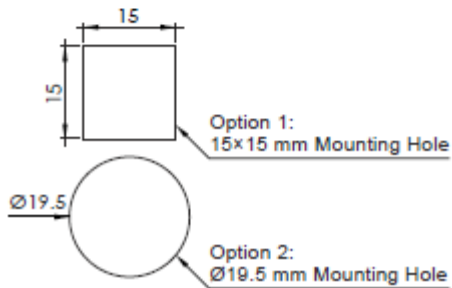
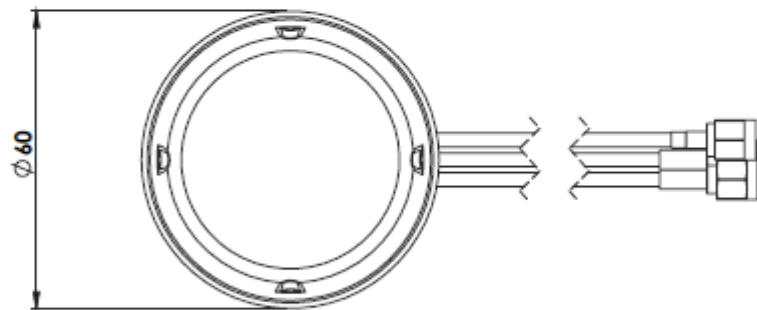
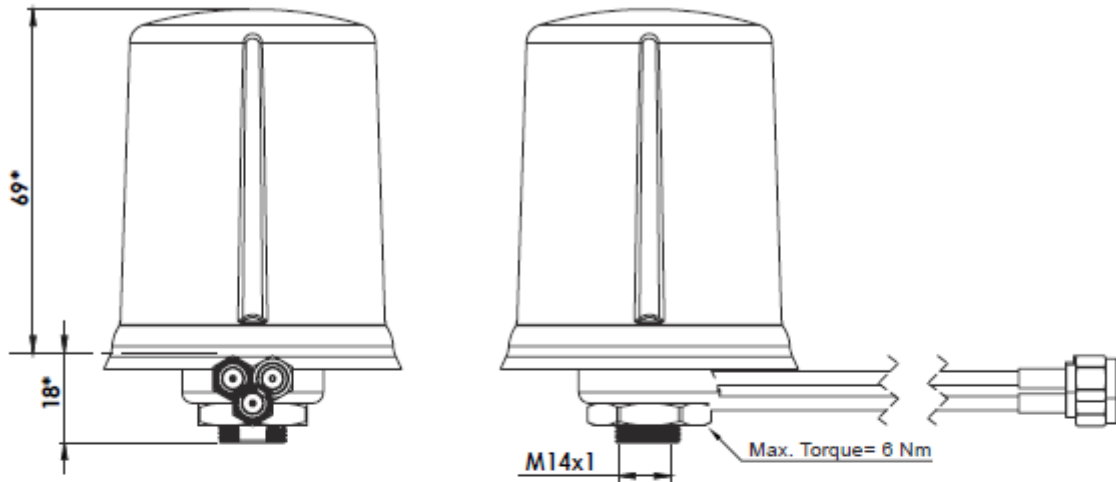


2. Mechanical and environmental specifications

Mounting Type	Screw mount
Dimensions (mm)	Ø 60 x 69
Max. Tighten Torque (Nm)	6
Radome Type	PC/ABS UV stable
Radome Colour	Black
Antenna Base	Zamak
Gasket	TPE
Operating Temperature (°C)	-40 to +85
Storage Temperature (°C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69, IK09



3. Antenna drawings

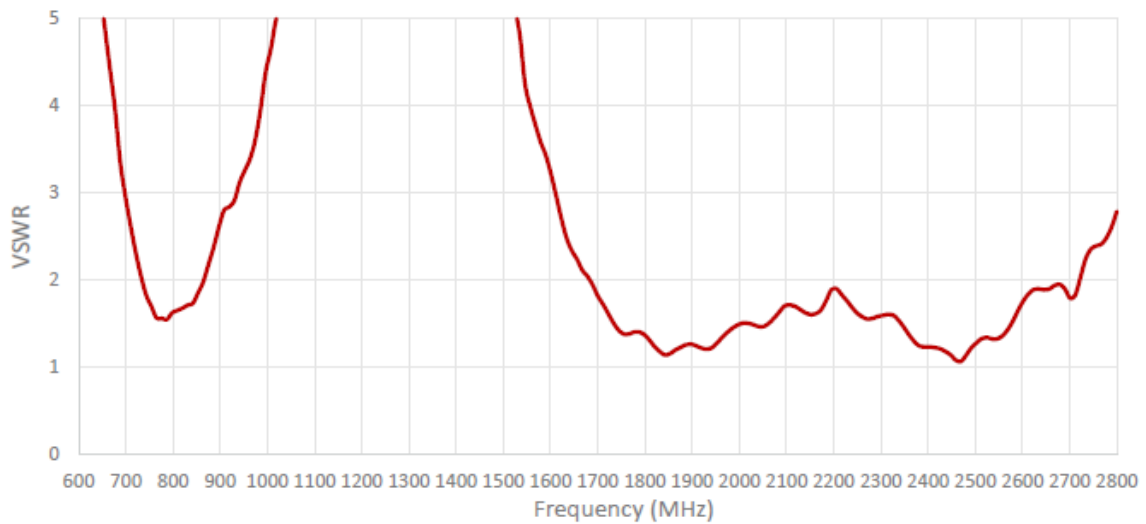
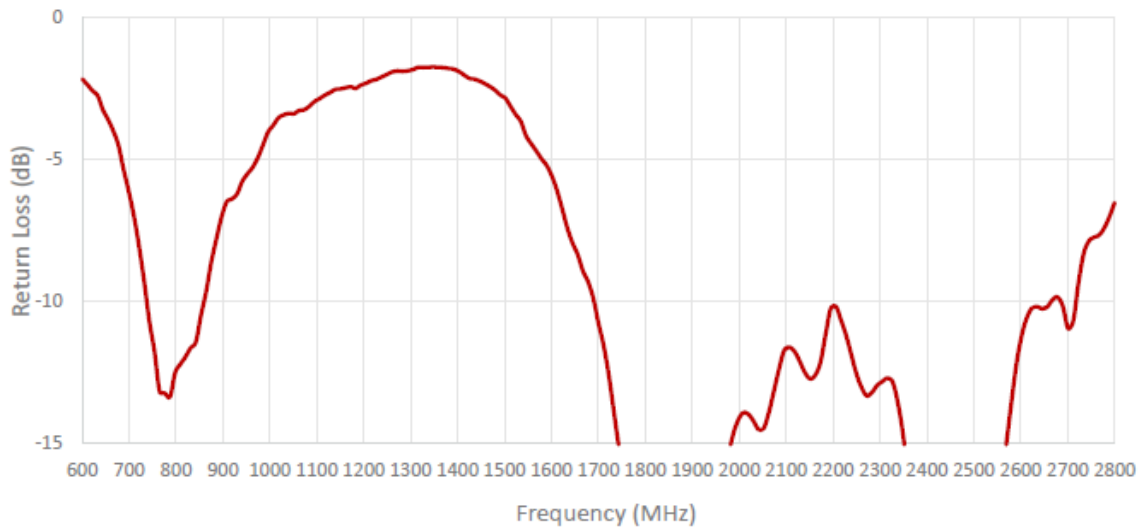


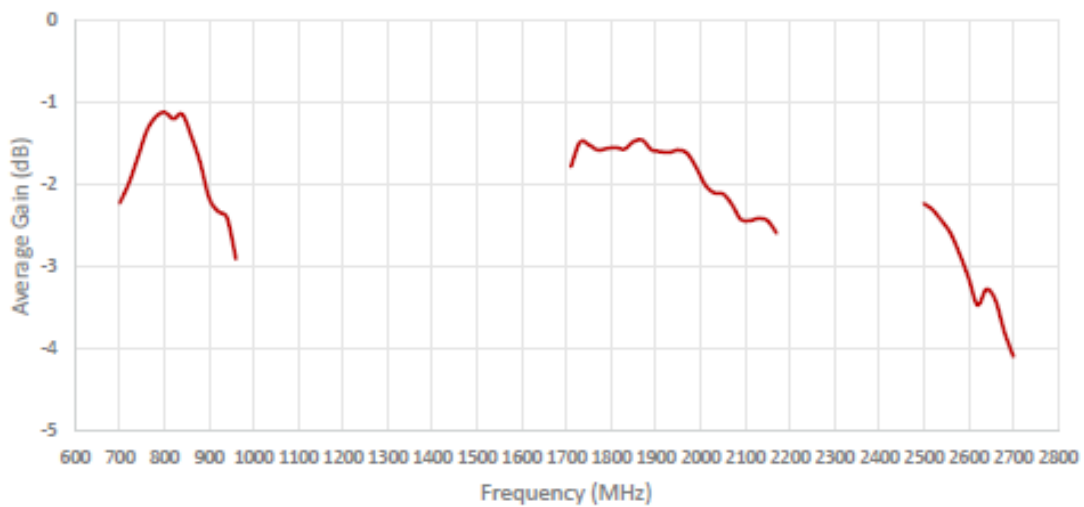
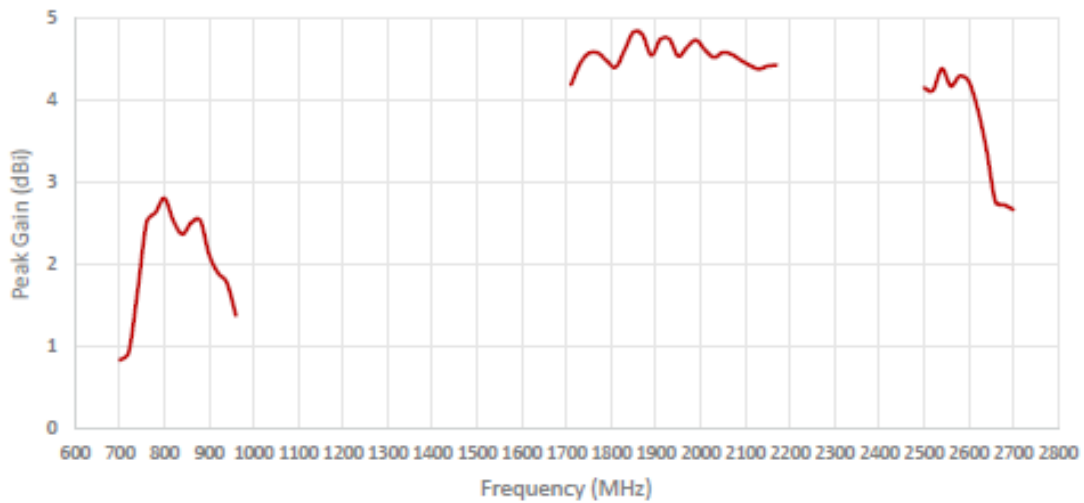
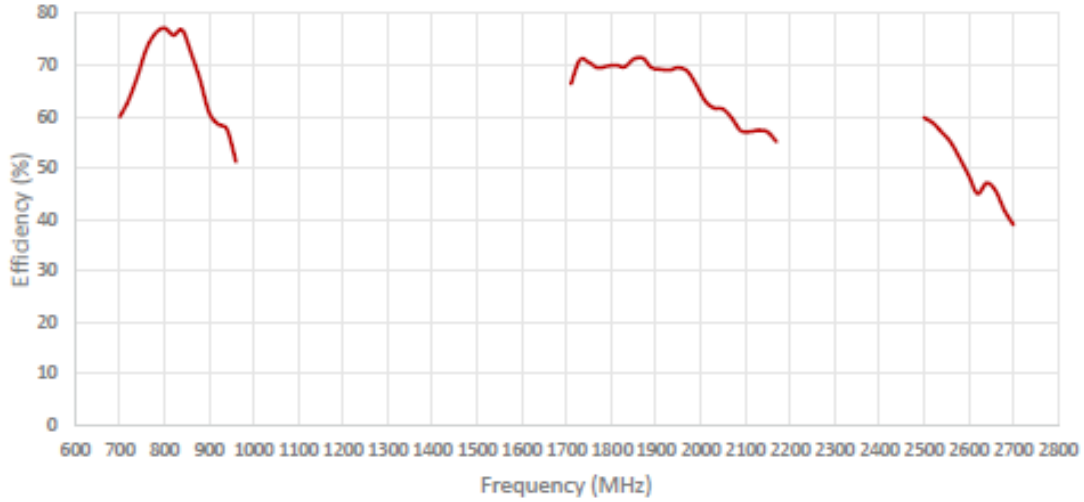
Note: Dimensions are in millimeters
*Dimensions are after mounting
**Max. Torque= 6 Nm



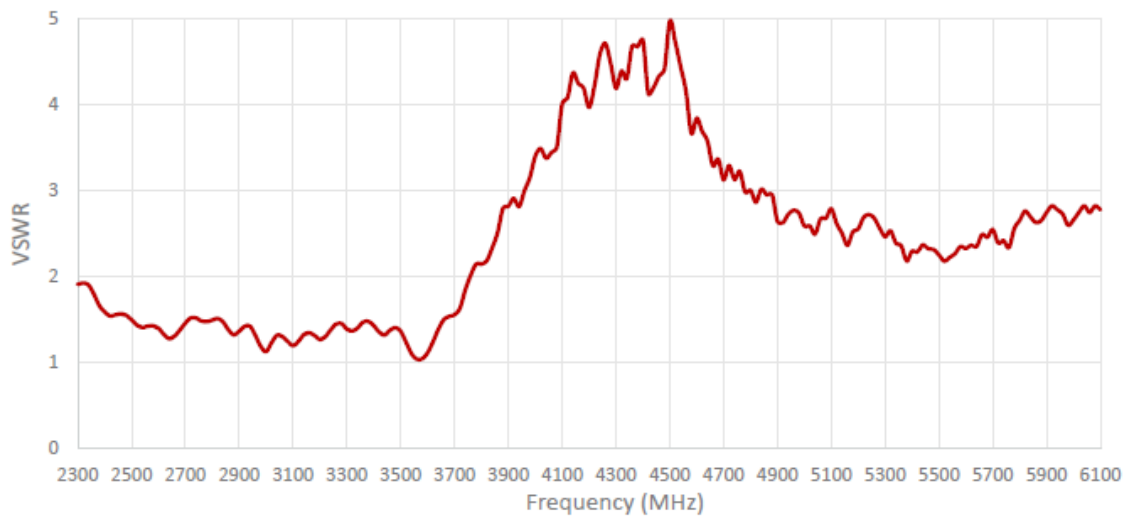
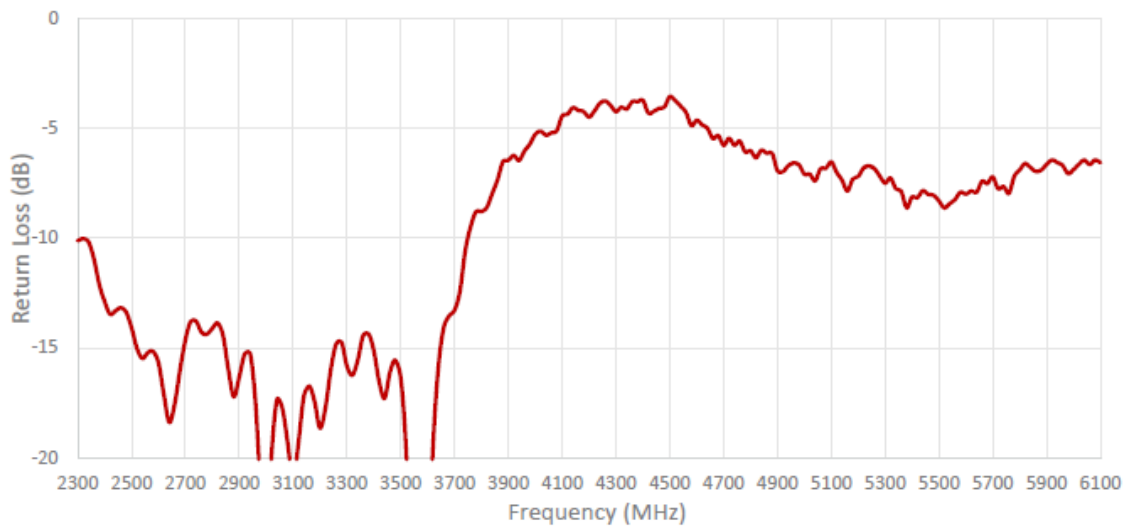
4. Antenna parameters

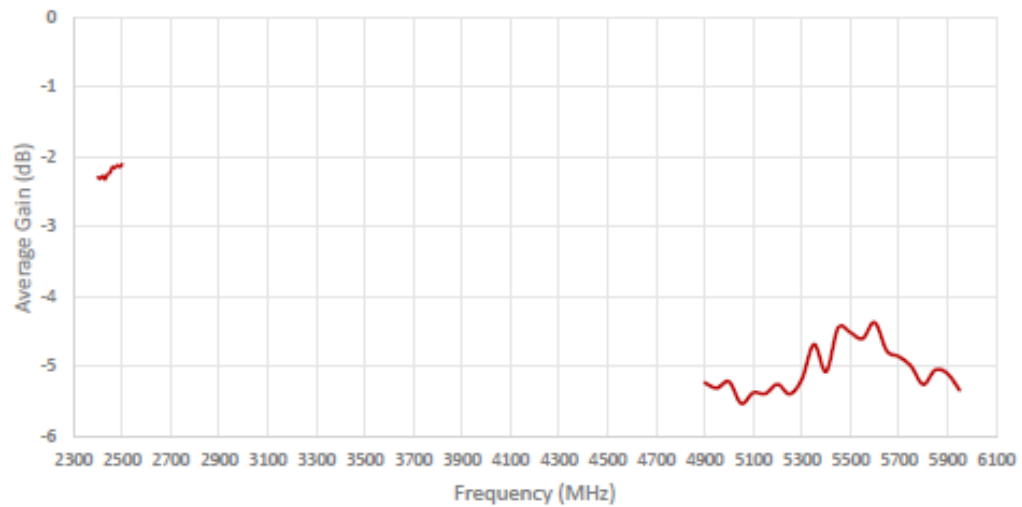
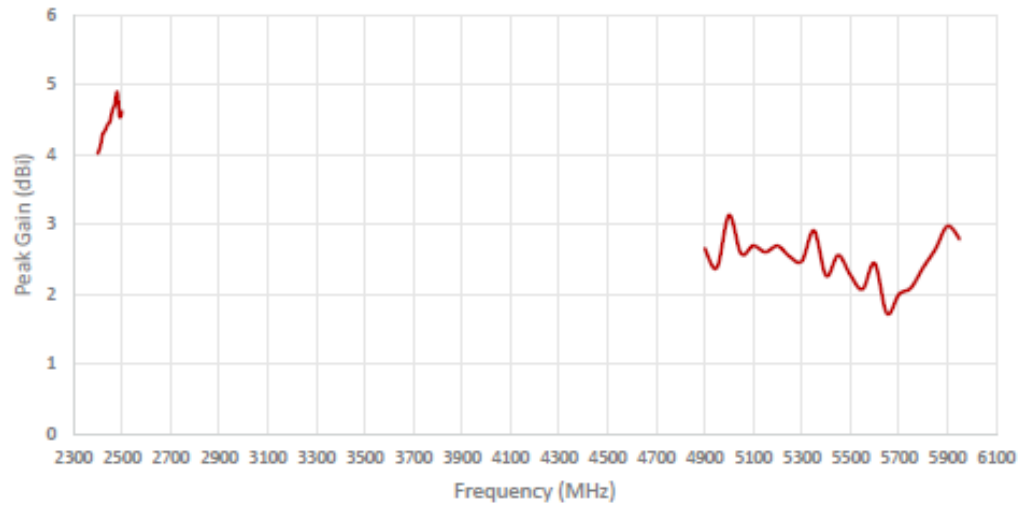
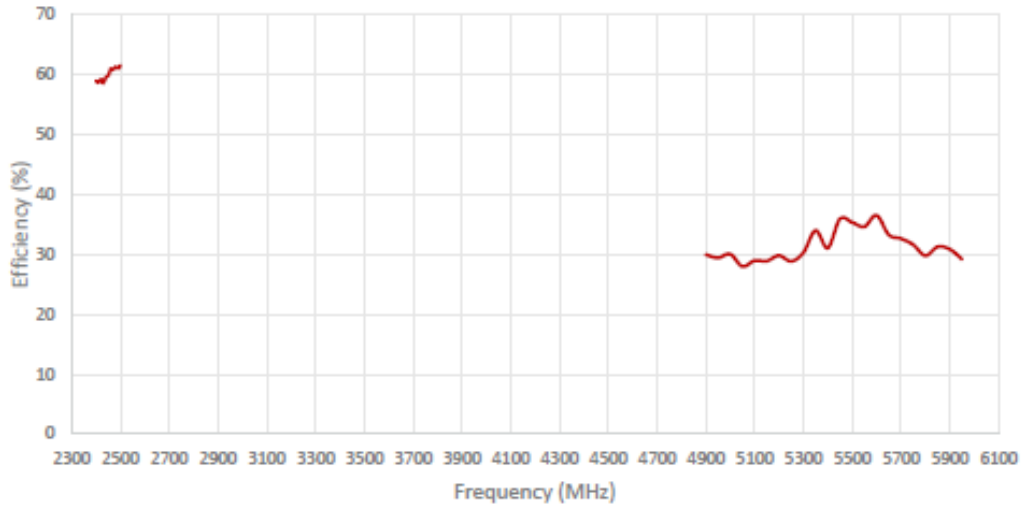
Cable 1: CELLULAR/LTE

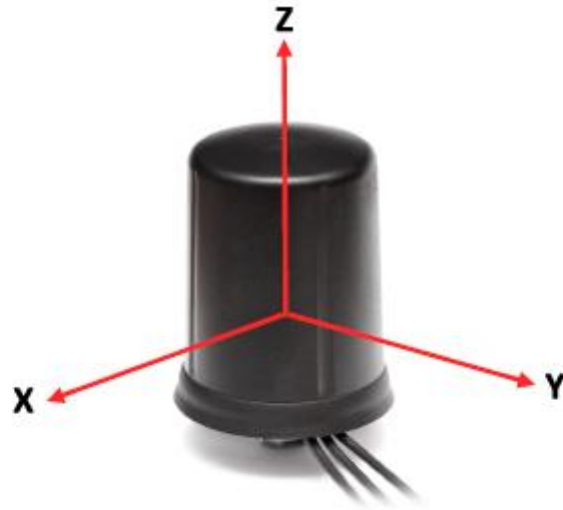




Cable 2: 2.4/5.0 GHz ISM

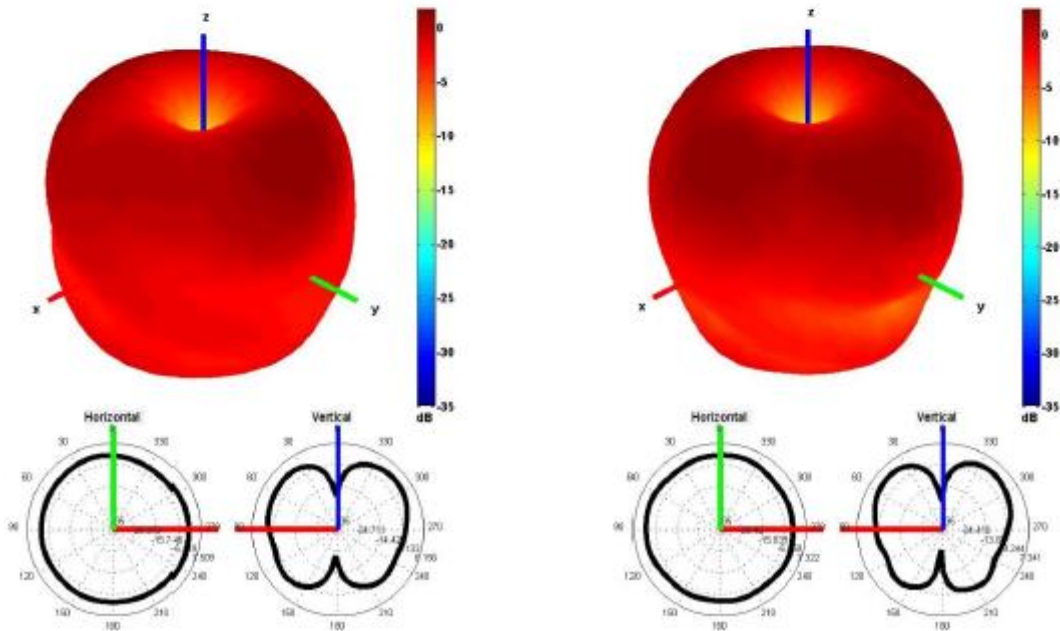






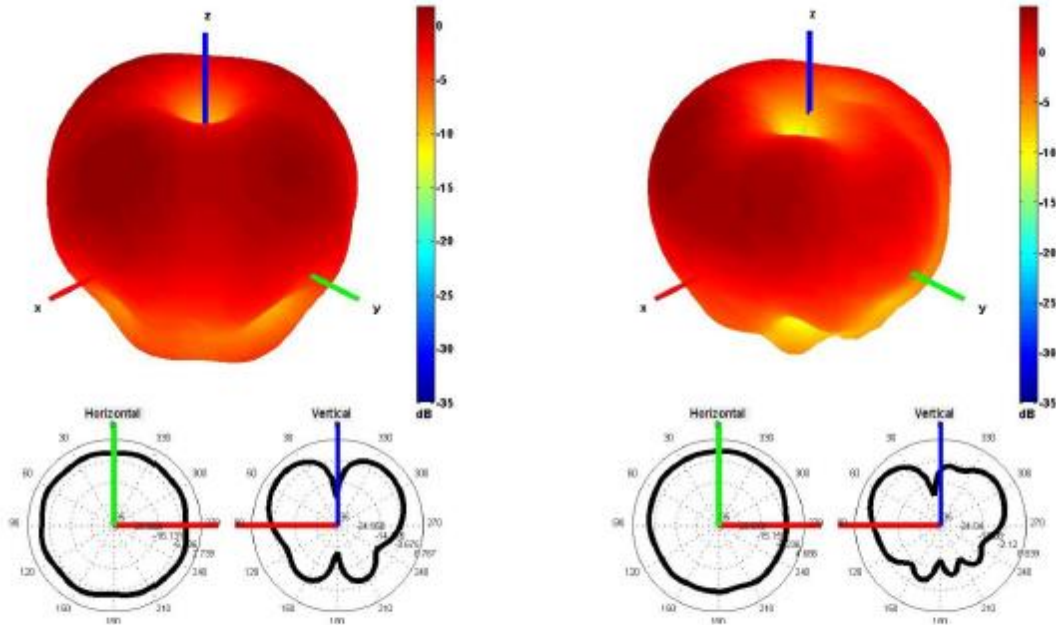
Radiation pattern reference

Cable 1: CELLULAR/LTE

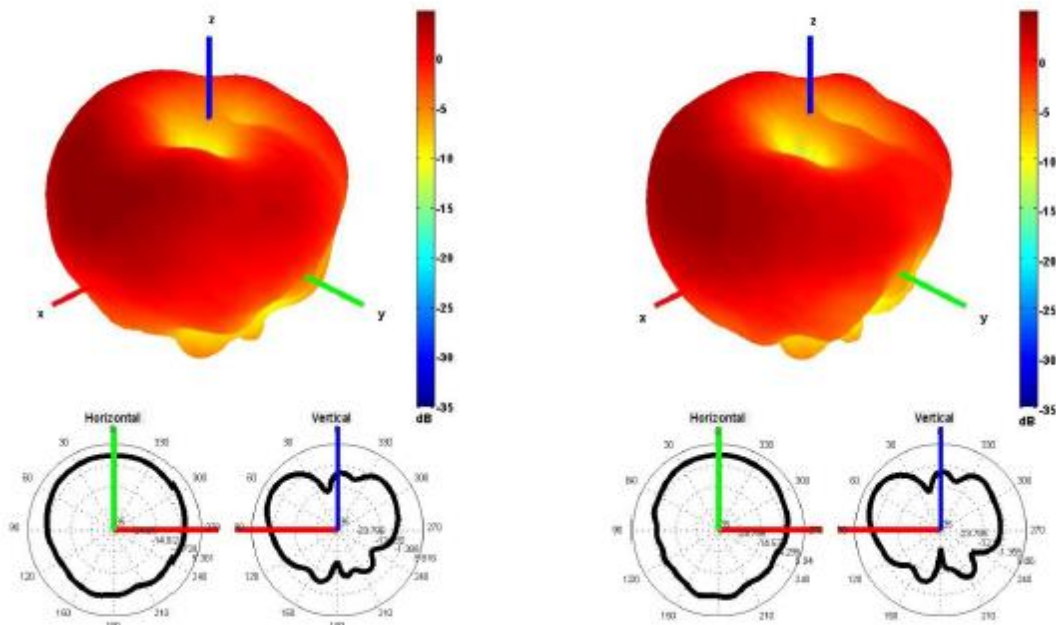


750 and 850 MHz Radiation pattern



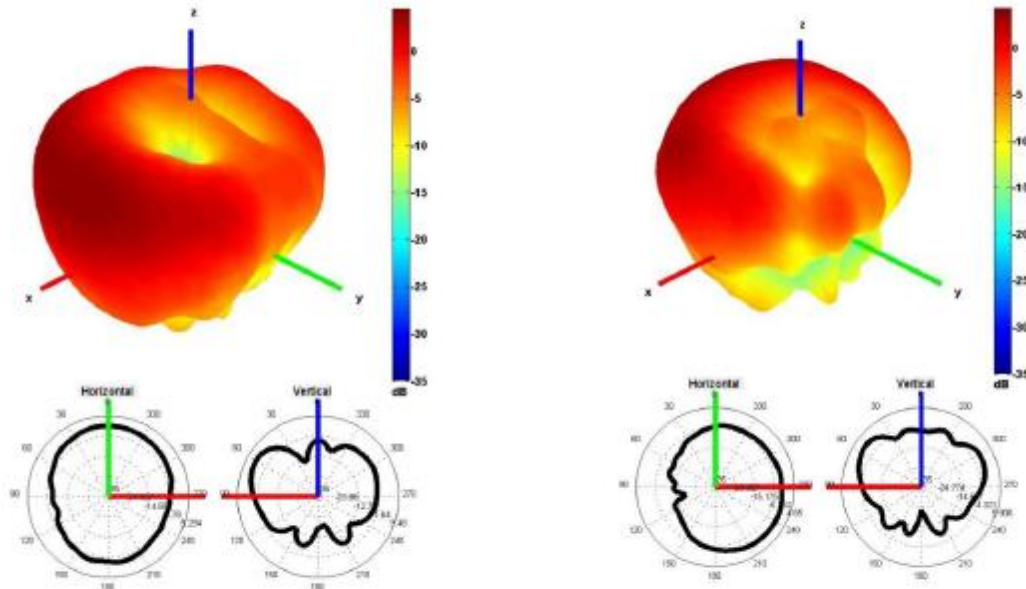


940 and 1750 MHz Radiation pattern



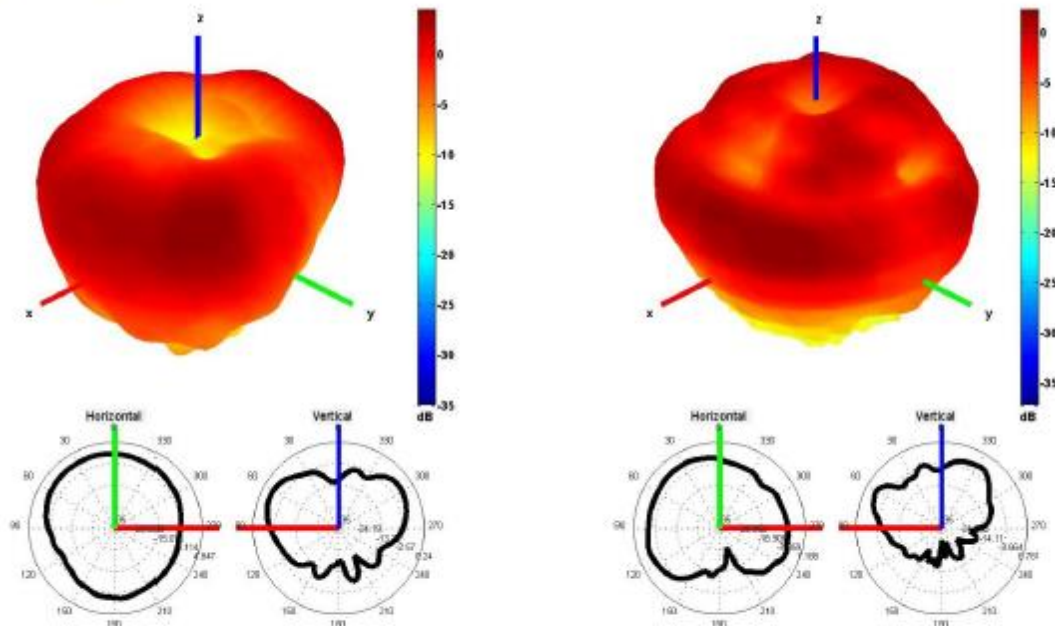
1850 and 1950 MHz Radiation pattern





2100 and 2600 MHz Radiation pattern

Table 2: 2.4/5.0 GHz ISM



2450 and 5500 MHz Radiation pattern

