

2J8311BGF

Cellular, FM and GNSS Screw Mount

Key Features

Cable 1: Cellular

- 824-960 MHz
- 1710-2170 MHz

Cable 2: FM

- 88-108 MHz

Cable 3: GPS/GLONASS/QZSS/Galileo

- 1575-1610 MHz

Screw Mount

Anti-Rotation Mounting

Ground Plane Dependent

Customizable Cable and Connector

Dimensions: 99 × 60 × 137 mm

Certificates: IP67, IP69



1. Antenna and electrical specifications

Cable 1

Parameters	Cellular Antenna	
Standards	2G and 3G	
Band (MHz)	850/900	1700/1800/1900/2100
Frequency (MHz)	824-960	1710-2170
Return Loss (dB)	~-6.5	~-12.1
VSWR	~2.8:1	~1.8:1
Efficiency (%)	~11.8	~13.9
Peak Gain (dBi)	~-4.9	~-4.6
Average Gain (dB)	~-9.5	~-10.0
Impedance (Ohm)	50	
Polarisation	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power (W)	100	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	RG174 Standard (Other Cables Available)	

Cable 2

Parameters	FM Antenna
Standards	FM
Band (MHz)	88-108
Frequency (MHz)	88-108
Return Loss (dB)	<-8.5
VSWR	<2.2:1
Impedance (Ohm)	75
Polarisation	Linear
Radiation Pattern	Hemispherical
Active Gain (dB)	5-10
Voltage (V)	12-15
Connector Type	SMA-Male Standard (Other Connectors Available)
Cable Length	300 cm Standard (Any Cable Length Available)
Cable Type	RG174 Standard (Other Cables Available)

Antenna Measurement Conditions:

Mounted on 30 x 30 cm Metal Plate

200 cm of RG174 Cable

Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

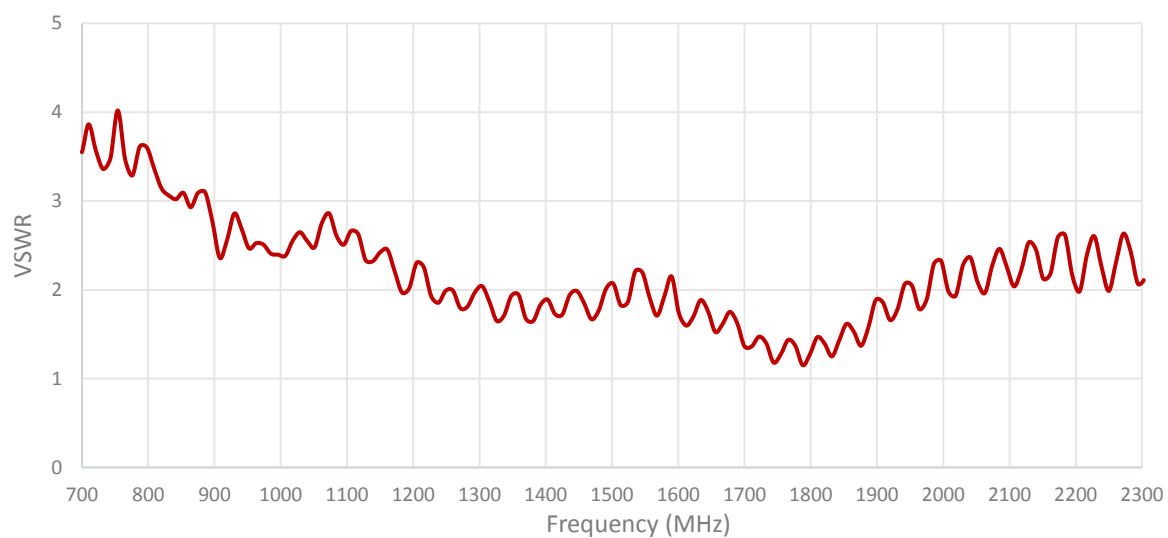
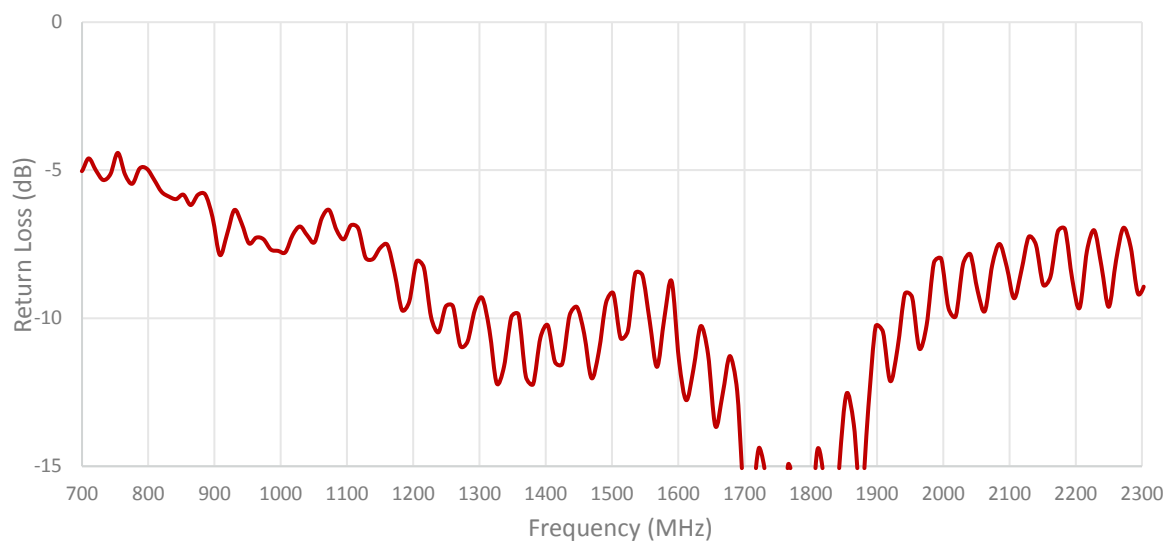
Parameters	GPS/GLONASS Antenna	
Standard	GPS / GLONASS	
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1610
Return Loss (dB)	<-15	
VSWR	<1.2:1	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Pre-Filter	
Active Gain (dB)	23 @ 3V / 24 @ 5V	
Noise Figure (dB)	1.5	
Voltage (V)	2.7 – 5.5	
Current (mA)	15 - 25	
Power Consumption (mW)	40 - 137	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	RG174 Standard (Other Cables Available)	

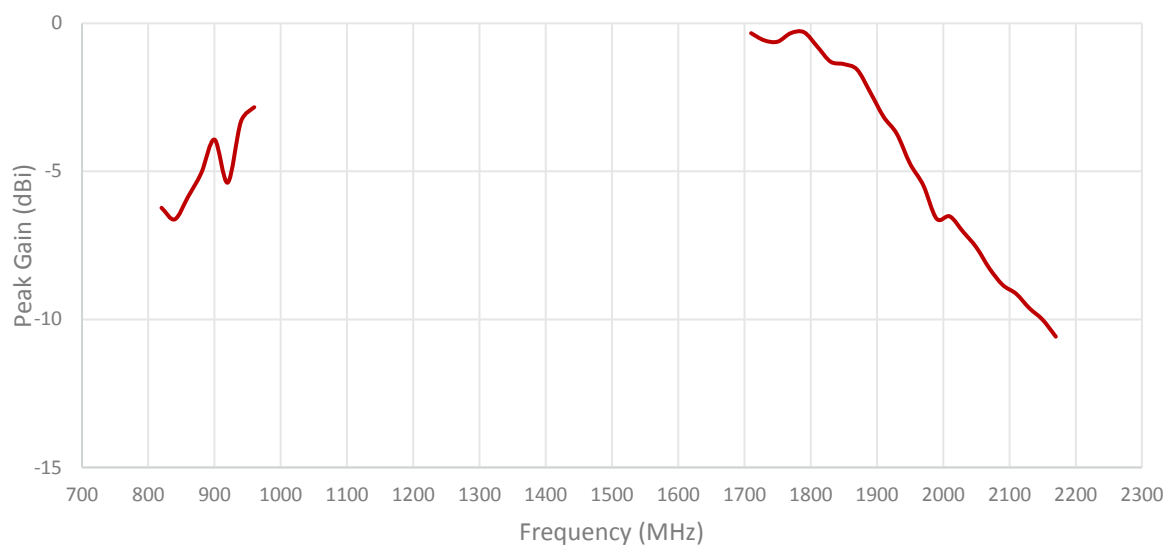
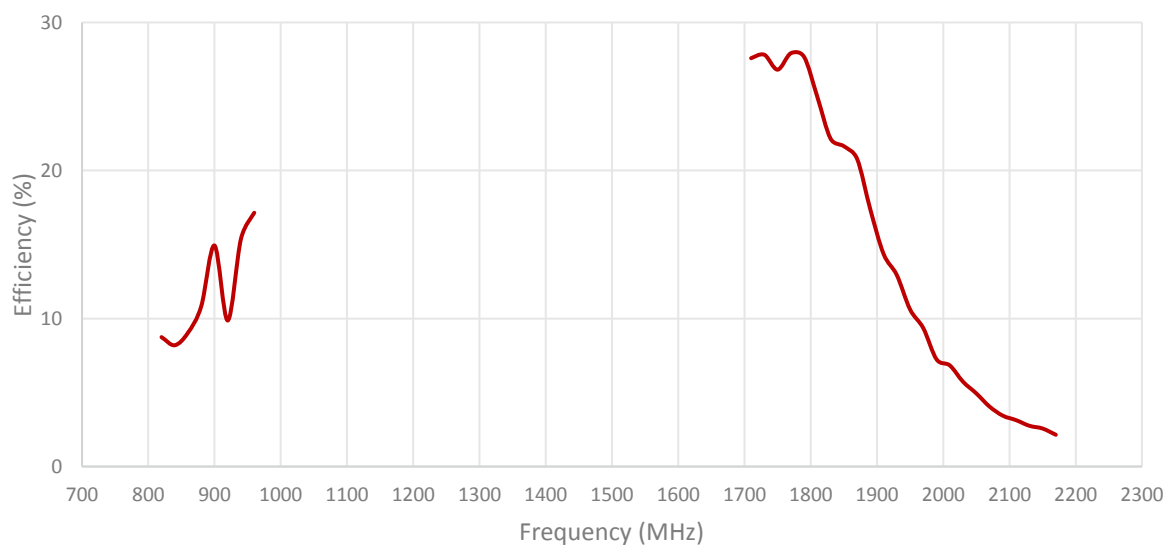
2. Mechanical and environmental specifications

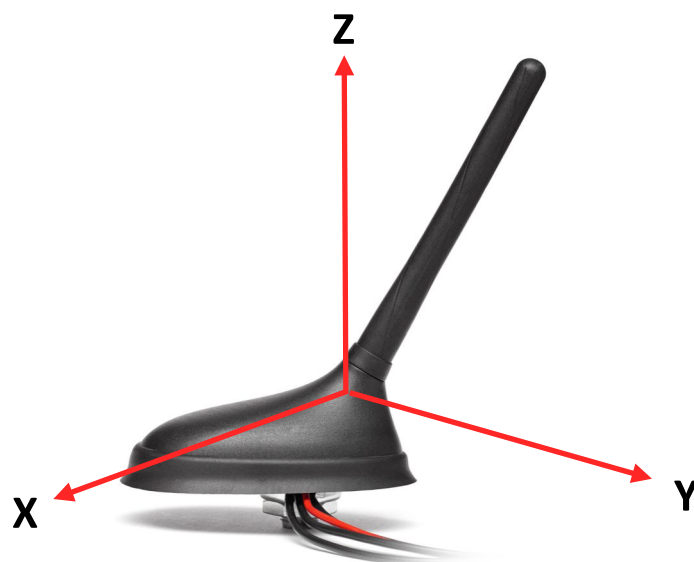
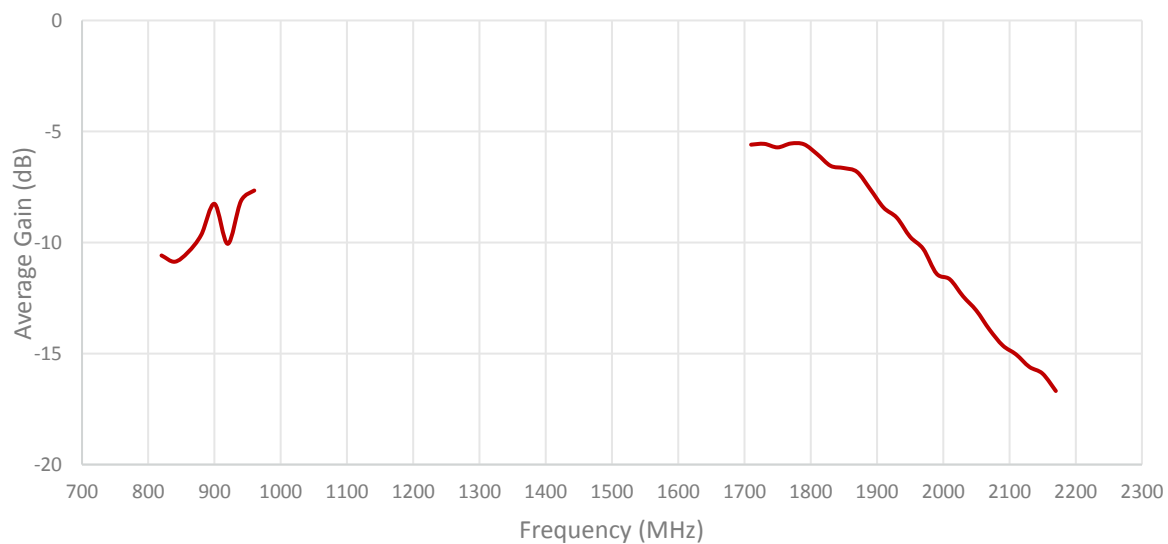
Specifications	2J8311BGF
Mounting Type	Screw Mount
Dimensions (mm)	99 × 60 × 137
Max. Tighten Torque (Nm)	6 Nm
Radome	ASA
Radome color	Black
Antenna Base	Zamak
Gasket	TPE
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

3. Antenna parameters

Cable 1: Cellular

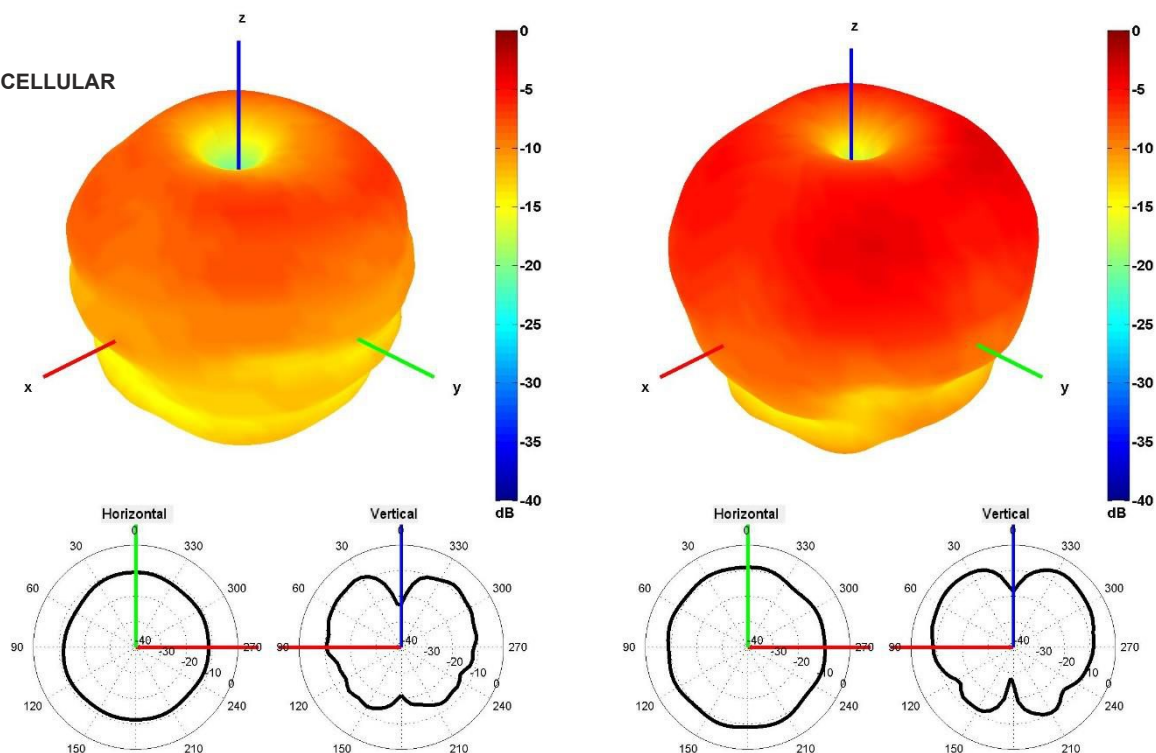




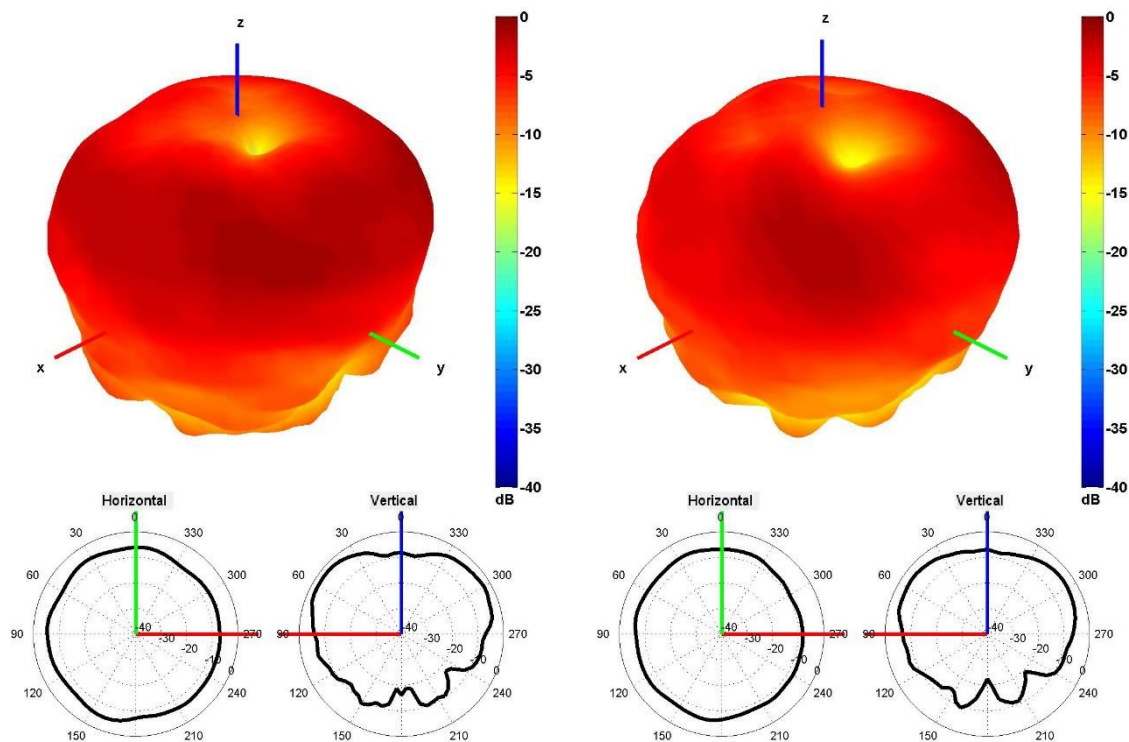


Radiation pattern reference

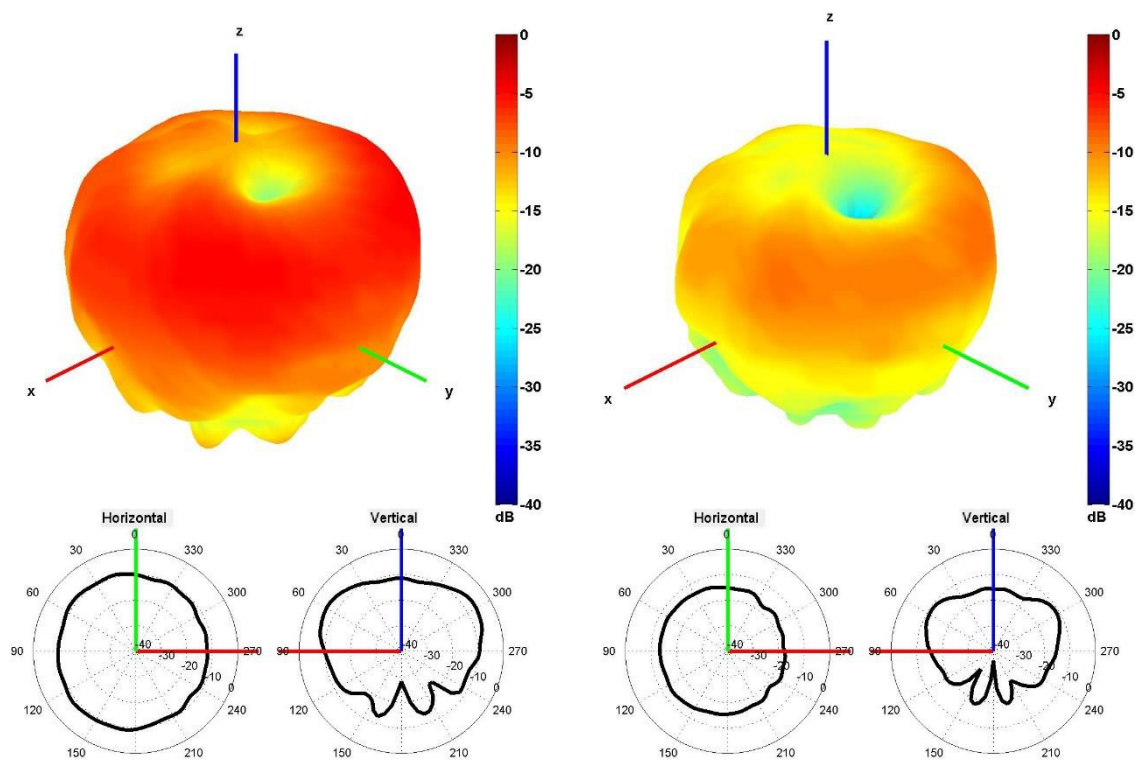
Cable 1: CELLULAR



850 and 940 MHz Radiation pattern

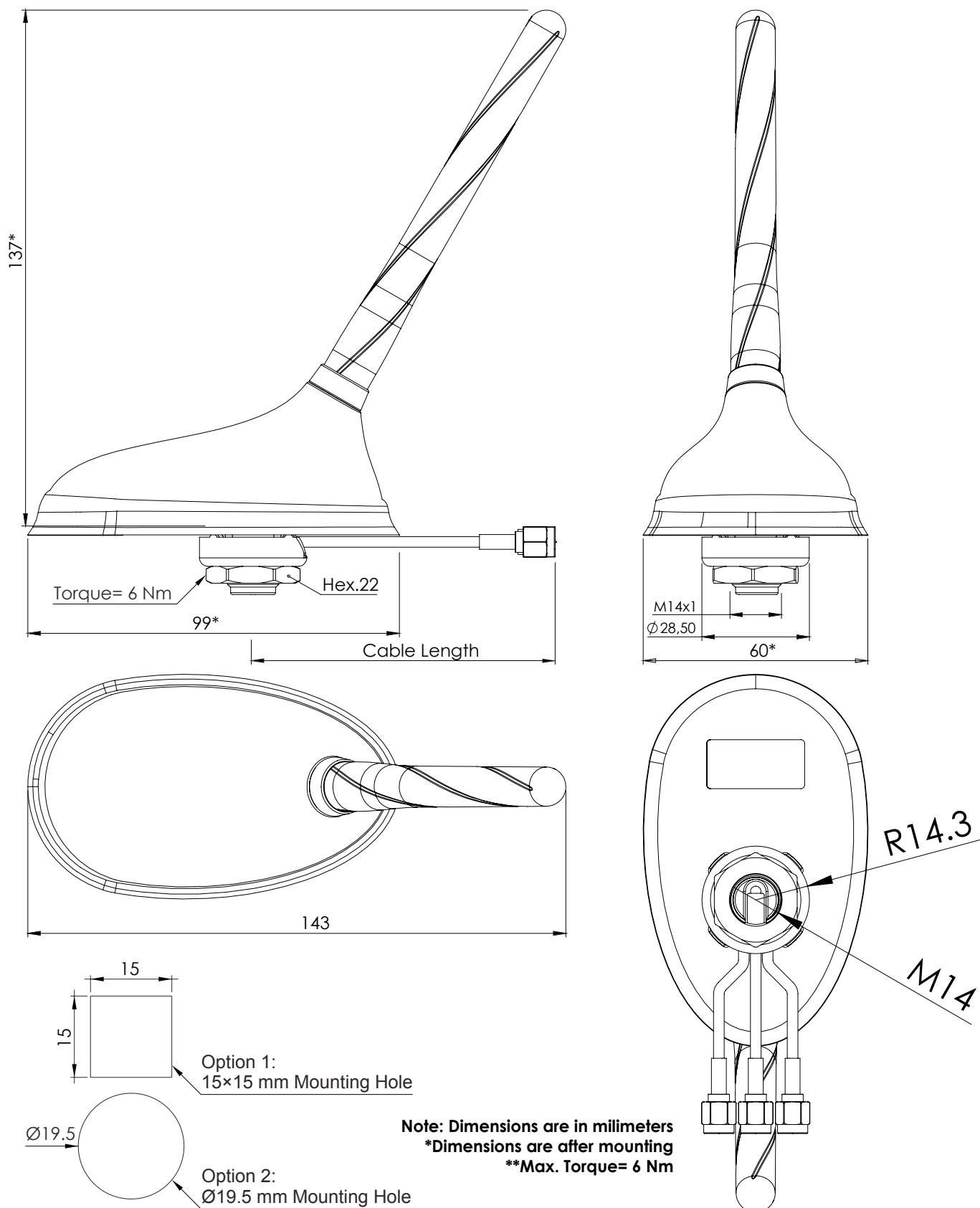


1750 and 1850 MHz Radiation pattern



1950 and 2100 MHz Radiation pattern

4. Antenna drawings



5. Antenna Images

