

## **MEA-LWIG-SM**

Cellular/LTE, 2.4/5.0 GHz ISM, Iridium and GNSS Screw Mount



### **FEATURES**

- Screw Mount
- Anti-Rotation Mechanism
- Ground Plane Dependent
- Cable 1: Cellular (698-960, 1710-2170 and 2500-2700 MHz)
- Cable 2: 2.4 GHz ISM (2410-2490 and 4920-5925 MHz)
- Cable 3: Iridium (1616-1626 MHz)
- Cable 4: GPS/QZSS/Galileo/GLONASS (1575-1610 MHz)
- IK09, IP67, IP69
- 146 x 146 x 31.5 mm

Customizable Cable and Connector

**ANTENNA AND ELECTRICAL SPECIFICATIONS**

Cable 1	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)	~-7.7	~-12.8	~-9.8
VSWR	~2.7:1	~1.7:1	~2.0:1
Efficiency (%)	~31.3	~36.0	~25.3
Peak Gain (dBi)	~0.9	~2.2	~0.6
Average Gain (dB)	~-5.3	~-4.5	~-6.2
Impedance (Ohm)	50		
Polarization	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	LL100 (Other Cables Available)		

Cable 2	2.4/5.0 GHz ISM Antenna	
Standards	WiFi, BT, ZigBee, ISM	
Band (MHz)	2.4 GHz	5.0 GHz
Frequency (MHz)	2410-2490	4620-5925
Return Loss (dB)	~-15.5	-14.85
VSWR	~1.4:1	1.4:1
Efficiency (%)	~38	~20
Peak Gain (dBi)	~2.5	1.0
Average Gain (dB)	~-4.1	-7.3
Impedance (Ohm)	50	
Polarization	Linear	
Radiation Pattern	Omni-Directional	
Max Input Power (W)	10	
Connector Type	RP-SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	LL100 Standard (Other Cables Available)	

**Antenna Measurement Conditions**  
 Mounted on 30 x 30 cm Metal Plate  
 200 cm of LL100 Cable

Cable 3	Iridium Antenna
Standard	Iridium
Band (MHz)	1621
Frequency(MHz)	1616-1627
Patch Size (mm)	36 x 36 x 4
Return Loss (dB)	~-18.8
VSWR	~1.2:1
Efficiency (%)	~76
Peak Gain (dBic)	~4.5
Average Gain (dB)	~-1.1
Impedance	50
Axial Ratio (dB)	3 max
Radiation Pattern	Hemispherical
Polarization	RHCP
Connector Type	SMA-Male Standard (Other Connectors Available)
Cable Length	300 cm Standard (Any Cable Length Available)
Cable Type	LL100 Standard (Other Cables Available)

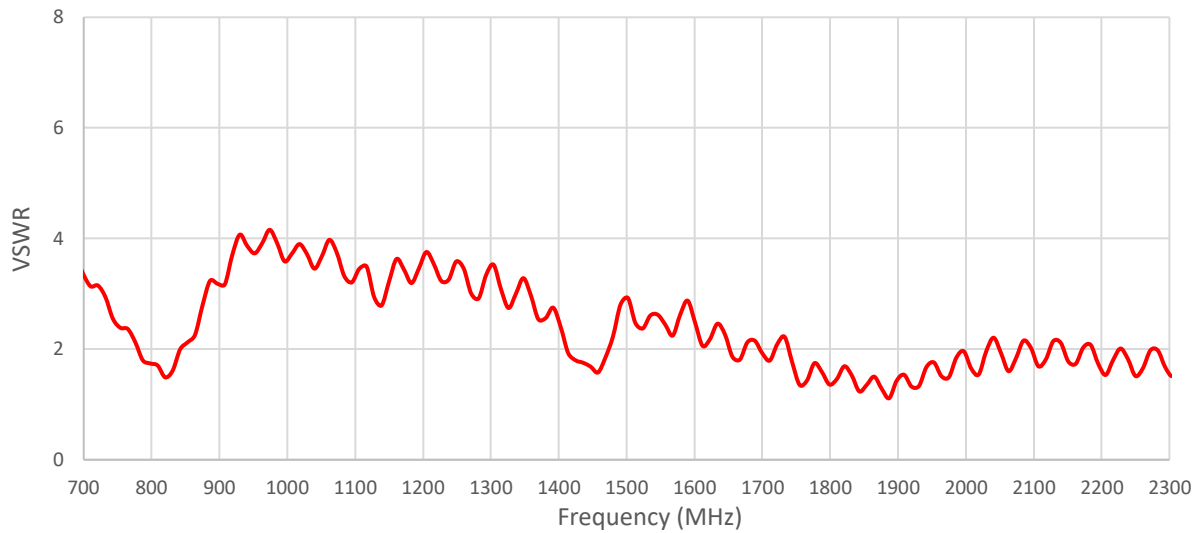
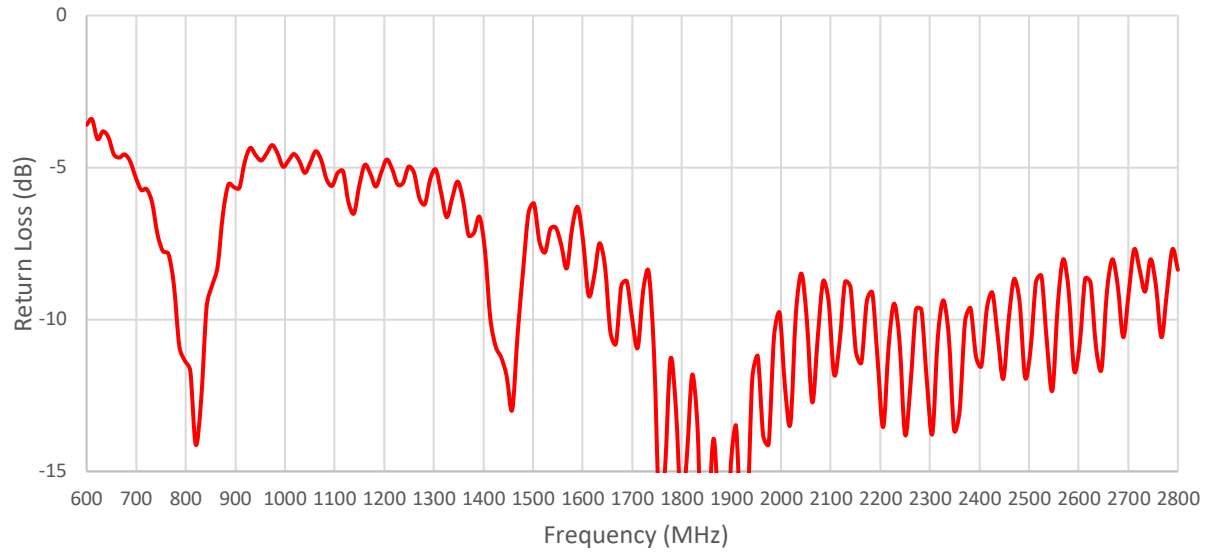
Cable 4	GNSS Antenna	
Standards	GPS/QZSS/Galileo	GLONASS
Bands (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Passive Gain (dBi)	~3.6	
Impedance (Ohms)	50	
Radiation Pattern	Hemispherical	
Voltage Range (V)	1.5 – 3.6	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.8 @ 2.7 V	
Current Consumption (mA)	9 @ 2.7 V	
Power Consumption (mW)	24.3 @ 2.7V	
Saw Filter Type	Pre-Filter	
Out of Band Rejection (dBc)	~43	
ESD Protection (kV)	6	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	LL100 Standard (Other Cables Available)	

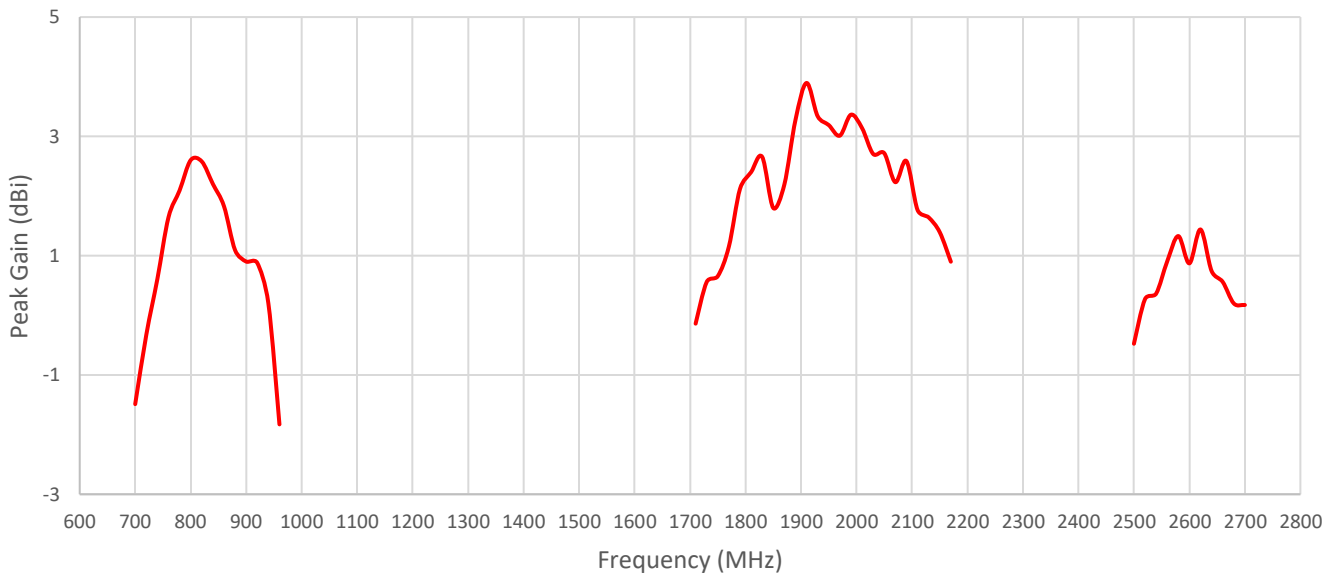
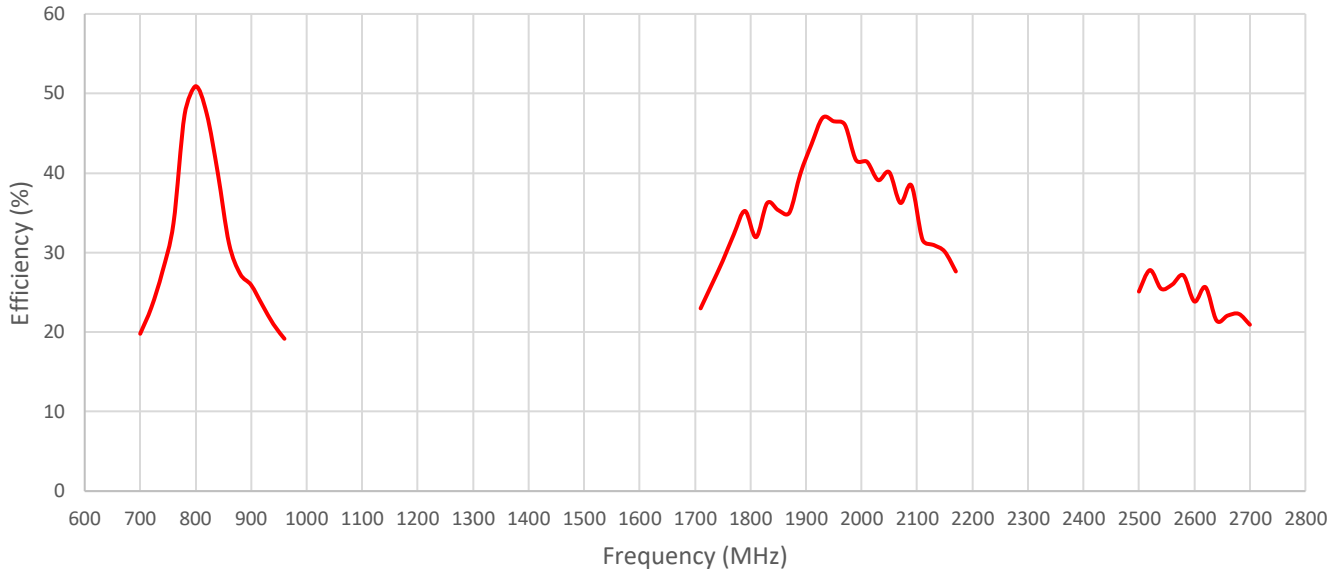
## MECHANICAL AND ENVIRONMENTAL SPECIFICATIONS

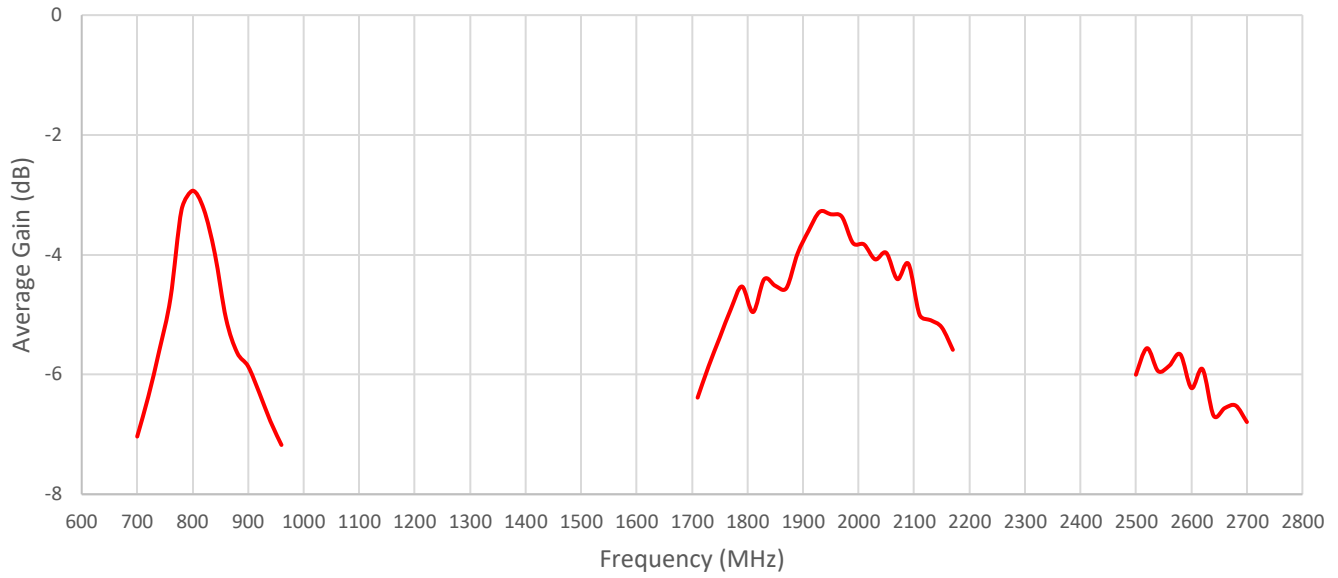
Specification	MEA-LWIG-SM
Mounting Type	Screw Mount
Dimensions (mm)	146 x 146 x 31.5
Radome Type	PC+ASA UV Stable
Radome Color	Black
Antenna Base	Zamak
Gasket	TPE
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Certificates	IK09, IP67, IP69
Substance Compliance	RoHS

**ANTENNA PARAMETERS**

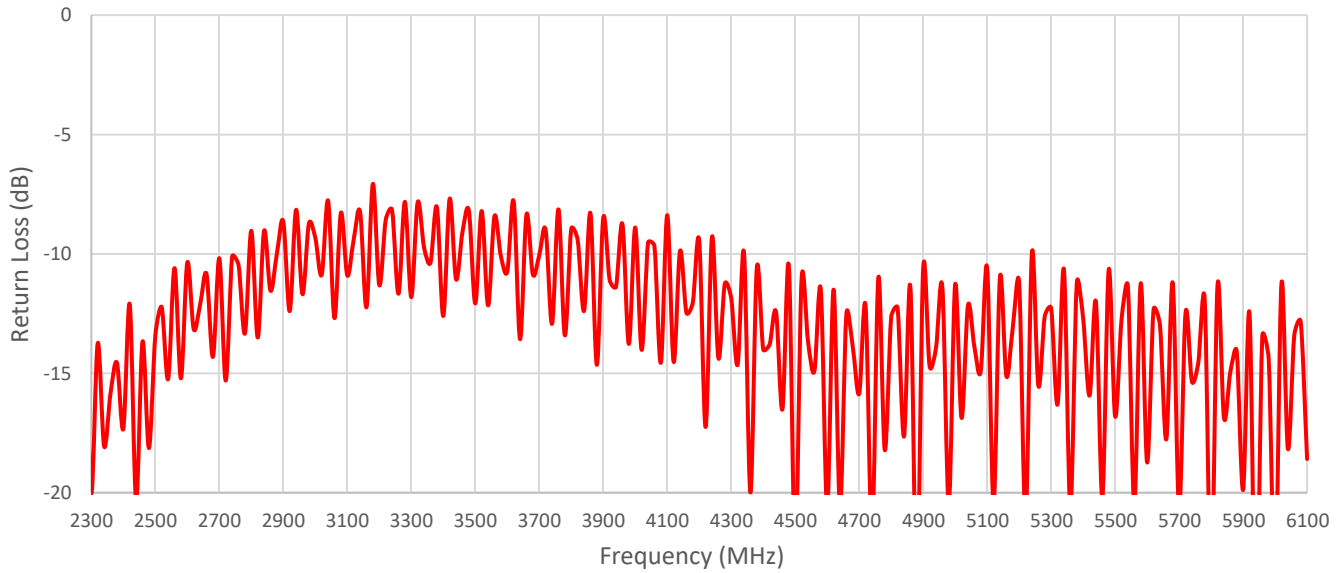
**Cellular/LTE**

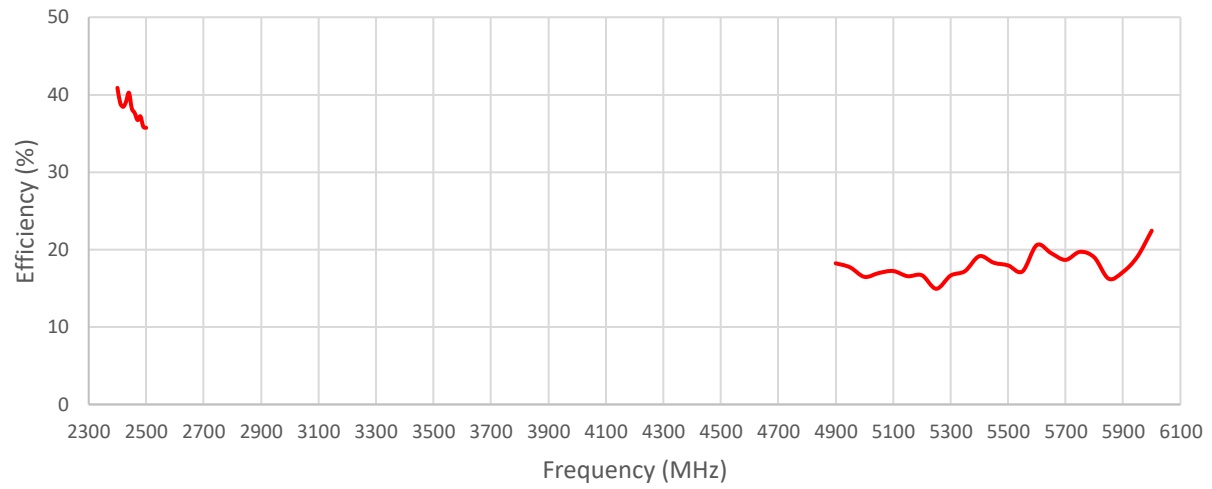
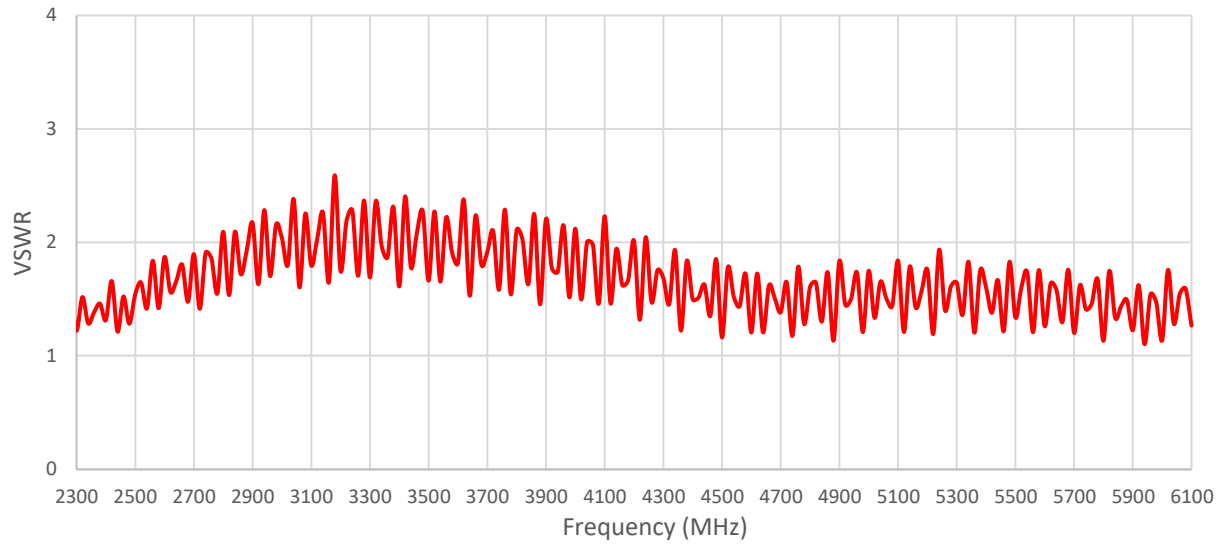




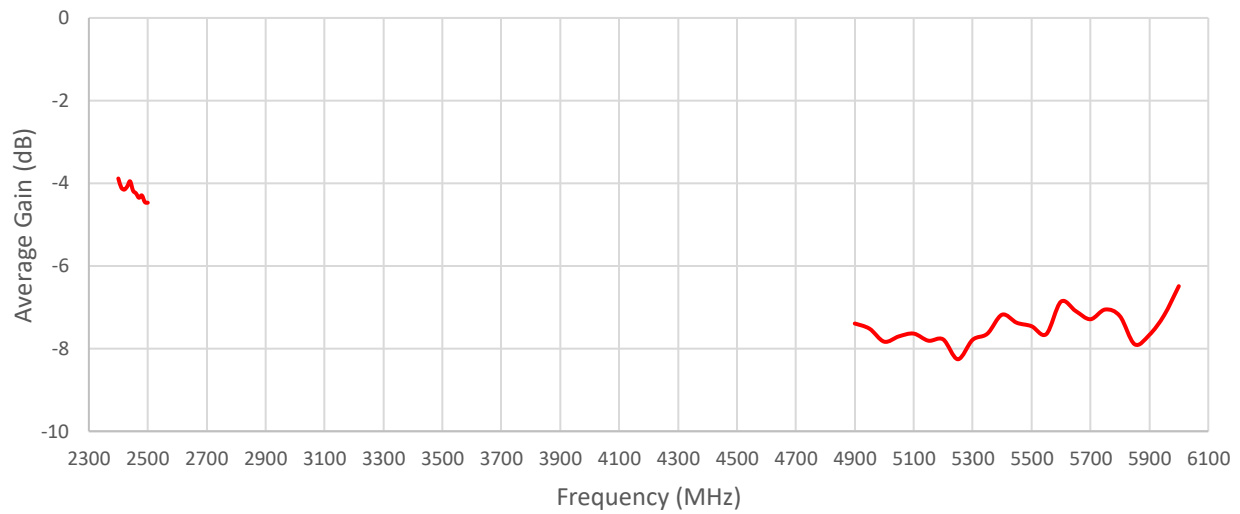
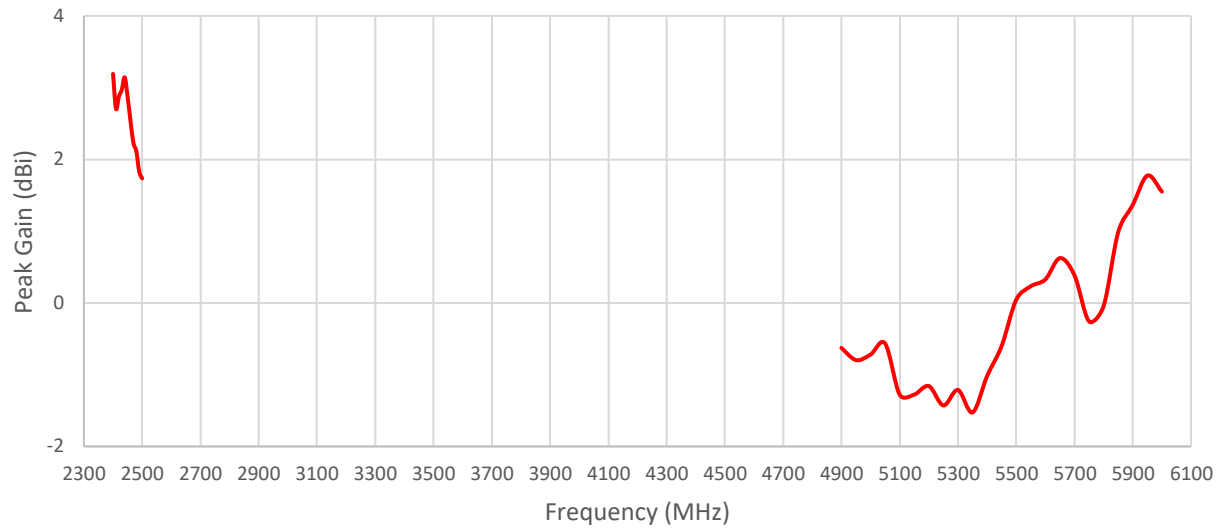


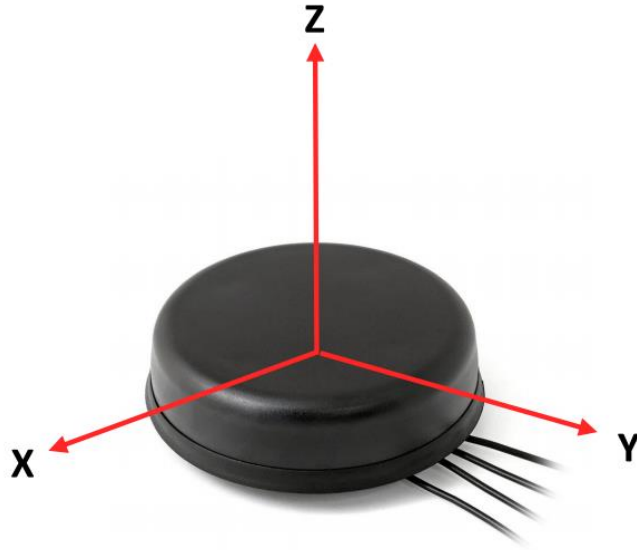
**2.4 / 5.0GHz ISM**





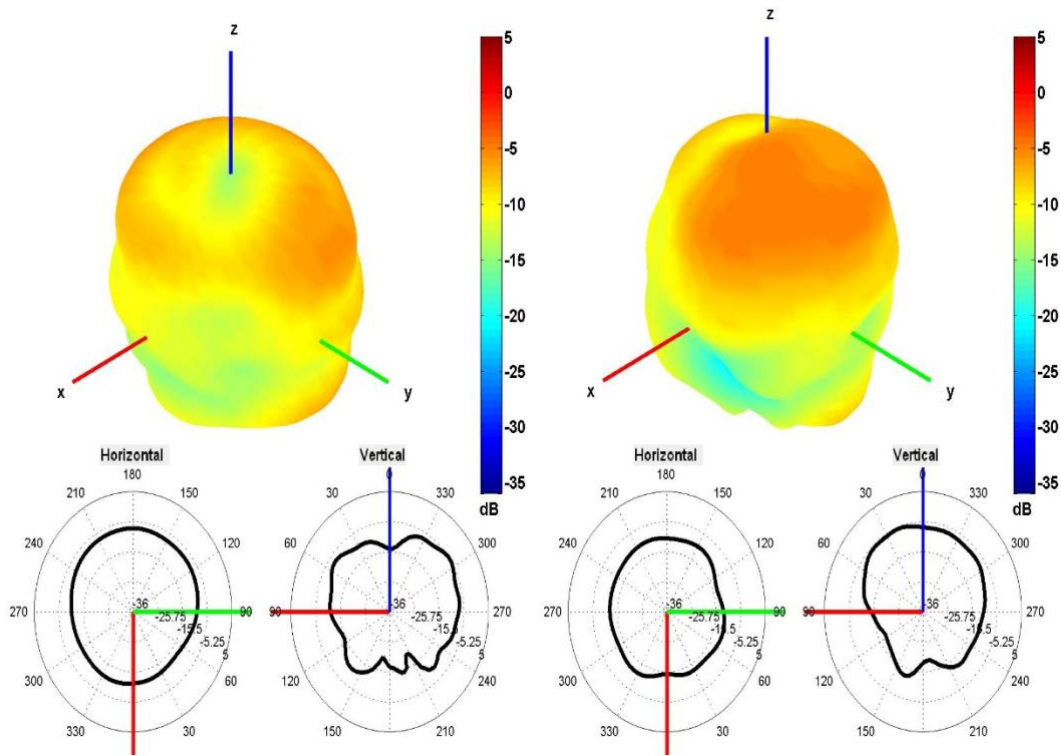




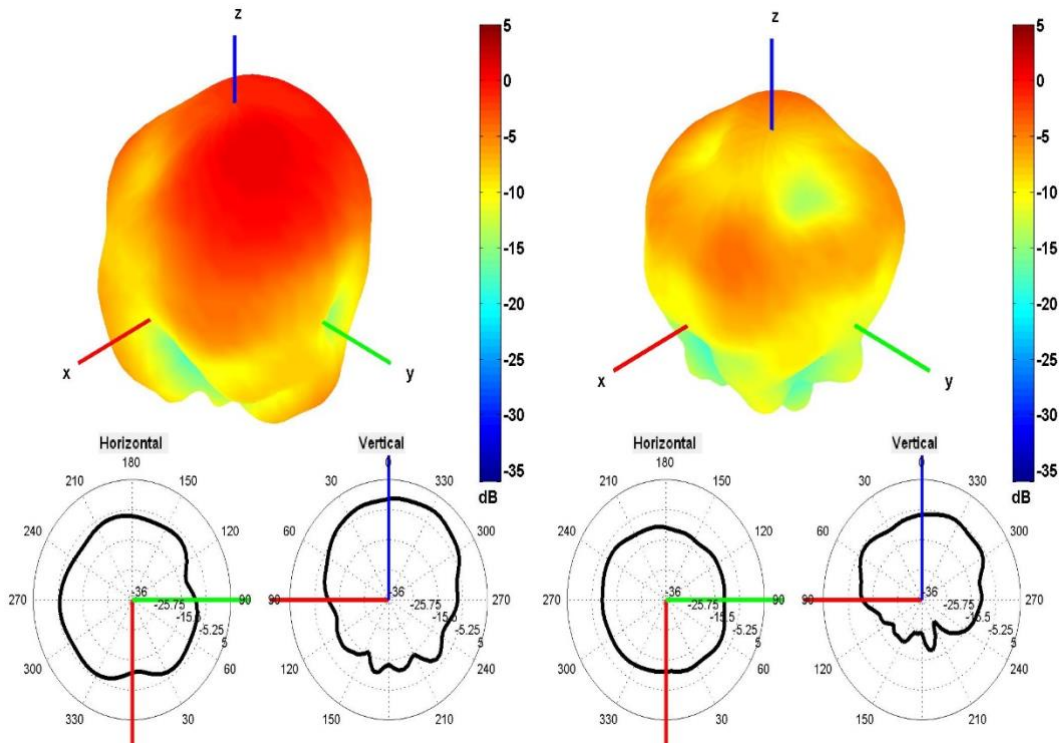


RADIATION PATTERN REFERENCE

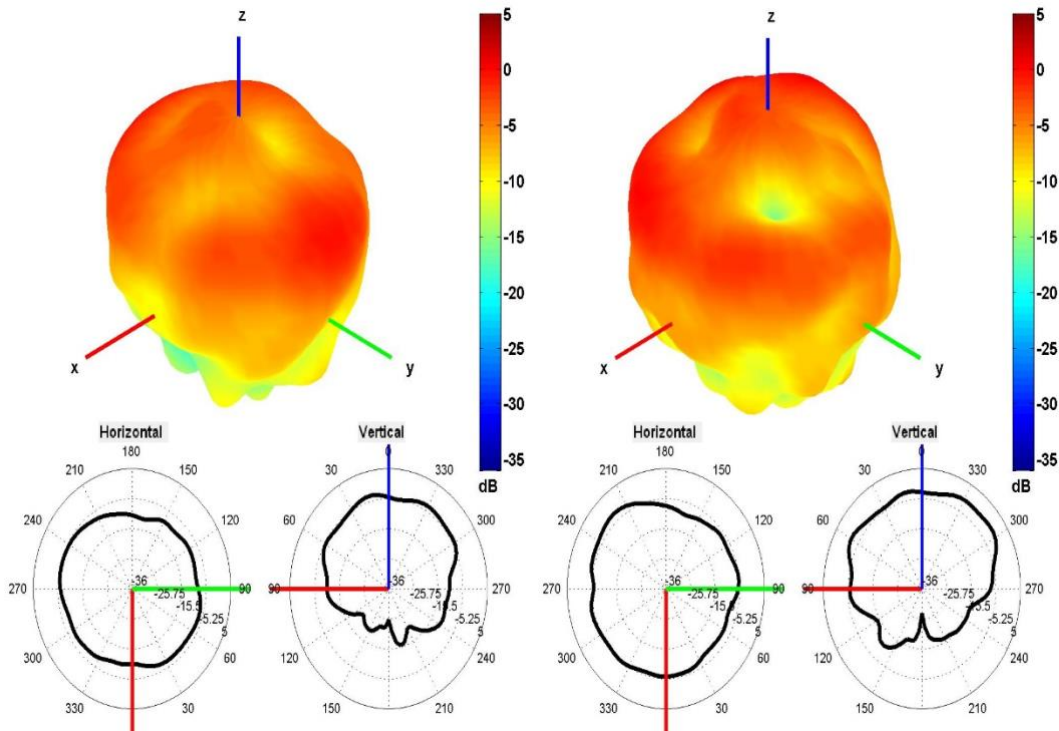
Cellular/LTE



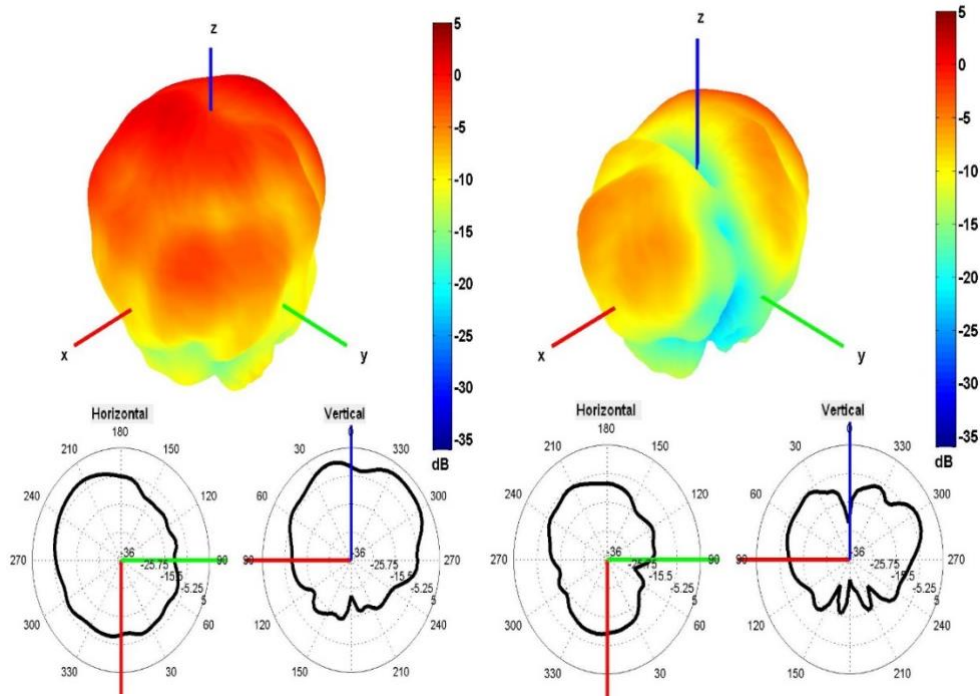
740 AND 850 MHz Radiation Patterns



940 AND 1750 MHz Radiation Patterns

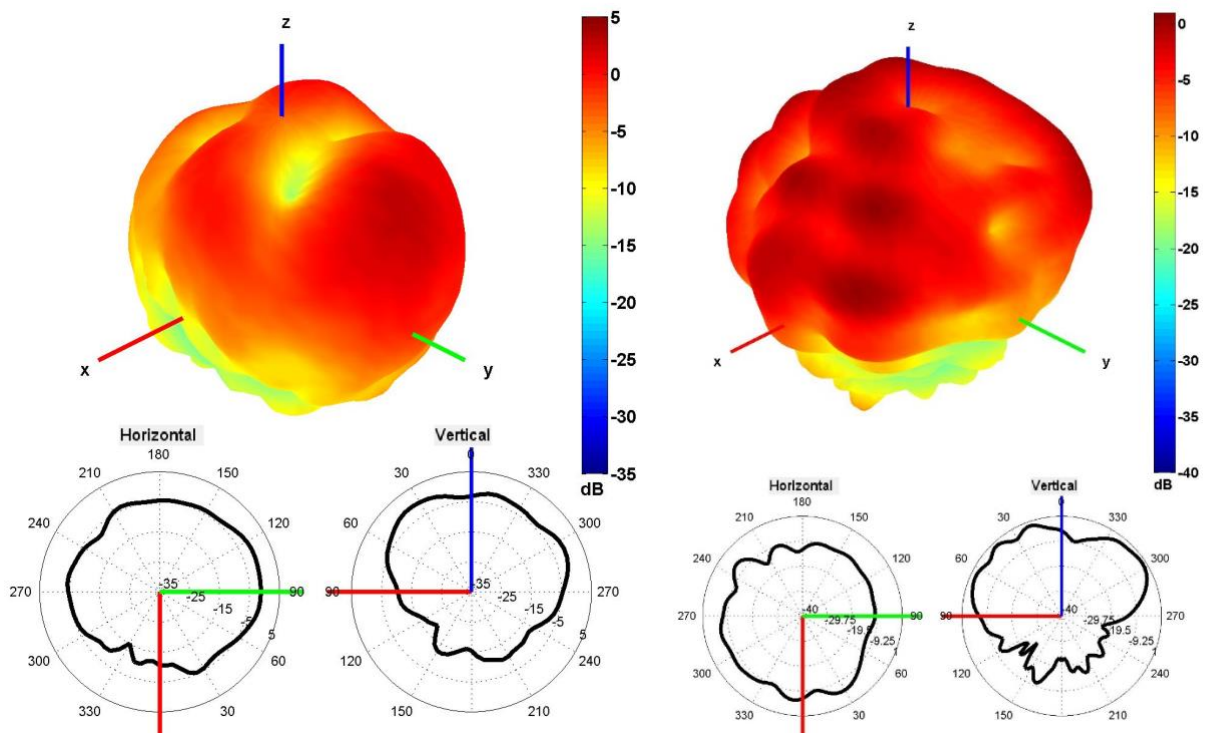


1850 AND 1950 MHz Radiation Patterns

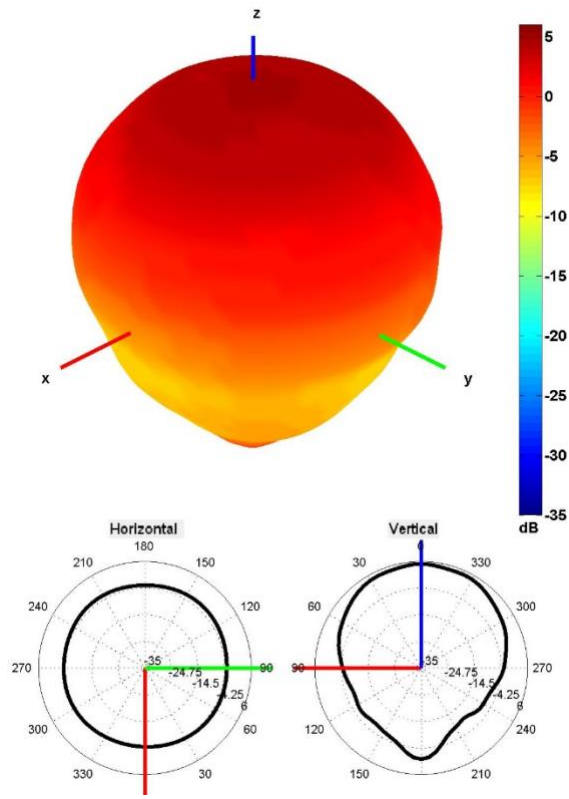


2100 AND 2600 MHz Radiation Patterns

**2.4/5.0GHz ISM**

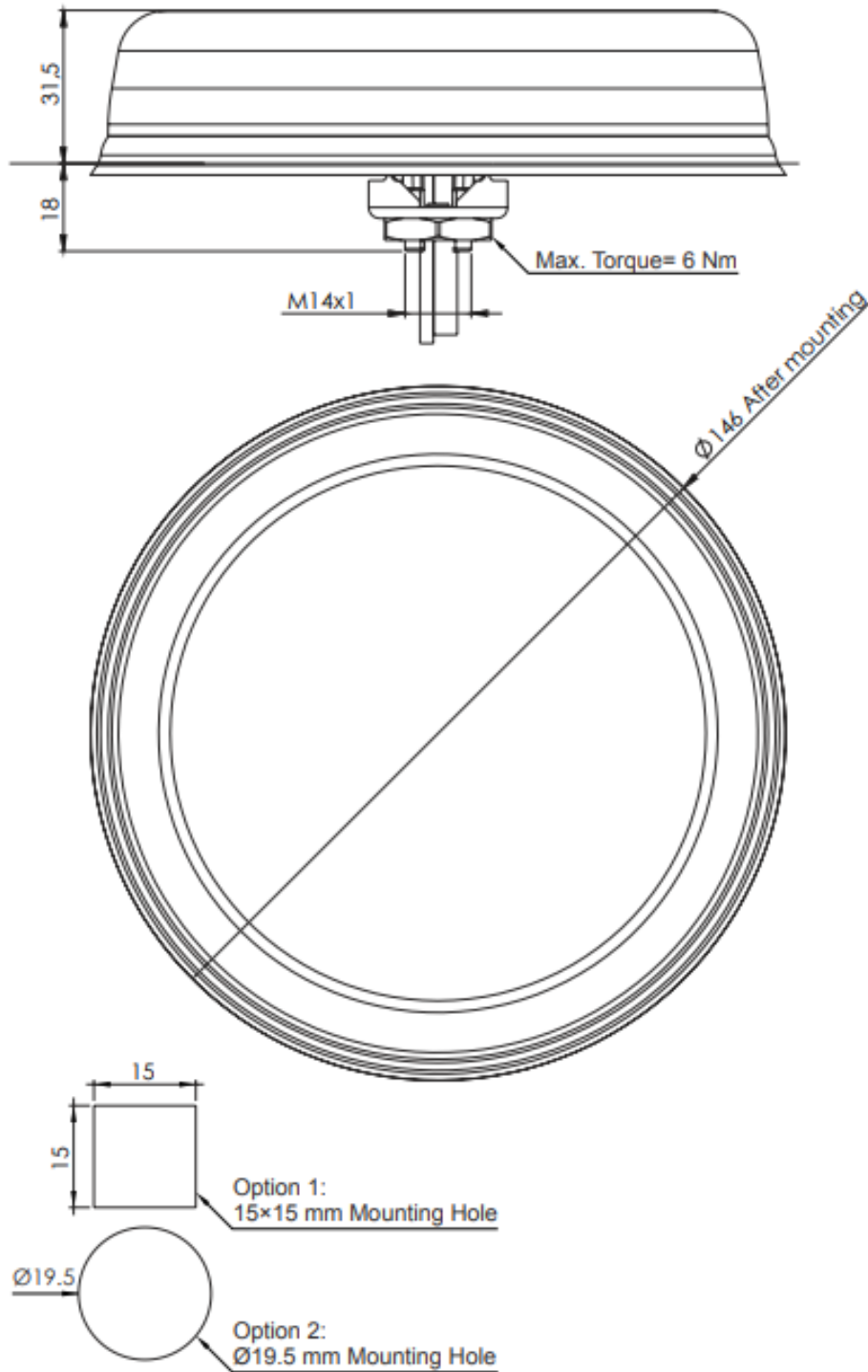


2450 AND 5500 MHz Radiation Patterns



1621 MHz Radiation Patterns

**ANTENNA DRAWINGS**



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

ANTENNA IMAGES



 **iridium**<sup>®</sup>  
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