

2J6903BGFa

2.4/5.0/6.0 GHz MIMO and GNSS Screw Mount

Key Features

Cable 1 and 2: 2.4/5.0/6.0

- 2410-2490 MHz
- 4920-5925 MHz
- 5925-7125 MHz

Cable 3: GPS/GLONASS/QZSS/Galileo

- 1575-1606 MHz

Screw Mount

Anti-Rotation Mechanism

High Performance

Ground Plane Independent

Customizable Cable and Connector

Dimensions 80 × 74 × 25.6 mm

Certificates: IP67, IP69



1. Antenna and electrical specifications

Cable 1

Parameters	2.4/5.0/6.0 GHz ISM Antenna		
Standards	WiFi, BT, ZigBee, ISM, Sigfox, LoRa		
Band (MHz)	2.4GHz	5.0 GHz	6.0GHz
Frequency (MHz)	2410-2490	4920-5925	5925-7125
Return Loss (dB)	~-18.0	~-16.0	~-17.4
VSWR	~1.4:1	~1.4:1	~1.4:1
Efficiency (%)	~40.6	~45.0	~41.3
Peak Gain (dBi)	~-4.0	~-5.6	~-5.9
Average Gain (dB)	~-4.1	~-3.5	~-3.3
Impedance (Ohm)	50		
Polarisation	Linear		
Radiation Pattern	Omni-Directional		
Max. Input Power (W)	25		
Connector Type	SMA-Male-RP Standard (Other Connectors Available)		
Cable Length	300 cm Standard (Any Cable Length Available)		
Cable Type	D302 Standard (Other Cables Available)		

Cable 2

Parameters	2.4/5.0/6.0 GHz ISM Antenna		
Standards	WiFi, BT, ZigBee, ISM, Sigfox, LoRa		
Band (MHz)	2.4GHz	5.0 GHz	6.0GHz
Frequency (MHz)	2410-2490	4920-5925	5925-7125
Return Loss (dB)	~-18.8	~-16.5	~-17.5
VSWR	~1.3:1	~1.5:1	~1.4:1
Efficiency (%)	~40.8	~40.4	~44.6
Peak Gain (dBi)	~-4.1	~-5.1	~-6.3
Average Gain (dB)	~-4.1	~-4.1	~-3.5
Impedance (Ohm)	50		
Polarisation	Linear		
Radiation Pattern	Omni-Directional		
Max. Input Power (W)	25		
Connector Type	SMA-Male-RP Standard (Other Connectors Available)		
Cable Length	300 cm Standard (Any Cable Length Available)		
Cable Type	D302 Standard (Other Cables Available)		

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm
 100 cm of Cable D302
 Measured in Certified CTIA 3D Anechoic Chamber

Cable 3

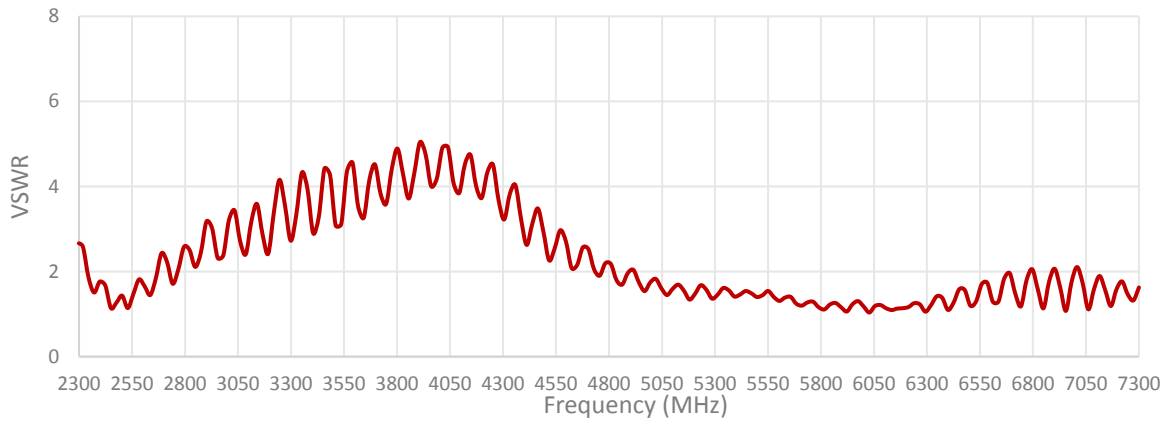
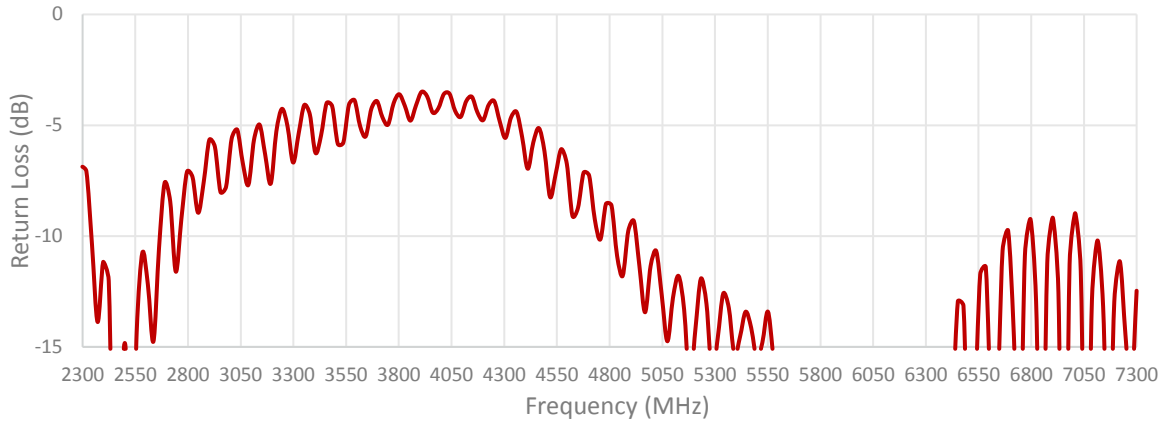
Parameters	GPS/GLONASS Antenna	
	GPS/QZSS/Galileo	GLONASS
Standard		
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1606
Patch Size (mm)	18 × 18 × 4	
Return Loss (dB)	<= -15.0 dB	
VSWR	<= 1.4:1 dB	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Pre-filter	
Active Gain (dB)	28 @ 2.7 V	
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)	2kV	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	D100 Standard (Other Cables Available)	

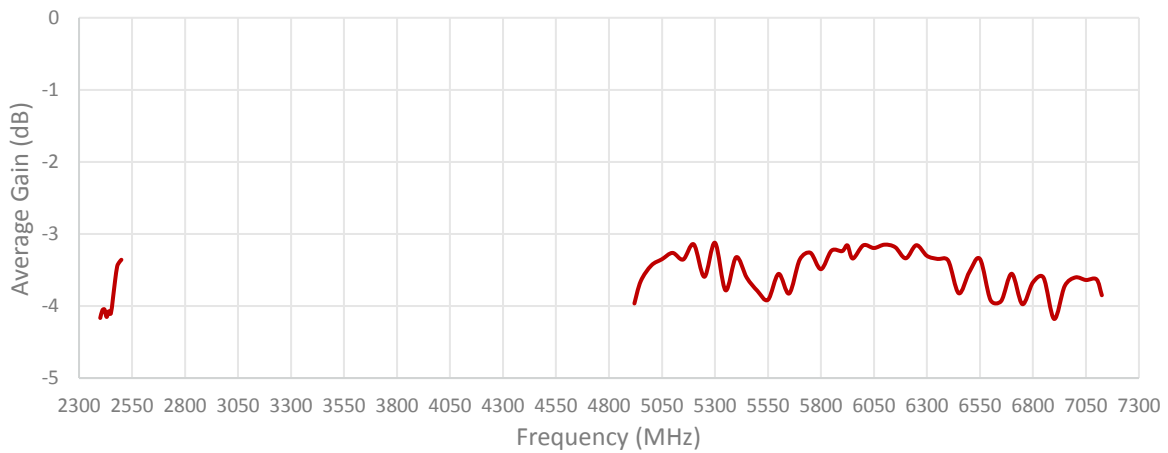
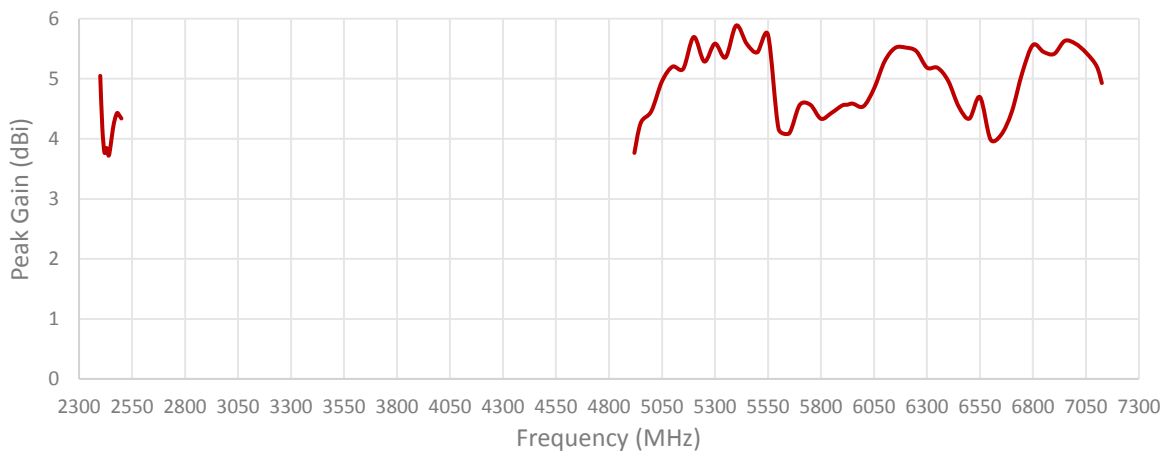
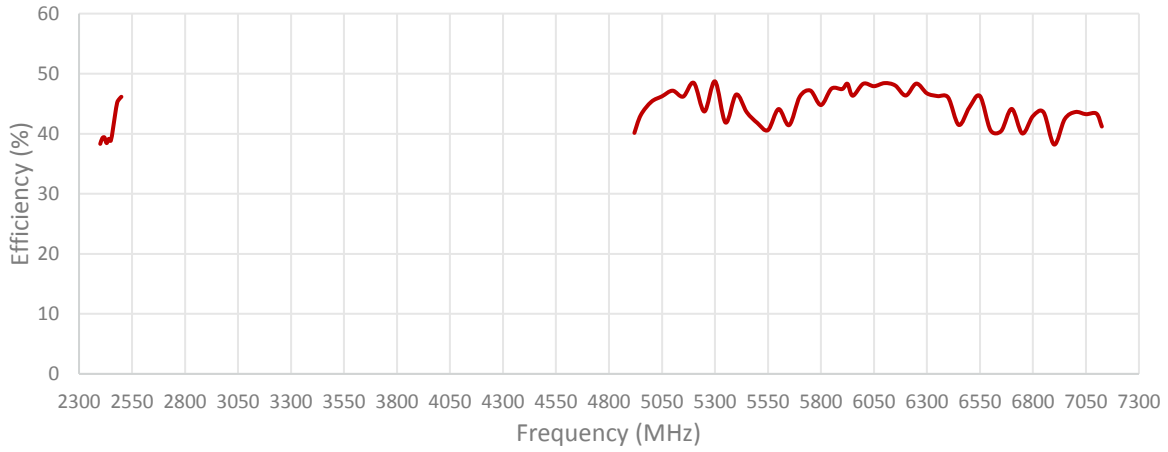
2. Mechanical and environmental specifications

Specifications	2J6903BGFa
Mounting Type	Screw Mount
Dimensions (mm)	80 x 74 x 25.6
Max. Tighten Torque (Nm)	5 Nm
Radome Type	ASA UV Stable
Radome Color	Black, White
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

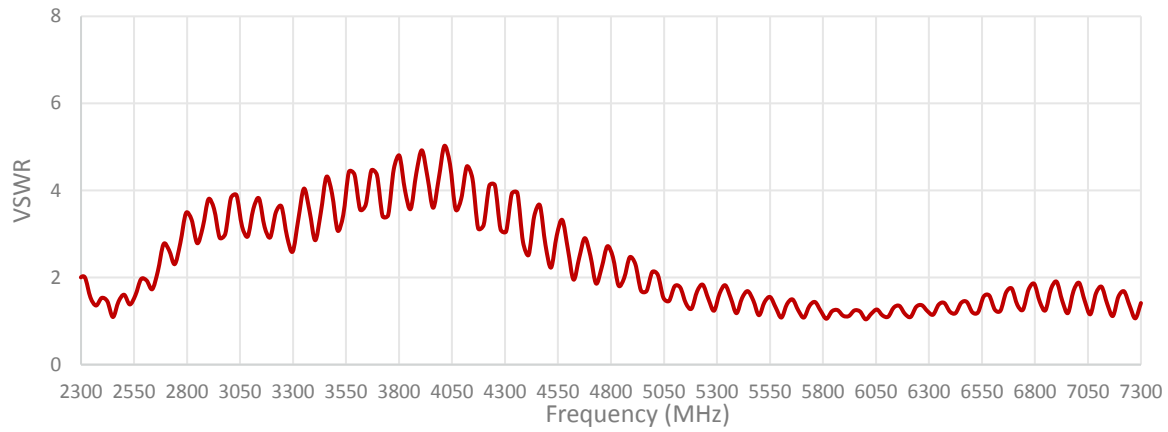
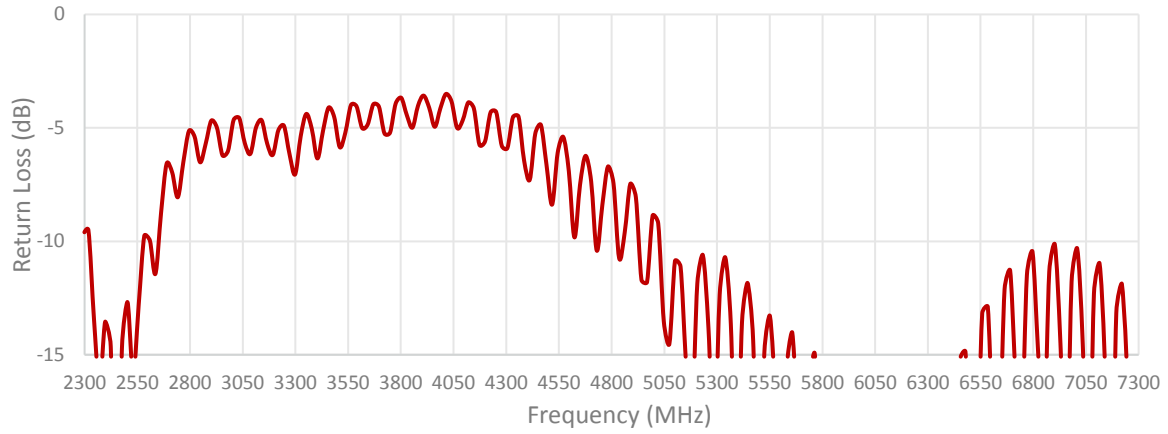
3. Antenna parameters

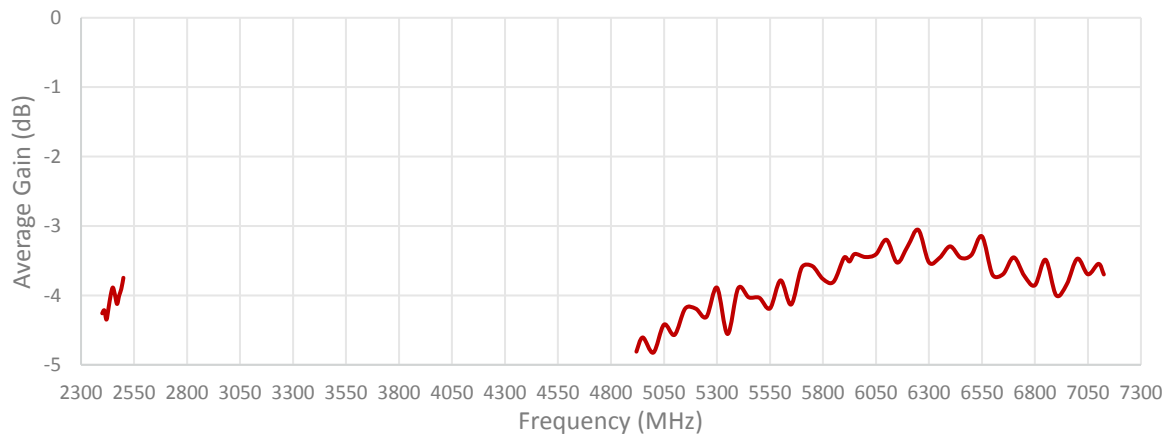
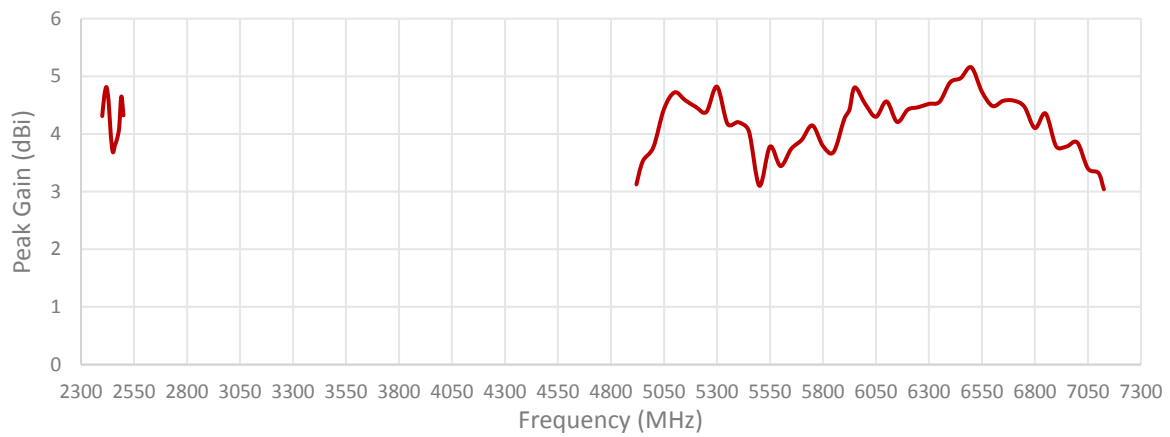
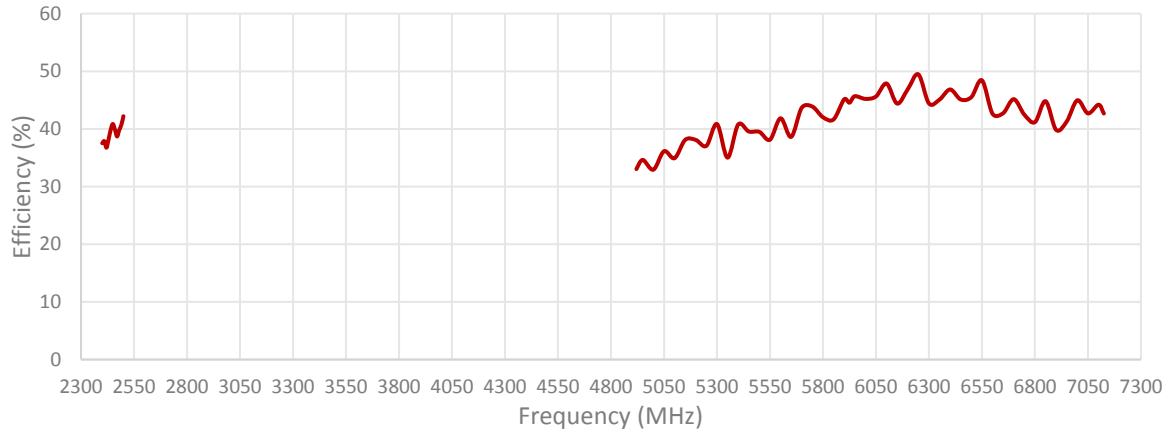
Cable 1: 2.4/5.0/6.0



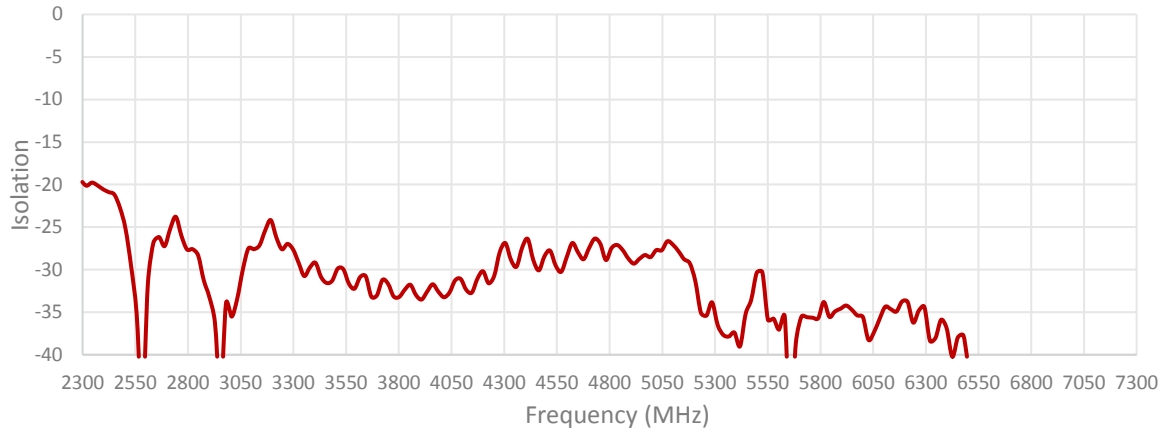


Cable 2: 2.4/5.0/6.0

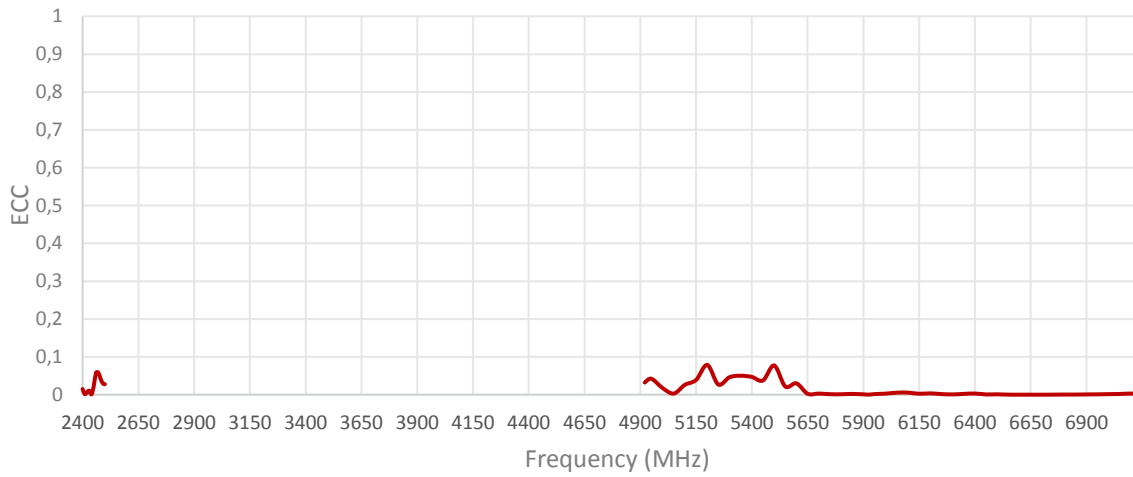


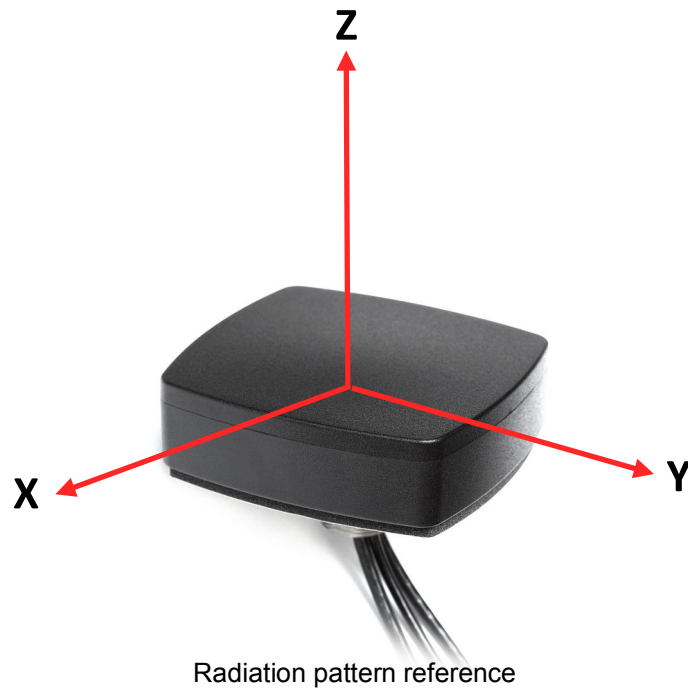


ISOLATION FOR CABLES 1 AND 2

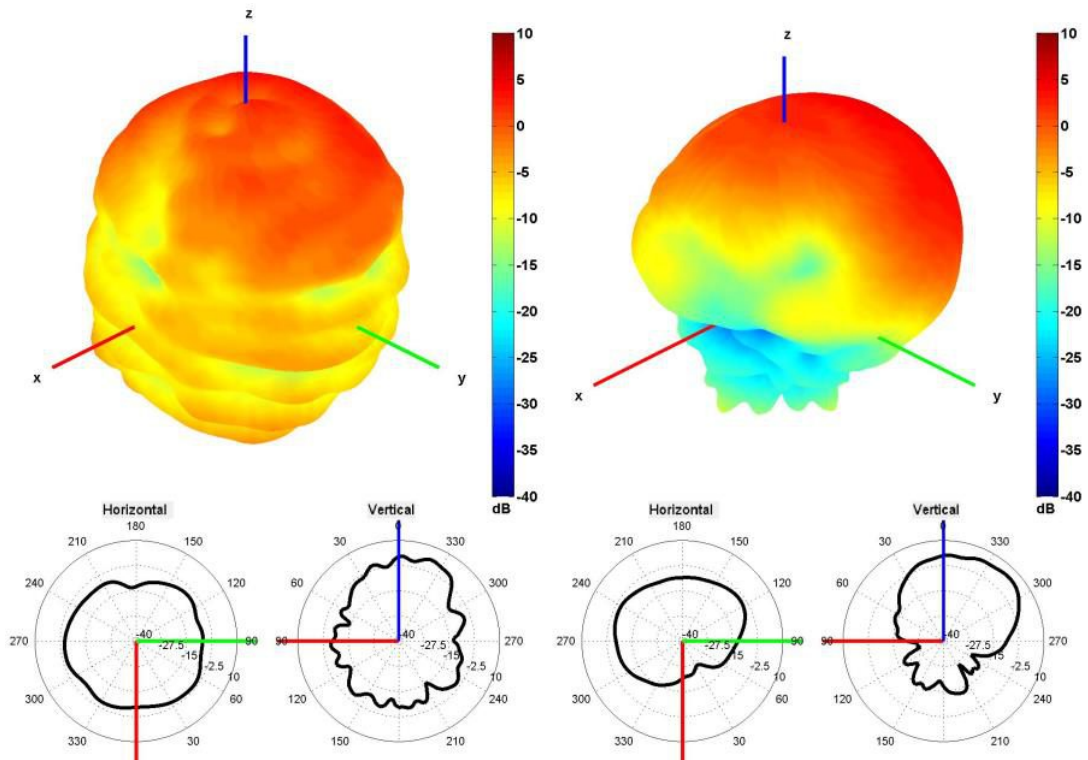


ENVELOPE CORRELATION COEFICIENT FOR CABLES 1 AND 2

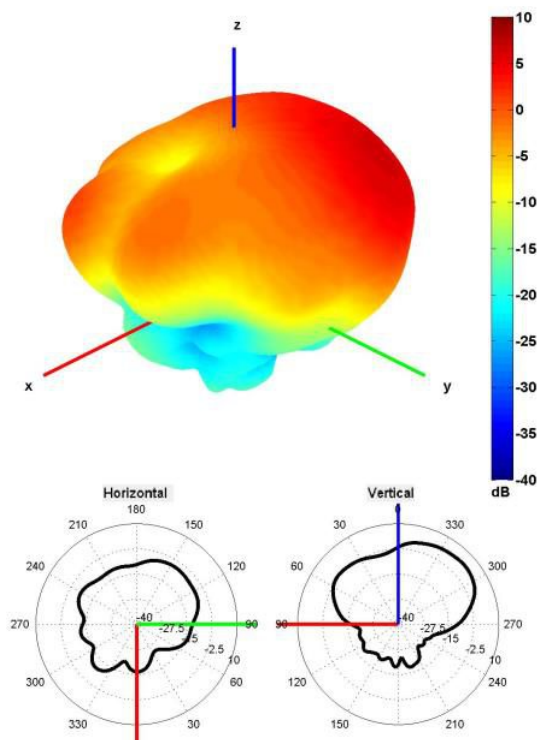




Cable 1: 2.4/5.0/6.0

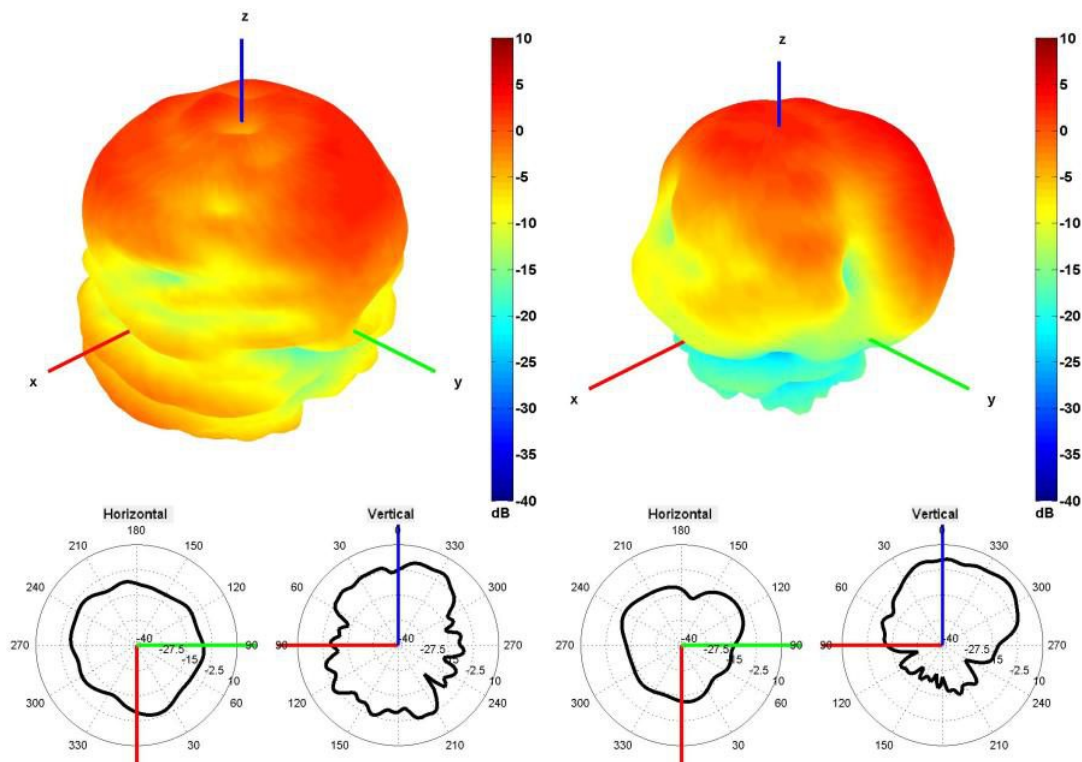


2450 and 5500 MHz Radiation pattern

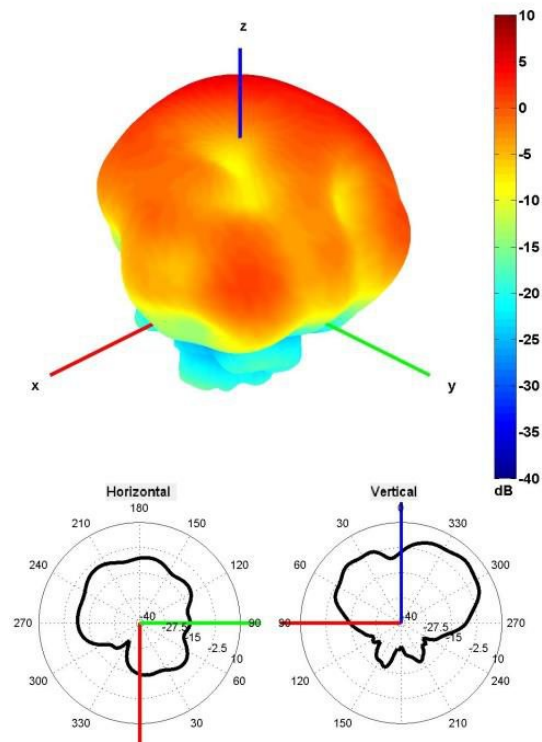


6500 MHz Radiation pattern

Cable 2: 2.4/5.0/6.0

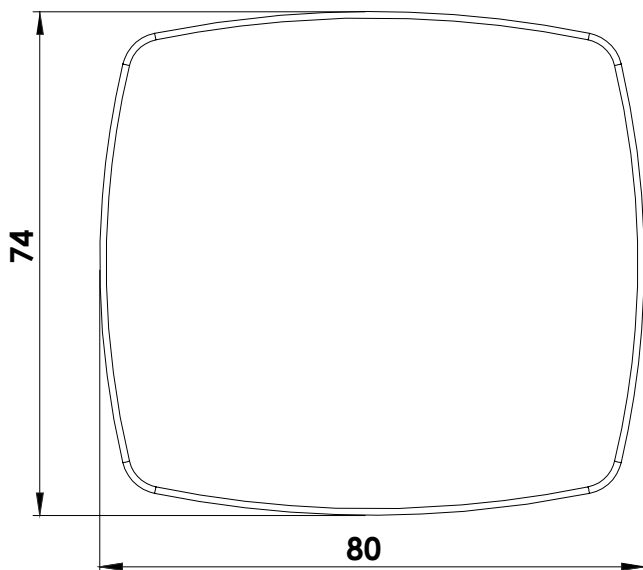
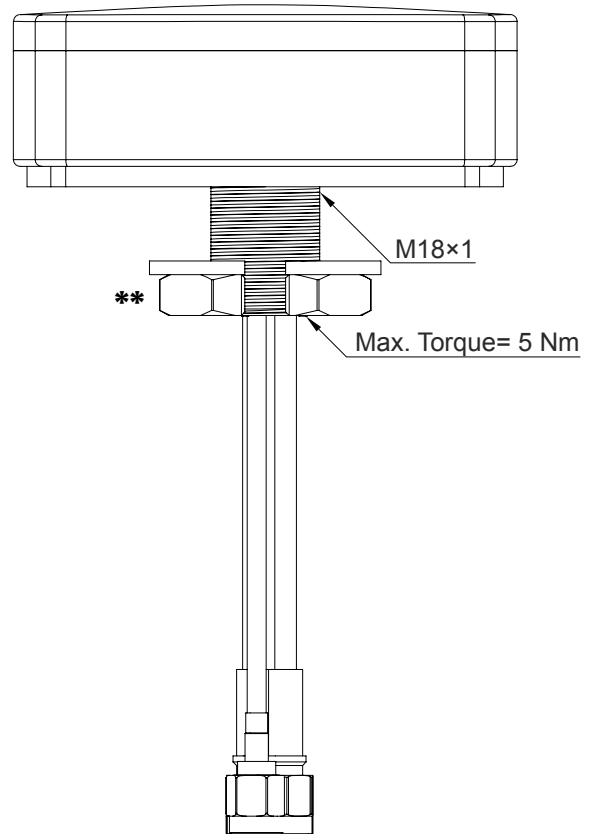
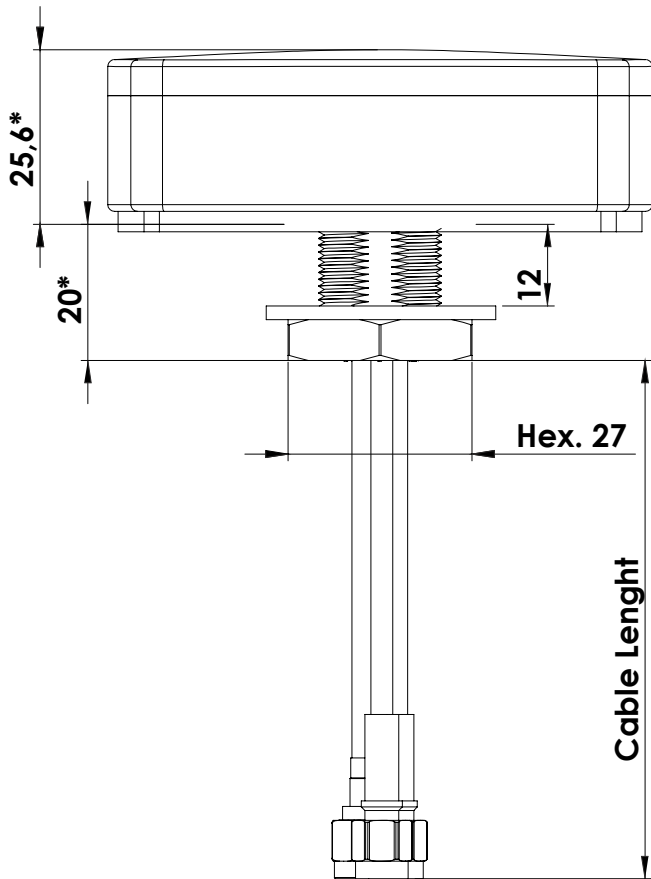


2450 and 5500 MHz Radiation pattern

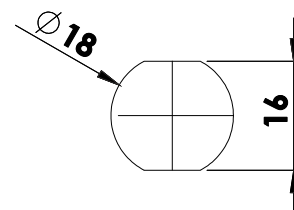


6500 MHz Radiation pattern

4. Antenna drawings



Mounting hole



Max. mounting thickness 12mm
 Note: Dimensions are in millimeters
 *Dimensions are after mounting
 **Max. Torque= 5 Nm

5. Antenna Images

