

## 2J7002Bc

### 2.4/5.0 GHz ISM MIMO Screw Mount

#### Key Features

##### Cable 1 - 4: 2.4/5.0 GHz ISM

- 2410-2490 MHz
- 4920-5925 MHz

Screw Mount

Heavy Duty antenna

High Performance

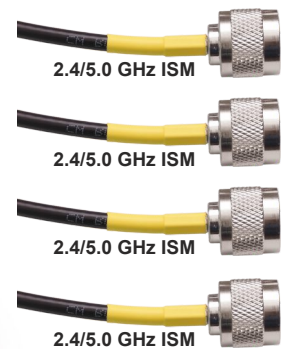
Ground Plane Independent

Anti-Rotation Mounting

Customizable Cable and Connector

Dimensions: Ø 96 x H 90 mm

Certificates: IP67, IP69, IK09



#### Description

Compact heavy duty antenna designed for 2.4/5.0 GHz ISM suitable for wide range of applications within industry. Antenna is made with specific anti-rotation mounting system. Housing of the antenna is certified for standards of IP67 for water resistance, IK09 for high impact resistance and IP69 standard for high pressure and hot water ingress.



## 1. Antenna and electrical specifications

**Cable 1**

Parameters	2.4/5.0 GHz ISM Antenna	
<b>Standards</b>	WiFi, BT, ZigBee, ISM	
<b>Band (MHz)</b>	2.4 GHz	5.0 GHz
<b>Frequency (MHz)</b>	2410-2490	4920-5925
<b>Return Loss (dB)</b>	~-10.4	~-13.6
<b>VSWR</b>	~1.9:1	~1.6:1
<b>Efficiency (%)</b>	~58	~64
<b>Peak Gain (dBi)</b>	~5.6	~5.5
<b>Average Gain (dB)</b>	~-2.3	~-1.9
<b>Impedance (Ohm)</b>	50	
<b>Polarisation</b>	Linear	
<b>Radiation Pattern</b>	Omni-Directional	
<b>Max. Input Power (W)</b>	25	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	LMR195 Standard (Other Cables Available)	

**Cable 2**

Parameters	2.4/5.0 GHz ISM Antenna	
<b>Standards</b>	WiFi, BT, ZigBee, ISM	
<b>Band (MHz)</b>	2.4 GHz	5.0 GHz
<b>Frequency (MHz)</b>	2410-2490	4920-5925
<b>Return Loss (dB)</b>	~-13.2	~-15.2
<b>VSWR</b>	~1.6:1	~1.5:1
<b>Efficiency (%)</b>	~51	~55
<b>Peak Gain (dBi)</b>	~3.9	~4.1
<b>Average Gain (dB)</b>	~-2.9	~-2.5
<b>Impedance (Ohm)</b>	50	
<b>Polarisation</b>	Linear	
<b>Radiation Pattern</b>	Omni-Directional	
<b>Max. Input Power (W)</b>	25	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	LMR195 Standard (Other Cables Available)	

**Antenna Measurement Conditions:**

Mounted on Metal Plate of 30 x 30 cm  
 200 cm of Cable LMR195  
 Measured in Certified CTIA 3D Anechoic Chamber

## 1. Antenna and electrical specifications

**Cable 3**

Parameters	2.4/5.0 GHz ISM Antenna	
<b>Standards</b>	WiFi, BT, ZigBee, ISM	
<b>Band (MHz)</b>	2.4 GHz	5.0 GHz
<b>Frequency (MHz)</b>	2410-2490	4920-5925
<b>Return Loss (dB)</b>	~-9.0	~-13.6
<b>VSWR</b>	~2.1:1	~1.6:1
<b>Efficiency (%)</b>	~57	~59
<b>Peak Gain (dBi)</b>	~5.5	~4.4
<b>Average Gain (dB)</b>	~-2.4	~-2.3
<b>Impedance (Ohm)</b>	50	
<b>Polarisation</b>	Linear	
<b>Radiation Pattern</b>	Omni-Directional	
<b>Max. Input Power (W)</b>	25	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	LMR195 Standard (Other Cables Available)	

**Cable 4**

Parameters	2.4/5.0 GHz ISM Antenna	
<b>Standards</b>	WiFi, BT, ZigBee, ISM	
<b>Band (MHz)</b>	2.4 GHz	5.0 GHz
<b>Frequency (MHz)</b>	2410-2490	4920-5925
<b>Return Loss (dB)</b>	~-11.1	~-15.7
<b>VSWR</b>	~1.8:1	~1.5:1
<b>Efficiency (%)</b>	~52	~53
<b>Peak Gain (dBi)</b>	~3.4	~3.1
<b>Average Gain (dB)</b>	~-2.8	~-2.7
<b>Impedance (Ohm)</b>	50	
<b>Polarisation</b>	Linear	
<b>Radiation Pattern</b>	Omni-Directional	
<b>Max. Input Power (W)</b>	25	
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)	
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)	
<b>Cable Type</b>	LMR195 Standard (Other Cables Available)	

**Antenna Measurement Conditions:**

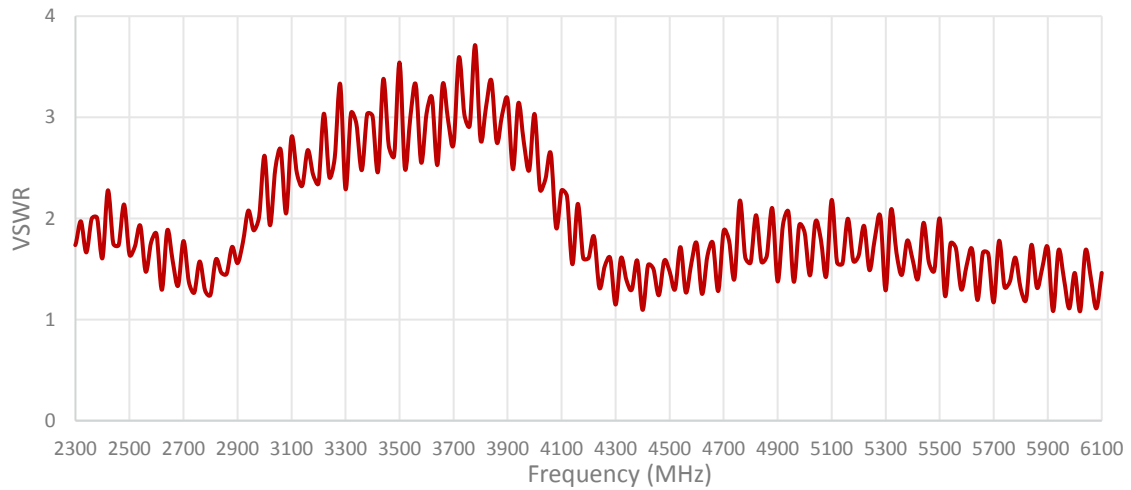
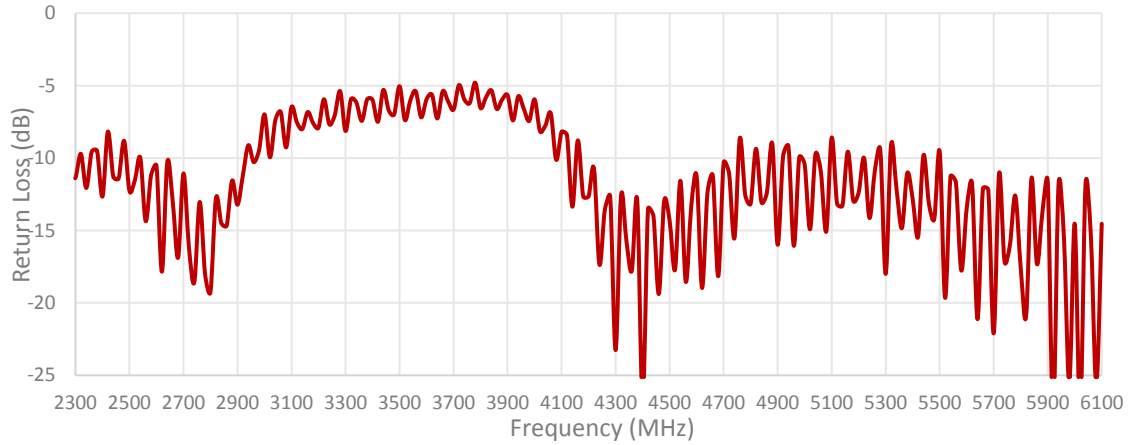
Mounted on Metal Plate of 30 x 30 cm  
 200 cm of Cable LMR195  
 Measured in Certified CTIA 3D Anechoic Chamber

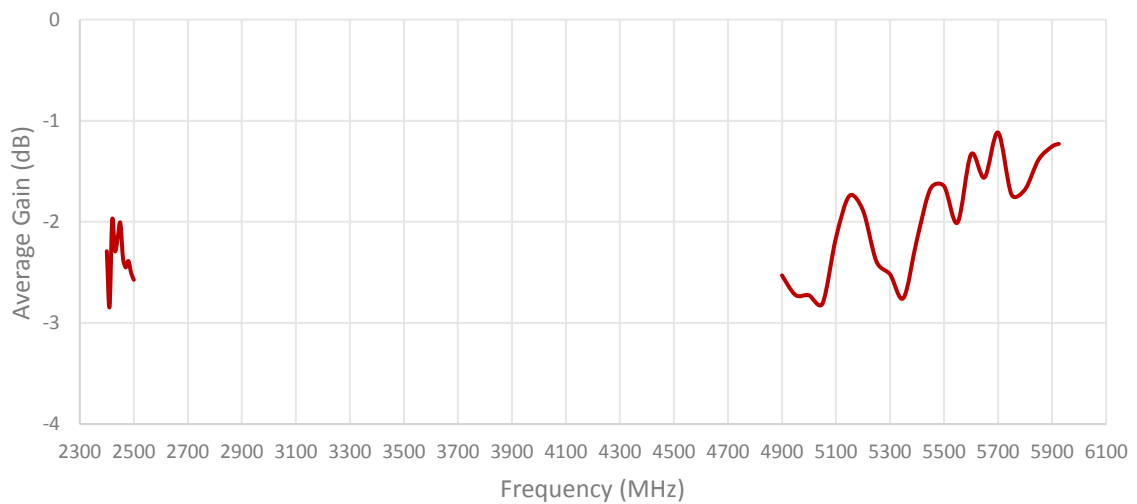
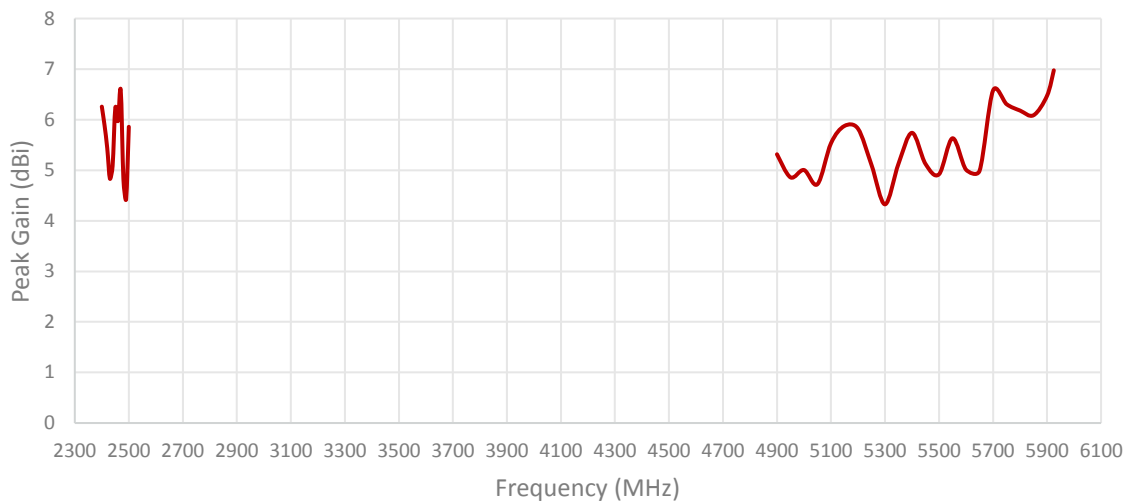
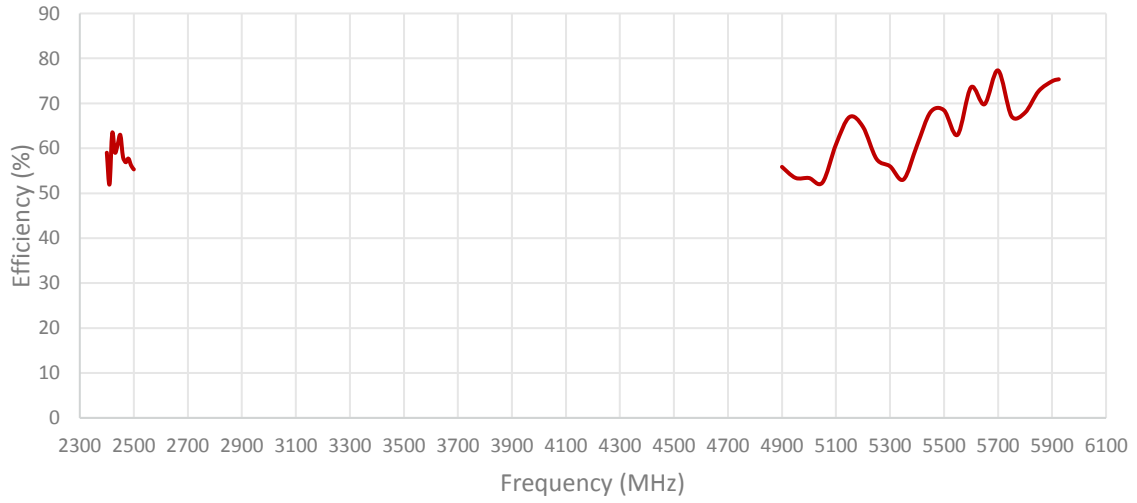
## 2. Mechanical and environmental specifications

Specifications	2J7002Bc
<b>Mounting Type</b>	Screw Mount
<b>Dimensions (mm)</b>	Ø 96 x H 90
<b>Max. Tighten Torque (Nm)</b>	15 Nm
<b>Radome</b>	ASA
<b>Radome color</b>	White, Black
<b>Antenna Base</b>	Alluminium alloy
<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, IK09

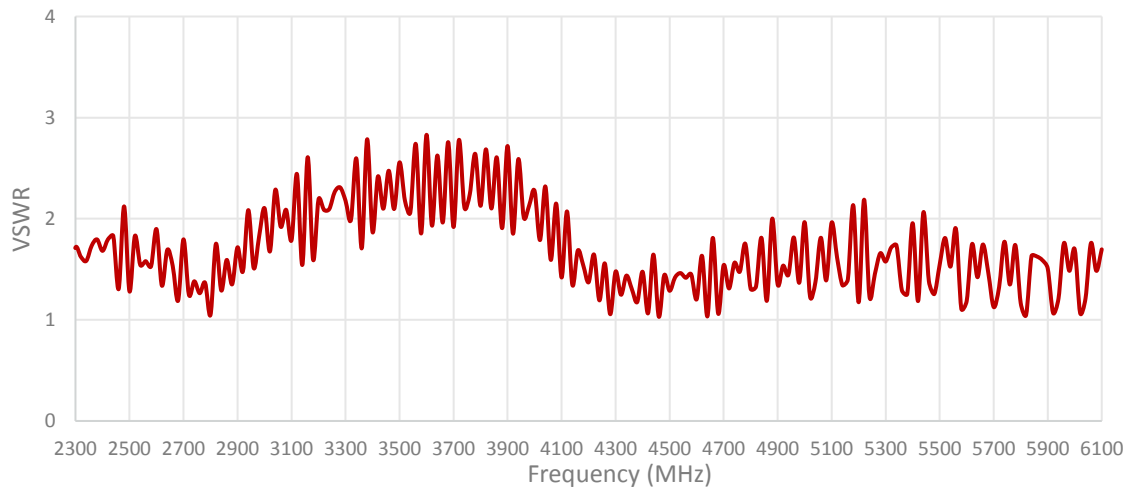
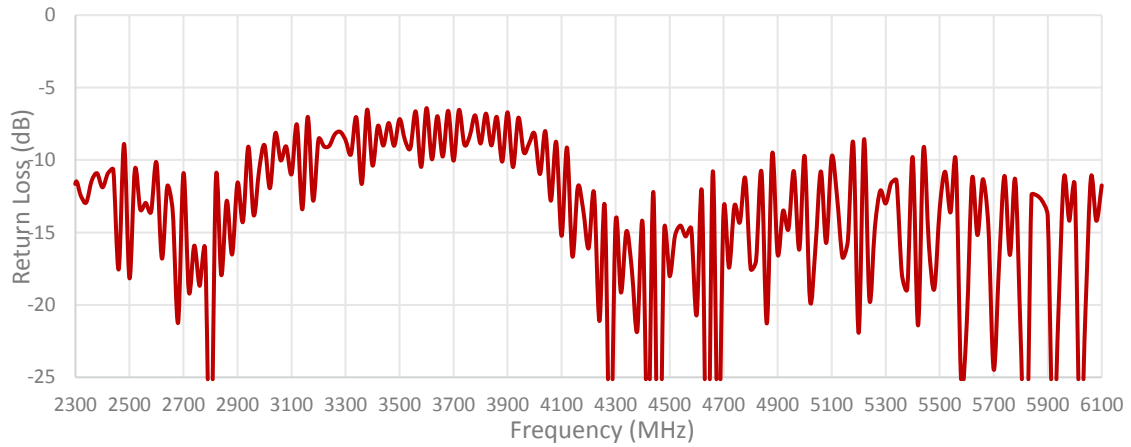
### 3. Antenna parameters

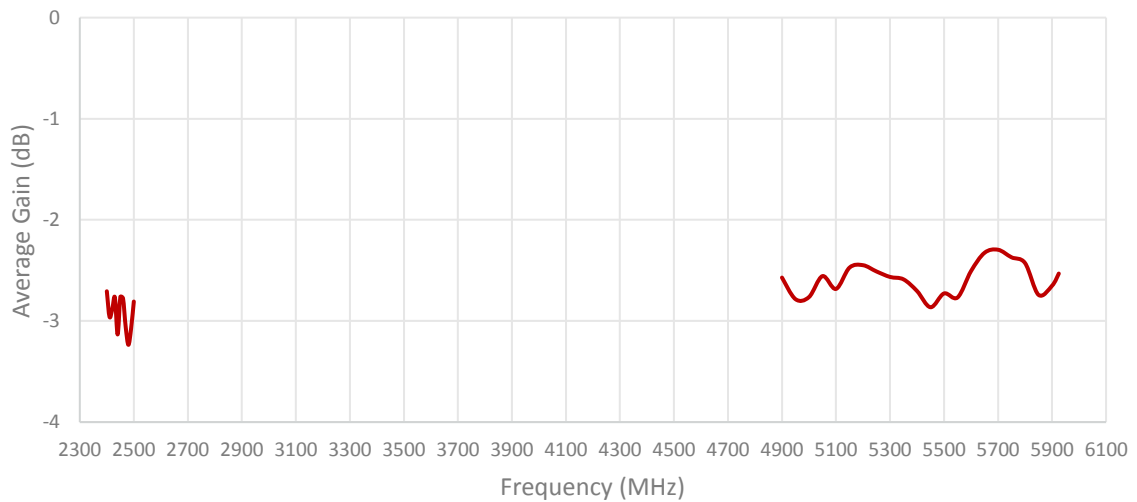
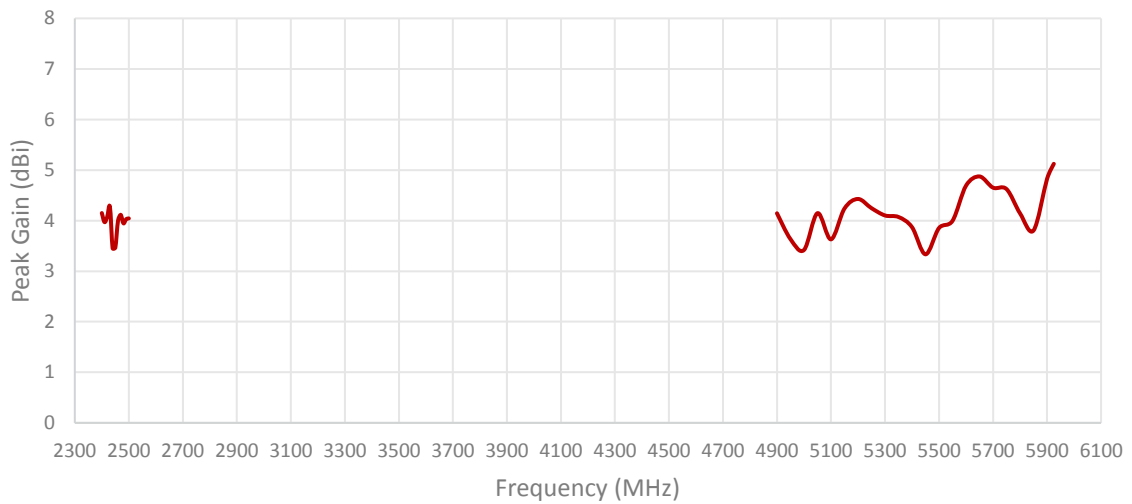
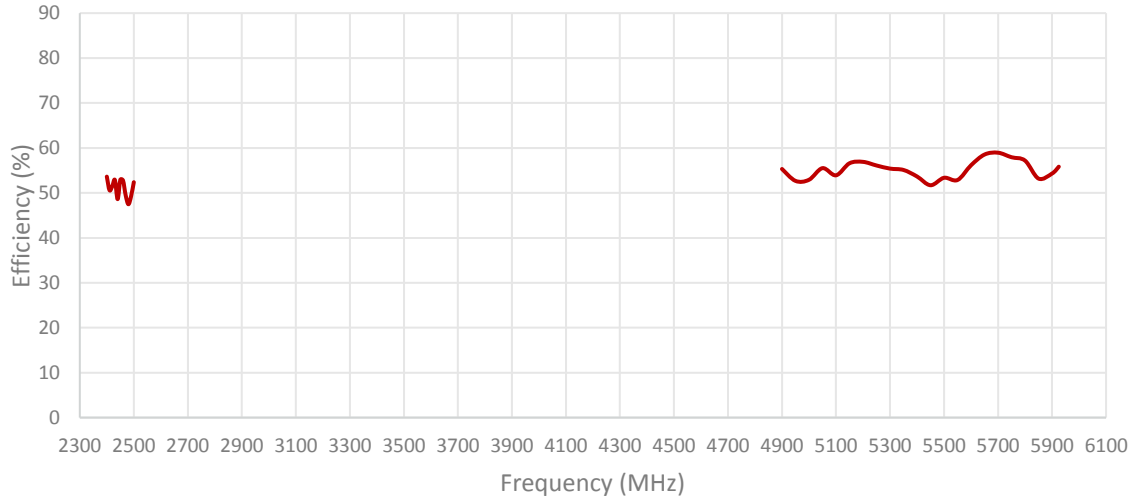
**Cable 1: 2.4/5.0 GHz ISM**





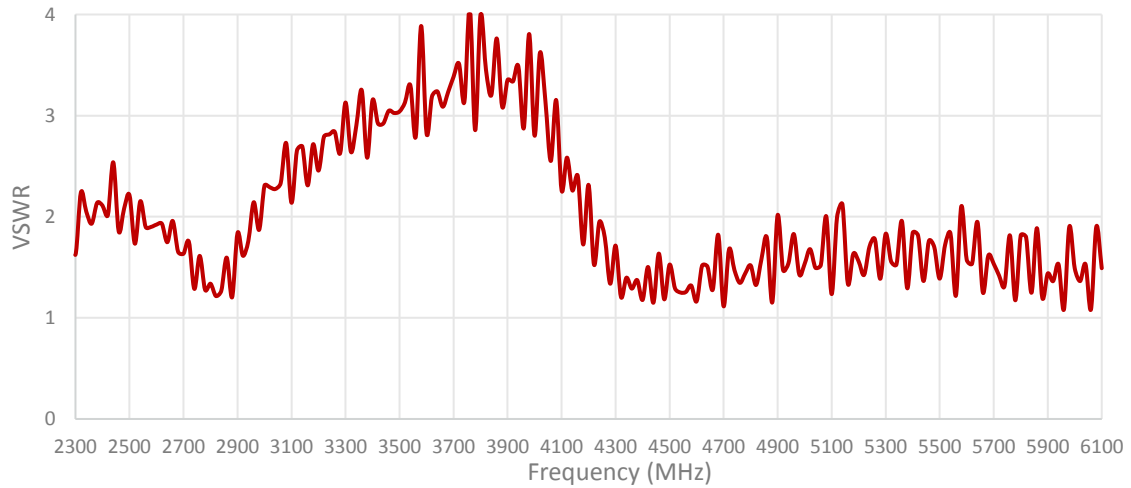
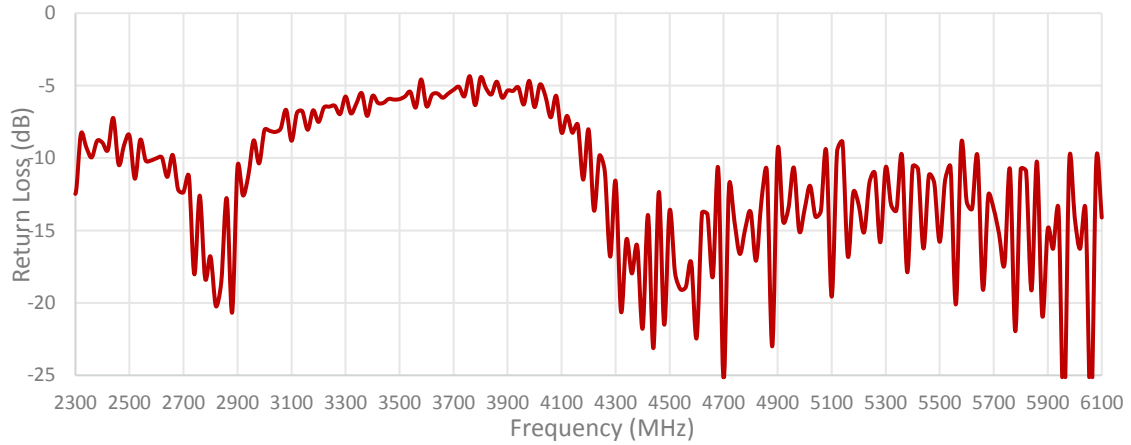
**Cable 2: 2.4/5.0 GHz ISM**

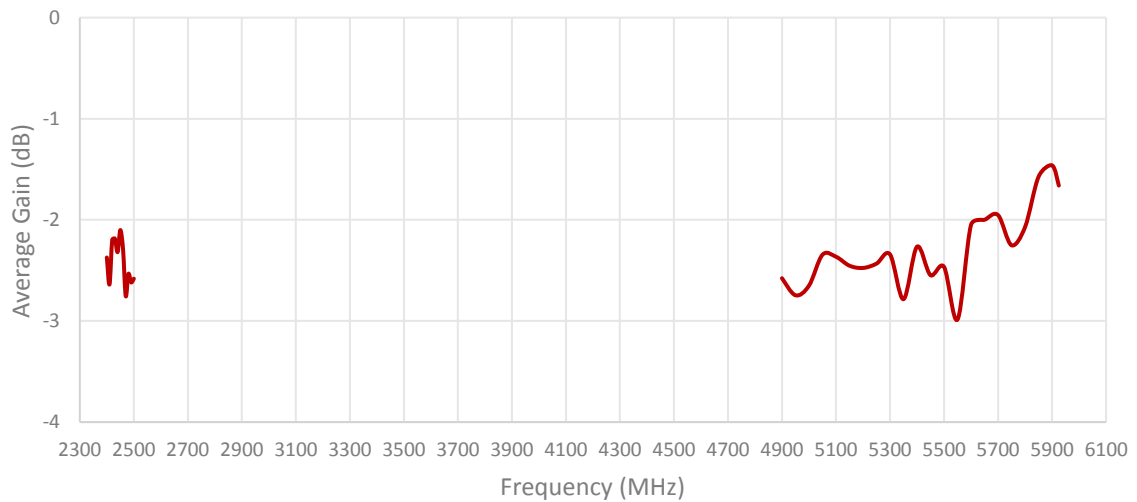
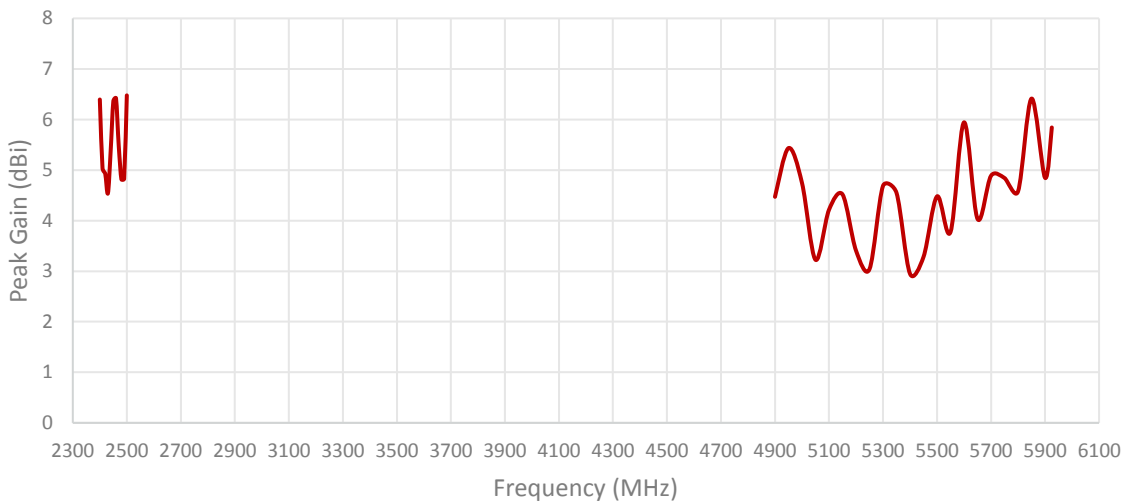
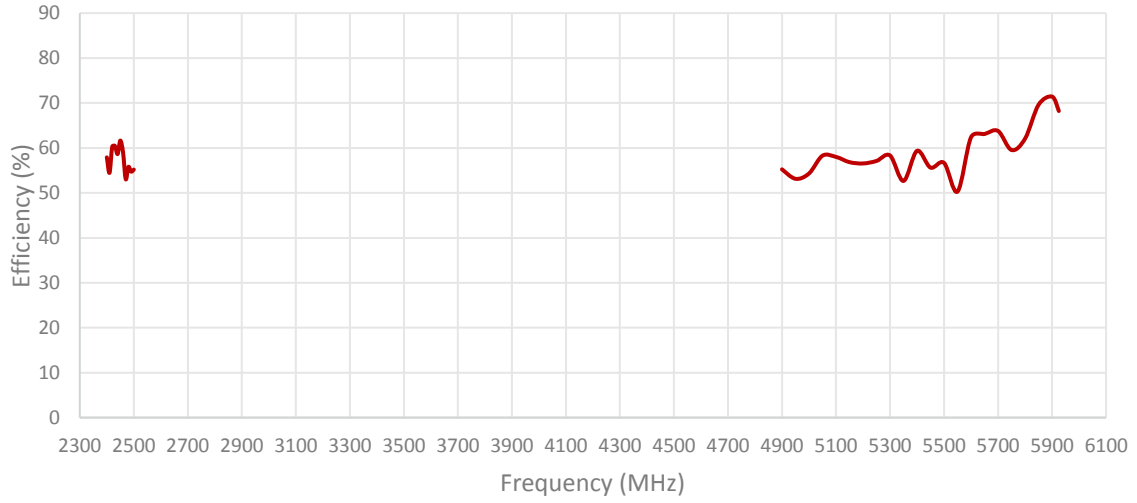




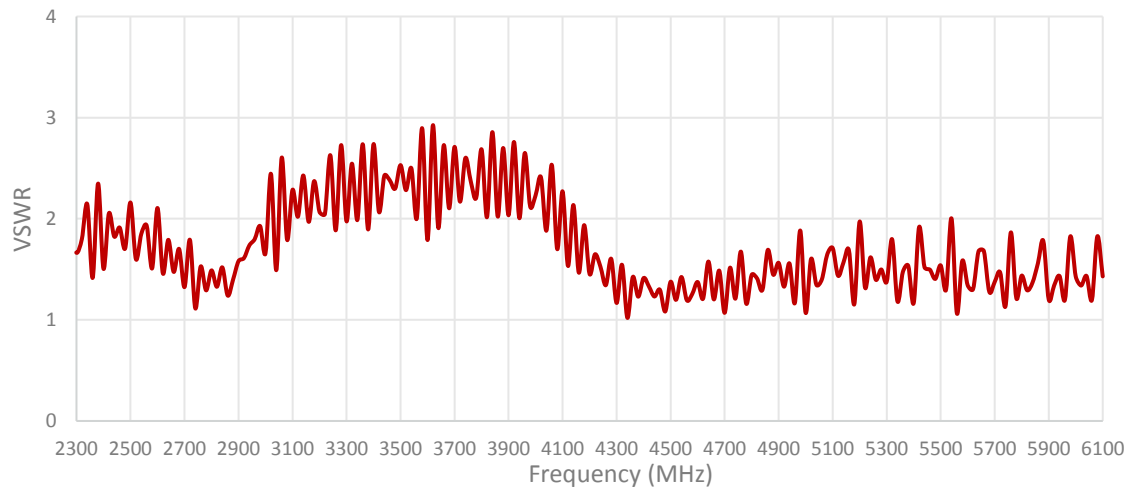
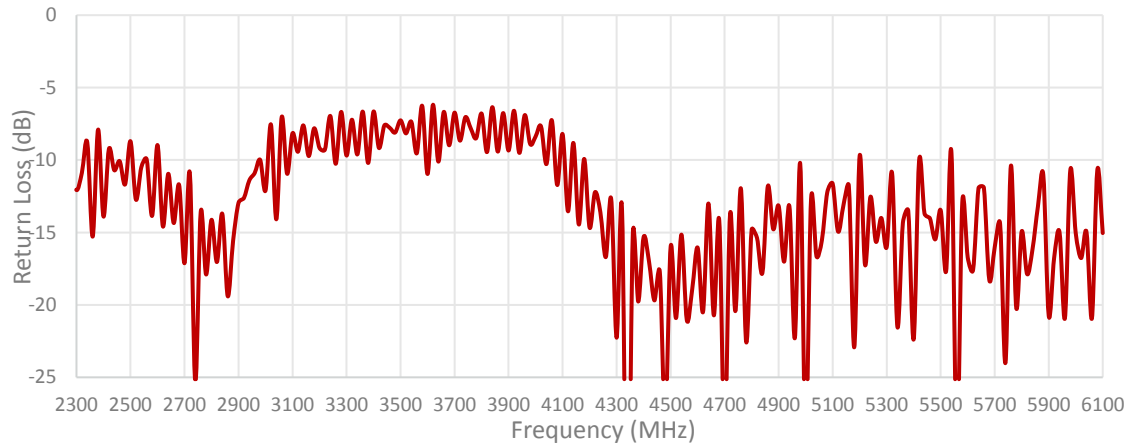


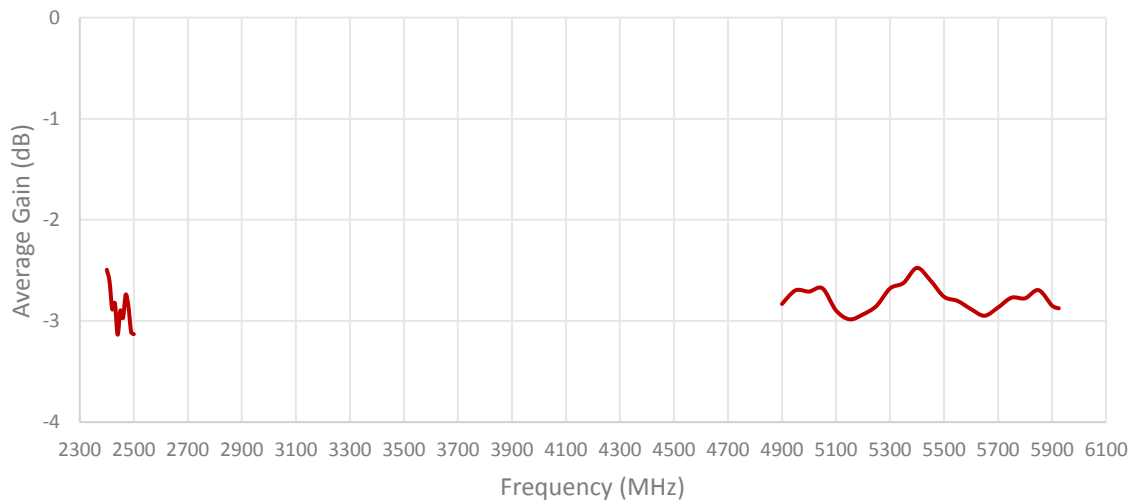
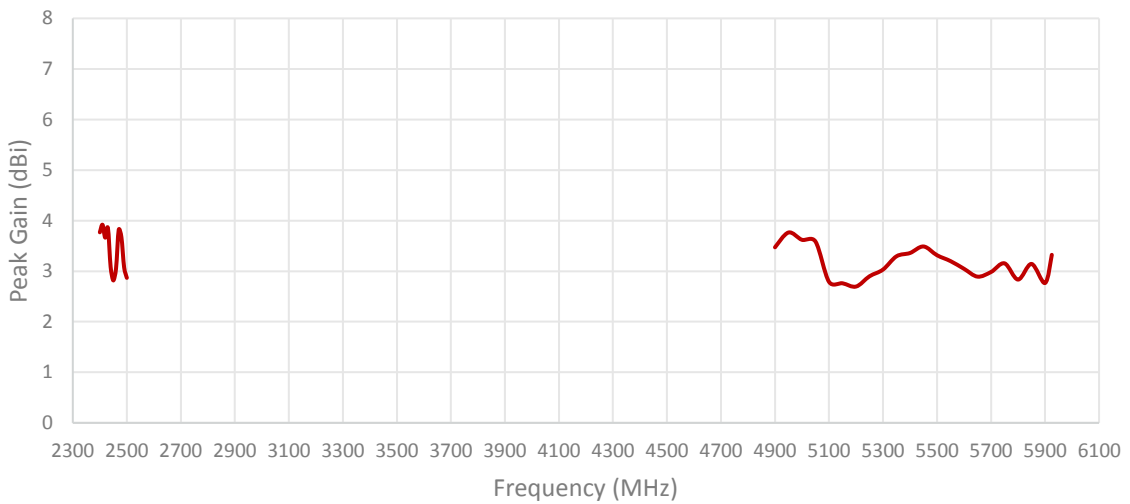
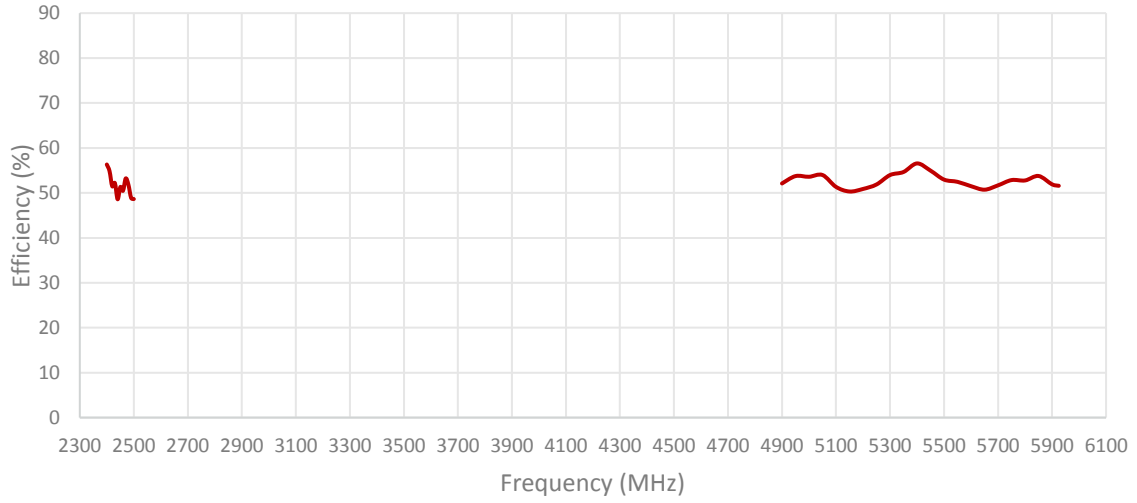
**Cable 3: 2.4/5.0 GHz ISM**



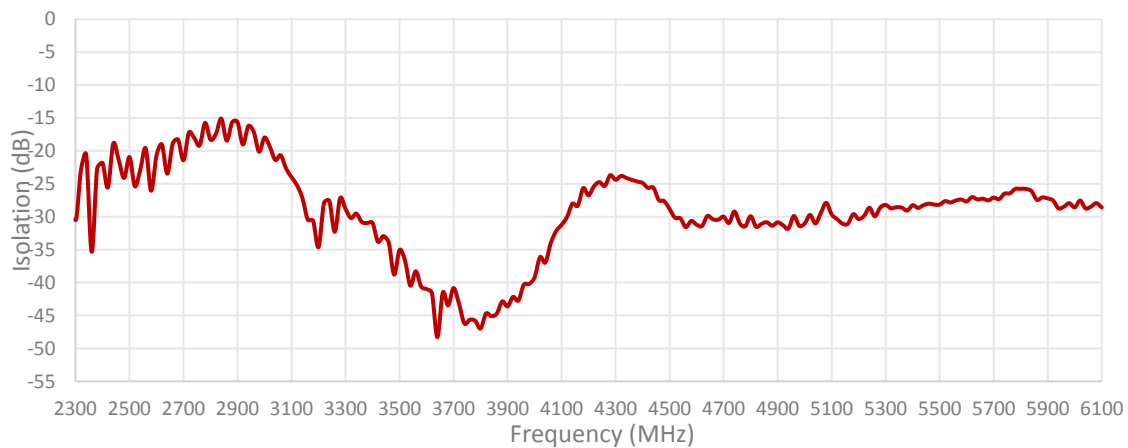


**Cable 4: 2.4/5.0 GHz ISM**

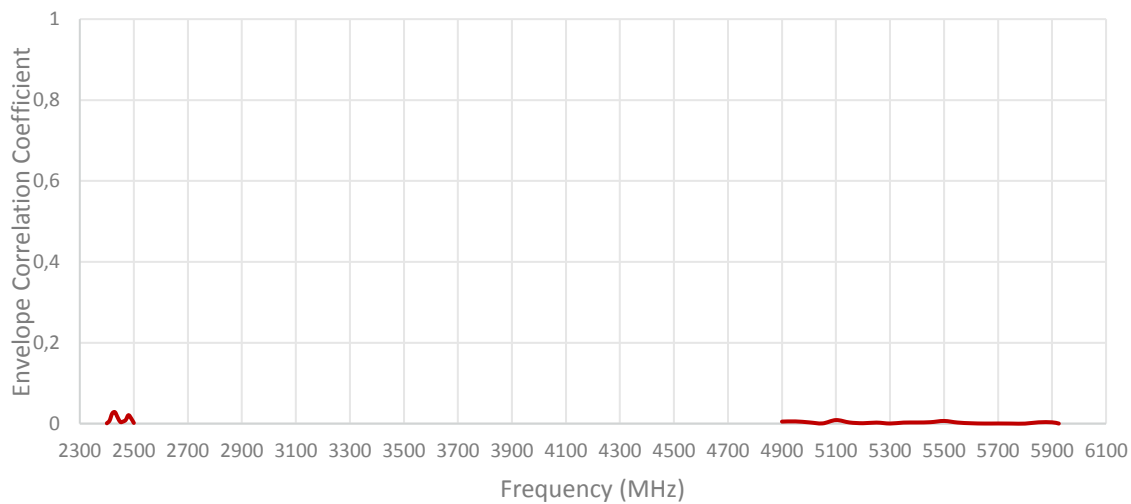




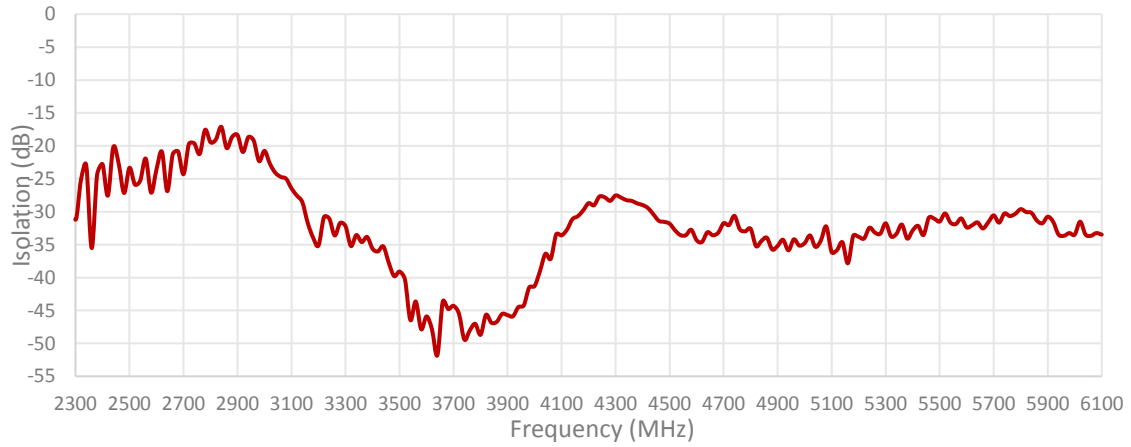
### ISOLATION FOR CABLES 1 AND 3



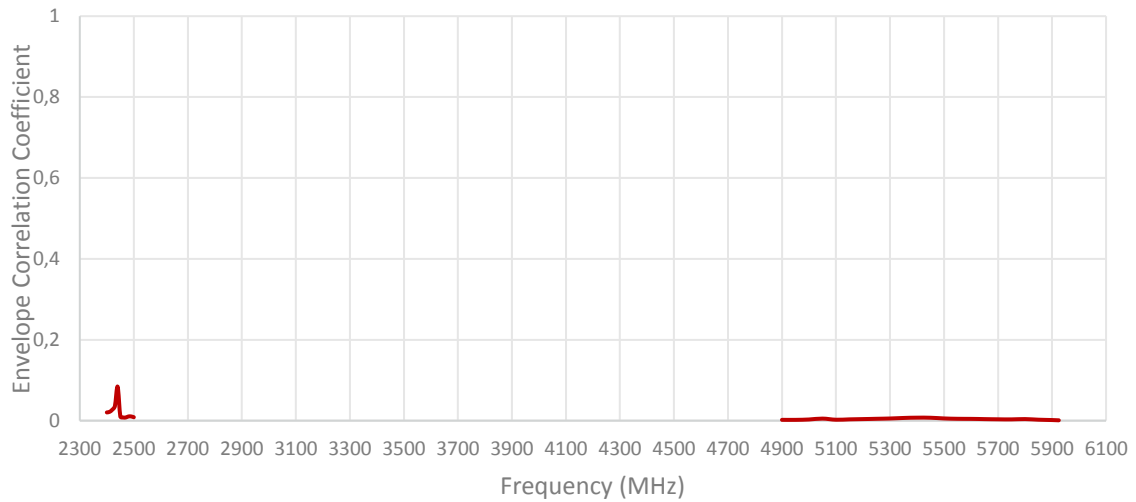
### ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 3

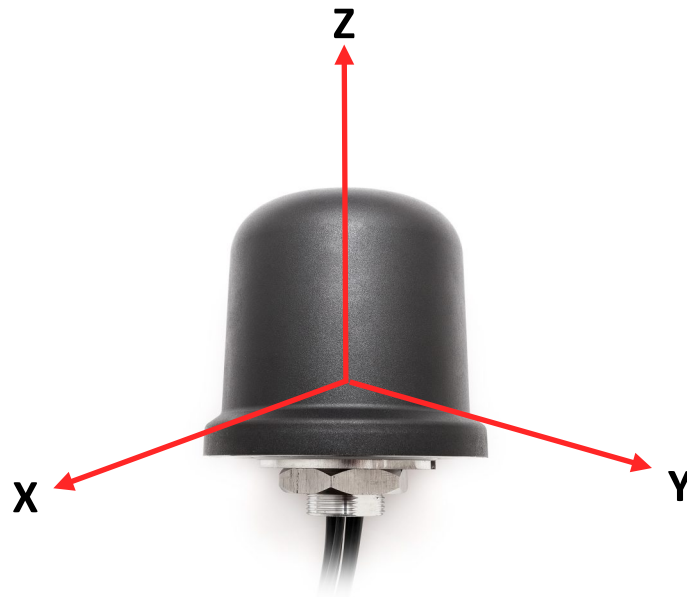


**ISOLATION FOR CABLES 3 AND 4**



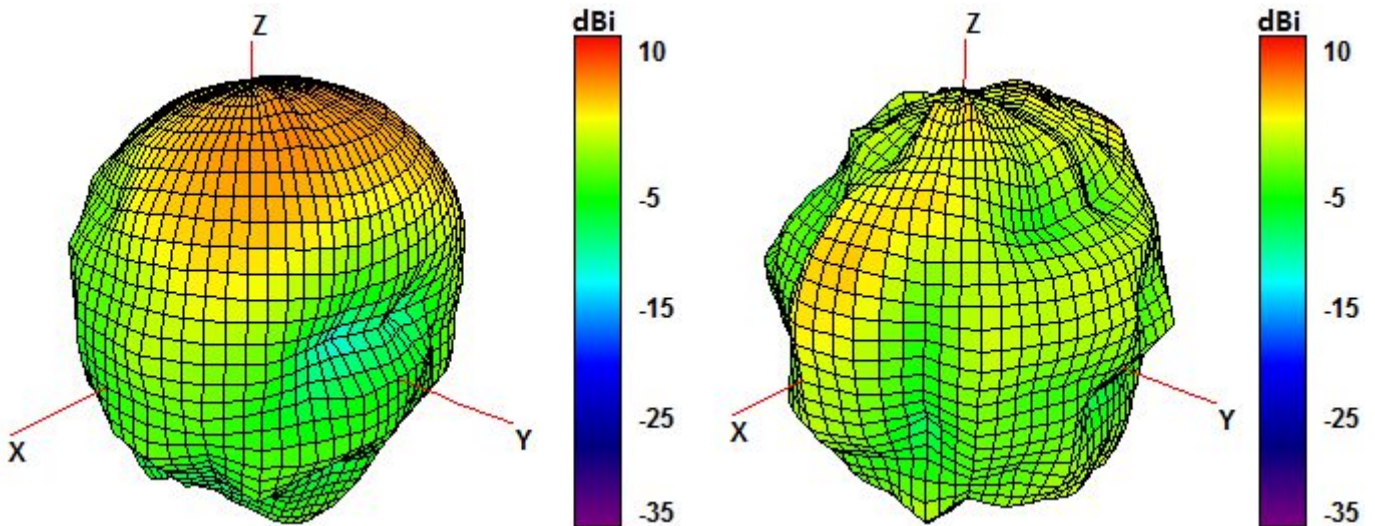
**ENVELOPE CORRELATION COEFFICIENT FOR CABLES 3 AND 4**





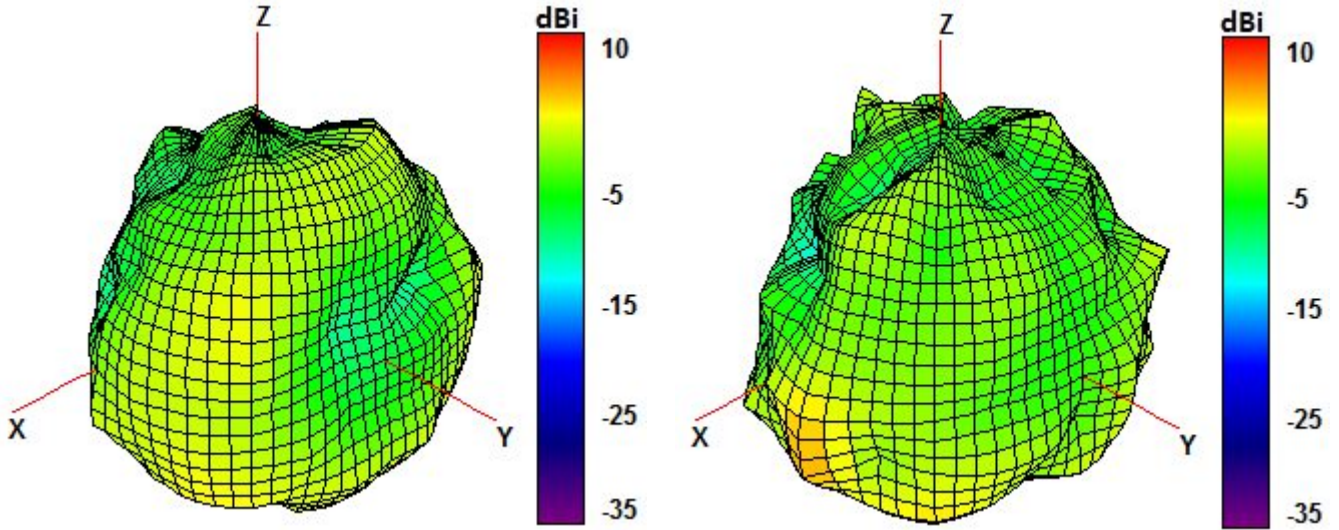
Radiation pattern reference

Cable 1: 2.4/5.0 GHz ISM



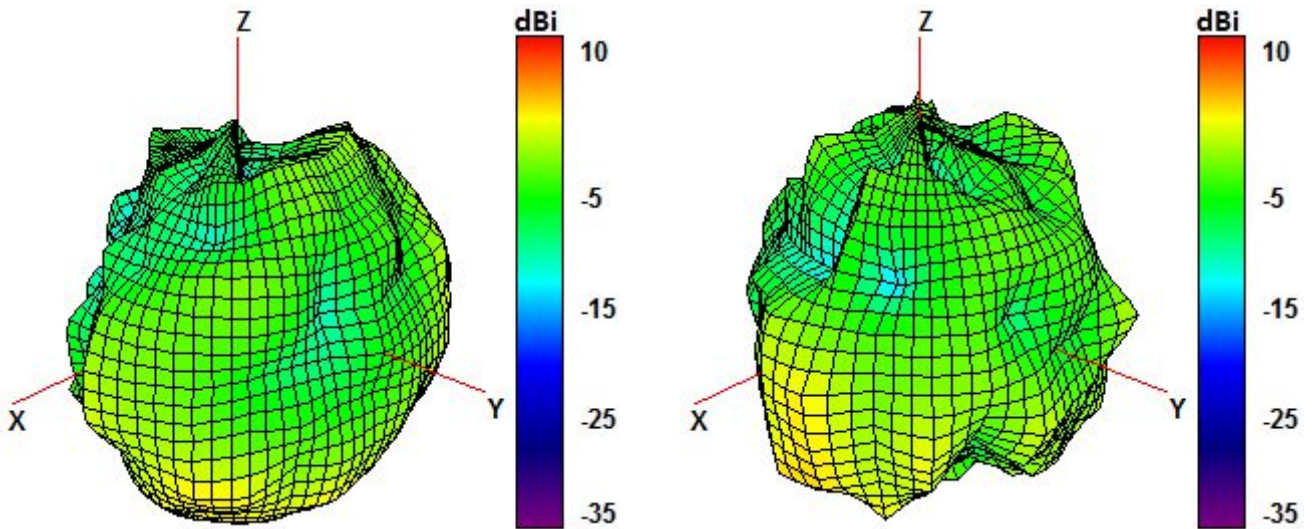
2450 and 5500 MHz Radiation pattern

Cable 2: 2.4/5.0 GHz ISM



2450 and 5500 MHz Radiation pattern

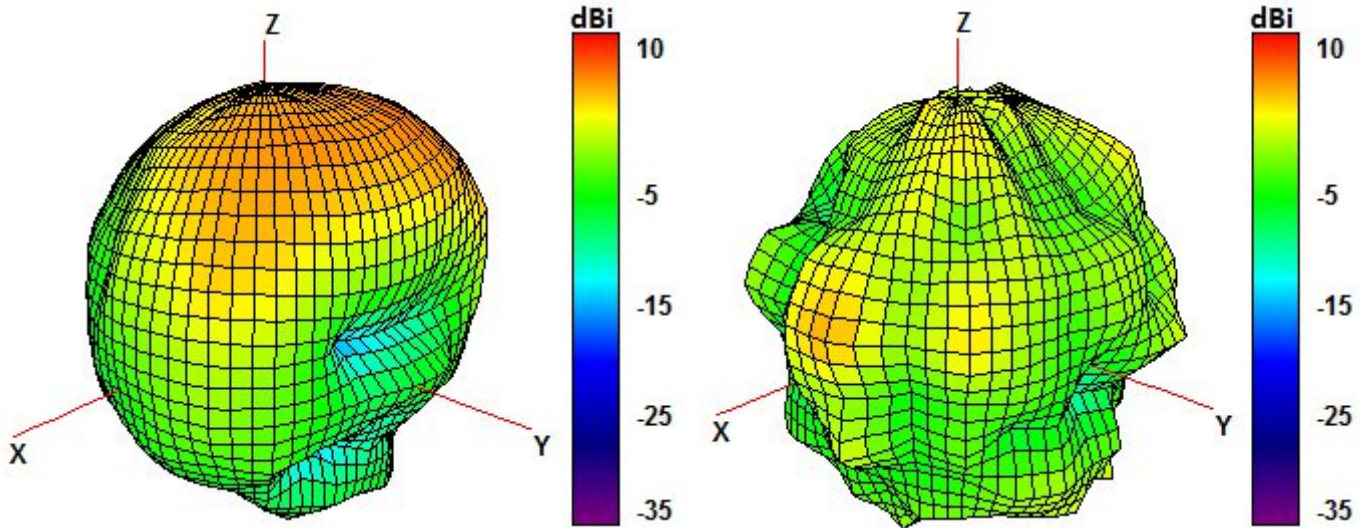
Cable 3: 2.4/5.0 GHz ISM



2450 and 5500 MHz Radiation pattern

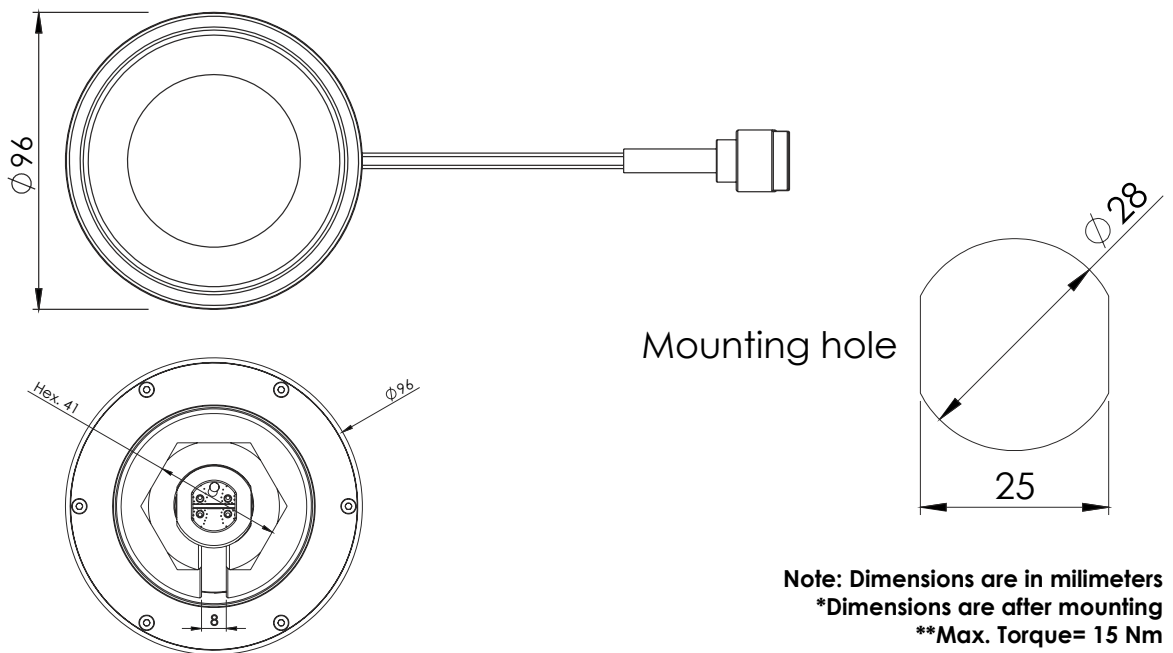
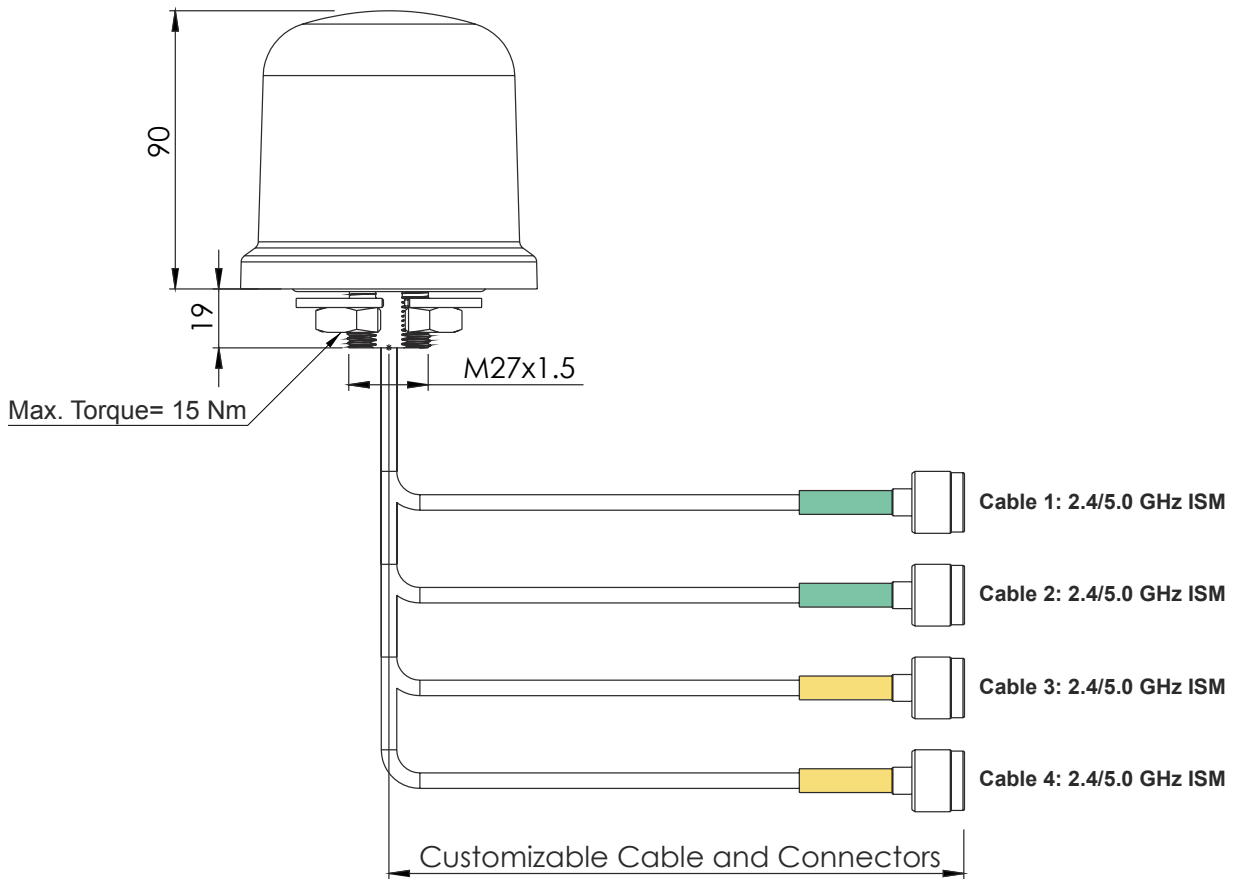


Cable 4: 2.4/5.0 GHz ISM

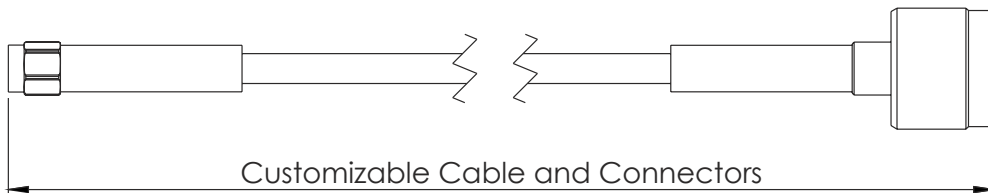


2450 and 5500 MHz Radiation pattern

## 4. Antenna drawings

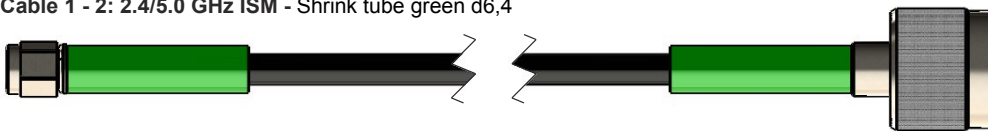


## 5. Jumper cables drawings - Optional



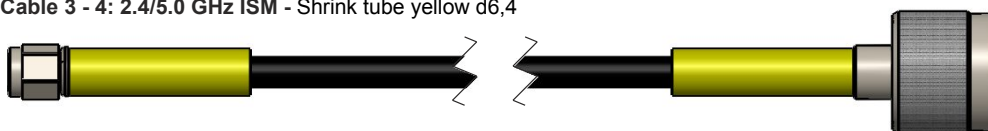
### C318N-LMR195-C151N GST - 2x

Cable 1 - 2: 2.4/5.0 GHz ISM - Shrink tube green d6,4



### C318N-LMR195-C151N YST - 2x

Cable 3 - 4: 2.4/5.0 GHz ISM - Shrink tube yellow d6,4



## 5. Antenna Images

