



# TAOGLAS®



# Datasheet

**Part No:**  
IMA.01.105111

**Description**

External Iridium Marine Antenna

**Features:**

Iridium External Marine Antenna  
Covering: 1616 – 1626.5MHz  
IP67 Waterproof Enclosure  
Dims: Ø90 x 108mm  
Cable: 1m of CFD-200  
Connector: SMA(M)  
RoHS & Reach Compliant

|           |                                |           |
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Taiwan  
ISO 9001:2015  
Certified



# 1. Introduction



The Taoglas **IMA.01** is a high-performance marine satellite communication antenna designed for applications operating on the Iridium® satellite network. Engineered for reliable global connectivity, the antenna delivers excellent signal performance in harsh marine environments, making it ideal for vessels, offshore equipment, and remote monitoring systems requiring dependable satellite communications.

Housed in a rugged IP67-rated waterproof enclosure, the IMA.01 is designed for permanent outdoor installations where long-term durability and environmental protection are essential. Its bracket-mounted design enables secure installation on a wide range of marine platforms, while the antenna's ground-plane-independent architecture simplifies integration and provides installation flexibility.

## Typical Applications:

- Marine Communications
- Commercial and Recreational Vessels
- Offshore Monitoring Systems
- Maritime Safety Equipment
- Fleet Tracking and Asset Monitoring
- Remote Telemetry Systems
- Emergency Communication Platforms

The IMA.01 delivers greater than 75% efficiency when used with the standard 1 m CFD-200 coaxial cable, helping to maximize communication reliability across the Iridium satellite network. Certified by Iridium® for commercial use, the antenna provides a trusted solution for satellite-enabled systems operating in demanding maritime environments.

For integration support, testing services, or additional technical assistance, please contact your regional Taoglas customer support team.

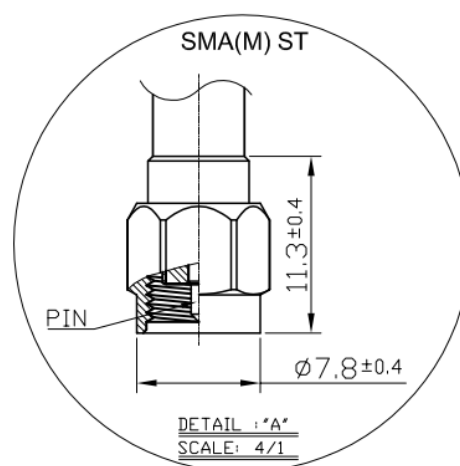
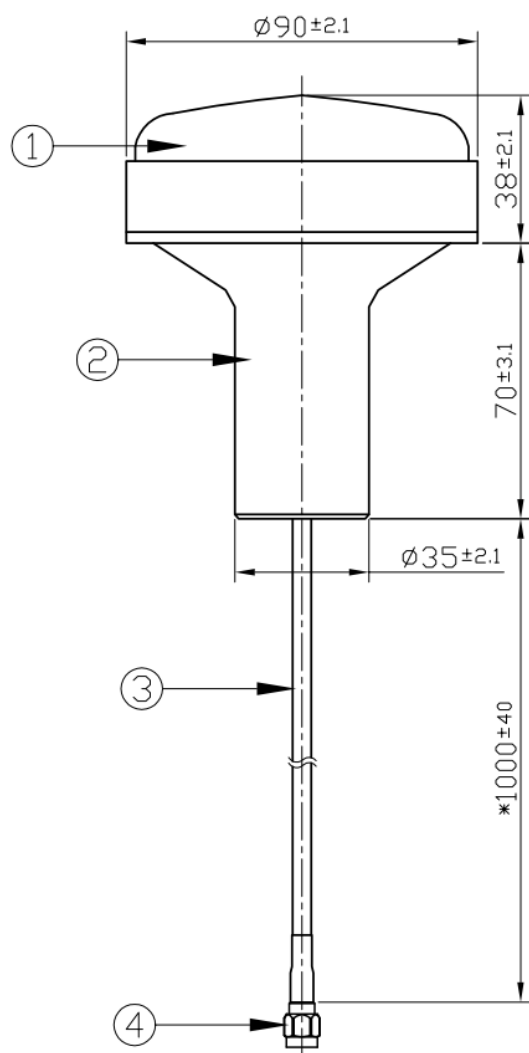
## 2. Specification

| Electrical |                 |                |                   |                 |             |              |                   |                  |
|------------|-----------------|----------------|-------------------|-----------------|-------------|--------------|-------------------|------------------|
| Band       | Frequency (MHz) | Efficiency (%) | Average Gain (dB) | Peak Gain (dBi) | Impedance   | Polarization | Radiation Pattern | Max. input power |
| Iridium    | 1616-1627       | 75.3           | -1.23             | 4.53            | 50 $\Omega$ | RHCP         | Omni directional  | 2W               |

| Mechanical |                                       |
|------------|---------------------------------------|
| Dimensions | $\varnothing 90 \times 108 \text{mm}$ |
| Weight     | 186g                                  |
| Material   | ABS                                   |
| Connector  | SMA(M)                                |
| Cable      | 1m of CFD-200                         |

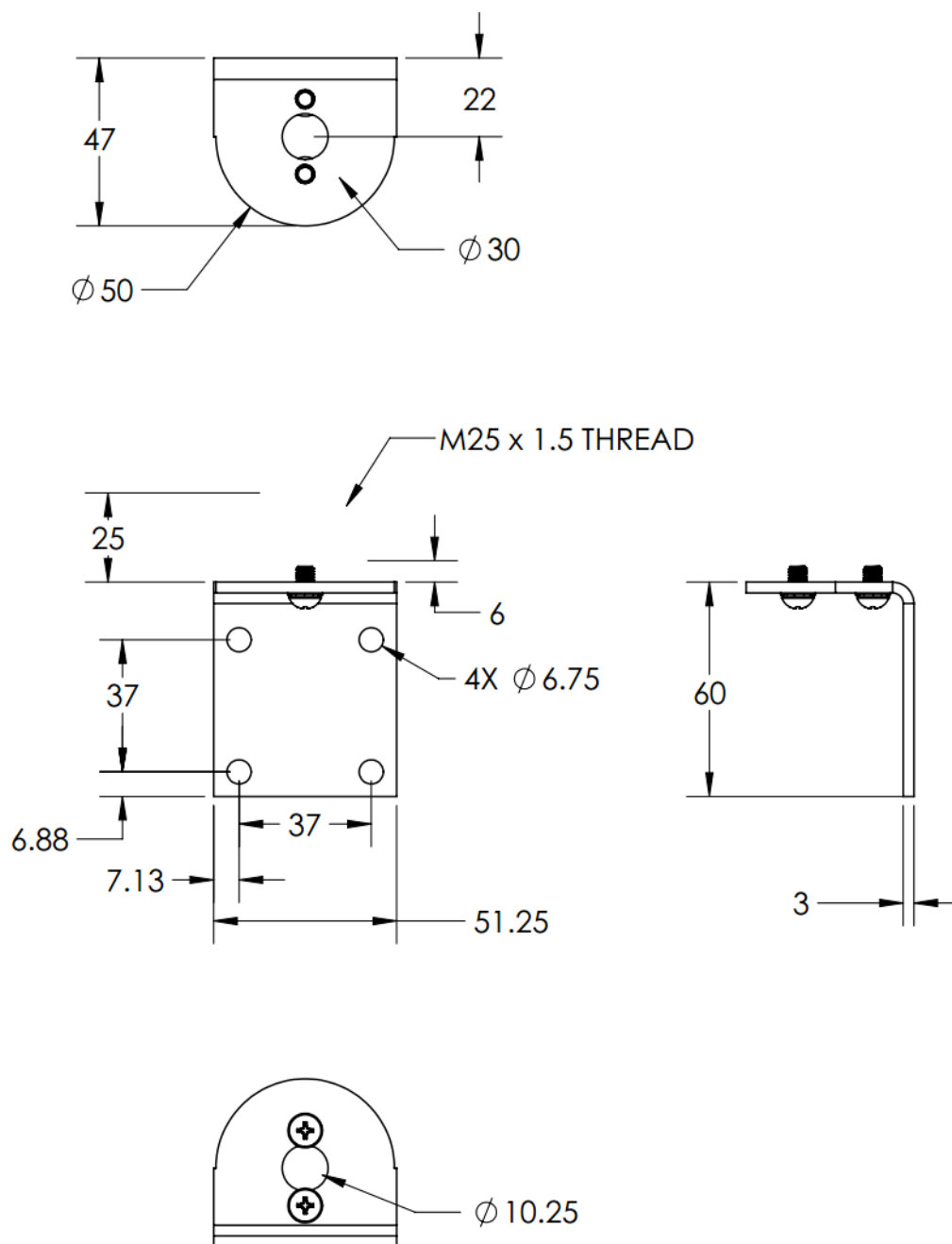
| Environmental         |                            |
|-----------------------|----------------------------|
| Waterproof Rating     | IP67                       |
| Operation Temperature | -40°C to +85°C             |
| Storage Temperature   | -40°C to +85°C             |
| Relative Humidity     | 40% to 95%                 |
| Shock (Drop Test)     | 1m drop on concrete 6 axes |

### 3. Mechanical Drawing



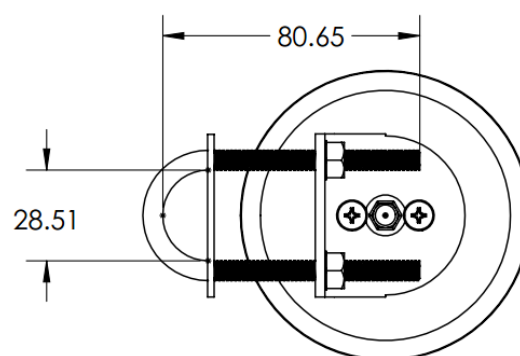
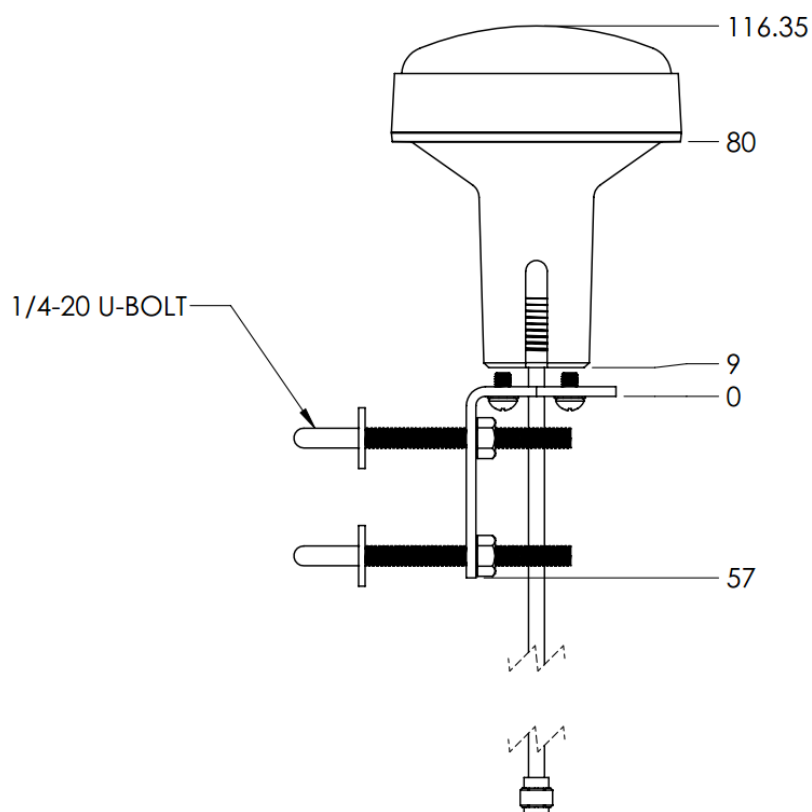
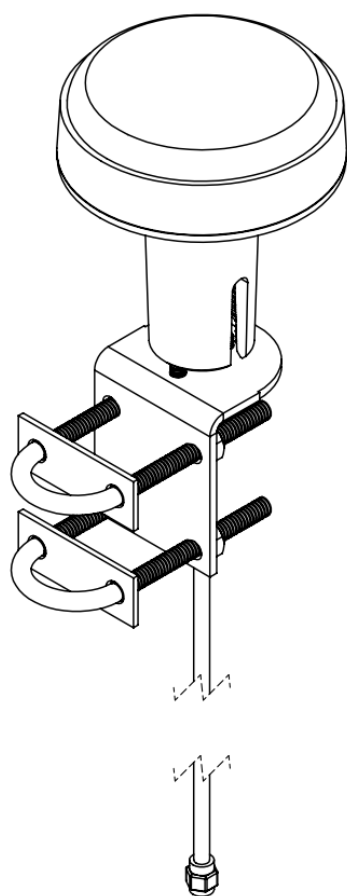
|   | Name           | Material | Finish | QTY |
|---|----------------|----------|--------|-----|
| 1 | Housing_Top    | ABS      | N/A    | 1   |
| 2 | Housing_Bottom | ABS      | N/A    | 1   |
| 3 | CFD200         | PVC      | Black  | 1   |
| 3 | SMA(M) ST      | Brass    | Gold   | 1   |

### 3.1 Mounting Bracket



\* See P/N- **IMA.01.105111.wm** if bracket is needed for further implement.

## 3.2 U Bolt



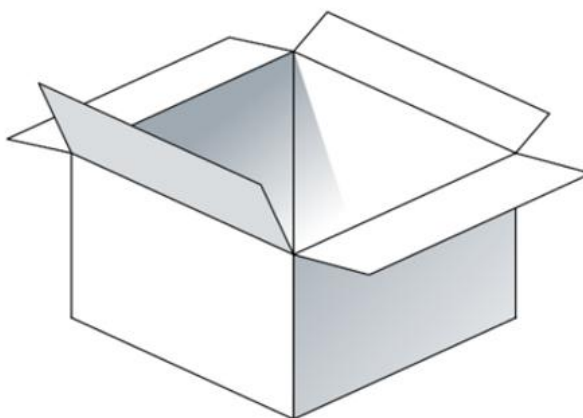
\* See P/N- **IMA.01.105111.wm** if bracket is needed for further implement.

## 4. Packaging

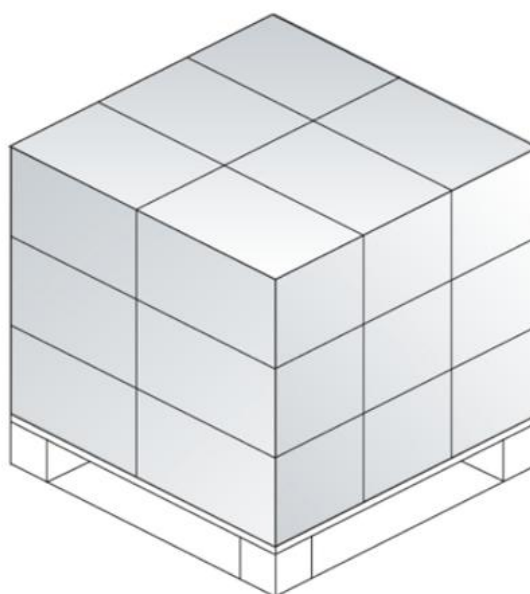
1pc IMA.01.105111 per small box  
Box Dimensions - 100\*140\*128mm  
Weight - 186g



30 small boxes in one carton  
Carton Dimensions - 300\*410\*525mm  
Weight - 7.5Kg



Pallet Dimensions 1100\*1100\*1725mm  
18 Cartons per Pallet  
6 Cartons per layer  
3 Layers

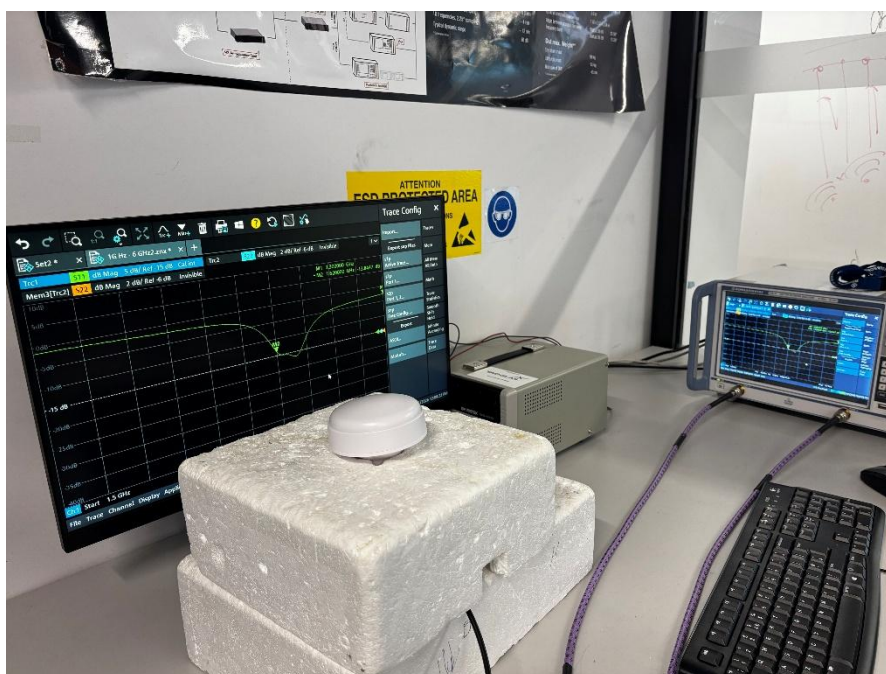


## 5. Antenna Characteristics

### 5.1 Test Setup

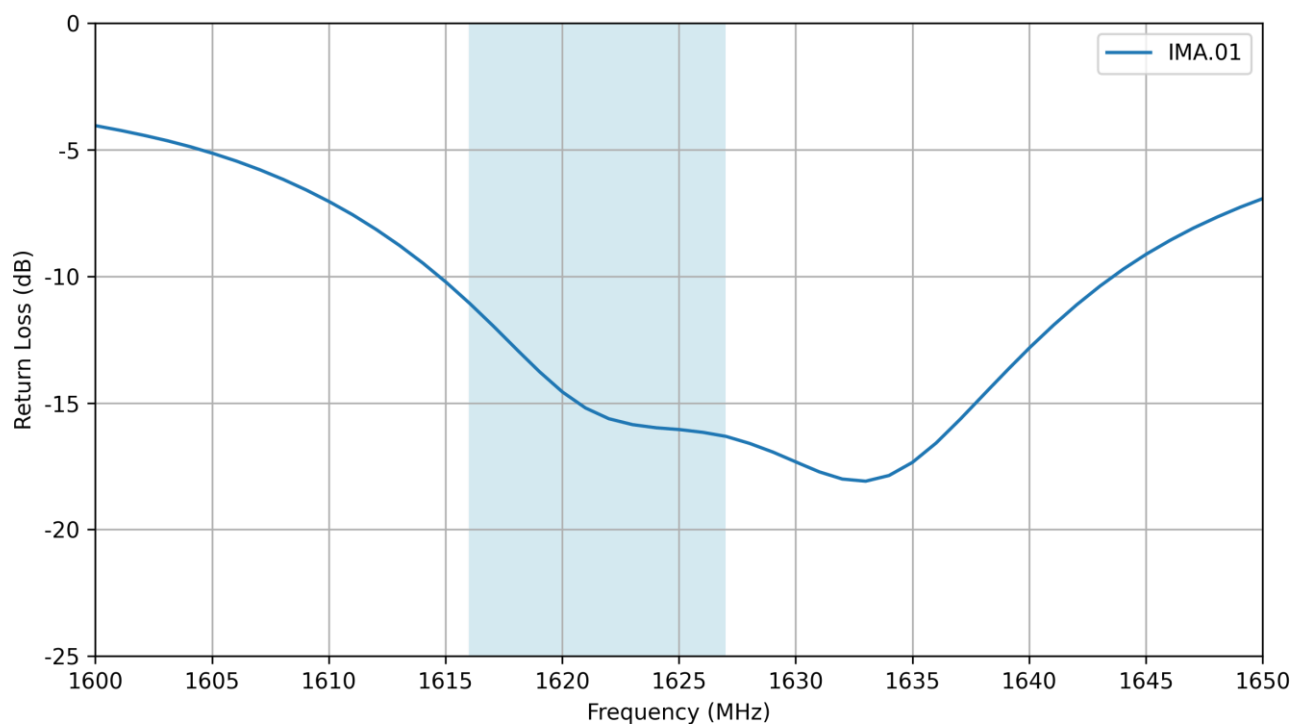


Vector Network Analyzer

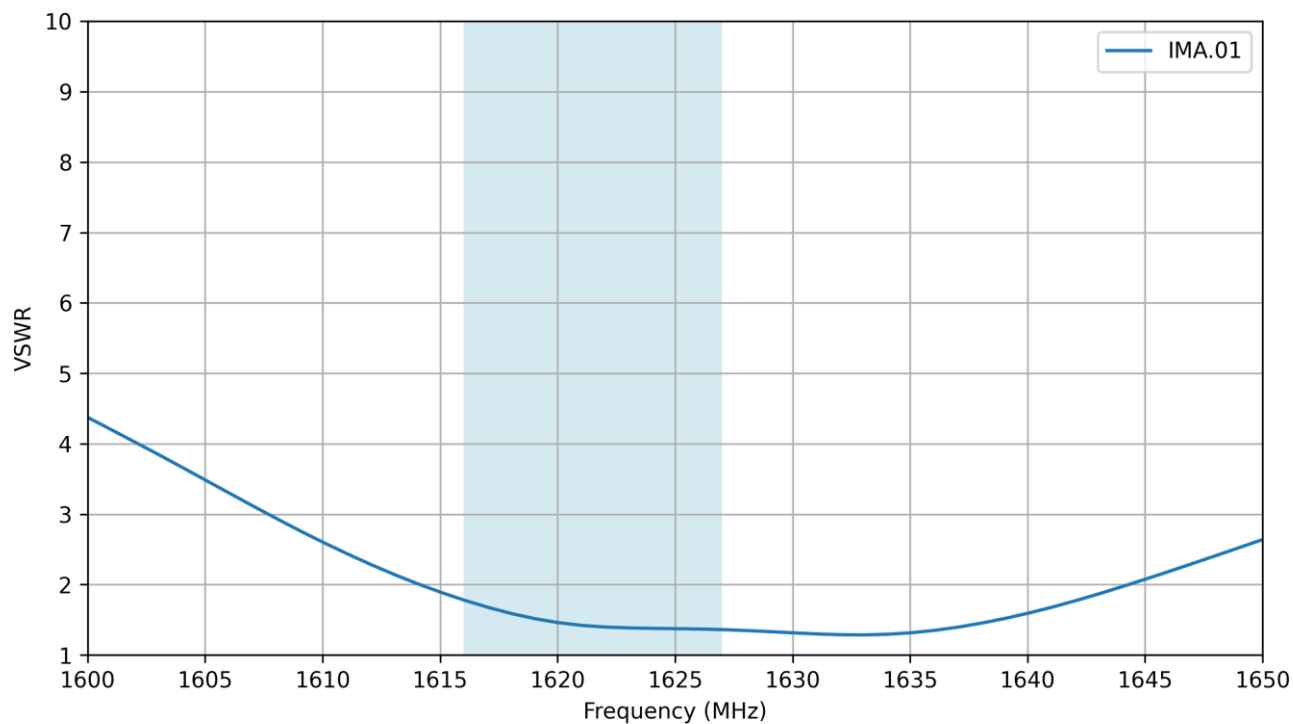


VNA Test Set-up in Free Space

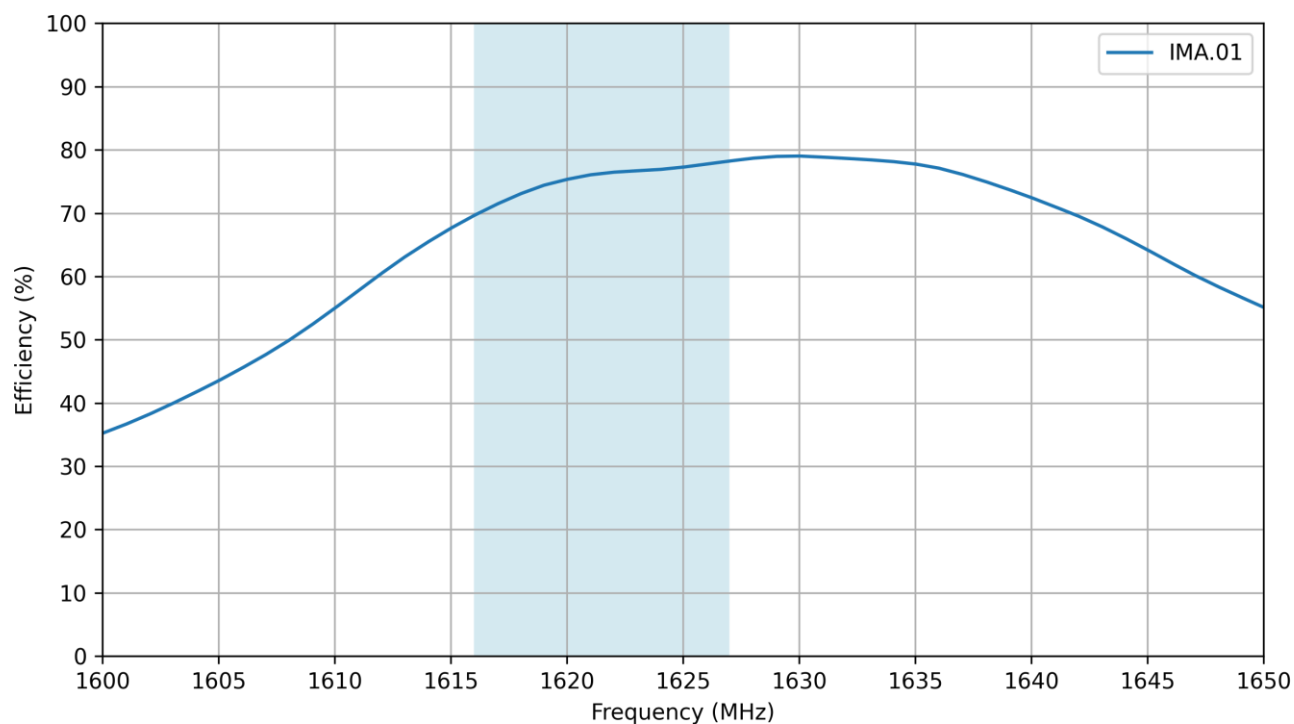
## 5.2 Return Loss



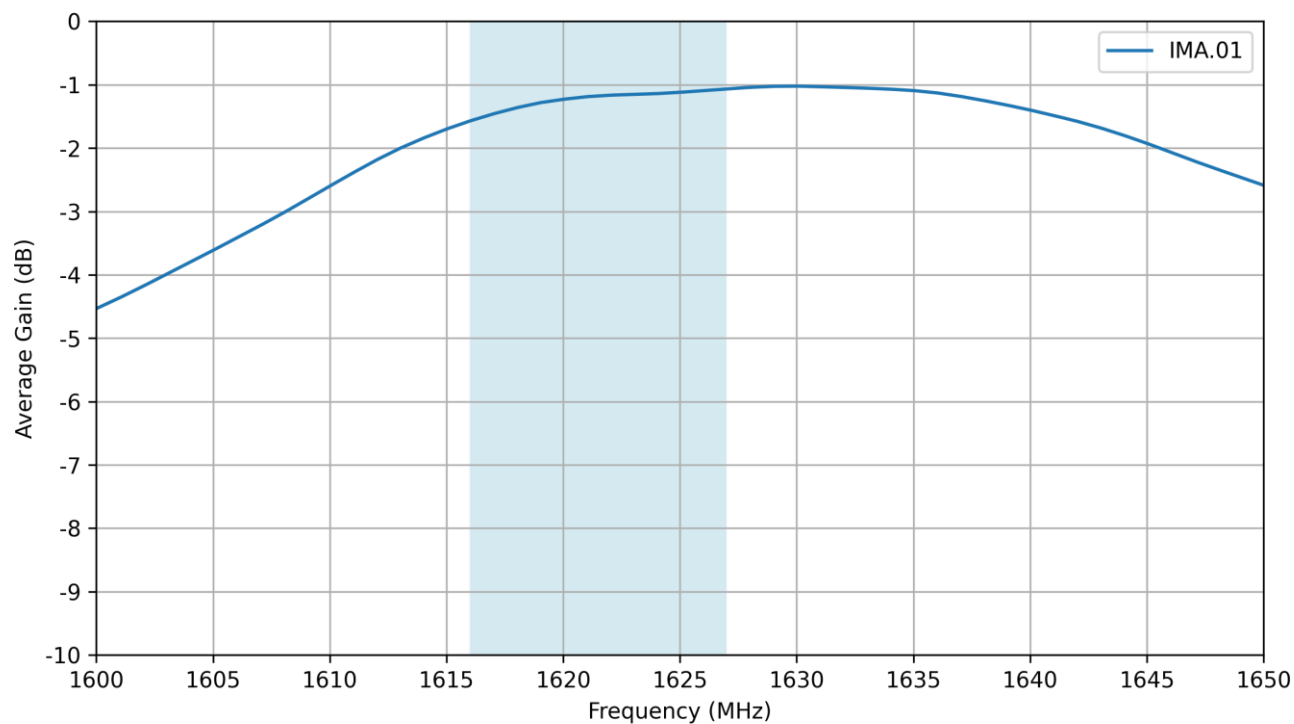
## 5.3 VSWR



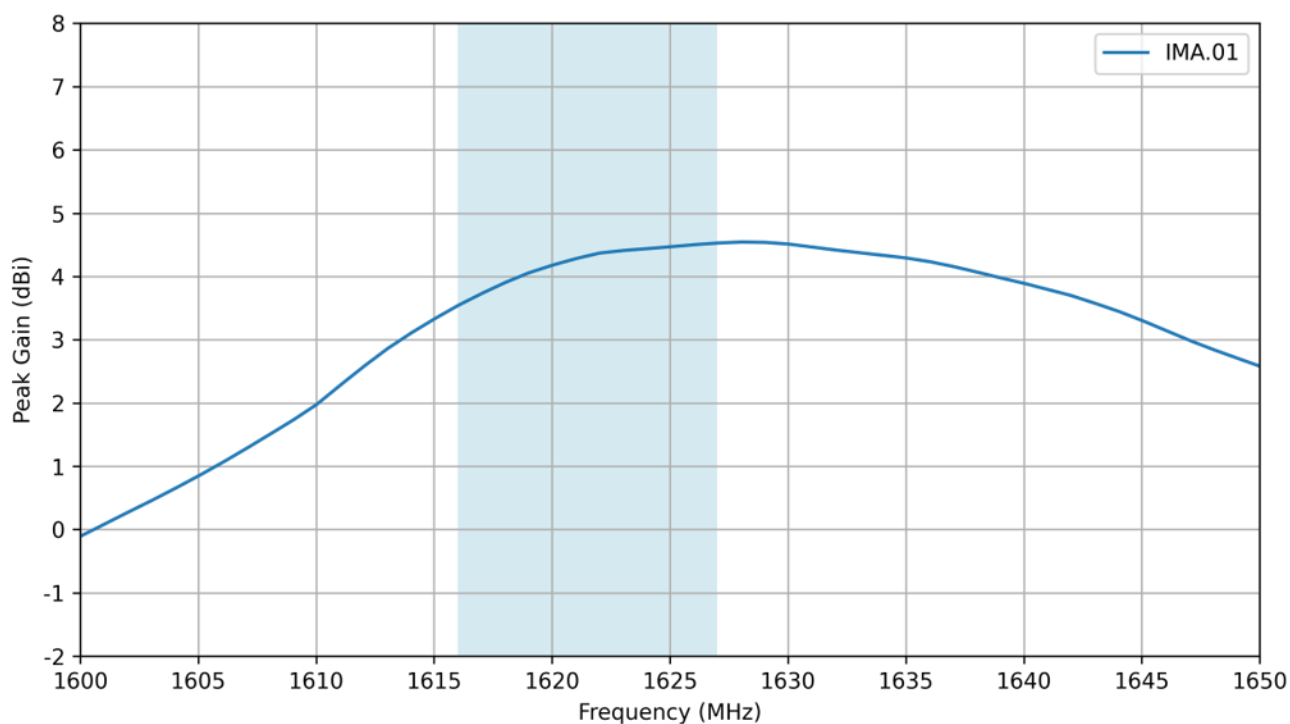
## 5.4 Efficiency



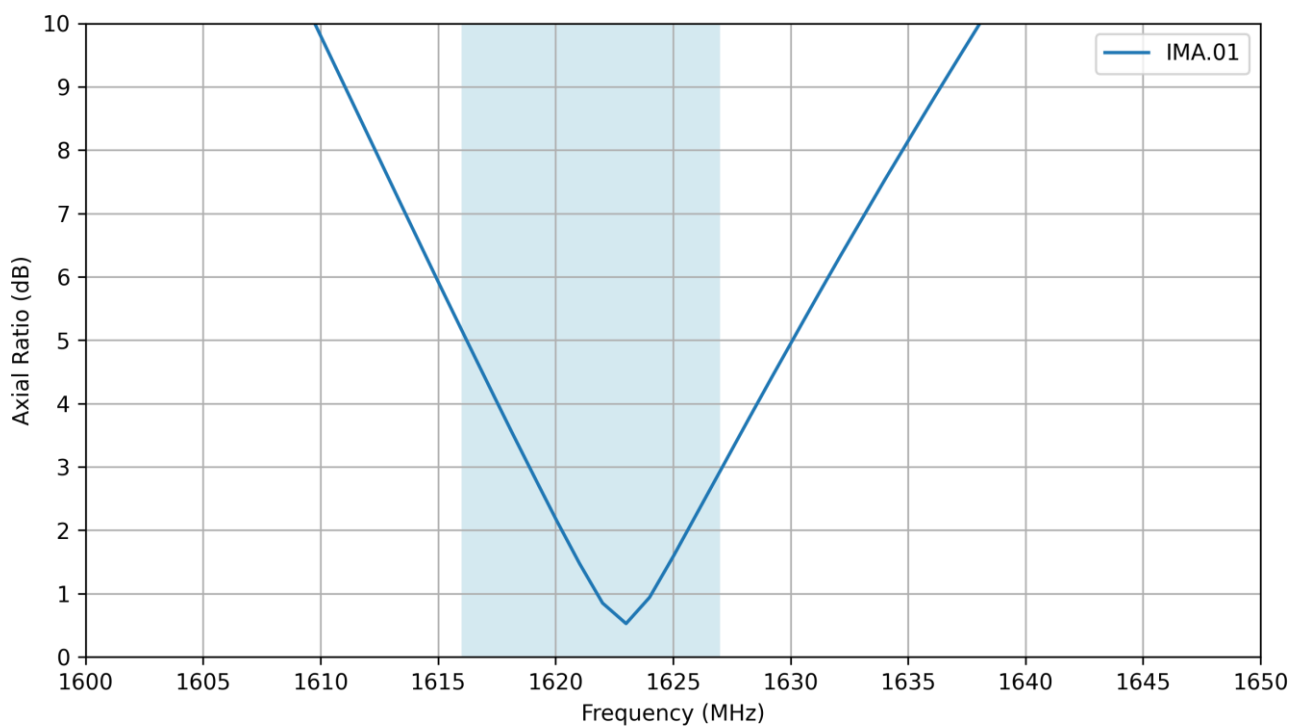
## 5.5 Average Gain



## 5.6 Peak Gain

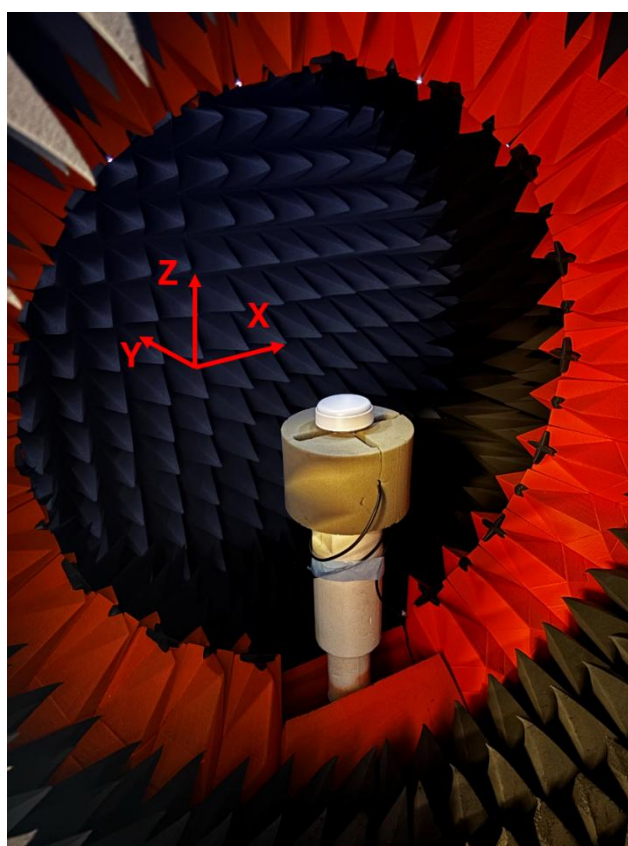
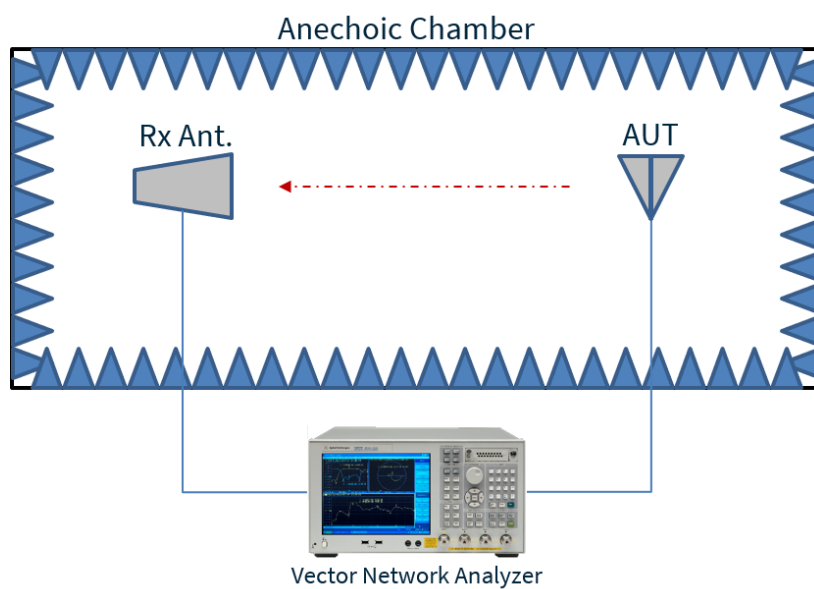


## 5.7 Axial Ratio



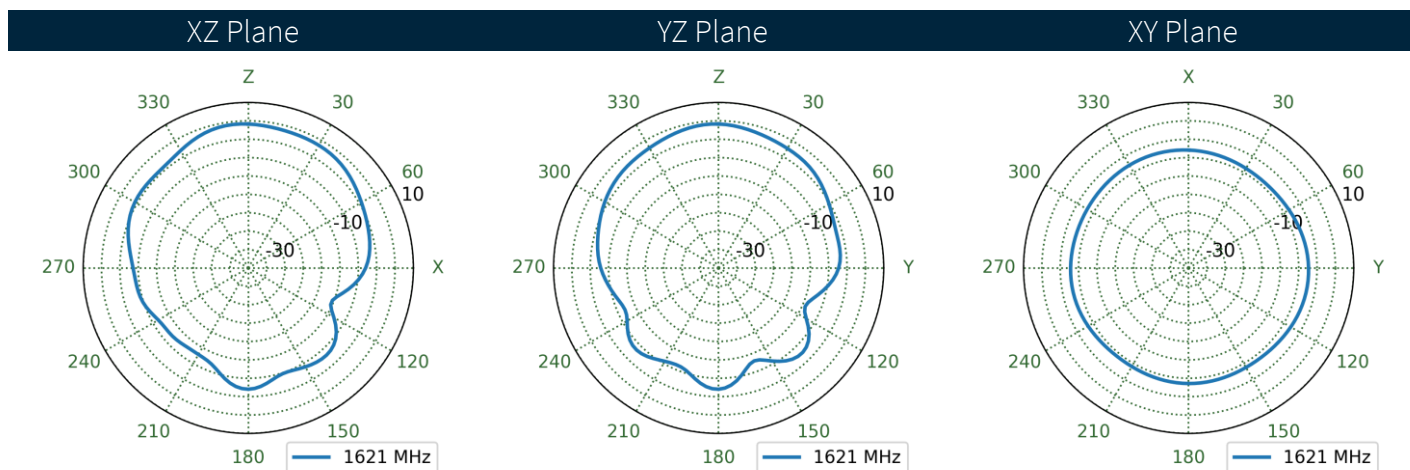
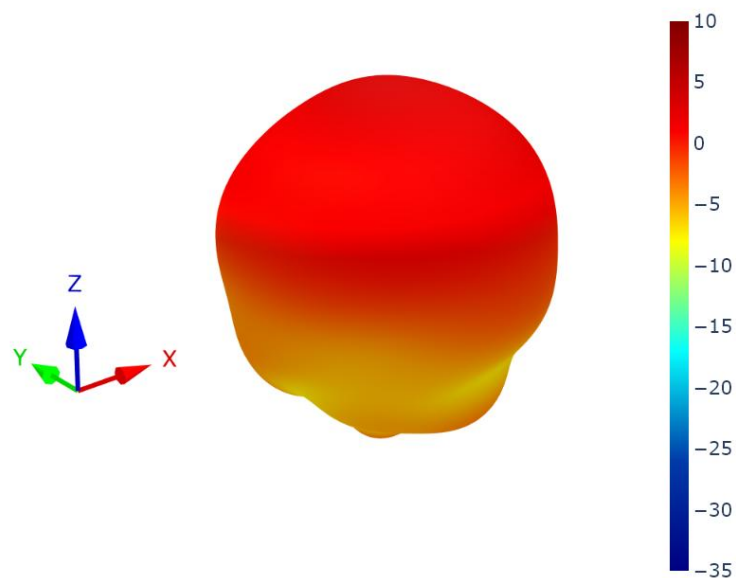
## 6. Radiation Patterns

### 6.1 Test Setup



Chamber Test Set-up in Free Space

## 6.2 Patterns at 1621 MHz



## Changelog for the datasheet

### SPE-14-8-114 – IMA.01.105111

#### Revision: D (Current Version)

|                  |                        |
|------------------|------------------------|
| Date:            | 2026-09-16             |
| Changes:         | Full datasheet update. |
| Changes Made by: | Gary West              |

#### Previous Revisions

##### Revision: C

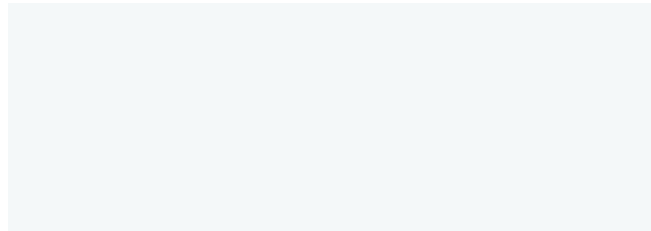
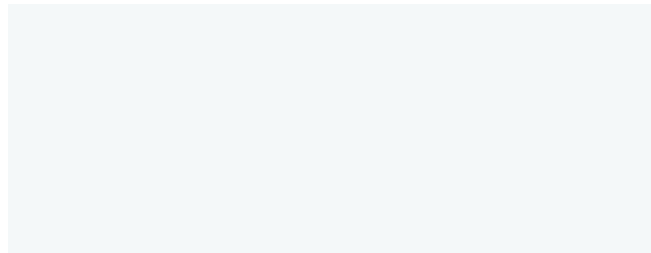
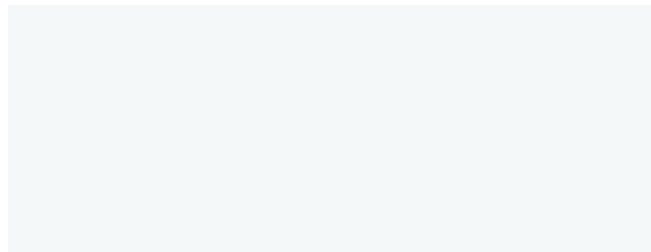
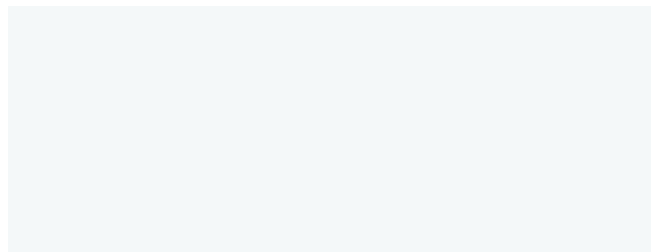
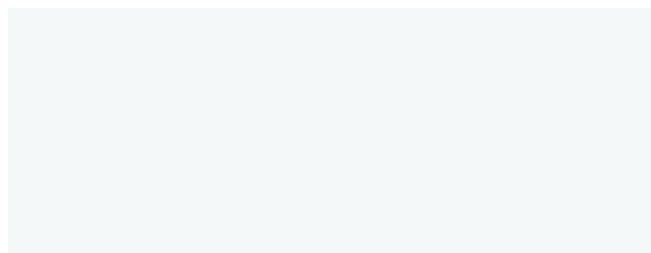
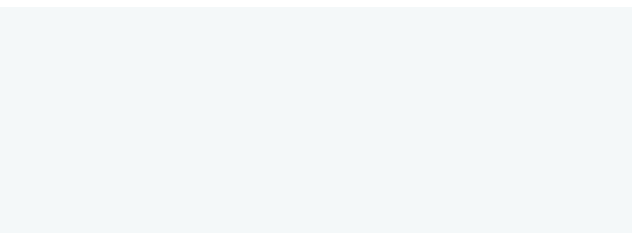
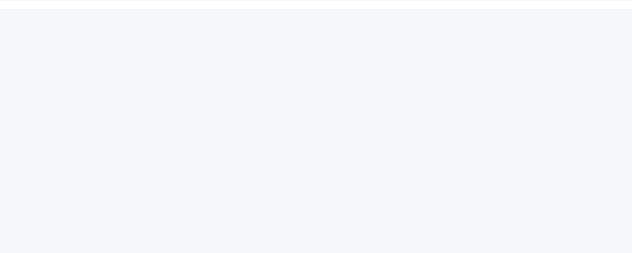
|                  |                                                                           |
|------------------|---------------------------------------------------------------------------|
| Date:            | 2018-02-06                                                                |
| Changes:         | Remove image with bracket and replace with antenna image without bracket. |
| Changes Made by: | Carol Faughnan                                                            |

##### Revision: B

|                  |                  |
|------------------|------------------|
| Date:            | 2017-05-21       |
| Changes:         | Update           |
| Changes Made by: | Technical Writer |

##### Revision: A (Initial Release)

|                  |                  |
|------------------|------------------|
| Date:            | 2014-11-17       |
| Changes:         | Initial Release  |
| Changes Made by: | Technical Writer |





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