



# TAOGLAS®



# Datasheet

**Part No:**  
**FG.91.A**

**Description**

915MHz 7dBi Panel Antenna  
With 300mm RG-58 Pigtail and N-Type (M) Connector

**Features:**

High-performance 7dBi 915MHz Panel Antenna  
Includes Wall/Pole Mounting Plate and Bolts  
Dimensions: 190 x 190mm x 25mm  
Cable: 300mm of RG-58  
Connector: N-Type (Male)  
RoHS & Reach Compliant

<b>1.</b>	<b>Introduction</b>	<b>3</b>
<b>2.</b>	<b>Specification</b>	<b>4</b>
<b>3.</b>	<b>Mechanical Drawing</b>	<b>5</b>
<b>4.</b>	<b>Installation Guide</b>	<b>6</b>
<b>5.</b>	<b>Packaging</b>	<b>7</b>
<b>6.</b>	<b>Antenna Characteristics</b>	<b>9</b>
<b>7.</b>	<b>Radiation Patterns</b>	<b>13</b>

---

	<b>Changelog</b>	<b>15</b>
--	------------------	-----------

Ireland & USA  
ISO 9001:2015  
Certified



Taiwan  
ISO 9001:2015  
Certified



Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

# 1. Introduction



## This Taoglas High Gain ISM Panel Antenna Series

The Taoglas FG Series of compact 868MHz and 915MHz Panel Antennas are specially designed to provide directional wireless communication for ISM band applications. The panel design combines a sleek, low-profile design with high-performance, delivering superior performance characteristics. Focused on high-performance signal transmission and reception, they are perfect for applications requiring long range, resilient connections. The FG.81 covers 868MHz with a peak gain of up to 6dBi and the FG.91 operated at 915MHz with a 7dBi peak gain. Both antennas in the series exhibit exceptional efficiencies of approx. 90% at the centre bands.

### Typical Applications Include:

- Industrial Wireless Communication
- Environmental and Agricultural monitoring
- Medical and Healthcare
- RFID Systems for Asset Tracking and Access Control

The IP67 waterproof rated antenna enclosure is made from UV resistant ABS making it ideal for use in challenging environments and wide temperature ranges. It is supplied with a robust mounting bracket that allows for pole or wall mounting. The FG Series is supplied with RG-58 cable and N-Type connectors as standard, both of which can be fully customised to suit your requirements pending MOQ.

For further information or samples please contact your regional Taoglas customer support team.

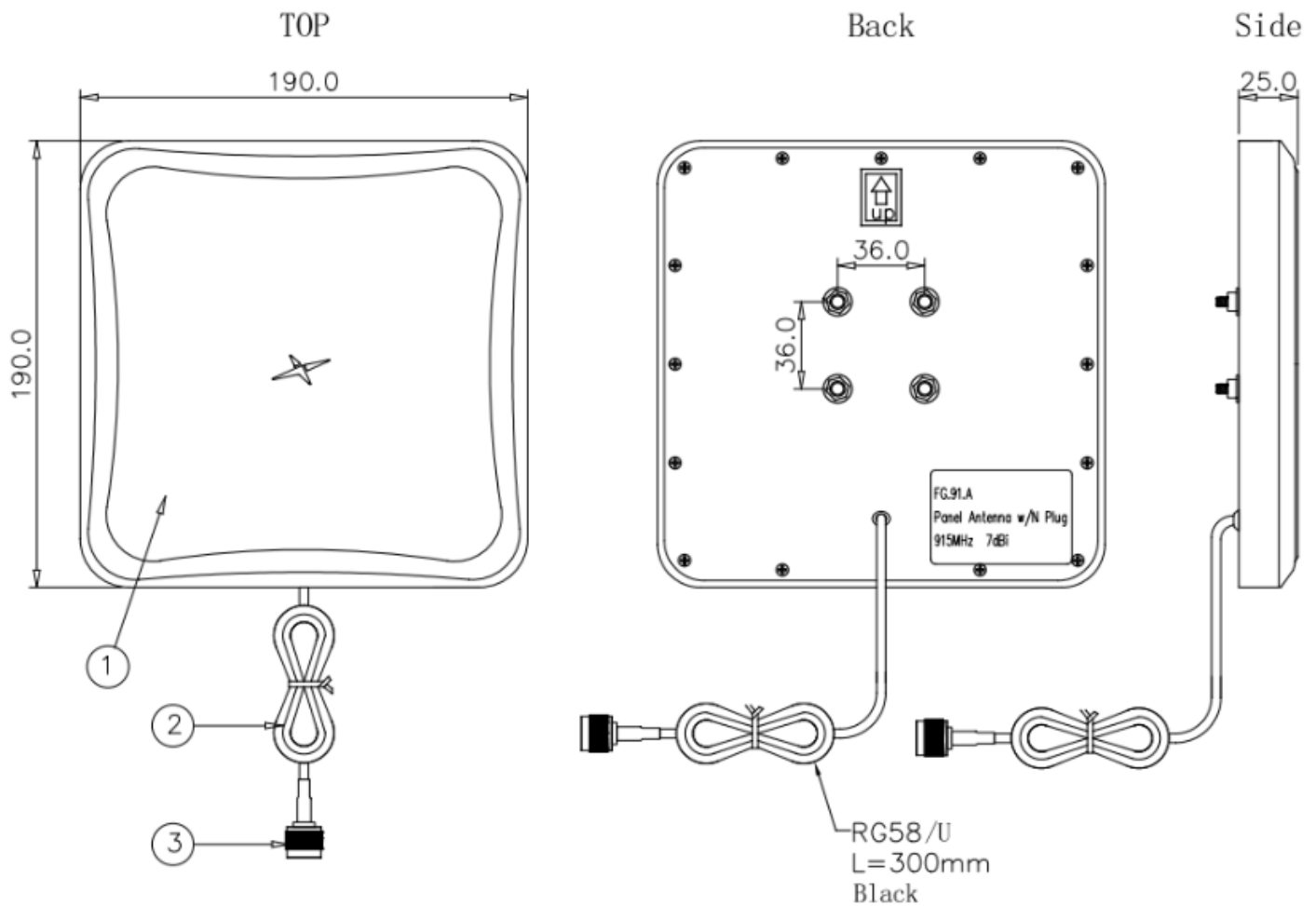
## 2. Specification

RFID/ISM Electrical										
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	HPBW (degrees)	FtB Ratio (dB)	Impedance	Polarization	Radiation Pattern	Max. input power
915MHz	902-928	87.47	-0.58	7.68	63 @ H 69 @ V	15 max.	50 $\Omega$	Linear	Directional	10W

Mechanical	
Dimensions	190 x 190 x 25mm
Material	ABS
Connector	N Type (M)
Cable	300mm RG-58

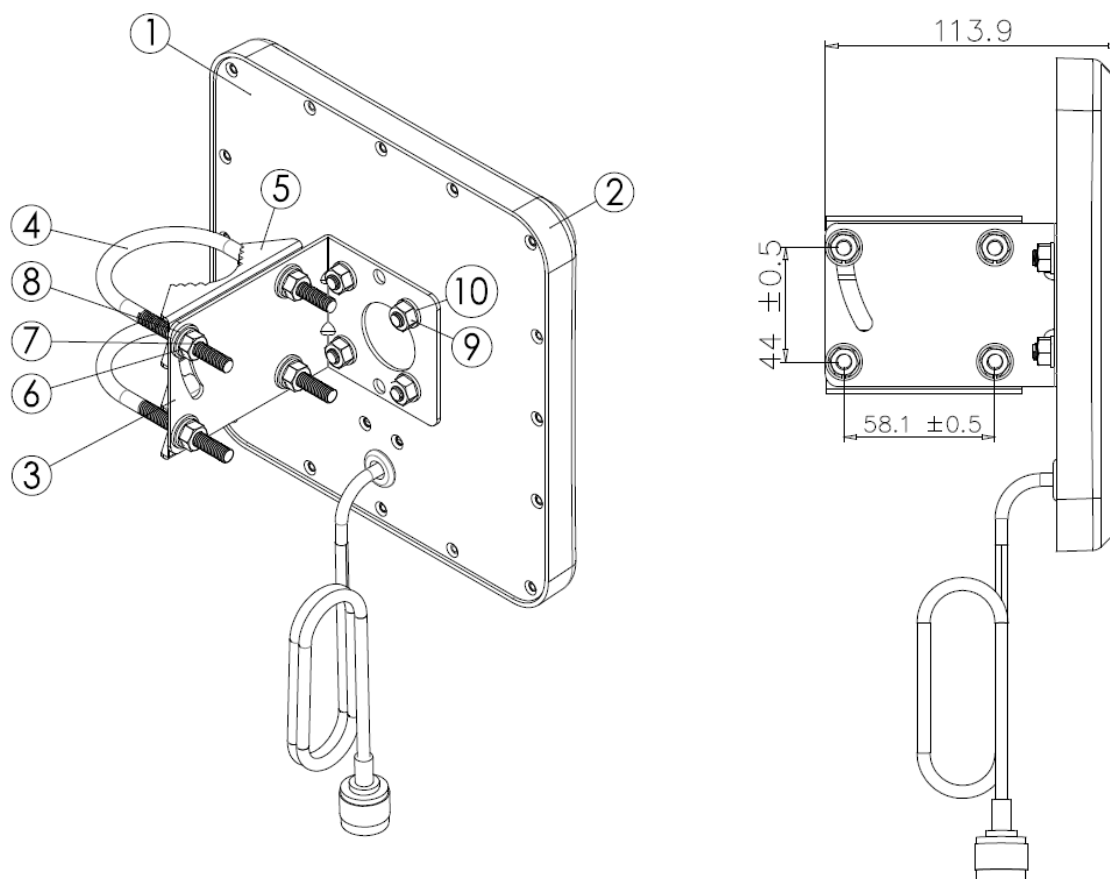
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Waterproof	IP67
Relative Humidity	Non-condensing 65°C 95% RH

### 3. Mechanical Drawing



3	Connector N Plug	Brass C3604	1	Nickel Plated
2	Cable	RG-58U	1	Black
1	Antenna Cover Material	ABS	1	White
No.	Parts Name	Material	Q'ty	Treatment

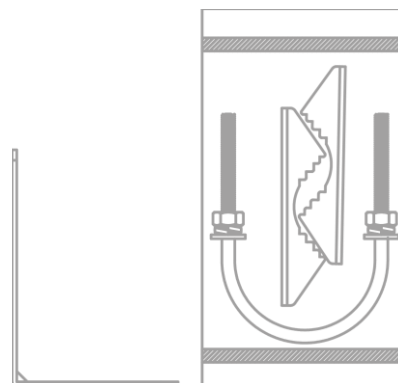
## 4. Installation Guide



10	M6 washer	SUS304	4
9	M6 nut	SUS304	4
8	M6 washer	SUS304	4
7	M6 spring washer	SUS304	4
6	M6 nut	SUS304	4
5	Rounded mounting plate	SUS304	2
4	U bolts	SUS304	2
3	L plate	SUS304	1
2	Housing-190*190*25	ABS	1
1	Antenna		1
No.	Parts Name	Material	Q'ty

## 5. Packaging

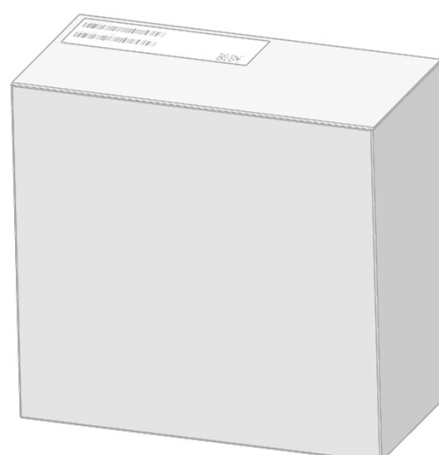
Bracket set  
1 Pcs per zipper bag



1 pcs per PE bag  
Bag dimensions: 300 x 260mm



1pcs per box  
Box dimensions: 200 x 200 x 50mm  
Weight: 0.74Kg



20pcs per carton  
Carton dimensions: 560 x 430 x 220mm  
Weight: 15.7Kg





## 6. Antenna Characteristics

### 6.1 Test Setup

AUT

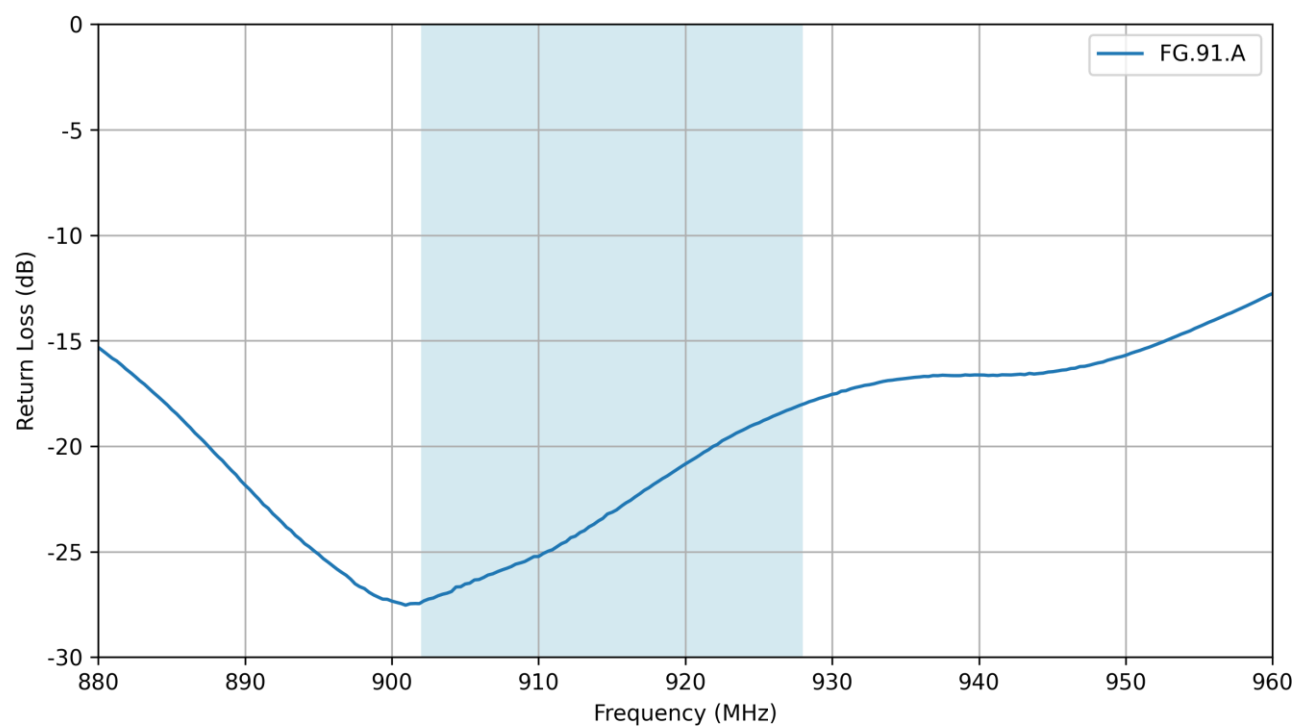


Vector Network Analyzer

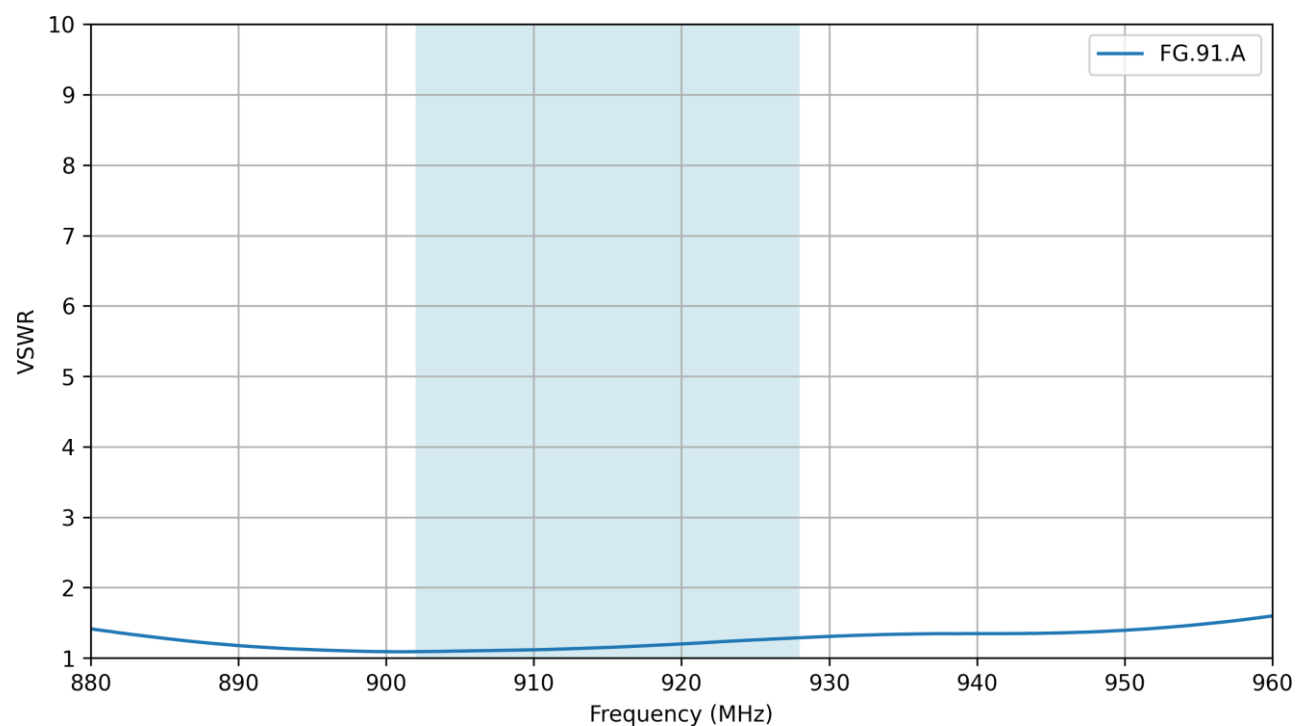


VNA Test Set-up

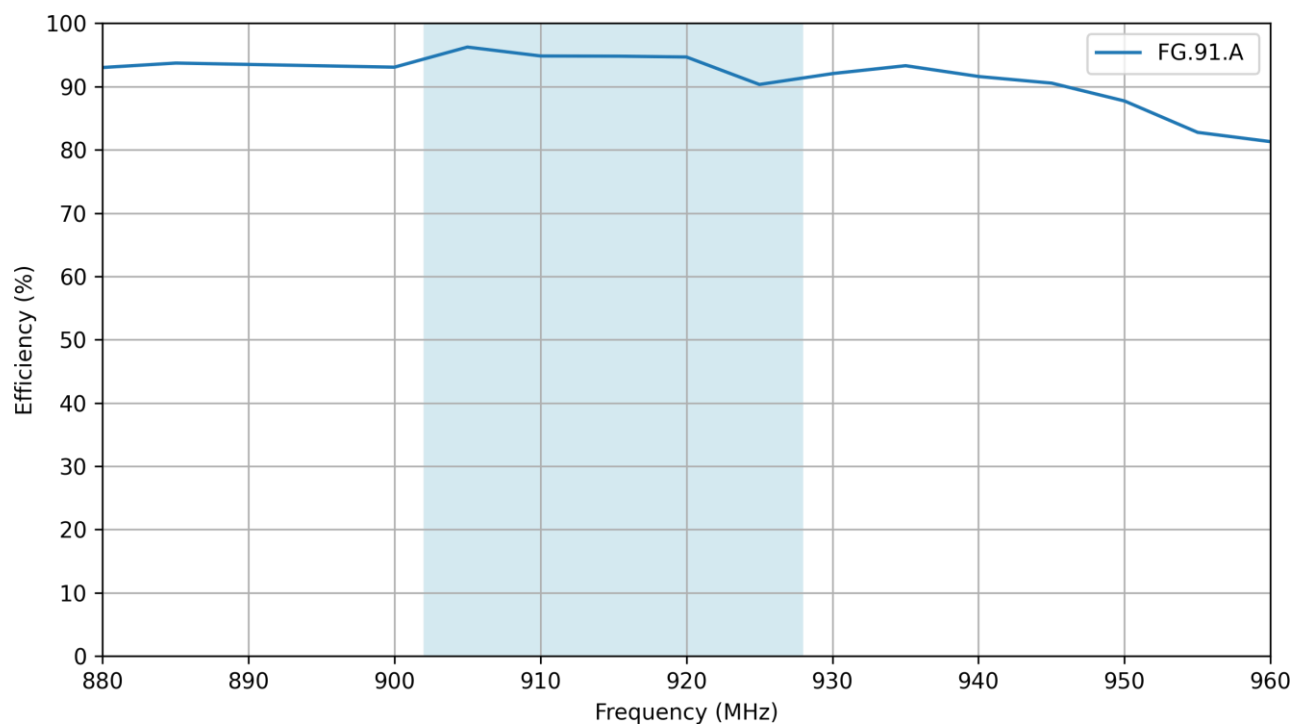
## 6.2 Return Loss



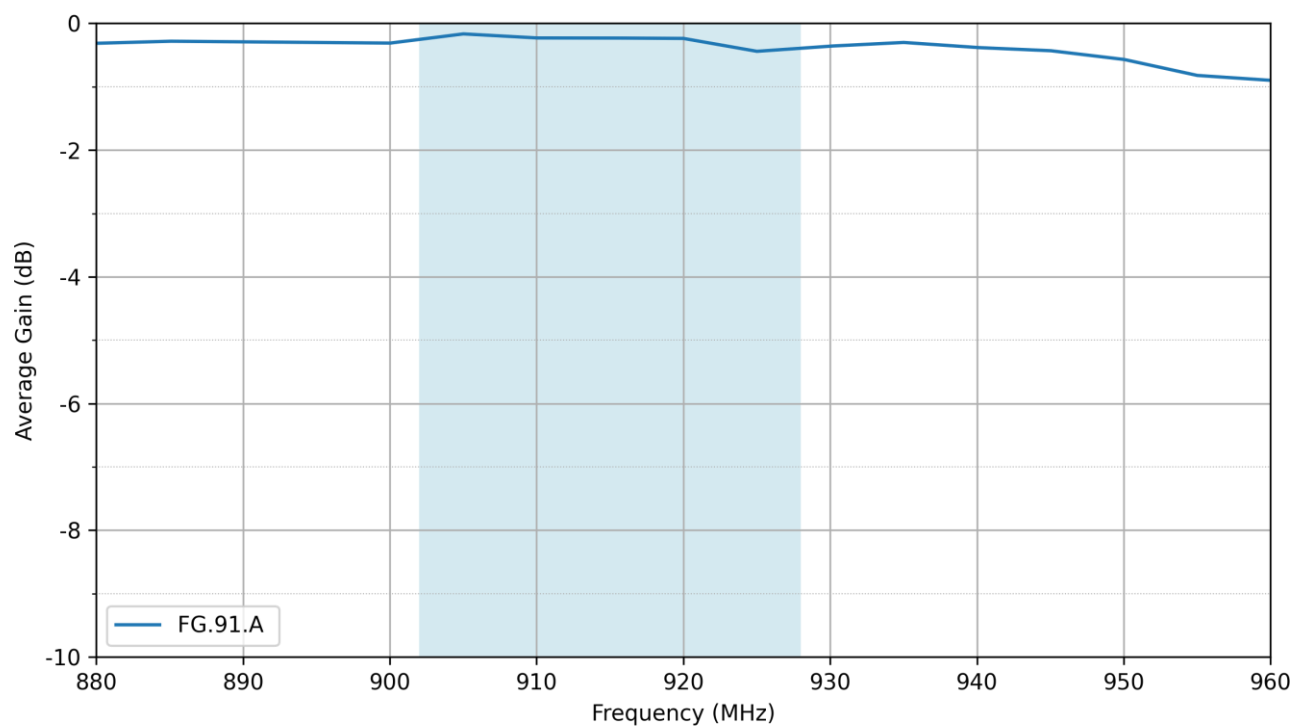
## 6.3 VSWR



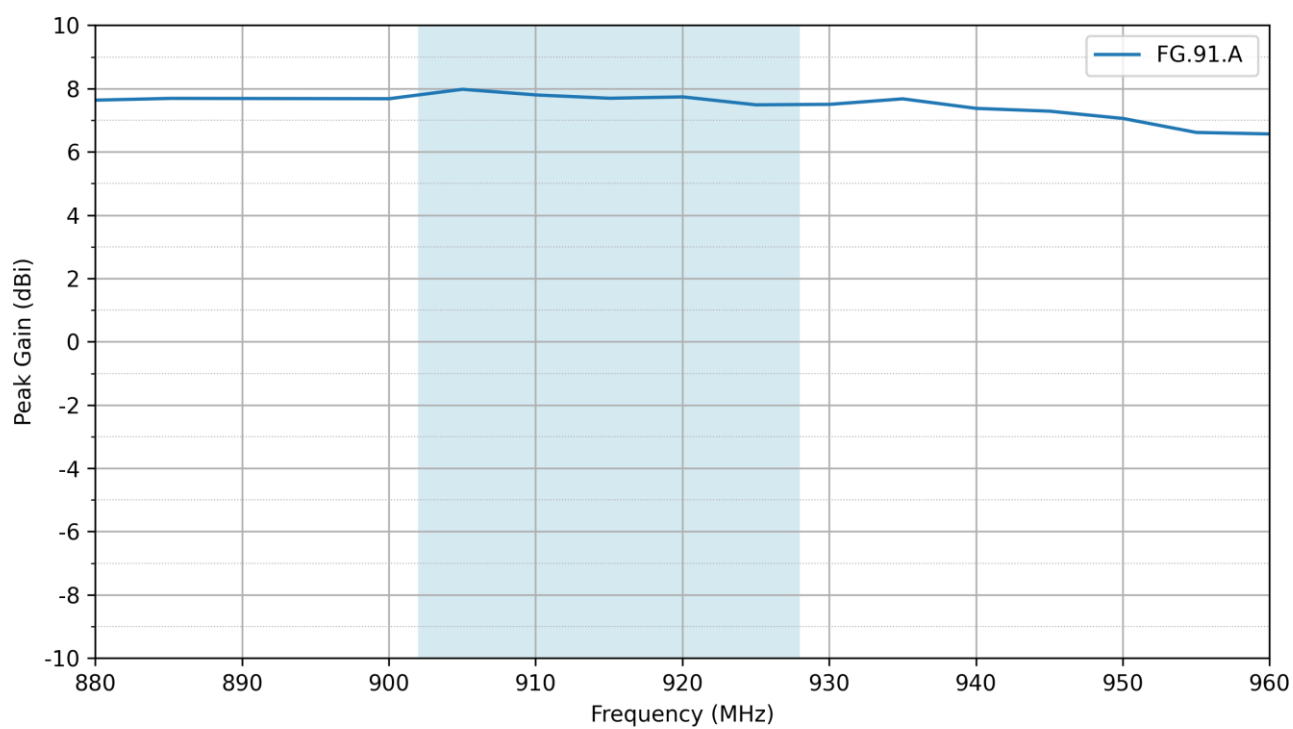
## 6.4 Efficiency



## 6.5 Average Gain

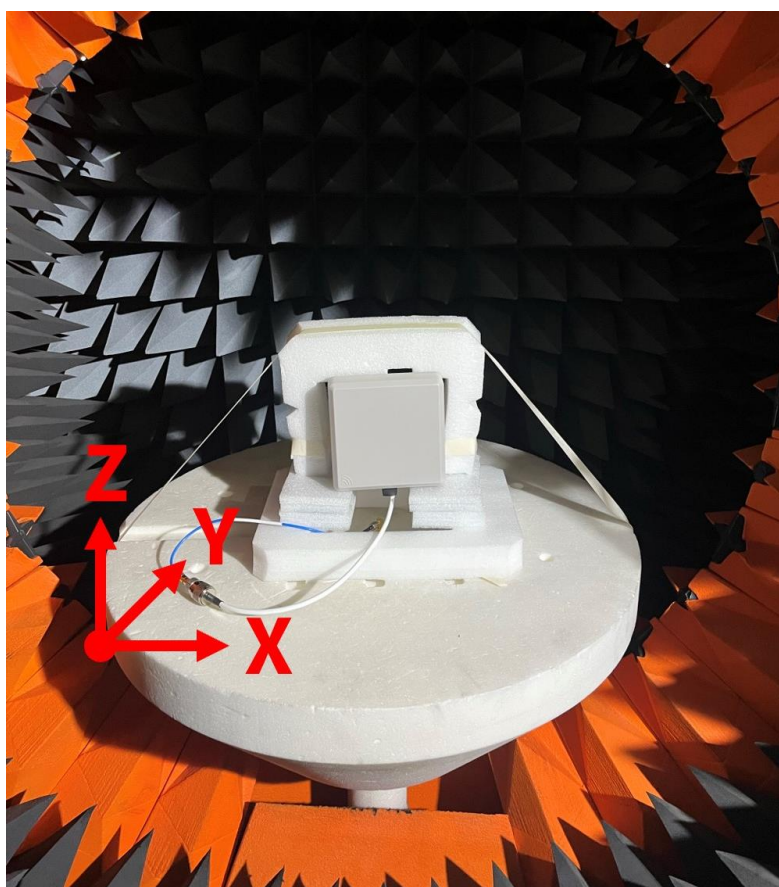
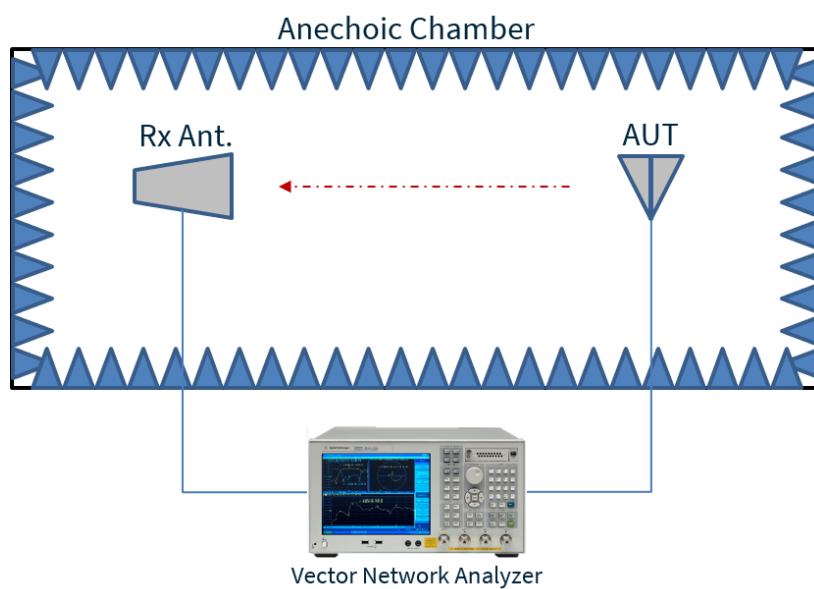


## 6.6 Peak Gain



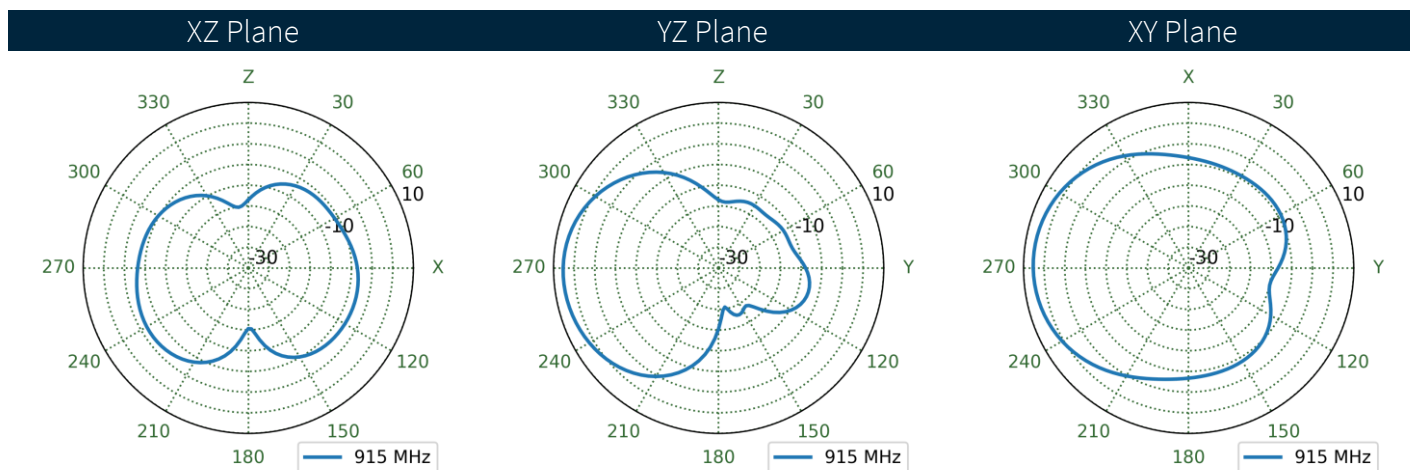
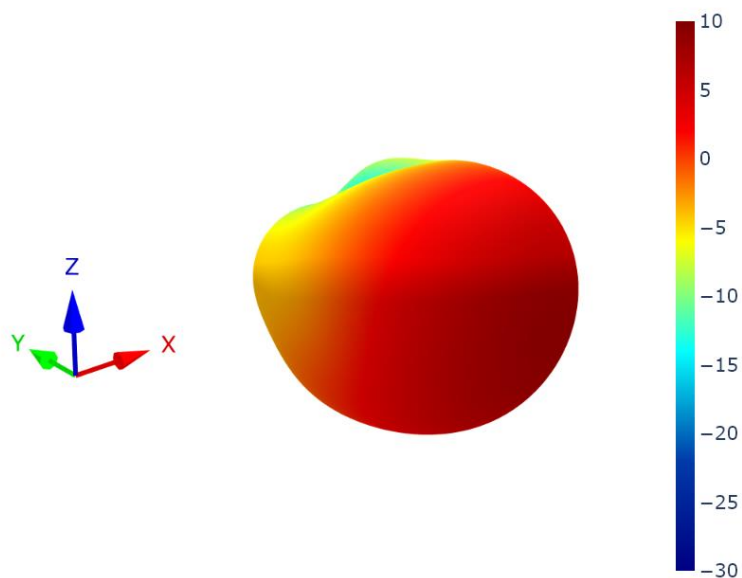
## 7. Radiation Patterns

### 7.1 Test Setup



Chamber Test Set-up

## 7.2 Patterns at 915 MHz



Changelog for the datasheet

SPE-24-8-237 – FG.91.A

Revision: B (Current Version)

Date:	2025-06-10
Notes:	Updated performance table.
Author:	Paul Liu

Previous Revisions

Revision: A

Date:	2024-09-25
Notes:	Initial Datasheet Release
Author:	Gary West



[www.taoglas.com](http://www.taoglas.com)

