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

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Ireland & USA
ISO 9001:2015
Certified

Taiwan
ISO 9001:2015
Certified

IATF16949

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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.

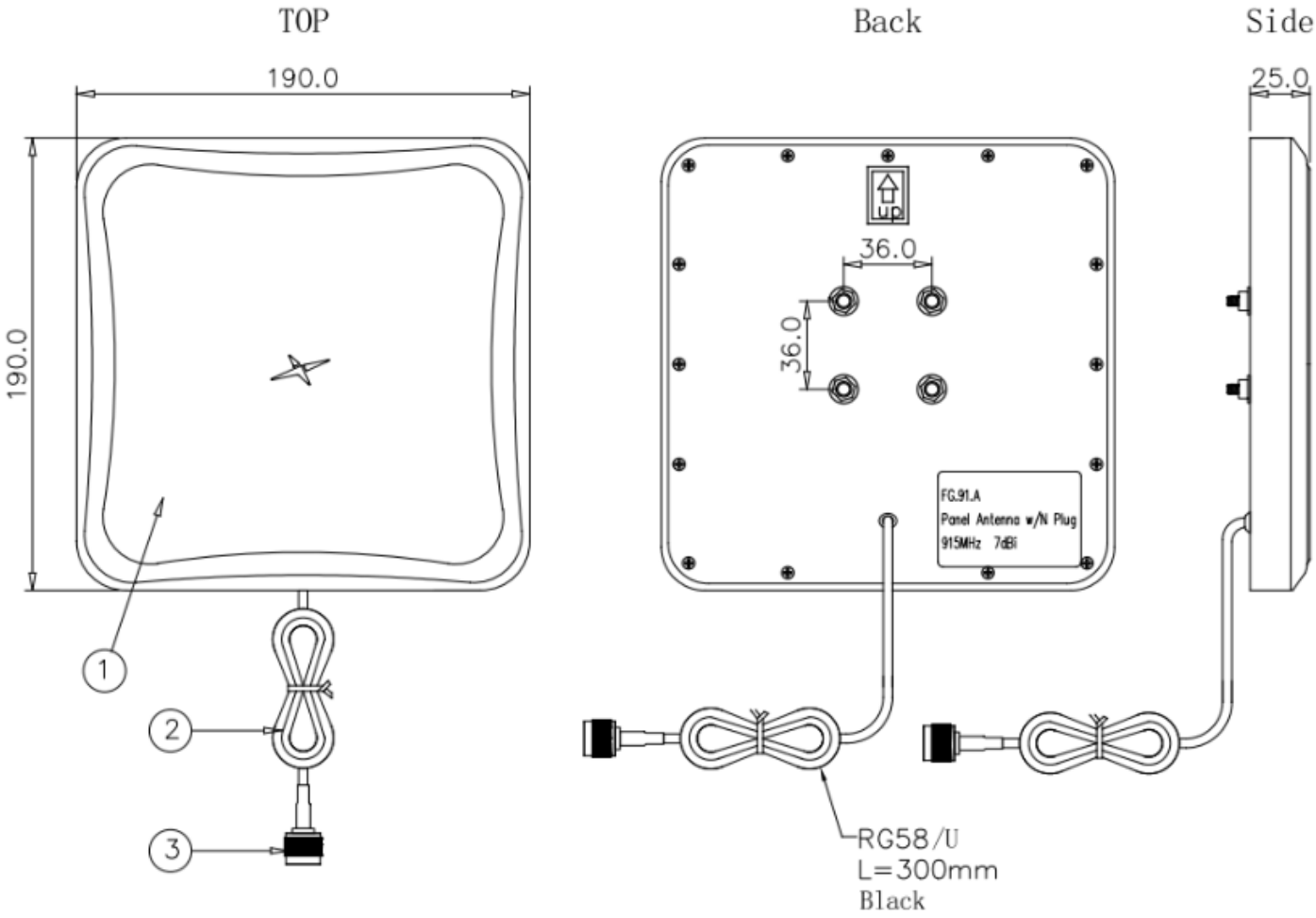
2. Specification

LTE Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
915MHz	902-928	93.7	-0.28	7.98	50 Ω	Linear	Omni directional	2W

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

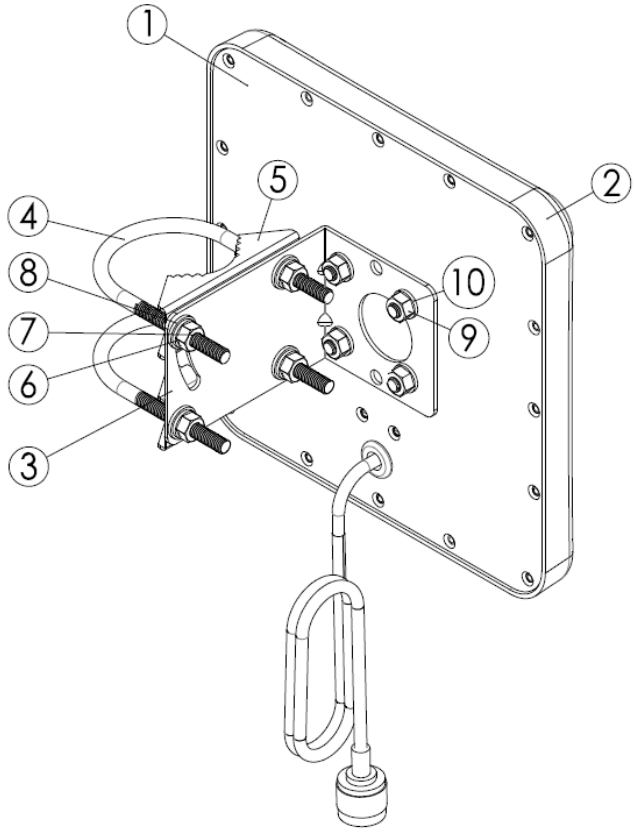
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Relative Humidity	Non-condensing 65°C 95% RH

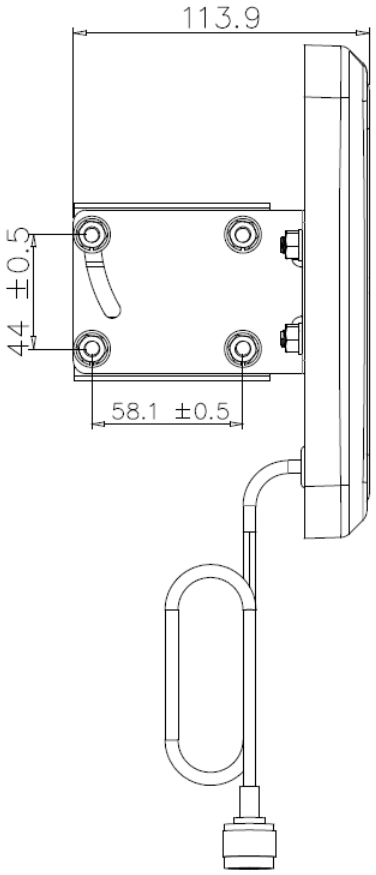
3. Mechanical Drawing



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

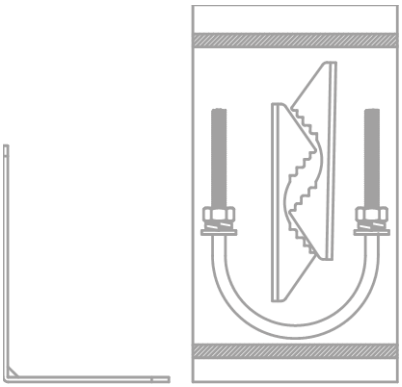




No.	Parts Name	Material	Q'ty
10	M6 washer	SUS304	4
9	M6 nut	SUS304	4
8	M6 washer	SUS304	4
7	M6 spring washer	SUS304	4
6	M6 nut	SUS304	4
5	Rounded mounting plate	SUS304	2
4	U bolts	SUS304	2
3	L plate	SUS304	1
2	Housing-190*190*25	ABS	1
1	Antenna		1

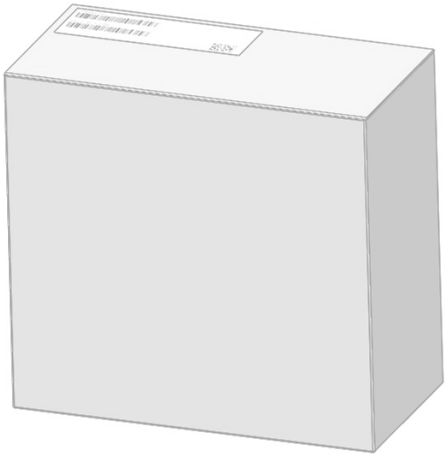
5. Packaging

Bracket set
1 Pcs per zipper bag



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

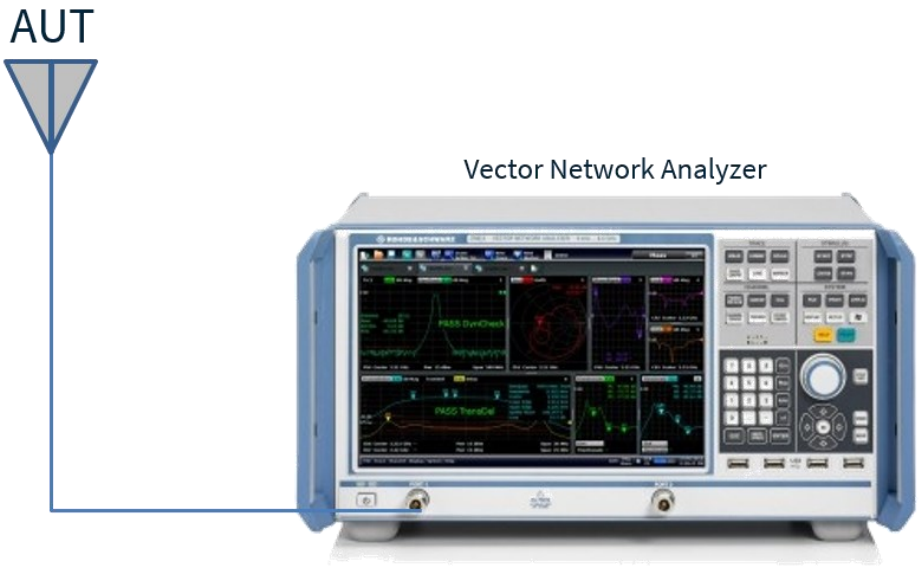
1pcs per box
Box dimensions: 200 x 200 x 50mm
Weight: 0.74Kg



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

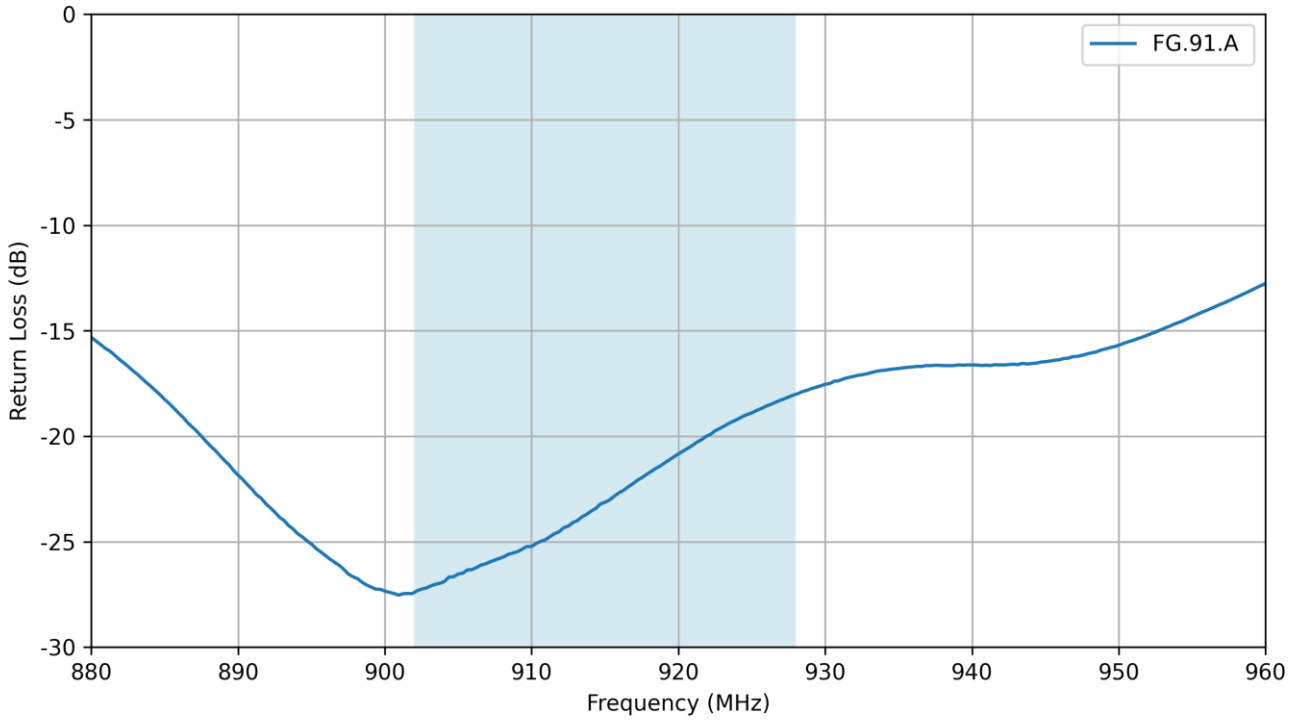
6. Antenna Characteristics

6.1 Test Setup

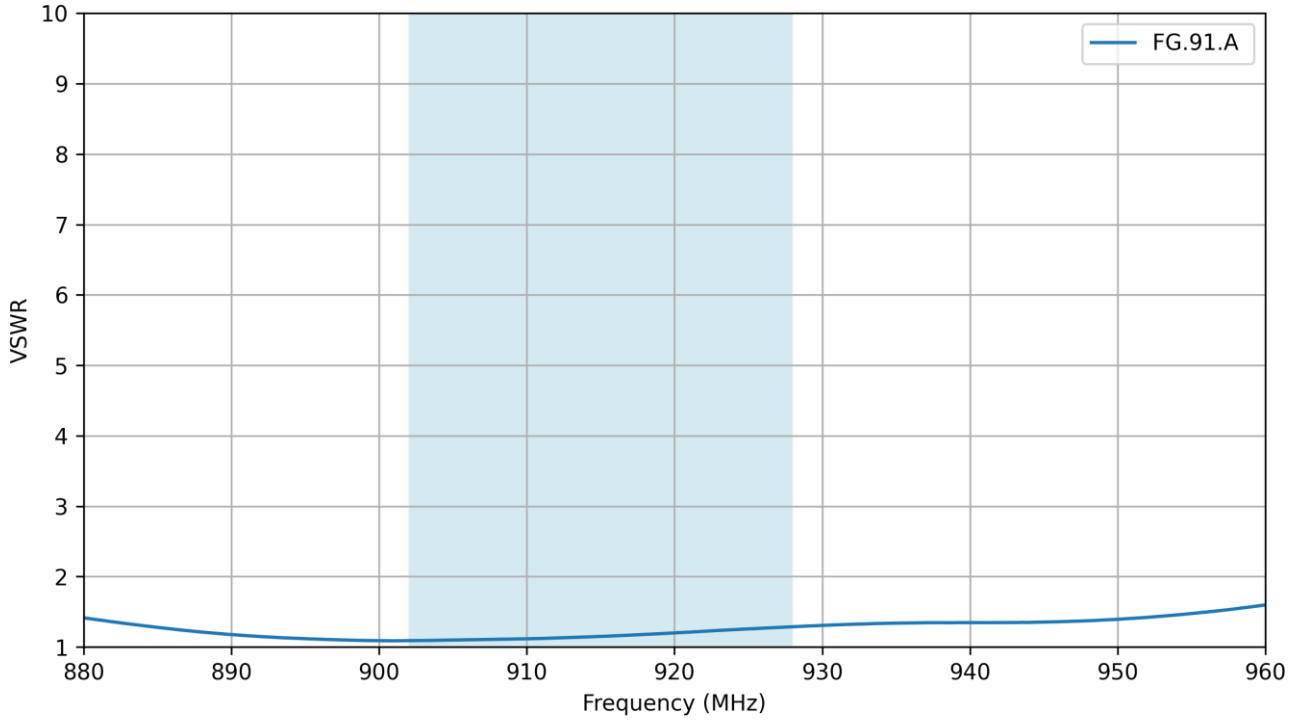


VNA Test Set-up

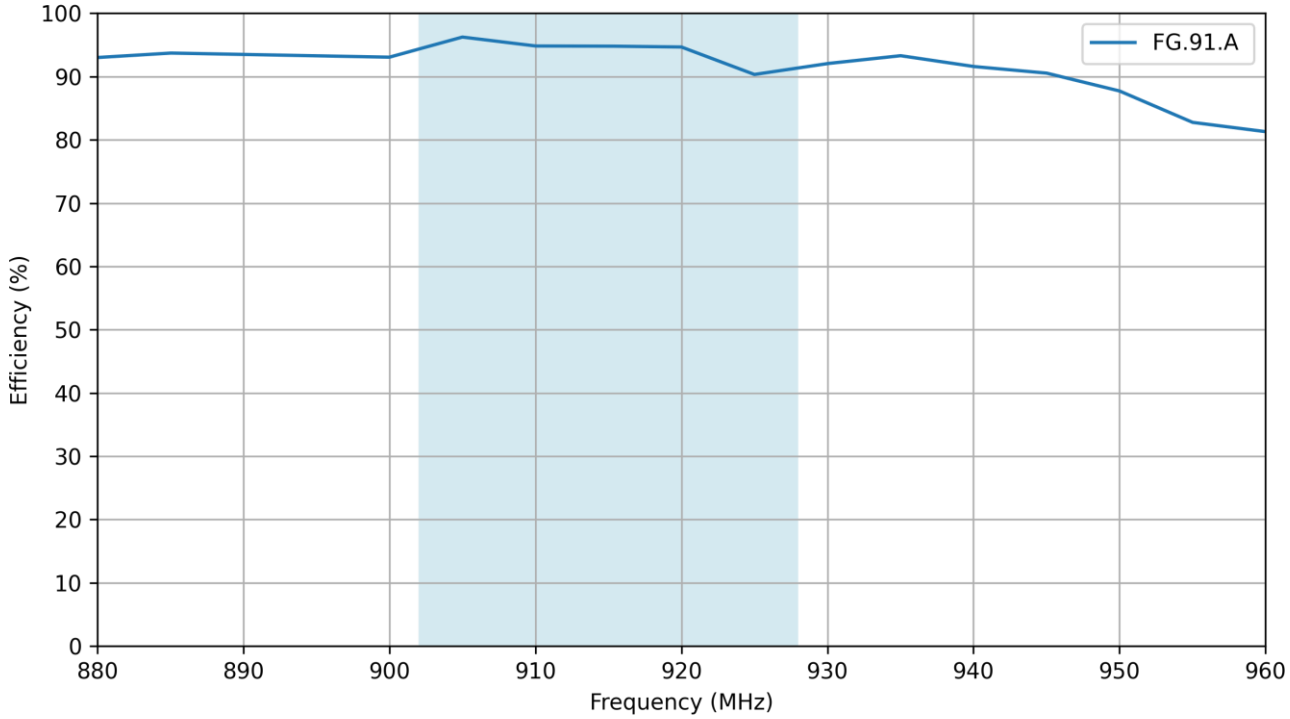
6.2 Return Loss



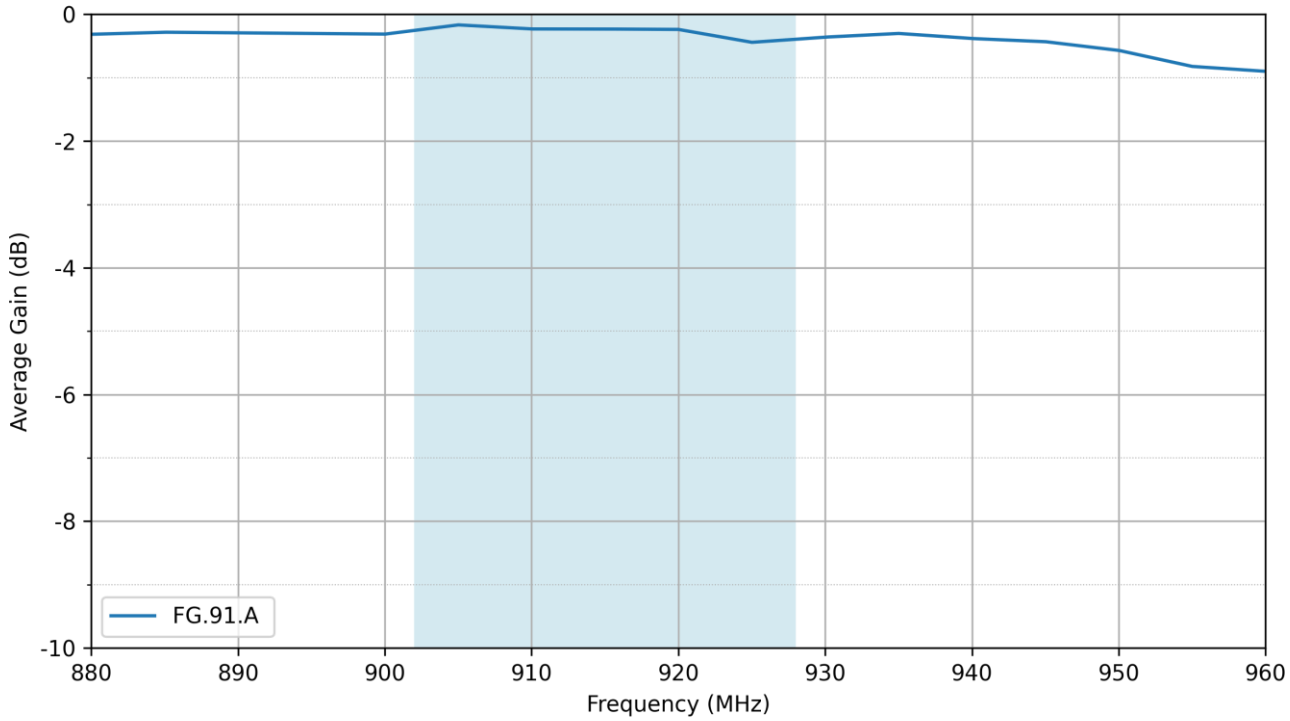
6.3 VSWR



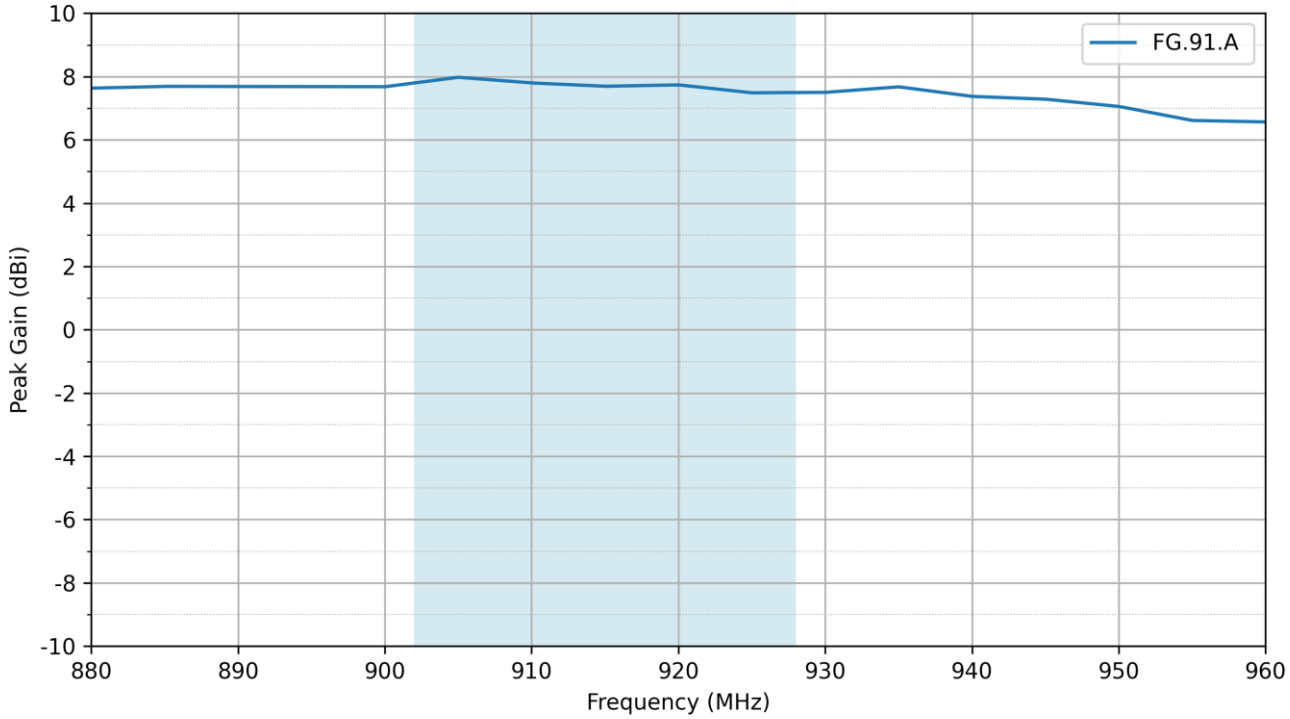
6.4 Efficiency



6.5 Average Gain

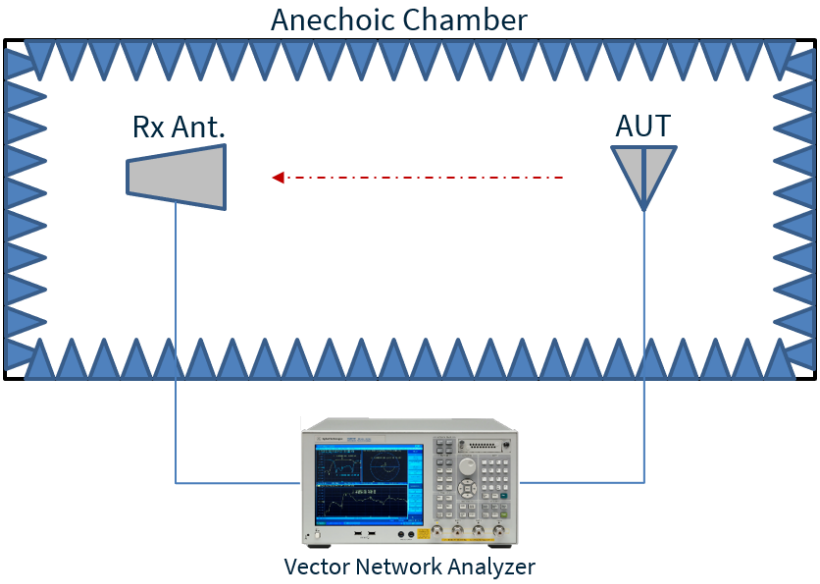


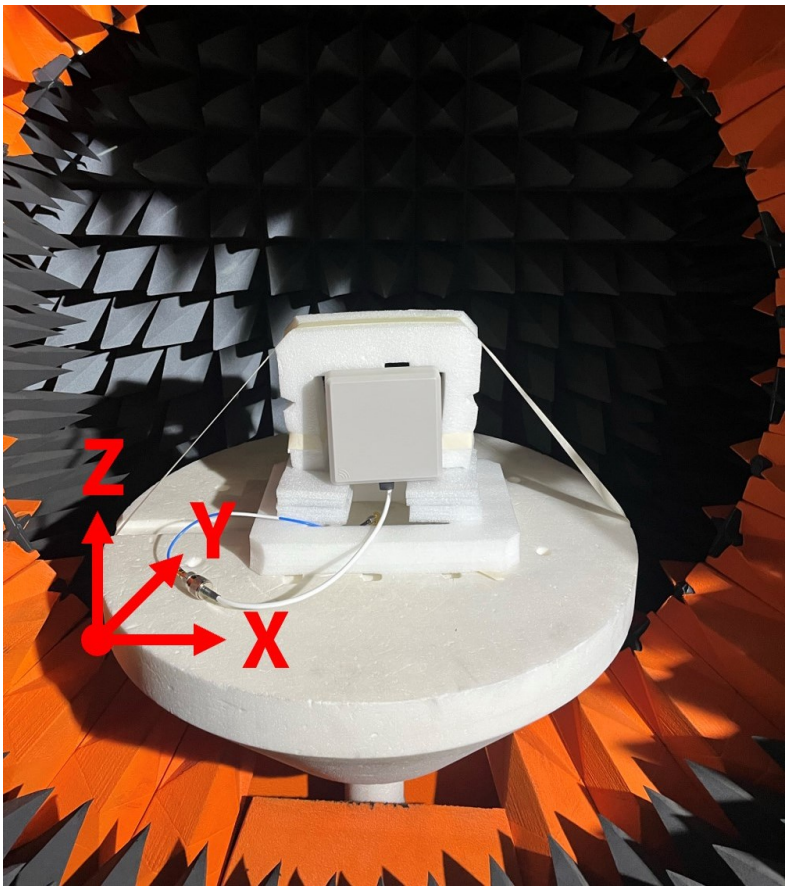
6.6 Peak Gain


FG.91.A
Peak Gain (dBi)
Frequency (MHz)
10
8
6
4
2
0
-2
-4
-6
-8
-10
880
890
900
910
920
930
940
950
960

7. Radiation Patterns

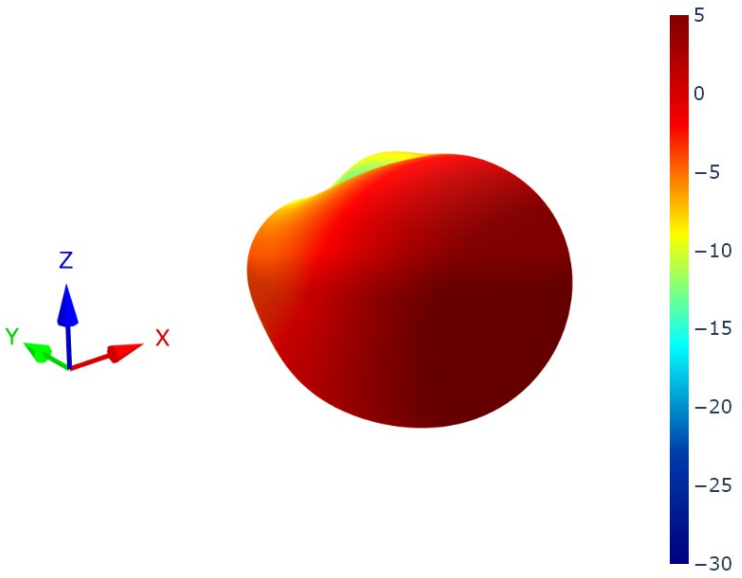
7.1 Test Setup

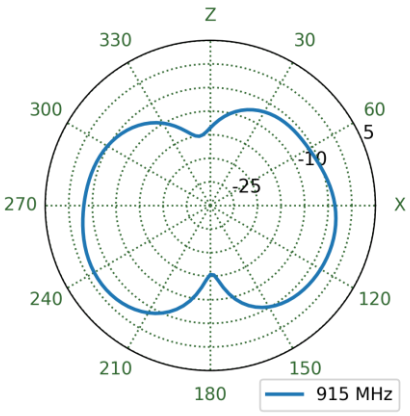
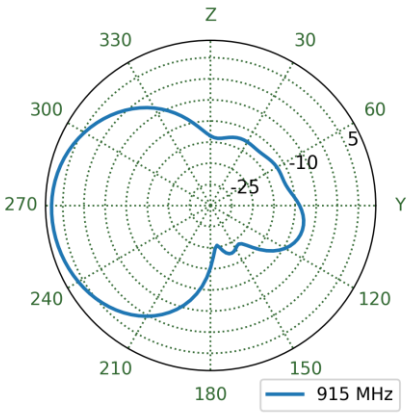
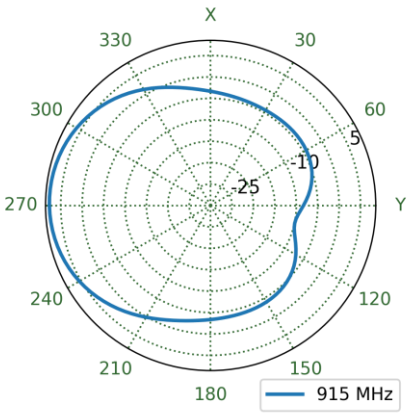




Chamber Test Set-up

7.2 Patterns at 915 MHz



XZ Plane	YZ Plane	XY Plane
		

Changelog for the datasheet

SPE-24-8-237 – FG.91.A

Revision: A (Initial Release)	
Date:	2024-09-25
Notes:	Initial Datasheet Release
Author:	Gary West

Previous Revisions

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