



TAOGLAS®



Datasheet

915/868MHz Terminal Antenna

Part No:
TI.08.C.0112

Description

915MHz/868MHz ISM Band Terminal Antenna Fixed Right-Angle SMA(M) Connector

Features:

Omni-Directional Monopole Antenna
TPU Housing
Dimensions: 53x17mm
SMA Male Right Angle Connector
RoHS & Reach Compliant

1.	Introduction	3
2.	Specification	4
3.	Antenna Characteristics	5
4.	Radiation Patterns	9
5.	Mechanical Drawing	12
6.	Packaging	13
	Changelog	14

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.

Ireland & USA
ISO 9001:2015
Certified



Taiwan
ISO 9001:2015
Certified



1. Introduction



The Taoglas TI.08.C.0112 is a high performance antenna covering both 915MHz and 868MHz, small form factor, Monopole omni-direction terminal mount antenna. This antenna features an SMA(M) right angle connector as standard.

Some typical applications include:

- Smart Lighting
- Remote Monitoring
- IoT (Internet of Things)
- Smart Metering

This antenna is fabricated using TPU, which is a lightweight robust material used on several other Taoglas products. The TI.08.0112 can function impressively with a small ground plane while maintaining high efficiencies, on the band 863~870 it can reach at least 68% on a 15x9cm ground plane. The antenna connector type can be customizable, please contact your regional Taoglas sales facility for support.

2. Specification

Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
868MHz	862-874	84.8	-0.72	2.48	50 Ω	Linear	Omni	10W
915MHz	910-920	68.3	-1.65	1.70				

Mechanical	
Height	53 $\pm$ 2 mm
Diameter	$\varnothing$ 7 $\pm$ 0.2 mm
Width	17 $\pm$ 0.8 mm
Casing	TPU
Connector	SMA(M) RA

Environmental	
Operation Temperature	-40°C to 70°C
Storage Temperature	-40°C to 70°C

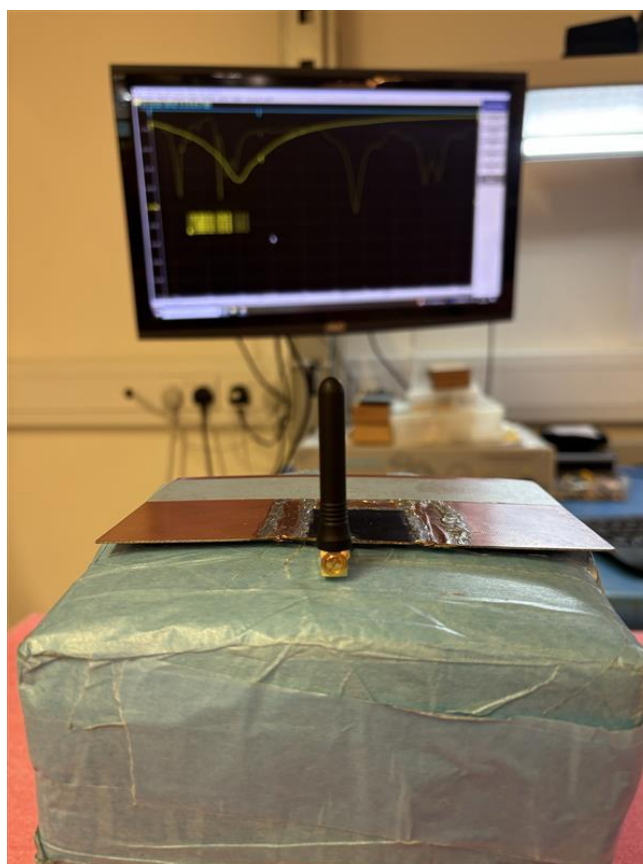
3. Antenna Characteristics

3.1 Test Setup

AUT

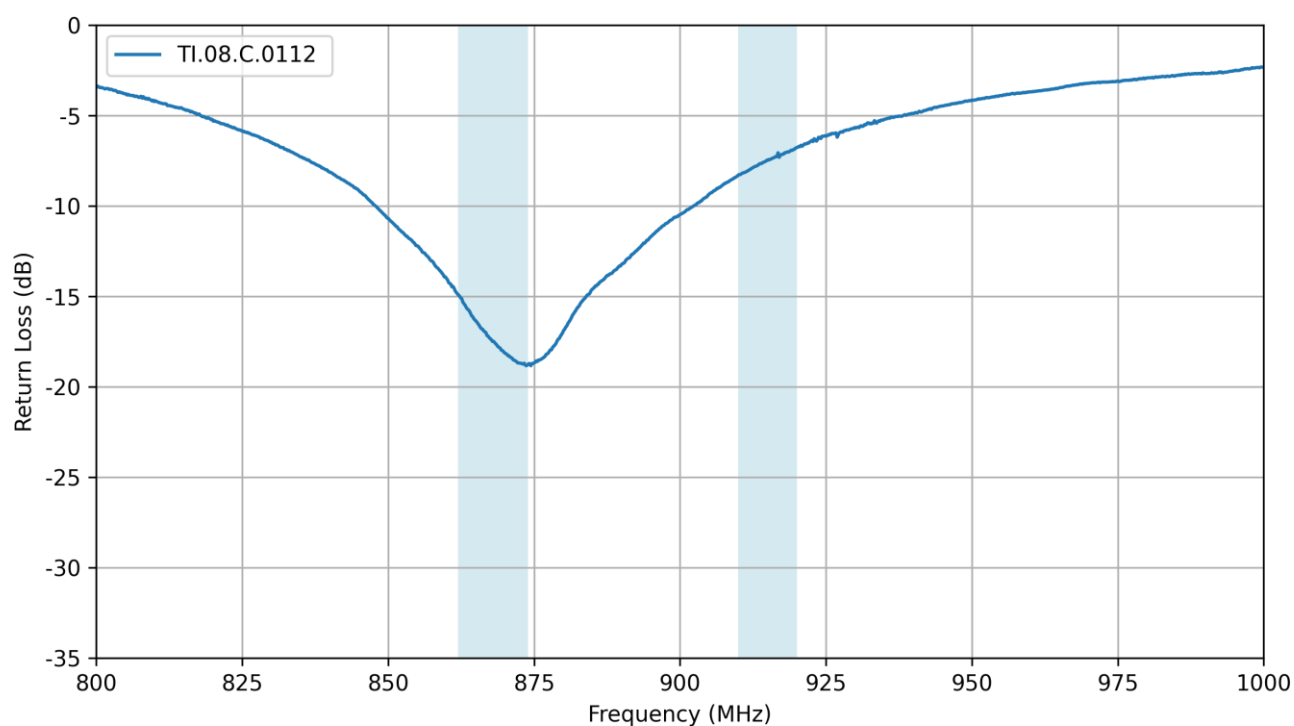


Vector Network Analyzer

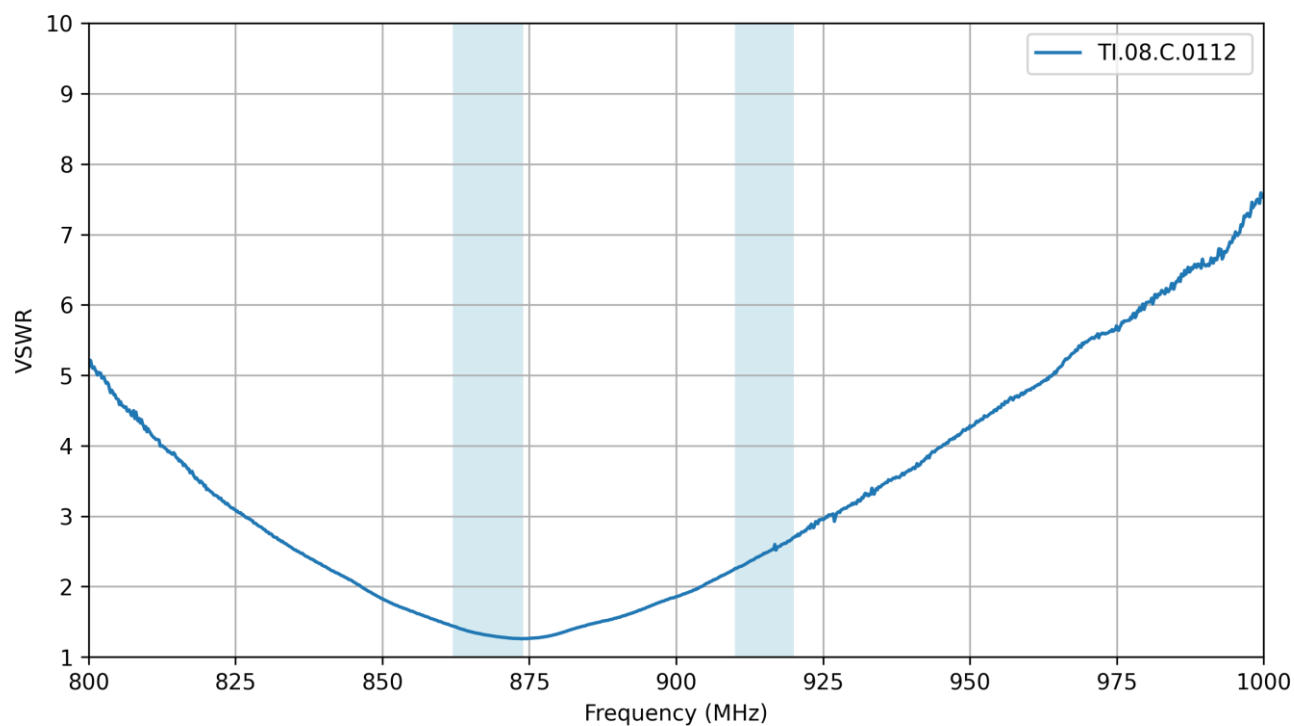


VNA Test Set-up on 15x9cm Ground Plane

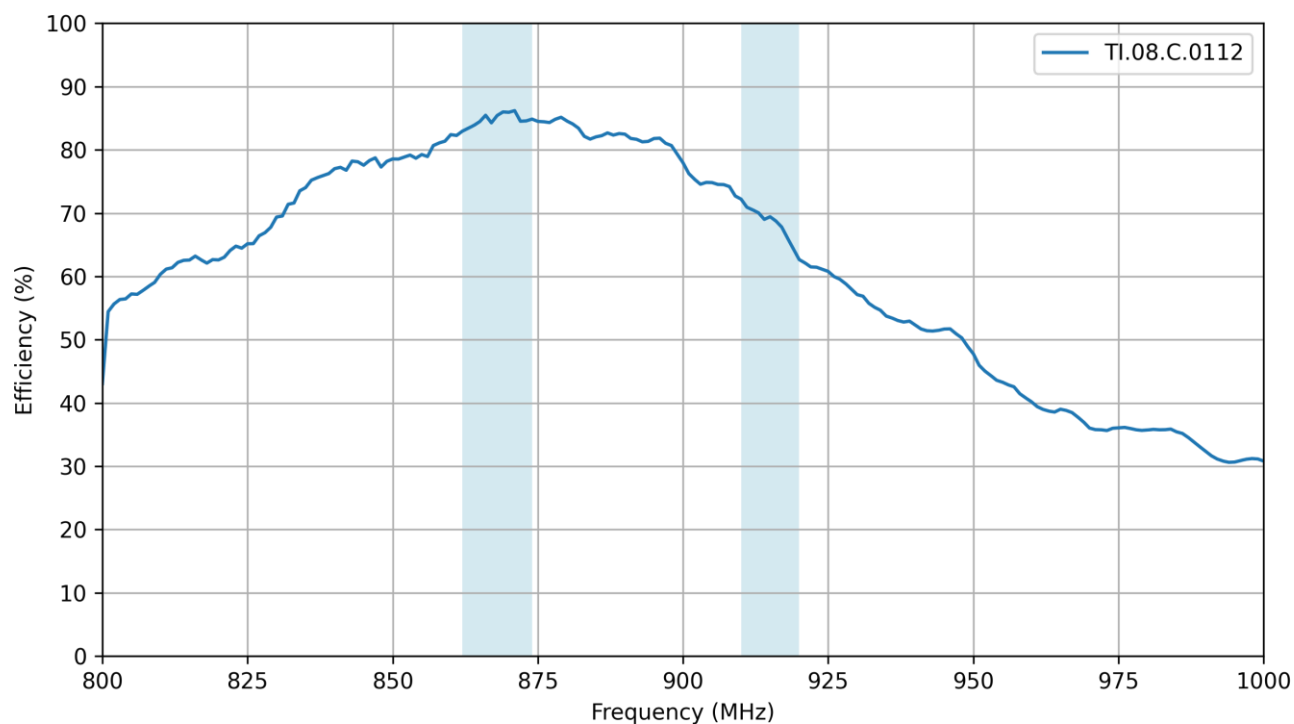
3.2 Return Loss



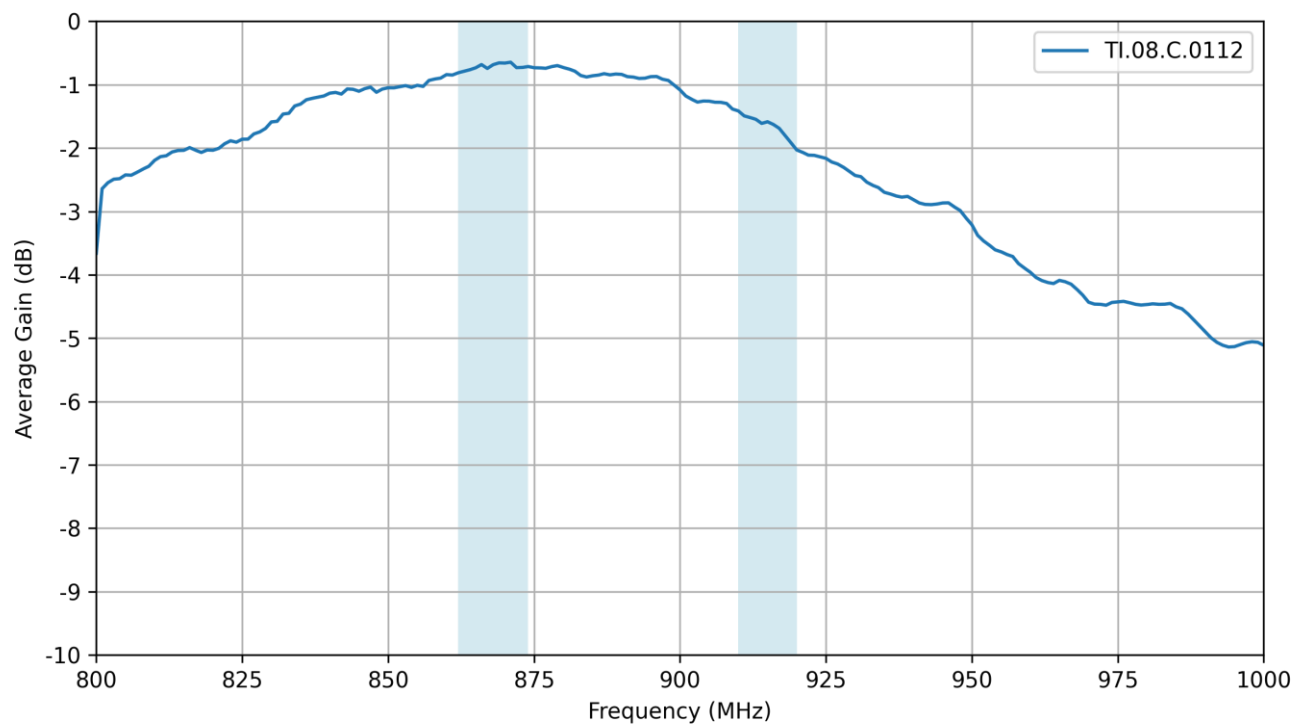
3.3 VSWR



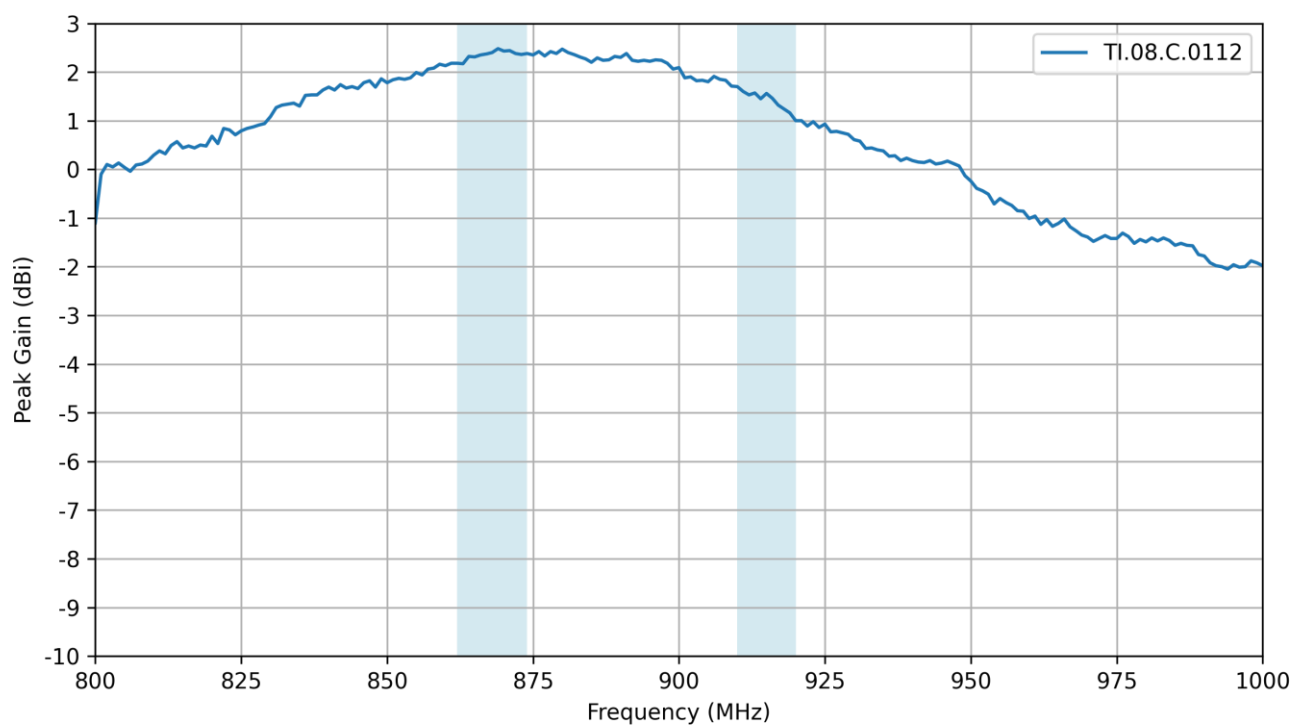
3.4 Efficiency



3.5 Average Gain

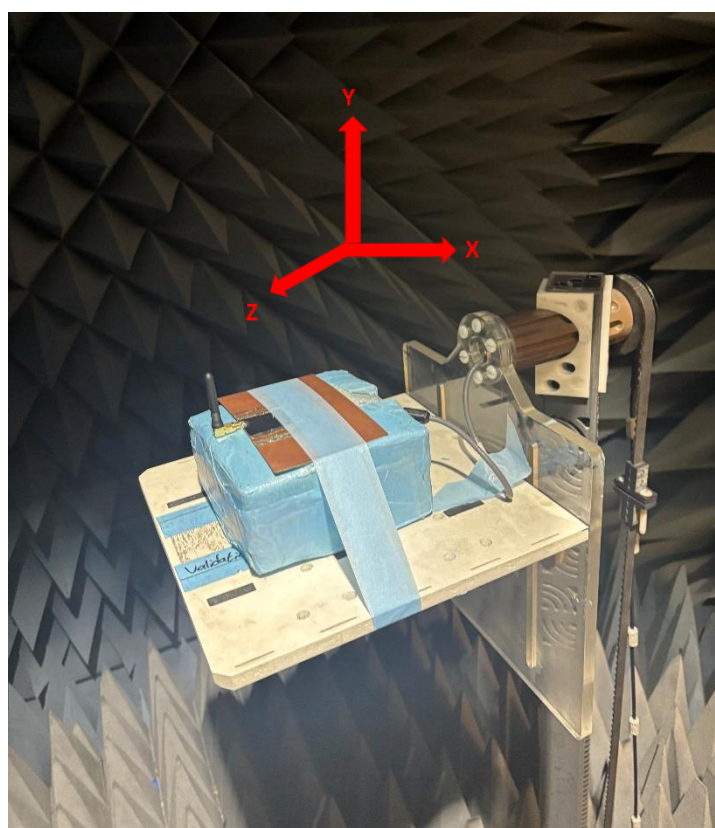
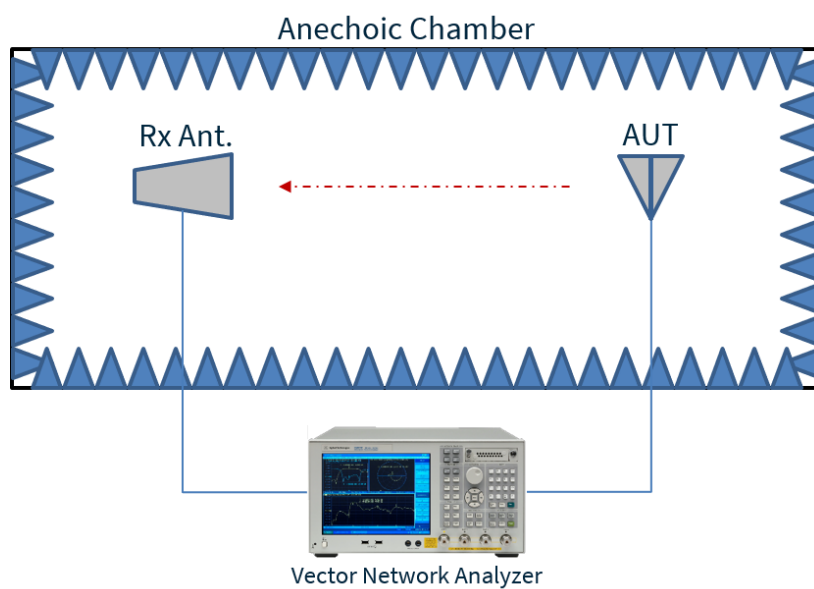


3.6 Peak Gain



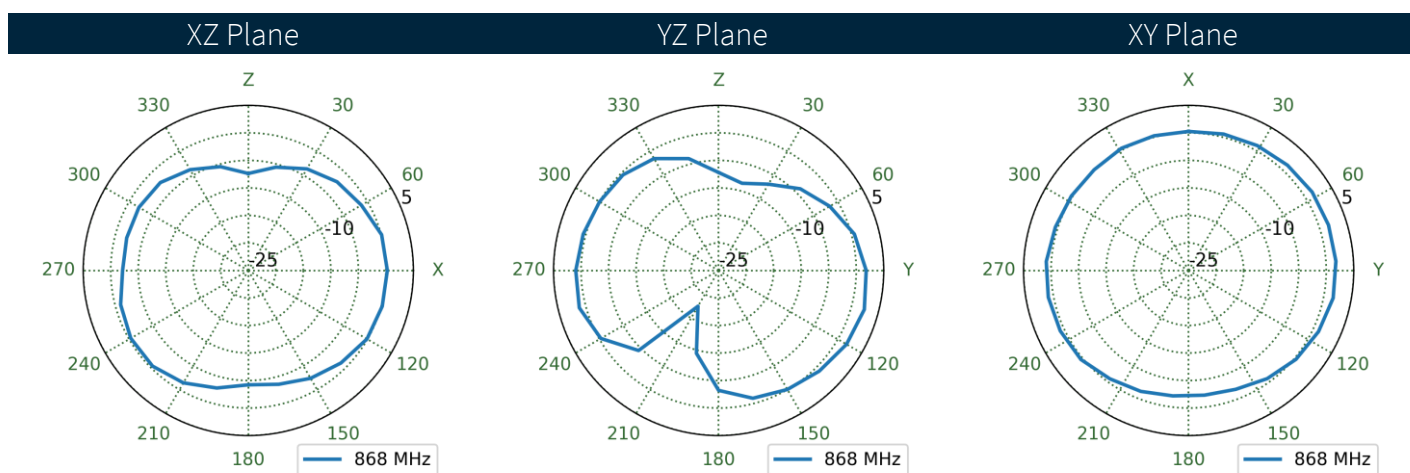
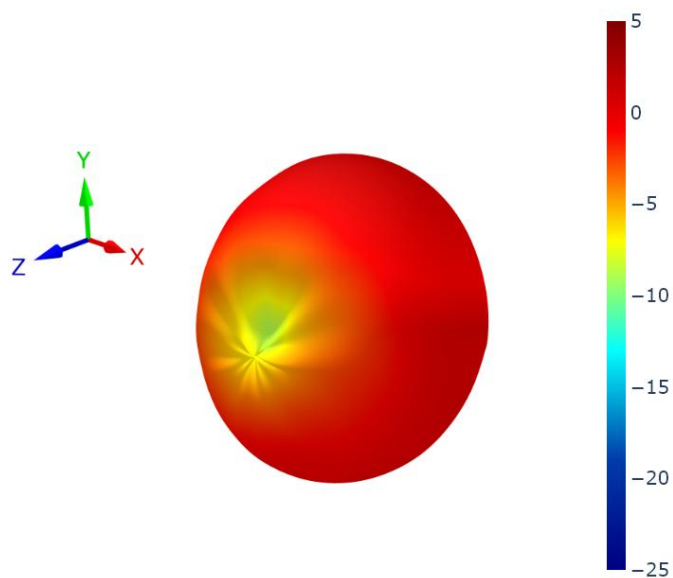
4. Radiation Patterns

4.1 Test Setup

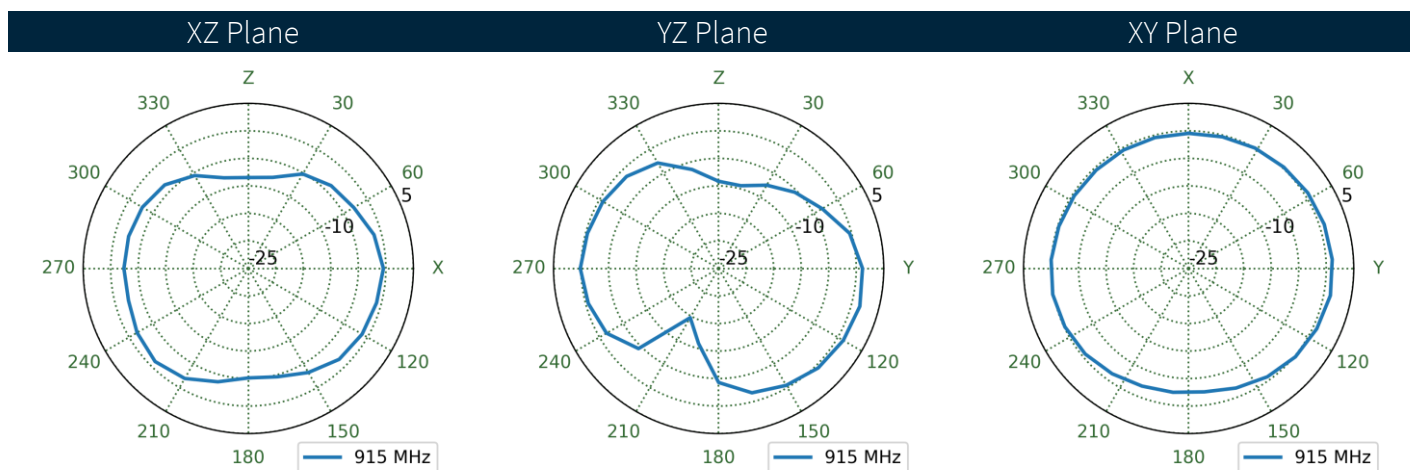
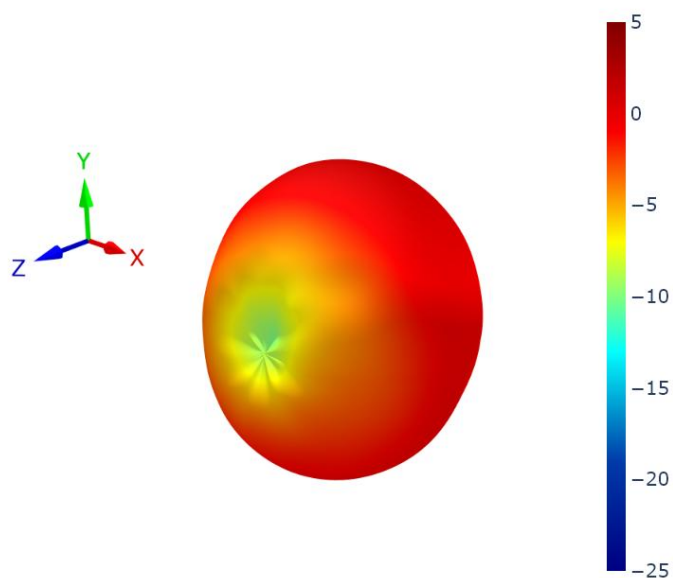


Chamber Test Set-up on 15x9cm Ground Plane

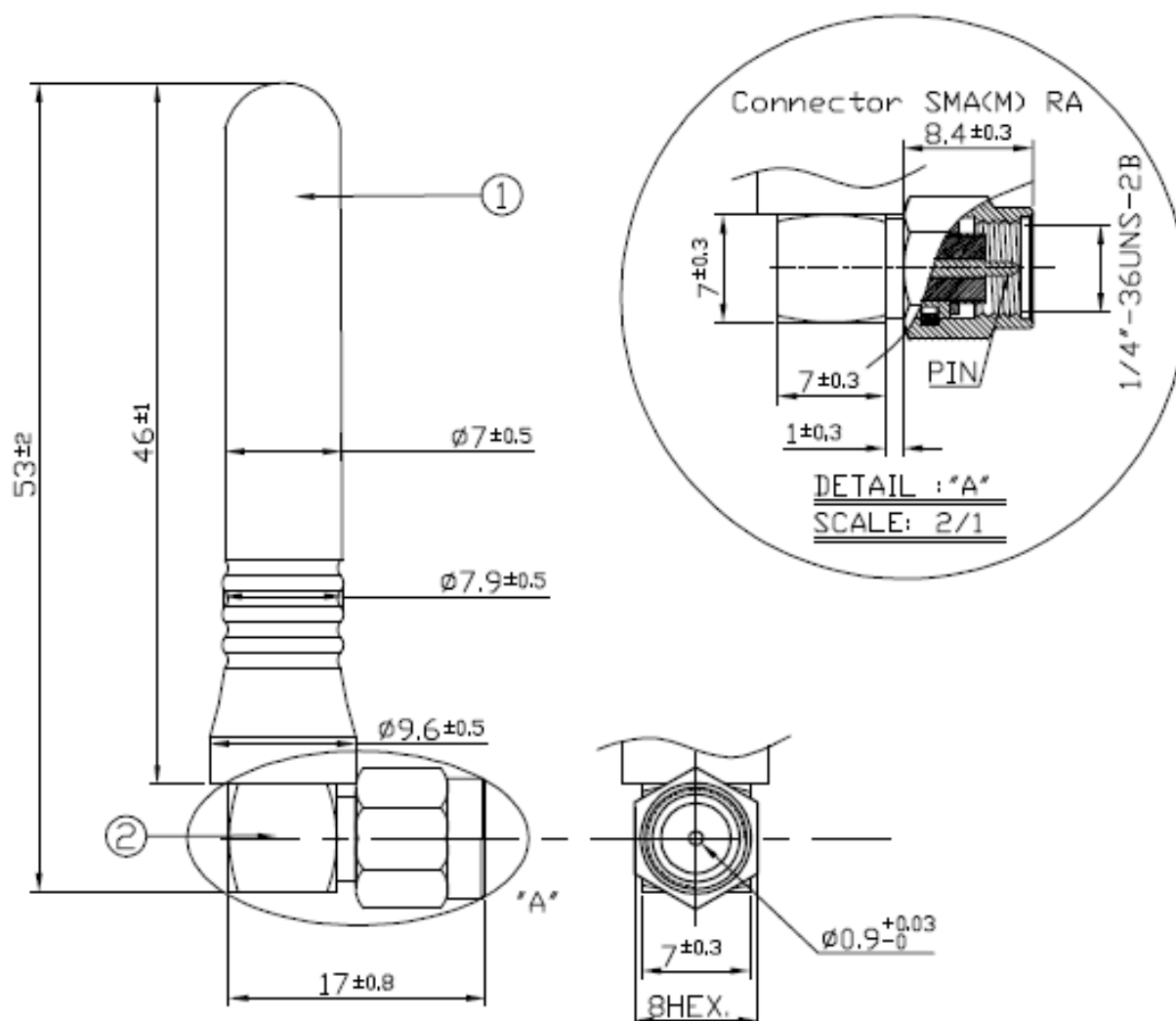
4.2 Patterns at 868 MHz



4.3 Patterns at 915 MHz



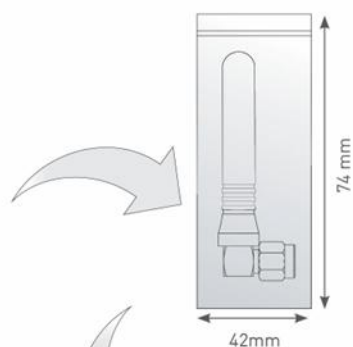
5. Mechanical Drawing



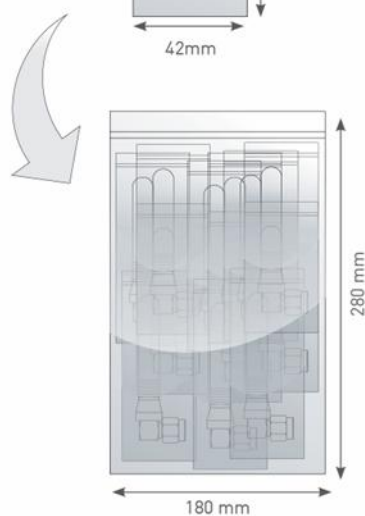
	Name	P/N	Material	Finish	QTY
①	Antenna Cover	000111G000002A	TPU	Black	1
②	SMA(M) RA	210211G010002A	Brass	Gold	1

6. Packaging

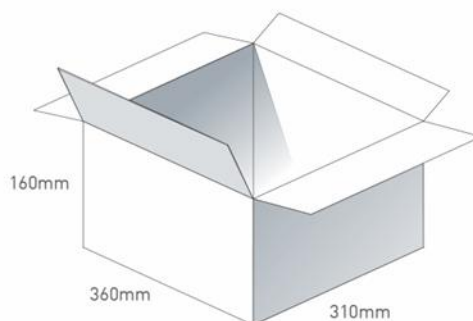
1 pcs TI.08.C.0112 per PE Bag
PE Bag Dimensions - 42*74mm
Weight - 7.5g



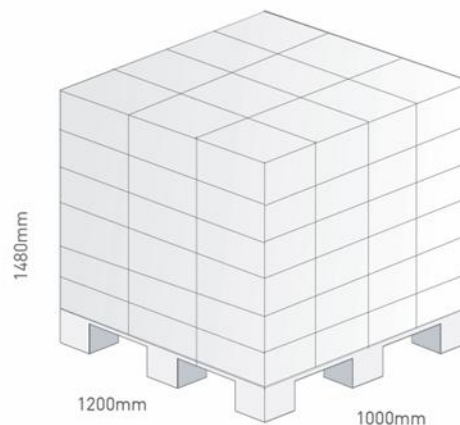
100 PE Bags per Large PE Bag
100 pcs TI.08.C.0112 per Large PE Bag
Large PE Dimensions - 180*280mm
Weight - 0.761kg



15 Large PE bags per carton
1500 pcs TI.08.C.0112 per carton
Carton Dimensions - 360*310*160mm
Weight - 12kg



Pallet Dimensions 1200mm*1000mm*1480mm
72 Cartons per Pallet
9 Cartons per layer
8 Layers



Changelog for the datasheet

SPE-11-8-039 – TI.08.C.0112

Revision: E (Current Version)

Date:	2022-12-09
Changes:	Retest antenna and updated datasheet
Changes Made by:	Gary West

Previous Revisions

Revision: D

Date:	2022-12-09
Changes:	Full datasheet update
Changes Made by:	Gary West

Revision: C

Date:	2019-04-02
Changes:	Added new introduction and data
Changes Made by:	Jack Conroy

Revision: B

Date:	2011-11-15
Changes:	Packaging amended
Changes Made by:	Aine Doyle

Revision: A (Original First Release)

Date:	2011-07-16
Notes:	
Author:	Aine Doyle



www.taoglas.com

