



TAOGLAS®



Datasheet

Part No:
GW.26.0112.HT

Description

2.4GHz Miniature Terminal Mount Monopole Antenna – High Temperature

Features:

Miniature Terminal Mount Monopole Antenna
Dupont® Hytrel® High Temperature Resistant TPEE Housing (up to 150°C)
Covering: Wi-Fi 2.4GHz
Connector: SMA(M) RA
Dims: Ø28.5 x 17.2mm
ROHS Compliant

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1. Introduction



The GW.26 HT series 2.4GHz Monopole SMA (M) RA terminal mount antenna is ideal for 2.4GHz wireless applications such as Wi-Fi®, Zigbee® and Bluetooth®.

Antenna housing is made of highly resistant Dupont® Hytrel® TPEE material which is durable in high temperature application environments up to 150°C and is fully IP65 waterproof rated. This material is often applied in automotive or industrial applications, where the antenna is placed near the engine or heat generating components.

Many module manufacturers specify peak gain limits for any antennas that are to be connected to that module. Those peak gain limits are based on free-space conditions. In practice, the peak gain of an antenna tested in free-space can degrade by at least 1 or 2dBi when put inside a device. So ideally you should go for a slightly higher peak gain antenna than mentioned on the module specification to compensate for this effect, giving you better performance.

Upon testing of any of our antennas with your device and a selection of appropriate layout, integration technique, or cable, Taoglas can make sure any of our antennas' peak gain will be below the peak gain limits. Taoglas can then issue a specification and/or report for the selected antenna in your device that will clearly show it complying with the peak gain limits, so you can be assured you are meeting regulatory requirements for that module.

For example, a module manufacturer may state that the antenna must have less than 2dBi peak gain, but you don't need to select an embedded antenna that has a peak gain of less than 2dBi in free-space. This will give you a less optimized solution. It is better to go for a slightly higher free-space peak gain of 3dBi or more if available. Once that antenna gets integrated into your device, performance will degrade below this 2dBi peak gain due to the effects of GND plane, surrounding components, and device housing. If you want to be absolutely sure, contact Taoglas and we will test. Choosing a Taoglas antenna with a higher peak gain than what is specified by the module manufacturer and enlisting our help will ensure you are getting the best performance possible without exceeding the peak gain limits.

Connection is made via fixed right angle SMA(M) connector with a hardened TPEE casing, this antenna is the ideal Wi-Fi®/Bluetooth®/ZigBee® antenna for M2M devices where the antenna must be placed in harsh high temperature environments.

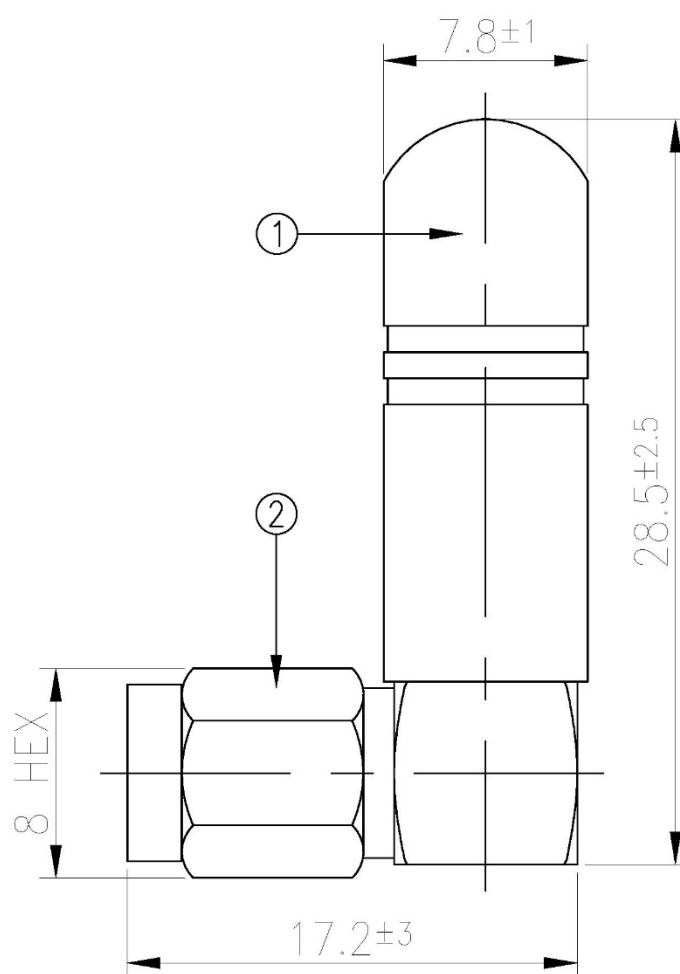
2. Specification

Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
Wi-Fi 2.4GHz	2400-2500	35.6	-4.49	0.99	50 Ω	Vertical	Omni directional	10W

Mechanical	
Dimensions	$\varnothing 28.5 \times 17.2\text{mm}$
Weight	4g
Material	TPEE
Connector	SMA(M)R/A

Environmental	
Operating Temperature	-40°C ~ +150°C
Storage Temperature	-40°C ~ +150°C
IP Rating	IP65

3. Mechanical Drawing



	Name	P/N	Material	Finish	QTY
1	Antenna Housing	000111G040002A	TPEE	Black	1
2	SMA(M)RA	210211G000002A	Brass	Au Plated	1

4. Packaging

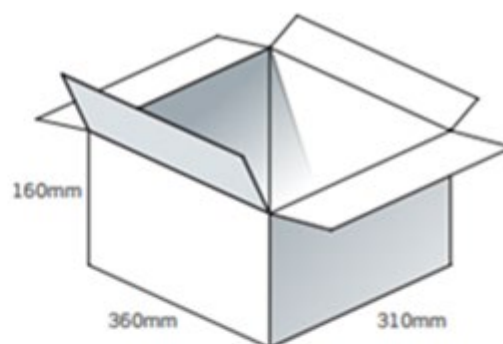
1 pcs GW.26 per PE Bag
Bag Dimensions - 74 x 42 mm
Weight - 4g



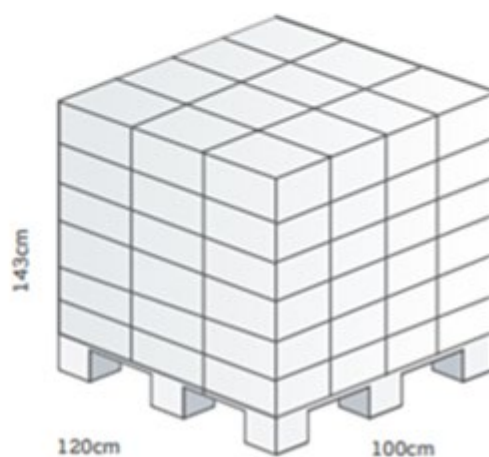
100 pcs GW.26 per PE Large Bag
Bag Dimensions - 280x 180mm
Weight - 400g



1500 pcs GW.26 per carton
Carton - 360x 310 x 160mm
Weight - 6.1Kg



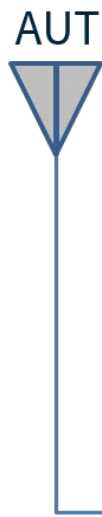
Pallet Dimensions 120x 100 x 143cm
72 Cartons per Pallet
12 Cartons per layer
6 Layers



5. Antenna Characteristics

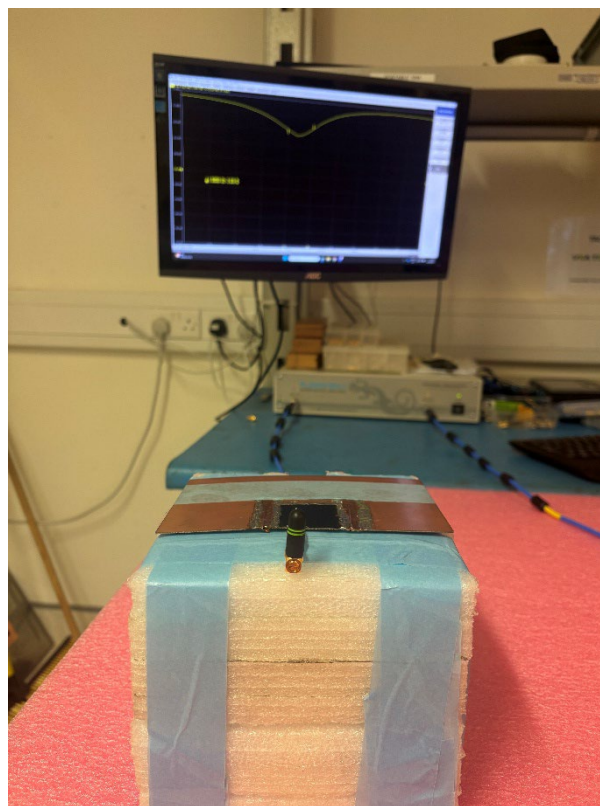
5.1 Test Setup

AUT



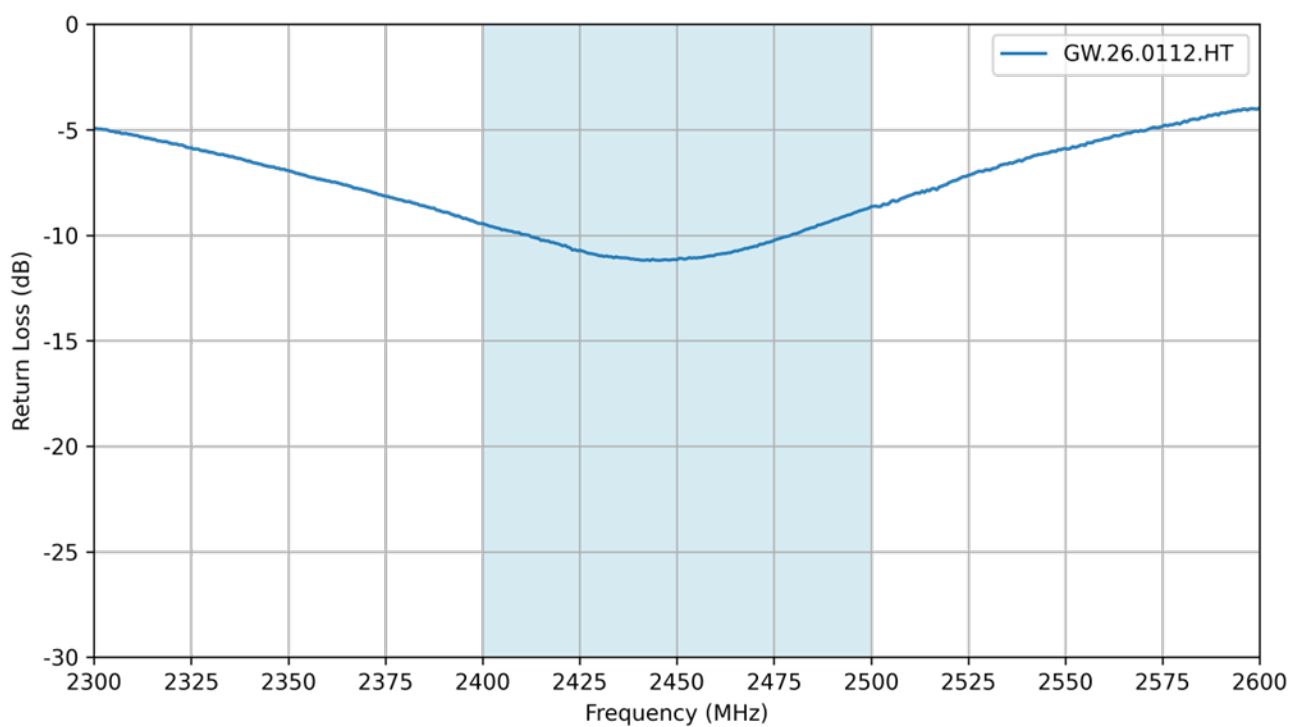
A diagram showing a blue antenna symbol labeled 'AUT' connected by a blue line to the input of a Vector Network Analyzer.

Vector Network Analyzer

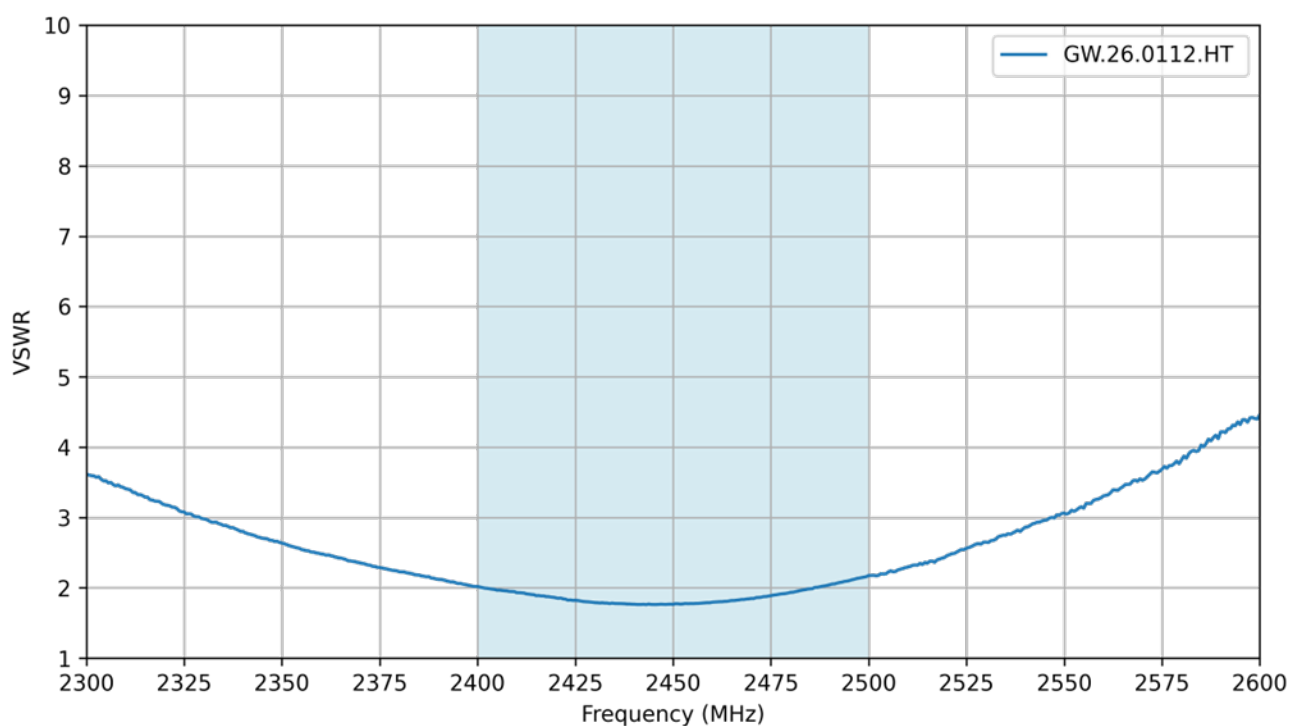


Tested on 150x90mm Ground Plane

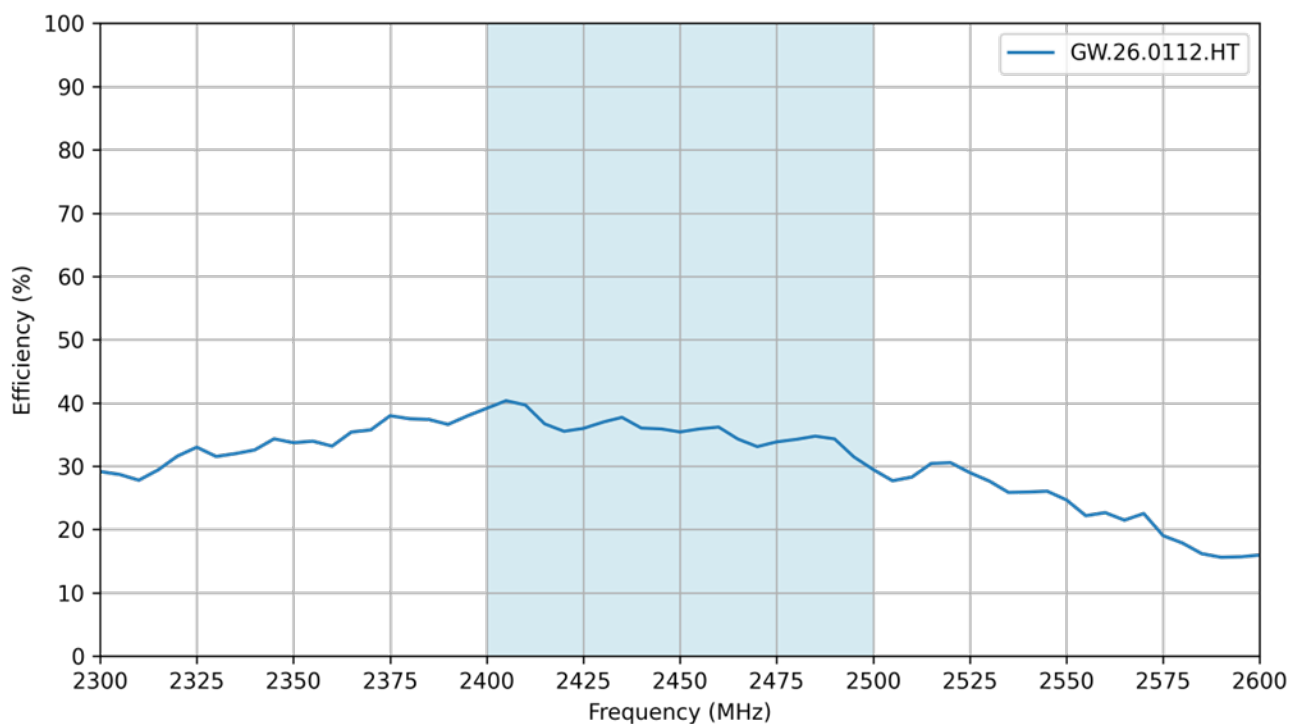
5.2 Return Loss



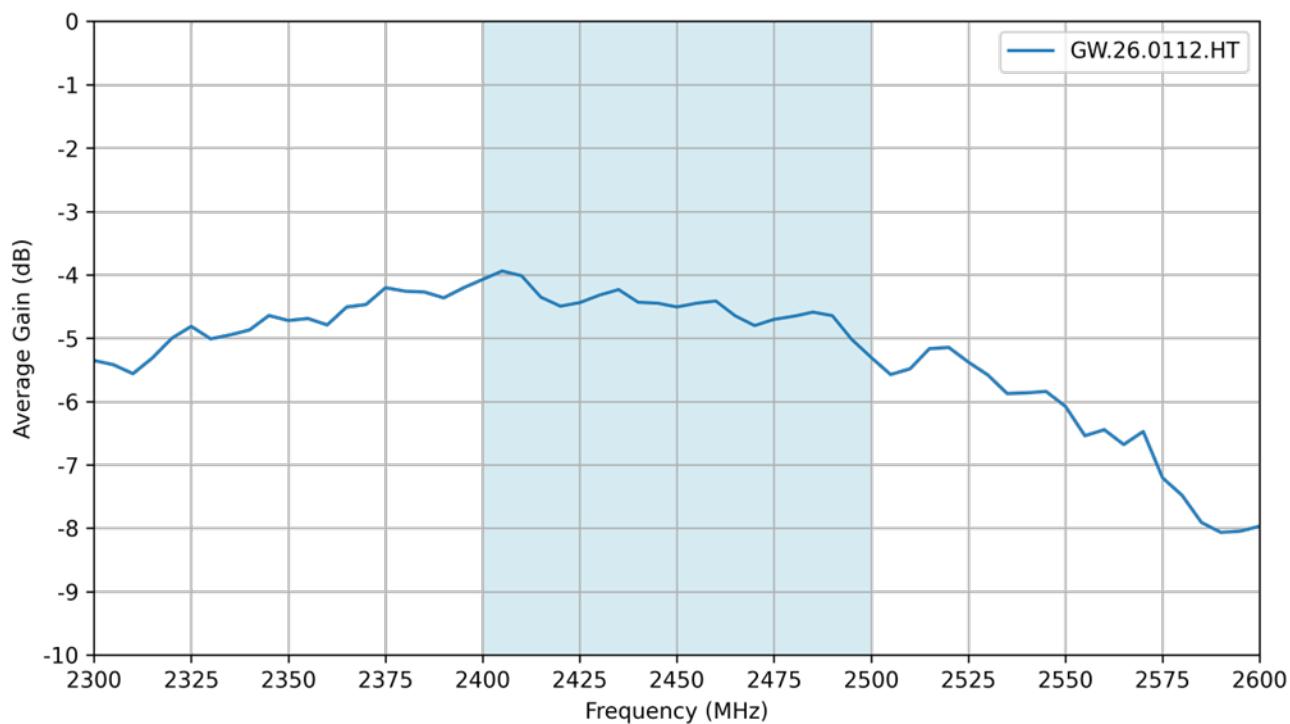
5.3 VSWR



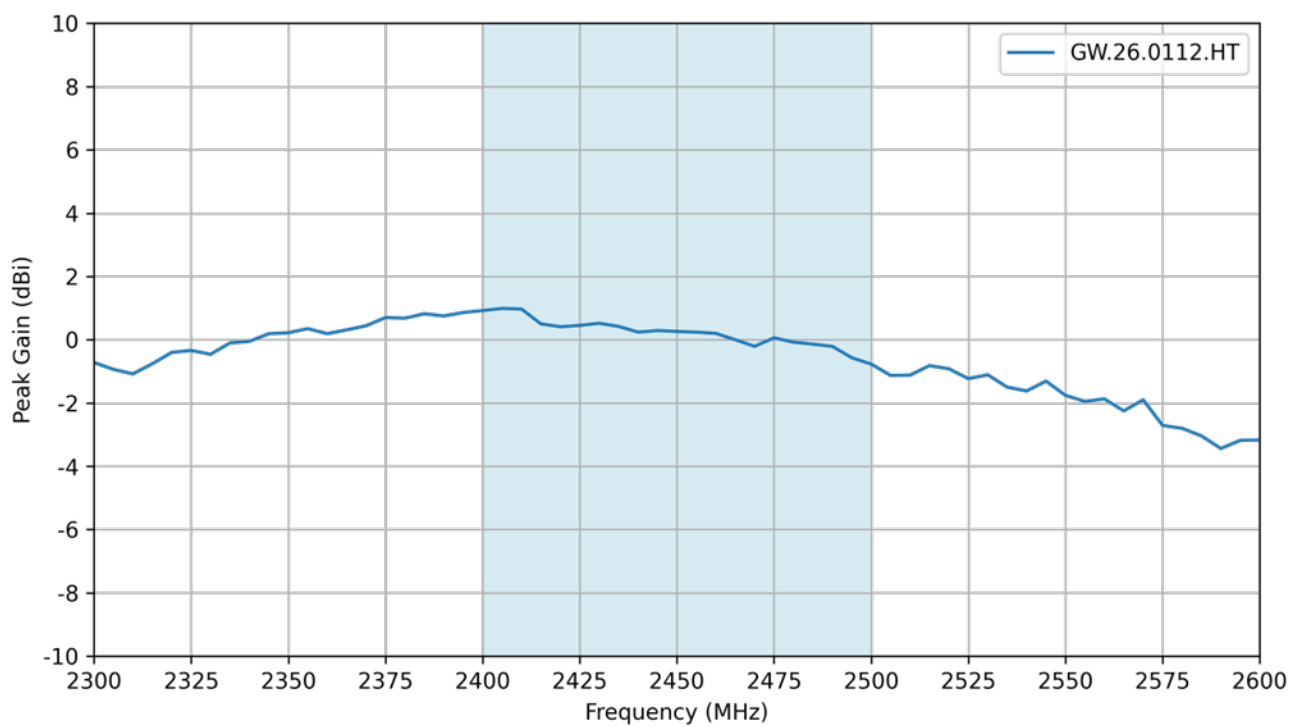
5.4 Efficiency



5.5 Average Gain

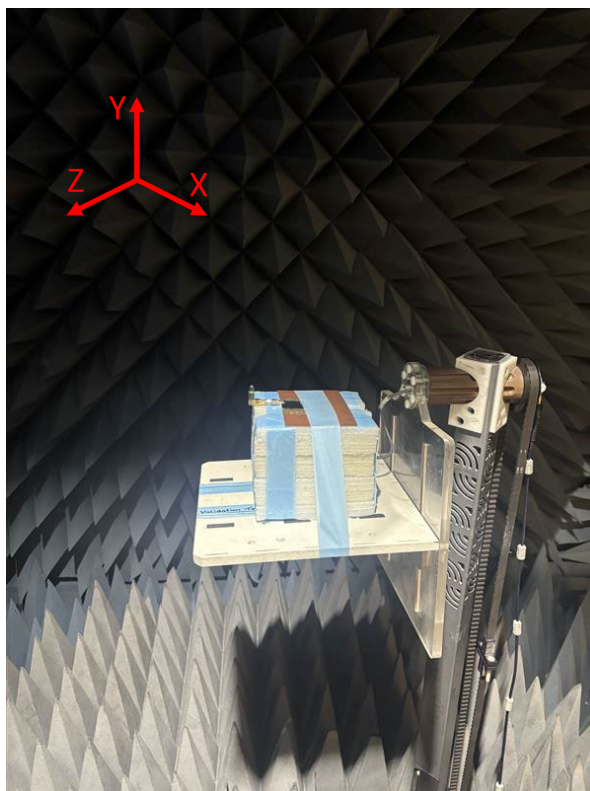
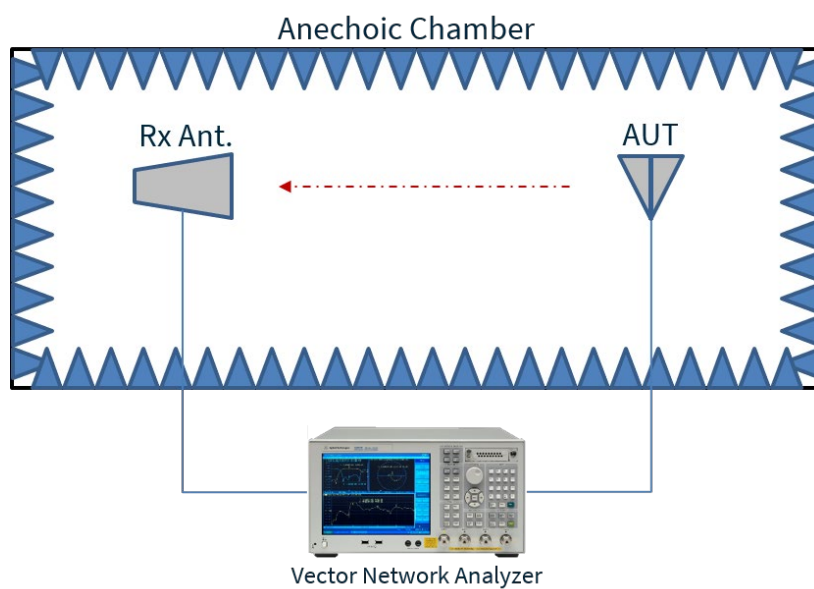


5.6 Peak Gain



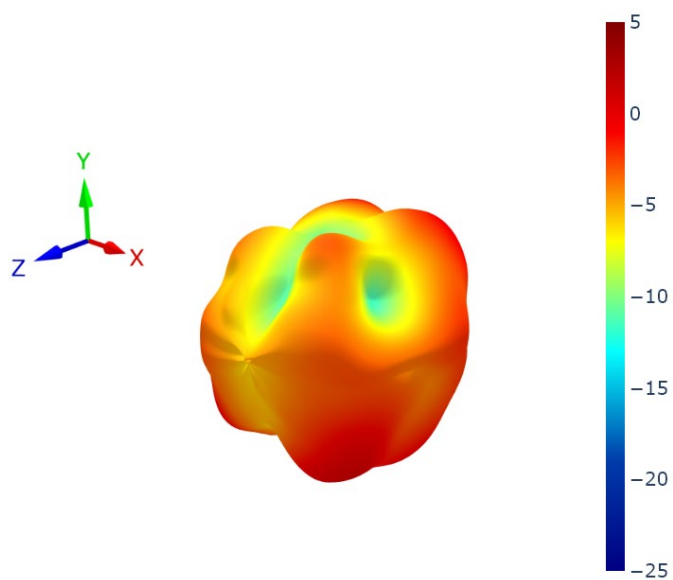
6. Radiation Patterns

6.1 Test Setup

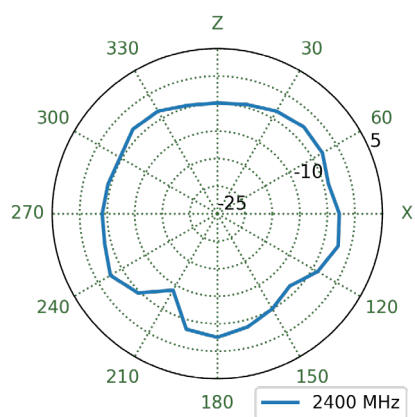


Tested on 150x90mm Ground Plane

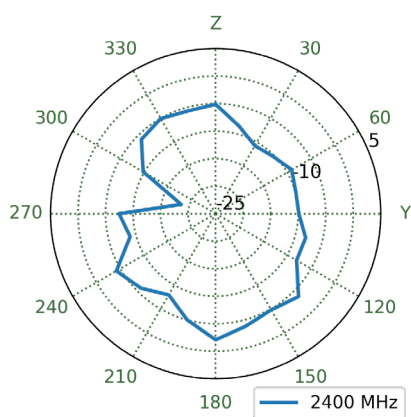
6.2 Patterns at 2400 MHz



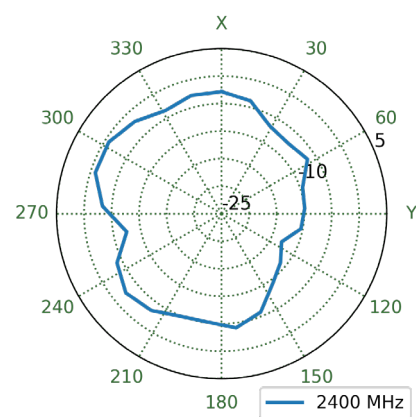
XZ Plane



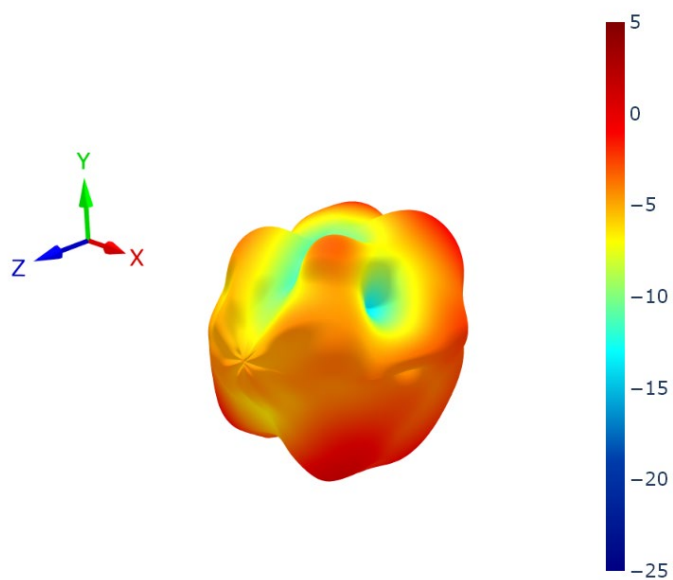
YZ Plane



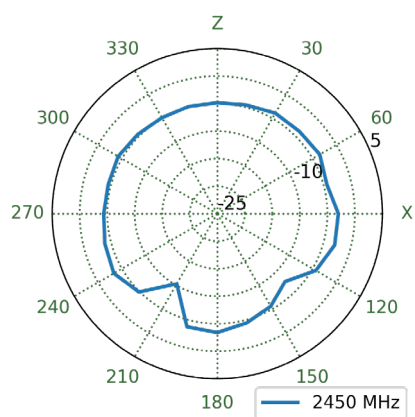
XY Plane



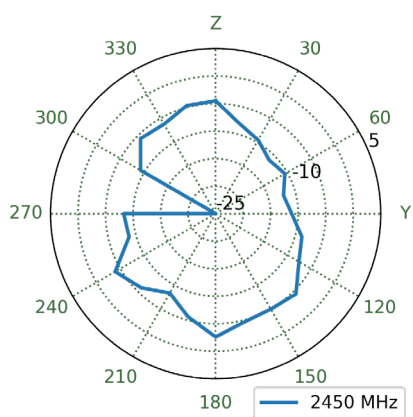
6.3 Patterns at 2450 MHz



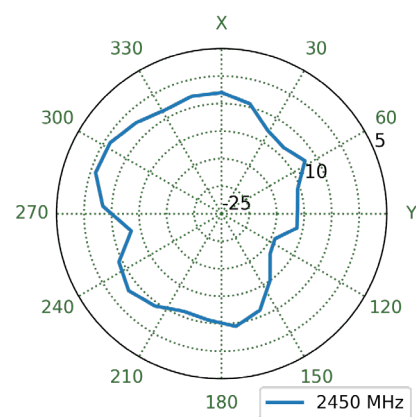
XZ Plane



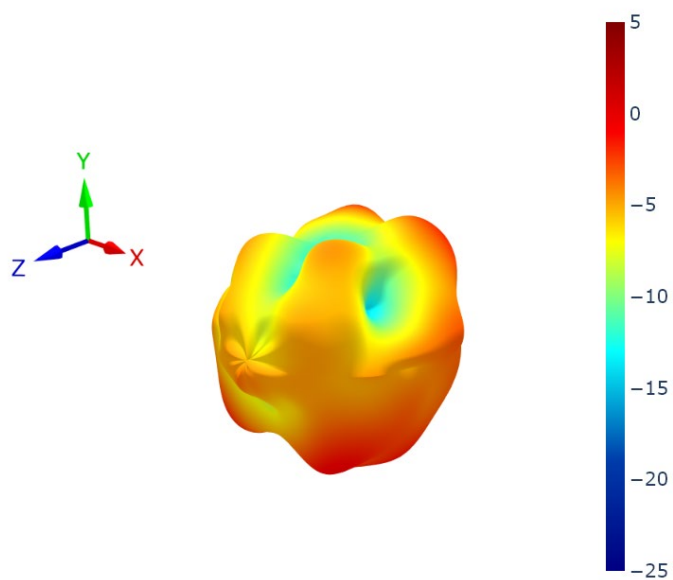
YZ Plane



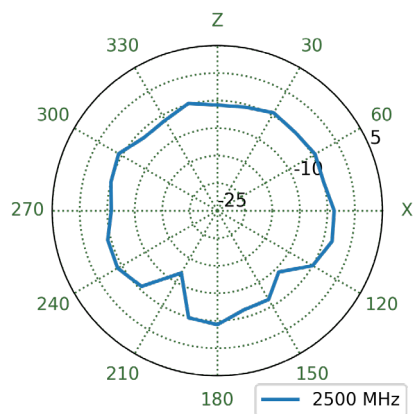
XY Plane



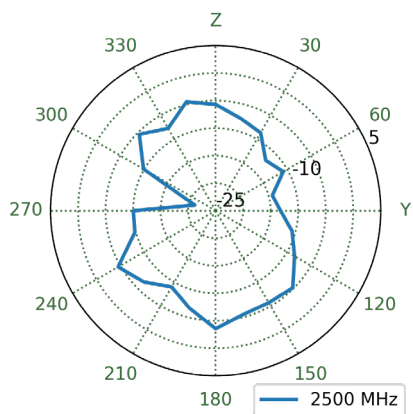
6.4 Patterns at 2500 MHz



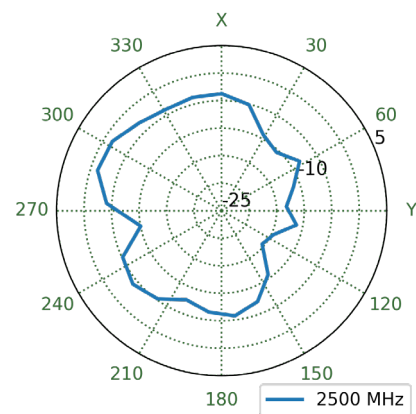
XZ Plane



YZ Plane



XY Plane



Changelog for the datasheet

SPE-11-8-036 – GW.26.0112.HT

Revision: J (Current Version)

Date:	2025-11-24
Notes:	Full datasheet update
Author:	Gary West

Previous Revisions

Revision: I

Date:	2025-03-28
Notes:	Added mention of IP65 to Introduction.
Author:	Conor McGrath

Revision: D

Date:	2014-12-03
Notes:	Amended Bandwidth to 100MHz
Author:	Aine Doyle

Revision: H

Date:	2018-11-02
Notes:	Updated dBi
Author:	Jack Conroy

Revision: C

Date:	2014-03-14
Notes:	Updated with correct Photo for measurement
Author:	Aine Doyle

Revision: G

Date:	2017-01-05
Notes:	Updated with packaging info and disclaimer
Author:	Andy Mahoney

Revision: B

Date:	2014-01-09
Notes:	
Author:	Unknown

Revision: F

Date:	2016-05-18
Notes:	Amended gain
Author:	Aine Doyle

Revision: A (First Release)

Date:	2013-09-16
Notes:	
Author:	Unknown

Revision: E

Date:	2015-08-24
Notes:	Added note on gain
Author:	Aine Doyle



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