



# TAOGLAS®



# Datasheet

## 2.4GHz Miniature Screw Terminal Mount Monopole Antenna

**Part No:**  
GW26.0151

### Description

2.4GHz Miniature Terminal Mount Monopole Antenna

### Features:

RP-SMA(M) Connector  
IP65  
Peak Gain Max 1.8dBi  
Height 30.3mm Diameter 7.9mm  
ROHS Compliant

<b>1.</b>	<b>Introduction</b>	<b>2</b>
<b>2.</b>	<b>Specification</b>	<b>3</b>
<b>3.</b>	<b>Antenna Characteristics</b>	<b>4</b>
<b>4.</b>	<b>Radiation Patterns</b>	<b>8</b>
<b>5.</b>	<b>Mechanical Drawing</b>	<b>15</b>
<b>6.</b>	<b>Packaging</b>	<b>16</b>
<hr/>		
	Changelog	17

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



The GW.26 2.4 GHz Monopole RP-SMA(M) terminal mount antenna is ideal for 2.4 GHz wireless applications such as Bluetooth and Wireless LAN.

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.

Connector mount is fully customizable.

## 2. Specification

### Wi-Fi Electrical

Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Power consumption
Wi-Fi 2.4 GHz	2400-2500	48.7	-3.12	2.24	50 $\Omega$	Linear	Omni	10W

### Mechanical

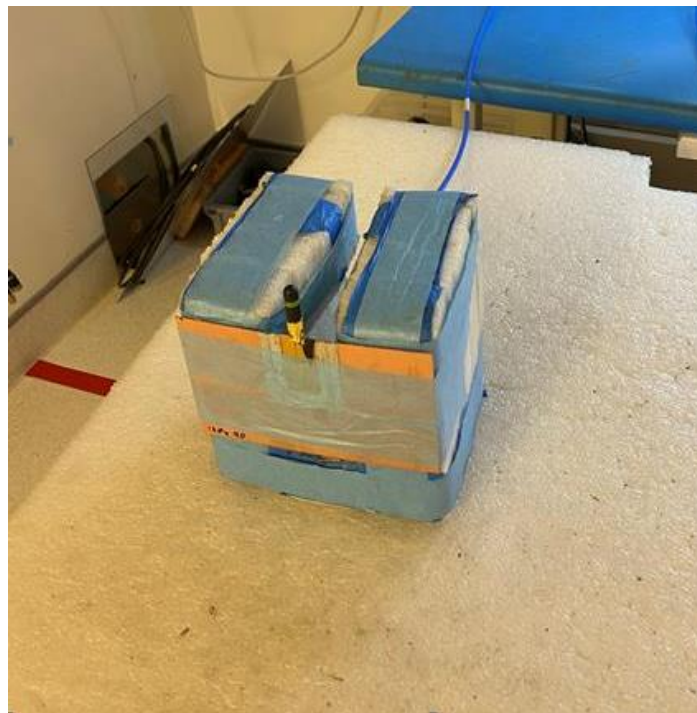
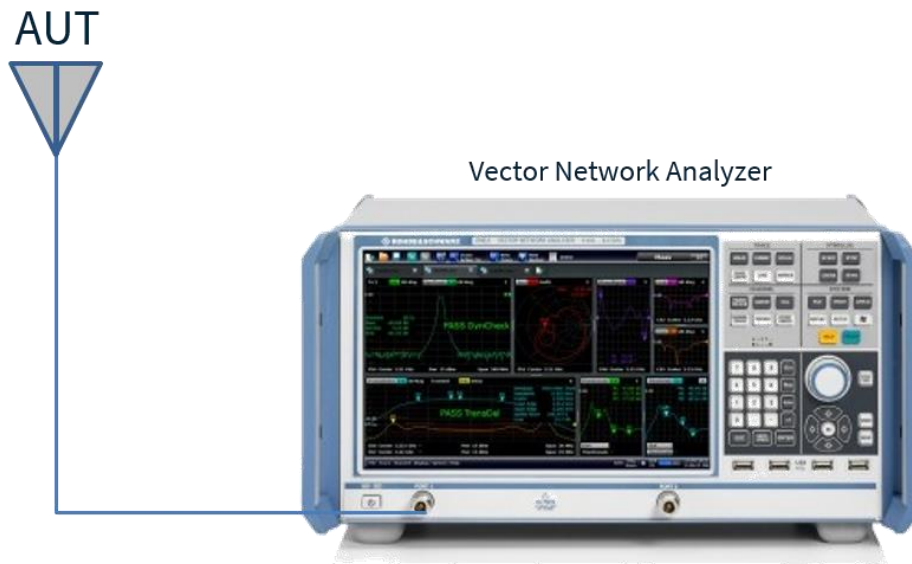
Dimensions	30mm x $\varnothing$ 7.9mm
Material	TPU
Connector	RP-SMA(M)

### Environmental

Operating Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C

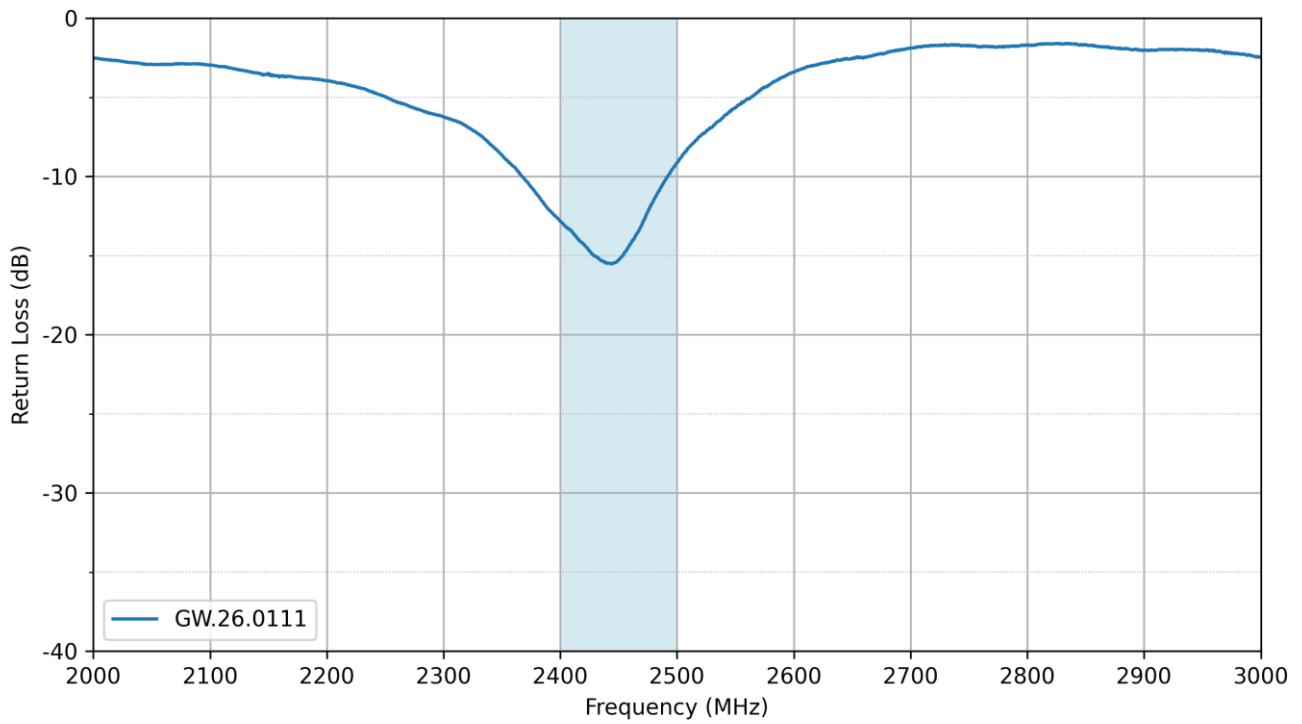
### 3. Antenna Characteristics

#### 3.1 Test Setup

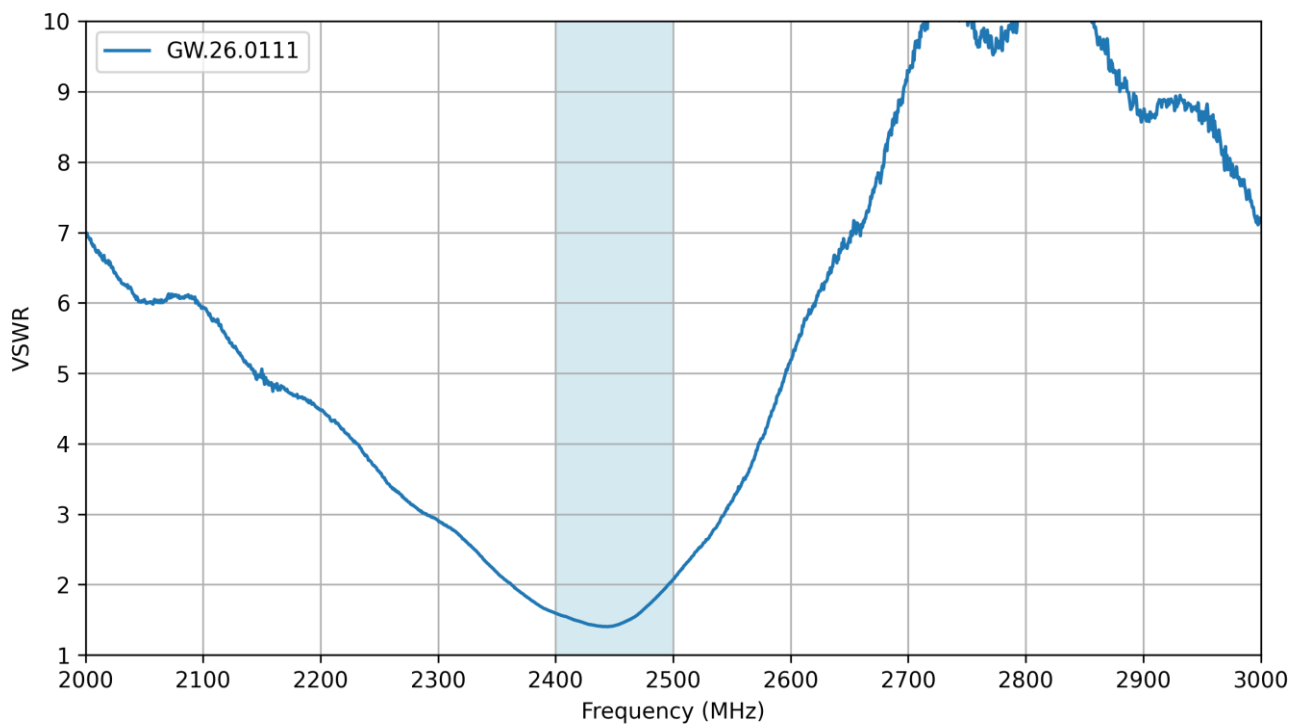


Tested on 150x90mm Ground Plane

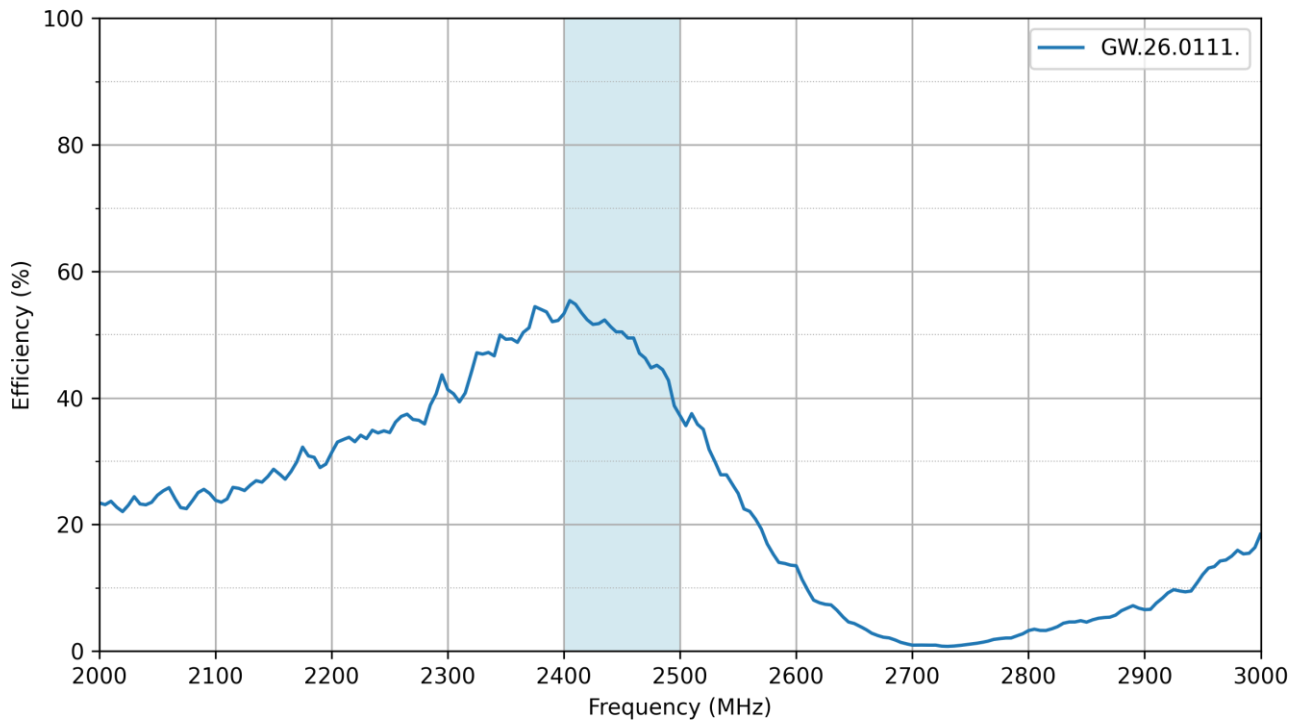
### 3.2 Return Loss



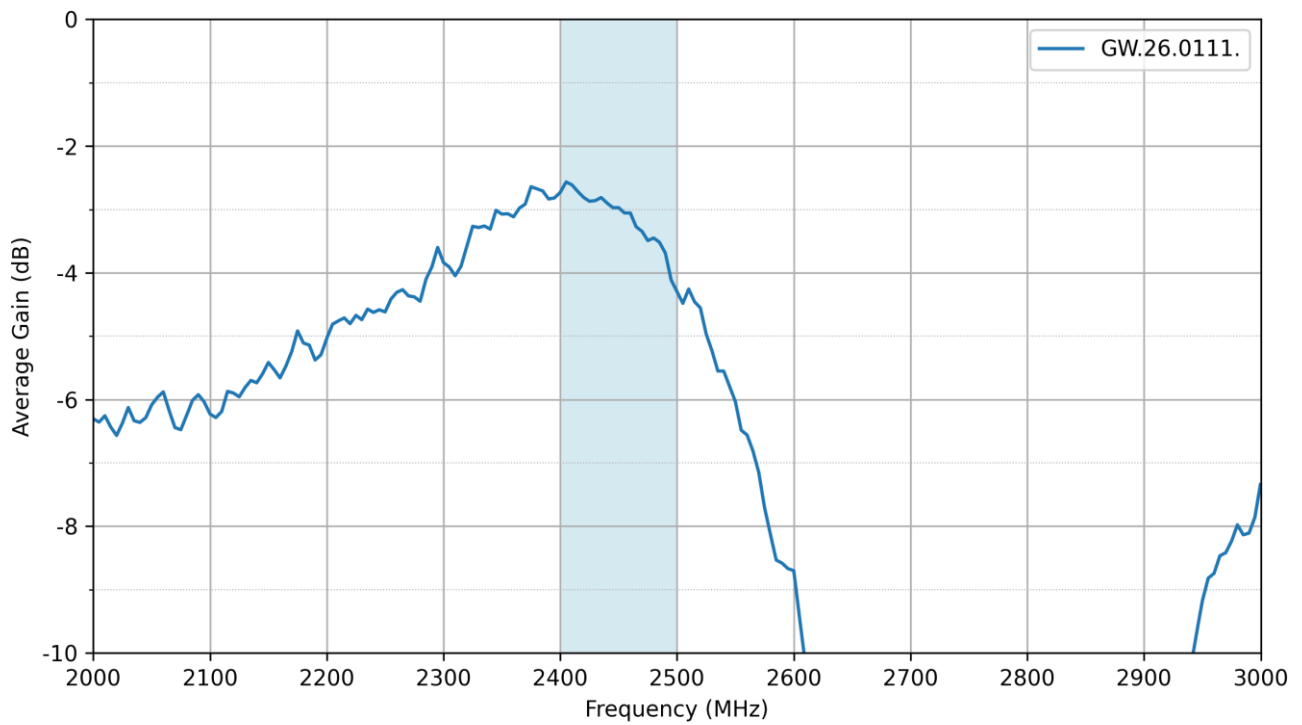
### 3.3 VSWR



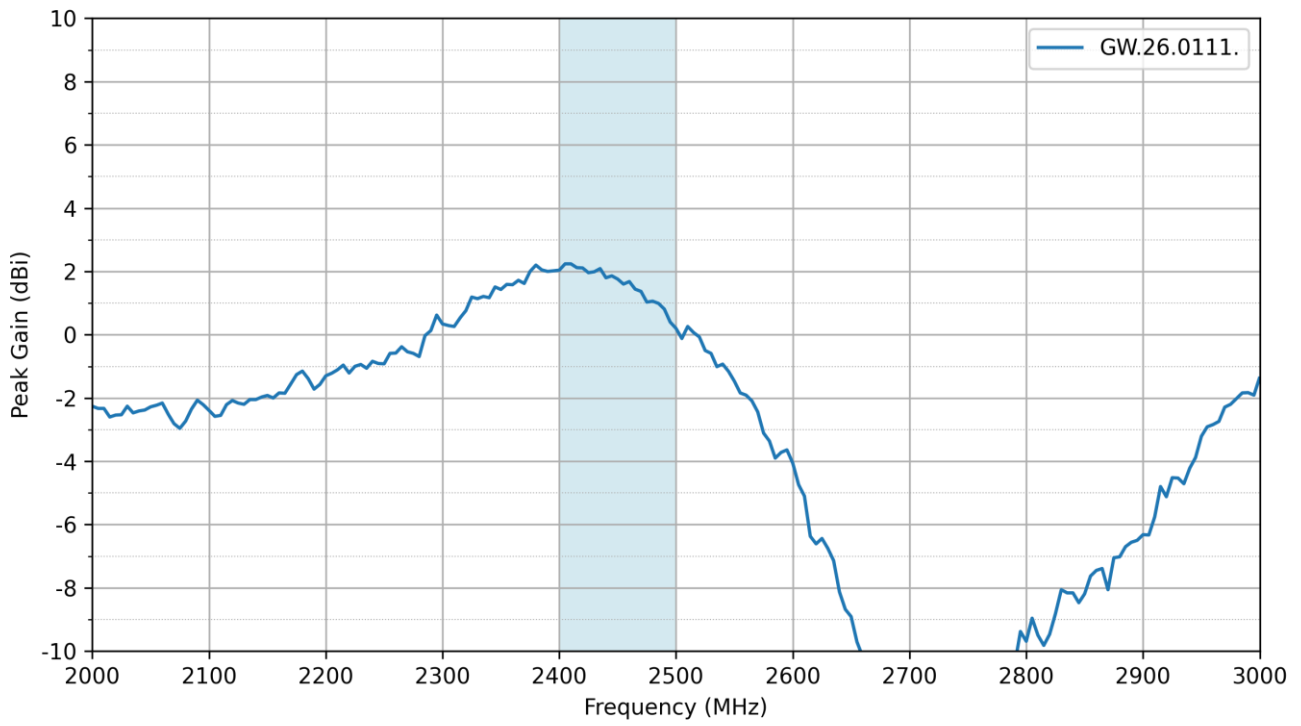
### 3.4 Efficiency



### 3.5 Average Gain



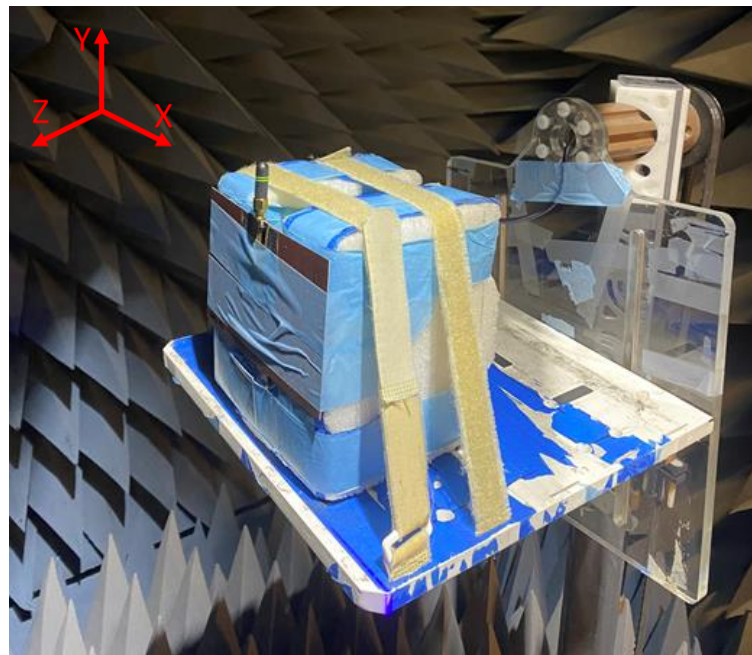
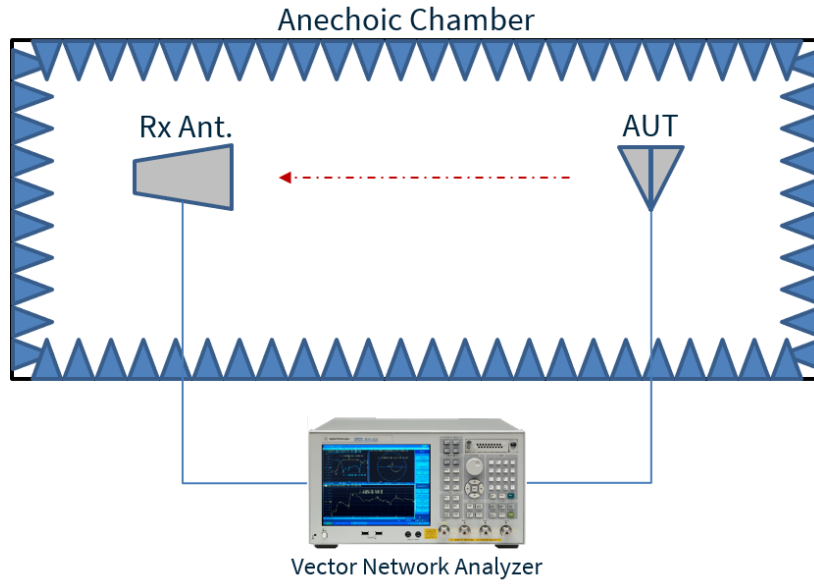
3.6 Peak Gain





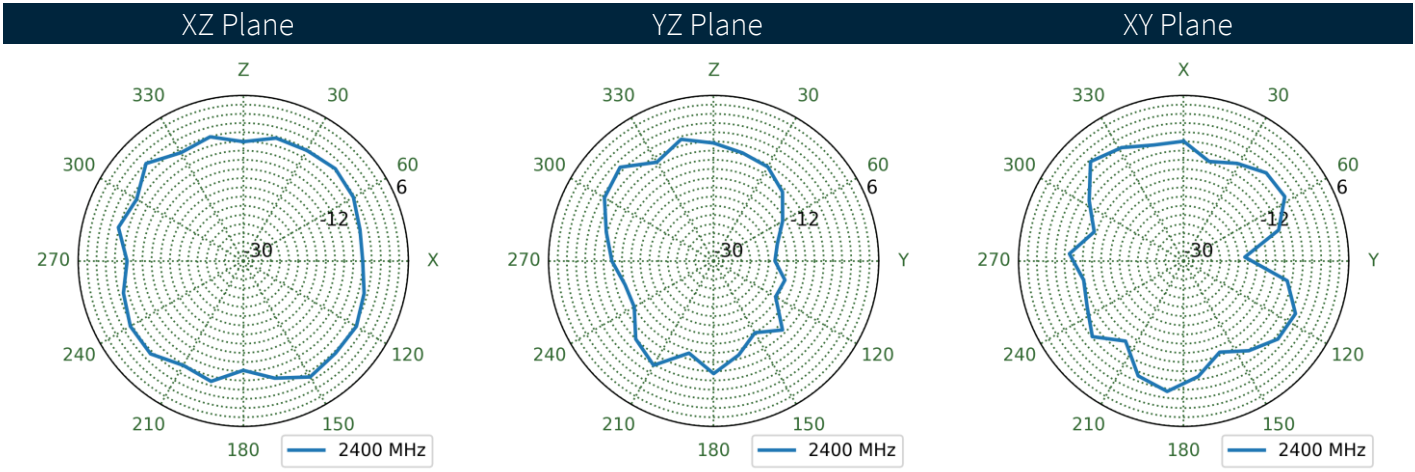
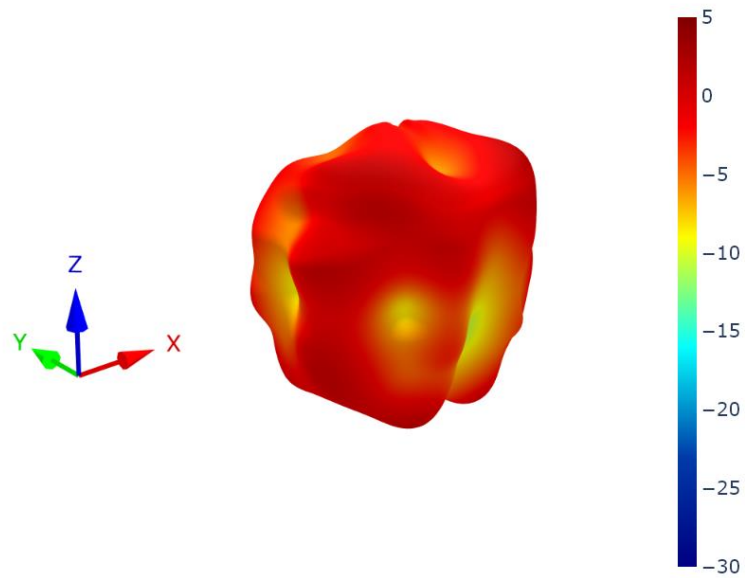
## 4. Radiation Patterns

### 4.1 Test Setup

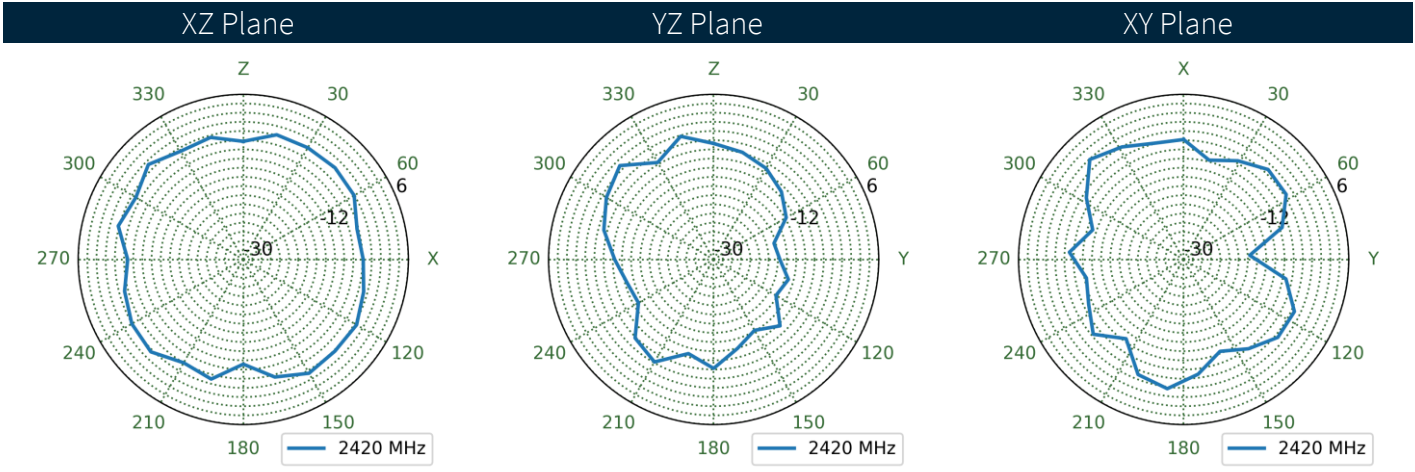
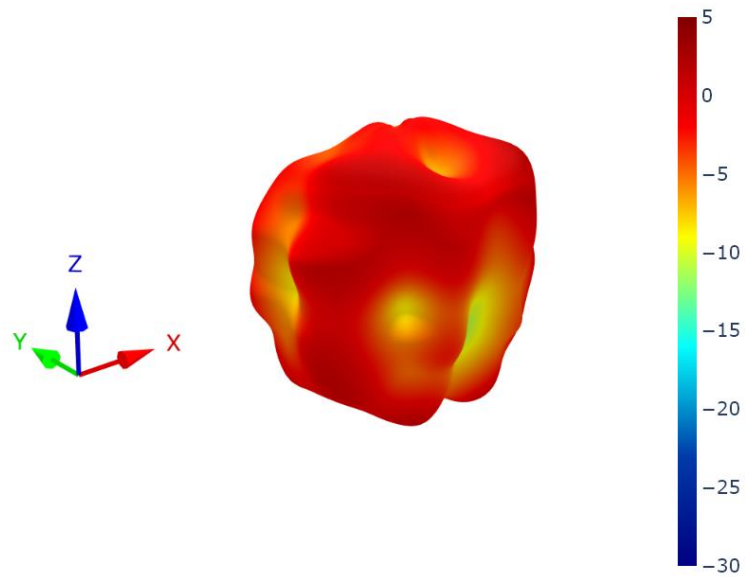


Tested on 150x90mm Ground Plane

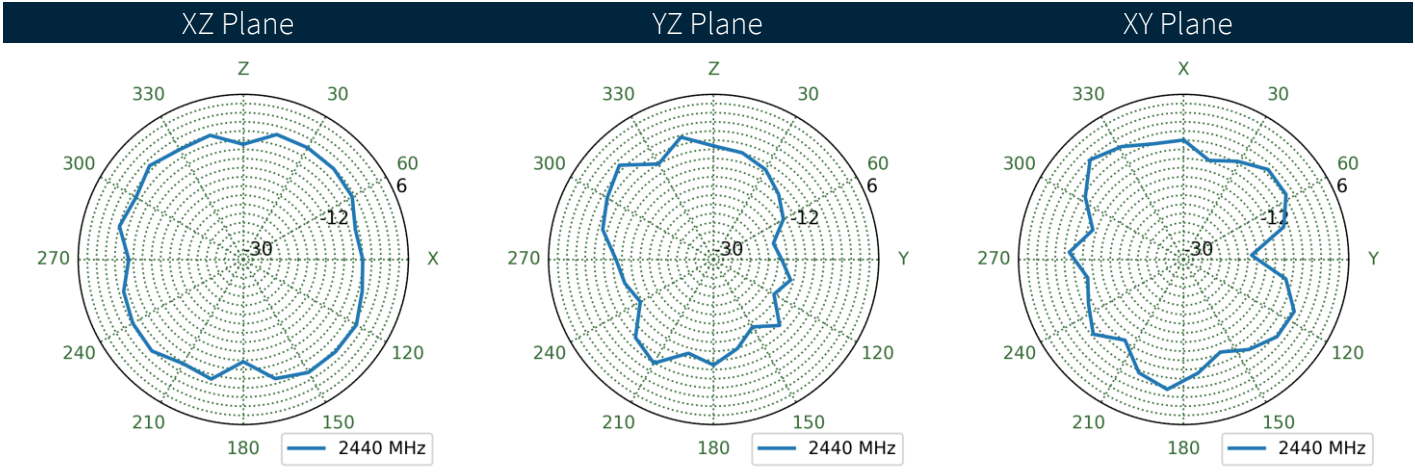
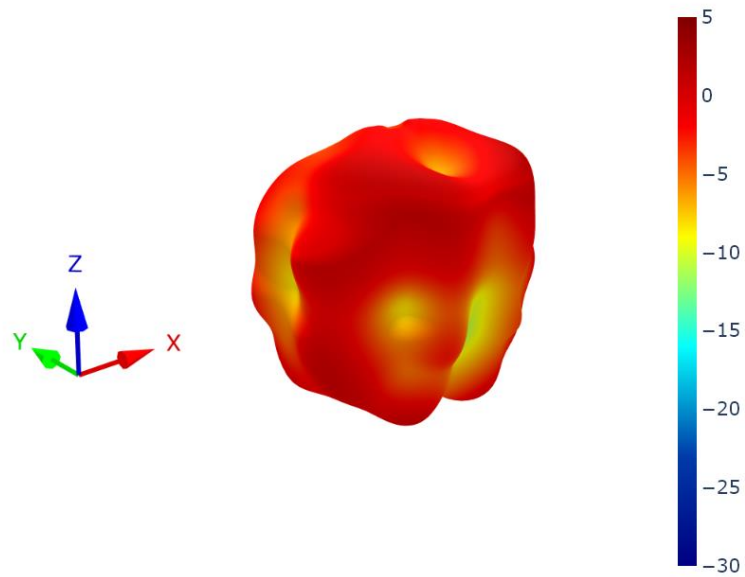
4.2 GW.26.0111 - Patterns at 2400 MHz



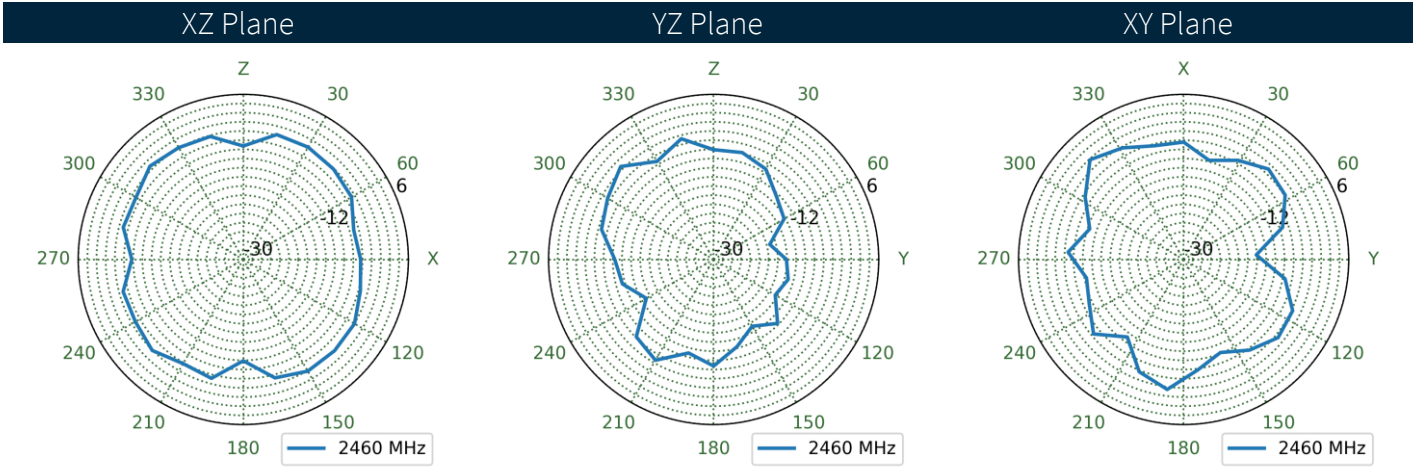
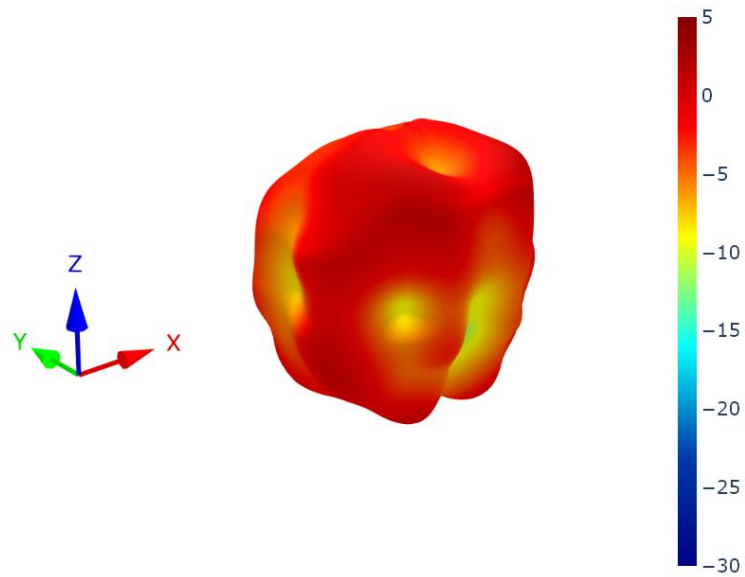
4.3 GW.26.0111 - Patterns at 2420 MHz



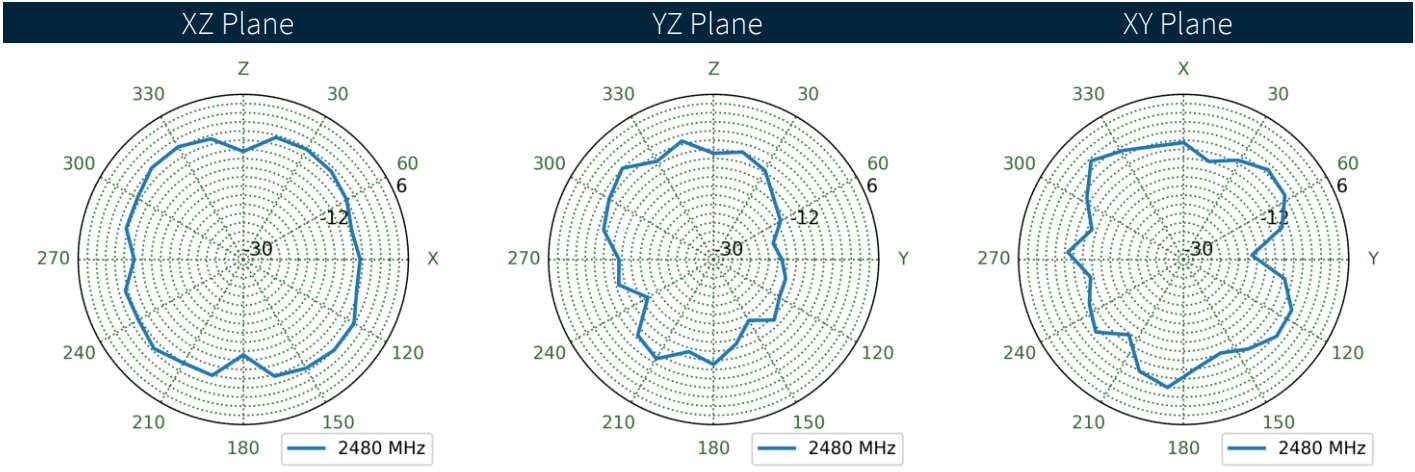
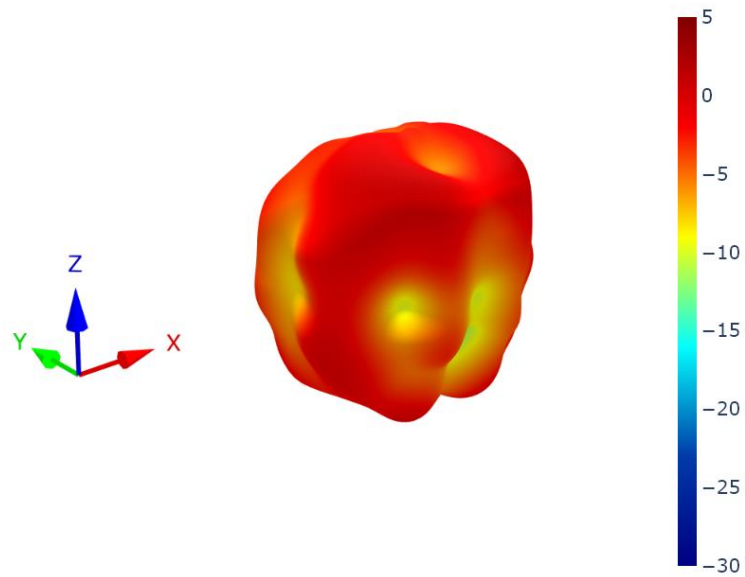
4.4 GW.26.0111 - Patterns at 2440 MHz



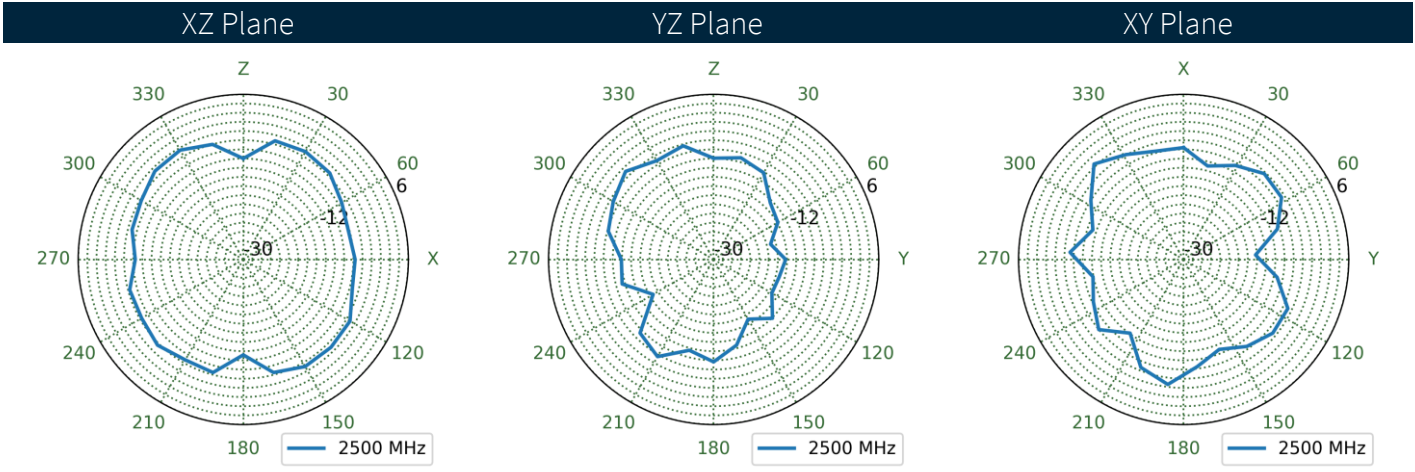
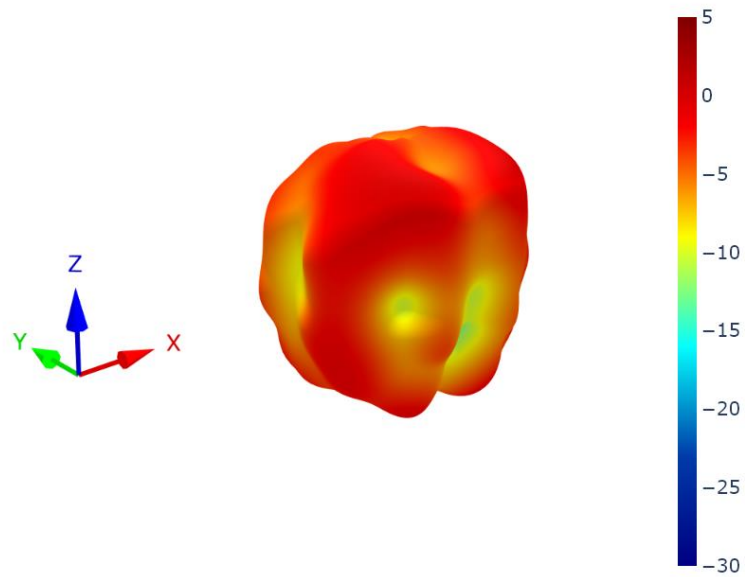
4.5 GW.26.0111 - Patterns at 2460 MHz



4.6 GW.26.0111 - Patterns at 2480 MHz

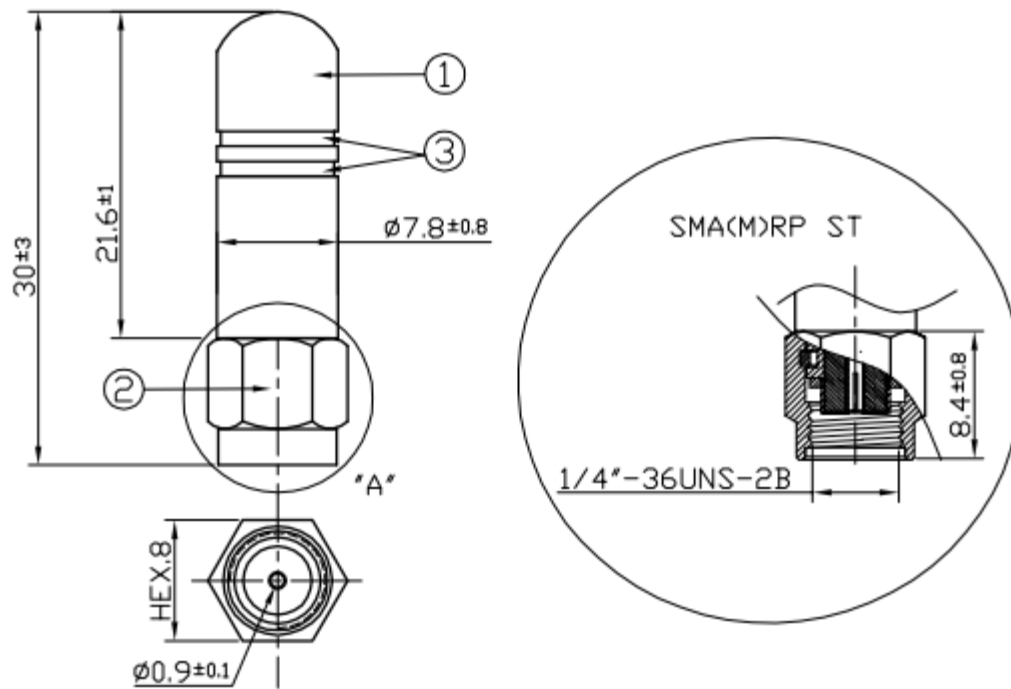


4.7 GW.26.0111 - Patterns at 2500 MHz





## 5. Mechanical Drawing

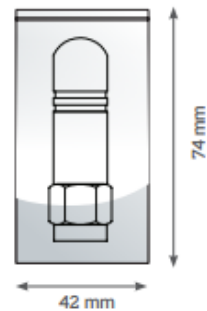


	Name	Material	Finish	QTY
①	Antenna Housing	TPEE	Black	1
②	SMA(M)RP ST	Brass	Gold	1
③	Colour Stripes	Acrylic Paint	Green	1

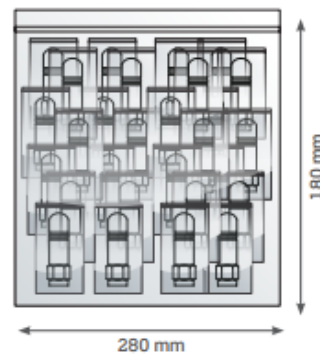


## 6. Packaging

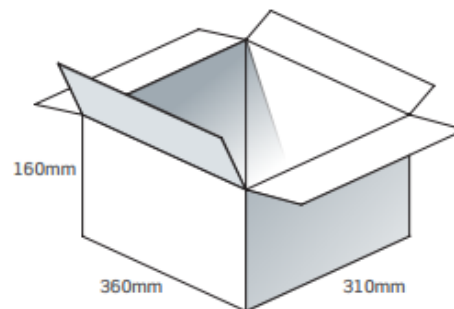
1 pcs GW.26.0151 per PE Bag  
 Bag Dimensions - 74 x 42 mm  
 Weight - 4g



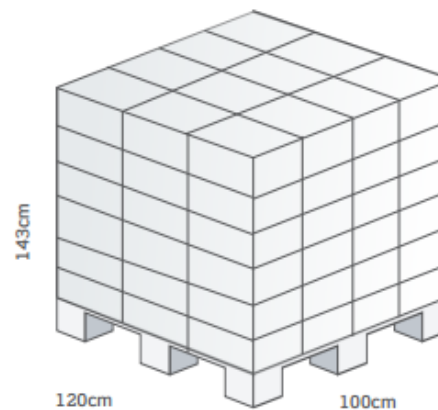
100 pcs GW.26.0151 per PE Large Bag  
 Bag Dimensions - 280x 180mm  
 Weight - 400kg



1500 pcs GW.26.0151 per carton  
 Carton - 360x 310 x 160mm  
 Weight - 6.5Kg



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



Changelog for the datasheet

**SPE-11-8-003 - GW.26.0151**

**Revision: K (Current Version)**

Date:	2023-08-31
Notes:	Updated Format
Author:	Thomas Doyle

**Previous Revisions**

**Revision: J**

Date:	2017-02-13
Notes:	Updated dBi
Author:	Jack Conroy

**Revision: E**

Date:	2013-002-22
Notes:	
Author:	Unknown

**Revision: I**

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

**Revision: D**

Date:	2012-03-26
Notes:	
Author:	Unknown

**Revision: H**

Date:	2016-003-12
Notes:	Amended Peak Gain
Author:	Aine Doyle

**Revision: C**

Date:	2011-07-20
Notes:	
Author:	Unknown

**Revision: G**

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

**Revision: B**

Date:	2011-10-05
Notes:	
Author:	Unknown

**Revision: F**

Date:	2013-09-16
Notes:	amended table heading o Page 2 - general formatting
Author:	Aine Doyle

**Revision: A (First Release)**

Date:	2011-04-28
Notes:	
Author:	Unknown



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

