



# TAOGLAS®



## Datasheet

### GW.40.2153 Dipole Terminal Mount

**Part No:**  
GW.40.2153

**Description:**  
2.4~2.5GHz/4.9~5.85GHz Terminal Dipole Antenna

**Features:**  
RP-SMA(M) Straight Connector  
Hinge Rotatable  
TPU Housing  
Total Length: 109mm  
Diameter: 10mm  
RoHS & REACH Compliant

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## 1. Introduction



The Taoglas GW.40 is a dual-band Wi-Fi terminal mount antenna with a RP-SMA(M) connector. The dipole design makes it ideal for 2.4-2.5GHz/4.9-5.85GHz wireless applications such as Bluetooth and Wireless LAN. At just 109mm in length, it has an omnidirectional radiation pattern. It has a gain value of 3.74dBi at 2.4GHz and 2.5dBi for 5GHz and ensures constant reception and transmission when integrated correctly.

Typical applications include:

- Routers/Gateways
- Industrial IoT
- Connected Enterprise

The antenna structure is designed with a robust TPU enclosure with a high quality finish. The antenna can be rotated 90 degrees on the base hinge for ease of placement. The GW.40 can be installed in MIMO configurations and orientated away from each other to improve isolation if necessary.

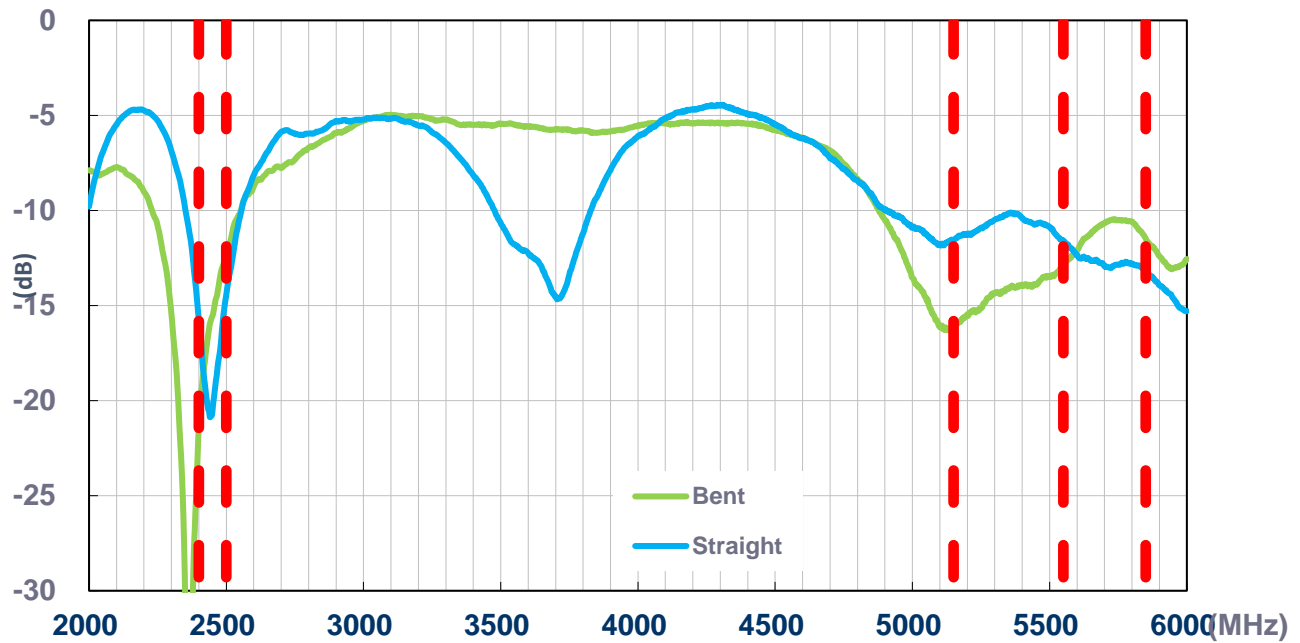
Contact your regional Taoglas Customer Support Team if you require installation instructions or any further support.

## 2. Specifications

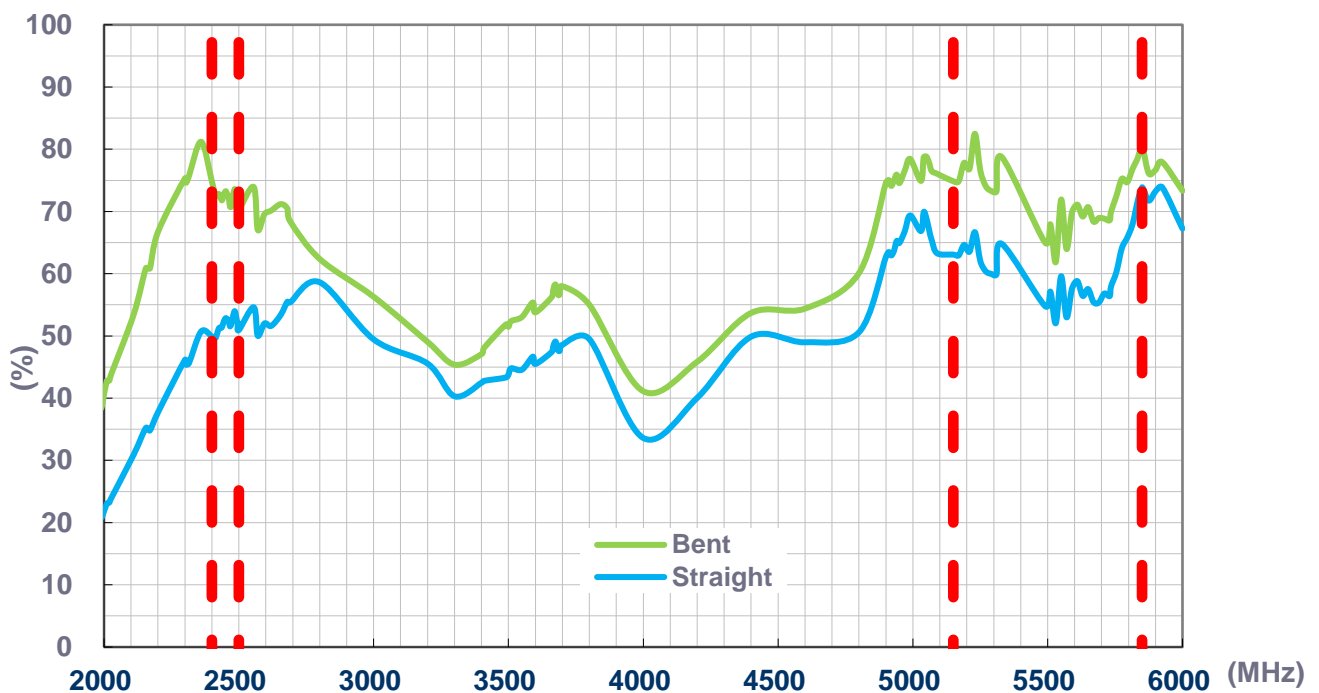
Electrical		
Frequency	2.4 ~ 2.5GHz,	4.9 ~ 5.85GHz
<b>Peak Gain</b>		
Straight	-0.32	3.01
Bent	3.15	4.39
<b>Average Gain</b>		
Straight	-2.86	-2.06
Bent	-1.40	-1.32
<b>Efficiency</b>		
Straight	51.72	62.30
Bent	72.41	73.75
Radiation	Omnidirectional	
Polarization	Linear Vertical	
Power Handling	2W	
Impedance	50Ω	
Mechanical		
Antenna Cover	TPU	
Antenna Base	Nylon	
Color	Black	
Connector	RP-SMA(M)	
Weight	10g	
Environmental		
Operation Temperature	-40°C ~ +85°C	
Storage Temperature	-40°C ~ +85°C	

### 3. Antenna Characteristics

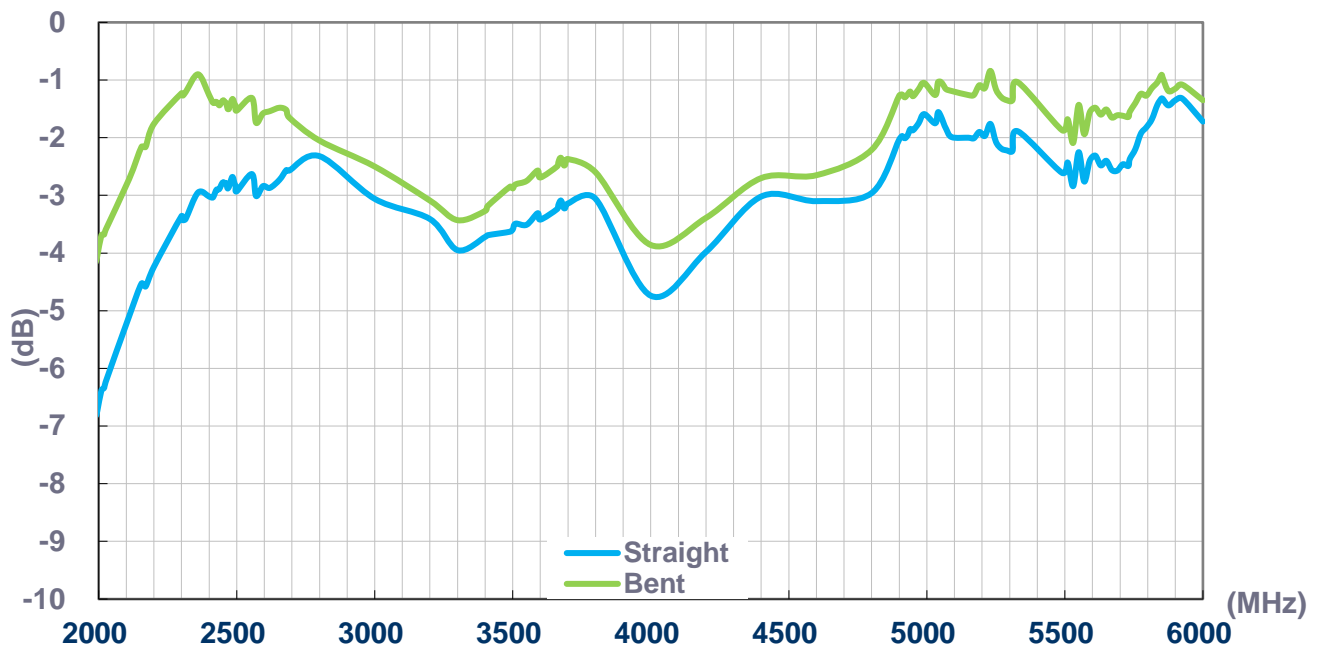
#### 3.1 Return Loss



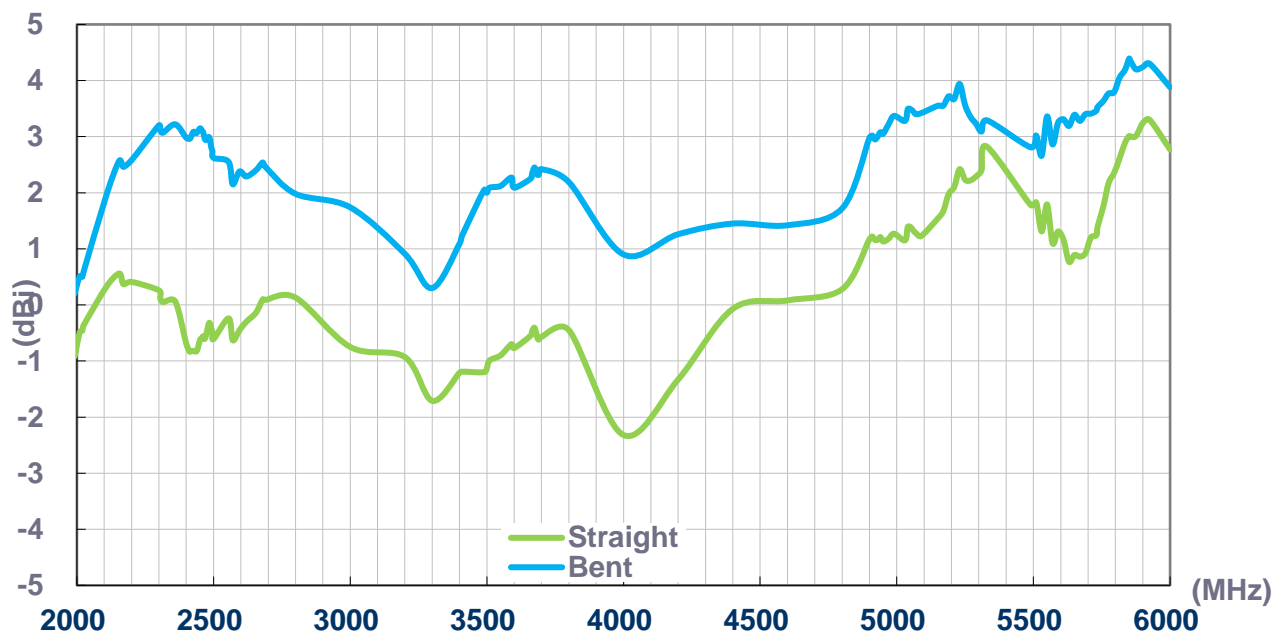
#### 3.2 Efficiency



### 3.3 Average Gain



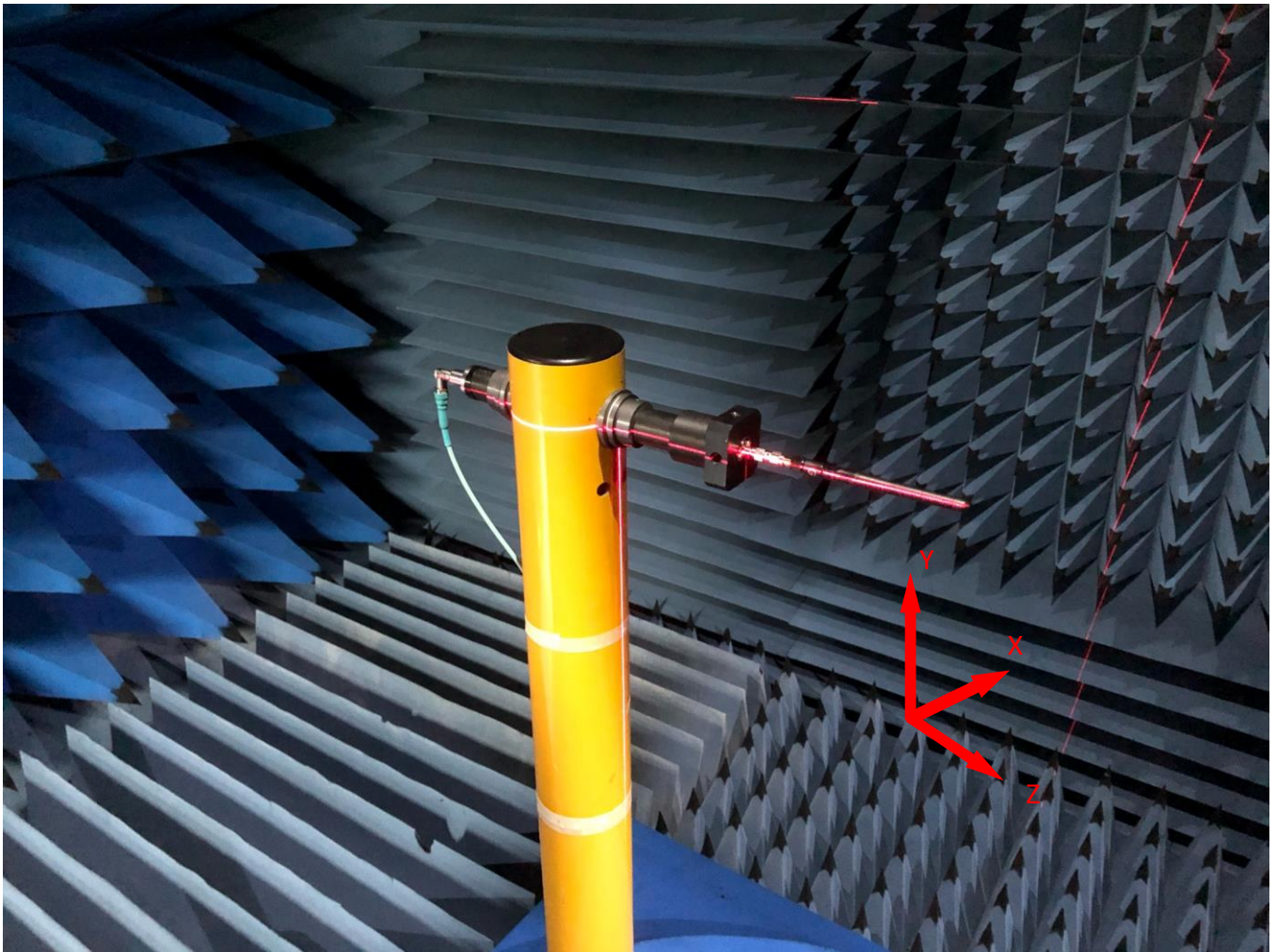
### 3.4 Peak Gain





## 4. 2D Radiation Patterns

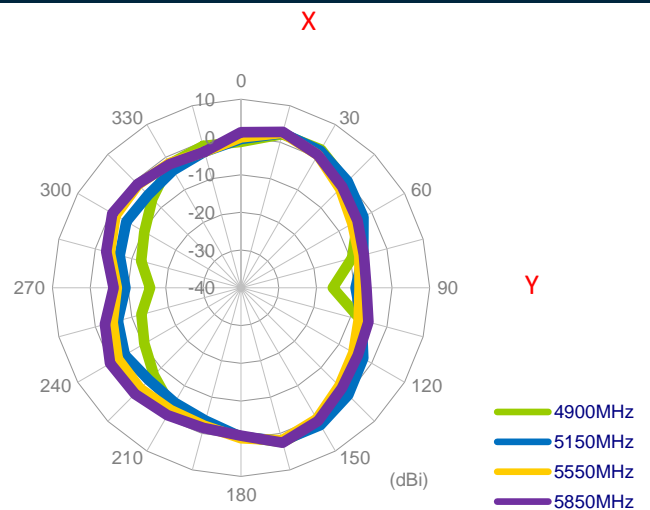
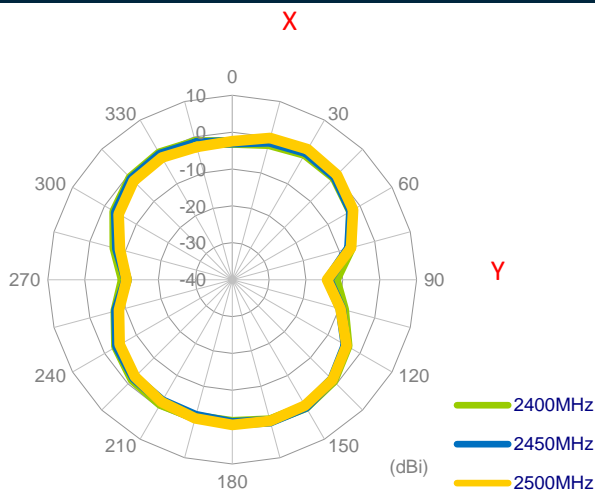
### 4.1 Test Setup - Straight



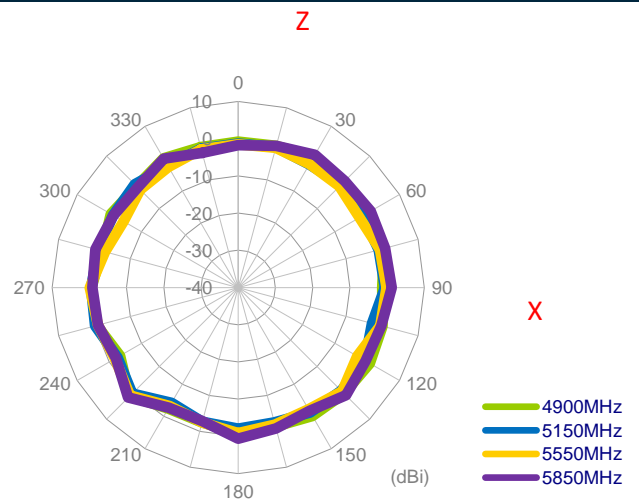
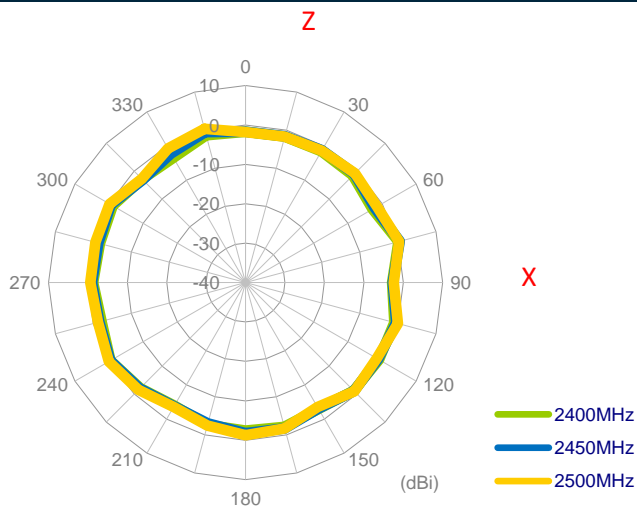
Free space

## 4.2 Radiation Patterns - Straight

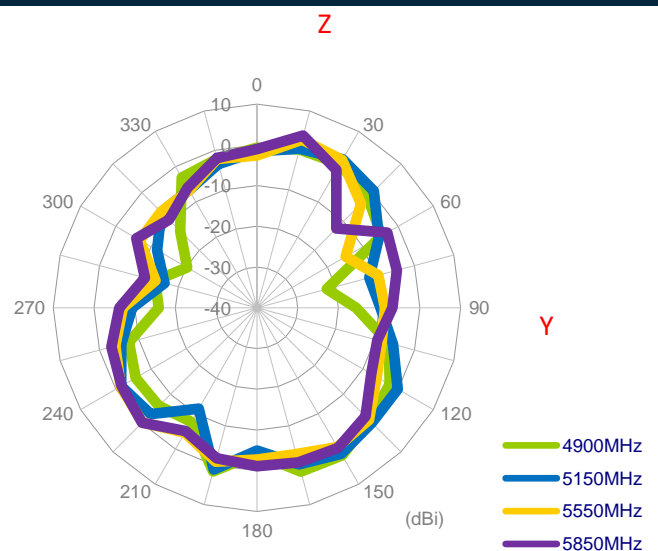
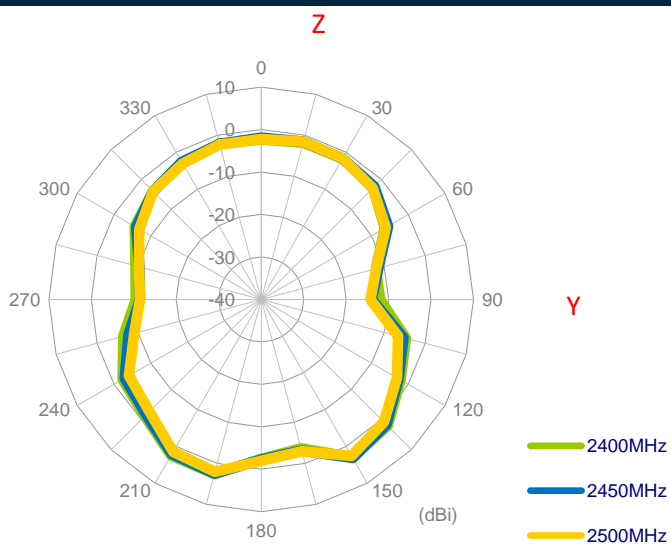
### XY Plane



### XZ Plane



### YZ Plane





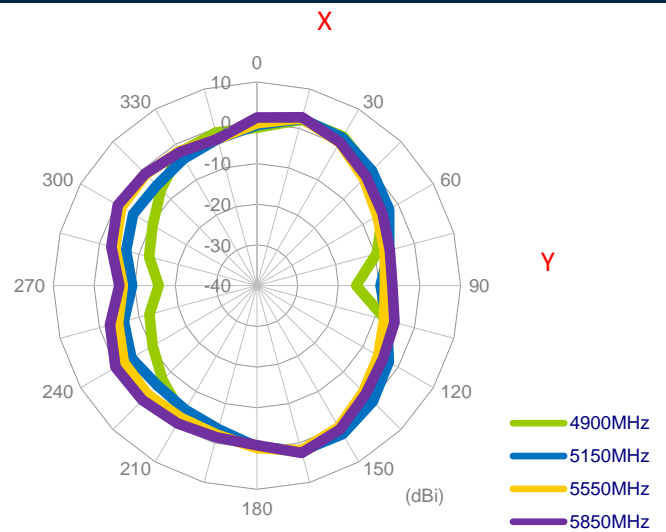
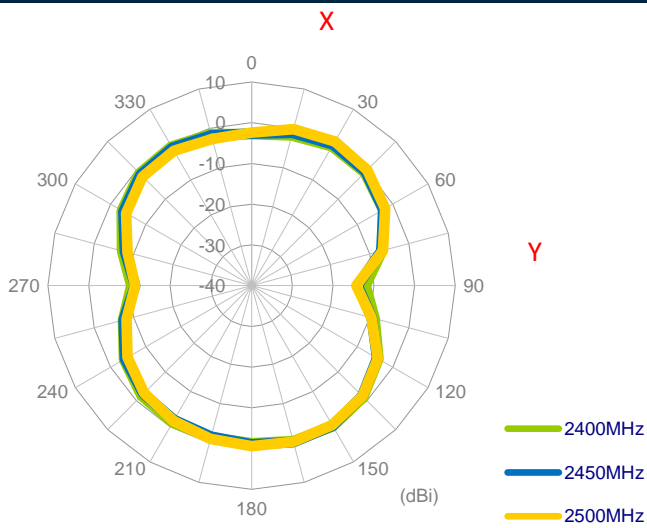
4.3 Test Setup - Bent



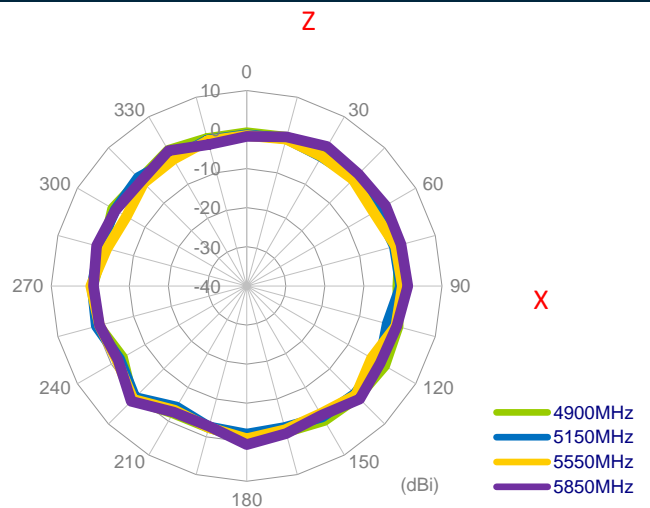
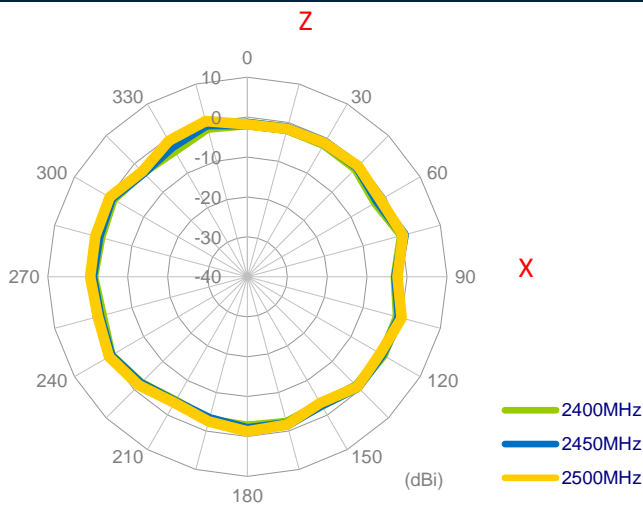
Free space

## 4.4 Radiation Patterns - Bent

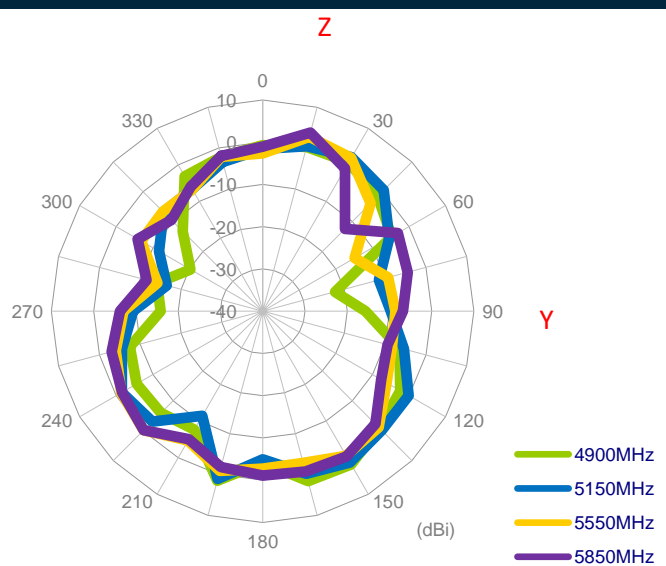
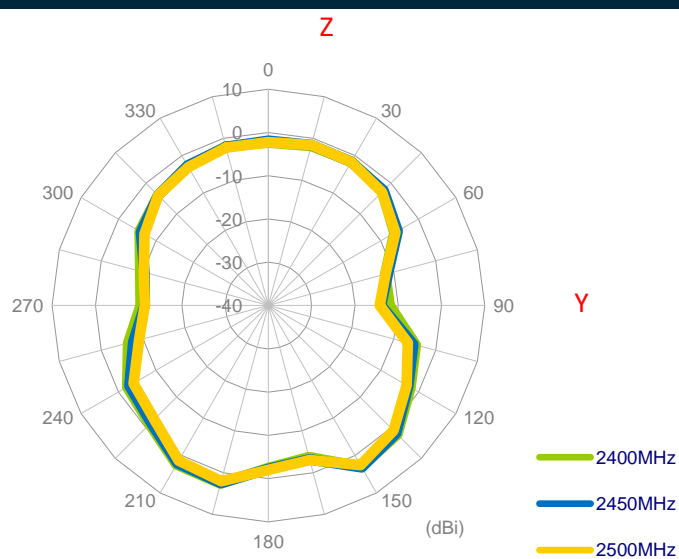
### XY Plane



### XZ Plane



### YZ Plane



# 5. Mechanical Drawing (Units: mm)

ISD NOEDW-14-8-0092	<Release>	REV	ZONE	DESCRIPTION	ENG	APPROVED	ISSUED DATE
		A	ALL	Initial Design	Ophelia	Wayne	2014/11/18

Part Number Silkscreen

White

**GW.40**

DETAIL : "B"

SCALE: 1/1

RP-SMA(M) ST

DETAIL : "A"

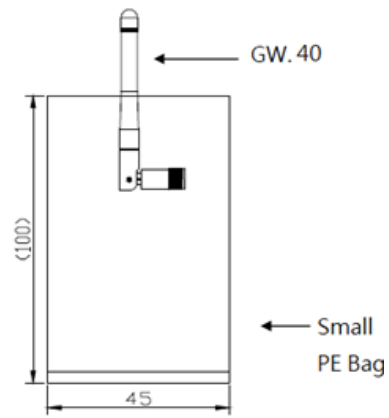
SCALE: 2/1

①	Name	P/N	Material	Finish	QTY
①	Housing	000114E000002A	TPU	Black	1
②	Base 1	000114E010002A	Nylon	Black	1
③	Base 2	000114E020002A	Nylon	Black	1
④	Rotary Shaft	000611I000002A	Brass	Black	1
⑤	RP-SMA(M) ST	210214E020002A	Brass	Black	1

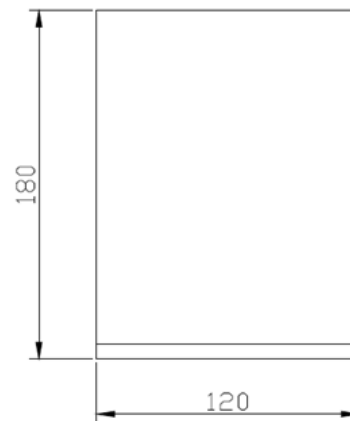
**NOTES:**  
 1. All material must be RoHS compliant.  
 2. Label Area

## 6. Packaging

1pcs GW.40.2153 per Small PE Bag  
 Dimensions - 100\*45mm  
 Weight - 10g



20pcs GW.40.2153 per Large PE Bag  
 Dimensions - 180\*120mm  
 Weight – 200g



Changelog for the datasheet

**SPE-19-8-042 – GW.40.2153**

Revision: A (Original First Release)	
Date:	2019-06-18
Notes:	
Author:	Jack Conroy

**Previous Revisions**
