



# TAOGLAS®

# Datasheet

## Barracuda

**Part No:**  
**OMB.410.B06F21**

### **Description:**

410-425MHz 6dBi Omni Antenna with N Type Female Connector and U-Bolt

### **Features:**


- 410-425MHz Coverage
- Omni-Directional Radiation Pattern with 6dBi Peak Gain
- Robust Fiberglass Housing Enclosure
- IP67 Waterproof Rating
- Wind resistant to 200km/h
- Length: 1500mm
- N-type Female Connector as Standard
- Wall / Pole Mounting Bracket Included
- RoHS & Reach Compliant

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## 1. Introduction



The OMB.410.B06F21 is a 6dBi gain, fiberglass omnidirectional outdoor antenna, which is designed to cover frequency bands from 410-425MHz. The antenna is designed for applications such as smart grid, smart metering, industrial/environmental monitoring, remote asset monitoring, and mesh network applications.

The OMB.410 operates in the newly awarded Smart Grid frequency band between 410-425MHz with a >6dBi peak gain across the band with an omnidirectional antenna radiation pattern in the azimuth providing excellent coverage over long distances. Coupled with a very low VSWR, this characteristic provides the best performance because the antenna gives maximum coverage range in the horizontal plane over 360 degrees, thus minimizing the number of nodes needed for a mesh network.

The UV resistant fiberglass housing enables the OMB antenna to be utilized in all kinds of harsh environments, making it more robust and safer than traditional whip antennas. It can be connected directly to the access point or telemetry unit or can be mounted on a wall or device surface via the N-type connector.

An industry standard N-type Female connector is used as standard but can be customized upon request and is subject to MOQ. Contact your regional Taoglas customer support team for details.

**An alternate model, OMB.410.B03F21, with 3dBi peak gain, is also available.**

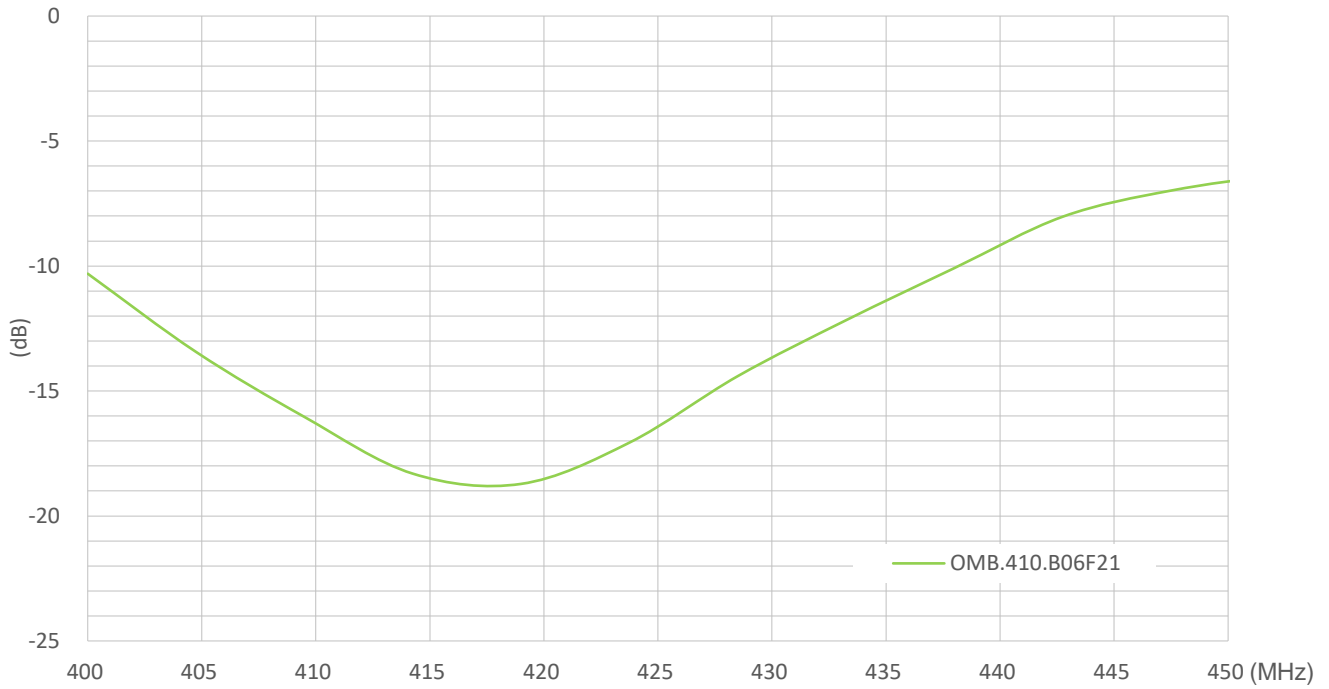
## 2. Specifications

Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	VSWR	Impedance	Polarization	Radiation Pattern
Cellular Band 87,126	410~425	88.9	-0.5	6	<1.2:1	50 Ω	Linear	Omni
Power rating at the antenna port					50W			
Maximum transmit power					50W			
Mechanical								
Dimensions	1500(L) x 80(W) x 65(D)							
Diameter	Ø34mm							
Connector	N-Type, Female							
Antenna Weight	1300g							
Radome Material	GFRP (White)							
Bracket Material	Corrosion Resistant Aluminium							
Wind Resistance	200 km/h							
Wind Load @150Km/h	20N							
Waterproof	IP67							
Mounting	Pole Mount & Wall Mount							
Environmental								
Temperature Range	-40°C to 55°C							
Humidity	Non-condensing 65°C 95% RH							

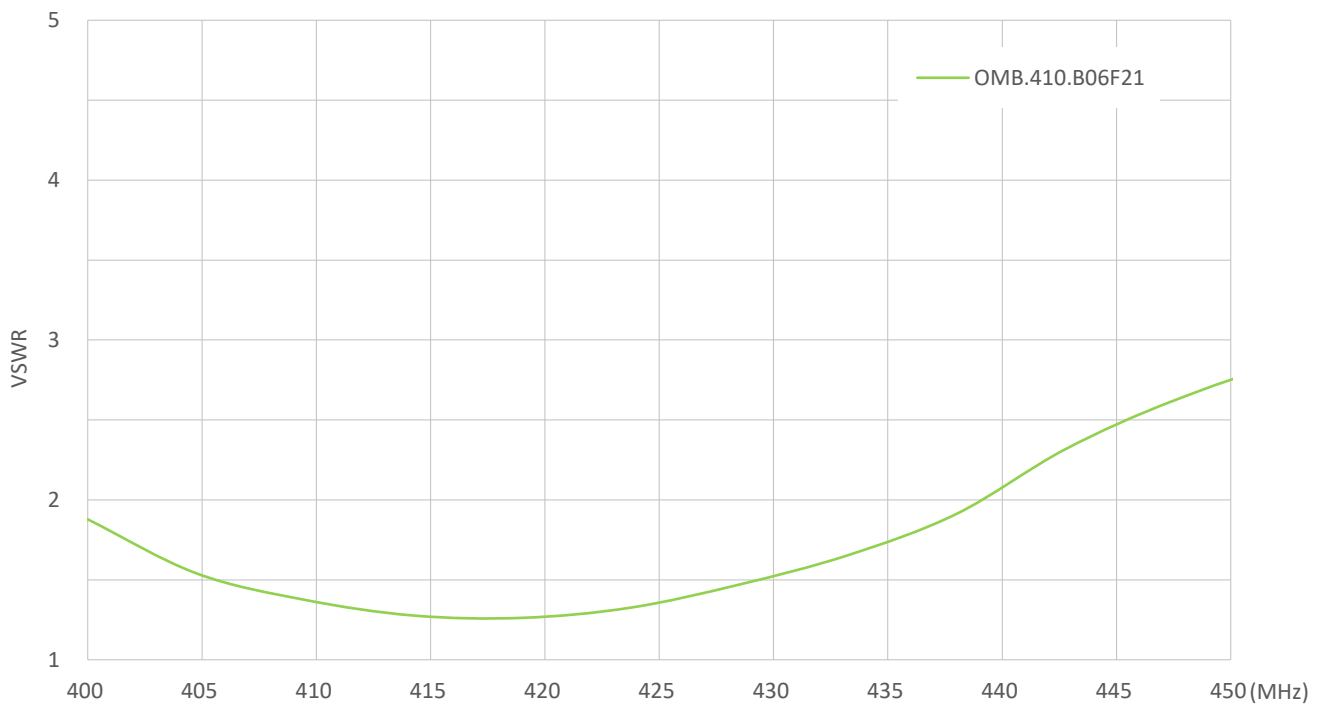
\*Results measured in free space

### 3. Antenna Characteristics

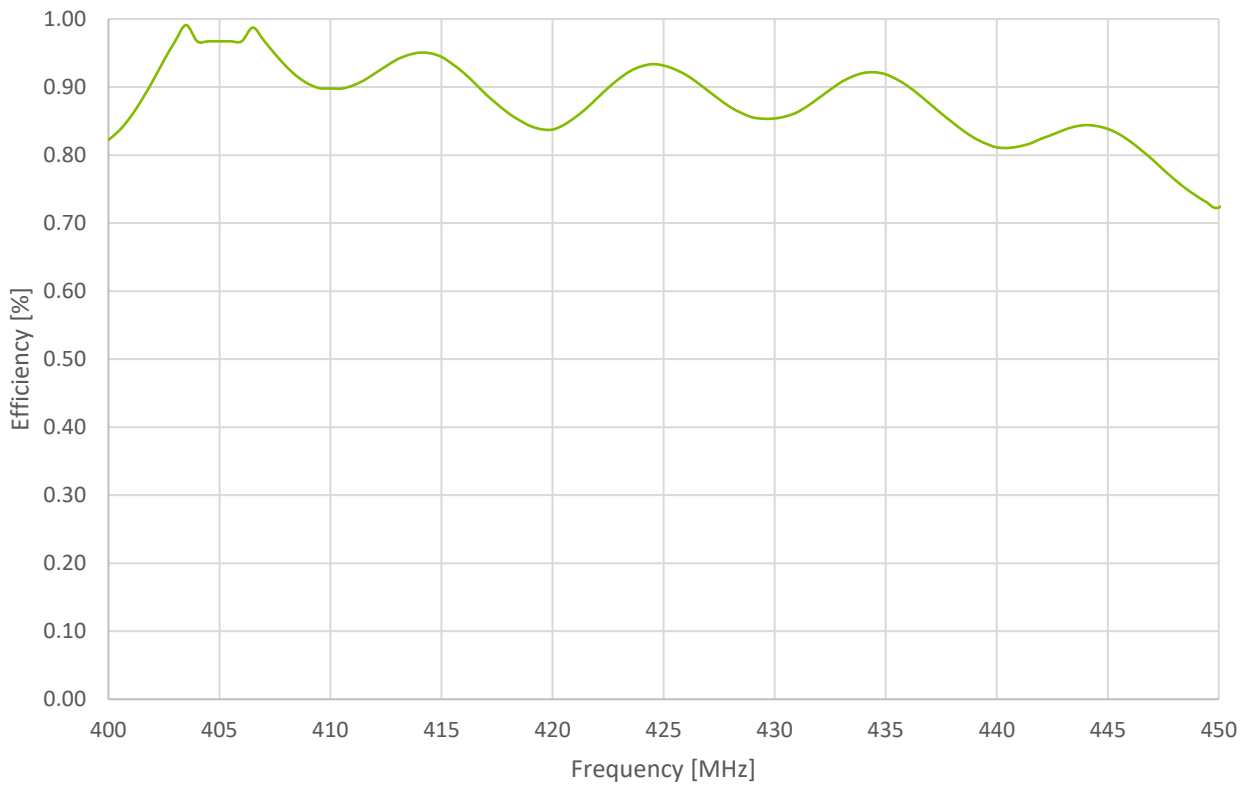
#### 3.1 Return Loss



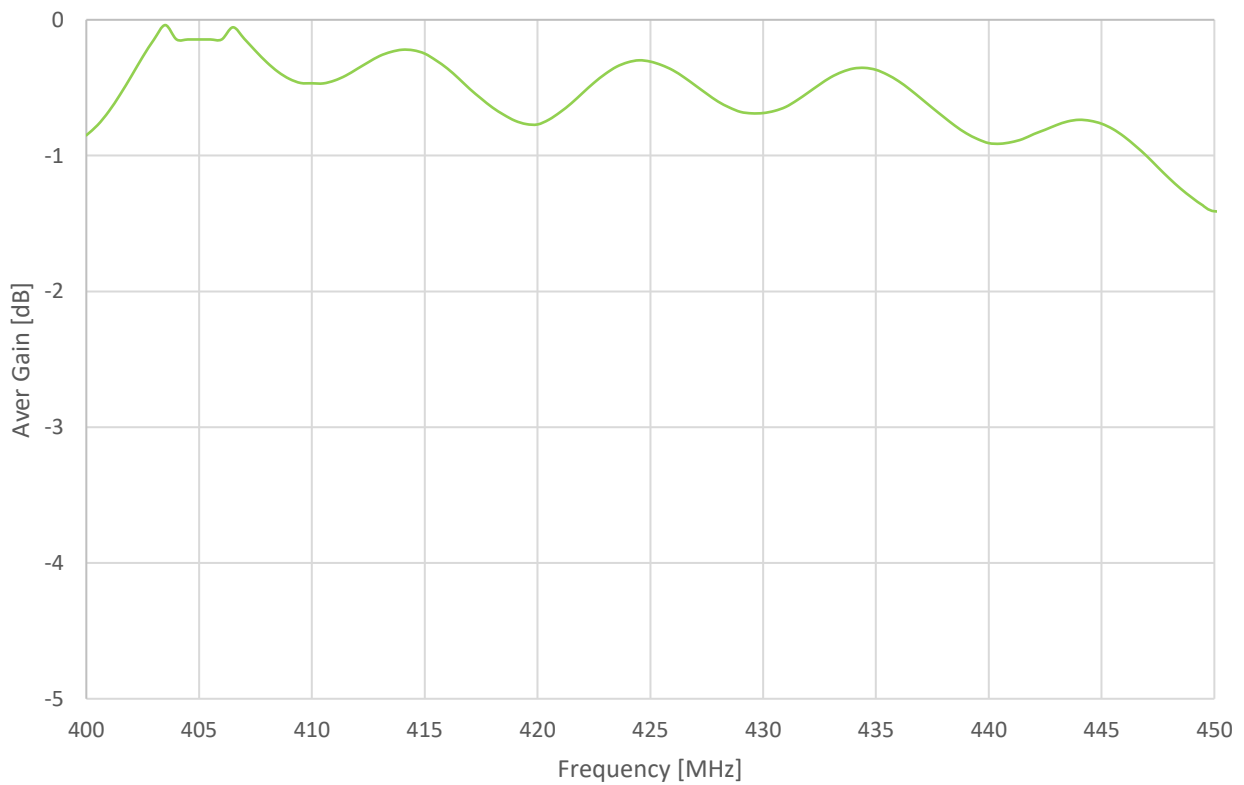
#### 3.2 VSWR



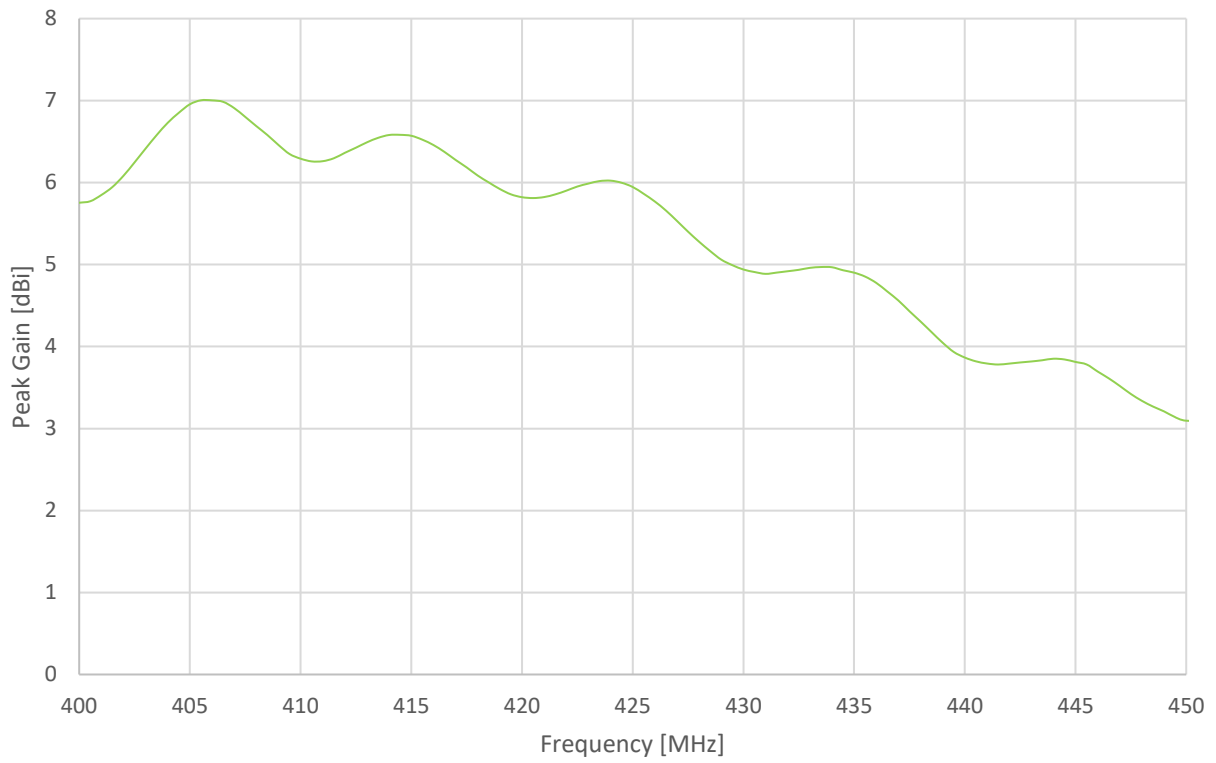
### 3.2 Efficiency



### 3.3 Average Gain

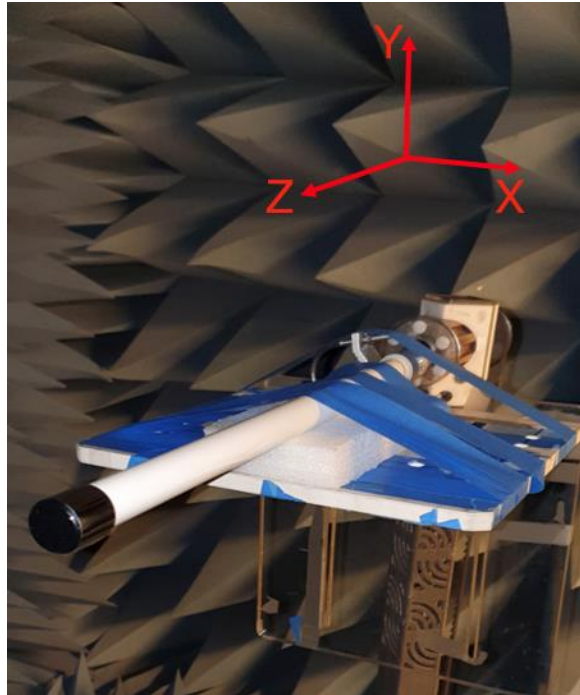


### 3.4 Peak Gain



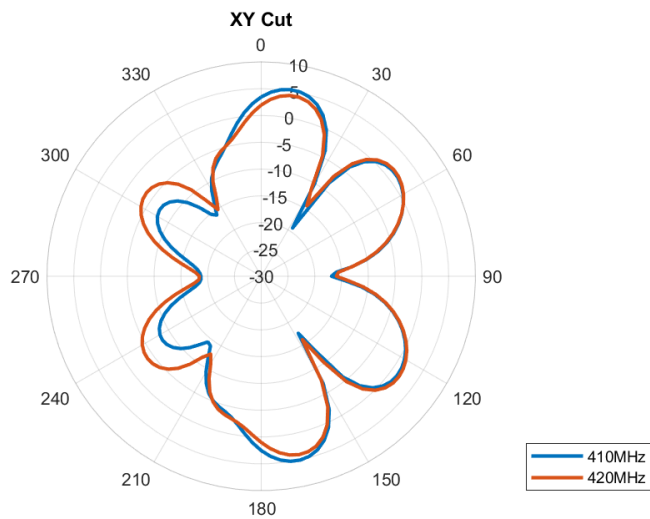
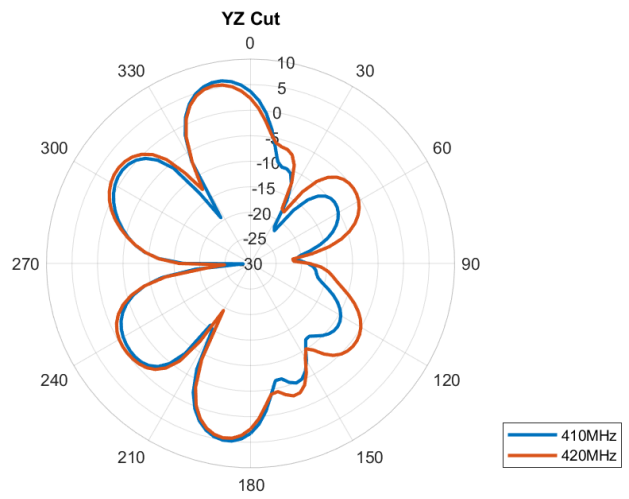
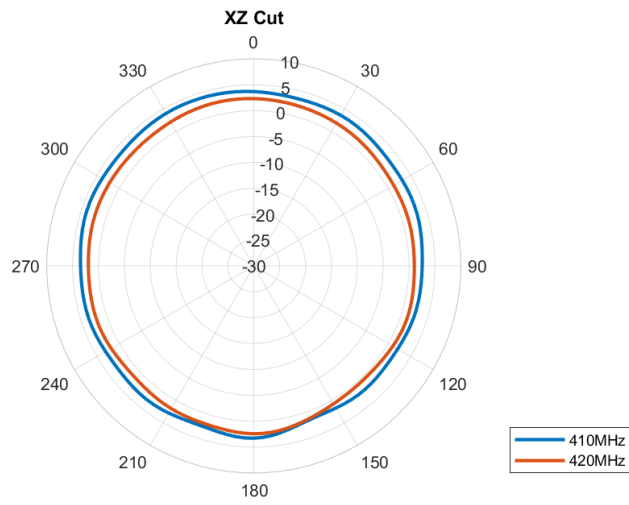
## 4. Radiation Patterns

### 4.1 Test Setup

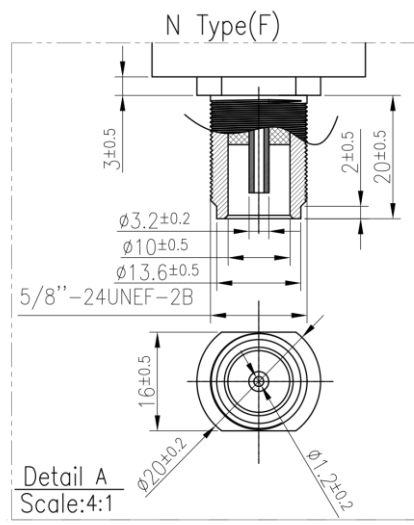
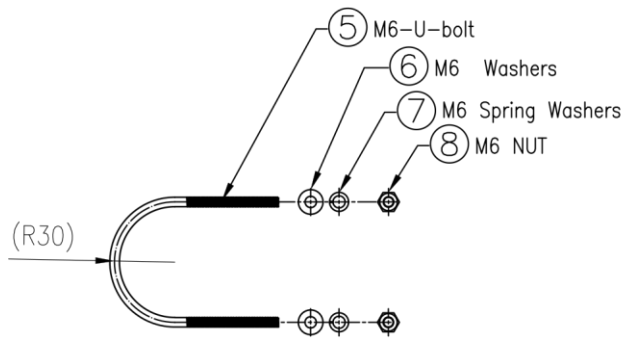
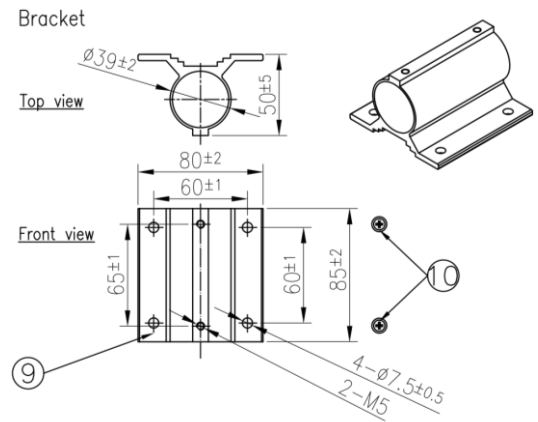
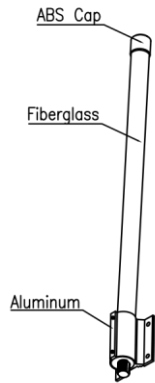
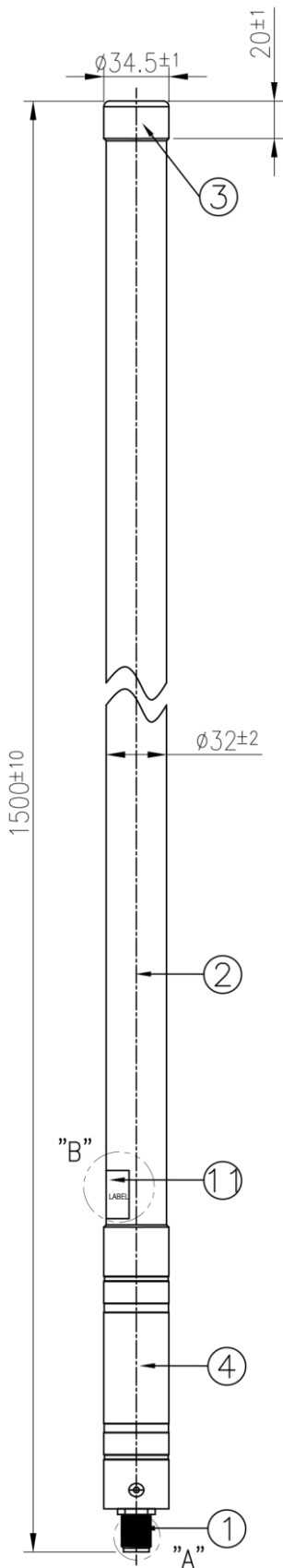




410 – 420MHz



# 5. Mechanical Drawing (Units: mm)



Label content

40±1

25±1

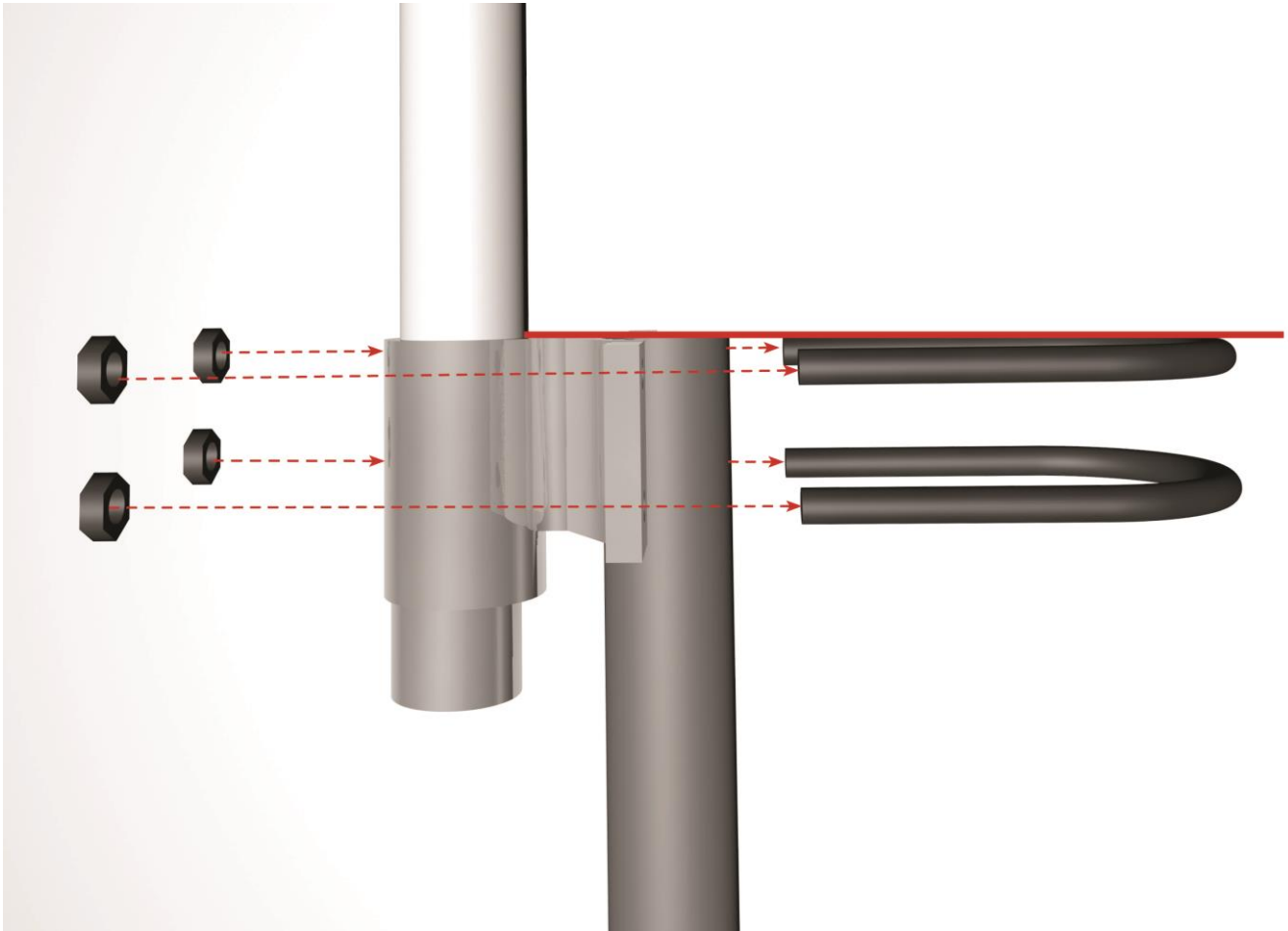
P/N: OMB.410.B06F21  
Frequency: 410~425MHz  
Peak Gain: 6dBi

Label information  
P/N : OMB.410.B06F21  
Frequency : 410~425MHz  
Peak Gain : 6dBi

Detail B  
Scale:2:1

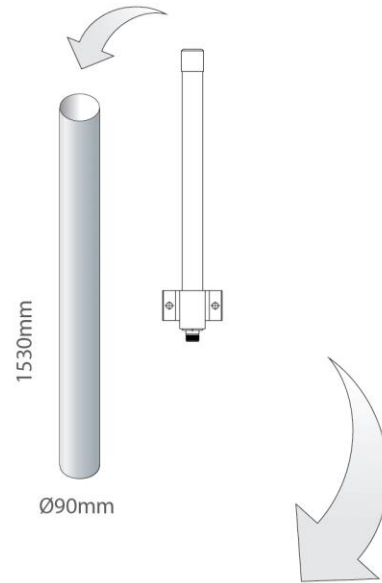
Name	Material	Finish	QTY
1 N Type (F)	Brass	Ni Plated	1
2 OMB.410 Antenna	Fiberglass	White	1
3 Cap	ABS	White	1
4 Ferrule	Aluminum Alloy/6063	Silver	1
5 M6 U-bolt	Iron/Q235	Silver	2
6 M6 Washer	Iron	Ni Plated	4
7 M6 Spring Washer	Iron	Ni Plated	4
8 M6 Nut	Iron	Ni Plated	4
9 Bracket	Aluminum Alloy/6063	Silver	1
10 M5*11 Screw	SUS304	Silver	2
11 Label	UG	Silver	1

## 6. Installation Instructions

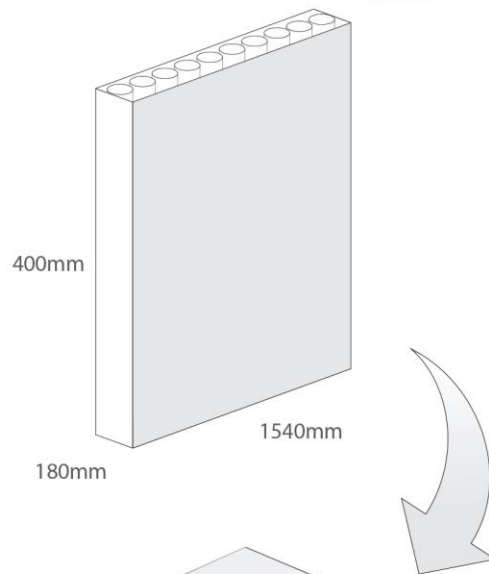


## 7. Packaging

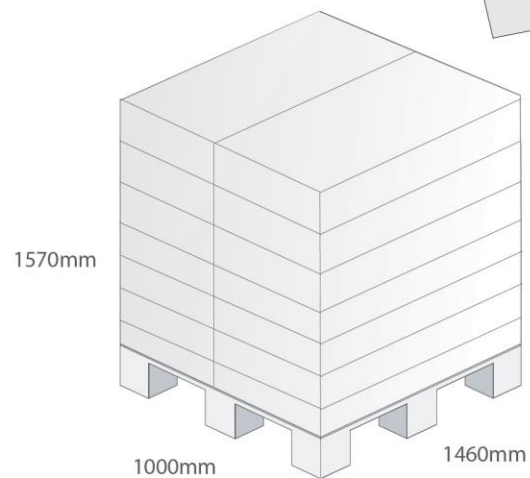
1 OMB.410.B06F21 per tube  
 Tube Dimensions - Ø90mm\*Height 1530mm  
 Total Weight - 1557.5g



10 tubes per carton  
 Carton Dimensions - 1540\*400\*180mm  
 Weight - 17.29Kg



Pallet Dimensions 1570mm\*1000mm\*1460mm  
 14 Cartons per Pallet  
 2 Cartons per layer  
 7 Layers



Changelog for the datasheet

**SPE-20-8-066 - OMB.410.B06F21**

**Revision: A (Original First Release)**

Date:	2020-12-04
Notes:	Initial Release
Author:	Jack Conroy

**Previous Revisions**
