

## SPECIFICATION

- Part No.** : **OMB.450.B03F21**
- Description** : 3dBi 450MHz-470MHz LTE Band 31/ CDMA /ISM  
Omni Directional Outdoor Antenna  
with N Type Female Connector, U-Bolt, 523mm  
Length
- Features** : Omni-Directional Radiation Pattern  
Collinear  
3dBi Peak gain  
Fiberglass Housing  
Robust design for all weather operation  
IP65 waterproof  
Length: 523mm, Weight: 350g  
N Type Female connector  
Wall mount bracket included  
RoHS compliant



## 1. Introduction

The OMB.450.B03F21 is a 3dBi 450MHz~470MHz LTE Band 31 / CDMA/ ISM band fiberglass omni-directional outdoor antenna. The antenna is designed for LTE and other CDMA and ISM applications such as metering, industrial / environmental monitoring, remote asset monitoring and mesh network applications.

The omni-directional antenna radiates uniformly in the azimuth. The collinear dipole array design minimizes losses and provides the best performance because the antenna gives maximum coverage range in the horizontal plane over 360 degrees, thus minimizing the amount 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 wall/device surface via the N-type connector.

A higher gain 6dBi model is also available, the OMB.450.B06F21.

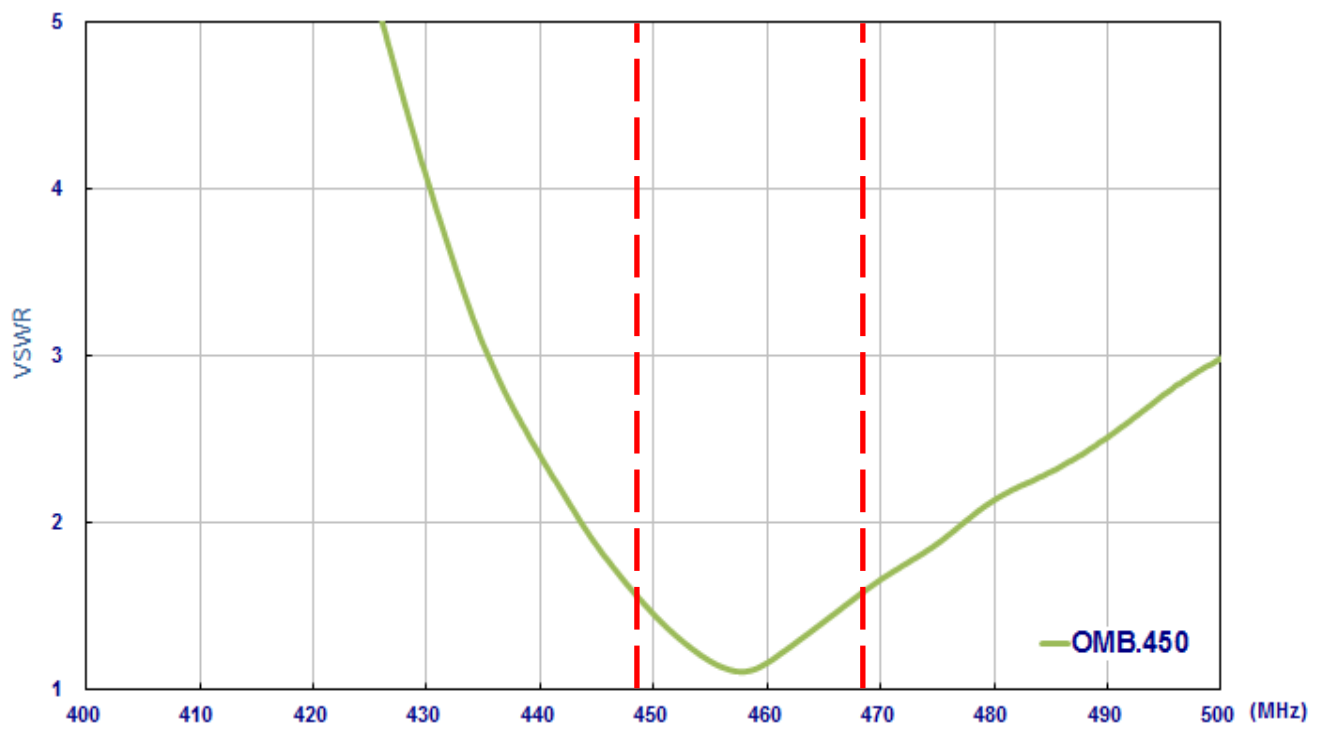
## 2. Specification

ELECTRICAL	
Standard	CDMA 450
Band	450 ~ 470 MHz
Antenna Type	Collinear Dipole Array
Peak Gain	3 dBi
Polarization	Vertical
Impedance	50 ohms
Max Input Power	100 watts
VSWR	1.5:1
Radiation	Omni-Directional
Vertical Beamwidth	67 Deg
Horizontal Beamwidth	360 Deg
Internal Material	Copper
Connector	N Type Female
MECHANICAL	
Length	523 mm(Max)
Bracket Dimension	70 x 35mm(Max)
Antenna Weight	350g
Mounting Accessories Weight	70g
Application	Indoor/Outdoor
Radome Material	White Fiberglass
Bracket Material	Aluminum
Mount Style	Pole Mount/Wall Mount
Mount Hardware Material	Stainless Steel
Wind Resistance	>150mph (>241km/h)
Waterproof	IP65

ENVIRONMENTAL	
Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~90% non-condensing

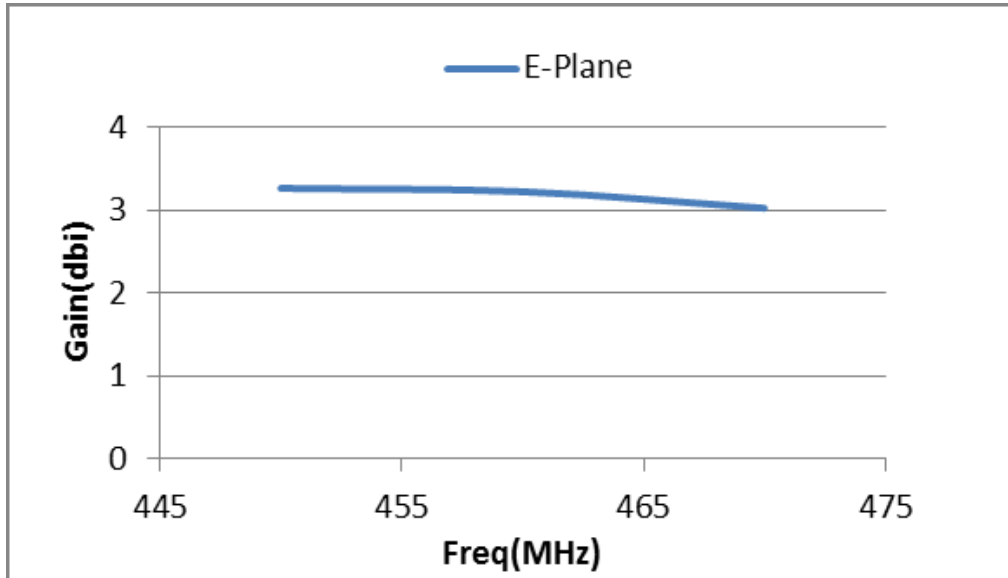
### 3. Antenna Characteristics

#### 3.1 VSWR

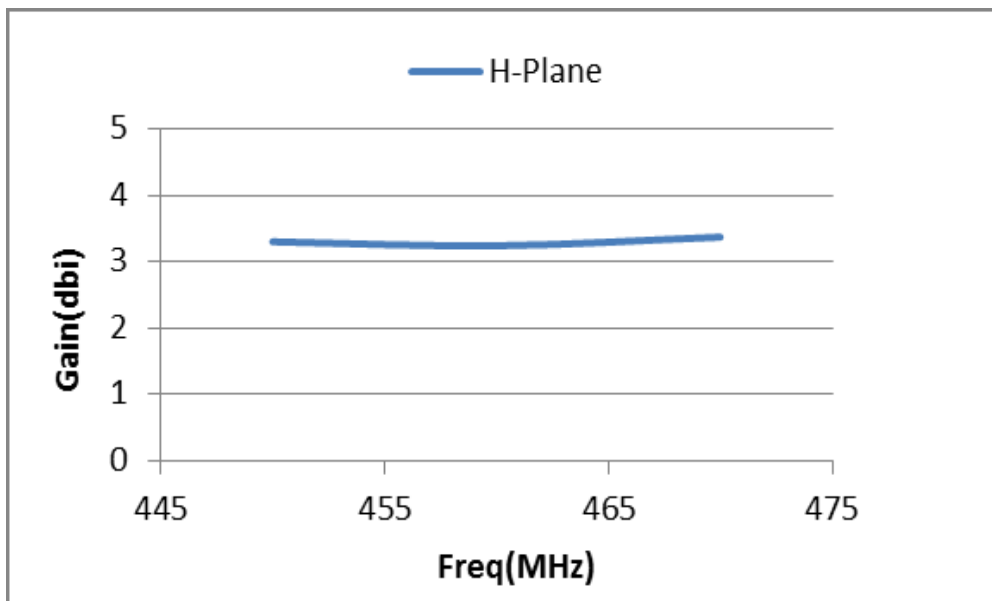


### 3.2 Peak Gain

E-plane



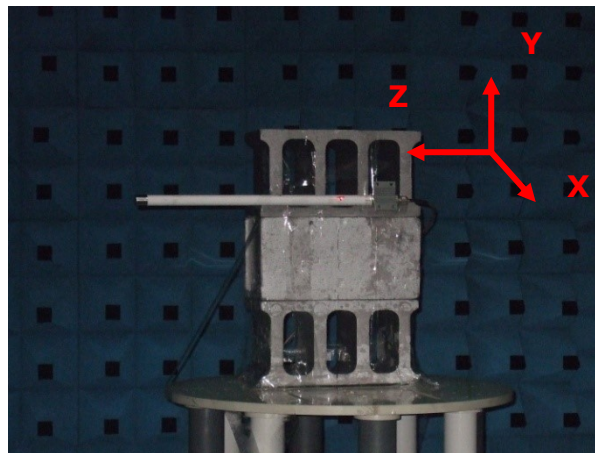
H-plane



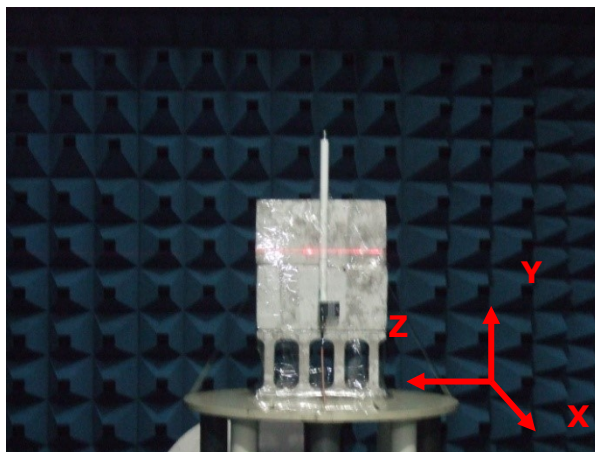
## 4. Antenna Radiation Pattern

### 4.1 Measurement Setup

Vertical Pattern – E plane

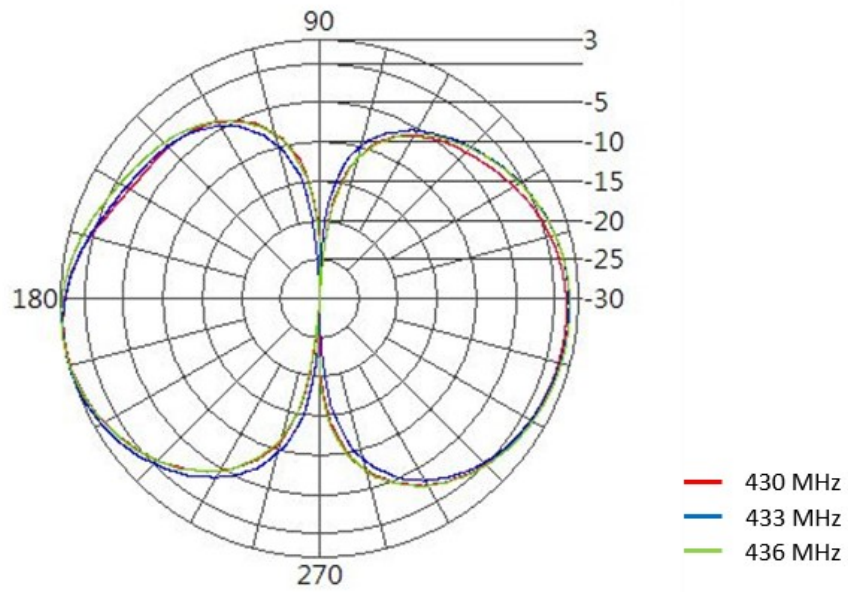


Horizontal Pattern – H plane

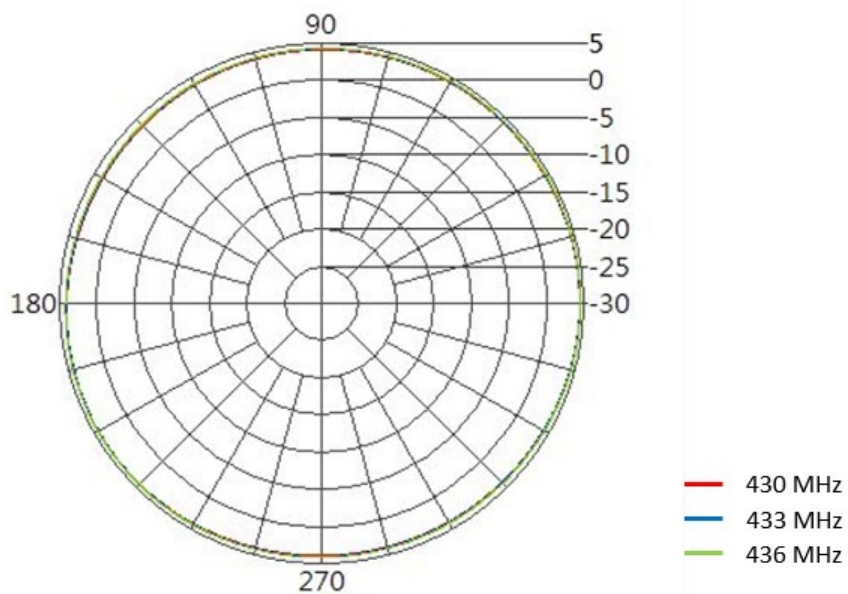


## 4.2 2D Radiation Pattern

Vertical Pattern – E plane

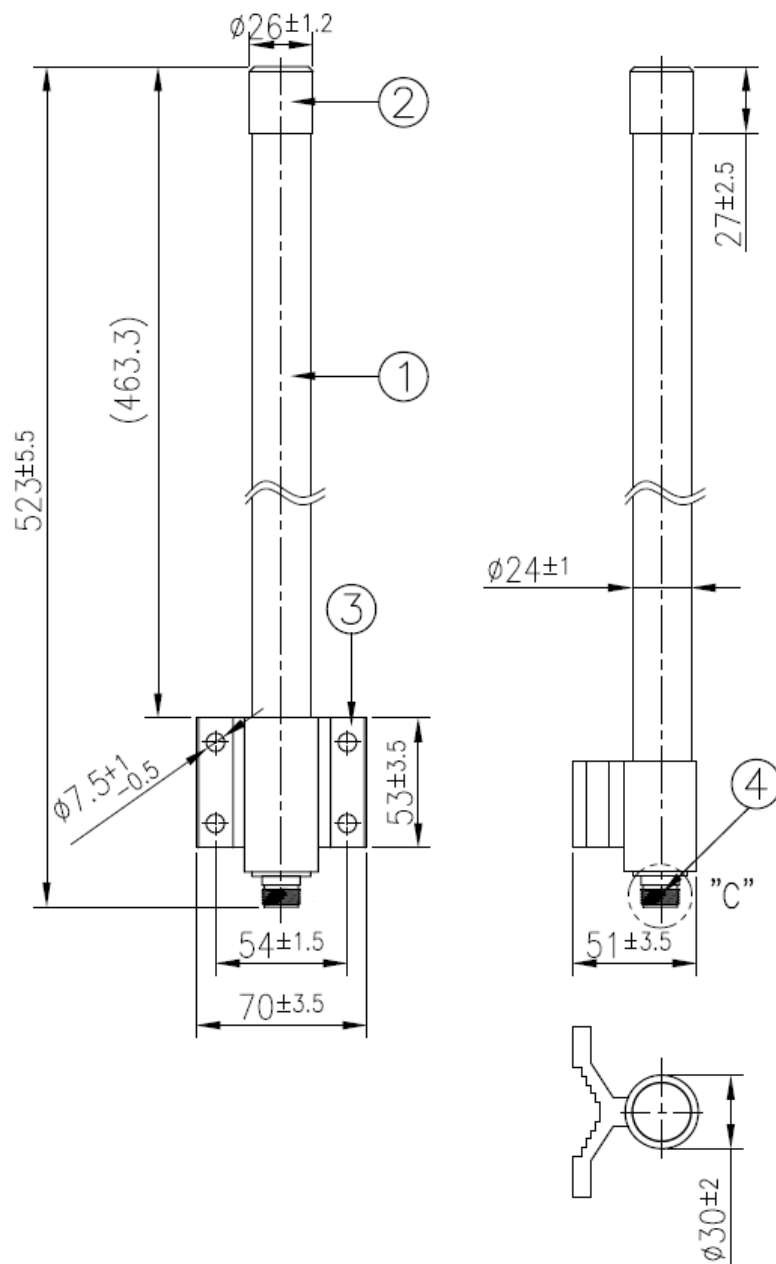
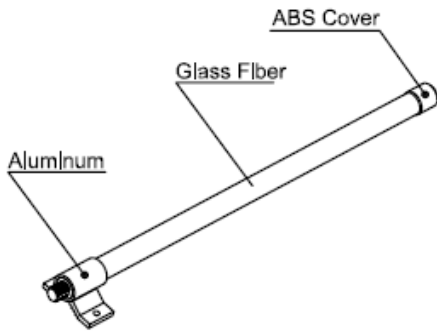


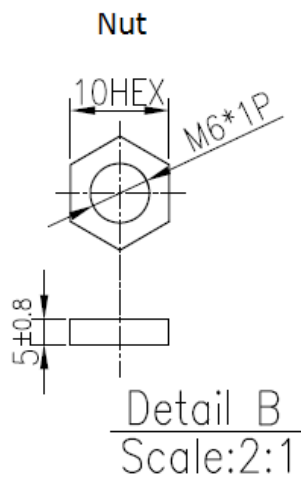
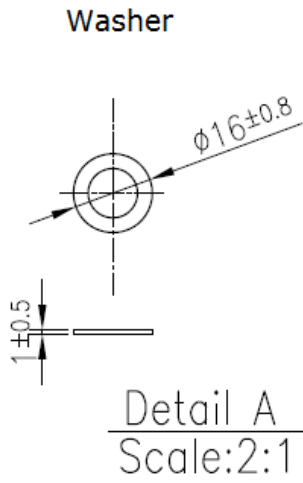
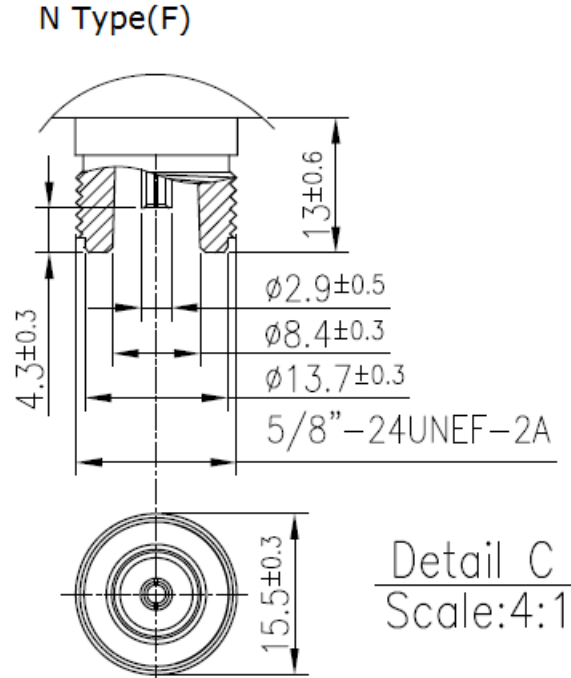
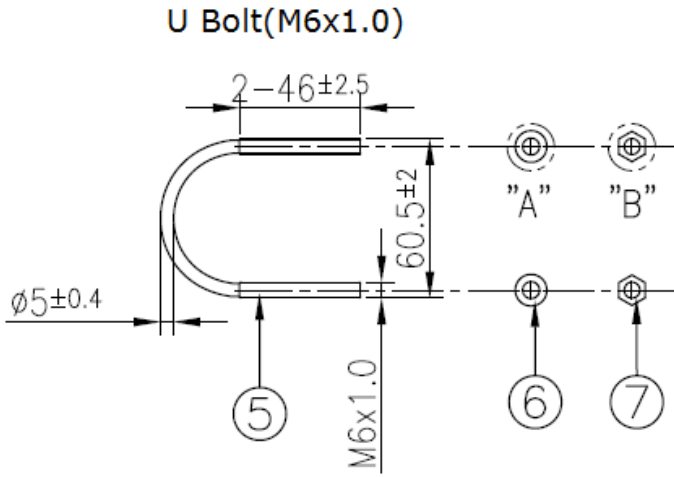
Horizontal Pattern – H plane





## 5. Mechanical Drawing (Unit: mm)





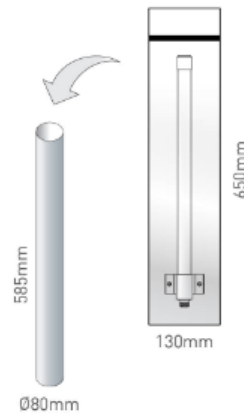
	Name	P/N	Material	Finish	QTY
1	OMB.450 Antenna	001215A100021A	Fiberglass	White	1
2	Cover	000111K000021A	ABS	Sliver	1
3	Bracket	000312B000021A	Aluminum	Silver	1
4	N Type(F)	201211K000021A	Brass	Ni Plated	1
5	M6 U Bolt	000412B000021A	Stainless Steel	Sliver	2
6	M6 Washer	000411K010021A	Stainless Steel	Silver	4
7	M6 Nut	000411K020021A	Stainless Steel	Sliver	4

## 6. Packaging

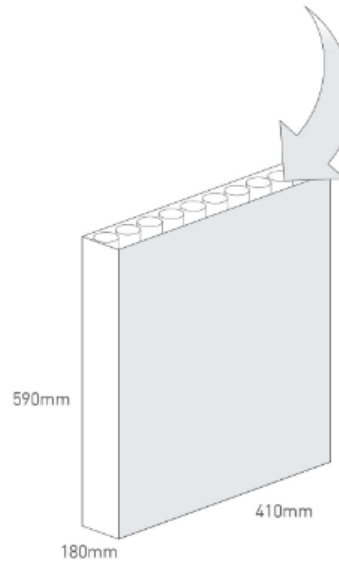
### OMB.450.B03F21

#### Packaging Specifications

1 OMB.450.B03F21 per PE Bag  
 Bag Dimensions 130mm\*650mm  
 1 PE Bag per Tube  
 Tube Dimensions -  $\varnothing 80\text{mm}$ \*Height 580mm  
 Total Weight - 750g



10 tubes per carton  
 Carton Dimensions - 590\*410\*180mm  
 Weight - 7.2Kg



Pallet dimensions 1200\*1200\*1410mm  
 40 Cartons per pallet

