

SPECIFICATION

- Part No.** : **OMB.433.B03F21**
- Description** : 433MHz 3dBi Omni Directional Outdoor Antenna with N Type Female Connector, U-Bolt, 523mm Length
- Features** : Omni-Directional Radiation Pattern
Collinear
3dBi Peak gain, 433 MHz
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.433.B03F21 is a fiberglass Omni-directional outdoor antenna, operating in the 433 MHz ISM band. The antenna is designed for applications such as metering, industrial / environmental monitoring, remote asset monitoring, and mesh network applications.

The OMB.433 operates at 433MHz, one of the most widely used license free ISM bands, with a 3dBi peak gain. The omni-directional antenna radiates uniformly in the azimuth. This collinear design characteristic provides the best performance, giving optimized coverage and therefore longer 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 or device surface via the N-type connector.

Another larger model, the OMB.433.B06F21 with 6dBi peak gain, also working in the 433MHz ISM band, is also available. Gain and connector customizable, subject to MOQ.

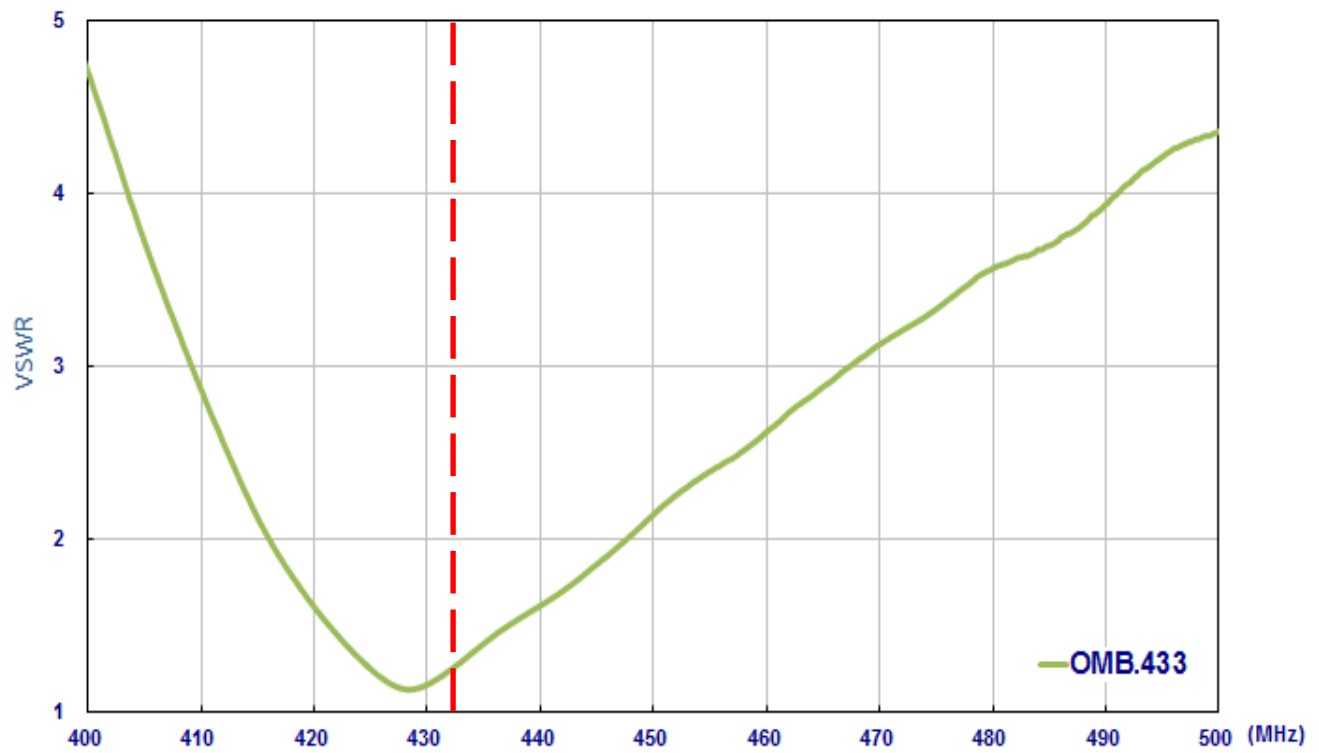
2. Specification

ELECTRICAL	
Standard	ISM 433
Band	433 MHz
Antenna Type	Collinear Dipole Array
Peak Gain	3 dB
Polarization	Vertical
Impedance	50 ohms
Max Input Power	100 watts
VSWR	1.5:1
Radiation	Omni-Directional
Vertical Beamwidth	60 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
U Bolt	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

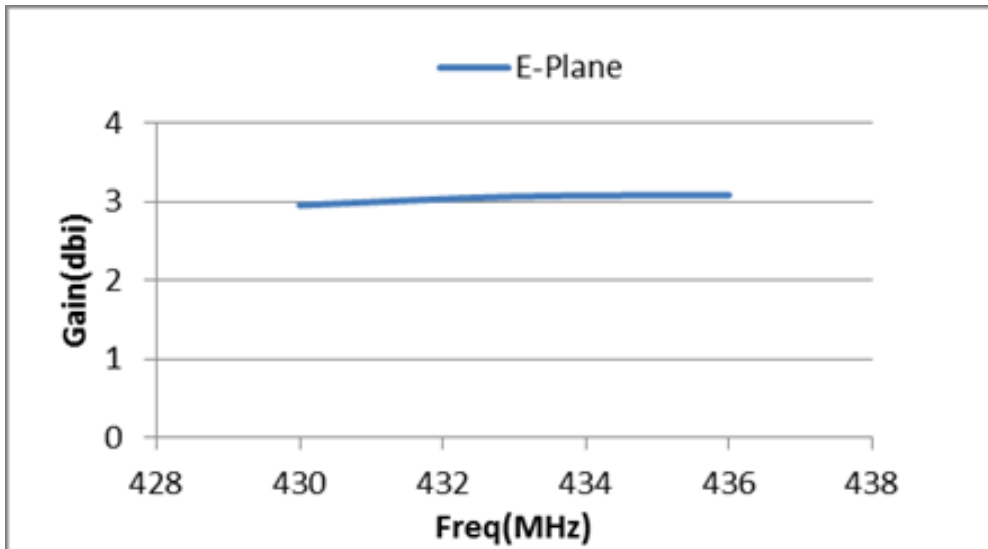
3. Antenna Characteristics

3.1 VSWR

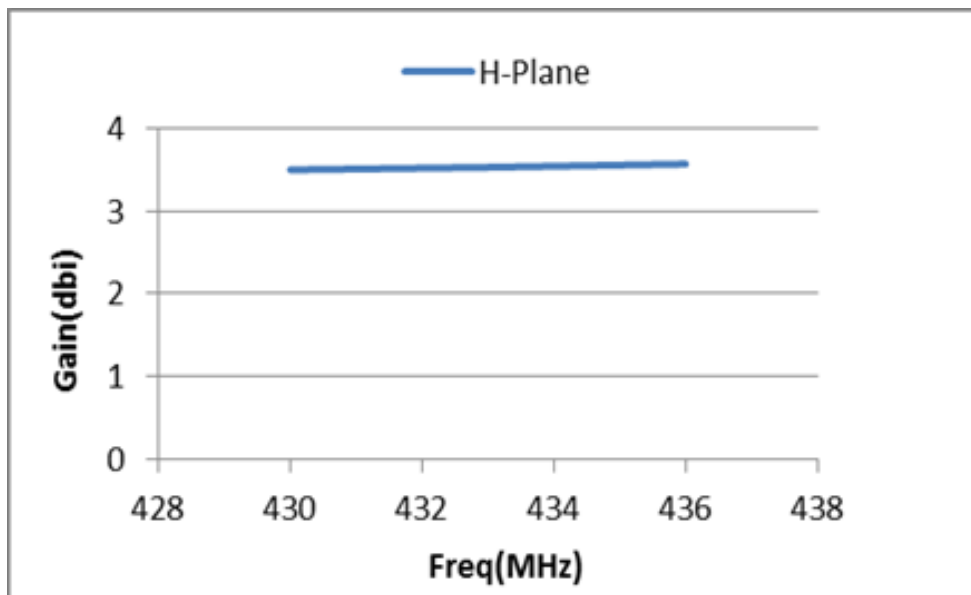


3.2 Peak Gain

E-plane



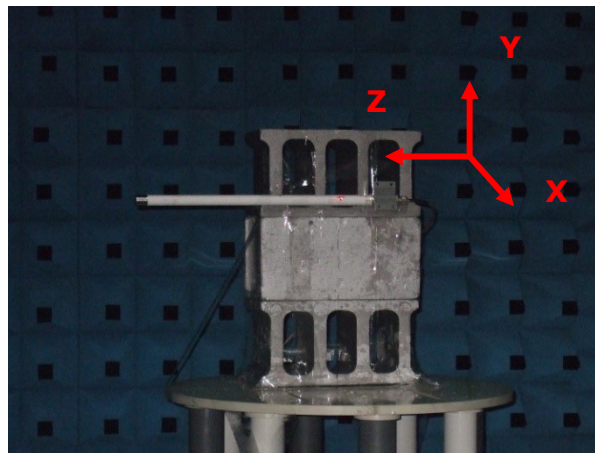
H-plane



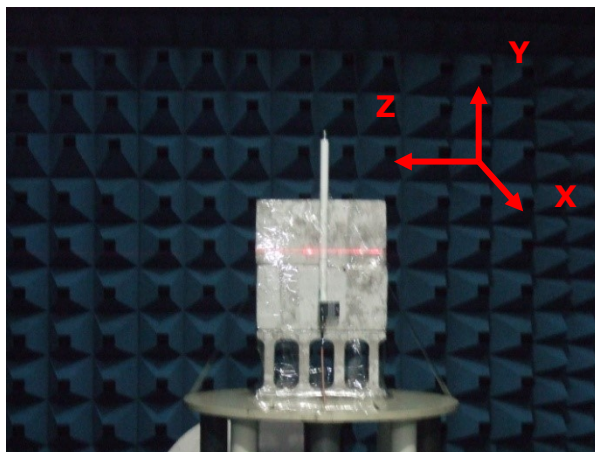
4. Antenna Radiation Pattern

4.1 Measurement Setup

Vertical Pattern – E plane

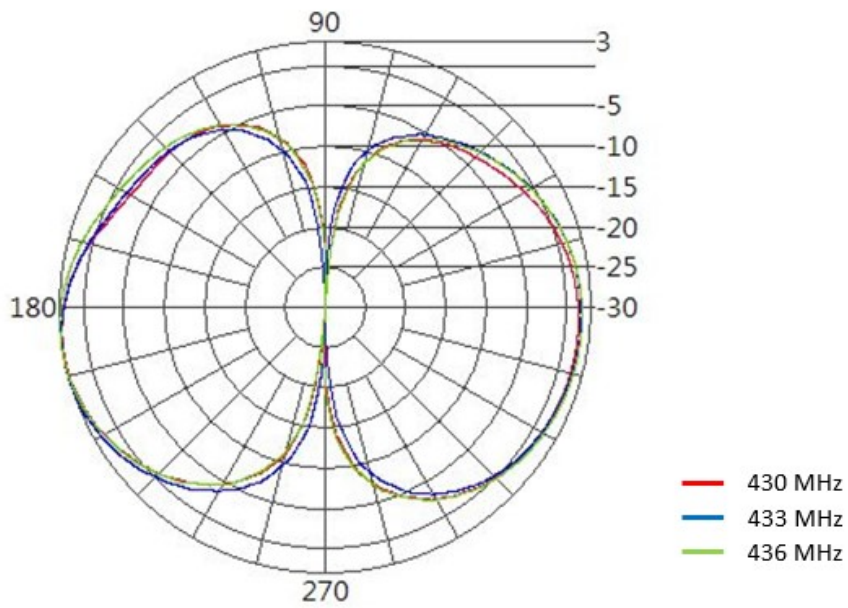


Horizontal Pattern – H plane

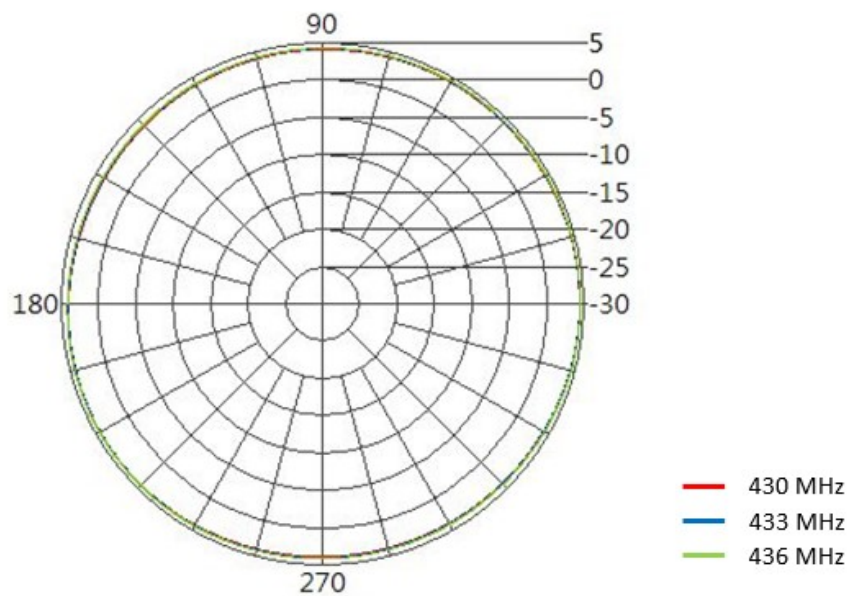


4.2 2D Radiation Pattern

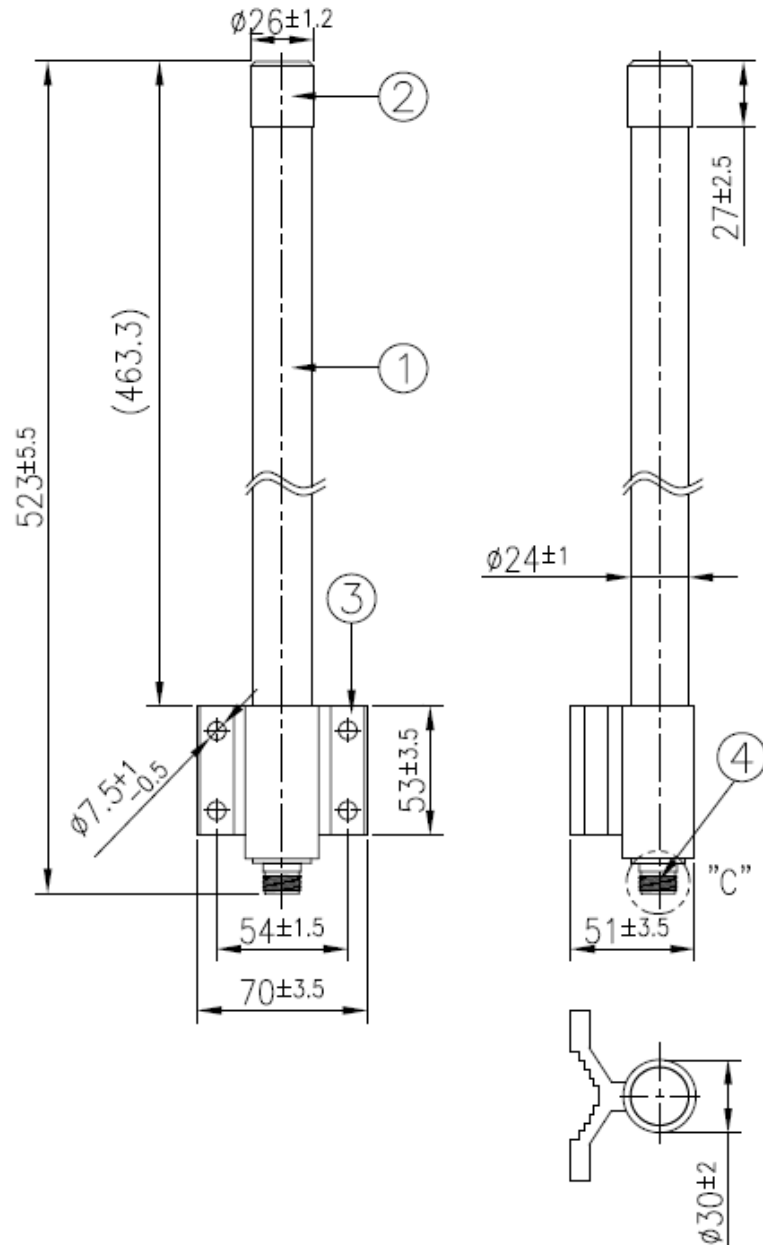
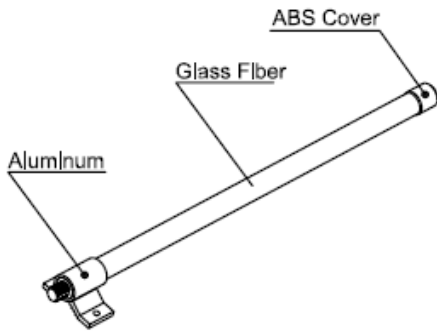
Vertical Pattern – E plane



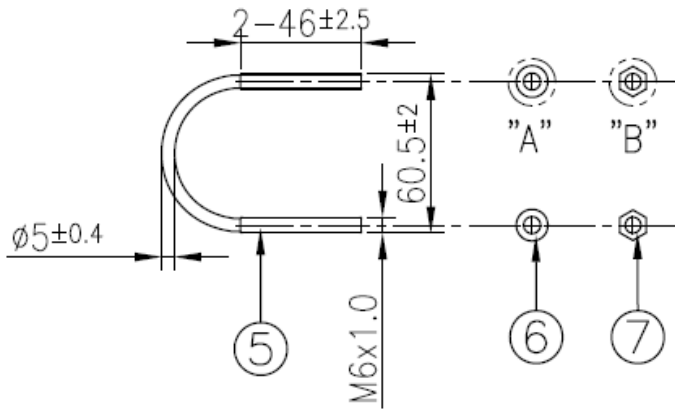
Horizontal Pattern – H plane



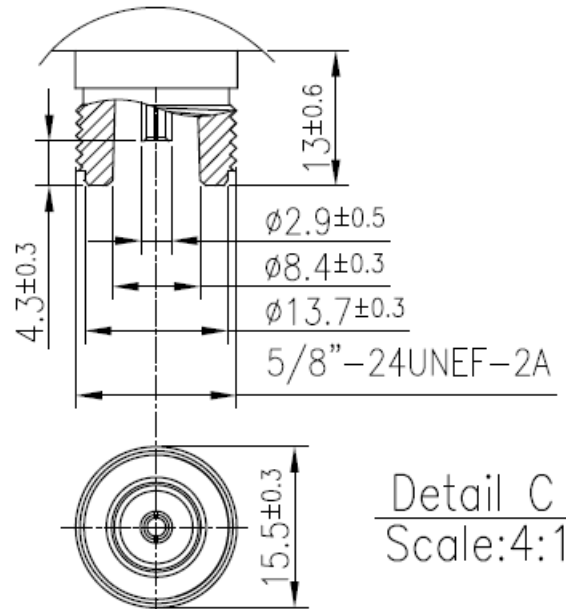
5. Mechanical Drawing (Unit: mm)



U Bolt(M6x1.0)

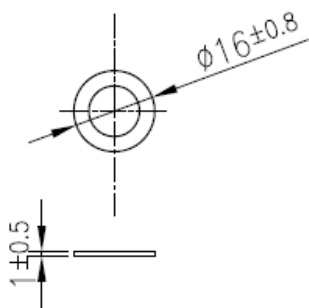


N Type(F)



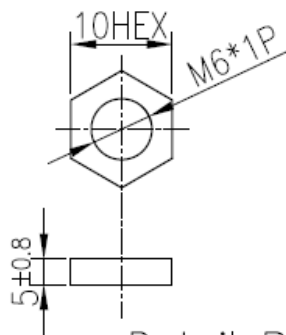
Detail C
Scale:4:1

Washer



Detail A
Scale:2:1

Nut



Detail B
Scale:2:1

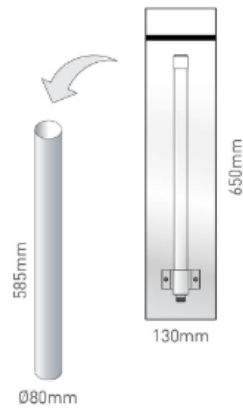
	Name	P/N	Material	Finish	QTY
1	OMB.433 Antenna	001215A000021A	Fiberglass	White	1
2	Cover	000111K000021A	ABS	Sliver	1
3	Bracket	000312B000021A	Aluminum	Silver	1
4	N Type(F)	201211K000021A	Brass	Ni Plated	1
5	M6 U Bolt	000412B000021A	Stainless Steel	Sliver	2
6	M6 Washer	000411K010021A	Stainless Steel	Silver	4
7	M6 Nut	000411K020021A	Stainless Steel	Sliver	4

6. Packaging

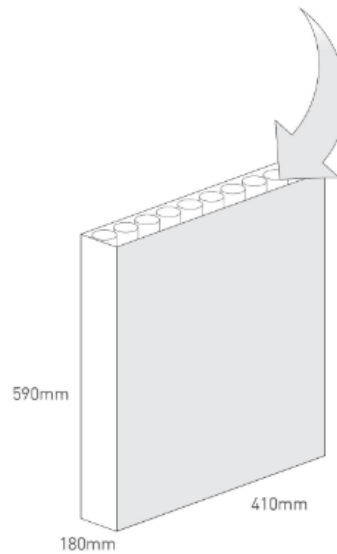
OMB.433.B03F21

Packaging Specifications

1 OMB.433.B03F21 per PE Bag
 Bag Dimensions 130mm*650mm
 1 PE Bag per Tube
 Tube Dimensions - Ø80mm*Height 585mm
 Total Weight - 620g



10 tubes per carton
 Carton Dimensions - 590*410*180mm
 Weight - 7.26Kg



Pallet dimensions 1200*1000*1410mm
 28 Cartons per pallet

