TAOGLAS

Datasheet

Part No:
OMB.915.B12F21

Description:

Barracuda 915MHz 10dBi

Omnidirectional Outdoor Antenna

Features:

Suitable to use in Robust Outdoor Environment

Connector: N Type Female

Dimensions: 2240mm x Ø24mm

Wall and Pole Mount

RoHS and REACH Compliant

Ireland & USA
ISO 9001:2015
Certified

Taiwan
ISO 9001:2015
Certified

IATF16949

1. Introduction

The Barracuda OMB.915.B12F21 is a fiberglass omnidirectional outdoor antenna, operating in the 915MHz ISM band and is designed to offer long distance coverage. The antenna is designed for applications such as metering, industrial & environmental monitoring, remote asset monitoring and mesh network applications. The 915MHz band is one of the most widely used license free ISM bands. Typical applications are in SigFox, LoRa and LPWA networks.

With a 10dBi peak gain, the OMB.915.B12F21 omnidirectional 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 and a pole-mount and wall-mount bracket is included. This antenna is an ideal product for developing your own Helium Network on the 915MHz spectrum.

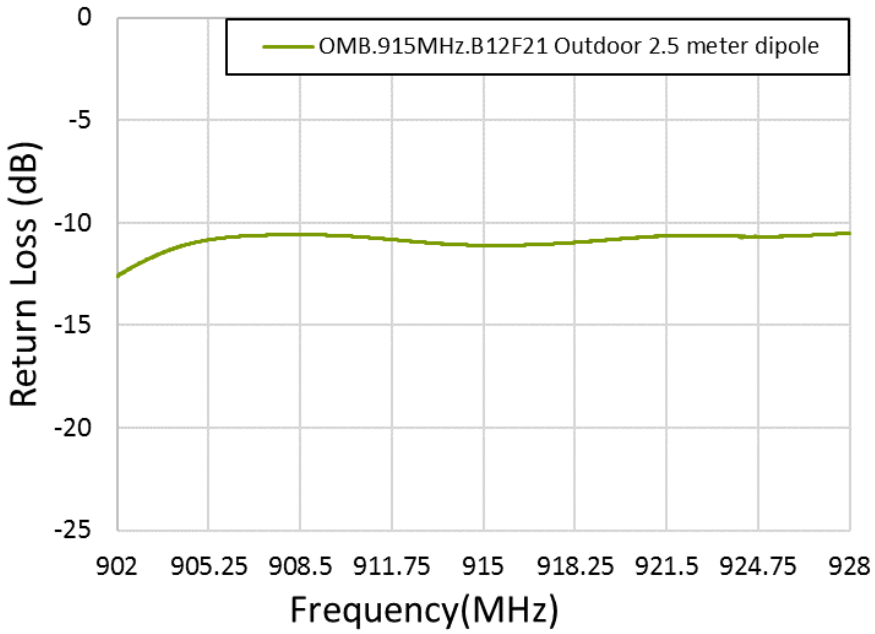
Custom antenna modifications are subject to possible NRE and minimum order quantity. For further information please contact your regional Taoglas customer support team.

2. Specifications

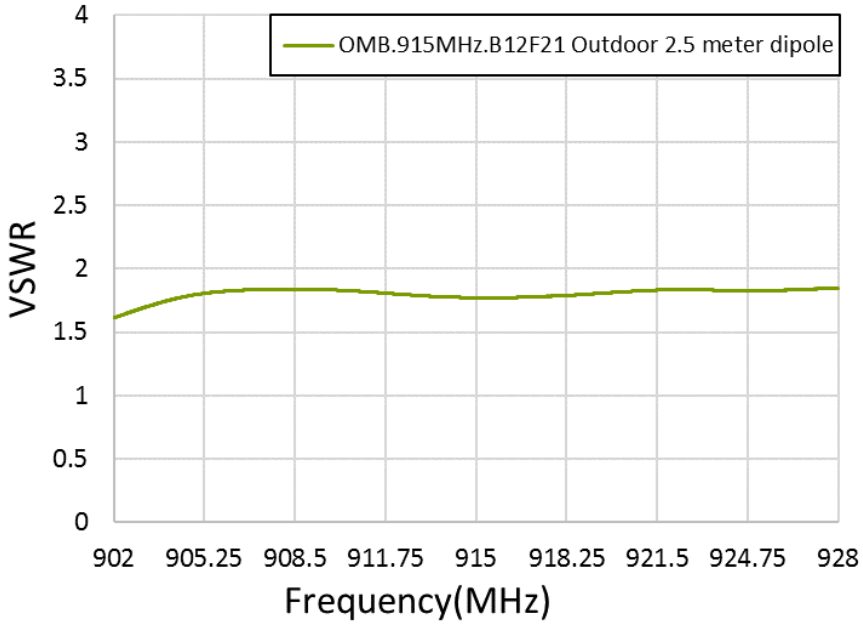
Antenna	
Standard	**ISM 915**
Band	902~928MHz
Antenna Type	Collinear
Peak Gain	11dBi
Polarization	Vertical
Impedance	50 ohms
Max Input Power	200 watts
VSWR	<2:1
Radiation	Omnidirectional
Vertical Beam-width	12 Deg
Horizontal Beam-width	360 Deg
Antenna Design	Dipole Array
Internal Material	Copper
Connector	N Type Female
Mechanical	
Length	2240mm(Max)
Bracket Dimension	70*73mm(Max)
Radome Diameter	24mm
Antenna Weight (G.W)	994g
Mounting Accessories (G.W)	70g
Application	Indoor/Outdoor
Radome Material	White Fiberglass
Mount Style	Pole Mount(35mm~50mm)/Wall Mount
Mounting	Stainless Steel
Wind Resistance	>150mph(>241km/h)
Environmental	
Storage Temperature	-40°C to +80°C
Operating Temperature	-40°C to +60°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	5%~90% non-condensing

3. Antenna Characteristics

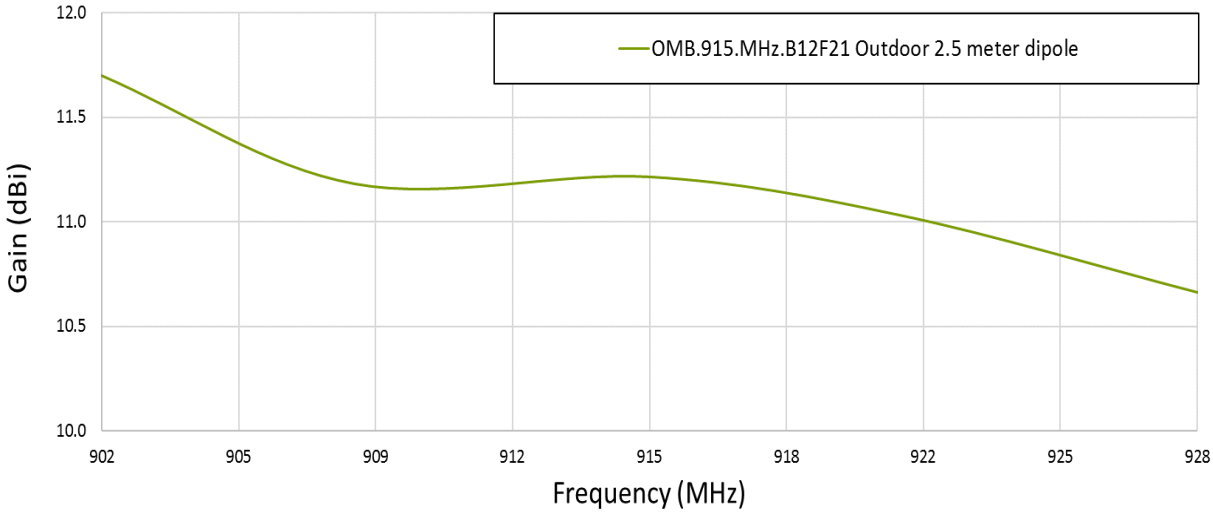
3.1 Return Loss



3.2 VSWR

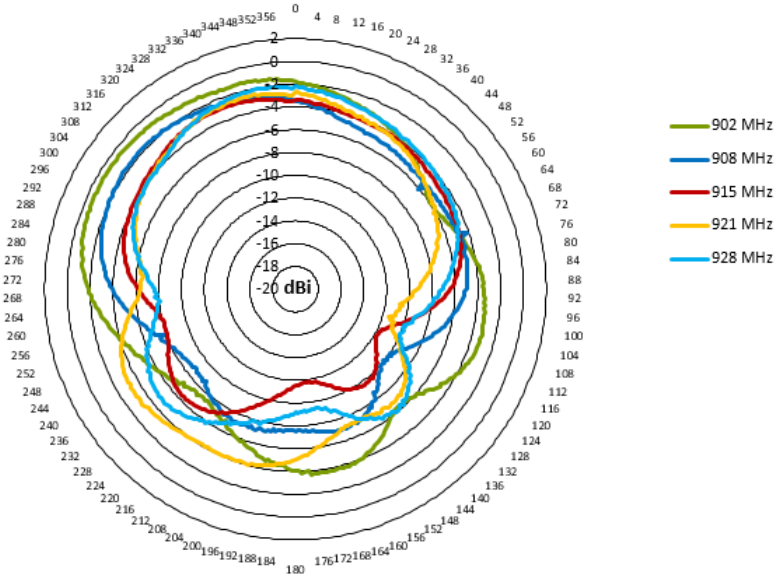


3.3 Average Gain

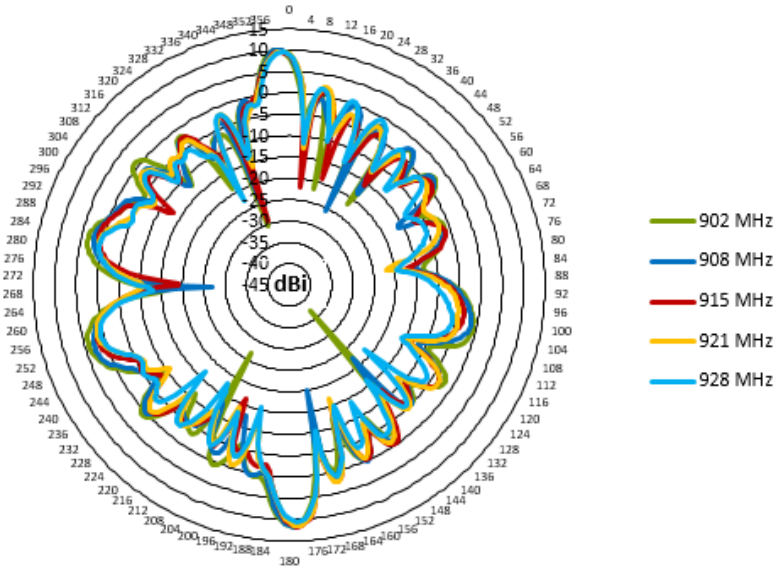

OMB.915.MHz.B12F21 Outdoor 2.5 meter dipole
Gain (dBi)
12.0
11.5
11.0
10.5
10.0
902
905
909
912
915
918
922
925
928
Frequency (MHz)

4. 2D Radiation Patterns

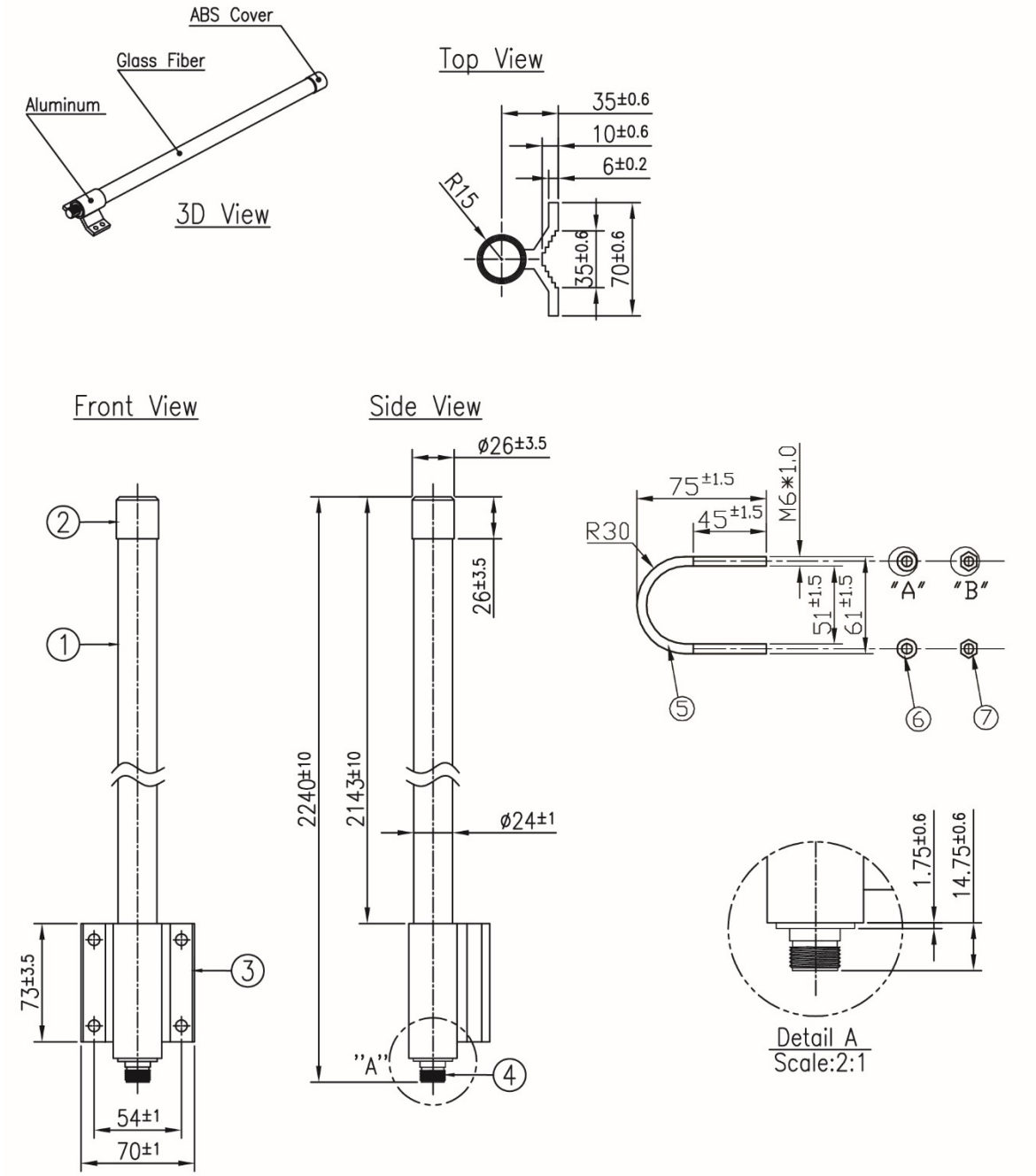
4.1 Azimuth (dBi)



4.2 Elevation (dBi)



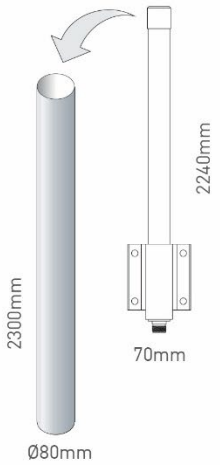
5. Mechanical Drawing (Units: mm)



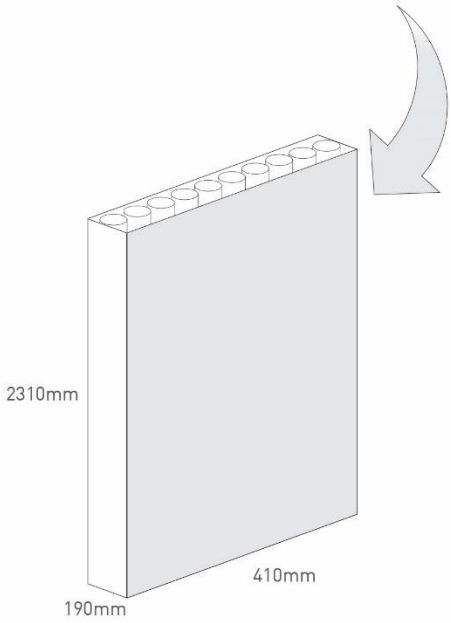
	Name	Material	Finish	QTY
1	OMB.915 Antenna	Glass Fiber	White	1
2	Cover	ABS	Silver	1
3	Bracket	Aluminum	Silver	1
4	N Type(F)	Brass	Ni Plated	1
5	M6 U Bolt	Stainless Steel	Silver	2
6	M6 Washer	Stainless Steel	Silver	4
7	M6 Nut	Stainless Steel	Silver	4

6. Packaging

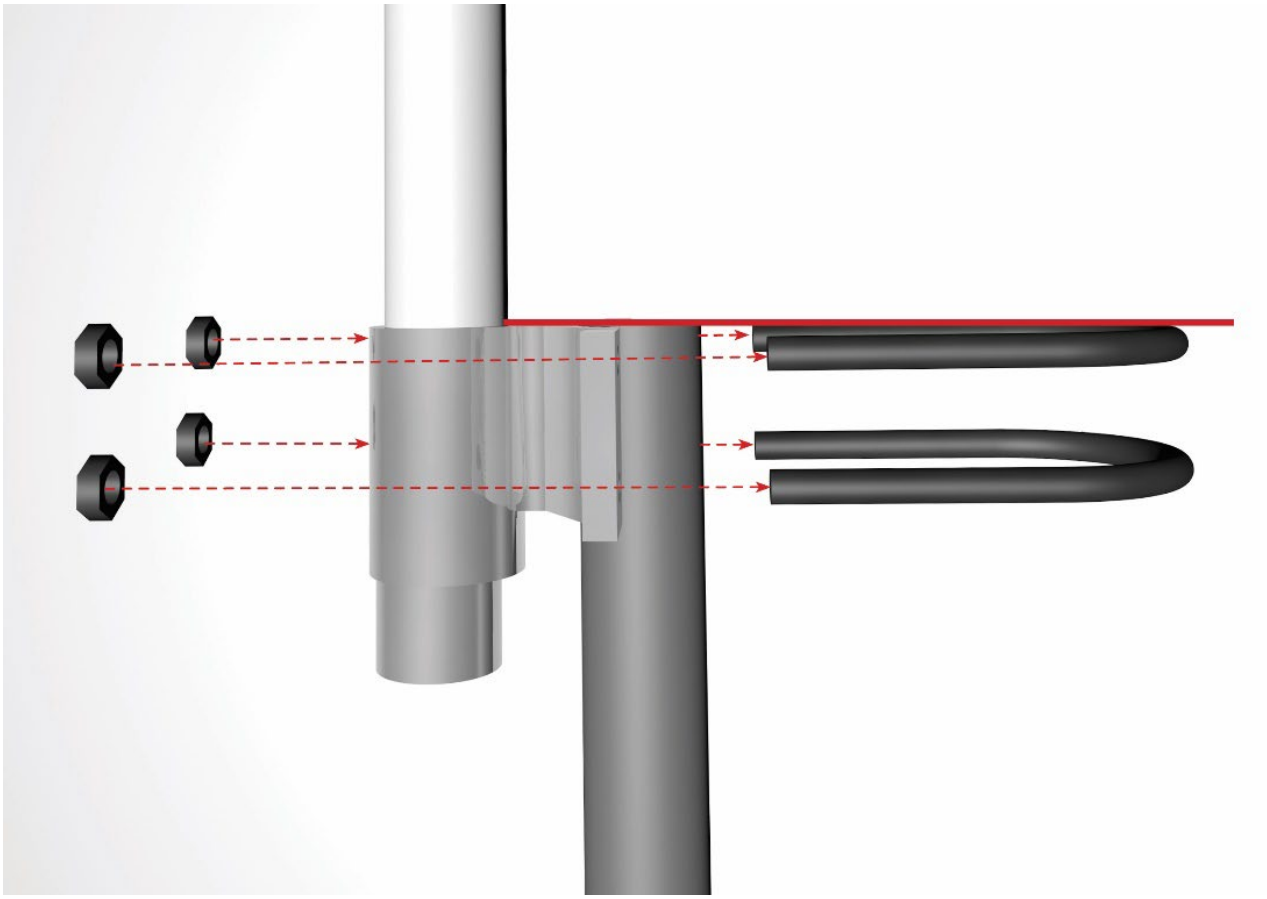
1 OMB.915.B12.F21 per tube
Tube Dimensions - Ø80mm*Height 2300mm
Total Weight - 1800g



10 tubes per carton
Carton Dimensions - 2310*410*190mm
Weight - 20.8Kg



7. Antenna Installation Guide



*Please note when using this in conjunction with a pole, the bottom of the antenna should be level with the top of the pole as shown by the red line above

Changelog for the datasheet

SPE-17-8-087 – OMB.915.B12F21

Revision: D	
Date:	2022-03-02
Changes:	Changed template and changed 10dB
Changes Made by:	Erik Landi

Previous Revisions

Revision: C (Current Version)	
Date:	2018-03-27
Changes:	Added Field Test Section
Changes Made by:	Jack Conroy

Revision: B	
Date:	2018-02-08
Changes:	Added Installation Guide
Changes Made by:	Jack Conroy

Revision: A	
Date:	2017-11-21
Changes:	Initial Release
Changes Made by:	Jack Conroy

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