Specification

Part No.	:	**OMB.5900.B10F21**
Product Name	:	Barracuda 5.9GHz C-V2X 10dBi Omnidirectional Outdoor Antenna
Features	:	Omnidirectional Radiation Collinear Dipole Antenna 10dBi Peak Gain Robust design for all weather operation IP65 Waterproof Length:550 mm; Ø24mm Weight:245g Connector: N-type Female Wall/Pole Mount Bracket Included **RoHS & REACH compliant**

1. Introduction

The OMB.5900.B10F21 is a C-V2X (Cellular Vehicle to X) Antenna. It is a fiberglass omnidirectional outdoor antenna designed to operate in the 5.9 GHz band. This antenna's collinear dipole design allows it to radiate uniformly in the azimuth with a high gain (10dBi peak gain), providing coverage over long distances and minimizing the number of cells or nodes needed in a network.

The OMB.5900 is designed for C-V2X, the communications medium of choice for active safety V2V systems and also covers DSRC (Dedicated Short Range Communications) and supports high speed, low latency, and short-range V2V/V2X wireless communications.

The UV-resistant fiberglass housing makes the OMB.5900 more robust and safer than the traditional whip antenna and allows it to operate in a variety of harsh environments. It is also designed to withstand high wind load. The integrated aluminum mounting bracket is perfect for directly mounting the antenna onto a pole or a wall. The connector is an industry-standard N-type female. The connector can be customized subject to MOQ. Other frequencies and gains are available.

C-V2X is the communications medium of choice for active safety V2V/V2X (Vehicle-to-Vehicle and Vehicle-to-Other) systems. Primarily allocated for vehicle safety applications, C-V2X supports high-speed, low-latency, short-range, V2V/V2X wireless communications.

For further optimization to customer-specific device environments and for support to integrate and test this antennas performance in your device, contact your regional Taoglas Customer Services Team.

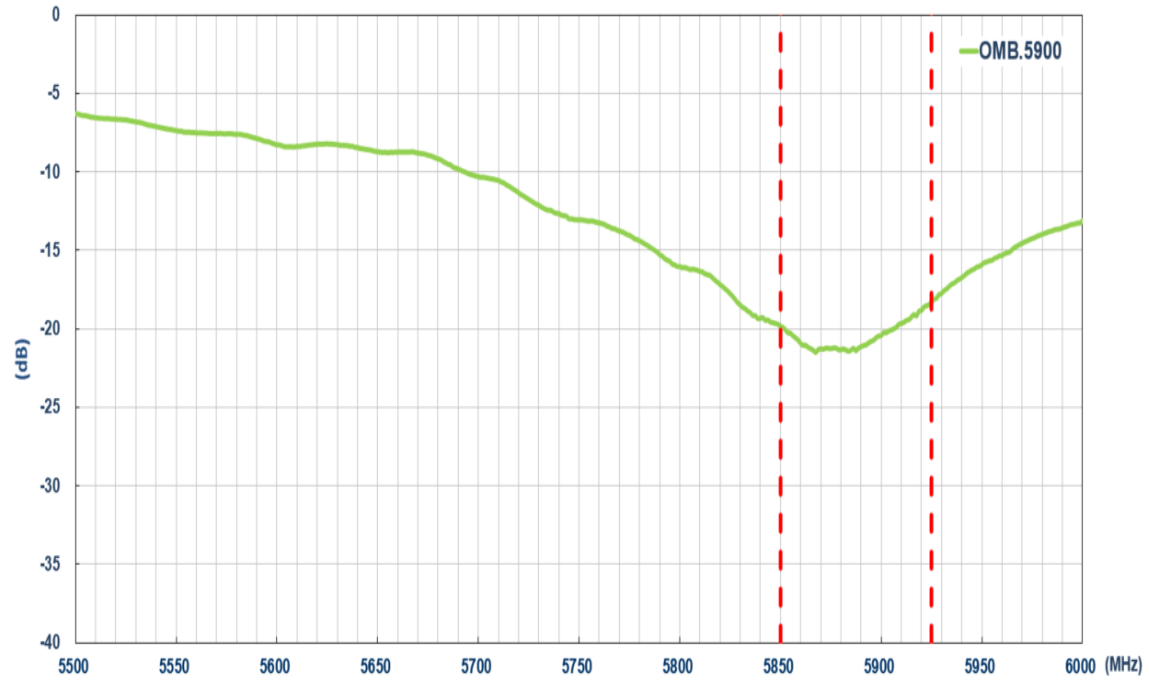
2. Specification

ELECTRICAL*	
Standard	C-V2X
Band	5850~5925 MHz
Antenna Type	Collinear Dipole Array
Efficiency	63.97%
Peak Gain	10.2 dBi
Average Gain	-1.96 dBi
Polarization	Vertical
Impedance	50 ohms
Max Input Power	50 watts
Return Loss	<-15
Radiation	Omni-Directional
Vertical Beam-width	14 Deg
Horizontal Beam-width	360 Deg
Antenna Design	Dipole Array
Internal Material	Copper
Connector	N Type Female
MECHANICAL	
Length	550mm
Mounting Frame	80*100mm
Antenna Weight	245g
Accessory Weight	Mounting Frame: 250g U Bolt: 70g/pcs
Waterproof	IP65
Application	Indoor/Outdoor
Material	White Fiberglass
Mounting Frame Material	A3 Steel Plate
Mount Style	Pole Mount/Wall Mount
Pole Diameter	Φ 40 ~ 50 mm
ENVIRONMENTAL	
Storage and Operating Temperature	-40°C to +85°C
Operating Humidity	10%~80% non-condensing
Storage Humidity	5%~80% non-condensing

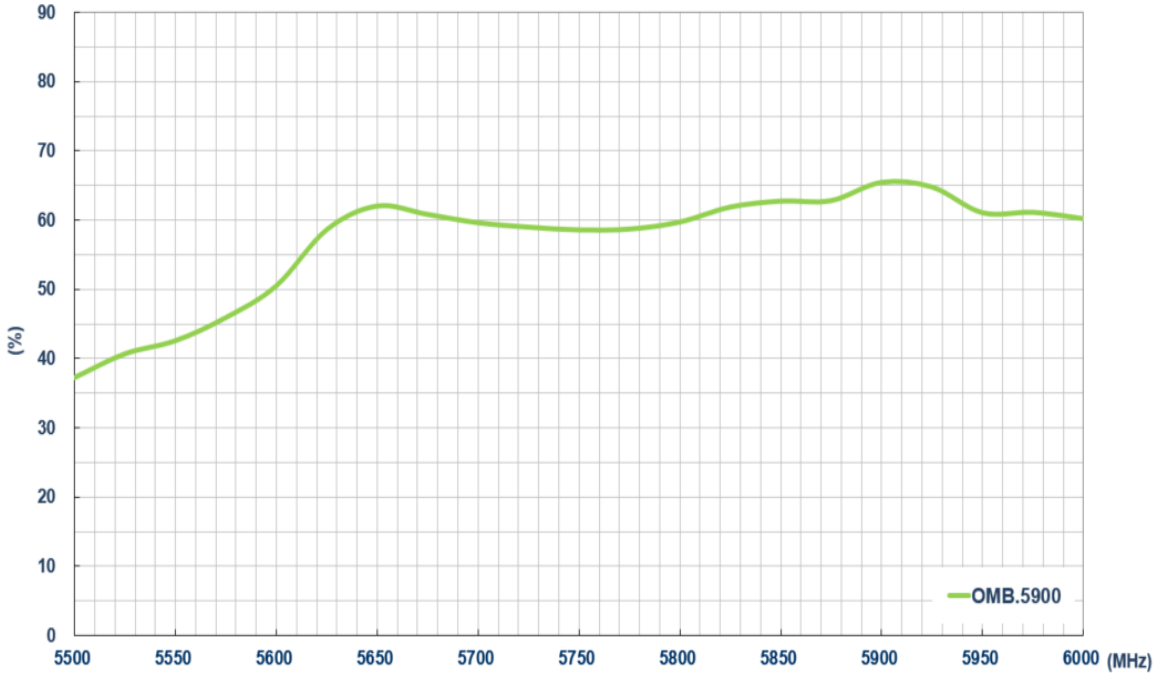
*Measurements taken in free space

3. Antenna Characteristics

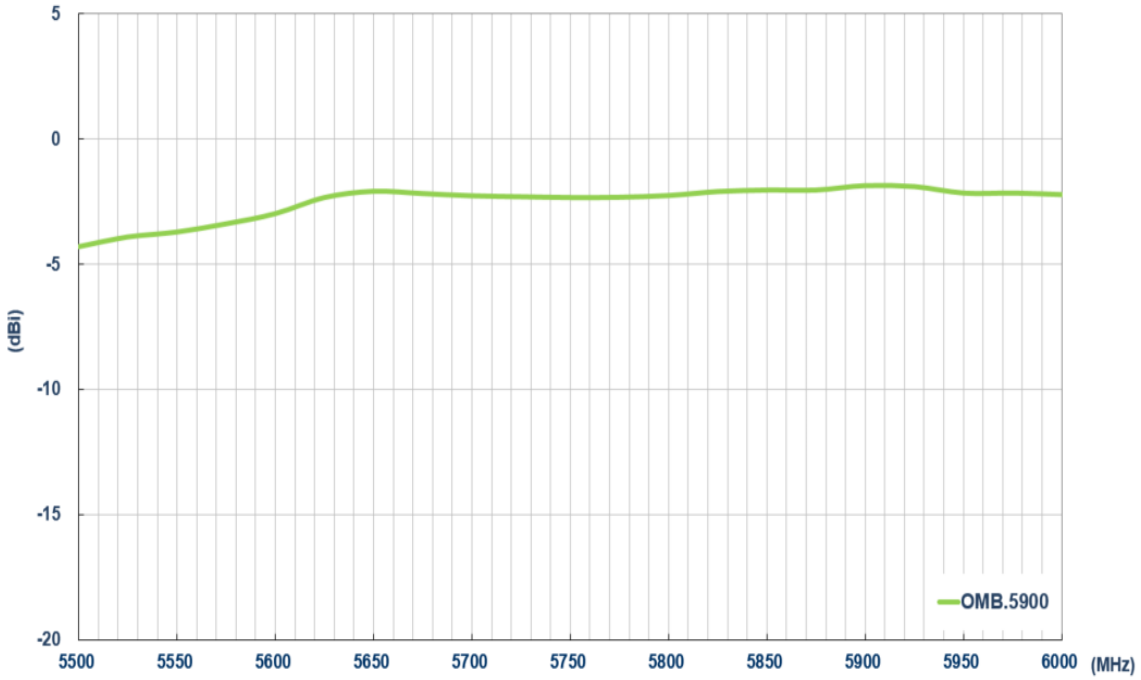
3.1 Return Loss



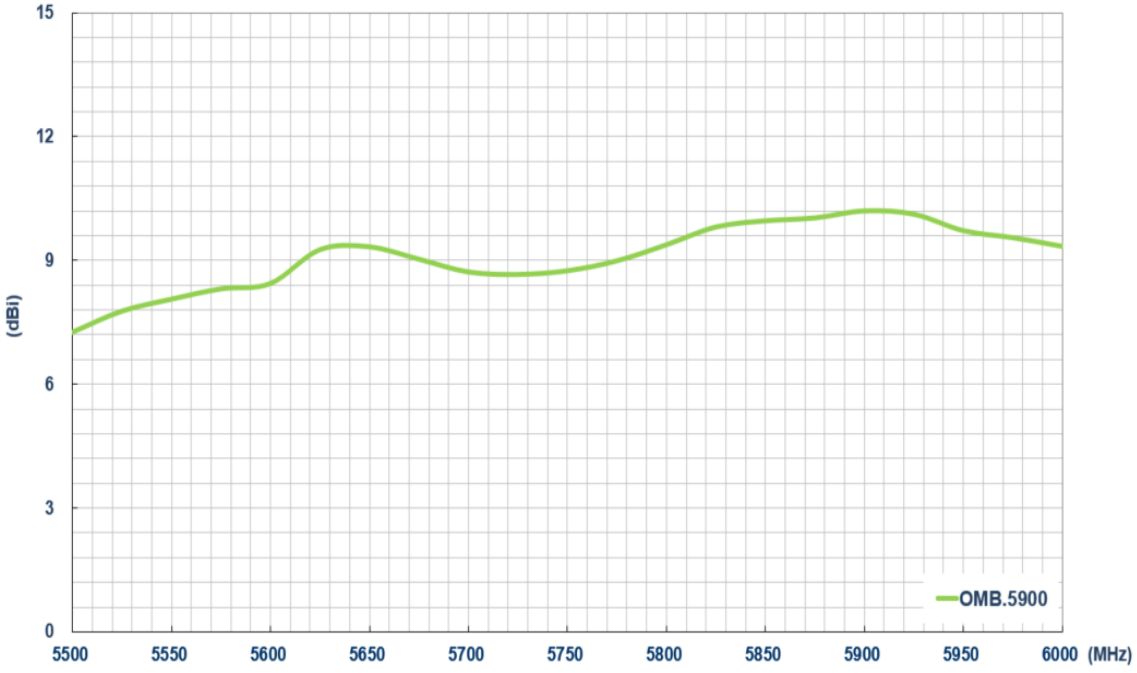
3.2 Efficiency



3.3 Average Gain

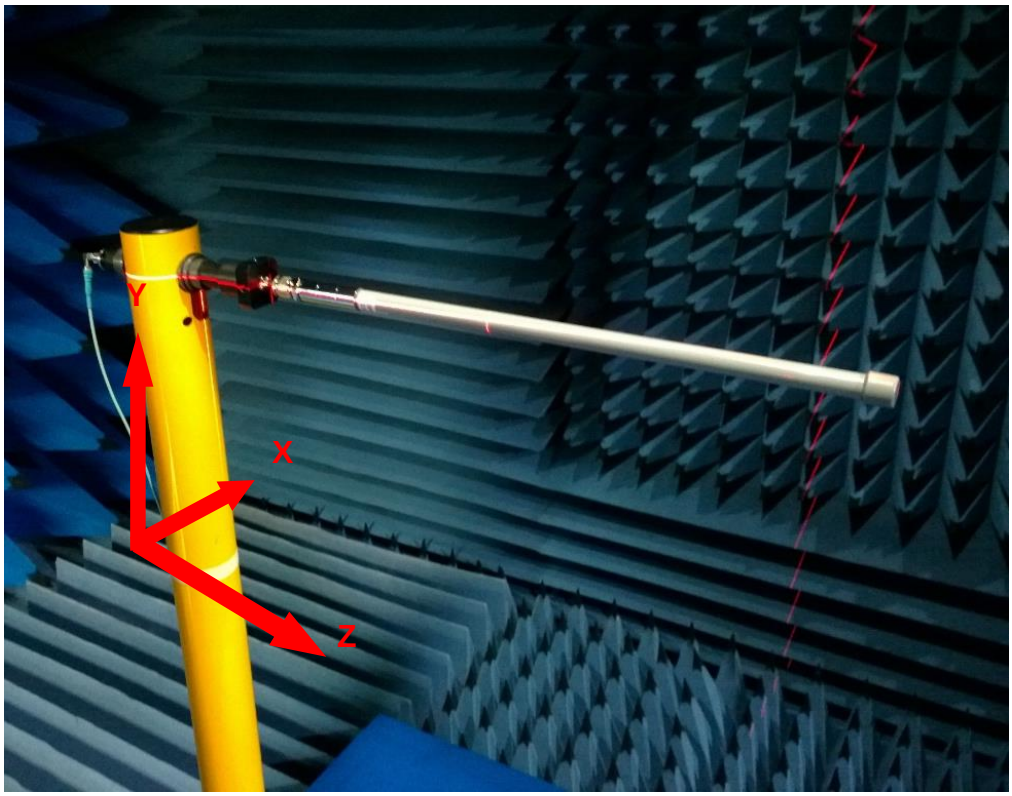


3.4 Peak Gain



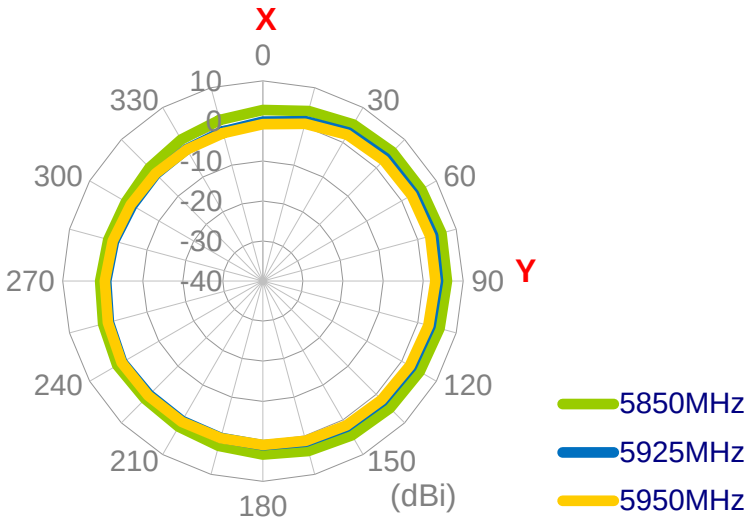
4. Antenna Radiation Pattern

4.1. Antenna Test Set Up

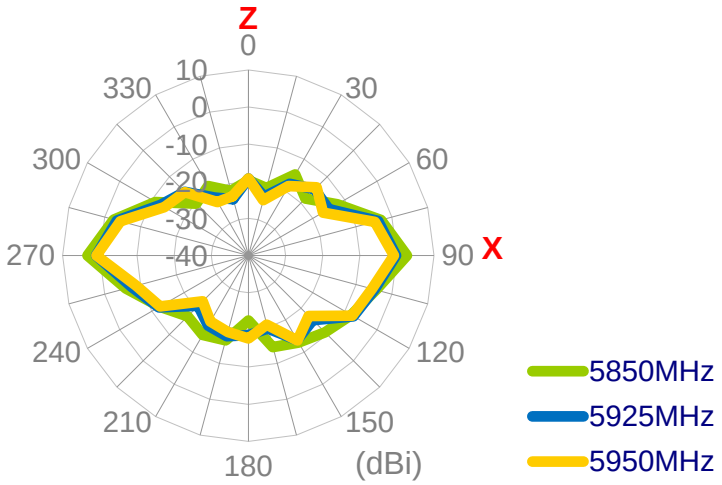


4.2. 2D Radiation Pattern

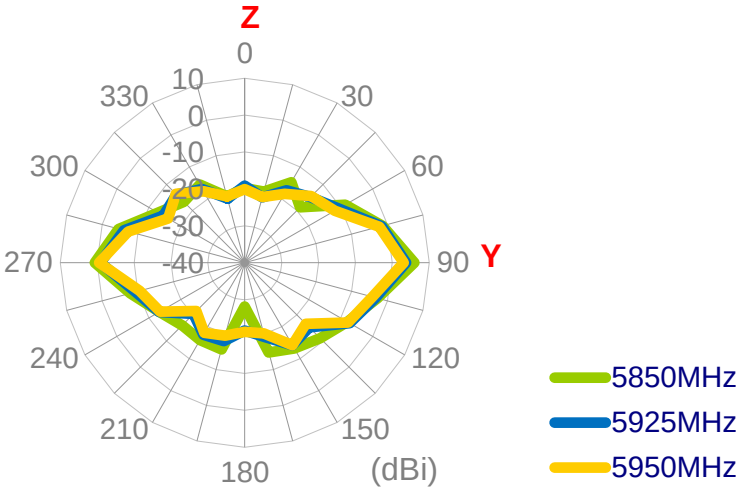
XY Plane



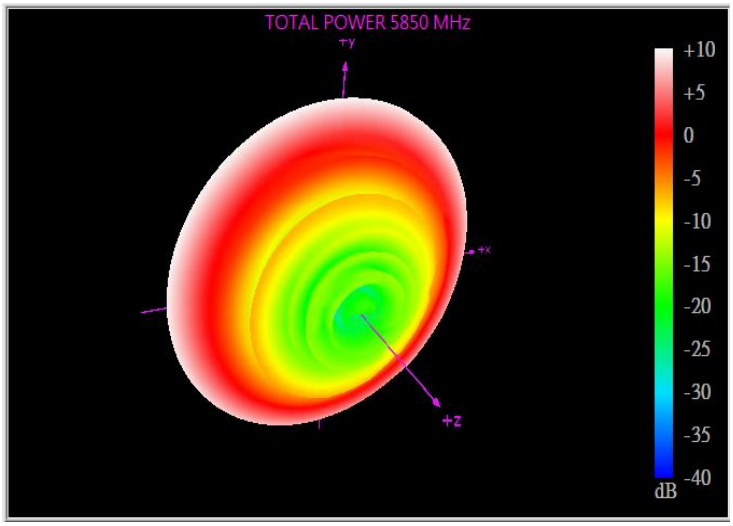
XZ Plane



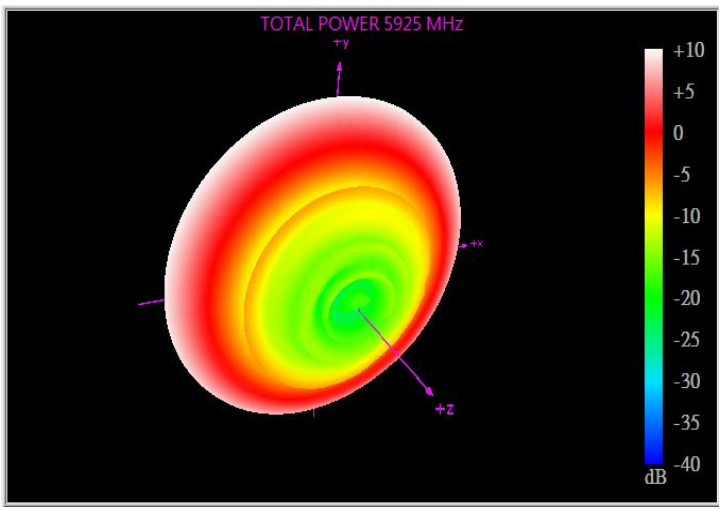
YZ Plane



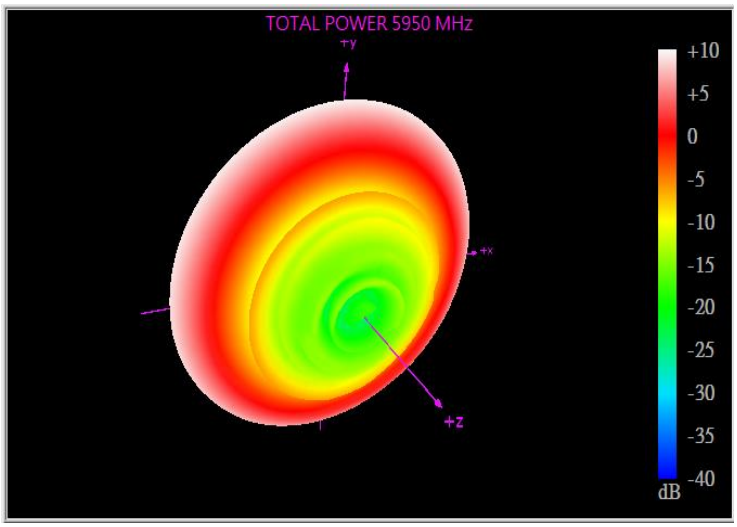
4.3. 3D Radiation Pattern



5850 MHz

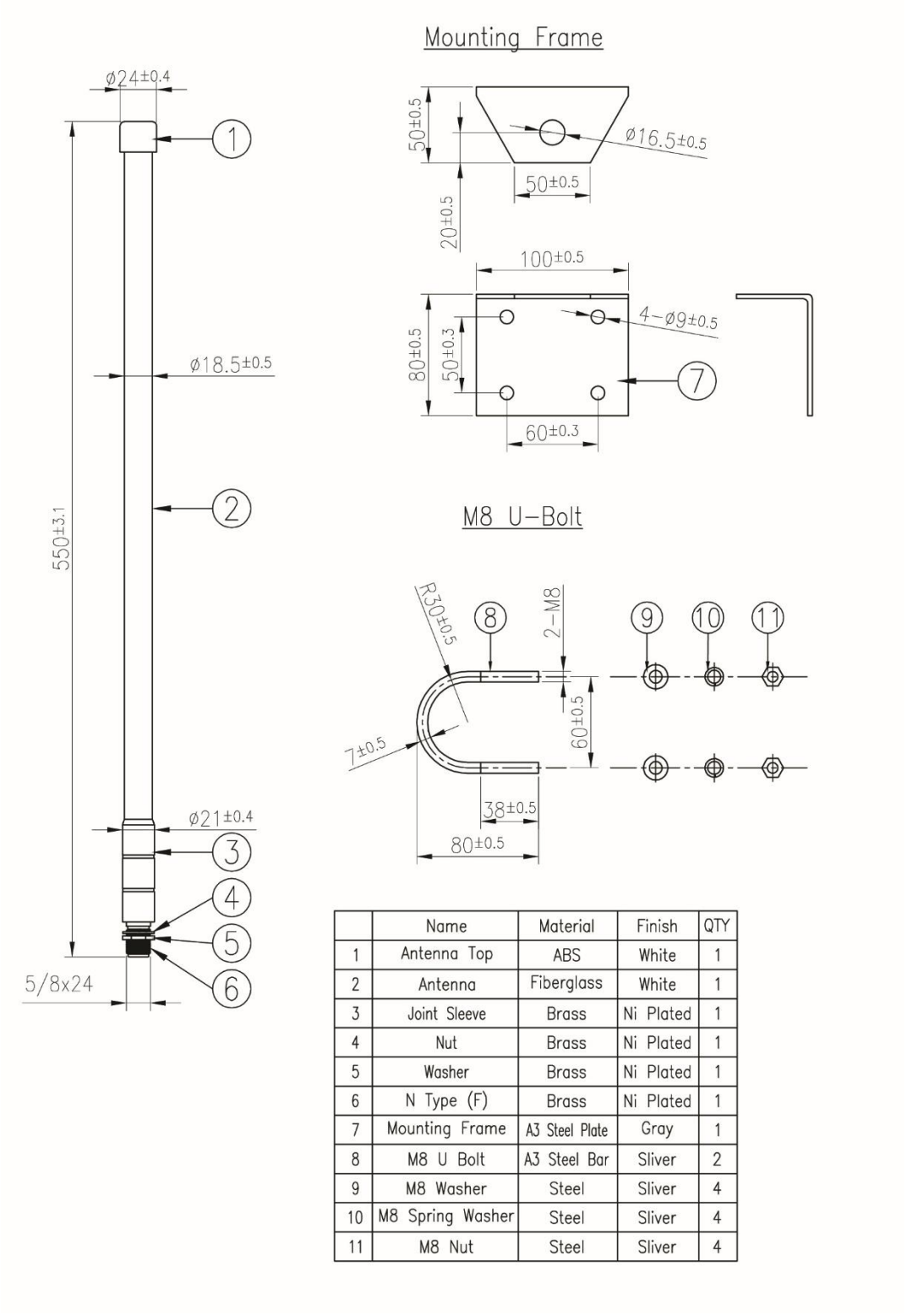


5925 MHz



5950 MHz

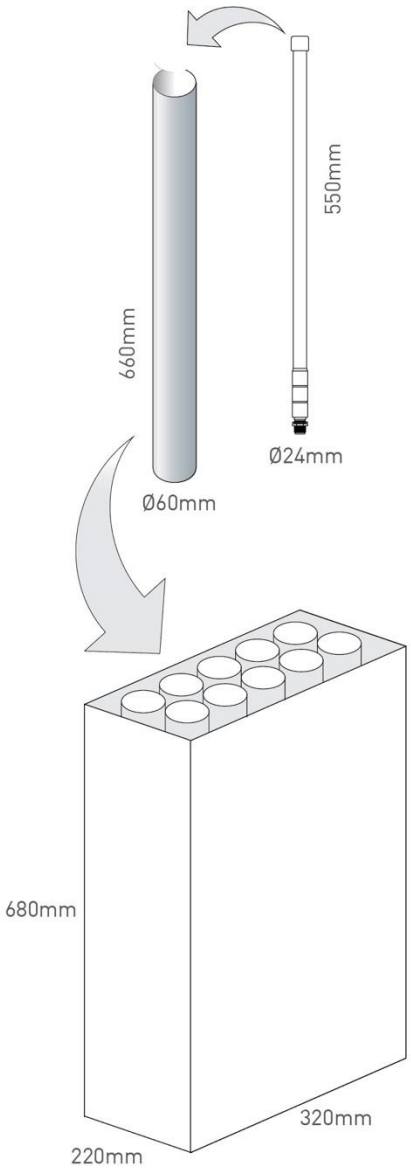
5. Mechanical Drawing (Unit:mm)



	Name	Material	Finish	QTY
1	Antenna Top	ABS	White	1
2	Antenna	Fiberglass	White	1
3	Joint Sleeve	Brass	Ni Plated	1
4	Nut	Brass	Ni Plated	1
5	Washer	Brass	Ni Plated	1
6	N Type (F)	Brass	Ni Plated	1
7	Mounting Frame	A3 Steel Plate	Gray	1
8	M8 U Bolt	A3 Steel Bar	Sliver	2
9	M8 Washer	Steel	Sliver	4
10	M8 Spring Washer	Steel	Sliver	4
11	M8 Nut	Steel	Sliver	4

6. Packaging

1 OMB.5900.B10F21 per tube
Tube Dimensions - Ø60mm*Height 660mm
Total Weight - 760g



10 tubes per carton
Carton Dimensions - 680*220*320mm
Weight - 8.4Kg