

S-1RW8

High Gain 915 MHz Fiberglass Antenna

CELLULAR

SIGFOX

The S-1RW8 is a compact and Fiberglass 915 MHz antenna with a wide band and high efficiency. Operating at 915MHz, this antenna offers a compact size (1100 × 28.5 mm) and easy installation for hassle-free integration into your IoT devices.

Whether you're expanding your network or enhancing data transmission, the S-1RW8 Sigfox Antenna delivers top-notch performance while saving you valuable space.



1100 x 28.5 mm

Document Information

Product	S-1RW8
Part Number	S-1RW8
Description	High Gain 915 MHz Fiberglass Antenna
Version	2.0 (current)
Date	18-Sep-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	16-Dec-2020	Amy Li	Initial Release
2.0	18-Sep-2023	Ivy Liao	New layout and design

Product Overview

Product Description

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Key Features

- Support 915MHz
- Small and exquisite
- High Reliability/Sensitivity
- Compact Size, Easy to install
- IP Rating 66
- RoHS Compliant

Applications

- ISM Outdoor
- Gateways
- Set-Top Boxes
- Security
- Signal repeater
- Smart agriculture

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LORA	900 - 930	MHz	≤1.2	8 d Bi	82%
Frequency Range			900 – 930 MHz	Radiation	Omnidirectional
Impedance			50 Ω	Polarization	Linear
Half-power beam width (°)			H:360 V:16.5	Lightning protection	DC Ground
Maximum input power (W)			100		

Mechanical Specifications

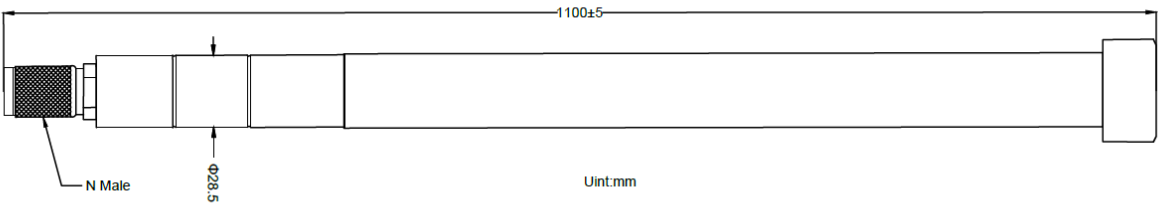
Dimensions	1100 x 28.5 mm	Color	White
Connector (Termination)	N Male	Material	Fiberglass
Rated Wind Velocity (m/s)	40		

Caution:

1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components, as this will cause damage to the component.
2. Do not expose the component to an open flame.
3. This specification applies to the functionality of the component as a single unit. Please ensure the component is thoroughly evaluated in the application circuit.

Product Image and Dimensions





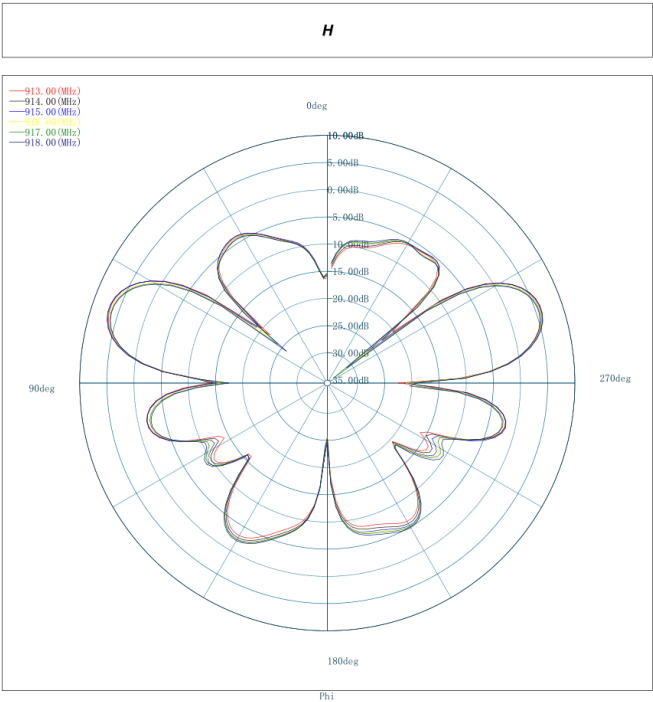
Radiation Pattern

A radiation pattern is a graphical representation of the directional properties of an antenna. It shows how electromagnetic waves are distributed in space in relation to the direction of propagation.

By understanding the information provided by a radiation pattern, it is possible to optimize the design and performance of an antenna for specific applications.

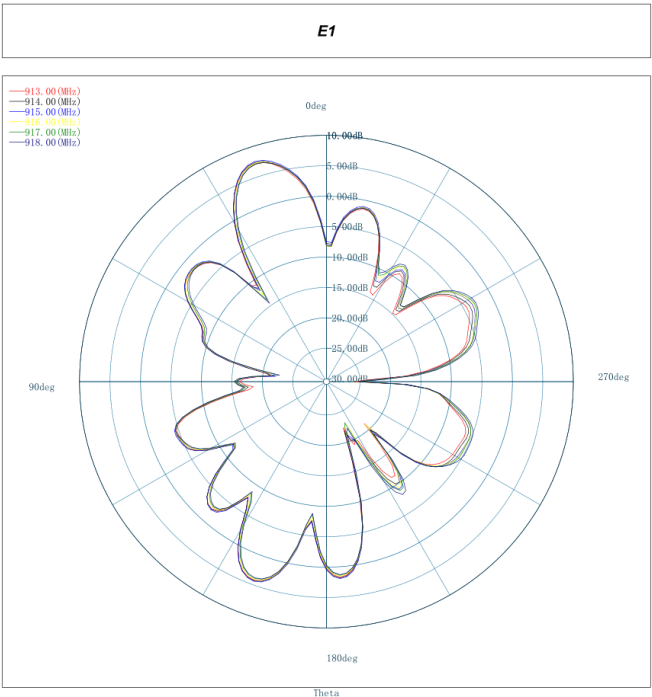
XY Plane (H)

900 – 930 MHz



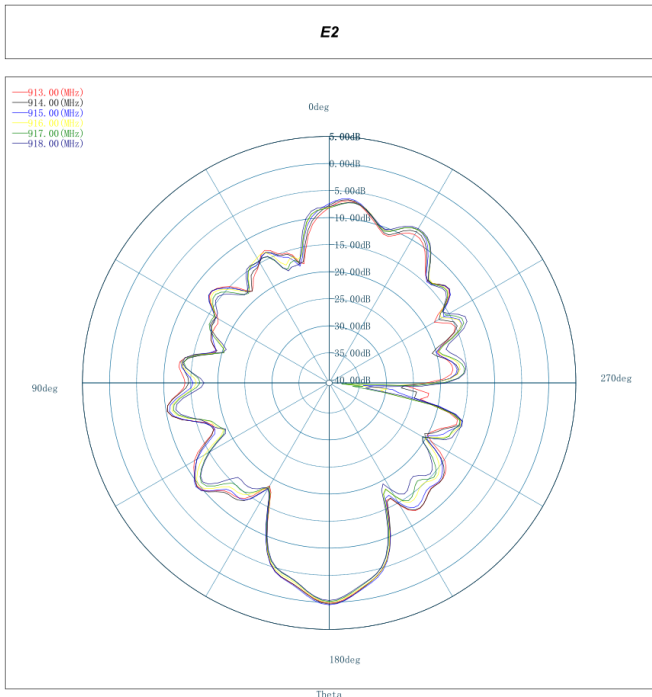
YZ Plane (E1)

900 – 930 MHz

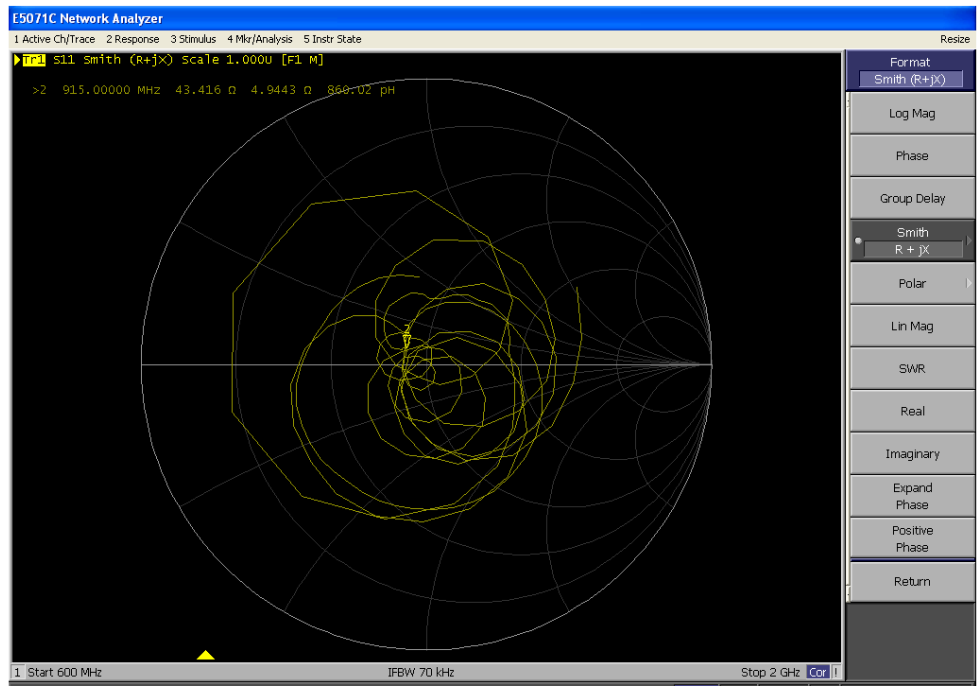
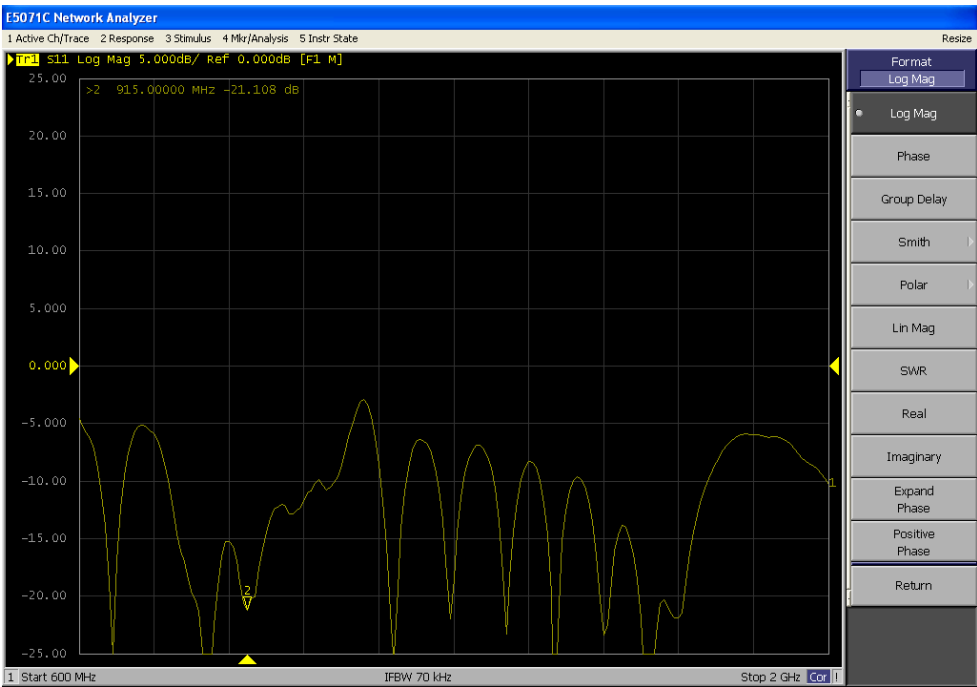


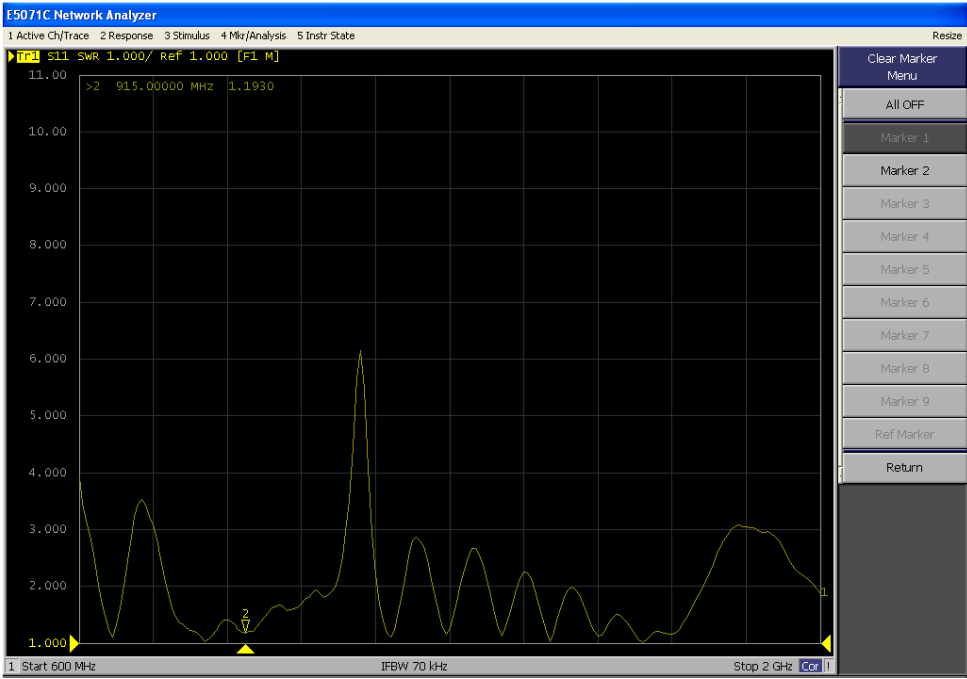
YZ Plane (E2)

900 – 930 MHz



Antenna Smith and VSWR

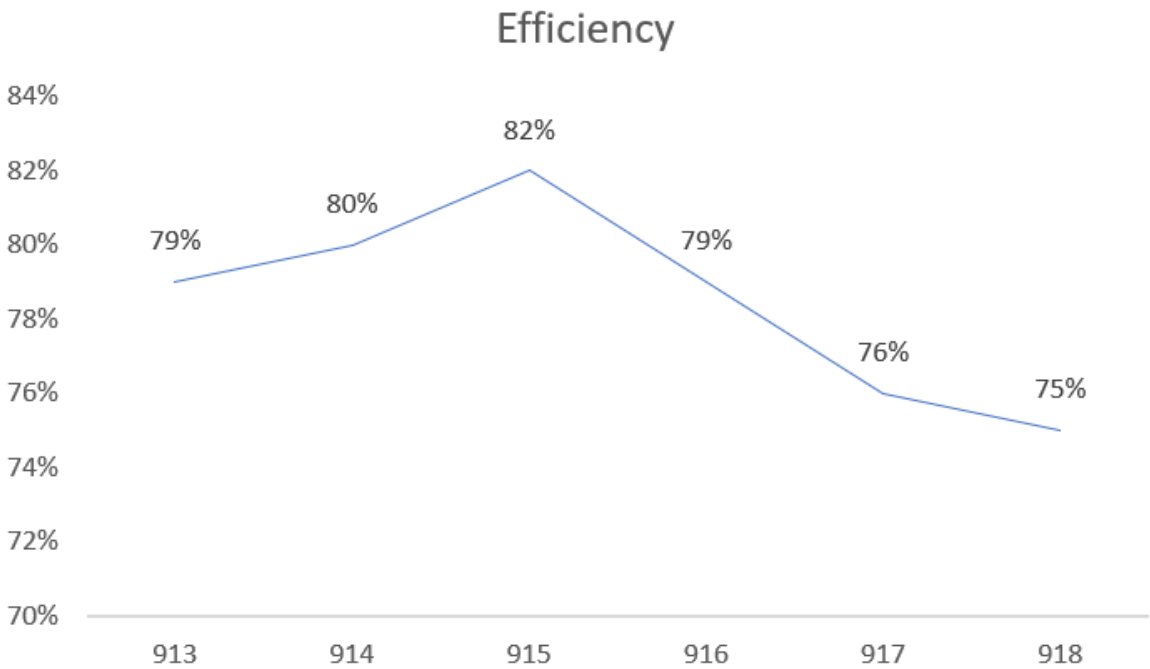


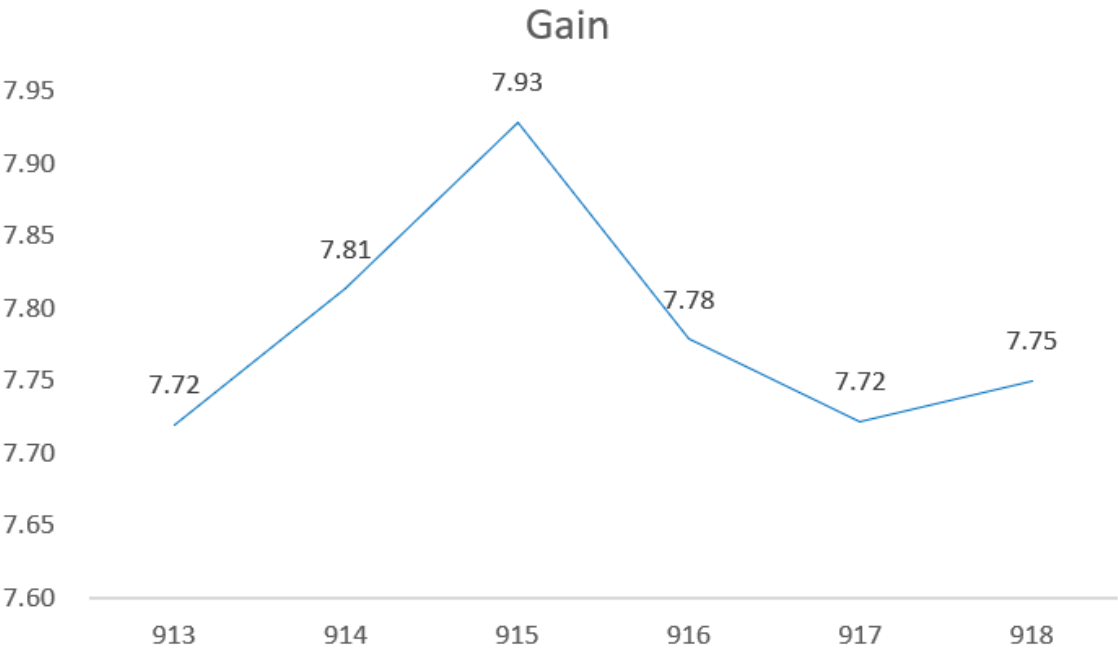


Antenna Efficiency and Gain

Frequency		Efficiency	Gain
913	MHz	79%	7.719282
914	MHz	80%	7.813313
915	MHz	82%	7.928401

Frequency		Efficiency	Gain
916	MHz	79%	7.778742
917	MHz	76%	7.721936
918	MHz	75%	7.749871





Environmental Data

Operating Temperature	-40 °C to +85 °C
Compliance	RoHS

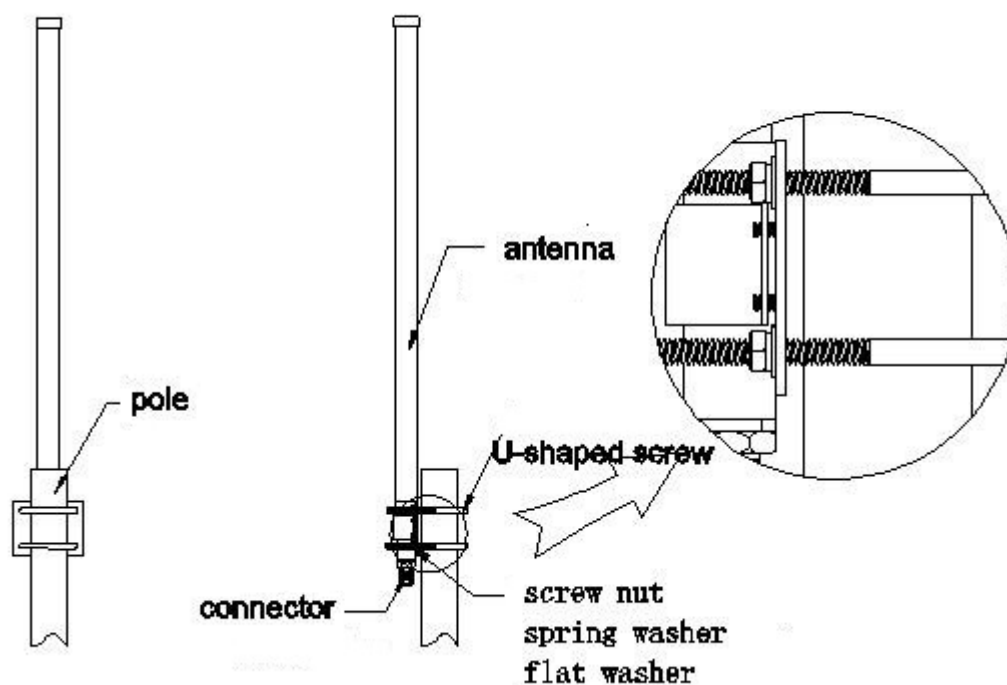
Ordering Information

Product Variants

Part Number	Description
S-1RW8	High Gain 915 MHz Fiberglass Antenna

Installation Steps

- 1: Place the M6 U-shape screw through the holes on the clamps to mount the antenna to the pole whose outer diameter is $\phi 35 \sim \phi 50\text{mm}$. Then put on the flat washer the spring washer and twist all the nuts.
- 2: There should be at least three meters between the ground or floor and the antenna above. No huge building or metal object or any other obstacle or shelter nearby.
- 3: Adjust the mounting height of the antenna to the proper position to receive the best signal , then seal all the connections.
- 4: Please pay attention to lightning protection



About MIOT

Miot Wireless Solutions, headquartered in Suzhou, China, was established in 2017. It has subsidiaries in Canada, the United States, Brazil, and EMEA. MIOT is a professional designer and manufacturer of Antennas and IoT PCBA products, providing turn-key service to customers worldwide.

Our talented R&D team has experienced antenna, hardware, and software engineers who can participate in your new project, from something simple like antenna/selection and design, to complete turn-key services, which entails taking your concept and ideas through design, prototyping, debugging, certification, and manufacturing. Miot offers reliable products at reasonable prices with fast delivery times to help you get ahead in the market.

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