

# 902-928 MHz 5.1 dBi Fiber Glass Antenna (RAKARG19)

## Datasheet

## Features

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- Frequency range: 902 ~ 928 MHz
- Max gain: 5.1 dBi
- VSWR:  $\leq 1.47$
- High efficiency
- Vertically polarized dipole
- Omni-directional
- Outdoor use



**Figure 1:** RAKARG19 overview

## Specifications

| Parameter                  | Value                |
|----------------------------|----------------------|
| Model                      | RAKARG19             |
| Frequency range            | 902 ~ 928 MHz        |
| Peak gain                  | 5.1 dBi              |
| VSWR                       | ≤ 1.47               |
| Efficiency                 | ≤ 84%                |
| Feed impedance             | 50 Ohms              |
| Radiation pattern          | Omni-directional     |
| Polarization               | Vertical             |
| Cover material (color)     | Fiber glass (white)  |
| Connector type             | N-type male          |
| Dimensions (mm)            | Ø 27.0 mm x 480.0 mm |
| Operation temperature (°C) | -40 °C ~ +75 °C      |
| Storage temperature (°C)   | -40 °C ~ +85 °C      |
| Humidity range             | 5% ~ 95%             |

## VSWR

| Frequency (MHz) | VSWR | Return Loss (dB) |
|-----------------|------|------------------|
| 902 MHz         | 1.47 | - 14.4           |
| 928 MHz         | 1.46 | - 14.5           |

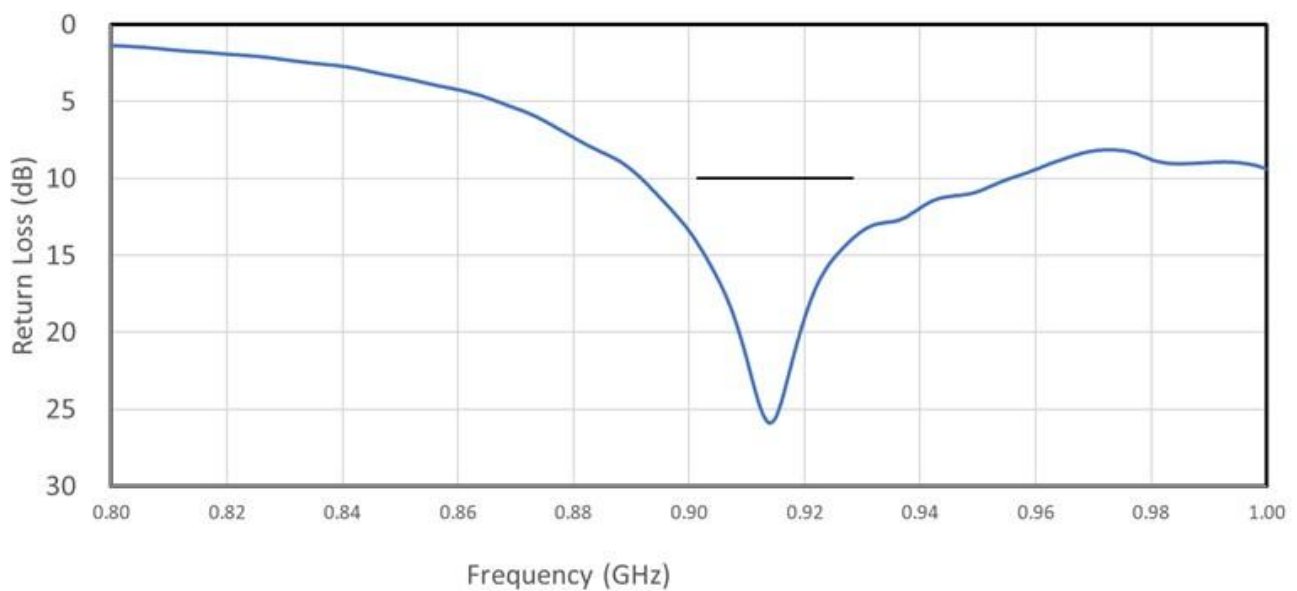


Figure 2: RAKARG19 VSWR graph

## Peak Gain & Efficiency

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| Frequency (MHz) | Gain (dBi) | Efficiency (%) |
|-----------------|------------|----------------|
| 902             | 4.8        | 82             |
| 904             | 4.9        | 83             |
| 906             | 5.0        | 83             |
| 908             | 5.0        | 83             |
| 910             | 5.0        | 84             |
| 912             | 5.0        | 84             |
| 914             | 5.1        | 84             |
| 916             | 5.1        | 84             |
| 918             | 5.1        | 84             |
| 920             | 5.1        | 84             |
| 922             | 5.1        | 84             |
| 924             | 5.0        | 84             |
| 926             | 5.0        | 84             |
| 928             | 5.0        | 84             |
|                 | Average:   | 83.64          |

## Radiation Patterns

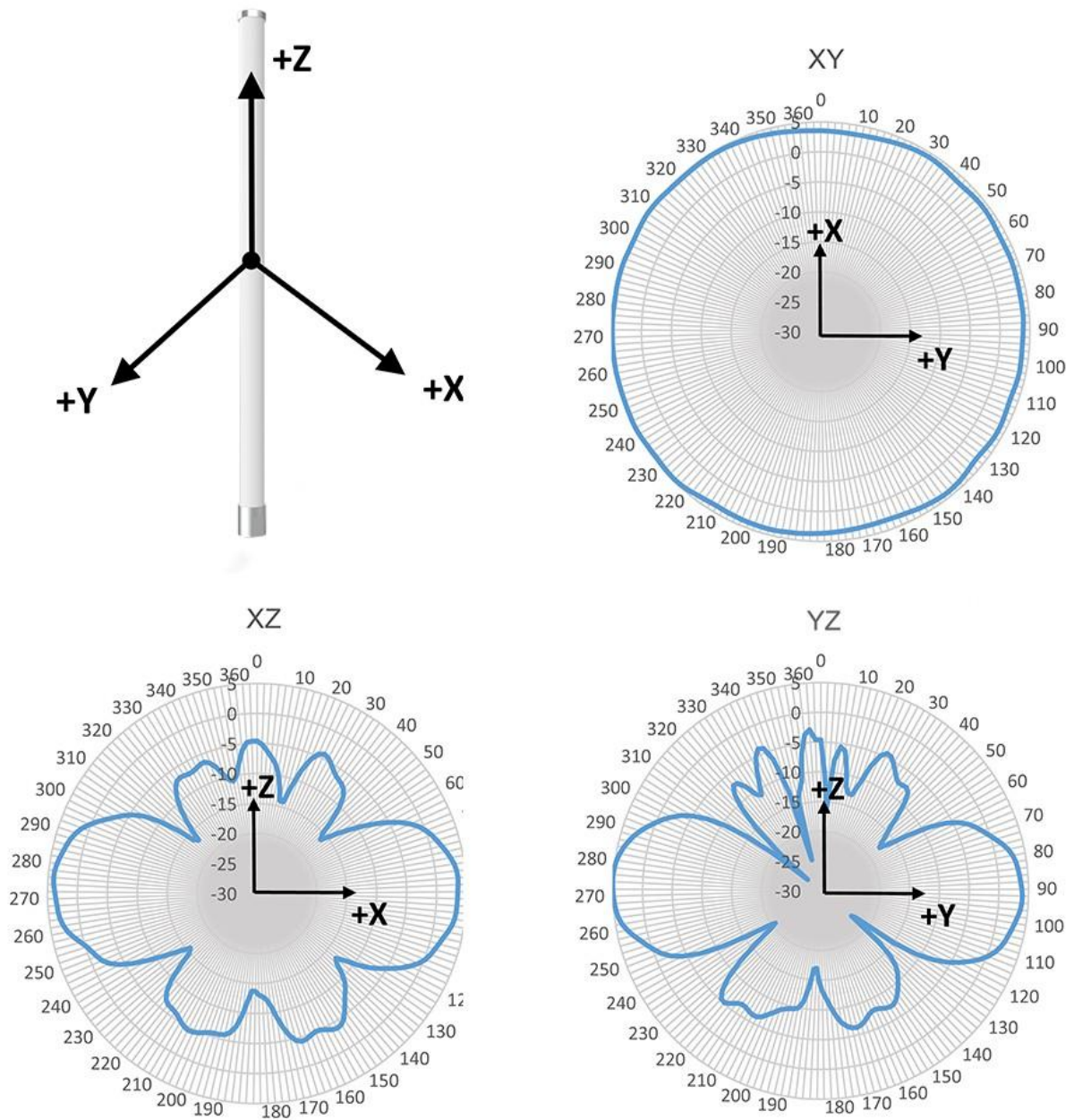
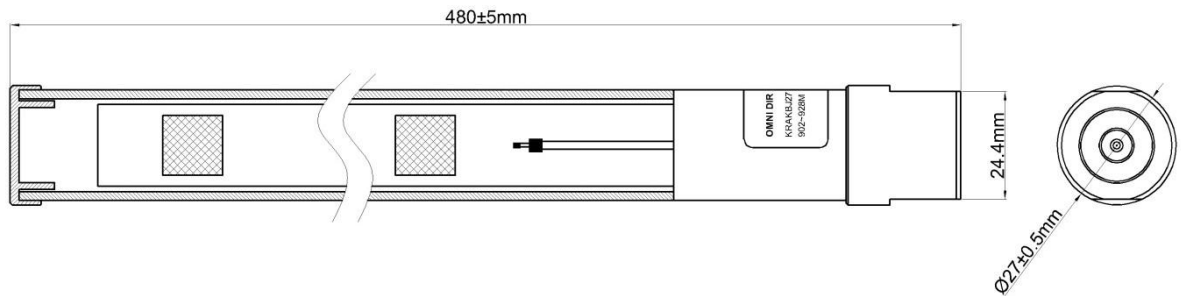


Figure 3: RAKARG19 radiation patterns

## Mechanical Specifications



**Figure 4:** RAKARG19 mechanical specifications

## Manufacturer

Shenzhen RAKwireless Technology Co.,Ltd.

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