

### G-2RW3

### 2.4G WiFi SMD Chip Antenna

SMD

2.4G WiFi

The G-2RW3 is a high-performance embedded antenna designed for 2.4G WiFi applications. Its SMD form factor enables seamless integration onto printed circuit boards (PCBs), making it an excellent choice for compact and space-constrained devices, such as IoT solutions, wireless communication modules, and smart home devices.

The G-2RW3 SMD antenna delivers robust WiFi performance and high signal gain, ensuring stable and reliable connectivity for



12\*4\*3 mm

## **Key Features**

Support 2.4G WiFi

demanding wireless applications.

- Wide Application
- High Reliability/Sensitivity
- Compact Size, Easy to install
- RoHS Compliant



### **Document Information**

Product	Antenna
Part Number	G-2RW3
Version	3.0 (current)
Date	2024-12-01
Status	Released

## **Revision History**

Version	Date	Author	Modifications
1.0	2020-12-16	Amy Li	Initial Release
2.0	2023-09-21	Ivy Liao	New layout and design
3.0	2024-12-01	Alyssa Zhou	New design



## Specifications

Antenna Specifications		
Impedance (Ω)	50	
Radiation	Hemispherical	
Polarization	Linear	
Electrical Type	Monopole	
Туре	SMD	
Dimensions	12 x 4 x 3 mm	
Connector	N/A	
Mounting Type	SMT	
Color	Black	
Material	FR4	
Operating	-20 °C to + 80 °C	
Temperature	-20 C t0 + 80 C	
IP Rating	N/A	
Compliance	RoHS	
Weight	<2.5g	

#### Caution:

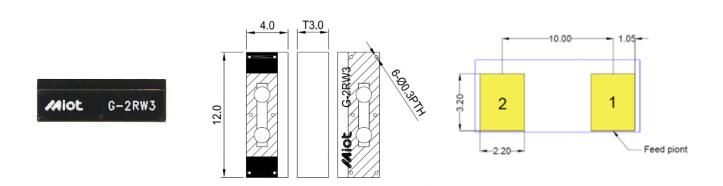
- 1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components, as this will cause damage to the component.
- 2. Do not expose the component to an open flame.
- 3. This specification applies to the functionality of the component as a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



## Application

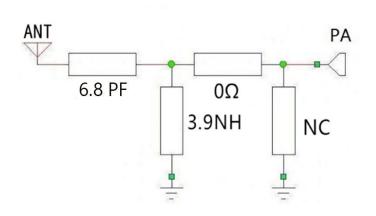
- WiFi Radios
- Gateways
- Set-Top Boxes
- Security
- IoT
- M2M
- Transportation
- Smart agriculture

## Product Images and Dimensions



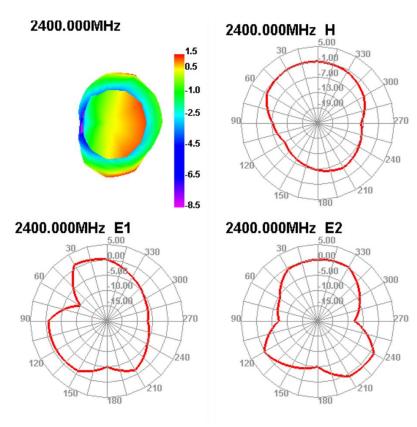


# Matching Circuit



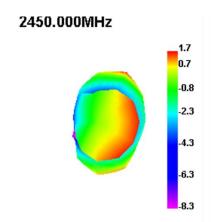
## Radiation Pattern

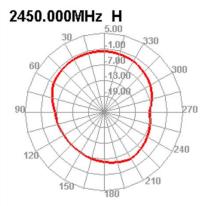
#### • 2400 MHz

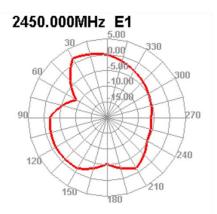


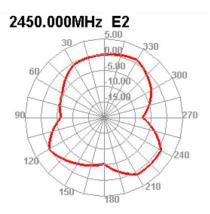


#### • 2450 MHz



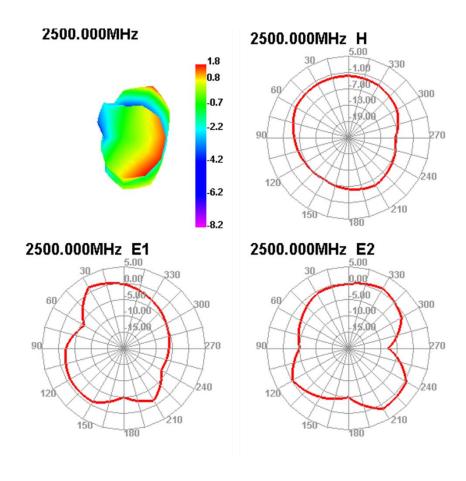








#### • 2500 MHz

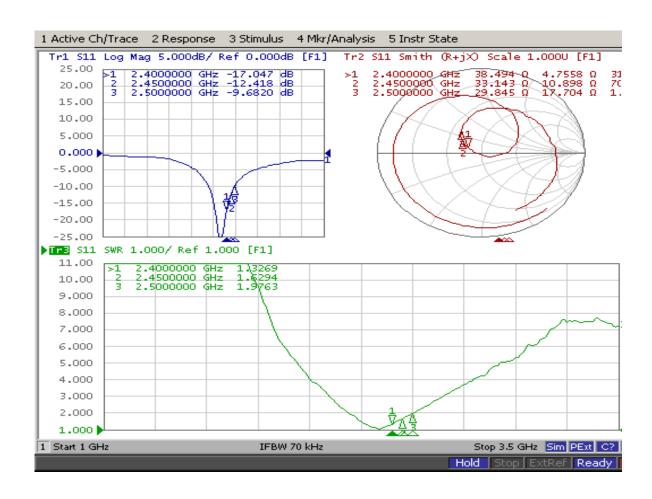




Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	58.2	1.5
2410	57.2	1.4
2420	57.4	1.4
2430	57.1	1.4
2440	56.9	1.5
2450	59.5	1.7
2460	58.6	1.7
2470	58.7	1.7
2480	58.3	1.6
2490	60.4	1.7
2500	61.4	1.8



### Antenna Smith and VSWR





# Order Information

Part Number	Description
G-2RW3	2.4G WiFi SMD Chip Antenna



### **About Us**

MIOT Wireless Solutions Co., Ltd., established in 2017, is composed of seasoned IoT industry experts and developers from all over the world.

We possess extensive knowledge in **Antennas, Device Prototyping, ODM, Component Sourcing, and Manufacturing**, with a specialized focus on IoT products.

Regardless of the type of connectivity you require in your design, our wireless experts can assist you in achieving it. MIOT's products and solutions have already connected hundreds of thousands of devices in the field.

### **Contact**

**MIOT Wireless Solutions Co., Ltd.** 

120-5800 Ambler Dr, Mississauga, Ontario L4W 4J4, Canada

Website: www.miotsolutions.com

Email: info@miotsolutions.com



## **Legal Notices**

#### Copyright

All content included on this document, such as text, graphics, logos, button icons, images, audio clips, digital downloads, data compilations, and software, is the property of MIOT Wireless Solutions Co., Ltd.

#### Use of the Document

The content on this document are provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. Your use of this document is at your own risk.

#### **Limitation of Liability**

In no event shall MIOT Wireless Solutions Co., Ltd. or its suppliers be liable for any damages (including, without limitation, damages for loss of data or profit, or due to business interruption) arising out of the use or inability to use the materials on this document, even if MIOT Wireless Solutions Co., Ltd. or an authorized representative has been notified orally or in writing of the possibility of such damage.

#### Changes

MIOT Wireless Solutions Co., Ltd. reserves the right to change these terms and conditions at any time without notice.

Copyright © 2023, MIOT Wireless Solutions Ltd. All Rights Reserved



# **Design. Connect. Thrive**