

## **Antenna Datasheet**

Product OC: YE0021AA-1RQKHA0A

Version: 1.0

**Date**: 2025-05-14

Product Name: 4G Magnetic Mount External Monopole Antenna

**Key Features:** 

Frequency Band: 700-960 MHz, 1710-2690 MHz

Dimensions: Φ 29.8 mm × 109 mm

Efficiency: Up to 27.2 % (MP)

RoHS Compliant

IP65



## **Contents**

Co	ntents		1					
1	Specification							
	1.1. I	Electrical	2					
		Mechanical & Environmental						
2	Drawin	ıg	4					
3		ed Performance						
	3.1.	S-Parameter Test	5					
		I.1. VSWR						
	3.2. I	Radiation Performance Test	6					
	3.2	2.1. Efficiency	6					
		2.2. Peak Gain						
		j						
		ces						
Re	vision H	istory	11					



# 1 Specification

Test Condition: On 300 mm × 300 mm Metal Plane

## 1.1. Electrical

Electrical						
Frequency Range	700–960 MHz, 1710–2690 MHz					
Impedance	50 Ω					
Polarization	Linear					
Radiation Pattern	Omni-directional					
VSWR	≤ 1.8					
Peak Gain	-2.6 dBi					

## 1.2. Mechanical & Environmental

Mechanical						
Antenna Dimensions	Φ 29.8 mm × 109 mm					
Material & Color	TPEE & Black					
Cable Type & Color & Length	RG174 & Black & 5000 mm					
Connector Type	SMA Male					
Weight	Typ. 64.5 g					
Mounting Type	Magnet					
Environmental						
Operation Temperature	-20 °C to +60 °C					

Antenna\_Datasheet 2 / 11

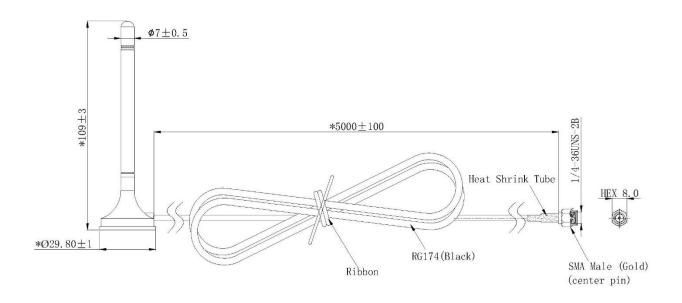


Storage Temperature	-20 °C to +60 °C		
Ingress Protection (IP) Rating	IP65		
RoHS Compliant	Yes		

Antenna\_Datasheet 3 / 11



# 2 Drawing



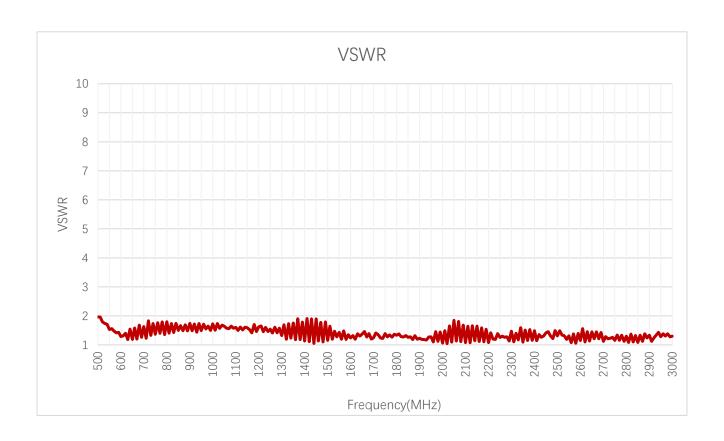
Antenna\_Datasheet 4 / 11



# 3 Detailed Performance

## 3.1. S-Parameter Test

### 3.1.1. VSWR



#### **VSWR**

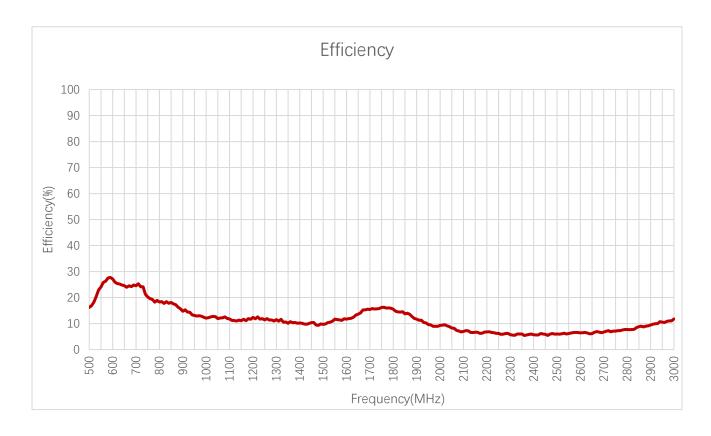
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
VSWR	-	-	1.2	1.4	1.7	1.7	-	1.4	1.2	1.3
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
VSWR	1.3	1.1	1.1	1.4	1.1	1.4	-	-	-	-

Antenna\_Datasheet 5 / 11



## 3.2. Radiation Performance Test

## 3.2.1. Efficiency



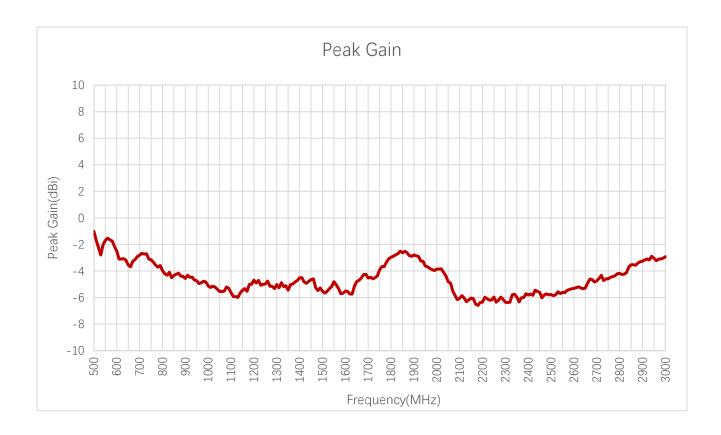
## Efficiency (%)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Efficiency (%)	-	-	25.3	18.4	14.7	12.9	-	15.8	15.8	12.7
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Efficiency (%)	9.6	6.6	6.0	5.9	6.4	6.5	-	-	-	-

Antenna\_Datasheet 6 / 11



### 3.2.2. Peak Gain



## Peak Gain (dBi)

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
Peak Gain (dBi)	-	-	-2.7	-4.1	-4.6	-5.0	-	-4.5	-4.4	-2.8
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
Peak Gain (dBi)	-3.6	-6.2	-6.0	-5.6	-5.3	-4.8	-	-	-	-

Antenna\_Datasheet 7 / 11



## **Contact Us**

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

### Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236 Email: <u>info@quectel.com</u>

#### Or our local offices. For more information, please visit:

http://www.quectel.com/support/sales.htm.

### For technical support, or to report documentation errors, please visit:

http://www.quectel.com/support/technical.htm.

Or email us at: <a href="mailto:support@quectel.com">support@quectel.com</a>.

Antenna\_Datasheet 8 / 11



## **Legal Notices**

We offer information as a service to you. The provided information is based on your requirements and we make every effort to ensure its quality. You agree that you are responsible for using independent analysis and evaluation in designing intended products, and we provide reference designs for illustrative purposes only. Before using any hardware, software or service guided by this document, please read this notice carefully. Even though we employ commercially reasonable efforts to provide the best possible experience, you hereby acknowledge and agree that this document and related services hereunder are provided to you on an "as available" basis. We may revise or restate this document from time to time at our sole discretion without any prior notice to you.

## **Use and Disclosure Restrictions**

## **License Agreements**

Documents and information provided by us shall be kept confidential, unless specific permission is granted. They shall not be accessed or used for any purpose except as expressly provided herein.

## Copyright

Our and third-party products hereunder may contain copyrighted material. Such copyrighted material shall not be copied, reproduced, distributed, merged, published, translated, or modified without prior written consent. We and the third party have exclusive rights over copyrighted material. No license shall be granted or conveyed under any patents, copyrights, trademarks, or service mark rights. To avoid ambiguities, purchasing in any form cannot be deemed as granting a license other than the normal non-exclusive, royalty-free license to use the material. We reserve the right to take legal action for noncompliance with abovementioned requirements, unauthorized use, or other illegal or malicious use of the material.

#### **Trademarks**

Except as otherwise set forth herein, nothing in this document shall be construed as conferring any rights to use any trademark, trade name or name, abbreviation, or counterfeit product thereof owned by Quectel or any third party in advertising, publicity, or other aspects.

## **Third-Party Rights**

This document may refer to hardware, software and/or documentation owned by one or more third parties ("third-party materials"). Use of such third-party materials shall be governed by all restrictions and obligations applicable thereto.



We make no warranty or representation, either express or implied, regarding the third-party materials, including but not limited to any implied or statutory, warranties of merchantability or fitness for a particular purpose, quiet enjoyment, system integration, information accuracy, and non-infringement of any third-party intellectual property rights with regard to the licensed technology or use thereof. Nothing herein constitutes a representation or warranty by us to either develop, enhance, modify, distribute, market, sell, offer for sale, or otherwise maintain production of any our products or any other hardware, software, device, tool, information, or product. We moreover disclaim any and all warranties arising from the course of dealing or usage of trade.

## **Privacy Policy**

To implement module functionality, certain device data are uploaded to Quectel's or third-party's servers, including carriers, chipset suppliers or customer-designated servers. Quectel, strictly abiding by the relevant laws and regulations, shall retain, use, disclose or otherwise process relevant data for the purpose of performing the service only or as permitted by applicable laws. Before data interaction with third parties, please be informed of their privacy and data security policy.

## **Disclaimer**

- a) We acknowledge no liability for any injury or damage arising from the reliance upon the information.
- b) We shall bear no liability resulting from any inaccuracies or omissions, or from the use of the information contained herein.
- c) While we have made every effort to ensure that the functions and features under development are free from errors, it is possible that they could contain errors, inaccuracies, and omissions. Unless otherwise provided by valid agreement, we make no warranties of any kind, either implied or express, and exclude all liability for any loss or damage suffered in connection with the use of features and functions under development, to the maximum extent permitted by law, regardless of whether such loss or damage may have been foreseeable.
- d) We are not responsible for the accessibility, safety, accuracy, availability, legality, or completeness of information, advertising, commercial offers, products, services, and materials on third-party websites and third-party resources.

Copyright © Quectel Wireless Solutions Co., Ltd. 2025. All rights reserved.

Antenna\_Datasheet 10 / 11



# **Revision History**

Version	Date	Author	Note
-	2025-05-14	Omid JI/ Toby WANG/ Rainey LIAO	Creation of the document
1.0	2025-05-14	Omid JI/ Toby WANG/ Rainey LIAO	First official release

Antenna\_Datasheet 11 / 11



www.quectel.com