

Antenna Specification

Product Item: Y0BBW0CA0DA

Version: 1.0

Date: 2025-03-11

Product Name: Antenna WIFI

Main Features:

Frequency range: 2400~2500 MHz, 5150~5850 MHz

Size: 21.27mm × 18.37mm × 0.11mm

Efficiency: 55.75 %

RoHS Compliant

Directory

Directory 1

1 Specifications 2

- 1.1. Electrical Performance 2
- 1.2. Mechanical and environmental characteristic 2
- 1.3. Antenna Installation Schematic 3

2 Drawing 4

3 Detailed performance parameters 5

- 3.1. S parameter test 5
 - 3.1.1. voltage standing wave ratio 5
- 3.2. Radiation Performance Test 6
 - 3.2.1. Efficiency 6
 - 3.2.2. Peak gain 7
 - 3.2.3. 2D Radiation Field Figure 8

4 Packaging 9

Contact us 11

Legal 12

Document History 14

1 specifications

Test status: complete machine test

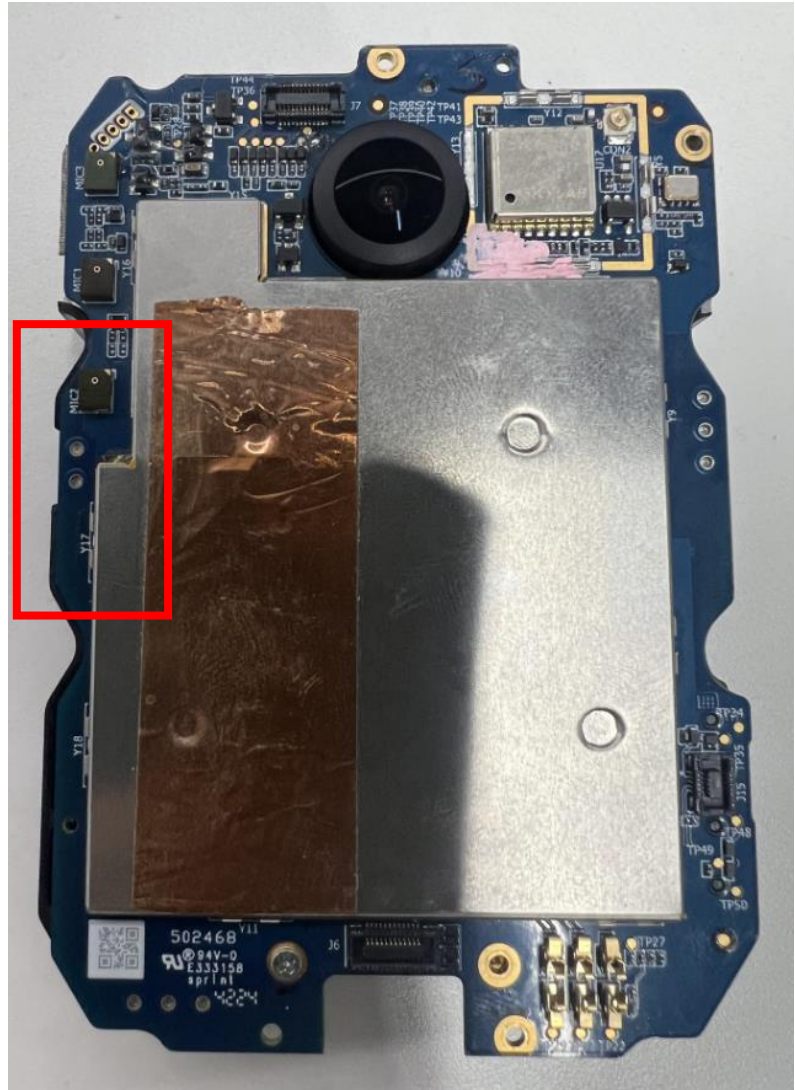
1.1. Electrical Performance

Electrical Specifications	
Frequency range	2400~2500 MHz, 5150~5850 MHz
Impedance	50 Ω
polarization mode	linear polarization
radiation field type	Omni-directional
voltage standing wave ratio	≤ 2.1
Peak Gain	2400~2500MHz: 1.8 dBi 5150~5850MHz: 4.4 dBi

1.2. Mechanical and environmental characteristics

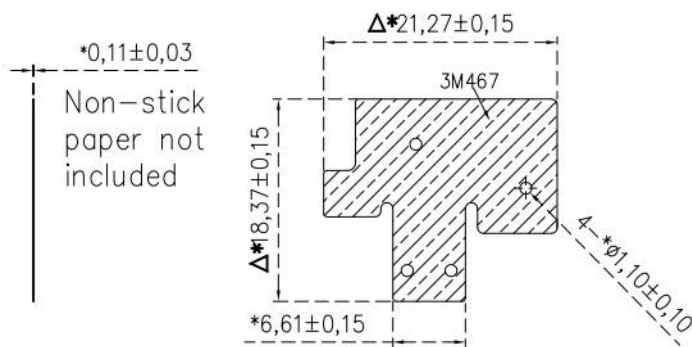
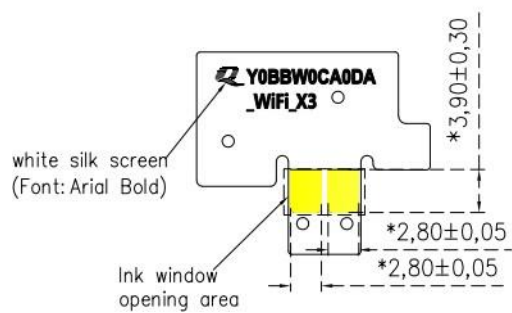
Mechanical	
Antenna size	21.27mm \times 18.37mm \times 0.11mm
Material & Color	FPC & Black
Weight	Approximately 0.048g
Installation Type	Adhesive paste
Environment	
Working temperature	-40° C to +85° C
Storage temperature	-40° C to +85° C
Compliance with environmental standards	RoHS

1.3. Antenna Installation Diagram



Y0BBW0CA0DA

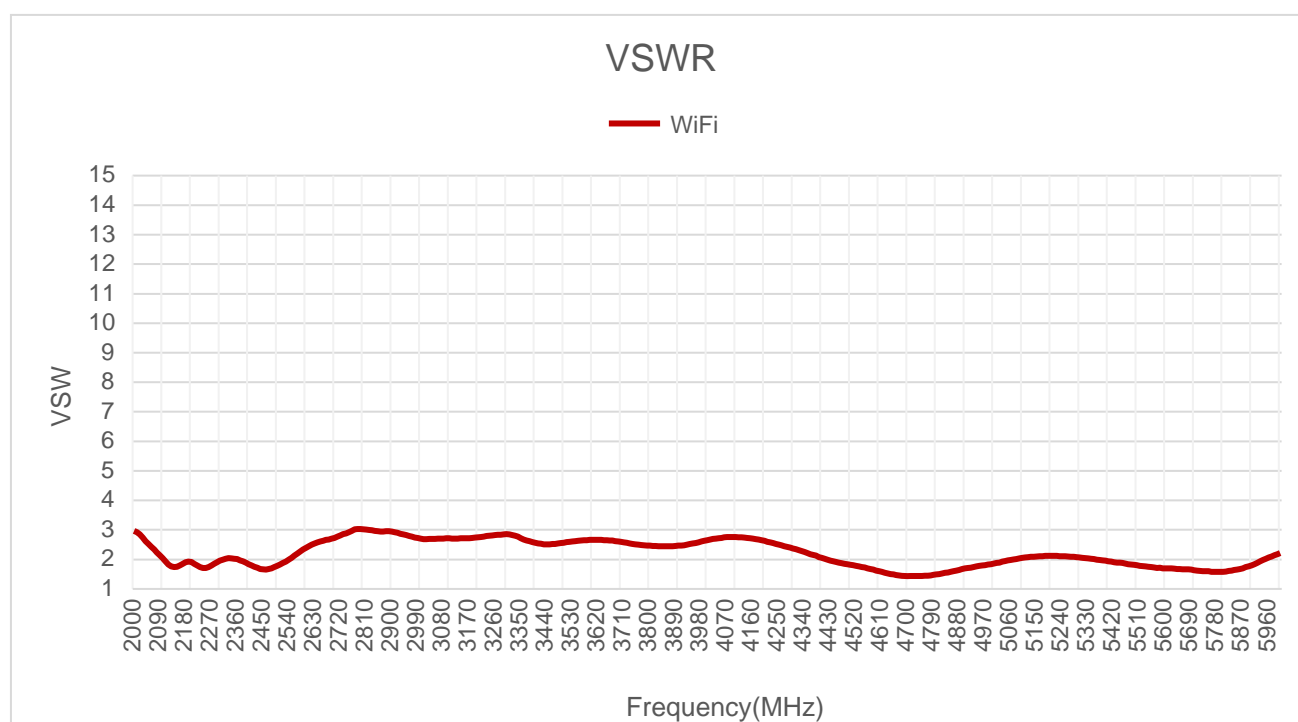
2 Drawings



3 detailed performance

3.1. S-parameter test

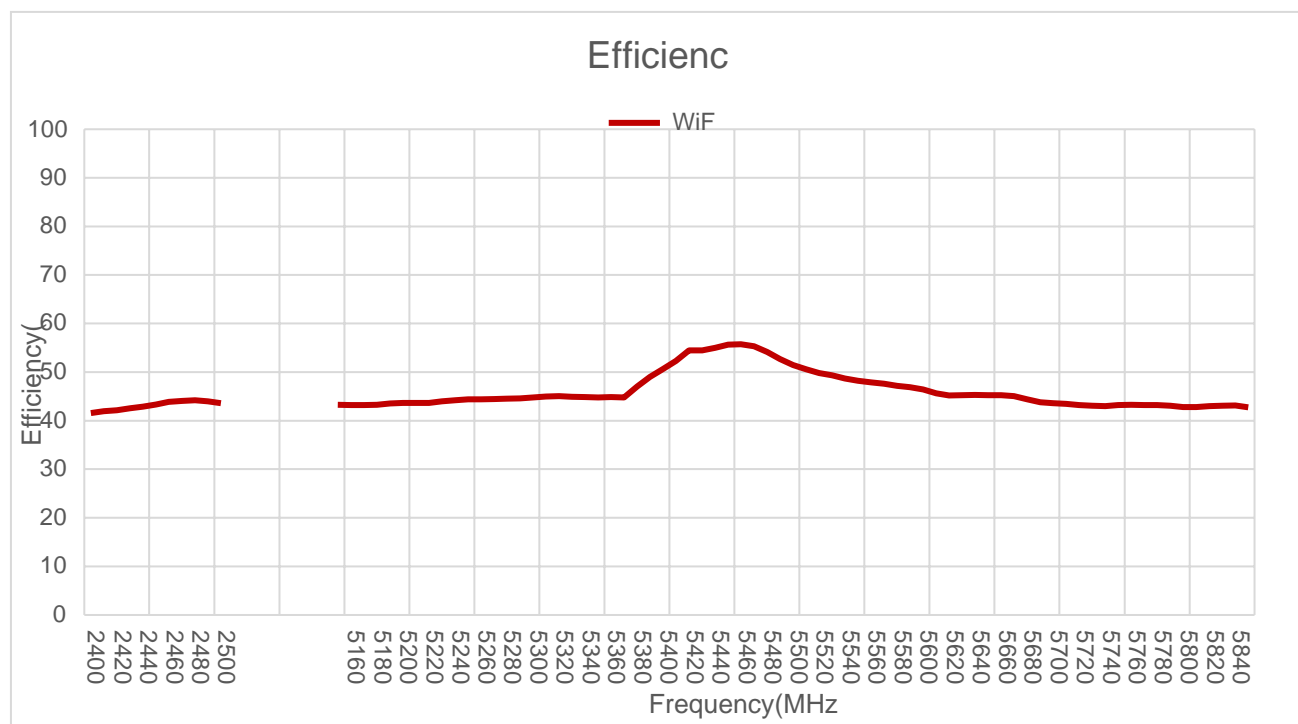
3.1.1. Voltage standing wave ratio of



VSWR - WIFI										
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
voltage standing wave ratio	1.8	1.7	1.8	2.1	1.8	1.6	-	-	-	-

3.2. Radiation performance test

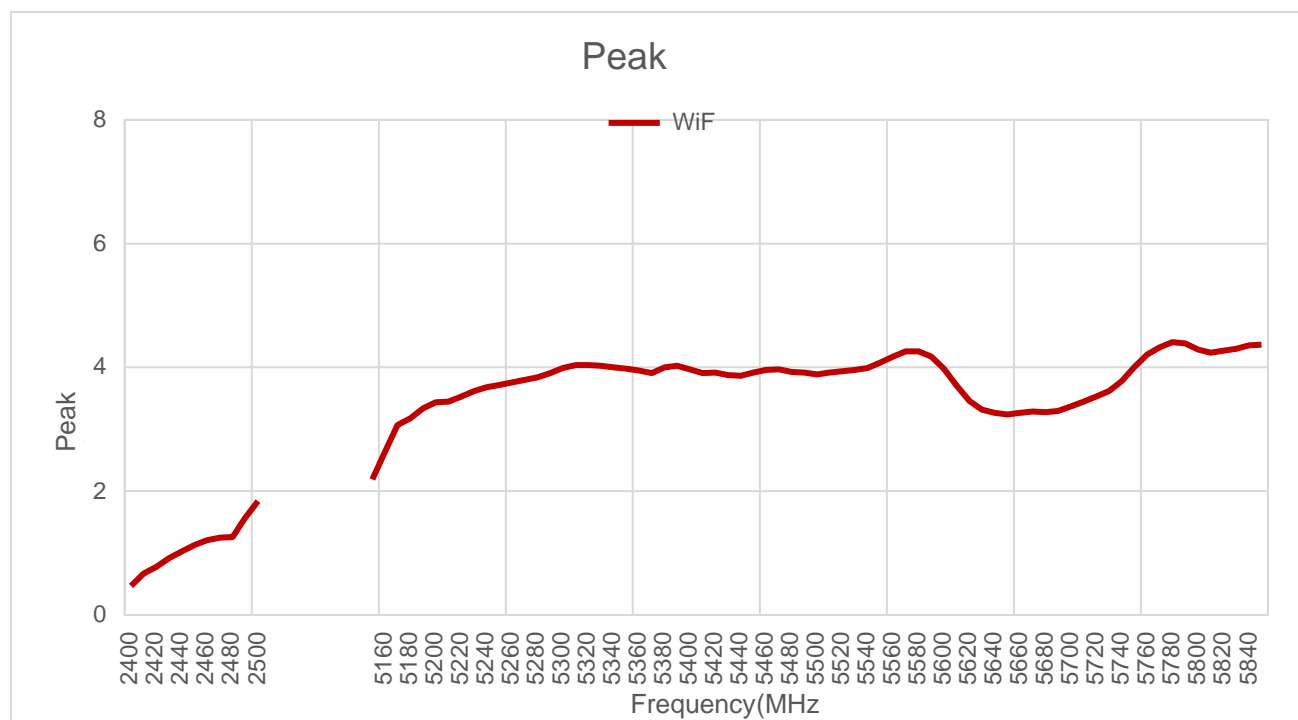
3.2.1. efficiency



Efficiency (%) - Wi-Fi

Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Efficiency (%)	41.6	43.3	43.6	43.3	51.5	42.7	-	-	-	-

3.2.2. Peak gain of

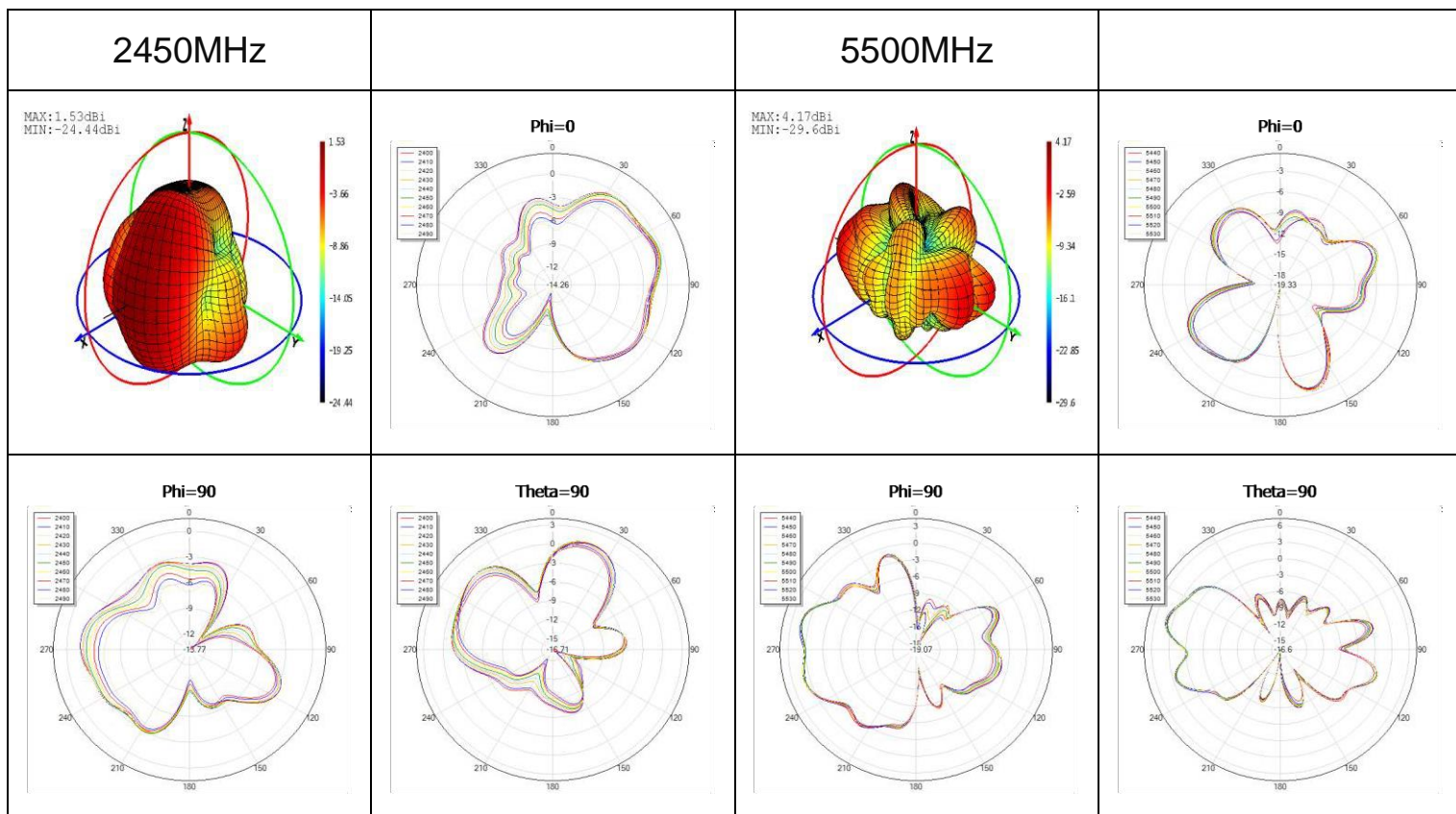


Peak Gain (dBi)-WiFi

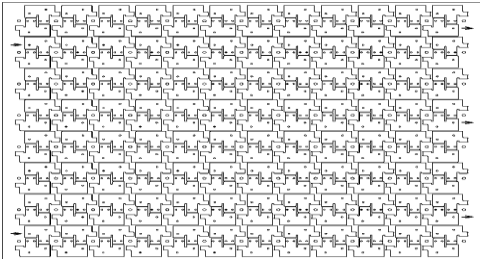


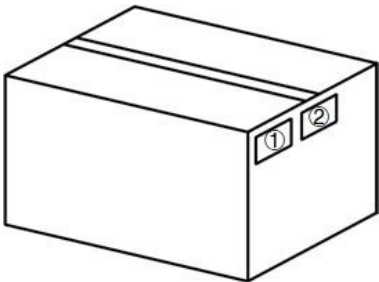
Frequency (MHz)	2400	2450	2500	5150	5500	5850	5925	6325	6725	7125
Peak Gain (dBi)	0.5	1.1	1.8	2.2	3.9	4.4	-	-	-	-

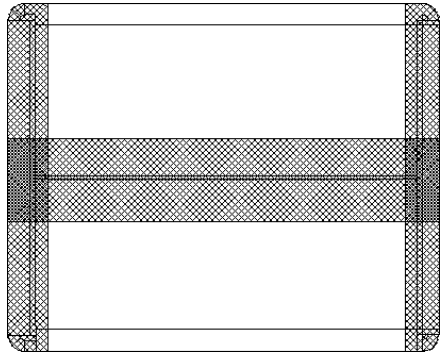
3.2.3. 2D radiation field pattern map

- Test status: complete machine test
- Test Lab: HF-S-1



4 packaging

Steps	Picture of packaging/ 2D picture	Brief description
1		192 products on a single micromucosa
2		A PE bag of 11 micromucous membranes. A PE bag of 2112 products.
3		1 box of 10 PE bags. 1 box of 21120 products. Estimated quantity Products that are not in the carton will be packed in a suitable carton. <u>Carton size: 405 x 293 x 185mm</u>
4		Label Location ① Carton label ② Quality label

5		<p>Carton seal "I" shaped sealing box</p>
Remarks	<p>The above initial packaging method is for reference only, and the final actual packaging method is subject to the actual shipment packaging.</p>	

Contact Us

Shanghai mobile communication technology Co., Ltd. (hereinafter referred to as "mobile communication") has always been to provide customers with the most timely and comprehensive service for the purpose. If you need any help, please feel free to contact our Shanghai headquarters, contact information is as follows:

Shanghai Shiyuan Communication Technology Co., Ltd.
Shanghai Minhang District Tianlin Road 1016 Science and Technology
Oasis 3 Phase (B) Building 5 Zip Code: 200233 Tel: +86 21 5108 6236
Mailbox: info@quectel.com

Or contact our local office, please visit <http://www.quectel.com/cn/support/sales.htm> for details.

If you need technical support or feedback on the problems in our technical documents, please log on to the website at any time:

[http:// www.quectel.com/cn/support/technical.htm](http://www.quectel.com/cn/support/technical.htm) or send an email to: support@quectel.com.

Legal Statement

The content of this document is provided to support the customer's product design. The customer must design the product according to the specifications and parameters provided in the document. At the same time, you understand and agree that the reference design provided by the mobile communication is only an example. You agree to use your independent analysis, assessment and judgment in the design of your target product. Please read this statement carefully before using any hardware software or services guided by this document. You hereby acknowledge and agree that, notwithstanding reasonable commercially-wide efforts to provide the best possible experience, this document and the services it involves are provided to you on an "as available" basis. This document may be added, modified or restated at any time in the sole discretion of the Company without prior notice.

Restrictions on Use and Disclosure

License Agreement

Unless specifically authorized by the mobile communication, the recipient of the hardware, software, materials and documents provided by us shall keep the content confidential and shall not use it for any purpose other than the implementation and development of this project.

COPYRIGHT NOTICE

Transfar Communication Products and third-party products under this Agreement may contain relevant information that is protected by the copyright of Transfar Communication or third-party materials, hardware, software and documentation. You may not, without prior written consent, obtain, use, disclose to third parties the documents and information provided by us, or copy, reprint, plagiarize, publish, display, translate, distribute, combine, modify, or create derivative works of such copyrighted material. Remote Communication or third parties have exclusive rights to the copyrighted material and do not grant or assign any licenses to patents, copyrights, trademarks or service trademarks. For the avoidance of doubt, other than the normal non-exclusive, royalty-free license to use the product, no purchase of any kind shall be deemed to have been granted. For any violation of the obligation of confidentiality, unauthorized use or other illegal forms of malicious use of the documents and information illegal infringement, remote communication has the right to pursue legal responsibility.

Trademark

Except as otherwise provided, nothing in this document grants the right to use any of the trademarks, trade names and names, or abbreviations thereof, or imitations thereof, of the Company or third parties in advertising, publicity or otherwise.

Rights of Third Parties

You understand that this document may refer to one or more hardware software and documentation belonging to third parties ("Third Party Materials"). Your use of such Third Party Materials shall be subject to all limitations and obligations of this document.

Transmit Communication makes no warranties or representations, express or implied, with respect to third-party materials, including, without limitation, any implied or statutory warranties of merchantability or

fitness for a particular purpose, quiet benefits, system integration, accuracy of information, and non-infringement of any third-party intellectual property rights in connection with the Licensed Technology or Licensee's use of the Licensed Technology. Nothing in this Agreement shall constitute a representation or warranty of the development, enhancement, modification, distribution, marketing, sale, offering for sale or otherwise maintaining production of any of the products or any other hardware, software, equipment, tools, information or products. In addition, Remote Communication is exempt from any and all warranties arising from the course of transaction, use or trade.

Privacy Statement

In order to realize the function of mobile communication products, specific equipment data will be uploaded to mobile communication or third party servers (including operators, chip suppliers or servers designated by you). In strict compliance with relevant laws and regulations, the relevant data is retained, used, disclosed or otherwise processed only for the purpose of realizing the function of the product or as permitted by applicable law. Before you interact with third parties, please understand their privacy and data security policies.

Disclaimer

- 1) Transfar Communication shall not be liable for any damage caused by failure to comply with the relevant operating or design specifications.
- 2) Mentor does not assume any liability arising from any inaccuracies, omissions, or use of the information in this document.
- 3) Transfar Communication strives to ensure the completeness, accuracy and timeliness of the functions under development, but does not rule out the possibility of errors or omissions in the above functions. Except as otherwise agreed, Remote Communication makes no implied or statutory warranties as to the use of features in the development. To the fullest extent permitted by applicable law, Remote Communication shall not be liable for any damage suffered as a result of the use of the feature in development, whether or not such damage was foreseeable.
- 4) Transfar does not assume any legal responsibility for the accessibility, security, accuracy, availability, legality and completeness of information, content, advertising, commercial offers, products, services and materials on third-party websites and third-party resources.

All rights reserved ©Shanghai mobile communication technology co., ltd. 2025, all rights reserved.

Copyright©Quectel Wireless Solutions Co., Ltd. 2025.

Document History

Revision Record

Version	Date	Author	Change Expression
-	2025-03-11	Qinming PENG/ Shea LI/ Riva REN/ Aria CHU	Document Creation
1.0	2025-03-11	Qinming PENG/ Shea LI/ Riva REN/ Aria CHU	Controlled version

QUEE

www.quectel.com