



# SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: ZEWM2306000841RG03  
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## TEST REPORT

**Application No.:** ZEWM2306000841RG  
**Applicant:** Quectel Wireless Solutions Co., Ltd.  
**Address of Applicant:** Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233  
**Manufacturer:** Quectel Wireless Solutions Co., Ltd.  
**Address of Manufacturer:** Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233  
**EUT Description:** 5G Sub-6 GHz M.2 Module  
**Model No.:** RM520N-GL  
**Trade Mark:** Quectel  
**FCC ID:** XMR2023RM520NGL  
**Standards:** 47 CFR Part 96.47  
**Date of Receipt:** 2022/05/15  
**Date of Test:** 2022/05/22 to 2022/07/27 (for original report KSCR220700130701)  
2022/08/22 to 2022/08/27 (for original report KSCR220700130702)  
**Date of Issue:** 2023/07/06

|                      |               |
|----------------------|---------------|
| <b>Test Result :</b> | <b>PASS *</b> |
|----------------------|---------------|

\* In the configuration tested, the EUT detailed in this report complied with the standards specified above.

Authorized Signature:

Ervin Li  
Regulatory Manager



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## 1 Version

| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2023/07/06 |          | Original |

|             |                             |
|-------------|-----------------------------|
| Prepared By | Dee.Zheng                   |
|             | (Dee Zheng) / Test Engineer |
| Checked By  | Daniel Wang                 |
|             | (Daniel Wang) / Reviewer    |



SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch / 深圳分公司 / 检验检测专用章  
Inspection & Testing Services

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## 2 Test Summary

| Test Item                              | FCC Rule No. | Test Result                                                | Verdict |
|----------------------------------------|--------------|------------------------------------------------------------|---------|
| End User Device additional requirement | §96.47       | Reference report<br>KSCR220700130701 &<br>KSCR220700130702 | Pass    |

### Remark:

This test report (Report No.: ZEWM2306000841RG03 issue on 2023/07/06) is based on the original test report (Report No.: KSCR220700130701 issue on 2022/07/27 and KSCR220700130702 issue on 2022/08/29).

Review this report and original report, this report just changing the parts according to the declaration letter from client.

Considering to the difference, pre-scan were performed on the sample in this report to find the items which can be influential to the result in the original test report for fully retest.

Therefore in this report all items do not need to retest and other items data please refer to the test report KSCR220700130701 and KSCR220700130702. The FCC ID is XMR2022RM520NGL has been certified, and the test report issued by Compliance Certification Services (Kunshan) Inc. on 2022/07/27 and 2022/08/29.



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## 3 General Information

### 3.1 Details of Client

|                          |                                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Applicant:               | Quectel Wireless Solutions Co., Ltd.                                                                                  |
| Address of Applicant:    | Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233 |
| Manufacturer:            | Quectel Wireless Solutions Co., Ltd.                                                                                  |
| Address of Manufacturer: | Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233 |

### 3.2 Test Location

|            |                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------|
| Company:   | SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch                                               |
| Address:   | No. 1 Workshop, M-10, Middle section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China |
| Post code: | 518057                                                                                                        |

### 3.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

• **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch has been recognized as an accredited testing laboratory.

Designation Number: CN1336.

Test Firm Registration Number: 787754



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## 3.4 General Description of EUT

|                                                                                                                                                                              |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| EUT Description:                                                                                                                                                             | 5G Sub-6 GHz M.2 Module                                                                              |
| Model No.:                                                                                                                                                                   | RM520N-GL                                                                                            |
| Trade Mark:                                                                                                                                                                  | Quectel                                                                                              |
| Hardware Version:                                                                                                                                                            | R1.0                                                                                                 |
| Software Version:                                                                                                                                                            | RM520NGLAAR03A01M4G                                                                                  |
| Antenna Type:                                                                                                                                                                | External Antenna                                                                                     |
| Transmitter Frequency Band:                                                                                                                                                  | LTE Band 48<br>LTE CA_48C<br>NR Band n48                                                             |
| Transmitter Frequency Range:                                                                                                                                                 | 3550 to 3700 MHz                                                                                     |
| Antenna Gain:                                                                                                                                                                | LTE Band 48: -6.1dBi                                                                                 |
|                                                                                                                                                                              | LTE CA_48C -6.1dBi                                                                                   |
|                                                                                                                                                                              | NR Band n48 -6.1dBi                                                                                  |
|                                                                                                                                                                              | Note:<br>The antenna gain are derived from the gain information report provided by the manufacturer. |
| Remark:<br>As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information. |                                                                                                      |



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## 3.5 Test Environment

| Environment Parameter                                                     | Selected Values During Tests |            |
|---------------------------------------------------------------------------|------------------------------|------------|
| Relative Humidity                                                         | 58.4 % RH Ambient            |            |
| Value                                                                     | Temperature(°C)              | Voltage(V) |
| NTNV                                                                      | 24.3                         | 3.7        |
| Remark:<br>NV: Normal Voltage                      NT: Normal Temperature |                              |            |

## 3.6 Description of Support Units

Please reference report KSCR220700130701 and KSCR220700130702.



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## 4 Description of Tests

### 4.1 End User Device additional requirement

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | FCC Part 96.47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Test Method:      | WINNF-18-IN-00178 CBRS End User Devices as UUT Test Guidelines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Requirement:      | <p>(a)End User Devices may operate only if they can positively receive and decode anauthorization signal transmitted by a CBSD, including the frequencies and power limits fortheir operation.</p> <p>(1)An End User Device must discontinue operations, change frequencies, or changeits operational power level within 10 seconds of receiving instructions from its associated CBSD.</p>                                                                                                                                                                                                                                                     |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. Setup with frequency 3550-3570MHz and power level 17dBm/MHz</li> <li>2. Enable AP service from Ruckus Cloud management</li> <li>3. Check EUD Tx Frequency and power</li> <li>4. Disable AP service from Ruckus Cloud management</li> <li>5. Check EUD stops transmission within 10seconds.</li> <li>6. Setup with 3590-3610MHz &amp; power level 13dBm/MHz</li> <li>7. Enable AP service from Ruckus Cloud management</li> <li>8. Check EUD Tx Frequency and power</li> <li>9. Disable AP service from Ruckus Cloud management</li> <li>10. Check EUD stops transmission within 10seconds.</li> </ol> |
| Test setup:       | <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an ATT (Attenuator). The ATT is connected to a Direct Coupler. The Direct Coupler is connected to a Companion Device and an EUT (End User Device).</p>                                                                                                                                                                                                                                                                                                                                                                                                           |
| Test Result:      | Please reference report KSCR220700130701 and KSCR220700130702.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



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## 5 Main Test Instruments

Please reference report KSCR220700130701 and KSCR220700130702.

## 6 Measurement Uncertainty

Please reference report KSCR220700130701 and KSCR220700130702.

## 7 Appendixes

|              |                                                                |
|--------------|----------------------------------------------------------------|
| Setup Photos | Please reference report KSCR220700130701 and KSCR220700130702. |
|--------------|----------------------------------------------------------------|

---End of Report---



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