FCC Part 96.47 TEST REPORT

FCC ID	:	**XMR2023RG500LNA**
Equipment	:	**5G Sub-6 GHz LGA Module**
Brand Name	:	**Quectel**
Model Name	:	**RG500L-NA**
Marketing Name	:	**Quectel RG500L-NA**
Applicant	:	**Quectel Wireless Solutions Co., Ltd. Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China**
Manufacturer	:	**Quectel Wireless Solutions Co., Ltd. Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China**
Standard	:	**FCC Part 96.47**
RF Interface	:	**5G NR n77/78**

The product was received on Mar. 23, 2023 and testing was performed from Mar. 30, 2023 to Mar. 31, 2023. We, Sporton International (USA) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (USA) Inc., the test report shall not be reproduced except in full.

Approved by: Lance Tang

Sporton International (USA) Inc.
1175 Montague Expressway, Milpitas, CA 95035

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History of this test report

Report No.	Version	Description	Issue Date
FG230326001	01	Initial issue of report	May 12, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3	96.47	End User Device additional requirement	Pass	-

Conformity Assessment Condition:
The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
Disclaimer:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz LGA Module
Brand Name	Quectel
Model Name	RG500L-NA
Marketing Name	Quectel RG500L-NA
FCC ID	XMR2023RG500LNA
EUT supports Radios application	LTE/5G NR/GNSS
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Modification of EUT

No modifications are made to the EUT during all test items.

1.3 Testing Laboratory

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL: (408) 904-3300
Test Site No.	**Sporton Site No.**
	TH01-CA
Test Engineer	Kaying Xiong
Temperature	17 ~ 23 ℃
Relative Humidity	38 ~ 45 %

FCC Designation No.: US1250

1.4 Applicable Standards

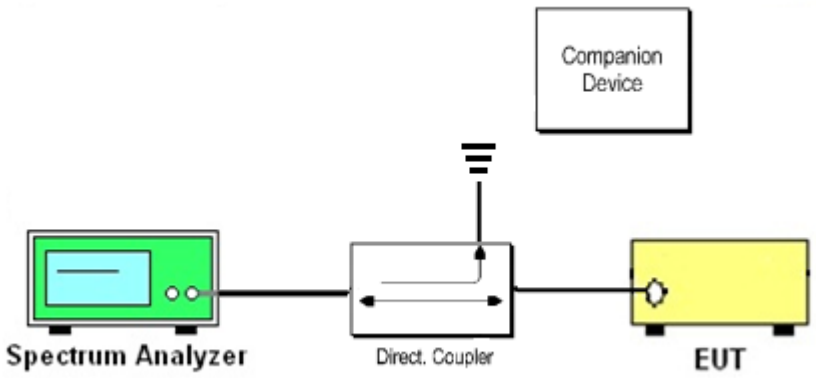
- FCC Part 96.47
- FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

Remark:

1. All test items are verified and recorded according to the standards without deviation during the test.
2. The FCC KDBs cited above are out of test laboratory's ISO 17025 accreditation scope.

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is a certified CBSD (FCC ID: PIDAS2900)

3 End User Device additional requirement

3.1 Test Requirement

FCC Part 96.47

(a) End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

(1) An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

3.2 Test Procedure

The following procedure is following in accordance with WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, using the certified Ruckus CBSD (FCC ID: PIDAS2900) as a companion device to present compliance with Part 96.47 requirements for End User Device (EUD):

5G NR n77/78

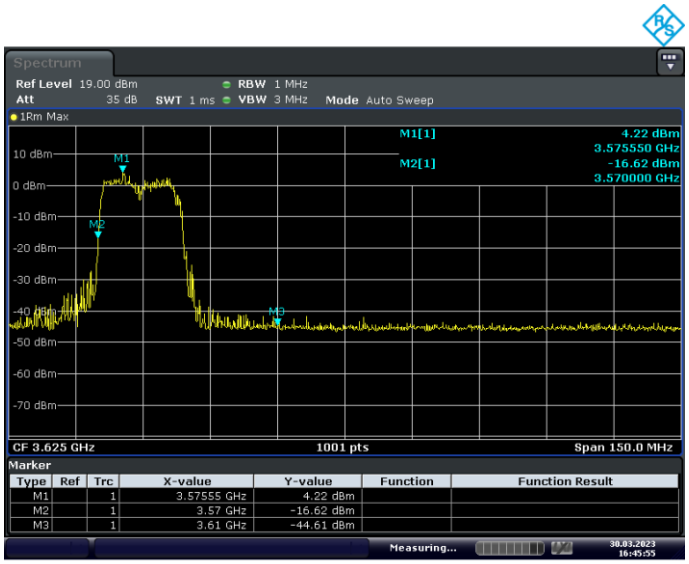
1. Configure SAS granted CBSD to operate at frequency 3570-3610MHz and power level 30 dBm/MHz
2. Enable CBSD service from Airspan ACP management
3. Check EUD Tx Frequency and power
4. Disable CBSD service from Airspan ACP management
    a. Check if EUD stops transmission within 10seconds.

5. Configure SAS granted CBSD to operate at frequency 3650-3690MHz and power level 20 dBm/MHz
6. Enable CBSD service from Airspan ACP management
7. Check EUD Tx Frequency and power
8. Disable CBSD service from Airspan ACP management
    a. Check if EUD stops transmission within 10seconds.

3.3 Test Result

3.3.1 5G NR n77

[Step 1] Configure SAS granted CBSD to operate at frequency 3570-3610MHz and power level 30 dBm/MHz
[Step 3] Check EUD Tx Frequency and power

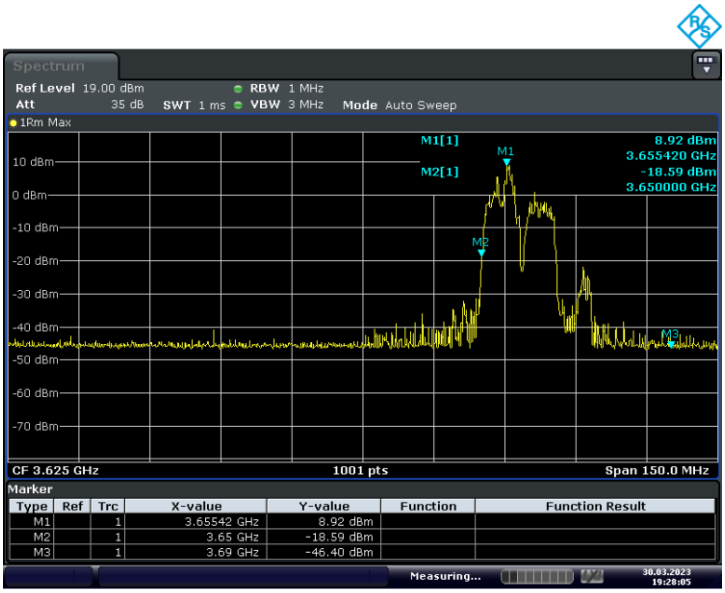


Date: 30.MAR.2023 16:45:56

[Step 4.a.] EUD stops transmission within 10 seconds right after receiving instructions from its associated CBSD.

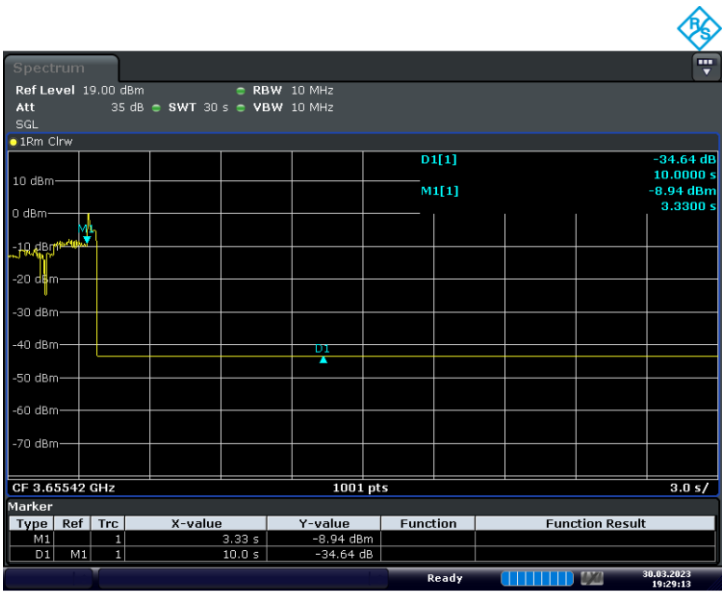
Date: 30.MAR.2023 17:02:53

[Step 1] Configure SAS granted CBSD to operate at frequency 3650-3690MHz and power level 20 dBm/MHz
[Step 7] Check EUD Tx Frequency and power



Date: 30.MAR.2023 19:28:06

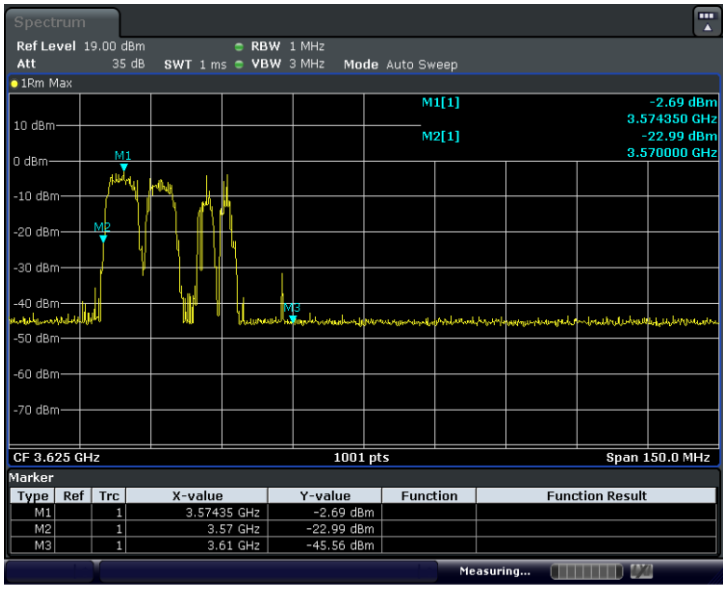
[Step 8.a.] After changing the frequency and power level, The EUD discontinues operating, changes frequencies, or changes its operational power level within 10 seconds right after receiving instructions from its associated CBSD. Test result is a PASS.



Date: 30.MAR.2023 19:29:14

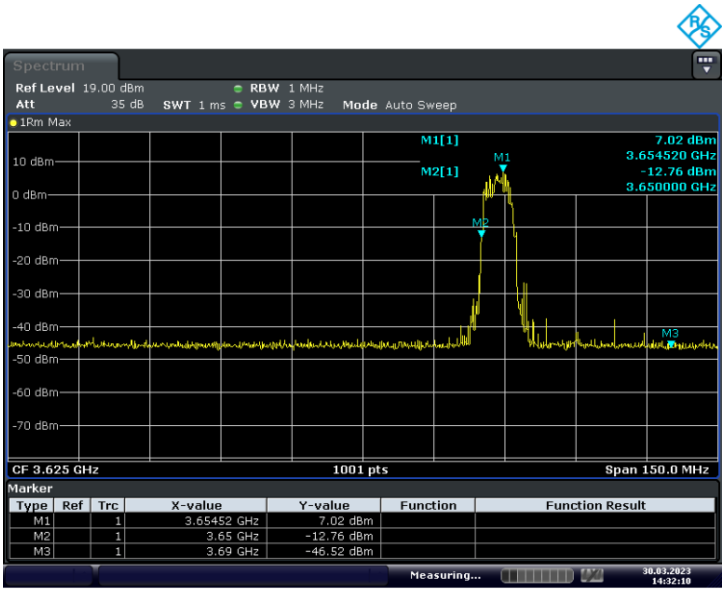
3.3.2 5G NR n78

Configure SAS granted CBSD to operate at frequency 3570-3610MHz and power level 30 dBm/MHz
[Step 3] Check EUD Tx Frequency and power



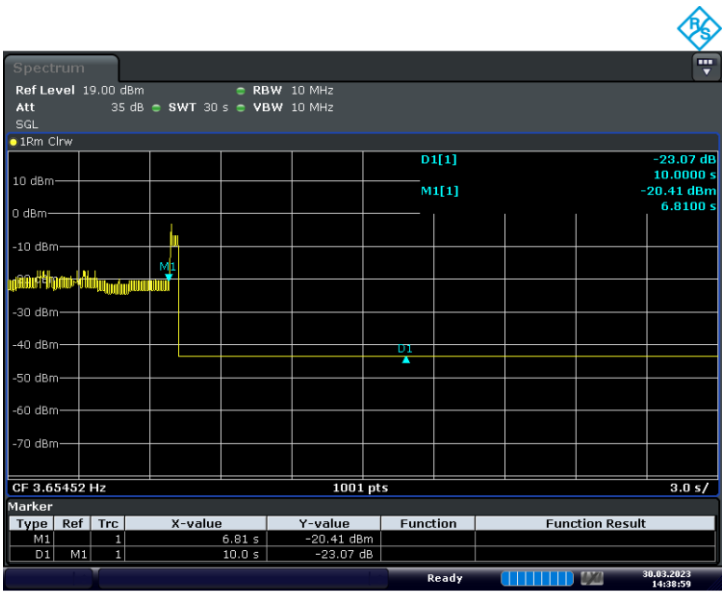
[Step 4.a.] EUD stops transmission within 10 seconds right after receiving instructions from its associated CBSD.

[Step 5] Configure SAS granted CBSD to operate at frequency 3650-3690MHz and power level 20 dBm/MHz
[Step 7] Check EUD Tx Frequency and power



Date: 30.MAR.2023 14:32:10

[Step 8.a.] After changing the frequency and power level, The EUD discontinues operating, changes frequencies, or changes its operational power level within 10 seconds right after receiving instructions from its associated CBSD. Test result is a PASS.



Date: 30.MAR.2023 14:38:59

4 Measuring Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSv40	101545	10Hz~40GHz	May 31, 2022	Mar. 30, 2023~ Mar. 31, 2023~	May 30, 2023	TH01-CA