FCC Part 96.47 TEST REPORT

FCC ID	:	**N7NEM92**
Equipment	:	**Wireless Module**
Brand Name	:	**AirPrime**
Model Name	:	**EM9293**
Applicant	:	**Sierra Wireless, ULC** **13811 Wireless Way, Richmond, BC V6V 3A4 Canada**
Manufacturer	:	**Sierra Wireless, ULC** **13811 Wireless Way, Richmond, BC V6V 3A4 Canada**
Standard	:	**FCC Part 96.47**
RF Interface	:	**5G FR1 n48/77/78**

The product was received on Apr. 24, 2023 and testing was performed from Apr. 27, 2023 to Apr. 28, 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: Abi Lin

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History of this test report

Report No.	Version	Description	Issue Date
FG230420003	01	Initial issue of report	Sep. 07, 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
General Specs WCDMA/LTE/5G NR and GNSS. **Antenna Type** WWAN: Dipole Antenna GPS / Glonass / BDS / Galileo: Dipole Antenna

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	David Hung, Kaying Xiong
Temperature	20~24 ℃
Relative Humidity	43~47 %

FCC Designation No.: US1250

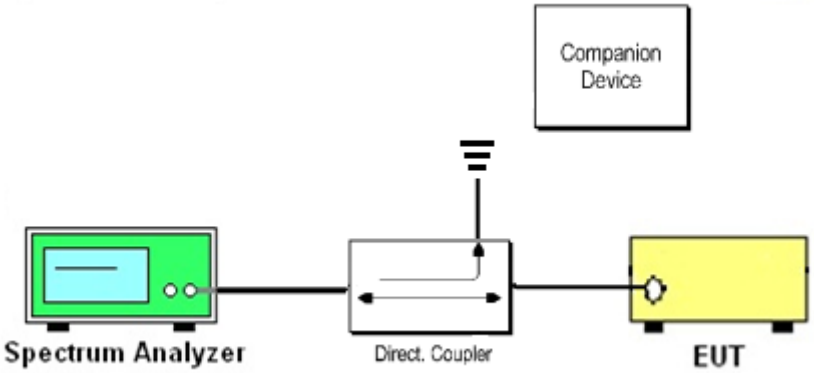
1.4 Applicable Standards

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

Remark: All test items are verified and recorded according to the standards without deviation during the test.

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is certified NR 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 test procedure are followed in accordance with WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified Airspan NR CBSD (FCC ID: PIDAS2900) as a companion device to ensure End User Device (EUD) is in compliance with Part 96.47 requirements:

5G NR n48

Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 20 dBm/MHz

1. Enable CBSD service from Airspan ACP management
2. Check EUD Tx Frequency and power
3. Disable CBSD service from Airspan ACP management.
    a. Check if EUD stops transmission within 10seconds.

4. Configure SAS granted CBSD to operate at frequency 3670-3690MHz and power level 30 dBm/MHz
5. Enable CBSD service from Airspan ACP management
6. Check EUD Tx Frequency and power
7. Disable CBSD service from Airspan ACP management
    a. Check if EUD stops transmission within 10 seconds.

5G NR n77

Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 30 dBm/MHz

8. Enable CBSD service from Airspan ACP management
9. Check EUD Tx Frequency and power
10. Disable CBSD service from Airspan ACP management.
    a. Check if EUD stops transmission within 10seconds.

11. Configure SAS granted CBSD to operate at frequency 3670-3690MHz and power level 20 dBm/MHz
12. Enable CBSD service from Airspan ACP management
13. Check EUD Tx Frequency and power
14. Disable CBSD service from Airspan ACP management
    a. Check if EUD stops transmission within 10 seconds.

5G NR n78

Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 20 dBm/MHz

15. Enable CBSD service from Airspan ACP management
16. Check EUD Tx Frequency and power
17. Disable CBSD service from Airspan ACP management.
    a. Check if EUD stops transmission within 10seconds.

18. Configure SAS granted CBSD to operate at frequency 3670-3690MHz and power level 30 dBm/MHz
19. Enable CBSD service from Airspan ACP management
20. Check EUD Tx Frequency and power
21. Disable CBSD service from Airspan ACP management
    a. Check if EUD stops transmission within 10 seconds.

3.2.1 5G NR n48

[Step 1] Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 20 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 3670-3690MHz and power level 30 dBm/MHz
[Step 7] Check EUD Tx Frequency and power

14:32:28 27.04.2023

[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.

14:35:20 27.04.2023

3.2.2 5G NR n77

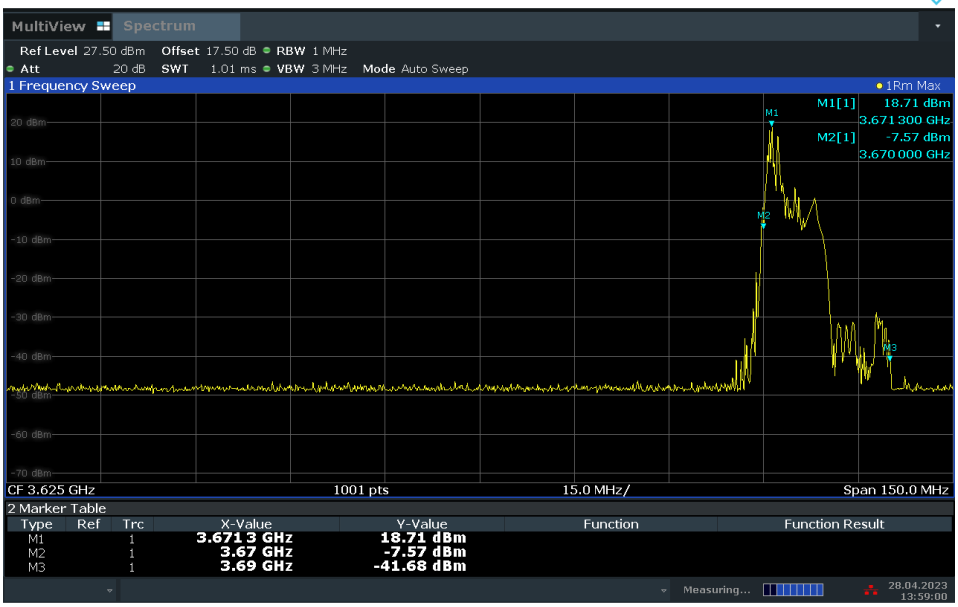
[Step 1] Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 30 dBm/MHz
[Step 3] Check EUD Tx Frequency and power

14:54:57 28.04.2023

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

14:56:40 28.04.2023

[Step 1] Configure SAS granted CBSD to operate at frequency 3670-3690MHz and power level 20 dBm/MHz
[Step 7] Check EUD Tx Frequency and power



13:59:01 28.04.2023

[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.

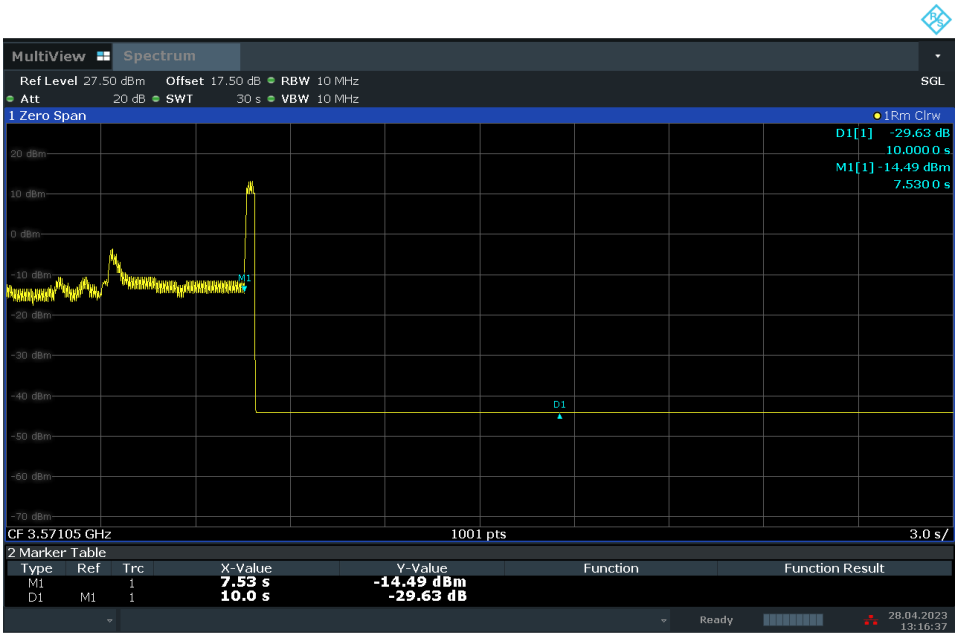
14:01:56 28.04.2023

3.2.3 5G NR n78

Configure SAS granted CBSD to operate at frequency 3570-3590MHz and power level 20 dBm/MHz
[Step 3] Check EUD Tx Frequency and power

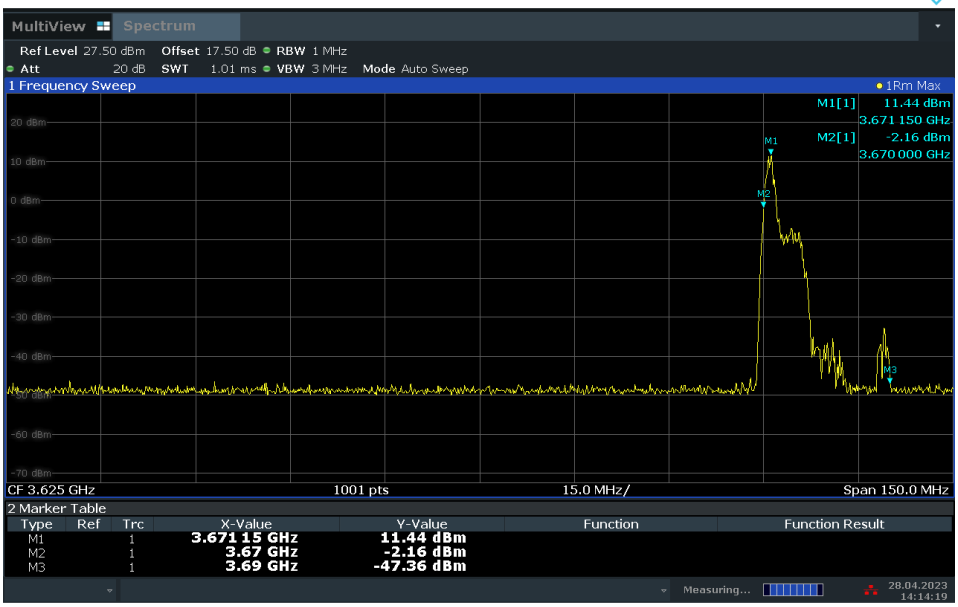
11:44:29 28.04.2023

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



13:16:38 28.04.2023

[Step 5] Configure SAS granted CBSD to operate at frequency 3650-3690MHz and power level 30 dBm/MHz
[Step 7] Check EUD Tx Frequency and power



14:14:20 28.04.2023

[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.

14:28:59 28.04.2023

4 Measuring Equipment List

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSW43	104042	2Hz~43GHz	Dec. 11, 2022	Apr. 27, 2023~ Apr. 28, 2023	Dec. 10, 2023	Conducted (TH01-CA)

————THE END————