

FCC RADIO TEST REPORT

FCC ID : N7NEM75S
Equipment : Radio Module
Brand Name : AirPrime
Model Name : EM7511
Applicant : Sierra Wireless Inc.
13811 Wireless Way Richmond, BC Canada V6V 3A4
Manufacturer : Sierra Wireless Inc.
13811 Wireless Way Richmond, BC Canada V6V 3A4
Standard : FCC Part 96.47

The product was received on Sep. 14, 2018. We, SPORTON INTERNATIONAL 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
1 General Description	4
1.1 Product Feature of Equipment Under Test	4
1.2 Modification of EUT	4
Appendix A. Original Report	



History of this test report

Report No.	Version	Description	Issued Date
FG8N1907A	01	Initial issue of report	Nov. 27, 2018

Declaration of Conformity:

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Comments and Explanations:

None

Reviewed by: William Chen

Report Producer: Yimin Ho



1 General Description

1.1 Product Feature of Equipment Under Test

EM7511 is a radio module supporting WCDMA/LTE operation.

Remark: This report, EM7511, leverages from the model, EM7565 (FCC ID: N7NEM75, report no: FG791919-01A), based on product equality document as detailed in the filing package.

1.2 Modification of EUT

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



Appendix A. Original Report

Please refer to Sporton report number FG791919-01A as below.



FCC Part 96.47 TEST REPORT

FCC ID : N7NEM75
Equipment : Radio Module
Brand Name : AirPrime
Model Name : EM7565
Applicant : Sierra Wireless Inc.
Standard : FCC Part 96.47

The product was received on Sep. 14, 2018 and testing was started from Sep. 20, 2018 and completed on Sep. 20, 2018. We, SPORTON INTERNATIONAL 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Modification of EUT	5
1.3 Testing Location	5
1.4 Applicable Standards.....	5
2 Test Configuration of Equipment Under Test	6
2.1 Connection Diagram of Test System.....	6
3 End User Device additional requirement	7
3.1 Test Requirement	7
3.2 Test Procedure	7
3.3 Test Result.....	8
4 List of Measuring Equipment.....	10
Appendix A. Test Setup Photo	



History of this test report

Report No.	Version	Description	Issued Date
FG791919-01	01	Initial issue of report	Sep. 28, 2018



Summary of Test Result

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

Reviewed by: William Chen

Report Producer: Dara Chiu



1 General Description

1.1 Product Feature of Equipment Under Test

EM7656 is a radio module supporting WCDMA/LTE operation.

1.2 Modification of EUT

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

1.3 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No.
	DFS02-HY

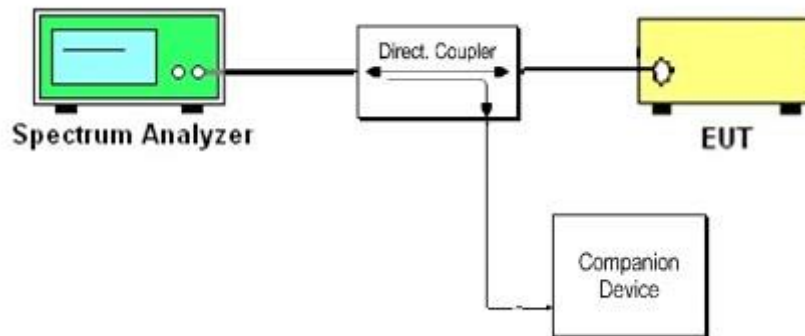
1.4 Applicable Standards

- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v01
- ♦ WINNF-TS-0122-V1.0.0 CBRS CBSD Test Specification

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

2 Test Configuration of Equipment Under Test

2.1 Connection Diagram of Test System



The companion device is certified CBRS (FCC ID: S9GQ710US00).

Where the Companion Device connection with EUT is by radiated method.



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

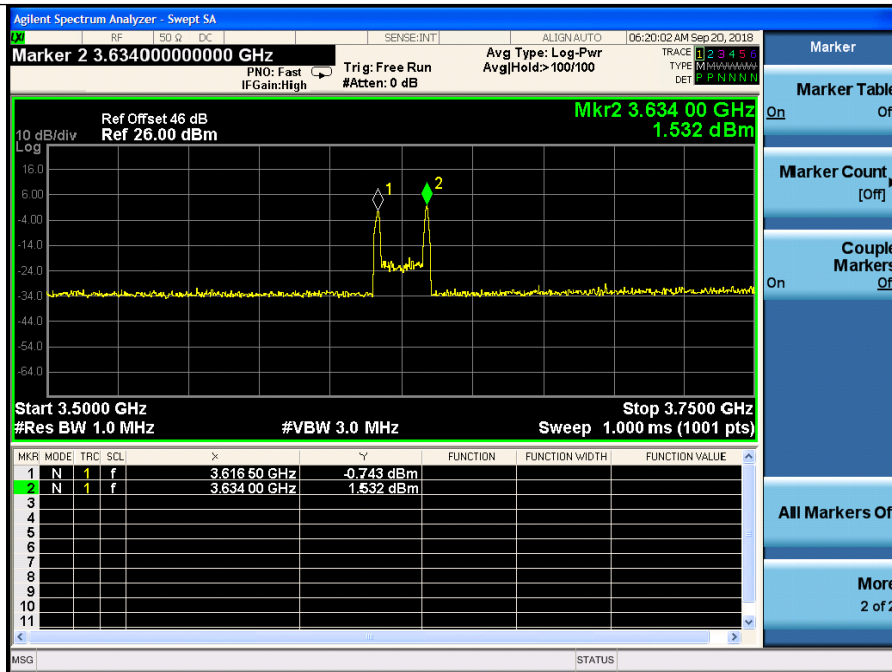
Following procedure can be done by applying WINNF-TS-0122-V1.0.0 CBRS CBSD Test Specification, use the certified Ruckus CBSD (FCC ID: S9GQ910US00) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

1. Setup WINNF.PT.C.HBT.1 with 3615-3635MHz & power level 13dBm/MHz
2. Enable AP service (CBSD) from Ruckus Cloud management
3. Check EUD Tx Frequency and power
4. Disable AP service from Ruckus Cloud management (which means Cloud stop serving this EUD)
 - a. Check EUD stops transmission within 10seconds
5. Setup WINNF.PT.C.HBT.1 with 3665-3685 MHz & power level 8dBm/MHz
6. Enable AP service (CBSD) from Ruckus Cloud management
7. Check EUD Tx Frequency and power
8. Disable AP service from Ruckus Cloud management (which means Cloud stop serving this EUD).
 - a. Check EUD stops transmission within 10seconds

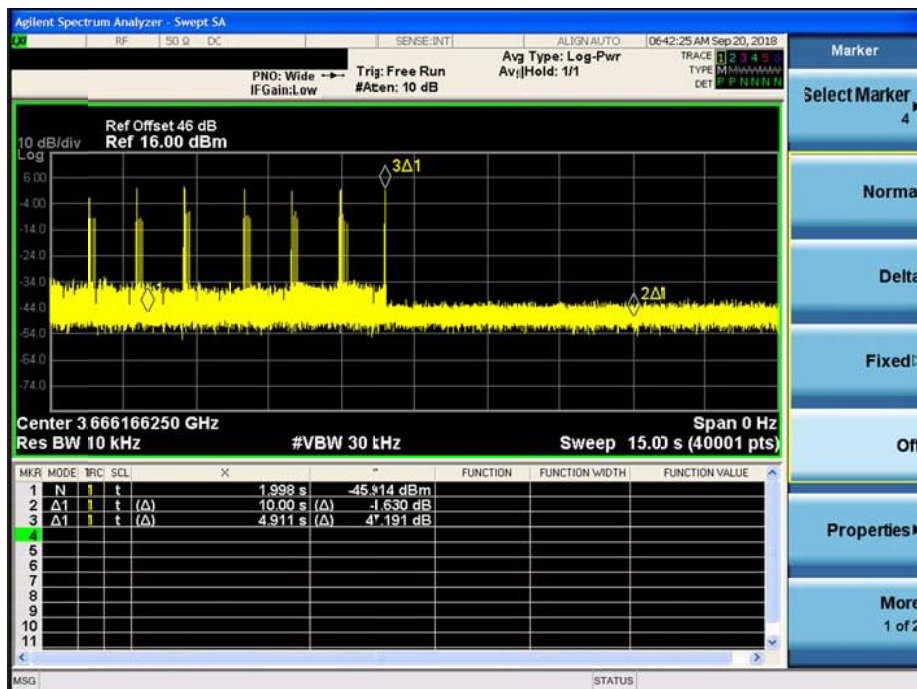
3.3 Test Result

[Step 1] Setup with frequency 3615-3635MHz and power level 13dBm/MHz

[Step 3] Check EUD Tx Frequency and power

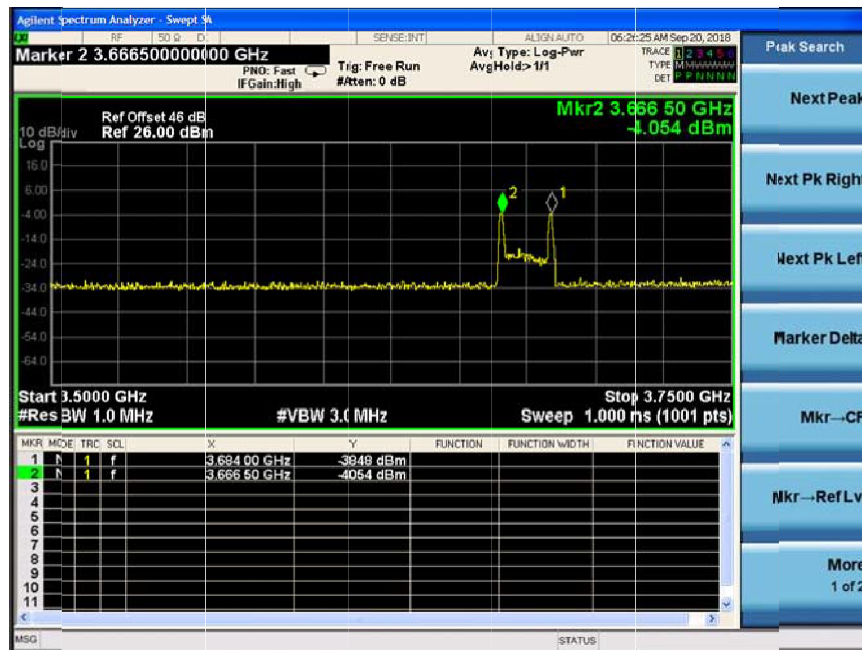


[Step 4.a.] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.

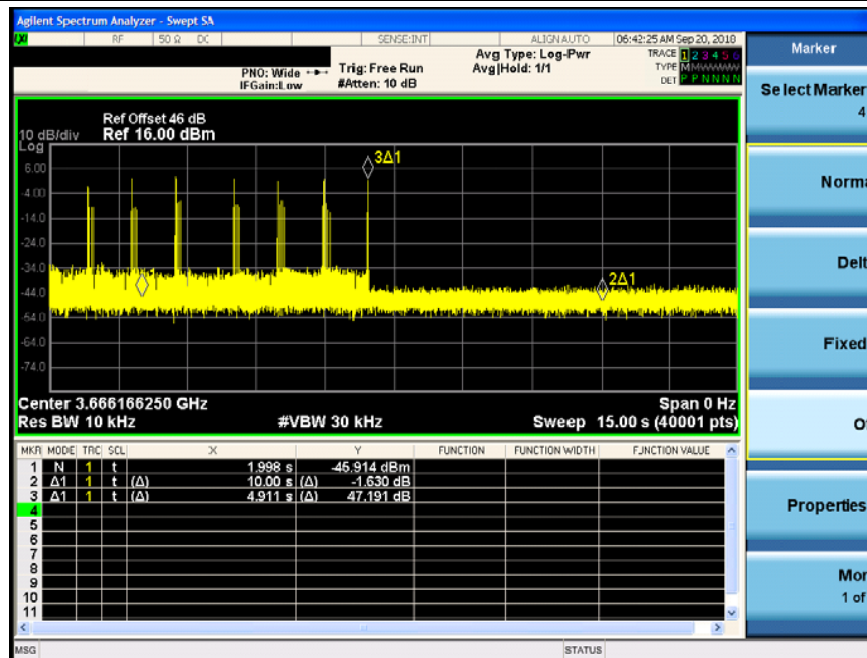


[Step 5] Setup with 3665-3685MHz & power level 8dB /MHz

[Step 7] Check EUD Tx Frequency and power



[Step 8.a.] After changing the frequency and power level, the module (EUT) discontinues operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD. Test result is PASS.





4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY53470118	10Hz ~ 44GHz	Apr. 17, 2018	Sep. 20, 2018	Apr. 16, 2019	DFS02-HY