

Test report No:
 NIE: 2993CRCB.001A2

Test report

Test and Certification for FCC Rules and Regulations CFR 47, Part 96.47

Identification of item tested	EM7411 wireless module
Trademark	AirPrime
Model and /or type reference	EM7411
Other identification of the product	N/A
Features	--
Final HW tw :	1.0
Final SW Version:	SWI9X50C_01.13.02.00
Manufacturer	SIERRA WIRELESS, INC. 13811 Wireless Way, Richmond, BC, Canada V6V 3A4 Canada.
Test method requested, standard	FCC Rules and Regulations CFR 47, Part 96.47
Summary	In Compliance
Approved by (name / position & signature)	Gonzalo Casado Lab Manager 
Date of issue	2020-Dec-08
Report template No	FDT08_22

Index

Competences and guarantees	3
General conditions.....	3
Abbreviations.....	4
Usage of samples.....	4
Identification of the client.....	4
Testing period and place.....	4
Document history	5
Remarks and comments	5
Testing verdicts.....	5
Summary	5
Test Procedure	5
List of equipment used during the test	7
Test Setup Diagram	7
Appendix A: Test Results Screenshots.....	8

Competences and guarantees

DEKRA Certification Inc. is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Certification has a calibration and maintenance program for its measurement equipment.

DEKRA Certification guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Certification at the time of performance of the test.

DEKRA Certification is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA Certification.

General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Certification.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Certification and the Accreditation Bodies.

Abbreviations

Abbreviation	Meaning
CBRS	Citizens Broadband Radio Services
CBSD	Citizens Broadband Radio Service Device
DP	Domain Proxy
DUT	Device Under Test
SAS	Spectrum Access System
UUT	Unit Under Test
CPI	Certified Professional Installer
N/A	Not Applicable

Usage of samples

Samples undergoing test have been selected by the client

Sample M/01 is composed of the following elements:

Control N°	Description	Model	IMEI	Date of reception
2993B.01	Sierra Wireless Module	EM7411	356280110001169	09/01/2020
2993B.02	Antenna 1	-	-	09/01/2020
2993B.03	Antenna 2	-	-	09/01/2020

1. Sample M/01 has undergone the test(s) specified in subclause “Test method requested”.

Identification of the client

Dekra Testing and Certification Co., LTD
Nr. 159, Sec. 2, Wenhua 1st Road, Linkou Dist.
NEW TAIPEI COUNTY, TAIWAN

Testing period and place

Test Location	DEKRA Certification Inc 405 Glenn Drive, Suite 12, Sterling, Virginia, USA, 20164
Date (start)	2020-09-24
Date (finish)	2020-09-25

Document history

Report number	Date	Description
2993CRCB.001	2020-Nov-19	First release
2993CRCB.001A1	2020-Dec-07	Second Release. Removed document watermark
2993CRCB.001A2	2020-Dec-08	Third Release. Removed DUT photos due to confidentiality

Remarks and comments

Testing performed by Pallavi Mantro

Testing verdicts

Not applicable	:	N/A
Pass	:	P
Fail	:	F
Not measured	:	N/M

Summary

Report Section	Part 96. Spec Clause	Requirement – Test case	Verdict	Remark
A.1.	§ 96.47 (a)	End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD	P	N/A
A.2	§ 96.47 (a) (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.	P	N/A

Test Procedure

Test procedure described in document WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines has been used as a reference. The below test steps have been executed as part of this activity:

1. Set CBSD to not transmit
2. Turn DUT on, verify during 300seconds that DUT doesn't transmit
3. Set CBSD to transmit in 3600-3620MHz band with a power level of 0dB/MHz
4. Reboot DUT
5. Verify DUT Transmit frequency and Power Level
6. Disable CBSD transmission

7. Verify DUT stops transmitting within 10s
8. Set CBSD to transmit in 3650-3660MHz band with a power level of 37dB/MHz
9. Verify DUT Transmit frequency and Power Level

List of equipment used during the test

Description	Model	Control Number	SW Version
Signal Analyzer	MXAN9020A	018	-
Test SAS Harness	N/A	N/A	V1.0.3
CBSD	Airspan 1000	1319	1.0

Test Setup Diagram

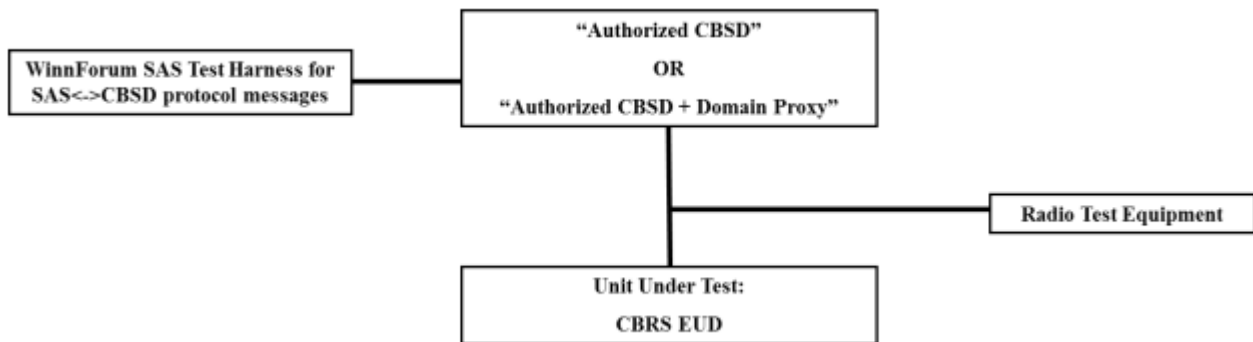


Figure 1: Test Setup

Appendix A: Test Results Screenshots

- 1. § 96.47 (a)
 - 1.1. Step 2:

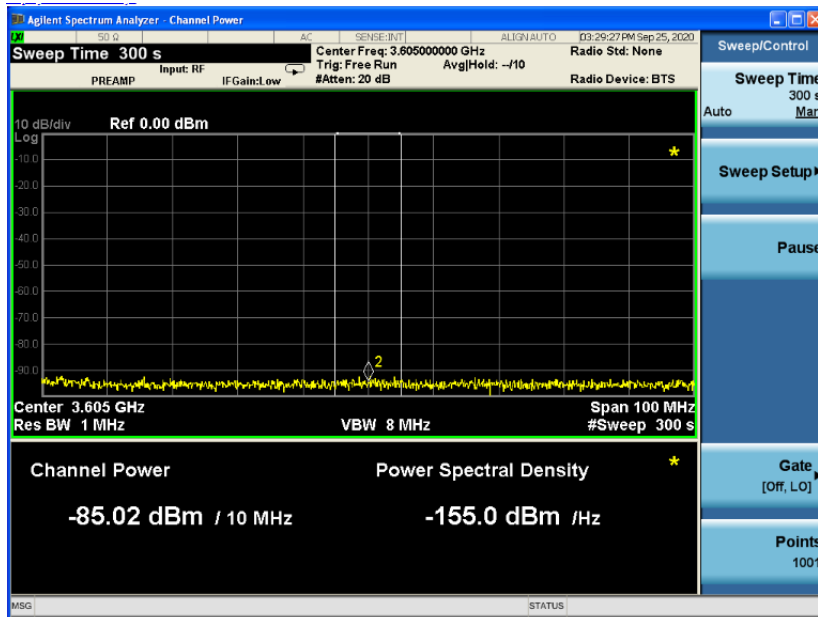


Figure 2: Signal Analyzer Screenshot showing DUT is not transmitting

- 2. § 96.47 (a) (1)
 - 2.1. Test Procedure Step 5:

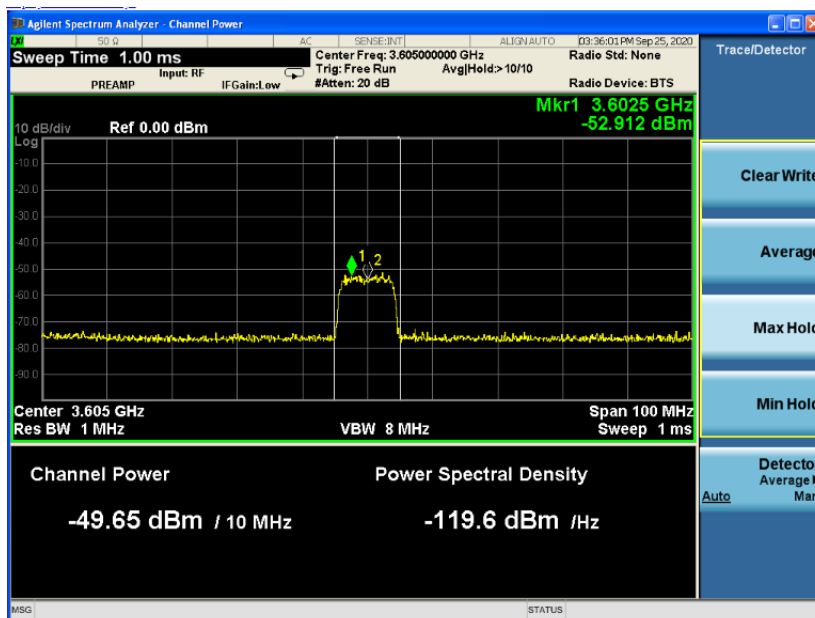


Figure 3: Signal Analyzer Screenshot showing DUT frequency and power level aligned with CBSD info

2.2. Test Procedure Step 7:

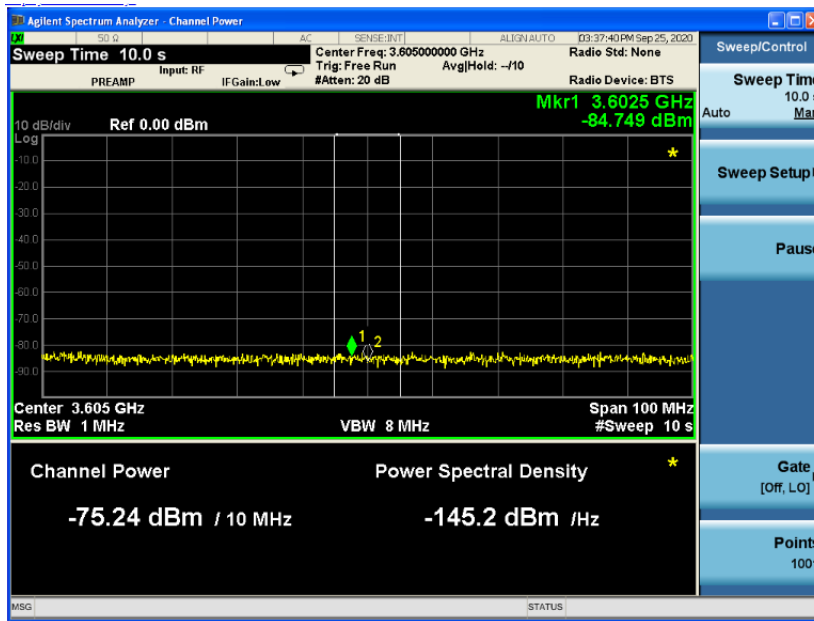


Figure 4: Signal Analyzer Screenshot showing DUT stops transmission within 10 seconds after disabling the CBSD service

2.3. Test Procedure Step 9:

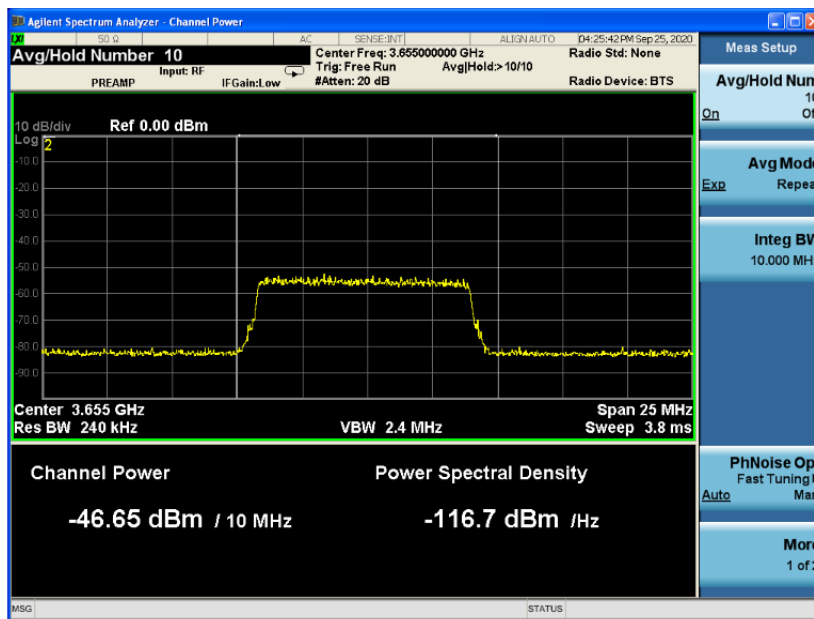


Figure 5: Signal Analyzer Screenshot showing DUT frequency and power level aligned with updated CBSD info

