

MEASUREMENT REPORT

FCC PART 96.47 (a)

FCC ID: ZMOSC138NA

Application: Fibocom Wireless Inc.

Application Type: Certification

Product: LTE Module

Model No.: SC138-NA

Brand Name: Fibocom

FCC Rule Part(s): Part 96.47 (a)

Test Procedure(s): KDB 940660 D01v03

Test Date: December 09, 2021

Reviewed By:

Sunny Sun

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 940660. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2111RSU074-U1	Rev. 01	Initial Report	12-16-2021	Valid

CONTENTS

Description	Page
1. GENERAL INFORMATION	4
1.1. Applicant	4
1.2. Manufacturer	4
1.3. Testing Facility.....	4
1.4. Product Information	5
1.5. Test Methodology	5
1.6. EMI Suppression Device(s)/Modifications.....	5
1.7. Test Environment Condition.....	5
2. TEST EQUIPMENT CALIBRATION DATE.....	6
3. TEST RESULT	7
3.1. Summary.....	7
3.2. End User Device Additional Requirement (CBSD Protocol).....	8
3.2.1. Test Limit.....	8
3.2.2. Test Procedure.....	8
3.2.3. Test Setting	8
3.2.4. Test Result	9
4. CONCLUSION	11

1. GENERAL INFORMATION

1.1. Applicant

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

1.2. Manufacturer

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

1.3. Testing Facility

<input checked="" type="checkbox"/>	Test Site – MRT Suzhou Laboratory
	Laboratory Location (Suzhou - Wuzhong)
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
	Laboratory Location (Suzhou - SIP)
	4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
	Laboratory Accreditations
	A2LA: 3628.01 CNAS: L10551
	FCC: CN1166 ISED: CN0001
	VCCI: <input type="checkbox"/> R-20025 <input type="checkbox"/> G-20034 <input type="checkbox"/> C-20020 <input type="checkbox"/> T-20020
	<input type="checkbox"/> R-20141 <input type="checkbox"/> G-20134 <input type="checkbox"/> C-20103 <input type="checkbox"/> T-20104
<input type="checkbox"/>	Test Site – MRT Shenzhen Laboratory
	Laboratory Location (Shenzhen)
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China
	Laboratory Accreditations
	A2LA: 3628.02 CNAS: L10551
	FCC: CN1284 ISED: CN0105
<input type="checkbox"/>	Test Site – MRT Taiwan Laboratory
	Laboratory Location (Taiwan)
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	Laboratory Accreditations
	TAF: L3261-190725
	FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	LTE Module
Model No.	SC138-NA
Brand Name	Fibocom
IMEI	866280050002741 & 866280050003962
Power Type	3.5 ~ 4.2Vdc, typical 3.8Vdc
E-UTRA Specification under Test	
Frequency Range	TDD Band 48: 3550 ~ 3700 MHz
Device Type	End User Device
Modulation	Uplink up to 64QAM, Downlink up to 64QAM
Antenna Type	PIFA
Note:	
1. For other features of this EUT, test report will be issued separately. 2. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.	

1.5. Test Methodology

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC CFR 47 Part 96
- FCC KDB KDB 940660 D01v03 for CBRS
- WINNF-TS-0122 V1.0.0: Test and Certification for Citizens Broadband Radio Service (CBRS); Conformance and Performance Test Technical Specification; CBSD/DP as Unit Under Test (UUT)

1.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

1.7. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~ 75 %RH

2. TEST EQUIPMENT CALIBRATION DATE

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2022/2/25	WZ-SR6
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	/	/	WZ-SR6
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2022/10/10	WZ-SR6

3. TEST RESULT

3.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
96.47	End User Device Additional Requirements (CBSD Protocol)	Refer to section 4.2	Conducted	Pass	Section 4.2
<p>Note: The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.</p>					

3.2. End User Device Additional Requirement (CBSD Protocol)

3.2.1. Test Limit

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.

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.

3.2.2. Test Procedure

KDB 940660 D01 v03, WINNF-TS-0122 V1.0.0

3.2.3. Test Setting

The EUT was connected via an RF cable to a certified CBSD (Ruckus Wireless, Inc. FCC ID: S9GQ910US00) and spectrum analyzer. The following procedure is performed by applying WINNF-TS-0122 CBRS Test Specification.

Step 1:

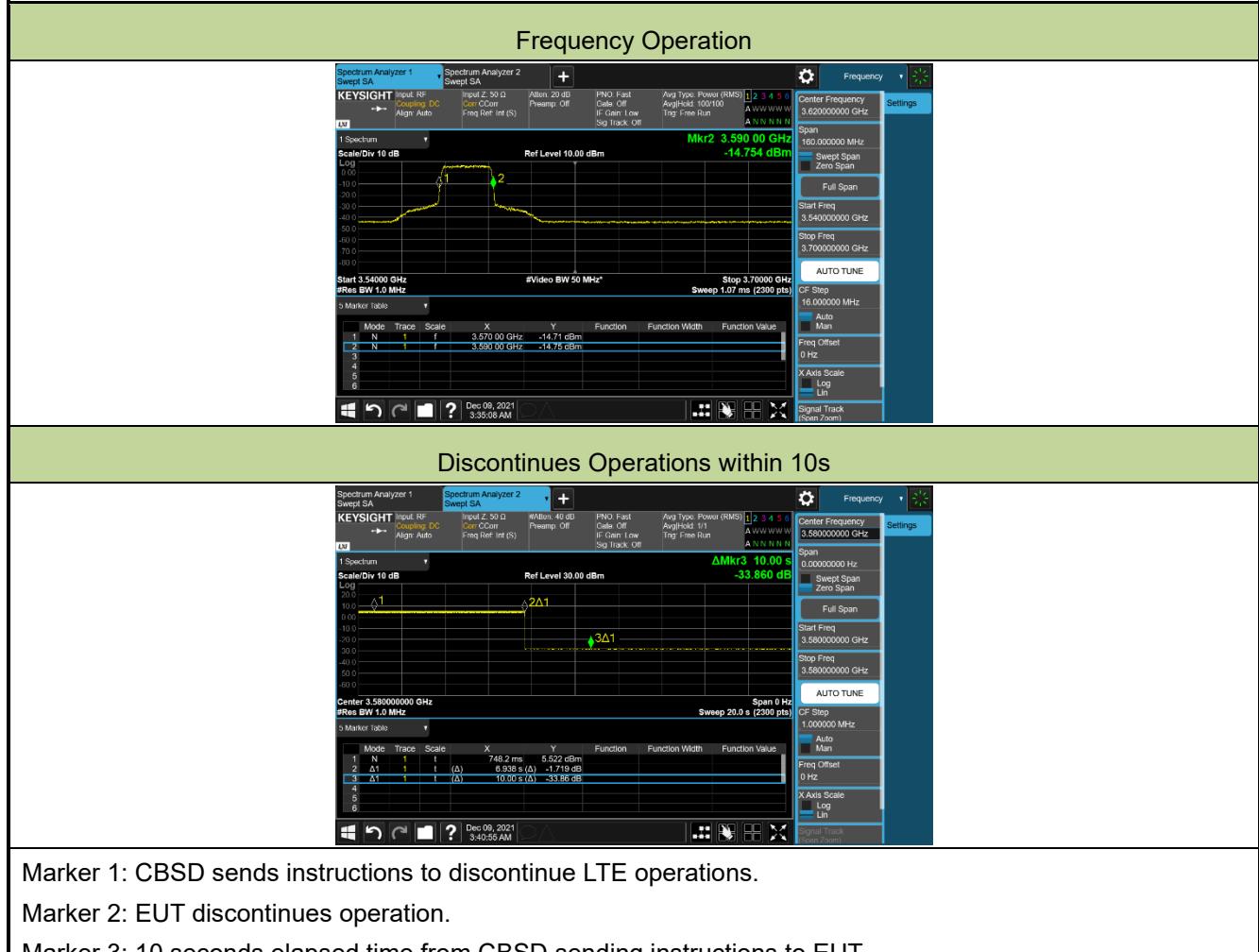
- a. Setup WINNF.PT.C.HBT.1 with 3570 ~ 3590MHz and power level at 13 dBm/MHz.
- b. Enable AP service from Ruckus LTE Cloud management.
- c. Check EUT Tx frequency and power.
- d. Disable AP service from Ruckus LTE Cloud management and check EUT stop transmission within 10s.

Step 2:

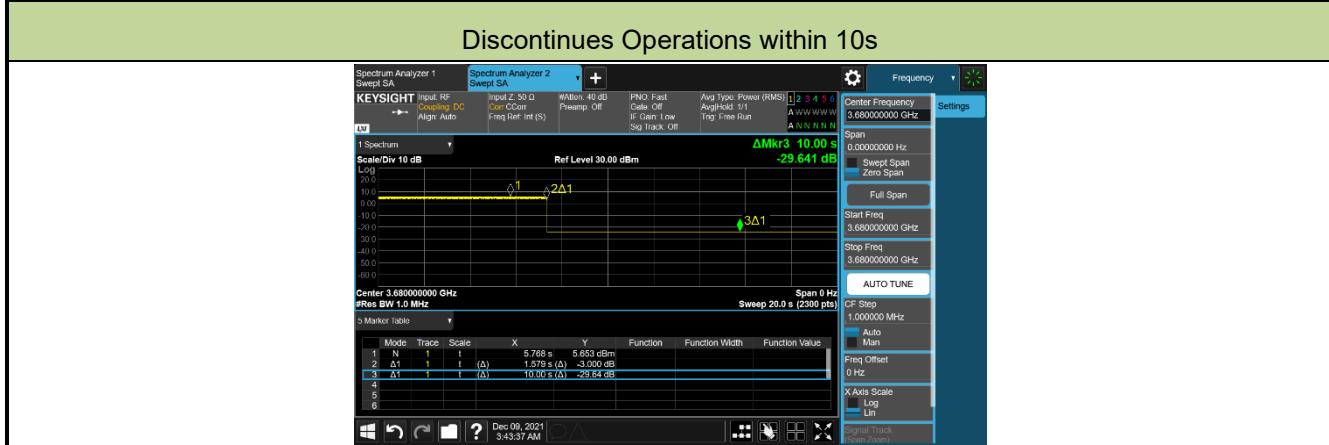
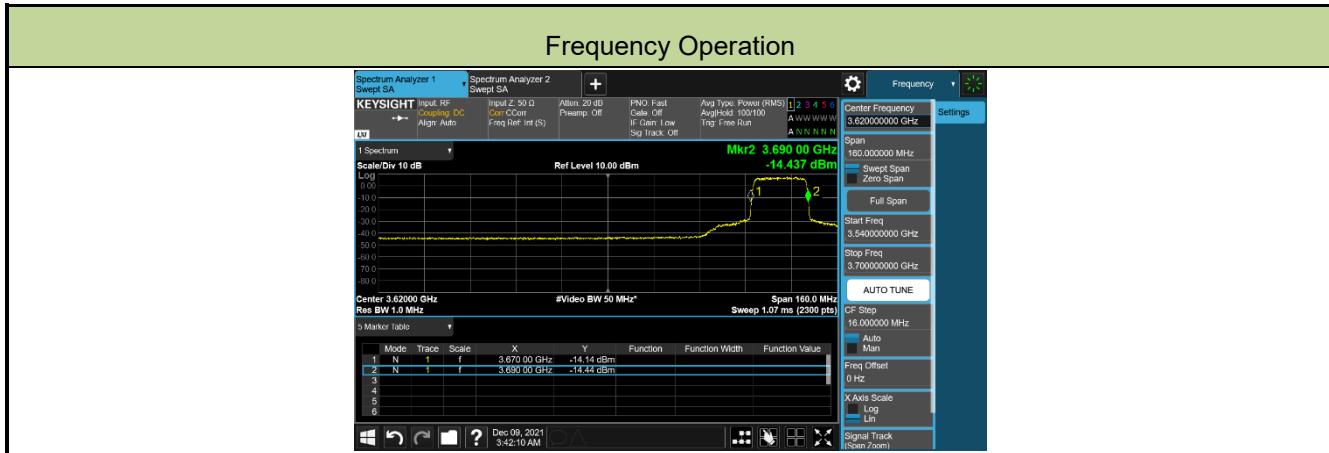
- a. Setup WINNF.PT.C.HBT.1 with 3670 ~ 3690MHz and power level at 8 dBm/MHz.
- b. Enable AP service from Ruckus LTE Cloud management.
- c. Check EUT Tx frequency and power.
- d. Disable AP service from Ruckus LTE Cloud management and check EUT stop transmission within 10s.

3.2.4. Test Result

Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Larry Yan	Test Date	2021/12/09
Test Mode	CBSD transmit at 3580MHz (20MHz BW), 13dBm/MHz		



Product	LTE Module	Test Site	WZ-SR6
Test Engineer	Larry Yan	Test Date	2021/12/09
Test Mode	CBSD transmit at 3680MHz (20MHz BW), 8dBm/MHz		



Marker 1: CBSD sends instructions to discontinue LTE operations.

Marker 2: EUT discontinues operation.

Marker 3: 10 seconds elapsed time from CBSD sending instructions to EUT.

4. CONCLUSION

The data collected relate only to the item(s) tested and show that unit is compliance with FCC Rules.

The End
