FCC RF Test Report

APPLICANT : Fibocom Wireless Inc

EQUIPMENT : LTE module

BRAND NAME : Fibocom

MODEL NAME : NL668-AM-01

FCC ID : ZMONL668AM01

STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(H)

CLASSIFICATION : PCS Licensed Transmitter (PCB)

This is a data re-used report which is only valid together with the original test report. We, Sporton International (Shenzhen) 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 (Shenzhen) Inc., the test report shall not be reproduced except in full.



Sporton International (Shenzhen) Inc.

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen City, Guangdong Province 518055, China

Page Number : 1 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

TABLE OF CONTENTS

1 GENERAL DESCRIPTION			.4
-			_
	1.1	Applicant	.4
	1.2	Manufacturer	.4
	1.3	Product Feature of Equipment Under Test	.4
	1.4	Product Specification of Equipment Under Test	. 5
	1.5	Modification of EUT	.5
	1.6	Re-use of Measured Data	. 6

APPENDIX A. REFERENCE REPORT

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : 2 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG8O1914-02B	Rev. 01	Initial issue of report	Dec. 28, 2018

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : 3 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

1 General Description

1.1 Applicant

Fibocom Wireless Inc

5/F, Tower A, Technology Building II, 1057 Nanhai Avenue, Shenzhen, China

1.2 Manufacturer

Fibocom Wireless Inc

5/F, Tower A, Technology Building II, 1057 Nanhai Avenue, Shenzhen, China

1.3 Product Feature of Equipment Under Test

Product Feature			
Equipment	LTE module		
Brand Name	Fibocom		
Model Name	NL668-AM-01		
FCC ID	ZMONL668AM01		
EUT supports Radios application	WCDMA/HSPA/DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE		
HW Version	V1.0.1		
SW Version	19006.1000.00.02.79.02		
EUT Stage	Production Unit		

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : 4 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification			
	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz		
	LTE Band 4: 1710.7 MHz ~ 1754.3 MHz		
	LTE Band 5: 824.7 MHz ~ 848.3 MHz		
Tx Frequency	LTE Band 12: 699.7 MHz ~ 715.3 MHz		
	LTE Band 13: 779.5 MHz ~ 784.5 MHz		
	LTE Band 17: 706.5 MHz ~ 713.5 MHz		
	LTE Band 66: 1710.7 MHz ~ 1779.3 MHz		
	LTE Band 2: 1930.7 MHz ~ 1989.3 MHz		
	LTE Band 4: 2110.7 MHz ~ 2154.3 MHz		
	LTE Band 5: 869.7 MHz ~ 893.3 MHz		
Rx Frequency	LTE Band 12: 729.7 MHz ~ 745.3 MHz		
	LTE Band 13: 748.5 MHz ~ 753.5 MHz		
	LTE Band 17: 736.5 MHz ~ 743.5 MHz		
	LTE Band 66 : 2110.7 MHz~ 2199.3 MHz		
Antenna Type	Dipole Antenna		
Type of Modulation	QPSK / 16QAM		

1.5 Modification of EUT

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

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : 5 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

1.6 Re-use of Measured Data

1.6.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: NL668-AM-01, FCC ID: ZMONL668AM01) is electrically identical to the reference device (Model: NL668-AM-00, FCC ID: ZMONL668AM00) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

1.6.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix A (Sporton RF Report No. FG8O1914B for the reference device Model: NL668-AM-00, FCC ID: ZMONL668AM00).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section		
PCE (2G/3G)	ZMONL668AM00	Part22H.24E.27L(FG8O1914A)	All sections applicable		
PCE (LTE)	ZMONL668AM00	Part22H.24E.27L.27F.27H.27N (FG8O1914B)	All sections applicable		

Sporton International (Shenzhen) Inc.

FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01

TEL: 86-755-8637-9589

Page Number : 6 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

1.6.4 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for the following test items, the test result were consistent with FCC ID: ZMONL668AM00.

Assertions concerning the similarity of these devices are based on representations by the applicant. The applicant accepts full responsibility for the validity of the similarity claim, and for the determination that verification test data are sufficient to support it.

Test Item	Mode	ZMONL668AM00	ZMONL668AM01	Difference (dB)
	WCDMA Band V	23.53	23.45	0.08
	WCDMA Band II	24.17	24.15	0.02
	WCDMA Band IV	23.74	23.72	0.02
Average	LTE Band2	23.31	23.01	0.30
Conducted	LTE Band4	23.07	23.02	0.05
Power (dBm)	LTE Band5	22.86	22.78	0.08
(dBiii)	LTE Band12	23.54	23.50	0.04
	LTE Band13	23.24	23.21	0.03
	LTE Band17	23.50	23.21	0.29
	LTE Band66	23.63	23.17	0.46
		,		
	WCDMA Band V	-47.94	-47.74	0.20
	WCDMA Band II	-40.25	-38.04	2.21
	WCDMA Band IV	-35.40	-30.31	5.09
	LTE Band2	-35.13	-41.13	6.00
Radiated Spurious	LTE Band4	-28.83	-24.70	4.13
Emission	LTE Band5	-44.61	-49.21	4.60
	LTE Band12	-37.63	-37.80	0.17
	LTE Band13	-23.36	-19.33	4.03
	LTE Band17	-47.47	-41.57	5.90
	LTE Band66	-28.59	-26.42	2.17

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : 7 of 7
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

Appendix A. Reference Report

Please refer to Sporton report number FG8O1914B which is issued separately.

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: ZMONL668AM01 Page Number : A1 of A1
Report Issued Date : Dec. 28, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0