

RF EXPOSURE REPORT

Product: LTE module

Model Name: L850-GL

FCC ID: ZMOL850GL

Applicant: Fibocom Wireless Inc.

Address: 5/F, Tower A, Technology Building II, 1057 Nanhai Blvd,
Nanshan, Shenzhen, China

Manufacturer: Fibocom Wireless Inc.

Address: 5/F, Tower A, Technology Building II, 1057 Nanhai Blvd,
Nanshan, Shenzhen, China

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Report No.: SA180319W001

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Issued Date: Mar. 20, 2018

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA170106C02	Original release	Aug. 30, 2017
SA180319W001	Base on the original report SA170106C02 adjusting Max. tune-up power, the measured conduct power always keep unchanged.	Mar. 20, 2018



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1 CERTIFICATION

PRODUCT: LTE module
BRAND NAME: Fibocom
MODEL NAME: L850-GL
APPLICANT: Fibocom Wireless Inc.
TESTED: Feb. 20, 2017
TEST SAMPLE: Identical Prototype
STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Service (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report, this report has been issued by **BV 7Layers Communications Technology (Shenzhen) Co. Ltd.**

PREPARED BY : Yuqiang, **DATE:** Mar. 20, 2018
(Yuqiang Yin/ Engineer)

APPROVED BY : Bill, **DATE:** Mar. 20, 2018
(Bill Yao / Manager)

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	LTE module	
MODEL NAME	L850-GL	
NOMINAL VOLTAGE	DC 3.3V	
OPERATING TEMPERATURE RANGE	-10 ~ 55°C	
MODULATION TYPE	WCDMA	BPSK/QPSK
	LTE	QPSK/16QAM
OPERATING FREQUENCY	WCDMA	1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 1712.4MHz ~ 1752.6MHz (FOR WCDMA IV) 826.4MHz ~ 846.6MHz (FOR WCDMA V)
	LTE	1850.7MHz ~ 1909.3MHz (FOR LTE Band2) 1710.7MHz ~ 1754.3MHz (FOR LTE Band4) 824.7MHz ~ 848.3MHz (FOR LTE Band5) 2502.5MHz ~ 2567.5MHz (FOR LTE Band7) 699.7MHz ~ 715.3MHz (FOR LTE Band12) 779.5MHz ~ 784.5MHz (FOR LTE Band13) 706.5MHz ~ 713.5MHz (FOR LTE Band17) 814.7MHz ~ 848.3MHz (FOR LTE Band26) 2307.5MHz ~ 2312.5MHz (FOR LTE Band30) 2572.5MHz ~ 2617.5MHz (FOR LTE Band38) 2498.5MHz ~ 2687.5MHz (FOR LTE Band41) 1710.7MHz ~ 1779.3MHz (FOR LTE Band66)
ANTENNA TYPE	External Antenna	
HW VERSION	V1.0.4	
SW VERSION	18500.5001.00.01.01.09	
I/O PORTS	Refer to user's manual	
CABLE SUPPLIED	N/A	

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

3 RF EXPOSURE

3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

3.2 MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

3.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Modular Approval**.

3.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

WCDMA & LTE

Band	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm ²)	limit (mW/cm ²)	PASS / FAIL
WCDMA II	5	24.5	891.25	0.18	1.00	PASS
WCDMA IV	5	24.5	891.25	0.18	1.00	PASS
WCDMA V	3	24.5	562.341	0.11	0.55	PASS
LTE Band 2	5	24.0	794.33	0.16	1.00	PASS
LTE Band 4	5	24.0	794.33	0.16	1.00	PASS
LTE Band 5	3	24.0	501.19	0.10	0.55	PASS
LTE Band 7	5	24.0	794.33	0.16	1.00	PASS
LTE Band 12	3	24.0	501.19	0.10	0.47	PASS
LTE Band 13	3	24.0	501.19	0.10	0.52	PASS
LTE Band 17	3	24.0	501.19	0.10	0.47	PASS
LTE Band 26	3	24.0	501.19	0.10	0.54	PASS
LTE Band 30	5	24.0	794.33	0.16	1.00	PASS
LTE Band 38	5	24.0	794.33	0.16	1.00	PASS
LTE Band 41	5	24.0	794.33	0.16	1.00	PASS
LTE Band 66	5	24.0	794.33	0.16	1.00	PASS