

# VARIANT RF EXPOSURE REPORT

**Product:** LTE module

**Model Name:** L850-GL

**FCC ID:** ZMOL850GL

**Applicant:** Fibocom Wireless Inc.

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

**Manufacturer:** Fibocom Wireless Inc.

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

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**Report No.:** SA210906W002-1

**Received Date:** Sep 09, 2021

**Test Date:** Sep 10, 2021 ~ Sep 13, 2021

**Issued Date:** Sep 14, 2021

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA170106C02	Original release	Feb. 21, 2017
SA210906W002-1	Based on the original report SA170106C02 Update components	Sep. 14, 2021

# 1 CERTIFICATION

**PRODUCT:** LTE module  
**BRAND NAME:** Fibocom  
**MODEL NAME:** L850-GL  
**APPLICANT:** Fibocom Wireless Inc.  
**TESTED:** Sep. 10, 2021 ~ Sep. 13, 2021  
**TEST SAMPLE:** Production Unit  
**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 **BV 7Layers Communications Technology (Shenzhen) Co. Ltd** 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.

**PREPARED BY :** \_\_\_\_\_, **DATE:** Sep. 14, 2021  
(Simon Wang / Engineer)

**APPROVED BY :** \_\_\_\_\_, **DATE:** Sep. 14, 2021  
( Luke Lu / Manager)



## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	LTE module	
<b>MODEL NAME</b>	L850-GL	
<b>NOMINAL VOLTAGE</b>	3.3Vdc (Form Host Equipment)	
<b>OPERATING TEMPERATURE RANGE</b>	-10-55 °C	
<b>MODULATION TYPE</b>	<b>WCDMA</b>	BPSK/QPSK
	<b>LTE</b>	QPSK/16QAM
<b>OPERATING FREQUENCY</b>	<b>WCDMA</b>	1852.4MHz ~ 1907.6MHz (FOR WCDMA II) 1712.4MHz ~ 1752.6MHz (FOR WCDMA IV) 826.4MHz ~ 846.6MHz (FOR WCDMA V)
	<b>LTE</b>	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)
<b>ANTENNA GAIN</b>	External Antenna with 3dBi gain for WCDMA V/ LTE Band5/ LTE Band12/ LTE Band13/ LTE Band17/ LTE Band26 External Antenna with 5dBi gain for WCDMA II/ WCDMA IV/ LTE Band2/ LTE Band4/ LTE Band 7/ LTE Band30/ LTE Band38/ LTE Band41/ LTE Band66	
<b>HW VERSION</b>	V1.0.4	
<b>SW VERSION</b>	18500.5001.00.05.27.12	
<b>I/O PORTS</b>	Refer to user's manual	
<b>CABLE SUPPLIED</b>	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 <sup>2</sup> )	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

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

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 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 **Mobile Device**.

### 3.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

#### TUNE-UP POWER TABLE

Band	Frequency (MHz)	Operating Mode	Tune-Up Power And Tolerance (dBm)
LTE Band 30	2307.5	QPSK	23.0 ± 0.5

**LTE WORST CASE AS BELOW:**

Band	Frequency (MHz)	E.I.R.P Power (mW)	Power Density (mW/cm <sup>2</sup> )	limit (mW/cm <sup>2</sup> )	PASS / FAIL
<b>Band30</b>	2307.5	78.29	0.0163	1.00	PASS

**--END--**