

FCC RF EXPOSURE REPORT

FCC ID: ZMOSC138NA

Project No. : 2111C042
Equipment : LTE Module
Brand Name : Fibocom
Test Model : SC138-NA
Series Model : N/A
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
Factory : Huizhou HYE Technology Co., Ltd.
Address : No. 237, Sanhe group, Sanhe village, Tonghu Town, Zhongkai hi tech
Zone, Huizhou
Date of Receipt : Nov. 03, 2021
Date of Test : Nov. 15, 2021 ~ Dec. 07, 2021
Issued Date : Dec. 17, 2021
Report Version : R00
Test Sample : Engineering Sample No.: DG20211115166 for WIFI,
DG20211115162 for WCDMA and LTE.
Standard(s) : FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091
FCC Title 47 Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Edward Li

Prepared by : Edward Li

Steven Lu

Approved by : Steven Lu



TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's
Republic of China

Tel: +86-769-8318-3000

Web: www.newbtl.com

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Dec. 17, 2021

1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China.

BTL's Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Table for Filed Antenna:

For BT&LE& WLAN 2.4GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	SMA	1

Note: The antenna gain is provided by the manufacturer.

For 5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	SMA	2

Note: The antenna gain is provided by the manufacturer.

For WCDMA:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	External	N/A	1	WCDMA Band II
				1	WCDMA Band IV
				0.5	WCDMA Band V

Note: The antenna gain is provided by the manufacturer.

For LTE:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	External	N/A	1	LTE Band 2
				1	LTE Band 4
				0.5	LTE Band 5
				1	LTE Band 7
				0.5	LTE Band 12
				0.5	LTE Band 13
				0.5	LTE Band 14
				0.5	LTE Band 17
				1	LTE Band 25
				0.5	LTE Band 26 (Part90)
				0.5	LTE Band 26 (Part22)
				1	LTE Band 41
				-0.13	LTE Band 48
				1	LTE Band 66
0.5	LTE Band 71				

Note: The antenna gain is provided by the manufacturer.

3. TEST RESULTS

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1	1.2589	10.76	11.9124	0.00299	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1	1.2589	6.42	4.3853	0.00110	1	Complies

For 2.4GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1	1.2589	17.47	55.8470	0.01399	1	Complies

For 5GHz UNII-1:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	19.76	94.6237	0.02985	1	Complies

For 5GHz UNII-2A:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	19.57	90.5733	0.02857	1	Complies

For 5GHz UNII-2C:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	19.43	87.7001	0.02767	1	Complies

For 5GHz UNII-3:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2	1.5849	19.01	79.6159	0.02512	1	Complies

For WCDMA:

Band	Frequency (MHz)	Max.Tune Up Power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	Output Power to Antenna	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Test Result
WCDMA II	1852.4	24.5	1	1.26	354.81	0.0706	1.0000	Complies
WCDMA IV	1732.6	24.5	1	1.26	354.81	0.0706	1.0000	Complies
WCDMA V	846.6	24.5	0.5	1.12	316.23	0.0629	0.5644	Complies

For LTE:

Band	Frequency (MHz)	Max.Tune Up Power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	Output Power to Antenna	Power Density (mW/cm ²)	Power Density Limit (mW/cm ²)	Test Result
Band 2	1855	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 4	1747.5	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 5	826.5	24	0.5	1.12	281.84	0.0561	0.5510	Complies
Band 7	2567.5	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 12	713.5	24	0.5	1.12	281.84	0.0561	0.4757	Complies
Band 13	784.5	24	0.5	1.12	281.84	0.0561	0.5230	Complies
Band 14	795.5	24	0.5	1.12	281.84	0.0561	0.5303	Complies
Band 17	713.5	24	0.5	1.12	281.84	0.0561	0.4757	Complies
Band 25	1852.5	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 26 (Part90)	821.5	24	0.5	1.12	281.84	0.0561	0.5477	Complies
Band 26 (Part22)	846.5	24	0.5	1.12	281.84	0.0561	0.5643	Complies
Band 41	2680	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 48	3692.5	24	-0.13	0.97	243.78	0.0485	1.0000	Complies
Band 66	1770	24	1	1.26	316.23	0.0629	1.0000	Complies
Band 71	680.5	24	0.5	1.12	281.84	0.0561	0.4537	Complies

For the max simultaneous transmission MPE:

Ratio			Total	Limit of Ratio	Test Result
BT	5GHz	LTE			
0.00299	0.02985	0.1236	0.15644	1	Complies

Note: The calculated distance is 20 cm.
Output power including tune up tolerance

End of Test Report