FCC RF EXPOSURE REPORT

FCC ID: ZMONL668LA05

Project No.	:	2111C171
Equipment	:	LTE Module
Brand Name	:	Fibocom
Test Model	:	NL668-LA
Series Model	:	NL668-LA-05, NL668-LA-10, NL668-LA-30
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. 29, 2021
Date of Test	:	Dec. 03, 2021 ~ Dec. 31, 2021
Issued Date	:	Feb. 18, 2022
Report Version	:	R02
Test Sample	:	Engineering Sample No.: DG20211201108
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.

Gabriel Zhu

Prepared by : Gabriel Zhu

Steven Lu

Approved by : Steven Lu

ACCREDITED

TESTING CERT #5123.02

Add: No. 3 Jinshagang 1st Rd. Shixia, Dalang Town Dongguan City, Guangdong 523792 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.	Feb. 14, 2022
R01	Modified the comments of TCB.	Feb. 16, 2022
R02	Modified the comments of TCB.	Feb. 18, 2022

1. TEST FACILITY

The test facilities used to collect the test data of conduted in this report is at the location of Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.
BTL's Test Firm 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 GSM:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	Dipole	SMA	-1.4	GSM 850
				0.9	PCS 1900

Note: The antenna gain is provided by the manufacturer.

For WCDMA:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	Dipole	SMA	0.9	WCDMA Band II
				1.4	WCDMA Band IV
				-1.4	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	Dipole	SMA	0.9	LTE Band 2
				1.4	LTE Band 4
				-1.4	LTE Band 5
				2.6	LTE Band 7
				-1.4	LTE Band 12
				-0.7	LTE Band 17
				1.8	LTE Band 38
				1.6	LTE Band 66

Note: The antenna gain is provided by the manufacturer.

3. TEST RESULTS

For GSM:

EGSM900	Max Burst Average Power (dBm)	Max Frame Average Power (dBm)
	Channel/Frequency(MHz)	Channel/Frequency(MHz)
	251/848.8	251/848.8
GSM (CS)	34.5	25.31
GSM1800	Max Burst Average Power (dBm)	Max Frame Average Power (dBm)
	Channel/Frequency(MHz)	Channel/Frequency(MHz)
	512/1850.2	512/1850.2
GSM (CS)	31.5	22.31

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
GSM 850	848.8	25.31	3	2	677.64	0.1348	0.5659	Complies
PCS 1900	1850.2	22.31	3	2	339.63	0.0676	1.0000	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	1907.6	25.5	3	2	1907.6	25.5	1907.6	Complies
WCDMA IV	1712.4	25.5	3	2	1712.4	25.5	1712.4	Complies
WCDMA V	846.6	25.5	3	2	707.95	0.1408	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
LTE Band 2	1855	25	3	2	630.96	0.1255	1.0000	Complies
LTE Band 4	1717.5	25	3	2	630.96	0.1255	1.0000	Complies
LTE Band 5	825.5	25	3	2	630.96	0.1255	0.5503	Complies
LTE Band 7	2505	25	3	2	630.96	0.1255	1.0000	Complies
LTE Band 12	714.5	25	3	2	630.96	0.1255	0.4763	Complies
LTE Band 17	709	25	3	2	630.96	0.1255	0.4727	Complies
LTE Band 38	2595	25	3	2	630.96	0.1255	1.0000	Complies
LTE Band 66	1717.5	25	3	2	630.96	0.1255	1.0000	Complies

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

End of Test Report