FCC RF EXPOSURE REPORT

FCC ID: ZMOSU806LA

This report concerns: Original Grant

Project No.	:	2205C056
Equipment	:	LTE Module
Brand Name	:	Fibocom
Test Model	:	SU806-LA
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,
Date of Receipt	:	May 16, 2022
Date of Test	:	May 18, 2022 ~ Jun. 02, 2022
Issued Date	:	Jun. 13, 2022
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG20220516109 for BLE and WIFI, DG20220516107 and DG20220516110 for GSM, WCDMA and LTE.
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091

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

Grani Zhou

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TESTING CERT #5123.02

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-7-2205C056	R00	Original Report.	Jun. 13, 2022	Valid

1. TEST FACILITY

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

The test facilities used to collect the test data of WWAN 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 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.	Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)
1	shenzhen bogesi communication technology co., ltd	GHT-019A	Dipole	SMA Male J	2.3

Note: The antenna gain is provided by the manufacturer.

For GSM:

Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)	Note
shenzhen bogesi communication technology co., ltd	GHT-019A	Dipole	SMA Male J	1.32	GSM 850
				1.93	PCS 1900

Note: The antenna gain is provided by the manufacturer.

For WCDMA:

Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)	Note
shenzhen bogesi communication technology co., ltd	GHT-019A	Dipole	SMA Male J	1.93	WCDMA Band II
				2.86	WCDMA Band IV
				1.32	WCDMA Band V

Note: The antenna gain is provided by the manufacturer.

For LTE:

Manufacturer	P/N	Antenna Type	Connector	Gain (dBi)	Note
shenzhen bogesi communication technology co., ltd	GHT-019A	Dipole	SMA Male J	1.93	LTE Band 2
				2.86	LTE Band 4
				1.32	LTE Band 5
				1.07	LTE Band 7
				1.58	LTE Band 12
				1.58	LTE Band 17
				1.52	LTE Band 41

Note: The antenna gain is provided by the manufacturer.

3. TEST RESULTS

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Tune Up Power (dBm)	Max.Tune Up Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
2.3	1.6982	10	10.0000	0.00338	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Tune Up Power (dBm)	Max.Tune Up Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
2.3	1.6982	4.5	2.8184	0.00095	1	Complies

For 2.4GHz:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max.Tune Up Power (dBm)	Max.Tune Up Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
2.3	1.6982	20	100.0000	0.03380	1	Complies

For GSM:

GSM900	Max Burst Average Power (dBm)	Max Frame Average Power (dBm)
	Channel/Frequency(MHz)	Channel/Frequency(MHz)
	128 / 824.2	128 / 824.2
GSM (CS)	35	25.81
PCS 1900	Max Burst Average Power (dBm)	Max Frame Average Power (dBm)
	Channel/Frequency(MHz)	Channel/Frequency(MHz)
	512 / 1850.2	512 / 1850.2
GSM (CS)	32	22.81

Note:

1. The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:
   Frame-averaged power=10 x log (Burst-averaged power mW x Slot used/8)
2. Max. Output Power = Max Frame Average Power

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	824.2	25.81	1.32	1.36	516.42	0.1027	0.5495	Complies
PCS 1900	1850.2	22.81	1.93	1.56	297.85	0.0593	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	1852.4	25	1.93	1.56	493.17	0.0981	1.0000	Complies
WCDMA IV	1712.4	25	2.86	1.93	610.94	0.1215	1.0000	Complies
WCDMA V	826.4	25	1.32	1.36	428.55	0.0853	0.5509	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	1850.7	25	1.93	1.56	493.17	0.0981	1.0000	Complies
Band 4	1710.7	25	2.86	1.93	610.94	0.1215	1.0000	Complies
Band 5	824.7	25	1.32	1.36	428.55	0.0853	0.5498	Complies
Band 7	2502.5	25	1.07	1.28	404.58	0.0805	1.0000	Complies
Band 12	699.7	25	1.58	1.44	454.99	0.0905	0.4665	Complies
Band 17	706.5	25	1.58	1.44	454.99	0.0905	0.4710	Complies
Band 41	2498.5	25	1.52	1.42	448.75	0.0893	1.0000	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
2.4GHz	LTE			
0.03380	0.1940	0.2278	1	Complies

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

End of Test Report