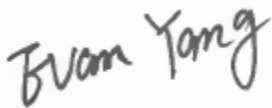


FCC RF EXPOSURE REPORT

FCC ID: 2AH4HATD600

Project No. : 2107C193
Equipment : LTE Cat-M1 Tracker
Brand Name : Mobilogix
Test Model : ATD600S
Series Model : N/A
Applicant : Mobilogix, Inc.
Address : 5500 Trabuco Rd Suite 150 Irvine, CA, USA
Manufacturer : Mobilogix, Inc.
Address : 5500 Trabuco Rd Suite 150 Irvine, CA, USA
Factory : Suga Electronics (Dongguan) Co., Ltd.
Address : No.8 Fulong Road, Qingxi Town, Dongguan City
Date of Receipt : Jul. 28, 2021
Date of Test : Aug. 13, 2021 ~ Sep. 10, 2021
Issued Date : Sep. 22, 2021
Report Version : R01
Test Sample : Engineering Sample No.: DG2021081223 for LE, DG2021081224 for GSM 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.



Prepared by : Evan Yang



Approved by : Ethan Ma



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	Sep. 18, 2021
R01	Modified the comments of TCB.	Sep. 22, 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 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 LE:

Ant.	Brand	P/N	Antenna Type	Connector	Gain (dBi)
1	Ethertronics	1001013	Chip	N/A	0.7

Note: The antenna gain is provided by the manufacturer.

For GSM:

Brand	P/N	Antenna Type	Connector	Gain (dBi)	Note
Ethertronics	1004795	Chip	N/A	1.6	GSM 850
Ethertronics	1004795	Chip	N/A	3.1	PCS 1900

Note: The antenna gain is provided by the manufacturer.

For LTE (Cat-M1/Cat-NB2):

Brand	P/N	Antenna Type	Connector	Gain (dBi)	Note
Ethertronics	1004795	Chip	N/A	3.1	LTE Band 2
Ethertronics	1004795	Chip	N/A	3.1	LTE Band 4
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 5
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 12
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 13
Ethertronics	1004795	Chip	N/A	3.1	LTE Band 25
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 26(Part 22)
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 26(Part 90)
Ethertronics	1004795	Chip	N/A	3.1	LTE Band 66
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 71
Ethertronics	1004795	Chip	N/A	1.6	LTE Band 85

Note: The antenna gain is provided by the manufacturer.

3. TEST RESULTS

LE	Tune up tolerance(dBm)			
	GSM 850	PCS 1900	LTE (Cat-M1)	LTE (Cat-NB2)
0.00	35	32	21	22

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
0.7	1.1749	0.00	1.0000	0.00023	1	Complies

For GSM:

GSM 850	Max. Burst Averaged 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 Averaged Power (dBm)	Max Frame Average Power (dBm)
	Channel/Frequency(MHz)	Channel/Frequency(MHz)
	661/1880	661/1880
GSM (CS)	32	22.81

Note:

- 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:

$$\text{Frame-averaged power} = 10 \times \log (\text{Burst-averaged power mW} \times \text{Slot used}/8)$$
- Max. Output Power = Max Frame Average Power

Band	Frequency (MHz)	Max. Output Power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	Output Power to Antenna	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
GSM 850	824.2	25.81	1.6	1.45	550.81	0.1096	0.5495	Complies
PCS 1900	1880	22.81	3.1	2.04	389.94	0.0776	1.0000	Complies

For LTE (Cat-M1):

Band	Frequency (MHz)	Max. Tune-up Power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	Output Power to Antenna	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
Band 2	1857.5	21	3.1	2.04	257.04	0.0511	1.0000	Complies
Band 4	1715	21	3.1	2.04	257.04	0.0511	1.0000	Complies
Band 5	844	21	1.6	1.45	181.97	0.0362	0.5627	Complies
Band 12	701.5	21	1.6	1.45	181.97	0.0362	0.4677	Complies
Band 13	782	21	1.6	1.45	181.97	0.0362	0.5213	Complies
Band 25	1882.5	21	3.1	2.04	257.04	0.0511	1.0000	Complies
Band 26 (Part 22)	836.5	21	1.6	1.45	181.97	0.0362	0.5577	Complies
Band 26 (Part 90)	816.5	21	1.6	1.45	181.97	0.0362	0.5443	Complies
Band 66	1777.5	21	3.1	2.04	257.04	0.0511	1.0000	Complies
Band 85	707	21	1.6	1.45	181.97	0.0362	0.4713	Complies

For LTE (Cat-NB2):

Band	Frequency (MHz)	Max. Tune-up Power (dBm)	Antenna Gain (dBi)	Antenna Gain (linear)	Output Power to Antenna	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
Band 2	1880	22	3.1	2.04	323.59	0.0644	1.0000	Complies
Band 4	1710.1	22	3.1	2.04	323.59	0.0644	1.0000	Complies
Band 5	836.5	22	1.6	1.45	229.09	0.0456	0.5577	Complies
Band 12	699.1	22	1.6	1.45	229.09	0.0456	0.4661	Complies
Band 13	786.9	22	1.6	1.45	229.09	0.0456	0.5246	Complies
Band 25	1882.5	22	3.1	2.04	323.59	0.0644	1.0000	Complies
Band 66	1710.1	22	3.1	2.04	323.59	0.0644	1.0000	Complies
Band 71	697.8	22	1.6	1.45	229.09	0.0456	0.4652	Complies
Band 85	698.2	22	1.6	1.45	229.09	0.0456	0.4655	Complies

For the max simultaneous transmission MPE:

Ratio		Total	Limit of Ratio	Test Result
LE	GSM			
0.00023	0.199454	0.199684	1	Complies

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

End of Test Report