

# FCC RF EXPOSURE REPORT

## FCC ID: 2A25M-PRE31G

**Project No.** : 2108C220  
**Equipment** : Pre-install 3.1G  
**Brand Name** : Clobotics  
**Test Model** : Sloth pre3.1G  
**Series Model** : N/A  
**Applicant** : SHANGHAI CLOBOTICS TECHNOLOGY CO., LTD  
**Address** : 555 DongChuan Rd., Building 5, Rm 102A,Minhang Distr., Shanghai, China  
**Manufacturer** : SHANGHAI CLOBOTICS TECHNOLOGY CO., LTD  
**Address** : 555 DongChuan Rd., Building 5, Rm 102A,Minhang Distr., Shanghai, China  
**Factory** : Shenzhen Changkeshun Technology Co.,Ltd  
**Address** : Fl.3-4,Bldg.k,Jinchangda Tech Park,Guanlan St.,Longhua Dist., Shenzhen,China  
**Date of Receipt** : Sep. 01, 2021  
**Date of Test** : Sep. 10, 2021 ~ Oct. 26, 2021  
**Issued Date** : Oct. 26, 2021  
**Report Version** : R01  
**Test Sample** : Engineering Sample No.: DG2021090932 for WIFI, DG2021090933 for 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.

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TESTING CERT #5123.02

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**REPORT ISSUED HISTORY**

| Report Version | Description                   | Issued Date   |
|----------------|-------------------------------|---------------|
| R00            | Original Issue                | Oct. 18, 2021 |
| R01            | Modified the comments of TCB. | Oct. 26, 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 2.4G:

| Ant. | Brand | P/N | Antenna Type | Connector | Gain (dBi) |
|------|-------|-----|--------------|-----------|------------|
| 1    | N/A   | N/A | FPC          | N/A       | 4.72       |

Note: The antenna gain is provided by the manufacturer.

For LTE:

| Brand | P/N | Antenna Type | Connector | Gain (dBi) | Note        |
|-------|-----|--------------|-----------|------------|-------------|
| N/A   | N/A | FPC          | N/A       | 1.86       | LTE Band 4  |
| N/A   | N/A | FPC          | N/A       | -1.29      | LTE Band 5  |
| N/A   | N/A | FPC          | N/A       | 4.94       | LTE Band 7  |
| N/A   | N/A | FPC          | N/A       | -0.85      | LTE Band 12 |
| N/A   | N/A | FPC          | N/A       | 2.85       | LTE Band 25 |
| N/A   | N/A | FPC          | N/A       | 4.75       | LTE Band 38 |
| N/A   | N/A | FPC          | N/A       | 4.94       | LTE Band 41 |

Note: The antenna gain is provided by the manufacturer.

### 3. TEST RESULTS

#### For 2.4G:

| Antenna Gain (dBi) | Antenna Gain (numeric) | Max. Output Power (dBm) | Max. Output Power (mW) | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|--------------------|------------------------|-------------------------|------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| 4.72               | 2.9648                 | 21.61                   | 144.8772               | 0.0855                                  | 1                                                | Complies    |

#### For LTE:

| Band    | Frequency (MHz) | Max. Output Power (dBm) | Antenna Gain (dBi) | Antenna Gain (linear) | Output Power to Antenna | Power Density (S) (mW/cm <sup>2</sup> ) | Limit of Power Density (S) (mW/cm <sup>2</sup> ) | Test Result |
|---------|-----------------|-------------------------|--------------------|-----------------------|-------------------------|-----------------------------------------|--------------------------------------------------|-------------|
| Band 4  | 1715            | 21.93                   | 1.86               | 1.53                  | 239.33                  | 0.0476                                  | 1.0000                                           | Complies    |
| Band 5  | 836.5           | 22.31                   | -1.29              | 0.74                  | 126.47                  | 0.0252                                  | 0.5577                                           | Complies    |
| Band 7  | 2567.5          | 22.82                   | 4.94               | 3.12                  | 597.04                  | 0.1188                                  | 1.0000                                           | Complies    |
| Band 12 | 704             | 23.01                   | -0.85              | 0.82                  | 164.44                  | 0.0327                                  | 0.4693                                           | Complies    |
| Band 25 | 1910            | 22.93                   | 2.85               | 1.93                  | 378.44                  | 0.0753                                  | 1.0000                                           | Complies    |
| Band 38 | 2595            | 23.44                   | 4.75               | 2.99                  | 659.17                  | 0.1311                                  | 1.0000                                           | Complies    |
| Band 41 | 2680            | 23.38                   | 4.94               | 3.12                  | 679.20                  | 0.1351                                  | 1.0000                                           | Complies    |

#### For the max simultaneous transmission MPE:

| Ratio  |        | Total  | Limit of Ratio | Test Result |
|--------|--------|--------|----------------|-------------|
| 2.4G   | LTE    |        |                |             |
| 0.0855 | 0.1351 | 0.2206 | 1              | Complies    |

Note: The calculated distance is 20 cm.

**End of Test Report**