# FCC TEST REPORT
# FCC ID: 2AY28-LD810

| | | |
|---|---|---|
| Product | : | BLUETOOTH&SPEAKERPHONE |
| Model Name | : | LD810,LD801C |
| Brand | : | 灵动博讯 Lidobox |
| Report No. | : | PTC20092904601E-FC02 |

**Prepared for**

SHENZHEN LINGDONG SMART CHIP TECHNOLOGYCO.,LTD

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**Prepared by**

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## TEST RESULT CERTIFICATION

| | | |
|---|---|---|
| Applicant's name | : | SHENZHEN LINGDONG SMART CHIP TECHNOLOGYCO.,LTD |
| Address | : | 1312 Zhongxin Science and Technology Building,Bagua Road,Futian District, Shenzhen |
| Manufacture's name | : | SHENZHEN LINGDONG SMART CHIP TECHNOLOGYCO.,LTD |
| Address | : | 1312 Zhongxin Science and Technology Building,Bagua Road,Futian District, Shenzhen |
| Product name | : | BLUETOOTH&SPEAKERPHONE |
| Model name | : | LD810,LD801C |
| Test procedure | | KDB 447498 D01 General RF Exposure Guidance v06 |
| Test Date | : | Oct 30,2020 to January 05,2021 |
| Date of Issue | : | January 05,2021 |
| Test Result | : | Pass |

This device described above has been tested by PTS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

*Leo Yang*

Leo Yang / Engineer

Technical Manager:

Chris Du / Manager

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## 2 Test Summary

| Test Items | Test Requirement | Result |
|---|---|---|
| Maximum Permissible Exposure (Exposure of Humans to RF Fields) | 1.1307(b)(1) | PASS |
| Remark: | | |
| N/A: Not Applicable | | |

# 3 General Information

## 3.1 General Description of E.U.T.

| Product Name | : | BLUETOOTH&SPEAKERPHONE |
|---|---|---|
| Model Number | : | LD810,LD801C<br>Note:LD810 with lithium battery, USB audio transmission, bluetooth audio transmission LD810C without lithium battery and USB audio output with bluetooth audio transmission. |
| Specification | : | Bluetooth 5.0 |
| Operating frequency | : | 2402-2480MHz |
| Modulation | : | GFSK, π/4DQPSK, 8DPSK |
| Number of Channel | : | 79 |
| Antenna installation | : | PCB Antenna |
| Antenna Gain | : | 0 dBi |
| Power supply | : | Input:DC 5V ( battery 3.7v 1400mAH) |
| Hardware Version | : | N/A |
| Software Version | : | N/A |

# 4  RF Exposure

Test Requirement　　:　FCC Part 1.1307(b)(1)

Evaluation Method　　:　FCC Part 2.1091

## 4.1  Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

## 4.2  The procedures / limit

(A) Limits for Occupational / Controlled Exposure

| Frequency Range | Electric Field | Magnetic Field | Power Density (S) | Averaging Time |
|---|---|---|---|---|
| 0.3-3.0 | 614 | 1.63 | (100)* | 6 |
| 3.0-30 | 1842 / f | 4.89 / f | (900 / f)* | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1500 | | | F/300 | 6 |
| 1500-100,000 | | | 5 | 6 |

(B) Limits for General Population / Uncontrolled Exposure

| Frequency Range | Electric Field | Magnetic Field | Power Density (S) | Averaging Time |
|---|---|---|---|---|
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34-30 | 824/f | 2.19/f | (180/f)* | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1500 | | | F/1500 | 30 |
| 1500-100,000 | | | 1.0 | 30 |

Note: f = frequency in MHz ; *Plane-wave equivalent power density

### 4.3 MPE Calculation Method

$$E \ (V/m) \ = \ \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power Density: } Pd \ (W/m^2) \ = \ \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd \ = \ \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

### 4.4 Test Result

| Item | Antenna Gain (numeric) | Max. Peak Output Power (dBm) | Peak Output Power (mW) | Power Density (mW/cm2) | Limit of Power Density (mW/cm2) | Result |
|---|---|---|---|---|---|---|
| BT | 1 | 4.066 | 2.55 | 0.0005 | 1 | Pass |

**\*\*\*\*\*THE END REPORT\*\*\*\*\***