# FCC TEST REPORT

# FCC ID: 2BG5G-C100PLUS

| | | |
|---|---|---|
| Product | : | Deadbolt with Wi-Fi |
| Model Name | : | C100PLUS |
| Brand | : | Desloc |
| Report No. | : | PTC25052313301E-FC03 |

**Prepared for**

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## TEST RESULT CERTIFICATION

| | | |
|---|---|---|
| Applicant's name | : | Zhejiang Desman Intelligent Technology Co., LTD |
| Address | : | Floor 1-3, Building 1, No.7 Jianghui South Road, Binjiang District, Hangzhou City, Zhejiang Province, China, 310051 |
| Manufacture's name | : | Zhejiang Desman Intelligent Technology Co., LTD |
| Address | : | Floor 1-3, Building 1, No.7 Jianghui South Road, Binjiang District, Hangzhou City, Zhejiang Province, China, 310051 |
| Product name | : | Deadbolt with Wi-Fi |
| Model name | : | C100PLUS |
| Test procedure | : | FCC CFR47 Part 1.1307(b)(1) |
| Test Date | : | June 18, 2025 to July 24, 2025 |
| Date of Issue | : | July 24, 2025 |
| Test Result | : | PASS |

This device described above has been tested by PTC, 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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## 2 Test Summary

| Test Items | Test Requirement | Result |
|---|---|---|
| Maximum Permissible Exposure (Exposure of Humans to RF Fields) | 15.247 (i) | PASS |
| Remark: | | |
| N/A: Not Applicable | | |

# 3 General Information

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

| | | |
|---|---|---|
| Product Name | : | Deadbolt with Wi-Fi |
| Model Name | : | C100PLUS |
| Specification | : | Bluetooth BDR+EDR; Bluetooth BLE<br>802.11b/g/n HT20/HT40 |
| Operation Frequency | : | 2402-2480MHz for BT<br>2412-2462MHz for 802.11b/g/ n(HT20)<br>2422-2452MHz for 802.11 n(HT40) |
| Number of Channel | : | 79 channels for BDR+EDR<br>40 channels For DTS<br>11 channels for 802.11b/g/ n(HT20)<br>7 channels for 802.11n(HT40) |
| Type of Modulation | : | GFSK, Π/4-DQPSK,8DPSK For DSS<br>GFSK, For DTS<br>DSSS with DBPSK/DQPSK/CCK for 802.11b;<br>OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; |
| Antenna installation | : | FPC Antenna |
| Antenna Gain | : | 2.4G WiFi: 2.63dBi<br>BT: 0.57dBi |
| Power supply | : | 4.8-6V 200mA |
| Hardware Version | : | N/A |
| Software Version | : | N/A |

# 4 RF Exposure

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

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

## 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) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: Pd (W/m²) = $\frac{E^2}{377}$

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

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

| Mode | Antenna Gain (numeric) | Max. Peak Output Power (dBm) | Tune up tolerance (dBm) | Max Tune Up Power (mW) | Power Density (mW/cm2) | Limit of Power Density (mW/cm2) | Result |
|---|---|---|---|---|---|---|---|
| 2402(BLE_1M) | 1.15 | 0.62 | 0.62±1 | 1.140250 | 0.000262 | 1 | Pass |
| 2412(11N20) | 1.83 | 14.49 | 14.49±1 | 28.119008 | 0.010250 | 1 | Pass |

## 4.5 Simultaneous MPE Ratio Result

| BT (BLE_1M) MPE ratio | 2.4G WIFI (11N20) MPE ratio | simultaneous MPE ratio | MPE Limits ratio | Test result |
|---|---|---|---|---|
| 0.0002 | 0.0102 | 0.0104 | 1 | PASS |

Conclusion:

1.Calculate in the worst-case mode.

2.Max. Tune Up Power is declared by manufacturer, and used to calculate.

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