



FCC TEST REPORT

FCC ID: 2BG5G-K140PLUS

Product	:	Smart Lock
Model Name	:	K140PLUS
Brand	:	Desloc
Report No.	:	PTC25082014602E-FC03
Prepared for		
Zhejiang Desman Intelligent Technology Co., LTD		
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Prepared by		
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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 : Smart Lock

Model name : K140PLUS

Test procedure : FCC CFR47 Part 1.1307(b)(1)

Test Date : Sep. 20, 2025 to Feb. 04, 2026

Date of Issue : Feb. 04, 2026

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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Test Engineer:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack Zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC CFR47 Part 1.1307(b)(1) FCC CFR47 Part 2.1091	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Smart Lock
Model Name	:	K140PLUS
Specification	:	802.11b/g/n HT20/HT40 BLE
Operation Frequency	:	2412-2462MHz for 802.11b/g/ n(HT20/HT40) 2402-2480MHz 24.00 GHz-24.25 GHz
Number of Channel	:	11 channels for 802.11b/g/ n(HT20/HT40) 40 channels For DTS 3 channels For 24G SRD
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; GFSK, For DTS FMCW For 24G SRD
Antenna installation	:	BT: FPC antenna Wi-Fi: FPC antenna 24G SRD: PCB antenna
Antenna Gain	:	BT: 3.62 dBi Wi-Fi: 3.1 dBi 24G SRD: 5.84dBi
Power supply	:	Input Voltage: DC 5V Voltage range: 3.2V-4.2V 200mA Li-ion Battery : ZNS-MN-28A Rated Voltage: 3.7V
Hardware Version	:	K140PLUS_CTR_V1.0
Software Version	:	DES.AAN_Z002.A01_20251204



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

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

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

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

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 RF Output power

Freq. (GHz)	Field strength(max)@3m(dBuV/m)	EIRP (max) (dBm)
24.11	99.22	4.02

Note: EIRP=E-104.8+20logD,
Where
E is the electric field strength in dBμV/m.
EIRP is the equivalent isotropically radiated power in dBm.
d is the specified measurement distance in m.
where D=3, EIRP=E-95.2.

4.5 Test Result

Item	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
BLE_1M_2480 MHz	2.30	4.43	4.43±1	3.491403	0.001599	1	Pass
11G_2412	2.04	15.49	15.49±1	44.565600	0.018102	1	Pass
24G SRD 24.11GHz	3.84	4.02	4.02±1	3.176874	0.002425	1	Pass

**4.6 simultaneous MPE Result**

BLE_1M_2480MHz MPE ratio	2.4G Wi-Fi (11G_2412) MPE ratio	24G SRD_24.11GHz MPE ratio	simultaneous MPE ratio	MPE Limits ratio	Test result
0.001599	0.018102	0.002425	0.022126	1	PASS

Conclusion:

Both of the BLE (2.4 GHz) and WLAN (2.4GHz) and 24G SRD can transmit simultaneously, the formula of calculated the exposure is:

$$(CPD1/LPD1) + (CPD2/LPD2) + \dots \text{etc.} < 1$$

CPD=Calculation Power Density; LPD= Limit of Power Density

Therefore, the calculation of this situation is $(0.001599/1) + (0.018102/1) + (0.002425/1) = 0.022126$.

which is less than the "1" limit.

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