



Report No.: PTC25052317101E-FC04

FCC TEST REPORT

FCC ID: 2BG5G-D120LPLUS

Product	:	Smart Lock with Handle
Model Name	:	D120LPLUS
Brand	:	Desloc
Report No.	:	PTC25052317101E-FC04

Prepared for

Zhejiang Desman Intelligent Technology Co., LTD
Floor 1-3, Building 1, No.7 Jianghui South Road, Binjiang District, Hangzhou City, Zhejiang
Province, China, 310051

Prepared by

Precise Testing & Certification Co., Ltd
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China



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
Manufacturer'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 with Handle
Model name : D120LPLUS
Test procedure : KDB 447498 D01 General RF Exposure Guidance v06
Test Date : Jun. 23, 2025 to Jul. 9, 2025
Date of Issue : Jul. 9, 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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Test Engineer:

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

Simon Pu / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read "Ronnie Liu".

Ronnie Liu/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	:	Smart Lock with Handle
Model Name	:	D120LPLUS
Additional model	:	N/A
Specification	:	BT 5.1 802.11b/g/n HT20/HT40 NFC_13.56MHz
Operation Frequency	:	2402-2480MHz 2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40) NFC_13.56MHz
Number of Channel	:	40 channels for DTS(BLE) 11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40) 1 channel for NFC
Type of Modulation	:	GFSK DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; ASK
Antenna installation	:	BT:PCB 2.4G WiFi: FPC NFC: NFC_FPCB
Antenna Gain	:	BT:-16.39 dBi 2.4G WiFi : 2.53 dBi NFC: 0 dBi
Rated Power Supply	:	Input: DC 4.8-6V 200mA Li-ion Battery : C100PLUS Voltage: 4.6V-6V
Test Power Supply	:	Input: DC 4.8-6V 200mA Li-ion Battery : C100PLUS Voltage: 4.6V-6V
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

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

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. (MHz)	Field strength(max)(dB μ V/m)	ERP/ EIRP (max) (dBm)
13.56	59.72	-35.48

Note: EIRP=E-104.8+20logD,
Where
E is the electric field strength in dB μ V/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	0.02	2.86	2.86±1	2.432204	0.000011	1	Pass
11G_2462	1.79	14.56	14.56±1	35.974934	0.012815	1	Pass
NFC	1	-35.48	-35.48±1	0.000356	0.000000	1	Pass



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5 The max simultaneous transmission MPE.

2.4GWi-Fi MPE ratio	BT MPE ratio	NFC MPE ratio	simultaneous MPE ratio	MPE Limits ratio	Test result
0.012815	0.000011	0.000000	0.012826	1	PASS

Note: The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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