



MPE REPORT

FCC ID: 2A3H3-DY001

Product	:	Smart Door Lock
Model Name	:	DY001/DY001G/DY002B/DY002BG/DY003B/DY003BG/DY004B/ DY004BG/DY005B/DY005BG
Brand	:	SECUSTONE
Report No.	:	PTC21072800901E-FC03
Prepared for		
Shenzhen Chitongda Security Technology Co., Ltd.		
701-702, Block C, Academy Industrialization Multiple- use Building, Shenzhen Virtual University Park, No. 2, Yuexing 3rd Road, Nanshan District, Shenzhen		
Prepared by		
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1 TEST RESULT CERTIFICATION

Applicant's name : Shenzhen Chitongda Security Technology Co., Ltd.
Address : 701-702, Block C, Academy Industrialization Multiple-use Building, Shenzhen Virtual University Park, No. 2, Yuexing 3rd Road, Nanshan District, Shenzhen
Manufacture's name : Shenzhen Chitongda Security Technology Co., Ltd.
Address : 701-702, Block C, Academy Industrialization Multiple-use Building, Shenzhen Virtual University Park, No. 2, Yuexing 3rd Road, Nanshan District, Shenzhen
Product name : Smart Door Lock
Model name : DY001/DY001G/DY002B/DY002BG/DY003B/DY003BG/DY004B/DY004BG/DY005B/DY005BG
Standards : FCC 1.1310 & §1.1307(b)
Test Date : Sept.06, 2021 to Sept. 26, 2021
Date of Issue : Oct. 25, 2021
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:

Leo Yang / Engineer

Technical Manager:

Chris Du / Manager

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

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

MPE Calculation Method

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm (20cm)

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.



Measurement Result

R=20cm BT:

Peak Power: [2480MHz, 0.42 ± 1 dBm (1.387mW) output power]

Gain:0dBi=1

$P_d = (P_{out} * G) / (4 * \pi * R^2)$

So , $P_d = 0.000276$ mW/cm²

Conclusion:

For the max result: $0.000276 \leq 1.0$, Compliance with RF Exposure requirement.

----END OF REPORT----