

TEST REPORT

of

FCC CFR 47 part 1, 1.1307(b), 1.1310

FCC ID: 2ABFG-YRIZW2USPB2

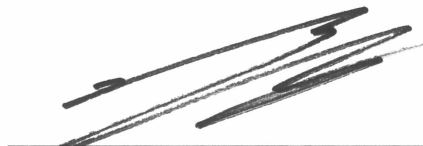
Equipment Under Test : Digital Door Lock
Model Name : YRD137-ZW-619
Variant Model Name(s) : Refer to the page 3
Applicant : iRevo-ASSA ABLOY Korea
Manufacturer : iRevo-ASSA ABLOY Korea
Date of Receipt : 2022.06.22
Date of Test(s) : 2022.06.23 ~ 2022.07.18
Date of Issue : 2022.07.27

In the configuration tested, the EUT complied with the standards specified above. This test report does not assure KOLAS accreditation.

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- 2) The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received.
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We are responsible for all the information of this test report except for the data(※) provided by the customer.

Tested by:


Murphy Kim

Technical Manager:


Jinhyoung Cho

SGS Korea Co., Ltd. Gunpo Laboratory

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1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

- 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

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1.2. Details of Applicant

Applicant : iRevo-ASSAABLOY Korea

Address : 10f of JEI PLATZ Bldg., 186, Gasandigital 1-ro, Geumcheon-gu, Seoul, South Korea, 08502

Contact Person : Soo-kyung, Jang

Phone No. : +82 2 2107 5741

1.3. Details of Manufacturer

Company : Same as applicant

Address : Same as applicant

1.4. Description of EUT

Kind of Product	Digital Door Lock
Model Name	YRD137-ZW-619
Variant Model Name	YRD137-ZW-605, YRD137-ZW-0BP, YRD137-ZW-BSP
Power Supply	DC 6.0 V
Frequency Range	908.42 MHz ~ 916 MHz
Modulation Technique	ASK
Number of Channels	2 channels
Antenna Type	HELICAL antenna
Antenna Gain	-4.55 dBi
H/W Version	PV01
S/W Version	V2.2.6

1.5. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501-RF-RTL003329	2022.07.27	Initial

1.6. Information of Variant Models

Model Name	Description
YRD137-ZW-619	- Basic Model. - SILVER
YRD137-ZW-605	- GOLD
YRD137-ZW-0BP	- Oil Rubbed Bronze
YRD137-ZW-BSP	- Matt BLACK

2. RF Exposure Evaluation

2.1. Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time
(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
(ii) 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
<u>300-1 500</u>	-	-	<u>f/1500</u>	<u><30</u>
1 500-100 000	-	-	1.0	<30

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

Where P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

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

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

2.1.2. Test Result of RF Exposure Evaluation

Test Item : RF Exposure Evaluation Data
Test Mode : Normal Operation

2.1.4. Output Power into Antenna & RF Exposure Evaluation Distance

- Maximum tune up tolerance

Frequency (MHz)	Radiated Field Strength (dB μ V/m)	Convert Field Strength to E.I.R.P. (dB m)	Power Density at 20 cm (mW/cm ²)	Limits (mW/cm ²)
902 ~ 928	89.07	-6.16	0.000 048	0.601 333

Note;

- According to KDB 412172, E.I.R.P. = (Filed Strength (V/m) x d (m))² / 30,
d = measurement distance in meters (m)
- The power density Pd (6th column) at a distance of 20 cm calculated from the friis transmission formula is far below the limit of 1 mW/cm².
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
- This equipment should be installed and operated with minimum 20 cm between the radiator and your body.
- The antenna gain of this transmitter is less than 6 dBi and must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.
- According to KDB 447498 D04 Interim General RF Exposure Guidance 2.1.

- End of the Test Report -