

Report Number: F690501/RF-RTL014493-1

TEST REPORT

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

FCC ID: 2AMSJ-SSELTO-01

Equipment Under Test : Smart toy

Model Name SSELTO-01

Applicant : SOLIDEA LAB, Inc.

Manufacturer : SOLIDEA LAB, Inc.

Date of Receipt : 2019.10.08

Date of Test(s) : 2019.10.08 ~2019.11.04

Jungmin Yang

Date of Issue : 2019.11.22

In the configuration tested, the EUT complied with the standards specified above.

Tested By: 2019.11.22 Murphy Kim **Technical** Date: 2019.11.22 Manager:

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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

All SGS services are rendered in accordance with the applicable SGS conditions of service available on

request and accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.

Telephone : +82 31 688 0901 FAX : +82 31 688 0921

1.2. Details of Applicant

Applicant : SOLIDEA LAB, Inc.

Address : 104-14, Yeonsuwon-ro, Danwon-gu, Ansan-si, Gyeonggi-do, South Korea, 15432

Contact Person : Choi, Moo-sung Phone No. : +82 70 4318 1982

1.3. Details of Manufacturer

Company : Same as applicant Address : Same as applicant

1.4. Description of EUT

Kind of Product	Smart toy	
Model Name	SSELTO-01	
Power Supply	DC 3.3 V	
Frequency Range	2 402 № ~ 2 480 № (Bluetooth Low Energy)	
Modulation Technique	GFSK	
Number of Channels	40 channels (Bluetooth Low Energy)	
Antenna Type	ntenna Type PCB Antenna	
Antenna Gain	1.7 dB i	

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1.5. Test Report Revision

Revision	Report Number	Date of Issue	Description
0	F690501/RF-RTL014493	2019.11.04	Initial
1	F690501/RF-RTL014493-1	2019.11.22	Revised the model name



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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 (쌘)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm)	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		
(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		
<u>1 500-100 000</u>	-	-	1.0	<u>30</u>		

2.1.1. Friis transmission formula: $Pd = (Pout*G)/(4*pi*R^2)$

Where Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

Pd 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.

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2.1.2. Test Result of RF Exposure Evaluation

Test Item : RF Exposure Evaluation Data

Test Mode : Normal Operation

2.1.3. Output Power into Antenna & RF Exposure Evaluation Distance

Bluetooth

- Maximum tune up tolerance

Frequency (脈)	Output Average Power to Antenna (dB m)	Antenna Gain (dB i)	Power Density at 20 cm (ﷺ/ﷺ)	Limits (mW/cm²)
2 402 ~ 2 480	-9.08	1.7	0.000 036	1

Note;

- The power density Pd (5th 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.

- End of the Test Report -