

RF Exposure Evaluation Report

Product : Home Security System
Trade mark : SENS8
Model/Type reference : SHS1-US
Serial Number : N/A
Report Number : EED32J00129302
FCC ID : 2AM3ESHS1
Date of Issue : Aug. 2, 2017
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB 447498 D01v06
Test result : PASS

Prepared for:

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Prepared by:

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2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	Suzhou RippleInfo Co., Ltd.
Address of Applicant:	209 Zhuyuan Rd, Suzhou, China
Manufacturer:	Suzhou RippleInfo Co., Ltd.
Address of Manufacturer:	209 Zhuyuan Rd, Suzhou, China
Factory:	Eolane(China) Co., Ltd.
Address of Factory:	#49, 9 Dongfu Road, Dongjing Industrial Park, SIP, Suzhou, China

4.2 General Description of EUT

Product Name:	Home Security System	
Model No.:	SHS1-US	
Trade Mark:	SENS8	
EUT Supports Radios application:	Wlan 2.4GHz 802.11b/g/n(HT20)/n(HT40)	
Power Supply:	Battery	3.7V/750mAh
	AC Adapter	MODEL:AK12WG-0500200UU Input: 100V-240V,50Hz/60Hz,0.3A Output: 5V---2A

4.3 Product Specification subjective to this standard

Modulation Type:	IEEE for 802.11b: DSSS IEEE for 802.11g :OFDM IEEE for 802.11n(HT20 and HT40) : OFDM
Sample Type:	Fixed production
Antenna Type:	Dipole
Antenna Gain:	2.63dBi
Test Voltage:	AC 120V,60Hz
Sample Received Date:	Jun. 24, 2017
Sample tested Date:	Jun. 24, 2017 to Aug. 2, 2017
The tested sample and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China 518101

Telephone: +86 (0) 755 3368 3668 Fax:+86 (0) 755 3368 3385

No tests were sub-contracted.

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

According to FCC Part1.1310: 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 part1.1307(b)

TABLE 1—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 Exposures				
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
300–1500			f/300	6
1500–100,000			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
300–1500			f/1500	30
1500–100,000			1.0	30

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user.

Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 2.63dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power(dBm)	Gain (dBi)	EIRP* (dBm)	EIRP (mW)	R (cm)	S (mW/cm ²)	Limit (mW/cm ²)	Result
Highest	2462	22.71	2.63	25.34	341.98	20	0.068	1.0	Pass

Note: Refer to report No. EED32J00129301 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32J00129301 for EUT external and internal photos.

*** End of Report ***

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