


RF Exposure Evaluation Report

Product : Smart Pet Tracker
Trade mark : 
Model/Type reference : TK001
Serial Number : N/A
Report Number : EED32J00245403
FCC ID : 2AOGH-TK001
Date of Issue : Apr. 24, 2018
47 CFR Part 1.1307
Test Standards : 47 CFR Part 1.1310
KDB447498D01v06
Test result : PASS

Prepared for:

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2 Version

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4 General Information

4.1 Client Information

Applicant:	Guangzhou Xiaomaoqiu Intellectual Technology Co., Ltd
Address of Applicant:	Room 801, No.240, Tianhe East Road, Tianhe District Guangzhou, Guangdong
Manufacturer:	Guangzhou Xiaomaoqiu Intellectual Technology Co., Ltd
Address of Manufacturer:	Room 801, No.240, Tianhe East Road, Tianhe District Guangzhou, Guangdong
Factory 1:	SIRTEC (DongGuan) Plastics & Electronics CO., Ltd
Factory 2:	Dongguan Xiesheng Plastic Electronic Co., Ltd
Address of Factory:	Building E, No.111, Shaxin Road, Tangxia Town, Dongguan, Guangdong

4.2 General Description of EUT

Product Name:	Smart Pet Tracker
Model No.(EUT):	TK001
Trade Mark:	
EUT Supports Radios application:	GSM850/1900(GPRS); GPS: L1: 1575.42MHz.
Firmware version:	X2_64X32_A_170821(manufacturer declare)
Hardware version:	V1.2(manufacturer declare)

4.3 Product Specification subjective to this standard

Frequency Range:	GSM850/1900(GPRS); GPS: L1: 1575.42MHz.
Modulation Type:	GMSK
Antenna Type:	FPC Antenna
Antenna Gain:	GSM850MHz: -1dBi GSM1900MHz: -1.5dBi
Power Supply:	DC 3.7V, 400mAh by lithium battery DC 5V by USB port
Max Conducted Peak Output Power:	31.98dBm(1577.61mW)* The Max Conducted Peak Output Power data refer to the report EED32J00245402.
Sample Received Date:	Nov. 01, 2017
Sample tested Date:	Nov. 01, 2017 to Apr. 23, 2018
The tested sample(s) and the sample information are provided by the client.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd.

Building C, 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: -1dBi

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	848.8	31.98	-1	30.98	1253.14	20	0.25	0.57	Pass

Note: Refer to report No. EED32J00245402 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32J00245402 for EUT external and internal photos.

*** End of Report ***

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