RF EXPOSURE

EVALUATION REPORT

APPLICANT   : Vaultek Safe, Inc.

PRODUCT NAME   : Smart Key Plus

MODEL NAME   : VSK+

BRAND NAME   : VAULTEK

FCC ID   : 2AONI-PRO-VSKP01

STANDARD(S)   : 47CFR 2.1093
                      KDB 447498

ISSUE DATE   : 2018-01-22

Tested by: _____
            Peng Fuwei (Test engineer)

Approved by: _____
              Peng Huarui (Supervisor)

DIRECTORY

Change History		
Issue	**Date**	**Reason for change**
1.0	2018-01-22	First edition

MORLAB
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555   Fax: 86-755-36698525

Http://www.morlab.cn   E-mail: service@morlab.cn

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1. Technical Information

Note: Provide by manufacturer.

1.1 Applicant and Manufacturer Information

Applicant:	Vaultek Safe, Inc.
Applicant Address:	37 N Orange Ave.Suite 800B Orlando, FL 32801,United States
Manufacturer:	Jeritech Electronics, Ltd.
Manufacturer Address:	3F and 1-1F, Guannanyong Industrial Estate, Shiqi Town, Panyu, GuangZhou, China

1.2 Equipment Under Test (EUT) Description

EUT Type:	Smart Key Plus
Hardware Version:	R10
Software Version:	R10
Frequency Bands:	433.92MHz
Modulation Mode:	ASK
Antenna type:	PCB Antenna
Antenna Gain:	0 dBi

1.3 Photographs of the EUT

1.   EUT front view

2.   EUT rear view

1.3.1 Identification of all used EUT

The EUT identity consists of numerical and letter characters, the letter character indicates the test sample, and the following t wo num erical c haracters i ndicate the software v ersion o f the t est sample.

EUT Identity	Hardware Version	Software Version
1#	R10	R10

1.4 Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title
1	47 CFR§2.1093	Radio frequency R adiation E xposure E valuation: portable devices
2	KDB 447498 D01v06	General RF Exposure Guidance

2. Device Category And RF Exposure Limit

Per user manual, this device is a Smart Key Plus. Based on 47CFR 2.1093, this device belongs to portable device category with General Population/Uncontrolled exposure.

Portable Devices:

47CFR 2.1093(b)

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.
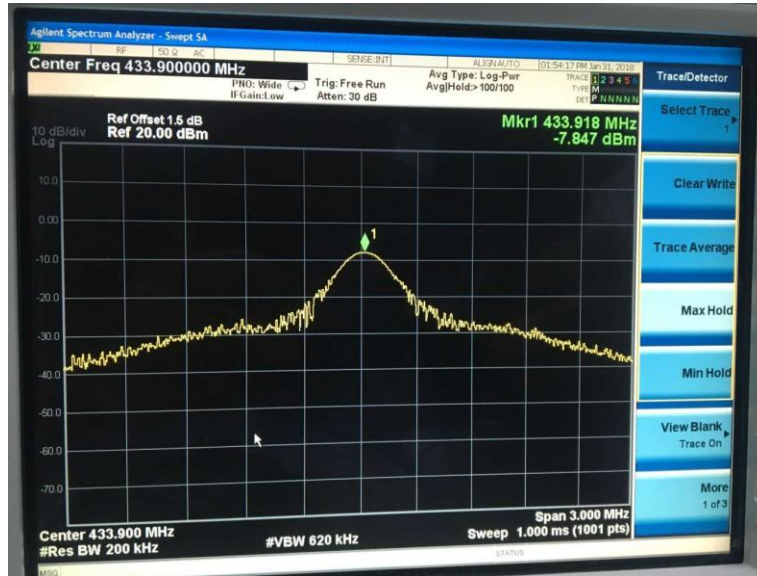
GENERAL POPULATION / UNCONTROLLED

EXPOSURE 47CFR 2.1093(d) (2)

Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section.

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3. RF Exposure Evaluation

Peak output power:

The device belongs to a low-power transmitter, and using with the host, so standalone SAR evaluation is required.

Standalone transmission SAR evaluation

According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation Distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)] ≤ 3.0

The maximum power tune-up limit of this device is 1dBm.

The maximum tune-up limit power is **1.26mW @ 433.92MHz**

When Smart Key Plus is used on the hand, so use **5mm** as the most conservative minimum test separation distance,

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[√f(GHz)] **=0.17**≤ 3.0

So SAR evaluation is not required for this device.

Annex A General Information

1. Identification of the Responsible Testing Laboratory

Company Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Department:	Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, B lock 67, B aoAn D istrict, S henZhen, GuangDong Province, P. R. China
Responsible Test Lab Manager:	Mr. Su Feng
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab C ommunications Technology C o., L td. Morlab Laboratory
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, B lock 67 , B aoAn D istrict, S henZhen, GuangDong Province, P. R. China

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