



# RF EXPOSURE EXEMPT REPORT

**APPLICANT** : Vaultek Safe, Inc.  
**PRODUCT NAME** : Nano Touch  
**MODEL NAME** : VSK-NT  
**BRAND NAME** : Vaultek  
**FCC ID** : 2AONI-VSK-NT5063501  
**STANDARD(S)** : 47CFR 2.1093  
KDB 447498  
**RECEIPT DATE** : 2020-01-13  
**TEST DATE** : 2020-02-26 to 2020-03-10  
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<b>Change History</b>		
<b>Version</b>	<b>Date</b>	<b>Reason for Change</b>
1.0	2020-03-11	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1 Applicant and Manufacturer Information

<b>Applicant:</b>	Vaultek Safe, Inc.
<b>Applicant Address:</b>	37 N Orange Ave.Suite 800B Orlando, FL 32801
<b>Manufacturer:</b>	Jeritech Electronics, Ltd.
<b>Manufacturer Address:</b>	Guannanyong Industrial Estate, Shiqi Town, Panyu, GuangZhou, China

## 1.2 Equipment Under Test (EUT) Description

<b>Product Name:</b>	Nano Touch
<b>Serial No:</b>	(N/A, marked #1 by test site)
<b>Hardware Version:</b>	1.0.0
<b>Software Version:</b>	1.0.0
<b>Modulation Type:</b>	GFSK
<b>Operating Frequency Range:</b>	433.92MHz
<b>Antenna Type:</b>	PCB Antenna
<b>Antenna Gain:</b>	1.36dBi

## 1.3 Applied Reference Documents

Leading reference documents for testing:

No.	Identity	Document Title	Method determination /Remark
1	47 CFR§2.1093	Radio Frequency Radiation Exposure Evaluation: portable devices	No deviation
2	KDB 447498 D01v06	General RF Exposure Guidance	No deviation

**Note 1:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.



## 2. Device Category and RF Exposure Limit

Per user manual, this device is a Nano Touch. 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.



### 3. RF Output Power

#### <433MHz Mode >

Frequency(MHz)	Max. Emission E(dB $\mu$ V/m)	Max. Emission (W)	Time-averaging EIRP (mW)
433.92MHz	80.30	0.010	0.032

**Note 1:** According to KDB 447498 Section 4.3, SAR test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

**Note 2:** The maximum average emission refers to report (Report No.: SZ20010127W01).



## 4. RF Exposure Evaluation

### ➤ Standalone Transmission SAR Evaluation:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0.$

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

2. Standalone SAR measurement is not required for the EIRP is less than the exempt condition according to FCC KDB 447498 D01v06 4.3.2).

### ➤ Simultaneous SAR Evaluation:

This device only incorporates one 433.92MHz transmitter, therefore simultaneous SAR evaluation is not required.



# Annex A Testing Laboratory Information

## 1. Identification of the Responsible Testing Laboratory

<b>Laboratory Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
<b>Laboratory Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
<b>Telephone:</b>	+86 755 36698555
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## 2. Identification of the Responsible Testing Location

<b>Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory
<b>Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

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