

## RF Exposure Report

**Report No.:** SA190924C28

**FCC ID:** 2AQYP-3ABGPSW

**Test Model:** SNT3-ULTRA-V2-ABGPSW3(RCX)

**Series Model:** SNT3-ULTRA-V2-ABPSW3(RCX)  
SNT3-ULTRA-V2-ABGPS3(RCX)  
SNT3-ULTRA-V2-ABPS3(RCX)  
SNT3-ULTRA-V2-ABGSW3(RCX)  
SNT3-ULTRA-V2-ABSW3(RCX)  
SNT3-ULTRA-V2-ABGS3(RCX)  
SNT3-ULTRA-V2-ABS3(RCX) (Refer to section 2 for more details)

**Received Date:** Sep. 24, 2019

**Date of Evaluation:** Oct. 21, 2019

**Issued Date:** Oct. 28, 2019

**Applicant:** Sensolus NV

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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33383, TAIWAN

**FCC Registration /  
Designation Number:** 788550 / TW0003



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### Release Control Record

Issue No.	Description	Date Issued
SA190924C28	Original Release	Oct. 28, 2019

## 1 Certificate of Conformity

**Product:** StickNTrack

**Brand:** Sensolus

**Test Model:** SNT3-ULTRA-V2-ABGPSW3(RCX)

**Series Model:** SNT3-ULTRA-V2-ABPSW3(RCX)  
SNT3-ULTRA-V2-ABGPS3(RCX)  
SNT3-ULTRA-V2-ABPS3(RCX)  
SNT3-ULTRA-V2-ABGSW3(RCX)  
SNT3-ULTRA-V2-ABSW3(RCX)  
SNT3-ULTRA-V2-ABGS3(RCX)  
SNT3-ULTRA-V2-ABS3(RCX) (Refer to section 2 for more details)


**Sample Status:** Mass Production


**Applicant:** Sensolus NV

**Date of Evaluation:** Oct. 21, 2019

**Standards:** FCC Part 2 (Section 2.1091)  
KDB 447498 D01 General RF Exposure Guidance v06  
IEEE C95.3 -2002

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :**  , **Date:** Oct. 28, 2019  
Gina Liu / Specialist

**Approved by :**  , **Date:** Oct. 28, 2019  
Dylan Chiou / Project Engineer

## 2 General Information

The models of EUT are listed as below.

Model		Function list	Disable by SW or HW removed
<b>Main</b>	SNT3-ULTRA-V2-ABGPSW3(RCX)	Function: Bluetooth, GPS, Pressure sensor, Sigfox, Wifi	All function
<b>Variante-1</b>	SNT3-ULTRA-V2-ABPSW3(RCX)	Function: Bluetooth, Pressure sensor, Sigfox, Wifi	Disable by HW remove (chip and related components)
<b>Variante-2</b>	SNT3-ULTRA-V2-ABGPS3(RCX)	Function: Bluetooth, GPS, Pressure sensor, Sigfox	Disable by HW remove (chip and related components)
<b>Variante-3</b>	SNT3-ULTRA-V2-ABPS3(RCX)	Function: Bluetooth, Pressure sensor, Sigfox	Disable by HW remove (chip and related components)
<b>Variante-4</b>	SNT3-ULTRA-V2-ABGSW3(RCX)	Function: Bluetooth, GPS, Sigfox, Wifi	Disable by HW remove (chip and related components)
<b>Variante-5</b>	SNT3-ULTRA-V2-ABSW3(RCX)	Function: Bluetooth, Sigfox, Wifi	Disable by HW remove (chip and related components)
<b>Variante-6</b>	SNT3-ULTRA-V2-ABGS3(RCX)	Function: Bluetooth, GPS, Sigfox	Disable by HW remove (chip and related components)
<b>Variante-7</b>	SNT3-ULTRA-V2-ABS3(RCX)	Function: Bluetooth, Sigfox	Disable by HW remove (chip and related components)

**Explain the product feature codes:**

**A = Amplifier on sigfox RF frontend**

**B = Bluetooth**

**G = GPS**

**P = Pressure sensor**

**S = Sigfox**

**W = Wifi scanning (passive)**

## 3 RF Exposure

### 3.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
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 <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz ; \*Plane-wave equivalent power density

### 3.2 MPE Calculation Formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

### 3.1 Classification

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

So, this device is classified as **Mobile Device**.

### 3.4 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
BT LE	2402-2480	2.76	0.65	20	0.0004	1.00
Sigfox	902.13 ~ 905.2	21.57	-0.87	20	0.023	0.60

Note:

- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

#### Conclusion:

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$BT\ LE + Sigfox = 0.0004 / 1 + 0.023 / 0.60 = 0.039$$

**Therefore the maximum calculations of above situations are less than the "1" limit.**

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