

RF Exposure Report

Report No.: SA190212E02

FCC ID: 2ANPR-M-PWRSENS

Test Model: M-PWRSENS

Received Date: Feb. 12, 2019

Test Date: Feb. 22, 2019

Issued Date: Mar. 12, 2019

Applicant: SensThys, Inc.

Address: 21060 Homestead Rd. Suite 226 Cupertino, CA 95014

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Taiwan R.O.C.

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

**FCC Registration /
Designation Number:** 723255 / TW2022

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Release Control Record

Issue No.	Description	Date Issued
SA190212E02	Original release.	Mar. 12, 2019

1 Certificate of Conformity

Product: M-PWRSENS

Brand: SensThys, Inc.

Test Model: M-PWRSENS

Sample Status: ENGINEERING SAMPLE

Applicant: SensThys, Inc.

Test Date: Feb. 22, 2019

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 EMC characteristics under the conditions specified in this report.

Prepared by :



Date: Mar. 12, 2019

Cindy Hsin / Specialist

Approved by :



Date: Mar. 12, 2019

May Chen / Manager

2 RF Exposure

2.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	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 ²)*	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

2.2 MPE Calculation Formula

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

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 22cm away from the body of the user.
So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Ant. No.	Antenna Net Gain (dBi)	Frequency range (MHz to MHz)	Antenna Type	Connector Type	Cable Loss(dB)	Excluding cable loss Antenna Gain(dBic)
1	4.75	902~928	Patch	SMA Female	0.75	8.5
2	5.25	902~928	Patch	SMA Female	0.75	9

Note:

1. The EUT has four chain ports (chain 0 / chain 1 / chain 2 / chain 3) and can connect any one to function. When one chain port functions, another don't any function.
2. From the above conditions, the worst cases were found in **Chain 0**. Therefore only the test data of the mode was recorded in this report.

2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
902.75 ~ 927.25	893.305	5.25	22	0.49198	0.60183

Note: Limit of Power Density= $f/1500$

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