

RF Exposure Report

Report No.: SA180613E05

FCC ID: O9YJKS2

Test Model: JKS2, JKS2A, JKS2B, JKS2C, JKS2D, ATS100-A, ATS100-T, ATS100-Y-A, ATS100-Y-T, ATS100-Z-A, ATS100-Z-T, ATS100-YZ-A, ATS100-YZ-T

Received Date: Mar. 26, 2018

Date of Evaluation: Aug. 31, 2018

Issued Date: Sep. 05, 2018

Applicant: Spireon Inc.

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

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Test Location: No. 19, Hwa Ya 2nd Rd, Wen Hwa Vil, Kwei Shan Dist., Taoyuan City 33383, Taiwan (R.O.C)

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



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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits for Maximum Permissible Exposure (MPE)	5
2.2 MPE Calculation Formula	5
2.3 Classification	5
2.4 Calculation Result of Maximum Conducted Power	6

Release Control Record

Issue No.	Description	Date Issued
SA180613E05	Original Release	Sep. 05, 2018

1 Certificate of Conformity

Product: GPS Tracker

Brand: Spireon

Test Model: JKS2, JKS2A, JKS2B, JKS2C, JKS2D, ATS100-A, ATS100-T, ATS100-Y-A,
ATS100-Y-T, ATS100-Z-A, ATS100-Z-T, ATS100-YZ-A, ATS100-YZ-T

Sample Status: Engineering Sample

Applicant: Spireon Inc.

Date of Evaluation: Aug. 31, 2018

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: Sep. 05, 2018

Gina Liu / Specialist

Approved by :



Date: Sep. 05, 2018

Dylan Chiou / Project Engineer

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

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

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 20cm away from the body of the user.
So, this device is classified as **Mobile Device**.

2.4 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WCDMA II	1850-1910	23.83	3.6	20	0.110	1.00
WCDMA V	824-849	24.22	1.4	20	0.073	0.55
LTE 2	1850-1910	23.58	3.6	20	0.104	1.00
LTE 4	1710-1755	23.82	2.8	20	0.091	1.00
LTE 5	824-849	23.77	1.4	20	0.065	0.55
LTE 12	699-716	23.33	1.8	20	0.065	0.47

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