

RF Exposure Report

Report No.: SA190415C07

FCC ID: O9YJKS3

Test Model: JKS3A

Series Model: ATS100M-YZ-V, ATS100M-YZ-S, JKS3B, ATS100M-Y-V, ATS100M-Y-S, JKS3C, ATS100M-Z-V, ATS100M-Z-S, JKS3D, ATS100M-V, ATS100M-S

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

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FCC Registration /
Designation Number: 788550 / TW0003



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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Release Control Record

Issue No.	Description	Date Issued
SA190415C07	Original Release	Jun. 11, 2019

1 Certificate of Conformity

Product: GPS Tracker

Brand: Spireon

Test Model: JKS3A

Series Model: ATS100M-YZ-V, ATS100M-YZ-S, JKS3B, ATS100M-Y-V, ATS100M-Y-S, JKS3C, ATS100M-Z-V, ATS100M-Z-S, JKS3D, ATS100M-V, ATS100M-S

Sample Status: Engineering Sample

Applicant: Spireon Inc

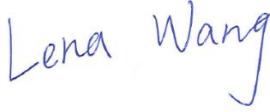
Date of Evaluation: Jun. 05, 2019

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 RF characteristics under the conditions specified in this report.

Prepared by :  _____, **Date:** Jun. 11, 2019

Lena Wang / Specialist

Approved by :  _____, **Date:** Jun. 11, 2019

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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = 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 Antenna Gain

LTE Band 4: PIFA Antenna with 2.8 dBi gain

LTE Band 13: PIFA Antenna with 1.8 dBi gain

LTE Band 25: PIFA Antenna with 3.6 dBi gain

LTE Band 26: PIFA Antenna with 1.4 dBi gain

2.5 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)
LTE 4	1710-1755	24.22	2.8	20	0.100	1.00
LTE 13	777-787	23.53	1.8	20	0.068	0.52
LTE 25	1850-1915	24.11	3.6	20	0.117	1.00
LTE 26	814-849	24.72	1.4	20	0.081	0.54

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