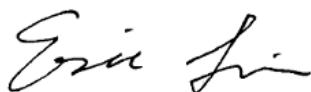


**1 Cover Page****RF Exposure Evaluation Report**

**Application No.:** KSCR2203000332AT  
**FCC ID:** 2AYF8-ZK201FAU  
**Applicant:** Zhejiang Okai Vehicle Co., Ltd.  
**Address of Applicant:** No.9, Xinxing Road, Xinbi Street, Jinyun, Lishui, Zhejiang, 321400, China  
**Manufacturer:** Zhejiang Okai Vehicle Co., Ltd  
**Address of Manufacturer:** No.9, Xinxing Road, Xinbi Street, Jinyun, Lishui, Zhejiang, 321400, China  
**Factory:** Zhejiang Okai Vehicle Co., Ltd  
**Address of Factory:** No.9, Xinxing Road, Xinbi Street, Jinyun, Lishui, Zhejiang, 321400, China  
**Equipment Under Test (EUT):**  
**EUT Name:** GPS Tracker  
**Model No.:** ZK201FAU  
**Standard(s) :** FCC Rules 47 CFR §2.1091  
KDB447498 D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2022-03-11  
**Date of Test:** 2022-03-25 to 2022-09-14  
**Date of Issue:** 2022-09-14

<b>Test Result:</b>	<b>Pass*</b>
---------------------	--------------

\* In the configuration tested, the EUT complied with the standards specified above.



Eric Lin  
EMC Lab Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-09-14		Original

Authorized for issue by:				
		<b>Tommie_Tang</b>		
		<b>Tommie_Tang/Project Engineer</b>		
		<b>Eric Lin</b>		
		<b>Eric Lin/Reviewer</b>		

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### 3 General Information

#### 3.1 General Description of E.U.T.

Power supply:	DC 40~60V
---------------	-----------

#### 3.2 Technical Specifications

BLE

Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V5.0 LE
Modulation Type:	GFSK
Number of Channels:	40
Channel Spacing:	2MHz
Data Rate:	1Mbps,2Mbps
Antenna Type:	Shrapnel Antenna
Antenna Gain:	3.12dBi (Provided by the manufacturer)

4G:

Frequency Band	LTE Band 2,4,5,12,13
Output power(dBm)	23.0dBm
Antenna Type	Shrapnel Antenna
Antenna Gain:	LTE Band 2: 0.72dBi(Provided by the manufacturer) LTE Band 4: 0.77dBi(Provided by the manufacturer) LTE Band 5: 1.25dBi(Provided by the manufacturer) LTE Band 12: 0.91dBi(Provided by the manufacturer) LTE Band 13: 1.58dBi(Provided by the manufacturer)

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### 3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

### 3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 2541.01)**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC (Designation Number: CN1172)**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory.

Designation Number: CN1172.

- **ISED (CAB identifier: CN0072)**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

- **VCCI (Member No.: 1938)**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



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## 4 Test Standards and Limits

### 4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency	Power density(mW/cm <sup>2</sup> )	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

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## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR220300033201

Test Mode	Test Frequency (MHz)	Output Power (dBm)	Reading Power (mW)
1M	2402	0.89	1.23
	2440	-1.21	0.76
	2480	-0.95	0.80
2M	2402	0.95	1.24
	2440	-1.19	0.76
	2480	-0.88	0.82

\*Remark: The tune-up power is 2dBm (1.58mW)

4G

The power of 4G base on the FCC certificate module of L506,

FCC ID is: 2AK9DL506, the maximum output power refer to test report: I22W00049-MPE-Rev3

The Max Conducted Output Power is 23dBm (199.53mW).

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## 5.2 MPE Calculation

According to the formula  $S=P/4\pi R^2$ , we can calculate S which is MPE.

Note:

- 1) P (mW)
- 2) R = distance to the center of radiation of antenna (in meter) = 20cm
- 3) MPE limit = 1mW/cm<sup>2</sup>

For BLE:

The max. antenna gain is		3.12	dB <sub>i</sub>		
Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
2	2.051	20	0.00082	1	Pass

For 4G:

The max. antenna gain is		1.58	dB <sub>i</sub>		
Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
199.53	1.439	20	0.05711	1	Pass

BT and 4G can transmit simultaneously, and  $0.00082/1+0.05711/1=0.05793<1$ , so the device is to qualify for SAR test exemption.

--End of the Report--

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