



RF Exposure Evaluation Report

Report No.: JYTSZ-R12-2301597

Applicant: Shenzhen eelink communication Technology Co., Ltd

Address of Applicant: 10A, Building B, Tongfang Information Harbor, No. 11, Langshan Rd, Nanshan District, Shenzhen, Guangdong, CHINA

Equipment Under Test (EUT)

Product Name: GPS Tracker

Model No.: TK419-3

Trade mark: N/A

FCC ID: 2BD7YTK419

Applicable standards: FCC CFR Title 47 Part 2 (§2.1091)

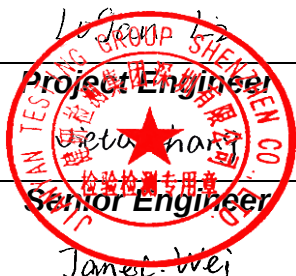
Date of sample receipt: 17 Nov., 2023

Date of Test: 18 Nov., to 11 Dec., 2023

Date of report issue: 02 Jan., 2024

Test Result: PASS

Project by:


Project Engineer

Date:

02 Jan., 2024

Reviewed by:

Senior Engineer

Date:

02 Jan., 2024

Approved by:

Janet Wei

Date:

02 Jan., 2024

Manager

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	12 Dec., 2023	Original
01	02 Jan., 2024	Update Page 7.

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3 General Information

3.1 Client Information

Applicant:	Shenzhen eelink communication Technology Co., Ltd
Address:	10A, Building B, Tongfang Information Harbor, No. 11, Langshan Rd, Nanshan District, Shenzhen, Guangdong, CHINA
Manufacturer:	Shenzhen eelink communication Technology Co., Ltd
Address:	10A, Building B, Tongfang Information Harbor, No. 11, Langshan Rd, Nanshan District, Shenzhen, Guangdong, CHINA
Factory:	KONKA Smart Technology Co., Ltd.
Address:	No.12, West Section of Gangyuan Road, Guoxing Avenue, Lingang Economic Development Zone Yibin, Sicuan, P.R.CHINA

3.2 General Description of E.U.T.

Product Name:	GPS Tracker
Model No.:	TK419-3
Operation Frequency:	GSM850: 824.2 MHz - 848.8 MHz PCS1900: 1850.2 MHz - 1909.8 MHz LTE band 2: 1850 MHz - 1910 MHz LTE band 4: 1710 MHz - 1755 MHz LTE band 5: 824 MHz - 849 MHz LTE band 12: 699 MHz - 716 MHz LTE band 13: 777 MHz - 787 MHz LTE band 25: 1850 MHz - 1915 MHz LTE band 26: 814 MHz - 849 MHz LTE band 41: 2496 MHz - 2690 MHz LTE band 66: 1710 MHz - 1780 MHz
Modulation technology:	Voice(GMSK), GPRS(GMSK) QPSK, 16QAM
Antenna Type:	Internal Antenna
Antenna gain:	GSM 850: -1.58 dBi; PCS1900: 0.66 dBi LTE band 2: 0.66 dBi; LTE band 4: 1.71 dBi; LTE band 5: -1.58 dBi LTE band 12: -1.89dBi; LTE band 13: -1.58dBi; LTE band 25: 0.66dBi LTE band 26: -1.58dBi; LTE band 41: -2.99 dBi; LTE band 66: 1.71 dBi
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Operating Modes

Operating mode	Detail description
GSM mode	Keep the EUT in continuously transmitting in GSM850/ PCS1900 mode
LTE mode	Keep the EUT in continuously transmitting in LTE Band2/4/5/12/13/25/26/41/66 mode

3.4 Additions to, deviations, or exclusions from the method

No

3.5 Laboratory Facility

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

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

4 Technical Requirements Specification

4.1 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) 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

4.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

4.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm ²)	Limits for General Population/ Uncontrolled Exposure (mW/cm ²)
GSM							
GSM850	33.50	2238.72	2.53	1.79	40.00	0.1994	0.55
PCS1900	30.67	1166.81	1.59	1.44	40.00	0.0837	1.0
LTE							
Band 2	23.54	225.94	1.59	1.44	40.00	0.0162	1.0
Band 4	23.51	224.39	2.00	1.58	40.00	0.0177	1.0
Band 5	23.33	215.28	2.53	1.79	40.00	0.0192	0.55
Band 12	23.51	224.39	3.95	2.48	40.00	0.0277	0.47
Band 13	23.31	214.29	4.45	2.79	40.00	0.0297	0.52
Band 25	23.47	222.33	1.59	1.44	40.00	0.0159	1.0
Band 26(Part 22H)	23.35	216.27	2.53	1.79	40.00	0.0193	0.54
Band 26(Part 90S)	23.35	216.27	2.53	1.79	40.00	0.0193	0.54
Band 41	23.69	233.88	3.00	2.00	40.00	0.0232	1.0
Band 66	23.68	233.35	2.00	1.58	40.00	0.0184	1.0

Note:

1. Just the worst case mode was shown in report.
2. The GSM and LTE maximum output power reference report: FG2D1203A, FG2D1203B, FG2D1203C, FG2D1203D, FCC ID: XMR2023EG912UGL, which is issued by Sporton International Inc. (Kunshan).

4.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----