



RF Exposure Report

For

Applicant name: Kinematic GNSS Inc
Address: Room 206, Building 2, Lane 666, Zhangheng Road, Pudong District, Shanghai, China
EUT name: GNSS Receiver
Brand name: Kinematic
Model number: K1
Series model number: N/A
FCC ID: 2BQJ7-K1

Issued By

Company name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: 101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Report number: BTF250626R00906
Test standards: 47 CFR Part 2 Subpart J Section 2.1091
Test conclusion: Pass
Date of sample receipt: 2025-01-03
Test date: 2025-01-03 to 2025-03-12
Date of issue: 2025-07-01
Prepared by: Chris Liu
Chris Liu/ Project engineer
Approved by: Ryan.CJ/EMC manager



Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Revision History		
Version	Issue Date	Revisions Content
R_V0	2025-07-01	Original
Note:		Once the revision has been made, then previous versions reports are invalid.

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1. Introduction

1.1 Laboratory Location

Test location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	101/201/301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Subdistrict, Bao'an District, Shenzhen, China
Phone number:	+86-0755-23146130
Fax number:	+86-0755-23146130

1.2 Laboratory Facility

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

- **FCC - Designation No.: CN1409**
BTF Testing Lab (Shenzhen) Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The test firm Registration No. is 695374.
- **ISED – CAB identifier.: CN0135**
The 3m Semi-anechoic chamber of BTF Testing Lab (Shenzhen) Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 27844.
- **CNAS - Registration No.: CNAS L17568**
BTF Testing Lab (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 L17568.
- **A2LA - Registration No.: 6660.01**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2. Product Information

2.1 Application Information

Company Name:	Kinematic GNSS Inc
Address:	Room 206, Building 2, Lane 666, Zhangheng Road, Pudong District, Shanghai, China

2.2 Manufacturer Information

Company Name:	Kinematic GNSS Inc
Address:	Room 206, Building 2, Lane 666, Zhangheng Road, Pudong District, Shanghai, China

2.3 Factory Information

Company Name:	Kinematic GNSS Inc
Address:	Room 206, Building 2, Lane 666, Zhangheng Road, Pudong District, Shanghai, China

2.4 General Description of Equipment under Test (EUT)

EUT name	GNSS Receiver
Under test model name	K1
Series model name	N/A
Description of model name differentiation	N/A
Hardware Version	V1.23
Software Version	2.0.99
Rating:	Input Voltage 5VDC

3. Test Requirement

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), Limits for Maximum Permissible Exposure (MPE),

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

Note: f = frequency in MHz

EVALUATION METHOD

Transmission 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;

Pi = 3.1416, **R** = distance between observation point and center of the radiator in cm

3.1 Assessment Result

☒ Passed ☐ Not Applicable

Modulation Type	Output power (Target)		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
2.4GHz	27.00	501.19	1.25	1.334	0.1330	1.0000
BR&EDR	8.00	6.31	1.25	1.334	0.0017	1.0000
BLE	4.00	2.51	1.25	1.334	0.0007	1.0000
LTE Band38	26.00	398.11	1.44	1.393	0.1103	1.0000
LTE Band41	26.00	398.11	1.44	1.393	0.1103	1.0000
UHF	30.00	1000.00	1.25	1.334	0.2654	0.2733

Simultaneous Transmitting;

Bluetooth+LTE=0.0017/1+0.1103/1=0.1120<1

Bluetooth+UHF=0.0017/1+0.2654/0.2733=0.9728<1

Note: The exposure evaluation safety distance is 20cm.



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