

RF Exposure Evaluation
For
ERM ELECTRONIC SYSTEMS LTD
GPS 4G Tracker Scout BLE (CATM)
Test Model: GPS 4G Tracker Scout BLE (CATM)

Prepared for : ERM ELECTRONIC SYSTEMS LTD
Address : 16 HASAR SHAPIRA, RISHON LE-ZION, ISRAEL

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Date of receipt of test sample : May 28, 2026
Number of tested samples : 2
Sample No. : C260527009-1, C260527009-2
Serial number : Sample/serial production
Date of Test : May 28, 2026 ~ July 31, 2026
Date of Report : August 04, 2026

RF Exposure Evaluation	
Report Reference No.	LCSC05276005EC
Date of Issue	August 04, 2026
Testing Laboratory Name	Guangzhou LCS Compliance Testing Laboratory Ltd.
Address	No.44-1, Qianfeng North Road, Shiqi, Panyu District, Guangzhou, Guangdong, China
Testing Location/ Procedure	Full application of Harmonised standards ☒ Partial application of Harmonised standards ☐ Other standard testing method ☐
Applicant's Name	ERM ELECTRONIC SYSTEMS LTD
Address	16 HASAR SHAPIRA, RISHON LE-ZION, ISRAEL
Test Specification	
Standard	FCC KDB publication 447498 D01 General RF Exposure Guidance v06 FCC CFR 47 part1 1.1310 FCC CFR 47 part2 2.1091
TRF Originator	Guangzhou LCS Compliance Testing Laboratory Ltd.
Master TRF	Dated 2011-03
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Test Item Description.	GPS 4G Tracker Scout BLE (CATM)
Trade Mark	STARLINK
Test Model	GPS 4G Tracker Scout BLE (CATM)
Ratings	Please Refer to Page 6
Result	Pass

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Justin Zhu/ Technique Director

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RF Exposure Evaluation

Test Report No. : LCSC05276005EC	<u>August 04, 2026</u> Date of issue
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Test Model.....	: GPS 4G Tracker Scout BLE (CATM)
EUT.....	: GPS 4G Tracker Scout BLE (CATM)
Applicant.....	: ERM ELECTRONIC SYSTEMS LTD
Address.....	: 16 HASAR SHAPIRA, RISHON LE-ZION, ISRAEL
Telephone.....	: /
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Manufacturer.....	: ERM ELECTRONIC SYSTEMS LTD
Address.....	: 16 HASAR SHAPIRA, RISHON LE-ZION, ISRAEL
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Factory.....	: ERM ELECTRONIC SYSTEMS LTD
Address.....	: 16 HASAR SHAPIRA, RISHON LE-ZION, ISRAEL
Telephone.....	: /
Fax.....	: /

Test Result	Pass
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Report Version	Issue Date	Revision Content	Revised By
000	August 04, 2026	Initial Issue	---

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1. Product Information

EUT : GPS 4G Tracker Scout BLE (CATM)

Test Model : GPS 4G Tracker Scout BLE (CATM)

Ratings : Input: DC 12-24V
Battery: 3.7V  350mAh

Hardware Version : /

Software Version : /

Bluetooth :

Frequency Range : 2402MHz~2480MHz

Channel Number : 40 channels for Bluetooth V5.0 (DTS)

Channel Spacing : 2MHz for Bluetooth V5.0 (DTS)

Modulation Type : GFSK for Bluetooth V5.0 (DTS)

Bluetooth Version : V5.0

Antenna Description : Internal Antenna, -5.86dBi(Max.)

LTE :

Support Band : ☒ E-UTRA Band 2(U.S.-Band)
☒ E-UTRA Band 4(U.S.-Band)
☒ E-UTRA Band 5(U.S.-Band)
☒ E-UTRA Band 66(U.S.-Band)

LTE Release Version : R9

Type Of Modulation : QPSK/16QAM

Antenna Description : Internal Antenna
2.52dBi(max.) For E-UTRA Band 2
2.78dBi(max.) For E-UTRA Band 4
0.65dBi(max.) For E-UTRA Band 5
2.788dBi(max.) For E-UTRA Band 66

Power Class : Class 3

Extreme temp. : -30°C to +50°C

Tolerance

Extreme vol. Limits : 10.2VDC to 13.8VDC (nominal: 12VDC)
21.6VDC to 26.4VDC (nominal: 24VDC)

Exposure category : General population/uncontrolled environment

EUT Type : Production Unit

Device Type : Mobile Device

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.

2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3.1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.

3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0 – 30	614	1.63	(100) *	6
30 – 300	1842/f	4.89/f	(900/f ²)*	6
300 – 1500	61.4	0.163	1.0	6
1500 – 100,000	/	/	f/300	6
	/	/	5	6
Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure				
Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Uncontrolled Exposure				
0.3 – 3.0 – 30	614	1.63	(100) *	30
30 – 300	824/f	2.19/f	(180/f ²)*	30
300 – 1500	27.5	0.073	0.2	30
1500 – 100,000	/	/	f/1500	30
	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

4. MPE Calculation Method

Predication of MPE limit at a given distance
Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

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

R=distance to the center of radiation of the antenna

5. Conducted Power

[BLE_1M]

Mode	Channel	Frequency (MHz)	Peak Conducted Output Power (dBm)
GFSK	0	2402	0.20
	19	2440	-1.35
	39	2480	0.52

6. Manufacturing Tolerance

[BLE_1M]

GFSK(Peak)

Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	0	-1.0	0
Tolerance ± (dB)	1.0	1.0	1.0

[LTE Max Average Power]

Test Mode		Channel	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
	Band 2	LCH	23.12	23.0±1.0
		MCH	23.48	23.0±1.0
		HCH	23.15	23.0±1.0
	Band 4	LCH	23.28	23.0±1.0
		MCH	23.06	23.0±1.0
		HCH	23.43	23.0±1.0
	Band 5	LCH	22.91	22.0±1.0
		MCH	22.62	22.0±1.0
		HCH	22.35	22.0±1.0
	Band 66	LCH	23.27	23.0±1.0
		MCH	23.01	23.0±1.0
		HCH	23.32	23.0±1.0

7. Measurement Results

7.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[BT LE]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BLE_1M	1.0	1.2589	-5.86	0.2594	0.0001	1.0000

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios2
	dBm	mW					
LTE Band 2	24	251.1886	2.52	1.7865	0.0893	1.0000	0.0893
LTE Band 4	24	251.1886	2.78	1.8967	0.0948	1.0000	0.0948
LTE Band 5	23	199.5262	0.65	1.1614	0.0461	0.5493	0.0839
LTE Band 66	24	251.1886	2.78	1.8967	0.0948	1.0000	0.0948

Remark:

1. Output power including tune-up tolerance;
2. Output power was adjusted to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.

7.2 Simultaneous Transmission MPE Evaluation

The sample support one BLE, another one LTE antenna transmit antenna, so need consider simultaneous transmission;

Simultaneous transmission MPE

According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;

$$TER = \sum_{k=1}^{N_s} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field,k}}{MPE_{field,lim}} \right)^2 + \sum_{k=1}^{N_{pd}} \left(\frac{MPE_{pd,k}}{MPE_{pd,lim}} \right)$$

$\sum \sum \text{of MPE ratios} \leq 1.0$

Max MPE ratios1	Max MPE ratios2	ratios1+ ratios2	Limit	Results
0.0001	0.0948	0.0949	1.000	Pass

8. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

9. Description of Test Facility

CNAS Registration Number is L11555

A2LA Certificate Number: 5099.01

FCC Designation Number is CN1379

Test Firm Registration Number: 729882

10. Measurement Uncertainty

BLE/LTE:

Test Item		Frequency Range	Uncertainty	Note
Output power	:	1GHz-40GHz	±0.57dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

-----THE END OF REPORT-----