



RF Exposure Report

For

Applicant name: **Shanghai Mini Deer Robot Co., LTD.**

Address: Room 505, Building No.1,Lane 215,Gaoguang Road, Qingpu District,Shanghai, China

EUT name: Rugged high-precision vehicle-mounted tablet

Brand name: N/A

Model number: DT101

Series model number: N/A

FCC ID: 2BKEC-DT101

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: BTF250701R00207

Test standards: 47 CFR Part 2 Subpart J Section 2.1091

Test conclusion: Pass

Date of sample receipt: 2025-02-02

Test date: 2025-02-08-2025-06-06

Date of issue: 2025-07-21

Prepared by:

Chris Liu

Approved
by:

Chris Liu/ Project engineer



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 | 2025-07-21 | Original |
| <i>Note:</i> | <i>Once the revision has been made, then previous versions reports are invalid.</i> | |

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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 518915.

- **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: | Shanghai Mini Deer Robot Co., LTD. |
| Address: | Room 505, Building No.1,Lane 215,Gaoguang Road, Qingpu District,Shanghai, China |

2.2 Manufacturer Information

| | |
|---------------|--|
| Company Name: | Shanghai AllyNav Technology Co.,Ltd. |
| Address: | Room 201, Building 1, No. 99, Lane 215, Gaoguang Road, Qingpu District Shanghai, China |

2.3 Factory Information

| | |
|---------------|--|
| Company Name: | Shanghai AllyNav Technology Co.,Ltd. |
| Address: | Room 201, Building 1, No. 99, Lane 215, Gaoguang Road, Qingpu District Shanghai, China |

2.4 General Description of Equipment under Test (EUT)

| | |
|---|--|
| EUT name | Rugged high-precision vehicle-mounted tablet |
| Under test model name | DT101 |
| Series model name | N/A |
| Description of model name differentiation | N/A |
| Hardware Version | D516 A1C4/A2C4(0) |
| Software Version | D516_Q_V022En20250114 |
| Rating: | DC 36V |

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 | | | | |
| 5GHz WiFi | 15.00 | 31.62 | 5.17 | 3.29 | 0.0207 | 1.0000 |
| 2.4GHz WiFi | 20.00 | 100.00 | 4.11 | 2.58 | 0.0513 | 1.0000 |
| BT | 2.00 | 1.58 | 4.11 | 2.58 | 0.0008 | 1.0000 |
| BLE | 2.00 | 1.58 | 4.11 | 2.58 | 0.0008 | 1.0000 |
| WCDMA Band II | 23.00 | 199.53 | 2.93 | 1.96 | 0.0778 | 1.0000 |
| WCDMA Band IV | 22.00 | 158.49 | -1.66 | 0.68 | 0.0214 | 1.0000 |
| WCDMA Band V | 23.00 | 199.53 | 1.99 | 1.58 | 0.0627 | 0.5493 |
| LTE Band 2 | 23.00 | 199.53 | 2.93 | 1.96 | 0.0778 | 1.0000 |
| LTE Band 4 | 23.00 | 199.53 | -1.66 | 0.68 | 0.0270 | 1.0000 |
| LTE Band 5 | 23.00 | 199.53 | 1.99 | 1.58 | 0.0627 | 0.5493 |
| LTE Band 7 | 21.00 | 125.89 | 5.43 | 3.49 | 0.0874 | 1.0000 |
| LTE Band 12 | 24.00 | 251.19 | -4.94 | 0.32 | 0.0160 | 0.4660 |
| LTE Band 17 | 24.00 | 251.19 | -4.94 | 0.32 | 0.0160 | 0.4693 |
| LTE Band 25 | 23.00 | 199.53 | 2.93 | 1.96 | 0.0778 | 1.0000 |
| LTE Band 26 | 23.00 | 199.53 | 1.99 | 1.58 | 0.0627 | 0.5660 |
| LTE Band 38 | 21.00 | 125.89 | 4.94 | 3.12 | 0.0781 | 1.0000 |
| LTE Band 41 | 21.00 | 125.89 | 5.43 | 3.49 | 0.0874 | 1.0000 |

Simultaneous Transmitting;

WIFI 2.4G+LTE Band 5=0.0513/1+0.0627/0.5493=0.1654<1

Note:

- 1.If nothing else, the report will only record the worst power.
- 2.The Maximum power is less than the limit, complies with the exemption requirements.
- 3.Output power (AVG) including turn-up tolerance;
- 4.The calculated distance is 20 cm.



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www.btf-lab.com

--END OF REPORT--