



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
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	2025-07-21	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 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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