

FCC TEST REPORT

Report No.....: AB26030068FW02

FCC ID.....: **2ATWZ-FRIGGAX1**

Applicant.....: Shanghai Dewav IoT Technology Co.,Ltd.

Address.....: No.3 Building, Lane 739 of Kangwei Road, Pudong New Area,
Shanghai, 201315,P.R.China

Manufacturer.....: Shanghai Dewav IoT Technology Co.,Ltd.

Address.....: No.3 Building, Lane 739 of Kangwei Road, Pudong New Area,
Shanghai, 201315,P.R.China

Product Name.....: Nexus - X1

Trade Mark.....: FRIGGA

Test Model.....: Nexus - X1

Additional Model(s).....: /

Standard.....: FCC Part 2 (Section 2.1091);KDB 447498 D01;IEEE C95.1

Date of Receipt.....: 2026.03.06

Date of Issue.....: 2026.03.26

Test Result.....: Pass

Compiled by: Huaijie Li
(Printed Name + Signature)

Huaijie Li

Supervised by: David Huang
(Printed Name + Signature)

David Huang

Approved by: Jay Liu
(Printed Name + Signature)

Jay Liu

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park,
Tianliao Community, Yutang Street, Guangming District, Shenzhen
City, Guangdong Province, China

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FCC TEST REPORT

EUT.....	: Nexus - X1
Test Model.....	: Nexus - X1
Applicant.....	: Shanghai Dewav IoT Technology Co.,Ltd.
Address.....	: No.3 Building, Lane 739 of Kangwei Road, Pudong New Area, Shanghai, 201315,P.R.China
Manufacturer.....	: Shanghai Dewav IoT Technology Co.,Ltd.
Address.....	: No.3 Building, Lane 739 of Kangwei Road, Pudong New Area, Shanghai, 201315,P.R.China

Test Result	Positive
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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.

REPORT VERSION

Version No.	Issue Date	Description
01	2026.03.26	Initial Issue

TABLE OF CONTENTS

1. GENERAL INFORMATION	4
1.1. GENERAL DESCRIPTION OF EUT	4
1.2. DESCRIPTION OF TEST FACILITY	6
2. RF EXPOSURE EVALUATION	7
2.1 LIMIT	7
2.2 EVALUATION RESULT	8

1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	Nexus - X1	
Trade Mark:	FRIGGA	
Test Model:	Nexus - X1	
Additional Model(s):	/	
Model Difference:	/	
Hardware Version:	V04	
Software Version:	V1.2	
Power Supply:	DC 3.7V	
EUT Supports Function: (Provided by the customer)	E-UTRA Bands:	LTE Band 1/2/3/4/5/7/8/12/17/28/38/40/41/66
Test Sample(s) Number:	AB26030068-01 (Engineer Sample)	
Radio Specification Subject to this Report		
Support Networks:	Band 1/2/3/4/5/7/8/12/17/28/38/40/41/66	
Frequency Range:	Band 2	1850MHz–1910MHz
	Band 4	1710MHz–1755MHz
	Band 5	824MHz–849MHz
	Band 7	2500MHz–2570MHz
	Band 12	699MHz–716MHz
	Band 17	704MHz–716MHz
	Band 38	2570MHz–2620MHz
	Band 40-1	2305MHz–2315MHz
	Band 40-2	2350MHz–2360MHz
	Band 41	2496MHz–2690MHz
	Band 66	1710MHz–1780MHz
	Band 1	1920MHz ~ 1980MHz
	Band 3	1710MHz~1785MHz
	Band 8	880MHz ~ 915MHz
	Band 28	703MHz ~ 748MHz
Modulation Type:	QPSK, 16QAM	
Channel Bandwidth:	Band 2	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 5	1.4MHz, 3MHz, 5MHz, 10MHz
	Band 7	5MHz, 10MHz, 15MHz, 20MHz
	Band 12	1.4MHz, 3MHz, 5MHz, 10MHz
	Band 17	5MHz, 10MHz
	Band 38	5MHz, 10MHz, 15MHz, 20MHz
	Band 40-1	5MHz, 10MHz
	Band 40-2	5MHz, 10MHz
	Band 41	5MHz, 10MHz, 15MHz, 20MHz
	Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 1	5MHz, 20MHz

	Band 3	1.4MHz, 5MHz,20MHz
	Band 8	1.4MHz, 5MHz,10MHz
	Band 28	3MHz, 5MHz,20MHz

1.2. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: aibo@aibonorm.com

Website: www.aibonorm.com

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

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

CAB identifier: CN0185

2. RF EXPOSURE EVALUATION

2.1 Limit

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

f = frequency in MHz

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm², P_{out} = 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

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2.2 Evaluation Result

LTE B2			
Channel	Low	Middle	High
Target (dBm)	23	23	23
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B4			
Channel	Low	Middle	High
Target (dBm)	23	23	23
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B5			
Channel	Low	Middle	High
Target (dBm)	22	22	22
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B7			
Channel	Low	Middle	High
Target (dBm)	21.5	21.5	21.5
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B12			
Channel	Low	Middle	High
Target (dBm)	23	23	23
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B17			
Channel	Low	Middle	High
Target (dBm)	23	23	23
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B38			
Channel	Low	Middle	High
Target (dBm)	22	22	22
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B40			
Channel	Low	Middle	High
Target (dBm)	19	19	19
Tolerance $\pm$ (dB)	2.0	2.0	2.0
LTE B41			
Channel	Low	Middle	High
Target (dBm)	22.5	22.5	22.5
Tolerance $\pm$ (dB)	2.0	2.0	2.0

LTE B66			
Channel	Low	Middle	High
Target (dBm)	23	23	23
Tolerance $\pm$ (dB)	2.0	2.0	2.0

For Max allowed antenna calculate

Step 1 ERP/EIRP calculate:

Bands	Max Turn-up Conducted power (dBm)	ERP/EIRP Limit (dBm)	Margin (dB)
LTE Band 2	25	33.00	8
LTE Band 4	25	30.00	5
LTE Band 5	24	38.45	14.45
LTE Band 7	23.5	33.00	9.5
LTE Band 12	25	34.80	9.8
LTE Band 17	25	34.80	9.8
LTE Band 38	24	33.00	9
LTE Band 40	21	24	3
LTE Band 41	24.5	33.00	8.5
LTE Band 66	25	30.00	5

Note:

$$G_T(\text{dBd}) = G_T(\text{dBi}) - 2.15 \text{ dB.}$$

Alternatively, the EIRP can be determined from Equation (3) and then converted to ERP based on the maximum antenna gain relationship by applying the following equation:

$$\text{ERP} = \text{EIRP} - 2.15 \text{ dB.}$$

Similarly, the EIRP can be determined from the ERP as follows:

$$\text{EIRP} = \text{ERP} + 2.15 \text{ dB.}$$

Step 2 MPE calculate:

Bands	Max Turn-up Conducted Source Based time Average Power (dBm)	Max Turn-up Conducted Source Based time Average Power (mw)	Distance (cm)	Power Density Limit (mW/cm ²)	Max allow antenna gain (dBi)
LTE Band 2	25	316.228	20	1	12.01
LTE Band 4	25	316.228	20	1	12.01
LTE Band 5	24	251.189	20	0.549	12.56
LTE Band 7	23.5	223.872	20	1	13.51
LTE Band 12	25	316.228	20	0.466	10.85
LTE Band 17	25	316.228	20	0.469	10.87
LTE Band 38	24	251.189	20	1	13.01
LTE Band 40	21	125.893	20	1	16.01
LTE Band 41	24.5	281.838	20	1	12.51
LTE Band 66	25	316.228	20	1	12.01

Step 3:

If meet above step 1 and 2, the Max allows antenna gain of different bands and different modes show is below:

Bands	Max allow antenna gain (dBi)
LTE Band 2	8
LTE Band 4	5
LTE Band 5	12.56
LTE Band 7	9.5
LTE Band 12	9.8
LTE Band 17	9.8
LTE Band 38	9
LTE Band 40	3
LTE Band 41	8.5
LTE Band 66	5

Step 4:

If meet above step 1, 2 and 3, the Max allows antenna gain show is below:

Uplink Frequency (MHz)	Band	Max allow antenna gain of each band (dBi)
1850 - 1910	LTE Band 2	8
1710 - 1755	LTE Band 4	5
824 - 849	LTE Band 5	12.56
2500-2570	LTE Band 7	9.5
699 - 716	LTE Band 12	9.8
704 - 716	LTE Band 17	9.8
2570-2620	LTE Band 38	9
2305-2315	LTE Band 40	3
2496-2690	LTE Band 41	8.5
1710 - 1780	LTE Band 66	5

Note:

Single Modular Approval.

Output power is conducted. This device is to be used in mobile or fixed applications only. Antenna gain including cable loss must not exceed 8 dBi of frequency band 1850 – 1910MHz, 5 dBi of frequency band 1710 – 1755MHz, 12.56 dBi of frequency band 824 – 849MHz, 9.5dBi of frequency band 2500-2570MHz, 9.8 dBi of frequency band 699 – 716MHz, 9.8 dBi of frequency band 704 – 716MHz, 9 dBi of frequency band 2570-2620MHz, 3 dBi of frequency band 2305-2315MHz, 8.5 dBi of frequency band 2496-2690MHz, 5 dBi of frequency band 1710 – 1780MHz, for the purpose of satisfying the requirements of 2.1043 and 2.1091. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operated in conjunction with any antenna or transmitter not described under this FCC ID. The final product operating with this transmitter must include operating instructions and antenna installation instructions, for end-users and installers to satisfy RF exposure compliance requirements. Compliance of this device in all final product configurations is the responsibility of the Grantee. Installation of this device into specific final products may require the submission of a Class II permissive change application containing data pertinent to RF Exposure, spurious emissions, ERP/EIRP, and host/module authentication, or new application if appropriate. Installation of this device into specific final products may require the submission of a Class II permissive change application containing data pertinent to RF Exposure, spurious emissions, ERP/EIRP, and host/module authentication, or new application if appropriate.

*****THE END*****