



# RF Exposure Evaluation Report

**Report No.:** JYTSZ-R12-2301587  
**Applicant:** Voxx Electronics Corporation  
**Address of Applicant:** 2365 Pontiac Road, Auburn Hills, Michigan 48326 - USA

**Equipment Under Test (EUT)**  
Product Name: AW26  
Model No.: 2401Y, 2402Y  
Trade mark: N/A

**FCC ID:** EZS2401Y  
**Applicable standards:** FCC CFR Title 47 Part 2 (§2.1091)  
**Date of sample receipt:** 16 Nov., 2023  
**Date of Test:** 17 Nov., to 30 Nov., 2023  
**Date of report issue:** 13 Dec., 2023  
**Test Result:** PASS

<b>Project by:</b>	<u>Liwei Peng</u> Project Engineer	<b>Date:</b>	<u>13 Dec., 2023</u>
<b>Reviewed by:</b>	<u>Deto Wang</u> Senior Engineer	<b>Date:</b>	<u>13 Dec., 2023</u>
<b>Approved by:</b>	<u>James Wei</u> Manager	<b>Date:</b>	<u>13 Dec., 2023</u>

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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## 1 Version

Version No.	Date	Description
00	01 Dec., 2023	Original
01	13 Dec., 2023	Updated pages 4, 6 of the report

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### 3 General Information

#### 3.1 Client Information

Applicant:	Voxx Electronics Corporation
Address:	2365 Pontiac Road, Auburn Hills, Michigan 48326 - USA
Manufacturer:	Nutek Coropration
Address:	no. 167, Lane 235, Bauchiau Rd, Xindian District, New Taipei City 23145, Taiwan
Factory:	Voxx Automotive Corporation
Address:	2351 J. Lawson Blvd, Orlando, FL 32824 - USA

#### 3.2 General Description of E.U.T.

Product Name:	AW26	
Model No.:	2401Y, 2402Y	
Operation Frequency:	BLE: 2402MHz~2480MHz	NFC: 13.56 MHz
Modulation technology:	BLE: GFSK	NFC: ASK
Antenna Type:	BLE: Inverted-F Antenna	NFC: Loop Antenna
Antenna gain:	BLE: 1.95dBi (declare by applicant)	NFC: 0dBi (declare by applicant)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.	

#### 3.3 Operating Modes

Operating mode	Detail description
BLE mode	Keep the EUT in continuously transmitting in BLE mode
NFC Tx mode	Keep the EUT in continuously transmitting in NFC Tx mode

#### 3.4 Additions to, deviations, or exclusions from the method

No
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#### 3.5 Laboratory Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b> JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.</li> <li>● <b>ISED – CAB identifier.: CN0021</b> The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.</li> <li>● <b>CNAS - Registration No.: CNAS L15527</b> JianYan Testing Group 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 L15527.</li> <li>● <b>A2LA - Registration No.: 4346.01</b> This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul>
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#### 3.6 Laboratory Location

<p>JianYan Testing Group Shenzhen Co., Ltd. Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China. Tel: +86-755-23118282, Fax: +86-755-23116366</p>
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## 4 Technical Requirements Specification

### 4.1 Limits

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)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	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 <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

### 4.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

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

R = distance to the centre of radiation of the antenna

### 4.3 Result

BLE worse case below:

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm <sup>2</sup> )	Limits for General Population/ Uncontrolled Exposure (mW/cm <sup>2</sup> )
BLE							
2402	2.111	1.63	1.95	1.57	20.00	0.00006	1.0

NFC worse case below:

Frequency (MHz)	Maximum field strength@3m ( dBuV/m)	Maximum field strength@3m (V/m)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (m)	Output power (mW)	Limit for SAR test exemption (mW)
13.56	66.03	0.002	0	1	3	0.001	1

Simultaneous transmission(Worse mode):

ANT No.	Mode	Ratio	Total Ratio	Limit
Main ANT	BLE	0.00006	0.001	1.00
Secondary ANT	NFC	0.001		

Note: Just the worst case mode was shown in report.

### 4.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----