

# TEST REPORT

**Applicant:** Jiangsu Niu Electric Technology Co., Ltd

**Address of Applicant:** No.387 Changting Road, West Taihu Science and Technology Industrial Park, Changzhou City, Jiangsu P.R. China

**Manufacturer:** Jiangsu Niu Electric Technology Co., Ltd

**Address of Manufacturer:** No.387 Changting Road, West Taihu Science and Technology Industrial Park, Changzhou City, Jiangsu P.R. China

**Factory:** Jiangsu Niu Electric Technology Co., Ltd

**Address of Factory:** No.387 Changting Road, West Taihu Science and Technology Industrial Park, Changzhou City, Jiangsu P.R. China

**Equipment Under Test (EUT)**

Product Name: NIU Kick Scooter

Model No.: KQi 300X

Trade Mark: NIU

**FCC ID:** 2AZ6G-K2YC3121

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.247

**Date of sample receipt:** 2025.05.29

**Date of Test:** 2025.06.14~2025.06.16

**Date of report issued:** 2025.06.16

**Test Result :** PASS \*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Luo

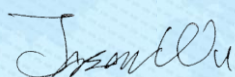
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

## 2 Version

| Version No. | Date       | Description |
|-------------|------------|-------------|
| 00          | 2025.06.16 | Original    |
|             |            |             |
|             |            |             |
|             |            |             |
|             |            |             |

Prepared By:

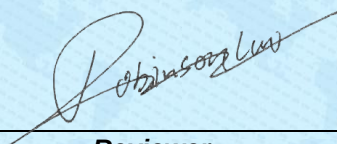


Date:

2025.06.16

Project Engineer

Check By:



Date:

2025.06.16

Reviewer

## 3 Contents

Page

|                                                                  |    |
|------------------------------------------------------------------|----|
| 1 COVER PAGE.....                                                | 1  |
| 2 VERSION.....                                                   | 2  |
| 3 CONTENTS .....                                                 | 3  |
| 4 TEST SUMMARY .....                                             | 4  |
| 5 GENERAL INFORMATION.....                                       | 5  |
| 5.1 GENERAL DESCRIPTION OF EUT .....                             | 5  |
| 5.2 TEST MODE .....                                              | 7  |
| 5.3 DESCRIPTION OF SUPPORT UNITS .....                           | 7  |
| 5.4 DEVIATION FROM STANDARDS .....                               | 7  |
| 5.5 ABNORMALITIES FROM STANDARD CONDITIONS .....                 | 7  |
| 5.6 TEST FACILITY.....                                           | 7  |
| 5.7 TEST LOCATION.....                                           | 7  |
| 5.8 ADDITIONAL INSTRUCTIONS.....                                 | 7  |
| 6 TEST INSTRUMENTS LIST.....                                     | 8  |
| 7 TEST RESULTS AND MEASUREMENT DATA .....                        | 9  |
| 7.1 SPURIOUS EMISSION IN NON-RESTRICTED & RESTRICTED BANDS ..... | 9  |
| 7.1.1 Radiated Emission Method.....                              | 9  |
| 8 TEST SETUP PHOTO.....                                          | 17 |
| 9 EUT CONSTRUCTIONAL DETAILS.....                                | 17 |

## 4 Test Summary

| Test Item         | Section in CFR 47 | Result |
|-------------------|-------------------|--------|
| Spurious Emission | 15.205/15.209     | Pass   |

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Test according to ANSI C63.10:2013
3. The RF module of this report is the same with the RF module of report SHATBL2412011W01. Therefore in this report only radiated spurious emissions were performed based on the worst case of the original FCC ID with ID number 2AZ6G-K2YC3121 issued on 2025/1/6 and other test data in this report are based on the previous FCC ID with ID number 2AZ6G-K2YC3121 issued on 2025/1/6.

### Measurement Uncertainty

| No. | Item                             | Measurement Uncertainty               |
|-----|----------------------------------|---------------------------------------|
| 1   | Radio Frequency                  | $\pm 7.25 \times 10^{-8}$             |
| 2   | Duty cycle                       | $\pm 0.37\%$                          |
| 3   | Occupied Bandwidth               | $\pm 3\%$                             |
| 4   | RF conducted power               | $\pm 0.75\text{dB}$                   |
| 5   | RF power density                 | $\pm 3\text{dB}$                      |
| 6   | Conducted Spurious emissions     | $\pm 2.58\text{dB}$                   |
| 7   | AC Power Line Conducted Emission | $\pm 3.44\text{dB}$ (0.15MHz ~ 30MHz) |
| 8   | Radiated Spurious emission test  | $\pm 3.1\text{dB}$ (9kHz-30MHz)       |
|     |                                  | $\pm 3.8039\text{dB}$ (30MHz-200MHz)  |
|     |                                  | $\pm 3.9679\text{dB}$ (200MHz-1GHz)   |
|     |                                  | $\pm 4.29\text{dB}$ (1GHz-18GHz)      |
|     |                                  | $\pm 3.30\text{dB}$ (18GHz-40GHz)     |
| 9   | Temperature test                 | $\pm 1^\circ\text{C}$                 |
| 10  | Humidity test                    | $\pm 3\%$                             |
| 11  | Time                             | $\pm 3\%$                             |

## 5 General Information

### 5.1 General Description of EUT

|                                                                                       |                                 |
|---------------------------------------------------------------------------------------|---------------------------------|
| Product Name:                                                                         | NIU Kick Scooter                |
| Model No.:                                                                            | KQi 300X, KQi 300P              |
| Test Model No.:                                                                       | KQi 300X                        |
| Remark:All the differences among the above models can be found in the attached table. |                                 |
| Test sample(s) ID:                                                                    | GTSL2025070218-1                |
| Sample(s) Status:                                                                     | Engineer sample                 |
| Operation Frequency:                                                                  | 2402MHz~2480MHz                 |
| Channel Numbers:                                                                      | 40                              |
| Channel Separation:                                                                   | 1MHz                            |
| Modulation Type:                                                                      | GFSK                            |
| Data Rate:                                                                            | LE 1M PHY: 1 Mb/s               |
| Antenna Type:                                                                         | PIFA antenna                    |
| Antenna Gain:                                                                         | -2.25 dBi(declare by applicant) |
| Power Supply:                                                                         | DC 53.4V 3.9A                   |

Remark:

1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

| Model Difference |                                                                                  |                |             |                                                                                                                                                |                  |                  |
|------------------|----------------------------------------------------------------------------------|----------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| Model Name       | Adapter                                                                          | controller     | Motor power | Battery                                                                                                                                        | Hardware Version | Software Version |
| KQi 300X         | Model 1:<br>FY1395462000<br>Brand:/<br>Input:<br>100-240V ac;<br>50/60Hz;109.2 W | ERT-F06AY083-B | 500W        | Battery 1:NIU-48M13A0<br>Rated Voltage:46.8Vdc<br>Min Capacity:13Ah<br><br>Battery 2:NIU-48M13A1<br>Rated Voltage:46.8Vdc<br>Min Capacity:13Ah | KBE13M01         | KBE13D06         |

|             |                                                                                                                                                |                        |      |                                                                                                                                                    |          |          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| KQi<br>300P | Output:<br>54.6Vdc,2A<br><br>Model 2:<br>PLD070T-<br>EVCN01-54NIU<br>Input:<br>100-240V ac;<br>50-60Hz;2.5A<br>MAX<br>Output:<br>53.4V dc,3.9A | ERT-<br>F06AY083<br>-C | 450W | Battery 3:NIU-48M10A0<br>Rated Voltage:46.8Vdc<br>Min Capacity:10.4Ah<br><br>Battery 4:NIU-48M10A1<br>Rated Voltage:46.8Vdc<br>Min Capacity:10.4Ah | KBE13P01 | KBE13D05 |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|

| Operation Frequency each of channel |           |         |           |         |           |         |           |
|-------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel                             | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 1                                   | 2402 MHz  | 11      | 2422 MHz  | 21      | 2442 MHz  | 31      | 2462 MHz  |
| 2                                   | 2404 MHz  | 12      | 2424 MHz  | 22      | 2444 MHz  | 32      | 2464 MHz  |
| 3                                   | 2406 MHz  | 13      | 2426 MHz  | 23      | 2446 MHz  | 33      | 2466 MHz  |
| 4                                   | 2408 MHz  | 14      | 2428 MHz  | 24      | 2448 MHz  | 34      | 2468 MHz  |
| 5                                   | 2410 MHz  | 15      | 2430 MHz  | 25      | 2450 MHz  | 35      | 2470 MHz  |
| 6                                   | 2412 MHz  | 16      | 2432 MHz  | 26      | 2452 MHz  | 36      | 2472 MHz  |
| 7                                   | 2414 MHz  | 17      | 2434 MHz  | 27      | 2454 MHz  | 37      | 2474 MHz  |
| 8                                   | 2416 MHz  | 18      | 2436 MHz  | 28      | 2456 MHz  | 38      | 2476 MHz  |
| 9                                   | 2418 MHz  | 19      | 2438 MHz  | 29      | 2458 MHz  | 39      | 2478 MHz  |
| 10                                  | 2420 MHz  | 20      | 2440 MHz  | 30      | 2460 MHz  | 40      | 2480 MHz  |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

| Channel             | Frequency |
|---------------------|-----------|
| The lowest channel  | 2402MHz   |
| The middle channel  | 2440MHz   |
| The Highest channel | 2480MHz   |

## 5.2 Test mode

|                   |                                                 |
|-------------------|-------------------------------------------------|
| Transmitting mode | Keep the EUT in continuously transmitting mode. |
|-------------------|-------------------------------------------------|

## 5.3 Description of Support Units

|      |
|------|
| None |
|------|

## 5.4 Deviation from Standards

|       |
|-------|
| None. |
|-------|

## 5.5 Abnormalities from Standard Conditions

|       |
|-------|
| None. |
|-------|

## 5.6 Test Facility

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>• <b>FCC—Registration No.: 381383</b><br/>Designation Number: CN5029<br/>Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.</li> <li>• <b>ISED —Registration No.: 9079A</b><br/>CAB identifier: CN0091<br/>The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing</li> <li>• <b>NVLAP (LAB CODE:600179-0)</b><br/>Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 5.7 Test Location

|                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All tests were performed at:                                                                                                                                                                                                                                  |
| <p>Global United Technology Services Co., Ltd.<br/>Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102<br/>Tel: 0755-27798480<br/>Fax: 0755-27798960</p> |

## 5.8 Additional Instructions

|                   |                                                |
|-------------------|------------------------------------------------|
| Test Software     | Special test software provided by manufacturer |
| Power level setup | Default                                        |

## 6 Test Instruments list

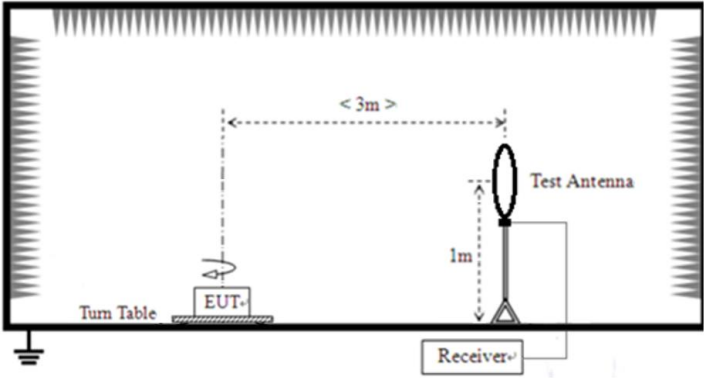
| Radiated Emission: |                                     |                                |                       |               |                     |                         |
|--------------------|-------------------------------------|--------------------------------|-----------------------|---------------|---------------------|-------------------------|
| Item               | Test Equipment                      | Manufacturer                   | Model No.             | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1                  | 3m Semi- Anechoic Chamber           | ZhongYu Electron               | 9.2(L)*6.2(W)* 6.4(H) | GTS250        | Apr. 11, 2025       | Apr. 10, 2026           |
| 2                  | Control Room                        | ZhongYu Electron               | 6.2(L)*2.5(W)* 2.4(H) | GTS251        | N/A                 | N/A                     |
| 3                  | EMI Test Receiver                   | Rohde & Schwarz                | ESU26                 | GTS203        | Apr. 12, 2025       | Apr. 11, 2026           |
| 4                  | BiConiLog Antenna                   | SCHWARZBECK<br>MESS-ELEKTRONIK | VULB9168              | GTS640        | Apr. 12, 2025       | Apr. 11, 2026           |
| 5                  | Double -ridged waveguide horn       | SCHWARZBECK<br>MESS-ELEKTRONIK | BBHA 9120 D           | GTS208        | Apr. 11, 2025       | Apr. 10, 2026           |
| 6                  | Wideband Radio Communication Tester | Rohde & Schwarz                | CMW500                | GTS575        | Jul. 01, 2025       | Jun. 30, 2026           |
| 7                  | Loop Antenna                        | ZHINAN                         | ZN30900A              | GTS534        | Nov.16, 2024        | Nov.15, 2025            |
| 8                  | Broadband Preamplifier              | SCHWARZBECK                    | BBV9718               | GTS535        | Apr. 11, 2025       | Apr. 10, 2026           |
| 9                  | Amplifier(1GHz-26.5GHz)             | HP                             | 8449B                 | GTS601        | Apr. 11, 2025       | Apr. 10, 2026           |
| 10                 | Horn Antenna (18GH-40GHz)           | Schwarzbeck                    | BBHA 9170             | GTS691        | Apr. 11, 2025       | Apr. 10, 2026           |
| 11                 | FSV·Signal Analyzer (10Hz-40GHz)    | Keysight                       | FSV-40-N              | GTS666        | Mar. 11, 2025       | Mar. 10, 2026           |
| 12                 | Amplifier                           | /                              | LNA-1000-30S          | GTS650        | Apr. 11, 2025       | Apr. 10, 2026           |
| 13                 | CDNE M2+M3-16A                      | HCT                            | 30MHz-300MHz          | GTS692        | Nov. 13, 2024       | Nov. 12, 2025           |
| 14                 | Wideband Amplifier                  | /                              | WDA-01004000-15P35    | GTS602        | Apr. 11, 2025       | Apr. 10, 2026           |
| 15                 | Thermo meter                        | JINCHUANG                      | GSP-8A                | GTS643        | Apr. 15, 2025       | Apr. 14, 2026           |
| 16                 | RE cable 1                          | GTS                            | N/A                   | GTS675        | Jul. 01, 2025       | Jun. 30, 2026           |
| 17                 | RE cable 2                          | GTS                            | N/A                   | GTS676        | Jul. 01, 2025       | Jun. 30, 2026           |
| 18                 | RE cable 3                          | GTS                            | N/A                   | GTS677        | Jul. 01, 2025       | Jun. 30, 2026           |
| 19                 | RE cable 4                          | GTS                            | N/A                   | GTS678        | Jul. 01, 2025       | Jun. 30, 2026           |
| 20                 | RE cable 5                          | GTS                            | N/A                   | GTS679        | Jul. 01, 2025       | Jun. 30, 2026           |
| 21                 | RE cable 6                          | GTS                            | N/A                   | GTS680        | Jul. 01, 2025       | Jun. 30, 2026           |
| 22                 | RE cable 7                          | GTS                            | N/A                   | GTS681        | Jul. 04, 2025       | Jul. 03, 2026           |
| 23                 | RE cable 8                          | GTS                            | N/A                   | GTS682        | Jul. 04, 2025       | Jul. 03, 2026           |
| 24                 | EMI Test Software                   | AUDIX                          | E3-6.100614a          | GTS725        | N/A                 | N/A                     |

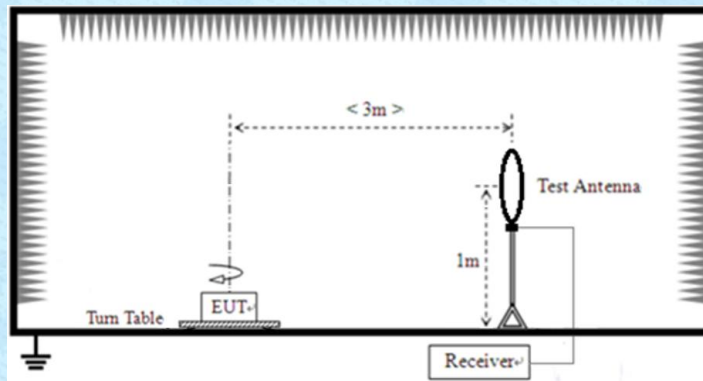
| General used equipment: |                |              |           |               |                     |                         |
|-------------------------|----------------|--------------|-----------|---------------|---------------------|-------------------------|
| Item                    | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1                       | Barometer      | KUMAO        | SF132     | GTS647        | Aug. 17, 2024       | Aug. 16, 2025           |

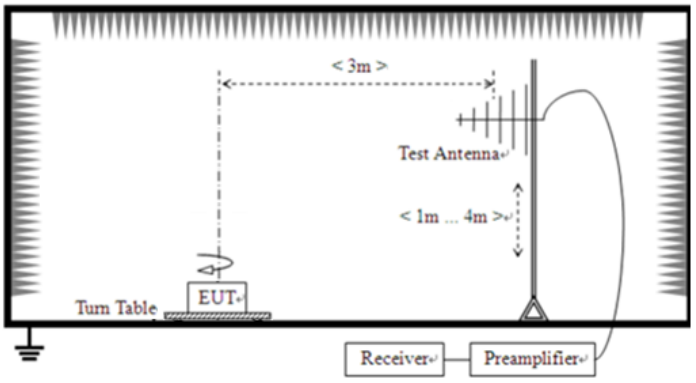
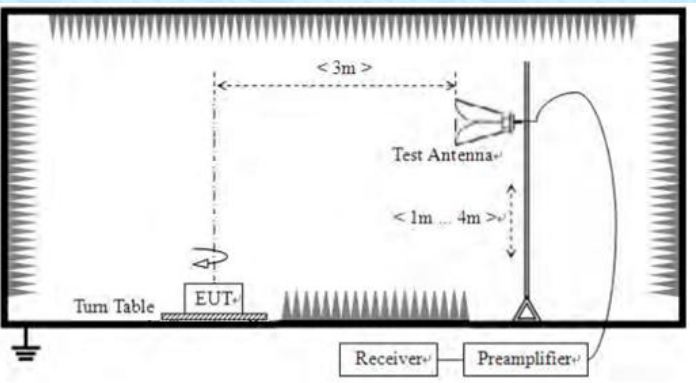
## 7 Test results and Measurement Data

### 7.1 Spurious Emission in Non-restricted & restricted Bands

#### 7.1.1 Radiated Emission Method

|                       |                                                                                                                                            |              |          |                      |            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|----------------------|------------|
| Test Requirement:     | FCC Part15 C Section 15.209                                                                                                                |              |          |                      |            |
| Test Method:          | ANSI C63.10:2013                                                                                                                           |              |          |                      |            |
| Test Frequency Range: | 9kHz to 25GHz                                                                                                                              |              |          |                      |            |
| Test site:            | Measurement Distance: 3m                                                                                                                   |              |          |                      |            |
| Receiver setup:       | Frequency                                                                                                                                  | Detector     | RBW      | VBW                  | Value      |
|                       | 9KHz-150KHz                                                                                                                                | Quasi-peak   | 200Hz    | 600Hz                | Quasi-peak |
|                       | 150KHz-30MHz                                                                                                                               | Quasi-peak   | 9KHz     | 30KHz                | Quasi-peak |
|                       | 30MHz-1GHz                                                                                                                                 | Quasi-peak   | 120KHz   | 300KHz               | Quasi-peak |
|                       | Above 1GHz                                                                                                                                 | Peak         | 1MHz     | 3MHz                 | Peak       |
|                       |                                                                                                                                            | Peak         | 1MHz     | 10Hz                 | Average    |
|                       | Note: For Duty cycle $\geq 98\%$ , average detector set as above For Duty cycle $< 98\%$ , average detector set as below: $VBW \geq 1 / T$ |              |          |                      |            |
| Limit:                | Frequency                                                                                                                                  | Limit (uV/m) | Value    | Measurement Distance |            |
|                       | 0.009MHz-0.490MHz                                                                                                                          | 2400/F(KHz)  | QP/PK/AV | 300m                 |            |
|                       | 0.490MHz-1.705MHz                                                                                                                          | 24000/F(KHz) | QP       | 30m                  |            |
|                       | 1.705MHz-30MHz                                                                                                                             | 30           | QP       | 30m                  |            |
|                       | 30MHz-88MHz                                                                                                                                | 100          | QP       | 3m                   |            |
|                       | 88MHz-216MHz                                                                                                                               | 150          | QP       |                      |            |
|                       | 216MHz-960MHz                                                                                                                              | 200          | QP       |                      |            |
|                       | 960MHz-1GHz                                                                                                                                | 500          | QP       |                      |            |
|                       | Above 1GHz                                                                                                                                 | 500          | Average  |                      |            |
|                       |                                                                                                                                            | 5000         | Peak     |                      |            |
| Test setup:           | For radiated emissions from 9kHz to 30MHz                                                                                                  |              |          |                      |            |
|                       |                                                        |              |          |                      |            |



|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | <p>For radiated emissions from 30MHz to 1GHz</p>  <p>For radiated emissions above 1GHz</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>Test Procedure:</p>   | <ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</li> <li>4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li> </ol> |
| <p>Test Instruments:</p> | <p>Refer to section 6.0 for details</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                   |                                  |       |         |     |         |          |
|-------------------|----------------------------------|-------|---------|-----|---------|----------|
| Test mode:        | Refer to section 5.2 for details |       |         |     |         |          |
| Test environment: | Temp.:                           | 24 °C | Humid.: | 53% | Press.: | 1012mbar |
| Test voltage:     | DC 48V                           |       |         |     |         |          |
| Test results:     | Pass                             |       |         |     |         |          |

## Measurement data:

### Remark:

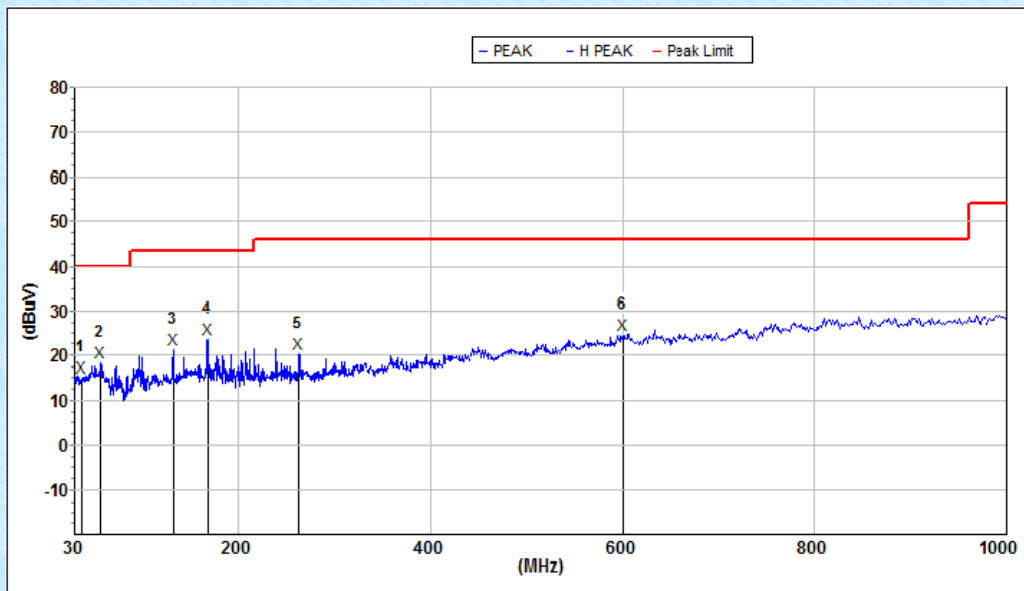
Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

### ■ 9kHz~30MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

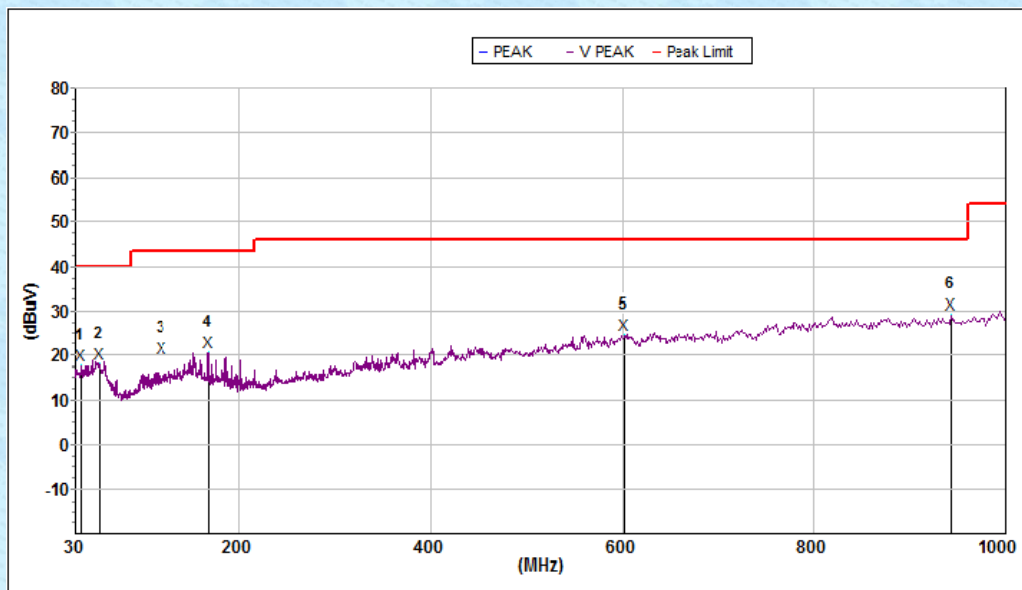
## ■ Below 1GHz

Pre-scan all test modes, found worst case at 2402MHz, and so only show the test result of 2402MHz,  
Horizontal:



| Mk.  | Freq.<br>(MHz) | Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Ant.F/G.<br>(dB) | Amp.G.(d<br>B) | Pol. |
|------|----------------|-------------------|-------------------|----------------|------------------|----------------|------|
| Peak |                |                   |                   |                |                  |                |      |
| 1    | 37.220         | 15.3              | 40.0              | 24.7           | 18.8             | 31.8           | H    |
| 2    | 57.091         | 18.6              | 40.0              | 21.4           | 18.5             | 31.1           | H    |
| 3    | 133.151        | 21.4              | 43.5              | 22.1           | 17.7             | 31.1           | H    |
| 4    | 168.119        | 23.6              | 43.5              | 19.9           | 17.9             | 31.5           | H    |
| 5    | 263.357        | 20.6              | 46.0              | 25.4           | 18.0             | 32.1           | H    |
| 6    | 600.373        | 24.6              | 46.0              | 21.4           | 26.0             | 31.7           | H    |

**Vertical:**



| Mk.  | Freq. (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | Pol. |
|------|-------------|----------------|----------------|-------------|---------------|-------------|------|
| Peak |             |                |                |             |               |             |      |
| 1    | 36.254      | 17.7           | 40.0           | 22.3        | 18.8          | 31.8        | V    |
| 2    | 54.643      | 18.1           | 40.0           | 21.9        | 18.9          | 31.0        | V    |
| 3    | 120.066     | 19.5           | 43.5           | 24.0        | 16.6          | 31.0        | V    |
| 4    | 168.119     | 20.8           | 43.5           | 22.7        | 17.9          | 31.5        | V    |
| 5    | 602.482     | 24.7           | 46.0           | 21.3        | 26.0          | 31.7        | V    |
| 6    | 942.130     | 29.3           | 46.0           | 16.7        | 29.4          | 32.4        | V    |

■ Above 1GHz

■ Unwanted Emissions in Non-restricted Frequency Bands

|               |                |
|---------------|----------------|
| Test channel: | Lowest channel |
|---------------|----------------|

**Peak value:**

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 4568.475        | 51.7           | 74.0           | 22.3        | 31.8          | 52.9        | Vertical     |
| 8862.859        | 51.0           | 74.0           | 23.0        | 37.7          | 52.4        | Vertical     |
| 13713.596       | 50.0           | 74.0           | 24.0        | 39.8          | 52.0        | Vertical     |
| 7348.700        | 51.3           | 74.0           | 22.7        | 36.2          | 51.8        | Horizontal   |
| 9442.000        | 53.6           | 74.0           | 20.4        | 38.1          | 52.2        | Horizontal   |
| 11645.300       | 51.0           | 74.0           | 23.0        | 38.9          | 51.6        | Horizontal   |

**Average value:**

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 4568.475        | 42.6           | 54.0           | 11.4        | 31.8          | 52.9        | Vertical     |
| 8862.859        | 43.3           | 54.0           | 10.7        | 37.7          | 52.4        | Vertical     |
| 13713.596       | 40.5           | 54.0           | 13.5        | 39.8          | 52.0        | Vertical     |
| 7348.700        | 43.3           | 54.0           | 10.7        | 36.2          | 51.8        | Horizontal   |
| 9442.000        | 45.4           | 54.0           | 8.6         | 38.1          | 52.2        | Horizontal   |
| 11645.300       | 41.1           | 54.0           | 12.9        | 38.9          | 51.6        | Horizontal   |

|               |                 |
|---------------|-----------------|
| Test channel: | Highest channel |
|---------------|-----------------|

## Peak value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 5575.300        | 48.4           | 74.0           | 25.6        | 33.1          | 52.2        | Vertical     |
| 7911.900        | 52.2           | 74.0           | 21.8        | 36.8          | 52.0        | Vertical     |
| 11287.800       | 51.9           | 74.0           | 22.1        | 38.7          | 51.7        | Vertical     |
| 4877.200        | 46.5           | 74.0           | 27.5        | 32.7          | 52.5        | Horizontal   |
| 9443.650        | 53.0           | 74.0           | 21.0        | 38.1          | 52.2        | Horizontal   |
| 12369.650       | 51.1           | 74.0           | 22.9        | 39.3          | 51.6        | Horizontal   |

## Average value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 5575.300        | 40.2           | 54.0           | 13.8        | 33.1          | 52.2        | Vertical     |
| 7911.900        | 43.2           | 54.0           | 10.8        | 36.8          | 52.0        | Vertical     |
| 11287.800       | 42.2           | 54.0           | 11.8        | 38.7          | 51.7        | Vertical     |
| 4877.200        | 38.5           | 54.0           | 15.5        | 32.7          | 52.5        | Horizontal   |
| 9443.650        | 45.3           | 54.0           | 8.7         | 38.1          | 52.2        | Horizontal   |
| 12369.650       | 42.2           | 54.0           | 11.8        | 39.3          | 51.6        | Horizontal   |

## Remarks:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Both 1MHz bandwidth were tested and passed, only report the worst condition(GFSK\_1MHz)

## ■ Unwanted Emissions in Restricted Frequency Bands

|               |                |
|---------------|----------------|
| Test channel: | Lowest channel |
|---------------|----------------|

### Peak value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | Polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 2389.600        | 39.0           | 74.0           | 35.0        | 27.4          | 54.1        | Horizontal   |
| 2365.806        | 39.1           | 74.0           | 34.9        | 27.3          | 54.0        | Horizontal   |
| 2389.600        | 39.0           | 74.0           | 35.0        | 27.4          | 54.1        | Vertical     |
| 2352.380        | 39.0           | 74.0           | 35.0        | 27.3          | 54.0        | Vertical     |

### Average value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | Polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 2365.993        | 26.9           | 54.0           | 27.1        | 27.3          | 54.0        | Horizontal   |
| 2389.600        | 27.0           | 54.0           | 27.0        | 27.4          | 54.1        | Horizontal   |
| 2355.915        | 26.8           | 54.0           | 27.2        | 27.3          | 54.0        | Vertical     |
| 2389.600        | 26.8           | 54.0           | 27.2        | 27.4          | 54.1        | Vertical     |

|               |                 |
|---------------|-----------------|
| Test channel: | Highest channel |
|---------------|-----------------|

### Peak value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | Polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 2483.600        | 39.4           | 74.0           | 34.6        | 27.6          | 54.1        | Horizontal   |
| 2494.473        | 40.4           | 74.0           | 33.6        | 27.6          | 54.1        | Horizontal   |
| 2483.600        | 45.8           | 74.0           | 28.2        | 27.6          | 54.1        | Vertical     |
| 2493.487        | 39.5           | 74.0           | 34.5        | 27.6          | 54.1        | Vertical     |

### Average value:

| Frequency (MHz) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Ant.F/G. (dB) | Amp.G. (dB) | Polarization |
|-----------------|----------------|----------------|-------------|---------------|-------------|--------------|
| 2483.600        | 27.2           | 54.0           | 26.8        | 27.6          | 54.1        | Horizontal   |
| 2491.517        | 27.3           | 54.0           | 26.7        | 27.6          | 54.1        | Horizontal   |
| 2483.600        | 27.3           | 54.0           | 26.7        | 27.6          | 54.1        | Vertical     |
| 2491.517        | 27.3           | 54.0           | 26.7        | 27.6          | 54.1        | Vertical     |

### Remarks:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Both 1MHz and bandwidth were tested and passed, only report the worst condition(GFSK\_1MHz)

## 8 Test Setup Photo

Reference to the **appendix I** for details.

## 9 EUT Constructional Details

Reference to the **appendix II** for details.

-----End-----