

## 9Radio Test Report

**FCC ID:2AVE6TG4XL**

**IC:25970-TG4XL**

**Change II**

|                                                                                   |   |                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Report No.                                                                        | : | TBR-C-202412-0212-81                                                                                                                                                                         |
| Applicant                                                                         | : | Tractive GmbH                                                                                                                                                                                |
| <b>Equipment Under Test (EUT)</b>                                                 |   |                                                                                                                                                                                              |
| EUT Name                                                                          | : | Tractive DOG XL                                                                                                                                                                              |
| Model No.                                                                         | : | TG4XL                                                                                                                                                                                        |
| Series Model No.                                                                  | : | ----                                                                                                                                                                                         |
| Brand Name                                                                        | : | Tractive                                                                                                                                                                                     |
| Sample ID                                                                         | : | HC-C-202412-0212-01-01# & HC-C-202412-0212-02-01#                                                                                                                                            |
| Receipt Date                                                                      | : | 2025-02-05                                                                                                                                                                                   |
| Test Date                                                                         | : | 2025-02-05 to 2025-03-18                                                                                                                                                                     |
| Issue Date                                                                        | : | 2025-03-18                                                                                                                                                                                   |
| Standards                                                                         | : | 47 CFR Part 2, 22(H), 24(E), 27<br>RSS-Gen Issue 5 April 2018+Amendment 1 (March 2019)+Amendment 2 (February 2021), RSS-130 Issue 2,<br>RSS-133 Issue 7, RSS-139 Issue 4,<br>RSS-132 Issue 4 |
| Test Method                                                                       | : | ANSI C63.26 2015                                                                                                                                                                             |
| Conclusions                                                                       | : | <b>PASS</b>                                                                                                                                                                                  |
| In the configuration tested, the EUT complied with the standards specified above. |   |                                                                                                                                                                                              |
| Test By                                                                           | : | <i>Rick Chen</i><br>Rick Chen                                                                                                                                                                |
| Reviewed By                                                                       | : | <i>Camille Li</i><br>Camille Li                                                                                                                                                              |
| Approved By                                                                       | : | <i>Ivan Su</i><br>Ivan Su*                                                                                                                                                                   |

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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## Revision History

| Report No.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Version | Description             | Issued Date |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------------|-------------|
| TBR-C-202412-0212-81                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rev.01  | Initial issue of report | 2025-03-18  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                         |             |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                         |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |         |                         |             |
| <p><b>Remarks1:</b>Please refer to The Original Grant FCC ID:2AVE6TG4XL Test Report and The Original Grant IC:25970-TG4XL Test Report.</p> <p><b>Remarks2:</b>The following two points have been changed, and only the radiation spurious test needs to be added</p> <p>1.Added Power Amplifier alternative mount option component, pin to pin compatible, same performance and specifications</p> <p>2.Software drivers update to support the new PA alternative</p> |         |                         |             |

# 1. General Information about EUT

## 1.1 Client Information

|                     |   |                                       |
|---------------------|---|---------------------------------------|
| <b>Applicant</b>    | : | Tractive GmbH                         |
| <b>Address</b>      | : | Poststrasse 4, 4061 Pasching, AUSTRIA |
| <b>Manufacturer</b> | : | Tractive GmbH                         |
| <b>Address</b>      | : | Poststrasse 4, 4061 Pasching, AUSTRIA |

## 1.2 General Description of EUT (Equipment Under Test)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                  |                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EUT Name</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | :                | Tractive DOG XL                                                                                                                                                                                                                                                                                  |
| <b>Models No.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                | :                | TG4XL                                                                                                                                                                                                                                                                                            |
| <b>Model Different</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | :                | ----                                                                                                                                                                                                                                                                                             |
| <b>Product Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  | Frequency Bands:<br>LTE Band 2: TX: 1850MHz-1910MHz, RX: 1930MHz-1990MHz<br>LTE Band 4: TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz<br>LTE Band 5: TX: 824MHz-849MHz, RX: 869MHz-894MHz<br>LTE Band 12: TX: 699MHz -716MHz, RX: 729MHz-746MHz<br>LTE Band 13: TX: 777MHz -787MHz, RX: 746MHz-756MHz |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Antenna Gain:    | FPC Antenna:<br>LTE Band 2: -0.66dBi<br>LTE Band 4: -0.66dBi<br>LTE Band 5: -0.35dBi<br>LTE Band 12: -0.35dBi<br>LTE Band 13: -0.35dBi                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Modulation Type: | QPSK, 16QAM                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bandwidth:       | LTE Band 2: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz<br>LTE Band 4: 1.4MHz/3MHz/5MHz/10MHz/15MHz/20MHz<br>LTE Band 5: 1.4MHz/3MHz/5MHz/10MHz<br>LTE Band 12: 1.4MHz/3MHz/5MHz/10MHz<br>LTE Band 13: 5MHz/10MHz                                                                                         |
| <b>Power Rating</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              | :                | Input: DC 5V                                                                                                                                                                                                                                                                                     |
| <b>Li-ion Polymer Battery</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | :                | 3.7V by 3000mAh Rechargeable Li-ion battery                                                                                                                                                                                                                                                      |
| <b>Software Version</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | :                | ----                                                                                                                                                                                                                                                                                             |
| <b>Hardware Version</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | :                | ----                                                                                                                                                                                                                                                                                             |
| <b>Remark:</b><br>(1) The antenna gain provided by the applicant, the adapter and verified for the RF conduction test provided by TOBY test lab.<br>(2) The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. |                  |                                                                                                                                                                                                                                                                                                  |

## (3) Channel List

| Test mode: | Nominal Bandwidth (MHz) | RF Channel |            |          |
|------------|-------------------------|------------|------------|----------|
|            |                         | Low (L)    | Middle (M) | High (H) |
|            |                         | MHz        | MHz        | MHz      |
| LTE Band 2 | 1.4                     | 1850.7     | 1880.0     | 1909.3   |
|            | 3                       | 1851.5     | 1880.0     | 1908.5   |
|            | 5                       | 1852.5     | 1880.0     | 1907.5   |
|            | 10                      | 1855.0     | 1880.0     | 1905.0   |
|            | 15                      | 1857.5     | 1880.0     | 1902.5   |
|            | 20                      | 1860.0     | 1880.0     | 1900.0   |

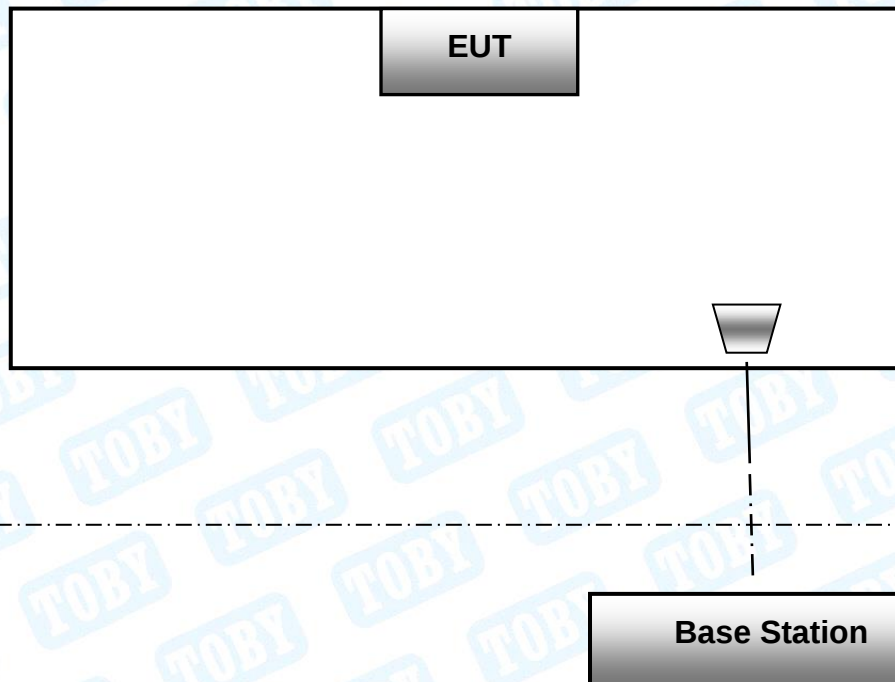
| Test mode: | Nominal Bandwidth (MHz) | RF Channel |            |          |
|------------|-------------------------|------------|------------|----------|
|            |                         | Low (L)    | Middle (M) | High (H) |
|            |                         | MHz        | MHz        | MHz      |
| LTE Band 4 | 1.4                     | 1710.7     | 1732.5     | 1754.3   |
|            | 3                       | 1711.5     | 1732.5     | 1753.5   |
|            | 5                       | 1712.5     | 1732.5     | 1752.5   |
|            | 10                      | 1715.0     | 1732.5     | 1750.0   |
|            | 15                      | 1715.5     | 1732.5     | 1747.5   |
|            | 20                      | 1720.0     | 1732.5     | 1745.0   |

| Test mode: | Nominal Bandwidth (MHz) | RF Channel |            |          |
|------------|-------------------------|------------|------------|----------|
|            |                         | Low (L)    | Middle (M) | High (H) |
|            |                         | MHz        | MHz        | MHz      |
| LTE Band 5 | 1.4                     | 824.7      | 836.5      | 848.3    |
|            | 3                       | 825.5      | 836.5      | 847.5    |
|            | 5                       | 826.5      | 836.5      | 846.5    |
|            | 10                      | 829.0      | 836.5      | 844.0    |

| Test mode:  | Nominal Bandwidth (MHz) | RF Channel |            |          |
|-------------|-------------------------|------------|------------|----------|
|             |                         | Low (L)    | Middle (M) | High (H) |
|             |                         | MHz        | MHz        | MHz      |
| LTE Band 12 | 1.4                     | 699.7      | 707.5      | 715.3    |
|             | 3                       | 700.5      | 707.5      | 714.5    |
|             | 5                       | 701.5      | 707.5      | 713.5    |
|             | 10                      | 704.0      | 707.5      | 711.0    |

| Test mode:  | Nominal Bandwidth (MHz) | RF Channel |            |          |
|-------------|-------------------------|------------|------------|----------|
|             |                         | Low (L)    | Middle (M) | High (H) |
|             |                         | MHz        | MHz        | MHz      |
| LTE Band 13 | 5                       | 779.5      | 782.0      | 784.5    |
|             | 10                      | ---        | 782.0      | ---      |

### 1.3 Block Diagram Showing the Configuration of System Tested



The above block diagram of setup is the normal mode. And more detail please refer to the test setup of each test item of bellow.

### 1.4 Description of Support Units

The EUT has been tested as an independent unit.

## 1.5 Measurement Uncertainty

| Test Item           | Parameters                           | Expanded Uncertainty (U <sub>Lab</sub> ) |
|---------------------|--------------------------------------|------------------------------------------|
| RF Power, conducted | /                                    | ±0.82 dB                                 |
| Radiated Emission   | Level Accuracy:<br>9kHz to 30 MHz    | ±4.60 dB                                 |
| Radiated Emission   | Level Accuracy:<br>30MHz to 1000 MHz | ±4.40 dB                                 |
| Radiated Emission   | Level Accuracy:<br>Above 1000MHz     | ±4.20 dB                                 |

## 1.6 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

### **A2LA Certificate No.: 4750.01**

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

### **IC Registration No.: (11950A)**

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.

## 2. Test Summary

| Test Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Section in CFR 47                                                   | Result |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------|
| Out of band emission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Part 24.238(a)<br>Part 22.917(a)<br>Part 27.53 (h)<br>Part 27.53(m) | PASS   |
| <p><b>Pass: The EUT complies with the essential requirements in the standard.</b></p> <p><b>Note1:</b>Please refer to The Original Grant FCC ID:2AVE6TG4XL Test Report.</p> <p><b>Note2:</b>The following two points have been changed, and only the radiation spurious test needs to be added</p> <ol style="list-style-type: none"> <li>1.Added Power Amplifier alternative mount option component, pin to pin compatible, same performance and specifications</li> <li>2.Software drivers update to support the new PA alternative</li> </ol> |                                                                     |        |

| Test Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Section in CFR 47                                        | Result     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------|
| Out of band emission                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RSS-133 6.5<br>RSS-132 5.5<br>RSS-130 4.7<br>RSS-139 6.6 | (See Note) |
| <p><b>Pass: The EUT complies with the essential requirements in the standard.</b></p> <p><b>Note1:</b>Please refer to The Original Grant IC:25970-TG4XL Test Report.</p> <p><b>Note2:</b>The following two points have been changed, and only the radiation spurious test needs to be added</p> <p>1.Added Power Amplifier alternative mount option component, pin to pin compatible, same performance and specifications</p> <p>2.Software drivers update to support the new PA alternative</p> |                                                          |            |

3. Test Software

| Test Item          | Test Software | Manufacturer | Version No. |
|--------------------|---------------|--------------|-------------|
| Radiation Emission | EZ-EMC        | EZ           | FA-03A2RE+  |
| RF Test System     | JS1120        | Tonscend     | V3.1.46     |

## 4. Test Equipment and Test Site

| Test Site   |                        |              |                   |      |
|-------------|------------------------|--------------|-------------------|------|
| No.         | Test Site              | Manufacturer | Specification     | Used |
| TB-EMCSR001 | Shielding Chamber #1   | YIHENG       | 7.5*4.0*3.0 ( m ) | X    |
| TB-EMCSR002 | Shielding Chamber #2   | YIHENG       | 8.0*4.0*3.0 ( m ) | ✓    |
| TB-EMCCA001 | 3m Anechoic Chamber #A | ETS          | 9.0*6.0*6.0 ( m ) | X    |
| TB-EMCCB002 | 3m Anechoic Chamber #B | YIHENG       | 9.0*6.0*6.0 ( m ) | ✓    |

| Radiation Emission Test (B Site) |                    |                    |               |               |               |
|----------------------------------|--------------------|--------------------|---------------|---------------|---------------|
| Equipment                        | Manufacturer       | Model No.          | Serial No.    | Last Cal.     | Cal. Due Date |
| Spectrum Analyzer                | Agilent            | N9020A             | MY49100060    | Aug. 29, 2024 | Aug. 28, 2025 |
| Spectrum Analyzer                | Rohde & Schwarz    | FSV40-N            | 102197        | Jun. 17, 2024 | Jun. 16, 2025 |
| EMI Test Receiver                | Rohde & Schwarz    | ESU-8              | 100472/008    | Feb.22, 2025  | Feb.21, 2026  |
| Bilog Antenna                    | SCHWARZBECK        | VULB 9168          | 1225          | Nov. 13, 2023 | Nov. 12, 2025 |
| Horn Antenna                     | SCHWARZBECK        | BBHA 9120 D        | 2463          | Jun. 14, 2024 | Jun. 13, 2026 |
| Horn Antenna                     | SCHWARZBECK        | BBHA 9170          | 1118          | Feb. 27, 2024 | Feb.26, 2026  |
| Loop Antenna                     | SCHWARZBECK        | FMZB 1519 B        | 1519B-059     | Jun. 14, 2024 | Jun. 13, 2026 |
| HF Amplifier                     | Tonscend           | TAP9E6343          | AP21C806117   | Aug. 29, 2024 | Aug. 28, 2025 |
| HF Amplifier                     | Tonscend           | TAP051845          | AP21C806141   | Aug. 29, 2024 | Aug. 28, 2025 |
| HF Amplifier                     | Tonscend           | TAP0184050         | AP21C806129   | Aug. 29, 2024 | Aug. 28, 2025 |
| Highpass Filter                  | CD                 | HPM-6.4/18G        | ---           | N/A           | N/A           |
| Highpass Filter                  | CD                 | HPM-2.8/18G        | ---           | N/A           | N/A           |
| Highpass Filter                  | XINBO              | XBLBQ-HTA67(8-25G) | 22052702-1    | N/A           | N/A           |
| Antenna Conducted Emission       |                    |                    |               |               |               |
| Equipment                        | Manufacturer       | Model No.          | Serial No.    | Last Cal.     | Cal. Due Date |
| Spectrum Analyzer                | Rohde & Schwarz    | FSV40-N            | 102197        | Jun. 17, 2024 | Jun. 16, 2025 |
| MXA Signal Analyzer              | KEYSIGHT           | N9020B             | MY60110172    | Aug. 29, 2024 | Aug. 28, 2025 |
| MXA Signal Analyzer              | Agilent            | N9020A             | MY47380425    | Aug. 29, 2024 | Aug. 28, 2025 |
| Vector Signal Generator          | Agilent            | N5182A             | MY50141294    | Aug. 29, 2024 | Aug. 28, 2025 |
| Analog Signal Generator          | Agilent            | N5181A             | MY48180463    | Aug. 29, 2024 | Aug. 28, 2025 |
| Vector Signal Generator          | KEYSIGHT           | N5182B             | MY59101429    | Aug. 29, 2024 | Aug. 28, 2025 |
| Analog Signal Generator          | KEYSIGHT           | N5173B             | MY61252685    | Aug. 29, 2024 | Aug. 28, 2025 |
| RF Power Sensor                  | DARE!! Instruments | RadiPowerRPR3006W  | 17I00015SNO26 | Aug. 29, 2024 | Aug. 28, 2025 |
|                                  | DARE!! Instruments | RadiPowerRPR3006W  | 17I00015SNO29 | Aug. 29, 2024 | Aug. 28, 2025 |
|                                  | DARE!! Instruments | RadiPowerRPR3006W  | 17I00015SNO31 | Aug. 29, 2024 | Aug. 28, 2025 |
|                                  | DARE!! Instruments | RadiPowerRPR3006W  | 17I00015SNO33 | Aug. 29, 2024 | Aug. 28, 2025 |
| RF Control Unit                  | Tonsced            | JS0806-1           | 21C8060380    | N/A           | N/A           |
| RF Control Unit                  | Tonsced            | JS0806-2           | 21F8060439    | Aug. 29, 2024 | Aug. 28, 2025 |
| Power Control Box                | Tonsced            | JS0806-4ADC        | 21C8060387    | N/A           | N/A           |
| Wideband Radio                   | Rohde & Schwarz    | CMW500             | 144382        | Aug. 29, 2024 | Aug. 28, 2025 |

|                                      |               |             |           |               |               |
|--------------------------------------|---------------|-------------|-----------|---------------|---------------|
| Communication Tester                 |               |             |           |               |               |
| Universal Radio Communication Tester | Rohde&Schwarz | CMW500      | 168796    | Feb.22, 2025  | Feb.21, 2026  |
| Temperature and Humidity Chamber     | ZhengHang     | ZH-QTH-1500 | ZH2107264 | Jun. 14, 2024 | Jun. 13, 2026 |

## 5. Radiated Out Band of Emissions

### 11.1 Test Standard and Limit

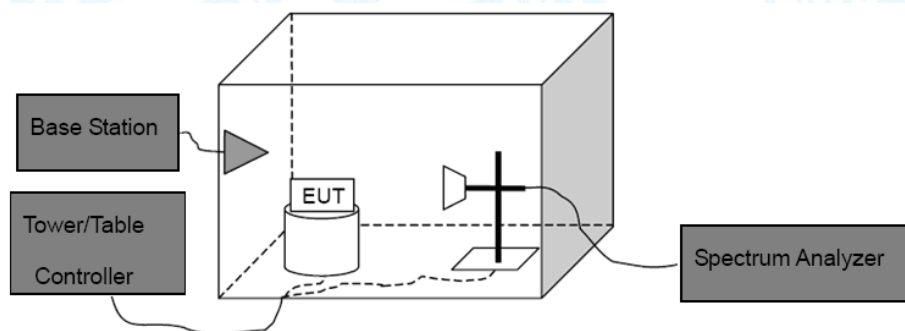
#### 11.1.1 Test Standard

FCC Part 2: 2.1053, FCC Part 22.917(a), FCC part 24.238(a)  
FCC Part 27.53 (h), FCC Part 27.53(m)  
RSS-130 Section 4.7; RSS-132 Section 5.5; RSS-133 Section 6.5; RSS-139 Section 6.6

#### 11.1.2 Test Limit

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power(P) by a factor of at least  $43+10\log(P)$  dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

### 11.2 Test Setup



### 11.3 Test Procedure

- (1) The test system setup as show in the block diagram above.
- (2) The EUT was placed on an non-conductive rotating platform in an anechoic chamber. The radiated spurious emissions from 30MHz to 10<sup>th</sup> harmonious of fundamental frequency were measured at 3 m with a test antenna and a spectrum analyzer with RBW=1 MHz, VBW=1 MHz, peak detector settings.
- (3) During the measurement, the EUT was enforced in maximum power and linked with a base station. All the spurious emissions at 3m were measured by rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
- (4) When found the maximum level of emissions from the EUT. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious emissions in dB=10 log(TX power in Watts/0.001)-the absolute level

Spurious attenuation limit in dB=43+10 log(power out in Watts)

### 11.4 Deviation From Test Standard

No deviation

### 11.5 EUT Operating Mode

The EUT was continuously connected with the Base station and transmitting in the max power during the test.

### 11.6 Test Data

Please refer to the Attachment A.

Measurement Data (worst case)

## ATTACHMENT A--RADIATED OUT BAND OF EMISSIONS

Measurement Data (worst case)

|                                                                                                                                                                                                   |                                                     |                     |                                    |                    |                            |             |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|------------------------------------|--------------------|----------------------------|-------------|--------|
|                                                                                                                                                                                                   |                                                     |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                        | LTE BAND 2 20MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                          | Middle                                              |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                | Spurious Emission                                   |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                   | Polarization<br>(H&V)                               | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1673.2                                                                                                                                                                                            | Horizontal                                          | -57.53              | 14.94                              | 9.54               | -33.05                     | -13.00      | Pass   |
| 2509.8                                                                                                                                                                                            | H                                                   | -66.57              | 13.87                              | 7.86               | -44.84                     |             |        |
| 5856.2                                                                                                                                                                                            | H                                                   | -70.51              | 14.49                              | 6.12               | -49.90                     |             |        |
| 7729.56                                                                                                                                                                                           | H                                                   | -35.91              | 8.02                               | 5.98               | -21.91                     |             |        |
| 10867.49                                                                                                                                                                                          | H                                                   | -48.74              | 10.47                              | 3.97               | -34.30                     |             |        |
| 1669.2                                                                                                                                                                                            | Vertical                                            | -57.09              | 14.94                              | 9.54               | -32.61                     | -13.00      | Pass   |
| 2512.8                                                                                                                                                                                            | V                                                   | -64.00              | 13.87                              | 7.86               | -42.27                     |             |        |
| 5846.2                                                                                                                                                                                            | V                                                   | -69.52              | 14.49                              | 6.12               | -48.91                     |             |        |
| 7100.86                                                                                                                                                                                           | V                                                   | -37.74              | 8.02                               | 5.98               | -23.74                     |             |        |
| 10822.20                                                                                                                                                                                          | V                                                   | -49.13              | 10.47                              | 3.97               | -34.69                     |             |        |
| Remark: 1, The testing has been conformed to 10*1880MHz=18800MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                     |                     |                                    |                    |                            |             |        |

|                                                                                                                                                                                                     |                                                     |                     |                                    |                    |                            |             |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|------------------------------------|--------------------|----------------------------|-------------|--------|
|                                                                                                                                                                                                     |                                                     |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                          | LTE BAND 4 20MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                            | Middle                                              |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                  | Spurious Emission                                   |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                     | Polarization<br>(H&V)                               | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1673.2                                                                                                                                                                                              | Horizontal                                          | -57.63              | 14.94                              | 9.54               | -33.15                     | -13.00      | Pass   |
| 2509.8                                                                                                                                                                                              | H                                                   | -62.80              | 13.87                              | 7.86               | -41.07                     |             |        |
| 5856.2                                                                                                                                                                                              | H                                                   | -71.65              | 14.49                              | 6.12               | -51.04                     |             |        |
| 7732.62                                                                                                                                                                                             | H                                                   | -39.15              | 8.02                               | 5.98               | -25.15                     |             |        |
| 10924.42                                                                                                                                                                                            | H                                                   | -44.33              | 10.47                              | 3.97               | -29.89                     |             |        |
| 1669.2                                                                                                                                                                                              | Vertical                                            | -58.26              | 14.94                              | 9.54               | -33.78                     | -13.00      | Pass   |
| 2512.8                                                                                                                                                                                              | V                                                   | -66.16              | 13.87                              | 7.86               | -44.43                     |             |        |
| 5846.2                                                                                                                                                                                              | V                                                   | -69.51              | 14.49                              | 6.12               | -48.90                     |             |        |
| 7640.22                                                                                                                                                                                             | V                                                   | -37.60              | 8.02                               | 5.98               | -23.60                     |             |        |
| 10911.31                                                                                                                                                                                            | V                                                   | -46.50              | 10.47                              | 3.97               | -32.06                     |             |        |
| Remark: 1, The testing has been conformed to 10*1732.5MHz=17325MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                     |                     |                                    |                    |                            |             |        |

|                                                                                                                                                                                                   |                                                     |                     |                                    |                    |                            |             |        |
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|                                                                                                                                                                                                   |                                                     |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                        | LTE BAND 5 10MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                          | Middle                                              |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                | Spurious Emission                                   |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                   | Polarization<br>(H&V)                               | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1673.2                                                                                                                                                                                            | Horizontal                                          | -56.39              | 14.94                              | 9.54               | -31.91                     | -13.00      | Pass   |
| 2509.8                                                                                                                                                                                            | H                                                   | -68.10              | 13.87                              | 7.86               | -46.37                     |             |        |
| 5856.2                                                                                                                                                                                            | H                                                   | -68.42              | 14.49                              | 6.12               | -47.81                     |             |        |
| 8552.2                                                                                                                                                                                            | H                                                   | -35.35              | 8.02                               | 5.98               | -21.35                     |             |        |
| 10303.57                                                                                                                                                                                          | H                                                   | -49.45              | 10.47                              | 3.97               | -35.01                     |             |        |
| 1669.2                                                                                                                                                                                            | Vertical                                            | -55.93              | 14.94                              | 9.54               | -31.45                     | -13.00      | Pass   |
| 2512.8                                                                                                                                                                                            | V                                                   | -68.16              | 13.87                              | 7.86               | -46.43                     |             |        |
| 5846.2                                                                                                                                                                                            | V                                                   | -72.68              | 14.49                              | 6.12               | -52.07                     |             |        |
| 8548.2                                                                                                                                                                                            | V                                                   | -37.50              | 8.02                               | 5.98               | -23.50                     |             |        |
| 10303.57                                                                                                                                                                                          | V                                                   | -45.05              | 10.47                              | 3.97               | -30.61                     |             |        |
| Remark: 1, The testing has been conformed to 10*836.5MHz=8365MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                     |                     |                                    |                    |                            |             |        |

|                                                                                                                                                                                                   |                                                      |                     |                                    |                    |                            |             |        |
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|                                                                                                                                                                                                   |                                                      |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                        | LTE BAND 12 10MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                          | Middle                                               |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                | Spurious Emission                                    |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                   | Polarization<br>(H&V)                                | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1643.2                                                                                                                                                                                            | Horizontal                                           | -57.22              | 14.94                              | 9.54               | -32.74                     | -13.00      | Pass   |
| 2505.8                                                                                                                                                                                            | H                                                    | -65.00              | 13.87                              | 7.86               | -43.27                     |             |        |
| 3336.4                                                                                                                                                                                            | H                                                    | -69.87              | 14.49                              | 6.12               | -49.26                     |             |        |
| 7139.44                                                                                                                                                                                           | H                                                    | -37.78              | 8.02                               | 5.98               | -23.78                     |             |        |
| 9510.72                                                                                                                                                                                           | H                                                    | -47.25              | 10.47                              | 3.97               | -32.81                     |             |        |
| 1653.2                                                                                                                                                                                            | Vertical                                             | -56.44              | 14.94                              | 9.54               | -31.96                     | -13.00      | Pass   |
| 2519.8                                                                                                                                                                                            | V                                                    | -64.81              | 13.87                              | 7.86               | -43.08                     |             |        |
| 3326.4                                                                                                                                                                                            | V                                                    | -69.70              | 14.49                              | 6.12               | -49.09                     |             |        |
| 7142.44                                                                                                                                                                                           | V                                                    | -39.01              | 8.02                               | 5.98               | -25.01                     |             |        |
| 9512.72                                                                                                                                                                                           | V                                                    | -45.48              | 10.47                              | 3.97               | -31.04                     |             |        |
| Remark: 1, The testing has been conformed to 10*707.5MHz=7075MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                      |                     |                                    |                    |                            |             |        |

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|                                                                                                                                                                                                   |                                                      |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                        | LTE BAND 13 10MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                          | Middle                                               |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                | Spurious Emission                                    |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                   | Polarization<br>(H&V)                                | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1571.2                                                                                                                                                                                            | Horizontal                                           | -53.50              | 14.94                              | 9.54               | -29.02                     | -25.00      | Pass   |
| 2518.8                                                                                                                                                                                            | H                                                    | -63.74              | 13.87                              | 7.86               | -42.01                     |             |        |
| 3356.4                                                                                                                                                                                            | H                                                    | -72.82              | 14.49                              | 6.12               | -52.21                     |             |        |
| 8450.16                                                                                                                                                                                           | H                                                    | -34.88              | 8.02                               | 5.98               | -20.88                     |             |        |
| 10871.68                                                                                                                                                                                          | H                                                    | -48.31              | 10.47                              | 3.97               | -33.87                     |             |        |
| 1593.2                                                                                                                                                                                            | Vertical                                             | -54.49              | 14.94                              | 9.54               | -30.01                     | -25.00      | Pass   |
| 2512.8                                                                                                                                                                                            | V                                                    | -68.01              | 13.87                              | 7.86               | -46.28                     |             |        |
| 3356.4                                                                                                                                                                                            | V                                                    | -71.85              | 14.49                              | 6.12               | -51.24                     |             |        |
| 7042.06                                                                                                                                                                                           | V                                                    | -38.33              | 8.02                               | 5.98               | -24.33                     |             |        |
| 10841.71                                                                                                                                                                                          | V                                                    | -47.46              | 10.47                              | 3.97               | -33.02                     |             |        |
| Remark: 1, The testing has been conformed to 10*782.0MHz=7820MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                      |                     |                                    |                    |                            |             |        |

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|                                                                                                                                                                                                   |                                                      |                     |                                    |                    |                            |             |        |
| Test mode:                                                                                                                                                                                        | LTE BAND 13 10MHz (RB size 1 & RB offset 0) for QPSK |                     |                                    |                    |                            |             |        |
| Channel:                                                                                                                                                                                          | Middle                                               |                     |                                    |                    |                            |             |        |
| Frequency<br>(MHz)                                                                                                                                                                                | Spurious Emission                                    |                     |                                    |                    |                            | Limit (dBm) | Result |
|                                                                                                                                                                                                   | Polarization<br>(H&V)                                | Read Level<br>(dBm) | Antenna<br>Correct<br>Factor (dBi) | Cable Loss<br>(dB) | Emission<br>Level<br>(dBm) |             |        |
| 1573.2                                                                                                                                                                                            | Horizontal                                           | -53.83              | 14.94                              | 9.54               | -29.35                     | -40.00      | Pass   |
| 2509.8                                                                                                                                                                                            | H                                                    | -65.55              | 13.87                              | 7.86               | -43.82                     |             |        |
| 3346.4                                                                                                                                                                                            | H                                                    | -71.71              | 14.49                              | 6.12               | -51.10                     |             |        |
| 8450.16                                                                                                                                                                                           | H                                                    | -37.74              | 8.02                               | 5.98               | -23.74                     |             |        |
| 10871.68                                                                                                                                                                                          | H                                                    | -46.10              | 10.47                              | 3.97               | -31.66                     |             |        |
| 1593.2                                                                                                                                                                                            | Vertical                                             | -53.22              | 14.94                              | 9.54               | -28.74                     | -40.00      | Pass   |
| 2509.8                                                                                                                                                                                            | V                                                    | -63.49              | 13.87                              | 7.86               | -41.76                     |             |        |
| 3346.4                                                                                                                                                                                            | V                                                    | -68.08              | 14.49                              | 6.12               | -47.47                     |             |        |
| 7042.06                                                                                                                                                                                           | V                                                    | -37.14              | 8.02                               | 5.98               | -23.14                     |             |        |
| 10841.71                                                                                                                                                                                          | V                                                    | -44.19              | 10.47                              | 3.97               | -29.75                     |             |        |
| Remark: 1, The testing has been conformed to 10*782.0MHz=7820MHz.<br>2, All other emissions more than 30 dB below the limit.<br>3, Emission Level= Read Level+ Antenna Correct Factor +Cable Loss |                                                      |                     |                                    |                    |                            |             |        |

-----End of Report-----