| TCT 通测检 | | | | | |
|----------------------------------|---|---|--|--|--|
| | TEST REPOR | Т | | | |
| FCC ID : | 2AAPK-DC-0375 | | | | |
| Test Report No: | TCT230418E005 | | | | |
| Date of issue: | Apr. 24, 2023 | | | | |
| Testing laboratory: : | SHENZHEN TONGCE TESTING | S LAB | | | |
| Testing location/ address: | 2101 & 2201, Zhenchang Factor Subdistrict, Bao'an District, Sher People's Republic of China | y Renshan Industrial Zone, Fuhai Izhen, Guangdong, 518103, | | | |
| Applicant's name: : | Shenzhen Kingsun Enterprises (| Co., Ltd. | | | |
| Address: | 25/F, CEC Information Building, Guangdong, 518034 China | Xinwen Rd., Shenzhen, | | | |
| Manufacturer's name : | Shenzhen Kingsun Enterprises Co., Ltd. | | | | |
| Address: | 25/F, CEC Information Building, Xinwen Rd., Shenzhen, Guangdong, 518034 China | | | | |
| Standard(s): | FCC CFR Title 47 Part 15 Subpa | art C Section 15.249 | | | |
| Test item description : | Wireless mouse | | | | |
| Trade Mark : | N/A | | | | |
| Model/Type reference : | DC-0375, 2MNMS2000, 2MNMS 2MNMS2000O0L2, 2MNMS2000 2MNMS2000M0L2 | | | | |
| Rating(s): | DC 1.5V(1*AA Battery) | | | | |
| Date of receipt of test item | Apr. 18, 2023 | | | | |
| Date (s) of performance of test: | Apr. 18, 2023 - Apr. 24, 2023 | | | | |
| Tested by (+signature) : | Ronaldo LUO | R-snalor 600000 | | | |
| Check by (+signature) : | Beryl ZHAO | BoyCongerer | | | |
| Approved by (+signature): | Tomsin | Tomster | | | |
| TONGCE TESTING LAB. TH | nis document may be altered or r | e written approval of SHENZHEN evised by SHENZHEN TONGCE ion section of the document. The | | | |

test results in the report only apply to the tested sample.

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Appendix B: Photographs of EUT

TCT通测检测 TESTING CENTRE TECHNOLOGY

1. General Product Information

1.1. EUT description

| Test item description: | Wireless mouse | | |
|------------------------|-----------------------|--|--|
| Model/Type reference: | DC-0375 | | |
| Sample Number: | TCT230418E005-0101 | | |
| Operation Frequency: | 2402MHz - 2480MHz | | |
| Number of Channel: | 16 | | |
| Modulation Technology: | GFSK | | |
| Antenna Type: | PCB Antenna | | |
| Antenna Gain: | -4.62dBi | | |
| Rating(s): | DC 1.5V(1*AA Battery) | | |

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

| | 0, 2MNMS2 1NMS20000 /INMS2000 models are d | DOL2, 2MN EOL2, 2MN erivative mod | IMS2000N0 IMS2000M dels. The mod | 0L2, 0L2 dels are identi | ical in circuit | |
|-----------------------------------|---|---|---|---|--|-----------|
| 2N 2N s tested model, other | INMS20000 INMS2000 models are de | DOL2, 2MN EOL2, 2MN erivative mod | IMS2000N0 IMS2000M dels. The mod | 0L2, 0L2 dels are identi | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | Page | e 3 of 31 |
| | 00-6611-140 Tel: 8 | Image: Contract of the second seco | Image: Contract of the second seco | Image: Contract of the second seco | Outomode Tel: 86-755-27673339 Fax: 86-755-27673332 http: | |

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1.3. Operation Frequency

| | Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | 1 | 2402MHz | 5 | 2418MHz | 9 | 2448MHz | 13 | 2468MHz |
| 2 | <u>)</u> 2 | 2404MHz | 6 | 2428MHz | 10 | 2450MHz | 14 | 2470MHz |
| | 3 | 2410MHz | 7 | 2432MHz | 11 | 2454MHz | 15 | 2476MHz |
| | 4 | 2412MHz | 8 | 2440MHz | 12 | 2464MHz | 16 | 2480MHz |
| | latar | | | | | | | |

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 |
| | |



2. Test Result Summary

| Requirement | CFR 47 Section | Result |
|-------------------------------------|--------------------------|--------|
| Antenna Requirement | §15.203 | PASS |
| AC Power Line Conducted Emission | §15.207 | N/A |
| Field Strength of Fundamental | §15.249 (a) | PASS |
| Spurious Emissions | §15.249 (a) (d)/ §15.209 | PASS |
| Band Edge | §15.249 (d)/ §15.205 | PASS |
| 20dB Occupied Bandwidth | §15.215 (c) | PASS |
| | | |

Note:

- 1. Pass: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.

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3. General Information

3.1. Test Environment and Mode

| Operating Environment: | |
|------------------------|-------------------|
| Condition | Radiated Emission |
| Temperature: | 25.3 °C |
| Humidity: | 51 % RH |
| Atmospheric Pressure: | 1010 mbar |

Test Mode:

Engineering mode: Keep the EUT in continuous transmitting by select channel and modulations

The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.

3.2.Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Equipment | Model No. | Serial No. | FCC ID | Trade Name |
|-----------|-----------|------------|--------|------------|
| , 8 | | | | |

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



4. Facilities and Accreditations

4.1.Facilities

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

• FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

• IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2.Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China TEL: +86-755-27673339

4.3. Measurement Uncertainty

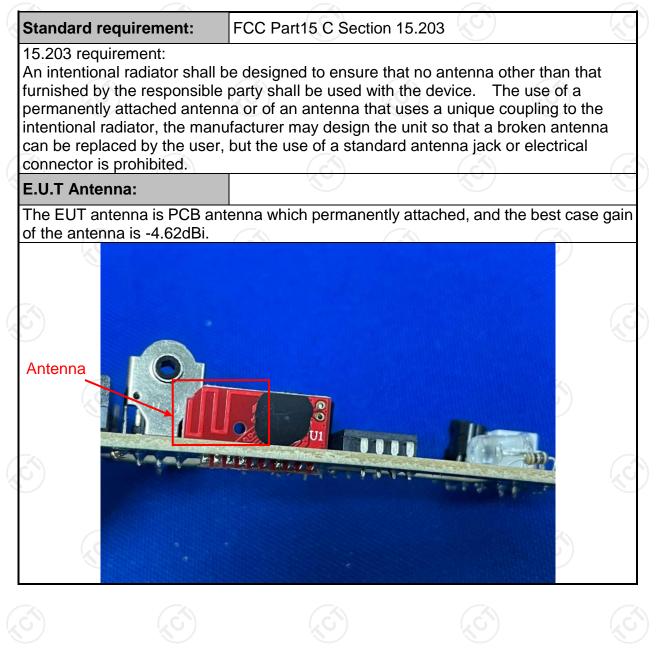
The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

| No. | Item | MU |
|-----|---|-----------|
| 1 | Conducted Emission | ± 3.10 dB |
| 2 | RF power, conducted | ± 0.12 dB |
| 3 | Spurious emissions, conducted | ± 0.11 dB |
| 4 | All emissions, radiated(<1 GHz) | ± 4.56 dB |
| 5 | All emissions, radiated(1 GHz - 18 GHz) | ± 4.22 dB |
| 6 | All emissions, radiated(18 GHz- 40 GHz) | ± 4.36 dB |



5. Test Results and Measurement Data

5.1. Antenna Requirement



5.2. Conducted Emission

5.2.1. Test Specification

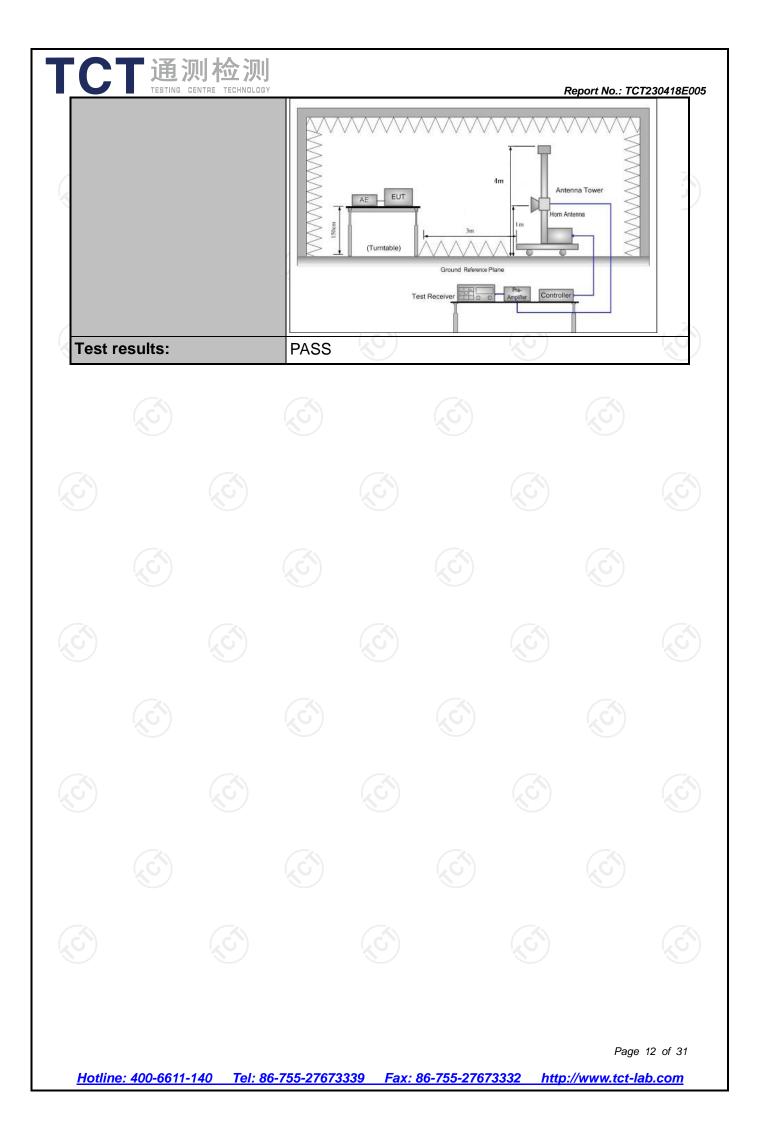
| Test Requirement: | FCC Part15 C Section 15.207 | | | | | | |
|---------------------------|--|------------------------------|----------------|--|--|--|--|
| Test Method: | ANSI C63.10:2013 | | | | | | |
| Frequency Range: | 150 kHz to 30 MHz | | | | | | |
| Receiver setup: | RBW=9 kHz, VBW=30 kHz, Sweep time=auto | | | | | | |
| | Frequency range | Frequency range Limit (dBuV) | | | | | |
| | (MHz) | Quasi-peak | | | | | |
| Limits: | 0.15-0.5 | 66 to 56* | 56 to 46* | | | | |
| | 0.5-5 | 56 | 46 | | | | |
| | 5-30 | 60 | 50 | | | | |
| | Refere | ence Plane | | | | | |
| Test Setup: Test Mode: | AUX Equipment E.U Test table/Insulation pla Remarkc E.U.T: Equipment Under Test LISN: Line Impedence Stabilizatio Test table height=0.8m Transmitting mode with | U.T me Mon Network | ter — AC power | | | | |
| Test Procedure: | The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to | | | | | | |
| Test Result: | ANSI C63.10:2013 of N/A; Because the EUT item is not applicable. | | | | | | |

5.3. Radiated Emission Measurement

5.3.1. Test Specification

| Test Requirement: | FCC Part15 | 5 C Section | n 15.209 | | No. | |
|-----------------------------|--|-------------|--------------|----------|------------------|--|
| Test Method: | ANSI C63.1 | 0:2013 | | | | |
| Frequency Range: | 9 kHz to 25 | GHz | 3 | | | |
| Measurement Distance: | 3 m | | | | | |
| Antenna Polarization: | Horizontal & | & Vertical | | | | |
| | Frequency | Detector | RBW | VBW | Remark | |
| | 9kHz- 150kHz | Quasi-peak | 200Hz | 1kHz | Quasi-peak Value | |
| Receiver Setup: | 150kHz- 30MHz | Quasi-peak | 9kHz | 30kHz | Quasi-peak Value | |
| | 30MHz-1GHz | Quasi-peak | 120kHz | 300kHz | Quasi-peak Value | |
| | Above 1CHz | Peak | 1MHz | 3MHz | Peak Value | |
| | Above 1GHz | Peak | 1MHz | 10Hz | Average Value | |
| Limit(Field strength of the | Freque | ency | Limit (dBu | V/m @3m) | Remark | |
| fundamental signal): | 2400MHz-24 | | 94. | | Average Value | |
| runuamentai signai). | 240010172-24 | 463.510172 | 114 | .00 | Peak Value | |
| | Frequency Limit (| | Limit (dBu | V/m @3m) | Remark | |
| | 0.009-0.490 | | 2400/F(KHz) | | Quasi-peak Value | |
| | 0.490-1.705 | | 24000/F(KHz) | | Quasi-peak Value | |
| | 1.705-30 | | 30 | | Quasi-peak Value | |
| Limit(Spurious Emissions): | 30MHz-88MHz | | 40.0 | | Quasi-peak Value | |
| | 88MHz-216MHz | | 43 | .5 | Quasi-peak Value | |
| | 216MHz-960MHz | | 46.0 | | Quasi-peak Value | |
| | 960MHz-1GHz | | 54.0 | | Quasi-peak Value | |
| | Above 1GHz | | 54.0 | | Average Value | |
| | | _ | 74 | - | Peak Value | |
| Limit (band edge) : | Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by a least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209 whichever is the lesser attenuation. | | | | | |
| Test Procedure: | whichever is the lesser attenuation. 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber in below 1GHz, 1.5m above the ground in above 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation. 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. 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. | | | | | |

| CT通测检测 TESTING CENTRE TECHNOLOGY | Report No.: TCT230 |)418 |
|-------------------------------------|---|---|
| | 4. For each suspected emission, the EUT was arrang to its worst case and then the antenna was tuned heights from 1 meter to 4 meters and the rotata table was turned from 0 degrees to 360 degrees find the maximum reading. 5. The test-receiver system was set to Peak Det Function and Specified Bandwidth with Maxim Hold Mode. 6. If the emission level of the EUT in peak mode w 10dB lower than the limit specified, then testing co be stopped and the peak values of the EUT would reported. Otherwise the emissions that did not hat 10dB margin would be re-tested one by one us peak, quasi-peak or average method as specified at then reported in a data sheet. | d to ble s to tect um vas ould be ave sing |
| | For radiated emissions below 30MHz | |
| | Distance = 3m Computer Pre - Amplifier UT UT Turn table Ground Plane 30MHz to 1GHz | |
| Test setup: | EUT Turn Table Ground Plane | |
| | Above 1GHz | |
| | (The diagram below shows the test setup that is utiliz to make the measurements for emission from 1GHz to the tenth harmonic of the highest fundamental frequency or to 40GHz emissions, whichever is lower | to |
| | | L.C |



5.3.2. Test Instruments

| | Radiated En | nission Test Site | e (966) | |
|----------------------|-----------------------|-------------------|--------------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| EMI Test Receiver | R&S | ESIB7 | 100197 | Jul. 03, 2023 |
| Spectrum Analyzer | R&S | FSQ40 | 200061 | Jul. 03, 2023 |
| Pre-amplifier | SKET | LNPA_0118G- 45 | SK2021012 102 | Feb. 20, 2024 |
| Pre-amplifier | SKET | LNPA_1840G- 50 | SK2021092 03500 | Feb. 20, 2024 |
| Pre-amplifier | HP | 8447D | 2727A05017 | Jul. 03, 2023 |
| Loop antenna | Schwarzbeck | FMZB1519B | 00191 | Jun. 11, 2023 |
| Broadband Antenna | Schwarzbeck | VULB9163 | 340 | Jul. 05, 2023 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | 631 | Jul. 05, 2023 |
| Horn Antenna | Schwarzbeck | BBHA 9170 | 00956 | Feb. 24, 2024 |
| Antenna Mast | Keleto | RE-AM | 9 / | |
| Coaxial cable | SKET | RC-18G-N-M | 1 | Feb. 24, 2024 |
| Coaxial cable | SKET | RC_40G-K-M | 1 | Feb. 24, 2024 |
| EMI Test Software | Shurple Technology | EZ-EMC | | 1 |

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5.3.3. Test Data

Field Strength of Fundamental

| Frequency (MHz) | Emission PK (dBuV/m) | Horizontal /Vertical | Limits PK (dBuV/m) | Margin (dB) |
|--------------------|-------------------------|-------------------------|-----------------------|----------------|
| 2402 | 83.26 | Н | 114 | -30.74 |
| 2402 | 78.04 | V | 114 | -35.96 |
| 2440 | 83.61 | н | 114 | -30.39 |
| 2440 | 78.22 | V | 114 | -35.78 |
| 2480 | 83.24 | (C H | 114 | -30.76 |
| 2480 | 76.84 | \sim v | 114 | -37.16 |

| Frequency (MHz) | Emission AV (dBuV/m) | Horizontal /Vertical | Limits AV (dBuV/m) | Margin (dB) |
|--------------------|-------------------------|-------------------------|-----------------------|----------------|
| 2402 | 63.50 | Н | 94 | -30.50 |
| 2402 | 58.37 | V | 94 | -35.63 |
| 2440 | 63.87 | Н | 94 | -30.13 |
| 2440 | 58.58 | V | 94 | -35.42 |
| 2480 | 63.34 | H G | 94 | -30.66 |
| 2480 | 57.01 | V | 94 | -36.99 |

Spurious Emissions

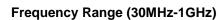
Frequency Range (9 kHz-30MHz)

| Frequency (MHz) | Level@ | Ձ3m (dBµ | ıV/m) | Limit@3m (dBµV/m) |
|-----------------|--------|----------|-------|-------------------|
| | | | | |
| · · · · | | | | |
| | | | | |
| | | | | |

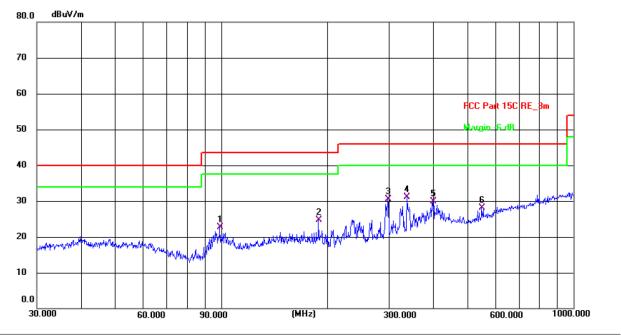
Note: 1. Emission Level=Reading+ Cable loss-Antenna factor-Amp factor.

2. The emission levels are 20 dB below the limit value, which are not reported. It is deemed to comply with the requirement.

3. For fundamental frequency, RBW >20dB BW , VBW>=RBW, PK detector is for PK value, RMS detector is for AV value.



Horizontal:



Site #2 3m Anechoic Chamber Polarization: Horizontal Temperature: 25.3(C) Humidity: 51 %

Limit: FCC Part 15C RE_3m

Power: DC 1.5 V

| | | - | | | | | | | 1 |
|-----|--------------------|-------------------|------------------|-------------------|-------------------|----------------|----------|-----|--------|
| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
| 1 | 99.1797 | 12.11 | 10.63 | 22.74 | 43.50 | -20.76 | QP | Р | |
| 2 | 189.0743 | 13.17 | 11.51 | 24.68 | 43.50 | -18.82 | QP | Р | |
| 3 | 297.2241 | 15.94 | 14.58 | 30.52 | 46.00 | -15.48 | QP | Р | |
| 4 * | 337.2155 | 15.57 | 15.59 | 31.16 | 46.00 | -14.84 | QP | Ρ | |
| 5 | 399.0302 | 13.03 | 16.92 | 29.95 | 46.00 | -16.05 | QP | Ρ | |
| 6 | 549.0195 | 7.87 | 20.25 | 28.12 | 46.00 | -17.88 | QP | Р | |







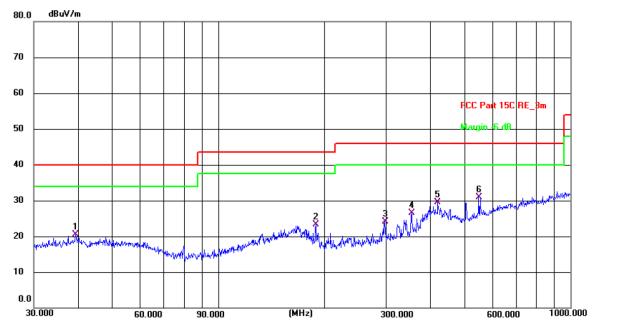


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Vertical:



Site #2 3m Anechoic ChamberPolarization:VerticalTemperature: 25.3(C)Humidity: 51 %

Limit: FCC Part 15C RE_3m

Power: DC 1.5 V

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
|-----|--------------------|-------------------|------------------|-------------------|-------------------|----------------|----------|-----|--------|
| 1 | 39.4371 | 6.05 | 14.36 | 20.41 | 40.00 | -19.59 | QP | Р | |
| 2 | 189.7385 | 11.73 | 11.52 | 23.25 | 43.50 | -20.25 | QP | Р | |
| 3 | 297.2241 | 9.62 | 14.58 | 24.20 | 46.00 | -21.80 | QP | Р | |
| 4 | 354.1831 | 10.66 | 15.91 | 26.57 | 46.00 | -19.43 | QP | Р | |
| 5 | 420.5803 | 11.91 | 17.60 | 29.51 | 46.00 | -16.49 | QP | Р | |
| 6 * | 549.0195 | 10.71 | 20.25 | 30.96 | 46.00 | -15.04 | QP | Ρ | |



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| CT | | 则检 河 | - | | | | | Report No.: 1 | TCT230418E0 |
|--------------------|------------------|---------------------------|-------------------------|--------------------------------|---------|----------|------------------------|----------------------|----------------|
| | | | | Above | e 1GHz | | | | |
| | | | | channel: | 2402MHz | | | | |
| Frequency (MHz) | Ant. Pol. H/V | Peak reading (dBµV) | AV reading (dBuV) | Correction Factor (dB/m) | Peak | | Peak limit (dBµV/m) | AV limit (dBµV/m) | Margin (dB) |
| 4804 | Н | 51.48 | | -3.94 | 47.54 | | 74 | 54 | -6.46 |
| 7206 | Н | 46.93 | | 0.52 | 47.45 | | 74 | 54 | -6.55 |
| | |)I | | | | | | | |
| | | | | | | | | | |
| 4804 | V | 49.75 | | -3.94 | 45.81 | | 74 | 54 | -8.19 |
| 7206 | V | 42.31 | | 0.52 | 42.83 | <u> </u> | 74 | 54 | -11.17 |
| | | | | / | 1 | <u> </u> | | | |

| | | | Ν | liddle chann | el: 2440M | Hz | | | |
|-----------|---------|---------|---------|--------------|-----------|----------|------------|-----------|--------|
| Frequency | Ant Pol | Peak | AV | Correction | | on Level | Peak limit | AV/ limit | Margin |
| (MHz) | H/V | reading | reading | Factor | Peak | AV | (dBu\//m) | (dBµV/m) | (dB) |
| (1011 12) | 11/ V | (dBµV) | (dBµV) | (dB/m) | (dBµV/m) | (dBµV/m) | (abp v/m) | (abp v/m) | (UD) |
| 4880 | Н | 51.07 | | -3.98 | 47.09 | | 74 | 54 | -6.91 |
| 7320 | Н | 45.64 | | 0.57 | 46.21 | | 74 | 54 | -7.79 |
| | | | | | | | | | |
| | | | | | | | | | |
| 4880 | V | 51.80 | | -3.98 | 47.82 | \sim | 74 | 54 | -6.18 |
| 7320 | V | 44.26 | | 0.57 | 44.83 | | 74 | 54 | -9.17 |
| | | | | | | | | | |
| | | | | | | | | | |

| | High channel: 2480MHz | | | | | | | | | | | |
|--------------------|-----------------------|---------------------------|-------------------------|--------------------------------|-------|----------------------------|---------------------------|----------------------|----------------|--|--|--|
| Frequency (MHz) | Ant. Pol. H/V | Peak reading (dBµV) | AV reading (dBµV) | Correction Factor (dB/m) | Peak | on Level AV (dBµV/m) | Peak limit (dBµV/m) | AV limit (dBµV/m) | Margin (dB) | | | |
| 4960 | Н | 52.19 | | -3.98 | 48.21 | | 74 | 54 | -5.79 | | | |
| 7440 | H | 47.52 | | 0.57 | 48.09 | | 74 | 54 | -5.91 | | | |
| | | | | | | | | | | | | |
| 4960 | V | 51.36 | | -3.98 | 47.38 | | 74 | 54 | -6.62 | | | |
| 7440 | V | 45.84 | | 0.57 | 46.41 | | 74 | 54 | -7.59 | | | |
| | | | | | J | | | | | | | |

Note:

1. Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss - Pre-amplifier

2. Margin (dB) = Emission Level (Peak) (dB μ V/m)-Average limit (dB μ V/m)

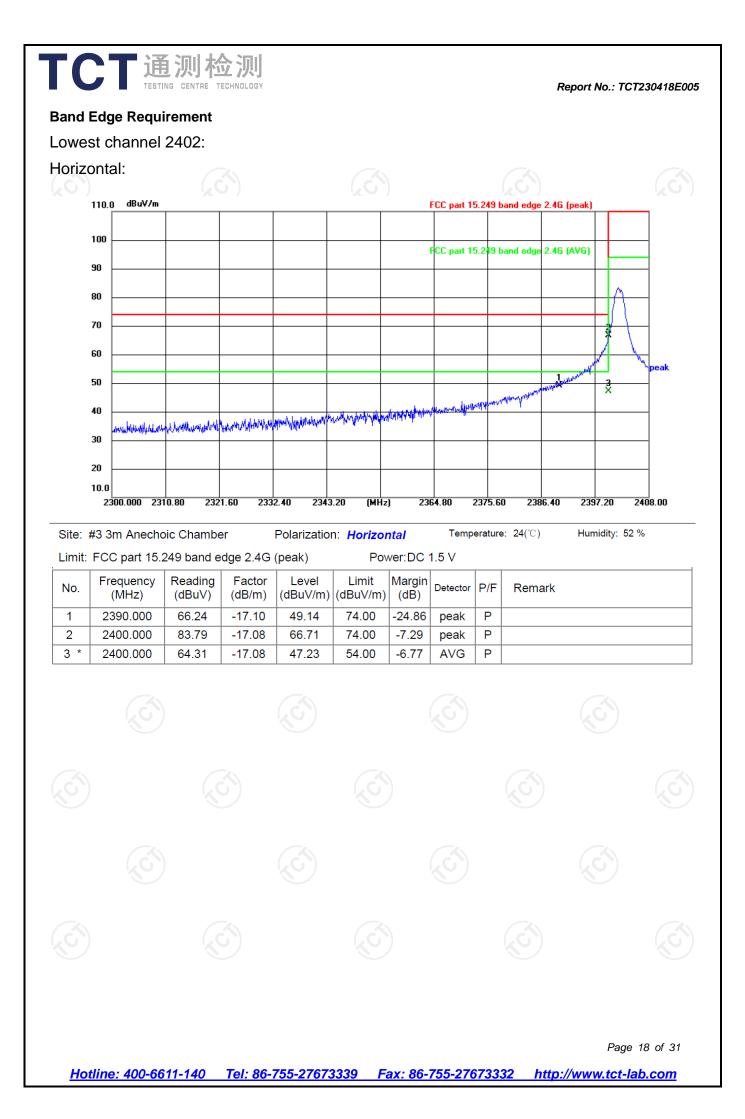
3. The emission levels of other frequencies are very lower than the limit and not show in test report.

4. Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.

5. Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.

6. All the restriction bands are compliance with the limit of 15.209.

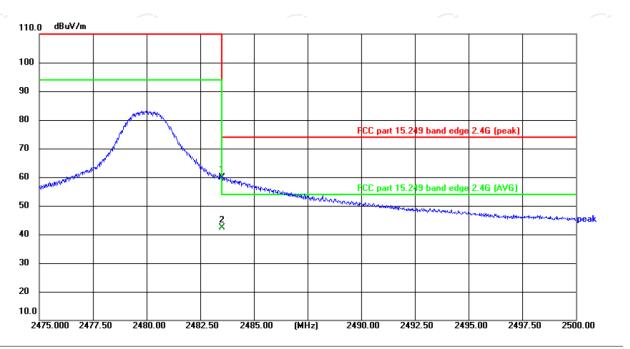
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Report No.: TCT230418E005 Vertical: 110.0 dBuV/m FCC part 15.249 band edge 2.4G (peak) 100 FCC part 15.249 band edge 2.4G (AVG) 90 80 70 60 oeak 50 Ĵ 3 X 40 and a second our and the ball of the war and the to all the second hundred 30 20 10.0 2300.000 2310.80 2321.60 2332.40 2343.20 (MHz) 2364.80 2375.60 2386.40 2408.00 2397.20 Temperature: 24(℃) Humidity: 52 % Site: #3 3m Anechoic Chamber Polarization: Vertical Limit: FCC part 15.249 band edge 2.4G (peak) Power: DC 1.5 V Reading Frequency Factor Level Limit Margin Detector P/F No. Remark (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 1 2390.000 61.02 -17.10 43.92 74.00 -30.08 Ρ peak 2 2400.000 78.12 -17.08 61.04 74.00 -12.96 peak Ρ 3 * 2400.000 59.73 -17.08 42.65 54.00 -11.35 AVG Ρ

Highest channel 2480:

Horizontal:



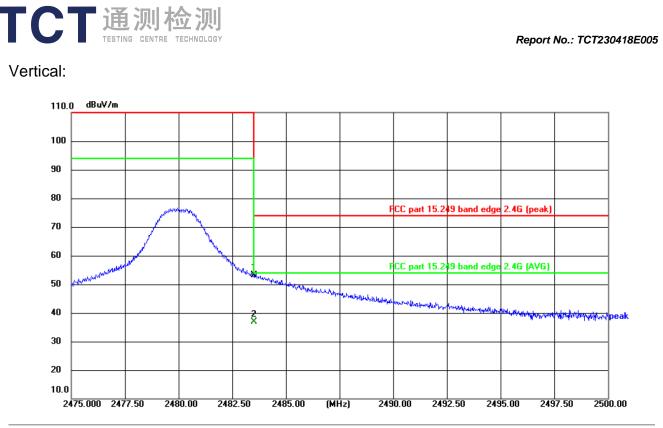
Site: #3 3m Anechoic Chamber Polarization: Horizontal Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.249 band edge 2.4G (peak)

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
|-----|--------------------|-------------------|------------------|-------------------|-------------------|----------------|----------|-----|--------|
| 1 | 2483.500 | 76.74 | -16.88 | 59.86 | 74.00 | -14.14 | peak | Ρ | |
| 2 * | 2483.500 | 59.20 | -16.88 | 42.32 | 54.00 | -11.68 | AVG | Ρ | |

Power: DC 1.5 V

Report No.: TCT230418E005



Site: #3 3m Anechoic Chamber Polarization: Vertical Temperature: 24(°C) Humidity: 52 %

Limit: FCC part 15.249 band edge 2.4G (peak)

| N | 0. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F | Remark |
|---|----|--------------------|-------------------|------------------|-------------------|-------------------|----------------|----------|-----|--------|
| 1 | | 2483.500 | 69.96 | -16.88 | 53.08 | 74.00 | -20.92 | peak | Ρ | |
| 2 | * | 2483.500 | 53.75 | -16.88 | 36.87 | 54.00 | -17.13 | AVG | Ρ | |

Power: DC 1.5 V





5.4. 20dB Occupied Bandwidth

5.4.1. Test Specification

| Test Requirement: | FCC Part15 C Section 15.215(c) |
|-------------------|--|
| Test Method: | ANSI C63.10: 2013 |
| Limit: | N/A |
| | According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. Set to the maximum power setting and enable the EUT transmit continuously. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW≥1% of the 20 dB bandwidth; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold. Measure and record the results in the test report. |
| Test setup: | Spectrum Analyzer EUT |
| Test Mode: | Transmitting mode with modulation |
| Test results: | PASS |

5.4.2. Test Instruments

| Equipment | Manufacturer | Model | Serial Number | Calibration Due Jul. 04, 2023 | |
|-------------------|--------------|-------|---------------|----------------------------------|--|
| Spectrum Analyzer | R&S | FSU | 200054 | | |
| 9 | | | | C | |
| | | | | | |
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| | | | | Page 22 of | |

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

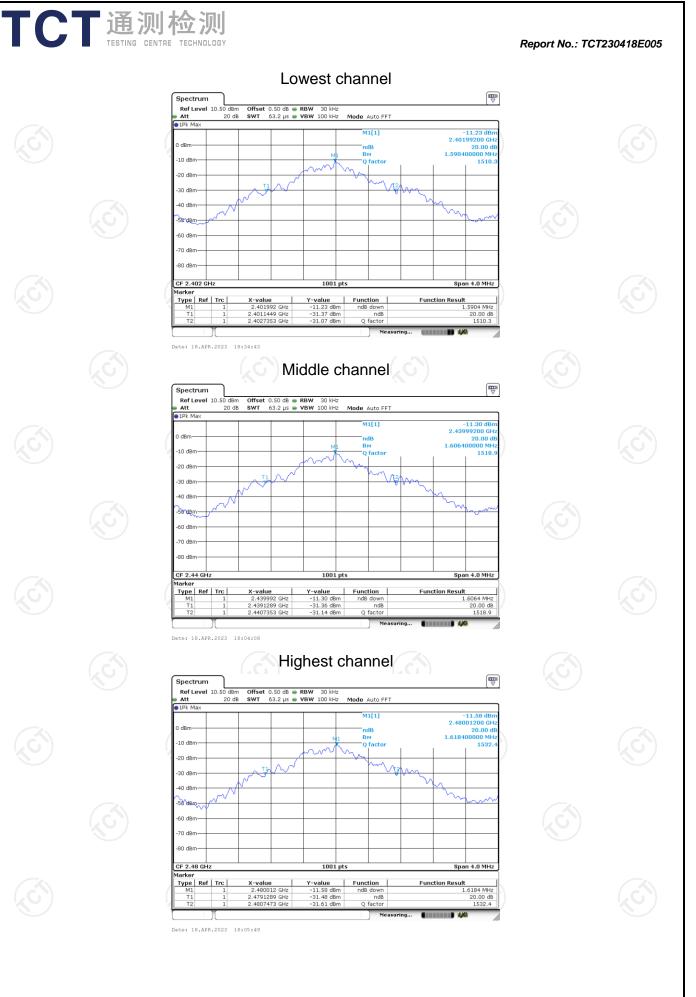
TCT 通测检测 TESTING CENTRE TECHNOLOGY

5.4.3. Test data

Report No.: TCT230418E005

| | Test Channel | 20dB Occupy Bandwidth (kHz) | Limit | Conclusion |
|---|--------------|--------------------------------|-------|------------|
| 6 | 2402MHz | 1590.40 | (5) | PASS |
| | 2440MHz | 1606.40 | | PASS |
| | 2480MHz | 1618.40 | | PASS |

| | | 1010.40 | 5 | <u> </u> | PA33 | |
|-----------------|---------|---------|---|----------|------|--|
| Test plots as f | ollows: | | | | | |
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