

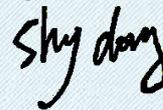
TEST REPORT

Report No. : KS2301S0226E01
FCC ID : 2A9YLDONGLE
Applicant : PURE ANGLE LLC
Address : 5869 S. Kyrene Road Suite 5 Tempe, AZ 85283 USA
Manufacturer : AIWA(CHONGQING)INTERNATIONAL TRADE CO.,LTD
Address : 4 FLOOR OF 1BUILDING,NO.36 FENGSHENG ROAD,JIULONGPODISTRICT.CHONGQING CITY,CHINA.
Product Name : Dongle
Trademark : 
Model/Type reference : USB PAM Pro
Standard : 47 CFR Part 15.249
Date of Receipt : January 4, 2023
Date of Test Date : January 4, 2023 to January 11, 2023
Date of issue : January 11, 2023
Test result : **Pass**

Prepared by:
(Printed name + Signature) Pai Zheng



Approved by:
(Printed name + Signature) Sky Dong



Testing Laboratory Name .: **KSIGN(Guangdong) Testing Co., Ltd.**

Address : West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

47 CFR Part 15.249: Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz

1.2. Report Version

| Revised No. | Date of issue | Description |
|-------------|------------------|-------------|
| 01 | January 11, 2023 | Original |
| | | |
| | | |
| | | |

1.3. Test Description

| Test Item | Standard | Requirement | Result |
|--|--------------------|--|--------|
| Antenna requirement | 47 CFR Part 15.249 | Part 15.203 | Pass |
| Conducted Emission at AC power line | 47 CFR Part 15.249 | 47 CFR 15.207(a) | Pass |
| Occupied Bandwidth | 47 CFR Part 15.249 | 47 CFR 15.215(c) | Pass |
| Field strength of fundamental | 47 CFR Part 15.249 | 47 CFR 15.249(a) 47 CFR 15.249(b)(1) | Pass |
| Band edge emissions (Radiated) | 47 CFR Part 15.249 | 47 CFR 15.249(d) | Pass |
| Emissions in restricted frequency bands (below 1GHz) | 47 CFR Part 15.249 | 47 CFR 15.249(a) 47 CFR 15.249(d) 47 CFR 15.249(e) | Pass |
| Emissions in restricted frequency bands (above 1GHz) | 47 CFR Part 15.249 | 47 CFR 15.249(a) 47 CFR 15.249(d) 47 CFR 15.249(e) | Pass |

1.4. Test Facility

KSIGN(Guangdong) Testing Co., Ltd.

West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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

CNAS-Lab Code: L13261

KSIGN(Guangdong) Testing Co., Ltd. has been assessed and proved to be in Compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No.: 5457.01

KSIGN(Guangdong) Testing Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing

ISED#: 25693 CAB identifier.: CN0096

KSIGN(Guangdong) Testing Co., Ltd. has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.

FCC-Registration No.: 294912 Designation Number: CN1328

KSIGN(Guangdong) Testing Co., Ltd. EMC Laboratory has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

1.5. Measurement Uncertainty

| Test Items | Measurement Uncertainty |
|------------------|-------------------------|
| RSE (1-18GHz) | ± 4.68dB |
| RSE (30-1000MHz) | ± 5.7dB |
| RSE (18-40GHz) | ± 5.18dB |

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

2. GENERAL INFORMATION

2.1. General Description Of EUT

| | |
|-------------------------|---|
| Test Sample Number: | 1-1(Normal Sample), 1-2(Engineering Sample) |
| Product Name: | Dongle |
| Trademark: |  |
| Model / Type reference: | USB PAM Pro |
| Power Supply: | DC 5.0V from USB |
| Operation Frequency: | 2402MHz~2480MHz |
| Number of Channels: | 40 |
| Modulation Type: | GFSK |
| Antenna Type: | PCB |
| Antenna Gain: | -2.36 dBi |

2.2. Accessory Equipment Information

The EUT was tested as an independent device.

2.3. Description of Test Modes

| No. | Title | Description of Mode |
|------------|-------|---------------------------|
| Test Mode1 | TM1 | Keep EUT is 2.4G SRD mode |

2.4. Measurement Instruments List

| Occupied Bandwidth | | | | |
|-------------------------------------|----------------------------|---------------------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Wideband Radio Communication Tester | R&S | CMU200 | 115297 | 2023-03-04 |
| Audio Analyzer | R&S | UPL16 | 100001 | 2023-03-04 |
| Shielding box | Gxiong | GX-5915A | 2201113 | 2023-04-23 |
| High Pass Filter | COM-MW Technology Co., Ltd | ZHPF-M1.2-9G-187 | 09203403 | 2023-03-04 |
| Band Stop Filter | COM-MW Technology Co., Ltd | ZBSF6-C820-920-188 | 09203401 | 2023-03-04 |
| Splitter | COM-MW Technology Co., Ltd | ZPD-M1-8-2103 | 09203407 | 2023-03-04 |
| Coaxial Cable | BEBES | A40-2.92M2.92F-4.5M | 1907021 | 2023-03-04 |
| Hygrothermograph | Anymetre | JB913 | / | 2023-03-07 |
| Climate Chamber | Angul | AGNH80L | 1903042120 | 2023-03-04 |
| Spectrum Analyzer | HP | 8593E | 3831U02087 | 2023-03-04 |
| Dual Output DC Power Supply | Agilent | E3646A | MY40009992 | 2023-03-04 |
| RF Control Unit | Tonscend | JS0806-2 | / | 2023-03-04 |
| Analog Signal Generator | HP | 83752A | 3344A00337 | 2023-03-04 |
| Vector Signal Generator | Agilent | N5182A | MY50142520 | 2023-03-04 |
| Wideband Radio Communication Tester | R&S | CMW500 | 157282 | 2023-03-04 |
| Spectrum Analyzer | R&S | FSV40-N | 101798 | 2023-03-04 |

| Field strength of fundamental | | | | |
|--|---------------|-------------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Ultra-Broadband logarithmic period Antenna | Schwarzbeck | VULB 9163 | 1230 | 2023-04-12 |
| Pre-Amplifier | Schwarzbeck | BBV 9745 | 9745#129 | 2023-03-04 |
| Color Signal Generator | Philips | PM5418 | 672926 | 2023-03-04 |
| Broadcast Television Signal Generator | R&S | SFE100 | 141038 | 2023-03-04 |
| Analog Signal Generator | Agilent | 8648A | 3847M00445 | 2023-03-04 |
| EMI Test Receiver | R&S | ESR | 102525 | 2023-03-04 |
| Horn Antenna | Schwarzbeck | BBHA 9120 D | 2023 | 2023-03-29 |
| Pre-Amplifier | EMCI | EMC051835SE | 980662 | 2023-03-04 |
| Spectrum Analyzer | Keysight | N9020A | MY46471971 | 2023-03-04 |
| Loop Antenna | Beijin ZHINAN | ZN30900C | 18050 | 2023-03-05 |

| Band edge emissions (Radiated) | | | | |
|--|--------------|-----------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Ultra-Broadband logarithmic period Antenna | Schwarzbeck | VULB 9163 | 1230 | 2023-04-12 |
| Pre-Amplifier | Schwarzbeck | BBV 9745 | 9745#129 | 2023-03-04 |

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| | | | | |
|---------------------------------------|---------------|-------------|------------|------------|
| Color Signal Generator | Philips | PM5418 | 672926 | 2023-03-04 |
| Broadcast Television Signal Generator | R&S | SFE100 | 141038 | 2023-03-04 |
| Analog Signal Generator | Agilent | 8648A | 3847M00445 | 2023-03-04 |
| EMI Test Receiver | R&S | ESR | 102525 | 2023-03-04 |
| Horn Antenna | Schwarzbeck | BBHA 9120 D | 2023 | 2023-03-29 |
| Pre-Amplifier | EMCI | EMC051835SE | 980662 | 2023-03-04 |
| Spectrum Analyzer | Keysight | N9020A | MY46471971 | 2023-03-04 |
| Loop Antenna | Beijin ZHINAN | ZN30900C | 18050 | 2023-03-05 |

| Emissions in restricted frequency bands (below 1GHz) | | | | |
|--|---------------|-------------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Ultra-Broadband logarithmic period Antenna | Schwarzbeck | VULB 9163 | 1230 | 2023-04-12 |
| Pre-Amplifier | Schwarzbeck | BBV 9745 | 9745#129 | 2023-03-04 |
| Color Signal Generator | Philips | PM5418 | 672926 | 2023-03-04 |
| Broadcast Television Signal Generator | R&S | SFE100 | 141038 | 2023-03-04 |
| Analog Signal Generator | Agilent | 8648A | 3847M00445 | 2023-03-04 |
| EMI Test Receiver | R&S | ESR | 102525 | 2023-03-04 |
| Horn Antenna | Schwarzbeck | BBHA 9120 D | 2023 | 2023-03-29 |
| Pre-Amplifier | EMCI | EMC051835SE | 980662 | 2023-03-04 |
| Spectrum Analyzer | Keysight | N9020A | MY46471971 | 2023-03-04 |
| Loop Antenna | Beijin ZHINAN | ZN30900C | 18050 | 2023-03-05 |

| Emissions in restricted frequency bands (above 1GHz) | | | | |
|--|---------------|-------------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Ultra-Broadband logarithmic period Antenna | Schwarzbeck | VULB 9163 | 1230 | 2023-04-12 |
| Pre-Amplifier | Schwarzbeck | BBV 9745 | 9745#129 | 2023-03-04 |
| Color Signal Generator | Philips | PM5418 | 672926 | 2023-03-04 |
| Broadcast Television Signal Generator | R&S | SFE100 | 141038 | 2023-03-04 |
| Analog Signal Generator | Agilent | 8648A | 3847M00445 | 2023-03-04 |
| EMI Test Receiver | R&S | ESR | 102525 | 2023-03-04 |
| Horn Antenna | Schwarzbeck | BBHA 9120 D | 2023 | 2023-03-29 |
| Pre-Amplifier | EMCI | EMC051835SE | 980662 | 2023-03-04 |
| Spectrum Analyzer | Keysight | N9020A | MY46471971 | 2023-03-04 |
| Loop Antenna | Beijin ZHINAN | ZN30900C | 18050 | 2023-03-05 |

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3. Evaluation Results (Evaluation)

3.1. Antenna requirement

| | |
|-------------------|--|
| Test Requirement: | An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. |
| Conclusion: | The directional gain of the antenna less than 6dBi. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used. Antenna structure please refer to the EUT internal photographs antenna photo. |

4. Radio Spectrum Matter Test Results (RF)

4.1. Occupied Bandwidth

| | |
|-------------------|--|
| Test Requirement: | Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. |
| Test Limit: | Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. |
| Test Method: | Occupied bandwidth—relative measurement procedure |
| Procedure: | <p>a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW.</p> <p>b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement.</p> <p>c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2.</p> <p>d) Steps a) through c) might require iteration to adjust within the specified tolerances.</p> <p>e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target “-xx dB down” requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value.</p> <p>f) Set detection mode to peak and trace mode to max hold.</p> <p>g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).</p> <p>h) Determine the “-xx dB down amplitude” using $[(\text{reference value}) - xx]$.</p> |

Alternatively, this calculation may be made by using the marker-delta function of the instrument.

i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j).

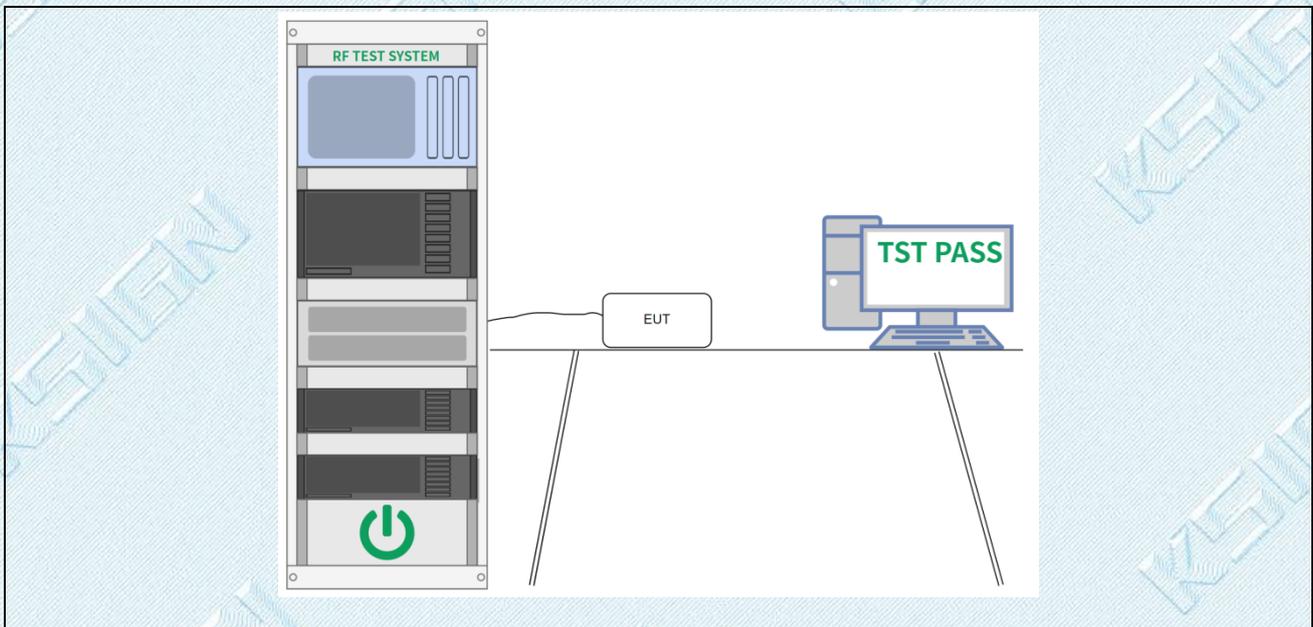
j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-xx dB down amplitude” determined in step h). If a marker is below this “-xx dB down amplitude” value, then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the “-xx dB down amplitude” determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth.

k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

4.1.1. E.U.T. Operation:

| | |
|------------------------|------------|
| Operating Environment: | |
| Temperature: | 24.9 °C |
| Humidity: | 44 % |
| Atmospheric Pressure: | 102 kPa |
| Final test mode: | Test Mode1 |

4.1.2. Test Setup Diagram:



4.1.3. Test Data:

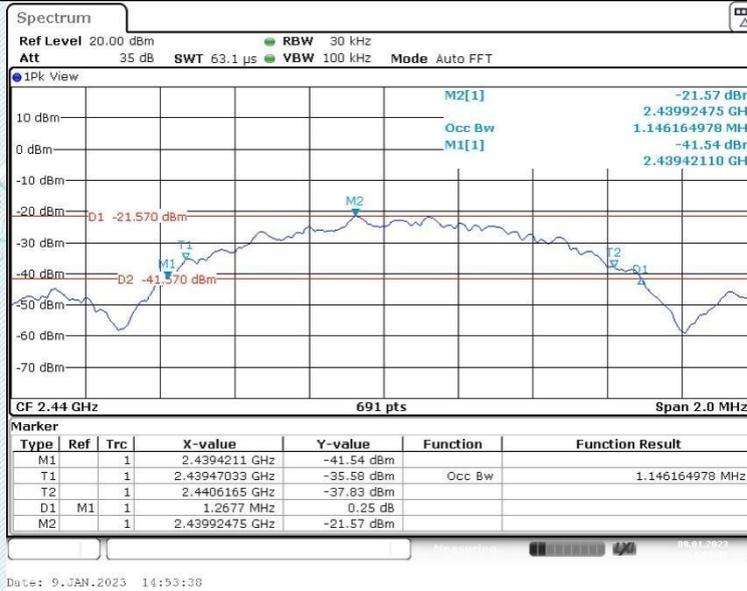
| Test Mode: | GFSK | |
|-------------------------|----------------------|---------|
| Channel frequency (MHz) | 20dB Bandwidth [MHz] | Verdict |
| 2402 | 1.268 | PASS |
| 2440 | 1.268 | PASS |
| 2480 | 1.276 | PASS |

2402MHz

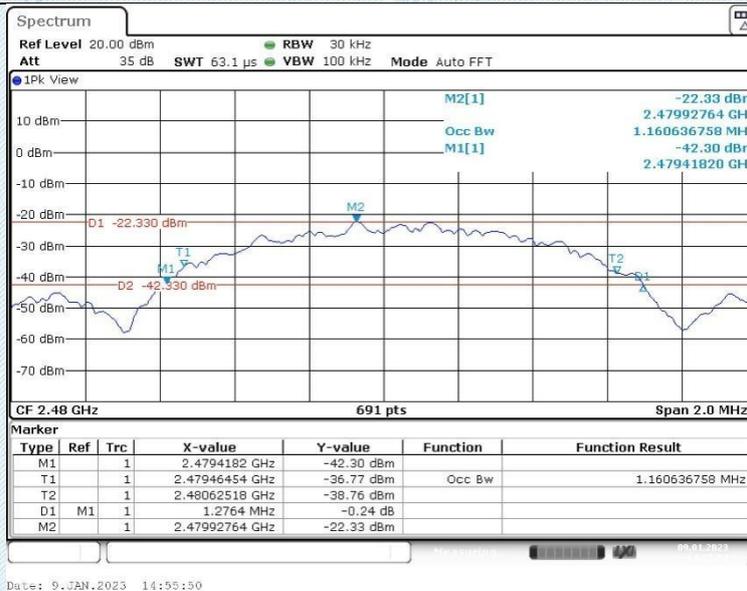


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2440MHz



2480MHz



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4.2. Field strength of fundamental

| | | | |
|-------------------|--|--|--|
| Test Requirement: | Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following: | | |
| | Fundamental frequency | Field strength of fundamental (millivolts/meter) | Field strength of harmonics (microvolts/meter) |
| | 902-928 MHz | 50 | 500 |
| | 2400-2483.5 MHz | 50 | 500 |
| | 5725-5875 MHz | 50 | 500 |
| | 24.0-24.25 GHz | 250 | 2500 |
| | The field strength of emissions in this band shall not exceed 2500 millivolts/meter. | | |
| Test Method: | ANSI C63.10-2013 section 6.6 | | |
| Procedure: | ANSI C63.10-2013 section 6.6 | | |

4.2.1. E.U.T. Operation:

| | |
|------------------------|------------|
| Operating Environment: | |
| Temperature: | 24.9 °C |
| Humidity: | 44 % |
| Atmospheric Pressure: | 102 kPa |
| Final test mode: | Test Mode1 |

4.2.2. Test Data:

| Frequency (MHz) | Read Level (dBuV) | Correct Factor (dB/m) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dBuV/m) | Polarization | Test value |
|-----------------|-------------------|-----------------------|-----------------|---------------------|---------------------|--------------|------------|
| 2402 | 90.61 | -10.88 | 79.73 | 114 | -34.27 | Horizontal | Peak |
| 2440 | 91.24 | -10.82 | 80.42 | 114 | -33.58 | Horizontal | Peak |
| 2480 | 92.85 | -10.74 | 82.11 | 114 | -31.89 | Horizontal | Peak |
| 2402 | 74.62 | -10.88 | 63.74 | 94 | -30.26 | Horizontal | AVG |
| 2440 | 76.88 | -10.82 | 66.06 | 94 | -27.94 | Horizontal | AVG |
| 2480 | 77.61 | -10.74 | 66.87 | 94 | -27.13 | Horizontal | AVG |

| Frequency (MHz) | Read Level (dBuV) | Correct Factor (dB/m) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dBuV/m) | Polarization | Test value |
|-----------------|-------------------|-----------------------|-----------------|---------------------|---------------------|--------------|------------|
| 2402 | 93.58 | -10.88 | 82.7 | 114 | -31.3 | Vertical | Peak |
| 2440 | 93.14 | -10.82 | 82.32 | 114 | -31.68 | Vertical | Peak |
| 2480 | 96.05 | -10.74 | 85.31 | 114 | -28.69 | Vertical | Peak |
| 2402 | 75.59 | -10.88 | 64.71 | 94 | -29.29 | Vertical | AVG |
| 2440 | 73.66 | -10.82 | 62.84 | 94 | -31.16 | Vertical | AVG |
| 2480 | 71.91 | -10.74 | 61.17 | 94 | -32.83 | Vertical | AVG |

Note:

Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

4.3. Band edge emissions (Radiated)

| | | | |
|-------------------|---|-----------------------------------|-------------------------------|
| Test Requirement: | Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation. | | |
| Test Limit: | Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation. | | |
| | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
| | 0.009-0.490 | 2400/F(kHz) | 300 |
| | 0.490-1.705 | 24000/F(kHz) | 30 |
| | 1.705-30.0 | 30 | 30 |
| | 30-88 | 100 ** | 3 |
| | 88-216 | 150 ** | 3 |
| | 216-960 | 200 ** | 3 |
| | Above 960 | 500 | 3 |
| | ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. | | |
| Test Method: | ANSI C63.10-2013 section 6.6.4 | | |
| Procedure: | ANSI C63.10-2013 section 6.6.4 | | |

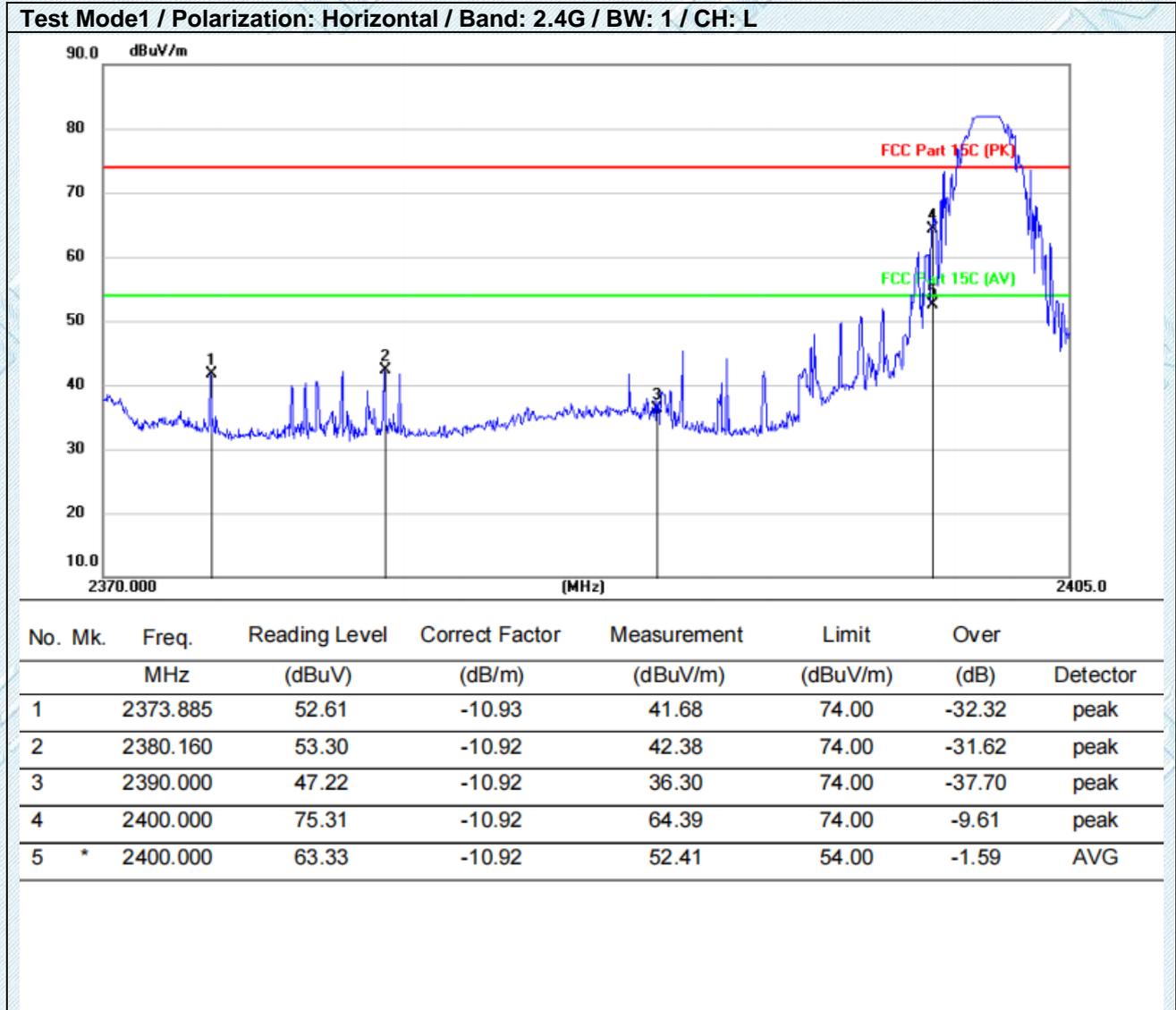
4.3.1. E.U.T. Operation:

| | |
|------------------------|------------|
| Operating Environment: | |
| Temperature: | 24.9 °C |
| Humidity: | 44 % |
| Atmospheric Pressure: | 102 kPa |
| Final test mode: | Test Mode1 |

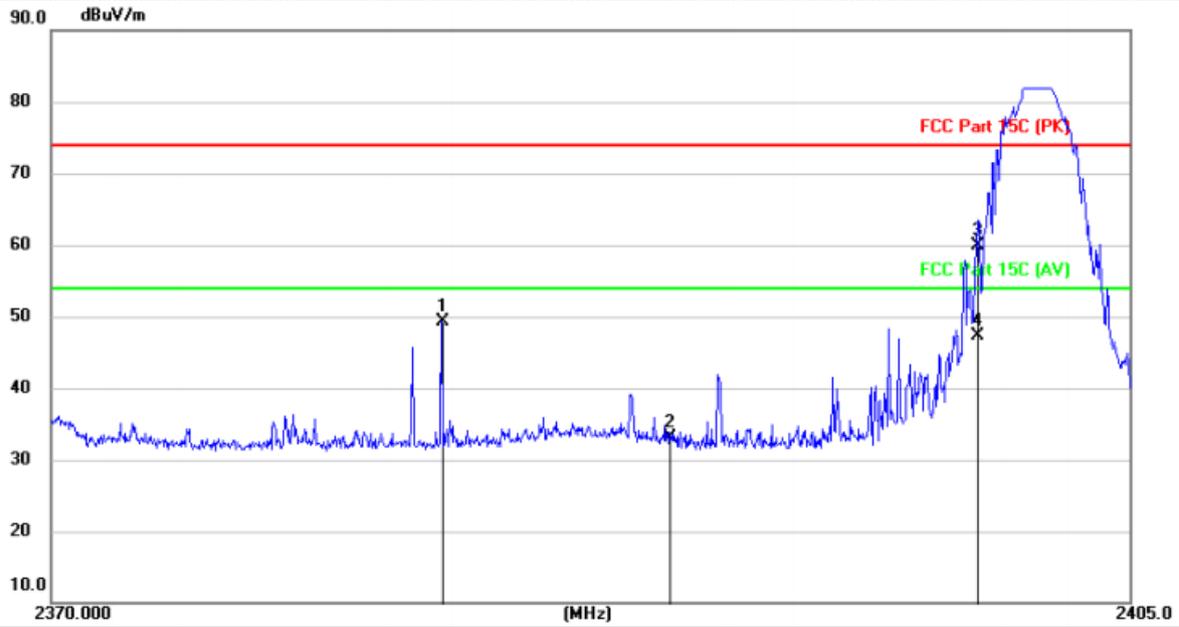
4.3.2. Test Data:

Note:

1. Measurement = Read Level + Correct Factor
2. Since the peak value is less than the limit of the AVG value, there is no AVG data.



Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: L



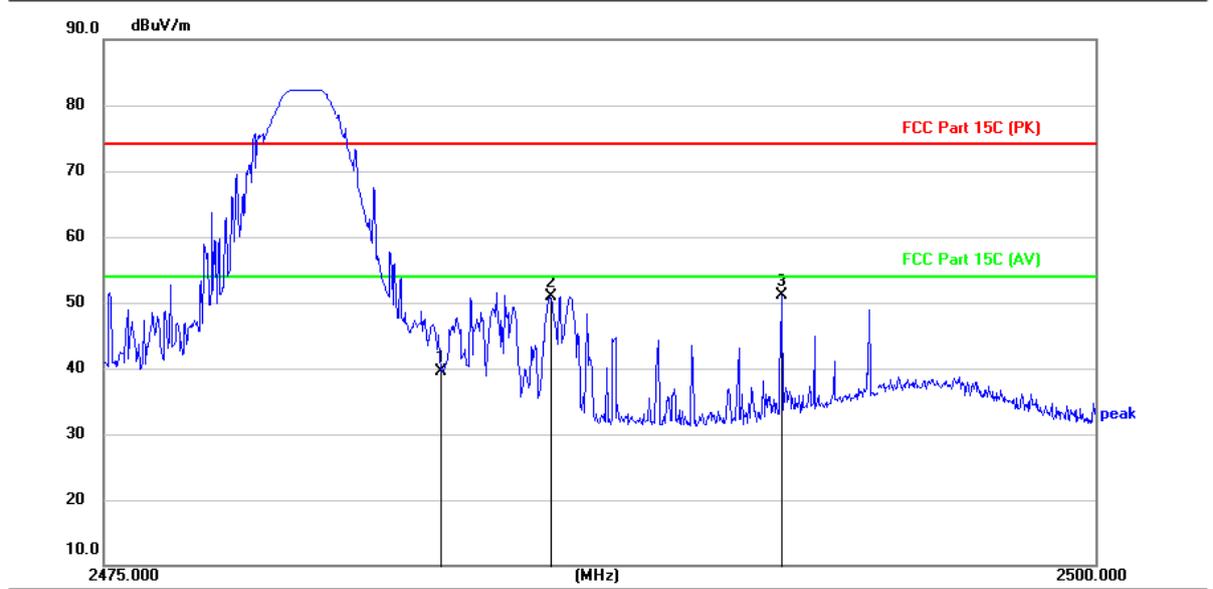
| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|-----------|----------------------|-----------------------|----------------------|----------------|-----------|----------|
| 1 | 2382.628 | 60.27 | -10.92 | 49.35 | 74.00 | -24.65 | peak |
| 2 | 2390.000 | 43.99 | -10.92 | 33.07 | 74.00 | -40.93 | peak |
| 3 | 2400.000 | 70.77 | -10.92 | 59.85 | 74.00 | -14.15 | peak |
| 4 * | 2400.000 | 58.26 | -10.92 | 47.34 | 54.00 | -6.66 | AVG |

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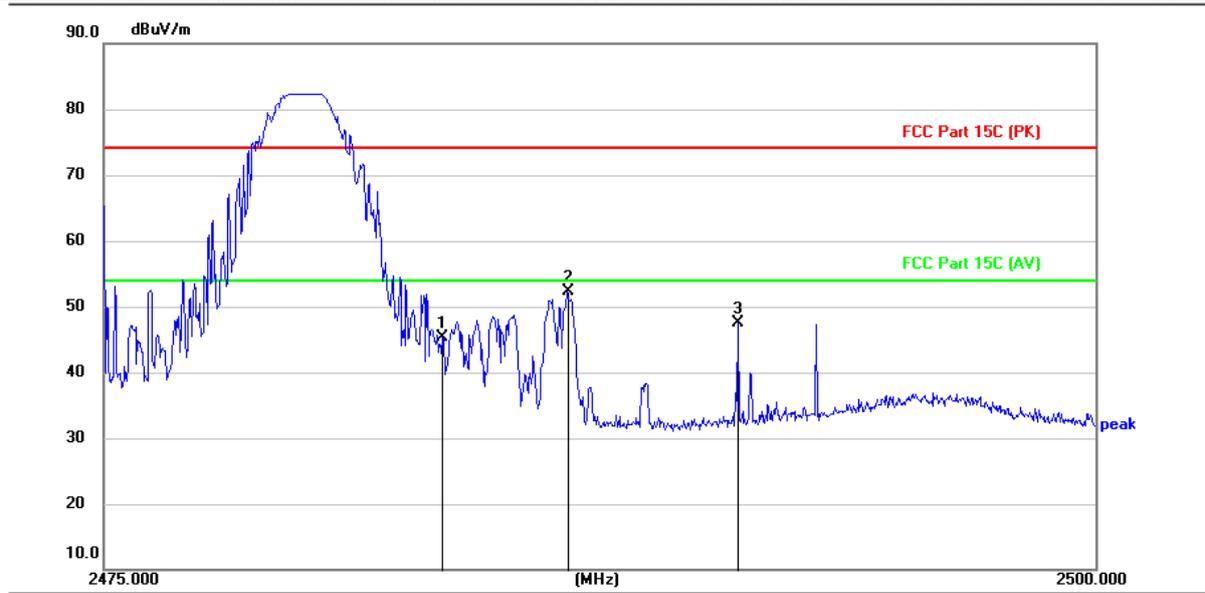
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Test Mode1 / Polarization: Horizontal / Band: 2.4G / BW: 1 / CH: H



| No. | Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|-----|-----|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | | 2483.500 | 50.29 | -10.88 | 39.41 | 74.00 | 34.59 | peak |
| 2 | | 2486.225 | 61.84 | -10.88 | 50.96 | 74.00 | 23.04 | peak |
| 3 | * | 2492.060 | 62.08 | -10.89 | 51.19 | 74.00 | 22.81 | peak |

Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: H



| No. | Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|-----|-----|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | | 2483.500 | 56.18 | -10.88 | 45.30 | 74.00 | 28.70 | peak |
| 2 | * | 2486.668 | 63.12 | -10.88 | 52.24 | 74.00 | 21.76 | peak |
| 3 | | 2490.950 | 58.43 | -10.89 | 47.54 | 74.00 | 26.46 | peak |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.4. Emissions in restricted frequency bands (below 1GHz)

| Test Requirement: | 47 CFR 15.249(a) 47 CFR 15.249(d) 47 CFR 15.249(e) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|--|--|-----------------------|--|--|-------------|----|-----|-----------------|----|-----|---------------|----|-----|----------------|-----|------|-----------------|-----------------------------------|-------------------------------|-------------|-------------|-----|-------------|--------------|----|------------|----|----|-------|--------|---|--------|--------|---|---------|--------|---|-----------|-----|---|
| Test Limit: | <p>Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:</p> <table border="1"> <thead> <tr> <th>Fundamental frequency</th> <th>Field strength of fundamental (millivolts/meter)</th> <th>Field strength of harmonics (microvolts/meter)</th> </tr> </thead> <tbody> <tr> <td>902-928 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>2400-2483.5 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>5725-5875 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>24.0-24.25 GHz</td> <td>250</td> <td>2500</td> </tr> </tbody> </table> <p>Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.</p> <table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>Field strength (microvolts/meter)</th> <th>Measurement distance (meters)</th> </tr> </thead> <tbody> <tr> <td>0.009-0.490</td> <td>2400/F(kHz)</td> <td>300</td> </tr> <tr> <td>0.490-1.705</td> <td>24000/F(kHz)</td> <td>30</td> </tr> <tr> <td>1.705-30.0</td> <td>30</td> <td>30</td> </tr> <tr> <td>30-88</td> <td>100 **</td> <td>3</td> </tr> <tr> <td>88-216</td> <td>150 **</td> <td>3</td> </tr> <tr> <td>216-960</td> <td>200 **</td> <td>3</td> </tr> <tr> <td>Above 960</td> <td>500</td> <td>3</td> </tr> </tbody> </table> <p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p> <p>As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</p> | | | Fundamental frequency | Field strength of fundamental (millivolts/meter) | Field strength of harmonics (microvolts/meter) | 902-928 MHz | 50 | 500 | 2400-2483.5 MHz | 50 | 500 | 5725-5875 MHz | 50 | 500 | 24.0-24.25 GHz | 250 | 2500 | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | 0.009-0.490 | 2400/F(kHz) | 300 | 0.490-1.705 | 24000/F(kHz) | 30 | 1.705-30.0 | 30 | 30 | 30-88 | 100 ** | 3 | 88-216 | 150 ** | 3 | 216-960 | 200 ** | 3 | Above 960 | 500 | 3 |
| | Fundamental frequency | Field strength of fundamental (millivolts/meter) | Field strength of harmonics (microvolts/meter) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 902-928 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2400-2483.5 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5725-5875 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.0-24.25 GHz | 250 | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.009-0.490 | 2400/F(kHz) | 300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.490-1.705 | 24000/F(kHz) | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.705-30.0 | 30 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30-88 | 100 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88-216 | 150 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 216-960 | 200 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Above 960 | 500 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Method: | ANSI C63.10-2013 section 6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procedure: | ANSI C63.10-2013 section 6.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

4.4.1. E.U.T. Operation:

| | |
|------------------------|---------|
| Operating Environment: | |
| Temperature: | 24.9 °C |
| Humidity: | 44 % |

TRF EMC_R1

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Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

| | |
|-----------------------|------------|
| Atmospheric Pressure: | 102 kPa |
| Final test mode: | Test Mode1 |

TRF EMC_R1

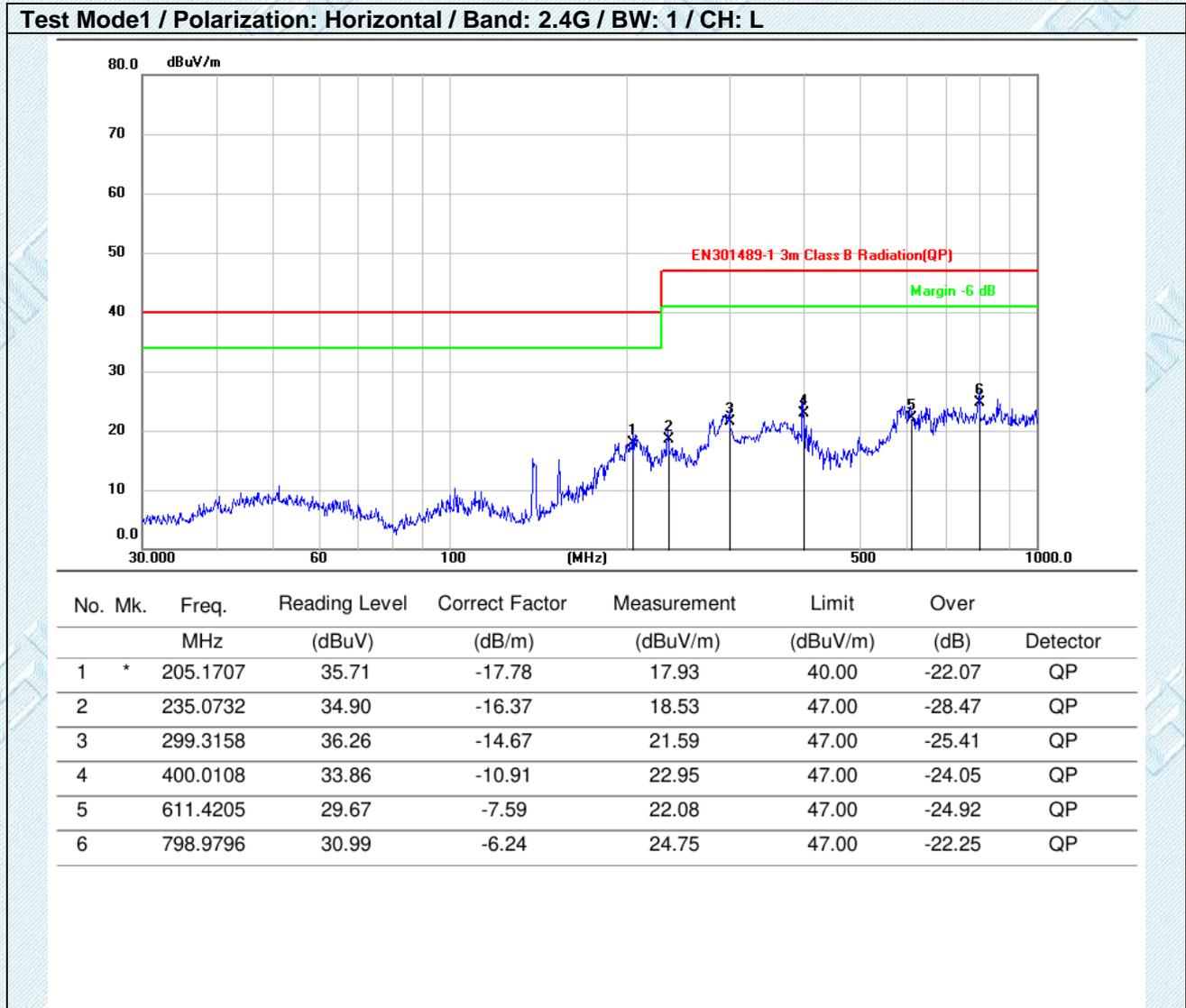
Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdkesign.cn Web: www.gdkesign.com

4.4.2. Test Data:

Note:

- 1.Measurement= Read Level+ Correct Factor
2. Both modes of 2.4G SRD were tested at Low, Middle, and High channel and recorded worst mode at Low channel



Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: L



| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 61.6266 | 32.59 | -17.91 | 14.68 | 40.00 | -25.32 | QP |
| 2 | 118.3105 | 36.42 | -19.20 | 17.22 | 40.00 | -22.78 | QP |
| 3 | 140.3420 | 36.97 | -21.28 | 15.69 | 40.00 | -24.31 | QP |
| 4 | 204.8112 | 34.57 | -17.80 | 16.77 | 40.00 | -23.23 | QP |
| 5 | 280.6136 | 33.81 | -15.13 | 18.68 | 47.00 | -28.32 | QP |
| 6 * | 929.0081 | 29.14 | -3.96 | 25.18 | 47.00 | -21.82 | QP |

4.5. Emissions in restricted frequency bands (above 1GHz)

| Test Requirement: | 47 CFR 15.249(a) 47 CFR 15.249(d) 47 CFR 15.249(e) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--|--|-----------------------|--|--|-------------|-------------|-----|-----------------|--------------|-----|---------------|----|-----|----------------|--------|------|--------|--------|---|---------|--------|---|-----------|-----|---|
| Test Limit: | <p>Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:</p> <table border="1"> <thead> <tr> <th>Fundamental frequency</th> <th>Field strength of fundamental (millivolts/meter)</th> <th>Field strength of harmonics (microvolts/meter)</th> </tr> </thead> <tbody> <tr> <td>902-928 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>2400-2483.5 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>5725-5875 MHz</td> <td>50</td> <td>500</td> </tr> <tr> <td>24.0-24.25 GHz</td> <td>250</td> <td>2500</td> </tr> </tbody> </table> | | | Fundamental frequency | Field strength of fundamental (millivolts/meter) | Field strength of harmonics (microvolts/meter) | 902-928 MHz | 50 | 500 | 2400-2483.5 MHz | 50 | 500 | 5725-5875 MHz | 50 | 500 | 24.0-24.25 GHz | 250 | 2500 | | | | | | | | | |
| | Fundamental frequency | Field strength of fundamental (millivolts/meter) | Field strength of harmonics (microvolts/meter) | | | | | | | | | | | | | | | | | | | | | | | | |
| 902-928 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2400-2483.5 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5725-5875 MHz | 50 | 500 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.0-24.25 GHz | 250 | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.</p> <table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>Field strength (microvolts/meter)</th> <th>Measurement distance (meters)</th> </tr> </thead> <tbody> <tr> <td>0.009-0.490</td> <td>2400/F(kHz)</td> <td>300</td> </tr> <tr> <td>0.490-1.705</td> <td>24000/F(kHz)</td> <td>30</td> </tr> <tr> <td>1.705-30.0</td> <td>30</td> <td>30</td> </tr> <tr> <td>30-88</td> <td>100 **</td> <td>3</td> </tr> <tr> <td>88-216</td> <td>150 **</td> <td>3</td> </tr> <tr> <td>216-960</td> <td>200 **</td> <td>3</td> </tr> <tr> <td>Above 960</td> <td>500</td> <td>3</td> </tr> </tbody> </table> <p>** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.</p> <p>As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</p> | | | Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | 0.009-0.490 | 2400/F(kHz) | 300 | 0.490-1.705 | 24000/F(kHz) | 30 | 1.705-30.0 | 30 | 30 | 30-88 | 100 ** | 3 | 88-216 | 150 ** | 3 | 216-960 | 200 ** | 3 | Above 960 | 500 | 3 |
| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.009-0.490 | 2400/F(kHz) | 300 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.490-1.705 | 24000/F(kHz) | 30 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.705-30.0 | 30 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30-88 | 100 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88-216 | 150 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 216-960 | 200 ** | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Above 960 | 500 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Test Method: | ANSI C63.10-2013 section 6.6 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Procedure: | ANSI C63.10-2013 section 6.6 | | | | | | | | | | | | | | | | | | | | | | | | | | |

4.5.1. E.U.T. Operation:

| | |
|------------------------|---------|
| Operating Environment: | |
| Temperature: | 24.9 °C |
| Humidity: | 44 % |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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| | |
|-----------------------|------------|
| Atmospheric Pressure: | 102 kPa |
| Final test mode: | Test Mode1 |

TRF EMC_R1

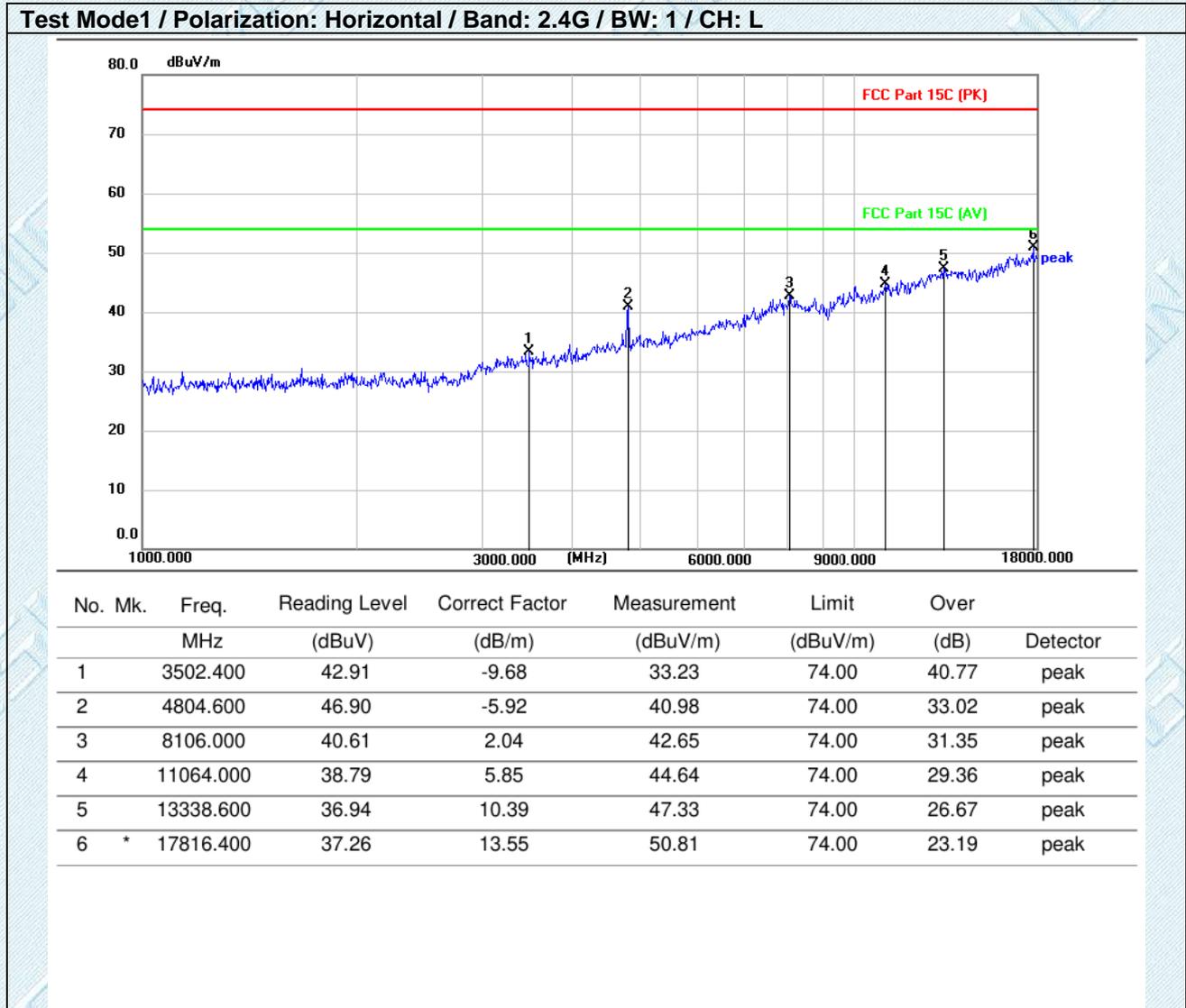
Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdkesign.cn Web: www.gdkesign.com

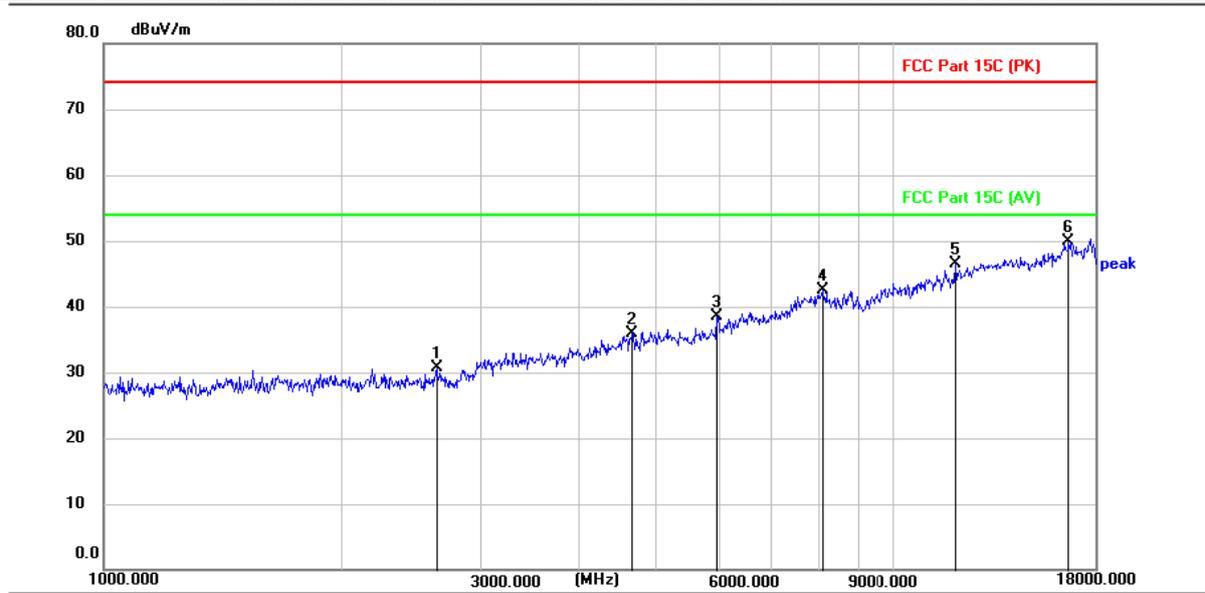
4.5.2. Test Data:

Note:

- 1.Measurement= Read Level+ Correct Factor
2. Since the peak value is less than the limit of the AVG value, there is no AVG data.
3. From 18GHz to 26.5GHz,the amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.



Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: L



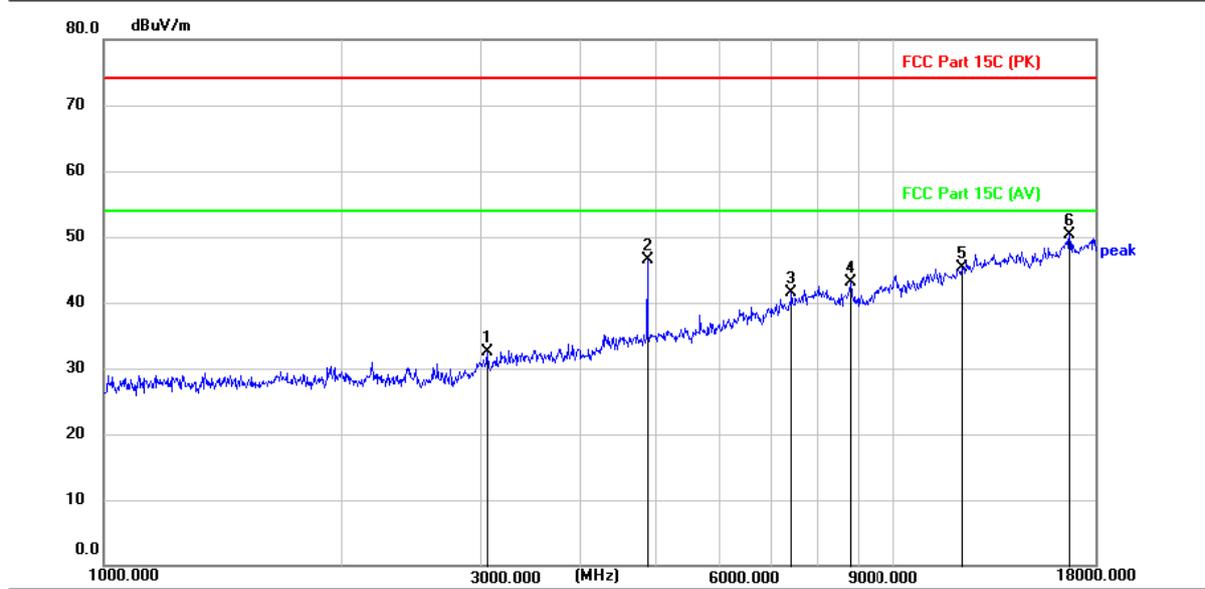
| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 2642.200 | 41.54 | -10.79 | 30.75 | 74.00 | 43.25 | peak |
| 2 | 4670.300 | 42.19 | -6.29 | 35.90 | 74.00 | 38.10 | peak |
| 3 | 5981.000 | 42.43 | -3.84 | 38.59 | 74.00 | 35.41 | peak |
| 4 | 8116.200 | 40.37 | 2.04 | 42.41 | 74.00 | 31.59 | peak |
| 5 | 11999.000 | 38.56 | 7.88 | 46.44 | 74.00 | 27.56 | peak |
| 6 * | 16651.900 | 36.38 | 13.57 | 49.95 | 74.00 | 24.05 | peak |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

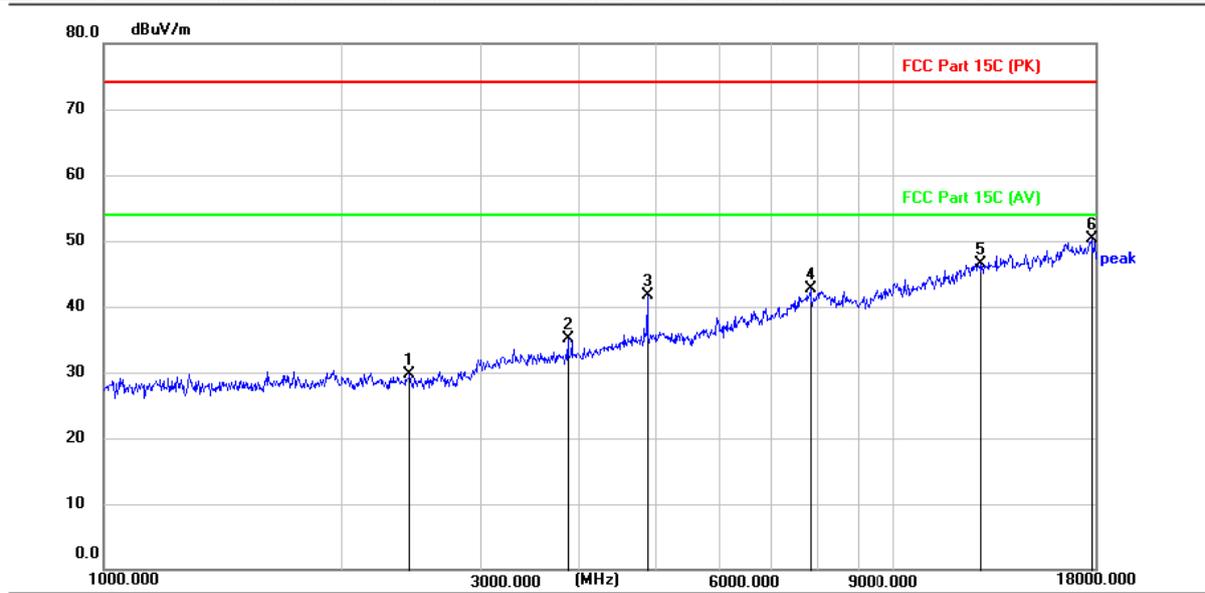
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Test Mode1 / Polarization: Horizontal / Band: 2.4G / BW: 1 / CH: M



| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 3067.200 | 42.95 | -10.47 | 32.48 | 74.00 | 41.52 | peak |
| 2 | 4881.100 | 52.13 | -5.71 | 46.42 | 74.00 | 27.58 | peak |
| 3 | 7427.700 | 40.85 | 0.60 | 41.45 | 74.00 | 32.55 | peak |
| 4 | 8818.300 | 41.20 | 1.87 | 43.07 | 74.00 | 30.93 | peak |
| 5 | 12250.600 | 36.82 | 8.44 | 45.26 | 74.00 | 28.74 | peak |
| 6 * | 16721.600 | 36.88 | 13.46 | 50.34 | 74.00 | 23.66 | peak |

Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: M



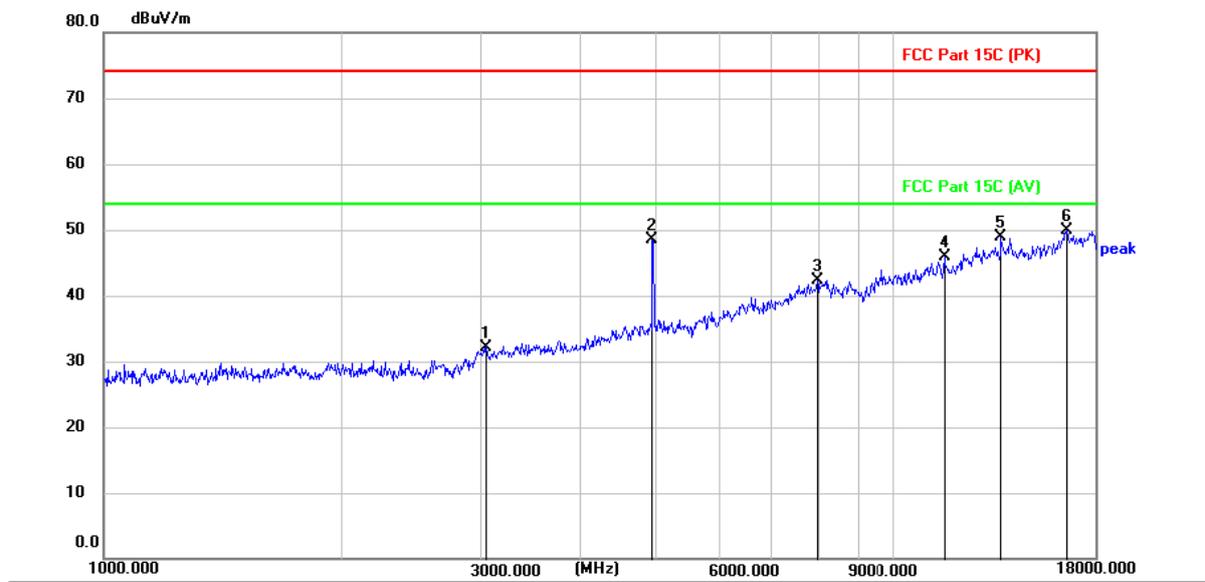
| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 2443.300 | 40.55 | -10.91 | 29.64 | 74.00 | 44.36 | peak |
| 2 | 3869.600 | 43.83 | -8.76 | 35.07 | 74.00 | 38.93 | peak |
| 3 | 4879.400 | 47.36 | -5.72 | 41.64 | 74.00 | 32.36 | peak |
| 4 | 7837.400 | 41.08 | 1.66 | 42.74 | 74.00 | 31.26 | peak |
| 5 | 12898.300 | 36.77 | 9.74 | 46.51 | 74.00 | 27.49 | peak |
| 6 * | 17819.800 | 36.73 | 13.54 | 50.27 | 74.00 | 23.73 | peak |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdkesign.cn Web: www.gdkesign.com

Test Mode1 / Polarization: Horizontal / Band: 2.4G / BW: 1 / CH: H



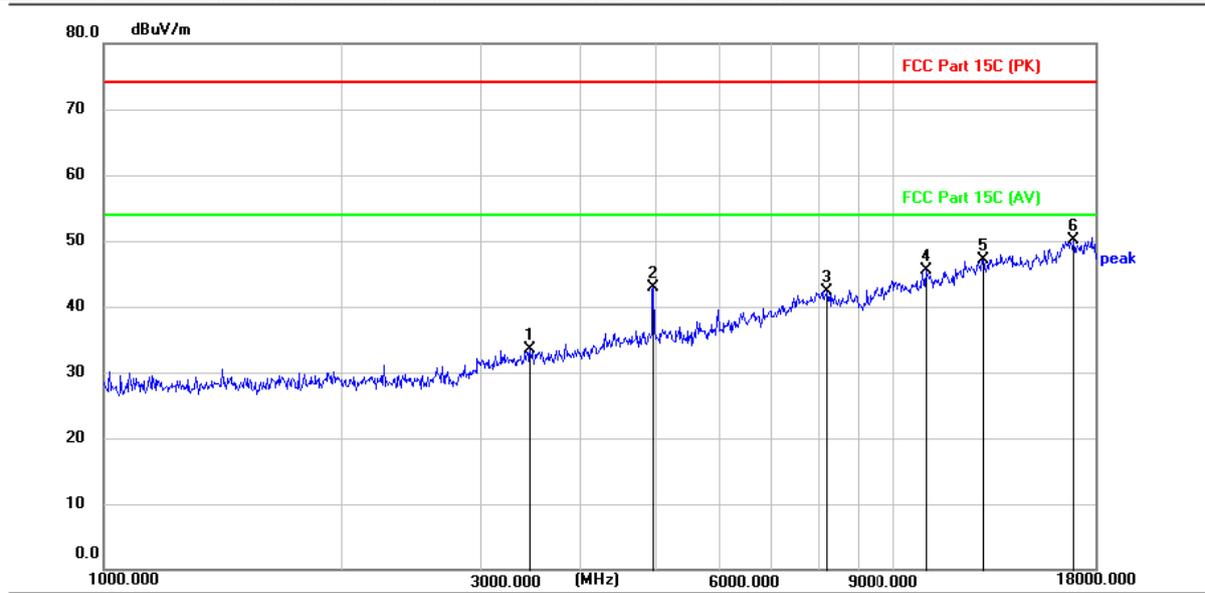
| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 3051.900 | 42.69 | -10.49 | 32.20 | 74.00 | 41.80 | peak |
| 2 | 4959.300 | 54.05 | -5.51 | 48.54 | 74.00 | 25.46 | peak |
| 3 | 7993.800 | 40.32 | 2.06 | 42.38 | 74.00 | 31.62 | peak |
| 4 | 11623.300 | 38.84 | 7.11 | 45.95 | 74.00 | 28.05 | peak |
| 5 | 13710.900 | 37.97 | 10.87 | 48.84 | 74.00 | 25.16 | peak |
| 6 * | 16599.200 | 36.20 | 13.66 | 49.86 | 74.00 | 24.14 | peak |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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Test Mode1 / Polarization: Vertical / Band: 2.4G / BW: 1 / CH: H



| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 3475.200 | 43.28 | -9.72 | 33.56 | 74.00 | 40.44 | peak |
| 2 | 4961.000 | 48.43 | -5.50 | 42.93 | 74.00 | 31.07 | peak |
| 3 | 8238.600 | 40.32 | 2.00 | 42.32 | 74.00 | 31.68 | peak |
| 4 | 11035.100 | 39.65 | 5.78 | 45.43 | 74.00 | 28.57 | peak |
| 5 | 13019.000 | 37.10 | 9.96 | 47.06 | 74.00 | 26.94 | peak |
| 6 * | 16908.600 | 36.86 | 13.17 | 50.03 | 74.00 | 23.97 | peak |

TRF EMC_R1

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

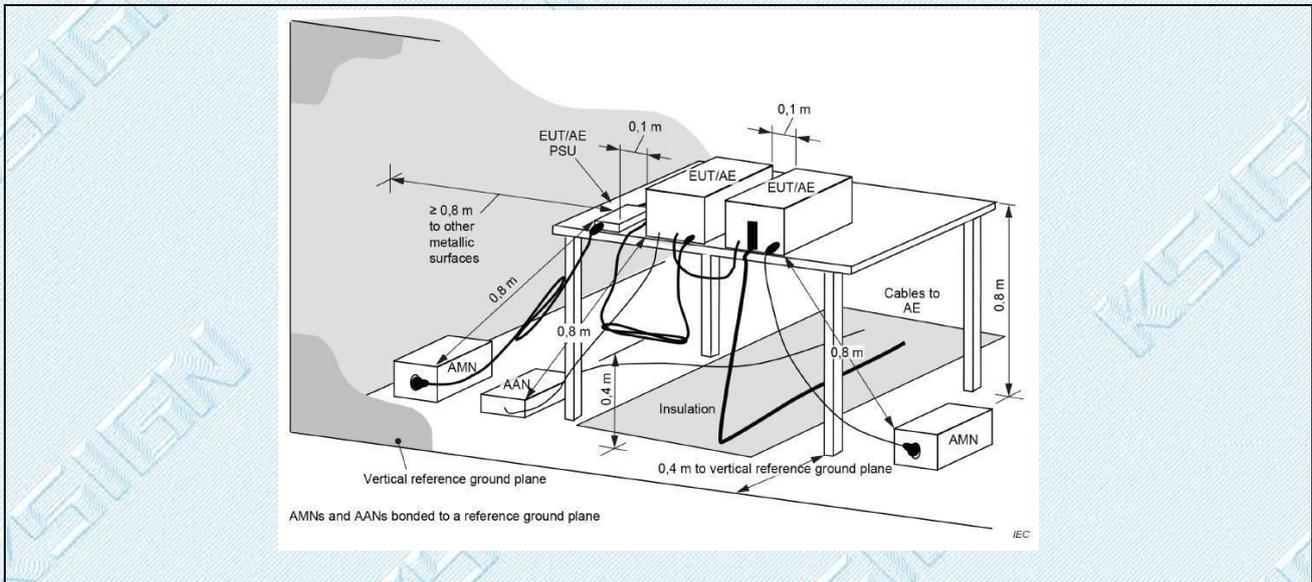
4.6. Conducted Emission at AC power line

| | | | |
|---|--|------------------------------|-----------|
| Test Requirement: | Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). | | |
| Test Limit: | Frequency of emission (MHz) | Conducted limit (dB μ V) | |
| | | Quasi-peak | Average |
| | 0.15-0.5 | 66 to 56* | 56 to 46* |
| | 0.5-5 | 56 | 46 |
| | 5-30 | 60 | 50 |
| *Decreases with the logarithm of the frequency. | | | |
| Test Method: | Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices | | |

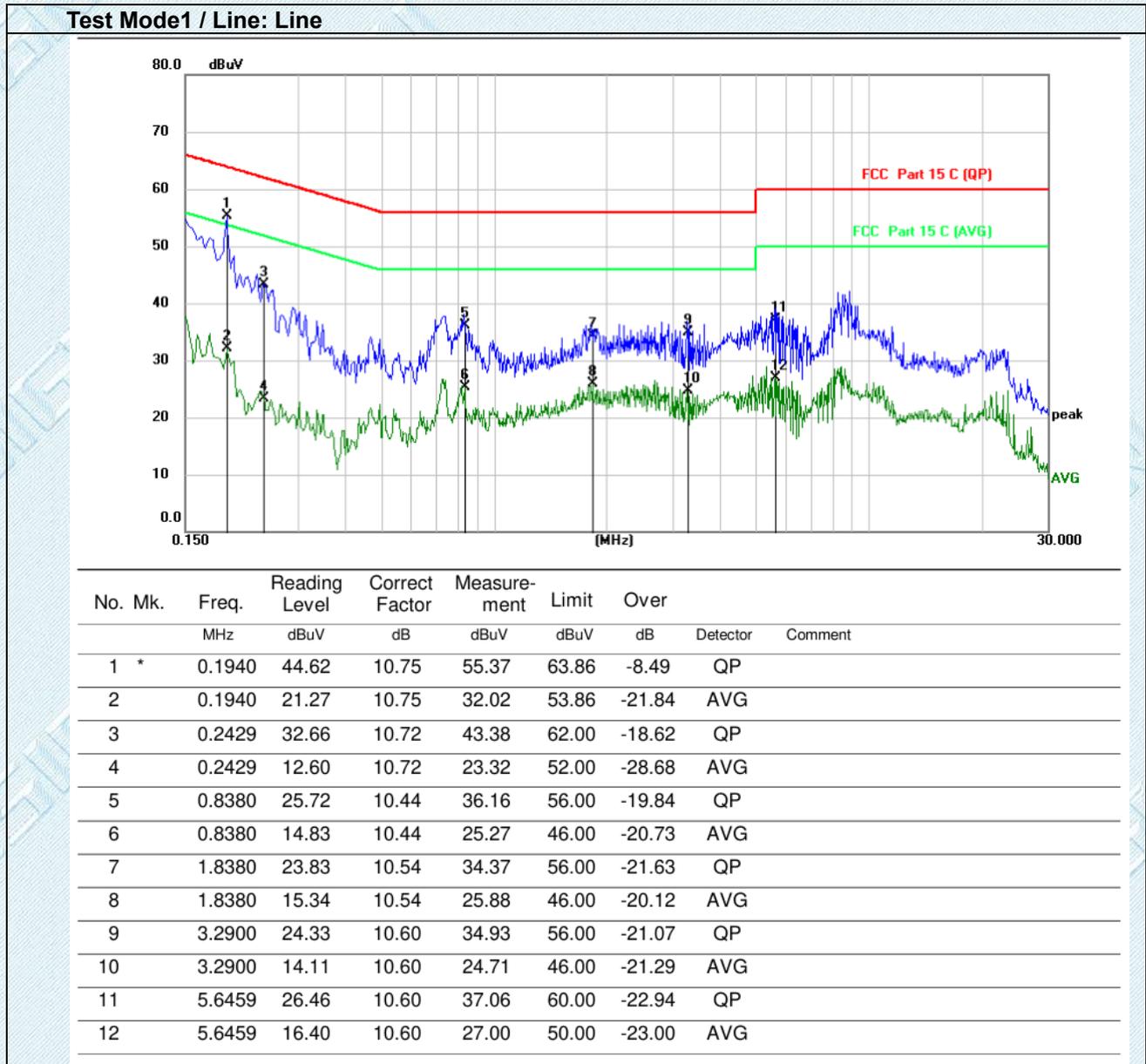
4.6.1. E.U.T. Operation:

| | |
|------------------------|-------------|
| Operating Environment: | |
| Temperature: | 23.5 °C |
| Humidity: | 48.3 % |
| Atmospheric Pressure: | 101 kPa |
| Final test mode: | Test Mode 1 |

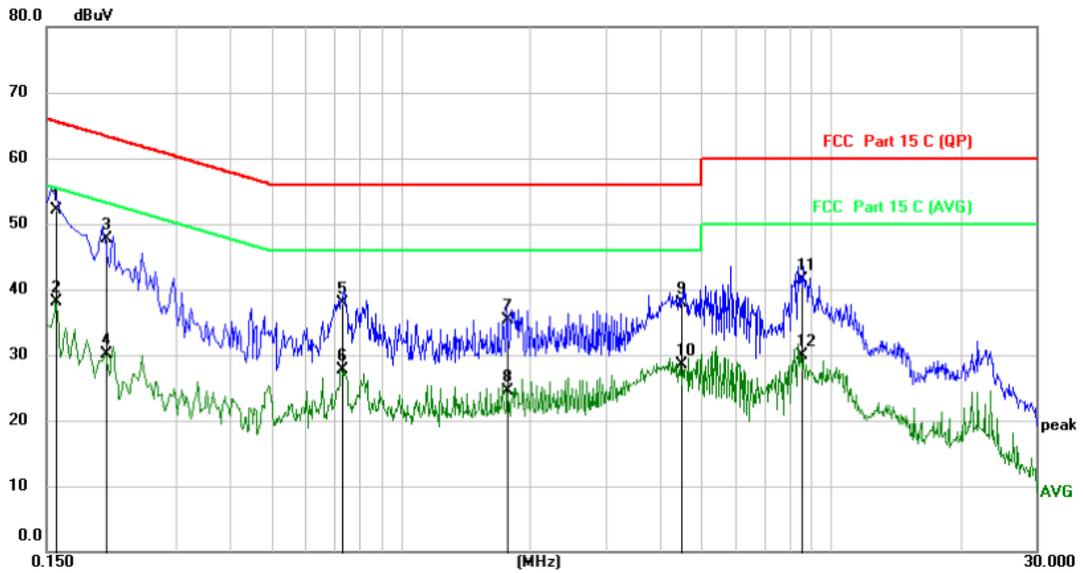
4.6.2. Test Setup Diagram:



4.6.3. Test Data:



Test Mode1 / Line: Neutral



| No. Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measurement dBuV | Limit dBuV | Over dB | Detector | Comment |
|---------|--------------|-----------------------|----------------------|---------------------|---------------|------------|----------|---------|
| 1 * | 0.1580 | 41.49 | 10.71 | 52.20 | 65.57 | -13.37 | QP | |
| 2 | 0.1580 | 27.42 | 10.71 | 38.13 | 55.57 | -17.44 | AVG | |
| 3 | 0.2059 | 36.98 | 10.76 | 47.74 | 63.37 | -15.63 | QP | |
| 4 | 0.2059 | 19.30 | 10.76 | 30.06 | 53.37 | -23.31 | AVG | |
| 5 | 0.7300 | 27.45 | 10.44 | 37.89 | 56.00 | -18.11 | QP | |
| 6 | 0.7300 | 17.23 | 10.44 | 27.67 | 46.00 | -18.33 | AVG | |
| 7 | 1.7700 | 24.89 | 10.51 | 35.40 | 56.00 | -20.60 | QP | |
| 8 | 1.7700 | 13.92 | 10.51 | 24.43 | 46.00 | -21.57 | AVG | |
| 9 | 4.4858 | 27.27 | 10.62 | 37.89 | 56.00 | -18.11 | QP | |
| 10 | 4.4858 | 17.97 | 10.62 | 28.59 | 46.00 | -17.41 | AVG | |
| 11 | 8.5138 | 30.92 | 10.60 | 41.52 | 60.00 | -18.48 | QP | |
| 12 | 8.5138 | 19.39 | 10.60 | 29.99 | 50.00 | -20.01 | AVG | |

5. EUT TEST PHOTOS

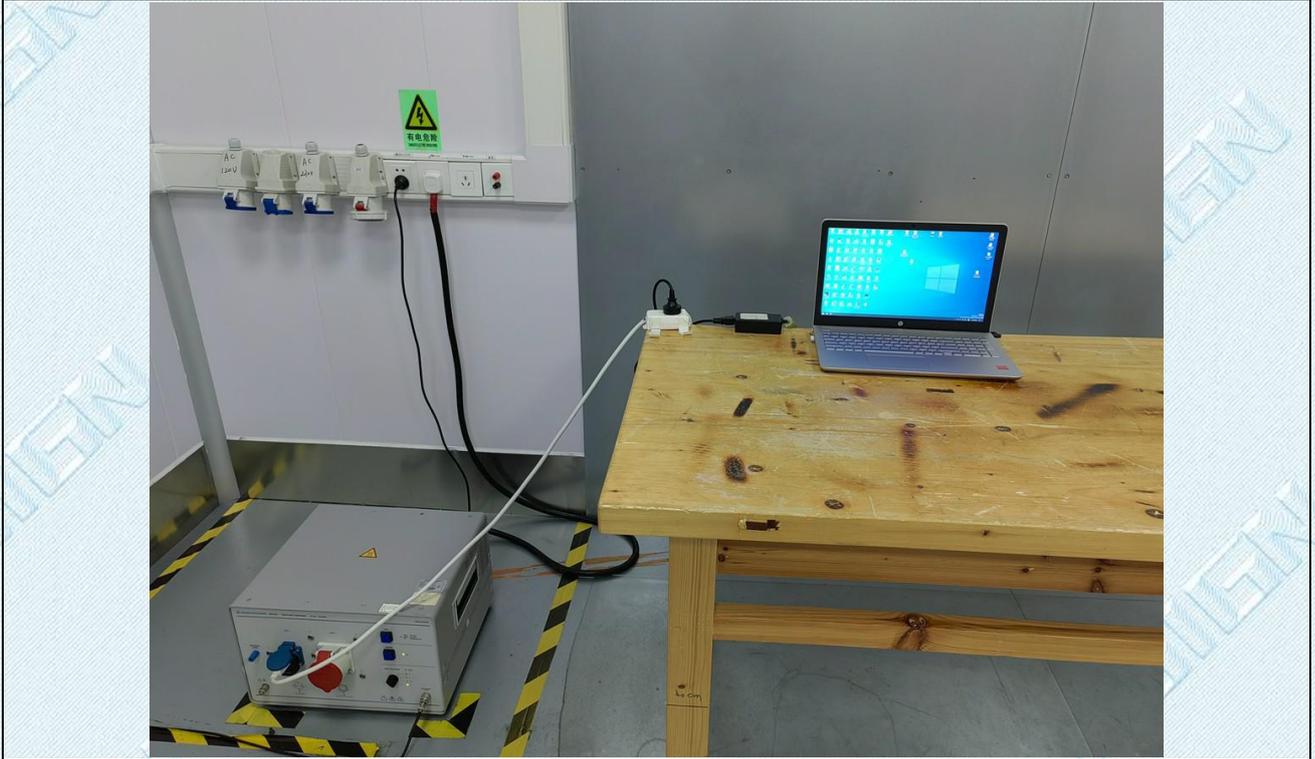
Emissions in restricted frequency bands (below 1GHz)



Emissions in restricted frequency bands (above 1GHz)



Conducted Emission at AC power line



6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Refer to Appendix - Photographs of EUT Constructional Details for KS2301S0226E.

--THE END--