

TEST REPORT

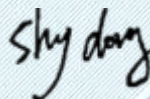
Report No..... : KS2408S3616E01
FCC ID..... : 2BGDC-DP-P2400R
Applicant..... : Ningbo Duopower New Energy Electrical Technology Co., Ltd.
Address..... : No.168 North Huancheng Road, Zhouxiang Town, Cixi City, Ningbo, China
Manufacturer..... : Ningbo Duopower New Energy Electrical Technology Co., Ltd.
Address..... : No.168 North Huancheng Road, Zhouxiang Town, Cixi City, Ningbo, China
Product Name..... : Portable Power Station
Trademark..... : DuoPower
Model/Type reference..... : DP-P2400R, DP-P2400D, DP-P2400B, DP-P2400C, DP-P2400F,
DP-P2400G, DP-P2400H, DP-P2400K, DP-P2400L, DP-P2400M,
DP-P2400P, DP-P2400Q
Standard..... : 47 CFR Part 15C
Date of Receipt..... : August 19, 2024
Date of Test Date..... : August 29, 2024 to September 24, 2024
Date of issue..... : September 25, 2024
Test result..... : Pass

Conclusion..... : The submitted sample was found to COMPLY with the standards above.

Prepared by:
(Printed name + Signature) Chad Lin



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 15C: Radiated emission limits; general requirements

ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

| Revised No. | Date of issue | Description |
|-------------|--------------------|-------------|
| 01 | September 25, 2024 | Original |
| | | |
| | | |

1.3. Test Description

| Test Item | Standard | Requirement | Result |
|---|-----------------|-----------------------|--------|
| Antenna requirement | 47 CFR Part 15C | 47 CFR Part 15.203 | Pass |
| Conducted Emission at AC power line | 47 CFR Part 15C | 47 CFR Part 15.207(a) | Pass |
| 20dB Occupied Bandwidth | 47 CFR Part 15C | 47 CFR Part 15.215(c) | Pass |
| Emissions in frequency bands (below 30MHz) | 47 CFR Part 15C | 47 CFR Part 15.209 | Pass |
| Emissions in frequency bands (30MHz - 1GHz) | 47 CFR Part 15C | 47 CFR Part 15.209 | 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: L 13261

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 |
|---------------------------------|-------------------------|
| Conducted Emission (150k-30MHz) | ± 3.34dB |
| RE(9kMz~30MHz) | ± 2.20dB |
| RSE (30-1000MHz) | ± 5.7dB |

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 %. Otherwise required by the applicant or Product Regulations. Decision Rule in this report did not consider the uncertainty.

2. GENERAL INFORMATION

2.1. General Description Of EUT

| | |
|---|---|
| Test Sample Number: | KS2408S3616E-01, KS2408S3616E-02 |
| Product Name: | Portable Power Station |
| Trademark: | DuoPower |
| Model / Type reference: | DP-P2400R, DP-P2400D, DP-P2400B, DP-P2400C, DP-P2400F, DP-P2400G, DP-P2400H, DP-P2400K, DP-P2400L, DP-P2400M, DP-P2400P, DP-P2400Q |
| Model Difference: | The differences between the product models are accessories carried and the model name. Different model names are available to meet market demand. Other power supply methods, internal structures, circuits and key components are the same, and do not affect safety and electromagnetic compatibility performance. According to the above information, all tests were performed on model DP-P2400R. |
| Power Supply: | Input: AC 100-120V, 50/60Hz Battery: DC 48V Wireless charging: 5W/7.5W/10W/15W |
| Operation Frequency: | 115KHz-205KHz |
| Modulation Type: | ASK |
| Antenna Type: | Coil |
| Antenna Gain: | 0dBi |
| Hardware Version: | 1.0 |
| Software Version: | 1.0 |
| Note: For a more detailed features description, please refer to the manufacturer's specifications or the user's manual. | |

Note:Antenna gain provided by the applicant Can affect the validity of results

2.2. Accessory Equipment Information

| Title | Manufacturer | Model No. | Technical Parameters | Provided by |
|------------------------|--------------|-----------|----------------------|-------------|
| Wireless charging load | YBZ | N/A | 5W, 7.5W, 10W, 15W | Laboratory |

2.3. Description of Test Modes

| No. | Title | Description of Mode |
|--|---|---------------------|
| Test Mode1 | AC Charging+Wireless charge output 99% powe(15W) | N/A |
| Test Mode2 | AC Charging+Wireless charge output 50% powe(15W) | N/A |
| Test Mode3 | AC Charging+Wireless charge output 1% powe(15W) | N/A |
| Test Mode4 | AC Charging+Wireless charge output 99% powe(10W) | N/A |
| Test Mode5 | AC Charging+Wireless charge output 50% powe(10W) | N/A |
| Test Mode6 | AC Charging+Wireless charge output 1% powe(10W) | N/A |
| Test Mode7 | AC Charging+Wireless charge output 99% powe(7.5W) | N/A |
| Test Mode8 | AC Charging+Wireless charge output 50% powe(7.5W) | N/A |
| Test Mode9 | AC Charging+Wireless charge output 1% powe(7.5W) | N/A |
| Test Mode10 | AC Charging+Wireless charge output 99% powe(5W) | N/A |
| Test Mode11 | AC Charging+Wireless charge output 50% powe(5W) | N/A |
| Test Mode12 | AC Charging+Wireless charge output 1% powe(5W) | N/A |
| Test Mode13 | Wireless charge output 99% powe(15W) | N/A |
| Test Mode14 | Wireless charge output 50% powe(15W) | N/A |
| Test Mode15 | Wireless charge output 1% powe(15W) | N/A |
| Test Mode16 | Wireless charge output 99% powe(10W) | N/A |
| Test Mode17 | Wireless charge output 50% powe(10W) | N/A |
| Test Mode18 | Wireless charge output 1% powe(10W) | N/A |
| Test Mode19 | Wireless charge output 99% powe(7.5W) | N/A |
| Test Mode20 | Wireless charge output 50% powe(7.5W) | N/A |
| Test Mode21 | Wireless charge output 1% powe(7.5W) | N/A |
| Test Mode22 | Wireless charge output 99% powe(5W) | N/A |
| Test Mode23 | Wireless charge output 50% powe(5W) | N/A |
| Test Mode24 | Wireless charge output 1% powe(5W) | N/A |
| Note: All test modes were pre-tested, The Mode 1 was the worst case and only the data of the worst case record in this report. | | |

2.4. Measurement Instruments List

| Conducted Emission at AC power line | | | | |
|-------------------------------------|----------------|-----------|----------------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| LISN | R&S | ENV432 | 1326.6105.02 | 2025-01-19 |
| EMI Test Receiver | R&S | ESR | 102524 | 2025-01-19 |
| Manual RF Switch | JS TOYO | / | MSW-01/002 | 2025-01-19 |
| ISN CAT6 | Schwarzbeck | CAT5 8158 | 227 | 2025-01-19 |
| Color Signal Generator | Philips | PM5418 | 672926 | 2025-01-19 |
| Power Absorbing Clamp | R&S | MDS-21 | 100925 | 2025-01-21 |
| TV Tuner | SUNLIGHT | ST5075 | / | 2024-12-12 |
| LISN | EVERFINE | LS-5 | G657431CD14311 12 | 2025-01-19 |
| Current Sensor Probe | Beijin ZHINAN | ZN23101 | 23013 | 2024-12-12 |
| PV Artificial power network | Beijing KeHuan | KH8301 | 830120007 | 2025-07-23 |

| 20dB Occupied Bandwidth | | | | |
|-------------------------------------|----------------------------|-------------------------|------------|------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Wideband Radio Communication Tester | R&S | CMU200 | 115297 | 2025-01-19 |
| Audio Analyzer | R&S | UPL16 | 100001 | 2025-01-19 |
| Shielding box | Gxiong | GX-5915A | 2201113 | 2025-01-19 |
| High Pass Filter | COM-MW Technology Co., Ltd | ZHPF-M1.2-9G-1 87 | 09203403 | 2025-01-19 |
| Band Stop Filter | COM-MW Technology Co., Ltd | ZBSF6-C820-920 -188 | 09203401 | 2025-01-19 |
| Splitter | COM-MW Technology Co., Ltd | ZPD-M1-8-2103 | 09203407 | 2025-01-19 |
| Coaxial Cable | BEBES | A40-2.92M2.92F- 4.5M | 1907021 | 2025-01-19 |
| Hygrothermograph | Anymetre | JB913 | / | 2025-01-19 |
| Climate Chamber | Angul | AGNH80L | 1903042120 | 2025-01-19 |
| Spectrum Analyzer | HP | 8593E | 3831U02087 | 2025-01-19 |
| Dual Output DC Power Supply | Agilent | E3646A | MY40009992 | 2025-01-19 |
| RF Control Unit | Tonscend | JS0806-2 | / | 2025-01-19 |
| Analog Signal Generator | HP | 83752A | 3344A00337 | 2025-01-19 |
| Vector Signal Generator | Agilent | N5182A | MY50142520 | 2025-01-19 |
| Wideband Radio Communication Tester | R&S | CMW500 | 157282 | 2025-01-19 |
| Spectrum Analyzer | R&S | FSV40-N | 101798 | 2025-01-19 |

TRF No. RF_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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| Emissions in frequency bands (30MHz - 1GHz) | | | | |
|---|---------------|-------------|------------|------------|
| Emissions in frequency bands (below 30MHz) | | | | |
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Color Signal Generator | Philips | PM5418 | 672926 | 2025-01-19 |
| Log Periodic Antenna | Schwarzbeck | VULB 9163 | 1230 | 2025-01-29 |
| Pre-Amplifier | Schwarzbeck | BBV 9745 | 9745#129 | 2025-01-19 |
| Broadcast Television Signal Generator | R&S | SFE100 | 141038 | 2025-01-19 |
| Analog Signal Generator | Agilent | 8648A | 3847M00445 | 2025-01-19 |
| EMI Test Receiver | R&S | ESR | 102525 | 2025-01-19 |
| Loop Antenna | Beijin ZHINAN | ZN30900C | 18050 | 2025-01-29 |
| Horn Antenna | Schwarzbeck | BBHA 9120 D | 2023 | 2025-01-21 |
| Pre-Amplifier | EMCI | EMC051835SE | 980662 | 2025-01-19 |
| Spectrum Analyzer | Keysight | N9020A | MY46471971 | 2025-01-19 |

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3. Evaluation Results (Evaluation)

3.1. Antenna requirement

| | |
|--|---|
| Test Requirement: | Refer to 47 CFR Part 15.203, 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. |
| Antenna Information: | The antenna used in this product is a Coil Antenna. |
| Note: The antenna gain is 0dBi, and the antenna gain is provided by the applicant. | |

4. Radio Spectrum Matter Test Results (RF)

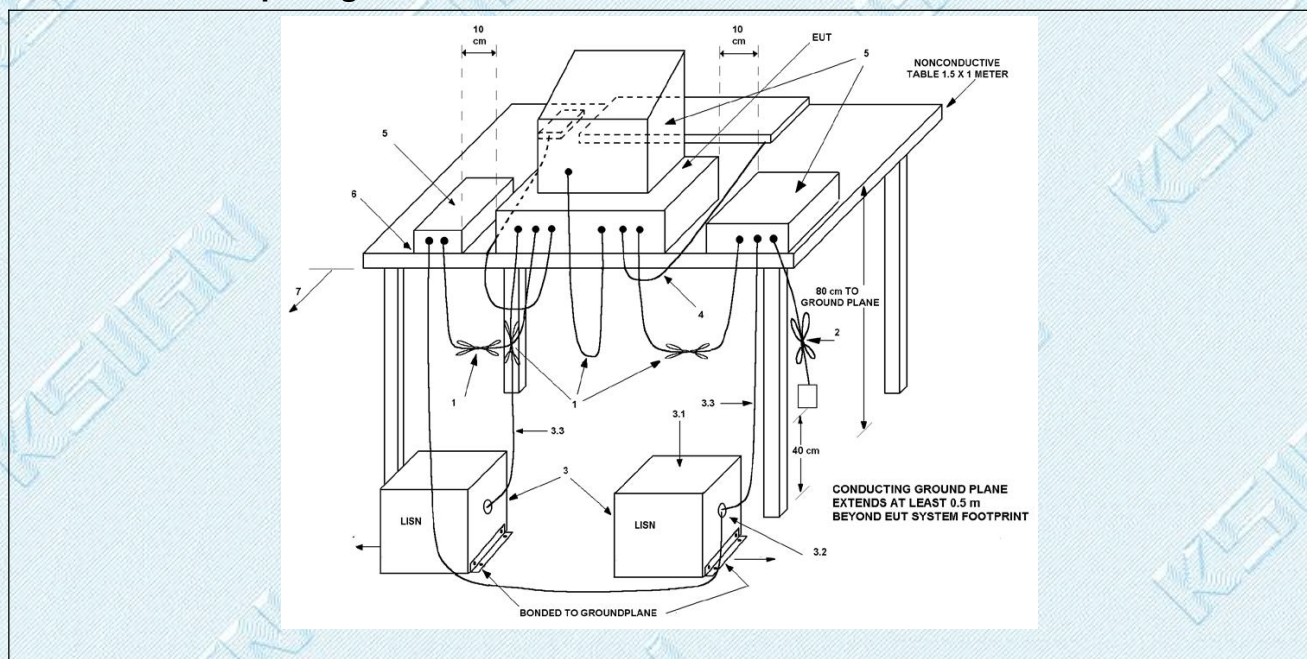
4.1. Conducted Emission at AC power line

| | | | |
|---|--|------------------------------|-----------|
| 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: | ANSI C63.10-2013 section 6.2 | | |
| Procedure: | Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices | | |

4.1.1. E.U.T. Operation:

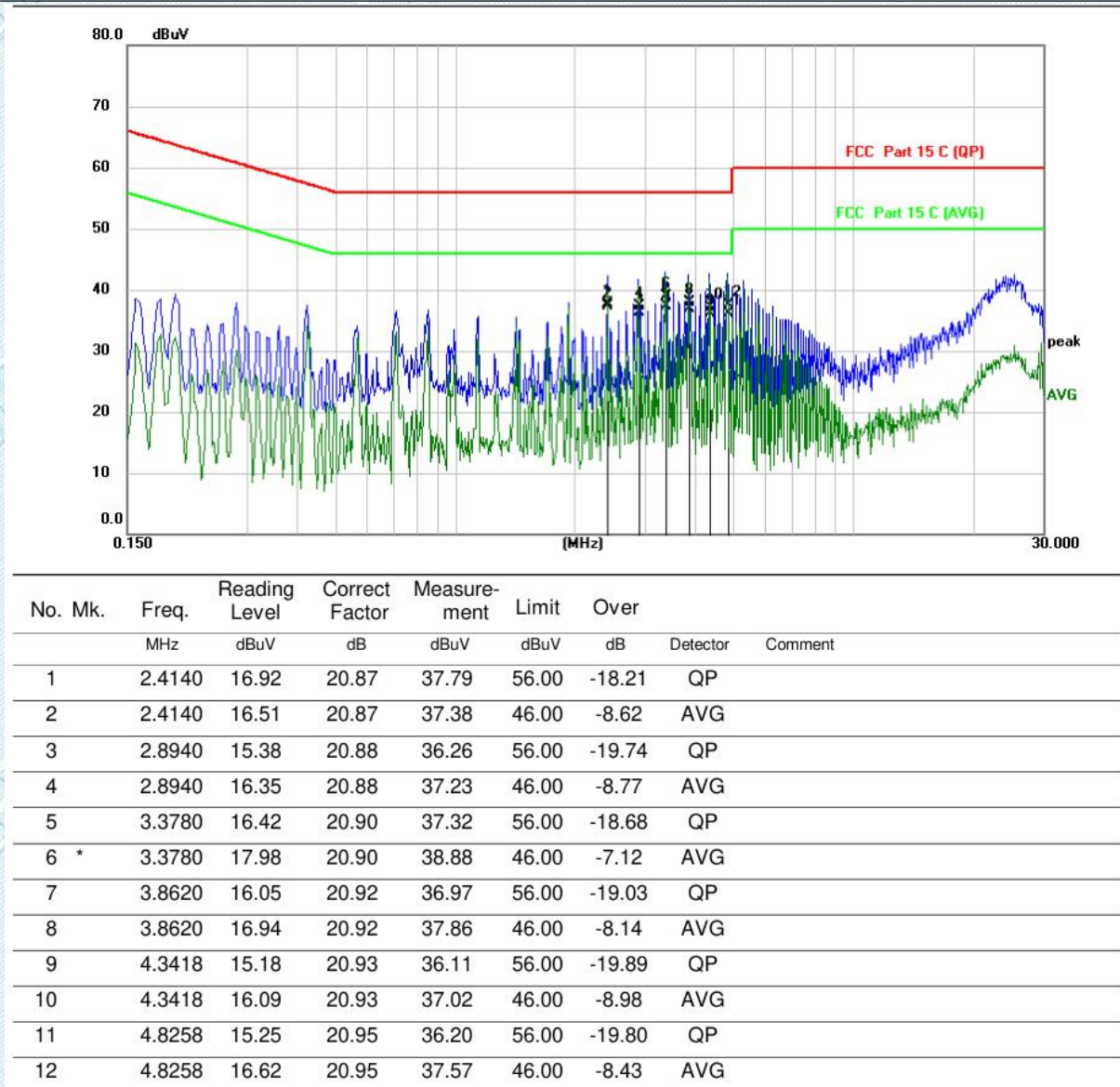
| | |
|------------------------|--|
| Operating Environment: | |
| Temperature: | 23.4 °C |
| Humidity: | 53.4 % |
| Atmospheric Pressure: | 101 kPa |
| Final test mode: | Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, |

4.1.2. Test Setup Diagram:



4.1.3. Test Data:

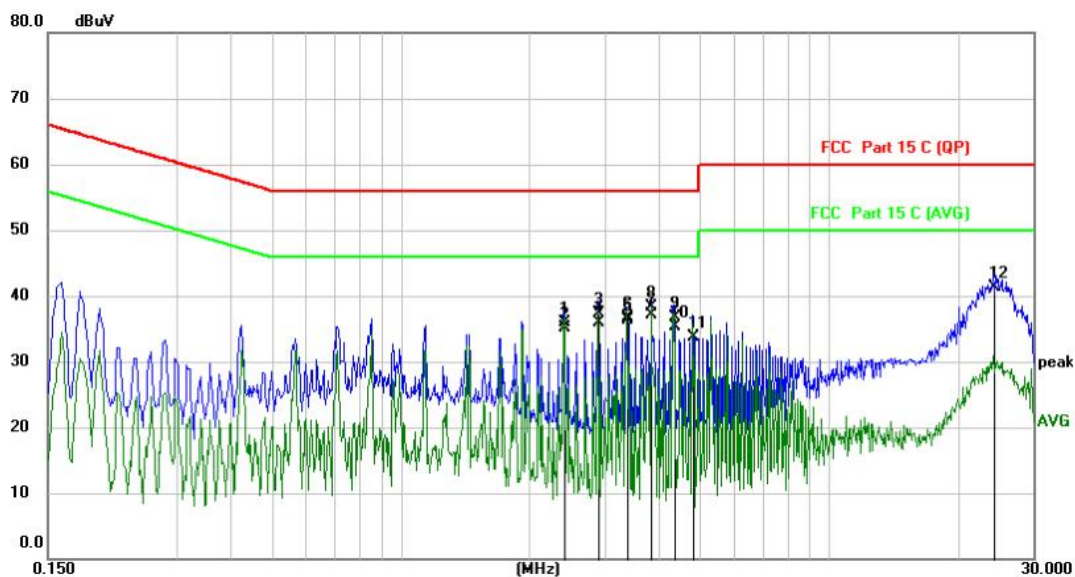
Test Mode1 / Line: Line



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Test Mode1 / Line: Neutral


| No. Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|---------|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | 2.4100 | 15.02 | 20.83 | 35.85 | 56.00 | -20.15 | QP | |
| 2 | 2.4100 | 14.19 | 20.83 | 35.02 | 46.00 | -10.98 | AVG | |
| 3 | 2.8900 | 16.42 | 20.83 | 37.25 | 56.00 | -18.75 | QP | |
| 4 | 2.8900 | 15.05 | 20.83 | 35.88 | 46.00 | -10.12 | AVG | |
| 5 | 3.3740 | 15.52 | 20.85 | 36.37 | 56.00 | -19.63 | QP | |
| 6 | 3.3740 | 15.92 | 20.85 | 36.77 | 46.00 | -9.23 | AVG | |
| 7 | 3.8540 | 16.29 | 20.86 | 37.15 | 56.00 | -18.85 | QP | |
| 8 * | 3.8540 | 17.45 | 20.86 | 38.31 | 46.00 | -7.69 | AVG | |
| 9 | 4.3379 | 15.83 | 20.87 | 36.70 | 56.00 | -19.30 | QP | |
| 10 | 4.3379 | 14.48 | 20.87 | 35.35 | 46.00 | -10.65 | AVG | |
| 11 | 4.8219 | 12.85 | 20.89 | 33.74 | 46.00 | -12.26 | AVG | |
| 12 | 24.2579 | 19.18 | 22.08 | 41.26 | 60.00 | -18.74 | QP | |

Note:

- 1). QP Value (dBμV)= QP Reading (dBμV)+ Factor (dB)
- 2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
- 3). QPMargin(dB) = QP Limit (dBμV) - QP Value (dBμV)
- 4). AVMargin(dB) = AV Limit (dBμV) - AV Value (dBμV)

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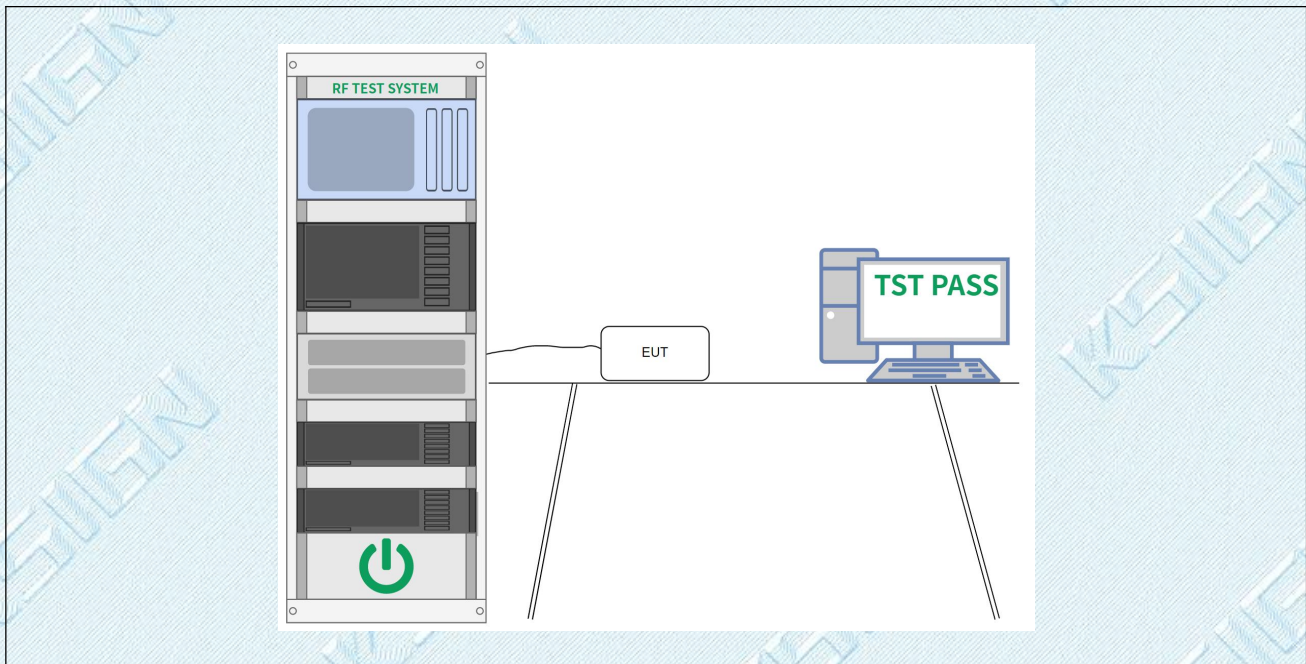
4.2. 20dB Occupied Bandwidth

| | |
|-------------------|--|
| Test Requirement: | 47 CFR Part 15.215(c) |
| Test Limit: | Refer to 47 CFR 15.215(c), 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: | ANSI C63.10-2013, section 6.9.2 |
| 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 $[(\text{reference value}) - \text{xx}]$. Alternatively, this calculation may be made by using the marker-delta function of the instrument.</p> <p>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).</p> <p>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.</p> <p>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).</p> |

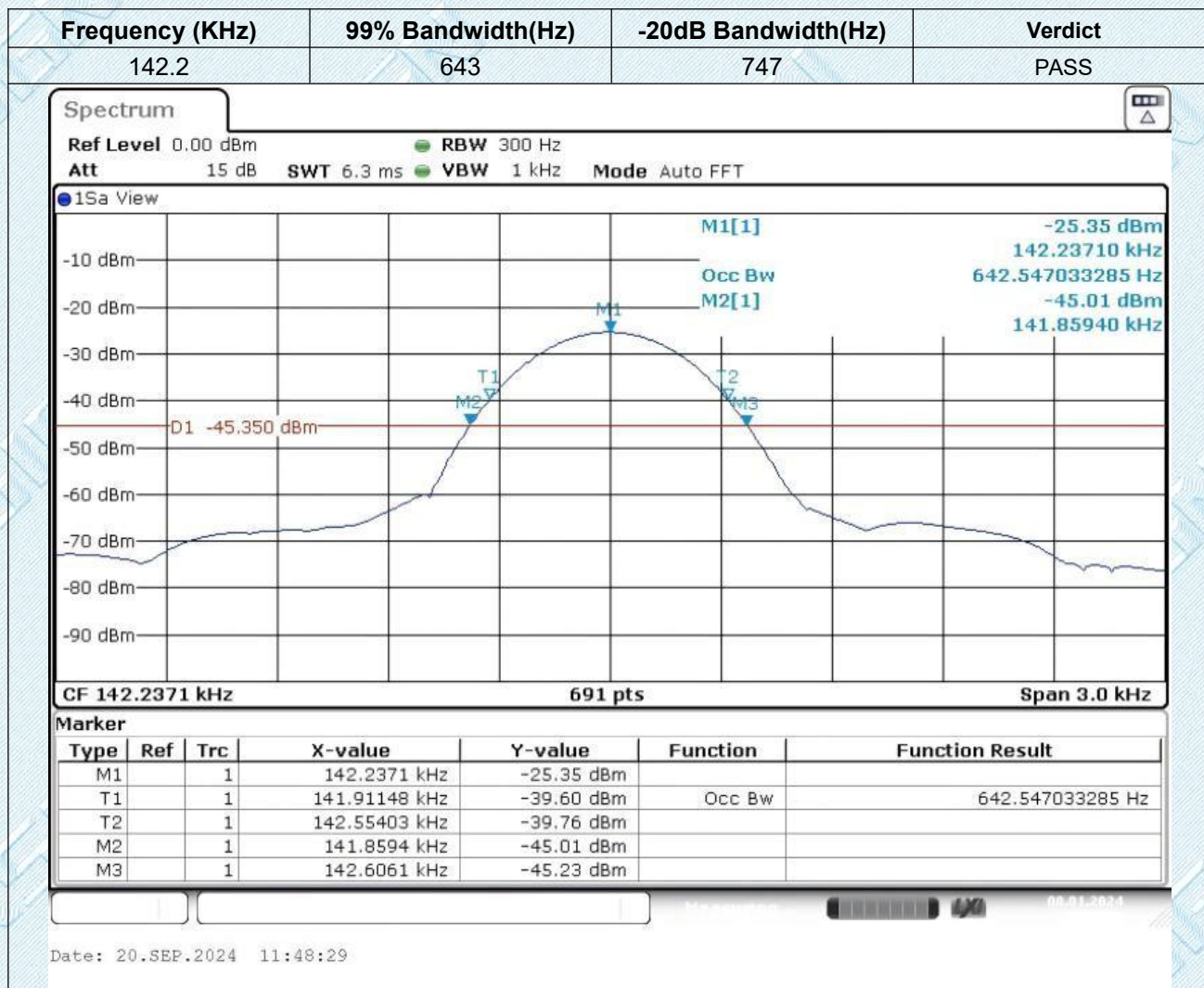
4.2.1. E.U.T. Operation:

| | |
|------------------------|---|
| Operating Environment: | |
| Temperature: | 23.4 °C |
| Humidity: | 53.4 % |
| Atmospheric Pressure: | 101 kPa |
| Final test mode: | Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24 |

4.2.2. Test Setup Diagram:



4.2.3. Test Data:



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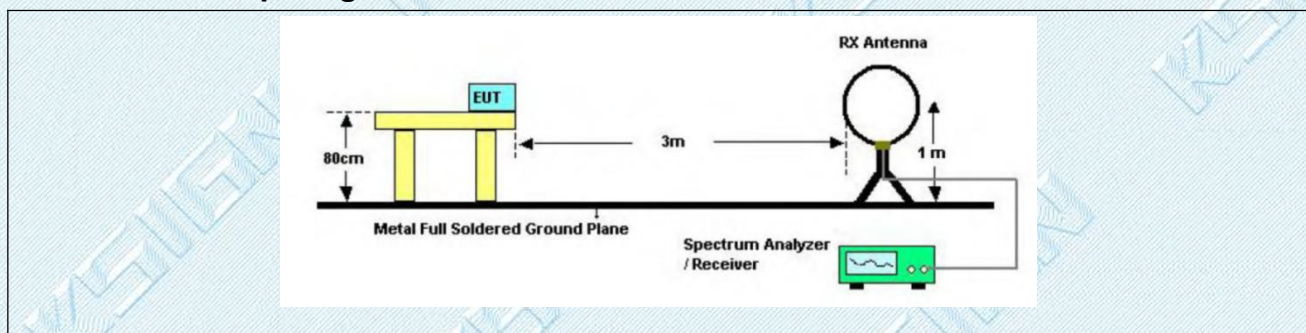
4.3. Emissions in frequency bands (below 30MHz)

| | | | |
|--|------------------------------|-----------------------------------|-------------------------------|
| Test Requirement: | 47 CFR Part 15.209 | | |
| Test Limit: | 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 |
| <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>In the emission table above, the tighter limit applies at the band edges.</p> <p>The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.</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> | | | |
| Test Method: | ANSI C63.10-2013 section 6.4 | | |
| Procedure: | ANSI C63.10-2013 section 6.4 | | |

4.3.1. E.U.T. Operation:

| | |
|------------------------|---|
| Operating Environment: | |
| Temperature: | 23.4 °C |
| Humidity: | 53.4 % |
| Atmospheric Pressure: | 101 kPa |
| Final test mode: | Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24 |

4.3.2. Test Setup Diagram:



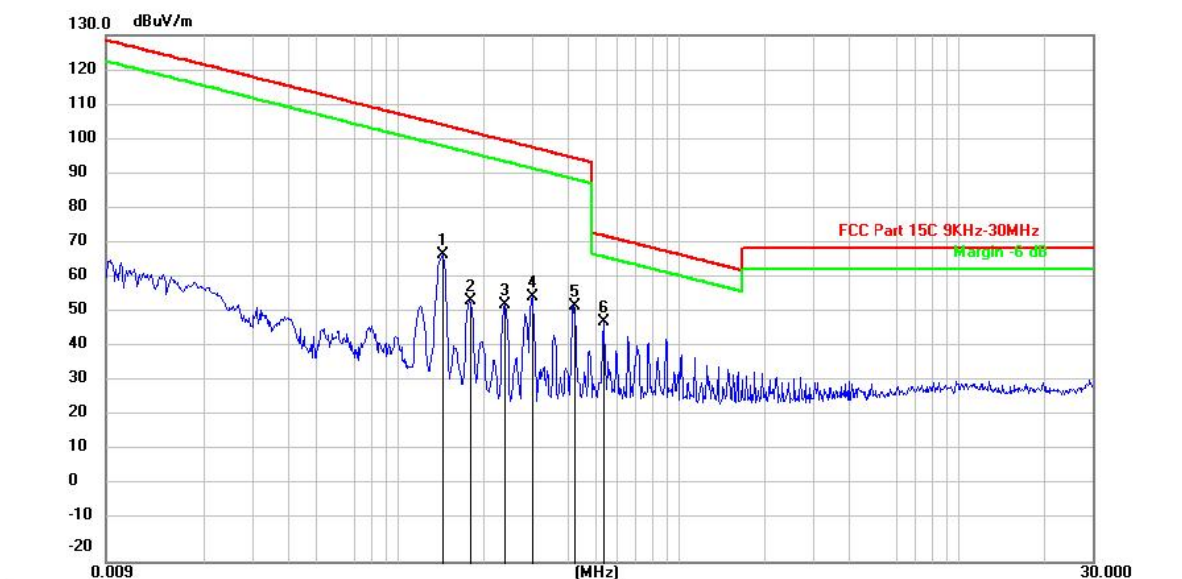
TRF No. RF_R1

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4.3.3. Test Data:

Test Mode1 / Axis: X

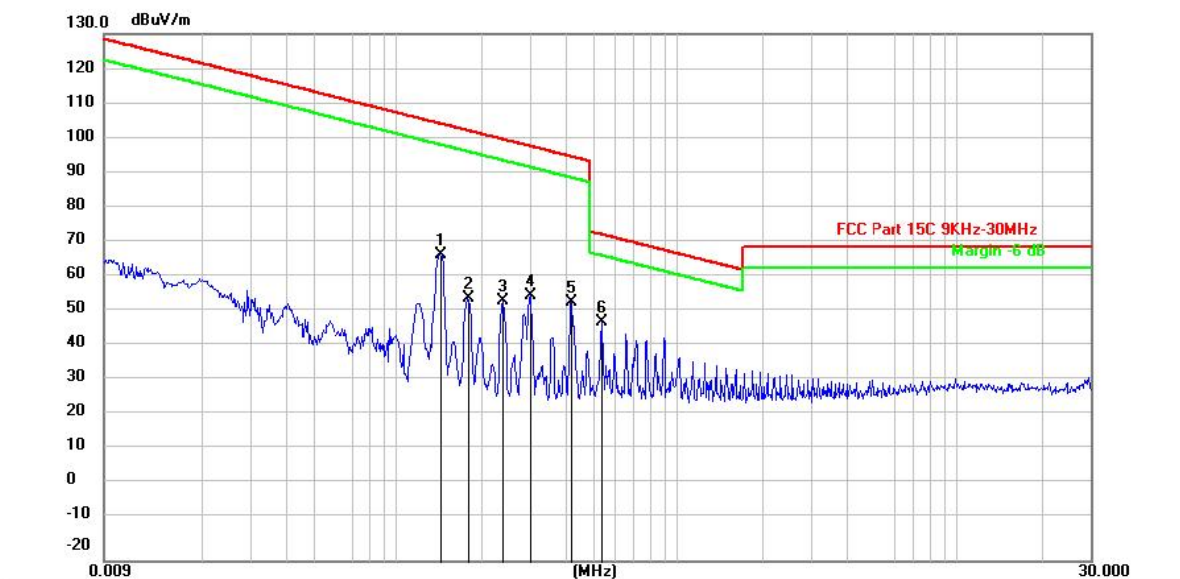


| No. | Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|-----|-----|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | | 0.1440 | 72.48 | -4.95 | 67.53 | 104.44 | -36.91 | peak |
| 2 | | 0.1801 | 59.61 | -5.02 | 54.59 | 102.49 | -47.90 | peak |
| 3 | | 0.2396 | 58.52 | -5.02 | 53.50 | 100.01 | -46.51 | peak |
| 4 | | 0.2997 | 60.49 | -5.02 | 55.47 | 98.07 | -42.60 | peak |
| 5 | | 0.4210 | 58.11 | -5.00 | 53.11 | 95.12 | -42.01 | peak |
| 6 | * | 0.5402 | 53.49 | -4.88 | 48.61 | 72.95 | -24.34 | peak |

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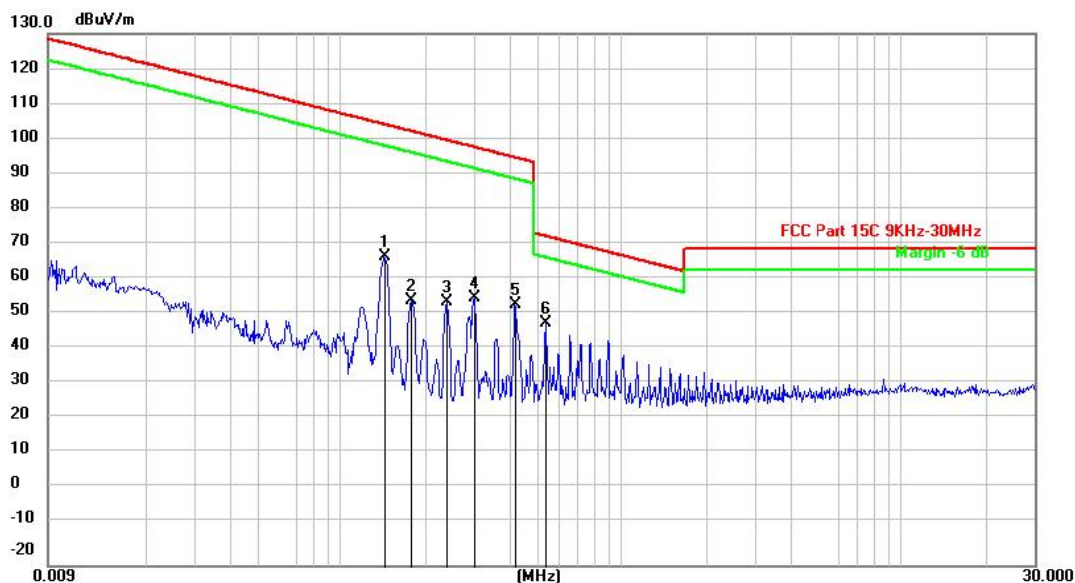
Test Mode1 / Axis: Y


| No. Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|---------|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | 0.1440 | 72.28 | -4.95 | 67.33 | 104.44 | -37.11 | peak |
| 2 | 0.1801 | 59.65 | -5.02 | 54.63 | 102.49 | -47.86 | peak |
| 3 | 0.2398 | 59.00 | -5.02 | 53.98 | 100.01 | -46.03 | peak |
| 4 | 0.2993 | 60.44 | -5.02 | 55.42 | 98.08 | -42.66 | peak |
| 5 | 0.4200 | 58.64 | -5.01 | 53.63 | 95.14 | -41.51 | peak |
| 6 * | 0.5393 | 53.07 | -4.89 | 48.18 | 72.97 | -24.79 | peak |

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Test Mode2 / Axis: Z


| No. | Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|-----|-----|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | | 0.1440 | 71.97 | -4.95 | 67.02 | 104.44 | -37.42 | peak |
| 2 | | 0.1794 | 59.92 | -5.02 | 54.90 | 102.53 | -47.63 | peak |
| 3 | | 0.2396 | 59.31 | -5.02 | 54.29 | 100.01 | -45.72 | peak |
| 4 | | 0.2993 | 60.42 | -5.02 | 55.40 | 98.08 | -42.68 | peak |
| 5 | | 0.4200 | 58.59 | -5.01 | 53.58 | 95.14 | -41.56 | peak |
| 6 | * | 0.5393 | 53.33 | -4.89 | 48.44 | 72.97 | -24.53 | peak |

Note:

Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

TRF No. RF_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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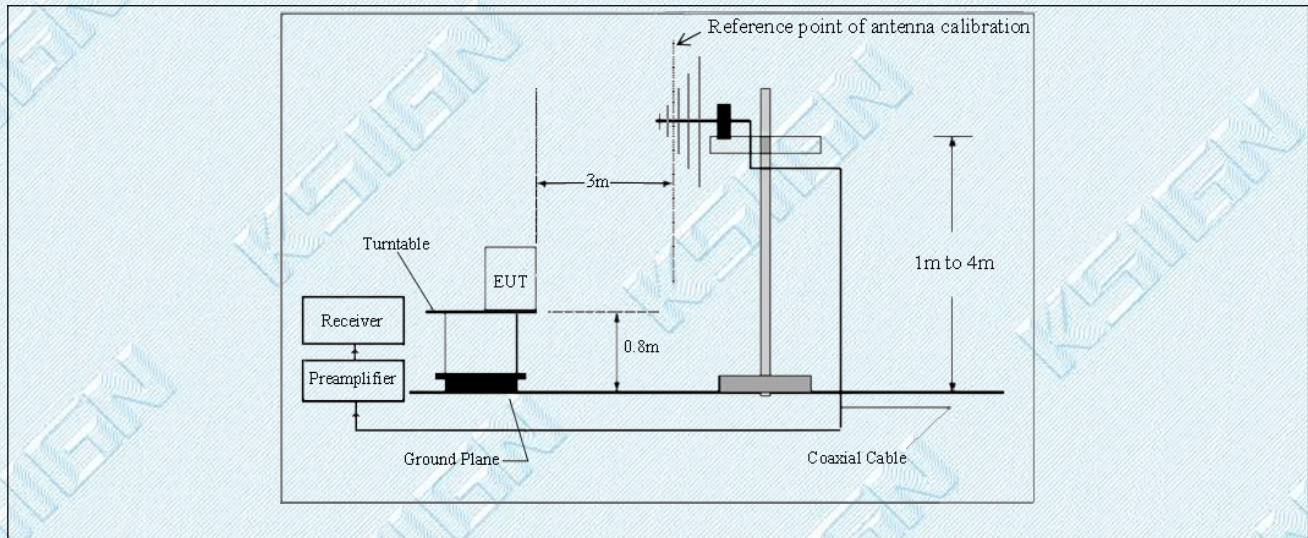
4.4. Emissions in frequency bands (30MHz - 1GHz)

| | | | |
|--|------------------------------|-----------------------------------|-------------------------------|
| Test Requirement: | 47 CFR Part 15.209 | | |
| Test Limit: | 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 |
| <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>In the emission table above, the tighter limit applies at the band edges.</p> <p>The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.</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> | | | |
| Test Method: | ANSI C63.10-2013 section 6.5 | | |
| Procedure: | ANSI C63.10-2013 section 6.5 | | |

4.4.1. E.U.T. Operation:

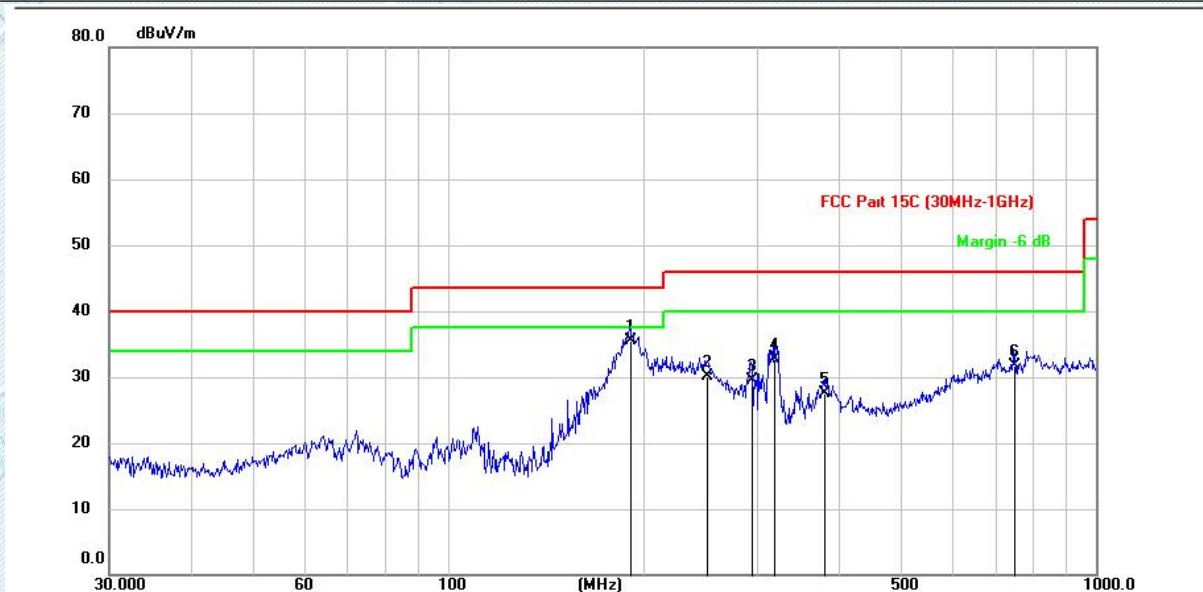
| | |
|------------------------|---|
| Operating Environment: | |
| Temperature: | 23.4 °C |
| Humidity: | 53.4 % |
| Atmospheric Pressure: | 101 kPa |
| Final test mode: | Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24 |

4.4.2. Test Setup Diagram:



4.4.3. Test Data:

Test Mode1 / Polarization: Horizontal

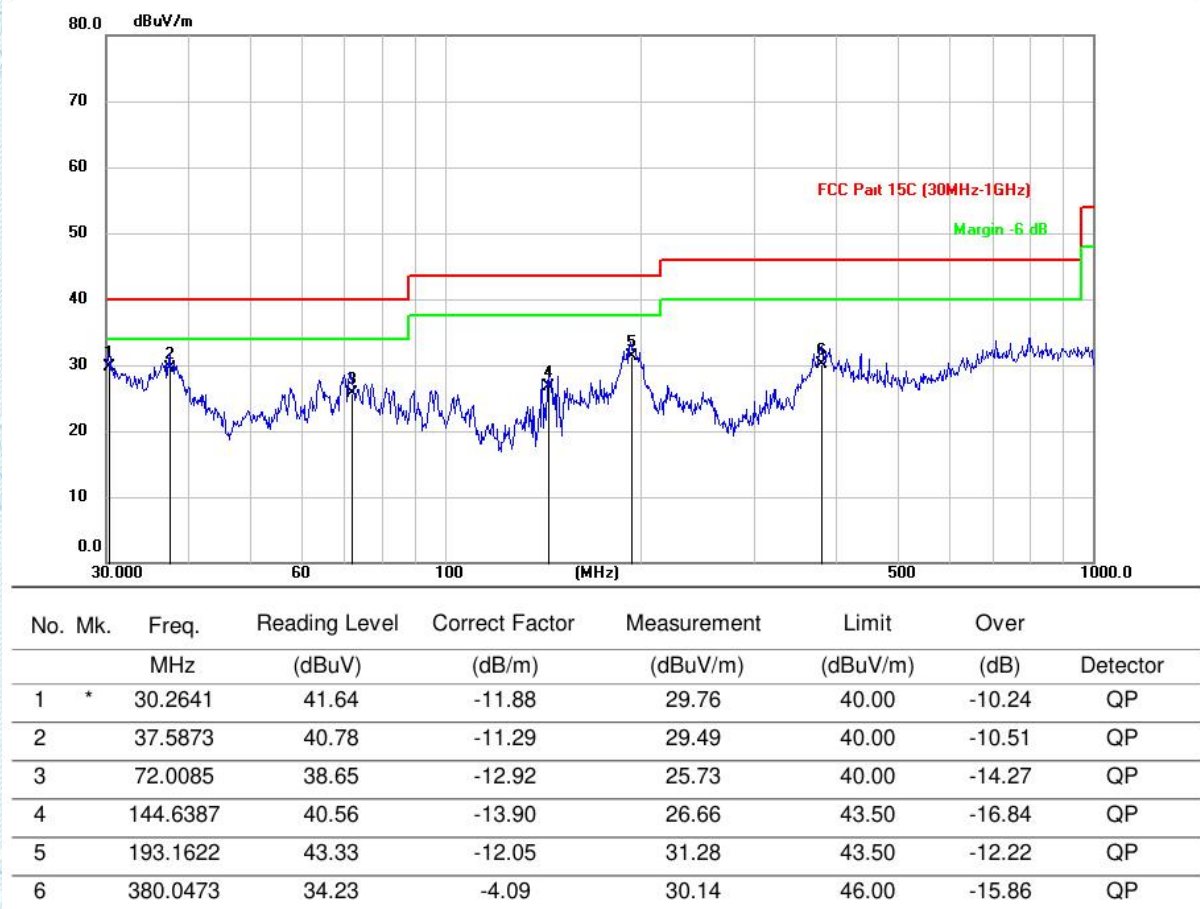


| No. | Mk. | Freq. MHz | Reading Level (dBuV) | Correct Factor (dB/m) | Measurement (dBuV/m) | Limit (dBuV/m) | Over (dB) | Detector |
|-----|-----|--------------|-------------------------|--------------------------|-------------------------|-------------------|--------------|----------|
| 1 | * | 190.6722 | 47.86 | -12.40 | 35.46 | 43.50 | -8.04 | QP |
| 2 | | 251.1804 | 40.25 | -10.07 | 30.18 | 46.00 | -15.82 | QP |
| 3 | | 293.2898 | 38.15 | -8.58 | 29.57 | 46.00 | -16.43 | QP |
| 4 | | 318.7052 | 40.04 | -7.35 | 32.69 | 46.00 | -13.31 | QP |
| 5 | | 380.4473 | 31.50 | -4.06 | 27.44 | 46.00 | -18.56 | QP |
| 6 | | 749.8452 | 29.35 | 2.41 | 31.76 | 46.00 | -14.24 | QP |

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Test Mode1 / Polarization: Vertical


Note:

- 1). Level (dBuV/m)= Reading (dBuV)+ Factor (dB/m)
- 2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)
- 3). Margin(dB) = Limit (dBuV/m) - Level (dBuV/m)

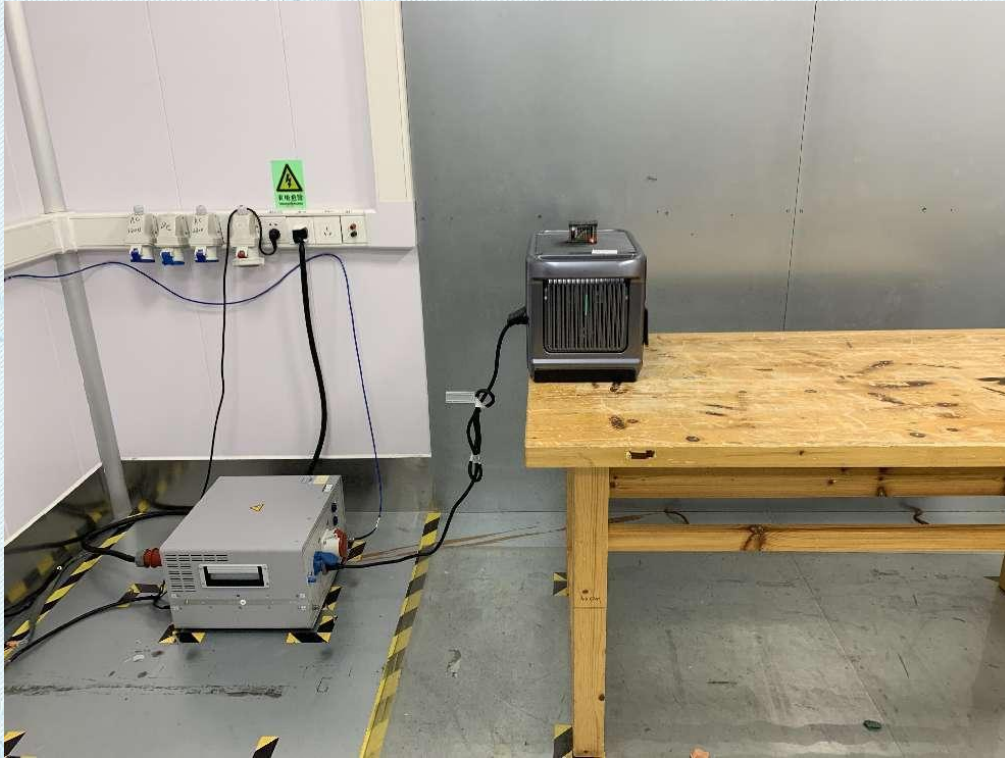
TRF No. RF_R1

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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5. EUT TEST PHOTOS

Conducted Emission at AC power line



Emissions in frequency bands (below 30MHz)



Emissions in frequency bands (30MHz - 1GHz)

TRF No. RF_R1

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6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Refer to Appendix - EUT Photos for KS2408S3616E.docx

--THE END--

Important Notice

1. The results are valid only for the samples submitted.
2. The report is invalid without the "APPROVED Seal" and the "Riding Seam Seal".
3. This report is invalid without the signature of the main inspector, reviewer, or approver.
4. The testing report cannot be partially copied without the written consent of our laboratory.
5. If the report is not stamped with the "CMA" logo, it indicates that the report does not have any social certification effect in China.
6. Product information, customer information, and sample sources are all provided by the client, and we are not responsible for their authenticity.
7. The inspection basis or inspection items marked with "★" are not within the scope of CNAS, CMA and A2LA accreditation in this laboratory.
8. Reports that are transferred, copied, stolen, impersonated, altered, or tampered with in any media form without authorization are invalid.
9. If you have any objections to this report, you can appeal to our unit within 15 days after receiving the report. Failure to do so will not be accepted.
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Laboratory: KSIGN(Guangdong) Testing Co., Ltd.

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