

TEST REPORT

Product : Waterdrop Water Detector
Trade mark : Waterdrop
Model/Type reference : WD-WHMD-1
Serial Number : S/N
Report Number : EED32P81980401
FCC ID : 2BD3GWD-WHMD-1
Date of Issue : Dec. 26, 2023
Test Standards : 47 CFR Part 15 Subpart C
Test result : PASS

Prepared for:

Qingdao Ecopure Filter Co., Ltd.
No. 13, Yishengbai Road Environmental Protection Industry Zone Jimo,
Qingdao 266201, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China

TEL: +86-755-3368 3668**FAX: +86-755-3368 3385**

Compiled by:

mark.chen.

Reviewed by:

Frazer. Li

Frazer Li

Approved by:

Aaron Ma

Date:

Dec. 26, 2023

Aaron Ma

Check No.: 7527061223



1 Test Summary

| Test Item | Test Requirement | Test method | Result |
|--|--|------------------|--------|
| Antenna Requirement | 47 CFR Part 15 Subpart C Section 15.203 | ANSI C63.10-2013 | PASS |
| AC Power Line Conducted Emission | 47 CFR Part 15 Subpart C Section 15.207 | ANSI C63.10-2013 | N/A |
| Field Strength of the Fundamental Signal | 47 CFR Part 15 Subpart C Section 15.249 (a) | ANSI C63.10-2013 | PASS |
| Spurious Emissions | 47 CFR Part 15 Subpart C Section 15.249 (a)/15.209 | ANSI C63.10-2013 | PASS |
| Restricted bands around fundamental frequency (Radiated Emission) | 47 CFR Part 15 Subpart C Section 15.249(a)/15.205 | ANSI C63.10-2013 | PASS |
| 20dB Occupied Bandwidth | 47 CFR Part 15 Subpart C Section 15.215 (c) | ANSI C63.10-2013 | PASS |

Remark:

N/A: The product is powered by battery.

Company Name and Address shown on Report, the sample(s) and sample Information were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

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3 General Information

3.1 Client Information

| | |
|--------------------------|--|
| Applicant: | Qingdao Ecopure Filter Co., Ltd. |
| Address of Applicant: | No. 13, Yishengbai Road Environmental Protection Industry Zone Jimo, Qingdao 266201, China |
| Manufacturer: | Qingdao Ecopure Filter Co., Ltd. |
| Address of Manufacturer: | No. 13, Yishengbai Road Environmental Protection Industry Zone Jimo, Qingdao 266201, China |
| Factory | Qingdao Ecopure Filter Co., Ltd. |
| Address of Factory: | No. 13, Yishengbai Road Environmental Protection Industry Zone Jimo, Qingdao 266201, China |

3.2 General Description of EUT

| | |
|-----------------------|--|
| Product Name: | Waterdrop Water Detector |
| Model No.: | WD-WHMD-1 |
| Trade mark: | Waterdrop |
| Product Type: | <input type="checkbox"/> Mobile <input type="checkbox"/> Portable <input checked="" type="checkbox"/> Fix Location |
| Operation Frequency: | 915MHz |
| Number of Channel: | 1 |
| Modulation type: | OOK |
| Antenna Type: | PCB Antenna |
| Test Software of EUT: | RF Test |
| Test Power Grade: | Default |
| Power Supply: | DC 3V |
| Test Voltage: | DC 3V |
| Sample Received Date: | Dec. 06, 2023 |
| Sample tested Date: | Dec. 06, 2023 to Dec. 18, 2023 |

| Operation Frequency each of channel : | |
|--|----------------|
| Channel | Frequency(MHz) |
| CH1 | 915 |

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(MHz) |
|-------------------------|----------------|
| The Middle channel(CH1) | 915 |

3.3 Test Environment and Mode

| Operating Environment: | |
|------------------------|--|
| Temperature: | 22~25.0 °C |
| Humidity: | 50~55 % RH |
| Atmospheric Pressure: | 1010mbar |
| Test mode: | |
| Transmitting mode: | Keep the EUT in transmitting mode with modulation. |

3.4 Description of Support Units

The EUT has been tested independently.

3.5 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

3.6 Deviation from Standards

None.

3.7 Abnormalities from Standard Conditions

None.

3.8 Other Information Requested by the Customer

None.

3.9 Measurement Uncertainty (95% confidence levels, k=2)

| No. | Item | Measurement Uncertainty |
|-----|---------------------------------|---|
| 1 | Radio Frequency | 7.9×10^{-8} |
| 2 | RF power, conducted | 0.46dB (30MHz-1GHz) 0.55dB (1GHz-18GHz) |
| 3 | Radiated Spurious emission test | 3.3dB (9kHz-30MHz) 4.3dB (30MHz-1GHz) 4.5dB (1GHz-18GHz) 3.4dB (18GHz-40GHz) |
| 4 | Conduction emission | 3.5dB (9kHz to 150kHz) 3.1dB (150kHz to 30MHz) |
| 5 | Temperature test | 0.64°C |
| 6 | Humidity test | 3.8% |
| 7 | DC power voltages | 0.026% |

4 Equipment List

| RF test system | | | | | |
|-----------------------------------|---------------------|------------|------------------------|---------------------------|-------------------------------|
| Equipment | Manufacturer | Model No. | Serial Number | Cal. Date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| Communication test set | R&S | CMW500 | 107929 | 06-28-2023 | 06-27-2024 |
| Signal Generator | R&S | SMBV100A | 1407.6004K02-262149-CV | 09-05-2023 | 09-04-2024 |
| Spectrum Analyzer | R&S | FSV40 | 101200 | 07-25-2023 | 07-24-2024 |
| RF control unit(power unit) | MWRF-test | MW100-RFCB | MW220620CTI-42 | 06-28-2023 | 06-27-2024 |
| high-low temperature test chamber | Dong Guang Qin Zhuo | LK-80GA | QZ20150611879 | 12-19-2022 12-11-2023 | 12-18-2023 12-10-2024 |
| Temperature/ Humidity Indicator | biaozhi | HM10 | 1804186 | 06-01-2023 | 05-31-2024 |
| BT&WI-FI Automatic test software | MWRF-test | MTS 8310 | 2.0.0.0 | --- | --- |

| 3M Semi-anechoic Chamber (2)- Radiated disturbance Test | | | | | |
|---|--------------|------------------|--------------|------------|------------|
| Equipment | Manufacturer | Model | Serial No. | Cal. Date | Due Date |
| 3M Chamber & Accessory Equipment | TDK | SAC-3 | --- | 05/22/2022 | 05/21/2025 |
| Receiver | R&S | ESCI7 | 100938-003 | 09-22-2023 | 09-21-2024 |
| TRILOG Broadband Antenna | schwarzbeck | VULB 9163 | 9163-618 | 05/22/2022 | 05/21/2025 |
| Loop Antenna | Schwarzbeck | FMZB 1519B | 1519B-076 | 04/15/2021 | 04/14/2024 |
| Microwave Preamplifier | Tonscend | EMC051845SE | 980380 | 12/23/2022 | 12/23/2023 |
| Multi device Controller | maturo | NCD/070/10711112 | --- | --- | --- |
| Horn Antenna | ETS-LINGREN | BBHA 9120D | 9120D-1869 | 04/15/2021 | 04/14/2024 |
| Microwave Preamplifier | Agilent | 8449B | 3008A02425 | 06/20/2023 | 06/19/2024 |
| Test software | Fara | EZ-EMC | EMEC-3A1-Pre | --- | --- |

| 3M full-anechoic Chamber | | | | | |
|--------------------------------|--------------|-------------------|---------------|---------------------------|-------------------------------|
| Equipment | Manufacturer | Model No. | Serial Number | Cal. Date (mm-dd-yyyy) | Cal. Due date (mm-dd-yyyy) |
| RSE Automatic test software | JS Tonscend | JS36-RSE | 10166 | --- | --- |
| Receiver | Keysight | N9038A | MY57290136 | 02-27-2023 | 02-26-2024 |
| Spectrum Analyzer | Keysight | N9020B | MY57111112 | 02-21-2023 | 02-20-2024 |
| Spectrum Analyzer | Keysight | N9030B | MY57140871 | 02-21-2023 | 02-20-2024 |
| TRILOG Broadband Antenna | Schwarzbeck | VULB 9163 | 9163-1148 | 04-28-2021 | 04-27-2024 |
| Horn Antenna | Schwarzbeck | BBHA 9170 | 9170-832 | 04-15-2021 | 04-14-2024 |
| Horn Antenna | ETS-LINDGREN | 3117 | 57407 | 07-04-2021 | 07-03-2024 |
| Preamplifier | EMCI | EMC184055SE | 980597 | 04-13-2023 | 04-12-2024 |
| Preamplifier | EMCI | EMC001330 | 980563 | 03-28-2023 | 03-27-2024 |
| Preamplifier | JS Tonscend | TAP-011858 | AP21B806112 | 07-25-2023 | 07-24-2024 |
| Communication test set | R&S | CMW500 | 102898 | 12-23-2022 | 12-22-2023 |
| Temperature/Humidity Indicator | biaozhi | GM1360 | EE1186631 | 04-11-2023 | 04-10-2024 |
| Fully Anechoic Chamber | TDK | FAC-3 | --- | 01-09-2021 | 01-08-2024 |
| Cable line | Times | SFT205-NMSM-2.50M | 394812-0001 | --- | --- |
| Cable line | Times | SFT205-NMSM-2.50M | 394812-0002 | --- | --- |
| Cable line | Times | SFT205-NMSM-2.50M | 394812-0003 | --- | --- |
| Cable line | Times | SFT205-NMSM-2.50M | 393495-0001 | --- | --- |
| Cable line | Times | EMC104-NMNM-1000 | SN160710 | --- | --- |
| Cable line | Times | SFT205-NMSM-3.00M | 394813-0001 | --- | --- |
| Cable line | Times | SFT205-NMNM-1.50M | 381964-0001 | --- | --- |
| Cable line | Times | SFT205-NMSM-7.00M | 394815-0001 | --- | --- |
| Cable line | Times | HF160-KMKM-3.00M | 393493-0001 | --- | --- |

5 Test results and Measurement Data

5.1 Antenna Requirement

| | |
|---|--------------------------------|
| Standard requirement: | 47 CFR Part 15C Section 15.203 |
| 15.203 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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. | |
| EUT Antenna: | Please see Internal photos |
| The antenna is integrated on the main PCB and no consideration of replacement. | |

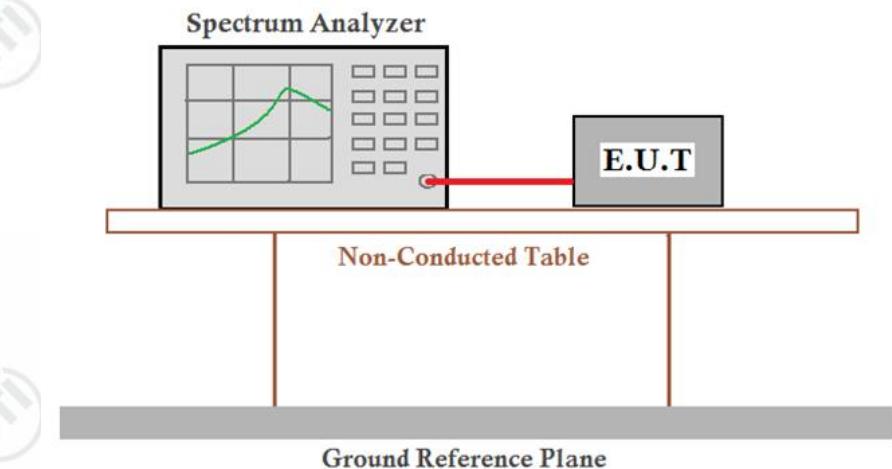
5.2 Radiated Spurious Emissions

5.2.1 Duty Cycle

Test Requirement: 47 CFR Part 15C Section 15.35 (c)

Test Method: ANSI C63.10:2013

Test Setup:



Limit: N/A

Test Mode: Transmitting mode

Test Results: Pass

| The number of pulses of duration /100ms | T on time (ms)/100ms | T period (ms) | Duty cycle |
|---|----------------------|---------------|------------|
| 1 | 91.10 | 100 | 0.911 |

Note:

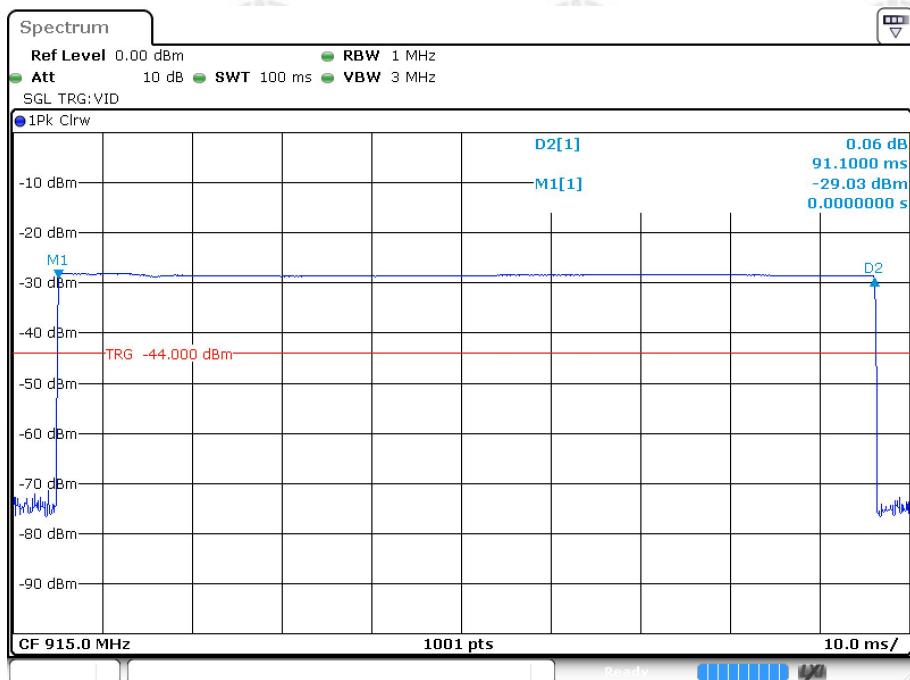
The number of pulses of duration/100ms=1;

T on time(ms)/100ms=91.1ms*1=91.1ms;

Duty cycle=T on time / T period=91.10/100=0.911;

Test plot as follows:

The number of pulses of duration/100ms: number is 1



Date: 18.DEC.2023 18:19:03

5.2.2 Radiated Spurious Emissions

Test Requirement: 47 CFR Part 15C Section 15.249 and 15.209 and 15.205

Test Method: ANSI C63.10

Test Site: Measurement Distance: 3m (Semi-Anechoic Chamber)

| Frequency | Detector | RBW | VBW | Remark |
|-------------------|------------|--------|--------|------------|
| 0.009MHz-0.090MHz | Peak | 10kHz | 30kHz | Peak |
| 0.009MHz-0.090MHz | Average | 10kHz | 30kHz | Average |
| 0.090MHz-0.110MHz | Quasi-peak | 10kHz | 30kHz | Quasi-peak |
| 0.110MHz-0.490MHz | Peak | 10kHz | 30kHz | Peak |
| 0.110MHz-0.490MHz | Average | 10kHz | 30kHz | Average |
| 0.490MHz -30MHz | Quasi-peak | 10kHz | 30kHz | Quasi-peak |
| 30MHz-1GHz | Quasi-peak | 120kHz | 300kHz | Quasi-peak |
| Above 1GHz | Peak | 1MHz | 3MHz | Peak |
| | Peak | 1MHz | 10kHz | Average |

| Frequency | Field strength (microvolt/meter) | Limit (dB μ V/m) | Remark | Measurement distance (m) |
|-------------------|----------------------------------|----------------------|------------|--------------------------|
| 0.009MHz-0.490MHz | 2400/F(kHz) | - | - | 300 |
| 0.490MHz-1.705MHz | 24000/F(kHz) | - | - | 30 |
| 1.705MHz-30MHz | 30 | - | - | 30 |
| 30MHz-88MHz | 100 | 40.0 | Quasi-peak | 3 |
| 88MHz-216MHz | 150 | 43.5 | Quasi-peak | 3 |
| 216MHz-960MHz | 200 | 46.0 | Quasi-peak | 3 |
| 960MHz-1GHz | 500 | 54.0 | Quasi-peak | 3 |
| Above 1GHz | 500 | 54.0 | Average | 3 |

Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Limit:

(Spurious Emissions)

| Frequency | Limit (dB μ V/m @3m) | Remark |
|---------------|--------------------------|---------------|
| 911MHz-919MHz | 94.0 | Average Value |
| | 114.0 | Peak Value |

Test Setup:

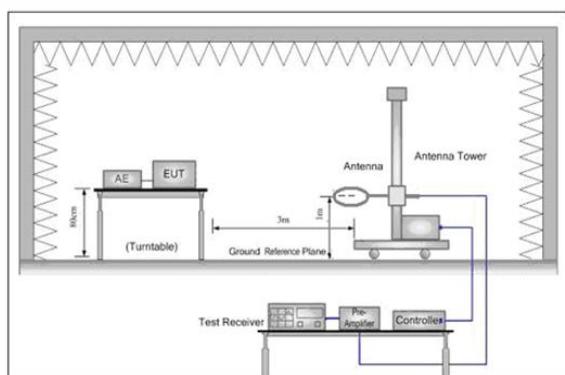


Figure 1. Below 30MHz

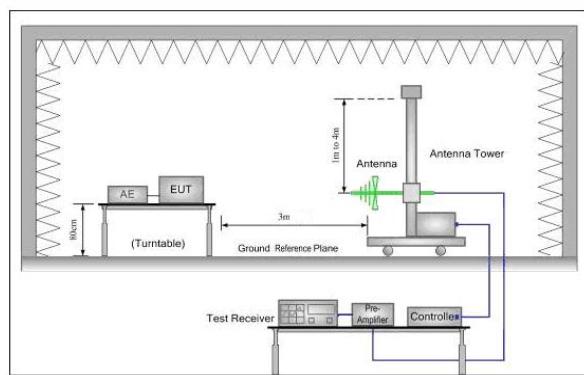


Figure 2. 30MHz to 1GHz

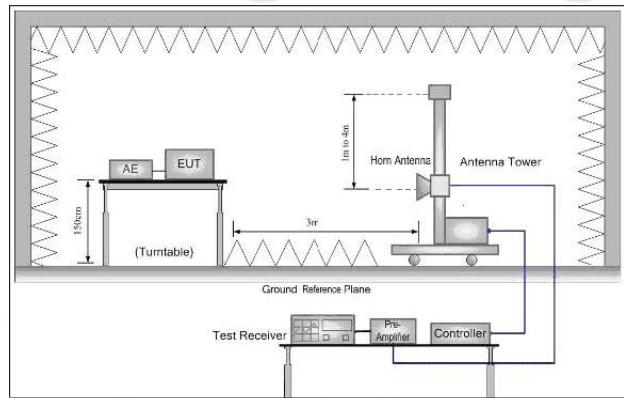


Figure 3. Above 1GHz

Test Procedure:

Below 1GHz test procedure as below:

The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

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.

For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rota table table was turned from 0 degrees to 360 degrees to find the maximum reading.

The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 metre to 1.5 metre(Above 18GHz the distance is 1 meter and table is 1.5 metre).

Test the EUT in the lowest channel ,middle channel, the Highest channel .

The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case.

Repeat above procedures until all frequencies measured was complete.

Transmitting mode

Test Mode:

Test Results:

Pass

Test data:

Field Strength of the Fundamental Signal:

Average value:

| | |
|--------------------|----------------------------------|
| Calculate Formula: | Average value=Peak value + PDCF |
| | PDCF=20 log(Duty cycle) |
| | Duty cycle= T on time / T period |
| Test data: | T on time =91.1ms |
| | T period =100ms |
| | PDCF=-0.81 |

| | |
|---------------|-----|
| Test channel: | CH1 |
|---------------|-----|

Antenna polarization: Horizontal

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-------------|----------------|---------------------|-----------------|--------------|
| 915 | 64.22 | 27.50 | 91.72 | 114.00 | -22.28 | Peak |
| 915 | - | - | 90.91 | 94.00 | -3.09 | Average |

Antenna polarization: Vertical

| Frequency (MHz) | Read Level (dBuV) | Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization |
|-----------------|-------------------|-------------|----------------|---------------------|-----------------|--------------|
| 915 | 60.66 | 27.50 | 88.16 | 114.00 | 25.84 | Peak |
| 915 | - | - | 87.35 | 94.00 | -6.65 | Average |

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

Spurious Emissions

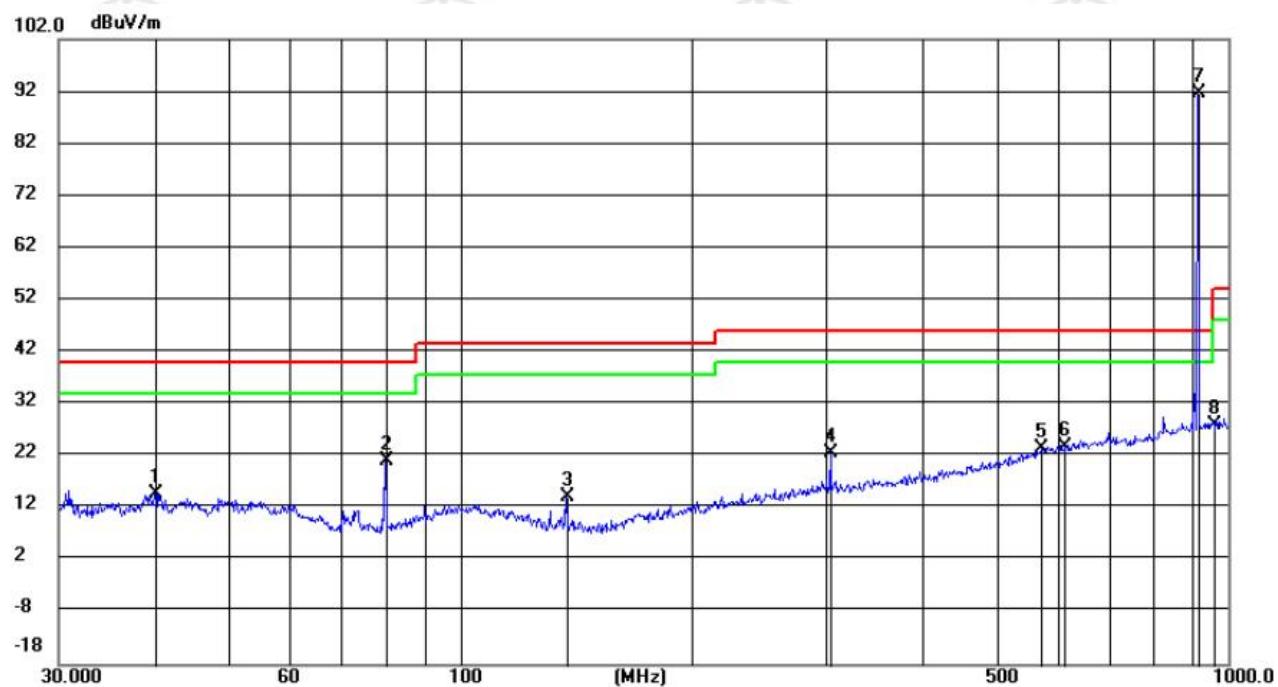
9KHz-30MHz:

9 kHz~30 MHz Field Strength of Unwanted Emissions. Quasi-Peak Measurement

The measurements with active loop antenna were greater than 20dB below the limit, so the test data were not recorded in the test report.

30MHz-1GHz & Restricted bands:

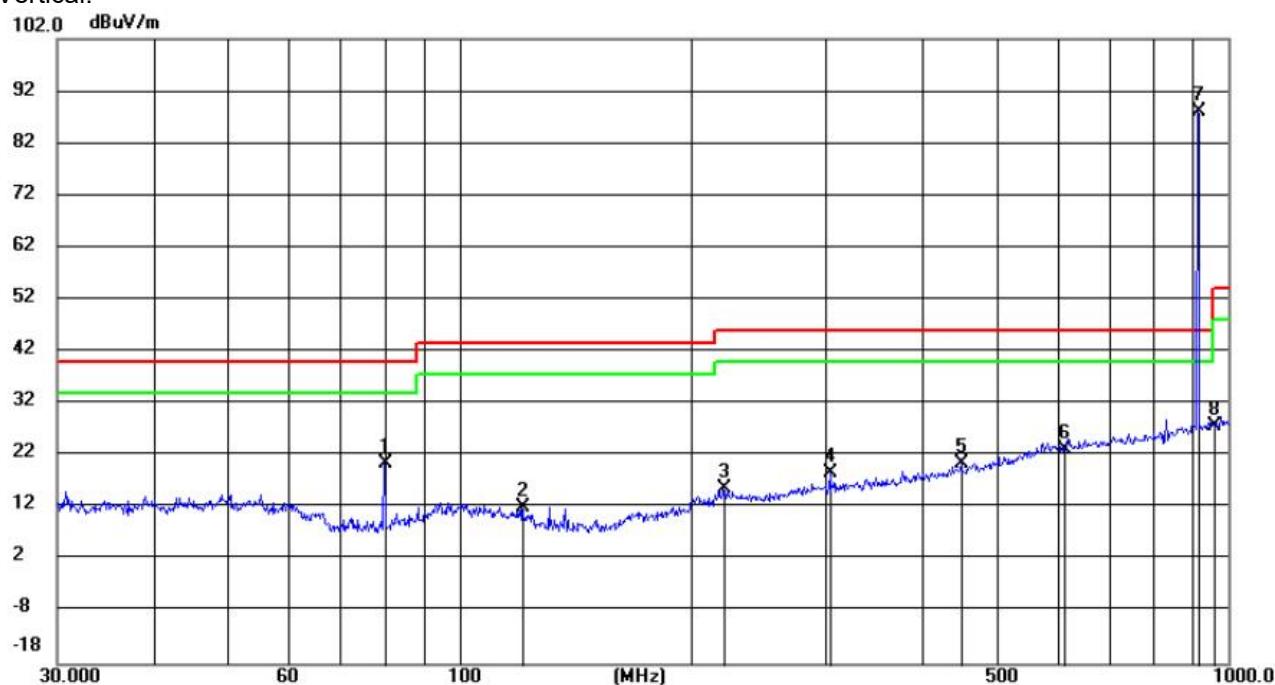
Horizontal:



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Margin | Antenna Height | Table Degree | Comment |
|-----|-----|----------|---------------|----------------|------------------|--------|--------|----------------|-----------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | | 40.0854 | 0.81 | 14.09 | 14.90 | 40.00 | -25.10 | peak | 199 | 228 |
| 2 | | 80.0104 | 11.49 | 9.55 | 21.04 | 40.00 | -18.96 | peak | 199 | 0 |
| 3 | | 137.4924 | 4.70 | 9.64 | 14.34 | 43.50 | -29.16 | peak | 100 | 48 |
| 4 | | 304.2363 | 5.86 | 16.65 | 22.51 | 46.00 | -23.49 | peak | 100 | 345 |
| 5 | | 572.1126 | 0.67 | 22.74 | 23.41 | 46.00 | -22.59 | peak | 199 | 280 |
| 6 | | 614.0000 | 0.27 | 23.61 | 23.88 | 46.00 | -22.12 | peak | 199 | 254 |
| 7 | * | 915.1055 | 64.22 | 27.50 | 91.72 | 46.00 | 45.72 | peak | 199 | 352 |
| 8 | | 960.0000 | 0.27 | 27.77 | 28.04 | 46.00 | -17.96 | peak | 199 | 125 |

Note: No.7 is the main frequency point of product operation.

Vertical:



| No. | Mk. | Freq. | Reading | Correct | Measure- | Limit | Margin | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|-------|--------|---------|
| | | | Level | Factor | ment | | | | | Degree | Comment |
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | |
| 1 | | 80.0104 | 10.94 | 9.55 | 20.49 | 40.00 | -19.51 | peak | 100 | 263 | |
| 2 | | 121.0170 | 0.59 | 11.70 | 12.29 | 43.50 | -31.21 | peak | 199 | 167 | |
| 3 | | 220.8881 | 2.07 | 13.60 | 15.67 | 46.00 | -30.33 | peak | 100 | 304 | |
| 4 | | 304.1830 | 2.20 | 16.65 | 18.85 | 46.00 | -27.15 | peak | 199 | 136 | |
| 5 | | 450.6607 | 0.82 | 19.60 | 20.42 | 46.00 | -25.58 | peak | 199 | 352 | |
| 6 | | 614.0000 | -0.32 | 23.61 | 23.29 | 46.00 | -22.71 | peak | 199 | 251 | |
| 7 | * | 915.1055 | 60.66 | 27.50 | 88.16 | 46.00 | 42.16 | peak | 199 | 54 | |
| 8 | | 960.0000 | 0.05 | 27.77 | 27.82 | 46.00 | -18.18 | peak | 199 | 125 | |

Note: No.7 is the main frequency point of product operation.

Above 1GHz:

| Test mode: | | | | | Transmitting (CH1) | | | | |
|------------|-------------|-------------|----------------------|----------------------|----------------------|-------------|--------|------------|--------|
| NO | Freq. [MHz] | Factor [dB] | Reading [dB μ V] | Level [dB μ V/m] | Limit [dB μ V/m] | Margin [dB] | Result | Polarity | Remark |
| 1 | 1830.78 | -24.54 | 56.84 | 32.30 | 74.00 | 41.70 | PASS | Horizontal | PK |
| 2 | 2745.27 | -22.09 | 57.12 | 35.03 | 74.00 | 38.97 | PASS | Horizontal | PK |
| 3 | 3659.76 | -20.33 | 54.36 | 34.03 | 74.00 | 39.97 | PASS | Horizontal | PK |
| 4 | 5489.64 | -14.37 | 53.72 | 39.35 | 74.00 | 34.65 | PASS | Horizontal | PK |
| 5 | 7624.66 | -11.20 | 50.60 | 39.40 | 74.00 | 34.60 | PASS | Horizontal | PK |
| 6 | 10065.6 | -7.37 | 60.06 | 52.69 | 74.00 | 21.31 | PASS | Horizontal | PK |
| 7 | 1830.78 | -24.54 | 59.51 | 34.97 | 74.00 | 39.03 | PASS | Vertical | PK |
| 8 | 2710.17 | -22.22 | 56.72 | 34.50 | 74.00 | 39.50 | PASS | Vertical | PK |
| 9 | 3659.76 | -20.33 | 61.96 | 41.63 | 74.00 | 32.37 | PASS | Vertical | PK |
| 10 | 4575.15 | -16.87 | 57.42 | 40.55 | 74.00 | 33.45 | PASS | Vertical | PK |
| 11 | 7674.16 | -11.01 | 50.70 | 39.69 | 74.00 | 34.31 | PASS | Vertical | PK |
| 12 | 9147.61 | -8.17 | 49.88 | 41.71 | 74.00 | 32.29 | PASS | Vertical | PK |

Remark:

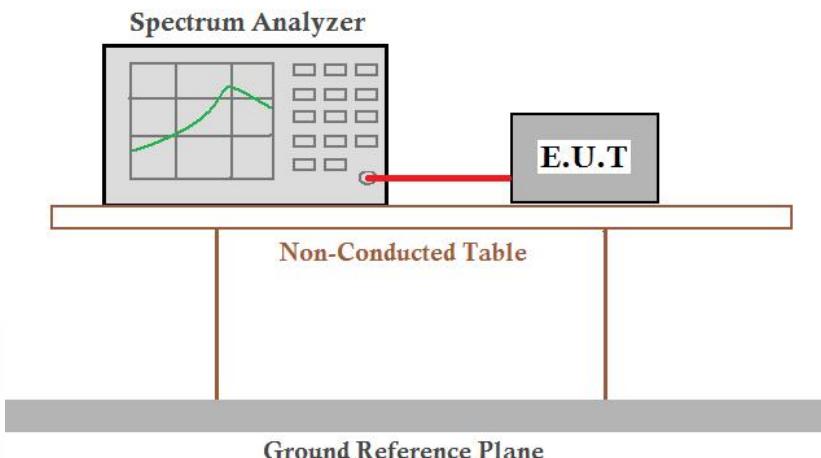
- 1) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level = Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Factor - Preamplifier Factor
- 2) Scan from 9kHz to 18GHz, below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

5.3 20dB Bandwidth

Test Requirement: 47 CFR Part 15C Section 15.215

Test Method: ANSI C63.10: 2013

Test Setup:



Remark: Offset=Cable loss+ attenuation factor.

- 1) The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2) Set to the maximum power setting and enable the EUT transmit continuously.
- 3) Use the following spectrum analyzer settings for 20dB Bandwidth measurement.
Span = approximately 2 to 5 times the 20 dB bandwidth, centered on a test channel; $1\% \leq RBW \leq 5\%$ of the 20 dB bandwidth; $VBW \geq 3RBW$; Sweep = auto; Detector function = peak; Trace = max hold.
- 4) Measure and record the results in the test report.

Test Procedure:

N/A

Test Mode:

Transmitter mode

Test Results:

Pass

Measurement Data

| Test Channel | 20dB bandwidth (kHz) | Limit (kHz) | Results |
|--------------|-------------------------|----------------|---------|
| CH1 | 48.80 | N/A | Pass |

Test plot as follows:

