

## TEST REPORT

|           |                                                        |
|-----------|--------------------------------------------------------|
| Applicant | Belkin International, Inc.                             |
| Address   | 12045 East Waterfront Drive, Playa Vista, CA 90094 USA |

|                                     |                                                        |
|-------------------------------------|--------------------------------------------------------|
| Manufacturer or Supplier            | Belkin International, Inc.                             |
| Address                             | 12045 East Waterfront Drive, Playa Vista, CA 90094 USA |
| Product                             | BOOST↑CHARGE™ Wireless Charging Stand 10W              |
| Additional Product                  | Wireless Charging Stand 10W                            |
| Brand Name                          | belkin, playa                                          |
| Model                               | WIB001V2                                               |
| Additional Model & Model Difference | PW0005V2, see items 3.1                                |
| Date of tests                       | Feb. 09, 2021 ~ Mar. 16, 2021                          |

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

☒ **FCC Part 15, Subpart C**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

|                                                                                     |                                                                                                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Tested by Lucas Chen<br>Project Engineer / EMC Department                           | Approved by Glyn He<br>Assistant Manager/ EMC Department                                                    |
|  | <br>Date: Mar. 26, 2021 |

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Test Report No.: RF2102WDG0030

## RELEASE CONTROL RECORD

| ISSUE NO.     | REASON FOR CHANGE | DATE ISSUED   |
|---------------|-------------------|---------------|
| RF2102WDG0030 | Original release  | Mar. 26, 2021 |

## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 15, Subpart C |                             |        |                                |
|------------------------------------------|-----------------------------|--------|--------------------------------|
| STANDARD SECTION                         | TEST TYPE AND LIMIT         | RESULT | REMARK                         |
| §15.203                                  | Antenna Requirement         | PASS   | No antenna connector is used.  |
| §15.207                                  | AC Power Conducted Emission | PASS   | Meet the requirement of limit. |
| §15.209                                  | Radiated Emission           | PASS   | Meet the requirement of limit. |
| §15.215 (c)                              | 20dB Bandwidth              | PASS   | Meet the requirement of limit. |

## 2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| MEASUREMENT         | FREQUENCY     | UNCERTAINTY |
|---------------------|---------------|-------------|
| Conducted emissions | 9kHz~30MHz    | 3.05dB      |
| Radiated emissions  | 9KHz ~ 30MHz  | 2.16dB      |
|                     | 30MHz ~ 1GMHz | 3.82dB      |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

|                                                    |                                                                                                                              |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>PRODUCT</b>                                     | BOOST↑CHARGE™ Wireless Charging Stand 10W                                                                                    |
| <b>ADDITIONAL PRODUCT</b>                          | Wireless Charging Stand 10W                                                                                                  |
| <b>MODEL NO.</b>                                   | WIB001V2                                                                                                                     |
| <b>ADDITIONAL MODEL</b>                            | PW0005V2                                                                                                                     |
| <b>SAMPLE STATUS</b>                               | Engineering sample                                                                                                           |
| <b>FCC ID</b>                                      | K7SWIB001V2                                                                                                                  |
| <b>POWER SUPPLY</b>                                | Input: 5.0VDC 2.0A, Output:5.0VDC 5.0W;<br>Input: 9.0VDC 2.0A, Output:9VDC 10.0W;<br>Input: 12.0VDC 1.5A, Output:12VDC 10.0W |
| <b>MODULATION TYPE</b>                             | FSK                                                                                                                          |
| <b>OPERATING FREQUENCY RANGE</b>                   | 111KHz ~ 145KHz                                                                                                              |
| <b>ANTENNA TYPE</b>                                | Coil Antenna                                                                                                                 |
| <b>FIELD STRENGTH</b>                              | 83.85dBuV/m                                                                                                                  |
| <b>MAXIMUM POWER OUTPUT FROM THE CHARGING COIL</b> | Max Power is 10W                                                                                                             |
| <b>CABLE SUPPLIED</b>                              | USB- A to Micro USB cable: Shielded, detachable 1.3m                                                                         |

**NOTES:**

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2102WDG0030-1) for detailed product photo.
4. Additional model PW0005V2 is identical with test model WIB001V2 except the product name and model no. for trading purpose.
5. The EUT can be powered by adapter as list as attach: (only worst case adapter 1 was shown in test report.)

|                  |                                   |
|------------------|-----------------------------------|
| <b>ADAPTER 1</b> |                                   |
| BRAND:           | N/A                               |
| MODEL:           | DSA-18QFB FUS A                   |
| INPUT:           | AC 100-240V, 50/60HZ, 0.8A        |
| OUTPUT:          | DC 3.6-6V 2A, 6-9V 2A, 9-12V 1.5A |
| DC LINE:         | N/A                               |
| <b>ADAPTER 2</b> |                                   |
| BRAND:           | belkin                            |
| MODEL:           | A138A-120150U-US5                 |
| INPUT:           | AC 100-240V, 50/60HZ, 0.5A        |
| OUTPUT:          | DC 5.0V 2.0A, 9V 2A, 12V 1.5A     |
| DC LINE:         | N/A                               |

### 3.2 DESCRIPTION OF TEST MODES

The following test frequencies are provided to this EUT:

| Operating Frequency Range(KHz) | Tested Frequency(KHz) | Mode                    |
|--------------------------------|-----------------------|-------------------------|
| 111-145                        | 142.403               | Standby                 |
| 111-145                        | 139.752               | Receiver load operating |

### 3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

| EUT CONFIGURE | APPLICABLE TO |     |      | DESCRIPTION             |
|---------------|---------------|-----|------|-------------------------|
|               | RE<1G         | PLC | 20BW |                         |
| A             | √             | √   | √    | Standby                 |
| B             | √             | √   | √    | Receiver load operating |

Where **RE<1G**: Radiated Emission below 1GHz

**PLC**: Power Line Conducted Emission

**20BW**: 20dB Bandwidth

Note:

1. The EUT is designed to be positioned on the **X-plane** only.

#### **Radiated Emission Test (Below 1GHz):**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT configure mode | Operating Frequency Range(KHz) | Tested Frequency(KHz) | Modulation Type |
|--------------------|--------------------------------|-----------------------|-----------------|
| A                  | 111-145                        | 142.403               | FSK             |
| B                  | 111-145                        | 139.752               | FSK             |

#### **Power Line Conducted Emission Test:**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT configure mode | Operating Frequency Range(KHz) | Tested Frequency(KHz) | Modulation Type |
|--------------------|--------------------------------|-----------------------|-----------------|
| A                  | 111-145                        | 142.403               | FSK             |
| B                  | 111-145                        | 139.752               | FSK             |

**20dB Bandwidth TEST:**

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

| EUT configure mode | Operating Frequency Range(KHz) | Tested Frequency(KHz) | Modulation Type |
|--------------------|--------------------------------|-----------------------|-----------------|
| A                  | 111-145                        | 142.403               | FSK             |
| B                  | 111-145                        | 139.752               | FSK             |

**TEST CONDITION:**

| Applicable to | Environmental conditions | Input Power(Adapter) | Tested by |
|---------------|--------------------------|----------------------|-----------|
| RE<1G         | 20 °C, 57% RH            | 120Vac, 60Hz         | Ray       |
| PLC           | 25 °C, 60% RH            | 120Vac, 60Hz         | MingBai   |
| 20BW          | 24 °C, 64% RH            | 120Vac, 60Hz         | Daniel    |

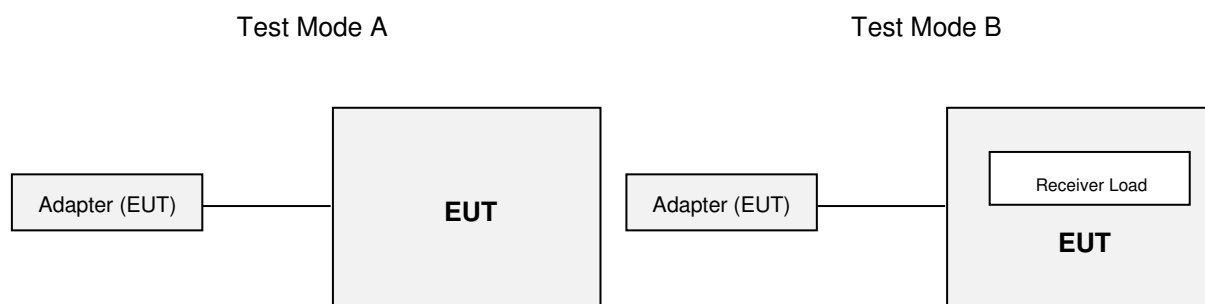
### 3.4 DESCRIPTION OF SUPPORT UNITS

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

| NO. | PRODUCT       | BRAND | MODEL NO. | SERIAL NO. | FCC ID |
|-----|---------------|-------|-----------|------------|--------|
| 1   | Receiver load | N/A   | N/A       | N/A        | N/A    |

| NO. | DESCRIPTION OF THE ABOVE SUPPORT UNITS |
|-----|----------------------------------------|
| 1   | N/A                                    |

### 3.5 CONFIGURATION OF SYSTEM UNDER TEST



### 3.6 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.207/15.209)**

**ANSI C63.10-2013**

All test items have been performed and recorded as per the above standards.



## 4 EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

| FREQUENCY (MHz) | Class A (dBuV) |         | Class B (dBuV) |         |
|-----------------|----------------|---------|----------------|---------|
|                 | Quasi-peak     | Average | Quasi-peak     | Average |
| 0.15 - 0.5      | 79             | 66      | 66 - 56        | 56 - 46 |
| 0.50 - 5.0      | 73             | 60      | 56             | 46      |
| 5.0 - 30.0      | 73             | 60      | 60             | 50      |

- NOTES:** (1) The lower limit shall apply at the transition frequencies.  
 (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.  
 (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

| Equipment                | Manufacturer  | Model No.       | Serial No.  | Next Cal.  |
|--------------------------|---------------|-----------------|-------------|------------|
| EMI Test Receiver        | Rohde&Schwarz | ESR7            | 101494      | Mar. 17,21 |
| Artificial Mains Network | Rohde&Schwarz | ENV216          | 101173      | Mar. 17,21 |
| Artificial Mains Network | Rohde&Schwarz | ESH3-Z5         | 100317      | Mar. 17,21 |
| Voltage probe            | SCHWARZBECK   | TK 9421         | TK 9421-176 | Sep. 23,21 |
| Test software            | ADT           | ADT_Cond_V7.3.7 | N/A         | N/A        |

- NOTES:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
 2. The test was performed in shielding room 553.

### 4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20dB) were not recorded.

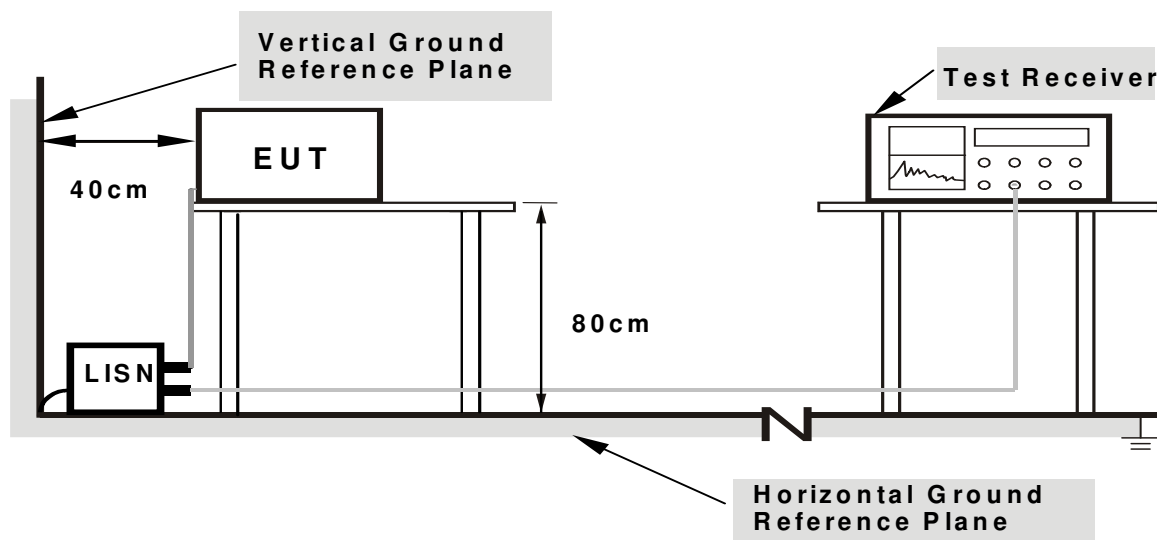
#### NOTES:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.1.5 TEST SETUP



- Note:**
1. Support units were connected to second LISN.
  2. Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.

#### 4.1.6 EUT OPERATING CONDITIONS

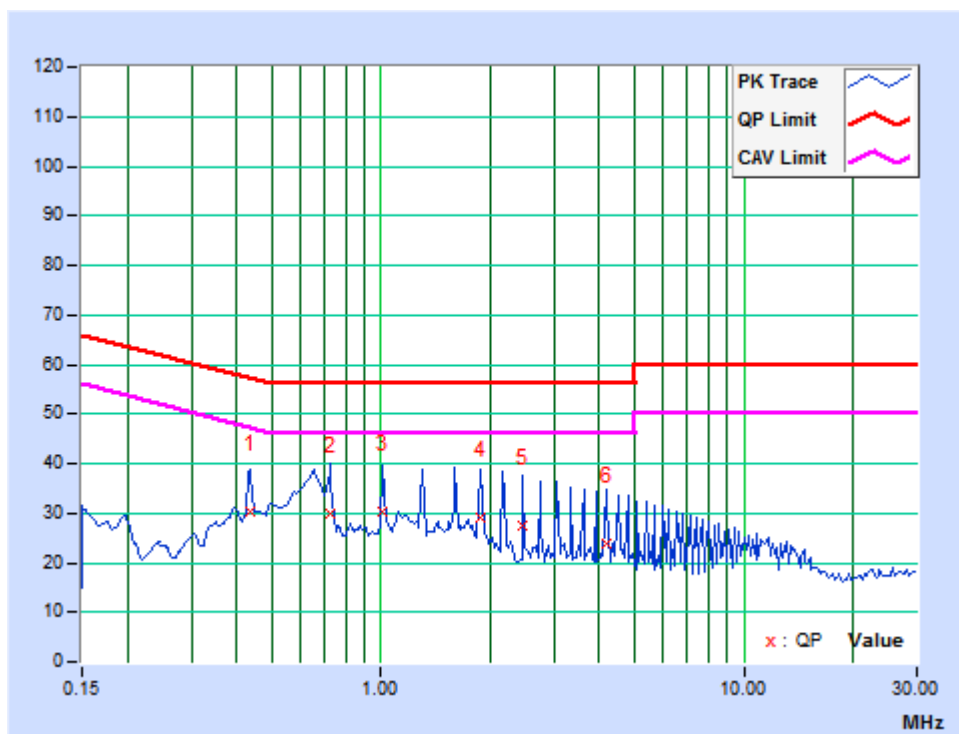
- a. Turn on the EUT.
- b. The EUT tested in charging mode and standby mode respectively.

#### 4.1.7 TEST RESULTS

|                          |                  |                     |         |
|--------------------------|------------------|---------------------|---------|
| TEST MODE                | A                | PHASE               | Line(L) |
| TEST VOLTAGE             | AC 120V/60Hz     | 6dB BANDWIDTH       | 9 kHz   |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 60% RH | TESTED BY: Ming Bai |         |

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value |       | Emission Level |       | Limit     |       | Margin |        |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
|    |                |                         | [dB (uV)]     |       | [dB (uV)]      |       | [dB (uV)] |       | (dB)   |        |
|    |                |                         | Q.P.          | AV.   | Q.P.           | AV.   | Q.P.      | AV.   | Q.P.   | AV.    |
| 1  | 0.43350        | 9.83                    | 20.30         | 5.76  | 30.13          | 15.59 | 57.19     | 47.19 | -27.06 | -31.60 |
| 2  | 0.72375        | 9.79                    | 20.25         | 4.65  | 30.04          | 14.44 | 56.00     | 46.00 | -25.96 | -31.56 |
| 3  | 1.01400        | 9.81                    | 20.38         | -0.53 | 30.19          | 9.28  | 56.00     | 46.00 | -25.81 | -36.72 |
| 4  | 1.88475        | 9.85                    | 19.30         | 3.62  | 29.15          | 13.47 | 56.00     | 46.00 | -26.85 | -32.53 |
| 5  | 2.46525        | 9.85                    | 17.76         | 2.70  | 27.61          | 12.55 | 56.00     | 46.00 | -28.39 | -33.45 |
| 6  | 4.20675        | 9.85                    | 13.95         | 1.52  | 23.80          | 11.37 | 56.00     | 46.00 | -32.20 | -34.63 |

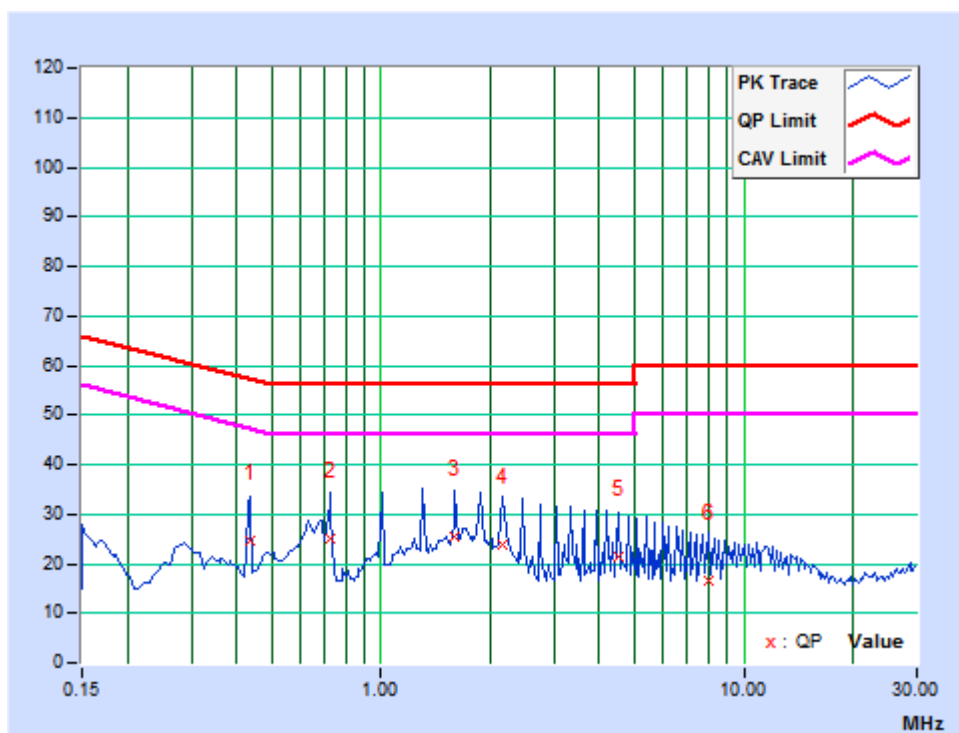
**REMARKS:** The emission levels of other frequencies were very low against the limit.



|                          |                  |                     |             |
|--------------------------|------------------|---------------------|-------------|
| TEST MODE                | A                | PHASE               | Neutral (N) |
| TEST VOLTAGE             | AC 120V/60Hz     | 6dB BANDWIDTH       | 9 kHz       |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 60% RH | TESTED BY: Ming Bai |             |

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value |       | Emission Level |       | Limit     |       | Margin |        |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
|    |                |                         | [dB (uV)]     |       | [dB (uV)]      |       | [dB (uV)] |       | (dB)   |        |
|    |                |                         | Q.P.          | AV.   | Q.P.           | AV.   | Q.P.      | AV.   | Q.P.   | AV.    |
| 1  | 0.43350        | 9.83                    | 14.68         | 0.36  | 24.51          | 10.19 | 57.19     | 47.19 | -32.68 | -37.00 |
| 2  | 0.72375        | 9.82                    | 15.21         | -0.10 | 25.03          | 9.72  | 56.00     | 46.00 | -30.97 | -36.28 |
| 3  | 1.59450        | 9.85                    | 15.46         | 0.40  | 25.31          | 10.25 | 56.00     | 46.00 | -30.69 | -35.75 |
| 4  | 2.17500        | 9.85                    | 14.02         | -0.25 | 23.87          | 9.60  | 56.00     | 46.00 | -32.13 | -36.40 |
| 5  | 4.49887        | 9.88                    | 11.65         | -2.59 | 21.53          | 7.29  | 56.00     | 46.00 | -34.47 | -38.71 |
| 6  | 7.98225        | 9.98                    | 6.61          | -1.51 | 16.59          | 8.47  | 60.00     | 50.00 | -43.41 | -41.53 |

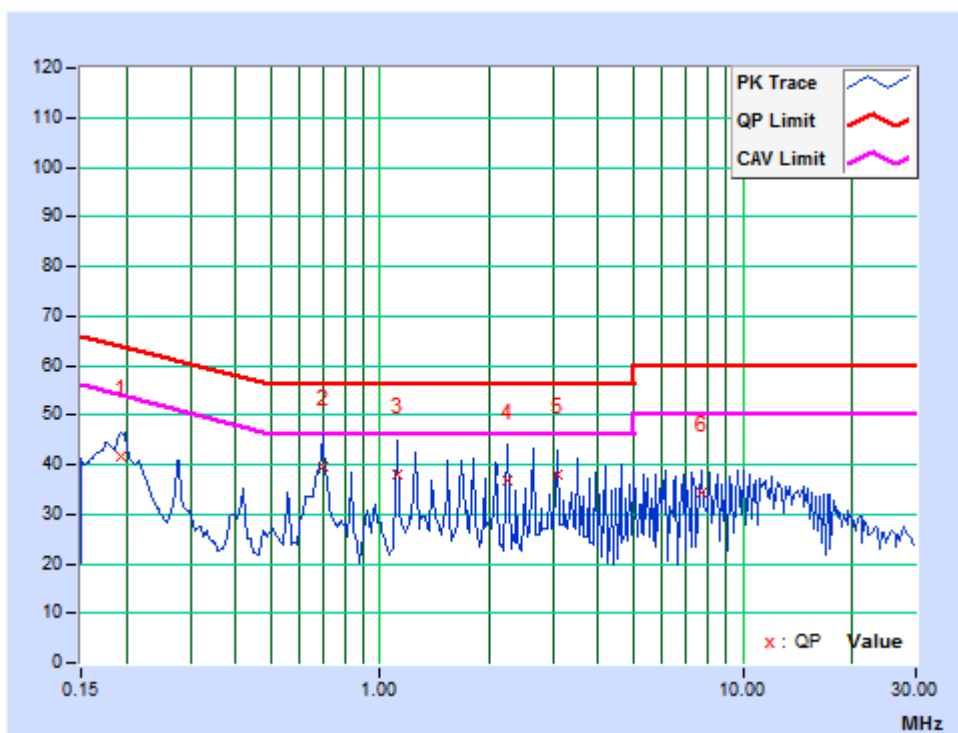
**REMARKS:** The emission levels of other frequencies were very low against the limit.



|                          |                  |                     |         |
|--------------------------|------------------|---------------------|---------|
| TEST MODE                | B                | PHASE               | Line(L) |
| TEST VOLTAGE             | AC 120V/60Hz     | 6dB BANDWIDTH       | 9 kHz   |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 60% RH | TESTED BY: Ming Bai |         |

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value |       | Emission Level |       | Limit     |       | Margin |        |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
|    |                |                         | [dB (uV)]     |       | [dB (uV)]      |       | [dB (uV)] |       | (dB)   |        |
|    |                |                         | Q.P.          | AV.   | Q.P.           | AV.   | Q.P.      | AV.   | Q.P.   | AV.    |
| 1  | 0.19300        | 9.71                    | 31.81         | 15.84 | 41.52          | 25.55 | 63.91     | 53.91 | -22.39 | -28.36 |
| 2  | 0.70125        | 9.82                    | 29.58         | 23.86 | 39.40          | 33.68 | 56.00     | 46.00 | -16.60 | -12.32 |
| 3  | 1.11525        | 9.83                    | 28.11         | 23.31 | 37.94          | 33.14 | 56.00     | 46.00 | -18.06 | -12.86 |
| 4  | 2.23350        | 9.85                    | 26.81         | 22.47 | 36.66          | 32.32 | 56.00     | 46.00 | -19.34 | -13.68 |
| 5  | 3.07275        | 9.87                    | 28.08         | 24.58 | 37.95          | 34.45 | 56.00     | 46.00 | -18.05 | -11.55 |
| 6  | 7.68525        | 9.97                    | 24.27         | 22.62 | 34.24          | 32.59 | 60.00     | 50.00 | -25.76 | -17.41 |

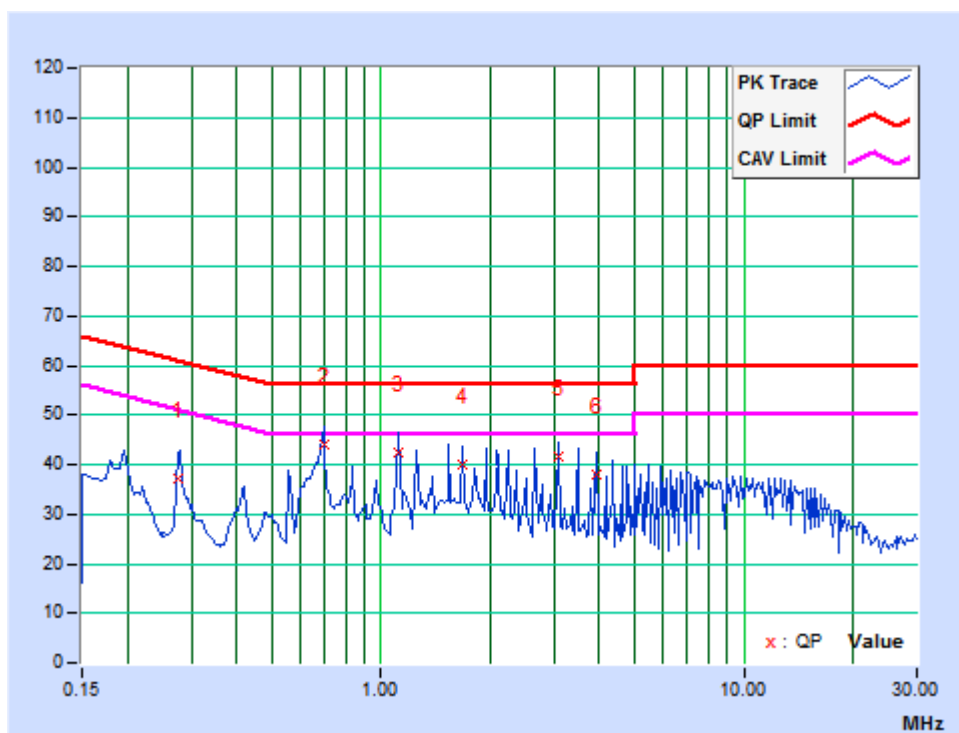
**REMARKS:** The emission levels of other frequencies were very low against the limit.



|                          |                  |                     |             |
|--------------------------|------------------|---------------------|-------------|
| TEST MODE                | B                | PHASE               | Neutral (N) |
| TEST VOLTAGE             | AC 120V/60Hz     | 6dB BANDWIDTH       | 9 kHz       |
| ENVIRONMENTAL CONDITIONS | 25deg. C, 60% RH | TESTED BY: Ming Bai |             |

| No | Freq.<br>[MHz] | Corr.<br>Factor<br>(dB) | Reading Value |       | Emission Level |       | Limit     |       | Margin |        |
|----|----------------|-------------------------|---------------|-------|----------------|-------|-----------|-------|--------|--------|
|    |                |                         | [dB (uV)]     |       | [dB (uV)]      |       | [dB (uV)] |       | (dB)   |        |
|    |                |                         | Q.P.          | AV.   | Q.P.           | AV.   | Q.P.      | AV.   | Q.P.   | AV.    |
| 1  | 0.27600        | 9.76                    | 27.61         | 22.01 | 37.37          | 31.77 | 60.94     | 50.94 | -23.56 | -19.16 |
| 2  | 0.69675        | 9.78                    | 34.13         | 28.06 | 43.91          | 37.84 | 56.00     | 46.00 | -12.09 | -8.16  |
| 3  | 1.11525        | 9.81                    | 32.68         | 27.12 | 42.49          | 36.93 | 56.00     | 46.00 | -13.51 | -9.07  |
| 4  | 1.67550        | 9.83                    | 30.34         | 24.35 | 40.17          | 34.18 | 56.00     | 46.00 | -15.83 | -11.82 |
| 5  | 3.07275        | 9.86                    | 31.74         | 27.03 | 41.60          | 36.89 | 56.00     | 46.00 | -14.40 | -9.11  |
| 6  | 3.90975        | 9.85                    | 27.95         | 23.64 | 37.80          | 33.49 | 56.00     | 46.00 | -18.20 | -12.51 |

**REMARKS:** The emission levels of other frequencies were very low against the limit.



## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C, Section 15.209

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

| FREQUENCIES<br>(MHz) | FIELD STRENGTH<br>(microvolts/meter) | MEASUREMENT DISTANCE<br>(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                                |

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



## 4.2.2 TEST INSTRUMENTS

### FREQUENCY 9KHz-30MHz

| Equipment           | Manufacturer  | Model No.            | Serial No. | Next Cal.  |
|---------------------|---------------|----------------------|------------|------------|
| EMI Test Receiver   | Rohde&Schwarz | ESR7                 | 101564     | Mar. 17,21 |
| Active Loop Antenna | SCHWARZBECK   | FMZB 1519B           | 1519B-045  | May 27,21  |
| Amplifier           | Burgeon       | BPA-530              | 100210     | Mar. 14,22 |
| Test Software       | ADT           | ADT_Radiated_V8.7.07 | N/A        | N/A        |

- NOTES:** 1. The test was performed in 10m Chamber.  
 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
 3. The FCC Site Registration No. is 749762.

### FREQUENCY 30MHz-1GHz

| Equipment                | Manufacturer  | Model No.                | Serial No. | Next Cal.  |
|--------------------------|---------------|--------------------------|------------|------------|
| EMI Test Receiver        | Rohde&Schwarz | ESU40                    | 100449     | Mar. 17,21 |
| Bilog Antenna            | Teseq         | CBL 6111D                | 30643      | Jun. 22,21 |
| Amplifier                | Burgeon       | BPA-530                  | 100220     | Mar. 14,22 |
| 3m Semi-anechoic Chamber | ETS-LINDGREN  | 9m*6m*6m                 | NSEMC003   | Apr. 20,21 |
| Test software            | ADT           | ADT_Radiated_V7.6.15.9.2 | N/A        | N/A        |

- NOTES:** 1. The test was performed in 966 Chamber  
 2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
 3. The FCC Site Registration No. is 749762.

### 4.2.3 TEST PROCEDURE

#### < Below 30MHz >

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna 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.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

#### <30MHz~1GHz >

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its 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.
- d. 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 and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

#### NOTES:

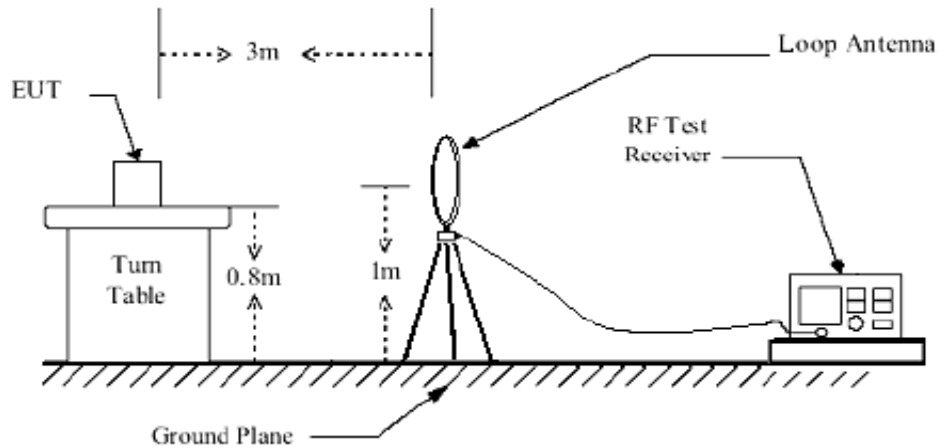
1. The resolution bandwidth of test receiver/spectrum analyzer is 200Hz for Quasi-peak detection (QP) at fundamental frequency 9K-150KHz;
2. The resolution bandwidth of test receiver/spectrum analyzer is 9KHz for Quasi-peak detection (QP) at fundamental frequency 150K-30MHz;
3. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at radiated spurious emission frequency 30MHz-1GHz.
4. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
6. Margin value = Emission level – Limit value.

#### 4.2.4 DEVIATION FROM TEST STANDARD

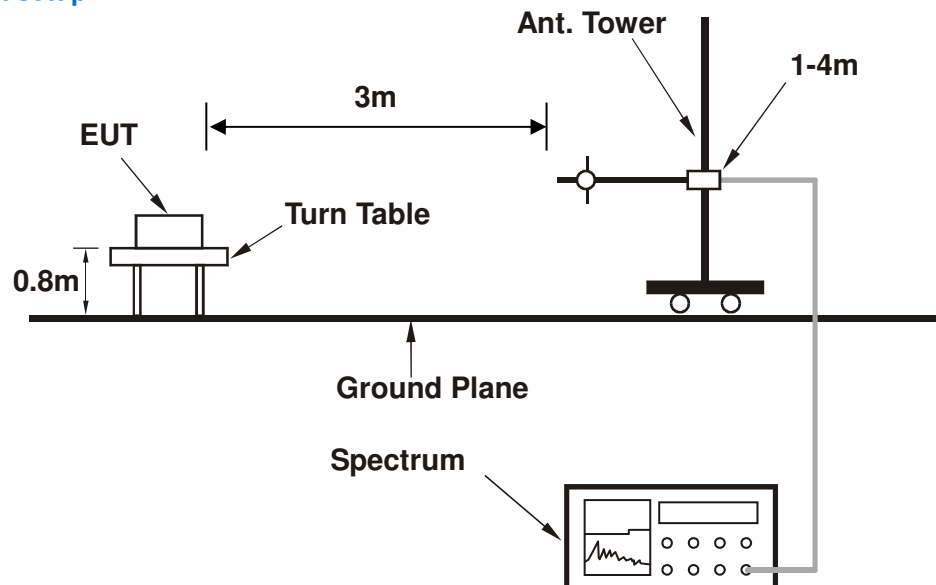
No deviation.

#### 4.2.5 TEST SETUP

##### Below 30MHz test setup



##### Below 1GHz test setup



**Note:** For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### 4.2.6 EUT OPERATING CONDITIONS

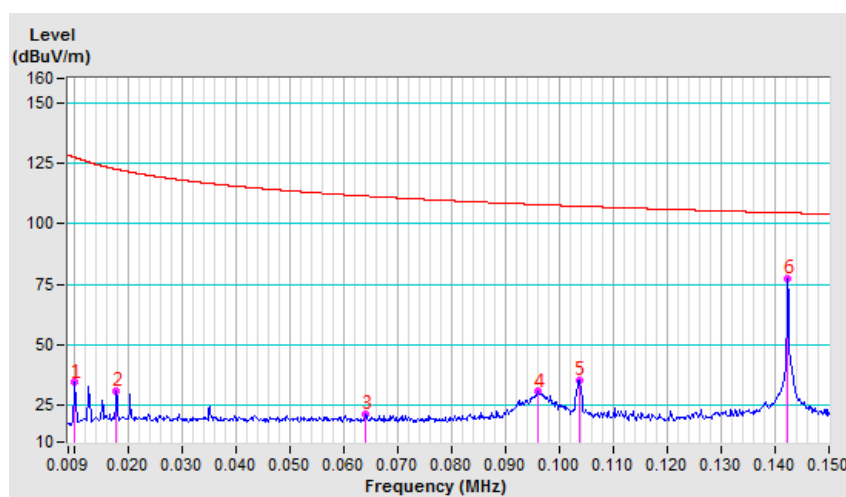
- Turn on the EUT.
- The EUT tested in charging mode and standby mode respectively.

## 4.2.7 TEST RESULTS

### Standby Mode

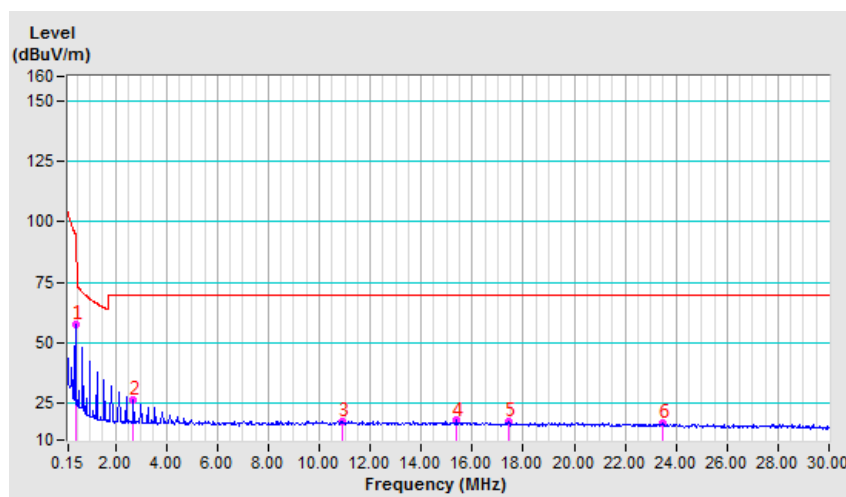
|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | A                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m |             |                          |                  |                         |                |             |                     |                      |
|---------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                            | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                             | 0.01020 AV  | -10.05                   | 44.57            | 34.52                   | 127.39         | -92.87      | 100                 | 305                  |
| 2                                                             | 0.01790 AV  | -10.52                   | 41.73            | 31.21                   | 122.54         | -91.33      | 100                 | 146                  |
| 3                                                             | 0.06420 AV  | -11.60                   | 33.20            | 21.60                   | 111.45         | -89.85      | 100                 | 184                  |
| 4                                                             | 0.09610 AV  | -11.76                   | 42.48            | 30.72                   | 107.94         | -77.22      | 100                 | 356                  |
| 5                                                             | 0.10360 QP  | -11.79                   | 47.42            | 35.63                   | 107.29         | -71.66      | 100                 | 181                  |
| 6                                                             | *0.14240 AV | -11.86                   | 89.33            | 77.47                   | 104.53         | -27.06      | 100                 | 187                  |



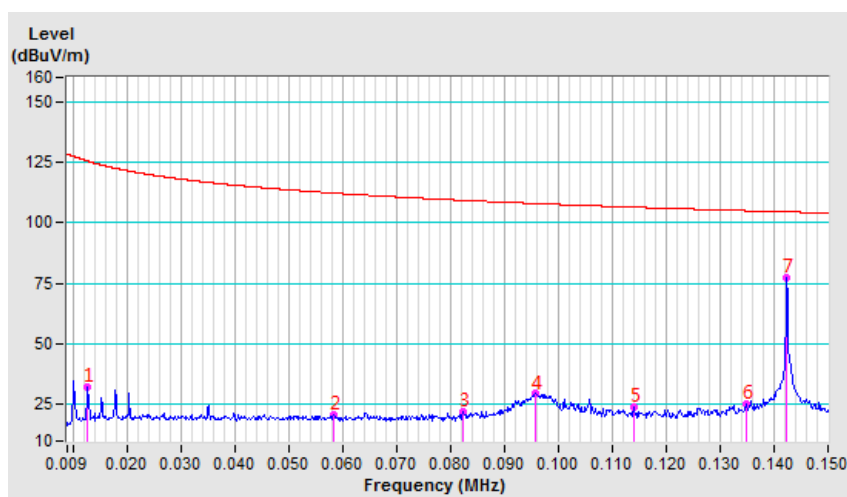
|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | A                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m |                |                                |                        |                               |                   |                |                           |                            |
|---------------------------------------------------------------|----------------|--------------------------------|------------------------|-------------------------------|-------------------|----------------|---------------------------|----------------------------|
| No                                                            | Freq.<br>(MHz) | Correction<br>Factor<br>(dB/m) | Raw<br>Value<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(cm) | Table<br>Angle<br>(Degree) |
| 1                                                             | 0.42610 AV     | -12.05                         | 69.53                  | 57.48                         | 95.01             | -37.53         | 100                       | 183                        |
| 2                                                             | 2.70530 QP     | -12.03                         | 38.35                  | 26.32                         | 69.54             | -43.22         | 100                       | 183                        |
| 3                                                             | 10.88610 QP    | -11.75                         | 29.56                  | 17.81                         | 69.54             | -51.73         | 100                       | 144                        |
| 4                                                             | 15.35340 QP    | -11.54                         | 29.55                  | 18.01                         | 69.54             | -51.53         | 100                       | 67                         |
| 5                                                             | 17.43250 QP    | -11.55                         | 28.99                  | 17.44                         | 69.54             | -52.10         | 100                       | 277                        |
| 6                                                             | 23.44610 QP    | -11.56                         | 28.36                  | 16.80                         | 69.54             | -52.74         | 100                       | 35                         |



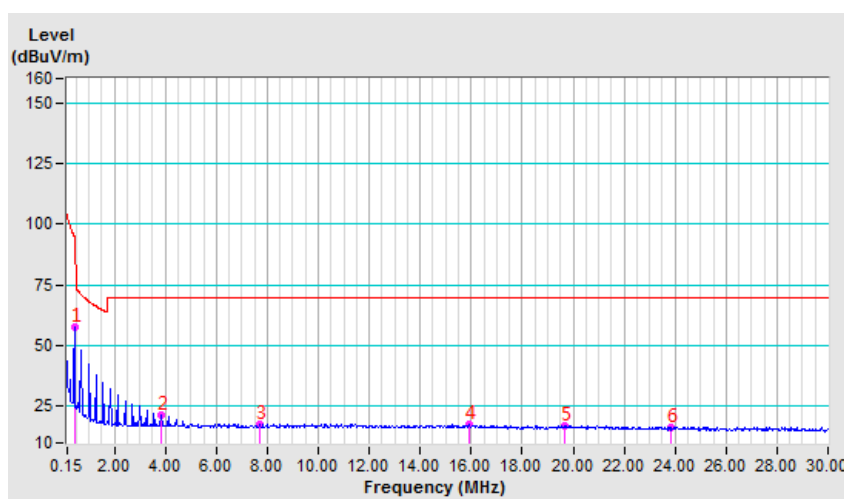
|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | A                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m |             |                          |                  |                         |                |             |                     |                      |
|--------------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                                 | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                                  | 0.01280 AV  | -10.21                   | 42.62            | 32.41                   | 125.47         | -93.06      | 100                 | 78                   |
| 2                                                                  | 0.05830 AV  | -11.58                   | 32.35            | 20.77                   | 112.29         | -91.52      | 100                 | 360                  |
| 3                                                                  | 0.08230 AV  | -11.68                   | 34.02            | 22.34                   | 109.30         | -86.96      | 100                 | 189                  |
| 4                                                                  | 0.09570 QP  | -11.76                   | 41.20            | 29.44                   | 107.98         | -78.54      | 100                 | 189                  |
| 5                                                                  | 0.11400 AV  | -11.80                   | 35.70            | 23.90                   | 106.47         | -82.57      | 100                 | 189                  |
| 6                                                                  | 0.13500 AV  | -11.85                   | 37.18            | 25.33                   | 105.00         | -79.67      | 100                 | 189                  |
| 7                                                                  | *0.14240 AV | -11.86                   | 89.35            | 77.49                   | 104.53         | -27.04      | 100                 | 183                  |



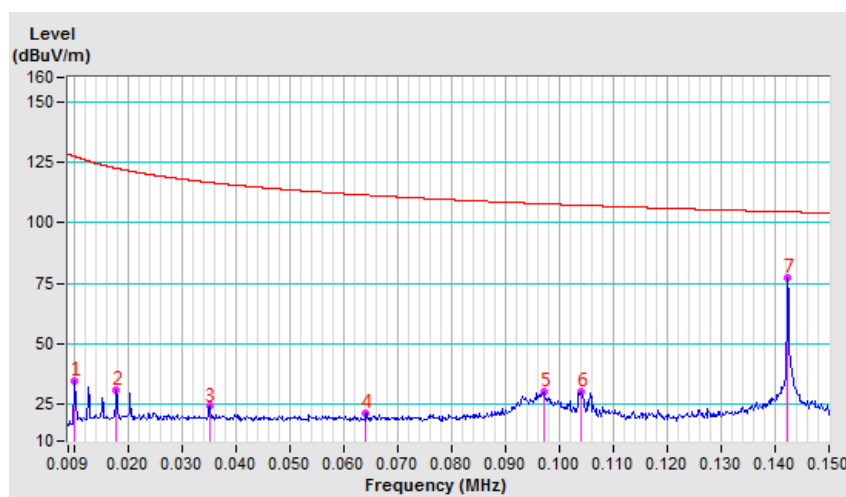
|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | A                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m |                |                                |                        |                               |                   |                |                           |                            |
|--------------------------------------------------------------------|----------------|--------------------------------|------------------------|-------------------------------|-------------------|----------------|---------------------------|----------------------------|
| No                                                                 | Freq.<br>(MHz) | Correction<br>Factor<br>(dB/m) | Raw<br>Value<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(cm) | Table<br>Angle<br>(Degree) |
| 1                                                                  | 0.42610 AV     | -12.05                         | 69.50                  | 57.45                         | 95.01             | -37.56         | 100                       | 186                        |
| 2                                                                  | 3.84410 QP     | -11.95                         | 33.21                  | 21.26                         | 69.54             | -48.28         | 100                       | 193                        |
| 3                                                                  | 7.71290 QP     | -11.89                         | 29.75                  | 17.86                         | 69.54             | -51.68         | 100                       | 360                        |
| 4                                                                  | 15.90860 QP    | -11.54                         | 29.13                  | 17.59                         | 69.54             | -51.95         | 100                       | 360                        |
| 5                                                                  | 19.67440 QP    | -11.39                         | 28.58                  | 17.19                         | 69.54             | -52.35         | 100                       | 47                         |
| 6                                                                  | 23.85950 QP    | -11.56                         | 28.13                  | 16.57                         | 69.54             | -52.97         | 100                       | 287                        |



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | A                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

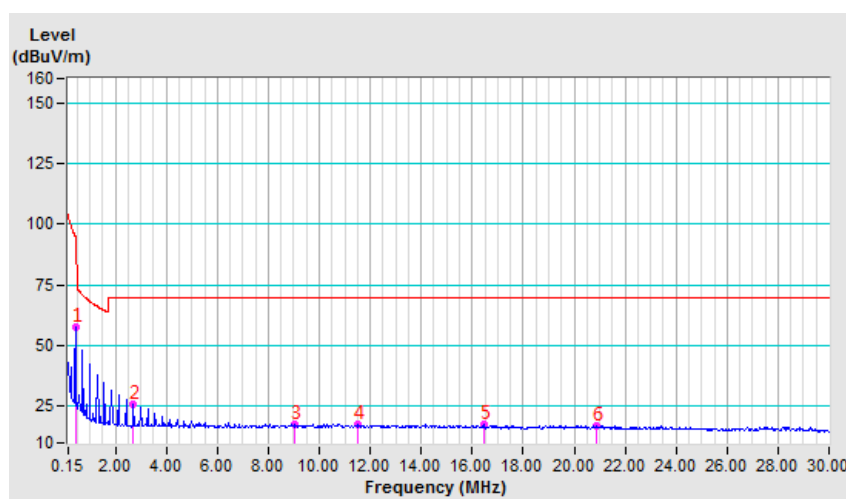
| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                                   | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                                    | 0.01020 AV  | -10.05                   | 44.74            | 34.69                   | 127.40         | -92.71      | 100                 | 282                  |
| 2                                                                    | 0.01790 AV  | -10.51                   | 41.46            | 30.95                   | 122.54         | -91.59      | 100                 | 276                  |
| 3                                                                    | 0.03510 AV  | -11.34                   | 35.68            | 24.34                   | 116.69         | -92.35      | 100                 | 94                   |
| 4                                                                    | 0.06420 AV  | -11.60                   | 33.27            | 21.67                   | 111.46         | -89.79      | 100                 | 194                  |
| 5                                                                    | 0.09720 QP  | -11.77                   | 42.27            | 30.50                   | 107.85         | -77.35      | 100                 | 139                  |
| 6                                                                    | 0.10400 QP  | -11.79                   | 42.10            | 30.31                   | 107.26         | -76.95      | 100                 | 78                   |
| 7                                                                    | *0.14240 AV | -11.86                   | 89.38            | 77.52                   | 104.53         | -27.01      | 100                 | 186                  |





|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | A                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

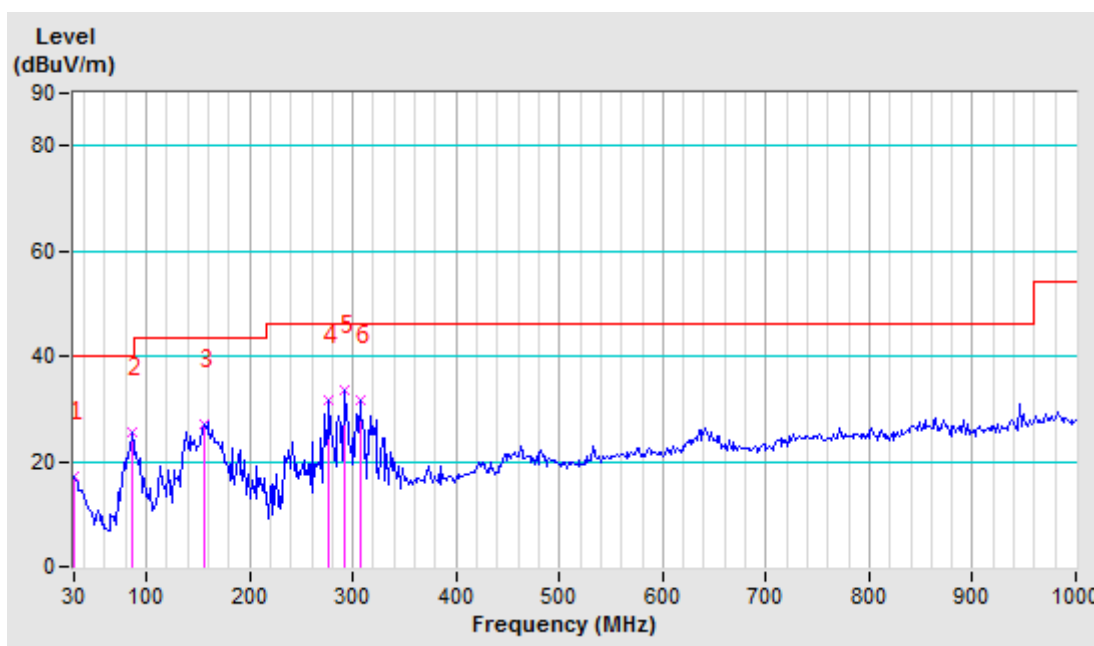
| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m |                |                                |                        |                               |                   |                |                           |                            |
|----------------------------------------------------------------------|----------------|--------------------------------|------------------------|-------------------------------|-------------------|----------------|---------------------------|----------------------------|
| No                                                                   | Freq.<br>(MHz) | Correction<br>Factor<br>(dB/m) | Raw<br>Value<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(cm) | Table<br>Angle<br>(Degree) |
| 1                                                                    | 0.42610 AV     | -12.05                         | 69.49                  | 57.44                         | 95.01             | -37.57         | 100                       | 182                        |
| 2                                                                    | 2.70530 QP     | -12.03                         | 37.84                  | 25.81                         | 69.54             | -43.73         | 100                       | 168                        |
| 3                                                                    | 9.06220 QP     | -11.81                         | 29.51                  | 17.70                         | 69.54             | -51.84         | 100                       | 306                        |
| 4                                                                    | 11.52940 QP    | -11.75                         | 29.57                  | 17.82                         | 69.54             | -51.72         | 100                       | 187                        |
| 5                                                                    | 16.44150 QP    | -11.55                         | 29.00                  | 17.45                         | 69.54             | -52.09         | 100                       | 228                        |
| 6                                                                    | 20.90570 QP    | -11.47                         | 28.70                  | 17.23                         | 69.54             | -52.31         | 100                       | 126                        |



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | A                | Frequency Range   | 30MHz ~ 1000MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | Quasi-Peak (QP) |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| Antenna Polarity & Test Distance: Horizontal At 3m |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No.                                                | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                  | 30.00       | -12.14                   | 29.41            | 17.27                   | 40.00          | -22.73      | 200                 | 309                  |
| 2                                                  | 85.96       | -21.38                   | 46.90            | 25.52                   | 40.00          | -14.48      | 200                 | 208                  |
| 3                                                  | 155.91      | -17.31                   | 44.32            | 27.01                   | 43.50          | -16.49      | 200                 | 176                  |
| 4                                                  | 277.16      | -15.44                   | 47.07            | 31.63                   | 46.00          | -14.37      | 200                 | 192                  |
| 5                                                  | 291.15      | -14.75                   | 48.40            | 33.65                   | 46.00          | -12.35      | 200                 | 249                  |
| 6                                                  | 306.70      | -14.05                   | 45.58            | 31.53                   | 46.00          | -14.47      | 200                 | 233                  |

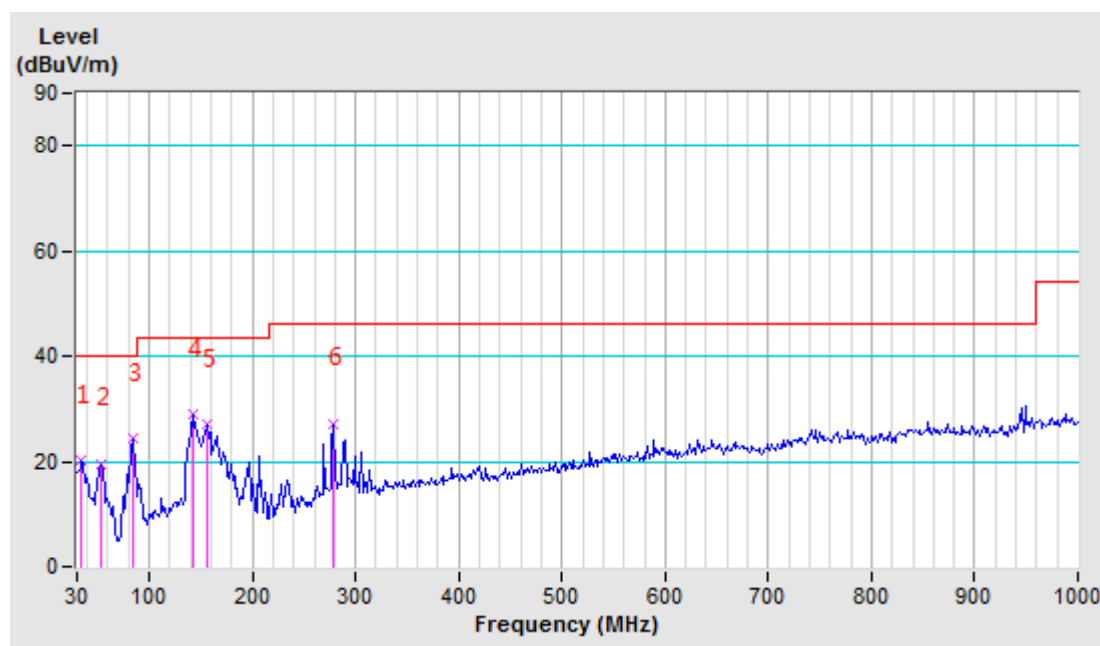
**REMARKS:** 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.  
2. Negative sign (-) in the margin column signify levels below the limit.  
3. Frequency range scanned: 30-1000MHz.  
4. Only emissions significantly above equipment noise floor are reported.



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | A                | Frequency Range   | 30MHz ~ 1000MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | Quasi-Peak (QP) |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| Antenna Polarity & Test Distance: Vertical At 3m |             |                          |                  |                         |                |             |                     |                      |
|--------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No.                                              | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                | 34.66       | -13.93                   | 34.21            | 20.28                   | 40.00          | -19.72      | 100                 | 1                    |
| 2                                                | 53.32       | -22.34                   | 41.94            | 19.60                   | 40.00          | -20.40      | 100                 | 39                   |
| 3                                                | 84.41       | -21.60                   | 46.08            | 24.48                   | 40.00          | -15.52      | 100                 | 54                   |
| 4                                                | 141.92      | -18.34                   | 47.40            | 29.06                   | 43.50          | -14.44      | 100                 | 80                   |
| 5                                                | 155.91      | -17.31                   | 44.20            | 26.89                   | 43.50          | -16.61      | 100                 | 0                    |
| 6                                                | 278.72      | -15.41                   | 42.67            | 27.26                   | 46.00          | -18.74      | 100                 | 0                    |

**REMARKS:** 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.  
2. Negative sign (-) in the margin column signify levels below the limit.  
3. Frequency range scanned: 30-1000MHz.  
4. Only emissions significantly above equipment noise floor are reported.





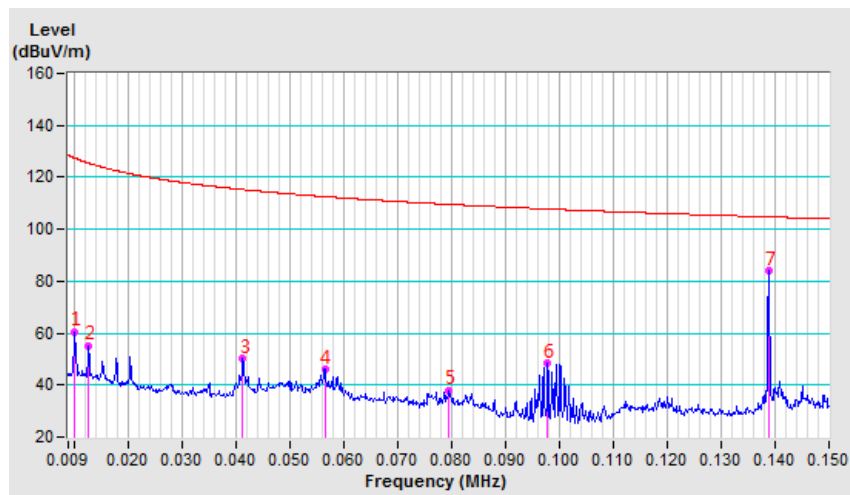
BUREAU  
VERITAS

## Test Report No.: RF2102WDG0030

### Charging Mode

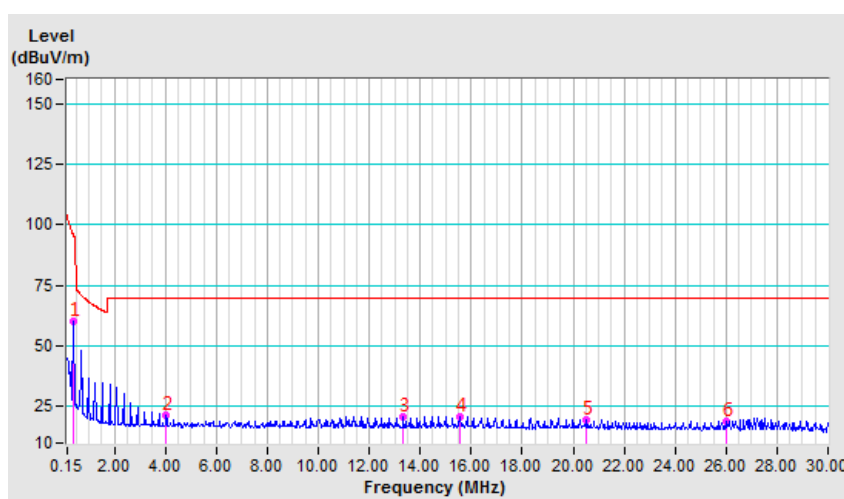
|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | B                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m |             |                          |                  |                         |                |             |                     |                      |
|---------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                            | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                             | 0.01020 AV  | -10.05                   | 70.47            | 60.42                   | 127.40         | -66.98      | 100                 | 12                   |
| 2                                                             | 0.01280 AV  | -10.21                   | 65.49            | 55.28                   | 125.46         | -70.18      | 100                 | 108                  |
| 3                                                             | 0.04140 AV  | -11.43                   | 61.58            | 50.15                   | 115.27         | -65.12      | 100                 | 165                  |
| 4                                                             | 0.05650 AV  | -11.57                   | 57.60            | 46.03                   | 112.56         | -66.53      | 100                 | 179                  |
| 5                                                             | 0.07950 AV  | -11.67                   | 49.74            | 38.07                   | 109.59         | -71.52      | 100                 | 184                  |
| 6                                                             | 0.09790 QP  | -11.77                   | 59.97            | 48.20                   | 107.79         | -59.59      | 100                 | 181                  |
| 7                                                             | *0.13890 AV | -11.86                   | 95.64            | 83.78                   | 104.75         | -20.97      | 100                 | 360                  |



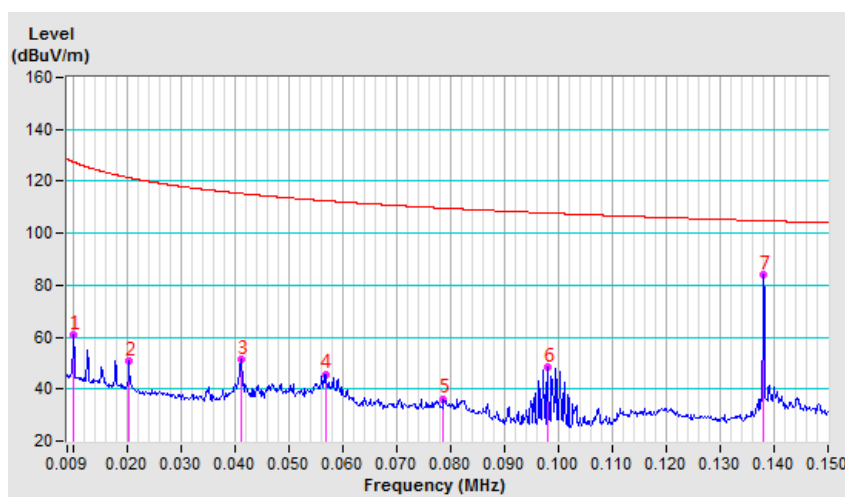
|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | B                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m |             |                          |                  |                         |                |             |                     |                      |
|---------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                            | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                             | 0.41570 AV  | -12.07                   | 72.35            | 60.28                   | 95.23          | -34.95      | 100                 | 360                  |
| 2                                                             | 4.02620 QP  | -11.94                   | 33.29            | 21.35                   | 69.54          | -48.19      | 100                 | 347                  |
| 3                                                             | 13.33390 QP | -11.62                   | 32.35            | 20.73                   | 69.54          | -48.81      | 100                 | 266                  |
| 4                                                             | 15.55490 QP | -11.55                   | 32.57            | 21.02                   | 69.54          | -48.52      | 100                 | 262                  |
| 5                                                             | 20.54300 QP | -11.42                   | 31.16            | 19.74                   | 69.54          | -49.80      | 100                 | 268                  |
| 6                                                             | 25.99390 QP | -11.90                   | 30.97            | 19.07                   | 69.54          | -50.47      | 100                 | 275                  |



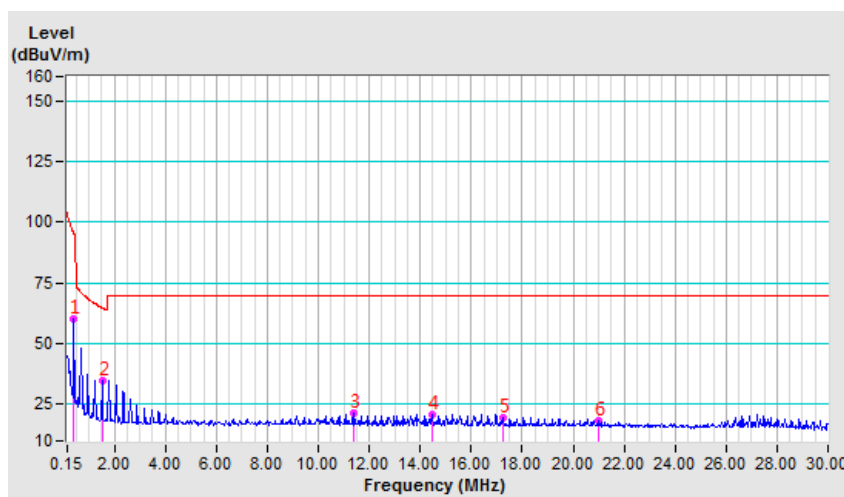
|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | B                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m |             |                          |                  |                         |                |             |                     |                      |
|--------------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                                 | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                                  | 0.01020 AV  | -10.05                   | 70.93            | 60.88                   | 127.40         | -66.52      | 100                 | 51                   |
| 2                                                                  | 0.02050 AV  | -10.67                   | 61.32            | 50.65                   | 121.39         | -70.74      | 100                 | 268                  |
| 3                                                                  | 0.04120 AV  | -11.43                   | 62.65            | 51.22                   | 115.31         | -64.09      | 100                 | 175                  |
| 4                                                                  | 0.05680 AV  | -11.57                   | 57.31            | 45.74                   | 112.51         | -66.77      | 100                 | 180                  |
| 5                                                                  | 0.07860 AV  | -11.67                   | 47.82            | 36.15                   | 109.69         | -73.54      | 100                 | 202                  |
| 6                                                                  | 0.09800 QP  | -11.77                   | 60.02            | 48.25                   | 107.78         | -59.53      | 100                 | 187                  |
| 7                                                                  | *0.13800 AV | -11.86                   | 95.71            | 83.85                   | 104.80         | -20.95      | 100                 | 360                  |



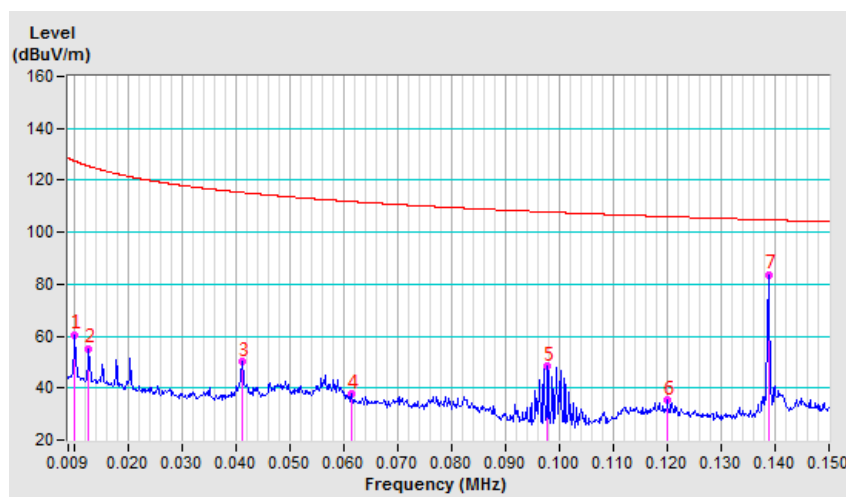
|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | B                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m |             |                          |                  |                         |                |             |                     |                      |
|--------------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                                 | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                                  | 0.41270 AV  | -12.07                   | 72.39            | 60.32                   | 95.29          | -34.97      | 100                 | 358                  |
| 2                                                                  | 1.52760 QP  | -12.04                   | 46.78            | 34.74                   | 64.84          | -30.10      | 100                 | 360                  |
| 3                                                                  | 11.38910 QP | -11.75                   | 33.38            | 21.63                   | 69.54          | -47.91      | 100                 | 245                  |
| 4                                                                  | 14.44440 QP | -11.54                   | 32.35            | 20.81                   | 69.54          | -48.73      | 100                 | 256                  |
| 5                                                                  | 17.22210 QP | -11.55                   | 31.10            | 19.55                   | 69.54          | -49.99      | 100                 | 273                  |
| 6                                                                  | 20.97140 QP | -11.48                   | 29.60            | 18.12                   | 69.54          | -51.42      | 100                 | 117                  |



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | B                | Frequency Range   | 9 kHz ~ 150 kHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV           |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

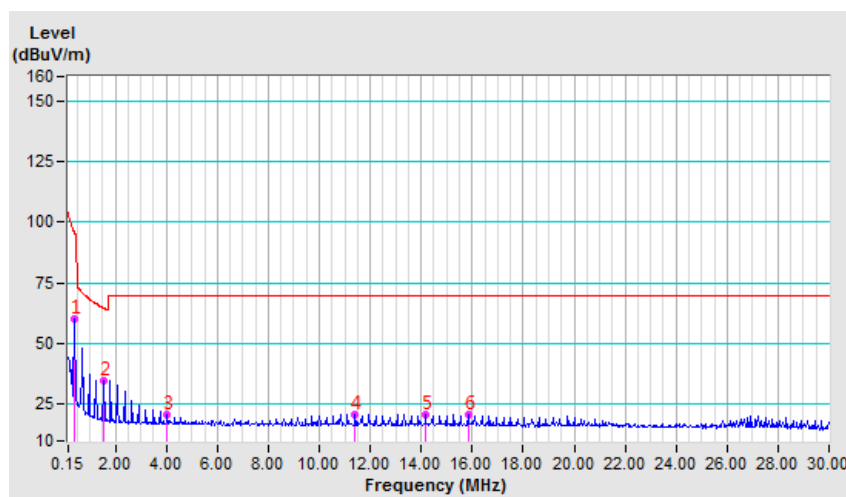
| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No                                                                   | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                                    | 0.01020 AV  | -10.05                   | 70.65            | 60.60                   | 127.40         | -66.80      | 100                 | 20                   |
| 2                                                                    | 0.01280 AV  | -10.21                   | 65.34            | 55.13                   | 125.46         | -70.33      | 100                 | 80                   |
| 3                                                                    | 0.04120 AV  | -11.43                   | 61.68            | 50.25                   | 115.31         | -65.06      | 100                 | 176                  |
| 4                                                                    | 0.06160 AV  | -11.59                   | 49.39            | 37.80                   | 111.81         | -74.01      | 100                 | 181                  |
| 5                                                                    | 0.09790 QP  | -11.77                   | 60.10            | 48.33                   | 107.79         | -59.46      | 100                 | 170                  |
| 6                                                                    | 0.12000 AV  | -11.82                   | 46.95            | 35.13                   | 106.02         | -70.89      | 100                 | 190                  |
| 7                                                                    | *0.13890 AV | -11.86                   | 95.59            | 83.73                   | 104.75         | -21.02      | 100                 | 2                    |





|                          |                  |                   |                  |
|--------------------------|------------------|-------------------|------------------|
| Test Mode                | B                | Frequency Range   | 150 kHz ~ 30 MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | QP&AV            |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray              |

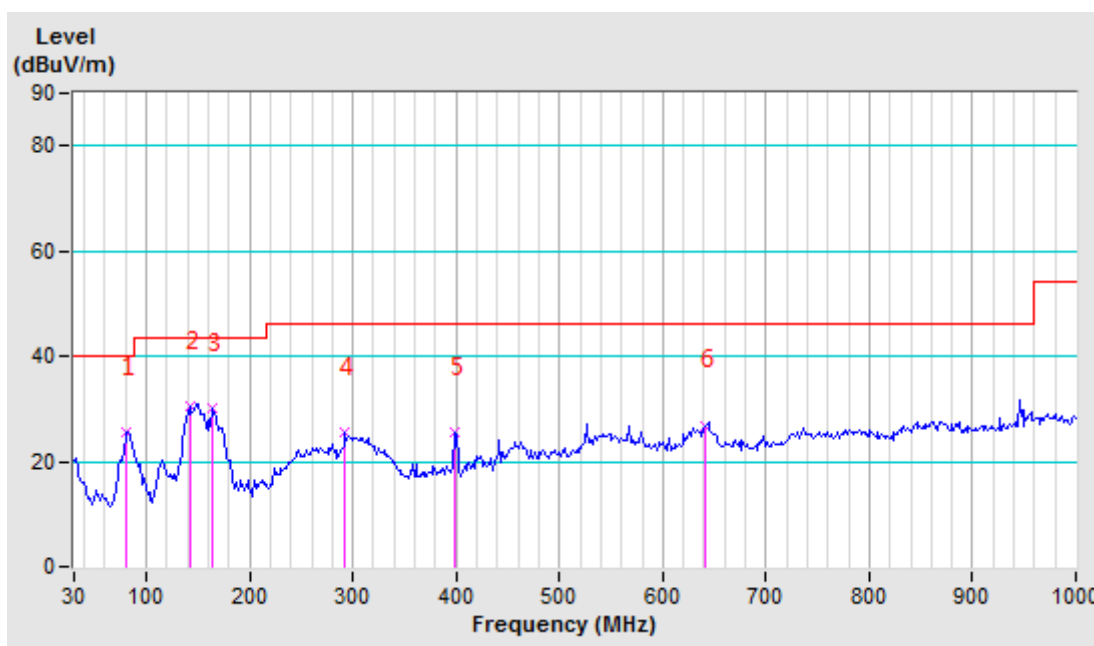
| ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m |                |                                |                        |                               |                   |                |                           |                            |
|----------------------------------------------------------------------|----------------|--------------------------------|------------------------|-------------------------------|-------------------|----------------|---------------------------|----------------------------|
| No                                                                   | Freq.<br>(MHz) | Correction<br>Factor<br>(dB/m) | Raw<br>Value<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Antenna<br>Height<br>(cm) | Table<br>Angle<br>(Degree) |
| 1                                                                    | 0.41570 AV     | -12.07                         | 72.27                  | 60.20                         | 95.23             | -35.03         | 100                       | 0                          |
| 2                                                                    | 1.52760 QP     | -12.04                         | 47.11                  | 35.07                         | 64.84             | -29.77         | 100                       | 4                          |
| 3                                                                    | 4.02620 QP     | -11.94                         | 32.68                  | 20.74                         | 69.54             | -48.80         | 100                       | 206                        |
| 4                                                                    | 11.38910 QP    | -11.75                         | 32.73                  | 20.98                         | 69.54             | -48.56         | 100                       | 271                        |
| 5                                                                    | 14.16680 QP    | -11.54                         | 32.58                  | 21.04                         | 69.54             | -48.50         | 100                       | 286                        |
| 6                                                                    | 15.83250 QP    | -11.54                         | 32.12                  | 20.58                         | 69.54             | -48.96         | 100                       | 267                        |



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | B                | Frequency Range   | 30MHz ~ 1000MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | Quasi-Peak (QP) |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| Antenna Polarity & Test Distance: Horizontal At 3m |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No.                                                | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                  | 81.30       | -21.98                   | 47.54            | 25.56                   | 40.00          | -14.44      | 200                 | 40                   |
| 2                                                  | 141.92      | -18.34                   | 48.97            | 30.63                   | 43.50          | -12.87      | 200                 | 101                  |
| 3                                                  | 163.69      | -17.39                   | 47.61            | 30.22                   | 43.50          | -13.28      | 200                 | 58                   |
| 4                                                  | 292.71      | -14.66                   | 40.02            | 25.36                   | 46.00          | -20.64      | 200                 | 82                   |
| 5                                                  | 398.41      | -11.63                   | 37.15            | 25.52                   | 46.00          | -20.48      | 200                 | 16                   |
| 6                                                  | 640.91      | -5.80                    | 32.68            | 26.88                   | 46.00          | -19.12      | 200                 | 0                    |

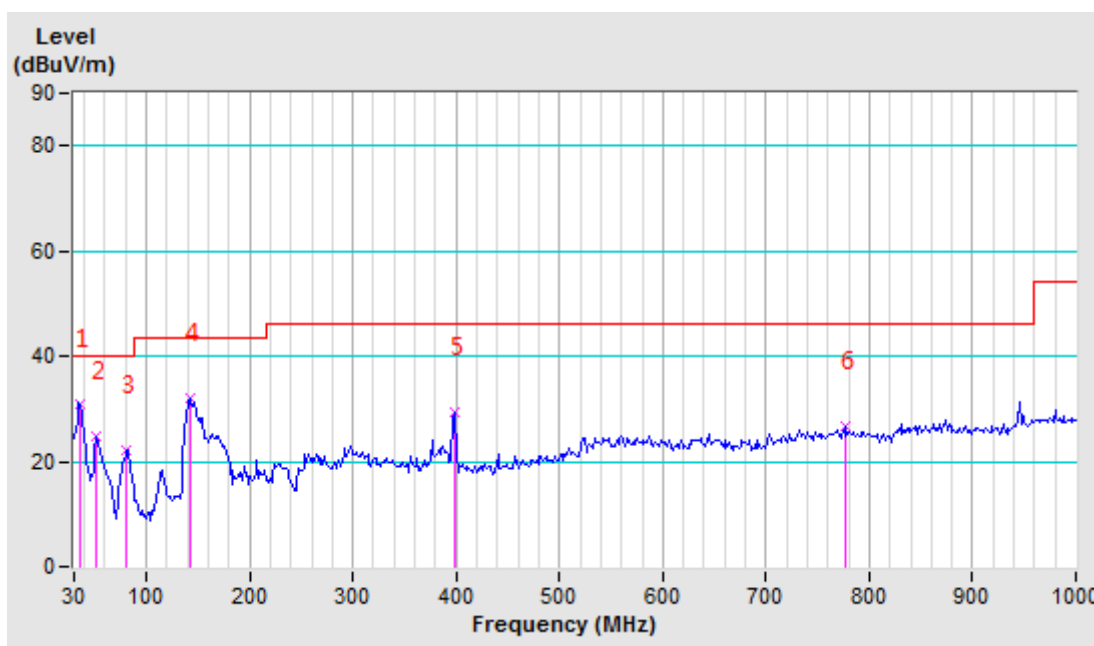
**REMARKS:** 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.  
2. Negative sign (-) in the margin column signify levels below the limit.  
3. Frequency range scanned: 30-1000MHz.  
4. Only emissions significantly above equipment noise floor are reported.



|                          |                  |                   |                 |
|--------------------------|------------------|-------------------|-----------------|
| Test Mode                | B                | Frequency Range   | 30MHz ~ 1000MHz |
| Test Voltage             | AC 120V/60Hz     | Detector Function | Quasi-Peak (QP) |
| Environmental Conditions | 20deg. C, 57% RH | Tested By         | Ray             |

| Antenna Polarity & Test Distance: Vertical At 3m |             |                          |                  |                         |                |             |                     |                      |
|--------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| No.                                              | Freq. (MHz) | Correction Factor (dB/m) | Raw Value (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Antenna Height (cm) | Table Angle (Degree) |
| 1                                                | 36.22       | -14.52                   | 45.27            | 30.75                   | 40.00          | -9.25       | 100                 | 304                  |
| 2                                                | 51.76       | -21.77                   | 46.58            | 24.81                   | 40.00          | -15.19      | 100                 | 322                  |
| 3                                                | 81.30       | -21.98                   | 44.03            | 22.05                   | 40.00          | -17.95      | 100                 | 340                  |
| 4                                                | 141.92      | -18.34                   | 50.18            | 31.84                   | 43.50          | -11.66      | 100                 | 282                  |
| 5                                                | 398.41      | -11.63                   | 41.12            | 29.49                   | 46.00          | -16.51      | 100                 | 356                  |
| 6                                                | 777.71      | -3.54                    | 30.34            | 26.80                   | 46.00          | -19.20      | 100                 | 0                    |

**REMARKS:** 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.  
2. Negative sign (-) in the margin column signify levels below the limit.  
3. Frequency range scanned: 30-1000MHz.  
4. Only emissions significantly above equipment noise floor are reported.



### 4.3. 20dB BANDWIDTH MEASUREMENT

#### 4.3.1 LIMITS OF 20dB BANDWIDTH MEASUREMENT

The field strength of any emissions appearing between the band edges and out of band shall be attenuated at least 20 dB below the level of the unmodulated carrier or to the general limits in Section 15.209.

#### 4.3.2 TEST INSTRUMENTS

| Equipment                    | Manufacturer  | Model No.  | Serial No.  | Next Cal.  |
|------------------------------|---------------|------------|-------------|------------|
| Signal and Spectrum Analyzer | Rohde&Schwarz | FSV40      | 101094      | Mar. 17,21 |
| Active Loop Antenna          | SCHWARZBECK   | FMZB 1519B | 1519B-045   | May 29,21  |
| Attenuator                   | MINI          | BW-S10W2+  | S130129FGE2 | N/A        |

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
2. The test was performed in RF Oven room.

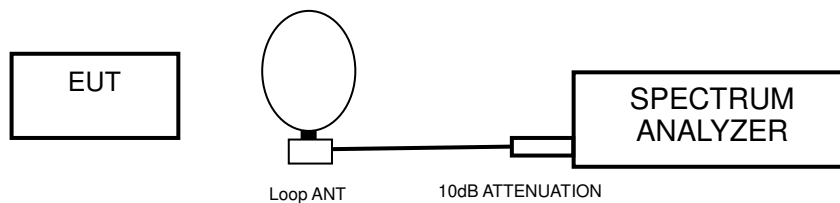
#### 4.3.3 TEST PROCEDURE

- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- Repeat above procedures until all frequencies measured were complete.

#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.3.5 TEST SETUP



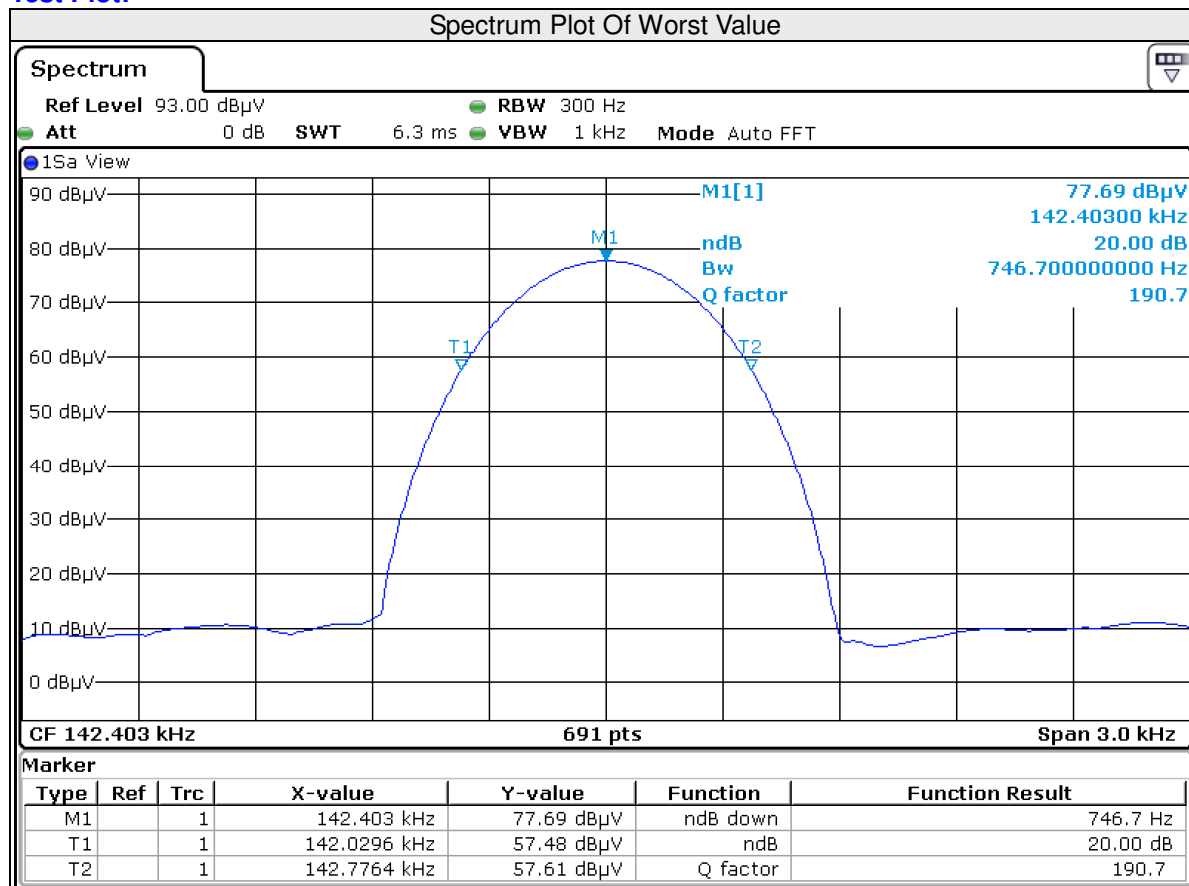
#### 4.3.6 EUT OPERATING CONDITION

- a. Turn on the EUT.
- b. The EUT tested in charging mode and standby mode respectively.

### 4.3.7 TEST RESULTS

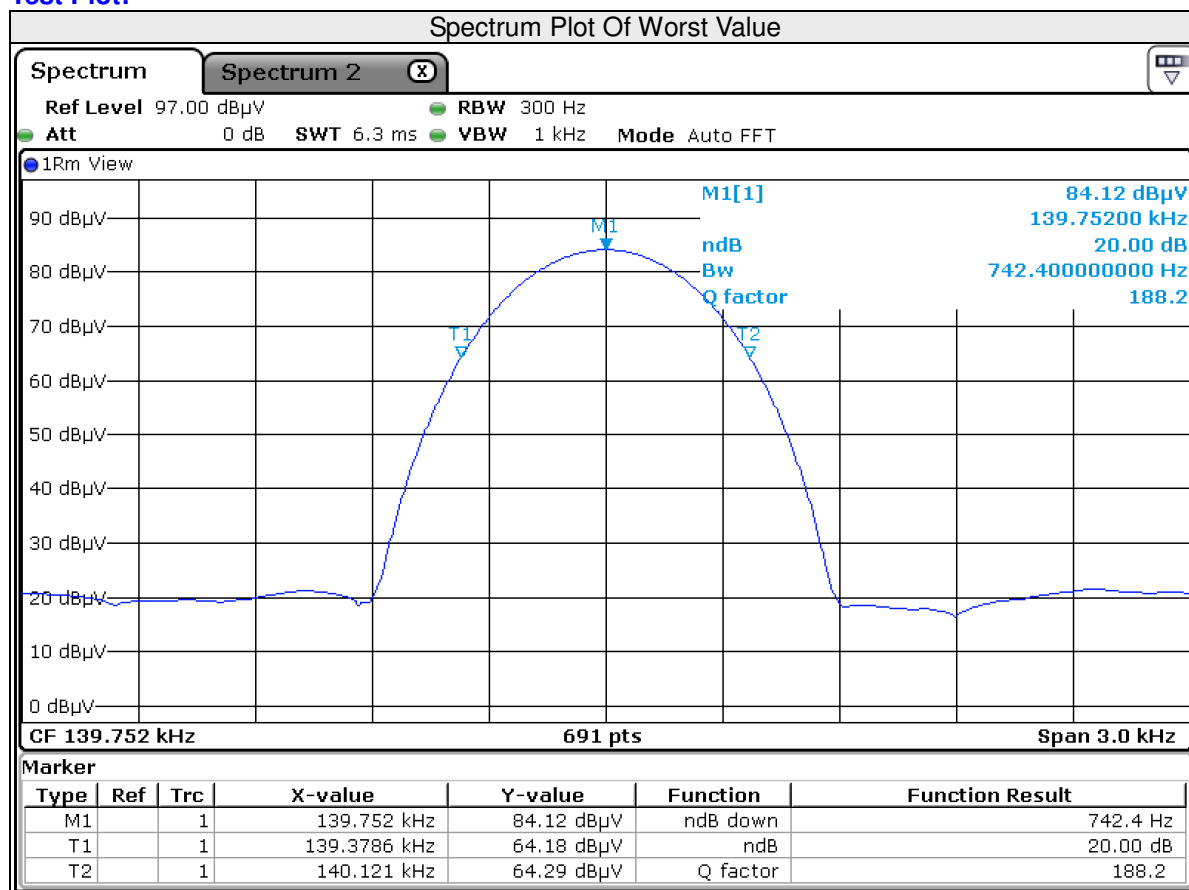
| Test Mode | Frequency (kHz) | 20dB Bandwidth (Hz) |
|-----------|-----------------|---------------------|
| A         | 142.403         | 746.700             |

#### Test Plot:



| Test Mode | Frequency (kHz) | 20dB Bandwidth (Hz) |
|-----------|-----------------|---------------------|
| B         | 139.752         | 742.400             |

**Test Plot:**





Test Report No.: RF2102WDG0030

## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



## **6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No any modifications were made to the EUT by the lab during the test.

**---END---**