

## TEST REPORT

|           |                                                                     |
|-----------|---------------------------------------------------------------------|
| Applicant | XQ Arts toys co., Ltd                                               |
| Address   | North of Xing Ye Road, Lai Mei Industrial District, Shan Tou, China |

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| Manufacturer or Supplier            | XQ Arts toys co., Ltd                                               |
| Address                             | North of Xing Ye Road, Lai Mei Industrial District, Shan Tou, China |
| Product                             | 1:10 RC TOYS                                                        |
| Brand Name                          | XQ                                                                  |
| Model                               | XQRC10-5(49M)                                                       |
| Additional Model & Model Difference | N/A                                                                 |
| Date of tests                       | Apr. 03, 2014 ~ Apr. 29, 2014                                       |

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

☒ **FCC Part 15 Subpart B Class B**

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

|                                                                                     |                                                                                                                 |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Tested by Breeze Jiang<br>Project Engineer / EMC Department                         | Approved by Madison Luo<br>Supervisor / EMC Department                                                          |
|  | <br><br>Date: Apr. 30, 2014 |

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification

## Table of Contents

|                                                                                               |    |
|-----------------------------------------------------------------------------------------------|----|
| RELEASE CONTROL RECORD .....                                                                  | 3  |
| 1 SUMMARY OF TEST RESULTS .....                                                               | 4  |
| 1.1 MEASUREMENT UNCERTAINTY .....                                                             | 4  |
| 2 GENERAL INFORMATION .....                                                                   | 5  |
| 2.1 GENERAL DESCRIPTION OF EUT .....                                                          | 5  |
| 2.2 DESCRIPTION OF TEST MODES .....                                                           | 6  |
| 2.3 DESCRIPTION OF SUPPORT UNITS .....                                                        | 6  |
| 3 EMISSION TEST .....                                                                         | 7  |
| 3.1 CONDUCTED EMISSION MEASUREMENT .....                                                      | 7  |
| 3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT .....                                          | 7  |
| 3.1.2 TEST INSTRUMENTS .....                                                                  | 7  |
| 3.1.3 TEST PROCEDURE .....                                                                    | 8  |
| 3.1.4 DEVIATION FROM TEST STANDARD .....                                                      | 8  |
| 3.1.5 TEST SETUP .....                                                                        | 9  |
| 3.1.6 EUT OPERATING CONDITIONS .....                                                          | 9  |
| 3.1.7 TEST RESULTS .....                                                                      | 10 |
| 3.2 RADIATED EMISSION MEASUREMENT .....                                                       | 12 |
| 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT .....                                           | 12 |
| 3.2.2 TEST INSTRUMENTS .....                                                                  | 13 |
| 3.2.3 TEST PROCEDURE .....                                                                    | 14 |
| 3.2.4 DEVIATION FROM TEST STANDARD .....                                                      | 15 |
| 3.2.5 TEST SETUP .....                                                                        | 15 |
| 3.2.6 EUT OPERATING CONDITIONS .....                                                          | 15 |
| 3.2.7 TEST RESULTS .....                                                                      | 16 |
| 4 PHOTOGRAPHS OF THE TEST CONFIGURATION .....                                                 | 20 |
| 5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING<br>CHANGES TO THE EUT BY THE LAB ..... | 21 |



**BUREAU**  
**VERITAS**

Test Report No.: FV140403N046

## RELEASE CONTROL RECORD

| ISSUE NO.    | REASON FOR CHANGE | DATE ISSUED   |
|--------------|-------------------|---------------|
| FV140403N046 | Original release  | Apr. 30, 2014 |



## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

| APPLIED STANDARD: FCC Part 15 Subpart B Class B |                                             |        |                                                                                      |
|-------------------------------------------------|---------------------------------------------|--------|--------------------------------------------------------------------------------------|
| Standard Section                                | Test Item                                   | Result | Remark                                                                               |
| FCC Part 15<br>Subpart B,<br>Class B            | Conducted emission test<br>(150kHz ~ 30MHz) | PASS   | Meets limit minimum<br>passing margin is<br>-3.98dB at 0.17346MHz                    |
|                                                 | Radiated emission test<br>(30MHz ~ 1GHz)    | PASS   | Meet the requirement of limit.<br>Minimum passing margin is<br>-1.38dB at 120.08MHz. |

### 1.1 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:

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

| MEASUREMENT         | FREQUENCY      | UNCERTAINTY |
|---------------------|----------------|-------------|
| Conducted emissions | 150kHz ~ 30MHz | +/- 2.67 dB |
| Radiated emissions  | 30MHz ~ 1GHz   | +/- 4.12 dB |



## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

|                                        |                                                         |
|----------------------------------------|---------------------------------------------------------|
| <b>PRODUCT</b>                         | 1:10 RC TOYS                                            |
| <b>MODEL NO.</b>                       | XQRC10-5(49M)                                           |
| <b>ADDITIONAL MODEL</b>                | N/A                                                     |
| <b>POWER SUPPLY</b>                    | Car: DC 7.2V from battery,<br>Battery:DC9V from adapter |
| <b>CABLE SUPPLIED</b>                  | N/A                                                     |
| <b>THE HIGHEST OPERATING FREQUENCY</b> | 49MHz                                                   |

**NOTE:**

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 showed in test report.
3. The EUT was powered by the following adapter:

|                 |                                 |
|-----------------|---------------------------------|
| <b>BRAND:</b>   | XQ                              |
| <b>MODEL:</b>   | ZX-090070US                     |
| <b>INPUT:</b>   | AC 120V, 60Hz, 0.35A            |
| <b>OUTPUT:</b>  | DC 9V, 700mA                    |
| <b>DC LINE:</b> | Unshielded, undetachable, 1.85m |

4. Please refer to the EUT photo document (Reference No.:140403N046) for detailed product photo.



## 2.2 DESCRIPTION OF TEST MODES

The EUT was tested under the following modes. The final worst mode were marked in boldface and recorded in this report.

### ◆ FOR MAINS TERMINAL DISTURBANCE VOLTAGE TEST:

| Test Mode | Test Voltage                        |
|-----------|-------------------------------------|
| Charging  | DC9V from adapter input AC120V 60Hz |

### ◆ FOR RADIATED TEST:

| Test Mode                 | Test Voltage                                                |
|---------------------------|-------------------------------------------------------------|
| Charging                  | DC9V from adapter input AC120V 60Hz                         |
| TX RX Link Normal working | Controller: DC 9V from battery<br>Car: DC 7.2V from battery |

## 2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit without any other necessary accessory or support units.



### 3 EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

| 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.

##### 3.1.2 TEST INSTRUMENTS

| Equipment                | Manufacturer  | Model No.        | Serial No. | Last Cal. | Next Cal. |
|--------------------------|---------------|------------------|------------|-----------|-----------|
| EMI Test Receiver        | Rohde&Schwarz | ESU 26           | 100005     | May 14,13 | May 13,14 |
| Artificial Mains Network | Rohde&Schwarz | ENV216           | 101173     | May 14,13 | May 13,14 |
| Artificial Mains Network | Rohde&Schwarz | ESH3-Z5          | 100317     | May 14,13 | May 13,14 |
| Test software            | ADT           | ADT_Conc_ V7.3.7 | N/A        | N/A       | N/A       |

- NOTE:**
1. The test was performed in shielded room 553.
  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.



### **3.1.3 TEST PROCEDURE**

The basic test procedure was in accordance with ANSI C63.4:2009(section 7).

- 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.

**NOTE:**

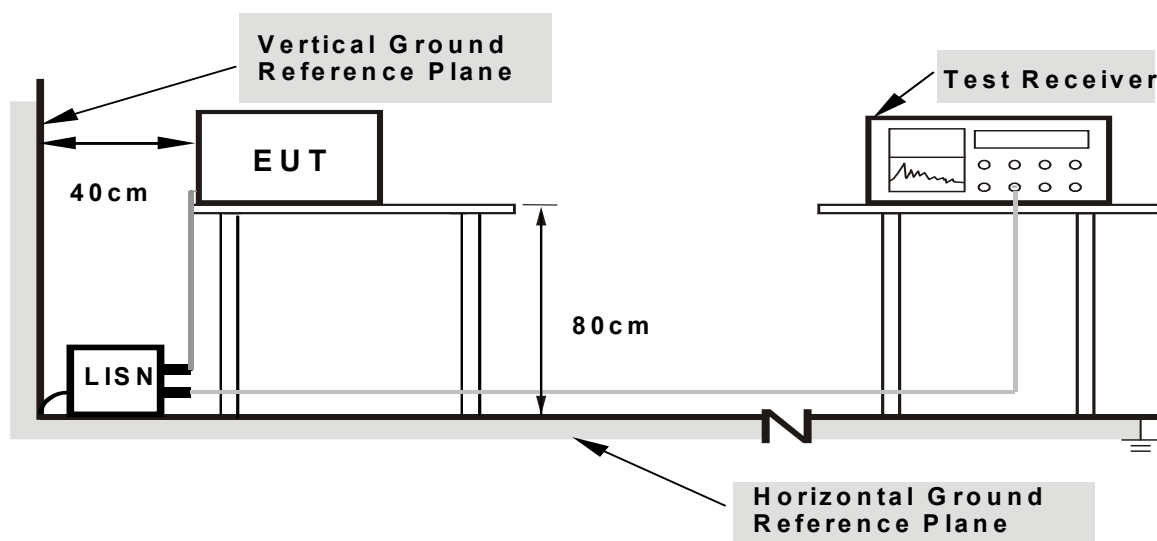
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission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

### **3.1.4 DEVIATION FROM TEST STANDARD**

No deviation



### 3.1.5 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.

### 3.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power of all equipment.
- b. EUT was operated according to the type described in manufacturer's specifications or the user's manual.

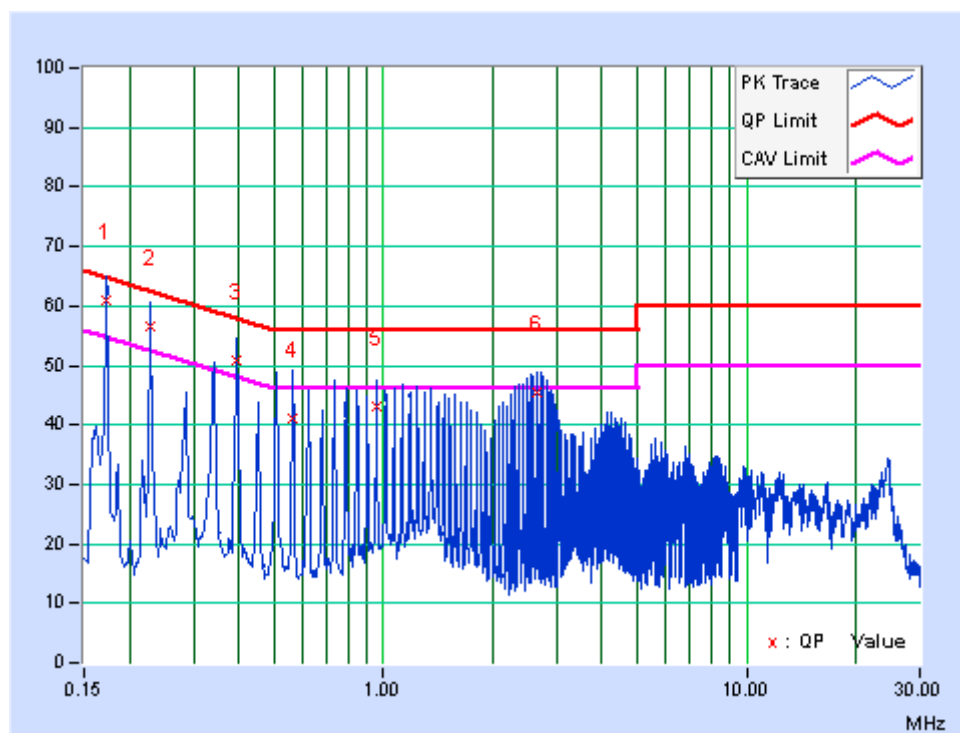


### 3.1.7 TEST RESULTS

|                          |                                     |               |          |
|--------------------------|-------------------------------------|---------------|----------|
| TEST MODE                | Charging                            | 6DB BANDWIDTH | 9 kHz    |
| TEST VOLTAGE             | DC9V from adapter input AC120V 60Hz | PHASE         | Line (L) |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 50% RH                    | TESTED BY     | Eric     |

| 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  | 0.17346        | 10.53                   | 50.29         | 34.31 | 60.82          | 44.84 | 64.79     | 54.79 | -3.98  | -9.96  |
| 2  | 0.22820        | 10.40                   | 46.27         | 30.13 | 56.67          | 40.53 | 62.51     | 52.51 | -5.85  | -11.99 |
| 3  | 0.39635        | 10.28                   | 40.51         | 29.22 | 50.79          | 39.50 | 57.93     | 47.93 | -7.14  | -8.43  |
| 4  | 0.56446        | 10.19                   | 30.96         | 21.82 | 41.15          | 32.01 | 56.00     | 46.00 | -14.85 | -13.99 |
| 5  | 0.95937        | 9.97                    | 33.09         | 21.24 | 43.06          | 31.21 | 56.00     | 46.00 | -12.94 | -14.79 |
| 6  | 2.65240        | 9.86                    | 35.57         | 22.48 | 45.43          | 32.34 | 56.00     | 46.00 | -10.57 | -13.66 |

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

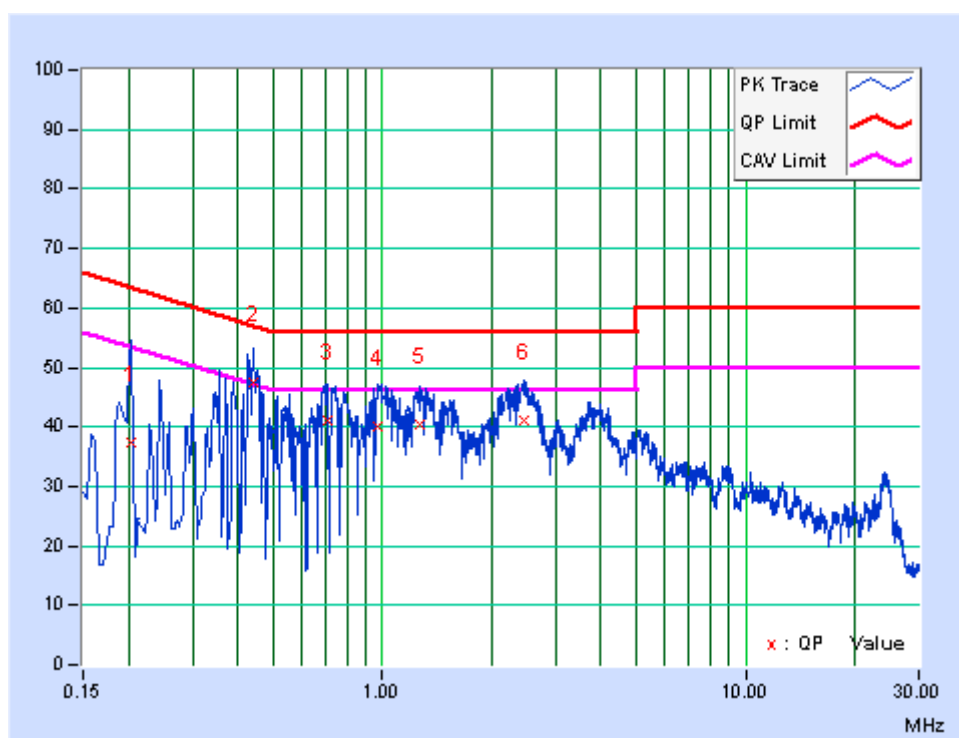




|                          |                                     |               |             |
|--------------------------|-------------------------------------|---------------|-------------|
| TEST MODE                | Charging                            | 6DB BANDWIDTH | 9 kHz       |
| TEST VOLTAGE             | DC9V from adapter input AC120V 60Hz | PHASE         | Neutral (N) |
| ENVIRONMENTAL CONDITIONS | 20deg. C, 50% RH                    | TESTED BY     | Eric        |

| 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  | 0.20458        | 10.32                   | 26.96         | 11.29 | 37.28          | 21.61 | 63.42     | 53.42 | -26.14 | -31.81 |
| 2  | 0.44273        | 10.40                   | 37.22         | 17.18 | 47.62          | 27.58 | 57.01     | 47.01 | -9.39  | -19.43 |
| 3  | 0.70913        | 10.02                   | 31.17         | 16.37 | 41.19          | 26.39 | 56.00     | 46.00 | -14.81 | -19.61 |
| 4  | 0.97501        | 9.86                    | 30.16         | 16.29 | 40.02          | 26.15 | 56.00     | 46.00 | -15.98 | -19.85 |
| 5  | 1.27217        | 9.79                    | 30.65         | 17.42 | 40.44          | 27.21 | 56.00     | 46.00 | -15.56 | -18.79 |
| 6  | 2.45299        | 9.66                    | 31.38         | 19.09 | 41.04          | 28.75 | 56.00     | 46.00 | -14.96 | -17.25 |

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





## 3.2 RADIATED EMISSION MEASUREMENT

### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

| FREQUENCY<br>(MHz) | Class A (at 10m) |        | Class B (at 3m) |        |
|--------------------|------------------|--------|-----------------|--------|
|                    | uV/m             | dBuV/m | uV/m            | dBuV/m |
| 30 – 88            | 90               | 39.1   | 100             | 40.0   |
| 88 – 216           | 150              | 43.5   | 150             | 43.5   |
| 216 – 960          | 210              | 46.4   | 200             | 46.0   |
| 960 – 1000         | 300              | 49.5   | 500             | 54.0   |

### FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

| Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz) | Range (MHz)                                                         |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Below 1.705                                                                                                                     | 30                                                                  |
| 1.705 – 108                                                                                                                     | 1000                                                                |
| 108 – 500                                                                                                                       | 2000                                                                |
| 500 – 1000                                                                                                                      | 5000                                                                |
| Above 1000                                                                                                                      | 5th harmonic of the highest frequency or 40 GHz, whichever is lower |

### LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

| FREQUENCY (MHz) | Class A (dBuV/m) (at 3m) |         | Class B (dBuV/m) (at 3m) |         |
|-----------------|--------------------------|---------|--------------------------|---------|
|                 | PEAK                     | AVERAGE | PEAK                     | AVERAGE |
| Above 1000      | 80.0                     | 60.0    | 74.0                     | 54.0    |

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation 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.



### 3.2.2 TEST INSTRUMENTS

#### FOR FREQUENCY BELOW 1GHz

| Equipment                 | Manufacturer  | Model No.                | Serial No. | Last Cal.   | Next Cal.   |
|---------------------------|---------------|--------------------------|------------|-------------|-------------|
| Spectrum Analyzer         | Agilent       | E4446A                   | MY46180622 | April 24,14 | April 23,15 |
| EMI Test Receiver         | Rohde&Schwarz | ESVD                     | 847398/003 | May 14,13   | May 13, 14  |
| Bilog Antenna             | Teseq         | CBL 6111D                | 27089      | Jul. 27, 13 | Jul. 26, 14 |
| Trilog-Broadband Antenna  | SCHWARZBECK   | VULB 9168                | 9168-554   | Dec. 03, 13 | Dec. 02, 14 |
| Trilog-Broadband Antenna  | SCHWARZBECK   | VULB 9168                | 9168-555   | Dec. 03, 13 | Dec. 02, 14 |
| 10m Semi-anechoic Chamber | CHANGLING     | 21.4m*12.1m*8.8m         | NSEMC006   | Jun. 11, 13 | Jun. 10, 14 |
| Amplifier (9kHz-1GHz)     | SONOMA        | 310D                     | 186955     | Mar. 05,14  | Mar. 04, 15 |
| Test Software             | ADT           | ADT_Radiated V7.6.15.9.2 | N/A        | N/A         | N/A         |

#### FOR FREQUENCY ABOVE 1GHz

| Equipment                      | Manufacturer | Model No.                | Serial No. | Last Cal.   | Next Cal.   |
|--------------------------------|--------------|--------------------------|------------|-------------|-------------|
| Spectrum Analyzer              | Agilent      | E4446A                   | MY46180622 | April 24,13 | April 23,14 |
| Pre-Amplifier (100MHz-26.5GHz) | Agilent      | 8449B                    | 3008A00409 | May 14,13   | May 13,14   |
| Pre-Amplifier (18GHz-40GHz)    | EMCI         | EMC 184045               | 980102     | Nov. 04,13  | Nov. 03,14  |
| Test Software                  | ADT          | ADT_Radiated V7.6.15.9.2 | N/A        | N/A         | N/A         |
| Horn Antenna                   | ETS-Lindgren | 3117                     | 00062558   | Oct. 18,12  | Oct. 17,14  |

**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 10m Chamber.  
 3. The FCC Site Registration No. is 502831

| Equipment    | Manufacturer | Model No. | Serial No. | Last Cal.  | Next Cal.  |
|--------------|--------------|-----------|------------|------------|------------|
| Horn Antenna | ETS-Lindgren | 3117      | 00062558   | Oct. 18,12 | Oct. 17,14 |

**NOTE:** 1. The calibration interval of the above test instruments is 24 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
 2. The test was performed in 10m Chamber.  
 3. The FCC Site Registration No. is 502831

| Equipment    | Manufacturer | Model No. | Serial No.  | Last Cal.  | Next Cal.  |
|--------------|--------------|-----------|-------------|------------|------------|
| Horn Antenna | SCHWARZBECK  | BBHA 9170 | BBHA9170242 | Feb. 13,14 | Feb. 12,17 |

**NOTE:** 1. The calibration interval of the above test instruments is 36 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
 2. The test was performed in 10m Chamber.  
 3. The FCC Site Registration No. is 502831



### 3.2.3 TEST PROCEDURE

A signal generator, not the matching transmitter, shall be used to radiate an unmodulated CW signal to a superregenerative receiver at its operating frequency in order to “cohere” or to resolve the individual components of the characteristic broadband emissions from such a receiver. The level of the signal may need to be increased for this to occur. If a superregenerative receiver is tested for radiated emissions with a resistive termination instead of an antenna connected to the antenna input terminals, apply the unmodulated signal at a level of approximately –60 dBm to the antenna terminals, using an impedance-matching network if necessary, to “cohere” the emissions. It may be necessary to adjust the signal level to accomplish this.

The basic test procedure was in accordance with ANSI C63.4:2009 (section 12).

- 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 10 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 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

#### NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. For measurement above 1GHz, the test receiver/spectrum analyzer resolution bandwidth is 1MHz and video bandwidth is 3MHz for Peak detection. For Average measurement, the resolution bandwidth was set to 1MHz and video bandwidth was set to 10Hz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
4.  $\text{Emission level (dBuV/m)} = \text{Raw Value (dBuV)} + \text{Correction Factor (dB/m)}$
5.  $\text{Correction Factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)}$
6.  $\text{Margin value} = \text{Emission level} - \text{Limit value}$ .

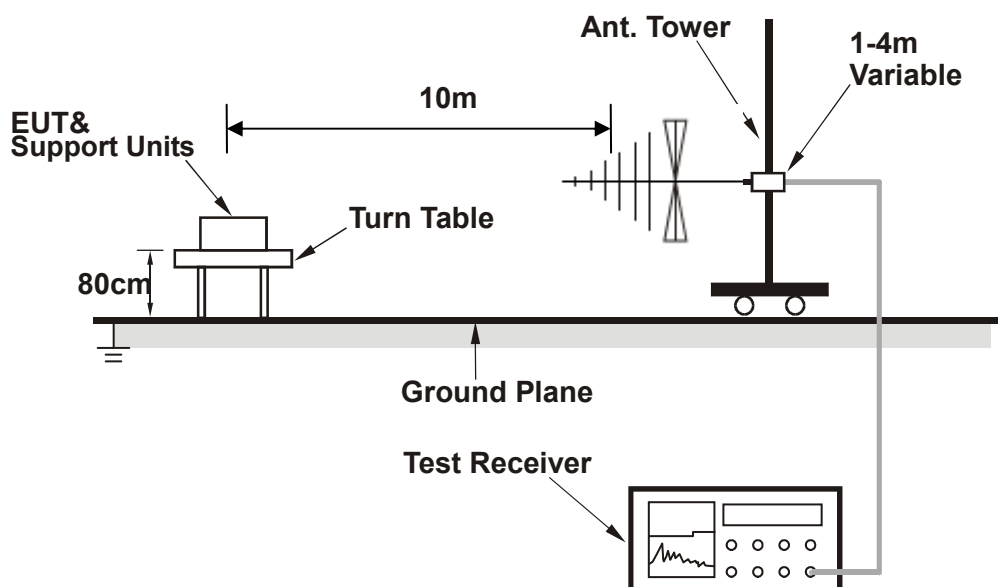


### 3.2.4 DEVIATION FROM TEST STANDARD

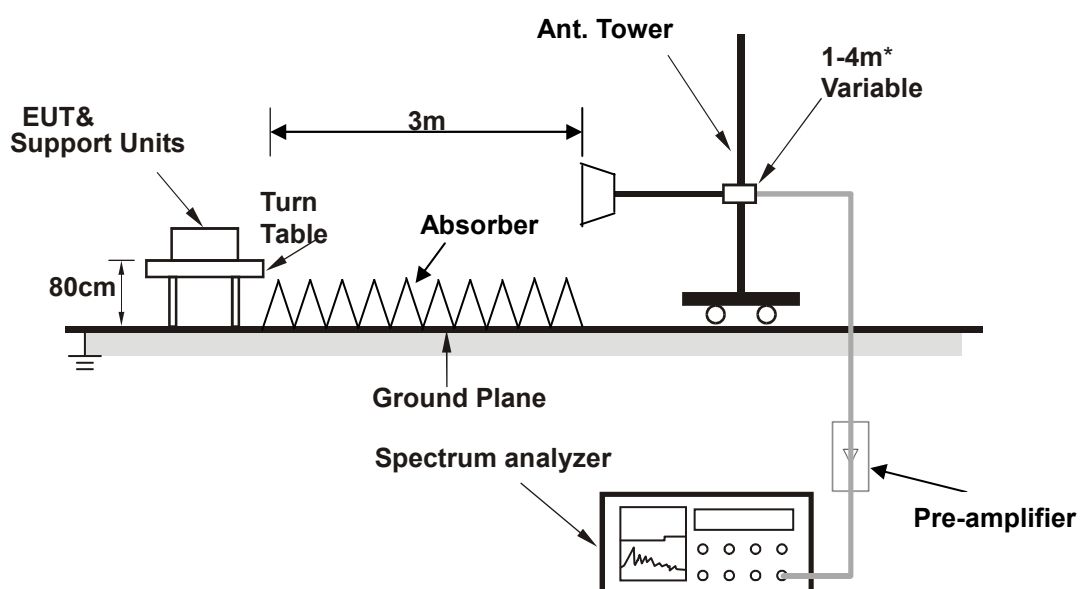
No deviation

### 3.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



\* : depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

### 3.2.6 EUT OPERATING CONDITIONS

Same as item 3.1.6.

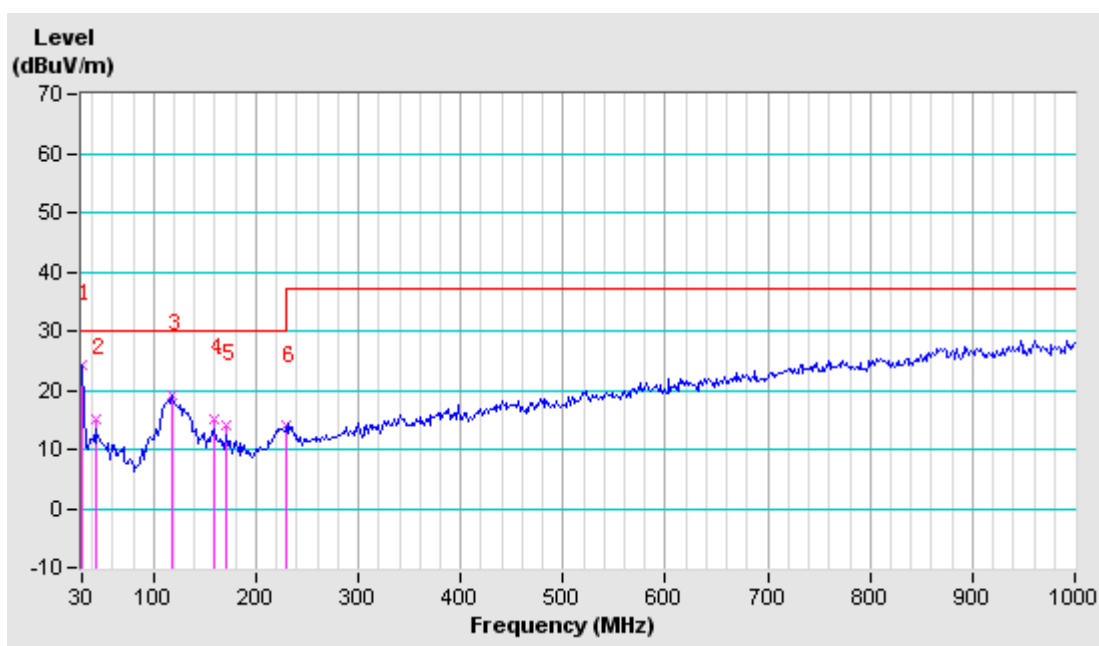


### 3.2.7 TEST RESULTS

|                          |                                        |                                          |                    |
|--------------------------|----------------------------------------|------------------------------------------|--------------------|
| TEST MODE                | Charging                               | FREQUENCY RANGE                          | 30-1000MHz         |
| TEST VOLTAGE             | DC9V from adapter input<br>AC120V 60Hz | DETECTOR FUNCTION & RESOLUTION BANDWIDTH | Quasi-Peak, 120kHz |
| ENVIRONMENTAL CONDITIONS | 22deg. C, 50% RH                       | TESTED BY: Robert                        |                    |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M |             |                          |                  |                         |                |             |                     |                      |
|------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 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       | 13.19                    | 11.00            | 24.19                   | 30.00          | -5.81       | 347                 | 294                  |
| 2                                                    | 42.93       | 15.04                    | 0.02             | 15.06                   | 30.00          | -14.94      | 266                 | 226                  |
| 3                                                    | 118.92      | 13.01                    | 6.19             | 19.20                   | 30.00          | -10.80      | 312                 | 265                  |
| 4                                                    | 159.33      | 15.01                    | 0.03             | 15.04                   | 30.00          | -14.96      | 285                 | 241                  |
| 5                                                    | 170.65      | 14.10                    | 0.03             | 14.13                   | 30.00          | -15.87      | 162                 | 137                  |
| 6                                                    | 230.00      | 13.43                    | 0.55             | 13.98                   | 30.00          | -16.02      | 236                 | 200                  |

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

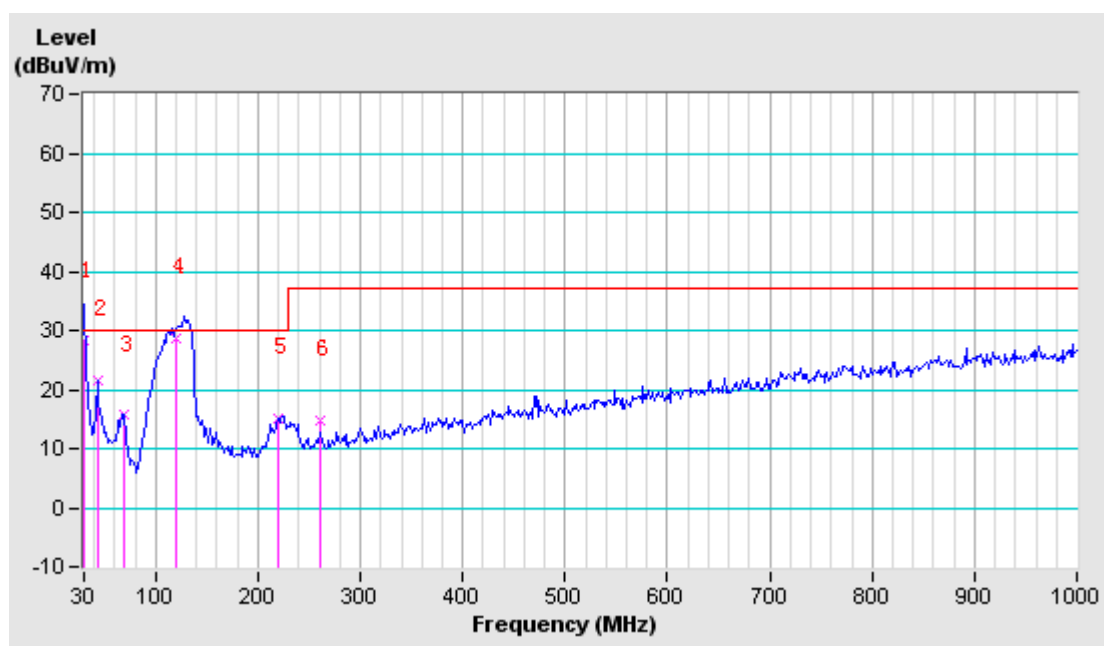




|                          |                                        |                                          |                    |
|--------------------------|----------------------------------------|------------------------------------------|--------------------|
| TEST MODE                | Charging                               | FREQUENCY RANGE                          | 30-1000MHz         |
| TEST VOLTAGE             | DC9V from adapter input<br>AC120V 60Hz | DETECTOR FUNCTION & RESOLUTION BANDWIDTH | Quasi-Peak, 120kHz |
| ENVIRONMENTAL CONDITIONS | 22deg. C, 50% RH                       | TESTED BY: Robert                        |                    |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 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       | 13.19                    | 15.00            | 28.19                   | 30.00          | -1.81       | 100                 | 0                    |
| 2                                                  | 42.93       | 15.04                    | 6.50             | 21.54                   | 30.00          | -8.46       | 100                 | 216                  |
| 3                                                  | 68.80       | 12.53                    | 3.07             | 15.60                   | 30.00          | -14.40      | 100                 | 216                  |
| 4                                                  | 120.08      | 13.12                    | 15.50            | 28.62                   | 30.00          | -1.38       | 100                 | 310                  |
| 5                                                  | 219.15      | 12.71                    | 2.44             | 15.15                   | 30.00          | -14.85      | 100                 | 216                  |
| 6                                                  | 261.18      | 14.69                    | 0.02             | 14.71                   | 37.00          | -22.29      | 100                 | 216                  |

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

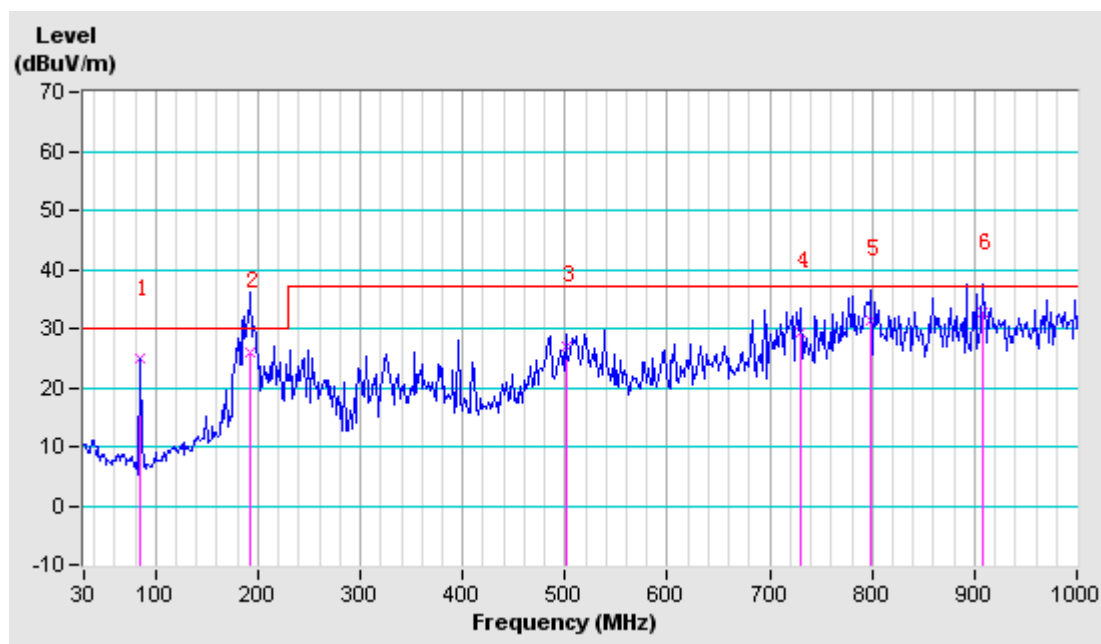




|                                 |                                                             |                                                     |                    |
|---------------------------------|-------------------------------------------------------------|-----------------------------------------------------|--------------------|
| <b>TEST MODE</b>                | TX RX Link Normal working                                   | <b>FREQUENCY RANGE</b>                              | 30-1000MHz         |
| <b>TEST VOLTAGE</b>             | Controller: DC 9V from battery<br>Car: DC 7.2V from battery | <b>DETECTOR FUNCTION &amp; RESOLUTION BANDWIDTH</b> | Quasi-Peak, 120kHz |
| <b>ENVIRONMENTAL CONDITIONS</b> | 22deg. C, 50% RH                                            | <b>TESTED BY:</b> Robert                            |                    |

| ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 10 M |             |                          |                  |                         |                |             |                     |                      |
|------------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 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       | 13.19                    | 11.00            | 24.19                   | 30.00          | -5.81       | 347                 | 294                  |
| 2                                                    | 42.93       | 15.04                    | 0.02             | 15.06                   | 30.00          | -14.94      | 266                 | 226                  |
| 3                                                    | 118.92      | 13.01                    | 6.19             | 19.20                   | 30.00          | -10.80      | 312                 | 265                  |
| 4                                                    | 159.33      | 15.01                    | 0.03             | 15.04                   | 30.00          | -14.96      | 285                 | 241                  |
| 5                                                    | 170.65      | 14.10                    | 0.03             | 14.13                   | 30.00          | -15.87      | 162                 | 137                  |
| 6                                                    | 230.00      | 13.43                    | 0.55             | 13.98                   | 30.00          | -16.02      | 236                 | 200                  |

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

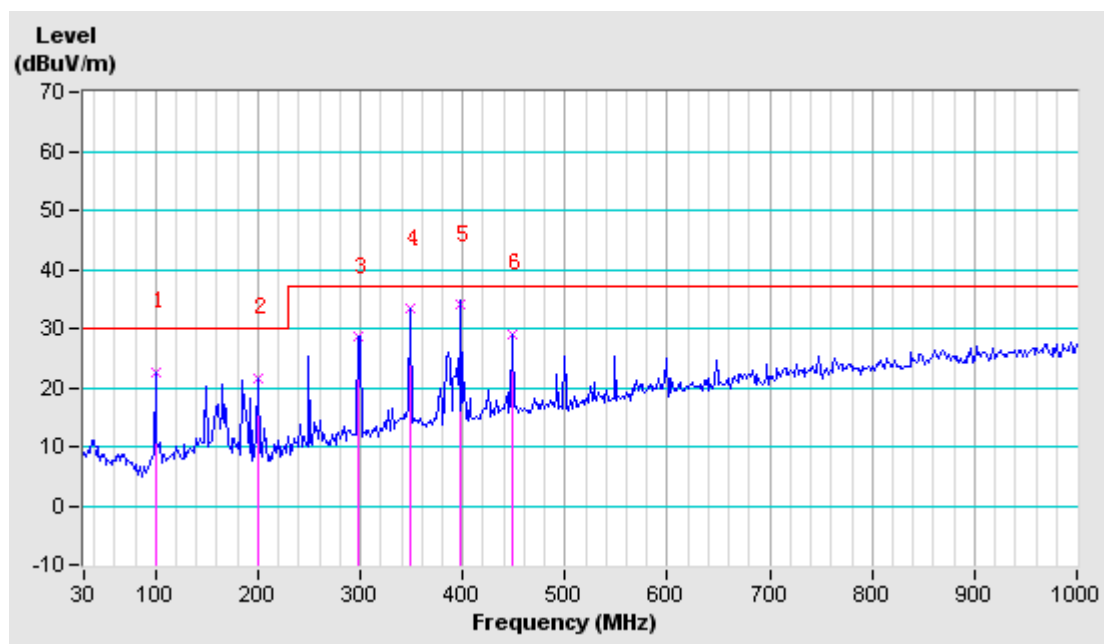




|                                 |                                                             |                                                     |                    |
|---------------------------------|-------------------------------------------------------------|-----------------------------------------------------|--------------------|
| <b>TEST MODE</b>                | TX RX Link Normal working                                   | <b>FREQUENCY RANGE</b>                              | 30-1000MHz         |
| <b>TEST VOLTAGE</b>             | Controller: DC 9V from battery<br>Car: DC 7.2V from battery | <b>DETECTOR FUNCTION &amp; RESOLUTION BANDWIDTH</b> | Quasi-Peak, 120kHz |
| <b>ENVIRONMENTAL CONDITIONS</b> | 22deg. C, 50% RH                                            | <b>TESTED BY:</b> Robert                            |                    |

| ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 10 M |             |                          |                  |                         |                |             |                     |                      |
|----------------------------------------------------|-------------|--------------------------|------------------|-------------------------|----------------|-------------|---------------------|----------------------|
| 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                                                  | 99.52       | 11.05                    | 11.59            | 22.64                   | 30.00          | -7.36       | 100                 | 0                    |
| 2                                                  | 199.75      | 11.90                    | 9.72             | 21.62                   | 30.00          | -8.38       | 100                 | 0                    |
| 3                                                  | 298.37      | 16.05                    | 12.50            | 28.55                   | 37.00          | -8.45       | 100                 | 0                    |
| 4                                                  | 348.48      | 17.48                    | 15.80            | 33.28                   | 37.00          | -3.72       | 100                 | 0                    |
| 5                                                  | 398.60      | 18.88                    | 15.02            | 33.90                   | 37.00          | -3.10       | 100                 | 0                    |
| 6                                                  | 448.72      | 20.44                    | 8.68             | 29.12                   | 37.00          | -7.88       | 100                 | 0                    |

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





Test Report No.: FV140403N046

## 4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the test photo document (Reference No.:140403N046)



**BUREAU  
VERITAS**

Test Report No.: FV140403N046

## **5 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---**