

FCC

EMC

TEST REPORT

ISSUED BY  
Shenzhen BALUN Technology Co., Ltd.



FOR  
**GDO200 main unit**

ISSUED TO  
ONE WORLD TECHNOLOGIES, INC

1428 PEARMAN DAIRY ROAD ANDERSON SOUTH CAROLINA  
29625 USA



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(Engineer)

Date Feb. 19, 2016

Approved by: Wei Yanquan

Wei Yanquan  
(Chief Engineer)

Date Feb. 19, 2016



Report No.: BL-SZ1610069-401

EUT Type: GDO200 main unit

Model Name: GD200

Brand Name: RYOBI

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: VMZGD200

Test conclusion: Pass

Test Date: Jan. 20, 2016 ~ Jan. 26, 2016

Date of Issue: Feb. 19, 2016

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### Revision History

| <u>Version</u> | <u>Issue Date</u>    | <u>Revisions Content</u>   |
|----------------|----------------------|--|
| <u>Rev. 01</u> | <u>Feb. 2, 2016</u>  | <u>Initial Issue</u>   |
| <u>Rev. 02</u> | <u>Feb. 4, 2016</u>  | <u>Second Issue: Move the ancillary equipment information of section 2.5 to section 4.3.</u> |
| <u>Rev. 03</u> | <u>Feb. 19, 2016</u> | <u>Increase FCC ID</u>   |

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# 1 GENERAL INFORMATION

## 1.1 Identification of the Testing Laboratory

|              |   |
|--------------|---|
| Company Name | Shenzhen BALUN Technology Co., Ltd.   |
| Address      | Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Phone Number | +86 755 6685 0100   |
| Fax Number   | +86 755 6182 4271   |

## 1.2 Identification of the Responsible Testing Location

|                           |   |
|---------------------------|---|
| Test Location             | Shenzhen BALUN Technology Co., Ltd.   |
| Address                   | Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China   |
| Accreditation Certificate | <p>The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1.</p> <p>The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625.</p> <p>The laboratory has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005. The accreditation certificate number is TL-588.</p> <p>The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.</p> |
| Description               | All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055   |

## 1.3 Laboratory Condition

|                           |                   |
|---------------------------|-------------------|
| Ambient Temperature       | 20°C~25°C         |
| Ambient Relative Humidity | 45% - 55%         |
| Ambient Pressure          | 100 kPa - 102 kPa |

## 1.4 Announce

- (1) The test report reference to the report template version v1.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of

operation as described herein.

- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

|           |  |
|-----------|--|
| Applicant | ONE WORLD TECHNOLOGIES, INC                                  |
| Address   | 1428 PEARMAN DAIRY ROAD ANDERSON SOUTH CAROLINA<br>29625 USA |

### 2.2 Manufacturer Information

|              |  |
|--------------|--|
| Manufacturer | ET Technology (Wuxi) Co., Ltd.                                 |
| Address      | No.58 Xiqun road, Meicun industrial zone, Wuxi, Jiangsu, China |

### 2.3 Factory Information

|         |  |
|---------|--|
| Factory | ET Technology (Wuxi) Co., Ltd.                                 |
| Address | No.58 Xiqun road, Meicun industrial zone, Wuxi, Jiangsu, China |

### 2.4 General Description for Equipment under Test (EUT)

|   |                  |
|---|------------------|
| EUT Type                                  | GDO200 main unit |
| Model Name Under Test                     | GD200            |
| Series Model Name                         | N/A              |
| Description of Model name differentiation | N/A              |
| Hardware Version                          | N/A              |
| Software Version                          | N/A              |
| Dimensions (Approx.)                      | N/A              |
| Weight (Approx.)                          | N/A              |
| Network and Wireless connectivity         | WIFI             |

### 2.5 Ancillary Equipment

No ancillary equipment.

### 2.6 Technical Information

N/A

### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

| No. | Identity  | Document Title   |
|-----|---|--|
| 1   | FCC 47 CFR Part 15<br>Subpart B (10-1-14 Edition) | Unintentional Radiators  |
| 2   | ANSI C63.4-2014                                   | American National Standard for Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz |

#### 3.2 Verdict

| No. | Description                  | FCC Rule | Test Verdict | Result     |
|-----|------------------------------|----------|--------------|------------|
| 1   | Radiated Emission            | 15.109   | Pass         | Annex A .1 |
| 2   | Conducted Emission, AC Ports | 15.107   | Pass         | Annex A .2 |

#### 3.3 Test Uncertainty

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                        | Value   |
|------------------------------------|---------|
| Conducted emissions (9 kHz-30 MHz) | 2.79 dB |
| Radiated emissions (30 MHz-1 GHz)  | 3.45 dB |
| Radiated emissions (1 GHz-18 GHz)  | 3.67 dB |

## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Environments

| Environment Parameter                           | Selected Values During Tests |                |                   |                  |
|---|------------------------------|----------------|-------------------|------------------|
|   | Temperature                  | Voltage        | Relative Humidity | Ambient Pressure |
| Normal Temperature,<br>Normal Voltage<br>(NTNV) | 23°C~26°C                    | AC 120 V/60 Hz | 50%-55%           | 100 to 102 kPa   |

### 4.2 Test Equipment List

| Radiated Emission Test                    |               |                |            |            |            |                                     |
|---|---------------|----------------|------------|------------|------------|-------------------------------------|
| Description                               | Manufacturer  | Model          | Serial No. | Cal. Date  | Cal. Due   | Use                                 |
| EMI Receiver                              | ROHDE&SCHWARZ | ESRP           | 101036     | 2015.07.14 | 2016.07.13 | <input checked="" type="checkbox"/> |
| Test Antenna-<br>Loop(9 kHz-<br>30 MHz)   | SCHWARZBECK   | FMZB<br>1519   | 1519-037   | 2015.07.22 | 2017.07.21 | <input checked="" type="checkbox"/> |
| Test Antenna-<br>Bi-Log(30 MHz-<br>3 GHz) | SCHWARZBECK   | VULB<br>9163   | 9163-624   | 2015.07.22 | 2017.07.21 | <input checked="" type="checkbox"/> |
| Test Antenna-<br>Horn(1-<br>18 GHz)       | SCHWARZBECK   | BBHA<br>9120D  | 9120D-1148 | 2015.07.22 | 2017.07.21 | <input checked="" type="checkbox"/> |
| Test Antenna-<br>Horn(15-<br>26.5 GHz)    | SCHWARZBECK   | BBHA<br>9170   | 9170-305   | 2015.07.22 | 2017.07.21 | <input type="checkbox"/>            |
| Anechoic<br>Chamber                       | RAINFORD      | 9 m*6 m*6<br>m | N/A        | 2015.02.28 | 2016.02.27 | <input checked="" type="checkbox"/> |

| Conducted disturbance Test |               |           |            |            |            |                                     |
|----------------------------|---------------|-----------|------------|------------|------------|-------------------------------------|
| Description                | Manufacturer  | Model     | Serial No. | Cal. Date  | Cal. Due   | Use                                 |
| EMI Receiver               | ROHDE&SCHWARZ | ESRP      | 101036     | 2015.07.14 | 2016.07.13 | <input checked="" type="checkbox"/> |
| LISN                       | SCHWARZBECK   | NSLK 8127 | 8127-687   | 2015.07.14 | 2016.07.13 | <input checked="" type="checkbox"/> |
| AMN                        | SCHWARZBECK   | NNBM8124  | 8124-509   | 2015.07.14 | 2016.07.13 | <input type="checkbox"/>            |
| AMN                        | SCHWARZBECK   | NNBM8124  | 8124-510   | 2015.07.14 | 2016.07.13 | <input type="checkbox"/>            |
| ISN                        | TESEQ         | ISN T800  | 34449      | 2015.07.14 | 2016.07.13 | <input type="checkbox"/>            |
| Shielded<br>Enclosure      | ChangNing     | CN-130701 | 130703     | N/A        | N/A        | <input checked="" type="checkbox"/> |



### 4.3 Test Enclosure list

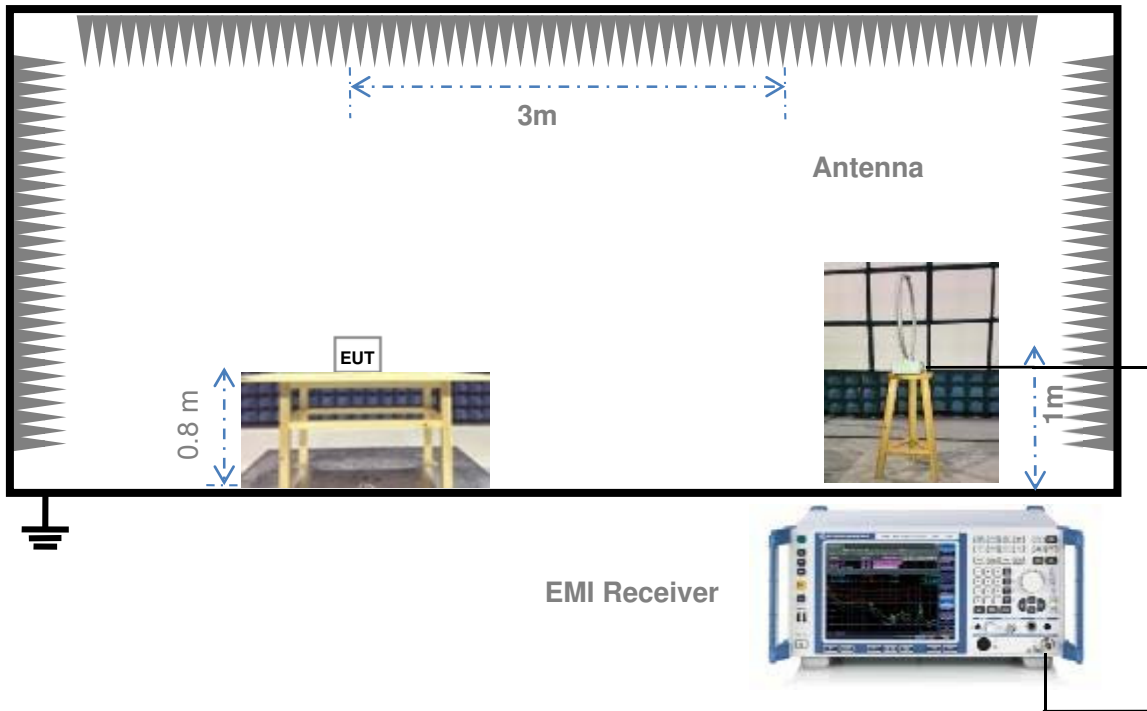
| Description                  | Manufacturer | Model        | Serial No. | Length | Description        | Use                                 |
|------------------------------|--------------|--------------|------------|--------|--------------------|-------------------------------------|
| PC                           | N/A          | N/A          | N/A        | N/A    | Special Handled    | <input type="checkbox"/>            |
| Printer                      | HP           | DESKJET 1000 | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| Keyboard                     | Logitech     | Y-BP62a      | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| Mouse                        | Logitech     | M100         | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| USB disk                     | Kingston     | N/A          | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| TF Card                      | Kingston     | N/A          | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| VGA Cable                    | N/A          | N/A          | N/A        | 1.5 m  | Shielded with core | <input type="checkbox"/>            |
| HDMI Cable                   | N/A          | N/A          | N/A        | 1.5 m  | Shielded with core | <input type="checkbox"/>            |
| DVI Cable                    | N/A          | N/A          | N/A        | 1.5 m  | Shielded with core | <input type="checkbox"/>            |
| Coaxial video cable          | N/A          | N/A          | N/A        | 2.0 m  | Shielded with core | <input type="checkbox"/>            |
| iPhone                       | APPLE        | A1387        | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| Audio Line                   | N/A          | N/A          | N/A        | 1.5 m  | Shielded with core | <input type="checkbox"/>            |
| Laptop                       | LENOVO       | K29          | N/A        | N/A    | N/A                | <input type="checkbox"/>            |
| Bluetooth speakers           | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |
| Carbon Carbon Monoxide Alarm | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |
| Laser Parking Assisrt        | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |
| Indoor Key Pad               | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |
| Infrared sensors             | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |
| Fan                          | N/A          | N/A          | N/A        | N/A    | N/A                | <input checked="" type="checkbox"/> |

## 4.4 Test Configurations

| Test Configurations (TC) No. | Description   |
|------------------------------|---|
| TC01                         | <p><u>The Working Test Mode</u></p> <p>The EUT configuration of the emission tests is EUT + Bluetooth speakers + Carbon Carbon Monoxide Alarm + Laser Parking Assisrt + Indoor Key Pad + Infrared sensors + Fan</p> <p>During the measurement, the EUT was powered by AC power. It was connected to Bluetooth speakers, Carbon Carbon Monoxide Alarm and so on, it was working normally until test end.</p> |
| TC02                         | <p><u>The Standby Test Mode</u></p> <p>The EUT configuration of the emission tests is EUT + Battery</p> <p>During the measurement, the EUT was working in the Standby test mode.</p>  |

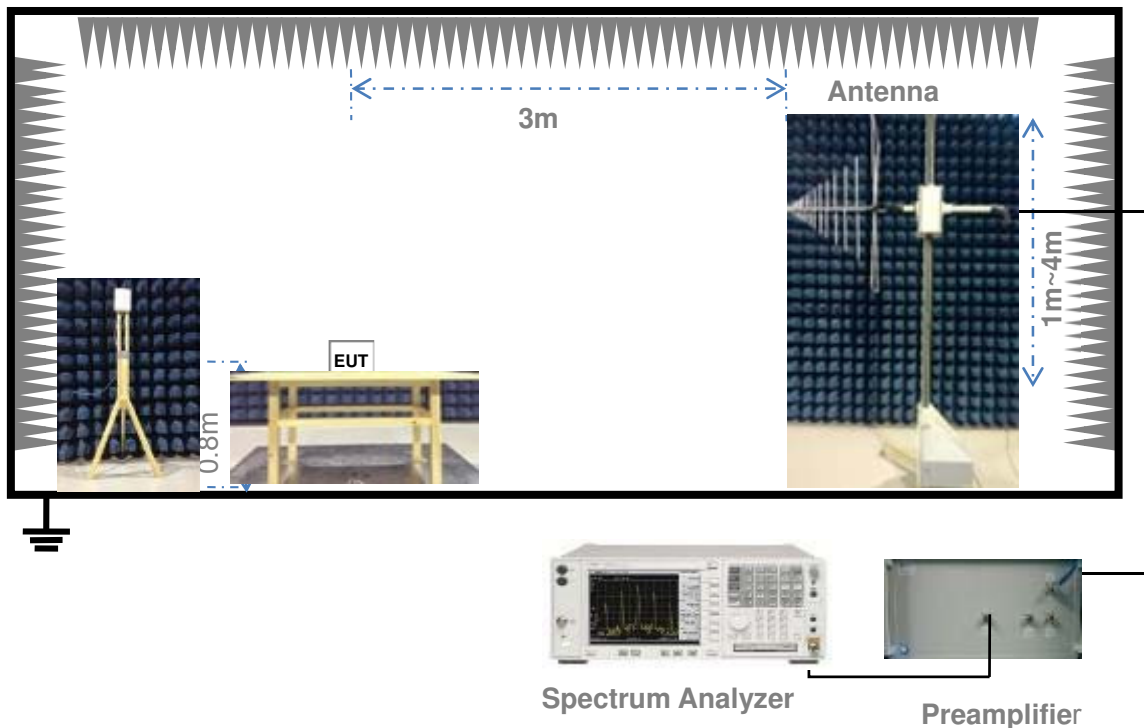
### 4.5 Test Setups

#### Test Setup 1



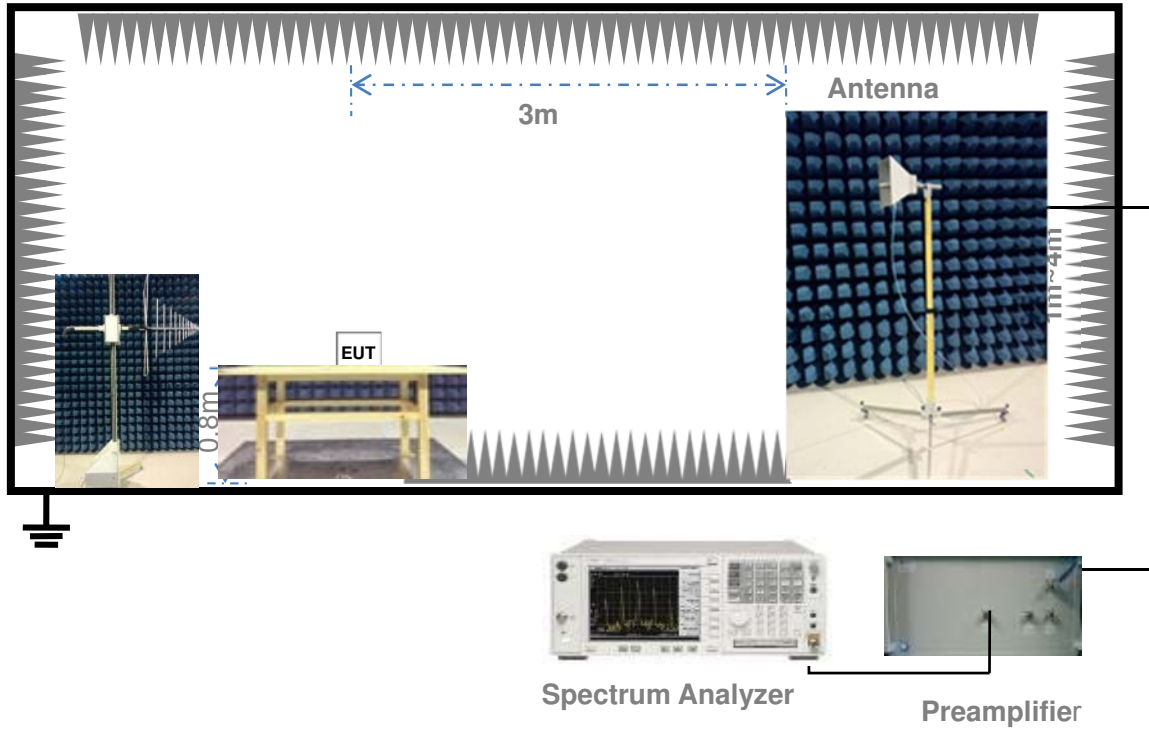
For Radiated Emission Test (Below 30 MHz)

#### Test Setup 2



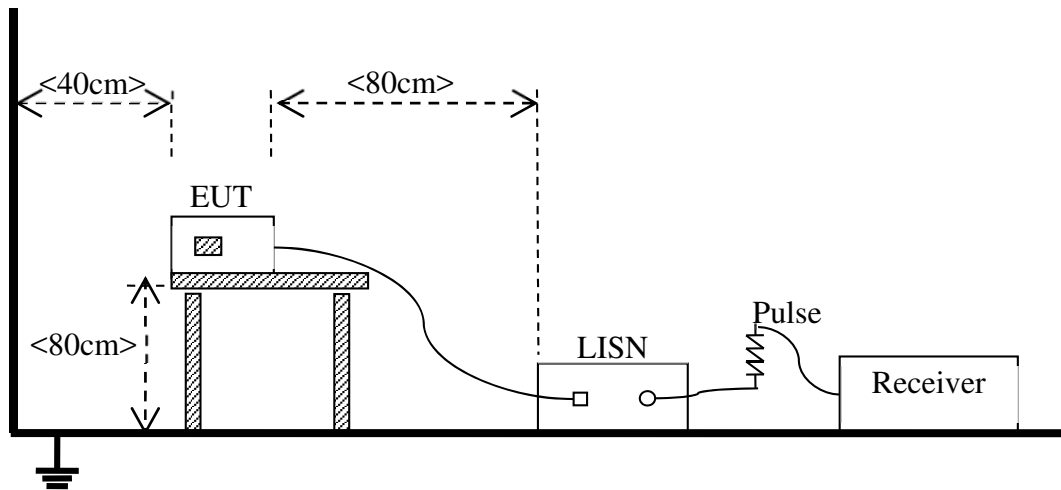
(For Radiated Emission Test (30 MHz-1 GHz))

Test Setup 3



(For Radiated Emission Test (above 1 GHz))

Test Setup 4



(For Conducted Emission, AC Ports Test)

## 4.6 Test Conditions

| Test Case                    | Test Conditions    |                           |
|------------------------------|--------------------|---------------------------|
| Radiated Emission            | Test Env.          | NTNV                      |
|                              | Test Setup         | Test Setup 1&3            |
|                              | Test Configuration | TC01~TC02 <sup>Note</sup> |
| Conducted Emission, AC Ports | Test Env.          | NTNV                      |
|                              | Test Setup         | Test Setup 4              |
|                              | Test Configuration | TC01~TC02 <sup>Note</sup> |

Note: Based on client request, all normal using modes of the normal function were tested, but only the worst test data of test mode is reported in this report, and The Working Test Mode is the worst mode in this report.

## 5 TEST ITEMS

### 5.1 Emission Tests

#### 5.1.1 Radiated Emission

##### 5.1.1.1 Limit

| Frequency (MHz) | Field Strength ( $\mu\text{V}/\text{m}$ ) | Measurement Distance (m) |
|-----------------|---|--------------------------|
| 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) Field Strength (dB $\mu\text{V}/\text{m}$ ) =  $20 \cdot \log$  [Field Strength ( $\mu\text{V}/\text{m}$ )].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For above 1000 MHz, limit field strength of harmonics: 54 dB $\mu\text{V}/\text{m}$ @3 m (AV) and 74 dB $\mu\text{V}/\text{m}$ @3 m (PK)

##### 5.1.1.2 Test Setup

Refer to 4.5 section (test setups1 to test setups3) for radiated emission test, the photo of test setup please refer to ANNEX B.

##### 5.1.1.3 Test Procedure

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

##### 5.1.1.4 Test Result

Please refer to ANNEX A.1.

## 5.1.2 Conducted Emission

### 5.1.2.1 Test Limit

| Frequency range<br>(MHz) | Conducted Limit (dB $\mu$ V) |          |
|--------------------------|------------------------------|----------|
|                          | Quasi-peak                   | Average  |
| 0.15 - 0.50              | 66 to 56                     | 56 to 46 |
| 0.50 - 5                 | 56                           | 46       |
| 5 - 30                   | 60                           | 50       |

NOTE:

- 1) The limit is applicable to Class B ITE.
- 2) The lower limit shall apply at the band edges.
- 3) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.

### 5.1.2.2 Test Setup

Refer to 4.5 section test (test setup 4) for conducted emission, the photo of test setup please refer to ANNEX B.

### 5.1.2.3 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50  $\Omega$ /50  $\mu$ H of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

### 5.1.2.4 Test Result

Please refer to ANNEX A.2.

# ANNEX A TEST RESULTS

## A.1 Radiated Emission

Note 1: The symbol of "--" in the table which means not application.

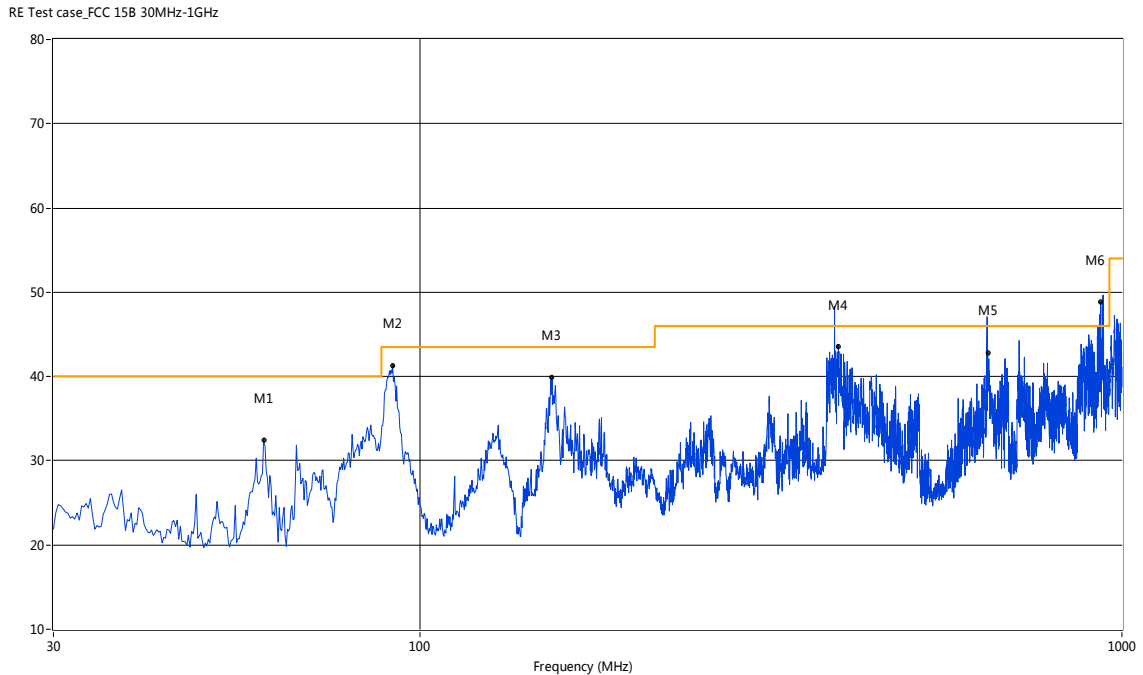
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

### Test Data and Plots

#### The worst test mode: The Working Test Mode

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31 (o) was not reported.

#### A.1.1 Test Antenna Vertical, 30 MHz – 1 GHz

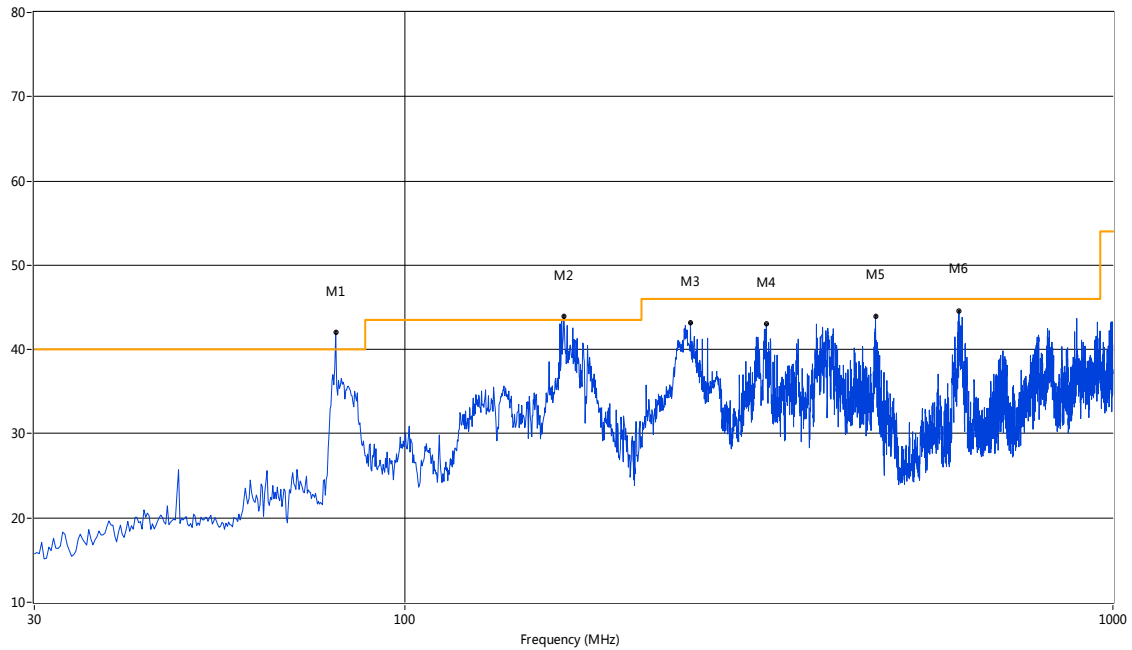


| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT      | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|----------|---------|
| 1   | 59.82           | 32.41            | -20.07      | 40.0           | 7.59        | Peak     | 50.30     | 100         | Vertical | Pass    |
| 2   | 90.94           | 39.68            | -21.61      | 43.5           | 3.82        | Peak     | -0.00     | 200         | Vertical | Pass    |
| 2*  | 90.94           | 35.39            | -21.61      | 43.5           | 8.11        | QP       | -0.00     | 200         | Vertical | Pass    |
| 3   | 154.13          | 39.91            | -23.37      | 43.5           | 3.59        | Peak     | 280.80    | 100         | Vertical | Pass    |
| 4   | 389.14          | 48.32            | -15.47      | 46.0           | -2.32       | Peak     | 20.90     | 100.80      | Vertical | N/A     |
| 4*  | 389.14          | 34.80            | -15.47      | 46.0           | 11.20       | QP       | 20.90     | 100.80      | Vertical | Pass    |
| 5   | 642.30          | 47.09            | -10.23      | 46.0           | -1.09       | Peak     | 358.50    | 101.60      | Vertical | N/A     |
| 5*  | 642.30          | 32.97            | -10.23      | 46.0           | 13.03       | QP       | 358.50    | 101.60      | Vertical | Pass    |
| 6   | 939.82          | 49.67            | -5.20       | 46.0           | -3.67       | Peak     | -0.00     | 119.50      | Vertical | N/A     |
| 6*  | 939.82          | 37.73            | -5.20       | 46.0           | 8.27        | QP       | -0.00     | 119.50      | Vertical | Pass    |



## A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz

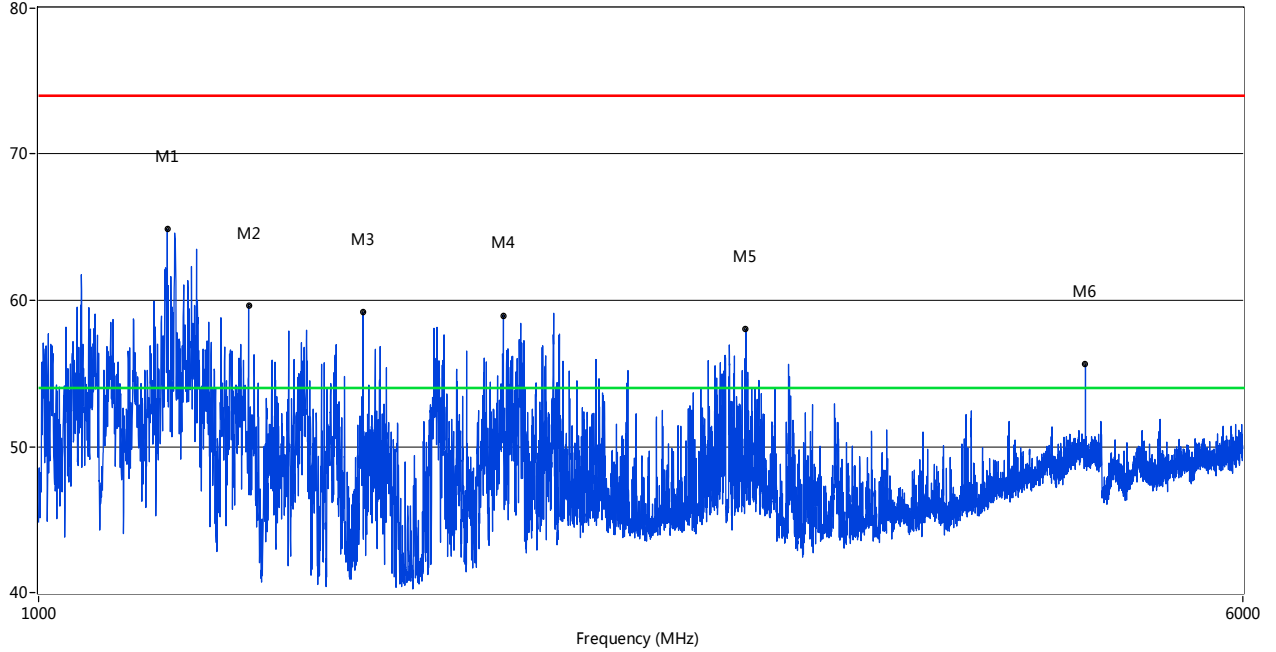
RE Test case\_FCC 15B 30MHz-1GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT        | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|------------|---------|
| 1   | 80.04           | 41.98            | -24.48      | 40.0           | -1.98       | Peak     | 6.00      | 200.00      | Horizontal | N/A     |
| 1*  | 80.04           | 36.64            | -24.48      | 40.0           | 3.36        | QP       | 6.00      | 200.00      | Horizontal | Pass    |
| 2   | 167.51          | 47.86            | -22.79      | 43.5           | -4.36       | Peak     | 223.60    | 200         | Horizontal | N/A     |
| 2*  | 167.51          | 36.48            | -22.79      | 43.5           | 7.02        | QP       | 223.60    | 200         | Horizontal | Pass    |
| 3   | 253.29          | 43.17            | -18.81      | 46.0           | 2.83        | Peak     | 24.60     | 100         | Horizontal | N/A     |
| 3*  | 253.29          | 42.50            | -18.81      | 46.0           | 3.50        | QP       | 24.60     | 100         | Horizontal | Pass    |
| 4   | 324.08          | 42.99            | -16.92      | 46.0           | 3.01        | Peak     | 360.00    | 200         | Horizontal | Pass    |
| 5   | 462.27          | 43.97            | -14.18      | 46.0           | 2.03        | Peak     | 91.70     | 100         | Horizontal | N/A     |
| 5*  | 462.27          | 41.84            | -14.18      | 46.0           | 4.16        | QP       | 91.70     | 100         | Horizontal | Pass    |
| 6   | 606.28          | 44.59            | -10.61      | 46.0           | 1.41        | Peak     | 360.00    | 200         | Horizontal | N/A     |
| 6*  | 606.28          | 42.45            | -10.61      | 46.0           | 3.55        | QP       | 360.00    | 200         | Horizontal | Pass    |

A.1.3 Test Antenna Vertical, 1 GHz – 6 GHz

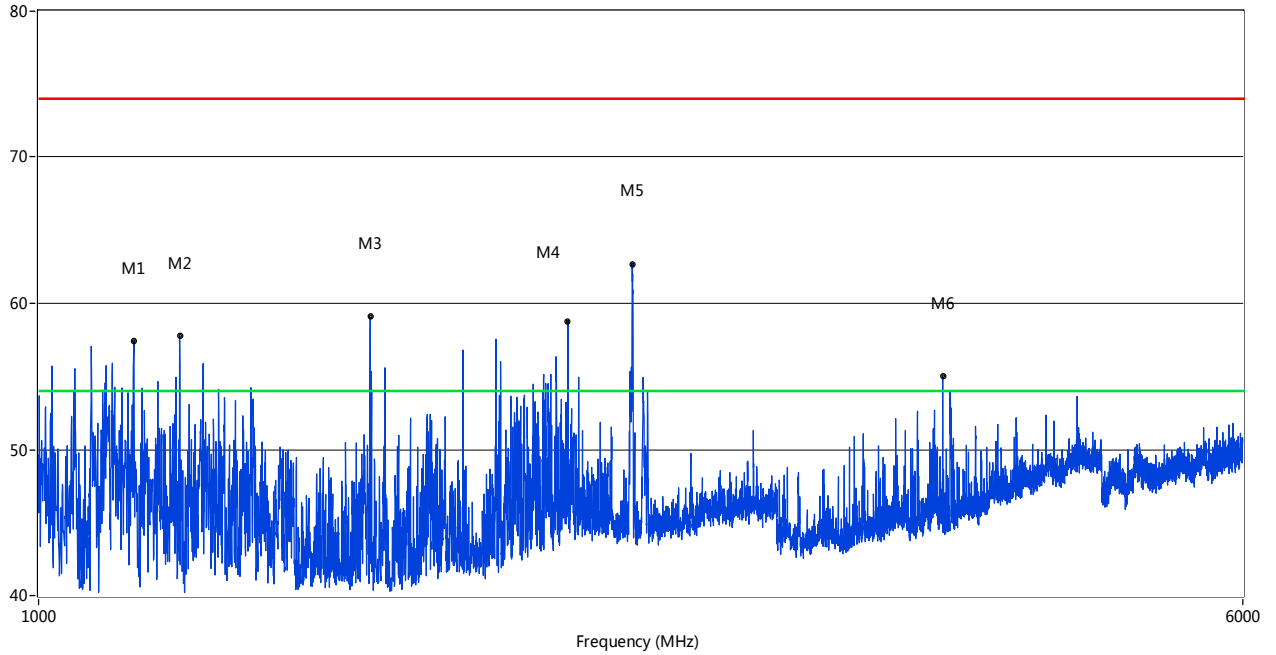
RE Test case\_FCC 15B 1GHz-6GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT      | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|----------|---------|
| 1   | 1210.95         | 64.85            | -5.21       | 74.0           | 9.15        | Peak     | 204.00    | 100         | Vertical | Pass    |
| 1** | 1210.95         | 37.19            | -5.21       | 54.0           | 16.81       | AV       | 204.00    | 100         | Vertical | Pass    |
| 2   | 1366.91         | 59.64            | -4.52       | 74.0           | 14.36       | Peak     | 99.60     | 100         | Vertical | Pass    |
| 2** | 1366.91         | 38.08            | -4.52       | 54.0           | 15.92       | AV       | 99.60     | 100         | Vertical | Pass    |
| 3   | 1620.35         | 59.18            | -4.29       | 74.0           | 14.82       | Peak     | 109.60    | 100         | Vertical | Pass    |
| 3** | 1620.35         | 36.57            | -4.29       | 54.0           | 17.43       | AV       | 109.60    | 100         | Vertical | Pass    |
| 4   | 1996.75         | 58.96            | -2.52       | 74.0           | 15.04       | Peak     | 283.10    | 100         | Vertical | Pass    |
| 4** | 1996.75         | 37.62            | -2.52       | 54.0           | 16.38       | AV       | 283.10    | 100         | Vertical | Pass    |
| 5   | 2864.53         | 58.02            | 2.12        | 74.0           | 15.98       | Peak     | 358.90    | 100         | Vertical | Pass    |
| 5** | 2864.53         | 34.44            | 2.12        | 54.0           | 19.65       | AV       | 358.90    | 100         | Vertical | Pass    |
| 6   | 4747.81         | 55.60            | 13.53       | 74.0           | 18.40       | Peak     | 66.10     | 100         | Vertical | Pass    |
| 6** | 4747.81         | 31.55            | 13.53       | 54.0           | 22.45       | AV       | 66.10     | 100         | Vertical | Pass    |

A.1.4 Test Antenna Horizontal, 1 GHz – 6 GHz

RE Test case\_FCC 15B 1GHz-6GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (o) | Height (cm) | ANT        | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|-----------|-------------|------------|---------|
| 1   | 1152.46         | 57.42            | -5.88       | 74.0           | 16.58       | Peak     | 96.90     | 100         | Horizontal | Pass    |
| 1** | 1152.46         | 33.46            | -5.88       | 54.0           | 20.54       | AV       | 96.90     | 100         | Horizontal | Pass    |
| 2   | 1233.44         | 57.74            | -5.26       | 74.0           | 16.26       | Peak     | 107.30    | 100         | Horizontal | Pass    |
| 2** | 1233.44         | 35.38            | -5.26       | 54.0           | 18.62       | AV       | 107.30    | 100         | Horizontal | Pass    |
| 3   | 1637.84         | 59.07            | -4.25       | 74.0           | 14.93       | Peak     | 228.10    | 100         | Horizontal | Pass    |
| 3** | 1637.84         | 31.47            | -4.25       | 54.0           | 22.53       | AV       | 228.10    | 100         | Horizontal | Pass    |
| 4   | 2198.20         | 58.79            | -0.49       | 74.0           | 15.21       | Peak     | 359.50    | 100         | Horizontal | Pass    |
| 4** | 2198.20         | 32.71            | -0.04       | 54.0           | 21.29       | AV       | 359.50    | 100         | Horizontal | Pass    |
| 5   | 2418.64         | 62.65            | -0.04       | 74.0           | 11.35       | Peak     | 301.90    | 100         | Horizontal | Pass    |
| 5** | 2418.64         | 38.36            | 10.79       | 54.0           | 15.64       | AV       | 301.90    | 100         | Horizontal | Pass    |
| 6   | 3839.04         | 55.01            | 10.79       | 74.0           | 18.99       | Peak     | 115.00    | 100         | Horizontal | Pass    |
| 6** | 3839.04         | 27.64            | 10.79       | 54.0           | 26.36       | AV       | 115.00    | 100         | Horizontal | Pass    |

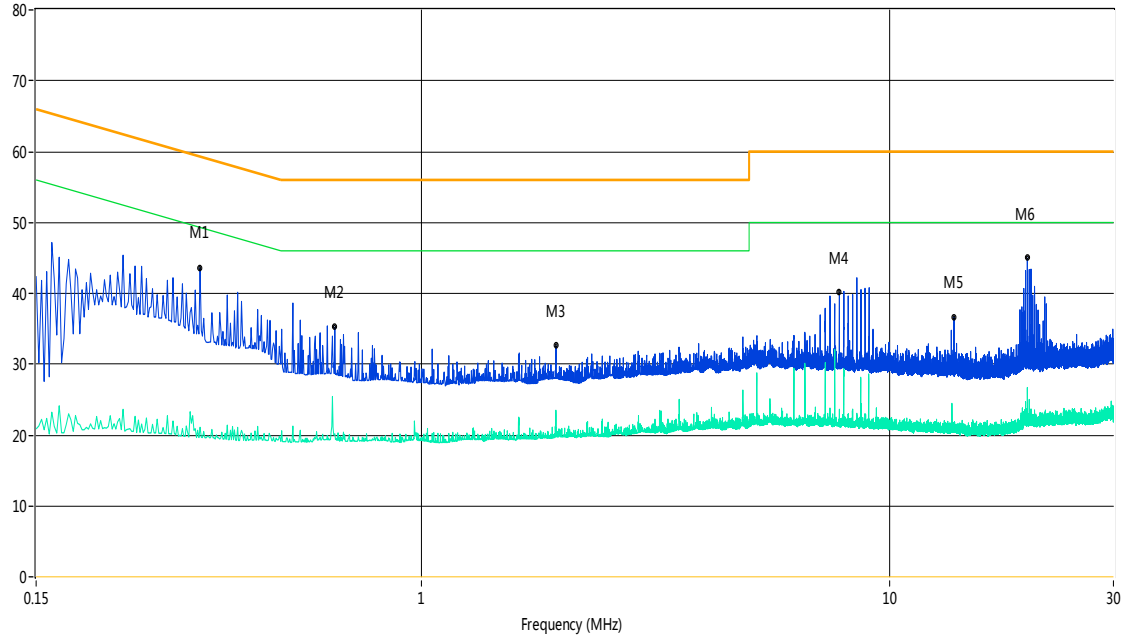
## A.2 Conducted Emission

### Test Data and Plots

#### The worst test mode: The Working Test Mode

##### A.2.1 L Phase

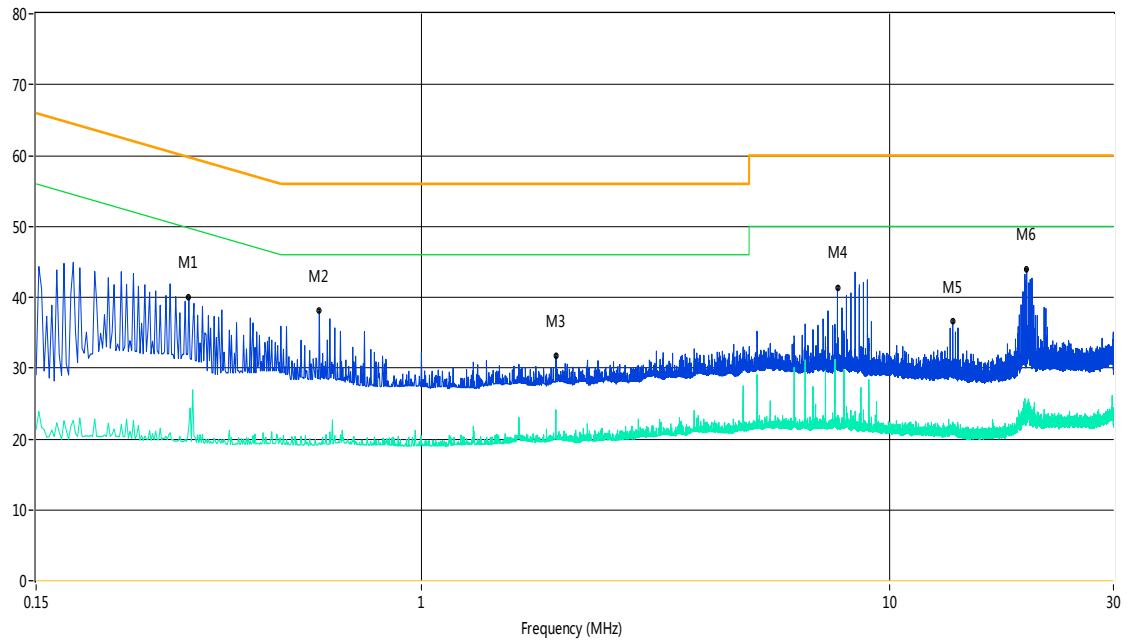
CE Test case\_CE\_FCC PART 15\_ Class B



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line   | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|--------|---------|
| 1   | 0.34            | 43.6           | 13.00       | 60.7         | 17.10       | Peak     | L Line | Pass    |
| 1** | 0.34            | 21.1           | 13.00       | 50.7         | 29.60       | AV       | L Line | Pass    |
| 2   | 0.65            | 35.2           | 13.00       | 56.0         | 20.80       | Peak     | L Line | Pass    |
| 2** | 0.65            | 20.2           | 13.00       | 46.0         | 25.80       | AV       | L Line | Pass    |
| 3   | 1.93            | 32.6           | 13.00       | 56.0         | 23.40       | Peak     | L Line | Pass    |
| 3** | 1.93            | 22.7           | 13.00       | 46.0         | 23.30       | AV       | L Line | Pass    |
| 4   | 7.79            | 40.1           | 13.00       | 60.0         | 19.90       | Peak     | L Line | Pass    |
| 4** | 7.79            | 23.6           | 13.00       | 50.0         | 26.40       | AV       | L Line | Pass    |
| 5   | 13.69           | 36.7           | 13.00       | 60.0         | 23.30       | Peak     | L Line | Pass    |
| 5** | 13.69           | 21.6           | 13.00       | 50.0         | 28.40       | AV       | L Line | Pass    |
| 6   | 19.65           | 45.0           | 13.00       | 60.0         | 15.00       | Peak     | L Line | Pass    |
| 6** | 19.65           | 26.7           | 13.00       | 50.0         | 23.30       | AV       | L Line | Pass    |

## A.2.2 N Phase

CE Test case\_CE\_FCC PART 15\_Class B



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line   | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|--------|---------|
| 1   | 0.32            | 39.9           | 13.00       | 61.2         | 21.30       | Peak     | N Line | Pass    |
| 1** | 0.32            | 21.9           | 13.00       | 51.2         | 29.30       | AV       | N Line | Pass    |
| 2   | 0.60            | 38.1           | 13.00       | 56.0         | 17.90       | Peak     | N Line | Pass    |
| 2** | 0.60            | 19.5           | 13.00       | 46.0         | 26.50       | AV       | N Line | Pass    |
| 3   | 1.94            | 31.7           | 13.00       | 56.0         | 24.30       | Peak     | N Line | Pass    |
| 3** | 1.94            | 20.8           | 13.00       | 46.0         | 25.20       | AV       | N Line | Pass    |
| 4   | 7.72            | 41.2           | 13.00       | 60.0         | 18.80       | Peak     | N Line | Pass    |
| 4** | 7.72            | 23.0           | 13.00       | 50.0         | 27.00       | AV       | N Line | Pass    |
| 5   | 13.62           | 36.5           | 13.00       | 60.0         | 23.50       | Peak     | N Line | Pass    |
| 5** | 13.62           | 22.1           | 13.00       | 50.0         | 27.90       | AV       | N Line | Pass    |
| 6   | 19.58           | 43.9           | 13.00       | 60.0         | 16.10       | Peak     | N Line | Pass    |
| 6** | 19.58           | 24.9           | 13.00       | 50.0         | 25.10       | AV       | N Line | Pass    |

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document "BL-SZ1610069-AE.PDF".

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document "BL-SZ1610069-AW.PDF".

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document "BL-SZ1610069-AI.PDF".

--END OF REPORT--