



## FCC TEST REPORT FOR

Artsun Enterprise Company Limited

Wireless FM Transmitter

Test Model: VM-203S

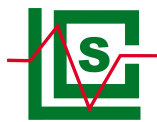
Prepared for : Artsun Enterprise Company Limited  
Address : 19H Maxgrand plaza, No.3 Tai Yau Street, San Po Kong, Kowloon, HongKong

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.  
Address : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
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Date of receipt of test sample : January 30, 2026  
Number of tested samples : 2  
Sample No. : A260130022-1, A260130022-2  
Serial number : Prototype  
Date of Test : January 30, 2026 ~ March 09, 2026  
Date of Report : March 10, 2026



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| <b>FCC TEST REPORT</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>FCC CFR 47 PART 15.239</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                |
| <b>Report Reference No.</b> .....                                                                                                                                                                                                                                                                                                                                                                                                              | <b>LCSA01306067EC</b>                                                                                                          |
| <b>Date of Issue</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                     | March 10, 2026                                                                                                                 |
| <b>Testing Laboratory Name</b> .....                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Shenzhen LCS Compliance Testing Laboratory Ltd.</b>                                                                         |
| <b>Address</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                           | 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China     |
| <b>Testing Location/ Procedure</b> .....                                                                                                                                                                                                                                                                                                                                                                                                       | Full application of Harmonised standards ■<br>Partial application of Harmonised standards □<br>Other standard testing method □ |
| <b>Applicant's Name</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Artsun Enterprise Company Limited</b>                                                                                       |
| <b>Address</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                           | 19H Maxgrand plaza, No.3 Tai Yau Street, San Po Kong, Kowloon, HongKong                                                        |
| <b>Test Specification</b>                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                |
| <b>Standard</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                          | FCC CFR 47 PART 15.239 / ANSI C63.10: 2013                                                                                     |
| <b>Test Report Form No.</b> .....                                                                                                                                                                                                                                                                                                                                                                                                              | TRF-4-E-182 A/0                                                                                                                |
| <b>TRF Originator</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                    | Shenzhen LCS Compliance Testing Laboratory Ltd.                                                                                |
| <b>Master TRF</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                        | Dated 2011-03                                                                                                                  |
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| <b>Test Item Description</b> .....                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Wireless FM Transmitter</b>                                                                                                 |
| <b>Trade Mark</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                        | onn                                                                                                                            |
| <b>Test Model</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                        | VM-203S                                                                                                                        |
| <b>Ratings</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                           | Please Refer to Page 6                                                                                                         |
| <b>Result</b> .....                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Pass</b>                                                                                                                    |

Compiled by:

Martin Lee/ Administrator

Supervised by:

Kevin Huang/ RF Manager

Approved by:

Gavin Liang/ Manager



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**FCC -- TEST REPORT**

|                          |                       |                                        |
|--------------------------|-----------------------|----------------------------------------|
| <b>Test Report No. :</b> | <b>LCSA01306067EC</b> | <u>March 10, 2026</u><br>Date of issue |
|--------------------------|-----------------------|----------------------------------------|

|                          |                                                                                                                         |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Test Model.....          | : VM-203S                                                                                                               |
| EUT.....                 | : Wireless FM Transmitter                                                                                               |
| <b>Applicant.....</b>    | <b>: Artsun Enterprise Company Limited</b>                                                                              |
| Address.....             | : 19H Maxgrand plaza, No.3 Tai Yau Street, San Po Kong, Kowloon, HongKong                                               |
| Telephone.....           | : /                                                                                                                     |
| Fax.....                 | : /                                                                                                                     |
| <b>Manufacturer.....</b> | <b>: Artsun Enterprise Company Limited</b>                                                                              |
| Address.....             | : 19H Maxgrand plaza, No.3 Tai Yau Street, San Po Kong, Kowloon, HongKong                                               |
| Telephone.....           | : /                                                                                                                     |
| Fax.....                 | : /                                                                                                                     |
| <b>Factory.....</b>      | <b>: TELSTAR VIETNAM COMPANY LIMITED</b>                                                                                |
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| Telephone.....           | : /                                                                                                                     |
| Fax.....                 | : /                                                                                                                     |

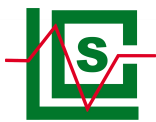
|                    |             |
|--------------------|-------------|
| <b>Test Result</b> | <b>PASS</b> |
|--------------------|-------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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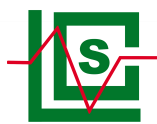


Revision History

| Report Version | Issue Date     | Revision Content | Revised By |
|----------------|----------------|------------------|------------|
| 000            | March 10, 2026 | Initial Issue    | ---        |
|                |                |                  |            |
|                |                |                  |            |



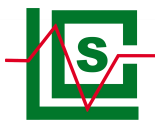
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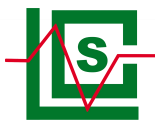
## 1. GENERAL INFORMATION

### 1.1 Description of Device (EUT)

|                     |                                                                                                       |
|---------------------|-------------------------------------------------------------------------------------------------------|
| EUT                 | : Wireless FM Transmitter                                                                             |
| Test Model          | : VM-203S                                                                                             |
| Ratings             | : Input:DC 12-24V, 2A<br>USB Output: 5V=2.4A Max                                                      |
| Hardware Version    | : REV:04                                                                                              |
| Software Version    | : V310                                                                                                |
| Bluetooth           | :                                                                                                     |
| Frequency Range     | : 2402MHz~2480MHz                                                                                     |
| Channel Number      | : 79 channels for Bluetooth V6.0 (DSS)<br>40 channels for Bluetooth V6.0 (DTS)                        |
| Channel Spacing     | : 1MHz for Bluetooth V6.0 (DSS)<br>2MHz for Bluetooth V6.0 (DTS)                                      |
| Modulation Type     | : GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V6.0 (DSS)<br>GFSK for Bluetooth V6.0 (DTS)              |
| Bluetooth Version   | : V6.0                                                                                                |
| Antenna Description | : PCB Antenna, -0.68dBi(Max.)                                                                         |
| FM transmitter      | :                                                                                                     |
| Frequency Range     | : 88.1 MHz~107.9 MHz                                                                                  |
| Channel Number      | : 199                                                                                                 |
| Channel Spacing     | : 100 KHz                                                                                             |
| Channel frequency   | : 88.1MHz~107.9MHz (Channel Number: 199,<br>Channel Frequency=88.1+0.1*(K-1), K=1, 2, 3, 4, ..., 199) |
| Modulation Type     | : FM                                                                                                  |
| Antenna Type        | : Internal Antenna                                                                                    |
| Antenna Gain        | : 0dBi(Max.)                                                                                          |

Note: For a more detailed antenna description, please refer to the antenna specifications or the antenna report provided by the customer.





## 1.2 Support equipment List

| Manufacturer | Description | Model | Serial Number | Certificate |
|--------------|-------------|-------|---------------|-------------|
| --           | --          | --    | --            | --          |

## 1.3 External I/O Cable

| I/O Port Description | Quantity | Cable |
|----------------------|----------|-------|
| USB Port             | 1        | N/A   |

## 1.4 Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

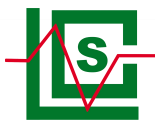
ISED Designation Number is 9642A.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

## 1.5 Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.





## 1.6 Measurement Uncertainty

| Test Item                  | Frequency Range | Uncertainty | Note |
|----------------------------|-----------------|-------------|------|
| Radiation Uncertainty      | 9KHz~30MHz      | 3.10dB      | (1)  |
|                            | 30MHz~200MHz    | 2.96dB      | (1)  |
|                            | 200MHz~1000MHz  | 3.10dB      | (1)  |
|                            | 1GHz~26.5GHz    | 3.80dB      | (1)  |
|                            | 26.5GHz~40GHz   | 3.90dB      | (1)  |
| Conduction Uncertainty     | 150kHz~30MHz    | 1.63dB      | (1)  |
| Power disturbance          | 30MHz~300MHz    | 1.60dB      | (1)  |
| Occupied Channel Bandwidth | 1GHz-40GHz      | ±5%         | (1)  |

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

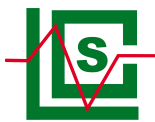
## 1.7 Description of Test Modes

The Wireless FM Transmitter is powered by DC 24V. In the audio port and MIC port give a 2.5 kHz tone at a level 16 dB higher than that required to produce a frequency deviation of 75 KHz and make it works in TX mode (88.1.1 MHz, 98.0 MHz and 107.9 MHz).

Worst-case mode and channel used for 9 KHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be TX.

Radiated emission performed at both DC power supply and AC power adapter, recorded worst case;





## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2020, FCC CFR PART 15C 15.207, 15.209 and 15.239.

### 2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

### 2.2 EUT Exercise

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209, 15.239 under the FCC Rules Part 15 Subpart C.

### 2.3 General Test Procedures

#### 2.3.1 Conducted Emissions(N/A)

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2.1 of ANSI C63.10-2020 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

#### 2.3.2 Radiated Emissions

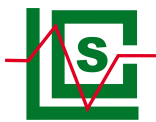
The EUT is placed on a turn table 0.8 meter above ground for below 1GHz and 1.5m for above 1GHz. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10-2020.

### 2.4. Test Sample

The application provides 2 samples to meet requirement;

| Sample Number          | Description                           |
|------------------------|---------------------------------------|
| Sample 1(A260130022-1) | Engineer sample – continuous transmit |
| Sample 2(A260130022-2) | Normal sample – Intermittent transmit |





### 3. SYSTEM TEST CONFIGURATION

#### 3.1 Justification

The system was configured for testing in a continuous transmit condition.

#### 3.2 EUT Exercise Software

N/A.

#### 3.3 Special Accessories

N/A.

#### 3.4 Block Diagram/Schematics

Please refer to the related document.

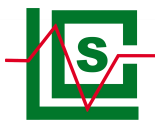
#### 3.5 Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

#### 3.6 Test Setup

Please refer to the test setup photo.

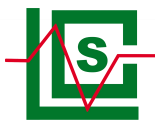




#### 4. SUMMARY OF TEST RESULTS

| Applied Standard: FCC CFR 47 PART 15.239 |                                         |           |
|------------------------------------------|-----------------------------------------|-----------|
| FCC Rules                                | Description of Test                     | Result    |
| 15.239 (a)                               | Occupied Bandwidth                      | Compliant |
| 15.239 (b)                               | Field Strength of Fundamental frequency | Compliant |
| 15.205 (a)<br>15.209 (a)                 | Radiated Spurious Emissions             | Compliant |
| 15.207 (a)                               | AC Conducted Emissions                  | N/A       |
| 15.203                                   | Antenna Requirements                    | Compliant |



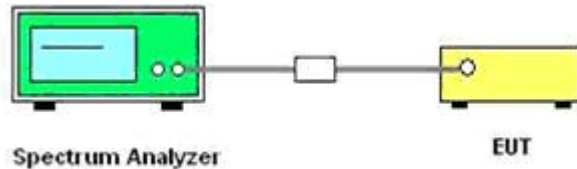


## 5. 99% BANDWIDTH

### 5.1 Limit

According to §15.239 (a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88.1-107.9MHz.

### 5.2 Block Diagram of Test Setup



### 5.3 Test Procedure

- 1) The transmitter shall be operated at its maximum carrier power measured under normal test conditions
- 2) The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- 4) Detector function = peak.
- 5) Trace = max hold.

### 5.4 Test Results

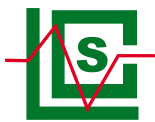
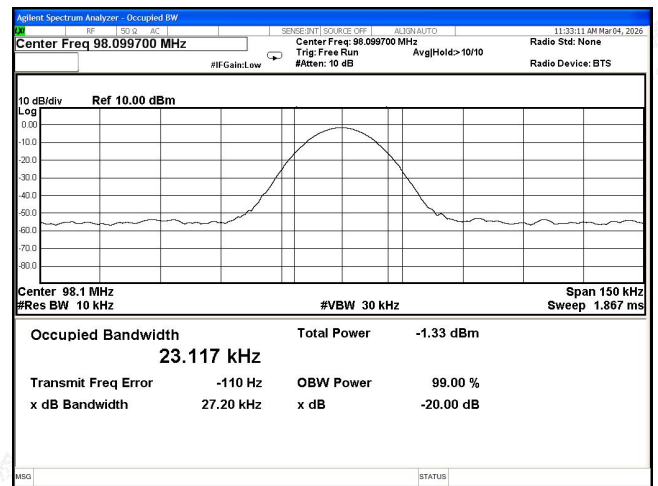
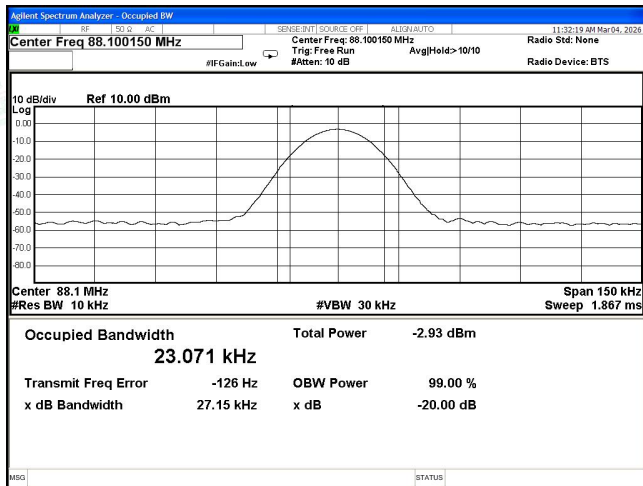
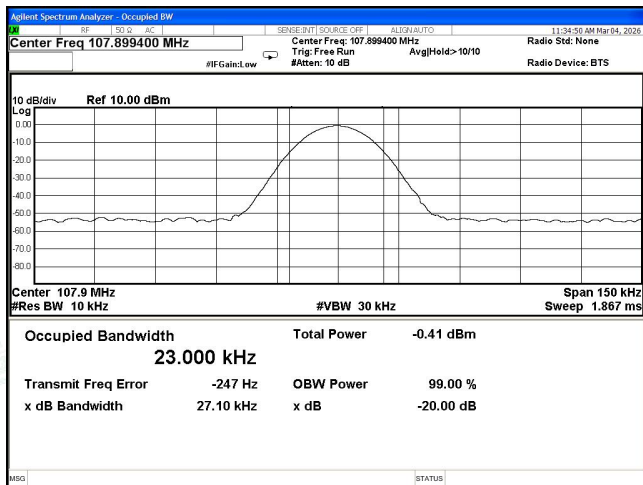
| Frequency (MHz) | 20dB Bandwidth (KHz) | 99% Bandwidth (KHz) | Limit (KHz) | Conclusion |
|-----------------|----------------------|---------------------|-------------|------------|
| 88.1            | 27.15                | 23.071              | 200.00      | PASS       |
| 98.1            | 27.20                | 23.117              | 200.00      | PASS       |
| 107.9           | 27.10                | 23.000              | 200.00      | PASS       |

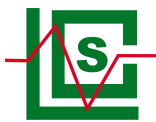
#### Remark:

1. Test results including cable loss;
2. Please refer to the following page.

|               |           |                |       |
|---------------|-----------|----------------|-------|
| Temperature   | 23.6℃     | Humidity       | 52.8% |
| Test Engineer | Jerry Chu | Configurations | FM    |

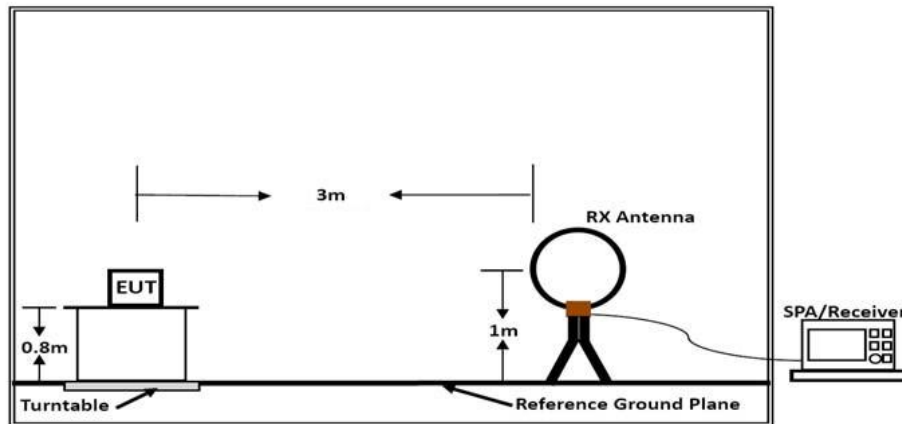


**99% and 20dB Bandwidth****Low Channel / 88.1 MHz****Middle Channel / 98.1 MHz****High Channel / 107.9 MHz**

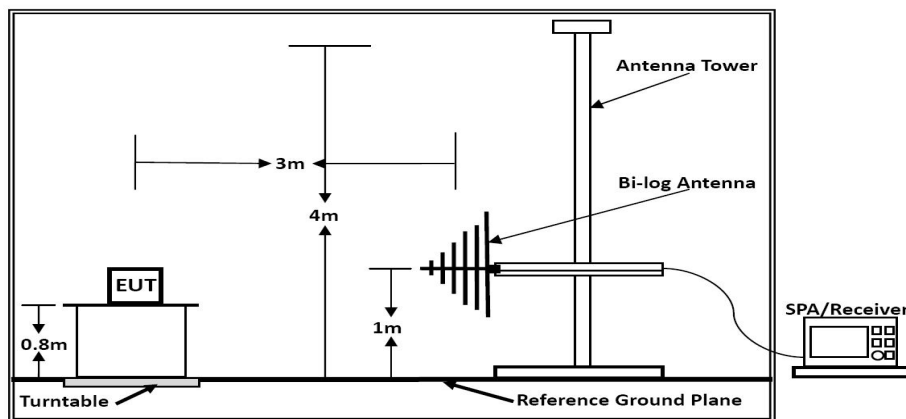


## 6. RADIATED MEASUREMENT

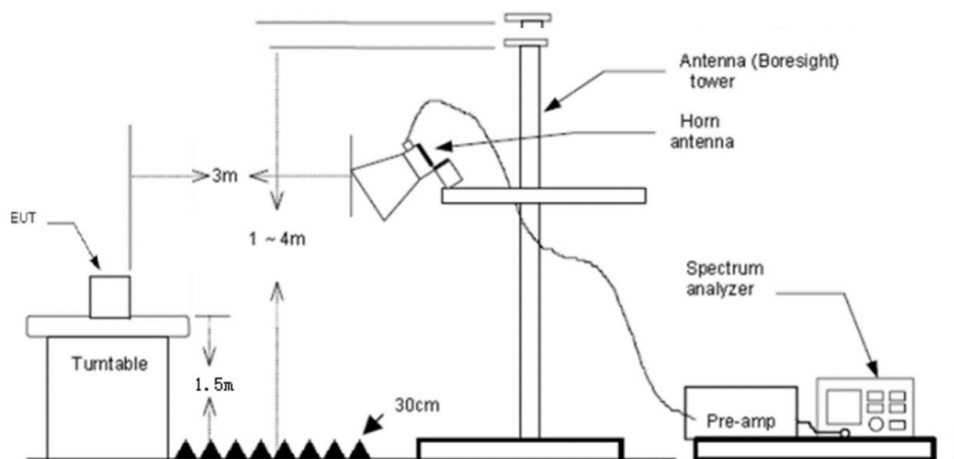
### 6.1 Block Diagram of Test Setup

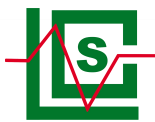


Below 30MHz



Below 1GHz





## 6.2 Radiated Fundamental Frequency Limit

According to §15.239 (b): The field strength of any emissions within the permitted 200 kHz band shall not exceed 250 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|-------------------|-----------------------------------|-------------------------------|
| 0.009~0.490       | 2400/F(KHz)                       | 300                           |
| 0.490~1.705       | 24000/F(KHz)                      | 30                            |
| 1.705~30.0        | 30                                | 30                            |
| 30~88             | 100                               | 3                             |
| 88~216            | 150                               | 3                             |
| 216~960           | 200                               | 3                             |
| Above 960         | 500                               | 3                             |

Remark: (1) Emission level dB $\mu$ V = 20 log Emission level  $\mu$ V/m;

(2) The smaller limit shall apply at the cross point between two frequency bands;

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

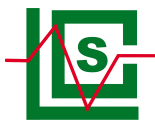
## 6.3 Instruments Setting

The following table is the setting of spectrum analyzer and receiver.

| Spectrum Parameter                        | Setting                                            |
|-------------------------------------------|----------------------------------------------------|
| Attenuation                               | Auto                                               |
| Start Frequency                           | 30 MHz                                             |
| Stop Frequency                            | 1000 MHz                                           |
| RB / VB (Emission in restricted band)     | 120KHz / 1MHz for Peak, 120 KHz / 10Hz for Average |
| RB / VB (Emission in non-restricted band) | 120KHz / 1MHz for Peak, 120 KHz / 10Hz for Average |

| Receiver Parameter     | Setting                          |
|------------------------|----------------------------------|
| Attenuation            | Auto                             |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP    |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP    |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |





## 6.4 Test Procedures

### 1) Sequence of testing 9 kHz to 30 MHz

#### Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

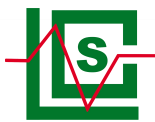
#### Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 1.0 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

#### Final measurement:

- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).
- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.





## 2) Sequence of testing 30 MHz to 1 GHz

### Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

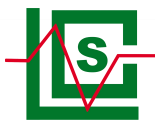
### Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 to 3 meter.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

### Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ( $\pm 45^\circ$ ) and antenna movement between 1 and 4 meter.
- The final measurement will be done with QP detector with an EMI receiver.
- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.





### 3) Sequence of testing 1 GHz to 18 GHz

#### Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

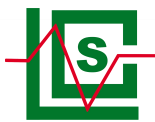
#### Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 2.5 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

#### Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ( $\pm 45^\circ$ ) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.





#### 4) Sequence of testing above 18 GHz

##### Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

##### Premeasurement:

- The antenna is moved spherical over the EUT in different polarizations of the antenna.

##### Final measurement:

- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

#### 5.5 Results for Radiated Emissions

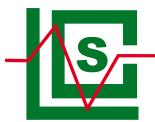
##### PASS.

Only record the worst test result in this report.

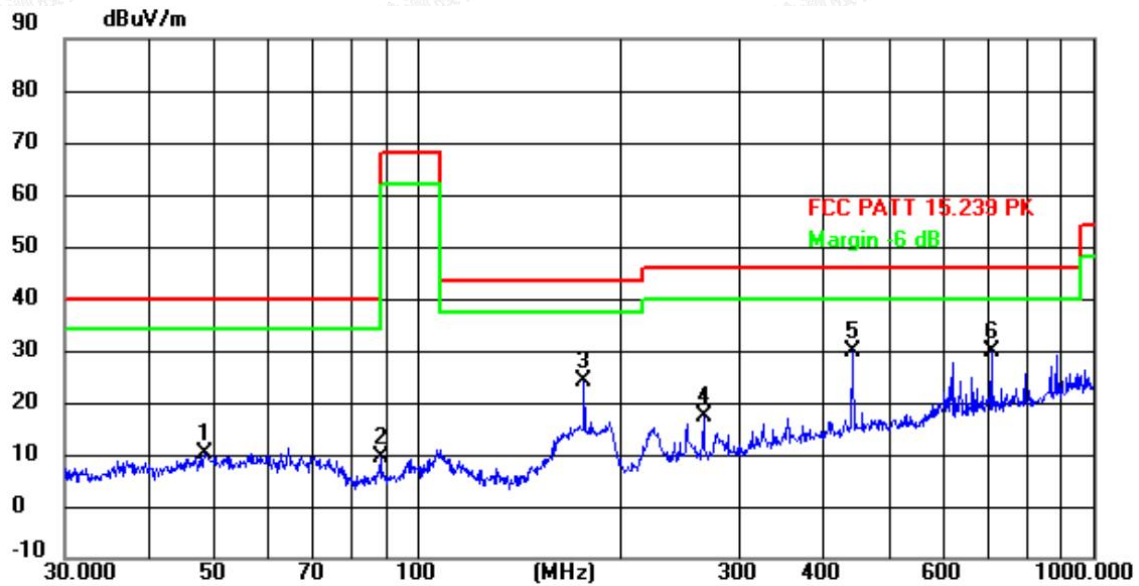
The test data please refer to following page:

|               |           |                |       |
|---------------|-----------|----------------|-------|
| Temperature   | 23.6°C    | Humidity       | 52.8% |
| Test Engineer | Jerry Chu | Configurations | FM    |

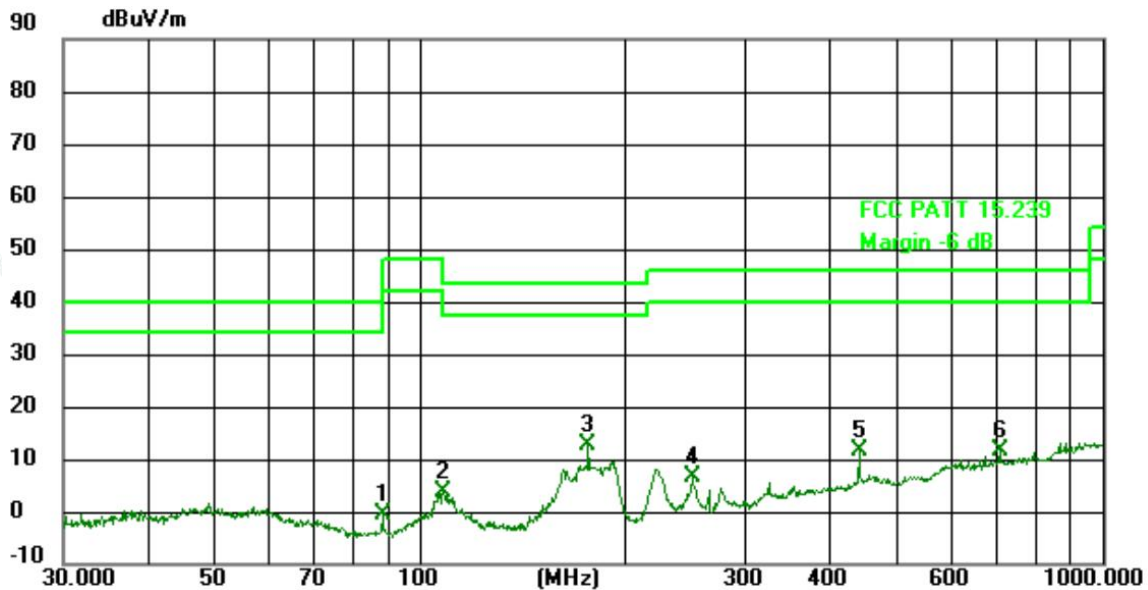


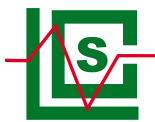
**Below 1GHz****TX-88.1MHz**

Horizontal



| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB/m | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|---------------------------|----------------------------|-----------------|--------------|----------|---------|
| 1   |     | 48.5015      | 27.56                    | -17.40                    | 10.16                      | 40.00           | -29.84       | peak     |         |
| 2   |     | 88.0330      | 30.55                    | -21.02                    | 9.53                       | 40.00           | -30.47       | peak     |         |
| 3   |     | 176.2686     | 45.36                    | -21.27                    | 24.09                      | 43.50           | -19.41       | peak     |         |
| 4   |     | 264.7457     | 34.77                    | -17.43                    | 17.34                      | 46.00           | -28.66       | peak     |         |
| 5   | *   | 440.1962     | 42.63                    | -12.90                    | 29.73                      | 46.00           | -16.27       | peak     |         |
| 6   |     | 706.6998     | 38.16                    | -8.46                     | 29.70                      | 46.00           | -16.30       | peak     |         |

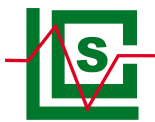




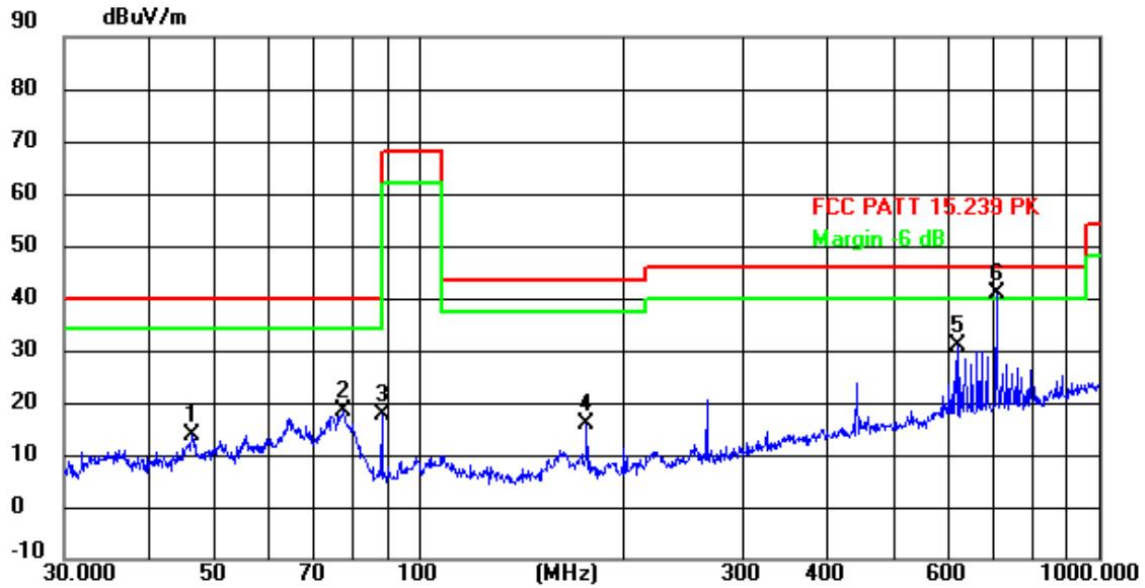
| No. | Mk. | Freq.    | Reading Level | Correct Factor | Measurement | Limit  | Margin |          |         |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|---------|
|     |     | MHz      | dBuV          | dB/m           | dBuV/m      | dBuV/m | dB     | Detector | Comment |
| 1   |     | 88.0330  | 20.31         | -21.02         | -0.71       | 40.00  | -40.71 | AVG      |         |
| 2   |     | 108.2666 | 22.48         | -18.66         | 3.82        | 43.50  | -39.68 | AVG      |         |
| 3   | *   | 176.2686 | 34.12         | -21.27         | 12.85       | 43.50  | -30.65 | AVG      |         |
| 4   |     | 250.3011 | 24.54         | -17.84         | 6.70        | 46.00  | -39.30 | AVG      |         |
| 5   |     | 440.1962 | 24.42         | -12.90         | 11.52       | 46.00  | -34.48 | AVG      |         |
| 6   |     | 706.6998 | 20.24         | -8.46          | 11.78       | 46.00  | -34.22 | AVG      |         |



Shenzhen LCS Compliance Testing Laboratory Ltd.  
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China  
Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

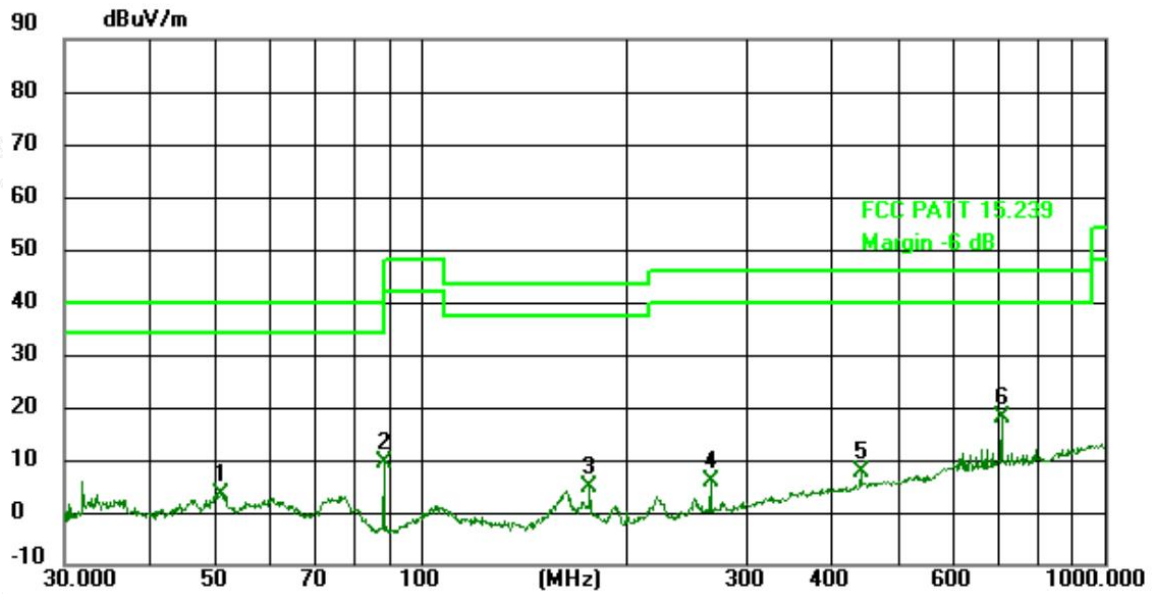
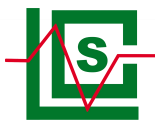


Vertical



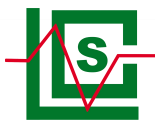
| No. | Mk. | Freq.    | Reading Level | Correct Factor | Measurement | Limit  | Margin |          |         |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|---------|
|     |     | MHz      | dBuV          | dB/m           | dBuV/m      | dBuV/m | dB     | Detector | Comment |
| 1   |     | 46.3402  | 31.95         | -18.13         | 13.82       | 40.00  | -26.18 | peak     |         |
| 2   |     | 77.3210  | 39.64         | -21.15         | 18.49       | 40.00  | -21.51 | peak     |         |
| 3   |     | 88.0330  | 38.24         | -20.44         | 17.80       | 40.00  | -22.20 | peak     |         |
| 4   |     | 176.2686 | 35.94         | -20.08         | 15.86       | 43.50  | -27.64 | peak     |         |
| 5   |     | 618.5368 | 40.82         | -10.07         | 30.75       | 46.00  | -15.25 | peak     |         |
| 6   | *   | 706.6998 | 50.83         | -9.80          | 41.03       | 46.00  | -4.97  | peak     |         |





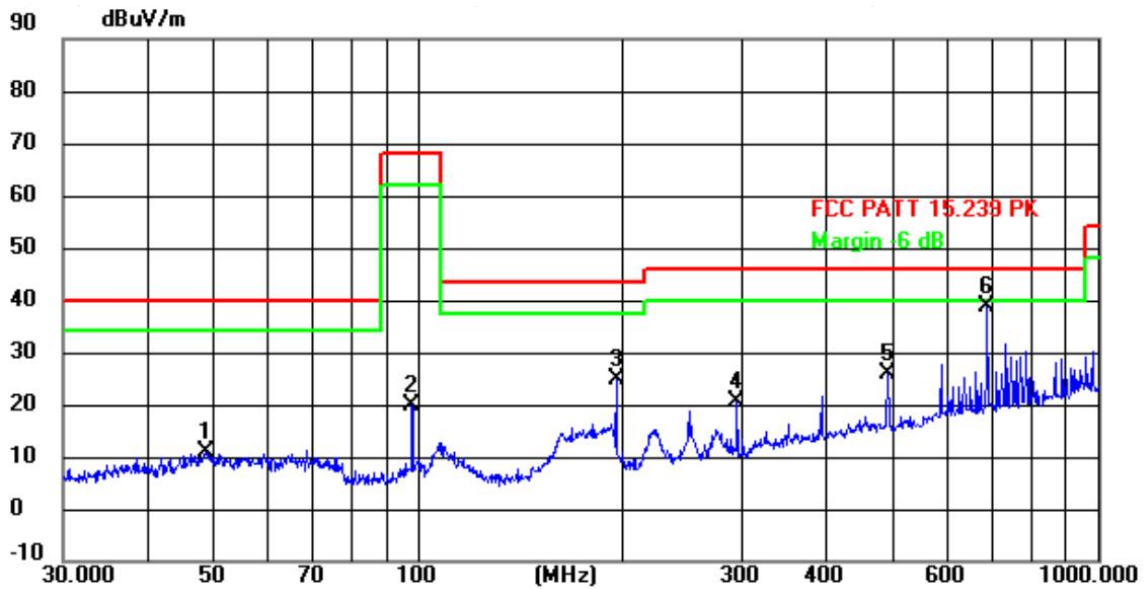
| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit  | Margin |          |         |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|---------|
|     |     | MHz      | Level   | Factor  | ment     |        |        |          |         |
|     |     |          | dBuV    | dB/m    | dBuV/m   | dBuV/m | dB     | Detector | Comment |
| 1   |     | 50.7636  | 21.90   | -18.39  | 3.51     | 40.00  | -36.49 | AVG      |         |
| 2   |     | 88.0330  | 29.91   | -20.44  | 9.47     | 40.00  | -30.53 | AVG      |         |
| 3   |     | 176.2686 | 25.08   | -20.08  | 5.00     | 43.50  | -38.50 | AVG      |         |
| 4   |     | 264.7457 | 22.06   | -16.26  | 5.80     | 46.00  | -40.20 | AVG      |         |
| 5   |     | 440.1962 | 21.97   | -14.23  | 7.74     | 46.00  | -38.26 | AVG      |         |
| 6   | *   | 706.6998 | 28.00   | -9.80   | 18.20    | 46.00  | -27.80 | AVG      |         |





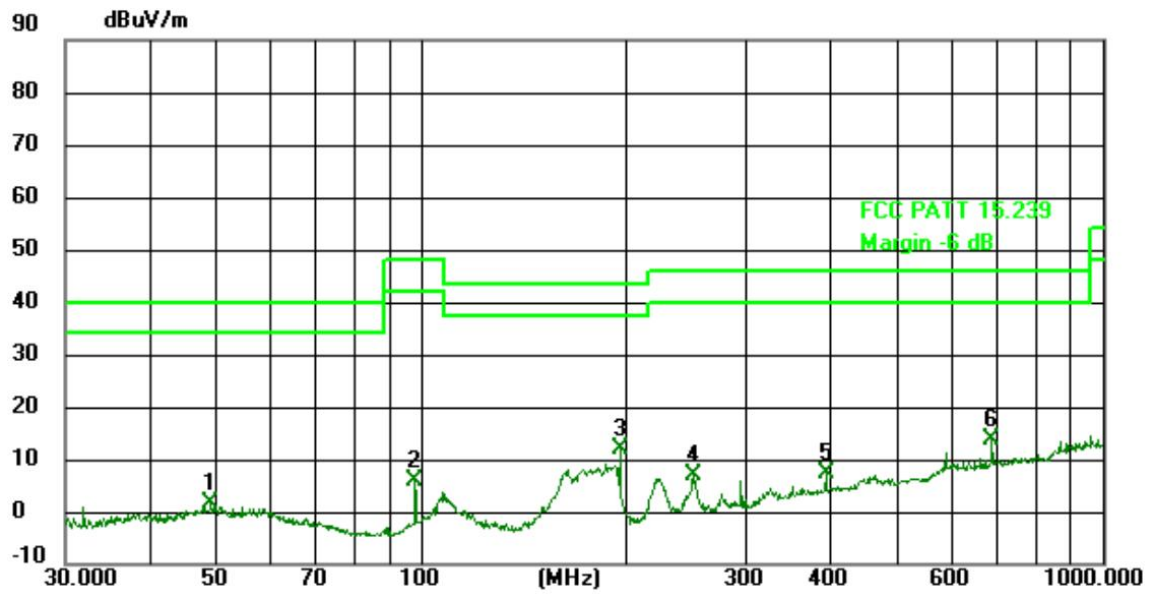
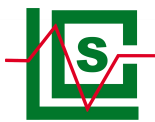
## TX-98.1MHz

Horizontal



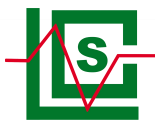
| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit | Margin |          |         |
|-----|-----|----------|---------|---------|----------|-------|--------|----------|---------|
|     |     | MHz      | dBuV    | Factor  | ment     |       |        | Detector | Comment |
| 1   |     | 48.6720  | 28.13   | -17.38  | 10.75    | 40.00 | -29.25 | peak     |         |
| 2   |     | 97.7982  | 39.06   | -19.25  | 19.81    | 68.00 | -48.19 | peak     |         |
| 3   |     | 195.8220 | 44.76   | -20.03  | 24.73    | 43.50 | -18.77 | peak     |         |
| 4   |     | 294.1136 | 37.16   | -16.51  | 20.65    | 46.00 | -25.35 | peak     |         |
| 5   |     | 490.7445 | 38.10   | -12.33  | 25.77    | 46.00 | -20.23 | peak     |         |
| 6   | *   | 687.1506 | 47.56   | -8.73   | 38.83    | 46.00 | -7.17  | peak     |         |



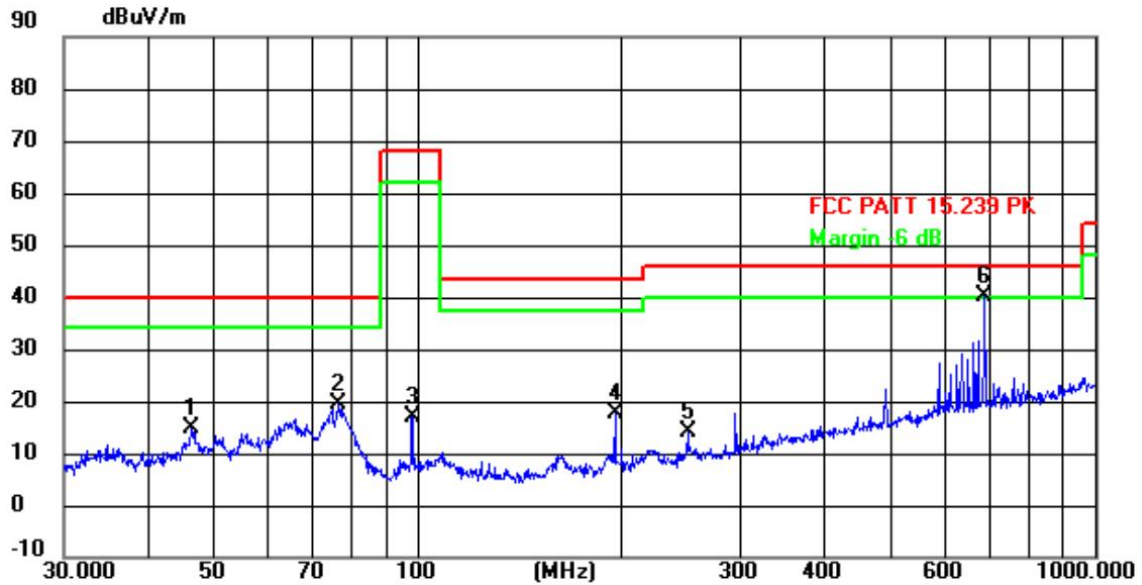


| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit  | Margin |          |         |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|---------|
|     |     | MHz      | Level   | Factor  | ment     |        |        | Detector | Comment |
|     |     |          | dBuV    | dB/m    | dBuV/m   | dBuV/m | dB     |          |         |
| 1   |     | 49.0144  | 18.87   | -17.35  | 1.52     | 40.00  | -38.48 | AVG      |         |
| 2   |     | 97.7982  | 25.19   | -19.25  | 5.94     | 48.00  | -42.06 | AVG      |         |
| 3   | *   | 195.8220 | 32.12   | -20.03  | 12.09    | 43.50  | -31.41 | AVG      |         |
| 4   |     | 250.3010 | 24.76   | -17.84  | 6.92     | 46.00  | -39.08 | AVG      |         |
| 5   |     | 392.0950 | 20.87   | -13.58  | 7.29     | 46.00  | -38.71 | AVG      |         |
| 6   |     | 687.1506 | 22.51   | -8.73   | 13.78    | 46.00  | -32.22 | AVG      |         |



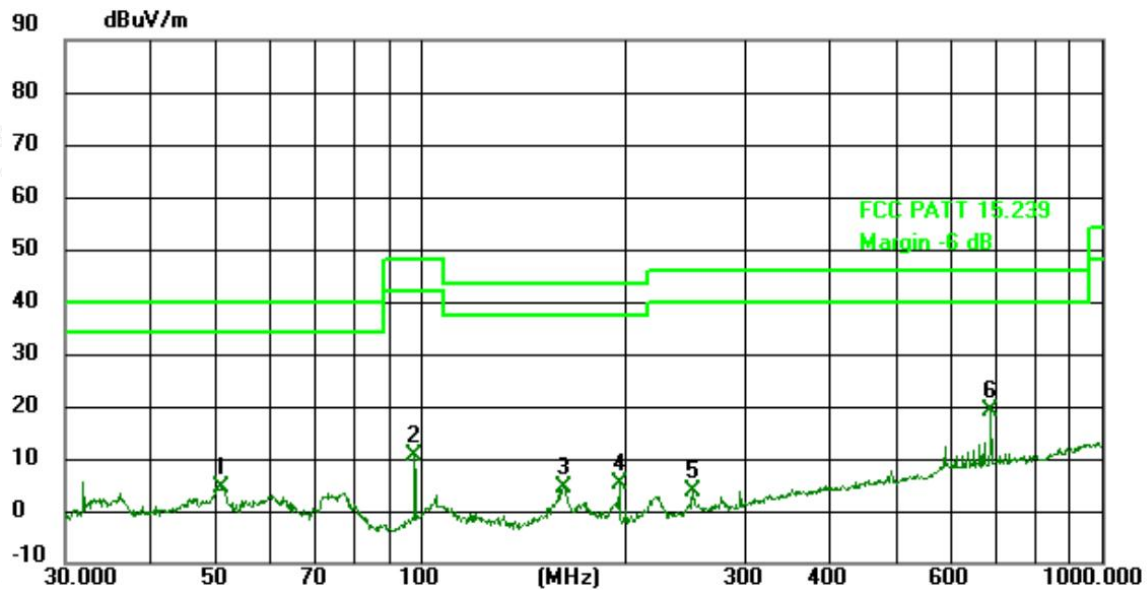
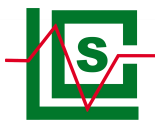


Vertical



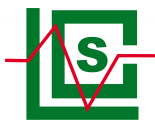
| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB/m | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|---------------------------|----------------------------|-----------------|--------------|----------|---------|
| 1   |     | 46.1779      | 33.04                    | -18.13                    | 14.91                      | 40.00           | -25.09       | peak     |         |
| 2   |     | 76.5119      | 40.43                    | -21.12                    | 19.31                      | 40.00           | -20.69       | peak     |         |
| 3   |     | 98.1418      | 36.64                    | -19.62                    | 17.02                      | 68.00           | -50.98       | peak     |         |
| 4   |     | 195.8220     | 36.33                    | -18.81                    | 17.52                      | 43.50           | -25.98       | peak     |         |
| 5   |     | 250.3010     | 30.40                    | -16.45                    | 13.95                      | 46.00           | -32.05       | peak     |         |
| 6   | *   | 687.1506     | 50.28                    | -10.02                    | 40.26                      | 46.00           | -5.74        | peak     |         |





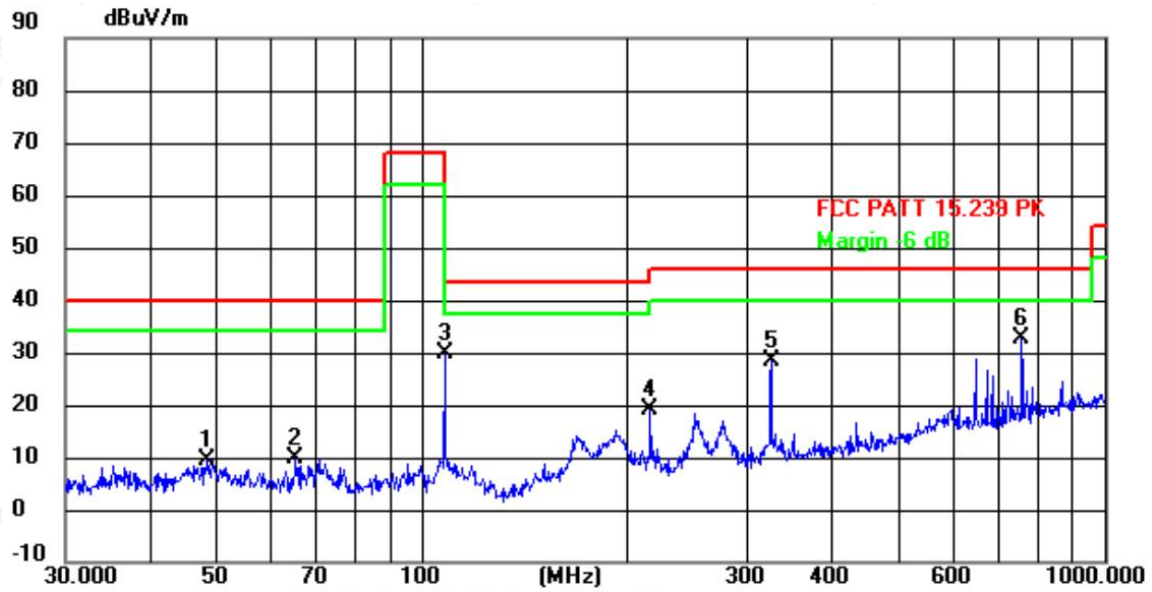
| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit  | Margin |          |         |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|---------|
|     |     | MHz      | Level   | Factor  | ment     |        |        | Detector | Comment |
|     |     |          | dBuV    | dB/m    | dBuV/m   | dBuV/m | dB     |          |         |
| 1   |     | 50.7635  | 22.98   | -18.39  | 4.59     | 40.00  | -35.41 | AVG      |         |
| 2   |     | 97.7982  | 30.19   | -19.64  | 10.55    | 48.00  | -37.45 | AVG      |         |
| 3   |     | 162.0413 | 25.31   | -20.77  | 4.54     | 43.50  | -38.96 | AVG      |         |
| 4   |     | 195.8220 | 23.84   | -18.81  | 5.03     | 43.50  | -38.47 | AVG      |         |
| 5   |     | 250.3010 | 20.11   | -16.45  | 3.66     | 46.00  | -42.34 | AVG      |         |
| 6   | *   | 687.1506 | 29.11   | -10.02  | 19.09    | 46.00  | -26.91 | AVG      |         |





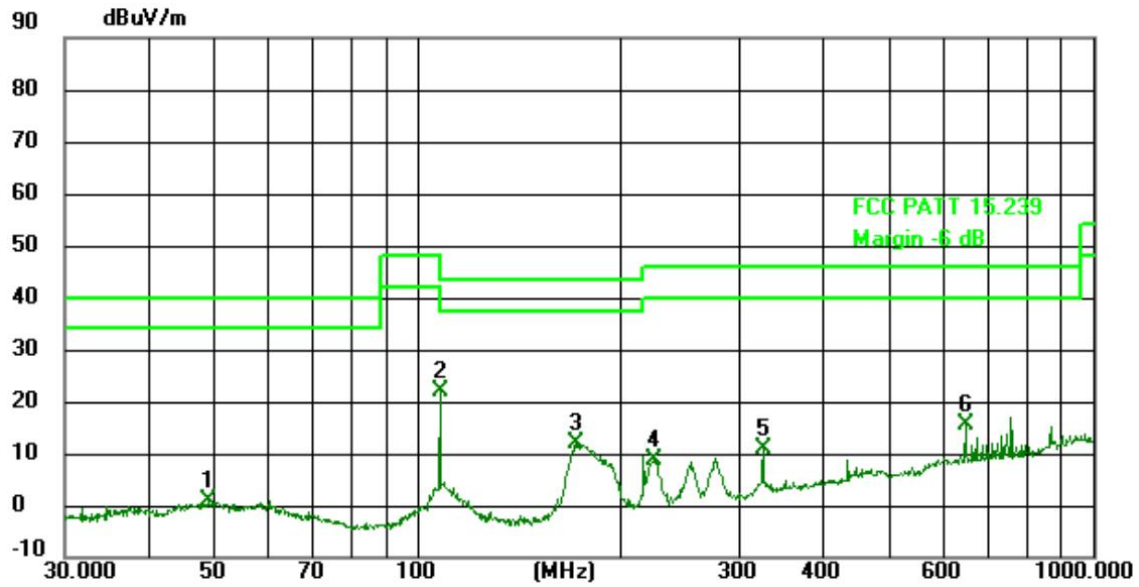
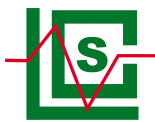
## TX-107.9MHz

Horizontal



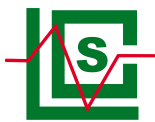
| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit  | Margin |          |         |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|---------|
|     |     | MHz      | Level   | Factor  | ment     |        |        | Detector | Comment |
|     |     |          | dBuV    | dB/m    | dBuV/m   | dBuV/m | dB     |          |         |
| 1   |     | 48.5015  | 27.02   | -17.40  | 9.62     | 40.00  | -30.38 | peak     |         |
| 2   |     | 65.3431  | 29.14   | -19.15  | 9.99     | 40.00  | -30.01 | peak     |         |
| 3   |     | 107.8877 | 48.55   | -18.66  | 29.89    | 68.00  | -38.11 | peak     |         |
| 4   |     | 216.0240 | 38.32   | -19.04  | 19.28    | 46.00  | -26.72 | peak     |         |
| 5   |     | 324.4560 | 44.19   | -15.84  | 28.35    | 46.00  | -17.65 | peak     |         |
| 6   | *   | 755.3873 | 40.98   | -8.16   | 32.82    | 46.00  | -13.18 | peak     |         |



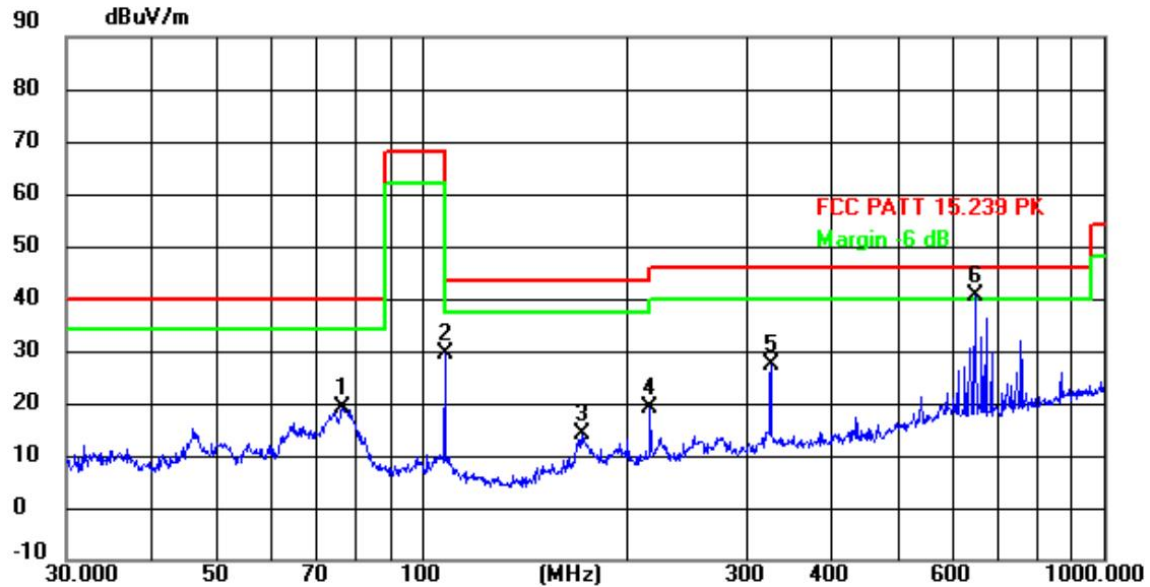


| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB/m | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|---------------------------|----------------------------|-----------------|--------------|----------|---------|
| 1   |     | 48.8428      | 18.12                    | -17.37                    | 0.75                       | 40.00           | -39.25       | AVG      |         |
| 2   | *   | 107.8877     | 40.48                    | -18.66                    | 21.82                      | 48.00           | -26.18       | AVG      |         |
| 3   |     | 171.3925     | 33.26                    | -21.15                    | 12.11                      | 43.50           | -31.39       | AVG      |         |
| 4   |     | 224.5192     | 27.40                    | -18.78                    | 8.62                       | 46.00           | -37.38       | AVG      |         |
| 5   |     | 324.4560     | 26.68                    | -15.84                    | 10.84                      | 46.00           | -35.16       | AVG      |         |
| 6   |     | 647.3856     | 24.72                    | -9.35                     | 15.37                      | 46.00           | -30.63       | AVG      |         |



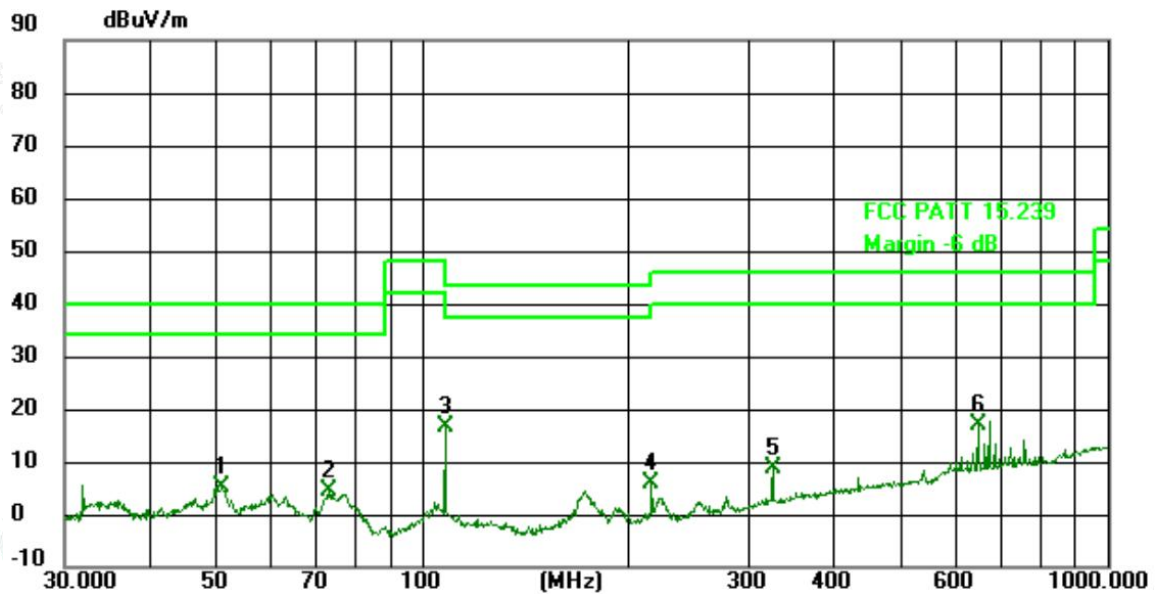
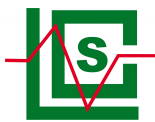


Vertical



| No. | Mk. | Freq.    | Reading | Correct | Measure- | Limit  | Margin |          |         |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|---------|
|     |     | MHz      | Level   | Factor  | ment     |        |        | Detector | Comment |
|     |     |          | dBuV    | dB/m    | dBuV/m   | dBuV/m | dB     |          |         |
| 1   |     | 76.5119  | 40.37   | -21.12  | 19.25    | 40.00  | -20.75 | peak     |         |
| 2   |     | 107.8877 | 49.64   | -20.15  | 29.49    | 68.00  | -38.51 | peak     |         |
| 3   |     | 171.9946 | 34.69   | -20.44  | 14.25    | 43.50  | -29.25 | peak     |         |
| 4   |     | 216.0240 | 37.02   | -17.94  | 19.08    | 46.00  | -26.92 | peak     |         |
| 5   |     | 324.4560 | 42.19   | -14.76  | 27.43    | 46.00  | -18.57 | peak     |         |
| 6   | *   | 647.3856 | 50.81   | -10.14  | 40.67    | 46.00  | -5.33  | peak     |         |





| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB/m | Measure-<br>ment<br>dBuV/m | Limit<br>dBuV/m | Margin<br>dB | Detector | Comment |
|-----|-----|--------------|--------------------------|---------------------------|----------------------------|-----------------|--------------|----------|---------|
| 1   |     | 50.9420      | 23.56                    | -18.42                    | 5.14                       | 40.00           | -34.86       | AVG      |         |
| 2   |     | 72.8466      | 25.34                    | -20.93                    | 4.41                       | 40.00           | -35.59       | AVG      |         |
| 3   |     | 107.8877     | 36.67                    | -20.15                    | 16.52                      | 48.00           | -31.48       | AVG      |         |
| 4   |     | 216.0240     | 23.88                    | -17.94                    | 5.94                       | 46.00           | -40.06       | AVG      |         |
| 5   |     | 324.4560     | 23.49                    | -14.76                    | 8.73                       | 46.00           | -37.27       | AVG      |         |
| 6   | *   | 647.3856     | 27.10                    | -10.14                    | 16.96                      | 46.00           | -29.04       | AVG      |         |

Note: The result below 30MHz and above 1GHz is too low so there is no record. The test setup show in the test setup photograph is the worst case.



## 6. POWER LINE CONDUCTED EMISSIONS

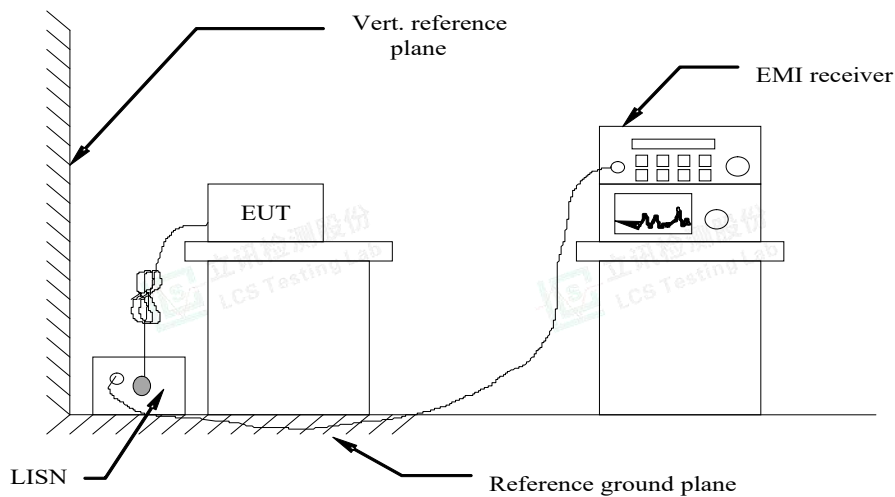
### 6.1 Standard Applicable

According to §15.207 (a): For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range are listed as follows:

| Frequency Range (MHz) | Limits (dBμV) |          |
|-----------------------|---------------|----------|
|                       | Quasi-peak    | Average  |
| 0.15 to 0.50          | 66 to 56      | 56 to 46 |
| 0.50 to 5             | 56            | 46       |
| 5 to 30               | 60            | 50       |

\* Decreasing linearly with the logarithm of the frequency

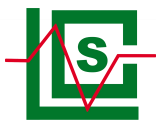
### 6.2 Block Diagram of Test Setup



### 6.3 Test Results

**Not applicable.**





## 7. ANTENNA REQUIREMENT

### 7.1 Standard Applicable

According to antenna requirement of §15.203.

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

### 7.2 Antenna Connected Construction

#### 7.2.1. Standard Applicable

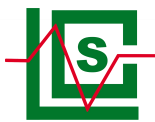
According to § 15.203 & RSS-Gen Issue 4, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 7.2.2. Antenna Connector Construction

The directional gains of antenna used for transmitting is 0dBi, and the antenna is an PCB Antenna connect to PCB board and no consideration of replacement. Please see EUT photo for details.

#### 7.2.3. Results: Compliance.





## 8. LIST OF TEST EQUIPMENT

| Item | Equipment                      | Manufacturer | Model No.   | Serial No.          | Cal Date   | Due Date   |
|------|--------------------------------|--------------|-------------|---------------------|------------|------------|
| 1    | MXA Signal Analyzer            | Agilent      | N9020A      | MY53300304          | 2025-05-22 | 2026-05-21 |
| 2    | DC Power Supply                | Agilent      | E3642A      | N/A                 | 2025-09-27 | 2026-09-26 |
| 3    | Temperature & Humidity Chamber | Baro         | /           | /                   | 2025-06-04 | 2026-06-03 |
| 4    | EMI Test Software              | Farad        | EZ-EMC      | Ver.FARAD-3A1.1+    | N/A        | N/A        |
| 5    | 3m Semi Anechoic Chamber       | Maorui       | 966         | /                   | 2023-10-12 | 2026-10-11 |
| 6    | Positioning Controller         | Max-Full     | MF7802BS    | MF780208586         | N/A        | N/A        |
| 7    | Active Loop Antenna            | SCHWARZBECK  | FMZB 1519B  | 00005               | 2024-07-13 | 2027-07-12 |
| 8    | By-log Antenna                 | SCHWARZBECK  | VULB9163    | 9163-470            | 2024-08-03 | 2027-08-02 |
| 9    | Horn Antenna                   | SCHWARZBECK  | BBHA 9120D  | 9120D-1925          | 2024-07-13 | 2027-07-12 |
| 10   | EMI Test Receiver              | R&S          | ESR 7       | 101181              | 2025-05-22 | 2026-05-21 |
| 11   | RS SPECTRUM ANALYZER           | R&S          | FSP40       | 100503              | 2025-05-22 | 2026-05-21 |
| 12   | Low-frequency amplifier        | SchwarzZBECK | BBV9745     | 00253               | 2025-09-27 | 2026-09-26 |
| 13   | High-frequency amplifier       | JS Denki Pte | PA0118-43   | JSPA21009           | 2025-09-27 | 2026-09-26 |
| 14   | EMI Test Receiver              | R&S          | ESPI        | 101940              | 2025-05-22 | 2026-05-21 |
| 15   | Artificial Mains               | R&S          | ENV216      | 101479              | 2025-05-23 | 2026-05-22 |
| 16   | 10dB Attenuator                | SCHWARZBECK  | MTS-IMP-136 | 261115-001-0032     | 2025-05-22 | 2026-05-21 |
| 17   | EMI Test Software              | Farad        | EZ-EMC      | Ver. EMC-CON 3A1.1+ | N/A        | N/A        |
| 18   | Antenna Mast                   | Max-Full     | MFA-515BSN  | 1308572             | N/A        | N/A        |
| 19   | Pulse Limiter                  | R&S          | ESH3-Z2     | 102750              | 2025-05-23 | 2026-05-22 |
| 20   | Broadband Horn Antenna         | SCHWARZBECK  | BBHA 9170   | 791                 | 2024-07-13 | 2027-07-12 |
| 21   | Broadband Preamplifier         | SCHWARZBECK  | BBV9719     | 9719-025            | 2024-07-30 | 2027-07-29 |





## 9. TEST SETUP PHOTOGRAPHS OF EUT

Please refer to separated files for Test Setup Photos of the EUT.

## 10. EXTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for External Photos of the EUT.

## 11. INTERIOR PHOTOGRAPHS OF THE EUT

Please refer to separated files for Internal Photos of the EUT.

-----THE END OF REPORT-----

