# FCC ID Test Report

## For

| | |
|---|---|
| **Applicant name:** | **Shenzhen DSY Electronic Technology Co., Ltd.** |
| Address: | 2nd Floor, Building B, Kejutong Industrial Park, Qiaotang Road, Fuhai Street, Bao'an District, Shenzhen |
| EUT name: | RGB mood tube light |
| Brand name: | N/A |
| Model number: | TL135 |
| Series model number: | TL135Plus, TL135Pro, TL135Max, TL135DMX, TL135Ultra |
| FCC ID: | 2BL32-TL135 |

## Issued By

| | |
|---|---|
| **Company name:** | **BTF Testing Lab (Shenzhen) Co., Ltd.** |
| Address: | Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China |
| Report number: | BTF260507E00701 |
| Test standards: | 47 CFR Part 15, Subpart B |
| Test conclusion: | Pass |
| Date of sample receipt: | 2026-05-07 |
| Test date: | 2026-05-07 to 2026-05-25 |
| Date of issue: | 2026-06-03 |
| Test by: | 2026-06-03 |

Vivi Yan

Prepared by: Vivi. Yan / Tester

Chris Liu

Approved by:

*Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.*

| Revision History | | |
|---|---|---|
| Version | Issue Date | Revisions Content |
| R_V0 | 2026-06-03 | Original |
| | | |

*Note:*
*Once the revision has been made, then previous versions reports are invalid.*



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BTF Testing Lab (Shenzhen) Co., Ltd.
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# 1 Introduction

## 1.1 Laboratory Location

| | |
|---|---|
| Test location: | BTF Testing Lab (Shenzhen) Co., Ltd. |
| Address: | Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China |
| Phone number: | +86-0755-23146130 |
| Fax number: | +86-0755-23146130 |

## 1.2 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1409**
  BTF Testing Lab (Shenzhen) Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The test firm Registration No. is 695374.
- **CNAS - Registration No.: CNAS L17568**
  BTF Testing Lab (Shenzhen) Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L17568.
- **A2LA - Registration No.: 6660.01**
  BTF Testing Lab (Shenzhen) Co., Ltd. is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.
- **ISED – CAB identifier.: CN0135**
  The 3m Semi-anechoic chamber of BTF Testing Lab (Shenzhen) Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 27844.

## 1.3 Announcement

(1) The test report reference to the report template version v0.
(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
(3) The test report is invalid if there is any evidence and/or falsification.
(4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
(5) 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.
(6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.
(7) All entrusted information in this report is provided by the client and has been confirmed through consultation with the client; The testing items for this report have been discussed and confirmed with the client, and our company is only responsible for the content reflected in the report.



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# 2 Product Information

## 2.1 Application Information

| | |
|---|---|
| Company name: | Shenzhen DSY Electronic Technology Co., Ltd. |
| Address: | 2nd Floor, Building B, Kejutong Industrial Park, Qiaotang Road, Fuhai Street, Bao'an District, Shenzhen |

## 2.2 Manufacturer Information

| | |
|---|---|
| Company name: | Shenzhen DSY Electronic Technology Co., Ltd. |
| Address: | 2nd Floor, Building B, Kejutong Industrial Park, Qiaotang Road, Fuhai Street, Bao'an District, Shenzhen |

## 2.3 Factory Information

| | |
|---|---|
| Company name: | Shenzhen DSY Electronic Technology Co., Ltd. |
| Address: | 2nd Floor, Building B, Kejutong Industrial Park, Qiaotang Road, Fuhai Street, Bao'an District, Shenzhen |

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

| | |
|---|---|
| EUT name: | RGB mood tube light |
| Under test model name: | TL135 |
| Series model name: | TL135Plus, TL135Pro, TL135Max, TL135DMX, TL135Ultra |
| Description of model name differentiation: | The model name is different, everything else is the same |
| Ratings: | Input: DC 5V |



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# 3 Summary of Test Results

## 3.1 Test Standards

The tests were performed according to following standards:
**47 CFR Part 15, Subpart B:** Unintentional Radiators

## 3.2 Uncertainty of Test

| Measurement | Value |
|---|---|
| Conducted Emission for LISN (150kHz ~ 30MHz) | ±2.45 dB |
| Radiated Emission (9kHz ~ 30MHz) | ±2.20 dB |
| Radiated Emission (30MHz ~ 1000MHz) | ±4.94 dB |
| 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. | |

## 3.3 Summary of Test Result

| Item | Standard | Requirement | Result |
|---|---|---|---|
| Conducted emissions on AC mains | 47 CFR Part 15, Subpart B | 15.107, Class B | Pass |
| Radiated emissions (Below 1GHz) | 47 CFR Part 15, Subpart B | 15.109, Class B | Pass |
| ***Remark:***<br>*1. Pass: Meet the requirements.*<br>*2. N/A: not applicable.* | | | |

## 3.4 Additions to, deviations, or exclusions from the method

None



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# 4 Test Configuration

## 4.1 Test Equipment List

| Conducted emissions on AC mains | | | | | |
|---|---|---|---|---|---|
| Test Equipment | Manufacturer | Model | Serial No. | Cal. Date | Cal. Due |
| Test Software | Frad | EZ_EMC | Version: EMC-CON 3A1.1+ | / | / |
| EMI Receiver | Rohde & Schwarz | ESCI3 | 101422 | 2025-10-17 | 2026-10-16 |
| V-LISN | Schwarzbeck | NSLK 8127 | 01073 | 2025-08-23 | 2026-08-22 |
| Coaxial Switcher | Schwarzbeck | CX210 | CX210 | / | / |
| Pulse Limiter | Schwarzbeck | VTSD 9561-F | 00953 | / | / |
| LISN-Cable | REBES Talent | LISN9K30M | 21101580 | 2025-08-23 | 2026-08-22 |

| Radiated emissions (Below 1GHz) | | | | | |
|---|---|---|---|---|---|
| Test Equipment | Manufacturer | Model | Serial No. | Cal. Date | Cal. Due |
| Test Software | Frad | EZ_EMC | Version: FA-03A2 RE+ | / | / |
| EMI Receiver | Rohde & Schwarz | ESCI7 | 101032 | 2025-10-17 | 2026-10-16 |
| Signal Analyzer | Rohde & Schwarz | FSQ40 | 100010 | 2025-10-17 | 2026-10-16 |
| Log periodic antenna | Schwarzbeck | VULB 9168 | 01328 | 2025-10-18 | 2026-10-17 |
| Preamplifier (9kHz ~ 6GHz) | Schwarzbeck | BBV9744 | 00246 | 2025-05-26<br>2026-05-10 | 2026-05-25<br>2027-05-09 |
| Loop Antenna | SCHWARZBECK | FMZB 1519 B | 00059 | 2025/06/25 | 2027/06/24 |
| BELOW-Cable | REBES Talent | 9K1G | 21101576 | 2025-08-23 | 2026-08-22 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 2597 | 2025-10-18 | 2026-10-17 |
| Preamplifier (1GHz ~ 18GHz) | Schwarzbeck | BBV9718D | 00008 | 2025-10-18 | 2026-10-17 |
| Preamplifier | TSTPASS | LNA10180G45 | TS2215007 | 2025-05-26<br>2026-05-10 | 2026-05-25<br>2027-05-09 |
| ABOVE-Cable | REBES Talent | 1~18G | 21101558 | 2025-08-23 | 2026-08-22 |
| Horn Antenna | SCHWARZBECK | BBHA9170 | 1157 | 2025-10-18 | 2026-10-17 |
| Low Noise Pre-amplifier | Sket | LNPA_1840G-50 | SK2022032902 | 2025-10-17 | 2026-10-16 |
| ABOVE-Cable2 | REBES Talent | 18~40G | 21101686 | 2025-08-23 | 2026-08-22 |
| ABOVE-Cable1 | REBES Talent | 18~40G | 21101687 | 2025-08-23 | 2026-08-22 |

## 4.2 Test Auxiliary Equipment

| No. | Description | Manufacturer | Model | Serial Number | Certification |
|---|---|---|---|---|---|
| 1 | USB-C Power | Apple Inc. | A2166 | / | |



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| | | | | | |
|---|---|---|---|---|---|
| | Adapter | | | | |

## 4.3 Test Modes

| No. | Test Modes |
|---|---|
| TM1 | Working |



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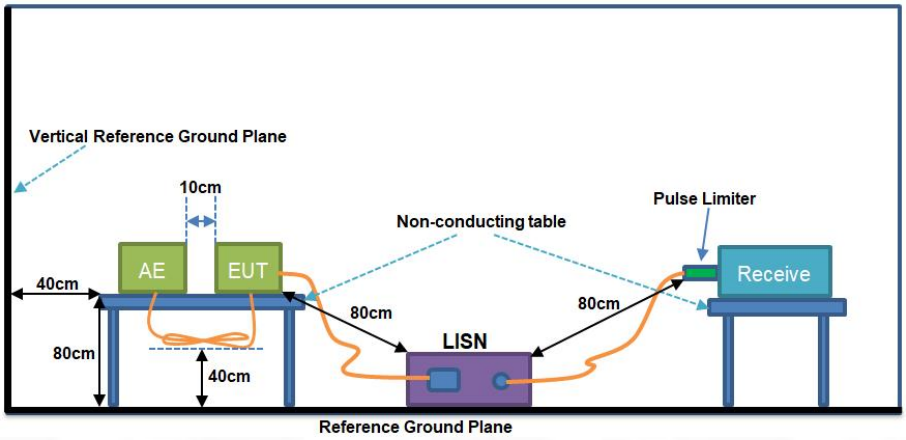
# 5 Emission Test Results (EMI)

## 5.1 Conducted emissions on AC mains

| | |
|---|---|
| Test Requirement: | 15.107, Class B |
| Test Method: | ANSI C63.4a-2017 |
| Test Limit: | **Frequency of emission (MHz)** / **Conducted limit (dBμV)** (Quasi-peak / Average)<br>0.15-0.5: 66 to 56* / 56 to 46*<br>0.5-5: 56 / 46<br>5-30: 60 / 50<br>*Decreases with the logarithm of the frequency. |
| Procedure: | An initial pre-scan was performed with peak detector.Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.<br>Remark: Level= Read Level+ Cable Loss+ LISN Factor |
| Test Setup: |  |
| Operating Environment: | |
| Temperature: | 25.6 °C |
| Humidity: | 51.1 % |
| Atmospheric Pressure: | 1010 mbar |
| Test voltage: | DC 5V From Adapter with AC 120V/60Hz |

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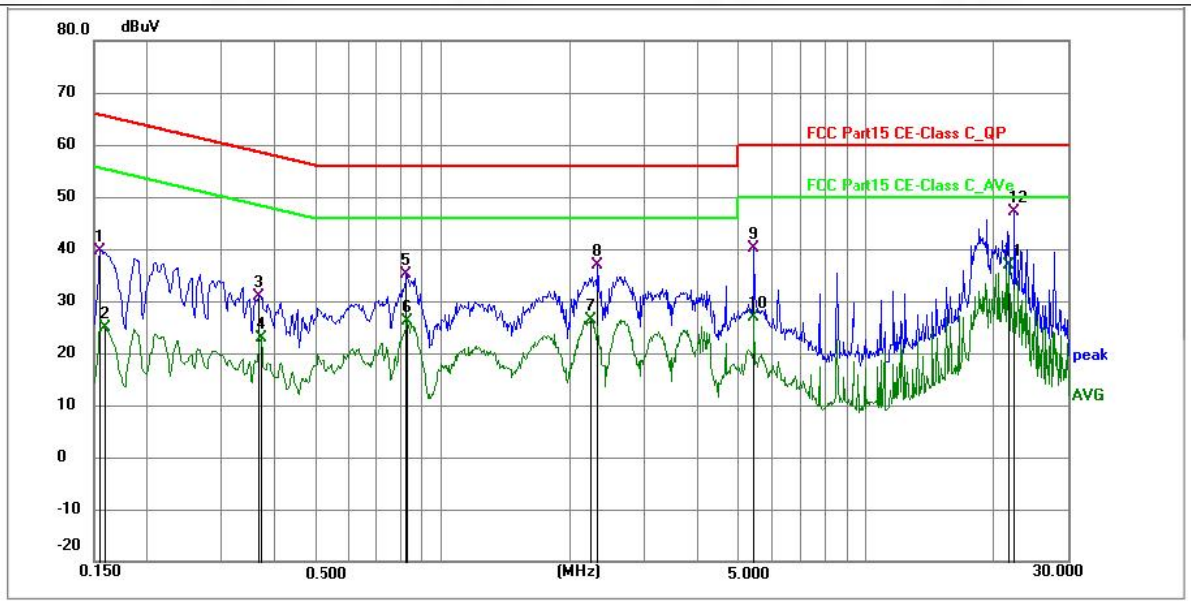
### 5.1.1 Test Data

Remark: The report only reflects the test data of worst mode.

TM1 / Line: Line




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.1544 | 29.41 | 10.22 | 39.63 | 65.76 | -26.13 | QP | P | |
| 2 | 0.1590 | 14.75 | 10.25 | 25.00 | 55.52 | -30.52 | AVG | P | |
| 3 | 0.3660 | 20.77 | 10.21 | 30.98 | 58.59 | -27.61 | QP | P | |
| 4 | 0.3704 | 12.75 | 10.21 | 22.96 | 48.49 | -25.53 | AVG | P | |
| 5 | 0.8250 | 24.91 | 10.19 | 35.10 | 56.00 | -20.90 | QP | P | |
| 6 | 0.8295 | 15.90 | 10.20 | 26.10 | 46.00 | -19.90 | AVG | P | |
| 7 | 2.2380 | 16.02 | 10.30 | 26.32 | 46.00 | -19.68 | AVG | P | |
| 8 | 2.3235 | 26.55 | 10.28 | 36.83 | 56.00 | -19.17 | QP | P | |
| 9 | 5.4284 | 29.83 | 10.39 | 40.22 | 60.00 | -19.78 | QP | P | |
| 10 | 5.4284 | 16.49 | 10.39 | 26.88 | 50.00 | -23.12 | AVG | P | |
| 11 | 21.7905 | 25.75 | 11.21 | 36.96 | 50.00 | -13.04 | AVG | P | |
| 12 * | 22.4880 | 35.98 | 11.21 | 47.19 | 60.00 | -12.81 | QP | P | |



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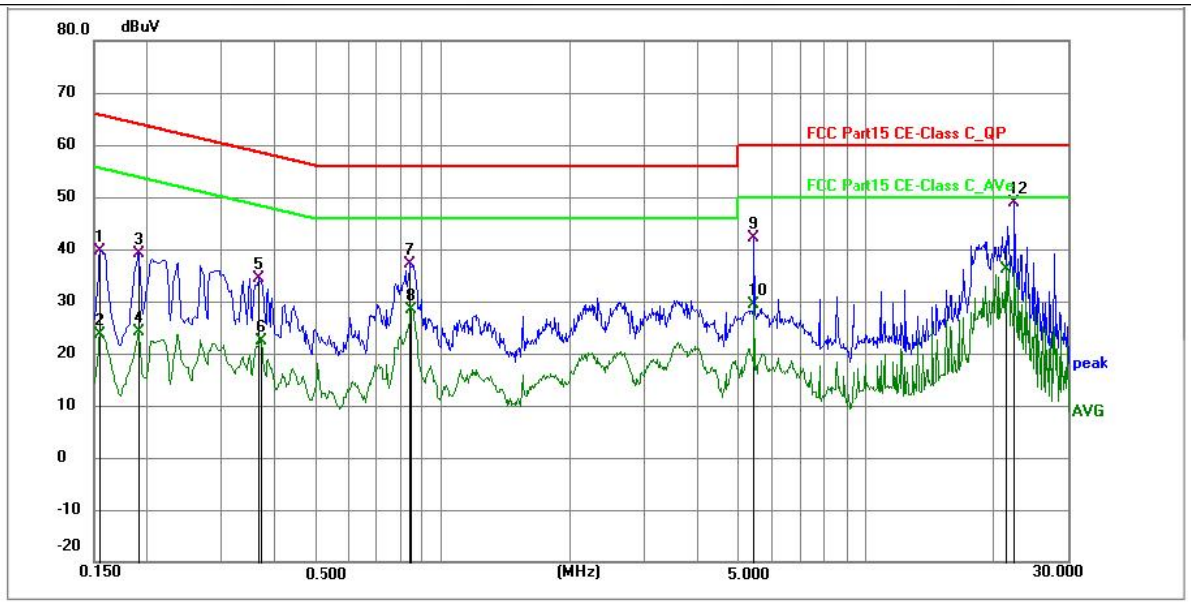
TM1 / Line: Neutral




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.1545 | 29.54 | 10.21 | 39.75 | 65.75 | -26.00 | QP | P | |
| 2 | 0.1545 | 13.49 | 10.21 | 23.70 | 55.75 | -32.05 | AVG | P | |
| 3 | 0.1905 | 28.99 | 10.22 | 39.21 | 64.01 | -24.80 | QP | P | |
| 4 | 0.1905 | 13.83 | 10.22 | 24.05 | 54.01 | -29.96 | AVG | P | |
| 5 | 0.3660 | 24.16 | 10.22 | 34.38 | 58.59 | -24.21 | QP | P | |
| 6 | 0.3704 | 12.27 | 10.22 | 22.49 | 48.49 | -26.00 | AVG | P | |
| 7 | 0.8430 | 26.92 | 10.24 | 37.16 | 56.00 | -18.84 | QP | P | |
| 8 | 0.8475 | 18.16 | 10.24 | 28.40 | 46.00 | -17.60 | AVG | P | |
| 9 | 5.4284 | 31.64 | 10.40 | 42.04 | 60.00 | -17.96 | QP | P | |
| 10 | 5.4284 | 18.95 | 10.40 | 29.35 | 50.00 | -20.65 | AVG | P | |
| 11 | 21.4260 | 24.91 | 11.25 | 36.16 | 50.00 | -13.84 | AVG | P | |
| 12 * | 22.4880 | 37.77 | 11.22 | 48.99 | 60.00 | -11.01 | QP | P | |

Note:Margin=Level-Limit=Reading+factor-Limit=Reading+LISN+Cable loss-Limit



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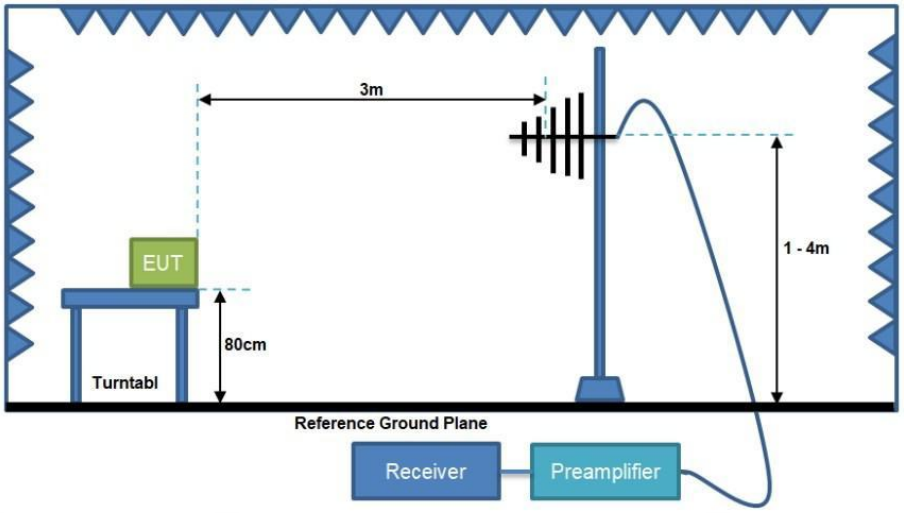
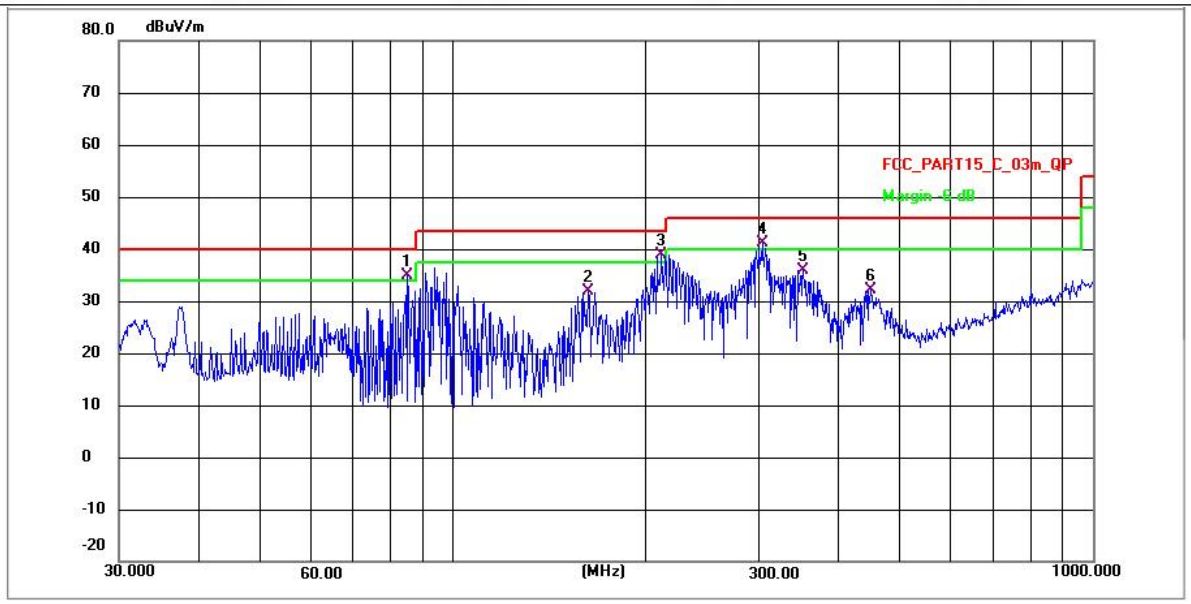
## 5.2 Radiated emissions (Below 1GHz)

<table>
<tr><td>Test Requirement:</td><td>15.109, Class B</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.4a-2017</td></tr>
<tr><td>Test Limit:</td><td>Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:
<table>
<tr><td rowspan="2">Frequency of emission (MHz)</td><td colspan="2">Field strength @3m</td><td colspan="2">Field strength @10m</td></tr>
<tr><td>(μV/m)</td><td>(dBμV/m)</td><td>(μV/m)</td><td>(dBμV/m)</td></tr>
<tr><td>30 – 88</td><td>100</td><td>40</td><td>30</td><td>29.5</td></tr>
<tr><td>88 – 216</td><td>150</td><td>43.5</td><td>45</td><td>33.1</td></tr>
<tr><td>216 – 960</td><td>200</td><td>46</td><td>60</td><td>35.6</td></tr>
<tr><td>Above 960</td><td>500</td><td>54</td><td>150</td><td>43.5</td></tr>
</table></td></tr>
<tr><td>Procedure:</td><td>An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.<br>Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor</td></tr>
<tr><td>Test Setup:</td><td> 
</td></tr>
<tr><td colspan="2">Operating Environment:</td></tr>
<tr><td>Temperature:</td><td>24.3 °C</td></tr>
<tr><td>Humidity:</td><td>53.4 %</td></tr>
<tr><td>Atmospheric Pressure:</td><td>1010 mbar</td></tr>
<tr><td>Test voltage:</td><td>DC 5V From Adapter with AC 120V/60Hz</td></tr>
</table>

### 5.2.1 Test Data

Remark: The report only reflects the test data of worst mode.

TM1 / Polarization: Horizontal




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 ! | 84.9993 | 63.04 | -28.12 | 34.92 | 40.00 | -5.08 | QP | P |
| 2 | 162.6105 | 59.15 | -27.17 | 31.98 | 43.50 | -11.52 | QP | P |
| 3 * | 211.5261 | 65.50 | -26.65 | 38.85 | 43.50 | -4.65 | QP | P |
| 4 ! | 303.5437 | 66.81 | -25.75 | 41.06 | 46.00 | -4.94 | QP | P |
| 5 | 351.7080 | 61.22 | -25.32 | 35.90 | 46.00 | -10.10 | QP | P |
| 6 | 447.9821 | 56.72 | -24.52 | 32.20 | 46.00 | -13.80 | QP | P |



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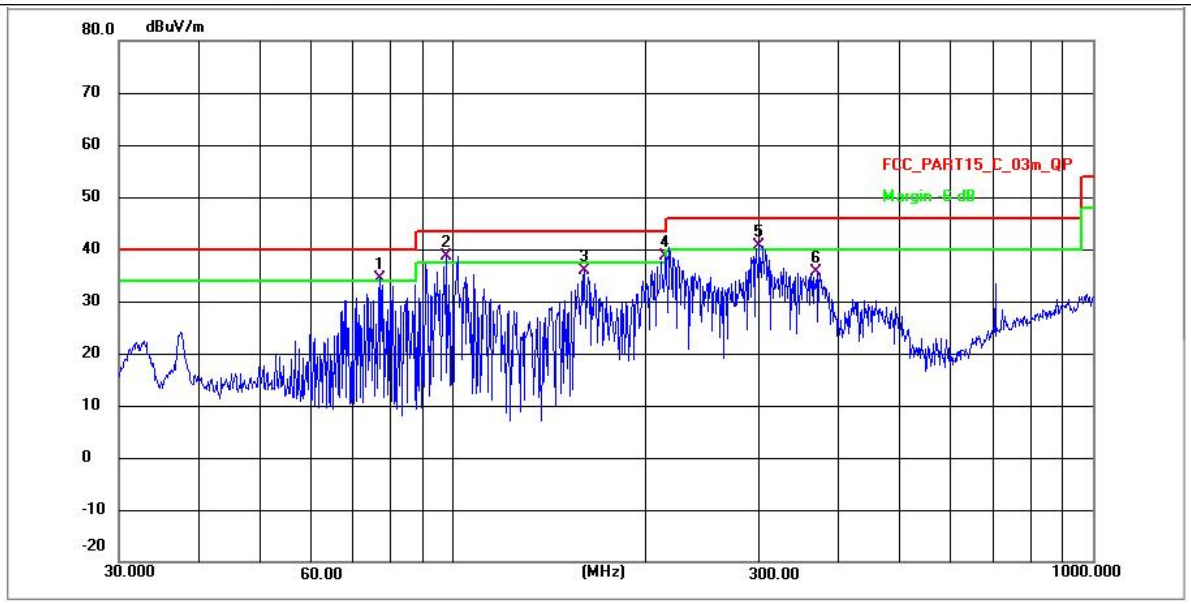
TM1 / Polarization: Vertical




| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | P/F |
|---|---|---|---|---|---|---|---|---|
| 1 ! | 76.7806 | 43.58 | -9.32 | 34.26 | 40.00 | -5.74 | QP | P |
| 2 * | 97.4560 | 66.61 | -27.95 | 38.66 | 43.50 | -4.84 | QP | P |
| 3 | 160.3454 | 62.96 | -27.20 | 35.76 | 43.50 | -7.74 | QP | P |
| 4 ! | 214.5141 | 65.26 | -26.62 | 38.64 | 43.50 | -4.86 | QP | P |
| 5 ! | 300.3672 | 66.50 | -25.78 | 40.72 | 46.00 | -5.28 | QP | P |
| 6 | 369.4045 | 60.78 | -25.17 | 35.61 | 46.00 | -10.39 | QP | P |

Note:Margin=Level-Limit=Reading+factor-Limit=Reading+Antenna factor+ cable loss -amplifier gain-Limit



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# 6 Test Setup Photos

Please refer to Appendix I Test Setup Photos.

# 7 EUT Constructional Details (EUT Photos)

Please refer to Appendix II External Photos and Appendix III Internal Photos.



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