



FCC TEST REPORT

Reference No. : CF23070804
Applicant : Americanlite
Address : 2450 Hollywood Blvd, Suite #703, Hollywood FL 33020 USA
Manufacturer : Americanlite
Address : 2450 Hollywood Blvd, Suite #703, Hollywood FL 33020 USA
Product Name : Americanlite Healthcare Backlit panel / Cleanroom Series
Model No. : AL674956, AL674957, AL674958, AL674959
AL674960, AL674961, AL674962, AL674963
AL674964, AL674965, AL674966, AL674967
Standards : FCC PART15 SUBPART B CLASS B 2022
Date of Receipt sample : Sep. 08. 2023
Date of Test : Sep. 08. 2023 ~ Sep.15.2023
Date of Issue : Sep. 18. 2023
Test Report Form No. : FCC 15-3A
Test Result : **Pass ***

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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Manager



**1 Test Summary**

| Test Item | Test Requirement | Class | Test Method | Test Result |
|--|------------------------------|---------|------------------|-------------|
| Conducted Emission at the mains terminals (150KHz to 30MHz) | FCC PART 15, SUBPART B: 2022 | Class B | ANSI C63.4: 2014 | Pass |
| Conducted Emission at the antenna terminals (30MHz to 2.15GHz) | FCC PART 15, SUBPART B: 2022 | Class B | ANSI C63.4: 2014 | N/A |
| Radiated Emission (30MHz to 1GHz) | FCC PART 15, SUBPART B: 2022 | Class B | ANSI C63.4: 2014 | Pass |
| Radiated Emission (above 1GHz) | FCC PART 15, SUBPART B: 2022 | Class B | ANSI C63.4: 2014 | N/A |

Remark:

Pass

Test item meets the requirement

Fail

Test item does not meet the requirement

N/A

Test case does not apply to the test object



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3 General Information

3.1 General Description of E.U.T.

Product Name : Americanlite Healthcare Backlit panel / Cleanroom Series
Model No. : AL476964
Trade Mark..... : Americanlite
Remark..... : /

3.2 Details of E.U.T.

Technical Data : See below table

| No. | Model | Power | Size(mm) | CCT | Lumens |
|-----|----------|-------|-------------|-------|--------|
| 1 | AL674956 | 40W | 603×603×39 | 3000K | 5000 |
| 2 | AL674957 | 40W | 603×603×39 | 4000K | 5000 |
| 3 | AL674958 | 40W | 603×603×39 | 5000K | 5000 |
| 4 | AL674959 | 40W | 603×603×39 | 6500K | 5000 |
| 5 | AL674960 | 40W | 303×1213×39 | 3000K | 5000 |
| 6 | AL674961 | 40W | 303×1213×39 | 4000K | 5000 |
| 7 | AL674962 | 40W | 303×1213×39 | 5000K | 5000 |
| 8 | AL674963 | 40W | 303×1213×39 | 6500K | 5000 |
| 9 | AL674964 | 50W | 603×1213×39 | 3000K | 6250 |
| 10 | AL674965 | 50W | 603×1213×39 | 4000K | 6250 |
| 11 | AL674966 | 50W | 603×1213×39 | 5000K | 6250 |
| 12 | AL674967 | 50W | 603×1213×39 | 6500K | 6250 |

3.3 Description of Support Units

The EUT has been tested as an independent unit. AL476964 is the test sample.

3.4 Standards Applicable for Testing

The tests were performed according to following standards:

FCC PART 15, SUBPART B: Electronic Code of Federal Regulations- Unintentional Radiators
2022



3.5 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

3.6 Abnormalities from Standard Conditions

None.



4 Equipment Used during Test

4.1 Equipments List

| <input checked="" type="checkbox"/> Conducted Emission at the Main Terminals | | | | | |
|---|-------------------------------------|----------------|-------------|------------|--------------------|
| Item | Equipment | Manufacturer | Model No. | Serial No. | Calibration Status |
| 1. | EMI Test Receiver | ROHDE& SCHWARZ | ESCI | 101297 | Valid |
| 2. | Two-Line V-Network | ROHDE& SCHWARZ | ENV216 | 101538 | Valid |
| 3. | Manual RF SW | ESE | RSU-A41 | - | Valid |
| 4. | 3m,50 ohms Cable | HUBER SUHNER | 1016873 | - | Valid |
| <input checked="" type="checkbox"/> Radiated Emission | | | | | |
| Item | Equipment | Manufacturer | Model No. | Serial No. | Calibration Status |
| 1. | EMI Test Receiver | ROHDE& SCHWARZ | ESCI | 101346 | Valid |
| 2. | Trilog Broadband Antenna | SCHWARZBECK | VULB9163 | 580 | Valid |
| 3. | Broad-band Horn Antenna | SCHWARZBECK | BBHA 9120 D | 1092 | Valid |
| 4. | Broadband Preamplifier | SCHWARZBECK | BBV 9743 | 0069 | Valid |
| 5. | 8m 50 Ohm Coaxial Cable with N-plug | HUBER SUHNER | 1016873 | - | Valid |
| 6. | 3m 50 Ohm Coaxial Cable with N-plug | HUBER SUHNER | 1016873 | - | Valid |
| <input type="checkbox"/> Conducted Emission at the Antenna Terminals | | | | | |
| Item | Equipment | Manufacturer | Model No. | Serial No. | Calibration Status |
| 1. | Pre Amplifier | ANRITSU | MH648A | M88544 | Valid |
| 2. | Signal Generator | R&S | SMG | 839331/019 | Valid |
| 3. | RF Selector | TOYO | NS4000 | 9507001 | Valid |
| 4. | RF Selector | TOYO | NS4900 | 0308-021 | Valid |
| 5. | Spectrum Analyzer | ADVANTEST | R3261C | 51720158 | Valid |
| 6. | EMI Test Receiver | R&S | ESS | 837010/012 | Valid |
| 7. | AC Power Supply | KIKUSUI | PCR-4000W | EA002471 | Valid |
| 8. | TV Signal Generator | FLUKE | 54200 | 892006 | Valid |



4.2 Measurement Uncertainty

| Test Item | Frequency Range | Uncertainty | Note |
|------------------------|-----------------|---------------------|------|
| Conduction disturbance | 150kHz~30MHz | $\pm 3.64\text{dB}$ | (1) |
| Radiation | 30MHz~1000MHz | $\pm 5.03\text{dB}$ | (1) |

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

4.3 Associated Equipment

The EUT has been tested with corresponding accessories as follows:

1. Multimeter.



5 Emission Test Results

5.1 Conducted Emission at the mains terminals, 150kHz to 30MHz

Test Requirement..... : FCC PART 15, SUBPART B
Test Method..... : ANSI C63.4
Test Result..... : Pass
Test Limit..... : FCC PART 15, SUBPART B Section 15.107
Frequency Range..... : 150kHz to 30MHz
Class..... : Class B

5.1.1 E.U.T. Operation

Operating Environment:

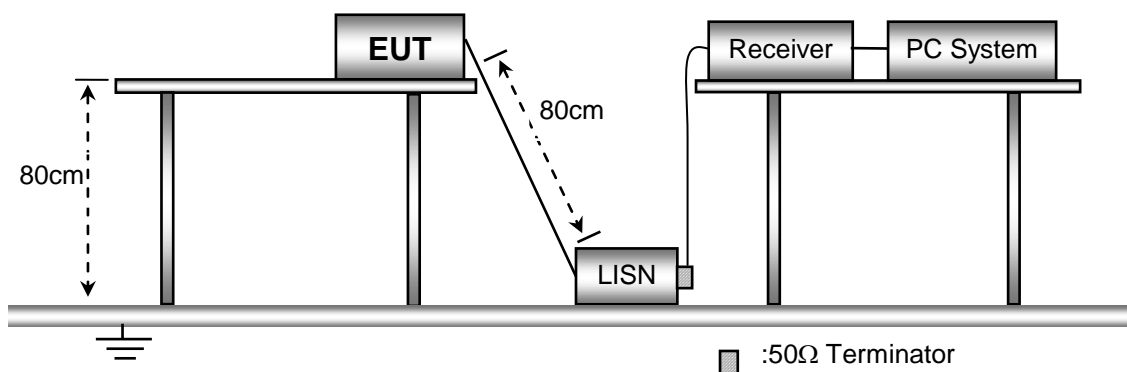
Temperature : 23°C
Humidity..... : 55%RH
Atmospheric Pressure : 101Kbar

EUT Operation:

Input Voltage : AC120V/60Hz, AC277V/50Hz
Operating Mode..... : Full load mode
Remark..... : /

5.1.2 Block Diagram of Test Setup

The Mains Terminals Disturbance Voltage tests were performed in accordance with the FCC PART 15, SUBPART B .





5.1.3 Measurement Data

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line. According to the data in section 5.1.4, the EUT complied with the FCC PART 15, SUBPART B standards.

Remark: Test Limit

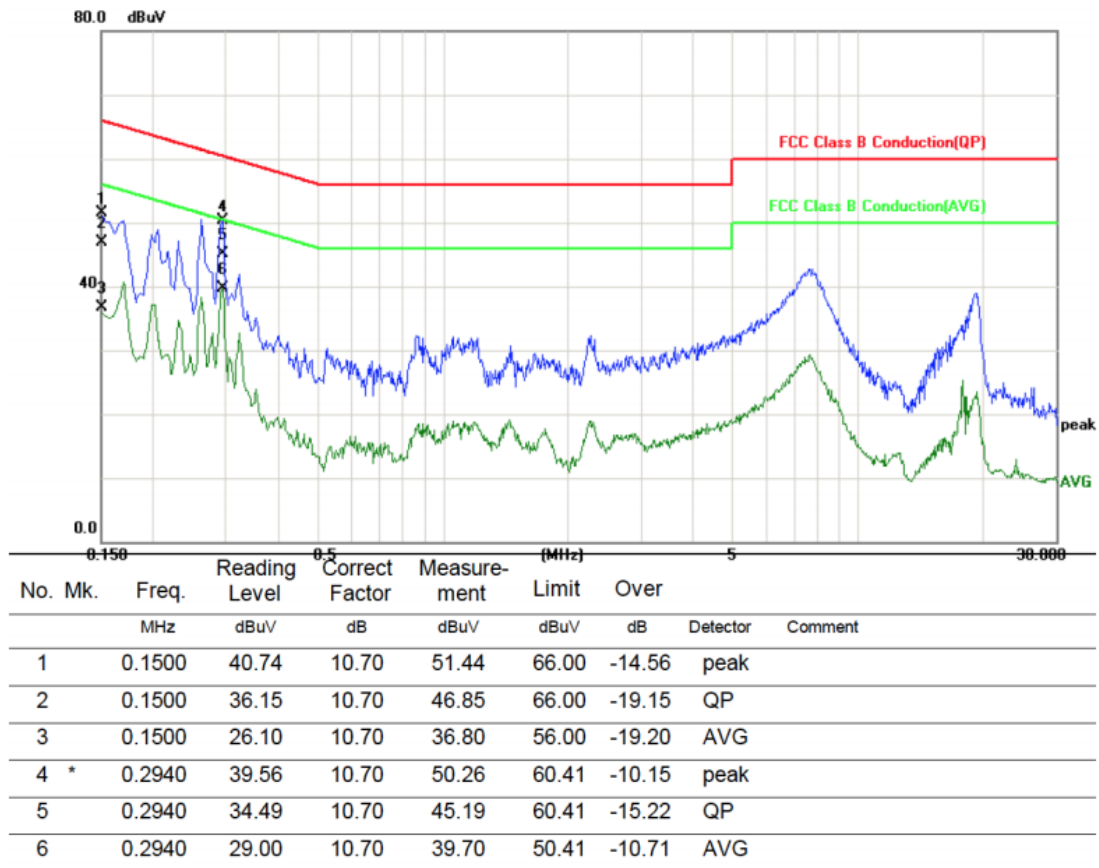
| Frequency of emission (MHz) | Conducted limit (B μ V) | |
|-----------------------------|-----------------------------|-----------|
| | Quasi-peak | Average |
| 0.15–0.5 | 66 to 56* | 56 to 46* |
| 0.5–5 | 56 | 46 |
| 5–30 | 60 | 50 |



5.1.4 Mains Terminals Disturbance Voltage Test Data

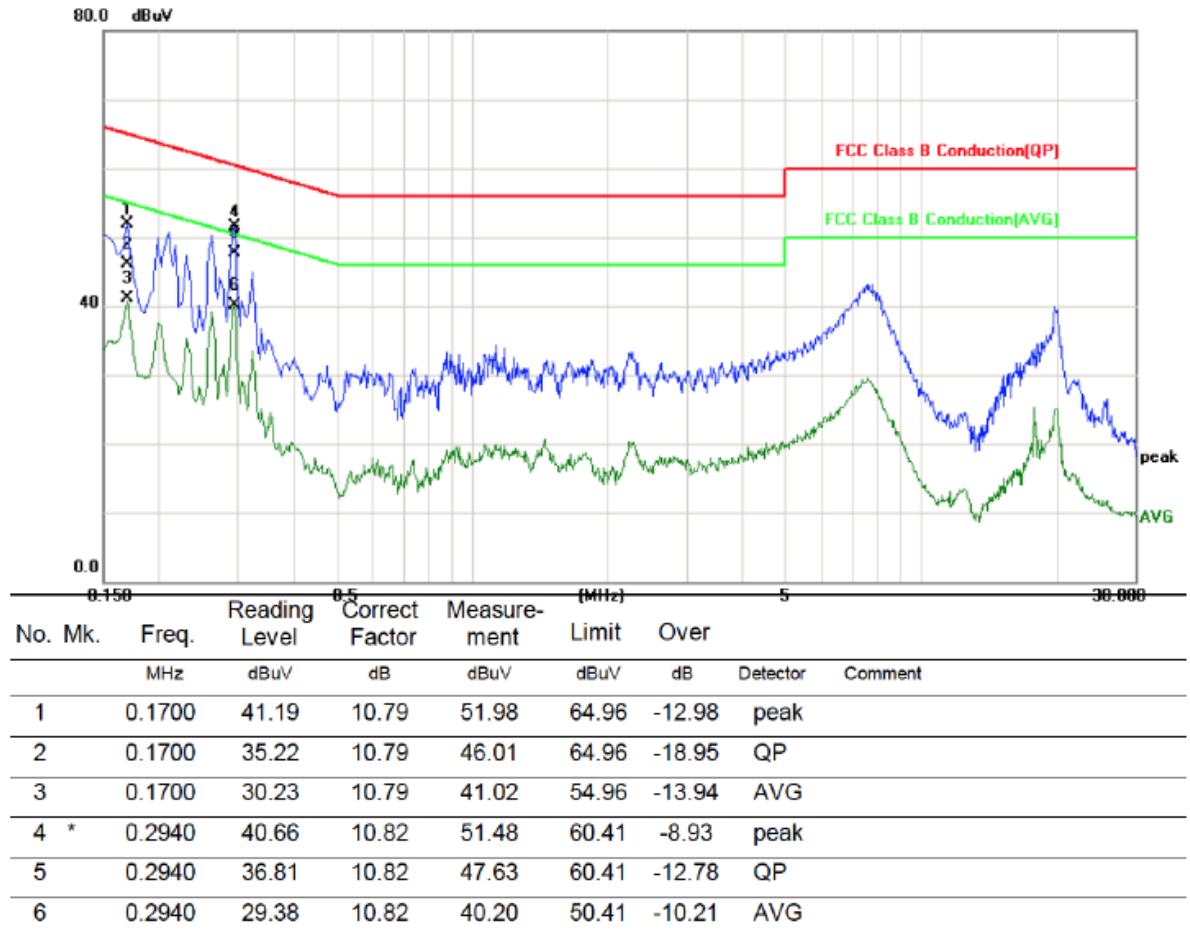
AC120V/60Hz

Live Line:



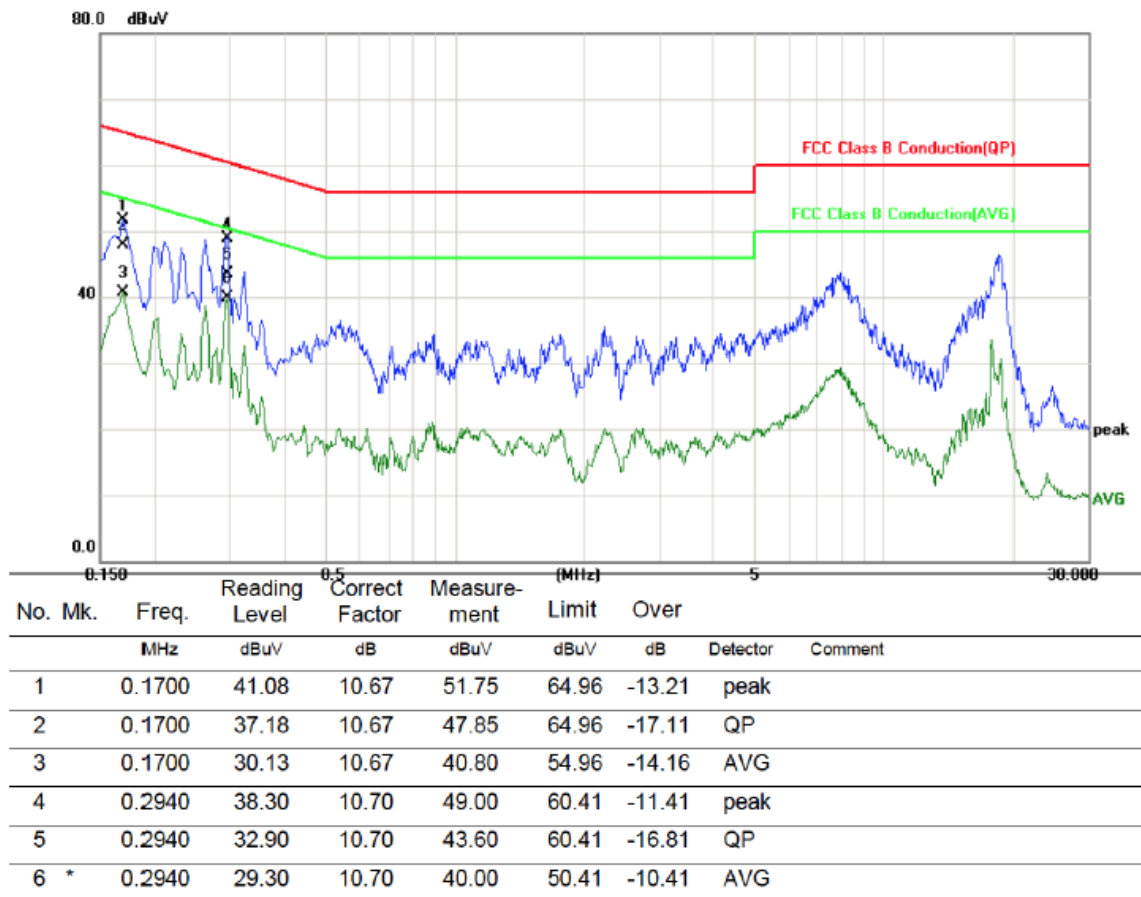


Neutral Line:



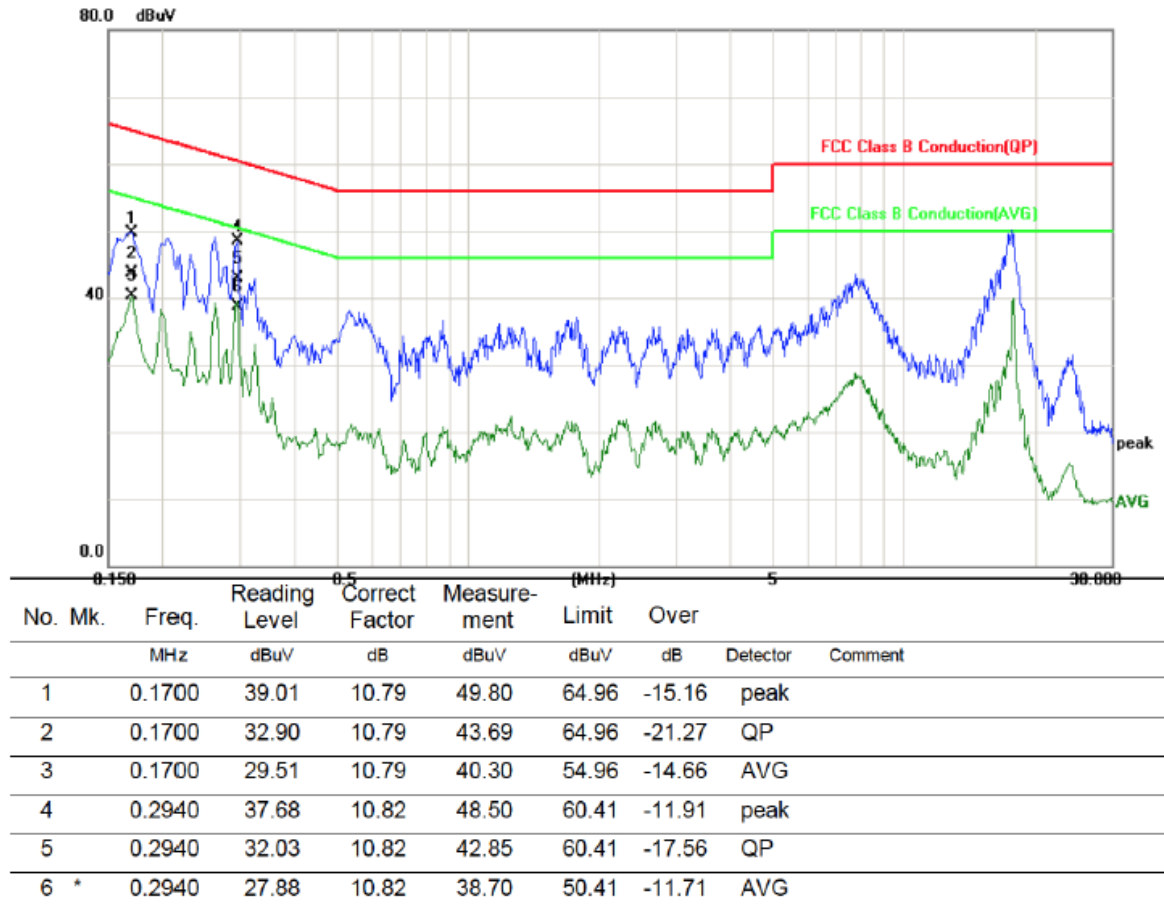


**AC277V/50Hz
Live Line:**





Neutral Line:





5.2 Radiation Emission , 30MHz to 1000MHz

Test Requirement..... : FCC PART 15, SUBPART B
Test Method..... : ANSI C63.4
Test Limit..... : FCC PART 15, SUBPART B Section 15.109
Test Result..... : Pass
Frequency Range..... : 30MHz to 1000MHz
Class..... : Class B

5.2.1 E.U.T. Operation

Operating Environment:

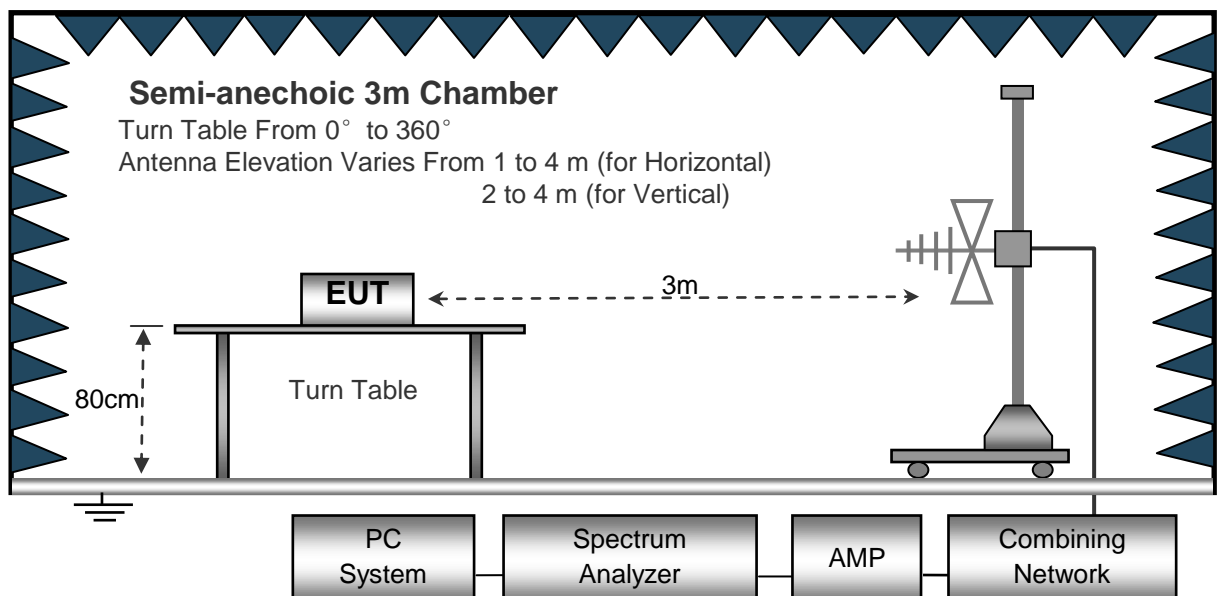
Temperature : 23°C
Humidity..... : 55%RH
Atmospheric Pressure : 101Kbar

EUT Operation:

Input Voltage : AC120V/60Hz, AC277V/50Hz
Operating Mode..... : Full load mode
Remark..... : /

5.2.2 Block Diagram of Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the FCC PART 15, SUBPART B.







5.2.3 Measurement Data

According to the data in section 5.3.4, the EUT complied with the FCC PART 15, SUBPART B standards.

Remark :

(1)The test Frequency range judgment basis:

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

(2) The test Limit :

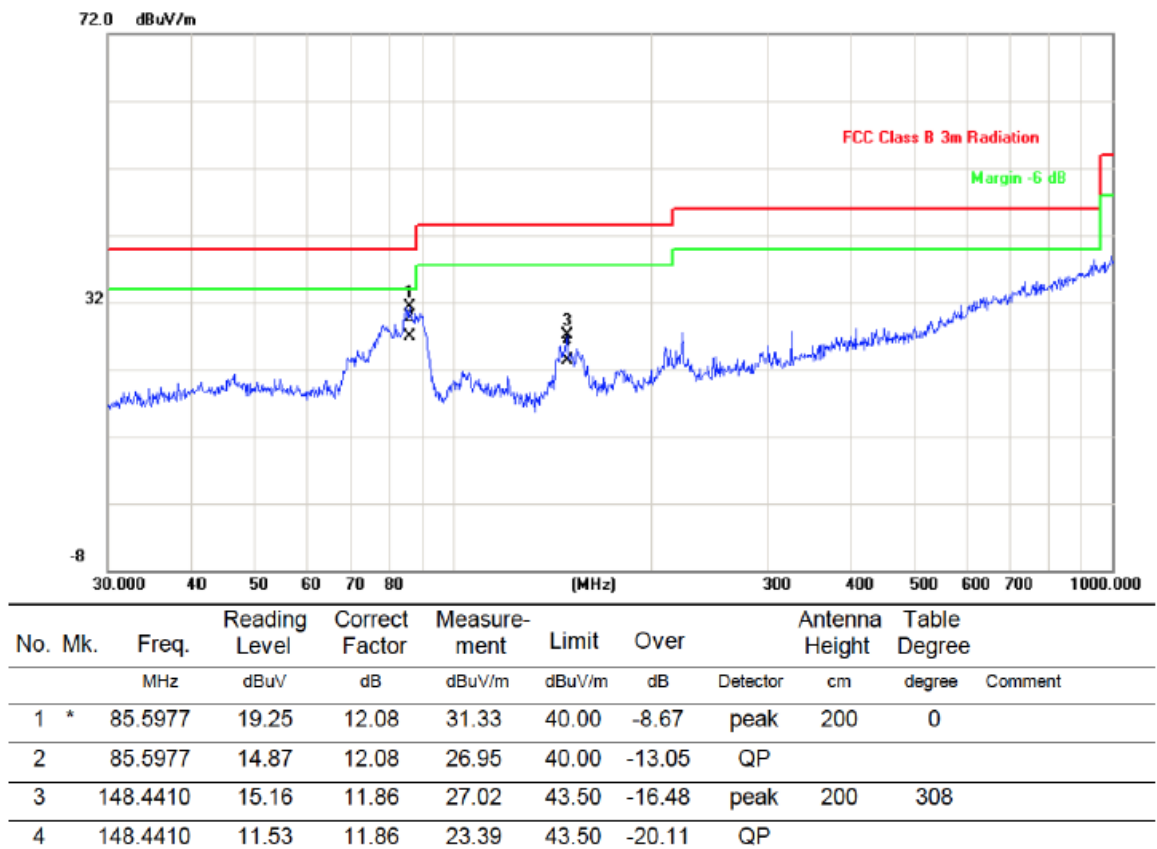
| Frequency of emission (MHz) | Field strength (microvolts/meter) |
|-----------------------------|-----------------------------------|
| 30–88 | 100 |
| 88–216 | 150 |
| 216–960 | 200 |
| Above 960 | 500 |



5.2.4 Radiated Emission test datas,30MHz to 1000MHz

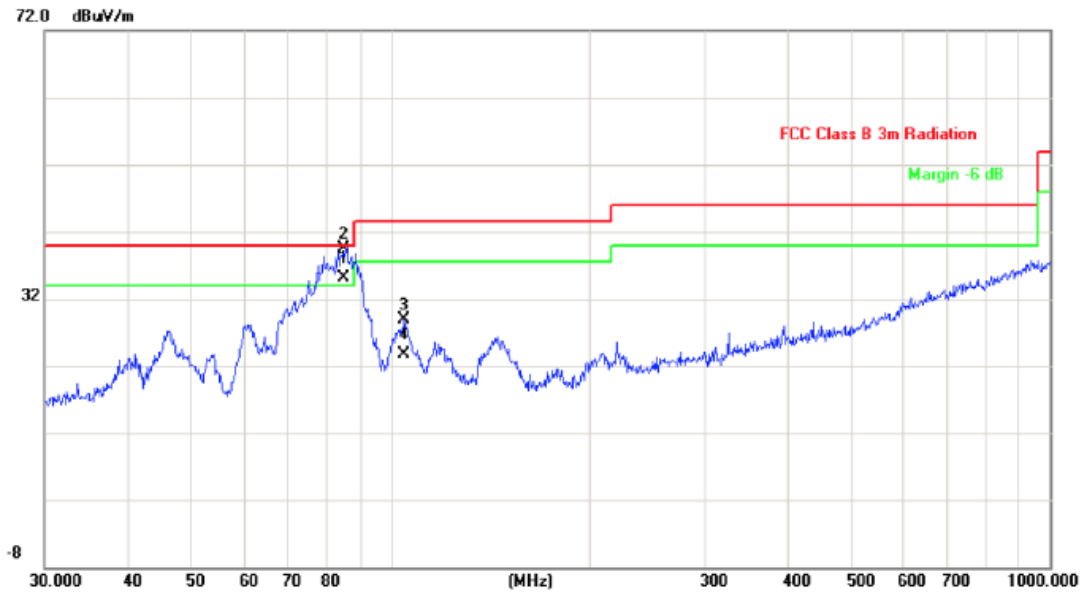
AC120V/60Hz

Antenna Horizontal:





Antenna Vertical:

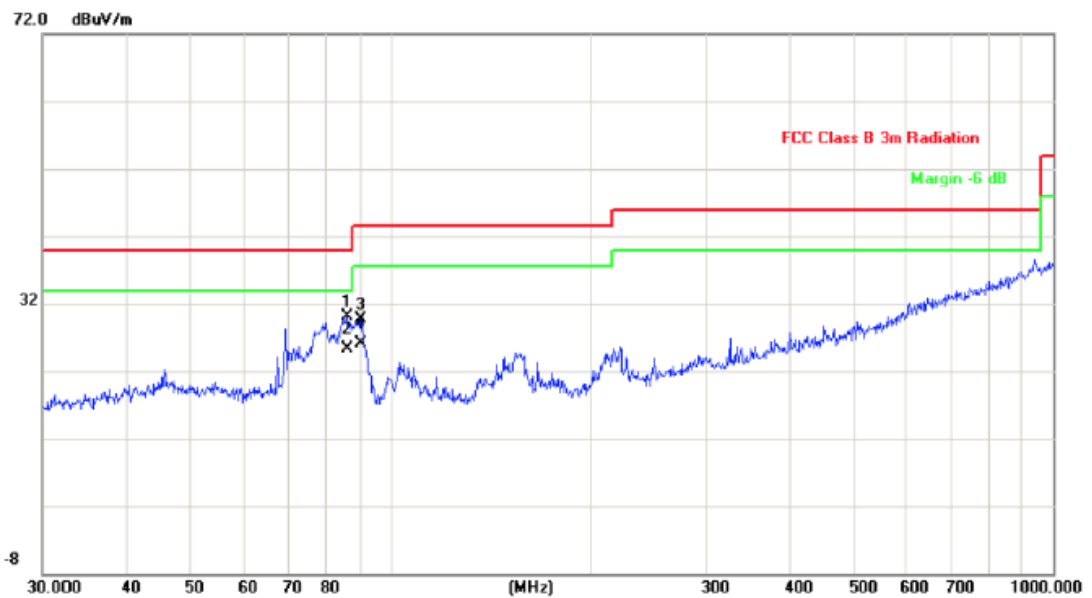


| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | ! | 83.9820 | 22.15 | 12.94 | 35.09 | 40.00 | -4.91 | QP | 200 | 223 |
| 2 | * | 84.7020 | 26.46 | 13.14 | 39.60 | 40.00 | -0.40 | peak | 200 | 224 |
| 3 | | 104.9033 | 14.68 | 14.13 | 28.81 | 43.50 | -14.69 | peak | 100 | 1 |
| 4 | | 104.9033 | 9.56 | 14.13 | 23.69 | 43.50 | -19.81 | QP | 100 | 1 |



AC277V/50Hz

Antenna Horizontal:



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|---------|---------------|----------------|-------------|--------|--------|----------------|--------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | cm | degree | Comment |
| 1 | * | 85.8984 | 17.89 | 12.15 | 30.04 | 40.00 | -9.96 | peak | 200 | 333 |
| 2 | | 85.8984 | 13.24 | 12.15 | 25.39 | 40.00 | -14.61 | QP | | |
| 3 | | 90.2205 | 16.55 | 13.22 | 29.77 | 43.50 | -13.73 | peak | 200 | 358 |
| 4 | | 90.2205 | 12.79 | 13.22 | 26.01 | 43.50 | -17.49 | QP | | |



Antenna Vertical:



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over | Antenna Height | Table Degree | |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree |
| 1 | * | 85.1981 | 26.27 | 13.23 | 39.50 | 40.00 | -0.50 | peak | 200 | 270 |
| 2 | ! | 85.2980 | 22.42 | 13.24 | 35.66 | 40.00 | -4.34 | QP | 200 | 270 |
| 3 | | 102.7192 | 16.38 | 14.44 | 30.82 | 43.50 | -12.68 | peak | 119 | 0 |
| 4 | | 102.7192 | 11.52 | 14.44 | 25.96 | 43.50 | -17.54 | QP | 119 | 0 |



6 Photographs – Test Setup

6.1 Photograph –Conducted Emission at the mains terminals Test Setup



6.2 Photograph –Radiated Emission Test Setup





7 Photographs – Constructional Details



=====End of Test Report=====