



FCC Part 15, Subpart B, Class B

ARTIKA FOR LIVING INC

Cosmic outdoor

Test Model: OUT-CSC-BL

Additional Model No.: OUT-CSC-XXXXXX ("XXXXXX")

can be A to Z and/or 0 to 9 and/or blank (commercial code))

Prepared for : ARTIKA FOR LIVING INC
Address : 1756 50th avenue, Lachine, Qc, CanadaH8T 2V5
Lachine Canada

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
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Date of receipt of test sample : August 05, 2022
Number of tested samples : 2
Sample No. : A072222131
Serial number : Prototype
Date of Test : August 05, 2022 ~ August 08, 2022
Date of Report : August 09, 2022





FCC Part 15, Subpart B, Class B
FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014

Report Reference No. : LCSA072222131E

Date Of Issue : August 09, 2022

Testing Laboratory Name : 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

Testing Location/ Procedure... : Full application of Harmonised standards ■
Partial application of Harmonised standards □
Other standard testing method □

Applicant's Name..... : ARTIKA FOR LIVING INC

Address : 1756 50th avenue, Lachine, Qc, CanadaH8T 2V5 Lachine
Canada

Test Specification

Standard..... : FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4
-2014

Test Report Form No..... : LCSEMC-1.0

TRF Originator..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF..... : Dated 2011-03

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context.

Test Item Description..... : Cosmic outdoor

Test Model : OUT-CSC-BL

Trade Mark : ARTIKA

Ratings : Input: AC 120V, 60A, 14W

Result : Positive

Compiled by:

Vera Deng

Vera Deng/ Administrator

Supervised by:

Cary Luo

Cary Luo/ Technique principal

Approved by:

Gavin Liang

Gavin Liang/ Manager





FCC -- TEST REPORT

| | |
|---|---|
| Test Report No. : LCSA072222131E | <u>August 09, 2022</u> Date of issue |
|---|---|

| |
|---|
| <p>Test Model : OUT-CSC-BL</p> <p>EUT..... : Cosmic outdoor</p> |
| <p>Applicant..... : ARTIKA FOR LIVING INC</p> <p>Address..... : 1756 50th avenue, Lachine, Qc, CanadaH8T 2V5 Lachine Canada</p> <p>Telephone..... : /</p> <p>Fax..... : /</p> |
| <p>Manufacturer..... : Zhejiang HOWELL illuminating technology co.,ltd</p> <p>Address..... : No.1228 tanjialing west road yuyao Zhejiang china</p> <p>Telephone..... : /</p> <p>Fax..... : /</p> |
| <p>Factory..... : Zhejiang HOWELL illuminating technology co.,ltd</p> <p>Address..... : No.1228 tanjialing west road yuyao Zhejiang china</p> <p>Telephone..... : /</p> <p>Fax..... : /</p> |

Test Result according to the standards on page 6: **Positive**

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.





Revision History

| Report Version | Issue Date | Revision Content | Revised By |
|----------------|-----------------|------------------|------------|
| 000 | August 09, 2022 | Initial Issue | -- |
| | | | |
| | | | |





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1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

| EMISSION | | | |
|--|---|---------|---------|
| Description of Test Item | Standard | Limits | Results |
| Conducted disturbance at mains terminals | FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014 | Class B | PASS |
| Radiated disturbance | FCC 47 CFR Part 15 Subpart B, Class B, ANSI C63.4 -2014 | Class B | PASS |

N/A is an abbreviation for Not Applicable.

| Test mode: | | |
|--|----------|--------|
| Mode | Lighting | Record |
| ***Note: All test modes were tested, but we only recorded the worst case in this report. | | |





2. GENERAL INFORMATION

2.1. Description of Device (EUT)

- EUT : Cosmic outdoor
- Trade Mark : ARTIKA
- Test Model : OUT-CSC-BL
- Additional Model : OUT-CSC-XXXXXX("XXXXXX" can be A to Z and/or 0 to 9 and/or blank (commercial code))
- Model Declaration : PCB board, structure and internal of these model(s) are the same, So no additional models were tested
- Power Supply : Input: AC 120V, 60A, 14W
- Highest internal frequency (Fx) : $F_x \leq 108 \text{ MHz}$

| Highest internal frequency (Fx) | Highest measured frequency |
|--|---------------------------------|
| $F_x \leq 108 \text{ MHz}$ | 1 GHz |
| $108 \text{ MHz} < F_x \leq 500 \text{ MHz}$ | 2 GHz |
| $500 \text{ MHz} < F_x \leq 1 \text{ GHz}$ | 5 GHz |
| $F_x > 1 \text{ GHz}$ | 5 × Fx up to a maximum of 6 GHz |

NOTE 1 For FM and TV broadcast receivers, Fx is determined from the highest frequency generated or used excluding the local oscillator and tuned frequencies.
Where Fx is unknown, the radiated emission measurements shall be performed up to 6 GHz.

2.2. Support Equipment List

| Name | Manufacturers | M/N | S/N |
|------|---------------|-----|-----|
| -- | -- | -- | -- |





2.3. Description of Test Facility

Site Description

EMC Lab. : NVLAP Accreditation Code is 600167-0.
 FCC Designation Number is CN5024.
 CAB identifier is CN0071.
 CNAS Registration Number is L4595.
 FCC Test Firm Registration Number: 254912

2.4. 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.

2.5. Measurement Uncertainty

| Test | Parameters | Expanded Uncertainty (Ulab) | Expanded Uncertainty (Ucisp) |
|--------------------|---|-----------------------------|------------------------------|
| Conducted Emission | Level accuracy (9kHz to 150kHz) (150kHz to 30MHz) | ± 2.63 dB ± 2.35 dB | ± 3.8 dB ± 3.4 dB |
| Radiated Emission | Level accuracy (30MHz to 1000MHz) | ± 3.48 dB | ± 5.3 dB |
| Radiated Emission | Level accuracy (above 1000MHz) | ± 3.90 dB | ± 5.2 dB |

(1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

(2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.



3. TEST RESULTS

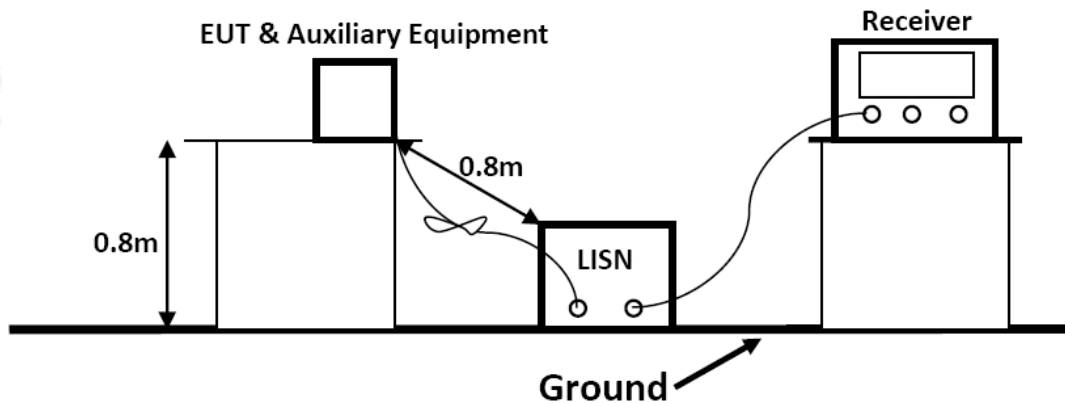
3.1. POWER LINE CONDUCTED EMISSION MEASUREMENT

3.1.1. Test Equipment

The following test equipments are used during the power line conducted measurement:

| Item | Equipment | Manufacturer | Model No. | Serial No. | Cal Date | Due Date |
|------|---------------------------------|--------------|-------------|---------------------|------------|------------|
| 1 | EMI Test Software | AUDIX | E3 | / | N/A | N/A |
| 2 | EMI Test Receiver | R&S | ESR3 | 102312 | 2022-02-16 | 2023-02-15 |
| 3 | Artificial Mains | R&S | ENV216 | 101288 | 2022-06-16 | 2023-06-15 |
| 4 | 10dB Attenuator | SCHWARZBECK | MTS-IMP-136 | 261115-00 1-0032 | 2022-06-16 | 2023-06-15 |
| 5 | Impedance Stabilization Network | TESEQ | ISN T800 | 45130 | 2021-11-16 | 2022-11-15 |

3.1.2. Block Diagram of Test Setup



3.1.3. Test Standard

Power Line Conducted Emission Limits (Class B)

| Frequency (MHz) | | | Limit (dB μ V) | |
|-----------------|---|-------|--------------------|---------------|
| | | | Quasi-peak Level | Average Level |
| 0.15 | ~ | 0.50 | 66.0 ~ 56.0 * | 56.0 ~ 46.0 * |
| 0.50 | ~ | 5.00 | 56.0 | 46.0 |
| 5.00 | ~ | 30.00 | 60.0 | 50.0 |

NOTE1-The lower limit shall apply at the transition frequencies.

NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.





3.1.4.EUT Configuration on Test

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

3.1.5.Operating Condition of EUT

3.1.5.1.Setup the EUT as shown on Section 3.1.2

3.1.5.2.Turn on the power of all equipments.

3.1.5.3.Let the EUT work in measuring Lighting and measure it.

3.1.6.Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC/ANSI C63.4-2014 on Conducted Emission Measurement.

The bandwidth of the test receiver is set at 9kHz.

The frequency range from 150kHz to 30MHz is investigated

3.1.7.Test Results

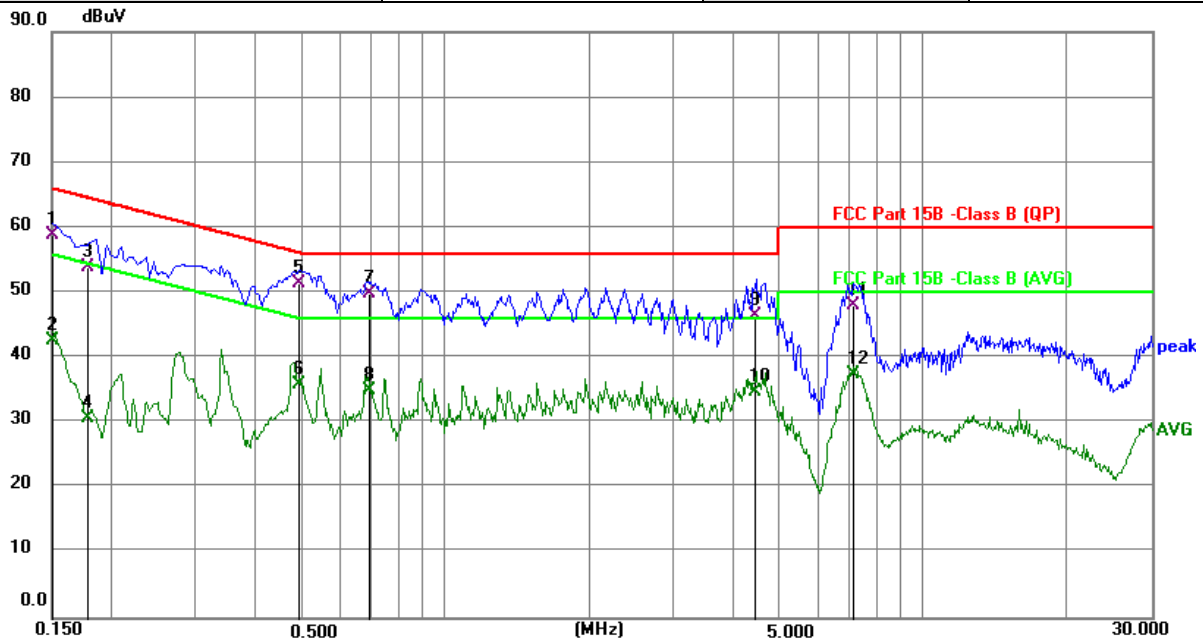
PASS.

The test result please refer to the next page.





| | | | |
|---------------------------------|----------------|----------------------|--------------|
| Test Model | OUT-CSC-BL | Test Mode | Lighting |
| Environmental Conditions | 24.7°C, 55% RH | Test Engineer | Monkey Li |
| Pol | Line | Test Voltage | AC 120V/60Hz |

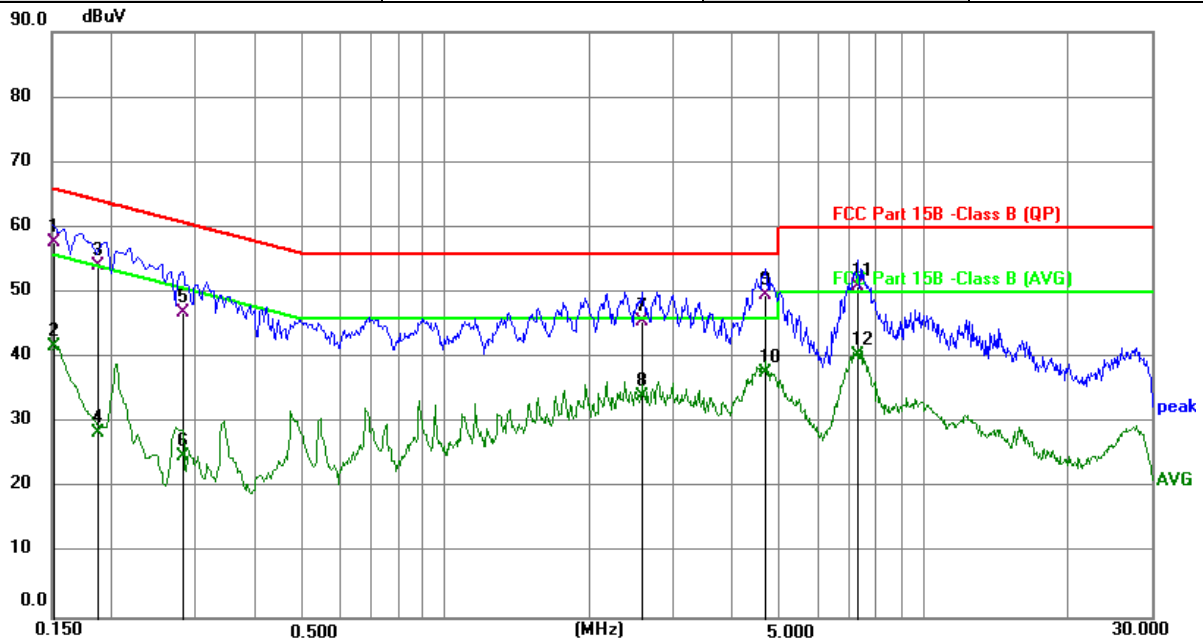


| No. | Mk. | Freq. MHz | Reading Level | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector |
|-----|-----|--------------|------------------|-------------------------|--------------------------|---------------|------------|----------|
| 1 | | 0.1501 | 48.60 | 10.24 | 58.84 | 65.99 | -7.15 | QP |
| 2 | | 0.1501 | 32.29 | 10.24 | 42.53 | 55.99 | -13.46 | AVG |
| 3 | | 0.1792 | 43.61 | 10.23 | 53.84 | 64.52 | -10.68 | QP |
| 4 | | 0.1792 | 20.44 | 10.23 | 30.67 | 54.52 | -23.85 | AVG |
| 5 | * | 0.4945 | 41.22 | 10.20 | 51.42 | 56.09 | -4.67 | QP |
| 6 | | 0.4945 | 25.67 | 10.20 | 35.87 | 46.09 | -10.22 | AVG |
| 7 | | 0.6928 | 39.55 | 10.20 | 49.75 | 56.00 | -6.25 | QP |
| 8 | | 0.6928 | 24.88 | 10.20 | 35.08 | 46.00 | -10.92 | AVG |
| 9 | | 4.4534 | 36.18 | 10.20 | 46.38 | 56.00 | -9.62 | QP |
| 10 | | 4.4534 | 24.62 | 10.20 | 34.82 | 46.00 | -11.18 | AVG |
| 11 | | 7.1194 | 37.91 | 10.20 | 48.11 | 60.00 | -11.89 | QP |
| 12 | | 7.1194 | 27.36 | 10.20 | 37.56 | 50.00 | -12.44 | AVG |





| | | | |
|---------------------------------|----------------|----------------------|--------------|
| Test Model | OUT-CSC-BL | Test Mode | Lighting |
| Environmental Conditions | 24.7°C, 55% RH | Test Engineer | Monkey Li |
| Pol | Neutral | Test Voltage | AC 120V/60Hz |



| No. | Mk. | Freq. MHz | Reading Level | Correct Factor | Measure- ment | Limit | Over | Detector |
|-----|-----|--------------|------------------|-------------------|------------------|-------|--------|----------|
| | | | | | dBuV | dBuV | dB | |
| 1 | | 0.1517 | 47.58 | 10.24 | 57.82 | 65.91 | -8.09 | QP |
| 2 | | 0.1517 | 31.40 | 10.24 | 41.64 | 55.91 | -14.27 | AVG |
| 3 | | 0.1879 | 43.95 | 10.23 | 54.18 | 64.13 | -9.95 | QP |
| 4 | | 0.1879 | 18.26 | 10.23 | 28.49 | 54.13 | -25.64 | AVG |
| 5 | | 0.2812 | 36.75 | 10.20 | 46.95 | 60.78 | -13.83 | QP |
| 6 | | 0.2812 | 14.76 | 10.20 | 24.96 | 50.78 | -25.82 | AVG |
| 7 | | 2.5803 | 35.35 | 10.20 | 45.55 | 56.00 | -10.45 | QP |
| 8 | | 2.5803 | 23.98 | 10.20 | 34.18 | 46.00 | -11.82 | AVG |
| 9 | * | 4.6693 | 39.32 | 10.20 | 49.52 | 56.00 | -6.48 | QP |
| 10 | | 4.6693 | 27.42 | 10.20 | 37.62 | 46.00 | -8.38 | AVG |
| 11 | | 7.3087 | 40.67 | 10.20 | 50.87 | 60.00 | -9.13 | QP |
| 12 | | 7.3087 | 30.17 | 10.20 | 40.37 | 50.00 | -9.63 | AVG |

***Note: 1) Pre-scan all modes and recorded the worst case results in this report.

2) Margin=Reading level + Correct - Limit



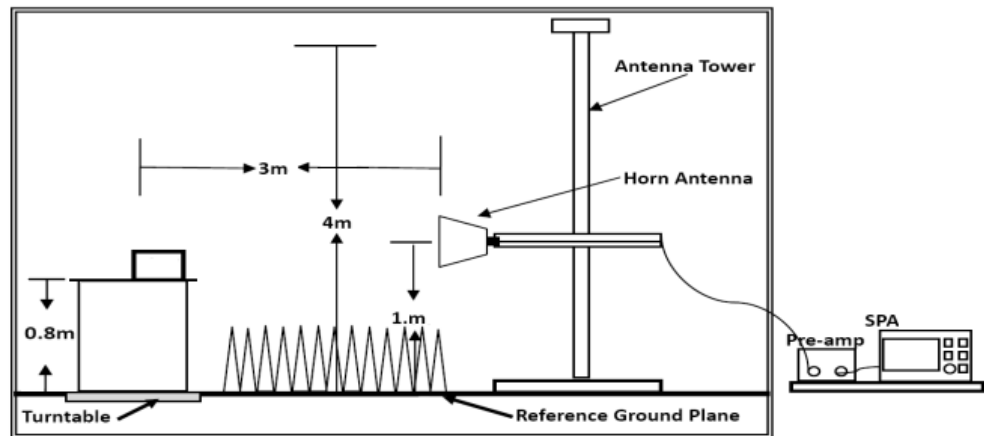
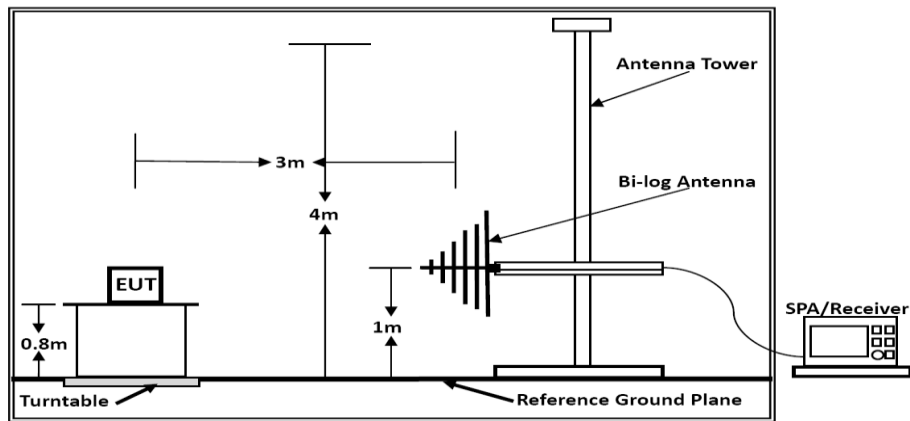
3.2. Radiated emission Measurement

3.2.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

| Item | Test equipment | Manufacturer | Model No. | Serial No. | Cal Date | Due Date |
|------|--------------------------|----------------|------------|------------|------------|------------|
| 1 | EMI Test Software | AUDIX | E3 | / | N/A | N/A |
| 2 | 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH03-HY | 2022-06-16 | 2023-06-15 |
| 3 | Positioning Controller | MF | MF7082 | MF78020803 | 2022-06-16 | 2023-06-15 |
| 4 | By-log Antenna | SCHWARZBECK | VULB9163 | 9163-470 | 2021-07-25 | 2024-07-24 |
| 5 | Horn Antenna | SCHWARZBECK | BBHA 9120D | 9120D-1925 | 2021-07-01 | 2024-06-30 |
| 6 | EMI Test Receiver | R&S | ESR7 | 102311 | 2021-08-19 | 2022-08-18 |
| 7 | RS SPECTRUM ANALYZER | R&S | FSP40 | 100503 | 2021-11-16 | 2022-11-15 |
| 8 | Broadband Preamplifier | / | BP-01M18G | P190501 | 2022-06-16 | 2023-06-15 |

3.2.2. Block Diagram of Test Setup





3.2.3. Radiated Emission Limit (Class B)

Limits for Radiated Disturbance Below 1GHz

| FREQUENCY MHz | DISTANCE Meters | FIELD STRENGTHS LIMIT | |
|--|----------------------|------------------------|---------------------------|
| | | μV/m | dB(μV)/m |
| 30 ~ 88 | 3 | 100 | 40 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46 |
| 960 ~ 1000 | 3 | 500 | 54 |
| Remark: (1) Emission level (dB)μV = 20 log Emission level μV/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. | | | |
| Limits for Radiated Emission Above 1GHz | | | |
| Frequency (MHz) | Distance (Meters) | Peak Limit (dBμV/m) | Average Limit (dBμV/m) |
| Above 1000 | 3 | 74 | 54 |
| ***Note: The lower limit applies at the transition frequency. | | | |

3.2.4. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.2.5. Operating Condition of EUT

3.2.5.1. Setup the EUT as shown in Section 3.2.2.

3.2.5.2. Let the EUT work in test Lighting and measure it.

3.2.6. Test Procedure

EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated by-log antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2014 on radiated emission measurement.

The bandwidth of the EMI test receiver is set at 120kHz, 300kHz.

The frequency range from 30MHz to 1000MHz is checked.

3.2.7. Radiated Emission Noise Measurement Result

PASS.

The scanning waveforms please refer to the next page.





| | | | |
|---------------------------------|----------------|--------------------------|--------------|
| Test Model | OUT-CSC-BL | Test Mode | Lighting |
| Environmental Conditions | 22.9°C, 56% RH | Detector Function | Quasi-peak |
| Pol | Vertical | Distance | 3m |
| Test Engineer | Monkey Li | Test Voltage | AC 120V/60Hz |

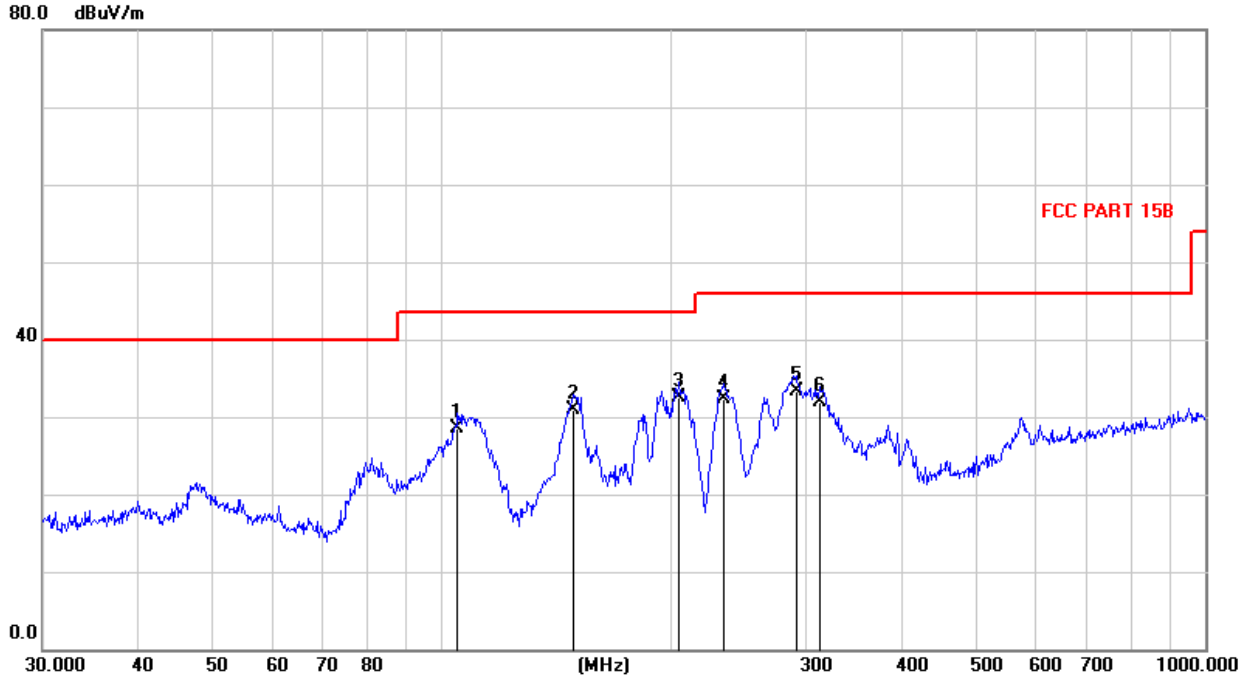


| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | |
| 1 | | 30.1318 | 19.41 | 10.42 | 29.83 | 40.00 | -10.17 | QP |
| 2 | | 48.8001 | 16.44 | 12.44 | 28.88 | 40.00 | -11.12 | QP |
| 3 | * | 105.3641 | 24.38 | 11.95 | 36.33 | 43.50 | -7.17 | QP |
| 4 | | 150.7359 | 23.19 | 10.76 | 33.95 | 43.50 | -9.55 | QP |
| 5 | | 182.9598 | 22.11 | 10.88 | 32.99 | 43.50 | -10.51 | QP |
| 6 | | 285.7272 | 18.38 | 13.92 | 32.30 | 46.00 | -13.70 | QP |





| | | | |
|---------------------------------|----------------|--------------------------|--------------|
| Test Model | OUT-CSC-BL | Test Mode | Lighting |
| Environmental Conditions | 22.9°C, 56% RH | Detector Function | Quasi-peak |
| Pol | Horizontal | Distance | 3m |
| Test Engineer | Monkey Li | Test Voltage | AC 120V/60Hz |



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Margin | Detector |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | |
| 1 | | 105.1795 | 16.49 | 11.94 | 28.43 | 43.50 | -15.07 | QP |
| 2 | | 149.0278 | 20.08 | 10.92 | 31.00 | 43.50 | -12.50 | QP |
| 3 | * | 204.3272 | 21.21 | 11.24 | 32.45 | 43.50 | -11.05 | QP |
| 4 | | 234.2710 | 20.20 | 12.09 | 32.29 | 46.00 | -13.71 | QP |
| 5 | | 291.6744 | 19.50 | 13.81 | 33.31 | 46.00 | -12.69 | QP |
| 6 | | 312.8643 | 17.34 | 14.47 | 31.81 | 46.00 | -14.19 | QP |

Note:1).Pre-Scan all mode, Thus record worse case mode result in this report.

2) Margin=Reading level + Correct - Limit





4. TEST SETUP PHOTOGRAPHS OF EUT

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

5. EXTERIOR PHOTOGRAPHS OF THE EUT

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

6. INTERIOR PHOTOGRAPHS OF THE EUT

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

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

