FCC Test Report

APPLICANT : Wingtech Group (Hong Kong) Limited

EQUIPMENT : WIFI MODULE BRAND NAME : WINGTECH

MODEL NAME : WM118

FCC ID : 2APXW-WM118

STANDARD : 47 CFR Part 15 Subpart B

CLASSIFICATION : Certification

The product was received on May 21, 2019 and testing was completed on Jul. 16, 2019. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Reviewed by: Jason Jia / Supervisor

JasonJia

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 1 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Cert #5145.02

Report Template No.: BU5-FC15B Version 2.0

TABLE OF CONTENTS

| RE' | VISIO | N HISTORY | 3 |
|-----|-------|--|----|
| | | | |
| SU | MMAR | Y OF TEST RESULT | 4 |
| 1. | GENE | RAL DESCRIPTION | ŗ |
| | 1.1. | Applicant | |
| | 1.1. | Manufacturer | |
| | 1.3. | Product Feature of Equipment Under Test | |
| | 1.4. | Product Specification of Equipment Under Test | |
| | 1.5. | Modification of EUT | |
| | 1.6. | Test Location | 6 |
| | 1.7. | Applicable Standards | 6 |
| 2. | TEST | CONFIGURATION OF EQUIPMENT UNDER TEST | 7 |
| | 2.1. | Test Mode | 7 |
| | 2.2. | | |
| | 2.3. | Support Unit used in test configuration and system | 8 |
| | 2.4. | EUT Operation Test Setup | 8 |
| 3. | TEST | RESULT | 9 |
| | 3.1. | Test of AC Conducted Emission Measurement | 9 |
| | 3.2. | Test of Radiated Emission Measurement | |
| 4. | LIST | OF MEASURING EQUIPMENT | 17 |
| 5. | UNCE | RTAINTY OF EVALUATION | 18 |
| ΑP | PENDI | X A. SETUP PHOTOGRAPHS | |

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 2 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No. : FC952115

REVISION HISTORY

| REPORT NO. | VERSION | DESCRIPTION | ISSUED DATE |
|------------|---------|-------------------------|---------------|
| FC952115 | Rev. 01 | Initial issue of report | Aug. 01, 2019 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 3 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0

SUMMARY OF TEST RESULT

| Report Section | FCC Rule | CC Rule Description Limit | | Result | Remark |
|-------------------|----------|---------------------------|-----------------|--------|-------------|
| | | | | | Under limit |
| 3.1 | 15.107 | AC Conducted Emission | < 15.107 limits | PASS | 12.57 dB at |
| | | | | | 0.184 MHz |
| | | | | | Under limit |
| 3.2 | 15.109 | 09 Radiated Emission | < 15.109 limits | PASS | 3.98 dB at |
| | | | | | 60.070 MHz |

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 4 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No. : FC952115

1. General Description

1.1. Applicant

Wingtech Group (Hong Kong) Limited

Flat/RM 1903,19F,Podium Plaza 5 Hanoi Road,Tsim sha Tsim Sha Tsui Kowloon,Hong kong

Report No.: FC952115

1.2. Manufacturer

Jiaxing Yongrui Electronic Technology Co., Ltd

No.777 Yazhong Road, Nanhu District, Jiaxing City, Zhejiang Province, P.R. China

1.3. Product Feature of Equipment Under Test

| | Product Feature |
|---------------------------------|----------------------------------|
| Equipment | WIFI MODULE |
| Brand Name | WINGTECH |
| Model Name | WM118 |
| FCC ID | 2APXW-WM118 |
| EUT supports Radios application | WLAN 2.4GHz 802.11b/g/n HT20 |
| HW Version | 51501_1_11 |
| SW Version | SW_51501_V001_M10_GELI_WIFI_USER |
| EUT Stage | Identical Prototype |

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4. Product Specification of Equipment Under Test

| Standards-related Product Specification | | | | | | |
|---|--|--|--|--|--|--|
| Tx Frequency | WLAN 802.11b/g/n: 2412 MHz ~ 2472 MHz | | | | | |
| Rx Frequency | WLAN 802.11b/g/n: 2412 MHz ~ 2472 MHz | | | | | |
| Antenna Type | WLAN: PCB Antenna | | | | | |
| Type of Modulation | 802.11b: DSSS (BPSK / QPSK / CCK) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) | | | | | |

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

 Sporton International (Kunshan) Inc.
 Page Number
 : 5 of 18

 TEL: 86-512-57900158
 Report Issued Date
 : Aug. 01, 2019

 FAX: 86-512-57900958
 Report Version
 : Rev. 01

FCC ID : 2APXW-WM118 Report Template No.: BU5-FC15B Version 2.0

1.6. Test Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

| Test Firm | Sporton International (F | Sporton International (Kunshan) Inc. | | | | | | | |
|--------------------|--|--------------------------------------|--------------------------------|--|--|--|--|--|--|
| | No. 1098, Pengxi North | n Road, Kunshan Econom | ic Development Zone | | | | | | |
| Test Site Location | Jiangsu Province 215300 People's Republic of China | | | | | | | | |
| Test Site Location | TEL: +86-512-57900158 | | | | | | | | |
| | FAX: +86-512-57900958 | | | | | | | | |
| | Sporton Site No. | FCC Designation No. | FCC Test Firm Registration No. | | | | | | |
| Test Site No. | CO01-KS | CN1257 | 314309 | | | | | | |
| | 03CH02-KS | GN1257 | 314309 | | | | | | |

1.7. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

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

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

Sporton International (Kunshan) Inc. TEL: 86-512-57900158

FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 6 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No. : FC952115

2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

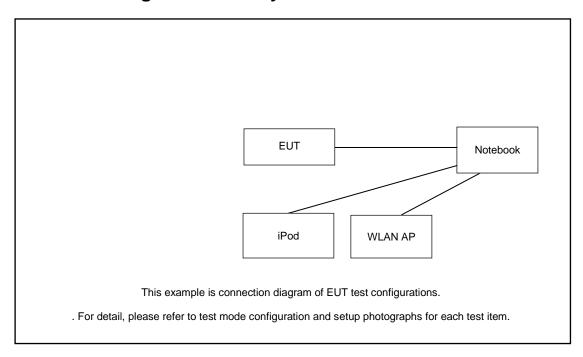
Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

| Test Items | Function Type |
|----------------|---|
| 710 Contadoled | Mode 1: WLAN (2.4G) Idle + Charging from NB for Sample 1 Mode 2: WLAN (2.4G) Idle + Charging from NB for Sample 2 |
| Tradiated . | Mode 1: WLAN (2.4G) Idle + Charging from NB for Sample 1 Mode 2: WLAN (2.4G) Idle + Charging from NB for Sample 2 |

Remark:

- 1. The worst case of AC is mode 1; only the test data of this mode is reported.
- 2. The worst case of RE is mode 1; only the test data of this mode is reported.

2.2. Connection Diagram of Test System



Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 7 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No.: FC952115

2.3. Support Unit used in test configuration and system

| Item | Equipment | Trade Name | Model Name | FCC ID | Data Cable | Power Cord |
|------|-----------|------------|--------------|----------------|----------------|-------------------|
| | | | | | | shielded cable DC |
| 1. | Notebook | Dell | Latitude3440 | N/A | N/A | O/P 1.8m , |
| '- | Notebook | Deli | Lanuae3440 | IN/A | IN/A | Unshielded AC I/P |
| | | | | | | cable 1.8m |
| 2. | WLAN AP | ASUS | AC66U | N/A | N/A | Unshielded,1.8m |
| | WLAN AP | LINKSYS | WRT600N | Q87-WRT600NV11 | | shielded cable DC |
| | | | | | N/A | O/P1.8m , |
| 3. | | | | | | Unshielded AC |
| | | | | | | I/P1.8m |
| 4. | iPod | Apple | A1199 | Fcc DoC | Shielded, 1.2m | N/A |
| | | | | | | shielded cable DC |
| _ | Natabaati | Lenovo | E31-80 | PRC4 | N/A | O/P 1.8m , |
| 5. | Notebook | | | | N/A | Unshielded AC I/P |
| | | | | | | cable 1.8m |

2.4. EUT Operation Test Setup

The EUT was in LTE idle mode during the testing. The EUT was synchronized to the BCCH, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the r WLAN AP during the test.

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 8 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No. : FC952115

3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that 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 the limits in the following table.

<Class B Limit>

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

^{*}Decreases with the logarithm of the frequency.

3.1.2 Measuring Instruments

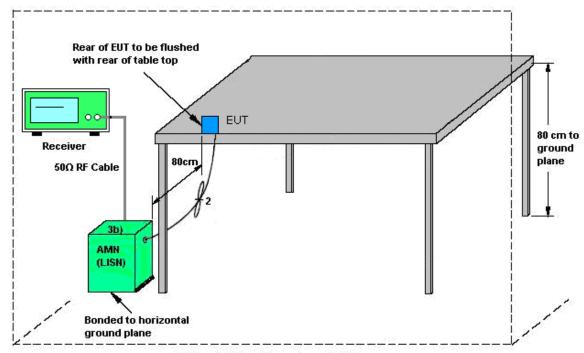
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other LISN.
- 4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- 5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- 6. Both sides of AC line were checked for maximum conducted interference.
- 7. The frequency range from 150 kHz to 30 MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

Report No.: FC952115

3.1.4 Test Setup



AMN = Artificial mains network (LISN)

AE = Associated equipment

EUT = Equipment under test

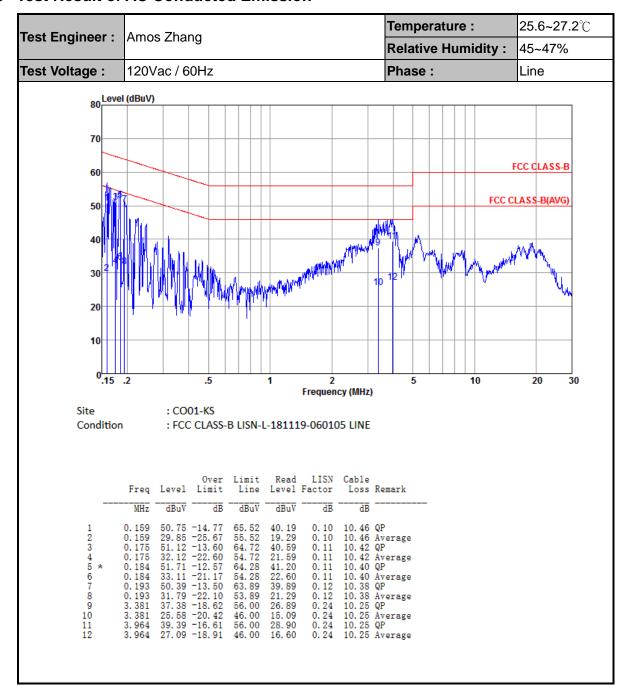
ISN = Impedance stabilization network

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 10 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No.: FC952115

3.1.5 Test Result of AC Conducted Emission



TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 11 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0

25.6~27.2℃ Temperature: Test Engineer: Amos Zhang Relative Humidity: 45~47% Test Voltage: 120Vac / 60Hz Phase: Neutral 80 Level (dBuV) FCC CLASS-B FCC CLASS-B(AVG) 20 10 0.15 .2 30 Frequency (MHz) : CO01-KS Site Condition : FCC CLASS-B LISN-N-181119-060105 NEUTRAL Over Limit Read LISN Freq Level Limit Line Level Factor LISN Cable Loss Remark dBuV dBuV dB dBuV dB MHz 48. 25 -17. 44 29. 55 -26. 14 51. 82 -13. 52 31. 92 -23. 42 51. 19 -13. 49 32. 79 -21. 89 37. 02 -18. 98 25. 62 -20. 38 37. 02 -18. 98 26. 72 -19. 28 36. 53 -19. 47 26. 73 -19. 27 37. 60 18. 90 41. 19 21. 29 40. 59 22. 19 26. 60 0. 156 0. 156 0. 162 0. 162 0. 176 0. 176 3. 509 3. 799 3. 799 65. 69 55. 69 65. 34 55. 34 64. 68 54. 68 56. 00 46. 00 46. 00 0. 18 0. 18 0. 18 0. 18 0. 18 0. 17 0. 17 0. 17 0. 17 0. 17 0. 17 10. 47 QP 10. 47 Ave 10. 45 QP 1 2 3 4 5 6 7 10.45 QF 10.45 Average 10.42 QP 10.42 Average 10.25 QP

26. 60 26. 60 16. 30 26. 11 16. 31

56.00 46.00

10.25 QF 10.25 Average 10.25 QP 10.25 Average 10.25 QP 10.25 Average

Sporton International (Kunshan) Inc.

8 9 10

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 12 of 18 Report Issued Date : Aug. 01, 2019 Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0

3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

<Class B Limit>

| Frequency | Field Strength | Measurement Distance |
|-----------|--------------------|----------------------|
| (MHz) | (microvolts/meter) | (meters) |
| 30 – 88 | 100 | 3 |
| 88 – 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
- 8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

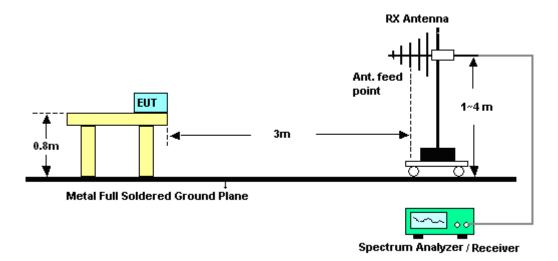
Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 13 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

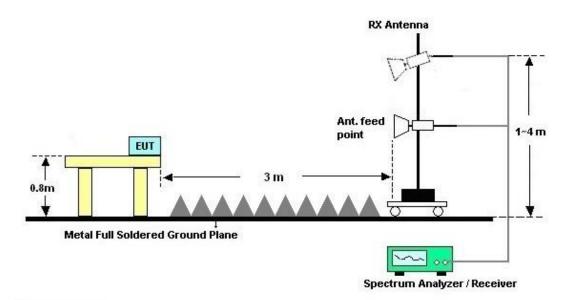
Report Template No.: BU5-FC15B Version 2.0

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz

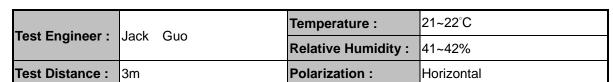


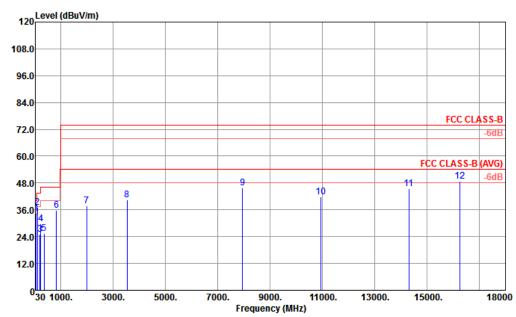
Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 14 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0

3.2.5. Test Result of Radiated Emission





Site : 03CH02-KS

Condition : FCC CLASS-B 3m LF 49922-3M HORIZONTAL

| | Freq | Level | Over Limit | | | Antenna Factor | | Preamp Factor | A/Pos | T/Pos | Remark |
|----|----------|--------|---------------|--------|-------|-------------------|-------|------------------|-------|-------|--------|
| | MHz | dBuV/m | dB | dBuV/m | dBuV | dB/m | dB | dB | cm | deg | |
| 1 | ! 60.07 | 34.56 | -5.44 | 40.00 | 53.50 | 12.10 | 0.88 | 31.92 | 100 | 0 | Peak |
| 2 | 115.36 | 36.96 | -6.54 | 43.50 | 50.18 | 17.47 | 1.24 | 31.93 | | | Peak |
| 3 | 202.66 | 25.17 | -18.33 | 43.50 | 40.27 | 15.15 | 1.65 | 31.90 | | | Peak |
| 4 | 238.55 | 29.68 | -16.32 | 46.00 | 42.44 | 17.38 | 1.81 | 31.95 | | | Peak |
| 5 | 360.77 | 25.49 | -20.51 | 46.00 | 34.53 | 20.92 | 2.13 | 32.09 | | | Peak |
| 6 | 832.19 | 35.70 | -10.30 | 46.00 | 35.34 | 28.95 | 3.32 | 31.91 | | | Peak |
| 7 | 1992.00 | 37.65 | -36.35 | 74.00 | 35.07 | 30.67 | 5.08 | 33.17 | | | Peak |
| 8 | 3536.00 | 40.44 | -33.56 | 74.00 | 32.71 | 32.62 | 6.99 | 31.88 | | | Peak |
| 9 | 7944.00 | 45.64 | -28.36 | 74.00 | 30.63 | 36.11 | 10.94 | 32.04 | | | Peak |
| 10 | 10935.00 | 41.90 | -32.10 | 74.00 | 23.38 | 37.36 | 13.33 | 32.17 | | | Peak |
| 11 | 14310.00 | 45.38 | -28.62 | 74.00 | 22.04 | 39.26 | 15.59 | 31.51 | | | Peak |
| 12 | 16263.00 | 48.77 | -25.23 | 74.00 | 22.59 | 41.11 | 16.79 | 31.72 | | | Peak |

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 15 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0



21~22°C Temperature: Test Engineer: Jack Guo **Relative Humidity:** 41~42% **Test Distance: Polarization:** 3m Vertical 120 Level (dBuV/m) 108.0 96.0 84.0 FCC CLASS-B 72.0 -6dE 60.0 FCC CLASS-B (AVG) -6dE 48.0 10 36.0 24.0 12.0 13000. 15000. 18000 30 1000. 3000. 5000. 7000. 9000. 11000. Frequency (MHz) Site : 03CH02-KS : FCC CLASS-B 3m LF 49922-3M VERTICAL Condition Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Remark Freq Level Limit Line Level Factor Loss Factor MHz dBuV/m dB dBuV/m dBuV dB/m deg cm 42.61 29.62 -10.38 40.00 42.65 18.18 31.95 --- Peak 60.07 36.02 -3.98 40.00 54.96 12.10 0.88 31.92 100 0 Peak 29.11 -14.39 43.50 45.16 89.17 14.77 --- Peak 1.10 31.92

43.41 17.47

36.61 28.16

21.54

29.30

33.74

35.95

37.06

38.68

32.85

30.77

32.21

30.61

22.71

21.77

46.00

74.00

74.00

74.00

15633.00 46.70 -27.30 74.00 21.11 40.94

1.24

2.19

3.37

4.50

7.67

10.17

12.91

13.86

16.43

31.93

32.10

31.74

34.00

31.89

31.77

31.85

31.76

115.36

10

11

30.19 -13.31 43.50

381.14 24.48 -21.52 46.00

1576.00 35.27 -38.73 74.00

12114.00 42.55 -31.45 74.00

857.41 31.70 -14.30

4232.00 41.73 -32.27

7352.00 44.96 -29.04

10431.00 40.83 -33.17

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 16 of 18 Report Issued Date: Aug. 01, 2019 Report Version : Rev. 01

--- Peak

Report Template No.: BU5-FC15B Version 2.0

4. List of Measuring Equipment

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|-----------------------------------|--------------|-------------------|------------------|----------------------------|---------------------|---------------|---------------|--------------------------|
| EMI Receiver | R&S | ESCI7 | 100768 | 9kHz~7GHz; | Apr. 16, 2019 | Jul. 16, 2019 | Apr. 15, 2020 | Conduction (CO01-KS) |
| AC LISN | MessTec | AN3016 | 060103 | 9kHz~30MHz | Oct. 12, 2018 | Jul. 16, 2019 | Oct. 11, 2019 | Conduction (CO01-KS) |
| AC LISN (for auxiliary equipment) | MessTec | AN3016 | 060105 | 9kHz~30MHz | Nov. 19, 2018 | Jul. 16, 2019 | Nov. 18, 2019 | Conduction (CO01-KS) |
| AC Power Source | Chroma | 61602 | ABP0000008 11 | AC 0V~300V, 45Hz~1000Hz | Oct. 12, 2018 | Jul. 16, 2019 | Oct. 11, 2019 | Conduction (CO01-KS) |
| EMI Test Receiver | R&S | ESR7 | 101403 | 9kHz~7GHz;Ma x 30dBm | Aug. 06, 2018 | Jun. 06, 2019 | Aug. 05, 2019 | Radiation (03CH02-KS) |
| EXA Spectrum Analyzer | Keysight | N9010A | MY55150244 | 10Hz-44G,MAX 30dB | Apr. 15, 2019 | Jun. 06, 2019 | Apr. 16, 2020 | Radiation (03CH02-KS) |
| Bilog Antenna | TeseQ | CBL6112D | 23182 | 30MHz-2GHz | Dec. 29, 2018 | Jun. 06, 2019 | Dec. 28, 2019 | Radiation (03CH02-KS) |
| Double Ridge Horn Antenna | ETS-Lindgren | 3117 | 75959 | 1GHz~18GHz | Jan. 27, 2019 | Jun. 06, 2019 | Jan. 26, 2020 | Radiation (03CH02-KS) |
| SHF-EHF Horn | Com-power | AH-840 | 101070 | 18GHz~40GHz | Jan. 05, 2019 | Jun. 06, 2019 | Jan. 04, 2020 | Radiation (03CH02-KS) |
| Amplifier | MITEQ | TTA1840-35-H G | 1887435 | 18~40GHz | Jan. 14, 2019 | Jun. 06, 2019 | Jan. 13, 2020 | Radiation (03CH02-KS) |
| Amplifier | SONOMA | 310N | 187289 | 9KHz-1GHz | Aug. 06, 2018 | Jun. 06, 2019 | Aug. 05, 2019 | Radiation (03CH02-KS) |
| Amplifier | Keysight | 83017A | MY57280106 | 500MHz~26.5G Hz | Apr. 15, 2019 | Jun. 06, 2019 | Apr. 14, 2020 | Radiation (03CH02-KS) |
| AC Power Source | Chroma | 61601 | 61601000247 3 | N/A | NCR | Jun. 06, 2019 | NCR | Radiation (03CH02-KS) |
| Turn Table | MF | MF7802 | N/A | 0~360 degree | NCR | Jun. 06, 2019 | NCR | Radiation (03CH02-KS) |
| Antenna Mast | MF | MF7802 | N/A | 1 m~4 m | NCR | Jun. 06, 2019 | NCR | Radiation (03CH02-KS) |

NCR: No Calibration Required

Sporton International (Kunshan) Inc.

TEL: 86-512-57900158 FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 17 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report No.: FC952115

5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

| Measuring Uncertainty for a Level of Confidence | 2.9 dB |
|---|--------|
| of 95% (U = 2Uc(y)) | 2.9 UD |

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

| Measuring Uncertainty for a Level of Confidence | 4.9 dB |
|---|--------|
| of 95% (U = 2Uc(y)) | 4.5 UB |

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

| Measuring Uncertainty for a Level of Confidence | 5.0 dB |
|---|--------|
| of 95% (U = 2Uc(y)) | 3.0 UB |

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

| Measuring Uncertainty for a Level of Confidence | 5.1 dB |
|---|--------|
| of 95% (U = 2Uc(y)) | 3.1 dB |

Sporton International (Kunshan) Inc. TEL: 86-512-57900158

FAX: 86-512-57900958 FCC ID: 2APXW-WM118 Page Number : 18 of 18
Report Issued Date : Aug. 01, 2019
Report Version : Rev. 01

Report Template No.: BU5-FC15B Version 2.0