FCC CFR47 PART 15 SUBPART C
RSS-GEN / RSS-210

Keyless Entry System

CERTIFICATION TEST REPORT

FOR

433.92 MHz Security/Remote Control Transmitter

MODEL NUMBER : 2WG15R-FM

FCC ID: VA5REH500-2WFX
IC ID: 7087A-2WREH500FX
REPORT NUMBER: 4788072725-E1V1

ISSUE DATE: July 24 , 2017

Prepared for
SEGI LIMITED
UNIT S, 3-F, HARIBEST INDUSTRIAL BUILDING,
45-47, AU PUI WAN STREET, SHATIN, NT,
HONGKONG

Prepared by
UL Korea, Ltd. Suwon Laboratory
218 Maeyeong-ro, Yeongtong-gu,
Suwon-si, Gyeonggi-do, 16675, Korea
TEL: (031) 337-9902
FAX: (031) 213-5433

ACCREDITED
TL-637

Revision History

Rev.	Issue Date	Revisions	Revised By
-	-	Initial issue	-

TABLE OF CONTENTS

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SEGI LIMITED

EUT DESCRIPTION: Keyless Entry System

MODEL NUMBER: 2WG15R-FM

DATE TESTED: July 17, 2017 - July 19, 2017 (Original Test)

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C RSS-GEN / RSS-210	Pass

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Korea, Ltd. By:

Changyoung Choi
Lead Test Engineer
UL Korea, Ltd.

Tested By:

Hyunsik Yun
Laboratory Engineer
UL Korea, Ltd.

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with following methods.

1. FCC CFR 47 Part 2.
2. FCC CFR 47 Part 15.231
3. IC RSS-GEN Issue 4
4. IC RSS-210 Issue 9
5. ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro
☒ Chamber 1
☐ Chamber 2

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at http://www.iasonline.org/PDF/TL/TL-637.pdf.

IC test site registration number: 2324M-1

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	2.32 dB
Radiated Disturbance, Below 1GHz	4.14 dB
Radiated Disturbance, Above 1 GHz	5.97 dB

Uncertainty figures are valid to a confidence level of 95%.

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Keyless Entry System and operating under FCC Part 15.231 & RSS-210 Annex A

5.2. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1GHz was performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

Radiated emission above 1GHz was performed with the EUT set to transmit single frequency(433.92 MHz).

Power line conducted emission was not performed since this device using un-rechargerble battery.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z it was determined that Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z orientation.

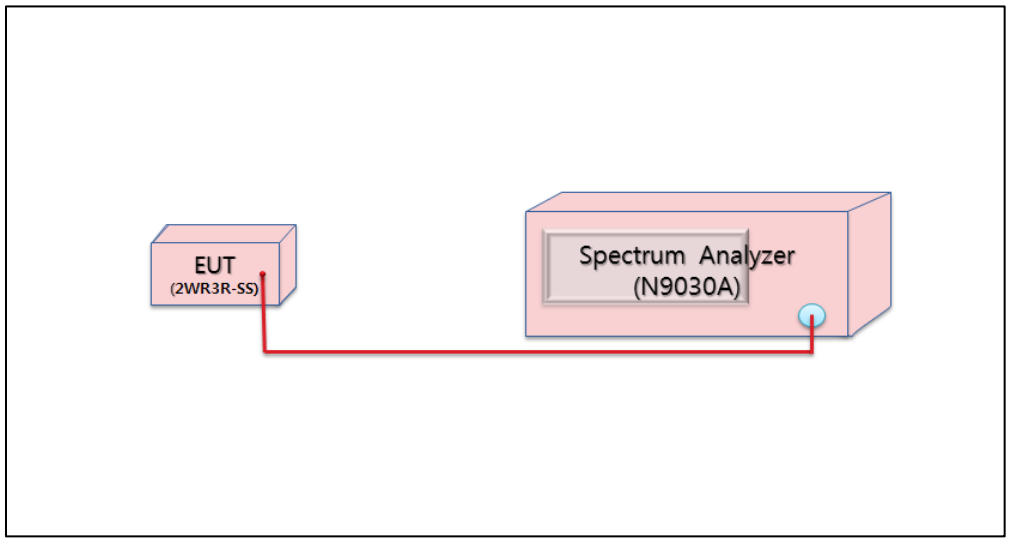
UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

5.3. DESCRIPTION OF TEST SETUP

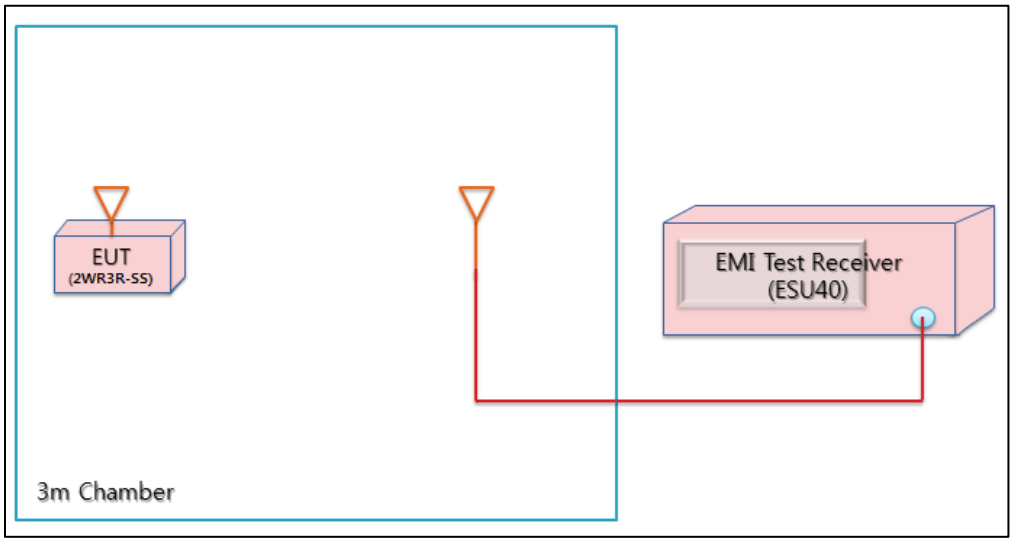
TEST SETUP

The EUT is a stand-alone unit during the tests.

SETUP DIAGRAM FOR CONDUCTION TESTS



SETUP DIAGRAM FOR RADIATION TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

Test Equipment List				
Description	**Manufacturer**	**Model**	**S/N**	**Cal Due**
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	750	10-14-18
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB9163	749	04-14-19
Antenna, Horn, 18 GHz	ETS	3115	00167211	10-14-18
Antenna, Horn, 18 GHz	ETS	3117	00168724	05-31-19
Antenna, Horn, 18 GHz	ETS	3117	00168717	05-31-19
Preamplifier, 1000 MHz	Sonoma	310N	341282	08-17-17
Preamplifier, 1000 MHz	Sonoma	310N	351741	08-16-17
Preamplifier	ETS	3115-PA	00167475	08-17-17
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	1896138	08-16-17
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	08-17-17
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	08-16-17
EMI Test Receive, 40 GHz	R&S	ESU40	100439	08-17-17
EMI Test Receive, 40 GHz	R&S	ESU40	100457	08-16-17
EMI Test Receive, 3 GHz	R&S	ESR3	101832	08-16-17
Attenuator / Switch driver	HP	11713A	3748A04272	N/A
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	08-17-17
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	015	08-16-17
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	08-17-17
High Pass Filter 3GHz	Micro-Tronics	HPM17543	015	08-16-17
High Pass Filter 6GHz	Micro-Tronics	HPM17542	009	08-17-17
High Pass Filter 6GHz	Micro-Tronics	HPM17542	016	08-16-17
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	11-25-17
UL Software				
Description	**Manufacturer**	**Model**	**Version**	
Radiated software	UL	UL EMC	Ver 9.5	

7. SUMMARY TABLE

FCC Part Section	IC Section	Test Description	Test Condition	Test Result	Worst Case
15.231 (c)	-	20 dB bandwidth	Conducted	Pass	84.82 kHz
-	RSS-210[A1.3]	Occupied bandwidth		Pass	119.28 kHz
15.231 (a)	RSS-210[A1.1]	Automatically deactivate		Pass	794 ms
15.231 (b)	RSS-210 [A1.2]	Field strength of fundamental and spurious emissions	Radiated	Pass	99.67 dBuV/m
15.205 15.209	RSS-GEN[8.9] RSS-GEN[8.10]	General Field Setength Limits (Restricted Bands and Radiated Emission Limits)		Pass	45.06 dBuV/m
15.207	RSS-GEN[8.8]	AC Power Lne Conducted Emission	-	N/A	-

8. ANTENNA PORT TEST RESULTS

8.1. 99% & 20 dB BANDWIDTH

LIMITS

The bandwidth of the emission shall be no wider than 0.25 % of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than

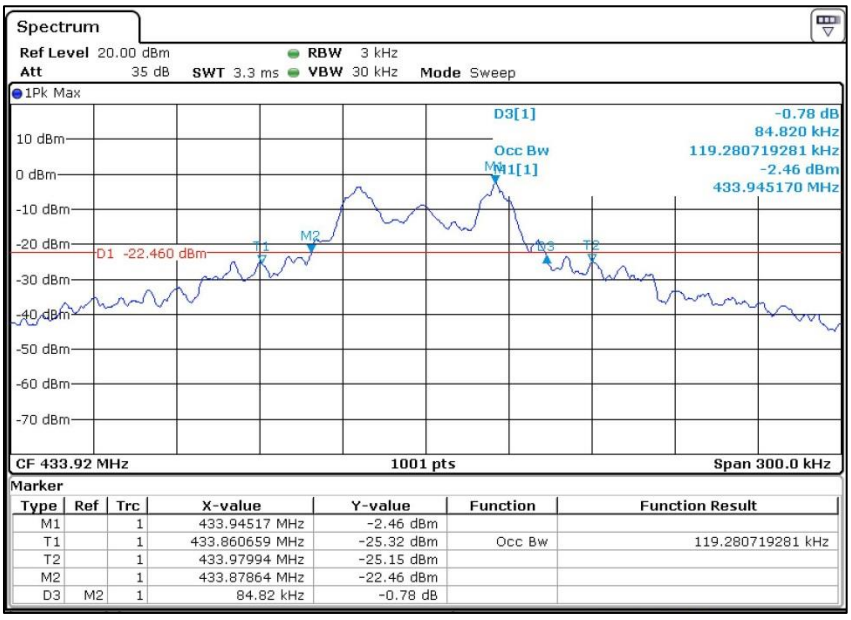
TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency [MHz]	20 dB Bandwidth [kHz]	99 % Bandwidth [kHz]	Limit [kHz]
Single channel	433.92	84.82	119.28	1084.80

20 dB & 99% BANDWIDTH PLOTS



8.2. AUTOMATICALLY DEACTIVATE

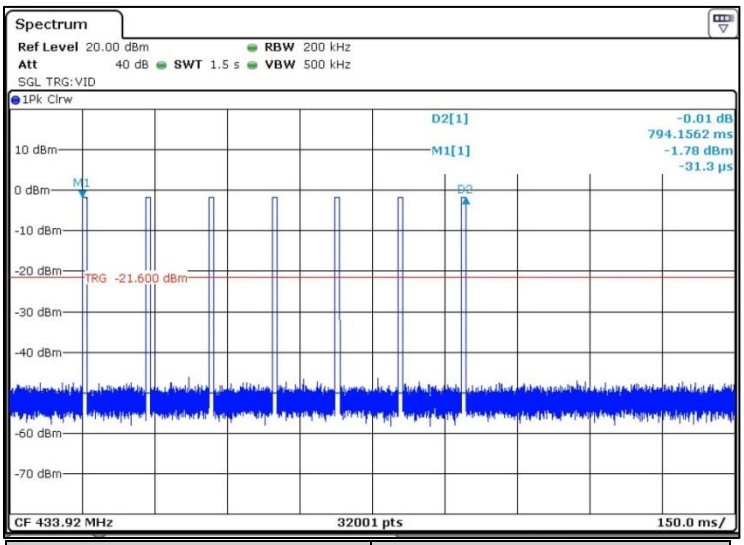
LIMITS

FCC §15.231 (a) & RSS-210 Annex A.1.1

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

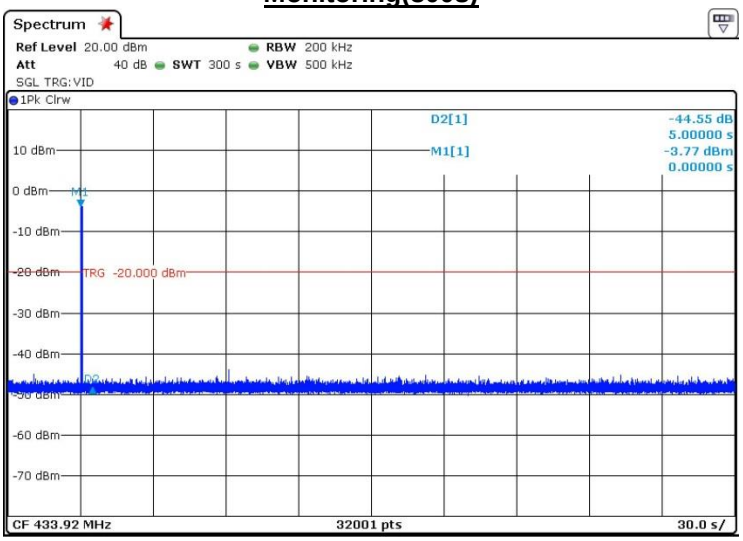
RESULTS

Single opearational time



Single opearational time[s]	Limit[s]
0.794 156	5

Monitoring(300s)



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205, §15.209, §15.231 (b), RSS-210 Annex A1.2

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
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

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC §15.231 & RSS-210 Annex A1.2		
Fundamental Frequency (MHz)		Field strength of fundamental (µV/m)
For FCC	For IC(RSS-Gen)	
40.66-40.70	-	2,250
70-130	70-130	1,250
130-174	130-174	1,250 to 3,750*
174-260	174-260	3,750
260-470	260-470	3,750 to 12,500*
Above 470	Above 470	12,500

* Linear interpolation.

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements(See the APPENDIX I in this test report).

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

The spectrum from 30MHz to 1GHz is investigated with the transmitter set to 433.92 MHz.

(From 1 GHz to 5 GHz, test was performed with the EUT set to transmit at the position with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Note : Emission was pre-scanned from 9KHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Formula for converting the filed strength from uV/m to dBuV/m is:
Limit (dBuV/m) = 20 log limit (uV/m)

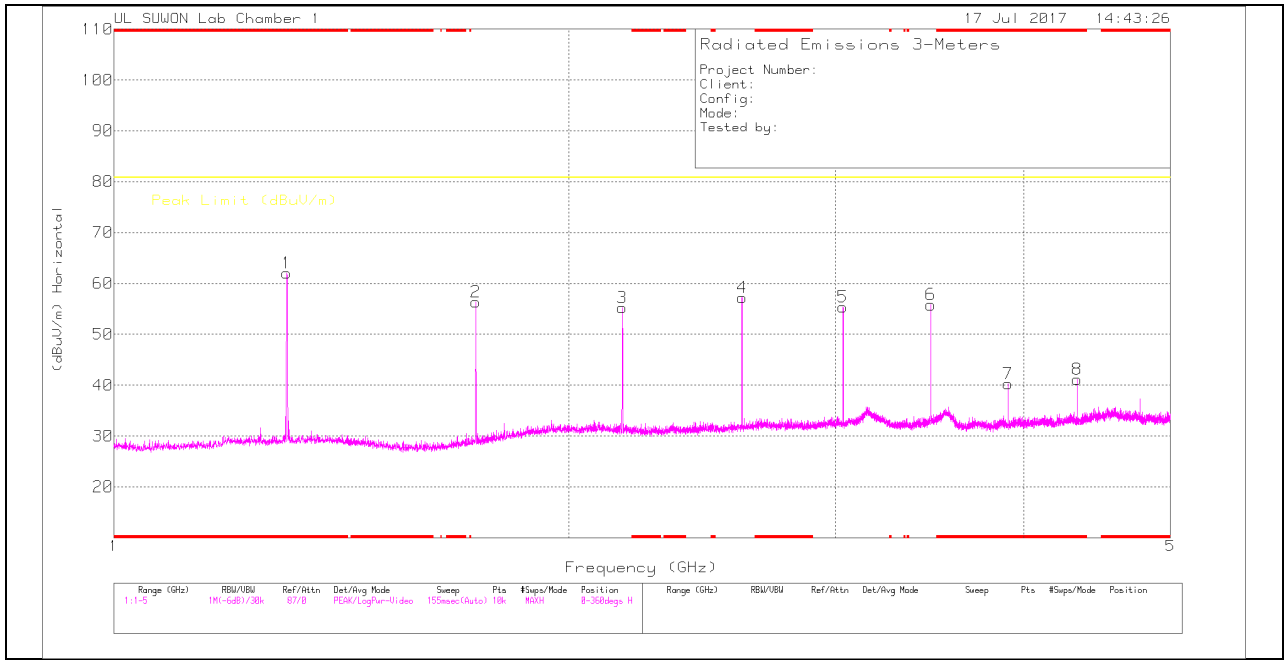
Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

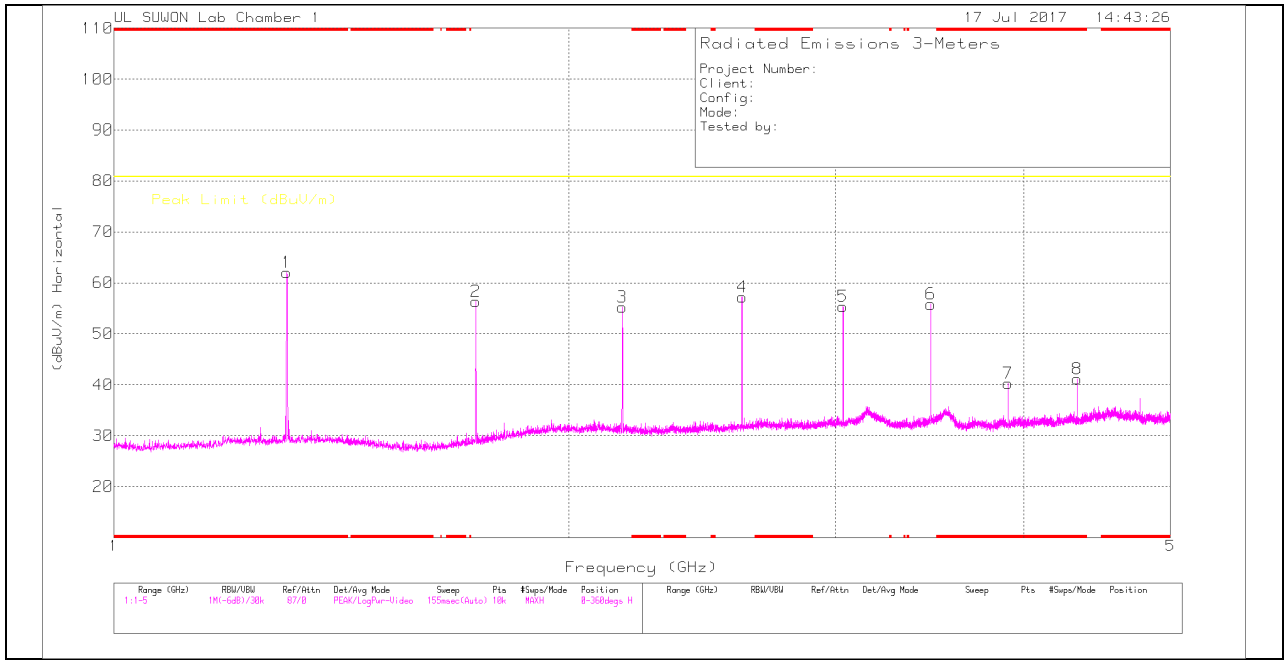
9.2. TRANSMITTER ABOVE 1 GHz

HARMONICS AND SPURIOUS EMISSIONS

433.92 MHz HARMONICS HORIZONTAL



433.92 MHz HARMONICS VERTICAL



Note: Emission was scanned up to 5 GHz

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

433.92 MHz HARMONICS DATA

Pre-Scan

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	1-18G(dB)	Duty Cycle Reduction Factor(dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.302	72.50	PK	29.40	-39.90	-	62.00	74.0	-18.80	0-360	150	H
2	1.736	66.65	PK	29.00	-39.30	-	56.35	80.8	-24.45	0-360	150	H
3	2.169	62.64	PK	31.40	-38.80	-	55.24	80.8	-25.56	0-360	150	H
4	2.604	63.94	PK	31.90	-38.60	-	57.24	80.8	-23.56	0-360	150	H
5	3.037	60.78	PK	32.40	-37.80	-	55.38	80.8	-25.42	0-360	150	H
6	3.472	59.50	PK	32.50	-36.20	-	55.80	80.8	-25.00	0-360	150	H
7	* 3.906	42.48	PK	33.10	-35.30	-	40.28	74.0	-40.52	0-360	150	H
8	* 4.339	42.51	PK	33.40	-34.80	-	41.11	74.0	-39.69	0-360	150	H
9	* 1.302	70.65	PK	29.40	-39.90	-	60.15	80.8	-20.65	0-360	250	V
10	1.736	65.60	PK	29.00	-39.30	-	55.30	80.8	-25.50	0-360	250	V
11	2.169	62.54	PK	31.40	-38.80	-	55.14	80.8	-25.66	0-360	250	V
12	2.604	58.59	PK	31.90	-38.60	-	51.89	80.8	-28.91	0-360	250	V
13	3.037	59.52	PK	32.40	-37.80	-	54.12	80.8	-26.68	0-360	250	V
14	3.471	53.95	PK	32.50	-36.20	-	50.25	80.8	-30.55	0-360	250	V
15	* 3.905	41.20	PK	33.10	-35.30	-	39.00	74.0	-41.80	0-360	150	V
16	* 4.339	40.23	PK	33.40	-34.80	-	38.83	74.0	-41.97	0-360	150	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	20170531_3117_00168717	1-18G(dB)	Duty Cycle Reduction Factor(dB)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.302	72.65	Pk	29.4	-39.9	-	62.15	74.0	-11.85	88	188	H
* 1.302	72.65	Pk	29.4	-39.9	-20.00	42.15	54.0	-11.85	88	188	H
1.736	66.89	Pk	29.0	-39.3	-	56.59	80.8	-24.21	93	182	H
2.169	62.81	Pk	31.4	-38.8	-	55.41	80.8	-25.39	90	178	H
2.604	64.12	Pk	31.9	-38.6	-	57.42	80.8	-23.38	94	180	H
3.037	61.66	Pk	32.4	-37.8	-	56.26	80.8	-24.54	93	177	H
3.472	60.34	Pk	32.5	-36.2	-	56.64	80.8	-24.16	96	174	H
* 3.906	43.08	Pk	33.1	-35.3	-	40.88	74.0	-33.12	90	186	H
* 3.906	43.08	Pk	33.1	-35.3	-20.00	20.88	54.0	-33.12	90	186	H
* 4.339	42.66	Pk	33.4	-34.8	-	41.26	74.0	-32.74	98	173	H
* 4.339	42.66	Pk	33.4	-34.8	-20.00	21.26	54.0	-32.74	98	173	H
* 1.302	71.57	Pk	29.4	-39.9	-	61.07	74.0	-12.93	3	348	V
* 1.302	71.57	Pk	29.4	-39.9	-20.00	41.07	54.0	-12.93	3	348	V
1.736	65.94	Pk	29.0	-39.3	-	55.64	80.8	-25.16	17	339	V
2.169	62.66	Pk	31.4	-38.8	-	55.26	80.8	-25.54	6	340	V
2.604	59.53	Pk	31.9	-38.6	-	52.83	80.8	-27.97	8	342	V
3.037	59.65	Pk	32.4	-37.8	-	54.25	80.8	-26.55	14	336	V
3.471	54.10	Pk	32.5	-36.2	-	50.40	80.8	-30.40	10	342	V
* 3.905	41.75	Pk	33.1	-35.3	-	39.55	74.0	-34.45	12	351	V
* 3.905	41.75	Pk	33.1	-35.3	-20.00	19.55	54.0	-34.45	12	351	V
* 4.339	41.13	Pk	33.4	-34.8	-	39.73	74.0	-34.27	104	161	V
* 4.339	41.13	Pk	33.4	-34.8	-20.00	19.73	54.0	-34.27	104	161	V

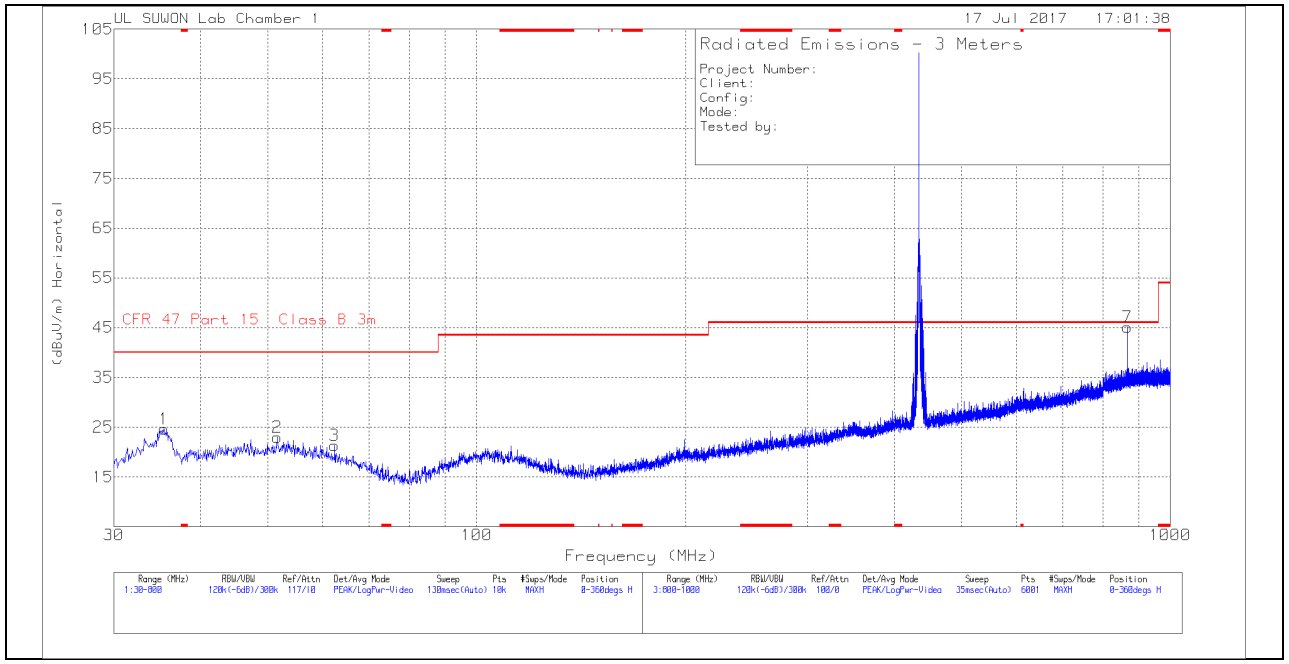
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Note. Non-restricted band's Peak measurement data meet the average limit(60.8 dBuV/m), Average data was omitted.

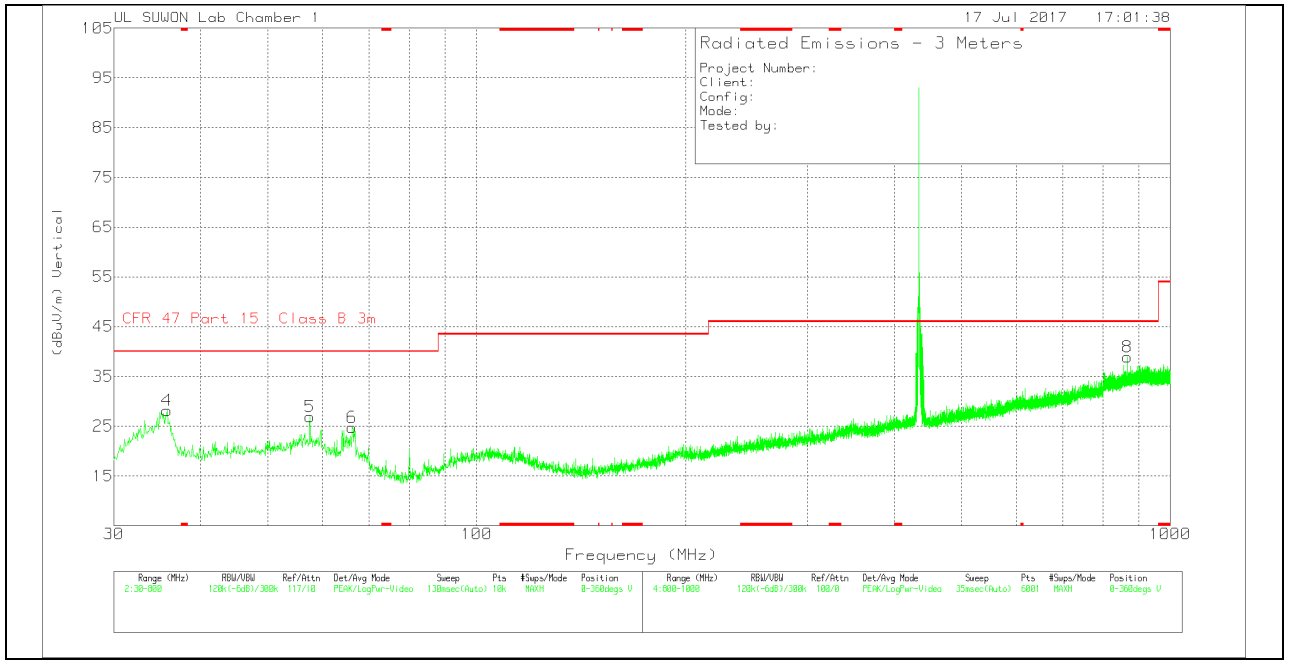
9.3. TRANSMITTER BELOW 1 GHz

FUNDAMENTAL AND SPURIOUS EMISSIONS

433.92 MHz FUNDAMENTAL & HARMONICS HORIZONTAL



433.92 MHz FUNDAMENTAL & HARMONICS VERTICAL



BELOW 1 GHz TABLE

Fundamental measurement data

Axis	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163 _750(dB)	30-1000MHz[dB]	Duty Cycle Reduction Factor(dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
X	433.923	77.77	Pk	15.9	6.0	-	99.67	100.8	-1.13	262	231	H
	433.923	77.77	Pk	15.9	6.0	-20	79.67	80.8	-1.13	262	231	H
	433.893	69.82	Pk	15.9	6.0	-	91.72	100.8	-9.08	5	218	V
	433.893	69.82	Pk	15.9	6.0	-20	71.72	80.8	-9.08	5	218	V
Y	433.945	76.89	Pk	15.9	6.0	-	98.79	100.8	-2.01	360	238	H
	433.945	76.89	Pk	15.9	6.0	-20	78.79	80.8	-2.01	360	238	H
	433.944	69.1	Pk	15.9	6.0	-	91	100.8	-9.80	265	215	V
	433.944	69.1	Pk	15.9	6.0	-20	71	80.8	-9.80	265	215	V
Z	433.894	60.56	Pk	15.9	6.0	-	82.46	100.8	-18.34	139	100	H
	433.894	60.56	Pk	15.9	6.0	-20	62.46	80.8	-18.34	139	100	H
	433.945	77.13	Pk	15.9	6.0	-	99.03	100.8	-1.77	101	126	V
	433.945	77.13	Pk	15.9	6.0	-20	79.03	80.8	-1.77	101	126	V

1 GHz under harmonics data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	VULB9163 _750(dB)	30-1000MHz[dB]	Corrected Reading (dBuV/m)	CFR 47 Part 15 Class B 3m	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	35.467	43.37	Pk	10.9	-29.6	24.67	40	-15.33	0-360	300	H
2	51.56	38.34	Pk	13.8	-29.2	22.94	40	-17.06	0-360	400	H
3	62.417	38.68	Pk	11.9	-29.3	21.28	40	-18.72	0-360	100	H
4	35.775	46.89	Pk	11	-29.7	28.19	40	-11.81	0-360	100	V
5	57.489	42.97	Pk	13.1	-29.2	26.87	40	-13.13	0-360	100	V
6	66.113	43	Pk	10.8	-29	24.8	40	-15.2	0-360	100	V
7	867.8993	31.46	Pk	21.5	-7.9	45.06	46.02	-0.96	0-360	100	H
8	867.8993	25.25	Pk	21.5	-7.9	38.85	46.02	-7.17	0-360	300	V

Pk - Peak detector

Note1: Only peak measurement was performed. Because peak measurement result of unwanted emission is less than Quasi-Peak limt.
Note2: The test was processed 433.92 MHz

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	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.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

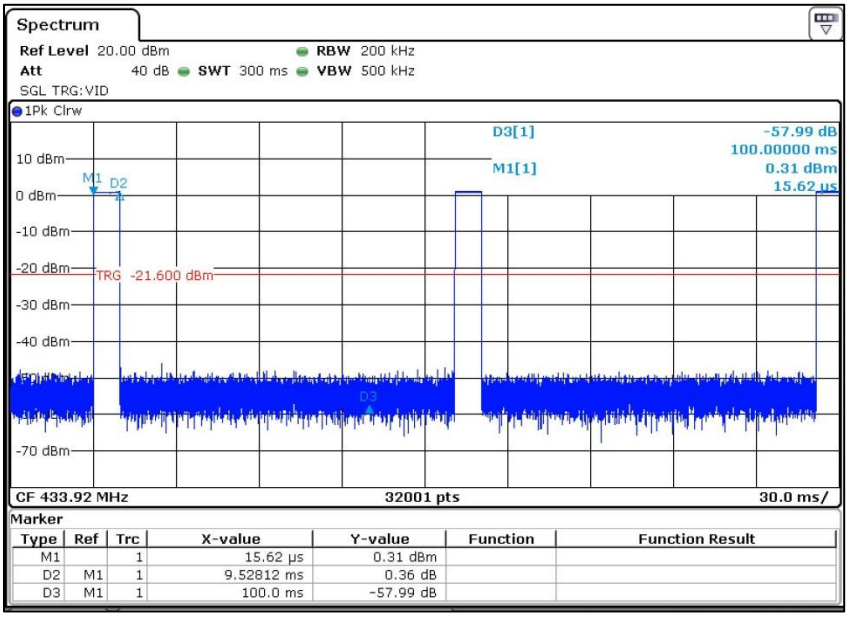
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS: N/A

Note. EUT use Non-rechargeable battery.

UL Korea, Ltd. Suwon Laboratory FORM ID: FCC_15C
218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433

APPENDIX I – DUTY CYCLE REDUCTION FACTOR



Measured worst case transmit time per 100 ms	**9.528 120 ms**
Declared worst case transmit time per 100 ms	**10 ms**
Duty cycle reduction factor	**20 x log(10/100) = -20.00 dB**

Note. The worst duty cycle has been provide by the manufacturer's operational description.

END OF REPORT