

CERTIFICATION TEST REPORT

Report Number : 4791163216-FR1V1

- Applicant : SEGI LIMITED UNIT S, 3-F, HARIBEST INDUSTRIAL BUILDING, 45-47, AU PUI WAN STREET, SHATIN, NT, HONGKONG
 - Model : 2WG17R-FM
 - FCC ID : VA5REN500-2WFX
 - IC : 7087A-2WREN500FX
- EUT Description : Keyless Entry System
- Test Standard(s) : FCC 47 CFR PART 15 SUBPART C INDUSTRY CANADA RSS-210 Issue 10 INDUSTRY CANADA RSS-GEN Issue 5

Date Of Issue: 2024-04-02

Prepared by: UL KOREA LTD. 26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

Suwon Test Site: UL KOREA LTD. Suwon Laboratory 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433



Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2024-04-02	Initial issue	Yeonghwan Hong

Page 2 of 20

TABLE OF CONTENTS

1.	ATT	ESTATION OF TEST RESULTS 4
2.	TES	ST METHODOLOGY
3.	FAC	CILITIES AND ACCREDITATION
4.	CAL	_IBRATION AND UNCERTAINTY6
4	l.1.	MEASURING INSTRUMENT CALIBRATION
4	¹ .2.	SAMPLE CALCULATION
4	1.3.	MEASUREMENT UNCERTAINTY 6
4	l.4.	DECISION RULE
5.	EQI	JIPMENT UNDER TEST7
5	5.1.	EUT DESCRIPTION
5	5.2.	MAXIMUM FIELD STRENGTH7
5	5.3.	DESCRIPTION OF AVAILABLE ANTENNAS
5	5.4.	WORST-CASE CONFIGURATION AND MODE7
5	5.5.	DESCRIPTION OF TEST SETUP
6.	TES	ST AND MEASUREMENT EQUIPMENT
7.	SUN	MMARY TABLE10
8.	COI	NDUCTED TEST RESULTS11
8	8.1.	99% & 20 dB BANDWIDTH11
8	8.2.	AUTOMATICALLY DEACTIVATE
9.	RA	DIATED TEST RESULTS13
ç	0.1.	TRANSMITTER ABOVE 1 GHz16
ç	9.2.	TRANSMITTER BELOW 1 GHz18
10.	AC	POWER LINE CONDUCTED EMISSIONS

Page 3 of 20

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:SEGI LIMITEDEUT DESCRIPTION:Keyless Entry SystemMODEL NUMBER:2WG17R-FMSERIAL NUMBER:Identical prototypeDATE TESTED:2024-01-25 ~ 2024-04-01;

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

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:

the

Seokhwan Hong Suwon Lab Engineer UL KOREA LTD. Tested By:

Yeonghwan Hong Suwon Lab Engineer UL KOREA LTD.

Page 4 of 20

2. TEST METHODOLOGY

- 1. FCC CFR 47 Part 2.
- 2. FCC CFR 47 Part 15.231
- 3. IC RSS-GEN Issue 5
- 4. IC RSS-210 Issue 10
- 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(3m semi-anechoic chamber)			
Chamber 2(3m semi-anechoic chamber)			
Chamber 3(3m semi-anechoic chamber)			

Used ISED Test Site Reg.(company number): 2324L CAB Identifier: KR0161

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf.

Page 5 of 20

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

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	2.80 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.92 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.06 dB
Radiated Disturbance, 18 GHz to 40 GHz	6.02 dB

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

4.4. DECISION RULE

Decision rule for statement(s) of conformity is based on Procedure 2, Clause 4.4.3 in IEC Guide 115:2021

Page 6 of 20

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

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

5.2. MAXIMUM FIELD STRENGTH

The transmitter has a maximum fundamental field strength power as follows:

Frequency [MHz]	Maximum Fundamental field strength Power [dBuV/m]		
[·····]	PEAK	AVERAGE	
433.92	96.57	76.17	

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The internal antenna was Permanently attached. Therefore this E.U.T Complies with the requirement of §15.203.

The radio utilizes an internal antenna, with a maximum gain of -4.09 dBi

5.4. WORST-CASE CONFIGURATION AND MODE

Radiated emission was performed with the EUT set to transmit at the single frequency (433.92 MHz). Power line conducted emission was not performed since this device using unrechargerble battery.

The fundamental and radiated spurious emission were investigated in three orthogonal orientations X, Y and Z. It was determined that below orientation was worst-case orientation for each antenna.

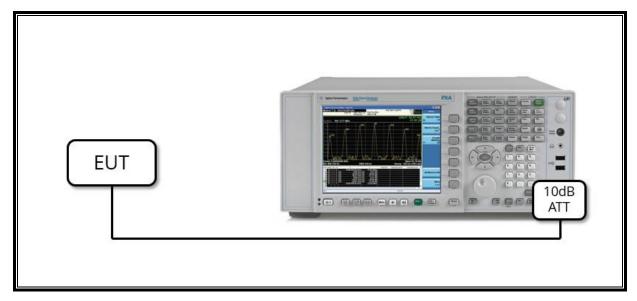
Antenna	Worst Case			
Antenna	X	Y	Z	
Fundamental(433.92MHz)	-	-	0	
Radiated spurious emission	Plea	se see the tested	data	

5.5. DESCRIPTION OF TEST SETUP

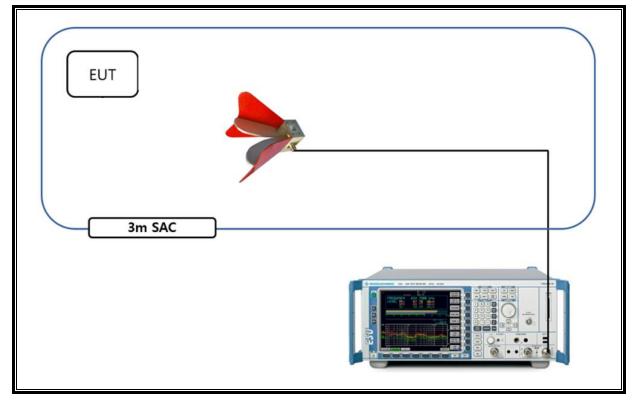
TEST SETUP

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

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



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	2024-08-15		
Antenna, Horn, 18 GHz	ETS	3117	00168717	2024-08-21		
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2024-08-02		
Preamplifier	ETS	3116C-PA	00168841	2024-07-25		
Preamplifier, 1000 MHz	Sonoma	310N	341282	2024-07-24		
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2024-07-24		
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2024-07-25		
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2024-07-24		
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9040B	MY60080268	2025-01-03		
Average Power Sensor	Agilent / HP	U2000A	MY54270007	2024-07-23		
Average Power Sensor	Agilent / HP	U2000A	MY54260010	2024-07-24		
Attenuator	PASTERNACK	PE7087-10	A001	2024-07-23		
Attenuator	PASTERNACK	PE7087-10	A008	2024-07-27		
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2024-07-23		
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2024-07-24		
EMI Test Receive, 3 GHz	R&S	ESR3	101832	2024-07-23		
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G005	2024-07-23		
High Pass Filter 1.2GHz	Micro-Tronics	HPM50108-02	G006	2024-07-23		
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	010	2024-07-24		
High Pass Filter 2.8GHz	Micro-Tronics	HPM50111-02	011	2024-07-24		
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2024-07-23		
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2024-07-23		
High Pass Filter 6GHz	Micro-Tronics	HPS17542	021	2024-07-24		
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2025-09-06		
	U	L Software				
Description	Manufacturer	Model	Ve	rsion		
Radiated software	UL	UL EMC	Ve	er 9.5		
AC Line Conducted software	UL	UL EMC	Ve	er 9.5		

Page 9 of 20

7. SUMMARY TABLE

FCC Part Section	IC Section	Test Description	Test Limit	Test Condition	Test Result
15.231 (c)	-	20dB bandwidth	no wider than 0.25% of the center frequency for device		PASS
-	RSS-210 [A1.3]	Occupied bandwidth(99%)	no wider than 0.25% of the center frequency for device	Conducted	PASS
15.231 (a)(1)	RSS-210 [A1.1]	Automatically deactivate	< 5s		PASS
15.231	RSS-210	Field strength of fundamental and	Fundamental: < 100.8 dBuV/m(Pk) < 80.8 dBuV/m(Av)		PASS
(b)	[A1.2]	spurious emissions	Spurious emission: < 80.8 dBuV/m(Pk) < 60.8 dBuV/m(Av)	Radiated	FA33
15.205, 15.209	RSS-GEN [8.9] & [8.10]	General field strength limits(restricted bands and radiated emission limits)	Spurious emission: < 74 dBuV/m(Pk) < 54 dBuV/m(Av)		PASS
15.207 (a)	RSS-GEN [8.8]	AC Power Line conducted emissions	Section 11	Power Line conducted	N/P

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

Page 10 of 20

8. CONDUCTED TEST RESULTS

8.1. 99% & 20 dB BANDWIDTH

<u>LIMITS</u>

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	20 dB Bandwidth	99 % Bandwidth	Limit
	[MHz]	[kHz]	[kHz]	[kHz]
Single channel	433.92	105.4	137.78	1084.80

20 dB & 99% BANDWIDTH PLOTS



UL KOREA LTD. Suwon Laboratory 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433 UL KOREA LTD. Confidential This report shall not be reproduced except in full, without the written approval of UL KOREA LTD.

Page 11 of 20

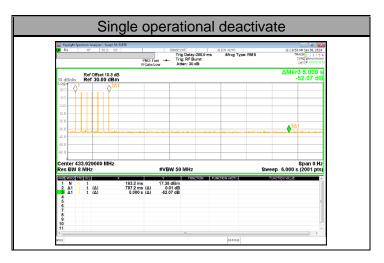
8.2. AUTOMATICALLY DEACTIVATE

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[s]	Limit[s]
0.787	5

Page 12 of 20

9. RADIATED TEST RESULTS

LIMITS

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		

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

** 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 Part 15.205 (a) : Only spurious emissions are permitted in any of the frequency bands listed below	FCC Part 15.205 (a
--	--------------------

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.52525	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	156.7 ~ 156.9	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	162.0125 ~	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	167.17	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	167.72 ~ 173.2	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	240 ~ 285	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	322 ~ 335.4	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	399.90 ~ 410	3345.8 ~ 3358		
		608 ~ 614	3600 ~ 4400		
		960 ~ 1240			

• FCC Part 15.205(b) : The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasipeak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

FCC §15.231 & RSS-210 Annex A1.2										
	al Frequency Hz)	Field strength of fundamental								
For FCC	For IC(RSS-Gen)	(µV/m)								
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.

TEST PROCEDURE

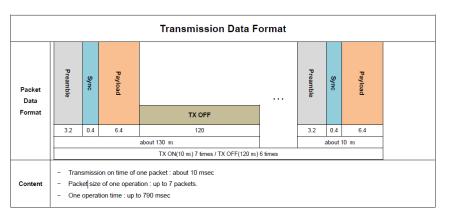
The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1 GHz and 150 cm for above 1 GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average calculations.

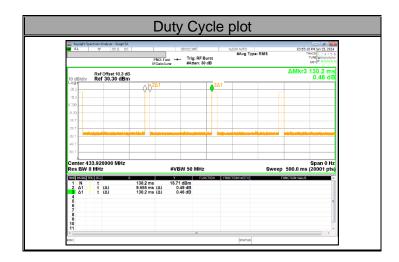
Total Average Factor = $20 \log \frac{10}{100} dB$ = -20.0 dB

Total Average Factor = -20.0 dB



Declared Worst Data Format of 1 Word

Page 14 of 20



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.

Note : Emission was pre-scanned from 9 kHz to 30 MHz; 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.

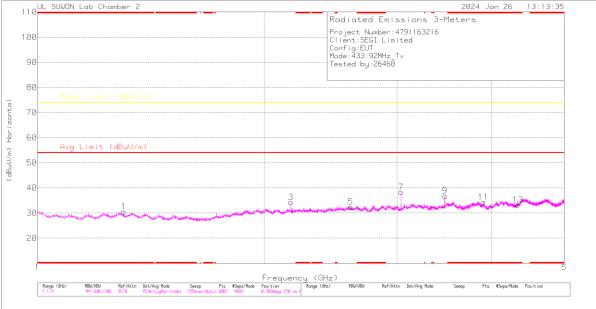
Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open field test site.

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.

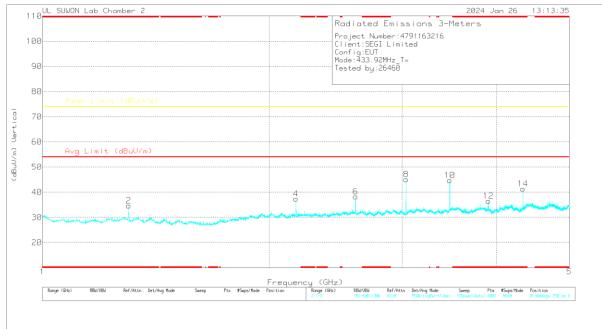
Page 15 of 20

9.1. TRANSMITTER ABOVE 1 GHz

HARMONICS AND SPURIOUS EMISSIONS



HORIZONTAL



VERTICAL

Page 16 of 20

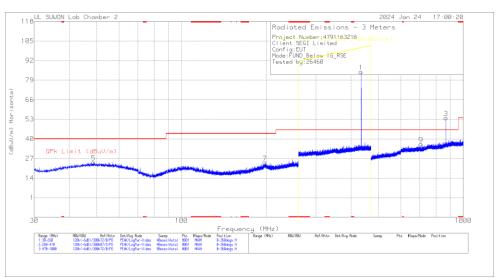
Spurious Data

Freq. [MHz]	Axis	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]	AV Limit [dBuV/m]	AV Margin [dB]	PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
		* 1.30178	33.00	PK2	29.50	-29.80	-	32.70	-	-	74.00	-41.30	0-360	150	н
		* 1.30178	33.00	PK2	29.50	-29.80	-20.00	12.70	54.00	-41.30	-	-	0-360	150	H
		2.16959	33.42	PK2	31.50	-28.50	-	36.42	-	-	74.00	-37.58	0-360	250	Н
		2.16959	33.42	PK2	31.50	-28.50	-20.00	16.42	54.00	-37.58	-	-	0-360	250	Н
		2.60360	28.45	PK2	32.10	-28.10	-	32.45	-	-	74.00	-41.55	0-360	150	Н
		2.60360	28.45	PK2	32.10	-28.10	-20.00	12.45	54.00	-41.55	-	-	0-360	150	Н
		3.03736	35.34	PK2	32.50	-28.10	-	39.74	-	-	74.00	-34.26	0-360	250	Н
		3.03736	35.34	PK2	32.50	-28.10	-20.00	19.74	54.00	-34.26	-	-	0-360	250	Н
		3.47140	32.51	PK2	32.70	-27.00	-	38.21	-	-	74.00	-35.79	0-360	250	н
		3.47140	32.51	PK2	32.70	-27.00	-20.00	18.21	54.00	-35.79	-	-	0-360	250	н
		* 3.9055	30.05	PK2	33.20	-27.60	-	35.65	-	-	74.00	-38.35	0-360	150	н
		* 3.9055	30.05	PK2	33.20	-27.60	-20.00	15.65	54.00	-38.35	-	-	0-360	150	н
		* 4.33943	30.99	PK2	33.50	-27.20	-	37.29	-	-	74.00	-36.71	0-360	250	V
433.92	z	* 4.33943	30.99	PK2	33.50	-27.20	-20.00	17.29	54.00	-36.71	-	-	0-360	250	v
433.92	2	* 1.30182	41.22	PK2	29.50	-29.80	-	40.92	-	-	74.00	-33.08	0-360	150	v
		* 1.30182	41.22	PK2	29.50	-29.80	-20.00	20.92	54.00	-33.08	-	-	0-360	150	V
		2.16959	36.06	PK2	31.50	-28.50	-	39.06		-	74.00	-34.94	0-360	250	v
		2.16959	36.06	PK2	31.50	-28.50	-20.00	19.06	54.00	-34.94	-	-	0-360	250	v
		2.60355	39.52	PK2	32.10	-28.10	-	43.52	-	-	74.00	-30.48	0-360	250	v
		2.60355	39.52	PK2	32.10	-28.10	-20.00	23.52	54.00	-30.48	-	-	0-360	250	V
		3.03737	42.42	PK2	32.50	-28.10	-	46.82	-	-	74.00	-27.18	0-360	250	V
		3.03737	42.42	PK2	32.50	-28.10	-20.00	26.82	54.00	-27.18	-	-	0-360	250	V
		3.47150	40.22	PK2	32.70	-27.00	-	45.92	-	-	74.00	-28.08	0-360	250	v
		3.47150	40.22	PK2	32.70	-27.00	-20.00	25.92	54.00	-28.08	-	-	0-360	250	V
		* 3.90544	29.58	PK2	33.20	-27.60	-	35.18	-	-	74.00	-38.82	0-360	250	V
		* 3.90544	29.58	PK2	33.20	-27.60	-20.00	15.18	54.00	-38.82	-	-	0-360	250	V
		* 4.33942	37.14	PK2	33.50	-27.20	-	43.44	-	-	74.00	-30.56	0-360	250	V
		* 4.33942	37.14	PK2	33.50	-27.20	-20.00	23.44	54.00	-30.56	-	-	0-360	250	V

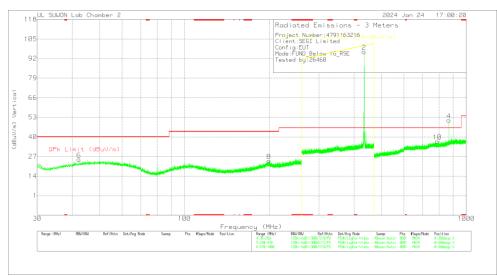
Page 17 of 20

9.2. TRANSMITTER BELOW 1 GHz

FUNDAMENTAL AND SPURIOUS EMISSIONS



HORIZONTAL



VERTICAL

Fundamental Data

Freq. [MHz]	Axis	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]	Result [dBuV/m]		QP Margin [dB]	AV Limit [dBuV/m]		PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
		433.920	71.28	Pk	21.80	2.60	-	95.68	-	-	-	-	100.80	-5.12	0-360	200	Н
433.92	x	433.920	71.28	Av	21.80	2.60	-20.00	75.68	-	-	80.80	-5.12	-	-	0-360	200	Н
433.92	^	433.920	64.33	Pk	21.80	2.60	-	88.73	-	-	-	-	100.80	-12.07	0-360	200	V
		433.920	64.33	Av	21.80	2.60	-20.00	68.73	-	-	80.80	-12.07	-	-	0-360	200	V
		433.920	70.82	Pk	21.80	2.60	-	95.22	-	-	-	-	100.80	-5.58	0-360	100	Н
433.92	~	433.920	70.82	Av	21.80	2.60	-20.00	75.22	-	-	80.80	-5.58	-	-	0-360	100	н
433.32	'	433.920	65.53	Pk	21.80	2.60	-	89.93	-	-	-	-	100.80	-10.87	0-360	200	V
		433.920	65.53	Av	21.80	2.60	-20.00	69.93	-	-	80.80	-10.87	-	-	0-360	200	V
		433.920	60.05	Pk	21.80	2.60	-	84.45	-	-	-	-	100.80	-16.35	0-360	100	Н
433.92	7	433.920	60.05	Av	21.80	2.60	-20.00	64.45	-	-	80.80	-16.35	-	-	0-360	100	Н
433.92	2	433.920	72.17	Pk	21.80	2.60	-	96.57	-	-	-	-	100.80	-4.23	0-360	200	V
		433.920	72.17	Av	21.80	2.60	-20.00	76.57	-	-	80.80	-4.23	-	-	0-360	200	V

UL KOREA LTD. Suwon Laboratory 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea TEL: (031) 337-9902 FAX: (031) 213-5433 UL KOREA LTD. Confidential This report shall not be reproduced except in full, without the written approval of UL KOREA LTD.

Page 18 of 20

REPORT NO: 4791163216-FR1V1 FCC ID: VA5REN500-2WFX IC: 7087A-2WREN500FX

Spurious Data

Freq. [MHz]	Axis	Frequency [GHz]	Reading [dBuV]	Detector Mode	ANT Factor	Loss [dB]	DC Corr [dB]		QP Limit [dBuV/m]		AV Limit [dBuV/m]		PK Limit [dBuV/m]	PK Margin [dB]	Azimuth [Degs]	Height [cm]	Polarity
		48.77	3.67	Pk	20.10	0.80	-	24.57	40.00	-15.43	-	-	-	-	0-360	200	н
		197.73	4.60	Pk	18.00	1.70	-	24.30	43.52	-19.22	-	-	-	-	0-360	300	н
		708.30	7.97	Pk	25.20	3.40	-	36.57	46.02	-9.45	-	-	-	-	0-360	200	н
		867.86	22.78	Pk	27.40	3.80	-	53.98	-	-			80.80	-26.82	0-360	100	н
	_	867.86	22.78	Pk	27.40	3.80	-	53.98	-	-	60.80	-6.82	-	-	0-360	100	н
433.92	2	42.22	4.88	Pk	19.30	0.80	-	24.98	40.00	-15.02	-	-	-	-	0-360	100	V
		199.25	4.73	Pk	17.70	1.70	-	24.13	43.52	-19.39	-	-	-	-	0-360	100	V
		788.73	7.30	Pk	26.20	3.60	-	37.10	46.02	-8.92	-	-	-	-	0-360	100	V
		867.83	19.97	Pk	27.40	3.80	-	51.17	-	-			80.80	-29.63	0-360	300	v
		867.83	19.97	Pk	27.40	3.80	-	51.17	-	-	60.80	-9.63	-	-	0-360	300	v

Page 19 of 20

10. AC POWER LINE CONDUCTED EMISSIONS

<u>LIMITS</u>

FCC §15.207 (a) & RSS-GEN[8.8]

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/P

Note. EUT use Non-rechargeable battery.

END OF TEST REPORT

Page 20 of 20