

FCC 47 CFR PART 15 SUBPART C INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

Wireless Security Door/Window Sensor

MODEL NUMBER: WST-212

FCC ID: XQC-WST212 IC: 9863B-WST212

REPORT NUMBER: 13U15254-1

ISSUE DATE: June 25, 2013

Prepared for Ecolink Intelligent Technology 2055 Corte Del Nogal Carlsbad, CA 92011

> Prepared by UL LLC 333 Pfingsten Rd. Northbrook, IL 60062 TEL: (847) 272-8800

> > **Revision History**

NVLAP Lab code: 100414-0

Rev.	lssue Date	Revisions	Revised By
	06/25/13	Initial Issue	M.Ferrer

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1. ATTESTATION OF TEST RESULTS

		_
S	TANDARD	TEST RESULTS
	APPLICABLE STANDARDS	
DATE TESTED:	June 11, 2013 – June 20, 2013	
SERIAL NUMBER:	N/A	
MODEL:	WST-212	
EUT DESCRIPTION:	Wireless Security Door/Window Sensor	r
COMPANY NAME:	Ecolink Intelligent Technology 2055 Corte Del Nogal Carlsbad, CA 92011	

FCC PART 15 SUBPART C	Pass
INDUSTRY CANADA RSS-210 Issue 8, Annex 1	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL Verification Services Inc 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 Verification Services Inc. 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 Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc 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 NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL Verification Services Inc By:

BART MUCHA Staff Engineer **UL Verification Services Inc.**

Tested By:

MICHAEL FERRER Project Lead UL Verification Services Inc.

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UL LLC

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 333 Pfingsten Road, Northbrook, IL 60062 USA.

UL NBK is accredited by NVLAP, Laboratory Code 100414-0

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

Sample Calculations

Radiated Field Strength and Conducted Emissions data contained within this report is calculated on the following basis:

Field Strength (dBuV/m) = Meter Reading (dBuV) + AF (dB/m) - Gain (dB) + Cable Loss (dB) Conducted Voltage (dBuV) = Meter Reading (dBuV) + Cable Loss (dB) + LISN IL (dB) Conducted Current (dBuA) = Meter Reading (dBuV) + Cable Loss (dB) - Transducer Factor (dBohms)

4.3. MEASUREMENT UNCERTAINTY

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

Test	Range	Equipment	Uncertainty k=2
Radiated Emissions	30-200MHz	Bicon 10m Horz	4.27dB
Radiated Emissions	30-200MHz	Bicon 10m Vert	4.28dB
Radiated Emissions	200-1000MHz	LogP 10m Horz	3.33dB
Radiated Emissions	200-1000MHz	LogP 10m Vert	3.39dB
Radiated Emissions	1-6GHz	Horn	5.02dB
Radiated Emissions	6-18GHz	Horn	5.34dB
Radiated Emissions	18-26GHz	Horn	6.60dB
Conducted Ant Port	30MHz-26GHz	Spectrum Analyzer	2.94

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

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a Transmitter intended for Security use. Uses 3VDC battery

5.2. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a Loop antenna using copper wire, with a maximum gain of -15dBi.

5.3. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was ESW1034, 04-B01, QC1212

5.4. WORST-CASE CONFIGURATION AND MODE

The worst-case axis was determined as Z-axis with preliminary testing.

5.5. MODIFICATIONS

No modifications were made during testing.

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5.1. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

None

I/O CABLES

None

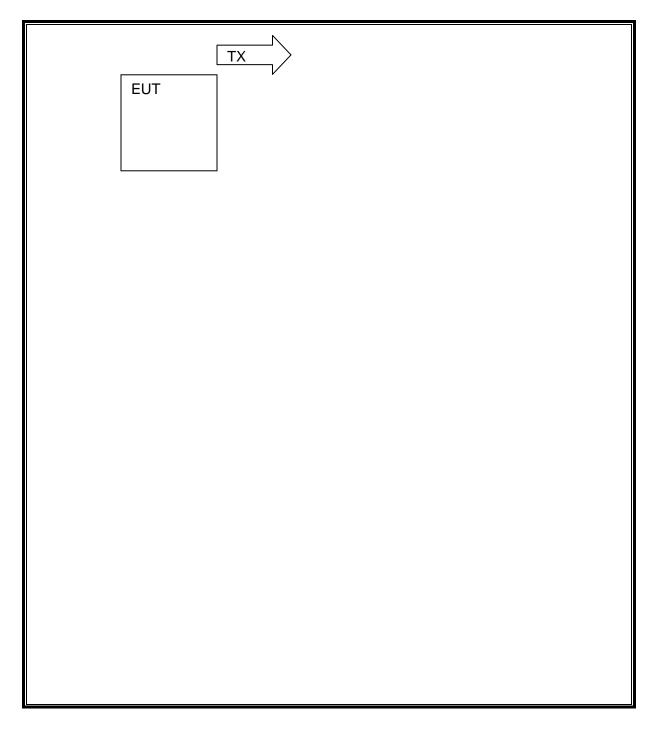
TEST SETUP

The EUT was programed to transmit continuously.

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SETUP DIAGRAM FOR TESTS



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6. TEST AND MEASUREMENT EQUIPMENT

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

	Test	t Equipment List			
Description	Manufacturer	Model	Asset	Cal Date	Cal Due
EMI Test Receiver	Rohde & Schwarz	ESU	EMC4323	20121227	20131231
Bicon Antenna	Electro-Metrics	EM 6912A	EMC4070	20120830	20130830
Log-P Antenna	Chase	UPA6109	EMC4313	20120807	20130831
Spectrum Analyzer	Rhode & Schwarz	FSEK	EMC4182	20121226	20131231
Antenna Array	UL	BOMS	EMC4276	20111227	20131231
EMI Test Receiver	Agilent	N9030A	EMC4360	20121226	20131226
Antenna	ETS	1003?	N/A	N/A	N/A

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7. TEST RESULTS

7.1. 20 dB AND 99% BW

LIMITS

FCC §15.231 (c)

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 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

IC A1.1.3

For the purpose of Section A1.1, the 99% Bandwidth shall be no wider than 0.25% of the center frequency for devices operating between 70-900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency.

TEST PROCEDURE

ANSI C63.4

The transmitter output is connected to the spectrum analyzer.

20dB Bandwidth: The RBW is set to 10 KHz. The VBW is set to 100 KHz. The sweep time is coupled. Bandwidth is determined at the points 20 dB down from the modulated carrier.

99% Bandwidth: The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

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RESULTS

No non-compliance noted:

20dB Bandwidth

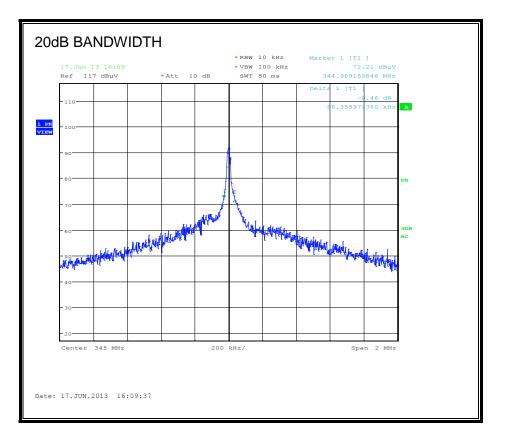
Frequency	20dB Bandwidth	Limit	Margin
(MHz)	(kHz)	(kHz)	(kHz)
345	66.35	862.5	-796.15

99% Bandwidth

Frequency	99% Bandwidth	Limit	Margin
(MHz)	(kHz)	(kHz)	(kHz)
345	486	862.5	-376.5

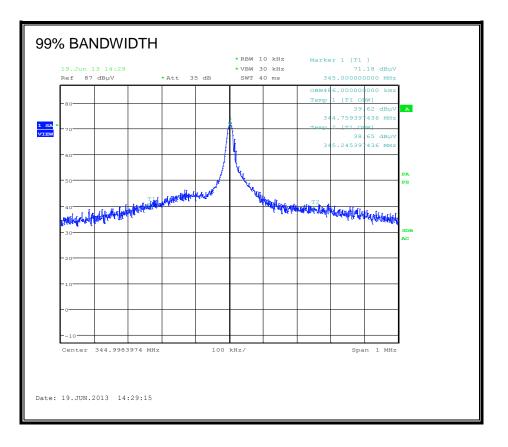
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20dB BANDWIDTH



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99% BANDWIDTH



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7.2. DUTY CYCLE

<u>LIMITS</u>

FCC §15.35 (c)

The measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value. The exact method of calculating the average field strength shall be submitted with any application for certification or shall be retained in the measurement data file for equipment subject to notification or verification.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 1MHz and the VBW is set to 1MHz. The sweep time is coupled and the span is set to 0 Hz. The number of pulses is measured and calculated in a 100 ms scan.

CALCULATION

Average Reading = Peak Reading (dBuV/m) + 20log (Duty Cycle), Where Duty Cycle is (# of long pulses * long pulse width) + (# of short pulses * short pulse width) / 100 or T

RESULTS

No non-compliance noted:

One	Long	# of	Short	# of	Duty	20*Log
Period	Width	Long	Width	Short	Cycle	Duty Cycle
(ms)	(ms)	Pulses	(ms)	Pulses		(dB)

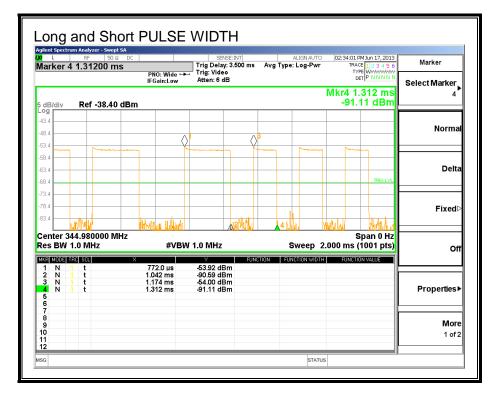
ONE PERIOD

L S RF 50 Ω larker 2 2.48000 s		Avg Type: Lo	g-Pwr TRACE	1 19, 2013 1 2 3 4 5 6 Marker
	PNO: Wide ↔ Trig: Video IFGain:Low Atten: 6 d	0	TYPE	Select Marker
	D			2.480 s 4 dBm
0 dB/div Ref -31.00 d	Bm		-73.3	4 dBm
41.0				Norma
61.0				TRIG LVL
71.0	2 ²			Delt
91.0				
-101				
121 <mark></mark>	والرج ومرجا والمتحافظ فرعو وعرجوه والتقاويك	haley Mary Is a second second second	dan kanalar bilan kan	Fixed
enter 345.000000 MH				pan 0 Hz
Kes BW 1.0 MHz	#VBW 1.0 MHz		weep 10.00 s (1	<u> </u>
1 N 1 t 2 N 1 t	0.000 s -55.22 dB 2.480 s -79.94 dB	m	NA WIDTHT TONETION	
3 4 5				Properties
6 7 8				
9				Mon
10				
11				1 of:
11 12 5G			STATUS	1 of:
12			STATUS	1 of :
12 SG jilent Spectrum Analyzer - Swept Sk				
I2 SG ulent Spectrum Analyzer - Swept S L S RF 50 Ω	DC SEN	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE	130 19,2013 112 3 4 5 6 Marker
I2 SG ulent Spectrum Analyzer - Swept S L S RF 50 Ω		Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET	100 19, 2013 112 3 4 5 6 W NNN N Select Marker
I2	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	100 19, 2013 112 3 4 5 6 W NNN N Select Marker
22 SG μlent Spectrum Analyzer - Swept Si L S FF S0 Ω Tarker 2 100.000 ms	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Marker Marker NNNNN Select Marker 0.0 ms 2
22 SG L S 8F 50 Ω larker 2 100.000 ms 0 dB/div Ref -31.00 d 9 d 41.0 51.0	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Jan 19, 2013 Marker 12: 3 4: 5: 6 Marker N N N N N Select Marker 0.0 ms 2
12 SG L S RF 50 Q larker 2 100.000 ms 0 dB/div Ref -31.00 d 0 dB/div 1	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Marker Marker NNNNN Select Marker 0.0 ms 2
12	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Mar 19, 2013 12, 2, 4, 5, 6 W N TW N N N TW N Select Marker 2 8 dBm Norma
12	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Marker Marker NNNNN Select Marker 2 8 dBm Norma
12	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	Marker Marker NNNNN Select Marker 2 8 dBm Norma
12	DC SEN PNO: Wide IFGain:Low Trig: Video Atten: 6 di	Avg Type: Lo	INAUTO 03:10:45 PM g-Pwr TRACE TYPE DET Mkr2 10	An 19,2013 All 23 3 5 6 N N M N N N N M N N Select Marker 2 8 dBm Norma Delta
12	PNO: Wide → Trig: Vide IFGain:Low Bm	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr TRACE DET Mkr2 10 -109.7	An 19,2013 Marker MANNAN N NANN Select Marker 2 Norma Norma Delt Fixed
12 12 36 36 L S RF 50 p arker 2 100.000 ms 30 p 0 dB/div Ref -31.00 d 910 1 1 10 1 1 11 1 1 12 1 1 1310 1 1 140 1 1 1510 1 1 1610 1 1 1710 1 1 1810 1 1 1911 1 1 1912 1 1 1913 1 1 1914 1 1 1915 1 1 1916 1 1 1917 1 1 1918 1 1 1919 1 1 1911 1 1 1912 1 1 1914 <t< td=""><td>PNO: Wide →→ IFGain:Low Bm</td><td>Avg Type: Lo B</td><td>BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.</td><td>An 19,203 Ar 19,203 Marker Select Marker 2 8 dBm Delt Delt Fixed 001 pts) O(</td></t<>	PNO: Wide →→ IFGain:Low Bm	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19,203 Ar 19,203 Marker Select Marker 2 8 dBm Delt Delt Fixed 001 pts) O(
12 12 36 1 1 5 RF 150 °C 1 1 1 1 1 0 dB/div Ref -31.00 d 0 0 0 dB/div Ref -31.00 d 0 0 0 1 1 1 1 1 10 1 <td>PNO: Wide →→ IFGain:Low Bm</td> <td>Avg Type: Lo B</td> <td>BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.</td> <td>An 19,203 Ar 19,203 Marker Select Marker 2 8 dBm Delt Delt Fixed 001 pts) O(</td>	PNO: Wide →→ IFGain:Low Bm	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19,203 Ar 19,203 Marker Select Marker 2 8 dBm Delt Delt Fixed 001 pts) O(
12	PNO: Wide	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19,2013 Ale 3 4 5 6 N N N N N N N N N
12	PNO: Wide	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19,203 Ar 19,203 Marker Select Marker 2 8 dBm Delt Delt Fixed 001 pts) O(
2	PNO: Wide	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19, 2013 An 19, 2013 An 19, 2013 An 19, 2013 Select Marker 2 Norma Delta Delta Fixedi Don 0 Hz 001 pts) Ot Propertiesi Mor
12 12 56 85 L S 85 1 L S 100.000 ms	PNO: Wide	Avg Type: Lo B	BAUTO 03:10:45 PM g-Pwr Tracc Mkr2 10 -109.7 -109.	An 19, 2013 IZ 34 5 6 VN NINN Select Marker 2 Select Marker 2 Norma Delt Fixed Propertiesi

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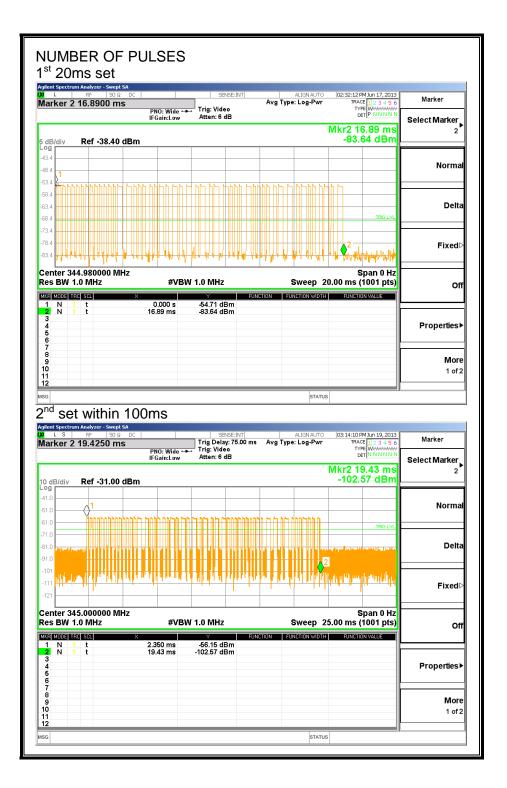
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Long and Short PULSE WIDTH



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NUMBER OF PULSES



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7.3. TRANSMISSION TIME

LIMITS

FCC §15.231 (a) (2)

IC A1.1.1 (b)

A transmitter activated automatically shall cease transmission within 5 seconds after activation.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer or radiated field strength. The RBW is set to 1MHz and the VBW is set to 1MHz. The sweep time is set to 10 seconds and the span is set to 0 Hz.

RESULTS

No non-compliance noted:

gilent Spectrum Analyzer - Swept SA LSRF 50Ω Carker 2 2.48000 S	DC	SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	02:58:13 PM Jun 19, 2013 TRACE 1 2 3 4 5 6 TYPE WWWWWWW	Marker
	PNO: Wide + IFGain:Low	Atten: 6 dB		DET N N N N N N	Select Marker
0 dB/div Ref -31.00 dE	Bm			Mkr2 2.480 s -79.94 dBm	2
41.0					
51.0					Norma
61.0				TRIG LVL	
/1.0	$\sqrt{2}$				
R1 D	and the second second second second second		and data the second	and the state of t	Delta
					Delta
1.0					
100 101 111	distantias no os as de o	dian fasal com a databas filmas	et al e transcana tractal as la cua		Fixed
91.0 101 111 122	out a litera	alte y fessel y neg estadoù y ditarez Han da an da an da an da an da an da an da	bala far barra yan a barra da ya	ar dhe actor a	
210 21.0 101 121 (21.1-11.001,14.1)(21.1.14.1) 121 (21.1-11.001,14.1)(21.1.14.1) 121 (21.1-11.1) 121 (21.1) 121 (21.1-11.1) 121		^{Ապի} լիրու ժմիլիսկ W 1.0 MHz	alle side le dennes	Span 0 Hz 10.00 s (1001 pts)	Fixed
91.0 101 111 121 y ¹² 141 142 141 14 144 144 144 144 121 y ¹² 141 142 144 144 144 144 144 144 144 144	#VB	W 1.0 MHz	alle side le dennes	Span 0 Hz	
10 101 111 121 y ¹² / ¹²	#VB	W 1.0 MHz	Sweep	Span 0 Hz 10.00 s (1001 pts)	Fixed
1.0 101 111 121 1¹² 1-11 - 121	#VB	W 1.0 MHz -55.22 dBm	Sweep	Span 0 Hz 10.00 s (1001 pts)	Fixed
91.0 101 111 121 1 ¹² 1	#VB	W 1.0 MHz -55.22 dBm	Sweep	Span 0 Hz 10.00 s (1001 pts)	Fixed
101 101 111 121 121 121 121 121	#VB	W 1.0 MHz -55.22 dBm	Sweep	Span 0 Hz 10.00 s (1001 pts)	Fixed

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8. RADIATED EMISSION TEST RESULTS

8.1. TX RADIATED SPURIOUS EMISSION

LIMITS

FCC §15.231 (b) IC A1.1.2 In addition to the pro

In addition to the provisions of § 15.205, the field strength of emissions from Intentional radiators operated under this section shall not exceed the following:

Fundamental	Field Strength of	Field Strength of
Frequency	Fundamental Frequency	Spurious Emissions
(MHz)	(microvolts/meter)	(microvolts/meter)
40.66 - 40.70	2,250	225
70 - 130	1,250	125
130 - 174	1,250 to 3,7501	125 to 3751
174 - 260	3,750	375
260 - 470	3,750 to 12,5001	375 to 1,2501
Above 470	12,500	1,250

1 Linear interpolation

§15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
MHz 0.090 - 0.110 ¹ 0.495 - 0.505 2.1735 - 2.1905 4.125 - 4.128 4.17725 - 4.17775 4.20725 - 4.20775 6.215 - 6.218 6.26775 - 6.26825 6.31175 - 6.31225 8.291 - 8.294	MHz 16.42 - 16.423 16.69475 - 16.69525 16.80425 - 16.80475 25.5 - 25.67 37.5 - 38.25 73 - 74.6 74.8 - 75.2 108 - 121.94 123 - 138 149.9 - 150.05	MHz 399.9 - 410 608 - 614 960 - 1240 1300 - 1427 1435 - 1626.5 1645.5 - 1646.5 1660 - 1710 1718.8 - 1722.2 2200 - 2300 2310 - 2390	GHz 4.5 - 5.15 5.35 - 5.46 7.25 - 7.75 8.025 - 8.5 9.0 - 9.2 9.3 - 9.5 10.6 - 12.7 13.25 - 13.4 14.47 - 14.5 15.35 - 16.2
8.362 - 8.366 8.37625 - 8.38675 8.41425 - 8.41475 12.29 - 12.293 12.51975 - 12.52025 12.57675 - 12.57725 13.36 - 13.41	156.52475 - 156.52525 156.7 - 156.9 162.0125 - 167.17 167.72 - 173.2 240 - 285 322 - 335.4	2483.5 - 2500 2655 - 2900 3260 - 3267 3332 - 3339 3345.8 - 3358 3600 - 4400	17.7 - 21.4 22.01 - 23.12 23.6 - 24.0 31.2 - 31.8 36.43 - 36.5 (²)

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1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. 2 Above 38.6

§15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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

** 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., Sections 15.231 and 15.241.

§15.209 (b) In the emission table above, the tighter limit applies at the band edges.

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TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. 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 1 MHz for peak measurements and 10 Hz for average measurements.

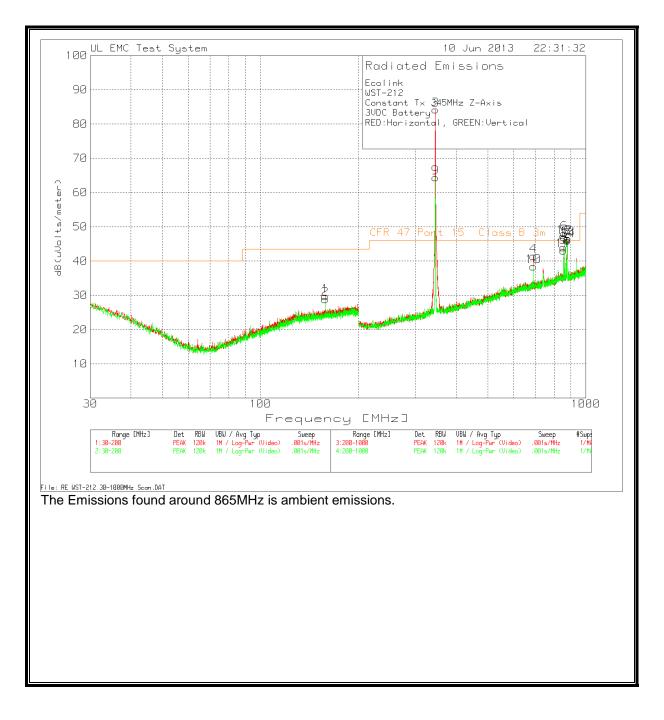
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

RESULTS

No non-compliance noted:

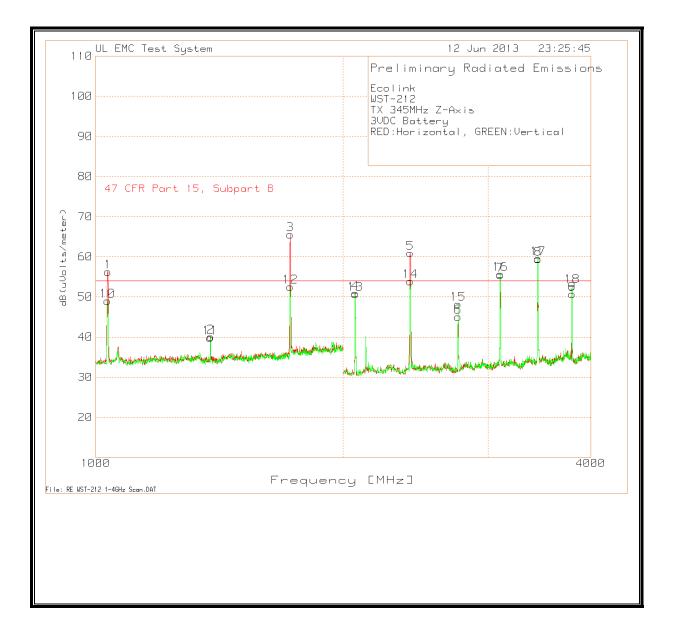
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FUNDAMENTAL, HARMONICS AND TX SPURIOUS EMISSION (30 - 1000 MHz)



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HARMONICS AND TX SPURIOUS EMISSIONS ABOVE 1GHz



REPORT NO: 13U15254-1 FCC ID: XQC-WS212

Ecolink												
WST-212												
TX 345MHz Z	Z-Axis											
3VDC Batter	ry											
RED:Horizor	ntal, GREEN	I:Vertical										
				3M 25-	Correcte							
			UPA6109	1000MHz	d							
	Meter		SN24423	with	Reading	Duty Cycle	Corrected	Limit				
Test	Reading		EMC4313	Bicon	dB(uVolt	Relaxation	Reading	(dBuV/m	Margin	Azimuth	Height	
Frequency	(dBuV)	Detector	3M	Cable	s/meter)	(dB)	(dBuV/m))	(dB)	[Degs]	[cm]	Polarity
345.0048	68.73	РК	15.7	2.2	86.63	-15.14	71.49	77.26	-5.77	279	102	н
345.0048	49.92	РК	15.7	2.2	67.82	-15.14	52.68	77.26	-24.58	348	311	V
690.012	17.3	РК	21.3	3.4	42	-15.14	26.86	57.26	-30.4	189	180	V
690.012	14.72	РК	21.3	3.4	39.42	-15.14	24.28	57.26	-32.98	299	163	н
			ENCO	BOMS		Duty Cycle	Corrected	Limit				
Test	Meter		3115 S/N	Factor	dB(uVolt	Relaxation	Reading	(dBuV/m	Margin	Azimuth	Height	
Frequency	Reading	Detector	2638 [dB]	[dB]	s/meter)	(dB)	(dBuV/m))	(dB)	[Degs]	[cm]	Polarity
1034.8166	90.01	РК	24.2	-56.86	57.35	-15.14	42.21	54	-11.79	313	101	Horz
1724.4078	94.53	РК	26.2	-54.63	66.1	-15.14	50.96	54	-3.04	130	100	Horz
			EMCO316									
			1-02 S/N									
			99061052	BOMS		Duty Cycle	Corrected	Limit				
Test	Meter		3m UL	Factor	dB(uVolt	Relaxation	Reading	(dBuV/m	Margin	Azimuth	Height	
Frequency	Reading	Detector	[dB]	[dB]	s/meter)	(dB)	(dBuV/m))	(dB)	[Degs]	[cm]	Polarity
2414.4379	99.81	РК	21.8	-52.04	69.57	-15.14	54.43	57.26	-2.83	119	100	Horz
3450.3878	95.99	РК	23.5	-51.78	67.71	-15.14	52.57	57.26	-4.69	323	100	Horz
3448.9749	89.87	РК	23.5	-51.77	61.6	-15.14	46.46	57.26	-10.8	211	121	Vert
3104.4138	86.32	РК	22.6	-50.84	58.08	-15.14	42.94	57.26	-14.32	33	129	Vert
2415.6824	87.13	РК	21.8	-51.97	56.96	-15.14	41.82	57.26	-15.44	41	100	Vert
3105.1653	92.61	РК	22.6	-50.85	64.36	-15.14	49.22	57.26	-8.04	109	100	Horz
3794.2094	88.66	РК	24.1	-52.24	60.52	-15.14	45.38	54	-8.62	301	100	Horz
3795.0271	83.12	РК	24.1	-52.25	54.97	-15.14	39.83	54	-14.17	36	132	Vert