

# WaveLynx Technologies Corporation

TEST REPORT FOR

**Ethos**

**Models: ET10-1, ET10-3, ET10-5, and ET10-7**

**Tested To The Following Standards:**

**FCC Part 15 Subpart C Sections:**

**15.207 & 15.209**

**Report No.: 97029-32**

**Date of issue: May 24, 2016**



This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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## ADMINISTRATIVE INFORMATION

### Test Report Information

**REPORT PREPARED FOR:**

WaveLynx Technologies Corporation  
12303 Airport Way, Suite 200  
Broomfield, CO 80021

REPRESENTATIVE: Daniel Field  
Customer Reference Number: CKPO030916

**DATE OF EQUIPMENT RECEIPT:**

**DATE(S) OF TESTING:**

**REPORT PREPARED BY:**

Terri Rayle  
CKC Laboratories, Inc.  
5046 Sierra Pines Drive  
Mariposa, CA 95338

Project Number: 97029

March 14, 2016

March 14 - May 10, 2016

### Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.



**Steve Behm**  
*Director of Quality Assurance & Engineering Services*  
*CKC Laboratories, Inc.*

## Test Facility Information



Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):  
CKC Laboratories, Inc.  
5046 Sierra Pines Drive  
Mariposa, CA 95338

## Software Versions

CKC Laboratories Proprietary Software	Version
EMITest Emissions	5.03.02

## Site Registration & Accreditation Information

Location	CB #	TAIWAN	CANADA	FCC	JAPAN
Mariposa D	US0103	SL2-IN-E-1147R	3082A-1	784962	A-0136

## SUMMARY OF RESULTS

### Standard / Specification: FCC Part 15 Subpart C - 15.209

Test Procedure	Description	Modifications	Results
15.215(c)	Occupied Bandwidth	NA	Pass
15.209	Field Strength of Fundamental	NA	Pass
15.209	Field Strength of Spurious Emissions	NA	Pass
15.207	AC Conducted Emissions	NA	Pass

NA = Not Applicable

### Modifications During Testing

This list is a summary of the modifications made to the equipment during testing.

Summary of Conditions
No modifications were made during testing.

**Modifications listed above must be incorporated into all production units.**

### Conditions During Testing

This list is a summary of the conditions noted to the equipment during testing.

Summary of Conditions
None

## EQUIPMENT UNDER TEST (EUT)

During testing numerous configurations may have been utilized. The configurations listed below support compliance to the standard(s) listed in the Summary of Results section.

### Configuration 1

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-1	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### Configuration 3

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-3	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### Configuration 5

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-5	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### Configuration 7

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-7	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### Configuration 8

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-1	NA
Ethos	WaveLynx Technologies Corporation	ET10-3	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### Configuration 9

*Equipment Tested:*

Device	Manufacturer	Model #	S/N
Ethos	WaveLynx Technologies Corporation	ET10-5	NA
Ethos	WaveLynx Technologies Corporation	ET10-7	NA

*Support Equipment:*

Device	Manufacturer	Model #	S/N
DC Power Supply	HP	6205C	2228A01775

### General Product Information:

Product Information	Manufacturer-Provided Details
Equipment Type (All 4 EUTs):	Stand-Alone Equipment
Modulation Type(s) (All 4 EUTs):	CW
Maximum Duty Cycle (Measured):	Configuration 1 = 17.13% Configuration 3 = 5.7% Configuration 5 = 17.13% Configuration 7 = 5.7%
Antenna Type(s) and Gain:	Configurations 1 and 5 = Coil Antenna 90mm x 32mm / 2dBi Configuration 3 and 7 = Coil Antenna 90mm x 30mm / 2dBi
Antenna Connection Type (All 4 EUTs):	Integral
Nominal Input Voltage (All 4 EUTs):	12VDC
Firmware / Software used for Test (All 4 EUTs):	Wallmount Reader FCC LF Version 1

## FCC Part 15 Subpart C

### 15.215(c) Occupied Bandwidth (20dB BW)

Test Setup/Conditions			
Test Location:	Mariposa Lab D	Test Engineer:	Benny Lovan
Test Method:	ANSI C63.10 (2013)	Test Date(s):	March 14 – 18, 2016
Configuration:	1, 3, 5 and 7		
Test Setup:	<p>Configuration 1 (125kHz Only) – Measured in X-Axis            Configuration 3 (Set for 125kHz) – Measured in Y-Axis            Configuration 5 (125 kHz Only) – Measured in Y-Axis            Configuration 7 (Set for 125kHz) – Measured in X-Axis            Antenna Type: Integral            Modulation: CW</p> <p>The EUT is powered by a DC power supply at 12VDC.            Max power was measured in two orthogonalities.</p> <p>The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.</p> <p>The OBW was performed in the worst case orientation observed during the fundamental power measurements.</p> <p>The EUT is setup on an 80cm foam block.            The EUT has been programmed to continuously transmit the RFID signal at 125kHz.</p>		

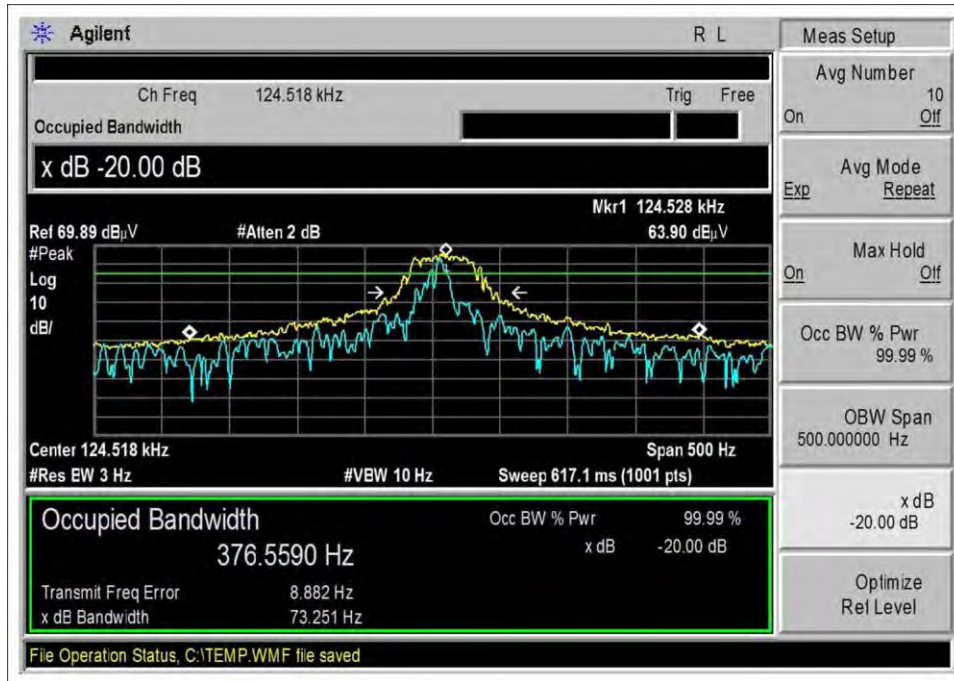
Environmental Conditions			
3/14/2016			
Temperature (°C)	10	Relative Humidity (%):	86
3/15/2016			
Temperature (°C)	10	Relative Humidity (%):	85
3/18/2016			
Temperature (°C)	11	Relative Humidity (%):	85

Test Equipment					
Asset# / Serial#	Description	Manufacturer	Model	Cal Date	Cal Due
ANSITED 3M	Cable	None	None	11/15/14	11/15/2016
ANP06884	Cable	TMS	LMR195-FR-4	10/27/15	10/27/2017
AN00226	Loop Antenna	EMCO	6502	03/28/14	3/28/2016

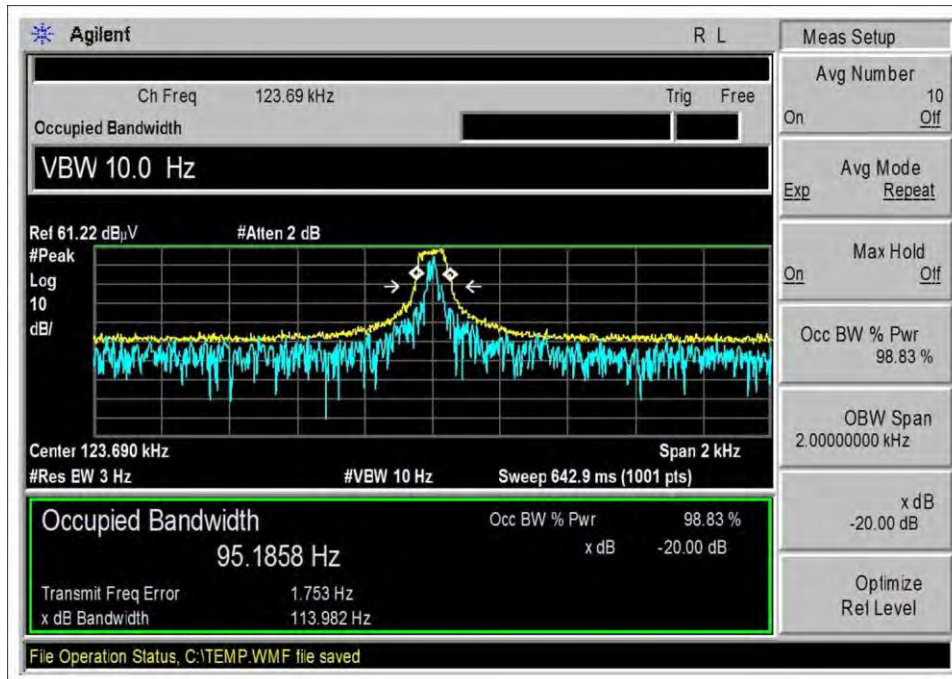


Test Data Summary					
Frequency (MHz)	Antenna Port	Modulation	Measured (kHz)	Limit (kHz)	Results
125kHz (Config. 1)	Integral	CW	0.073251	None	NA
125kHz (Config. 3)	Integral	CW	0.113982	None	NA
125kHz (Config. 5)	Integral	CW	0.103982	None	NA
125kHz (Config. 7)	Integral	CW	0.090895	None	NA

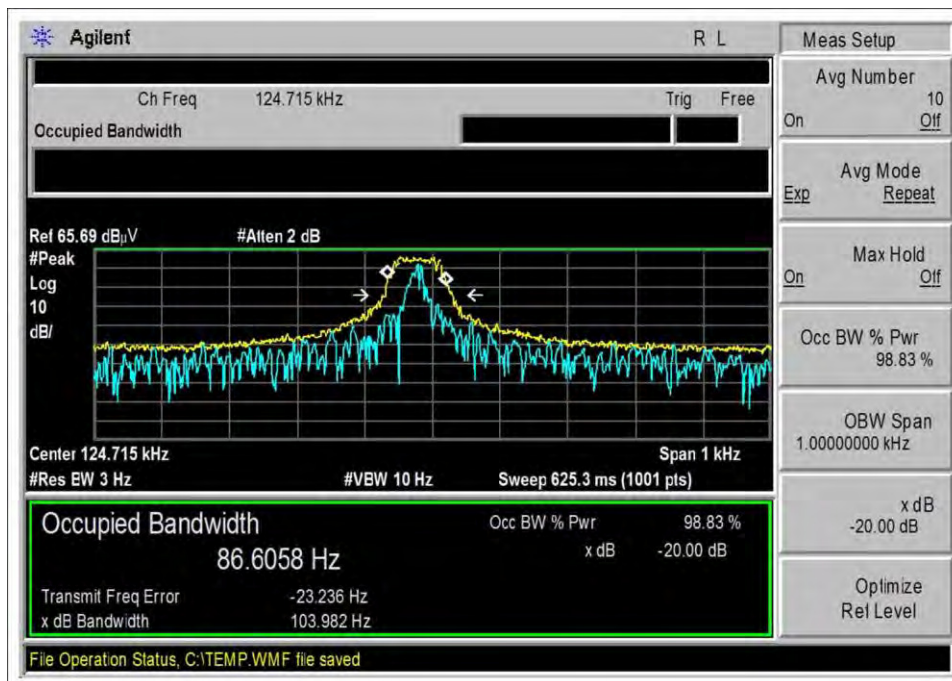
### Plots



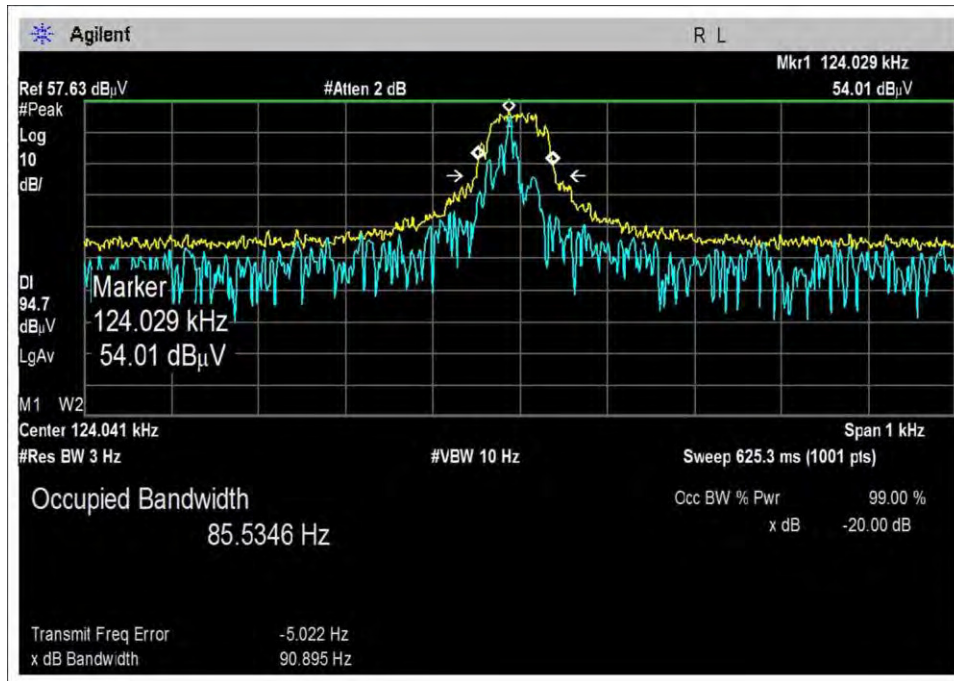
Configuration 1



Configuration 3



Configuration 5



Configuration 7

**Test Setup Photos**



X Axis



Y Axis

## 15.209 Field Strength of Fundamental

### Test Data Summary - Voltage Variations – Configuration 1

Frequency (MHz)	Modulation / Ant Port	V <sub>Minimum</sub> (dBuV/m)	V <sub>Nominal</sub> (dBuV/m)	V <sub>Maximum</sub> (dBuV/m)	Max Deviation from V <sub>Nominal</sub> (dB)
0.125 Parallel	CW / Integral Antenna	-6.6	-6.4	-6.7	0.3
0.125 Perpendicular	CW / Integral Antenna	-13.4	-13.3	-13.3	0.1

Test performed using operational mode with the highest output power, representing worst case. Worst case orientation for this unit was the X-Axis.

### Test Data Summary - Voltage Variations – Configuration 3

Frequency (MHz)	Modulation / Ant Port	V <sub>Minimum</sub> (dBuV/m)	V <sub>Nominal</sub> (dBuV/m)	V <sub>Maximum</sub> (dBuV/m)	Max Deviation from V <sub>Nominal</sub> (dB)
0.125 Parallel	CW / Integral Antenna	-7.6	-6.9	-7.1	0.7 dB
0.125 Perpendicular	CW / Integral Antenna	-12.5	-9.8	-12	2.7 dB

Test performed using operational mode with the highest output power, representing worst case. Worst case orientation for this unit was the Y-Axis.

### Test Data Summary - Voltage Variations – Configuration 5

Frequency (MHz)	Modulation / Ant Port	V <sub>Minimum</sub> (dBuV/m)	V <sub>Nominal</sub> (dBuV/m)	V <sub>Maximum</sub> (dBuV/m)	Max Deviation from V <sub>Nominal</sub> (dB)
0.125 Parallel	CW / Integral Antenna	-5.8	-5.0	-6.0	1.0 dB
0.125 Perpendicular	CW / Integral Antenna	-10.2	-9.0	-10.3	1.3 dB

Test performed using operational mode with the highest output power, representing worst case. Worst case orientation for this unit was the Y-Axis.

### Test Data Summary - Voltage Variations – Configuration 7

Frequency (MHz)	Modulation / Ant Port	V <sub>Minimum</sub> (dBuV/m)	V <sub>Nominal</sub> (dBuV/m)	V <sub>Maximum</sub> (dBuV/m)	Max Deviation from V <sub>Nominal</sub> (dB)
0.125 Parallel	CW / Integral Antenna	-7.1	-6.6	-7.1	0.5 dB
0.125 Perpendicular	CW / Integral Antenna	-12.5	-11.9	-12.4	0.6 dB

Test performed using operational mode with the highest output power, representing worst case. Worst case orientation for this unit was the Y-Axis.



**Parameter Definitions:**

Measurements performed at input voltage  $V_{Nominal} \pm 15\%$ .

Parameter	Value
$V_{Nominal}$ :	12VDC
$V_{Minimum}$ :	10.20 VDC
$V_{Maximum}$ :	13.80 VDC

Test Data Summary – Radiated Field Strength Measurement					
Frequency (MHz)	Modulation	Ant. Type	Measured (dBuV/m @ 300m)	Limit (dBuV/m @ 300m)	Results
<b>Configuration 1</b>					
0.12446 (Parallel)	CW	Integral	-6.4	$\leq 25.7$	Pass
0.12446 (Perpendicular)	CW	Integral	-13.3	$\leq 25.7$	Pass
<b>Configuration 3</b>					
0.125 (Parallel)	CW	Integral	-6.9	$\leq 25.8$	Pass
0.125 (Perpendicular)	CW	Integral	-9.8	$\leq 25.8$	Pass
<b>Configuration 5</b>					
0.125 (Parallel)	CW	Integral	-5.0	$\leq 25.7$	Pass
0.125 (Perpendicular)	CW	Integral	-9.0	$\leq 25.7$	Pass
<b>Configuration 7</b>					
0.125 (Parallel)	CW	Integral	-6.6	$\leq 25.7$	Pass
0.125 (Perpendicular)	CW	Integral	-11.9	$\leq 25.7$	Pass

**Test Setup / Conditions / Data**

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/14/2016  
 Test Type: **Radiated Scan** Time: 11:41:38  
 Tested By: Benny Lovan Sequence#: 1  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 1			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 1			

**Test Conditions / Notes:**

Radiated Emissions Fundamental Measurements

Temperature: 10°C  
 Humidity: 86%  
 Atmospheric Pressure: 98.0 kPa

Method: ANSI C63.10 2013

Antenna Type: Integral  
 Modulation: CW  
 The EUT is powered by a DC power supply at 12VDC.  
 Max power was measured in two orthogonalities.  
 125kHz Only – Measured in X-Axis  
 The Fundamental measurements were performed in the worst case orientation observed during the fundamental power measurements.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 80cm foam block.  
 The EUT has been programmed to continuously transmit the RFID signal at 125kHz.  
 Measurements will be made in both orientations as well as with the voltage variation of 11.2VDC and 13.8VDC (+/-15% of nominal).





**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	124.460k	41.7	+0.1	+0.0	+10.9	-59.1	-6.4	25.7 X-Axis	-32.1	Paral
2	124.414k	41.7	+0.1	+0.0	+10.9	-59.1	-6.4	25.7 Y-Axis	-32.1	Paral
3	124.442k	41.5	+0.1	+0.0	+10.9	-59.1	-6.6	25.7 X-Axis @ 10.2 VDC	-32.3	Paral
4	124.481k	41.4	+0.1	+0.0	+10.9	-59.1	-6.7	25.7 X-Axis @ 13.8 VDC	-32.4	Paral
5	124.465k	34.8	+0.1	+0.0	+10.9	-59.1	-13.3	25.7 X-Axis	-39.0	Perpe
6	124.513k	34.8	+0.1	+0.0	+10.9	-59.1	-13.3	25.7 X-Axis @ 13.8VDC	-39.0	Perpe
7	124.448k	34.7	+0.1	+0.0	+10.9	-59.1	-13.4	25.7 X-Axis @ 10.2 VDC	-39.1	Perpe
8	124.509k	34.0	+0.1	+0.0	+10.9	-59.1	-14.1	25.7 Y-Axis	-39.8	Perpe

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/15/2016  
 Test Type: **Radiated Scan** Time: 09:09:09  
 Tested By: Benny Lovan Sequence#: 2  
 Software: EMITest 5.03.02

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Test Conditions / Notes:***

Radiated Emissions Fundamental Measurements

Temperature: 10°C  
 Humidity: 85%  
 Atmospheric Pressure: 101.0 kPa

Method: ANSI C63.10 2013

Antenna Type: Integral  
 Modulation: CW  
 The EUT is powered by a DC power supply at 12VDC.  
 Max power was measured in two orthogonalities.  
 Set for 125kHz – Measured in Y-Axis  
 The Fundamental measurements were performed in the worst case orientation observed during the fundamental power measurements.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 80cm foam block.  
 The EUT has been programmed to continuously transmit the RFID signal at 125kHz.  
 Measurements will be made in both orientations as well as with the voltage variation of 11.2VDC and 13.8VDC (+/-15% of nominal).



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	123.635k	62.1	+0.1	+0.0	+10.9	-80.0	-6.9	25.8 X-Axis	-32.7	Paral
2	123.610k	62.1	+0.1	+0.0	+10.9	-80.0	-6.9	25.8 Y-Axis	-32.7	Paral
3	123.640k	61.9	+0.1	+0.0	+10.9	-80.0	-7.1	25.8 Y-Axis @ 13.8VDC	-32.9	Paral
4	123.675k	61.4	+0.1	+0.0	+10.9	-80.0	-7.6	25.8 Y-Axis @ 10.2 VDC	-33.4	Paral
5	123.580k	59.2	+0.1	+0.0	+10.9	-80.0	-9.8	25.8 Y-Axis	-35.6	Perpe
6	123.595k	57.3	+0.1	+0.0	+10.9	-80.0	-11.7	25.8 X-Axis	-37.5	Perpe
7	123.685k	57.0	+0.1	+0.0	+10.9	-80.0	-12.0	25.8 Y-Axis @ 13.8VDC	-37.8	Perpe
8	123.680k	56.5	+0.1	+0.0	+10.9	-80.0	-12.5	25.8 Y-Axis @ 10.2VDC	-38.3	Perpe

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/15/2016  
 Test Type: **Radiated Scan** Time: 11:22:20  
 Tested By: Benny Lovan Sequence#: 3  
 Software: EMITest 5.03.02

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Test Conditions / Notes:***

Radiated Emissions Fundamental Measurements

Temperature: 10°C  
 Humidity: 85%  
 Atmospheric Pressure: 101.0 kPa

Method: ANSI C63.10 2013

Antenna Type: Integral  
 Modulation: CW  
 The EUT is powered by a DC power supply at 12VDC.  
 Max power was measured in two orthogonalities.  
 125 kHz Only– Measured in Y-Axis  
 The Fundamental measurements were performed in the worst case orientation observed during the fundamental power measurements.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 80cm foam block.  
 The EUT has been programmed to continuously transmit the RFID signal at 125kHz.  
 Measurements will be made in both orientations as well as with the voltage variation of 11.2VDC and 13.8VDC (+/-15% of nominal).



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	Dist Table dB	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	124.735k	64.0	+0.1	+0.0	+10.9	-80.0	-5.0	25.7 Y-axis	-30.7	Paral
2	124.705k	63.2	+0.1	+0.0	+10.9	-80.0	-5.8	25.7 Y-Axis @ 10.2 VDC	-31.5	Paral
3	124.730k	63.0	+0.1	+0.0	+10.9	-80.0	-6.0	25.7 Y-Axis @ 13.8 VDC	-31.7	Paral
4	124.715k	62.9	+0.1	+0.0	+10.9	-80.0	-6.1	25.7 X-Axis	-31.8	Paral
5	124.710k	60.0	+0.1	+0.0	+10.9	-80.0	-9.0	25.7 Y-axis	-34.7	Perpe
6	124.685k	58.8	+0.1	+0.0	+10.9	-80.0	-10.2	25.7 Y-Axis@ 10.2VDC	-35.9	Perpe
7	124.700k	58.7	+0.1	+0.0	+10.9	-80.0	-10.3	25.7 Y-Axis @ 13.8VDC	-36.0	Perpe
8	124.715k	58.0	+0.1	+0.0	+10.9	-80.0	-11.0	25.7 X-Axis	-36.7	Perpe

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/18/2016  
 Test Type: **Radiated Scan** Time: 11:43:46  
 Tested By: Benny Lovan Sequence#: 4  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 7			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 7			

**Test Conditions / Notes:**

Radiated Emissions Fundamental Measurements

Temperature: 11°C  
 Humidity: 85%  
 Atmospheric Pressure: 100.8 kPa

Method: ANSI C63.10 2013

Antenna Type: Integral  
 Modulation: CW

The EUT is powered by a DC power supply at 12VDC.  
 Max power was measured in two orthogonalities.  
 Set for 125kHz– Measured in X-Axis

The Fundamental measurements were performed in the worst case orientation observed during the fundamental power measurements.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 80cm foam block. This EUT has both 125kHz and 13.56MHz.  
 The EUT has been programmed to continuously transmit the RFID signal at 125kHz.  
 Measurements will be made in both orientations as well as with the voltage variation of 11.2VDC and 13.8VDC (+/-15% of nominal)..





**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	124.390k	62.4	+0.1	+0.0	+10.9	-80.0	-6.6	25.7 X-Axis	-32.3	Paral
2	124.145k	62.1	+0.1	+0.0	+10.9	-80.0	-6.9	25.7 Y-Axis	-32.6	Paral
3	124.125k	61.9	+0.1	+0.0	+10.9	-80.0	-7.1	25.7 X-Axis @ 13.8VDC	-32.8	Paral
4	124.040k	61.9	+0.1	+0.0	+10.9	-80.0	-7.1	25.7 X-Axis @ 10.2 VDC	-32.8	Paral
5	124.295k	57.1	+0.1	+0.0	+10.9	-80.0	-11.9	25.7 X-Axis	-37.6	Perpe
6	124.240k	56.7	+0.1	+0.0	+10.9	-80.0	-12.3	25.7 Y-Axis	-38.0	Perpe
7	124.050k	56.6	+0.1	+0.0	+10.9	-80.0	-12.4	25.7 X-Axis @ 13.8VDC	-38.1	Perpe
8	124.060k	56.5	+0.1	+0.0	+10.9	-80.0	-12.5	25.7 X-Axis @ 10.2VDC	-38.2	Perpe

**Test Setup Photos**



X Axis



Y Axis

## 15.209 Radiated Emissions

### Test Setup / Conditions / Data

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/22/2016  
 Test Type: **Radiated Scan** Time: 12:03:29  
 Tested By: Benny Lovan Sequence#: 5  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 8			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 8			

**Test Conditions / Notes:**

Radiated Emissions Spurious Measurements 9kHz – 30MHz

Temperature: 10.6°C  
 Humidity: 62%  
 Atmospheric Pressure: 98.2 kPa

Method: ANSI C63.10 2013

Highest Generated Frequency (Configuration 1): 8MHz  
 Highest Generated Frequency (Configuration 3): 27.12 MHz

Both EUTs are running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 Spurious was measured on two EUTs at one time.  
 Configuration 8 is made up of Configuration 1 and Configuration 3 (Testing at the same time).  
 Configuration 1 is in X-axis and Configuration 3 is in the Y-axis.  
 Preliminary measurements of the fundamental were taken in two orientations. The orientation that displayed the highest emissions was the orientation used for radiated spurious emissions.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 0.80 meter foam block.  
 The EUT is setup to continuously transmit at 125kHz



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	15.439M	43.0	+0.7	+0.1	+9.5		-40.0	13.3	29.5	-16.2	Perpe
2	14.999M	42.9	+0.7	+0.1	+9.6		-40.0	13.3	29.5	-16.2	Perpe
3	9.048M	42.3	+0.6	+0.1	+10.1		-40.0	13.1	29.5	-16.4	Paral
4	8.696M	41.1	+0.6	+0.1	+10.1		-40.0	11.9	29.5	-17.6	Perpe
5	14.999M	38.8	+0.7	+0.1	+9.6		-40.0	9.2	29.5	-20.3	Paral
6	124.486k	70.1	+0.1	+0.0	+10.9		-80.0	1.1	25.7	-24.6	Paral
7	12.701M	32.2	+0.7	+0.1	+9.8		-40.0	2.8	29.5	-26.7	Paral
8	124.475k	65.8	+0.1	+0.0	+10.9		-80.0	-3.2	25.7	-28.9	Perpe
9	27.013M	31.5	+1.0	+0.1	+7.2		-40.0	-0.2	29.5	-29.7	Perpe
10	123.858k	64.2	+0.1	+0.0	+10.9		-80.0	-4.8	25.7	-30.5	Paral
11	25.305M	29.7	+0.9	+0.1	+7.7		-40.0	-1.6	29.5	-31.1	Paral
12	20.387M	27.8	+0.8	+0.1	+8.2		-40.0	-3.1	29.5	-32.6	Paral
13	29.874M	27.2	+1.0	+0.1	+6.5		-40.0	-5.2	29.5	-34.7	Perpe
14	123.885k	59.9	+0.1	+0.0	+10.9		-80.0	-9.1	25.7	-34.8	Perpe
15	247.750k	50.7	+0.1	+0.0	+10.2		-80.0	-19.0	19.7	-38.7	Perpe
16	249.200k	50.6	+0.1	+0.0	+10.2		-80.0	-19.1	19.7	-38.8	Paral
17	61.913k	57.8	+0.1	+0.0	+10.9		-80.0	-11.2	31.8	-43.0	Paral
18	37.780k	54.9	+0.0	+0.0	+11.8		-80.0	-13.3	36.0	-49.3	Perpe

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/23/2016  
 Test Type: **Radiated Scan** Time: 11:17:01  
 Tested By: Benny Lovan Sequence#: 6  
 Software: EMITest 5.03.02

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 8			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 8			

***Test Conditions / Notes:***

Radiated Emissions Spurious Measurements 30MHz -1GHz

Temperature: 10.5°C  
 Humidity: 57%  
 Atmospheric Pressure: 98.5 kPa

Method: ANSI C63.10 2013

Highest Generated Frequency (Configuration 1): 8MHz  
 Highest Generated Frequency (Configuration 3): 27.12 MHz

Both EUTs are running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 Spurious was measured on two EUTs at one time.  
 Configuration 8 is made up of Configuration 1 and Configuration 3 (Testing at the same time).  
 Configuration 1 is in X-axis and Configuration 3 is in the Y-axis.

Preliminary measurements of the fundamental were taken in two orientations. The orientation that displayed the highest emissions was the orientation used for radiated spurious emissions.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 0.80 meter foam block.  
 The EUT is setup to continuously transmit at 125kHz







**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00282	Preamp	8447D	4/7/2014	4/7/2016
T2	ANSITED 3M	Cable		11/15/2014	11/15/2016
T3	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T4	ANP06885	Cable	P06885	10/27/2015	10/27/2017
T5	AN01991	Biconilog Antenna	CBL6111C	3/11/2016	3/11/2018

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
1	162.797M QP	49.1	-27.6 +10.4	+2.5	+0.2	+0.3	+0.0	34.9	43.5	-8.6	Horiz
^	162.795M	50.0	-27.6 +10.4	+2.5	+0.2	+0.3	+0.0	35.8	43.5	-7.7	Horiz
3	54.234M	46.9	-28.0 +7.3	+1.4	+0.1	+0.2	+0.0	27.9	40.0	-12.1	Vert
4	176.274M	46.2	-27.6 +9.3	+2.6	+0.2	+0.3	+0.0	31.0	43.5	-12.5	Vert
5	196.614M	46.1	-27.4 +8.9	+2.8	+0.3	+0.3	+0.0	31.0	43.5	-12.5	Vert
6	74.588M	45.8	-27.9 +7.0	+1.6	+0.2	+0.2	+0.0	26.9	40.0	-13.1	Vert
7	61.028M	46.2	-28.0 +5.9	+1.5	+0.1	+0.2	+0.0	25.9	40.0	-14.1	Vert
8	183.054M	44.3	-27.5 +9.2	+2.6	+0.2	+0.3	+0.0	29.1	43.5	-14.4	Vert
9	81.394M	44.1	-27.9 +7.2	+1.7	+0.2	+0.2	+0.0	25.5	40.0	-14.5	Vert
10	169.494M	43.7	-27.6 +9.8	+2.5	+0.2	+0.3	+0.0	28.9	43.5	-14.6	Vert
11	79.980M	43.6	-27.9 +6.9	+1.7	+0.2	+0.2	+0.0	24.7	40.0	-15.3	Vert
12	162.756M	42.4	-27.6 +10.4	+2.5	+0.2	+0.3	+0.0	28.2	43.5	-15.3	Vert
13	366.112M	38.0	-27.6 +15.3	+3.9	+0.4	+0.4	+0.0	30.4	46.0	-15.6	Vert
14	210.173M	41.8	-27.4 +9.7	+2.9	+0.3	+0.3	+0.0	27.6	43.5	-15.9	Vert
15	57.638M	44.0	-28.0 +6.4	+1.4	+0.1	+0.2	+0.0	24.1	40.0	-15.9	Vert
16	237.294M	42.1	-27.3 +11.5	+3.0	+0.3	+0.4	+0.0	30.0	46.0	-16.0	Vert
17	189.834M	42.5	-27.5 +9.0	+2.7	+0.3	+0.3	+0.0	27.3	43.5	-16.2	Vert
18	244.074M	41.1	-27.3 +11.9	+3.1	+0.3	+0.4	+0.0	29.5	46.0	-16.5	Vert
19	372.887M	37.0	-27.6 +15.4	+3.9	+0.4	+0.4	+0.0	29.5	46.0	-16.5	Vert

20	250.854M	40.1	-27.3 +12.3	+3.1	+0.3	+0.4	+0.0	28.9	46.0	-17.1	Vert
21	379.667M	35.7	-27.7 +15.6	+3.9	+0.4	+0.4	+0.0	28.3	46.0	-17.7	Vert
22	338.994M	36.2	-27.4 +14.5	+3.7	+0.4	+0.4	+0.0	27.8	46.0	-18.2	Vert
23	67.808M	40.7	-27.9 +6.8	+1.6	+0.1	+0.2	+0.0	21.5	40.0	-18.5	Vert
24	230.514M	39.4	-27.3 +11.1	+3.0	+0.3	+0.4	+0.0	26.9	46.0	-19.1	Vert
25	345.774M	35.0	-27.5 +14.7	+3.7	+0.4	+0.4	+0.0	26.7	46.0	-19.3	Vert
26	54.298M	39.6	-28.0 +7.3	+1.4	+0.1	+0.2	+0.0	20.6	40.0	-19.4	Horiz
27	216.933M	40.0	-27.3 +10.1	+2.9	+0.3	+0.4	+0.0	26.4	46.0	-19.6	Vert
28	223.734M	39.3	-27.3 +10.6	+2.9	+0.3	+0.4	+0.0	26.2	46.0	-19.8	Vert
29	77.978M	38.6	-27.9 +6.9	+1.7	+0.2	+0.2	+0.0	19.7	40.0	-20.3	Vert
30	108.490M	37.2	-27.9 +10.7	+2.0	+0.2	+0.3	+0.0	22.5	43.5	-21.0	Vert
31	257.634M	35.6	-27.3 +12.5	+3.2	+0.3	+0.4	+0.0	24.7	46.0	-21.3	Vert
32	169.487M	36.7	-27.6 +9.8	+2.5	+0.2	+0.3	+0.0	21.9	43.5	-21.6	Horiz
33	237.287M	35.7	-27.3 +11.5	+3.0	+0.3	+0.4	+0.0	23.6	46.0	-22.4	Horiz
34	115.268M	34.1	-27.8 +11.2	+2.1	+0.2	+0.3	+0.0	20.1	43.5	-23.4	Vert
35	74.568M	35.0	-27.9 +7.0	+1.6	+0.2	+0.2	+0.0	16.1	40.0	-23.9	Horiz
36	81.348M	34.6	-27.9 +7.2	+1.7	+0.2	+0.2	+0.0	16.0	40.0	-24.0	Horiz

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/22/2016  
 Test Type: **Radiated Scan** Time: 14:17:51  
 Tested By: Benny Lovan Sequence#: 7  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 9			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 9			

**Test Conditions / Notes:**

Radiated Emissions Spurious Measurements 9kHz – 30MHz

Temperature: 10.6°C  
 Humidity: 62%  
 Atmospheric Pressure: 98.2 kPa

Method: ANSI C63.10 2013

Highest Generated Frequency (Configuration 5): 8MHz  
 Highest Generated Frequency (Configuration 7): 27.12 MHz

Both EUTs running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 Spurious was measured on two EUTs at one time.  
 Configuration 9 is made up of Configuration 5 and Configuration 7 (Testing at the same time).  
 Configuration 5 is in Y-axis and Configuration -7 is in the X-axis.

Preliminary measurements of the fundamental were taken in two orientations. The orientation that displayed the highest emissions was the orientation used for radiated spurious emissions.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 0.80 meter foam block.  
 The EUT is setup to continuously transmit at 125kHz



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANSITED 3M	Cable		11/15/2014	11/15/2016
T2	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T3	AN00226	Loop Antenna	6502	3/28/2014	3/28/2016

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dB $\mu$ V	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dB $\mu$ V/m	Spec dB $\mu$ V/m	Margin dB	Polar Ant
1	17.527M	44.2	+0.8	+0.1	+8.8		-40.0	13.9	29.5	-15.6	Paral
2	9.027M	42.5	+0.6	+0.1	+10.1		-40.0	13.3	29.5	-16.2	Perpe
3	14.999M	40.7	+0.7	+0.1	+9.6		-40.0	11.1	29.5	-18.4	Perpe
4	8.683M	39.8	+0.6	+0.1	+10.1		-40.0	10.6	29.5	-18.9	Paral
5	5.596M	39.5	+0.5	+0.1	+10.1		-40.0	10.2	29.5	-19.3	Paral
6	11.325M	37.9	+0.6	+0.1	+9.9		-40.0	8.5	29.5	-21.0	Perpe
7	15.441M	37.8	+0.7	+0.1	+9.5		-40.0	8.1	29.5	-21.4	Paral
8	124.660k	70.3	+0.1	+0.0	+10.9		-80.0	1.3	25.7	-24.4	Paral
9	21.676M	34.7	+0.9	+0.1	+8.1		-40.0	3.8	29.5	-25.7	Paral
10	27.083M	33.9	+1.0	+0.1	+7.2		-40.0	2.2	29.5	-27.3	Paral
11	324.610k	58.5	+0.1	+0.0	+10.2		-80.0	-11.2	17.4	-28.6	Paral
12	21.673M	31.8	+0.9	+0.1	+8.1		-40.0	0.9	29.5	-28.6	Perpe
13	17.803M	29.3	+0.8	+0.1	+8.8		-40.0	-1.0	29.5	-30.5	Perpe
14	124.620k	61.3	+0.1	+0.0	+10.9		-80.0	-7.7	25.7	-33.4	Perpe
15	24.780k	53.6	+0.0	+0.0	+13.0		-80.0	-13.4	39.7	-53.1	Perpe
16	10.625k	56.7	+0.0	+0.0	+17.1		-80.0	-6.2	47.1	-53.3	Paral
17	21.390k	52.8	+0.0	+0.0	+13.6		-80.0	-13.6	41.0	-54.6	Paral
18	9.420k	46.5	+0.0	+0.0	+17.5		-80.0	-16.0	48.1	-64.1	Paral

Test Location: CKC Laboratories Inc. • 5046 Sierra Pines Dr. • Mariposa, CA 95338 • 209-966-5240  
 Customer: **WaveLynx Technologies Corporation**  
 Specification: **15.209 Radiated Emissions**  
 Work Order #: **97029** Date: 3/23/2016  
 Test Type: **Radiated Scan** Time: 09:43:02  
 Tested By: Benny Lovan Sequence#: 8  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 9			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 9			

**Test Conditions / Notes:**

Radiated Emissions Spurious Measurements 30MHz -1GHz

Temperature: 10.5°C  
 Humidity: 57%  
 Atmospheric Pressure: 98.5 kPa

Method: ANSI C63.10 2013

Highest Generated Frequency (Configuration 5): 8MHz  
 Highest Generated Frequency (Configuration 7): 27.12 MHz

Both EUTs are running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 Spurious was measured on two EUTs at one time.  
 Configuration 9 is made up of Configuration 5 and Configuration 7 (Testing at the same time).  
 Configuration 5 is in Y-axis and Configuration -7 is in the X-axis.

Preliminary measurements of the fundamental were taken in two orientations. The orientation that displayed the highest emissions was the orientation used for radiated spurious emissions.

The manufacturer declares it will only ever be wall mounted in an upright (Y-axis) or sideways (X-axis) orientation.

The EUT is setup on an 0.80 meter foam block.  
 The EUT is setup to continuously transmit at 125kHz



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00282	Preamp	8447D	4/7/2014	4/7/2016
T2	ANSITED 3M	Cable		11/15/2014	11/15/2016
T3	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T4	ANP06885	Cable	P06885	10/27/2015	10/27/2017
T5	AN01991	Biconilog Antenna	CBL6111C	3/11/2016	3/11/2018

**Measurement Data:**

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dB $\mu$ V	T5				Table	dB $\mu$ V/m	dB $\mu$ V/m	dB	Ant
			dB	dB	dB	dB					
1	162.799M	49.8	-27.6	+2.5	+0.2	+0.3	+0.0	35.6	43.5	-7.9	Horiz
	QP		+10.4								
^	162.800M	49.9	-27.6	+2.5	+0.2	+0.3	+0.0	35.7	43.5	-7.8	Horiz
			+10.4								
3	183.054M	47.6	-27.5	+2.6	+0.2	+0.3	+0.0	32.4	43.5	-11.1	Vert
			+9.2								
4	189.837M	47.2	-27.5	+2.7	+0.3	+0.3	+0.0	32.0	43.5	-11.5	Vert
			+9.0								
5	54.217M	47.1	-28.0	+1.4	+0.1	+0.2	+0.0	28.1	40.0	-11.9	Vert
			+7.3								
6	189.838M	46.6	-27.5	+2.7	+0.3	+0.3	+0.0	31.4	43.5	-12.1	Vert
			+9.0								
7	61.026M	47.8	-28.0	+1.5	+0.1	+0.2	+0.0	27.5	40.0	-12.5	Vert
			+5.9								
8	81.348M	45.3	-27.9	+1.7	+0.2	+0.2	+0.0	26.7	40.0	-13.3	Vert
			+7.2								
9	74.584M	44.7	-27.9	+1.6	+0.2	+0.2	+0.0	25.8	40.0	-14.2	Vert
			+7.0								
10	229.080M	44.0	-27.3	+3.0	+0.3	+0.4	+0.0	31.4	46.0	-14.6	Vert
			+11.0								
11	244.080M	42.4	-27.3	+3.1	+0.3	+0.4	+0.0	30.8	46.0	-15.2	Vert
			+11.9								
12	162.788M	41.9	-27.6	+2.5	+0.2	+0.3	+0.0	27.7	43.5	-15.8	Vert
			+10.4								
13	230.480M	42.6	-27.3	+3.0	+0.3	+0.4	+0.0	30.1	46.0	-15.9	Vert
			+11.1								
14	366.106M	37.6	-27.6	+3.9	+0.4	+0.4	+0.0	30.0	46.0	-16.0	Vert
			+15.3								
15	257.694M	40.7	-27.3	+3.2	+0.3	+0.4	+0.0	29.8	46.0	-16.2	Vert
			+12.5								
16	223.750M	42.8	-27.3	+2.9	+0.3	+0.4	+0.0	29.7	46.0	-16.3	Vert
			+10.6								
17	379.654M	36.9	-27.7	+3.9	+0.4	+0.4	+0.0	29.5	46.0	-16.5	Vert
			+15.6								
18	372.894M	36.9	-27.6	+3.9	+0.4	+0.4	+0.0	29.4	46.0	-16.6	Vert
			+15.4								
19	486.800M	34.3	-28.2	+4.5	+0.4	+0.5	+0.0	29.3	46.0	-16.7	Vert
			+17.8								



20	311.892M	38.4	-27.3 +13.8	+3.5	+0.3	+0.4	+0.0	29.1	46.0	-16.9	Vert
21	284.761M	38.8	-27.2 +13.1	+3.3	+0.3	+0.4	+0.0	28.7	46.0	-17.3	Vert
22	250.880M	38.9	-27.3 +12.3	+3.1	+0.3	+0.4	+0.0	27.7	46.0	-18.3	Vert
23	239.997M	38.5	-27.3 +11.7	+3.1	+0.3	+0.4	+0.0	26.7	46.0	-19.3	Vert
24	257.712M	37.5	-27.3 +12.5	+3.2	+0.3	+0.4	+0.0	26.6	46.0	-19.4	Vert
25	210.150M	38.0	-27.4 +9.7	+2.9	+0.3	+0.3	+0.0	23.8	43.5	-19.7	Vert
26	108.497M	38.5	-27.9 +10.7	+2.0	+0.2	+0.3	+0.0	23.8	43.5	-19.7	Vert
27	216.950M	39.6	-27.3 +10.1	+2.9	+0.3	+0.4	+0.0	26.0	46.0	-20.0	Vert
28	54.313M	38.9	-28.0 +7.3	+1.4	+0.1	+0.2	+0.0	19.9	40.0	-20.1	Horiz
29	486.846M	30.7	-28.2 +17.8	+4.5	+0.4	+0.5	+0.0	25.7	46.0	-20.3	Horiz
30	257.610M	36.5	-27.3 +12.5	+3.2	+0.3	+0.4	+0.0	25.6	46.0	-20.4	Vert
31	271.220M	35.5	-27.2 +12.8	+3.3	+0.3	+0.4	+0.0	25.1	46.0	-20.9	Vert
32	257.733M	33.5	-27.3 +12.5	+3.2	+0.3	+0.4	+0.0	22.6	46.0	-23.4	Horiz
33	267.264M	33.0	-27.2 +12.7	+3.2	+0.3	+0.4	+0.0	22.4	46.0	-23.6	Vert
34	264.420M	32.7	-27.2 +12.6	+3.2	+0.3	+0.4	+0.0	22.0	46.0	-24.0	Vert
35	237.420M	34.1	-27.3 +11.5	+3.0	+0.3	+0.4	+0.0	22.0	46.0	-24.0	Vert
36	229.092M	34.4	-27.3 +11.0	+3.0	+0.3	+0.4	+0.0	21.8	46.0	-24.2	Horiz
37	229.093M	33.6	-27.3 +11.0	+3.0	+0.3	+0.4	+0.0	21.0	46.0	-25.0	Horiz
38	238.636M	31.0	-27.3 +11.6	+3.0	+0.3	+0.4	+0.0	19.0	46.0	-27.0	Vert

**Test Setup Photos**



Configuration 8



Configuration 9

## 15.207 AC Conducted Emissions

### Test Setup / Conditions / Data

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 9:25:27 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 1  
 Software: EMITest 5.03.02 120V 60Hz

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 1			

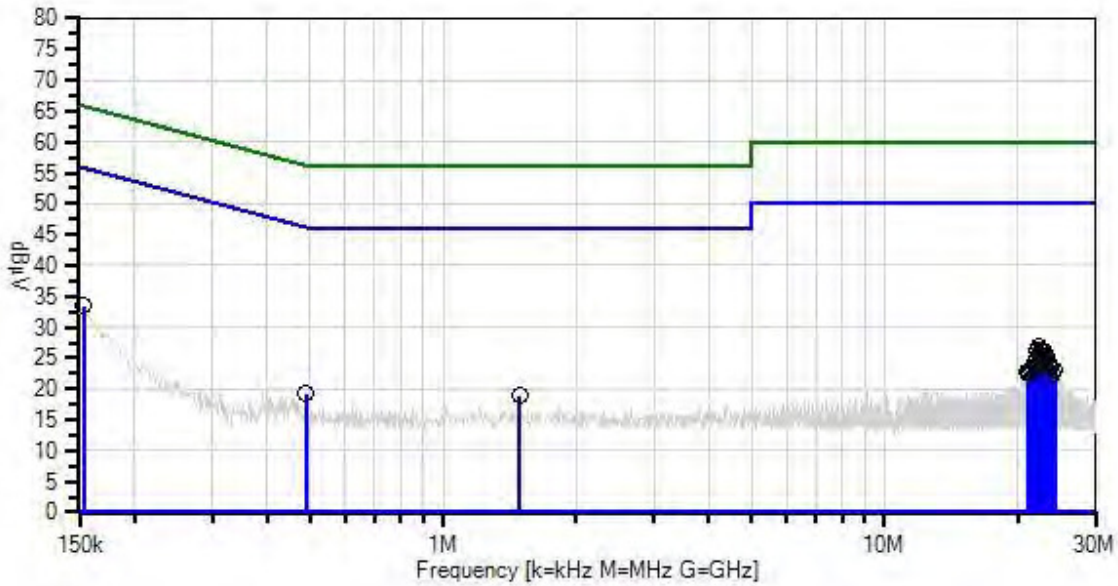
**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 1			

**Test Conditions / Notes:**

Test Method: ANSI C63.10 (2013)  
  
 Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz  
  
 Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa  
  
 Highest Generated Frequency: 27.12 MHz  
  
 The EUT is running at 125kHz.  
  
 The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 1 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz Line



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T2	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: Line

#	Freq MHz	Rdng dB $\mu$ V	T1		T2	T3	T4	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
			T5 dB	T6 dB								
1	153.637k	21.7	+10.1 +0.0	+0.1 +0.0	+1.5	+0.0	+0.0	33.4	55.8	-22.4	Line	
2	22.297M	15.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	26.8	50.0	-23.2	Line	
3	22.531M	14.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	26.4	50.0	-23.6	Line	
4	22.170M	14.9	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	26.3	50.0	-23.7	Line	
5	22.784M	14.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	26.3	50.0	-23.7	Line	
6	22.658M	14.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	26.2	50.0	-23.8	Line	
7	23.036M	14.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	25.8	50.0	-24.2	Line	
8	22.423M	14.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	25.7	50.0	-24.3	Line	
9	22.910M	13.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	25.4	50.0	-24.6	Line	
10	23.289M	13.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	25.3	50.0	-24.7	Line	
11	23.163M	13.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	25.1	50.0	-24.9	Line	
12	22.053M	13.4	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	24.8	50.0	-25.2	Line	
13	21.800M	13.1	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	24.4	50.0	-25.6	Line	
14	23.542M	12.7	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	24.3	50.0	-25.7	Line	
15	23.406M	12.3	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	23.9	50.0	-26.1	Line	
16	23.794M	12.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.8	50.0	-26.2	Line	

17	21.927M	12.3	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	23.6	50.0	-26.4	Line
18	23.659M	11.8	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	23.4	50.0	-26.6	Line
19	21.674M	12.0	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	23.3	50.0	-26.7	Line
20	21.430M	11.8	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	23.1	50.0	-26.9	Line
21	21.548M	11.8	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	23.1	50.0	-26.9	Line
22	488.150k	8.8	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.2	46.2	-27.0	Line
23	24.164M	11.6	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	23.0	50.0	-27.0	Line
24	24.291M	11.6	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	23.0	50.0	-27.0	Line
25	1.491M	8.1	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	18.9	46.0	-27.1	Line
26	21.304M	11.6	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	22.9	50.0	-27.1	Line
27	21.052M	11.5	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	22.8	50.0	-27.2	Line
28	21.178M	11.2	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	22.5	50.0	-27.5	Line
29	24.038M	11.1	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	22.5	50.0	-27.5	Line
30	23.912M	10.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.3	50.0	-27.7	Line

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Manufacturer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 9:32:48 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 2  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 1			

***Support Equipment:***

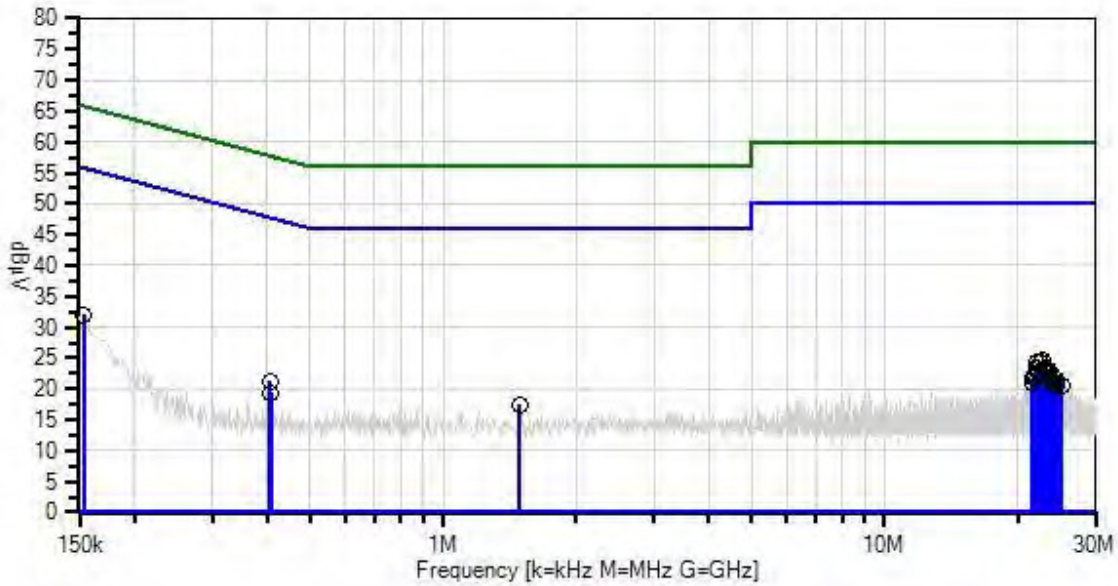
Device	Manufacturer	Model #	S/N
Configuration 1			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)  
  
 Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz  
  
 Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa  
  
 Highest Generated Frequency: 27.12 MHz  
  
 The EUT is running at 125kHz.  
  
 The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.



WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 2 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz RETURN



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
T2	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: RETURN

#	Freq MHz	Rdng dB $\mu$ V	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	153.637k	20.3	+10.1 +0.0	+0.1 +0.0	+1.5	+0.0	+0.0	32.0	55.8	-23.8	RETUR
2	22.793M	13.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	24.6	50.0	-25.4	RETUR
3	22.658M	13.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	24.5	50.0	-25.5	RETUR
4	22.197M	12.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	24.3	50.0	-25.7	RETUR
5	22.540M	12.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	24.2	50.0	-25.8	RETUR
6	404.522k	10.8	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	21.2	47.8	-26.6	RETUR
7	23.045M	11.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.4	50.0	-26.6	RETUR
8	22.071M	11.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.3	50.0	-26.7	RETUR
9	22.919M	11.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.1	50.0	-26.9	RETUR
10	23.298M	11.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.1	50.0	-26.9	RETUR
11	23.542M	11.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.0	50.0	-27.0	RETUR
12	22.324M	11.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.8	50.0	-27.2	RETUR
13	23.172M	11.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.8	50.0	-27.2	RETUR
14	22.441M	11.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.6	50.0	-27.4	RETUR
15	23.424M	11.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.5	50.0	-27.5	RETUR
16	21.936M	10.6	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	22.0	50.0	-28.0	RETUR

17	24.047M	10.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.0	50.0	-28.0	RETUR
18	21.809M	10.5	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	21.9	50.0	-28.1	RETUR
19	21.566M	10.4	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	21.8	50.0	-28.2	RETUR
20	23.794M	10.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.8	50.0	-28.2	RETUR
21	408.158k	8.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.3	47.7	-28.4	RETUR
22	23.677M	10.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.5	50.0	-28.5	RETUR
23	24.552M	10.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.5	50.0	-28.5	RETUR
24	1.491M	6.9	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	17.4	46.0	-28.6	RETUR
25	24.300M	9.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.1	50.0	-28.9	RETUR
26	23.921M	9.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.0	50.0	-29.0	RETUR
27	21.692M	9.5	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	20.9	50.0	-29.1	RETUR
28	24.164M	9.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.9	50.0	-29.1	RETUR
29	24.417M	9.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.7	50.0	-29.3	RETUR
30	25.184M	9.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.7	50.0	-29.3	RETUR

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:04:57 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 8  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)

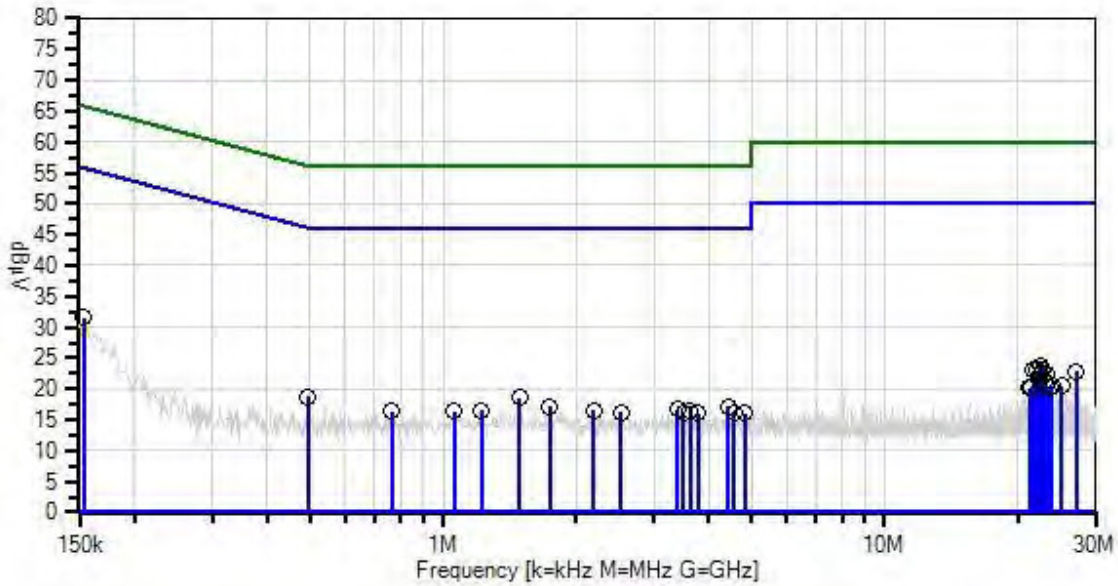
Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz

Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa

Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 8 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz LINE



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T2	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: LINE

#	Freq MHz	Rdng dB $\mu$ V	T1		T2	T3	T4	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
			T5 dB	T6 dB								
1	153.637k	19.9	+10.1 +0.0	+0.1 +0.0	+1.5	+0.0	+0.0	31.6	55.8	-24.2	LINE	
2	22.513M	12.3	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.8	50.0	-26.2	LINE	
3	22.730M	11.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.2	50.0	-26.8	LINE	
4	22.008M	11.6	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	23.0	50.0	-27.0	LINE	
5	21.764M	11.7	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	23.0	50.0	-27.0	LINE	
6	27.124M	11.8	+10.1 +0.2	+0.1 +0.2	+0.3	+0.1	+0.0	22.8	50.0	-27.2	LINE	
7	493.604k	8.3	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	18.7	46.1	-27.4	LINE	
8	22.603M	11.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.6	50.0	-27.4	LINE	
9	1.491M	7.7	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	18.5	46.0	-27.5	LINE	
10	23.235M	11.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.5	50.0	-27.5	LINE	
11	22.261M	9.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.4	50.0	-28.6	LINE	
12	4.414M	6.7	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	17.2	46.0	-28.8	LINE	
13	1.743M	6.1	+10.1 +0.1	+0.6 +0.0	+0.2	+0.0	+0.0	17.1	46.0	-28.9	LINE	
14	22.991M	9.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.1	50.0	-28.9	LINE	
15	3.394M	6.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.7	46.0	-29.3	LINE	
16	1.220M	5.8	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	16.6	46.0	-29.4	LINE	

17	2.194M	6.1	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.6	46.0	-29.4	LINE
18	25.229M	9.4	+10.1 +0.2	+0.2 +0.2	+0.3	+0.1	+0.0	20.5	50.0	-29.5	LINE
19	3.620M	5.9	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.4	46.0	-29.6	LINE
20	23.984M	8.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.4	50.0	-29.6	LINE
21	766.306k	5.7	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	16.3	46.0	-29.7	LINE
22	1.058M	5.6	+10.1 +0.1	+0.3 +0.0	+0.2	+0.0	+0.0	16.3	46.0	-29.7	LINE
23	21.521M	9.0	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.3	50.0	-29.7	LINE
24	23.740M	8.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.3	50.0	-29.7	LINE
25	2.528M	5.8	+10.1 +0.1	+0.1 +0.0	+0.1	+0.0	+0.0	16.2	46.0	-29.8	LINE
26	4.811M	5.6	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.1	46.0	-29.9	LINE
27	21.268M	8.8	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.1	50.0	-29.9	LINE
28	3.503M	5.5	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.0	46.0	-30.0	LINE
29	3.773M	5.5	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.0	46.0	-30.0	LINE
30	4.567M	5.5	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.0	46.0	-30.0	LINE

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:01:48 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 7  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 3			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)

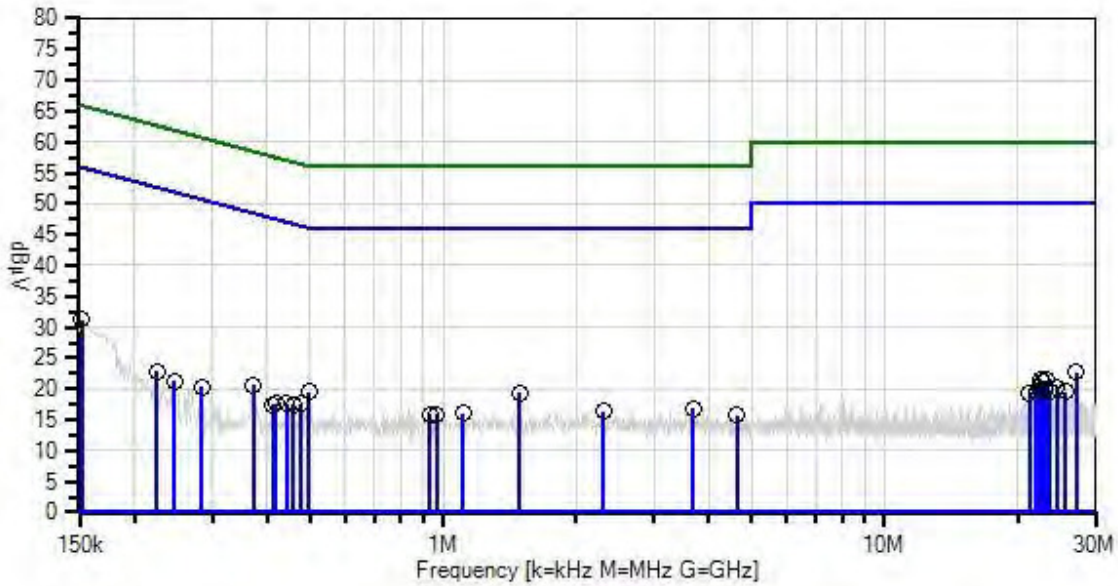
Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz

Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa

Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 7 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz RETURN



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
T2	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: RETURN

#	Freq MHz	Rdng dB $\mu$ V	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	151.819k	19.2	+10.1 +0.0	+0.1 +0.0	+1.8	+0.0	+0.0	31.2	55.9	-24.7	RETUR
2	497.240k	9.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.6	46.0	-26.4	RETUR
3	1.491M	8.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	19.3	46.0	-26.7	RETUR
4	27.124M	11.1	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	22.7	50.0	-27.3	RETUR
5	371.798k	10.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	20.6	48.5	-27.9	RETUR
6	22.504M	10.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.6	50.0	-28.4	RETUR
7	23.226M	9.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.4	50.0	-28.6	RETUR
8	22.721M	9.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.3	50.0	-28.7	RETUR
9	477.242k	7.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.6	46.4	-28.8	RETUR
10	3.683M	6.4	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.9	46.0	-29.1	RETUR
11	457.244k	7.1	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.5	46.7	-29.2	RETUR
12	442.700k	7.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.6	47.0	-29.4	RETUR
13	2.303M	5.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.3	46.0	-29.7	RETUR
14	24.480M	8.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.3	50.0	-29.7	RETUR
15	417.248k	7.3	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.7	47.5	-29.8	RETUR
16	224.539k	12.4	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	22.8	52.6	-29.8	RETUR

17	22.261M	8.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.1	50.0	-29.9	RETUR
18	1.112M	5.5	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.0	46.0	-30.0	RETUR
19	967.430k	5.5	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	15.9	46.0	-30.1	RETUR
20	931.340k	5.5	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	15.9	46.0	-30.1	RETUR
21	22.982M	8.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.9	50.0	-30.1	RETUR
22	22.603M	8.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.9	50.0	-30.1	RETUR
23	411.794k	7.0	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.4	47.6	-30.2	RETUR
24	4.622M	5.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.7	46.0	-30.3	RETUR
25	22.008M	8.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.7	50.0	-30.3	RETUR
26	284.533k	9.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	20.3	50.7	-30.4	RETUR
27	25.716M	8.0	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	19.6	50.0	-30.4	RETUR
28	23.722M	8.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.5	50.0	-30.5	RETUR
29	246.355k	10.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	21.3	51.9	-30.6	RETUR
30	21.268M	8.0	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	19.4	50.0	-30.6	RETUR

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:08:10 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 9  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)

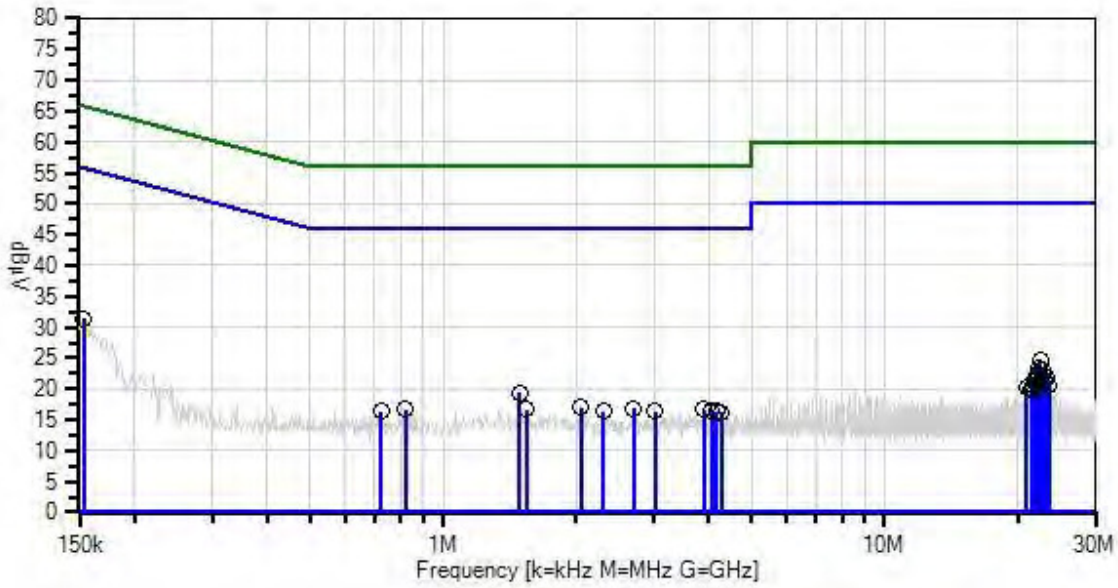
Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz

Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa

Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 9 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz LINE



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T2	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: LINE

#	Freq MHz	Rdng dB $\mu$ V	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	153.637k	19.7	+10.1 +0.0	+0.1 +0.0	+1.5	+0.0	+0.0	31.4	55.8	-24.4	LINE
2	22.549M	13.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	24.6	50.0	-25.4	LINE
3	22.333M	12.0	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.5	50.0	-26.5	LINE
4	1.491M	8.6	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	19.4	46.0	-26.6	LINE
5	22.802M	11.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.2	50.0	-26.8	LINE
6	22.450M	10.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	22.4	50.0	-27.6	LINE
7	23.307M	10.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.7	50.0	-28.3	LINE
8	22.080M	10.3	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	21.7	50.0	-28.3	LINE
9	22.937M	9.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.4	50.0	-28.6	LINE
10	23.055M	9.9	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.4	50.0	-28.6	LINE
11	21.827M	10.1	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	21.4	50.0	-28.6	LINE
12	21.954M	9.9	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	21.2	50.0	-28.8	LINE
13	2.050M	6.5	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	17.0	46.0	-29.0	LINE
14	22.685M	9.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.0	50.0	-29.0	LINE
15	22.197M	9.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.9	50.0	-29.1	LINE
16	2.700M	6.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.8	46.0	-29.2	LINE

17	820.846k	6.1	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	16.7	46.0	-29.3	LINE
18	1.545M	5.9	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	16.7	46.0	-29.3	LINE
19	3.891M	6.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.7	46.0	-29.3	LINE
20	21.584M	9.4	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.7	50.0	-29.3	LINE
21	4.062M	6.1	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.6	46.0	-29.4	LINE
22	722.674k	5.8	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	16.4	46.0	-29.6	LINE
23	23.560M	8.8	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	20.4	50.0	-29.6	LINE
24	4.161M	5.9	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.4	46.0	-29.6	LINE
25	3.016M	5.9	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.4	46.0	-29.6	LINE
26	2.312M	5.9	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.4	46.0	-29.6	LINE
27	4.261M	5.7	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.2	46.0	-29.8	LINE
28	20.952M	8.9	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.2	50.0	-29.8	LINE
29	21.458M	8.7	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.0	50.0	-30.0	LINE
30	21.701M	8.7	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.0	50.0	-30.0	LINE

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:11:39 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 10  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 5			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)

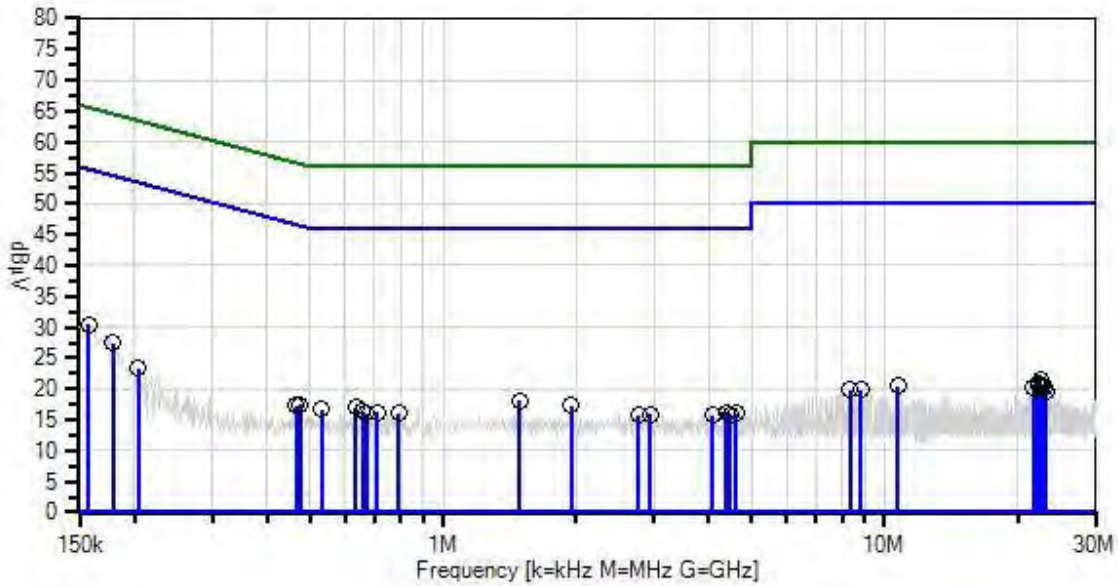
Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz

Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa

Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 10 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz RETURN



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
T2	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: RETURN

#	Freq MHz	Rdng dB $\mu$ V	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	157.273k	19.3	+10.1 +0.0	+0.1 +0.0	+1.0	+0.0	+0.0	30.5	55.6	-25.1	RETUR
2	179.089k	16.9	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	27.4	54.5	-27.1	RETUR
3	1.491M	7.6	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	18.1	46.0	-27.9	RETUR
4	22.540M	10.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.6	50.0	-28.4	RETUR
5	1.951M	6.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	17.3	46.0	-28.7	RETUR
6	475.424k	7.0	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.4	46.4	-29.0	RETUR
7	633.591k	6.5	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	17.0	46.0	-29.0	RETUR
8	22.324M	9.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.9	50.0	-29.1	RETUR
9	464.516k	6.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.3	46.6	-29.3	RETUR
10	531.783k	6.2	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.7	46.0	-29.3	RETUR
11	22.441M	9.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.6	50.0	-29.4	RETUR
12	22.784M	9.1	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.6	50.0	-29.4	RETUR
13	657.225k	5.9	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.4	46.0	-29.6	RETUR
14	10.730M	9.5	+10.1 +0.1	+0.3 +0.1	+0.2	+0.1	+0.0	20.4	50.0	-29.6	RETUR
15	21.692M	8.8	+10.1 +0.2	+0.6 +0.2	+0.2	+0.1	+0.0	20.2	50.0	-29.8	RETUR
16	709.948k	5.7	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.2	46.0	-29.8	RETUR

17	4.378M	5.7	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.2	46.0	-29.8	RETUR
18	793.576k	5.6	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.1	46.0	-29.9	RETUR
19	671.769k	5.6	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.1	46.0	-29.9	RETUR
20	23.036M	8.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.1	50.0	-29.9	RETUR
21	22.667M	8.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.1	50.0	-29.9	RETUR
22	4.603M	5.5	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.0	46.0	-30.0	RETUR
23	2.943M	5.4	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.9	46.0	-30.1	RETUR
24	204.541k	12.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	23.3	53.4	-30.1	RETUR
25	4.459M	5.4	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.9	46.0	-30.1	RETUR
26	8.844M	9.1	+10.1 +0.1	+0.2 +0.1	+0.2	+0.1	+0.0	19.9	50.0	-30.1	RETUR
27	8.339M	9.1	+10.1 +0.1	+0.2 +0.1	+0.2	+0.1	+0.0	19.9	50.0	-30.1	RETUR
28	2.772M	5.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.8	46.0	-30.2	RETUR
29	4.080M	5.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.8	46.0	-30.2	RETUR
30	23.172M	8.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.7	50.0	-30.3	RETUR

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:45:42 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 16  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 7			

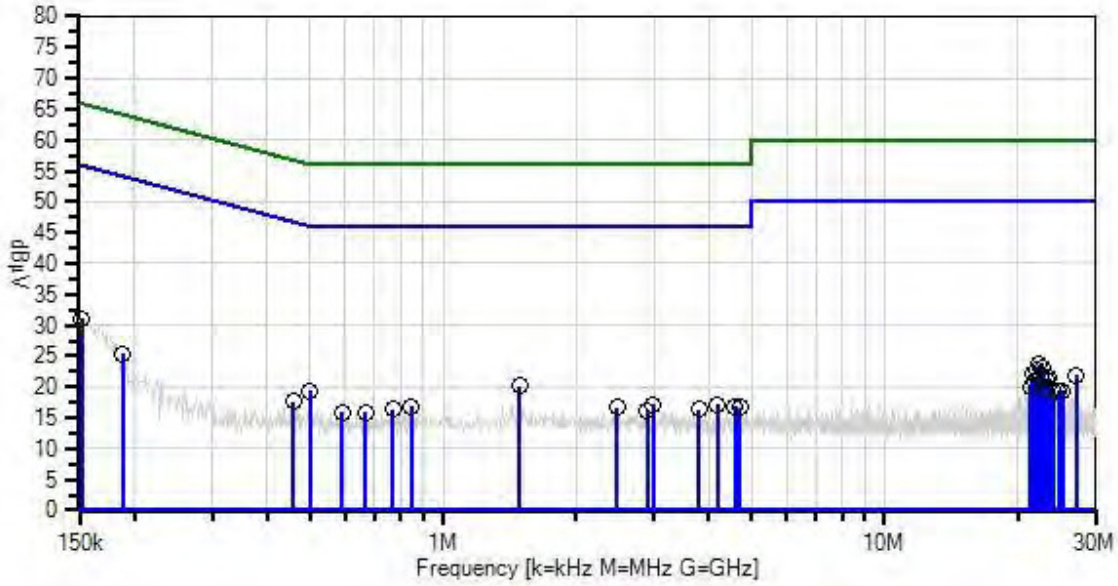
***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 7			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)  
  
 Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz  
  
 Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa  
  
 Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.  
  
 The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 16 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz LINE



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T2	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

Reading listed by margin.

Test Lead: LINE

#	Freq MHz	Rdng dB $\mu$ V	T1		T2	T3	T4	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
			T5 dB	T6 dB								
1	151.819k	19.0	+10.1 +0.0	+0.1 +0.0	+1.8	+0.0	+0.0	31.0	55.9	-24.9	LINE	
2	1.491M	9.3	+10.1 +0.1	+0.4 +0.0	+0.2	+0.0	+0.0	20.1	46.0	-25.9	LINE	
3	22.369M	12.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.7	50.0	-26.3	LINE	
4	499.058k	8.9	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.3	46.0	-26.7	LINE	
5	22.847M	11.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.0	50.0	-27.0	LINE	
6	22.116M	11.5	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	22.9	50.0	-27.1	LINE	
7	21.620M	10.7	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	22.0	50.0	-28.0	LINE	
8	22.594M	10.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.9	50.0	-28.1	LINE	
9	27.124M	10.9	+10.1 +0.2	+0.1 +0.2	+0.3	+0.1	+0.0	21.9	50.0	-28.1	LINE	
10	23.596M	9.8	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	21.4	50.0	-28.6	LINE	
11	188.179k	14.8	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	25.3	54.1	-28.8	LINE	
12	2.997M	6.7	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	17.2	46.0	-28.8	LINE	
13	4.188M	6.6	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	17.1	46.0	-28.9	LINE	
14	23.343M	9.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.1	50.0	-28.9	LINE	
15	457.244k	7.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.6	46.7	-29.1	LINE	
16	21.873M	9.5	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	20.8	50.0	-29.2	LINE	

17	848.116k	6.2	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	16.8	46.0	-29.2	LINE
18	4.576M	6.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.8	46.0	-29.2	LINE
19	4.712M	6.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.7	46.0	-29.3	LINE
20	2.474M	6.3	+10.1 +0.1	+0.1 +0.0	+0.1	+0.0	+0.0	16.7	46.0	-29.3	LINE
21	769.942k	5.8	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	16.4	46.0	-29.6	LINE
22	3.791M	5.8	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.3	46.0	-29.7	LINE
23	2.898M	5.5	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.0	46.0	-30.0	LINE
24	589.959k	5.4	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	15.9	46.0	-30.1	LINE
25	666.315k	5.3	+10.1 +0.0	+0.2 +0.0	+0.3	+0.0	+0.0	15.9	46.0	-30.1	LINE
26	21.376M	8.5	+10.1 +0.2	+0.5 +0.2	+0.2	+0.1	+0.0	19.8	50.0	-30.2	LINE
27	23.091M	8.2	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.7	50.0	-30.3	LINE
28	24.101M	8.3	+10.1 +0.2	+0.5 +0.2	+0.3	+0.1	+0.0	19.7	50.0	-30.3	LINE
29	25.355M	8.4	+10.1 +0.2	+0.1 +0.2	+0.3	+0.1	+0.0	19.4	50.0	-30.6	LINE
30	24.850M	8.1	+10.1 +0.2	+0.3 +0.2	+0.3	+0.1	+0.0	19.3	50.0	-30.7	LINE

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • (209) 966-5240  
 Customer: **WaveLynx Technologies Corporation.**  
 Specification: **15.207 AC Mains - Average**  
 Work Order #: **97029** Date: 5/10/2016  
 Test Type: **Conducted Emissions** Time: 10:43:12 AM  
 Tested By: Skip Doyle / Benny Lovan Sequence#: 15  
 Software: EMITest 5.03.02 120V 60Hz

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 7			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 7			

***Test Conditions / Notes:***

Test Method: ANSI C63.10 (2013)

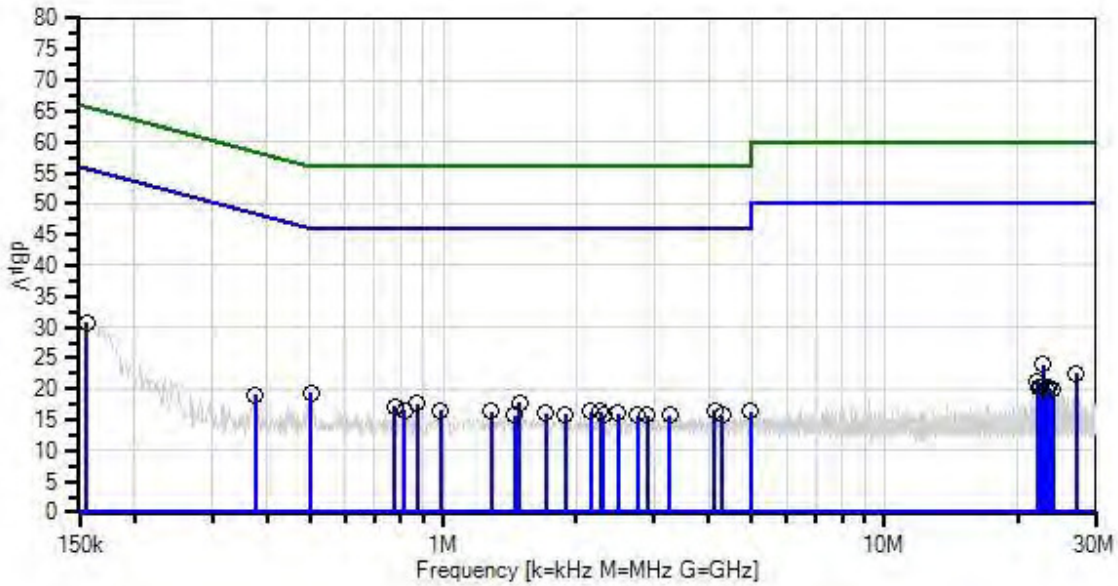
Frequency Range of Interest:  
 0.150-30MHz  
 RBW = 9kHz; VBW > 9kHz

Environmental Conditions:  
 Temperature: 21°C  
 Relative Humidity: 67%  
 Atmospheric Pressure: 97.5kPa

Highest Generated Frequency: 27.12 MHz  
 The EUT is running at 125kHz.

The EUT is powered by a DC power supply at 12VDC.  
 The EUT is setup to continuously transmit at 125kHz.  
 AC Conducted Emissions is being performed on the AC portion of the AC/DC supply.

WaveLynx Technologies Corporation. WO#: 97029 Sequence#: 15 Date: 5/10/2016  
 15.207 AC Mains - Average Test Lead: 120V 60Hz RETURN



- Sweep Data
- x QP Readings
- Software Version: 5.03.02
- Readings
- \* Average Readings
- 1 - 15.207 AC Mains - Average
- Peak Readings
- ▼ Ambient
- 2 - 15.207 AC Mains - Quasi-peak



**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANP06770	Attenuator	PE7010-10	1/15/2015	1/15/2017
T2	AN01248	50uH LISN-Line 1 (Return) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
	AN01248	50uH LISN-Line 2 (Line) (dB)	8028-50-TS-24-BNC	1/4/2016	1/4/2017
T3	AN02609	High Pass Filter	HE9615-150K-50-720B	2/18/2016	2/18/2018
T4	ANP06884	Cable	LMR195-FR-4	10/27/2015	10/27/2017
T5	ANMD INT	Cable	Underground cables only	3/17/2016	3/17/2018
	AN02111	Spectrum Analyzer	8593EM	6/4/2015	6/4/2016
T6	ANP01153	Cable	NA	3/3/2016	3/3/2018

**Measurement Data:**

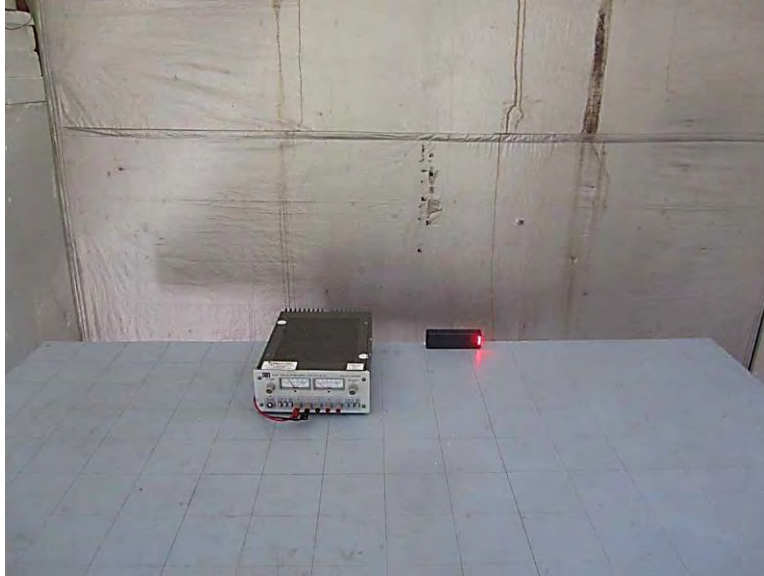
Reading listed by margin.

Test Lead: RETURN

#	Freq MHz	Rdng dB $\mu$ V	T1 T5 dB	T2 T6 dB	T3 dB	T4 dB	Dist Table	Corr dB $\mu$ V	Spec dB $\mu$ V	Margin dB	Polar Ant
1	155.455k	19.3	+10.1 +0.0	+0.1 +0.0	+1.2	+0.0	+0.0	30.7	55.7	-25.0	RETUR
2	22.847M	12.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	23.9	50.0	-26.1	RETUR
3	500.876k	9.0	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.4	46.0	-26.6	RETUR
4	27.124M	10.9	+10.1 +0.2	+0.7 +0.2	+0.3	+0.1	+0.0	22.5	50.0	-27.5	RETUR
5	1.491M	7.3	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	17.8	46.0	-28.2	RETUR
6	873.568k	7.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	17.6	46.0	-28.4	RETUR
7	22.125M	9.8	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	21.3	50.0	-28.7	RETUR
8	779.032k	6.6	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	17.1	46.0	-28.9	RETUR
9	375.434k	8.7	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	19.1	48.4	-29.3	RETUR
10	985.475k	6.2	+10.1 +0.0	+0.1 +0.0	+0.2	+0.0	+0.0	16.6	46.0	-29.4	RETUR
11	817.210k	6.0	+10.1 +0.0	+0.1 +0.0	+0.3	+0.0	+0.0	16.5	46.0	-29.5	RETUR
12	4.125M	6.0	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.5	46.0	-29.5	RETUR
13	2.158M	5.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.3	46.0	-29.7	RETUR
14	2.267M	5.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.3	46.0	-29.7	RETUR
15	4.973M	5.8	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	16.3	46.0	-29.7	RETUR
16	1.283M	5.8	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.3	46.0	-29.7	RETUR

17	22.369M	8.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.2	50.0	-29.8	RETUR
18	23.596M	8.7	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.2	50.0	-29.8	RETUR
19	1.707M	5.6	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	16.1	46.0	-29.9	RETUR
20	2.492M	5.7	+10.1 +0.1	+0.1 +0.0	+0.1	+0.0	+0.0	16.1	46.0	-29.9	RETUR
21	22.594M	8.6	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.1	50.0	-29.9	RETUR
22	23.343M	8.5	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	20.0	50.0	-30.0	RETUR
23	1.888M	5.4	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	15.9	46.0	-30.1	RETUR
24	24.101M	8.4	+10.1 +0.2	+0.6 +0.2	+0.3	+0.1	+0.0	19.9	50.0	-30.1	RETUR
25	1.455M	5.3	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	15.8	46.0	-30.2	RETUR
26	3.268M	5.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.8	46.0	-30.2	RETUR
27	4.297M	5.3	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.8	46.0	-30.2	RETUR
28	2.303M	5.2	+10.1 +0.1	+0.1 +0.0	+0.2	+0.0	+0.0	15.7	46.0	-30.3	RETUR
29	2.754M	5.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.7	46.0	-30.3	RETUR
30	2.898M	5.2	+10.1 +0.1	+0.1 +0.1	+0.1	+0.0	+0.0	15.7	46.0	-30.3	RETUR

**Test Setup Photos**



# SUPPLEMENTAL INFORMATION

## Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

## Emissions Test Details

**TESTING PARAMETERS**

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

**CORRECTION FACTORS**

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBμV/m, the spectrum analyzer reading in dBμV was corrected by using the following formula. This reading was then compared to the applicable specification limit. Individual measurements were compared with the displayed limit value in the margin column. The margin was calculated based on the limit value subtracting the corrected measured value; a negative margin represents a measurement less than the limit while a positive margin represents a measurement exceeding the limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBμV)
+	Antenna Factor	(dB/m)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBμV/m)

**TEST INSTRUMENTATION AND ANALYZER SETTINGS**

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

**SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS**

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or caret ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

**Peak**

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

**Quasi-Peak**

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

**Average**

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.