NORTHWEST EMC

Stimwave Technologies, Inc.

LBRD-915-2A rev 4

FCC 15.249:2016

Report # SWAV0029.1

NVLAP Lab Code: 201049-0

CERTIFICATE OF TEST

NORTHWEST EMC
2014-12-10

Last Date of Test: April 27, 2016
Stimwave Technologies, Inc.
Model: LBRD-915-2A rev 4

Radio Equipment Testing

Standards

Specification	Method
FCC 15.249:2016	ANSI C63.10:2013, ANSI C63.4:2014,

Results

Method Clause	Test Description	Applied	Results	Comments
6.2	Powerline Conducted Emissions	No	N\A	Not required for a battery powered EUT.
6.5	Field Strength of Fundamental	Yes	Pass	
6.5, 6.6	Field Strength of Harmonics and Spurious Radiated Emissions	Yes	Pass	

Deviations From Test Standards

None

Approved By:

Jeremiah Darden, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

NORTHWEST EMC
REV 2014.10.14

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

NORTHWEST EMC
REV 2016.3.22

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Northwest EMC to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

IC - Recognized by Industry Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with IC.

European Union

European Commission – Validated by the European Commission as a Notified Body under the R&TTE Directive.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/
http://gsi.nist.gov/global/docs/cabs/designations.html

MEASUREMENT UNCERTAINTY

TMU.2015.07.10

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

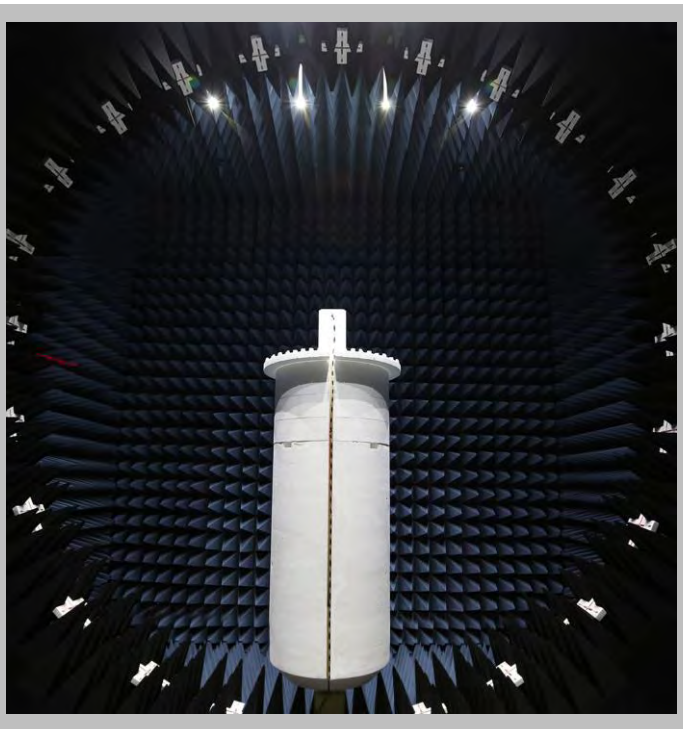
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

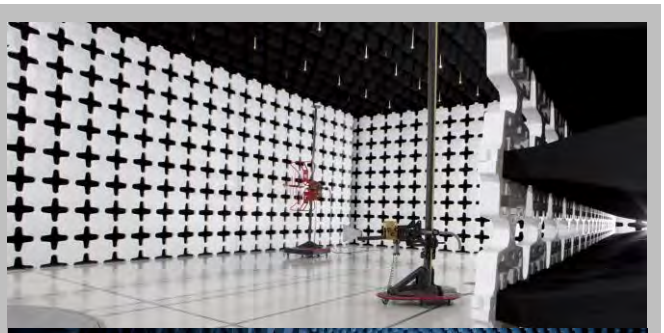
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	4.9 dB	-4.9 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

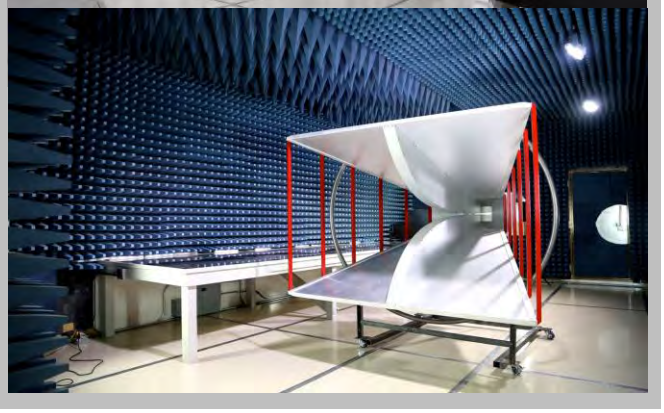
FACILITIES

NORTHWEST EMC
REV 2015.2.19

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Industry Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-*2*	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157







PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	Stimwave Technologies, Inc.
Address:	901 E. Las Olas Blvd., Suite 201
City, State, Zip:	Fort Lauderdale, FL 33301
Test Requested By:	Linda Liguore
Model:	LBRD-915-2A rev 4
First Date of Test:	April 26, 2016
Last Date of Test:	April 27, 2016
Receipt Date of Samples:	April 26, 2016
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Wireless 915MHz transmitter to an implanted spinal device.

Testing Objective:
Seeking to demonstrate compliance under FCC 15.249:2016 for operation in the 902 - 928 MHz Band.

CONFIGURATIONS

NORTHWEST EMC
2014-12-10

Configuration SWAV0029- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Wearable Antenna Assembly	Stimwave Technologies, Inc.	LBRD-915-2A rev 4	FC9E

MODIFICATIONS

NORTHWEST EMC
2014-12-10

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	4/26/2016	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	4/27/2016	Field Strength of Harmonics and Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

FIELD STRENGTH OF FUNDAMENTAL

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

EUT on, transmitting 915MHz data only

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

SWAV0029 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	1000 MHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Attenuator	Fairview Microwave	SA18H-10	TKP	NCR	0 mo
Antenna - Biconilog	Teseq	CBL 6141B	AXR	7/7/2014	24 mo
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	9/18/2015	12 mo
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	10/29/2015	12 mo

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final spurious radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level was detected. This required the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search was utilized for frequency scans of the EUT field strength with two polarities of the measuring antenna. A calibrated antenna was positioned at the specified distance from the periphery of the EUT. Tests were made with the antenna positioned in all listed planes of polarization.

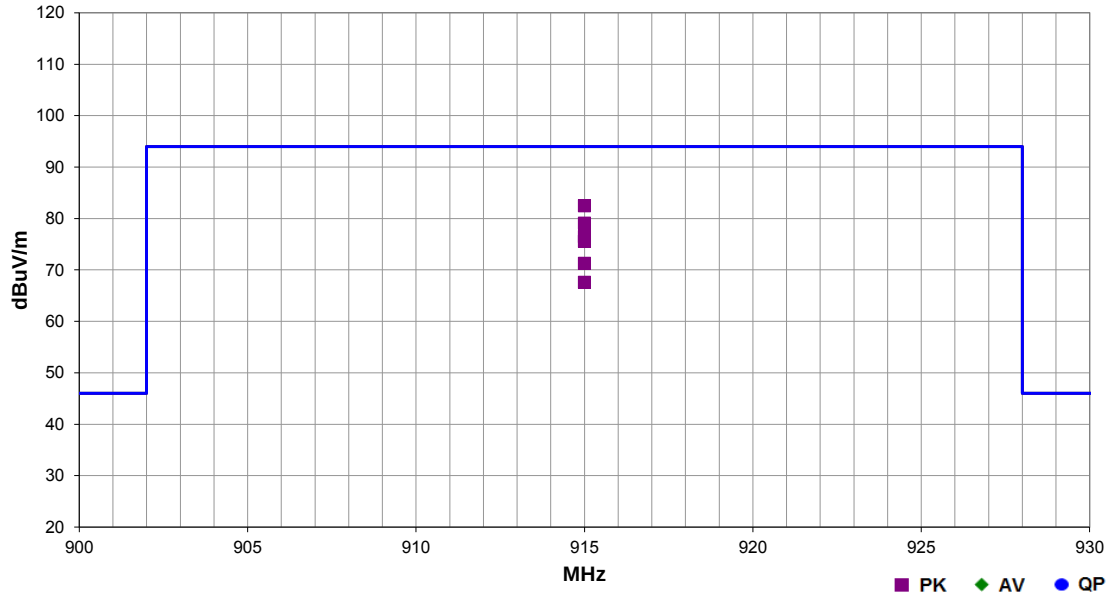
The EUT arrangement is configured as equivalent to that occurring in normal use. Tabletop equipment is placed on a 80 centimeter high non-conductive table and floor-standing equipment is placed on, but insulated from a ground reference plane by the use of its own rollers or stand-off supports. If measurements above 1 GHz were required, the test setup was modified to meet the regulatory requirements for higher frequency measurements. If required, RF absorber was placed on the floor between the measurement antenna and EUT.

FIELD STRENGTH OF FUNDAMENTAL

Work Order:	SWAV0029	**Date:**	04/26/16		
Project:	None	**Temperature:**	19.8 °C		
Job Site:	TX02	**Humidity:**	55.1% RH		
Serial Number:	FC9E	**Barometric Pres.:**	1009 mbar	**Tested by:**	Frank Sun
EUT:	LBRD-915-2A rev 4				
Configuration:	1				
Customer:	Stimwave Technologies, Inc.				
Attendees:	Patrick Larson				
EUT Power:	Battery				
Operating Mode:	EUT on, transmitting 915MHz data only				
Deviations:	None				
Comments:	Power setting: PWRSET R6 = 43K Data-Mode MD0303-Rev5. Per FCC 15.35, a peak detector was used where applicable since the EUT pulse repetition frequency was less than 20Hz.				

Test Specifications	**Test Method**
FCC 15.249:2016	ANSI C63.10:2013

Run #	3	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
915.000	41.2	31.3	1.5	0.0	3.0	10.0	Horz	PK	0.0	82.5	94.0	-11.5	EUT Side, Highest Power
915.000	37.8	31.3	2.0	0.0	3.0	10.0	Vert	PK	0.0	79.1	94.0	-14.9	EUT Vert, Highest Power
915.000	35.2	31.3	1.0	90.0	3.0	10.0	Horz	PK	0.0	76.5	94.0	-17.5	EUT Horz, Highest Power
915.000	34.3	31.3	2.0	180.0	3.0	10.0	Vert	PK	0.0	75.6	94.0	-18.4	EUT Horz, Highest Power
915.000	30.0	31.3	3.0	270.0	3.0	10.0	Horz	PK	0.0	71.3	94.0	-22.7	EUT Vert, Highest Power
915.000	26.3	31.3	1.0	270.0	3.0	10.0	Vert	PK	0.0	67.6	94.0	-26.4	EUT Side, Highest Power

FIELD STRENGTH OF HARMONICS AND SPURIOUS RADIATED EMISSIONS

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

EUT on, transmitting 915MHz data only

POWER SETTINGS INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

SWAV0029 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	1 GHz	Stop Frequency	12.4 GHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	PAK	10/22/2015	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AJF	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAJ	9/18/2015	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AJL	9/15/2014	24 mo
Cable	Northwest EMC	8-18GHz	TXD	10/21/2015	12 mo
Cable	Northwest EMC	1-8.2 GHz	TXC	10/21/2015	12 mo
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	10/29/2015	12 mo
Attenuator	Fairview Microwave	SA18H-20	TKQ	NCR	0 mo
Filter - Low Pass	Micro-Tronics	LPM50003	HHT	8/11/2015	12 mo
Filter - High Pass	Micro-Tronics	HPM50108	HHW	8/20/2015	12 mo
Filter - Band Reject	Wainwright Instruments	WTRCTV5-750-1000-20-70-60EEK	CUL	11/4/2015	12 mo

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final spurious radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level was detected. This required the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search was utilized for frequency scans of the EUT field strength with two polarities of the measuring antenna. A calibrated antenna was positioned at the specified distance from the periphery of the EUT. Tests were made with the antenna positioned in all listed planes of polarization.

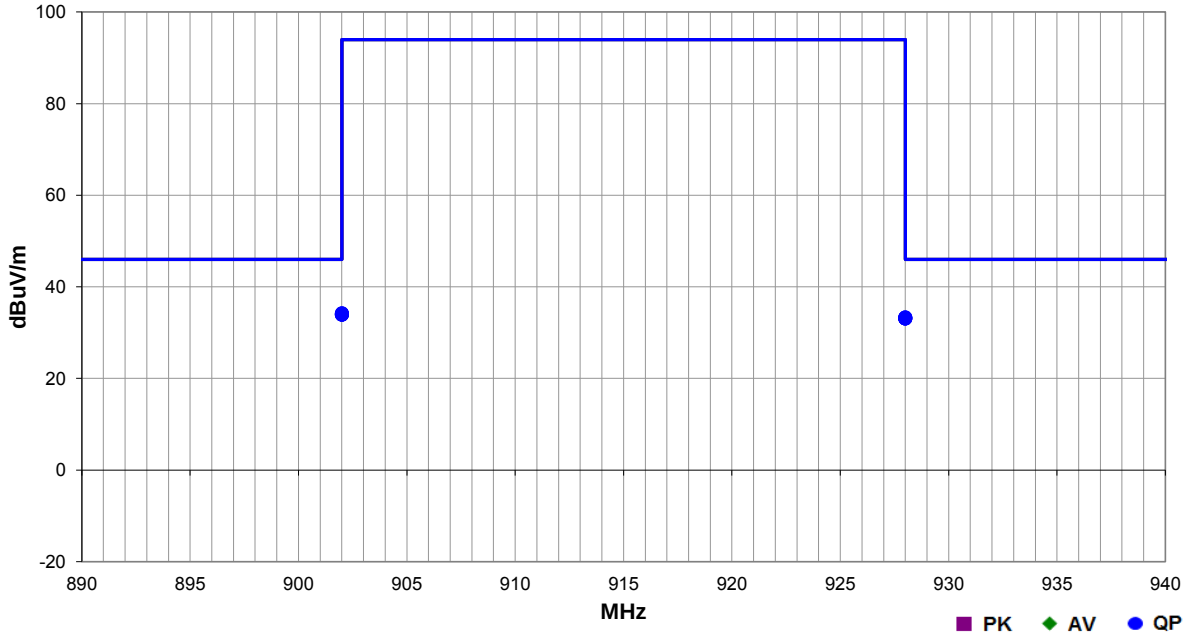
The EUT arrangement is configured as equivalent to that occurring in normal use. Tabletop equipment is placed on a 1.5 meter high non-conductive table and floor-standing equipment is placed on, but insulated from a ground reference plane by the use of its own rollers or stand-off supports. If measurements above 1 GHz were required, the test setup was modified to meet the regulatory requirements for higher frequency measurements. If required, RF absorber was placed on the floor between the measurement antenna and EUT.

FIELD STRENGTH OF HARMONICS AND SPURIOUS RADIATED EMISSIONS

Work Order:	SWAV0029	**Date:**	04/27/16		
Project:	None	**Temperature:**	19.8 °C		
Job Site:	TX02	**Humidity:**	55.1% RH		
Serial Number:	FC9E	**Barometric Pres.:**	1009 mbar	**Tested by:**	Frank Sun
EUT:	LBRD-915-2A rev 4				
Configuration:	1				
Customer:	Stimwave Technologies, Inc.				
Attendees:	Patrick Larson				
EUT Power:	Battery				
Operating Mode:	EUT on, transmitting 915MHz data only				
Deviations:	None				
Comments:	Power setting: PWRSET R6 = 43K Data-Mode MD0303-Rev5. Notch filter factor of -14.7dB at 902 and 928 MHz adjusted.				

Test Specifications	**Test Method**
FCC 15.249:2016	ANSI C63.10:2013

Run #	5	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



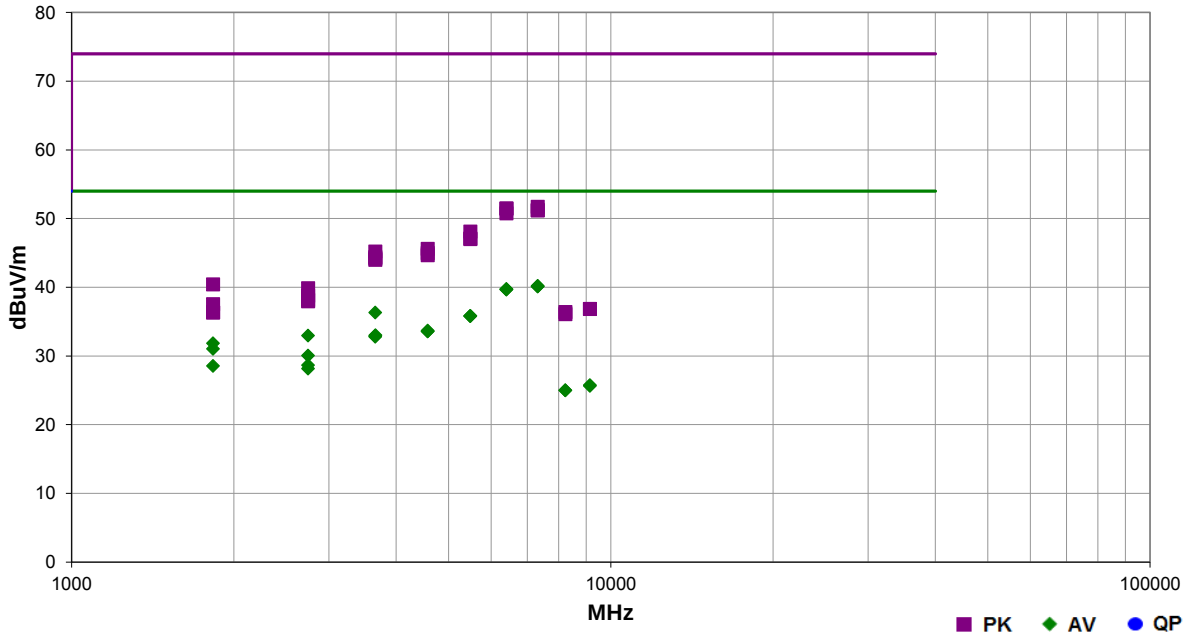
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
902.000	32.2	2.1	1.0	117.9	3.0	0.0	Horz	QP	0.0	34.3	46.0	-11.7	EUT Vert
902.000	32.1	2.1	1.0	94.9	3.0	0.0	Vert	QP	0.0	34.2	46.0	-11.8	EUT Vert
902.000	31.9	2.1	1.0	315.0	3.0	0.0	Horz	QP	0.0	34.0	46.0	-12.0	EUT Side
902.000	31.9	2.1	1.0	270.0	3.0	0.0	Vert	QP	0.0	34.0	46.0	-12.0	EUT Side
902.000	31.9	2.1	3.0	294.0	3.0	0.0	Horz	QP	0.0	34.0	46.0	-12.0	EUT Horz
902.000	31.9	2.1	1.0	355.0	3.0	0.0	Vert	QP	0.0	34.0	46.0	-12.0	EUT Horz
928.000	31.6	1.7	1.0	86.0	3.0	0.0	Horz	QP	0.0	33.3	46.0	-12.7	EUT Vert
928.000	31.6	1.7	1.0	355.0	3.0	0.0	Vert	QP	0.0	33.3	46.0	-12.7	EUT Vert
928.000	31.4	1.7	1.0	90.0	3.0	0.0	Horz	QP	0.0	33.1	46.0	-12.9	EUT Side
928.000	31.4	1.7	1.0	360.0	3.0	0.0	Vert	QP	0.0	33.1	46.0	-12.9	EUT Side
928.000	31.4	1.7	2.0	267.0	3.0	0.0	Horz	QP	0.0	33.1	46.0	-12.9	EUT Horz
928.000	31.4	1.7	1.0	166.9	3.0	0.0	Vert	QP	0.0	33.1	46.0	-12.9	EUT Horz

FIELD STRENGTH OF HARMONICS AND SPURIOUS RADIATED EMISSIONS

Work Order:	SWAV0029	**Date:**	04/27/16		
Project:	None	**Temperature:**	19.8 °C		
Job Site:	TX02	**Humidity:**	55.1% RH		
Serial Number:	FC9E	**Barometric Pres.:**	1009 mbar	**Tested by:**	Frank Sun
EUT:	LBRD-915-2A rev 4				
Configuration:	1				
Customer:	Stimwave Technologies, Inc.				
Attendees:	Patrick Larson				
EUT Power:	Battery				
Operating Mode:	EUT on, transmitting 915MHz data only				
Deviations:	None				
Comments:	PK and RMS AV. Power setting: PWRSET R6 = 43K Data-Mode MD0303-Rev5.				

Test Specifications	**Test Method**
FCC 15.249:2016	ANSI C63.10:2013

Run #	7	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7320.387	28.4	11.8	1.0	112.9	3.0	0.0	Vert	AV	0.0	40.2	54.0	-13.8	EUT Vert
7319.887	28.3	11.8	1.0	147.9	3.0	0.0	Vert	AV	0.0	40.1	54.0	-13.9	EUT Side
7319.748	28.3	11.8	2.8	319.0	3.0	0.0	Horz	AV	0.0	40.1	54.0	-13.9	EUT Side
6405.468	28.7	11.1	1.0	156.0	3.0	0.0	Vert	AV	0.0	39.8	54.0	-14.2	EUT Vert
6405.485	28.6	11.1	2.8	356.0	3.0	0.0	Horz	AV	0.0	39.7	54.0	-14.3	EUT Side
6405.245	28.6	11.1	1.0	310.9	3.0	0.0	Vert	AV	0.0	39.7	54.0	-14.3	EUT Side
1829.952	43.5	-6.9	1.0	327.9	3.0	0.0	Horz	AV	0.0	36.6	54.0	-17.4	EUT Side
3660.043	33.3	3.0	2.5	54.0	3.0	0.0	Vert	AV	0.0	36.3	54.0	-17.7	EUT Vert
5490.048	28.1	7.7	1.0	85.0	3.0	0.0	Vert	AV	0.0	35.8	54.0	-18.2	EUT Side
5489.943	28.1	7.7	1.0	121.0	3.0	0.0	Vert	AV	0.0	35.8	54.0	-18.2	EUT Vert
5489.628	28.1	7.7	1.0	70.9	3.0	0.0	Horz	AV	0.0	35.8	54.0	-18.2	EUT Side
4574.883	28.9	4.8	1.0	303.9	3.0	0.0	Vert	AV	0.0	33.7	54.0	-20.3	EUT Side
4575.418	28.8	4.8	1.0	328.9	3.0	0.0	Horz	AV	0.0	33.6	54.0	-20.4	EUT Side
4575.020	28.8	4.8	1.0	21.9	3.0	0.0	Vert	AV	0.0	33.6	54.0	-20.4	EUT Vert
3660.320	30.0	3.0	1.0	337.0	3.0	0.0	Vert	AV	0.0	33.0	54.0	-21.0	EUT Side
2745.042	36.0	-3.0	1.0	18.0	3.0	0.0	Horz	AV	0.0	33.0	54.0	-21.0	EUT Side
3660.023	29.9	3.0	1.0	106.9	3.0	0.0	Horz	AV	0.0	32.9	54.0	-21.1	EUT Vert
3659.598	29.8	3.0	1.0	306.0	3.0	0.0	Horz	AV	0.0	32.8	54.0	-21.2	EUT Side
1830.010	38.7	-6.9	4.0	135.0	3.0	0.0	Horz	AV	0.0	31.8	54.0	-22.2	EUT Vert
7320.112	39.9	11.8	2.8	319.0	3.0	0.0	Horz	PK	0.0	51.7	74.0	-22.3	EUT Side
6405.175	40.4	11.1	1.0	156.0	3.0	0.0	Vert	PK	0.0	51.5	74.0	-22.5	EUT Vert

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Antenna Height (meters)	Azimuth (degrees)	Test Distance (meters)	External Attenuation (dB)	Polarity/ Transducer Type	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
6404.895	40.4	11.1	2.8	356.0	3.0	0.0	Horz	PK	0.0	51.5	74.0	-22.5	EUT Side
7319.747	39.4	11.8	1.0	147.9	3.0	0.0	Vert	PK	0.0	51.2	74.0	-22.8	EUT Side
7319.768	39.4	11.8	1.0	112.9	3.0	0.0	Vert	PK	0.0	51.2	74.0	-22.8	EUT Vert
1830.032	37.9	-6.9	1.0	360.0	3.0	0.0	Vert	AV	0.0	31.0	54.0	-23.0	EUT Side
6404.593	39.7	11.1	1.0	310.9	3.0	0.0	Vert	PK	0.0	50.8	74.0	-23.2	EUT Side
2745.042	33.1	-3.0	1.0	332.0	3.0	0.0	Vert	AV	0.0	30.1	54.0	-23.9	EUT Side
2745.048	31.7	-3.0	1.0	40.9	3.0	0.0	Vert	AV	0.0	28.7	54.0	-25.3	EUT Vert
1830.037	35.4	-6.9	4.0	360.0	3.0	0.0	Vert	AV	0.0	28.5	54.0	-25.5	EUT Vert
2745.012	31.2	-3.0	1.0	168.0	3.0	0.0	Horz	AV	0.0	28.2	54.0	-25.8	EUT Vert
5490.422	40.4	7.7	1.0	85.0	3.0	0.0	Vert	PK	0.0	48.1	74.0	-25.9	EUT Side
5490.100	39.4	7.7	1.0	121.0	3.0	0.0	Vert	PK	0.0	47.1	74.0	-26.9	EUT Vert
5489.647	39.3	7.7	1.0	70.9	3.0	0.0	Horz	PK	0.0	47.0	74.0	-27.0	EUT Side
9150.006	30.7	-5.0	1.0	70.9	3.0	0.0	Horz	AV	0.0	25.7	54.0	-28.3	EUT Side
9149.984	30.6	-5.0	1.0	231.0	3.0	0.0	Vert	AV	0.0	25.6	54.0	-28.4	EUT Side
4575.350	40.8	4.8	1.0	328.9	3.0	0.0	Horz	PK	0.0	45.6	74.0	-28.4	EUT Side
3659.860	42.2	3.0	2.5	54.0	3.0	0.0	Vert	PK	0.0	45.2	74.0	-28.8	EUT Vert
8235.028	31.6	-6.6	1.0	259.0	3.0	0.0	Horz	AV	0.0	25.0	54.0	-29.0	EUT Side
8234.960	31.6	-6.6	1.0	166.9	3.0	0.0	Vert	AV	0.0	25.0	54.0	-29.0	EUT Side
4574.982	40.2	4.8	1.0	21.9	3.0	0.0	Vert	PK	0.0	45.0	74.0	-29.0	EUT Vert
4575.428	39.9	4.8	1.0	303.9	3.0	0.0	Vert	PK	0.0	44.7	74.0	-29.3	EUT Side
3659.760	41.4	3.0	1.0	306.0	3.0	0.0	Horz	PK	0.0	44.4	74.0	-29.6	EUT Side
3659.750	41.2	3.0	1.0	337.0	3.0	0.0	Vert	PK	0.0	44.2	74.0	-29.8	EUT Side
3659.807	41.0	3.0	1.0	106.9	3.0	0.0	Horz	PK	0.0	44.0	74.0	-30.0	EUT Vert
1830.010	47.3	-6.9	1.0	327.9	3.0	0.0	Horz	PK	0.0	40.4	74.0	-33.6	EUT Side
2745.057	42.9	-3.0	1.0	18.0	3.0	0.0	Horz	PK	0.0	39.9	74.0	-34.1	EUT Side
2745.163	41.8	-3.0	1.0	332.0	3.0	0.0	Vert	PK	0.0	38.8	74.0	-35.2	EUT Side
2744.957	41.2	-3.0	1.0	168.0	3.0	0.0	Horz	PK	0.0	38.2	74.0	-35.8	EUT Vert
2745.088	41.0	-3.0	1.0	40.9	3.0	0.0	Vert	PK	0.0	38.0	74.0	-36.0	EUT Vert
1830.285	44.4	-6.9	4.0	135.0	3.0	0.0	Horz	PK	0.0	37.5	74.0	-36.5	EUT Vert
9149.962	41.8	-5.0	1.0	70.9	3.0	0.0	Horz	PK	0.0	36.8	74.0	-37.2	EUT Side
9149.959	41.8	-5.0	1.0	231.0	3.0	0.0	Vert	PK	0.0	36.8	74.0	-37.2	EUT Side
8235.029	43.0	-6.6	1.0	259.0	3.0	0.0	Horz	PK	0.0	36.4	74.0	-37.6	EUT Side
1830.053	43.2	-6.9	1.0	360.0	3.0	0.0	Vert	PK	0.0	36.3	74.0	-37.7	EUT Side
1830.040	43.2	-6.9	4.0	360.0	3.0	0.0	Vert	PK	0.0	36.3	74.0	-37.7	EUT Vert
8235.006	42.7	-6.6	1.0	166.9	3.0	0.0	Vert	PK	0.0	36.1	74.0	-37.9	EUT Side