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Test Report

Applicant	Bear River Holdings, LLC
Address	5000 Eldorado Pkwy, Suite 150, Frisco, Texas 75033, United States
FCC ID Number	FCC ID: ZEZZB1727R24G
Brand Name(s)	None
Model Number(s)/ Item Number(s)	B1727
Product Description	2.4 GHz Wireless RC Boat - TX Portion
Operating Frequency	2.420-2.470 GHz
Rules/Standards	Part 15.249 of the FCC Rules
Received Date	25th April, 2016
Tested Date	25th April, 2016
Approved by	Dick Chan (Director of Gakkiku)
Tested by	<i>Jong Wang</i> Jong Wang (Engineer of Shenzhen SEM.Test)
Signed by	<i>Jandy So</i> Jandy So (Manager of Shenzhen SEM.Test)
Report Number	GKK201604250C
Test Results	<input checked="" type="checkbox"/> PASSED <input type="checkbox"/> FAILED

GENERAL

The report is written by Gakkiku Technology Company. The tested device complies with the general approval requirements of the FCC Rules and the Industry Canada as identified in this test report.

TEST LOCATION

The tested device was tested at the test site of the Shenzhen SEM.Test Technology Co., Ltd., 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, 518101, Guangdong, China. The FCC Recognized 2.948 Listed Test Firm Registration Number is 934118. The Industry Canada IC OATS Filing Number/Assigned Code is 11464A.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Bear River Holdings, LLC
 Address of applicant: 5000 Eldorado Pkwy, Suite 150,
 Frisco, Texas 75033, United States

Manufacturer: Bear River Holdings, LLC
 Address of manufacturer: 5000 Eldorado Pkwy, Suite 150,
 Frisco, Texas 75033, United States

General Description of EUT

Item	Description
Product Description:	2.4 GHz Wireless RC Boat - TX Portion
Brand Name(s):	/
Model Number(s)/ Item Number(s):	B1727, B1728, B1729, B1730, B1731, B1732, B1733, B1734, B1742, B1743, B1744, B1745, B1746, B1747, B1086, B1087, B1735, B1186, B1634, B1458, B1635, B1161, B1162, B1367, B1158, B1187, B1560, B1348, 01470, 01473, 01474, 01475, 01476, 01471, 01472 [All Brand Name(s) and Model Number(s)/Item Number(s) are electrically identical]
Power Source:	6 units of DC 1.5V AA-Size Battery
Output Power:	<0dBm
Frequency Range:	2.4 GHz
No. of Channel:	/
Channel Separation:	/
Antenna Type:	Fixed 130mm-long Wire Antenna
Size:	/
For more information refer to the circuit diagram form and the user's manual.	

The test data is gathered from a production sample, provided by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the Bear River Holdings, LLC in accordance with Part 15 Subpart B and Subpart C of the FCC Rules, and Part 15.249, 15.107, 15.203, 15.205, 15.207 and 15.209 of the FCC Rules.

The objective is to determine compliance with Part 15 Subpart C of the FCC Rules, and Part 15.249, 15.107, 15.203, 15.205, 15.207 and 15.209 of the FCC Rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which results in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 Test Methodology

All measurements contained in this report were conducted with ANSI Standards C63.4-2009, American National Standard Institute for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted according to the Operating Instructions and let the EUT keep transmitting.

1.5 Test Facility

FCC Recognized 2.948 Listed Test Firm Registration Number: 934118

EMC Laboratory of the Shenzhen SEM.Test Technology Co., Ltd. has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the FCC Recognized 2.948 Listed Test Firm Registration Number is 934118.

Industry Canada IC OATS Filing Number/Assigned Code: 11464A

The 3 Meter Semi-Anechoic Chamber of the Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Industry Canada IC OATS Filing Number/Assigned Code (11464A).

1.6 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components. The test software is started while the whole system is on.

1.7 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/
/	/	/	/

1.8 EUT Cable List and Details

Cable Description	Length (M)	Shielded/ Unshielded	With Core/ Without Core
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
Part 15.203	Antenna Requirement	Compliant
Part 15.107(a)	Conducted Emission	N/A
Part 15.205	Restricted Band of Operation	Compliant
Part 15.209	Radiated Emission	Compliant
Part 15.249(a)	Field Strength	Compliant
Part 15.249(d)	Out of Band Emission	Compliant

3. Part 15.203 - ANTENNA REQUIREMENT

3.1 Standard Applicable

According to Part 15.203 of the FCC Rules, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Test Result

This product has a fixed antenna, fulfill the requirement of this section.

4. Part 15.249(a), 15.205 & 15.209 - RADIATED EMISSION

4.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ± 3.0 dB.

4.2 Standard Applicable

According to Part 15.249(a) of the FCC Rules, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (milli-volts/meter)	Field strength of harmonics (micro-volts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in Part 15.35 of the FCC Rules for limiting peak emissions apply.

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 20 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS UNDER PART 15.209 OF THE FCC RULES, WHICHEVER IS THE LESSER ATTENUATION.

Emissions that fall in the restricted bands (Part 15.205 of the FCC Rules) must be less than 54dB_{uV/m} otherwise the spurious and harmonics must be attenuated by at least 20dB.

4.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	R&S	ESVB	825471/005	2015-06-17	2016-06-16
Pre-amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Pre-amplifier	Compliance Direction	PAP-0118	24002	2015-06-17	2016-06-16
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Horn Antenna	ETS	3116B	00088203	2015-06-17	2016-06-16
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2015-06-17	2016-06-16

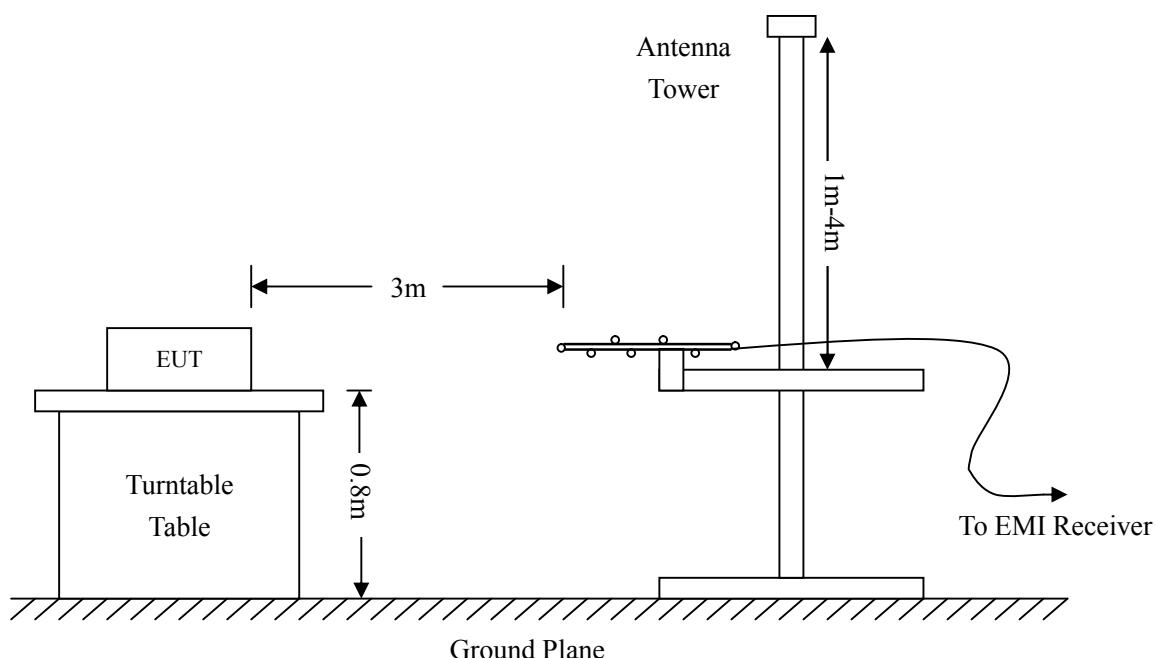
Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

4.4 Test Procedure

The setup of EUT is according with per ANSI Standards C63.4-2009 measurement procedure. The specification used was with the limits of Part 15.249(a), 15.205 and 15.209 of the FCC Rules. The radiated emissions were investigated by rotating the EUT through the three (3) orthogonal planes as mandated in ANSI Standards C63.4-2009.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm



4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Part 15 of the FCC Rules. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Limit of Part 15 of the FCC Rules}$$

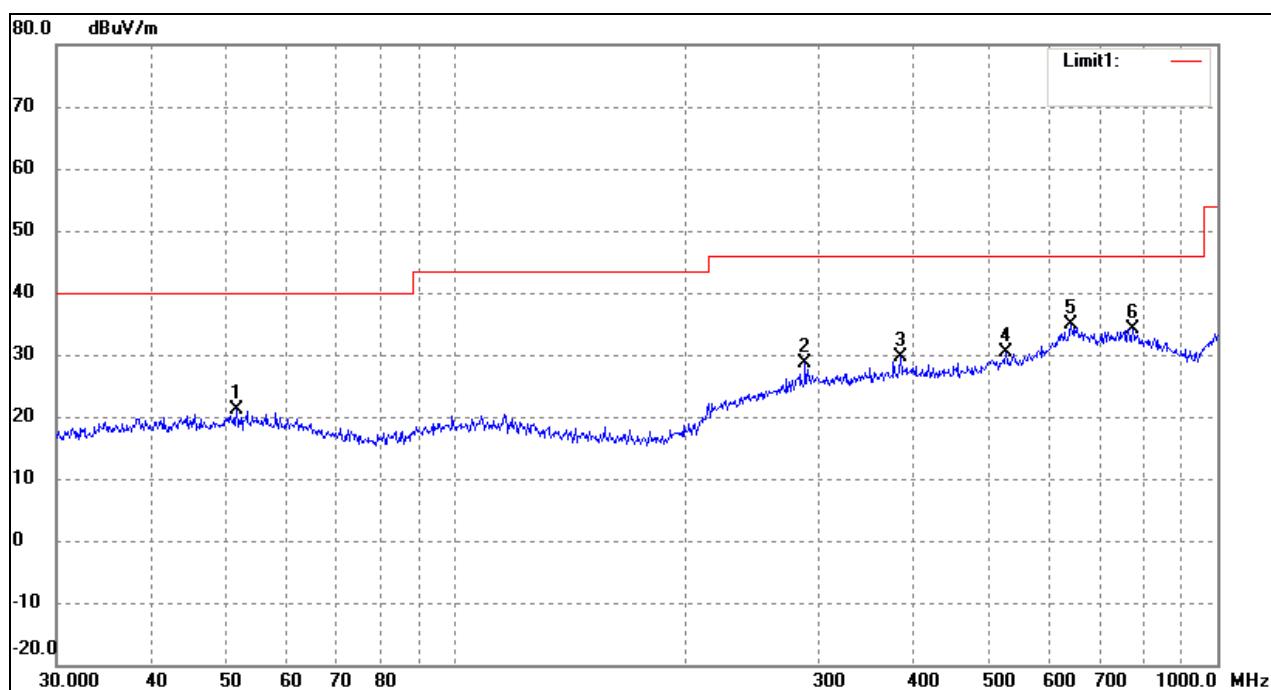
4.6 Environmental Conditions

Temperature:	26 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

4.7 Summary of Test Results/Plots

According to the data below, the standards of Part 15.249, 15.205 and 15.209 of the FCC Rules, and had the worst margin of:

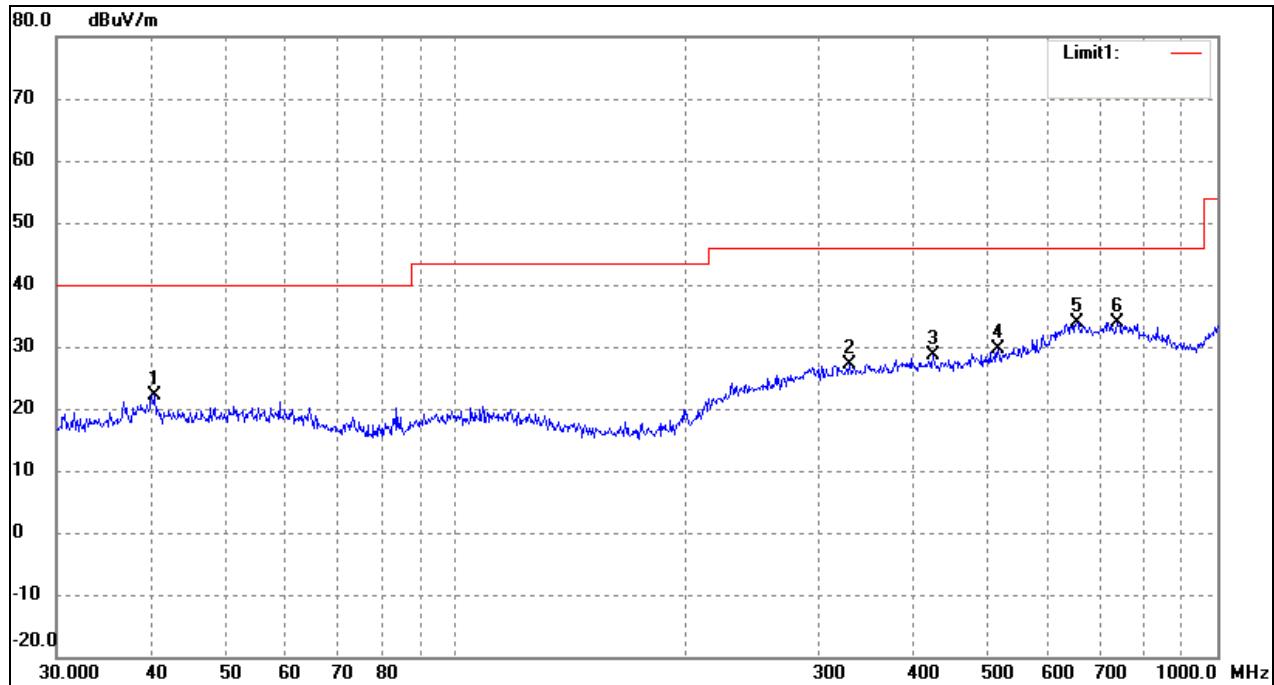
Note: This EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Plot of Radiation Emissions Test*Radiated Disturbance**Product Description: 2.4 GHz Wireless RC Boat - TX Portion**Model Number(s)/Item Number(s): B1727, B1728, B1729, B1730, B1731, B1732, B1733, B1734, B1742, B1743, B1744, B1745, B1746, B1747, B1086, B1087, B1735, B1186, B1634, B1458, B1635, B1161, B1162, B1367, B1158, B1187, B1560, B1348, 01470, 01473, 01474, 01475, 01476, 01471, 01472**Operating Condition: Transmitting below 1 GHz (Lowest Channel: 2420 MHz)**Test Specification: Horizontal & Vertical**Power Source: 6 units of DC 1.5V AA-Size Battery**Horizontal:*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	51.6616	16.03	5.03	21.06	40.00	-18.94	46	100	Peak
2	287.9904	17.12	11.47	28.59	46.00	-17.41	105	100	Peak
3	383.9318	17.73	11.97	29.70	46.00	-16.30	158	100	Peak
4	528.2458	16.63	13.86	30.49	46.00	-15.51	203	100	Peak
5	642.8613	16.76	18.00	34.76	46.00	-11.24	247	100	Peak
6	774.1584	17.01	17.19	34.20	46.00	-11.80	295	100	Peak

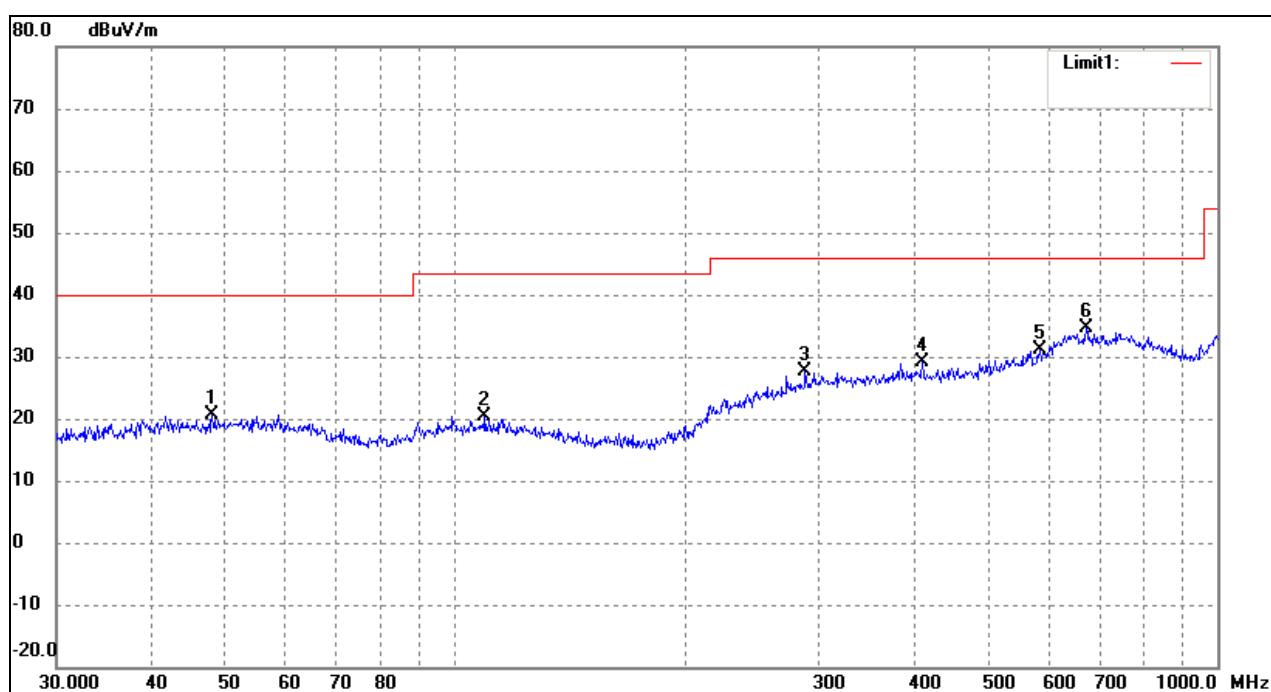
Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Vertical:



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	40.4172	17.32	4.93	22.25	40.00	-17.75	34	100	Peak
2	329.0390	15.40	11.67	27.07	46.00	-18.93	139	100	Peak
3	423.5403	16.55	11.99	28.54	46.00	-17.46	167	100	Peak
4	515.4374	15.94	13.76	29.70	46.00	-16.30	225	100	Peak
5	654.2318	16.20	17.71	33.91	46.00	-12.09	269	100	Peak
6	739.6605	14.94	19.00	33.94	46.00	-12.06	305	100	Peak

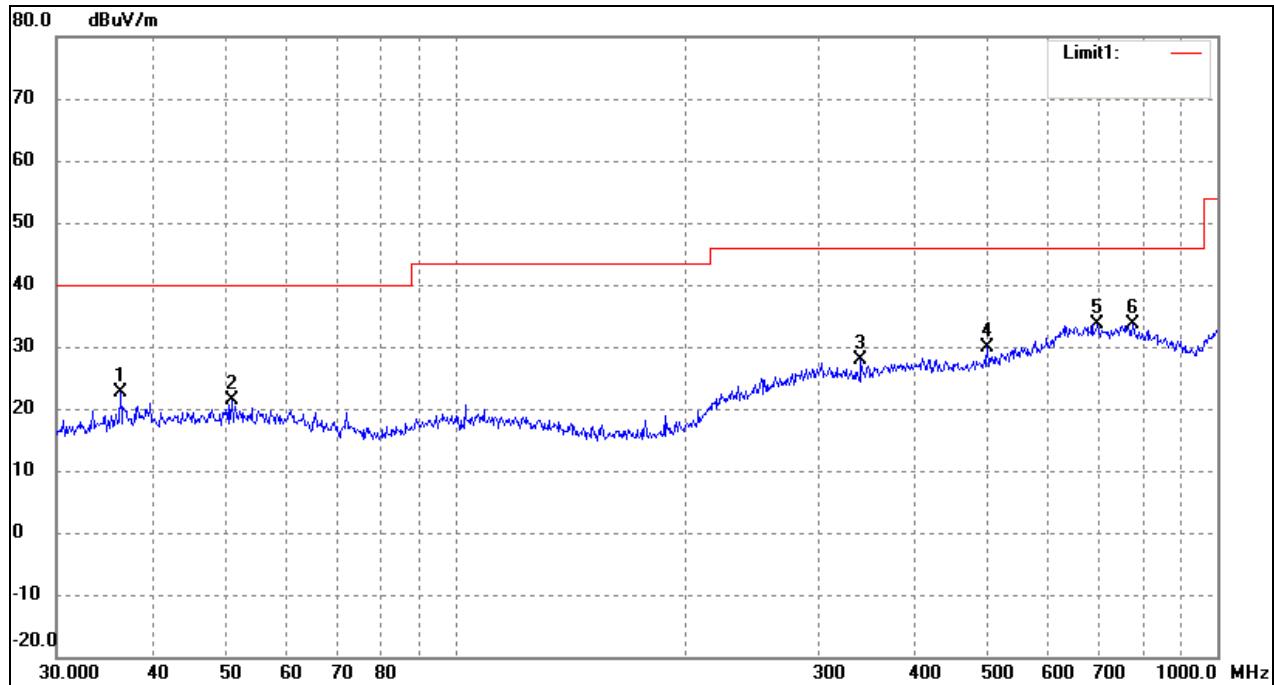
Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Plot of Radiation Emissions Test*Radiated Disturbance**Product Description: 2.4 GHz Wireless RC Boat - TX Portion**Model Number(s)/Item Number(s): B1727, B1728, B1729, B1730, B1731, B1732, B1733, B1734, B1742, B1743, B1744, B1745, B1746, B1747, B1086, B1087, B1735, B1186, B1634, B1458, B1635, B1161, B1162, B1367, B1158, B1187, B1560, B1348, 01470, 01473, 01474, 01475, 01476, 01471, 01472**Operating Condition: Transmitting below 1 GHz (Near Middle Channel: 2445 MHz)**Test Specification: Horizontal & Vertical**Power Source: 6 units of DC 1.5V AA-Size Battery**Horizontal:*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	47.9940	15.77	4.96	20.73	40.00	-19.27	55	100	Peak
2	109.4116	15.57	4.87	20.44	43.50	-23.06	79	100	Peak
3	287.9904	16.14	11.47	27.61	46.00	-18.39	138	100	Peak
4	410.3825	16.80	12.27	29.07	46.00	-16.93	169	100	Peak
5	584.7895	15.24	15.93	31.17	46.00	-14.83	237	100	Peak
6	672.8445	16.29	18.29	34.58	46.00	-11.42	265	100	Peak

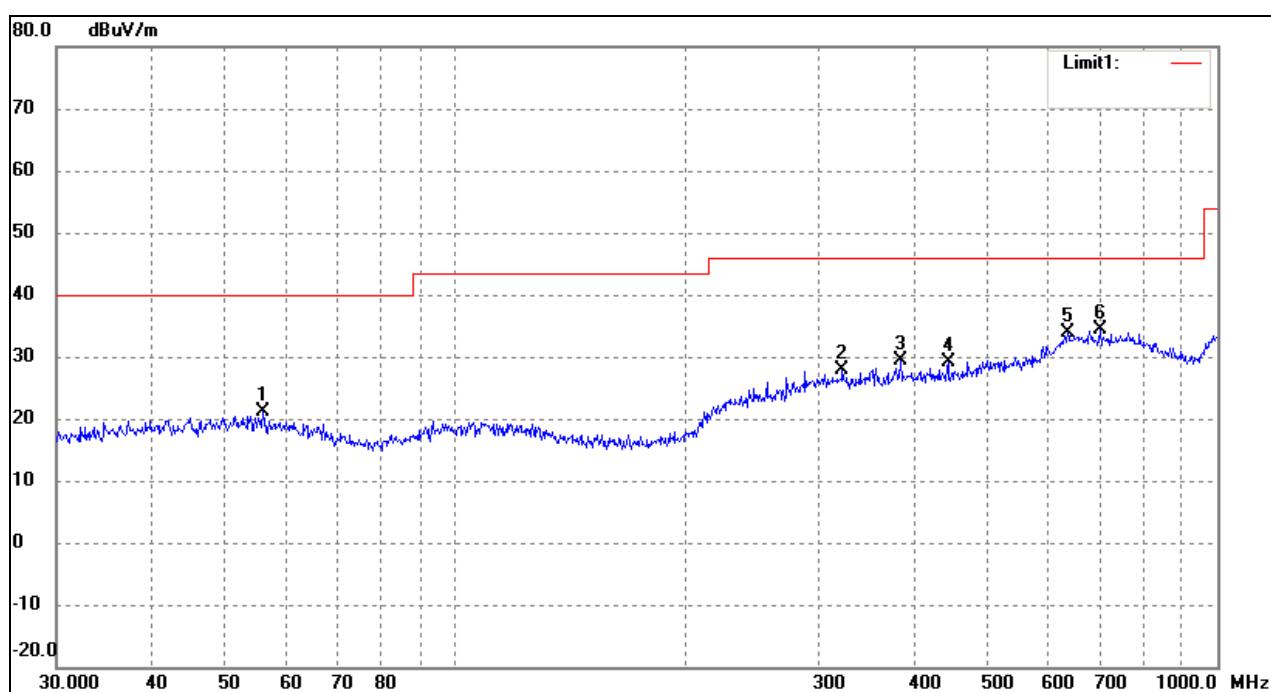
Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Vertical:



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	36.3814	18.21	4.40	22.61	40.00	-17.39	29	100	Peak
2	50.9420	16.36	5.01	21.37	40.00	-18.63	78	100	Peak
3	340.7817	16.61	11.39	28.00	46.00	-18.00	146	100	Peak
4	499.4247	16.69	13.31	30.00	46.00	-16.00	183	100	Peak
5	696.8567	16.23	17.43	33.66	46.00	-12.34	234	100	Peak
6	774.1584	16.55	17.19	33.74	46.00	-12.26	279	100	Peak

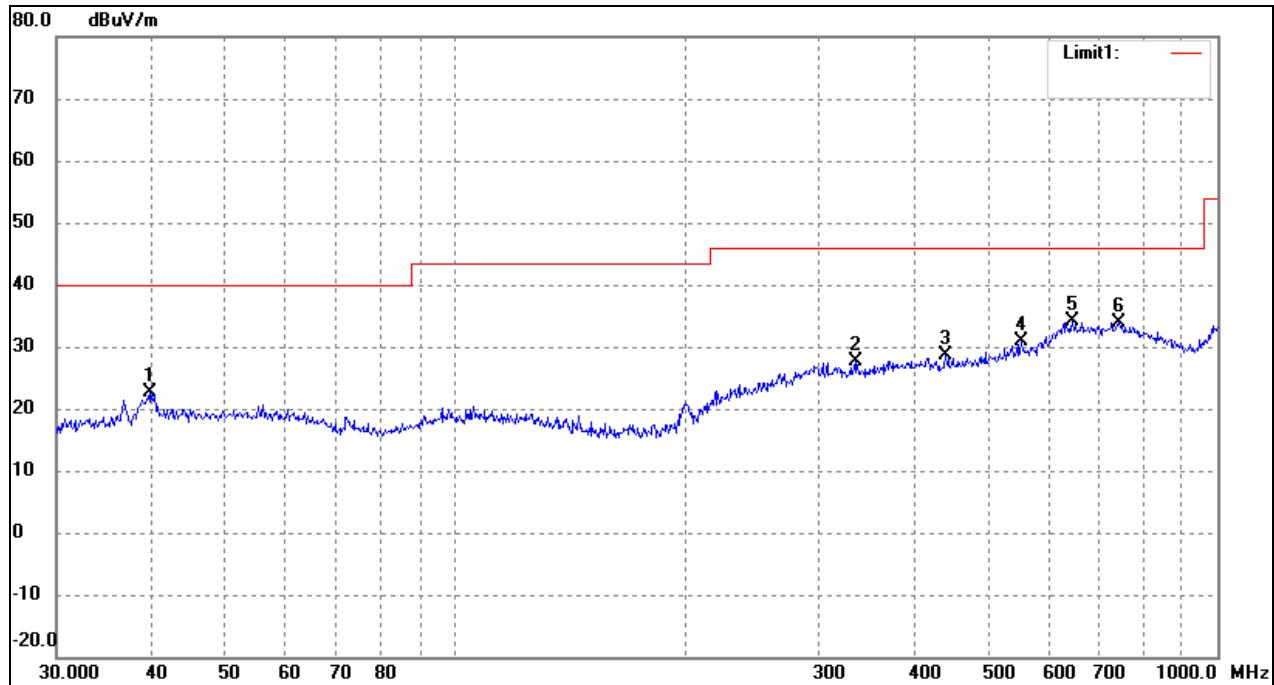
Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Plot of Radiation Emissions Test*Radiated Disturbance**Product Description: 2.4 GHz Wireless RC Boat - TX Portion**Model Number(s)/Item Number(s): B1727, B1728, B1729, B1730, B1731, B1732, B1733, B1734, B1742, B1743, B1744, B1745, B1746, B1747, B1086, B1087, B1735, B1186, B1634, B1458, B1635, B1161, B1162, B1367, B1158, B1187, B1560, B1348, 01470, 01473, 01474, 01475, 01476, 01471, 01472**Operating Condition: Transmitting below 1 GHz (Highest Channel: 2470 MHz)**Test Specification: Horizontal & Vertical**Power Source: 6 units of DC 1.5V AA-Size Battery**Horizontal:*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	56.0007	16.17	5.01	21.18	40.00	-18.82	64	100	Peak
2	322.1886	16.07	11.88	27.95	46.00	-18.05	93	100	Peak
3	383.9318	17.42	11.97	29.39	46.00	-16.61	157	100	Peak
4	443.2943	16.56	12.59	29.15	46.00	-16.85	182	100	Peak
5	636.1340	15.90	17.93	33.83	46.00	-12.17	239	100	Peak
6	701.7609	17.17	17.24	34.41	46.00	-11.59	277	100	Peak

Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Vertical:



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	39.8542	17.82	4.91	22.73	40.00	-17.27	43	100	Peak
2	334.8589	16.23	11.51	27.74	46.00	-18.26	96	100	Peak
3	440.1963	16.00	12.51	28.51	46.00	-17.49	167	100	Peak
4	552.8833	16.94	13.95	30.89	46.00	-15.11	182	100	Peak
5	645.1195	16.23	17.94	34.17	46.00	-11.83	243	100	Peak
6	742.2587	15.05	18.93	33.98	46.00	-12.02	286	100	Peak

Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Spurious Emission above 1 GHz

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Lowest Channel: 2420 MHz							
2420	92.97	-5.46	87.51	114	-26.49	H	Peak
2420	77.17	-5.46	71.71	94	-22.29	H	Average
4840	53.42	0.58	54.00	74	-20.00	H	Peak
4840	34.83	0.58	35.41	54	-18.59	H	Average
7260	47.88	3.71	51.59	74	-22.41	H	Peak
7260	32.25	3.71	35.96	54	-18.04	H	Average
2420	89.87	-5.46	84.41	114	-29.59	V	Peak
2420	76.12	-5.46	70.66	94	-23.34	V	Average
4840	53.25	0.58	53.83	74	-20.17	V	Peak
4840	33.81	0.58	34.39	54	-19.61	V	Average
7260	47.22	3.71	50.93	74	-23.07	V	Peak
7260	31.76	3.71	35.47	54	-18.53	V	Average
Near Middle Channel: 2445 MHz							
2445	89.79	-4.95	84.84	114	-29.16	H	Peak
2445	76.43	-4.95	71.48	94	-22.52	H	Average
4890	54.23	0.63	54.86	74	-19.14	H	Peak
4890	33.02	0.63	33.65	54	-20.35	H	Average
7335	46.86	3.74	50.60	74	-23.4	H	Peak
7335	31.74	3.74	35.48	54	-18.52	H	Average
2445	82.69	-4.95	77.74	114	-36.26	V	Peak
2445	74.56	-4.95	69.61	94	-24.39	V	Average
4890	53.26	0.63	53.89	74	-20.11	V	Peak
4890	32.57	0.63	33.20	54	-20.8	V	Average
7335	45.96	3.74	49.70	74	-24.3	V	Peak
7335	31.24	3.74	34.98	54	-19.02	V	Average

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Highest Channel: 2470 MHz							
2470	88.20	-4.63	83.57	114	-30.43	H	Peak
2470	73.00	-4.63	68.37	94	-25.63	H	Average
4940	54.05	0.68	54.73	74	-19.27	H	Peak
4940	30.45	0.68	31.13	54	-22.87	H	Average
7410	46.27	3.79	50.06	74	-23.94	H	Peak
7410	32.55	3.79	36.34	54	-17.66	H	Average
2470	84.26	-4.63	79.63	114	-34.37	V	Peak
2470	69.89	-4.63	65.26	94	-28.74	V	Average
4940	53.26	0.68	53.94	74	-20.06	V	Peak
4940	32.57	0.68	33.25	54	-20.75	V	Average
7410	48.59	3.79	52.38	74	-21.62	V	Peak
7410	32.76	3.79	36.55	54	-17.45	V	Average

Note: Testing is carried out with frequency range 9 kHz to the tenth harmonics, which above 5th Harmonics are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20 dB below the limit from 9 kHz to 30 MHz.

5. Part 15.249(b) - OUT OF BAND EMISSIONS

5.1 Standard Applicable

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits under Part 15.209 of the FCC Rules, whichever is the lesser attenuation.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2015-06-17	2016-06-16
EMI Test Receiver	R&S	ESVB	825471/005	2015-06-17	2016-06-16
Pre-amplifier	Agilent	8447F	3113A06717	2015-06-17	2016-06-16
Pre-amplifier	Compliance Direction	PAP-0118	24002	2015-06-17	2016-06-16
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2015-06-17	2016-06-16
Horn Antenna	ETS	3117	00086197	2015-06-17	2016-06-16
Spectrum Analyzer	Agilent	E4402B	US41192821	2015-06-17	2016-06-16
Attenuator	ATTEN	ATS100-4-20	/	2015-06-17	2016-06-16

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

5.3 Test Procedure

As the radiation test, set the Lowest and Highest Transmitting Channel, observed the outside band of 2400MHz to 2438.5MHz, than mark the higher-level emission for comparing with the FCC Rules.

5.4 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	54%
ATM Pressure:	1012 mbar

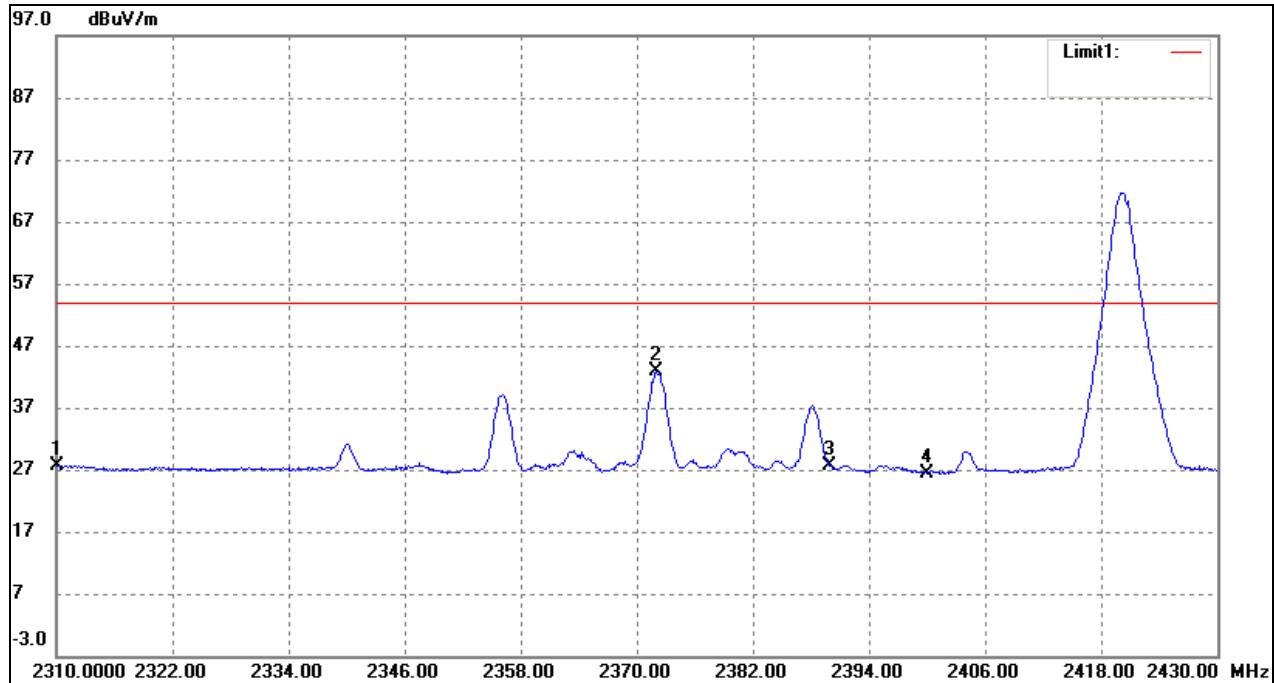
5.5 Summary of Test Results/Plots

Frequency (MHz)	Emission (dB μ V/m)	Limit (dB μ V/m)
2390.0	31.30	54
2400.0	44.62	54
2483.5	32.05	54

Test Result Pass

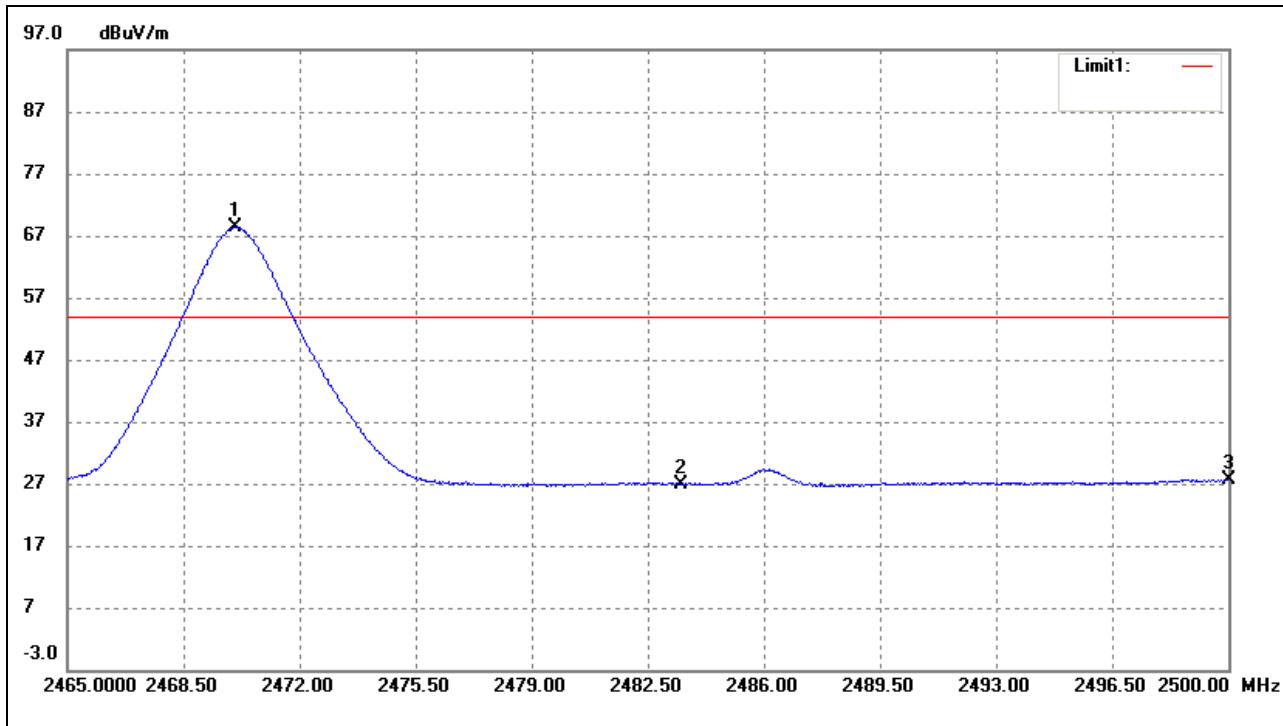
Refer to the attached plots.

Lower Bandedge



No.	Frequency (MHz)	Reading (dB μ V)	Correct (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector
1	2310.000	31.79	-4.19	27.60	54.00	-26.40	Average
	2310.000	44.17	-4.19	39.98	74.00	-34.02	Peak
2	2371.920	48.05	-5.25	42.80	54.00	-11.20	Average
	2372.160	56.00	-5.26	50.74	74.00	-23.26	Peak
3	2390.000	33.25	-5.57	27.68	54.00	-26.32	Average
	2390.000	51.59	-5.57	46.02	74.00	-27.98	Peak
4	2400.000	32.24	-5.74	26.50	54.00	-27.50	Average
	2400.000	54.34	-5.74	48.60	74.00	-25.40	Peak

Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

Upper Bandedge

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	2470.075	73.00	-4.63	68.37	/	/	Average
2	2483.500	31.37	-4.41	26.96	54.00	-27.04	Average
	2483.500	54.47	-4.41	50.06	74.00	-23.94	Peak
4	2500.000	31.78	-4.14	27.64	54.00	-26.36	Average
	2500.000	48.04	-4.14	43.90	74.00	-30.10	Peak

Note: Emissions attenuated more than 20 dB below the permissible value are not reported.

6. Emission Bandwidth

6.1 Standard Applicable

According to Part 15.215 (c) of the FCC Rules, intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2015-06-17	2016-06-16
Attenuator	ATTEN	ATS100-4-20	/	2015-06-17	2016-06-16

6.3 Test Procedure

According to the ANSI Standards C63.4-2009, the emission bandwidth test method as follows:

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

Set span = 1 MHz, centered on a transmitting channel

RBW \geq 1% 20 dB Bandwidth, VBW \geq RBW

Sweep = auto

Detector function = Peak

Trace = max hold

All the trace to stabilize, use the marker-to-peak function to set the marker to the peak of the emission, use the marker-delta function to measure and record the 20dB down and 99% bandwidth of the emission.

6.4 Environmental Conditions

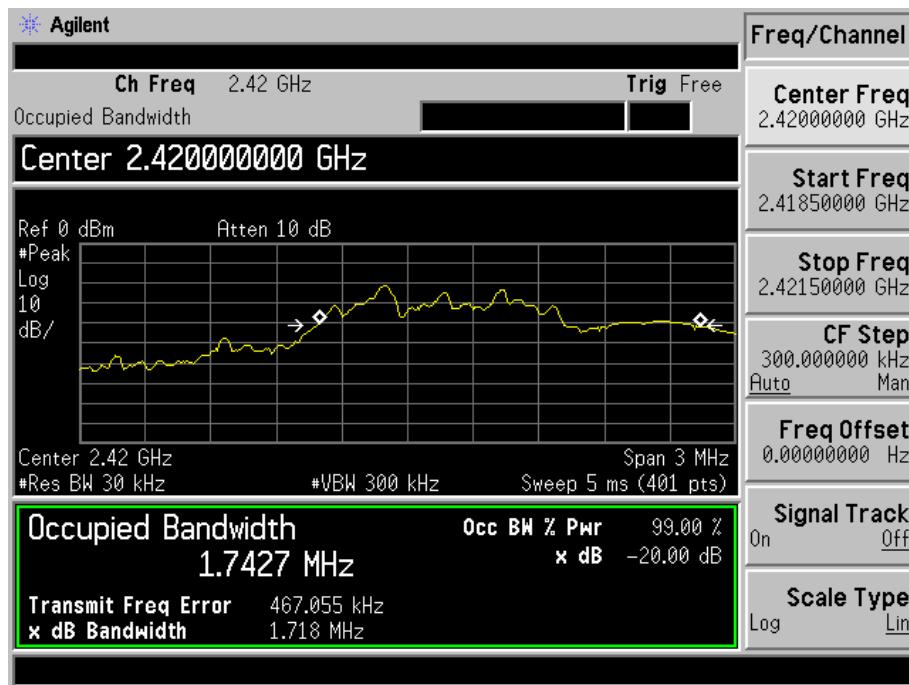
Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.5 Summary of Test Results/Plots

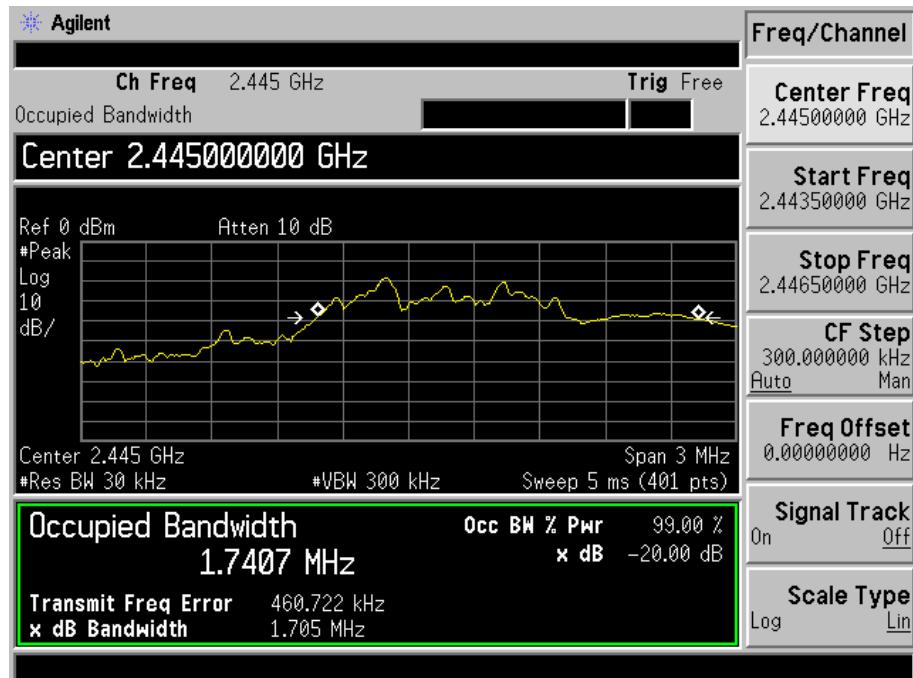
Channel	Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Lowest Channel	2420	1.718	1.7427
Near Middle Channel	2445	1.705	1.7407
Highest Channel	2470	1.667	1.7075

Please refer to the following test plots

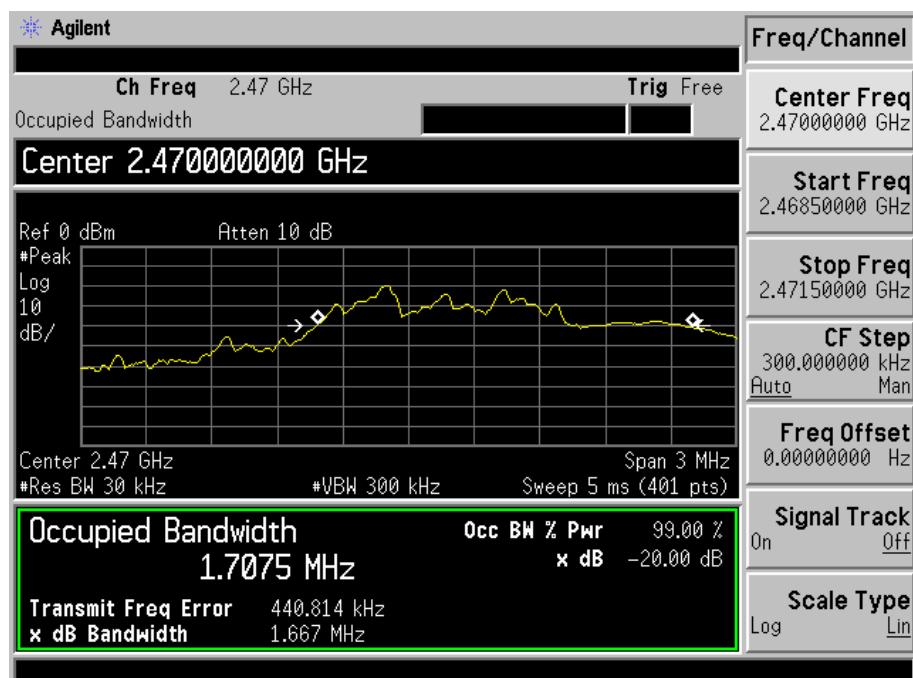
Lowest Channel:



Near Middle Channel:



Highest Channel:



***** END OF REPORT *****