

FCC Test Report

Product Name	Wi-Fi Chime
Model No	C-1030 / GC-DBC-C2 / LA227WH / CDBCH01
FCC ID.	D6XC1030

Applicant	Tecom Co.,Ltd.
Address	No.23 R&D Road 2, Science-Based Industrial Park, Hsin-Chu Taiwan

Date of Receipt	Mar. 09, 2017
Issue Date	Mar. 22, 2017
Report No.	1730149R-RFUSP26V00
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Test Report

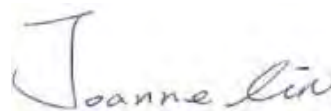
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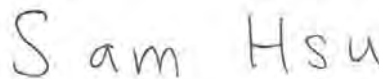
Product Name	Wi-Fi Chime
Applicant	Tecom Co.,Ltd.
Address	No.23 R&D Road 2, Science-Based Industrial Park, Hsin-Chu Taiwan
Manufacturer	1. Global Brands Manufacture (DongGuan) Ltd. 2. Smarthome Products (Shenzhen) Co.,Ltd.
Model No.	C-1030 / GC-DBC-C2 / LA227WH / CDBCH01
FCC ID.	D6XC1030
EUT Rated Voltage	AC 120V/60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	TECOM / Nortek / NuTone / Xblue
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2015 ANSI C63.4: 2014, ANSI C63.10: 2013 KDB 558074 D01 DTS Meas Guidance v03r05
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Joanne Lin)

Tested By :



(Engineer / Sam Hsu)

Approved By :



(Director / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Wi-Fi Chime
Trade Name	TECOM / Nortek / NuTone / Xblue
Model No.	C-1030 / GC-DBC-C2 / LA227WH / CDBCH01
FCC ID.	D6XC1030
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	PIFA Antenna
Antenna Gain	Refer to the table "Antenna List"
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Invax	IVX0014-HL80AF	PIFA Antenna	4.17dBi for 2.4 GHz

Note: The antenna of EUT conforms to FCC 15.203.

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

802.11n-40MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 03:	2422 MHz	Channel 04:	2427 MHz	Channel 05:	2432 MHz	Channel 06:	2437 MHz
Channel 07:	2442 MHz	Channel 08:	2447 MHz	Channel 09:	2452 MHz		

Note:

- The EUT is a Wi-Fi Chime with a built-in WLAN, this report for WLAN.
- The different of each model is shown as below:

Model Number	Trade Name
C-1030	TECOM
LA227WH	NuTone
GC-DBC-C2	Nortek
CDBCH01	Xblue
- Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps 、802.11g is 6Mbps 、802.11n(20M-BW) is 7.2Mbps and 802.11n(40M-BW) is 15Mbps)
- These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
- The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
	Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

1.2. Operational Description

The EUT is a Wi-Fi Chime, This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps and the device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b). The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11g).

The device provided of eight kinds of transmitting speed 7.2,14.4,21.7,28.9,43.3,57.8,65 and 72.2Mbps in 802.11n(20M-BW) mode and 15,30,45,60,90,120,135 and 150 Mbps (40M-BW) the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11n), The IEEE 802.11n is Single In, Single Out” (SISO) technology and one antennas to support 1(Transmit) * 1(Receive) SISO technology.

This Wi-Fi Chime, compliant with IEEE 802.11b/g/n, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operation in 2.4GHz Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM) radio transmission, the Wi-Fi Chime Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b/g/n network.

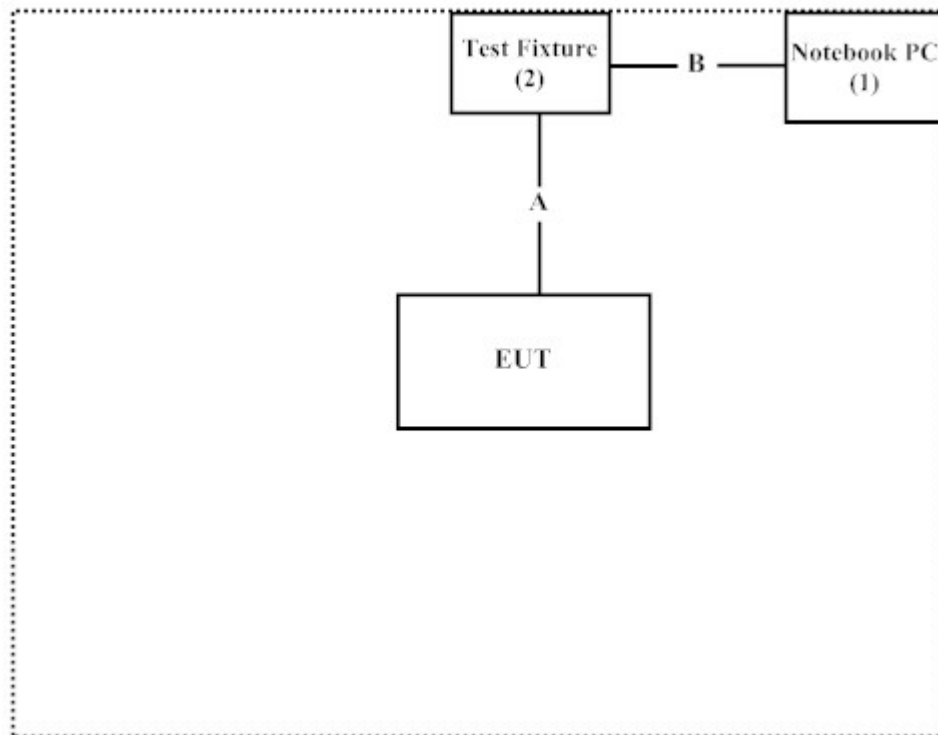
1.3. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook PC	DELL	Latitude E5440	B6TYTZ1	Non-Shielded, 0.8m
2	Test Fixture	N/A	N/A	N/A	N/A

	Signal Cable Type	Signal cable Description
A	Fixture Cable	Non-Shielded, 0.4m
B	Fixture Cable	Non-Shielded, 0.3m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “UI_mptool (1v11)” on the EUT.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

<http://www.dekra.com.tw/english/about/certificates.aspx?bval=5>

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E-Mail : info.tw@dekra.com

FCC Accreditation Number: TW1014

1.7. List of Test Equipment

For Conducted measurements / CB3 / SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2016/11/28	2017/11/27
X	Spectrum Analyzer	Agilent	N9010A	MY48030495	2016/7/22	2017/7/21
X	Power Meter	Anritsu	ML2495A	6K00003357	2016/6/23	2017/6/22
X	Pulse power sensor	Anritsu	MA2411B	0846193	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	100369	2016/10/13	2017/10/12
X	LISN	R&S	ESH3-Z5	836679/017	2017/1/7	2018/1/6
X	LISN	R&S	ENV216	100097	2017/1/7	2018/1/6
X	Coaxial Cable	QTK(Arnist)	RG 400	LC018-RG	2016/6/25	2017/6/24

For Radiated measurements / Site3 / CB8

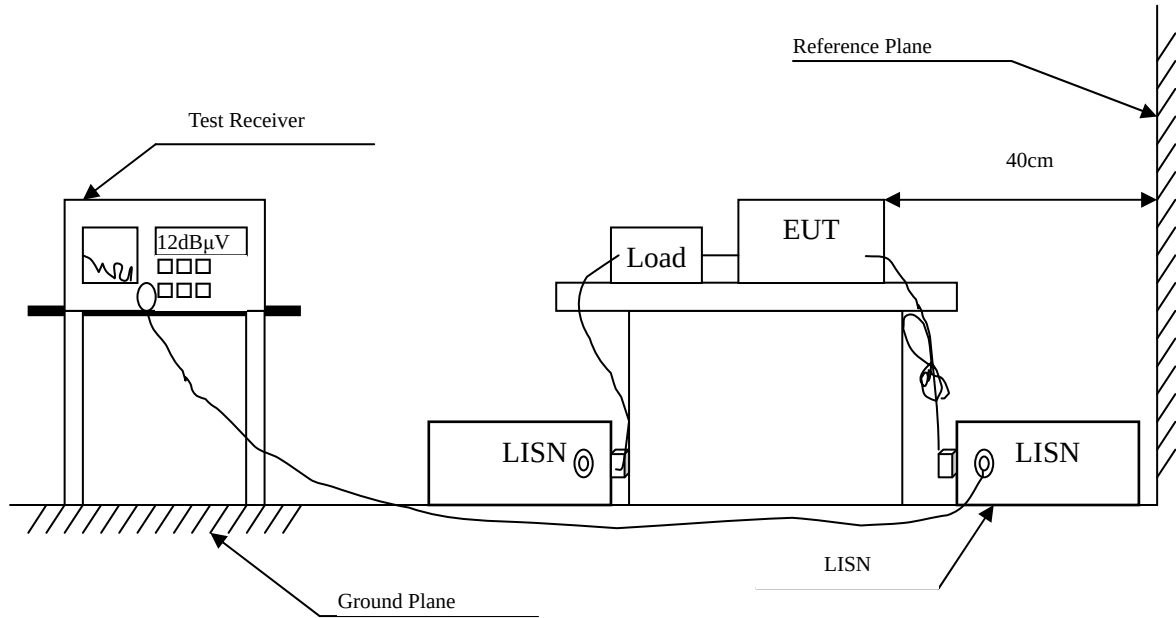
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSP40	100170	2017/1/5	2018/1/4
	Loop Antenna	Teseq	HLA6121	37133	2017/3/18	2018/3/17
X	Bi-Log Antenna	Schaffner Chase	CBL6112B	2707	2016/6/11	2017/6/10
X	Horn Antenna	ETS-Lindgren	3117	00135205	2016/4/6	2017/4/5
	Horn Antenna	Schwarzbeck	BBHA9170	9170430	2017/1/11	2018/1/10
X	Pre-Amplifier	QTK	AP/0100A	CHM/0901069	2016/6/23	2017/6/22
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2017/1/26	2018/1/24
	Pre-Amplifier	NARDA WE	DBL-1840N506	013	2016/9/30	2017/9/29
X	Filter	MicroTRON	BRM50701	019	2016/11/2	2017/11/1
	Filter	Microwave Circuits	N0257881	36681	2016/12/7	2017/12/6
X	EMI Test Receiver	R&S	ESR26	101385	2016/9/29	2017/9/28
X	Coaxial Cable	QTK(Arnist)	SUCOFLEX 106	L1606-015C	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	838251/001	2016/7/21	2017/7/20
X	Coaxial Cable	QTK(Arnist)	RG 214	LC003-RG	2016/6/16	2017/6/15
X	Coaxial signal switch	Anritsu	MP59B	6201415889	2016/6/16	2017/6/15

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version :Quietek EMI 2.0 V2.1.113.

2. Conducted Emission

2.1. Test Setup



2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dB μ V) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.4. Uncertainty

± 2.26 dB

2.5. Test Result of Conducted Emission

Product : Wi-Fi Chime
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V	Margin dB	Limit dB μ V
Line 1					
Quasi-Peak					
0.502	9.726	39.210	48.936	-7.064	56.000
0.732	9.733	29.630	39.363	-16.637	56.000
1.380	9.704	20.510	30.214	-25.786	56.000
3.412	9.766	18.840	28.606	-27.394	56.000
19.711	10.028	36.640	46.668	-13.332	60.000
28.233	10.324	28.740	39.064	-20.936	60.000
Average					
0.502	9.726	34.260	43.986	-2.014	46.000
0.732	9.733	23.410	33.143	-12.857	46.000
1.380	9.704	12.600	22.304	-23.696	46.000
3.412	9.766	11.000	20.766	-25.234	46.000
19.711	10.028	27.700	37.728	-12.272	50.000
28.233	10.324	21.930	32.254	-17.746	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Product : Wi-Fi Chime
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

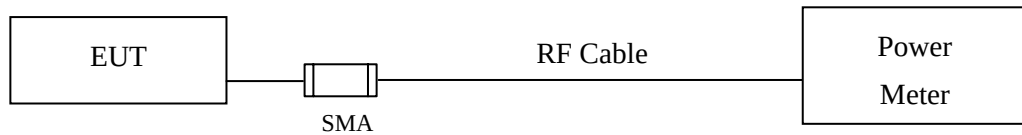
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dB μ V	dB μ V	dB	dB μ V
Line 2					
Quasi-Peak					
0.501	9.770	28.870	38.640	-17.360	56.000
0.755	9.814	16.900	26.714	-29.286	56.000
1.392	9.813	14.440	24.253	-31.747	56.000
2.587	9.783	8.330	18.113	-37.887	56.000
19.281	10.180	24.310	34.490	-25.510	60.000
28.248	10.506	28.550	39.056	-20.944	60.000
Average					
0.501	9.770	24.890	34.660	-11.340	46.000
0.755	9.814	11.360	21.174	-24.826	46.000
1.392	9.813	7.170	16.983	-29.017	46.000
2.587	9.783	1.960	11.743	-34.257	46.000
19.281	10.180	17.580	27.760	-22.240	50.000
28.248	10.506	22.120	32.626	-17.374	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. “ ” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Setup



3.2. Limits

The maximum peak power shall be less 1 Watt.

3.3. Test Procedure

Tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.2 PKPM1 Peak power meter method.

3.4. Uncertainty

± 1.19 dB

3.5. Test Result of Peak Power Output

Product : Wi-Fi Chime
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/03/22
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	15.98	--	--	--	18.67	<30dBm	Pass
06	2437	15.96	15.83	15.71	15.59	18.58	<30dBm	Pass
11	2462	15.95	--	--	--	18.59	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Wi-Fi Chime
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/03/22
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54			
		Measurement Level (dBm)										
01	2412	14.96	--	--	--	--	--	--	--	24.51	<30dBm	Pass
06	2437	14.98	14.83	14.71	14.68	14.52	14.39	14.25	14.11	24.54	<30dBm	Pass
11	2462	14.99	--	--	--	--	--	--	--	24.53	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Wi-Fi Chime
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/03/22
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2			
		Measurement Level (dBm)										
01	2412	12.95	--	--	--	--	--	--	--	21.98	<30dBm	Pass
06	2437	12.93	12.81	12.65	12.49	12.35	12.24	12.09	11.93	22.2	<30dBm	Pass
11	2462	12.98	--	--	--	--	--	--	--	22.23	<30dBm	Pass

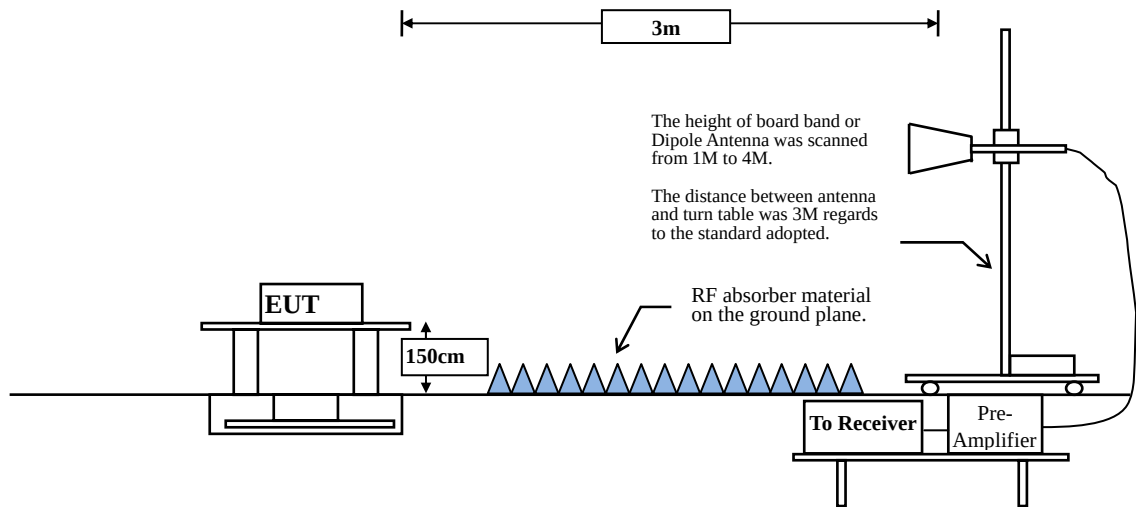
Note: Peak Power Output Value = Reading value on power meter + cable loss

Product : Wi-Fi Chime
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Date : 2017/03/22
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		15	30	45	60	90	120	135	150			
		Measurement Level (dBm)										
03	2422	12.95	--	--	--	--	--	--	--	22.09	<30dBm	Pass
06	2437	12.96	12.81	12.64	12.47	12.31	12.16	12.02	11.94	22.21	<30dBm	Pass
09	2452	12.97	--	--	--	--	--	--	--	22.36	<30dBm	Pass

Note: Peak Power Output Value = Reading value on power meter + cable loss

Radiated Emission Above 1GHz



4.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

The measurement frequency range from 9kHz - 10th Harmonic of fundamental was investigated.

4.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

4.5. Test Result of Radiated Emission

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m

Horizontal

Peak Detector:

4824.000	-9.979	52.330	42.351	-31.649	74.000
7236.000	-4.641	51.800	47.160	-26.840	74.000
9648.000	-1.835	46.750	44.914	-29.086	74.000

Average Detector:

--

Vertical

Peak Detector:

4824.000	-6.819	51.230	44.412	-29.588	74.000
7236.000	-3.796	52.350	48.554	-25.446	74.000
9648.000	-1.365	47.060	45.695	-28.305	74.000

Average Detector:

--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	-10.271	54.270	43.998	-30.002	74.000
7311.000	-3.853	50.950	47.096	-26.904	74.000
9748.000	-2.526	45.660	43.134	-30.866	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	52.400	44.902	-29.098	74.000
7311.000	-3.018	52.300	49.281	-24.719	74.000
9748.000	-2.035	45.760	43.725	-30.275	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4924.000	-10.519	54.280	43.760	-30.240	74.000
7386.000	-3.876	51.100	47.224	-26.776	74.000
9848.000	-2.581	46.240	43.659	-30.341	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	53.180	45.323	-28.677	74.000
7386.000	-2.749	52.470	49.721	-24.279	74.000
9848.000	-2.066	47.130	45.064	-28.936	74.000

Average Detector:

--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4824.000	-9.979	51.100	41.121	-32.879	74.000
7236.000	-4.641	51.240	46.600	-27.400	74.000
9648.000	-1.835	47.130	45.294	-28.706	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-6.819	49.970	43.152	-30.848	74.000
7236.000	-3.796	52.880	49.084	-24.916	74.000
9648.000	-1.365	48.150	46.785	-27.215	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	-10.271	49.830	39.558	-34.442	74.000
7311.000	-3.853	54.590	50.736	-23.264	74.000
9748.000	-2.526	46.020	43.494	-30.506	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	49.690	42.192	-31.808	74.000
7311.000	-3.018	54.980	51.961	-22.039	74.000
9748.000	-2.035	46.180	44.145	-29.855	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4924.000	-10.519	50.900	40.380	-33.620	74.000
7386.000	-3.876	50.930	47.054	-26.946	74.000
9848.000	-2.581	46.030	43.449	-30.551	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	51.150	43.293	-30.707	74.000
7386.000	-2.749	54.120	51.371	-22.629	74.000
9848.000	-2.066	46.930	44.864	-29.136	74.000

Average Detector:

--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4824.000	33.585	52.320	42.341	-31.659	74.000
7236.000	38.903	50.480	45.840	-28.160	74.000
9648.000	-1.835	47.600	45.764	-28.236	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	-6.819	49.100	42.282	-31.718	74.000
7236.000	-3.796	51.560	47.764	-26.236	74.000
9648.000	-1.365	47.100	45.735	-28.265	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBμV	Measurement Level dBμV/m	Margin dB	Limit dBμV/m
Horizontal					
Peak Detector:					
4874.000	-10.271	49.350	39.078	-34.922	74.000
7311.000	-3.853	50.590	46.736	-27.264	74.000
9748.000	-2.526	45.600	43.074	-30.926	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	-7.497	49.120	41.622	-32.378	74.000
7311.000	-3.018	52.140	49.121	-24.879	74.000
9748.000	-2.035	46.230	44.195	-29.805	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4924.000	-10.519	48.880	38.360	-35.640	74.000
7386.000	-3.876	48.950	45.074	-28.926	74.000
9848.000	-2.581	45.930	43.349	-30.651	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	-7.856	49.320	41.463	-32.537	74.000
7386.000	-2.749	51.770	49.021	-24.979	74.000
9848.000	-2.066	46.670	44.604	-29.396	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
Peak Detector:					
4844.000	-10.096	49.460	39.364	-34.636	74.000
7266.000	-4.271	48.830	44.559	-29.441	74.000
9688.000	-2.204	45.390	43.187	-30.813	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	-7.089	48.610	41.520	-32.480	74.000
7266.000	-3.451	49.590	46.139	-27.861	74.000
9688.000	-1.661	46.480	44.820	-29.180	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m

Horizontal**Peak Detector:**

4874.000	-10.271	48.870	38.598	-35.402	74.000
7311.000	-3.853	47.620	43.766	-30.234	74.000
9748.000	-2.526	45.460	42.934	-31.066	74.000

Average Detector:

--

Vertical**Peak Detector:**

4874.000	-7.497	48.980	41.482	-32.518	74.000
7311.000	-3.018	48.790	45.771	-28.229	74.000
9748.000	-2.035	45.820	43.785	-30.215	74.000

Average Detector:

--

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
Peak Detector:					
4904.000	-10.435	48.360	37.925	-36.075	74.000
7356.000	-3.867	47.460	43.593	-30.407	74.000
9808.000	-2.726	46.000	43.274	-30.726	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	-7.819	48.700	40.881	-33.119	74.000
7356.000	-2.857	48.570	45.713	-28.287	74.000
9808.000	-2.300	46.040	43.740	-30.260	74.000
Average Detector:					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wi-Fi Chime
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
249.220	-15.402	51.644	36.242	-9.758	46.000
359.800	-11.190	45.272	34.082	-11.918	46.000
499.480	-9.683	47.268	37.585	-8.415	46.000
623.640	-7.950	40.639	32.689	-13.311	46.000
701.240	-7.342	36.209	28.867	-17.133	46.000
844.800	-4.499	37.538	33.039	-12.961	46.000
Vertical					
249.220	-17.022	43.908	26.886	-19.114	46.000
359.800	-13.320	39.619	26.299	-19.701	46.000
499.480	-10.583	43.012	32.429	-13.571	46.000
683.780	-8.023	32.718	24.695	-21.305	46.000
840.920	-7.149	40.460	33.311	-12.689	46.000
961.200	-2.720	34.477	31.757	-22.243	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wi-Fi Chime
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level		
	dB	dB μ V	dB μ V/m	dB	dB μ V/m
Horizontal					
191.020	-19.370	53.705	34.335	-9.165	43.500
249.220	-15.402	52.193	36.791	-9.209	46.000
330.700	-13.982	50.336	36.354	-9.646	46.000
499.480	-9.683	41.886	32.203	-13.797	46.000
596.480	-5.853	43.175	37.322	-8.678	46.000
833.160	-4.477	40.228	35.751	-10.249	46.000
Vertical					
220.120	-18.190	56.180	37.990	-8.010	46.000
400.540	-14.726	45.777	31.052	-14.948	46.000
509.180	-9.911	43.377	33.466	-12.534	46.000
652.740	-14.544	43.781	29.237	-16.763	46.000
788.540	-7.188	41.852	34.664	-11.336	46.000
961.200	-2.720	35.067	32.347	-21.653	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wi-Fi Chime
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
249.220	-15.402	52.368	36.966	-9.034	46.000
361.740	-11.066	45.240	34.174	-11.826	46.000
511.120	-8.261	46.233	37.972	-8.028	46.000
670.200	-7.976	43.585	35.609	-10.391	46.000
833.160	-4.477	42.400	37.923	-8.077	46.000
937.920	-3.594	35.850	32.256	-13.744	46.000
Vertical					
158.040	-15.541	50.514	34.973	-8.527	43.500
249.220	-17.022	44.607	27.585	-18.415	46.000
359.800	-13.320	40.525	27.205	-18.795	46.000
491.720	-12.558	45.271	32.713	-13.287	46.000
705.120	-9.905	35.703	25.798	-20.202	46.000
840.920	-7.149	39.230	32.081	-13.919	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wi-Fi Chime
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dB μ V	Measurement Level dB μ V/m	Margin dB	Limit dB μ V/m
Horizontal					
239.520	-16.226	54.127	37.901	-8.099	46.000
278.320	-15.115	48.801	33.686	-12.314	46.000
350.100	-11.832	50.030	38.198	-7.802	46.000
449.040	-11.889	49.409	37.520	-8.480	46.000
584.840	-6.469	38.625	32.156	-13.844	46.000
804.060	-5.133	43.200	38.067	-7.933	46.000
Vertical					
154.160	-15.561	51.133	35.572	-7.928	43.500
375.320	-11.569	40.510	28.941	-17.059	46.000
499.480	-10.583	44.719	34.136	-11.864	46.000
693.480	-7.836	35.434	27.598	-18.402	46.000
840.920	-7.149	39.106	31.957	-14.043	46.000
961.200	-2.720	36.214	33.494	-20.506	54.000

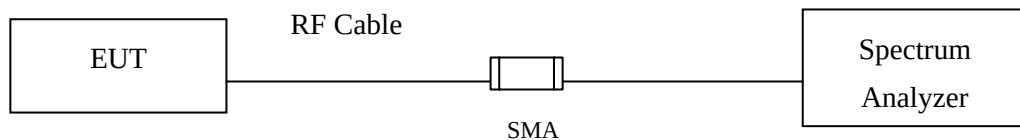
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.
8. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF antenna conducted test

5.1. Test Setup

RF antenna Conducted Measurement:



5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.3. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

5.4. Uncertainty

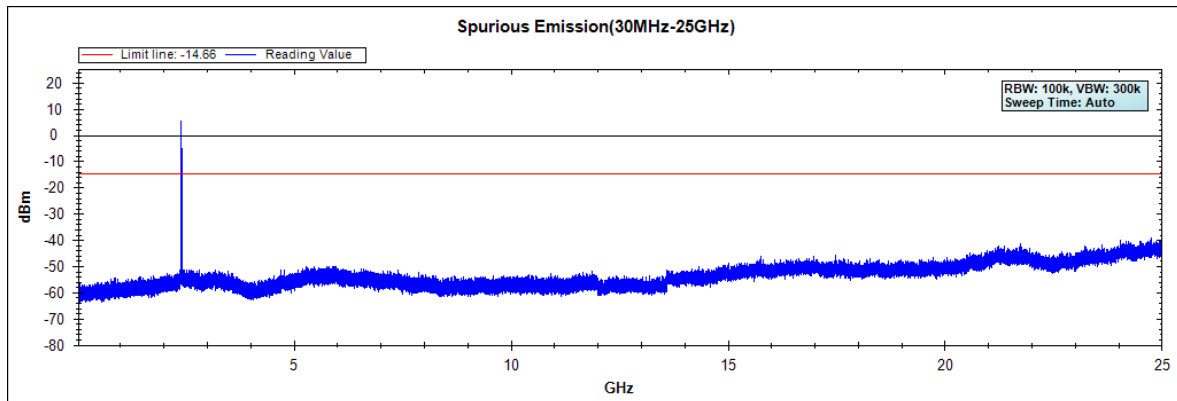
The measurement uncertainty

Conducted is defined as $\pm 1.20\text{dB}$

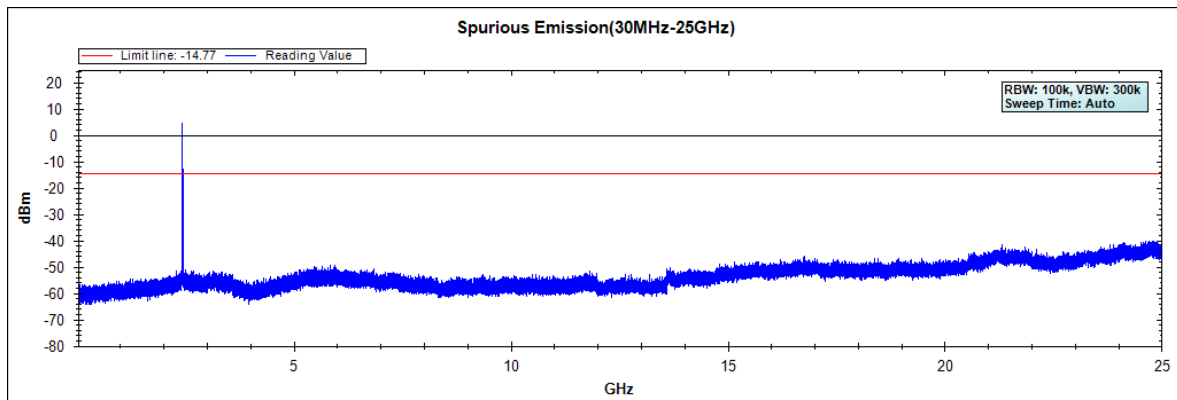
5.5. Test Result of RF antenna conducted test

Product : Wi-Fi Chime
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Date : 2017/03/21
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

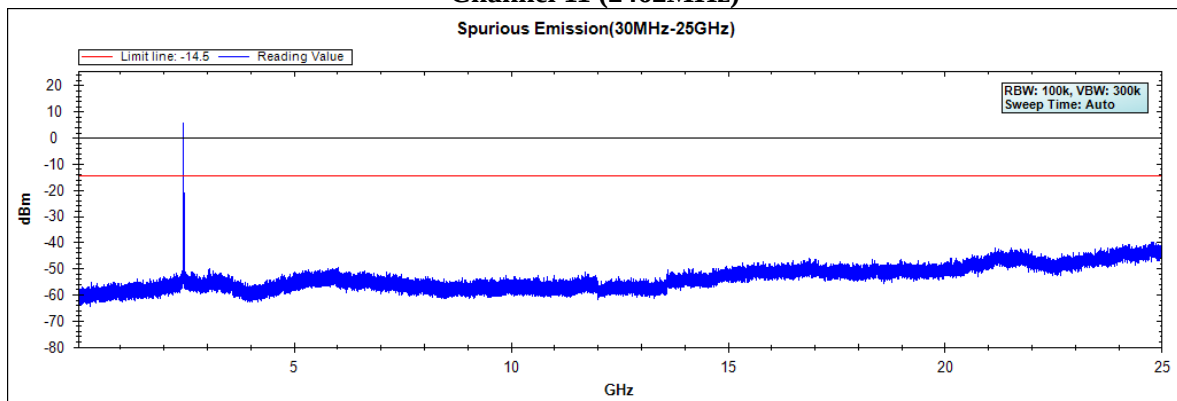
Channel 01 (2412MHz)



Channel 06 (2437MHz)



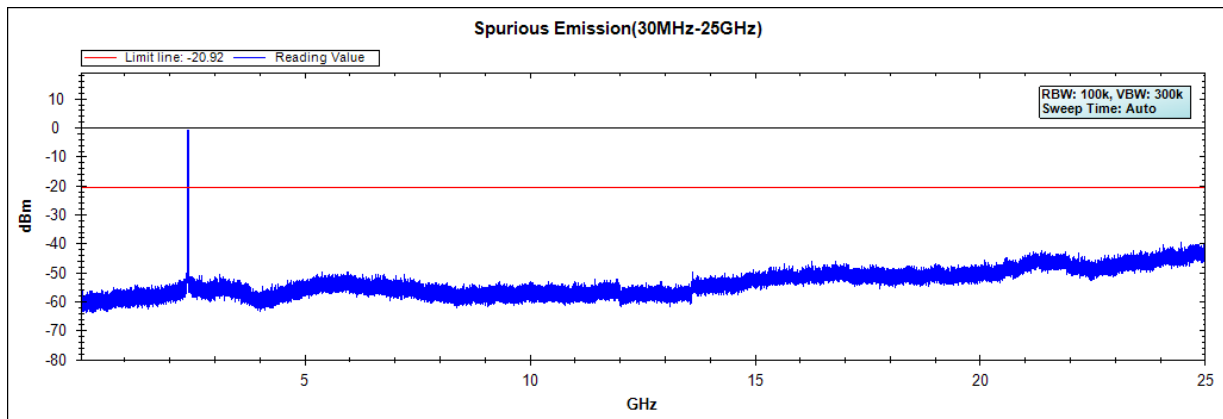
Channel 11 (2462MHz)



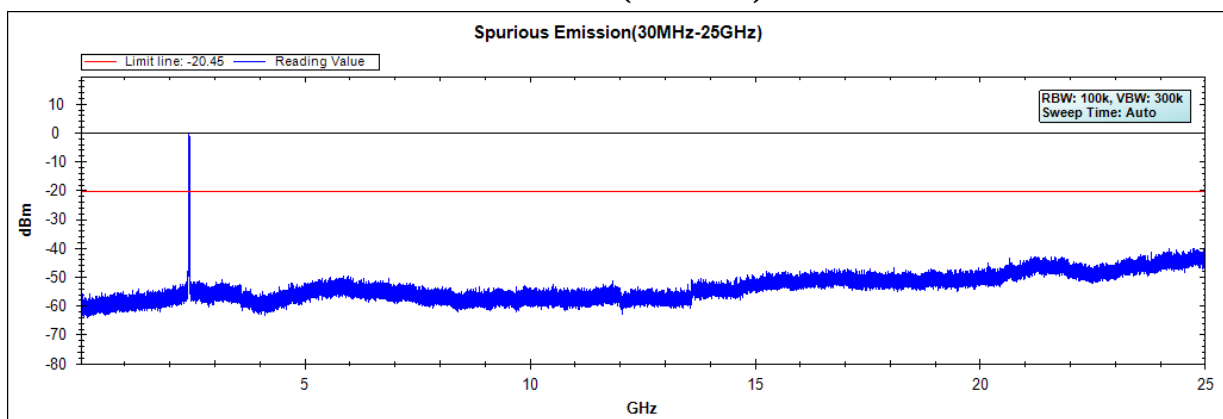
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Wi-Fi Chime
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Date : 2017/03/21
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

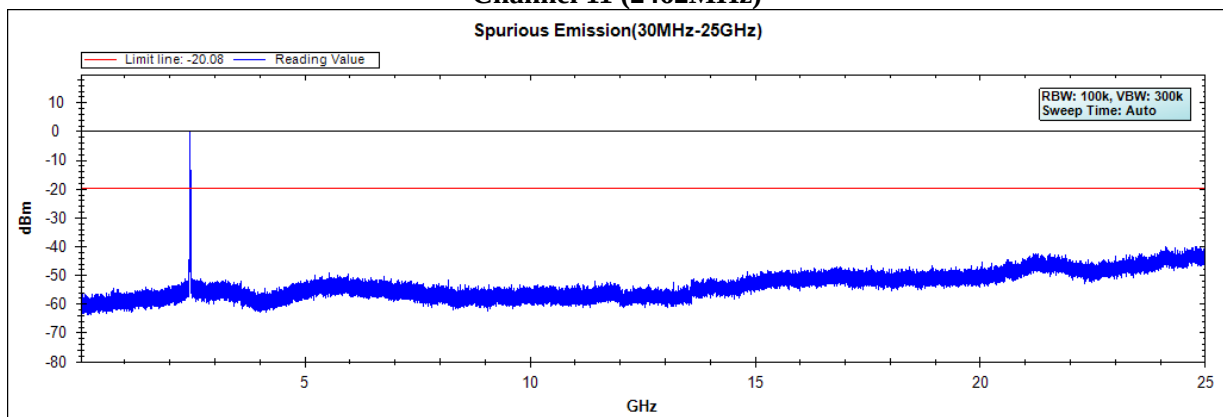
Channel 01 (2412MHz)



Channel 06 (2437MHz)



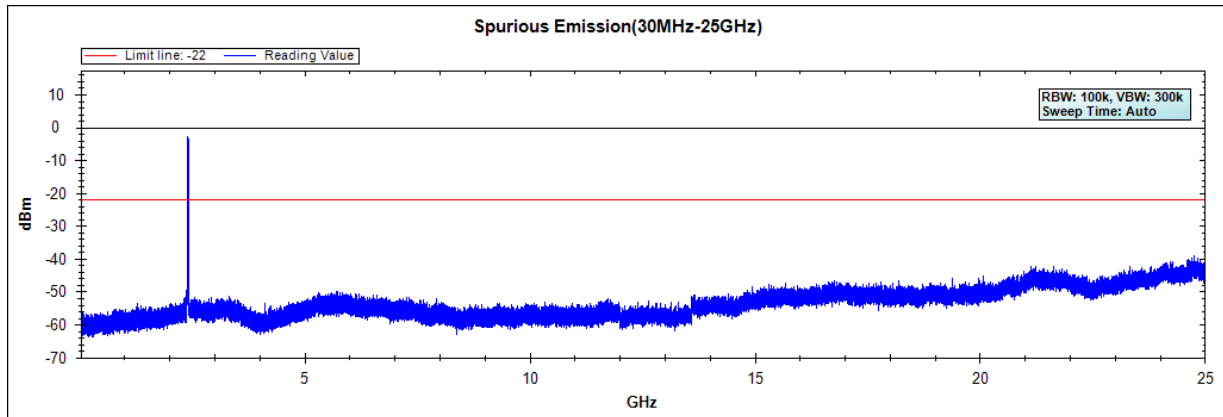
Channel 11 (2462MHz)



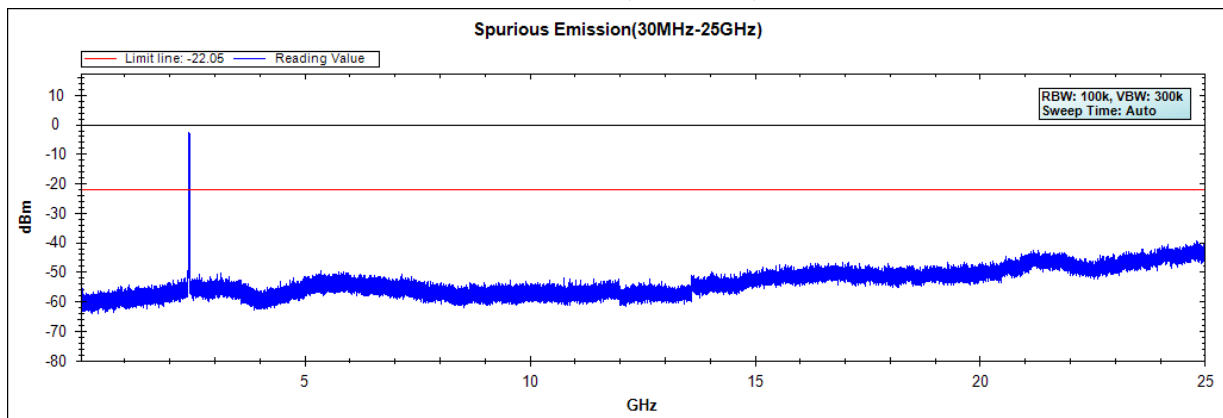
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Wi-Fi Chime
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Date : 2017/03/21
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

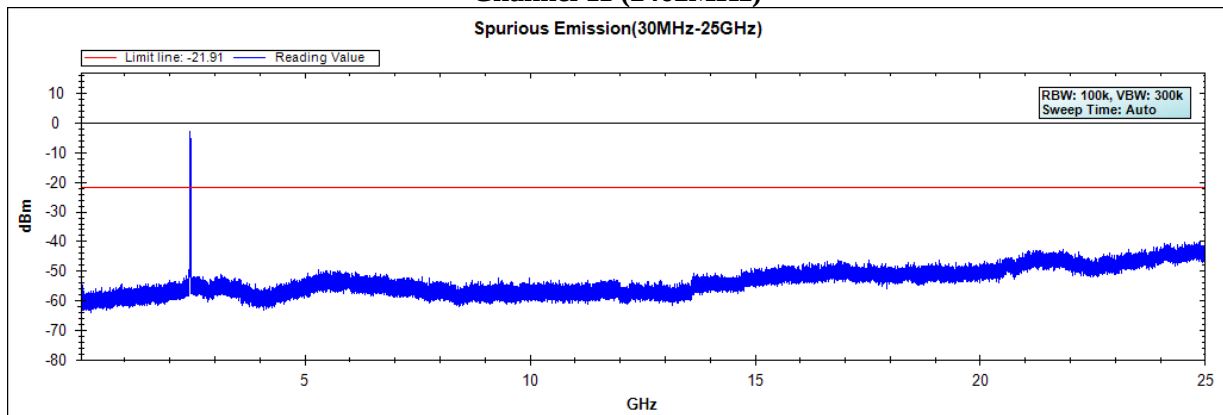
Channel 01 (2412MHz)



Channel 06 (2437MHz)



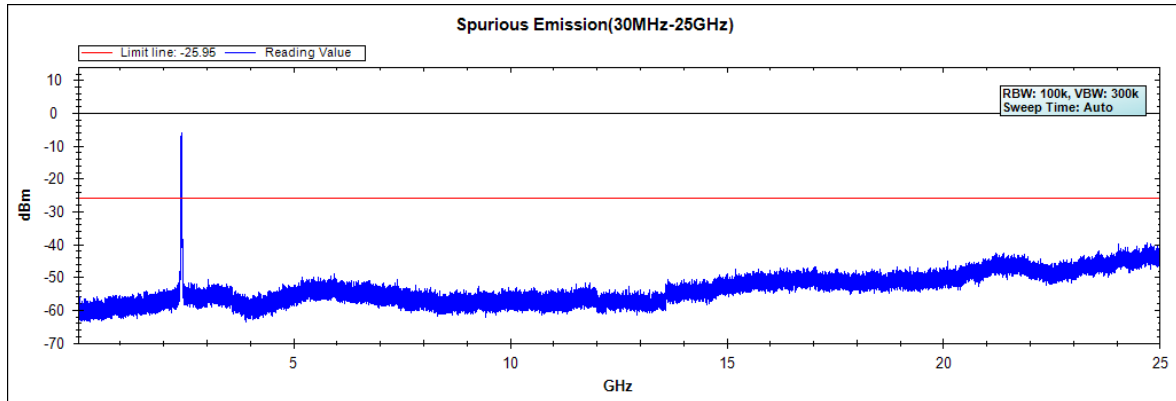
Channel 11 (2462MHz)



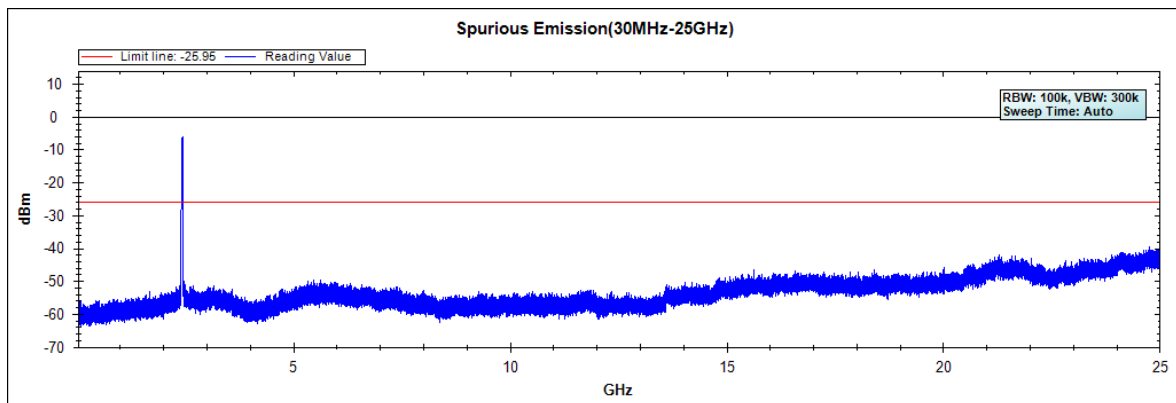
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Wi-Fi Chime
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Date : 2017/03/21
Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

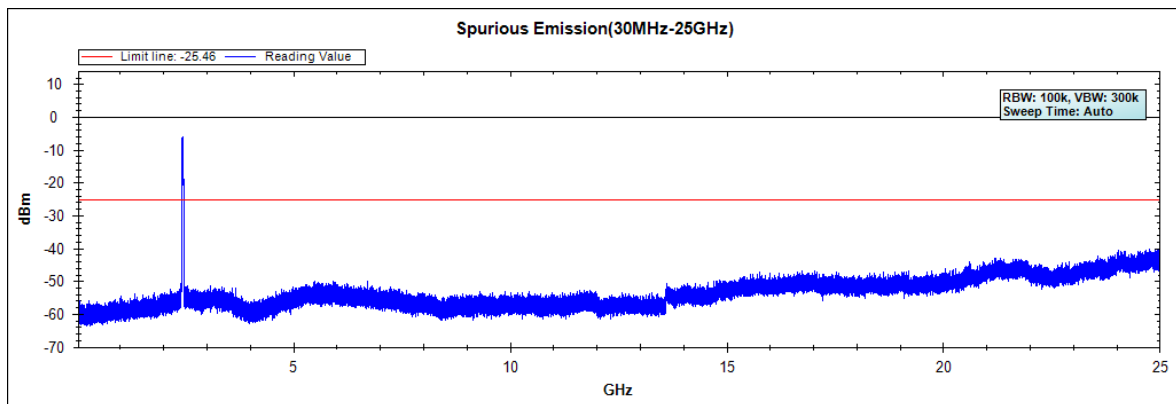
Channel 01 (2422MHz)



Channel 04 (2437MHz)



Channel 07 (2452MHz)

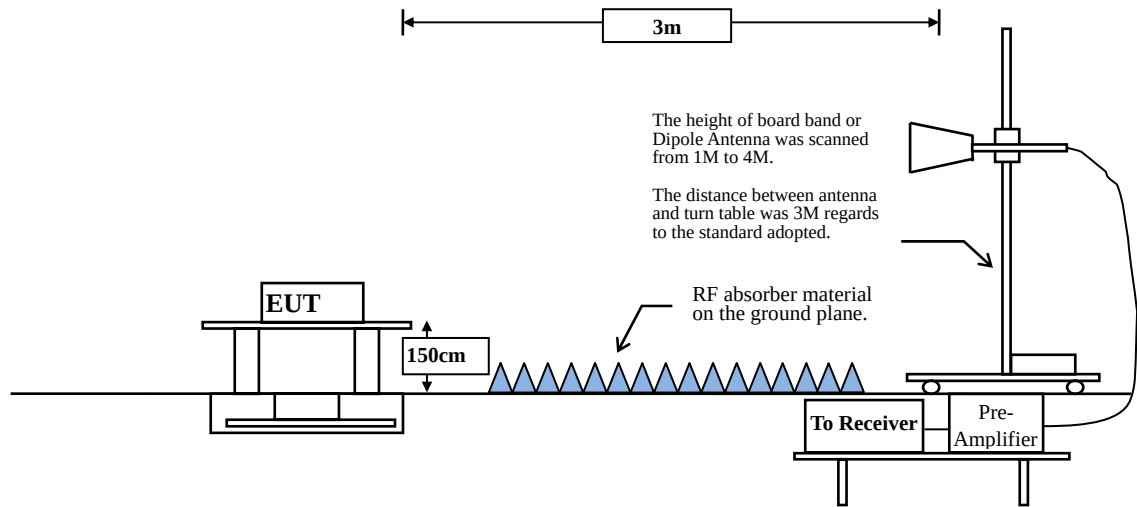


Note: The above test pattern is synthesized by multiple of the frequency range.

6. Band Edge

6.1. Test Setup

RF Radiated Measurement:



6.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.

6.4. Uncertainty

± 4.08 dB above 1GHz

± 4.22 dB below 1GHz

6.5. Test Result of Band Edge

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2387.400	6.463	41.644	48.107	74.00	54.00	Pass
01 (Peak)	2390.000	6.474	41.152	47.627	74.00	54.00	Pass
01 (Peak)	2400.000	6.528	50.118	56.646	--	--	--
01 (Peak)	2413.000	6.610	97.640	104.250	--	--	--
01 (Average)	2390.000	6.474	29.468	35.943	74.00	54.00	Pass
01 (Average)	2400.000	6.528	41.425	47.953	--	--	--
01 (Average)	2411.200	6.597	93.934	100.531	--	--	--

Figure Channel 01:

Horizontal (Peak)

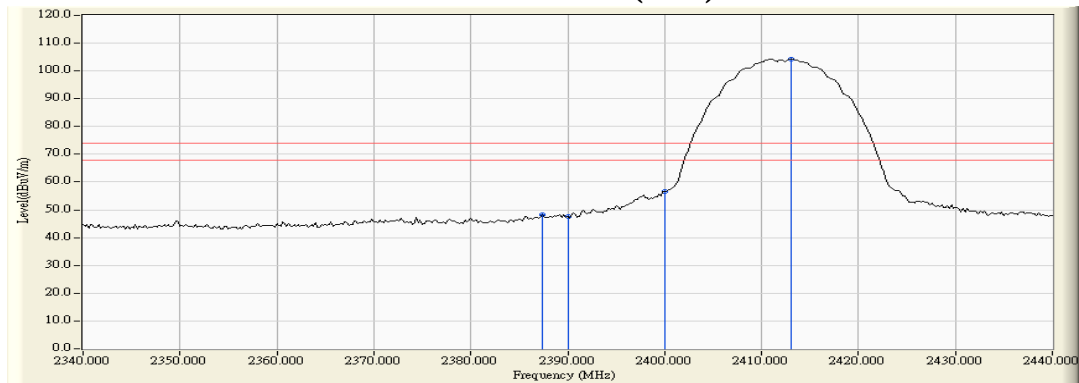
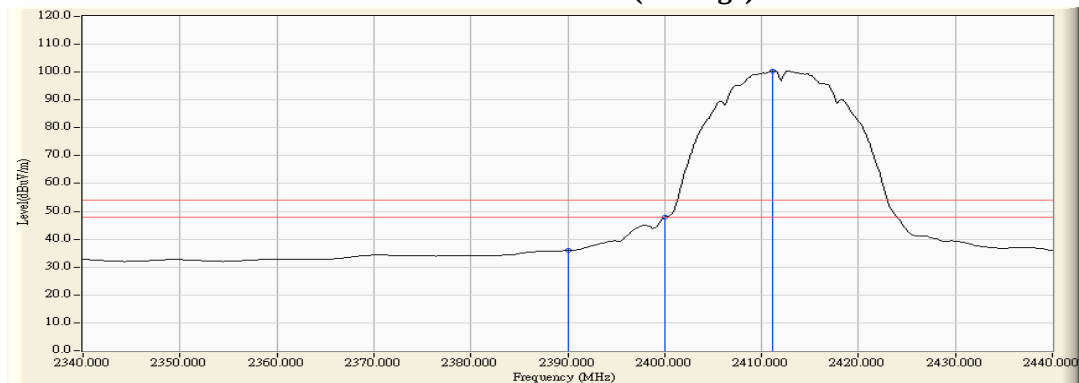


Figure Channel 01:

Horizontal (Average)

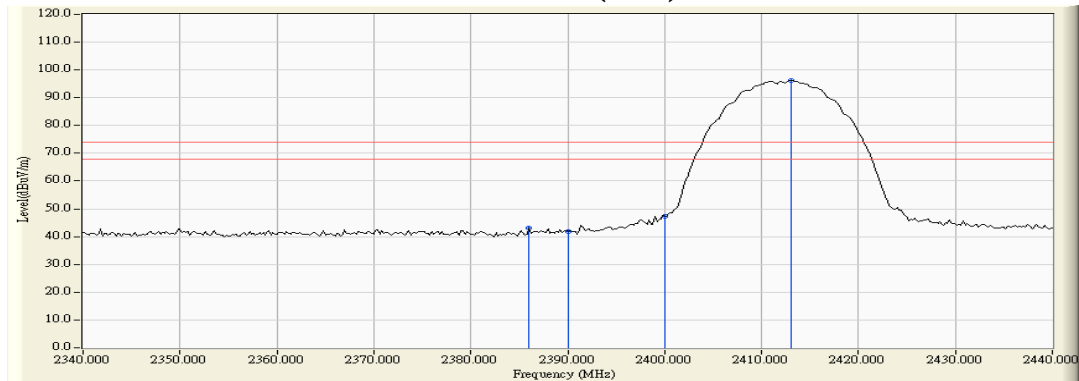
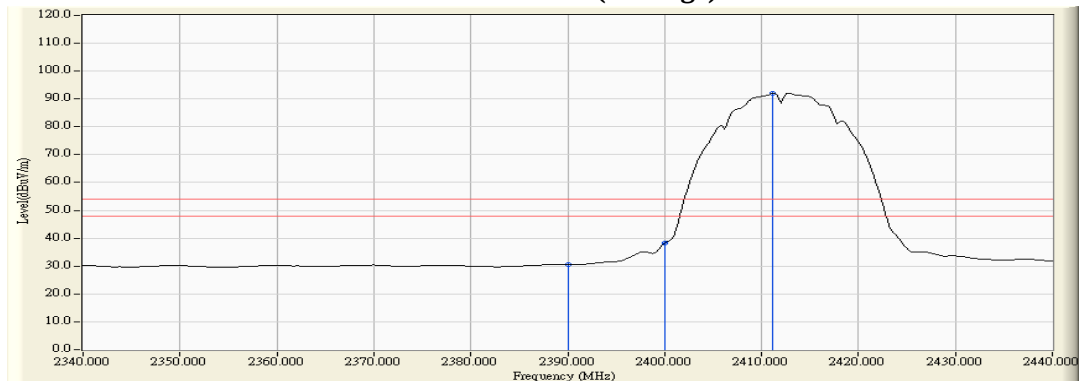


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2386.000	5.898	37.108	43.005	74.00	54.00	Pass
01 (Peak)	2390.000	5.880	35.863	41.744	74.00	54.00	Pass
01 (Peak)	2400.000	5.879	41.502	47.381	--	--	--
01 (Peak)	2413.000	5.920	90.311	96.231	--	--	--
01 (Average)	2390.000	5.880	24.759	30.640	74.00	54.00	Pass
01 (Average)	2400.000	5.879	32.419	38.298	--	--	--
01 (Average)	2411.200	5.909	86.167	92.076	--	--	--

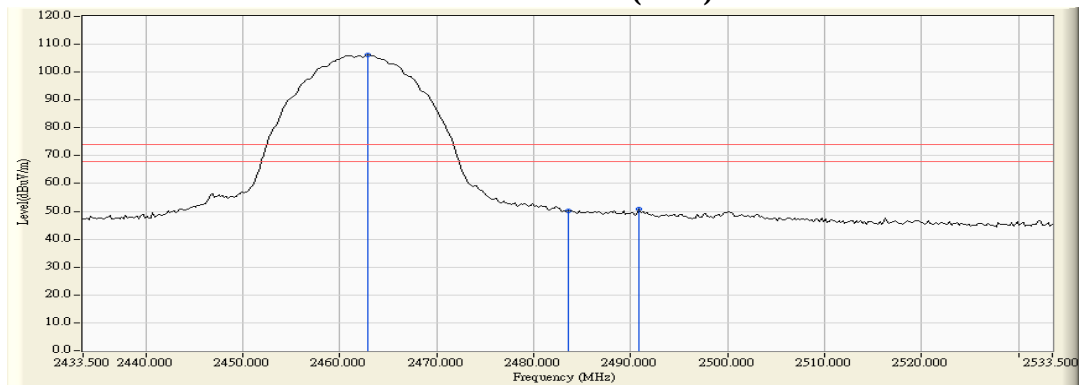
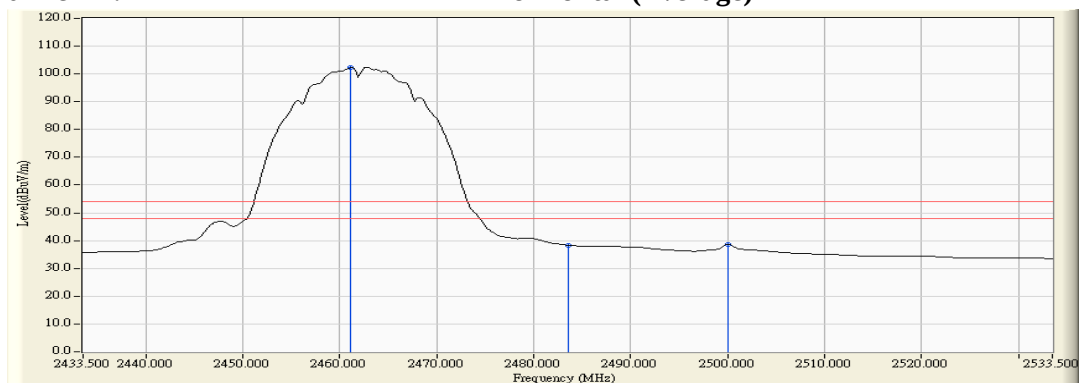
Figure Channel 01:**Vertical (Peak)****Figure Channel 01:****Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.900	6.965	99.247	106.212	--	--	--
11 (Peak)	2483.500	7.110	43.186	50.296	74.00	54.00	Pass
11 (Peak)	2490.900	7.162	43.728	50.890	74.00	54.00	Pass
11 (Average)	2461.100	6.952	95.372	102.324	--	--	--
11 (Average)	2483.500	7.110	31.258	38.368	74.00	54.00	Pass
11 (Average)	2500.100	7.189	31.437	38.626	74.00	54.00	Pass

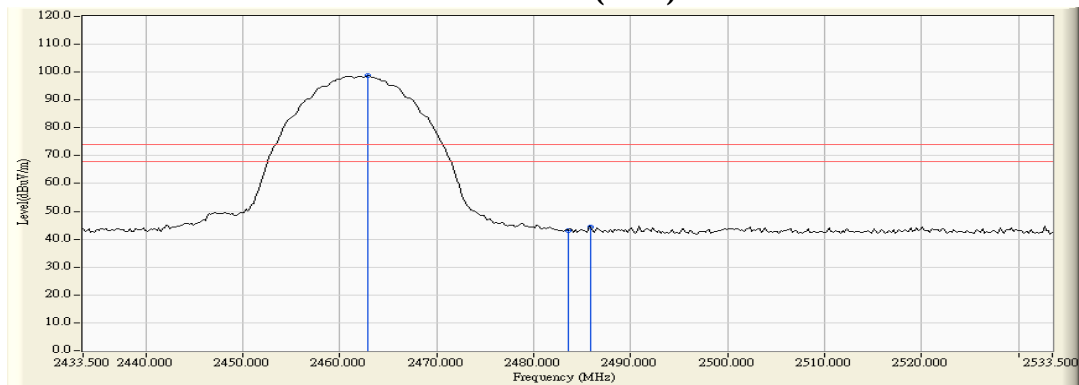
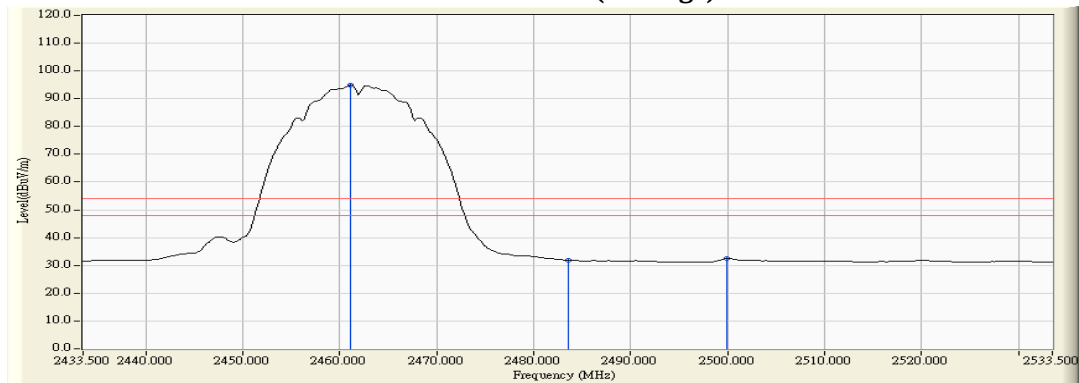
Figure Channel 11: Horizontal (Peak)

Figure Channel 11: Horizontal (Average)


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2462.900	6.235	92.469	98.704	--	--	--
11 (Peak)	2483.500	6.363	36.752	43.115	74.00	54.00	Pass
11 (Peak)	2485.900	6.378	37.941	44.319	74.00	54.00	Pass
11 (Average)	2461.100	6.224	88.587	94.811	--	--	--
11 (Average)	2483.500	6.363	25.512	31.875	74.00	54.00	Pass
11 (Average)	2499.900	6.447	26.041	32.488	74.00	54.00	Pass

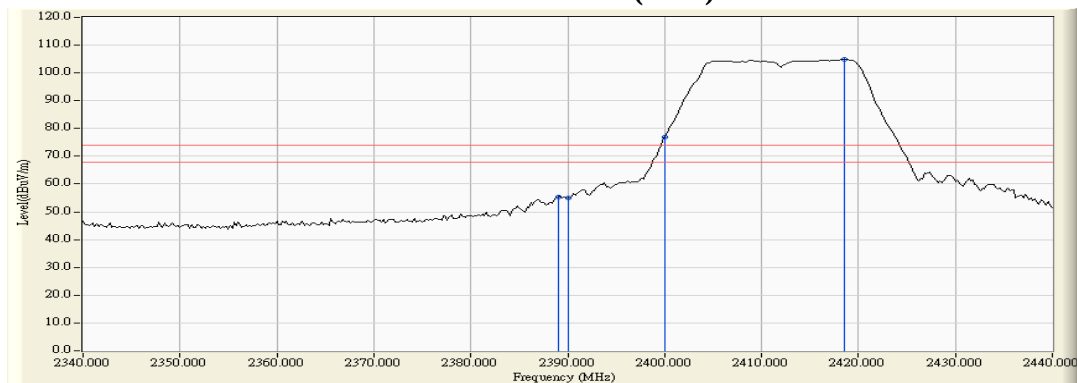
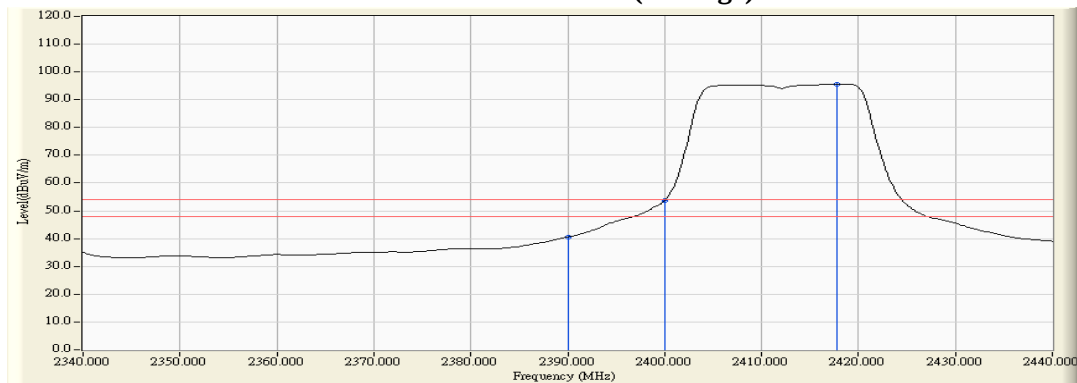
Figure Channel 11: Vertical (Peak)**Figure Channel 11: Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2389.000	6.470	49.002	55.472	74.00	54.00	Pass
01 (Peak)	2390.000	6.474	48.519	54.994	74.00	54.00	Pass
01 (Peak)	2400.000	6.528	70.267	76.795	--	--	--
01 (Peak)	2418.600	6.650	98.318	104.968	--	--	--
01(Average)	2390.000	6.474	34.131	40.606	74.00	54.00	Pass
01(Average)	2400.000	6.528	47.089	53.617	--	--	--
01(Average)	2417.800	6.644	88.999	95.643	--	--	--

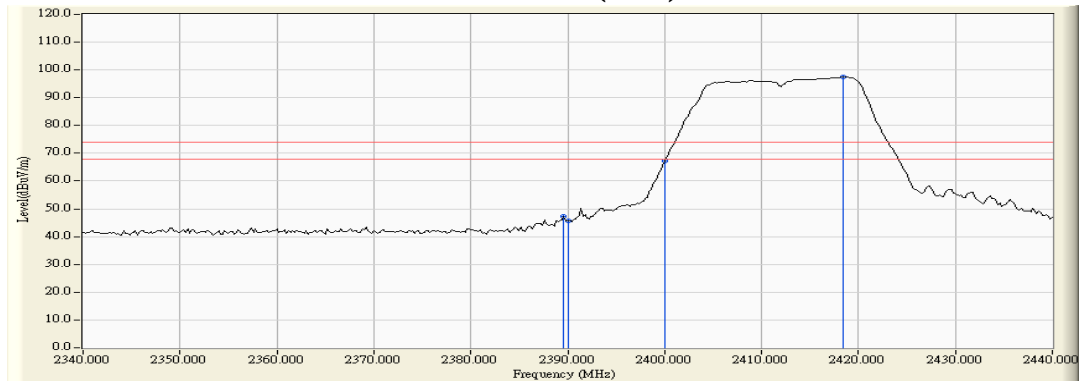
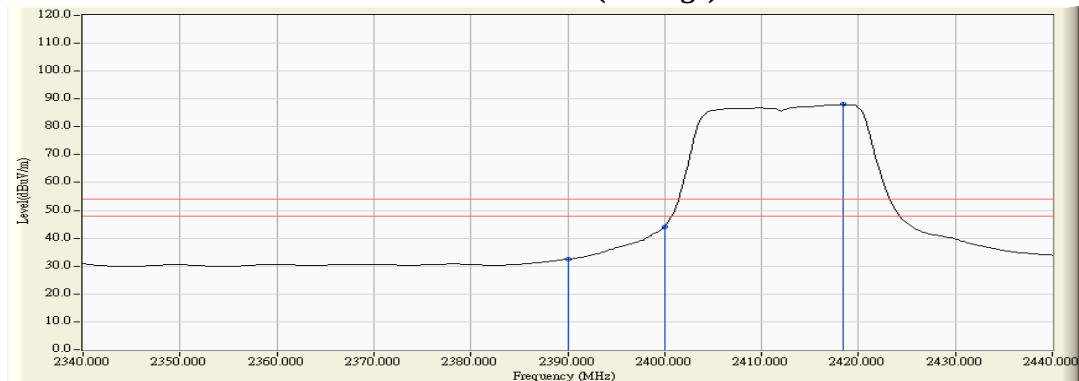
Figure Channel 01:**Horizontal (Peak)****Figure Channel 01:****Horizontal (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2389.600	5.882	41.315	47.197	74.00	54.00	Pass
01 (Peak)	2390.000	5.880	39.943	45.824	74.00	54.00	Pass
01 (Peak)	2400.000	5.879	61.397	67.276	--	--	--
01 (Peak)	2418.400	5.954	91.584	97.538	--	--	--
01 (Average)	2390.000	5.880	26.596	32.477	74.00	54.00	Pass
01 (Average)	2400.000	5.879	38.298	44.177	--	--	--
01 (Average)	2418.400	5.954	82.037	87.991	--	--	--

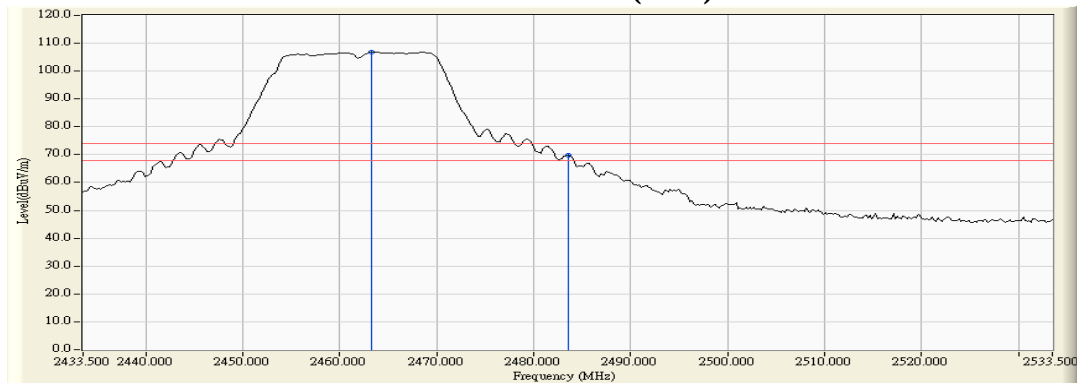
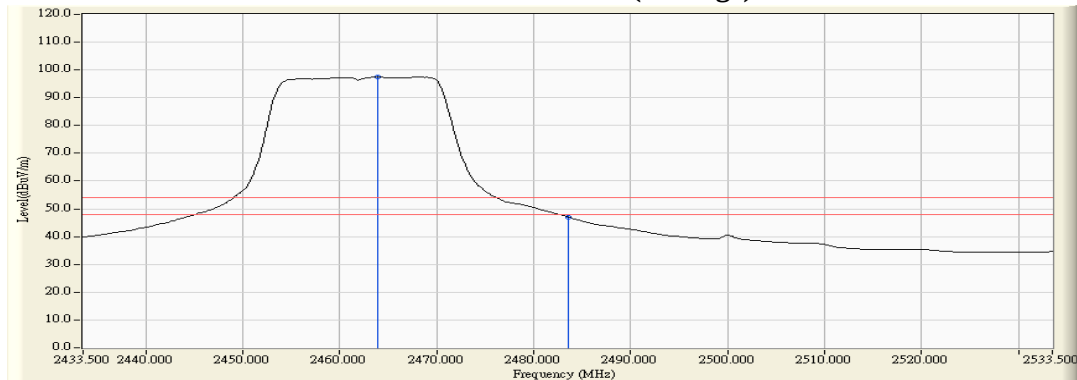
Figure Channel 01:**Vertical (Peak)****Figure Channel 01:****Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2463.300	6.967	99.930	106.898	--	--	--
11 (Peak)	2483.500	7.110	62.647	69.757	74.00	54.00	Pass
11 (Average)	2463.900	6.971	90.528	97.500	--	--	--
11 (Average)	2483.500	7.110	39.926	47.036	74.00	54.00	Pass

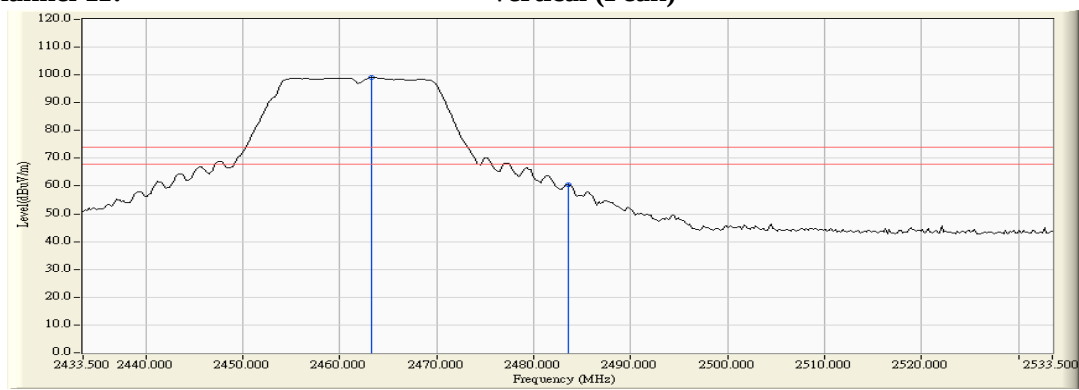
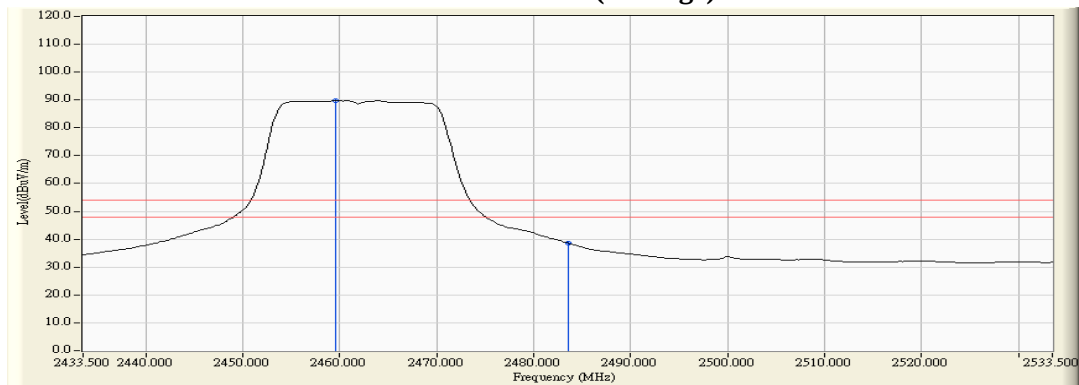
Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2463.300	6.237	92.896	99.133	--	--	--
11 (Peak)	2483.500	6.363	54.023	60.386	74.00	54.00	Pass
11 (Average)	2459.500	6.213	83.489	89.702	--	--	--
11 (Average)	2483.500	6.363	32.251	38.614	74.00	54.00	Pass

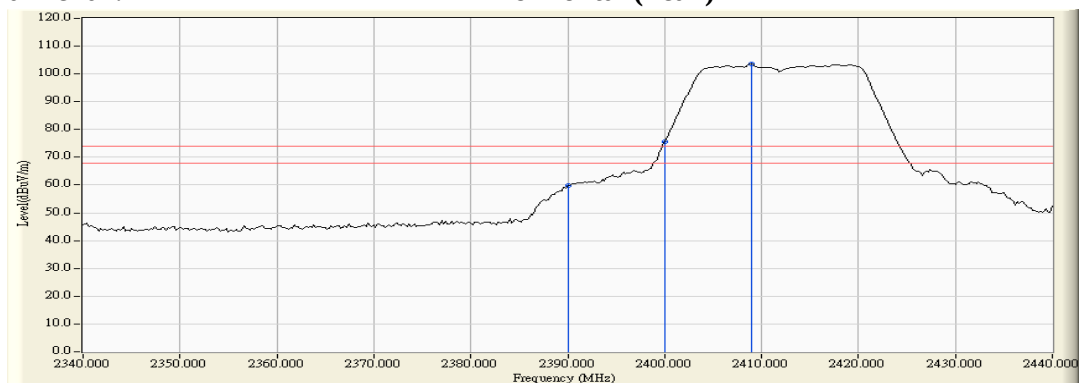
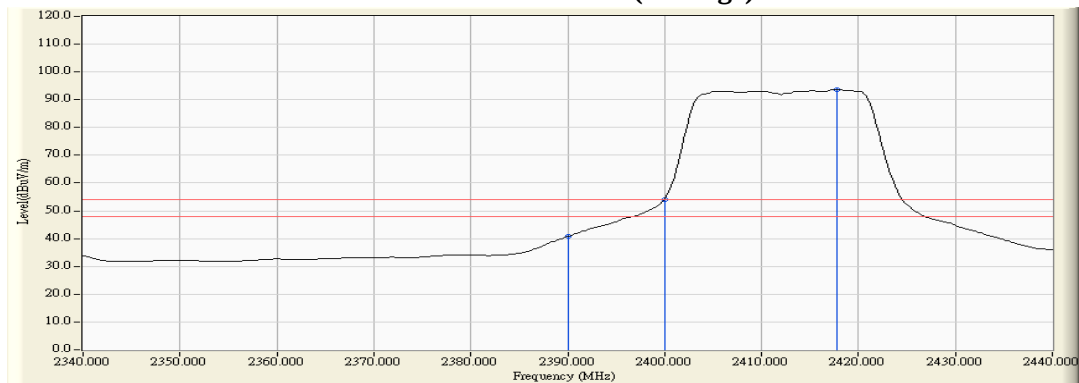
Figure Channel 11: Vertical (Peak)**Figure Channel 11: Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	6.474	53.288	59.763	74.00	54.00	Pass
01 (Peak)	2400.000	6.528	69.168	75.696	--	--	--
01 (Peak)	2409.000	6.583	97.014	103.597	--	--	--
01 (Average)	2390.000	6.474	34.294	40.769	74.00	54.00	Pass
01 (Average)	2400.000	6.528	47.635	54.163	--	--	--
01 (Average)	2417.800	6.644	86.921	93.565	--	--	--

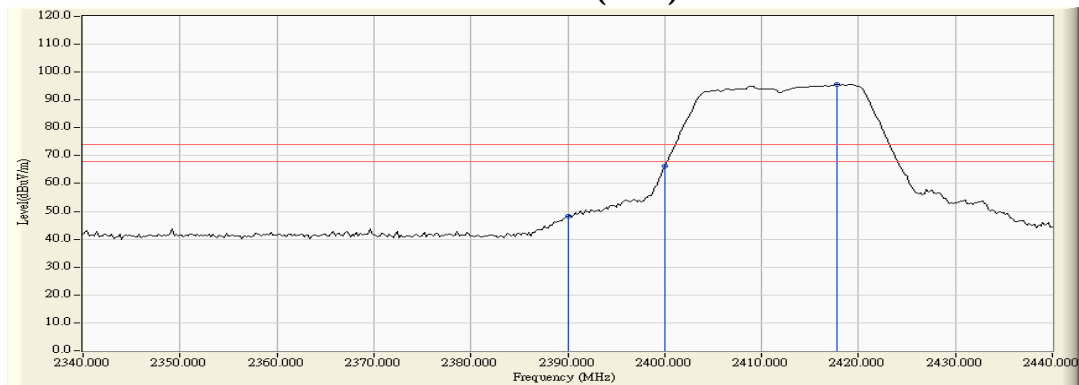
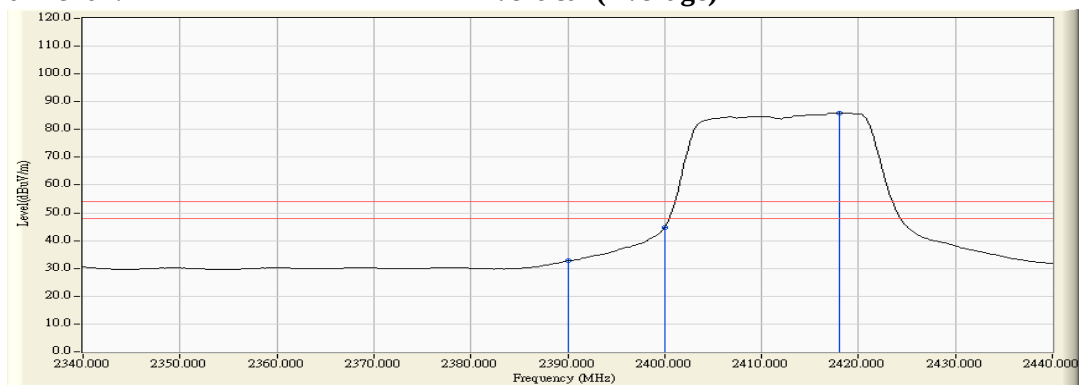
Figure Channel 01:**Horizontal (Peak)****Figure Channel 01:****Horizontal (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01 (Peak)	2390.000	5.880	42.509	48.390	74.00	54.00	Pass
01 (Peak)	2400.000	5.879	60.239	66.118	--	--	--
01 (Peak)	2417.800	5.950	89.715	95.665	--	--	--
01 (Average)	2390.000	5.880	26.779	32.660	74.00	54.00	Pass
01 (Average)	2400.000	5.879	38.872	44.751	--	--	--
01 (Average)	2418.000	5.952	80.060	86.011	--	--	--

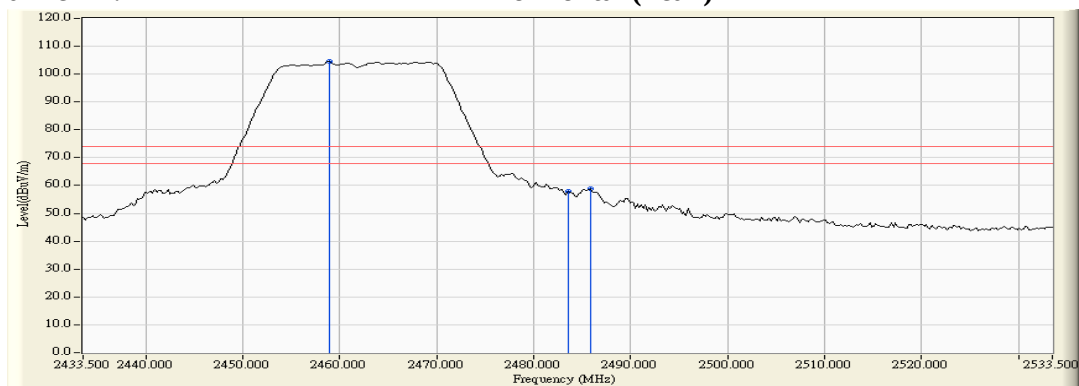
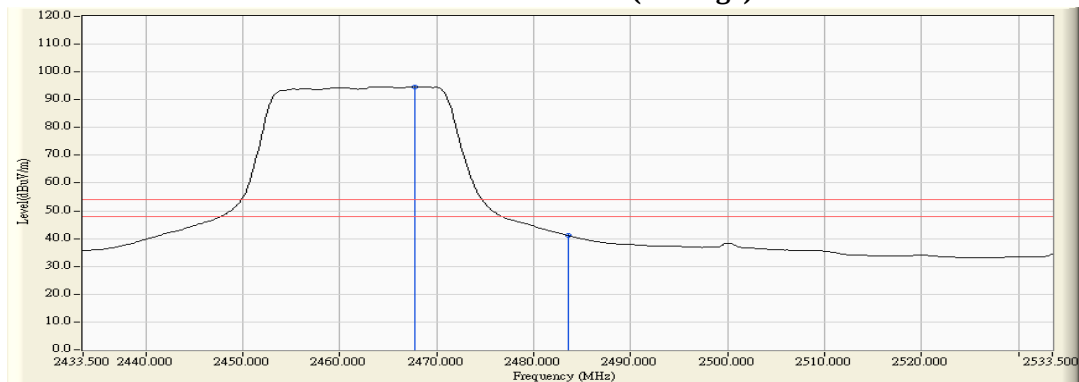
Figure Channel 01: Vertical (Peak)**Figure Channel 01: Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2458.900	6.937	97.563	104.499	--	--	--
11 (Peak)	2483.500	7.110	50.680	57.790	74.00	54.00	Pass
11 (Peak)	2485.900	7.127	51.629	58.756	74.00	54.00	Pass
11 (Average)	2467.700	6.999	87.721	94.719	--	--	--
11 (Average)	2483.500	7.110	34.020	41.130	74.00	54.00	Pass

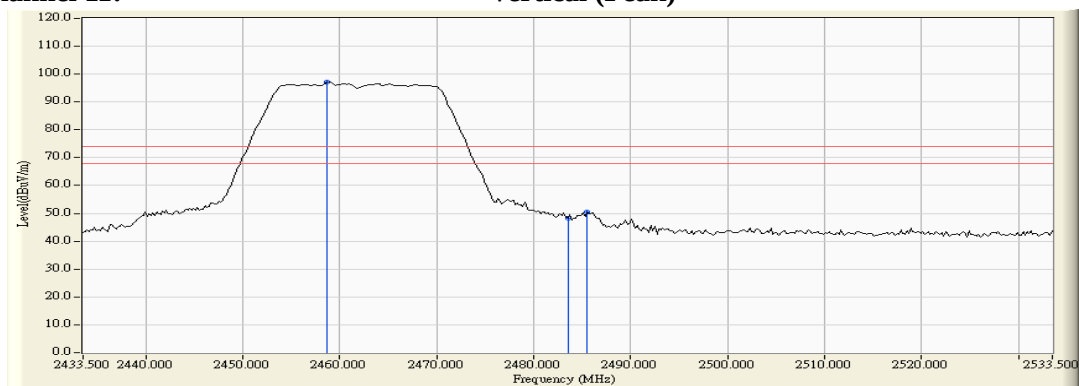
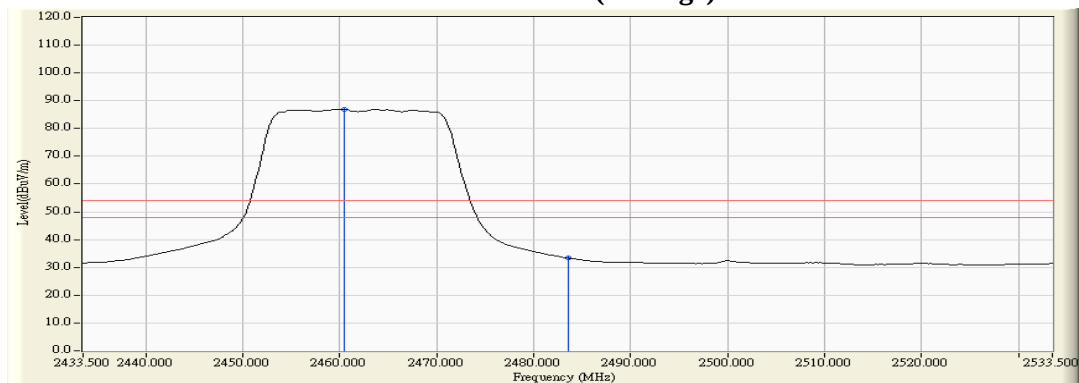
Figure Channel 11: Horizontal (Peak)**Figure Channel 11: Horizontal (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11 (Peak)	2458.700	6.209	91.049	97.257	--	--	--
11 (Peak)	2483.500	6.363	42.055	48.418	74.00	54.00	Pass
11 (Peak)	2485.500	6.376	43.983	50.359	74.00	54.00	Pass
11 (Average)	2460.500	6.220	80.656	86.876	--	--	--
11 (Average)	2483.500	6.363	27.107	33.470	74.00	54.00	Pass

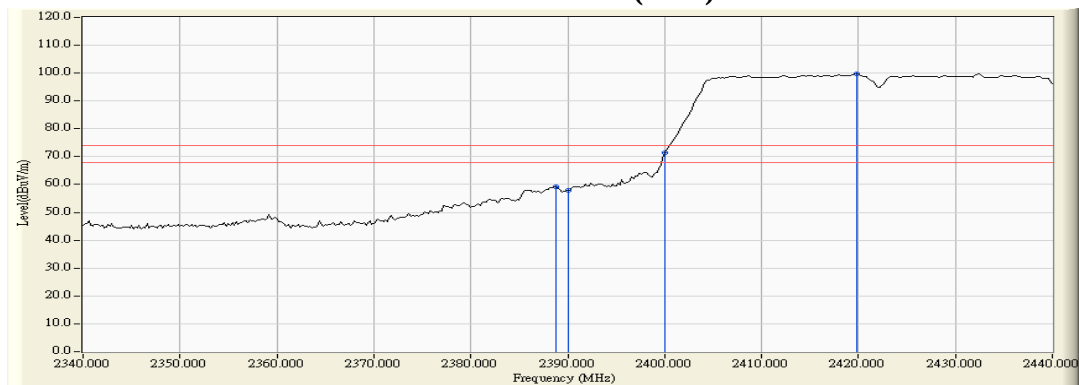
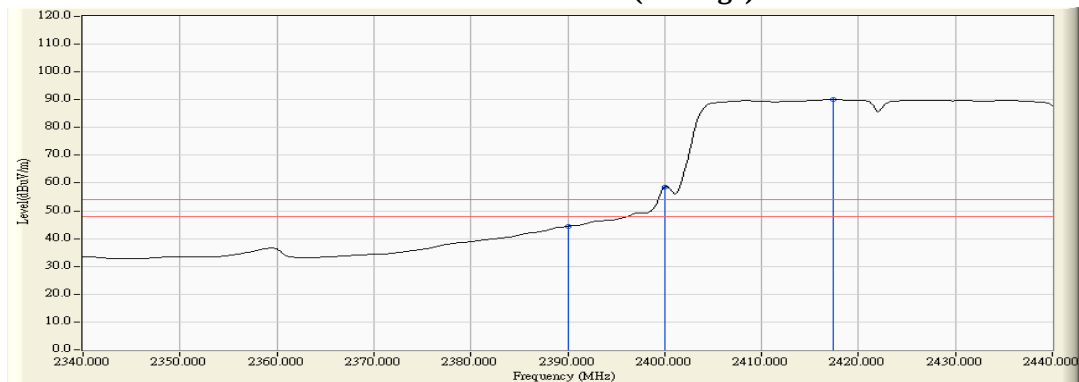
Figure Channel 11: Vertical (Peak)**Figure Channel 11: Vertical (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
03 (Peak)	2388.800	6.470	52.678	59.147	74.00	54.00	Pass
03 (Peak)	2390.000	6.474	51.349	57.824	74.00	54.00	Pass
03 (Peak)	2400.000	6.528	64.800	71.328	--	--	--
03 (Peak)	2419.800	6.658	93.228	99.886	--	--	--
03 (Average)	2390.000	6.474	37.955	44.430	74.00	54.00	Pass
03 (Average)	2400.000	6.528	52.119	58.647	--	--	--
03 (Average)	2417.400	6.641	83.396	90.037	--	--	--

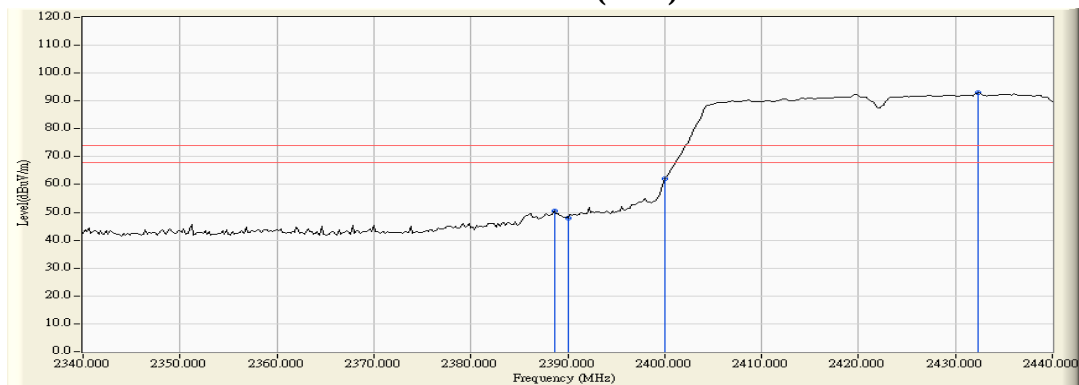
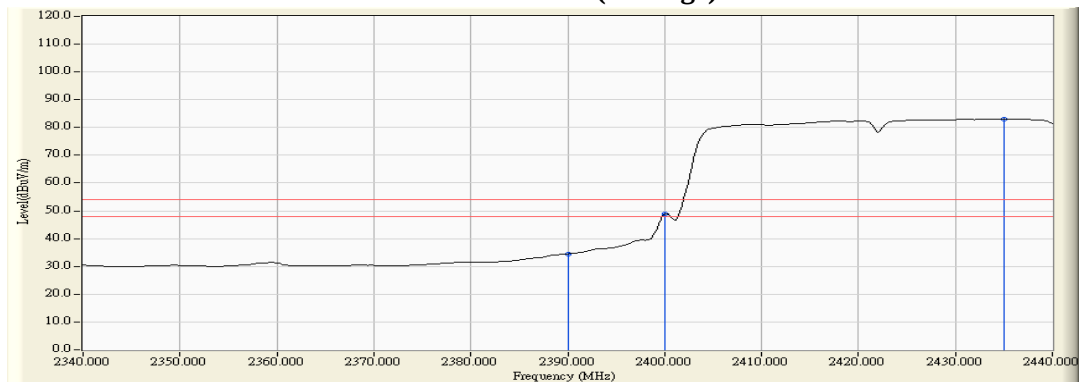
Figure Channel 03: Horizontal (Peak)**Figure Channel 03: Horizontal (Average)**

- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2422MHz)

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
03 (Peak)	2388.600	5.887	44.629	50.516	74.00	54.00	Pass
03 (Peak)	2390.000	5.880	42.103	47.984	74.00	54.00	Pass
03 (Peak)	2400.000	5.879	56.157	62.036	--	--	--
03 (Peak)	2432.400	6.042	86.804	92.845	--	--	--
03 (Average)	2390.000	5.880	28.681	34.562	74.00	54.00	Pass
03 (Average)	2400.000	5.879	43.005	48.884	--	--	--
03 (Average)	2435.000	6.058	77.047	83.105	--	--	--

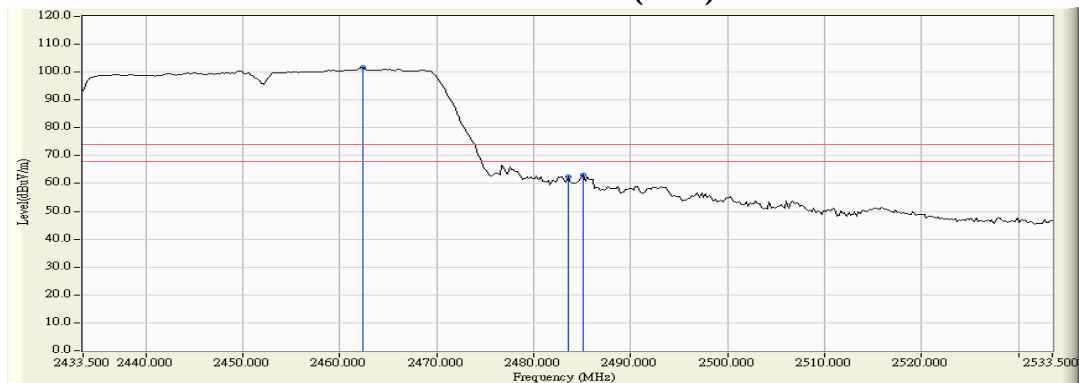
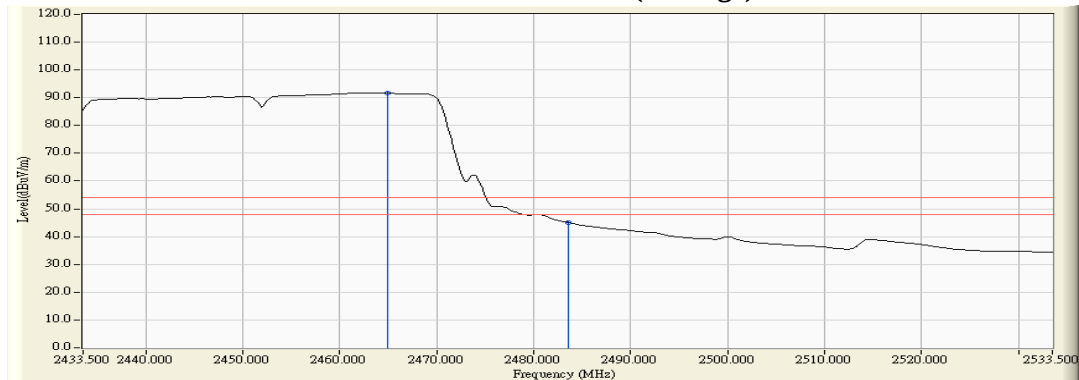
Figure Channel 03:
Vertical (Peak)

Figure Channel 03:
Vertical (Average)


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
09 (Peak)	2462.300	6.961	94.710	101.670	--	--	--
09 (Peak)	2483.500	7.110	55.174	62.284	74.00	54.00	Pass
09 (Peak)	2485.100	7.121	55.809	62.930	74.00	54.00	Pass
09 (Average)	2464.900	6.979	84.628	91.607	--	--	--
09 (Average)	2483.500	7.110	37.936	45.046	74.00	54.00	Pass

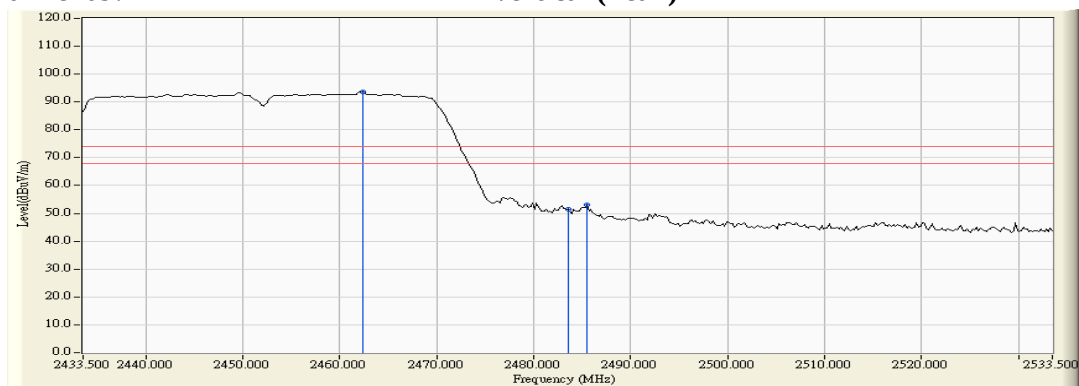
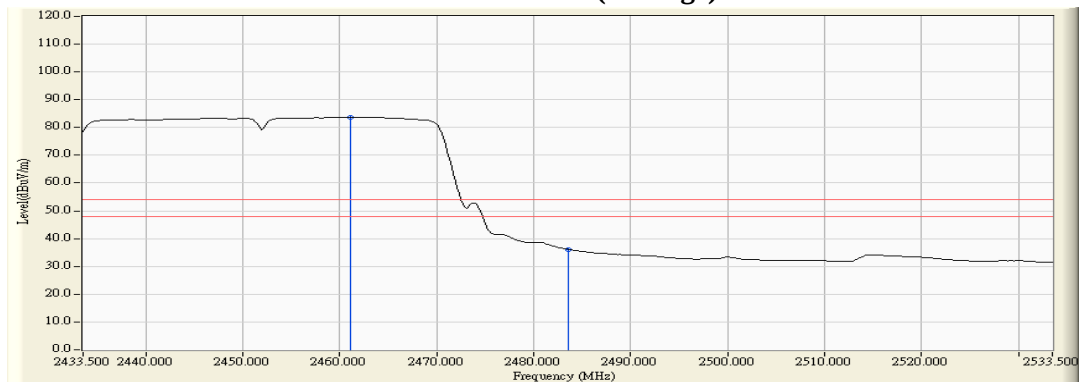
Figure Channel 09: Horizontal (Peak)

Figure Channel 09: Horizontal (Average)


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wi-Fi Chime
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Date : 2017/03/21
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2452MHz)

RF Radiated Measurement (Vertical):

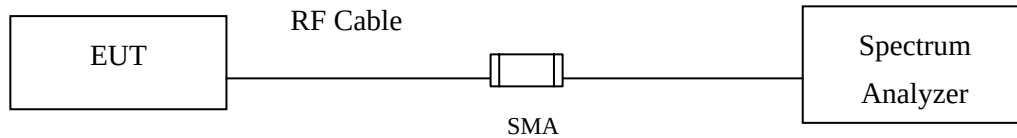
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
09 (Peak)	2462.300	6.232	87.420	93.651	--	--	--
09 (Peak)	2483.500	6.363	45.130	51.493	74.00	54.00	Pass
09 (Peak)	2485.500	6.376	46.703	53.079	74.00	54.00	Pass
09 (Average)	2461.100	6.224	77.565	83.789	--	--	--
09 (Average)	2483.500	6.363	29.818	36.181	74.00	54.00	Pass

Figure Channel 09: Vertical (Peak)

Figure Channel 09: Vertical (Average)


- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 4. “ * ”, means this data is the worst emission level.
 5. Measurement Level = Reading Level + Correct Factor.
 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.4: 2014; tested according to DTS test procedure of Jan KDB558074 for compliance to FCC 47CFR 15.247 requirements.

7.4. Uncertainty

$\pm 283\text{Hz}$

7.5. Test Result of 6dB Bandwidth

Product : Wi-Fi Chime
 Test Item : 6dB Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	9150	>500	Pass
06	2437	9150	>500	Pass
11	2462	9150	>500	Pass

Figure Channel 01:

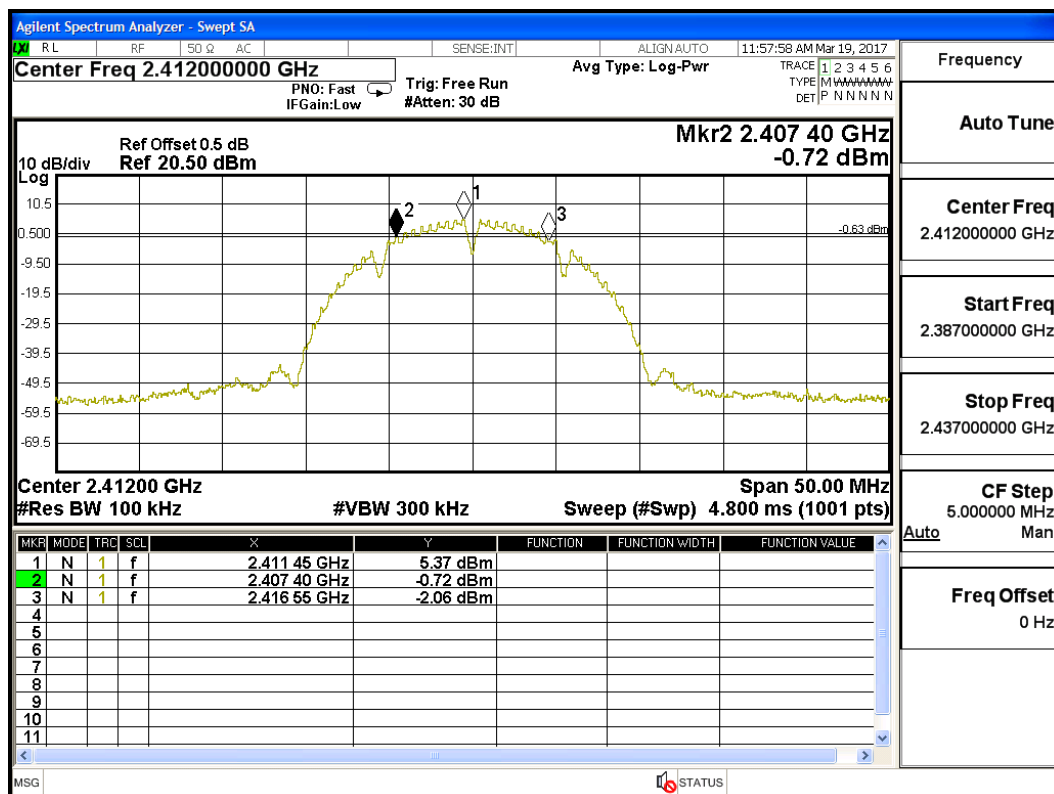


Figure Channel 06:

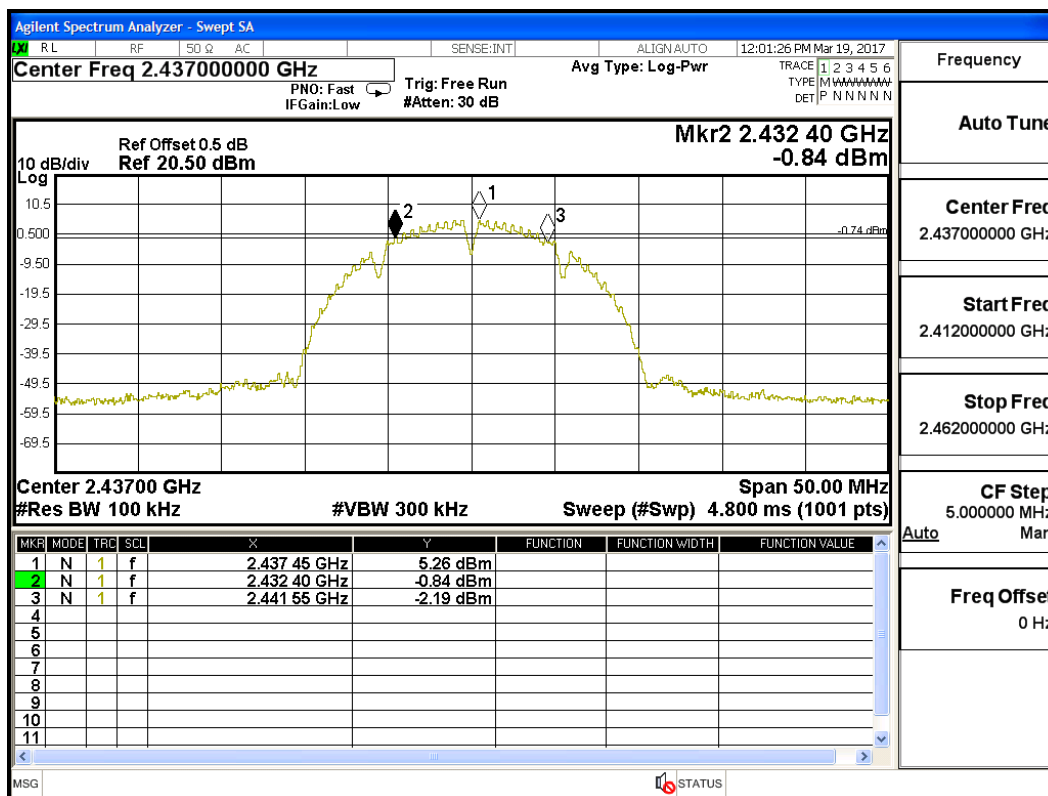
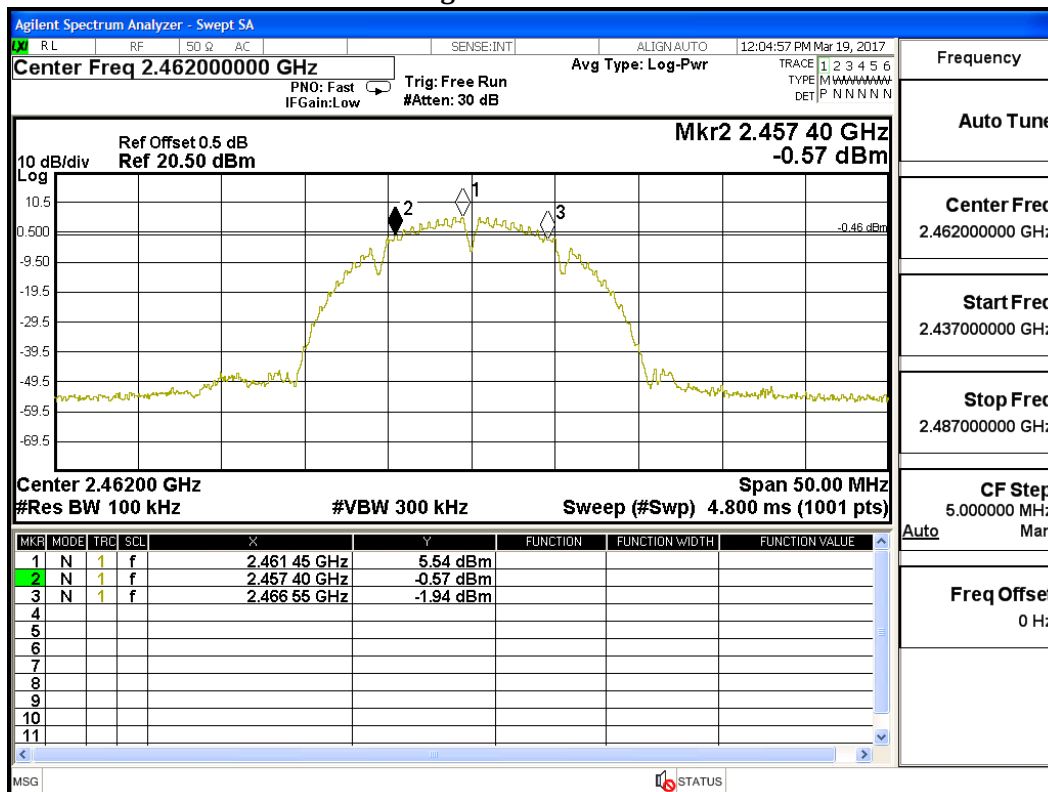


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : 6dB Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	16700	>500	Pass
06	2437	16700	>500	Pass
11	2462	16700	>500	Pass

Figure Channel 01:

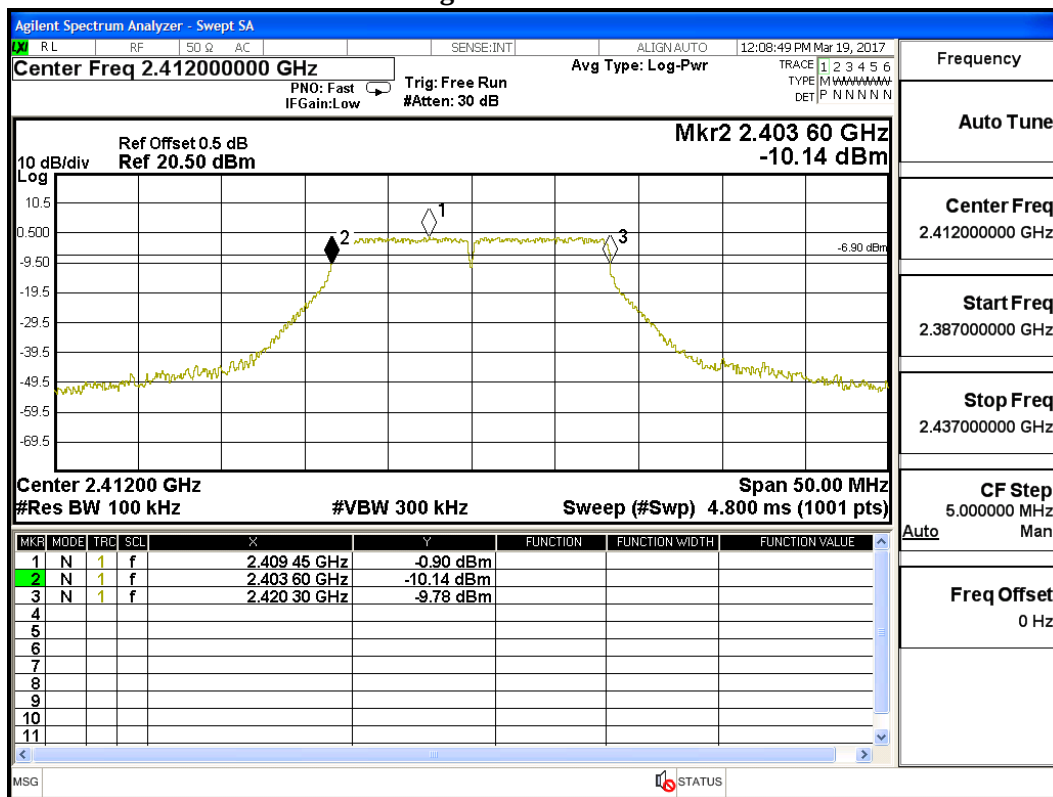


Figure Channel 06:

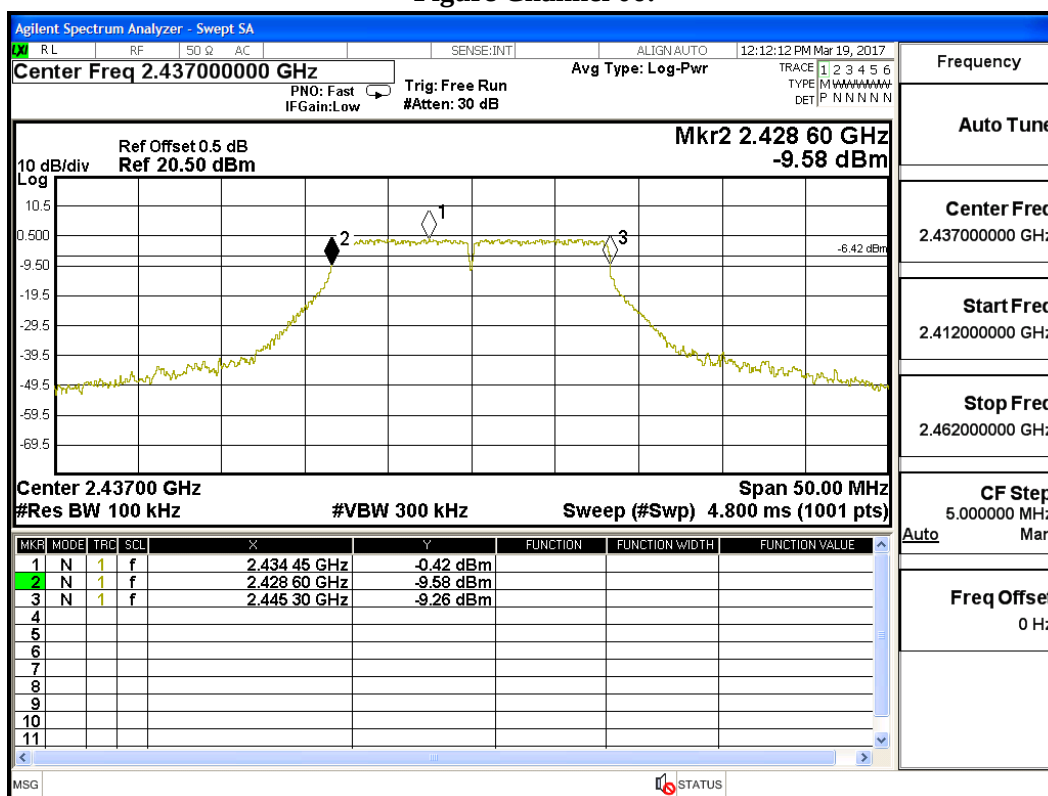
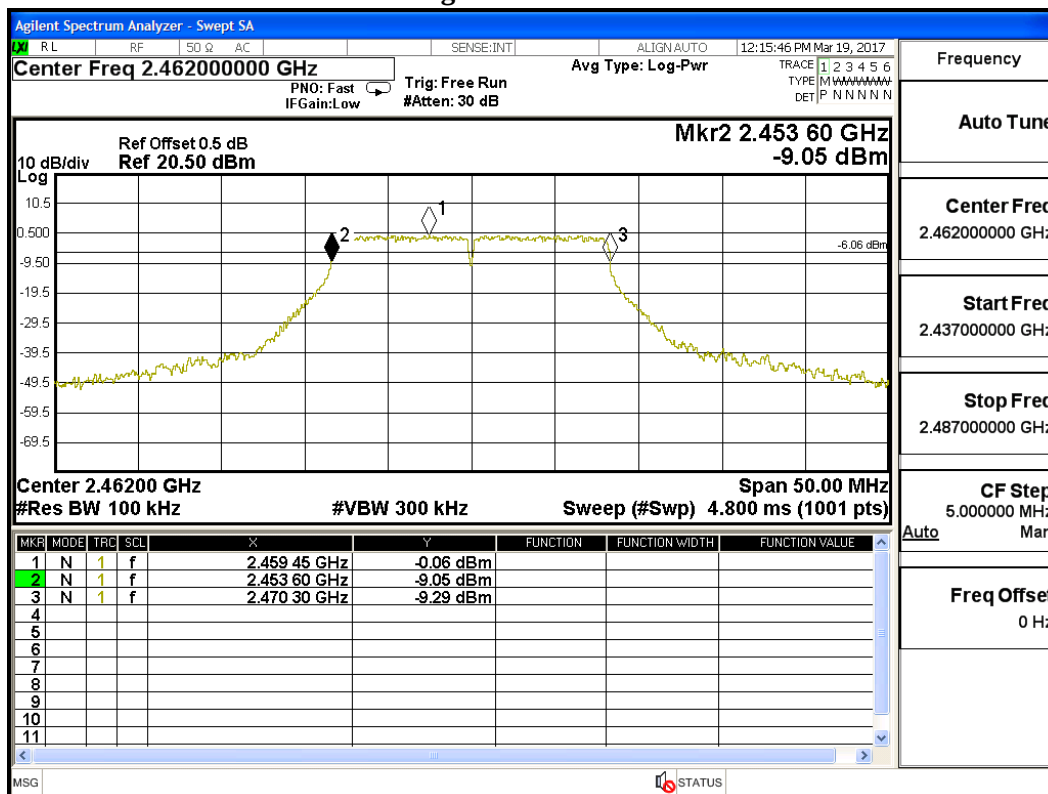


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : 6dB Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	17850	>500	Pass
06	2437	17900	>500	Pass
11	2462	17850	>500	Pass

Figure Channel 01:

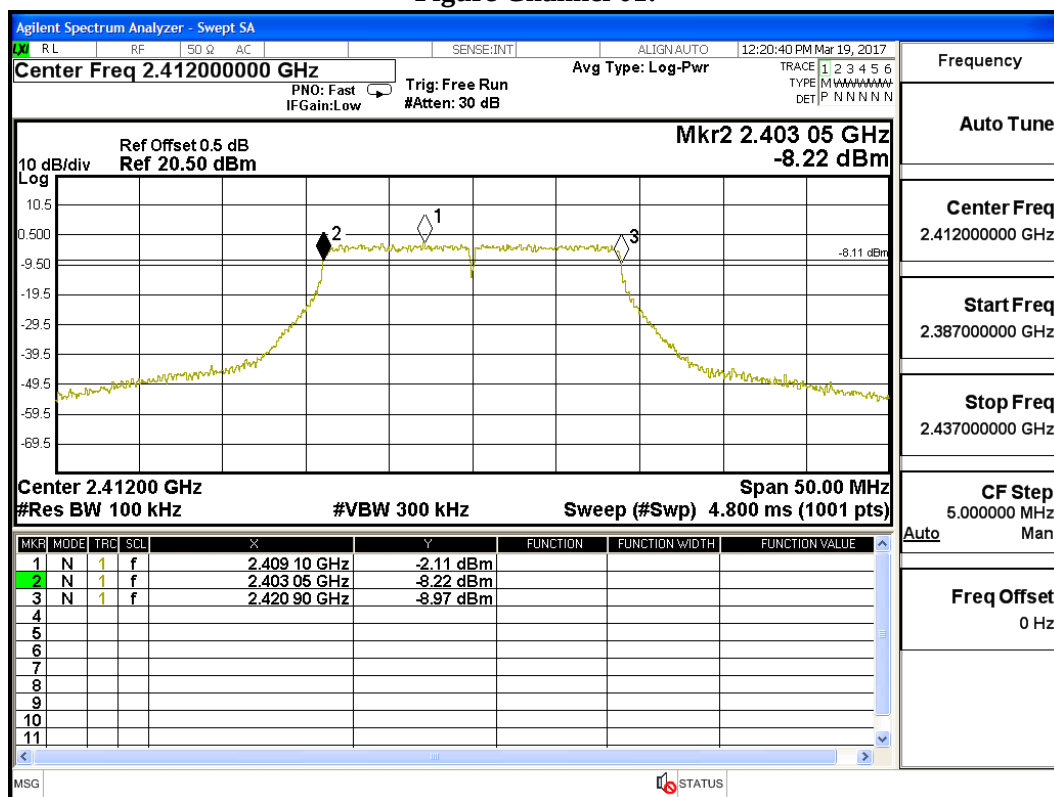


Figure Channel 06:

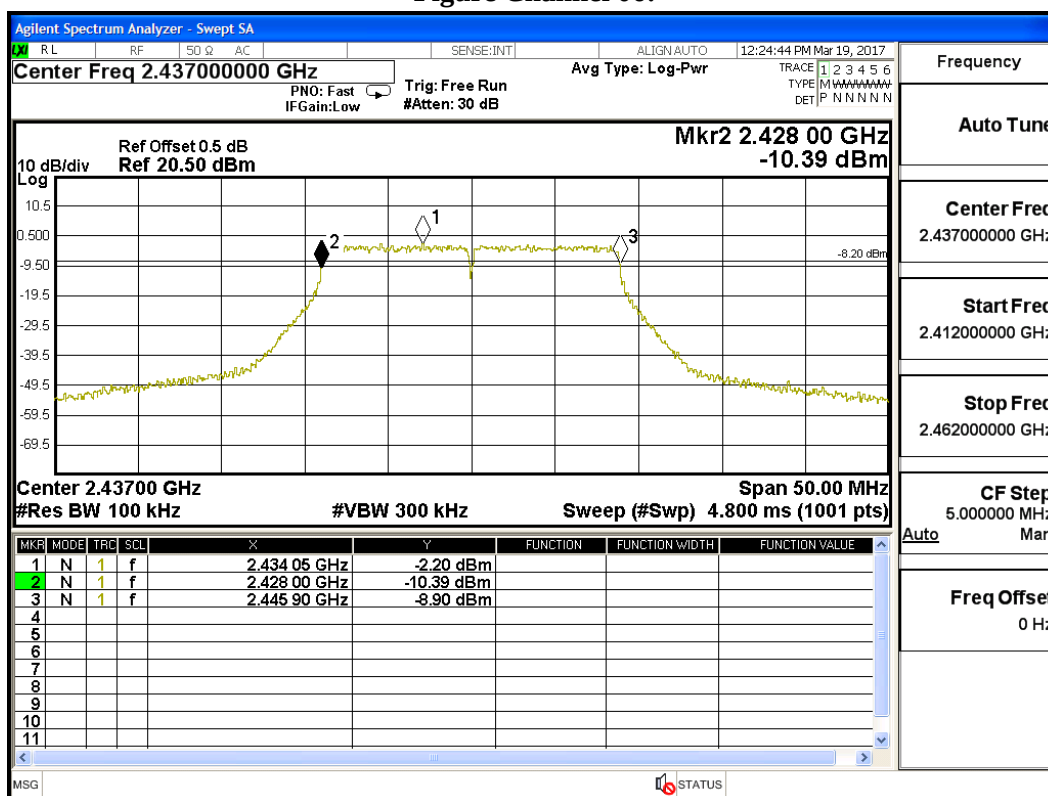
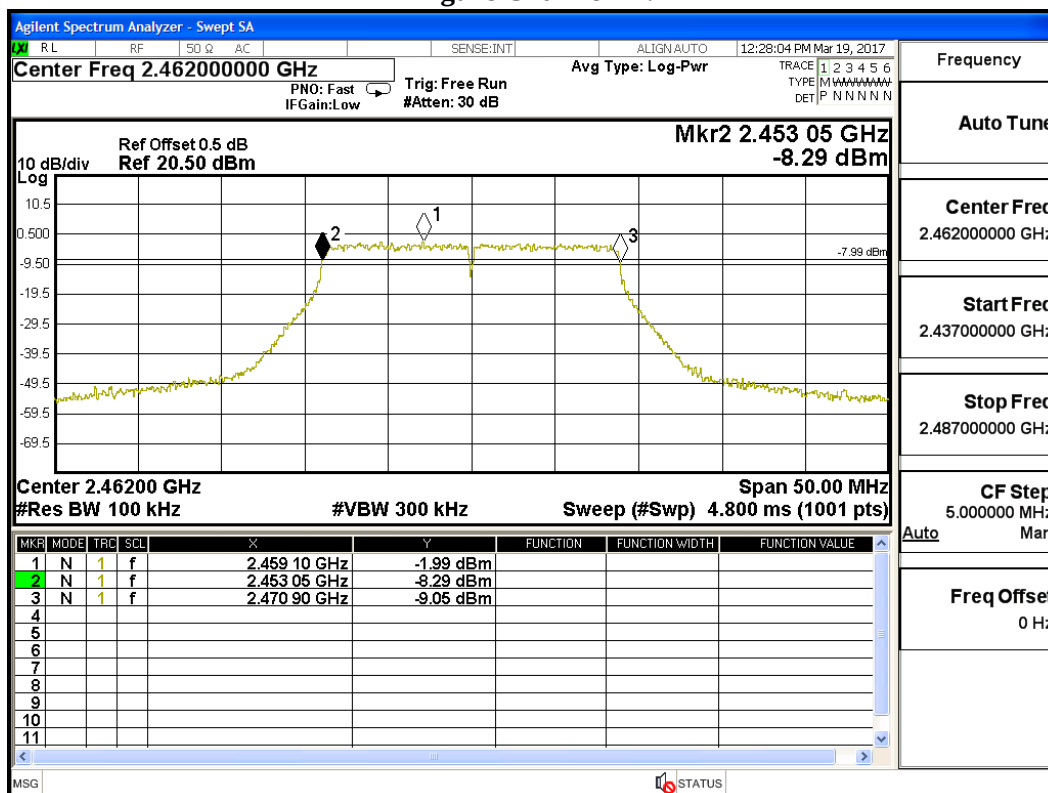


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : 6dB Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	36700	>500	Pass
06	2437	36700	>500	Pass
09	2452	36700	>500	Pass

Figure Channel 03:

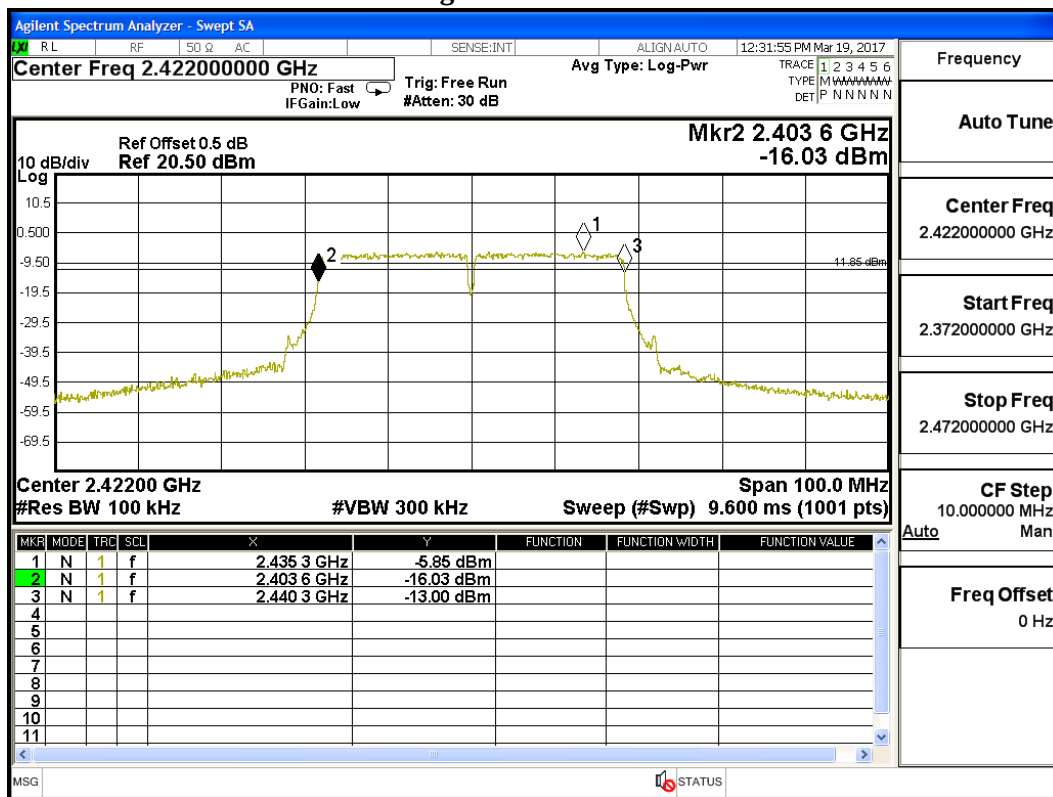


Figure Channel 06:

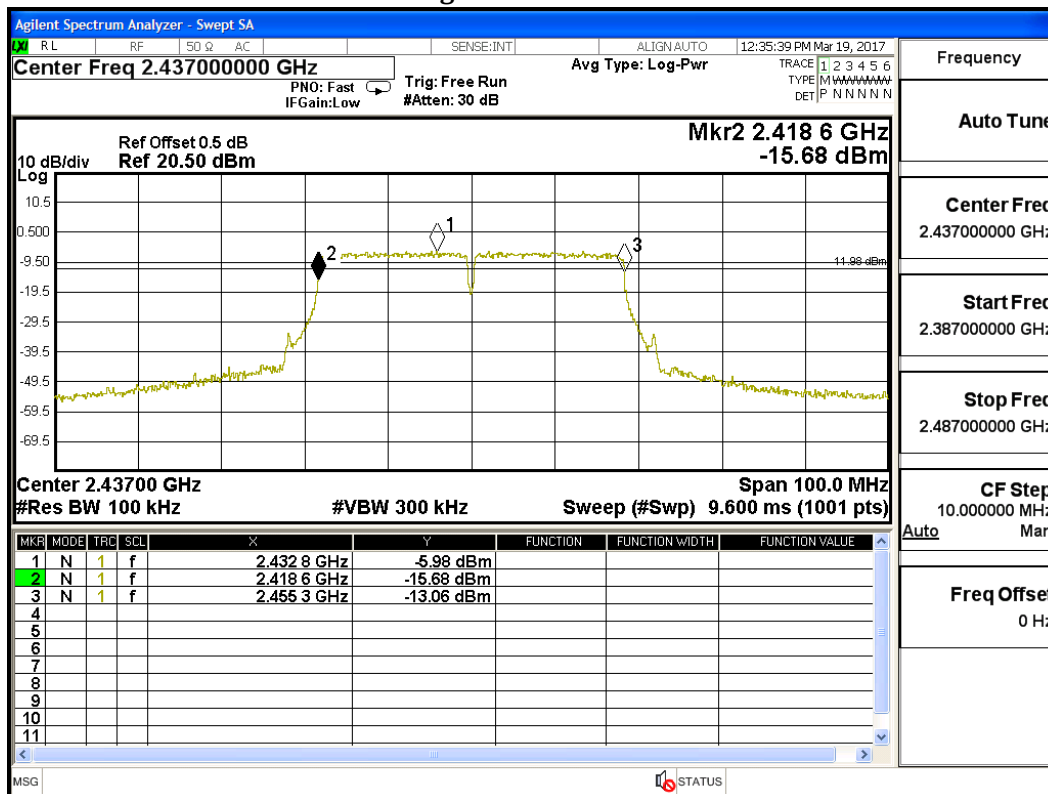
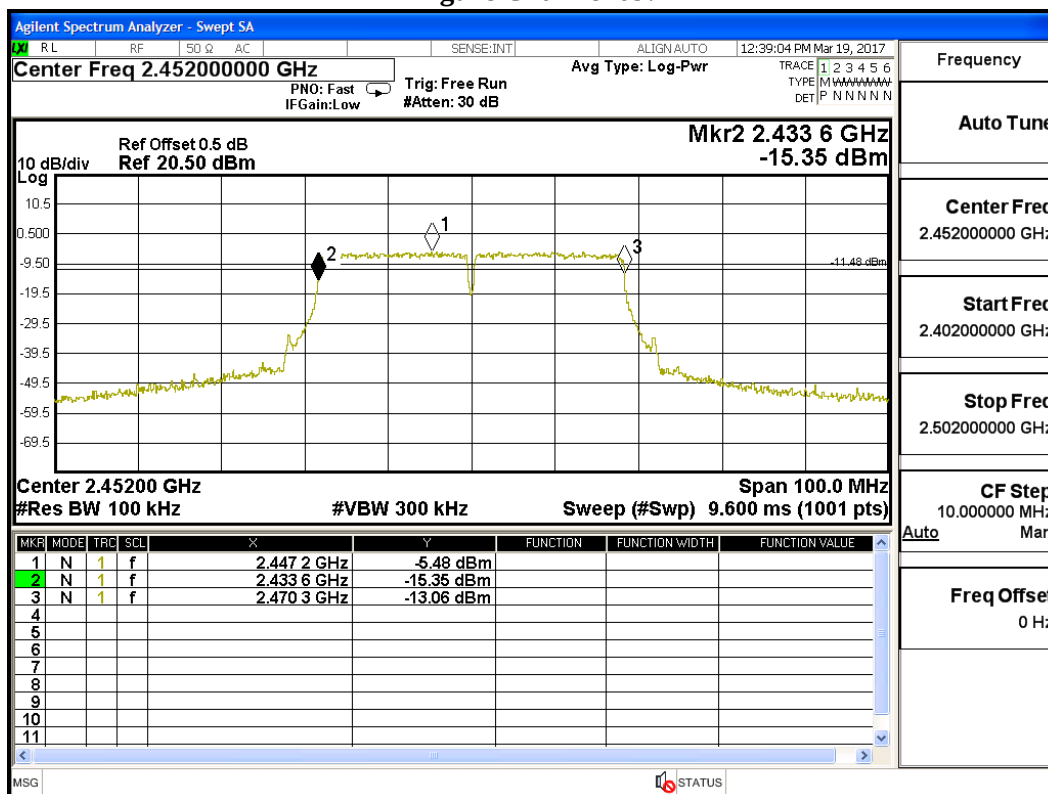
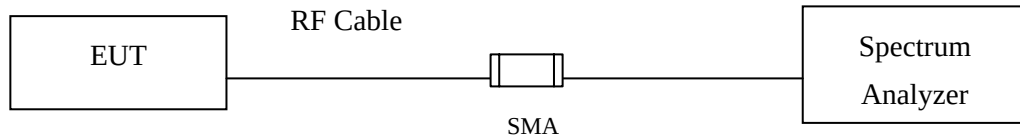


Figure Channel 09:



8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The maximum power spectral density using KDB 558074 section 10.2 PKPSD (peak PSD) method.

8.4. Uncertainty

± 1.20 dB

8.5. Test Result of Power Density

Product : Wi-Fi Chime
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	5.34	$\leq 8\text{dBm}$	Pass
06	2437	5.23	$\leq 8\text{dBm}$	Pass
11	2462	5.5	$\leq 8\text{dBm}$	Pass

Figure Channel 01:

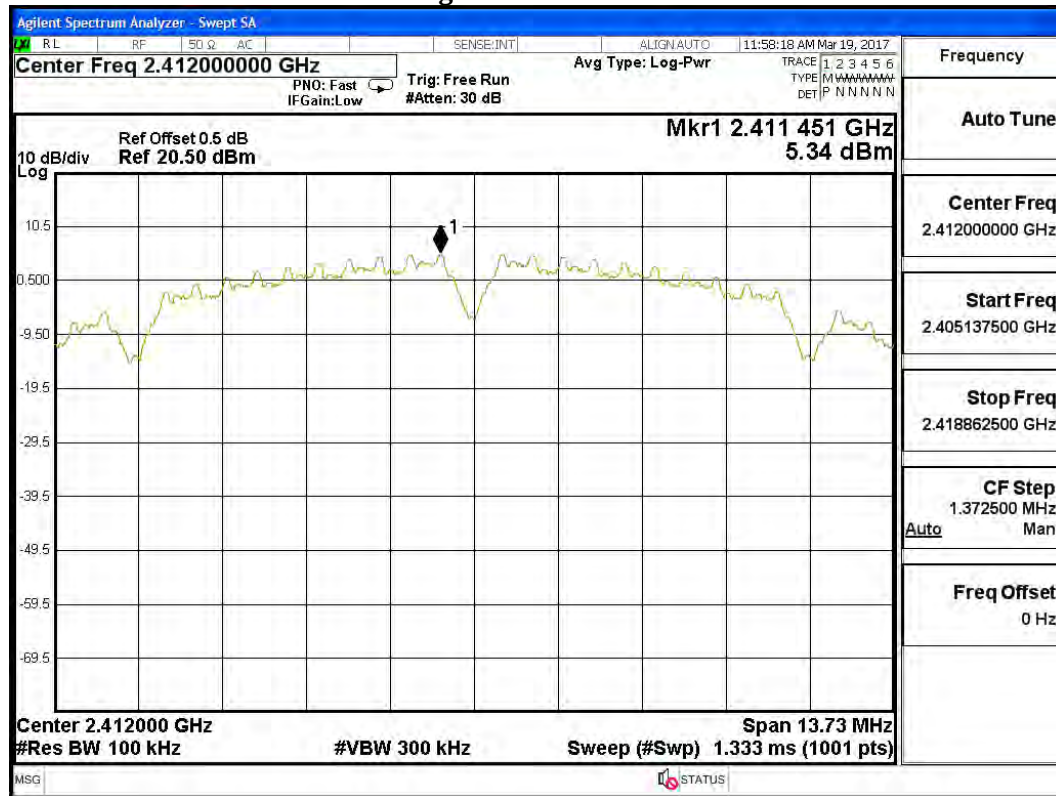


Figure Channel 06:

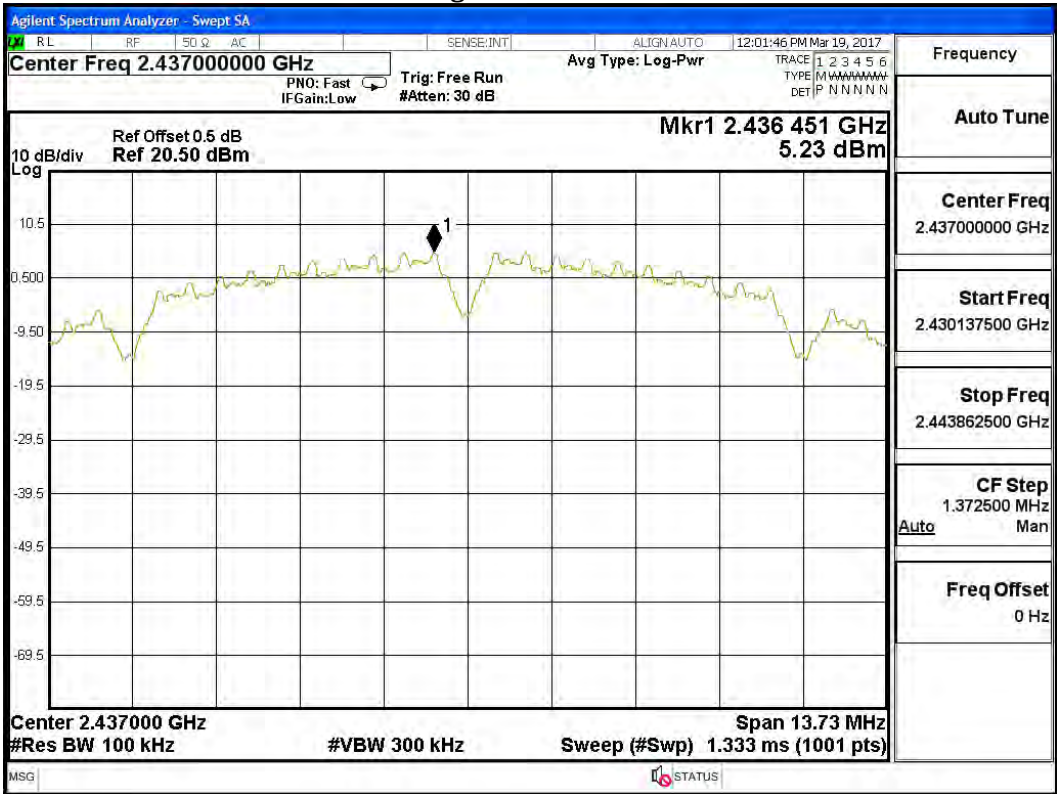
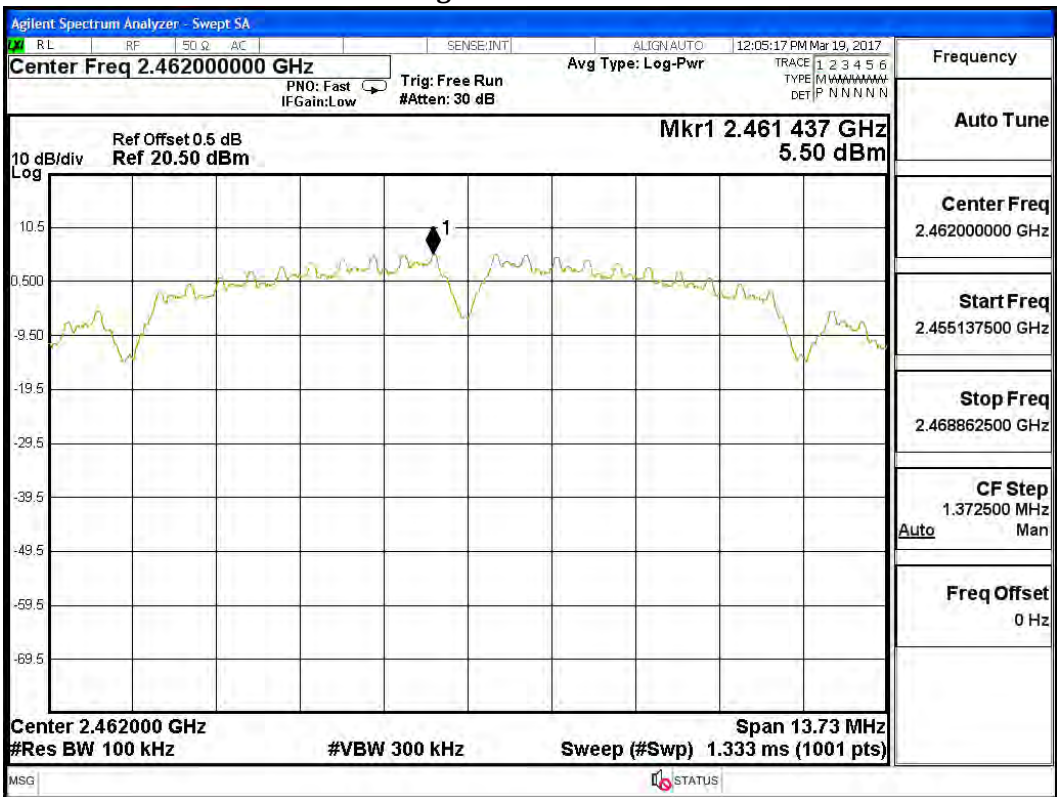


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	-0.92	$\leq 8\text{dBm}$	Pass
06	2437	-0.45	$\leq 8\text{dBm}$	Pass
11	2462	-0.08	$\leq 8\text{dBm}$	Pass

Figure Channel 01:

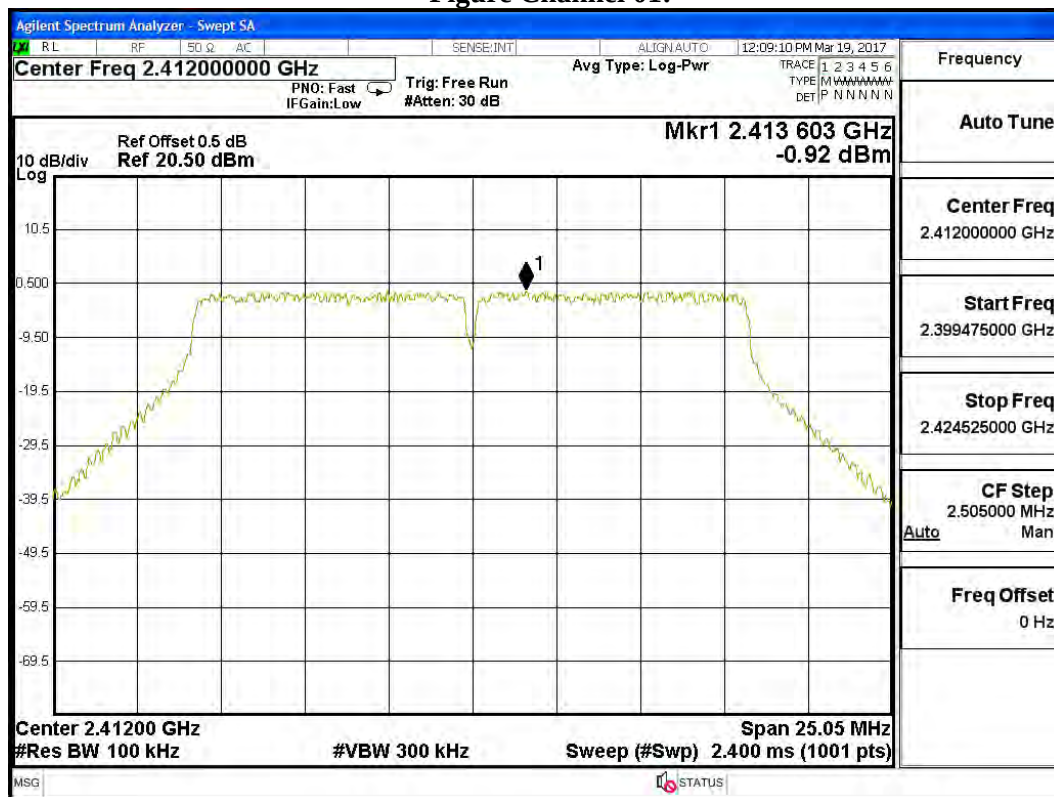


Figure Channel 06:

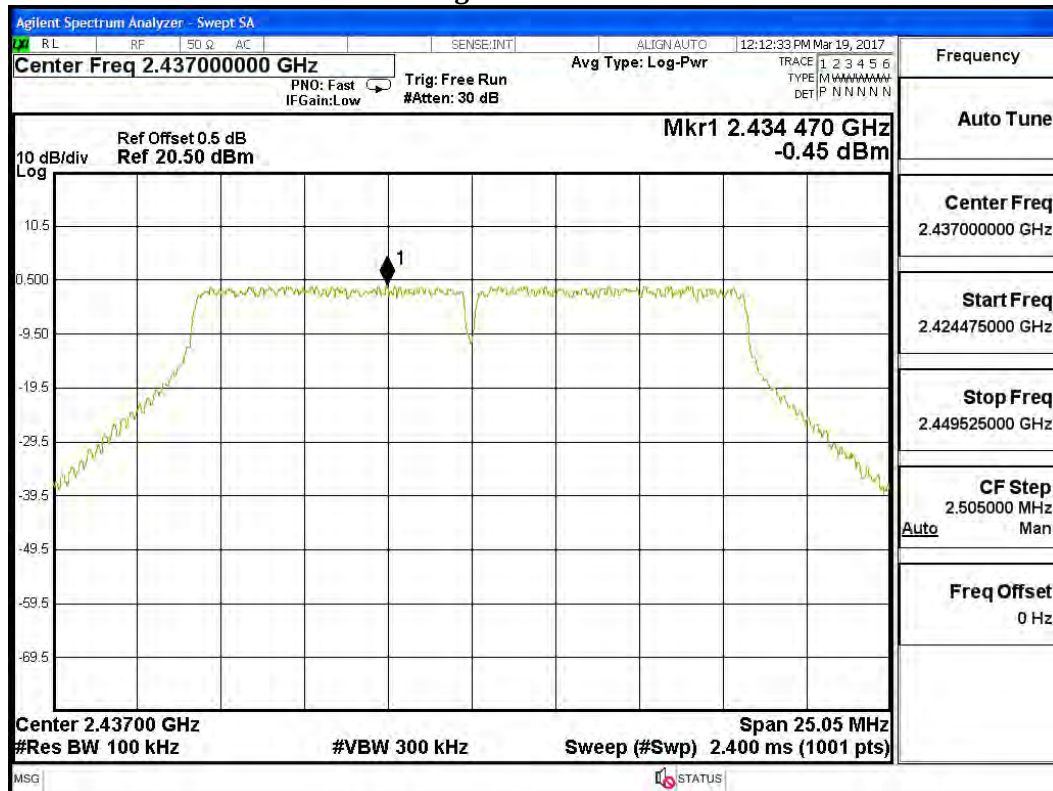
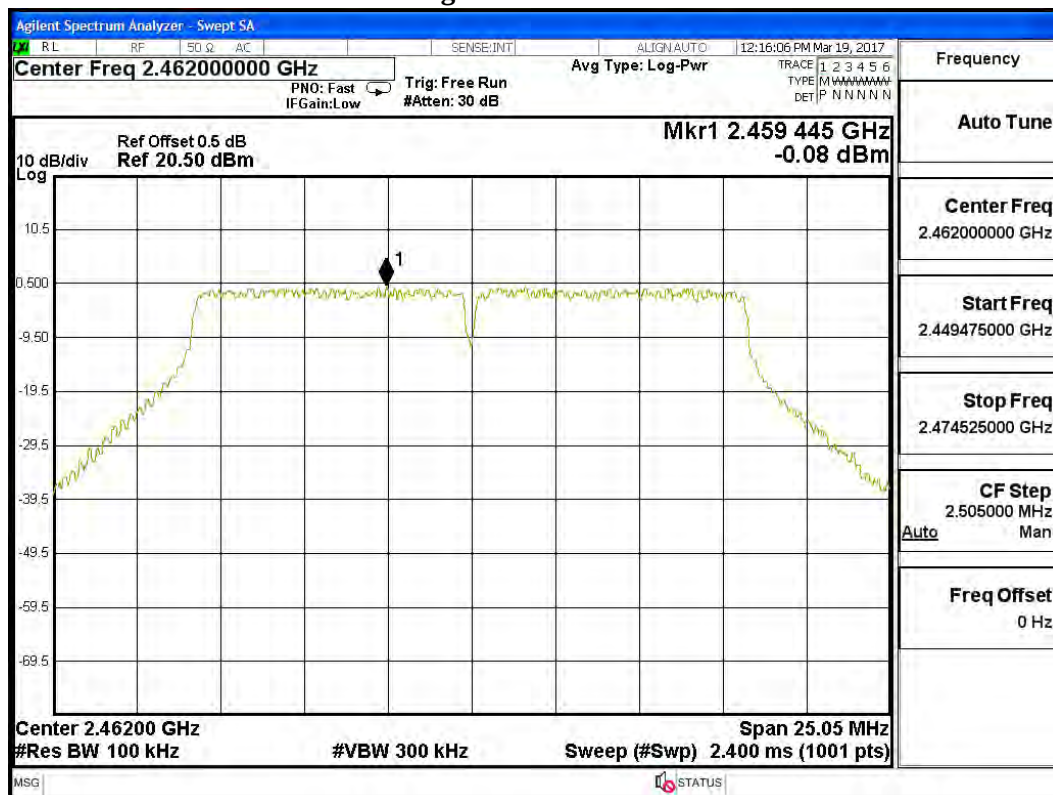


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
01	2412	-2.00	$\leq 8\text{dBm}$	Pass
06	2437	-2.05	$\leq 8\text{dBm}$	Pass
11	2462	-1.91	$\leq 8\text{dBm}$	Pass

Figure Channel 01:

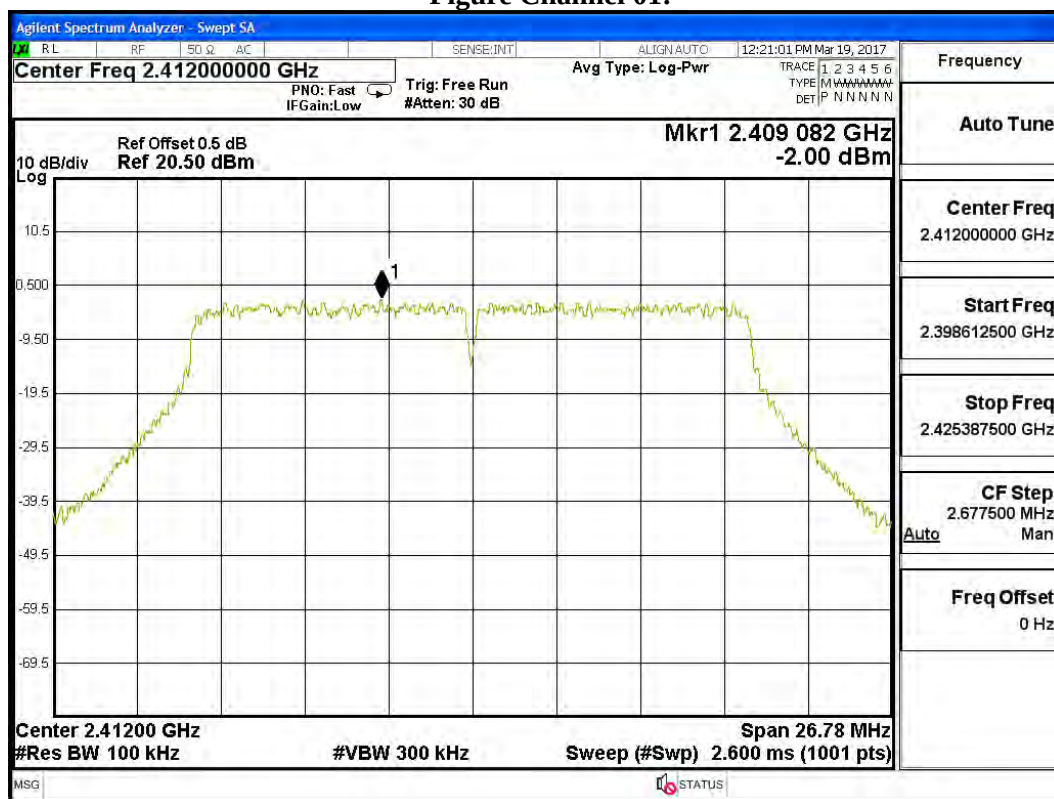


Figure Channel 06:

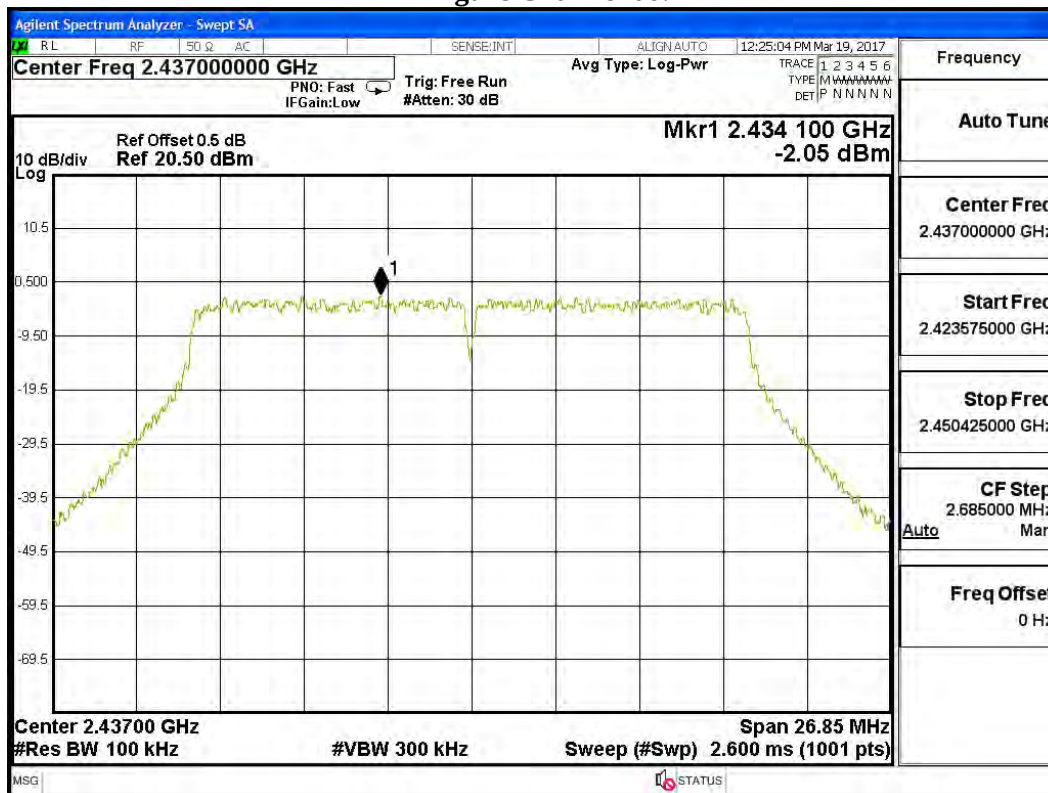
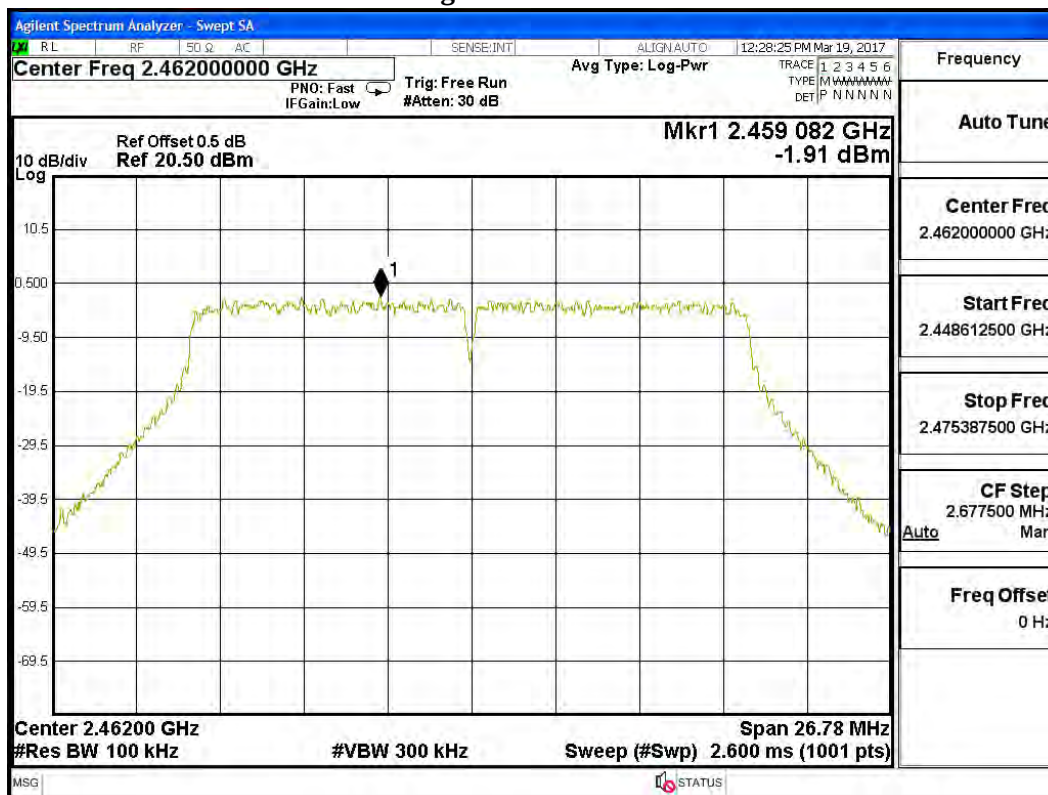


Figure Channel 11:



Product : Wi-Fi Chime
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
03	2422	-5.95	$\leq 8\text{dBm}$	Pass
06	2437	-5.95	$\leq 8\text{dBm}$	Pass
09	2452	-5.46	$\leq 8\text{dBm}$	Pass

Figure Channel 03:

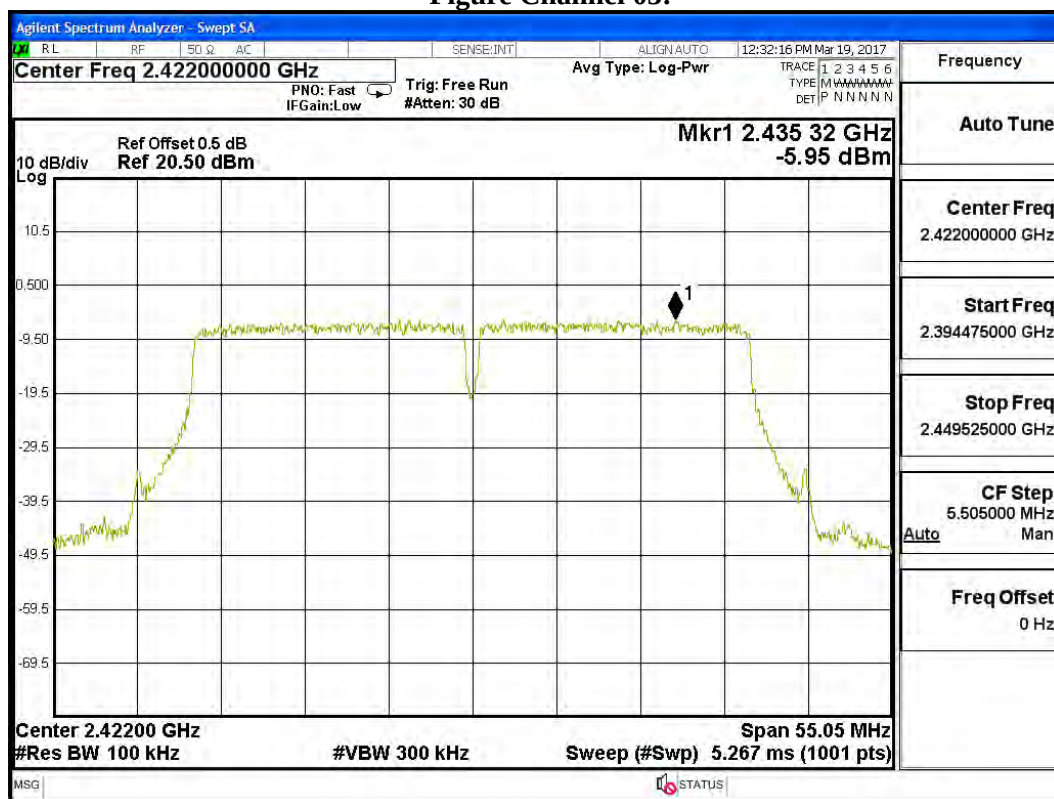


Figure Channel 06:

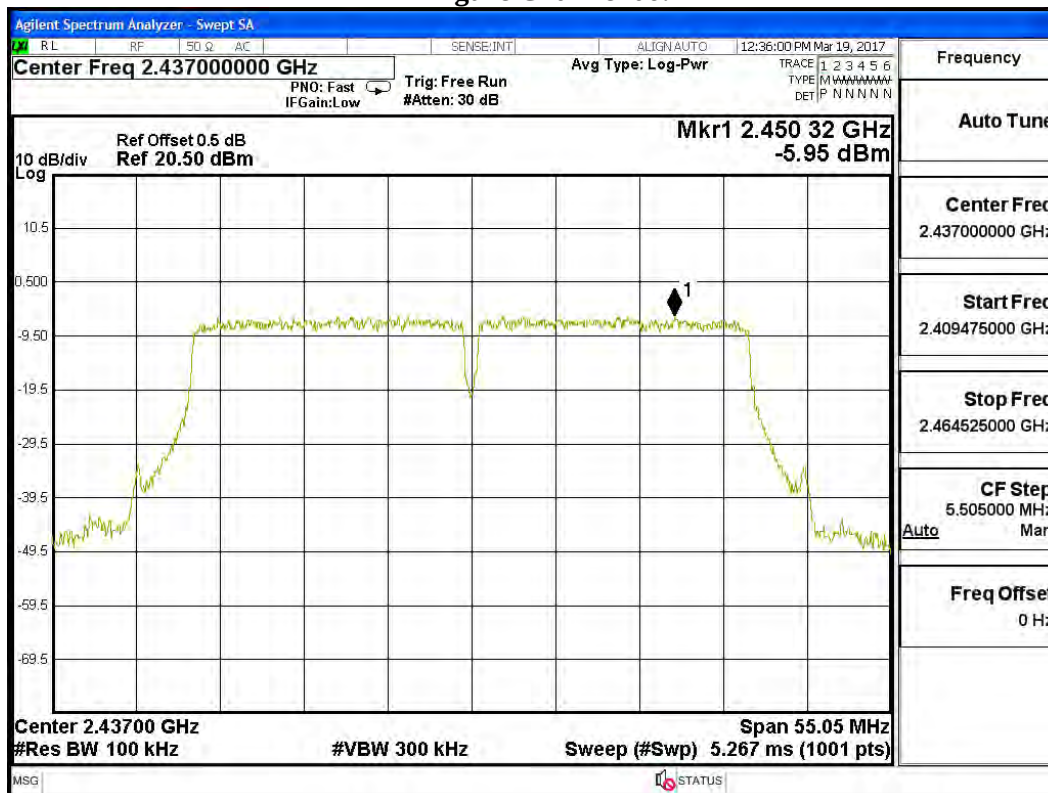


Figure Channel 09:

