FC

Test Report

Product Name	JukeBlox Networked Media Module
Model No	CR870-2S-B
FCC ID.	PPQ-CR8702SB

Applicant	Lite-On Technology Corp.
Address	4F,90,Chien 1 Road,Chung-Ho,Taipei Hsien 235,Taiwan,R.O.C.

Date of Receipt	Apr. 27, 2012
Issue Date	May 22, 2012
Report No.	125030R-RFUSP42V01
Report Version	V1.0

ilac-MRA   TAF
Testing Laboratory
0914

The test results relate only to the samples tested.
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This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Test Report Certification

Issue Date: May 22, 2012

Report No.: 125030R-RFUSP42V01

Accredited by NIST (NVLAP)

NVLAP Lab Code: 200533-0

Product Name	JukeBlox Networked Media Module
Applicant	Lite-On Technology Corp.
Address	4F,90,Chien 1 Road,Chung-Ho,Taipei Hsien 235,Taiwan,R.O.C.
Manufacturer	DONG GUAN G-COM COMPUTER CO., LTD
Model No.	CR870-2S-B
FCC ID.	PPQ-CR8702SB
EUT Rated Voltage	DC 3.3V
EUT Test Voltage	AC 120V/60Hz
Trade Name	Micro Module
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2010 ANSI C63.4: 2009
Test Result	Complied

The test results relate only to the samples tested.

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Documented By   :

(Senior Adm. Specialist / Jinn Chen)

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(Assistant Engineer / Nowal Kuo)

Approved By   :

(Manager / Vincent Lin)

TABLE OF CONTENTS

1.   GENERAL INFORMATION

1.1.   EUT Description

Product Name	JukeBlox Networked Media Module
Trade Name	Micro Module
Model No.	CR870-2S-B
FCC ID.	PPQ-CR8702SB
Frequency Range	2412-2462MHz for 802.11b/g
Number of Channels	802.11b/g: 11
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Dipole
Antenna Gain	Refer to the table "Antenna List"
Channel Control	Auto

Antenna List

No.	Manufacturer	Model No.	Peak Gain
1	LITE-ON TECHNOLOGY CORP.	3010000223I7	2 dBi for 2.4GHz

Note: The antenna of EUT is conform to FCC 15.203.

802.11b/g 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		

Note:

1. The EUT is a JukeBlox Networked Media Module with a built-in 2.4GHz WLAN transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. 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)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. The JukeBlox Networked Media Module different of the each manufacturer is shown as below:

	Manufacturer	
SDRAM	ESMT	Winbond

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)

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.	FCC ID	Power Cord
1	Test Fixture	LITE-ON	N/A	N/A	N/A	Non-Shielded, 1.5m
2	Notebook PC	DELL	PPT	N/A	DoC	Non-Shielded, 0.8m

	Signal Cable Type	Signal cable Description
A	RS-232 Cable	Non-Shielded, 2m

1.4. Configuration of Tested System
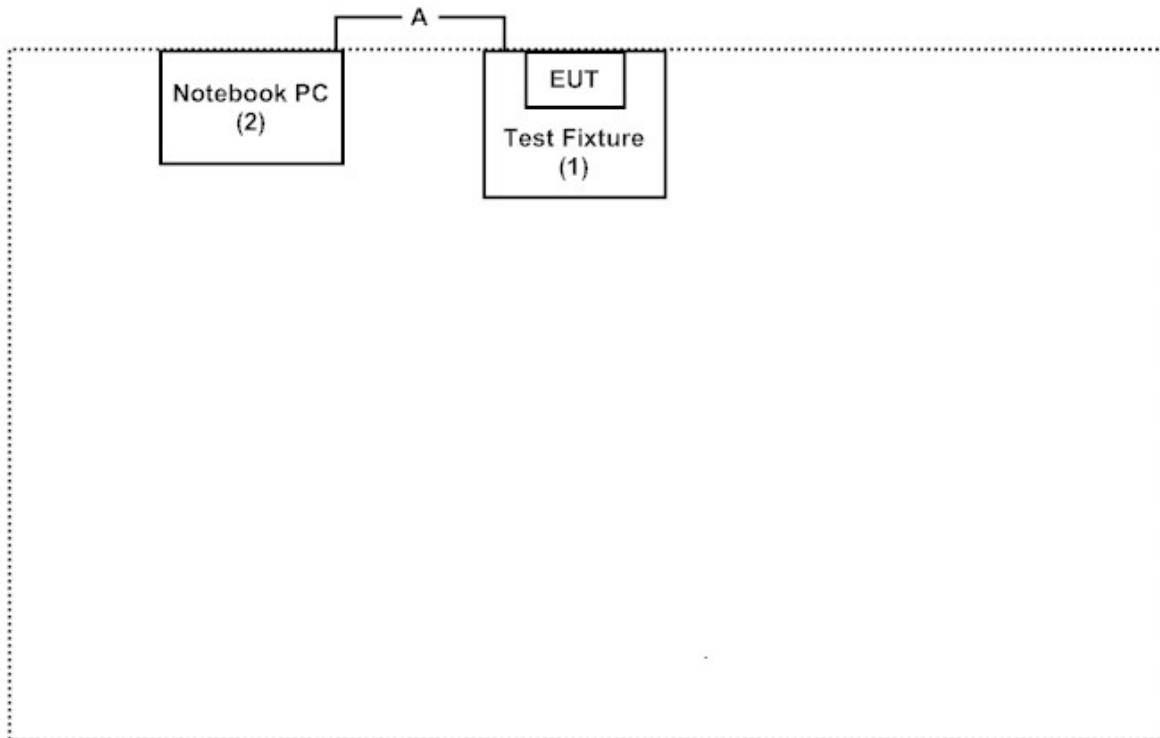
1.5. EUT Exercise Software

(1) Setup the EUT as shown in section 1.4.

(2) Execute command on the notebook.

(3) Configure the test mode, the test channel, and the data rate.

(4) Start the continuous transmission.

(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
QuieTek Corporation's Web Site: http://www.quietek.com/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site:
http://www.quietek.com/

Site Description: File on
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046
Registration Number: 92195

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation
Site Address: No.5-22, Ruishukeng,
Linkou Dist. New Taipei City 24451,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

2. Conducted Emission

2.1. Test Equipment

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2012	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2012	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2012	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2012	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

2.2. Test Setup
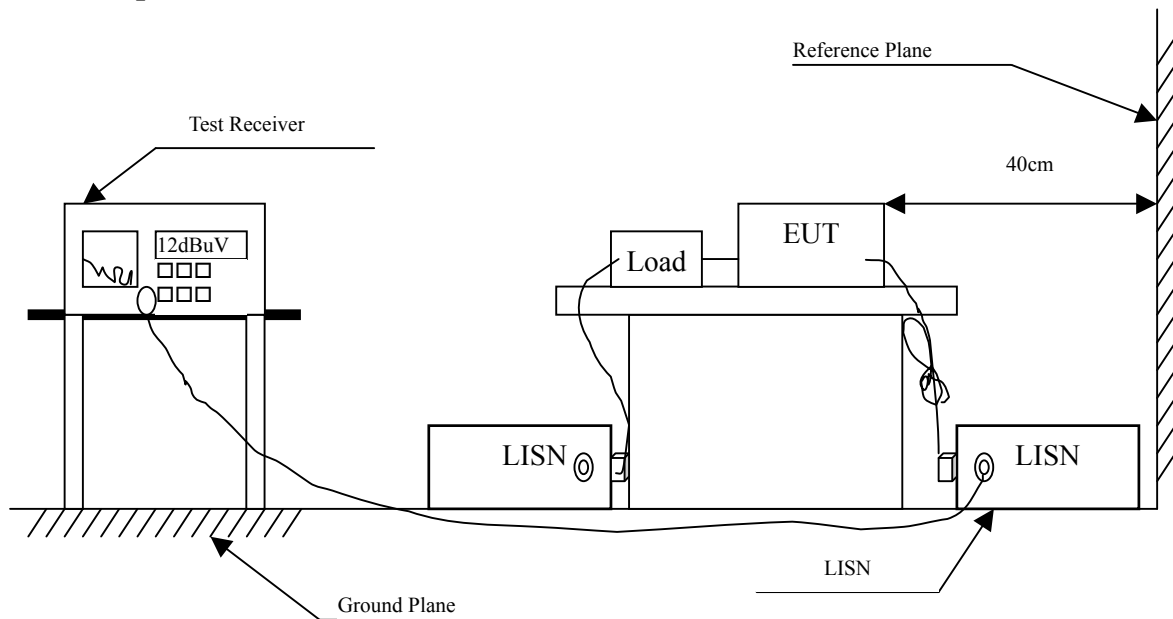
2.3.   Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) 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

2.4.   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: 2009 on conducted measurement.

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

2.5.   Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product	:	JukeBlox Networked Media Module	
Test Item	:	Conducted Emission Test	
Power Line	:	Line 1	
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (ESMT)	

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.162	9.696	35.930	45.626	-20.031	65.657
0.181	9.768	33.590	43.358	-21.756	65.114
0.463	9.809	25.690	35.499	-21.558	57.057
0.521	9.800	16.660	26.460	-29.540	56.000
0.771	9.820	15.300	25.120	-30.880	56.000
13.970	10.111	17.280	27.391	-32.609	60.000
Average					
0.162	9.696	20.250	29.946	-25.711	55.657
0.181	9.768	22.480	32.248	-22.866	55.114
0.463	9.809	17.200	27.009	-20.048	47.057
0.521	9.800	10.860	20.660	-25.340	46.000
0.771	9.820	7.400	17.220	-28.780	46.000
13.970	10.111	11.150	21.261	-28.739	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   :   JukeBlox Networked Media Module
Test Item   :   Conducted Emission Test
Power Line   :   Line 2
Test Mode   :   Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (ESMT)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.173	9.781	33.530	43.311	-22.032	65.343
0.228	9.773	29.240	39.013	-24.758	63.771
0.291	9.790	21.130	30.920	-31.051	61.971
0.455	9.820	30.680	40.500	-16.786	57.286
2.181	9.870	17.980	27.850	-28.150	56.000
13.607	10.135	18.670	28.805	-31.195	60.000
Average					
0.173	9.781	18.530	28.311	-27.032	55.343
0.228	9.773	24.060	33.833	-19.938	53.771
0.291	9.790	8.810	18.600	-33.371	51.971
0.455	9.820	22.970	32.790	-14.496	47.286
2.181	9.870	11.760	21.630	-24.370	46.000
13.607	10.135	13.010	23.145	-26.855	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	:	JukeBlox Networked Media Module			
Test Item	:	Conducted Emission Test			
Power Line	:	Line 1			
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (Winbond)			

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.150	9.697	38.000	47.697	-18.303	66.000
0.177	9.754	33.940	43.694	-21.535	65.229
0.185	9.782	32.710	42.492	-22.508	65.000
0.459	9.810	29.940	39.750	-17.421	57.171
0.505	9.800	25.220	35.020	-20.980	56.000
11.603	10.068	18.250	28.318	-31.682	60.000
Average					
0.150	9.697	24.450	34.147	-21.853	56.000
0.177	9.754	21.820	31.574	-23.655	55.229
0.185	9.782	19.730	29.512	-25.488	55.000
0.459	9.810	22.010	31.820	-15.351	47.171
0.505	9.800	16.560	26.360	-19.640	46.000
11.603	10.068	11.910	21.978	-28.022	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	:	JukeBlox Networked Media Module
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.150	9.800	37.780	47.580	-18.420	66.000
0.158	9.792	37.130	46.922	-18.849	65.771
0.232	9.774	27.490	37.264	-26.393	63.657
0.470	9.823	29.790	39.613	-17.244	56.857
4.314	9.870	15.980	25.850	-30.150	56.000
11.740	10.101	19.530	29.631	-30.369	60.000
Average					
0.150	9.800	23.890	33.690	-22.310	56.000
0.158	9.792	24.870	34.662	-21.109	55.771
0.232	9.774	22.090	31.864	-21.793	53.657
0.470	9.823	20.450	30.273	-16.584	46.857
4.314	9.870	8.680	18.550	-27.450	46.000
11.740	10.101	13.670	23.771	-26.229	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 Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2012
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2011

Note:

1.   All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2.   The test instruments marked with "X" are used to measure the final test results.

3.2.   Test Setup

Conducted Measurement

3.3.   Limits

The maximum peak power shall be less 1 Watt.

3.4.   Test Procedure

The EUT was tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

3.5.   Uncertainty

± 1.27 dB

3.6. **Test Result of Peak Power Output**

Product : JukeBlox Networked Media Module
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) – (Winbond)

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	15.69	--	--	--	18.2	<30dBm	Pass
06	2437	15.85	15.81	15.79	15.77	18.31	<30dBm	Pass
11	2462	15.81	--	--	--	18.32	<30dBm	Pass

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

Product : JukeBlox Networked Media Module
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) – (Winbond)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54	6		
		Measurement Level (dBm)										
01	2412	12.68	--	--	--	--	--	--	--	23.21	<30dBm	Pass
06	2437	12.62	12.61	12.57	15.55	12.52	12.49	12.47	12.45	22.83	<30dBm	Pass
11	2462	12.41	--	--	--	--	--	--	--	22.52	<30dBm	Pass

Note: Peak Power Output Value =Reading value on peak power meter + cable loss
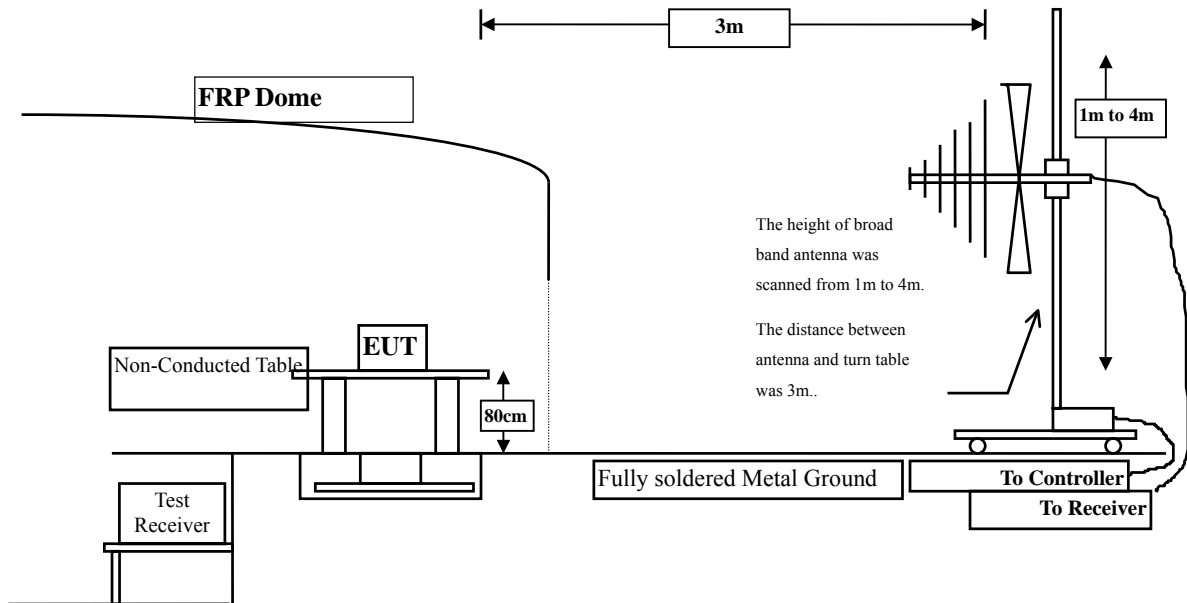
4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the radiated emission test:

| Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2011
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2012
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2. The test instruments marked with "X" are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz

Radiated Emission Above 1GHz
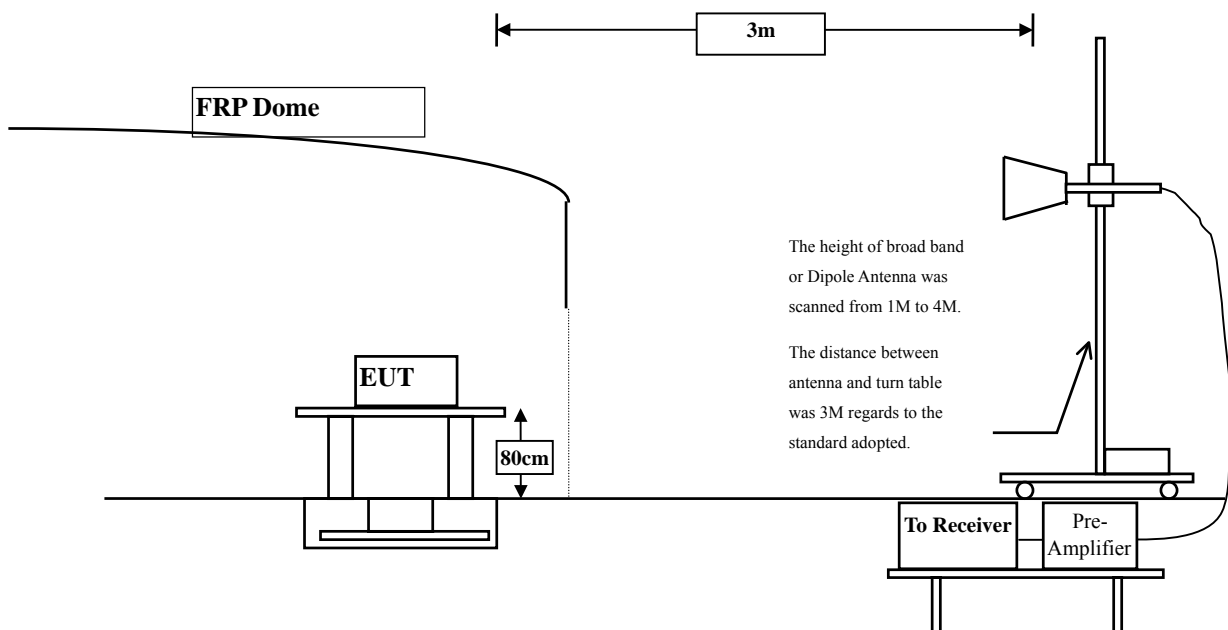
4.3.   Limits

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	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

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

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 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 C63.4:2009 on radiated measurement.

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

Radiated emission measurements below 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 frequency range from 30MHz to 10th harminics is checked.

4.5. Uncertainty

± 3.9 dB above 1GHz
± 3.8 dB below 1GHz

4.6.   Test Result of Radiated Emission

Product   :   JukeBlox Networked Media Module
Test Item   :   Harmonic Radiated Emission Data
Test Site   :   No.3 OATS
Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2412MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	36.510	39.771	-34.229	74.000
7236.000	10.650	36.770	47.420	-26.580	74.000
9648.000	13.337	39.480	52.816	-21.184	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	38.460	44.881	-29.119	74.000
7236.000	11.495	41.380	52.875	-21.125	74.000
9648.000	13.807	41.700	55.506	-18.494	74.000
Average Detector:					
9648.000	13.807	36.590	50.396	-3.604	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.

Product	:	JukeBlox Networked Media Module
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	41.000	44.037	-29.963	74.000
7311.000	11.795	35.710	47.504	-26.496	74.000
9748.000	12.635	40.360	52.995	-21.005	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	39.440	45.251	-28.749	74.000
7311.000	12.630	40.890	53.519	-20.481	74.000
9748.000	13.126	42.680	55.806	-18.194	74.000
Average Detector:					
9748.000	13.126	38.670	51.796	-3.004	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.

Product : JukeBlox Networked Media Module
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.520	40.377	-33.623	74.000
7386.000	12.127	34.930	47.058	-26.942	74.000
9848.000	12.852	36.880	49.733	-24.267	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	40.430	45.950	-28.050	74.000
7386.000	13.254	40.070	53.324	-20.676	74.000
9848.000	13.367	40.990	54.357	-19.643	74.000
Average Detector:					
9848.000	13.367	35.850	49.217	-4.783	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.

Product	:	JukeBlox Networked Media Module			
Test Item	:	Harmonic Radiated Emission Data			
Test Site	:	No.3 OATS			
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2412MHz) – (Winbond)			

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.600	40.861	-33.139	74.000
7236.000	10.650	36.270	46.920	-27.080	74.000
9648.000	13.337	36.530	49.866	-24.134	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	37.390	43.811	-30.189	74.000
7236.000	11.495	44.530	56.025	-17.975	74.000
9648.000	13.807	37.370	51.176	-22.824	74.000
Average Detector:					
7236.000	11.495	28.140	39.635	-14.365	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.

Product	:	JukeBlox Networked Media Module			
Test Item	:	Harmonic Radiated Emission Data			
Test Site	:	No.3 OATS			
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) – (Winbond)			

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	38.300	41.337	-32.663	74.000
7311.000	11.795	35.780	47.574	-26.426	74.000
9748.000	12.635	38.110	50.745	-23.255	74.000
Average Detector:					
--					
Peak Detector:					
4874.000	5.812	37.770	43.581	-30.419	74.000
7311.000	12.630	43.700	56.329	2.329	74.000
9748.000	13.126	38.870	51.996	-22.004	74.000
Average Detector:					
7311.000	12.630	27.240	39.869	-14.131	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.

Product	:	JukeBlox Networked Media Module			
Test Item	:	Harmonic Radiated Emission Data			
Test Site	:	No.3 OATS			
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) (2462 MHz) – (Winbond)			

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.750	40.607	-33.393	74.000
7386.000	12.127	35.150	47.278	-26.722	74.000
9848.000	12.852	36.480	49.333	-24.667	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	37.660	43.180	-30.820	74.000
7386.000	13.254	39.700	52.954	-21.046	74.000
9848.000	13.367	37.850	51.217	-22.783	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	:	JukeBlox Networked Media Module
Test Item	:	General Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)(2437 MHz) – (ESMT)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
507.240	0.759	35.561	36.320	-9.680	46.000
608.120	4.384	28.617	33.001	-12.999	46.000
720.640	3.511	32.077	35.588	-10.412	46.000
800.180	5.141	30.006	35.147	-10.853	46.000
901.060	5.591	26.103	31.694	-14.306	46.000
961.200	6.450	30.519	36.969	-17.031	54.000
Vertical					
68.800	-6.305	41.554	35.249	-4.751	40.000
507.240	-0.471	33.548	33.077	-12.923	46.000
608.120	-1.576	34.147	32.571	-13.429	46.000
749.740	2.510	35.411	37.921	-8.079	46.000
800.180	2.801	35.014	37.815	-8.185	46.000
961.200	7.260	29.515	36.775	-17.225	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.

Product	:	JukeBlox Networked Media Module			
Test Item	:	General Radiated Emission Data			
Test Site	:	No.3 OATS			
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps)(2437 MHz) – (ESMT)			

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
425.760	-3.093	37.594	34.501	-11.499	46.000
507.240	0.759	34.136	34.895	-11.105	46.000
608.120	4.384	27.161	31.545	-14.455	46.000
720.640	3.511	33.091	36.602	-9.398	46.000
800.180	5.141	30.796	35.937	-10.063	46.000
961.200	6.450	30.014	36.464	-17.536	54.000
Vertical					
507.240	-0.471	30.316	29.845	-16.155	46.000
641.100	-3.972	33.090	29.118	-16.882	46.000
749.740	2.510	37.389	39.899	-6.101	46.000
800.180	2.801	34.471	37.272	-8.728	46.000
914.640	1.033	35.366	36.399	-9.601	46.000
961.200	7.260	28.306	35.566	-18.434	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.

|		
Product	:	JukeBlox Networked Media Module
Test Item	:	General Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps)(2437 MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
264.740	-4.991	39.699	34.708	-11.292	46.000
350.100	-2.332	31.819	29.487	-16.513	46.000
480.080	-0.329	31.058	30.729	-15.271	46.000
699.300	2.875	31.839	34.714	-11.286	46.000
800.180	5.141	30.941	36.082	-9.918	46.000
961.200	6.450	29.337	35.787	-18.213	54.000
Vertical					
125.060	-4.046	35.620	31.574	-11.926	43.500
749.740	2.510	35.585	38.095	-7.905	46.000
769.140	2.923	35.442	38.365	-7.635	46.000
809.880	3.279	31.471	34.750	-11.250	46.000
901.060	3.331	28.334	31.665	-14.335	46.000
961.200	7.260	28.802	36.062	-17.938	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.
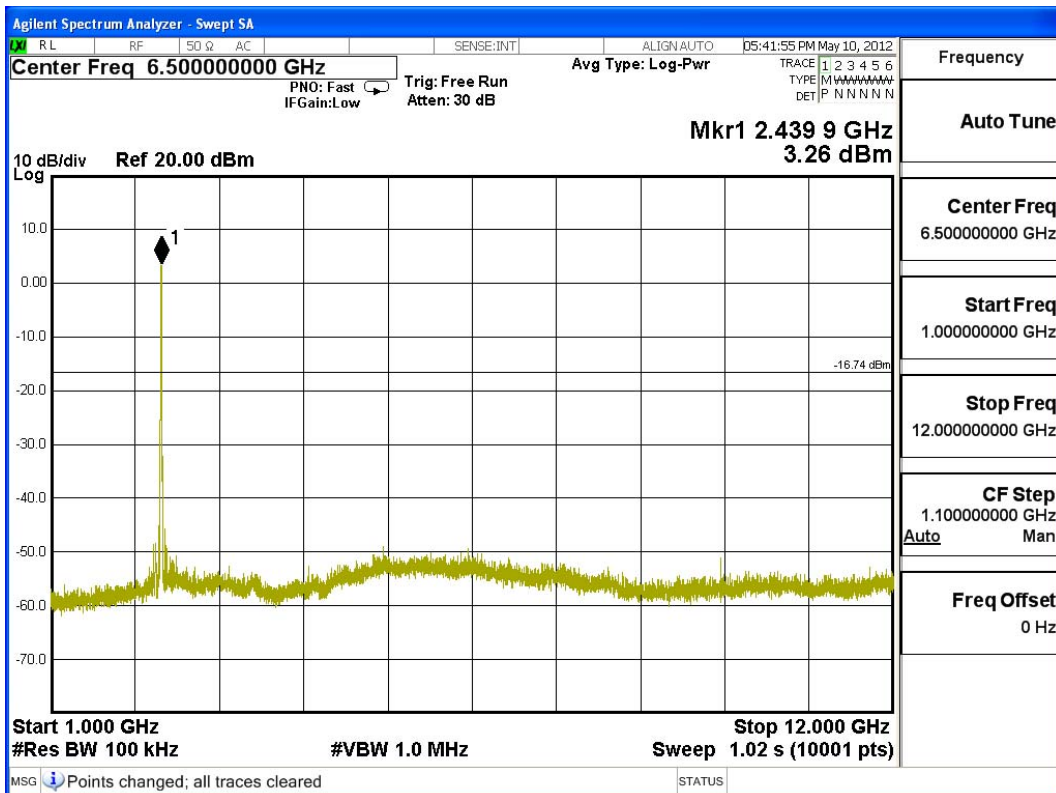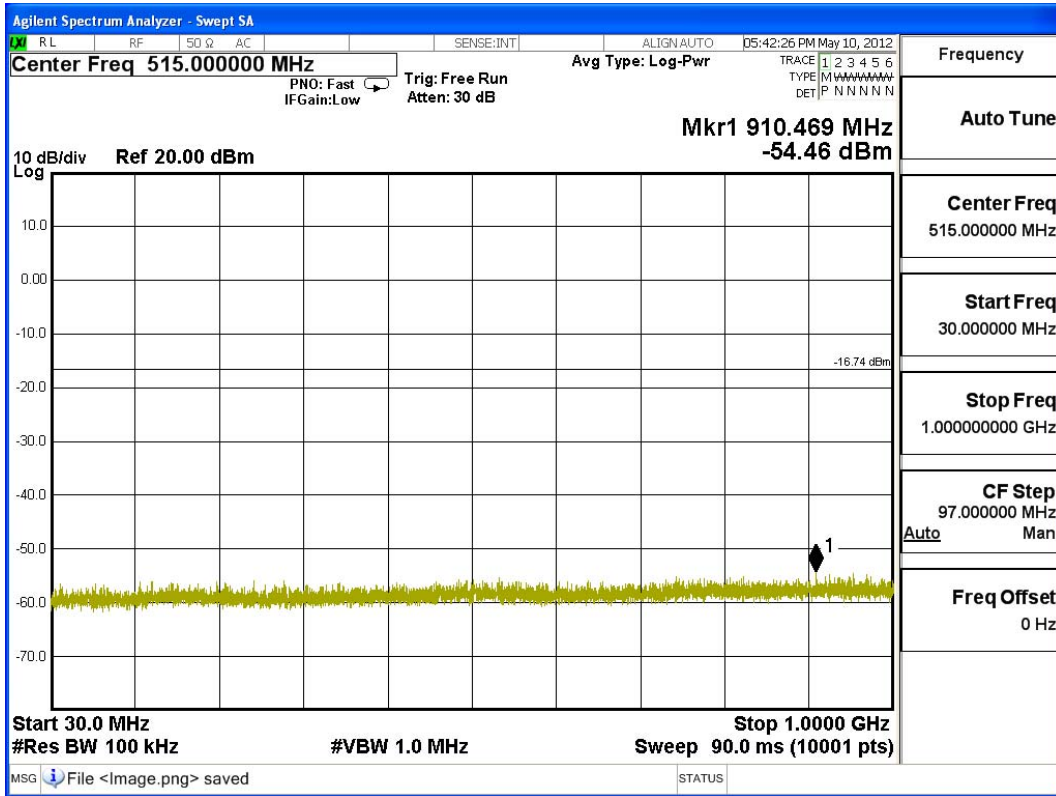
Product : JukeBlox Networked Media Module
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz) – (Winbond)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
350.100	-2.332	31.812	29.480	-16.520	46.000
592.600	3.767	28.130	31.897	-14.103	46.000
641.100	1.348	30.610	31.958	-14.042	46.000
720.640	3.511	31.815	35.326	-10.674	46.000
800.180	5.141	29.350	34.491	-11.509	46.000
961.200	6.450	31.076	37.526	-16.474	54.000
Vertical					
55.220	-4.699	32.762	28.063	-11.937	40.000
641.100	-3.972	32.727	28.755	-17.245	46.000
749.740	2.510	36.236	38.746	-7.254	46.000
782.720	3.035	34.323	37.358	-8.642	46.000
901.060	3.331	28.548	31.879	-14.121	46.000
961.200	7.260	28.798	36.058	-17.942	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.

5. RF antenna conducted test

5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2. The test instruments marked with "X" are used to measure the final test results.

5.2. Test Setup

RF antenna Conducted Measurement:
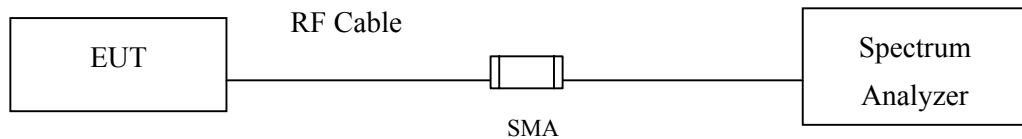
5.3. Limits

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)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

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

5.5. **Uncertainty**

The measurement uncertainty

Conducted is defined as $\pm$ 1.27dB

5.6. Test Result of RF antenna conducted test

Product   :   JukeBlox Networked Media Module
Test Item   :   RF antenna conducted test
Test Site   :   No.3 OATS
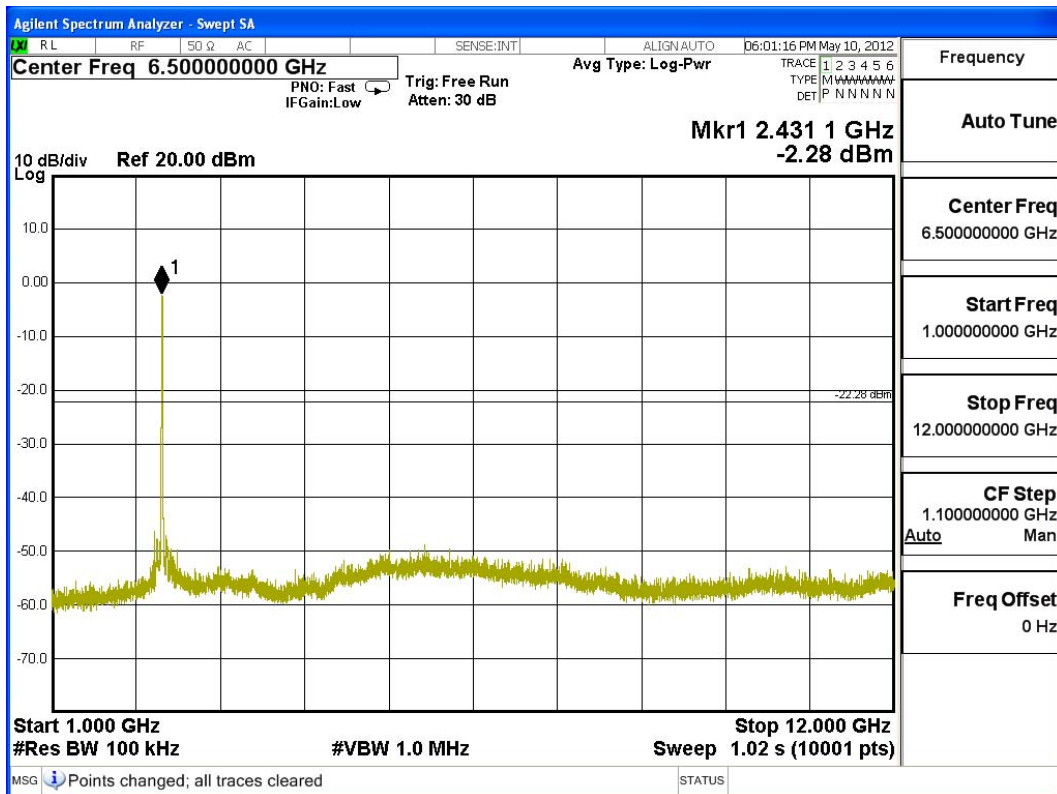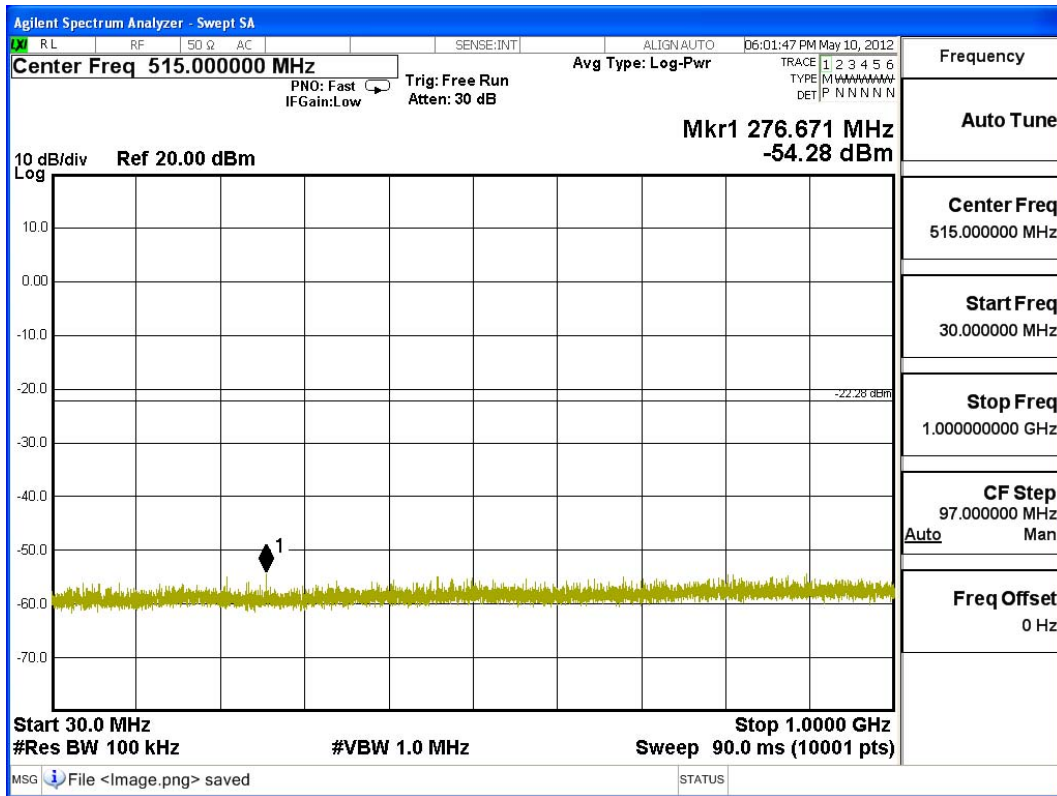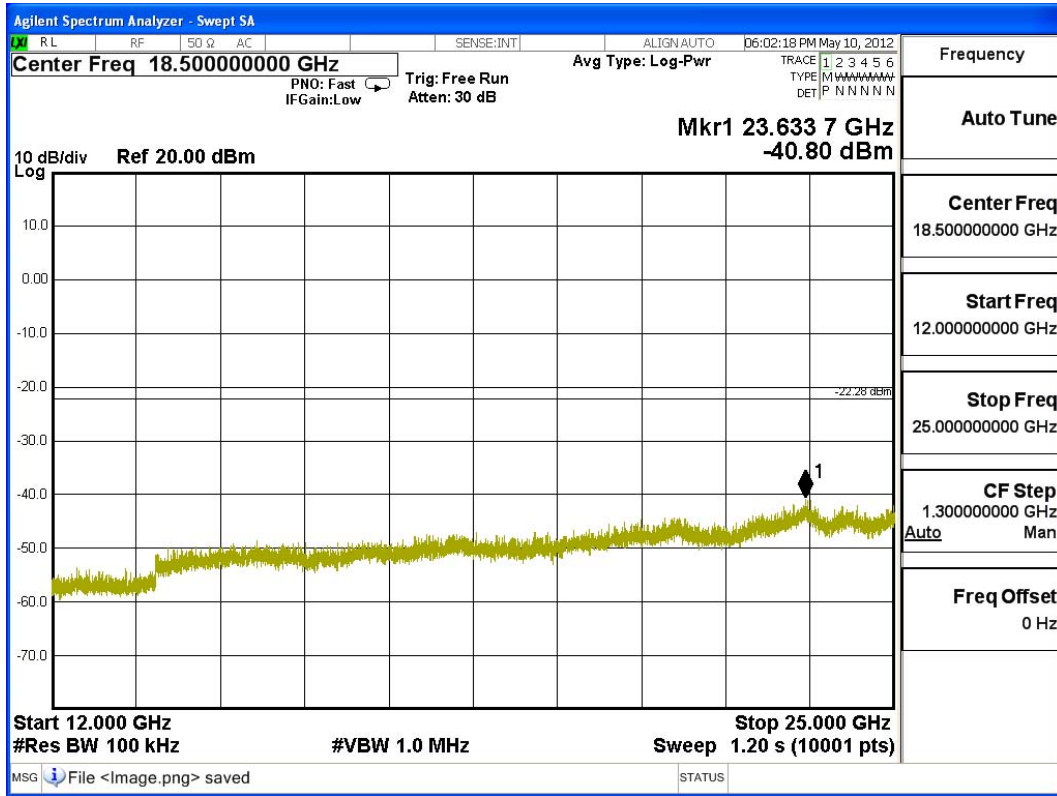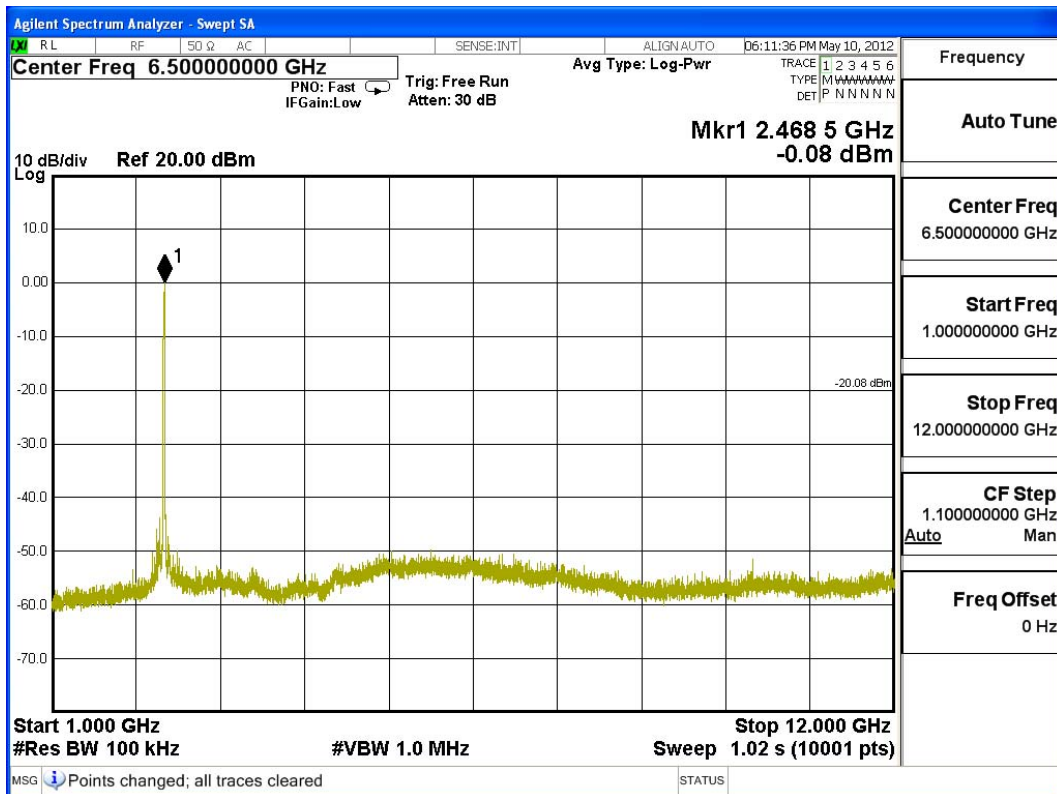Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) – (Winbond)
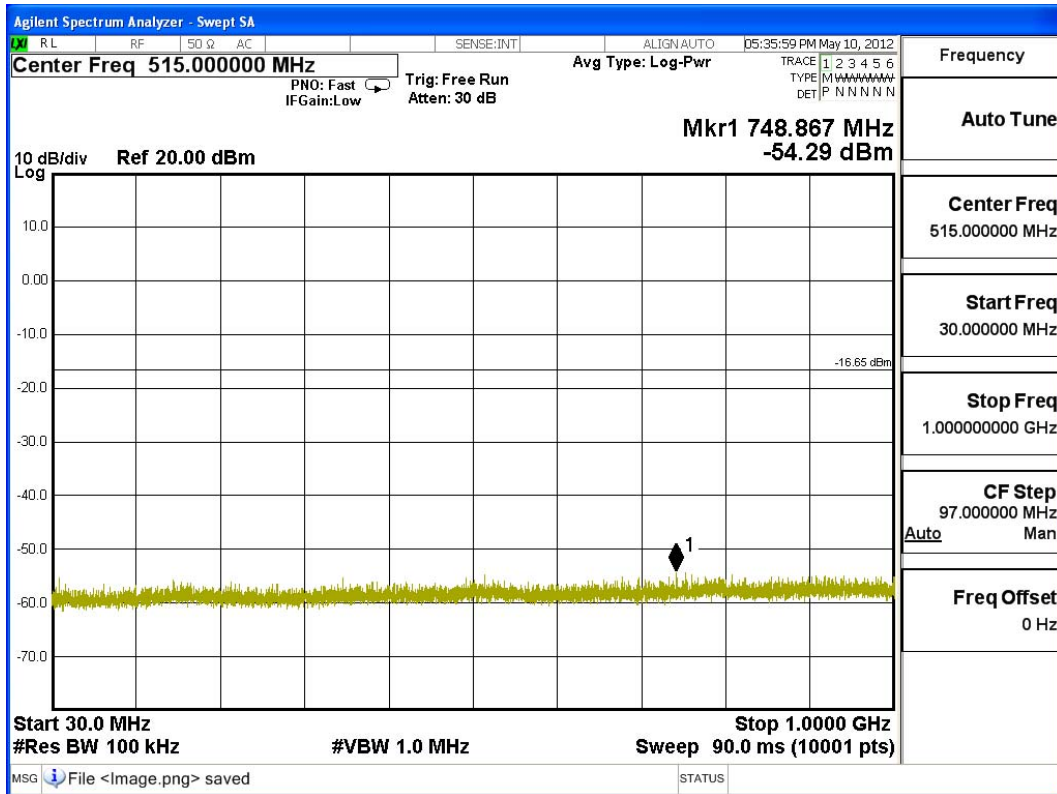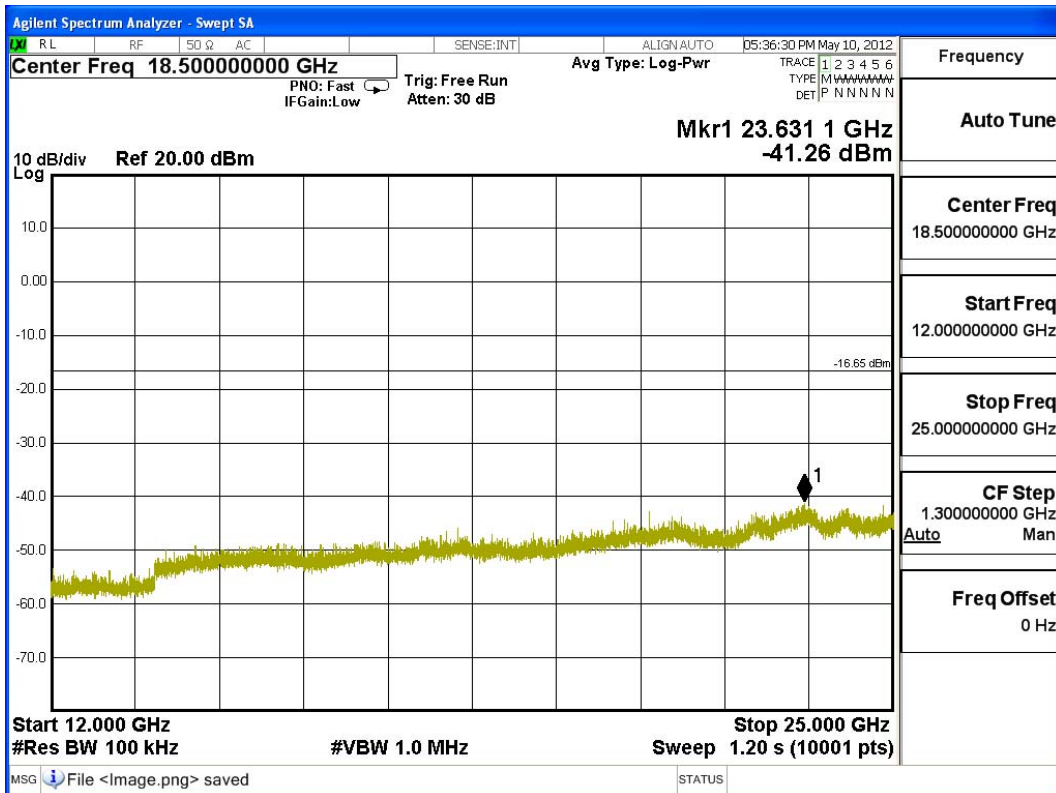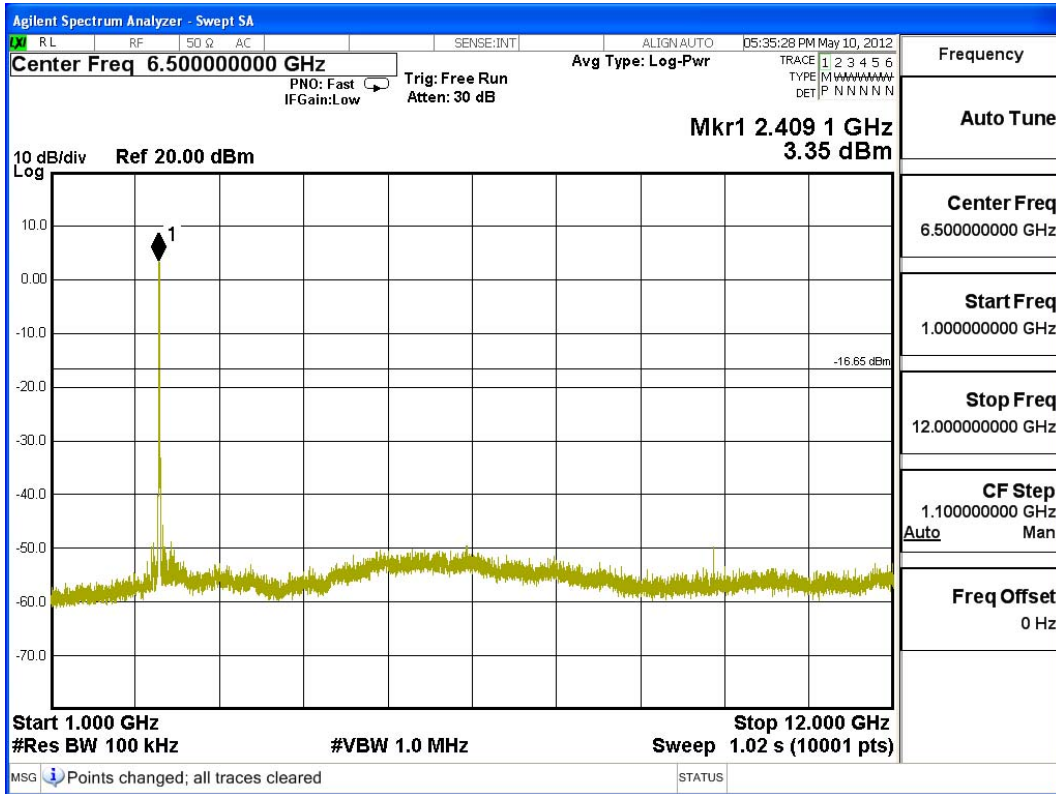
Channel 01 (2412MHz)

Channel 06 (2437MHz)
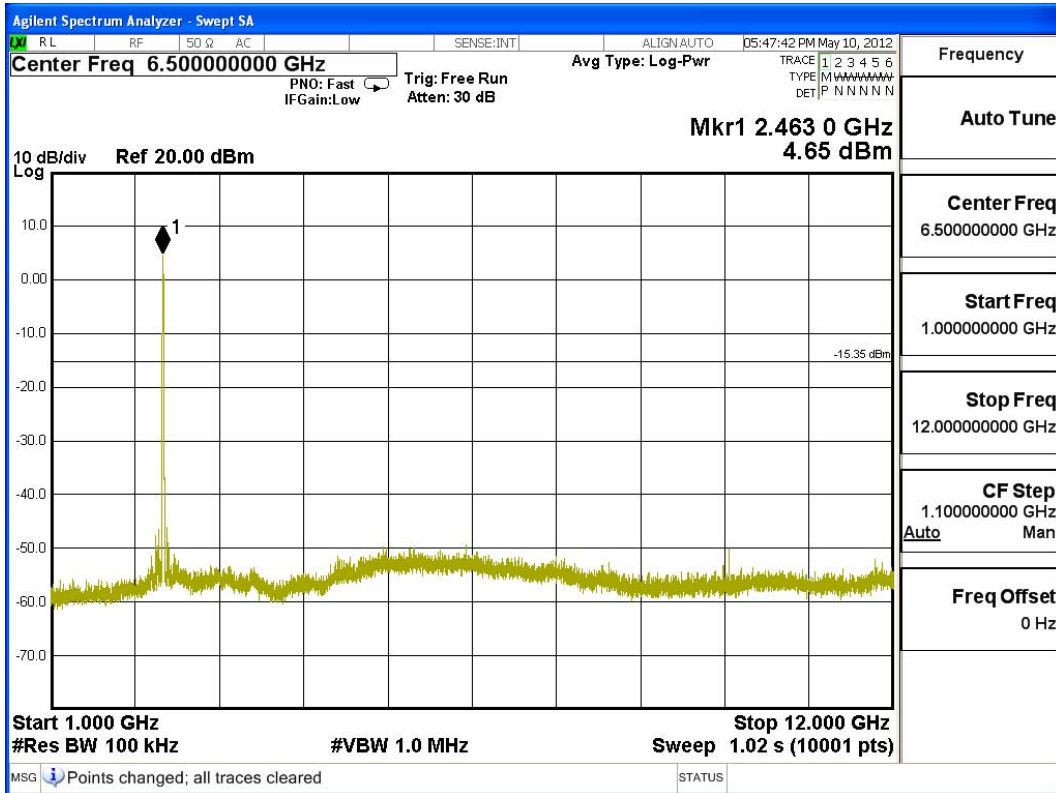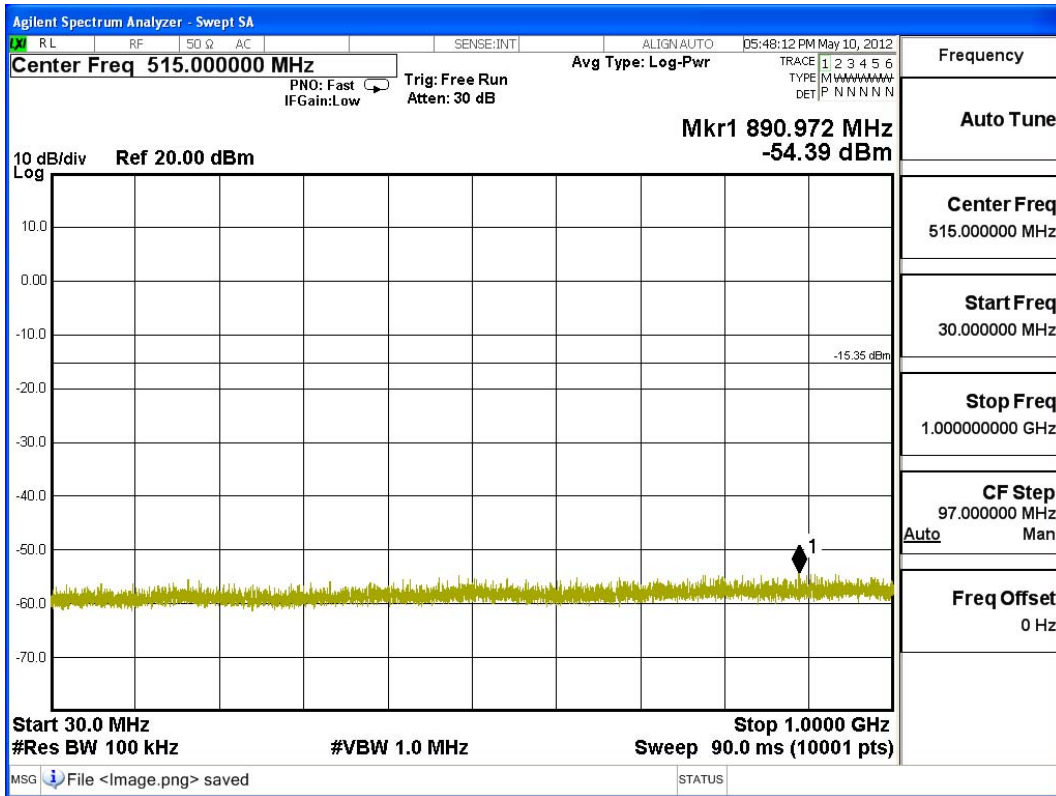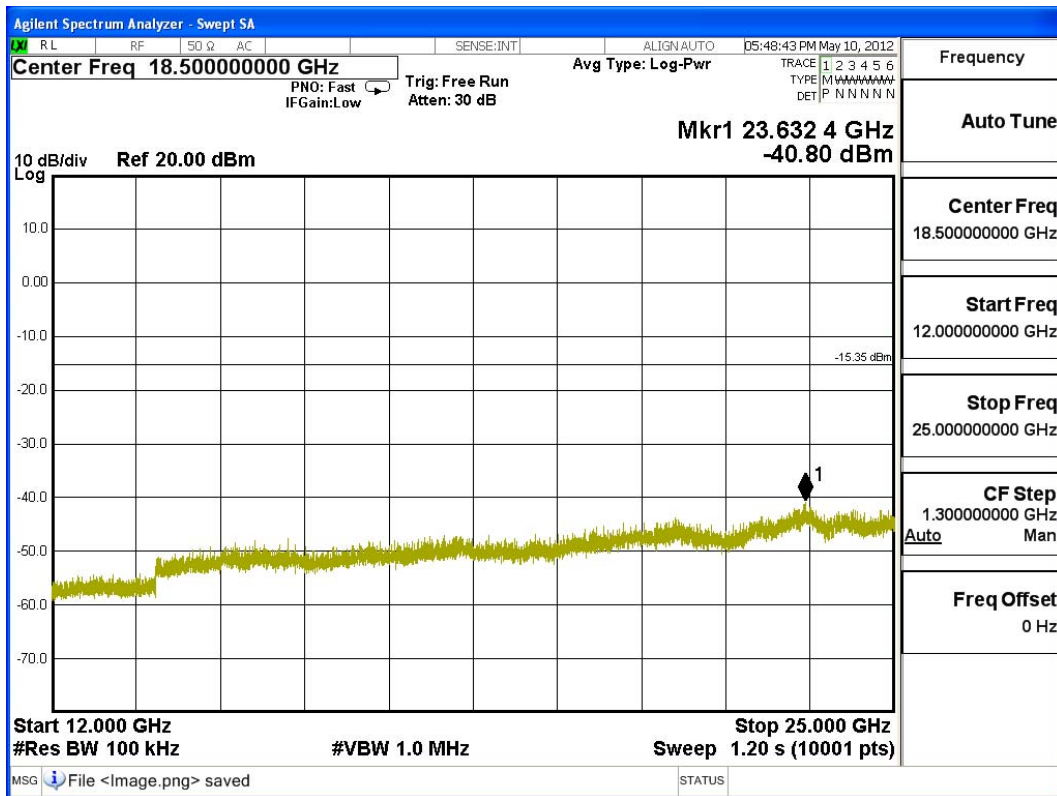
Channel 11 (2462MHz)

Product	:	JukeBlox Networked Media Module
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) – (Winbond)

Channel 01 (2412MHz)
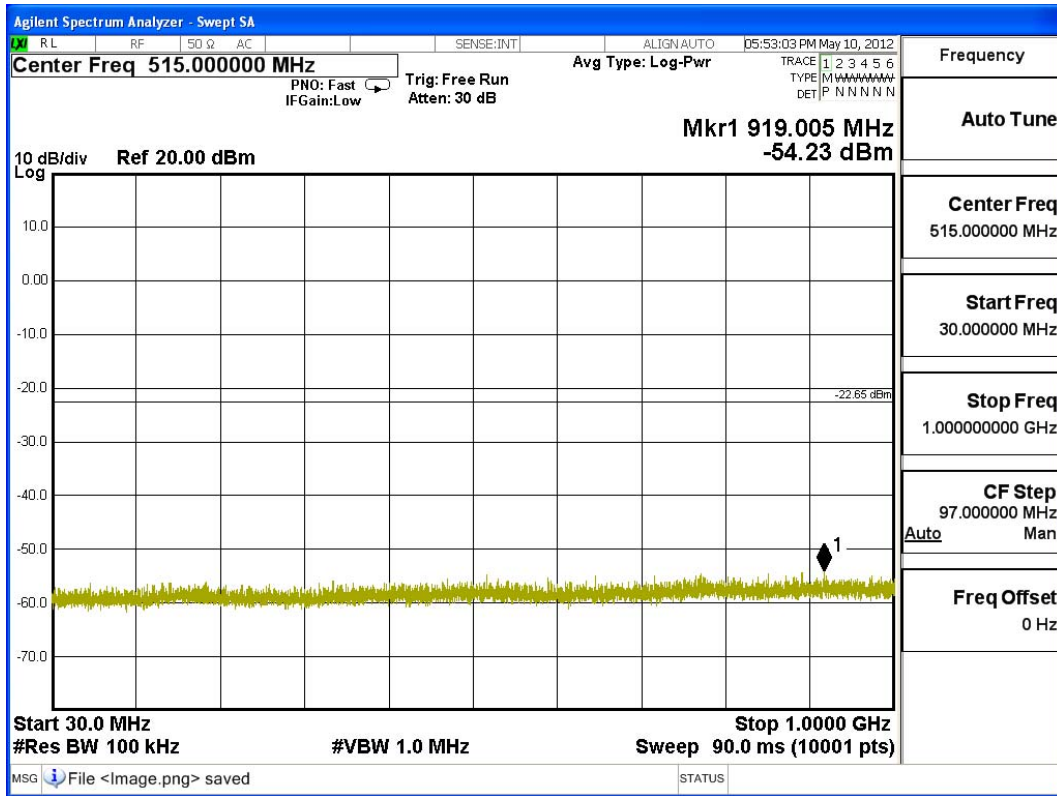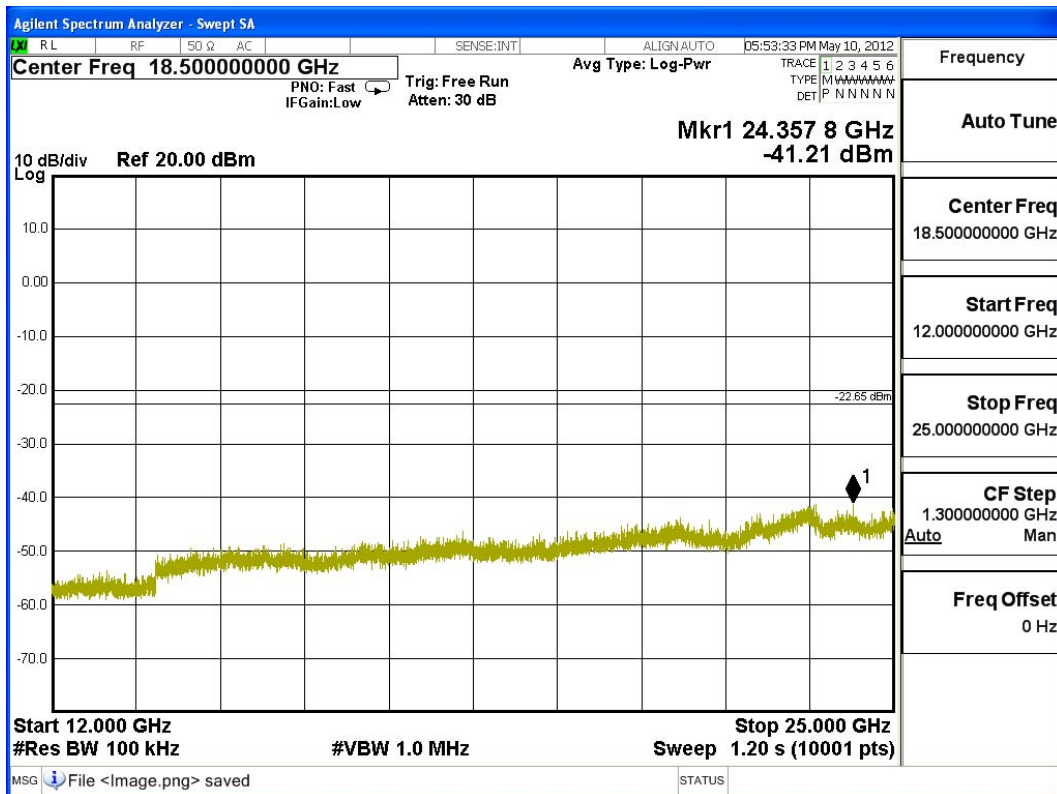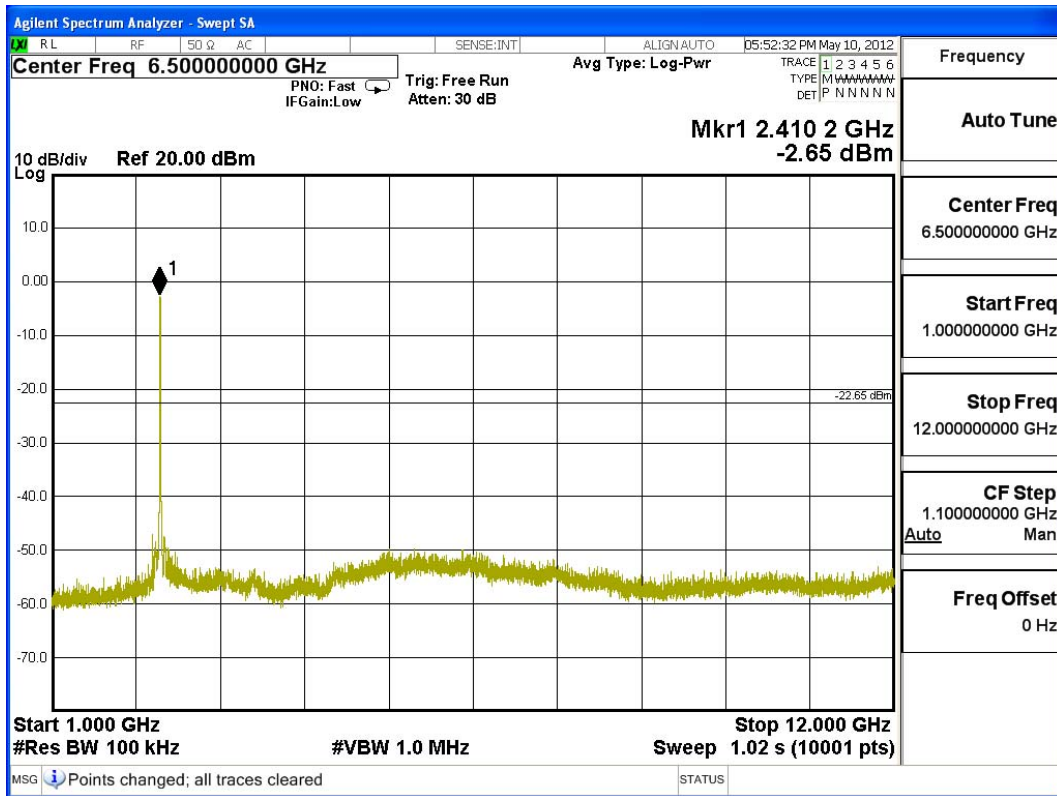
Channel 06 (2437MHz)

Channel 11 (2462MHz)
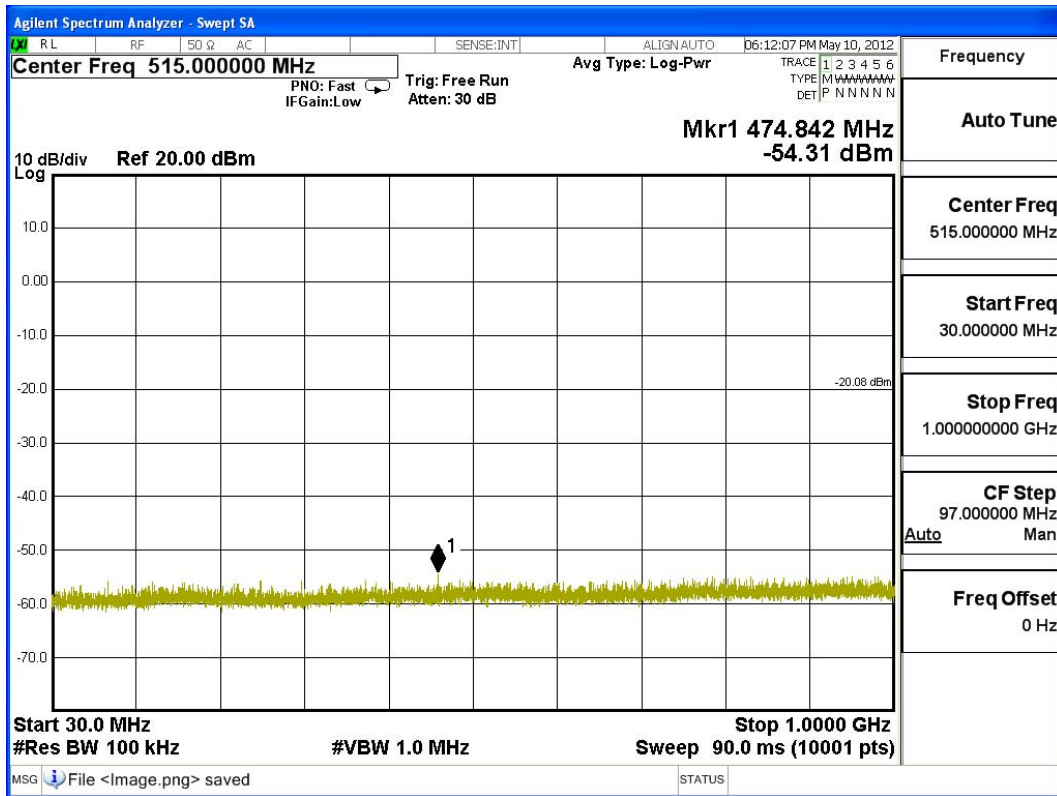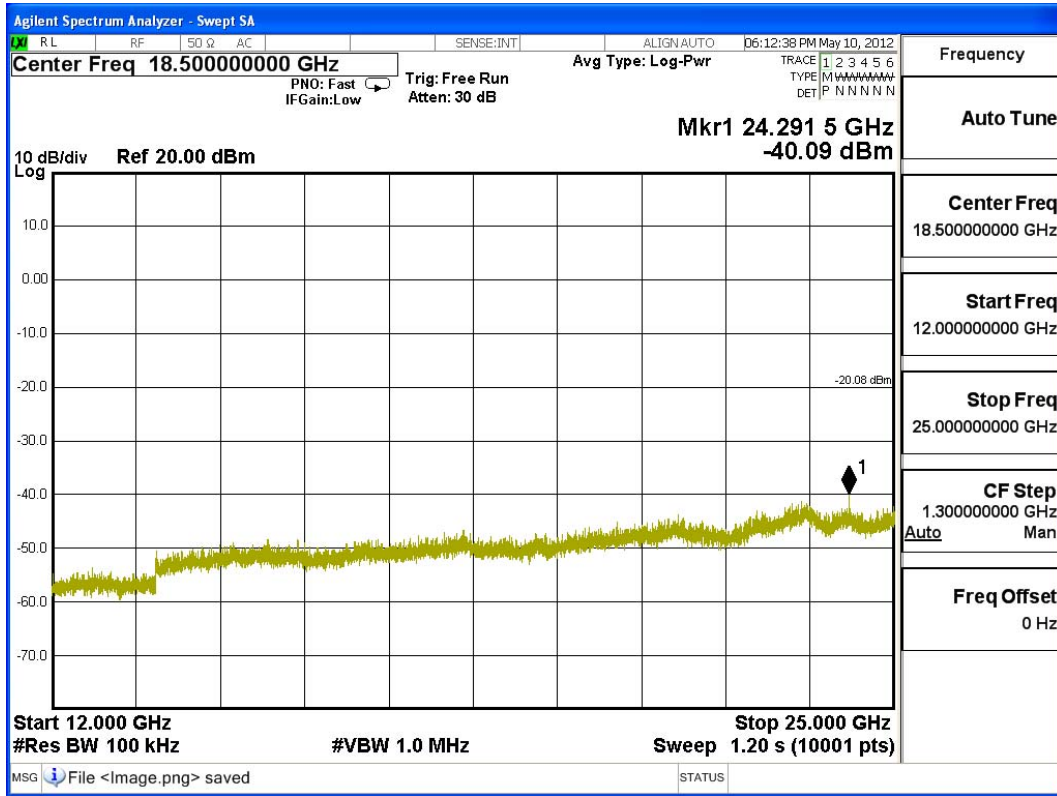
6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:

1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

RF Radiated Measurement:

The following test equipments are used during the band edge tests:

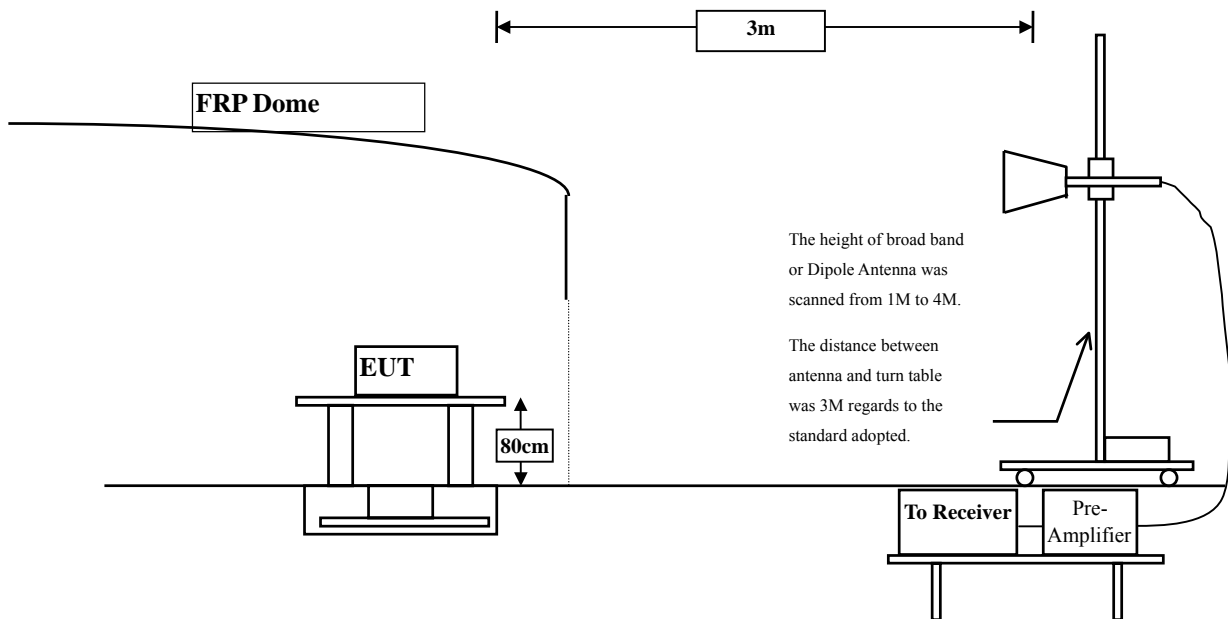| Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2011
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2011
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2011
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2012
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2011
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2012
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All instruments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Conducted Measurement:

RF Radiated Measurement:

The height of broad band or Dipole Antenna was scanned from 1M to 4M.

The distance between antenna and turn table was 3M regards to the standard adopted.
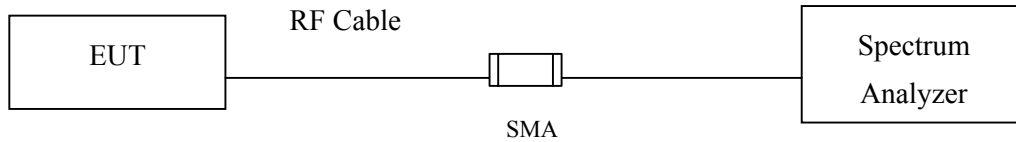
6.3. Limits

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.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 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 C63.4:2009 on radiated measurement.

6.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : JukeBlox Networked Media Module

Test Item : Band Edge Data

Test Site : No.3 OATS
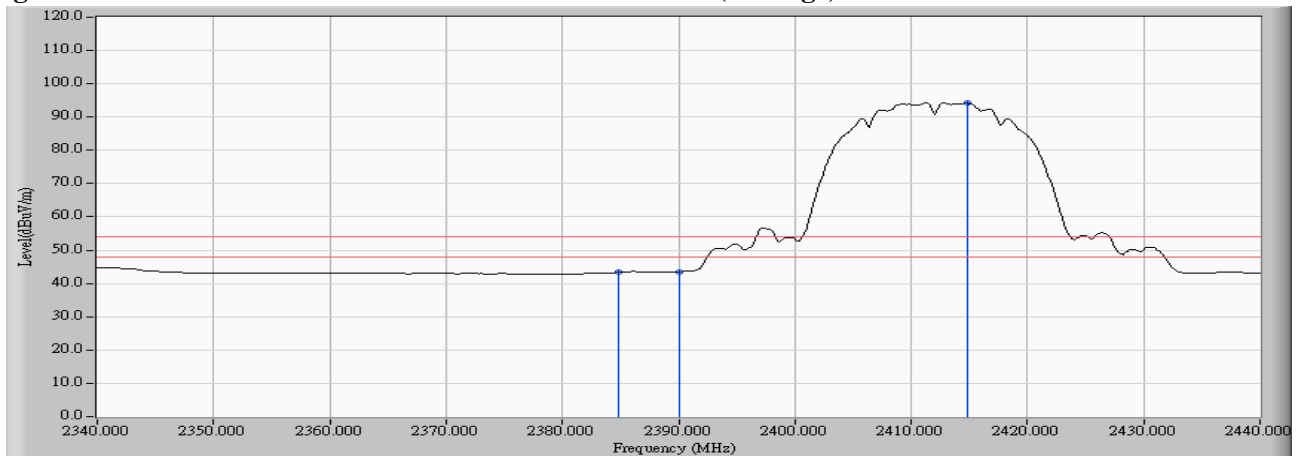
Test Mode : Mode 1: Transmit (802.11b 1Mbps) – (Winbond)

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)	2388.200	31.502	24.271	55.773	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	23.319	54.828	74.00	54.00	Pass
01 (Peak)	2413.000	31.646	61.097	92.743	--	--	Pass
01 (Average)	2388.200	31.502	12.006	43.508	74.00	54.00	Pass
01 (Average)	2390.000	31.509	12.004	43.513	74.00	54.00	Pass
01 (Average)	2414.800	31.660	57.392	89.052	--	--	Pass

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	:	JukeBlox Networked Media Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) – (Winbond)

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)	2384.800	30.939	24.869	55.808	74.00	54.00	Pass
01 (Peak)	2390.000	30.915	24.324	55.239	74.00	54.00	Pass
01 (Peak)	2413.000	30.956	67.039	97.995	--	--	Pass
01 (Average)	2384.800	30.939	12.464	43.403	74.00	54.00	Pass
01 (Average)	2390.000	30.915	12.486	43.401	74.00	54.00	Pass
01 (Average)	2414.800	30.968	63.309	94.277	--	--	Pass

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

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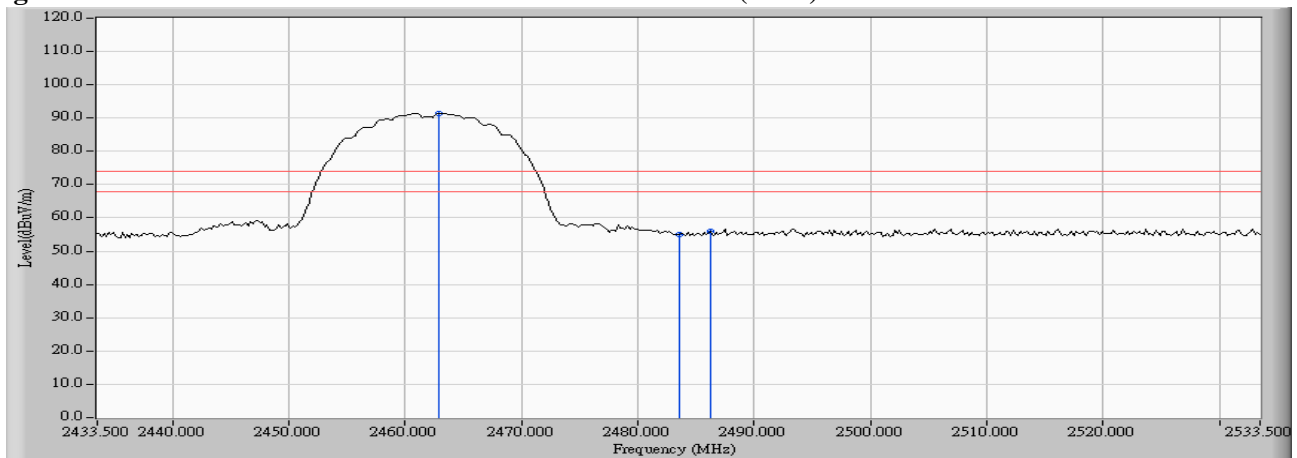

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

Product : JukeBlox Networked Media Module
Test Item : Band Edge Data
Test Site : No.3 OATS
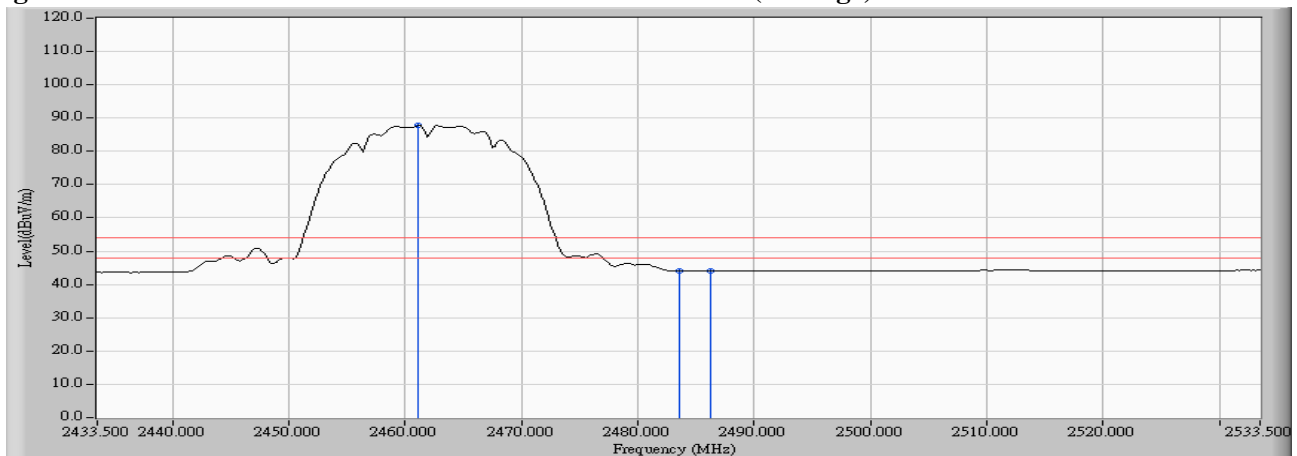Test Mode : Mode 1: Transmit (802.11b 1Mbps) – (Winbond)

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	32.026	59.494	91.520	--	--	Pass
11 (Peak)	2483.500	32.182	22.862	55.044	74.00	54.00	Pass
11 (Peak)	2486.300	32.203	23.808	56.011	74.00	54.00	Pass
11 (Average)	2461.100	32.013	55.829	87.842	--	--	Pass
11 (Average)	2483.500	32.182	11.976	44.158	74.00	54.00	Pass
11 (Average)	2486.300	32.203	11.932	44.135	74.00	54.00	Pass

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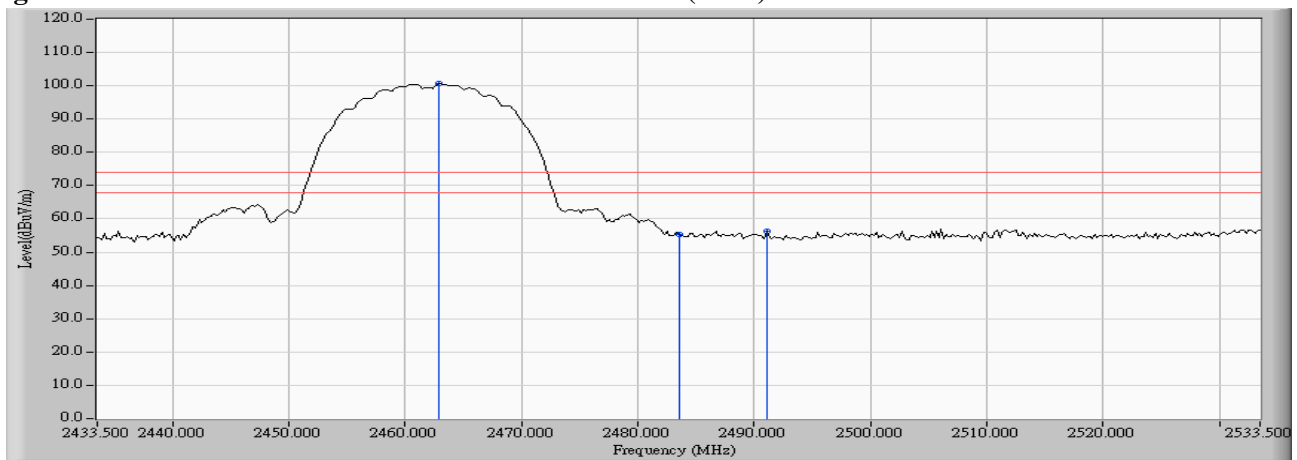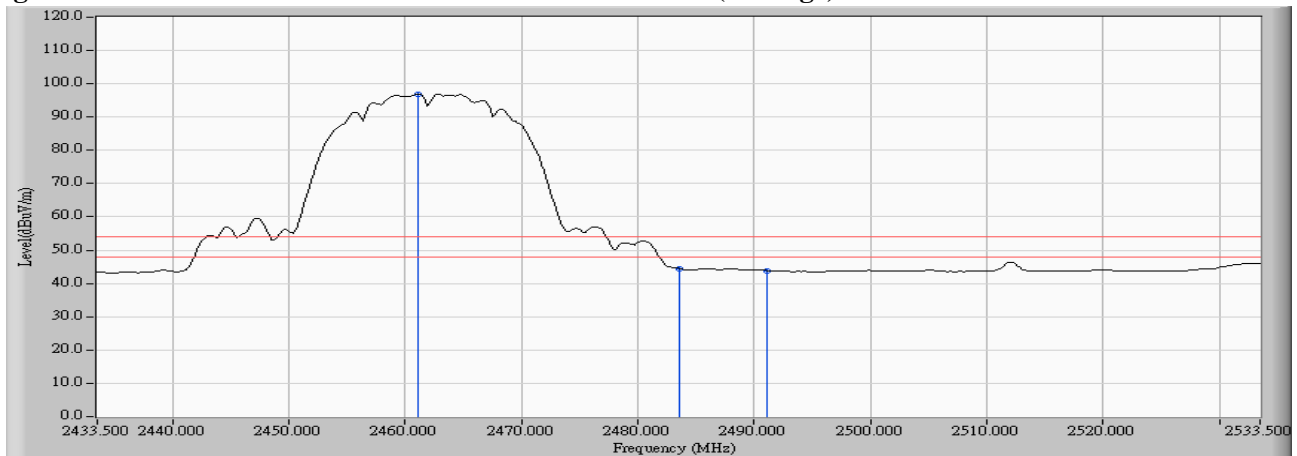

Figure Channel 11: **Horizontal (Average)**

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	:	JukeBlox Networked Media Module
	Test Item	:	Band Edge Data
	Test Site	:	No.3 OATS
	Test Mode	:	Mode 1: Transmit (802.11b 1Mbps) – (Winbond)

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	31.296	69.304	100.600	--	--	Pass
11 (Peak)	2483.500	31.435	23.821	55.256	74.00	54.00	Pass
11 (Peak)	2491.100	31.487	24.859	56.346	74.00	54.00	Pass
11 (Average)	2461.100	31.285	65.618	96.902	--	--	Pass
11 (Average)	2483.500	31.435	13.012	44.447	74.00	54.00	Pass
11 (Average)	2491.100	31.487	12.413	43.900	74.00	54.00	Pass

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

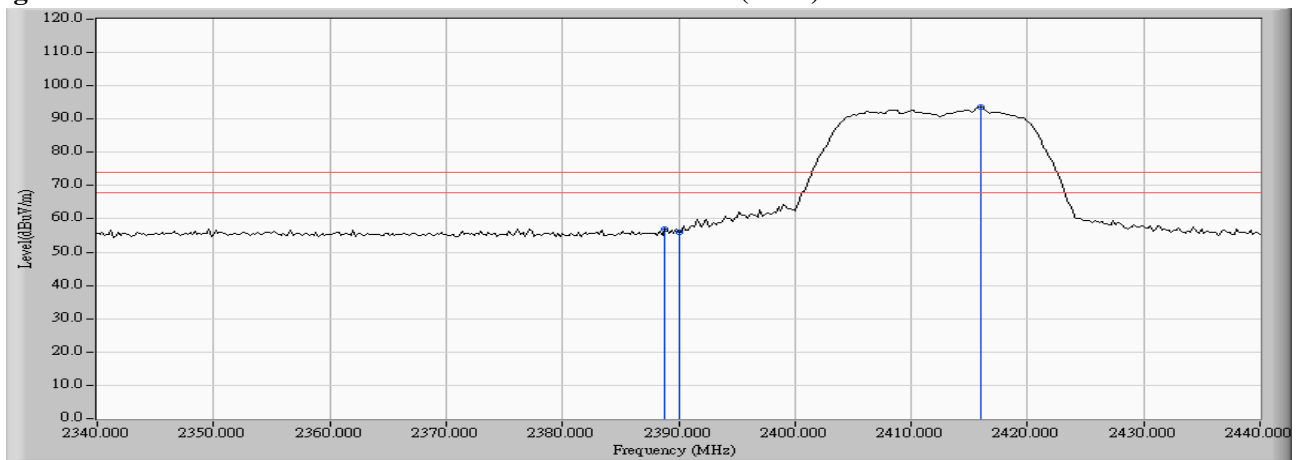**Figure Channel 11:**　　　　　　　　　　　　　　　　**Vertical (Average)**

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.

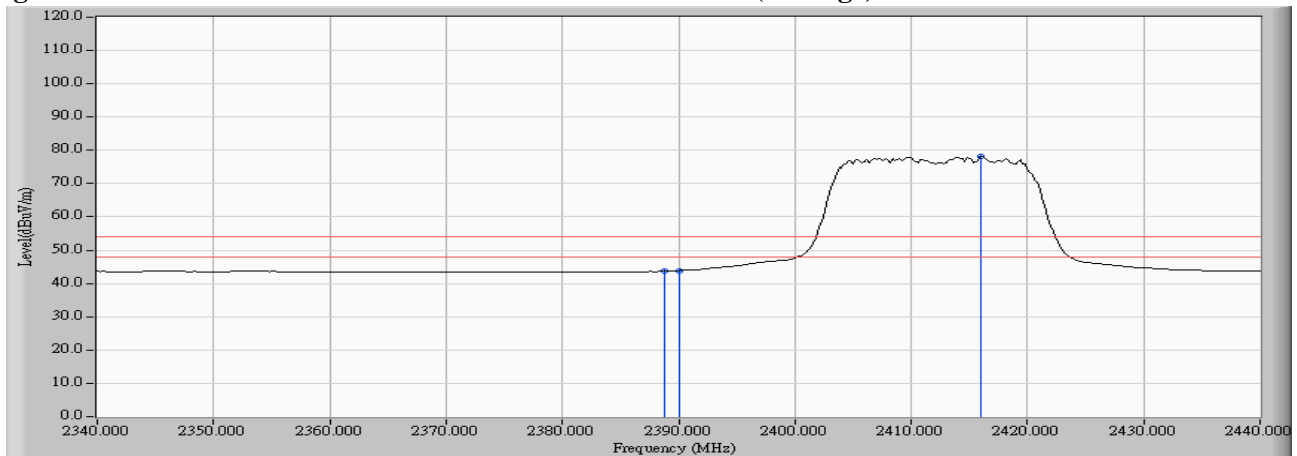|		
Product	:	JukeBlox Networked Media Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) – (Winbond)

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)	2388.800	31.505	25.509	57.013	74.00	54.00	Pass
01 (Peak)	2390.000	31.509	24.559	56.068	74.00	54.00	--
01 (Peak)	2416.000	31.670	62.048	93.717	--	--	--
01 (Average)	2388.800	31.505	12.169	43.673	74.00	54.00	Pass
01 (Average)	2390.000	31.509	12.377	43.886	74.00	54.00	Pass
01 (Average)	2416.000	31.670	46.468	78.137	--	--	--

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

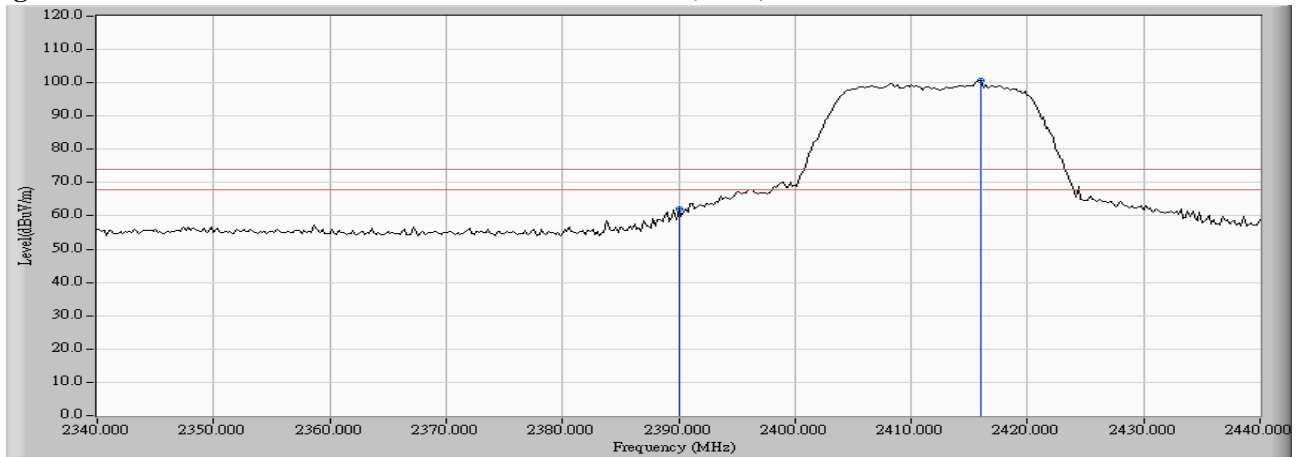**Figure Channel 01:**   **Horizontal (Average)**

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.

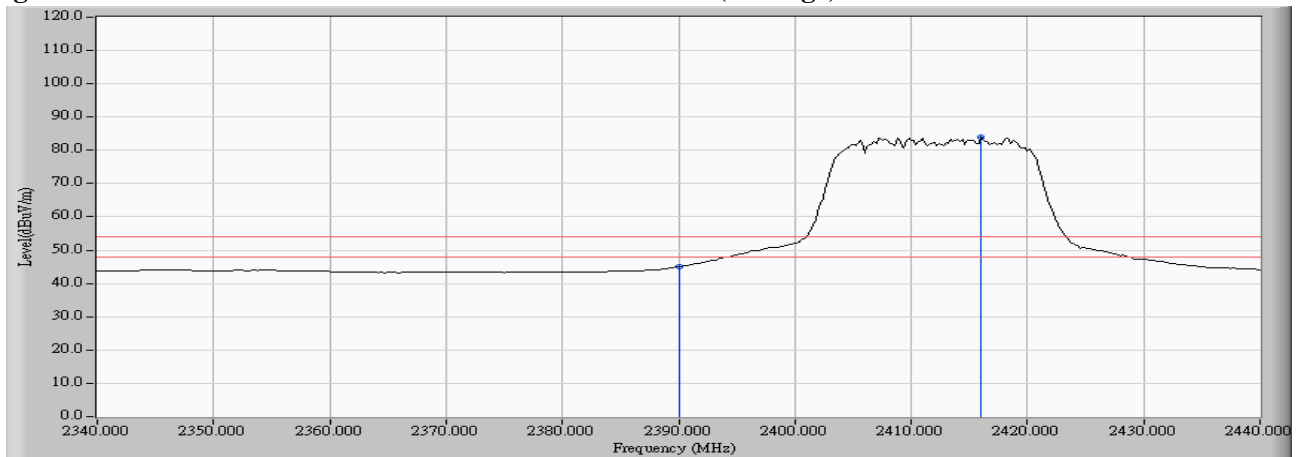|							
Product	:	JukeBlox Networked Media Module					
Test Item	:	Band Edge Data					
Test Site	:	No.3 OATS					
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) – (Winbond)					

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	30.915	31.093	62.008	74.00	54.00	Pass
01 (Peak)	2416.000	30.977	69.855	100.831	--	--	Pass
01 (Average)	2390.000	30.915	14.133	45.048	74.00	54.00	Pass
01 (Average)	2416.000	30.977	53.086	84.062	--	--	Pass

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

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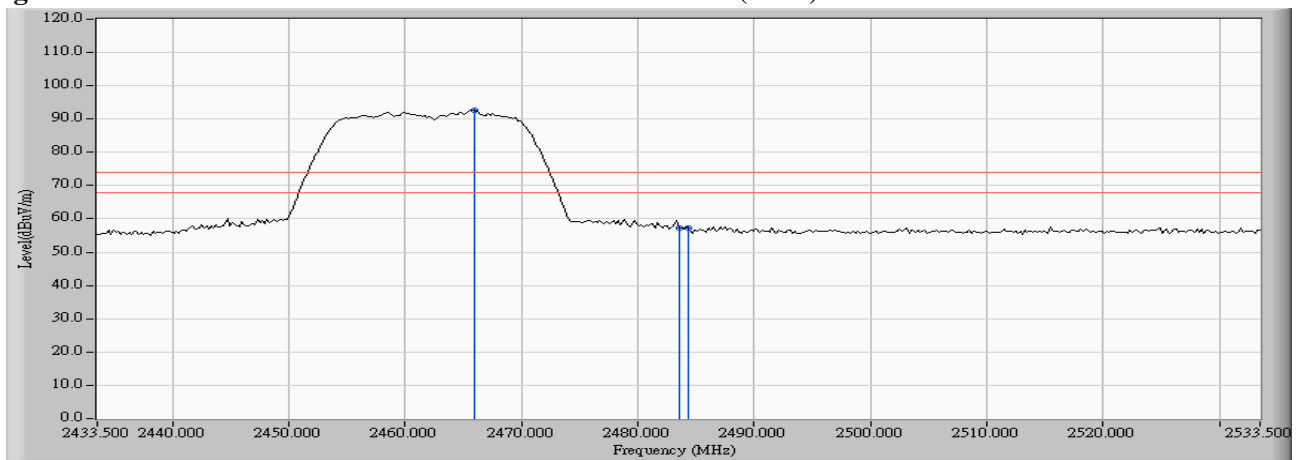

Note:
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

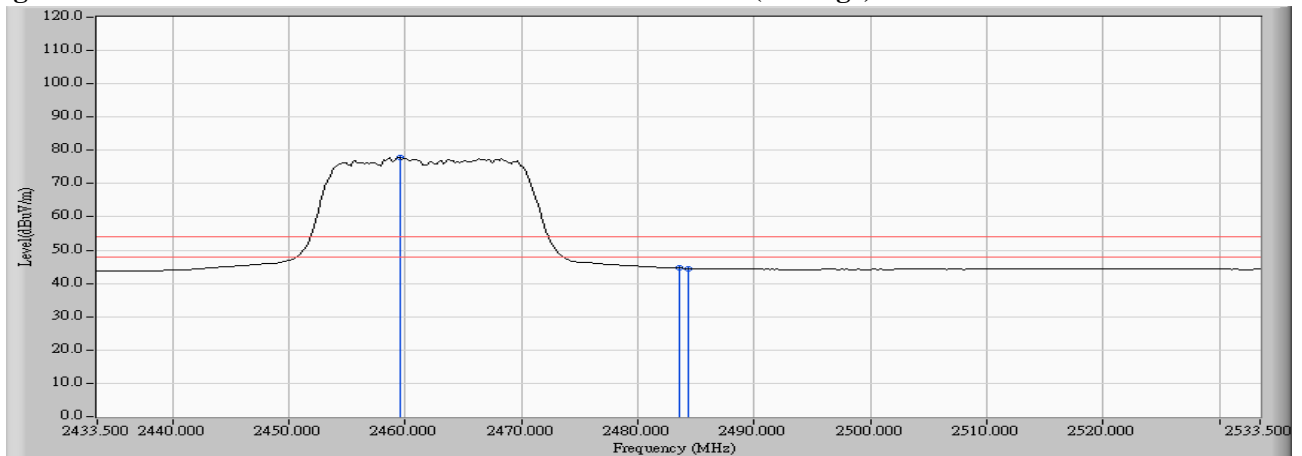|		
Product	:	JukeBlox Networked Media Module
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmit (802.11g 6Mbps) – (Winbond)

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)	2465.900	32.049	60.727	92.776	--	--	Pass
11 (Peak)	2483.500	32.182	25.052	57.234	74.00	54.00	--
11 (Peak)	2484.300	32.187	25.164	57.352	74.00	54.00	--
11 (Average)	2459.500	32.001	46.000	78.000	--	--	Pass
11 (Average)	2483.500	32.182	12.430	44.612	74.00	54.00	Pass
11 (Average)	2484.300	32.187	12.316	44.504	74.00	54.00	--

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

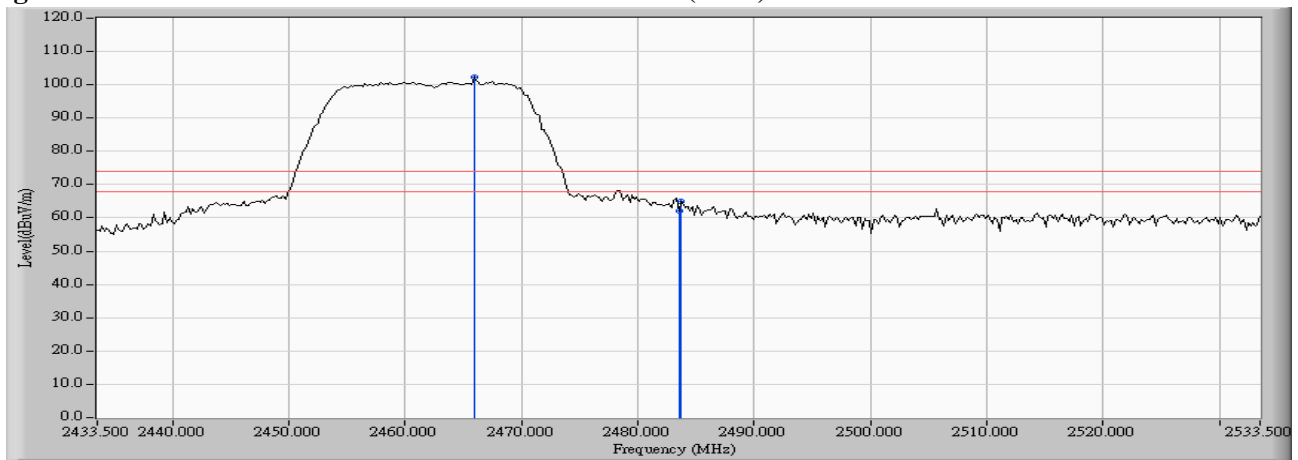**Figure Channel 11:**   **Horizontal (Average)**

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   :   JukeBlox Networked Media Module
Test Item   :   Band Edge Data
Test Site   :   No.3 OATS
Test Mode   :   Mode 2: Transmit (802.11g 6Mbps) – (Winbond)

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)	2465.900	31.317	70.895	102.212	--	--	Pass
11 (Peak)	2483.500	31.435	30.535	61.970	74.00	54.00	Pass
11 (Peak)	2483.700	31.437	33.564	65.001	74.00	54.00	--
11 (Average)	2460.700	31.281	54.857	86.138	--	--	Pass
11 (Average)	2483.500	31.435	15.694	47.129	74.00	54.00	Pass
11 (Average)	2483.700	31.437	15.637	47.074	74.00	54.00	--

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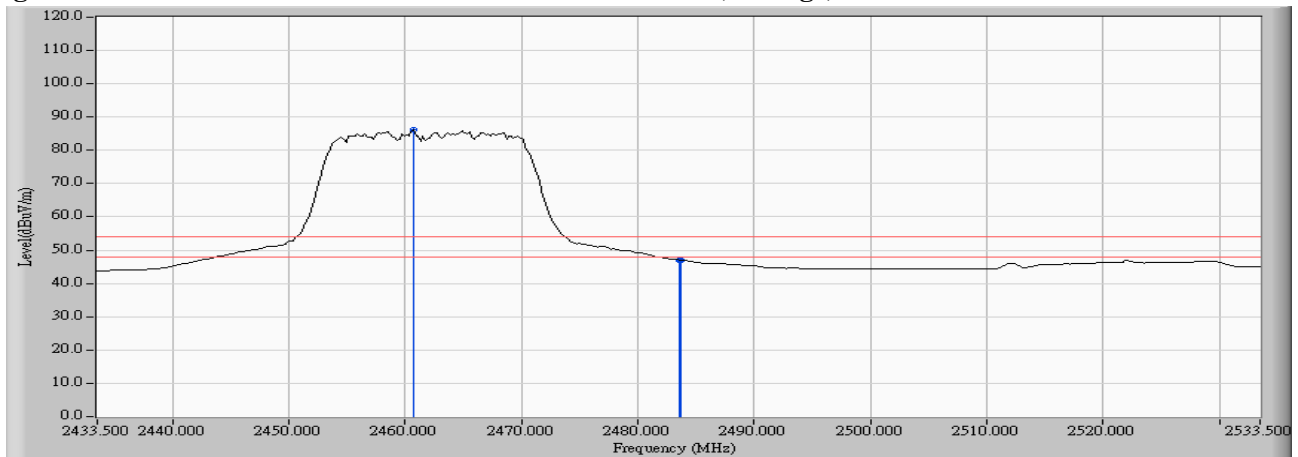
Figure Channel 11:   **Vertical (Average)**

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.

7. Occupied Bandwidth

7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

7.2. Test Setup
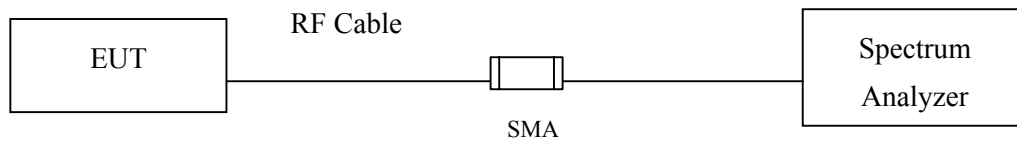
7.3. Limits

The minimum bandwidth shall be at least 500 kHz.

7.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the emission bandwidth, VBW≥3*RBW

7.5. Uncertainty

± 150Hz

7.6.   Test Result of Occupied Bandwidth
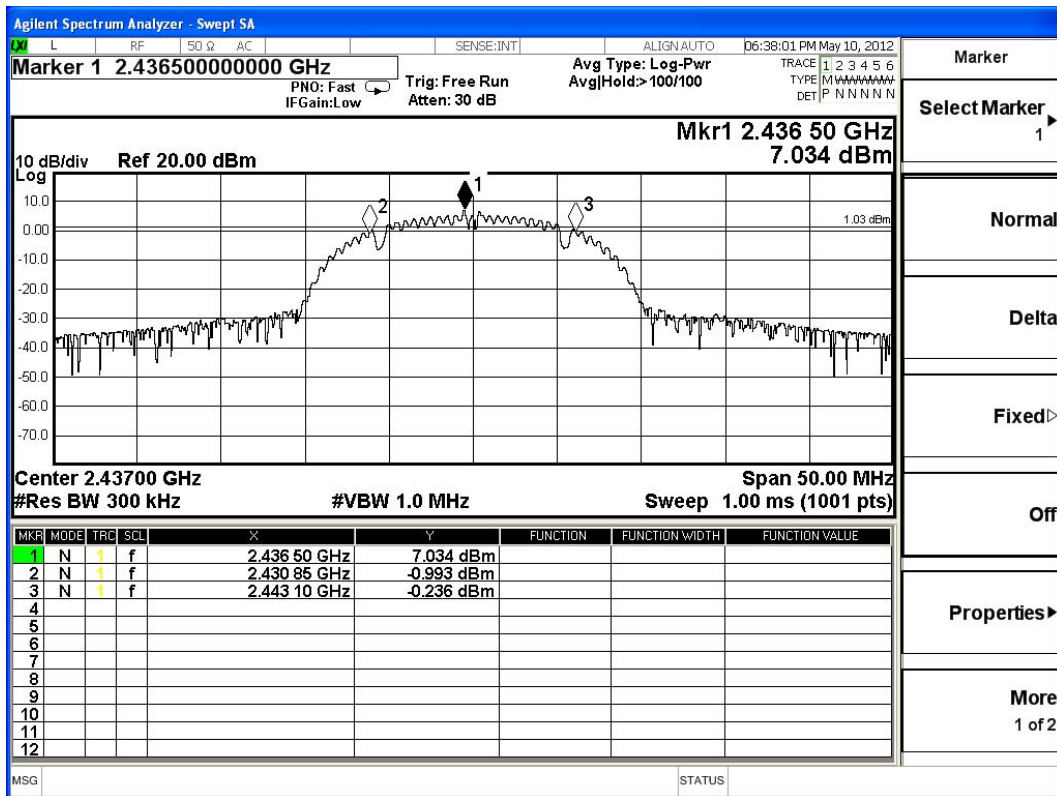
Product   :   JukeBlox Networked Media Module

Test Item   :   Occupied Bandwidth Data

Test Site   :   No.3 OATS

Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2412MHz) – (Winbond)

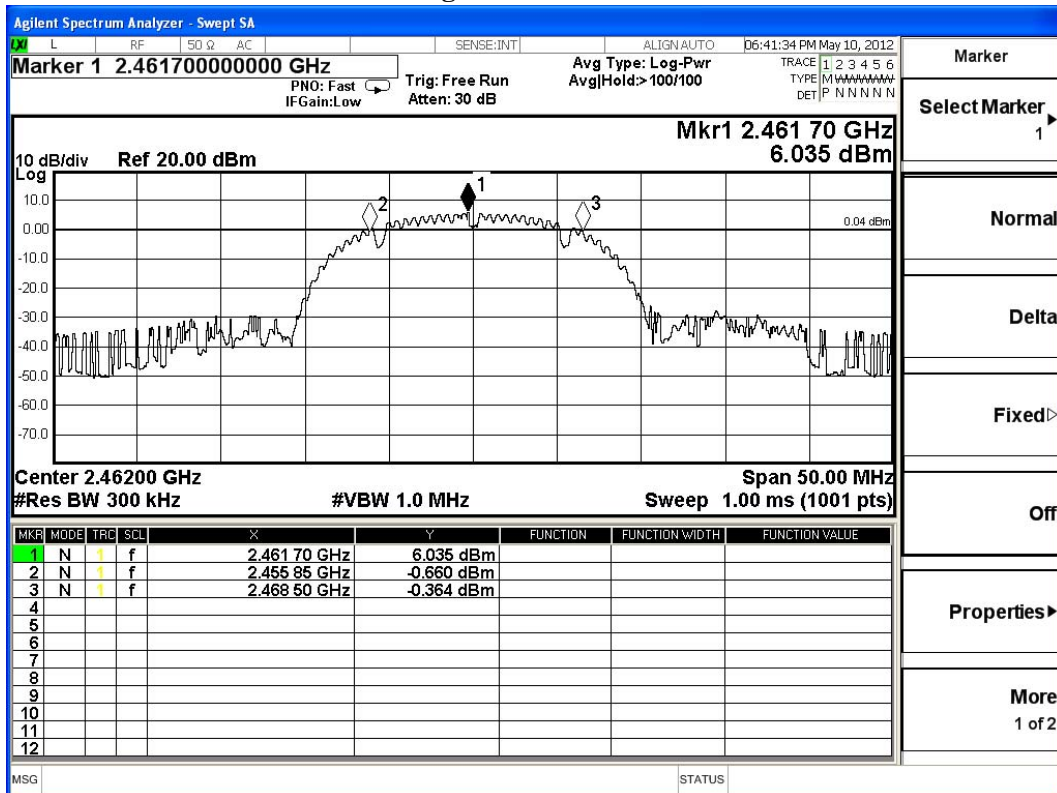| Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	12700	>500	Pass

Figure Channel 1:
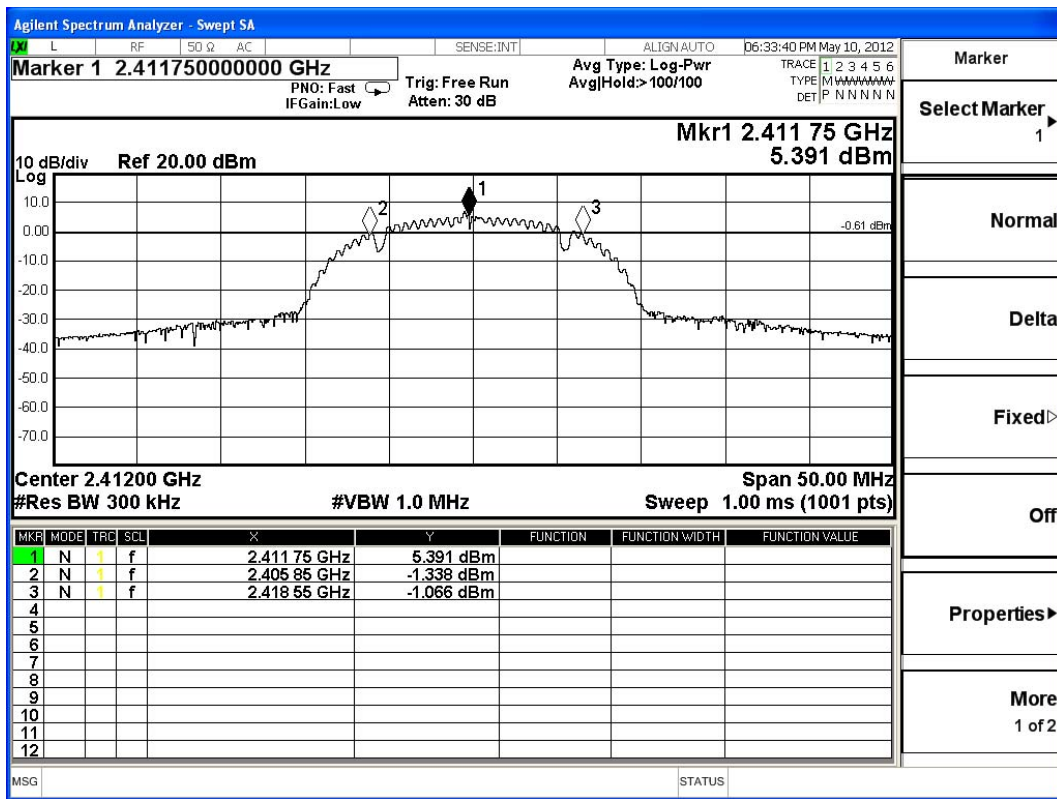
Product   :   JukeBlox Networked Media Module
Test Item   :   Occupied Bandwidth Data
Test Site   :   No.3 OATS
Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2437MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	12250	>500	Pass

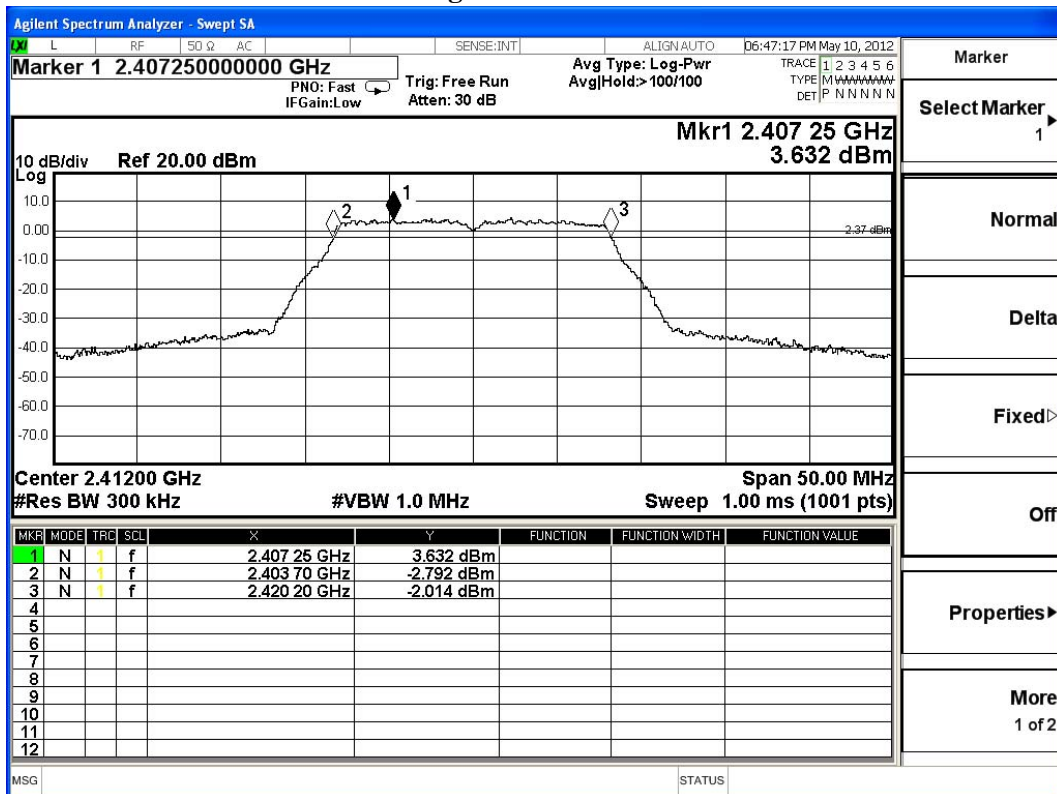**Figure Channel 6:**

Product   :   JukeBlox Networked Media Module

Test Item   :   Occupied Bandwidth Data

Test Site   :   No.3 OATS

Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2462MHz) – (Winbond)

| Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	12650	>500	Pass

Figure Channel 11:

Product   :   JukeBlox Networked Media Module
Test Item   :   Occupied Bandwidth Data
Test Site   :   No.3 OATS
Test Mode   :   Mode 2: Transmit (802.11g 6Mbps) (2412MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	16500	>500	Pass

Figure Channel 1:

Product : JukeBlox Networked Media Module
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	16450	>500	Pass

Figure Channel 6:

Product : JukeBlox Networked Media Module

Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	16550	>500	Pass

Figure Channel 11:
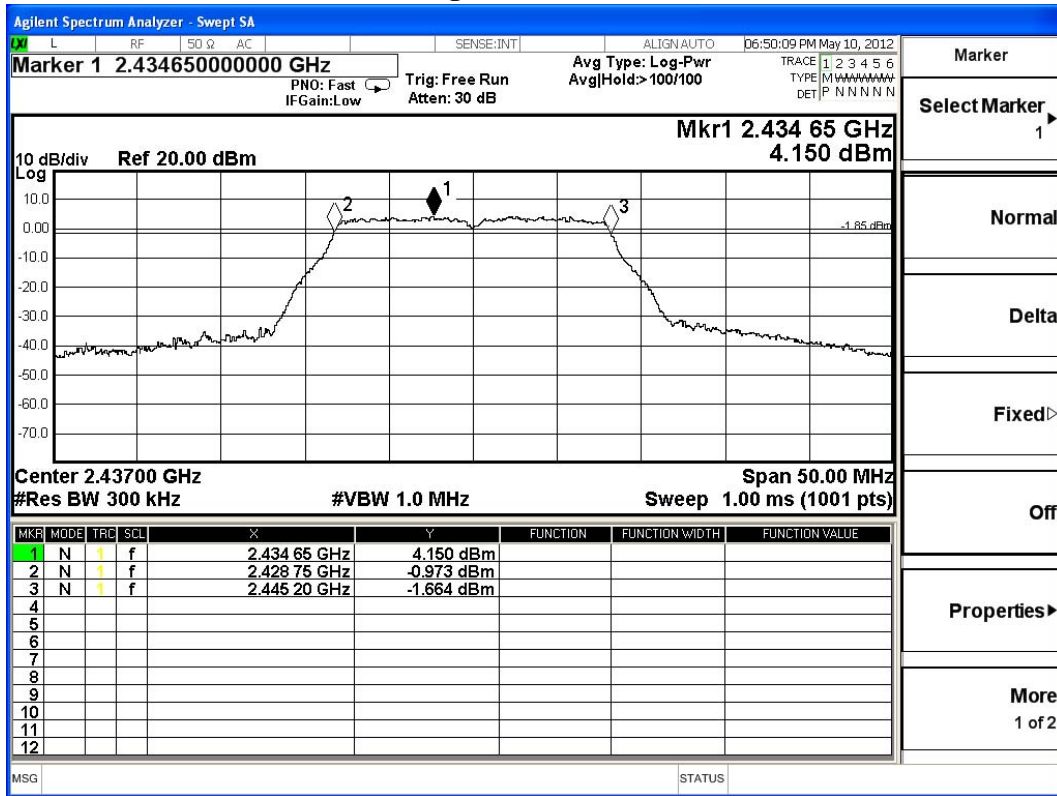
8. Power Density

8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with "X" are used to measure the final test results.

8.2. Test Setup
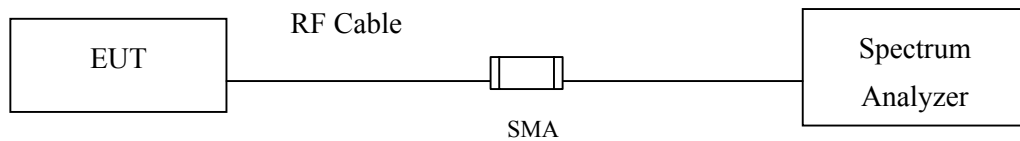
8.3. Limits

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

8.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 100 kHz, VBW≥300KHz, SPAN to 5-30 % greater than the EBW,
Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (3 kHz/100 kHz = -15.2 dB).
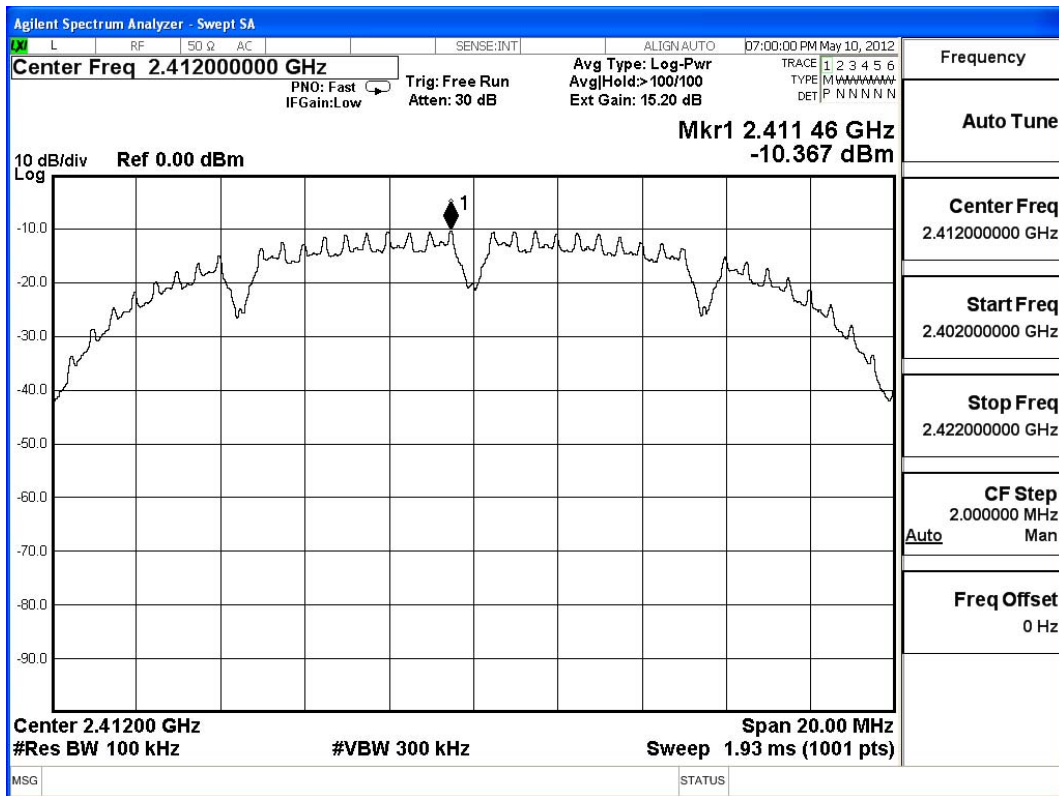
8.5. Uncertainty

± 1.27 dB

8.6. Test Result of Power Density
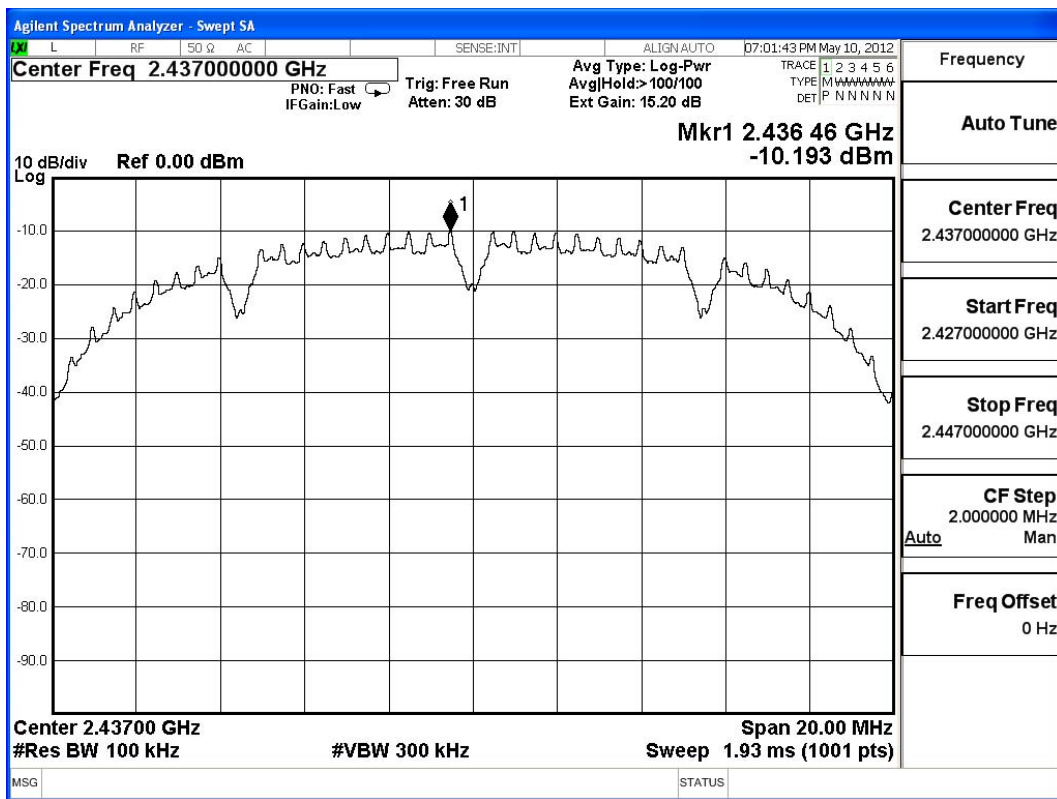
Product : JukeBlox Networked Media Module

Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz) – (Winbond)

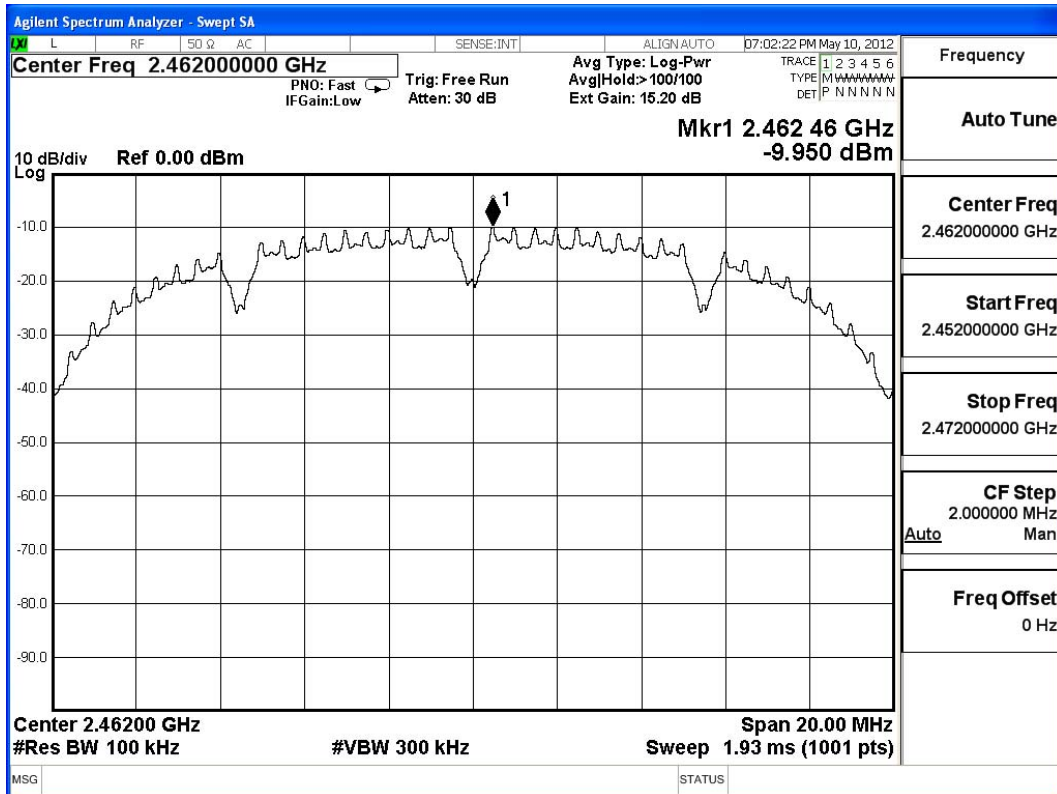| Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-10.367	< 8dBm	Pass

Figure Channel 1:

Product   :   JukeBlox Networked Media Module
Test Item   :   Power Density Data
Test Site   :   No.3OATS
Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2437MHz) – (Winbond)

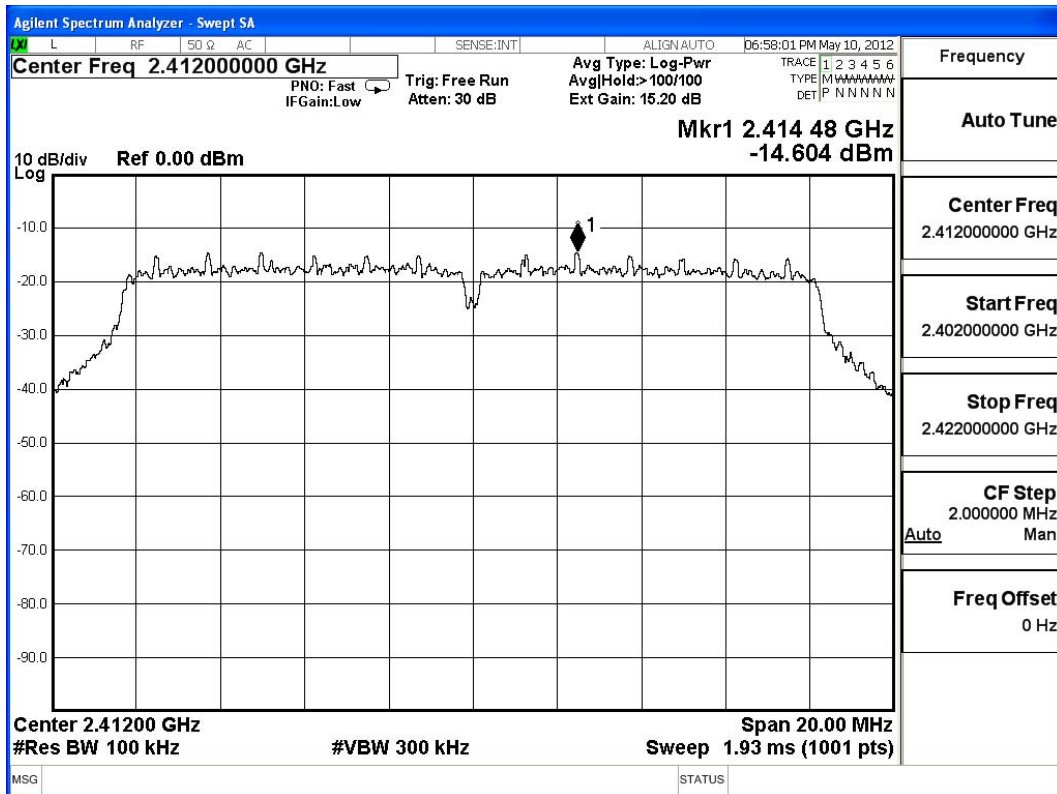| Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-10.193	< 8dBm	Pass

Figure Channel 6:

Product   :   JukeBlox Networked Media Module
Test Item   :   Power Density Data
Test Site   :   No.3 OATS
Test Mode   :   Mode 1: Transmit (802.11b 1Mbps) (2462MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-9.950	< 8dBm	Pass

Figure Channel 11:

Product : JukeBlox Networked Media Module

Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz) – (Winbond)

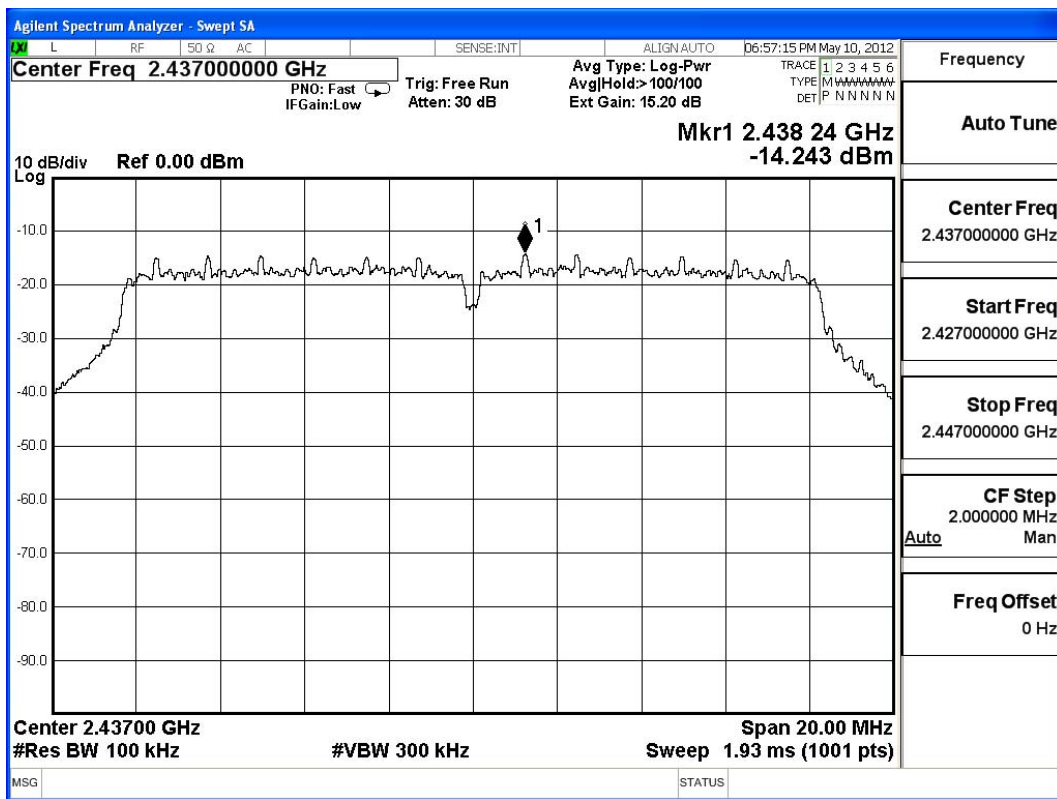| Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.604	< 8dBm	Pass

Figure Channel 1:

Product   :   JukeBlox Networked Media Module
Test Item   :   Power Density Data
Test Site   :   No.3OATS
Test Mode   :   Mode 2: Transmit (802.11g 6Mbps) (2437MHz) – (Winbond)

| Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	-14.243	< 8dBm	Pass

Figure Channel 6:

Product : JukeBlox Networked Media Module
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz) – (Winbond)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	-14.208	< 8dBm	Pass

Figure Channel 11:
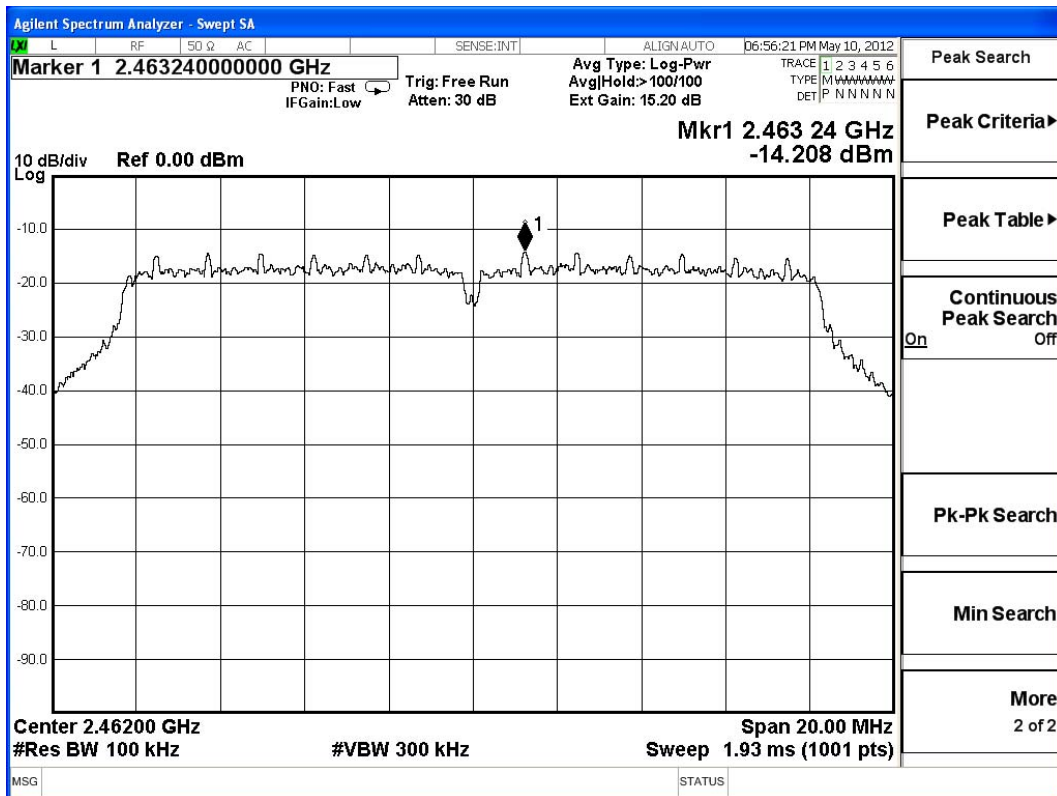
9. **EMI Reduction Method During Compliance Testing**

No modification was made during testing.