

# **FCC Test Report**

Product Name JukeBlox Networked Media Mod	
Model No	CX870-3B-D120
FCC ID.	PPQ-CX8703BD120

Applicant	Lite-On Technology Corp.	
Address	4F, 90, Chien 1 Road, Chung Ho, New Taipei City	
	23585, Taiwan, R.O.C.	

Date of Receipt	Jan. 16, 2014
Issue Date	Jan. 27, 2014
Report No.	1410367R-RFUSP02V00
Report Version	V1.0





The test results relate only to the samples tested.

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## Test Report Certification

Issue Date: Jan. 27, 2014

Report No.: 1410367R-RFUSP02V00



Product Name	JukeBlox Networked Media Module		
1 Todact Tvallic	Jukebiox Networked Media Module		
Applicant	Lite-On Technology Corp.		
Address	4F, 90, Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C.		
Manufacturer	1. Lite-On Technology (Changzhou) Co., Ltd.		
	2. DONG GUAN G-COM COMPUTER CO., LTD		
Model No.	CX870-3B-D120		
FCC ID.	PPQ-CX8703BD120		
EUT Rated Voltage	DC 3.3V		
EUT Test Voltage	AC 120V/60Hz		
Trade Name	LITE-ON		
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012		
	ANSI C63.10: 2009, KDB 558074		
Test Result	Complied		

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Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs



## 1. GENERAL INFORMATION

## 1.1. EUT Description

Product Name	JukeBlox Networked Media Module		
Trade Name	LITE-ON		
Model No.	CX870-3B-D120		
FCC ID.	PPQ-CX8703BD120		
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	tenna Type Rod antenna		
Antenna Gain	Refer to the table "Antenna List"		
Channel Control	Auto		

#### **Antenna List**

No.	Manufacturer	Model No.	Peak Gain
1	Walsin	RFDPA870920IMAB301 (200mm)(Main)(Aux)	2.14 dBi
2	Walsin	RFDPA870930IMAB301(300mm) (Main)(Aux)	1.20 dBi
3	Walsin	RFDPA870945IMAB301(450mm) (Main)(Aux)	1.16 dBi
4	Walsin	RFDPA870900SBAB801 + 0.2 dBi	
		RFCBA100645SA6B301(450mm) (Main)(Aux)	
5	Walsin	RFDPA870900SBAB801 + 0.3 dBi	
		RFCBA100630SA6B301(300mm) (Main)(Aux)	
6	Walsin	RFDPA870900SBAB801 + 0.4 dBi	
		RFCBA100620SA6B301(200mm) (Main)(Aux)	

Note: 1. The antenna of EUT is conform to FCC 15.203

2. Only the higher gain antenna was tested and recorded in this report.



## 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		

- 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 \( \cdot 802.11g \) 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.

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



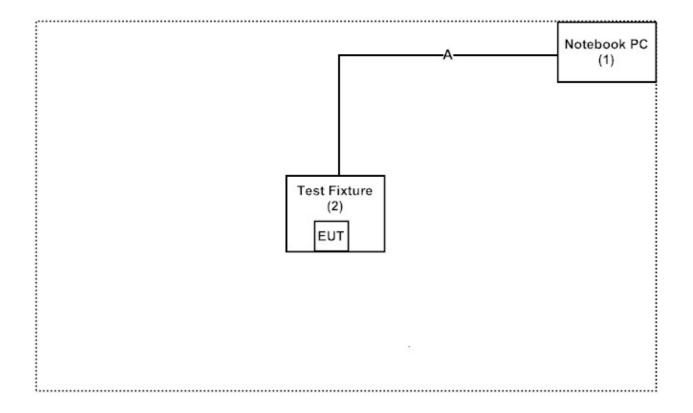
## 1.3. Tested System Details

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

Pro	duct	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	PPT	N/A	DoC	Non-Shielded, 0.8m
2	Test Fixture	LITE-ON	N/A	N/A	N/A	N/A

	Signal Cable Type	Signal cable Description		
A	RS-232 Cable	Non-Shielded, 1.0m		

## 1.4. Configuration of Tested System



## 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4.
- (2) Execute program "Tera Term V4.67" on the Notebook PC.
- (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: <a href="http://www.quietek.com/">http://www.quietek.com/</a>

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FCC Accreditation Number: TW1014



### 2. Conducted Emission

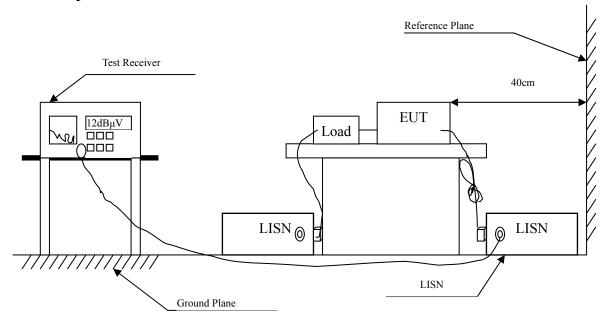
## 2.1. Test Equipment

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, 2013	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2013	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2013	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2013	
5	No.1 Shielded Room	n		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 (dBμV) Limit								
Frequency	Limits							
MHz	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 C63.10: 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)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBμV	dΒμV	dB	dΒμV
Line 1					
Quasi-Peak					
0.177	9.742	27.650	37.392	-27.837	65.229
0.212	9.739	32.400	42.139	-22.090	64.229
0.298	9.743	30.000	39.743	-22.028	61.771
0.634	9.758	16.280	26.038	-29.962	56.000
0.877	9.769	19.480	29.249	-26.751	56.000
9.588	9.930	31.900	41.830	-18.170	60.000
Average					
0.177	9.742	15.170	24.912	-30.317	55.229
0.212	9.739	21.400	31.139	-23.090	54.229
0.298	9.743	25.090	34.833	-16.938	51.771
0.634	9.758	9.340	19.098	-26.902	46.000
0.877	9.769	12.690	22.459	-23.541	46.000
9.588	9.930	25.770	35.700	-14.300	50.000

- 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)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V$	dB	dBμV
Line 2					
Quasi-Peak					
0.302	9.745	31.790	41.536	-20.121	61.657
0.482	9.752	19.970	29.722	-26.792	56.514
0.580	9.756	22.900	32.656	-23.344	56.000
2.154	9.847	19.340	29.187	-26.813	56.000
3.732	9.860	16.300	26.160	-29.840	56.000
10.209	9.950	33.180	43.130	-16.870	60.000
Average					
0.302	9.745	27.990	37.736	-13.921	51.657
0.482	9.752	12.860	22.612	-23.902	46.514
0.580	9.756	17.100	26.856	-19.144	46.000
2.154	9.847	16.840	26.687	-19.313	46.000
3.732	9.860	10.810	20.670	-25.330	46.000
10.209	9.950	27.570	37.520	-12.480	50.000

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



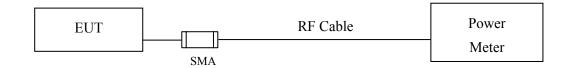
## 3. Peak Power Output

## 3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2013
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2013
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



#### 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 KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.3 PKPM1 Peak power meter method.

## 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)

Channel No.	Frequency	Average Power For different Data Rate (Mbps)			Peak Power	Required	D agult	
Channel No (MHz)	(MHz)	1	2	5.5	11	1	Limit	Result
			Measur	ement Lev				
01	2412	18.96				21.06	<30dBm	Pass
06	2437	19.03	18.81	18.75	18.61	21.41	<30dBm	Pass
11	2462	17.19				19.55	<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)

	Eraguaray	For different Data Rate (Mbps)							Peak Power	Daguirad		
Channel No	Frequency (MHz)	6	9	12	18	24	36	48	54	6	Required  Limit	Result
			Measurement Level (dBm)									
01	2412	14.55							-	23.52	<30dBm	Pass
06	2437	16.50	16.41	16.33	16.19	16.05	15.91	15.84	15.74	23.23	<30dBm	Pass
11	2462	11.64								21.90	<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	Loop Antenna	Teseq	HLA6120 / 26739	Sep., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Jul., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Sep., 2013
	X	Pre-Amplifier	Agilent	8447D/2944A09549	May, 2013
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	Sep., 2013
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Feb., 2013
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Sep., 2013
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

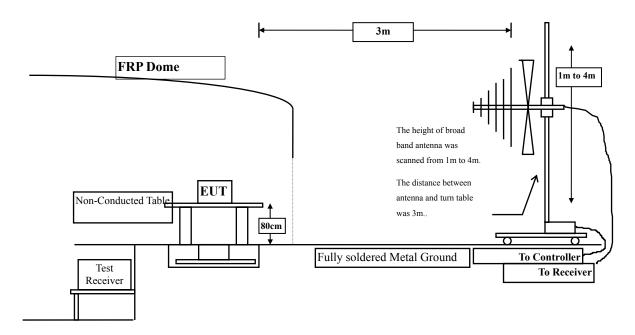
Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

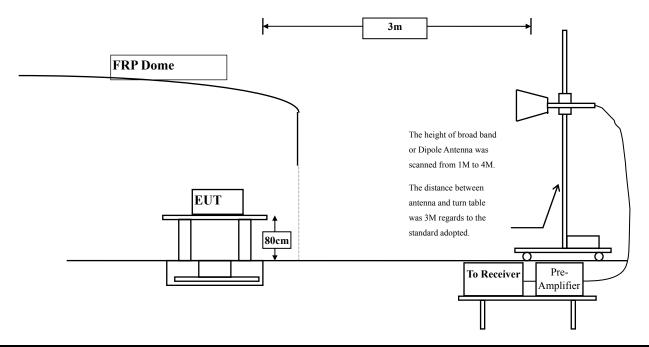


## 4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



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## 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	Field strength	Measurement distance						
IVIIIZ	(microvolts/meter)	(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  $(dB\mu V/m) = 20 \log E$  field strength (uV/m)



#### 4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 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 C63.10:2009 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 form 9kHz - 10th Harmonic of fundamental was investigated.

#### 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)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
4824.000	3.261	38.360	41.621	-32.379	74.000
7236.000	10.650	36.550	47.200	-26.800	74.000
9648.000	13.337	37.890	51.226	-22.774	74.000
<b>Average Detector:</b>					
Vertical					
<b>Peak Detector:</b>					
4824.000	6.421	41.490	47.911	-26.089	74.000
7236.000	11.495	37.060	48.555	-25.445	74.000
9648.000	13.807	40.030	53.836	-20.164	74.000

#### **Average Detector:**

--

- 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.



Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBμV/m
Horizontal					
<b>Peak Detector:</b>					
4874.000	3.038	38.630	41.667	-32.333	74.000
7311.000	11.795	36.540	48.334	-25.666	74.000
9748.000	12.635	37.210	49.845	-24.155	74.000
Average Detector:					
Vertical					
<b>Peak Detector:</b>					
4874.000	5.812	42.500	48.311	-25.689	74.000
7311.000	12.630	36.950	49.579	-24.421	74.000
9748.000	13.126	39.640	52.766	-21.234	74.000

#### **Average Detector:**

--

- 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.



Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
<b>Peak Detector:</b>					
4924.000	2.858	37.580	40.437	-33.563	74.000
7386.000	12.127	35.420	47.548	-26.452	74.000
9848.000	12.852	36.960	49.813	-24.187	74.000
Average Detector:					
Vertical					
<b>Peak Detector:</b>					
4924.000	5.521	40.510	46.030	-27.970	74.000
7386.000	13.254	35.990	49.244	-24.756	74.000
9848.000	13.367	37.210	50.577	-23.423	74.000

#### **Average Detector:**

--

- 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.



Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
<b>Peak Detector:</b>					
4824.000	3.261	38.210	41.471	-32.529	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
<b>Average Detector:</b>					
Vertical					
Peak Detector:					
4824.000	6.421	39.720	46.141	-27.859	74.000
7236.000	11.495	36.870	48.365	-25.635	74.000
9648.000	13.807	39.180	52.986	-21.014	74.000

## **Average Detector:**

\_\_

- 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.



Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBμV/m
Horizontal					
Peak Detector:					
4874.000	3.038	38.250	41.287	-32.713	74.000
7311.000	11.795	35.730	47.524	-26.476	74.000
9748.000	12.635	37.960	50.595	-23.405	74.000
<b>Average Detector:</b>					
Peak Detector:					
4874.000	5.812	47.190	53.001	-20.999	74.000
7311.000	12.630	35.690	48.319	-25.681	74.000
9748.000	13.126	42.160	55.286	-18.714	74.000

#### **Average Detector:**

--

- 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.



Test Site : No.3 OATS

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBμV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.370	40.227	-33.773	74.000
7386.000	12.127	35.820	47.948	-26.052	74.000
9848.000	12.852	36.730	49.583	-24.417	74.000
<b>Average Detector:</b>					
Vertical					
<b>Peak Detector:</b>					
4924.000	5.521	37.750	43.270	-30.730	74.000
7386.000	13.254	34.940	48.194	-25.806	74.000
9848.000	13.367	37.580	50.947	-23.053	74.000

#### **Average Detector:**

--

- 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.



Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency	Correct Reading		Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					_
202.660	-10.183	44.946	34.764	-8.736	43.500
346.220	-1.347	39.944	38.597	-7.403	46.000
507.240	2.529	34.714	37.243	-8.757	46.000
672.140	2.179	37.047	39.226	-6.774	46.000
879.720	6.618	33.479	40.097	-5.903	46.000
961.200	6.810	33.100	39.910	-14.090	54.000
Vertical					
202.660	-5.573	41.756	36.184	-7.316	43.500
383.080	0.195	31.520	31.715	-14.285	46.000
559.620	-2.503	33.957	31.454	-14.546	46.000
745.860	1.316	36.161	37.477	-8.523	46.000
881.660	1.379	34.304	35.683	-10.317	46.000
961.200	3.310	32.367	35.677	-18.323	54.000

- 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.



Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
111.480	-7.489	44.959	37.471	-6.029	43.500
338.460	-3.380	39.370	35.989	-10.011	46.000
507.240	2.529	33.095	35.624	-10.376	46.000
674.080	2.713	36.650	39.363	-6.637	46.000
790.480	6.363	32.474	38.837	-7.163	46.000
961.200	6.810	33.442	40.252	-13.748	54.000
Vertical					
158.040	-5.172	41.640	36.468	-7.032	43.500
383.080	0.195	30.613	30.808	-15.192	46.000
610.060	2.087	33.182	35.269	-10.731	46.000
745.860	1.316	36.626	37.942	-8.058	46.000
837.040	1.606	35.146	36.752	-9.248	46.000
961.200	3.310	33.147	36.457	-17.543	54.000

- 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 Equipment

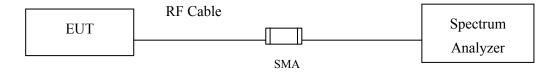
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A/MY48030495	Apr., 2013

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 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

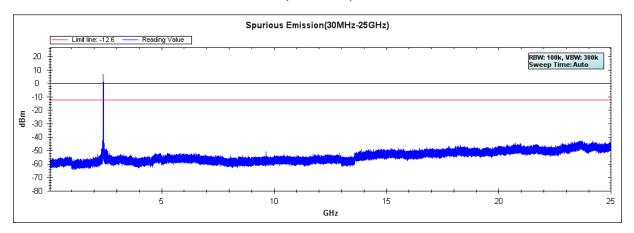
Product : JukeBlox Networked Media Module

Test Item : RF antenna conducted test

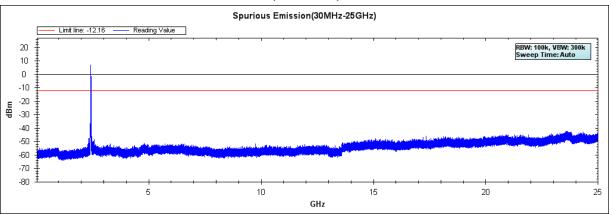
Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps)

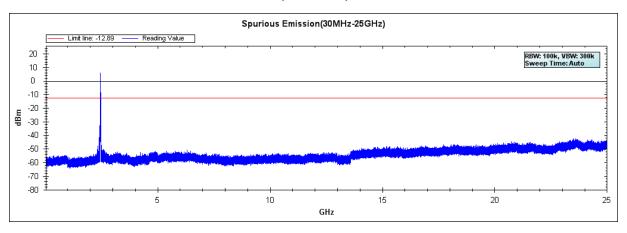
#### Channel 01 (2412MHz) - 30M-25G



### Channel 06 (2437MHz) - 30M-25G



Channel 11 (2462MHz) - 30M-25G



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

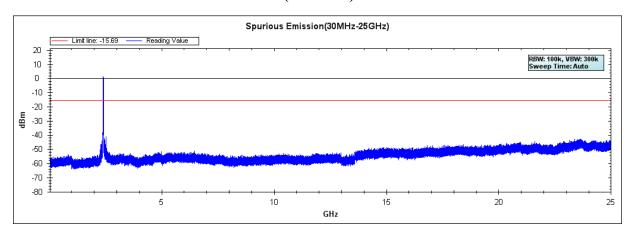


Product : JukeBlox Networked Media Module Test Item : RF Antenna Conducted Spurious

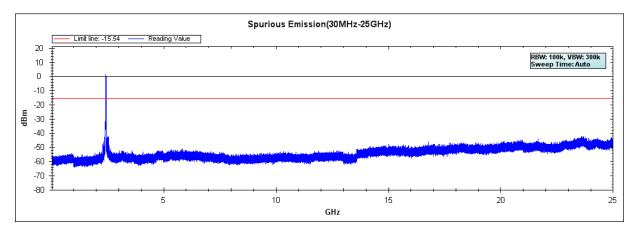
Test Site : No.3 OATS

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

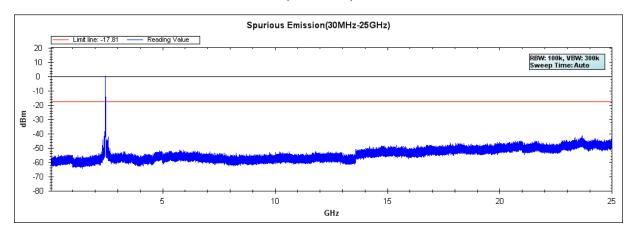
## Channel 01 (2412MHz) - 30M-25G



Channel 06 (2437MHz) - 30M-25G



Channel 11 (2462MHz) - 30M-25G



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



## 6. Band Edge

## 6.1. Test Equipment

## **RF Radiated Measurement:**

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

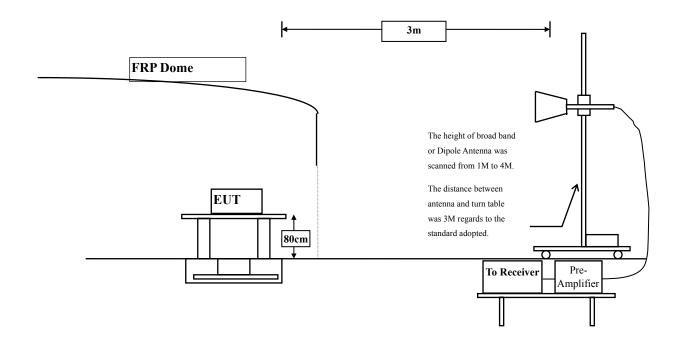
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
⊠Site # 3		Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2013
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2013
		Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2013
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
		Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2013
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2013
	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 Radiated Measurement:**





#### 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 C63.10: 2009 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 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 C63.10: 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

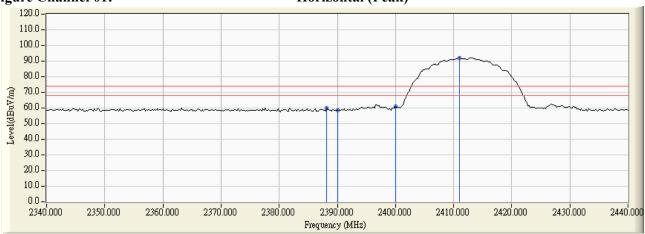
Test Mode Mode 1: Transmit (802.11b 1Mbps)

#### **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	33.737	26.016	59.753	74.00	54.00	Pass
01 (Peak)	2390.000	33.739	24.667	58.406	74.00	54.00	Pass
01 (Peak)	2400.000	33.752	27.297	61.048			Pass
01 (Peak)	2411.000	33.769	58.353	92.122			Pass
01 (Average)	2387.800	33.737	12.562	46.299	74.00	54.00	Pass
01 (Average)	2390.000	33.739	12.504	46.243	74.00	54.00	Pass
01 (Average)	2400.000	33.752	15.756	49.507			Pass
01 (Average)	2411.200	33.770	53.413	87.183			Pass

### Figure Channel 01:

#### Horizontal (Peak)



### Figure Channel 01:

#### Horizontal (Average)



- All readings above 1GHz are performed with peak and/or average measurements as necessary. Note:1.
  - Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
  - Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. "\*", means this data is the worst emission level. 3.
  - 4.
  - Measurement Level = Reading Level + Correct Factor. 5.
  - 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

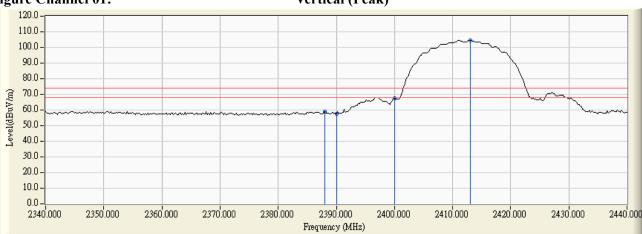
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

#### **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)	2388.000	32.280	26.616	58.897	74.00	54.00	Pass
01 (Peak)	2390.000	32.267	25.385	57.652	74.00	54.00	Pass
01 (Peak)	2400.000	32.241	35.037	67.278			Pass
01 (Peak)	2413.000	32.254	72.292	104.545			Pass
01 (Average)	2385.600	32.298	14.116	46.414	74.00	54.00	Pass
01 (Average)	2390.000	32.267	13.866	46.133	74.00	54.00	Pass
01 (Average)	2400.000	32.241	26.921	59.162			Pass
01 (Average)	2412.800	32.253	67.859	100.112			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

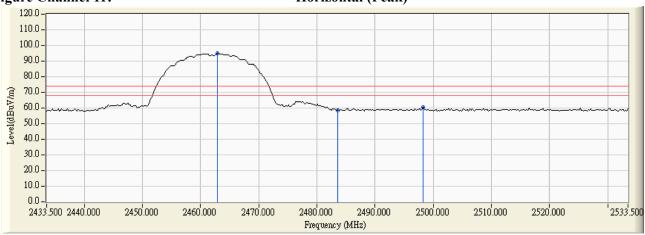
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

#### **RF Radiated Measurement (Horizontal):**

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Resuit
11 (Peak)	2462.900	33.895	60.917	94.812			Pass
11 (Peak)	2483.500	33.951	24.462	58.412	74.00	54.00	Pass
11 (Peak)	2498.300	33.971	26.427	60.398	74.00	54.00	Pass
11 (Average)	2461.100	33.890	56.898	90.788			Pass
11 (Average)	2483.500	33.951	12.673	46.623	74.00	54.00	Pass

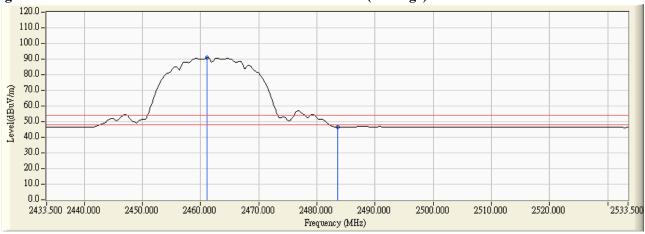
#### Figure Channel 11:

#### Horizontal (Peak)



#### Figure Channel 11:

#### **Horizontal** (Average)



- 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.

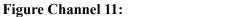


Test Item : Band Edge Data
Test Site : No.3 OATS

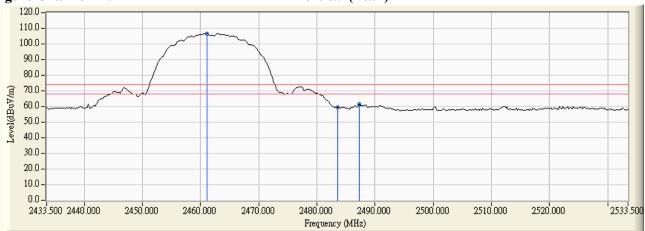
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	<b>Emission Level</b>	Peak Limit	Average Limit	Result
Chainlei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
11 (Peak)	2461.100	32.476	74.046	106.522			Pass
11 (Peak)	2483.500	32.586	26.954	59.539	74.00	54.00	Pass
11 (Peak)	2487.300	32.603	28.687	61.290	74.00	54.00	Pass
11 (Average)	2461.100	32.476	69.883	102.359			Pass
11 (Average)	2483.500	32.586	15.436	48.021	74.00	54.00	Pass
11 (Average)	2487.500	32.605	17.817	50.421	74.00	54.00	Pass

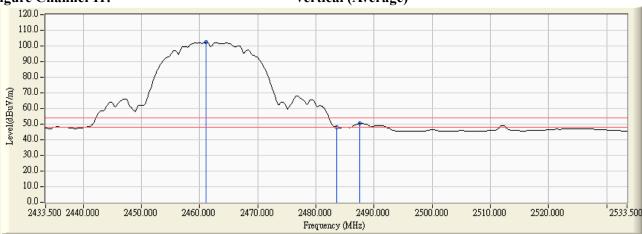


Vertical (Peak)



## 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.



Test Item : Band Edge Data
Test Site : No.3 OATS

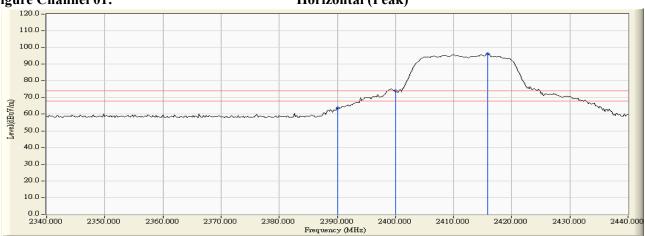
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

#### **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	33.739	29.822	63.561	74.00	54.00	Pass
01 (Peak)	2400.000	33.752	40.246	73.997			Pass
01 (Peak)	2415.800	33.781	62.319	96.100			Pass
01(Average)	2390.000	33.739	13.601	47.340	74.00	54.00	Pass
01(Average)	2400.000	33.752	20.053	53.804			Pass
01(Average)	2409.800	33.768	50.482	84.249			Pass

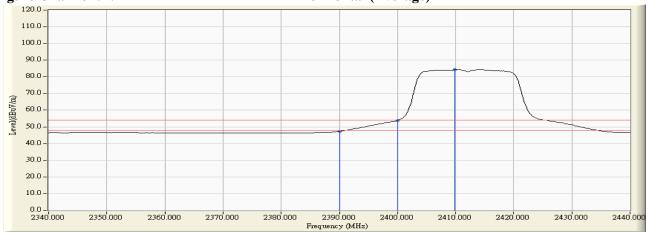


#### Horizontal (Peak)



#### 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.



Test Item : Band Edge Data
Test Site : No.3 OATS

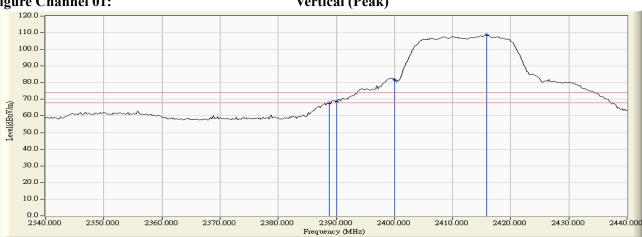
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

#### RF Radiated Measurement (Vertical):

		,					
Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamile No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
01 (Peak)	2388.800	32.275	35.475	67.750	74.00	54.00	Pass
01 (Peak)	2390.000	32.267	36.182	68.449	74.00	54.00	Pass
01 (Peak)	2400.000	32.241	49.574	81.815			Pass
01 (Peak)	2415.800	32.266	76.555	108.821			Pass
01 (Average)	2390.000	32.267	16.378	48.645	74.00	54.00	Pass
01 (Average)	2400.000	32.241	26.494	58.735			Pass
01 (Average)	2414.200	32.259	64.092	96.351			Pass

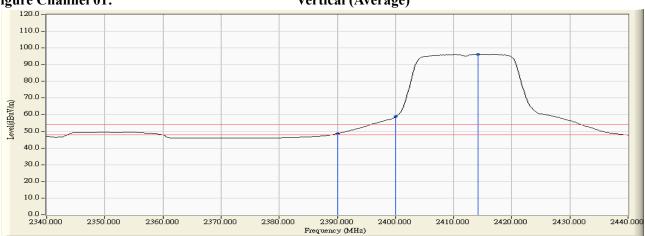






#### Figure Channel 01:

#### 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.



Test Item : Band Edge Data
Test Site : No.3 OATS

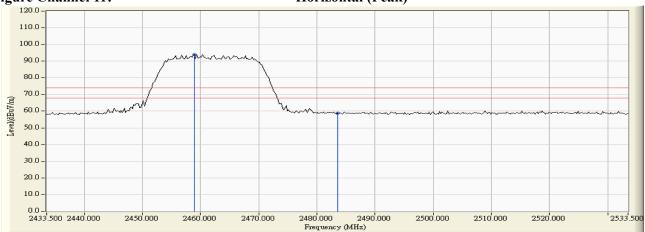
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

## RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
11 (Peak)	2458.900	33.885	60.100	93.985	ŀ		Pass
11 (Peak)	2483.500	33.951	24.773	58.723	74.00	54.00	Pass
11 (Average)	2460.100	33.887	47.629	81.517			Pass
11 (Average)	2483.500	33.951	12.564	46.514	74.00	54.00	Pass



## 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.



Test Item : Band Edge Data
Test Site : No.3 OATS

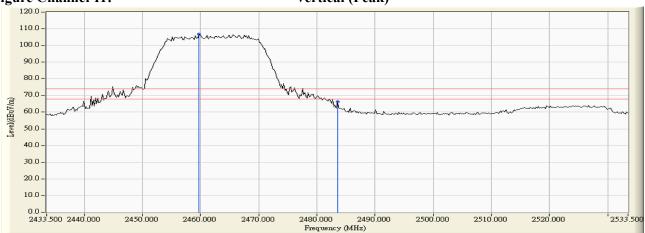
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

#### **RF Radiated Measurement (Vertical):**

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainlei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
11 (Peak)	2459.700	32.469	74.227	106.696	-		Pass
11 (Peak)	2483.500	32.586	33.674	66.259	74.00	54.00	Pass
11 (Average)	2467.100	32.505	60.899	93.404			Pass
11 (Average)	2483.500	32.586	15.805	48.390	74.00	54.00	Pass



#### 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

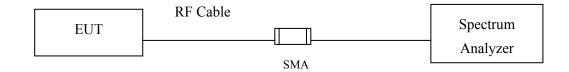
## 7.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

#### 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 C63.10: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

## 7.5. Uncertainty

± 150Hz



## 7.6. Test Result of Occupied Bandwidth

Product : JukeBlox Networked Media Module

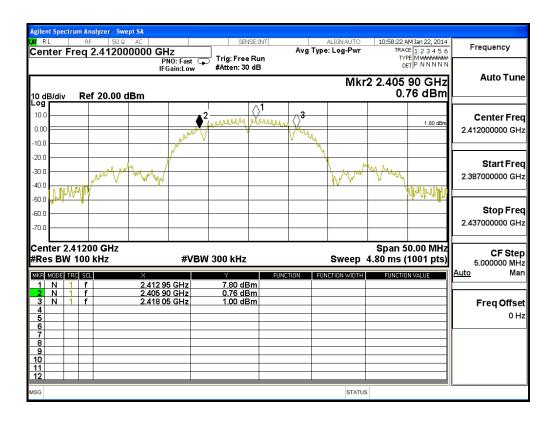
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	12150	>500	Pass

## Figure Channel 1:





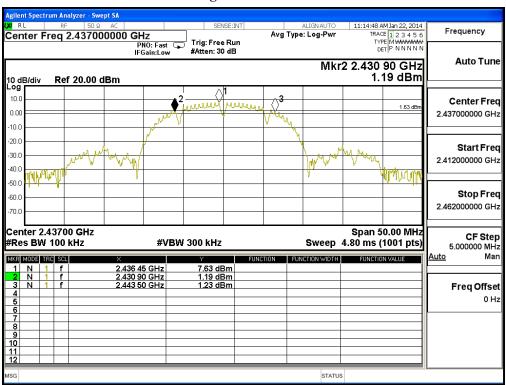
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6	2437	12600	>500	Pass

## **Figure Channel 6:**



Frequency

**Auto Tune** 



Product JukeBlox Networked Media Module

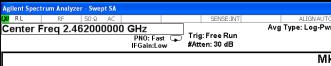
Test Item Occupied Bandwidth Data

Test Site No.3 OATS

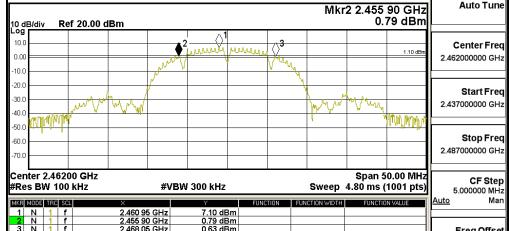
Test Mode Mode 1: Transmit (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	12150	>500	Pass

Figure Channel 11:







DE V	1 1	f f	2.460 95 GHz	7.10 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	Auto
Ň	1	f		7 10 dBm				
	1	•						
V			2.455 90 GHz	0.79 dBm				
	1	f	2.468 05 GHz	0.63 dBm				Freg Of
								Freq Of
						STATUS	3	
				2.498 US GHZ	2.498 US GHZ U.65 dBM	2.468 US CHZ U.53 dBM		STATUS



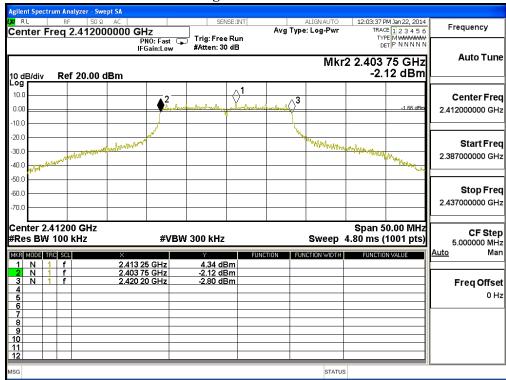
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412	16450	>500	Pass







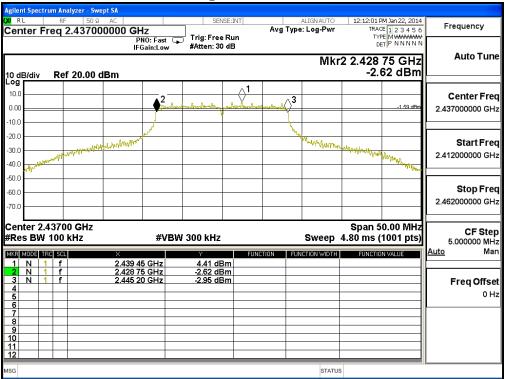
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

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







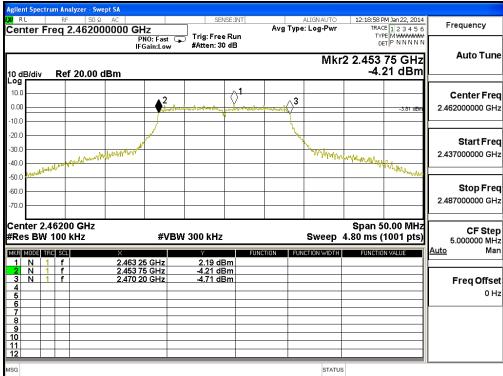
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11	2462	16450	>500	Pass

# Figure Channel 11:





## **8.** Power Density

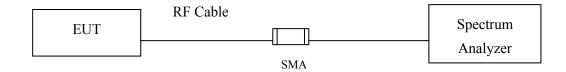
## 8.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

#### 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 C63.10, 2009; 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.

## 8.5. Uncertainty

 $\pm$  1.27 dB



## **8.6.** Test Result of Power Density

Product : JukeBlox Networked Media Module

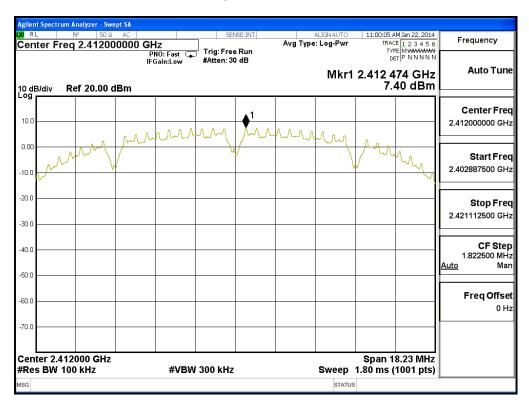
Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	7.40	< 8dBm	Pass

## Figure Channel 1:





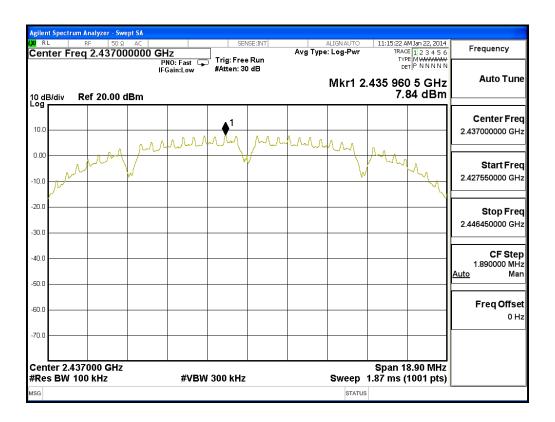
Test Item : Power Density Data

Test Site : No.3OATS

Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	7.84	< 8dBm	Pass

## **Figure Channel 6:**





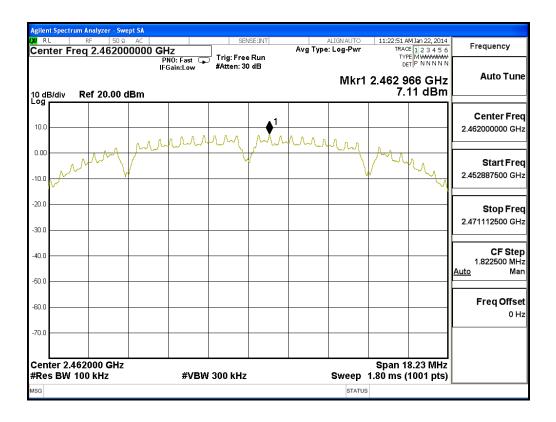
Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	7.11	< 8dBm	Pass

## **Figure Channel 11:**





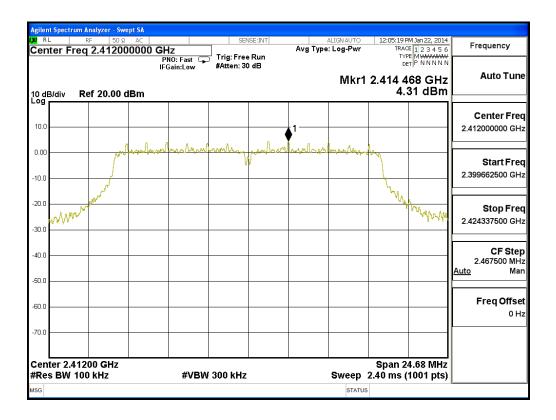
Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	4.31	< 8dBm	Pass

## Figure Channel 1:





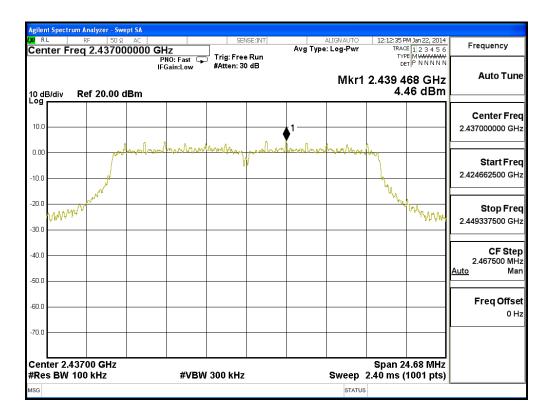
Test Item : Power Density Data

Test Site : No.3OATS

Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6	2437	4.46	< 8dBm	Pass

## **Figure Channel 6:**





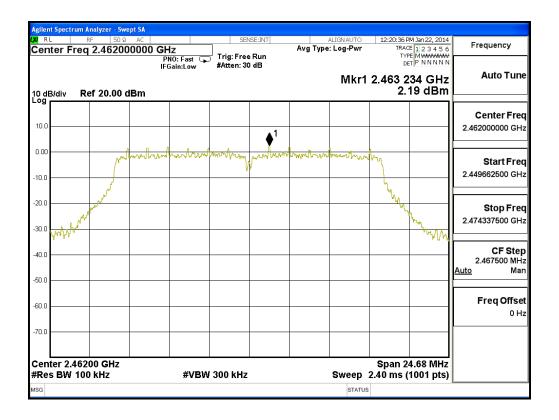
Test Item : Power Density Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11	2462	2.19	< 8dBm	Pass

## **Figure Channel 11:**





## 9. EMI Reduction Method During Compliance Testing

No modification was made during testing.



Attachment 1: EUT Test Photographs



Attachment 2: EUT Detailed Photographs