FCC TEST REPORT

According to

FCC CFR Title 47 Part 15 Subpart C

Applicant	:	ZyXEL Communications Corporation
Address	:	No. 6, Innovation Road II,Science Park, Hsinchu TAIWAN
Equipment	:	Wireless N-lite Home Router
Model No.	:	NBG-416N
FCC ID	:	I88NBG416N

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Document history

Attachment No.	Date	Description
SEFI1012070	January 13, 2011	First issue

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Equipment	:	Wireless N-lite Home Router
Model No.	:	NBG-416N
FCC ID	:	I88NBG416N

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2003** and the energy emitted by this equipment was ***passed*** **CISPR PUB. 22 and FCC Part 15** in both radiated and conducted emission class B limits. Testing was carried out on Jan 04, 2011 at ***Cerpass Technology Corp.***

Documented By:

Jeson Wang/ Administration

Approved By:

Clinton Kao/ Technical director

1. Report of Measurements and Examinations

FCC CFR Title 47 Part 15 Subpart C: 2007 ANSI C63.4: 2003			
Clause	Test Parameter	Test Performed	Remark
15.207	Conducted Emission	YES	PASS
15.209	Radiated Emission	YES	PASS
15.247(a) 15.215(c)	Occupied Bandwidth	YES	PASS
15.247(b)	Maximum Peak Output Power	YES	PASS
15.247(c)	Band Edges	YES	PASS
15.247(c)	RF antenna conducted	YES	PASS
15.247(d)	Power Spectral Density	YES	PASS

2. Test Configuration of Equipment under Test

2.1. Feature of Equipment under Test

Wireless N-lite Home Router	Model No:	NBG-416N
Adapter	Manufacturer:	DVE
	Model No:	DSA-6E-05 US 050100
	Input:	100-240V~50/60Hz 0.3A
	Output:	+5V⎓1A
Antenna #1	5dBi	
Antenna #2	2dBi	

WLAN	RTL8188RE
Spreading	802.11b: CCK, DQPSK, DBPSK 802.11g: 64 QAM, 16 QAM, QPSK, BPSK 802.11n: BPSK, QPSK,16-QAM, 64-QAM
Frequency Range	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
Data Rate	802.11b: 1, 2, 5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0, MCS1, MCS2, MCS3, MCS4, MCS5, MCS6, MCS7
Antenna Type	Dipole
Antenna Gain	ANTNNA 1: 5dBi ANTNNA 2: 2dBi

2.2. Carrier Frequency of Channels

For 2.4G 802.11b, 802.11g, 802.11n (20MHz)

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

For 2.4G 802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	---	08	2447
02	---	09	2452
03	2422	---	---
04	2427	---	---
05	2432	---	---
06	2437	---	---
07	2442	---	---

2.3. Test Manner

Test Manner	
a	During testing, the interface cables and equipment positions were varied according to 47 CFR, Part 2, Part 15
b	Adjust the EUT at the test mode and the test channel. Then test.

The test modes:

The EUT transmitting and receiving with one (chain 0) antenna working at b/g/n mode, so one antenna working configuration was used for b/g/n mode testing in this report.

The EUT transmitting and receiving with one antenna simultaneously working at n mode, so 1x1 configuration was used for all testing in this report.

The worst-case data rates are determined to be as follows for each mode based on investigation by measuring the average power, peak power and PPSD across all data rates, bandwidths, and modulations.

The worst-case data rates:

IEEE802.11b mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 1Mbps data rate were chosen for full testing.

IEEE802.11g mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 54Mbps data rate were chosen for full testing.

IEEE 802.11gn Standard-20 MHz Channel mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with MCS7 data rate were chosen for full testing.

IEEE 802.11gn Wide-40 MHz Channel mode: Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with MCS7 data rate were chosen for full testing.

The following test mode was scanned during the preliminary test:

Mode 1: Antenna 1(5dBi)

Mode 2: Antenna 2(2dBi)

After the preliminary scan, The following test mode was found to produce the highest emission level:

Mode 1: Antenna 1(5dBi)

Then, the EUT configuration and cable configuration of the above highest emission mode was recorded for all final test items.

2.4. Description of Test System

No	Device	Manufacturer	Model No.	Description
1	Notebook	ASUS	W6A	Power by adaptor

2.5. General Information of Test

Test Site:	Cerpass Technology Corp.
Performand Location :	No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China
NVLAP LAB Code :	200814-0
FCC Registration Number :	916572, 331395
IC Registration Number :	7290A-1, 7290A-2
VCCI Registration Number :	T-343 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test below 1GHz G-227 for Radiated emission test above 1GHz

Laboratory accreditation

2.6. Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	±2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	±4.11 dB
		Horizontal	±4.10 dB
Occupied Bandwidth	---	---	±7500 Hz
Maximum Peak Output Power	---	---	±1.4 dB
Band Edges	---	---	±2.2 dB
Power Spectral Density	---	---	±2.2 dB

3. Test of Conducted Emission

3.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

3.2. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

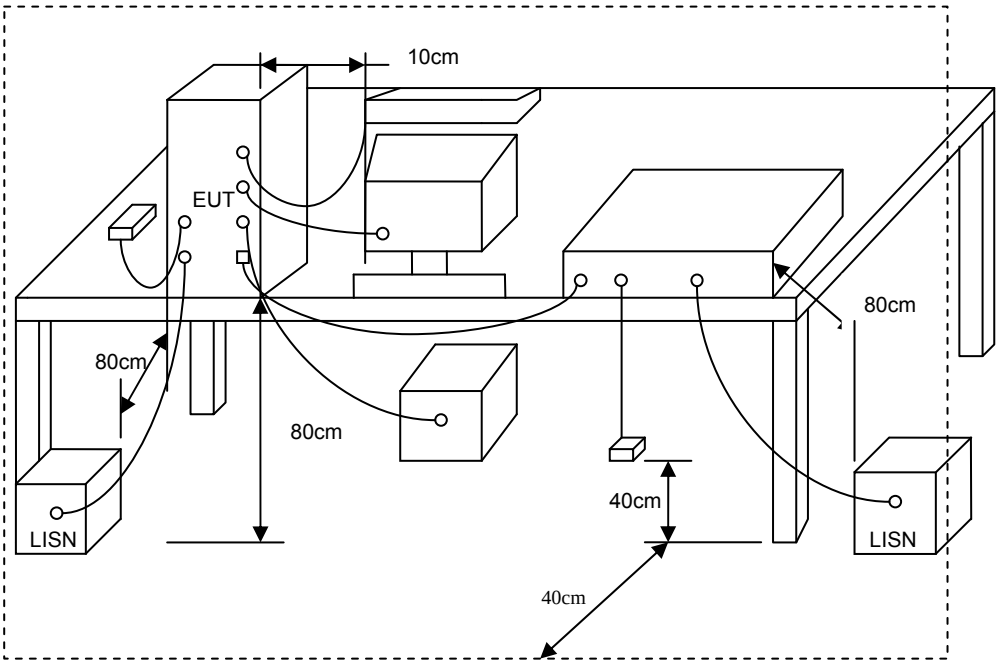
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

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

3.3. Typical Test Setup

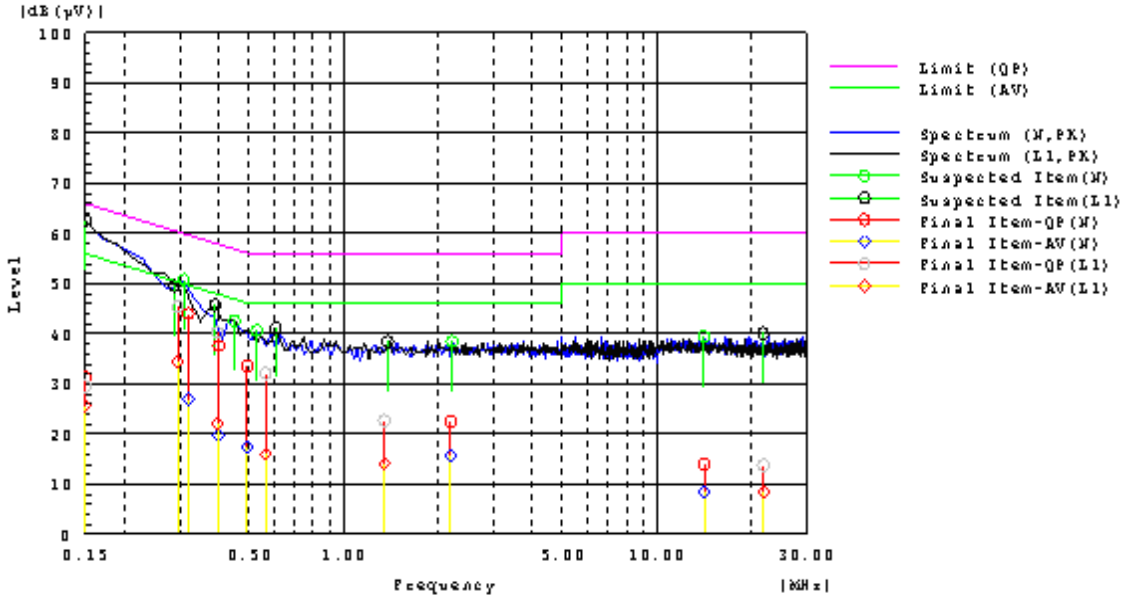


3.4. Measurement Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date
Test Receiver	R&S	ESCI	100565	2010.01.15
AMN	R&S	ESH2-Z5	100182	2010.06.23
Two-Line V-Network	R&S	ENV216	100325	2010.04.18
ISN	FCC	FCC-TLISN-T2-02	20379	2010.06.23
ISN	FCC	FCC-TLISN-T4-02	20380	2010.06.23
ISN	FCC	FCC-TLISN-T8-02	20381	2010.06.23
Attenuator	R&S	ESH3-Z2	100529	2011.01.11
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2010.08.14

3.5. Test Result and Data

Test Mode :	Normal Link		
AC Power :	AC 120V/60Hz	Phase :	L&N
Temperature :	22°C	Humidity:	50%
Pressur(mbar) :	1002	Date:	2011-01-04



Frequency MHz	Line Phase	Reading dB(uV) QP	Reading dB(uV) AV	Factor dB	Level dB(uV) QP	Level dB(uV) AV	Limit dB(uV) QP	Limit dB(uV) AV	Margin dB QP	Margin dB AV	Pass/Fail
0.150	L1	9.6	5.8	19.9	29.5	25.7	66.0	56.0	36.5	30.3	Pass
0.29598	L1	25.6	14.5	19.9	45.5	34.4	60.4	50.4	14.9	16.0	Pass
0.39625	L1	20.4	2.3	19.9	40.3	22.2	57.9	47.9	17.6	25.7	Pass
0.5637	L1	12.4	-3.8	19.8	32.2	16.0	56.0	46.0	23.8	30.0	Pass
1.35091	L1	3.0	-5.6	19.7	22.7	14.1	56.0	46.0	33.3	31.9	Pass
21.8968	L1	-5.8	-11.2	19.6	13.8	8.4	60.0	50.0	46.2	41.6	Pass
0.150	N	11.8	6.3	19.5	31.3	25.8	66.0	56.0	34.7	30.2	Pass
0.31942	N	24.5	7.5	19.5	44.0	27.0	59.7	49.7	15.7	22.7	Pass
0.39999	N	18.1	0.3	19.5	37.6	19.8	57.9	47.9	20.3	28.1	Pass
0.49219	N	14.1	-2.1	19.5	33.6	17.4	56.1	46.1	22.5	28.7	Pass
2.19663	N	3.0	-3.8	19.5	22.5	15.7	56.0	46.0	33.5	30.3	Pass
14.1648	N	-6.0	-11.4	19.9	13.9	8.5	60.0	50.0	46.1	41.5	Pass

Note: Measurement Level = Reading Level + Correct Factor

4. Test of Radiated Emission

4.1. Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions for unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

4.2. Test Procedures

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test

procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set

to transmit in a continuous mode.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless

otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, then the video bandwidth is set to 1MHz for peak measurements and 10Hz for average measurements.

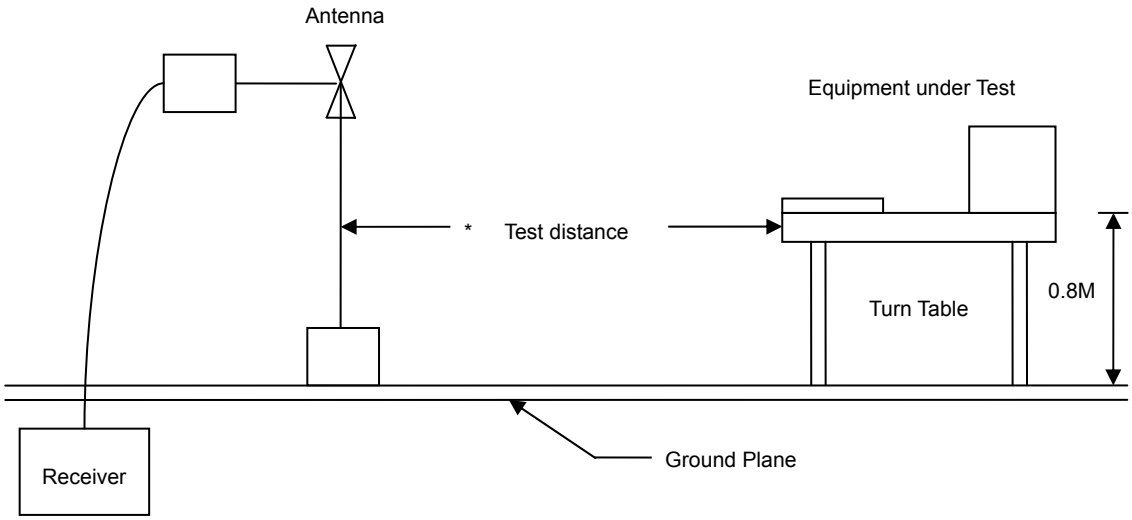
The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the lowest, middle and highest channels in the 2.4GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are

Made with the antenna polarized in both the vertical and the horizontal positions.

When performing radiated measurements >1 GHz, the EUT always remains within the 3dB beam-width of the measuring antenna.

4.3. Typical Test Setup



4.4. Measurement Equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date
EMI Test Receiver	R&S	ESCI	100563	2010.06.23
H64 Amplifier	HP	8447F	3113A05582	2010.08.14
Preamplifier	Agilent	8449B	ED-HE-EMI-077	2010.02.10
Preamplifier	Agilent	8449B	3008A02342	2010.02.10
Ultra Broadband Antenna	R&S	HL562	100362	2010.11.25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2010.11.10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-347	2010.10.15
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

4.5. Test Result and Data

Under 1G:

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode : Normal Link**

Freq. (MHz)	Ant.Pol. H/V	Reading Level (dBuV)	Correct Factor (dB)	Measure Level (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
30.00	V	43.01	-7.19	35.82	40.00	-4.18	Peak
99.70	V	45.16	-17.14	28.03	43.50	-15.47	Peak
310.74	V	46.04	-12.97	33.07	46.00	-12.93	Peak
498.54	V	44.89	-8.91	35.98	46.00	-10.02	Peak
519.84	V	45.51	-8.50	37.01	46.00	-8.99	Peak
903.19	V	39.77	-1.67	38.09	46.00	-7.91	Peak
155.85	H	42.99	-18.05	24.94	43.50	-18.56	Peak
310.74	H	49.33	-12.97	36.36	46.00	-9.64	Peak
467.56	H	45.82	-9.50	36.32	46.00	-9.68	Peak
498.54	H	45.63	-8.91	36.71	46.00	-9.29	Peak
519.84	H	46.98	-8.50	38.48	46.00	-7.52	Peak
781.22	H	39.77	-3.08	36.69	46.00	-9.31	Peak

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Above 1G:

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode : Transmit by 802.11b (2412MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2100.00	V	46.10	36.32	-0.80	45.30	35.52	74.00	54.00	-18.48	average
3770.15	V	47.26	37.14	4.38	51.64	41.52	74.00	54.00	-12.48	average
4824.56	V	46.22	35.24	6.53	52.75	41.77	74.00	54.00	-12.23	average
2100.10	H	45.21	36.11	-0.80	44.41	35.31	74.00	54.00	-18.69	average
3770.56	H	47.02	36.12	4.38	51.40	40.50	74.00	54.00	-13.50	average
4825.05	H	40.29	32.54	6.54	46.83	39.08	74.00	54.00	-14.92	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2101.20	V	47.36	37.32	-0.80	46.56	36.52	74.00	54.00	-17.48	average
3770.55	V	50.25	39.14	4.38	54.63	43.52	74.00	54.00	-10.48	average
4874.11	V	45.63	38.21	6.85	52.48	45.06	74.00	54.00	-8.94	average
2100.00	H	48.32	36.11	-0.80	47.52	35.31	74.00	54.00	-18.69	average
3770.45	H	49.36	39.02	4.38	53.74	43.40	74.00	54.00	-10.60	average
4874.30	H	45.21	37.45	6.85	52.06	44.30	74.00	54.00	-9.70	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2100.02	V	45.34	36.12	-0.80	44.54	35.32	74.00	54.00	-18.68	average
3771.27	V	49.32	39.11	4.39	53.71	43.50	74.00	54.00	-10.50	average
4925.21	V	49.25	36.57	6.99	56.24	43.56	74.00	54.00	-10.44	average
2100.06	H	46.32	35.41	-0.80	45.52	34.61	74.00	54.00	-19.39	average
3770.47	H	49.20	38.29	4.38	53.58	42.67	74.00	54.00	-11.33	average
4925.05	H	45.27	37.14	6.99	52.26	44.13	74.00	54.00	-9.87	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2101.32	V	44.95	34.12	-0.81	44.14	33.31	74.00	54.00	-20.69	average
3772.12	V	48.54	38.17	4.38	52.92	42.55	74.00	54.00	-11.45	average
4825.16	V	48.14	38.16	6.55	54.69	44.71	74.00	54.00	-9.29	average
2100.42	H	45.21	33.26	0.80	46.01	34.06	74.00	54.00	-19.94	average
3771.20	H	48.02	37.14	4.38	52.40	41.52	74.00	54.00	-12.48	average
4825.01	H	46.78	37.15	6.55	53.33	43.70	74.00	54.00	-10.30	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2100.05	V	46.25	36.21	-0.80	45.45	35.41	74.00	54.00	-18.59	average
3770.21	V	49.32	38.17	4.38	53.70	42.55	74.00	54.00	-11.45	average
4875.13	V	48.01	39.21	6.85	54.86	46.06	74.00	54.00	-7.94	average
2100.00	H	44.17	35.26	-0.80	43.37	34.46	74.00	54.00	-19.54	average
3770.33	H	47.03	37.10	4.38	51.41	41.48	74.00	54.00	-12.52	average
4875.04	H	51.02	38.01	6.85	57.87	44.86	74.00	54.00	-9.14	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
2101.22	V	42.67	33.96	-0.81	41.86	33.15	74.00	54.00	-20.85	average
3771.45	V	48.33	39.25	4.37	52.70	43.62	74.00	54.00	-10.38	average
4924.86	V	49.35	38.26	6.99	56.34	45.25	74.00	54.00	-8.75	average
2100.78	H	43.26	33.22	-0.80	42.46	32.42	74.00	54.00	-21.58	average
3770.02	H	48.69	38.14	4.38	53.07	42.52	74.00	54.00	-11.48	average
4925.63	H	46.22	36.13	6.99	53.21	43.12	74.00	54.00	-10.88	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2412MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1060.23	V	50.74	40.12	-0.80	49.94	39.32	74.00	54.00	-14.68	average
3770.12	V	54.23	35.36	4.38	58.61	39.74	74.00	54.00	-14.26	average
4824.76	V	45.02	36.13	6.54	51.56	42.67	74.00	54.00	-11.33	average
1061.02	H	48.32	38.24	-0.80	47.52	37.44	74.00	54.00	-16.56	average
3770.27	H	47.05	38.02	4.38	51.43	42.40	74.00	54.00	-11.60	average
4824.79	H	47.12	35.26	6.54	53.66	41.80	74.00	54.00	-12.20	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1062.23	V	50.74	40.12	-0.80	49.94	39.32	74.00	54.00	-14.68	average
3771.20	V	54.23	35.36	4.38	58.61	39.74	74.00	54.00	-14.26	average
4874.26	V	45.02	36.13	6.85	51.87	42.98	74.00	54.00	-11.02	average
1061.22	H	53.06	41.02	-0.80	52.26	40.22	74.00	54.00	-13.78	average
3771.29	H	52.14	36.12	4.38	56.52	40.50	74.00	54.00	-13.50	average
4875.04	H	47.12	35.26	6.85	53.97	42.11	74.00	54.00	-11.89	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2462MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1061.02	V	49.37	38.32	-6.51	42.86	31.81	74.00	54.00	-22.19	average
3771.20	V	44.33	33.26	4.39	48.72	37.65	74.00	54.00	-16.35	average
4925.13	V	44.15	35.12	6.99	51.14	42.11	74.00	54.00	-11.89	average
2100.23	H	41.03	30.15	-0.81	40.22	29.34	74.00	54.00	-24.66	average
3770.15	H	46.07	35.01	4.38	50.45	39.39	74.00	54.00	-14.61	average
4925.07	H	46.02	36.14	6.99	53.01	43.13	74.00	54.00	-10.87	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2422MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1060.02	V	48.67	38.56	-6.51	42.16	32.05	74.00	54.00	-21.95	average
3770.12	V	43.24	33.26	4.38	47.62	37.64	74.00	54.00	-16.36	average
4844.02	V	44.15	35.14	6.61	50.76	41.75	74.00	54.00	-12.25	average
1062.02	H	47.17	38.22	-6.50	40.67	31.72	74.00	54.00	-22.28	average
3770.48	H	45.14	32.01	4.38	49.52	36.39	74.00	54.00	-17.61	average
4844.05	H	43.26	34.08	6.61	49.87	40.69	74.00	54.00	-13.31	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2437MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1060.25	V	51.39	42.15	-0.80	50.59	41.35	74.00	54.00	-12.65	average
3770.48	V	48.17	37.14	4.38	52.55	41.52	74.00	54.00	-12.48	average
4874.02	V	46.25	38.24	6.85	53.10	45.09	74.00	54.00	-8.91	average
1060.54	H	51.00	40.12	-0.80	50.20	39.32	74.00	54.00	-14.68	average
3770.02	H	46.85	35.96	4.38	51.23	40.34	74.00	54.00	-13.66	average
4875.11	H	47.25	36.24	6.85	54.10	43.09	74.00	54.00	-10.91	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-11**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL/ HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2452MHz)**

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Safe Margin (dB)	Detector Mode (PK/QP)
					Peak (dBuV/m)	AV (dBuV/m)				
1060.55	V	48.52	37.14	-6.51	42.01	30.63	74.00	54.00	-23.37	average
3770.84	V	44.63	35.13	4.39	49.02	39.52	74.00	54.00	-14.48	average
4904.21	V	42.01	34.10	6.91	48.92	41.01	74.00	54.00	-12.99	average
1060.22	H	46.07	35.33	-6.51	39.56	28.82	74.00	54.00	-25.18	average
3770.14	H	48.32	37.12	4.38	52.70	41.50	74.00	54.00	-12.50	average
4904.20	H	45.22	35.02	6.91	52.13	41.93	74.00	54.00	-12.07	average

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Measurement Level = Reading Level + Correct Factor

5. Occupied Bandwidth

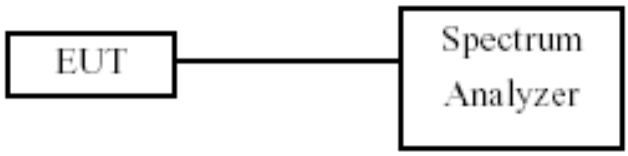
5.1. Test Limit

Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725- 5850 MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.

5.2. Test Procedures

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

5.3. Test Setup Layout



5.4. Measurement Equipment

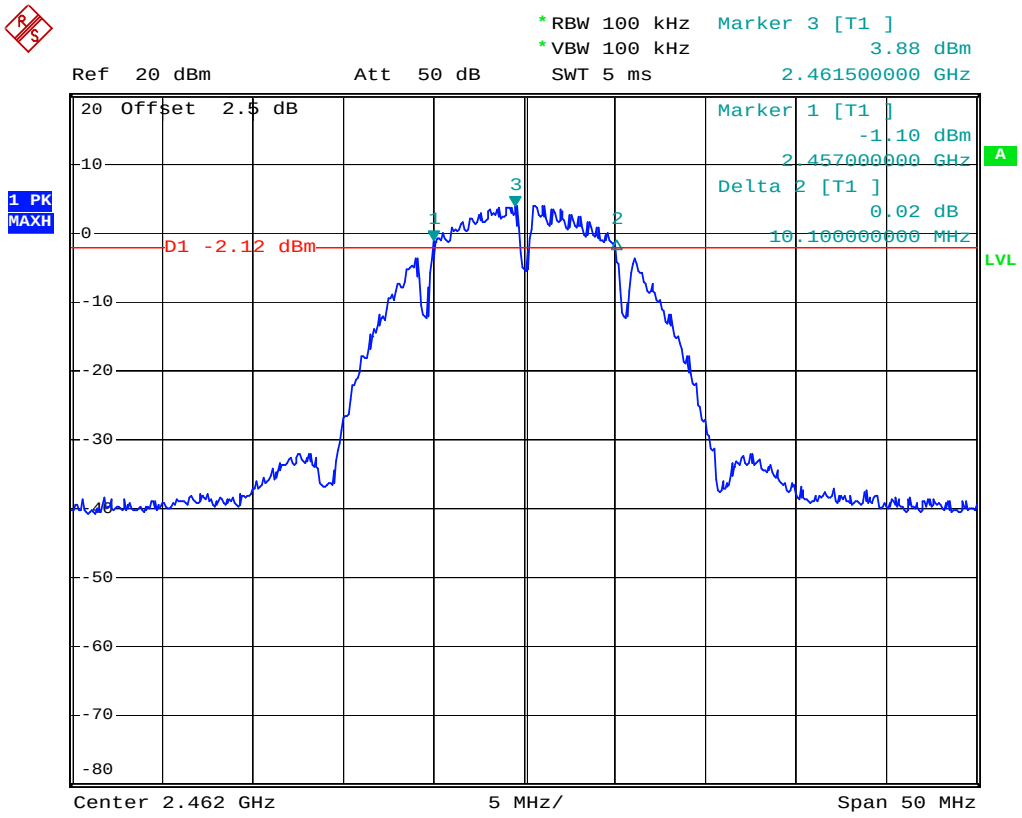
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

5.5. Test Result and Data

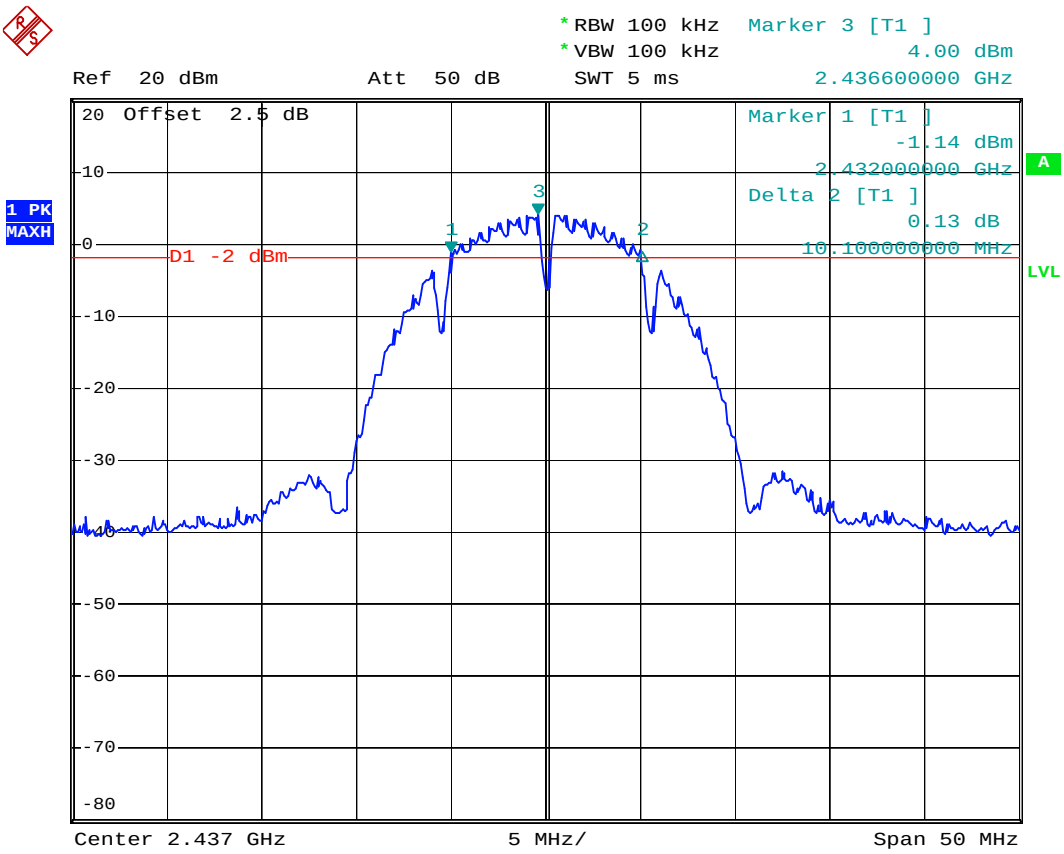
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11b
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	10100	500	Pass
06	2437	10100	500	Pass
11	2462	10100	500	Pass

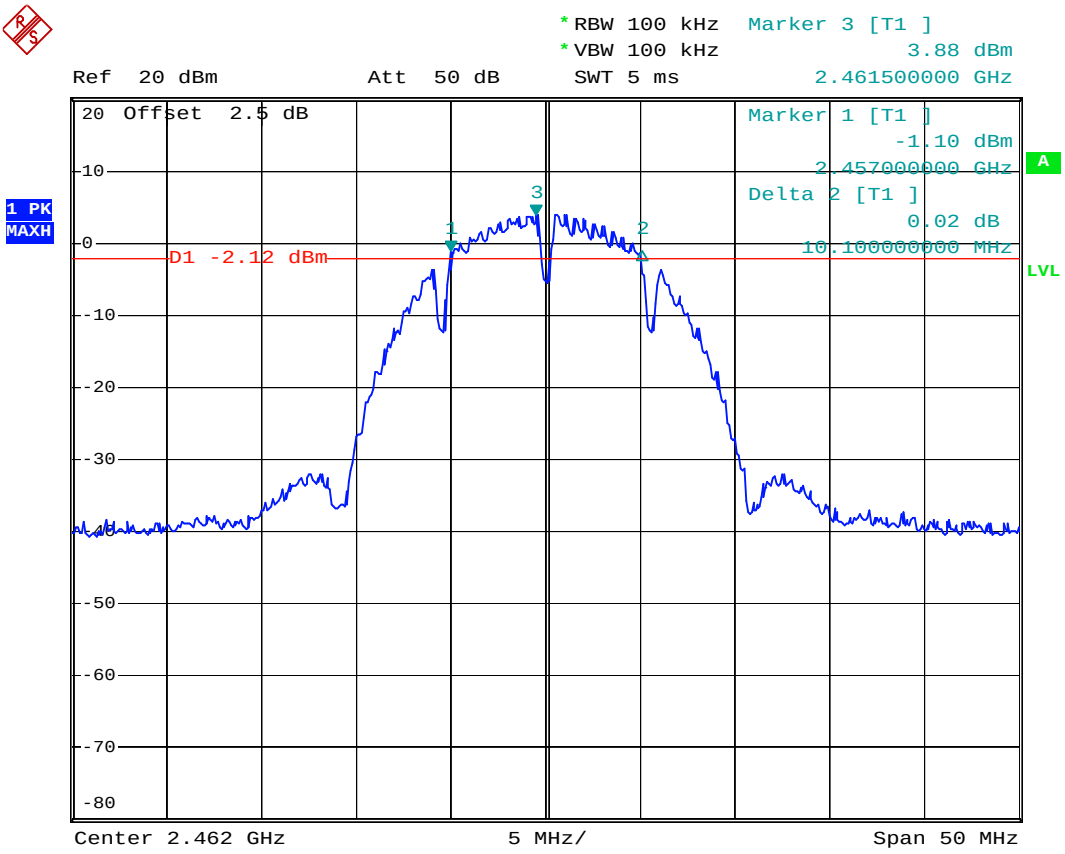
Channel 01 (2412MHz)



Channel 06 (2437MHz)



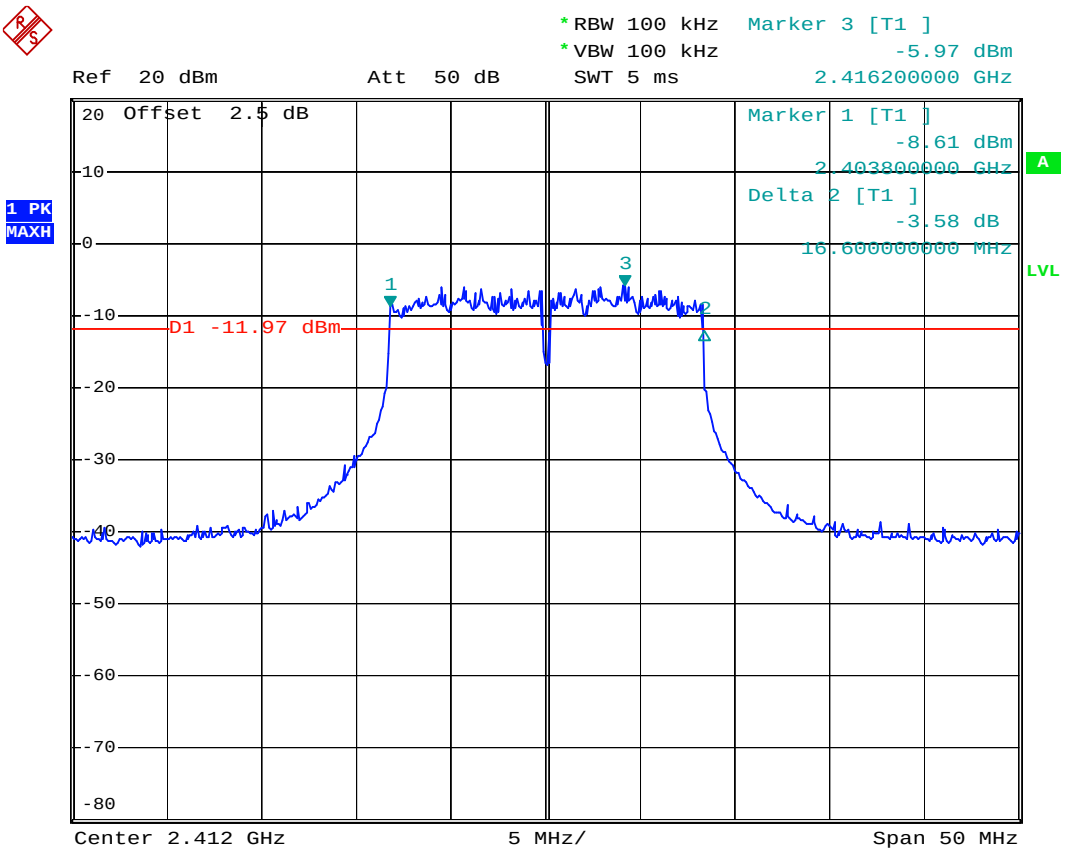
Channel11(2462MHz)



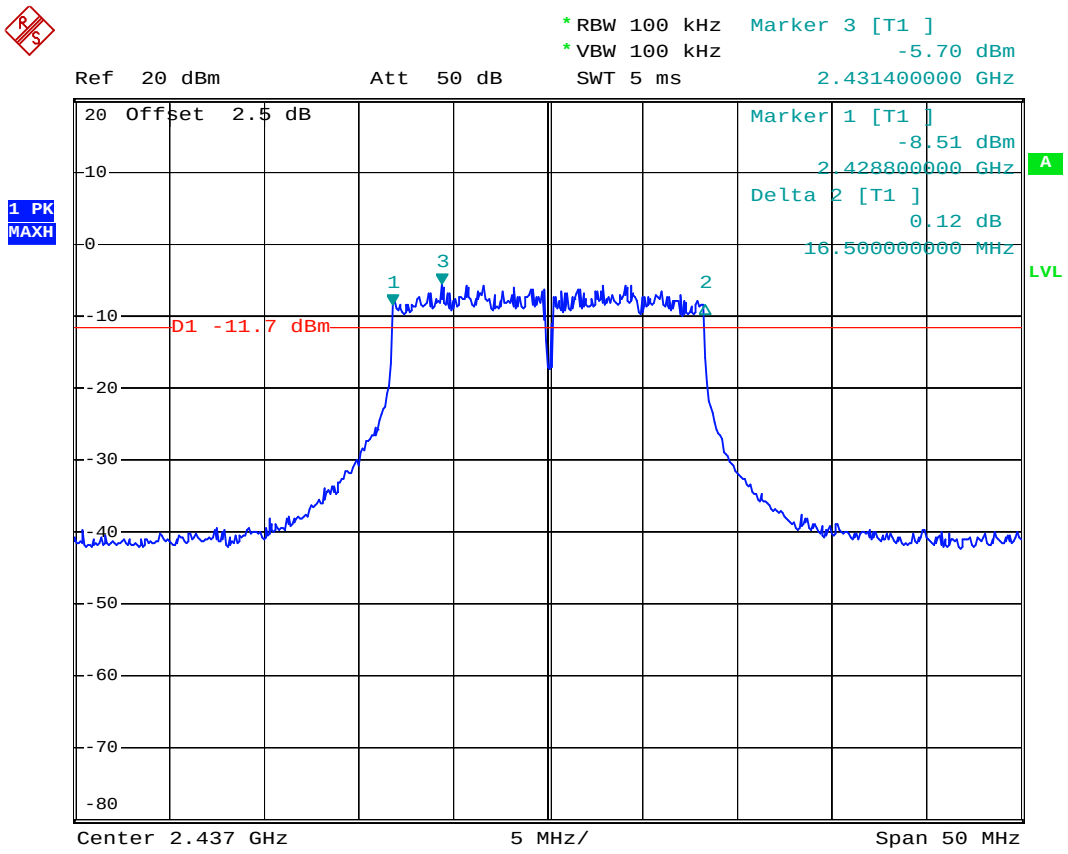
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11g
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	16600	500	Pass
06	2437	16500	500	Pass
11	2462	16500	500	Pass

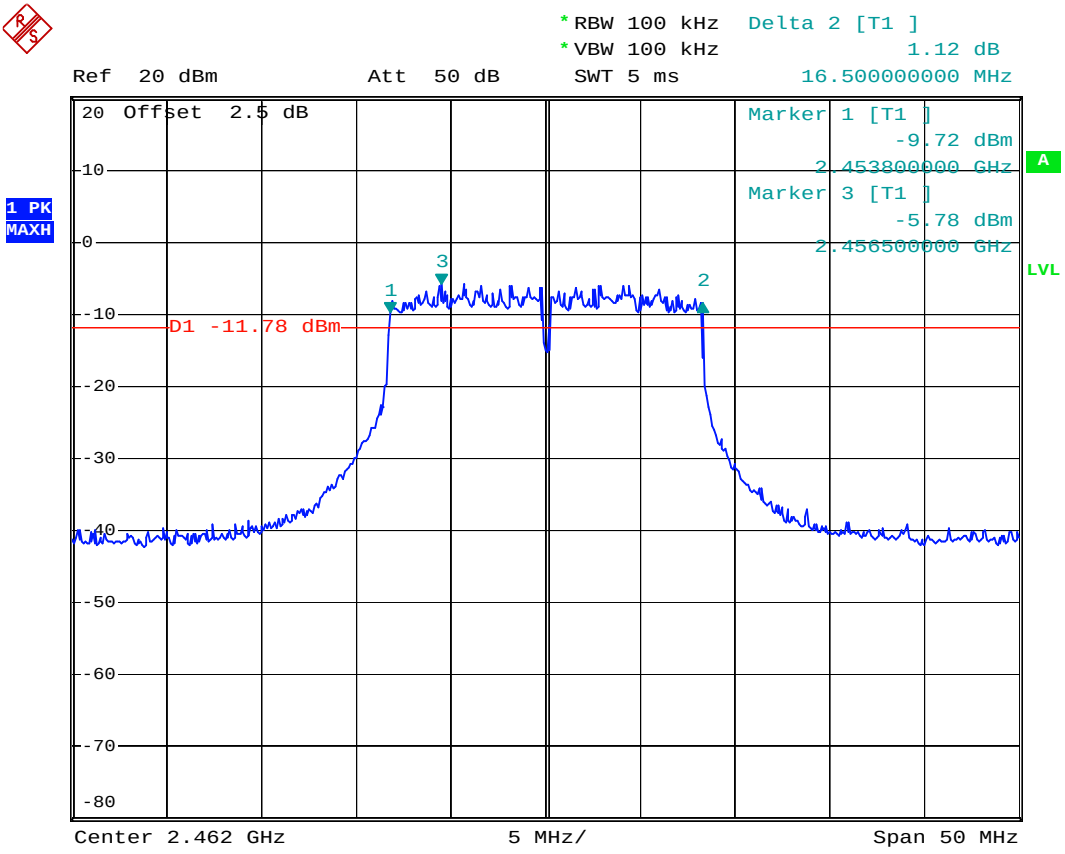
Channel 01 (2412MHz)



Channel 06 (2437MHz)



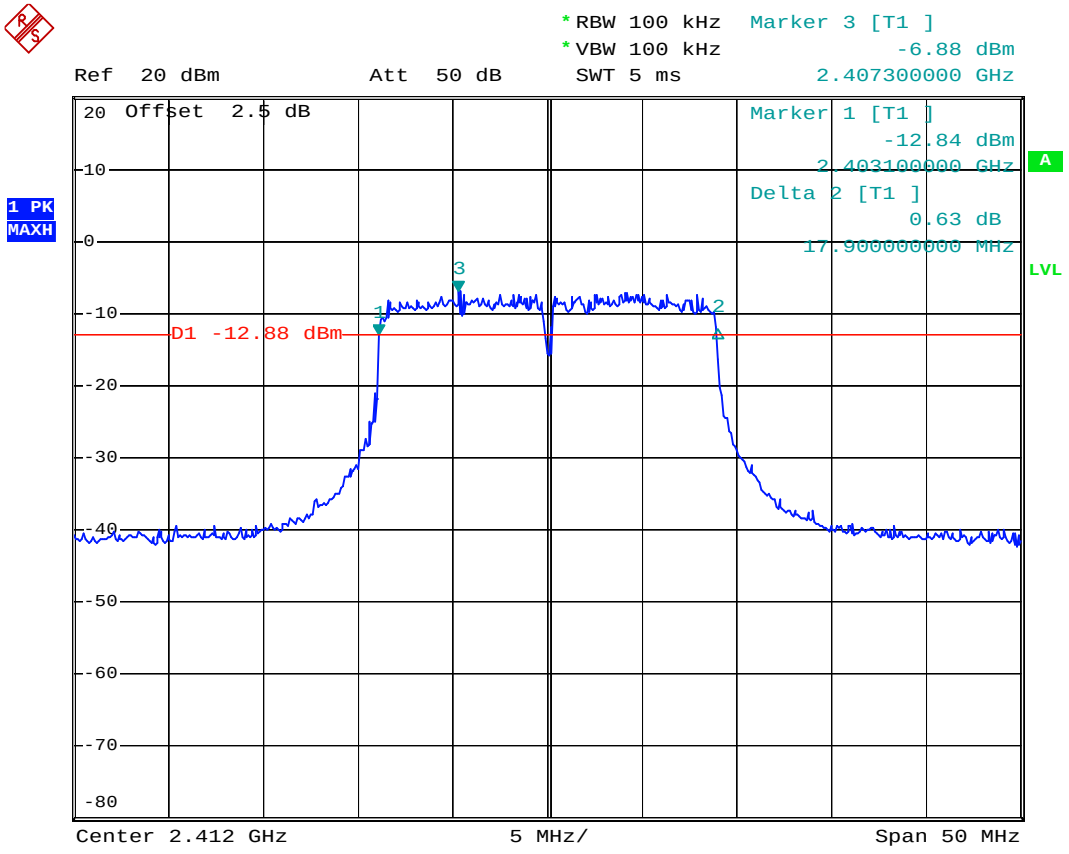
Channel 11 (2462MHz)



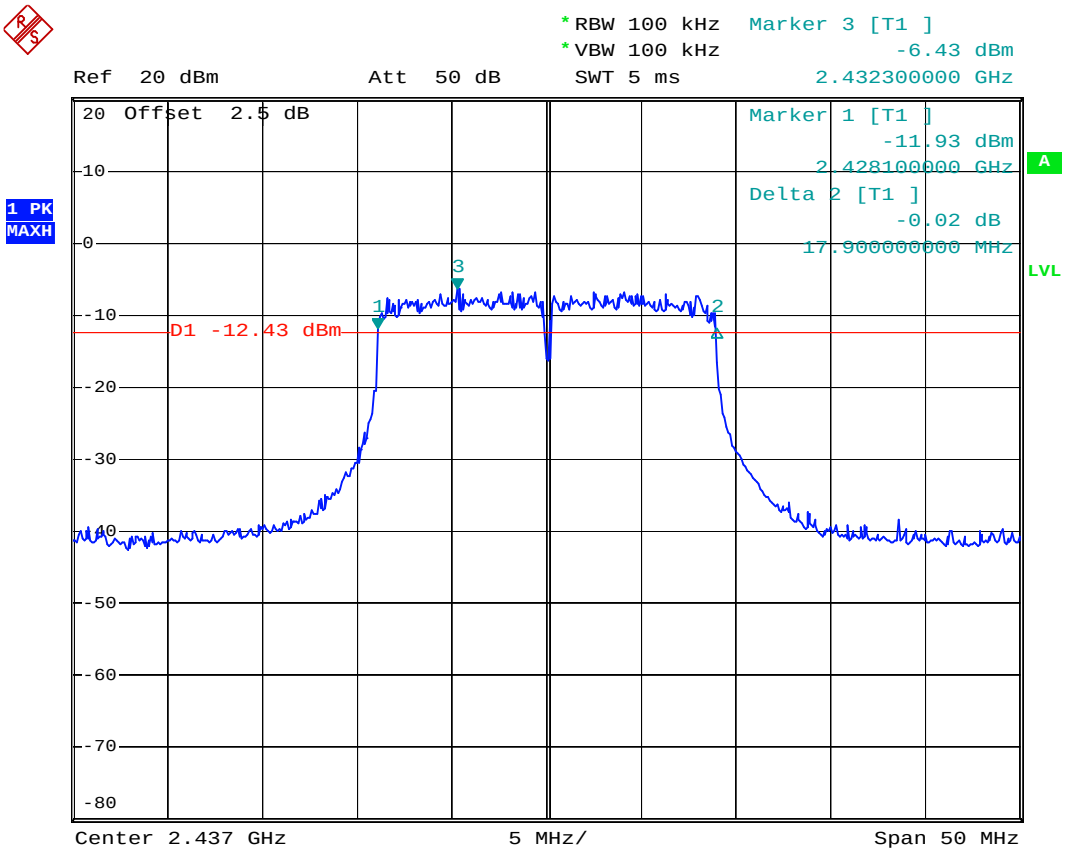
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11n (20MHz)
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	17900	500	Pass
06	2437	17900	500	Pass
11	2462	17800	500	Pass

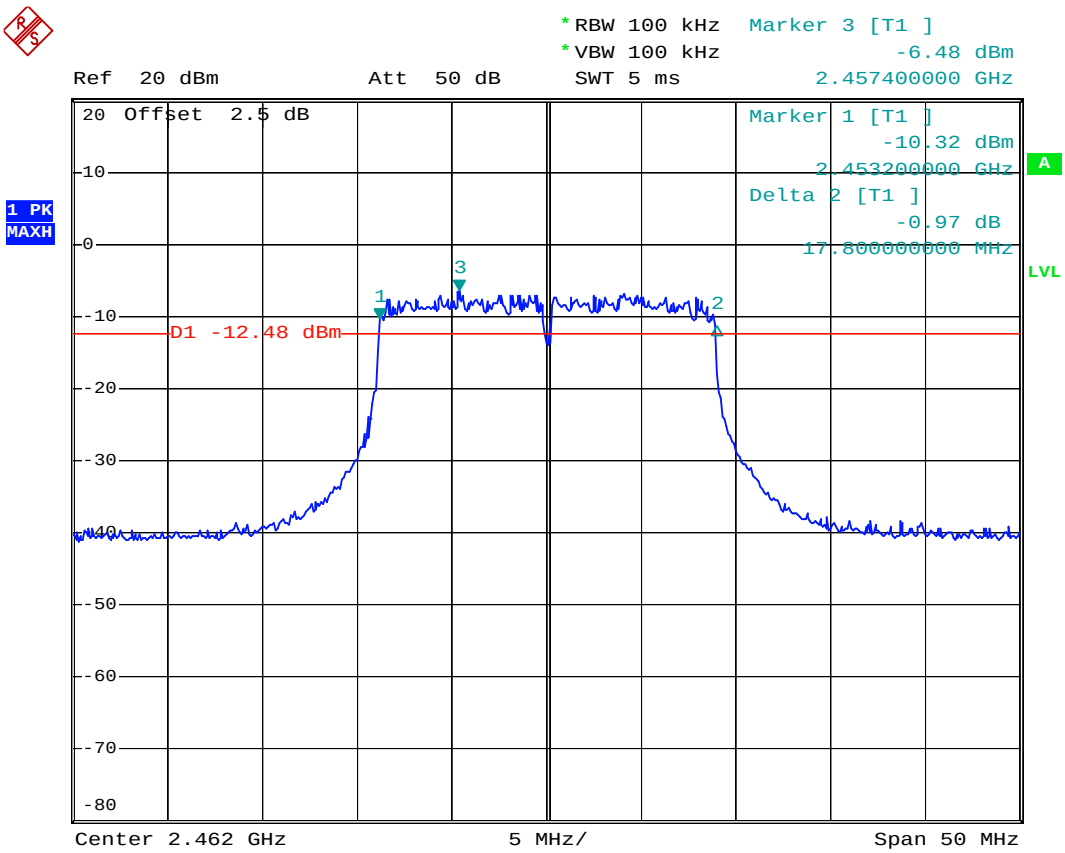
Channel 01 (2412MHz)



Channel 06 (2437MHz)



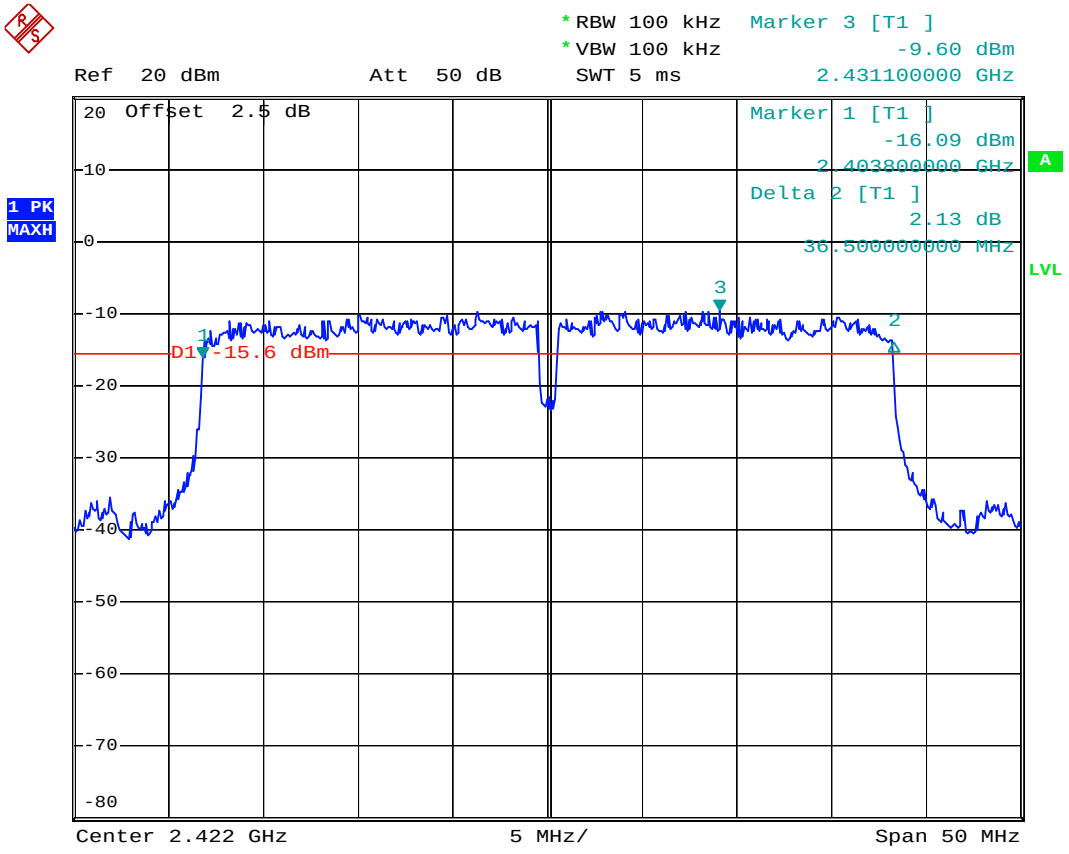
Channel 11 (2462MHz)



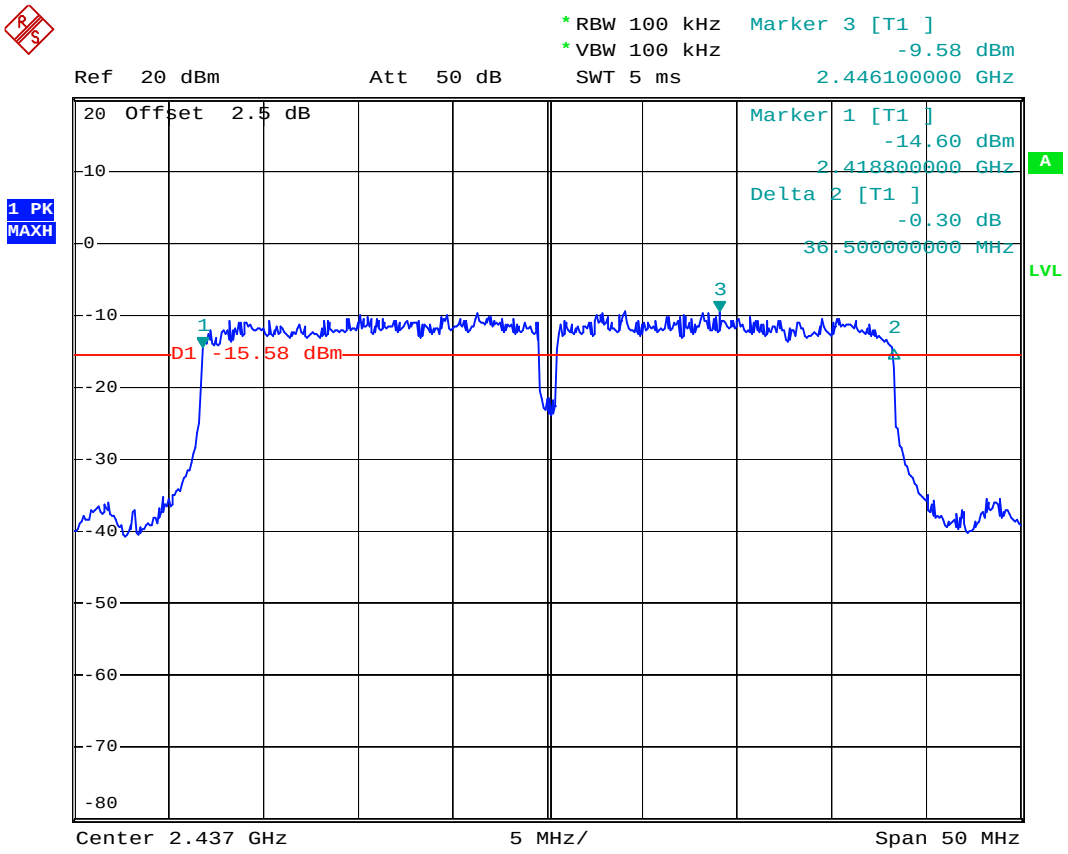
Test Item	Occupied Bandwidth
Test Mode	Transmit by 802.11n (40MHz)
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
03	2422	36500	500	Pass
06	2437	36500	500	Pass
09	2452	36500	500	Pass

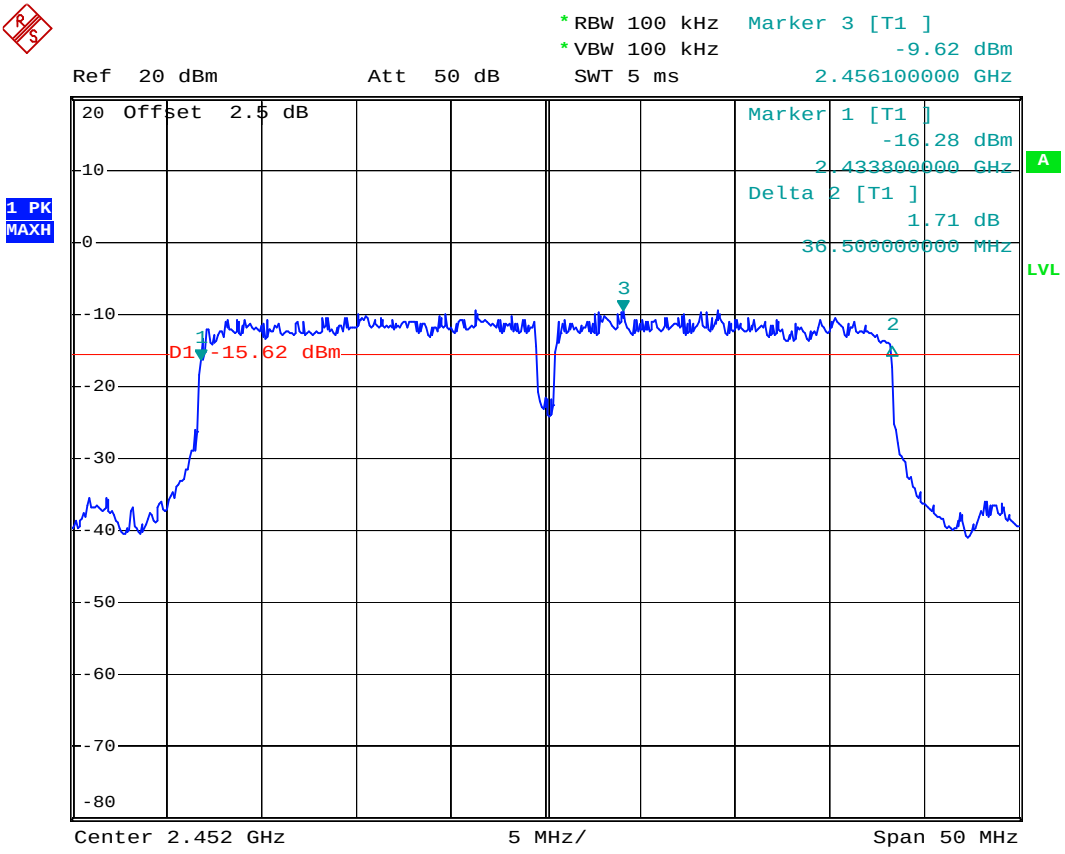
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 9 (2452MHz)



6. Maximum Peak Output Power

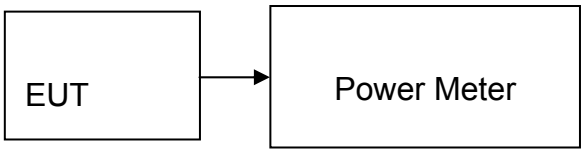
6.1. Test Limit

The maximum peak power shall be less 1Watt (30dBm).
The conducted output power limit is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of standard FCC part 15.247, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6 dBi.

6.2. Test Procedure

The transmitter output is connected to the Power Meter.

6.3. Test Setup Layout



6.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Power Meter	NRP	R&S	CCE013	2010.01.15
Power Sensor	NRP-Z91	R&S	100385	2010.01.15
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

6.5. Test Result and Data

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11b
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
01	2412	17.05	30	Pass
06	2437	17.53	30	Pass
11	2462	17.25	30	Pass

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11g
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
01	2412	14.53	30	Pass
06	2437	15.03	30	Pass
11	2462	14.75	30	Pass

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11n (20MHz)
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
01	2412	14.25	30	Pass
06	2437	14.43	30	Pass
11	2462	14.33	30	Pass

Test Item	Maximum Peak Output Power
Test Mode	Transmit by 802.11n (40MHz)
Test Date	2011-01-10

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit (dBm)	Result
03	2422	12.99	30	Pass
06	2437	13.15	30	Pass
09	2452	13.03	30	Pass

7. Band Edges

7.1. Test Limit

For RF Conducted requirement:

20 dB bandwidth of the emission is contained within the operation frequency band.

For RF Radiated requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

7.2. Test Procedure

For RF Conducted Measurement:

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

For RF Radiated Measurement:

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

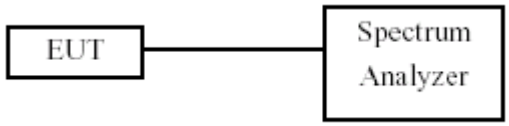
For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

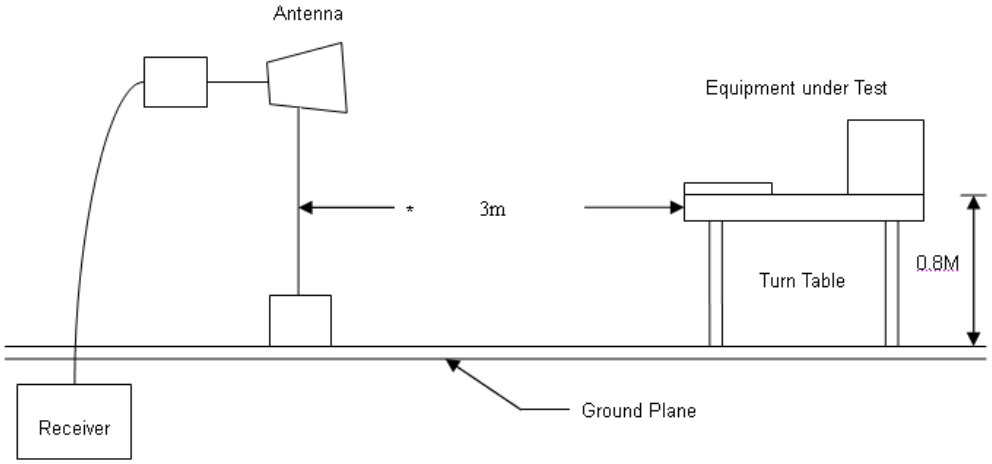
For measurements above 1GHz the resolution bandwidth is set to 1MHz, then the video bandwidth is set to 1MHz for peak measurements and 10Hz for average measurements.

The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the lowest, middle and highest channels in the 2.4GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are Made with the antenna polarized in both the vertical and the horizontal positions.

7.3. Test Setup Layout



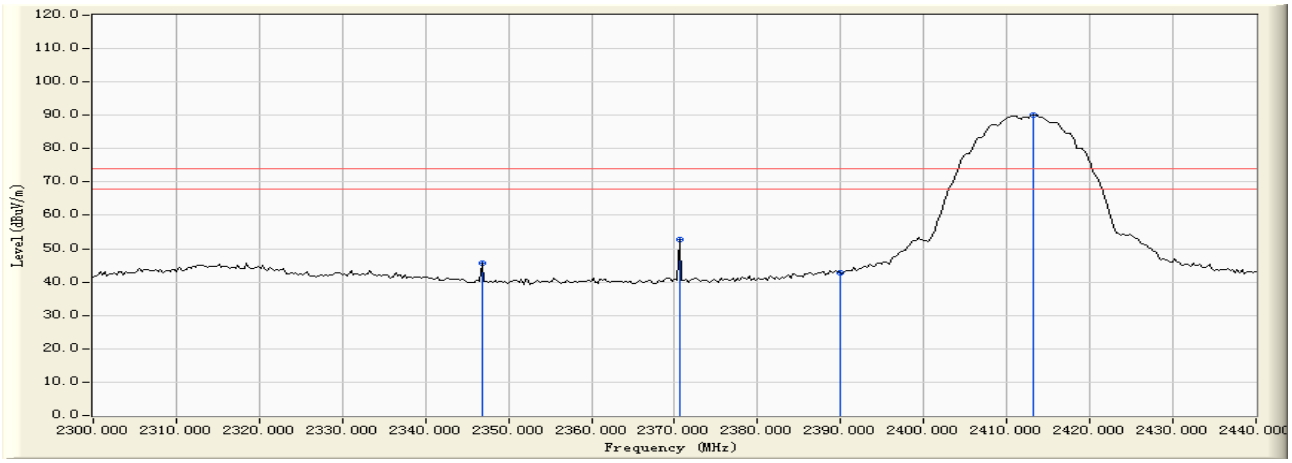


7.4. Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
H64 Amplifier	HP	8447F	3113A05582	2010.08.14
Preamplifier	Agilent	8449B	ED-HE-EMI-077	2010.02.10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2010.11.10
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

7.5. Test Result and Data

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2412MHz)**

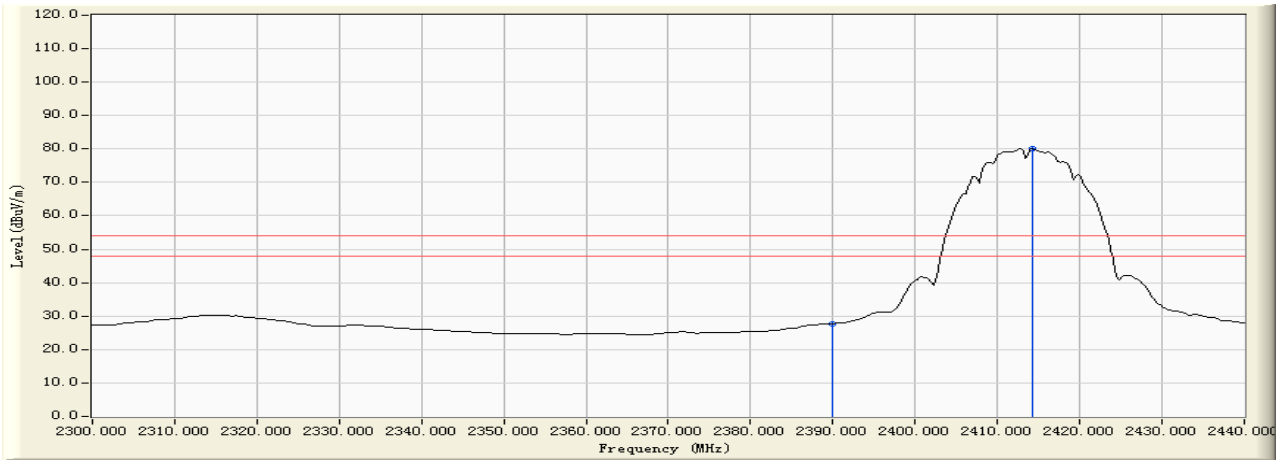


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2346.760	0.119	45.612	45.731	-28.269	74.000	PEAK
2		2370.560	0.115	52.748	52.863	-21.137	74.000	PEAK
3		2390.000	0.112	42.547	42.659	-31.341	74.000	PEAK
4	*	2413.120	0.136	90.003	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011/01/10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : 120V/60Hz	**Note : Transmit by 802.11b (2412MHz)**

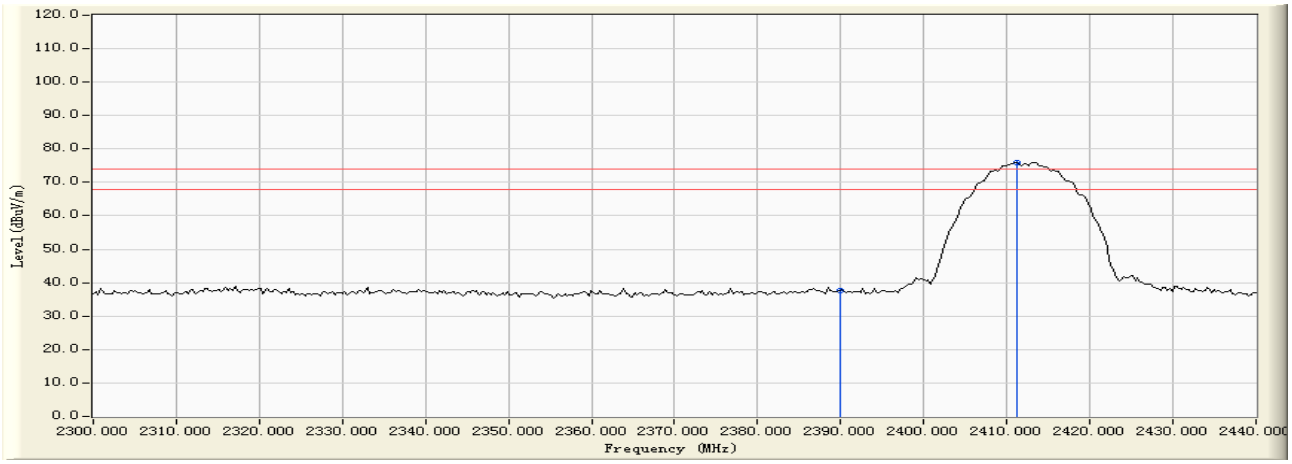


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	27.585	27.697	-26.303	54.000	AVERAGE
2	*	2414.240	0.137	79.983	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2412MHz)**

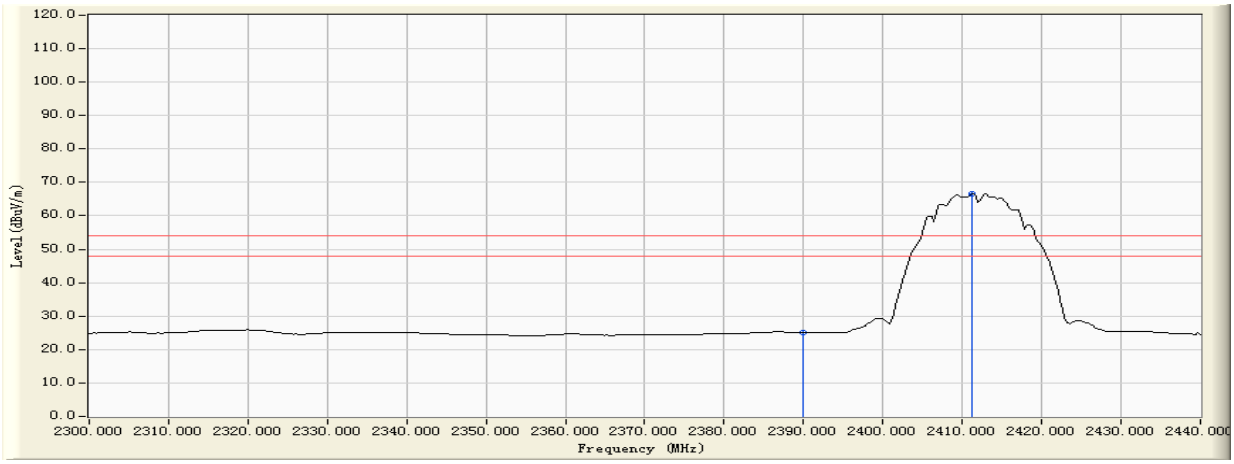


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	37.681	37.793	-36.207	74.000	PEAK
2	*	2411.160	0.134	75.773	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2412MHz)**

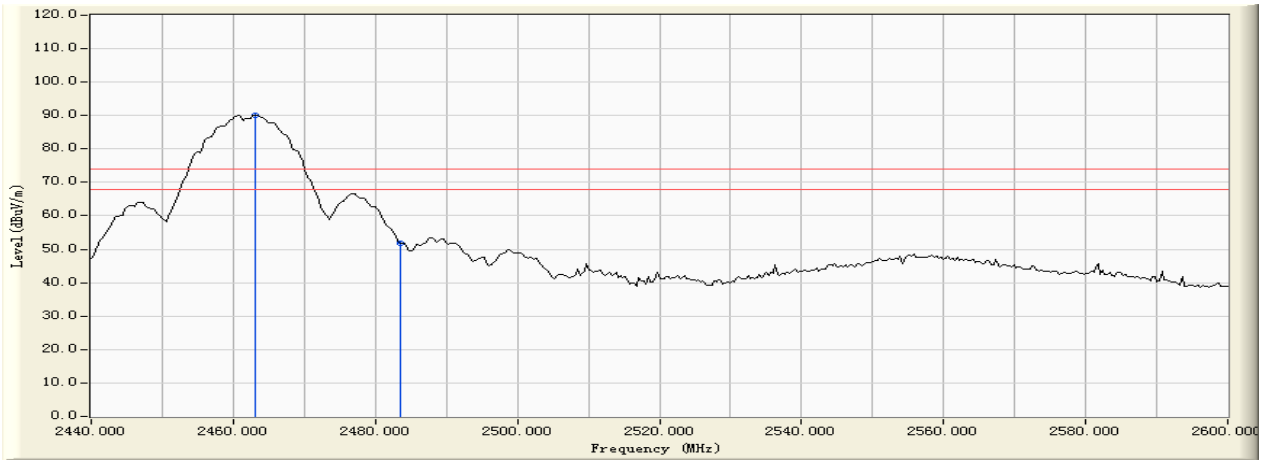


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	24.981	25.093	-28.907	54.000	AVERAGE
2	*	2411.160	0.134	66.443	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

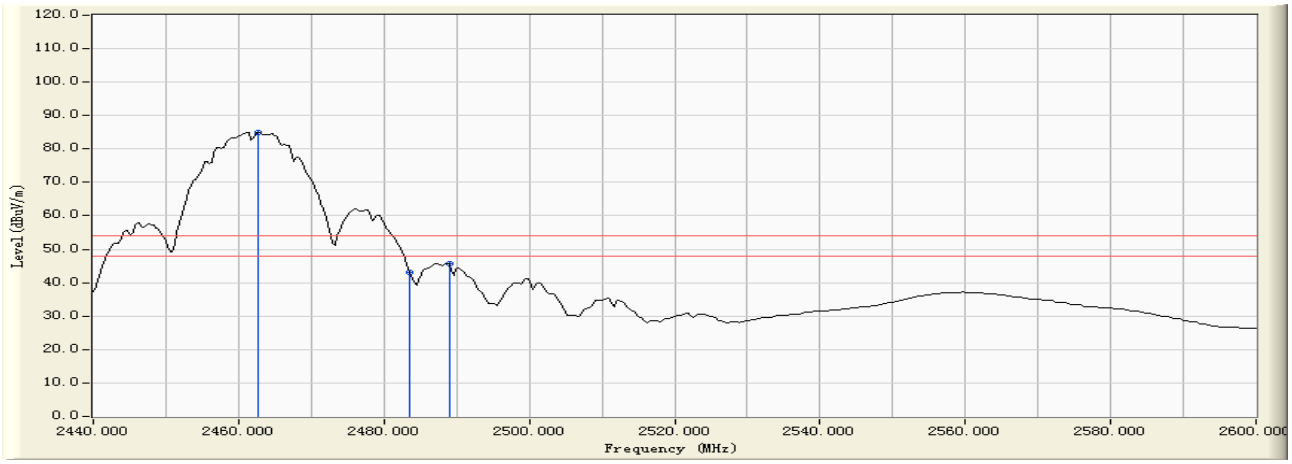


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2463.040	0.257	89.859	N/A	N/A	N/A	PEAK
2		2483.500	0.306	51.497	51.803	-22.197	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

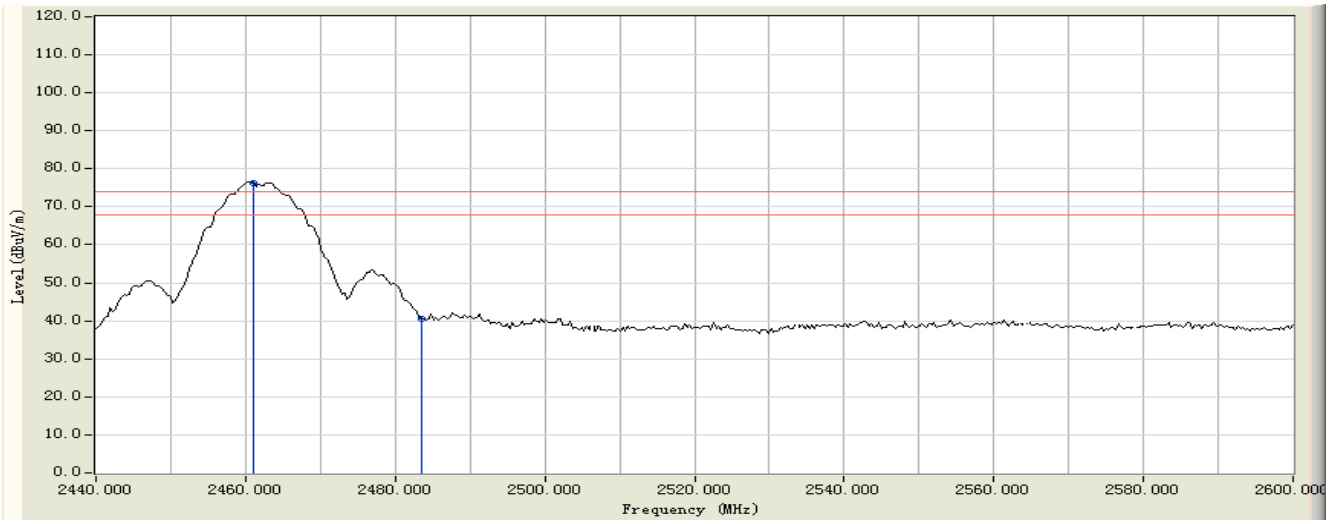


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2462.720	0.257	84.832	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	42.830	43.136	-10.864	54.000	AVERAGE
3		2488.960	0.320	45.262	45.582	-8.418	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**

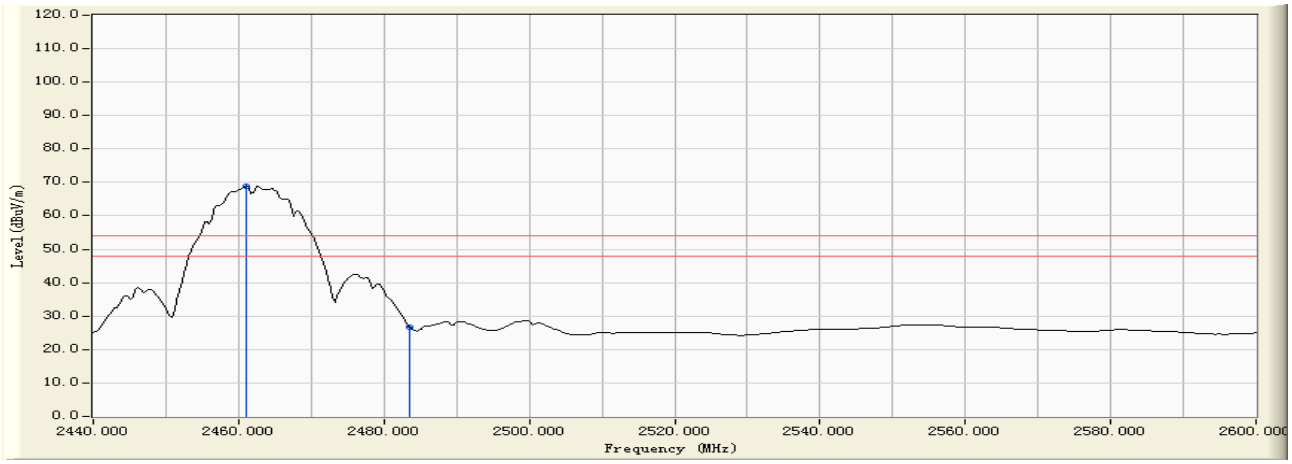


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.120	0.253	76.139	N/A	N/A	N/A	PEAK
2		2483.500	0.306	40.235	40.541	-33.459	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11b (2462MHz)**



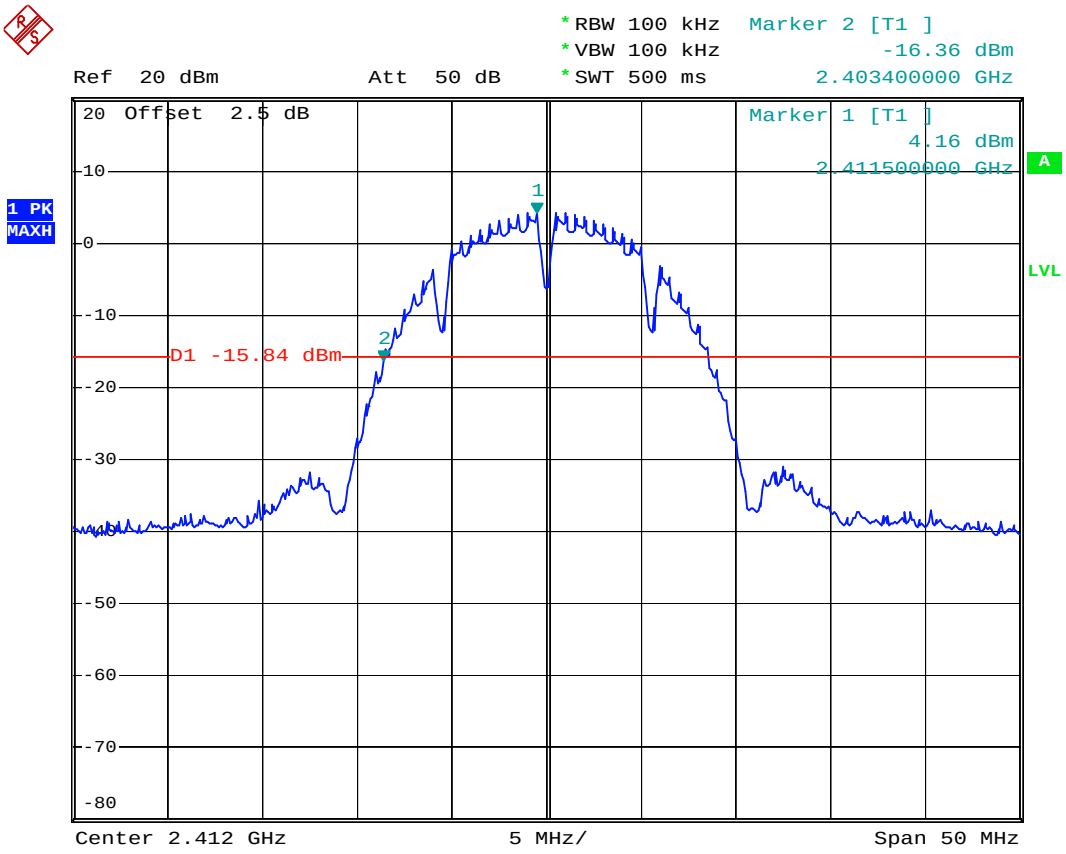
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.120	0.253	68.590	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	26.472	26.778	-27.222	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

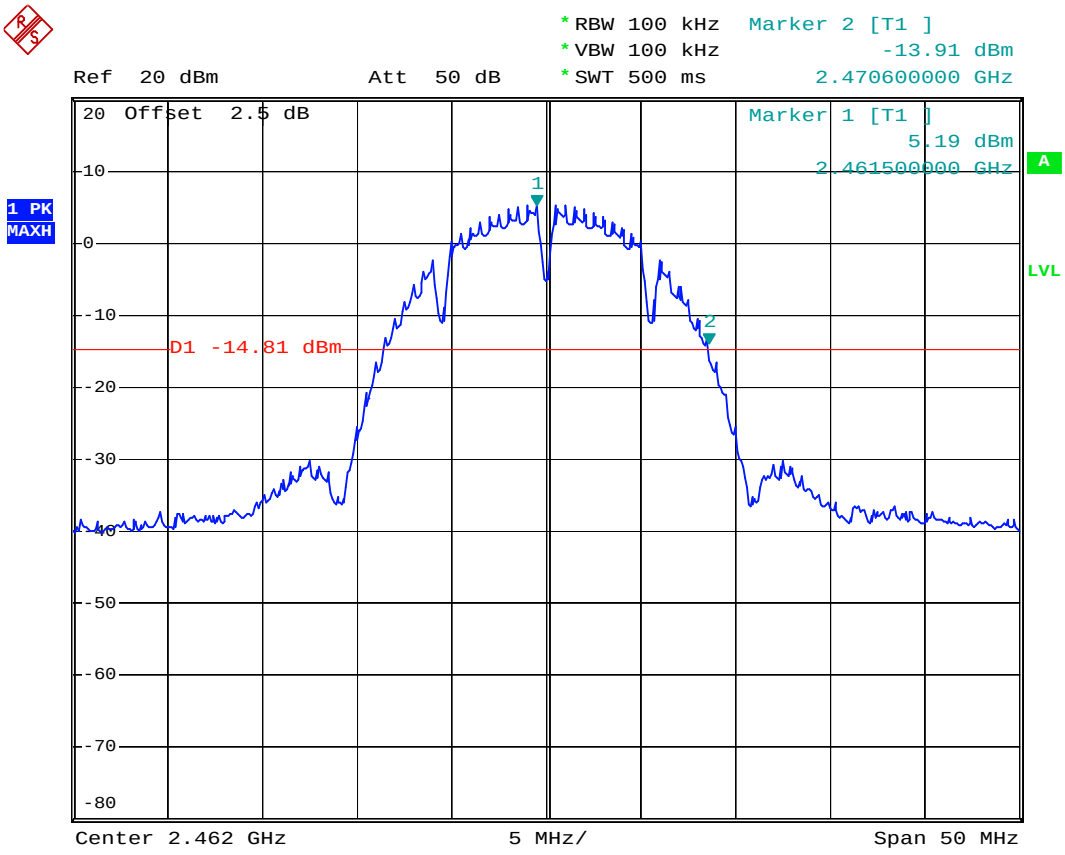
Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11b (2412MHz)

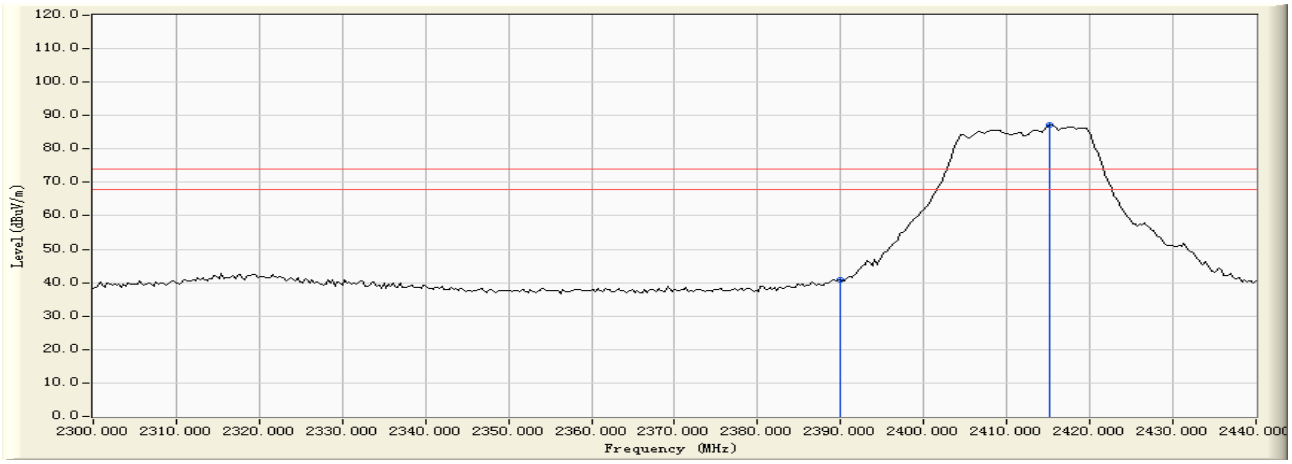


Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11b (2462MHz)



Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

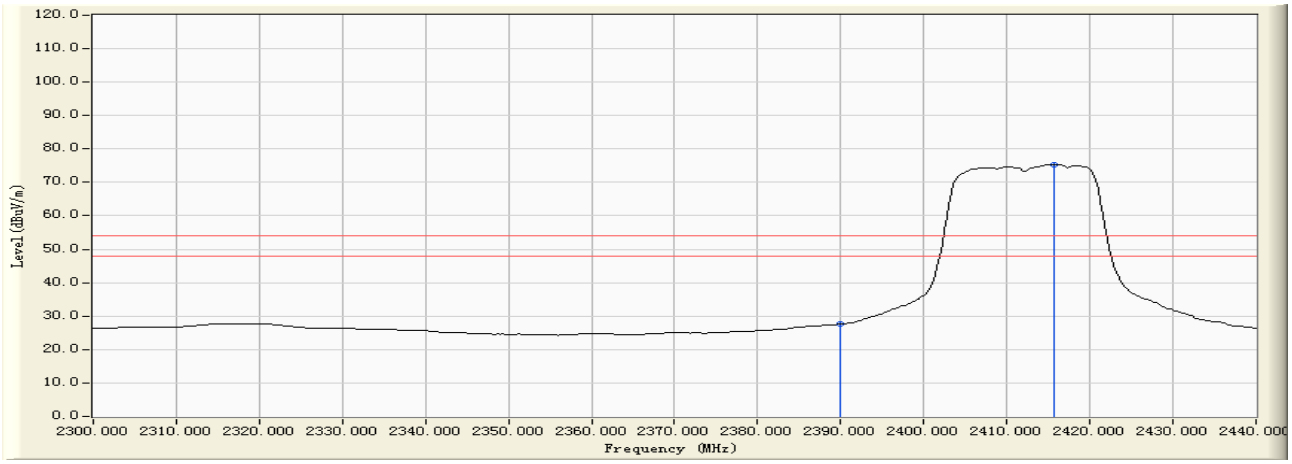


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	40.596	40.708	-33.292	74.000	PEAK
2	*	2415.080	0.139	86.943	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

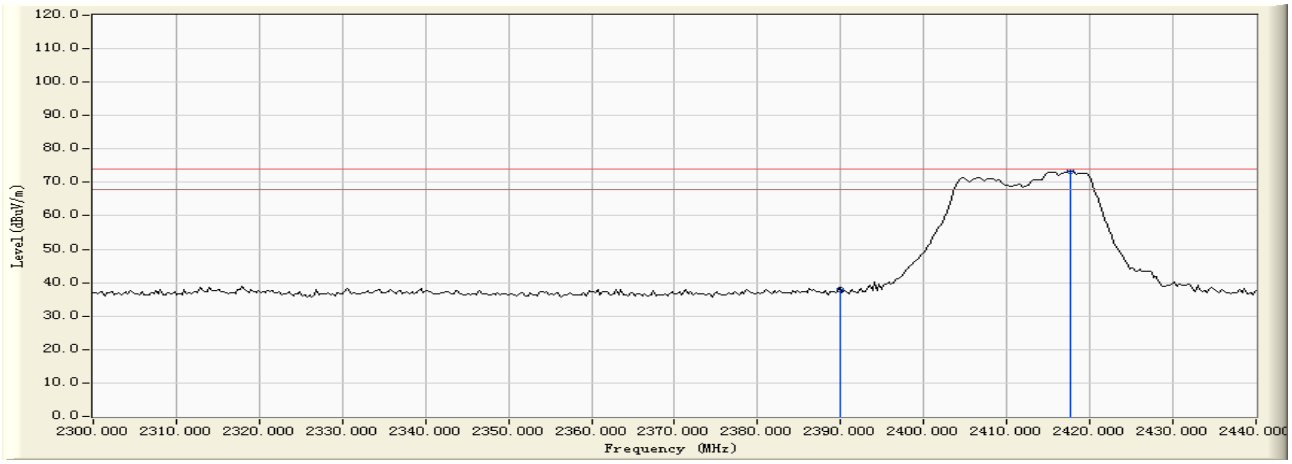


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	27.491	27.603	-26.397	54.000	AVERAGE
2	*	2415.640	0.140	75.251	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

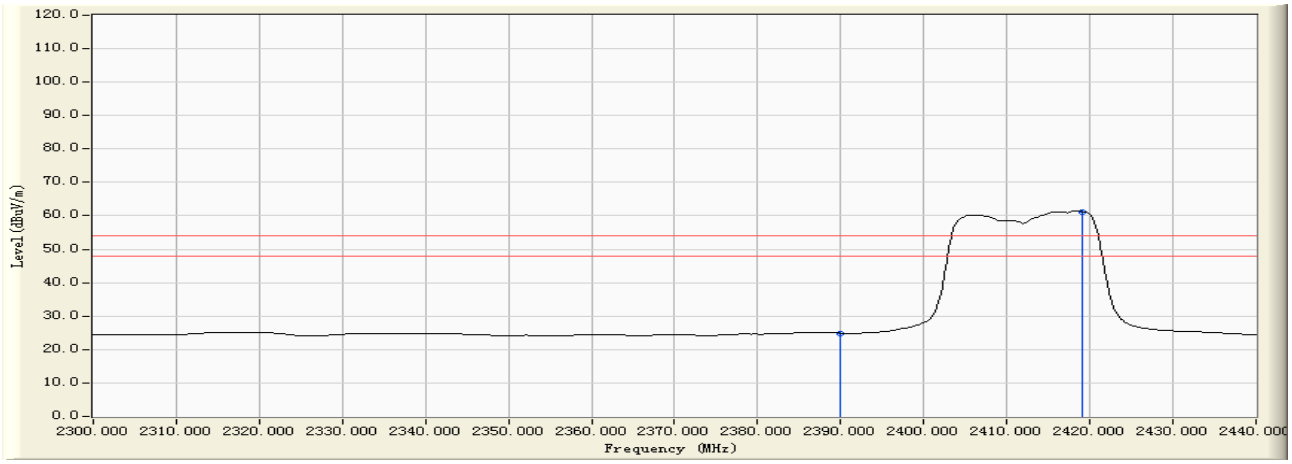


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	37.795	37.907	-36.093	74.000	PEAK
2	*	2417.600	0.142	73.178	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Jeson	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2412MHz)**

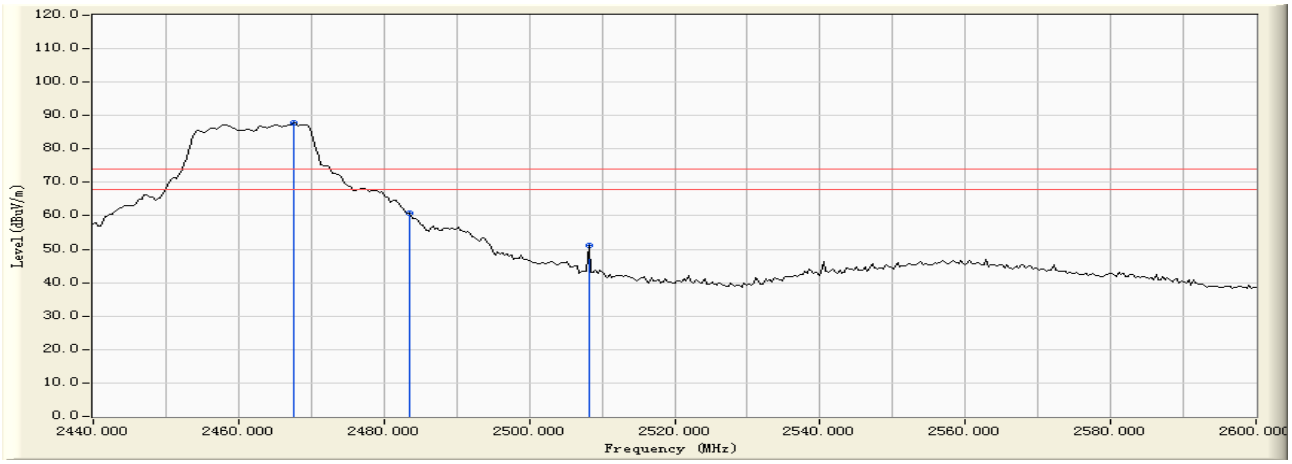


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	24.800	24.912	-29.088	54.000	AVERAGE
2	*	2419.000	0.145	61.114	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

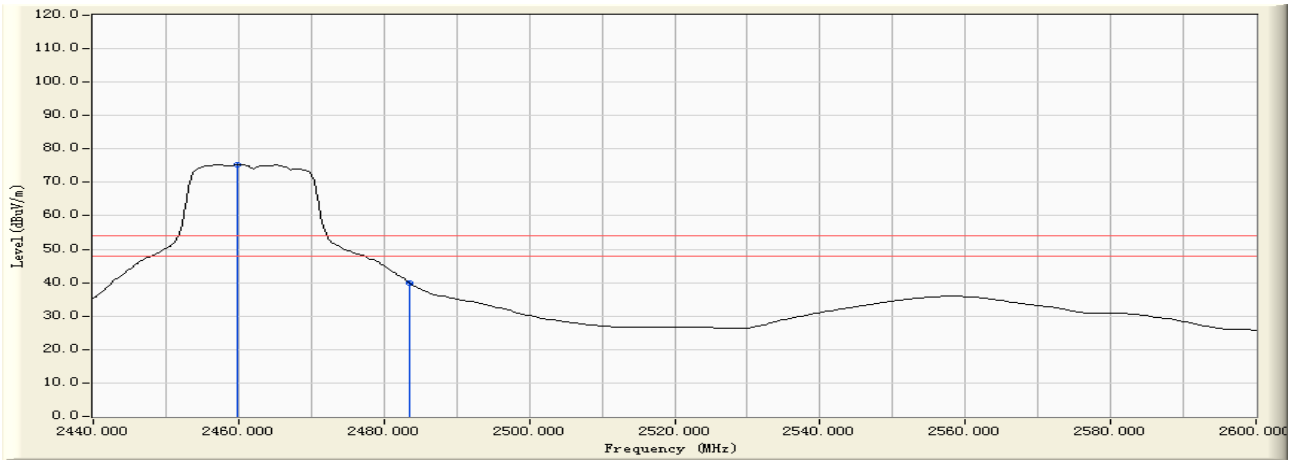


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2467.520	0.268	87.554	N/A	N/A	N/A	PEAK
2		2483.500	0.306	60.419	60.725	-13.275	74.000	PEAK
3		2508.160	0.383	50.711	51.093	-22.907	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

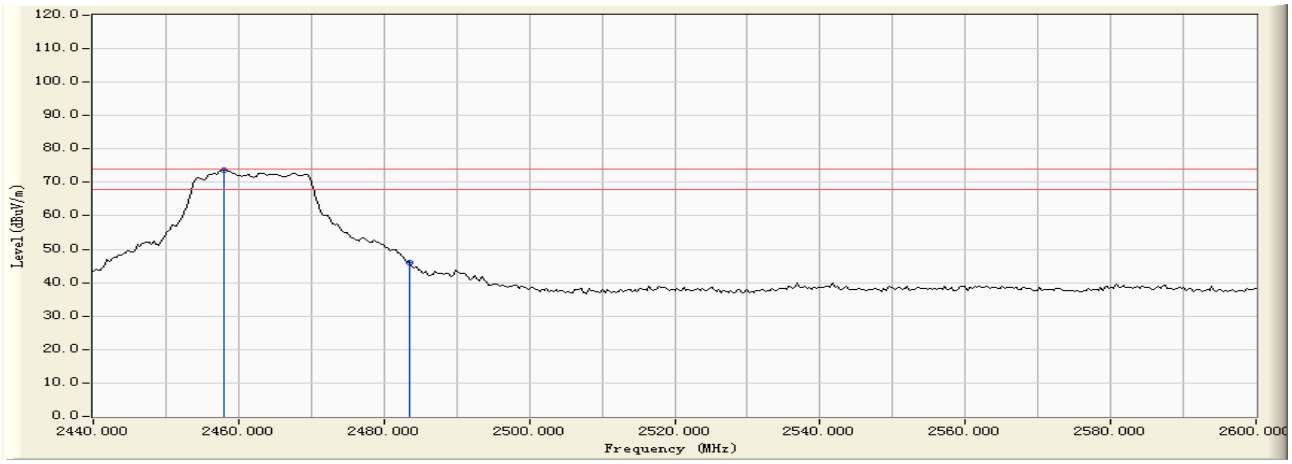


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2459.840	0.249	75.028	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	39.560	39.866	-14.134	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**

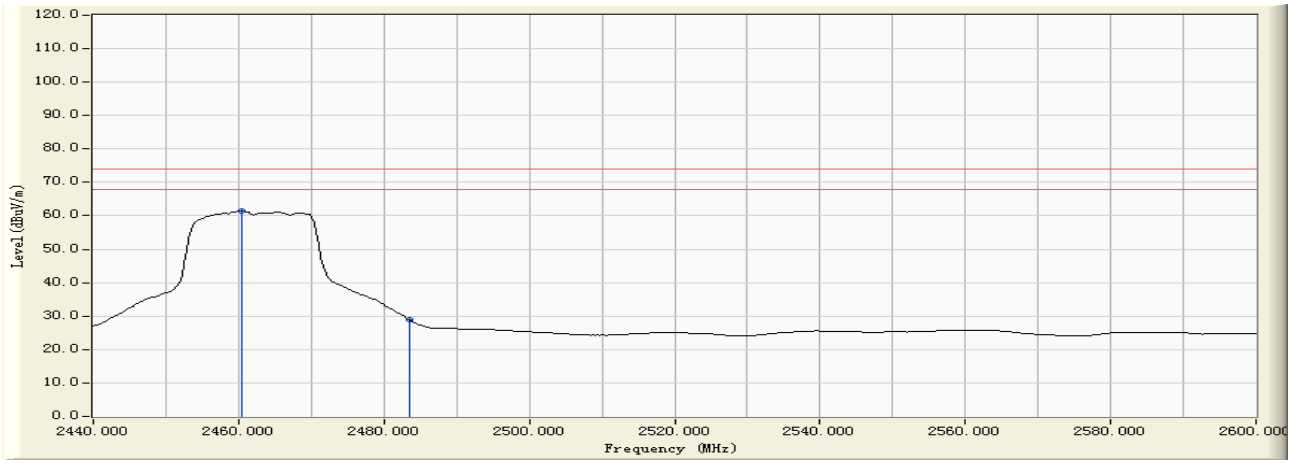


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.920	0.243	73.528	N/A	N/A	N/A	PEAK
2		2483.500	0.306	45.779	46.085	-27.915	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11g (2462MHz)**



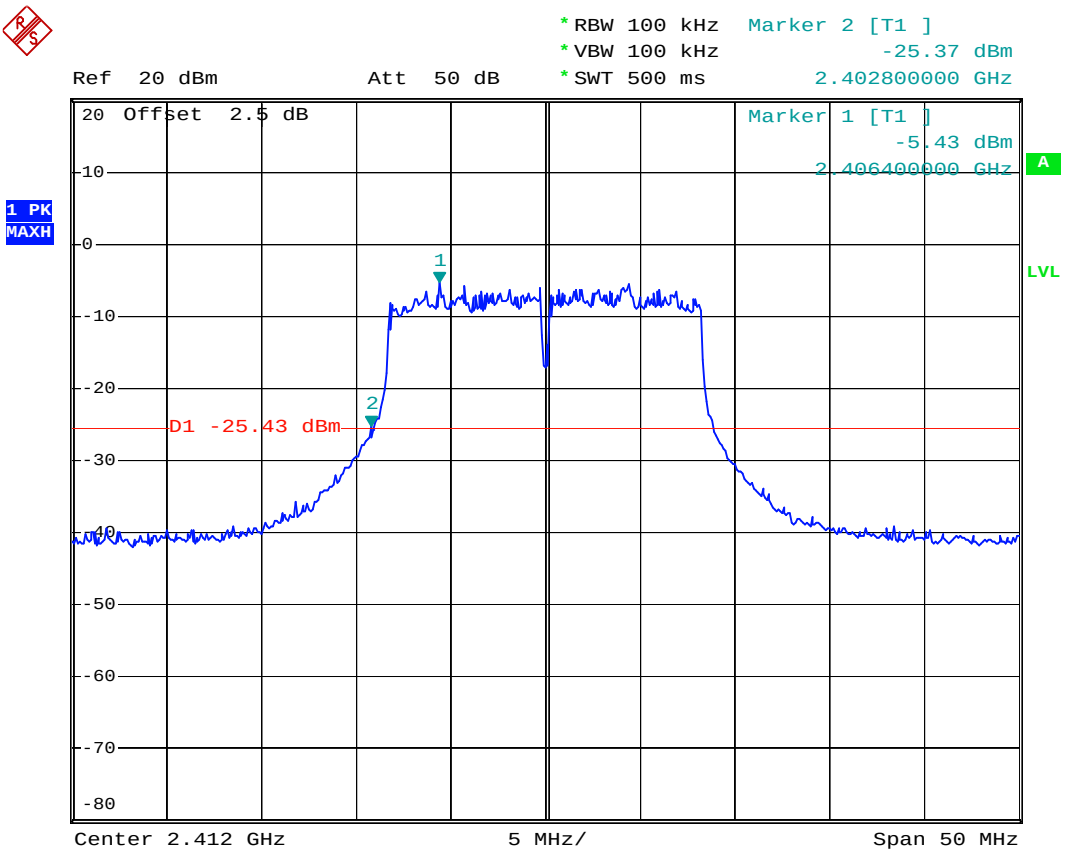
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2460.480	0.251	61.151	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	28.493	28.799	-45.201	74.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

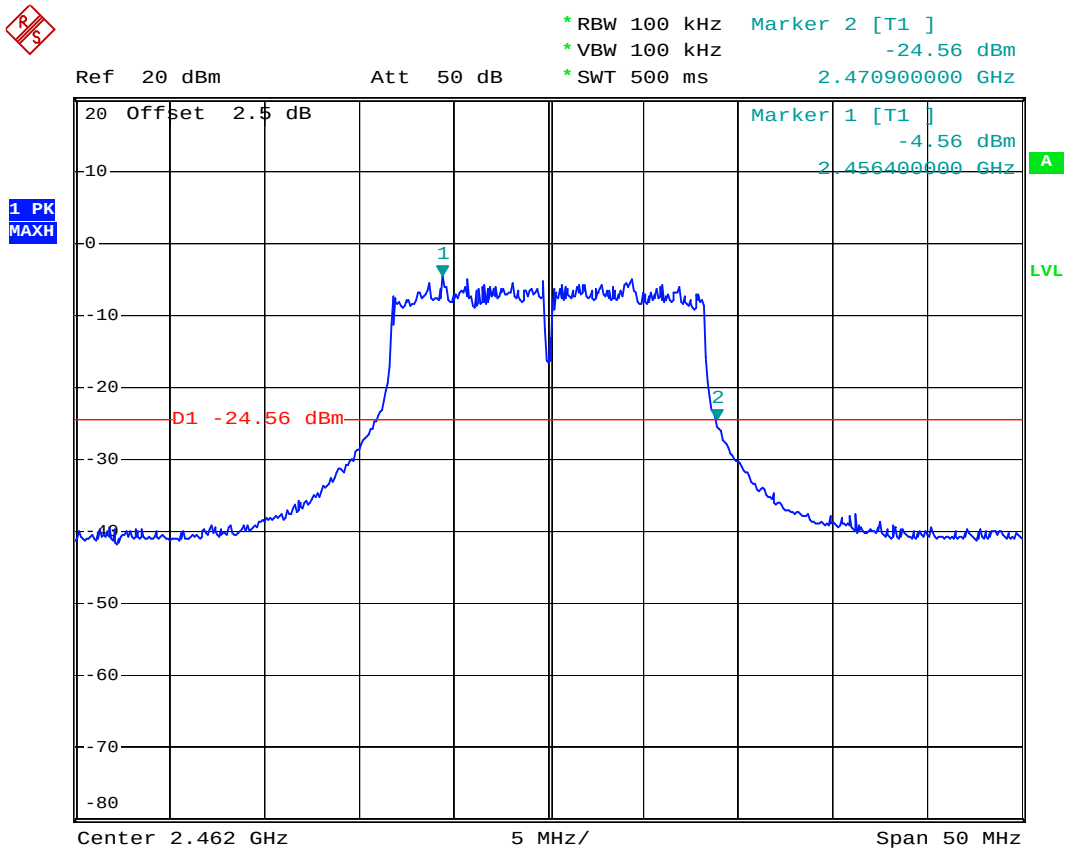
Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11g (2412MHz)

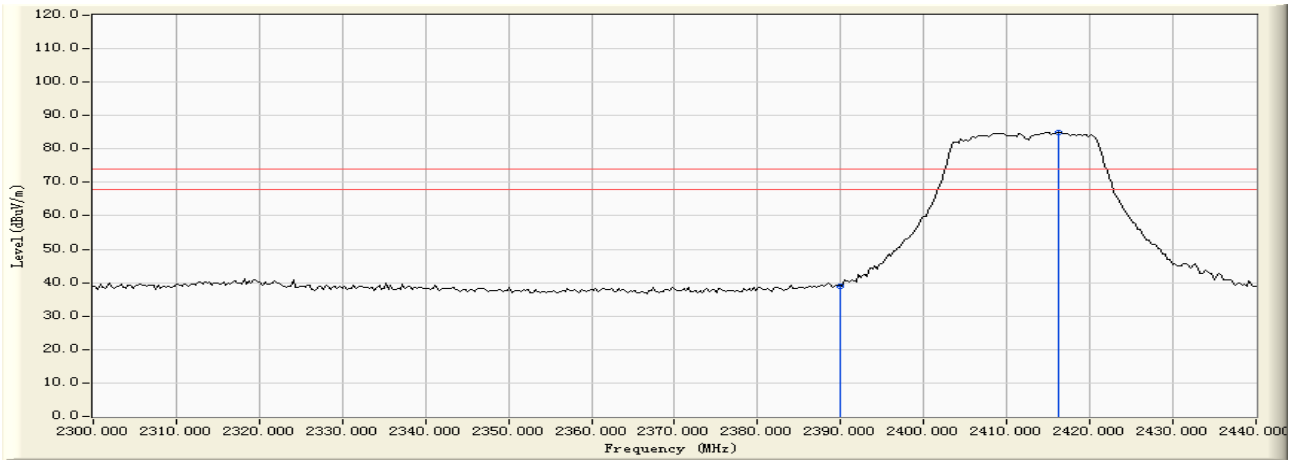


Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11g (2462MHz)



Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2412MHz)**

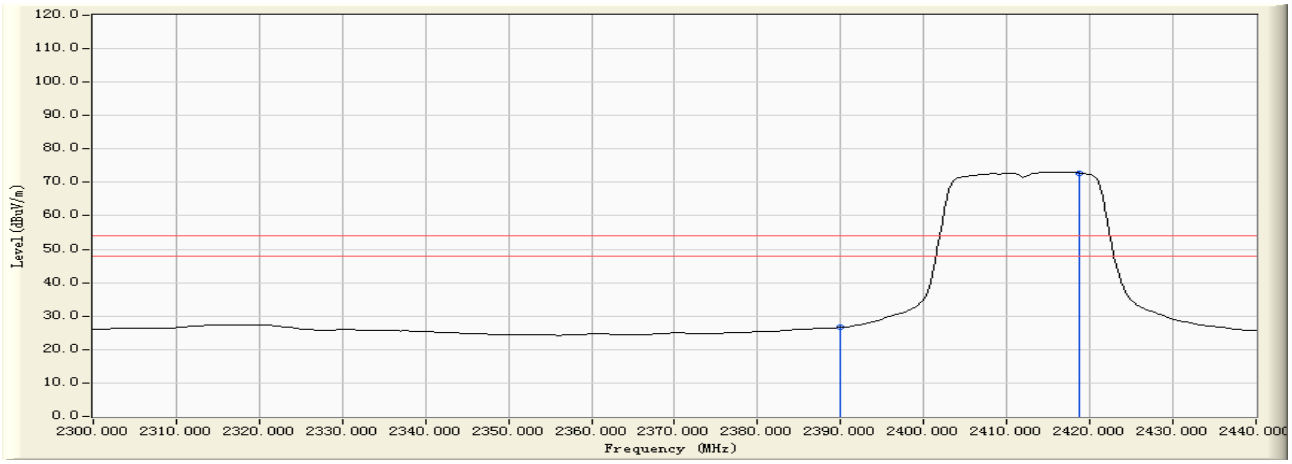


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	38.963	39.075	-34.925	74.000	PEAK
2	*	2416.200	0.141	84.879	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2412MHz)**

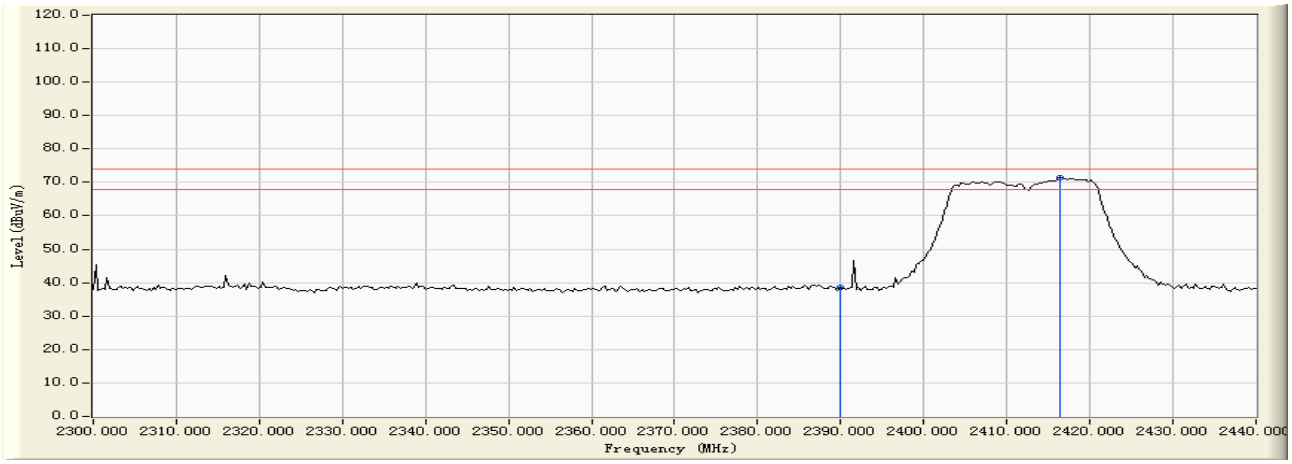


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	26.459	26.571	-27.429	54.000	AVERAGE
2	*	2418.720	0.144	72.679	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2412MHz)**

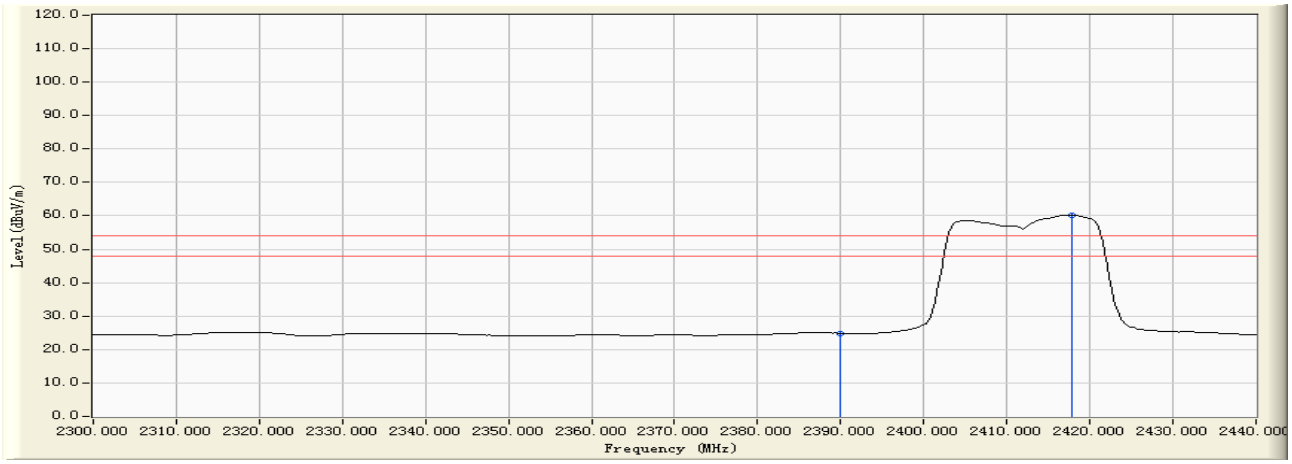


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	38.448	38.560	-35.440	74.000	PEAK
2	*	2416.480	0.142	71.208	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2412MHz)**

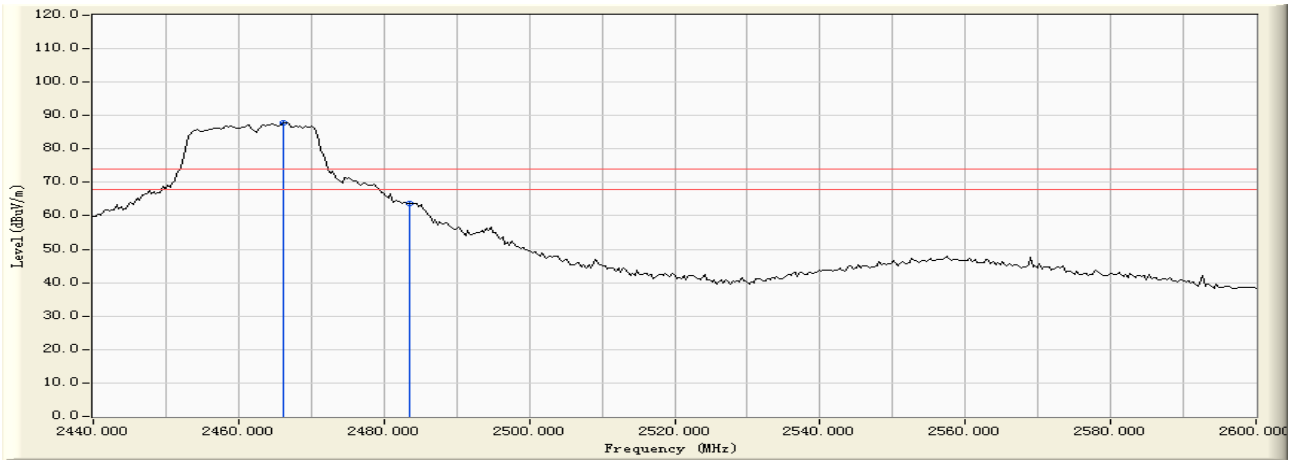


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	24.745	24.857	-29.143	54.000	AVERAGE
2	*	2417.880	0.143	59.967	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2462MHz)**

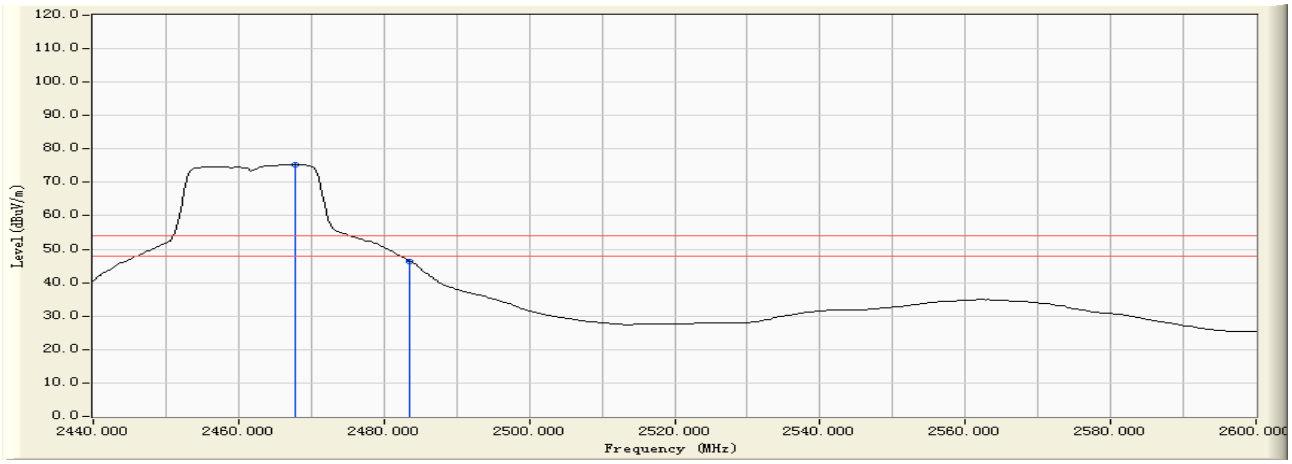


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2466.240	0.265	87.471	N/A	N/A	N/A	PEAK
2		2483.500	0.306	63.522	63.828	-10.172	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2462MHz)**

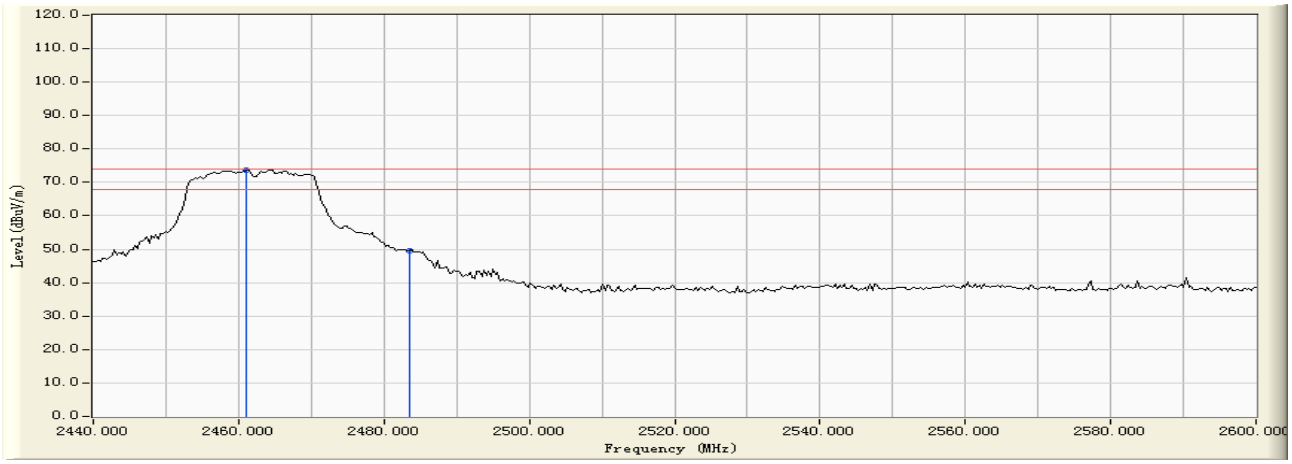


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2467.840	0.268	75.106	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	46.167	46.473	-7.527	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2462MHz)**

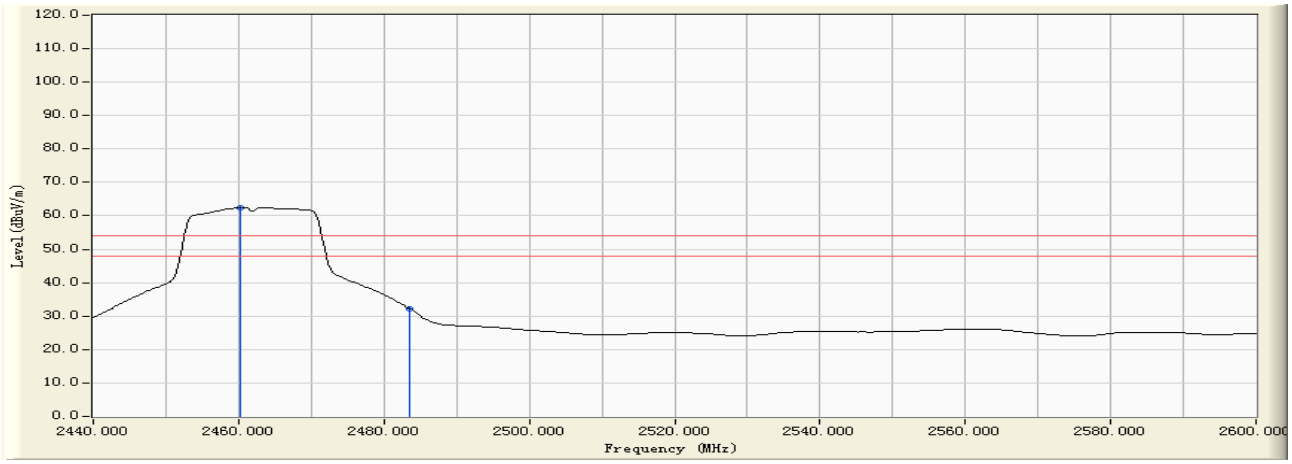


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.120	0.253	73.545	N/A	N/A	N/A	PEAK
2		2483.500	0.306	49.361	49.667	-24.333	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (20MHz) (2462MHz)**



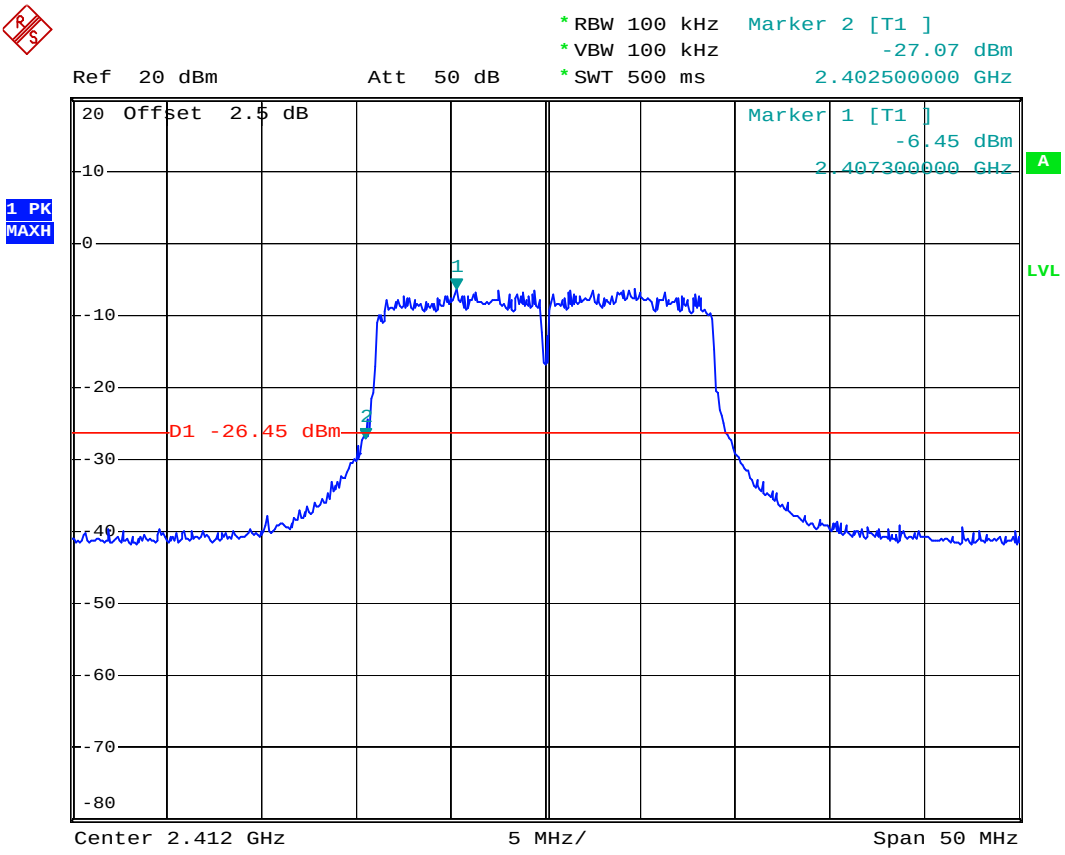
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2460.160	0.250	62.248	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	31.977	32.283	-21.717	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

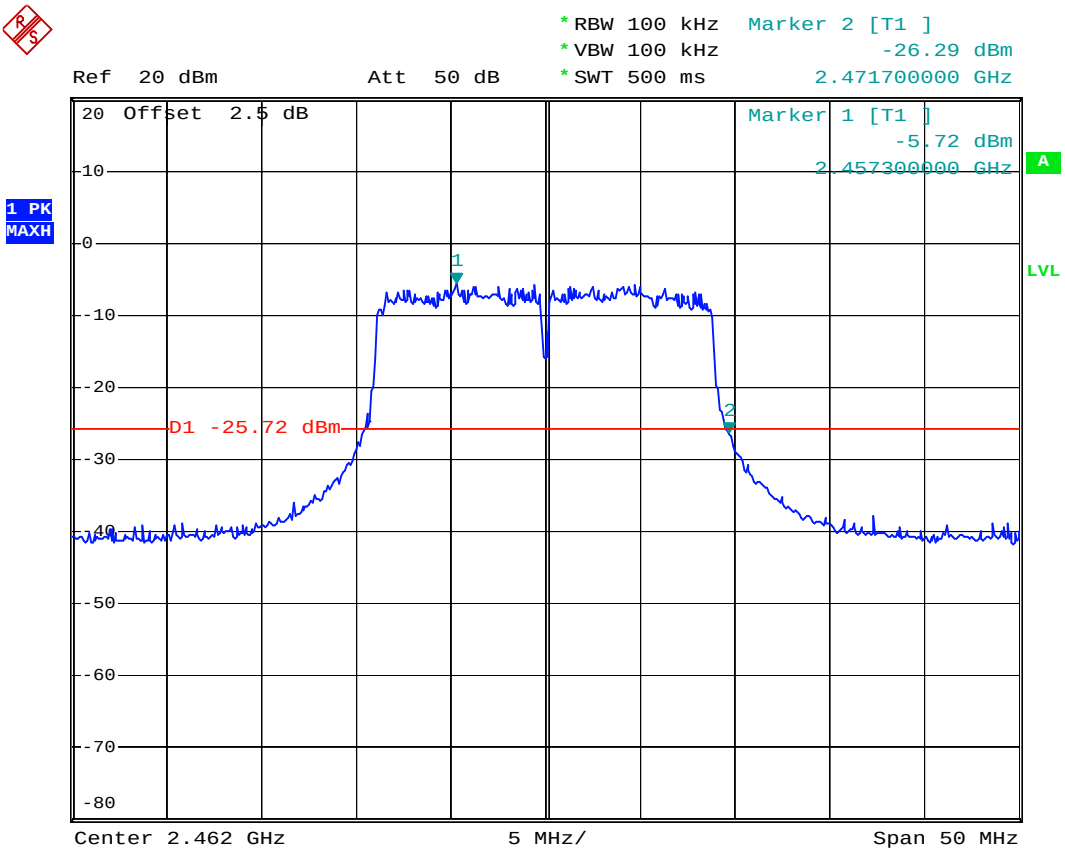
Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11n (20MHz) (2412MHz)

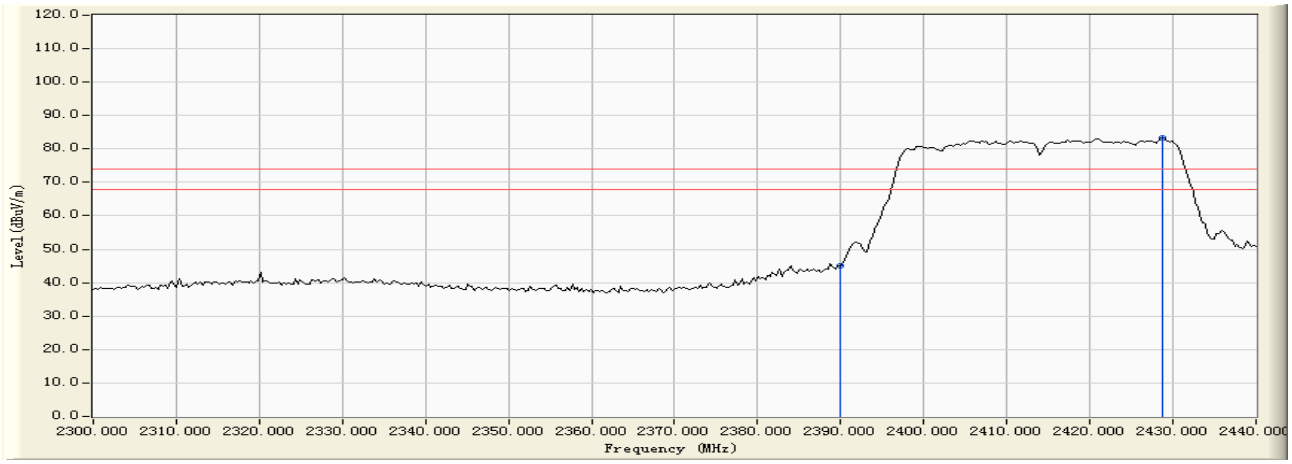


Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11n (20MHz) 2462MHz)



Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2422MHz)**

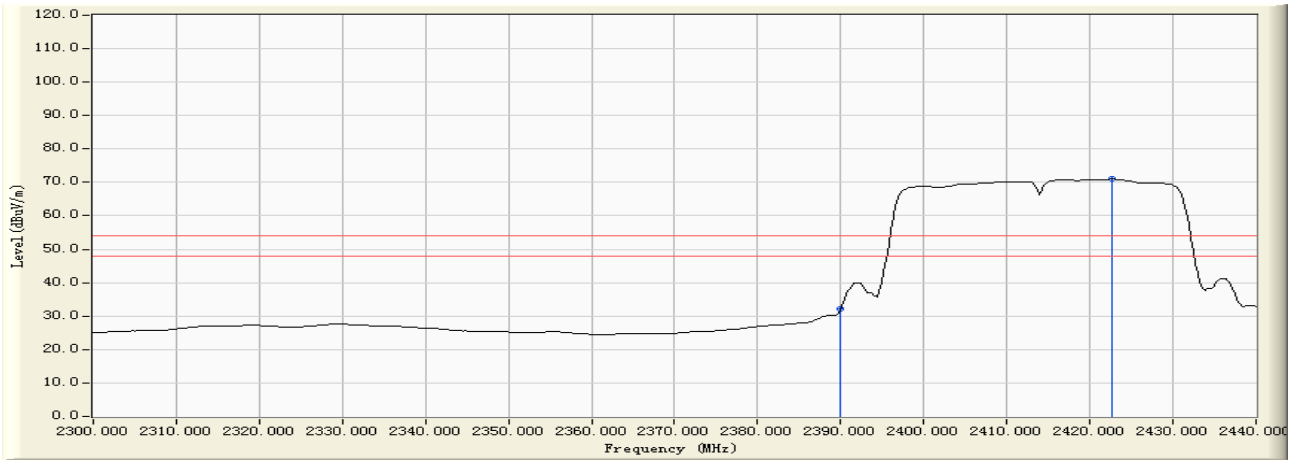


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	45.013	45.125	-28.875	74.000	PEAK
2	*	2428.800	0.164	83.280	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2422MHz)**

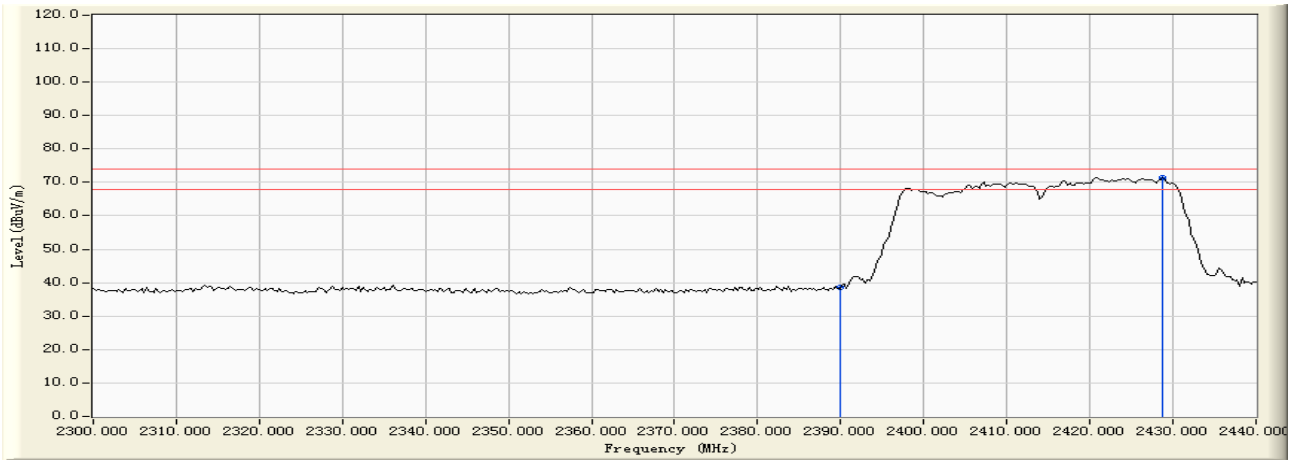


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	32.212	32.324	-21.676	54.000	PEAK
2	*	2422.640	0.149	70.797	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2422MHz)**

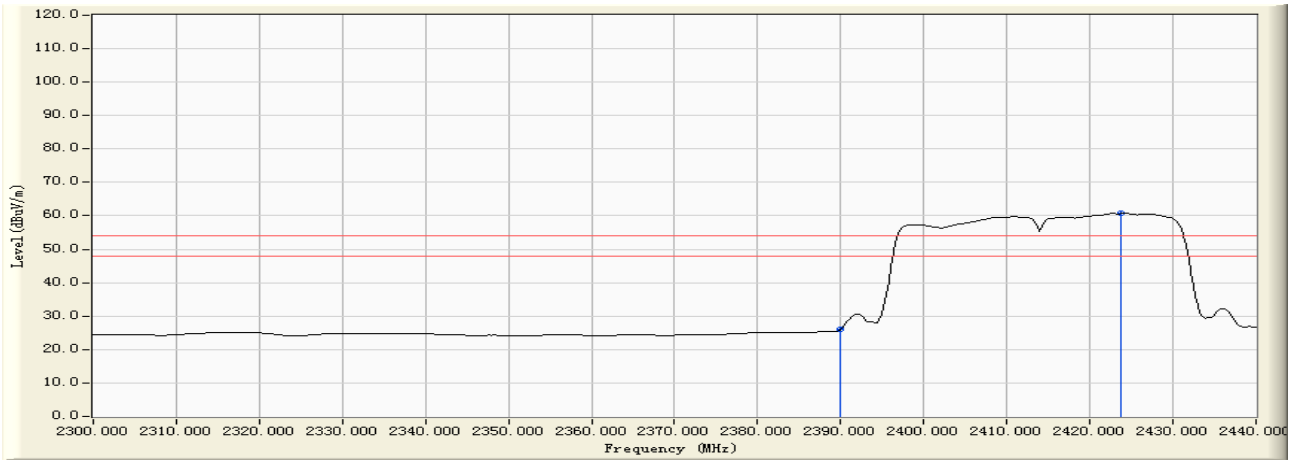


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	38.413	38.525	-35.475	74.000	PEAK
2	*	2428.800	0.164	71.237	N/A	N/A	N/A	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2422MHz)**

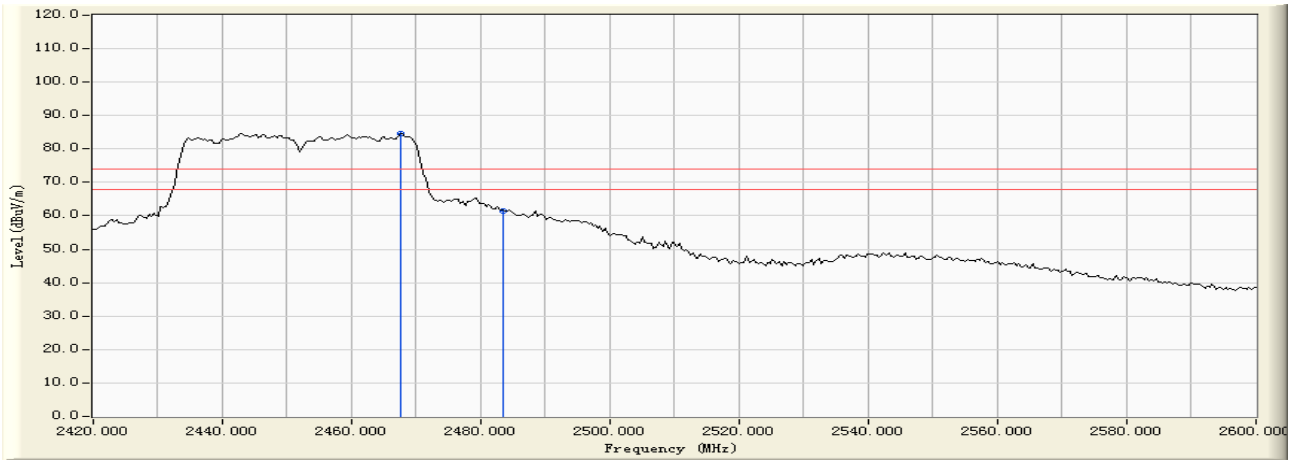


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2390.000	0.112	26.008	26.120	-27.880	54.000	AVERAGE
2	*	2423.760	0.151	60.562	N/A	N/A	N/A	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2452MHz)**

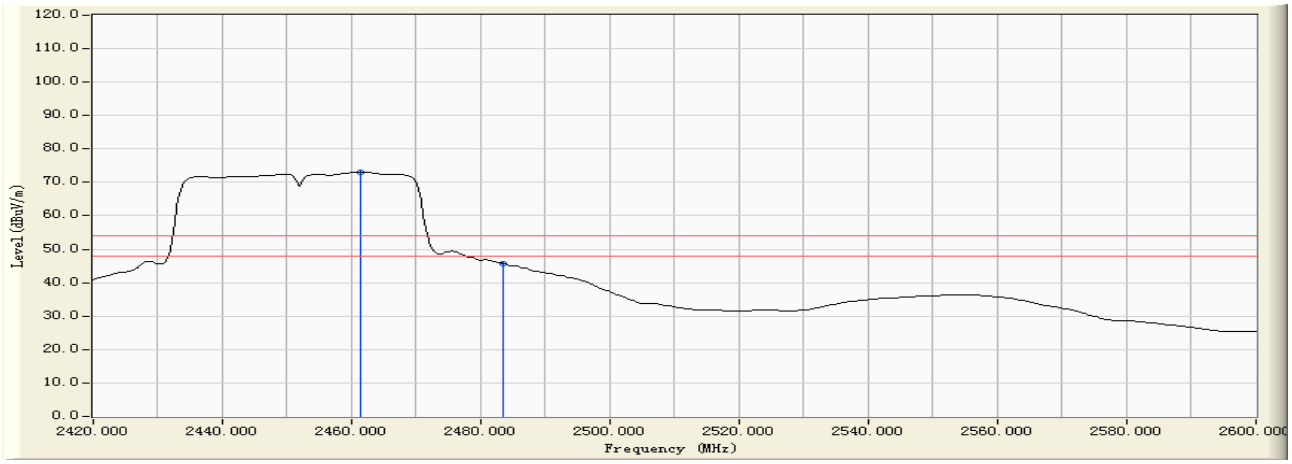


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2467.520	0.268	84.504	N/A	N/A	N/A	PEAK
2		2483.500	0.306	61.298	61.604	-12.396	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : VERTICAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2452MHz)**

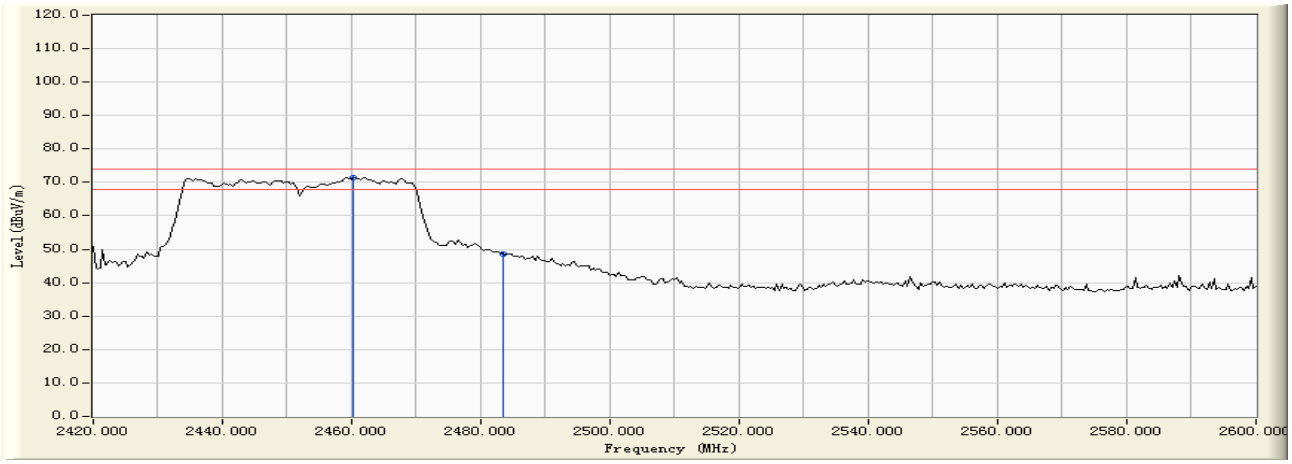


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.400	0.253	72.914	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	45.363	45.669	-8.331	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_PK	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2452MHz)**

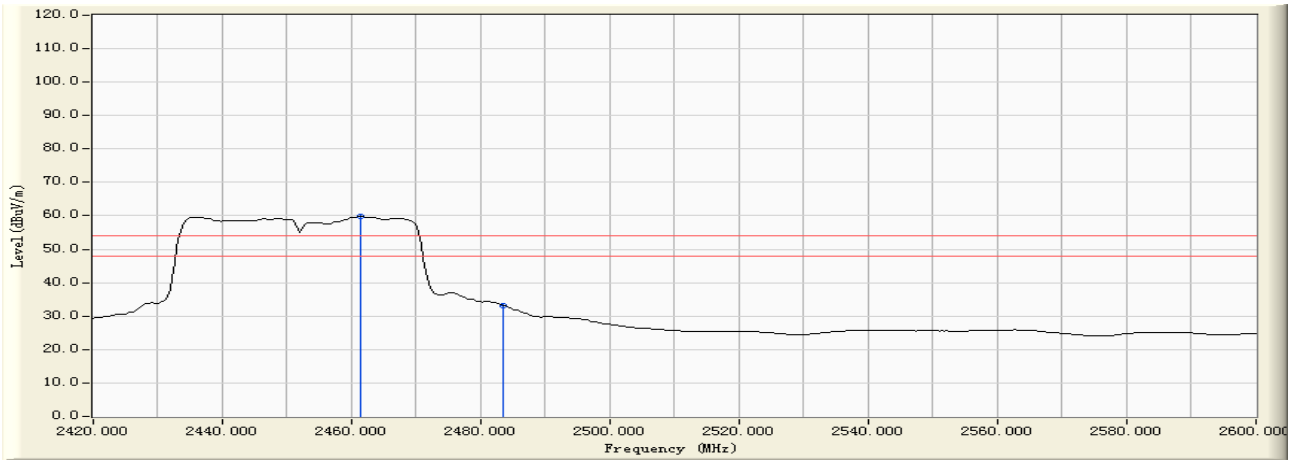


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2460.320	0.250	71.285	N/A	N/A	N/A	PEAK
2		2483.500	0.306	48.268	48.574	-25.426	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Engineer : Seven	
Site : EMC Lab AC 102	**Time : 2011-01-10**
Limit : FCC_15_03M_AV	**Margin : 6**
EUT : Wireless N-lite Home Router	**Probe : HORIZONTAL**
Power : AC 120V/60Hz	**Note : Mode: Transmit by 802.11n (40MHz) (2452MHz)**



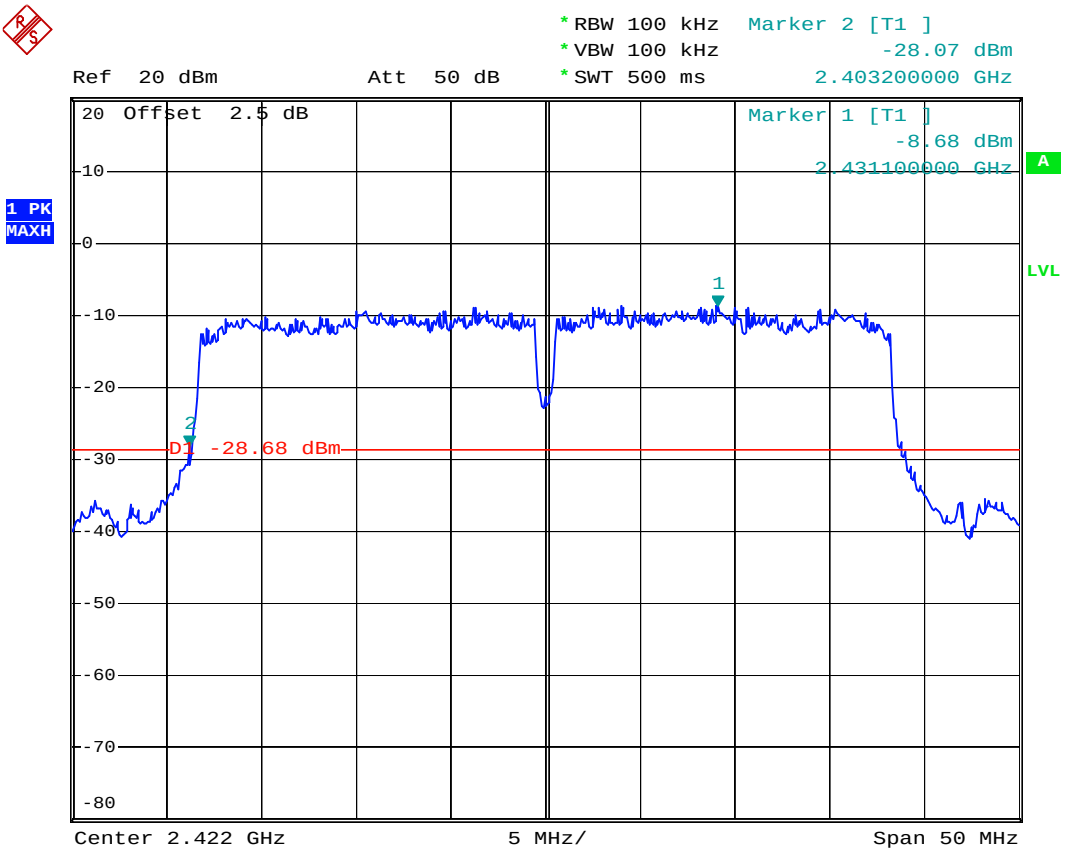
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.400	0.253	59.514	N/A	N/A	N/A	AVERAGE
2		2483.500	0.306	32.887	33.193	-20.807	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

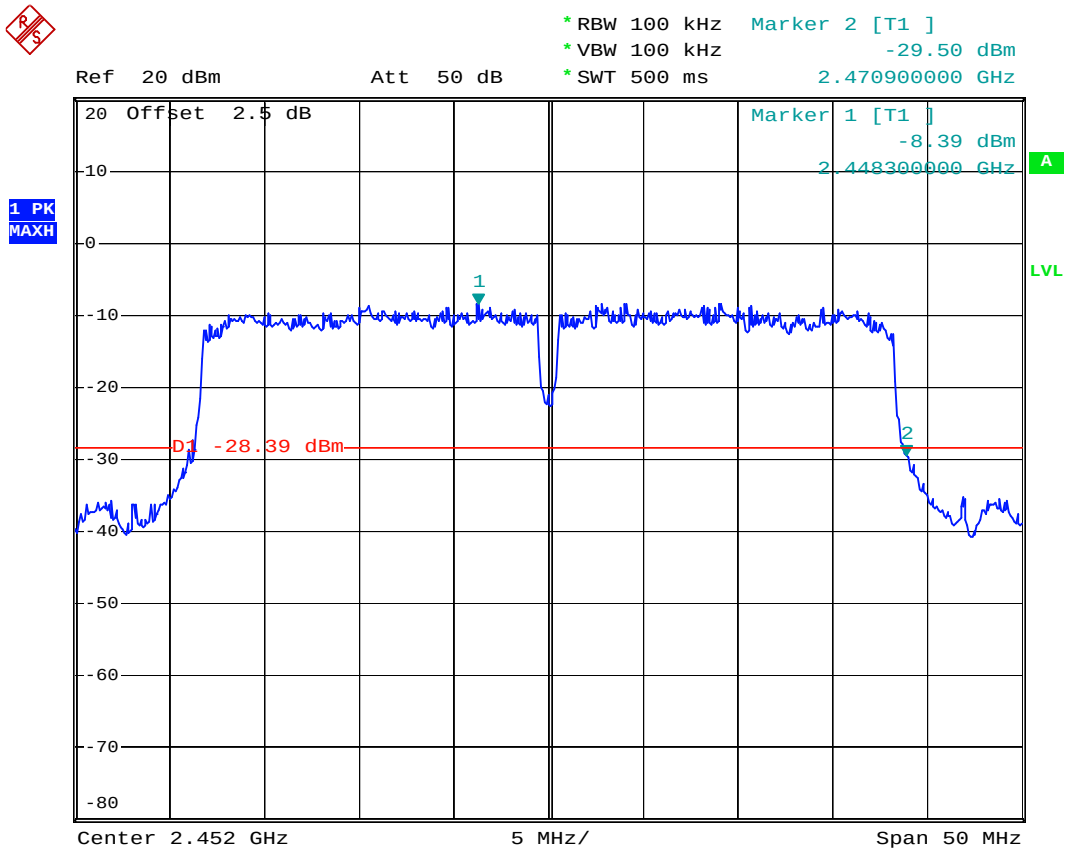
Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11n (40MHz) (2422MHz)



Band Edge (20dBc RF Conducted Measurement)

Mode: Transmit by 802.11n (40MHz) 2452MHz)



8. RF Antenna Conducted Spurious

8.1. Test Limit

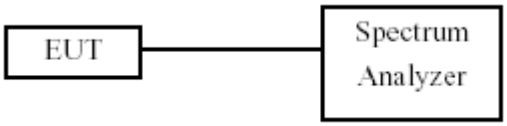
In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional Radiator is operating, the radio frequency power that is produced by the intentional radiator shall Be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

8.2. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 100 kHz, Set VBW>RBW, Sweep time=Auto, set up through 10 th harmonic.

8.3. Test Setup Layout



8.4. Measurement Equipment

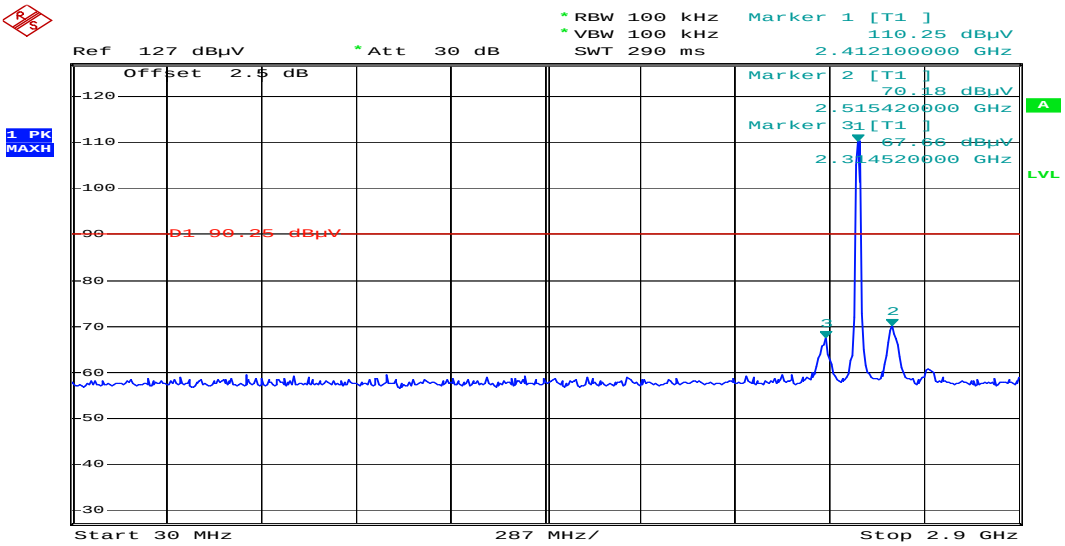
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

8.5. Test Result and Data

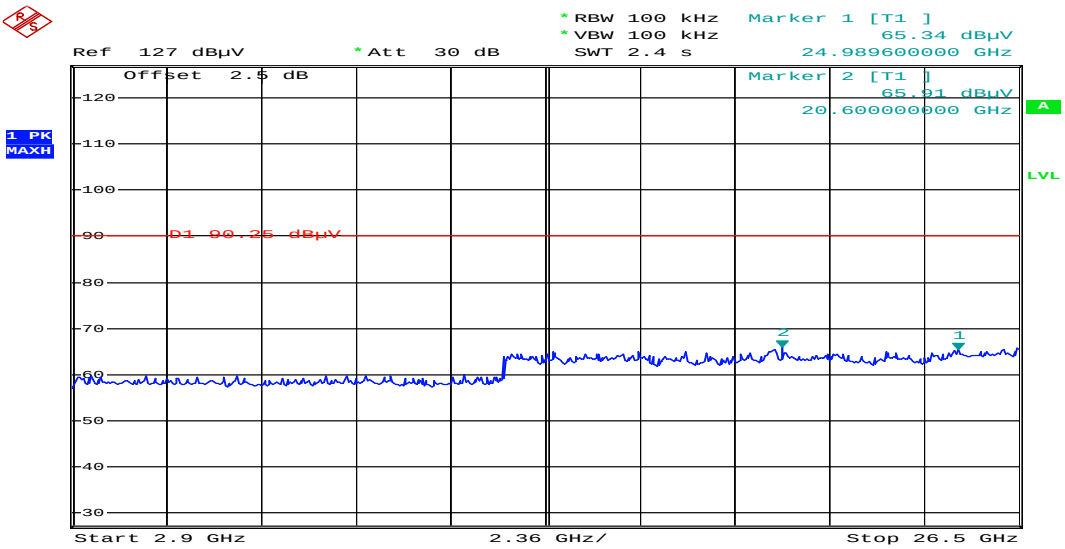
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11b
Test Date	2011-01-10

Channel 01 (2412MHz)

30M---2.9G

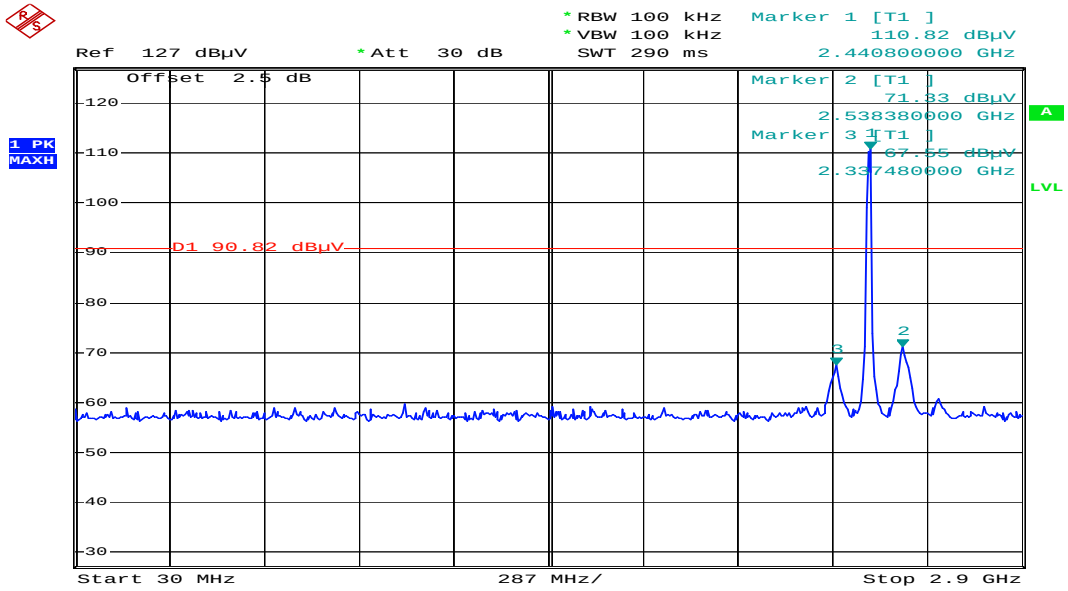


2.9---26.5G

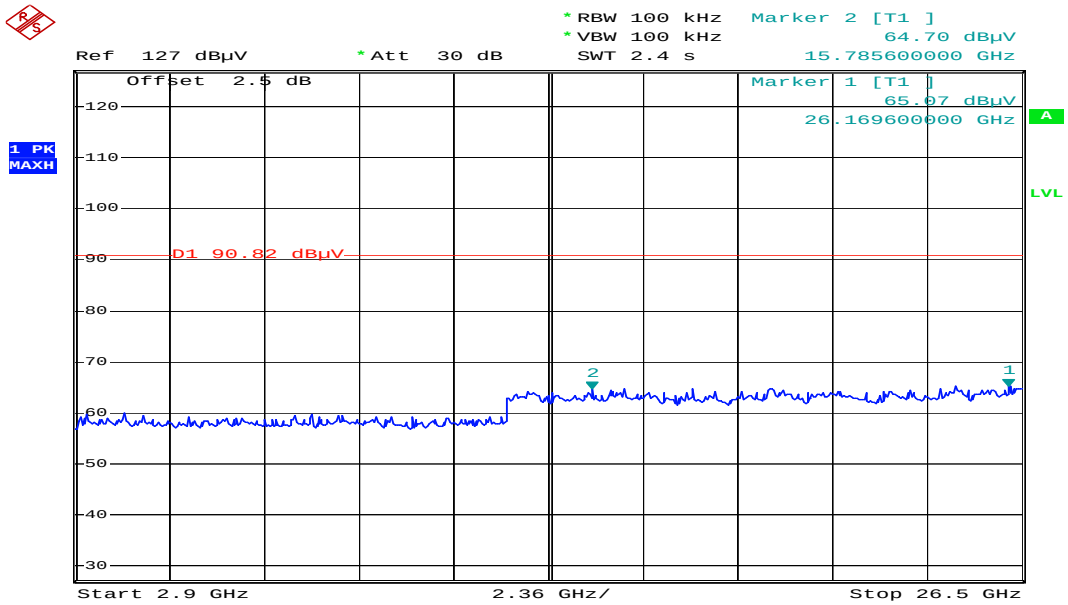


Channel 06 (2437MHz)

30M---2.9G

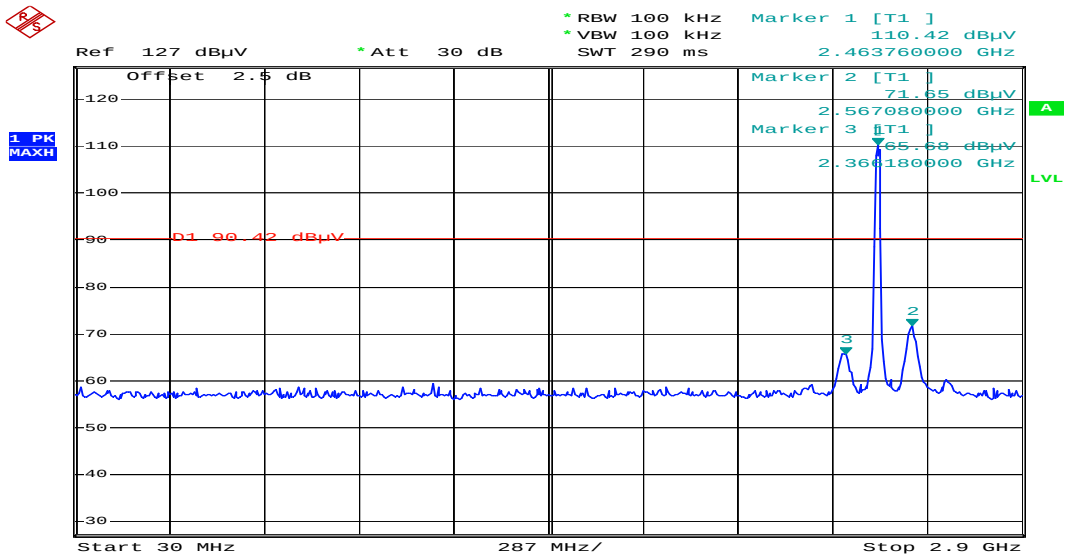


2.9---26.5G

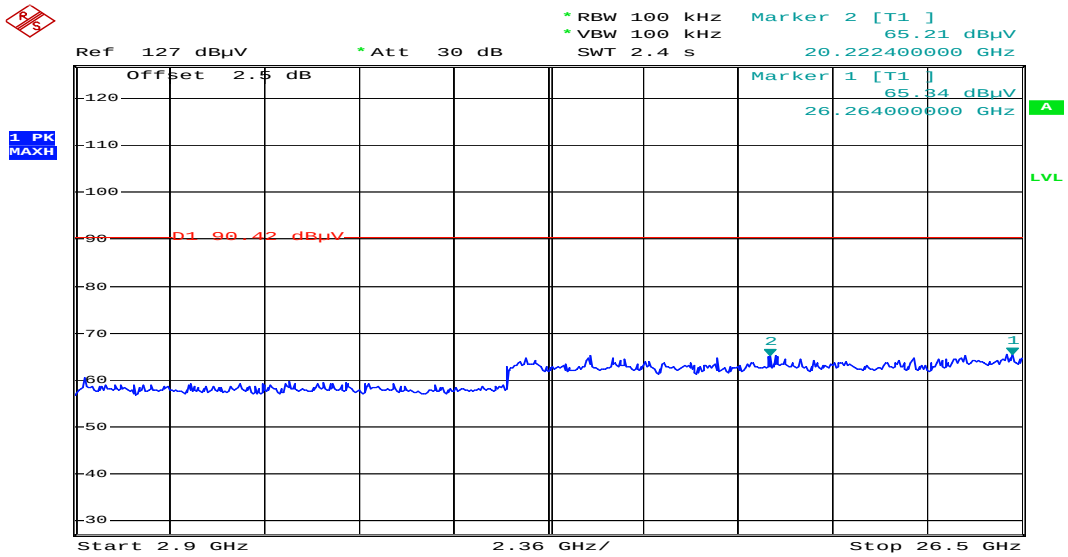


Channel 11 (2462MHz)

30M---2.9G



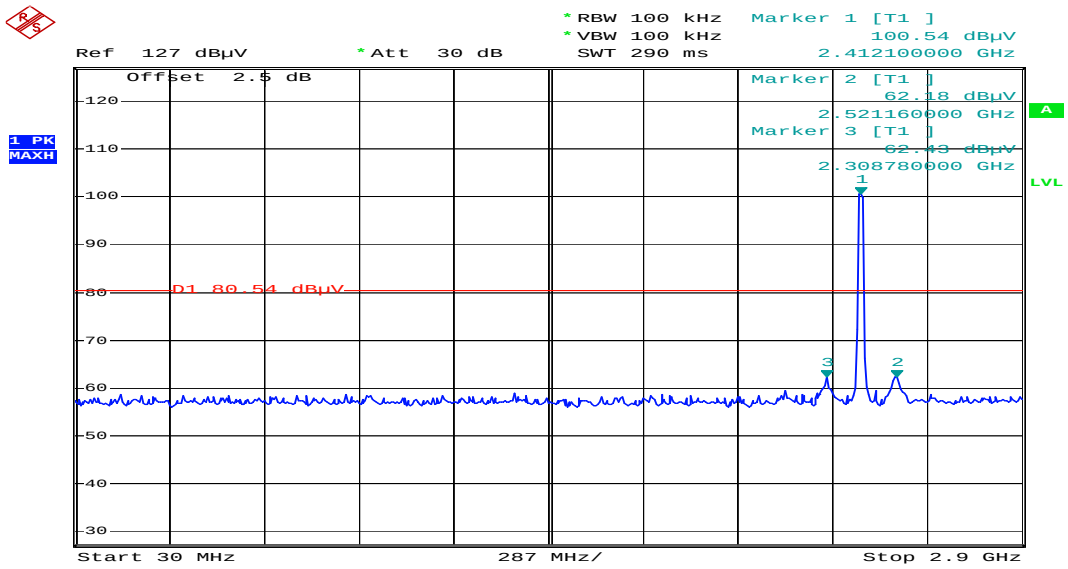
2.9---26.5G



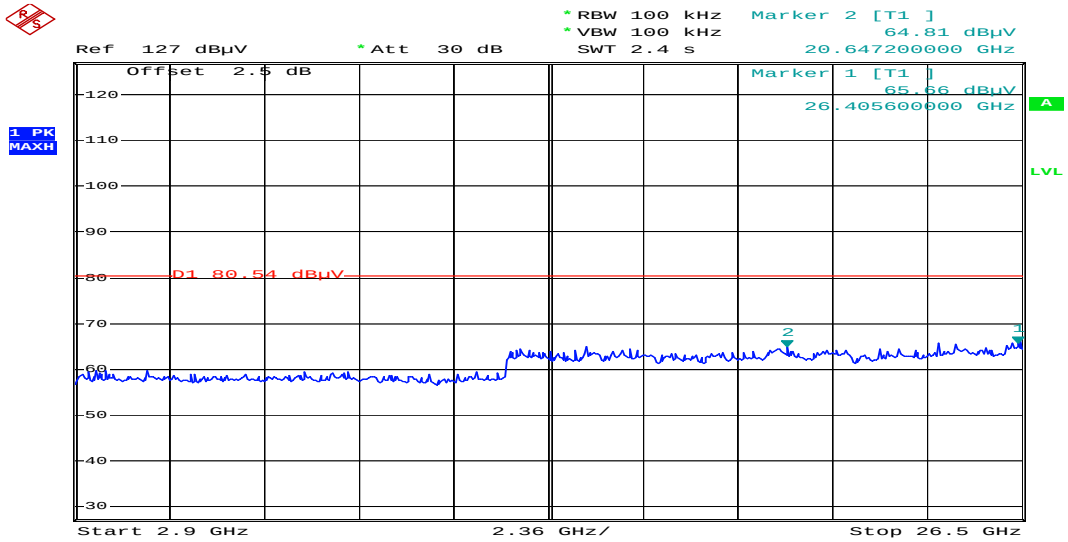
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11g
Test Date	2011-01-10

Channel 01 (2412MHz)

30M---2.9G

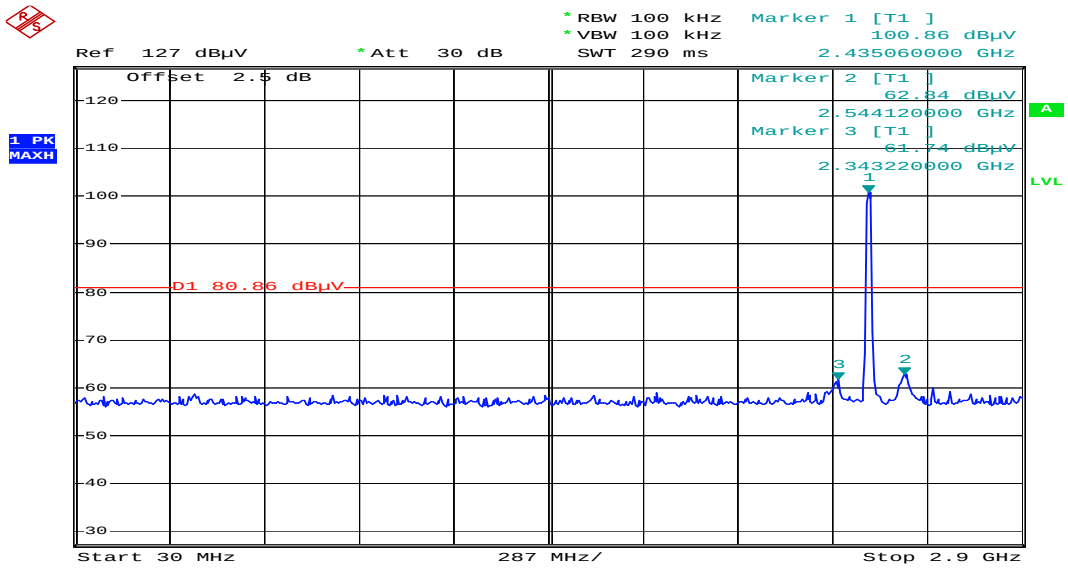


2.9---26.5G

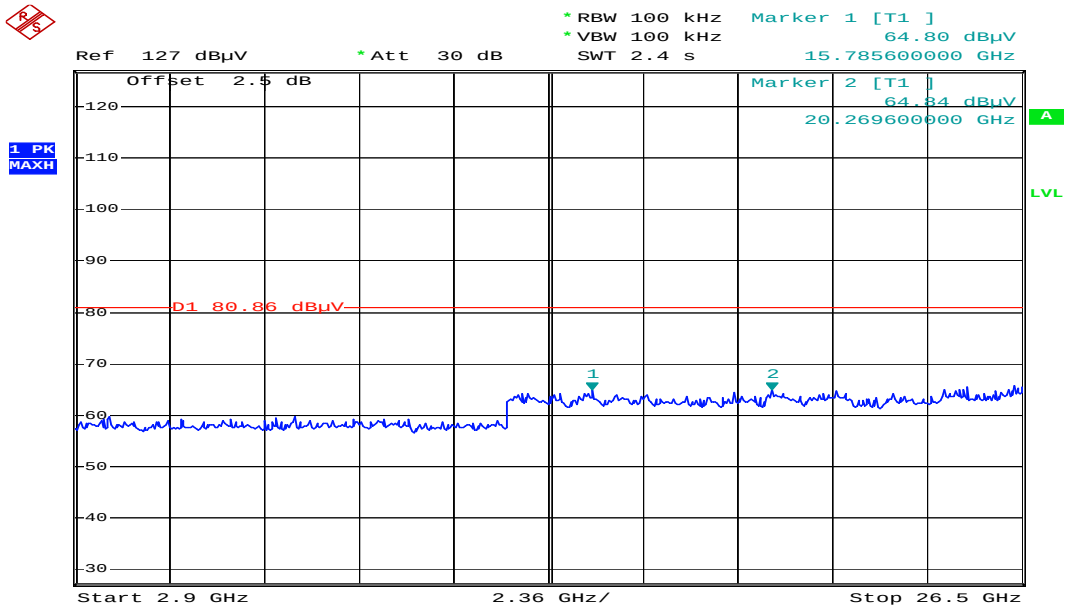


Channel 06 (2437MHz)

30M---2.9G

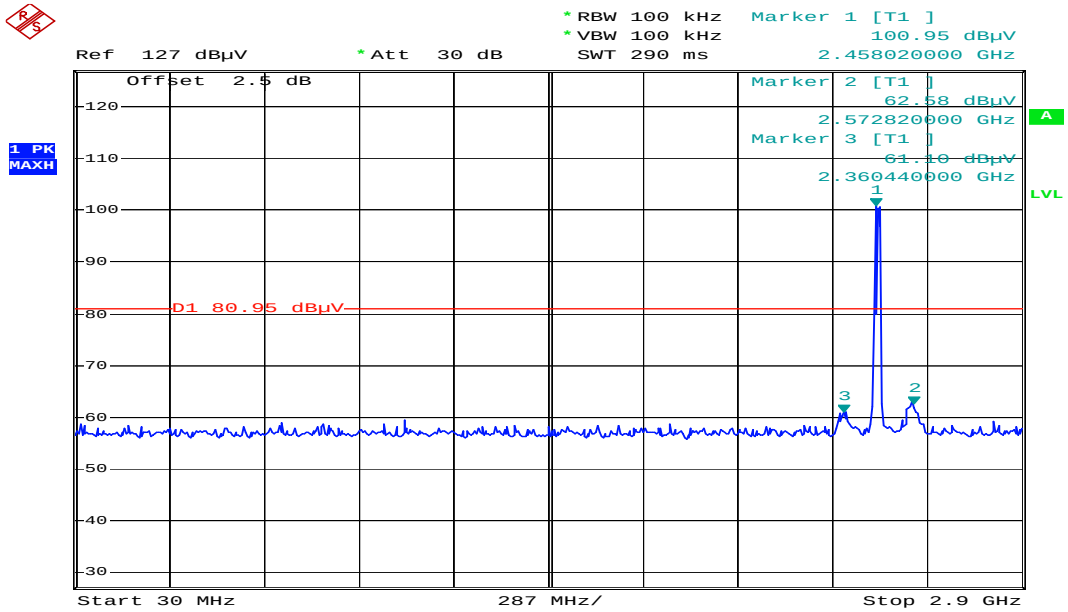


2.9---26.5G

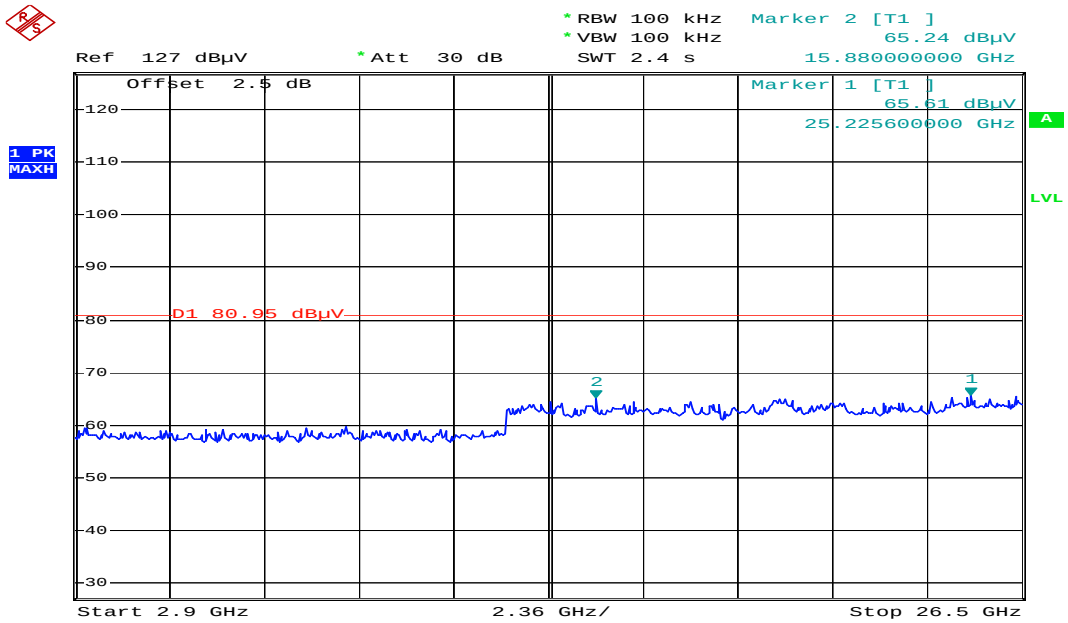


Channel 11 (2462MHz)

30M---2.9G



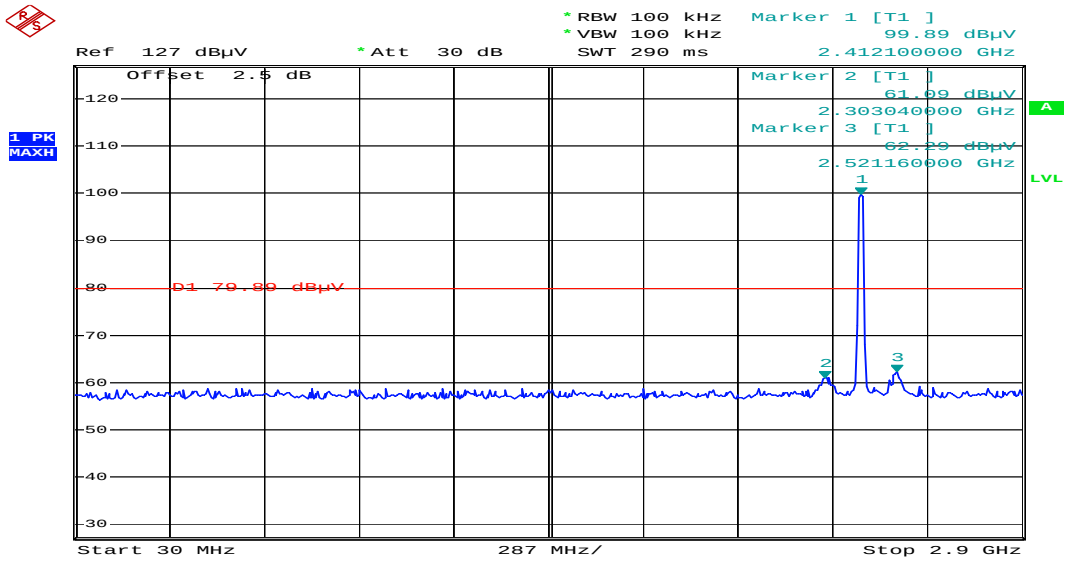
2.9---26.5G



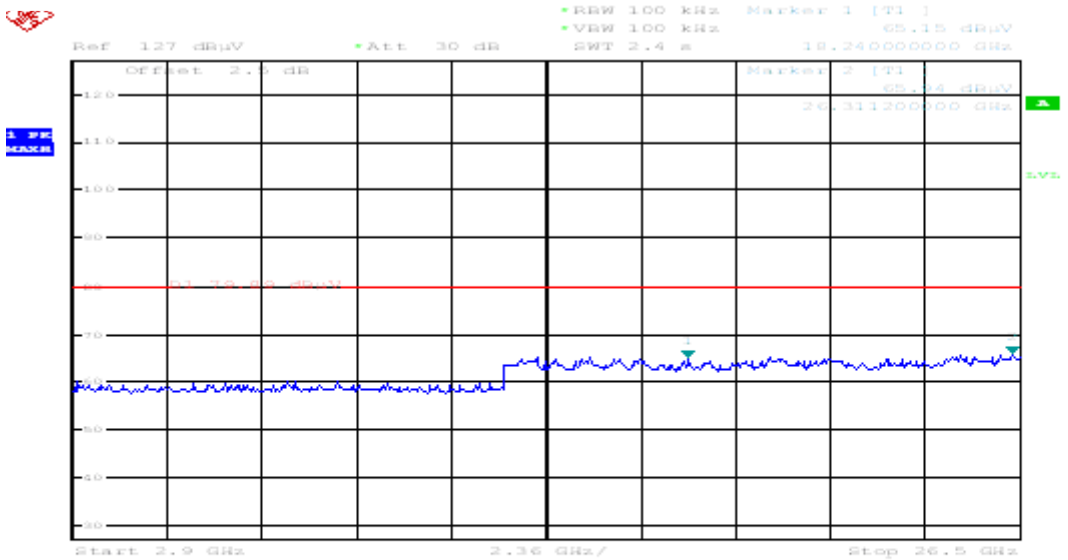
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11n (20MHz)
Test Date	2011-01-10

Channel 01 (2412MHz)

30M---2.9G

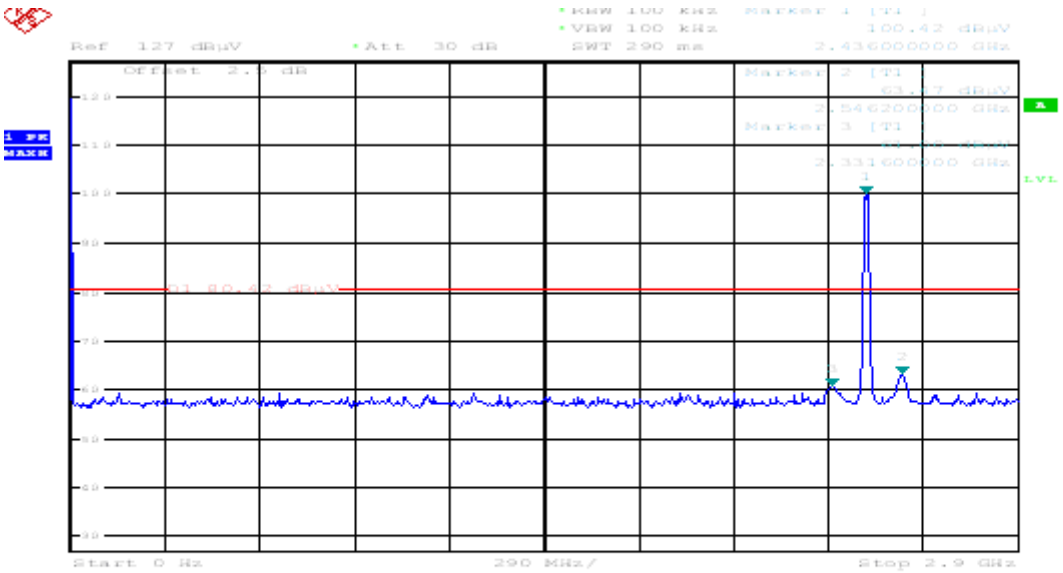


2.9---26.5G

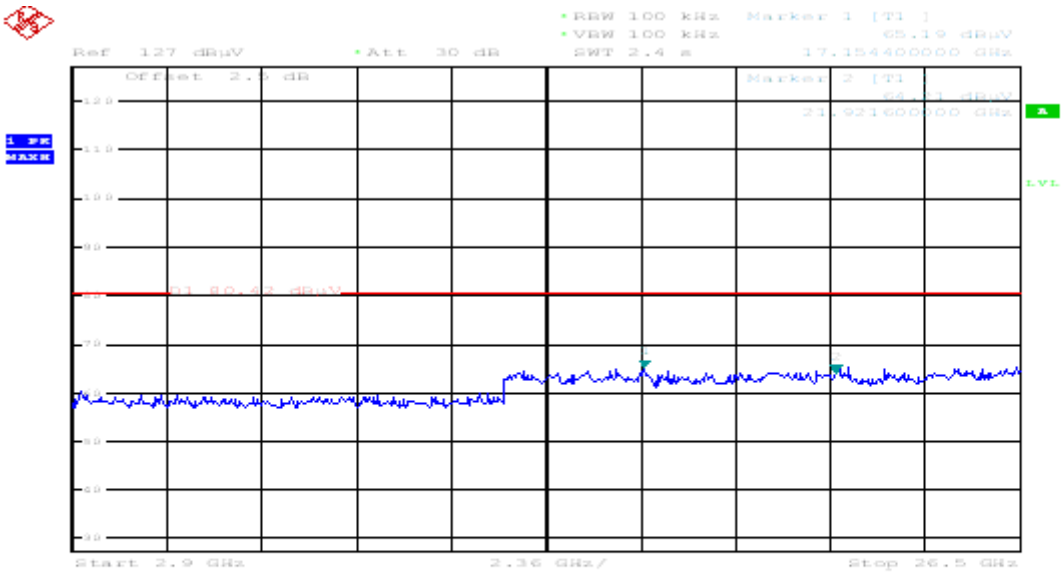


Channel 06 (2437MHz)

30M---2.9G

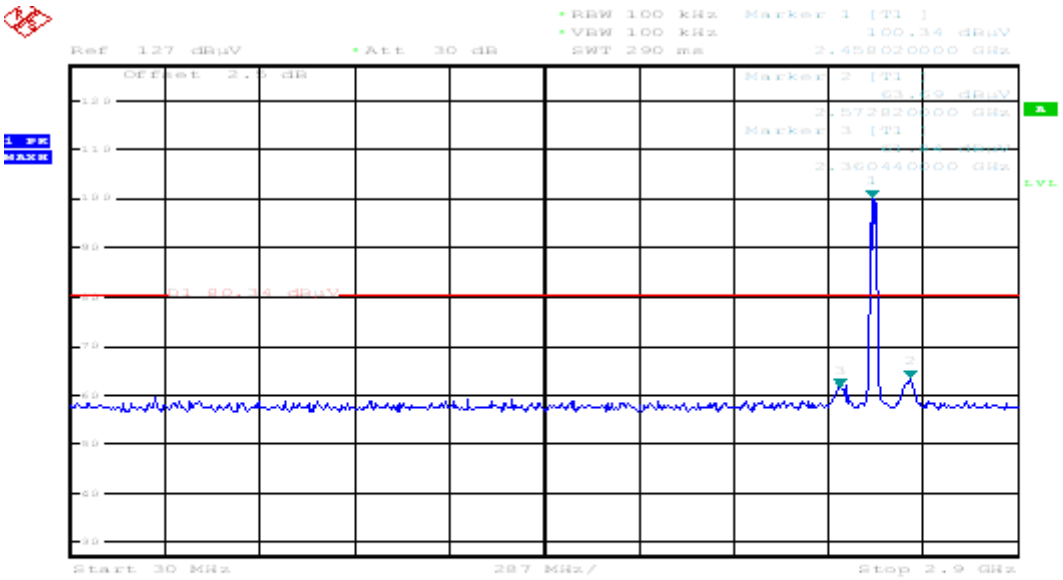


2.9---26.5G

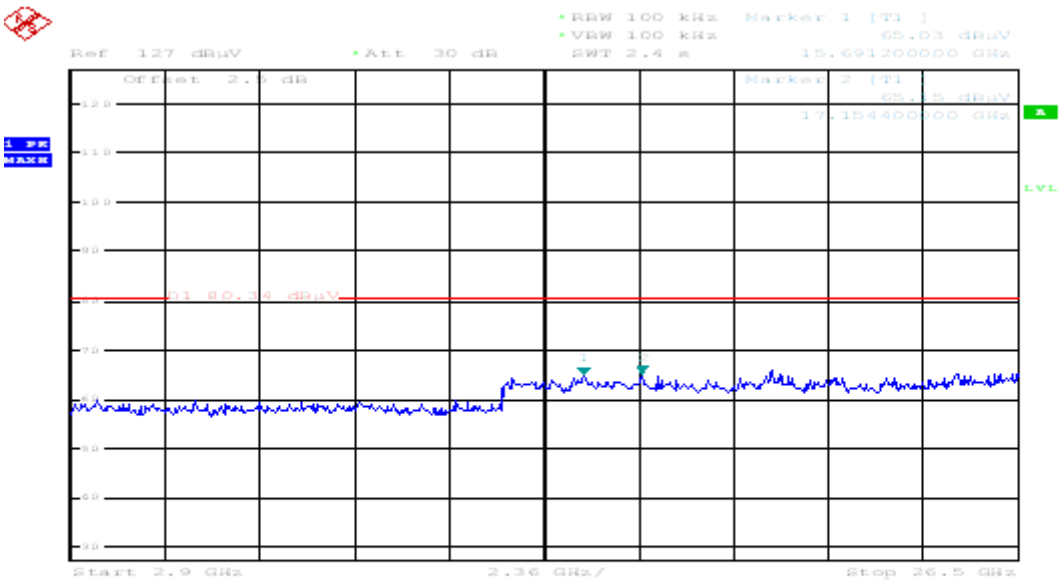


Channel 11 (2462MHz)

30M---2.9G



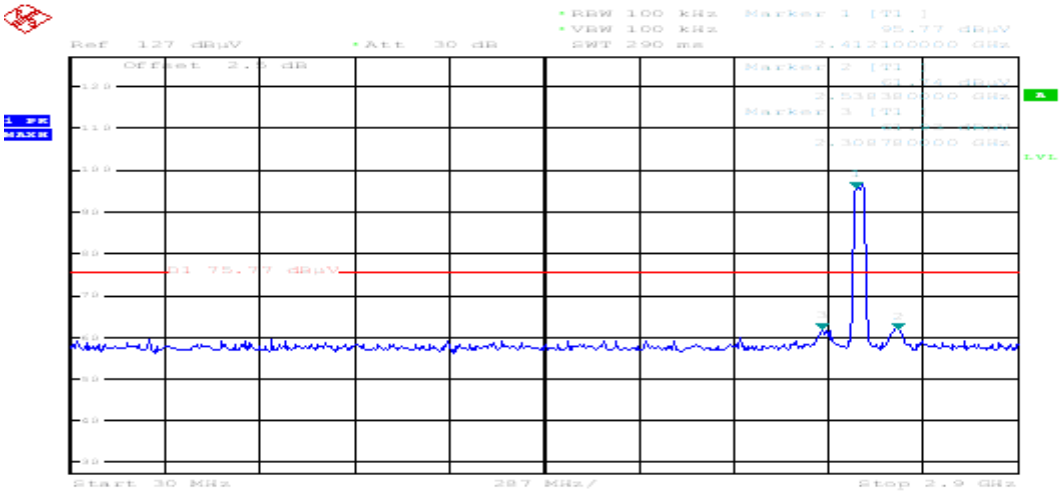
2.9---26.5G



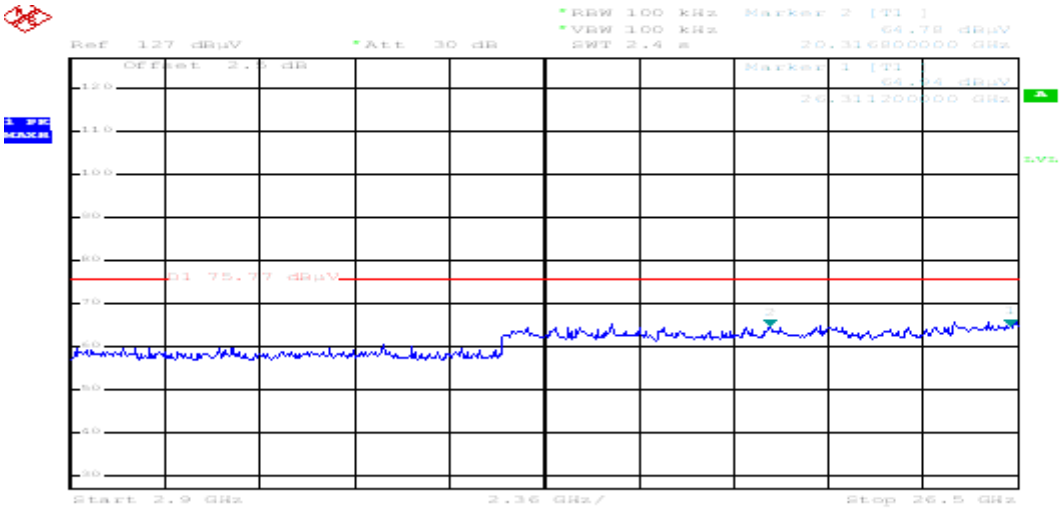
Test Item	RF Antenna Conducted Spurious
Test Mode	Transmit by 802.11n (40MHz)
Test Date	2011-01-10

Channel 03 (2422MHz)

30M---2.9G

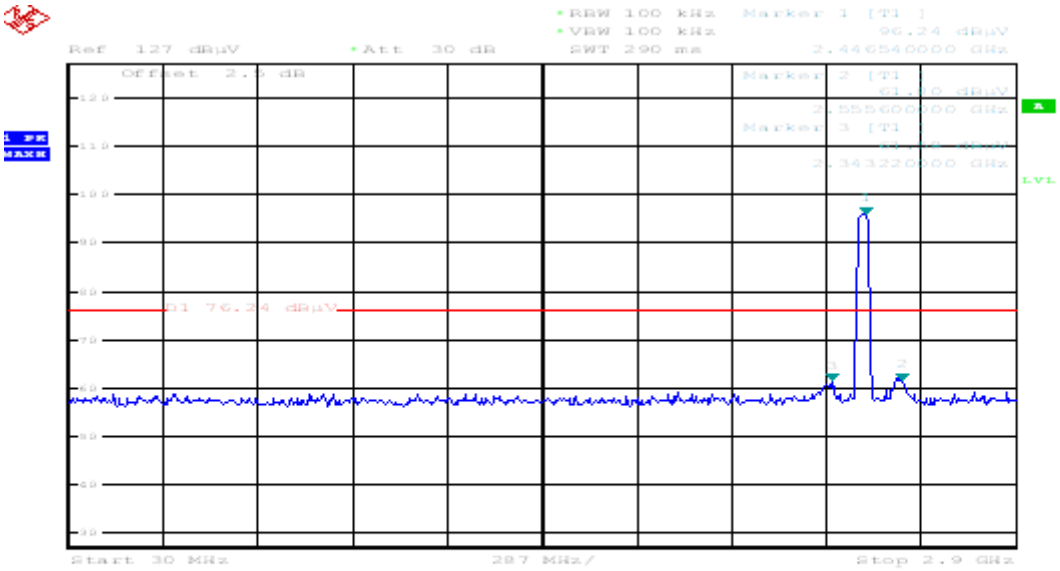


2.9---26.5G

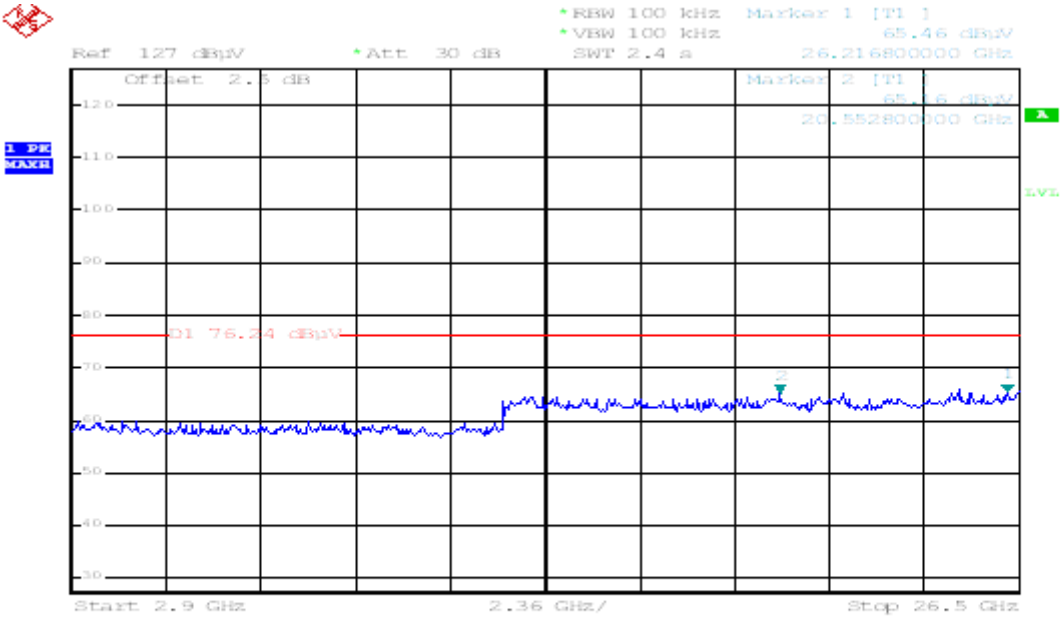


Channel 06 (2437MHz)

30M---2.9G

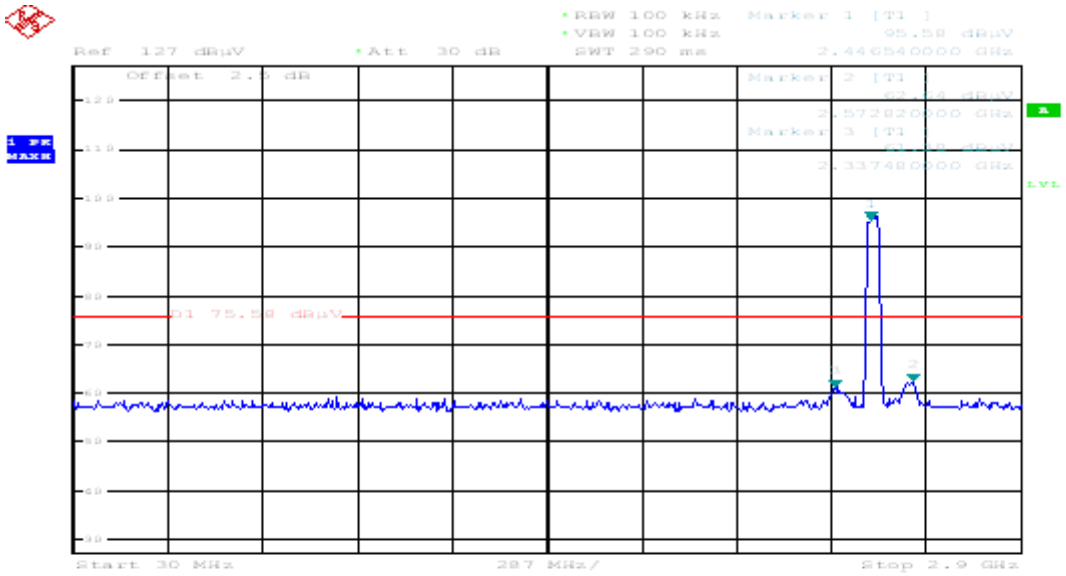


2.9---26.5G

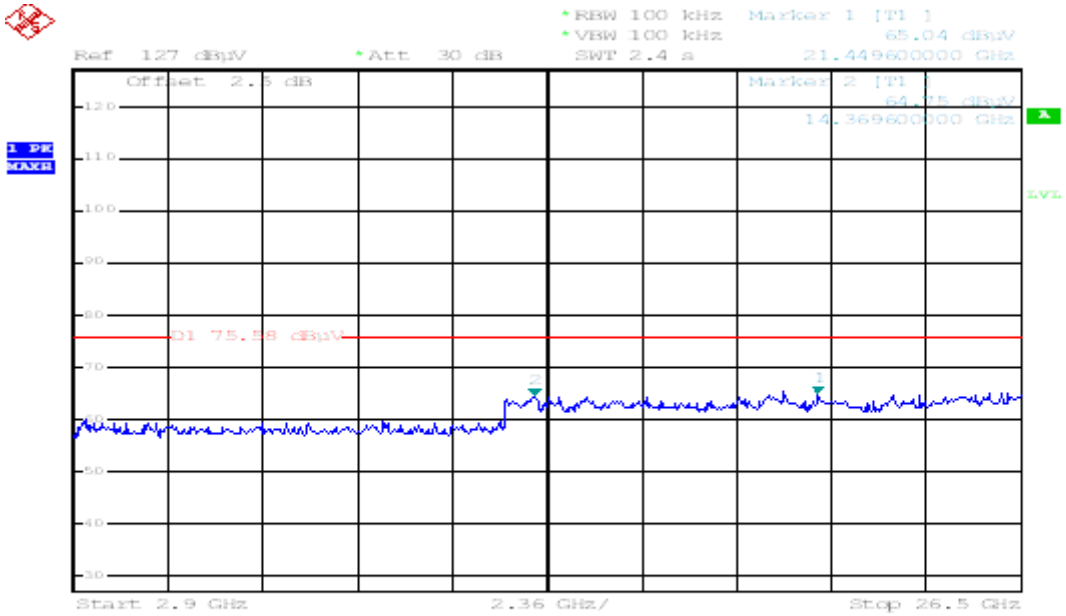


Channel 09 (2452MHz)

30M---2.9G



2.9---26.5G



9. Power Spectral Density

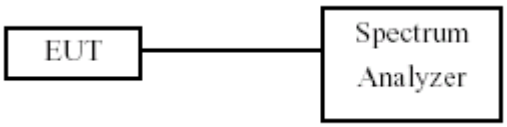
9.1. Test Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiated to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.2. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 3 kHz, Set VBW≧ RBW, Sweep time=SPAN/3kHz, Set detector=Peak detector.

9.3. Test Setup Layout



9.4. Measurement Equipment

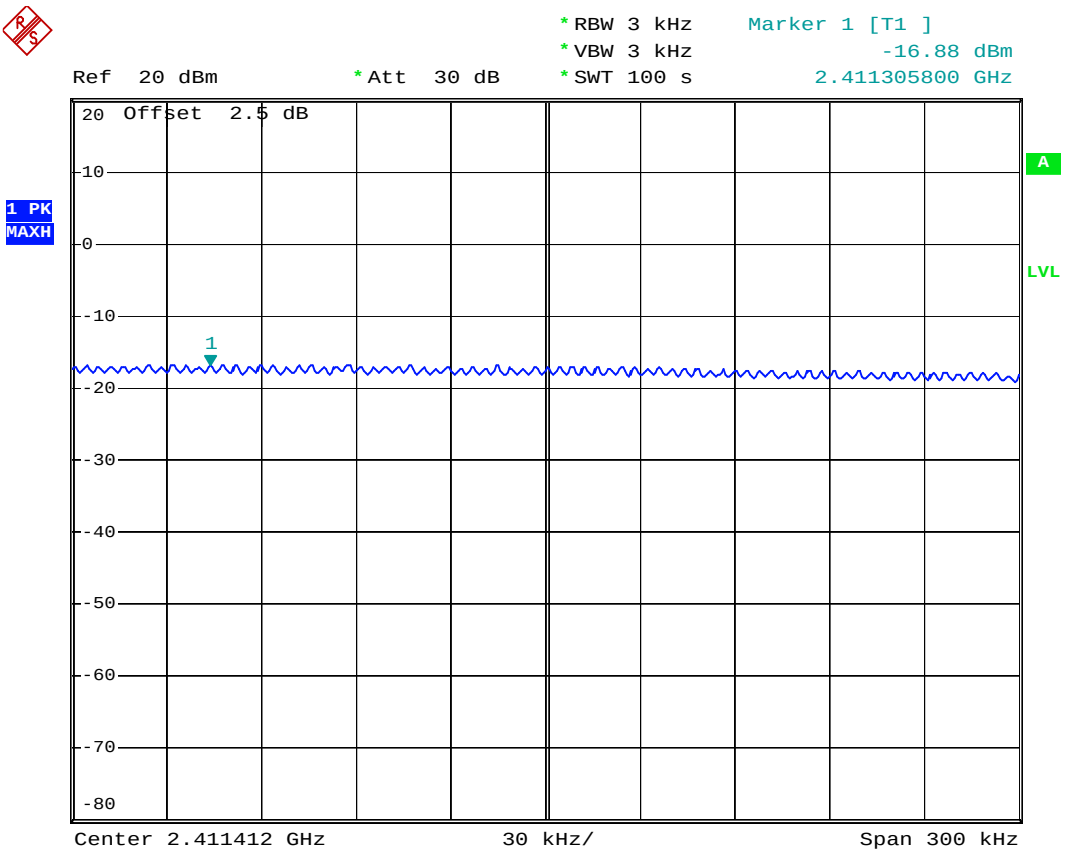
Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date
Spectrum Analyzer	R&S	FSP40	100324	2010.08.14
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-002	2010.08.17

9.5. Test Result and Data

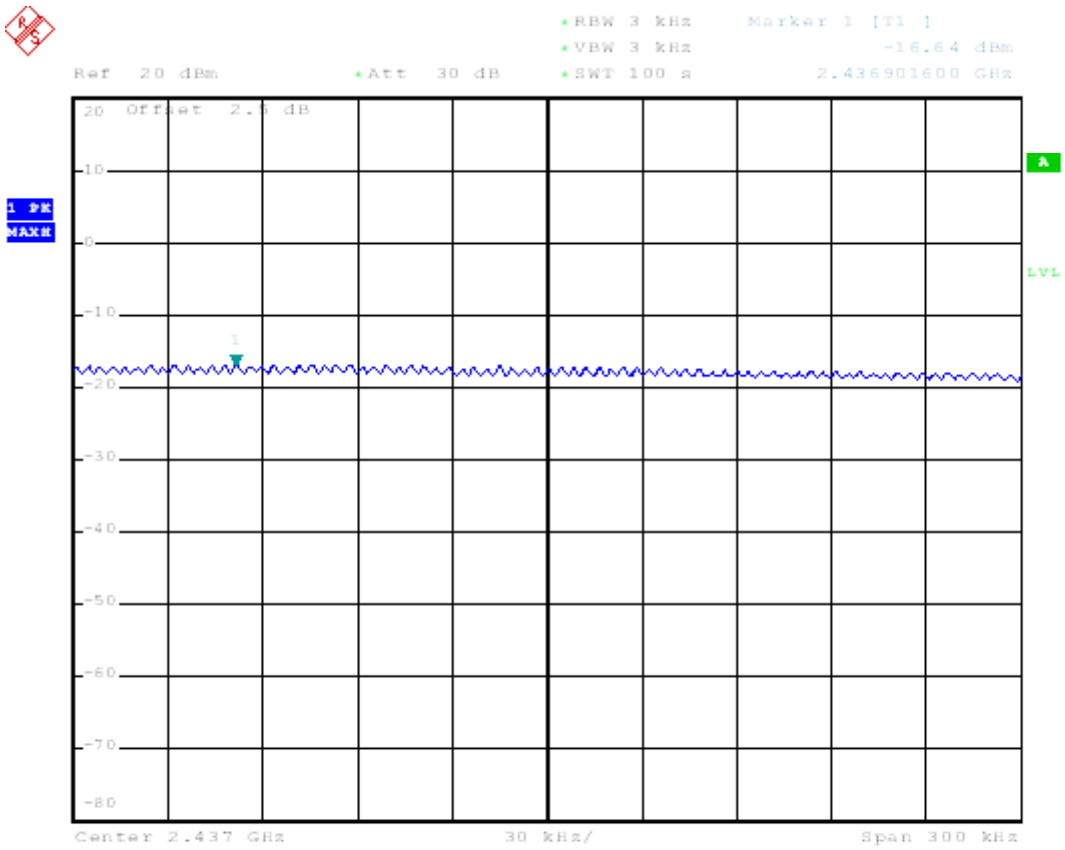
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11b
Test Date	2011-01-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	2412	-16.88	8	Pass
06	2437	-16.64	8	Pass
11	2462	-16.71	8	Pass

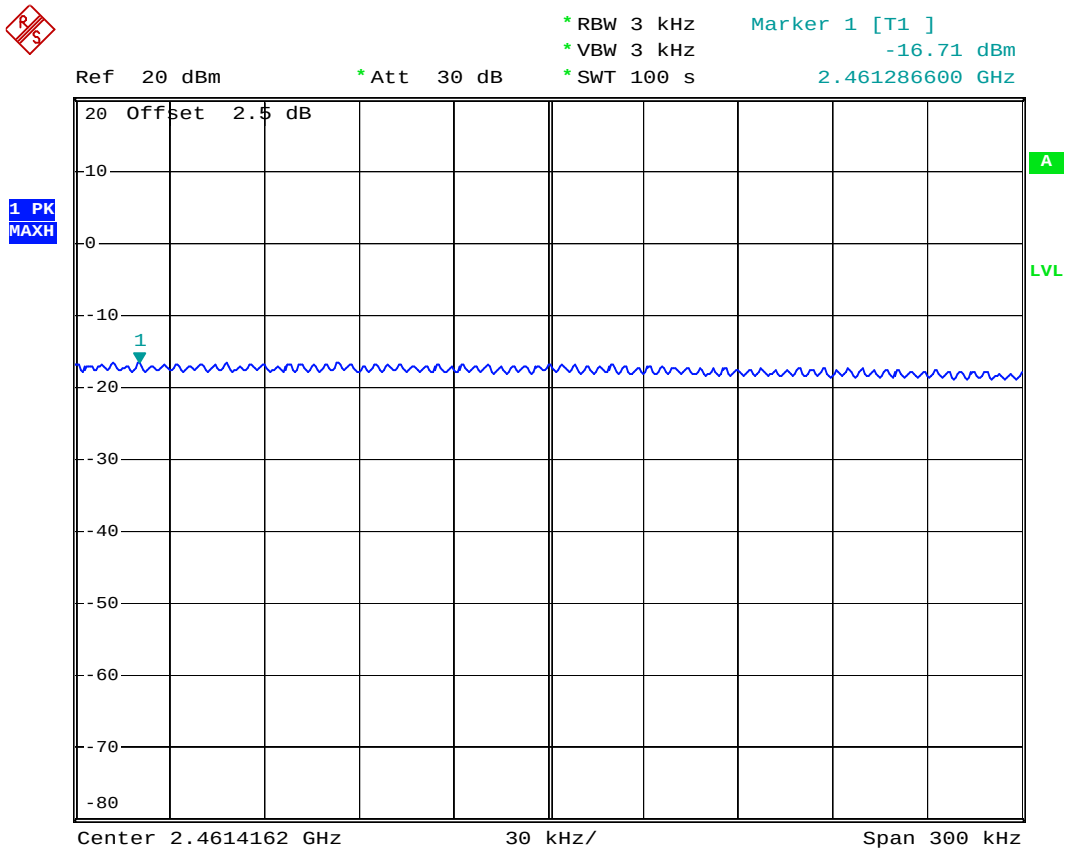
Channel 01 (2412MHz)



Channel 06 (2437MHz)



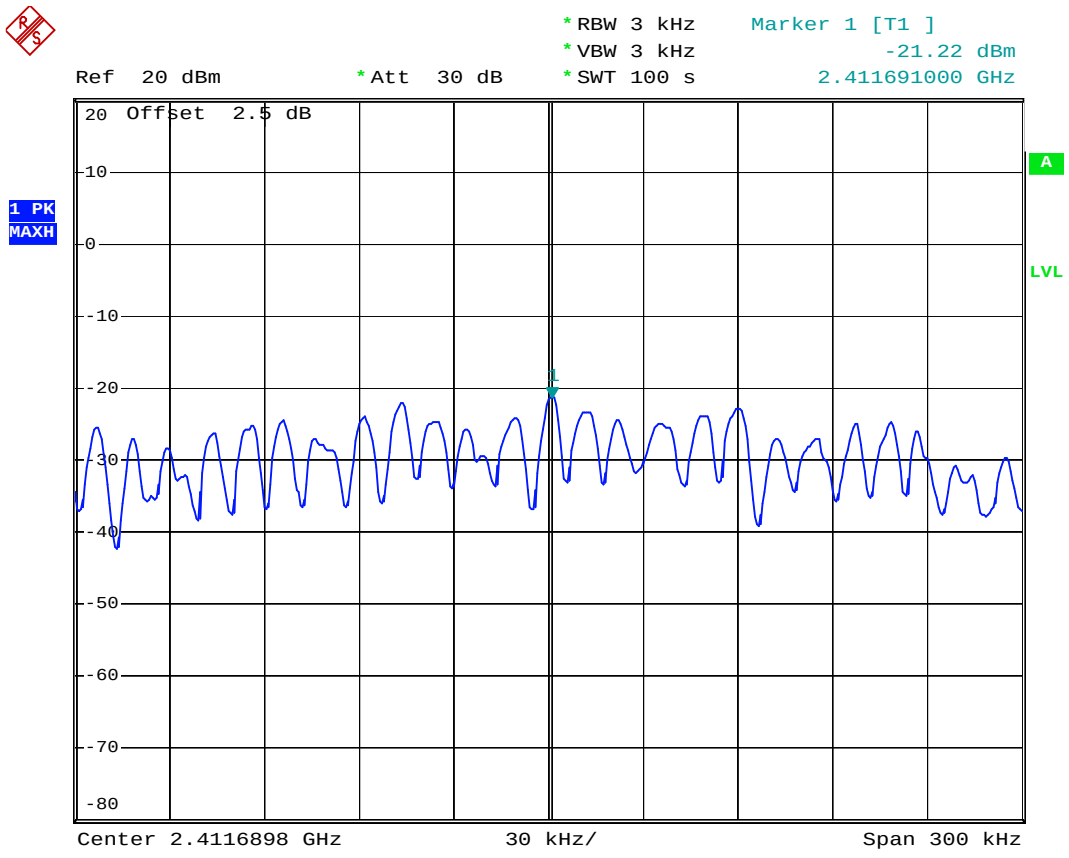
Channel 11 (2462MHz)



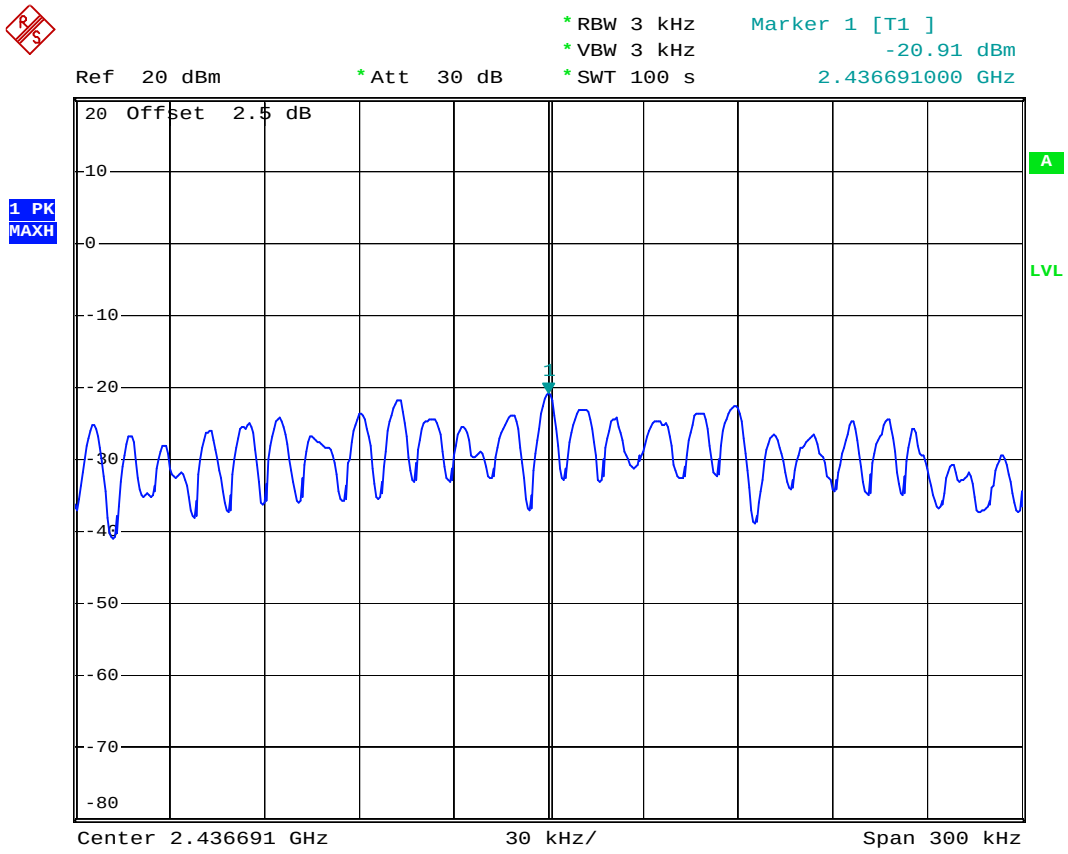
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11g
Test Date	2011-01-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	2412	-21.22	8	Pass
06	2437	-20.91	8	Pass
11	2462	-21.23	8	Pass

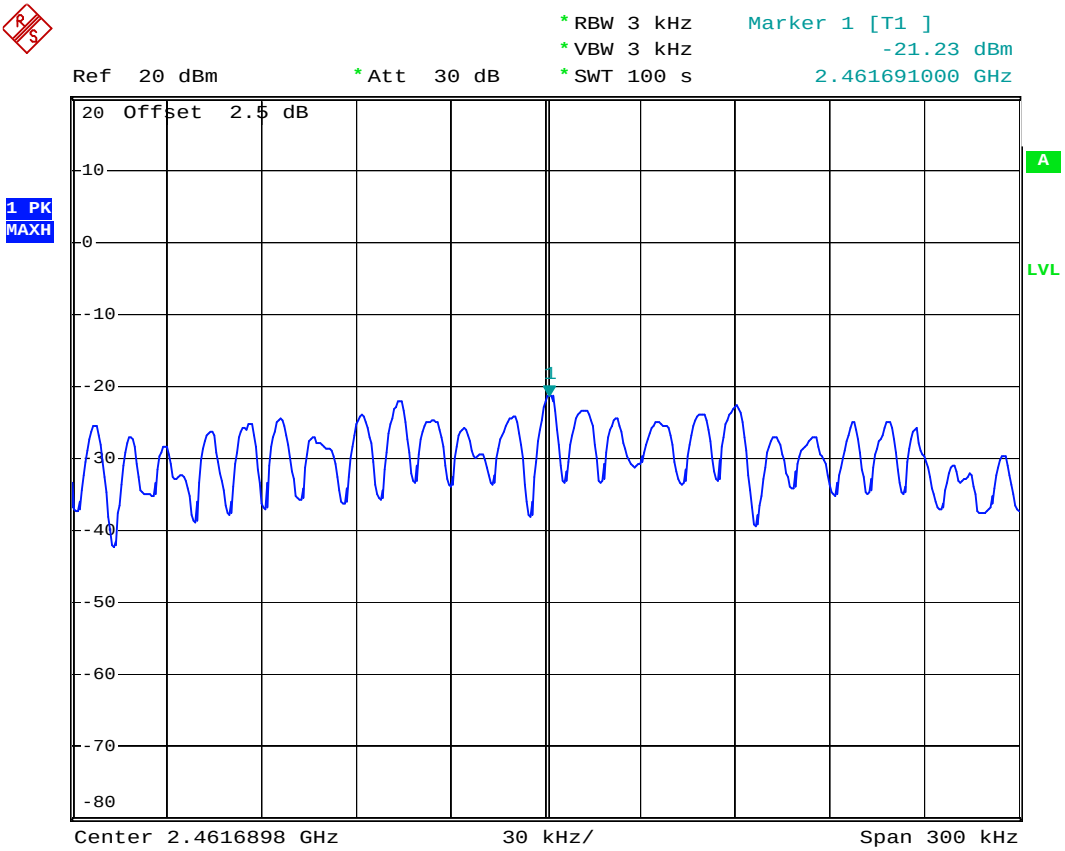
Channel 01 (2412MHz)



Channel 06 (2437MHz)



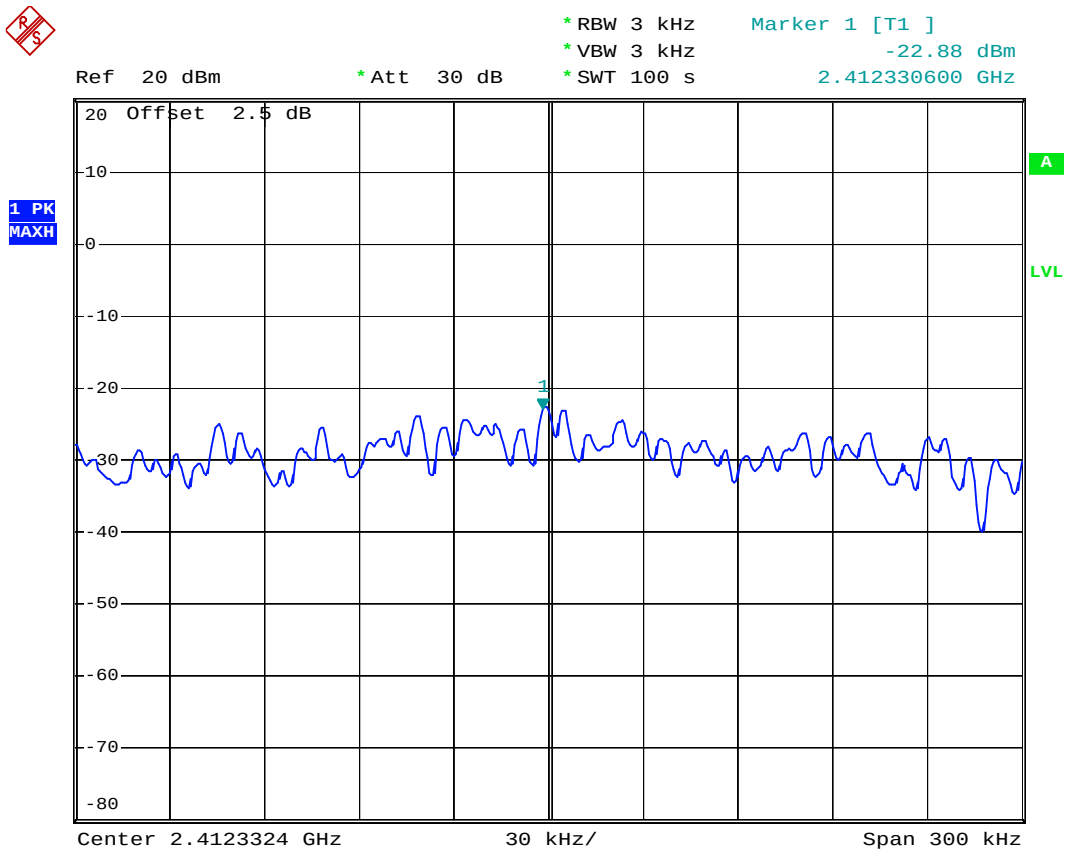
Channel 11 (2462MHz)



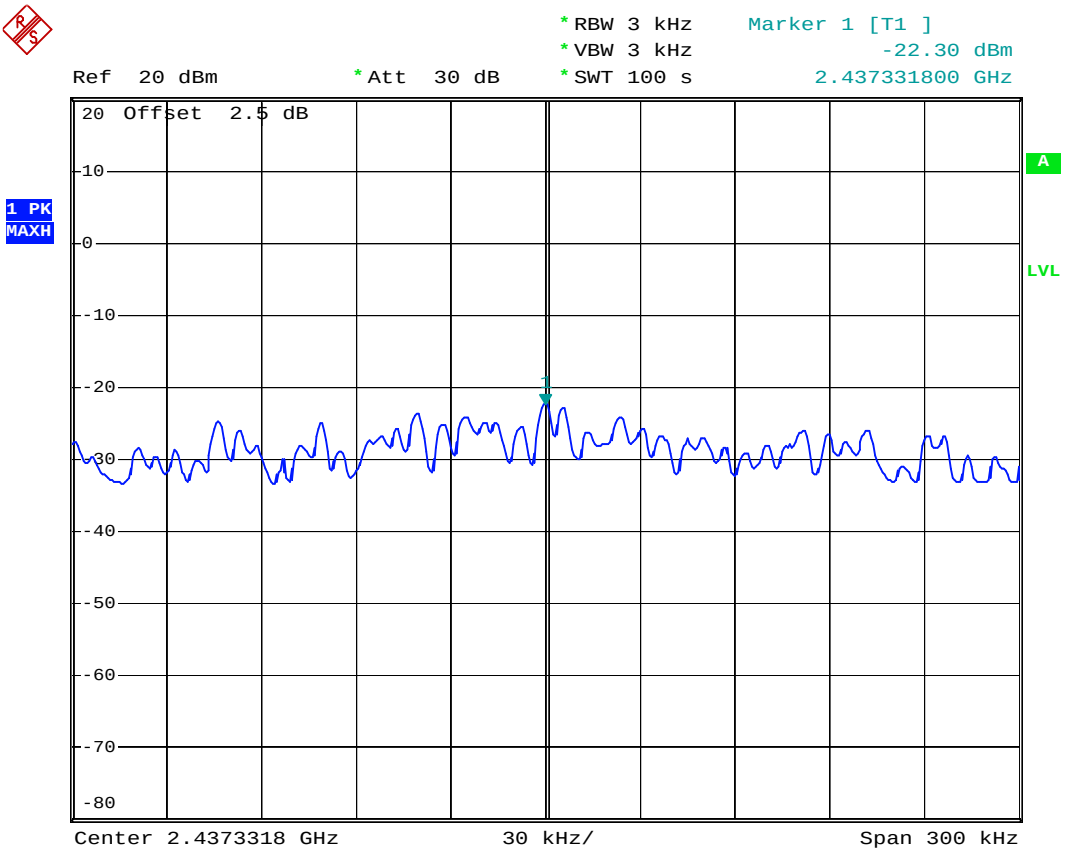
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11n (20MHz)
Test Date	2011-01-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
01	2412	-22.88	8	Pass
06	2437	-22.30	8	Pass
11	2462	-22.61	8	Pass

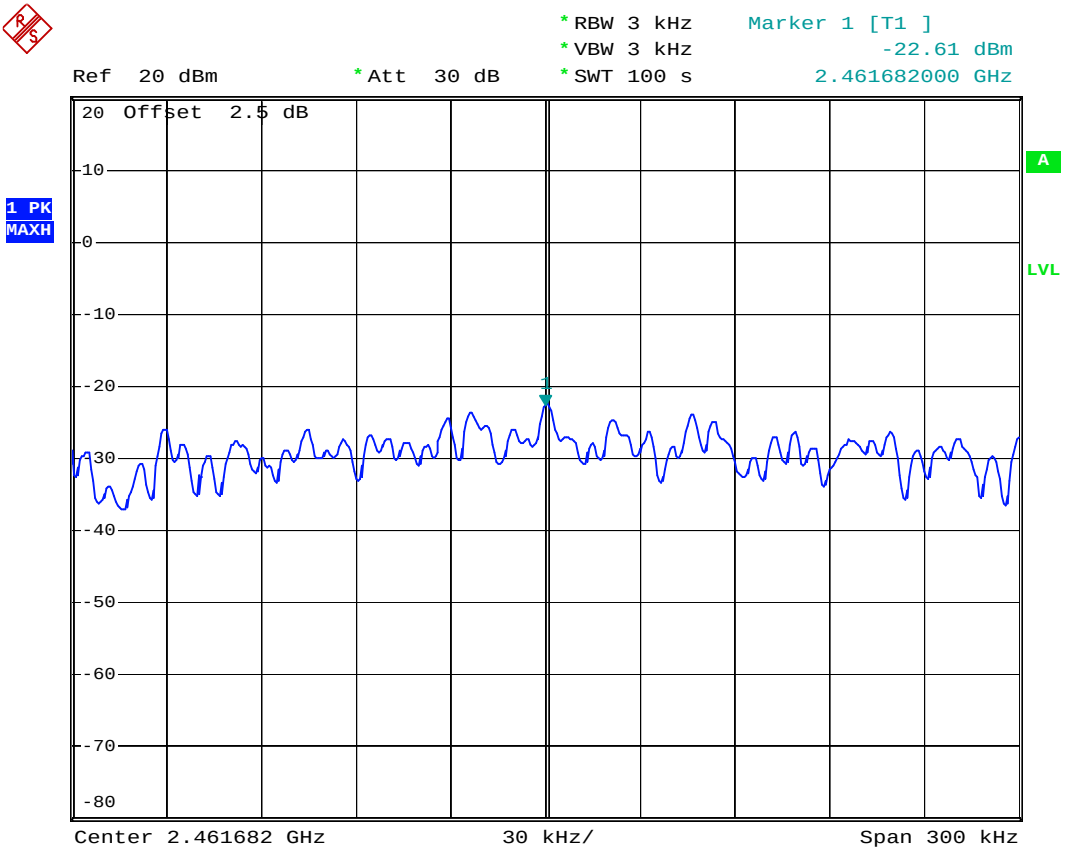
Channel 01 (2412MHz)



Channel 06 (2437MHz)



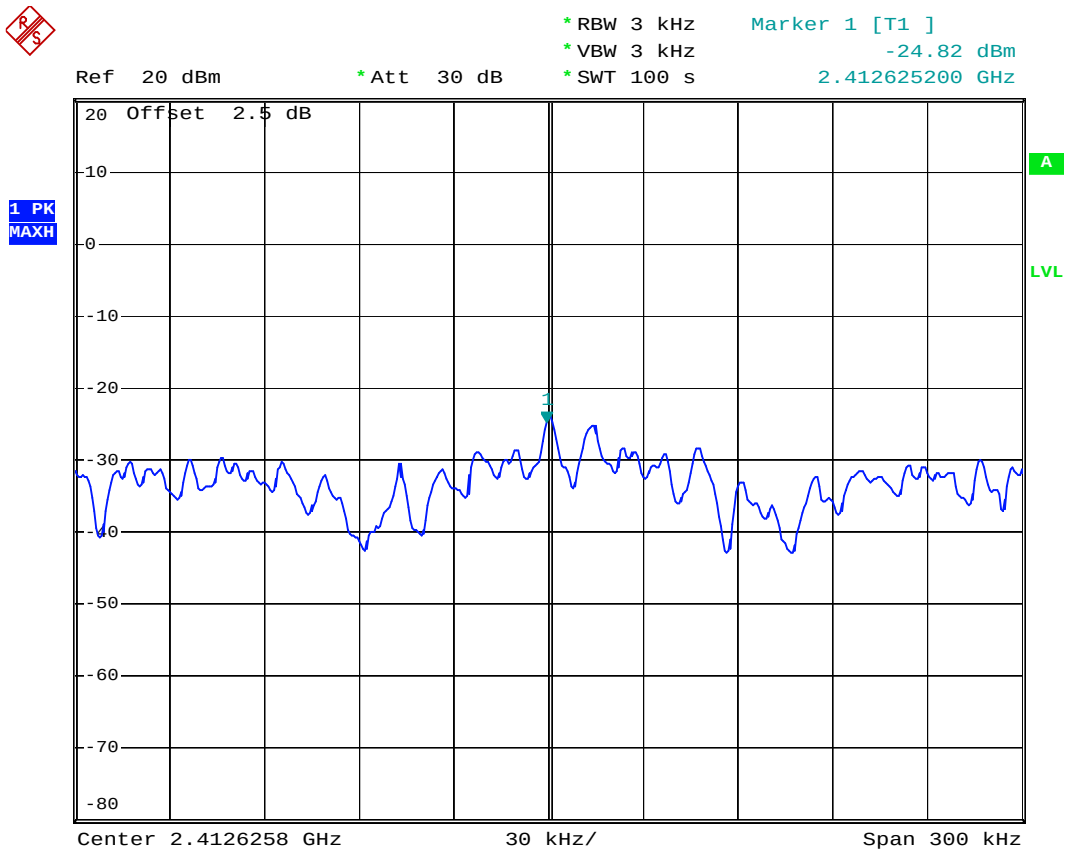
Channel 11 (2462MHz)



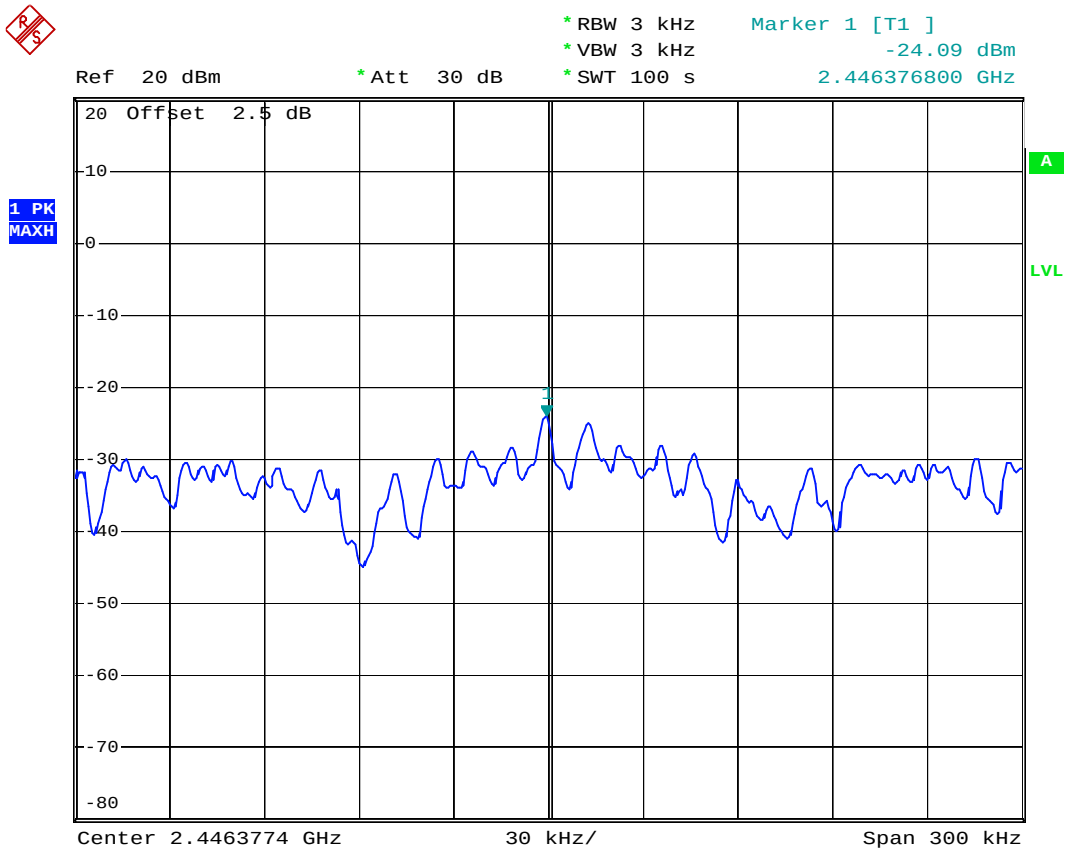
Test Item	Power Spectral Density
Test Mode	Transmit by 802.11n (20MHz)
Test Date	2011-01-10

Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
03	2422	-24.82	8	Pass
06	2437	-24.09	8	Pass
09	2452	-24.50	8	Pass

Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)