



AUDIX Technology (Shenzhen) Co., Ltd.

FCC ID: W6RRNX-N150PCE

FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Rosewill Inc.

2.4GHz Wireless Lite-N PCI-E Adapter

Model No.: RNX-N150PCe

FCC ID: W6RRNX-N150PCE

Prepared for : Rosewill Inc.
17708 Rowland Street, City of Industry, CA 91748, USA

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Report Number : ACS-F11222
Date of Test : Oct.08, 2011
Date of Report : Oct.10, 2011

FCC ID:W6RRNX-N150PCE

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TEST REPORT CERTIFICATION

Applicant : Rosewill Inc.
Manufacturer : Rosewill Inc.
EUT Description : 2.4GHz Wireless Lite-N PCI-E Adapter
FCC ID : W6RRNX-N150PCE
(A) MODEL NO. : RNX-N150PCe
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : DC 3.3V
(D) TEST VOLTAGE : DC 3.3V From PC Input AC 120V/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2008

Test procedure used:
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements.

The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Oct.08, 2011 Report of date: Oct.10, 2011

Prepared by :

Cerry He

Cerry He/ Assistant

Reviewer by: 宋俊 (深圳) 有限公司

Audix Technology (Shenzhen) Co., Ltd. Sunny Lu / Supervisor

EMC 部門 報告 專用 章

Stamp only for EMC Dept. Report

Signature:

Ken Lu / Manager

Approved & Authorized Signer :

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product Name : 2.4GHz Wireless Lite-N PCI-E Adapter

Model Number : RNX-N150PCe

FCC ID : W6RRNX-N150PCE

Operation Frequency : IEEE 802.11b: 2412MHz—2462MHz
IEEE 802.11g: 2412MHz—2462MHz
IEEE802.11n HT20: 2412MHz—2462MHz
IEEE802.11n HT40: 2422MHz—2452MHz

Channel Number : IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels
IEEE 802.11n HT40: 7Channels

Modulation Technology : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)
IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)
IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)

Antenna Assembly Gain : Dipole antenna, 2dBi gain

Applicant : Rosewill Inc.
17708 Rowland Street, City of Industry, CA 91748, USA

Manufacturer : Rosewill Inc.
17708 Rowland Street, City of Industry, CA 91748, USA

Date of Test : Oct.08, 2011

Date of Receipt : Oct.08, 2011

Sample Type : Prototype production

2.2. Test Information

A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

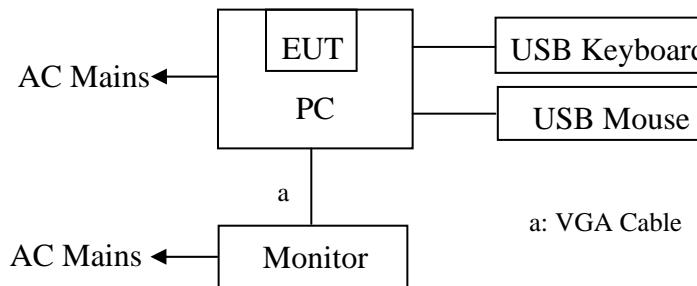
Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH6	2437
	11	High: CH11	2462
IEEE 802.11g	54	Low :CH1	2412
	54	Middle: CH6	2437
	54	High: CH11	2462
IEEE 802.11n HT20	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11n HT40	13.5	Low :CH1	2422
	13.5	Middle: CH4	2437
	13.5	High: CH7	2452

Note1: According exploratory test, EUT will have maximum PK output power in those data rate, so those data rate were used for all test.

2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1	Personal Computer	Test PC O	DELL	Studio 540	H14XK2X	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID:R33002
		Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3650 (DVI+Display+HDMI)				
2	Monitor	ACS-EMC-LM03R	DELL	1907FPt	CN-009759-71618 -6CG-BDWV	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R3A002
		Power Cord: Unshielded, Detachable, 1.8m VGA Cable: Shielded, Detachable, 2.0m (with two cores) DVI Cable: Shielded, Detachable, 2.0m (with two cores)				
3	USB Mouse	ACS-EMC-M03R	DELL	M056UO	512023253	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R41108
		Power Cord: shielded, Undetachable, 1.8m				
4	USB Keyboard	ACS-EMC- K03R	DELL	SK-8115	CN-ODJ313-7161 6-711-04WJ	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: T3A002
		Power Cord: shielded, Undetachable, 2.0m				

2.4. Block diagram of connection between the EUT and simulators



(EUT: 2.4GHz Wireless Lite-N PCI-E Adapter)

2.5. Test Facility

Site Description

Name of Firm

: Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block, Shenzhen
Science & Industrial Park,Nantou, Shenzhen,
Guangdong, China

3m Anechoic Chamber

: Certificated by FCC, USA
Registration Number: 90454
Valid Date: Mar.31, 2012

3m & 10m Anechoic Chamber

: Certificated by FCC, USA
Registration Number: 794232
Valid Date: Dec.30, 2012

EMC Lab.

: Certificated by Industry Canada
Registration Number: IC 5183A-1
Valid Date: Jul.02, 2011

: Certificated by DAkkS, Germany
Registration No: D-PL-12151-01-01
Valid Date: Feb.01, 2014

Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2012

2.6.Measurement Uncertainty (95% confidence levels, k=2)

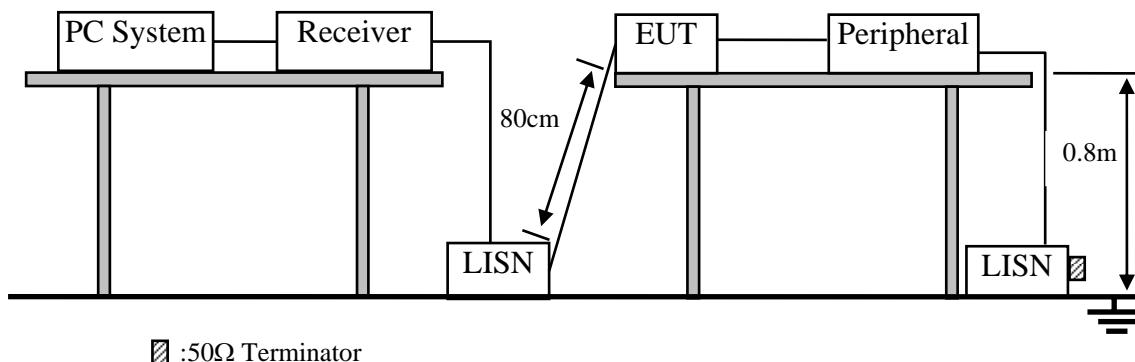
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.2 dB (150KHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.6 dB(30~200MHz, Polarize: H)
	3.7 dB(30~200MHz, Polarize: V)
	4.0 dB(200M~1GHz, Polarize: H)
	3.7 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	3.1dB (Distance: 3m Polarize: V)
	3.7 dB (Distance: 3m Polarize: H)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Power density test	2.00 dB
Uncertainty for Frequency range test	7x10 ⁻⁸
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6°C
	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.05, 10	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Nov.05, 10	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May 08, 11	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May 08, 11	1 Year
5.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May 08, 11	1 Year
6.	Coaxial Switch	Anritsu	MP59B	M55367	May 08, 11	1 Year
7.	Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May 08, 11	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May 08, 11	1 Year

3.2. Block Diagram of Test Setup



■ :50Ω Terminator

3.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(µV)	Average Level dB(µV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4.Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1.2.4GHz Wireless Lite-N PCI-E Adapter (EUT)

Model Number : RNX-N150PCe

Serial Number : N/A

3.4.2.Support Equipment : As Tested Supporting System Details, in Section 2.3.

3.5.Operating Condition of EUT

3.5.1.Setup the EUT and simulator as shown as Section 2.4.

3.5.2.Turned on the power of all equipment.

3.5.3.PC run test software to control EUT work in Tx mode.

3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

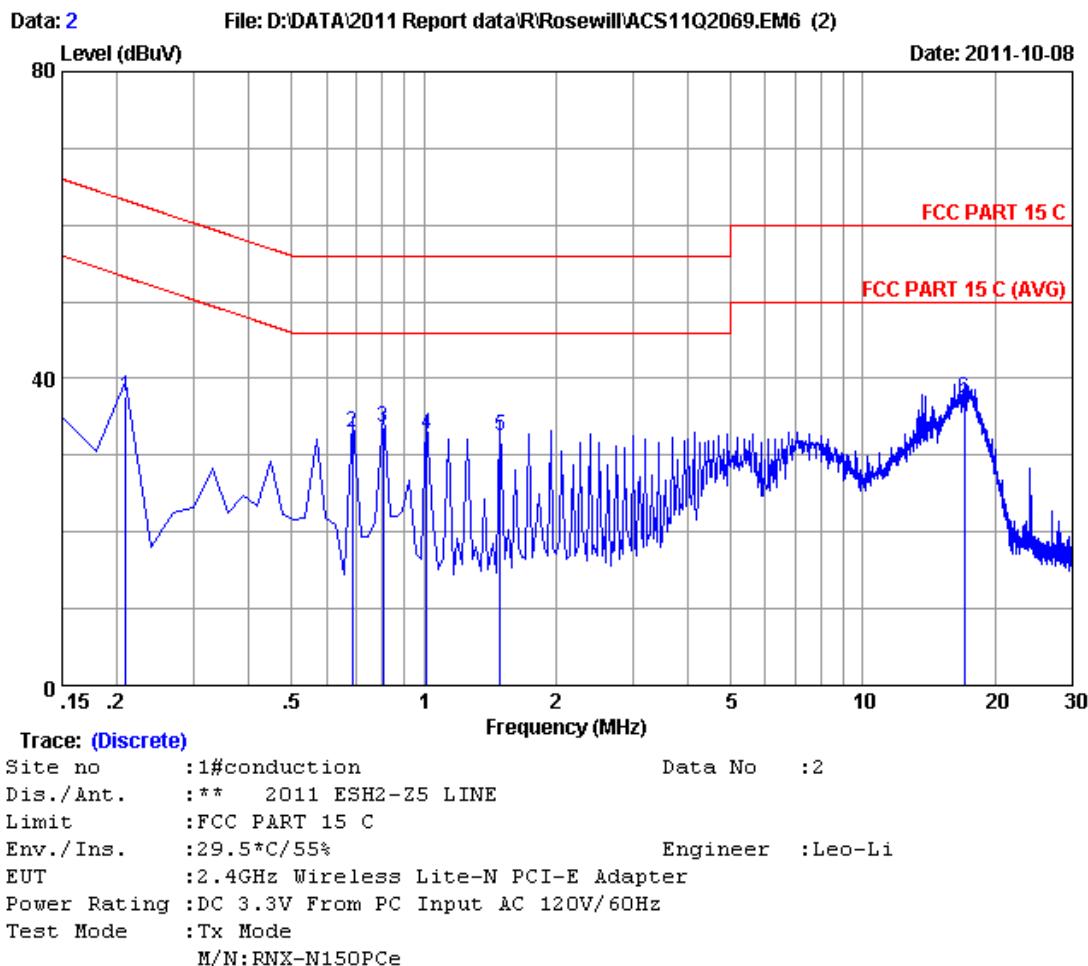
3.7.Power Line Conducted Emission Test Results

PASS. (All emissions not reported below are too low against the prescribed limits.)

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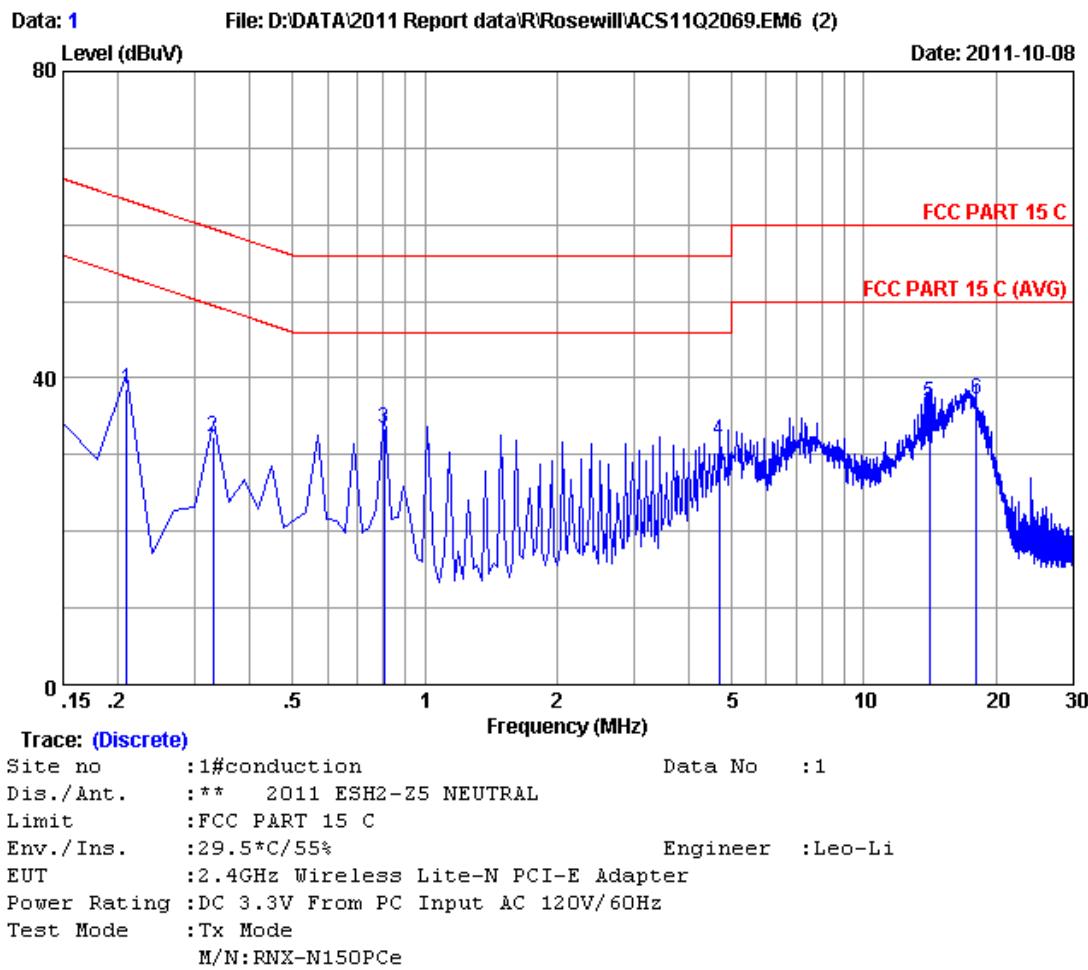
No	Freq (MHz)	LISN	Cable	Emission				Remark
		Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	Limits (dBuV)	Margin (dB)	
1	0.20970	0.17	9.98	27.52	37.67	63.22	25.55	QP
2	0.68730	0.19	9.97	22.78	32.94	56.00	23.06	QP
3	0.80670	0.21	9.97	23.52	33.70	56.00	22.30	QP
4	1.016	0.23	9.98	22.56	32.77	56.00	23.23	QP
5	1.493	0.27	9.97	22.38	32.62	56.00	23.38	QP
6	16.985	0.98	9.96	26.61	37.55	60.00	22.45	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss (Include 10dB pulse limit)
+Reading.
2. If the average limit is met when using a quasi-peak detector,
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

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No	Freq (MHz)	LISN	Cable	Emission				Remark
		Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	Limits (dBuV)	Margin (dB)	
1	0.20970	0.21	9.98	28.38	38.57	63.22	24.65	QP
2	0.32910	0.22	9.98	22.13	32.33	59.47	27.14	QP
3	0.80670	0.23	9.97	23.33	33.53	56.00	22.47	QP
4	4.687	0.32	9.93	21.52	31.77	56.00	24.23	QP
5	14.090	0.57	9.92	26.34	36.83	60.00	23.17	QP
6	18.030	0.70	9.98	26.63	37.31	60.00	22.69	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss (Include 10dB pulse limit)
+Reading.
2. If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1. Test Equipment

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

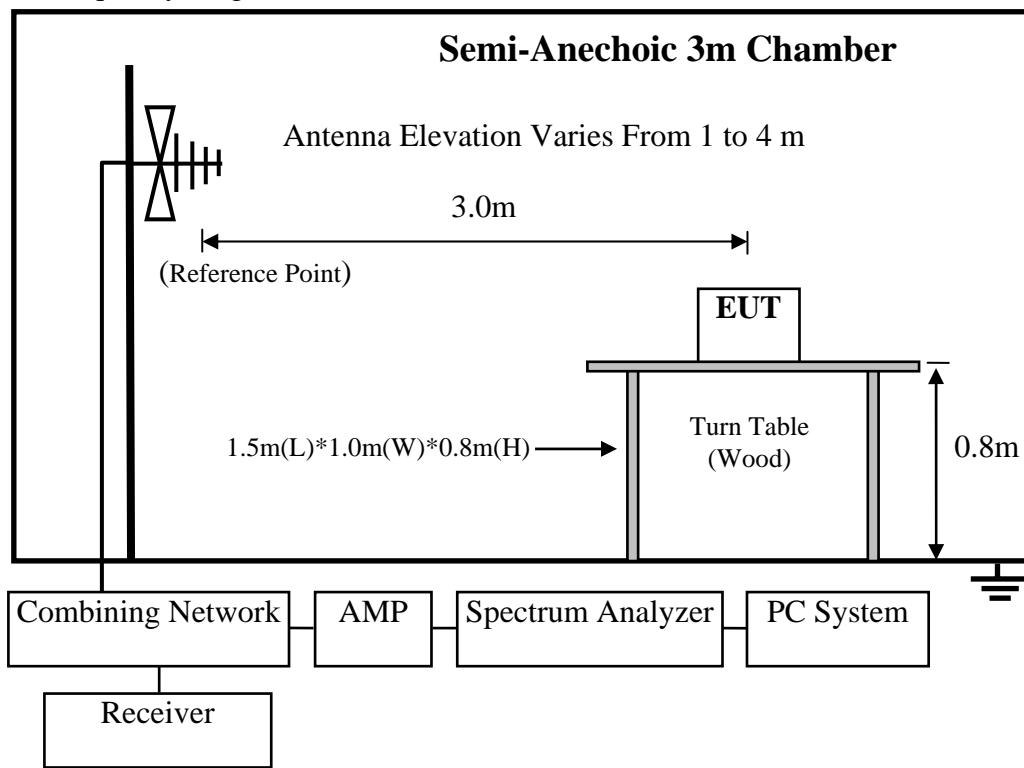
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.06,10	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 11	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 11	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 11	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 11	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 11	1 Year

4.1.2. For frequency range 1GHz~6GHz (At Anechoic Chamber)

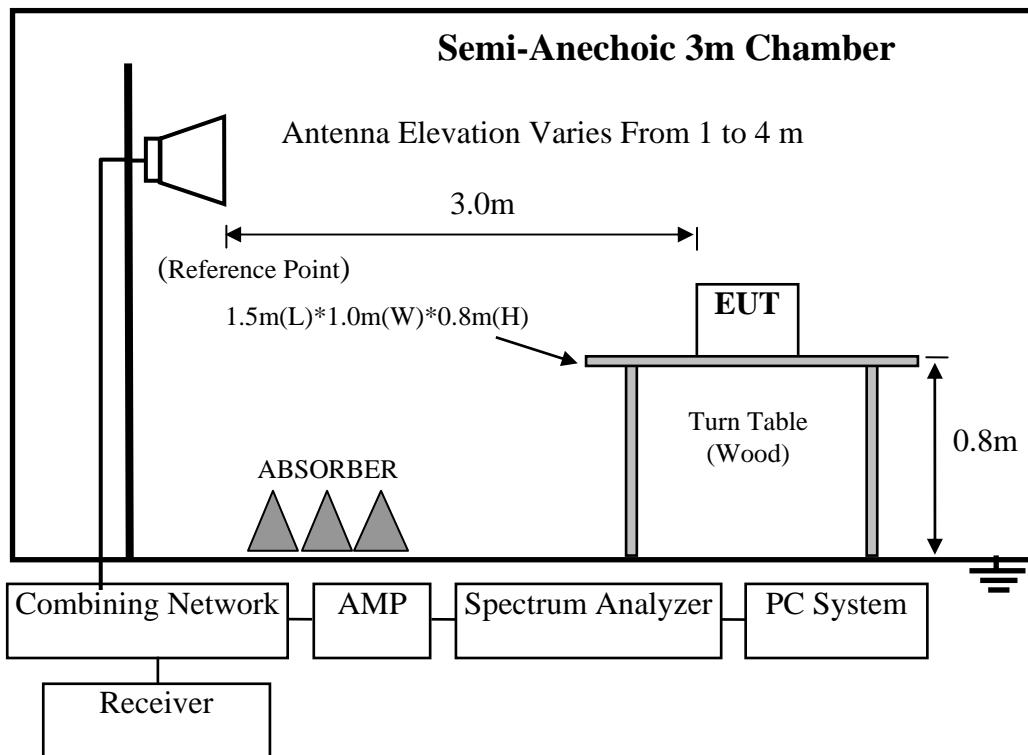
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 11	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	July.01, 11	1 Year
3	Horn Antenna	EMCO	3116	00060089	Nov.25, 10	1.5 Year
4	Amplifier	Agilent	8449B	3008A00863	May.08, 11	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28622/2	May.08, 11	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 11	1 Year

4.2. Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



4.3.Radiated Emission Limit

4.3.1.15.209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μ V/m	dB(μ V)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μ V)/m (Peak) 54.0 dB(μ V)/m (Average)	

Remark : (1) Emission level $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2.15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions or comply with 15.209 limits.

4.4.EUT Configuration on Test

The configurations of EUT are listed in Section 3.5.

4.5.Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

4.7.Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

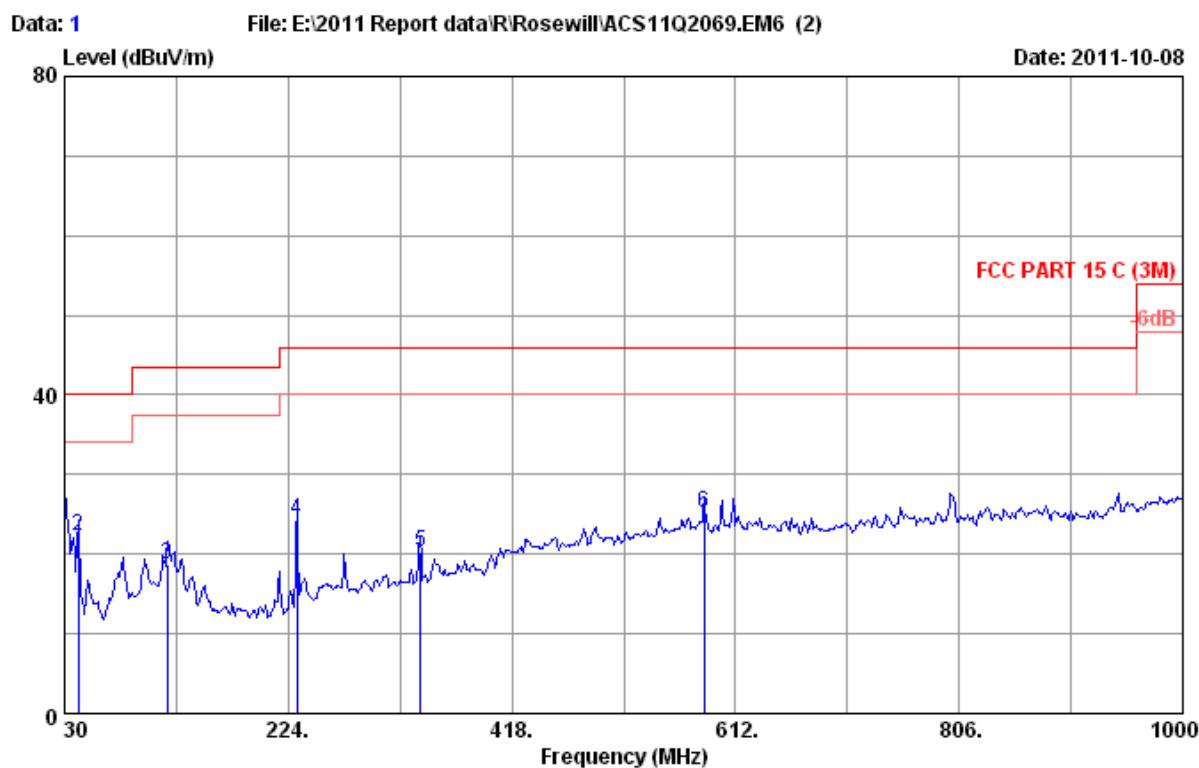
Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

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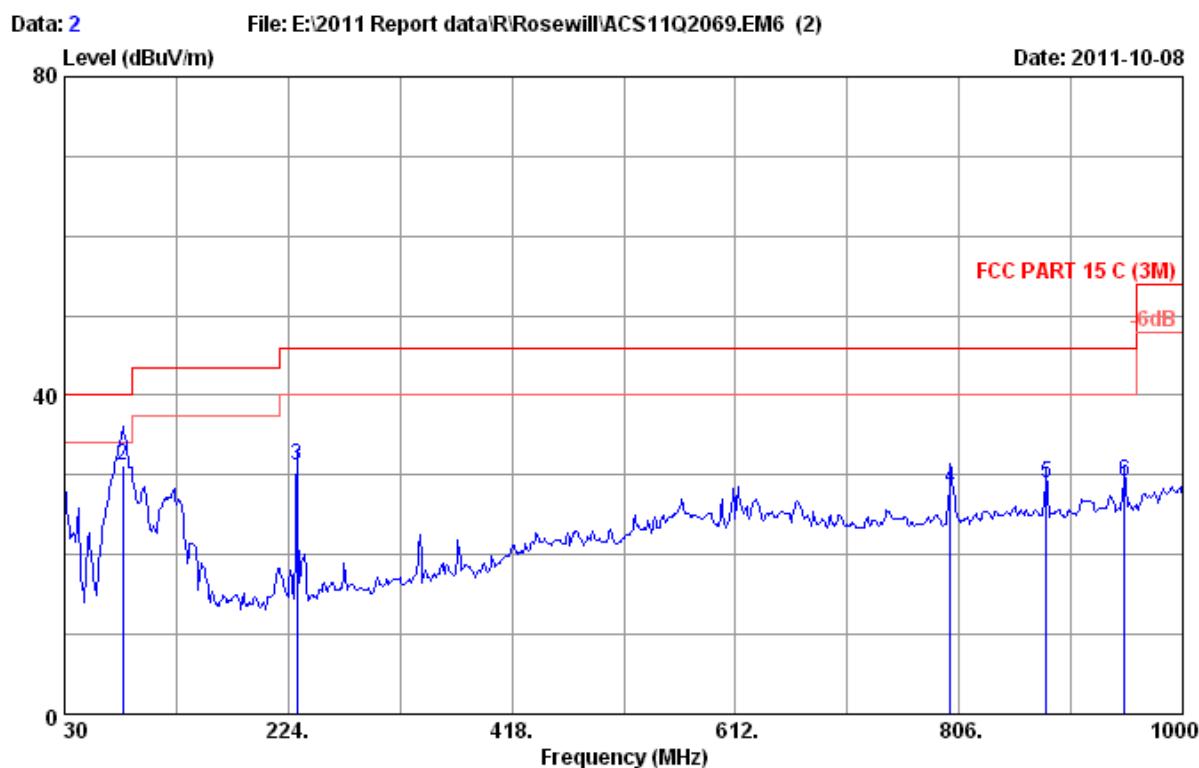
Frequency: 30MHz~1GHz



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m CBL6112D Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power rating : DC 3.3V From PC Input AC 120V/60Hz
Test Mode : Tx Mode
M/N: RNX-N150Pce

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	19.51	0.52	4.60	24.63	40.00	15.37	QP
2	41.640	12.00	0.60	9.62	22.22	40.00	17.78	QP
3	119.240	13.10	0.98	4.63	18.71	43.50	24.79	QP
4	231.760	10.36	1.51	12.50	24.37	46.00	21.63	QP
5	338.460	13.83	1.81	4.66	20.30	46.00	25.70	QP
6	584.840	18.51	2.45	4.12	25.08	46.00	20.92	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



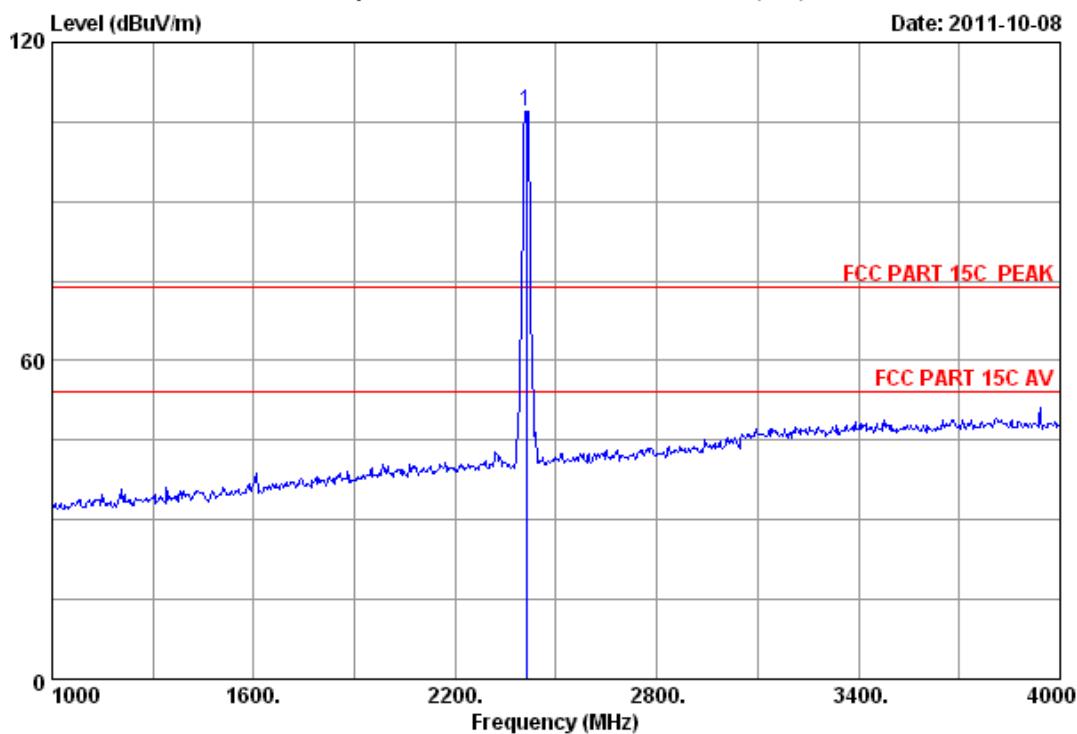
Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m CBL6112D Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24°C/56% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power rating : DC 3.3V From PC Input AC 120V/60Hz
Test Mode : Tx Mode
M/N: RNX-N150PCe

No.	Ant.	Cable	Emission						
	No.	Freq.	Factor	Loss	Reading	Level	Limits	Margin	Remark
		(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1		30.000	19.51	0.52	5.75	25.78	40.00	14.22	QP
2		80.440	7.19	0.81	23.15	31.15	40.00	8.85	QP
3		231.760	10.36	1.51	19.40	31.27	46.00	14.73	QP
4		798.240	19.52	3.05	5.82	28.39	46.00	17.61	QP
5		881.660	19.96	3.16	5.80	28.92	46.00	17.08	QP
6		949.560	21.02	3.35	4.71	29.08	46.00	16.92	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz

Data: 1 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2412.000	29.45	8.72	35.95	104.62	106.84	74.00	-32.84 Peak

Remarks:

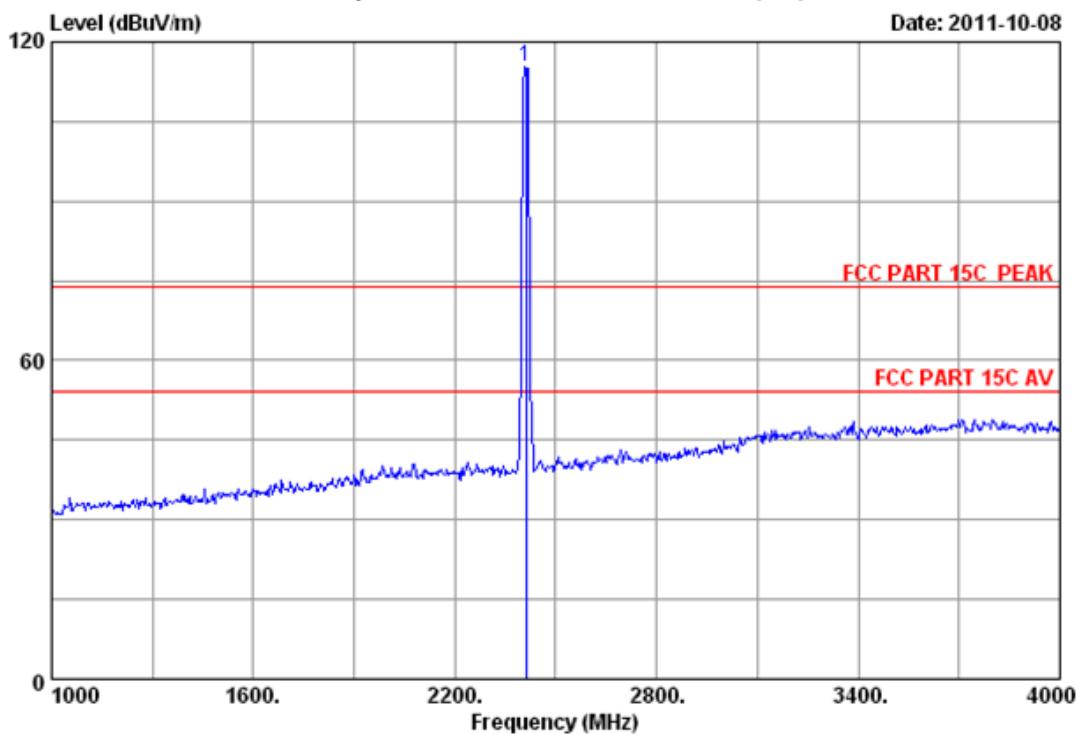
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 2 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission			
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
1	2412.000	29.45	8.72	35.95	113.24	115.46	74.00 -41.46 Peak

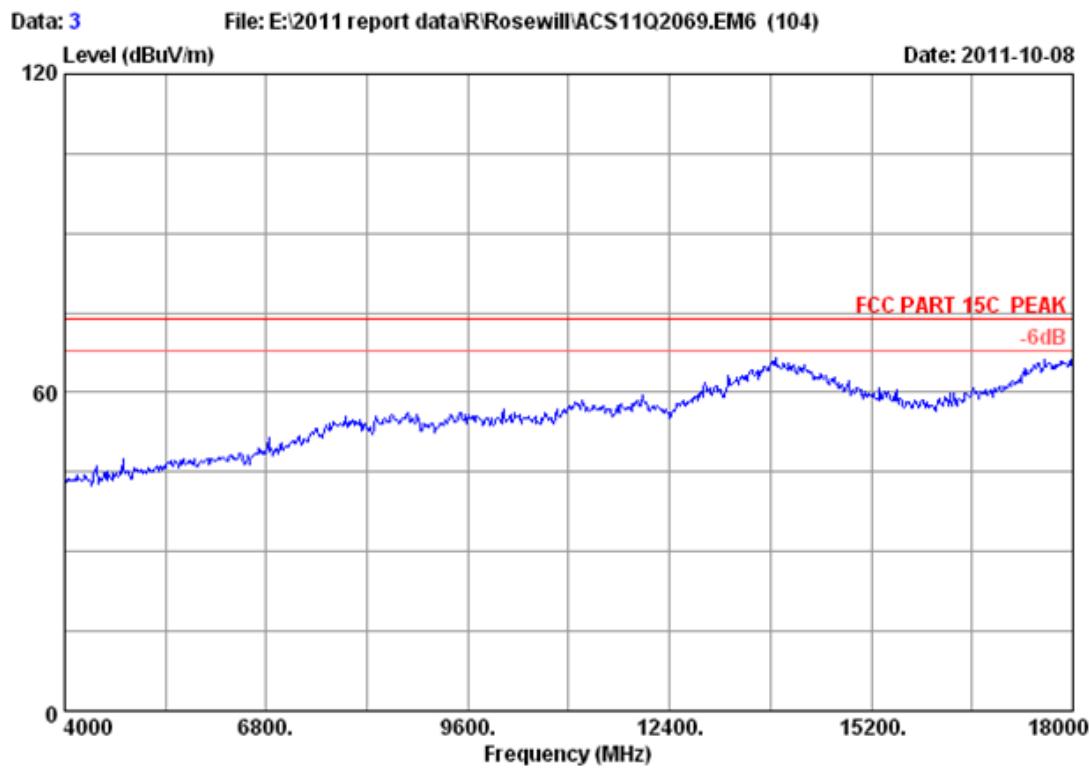
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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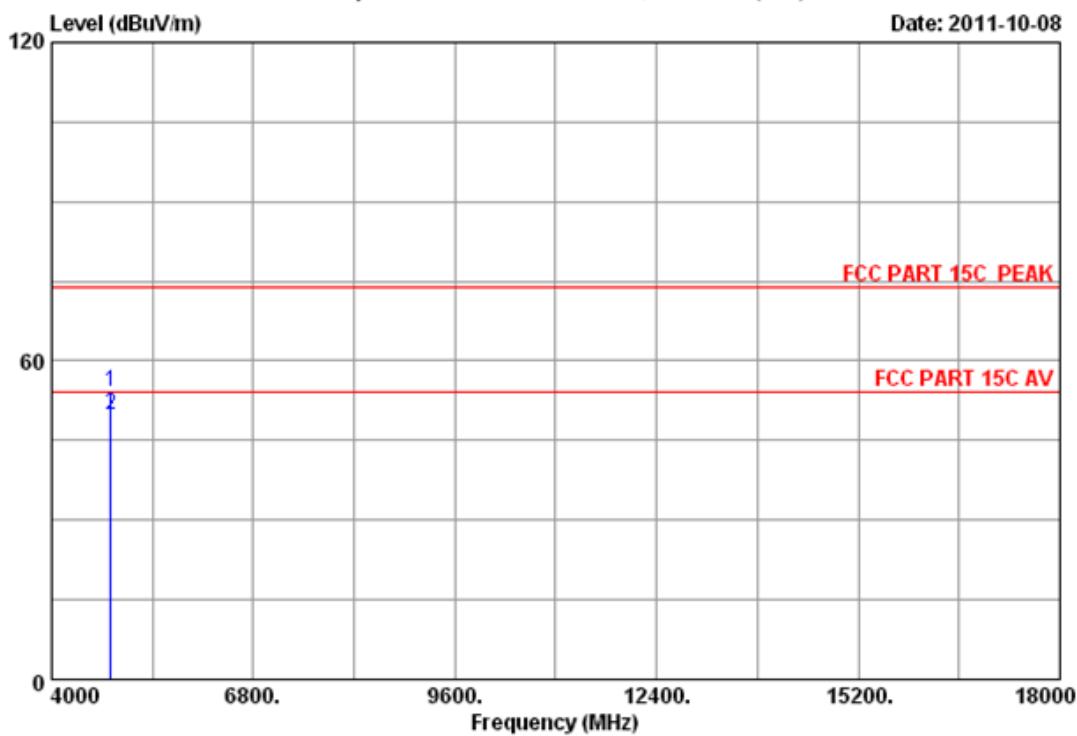
Site no. : 3m Chamber Data no. : 3
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 4 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4824.000	34.32	12.38	35.25	42.71	54.16	74.00	19.84	Peak
2 4824.000	34.32	12.38	35.25	38.39	49.84	54.00	4.16	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

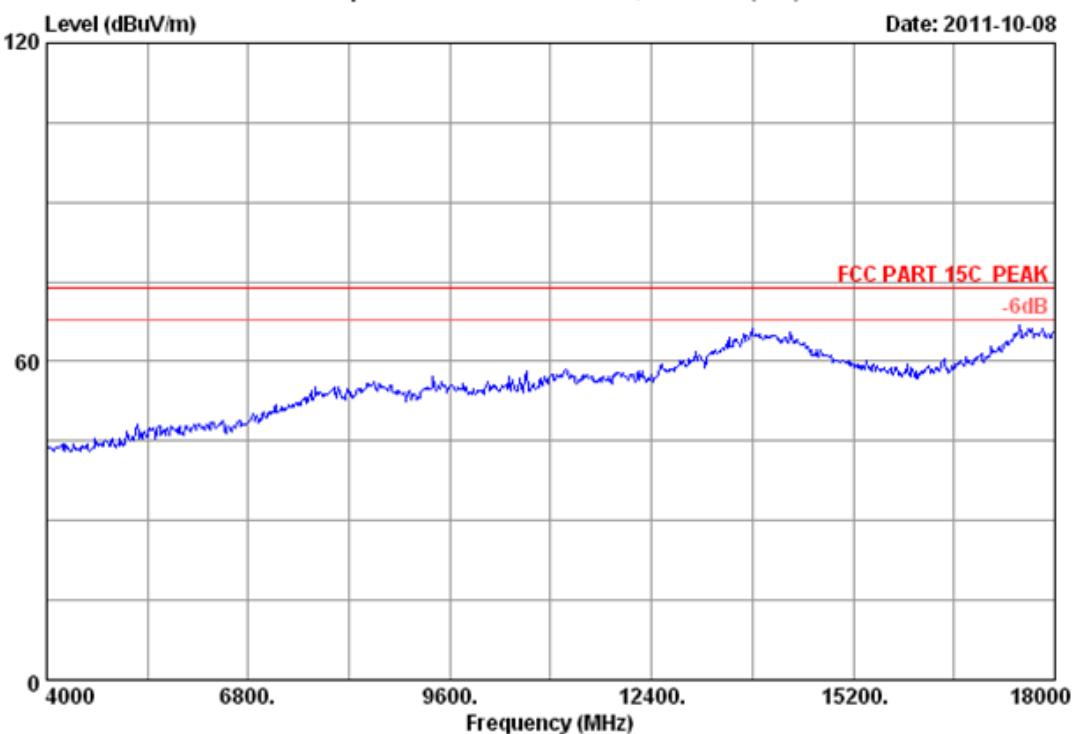
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Data: 5

File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

Date: 2011-10-08

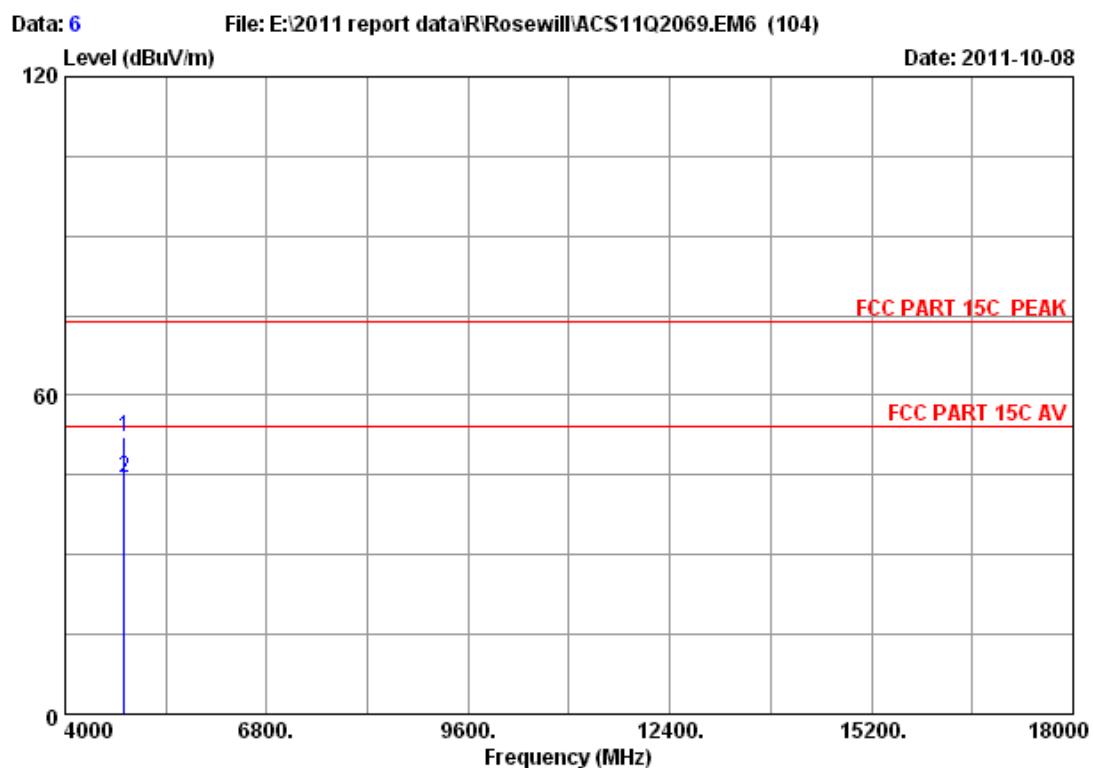


Site no.	:	3m Chamber	Data no. :	5
Dis. / Ant.	:	3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	:	FCC PART 15C PEAK		
Env. / Ins.	:	23°C/54%	Engineer :	Leo-Li
EUT	:	2.4GHz Wireless Lite-N PCI-E Adapter		
Power	:	DC 3.3V From PC Input AC 120V/60Hz		
Test mode	:	IEEE802.11b CH1 2412MHz Tx		
M/N	:	RNX-N150PCE		
	:			

FCC ID: W6RRNX-N150PCE

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Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4824.000	34.32	12.38	35.25	40.63	52.08	74.00	21.92 Peak
2	4824.000	34.32	12.38	35.25	33.17	44.62	54.00	9.38 Average

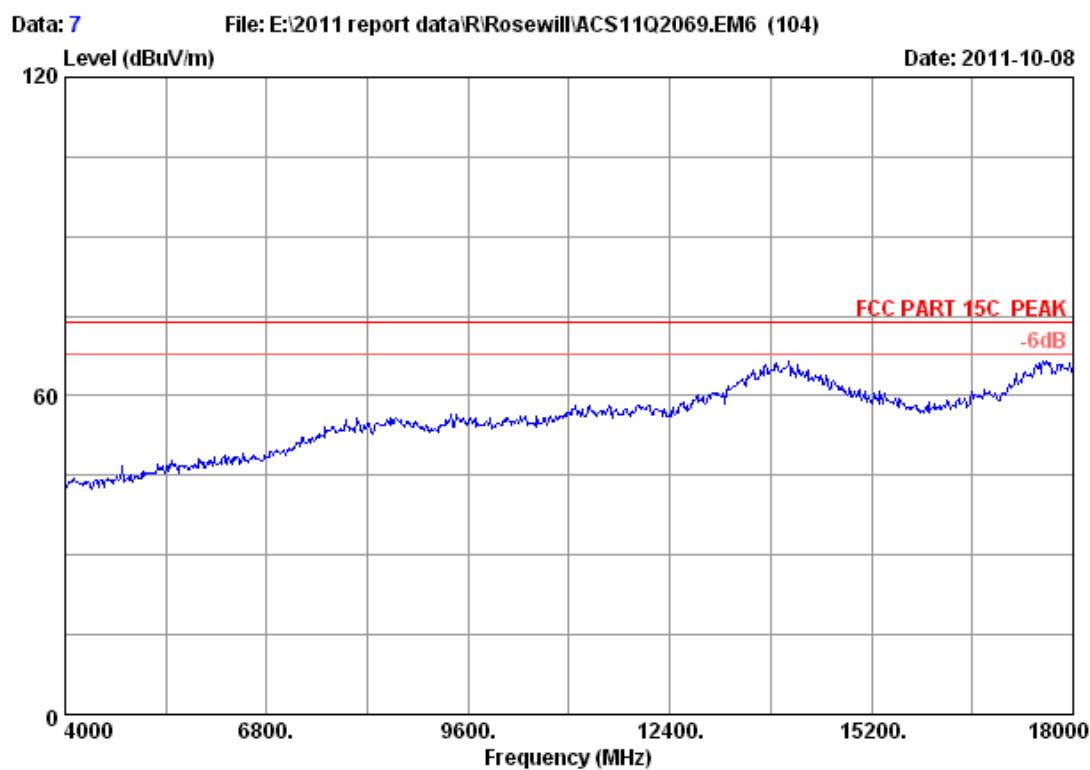
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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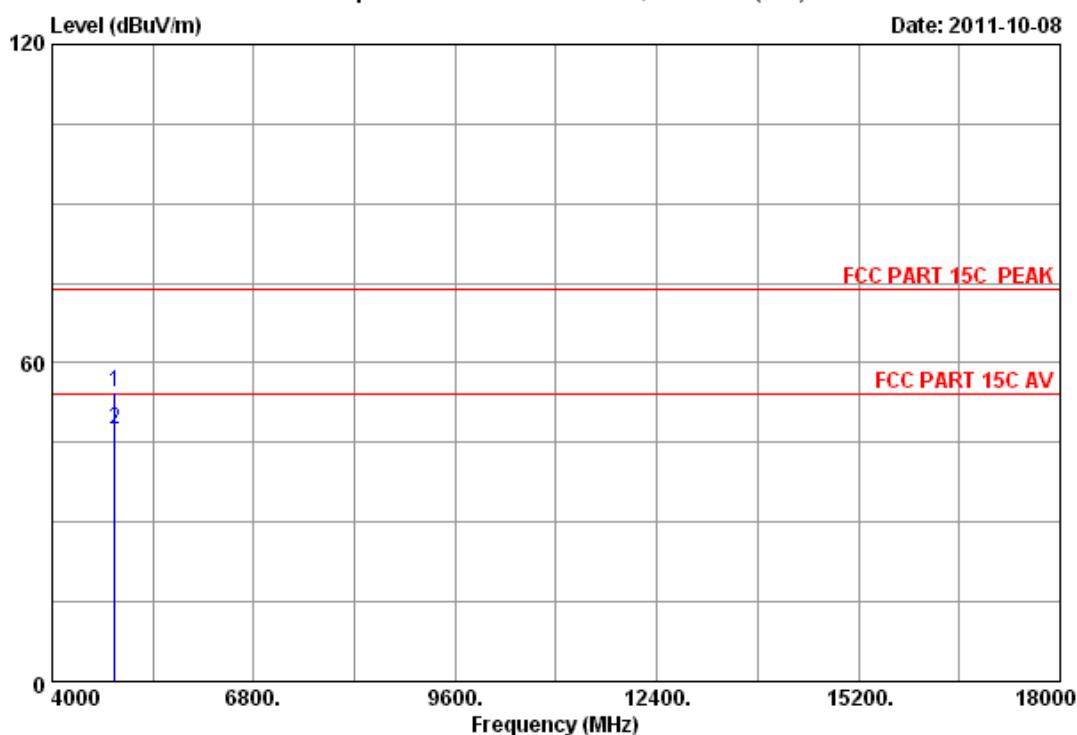
Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 8 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	43.01	54.50	74.00	19.50	Peak
2 4874.000	34.41	12.44	35.36	36.12	47.61	54.00	6.39	Average

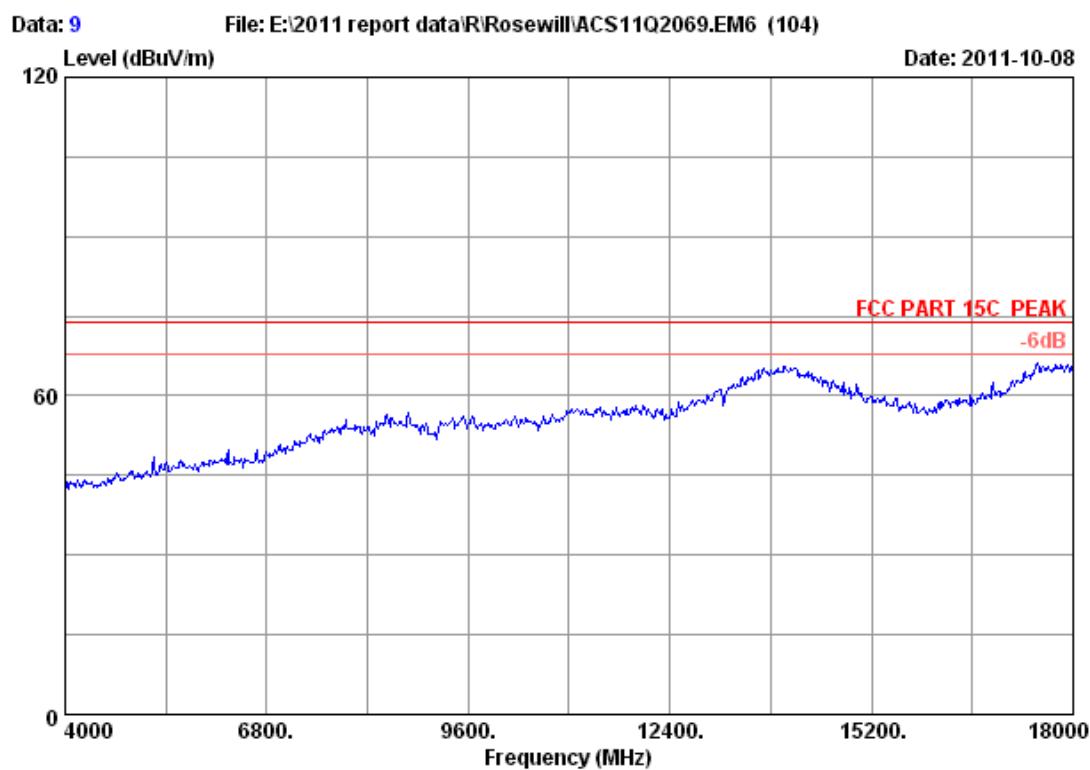
Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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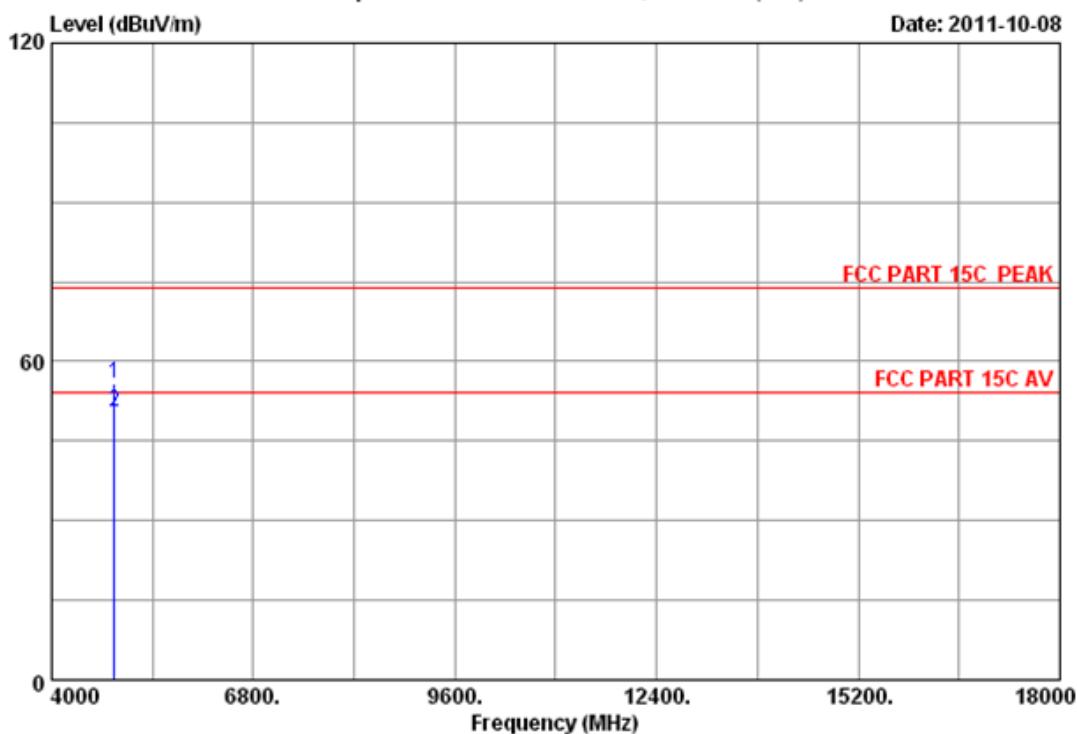
Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 10 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	44.45	55.94	74.00	18.06	Peak
2 4874.000	34.41	12.44	35.36	38.84	50.33	54.00	3.67	Average

Remarks:

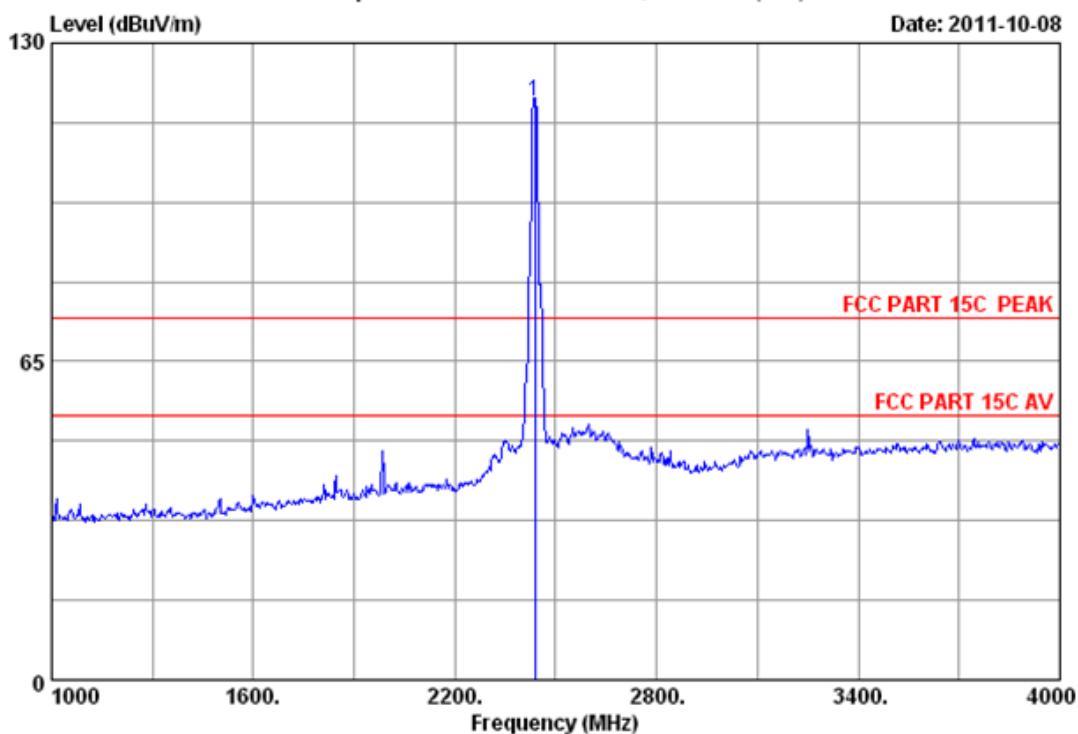
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 11 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 11
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150Pce
:

	Ant.	Cable	Amp.	Emission			
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
1	2437.000	29.47	8.77	36.06	115.96	118.14	74.00 -44.14 Peak

Remarks:

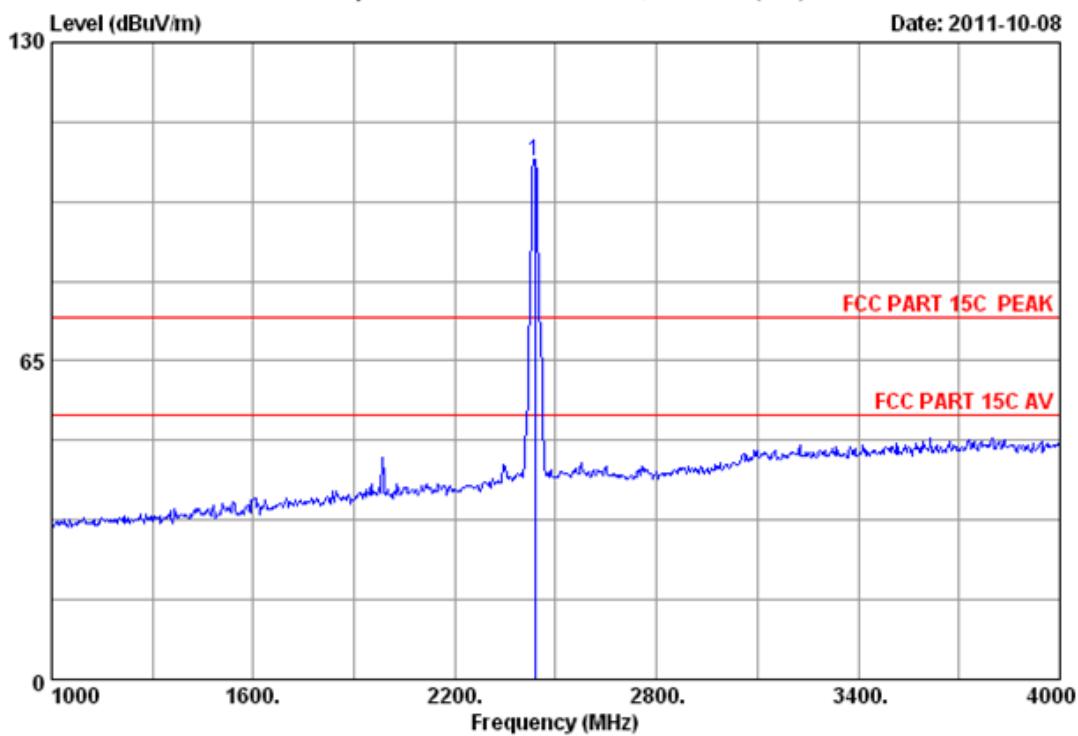
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 12 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission			
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
1	2437.000	29.47	8.77	36.06	103.61	105.79	74.00 -31.79 Peak

Remarks:

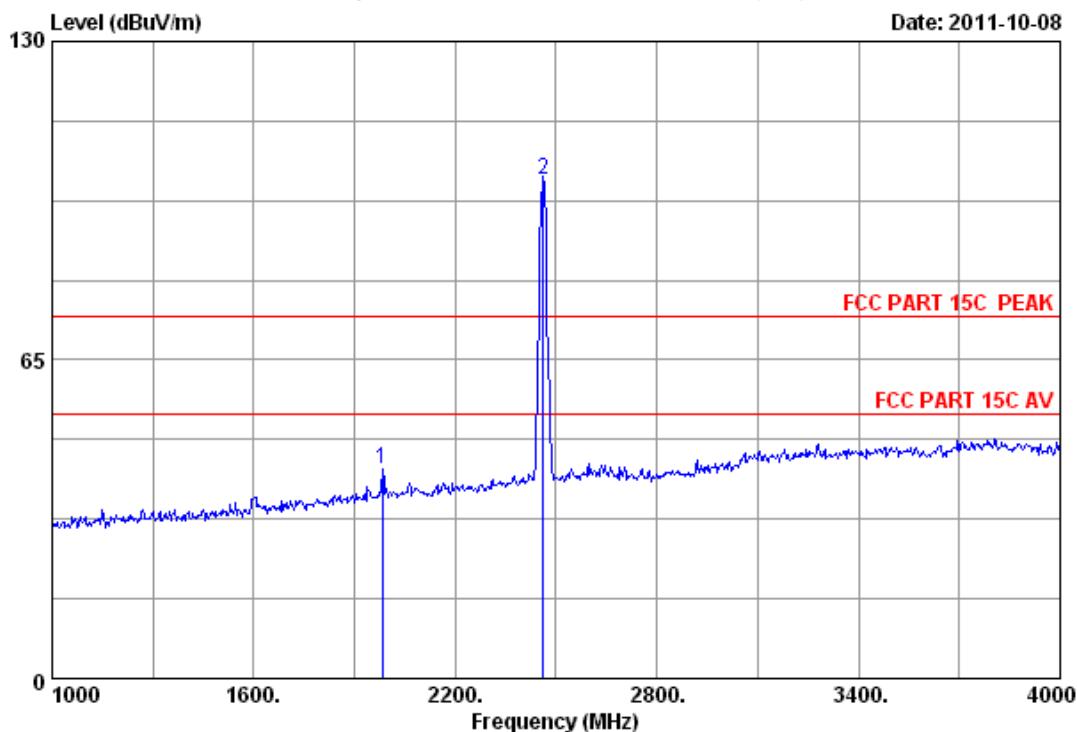
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 13 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 13
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1984.000	29.11	7.87	36.06	41.98	42.90	74.00	31.10 Peak
2	2462.000	29.48	8.82	36.02	99.31	101.59	74.00	-27.59 Peak

Remarks:

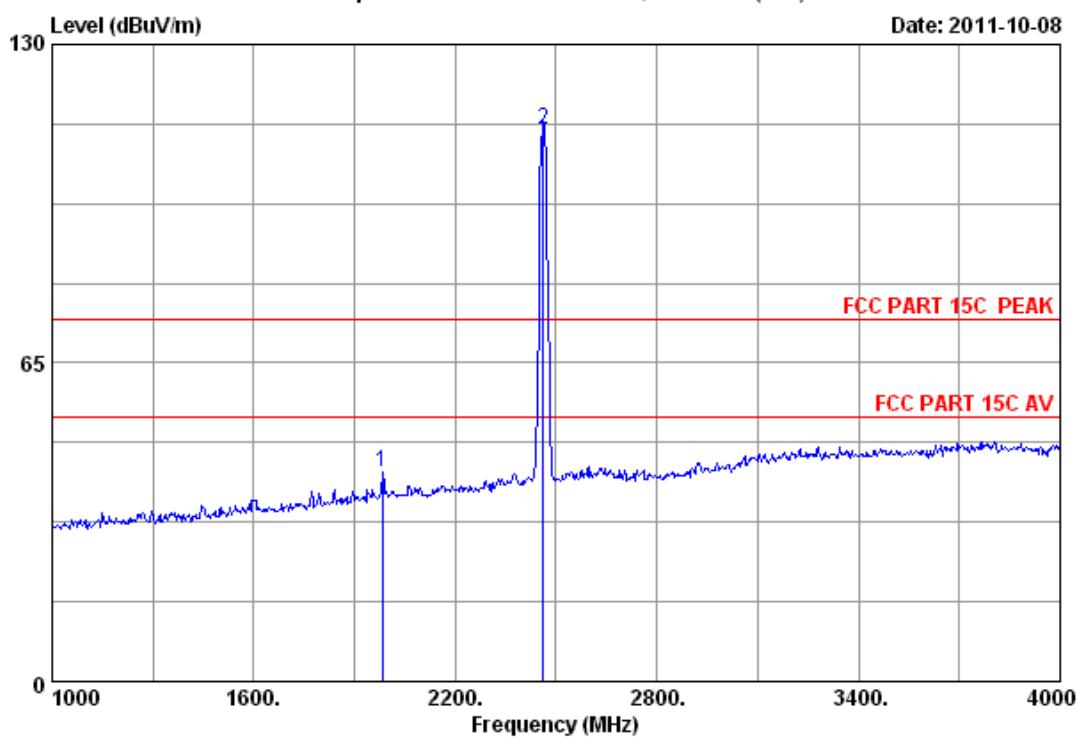
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 14 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1984.000	29.11	7.87	36.06	41.98	42.90	74.00	31.10 Peak
2	2462.000	29.48	8.82	36.02	110.23	112.51	74.00	-38.51 Peak

Remarks:

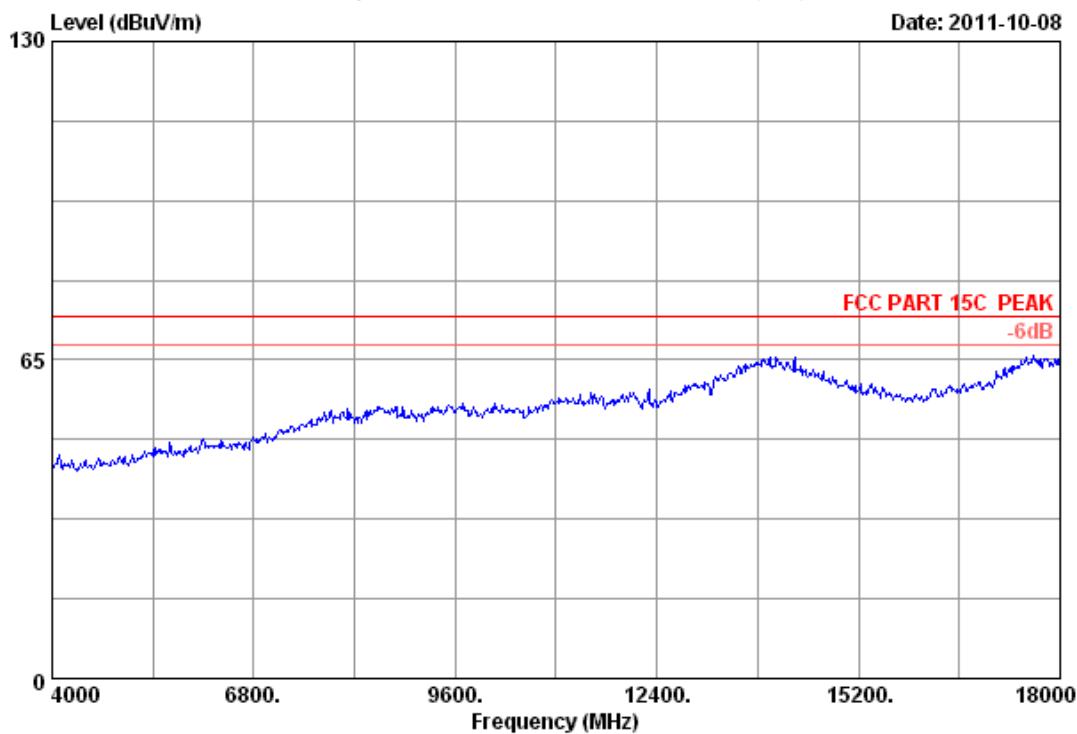
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 15 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



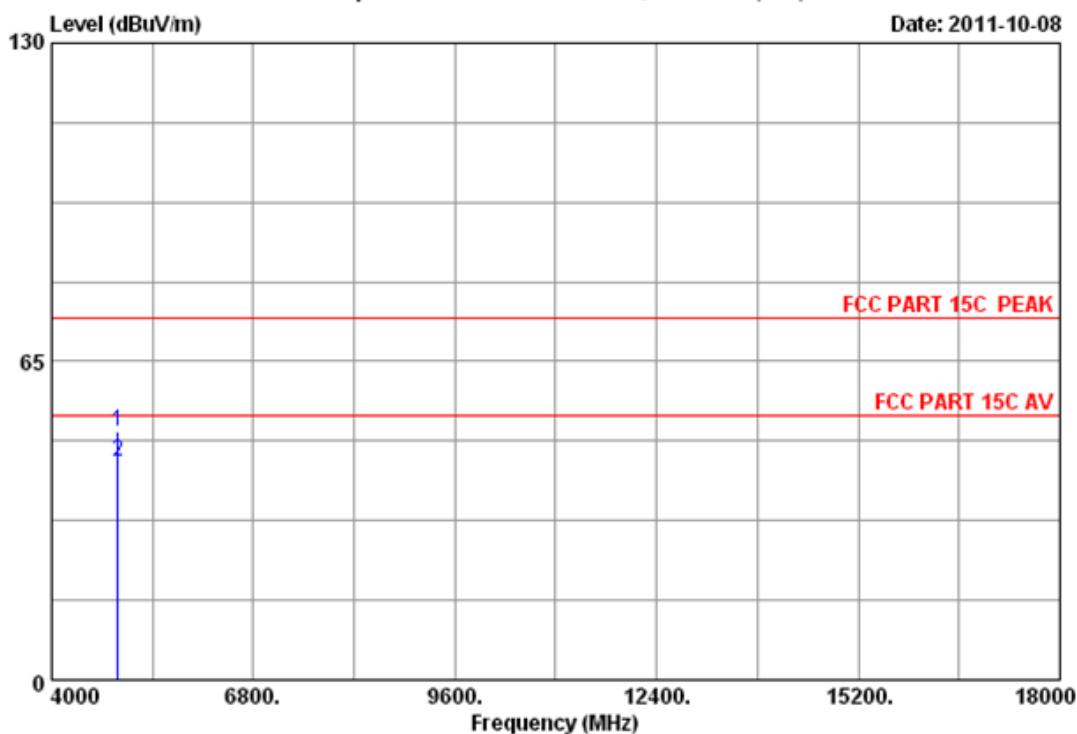
Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCe
:

FCC ID: W6RRNX-N150PCE

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Data: 16 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4924.000	34.49	12.50	35.34	39.14	50.79	74.00	23.21	Peak
2 4924.000	34.49	12.50	35.34	33.03	44.68	54.00	9.32	Average

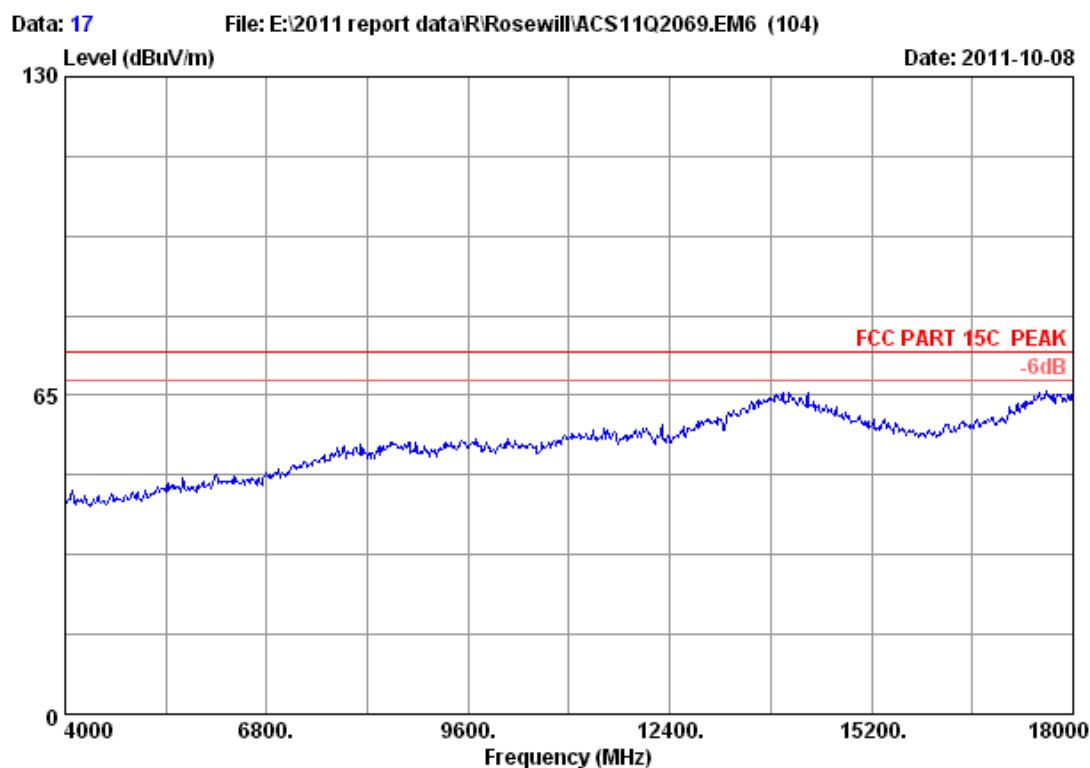
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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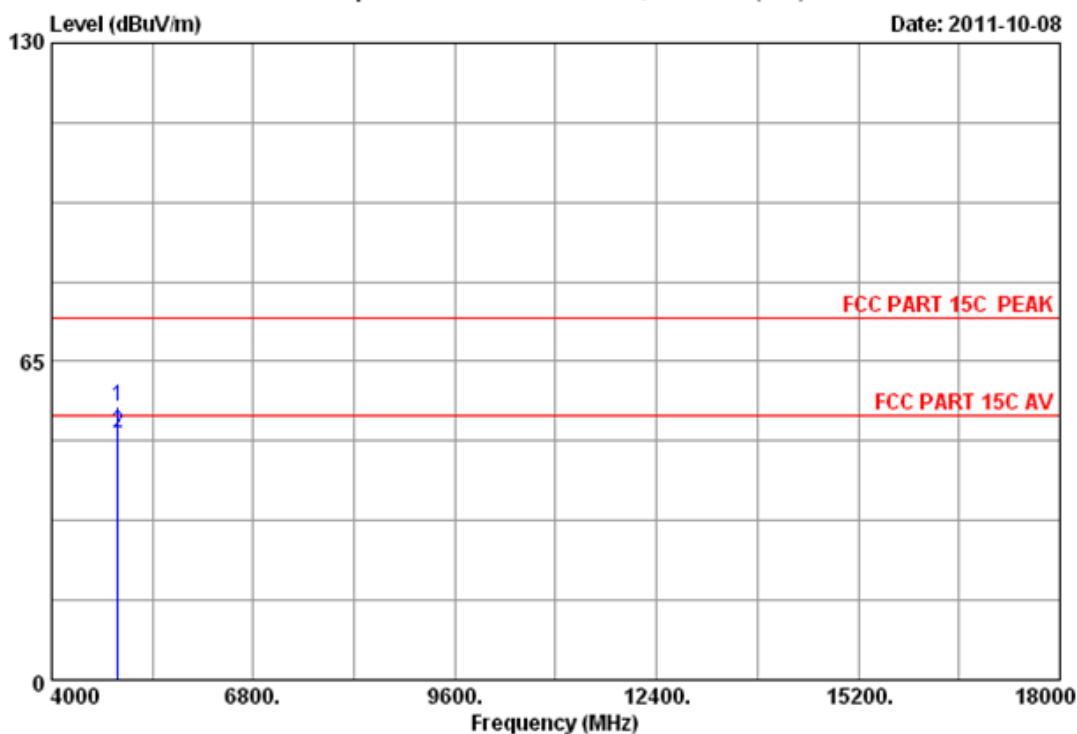
Site no. : 3m Chamber Data no. : 17
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 18 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4924.000	34.49	12.50	35.34	44.14	55.79	74.00	18.21	Peak
2 4924.000	34.49	12.50	35.34	38.75	50.40	54.00	3.60	Average

Remarks:

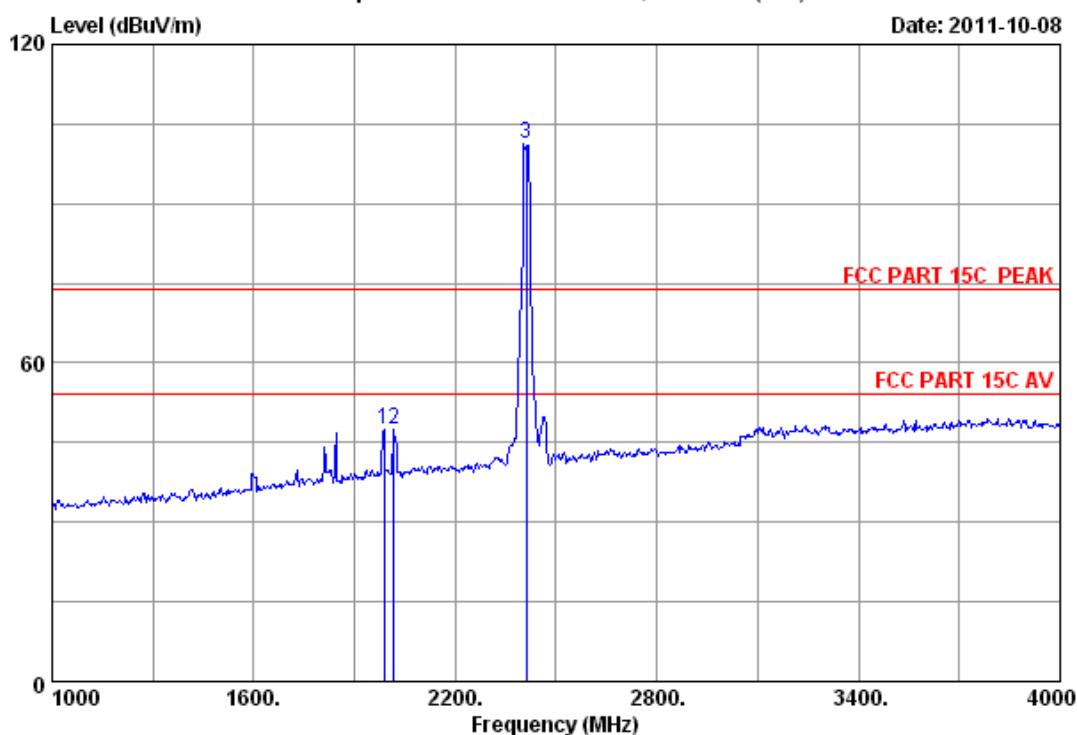
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 19 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1987.000	29.11	7.87	36.06	46.56	47.48	74.00	26.52	Peak
2 2017.000	29.21	7.93	36.12	46.34	47.36	74.00	26.64	Peak
3 2412.000	29.45	8.72	35.95	99.02	101.24	74.00	-27.24	Peak

Remarks:

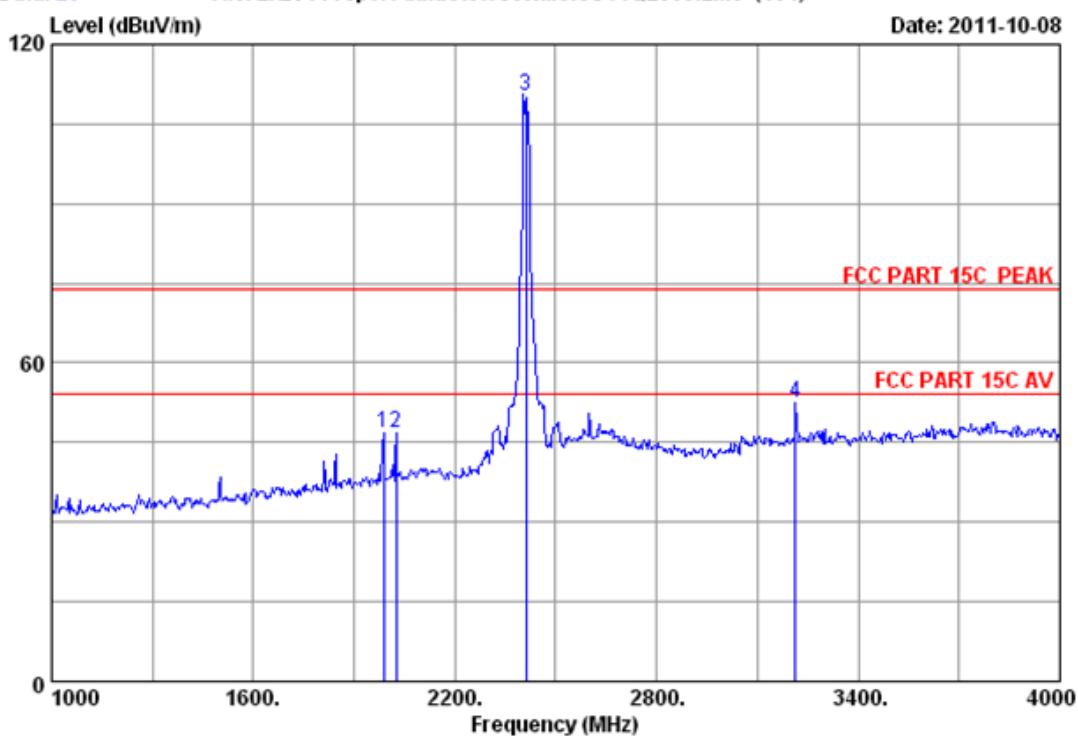
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 20 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

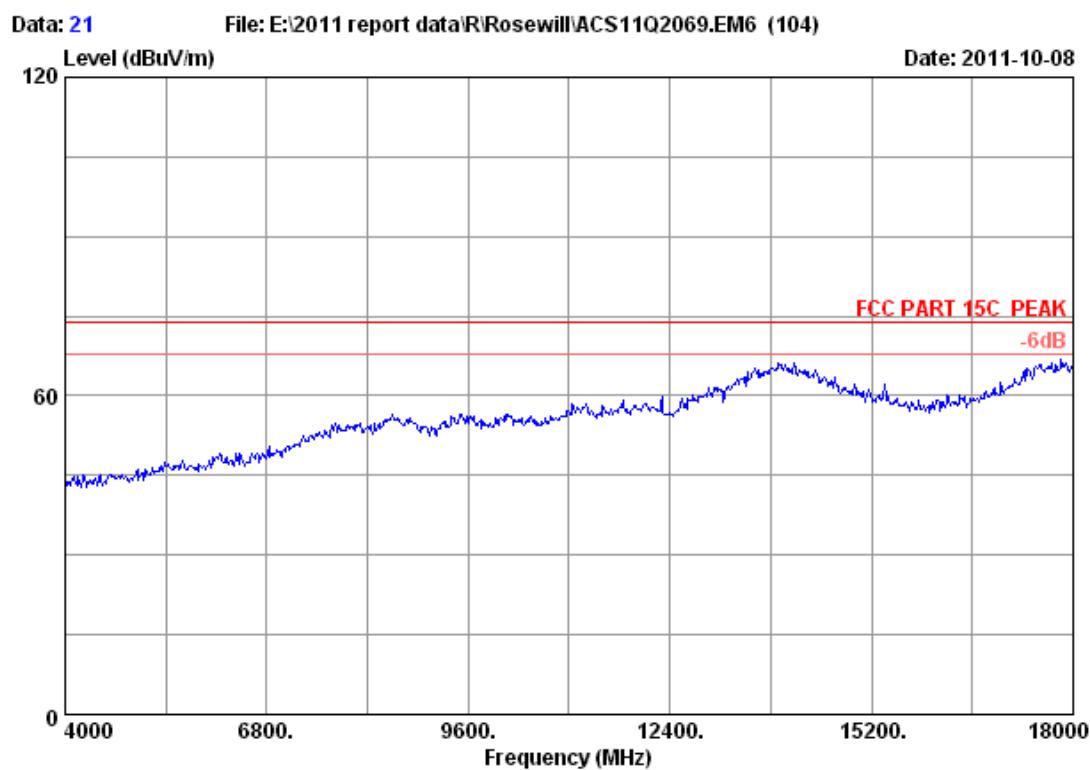


Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1987.000	29.11	7.87	36.06	45.77	46.69	74.00	27.31	Peak
2 2026.000	29.21	7.97	36.12	45.57	46.63	74.00	27.37	Peak
3 2412.000	29.45	8.72	35.95	107.92	110.14	74.00	-36.14	Peak
4 3214.000	32.54	10.21	35.86	45.57	52.46	74.00	21.54	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



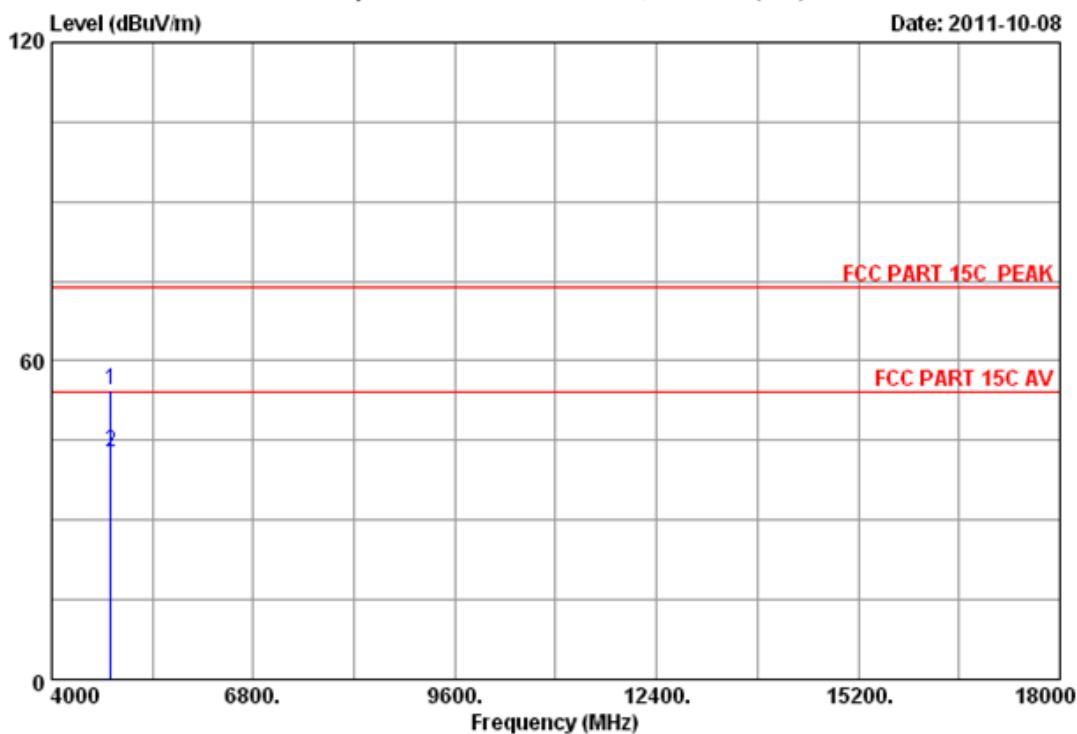
Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCE
:

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Data: 22 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4824.000	34.32	12.38	35.25	43.16	54.61	74.00	19.39	Peak
2 4824.000	34.32	12.38	35.25	31.24	42.69	54.00	11.31	Average

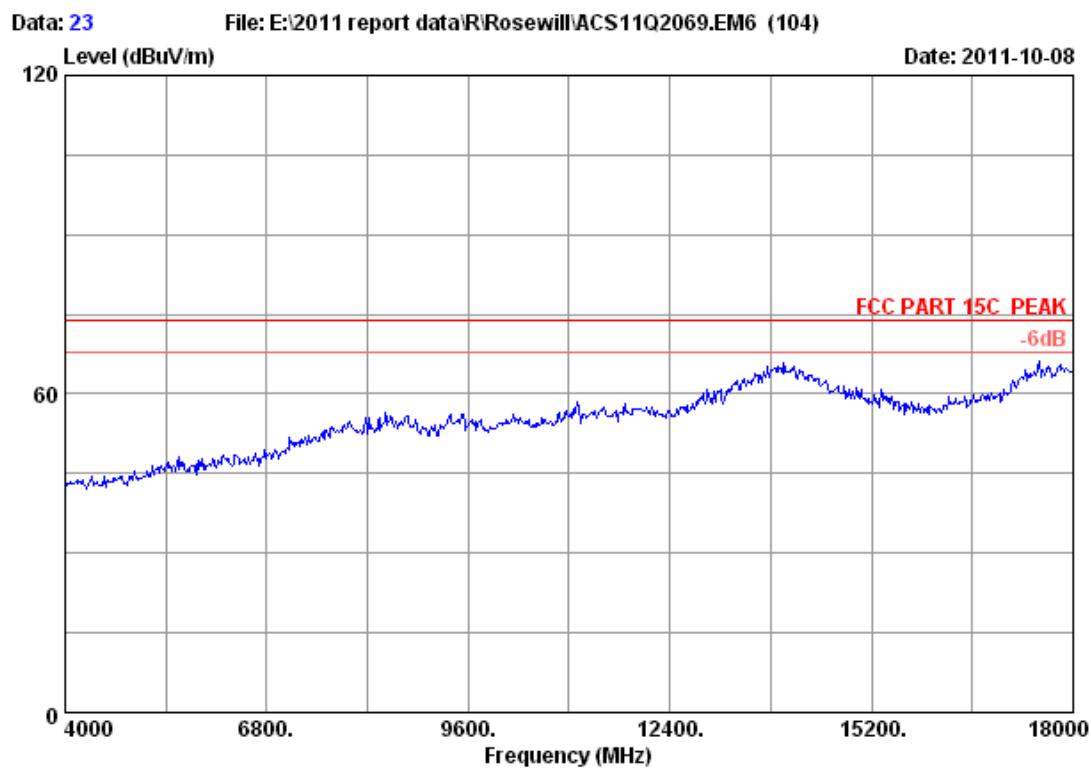
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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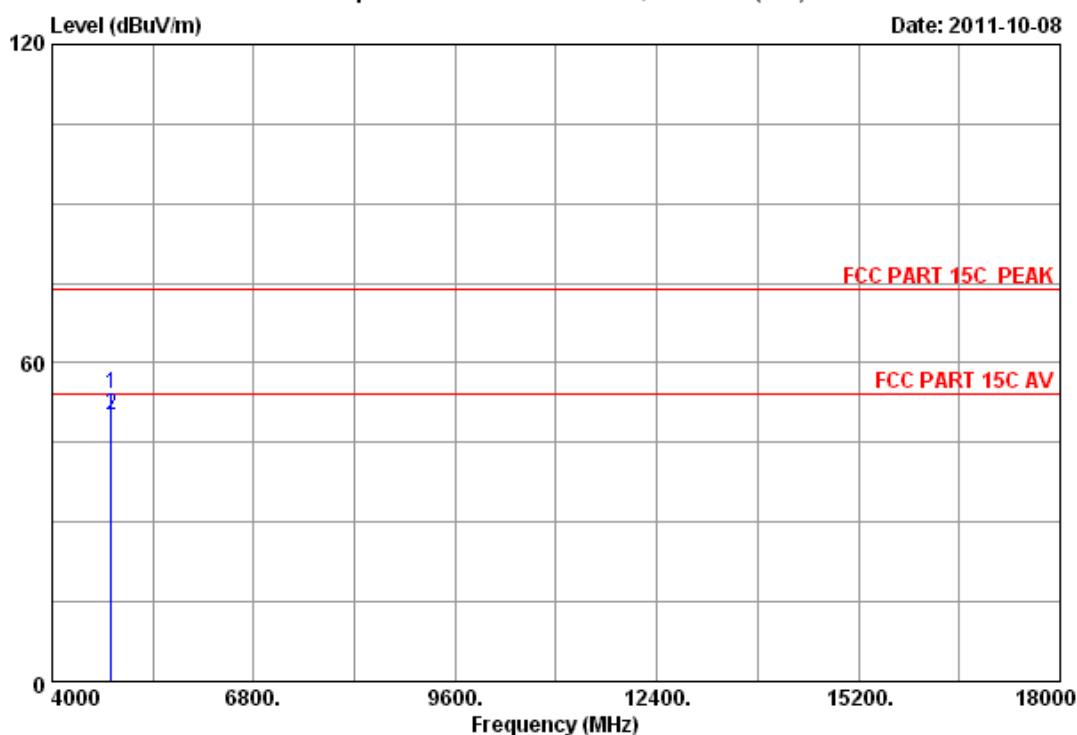
Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCe
:

FCC ID: W6RRNX-N150PCE

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Data: 24 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4824.000	34.32	12.38	35.25	42.77	54.22	74.00	19.78	Peak
2 4824.000	34.32	12.38	35.25	38.83	50.28	54.00	3.72	Average

Remarks:

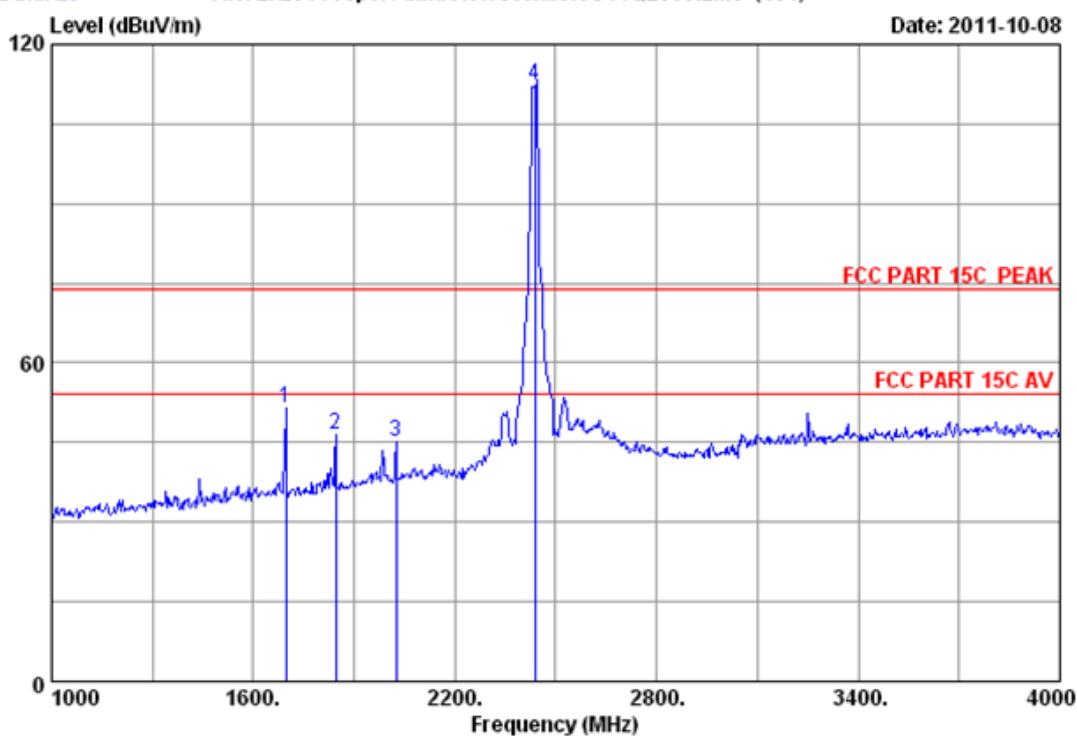
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 25 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1696.000	27.52	7.16	36.26	53.13	51.55	74.00	22.45 Peak
2	1846.000	28.36	7.51	36.23	46.98	46.62	74.00	27.38 Peak
3	2026.000	29.21	7.97	36.12	44.05	45.11	74.00	28.89 Peak
4	2437.000	29.47	8.77	36.06	110.25	112.43	74.00	-38.43 Peak

Remarks:

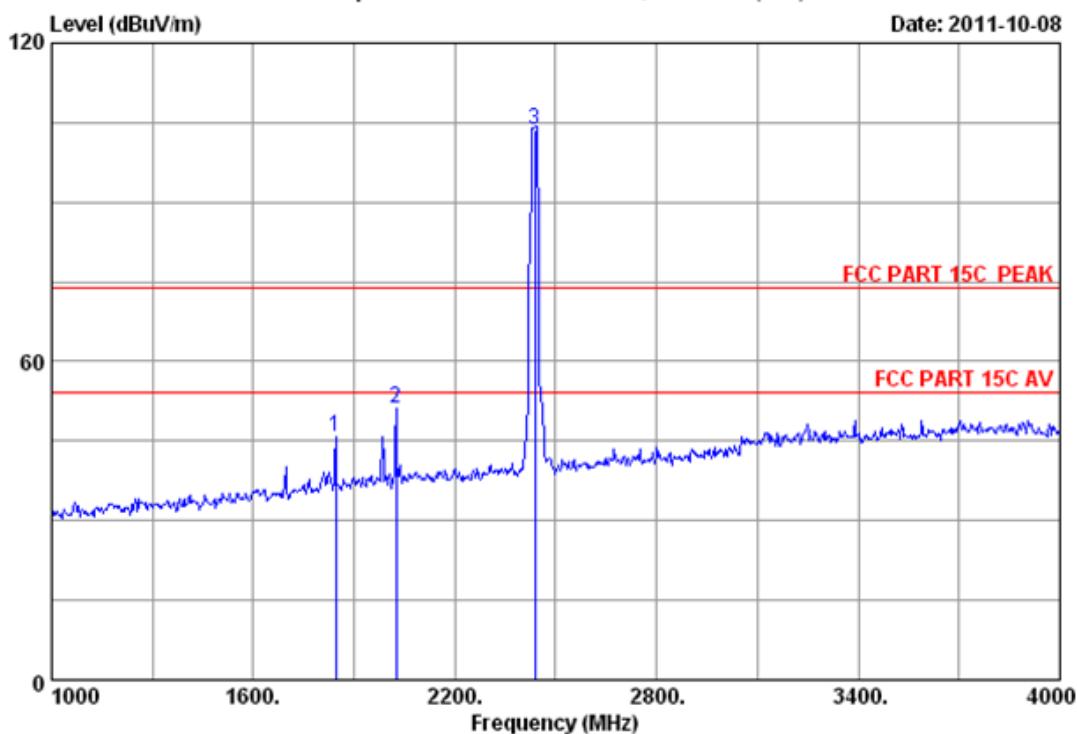
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 26 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

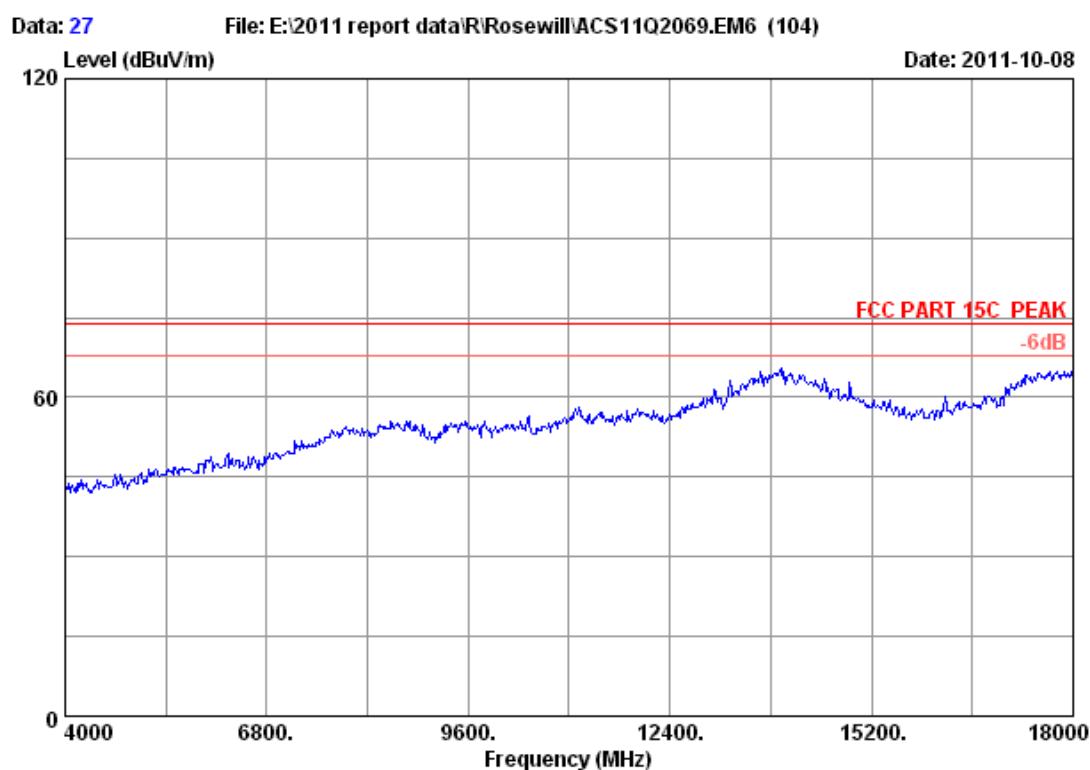


Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : RNX-N150Pce
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	1846.000	28.36	7.51	36.23	46.08	45.72	74.00	28.28 Peak
2	2026.000	29.21	7.97	36.12	50.09	51.15	74.00	22.85 Peak
3	2437.000	29.47	8.77	36.06	101.36	103.54	74.00	-29.54 Peak

Remarks:

1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



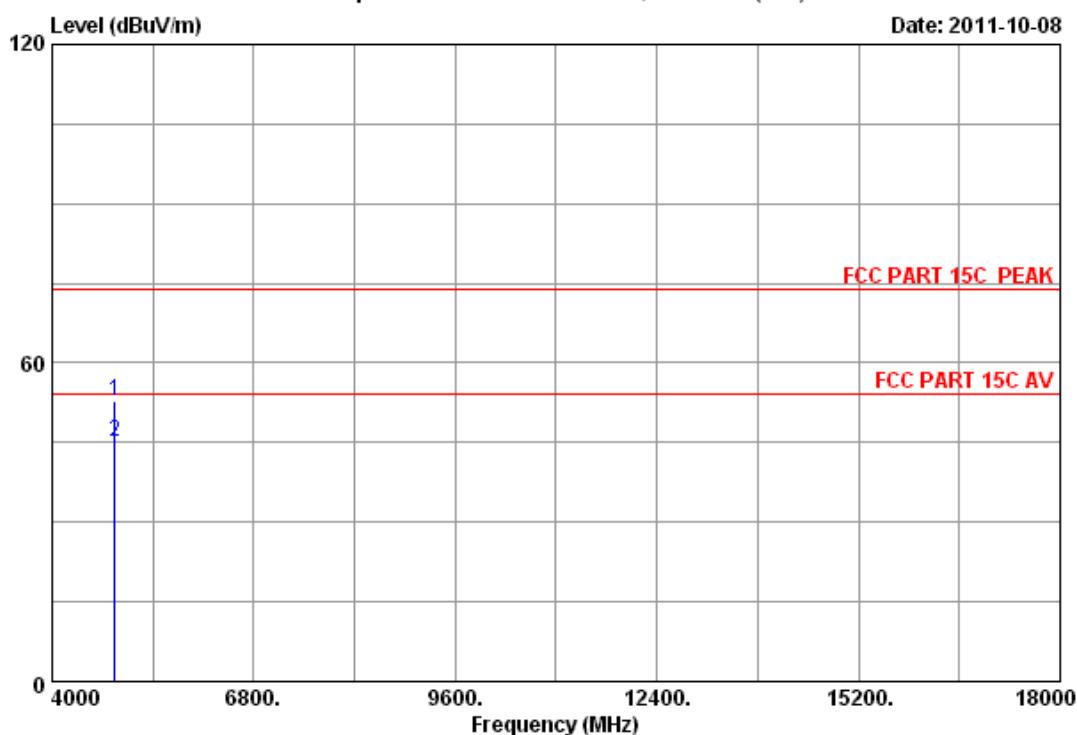
Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 28 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor	Cable loss (dB/m)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	41.34	52.83	74.00	21.17	Peak
2 4874.000	34.41	12.44	35.36	33.64	45.13	54.00	8.87	Average

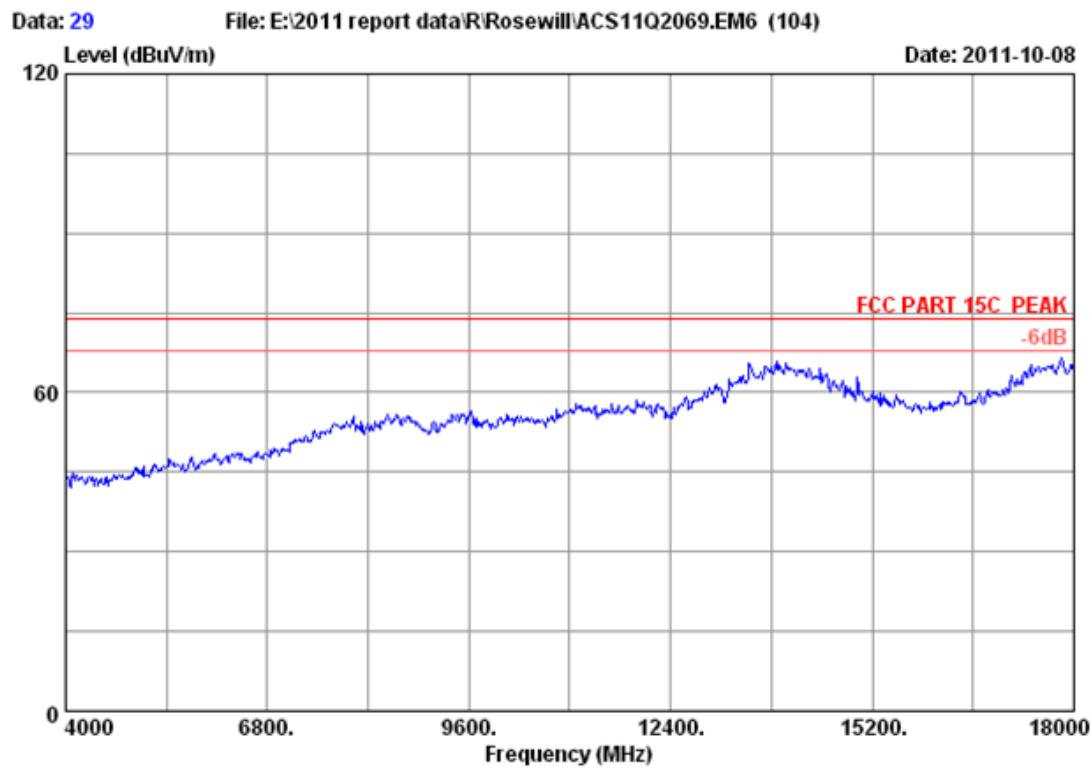
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

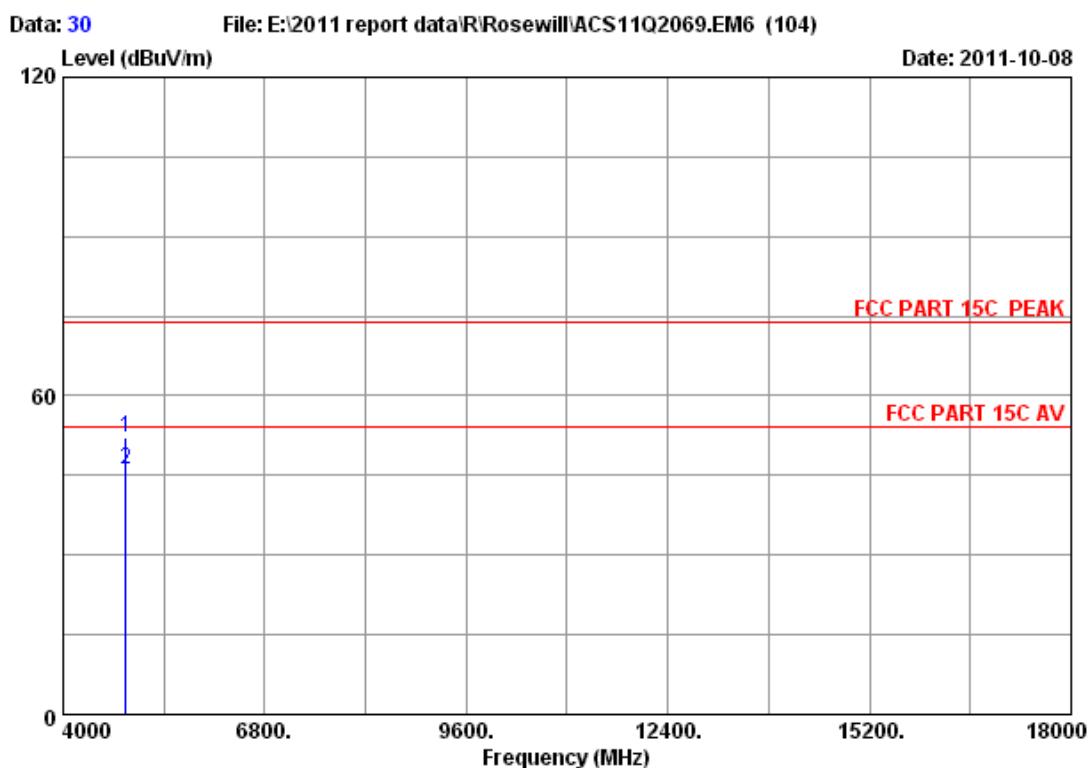
FCC ID: W6RRNX-N150PCE

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Site no.	: 3m Chamber	Data no. :	29
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Leo-Li
EUT	: 2.4GHz Wireless Lite-N PCI-E Adapter		
Power	: DC 3.3V From PC Input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz Tx		
M/N	: RNX-N150PCE		
	:		



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	40.59	52.08	74.00	21.92	Peak
2 4874.000	34.41	12.44	35.36	34.80	46.29	54.00	7.71	Average

Remarks:

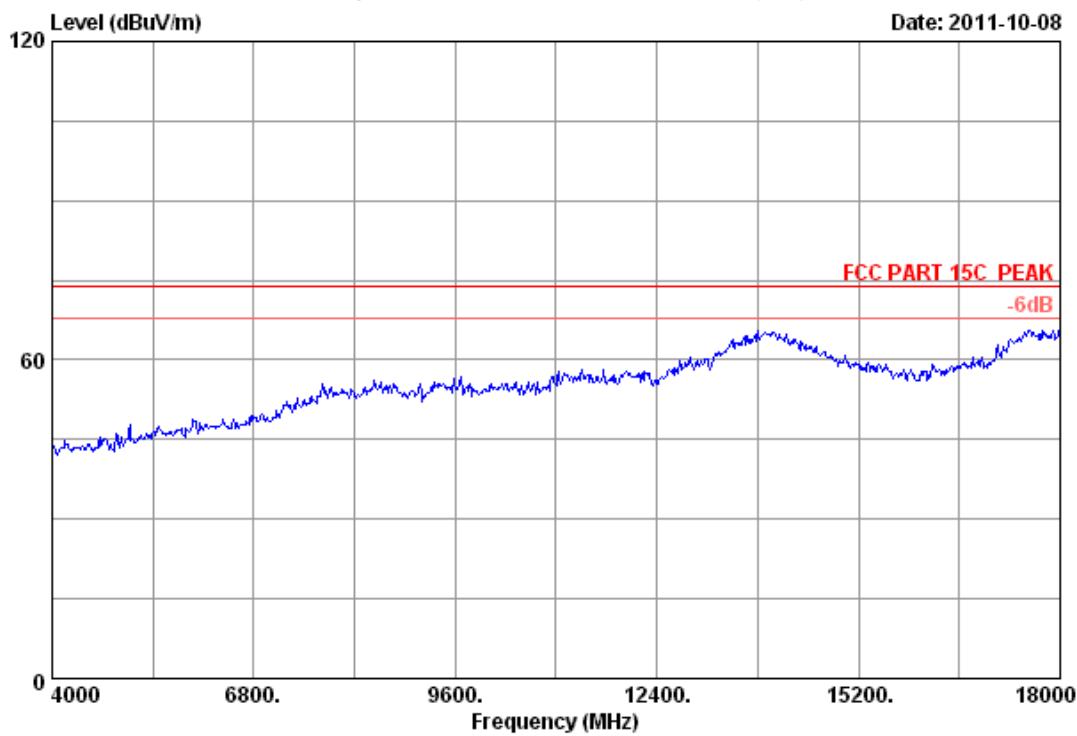
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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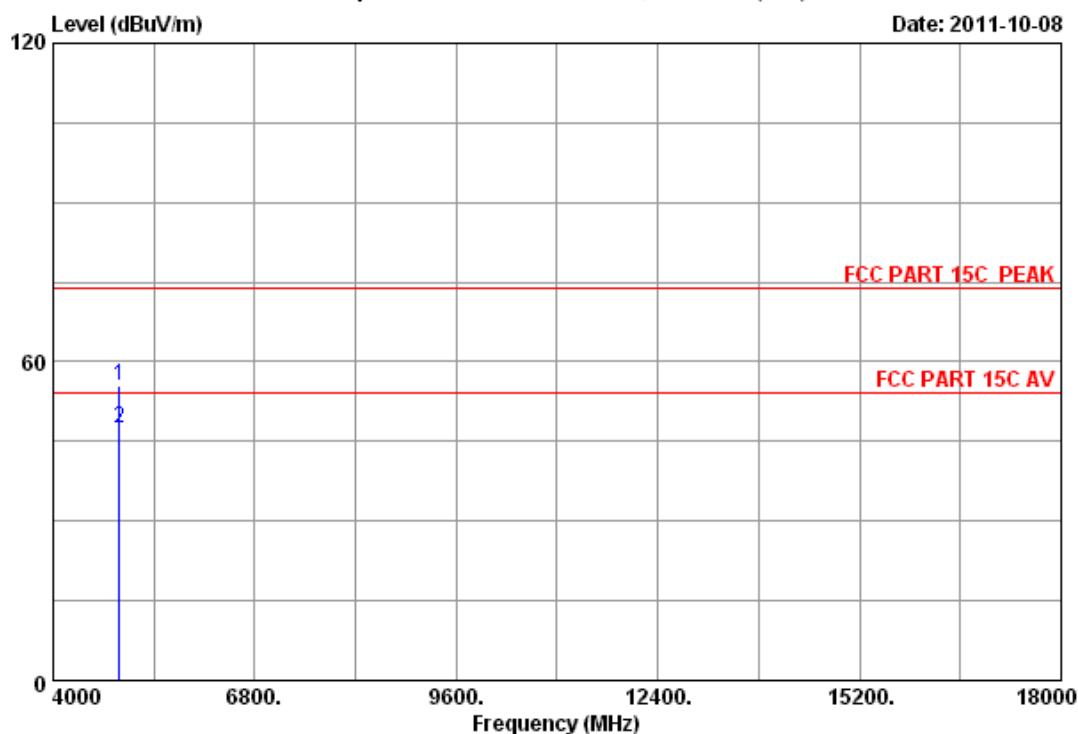
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Data: 31 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Data: 32 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4924.000	34.49	12.50	35.34	43.95	55.60	74.00	18.40	Peak
2 4924.000	34.49	12.50	35.34	35.86	47.51	54.00	6.49	Average

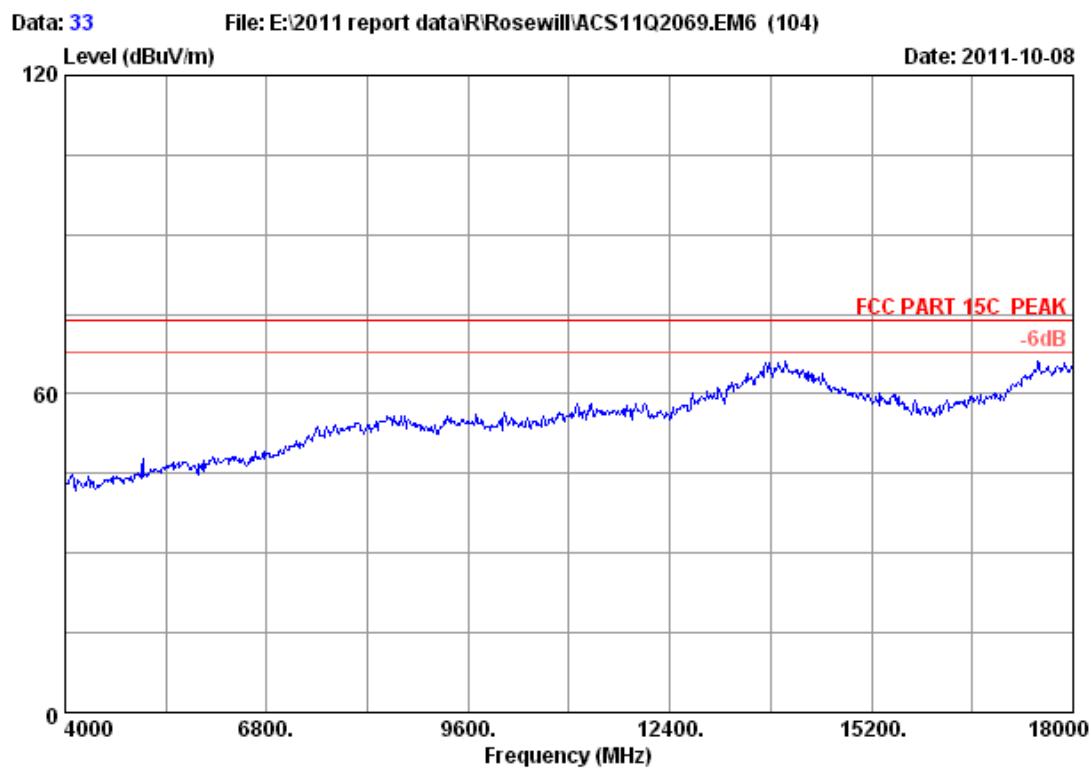
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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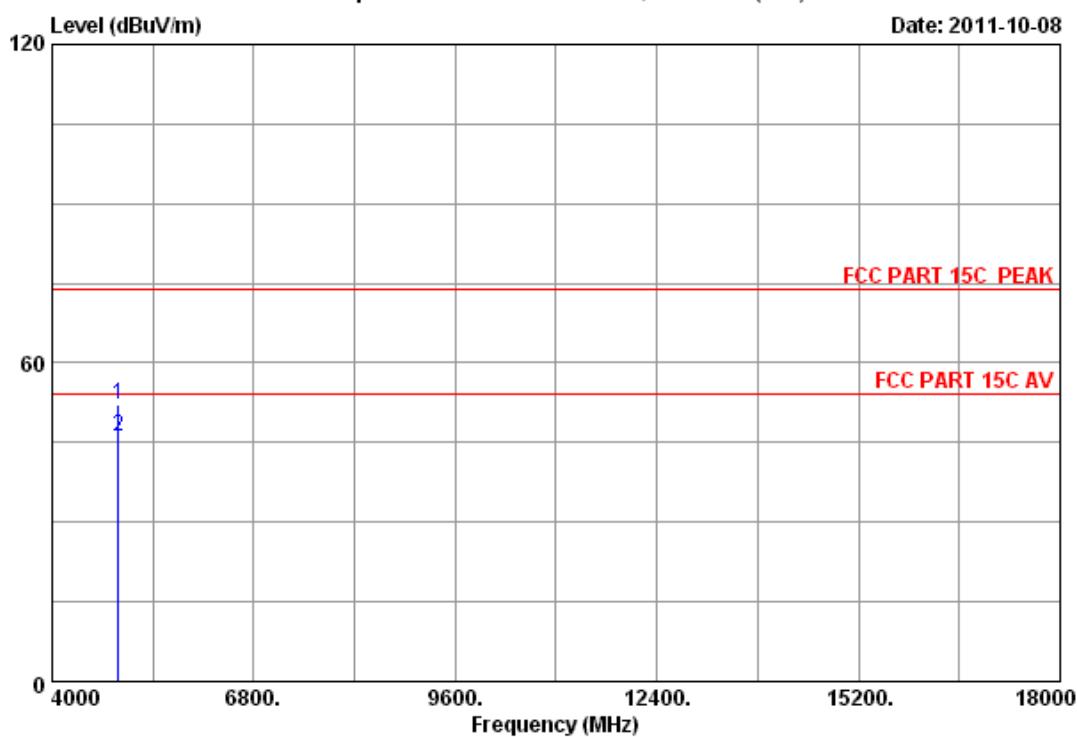
Site no. : 3m Chamber Data no. : 33
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCe
:

FCC ID: W6RRNX-N150PCE

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Data: 34 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	34.49	12.50	35.34	40.38	52.03	74.00	21.97 Peak
2	4924.000	34.49	12.50	35.34	34.39	46.04	54.00	7.96 Average

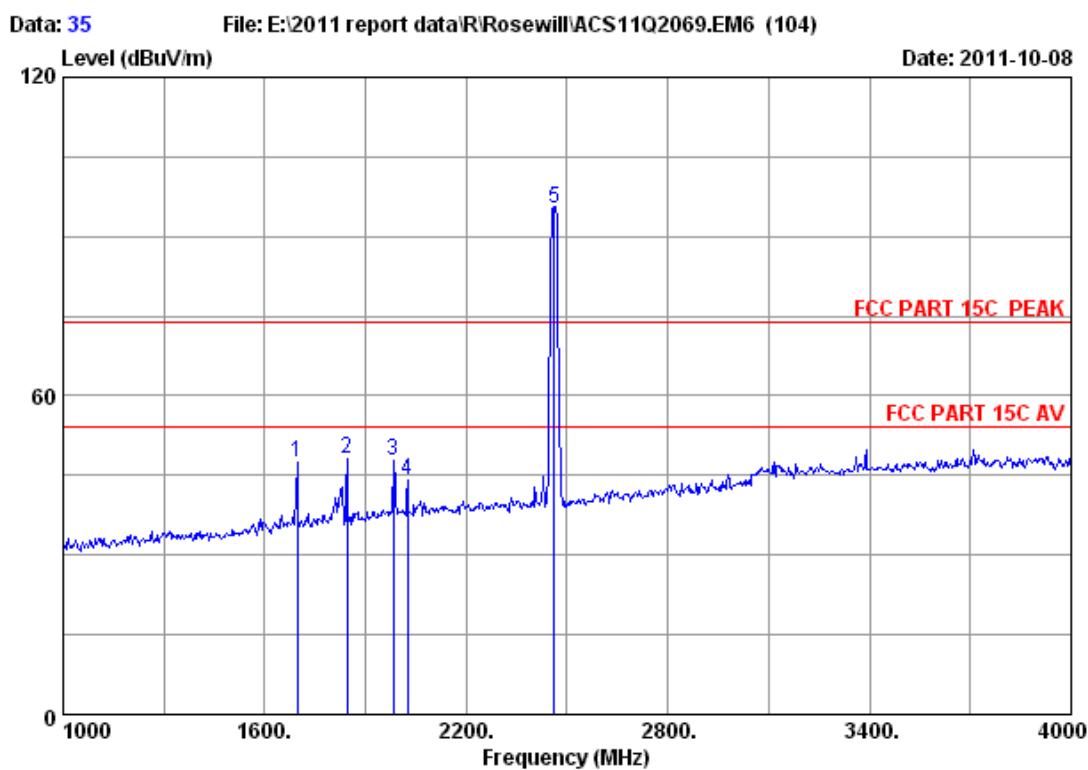
Remarks:

1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Site no. : 3m Chamber Data no. : 35
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	48.92	47.34	74.00	26.66	Peak
2 1846.000	28.36	7.51	36.23	48.58	48.22	74.00	25.78	Peak
3 1984.000	29.11	7.87	36.06	46.84	47.76	74.00	26.24	Peak
4 2026.000	29.21	7.97	36.12	43.12	44.18	74.00	29.82	Peak
5 2462.000	29.48	8.82	36.02	93.01	95.29	74.00	-21.29	Peak

Remarks:

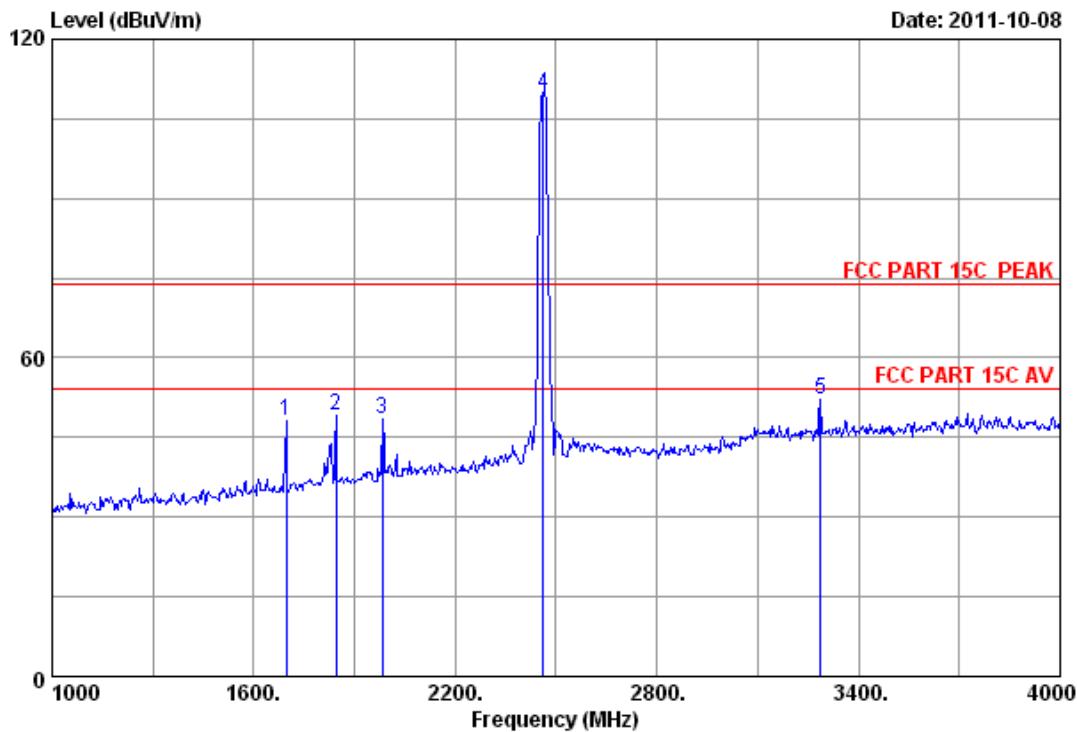
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 36 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	49.88	48.30	74.00	25.70	Peak
2 1846.000	28.36	7.51	36.23	49.40	49.04	74.00	24.96	Peak
3 1984.000	29.11	7.87	36.06	47.57	48.49	74.00	25.51	Peak
4 2462.000	29.48	8.82	36.02	107.32	109.60	74.00	-35.60	Peak
5 3286.000	32.72	10.32	35.79	44.77	52.02	74.00	21.98	Peak

Remarks:

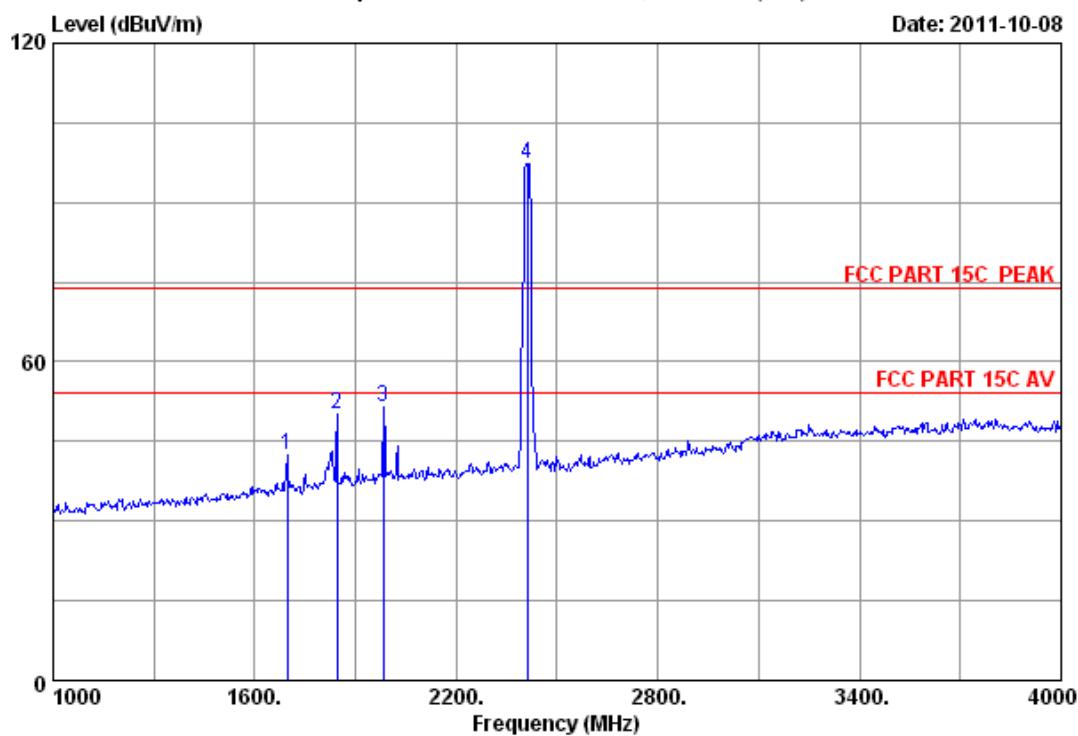
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 37 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	44.14	42.56	74.00	31.44	Peak
2 1846.000	28.36	7.51	36.23	50.38	50.02	74.00	23.98	Peak
3 1984.000	29.11	7.87	36.06	50.55	51.47	74.00	22.53	Peak
4 2412.000	29.45	8.72	35.95	94.93	97.15	74.00	-23.15	Peak

Remarks:

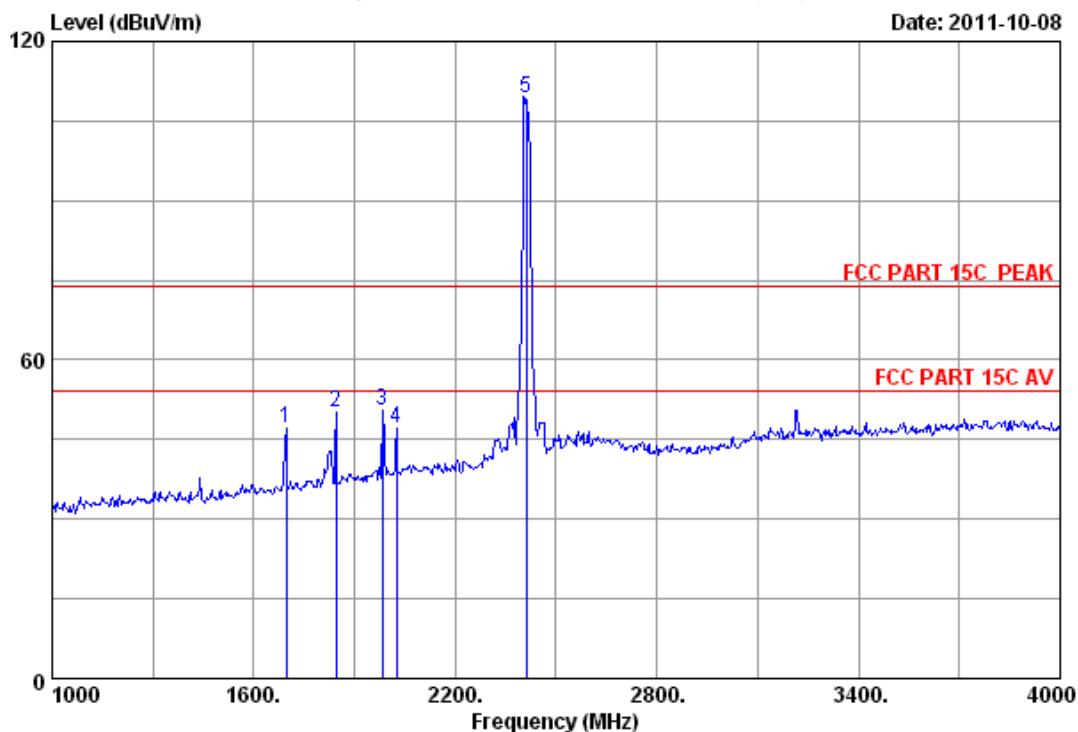
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 38 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	48.63	47.05	74.00	26.95	Peak
2 1846.000	28.36	7.51	36.23	50.62	50.26	74.00	23.74	Peak
3 1984.000	29.11	7.87	36.06	49.53	50.45	74.00	23.55	Peak
4 2026.000	29.21	7.97	36.12	45.96	47.02	74.00	26.98	Peak
5 2412.000	29.45	8.72	35.95	107.12	109.34	74.00	-35.34	Peak

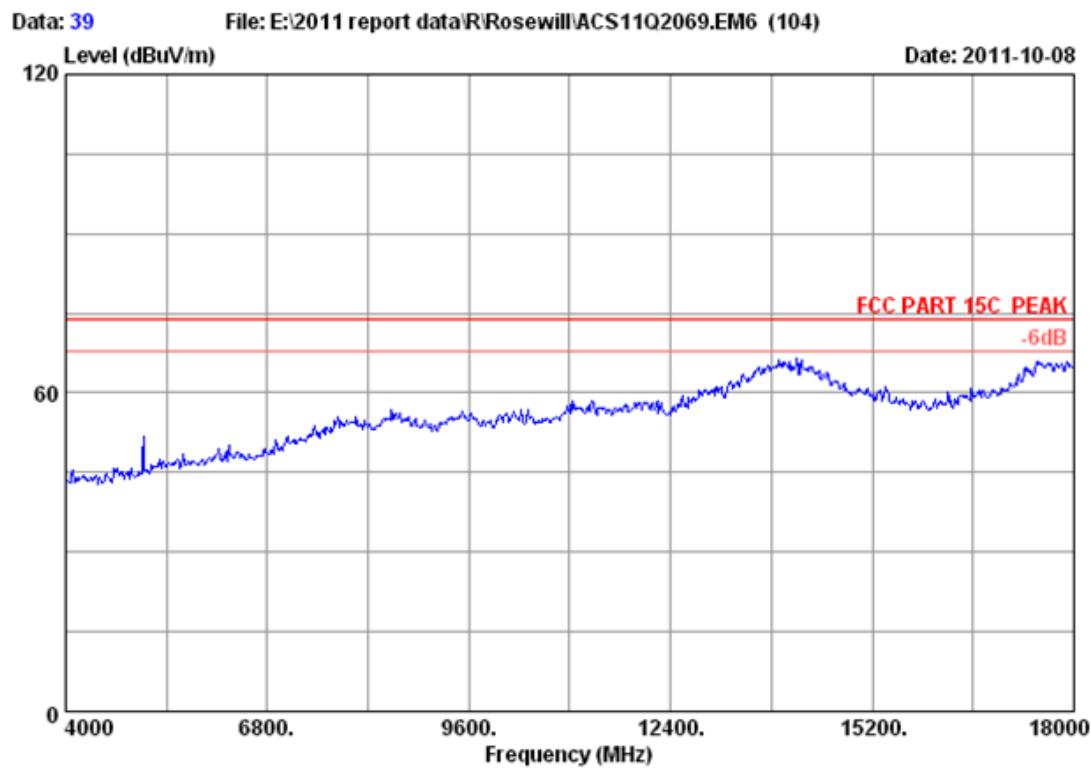
Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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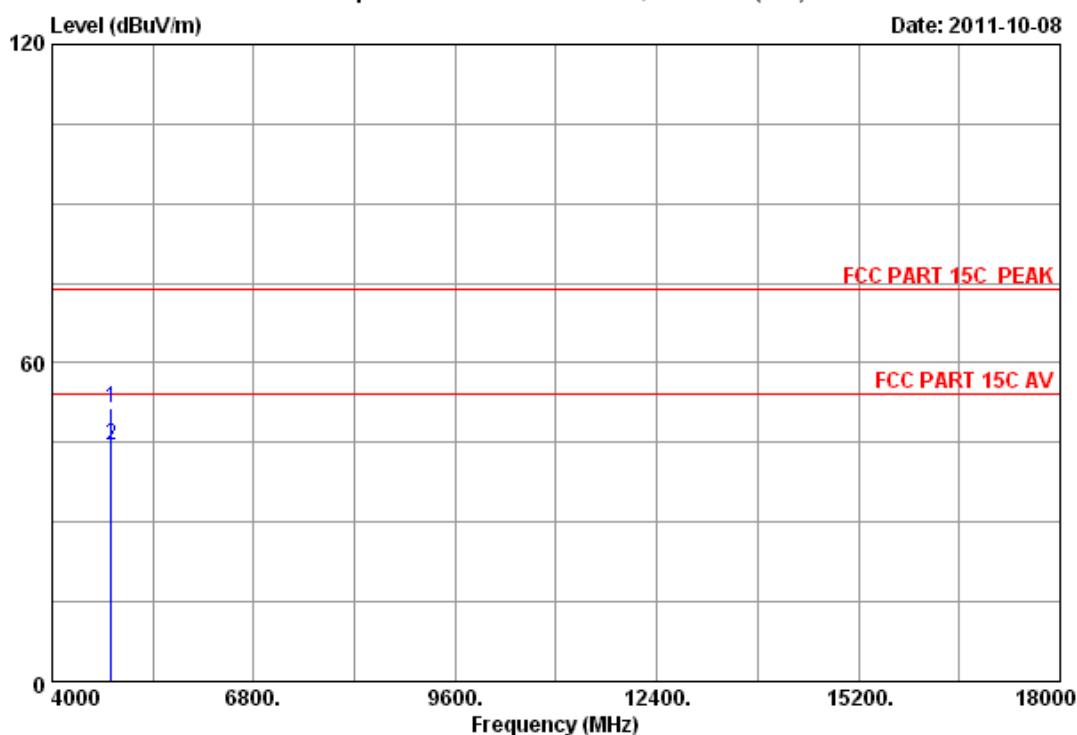
Site no. : 3m Chamber Data no. : 39
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 40 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 40
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4824.000	34.32	12.38	35.25	39.94	51.39	74.00	22.61	Peak
2 4824.000	34.32	12.38	35.25	33.09	44.54	54.00	9.46	Average

Remarks:

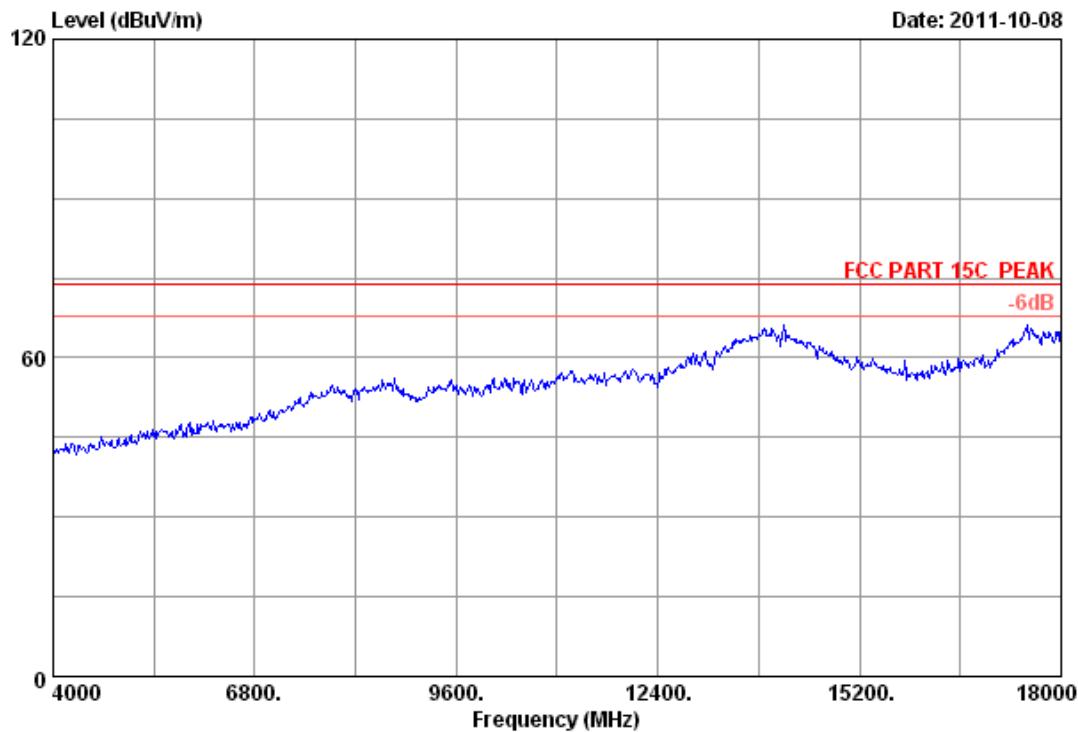
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 41 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



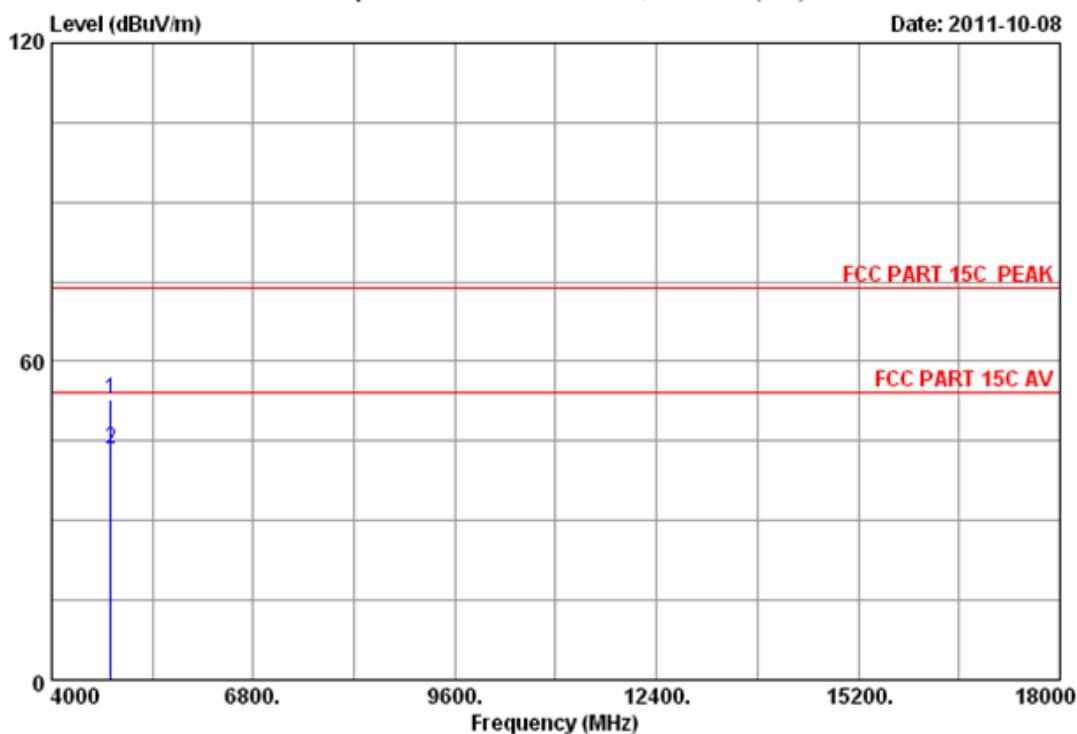
Site no.	:	3m Chamber	Data no. :	41
Dis. / Ant.	:	3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	:	FCC PART 15C PEAK		
Env. / Ins.	:	23°C/54%	Engineer :	Leo-Li
EUT	:	2.4GHz Wireless Lite-N PCI-E Adapter		
Power	:	DC 3.3V From PC Input AC 120V/60Hz		
Test mode	:	IEEE802.11nHT20 CH1 2412MHz Tx		
M/N	:	RNX-N150PCE		
	:			

FCC ID: W6RRNX-N150PCE

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Data: 42 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH1 2412MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4824.000	34.32	12.38	35.25	41.36	52.81	74.00	21.19	Peak
2 4824.000	34.32	12.38	35.25	31.91	43.36	54.00	10.64	Average

Remarks:

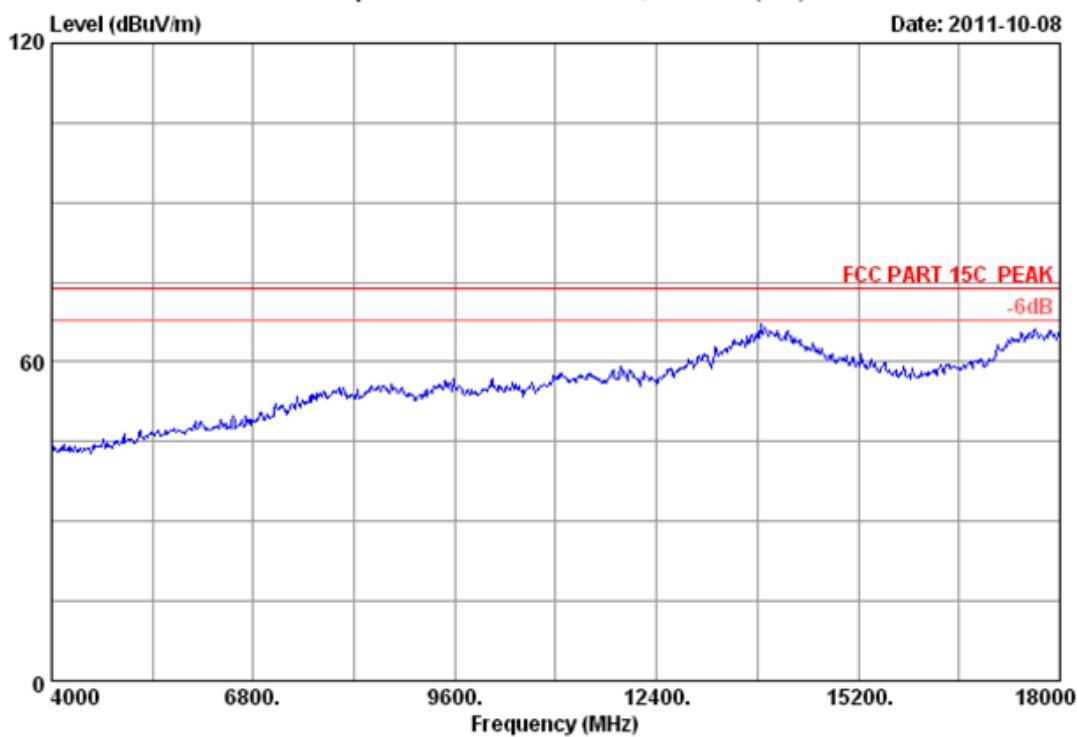
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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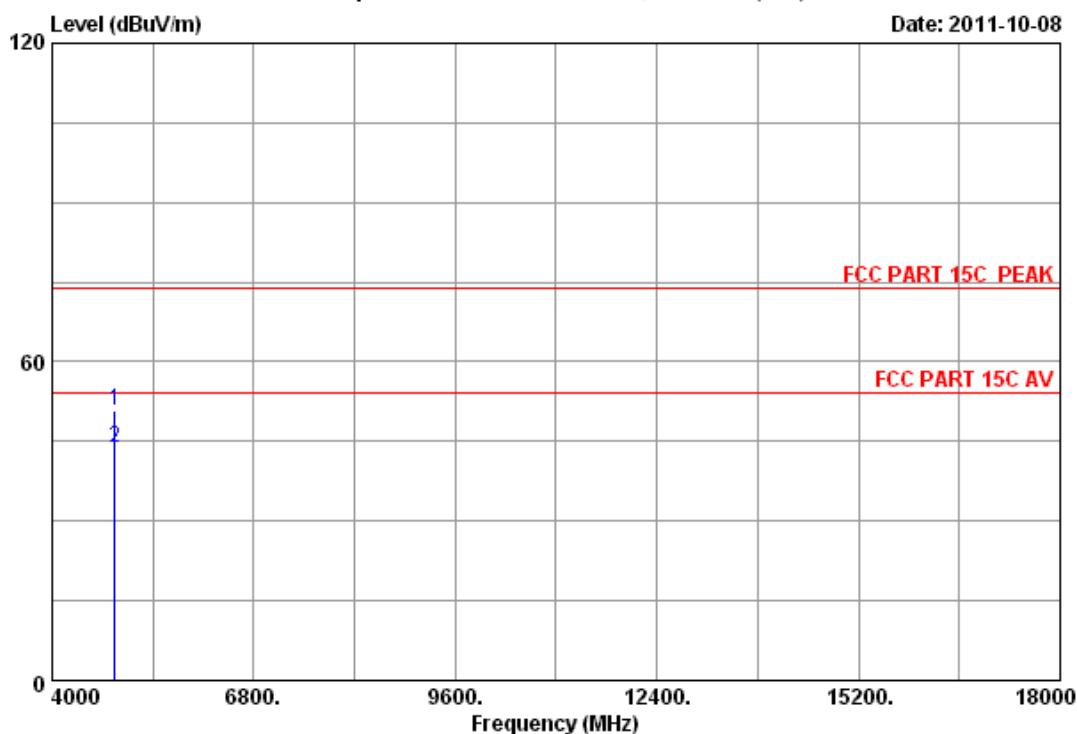
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Data: 43 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Data: 44 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	39.36	50.85	74.00	23.15	Peak
2 4874.000	34.41	12.44	35.36	32.14	43.63	54.00	10.37	Average

Remarks:

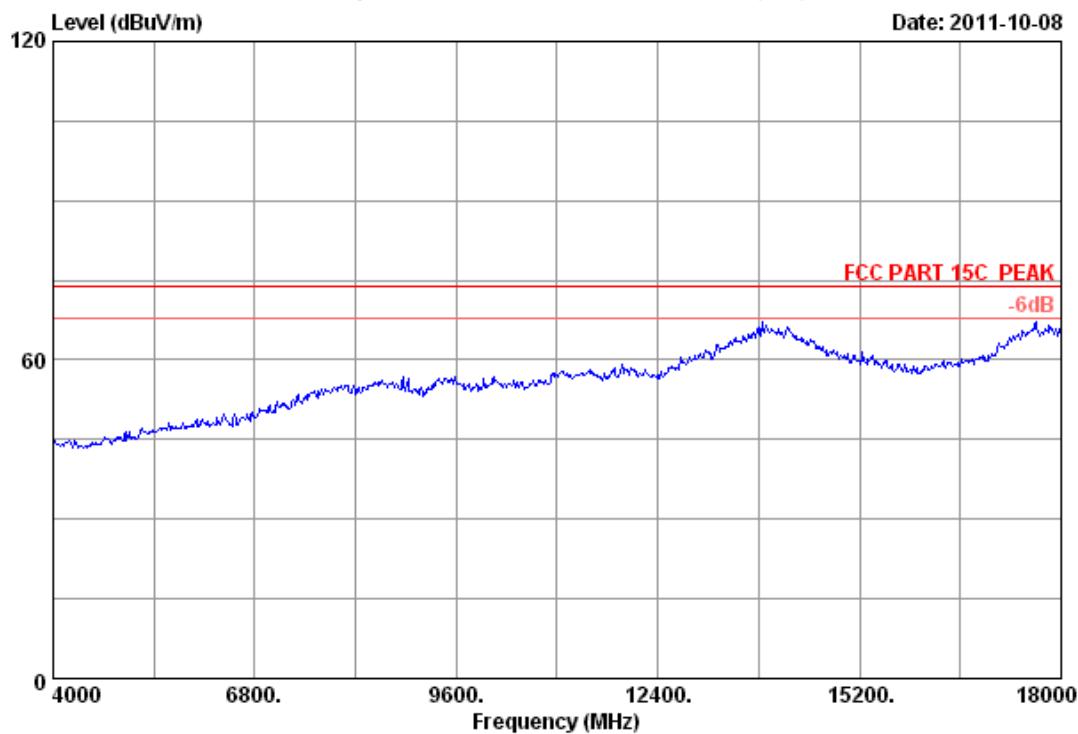
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 45 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



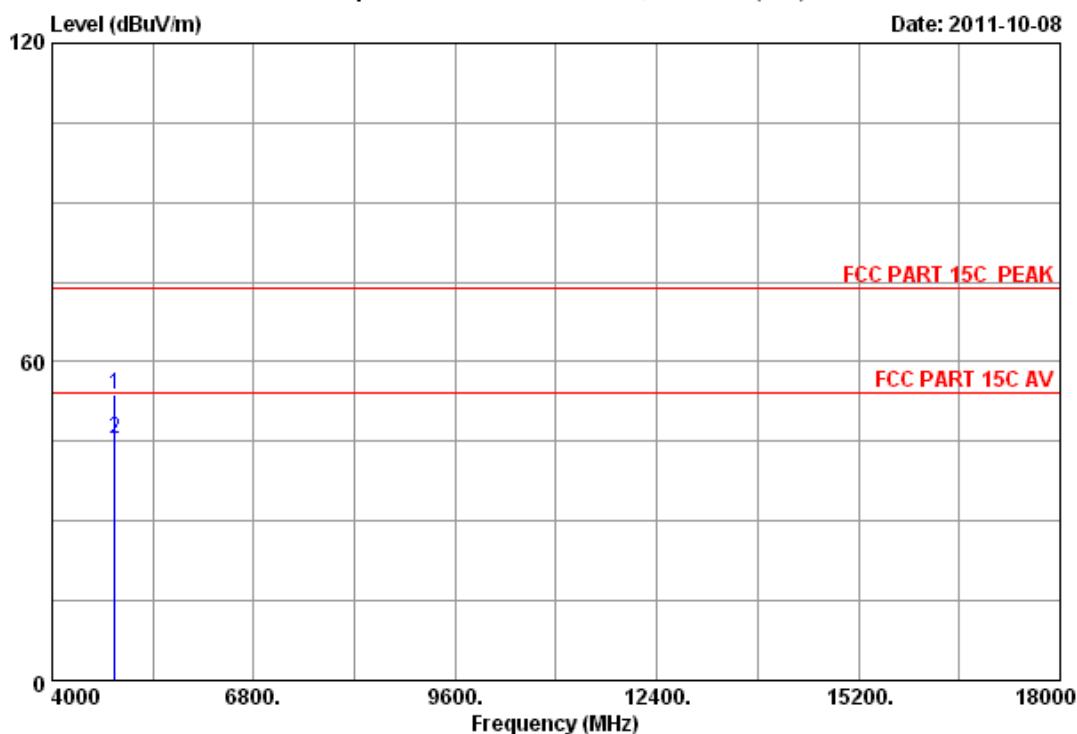
Site no.	:	3m Chamber	Data no. :	45
Dis. / Ant.	:	3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	:	FCC PART 15C PEAK		
Env. / Ins.	:	23°C/54%	Engineer :	Leo-Li
EUT	:	2.4GHz Wireless Lite-N PCI-E Adapter		
Power	:	DC 3.3V From PC Input AC 120V/60Hz		
Test mode	:	IEEE802.11nHT2O CH6 2437MHz Tx		
M/N	:	RNX-N150PCe		
	:			

FCC ID: W6RRNX-N150PCE

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Data: 46 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH6 2437MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	42.49	53.98	74.00	20.02 Peak
2	4874.000	34.41	12.44	35.36	33.94	45.43	54.00	8.57 Average

Remarks:

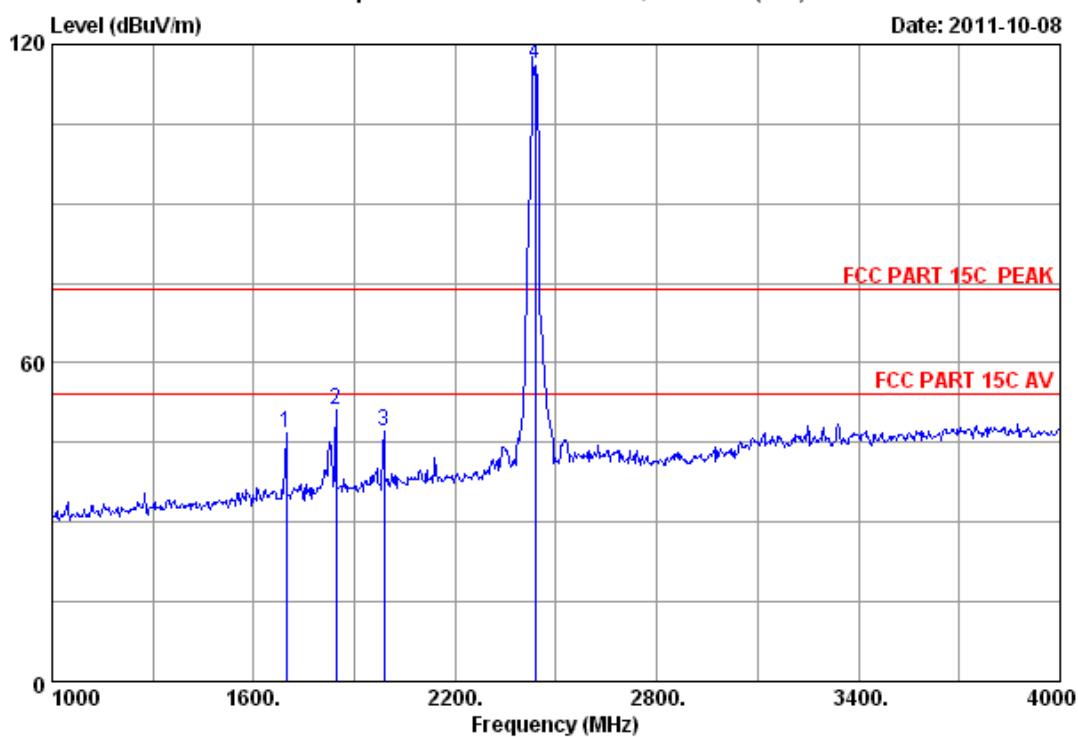
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 47 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Amp.			Emission			
		Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	48.26	46.68	74.00	27.32	Peak
2 1846.000	28.36	7.51	36.23	51.36	51.00	74.00	23.00	Peak
3 1987.000	29.11	7.87	36.06	46.13	47.05	74.00	26.95	Peak
4 2437.000	29.47	8.77	36.06	114.23	116.41	74.00	-42.41	Peak

Remarks:

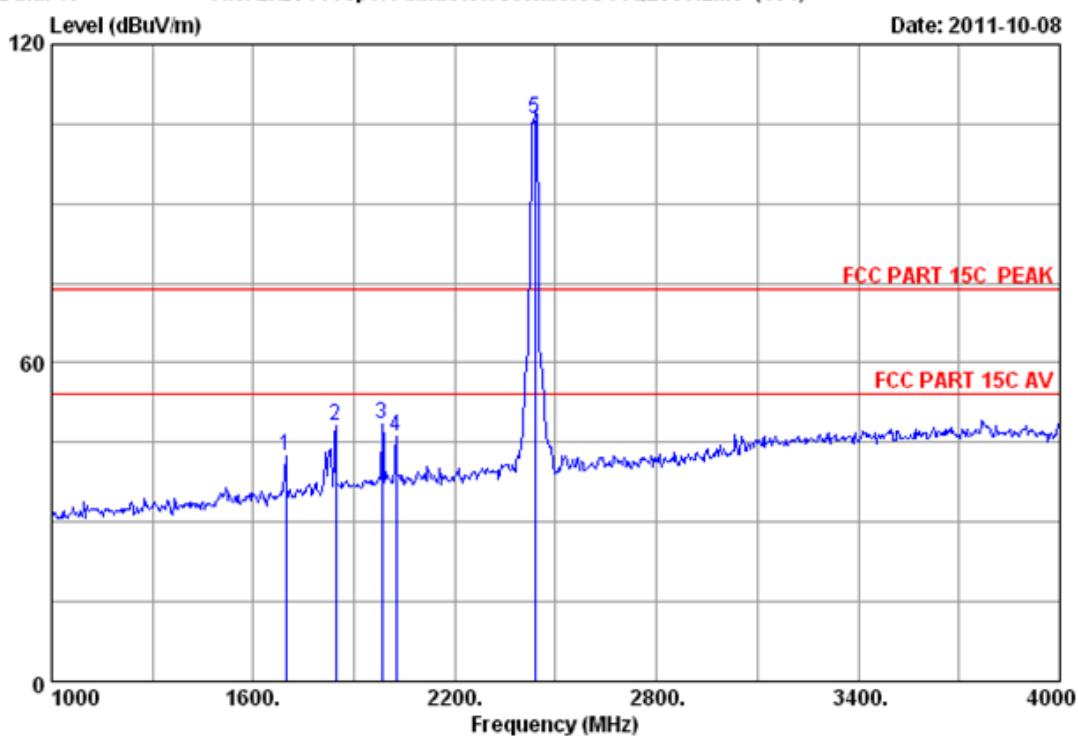
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 48 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH6 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Factor (dB/m)	Ant. loss (dB)	Cable Factor (dB)	Amp. (dB)	Emission				
					Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	44.01	42.43	74.00	31.57		Peak
2 1846.000	28.36	7.51	36.23	48.50	48.14	74.00	25.86		Peak
3 1984.000	29.11	7.87	36.06	47.52	48.44	74.00	25.56		Peak
4 2026.000	29.21	7.97	36.12	44.93	45.99	74.00	28.01		Peak
5 2437.000	29.47	8.77	36.06	103.86	106.04	74.00	-32.04		Peak

Remarks:

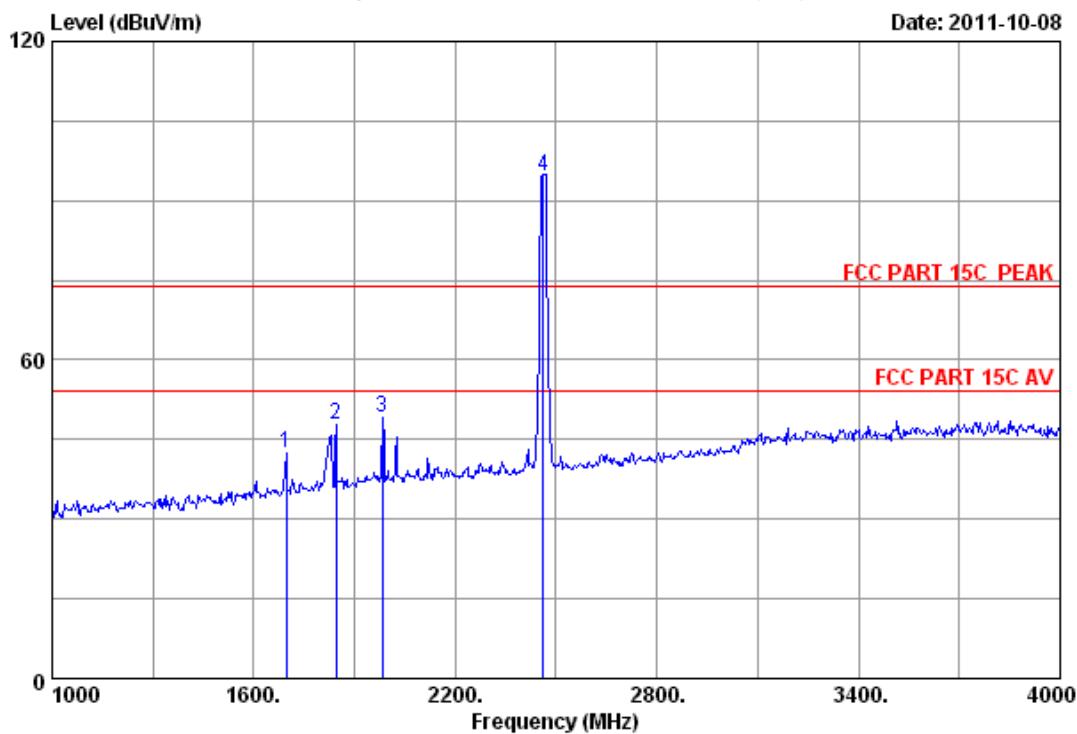
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 49 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 49
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	44.20	42.62	74.00	31.38	Peak
2 1846.000	28.36	7.51	36.23	48.20	47.84	74.00	26.16	Peak
3 1984.000	29.11	7.87	36.06	48.30	49.22	74.00	24.78	Peak
4 2462.000	29.48	8.82	36.02	92.30	94.58	74.00	-20.58	Peak

Remarks:

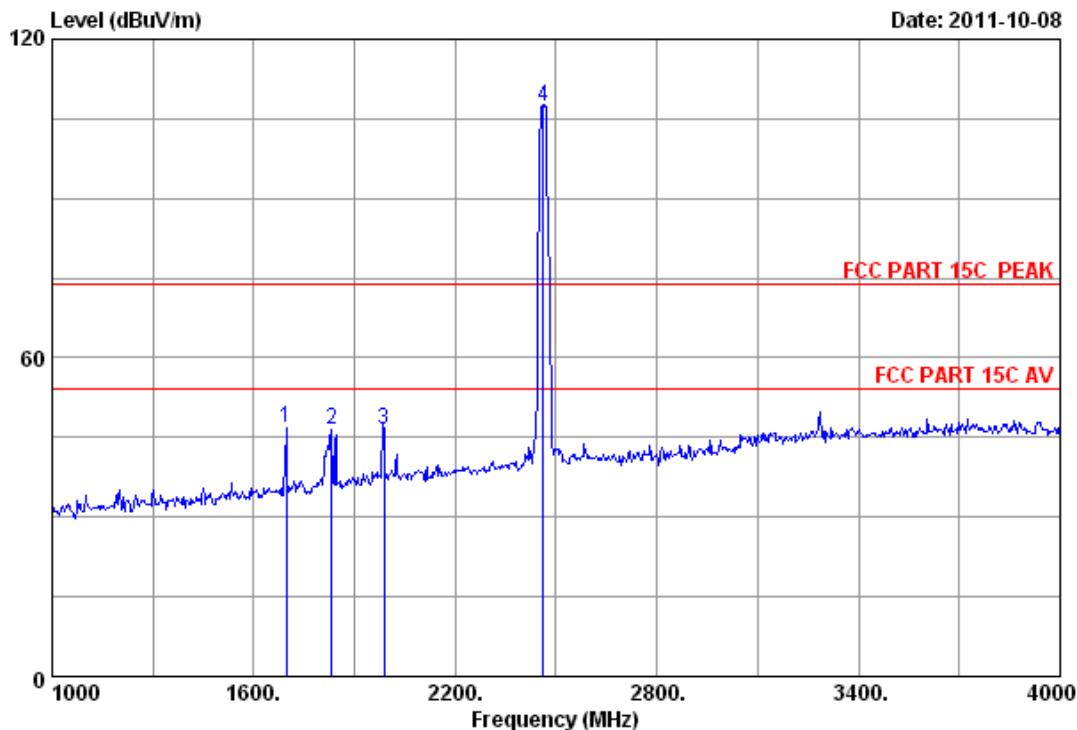
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 50 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	48.37	46.79	74.00	27.21	Peak
2 1831.000	28.27	7.51	36.28	47.04	46.54	74.00	27.46	Peak
3 1987.000	29.11	7.87	36.06	45.40	46.32	74.00	27.68	Peak
4 2462.000	29.48	8.82	36.02	104.85	107.13	74.00	-33.13	Peak

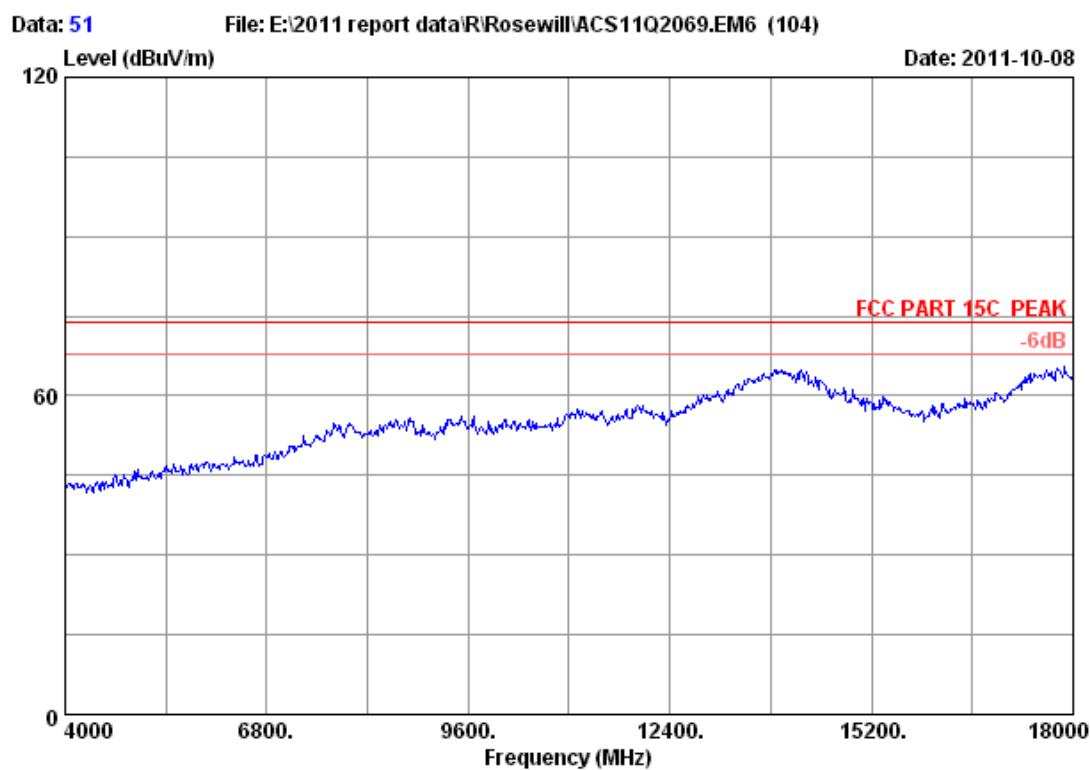
Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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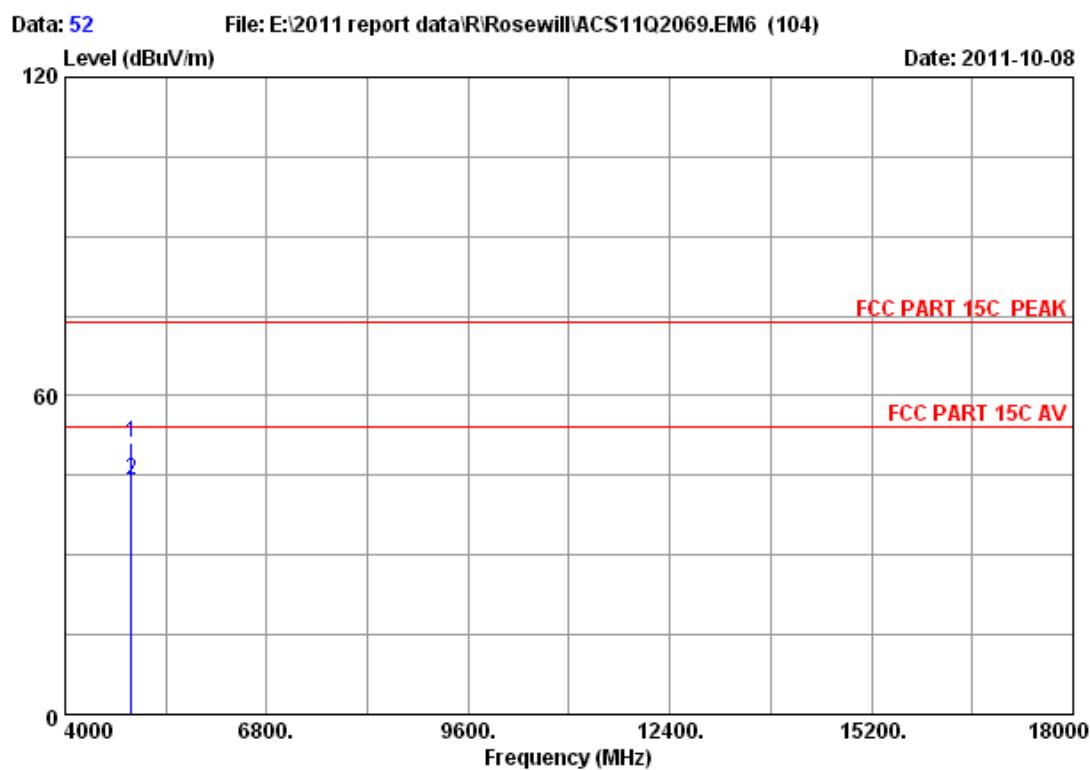


Site no. : 3m Chamber Data no. : 51
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

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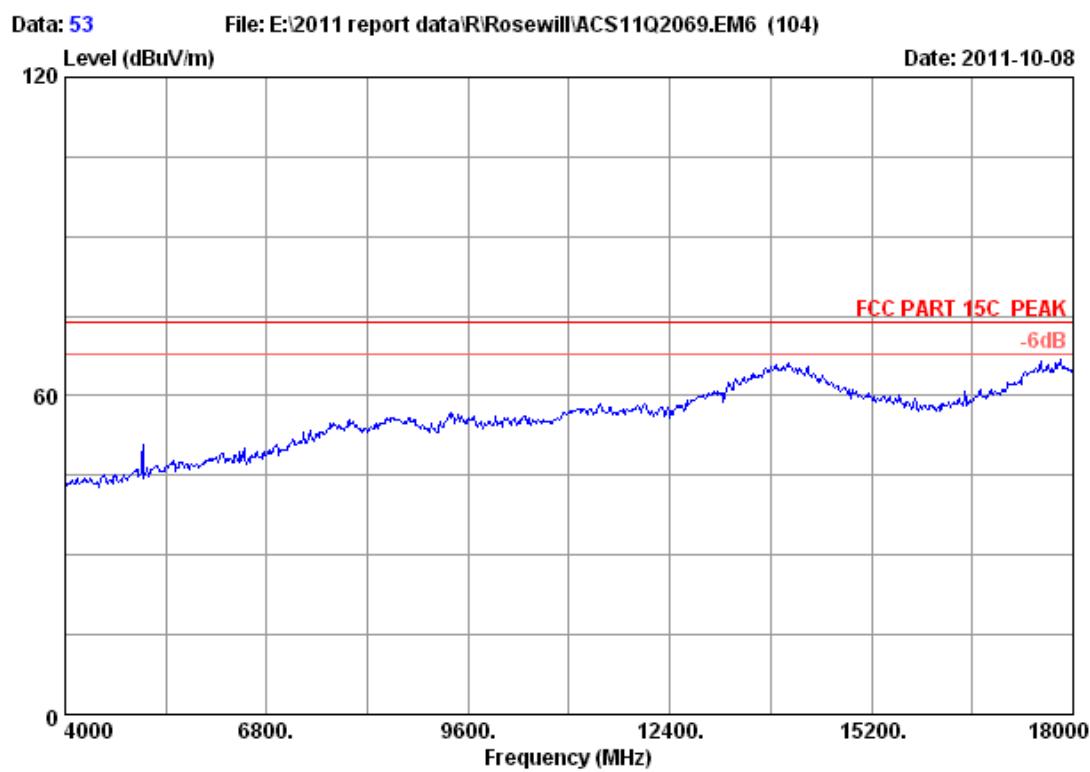


Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4924.000	34.49	12.50	35.34	39.45	51.10	74.00	22.90	Peak
2 4924.000	34.49	12.50	35.34	32.58	44.23	54.00	9.77	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



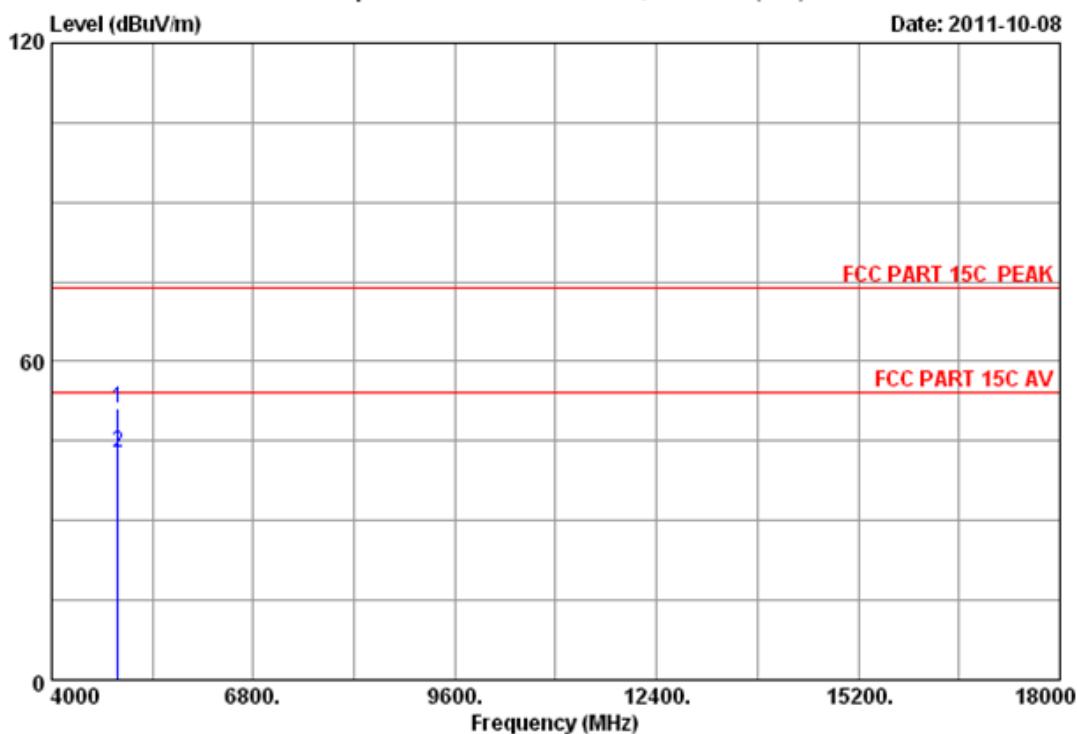
Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 54 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4924.000	34.49	12.50	35.34	39.53	51.18	74.00	22.82	Peak
2 4924.000	34.49	12.50	35.34	31.20	42.85	54.00	11.15	Average

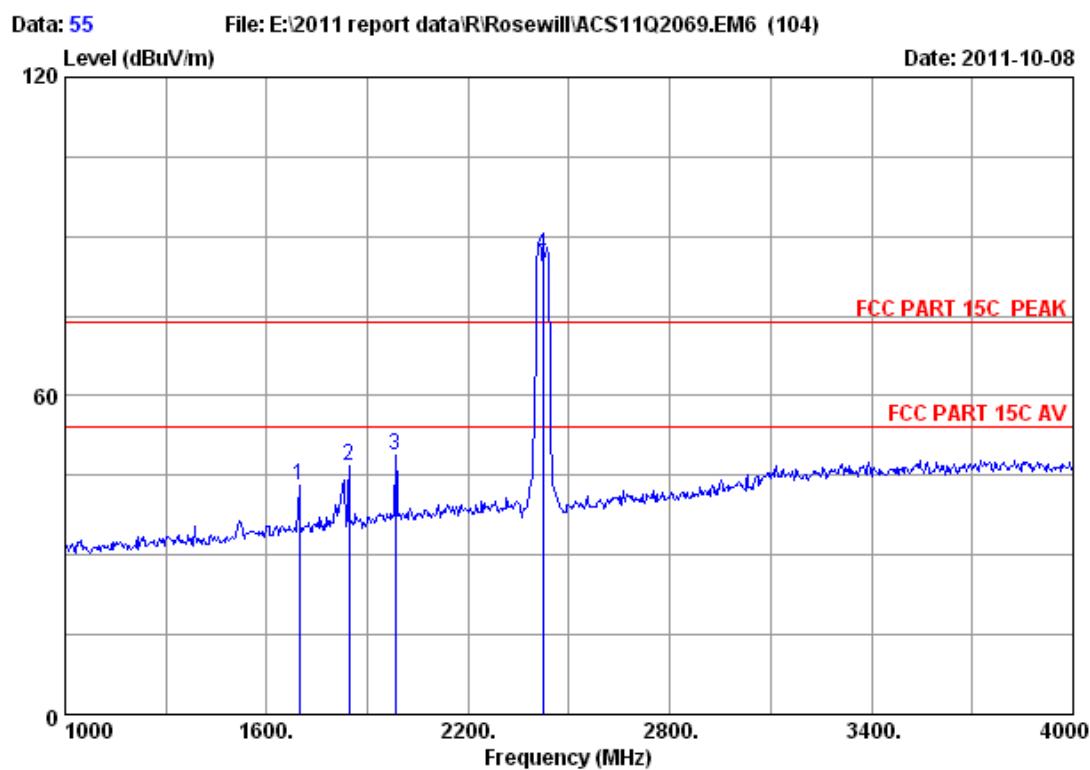
Remarks:

1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	44.63	43.05	74.00	30.95	Peak
2 1846.000	28.36	7.51	36.23	47.29	46.93	74.00	27.07	Peak
3 1984.000	29.11	7.87	36.06	47.84	48.76	74.00	25.24	Peak
4 2422.000	29.46	8.77	36.01	84.50	86.72	74.00	-12.72	Peak

Remarks:

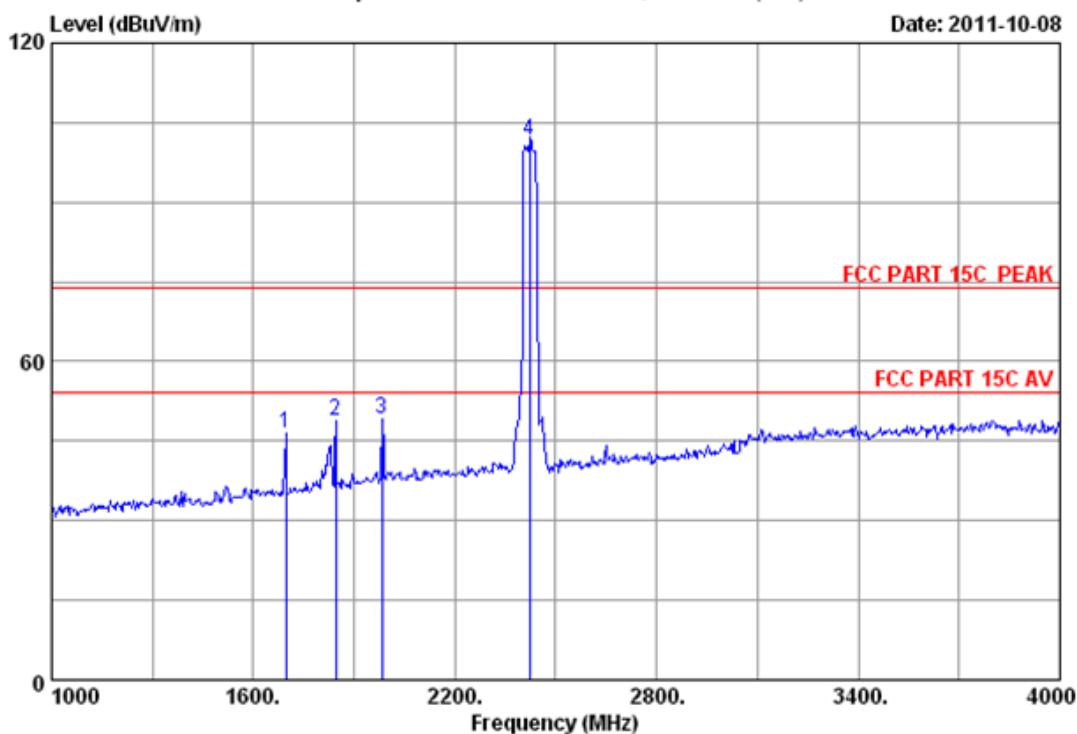
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 56 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	48.03	46.45	74.00	27.55	Peak
2 1846.000	28.36	7.51	36.23	49.30	48.94	74.00	25.06	Peak
3 1984.000	29.11	7.87	36.06	48.08	49.00	74.00	25.00	Peak
4 2422.000	29.46	8.77	36.01	99.32	101.54	74.00	-27.54	Peak

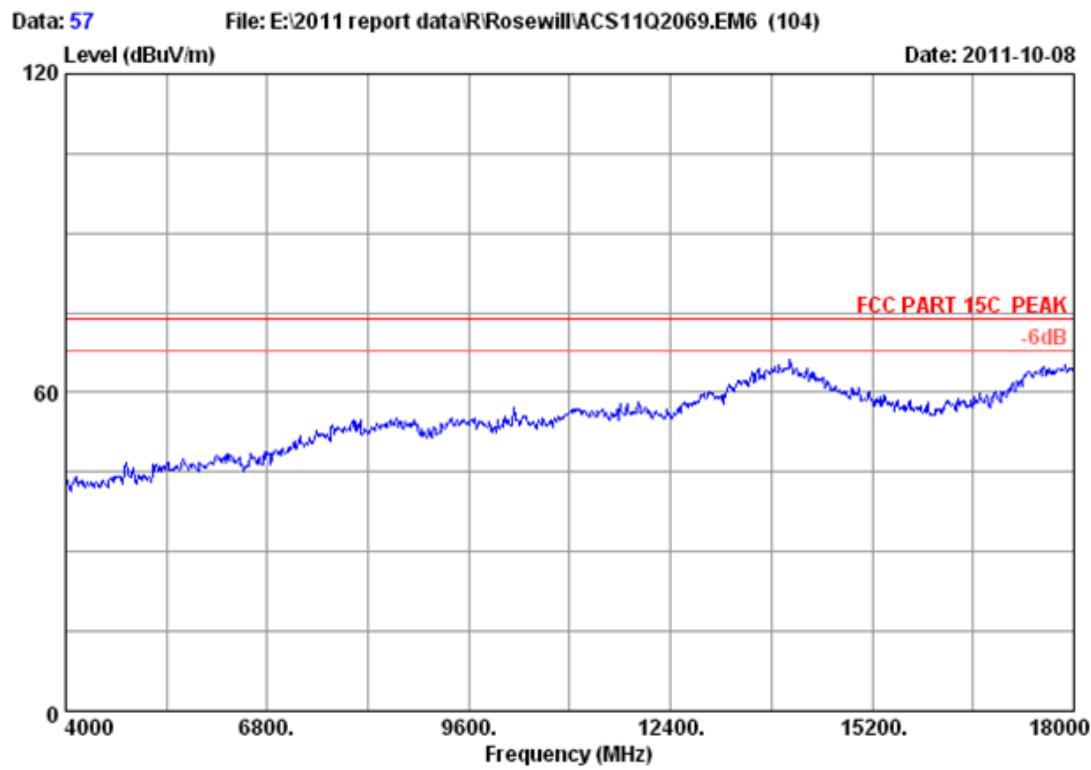
Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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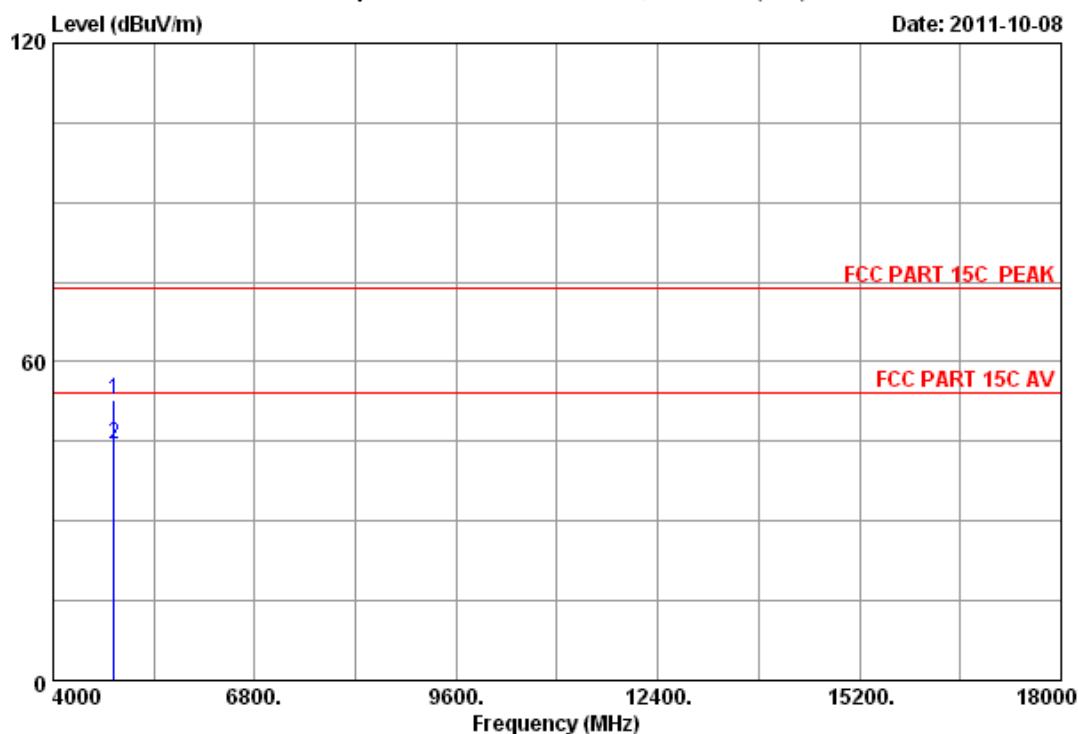
Site no.	: 3m Chamber	Data no. :	57
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer :	Leo-Li
EUT	: 2.4GHz Wireless Lite-N PCI-E Adapter		
Power	: DC 3.3V From PC Input AC 120V/60Hz		
Test mode	: IEEE802.11nHT40 CH1 2422MHz Tx		
M/N	: RNX-N150PCE		
	:		

FCC ID: W6RRNX-N150PCE

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Data: 58 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 58
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4844.000	34.35	12.38	35.25	41.19	52.67	74.00	21.33	Peak
2 4844.000	34.35	12.38	35.25	33.07	44.55	54.00	9.45	Average

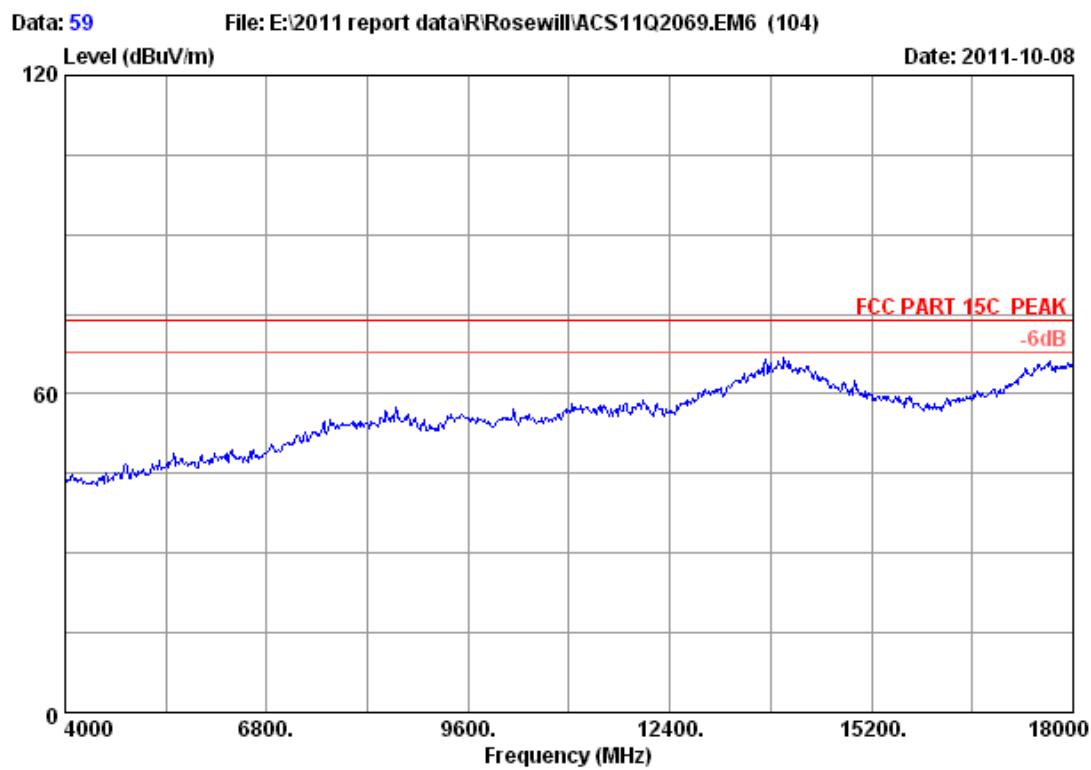
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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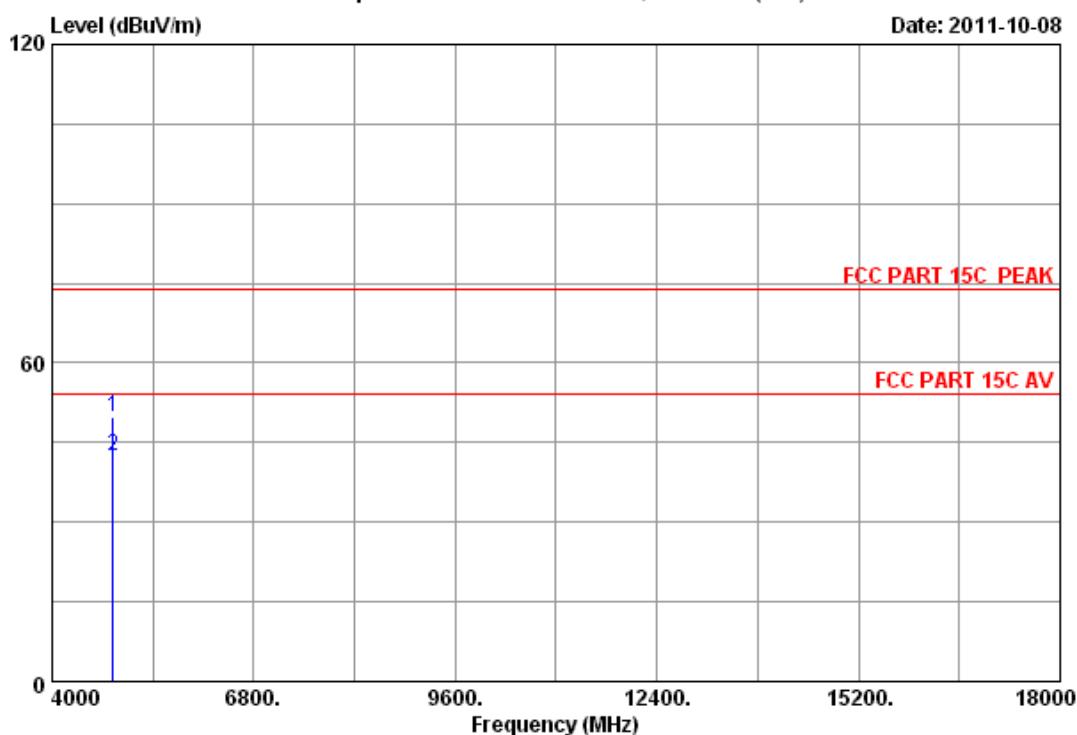
Site no. : 3m Chamber Data no. : 59
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCe
:

FCC ID: W6RRNX-N150PCE

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Data: 60 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4844.000	34.35	12.38	35.25	38.45	49.93	74.00	24.07	Peak
2 4844.000	34.35	12.38	35.25	31.02	42.50	54.00	11.50	Average

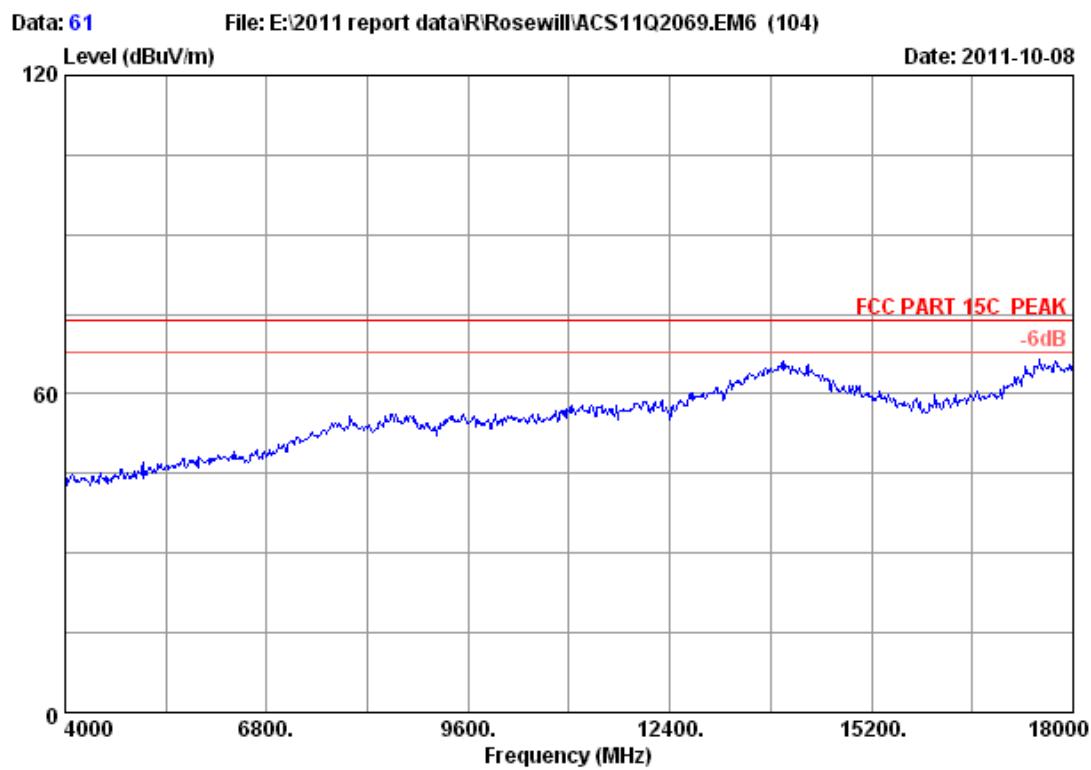
Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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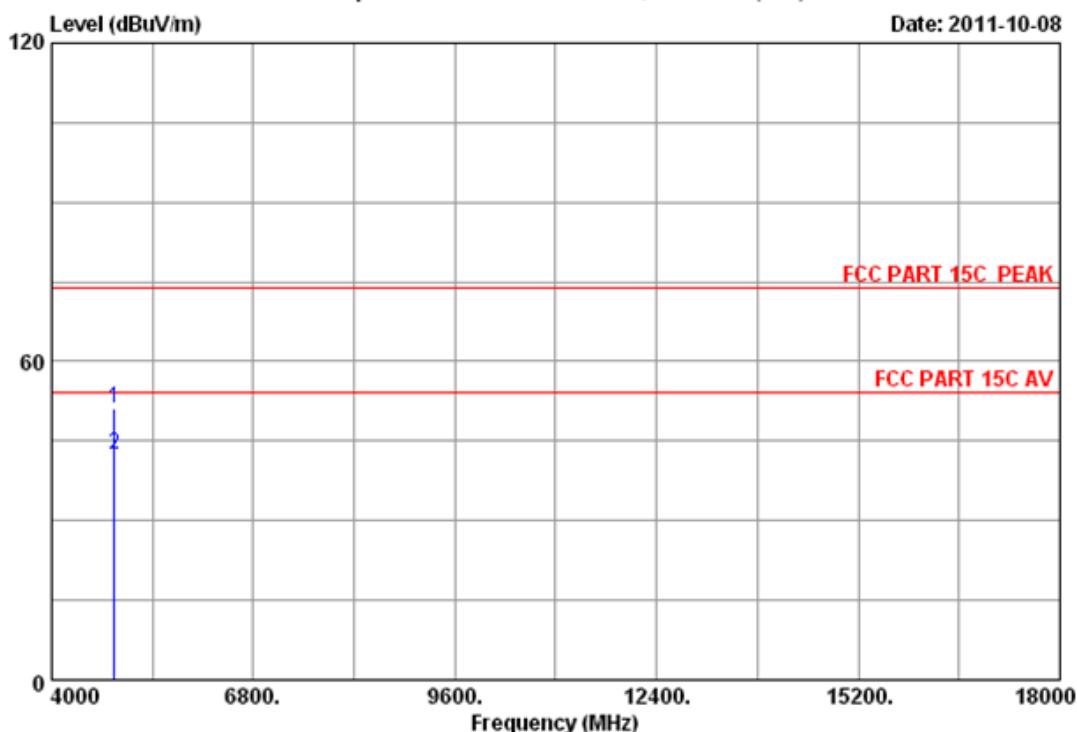
Site no. : 3m Chamber Data no. : 61
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCe
:

FCC ID: W6RRNX-N150PCE

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Data: 62 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4874.000	34.41	12.44	35.36	39.56	51.05	74.00	22.95	Peak
2 4874.000	34.41	12.44	35.36	31.07	42.56	54.00	11.44	Average

Remarks:

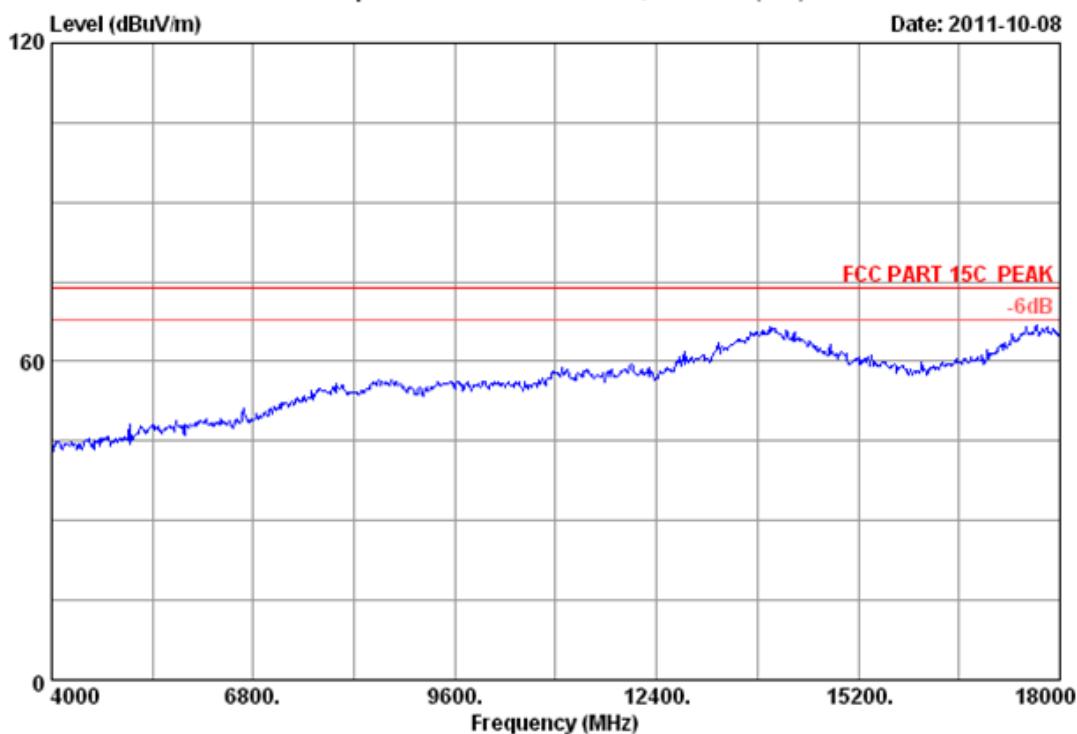
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 63 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



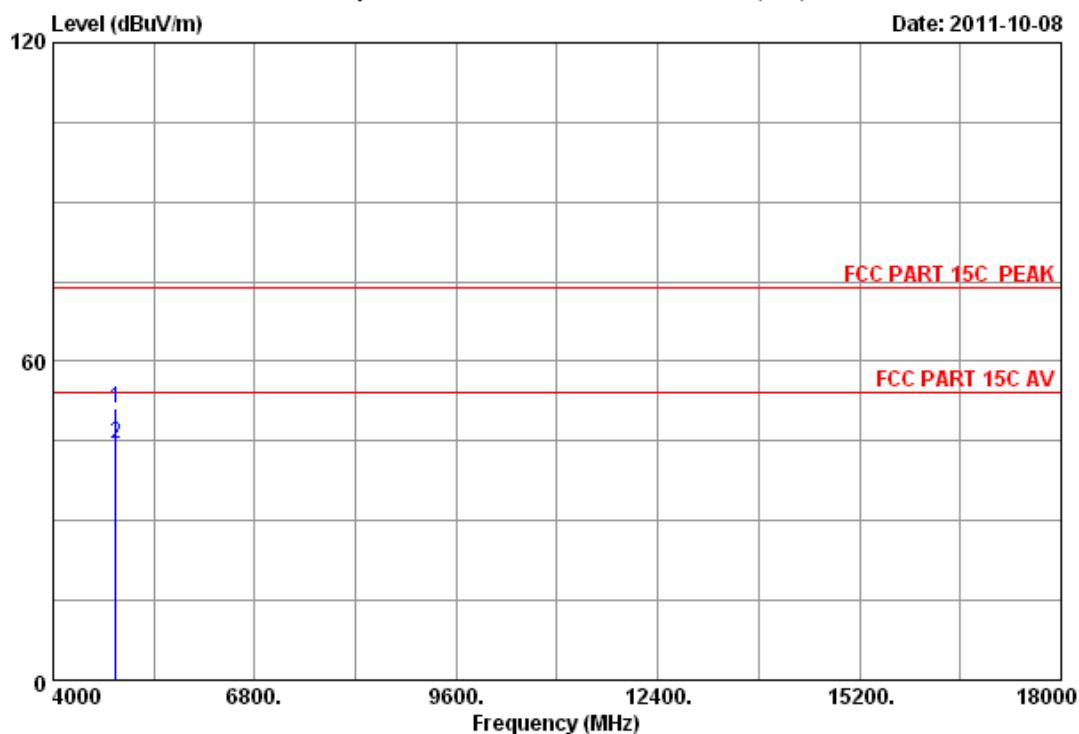
Site no. : 3m Chamber Data no. : 63
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 64 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 64
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000	34.41	12.44	35.36	39.57	51.06	74.00	22.94 Peak
2	4874.000	34.41	12.44	35.36	32.95	44.44	54.00	9.56 Average

Remarks:

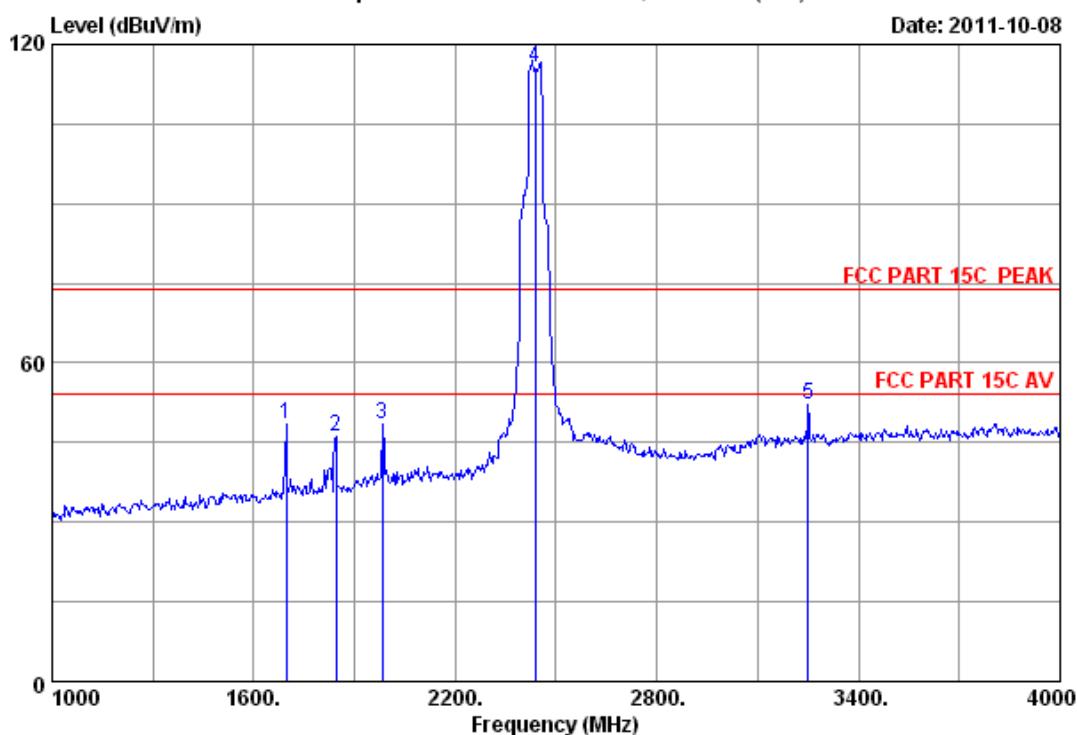
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 65 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 65
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	50.12	48.54	74.00	25.46	Peak
2 1846.000	28.36	7.51	36.23	46.62	46.26	74.00	27.74	Peak
3 1984.000	29.11	7.87	36.06	47.69	48.61	74.00	25.39	Peak
4 2437.000	29.47	8.77	36.06	113.56	115.74	74.00	-41.74	Peak
5 3250.000	32.63	10.28	35.68	44.99	52.22	74.00	21.78	Peak

Remarks:

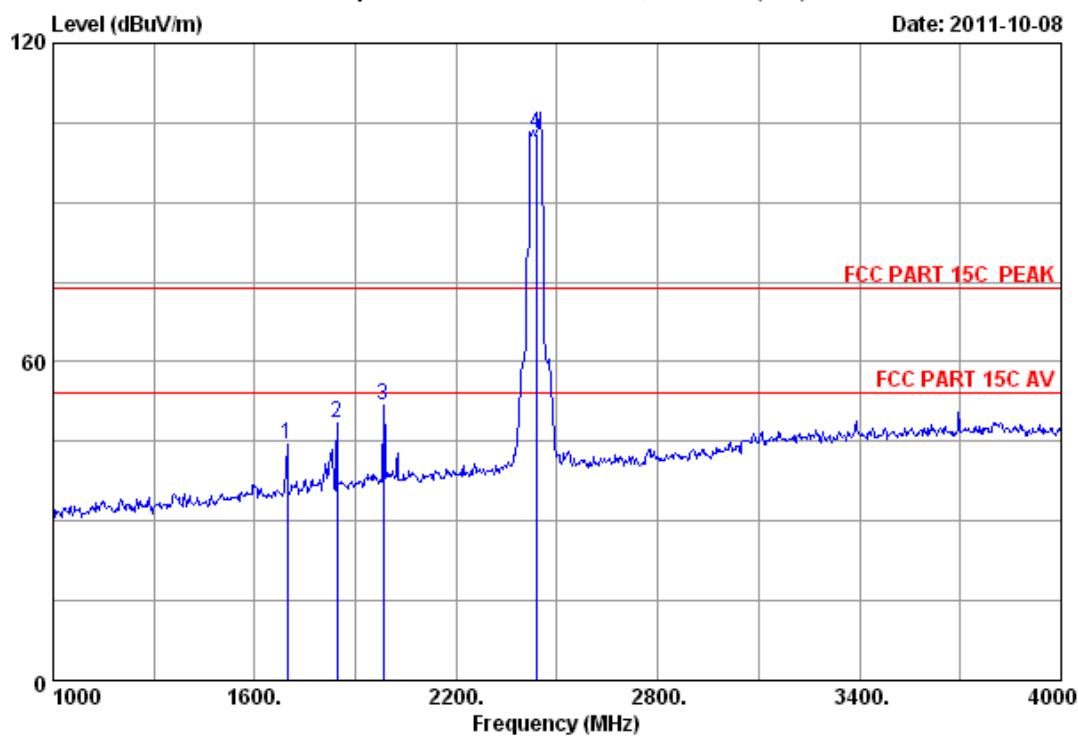
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 66 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	46.13	44.55	74.00	29.45	Peak
2 1846.000	28.36	7.51	36.23	48.74	48.38	74.00	25.62	Peak
3 1984.000	29.11	7.87	36.06	50.90	51.82	74.00	22.18	Peak
4 2437.000	29.47	8.77	36.06	100.70	102.88	74.00	-28.88	Peak

Remarks:

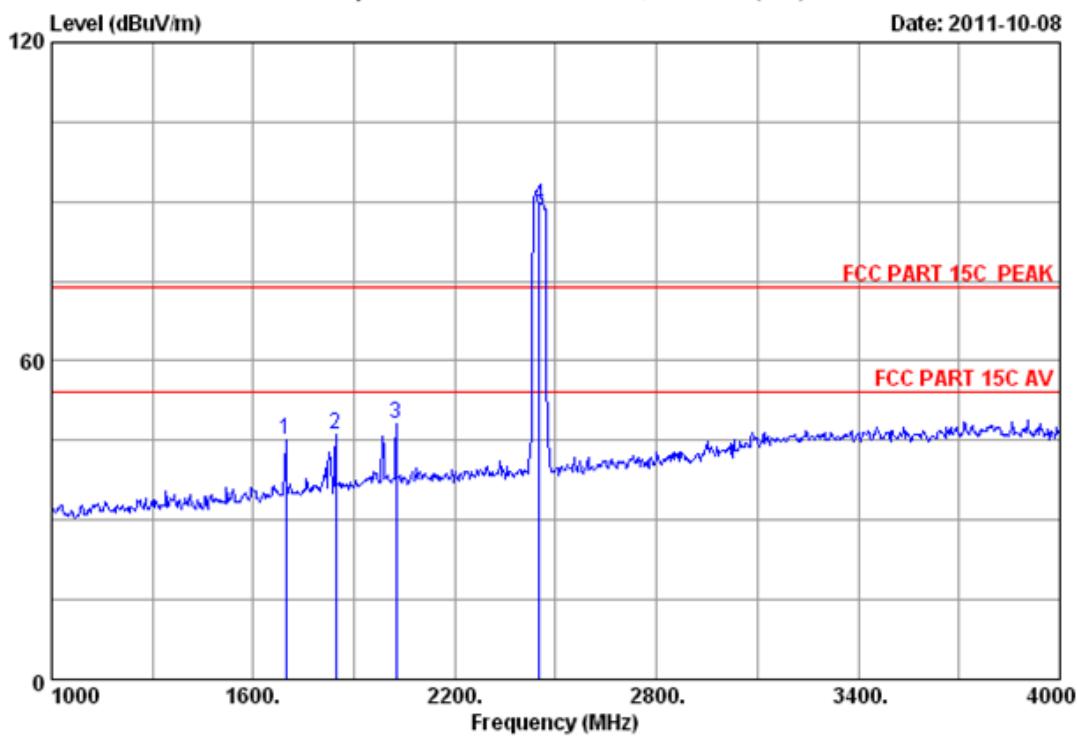
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 67 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 67
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	46.61	45.03	74.00	28.97	Peak
2 1846.000	28.36	7.51	36.23	46.56	46.20	74.00	27.80	Peak
3 2026.000	29.21	7.97	36.12	46.94	48.00	74.00	26.00	Peak
4 2452.000	29.47	8.82	36.06	87.13	89.36	74.00	-15.36	Peak

Remarks:

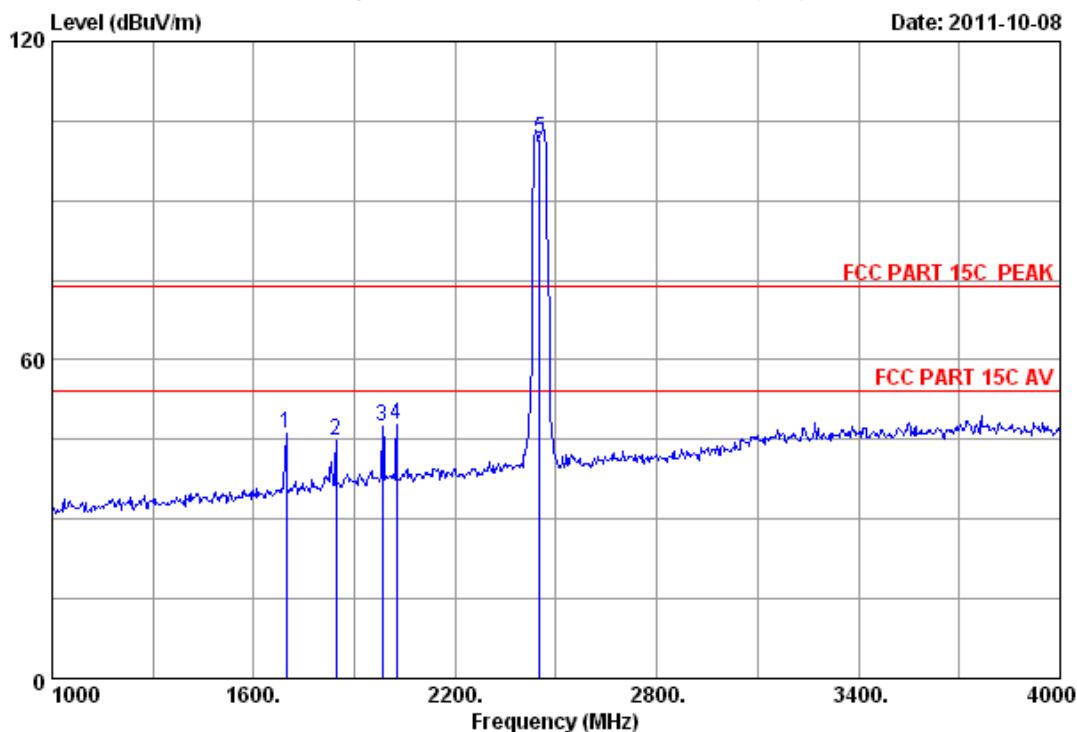
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 68 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

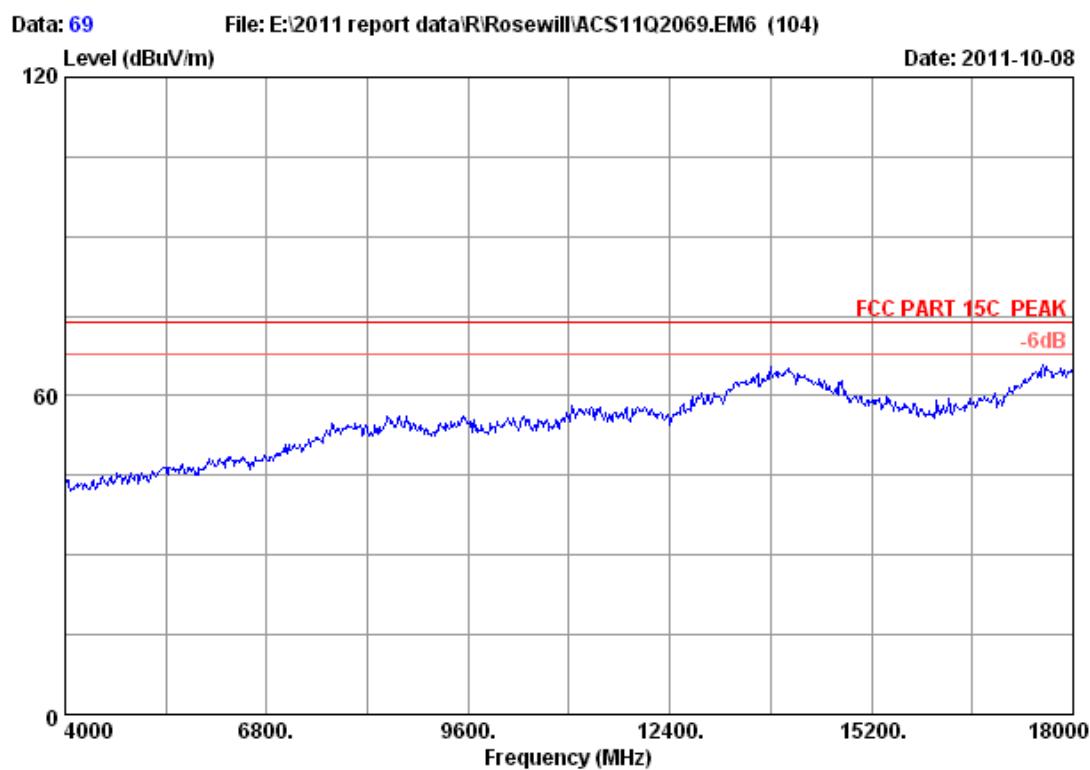


Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 1696.000	27.52	7.16	36.26	47.74	46.16	74.00	27.84	Peak
2 1846.000	28.36	7.51	36.23	45.02	44.66	74.00	29.34	Peak
3 1984.000	29.11	7.87	36.06	46.47	47.39	74.00	26.61	Peak
4 2026.000	29.21	7.97	36.12	46.58	47.64	74.00	26.36	Peak
5 2452.000	29.47	8.82	36.06	99.35	101.58	74.00	-27.58	Peak

Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



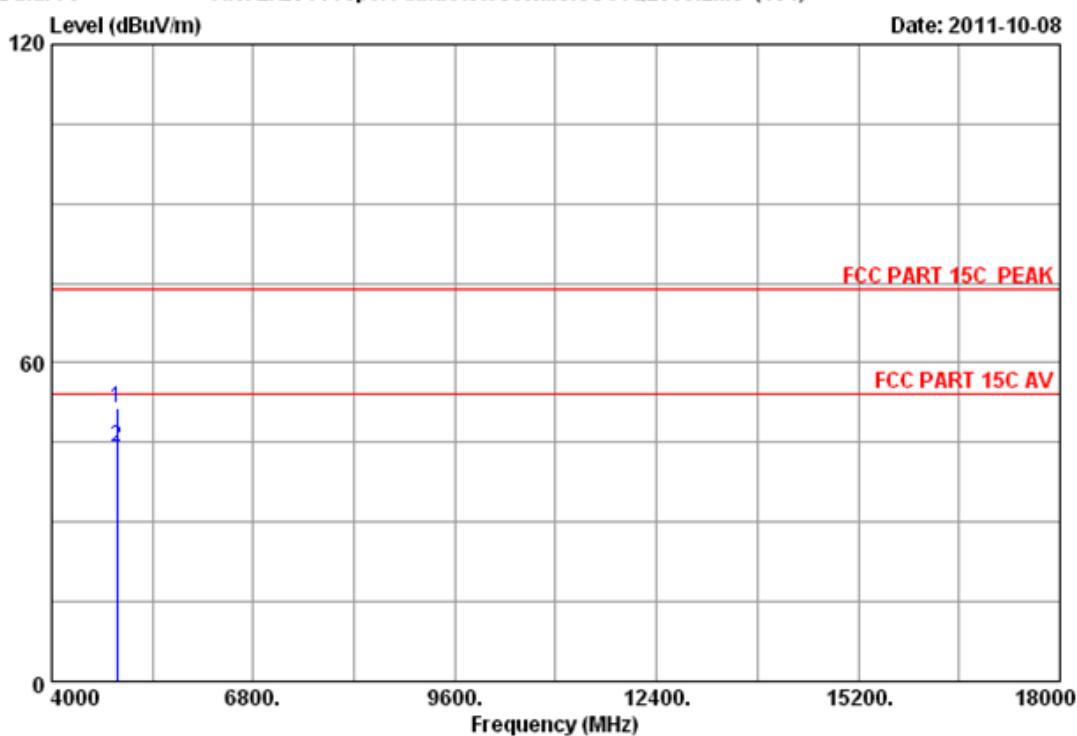
Site no. : 3m Chamber Data no. : 69
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 70 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4904.000	34.46	12.47	35.27	39.82	51.48	74.00	22.52 Peak
2	4904.000	34.46	12.47	35.27	32.58	44.24	54.00	9.76 Average

Remarks:

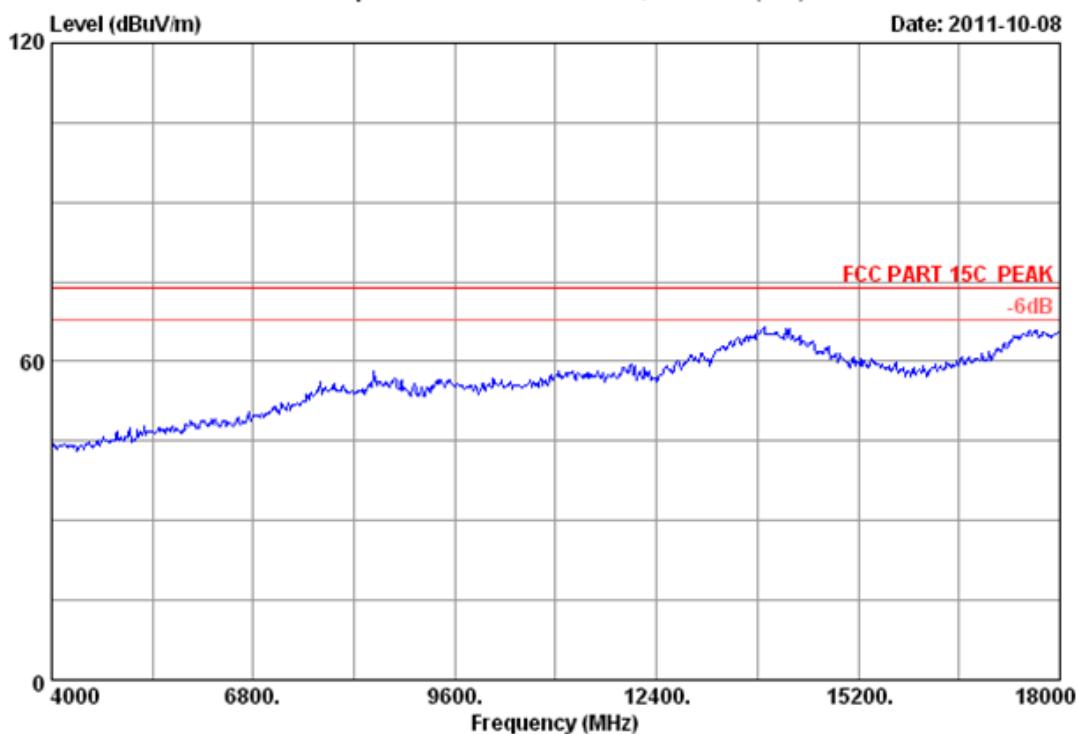
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 71 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



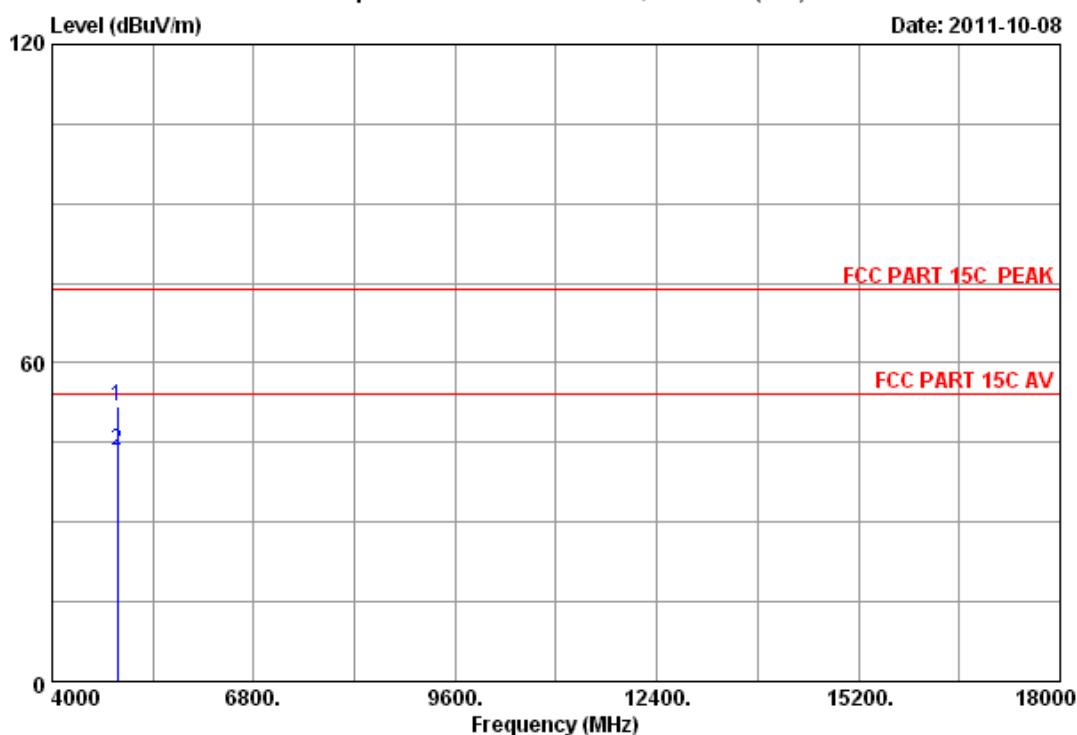
Site no. : 3m Chamber Data no. : 71
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCE
:

FCC ID: W6RRNX-N150PCE

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Data: 72 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 4904.000	34.46	12.47	35.27	40.16	51.82	74.00	22.18	Peak
2 4904.000	34.46	12.47	35.27	31.87	43.53	54.00	10.47	Average

Remarks:

1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1 Year

5.2. Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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.

5.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

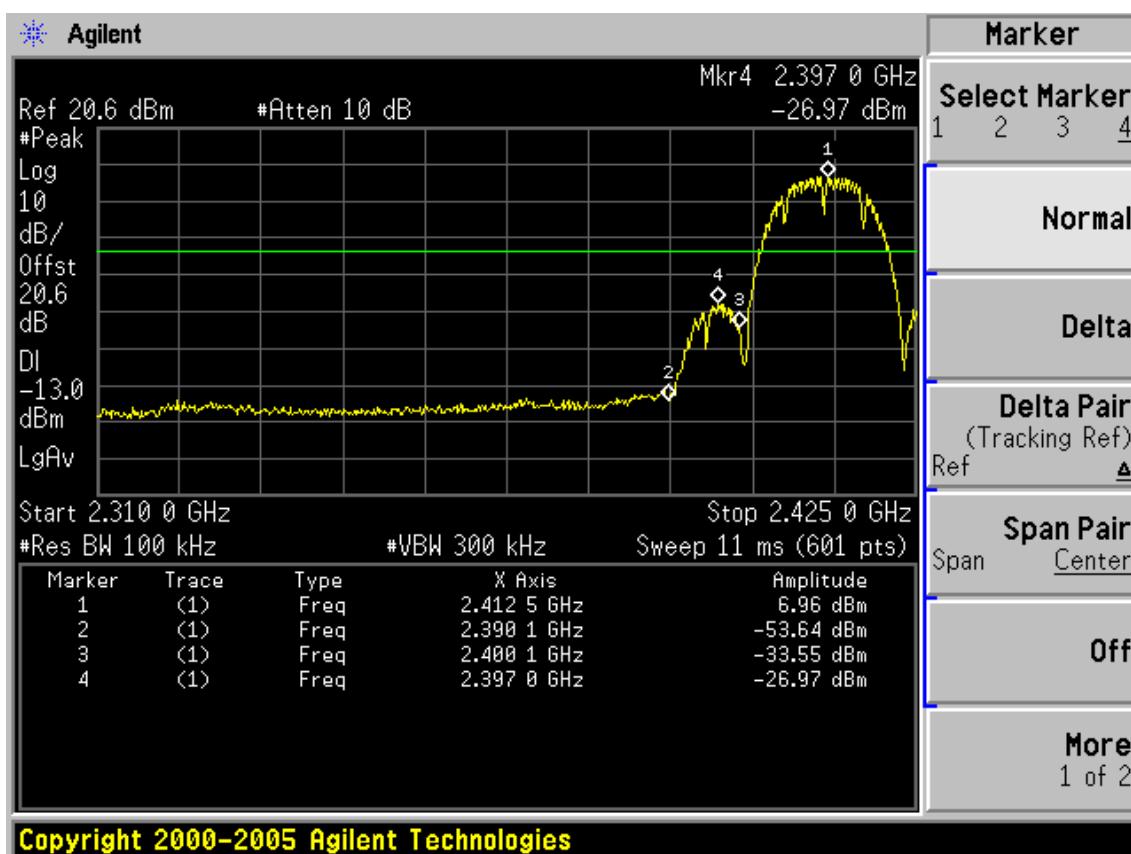
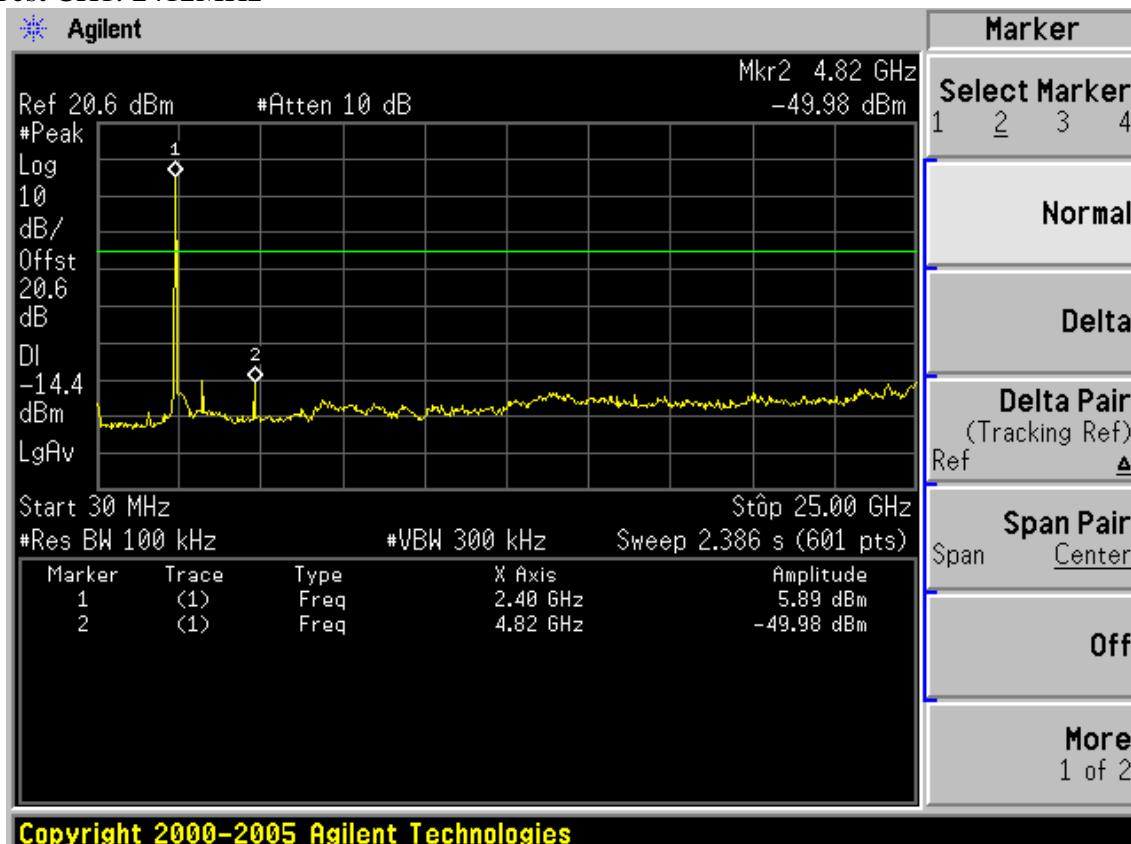
5.4. Test result

PASS (The testing data was attached in the next pages.)

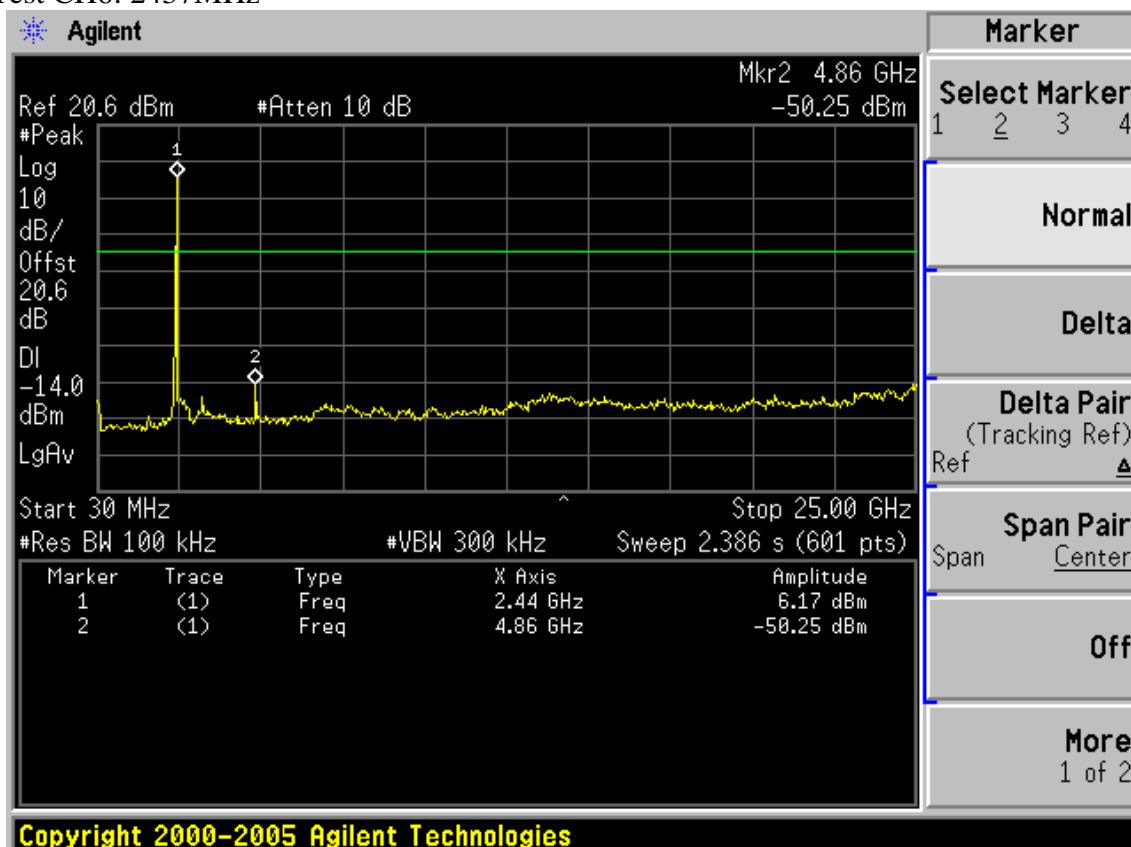
Conducted emission test data:

Test Mode: IEEE 802.11b TX

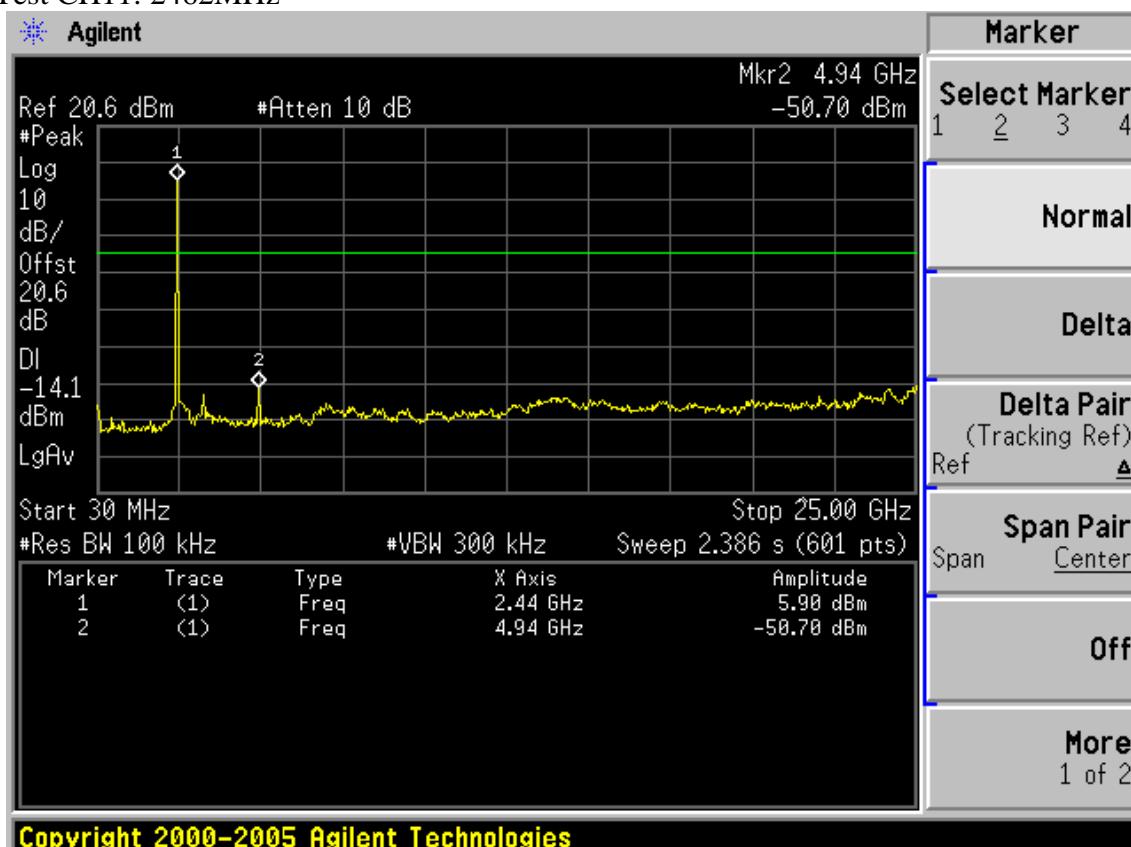
Test CH1: 2412MHz

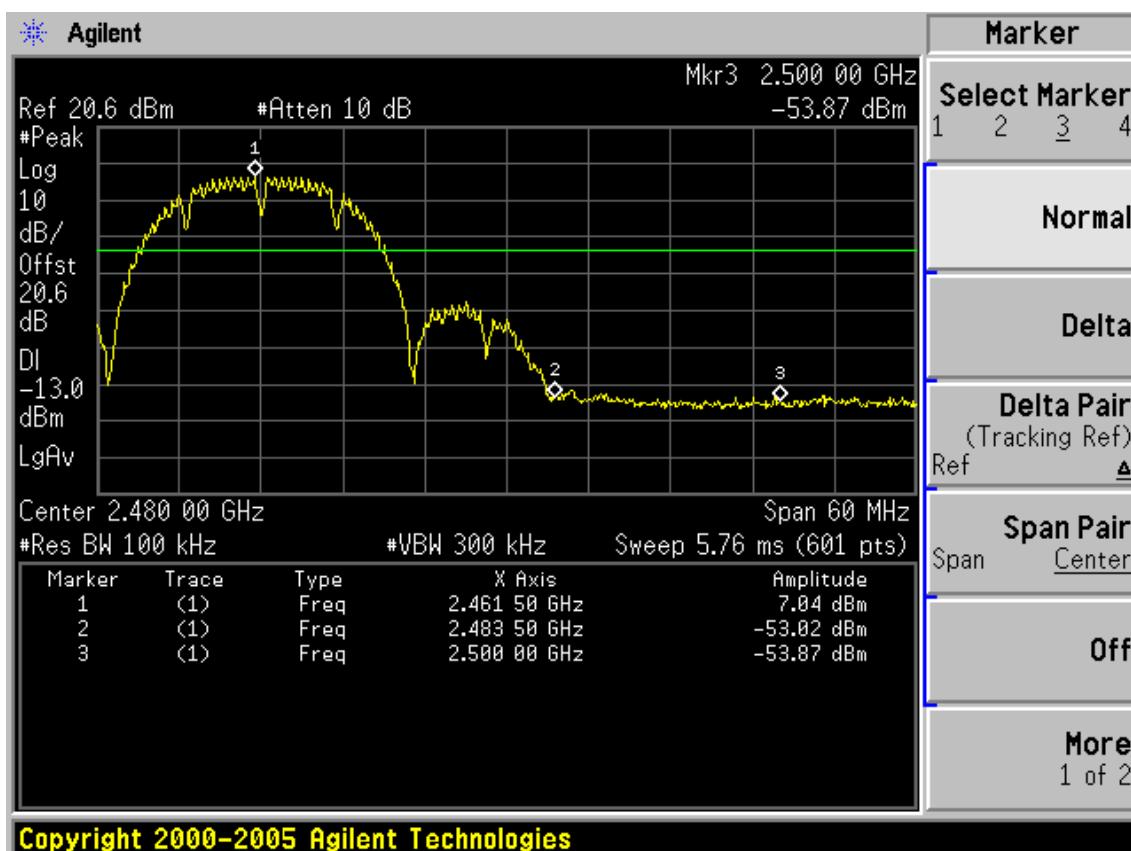


Test CH6: 2437MHz



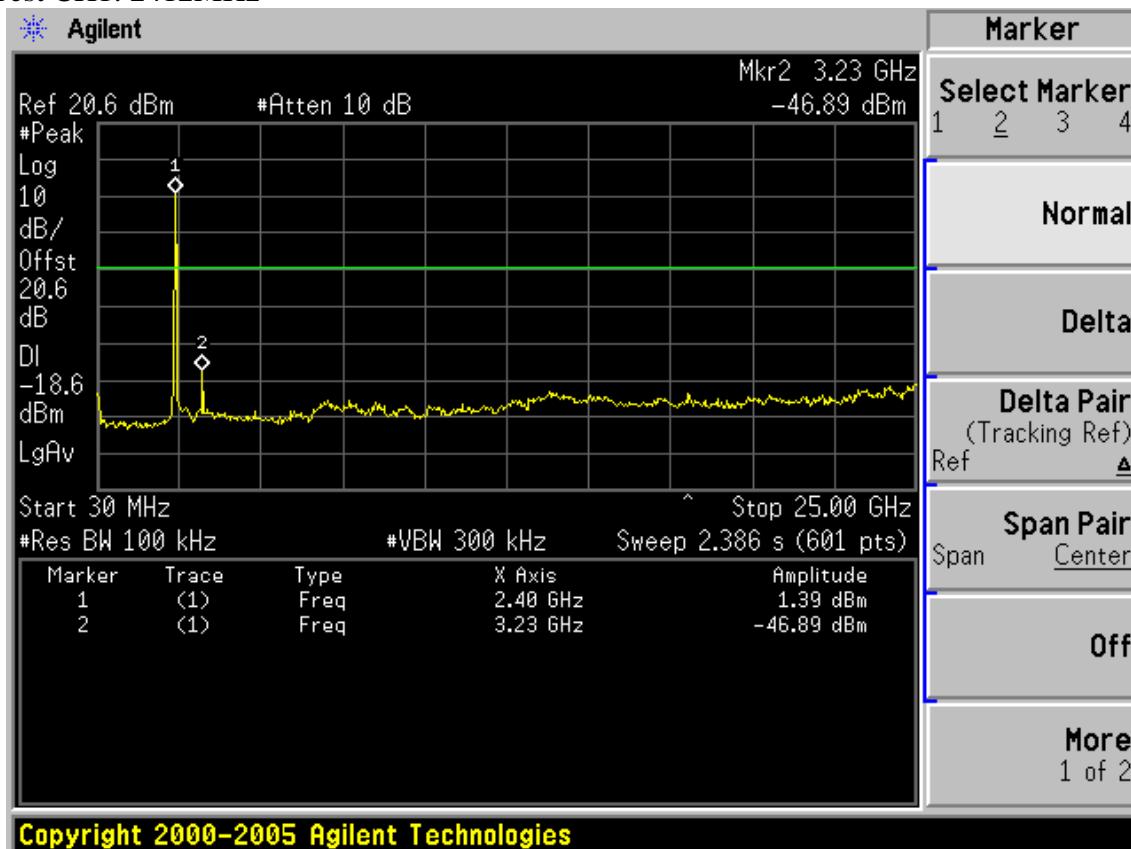
Test CH11: 2462MHz

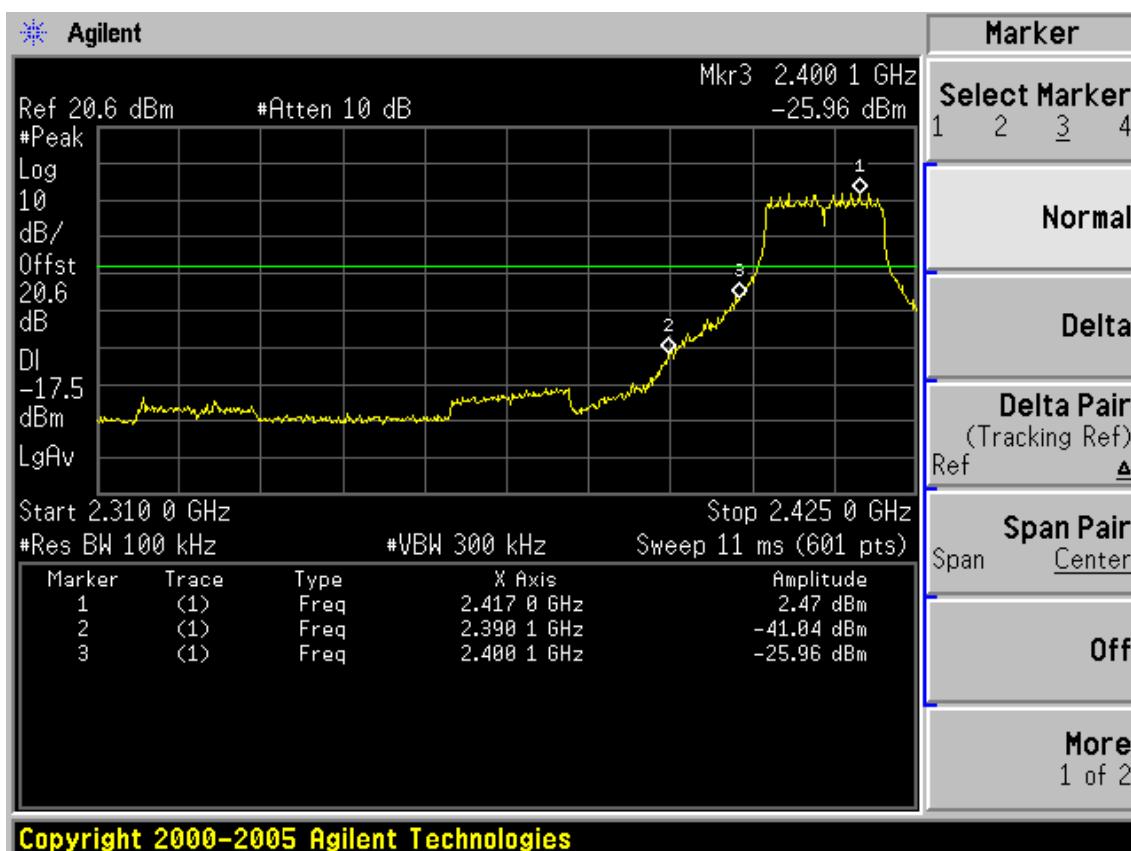




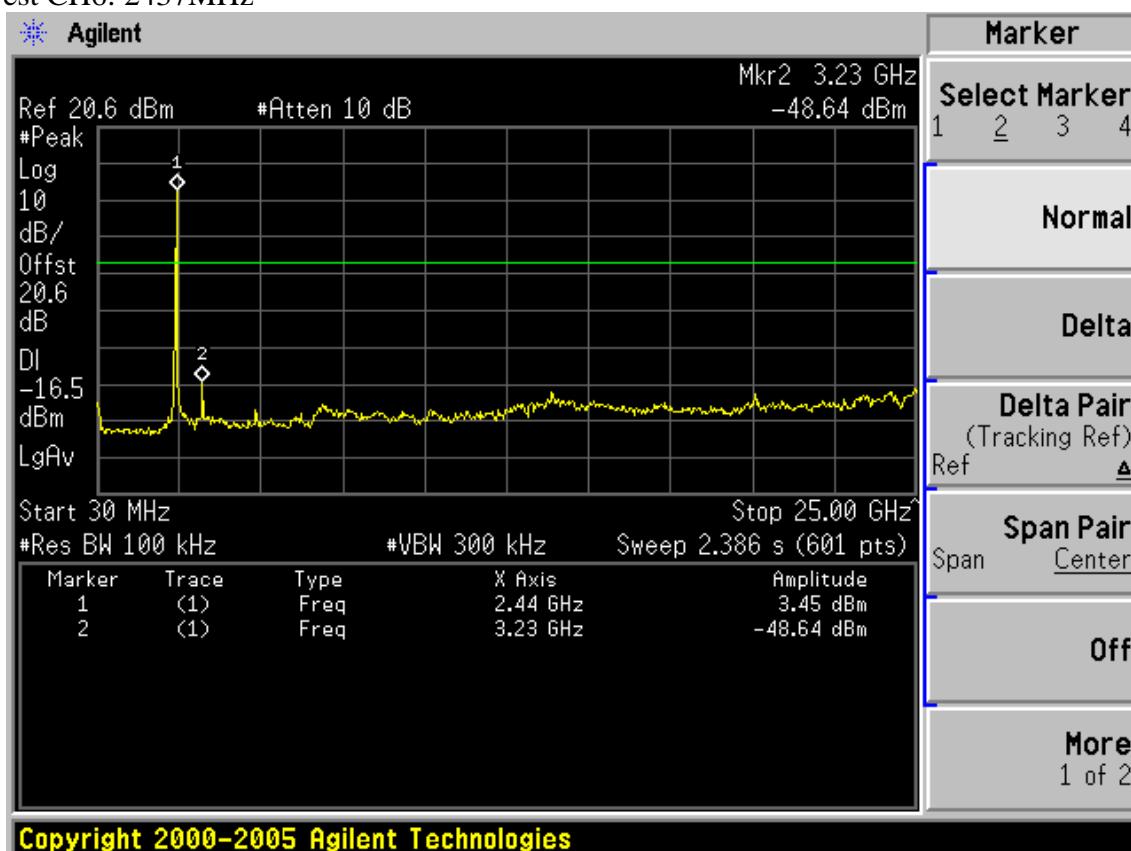
Test Mode: IEEE 802.11g TX

Test CH1: 2412MHz

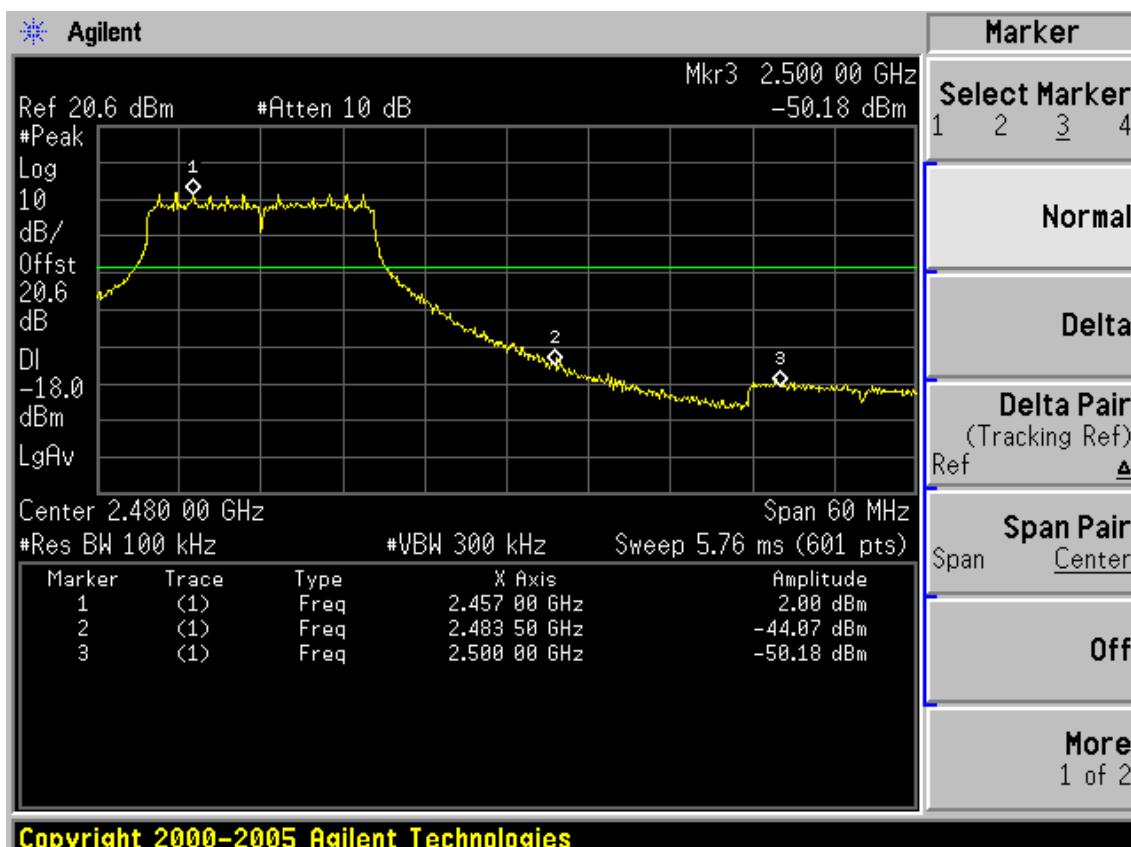
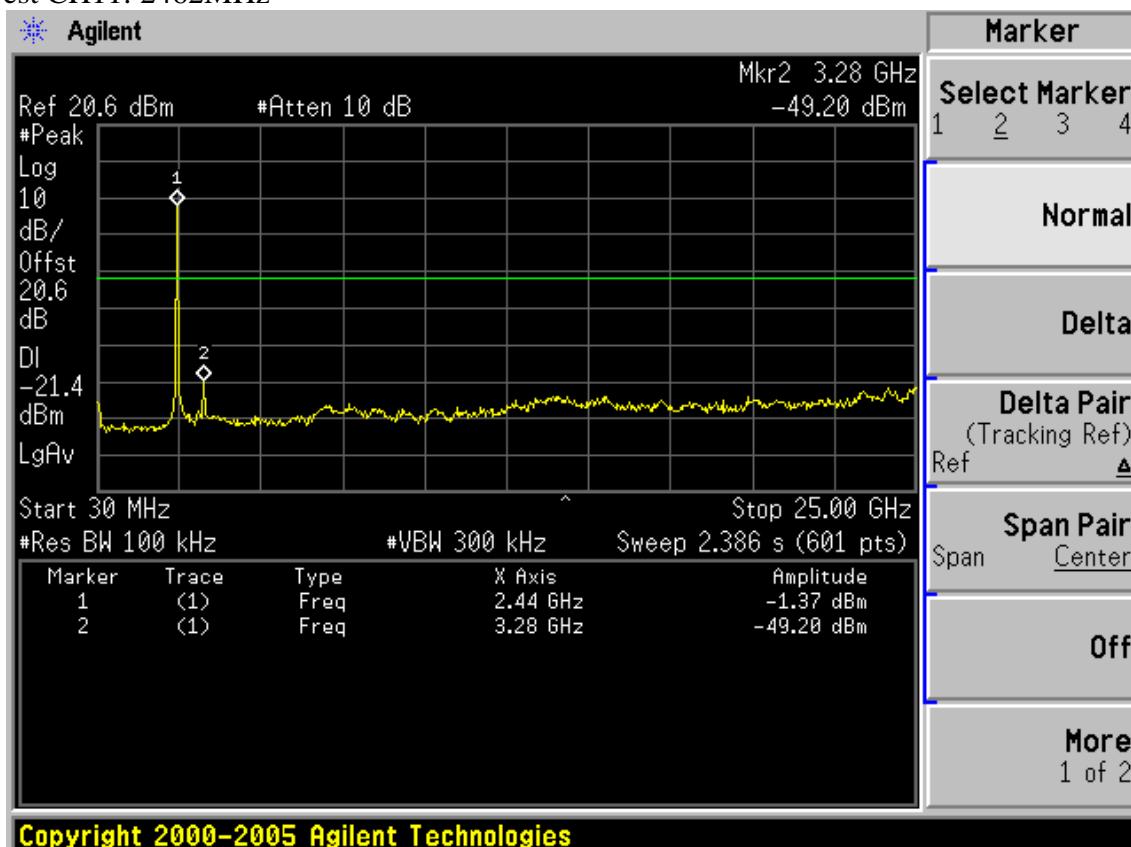




Test CH6: 2437MHz

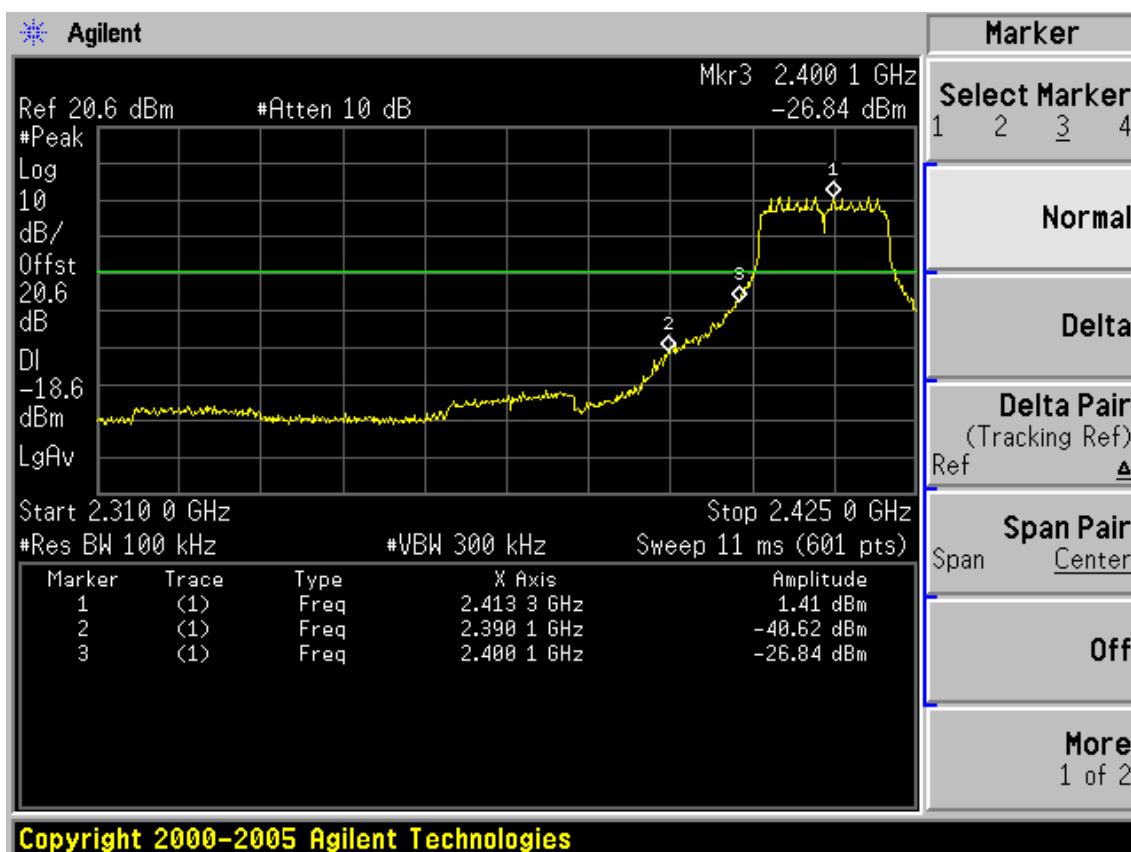
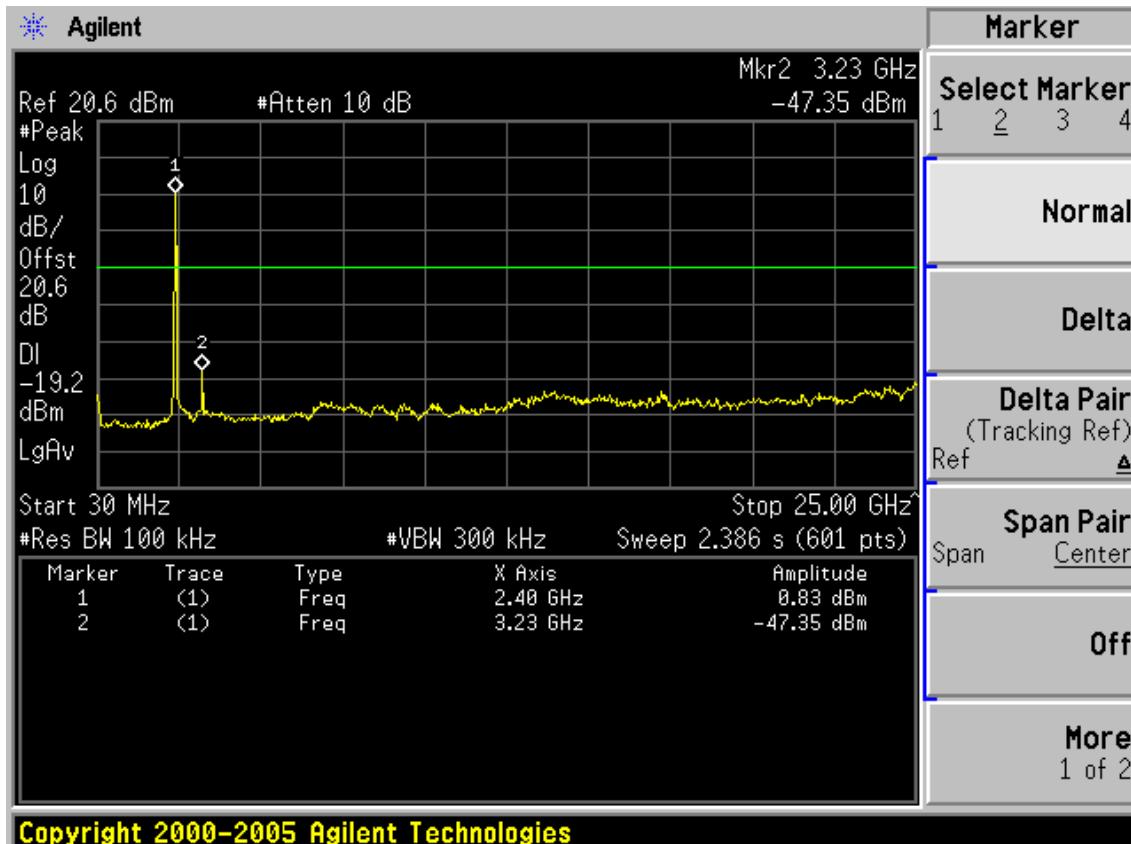


Test CH11: 2462MHz

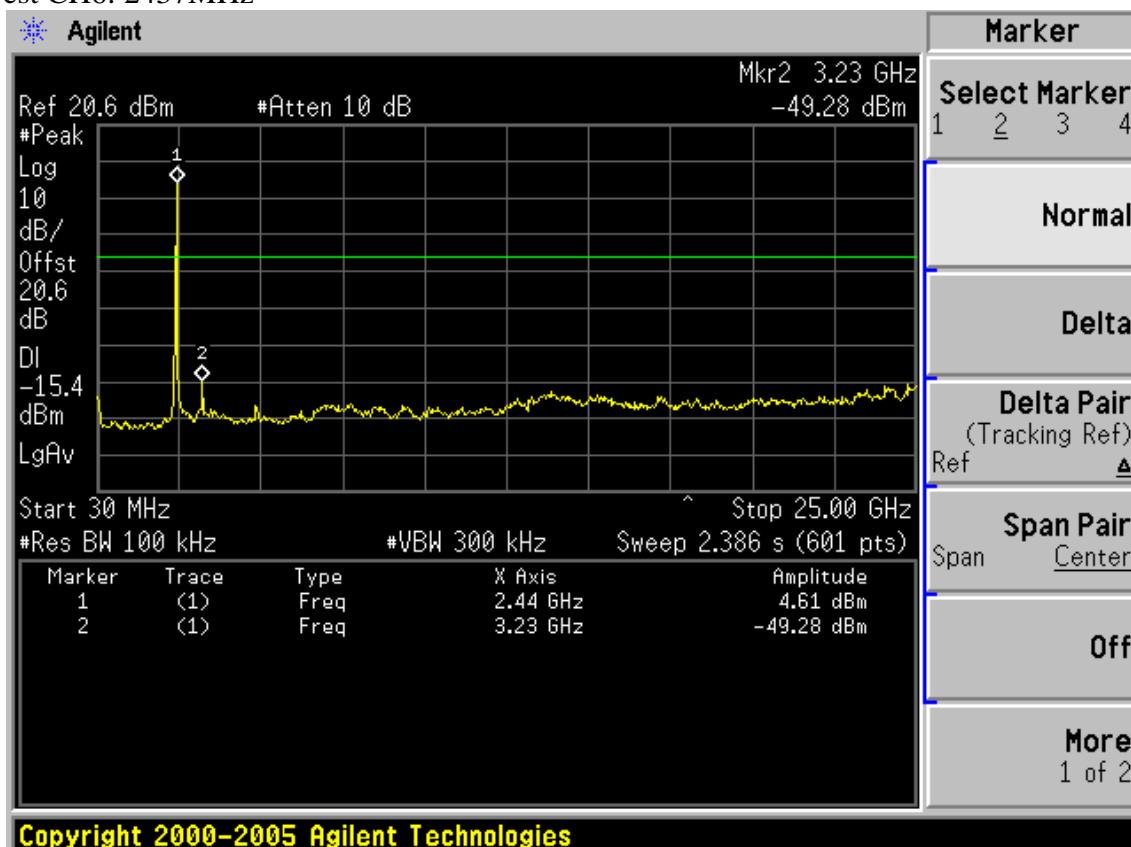


Test Mode: IEEE 802.11n HT20 TX

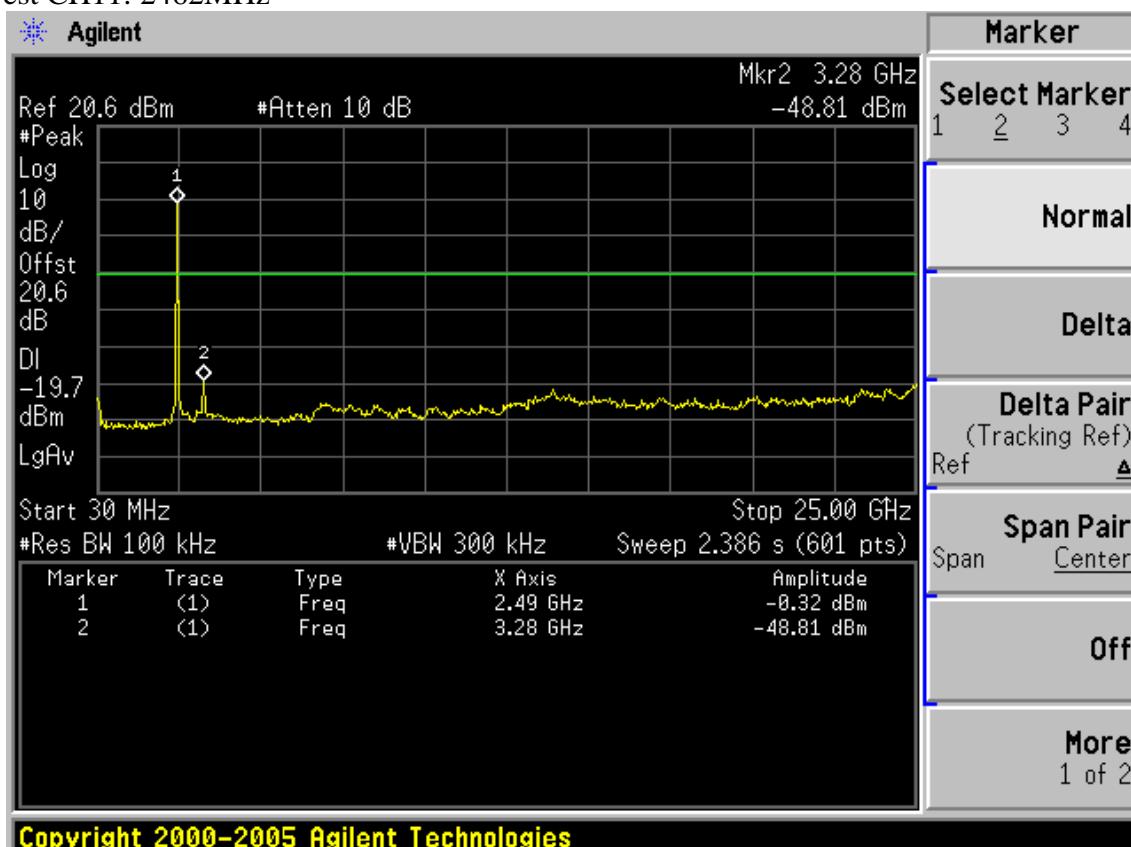
Test CH1: 2412MHz

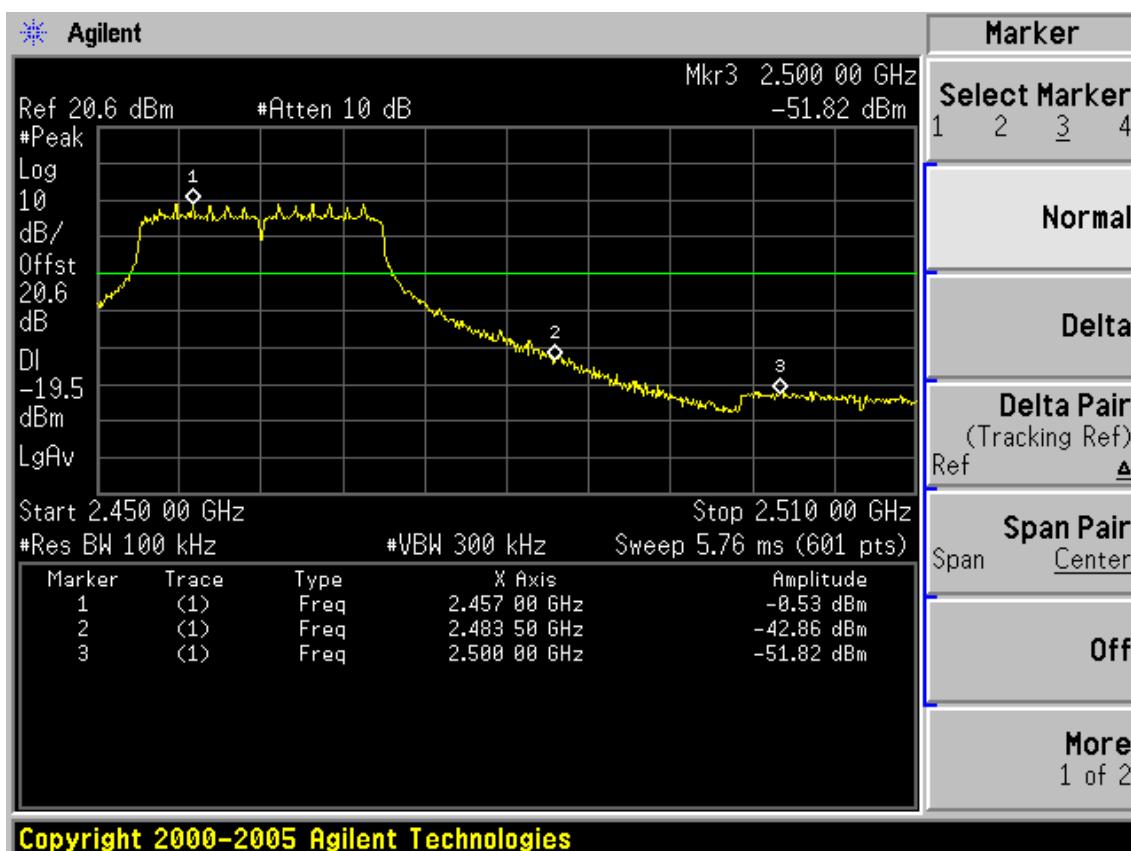


Test CH6: 2437MHz



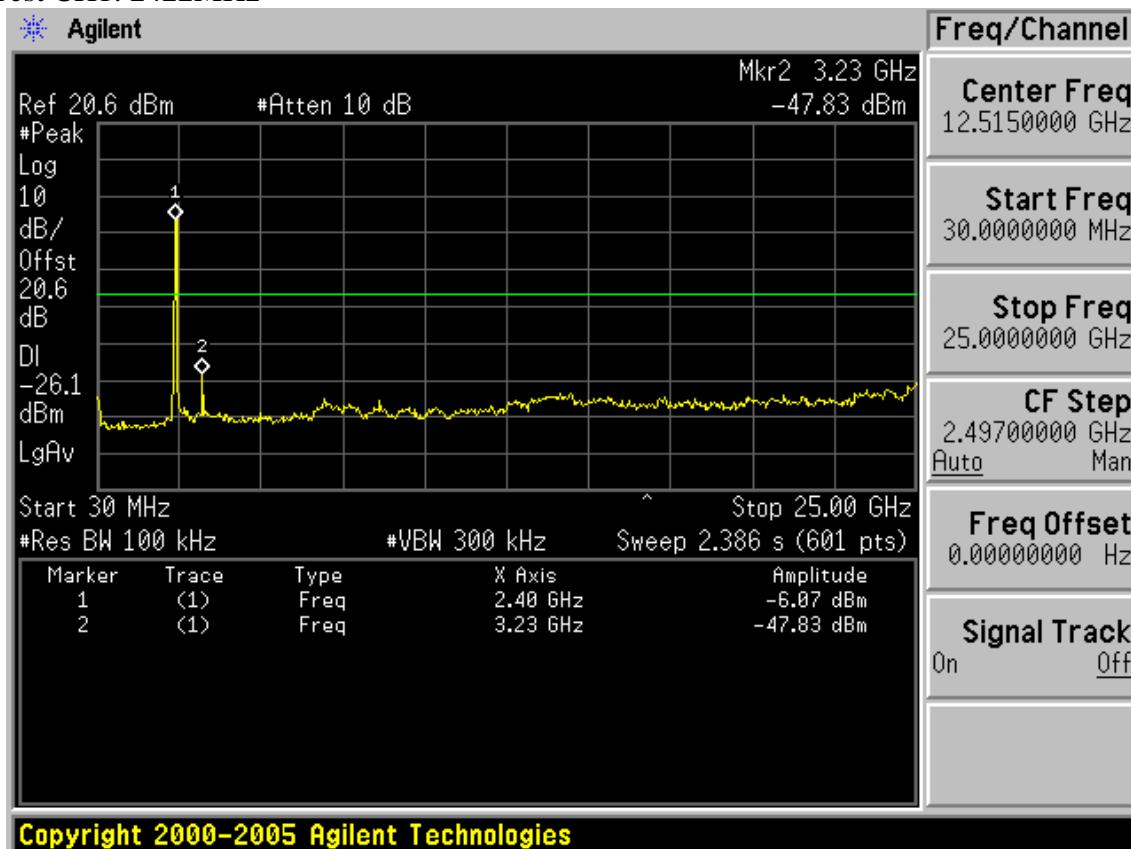
Test CH11: 2462MHz

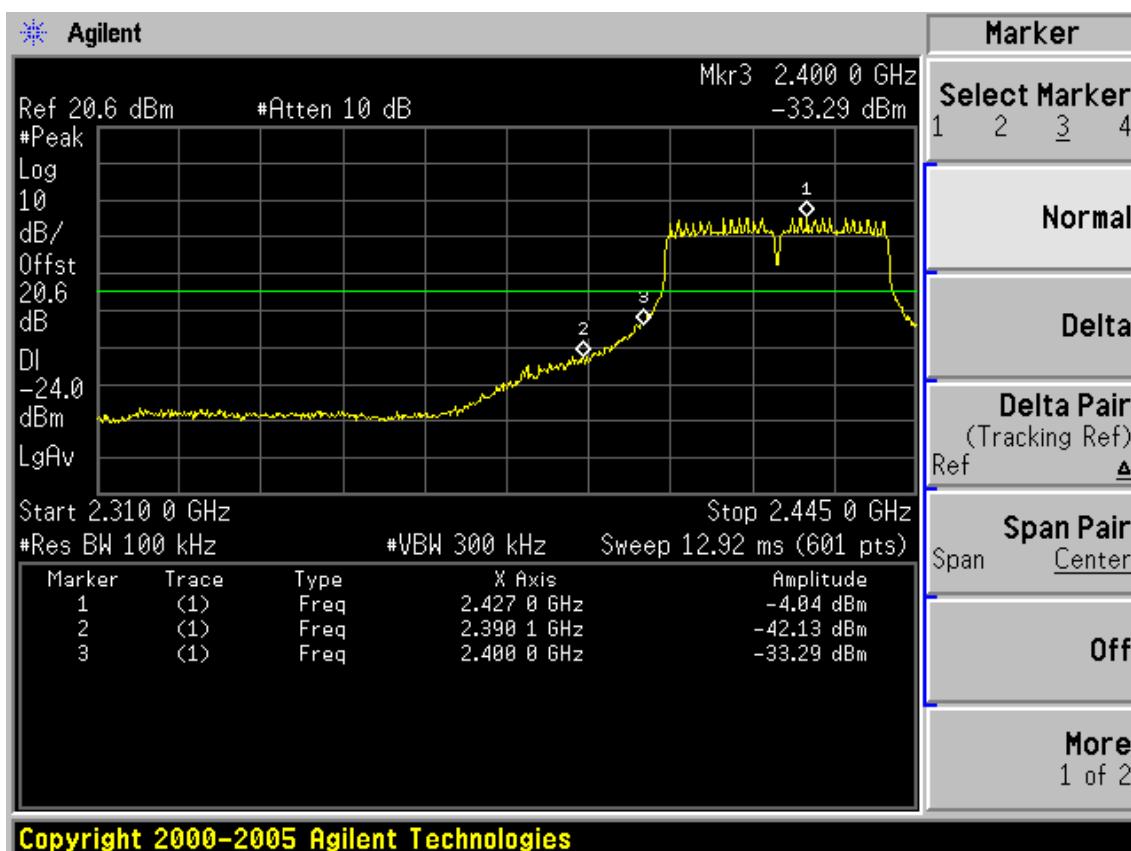




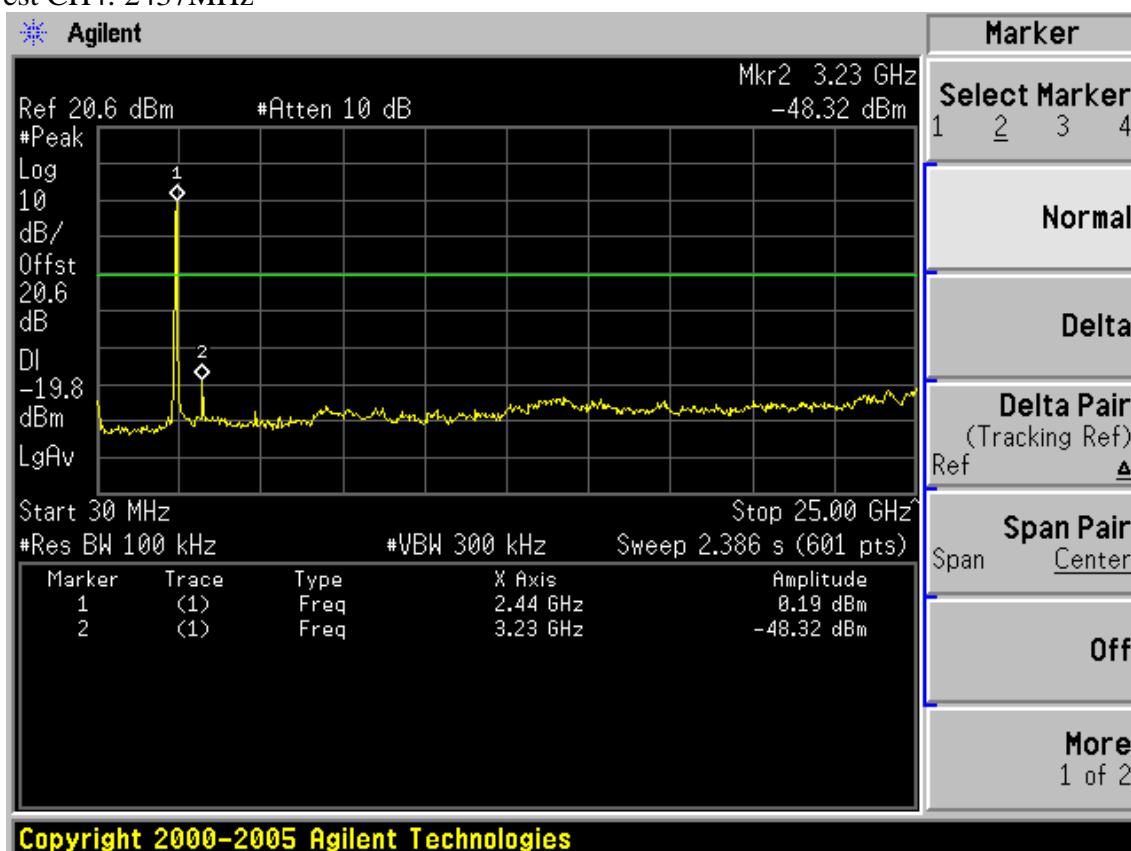
Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz

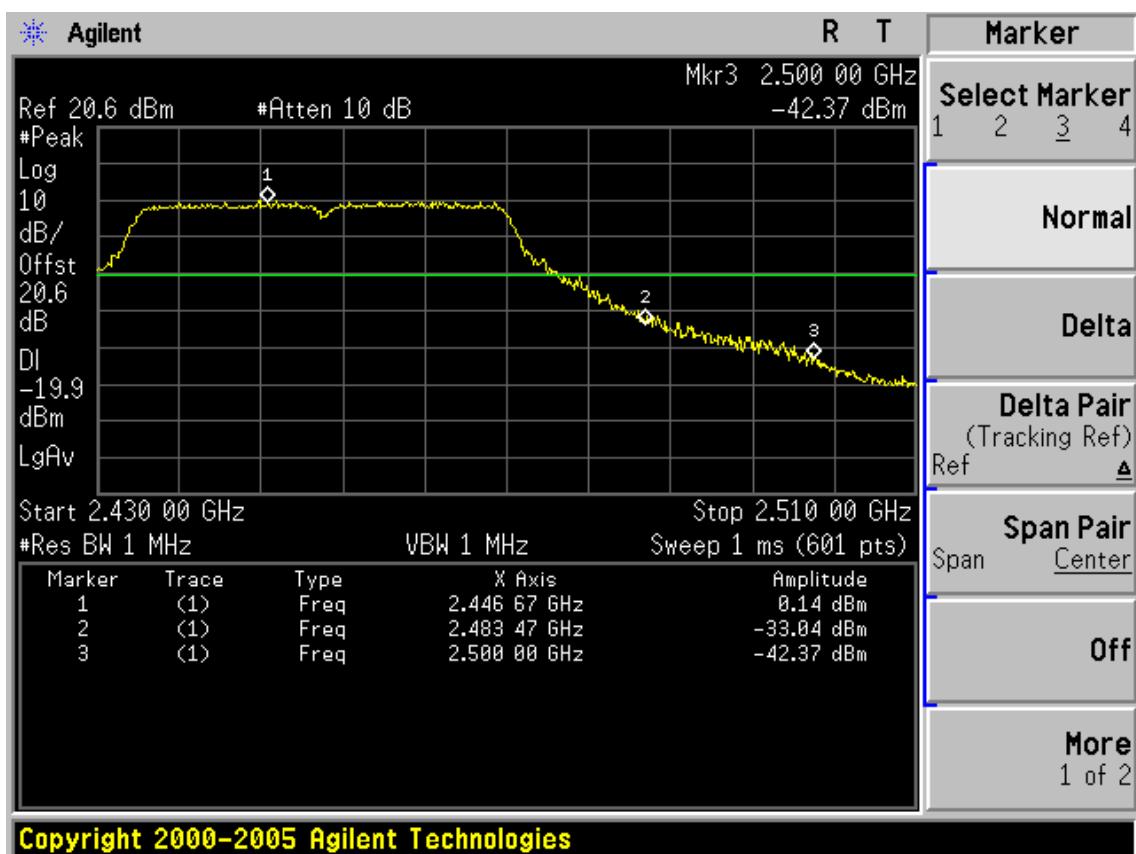
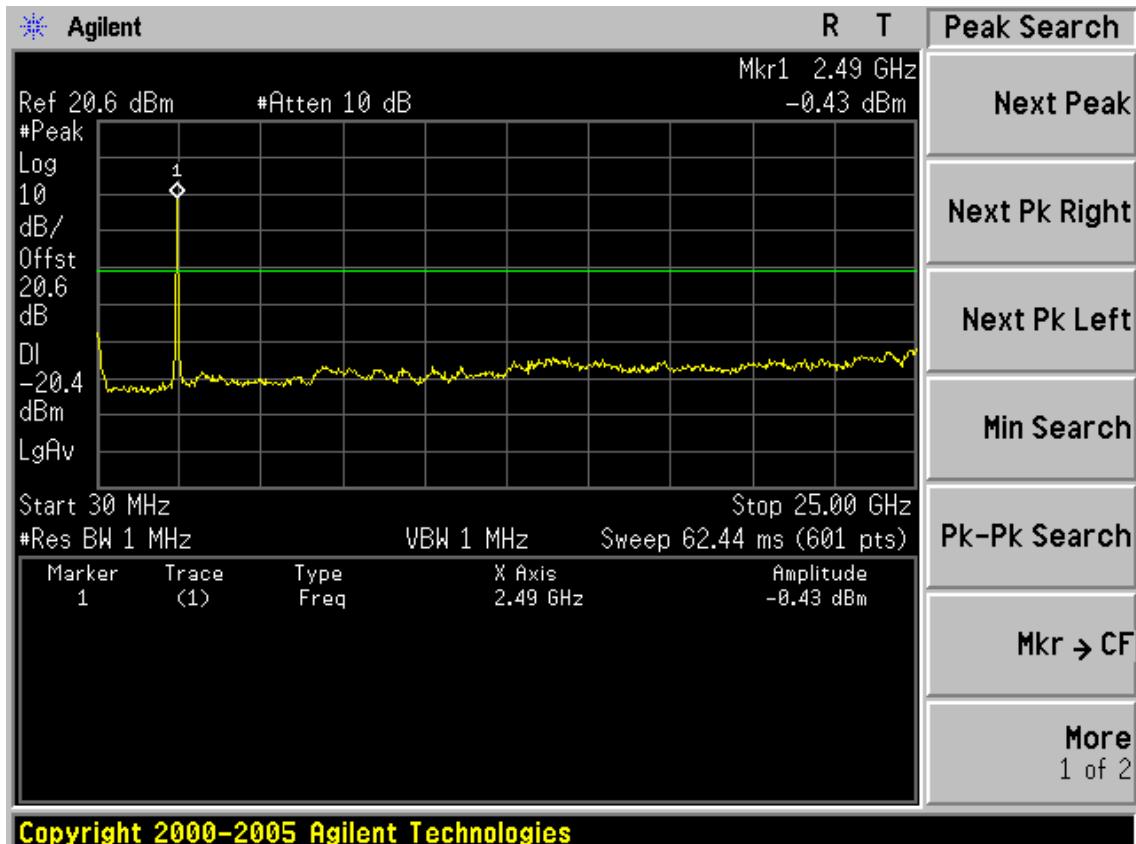




Test CH4: 2437MHz



Test CH7: 2452MHz



6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,11	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	May.25, 11	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 11	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08,11	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	May.08,11	1 Year

6.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

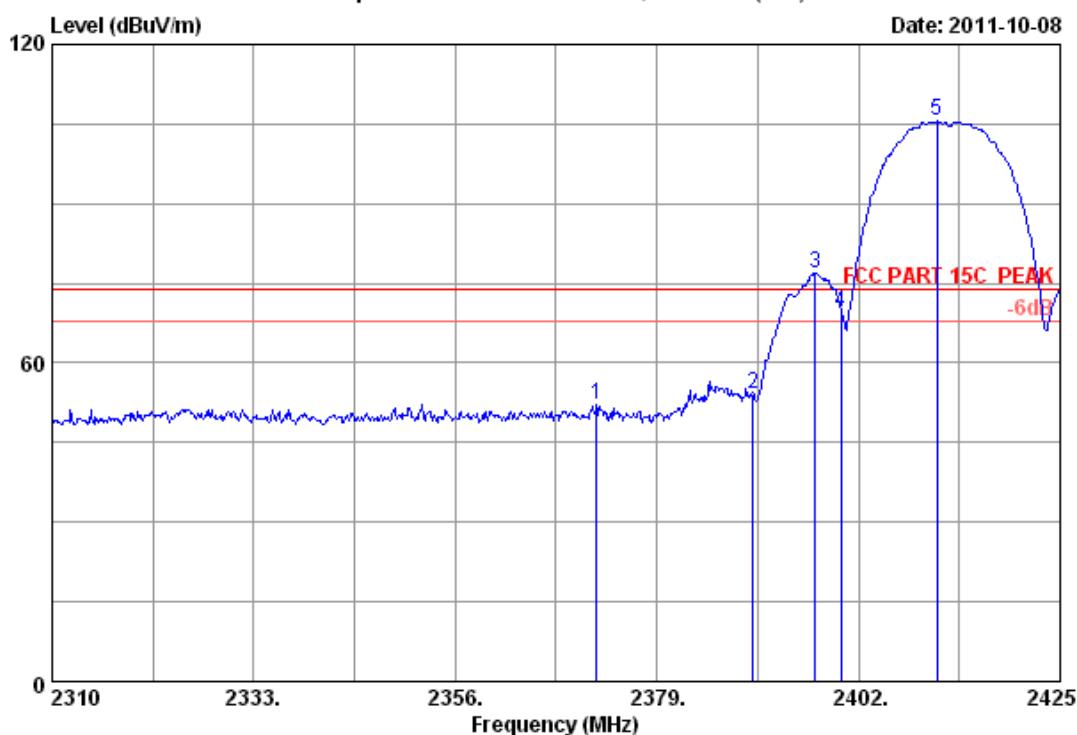
Pass (The testing data was attached in the next pages.)

FCC ID: W6RRNX-N150PCE

page

6-2

Data: 73 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2372.100	29.43	8.67	36.00	49.92	52.02	74.00	21.98	Peak
2 2390.000	29.44	8.67	36.09	51.99	54.01	74.00	19.99	Peak
3 2397.055	29.44	8.72	36.09	74.89	76.96	74.00	-2.96	Peak
4 2400.000	29.44	8.72	36.09	67.30	69.37	74.00	4.63	Peak
5 2410.970	29.45	8.72	35.95	103.33	105.55	74.00	-31.55	Peak

Remarks:

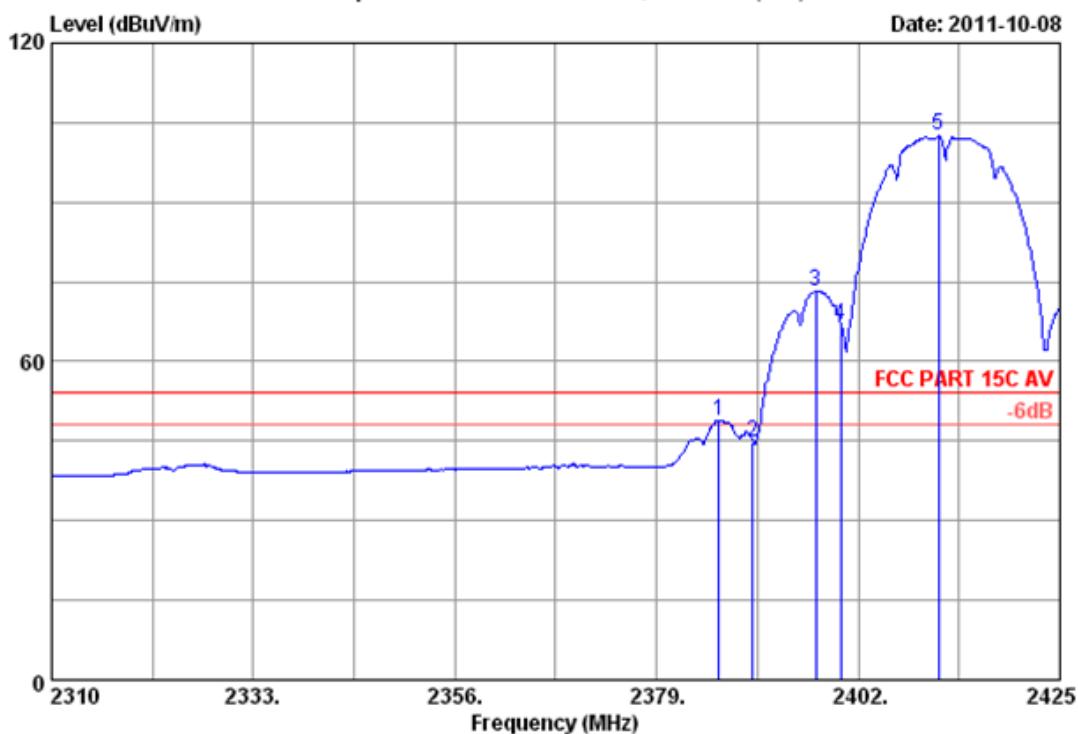
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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6-3

Data: 74 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2386.130	29.44	8.67	36.09	46.73	48.75	54.00	5.25	Average
2 2390.000	29.44	8.67	36.09	42.93	44.95	54.00	9.05	Average
3 2397.170	29.44	8.72	36.09	71.25	73.32	54.00	-19.32	Average
4 2400.000	29.44	8.72	36.09	64.91	66.98	54.00	-12.98	Average
5 2411.200	29.45	8.72	35.95	100.24	102.46	54.00	-48.46	Average

Remarks:

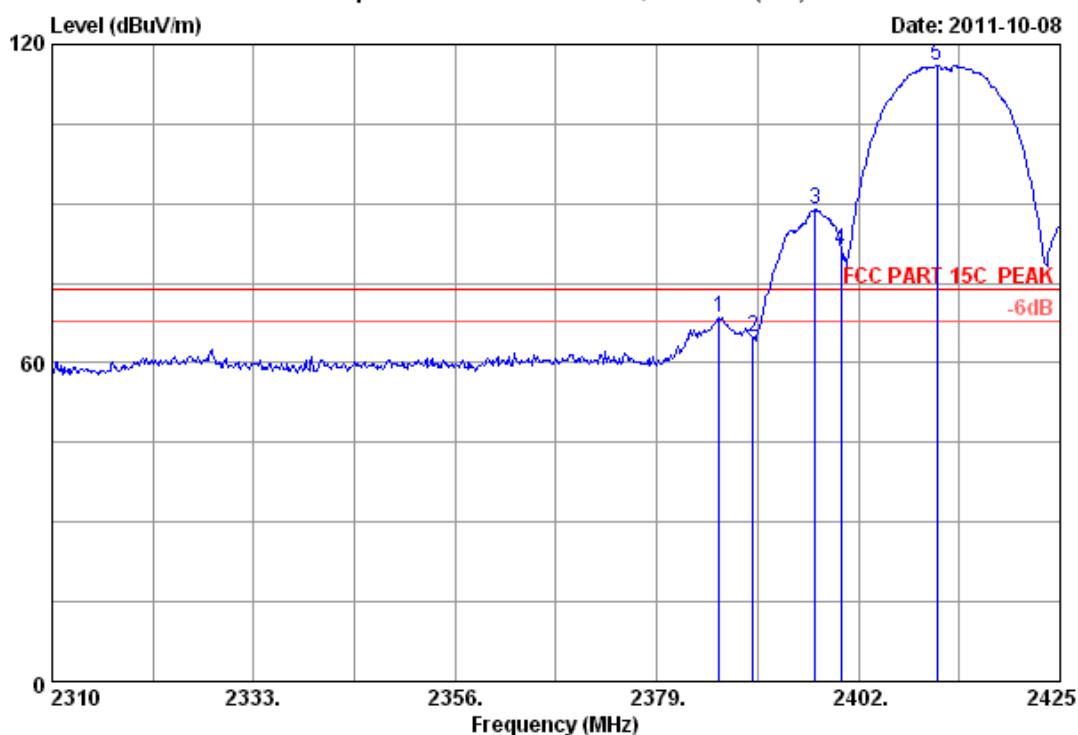
1. Emission Level = Antenna Factor + Cable Loss + Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 75 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 75
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2386.130	29.44	8.67	36.09	66.63	68.65	74.00	5.35	Peak
2 2390.000	29.44	8.67	36.09	62.92	64.94	74.00	9.06	Peak
3 2397.055	29.44	8.72	36.09	86.79	88.86	74.00	-14.86	Peak
4 2400.000	29.44	8.72	36.09	79.29	81.36	74.00	-7.36	Peak
5 2410.970	29.45	8.72	35.95	113.76	115.98	74.00	-41.98	Peak

Remarks:

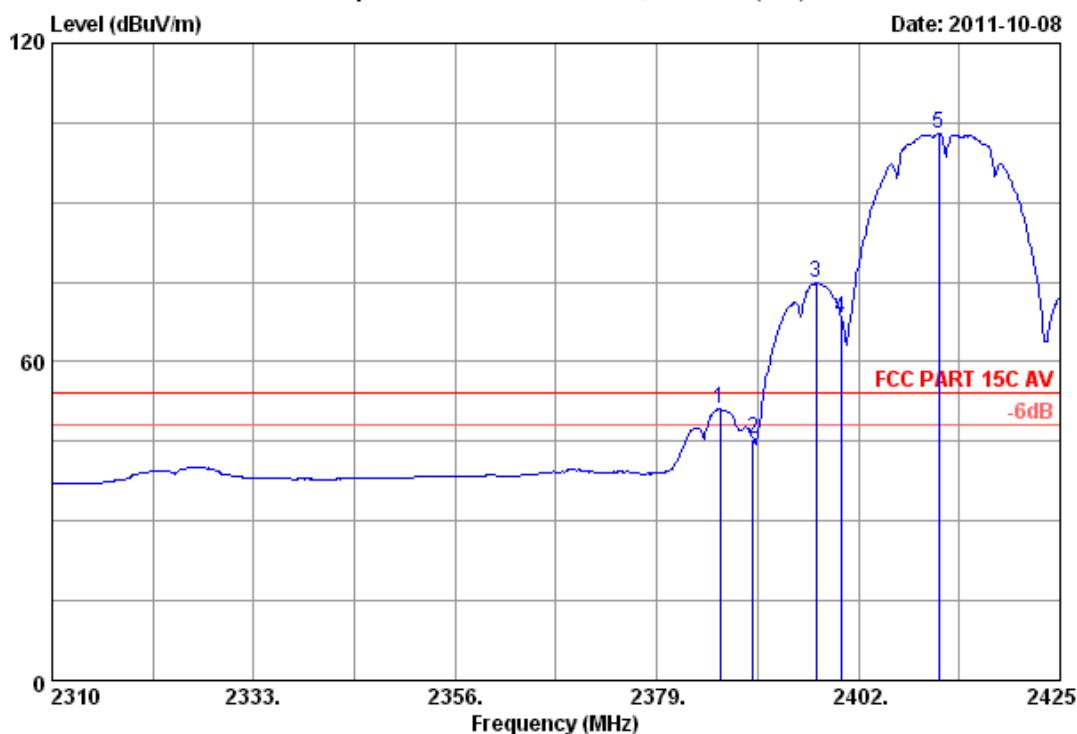
1. Emission Level = Antenna Factor + Cable Loss + Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 76 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2386.245	29.44	8.67	36.09	49.17	51.19	54.00	2.81	Average
2 2390.000	29.44	8.67	36.09	43.28	45.30	54.00	8.70	Average
3 2397.170	29.44	8.72	36.09	72.81	74.88	54.00	-20.88	Average
4 2400.000	29.44	8.72	36.09	66.25	68.32	54.00	-14.32	Average
5 2411.200	29.45	8.72	35.95	100.70	102.92	54.00	-48.92	Average

Remarks:

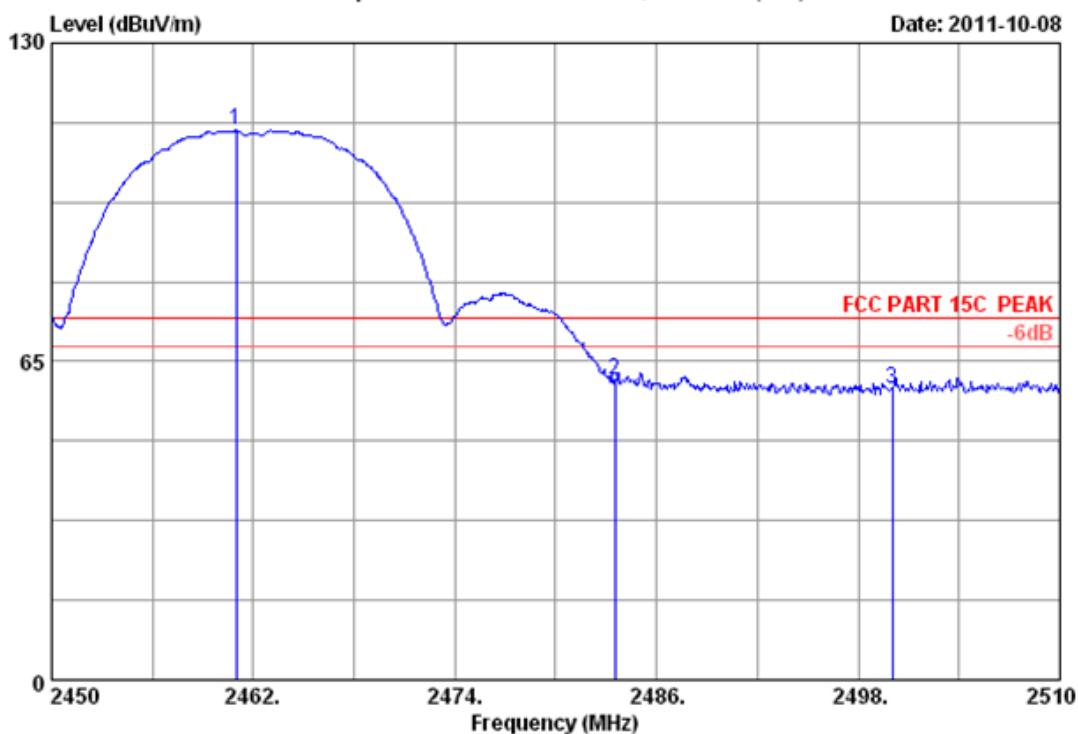
1. Emission Level = Antenna Factor + Cable Loss + Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 77 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 77
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor	Cable loss (dB/m)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2460.980	29.48	8.82	36.02	109.86	112.14	74.00	-38.14	Peak
2 2483.500	29.49	8.87	35.97	58.67	61.06	74.00	12.94	Peak
3 2500.000	29.50	8.92	36.00	56.92	59.34	74.00	14.66	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 78 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor	Cable loss (dB/m)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2461.220	29.48	8.82	36.02	107.09	109.37	54.00	-55.37	Average
2 2483.500	29.49	8.87	35.97	48.50	50.89	54.00	3.11	Average
3 2500.000	29.50	8.92	36.00	46.35	48.77	54.00	5.23	Average

Remarks:

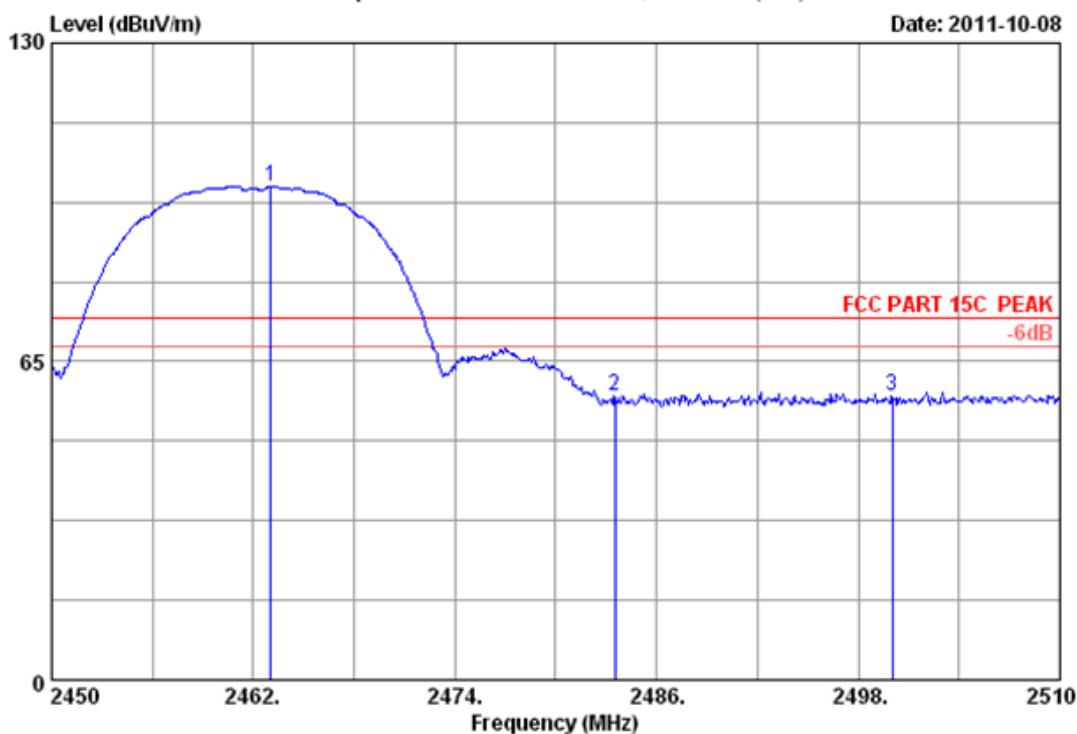
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 79 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

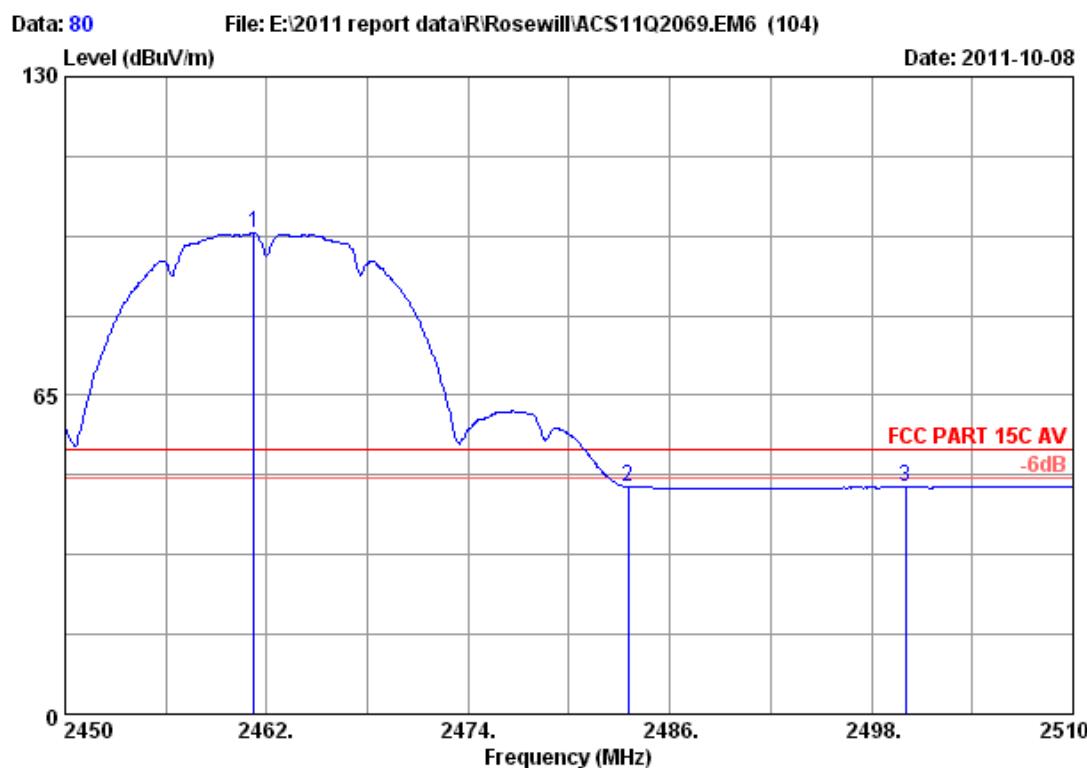


Site no. : 3m Chamber Data no. : 79
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2463.020	29.48	8.82	36.02	98.47	100.75	74.00	-26.75	Peak
2 2483.500	29.49	8.87	35.97	55.56	57.95	74.00	16.05	Peak
3 2500.000	29.50	8.92	36.00	55.67	58.09	74.00	15.91	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2461.220	29.48	8.82	36.02	95.77	98.05	54.00	-44.05	Average
2 2483.500	29.49	8.87	35.97	43.84	46.23	54.00	7.77	Average
3 2500.000	29.50	8.92	36.00	43.82	46.24	54.00	7.76	Average

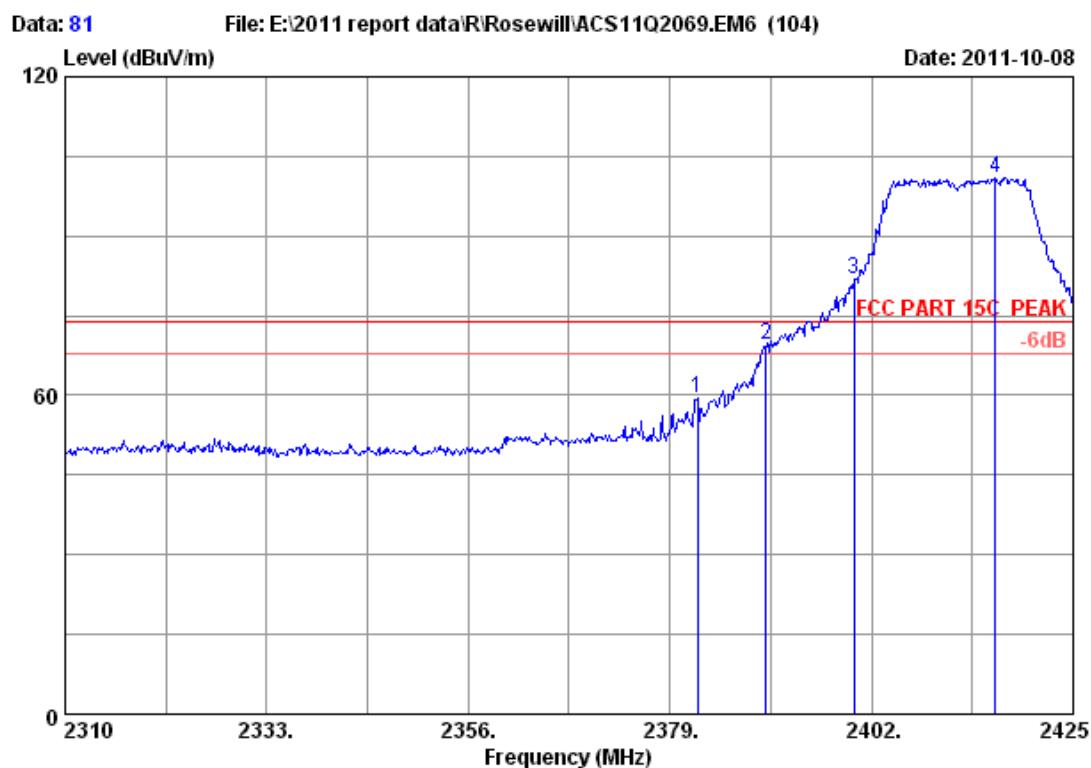
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Site no. : 3m Chamber Data no. : 81
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2382.105	29.43	8.67	36.00	57.27	59.37	74.00	14.63 Peak
2	2390.000	29.44	8.67	36.09	67.58	69.60	74.00	4.40 Peak
3	2400.000	29.44	8.72	36.09	79.97	82.04	74.00	-8.04 Peak
4	2416.145	29.45	8.72	35.95	98.88	101.10	74.00	-27.10 Peak

Remarks:

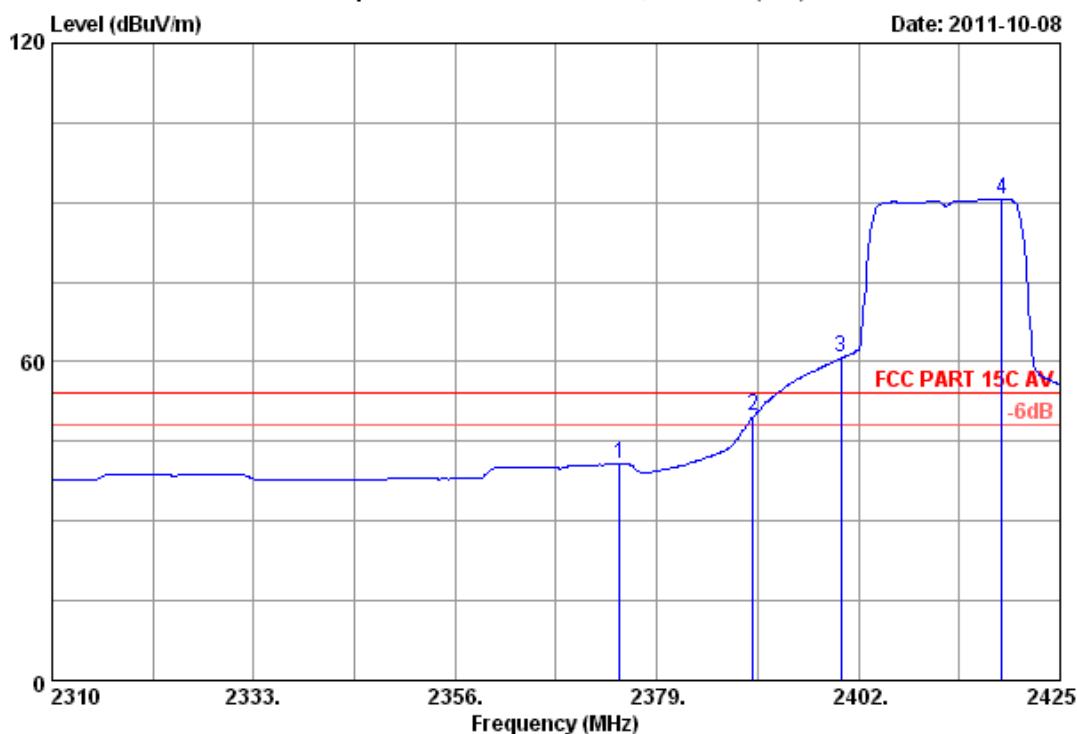
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 82 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2374.745	29.43	8.67	36.00	38.78	40.88	54.00	13.12	Average
2 2390.000	29.44	8.67	36.09	47.70	49.72	54.00	4.28	Average
3 2400.000	29.44	8.72	36.09	58.67	60.74	54.00	-6.74	Average
4 2418.330	29.45	8.72	35.95	88.40	90.62	54.00	-36.62	Average

Remarks:

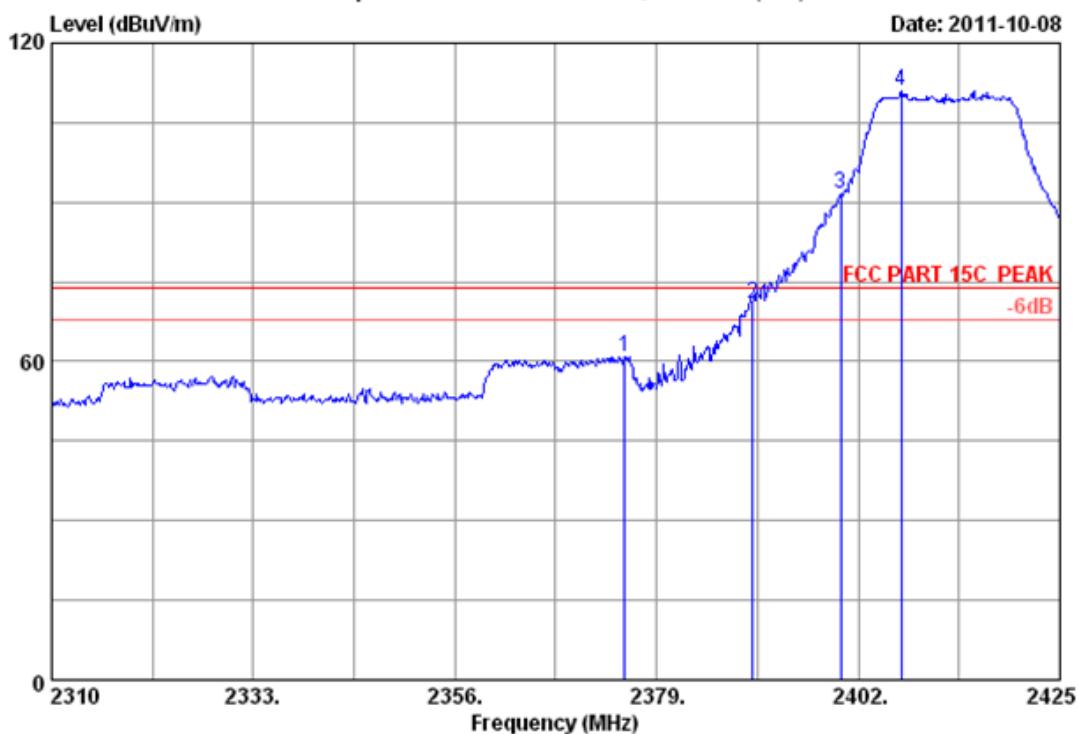
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 83 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 83
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2375.320	29.43	8.67	36.00	58.79	60.89	74.00	13.11	Peak
2 2390.000	29.44	8.67	36.09	68.75	70.77	74.00	3.23	Peak
3 2400.000	29.44	8.72	36.09	89.45	91.52	74.00	-17.52	Peak
4 2406.945	29.45	8.72	35.95	108.64	110.86	74.00	-36.86	Peak

Remarks:

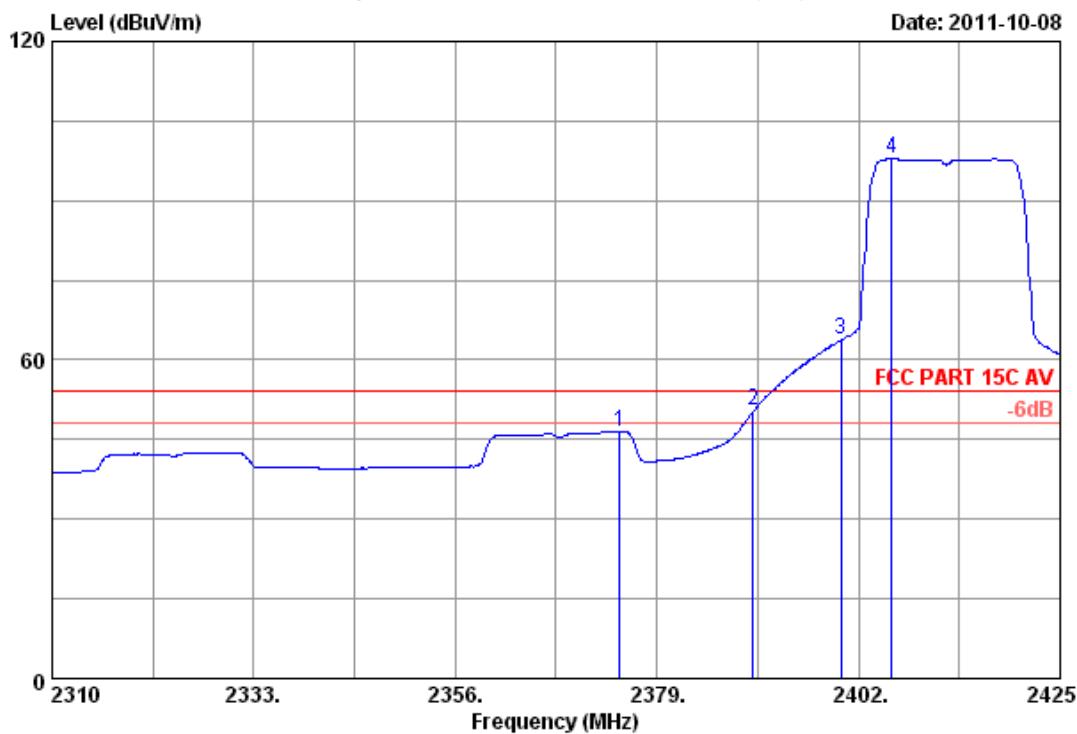
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 84 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 84
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2374.745	29.43	8.67	36.00	44.44	46.54	54.00	7.46	Average
2 2390.000	29.44	8.67	36.09	48.32	50.34	54.00	3.66	Average
3 2400.000	29.44	8.72	36.09	61.75	63.82	54.00	-9.82	Average
4 2405.795	29.45	8.72	35.95	95.65	97.87	54.00	-43.87	Average

Remarks:

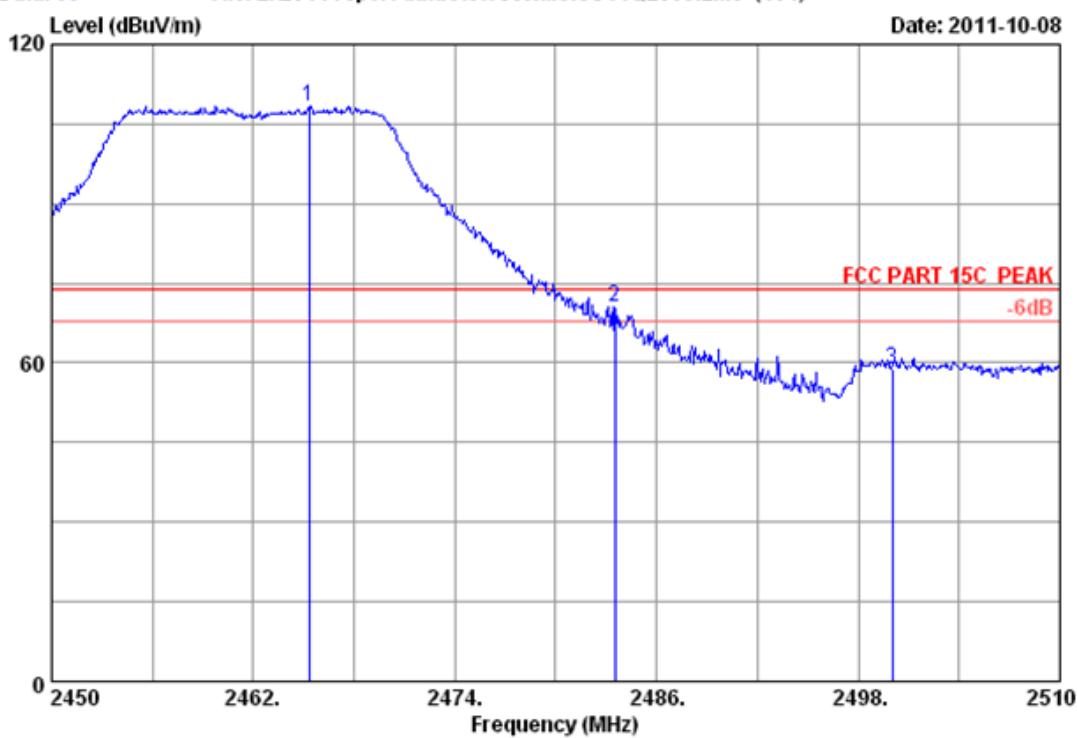
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 85 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 85
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150Pce
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2465.300	29.48	8.82	36.02	106.12	108.40	74.00	-34.40 Peak
2	2483.500	29.49	8.87	35.97	68.14	70.53	74.00	3.47 Peak
3	2500.000	29.50	8.92	36.00	56.57	58.99	74.00	15.01 Peak

Remarks:

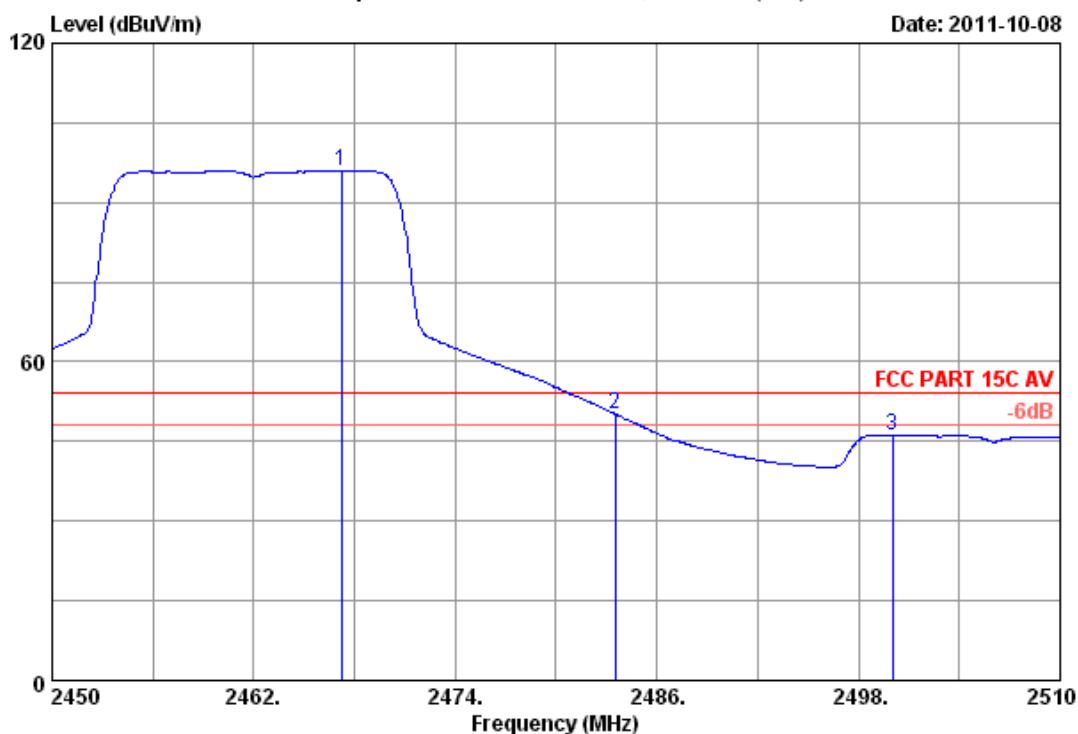
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 86 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 86
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2467.220	29.48	8.82	36.02	93.70	95.98	54.00	-41.98	Average
2 2483.500	29.49	8.87	35.97	47.77	50.16	54.00	3.84	Average
3 2500.000	29.50	8.92	36.00	43.74	46.16	54.00	7.84	Average

Remarks:

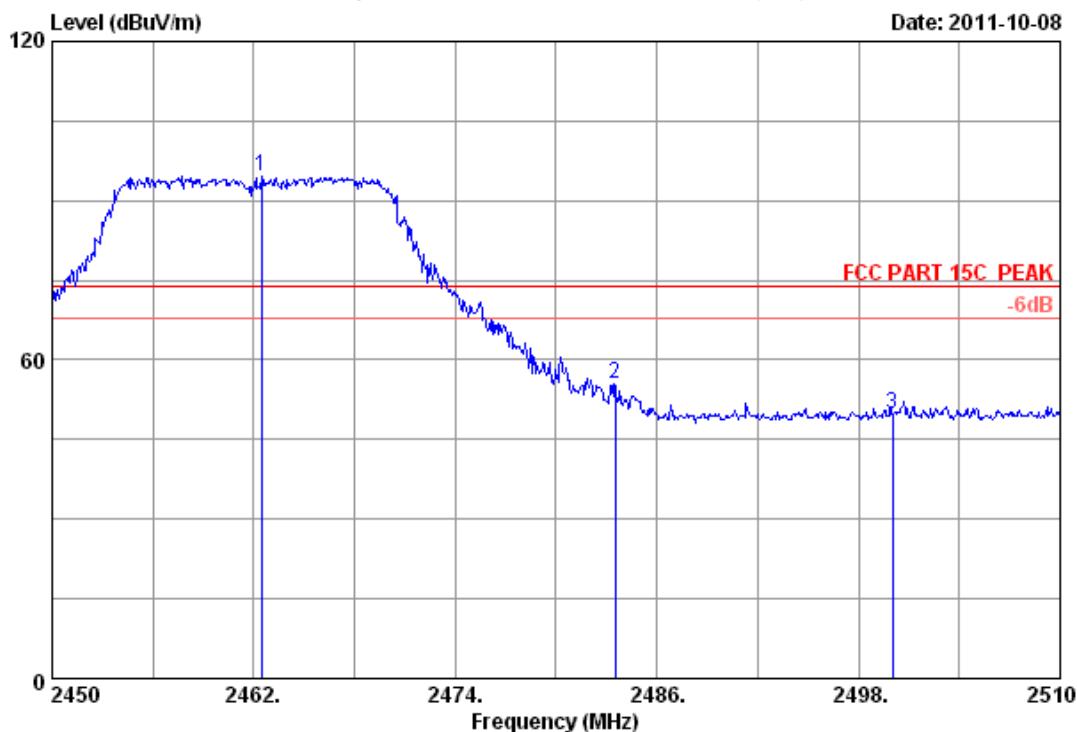
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

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Data: 87 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 87
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2462.480	29.48	8.82	36.02	92.39	94.67	74.00	-20.67	Peak
2 2483.500	29.49	8.87	35.97	53.09	55.48	74.00	18.52	Peak
3 2500.000	29.50	8.92	36.00	47.48	49.90	74.00	24.10	Peak

Remarks:

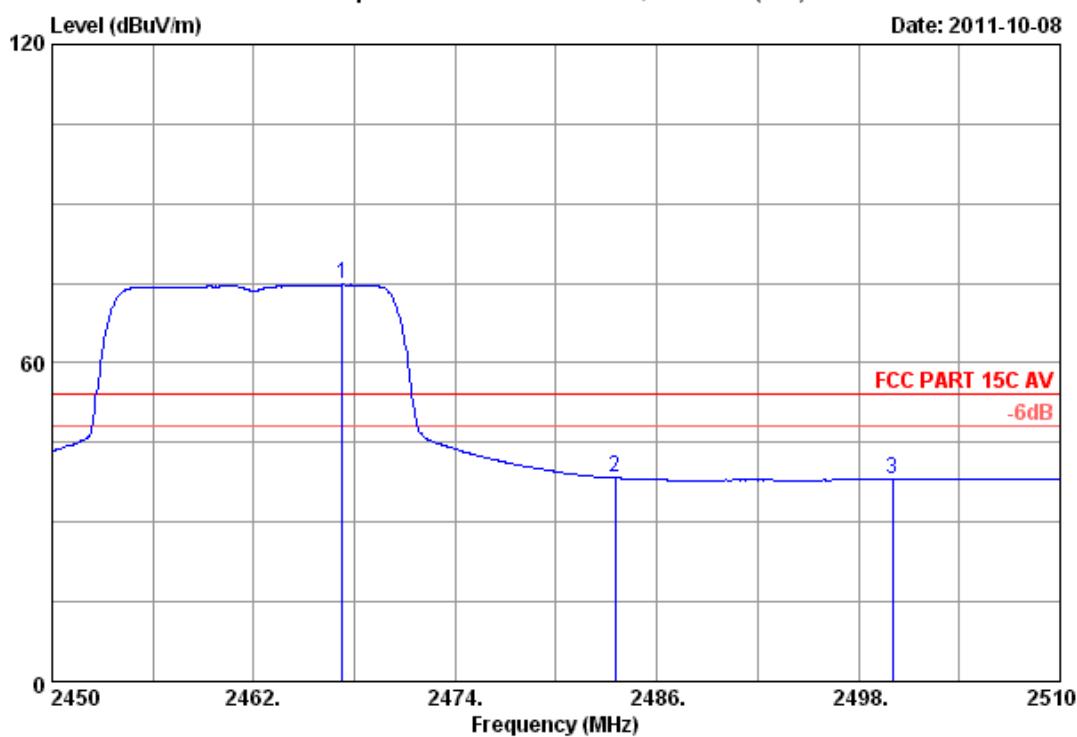
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 88 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 88
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
<hr/>								
1	2467.280	29.48	8.82	36.02	72.44	74.72	54.00 -20.72	Average
2	2483.500	29.49	8.87	35.97	35.95	38.34	54.00 15.66	Average
3	2500.000	29.50	8.92	36.00	35.66	38.08	54.00 15.92	Average
<hr/>								

Remarks:

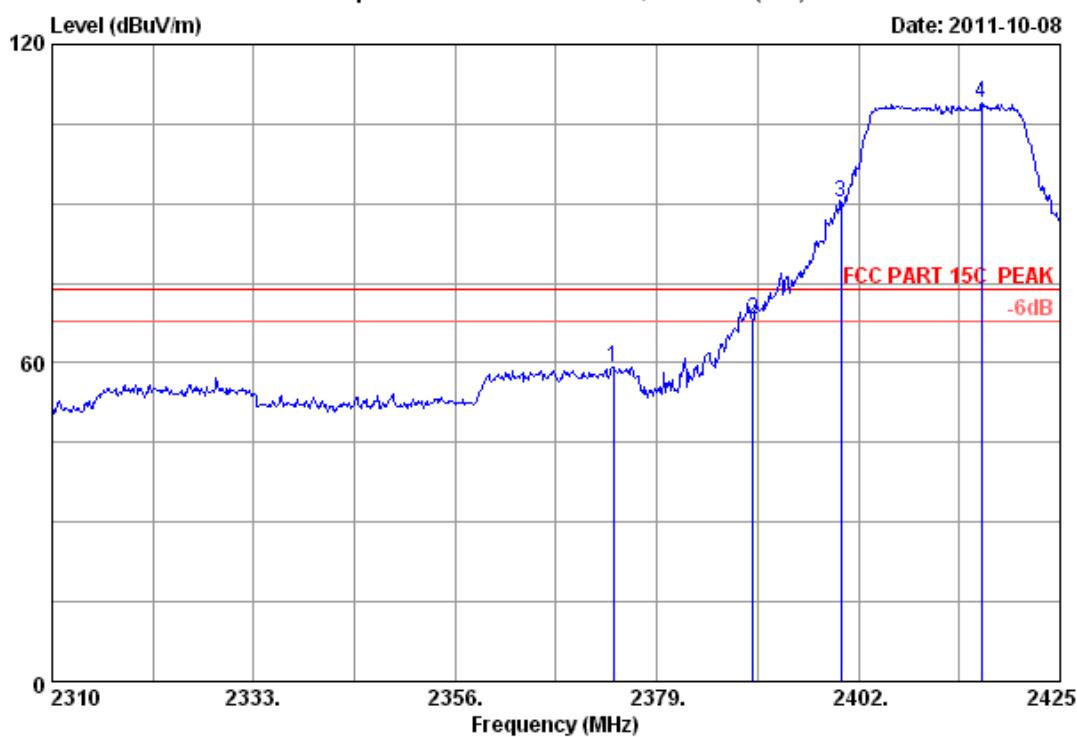
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 89 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 89
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable Amp.			Emission				
		loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)		Remark
1 2374.055	29.43	8.67	36.00	57.13	59.23	74.00	14.77		Peak
2 2390.000	29.44	8.67	36.09	66.20	68.22	74.00	5.78		Peak
3 2400.000	29.44	8.72	36.09	88.19	90.26	74.00	-16.26		Peak
4 2416.030	29.45	8.72	35.95	106.77	108.99	74.00	-34.99		Peak

Remarks:

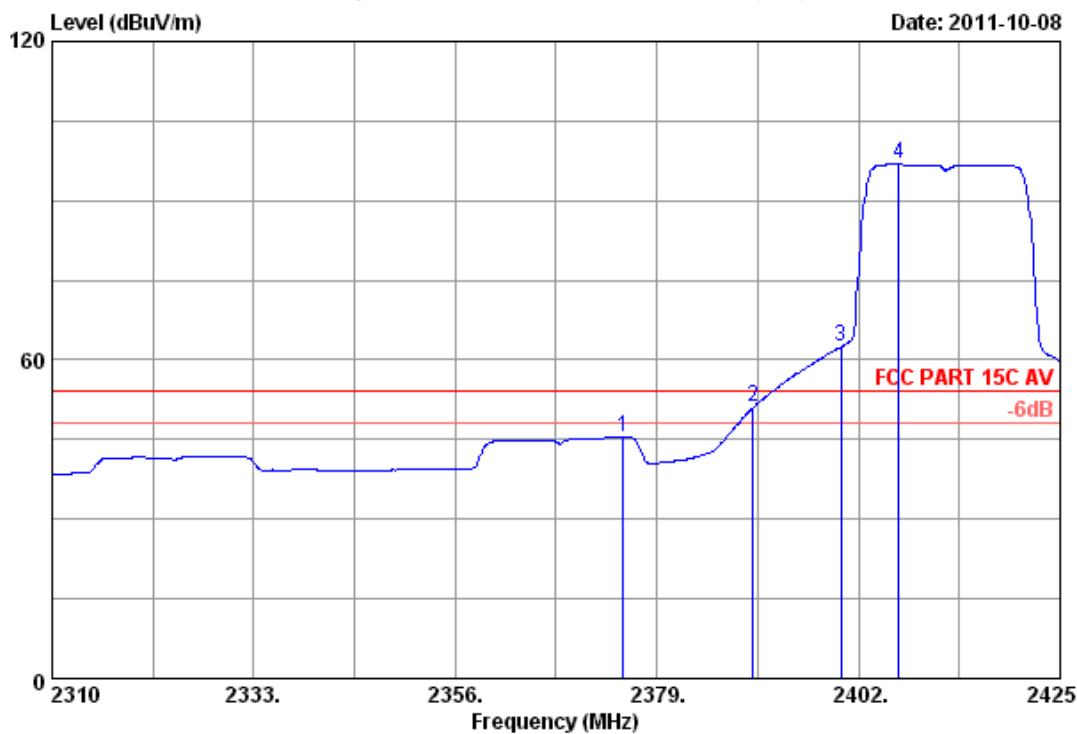
1. Emission Level = Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 90 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH1 2412MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2375.205	29.43	8.67	36.00	43.39	45.49	54.00	8.51	Average
2 2390.000	29.44	8.67	36.09	49.01	51.03	54.00	2.97	Average
3 2400.000	29.44	8.72	36.09	60.42	62.49	54.00	-8.49	Average
4 2406.600	29.45	8.72	35.95	94.60	96.82	54.00	-42.82	Average

Remarks:

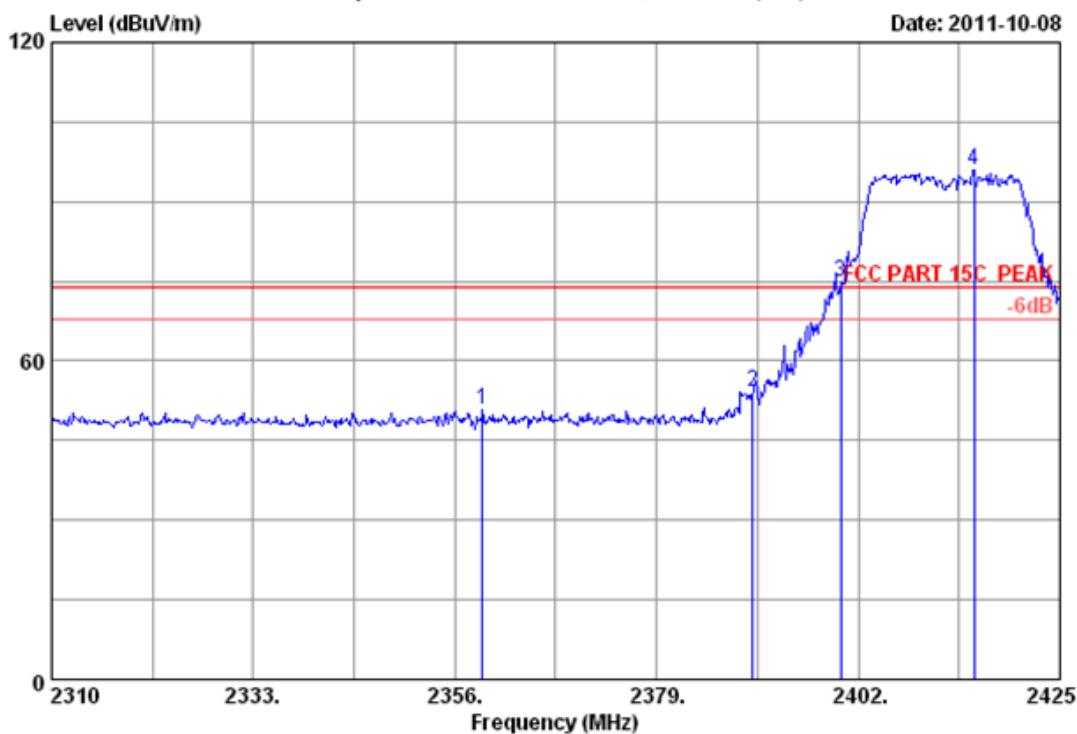
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 91 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 91
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2359.105	29.42	8.62	35.91	48.55	50.68	74.00	23.32	Peak
2 2390.000	29.44	8.67	36.09	52.28	54.30	74.00	19.70	Peak
3 2400.000	29.44	8.72	36.09	72.78	74.85	74.00	-0.85	Peak
4 2415.225	29.45	8.72	35.95	93.67	95.89	74.00	-21.89	Peak

Remarks:

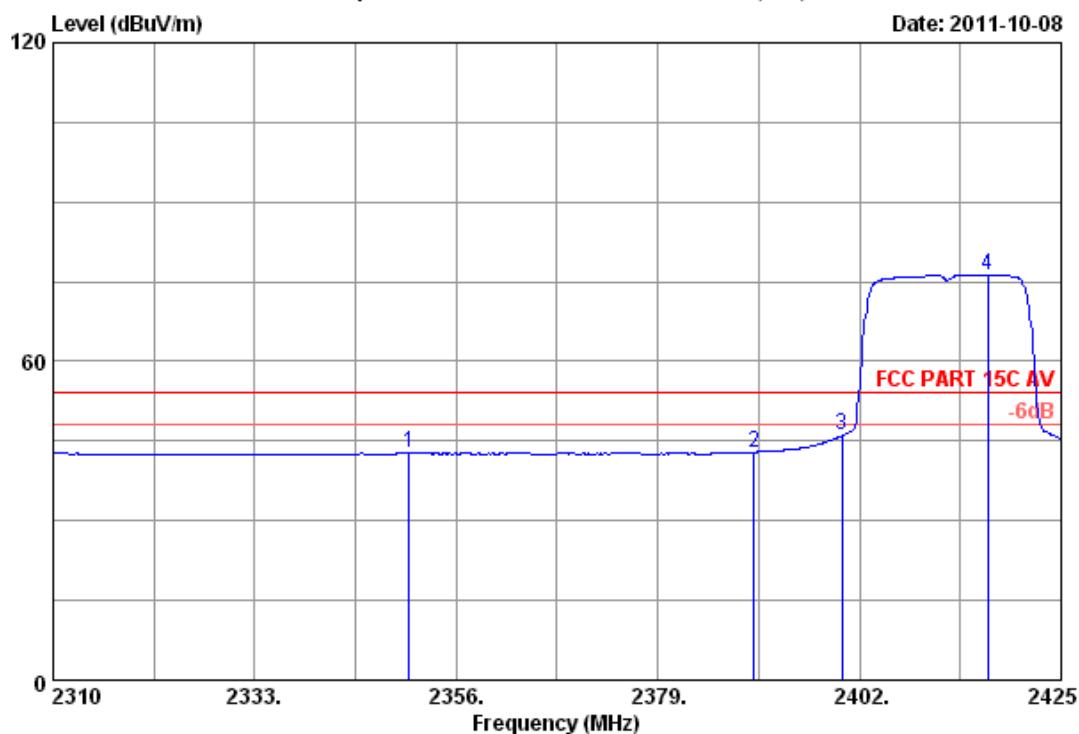
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 92 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 92
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2350.595	29.41	8.62	35.99	40.64	42.68	54.00	11.32	Average
2 2390.000	29.44	8.67	36.09	40.91	42.93	54.00	11.07	Average
3 2400.000	29.44	8.72	36.09	44.01	46.08	54.00	7.92	Average
4 2416.605	29.45	8.72	35.95	74.06	76.28	54.00	-22.28	Average

Remarks:

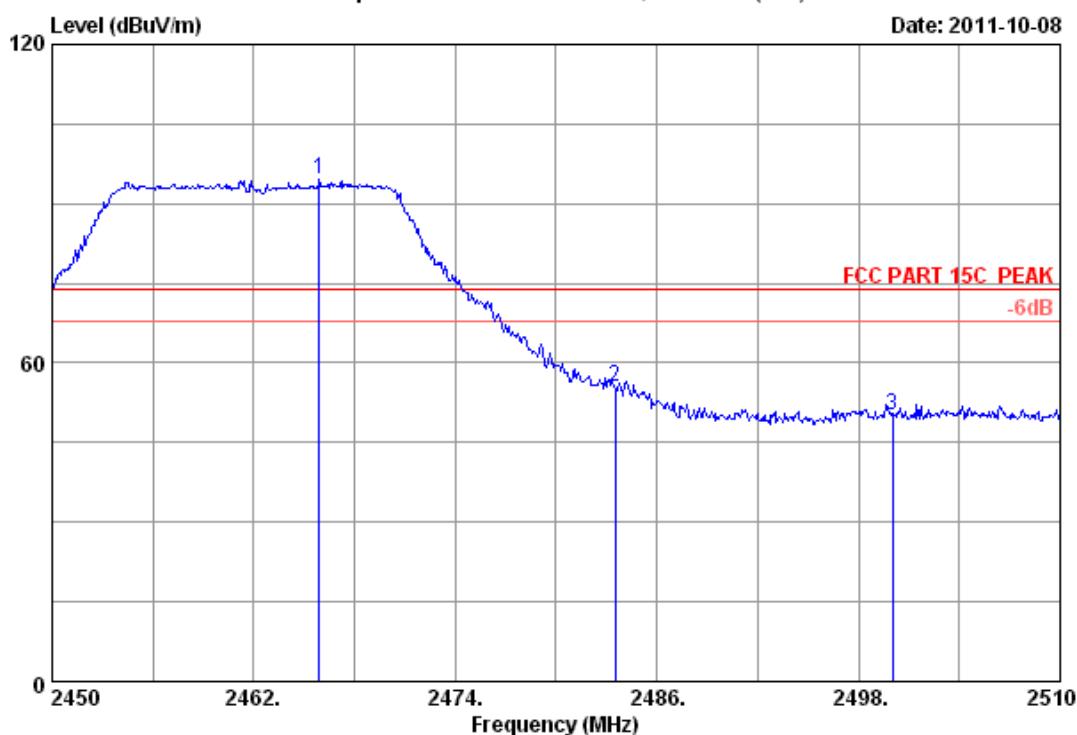
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 93 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 93
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2465.900	29.48	8.82	36.02	92.20	94.48	74.00	-20.48	Peak
2 2483.500	29.49	8.87	35.97	53.21	55.60	74.00	18.40	Peak
3 2500.000	29.50	8.92	36.00	47.65	50.07	74.00	23.93	Peak

Remarks:

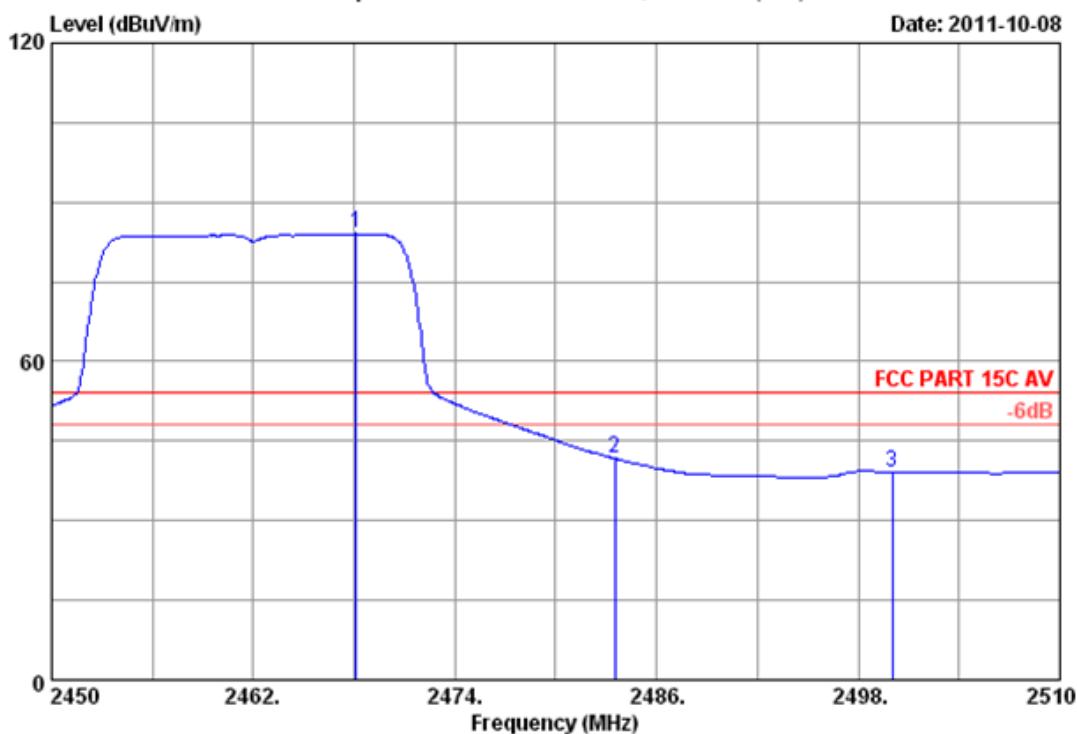
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 94 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 94
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150Pce
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2468.120	29.48	8.82	36.02	81.79	84.07	54.00	-30.07 Average
2	2483.500	29.49	8.87	35.97	39.35	41.74	54.00	12.26 Average
3	2500.000	29.50	8.92	36.00	36.76	39.18	54.00	14.82 Average

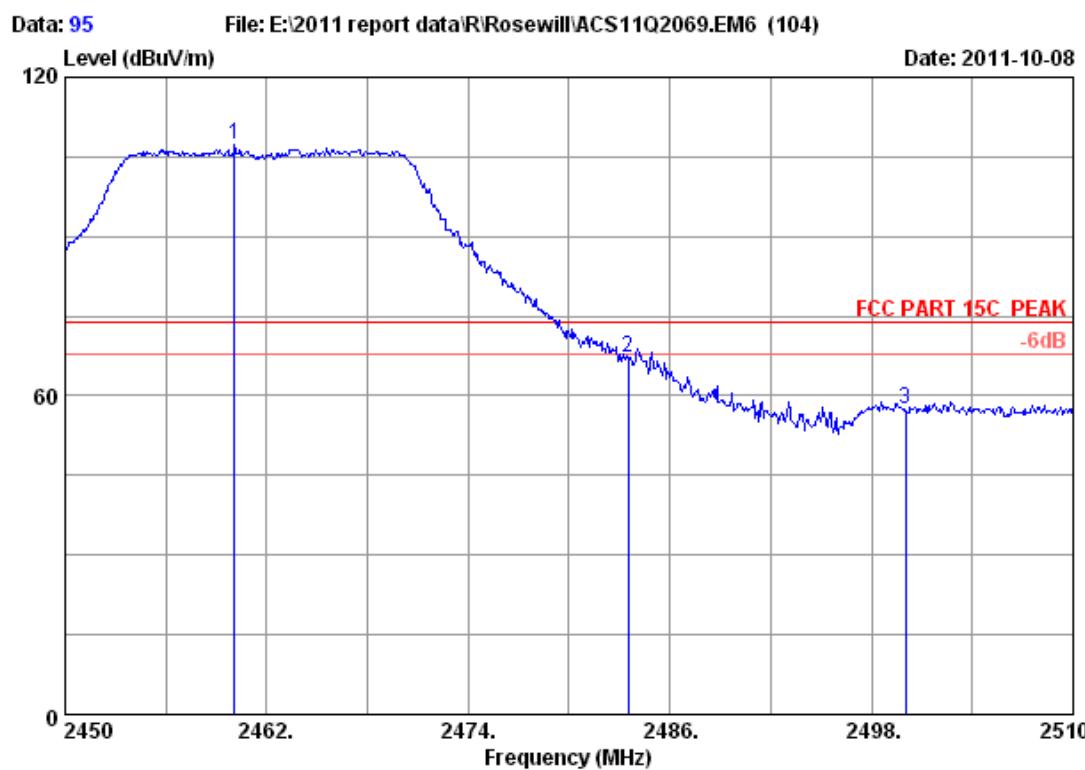
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Site no. : 3m Chamber Data no. : 95
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2460.080	29.48	8.82	36.02	104.85	107.13	74.00	-33.13	Peak
2 2483.500	29.49	8.87	35.97	64.94	67.33	74.00	6.67	Peak
3 2500.000	29.50	8.92	36.00	55.00	57.42	74.00	16.58	Peak

Remarks:

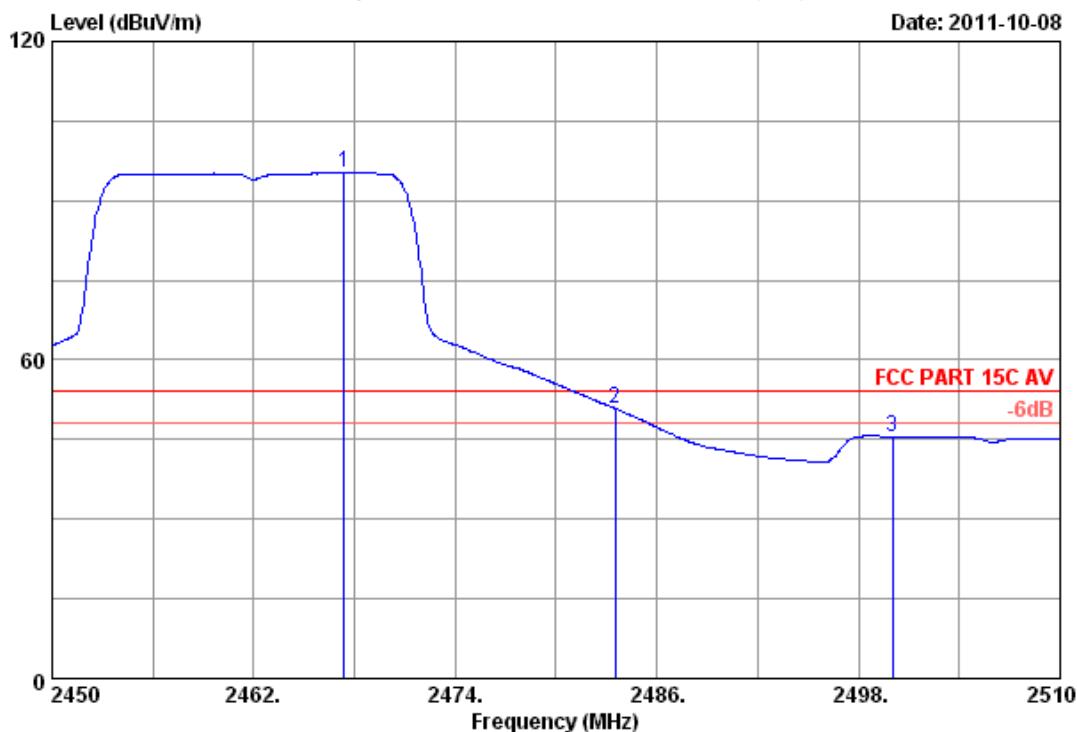
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 96 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 96
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT2O CH11 2462MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor	Cable loss (dB/m)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2467.400	29.48	8.82	36.02	92.98	95.26	54.00	-41.26	Average
2 2483.500	29.49	8.87	35.97	48.52	50.91	54.00	3.09	Average
3 2500.000	29.50	8.92	36.00	43.11	45.53	54.00	8.47	Average

Remarks:

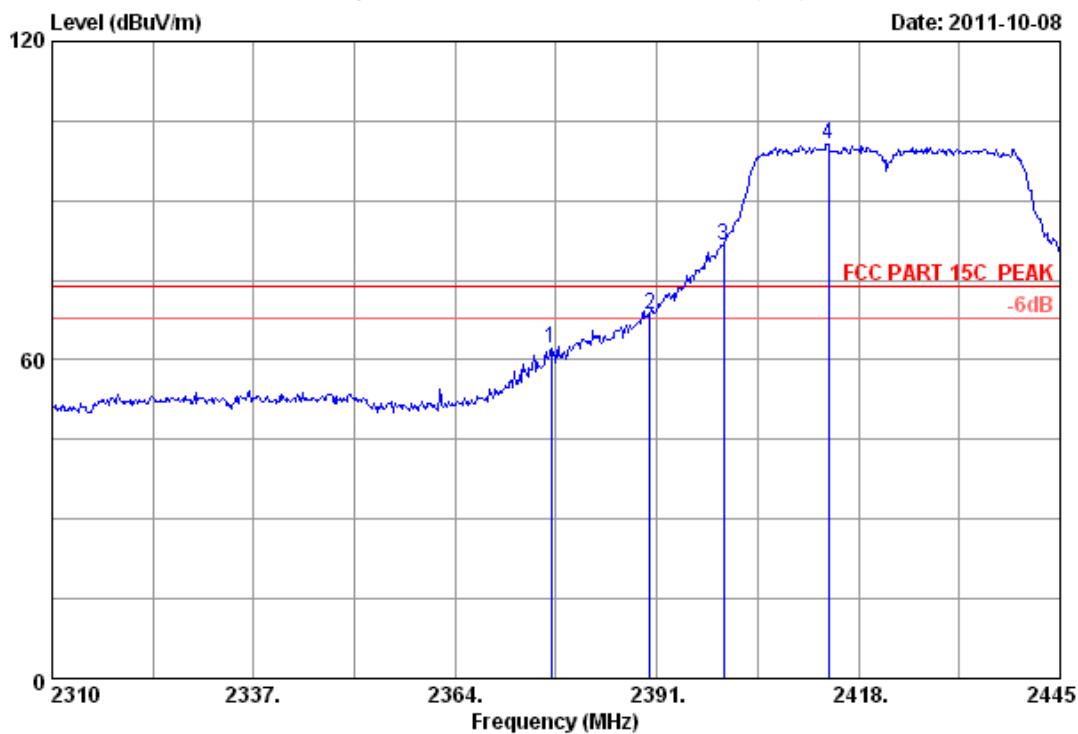
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 97 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 97
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Amp.			Emission			
		Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2376.825	29.43	8.67	36.00	60.22	62.32	74.00	11.68	Peak
2 2390.000	29.44	8.67	36.09	66.63	68.65	74.00	5.35	Peak
3 2400.000	29.44	8.72	36.09	79.42	81.49	74.00	-7.49	Peak
4 2413.950	29.45	8.72	35.95	98.50	100.72	74.00	-26.72	Peak

Remarks:

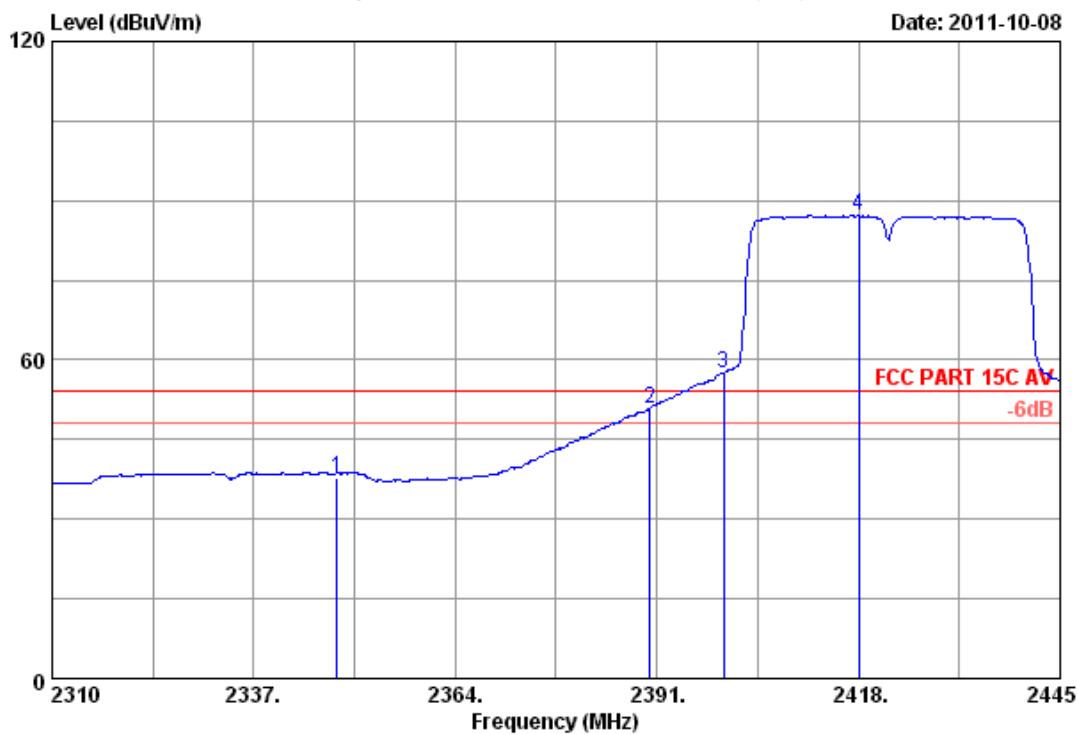
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 98 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 98
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2348.205	29.41	8.62	35.99	35.69	37.73	54.00	16.27	Average
2 2390.000	29.44	8.67	36.09	48.90	50.92	54.00	3.08	Average
3 2400.000	29.44	8.72	36.09	55.58	57.65	54.00	-3.65	Average
4 2418.000	29.45	8.72	35.95	84.93	87.15	54.00	-33.15	Average

Remarks:

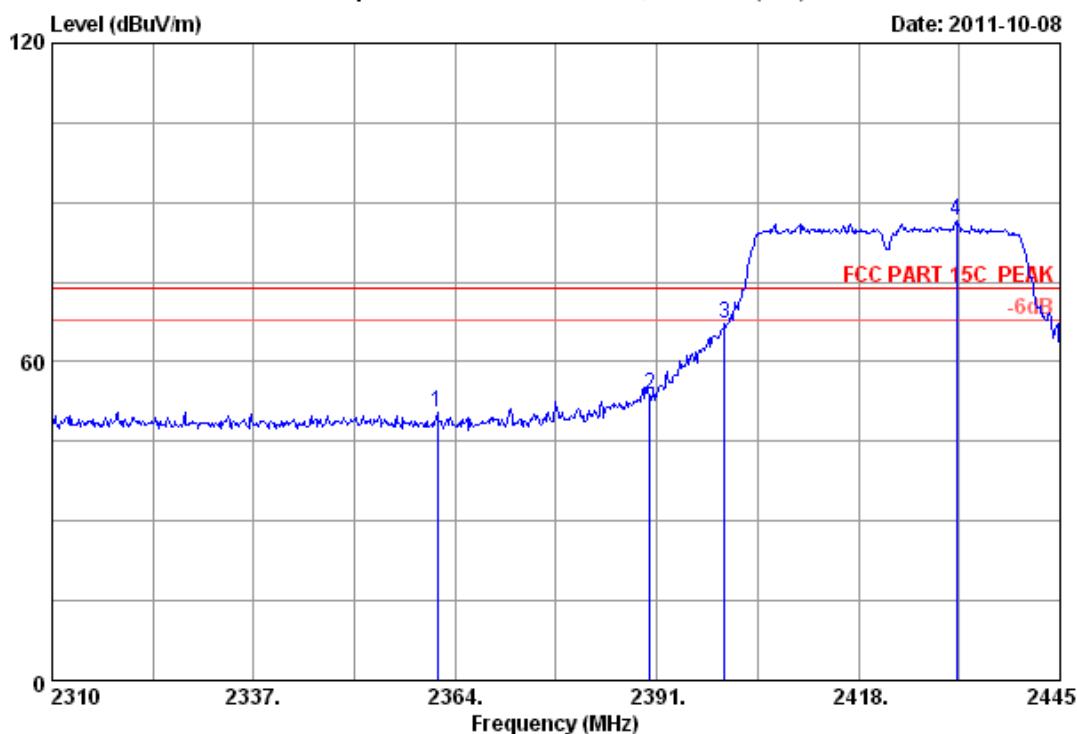
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 99 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 99
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150PCE
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2361.570	29.42	8.62	35.91	48.39	50.52	74.00	23.48	Peak
2 2390.000	29.44	8.67	36.09	51.73	53.75	74.00	20.25	Peak
3 2400.045	29.44	8.72	36.09	65.06	67.13	74.00	6.87	Peak
4 2431.095	29.46	8.77	36.01	84.35	86.57	74.00	-12.57	Peak

Remarks:

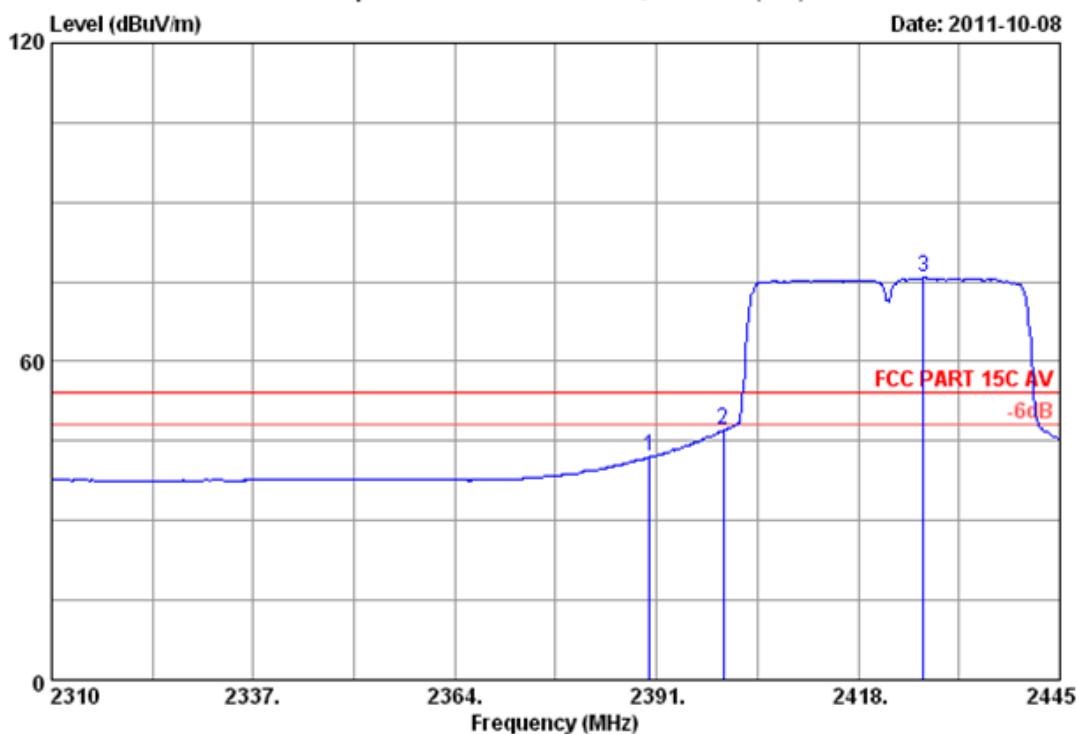
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 100 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 100
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx
M/N : RNX-N150Pce
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2390.000	29.44	8.67	36.09	39.97	41.99	54.00	12.01	Average
2 2400.000	29.44	8.72	36.09	44.91	46.98	54.00	7.02	Average
3 2426.775	29.46	8.77	36.01	73.54	75.76	54.00	-21.76	Average

Remarks:

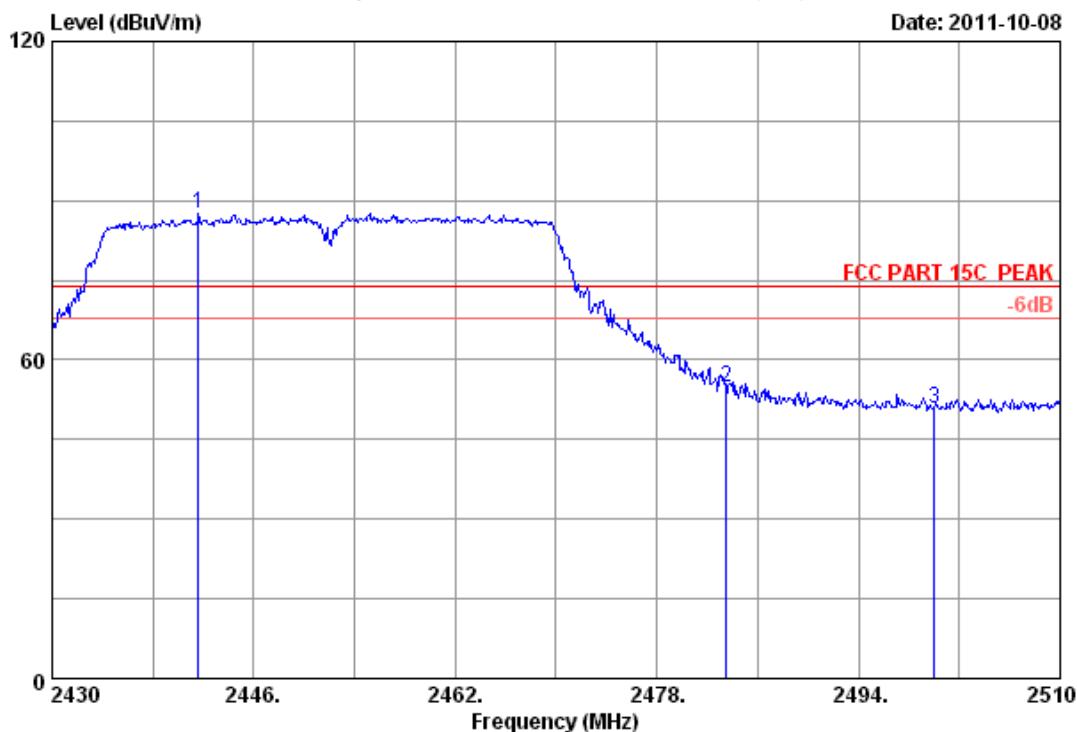
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 101 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 101
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCe
:

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Emission				
				Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2441.600	29.47	8.77	36.06	85.46	87.64	74.00	-13.64	Peak
2 2483.500	29.49	8.87	35.97	52.35	54.74	74.00	19.26	Peak
3 2500.000	29.50	8.92	36.00	48.54	50.96	74.00	23.04	Peak

Remarks:

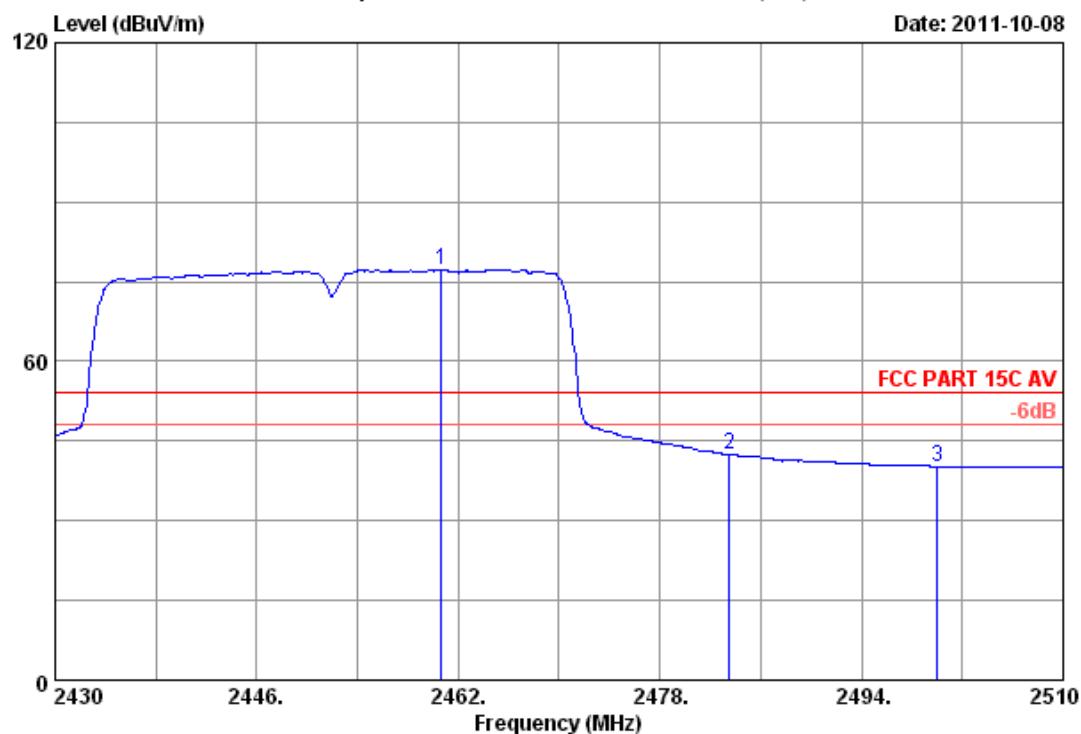
1. Emission Level = Antenna Factor + Cable Loss - Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

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Data: 102 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)



Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
	Freq. Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.640	29.48	8.82	36.02	74.98	77.26	54.00	-23.26 Average
2	2483.500	29.49	8.87	35.97	39.96	42.35	54.00	11.65 Average
3	2500.000	29.50	8.92	36.00	37.81	40.23	54.00	13.77 Average

Remarks:

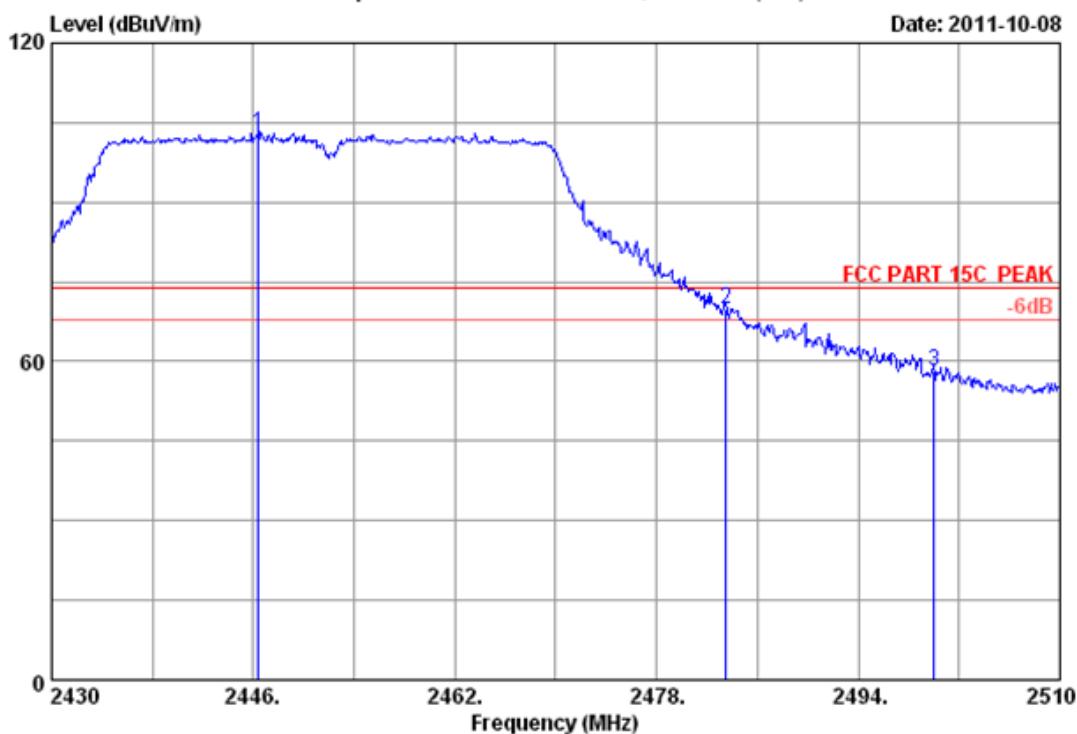
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

FCC ID: W6RRNX-N150PCE

page

6-32

Data: 103 File: E:\2011 report data\R\Rosewill\ACS11Q2069.EM6 (104)

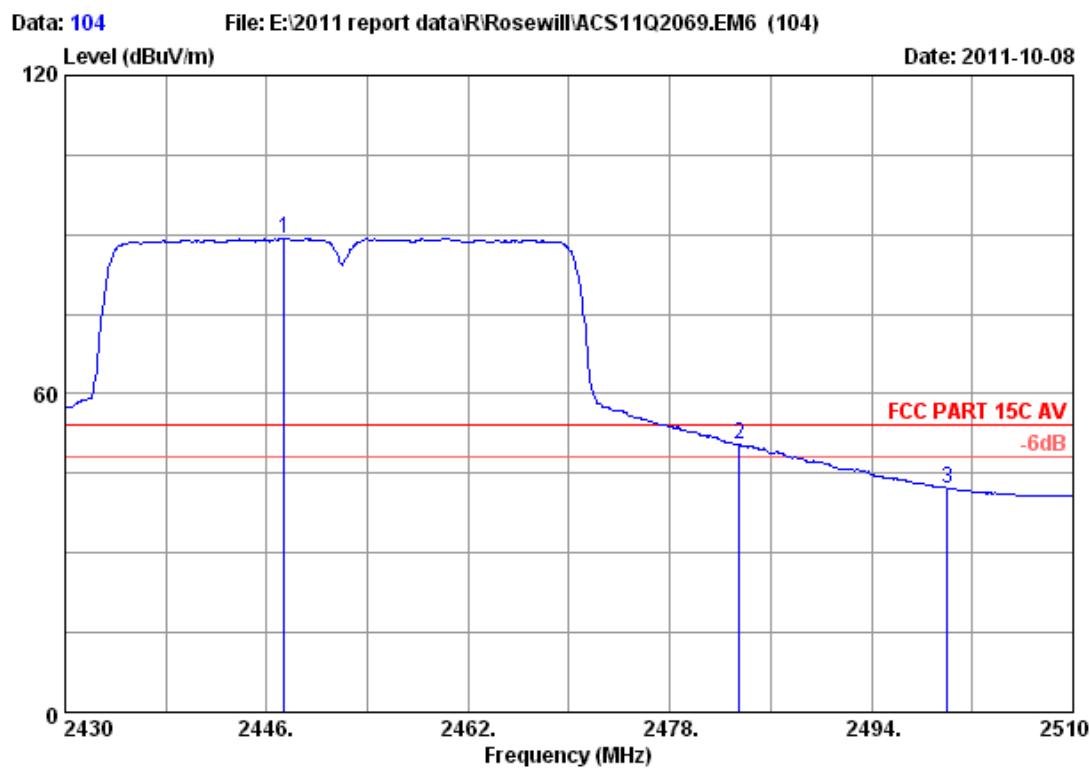


Site no. : 3m Chamber Data no. : 103
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCe
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2446.400	29.47	8.77	36.06	100.65	102.83	74.00	-28.83 Peak
2	2483.500	29.49	8.87	35.97	67.30	69.69	74.00	4.31 Peak
3	2500.000	29.50	8.92	36.00	55.87	58.29	74.00	15.71 Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 104
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23°C/54% Engineer : Leo-Li
EUT : 2.4GHz Wireless Lite-N PCI-E Adapter
Power : DC 3.3V From PC Input AC 120V/60Hz
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx
M/N : RNX-N150PCE
:

	Ant.	Cable	Amp.	Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2447.360	29.47	8.82	36.06	87.01	89.24	54.00	-35.24 Average
2	2483.500	29.49	8.87	35.97	47.97	50.36	54.00	3.64 Average
3	2500.000	29.50	8.92	36.00	39.85	42.27	54.00	11.73 Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

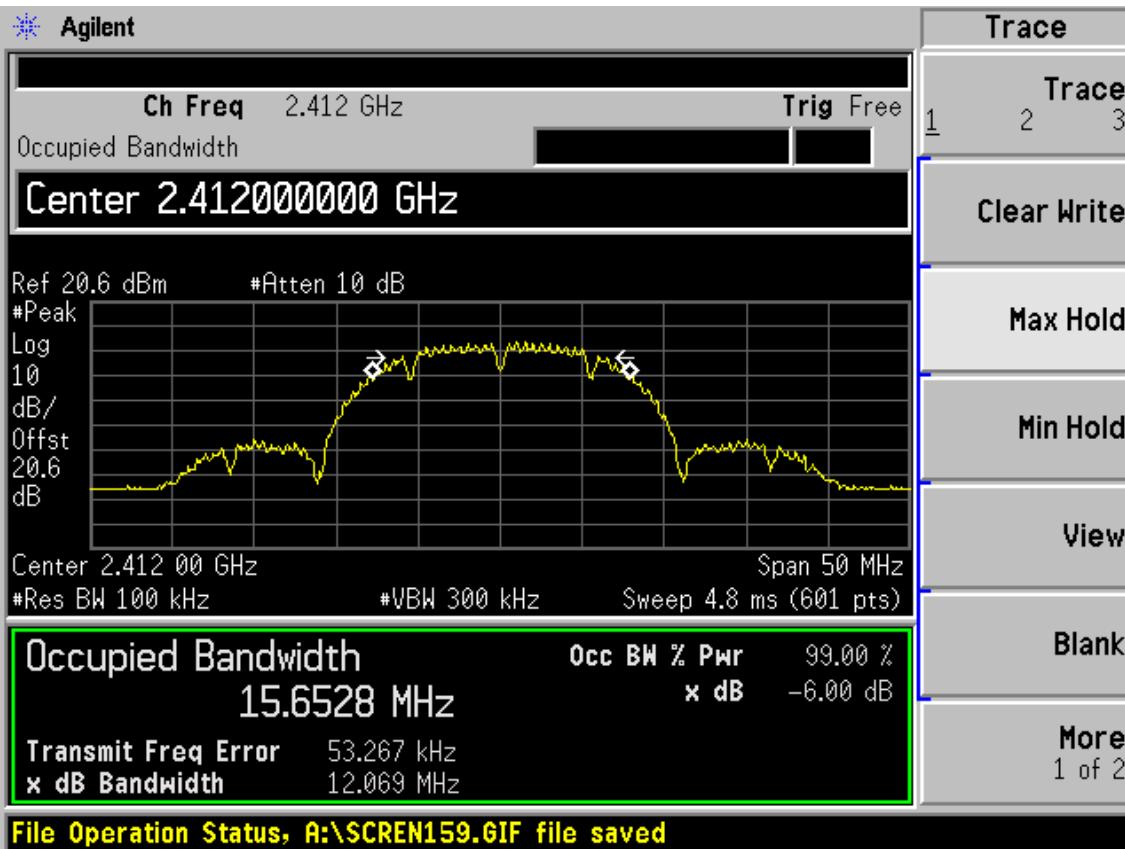
7.4. Test Results

EUT: 2.4GHz Wireless Lite-N PCI-E Adapter		
M/N: RNX-N150PCe		
Test date:2011-09-29	Pressure: 100.6 kpa	Humidity: 60 %
Tested by:Sunny-lu	Test site: RF Site	Temperature : 25 °C

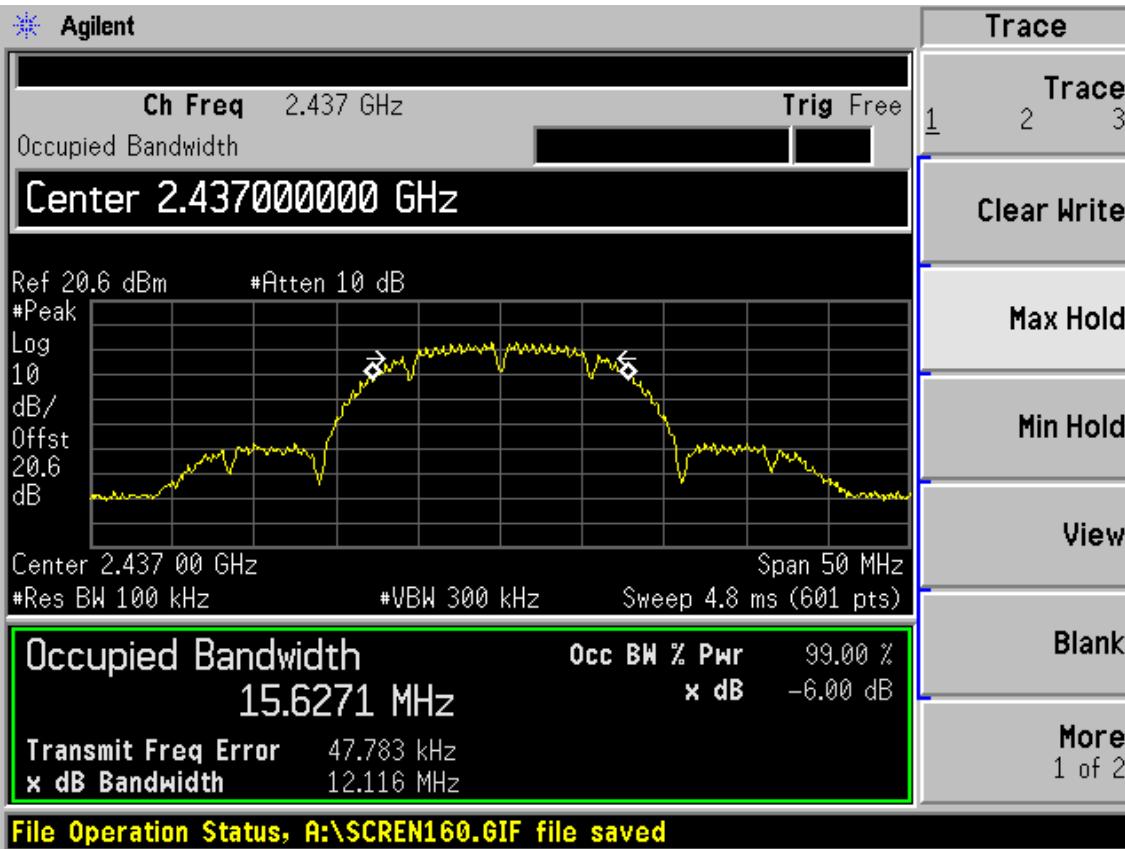
Cable loss: 0.6 dB		Attenuator loss: 20 dB	Antenna Gain: 5 dBi
Test Mode	CH	6dB bandwidth (MHz)	Limit (KHz)
11b	CH1	12.069	>500
	CH6	12.116	>500
	CH11	12.518	>500
11g	CH1	16.442	>500
	CH6	16.448	>500
	CH11	16.433	>500
11n HT20	CH1	17.640	>500
	CH6	17.656	>500
	CH11	17.686	>500
11n HT40	CH1	36.367	>500
	CH4	36.156	>500
	CH7	36.146	>500
Conclusion : PASS			

Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz



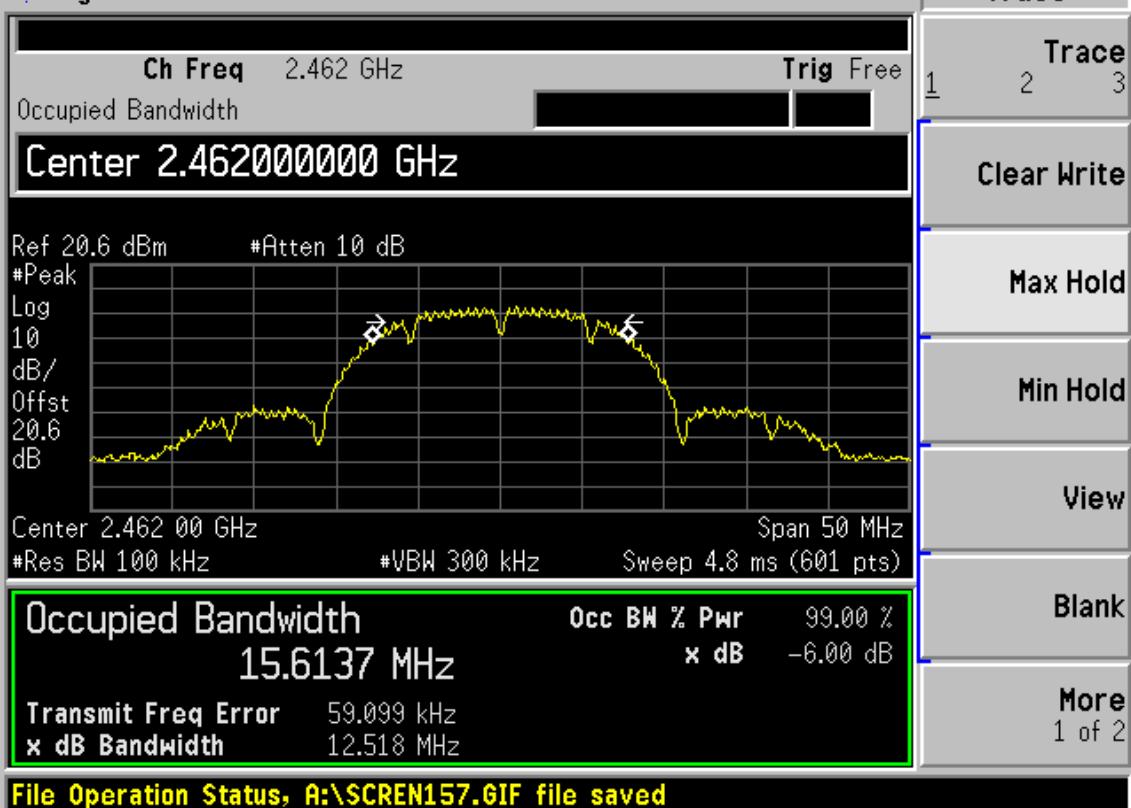
Test CH6: 2437MHz



Test CH11: 2462MHz



Agilent

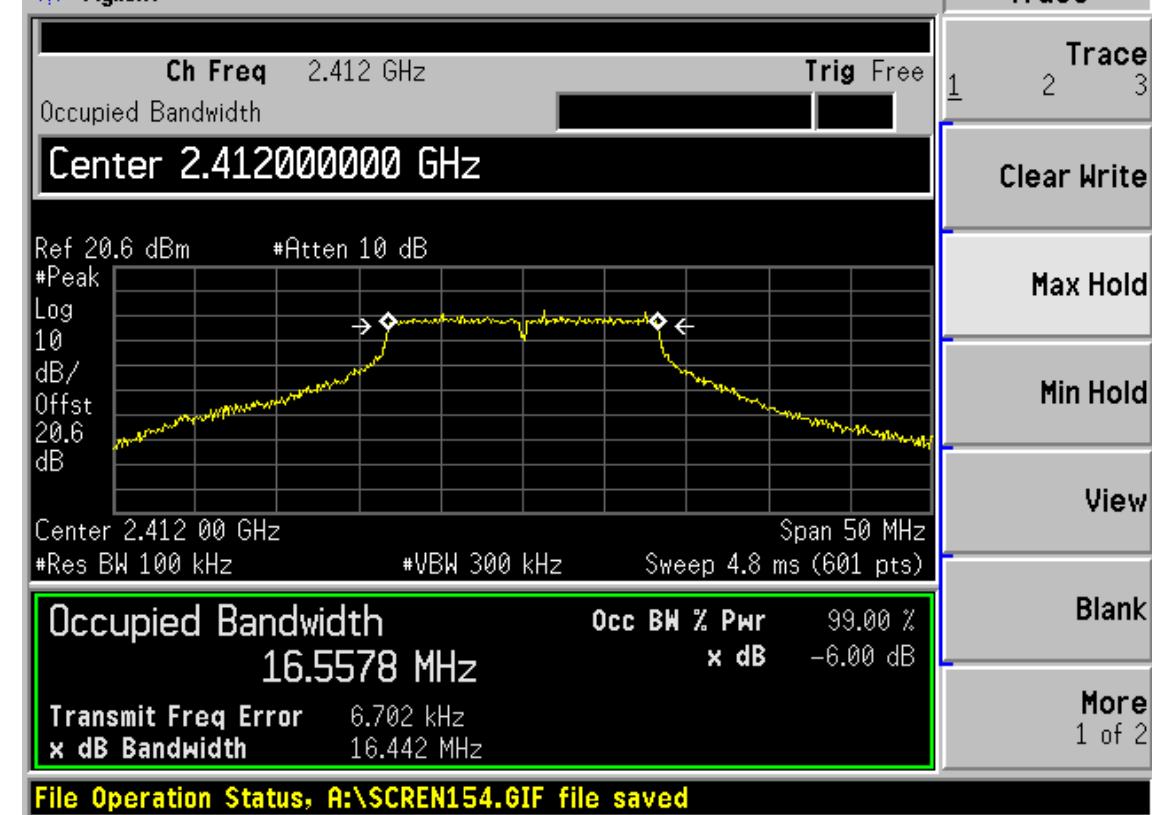


Test Mode: IEEE 802.11g TX

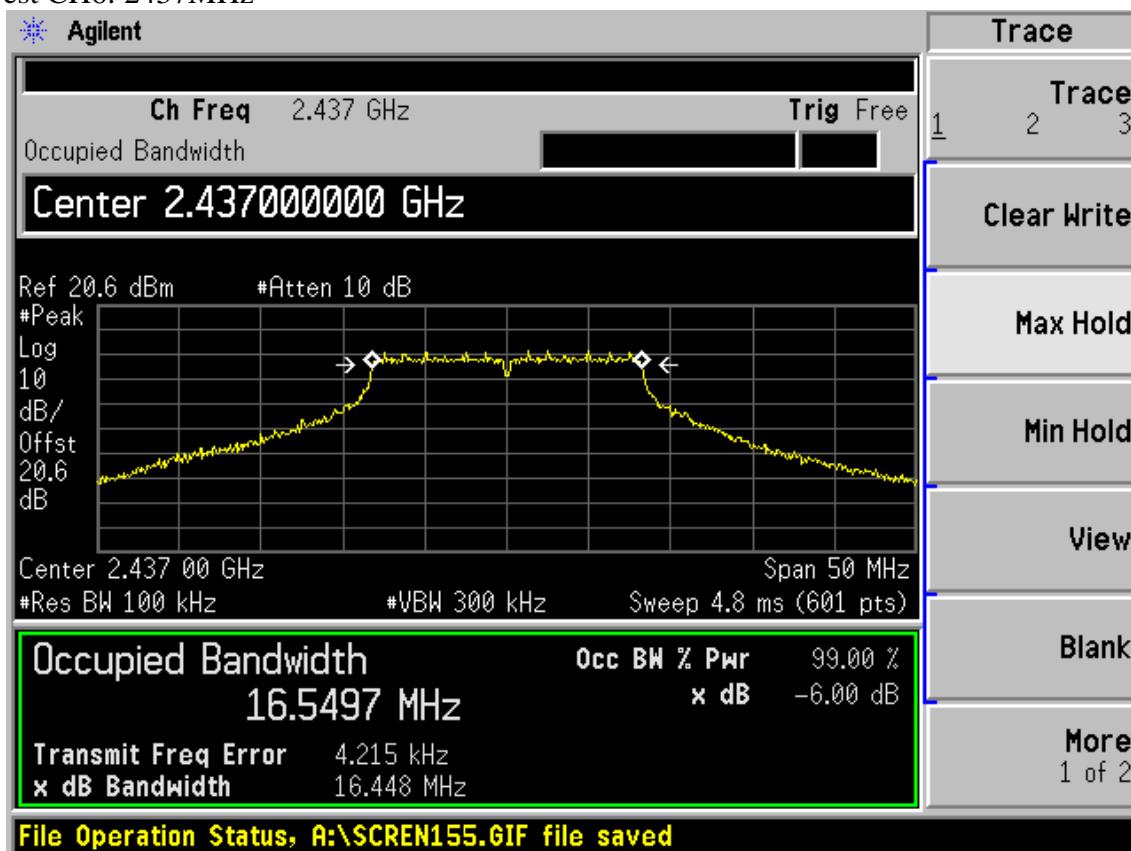
Test CH1: 2412MHz



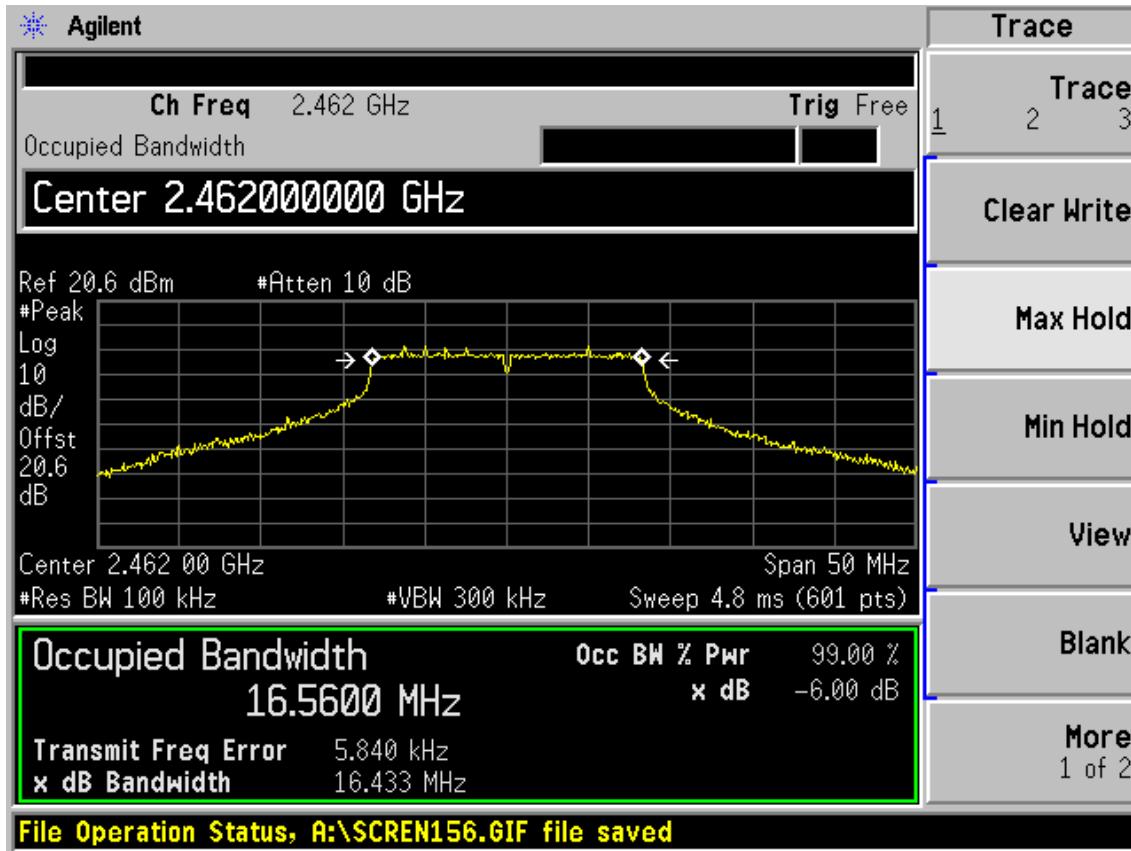
Agilent



Test CH6: 2437MHz

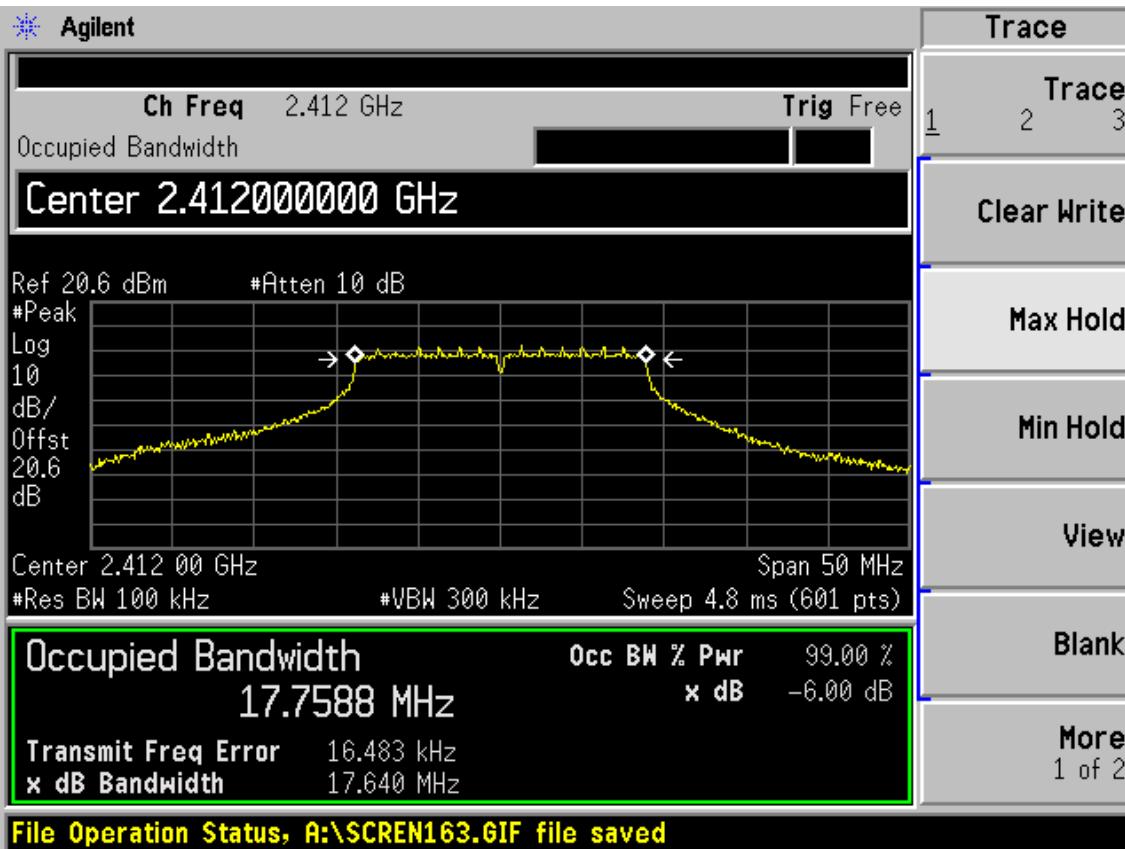


Test CH11: 2462MHz

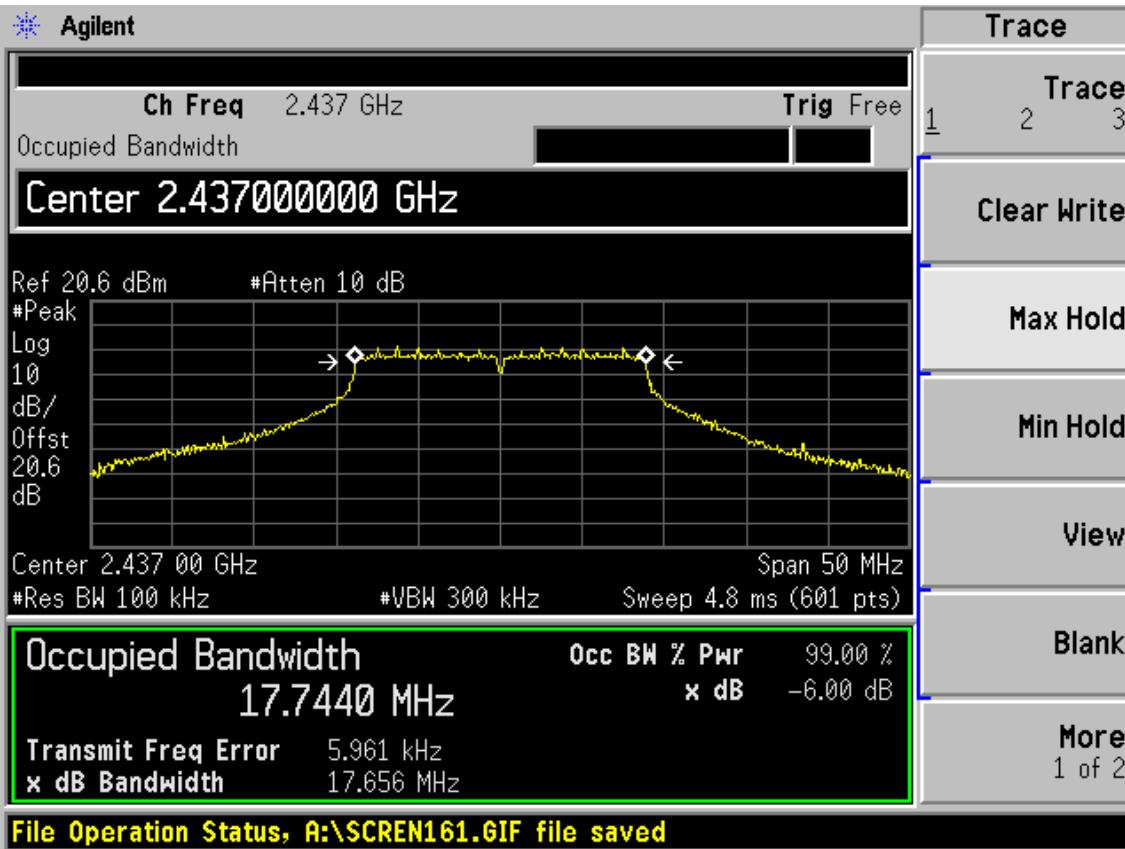


Test Mode: IEEE 802.11n HT20 TX

Test CH1: 2412MHz



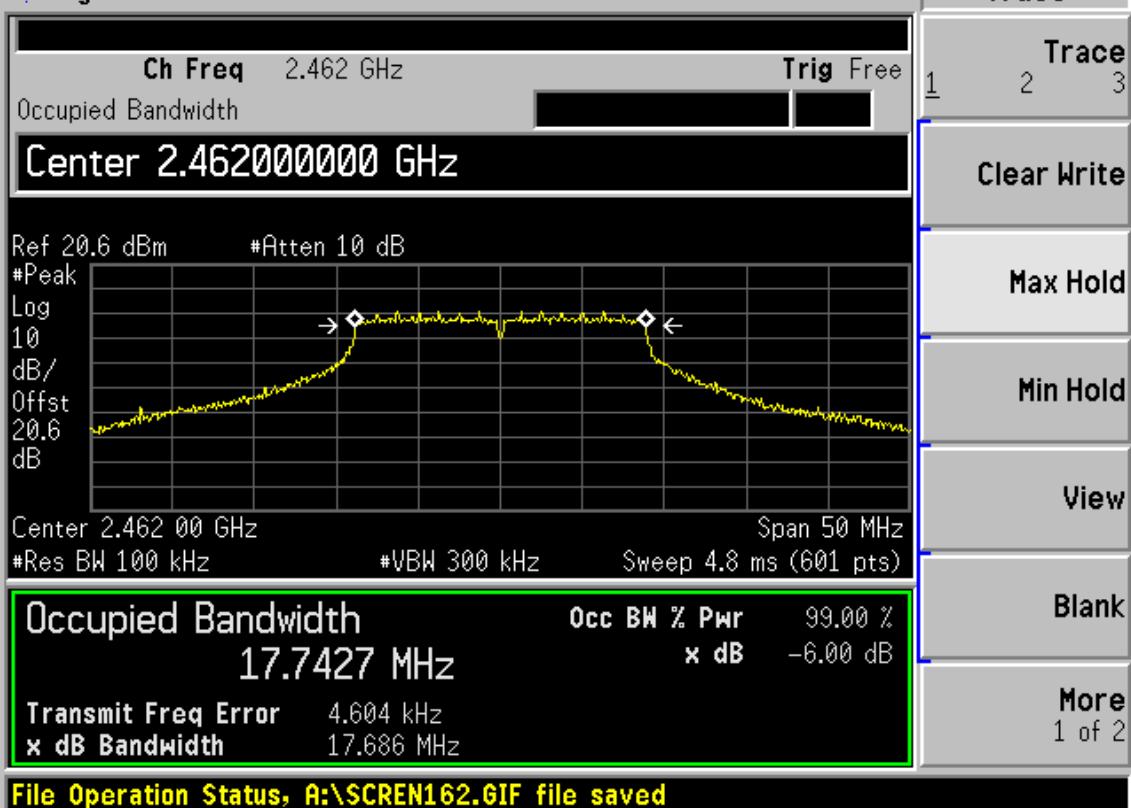
Test CH6: 2437MHz



Test CH11: 2462MHz



Agilent

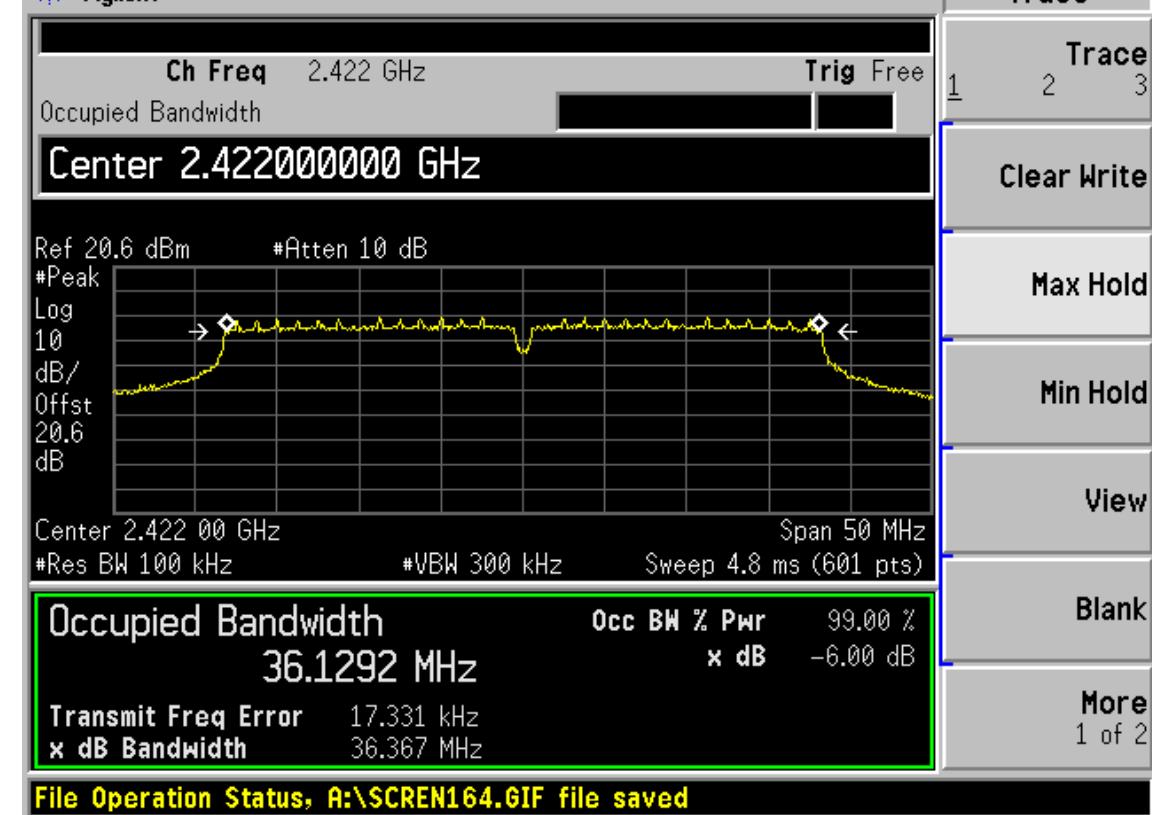


Test Mode: IEEE 802.11n HT40 TX

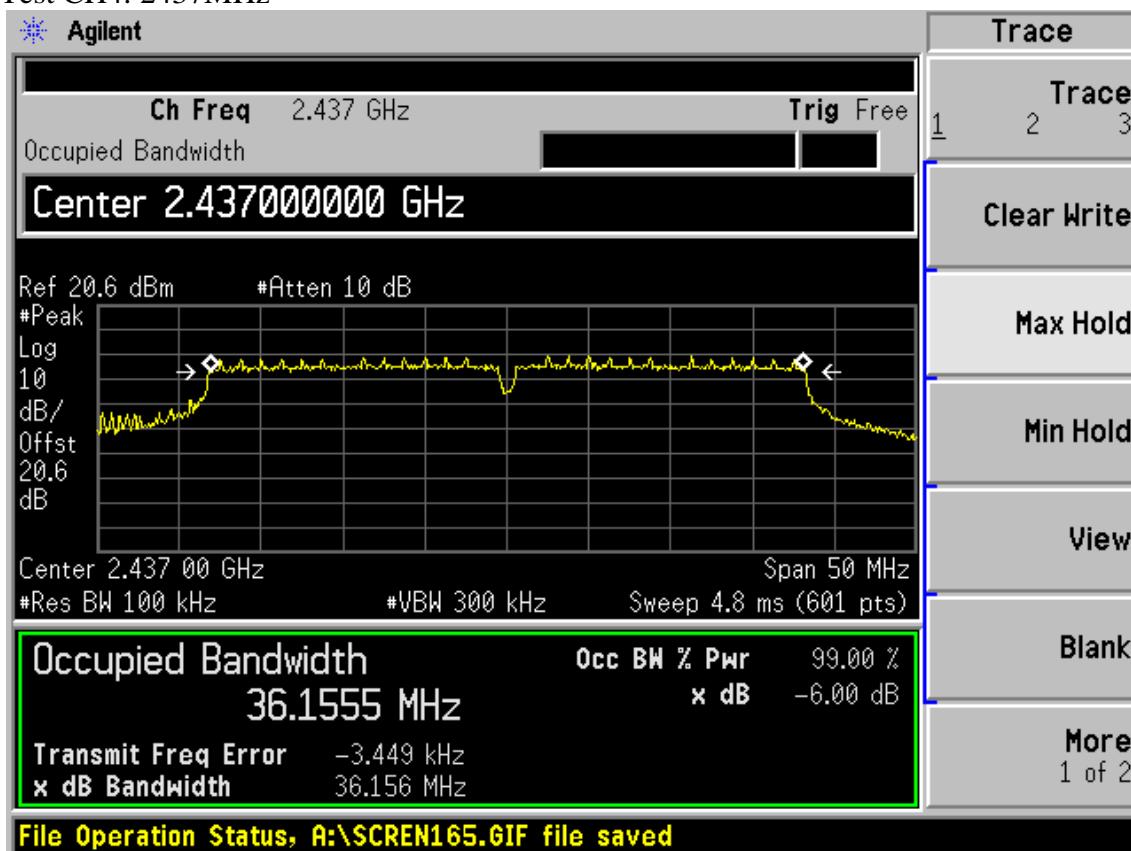
Test CH1: 2422MHz



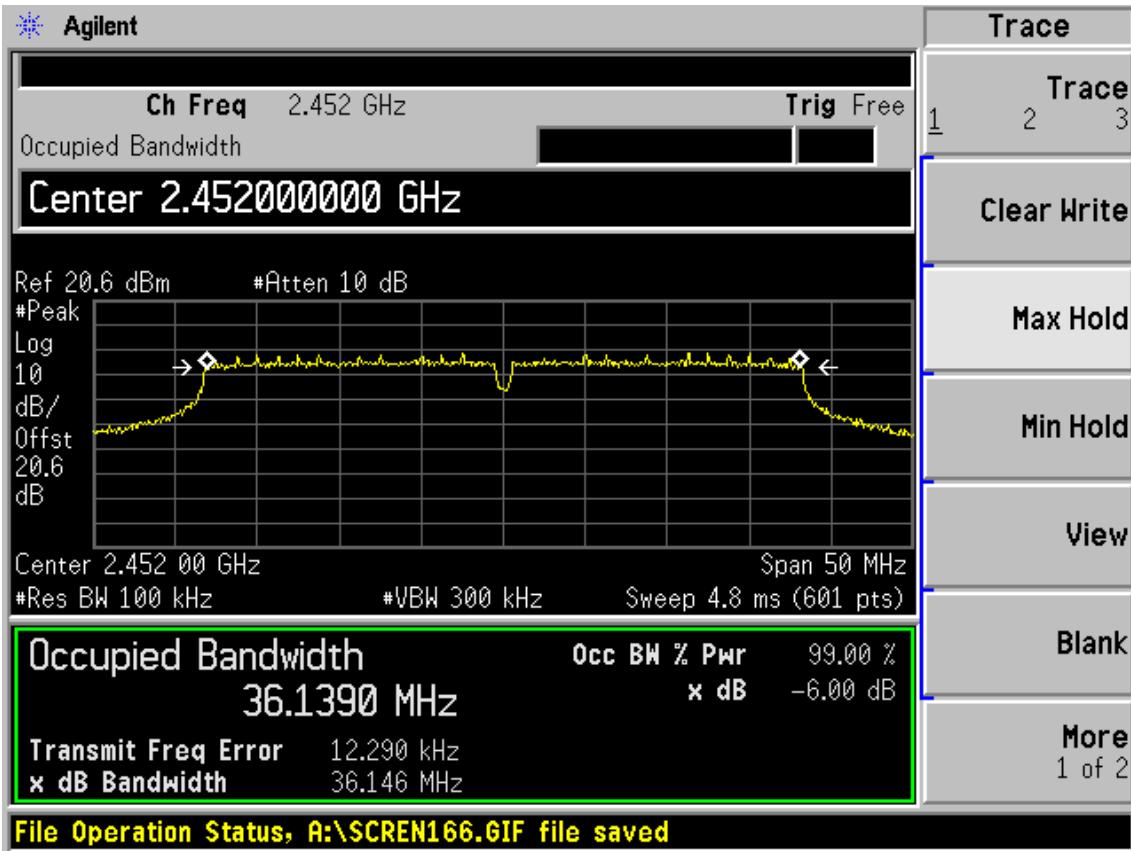
Agilent



Test CH4: 2437MHz



Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power meter	Anritsu	ML2487A	6K00002472	May.08,11	1 Year
2.	Power sensor	Anritsu	MA2491A	0033005	May.08,11	1 Year
3	Attenuator	Agilent	8491B	MY39262165	May.08,11	1 Year
4	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 11	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1 Year

8.2. Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3. Test Procedure

- 1, Connected the EUT's antenna port to measure device by 20dB attenuator.
- 2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 6dB bandwidth of signal to measure out each test modes' PK output power.
- 3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:
 - 1) Set the RBW=3MHz and VBW =8MHz
 - 2) Turn averaging off
 - 3) Set sweep to automatic
 - 4) Set the span just large enough to capture the emission
 - 5) Use a peak detector on max hold
 - 6) Record the measured power
 - 7) Calculate Output power of EUT use the formula:

Peak output power =measured power+ 10log[(6dB bandwidth of emission)/(analyzer RBW)]

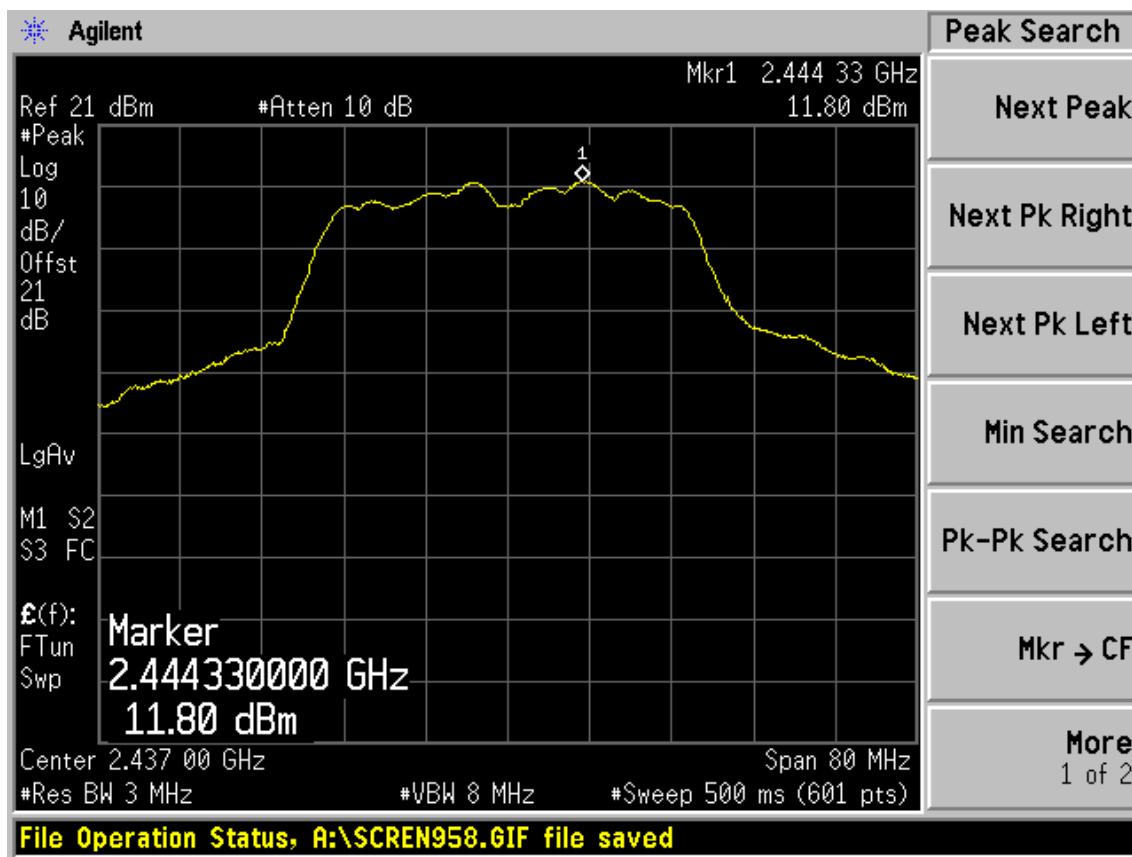
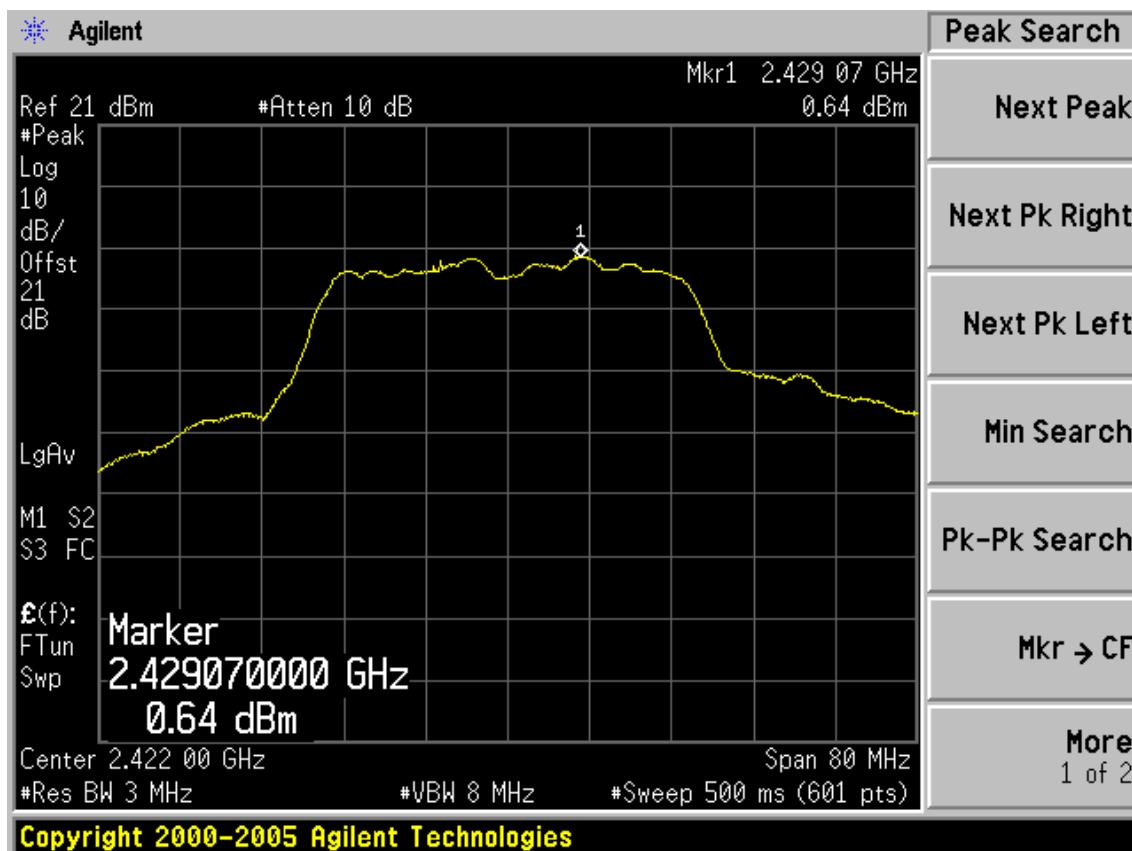
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

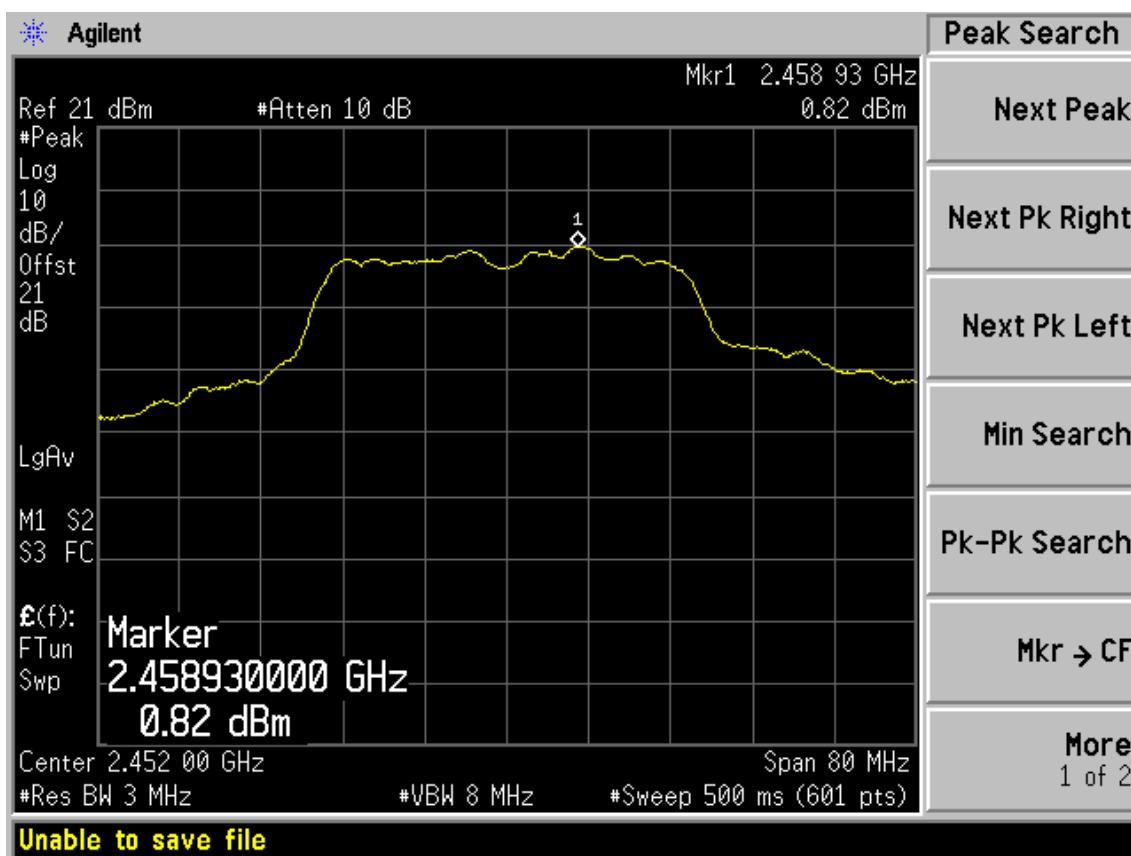
8.4. Test Results

EUT: 2.4GHz Wireless Lite-N PCI-E Adapter			
M/N: RNX-N150PCe			
Test date: 2011-10-09	Pressure: 101.3 kpa		Humidity: 56 %
Tested by: Leo-Li	Test site: RF site		Temperature: 25. °C
Cable loss: 1 dB		Attenuator loss: 20 dB	
Test Mode	CH (MHz)	Peak output Power (dBm)	Limit (dBm)
11b	CH1	17.61	30
	CH6	20.12	30
	CH11	20.15	30
11g	CH1	16.93	30
	CH6	24.14	30
	CH11	16.89	30
11n HT20	CH1	16.06	30
	CH6	25.32	30
	CH11	15.66	30

Test Mode	CH	Result		Limit
		Measured power(dBm)/3MHz	PK Output power (dBm)	
11n HT40	CH1	0.64	11.48	30
	CH4	11.80	22.64	30
	CH7	0.82	11.66	30

6dB Bandwidth for 11n HT40: 36.367MHz
BW correction factor = $10\log[(36.367\text{MHz}/3\text{MHz})] = 10.84\text{dB}$
Conclusion: PASS





9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 11	1 Year

9.2. Limit

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

9.3. Test Procedure

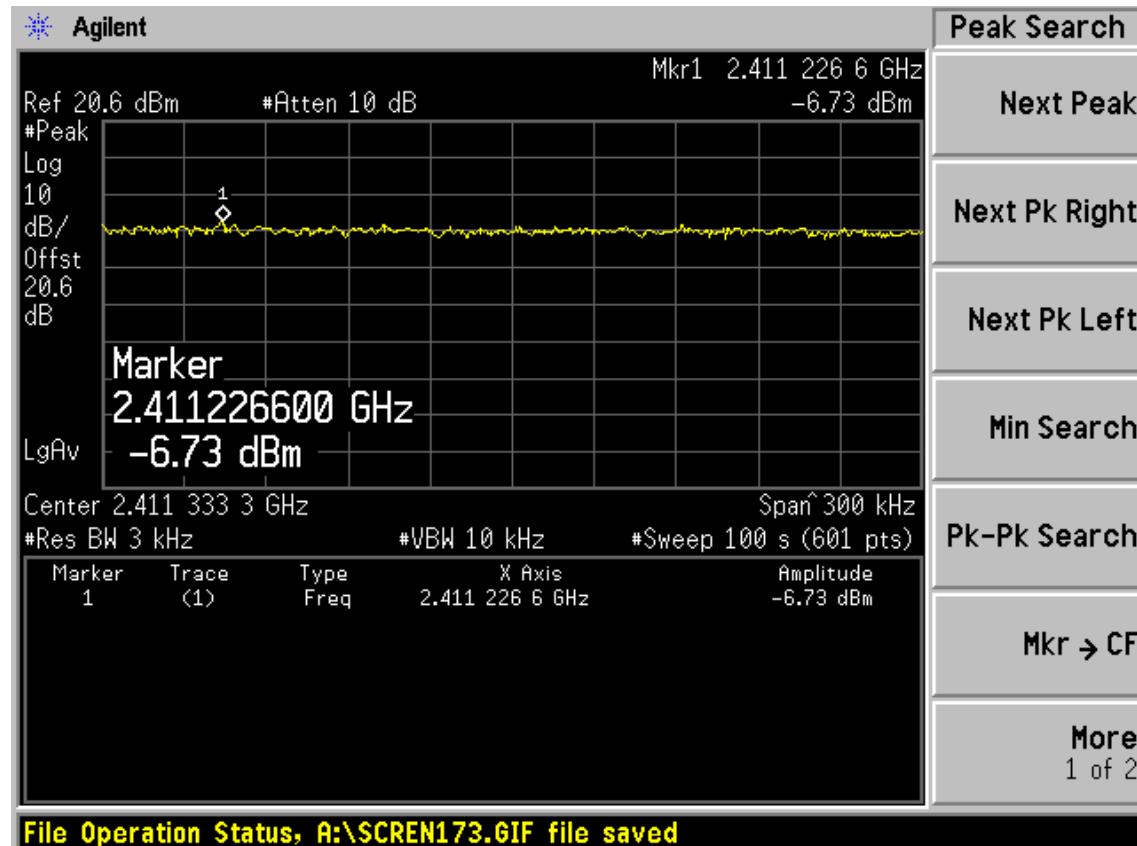
- 1, Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
- 2, Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.

9.4. Test Results

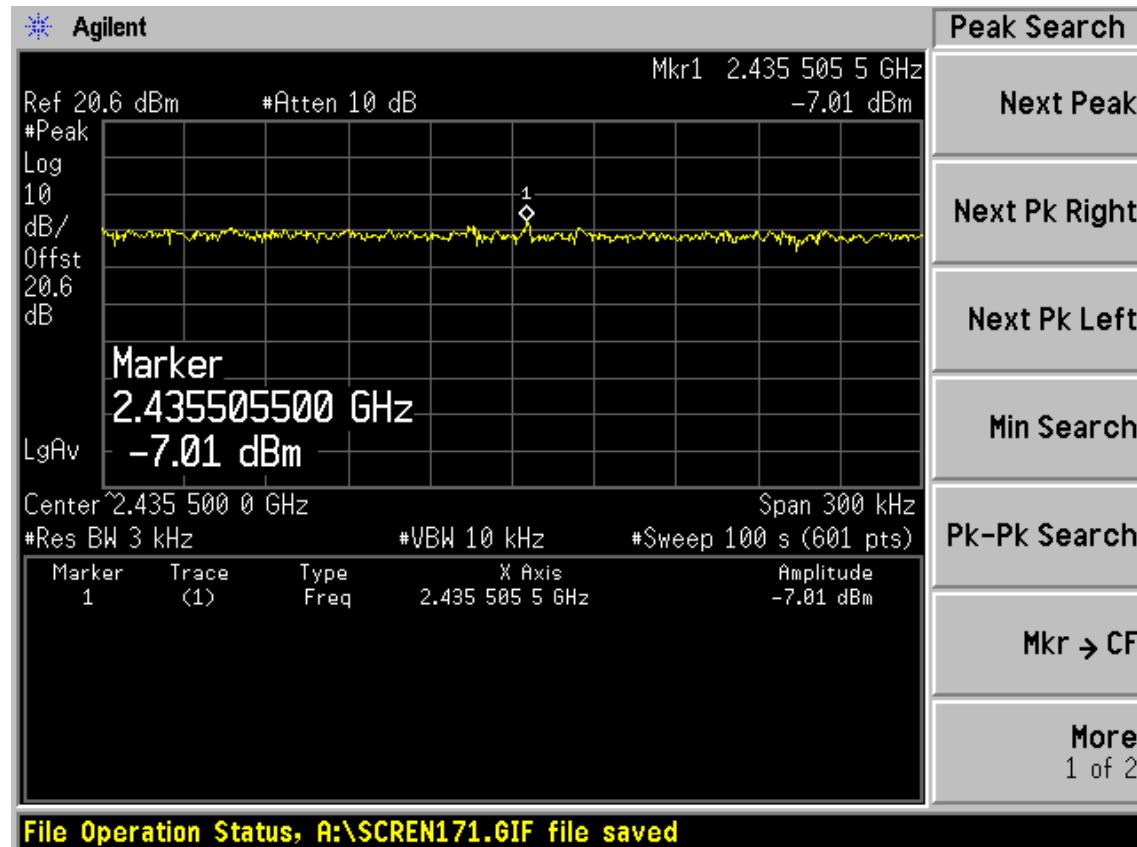
EUT: 2.4GHz Wireless Lite-N PCI-E Adapter																																																							
M/N: RNX-N150PCe																																																							
Test date:2011-10-08	Pressure: 100.6 kpa	Humidity: 60 %																																																					
Tested by:Sunny-lu	Test site: RF Site	Temperature : 25 °C																																																					
 <table border="1"><tr><td>Cable loss: 0.6 dB</td><td>Attenuator loss: 20 dB</td><td>Antenna Gain: 5dBi</td><td></td></tr><tr><th>Test Mode</th><th>CH</th><th>Power density (dBm/3KHz)</th><th>Limit (dBm/3KHz)</th></tr><tr><td rowspan="3">11b</td><td>CH1</td><td>-6.73</td><td>8</td></tr><tr><td>CH6</td><td>-7.01</td><td>8</td></tr><tr><td>CH11</td><td>-6.93</td><td>8</td></tr><tr><td rowspan="3">11g</td><td>CH1</td><td>-11.24</td><td>8</td></tr><tr><td>CH6</td><td>-7.94</td><td>8</td></tr><tr><td>CH11</td><td>-8.17</td><td>8</td></tr><tr><td rowspan="3">11n HT20</td><td>CH1</td><td>-11.04</td><td>8</td></tr><tr><td>CH6</td><td>-9.04</td><td>8</td></tr><tr><td>CH11</td><td>-14.12</td><td>8</td></tr><tr><td rowspan="3">11n HT40</td><td>CH1</td><td>-18.09</td><td>8</td></tr><tr><td>CH4</td><td>-12.10</td><td>8</td></tr><tr><td>CH7</td><td>-18.02</td><td>8</td></tr><tr><td colspan="4">Conclusion : PASS</td></tr></table>				Cable loss: 0.6 dB	Attenuator loss: 20 dB	Antenna Gain: 5dBi		Test Mode	CH	Power density (dBm/3KHz)	Limit (dBm/3KHz)	11b	CH1	-6.73	8	CH6	-7.01	8	CH11	-6.93	8	11g	CH1	-11.24	8	CH6	-7.94	8	CH11	-8.17	8	11n HT20	CH1	-11.04	8	CH6	-9.04	8	CH11	-14.12	8	11n HT40	CH1	-18.09	8	CH4	-12.10	8	CH7	-18.02	8	Conclusion : PASS			
Cable loss: 0.6 dB	Attenuator loss: 20 dB	Antenna Gain: 5dBi																																																					
Test Mode	CH	Power density (dBm/3KHz)	Limit (dBm/3KHz)																																																				
11b	CH1	-6.73	8																																																				
	CH6	-7.01	8																																																				
	CH11	-6.93	8																																																				
11g	CH1	-11.24	8																																																				
	CH6	-7.94	8																																																				
	CH11	-8.17	8																																																				
11n HT20	CH1	-11.04	8																																																				
	CH6	-9.04	8																																																				
	CH11	-14.12	8																																																				
11n HT40	CH1	-18.09	8																																																				
	CH4	-12.10	8																																																				
	CH7	-18.02	8																																																				
Conclusion : PASS																																																							

Test Mode: IEEE 802.11b TX

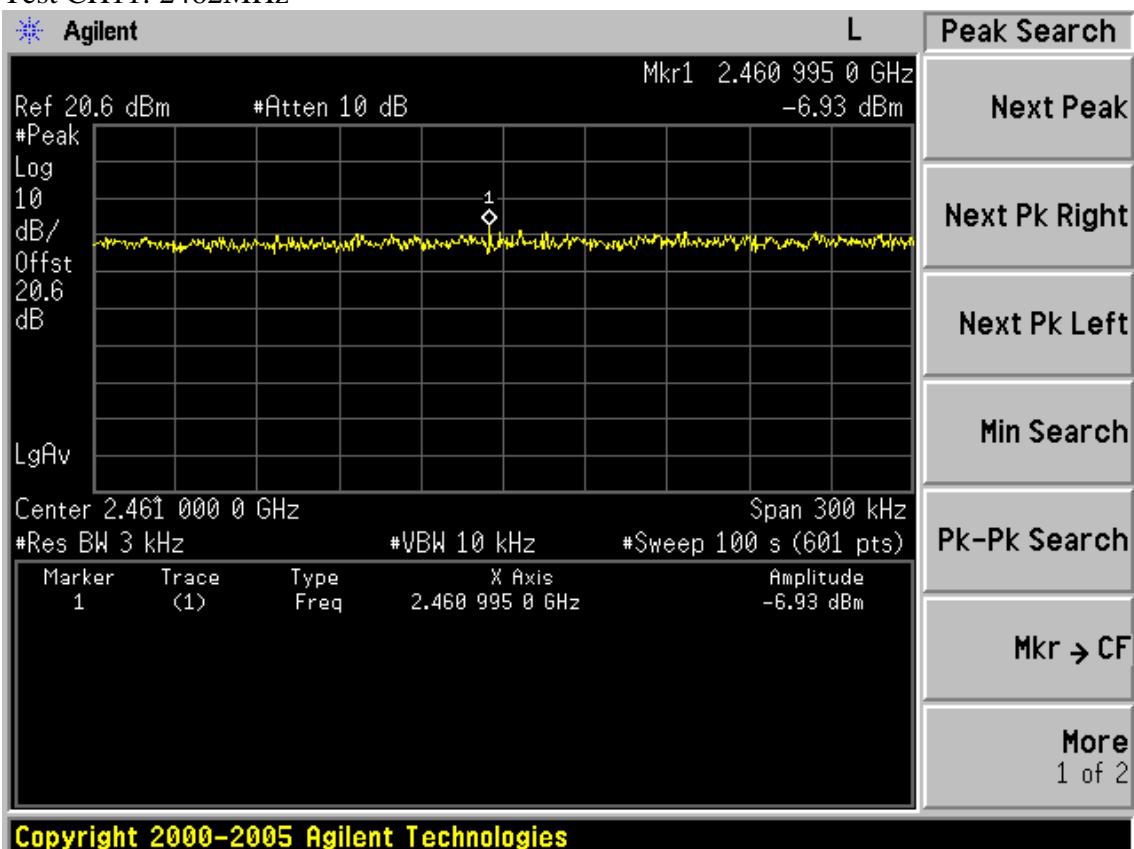
Test CH1: 2412MHz



Test CH6: 2437MHz

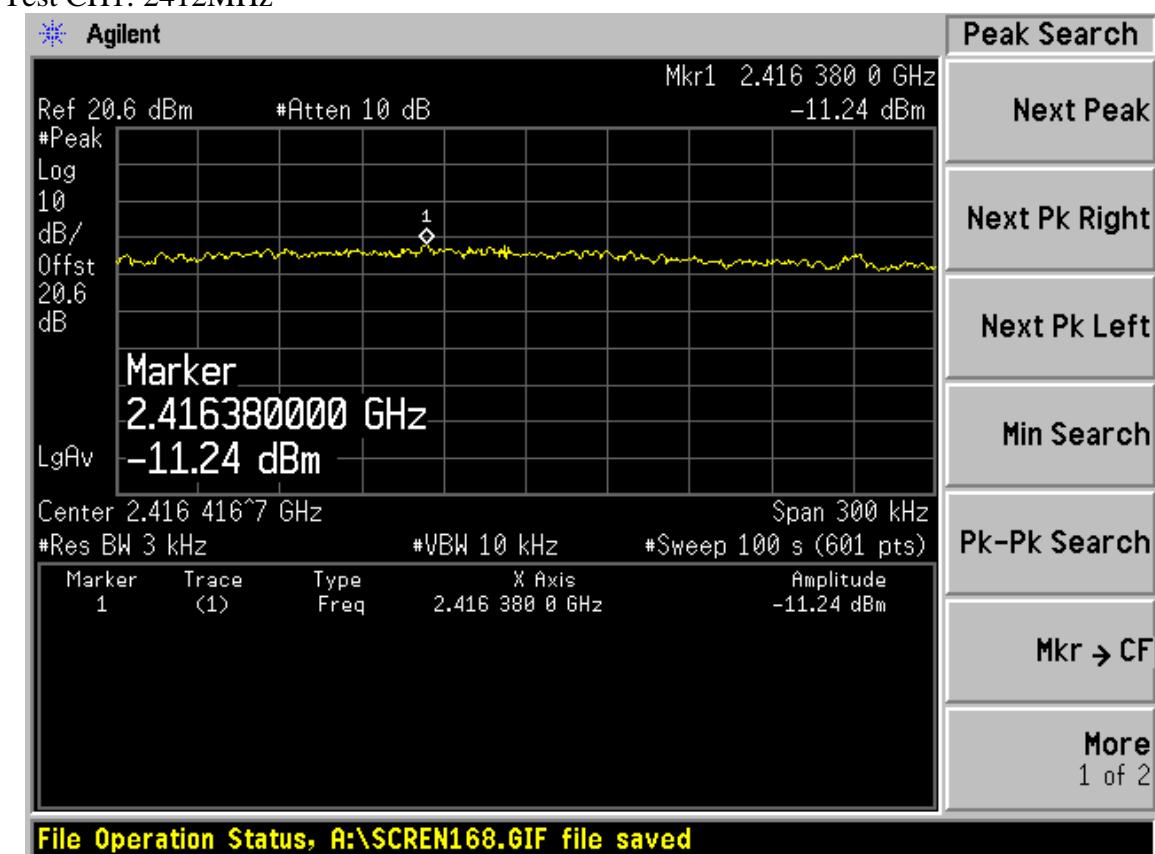


Test CH11: 2462MHz

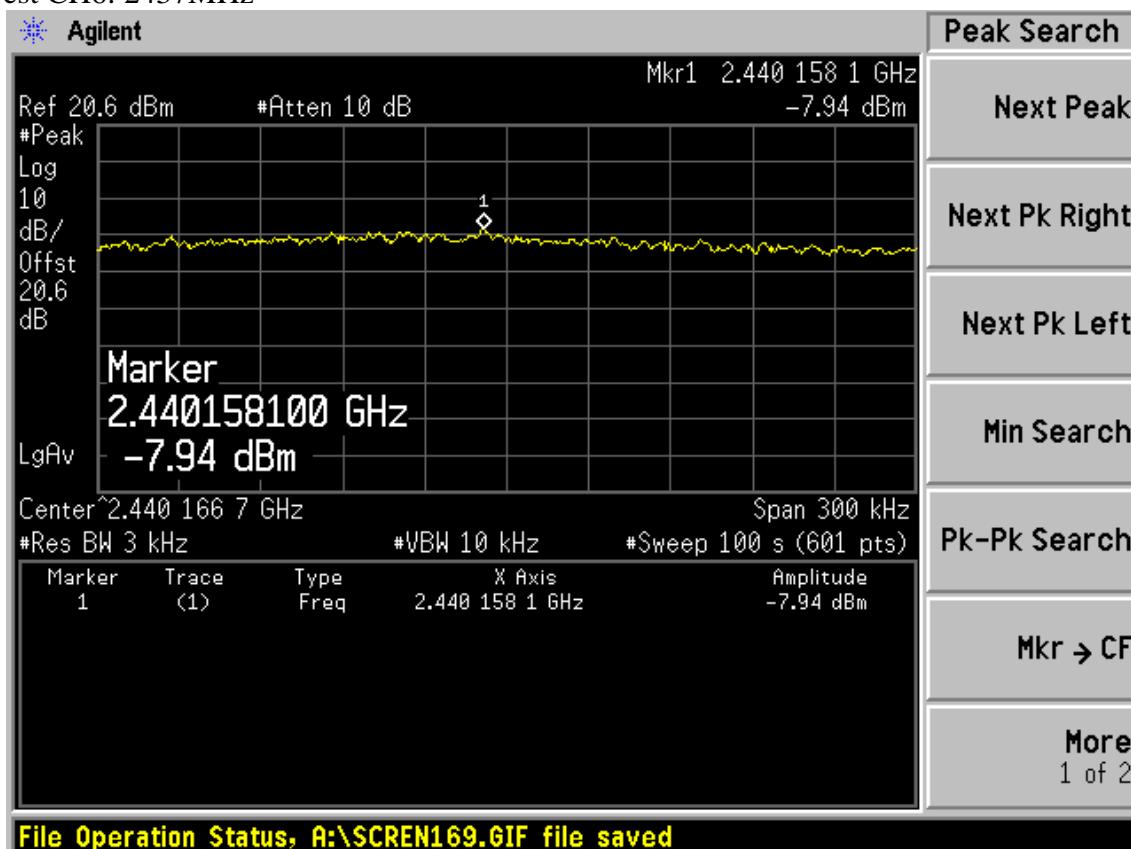


Test Mode: IEEE 802.11g TX

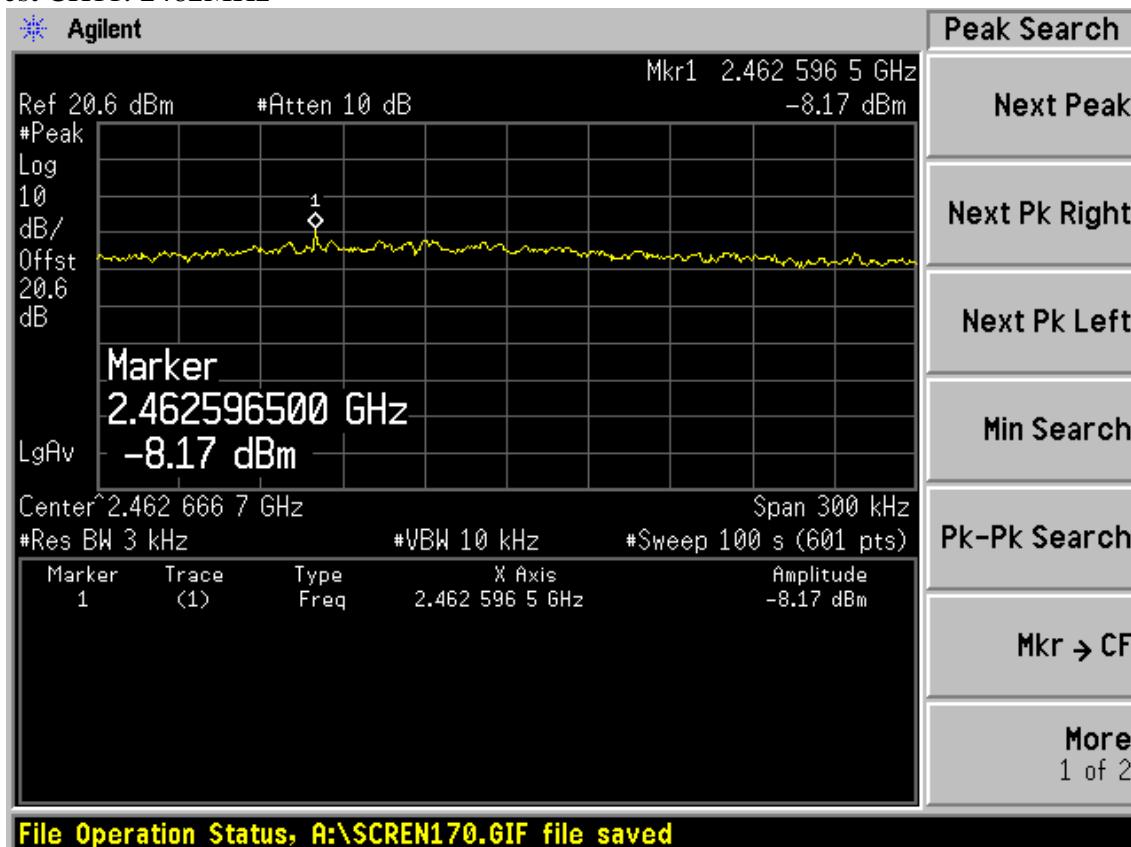
Test CH1: 2412MHz



Test CH6: 2437MHz

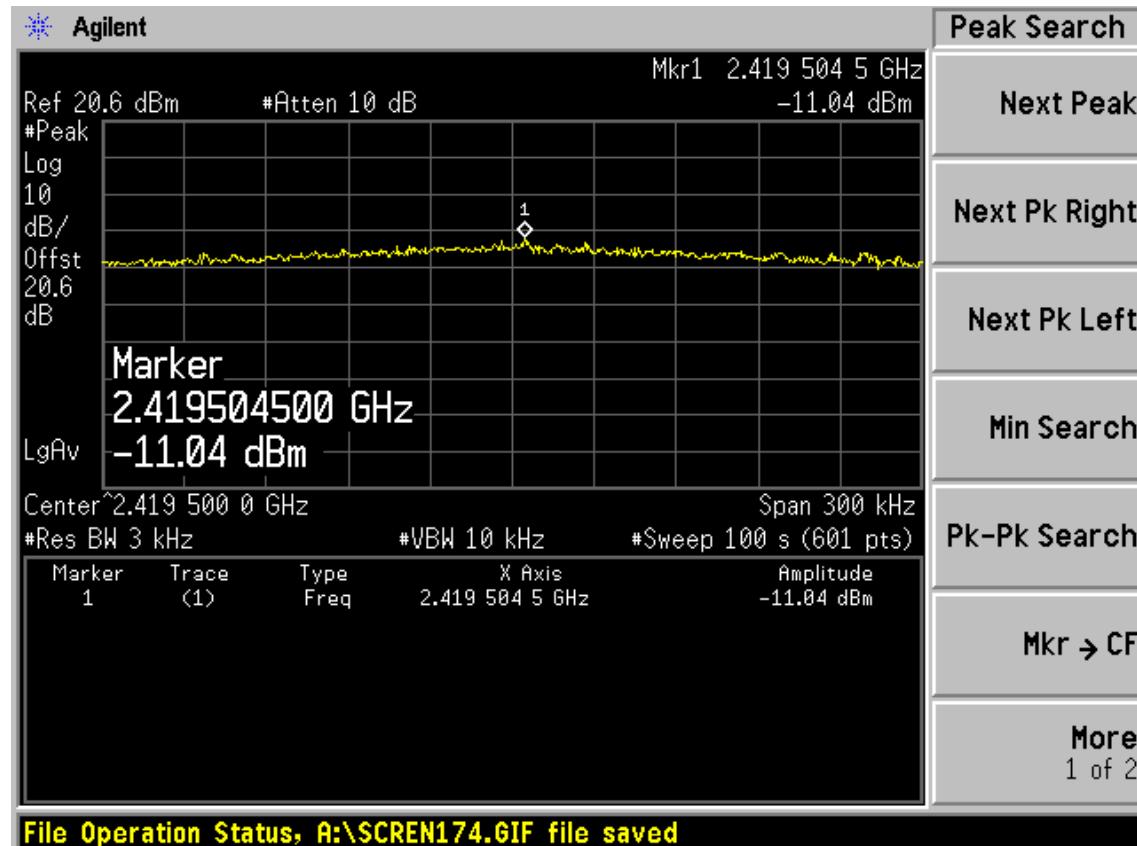


Test CH11: 2462MHz

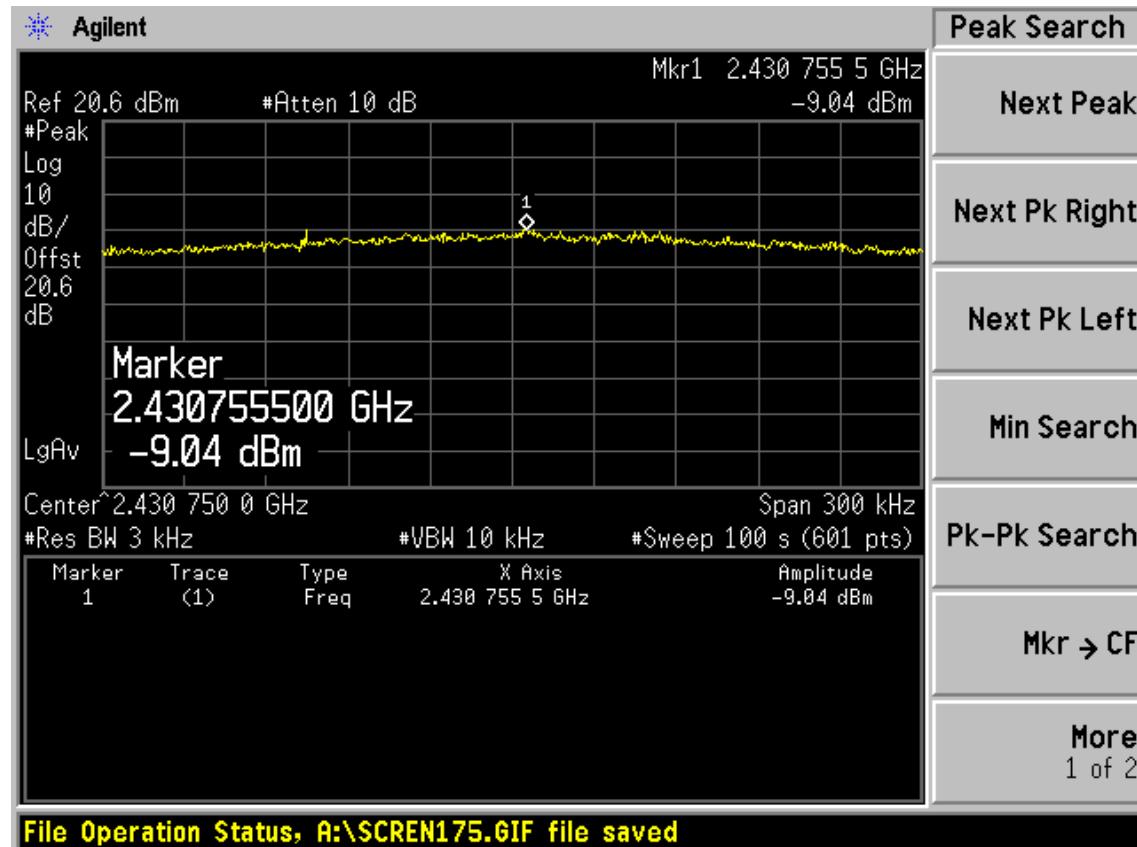


Test Mode: IEEE 802.11n HT20 TX

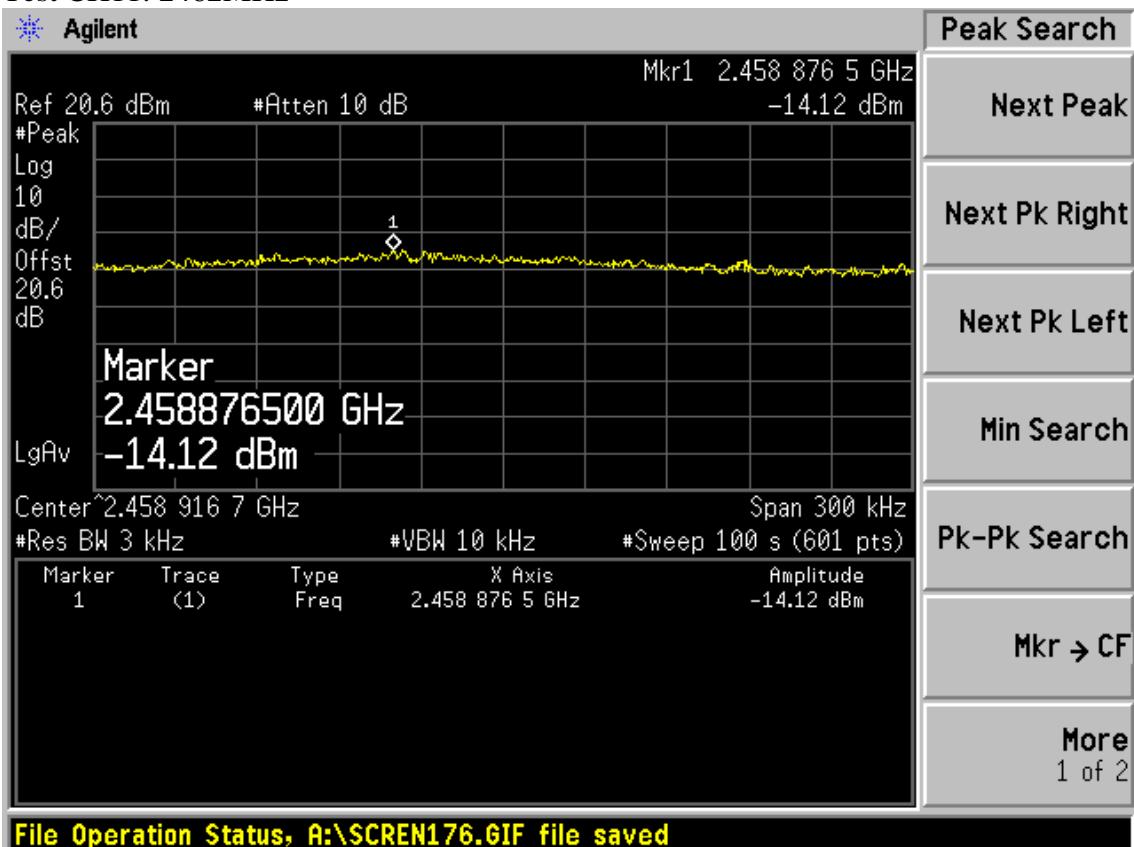
Test CH1: 2412MHz



Test CH6: 2437MHz

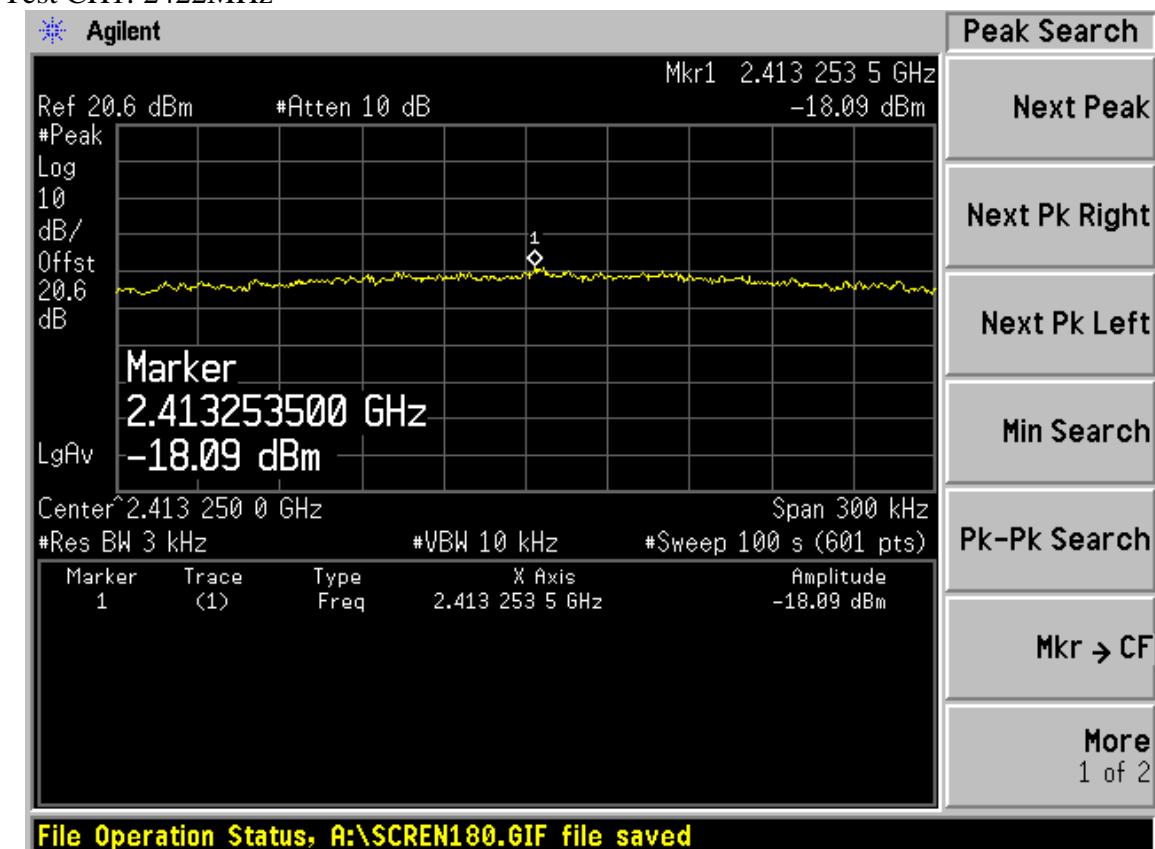


Test CH11: 2462MHz

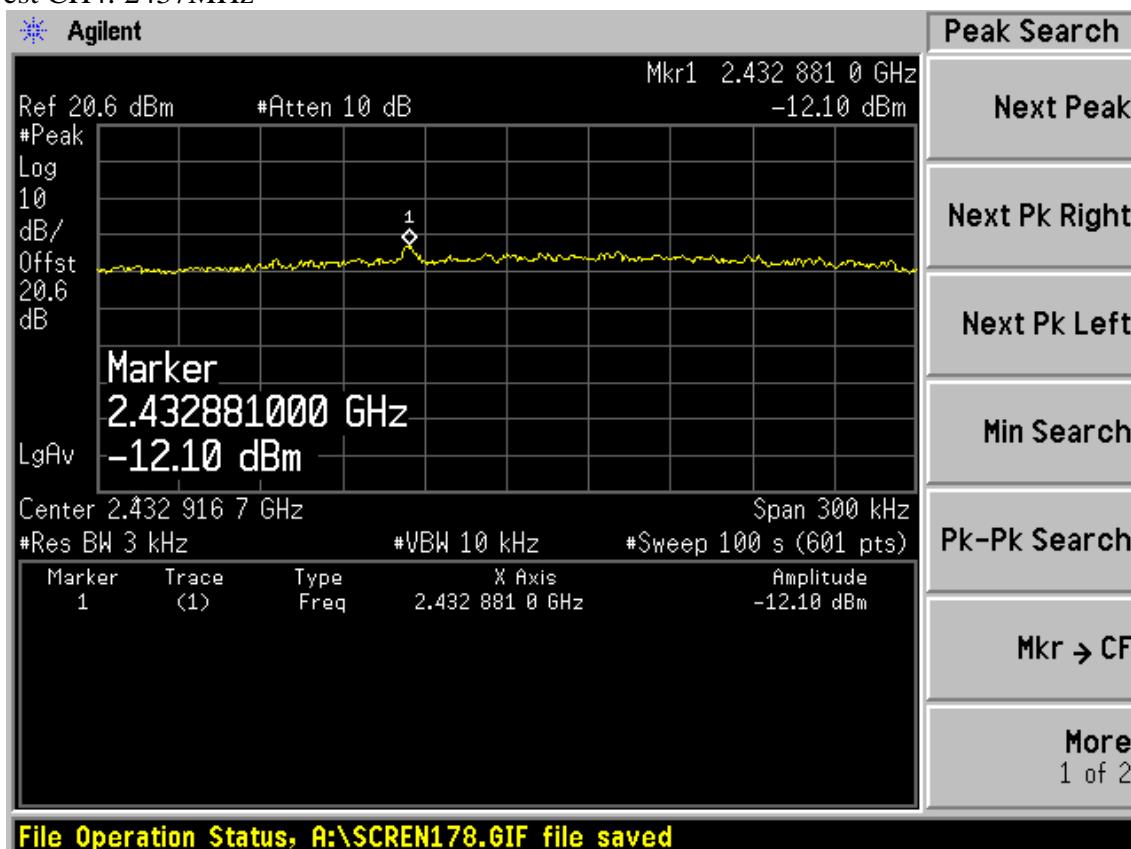


Test Mode: IEEE 802.11n HT40 TX

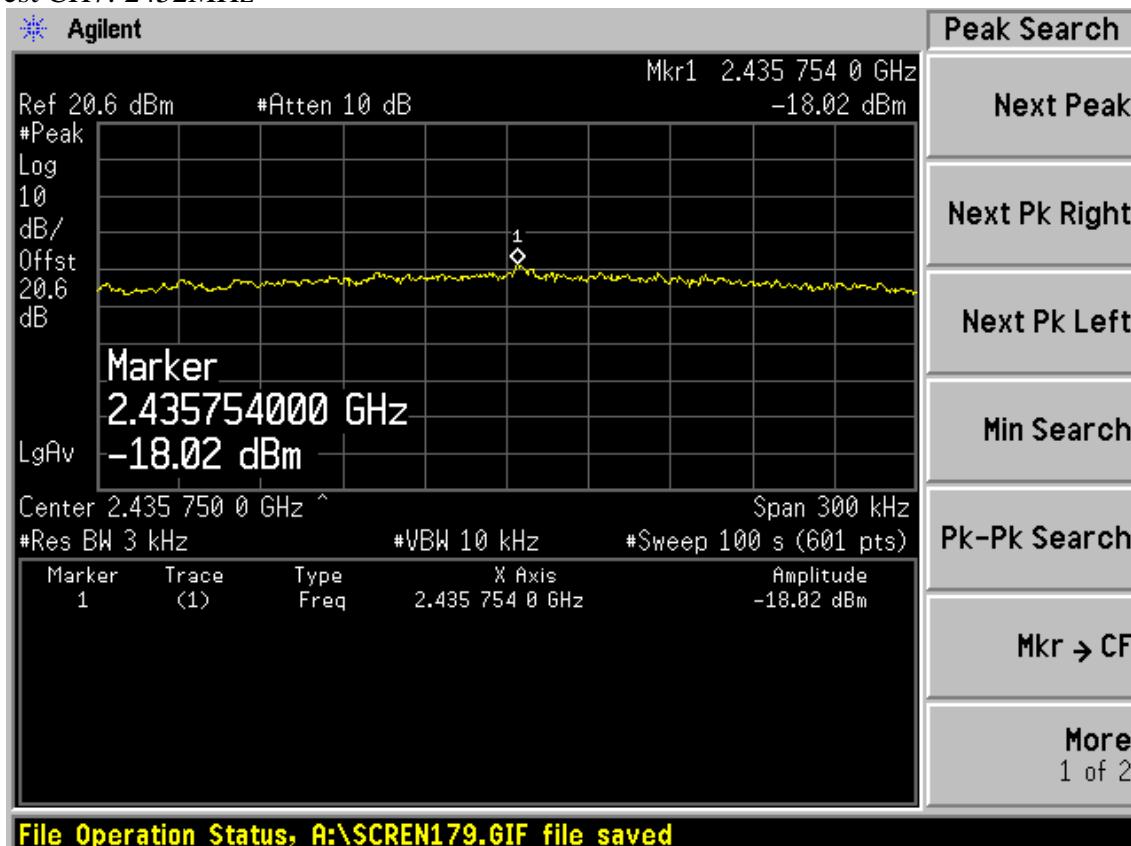
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



10. ANTENNA REQUIREMENT

10.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are one integrated PCB antenna and one dipole antenna with SMA-B connector that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 2.0dBi.

11.MPE ESTIMATION

11.1.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Frequency(MHz)	Power density (mW/ cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

11.2.2, Estimation Result

Cable loss: 1 dB		Attenuator loss: 20 dB				Antenna Gain 2 dBi	
Test Mode	CH	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
11b	CH1	2412	17.61	57.68	2	1.58	0.0182
	CH6	2437	20.12	102.80	2	1.58	0.0324
	CH11	2462	20.15	103.51	2	1.58	0.0327
11g	CH1	2412	16.93	49.32	2	1.58	0.0156
	CH6	2437	24.14	259.42	2	1.58	0.0818
	CH11	2462	16.89	48.87	2	1.58	0.0154
11n HT20	CH1	2412	16.06	40.36	2	1.58	0.0127
	CH6	2437	25.32	340.41	2	1.58	0.1074
	CH11	2462	15.66	36.81	2	1.58	0.0116
11n HT40	CH1	2422	11.48	14.06	2	1.58	0.0044
	CH4	2437	22.64	183.65	2	1.58	0.0579
	CH7	2452	11.66	14.66	2	1.58	0.0046

Note: The estimation distance is 20cm

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]