

FCC PART 15.247

TEST REPORT

For

Intelligent Technology Inc.

Yuanhe 3 Street, Tongsha Industrial Zone, Dongchen Area, Dongguan , Guangdong, China.

FCC ID: ZVY-UD121B

Report Type: Original Report	Product Type: USB 11n Wireless Adapter
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Report Number:	R1DG120210002-00A
Report Date:	2012-02-21
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* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Intelligent Technology Inc.*'s product, model number: *UD121B* (FCC ID: *ZVY-UD121B*) or ("EUT") in this report is a USB 11n Wireless Adapter, which was measured approximately: 2.0 cm (L) x 1.5 cm (W) x 0.8 cm (H), rated input voltage: DC 5V from host PC.

** All measurement and test data in this report was gathered from production sample serial number: 1202102 (Assigned by BACL). The EUT was received on 2012-02-13.*

Objective

This report is prepared on behalf of *Intelligent Technology Inc.* in accordance with Part 2-Subpart J, Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine the compliance of the EUT with FCC Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15B JBP submissions with FCC ID: ZVY-UD121B.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

The uncertainty of any RF tests which use conducted method measurement is ± 0.96 dB, the uncertainty of any radiation on emissions measurement is ± 4.0 dB

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Description of Test Configuration

For 802.11b and 802.11g, 802.11n20 mode, 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

EUT for 802.11b, 802.11g and 802.11 n20 modes were tested with Channel 1, 6 and 11.

For 802.11n40 mode, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2422	6	2447
2	2427	7	2452
3	2432	/	/
4	2437	/	/
5	2442	/	/

EUT was tested with Channel 1, 4 and 7.

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

EUT Exercise Software

The test was performed under “REALTEK 11n Single Chip 9xC USB WLAN NIC Massproduction Kit” which was provided by the manufacturer:

802.11b: data rate: 1 Mbps(Maximum conducted power: 13 dBm).

802.11g: data rate: 6 Mbps(Maximum conducted power: 13 dBm).

802.11n20: data rate: 6.5 Mbps(Maximum conducted power: 13 dBm).

802.11n40: data rate: 13.5 Mbps(Maximum conducted power: 13 dBm).

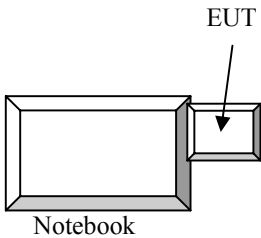
Equipment Modifications

No modification was made to the EUT tested.

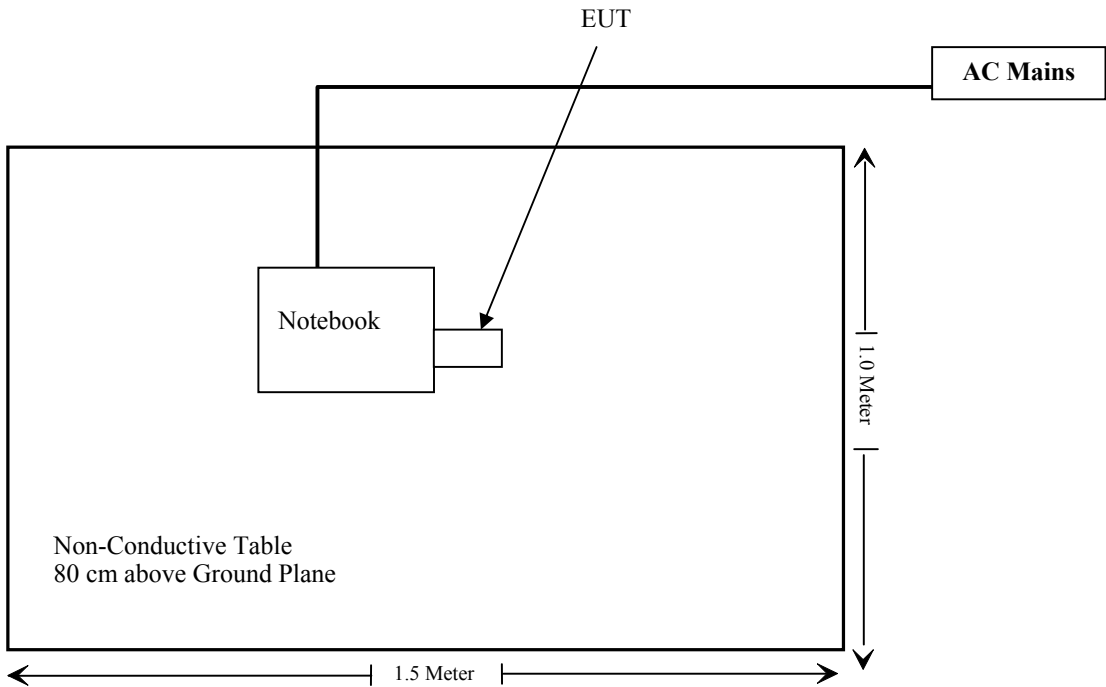
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	Notebook	PP11L	N/A

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b)(1), §2.1091	Maximum Permissible exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.247(d)	Spurious Emissions at Antenna Port	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

FCC §15.247 (i) & §1.1307 (b) (1) & §2.1093- RF EXPOSURE

Applicable Standard

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 Mobile Portable RF Exposure v03r03, no SAR required if power is lower than the flowing threshold:

When routine evaluation is required for SAR and the output power is $\leq 60/f(\text{GHz})$ mW, the test reduction and test exclusion procedures given herein, or in KDB 616217 or KDB 648474, are applicable.

A device may be used in portable exposure conditions with no restrictions on host platforms when either the source-based time-averaged output power is $\leq 60/f(\text{GHz})$ mW or all measured 1-g SAR are < 0.4 W/kg. 10 When SAR evaluation is required, the most conservative exposure conditions for all expected operating configurations must be tested.

Measurement Result

conducted output power = 12.46dBm

Antenna gain = -0.5 dBi

SAR exclusion threshold = $60/f = 60/2.462 = 24.37$ mW = 13.86 dBm > 12.46 dBm

So the SAR evaluation is not necessary.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has a PIFA antenna, which complied with 15.203, the maximum gain is -0.5dBi, please refer to the internal photos.

Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

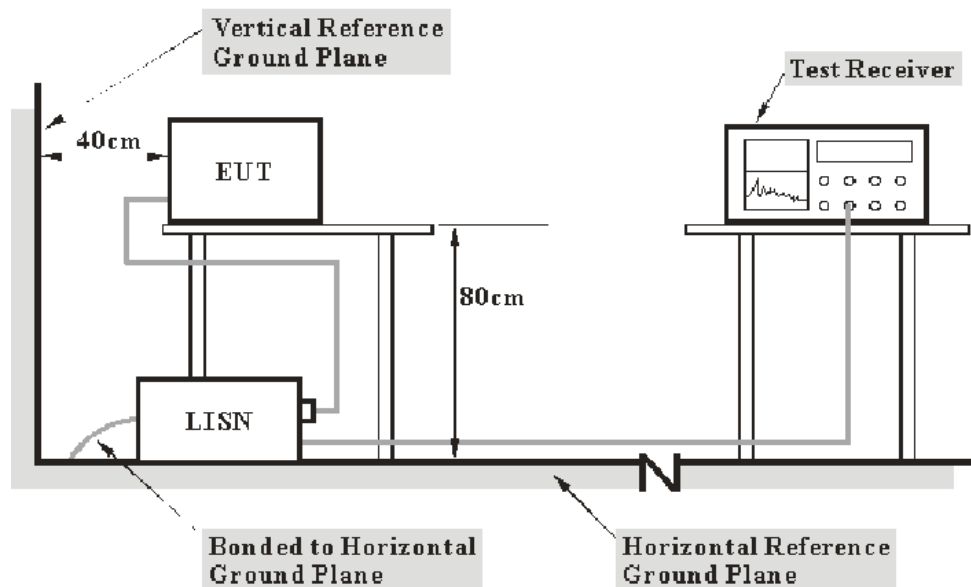
FCC§15.207

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is ± 2.4 dB (k=2, 95% level of confidence).

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The notebook was connected to a 120 VAC/60 Hz power source

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<i>Frequency Range</i>	<i>IF B/W</i>
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the notebook was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-04-09	2012-04-08

* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, with the worst margin reading of:

11.79 dB at 0.560 MHz in the Line conducted mode

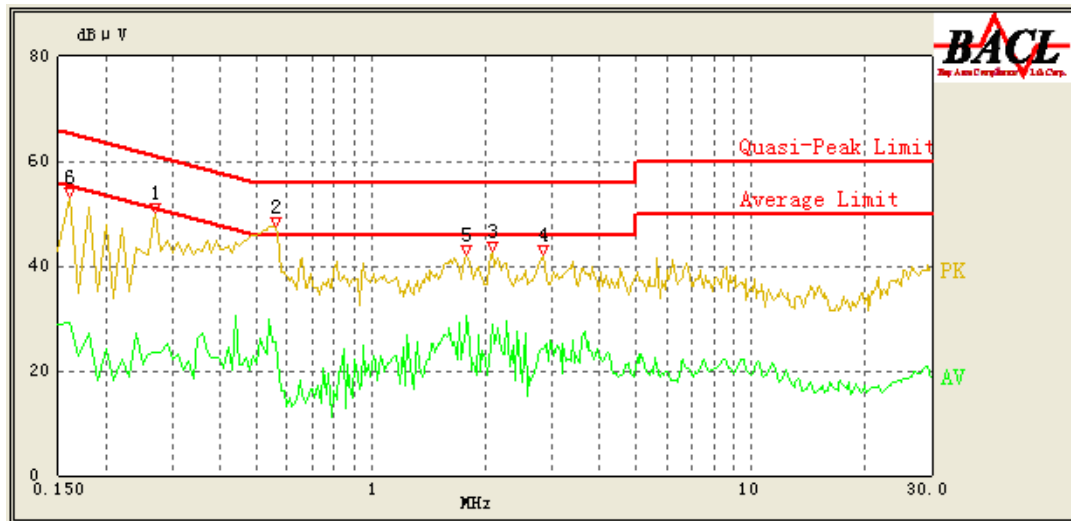
Test Data

Environmental Conditions

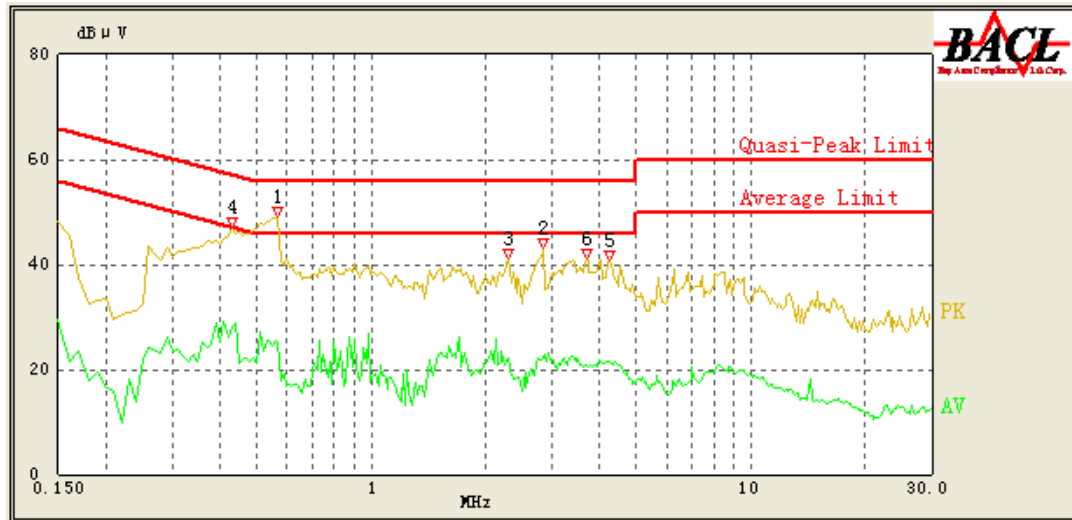
Temperature:	25 ° C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Bin Jiang on 2012-02-16.

Test Mode: Transmitting

120 V, 60 Hz, Line:

Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK /QP/Ave.)
0.270	39.63	1.10	62.57	22.94	QP
0.270	23.38	1.10	52.57	29.19	Ave
0.560	44.21	1.10	56.00	11.79	QP
0.560	25.64	1.10	46.00	20.36	Ave
2.090	33.97	1.10	56.00	22.03	QP
2.090	28.76	1.10	46.00	17.24	Ave
2.830	32.71	1.10	56.00	23.29	QP
2.810	24.16	1.10	46.00	21.84	Ave
1.780	32.48	1.10	56.00	23.52	QP
1.780	27.77	1.10	46.00	18.23	Ave
0.160	38.15	1.10	65.71	27.56	QP
0.160	29.18	1.10	55.71	26.53	Ave

120V, 60 Hz, Neutral:

Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK /QP/Ave.)
0.570	32.74	1.10	56.00	23.26	QP
0.570	25.14	1.10	46.00	20.86	Ave
2.850	25.40	1.10	56.00	30.60	QP
2.860	22.90	1.10	46.00	23.10	Ave
2.290	27.12	1.10	56.00	28.88	QP
2.290	22.04	1.10	46.00	23.96	Ave
0.430	37.99	1.10	58.00	20.01	QP
0.430	28.16	1.10	48.00	19.84	Ave
4.260	29.36	1.10	56.00	26.64	QP
4.280	21.20	1.10	46.00	24.80	Ave
3.700	30.73	1.10	56.00	25.27	QP
3.700	20.67	1.10	46.00	25.33	Ave

FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

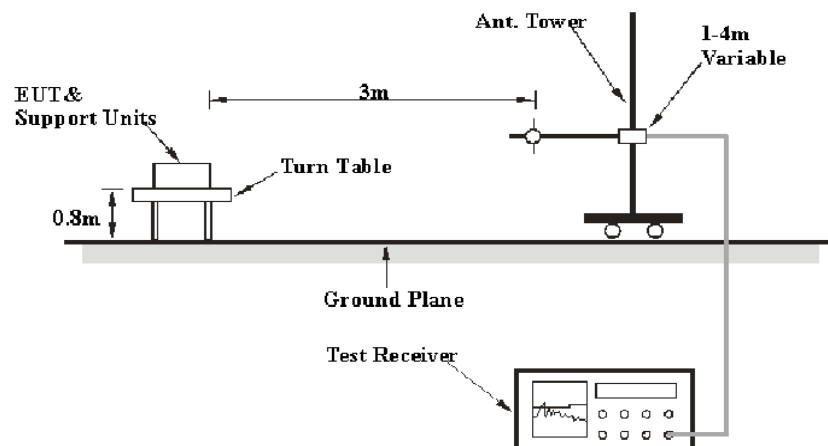
Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

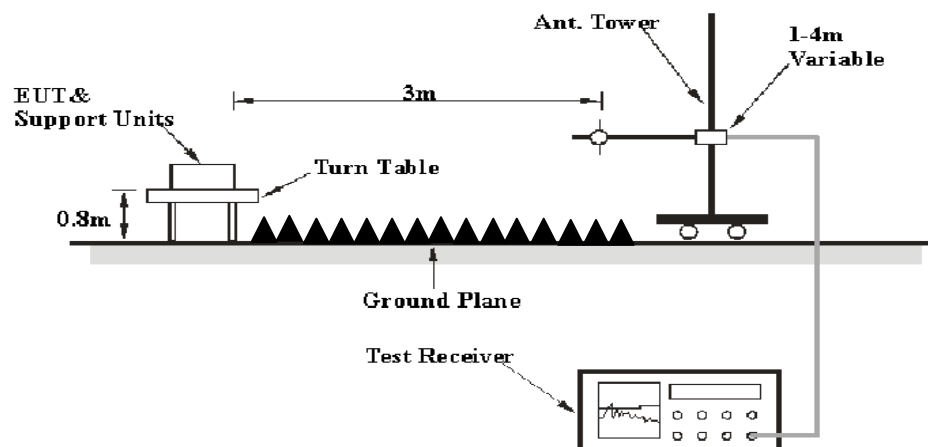
Based on CISPR 16-4-4, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is 4.0 dB(k=2, 95% level of confidence) .

EUT Setup

Below 1GHz:



Above 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The notebook was connected to a 120 VAC/60 Hz power source

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>	<i>Detector</i>
30 MHz – 1000 MHz	100 kHz	300 kHz	QP
1000 MHz – 25 GHz	1 MHz	3 MHz	PK
1000 MHz – 25 GHz	1 MHz	10 Hz	Ave.

Test Procedure

During the radiated emission test, the notebook was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all Installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447D	2944A09795	2011-08-02	2012-08-01
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-07-05	2012-07-04
Mini-circuits	Amplifier	ZVA-213+	T-E27H	2011-03-08	2012-03-07
Sunol Sciences	Horn Antenna	DRH-118	A052604	2011-05-05	2012-05-04
HP	Spectrum Analyzer	8593A	2919A00242	2011-03-09	2012-03-08
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Section 15.205, 15.209 and 15.247, with the worst margin reading of:

7.99 dB at 497.33 MHz in the **Horizontal** polarization (802.11b mode)

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Bin Jiang on 2012-02-16.

Mode: Transmitting (depend on free scan 802.11b mode is the worst case)

802.11b Mode:

Frequency (MHz)	S.A. Reading (dBmV)	Detector (PK/QP /Ave.)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBmV/m)	Limit (dBmV/m)	Margin (dB)	Comment
Low Channel (2412MHz)										
171.53	36.65	QP	H	17.92	2.13	22.84	33.86	43.5	9.64	spurious
171.36	40.13	QP	V	17.92	2.13	22.84	37.34	43.5	6.16	spurious
324.21	33.86	QP	H	17.63	2.26	22.43	31.32	46	14.68	spurious
324.21	34.44	QP	V	17.63	2.26	22.43	31.9	46	14.1	spurious
4824	19.43	Ave.	V	31.2	3.8	8.54	45.89	54	8.11	Harmonic
4824	20.13	Ave.	H	31.5	3.8	8.54	46.89	54	7.11	Harmonic
2333.52	23.33	Ave.	H	26.54	2.37	8.2	44.04	54	9.96	spurious
2333.41	22.46	Ave.	V	26.54	2.37	8.2	43.17	54	10.83	spurious
2387.46	37.52	PK	V	26.54	2.37	8.2	58.23	74	15.77	spurious
2387.46	38.41	PK	H	26.54	2.37	8.2	59.12	74	14.88	spurious
4824	28.62	PK	V	31.5	3.8	8.54	55.38	74	18.62	Harmonic
4824	29.44	PK	H	31.2	3.8	8.54	55.9	74	18.1	Harmonic
2412	68.92	PK	H	27.3	2.6	0	98.82	N/A	N/A	Fundamental
2412	62.41	Ave.	H	27.3	2.6	0	92.31	N/A	N/A	Fundamental
2412	70.12	PK	V	27.3	2.6	0	100.02	N/A	N/A	Fundamental
2412	63.35	Ave.	V	27.3	2.6	0	93.25	N/A	N/A	Fundamental
Middle Channel (2437MHz)										
171.03	36.62	QP	H	17.92	2.13	22.84	33.83	43.5	9.67	spurious
171.31	40.08	QP	V	17.92	2.13	22.84	37.29	43.5	6.21	spurious
324.21	33.77	QP	H	17.63	2.26	22.43	31.23	46	14.77	spurious
324.21	34.46	QP	V	17.63	2.26	22.43	31.92	46	14.08	spurious
4874	18.69	Ave.	V	31.3	3.86	7.4	46.45	54	7.55	Harmonic
4874	19.34	Ave.	H	31.3	3.86	7.4	47.1	54	6.9	Harmonic
4874	28.31	PK	H	31.3	3.86	7.4	56.07	74	17.93	Harmonic
4874	29.13	PK	V	31.3	3.86	7.4	56.89	74	17.11	Harmonic
2437	68.59	PK	H	28.2	2.65	0	99.44	N/A	N/A	Fundamental
2437	62.13	Ave.	H	28.2	2.65	0	92.98	N/A	N/A	Fundamental
2437	69.32	PK	V	28.2	2.65	0	100.17	N/A	N/A	Fundamental
2437	62.48	Ave.	V	28.2	2.65	0	93.33	N/A	N/A	Fundamental
High Channel (2462MHz)										
171.51	39.25	QP	H	17.92	2.13	22.84	36.46	43.5	7.04	spurious
171.42	40.22	QP	V	17.92	2.13	22.84	37.43	43.5	6.07	spurious
324.21	34.06	QP	H	17.63	2.26	22.43	31.52	46	14.48	spurious
324.21	34.61	QP	V	17.63	2.26	22.43	32.07	46	13.93	spurious
4924	20.18	Ave.	H	32.4	3.86	8.1	48.34	54	5.66	Harmonic
4924	20.26	Ave.	V	32.4	3.86	8.1	48.42	54	5.58	Harmonic
2487.26	18.32	Ave.	H	30.1	2.64	8.5	42.56	54	11.44	spurious
2487.26	19.23	Ave.	V	30.1	2.64	8.5	43.47	54	10.53	spurious
2487.26	39.62	PK	V	30.1	2.64	8.5	63.86	74	10.14	spurious
4924	36.24	PK	H	32.4	3.86	8.1	64.4	74	9.6	Harmonic
2487.26	38.45	PK	H	30.1	2.64	8.5	62.69	74	11.31	spurious
4924	37.18	PK	V	32.4	3.86	8.1	65.34	74	8.66	Harmonic
2462	68.45	PK	H	29.7	2.64	0	100.79	N/A	N/A	Fundamental
2462	62.53	Ave.	H	29.7	2.64	0	94.87	N/A	N/A	Fundamental
2462	70.32	PK	V	29.7	2.64	0	102.66	N/A	N/A	Fundamental
2462	63.51	Ave.	V	29.7	2.64	0	95.85	N/A	N/A	Fundamental

802.11g Mode:

Frequency (MHz)	S.A. Reading (dBmV)	Detector (PK/QP /Ave.)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBmV/m)	Limit (dBmV/m)	Margin (dB)	Comment
Low Channel (2412MHz)										
171.82	36.51	QP	H	17.92	2.13	22.84	33.72	43.5	9.78	spurious
171.41	41.09	QP	V	17.92	2.13	22.84	38.3	43.5	5.2	spurious
333.66	34.02	QP	H	17.63	2.26	22.43	31.48	46	14.52	spurious
333.87	34.55	QP	V	17.63	2.26	22.43	32.01	46	13.99	spurious
4824	20.33	Ave.	V	31.2	3.8	8.54	46.79	54	7.21	Harmonic
4824	19.87	Ave.	H	31.5	3.8	8.54	46.63	54	7.37	Harmonic
2389.24	19.61	Ave.	H	26.8	2.37	8.2	40.58	54	13.42	spurious
2389.21	20.03	Ave.	V	26.8	2.37	8.2	41	54	13	spurious
2389.27	38.04	PK	V	26.8	2.37	8.2	59.01	74	14.99	spurious
2389.21	39.22	PK	H	26.8	2.37	8.2	60.19	74	13.81	spurious
4824	27.66	PK	V	31.5	3.8	8.54	54.42	74	19.58	Harmonic
4824	28.33	PK	H	31.2	3.8	8.54	54.79	74	19.21	Harmonic
2412	68.23	PK	H	27.3	2.6	0	98.13	N/A	N/A	Fundamental
2412	62.33	Ave.	H	27.3	2.6	0	92.23	N/A	N/A	Fundamental
2412	69.85	PK	V	27.3	2.6	0	99.75	N/A	N/A	Fundamental
2412	63.52	Ave.	V	27.3	2.6	0	93.42	N/A	N/A	Fundamental
Middle Channel (2437MHz)										
171.21	37.71	QP	H	17.92	2.13	22.84	34.92	43.5	8.58	175.21
171.76	39.97	QP	V	17.92	2.13	22.84	37.18	43.5	6.32	175.76
333.37	34.13	QP	H	17.63	2.26	22.43	31.59	46	14.41	363.37
333.82	34.52	QP	V	17.63	2.26	22.43	31.98	46	14.02	363.82
4874	20.07	Ave.	V	31.3	3.86	7.4	47.83	54	6.17	4874
4874	21	Ave.	H	31.3	3.86	7.4	48.76	54	5.24	4874
4874	28.42	PK	H	31.3	3.86	7.4	56.18	74	17.82	4874
4874	29.11	PK	V	31.3	3.86	7.4	56.87	74	17.13	4874
2437	68.59	PK	H	28.2	2.65	0	99.44	N/A	N/A	2437
2437	62.13	Ave.	H	28.2	2.65	0	92.98	N/A	N/A	2437
2437	69.32	PK	V	28.2	2.65	0	100.17	N/A	N/A	2437
2437	62.48	Ave.	V	28.2	2.65	0	93.33	N/A	N/A	2437
High Channel (2462MHz)										
171.56	39.65	QP	H	17.92	2.13	22.84	36.86	43.5	6.64	spurious
171.42	39.97	QP	V	17.92	2.13	22.84	37.18	43.5	6.32	spurious
334.01	33.86	QP	H	17.63	2.26	22.43	31.32	46	14.68	spurious
333.9	34.21	QP	V	17.63	2.26	22.43	31.67	46	14.33	spurious
4924	18.97	Ave.	H	32.4	3.86	8.1	47.13	54	6.87	Harmonic
4924	19.63	Ave.	V	32.4	3.86	8.1	47.79	54	6.21	Harmonic
2389.21	20.03	Ave.	H	30.1	2.64	8.5	44.27	54	9.73	spurious
2389.23	19.61	Ave.	V	30.1	2.64	8.5	43.85	54	10.15	spurious
2389.21	38.04	PK	V	30.1	2.64	8.5	62.28	74	11.72	spurious
4924	28.76	PK	H	32.4	3.86	8.1	56.92	74	17.08	Harmonic
2389.32	39.22	PK	H	30.1	2.64	8.5	63.46	74	10.54	spurious
4924	27.84	PK	V	32.4	3.86	8.1	56	74	18	Harmonic
2462	68.27	PK	H	29.7	2.64	0	100.61	N/A	N/A	Fundamental
2462	62.03	Ave.	H	29.7	2.64	0	94.37	N/A	N/A	Fundamental
2462	69.58	PK	V	29.7	2.64	0	101.92	N/A	N/A	Fundamental
2462	62.34	Ave.	V	29.7	2.64	0	94.68	N/A	N/A	Fundamental

802.11n20 Mode:

Frequency (MHz)	S.A. Reading (dBmV)	Detector (PK/QP /Ave.)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBmV/m)	Limit (dBmV/m)	Margin (dB)	Comment
Low Channel (2412MHz)										
172.63	36.58	QP	H	17.92	2.13	22.84	33.79	43.5	9.71	spurious
172.76	40.03	QP	V	17.92	2.13	22.84	37.24	43.5	6.26	spurious
333.66	34.02	QP	H	17.63	2.26	22.43	31.48	46	14.52	spurious
333.87	34.55	QP	V	17.63	2.26	22.43	32.01	46	13.99	spurious
4824	20.33	Ave.	V	31.2	3.8	8.54	46.79	54	7.21	Harmonic
4824	19.87	Ave.	H	31.5	3.8	8.54	46.63	54	7.37	Harmonic
2390	19.77	Ave.	H	26.8	2.37	8.2	40.74	54	13.26	spurious
2390	20.32	Ave.	V	26.8	2.37	8.2	41.29	54	12.71	spurious
2390	37.42	PK	V	26.8	2.37	8.2	58.39	74	15.61	spurious
2390	37.66	PK	H	26.8	2.37	8.2	58.63	74	15.37	spurious
4824	27.52	PK	V	31.5	3.8	8.54	54.28	74	19.72	Harmonic
4824	28.66	PK	H	31.2	3.8	8.54	55.12	74	18.88	Harmonic
2412	68.59	PK	H	27.3	2.6	0	98.49	N/A	N/A	Fundamental
2412	62.15	Ave.	H	27.3	2.6	0	92.05	N/A	N/A	Fundamental
2412	70.53	PK	V	27.3	2.6	0	100.43	N/A	N/A	Fundamental
2412	62.44	Ave.	V	27.3	2.6	0	92.34	N/A	N/A	Fundamental
Middle Channel (2437MHz)										
171.63	37.05	QP	H	17.92	2.13	22.84	34.26	43.5	9.24	spurious
171.22	39.87	QP	V	17.92	2.13	22.84	37.08	43.5	6.42	spurious
333.91	34.19	QP	H	17.63	2.26	22.43	31.65	46	14.35	spurious
334.02	34.85	QP	V	17.63	2.26	22.43	32.31	46	13.69	spurious
4874	19.61	Ave.	V	31.3	3.86	7.4	47.37	54	6.63	Harmonic
4874	20.46	Ave.	H	31.3	3.86	7.4	48.22	54	5.78	Harmonic
4874	27.79	PK	H	31.3	3.86	7.4	55.55	74	18.45	Harmonic
4874	28.57	PK	V	31.3	3.86	7.4	56.33	74	17.67	Harmonic
2437	68.22	PK	H	28.2	2.65	0	99.07	N/A	N/A	Fundamental
2437	63.02	Ave.	H	28.2	2.65	0	93.87	N/A	N/A	Fundamental
2437	69.77	PK	V	28.2	2.65	0	100.62	N/A	N/A	Fundamental
2437	64.11	Ave.	V	28.2	2.65	0	94.96	N/A	N/A	Fundamental
High Channel (2462MHz)										
171.52	38.54	QP	H	17.92	2.13	22.84	35.75	43.5	7.75	spurious
171.33	40.12	QP	V	17.92	2.13	22.84	37.33	43.5	6.17	spurious
333.84	34.22	QP	H	17.63	2.26	22.43	31.68	46	14.32	spurious
333.96	35.18	QP	V	17.63	2.26	22.43	32.64	46	13.36	spurious
4904	19.82	Ave.	H	32.4	3.86	8.1	47.98	54	6.02	Harmonic
4904	20.03	Ave.	V	32.4	3.86	8.1	48.19	54	5.81	Harmonic
2488.56	18.79	Ave.	H	30.1	2.64	8.5	43.03	54	10.97	spurious
2488.31	19.63	Ave.	V	30.1	2.64	8.5	43.87	54	10.13	spurious
2485.6	28.63	PK	V	30.1	2.64	8.5	52.87	74	21.13	spurious
2488.31	38.76	PK	H	32.4	3.86	8.1	66.92	74	7.08	Harmonic
2488.56	39.64	PK	H	30.1	2.64	8.5	63.88	74	10.12	spurious
4904	29.37	PK	V	32.4	3.86	8.1	57.53	74	16.47	Harmonic
2452	68.52	PK	H	29.5	2.64	0	100.66	N/A	N/A	Fundamental
2452	62.41	Ave.	H	29.5	2.64	0	94.55	N/A	N/A	Fundamental
2452	70.26	PK	V	29.5	2.64	0	102.4	N/A	N/A	Fundamental
2452	63.57	Ave.	V	29.5	2.64	0	95.71	N/A	N/A	Fundamental

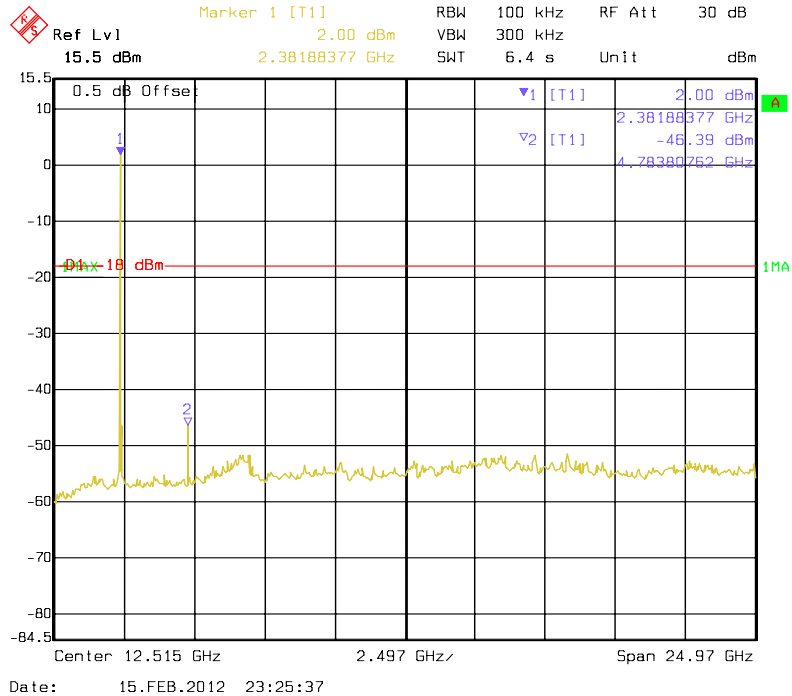
802.11n40 Mode:

Frequency (MHz)	S.A. Reading (dBmV)	Detector (PK/QP /Ave.)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBmV/m)	Limit (dBmV/m)	Margin (dB)	Comment
Low Channel (2422MHz)										
171.62	41.11	QP	H	17.92	2.13	22.84	38.32	43.5	5.18	spurious
171.44	38.92	QP	V	17.92	2.13	22.84	36.13	43.5	7.37	spurious
334.08	33.96	QP	H	17.63	2.26	22.43	31.42	46	14.58	spurious
334.12	34.61	QP	V	17.63	2.26	22.43	32.07	46	13.93	spurious
4844	20.44	Ave.	V	31.2	3.8	8.54	46.9	54	7.1	Harmonic
4844	19.86	Ave.	H	31.5	3.8	8.54	46.62	54	7.38	Harmonic
2392.3	18.79	Ave.	H	26.8	2.37	8.2	39.76	54	14.24	spurious
2392.31	19.63	Ave.	V	26.8	2.37	8.2	40.6	54	13.4	spurious
2392.3	38.76	PK	V	26.8	2.37	8.2	59.73	74	14.27	spurious
2392.34	39.64	PK	H	26.8	2.37	8.2	60.61	74	13.39	spurious
4844	28.41	PK	V	31.5	3.8	8.54	55.17	74	18.83	Harmonic
4844	29.87	PK	H	31.2	3.8	8.54	56.33	74	17.67	Harmonic
2422	68.16	PK	H	27.9	2.62	0	98.68	N/A	N/A	Fundamental
2422	61.58	Ave.	H	27.9	2.62	0	92.1	N/A	N/A	Fundamental
2422	69.19	PK	V	27.9	2.62	0	99.71	N/A	N/A	Fundamental
2422	62.91	Ave.	V	27.9	2.62	0	93.43	N/A	N/A	Fundamental
Middle Channel (2437MHz)										
171.21	39.97	QP	H	17.92	2.13	22.84	37.18	43.5	6.32	spurious
171.76	37.04	QP	V	17.92	2.13	22.84	34.25	43.5	9.25	spurious
333.37	34.13	QP	H	17.63	2.26	22.43	31.59	46	14.41	spurious
333.82	34.52	QP	V	17.63	2.26	22.43	31.98	46	14.02	spurious
4874	20.07	Ave.	V	31.3	3.86	7.4	47.83	54	6.17	Harmonic
4874	21	Ave.	H	31.3	3.86	7.4	48.76	54	5.24	Harmonic
4874	28.42	PK	H	31.3	3.86	7.4	56.18	74	17.82	Harmonic
4874	29.11	PK	V	31.3	3.86	7.4	56.87	74	17.13	Harmonic
2437	68.59	PK	H	28.2	2.65	0	99.44	N/A	N/A	Fundamental
2437	62.13	Ave.	H	28.2	2.65	0	92.98	N/A	N/A	Fundamental
2437	69.32	PK	V	28.2	2.65	0	100.17	N/A	N/A	Fundamental
2437	62.48	Ave.	V	28.2	2.65	0	93.33	N/A	N/A	Fundamental
High Channel (2452MHz)										
171.66	39.65	QP	H	17.92	2.13	22.84	36.86	43.5	6.64	spurious
171.42	39.97	QP	V	17.92	2.13	22.84	37.18	43.5	6.32	spurious
334.08	33.86	QP	H	17.63	2.26	22.43	31.32	46	14.68	spurious
334.12	34.21	QP	V	17.63	2.26	22.43	31.67	46	14.33	spurious
4924	18.97	Ave.	H	32.4	3.86	8.1	47.13	54	6.87	Harmonic
4924	19.63	Ave.	V	32.4	3.86	8.1	47.79	54	6.21	Harmonic
2389.21	20.03	Ave.	H	30.1	2.64	8.5	44.27	54	9.73	spurious
2389.23	19.61	Ave.	V	30.1	2.64	8.5	43.85	54	10.15	spurious
2389.21	38.04	PK	V	30.1	2.64	8.5	62.28	74	11.72	spurious
4924	28.76	PK	H	32.4	3.86	8.1	56.92	74	17.08	Harmonic
2389.32	39.22	PK	H	30.1	2.64	8.5	63.46	74	10.54	spurious
4924	27.84	PK	V	32.4	3.86	8.1	56	74	18	Harmonic
2452	68.27	PK	H	29.7	2.64	0	100.61	N/A	N/A	Fundamental
2452	62.03	Ave.	H	29.7	2.64	0	94.37	N/A	N/A	Fundamental
2452	69.58	PK	V	29.7	2.64	0	101.92	N/A	N/A	Fundamental
2452	62.34	Ave.	V	29.7	2.64	0	94.68	N/A	N/A	Fundamental

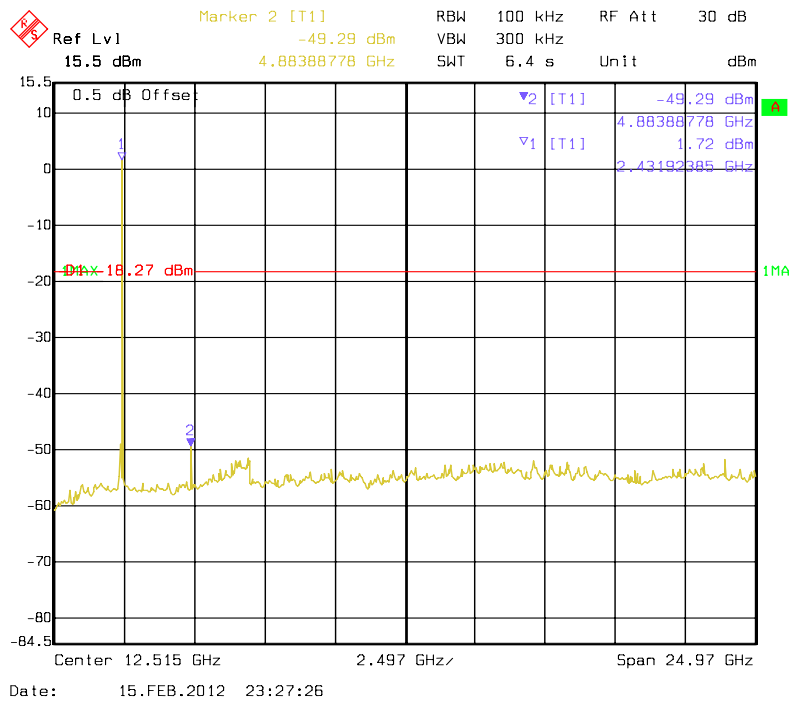
*Within measurement uncertainty!

Conducted Spurious Emissions at Antenna Port

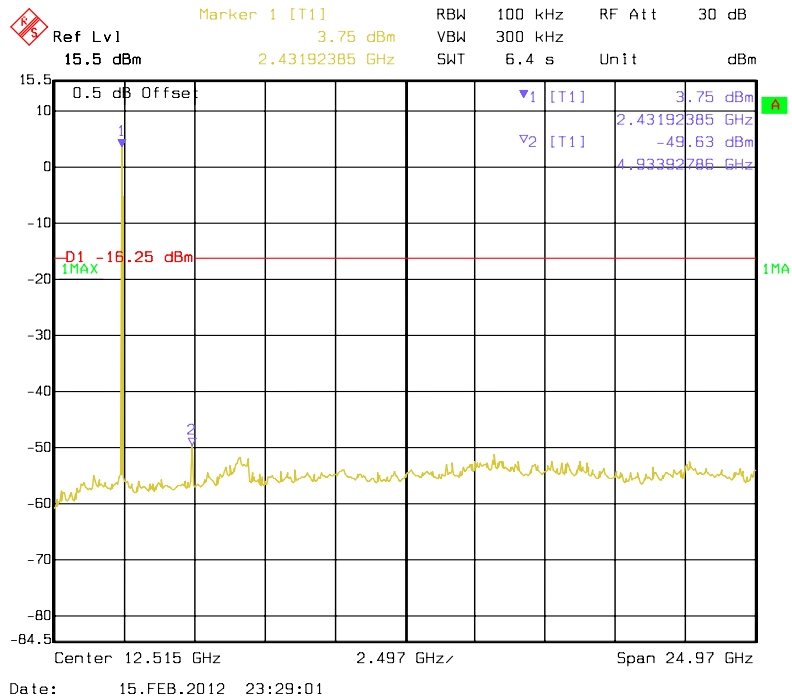
802.11b Low Channel



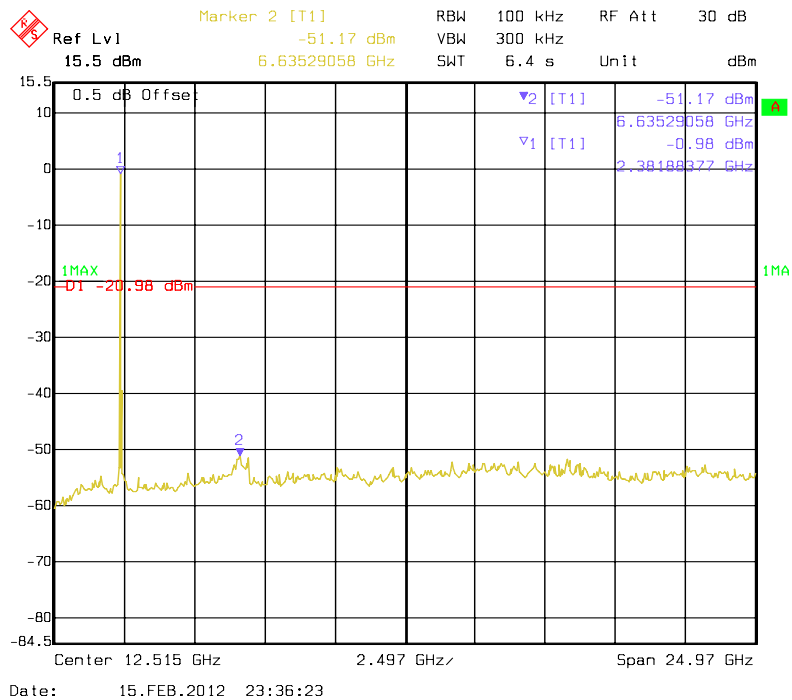
802.11b Middle Channel



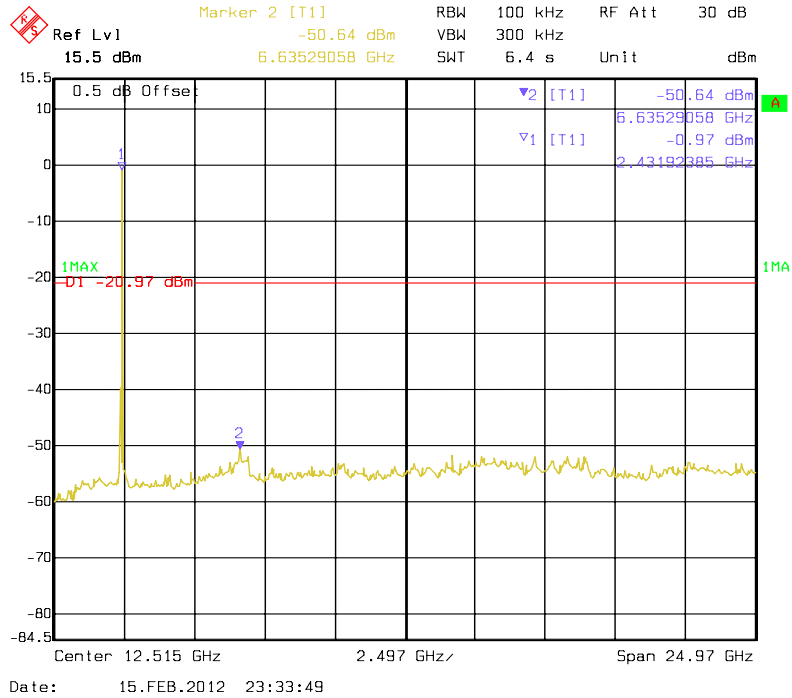
802.11b High Channel



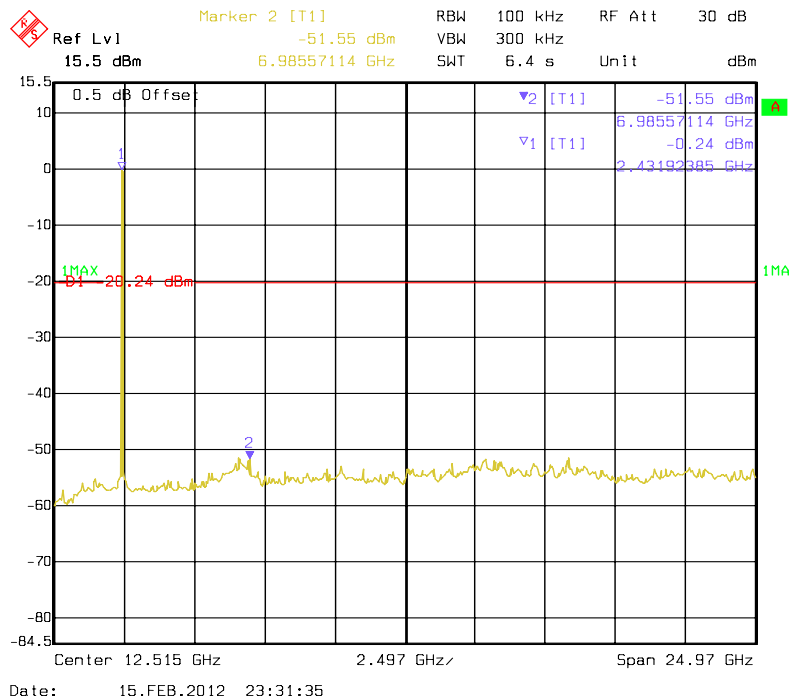
802.11g Low Channel



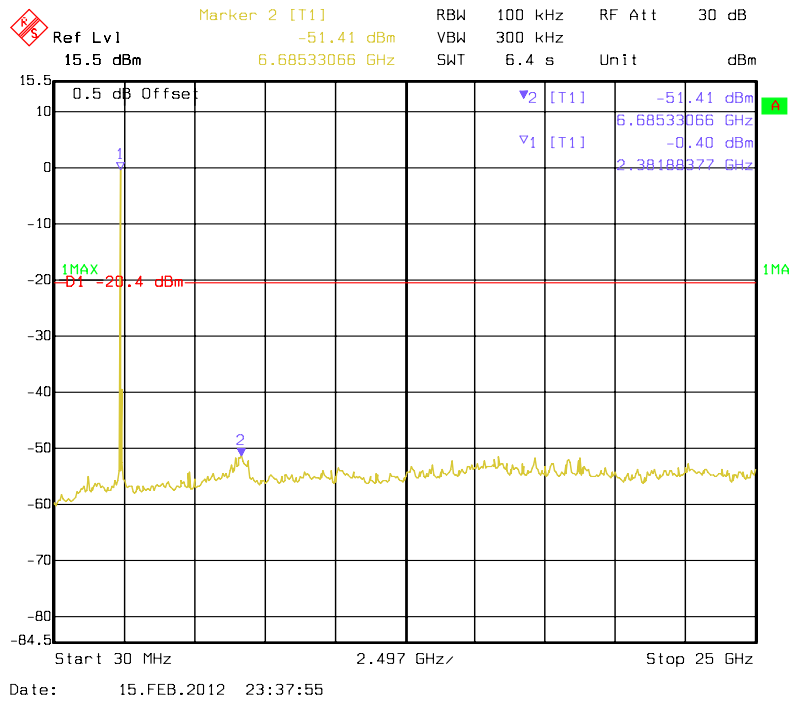
802.11g Middle Channel



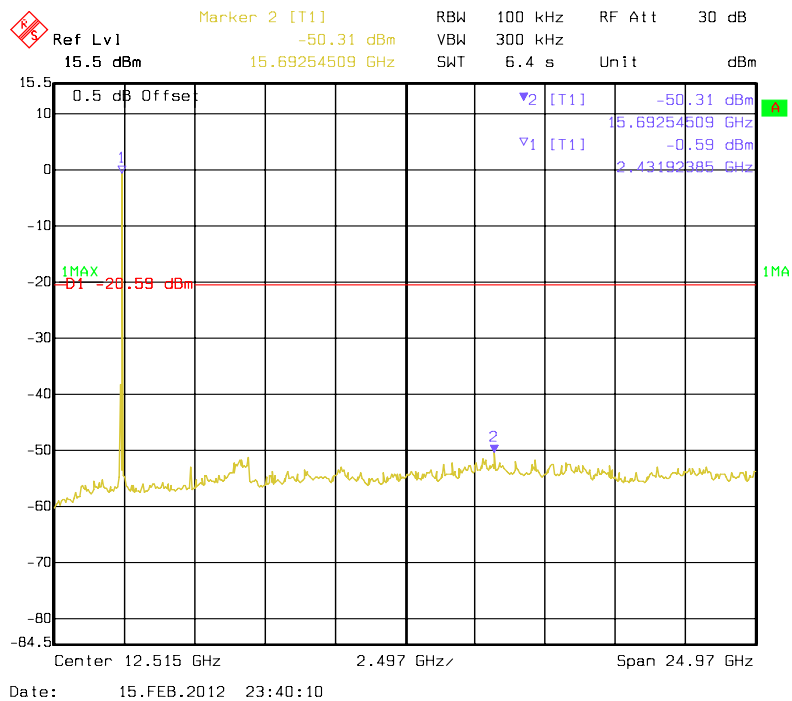
802.11g High Channel



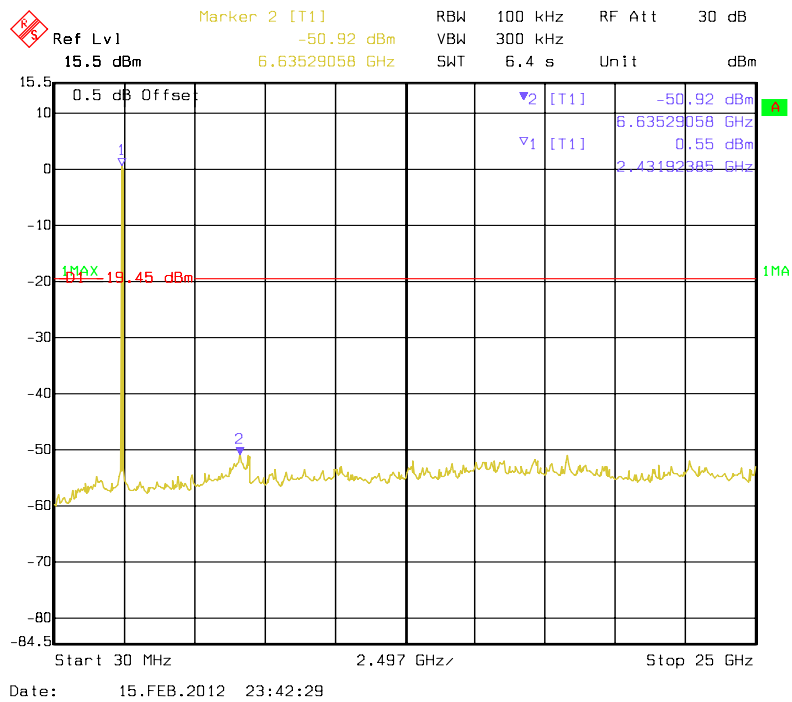
802.11n20 Low Channel



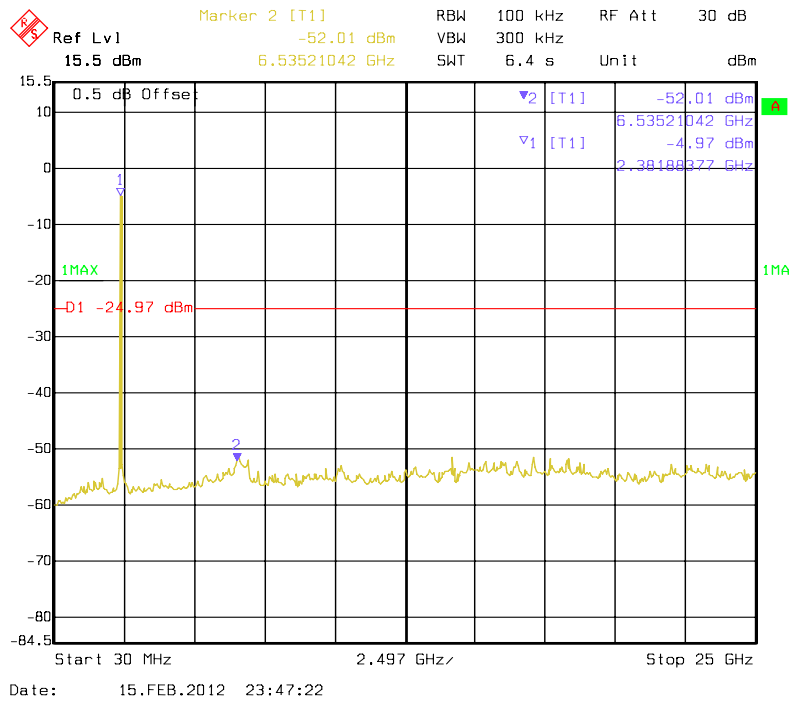
802.11n20 Middle Channel



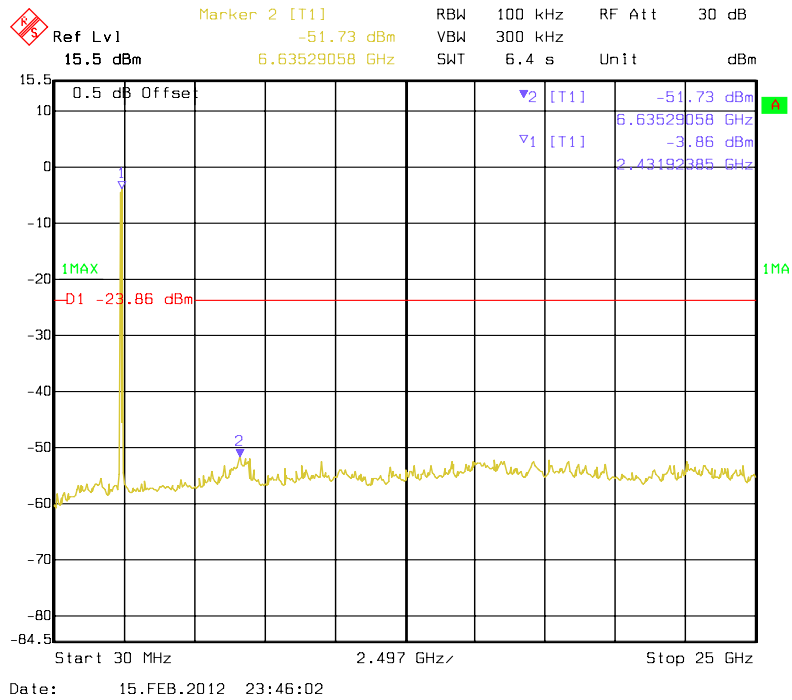
802.11n20 High Channel



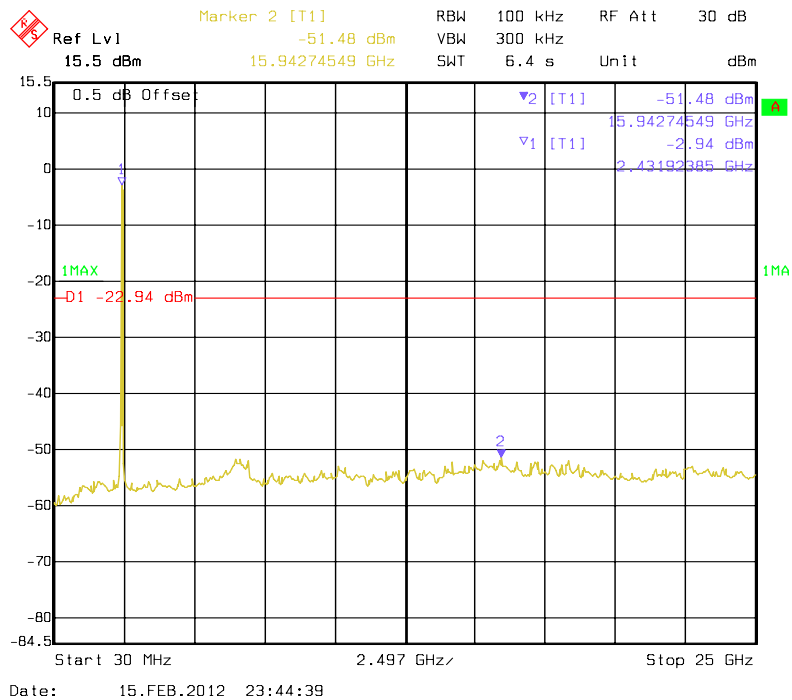
802.11n40 Low Channel



802.11n40 Middle Channel



802.11n40 High Channel

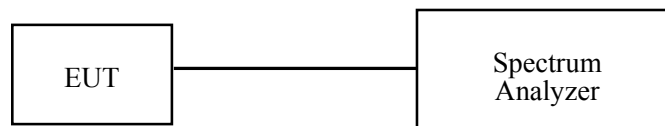


FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH**Applicable Standard**

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

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

**Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	48 %
ATM Pressure:	100.0kPa

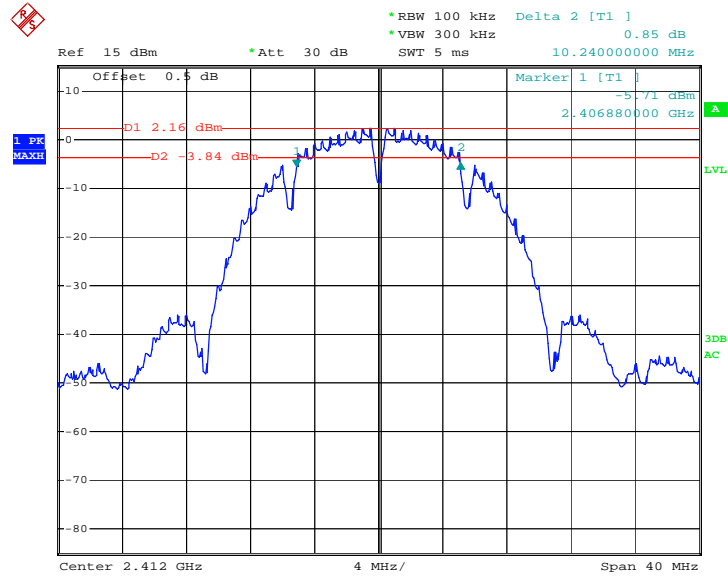
The testing was performed by Bin Jiang on 2012-02-15.

Test Result: Pass.

Please refer to the following tables and plots.

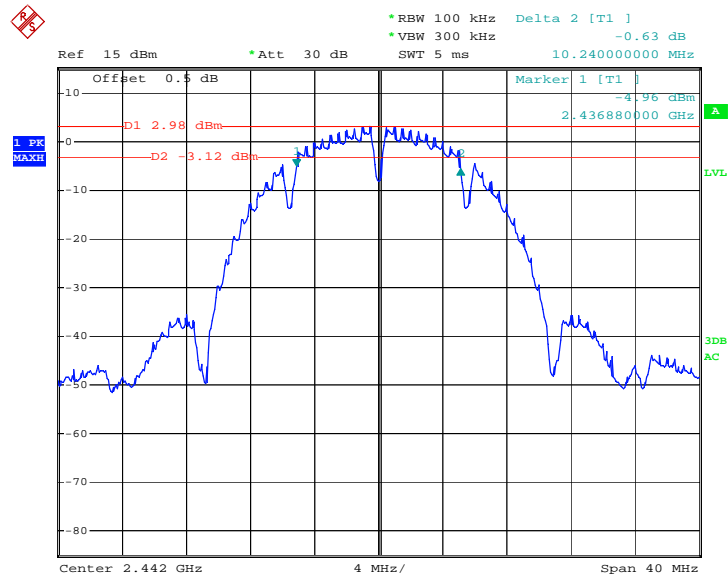
Channel	Frequency (MHz)	Data Rate (Mbps)	6 dB Bandwidth (MHz)	Limit (KHz)
802.11b mode				
Low	2412	1	10.24	>500
Middle	2437	1	10.24	>500
High	2462	1	10.24	>500
802.11g mode				
Low	2412	6	16.72	>500
Middle	2437	6	16.72	>500
High	2462	6	16.72	>500
802.11n20 mode				
Low	2412	6.5	17.92	>500
Middle	2437	6.5	17.92	>500
High	2462	6.5	17.92	>500
802.11n40 mode				
Low	2422	13.5	36.80	>500
Middle	2437	13.5	36.80	>500
High	2452	13.5	36.80	>500

802.11b Low Channel



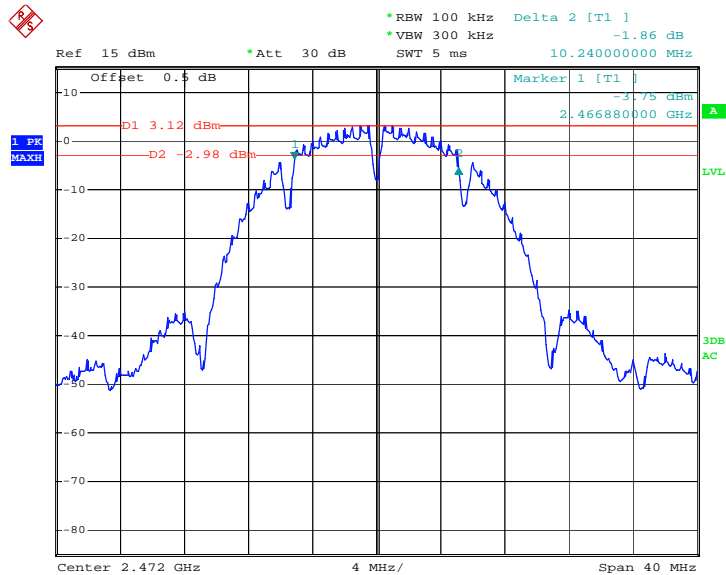
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802.11b Middle Channel



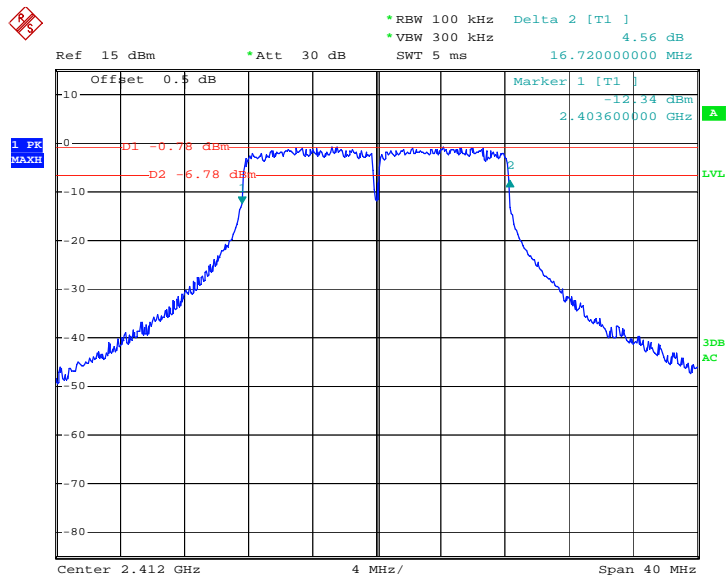
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802.11b High Channel



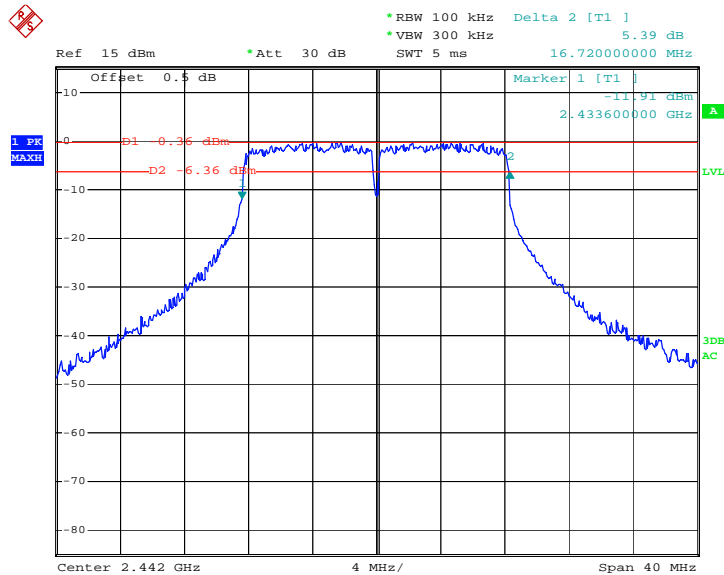
Date: 15.FEB.2012 13:00:45

802.11g Low Channel



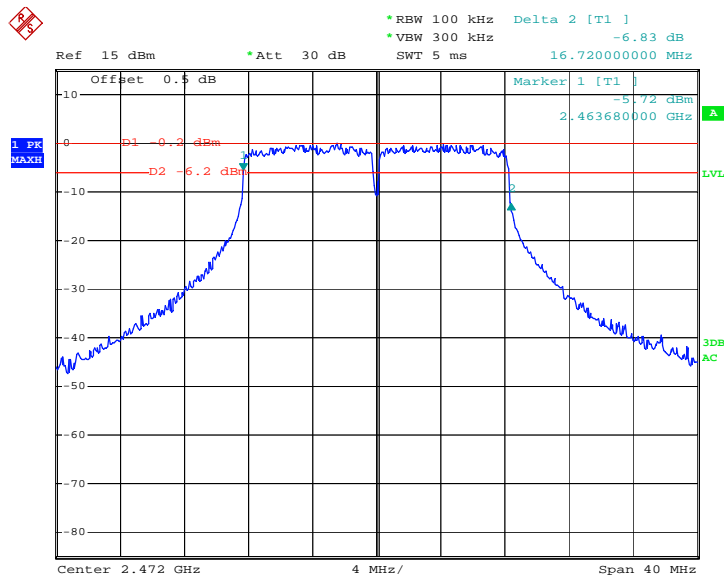
Date: 15.FEB.2012 13:03:09

802.11g Middle Channel



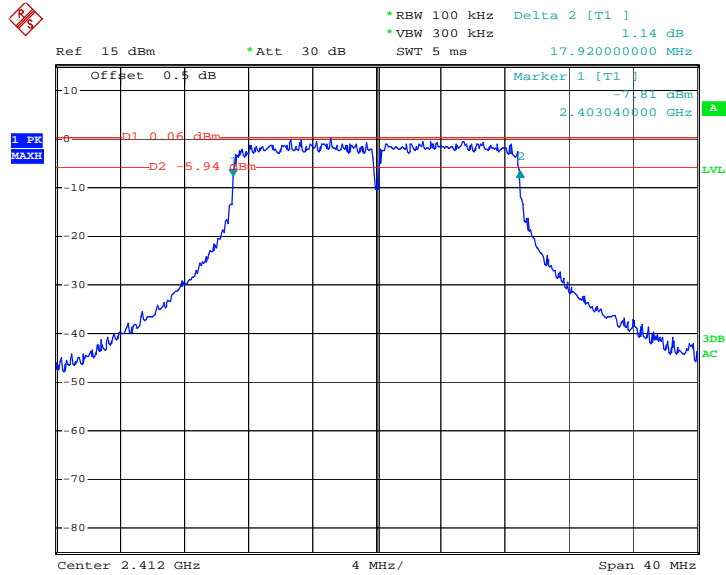
Date: 15.FEB.2012 13:05:02

802.11g High Channel



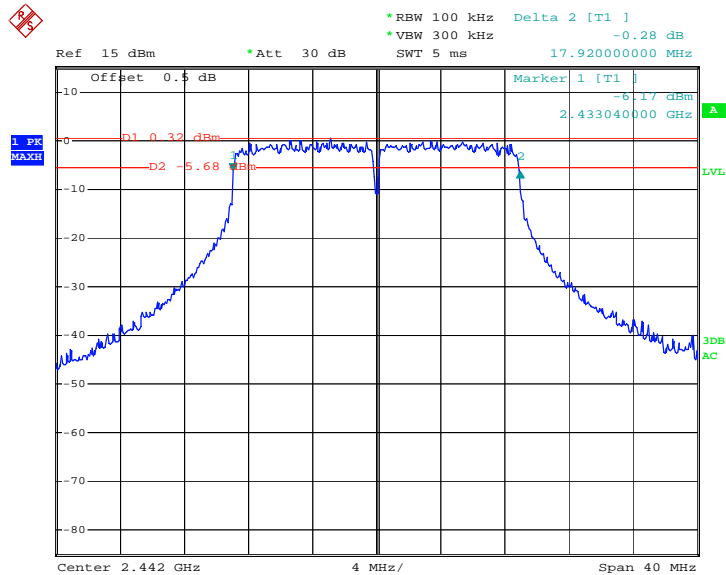
Date: 15.FEB.2012 13:07:00

802.11n20 Low Channel



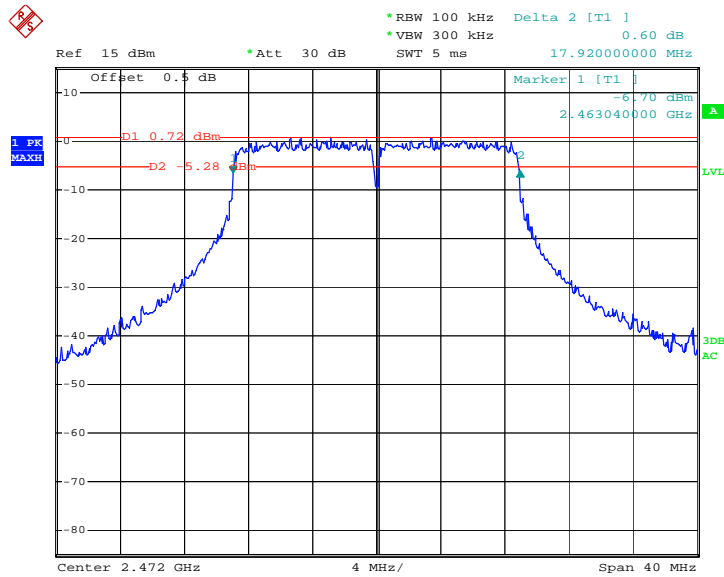
Date: 15.FEB.2012 13:11:45

802.11n20 Middle Channel



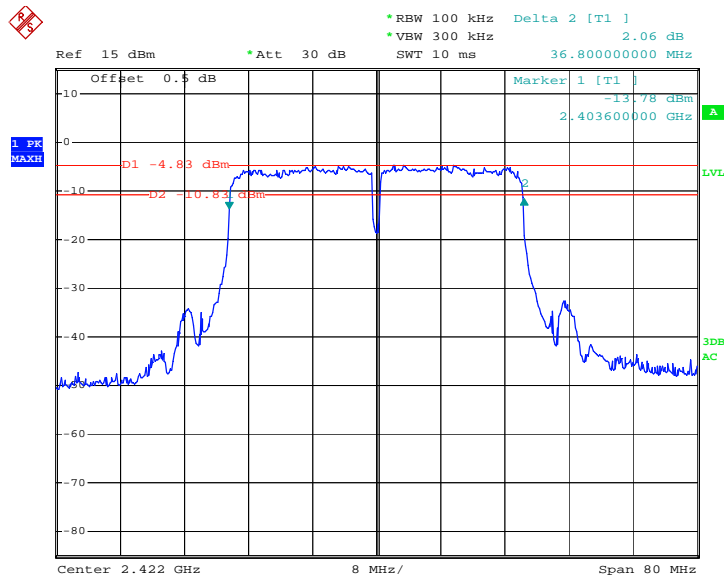
Date: 15.FEB.2012 13:10:07

802.11n20 High Channel



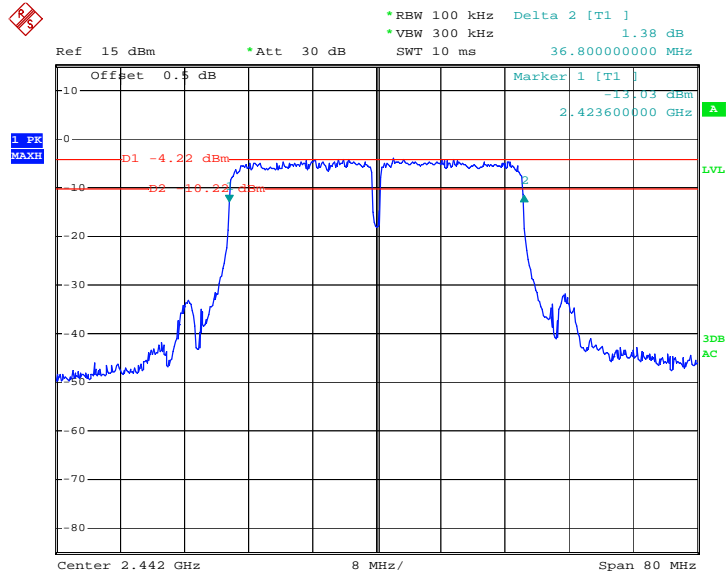
Date: 15.FEB.2012 13:08:52

802.11n40 Low Channel



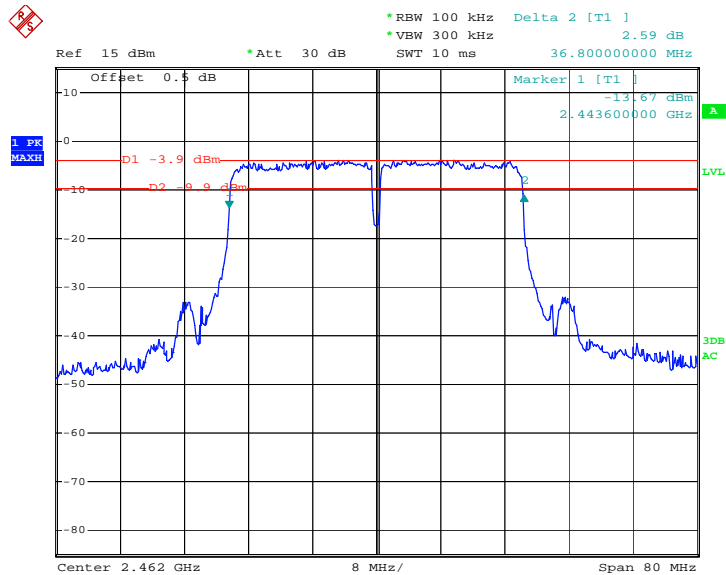
Date: 15.FEB.2012 13:13:31

802.11n40 Middle Channel



Date: 15.FEB.2012 13:14:55

802.11n40 High Channel



Date: 15.FEB.2012 13:16:40

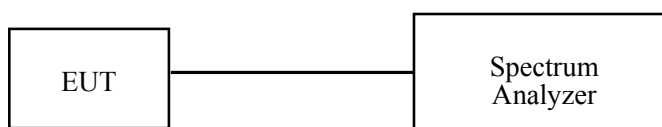
FCC §15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

Applicable Standard

According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. Add a correction factor to the display.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Bin Jiang from 2012-02-15 to 2012-02-16.

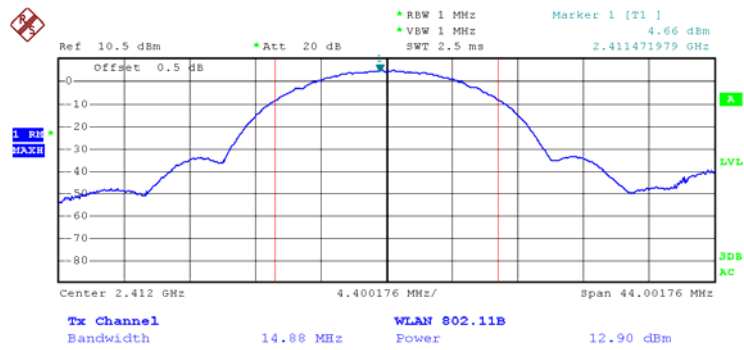
Test Mode: Transmitting

Channel	Frequency (MHz)	Data Rate (Mbps)	Reading Power (dBm)	Limit (dBm)	Result
802.11b					
Low	2412	1	12.90	30	pass
Middle	2437	1	12.88	30	pass
High	2462	1	12.91	30	pass
802.11g					
Low	2412	6	12.77	30	pass
Middle	2437	6	12.63	30	pass
High	2462	6	12.65	30	pass
802.11n20					
Low	2412	6.5	12.36	30	pass
Middle	2437	6.5	12.62	30	pass
High	2462	6.5	12.73	30	pass
802.11n40					
Low	2422	13.5	12.27	30	pass
Middle	2437	13.5	12.21	30	pass
High	2452	13.5	12.27	30	pass

Note: the antenna gain is -0.5 dBi.

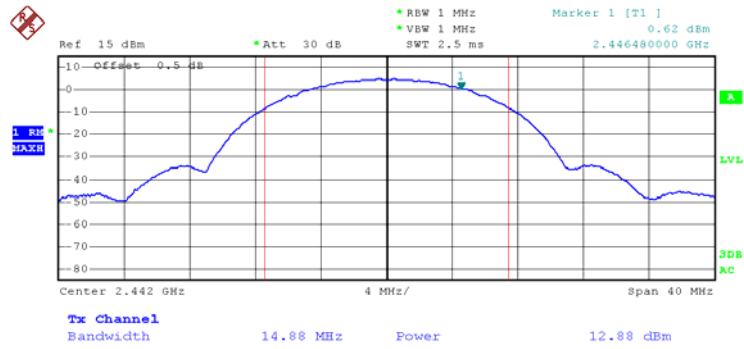
Please refer to the following plots

802.11b RF Output Power, Low Channel

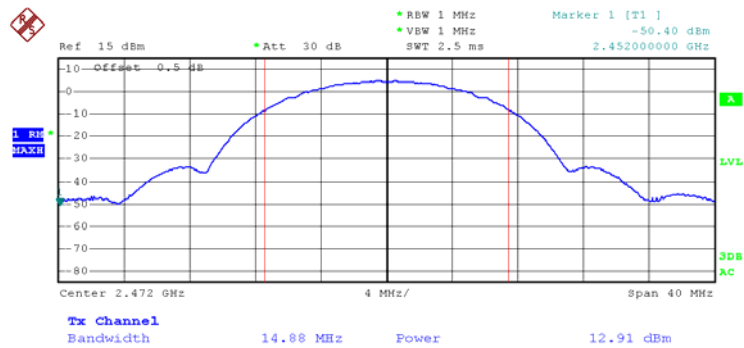


Date: 24.FEB.2012 13:21:27

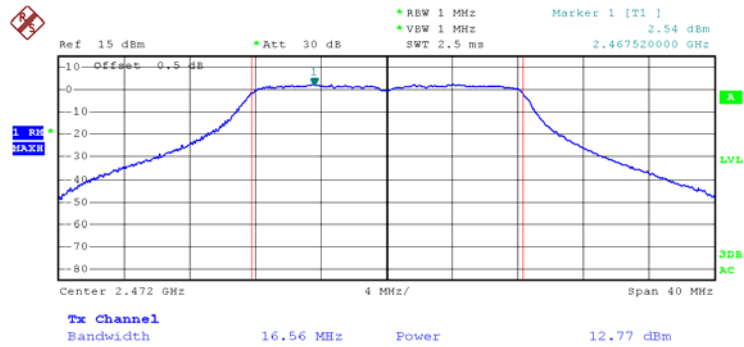
802.11b RF Output Power, Middle Channel



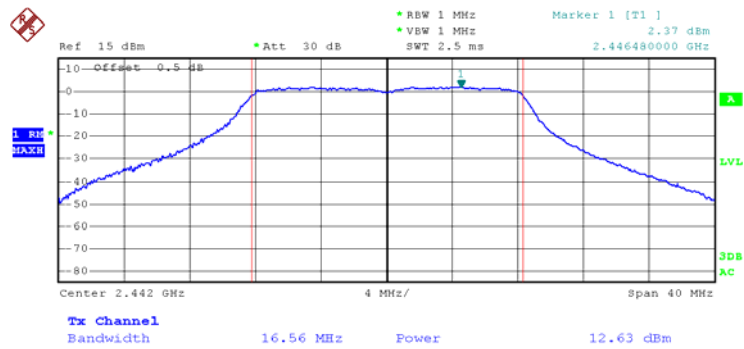
Date: 24.FEB.2012 14:33:00

802.11b RF Output Power, High Channel

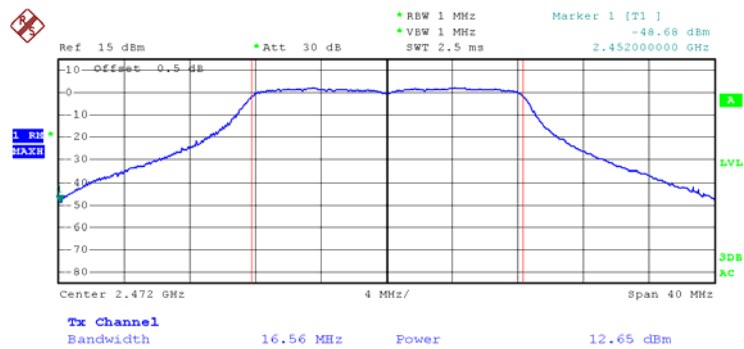
Date: 24.FEB.2012 14:34:12

802.11g RF Output Power, Low Channel

Date: 24.FEB.2012 13:51:31

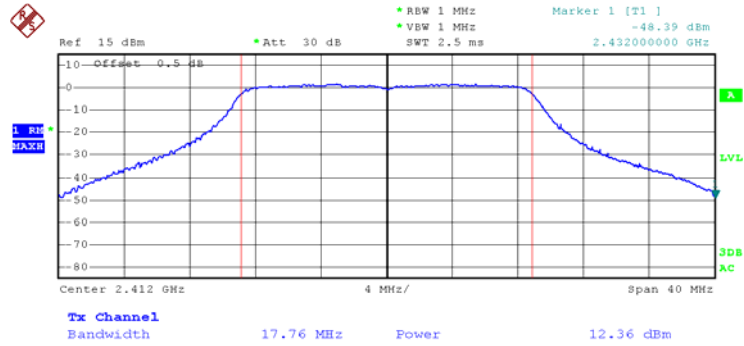
802.11g RF Output Power, Middle Channel

Date: 24.FEB.2012 14:31:04

802.11g RF Output Power, High Channel

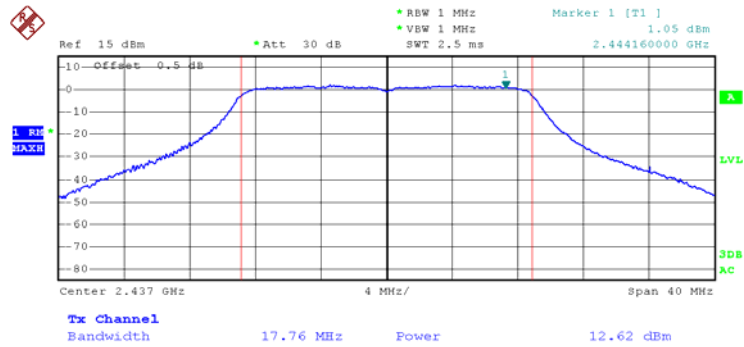
Date: 24.FEB.2012 14:29:57

802.11n20 RF Output Power, Low Channel

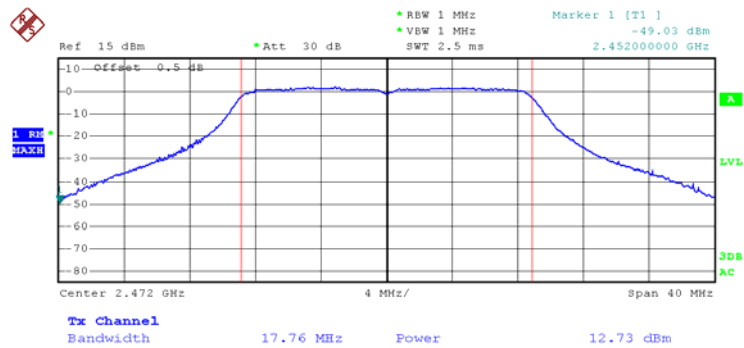


Date: 24.FEB.2012 14:12:30

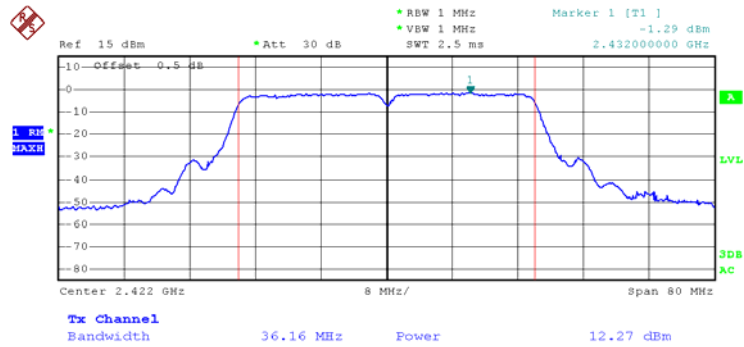
802.11n20 RF Output Power, Middle Channel



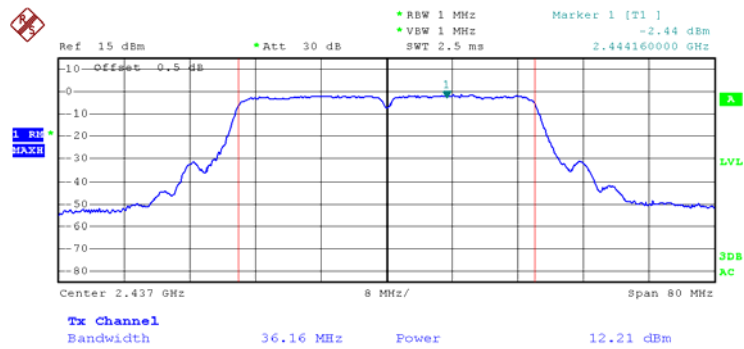
Date: 24.FEB.2012 14:26:46

802.11n20 RF Output Power, High Channel

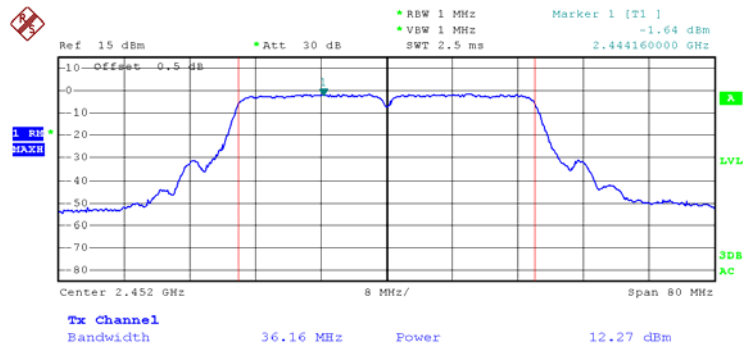
Date: 24.FEB.2012 14:27:54

802.11n40 RF Output Power, Low Channel

Date: 24.FEB.2012 14:18:21

802.11n40 RF Output Power, Middle Channel

Date: 24.FEB.2012 14:24:14

802.11n40 RF Output Power, High Channel

Date: 24.FEB.2012 14:23:28

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

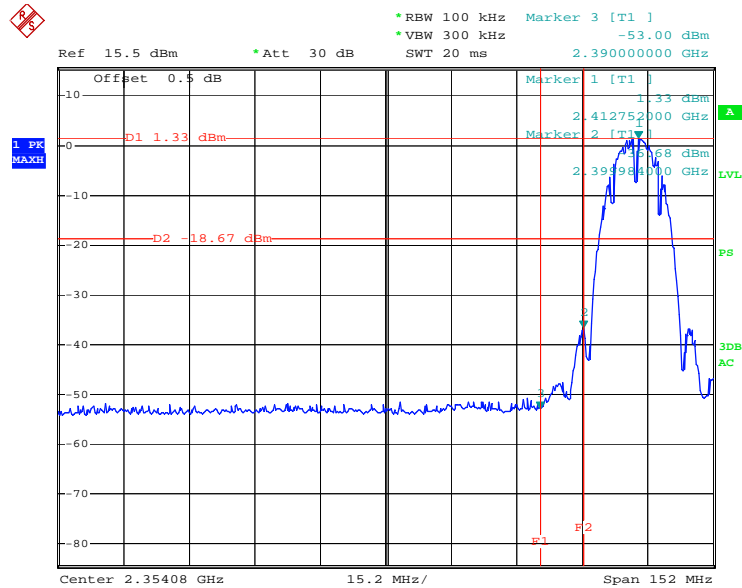
The testing was performed by Bin Jiang on 2012-02-15

Test Result: *Compliance*

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
802.11b				
Low	2399.984	-36.68	20	Pass
High	2500.912	-46.79	20	Pass
802.11g				
Low	2400.00	-32.78	20	Pass
High	2484.716	-48.36	20	Pass
802.11n20				
Low	2400.000	-32.56	20	Pass
High	2483.50	-49.05	20	Pass
802.11n40				
Low	2398.960	-33.82	20	Pass
High	2486.30	-44.27	20	Pass

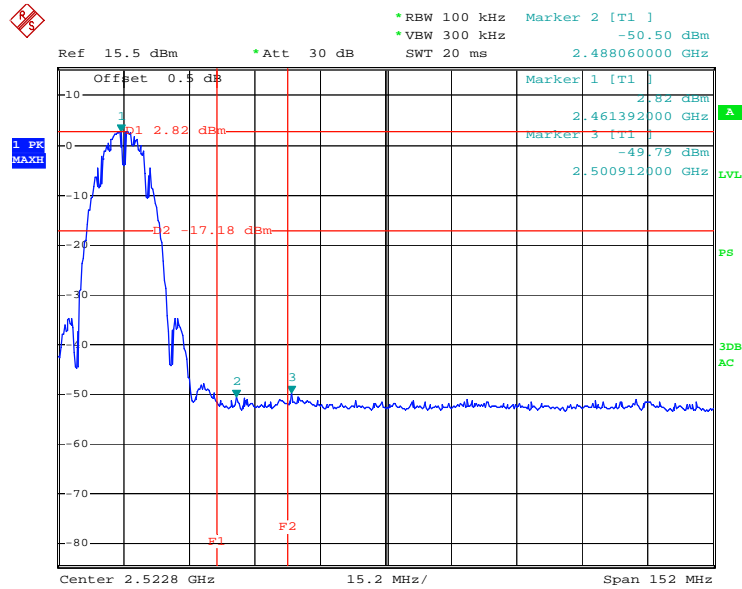
Please refer to following plots.

802.11b: Band Edge, Left Side



Date: 23.FEB.2012 07:51:39

802.11b: Band Edge, Right Side



Date: 23.FEB.2012 06:49:26

Ref 15.5 dBm * Att 30 dB

- * RBW 100 kHz
- * VBW 300 kHz
- SWT 20 ms

Marker 3 [T1] -50.41 dBm

2.390000000 GHz

Offset 0.5 dB

1 PK MAXH

D1 -2.42 dBm

D2 -22.42 dBm

Marker 1 [T1] -2.42 dBm

2.409712000 GHz

Marker 2 [T1] -22.78 dBm

2.400000000 GHz

LVL

PS

3DB

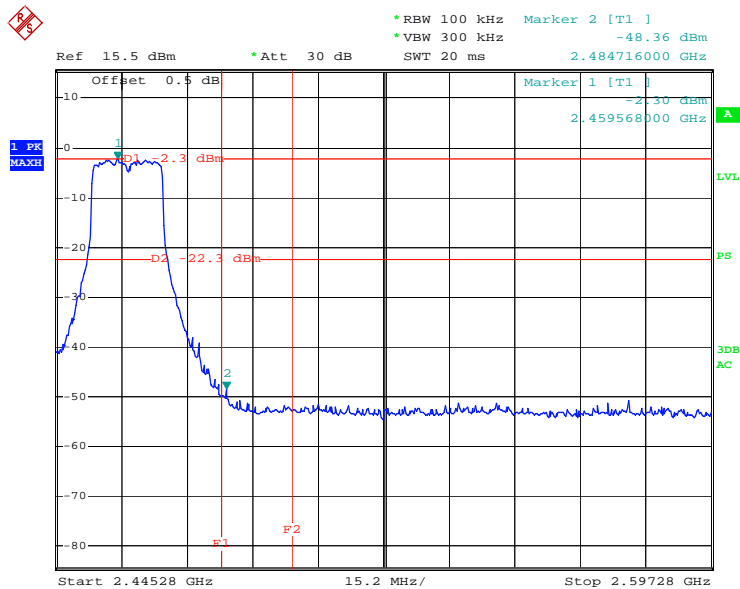
AC

Center 2.35408 GHz

15.2 MHz/

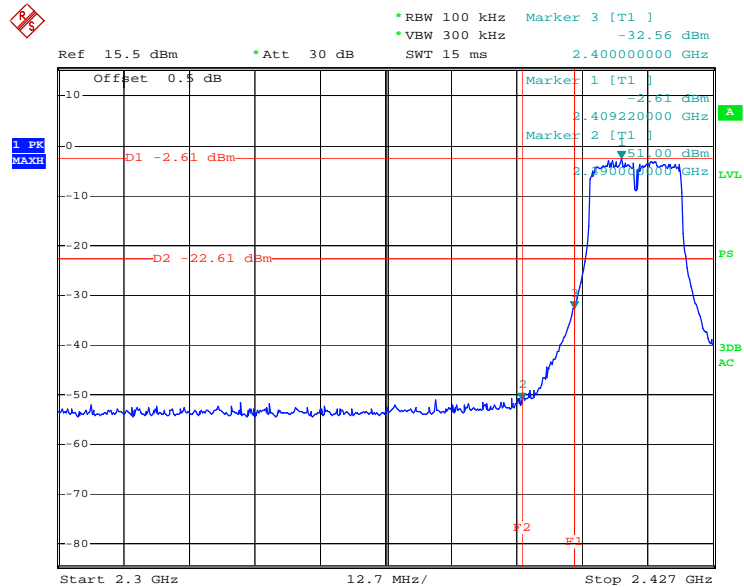
Span 152 MHz

802.11g: Band Edge, Right Side



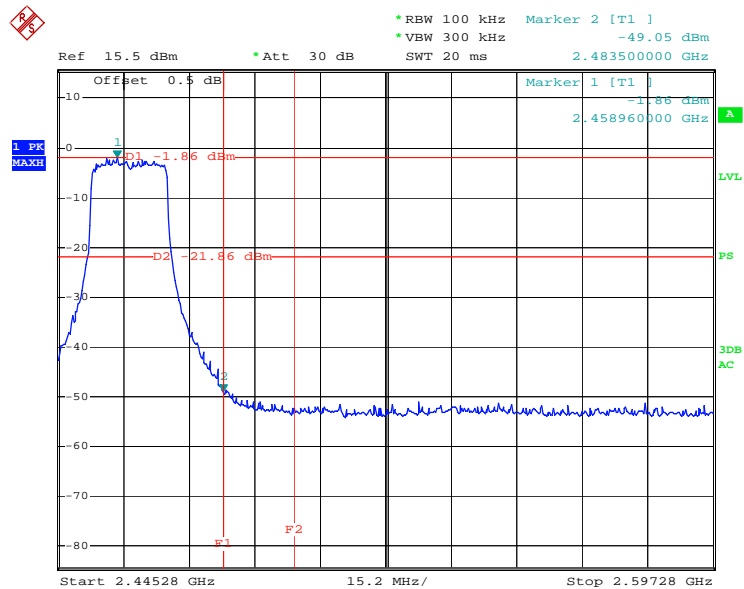
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802.11n20: Band Edge, Left Side



Date: 23.FEB.2012 07:58:46

802.11n20: Band Edge, Right Side



Date: 23.FEB.2012 06:59:45

Ref 15.5 dBm * Att 30 dB

* RBW 100 kHz * VBW 300 kHz -5.28 dBm

SWT 20 ms 2.431760000 GHz

Offset 0.5 dB

Marker 1 [T1]

-33.82 dBm

2.398960000 GHz

1 PK MAXII

D1 -5.28 dBm

D2 -25.28 dBm

Center 2.34536 GHz

20 MHz/

Span 200 MHz

Ref 15.5 dBm * Att 30 dB SWT 20 ms 2.486300000 GHz

Offset 0.5 dB

Marker 1 [T1] -4.87 dBm 2.460000000 GHz

Marker 3 [T1] -50.70 dBm 2.500000000 GHz

1 PK MAX

D1 -4.87 dBm

D2 -24.87 dBm

D3 -50.70 dBm

Center 2.53 GHz 20 MHz/ Span 200 MHz

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FCC §15.247(e) - POWER SPECTRAL DENSITY**Applicable Standard**

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to 1.5MHz span mode. And then, set RBW and VBW of spectrum analyzer to proper value. (DTS)
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Bin Jiang on 2012-02-15.

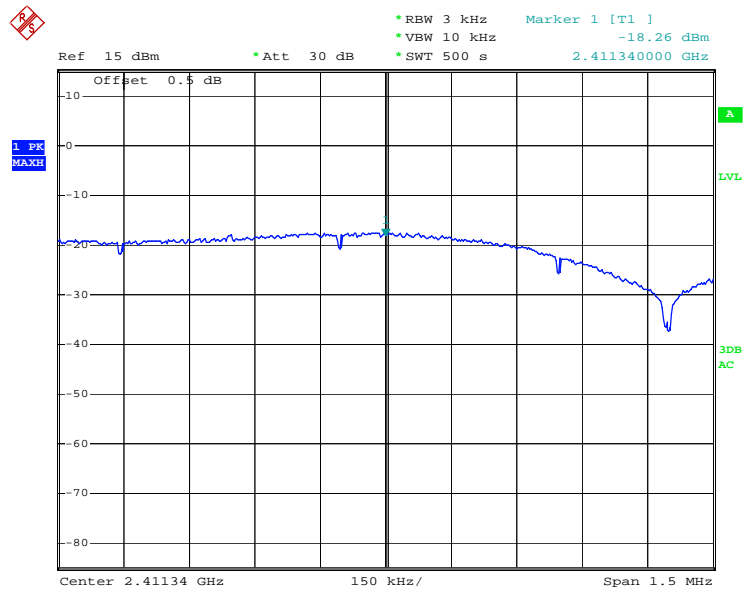
Test Mode: Transmitting

Test Result: Pass

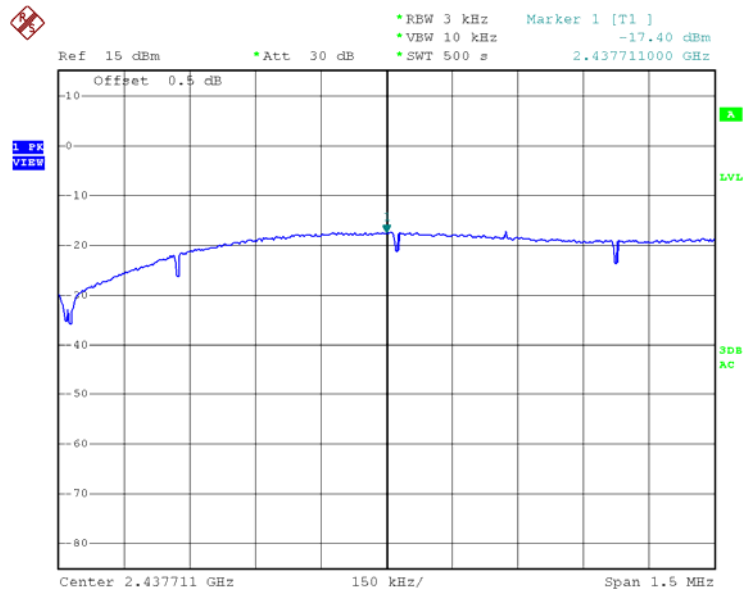
Channel	Frequency (MHz)	Data Rate (Mbps)	Reading Power Spectral Density (dBm)	Limit (dBm)	Result
802.11 b					
Low	2412	1	-18.26	8	pass
Middle	2437	1	-17.40	8	pass
High	2462	1	-17.53	8	pass
802.11 g					
Low	2412	6	-19.06	8	pass
Middle	2437	6	-18.36	8	pass
High	2462	6	-18.81	8	pass
802.11n20					
Low	2412	6.5	-17.15	8	pass
Middle	2437	6.5	-17.00	8	pass
High	2462	6.5	-17.36	8	pass
802.11n40					
Low	2422	13.5	-20.60	8	pass
Middle	2437	13.5	-20.04	8	pass
High	2452	13.5	-19.42	8	pass

Note: the antenna gain is -0.5 dBi.

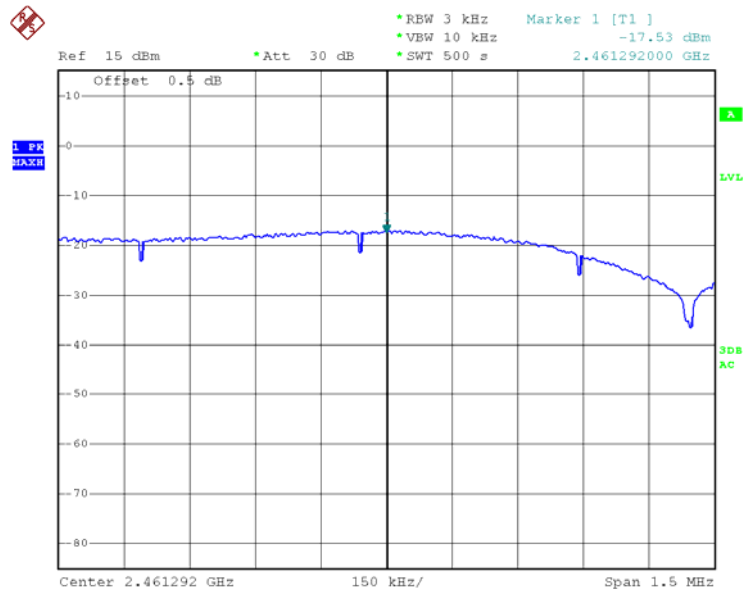
Please refer to the following plots

Power Spectral Density, 802.11b Low Channel

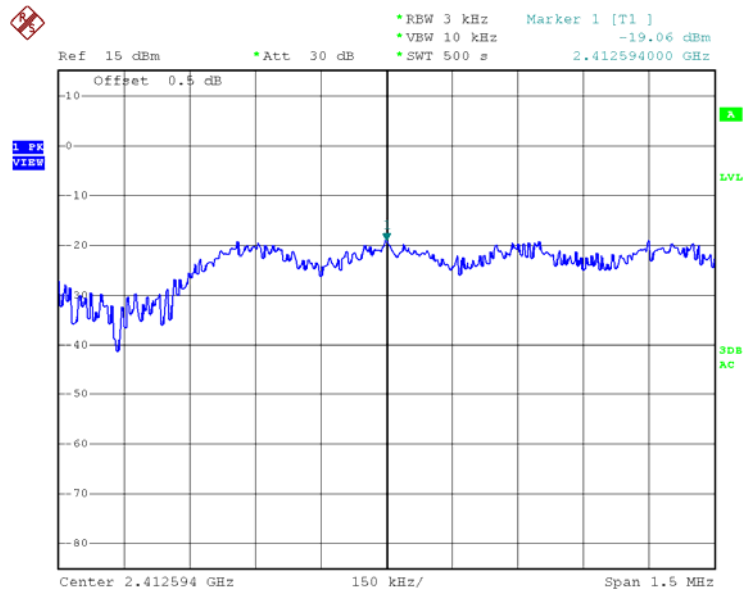
Date: 15.FEB.2012 14:11:51

Power Spectral Density, 802.11b Middle Channel

Date: 15.FEB.2012 15:10:14

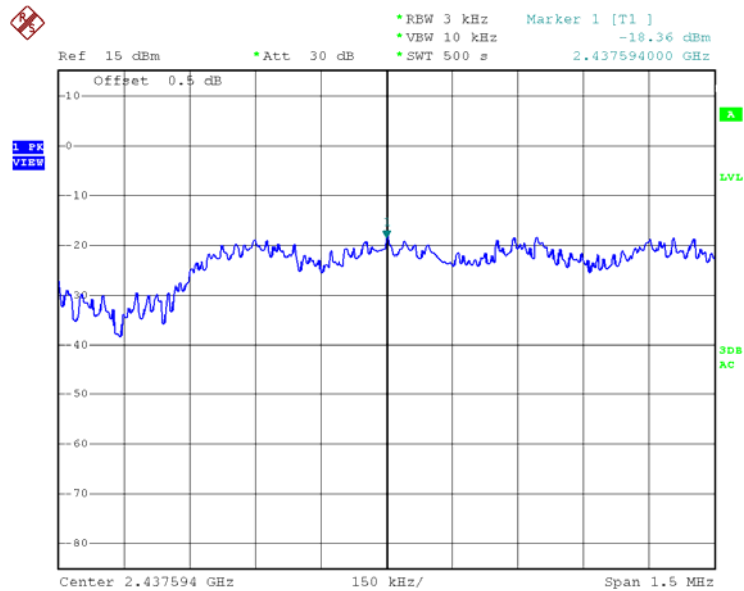
Power Spectral Density, 802.11b High Channel

Date: 15.FEB.2012 15:06:06

Power Spectral Density, 802.11g Low Channel

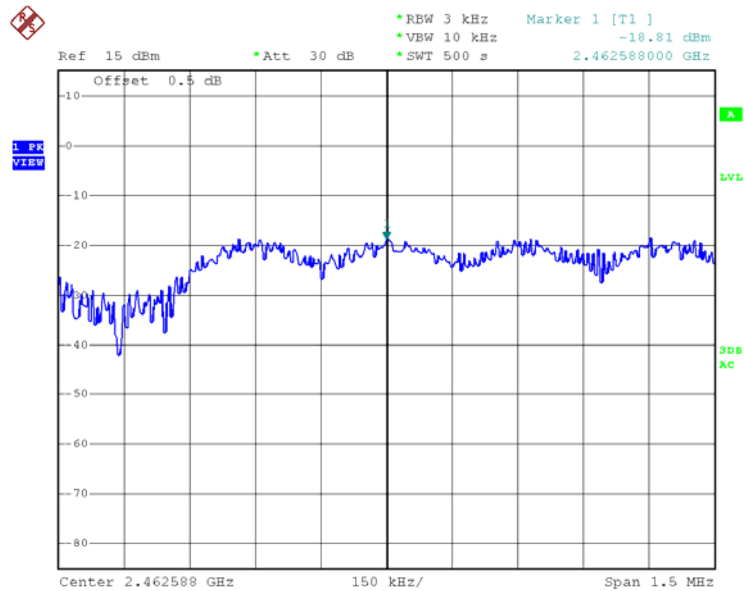
Date: 15.FEB.2012 15:15:43

Power Spectral Density, 802.11g Middle Channel



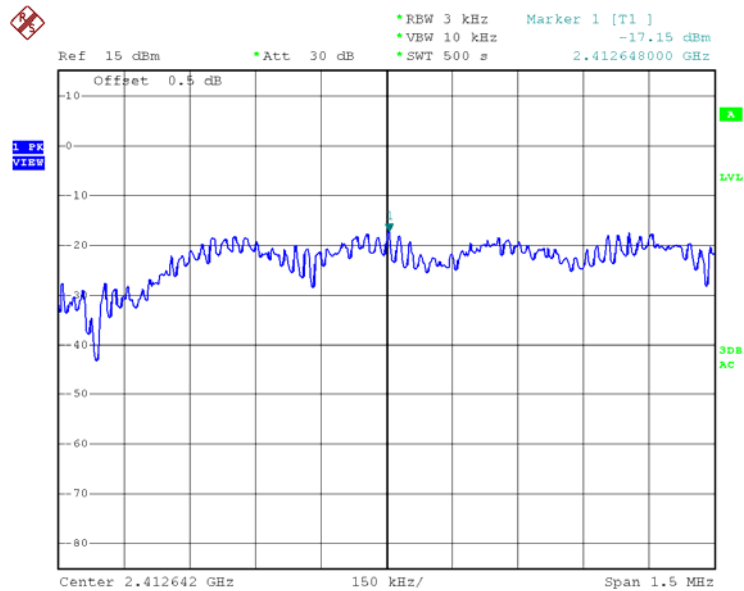
Date: 15.FEB.2012 15:13:38

Power Spectral Density, 802.11g High Channel



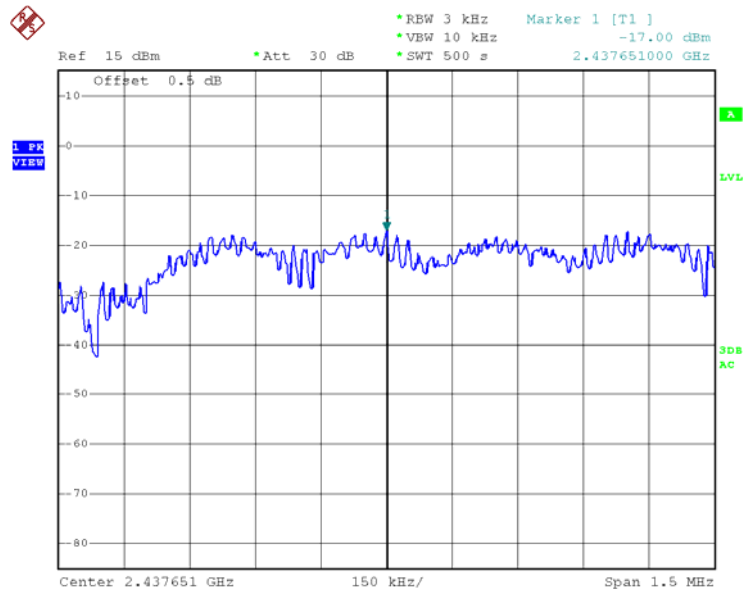
Date: 15.FEB.2012 15:17:44

Power Spectral Density, 802.11n20 Low Channel



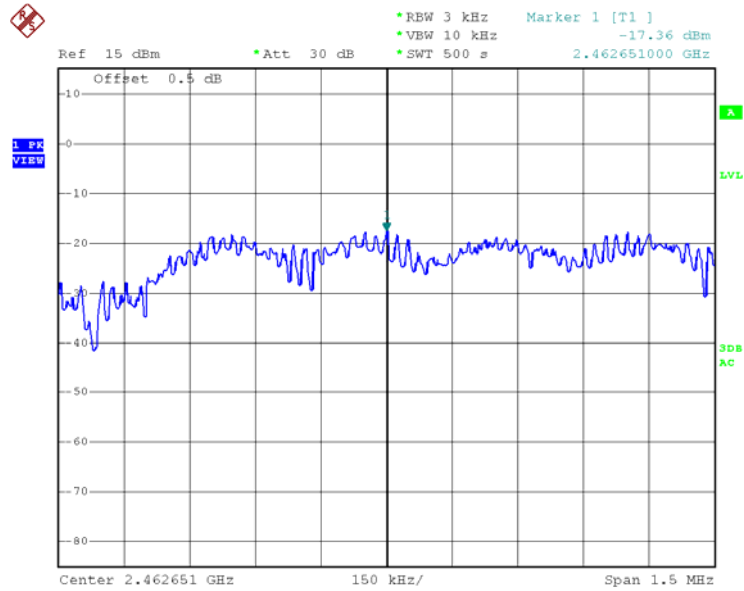
Date: 15.FEB.2012 15:22:55

Power Spectral Density, 802.11n20 Middle Channel



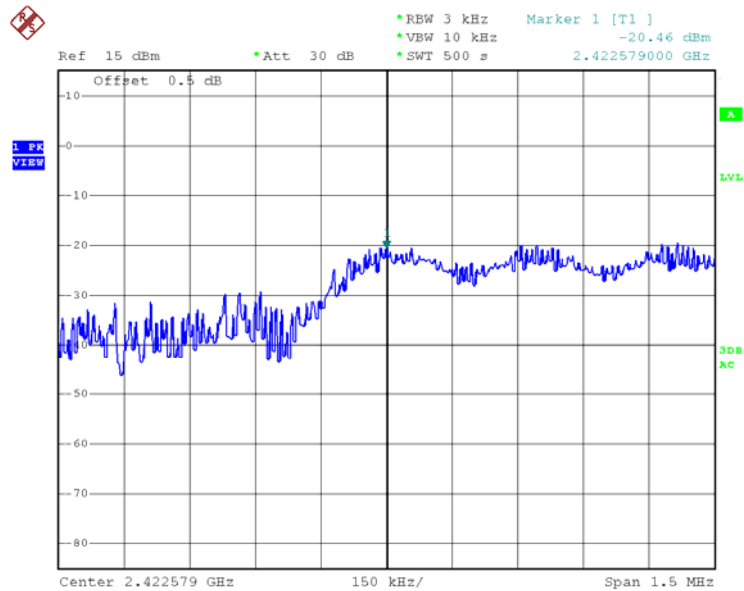
Date: 15.FEB.2012 15:21:28

Power Spectral Density, 802.11n20 High Channel



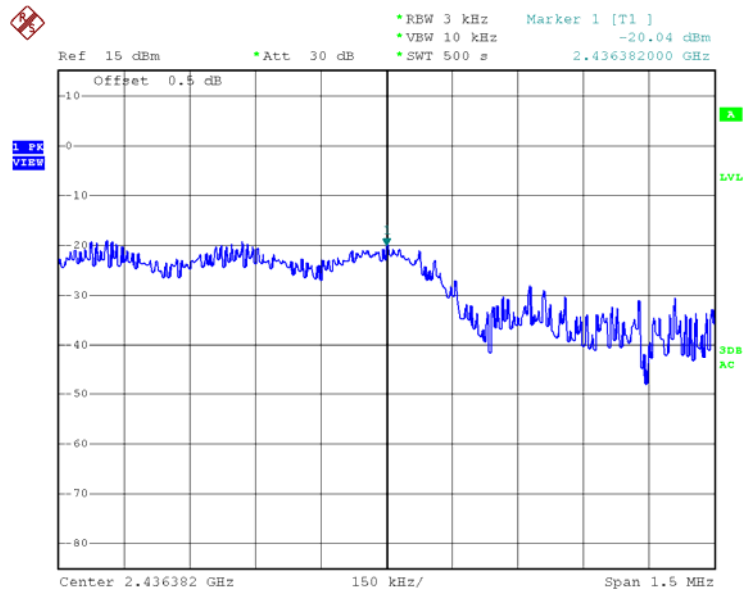
Date: 15.FEB.2012 15:19:58

Power Spectral Density, 802.11n40 Low Channel



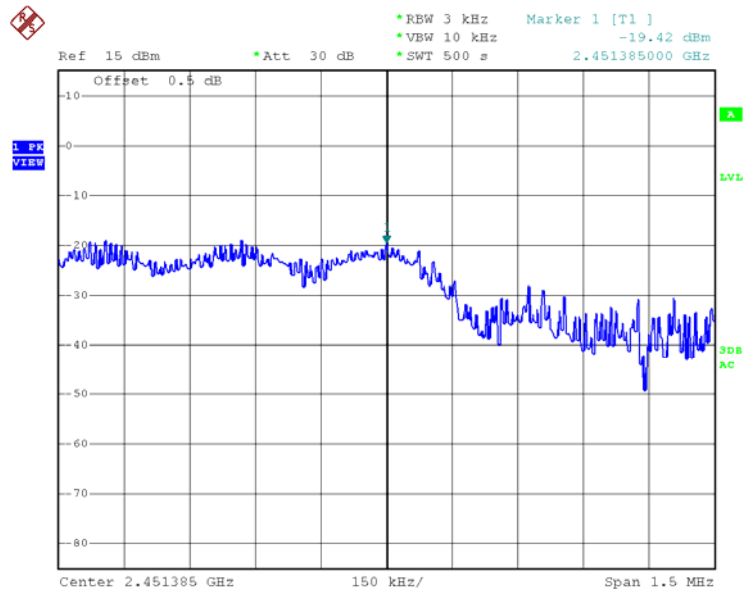
Date: 15.FEB.2012 15:25:02

Power Spectral Density, 802.11n40 Middle Channel



Date: 15.FEB.2012 15:26:38

Power Spectral Density, 802.11n40 High Channel



Date: 15.FEB.2012 15:29:19

***** END OF REPORT *****