



NVLAP LAB CODE 200707-0



FCC PART 15.247 MEASUREMENT AND TEST REPORT

For

Aztech Technologies Pte Ltd.

31 UBI Road 1, Aztech Building, Singapore, 408694

FCC ID: I38HW550

Report Type: Original Report	Product Type: 4-Port Wireless-N Router plus HSPA Support for 3G Mobile Broadband
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Report Number:	<u>RSZ09081704-15.247</u>
Report Date:	<u>2009-09-11</u>
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* This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk “*” (Rev.2)

TABLE OF CONTENTS

GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
RELATED SUBMITTAL(S)/GRANT(S).....	4
TEST METHODOLOGY	4
TEST FACILITY	4
SYSTEM TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION	6
EUT EXERCISE SOFTWARE	6
EQUIPMENT MODIFICATIONS	6
HOST SYSTEM CONFIGURATION LIST AND DETAILS	6
LOCAL SUPPORT EQUIPMENT LIST AND DETAILS	7
EXTERNAL I/O CABLE.....	7
SPECIAL ACCESSORIES.....	7
CONFIGURATION OF TEST SETUP	9
BLOCK DIAGRAM OF TEST SETUP	9
SUMMARY OF TEST RESULTS	10
FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE).....	11
STANDARD APPLICABLE	11
TEST DATA	11
FCC §15.203 - ANTENNA REQUIREMENT.....	13
STANDARD APPLICABLE	13
ANTENNA CONNECTOR CONSTRUCTION	13
FCC §15.207 (a) - CONDUCTED EMISSIONS	14
APPLICABLE STANDARD	14
MEASUREMENT UNCERTAINTY.....	14
EUT SETUP	14
EMI TEST RECEIVER SETUP.....	15
TEST EQUIPMENT LIST AND DETAILS.....	15
TEST PROCEDURE	15
TEST RESULTS SUMMARY	15
TEST DATA	16
PLOT(S) OF TEST DATA	16
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS.....	20
APPLICABLE STANDARD	20
MEASUREMENT UNCERTAINTY.....	20
EUT SETUP	20
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	21
TEST EQUIPMENT LIST AND DETAILS.....	21
TEST PROCEDURE	21
CORRECTED AMPLITUDE & MARGIN CALCULATION	21
TEST RESULTS SUMMARY	22
TEST DATA	23

FCC §15.247(a) (2) – 6dB BANDWIDTH TESTING	52
APPLICABLE STANDARD	52
TEST EQUIPMENT LIST AND DETAILS.....	52
TEST PROCEDURE	52
TEST DATA	52
FCC §15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER	63
APPLICABLE STANDARD	63
TEST EQUIPMENT LIST AND DETAILS.....	63
TEST PROCEDURE	63
TEST DATA	63
FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE.....	77
APPLICABLE STANDARD	77
TEST EQUIPMENT LIST AND DETAILS.....	77
TEST PROCEDURE	77
TEST DATA	77
FCC §15.247(e) - POWER SPECTRAL DENSITY	87
APPLICABLE STANDARD	87
TEST EQUIPMENT LIST AND DETAILS.....	87
TEST PROCEDURE	87
TEST DATA	87

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The Aztech Technologies Pte Ltd. 's product, model number: HW550-3G (FCC ID: I38HW550) or the "EUT" as referred to in this report is a 4-Port Wireless-N Router plus HSPA Support for 3G Mobile Broadband, which measures approximately: 20 cm L x 16 cm W x 3.5 cm H, input voltage: DC 12V Adapter.

Adapter: Aztech

Model: SWM1112120;

Input: AC 100-240V; 0.4A; 50-60Hz

Output: DC 12.0V 1.00A.

** All measurement and test data in this report was gathered from production sample serial number: 0908024 (Assigned by BACL, Shenzhen). The EUT was received on 2009-08-17.*

Objective

This Type approval report is prepared on behalf of Aztech Technologies Pte Ltd. 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 compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15B submission with JBP equipment class.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, 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.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in 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 November 21, 2007. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

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 a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



NVLAP 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 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 was tested with Channel 1, 6 and 11.

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

EUT Exercise Software

4.0.1-WinPcap & RT3052QA. The test was performed under 4.0.1-WinPcap & RT3052QA about power:
 802.11b: Tx Power 0: 10, data rate 11 Mbps.
 802.11g: Tx Power 0: 10, data rate 54 Mbps.
 802.11n20/ 802.11 n40: Tx Power 0: 10, Tx Power 1: 13, data rate 130 Mbps.

Equipment Modifications

No modification was made to the unit tested.

Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
DELL	PC	DELL 170L	CN-0TC670-70821-560-F4Q6	DOC
DELL	Keyboard	SK-8110	CN07N244-71616-56A-1B1E	DOC
DELL	Mouse	M071KC	520027907	DOC
DELL	LCD Monitor	1505FP	Y4287-7168-571-GBSH	DOC
Hynix	Memory	PC2-5300U-555-12	HYMP564U64CP8-Y5 AB	N/A
Intel	CPU	Core Processor E5200	N/A	N/A

Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
Foxconn	Motherboard	G33M02	11S19R1949ZJ1WCB46JK8	DOC
Bestec	Power	ATX0300P5WB	070900730657	DOC
Western Digital	Hard Disk	WD800JD	WD-WMAM9YJ07713	DOC
Hitachi-LG	DVD-ROM	LTN-489S	B4F511412	DOC
Intel	Ethernet	PRO 10/100 VE	82562V-2	DOC

External I/O Cable

Cable Description	Length (m)	From/Port	To
Shielded Detachable K/B Cable	1.50	K/B Port / Host	K/B
Shielded Detachable Mouse Cable	1.50	Mouse Port / Host	Mouse
Shielded Detachable VGA Cable	1.50	VGA Port / Host	Monitor
Unshielded Detachable Power Cable	1.80	Adapter	EUT
Unshielded Detachable RJ45 Cable	2.00	Computer	EUT

Special Accessories

Manufacturer	Description	Model	FCC ID
OPTION NV	3G Network Modem	ICON451	NCMOGI0451
OPTION NV	3G Network Modem	GI0431	NCMOGI0411

Both models are quad GSM/GPRS/EGPRS/UMTS USB modem.

According to the FCC report (FCC ID: NCMOGI0411 & FCC ID: NCMOGI0451), the USB modem has the ERP/EIRP for GSM/GPRS/EGPRS/UMTS s followed:

Model: ICON451, FCC ID: NCMOGI0451

850 MHz Band, ERP

GSM/GPRS/EGPRS:

Channel	Frequency (MHz)	GSM	GPRS	EGPRS
Low	824.2	29.5	26.7	24.2
Mid	836.6	30.1	27.2	25.3
High	848.8	30.1	27.3	25.4

HSDPA:

Channel	Frequency (MHz)	HSDPA Sub-test 1	HSDPA Sub-test 2	HSDPA Sub-test 3	HSDPA Sub-test 4	RMS 12.2kbps
Low	824.4	23.8	24.0	24.0	24.1	24.1
Mid	836.4	22.1	22.6	22.7	22.9	23.1
High	848.6	22.6	23.2	23.4	23.3	24.1

HSUPA:

Channel	Frequency (MHz)	HSUPA Sub-test 1	HSUPA Sub-test 2	HSUPA Sub-test 3	HSUPA Sub-test 4	HSUPA Sub-test 5
Low	826.4	24.5	24.1	24.2	23.7	24.4
Mid	836.4	23.5	23.0	22.9	23.1	22.2
High	846.6	24.7	24.1	24.2	24.1	24.3

Model: GI0431, FCC ID: NCMOGI0411

1900 MHz Band, EIRP

GSM/GPRS/EGPRS

Channel	Frequency (MHz)	GSM	GPRS	EGPRS
Low	1850.2	-	28.09	28.30
Mid	1879.8	-	28.10	28.32
High	1909.8	-	28.09	28.30

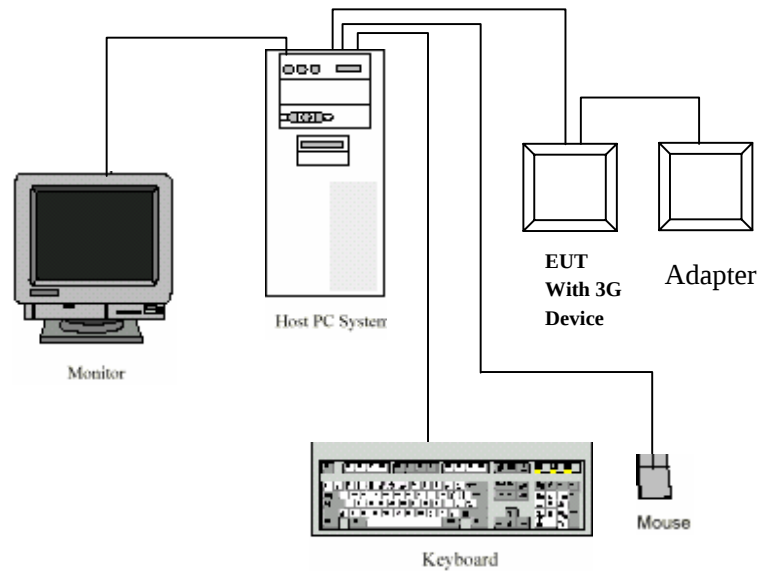
HSDPA:

Channel	Frequency (MHz)	HSDPA Sub-test 1	HSDPA Sub-test 2	HSDPA Sub-test 3	HSDPA Sub-test 4	RMS 12.2kbps
Low	1852.4	22.60	23.21	23.45	23.21	23.21
Mid	1880.0	22.78	23.51	23.70	23.42	23.33
High	1907.5	23.96	23.30	23.51	23.33	23.33

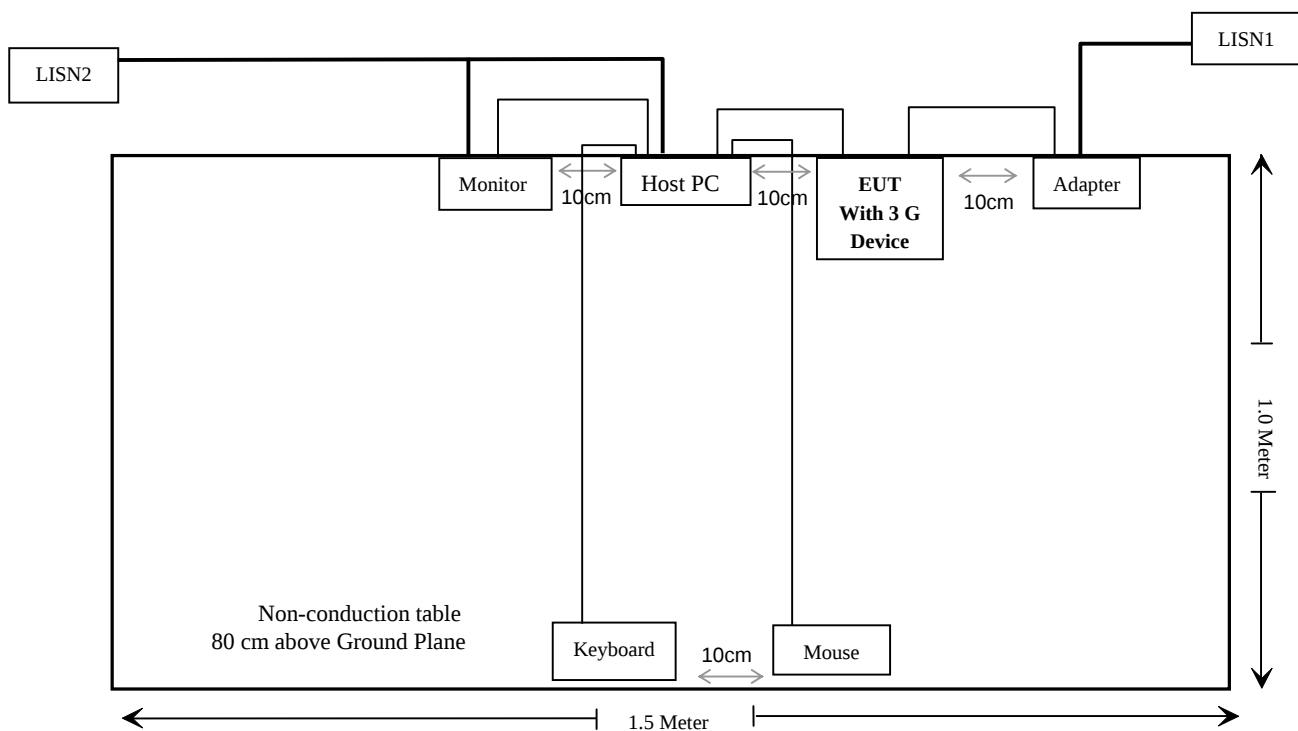
HSUPA:

Channel	Frequency (MHz)	HSUPA Sub-test 1	HSUPA Sub-test 2	HSUPA Sub-test 3	HSUPA Sub-test 4	HSUPA Sub-test 5
Low	1852.4	23.36	23.21	23.54	22.72	23.57
Mid	1880.0	23.57	23.63	23.91	22.96	24.00
High	1907.5	23.42	23.42	23.76	22.50	23.70

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)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a),	Conducted Emissions	Compliant
§15.247(d)	Spurious Emissions at Antenna Port	Compliant
§15.205	Restricted Bands	Compliant
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Bandwidth	Compliant
§15.247(b)(3)	Maximum Peak Output Power	Compliant
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Standard Applicable

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mw/cm ²)	Averaging Time (Minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Test Data

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

Where:

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally **numeric** gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For 802.11b:

Maximum peak output power at antenna input terminal: 17.54 (dBm)

Maximum peak output power at antenna input terminal: 56.75 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2412 (MHz)

Antenna Gain (typical): 2.0 (dBi)

Maximum Antenna Gain: 1.585 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.01789 (mW/cm²)

MPE limit for general population exposure at prediction frequency: 1.0 (mW/cm²)

$$0.01789 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$$

For 802.11g:

Maximum peak output power at antenna input terminal: 14.10 (dBm)

Maximum peak output power at antenna input terminal: 25.70 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2437 (MHz)

Antenna Gain (typical): 2.0 (dBi)

Maximum Antenna Gain: 1.585 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.0081 (mW/cm²)

MPE limit for general population exposure at prediction frequency: 1.0 (mW/cm²)

$$0.0081 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$$

For 802.11n 20:

Maximum peak output power at antenna input terminal: 18.35 (dBm)

Maximum peak output power at antenna input terminal: 68.39 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2412 (MHz)

Antenna Gain (typical): 2.0 (dBi)

Maximum Antenna Gain: 1.585 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.02157 (mW/cm²)

MPE limit for general population exposure at prediction frequency: 1.0 (mW/cm²)

$$0.02157 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$$

For 802.11n 40:

Maximum peak output power at antenna input terminal: 17.07 (dBm)

Maximum peak output power at antenna input terminal: 50.93 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2412 (MHz)

Antenna Gain (typical): 2.0 (dBi)

Maximum Antenna Gain: 1.585 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.01606 (mW/cm²)

MPE limit for general population exposure at prediction frequency: 1.0 (mW/cm²)

$$0.001606 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$$

Result:

The predicted power density level at 20 cm is 0.01789 mw/cm² for 802.11b, 0.00810 mw/cm² for 802.11g, 0.02157 mw/cm² for 802.11n20 and 0.01606 mw/cm² for 802.11n40 which is below the uncontrolled exposure limit of 1.0 mw/cm², The EUT is used at least 20 cm away from user's body. It is determined as mobile equipment and complies with the MPE limit.

FCC §15.203 - ANTENNA REQUIREMENT

Standard Applicable

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.

And according to FCC 47 CFR section 15.247 (b), if the 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 6 dBi.

Antenna Connector Construction

The antennas of the EUT use a unique type of connector, which in accordance to section 15.203, the maximum gain is 2 dBi; please refer to the internal photos.

Result: Compliant.

FCC §15.207 (a) - CONDUCTED EMISSIONS

Applicable Standard

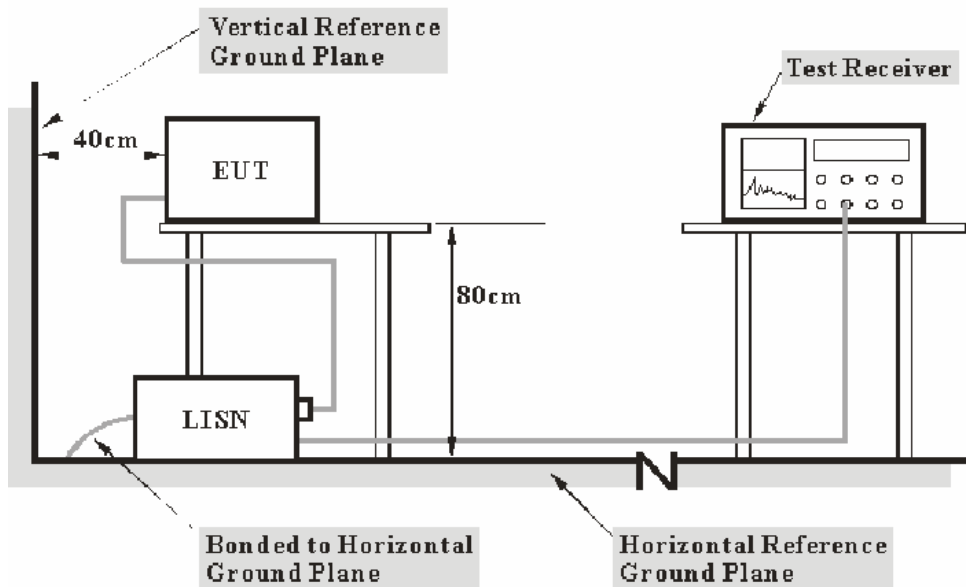
CFR47 §15.207

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.

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 C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2009-04-28	2010-04-27
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2009-04-28	2010-04-27

* **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 Procedure

During the conducted emission test, the adapter was connected to the LISN 1, the host PC and the monitor was connected to the LISN 2.

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 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:

WLAN only:

802.11 n20: 5.80 dB at **12.3150 MHz** in the **Line** conductor mode

Co-Location:

7 dB at **0.155355 MHz** in the **Neutral** conductor mode

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The testing was performed by Vicent Kang on 2009-09-01.

WLAN only:

Test Mode: Transmitting (802.11n20)

Line Conducted Emissions				FCC Part 15.207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
12.3150	54.20	QP	Line	60.00	5.80
12.3100	53.30	QP	Neutral	60.00	6.70
14.6850	52.00	QP	Neutral	60.00	8.00
14.5850	52.00	QP	Line	60.00	8.00
0.1850	51.70	QP	Line	64.26	12.56
0.1600	51.10	QP	Neutral	65.46	14.36
6.2700	35.60	AV	Line	50.00	14.40
0.2700	46.30	QP	Neutral	61.12	14.82
6.3350	43.00	QP	Neutral	60.00	17.00
0.2750	43.90	QP	Line	60.97	17.07
6.3350	32.80	AV	Neutral	50.00	17.20
6.2050	42.60	QP	Line	60.00	17.40
29.8900	42.50	QP	Line	60.00	17.50
0.1850	34.30	AV	Line	54.26	19.96
29.8150	38.80	QP	Neutral	60.00	21.20
29.7500	27.80	AV	Line	50.00	22.20
0.2750	27.20	AV	Line	50.97	23.77
29.8150	25.40	AV	Neutral	50.00	24.60
0.2700	24.60	AV	Neutral	51.12	26.52
0.1600	22.90	AV	Neutral	55.46	32.56
14.5650	17.30	AV	Line	50.00	32.70
14.8100	15.90	AV	Neutral	50.00	34.10
12.2150	15.20	AV	Neutral	50.00	34.80
12.3950	14.90	AV	Line	50.00	35.10

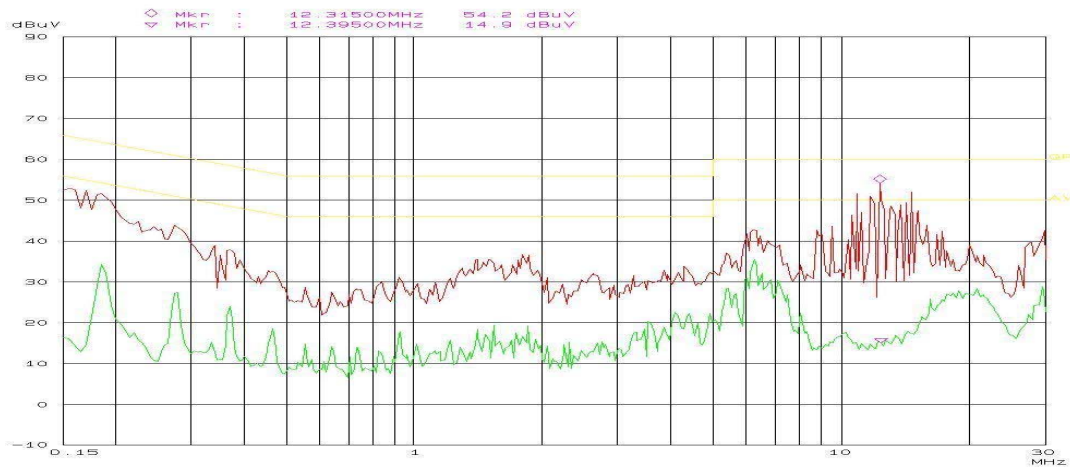
* Note: The power of 802.11(n20) is higher than 802.11b, 802.11g, and 802.11(n40), so operating on 802.11(n20) is the worse case.

Plot(s) of Test Data

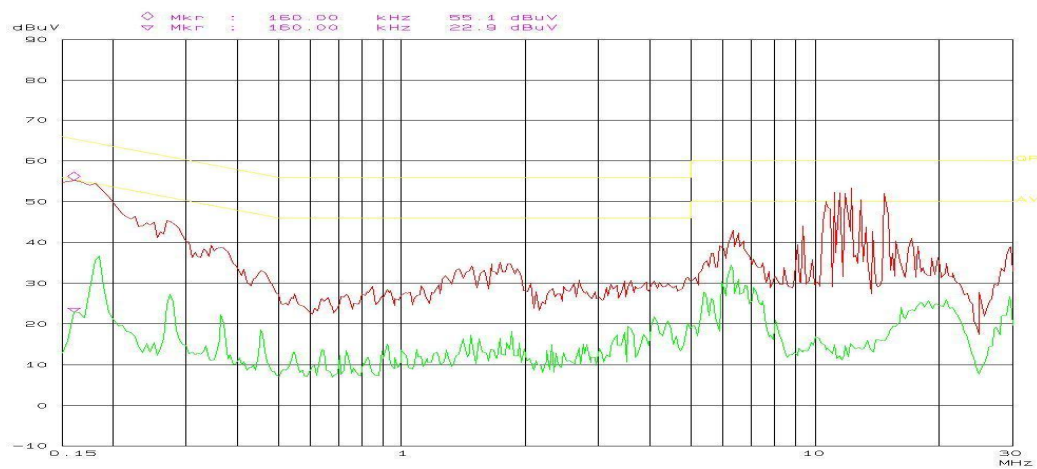
Plot(s) of Test Data is presented hereinafter as reference.

Line:Conducted Emissions
FCC Part15

EUT: 4-Port Wireless-n Router plus HSPA SUPPORT For3G Mobile Broadband
Manuf: Aztech M/N: HW550_36
Op. Cond: Transmitting
Operator: Vicent
Test Spec: 120V/60Hz L
Comment: Temp: 25 Hum: 55%
BACL

**Neutral:**Conducted Emissions
FCC Part15

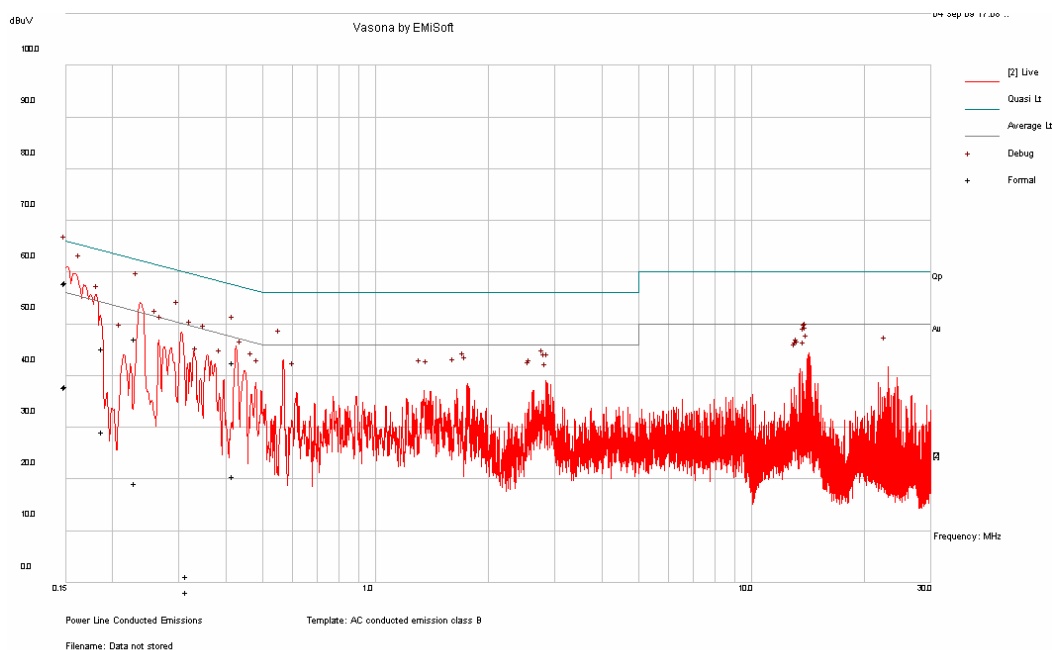
EUT: 4-Port Wireless-n Router plus HSPA SUPPORT For3G Mobile Broadband
Manuf: Aztech M/N: HW550_36
Op. Cond: Transmitting
Operator: Vicent
Test Spec: 120V/60Hz N
Comment: Temp: 25 Hum: 55%
BACL



Co-Location (WLAN & 3G)**Worst Configuration**

WLAN 40 MHz Worst Case: 802.11N40 Low Channel: 2422 MHz

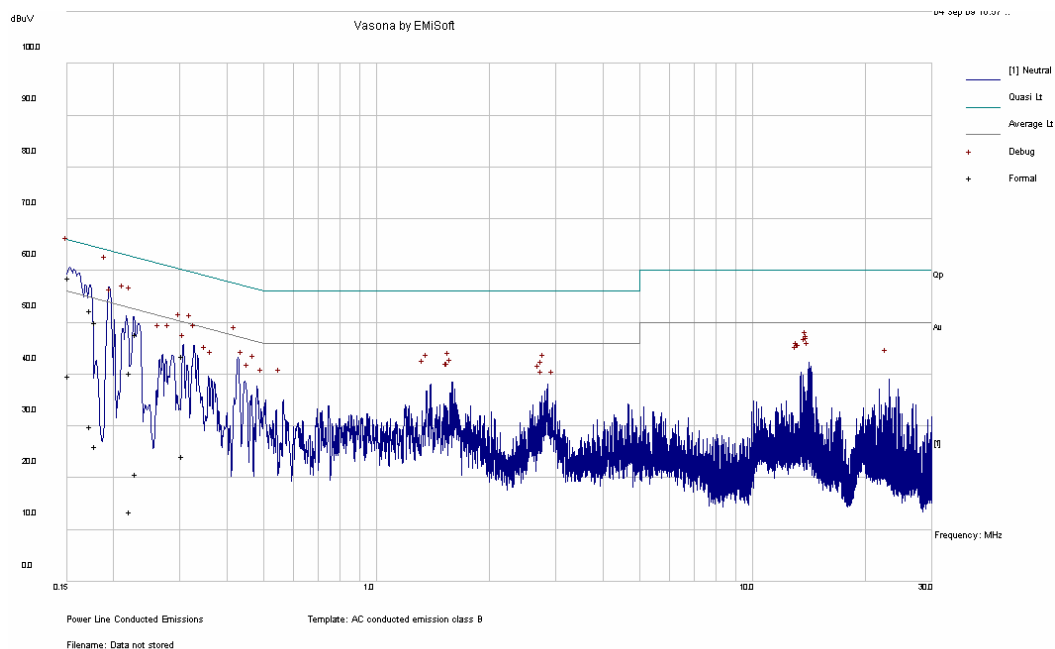
GSM/GPRS/EGPRS 850 Band Worst Case: GSM High Channel: 848.8 MHz

Line:**Quasi Peak Measurement**

Frequency (MHz)	Corrected Reading (dBuV)	Measurement Type	Conductor (L/N)	Limited (dBuV)	Margin (dB)
0.152766	57.95	Quasi Peak	L	65.85	7.9
0.152484	57.82	Quasi Peak	L	65.86	8.04
0.427323	42.46	Quasi Peak	L	57.3	14.84
0.234591	47.23	Quasi Peak	L	62.29	15.06
0.191628	45.31	Quasi Peak	L	63.97	18.66
0.320613	1.25	Quasi Peak	L	59.69	58.44

Average Measurement

Frequency (MHz)	Corrected Reading (dBuV)	Measurement Type	Conductor (L/N)	Limited (dBuV)	Margin (dB)
0.152766	38.04	Average	L	55.85	17.81
0.152484	37.85	Average	L	55.86	18.02
0.191628	29.08	Average	L	53.97	24.88
0.427323	20.49	Average	L	47.3	26.82
0.234591	19.29	Average	L	52.29	32.99
0.320613	-1.93	Average	L	49.69	51.62

Neutral:**Quasi Peak Measurement**

Frequency (MHz)	Corrected Reading (dBuV)	Measurement Type	Conductor (L/N)	Limited (dBuV)	Margin (dB)
0.155355	58.71	Quasi Peak	N	65.71	7
0.176715	52.36	Quasi Peak	N	64.64	12.28
0.182652	50.02	Quasi Peak	N	64.36	14.34
0.234519	47.77	Quasi Peak	N	62.29	14.51
0.31134	43.42	Quasi Peak	N	59.93	16.51
0.225981	40.26	Quasi Peak	N	62.6	22.33

Average Measurement

Frequency (MHz)	Corrected Reading (dBuV)	Measurement Type	Conductor (L/N)	Limited (dBuV)	Margin (dB)
0.155355	39.7	Average	N	55.71	16.01
0.176715	29.91	Average	N	54.64	24.73
0.31134	24.21	Average	N	49.93	25.73
0.182652	26.12	Average	N	54.36	28.25
0.234519	20.69	Average	N	52.29	31.59
0.225981	13.37	Average	N	52.6	39.22

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

Applicable Standard

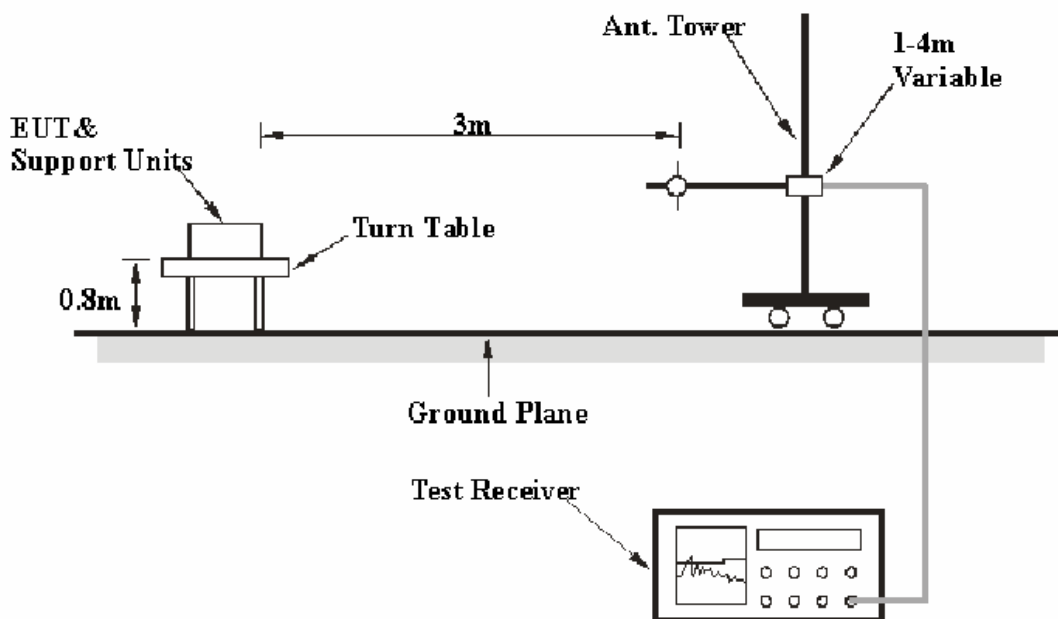
FCC §15.247 (d); §15.209; §15.205;

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 NIS 81, 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.

EUT Setup



The radiated emission tests were performed in the 3 meters chamber B test site, using the setup accordance with the ANSI C63.4-2003. 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 adapter 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:

<u>Frequency Range</u>	<u>RBW</u>	<u>Video B/W</u>
30MHz – 1000 MHz	100 kHz	300 kHz
1000 MHz – 25 GHz	1 MHz	3 MHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447D	2944A09795	2009-08-02	2010-08-02
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2009-03-11	2010-03-11
HP	Amplifier	8449B	3008A00277	2008-09-12	2009-09-11
Sunol Sciences	Horn Antenna	DRH-118	A052604	2008-09-25	2009-09-25
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2009-07-08	2010-07-08

*** 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 Procedure

For the radiated emissions test, the adapter, the host PC and monitor were 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-1GHz and peak and Average detection modes for frequencies above 1GHz.

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 Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.109, 15.209 and 15.247, with the worst margin reading of:

WLAN only:

30 -1000 MHz:

802.11b (wost case): **5.8 dB** at **250.002500 MHz** in the **Vertical** polarization
802.11g (wost case): **4.5 dB** at **249.993750 MHz** in the **Vertical** polarization
802.11n20 (wost case): **2.3 dB** at **250.007000 MHz** in the **Horizontal** polarization
802.11n40 (wost case): **1.8 dB** at **250.003000 MHz** in the **Horizontal** polarization

Above 1 GHz:

802.11b (Low Channel): **3.49 dB** at **4824 MHz** in the **Horizontal** polarization
802.11b (Middle Channel): **2.85 dB** at **1407.9 MHz** in the **Vertical** polarization
802.11b (High Channel): **2.89 dB** at **1407.8 MHz** in the **Vertical** polarization

802.11g (Low Channel): **5.23 dB** at **4824 MHz** in the **Horizontal** polarization
802.11g (Middle Channel): **5.63 dB** at **1407.9 MHz** in the **Vertical** polarization
802.11g (High Channel): **1.99 dB** at **1407.8 MHz** in the **Vertical** polarization

802.11n20 (Low Channel): **3.96 dB** at **2479.9 MHz** in the **Vertical** polarization
802.11n20 (Middle Channel): **3.33 dB** at **2319.9 MHz** in the **Vertical** polarization
802.11n20 (High Channel): **1.06 dB** at **2319.9 MHz** in the **Vertical** polarization

802.11n40 (Low Channel): **6.15 dB** at **1408.1 MHz** in the **Vertical** polarization
802.11n40 (Middle Channel): **2.26 dB** at **4874 MHz** in the **Horizontal** polarization
802.11n40 (High Channel): **3.96 dB** at **1408 MHz** in the **Vertical** polarization

Co-Location (WLAN & GSM/GPRS/EGPRS):

WLAN 20 MHz with FCC ID: NCMOGI0411, GSM/GPRS/EGPRS 1900 MHz Band:
0.98 dB at **5640 MHz** in the **Vertical** polarization

WLAN 40 MHz with FCC ID: NCMOGI0411, GSM/GPRS/EGPRS 1900MHz Band
0.07 dB at **5640 MHz** in the **Vertical** polarization

WLAN 20 MHz with FCC ID: NCMOGI0451, GSM/GPRS/EGPRS 850MHz Band
5.41 dB at **1697.77 MHz** in the **Vertical** polarization

WLAN 40 MHz with FCC ID: NCMOGI0451, GSM/GPRS/EGPRS 850MHz Band
0.07 dB at **1697.77 MHz** in the **Vertical** polarization

Co-Location (WLAN & HSPAS):

WLAN 20 MHz with FCC ID: NCMOGI0411 HSPA 1900 MHz Band
3.92 dB at **1408 MHz** in the **Vertical** polarization

WLAN 40 MHz with FCC ID: NCMOGI0411, HSPA 1900 MHz Band
4.44 dB at **3815 MHz** in the **Vertical** polarization

WLAN 20 MHz with FCC ID: NCMOGI0451, HSPA 850 MHz Band
0.4 dB at **1565.8 MHz** in the **Vertical** polarization

WLAN 40 MHz with FCC ID: NCMOGI0451, HSPA 850 MHz Band
4.38 dB at **1692.77 MHz** in the **Vertical** polarization

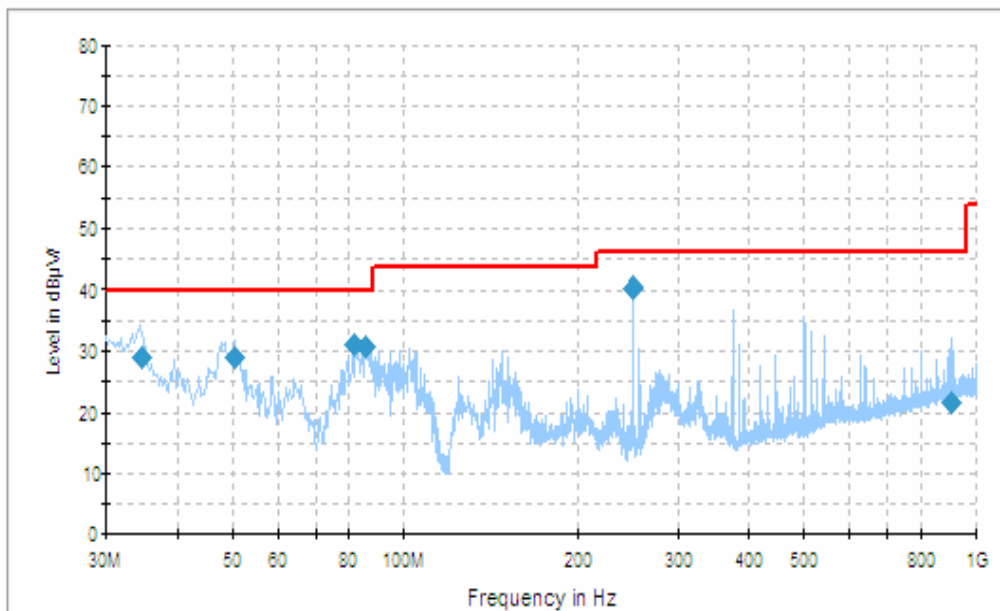
Test Data**Environmental Conditions**

Temperature:	24 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2009-08-24 to 2009-08-26.

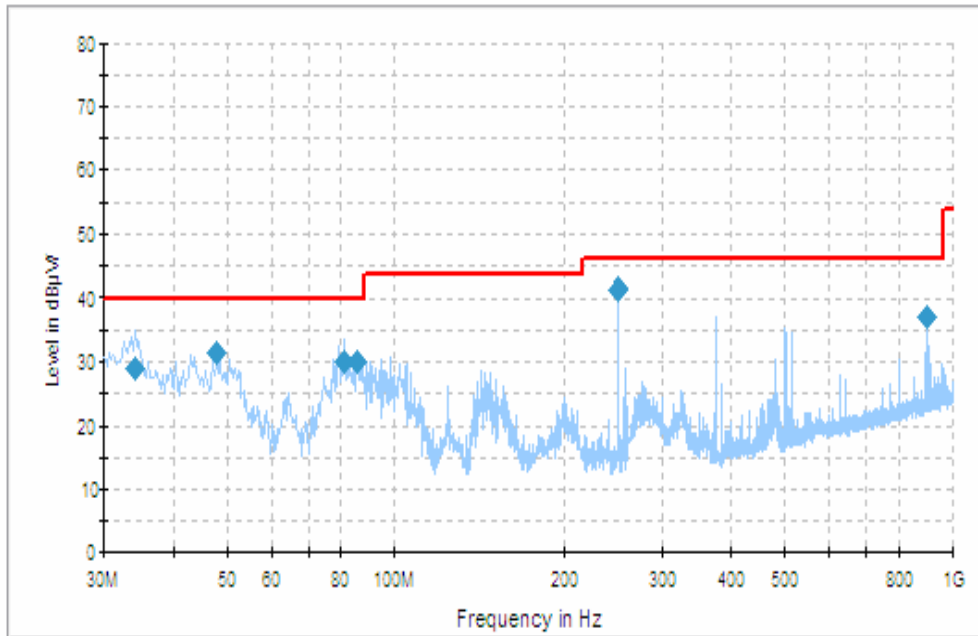
WLAN only:**30-1000 MHz:**

Test Mode: Transmitting (802.11b worst case)



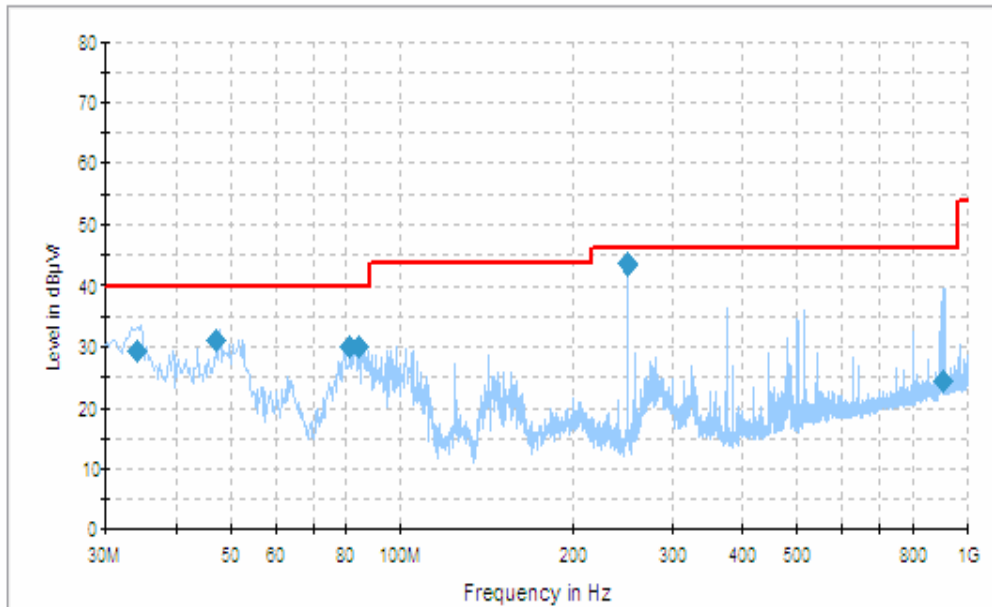
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
250.002500	40.2	100.0	V	263.0	-15.9	46.0	5.8
81.501000	31.0	100.0	V	175.0	-22.2	40.0	9.0
85.534500	30.7	140.0	V	176.0	-22.2	40.0	9.3
34.606750	29.1	99.0	V	138.0	-11.6	40.0	10.9
50.462000	29.0	114.0	V	263.0	-20.3	40.0	11.0
904.256250	21.5	99.0	H	121.0	-3.7	46.0	24.5

Test Mode: Transmitting (802.11g worst case)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
249.993750	41.5	101.0	V	273.0	-15.9	46.0	4.5
47.786750	31.4	100.0	V	239.0	-19.3	40.0	8.6
895.989750	37.3	99.0	V	0.0	-3.9	46.0	8.7
81.198500	30.1	111.0	V	183.0	-22.2	40.0	9.9
85.517750	30.1	139.0	V	142.0	-22.2	40.0	9.9
34.043250	29.2	100.0	V	217.0	-11.3	40.0	10.8

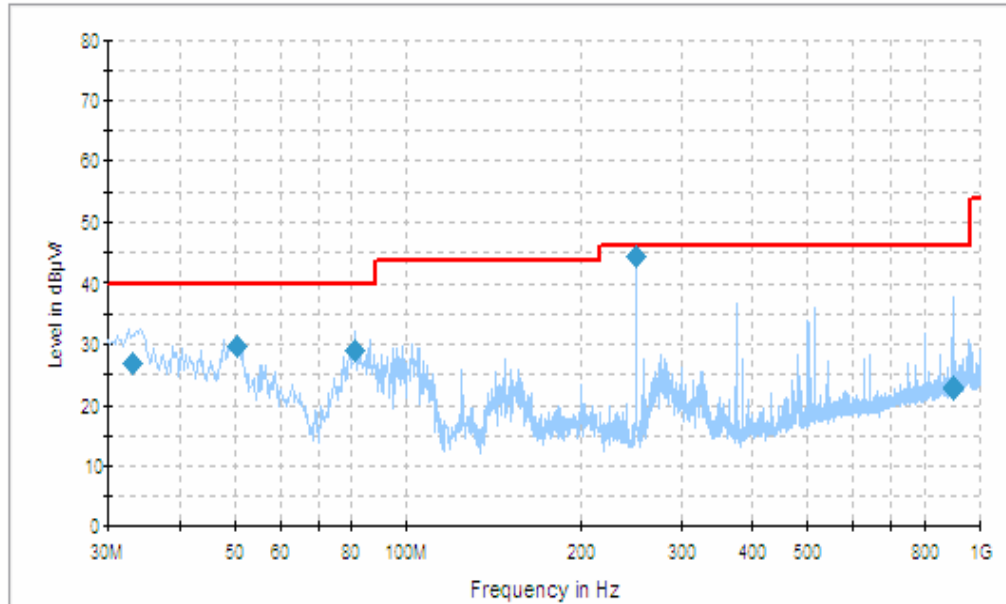
Test Mode: Transmitting (802.11n20 worst case)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
250.007000	43.7	135.0	H	55.0	-15.9	46.0	2.3*
81.163750	29.9	122.0	V	287.0	-3.6	46.0	18.4
47.235350	31.1	339.0	H	0.0	-3.8	46.0	25.3
908.566000	24.5	201.0	V	9.0	-3.5	46.0	25.5
34.053750	29.4	298.0	H	80.0	-3.9	46.0	27.5
84.418620	30.2	400.0	H	80.0	-3.7	46.0	27.8

* Within measurement uncertainty.

Test Mode: Transmitting (802.11n40 worst case)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
250.003000	44.2	126.0	H	106.0	-15.9	46.0	1.8*
896.007750	22.9	99.0	V	0.0	-3.9	46.0	8.1
50.431000	29.7	112.0	V	335.0	-20.3	40.0	10.3
81.197250	29.1	142.0	V	171.0	-22.2	40.0	10.9
33.014250	26.9	101.0	V	120.0	-10.6	40.0	13.1
901.419750	22.7	392.0	V	340.0	-3.8	46.0	25.3

* Within measurement uncertainty.

Above 1 GHz:

802.11b Mode:

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2412 MHz)												
4824	35.36	AV	215	1.2	H	36.6	9.36	30.81	50.51	54	3.49*	harmonic
4824	35.75	AV	360	1.0	V	35.4	9.36	30.81	49.7	54	4.30	harmonic
2389.8	41.26	AV	12	1.3	V	30.6	6.09	30.43	47.52	54	6.48	spurious
2491.0	39.05	AV	332	1.0	V	30.6	5.85	30.58	44.92	54	9.08	spurious
1151.9	47.42	AV	46	1.1	V	23.8	3.88	31.72	43.38	54	10.62	spurious
4824	47.33	PK	215	1.2	H	36.6	9.36	30.81	62.48	74	11.52	harmonic
4824	47.74	PK	360	1.0	V	35.4	9.36	30.81	61.69	74	12.31	harmonic
2361.9	35.10	AV	152	1.0	H	30.6	6.22	30.43	41.49	54	12.51	spurious
2389.8	53.75	PK	12	1.3	V	30.6	6.09	30.43	60.01	74	13.99	spurious
2491.0	50.89	PK	333	1.0	V	30.6	5.85	30.58	56.76	74	17.24	spurious
1579.5	35.15	AV	360	2.0	H	26.5	4.85	31.68	34.82	54	19.18	spurious
2361.9	46.65	PK	152	1.0	H	30.6	6.22	30.43	53.04	74	20.96	spurious
1151.9	53.86	PK	46	1.1	V	23.8	3.88	31.72	49.82	74	24.18	spurious
1579.5	46.85	PK	360	2.0	H	26.5	4.85	31.68	46.52	74	27.48	spurious
Middle Channel (2437 MHz)												
1407.9	52.00	AV	329	1.1	V	26.0	4.42	31.27	51.15	54	2.85*	spurious
4874	34.50	AV	360	1.0	V	35.4	9.36	30.81	48.45	54	5.55	harmonic
4874	33.27	AV	35	1.3	H	36.6	9.36	30.81	48.42	54	5.58	harmonic
1151.9	49.73	AV	41	1.0	V	23.8	3.88	31.72	45.69	54	8.31	spurious
2382.9	39.28	AV	0	1.0	V	30.6	6.09	30.43	45.54	54	8.46	spurious
2492.2	38.46	AV	360	1.0	V	30.6	5.85	30.58	44.33	54	9.67	spurious
4874	46.55	PK	360	1.0	V	35.4	9.36	30.81	60.5	74	13.5	harmonic
4874	45.12	PK	35	1.3	H	36.6	9.36	30.81	60.27	74	13.73	harmonic
2485.12	33.56	AV	53	1.3	H	30.6	6.09	30.43	39.82	54	14.18	spurious
2332.7	34.21	AV	53	1.0	H	30.6	6.22	31.83	39.2	54	14.8	spurious
2382.9	51.49	PK	0	1.0	V	30.6	6.09	30.43	57.75	74	16.25	spurious
2492.2	51.45	PK	360	1.0	V	30.6	5.85	30.58	57.32	74	16.68	spurious
1407.9	54.79	PK	329	1.1	V	26.0	4.42	31.27	53.94	74	20.06	spurious
2485.12	45.70	PK	53	1.3	H	30.6	6.09	30.43	51.96	74	22.04	spurious
2332.7	45.88	PK	53	1.0	H	30.6	6.22	31.83	50.87	74	23.13	spurious
1151.9	54.66	PK	41	1.0	V	23.8	3.88	31.72	50.62	74	23.38	spurious

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
HighChannel (2462 MHz)												
1407.8	51.96	AV	360	1.0	V	26.0	4.42	31.27	51.11	54	2.89*	spurious
4924	33.19	AV	160	1.4	H	36.6	9.36	30.81	48.34	54	5.66	harmonic
4924	33.54	AV	36	1.2	V	35.4	9.36	30.81	47.49	54	6.51	harmonic
2484.9	40.71	AV	0	1.0	V	30.6	5.85	30.58	46.58	54	7.42	spurious
1151.9	49.25	AV	0	1.0	V	23.8	3.88	31.72	45.21	54	8.79	spurious
2378.9	37.96	AV	329	1.1	V	30.6	6.09	30.43	44.22	54	9.78	spurious
4924	46.75	PK	36	1.2	V	35.4	9.36	30.81	60.7	74	13.3	harmonic
4924	45.25	PK	160	1.4	H	36.6	9.36	30.81	60.4	74	13.6	harmonic
2484.9	54.31	PK	0	1.0	V	30.6	5.85	30.58	60.18	74	13.82	spurious
2490.8	33.42	AV	135	1.0	H	30.6	5.82	30.43	39.41	54	14.59	spurious
2314.5	33.12	AV	360	1.2	H	30.6	6.22	31.83	38.11	54	15.89	spurious
2378.9	50.25	PK	329	1.1	V	30.6	6.09	30.43	56.51	74	17.49	spurious
1407.8	54.93	PK	360	1.0	V	26.0	4.42	31.27	54.08	74	19.92	spurious
1407.8	33.46	AV	110	1.0	H	26.5	4.42	31.27	33.11	54	20.89	spurious
2490.8	45.73	PK	135	1.0	H	30.6	5.85	30.43	51.75	74	22.25	spurious
1151.9	34.32	AV	190	1.2	H	25.1	3.88	31.72	31.58	54	22.42	spurious
2314.5	46.10	PK	360	1.2	H	30.6	6.22	31.83	51.09	74	22.91	spurious
1151.9	54.37	PK	0	1.0	V	23.8	3.88	31.72	50.33	74	23.67	spurious
1407.8	45.23	PK	110	1.0	H	26.5	4.42	31.27	44.88	74	29.12	spurious
1151.9	46.58	PK	190	1.2	H	25.1	3.88	31.72	43.84	74	30.16	spurious

* Within measurement uncertainty.

802.11g Mode:

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2412 MHz)												
4824	33.62	AV	215	1.2	H	36.6	9.36	30.81	48.77	54	5.23	harmonic
4824	34.17	AV	215	1.0	V	35.4	9.36	30.81	48.12	54	5.88	harmonic
2359.5	37.6	AV	172	1.1	V	30.6	6.09	30.43	43.86	54	10.14	spurious
2490.6	37.56	AV	180	1.0	V	30.6	5.85	30.58	43.43	54	10.57	spurious
4824	46.83	PK	215	1.0	V	35.4	9.36	30.81	60.78	74	13.22	harmonic
4824	45.21	PK	215	1.2	H	36.6	9.36	30.81	60.36	74	13.64	harmonic
2319.6	33.41	AV	152	1.0	H	30.6	6.22	30.43	39.8	54	14.2	spurious
2490.6	53.79	PK	180	1.0	V	30.6	5.85	30.58	59.66	74	14.34	spurious
2488.4	33.41	AV	360	2.0	H	30.6	5.85	30.58	39.28	54	14.72	spurious
2359.5	52.70	PK	172	1.1	V	30.6	6.09	30.43	58.96	74	15.04	spurious
2319.6	45.34	PK	152	1.0	H	30.6	6.22	30.43	51.73	74	22.27	spurious
2488.4	45.4	PK	360	2.0	H	30.6	5.85	30.58	51.27	74	22.73	spurious
Middle Channel (2437 MHz)												
1407.9	49.22	AV	360	1.2	V	26.0	4.42	31.27	48.37	54	5.63	spurious
4874	33.09	AV	220	1.1	H	36.6	9.36	30.81	48.24	54	5.76	harmonic
1152.0	51.35	AV	349	1.0	V	23.8	3.88	31.72	47.31	54	6.69	spurious
4874	33.08	AV	33	1.0	V	35.4	9.36	30.81	47.03	54	6.97	harmonic
2384.8	39.50	AV	26	1.2	V	30.6	6.09	30.43	45.76	54	8.24	spurious
2489.2	38.94	AV	20	1.0	V	30.6	5.85	30.58	44.81	54	9.19	spurious
2384.8	54.55	PK	26	1.2	V	30.6	6.09	30.43	60.81	74	13.19	spurious
2489.2	54.68	PK	20	1.0	V	30.6	5.85	30.58	60.55	74	13.45	spurious
4874	45.25	PK	220	1.1	H	36.6	9.36	30.81	60.4	74	13.6	harmonic
2488.2	32.8	AV	50	1.2	H	30.6	5.85	30.58	38.67	54	15.33	spurious
4874	44.35	PK	33	1.0	V	35.4	9.36	30.81	58.3	74	15.7	harmonic
2312.8	33.26	AV	170	1.2	H	30.6	6.22	31.83	38.25	54	15.75	spurious
1407.9	53.84	PK	360	1.2	V	26.0	4.42	31.27	52.99	74	21.01	spurious
1152.0	56.94	PK	349	1.0	V	23.8	3.88	31.72	52.9	74	21.1	spurious
2488.2	46.19	PK	50	1.2	H	30.6	5.85	30.58	52.06	74	21.94	spurious
1159.5	34.67	AV	360	2.0	H	25.1	3.88	31.72	31.93	54	22.07	spurious
2312.8	45.94	PK	170	1.2	H	30.6	6.22	31.83	50.93	74	23.07	spurious
1159.5	47.91	PK	360	2.0	H	25.1	3.88	31.72	45.17	74	28.83	spurious

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBµV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Comment
HighChannel (2462 MHz)												
1407.8	52.86	AV	345	1.2	V	26.0	4.42	31.27	52.01	54	1.99*	spurious
4924	33.13	AV	215	1.1	H	36.6	9.36	30.81	48.28	54	5.72	harmonic
4924	33.03	AV	36	1.2	V	35.4	9.36	30.81	46.98	54	7.02	harmonic
2483.6	39.92	AV	25	1.1	V	30.6	5.85	30.58	45.79	54	8.21	spurious
1152.1	49.50	AV	347	1.7	V	23.8	3.88	31.72	45.46	54	8.54	spurious
2483.6	59.34	PK	25	1.1	V	30.6	5.85	30.58	65.21	74	8.79	spurious
2385.1	38.70	AV	27	1.0	V	30.6	6.09	30.43	44.96	54	9.04	spurious
2385.1	52.84	PK	27	1.0	V	30.6	6.09	30.43	59.1	74	14.9	spurious
2485.1	33.1	AV	1.0	1.2	H	30.6	5.82	30.43	39.09	54	14.91	spurious
4924	44.77	PK	36	1.2	V	35.4	9.36	30.81	58.72	74	15.28	harmonic
4924	43.52	PK	215	1.1	H	36.6	9.36	30.81	58.67	74	15.33	harmonic
2314.0	33.60	AV	1.2	1.3	H	30.6	6.22	31.83	38.59	54	15.41	spurious
1407.8	56.06	PK	345	1.2	V	26.0	4.42	31.27	55.21	74	18.79	spurious
2485.1	46.36	PK	1.0	1.1	H	30.6	5.85	30.43	52.38	74	21.62	spurious
1152.1	55.39	PK	347	1.7	V	23.8	3.88	31.72	51.35	74	22.65	spurious
1161.6	34.08	AV	165	1.2	H	25.1	3.88	31.72	31.34	54	22.66	spurious
2314.0	45.91	PK	1.2	1.1	H	30.6	6.22	31.83	50.9	74	23.1	spurious
1161.6	46.41	PK	165	1.2	H	25.1	3.88	31.72	43.67	74	30.33	spurious

* Within measurement uncertainty.

802.11n 20:

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2412 MHz)												
2479.9	44.17	AV	180	1.3	V	30.6	5.85	30.58	50.04	54	3.96*	spurious
2320.2	43.51	AV	325	1.0	V	30.6	6.22	31.83	48.5	54	5.50	spurious
1407.8	48.12	AV	135	1.0	V	26.0	4.42	31.27	47.27	54	6.73	spurious
1663.9	47.41	AV	330	1.0	V	26.0	4.85	31.68	46.58	54	7.42	spurious
4824	31.26	AV	220	1.0	H	36.6	9.36	30.81	46.41	54	7.59	harmonic
4824	31.54	AV	219	1.0	V	35.4	9.36	30.81	45.49	54	8.51	harmonic
1152.0	48.36	AV	195	1.0	V	23.8	3.88	31.72	44.32	54	9.68	spurious
2313.3	33.48	AV	140	1.3	H	30.6	6.09	30.43	39.74	54	14.26	spurious
4824	44.00	PK	220	1.0	H	36.6	9.36	30.81	59.15	74	14.85	harmonic
2479.9	51.56	PK	180	1.3	V	30.6	5.85	30.58	57.43	74	16.57	spurious
2320.2	51.45	PK	325	1.0	V	30.6	6.22	31.83	56.44	74	17.56	spurious
4824	42.30	PK	219	1.0	V	35.4	9.36	30.81	56.25	74	17.75	harmonic
1407.8	53.34	PK	135	1.0	V	26.0	4.42	31.27	52.49	74	21.51	spurious
1148.3	35.06	AV	360	1.0	H	25.1	3.88	31.72	32.32	54	21.68	spurious
2313.3	45.92	PK	140	1.3	H	30.6	6.09	30.43	52.18	74	21.82	spurious
1663.9	51.23	PK	330	1.0	V	26.0	4.85	31.68	50.4	74	23.6	spurious
1152.0	54.10	PK	195	1.0	V	23.8	3.88	31.72	50.06	74	23.94	spurious
1148.3	46.89	PK	360	1.0	H	25.1	3.88	31.72	44.15	74	29.85	spurious
Middle Channel (2437 MHz)												
2319.9	45.68	AV	32	1.0	V	30.6	6.22	31.83	50.67	54	3.33*	spurious
2489.5	42.80	AV	325	1.0	V	30.6	5.85	30.58	48.67	54	5.33	spurious
1407.9	48.16	AV	90	1.0	V	26.0	4.42	31.27	47.31	54	6.69	spurious
1152.0	50.98	AV	145	1.0	V	23.8	3.88	31.72	46.94	54	7.06	spurious
4874	31.54	AV	325	1.0	H	36.6	9.36	30.81	46.69	54	7.31	harmonic
1919.9	42.34	AV	360	1.0	V	29.8	7.01	32.76	46.39	54	7.61	spurious
1664.0	47.13	AV	0	1.0	V	26.0	4.85	31.68	46.3	54	7.7	spurious
4874	31.80	AV	160	1.3	V	35.4	9.36	30.81	45.75	54	8.25	harmonic
2489.5	54.32	PK	325	1.0	V	30.6	5.85	30.58	60.19	74	13.81	spurious
4874	45.81	PK	160	1.3	V	35.4	9.36	30.81	59.76	74	14.24	harmonic
4874	44.59	PK	325	1.0	H	36.6	9.36	30.81	59.74	74	14.26	harmonic
2319.9	54.73	PK	32	1.0	V	30.6	6.22	31.83	59.72	74	14.28	spurious
2487.1	33.03	AV	54	1.0	H	30.6	5.85	30.58	38.9	54	15.1	spurious
1604.7	37.42	AV	50	1.0	H	26.5	4.85	31.68	37.09	54	16.91	spurious
1919.9	48.50	PK	360	1.0	V	29.8	7.01	32.76	52.55	74	21.45	spurious
1152.0	55.17	PK	145	1.0	V	23.8	3.88	31.72	51.13	74	22.87	spurious
2487.1	44.64	PK	54	1.0	H	30.6	5.85	30.58	50.51	74	23.49	spurious
1407.9	51.36	PK	90	1.0	V	26.0	4.42	31.27	50.51	74	23.49	spurious
1664.0	50.98	PK	0	1.0	V	26.0	4.85	31.68	50.15	74	23.85	spurious
1604.7	48.37	PK	50	1.0	H	26.5	4.85	31.68	48.04	74	25.96	spurious

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
HighChannel (2462 MHz)												
2319.9	47.95	AV	343	1.2	V	30.6	6.22	31.83	52.94	54	1.06*	spurious
2483.5	63.19	PK	120	1.2	V	30.6	5.85	30.58	69.06	74	4.94	spurious
1408	48.52	AV	130	1.3	V	26.0	4.42	31.27	47.67	54	6.33	spurious
4924	32.50	AV	35	1.0	H	36.6	9.36	30.81	47.65	54	6.35	harmonic
1152.0	50.74	AV	136	1.0	V	23.8	3.88	31.72	46.7	54	7.3	spurious
1920.0	42.06	AV	360	1.0	V	29.8	7.01	32.76	46.11	54	7.89	spurious
1664	46.92	AV	353	1.0	V	26.0	4.85	31.68	46.09	54	7.91	spurious
4924	31.71	AV	216	1.5	V	35.4	9.36	30.81	45.66	54	8.34	harmonic
2483.5	38.96	AV	120	1.2	V	30.6	5.85	30.58	44.83	54	9.17	spurious
2319.9	56.70	PK	343	1.2	V	30.6	6.22	31.83	61.69	74	12.31	spurious
4924	45.58	PK	35	1.0	H	36.6	9.36	30.81	60.73	74	13.27	harmonic
4924	45.75	PK	216	1.5	V	35.4	9.36	30.81	59.7	74	14.3	harmonic
2484.8	33.17	AV	160	1.2	H	30.6	5.82	30.43	39.16	54	14.84	spurious
2335.1	33.61	AV	120	1.1	H	30.6	6.22	31.83	38.6	54	15.4	spurious
1920.0	49.08	PK	360	1.0	V	29.8	7.01	32.76	53.13	74	20.87	spurious
2484.8	46.48	PK	160	1.2	H	30.6	5.85	30.43	52.5	74	21.5	spurious
2335.1	47.07	PK	120	1.1	H	30.6	6.22	31.83	52.06	74	21.94	spurious
1152.0	55.35	PK	136	1.0	V	23.8	3.88	31.72	51.31	74	22.69	spurious
1408	51.94	PK	130	1.3	V	26.0	4.42	31.27	51.09	74	22.91	spurious
1664	51.49	PK	353	1.0	V	26.0	4.85	31.68	50.66	74	23.34	spurious

* Within measurement uncertainty.

802.11n 40:

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBμV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2422 MHz)												
1408.1	48.70	AV	32	1.17	V	26.0	4.42	31.27	47.85	54	6.15	spurious
4844	32.07	AV	220	1.0	H	36.6	9.36	30.81	47.22	54	6.78	harmonic
1152.0	50.25	AV	360	1.0	V	23.8	3.88	31.72	46.21	54	7.79	spurious
1920.0	41.53	AV	160	1.1	V	29.8	7.01	32.76	45.58	54	8.42	spurious
4844	31.60	AV	219	1.0	V	35.4	9.36	30.81	45.55	54	8.45	harmonic
1664.0	46.23	AV	0	1.0	V	26.0	4.85	31.68	45.4	54	8.60	spurious
2319.6	37.62	AV	180	1.3	V	30.6	6.22	31.83	42.61	54	11.39	spurious
4844	45.04	PK	220	1.0	H	36.6	9.36	30.81	60.19	74	13.81	harmonic
4844	45.36	PK	219	1.0	V	35.4	9.36	30.81	59.31	74	14.69	harmonic
2319.6	50.90	PK	180	1.3	V	30.6	6.22	31.83	55.89	74	18.11	spurious
1408.1	35.13	AV	140	1.3	H	26.0	4.42	31.27	34.28	54	19.72	spurious
1152.0	57.44	PK	218	1.0	V	23.8	3.88	31.72	53.4	74	20.6	spurious
1920.0	48.49	PK	160	1.1	V	29.8	7.01	32.76	52.54	74	21.46	spurious
1408.1	51.51	PK	32	1.0	V	26.0	4.42	31.27	50.66	74	23.34	spurious
1664.0	51.49	PK	0	1.0	V	26.0	4.85	31.68	50.66	74	23.34	spurious
1408.1	46.09	PK	140	1.3	H	26.0	4.42	31.27	45.24	74	28.76	spurious
Middle Channel (2437 MHz)												
4874	36.59	AV	210	1.0	H	36.6	9.36	30.81	51.74	54	2.26*	harmonic
4874	34.89	AV	160	1.3	V	35.4	9.36	30.81	48.84	54	5.16	harmonic
4874	52.45	PK	160	1.3	V	35.4	9.36	30.81	66.4	74	7.60	harmonic
1152.0	49.96	AV	145	1.0	V	23.8	3.88	31.72	45.92	54	8.08	spurious
1920.0	41.61	AV	90	1.0	V	29.8	7.01	32.76	45.66	54	8.34	spurious
1664.0	46.34	AV	120	1.4	V	26.0	4.85	31.68	45.51	54	8.49	spurious
1408	45.99	AV	140	1.5	V	26.0	4.42	31.27	45.14	54	8.86	spurious
2319.8	38.94	AV	0	1.0	V	30.6	6.22	31.83	43.93	54	10.07	spurious
4874	48.15	PK	210	1.0	H	36.6	9.36	30.81	63.3	74	10.7	harmonic
2319.8	48.75	PK	0	1.0	V	30.6	6.22	31.83	53.74	74	20.26	spurious
1408	54.00	PK	140	1.5	V	26.0	4.42	31.27	53.15	74	20.85	spurious
1408.1	33.90	AV	120	1.3	H	26.0	4.42	31.27	33.05	54	20.95	spurious
1920.0	48.43	PK	90	1.0	V	29.8	7.01	32.76	52.48	74	21.52	spurious
1152.0	55.49	PK	145	1.0	V	23.8	3.88	31.72	51.45	74	22.55	spurious
1664.0	50.98	PK	120	1.4	V	26.0	4.85	31.68	50.15	74	23.85	spurious
1408.1	45.67	PK	120	1.3	H	26.0	4.42	31.27	44.82	74	29.18	spurious

Indicated		Detector (PK/AV)	Table Angle Degree	Antenna		Correction Factor			FCC Part 15.247/15.209			
Frequency (MHz)	Receiver Reading (dBµV/m)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Comment
HighChannel (2452 MHz)												
1408	50.89	AV	175	1.0	V	26.0	4.42	31.27	50.04	54	3.96*	spurious
4904	35.75	AV	180	1.0	V	35.4	9.36	30.81	49.70	54	4.30	harmonic
4904	32.26	AV	215	1.1	H	36.6	9.36	30.81	47.41	54	6.59	harmonic
1920	41.26	AV	180	1.0	V	29.8	7.01	32.76	45.31	54	8.69	spurious
1408	46.08	AV	247	1.5	H	26.0	4.42	31.27	45.23	54	8.77	spurious
2320.0	39.82	AV	160	1.05	V	30.6	6.22	31.83	44.81	54	9.19	spurious
1664	44.72	AV	135	1.0	V	26.0	4.85	31.68	43.89	54	10.11	spurious
1152.0	46.20	AV	11	1.0	V	23.8	3.88	31.72	42.16	54	11.84	spurious
4904	46.08	PK	215	1.1	H	36.6	9.36	30.81	61.23	74	12.77	harmonic
2320.0	35.75	AV	130	1.6	H	30.6	6.22	31.83	40.74	54	13.26	spurious
4904	46.56	PK	180	1.0	V	35.4	9.36	30.81	60.51	74	13.49	harmonic
2320.0	52.53	PK	160	1.05	V	30.6	6.22	31.83	57.52	74	16.48	spurious
1408	55.43	PK	175	1.0	V	26.0	4.42	31.27	54.58	74	19.42	spurious
1408	53.81	PK	247	1.5	H	26.0	4.42	31.27	52.96	74	21.04	spurious
1920	48.71	PK	180	1.0	V	29.8	7.01	32.76	52.76	74	21.24	spurious
2320.0	47.68	PK	130	1.6	H	30.6	6.22	31.83	52.67	74	21.33	spurious
1152.0	55.60	PK	11	1.0	V	23.8	3.88	31.72	51.56	74	22.44	spurious
1664	50.65	PK	135	1.0	V	26.0	4.85	31.68	49.82	74	24.18	spurious

* Within measurement uncertainty.

Co-Location (WLAN & GSM/GPRS/EGPRS)

WLAN 20 MHz with FCC ID: NCMOGI0411, GSM/GPRS/EGPRS 1900 MHz Band

WLAN 20 MHz Worst Case: 802.11B Low Channel: 2412 MHz

GSM/GPRS/EGPRS 1900 Band Worst Case: EGPRS Middle Channel: 1880 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
5640	64.92	264	1.0	V	34.6	9.83	36.33	73.02	74	0.98	Peak
5640	44.54	264	1.0	V	34.6	9.83	36.33	52.64	54	1.36	Ave
5640	43.16	85	1.0	H	34.6	9.83	36.33	51.26	54	2.74	Ave
3760	47.53	174	1.0	V	31	8.5	37.05	49.98	54	4.02	Ave
3760	47.37	226	1.11	H	31	8.5	37.05	49.82	54	4.18	Ave
3760	64.43	174	1.0	V	31	8.5	37.05	66.88	74	7.12	Peak
3760	62.87	226	1.11	H	31	8.5	37.05	65.32	74	8.68	Peak
5640	54.55	85	1.0	H	34.6	9.83	36.33	62.65	74	11.35	Peak

WLAN 40 MHz with FCC ID: NCMOGI0411, GSM/GPRS/EGPRS 1900MHz Band

WLAN 40 MHz Worst Case: 802.11N40 Low Channel: 2422 MHz

GSM/GPRS/EGPRS 1900 Band Worst Case: EGPRS Middle Channel: 1880 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
5640	65.83	225	1.41	V	34.6	9.83	36.33	73.93	74	0.07	Peak
5640	44.96	225	1.41	V	34.6	9.83	36.33	53.06	54	0.94	Ave
5640	64.01	87	1.0	H	34.6	9.83	36.33	72.11	74	1.89	Peak
5640	43.74	87	1.0	H	34.6	9.83	36.33	51.84	54	2.16	Ave
3760	46.56	201	1.75	H	31	8.5	37.05	49.01	54	4.99	Ave
3760	46.19	127	1.0	V	31	8.5	37.05	48.64	54	5.36	Ave
3760	65.72	127	1.0	V	31	8.5	37.05	68.17	74	5.83	Peak
3760	62.77	201	1.75	H	31	8.5	37.05	65.22	74	8.78	Peak

WLAN 20 MHz with FCC ID: NCMOGI0451, GSM/GPRS/EGPRS 850MHz Band

WLAN 20 MHz Worst Case: 802.11B Low Channel: 2412 MHz
GSM/GPRS/EGPRS 850 Band Worst Case: GSM High Channel: 848.8 MHz

Scan from 30MHz to 25GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
1697.77	76.01	360	1.0	V	25.5	5.08	38	68.59	74	5.41	Peak
1697.77	75.43	17	1.0	H	25.5	5.08	38	68.01	74	5.99	Peak
3260	46	226	1.41	V	30.8	7.71	37.33	47.18	54	6.82	AVE
1563.2	75.61	165	1.0	V	25.1	4.92	39.2	66.43	74	7.57	Peak
3260	44.45	360	1.0	H	30.8	7.71	37.33	45.63	54	8.37	AVE
3260	63.86	226	1.41	V	30.8	7.71	37.33	65.04	74	8.96	Peak
1563.2	74.12	328	1.0	H	25.1	4.92	39.2	64.94	74	9.06	Peak
3260	59.05	360	1.0	H	30.8	7.71	37.33	60.23	74	13.77	Peak
1563.2	46.37	165	1.0	V	25.1	4.92	39.2	37.19	54	16.81	AVE
1697.77	44.59	360	1.0	V	25.5	5.08	38	37.17	54	16.83	AVE
1697.77	44.3	17	1.0	H	25.5	5.08	38	36.88	54	17.12	AVE
1563.2	46	328	1.0	H	25.1	4.92	39.2	36.82	54	17.18	AVE

WLAN 40 MHz Worst Case: 802.11N40 Low Channel: 2422 MHz
GSM/GPRS/EGPRS 850 Band Worst Case: GSM High Channel: 848.8 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
1697.77	81.35	349	1.12	V	25.5	5.08	38	73.93	74	0.07	Peak
1563.2	82.78	201	1	V	25.1	4.92	39.2	73.6	74	0.4	Peak
3270.8	52.24	360	1	V	30.8	7.71	37.33	53.42	54	0.58	AVE
1697.77	76.53	29	1	H	25.5	5.08	38	69.11	74	4.89	Peak
1563.2	78.02	360	1	H	25.1	4.92	39.2	68.84	74	5.16	Peak
3270.8	63.97	360	1	V	30.8	7.71	37.33	65.15	74	8.85	Peak
1563.2	48.17	201	1	V	25.1	4.92	39.2	38.99	54	15.01	AVE
1563.2	45	360	1	H	25.1	4.92	39.2	35.82	54	18.18	AVE
3270.8	28.41	16	1	H	30.8	7.71	37.33	29.59	54	24.41	AVE
1697.77	36.86	349	1.12	V	25.5	5.08	38	29.44	54	24.56	AVE
1697.77	35.73	29	1	H	25.5	5.08	38	28.31	54	25.69	AVE
3270.8	29.54	16	1	H	30.8	7.71	37.33	30.72	74	43.28	Peak

Co-Location (WLAN & HSPAS)

WLAN 20 MHz with FCC ID: NCMOGI0411 HSPA 1900 MHz Band

WLAN 20 MHz Worst Case: 802.11B Low Channel: 2412 MHz

HSPA 1900 MHz Band Worst Case: HSDPA Sub-test 1 High Channel: 1907.5 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
1408	58.96	289	1.0	V	25.1	4.58	38.56	50.08	54	3.92	Ave
1408	58.43	223	1.0	H	25.1	4.58	38.56	49.55	54	4.45	Ave
1152	58.54	153	1.0	V	24.9	4.29	39.06	48.67	54	5.33	Ave
1152	57.76	299	1.0	H	24.9	4.29	39.06	47.89	54	6.11	Ave
3815	63.43	156	1.0	V	31	8.5	37.05	65.88	74	8.12	Peak
3815	41.23	156	1.0	V	31	8.5	37.05	43.68	54	10.32	Ave
1152	69.91	153	1.0	V	24.9	4.29	39.06	60.04	74	13.96	Peak
3815	35.8	353	1.92	H	31	8.5	37.05	38.25	54	15.75	Ave
3815	54.31	353	1.92	H	31	8.5	37.05	56.76	74	17.24	Peak
1408	62.33	289	1.0	V	25.1	4.58	38.56	53.45	74	20.55	Peak
1408	60.97	223	1.0	H	25.1	4.58	38.56	52.09	74	21.91	Peak
1152	60.06	299	1.0	H	24.9	4.29	39.06	50.19	74	23.81	Peak

WLAN 40 MHz with FCC ID: NCMOGI0411, HSPA 1900 MHz Band

WLAN 40 MHz Worst Case: 802.11N40 Low Channel: 2422 MHz

HSPA 1900 MHz Band Worst Case: HSDPA Sub-test 1 High Channel: 1907.5 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
3815	67.11	219	1.69	V	31	8.5	37.05	69.56	74	4.44	Peak
5722	38.73	220	1.46	V	34.6	9.83	36.33	46.83	54	7.17	Ave
5722	58.63	220	1.46	V	34.6	9.83	36.33	66.73	74	7.27	Peak
3815	42.38	219	1.69	V	31	8.5	37.05	44.83	54	9.17	Ave
5722	35.85	227	1.44	H	34.6	9.83	36.33	43.95	54	10.05	Ave
3815	38.61	310	1.0	H	31	8.5	37.05	41.06	54	12.94	Ave
3815	55.46	310	1.0	H	31	8.5	37.05	57.91	74	16.09	Peak
5722	48.46	227	1.44	H	34.6	9.83	36.33	56.56	74	17.44	Peak

WLAN 20 MHz with FCC ID: NCMOGI0451, HSPA 850 MHz Band

WLAN 20 MHz Worst Case: 802.11B Low Channel: 2412 MHz

HSPA 850 MHz Band Worst Case: HSUPA Sub-test 1 High Channel: 846.6 MHz

Scan from 30 MHz to 25 GHz at 3 Meter Distance

Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
1565.8	62.78	168	1.0	V	25.1	4.92	39.2	53.6	54	0.4	AVE
1565.8	58.08	331	1.0	H	25.1	4.92	39.2	48.9	54	5.1	AVE
3258.6	47.72	265	1.17	H	30.8	7.71	37.33	48.9	54	5.1	AVE
3258.6	46.95	263	1.13	V	30.8	7.71	37.33	48.13	54	5.87	AVE
3258.6	65.24	265	1.17	H	30.8	7.71	37.33	66.42	74	7.58	Peak
1693	71.77	346	1.12	V	25.5	5.08	38	64.35	74	9.65	Peak
1565.8	71	168	1.0	V	25.1	4.92	39.2	61.82	74	12.18	Peak
1693	66.1	18	1.0	H	25.5	5.08	38	58.68	74	15.32	Peak
1565.8	67.75	331	1.0	H	25.1	4.92	39.2	58.57	74	15.43	Peak
3258.6	55.7	263	1.13	V	30.8	7.71	37.33	56.88	74	17.12	Peak
1693	41.79	346	1.12	V	25.5	5.08	38	34.37	54	19.63	AVE
1693	35.12	18	1.0	H	25.5	5.08	38	27.7	54	26.3	AVE

WLAN 40 MHz with FCC ID: NCMOGI0451, HSPA 850 MHz Band

WLAN 40 MHz Worst Case: 802.11N40 Low Channel: 2422 MHz

HSPA 850 MHz Band Worst Case: HSUPA Sub-test 1 High Channel: 846.6 MHz

Scan from 30MHz to 25GHz at 3 Meter Distance

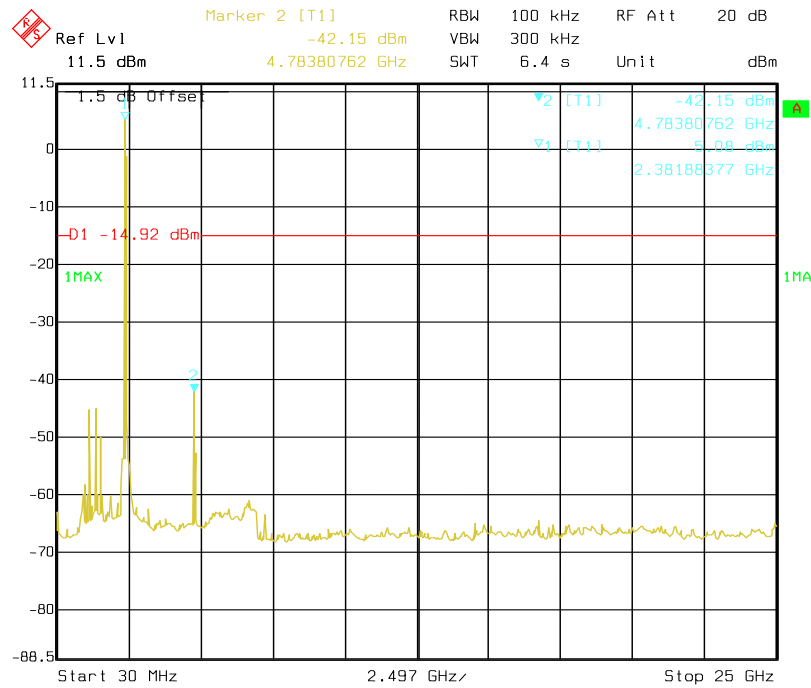
Frequency (MHz)	S.A. Reading (dBμV)	Turntable Azimuth (degrees)	Test Antenna			Cable Loss (dB)	Pre-Amp. (dB)	Cord. Amp. (dBμV/m)	Part 15C		Comments
			Height (m)	Polarity (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	
1692.77	57.04	345	1.0	V	25.5	5.08	38	49.62	54	4.38	AVE
1692.77	72.46	345	1.0	V	25.5	5.08	38	65.04	74	8.96	Peak
1692.77	51.81	335	1.0	H	25.5	5.08	38	44.39	54	9.61	AVE
1574.5	70.73	167	1.0	V	25.1	4.92	39.2	61.55	74	12.45	Peak
3268.6	38.82	263	1.0	V	30.8	7.71	37.33	40	54	14	AVE
1574.5	68.62	333	1.0	H	25.1	4.92	39.2	59.44	74	14.56	Peak
1692.77	66.63	335	1.0	H	25.5	5.08	38	59.21	74	14.79	Peak
3268.6	56.11	263	1.0	V	30.8	7.71	37.33	57.29	74	16.71	Peak
3268.6	34.49	360	1.0	H	30.8	7.71	37.33	35.67	54	18.33	AVE
1574.5	41.99	167	1.0	V	25.1	4.92	39.2	32.81	54	21.19	AVE
1574.5	40.51	333	1.0	H	25.1	4.92	39.2	31.33	54	22.67	AVE
3268.6	46.54	360	1.0	H	30.8	7.71	37.33	47.72	74	26.28	Peak

Antenna Port Conducted Spurious Emissions

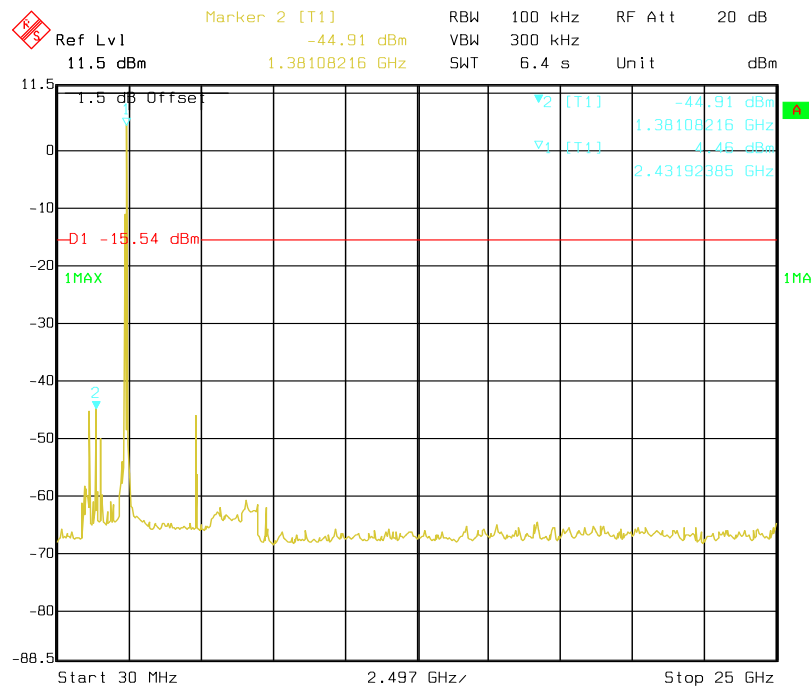
Channel Frequency (MHz)	Data Rate (Mbps)	Delta Value (dBc)	Limit (dBc)	Ref. Plot	Result
802.11b Mode					
2412	11	*	20	PLOT1	PASS
2437	11	*	20	PLOT2	PASS
2462	11	*	20	PLOT3	PASS
802.11g Mode					
2412	54	*	20	PLOT4	PASS
2437	54	*	20	PLOT5	PASS
2462	54	*	20	PLOT6	PASS
802.11n 20 Mode (Chain 0)					
2412	130	*	20	PLOT7	PASS
2437	130	*	20	PLOT8	PASS
2462	130	*	20	PLOT9	PASS
802.11n 20 Mode (Chain 1)					
2412	130	*	20	PLOT10	PASS
2437	130	*	20	PLOT11	PASS
2462	130	*	20	PLOT12	PASS
802.11n 20 Mode (Combiner)					
2412	130	*	20	PLOT13	PASS
2437	130	*	20	PLOT14	PASS
2462	130	*	20	PLOT15	PASS
802.11n 40 Mode (Chain 0)					
2422	130	*	20	PLOT16	PASS
2437	130	*	20	PLOT17	PASS
2452	130	*	20	PLOT18	PASS
802.11n 40 Mode (Chain 1)					
2422	130	*	20	PLOT19	PASS
2437	130	*	20	PLOT20	PASS
2452	130	*	20	PLOT21	PASS
802.11n 40 Mode (Combiner)					
2422	130	*	20	PLOT22	PASS
2437	130	*	20	PLOT23	PASS
2452	130	*	20	PLOT24	PASS

Please refer to the following plots.

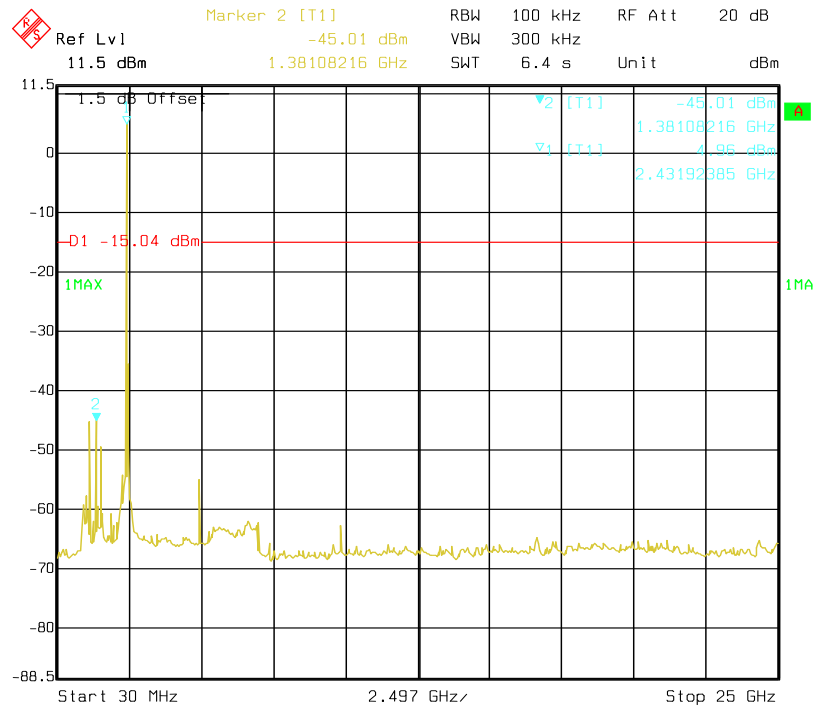
802.11b Low Channel



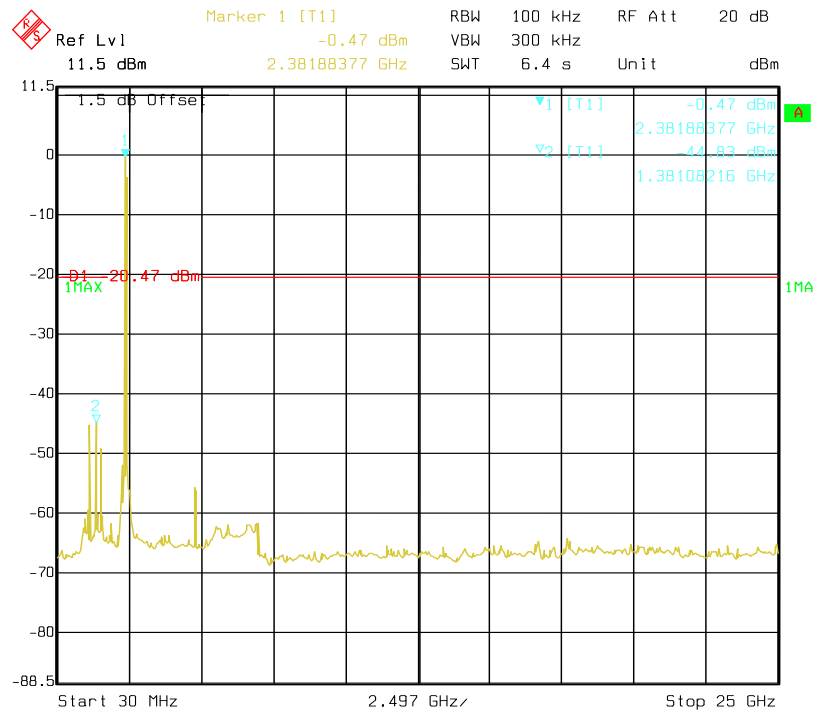
802.11b Middle Channel



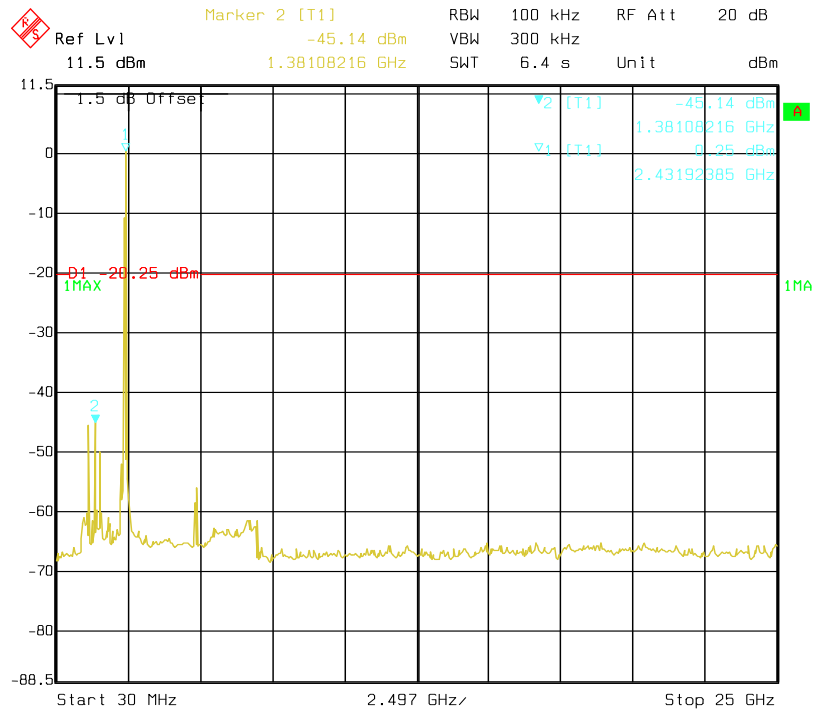
802.11b High Channel



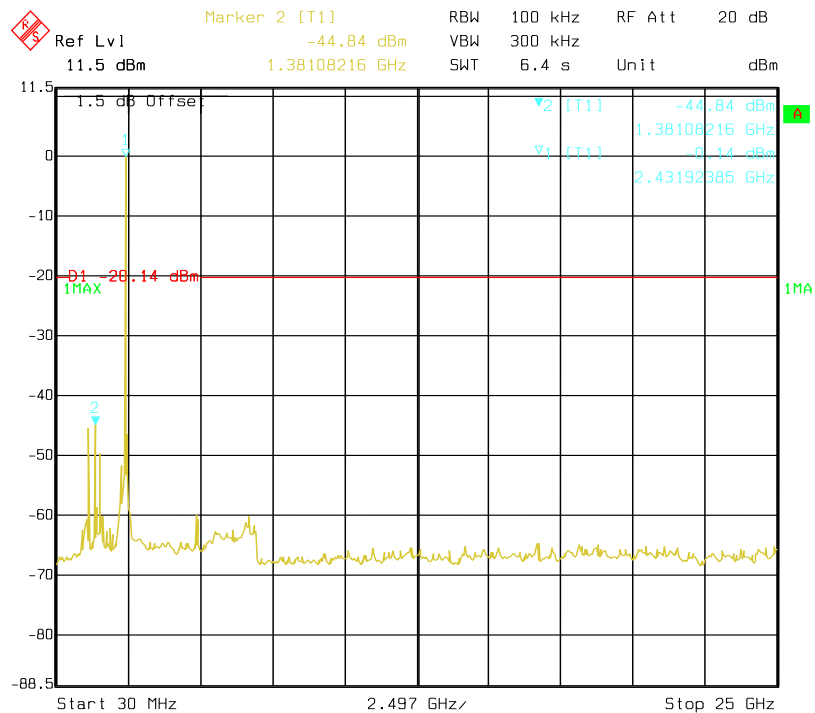
802.11g Low Channel



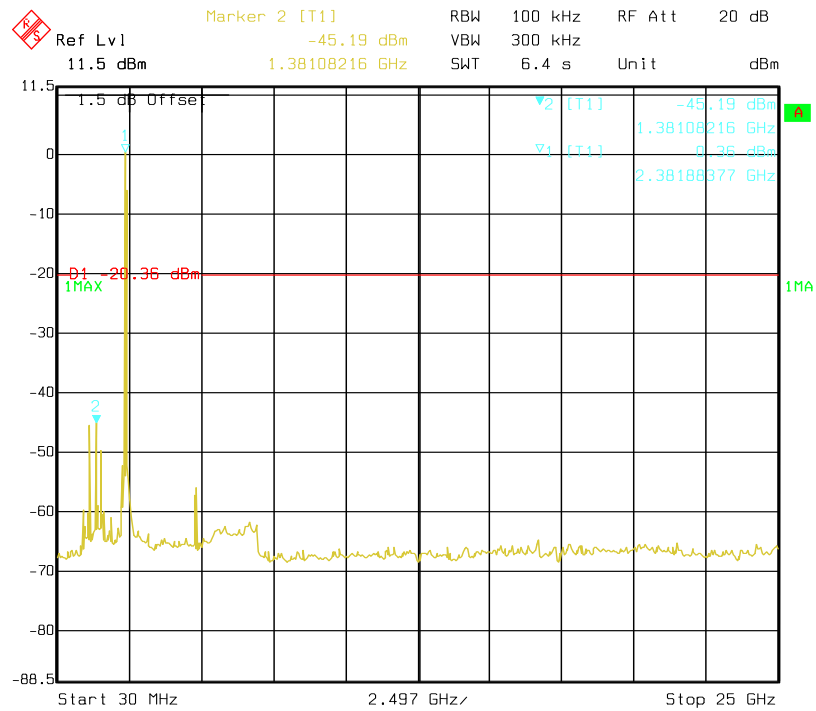
802.11g Middle Channel



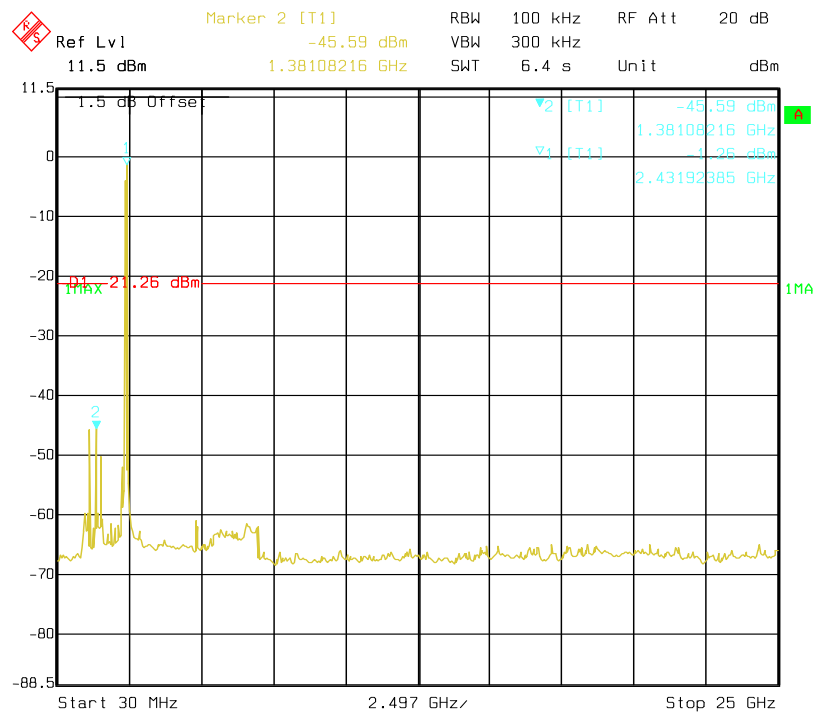
802.11g High Channel



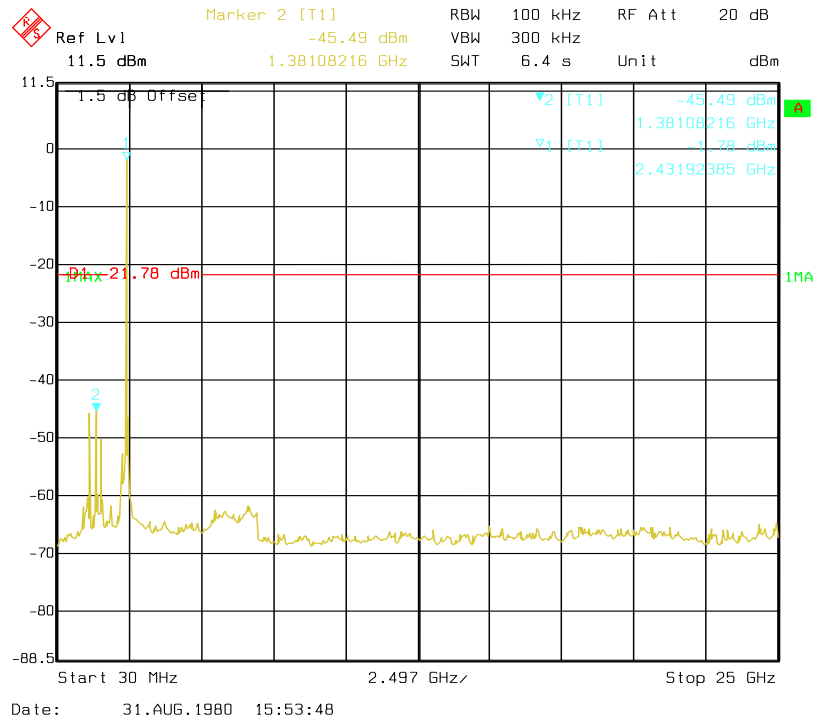
802.11n20 Low Channel (Chain 0)



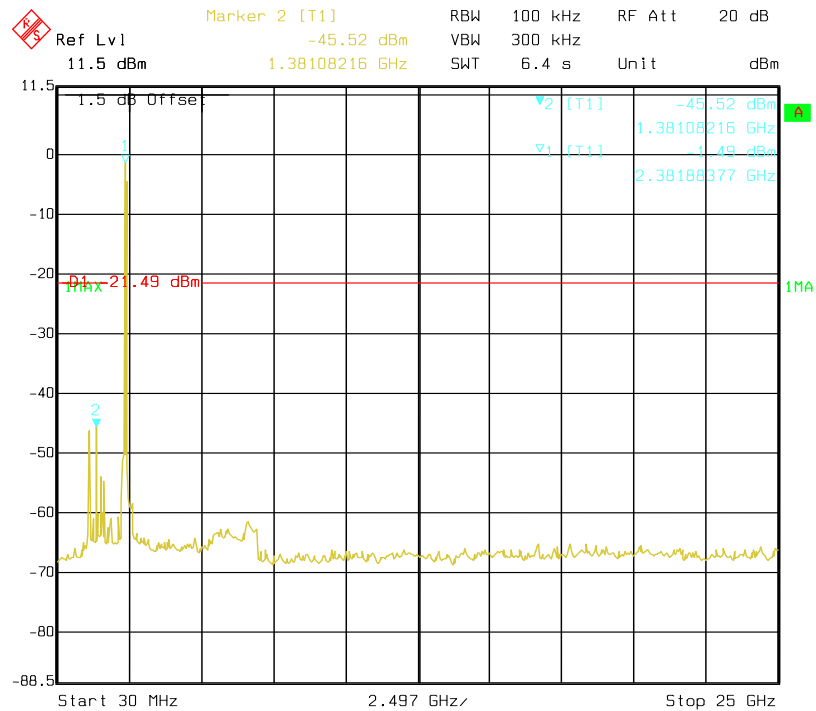
802.11n20 Middle Channel (Chain 0)



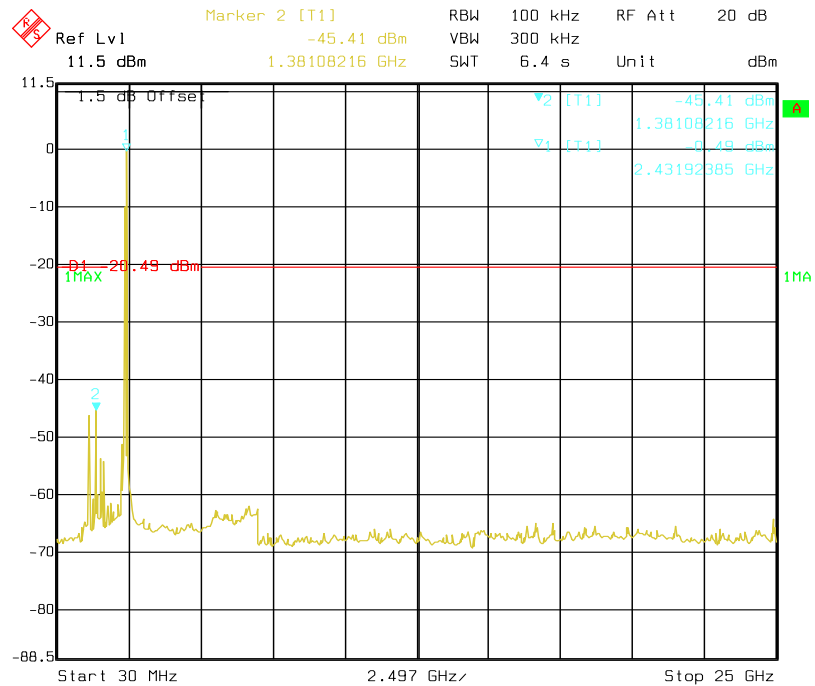
802.11n20 High Channel (Chain 0)



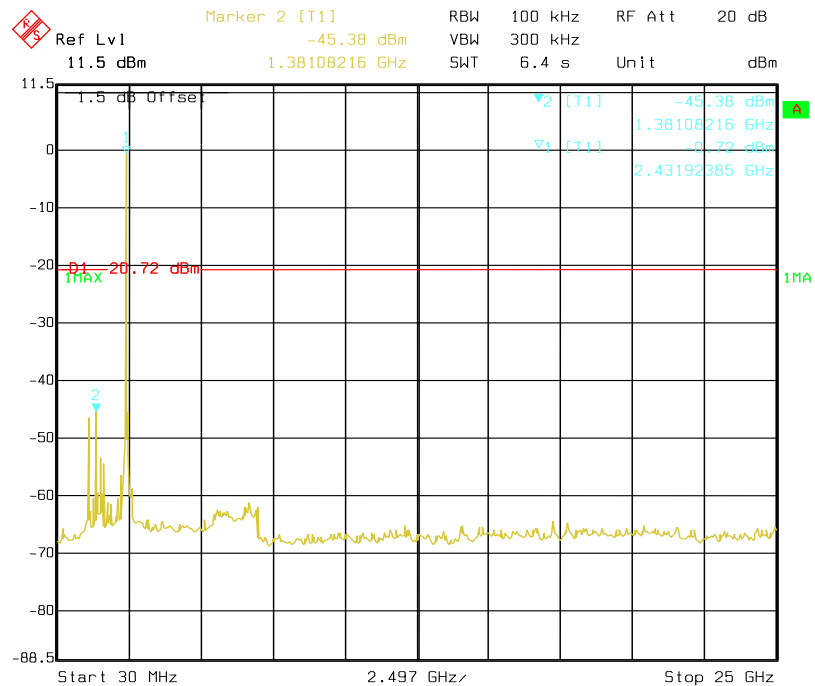
802.11n20 Low Channel (Chain 1)

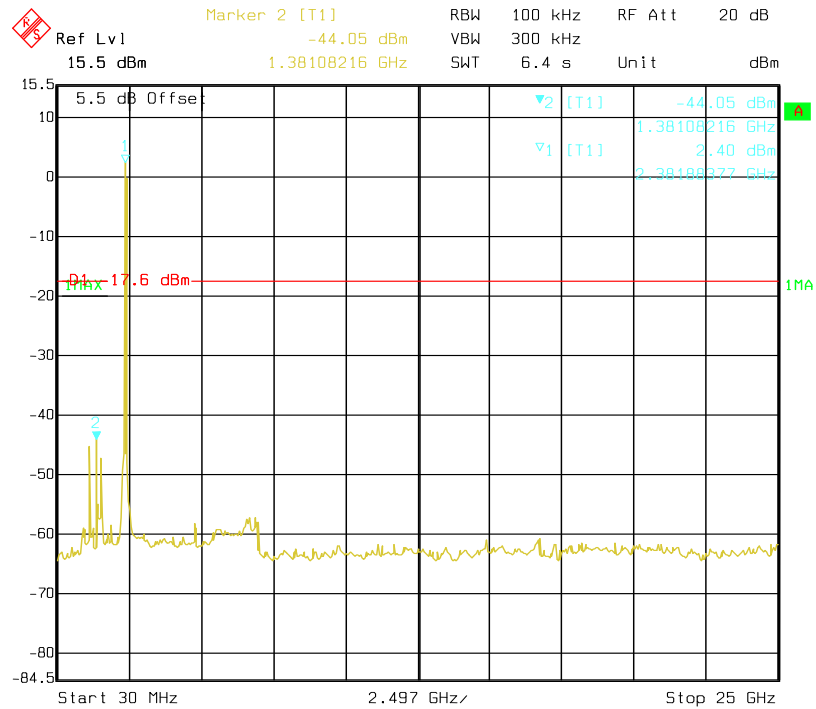
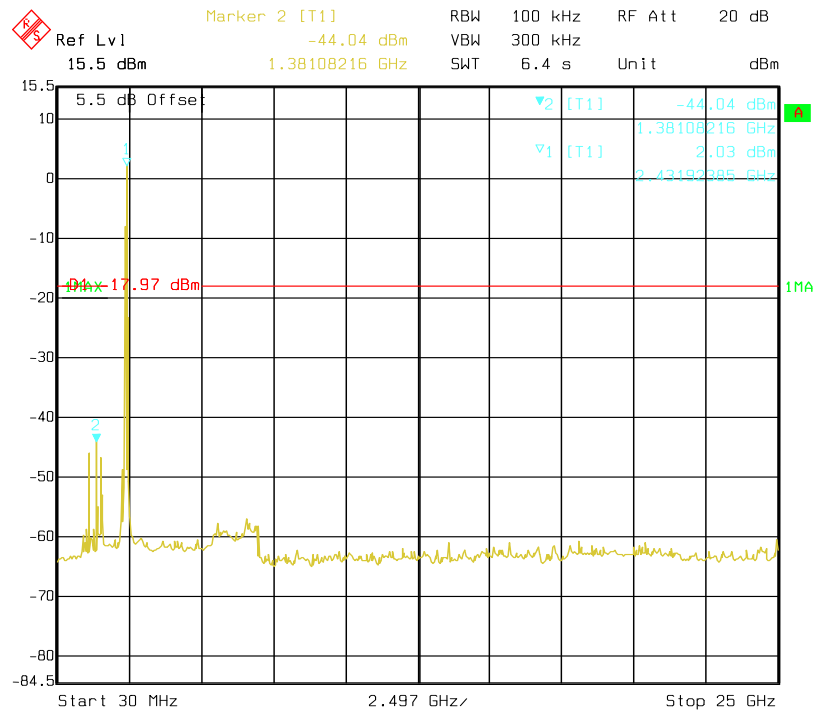


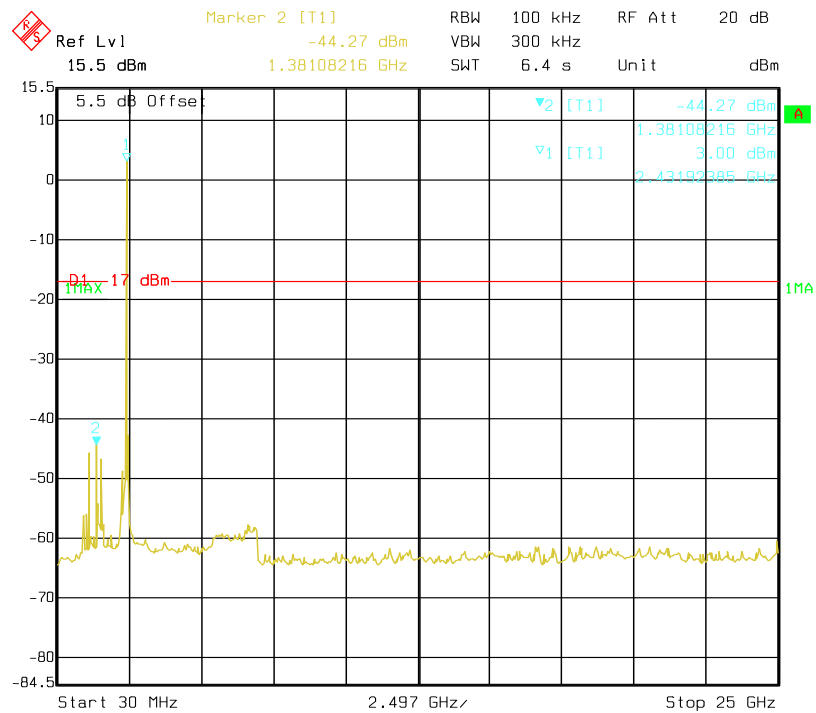
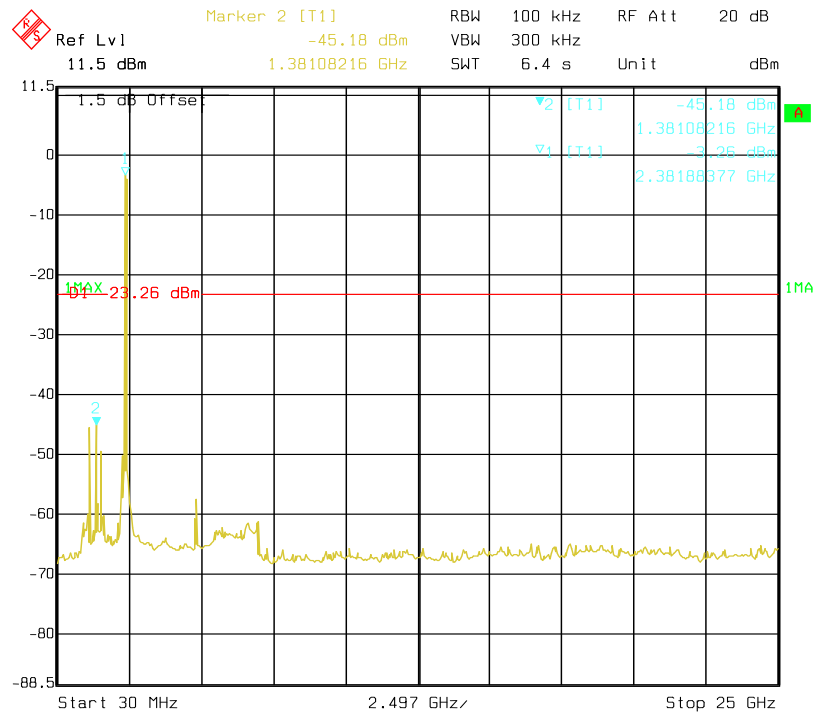
802.11n20 Middle Channel (Chain 1)



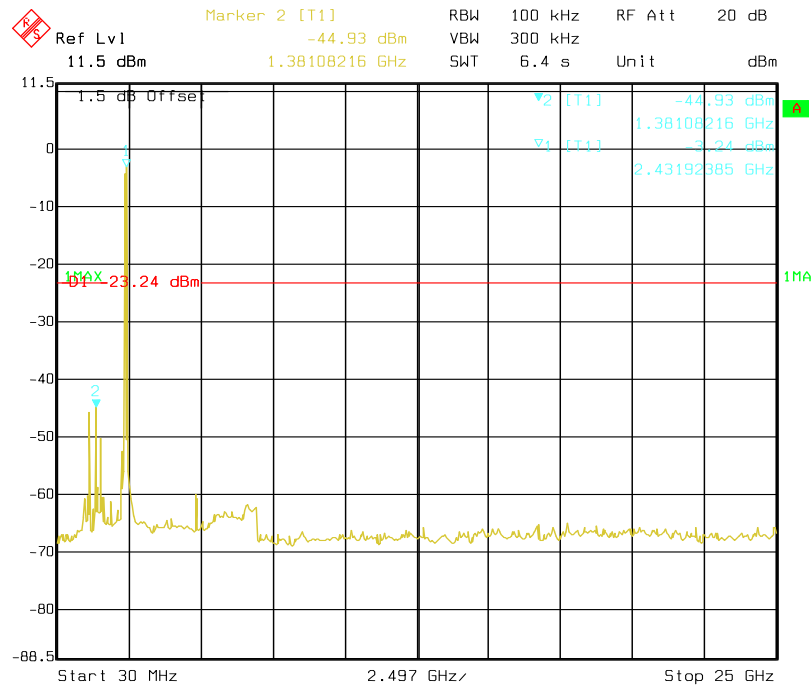
802.11n20 High Channel (Chain 1)



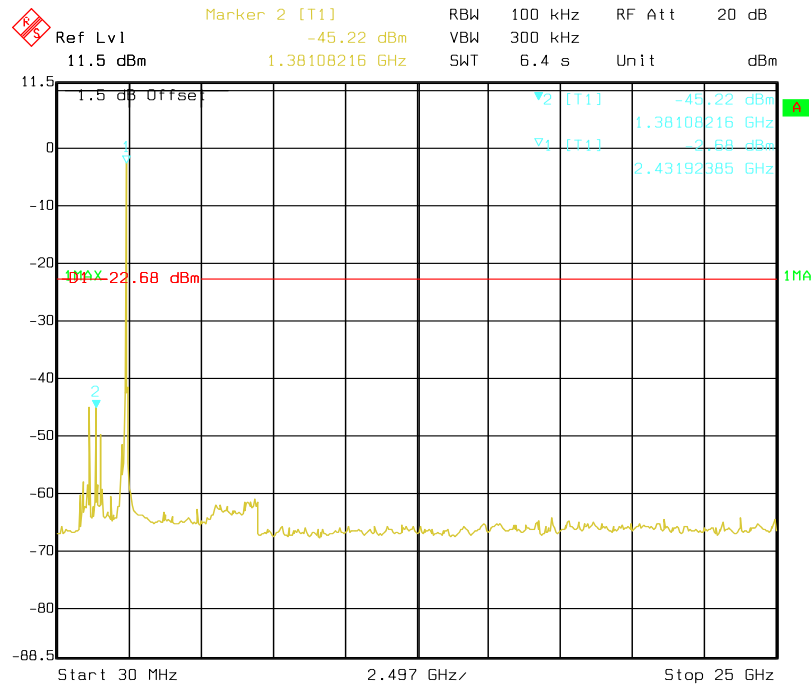
802.11n20 Low Channel (with Combiner)**802.11n20 Middle Channel (with Combiner)**

802.11n20 High Channel (with Combiner)**802.11n40 Low Channel (Chain 0)**

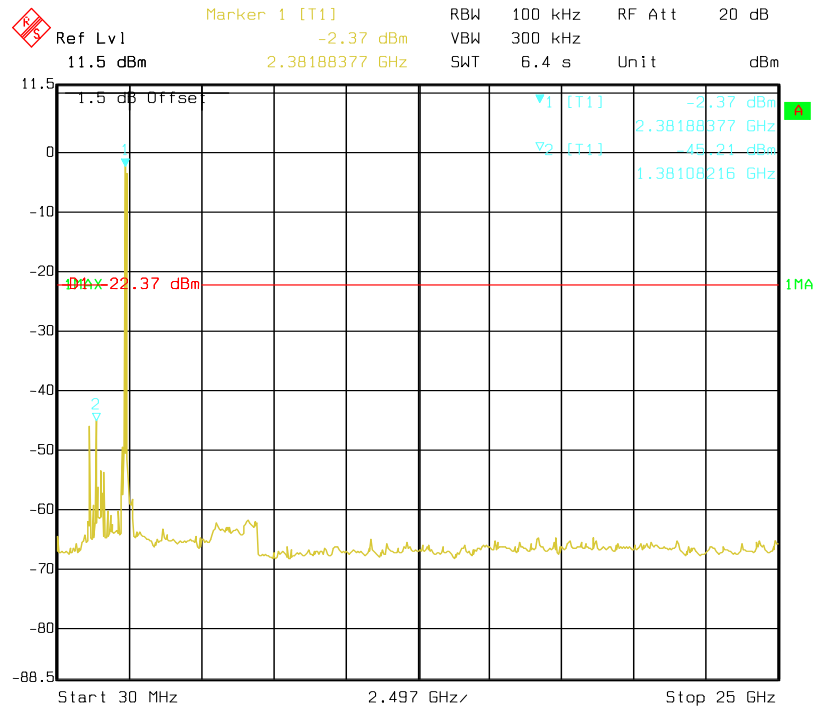
802.11n40 Middle Channel (Chain 0)



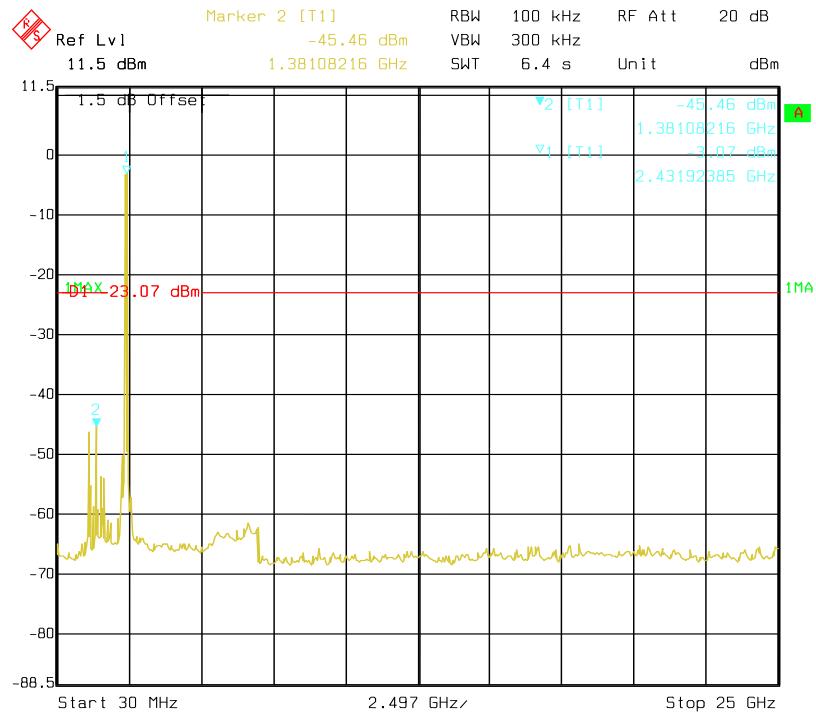
802.11n40 High Channel (Chain 0)

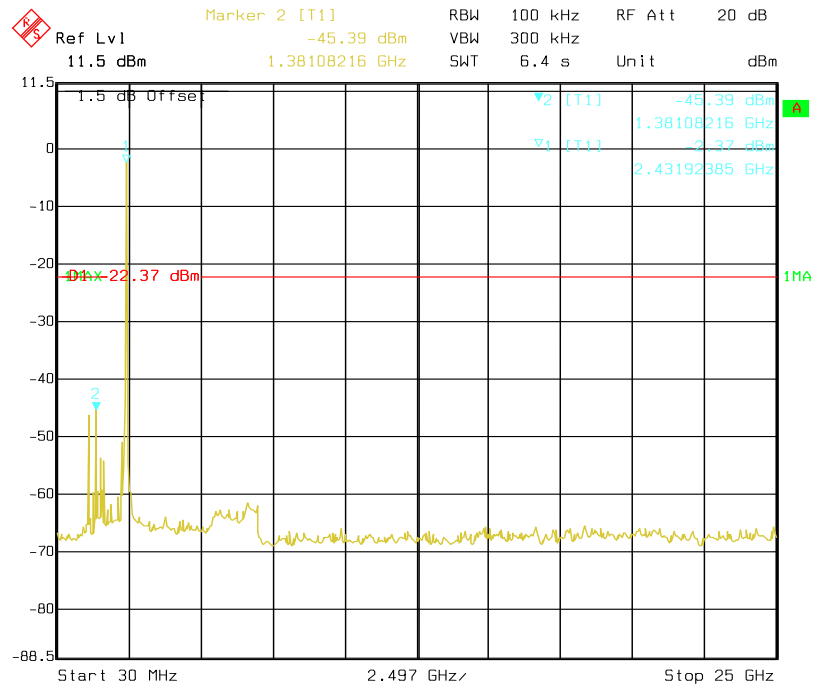
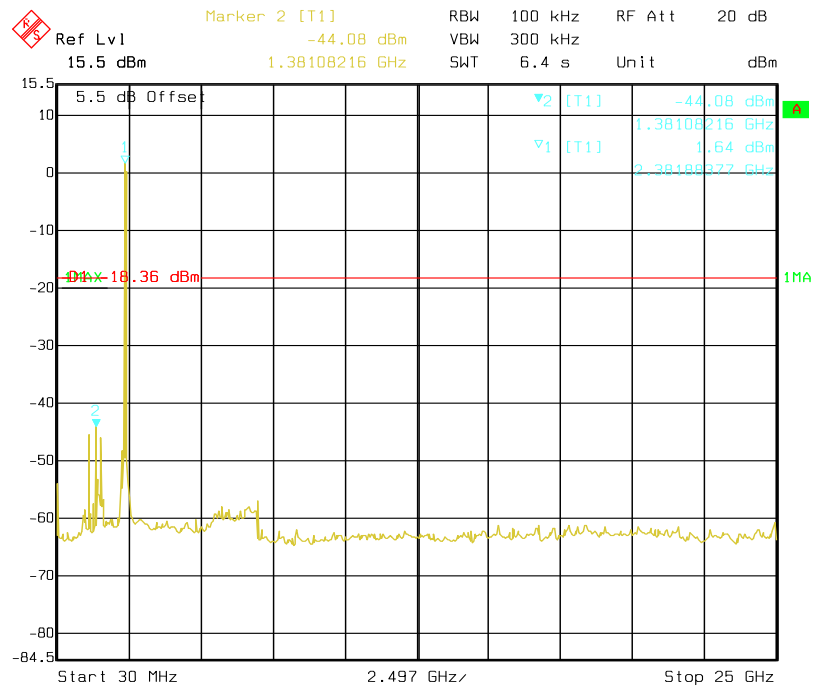


802.11n40 Low Channel (Chain 1)

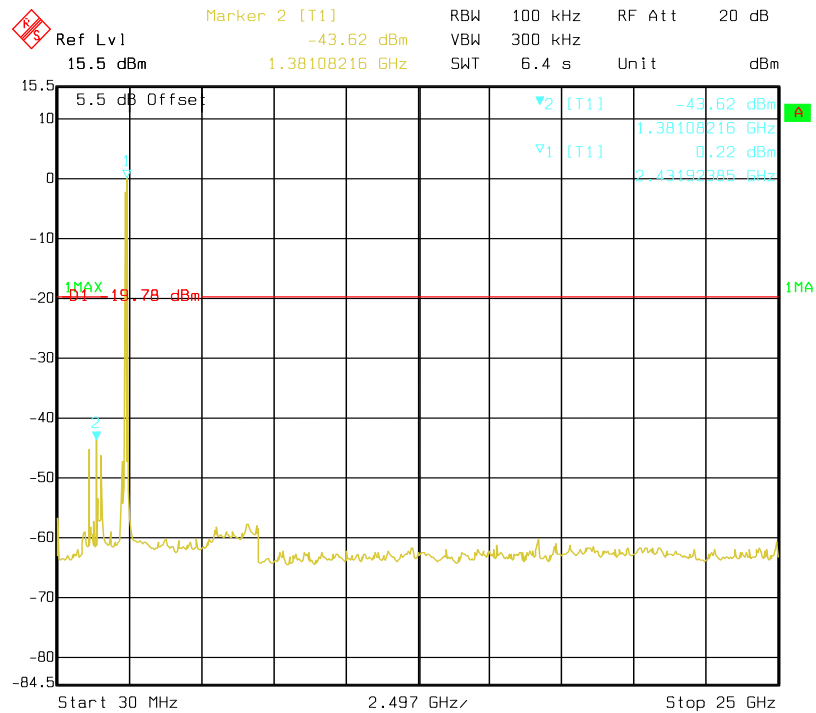


802.11n40 Middle Channel (Chain 1)

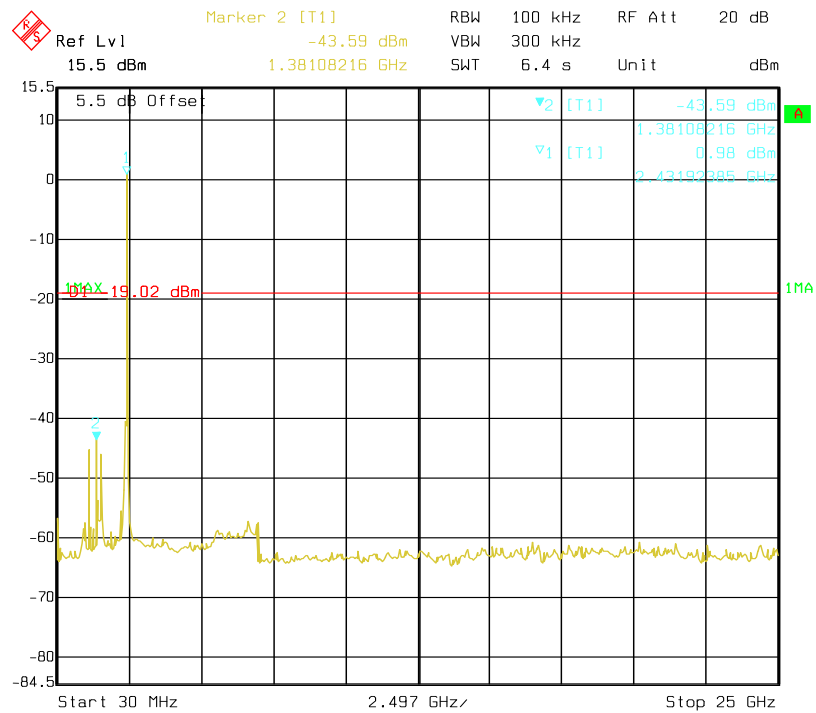


802.11n40 High Channel (Chain 1)**802.11n40 Low Channel (with Combiner)**

802.11n40 Middle Channel (with Combiner)



802.11n40 High Channel (with Combiner)



FCC §15.247(a) (2) – 6dB BANDWIDTH TESTING

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.

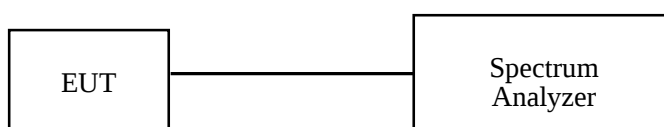
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** 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 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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56%
ATM Pressure:	100.0kPa

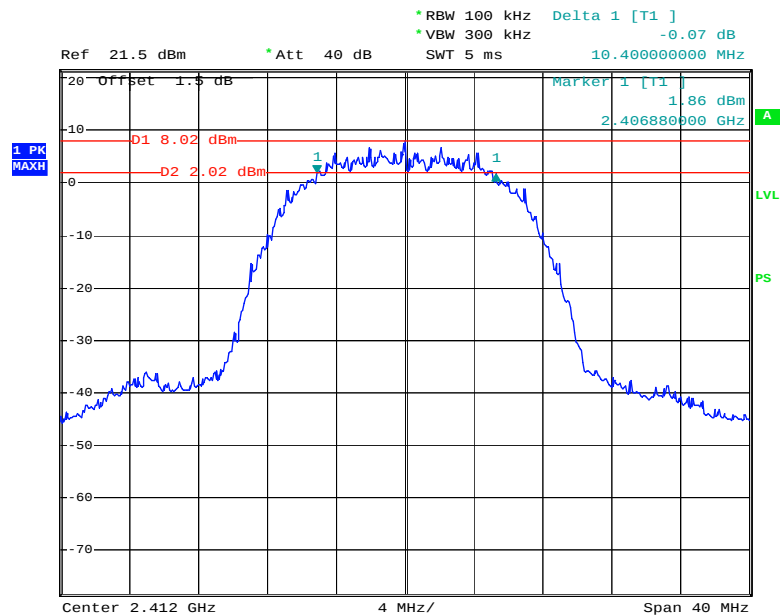
The testing was performed by Vicent Kang on 2009-08-21.

Test Result: Pass.

Please refer to the following tables and plots.

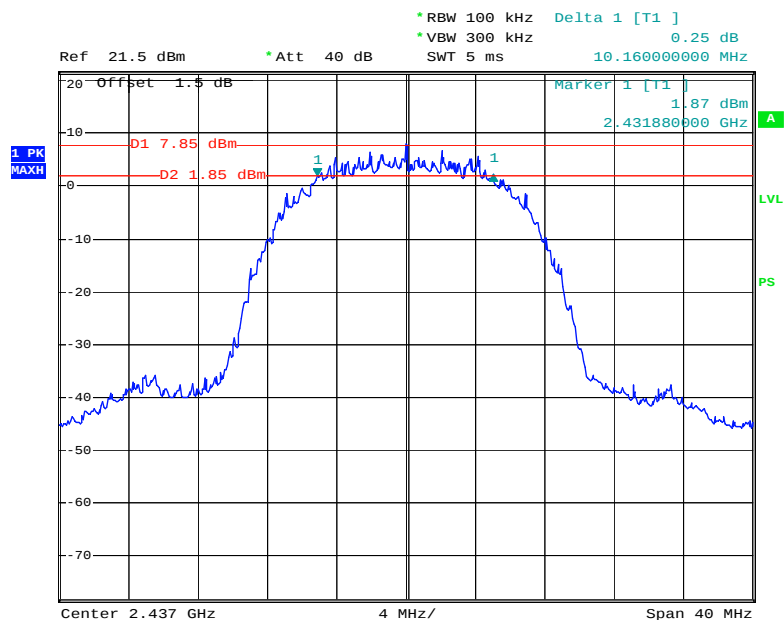
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	Measured 6dB Bandwidth (MHz)	FCC Part 15.247 Limit (kHz)
802.11b Mode				
Low	2412	11	10.40	> 500
Middle	2437	11	10.16	> 500
High	2462	11	10.40	> 500
802.11g Mode				
Low	2412	54	16.56	> 500
Middle	2437	54	16.48	> 500
High	2462	54	16.56	> 500
802.11n20 Mode (Chain 0)				
Low	2412	130	15.84	> 500
Middle	2437	130	15.92	> 500
High	2462	130	15.80	> 500
802.11n20 Mode (Chain 1)				
Low	2412	130	15.92	> 500
Middle	2437	130	16.08	> 500
High	2462	130	16.08	> 500
802.11n40 Mode (Chain 0)				
Low	2422	130	35.52	> 500
Middle	2437	130	35.36	> 500
High	2452	130	35.36	> 500
802.11n40 Mode (Chain 1)				
Low	2422	130	35.36	> 500
Middle	2437	130	35.52	> 500
High	2452	130	35.36	> 500

802.11b Low Channel

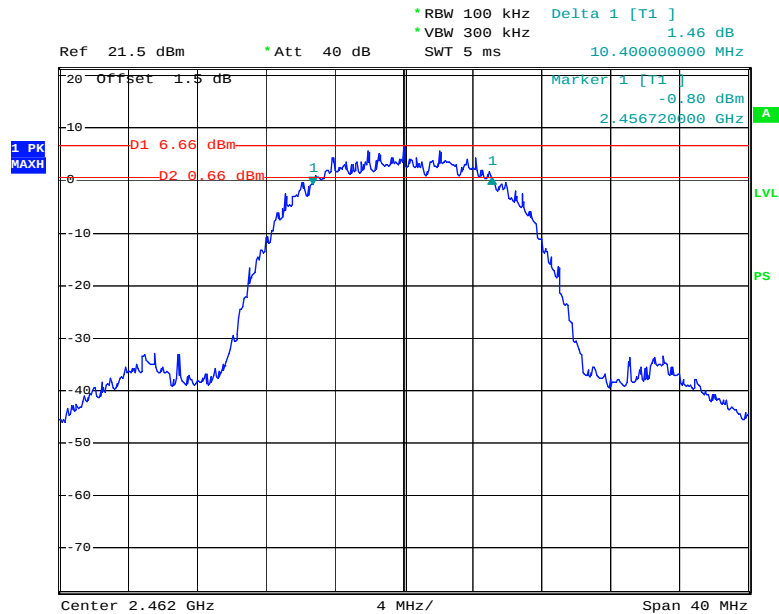


Date: 21.AUG.2009 11:08:42

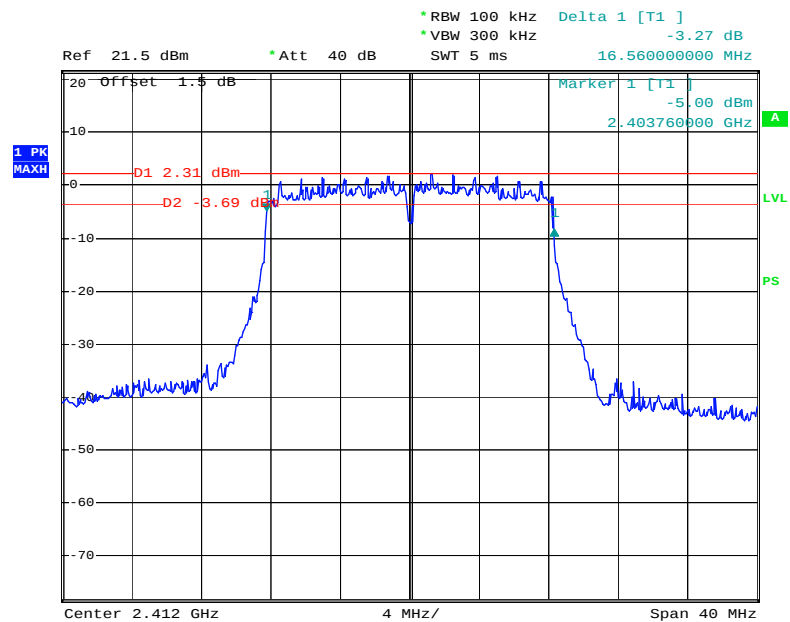
802.11b Middle Channel



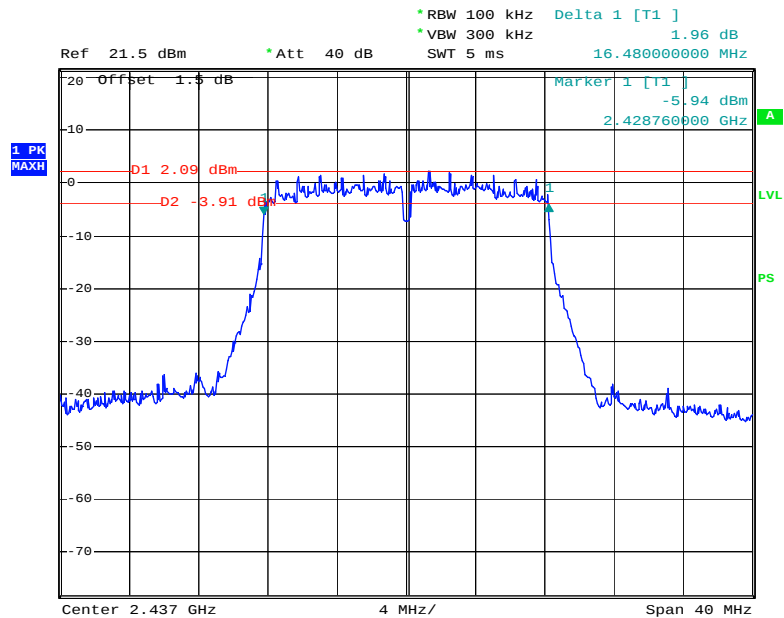
Date: 21.AUG.2009 11:11:21

802.11b High Channel

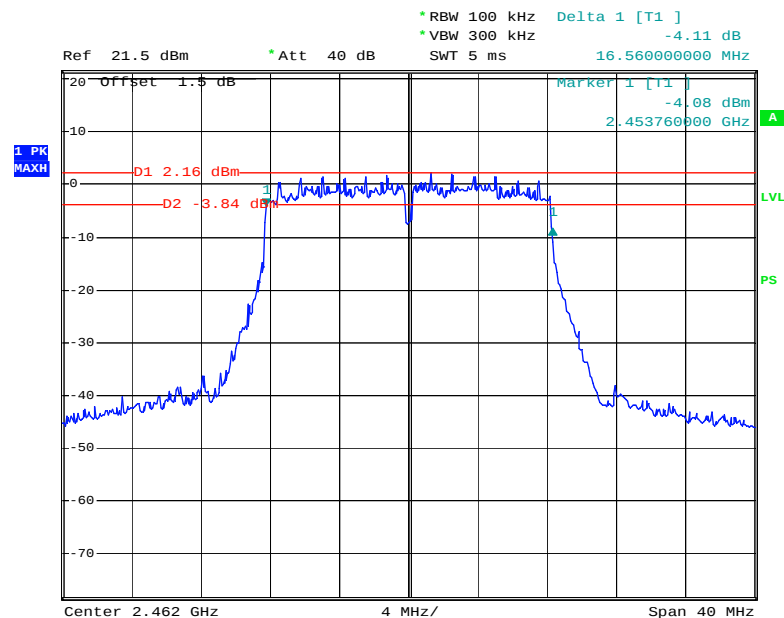
Date: 21.AUG.2009 11:17:58

802.11g Low Channel

Date: 21.AUG.2009 11:46:36

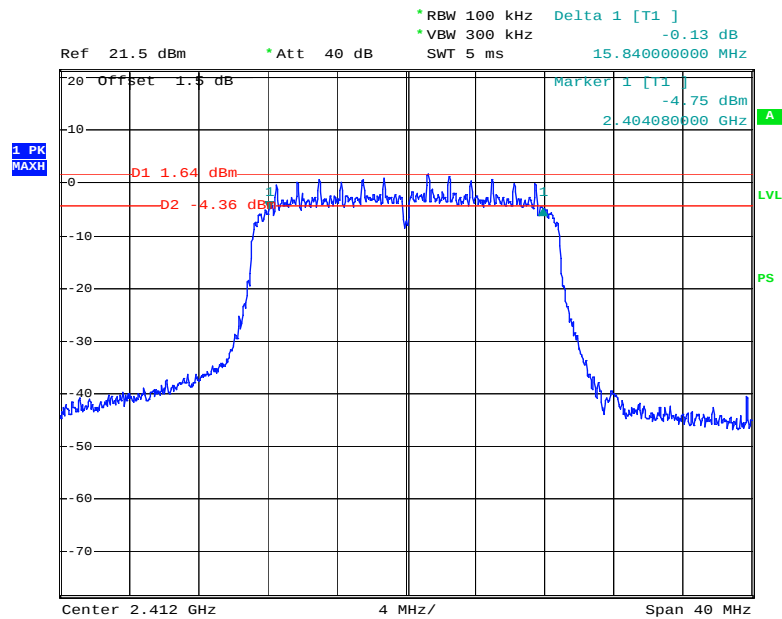
802.11g Middle Channel

Date: 21.AUG.2009 11:43:57

802.11g High Channel

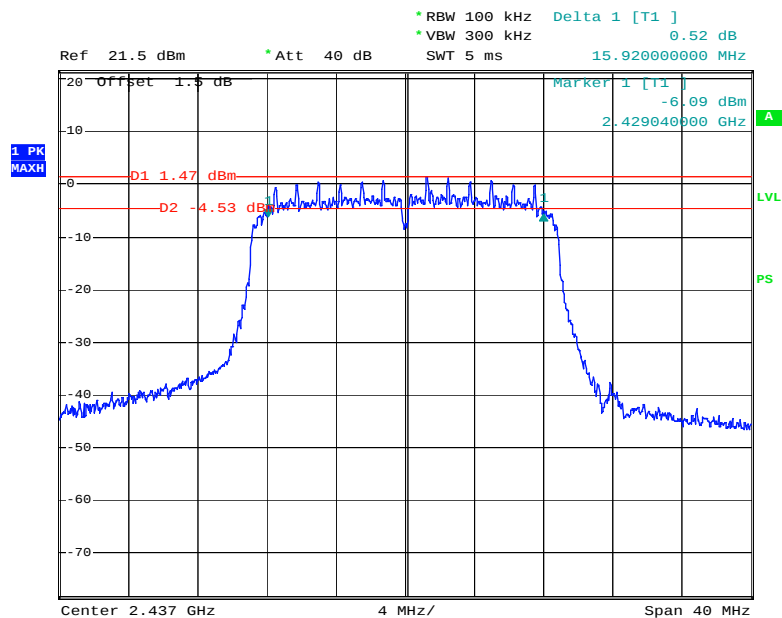
Date: 21.AUG.2009 11:41:25

802.11n20 Low Channel (Chain 0)

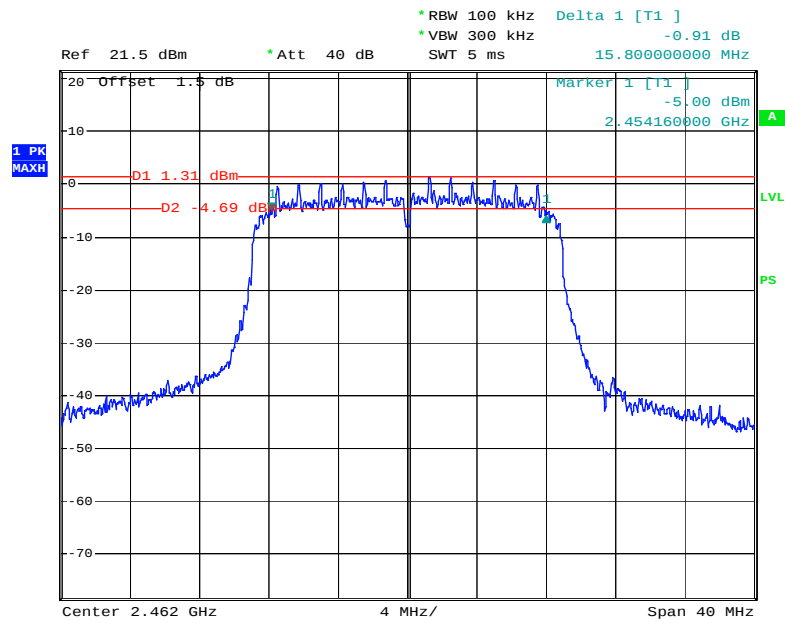


Date: 21.AUG.2009 14:20:29

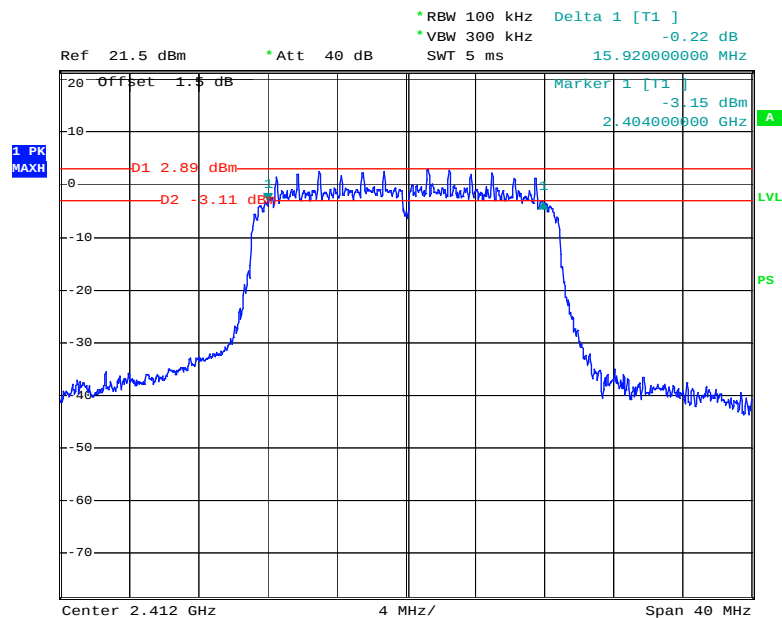
802.11n20 Middle Channel (Chain 0)



Date: 21.AUG.2009 14:24:46

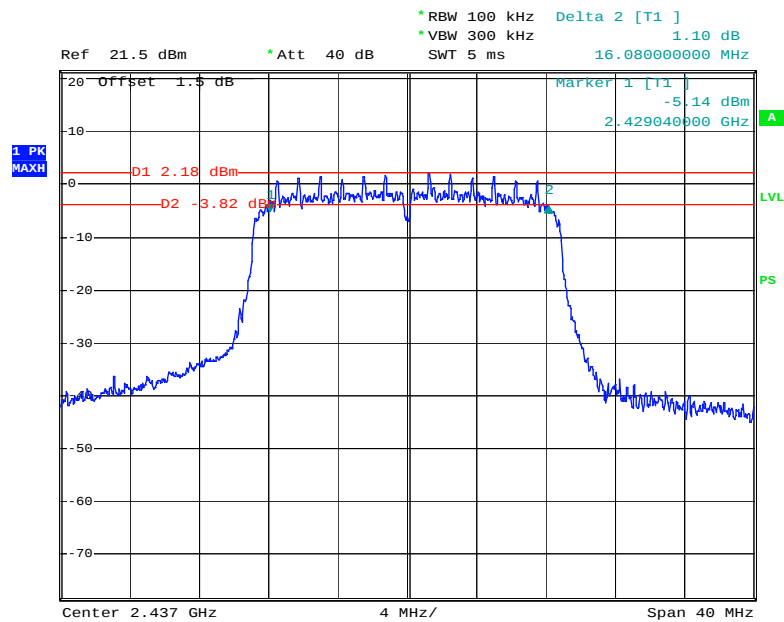
802.11n20 High Channel (Chain 0)

Date: 21.AUG.2009 14:29:02

802.11n20 Low Channel (Chain 1)

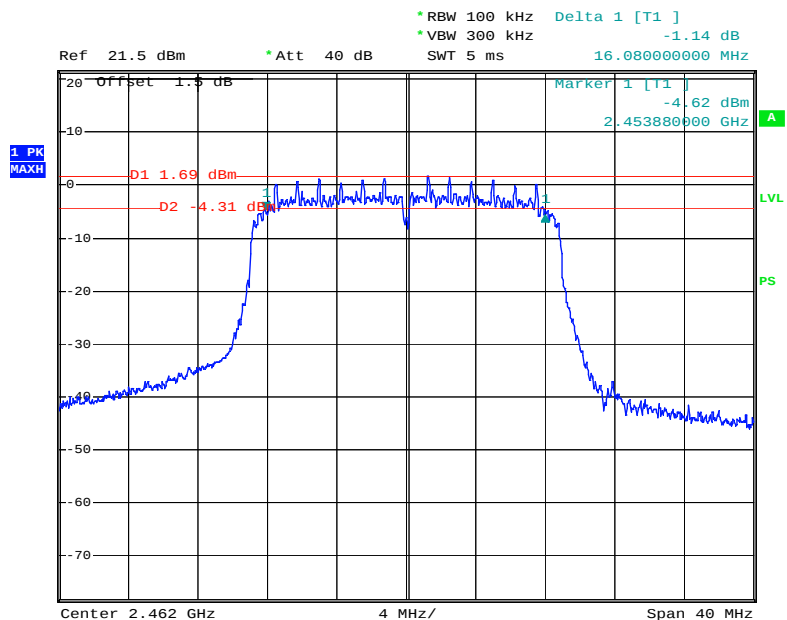
Date: 21.AUG.2009 14:15:48

802.11n20 Middle Channel (Chain 1)



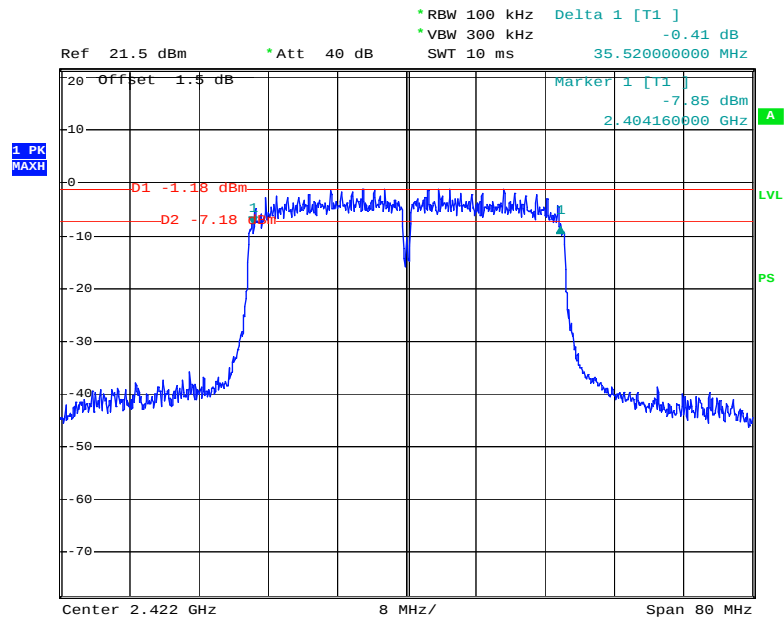
Date: 21.AUG.2009 14:12:16

802.11n20 High Channel (Chain 1)



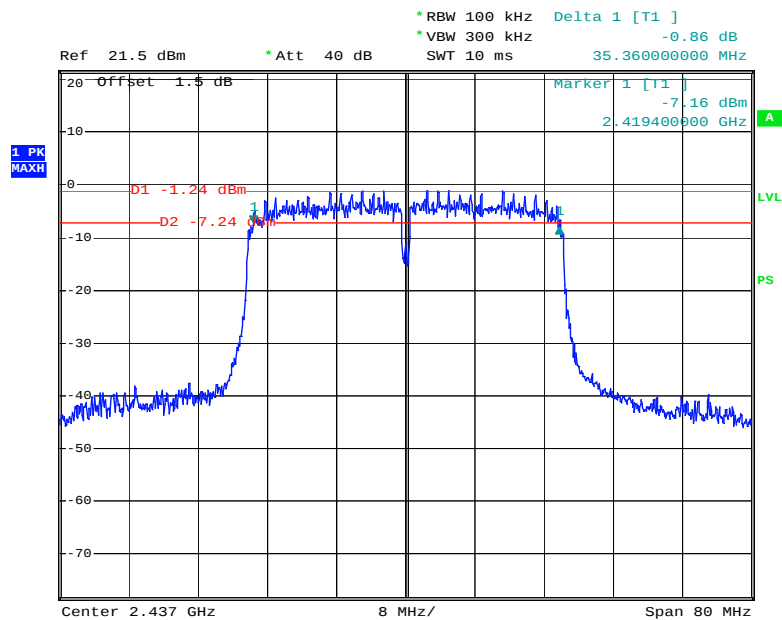
Date: 21.AUG.2009 13:53:54

802.11n40 Low Channel (Chain 0)



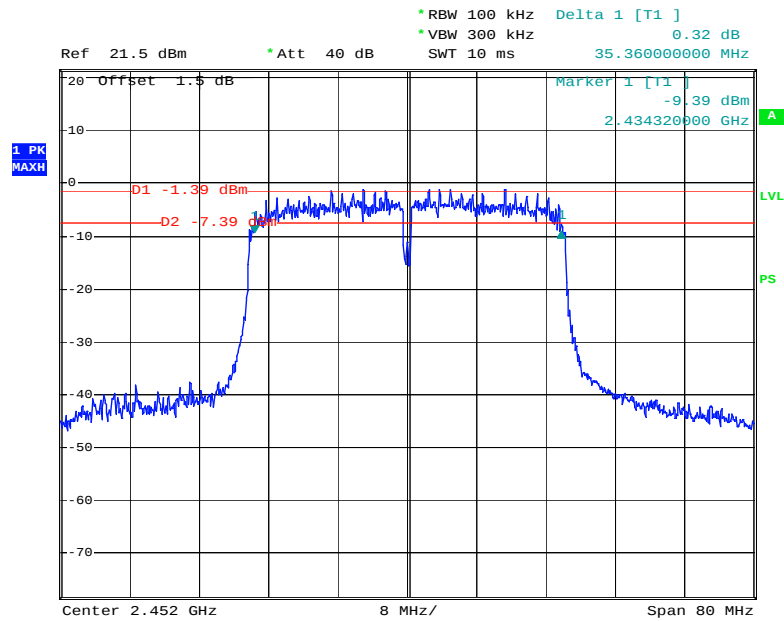
Date: 21.AUG.2009 14:45:46

802.11n40 Middle Channel (Chain 0)



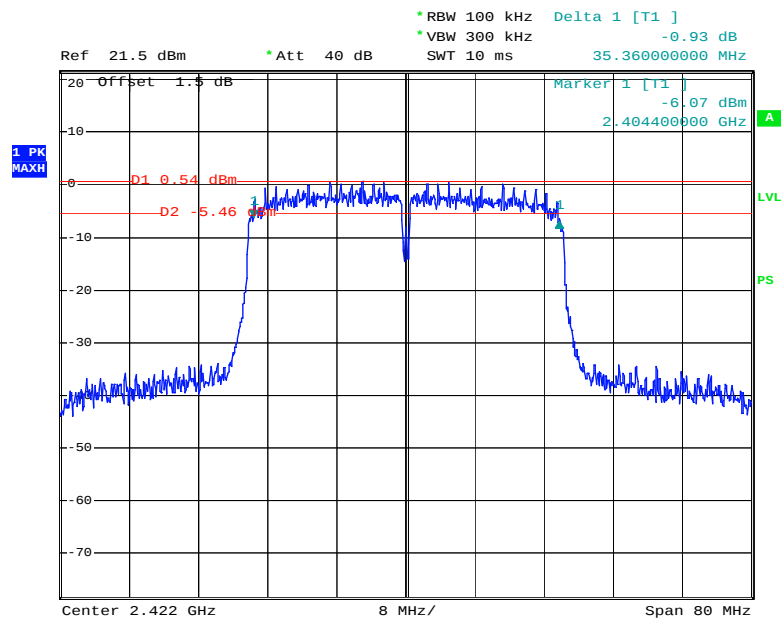
Date: 21.AUG.2009 14:41:40

802.11n40 High Channel (Chain 0)



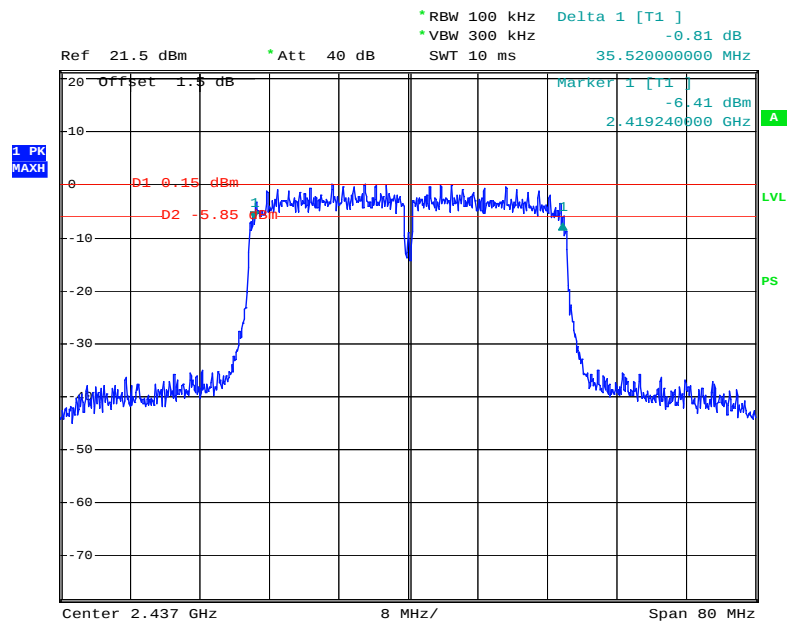
Date: 21.AUG.2009 14:36:54

802.11n40 Low Channel (Chain 1)



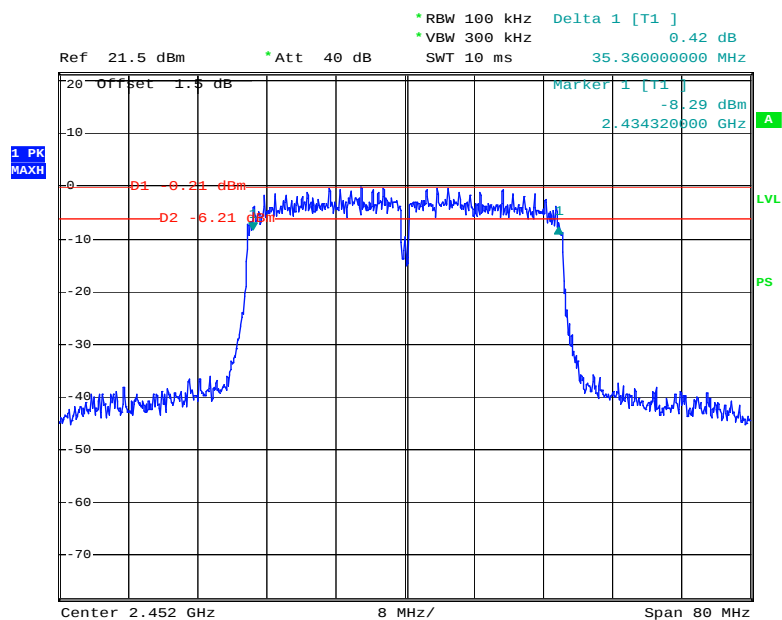
Date: 21.AUG.2009 14:49:12

802.11n40 Middle Channel (Chain 1)



Date: 21.AUG.2009 14:55:02

802.11n40 High Channel (Chain 1)



Date: 21.AUG.2009 14:59:57

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

Applicable Standard

According to §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.

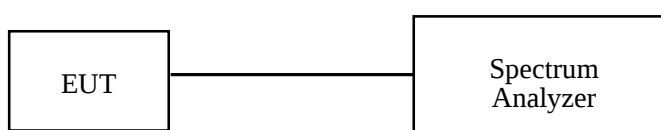
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** 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 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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2009-08-20 to 2009-08-21.

Test Mode: Transmitting

802.11b Mode:

Channel	Channel Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)	Limit (dBm)
Low	2412	11	17.54	30
Middle	2437	11	16.39	30
High	2462	11	16.38	30

802.11g Mode:

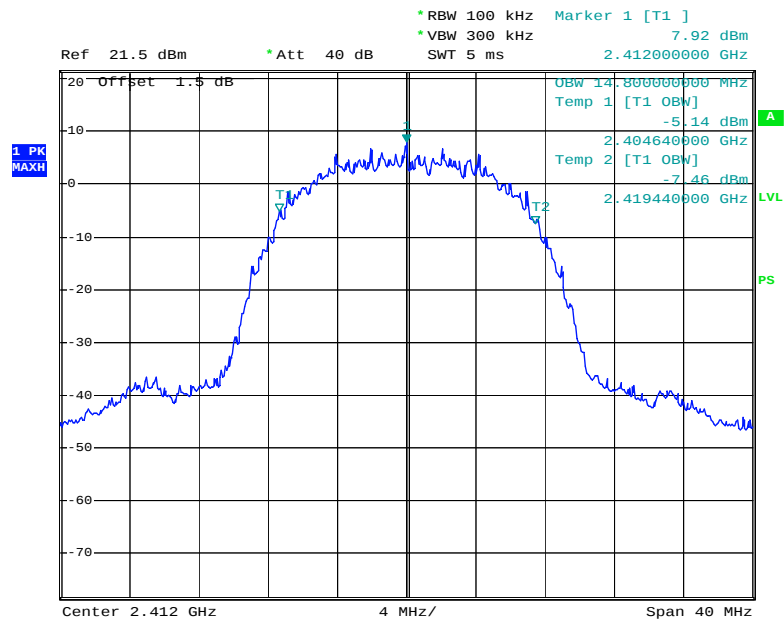
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)	Limit (dBm)
Low	2412	54	13.68	30
Middle	2437	54	14.10	30
High	2462	54	14.09	30

802.11n20 Mode:

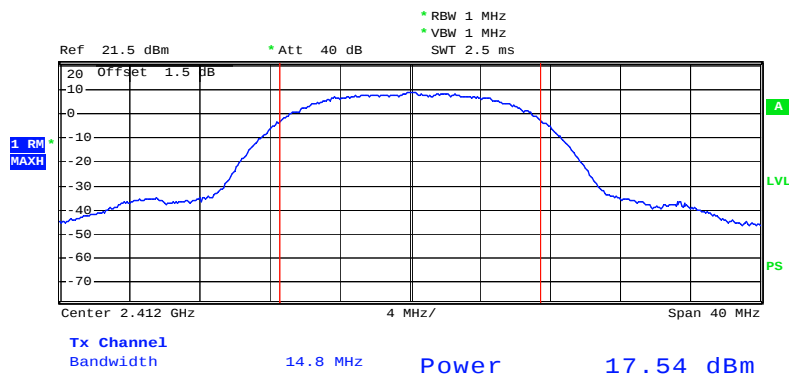
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)	Total Power (dBm)	Limit (dBm)
Low (Chain0)	2412	130	15.01	18.35	30
Low (Chain1)	2412	130	15.65		30
Middle (Chain0)	2437	130	14.80	17.66	30
Middle (Chain1)	2437	130	14.50		30
High (Chain0)	2462	130	14.92	17.97	30
High (Chain1)	2462	130	14.99		30

802.11n40 Mode:

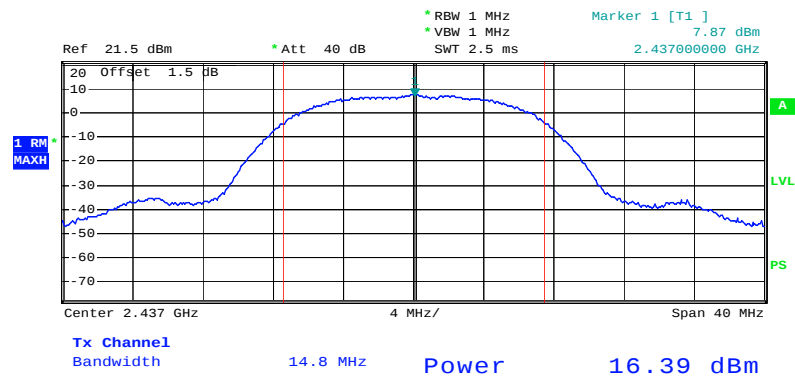
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	Output Power (dBm)	Total Power (dBm)	Limit (dBm)
Low (Chain0)	2422	130	13.68	17.07	30
Low (Chain1)	2422	130	14.40		30
Middle (Chain0)	2437	130	13.54	16.53	30
Middle (Chain1)	2437	130	13.70		30
High (Chain0)	2452	130	13.50	16.63	30
High (Chain1)	2452	130	13.74		30

802.11b Mode:**99% Occupied Bandwidth**

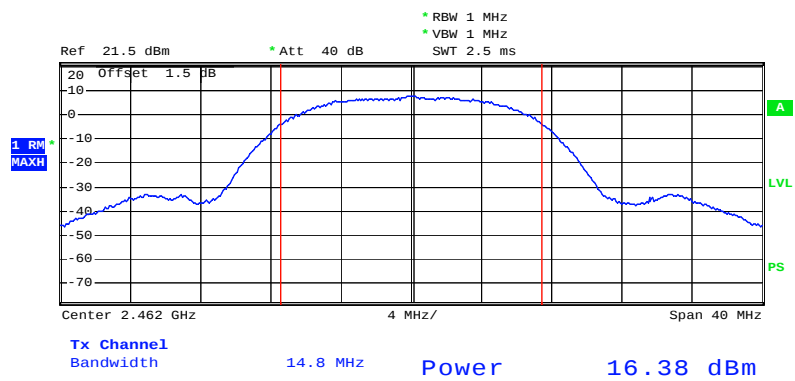
Date: 20.AUG.2009 15:33:07

802.11b RF Output Power, Low Channel

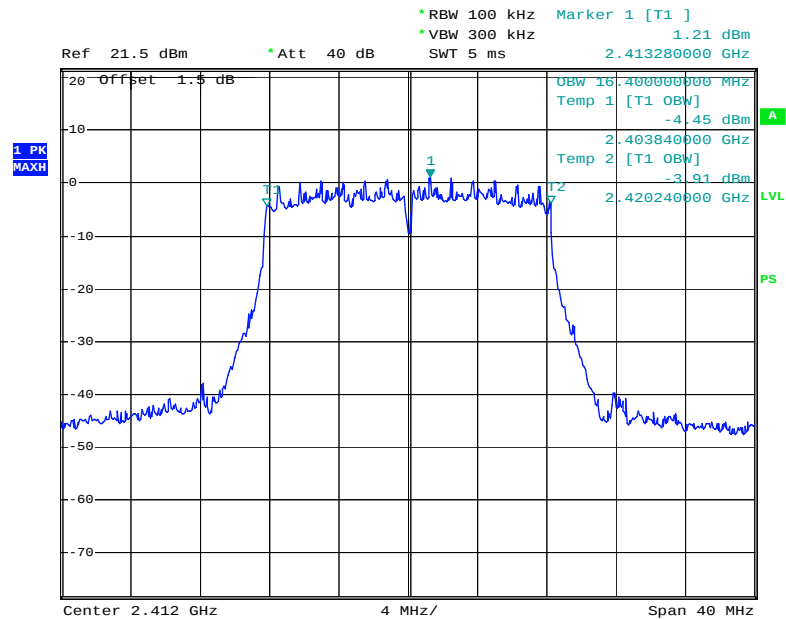
Date: 20.AUG.2009 15:34:39

802.11b RF Output Power, Middle Channel

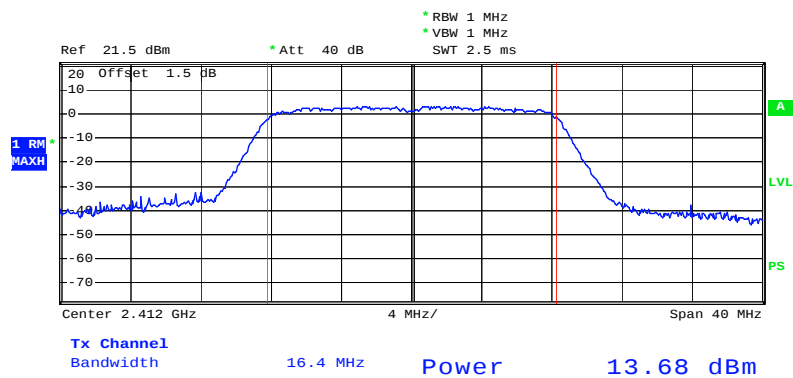
Date: 20.AUG.2009 16:17:15

802.11b RF Output Power, High Channel

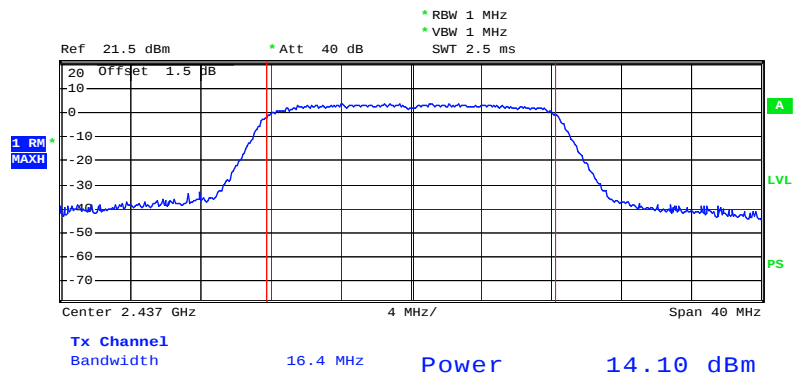
Date: 20.AUG.2009 16:18:55

802.11g Mode:**99% Occupied Bandwidth**

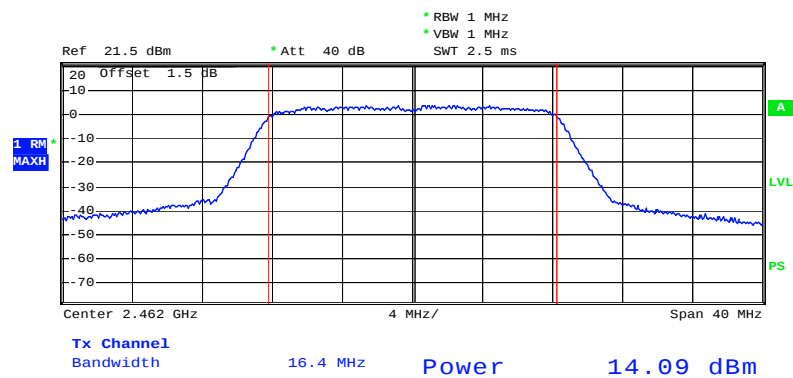
Date: 20.AUG.2009 16:24:00

802.11g RF Output Power, Low Channel

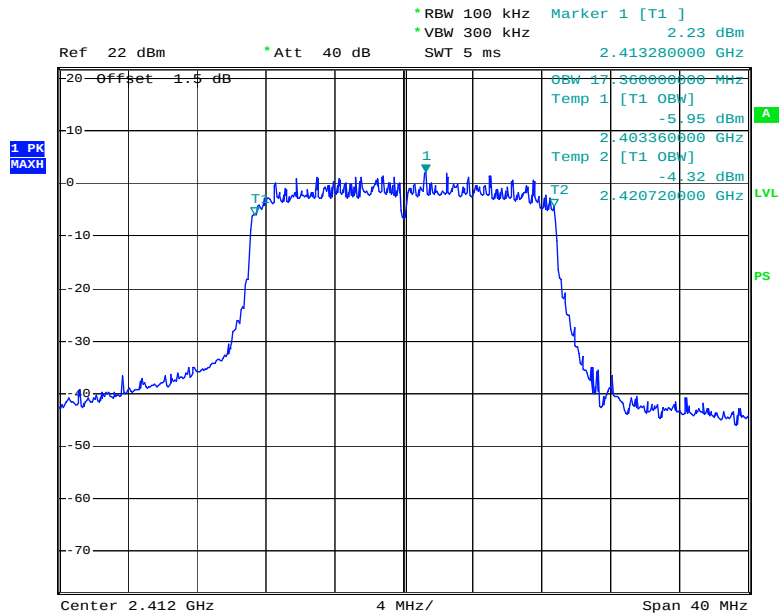
Date: 20.AUG.2009 16:31:36

802.11g RF Output Power, Middle Channel

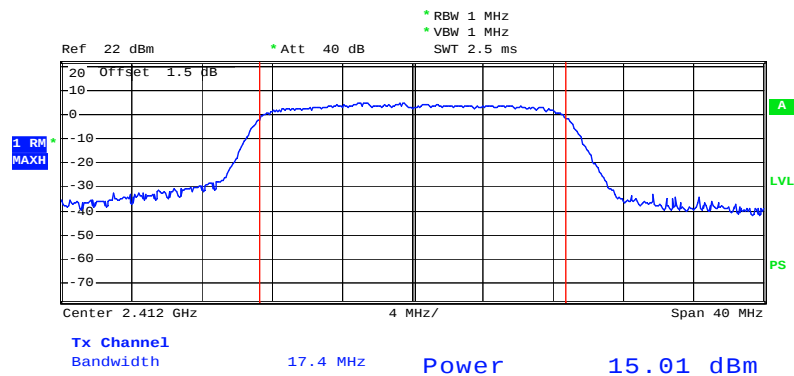
Date: 20.AUG.2009 17:07:28

802.11g RF Output Power, High Channel

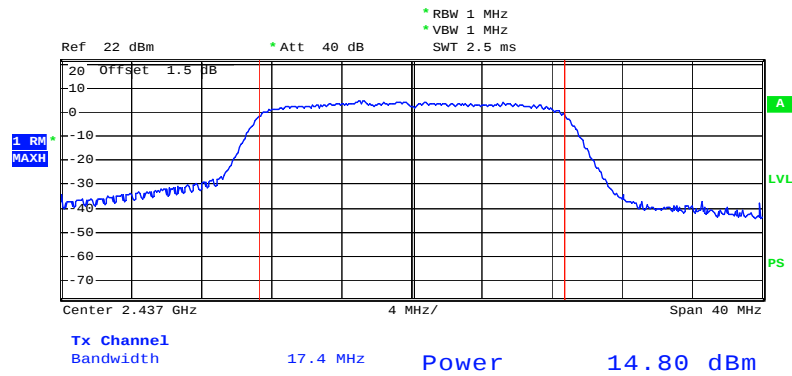
Date: 20.AUG.2009 16:59:25

802.11n20 Mode:**99% Occupied Bandwidth**

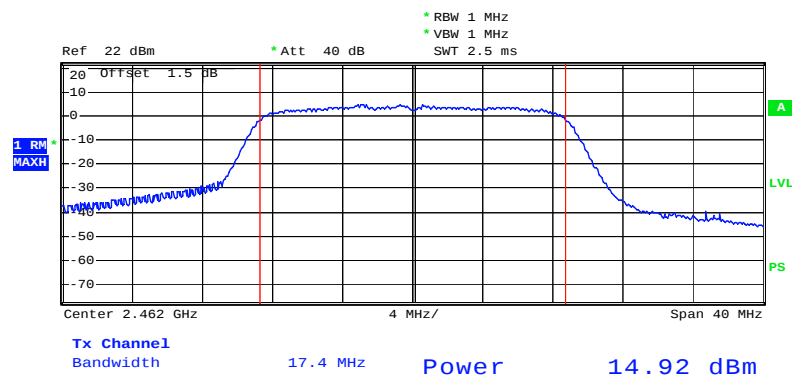
Date: 21.AUG.2009 09:26:16

802.11n20 RF Output Power, Low Channel (Chain 0)

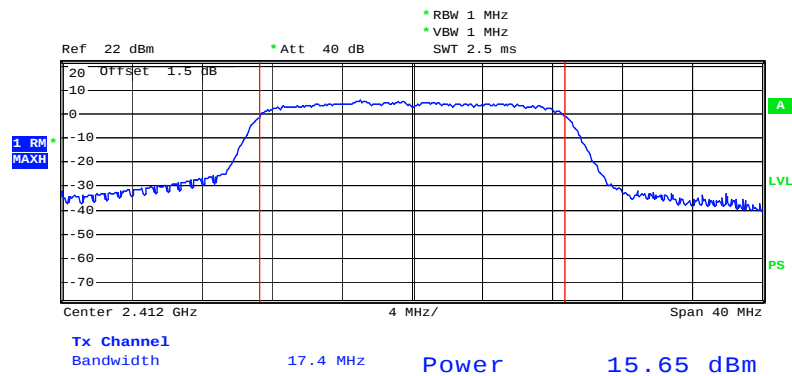
Date: 21.AUG.2009 09:30:35

802.11n20 RF Output Power, Middle Channel (Chain 0)

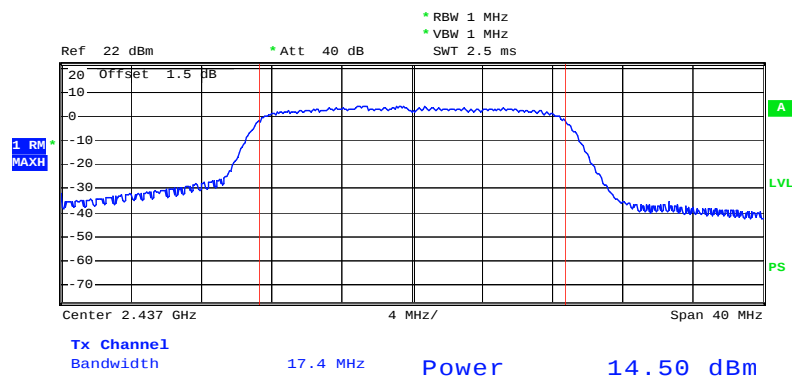
Date: 21.AUG.2009 09:37:09

802.11n20 RF Output Power, High Channel (Chain 0)

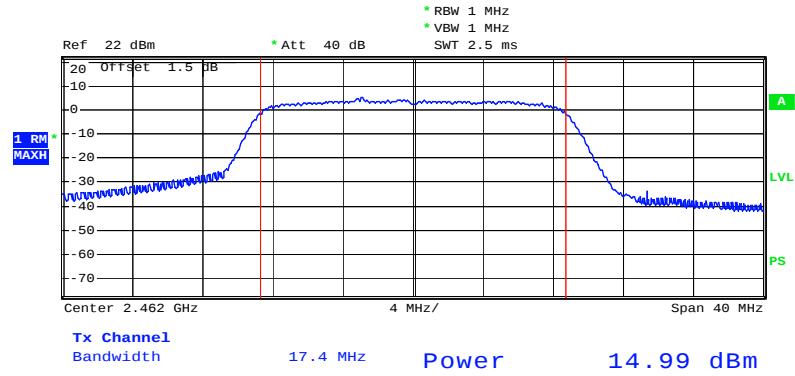
Date: 21.AUG.2009 09:40:48

802.11n20 RF Output Power, Low Channel (Chain 1)

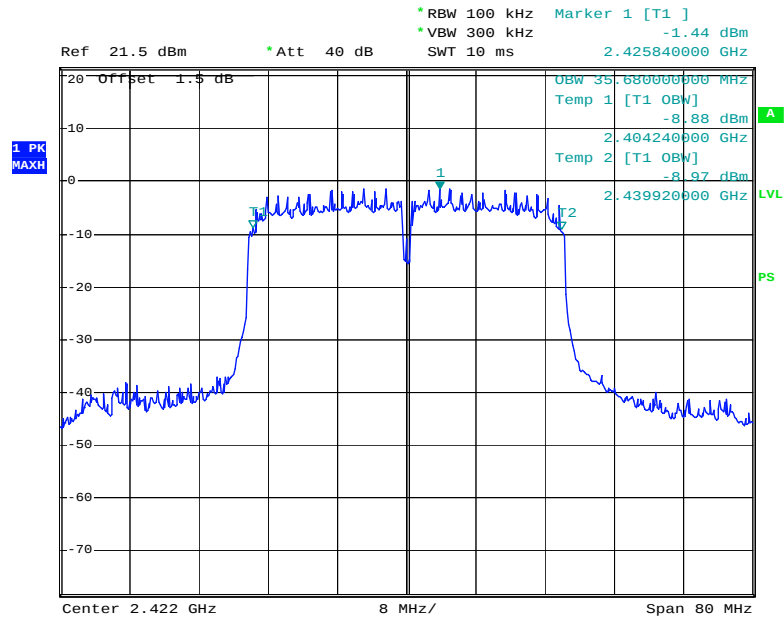
Date: 21.AUG.2009 09:58:46

802.11n20 RF Output Power, Middle Channel (Chain 1)

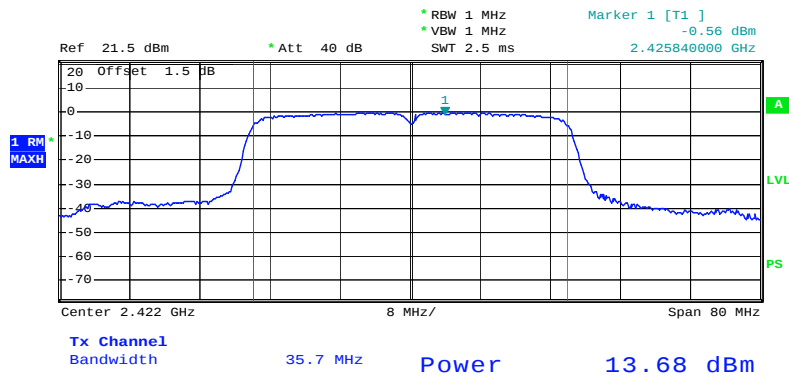
Date: 21.AUG.2009 09:54:56

802.11n20 RF Output Power, High Channel (Chain 1)

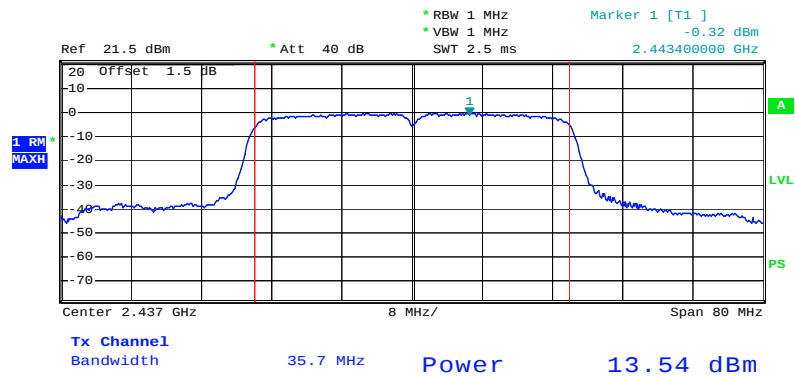
Date: 21.AUG.2009 09:47:33

802.11n40 Mode:**99% Occupied Bandwidth**

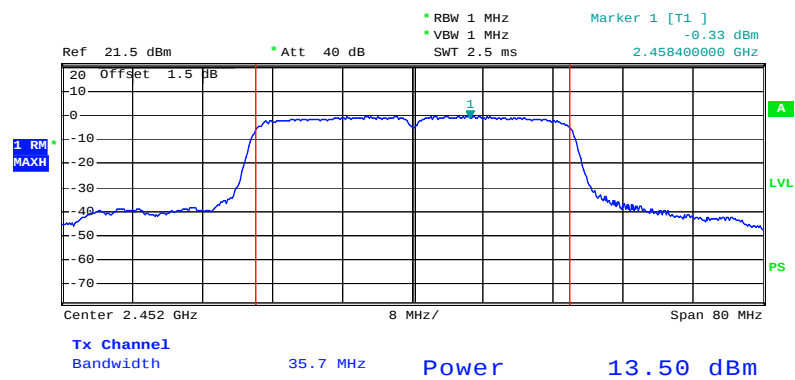
Date: 21.AUG.2009 10:16:58

802.11n40 RF Output Power, Low Channel (Chain 0)

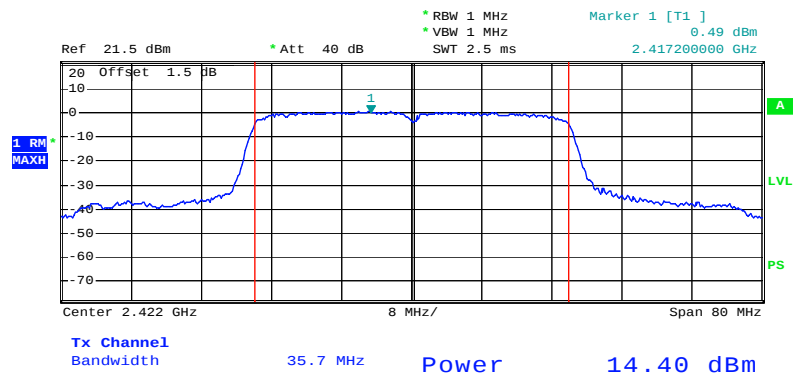
Date: 21.AUG.2009 10:25:44

802.11n40 RF Output Power, Middle Channel (Chain 0)

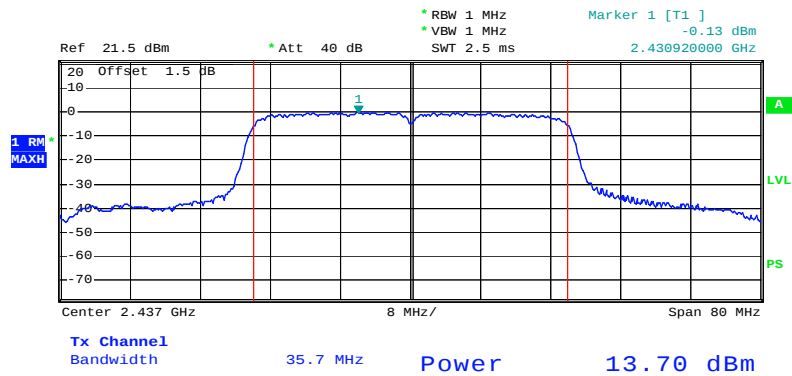
Date: 21.AUG.2009 10:29:34

802.11n40 RF Output Power, High Channel (Chain 0)

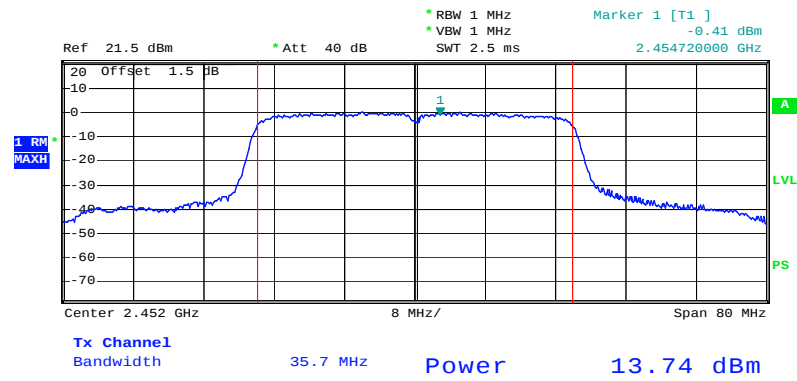
Date: 21.AUG.2009 10:32:49

802.11n40 RF Output Power, Low Channel (Chain 1)

Date: 21.AUG.2009 10:48:11

802.11n40 RF Output Power, Middle Channel (Chain 1)

Date: 21.AUG.2009 10:46:39

802.11n40 RF Output Power, High Channel (Chain 1)

Date: 21.AUG.2009 10:39:55

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** 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 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 1 MHz and VBW of spectrum analyzer to 1 MHz 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 Data

Environmental Conditions

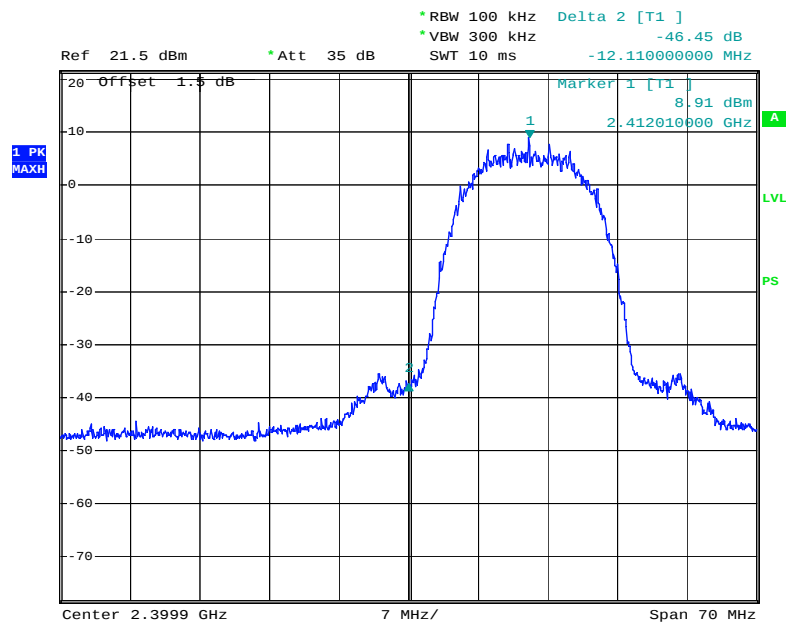
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2009-08-21.

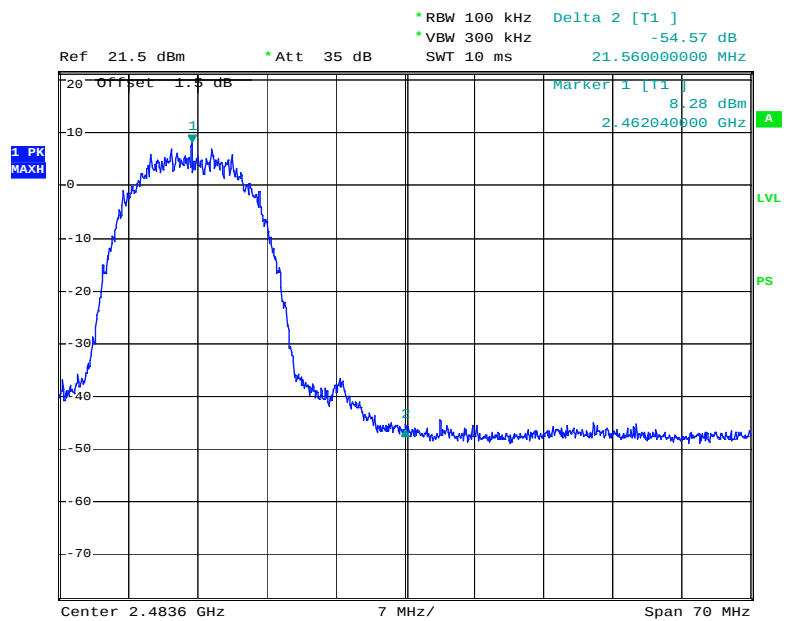
Test Result: *Compliant.*

Frequency (MHz)	Data Rate (Mbps)	Detector (PK/AV)	Delta Value (dBc)	Limit (dBc)	Result
802.11b Mode					
2399.9	11	PK	46.45	20	Pass
2483.6	11	PK	54.57	20	Pass
802.11g Mode					
2399.9	54	PK	40.74	20	Pass
2483.6	54	PK	50.09	20	Pass
802.11n20 Mode (Chain 0)					
2399.9	130	PK	38.23	20	Pass
2483.6	130	PK	47.66	20	Pass
802.11n20 Mode (Chain 1)					
2399.9	130	PK	36.88	20	Pass
2483.6	130	PK	47.89	20	Pass
802.11n20 Mode (with Combiner)					
2399.9	130	PK	37.20	20	Pass
2483.6	130	PK	48.99	20	Pass
802.11n40 Mode (Chain 0)					
2399.9	130	PK	37.32	20	Pass
2483.6	130	PK	44.72	20	Pass
802.11n40 Mode (Chain 1)					
2399.9	130	PK	38.64	20	Pass
2483.6	130	PK	42.48	20	Pass
802.11n40 Mode (with Combiner)					
2399.9	130	PK	39.10	20	Pass
2483.6	130	PK	43.37	20	Pass

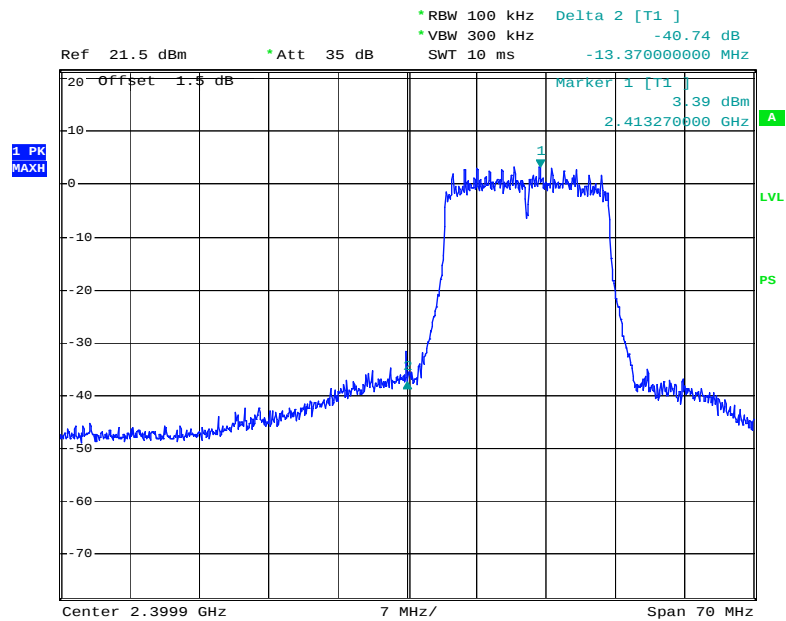
Please refer to following plots.

802.11b: Band Edge, Left Side

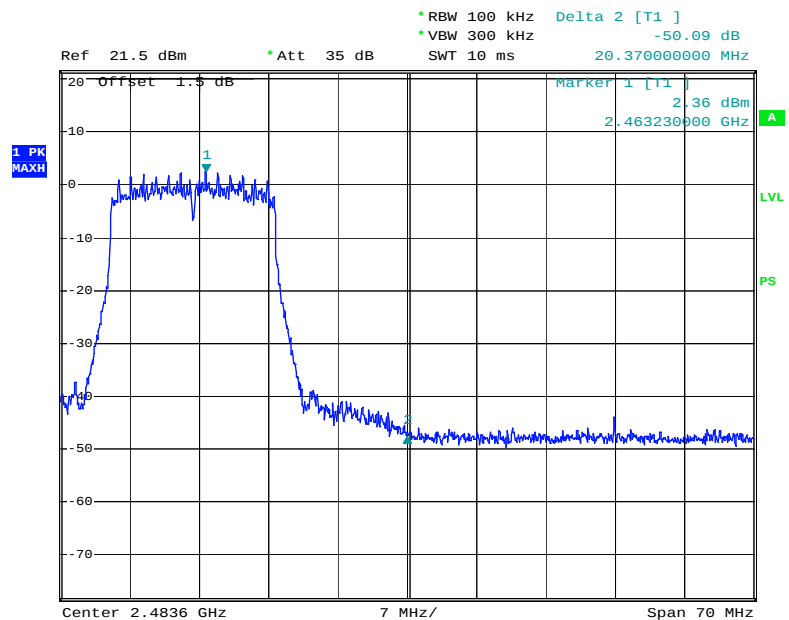
Date: 21.AUG.2009 15:26:55

802.11b: Band Edge, Right Side

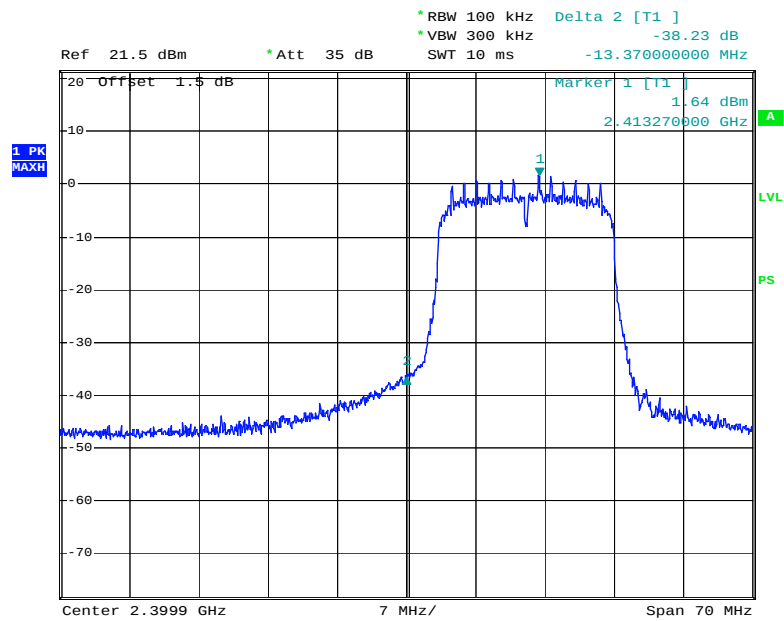
Date: 21.AUG.2009 15:28:58

802.11g: Band Edge, Left Side

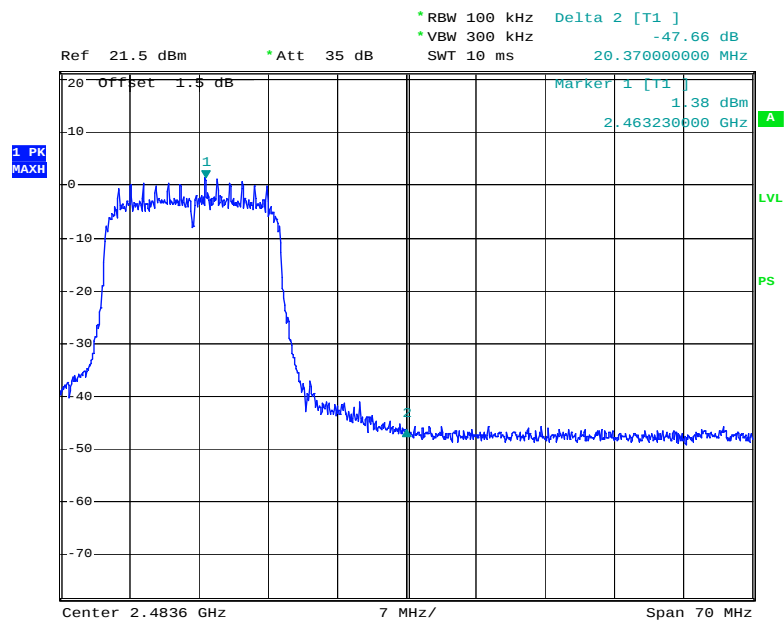
Date: 21.AUG.2009 15:32:01

802.11g: Band Edge, Right Side

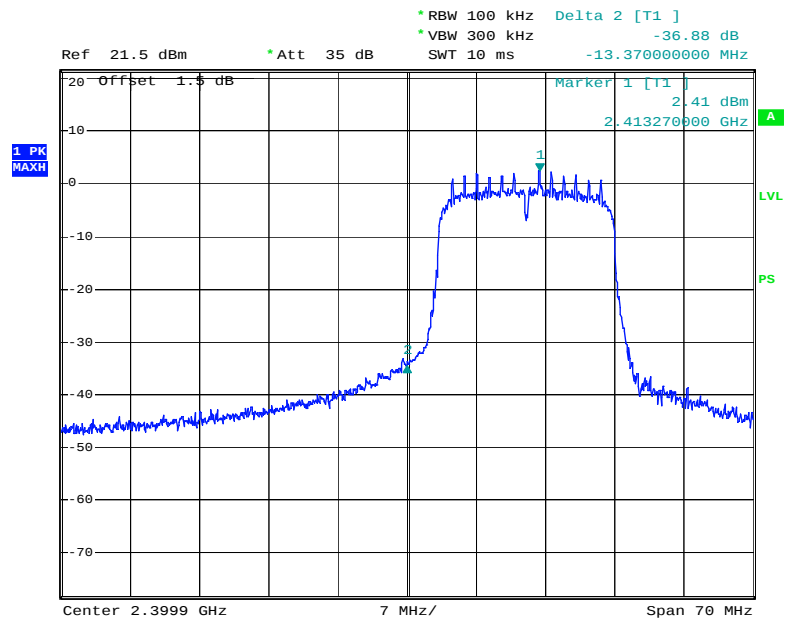
Date: 21.AUG.2009 15:33:18

802.11n20: Band Edge, Left Side (Chain 0)

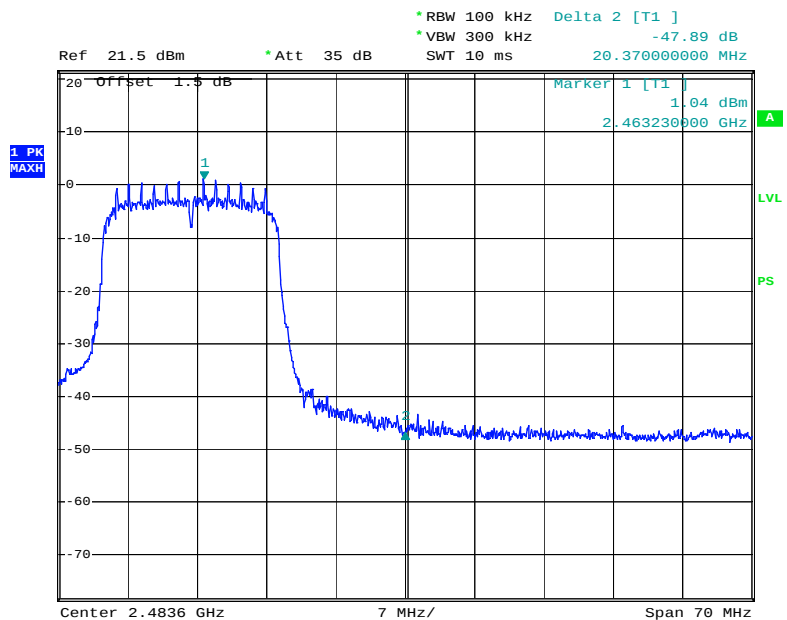
Date: 21.AUG.2009 15:57:31

802.11n20: Band Edge, Right Side (Chain 0)

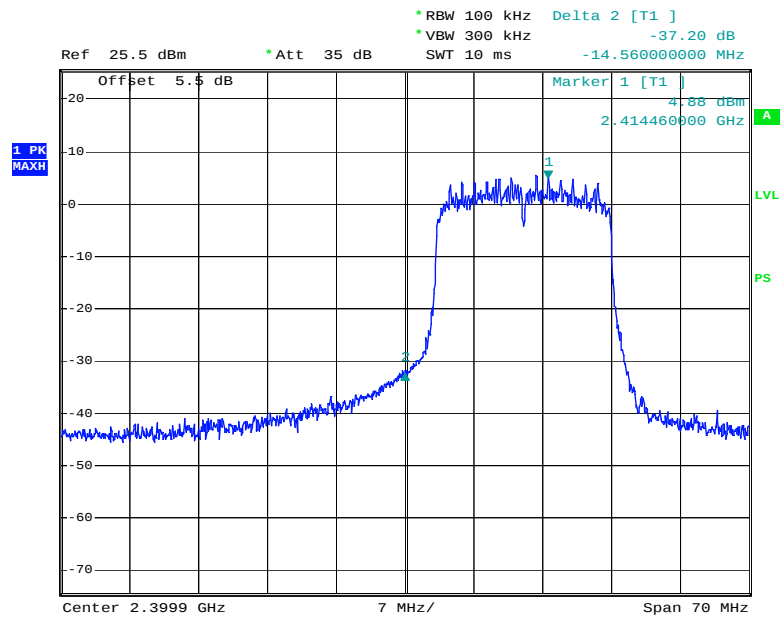
Date: 21.AUG.2009 15:52:44

802.11n20: Band Edge, Left Side (Chain 1)

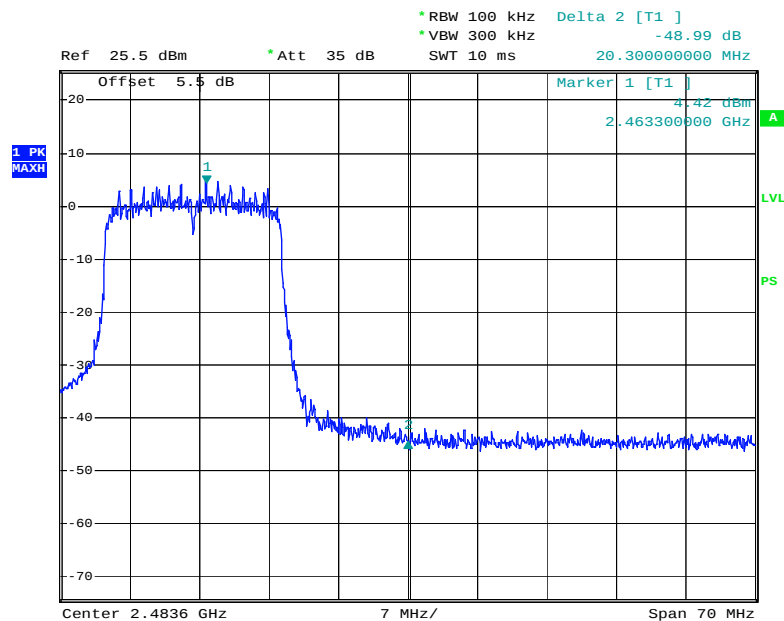
Date: 21.AUG.2009 15:47:32

802.11n20: Band Edge, Right Side (Chain 1)

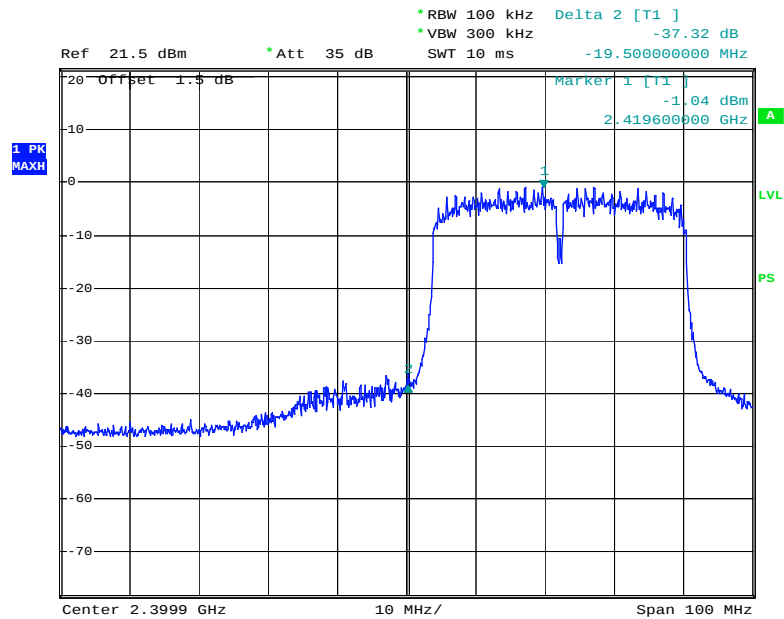
Date: 21.AUG.2009 15:50:45

802.11n20: Band Edge, Left Side (with Combiner)

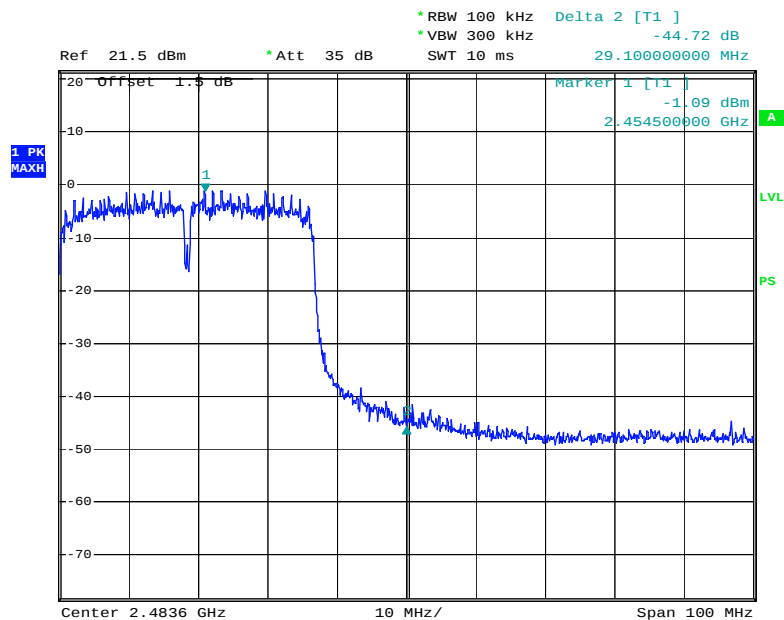
Date: 21.AUG.2009 16:39:29

802.11n20: Band Edge, Right Side (with Combiner)

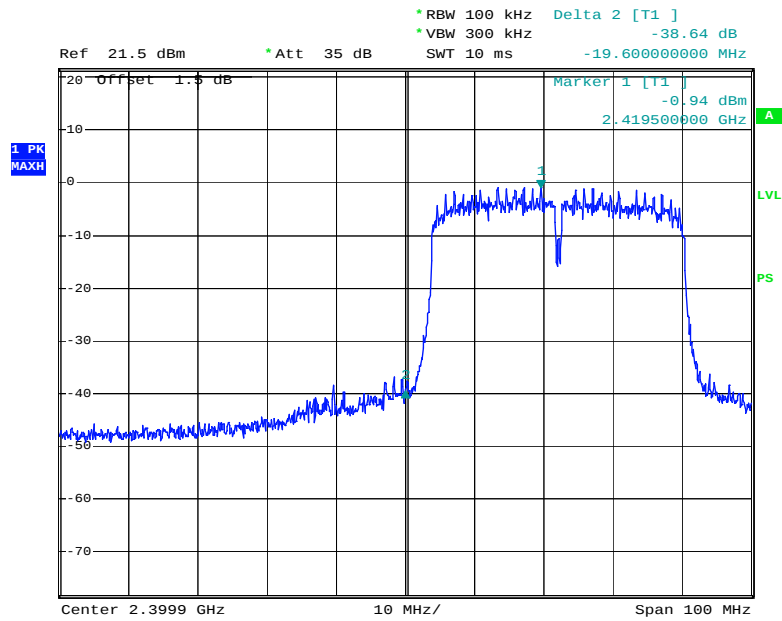
Date: 21.AUG.2009 16:40:18

802.11n40: Band Edge, Left Side (Chain 0)

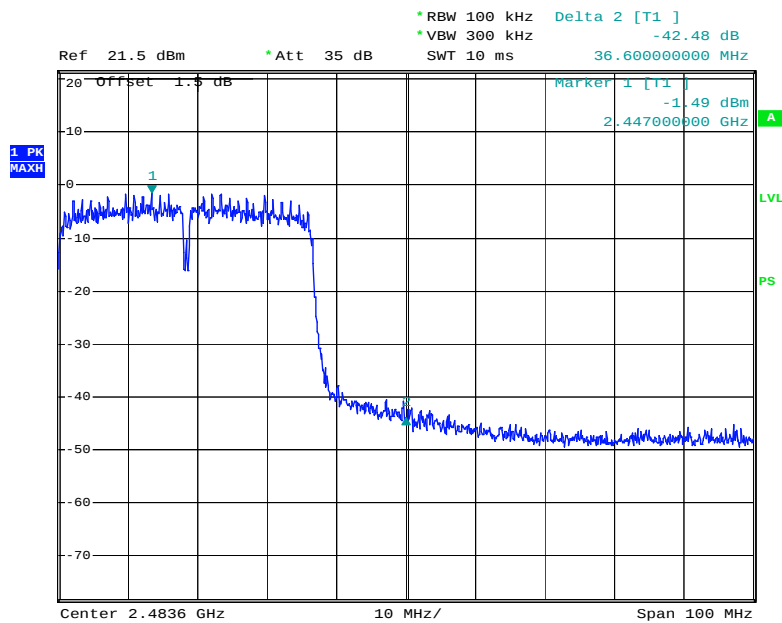
Date: 21.AUG.2009 16:07:09

802.11n40: Band Edge, Right Side (Chain 0)

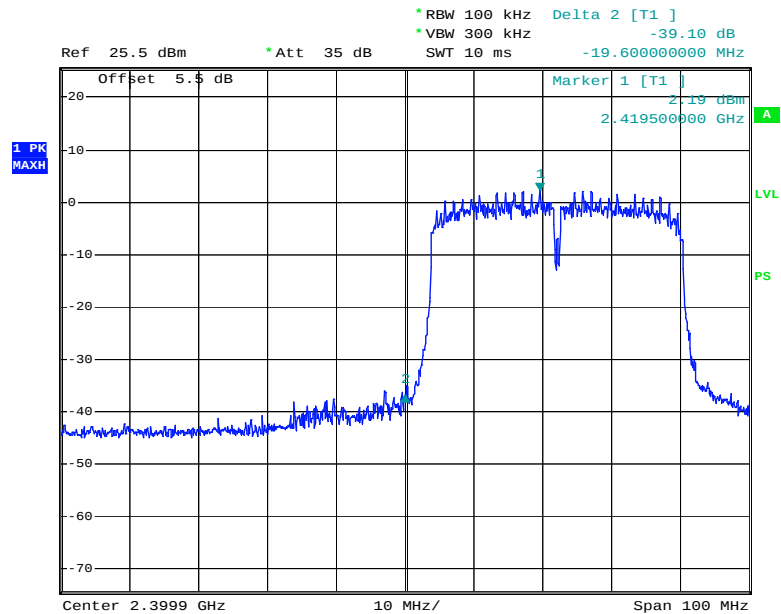
Date: 21.AUG.2009 16:08:38

802.11n40: Band Edge, Left Side (Chain 1)

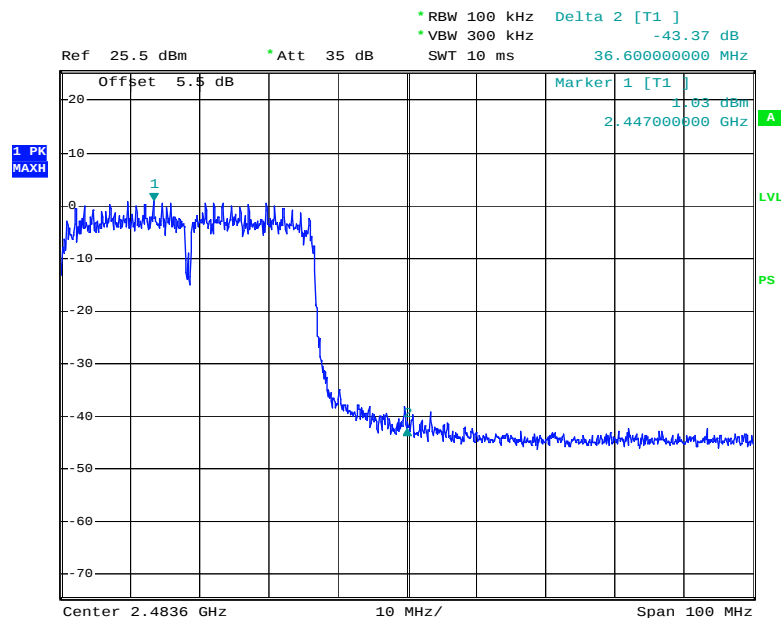
Date: 21.AUG.2009 16:11:18

802.11n40: Band Edge, Right Side (Chain 1)

Date: 21.AUG.2009 16:10:03

802.11n40: Band Edge, Left Side (with Combiner)

Date: 21.AUG.2009 16:37:09

802.11n40: Band Edge, Right Side (with Combiner)

Date: 21.AUG.2009 16:37:58

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** 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 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 Data**Environmental Conditions**

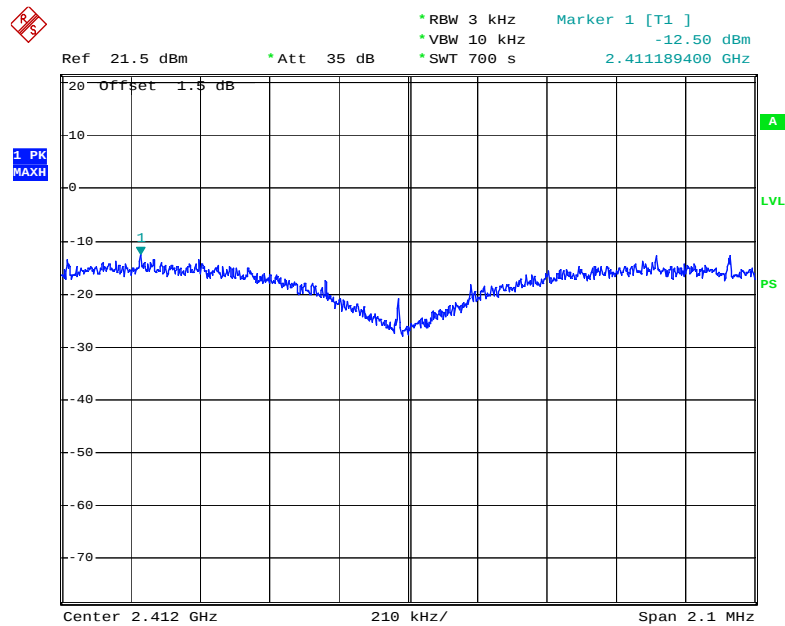
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0kPa

The testing was performed by Vicent Kang on 2009-08-27 & 2009-09-10.

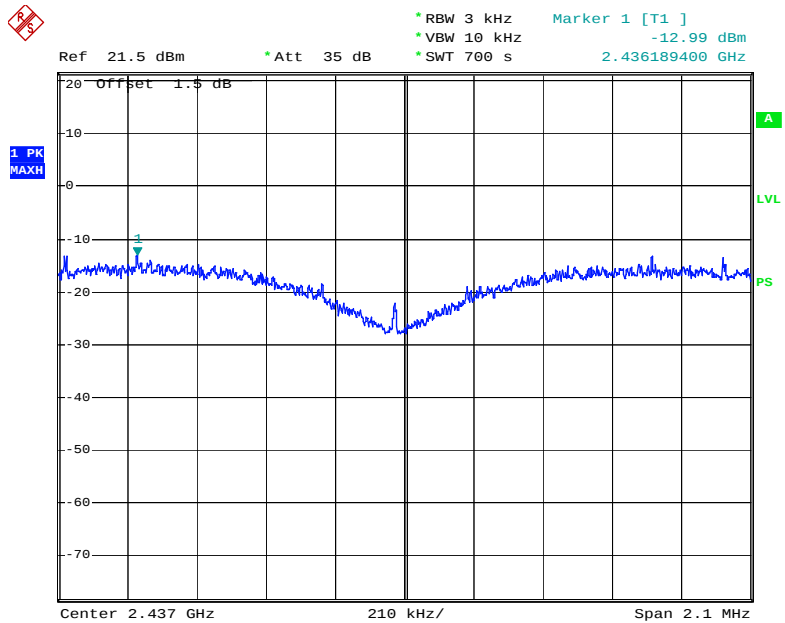
Test Mode: Transmitting

Test Result: Pass

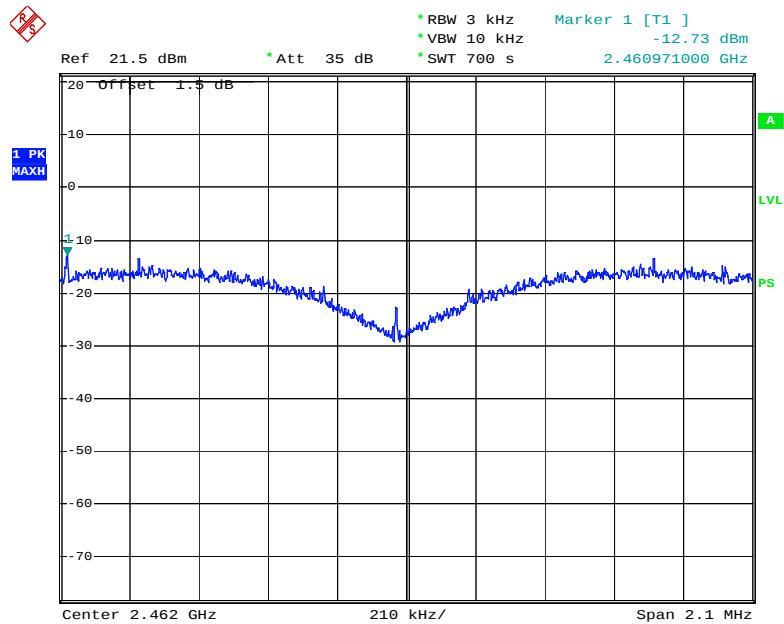
Channel	Frequency (MHz)	Data Rate (Mbps)	Power Spectral Density (dBm/3kHz)	Part 15.247 Limit (dBm/3kHz)	Result
802.11b Mode					
Low	2412	11	-12.50	8	Pass
Middle	2437	11	-12.99	8	Pass
High	2462	11	-12.73	8	Pass
802.11g Mode					
Low	2412	54	-13.60	8	Pass
Middle	2437	54	-13.76	8	Pass
High	2462	54	-13.57	8	Pass
802.11n20 Mode (Chain 0)					
Low	2412	130	-13.72	8	Pass
Middle	2437	130	-14.09	8	Pass
High	2462	130	-14.45	8	Pass
802.11n20 Mode (Chain 1)					
Low	2412	130	-14.22	8	Pass
Middle	2437	130	-14.63	8	Pass
High	2462	130	-15.44	8	Pass
802.11n20 Mode (with Combiner)					
Low	2412	130	-9.88	8	Pass
Middle	2437	130	-10.01	8	Pass
High	2462	130	-10.47	8	Pass
802.11n40 Mode (Chain 0)					
Low	2422	130	-15.65	8	Pass
Middle	2437	130	-16.00	8	Pass
High	2452	130	-15.96	8	Pass
802.11n40 Mode (Chain 1)					
Low	2422	130	-20.14	8	Pass
Middle	2437	130	-20.77	8	Pass
High	2452	130	-20.98	8	Pass
802.11n40 Mode (with Combiner)					
Low	2422	130	-11.84	8	Pass
Middle	2437	130	-11.79	8	Pass
High	2452	130	-11.44	8	Pass

Power Spectral Density, 802.11b Low Channel

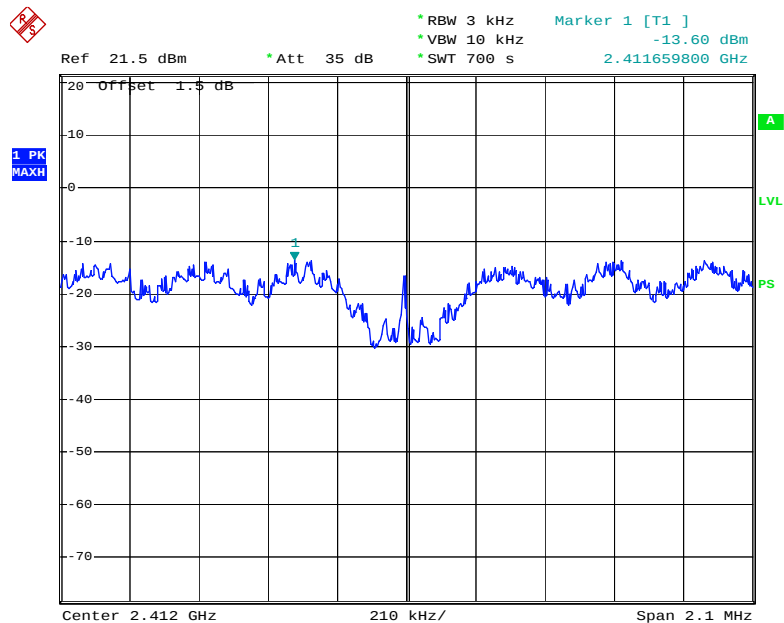
Date: 10.SEP.2009 16:48:37

Power Spectral Density, 802.11b Middle Channel

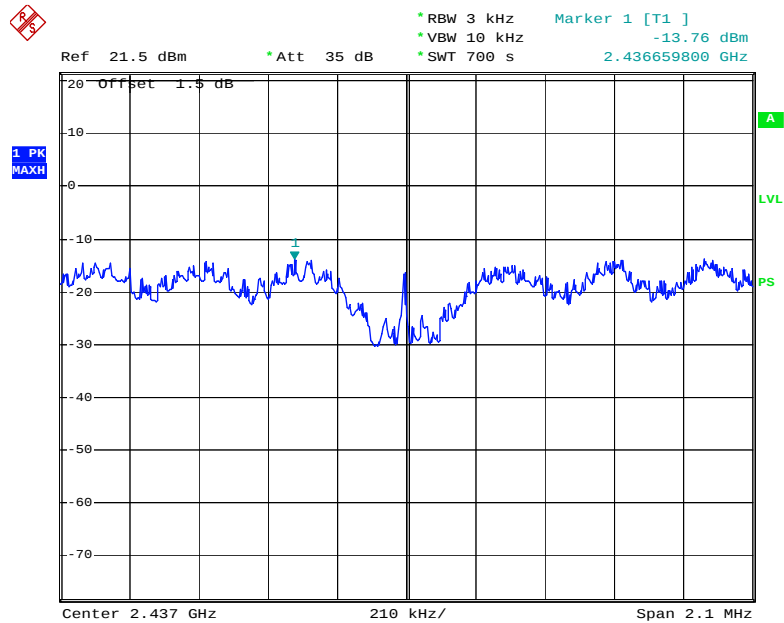
Date: 10.SEP.2009 17:16:12

Power Spectral Density, 802.11b High Channel

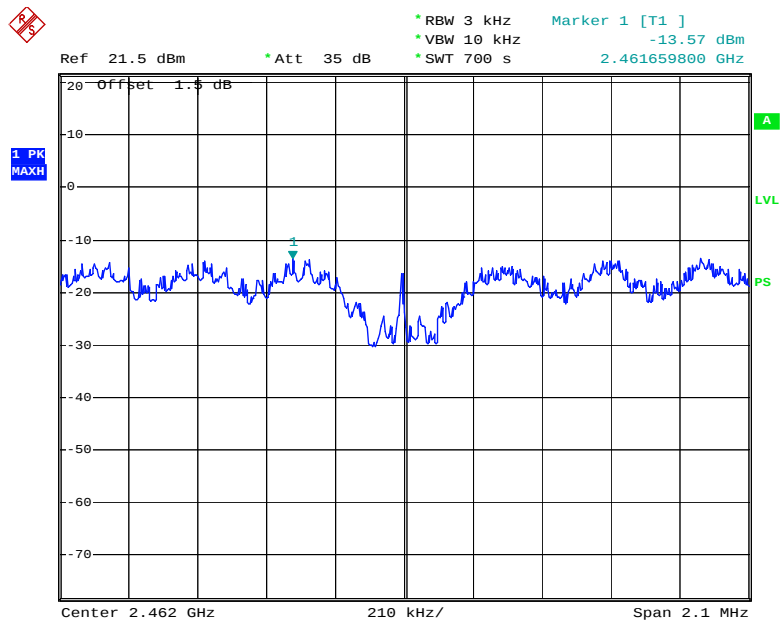
Date: 10.SEP.2009 17:44:59

Power Spectral Density, 802.11g Low Channel

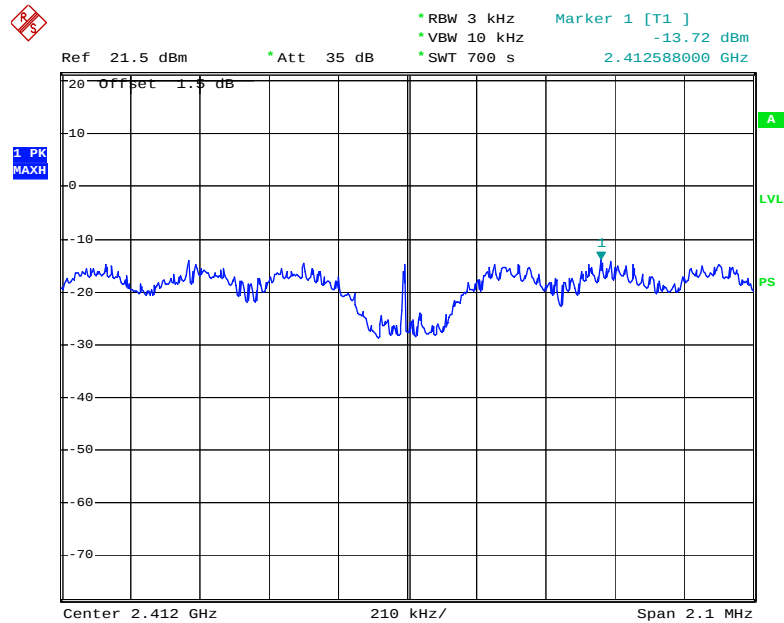
Date: 27.AUG.2009 16:38:23

Power Spectral Density, 802.11g Middle Channel

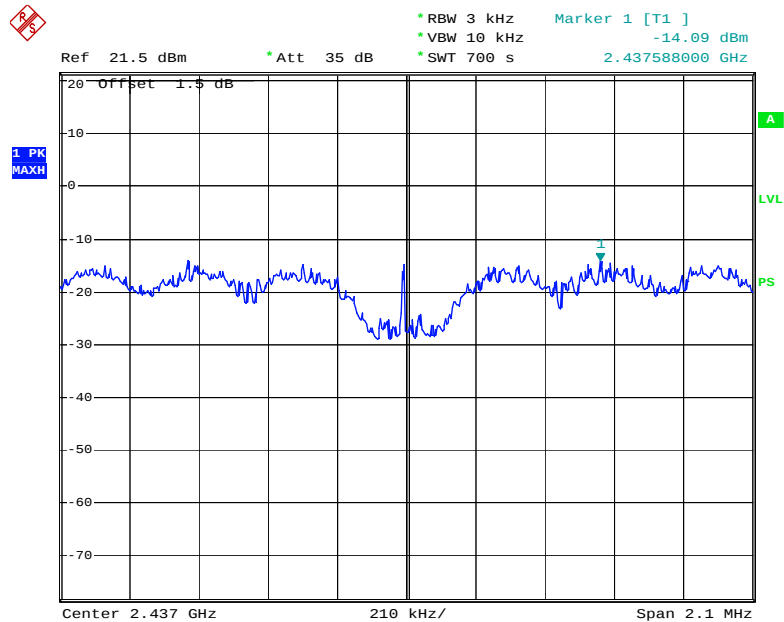
Date: 27.AUG.2009 17:03:44

Power Spectral Density, 802.11g High Channel

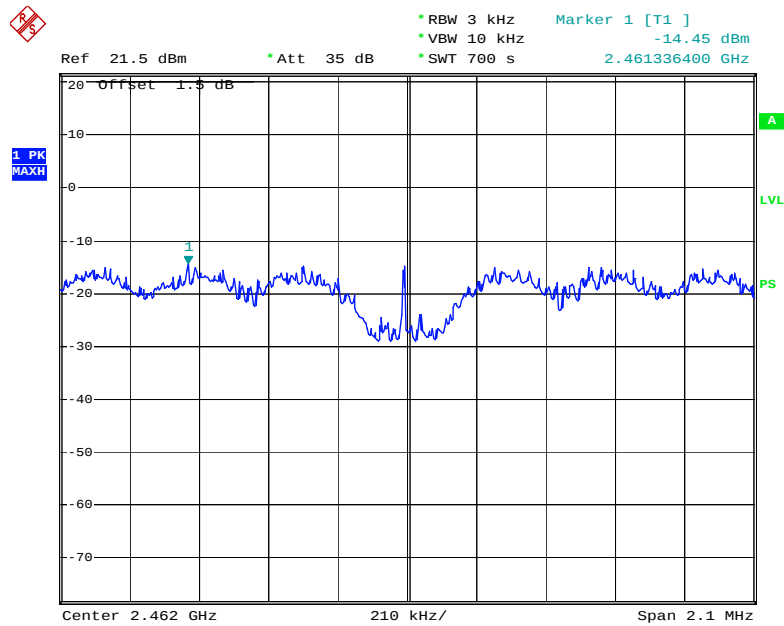
Date: 27.AUG.2009 17:31:20

Power Spectral Density, 802.11n20 Low Channel (Chain 0)

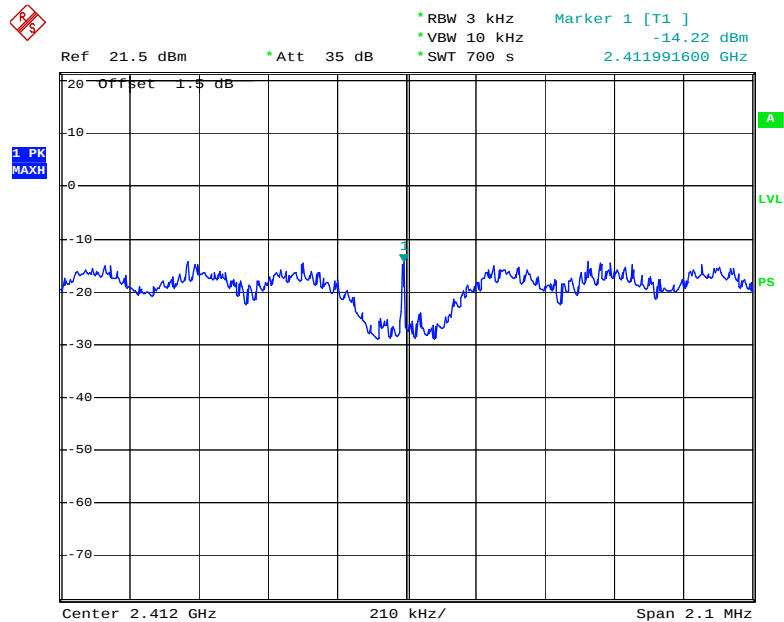
Date: 28.AUG.2009 09:41:58

Power Spectral Density, 802.11n20 Middle Channel (Chain 0)

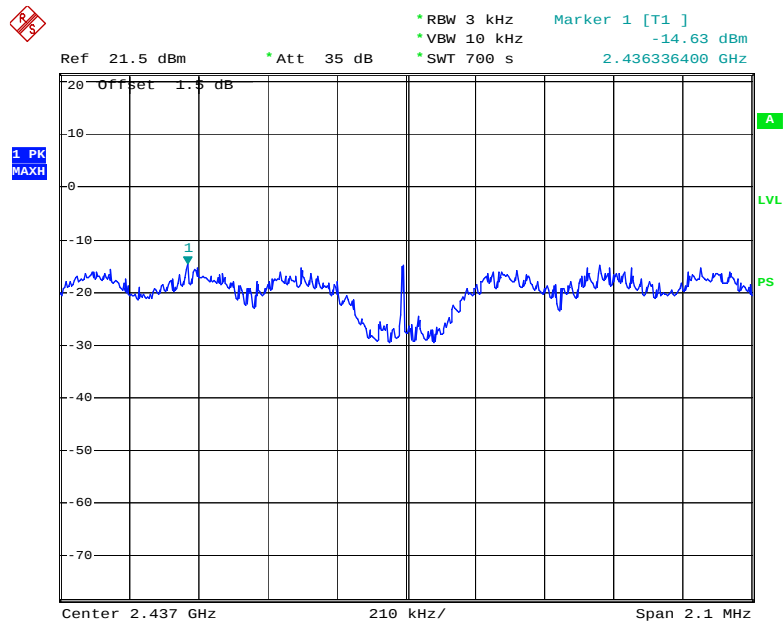
Date: 28.AUG.2009 10:07:01

Power Spectral Density, 802.11n20 High Channel (Chain 0)

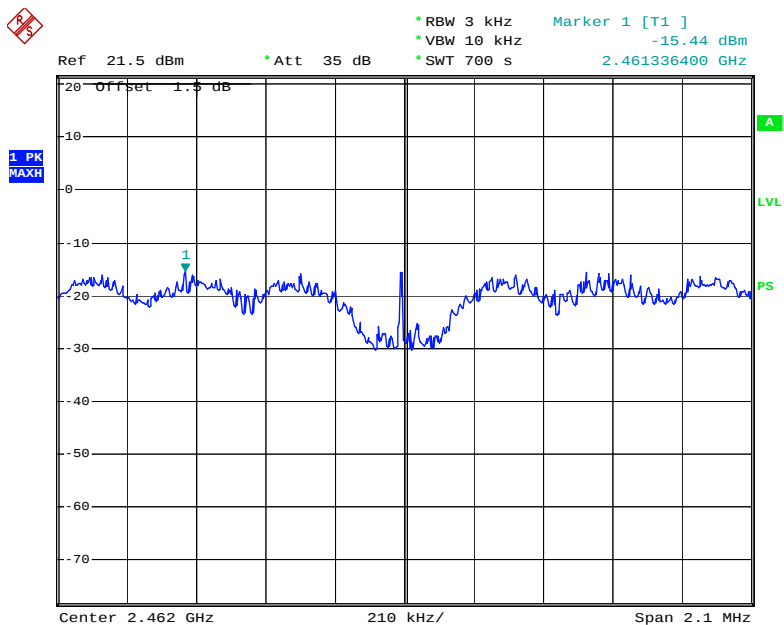
Date: 28.AUG.2009 10:37:30

Power Spectral Density, 802.11n20 Low Channel (Chain 1)

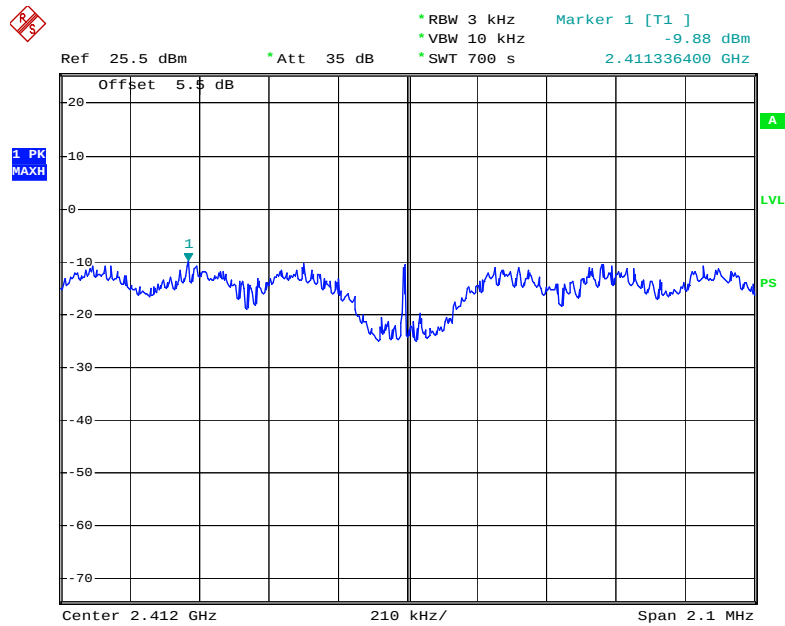
Date: 28.AUG.2009 11:55:00

Power Spectral Density, 802.11n20 Middle Channel (Chain 1)

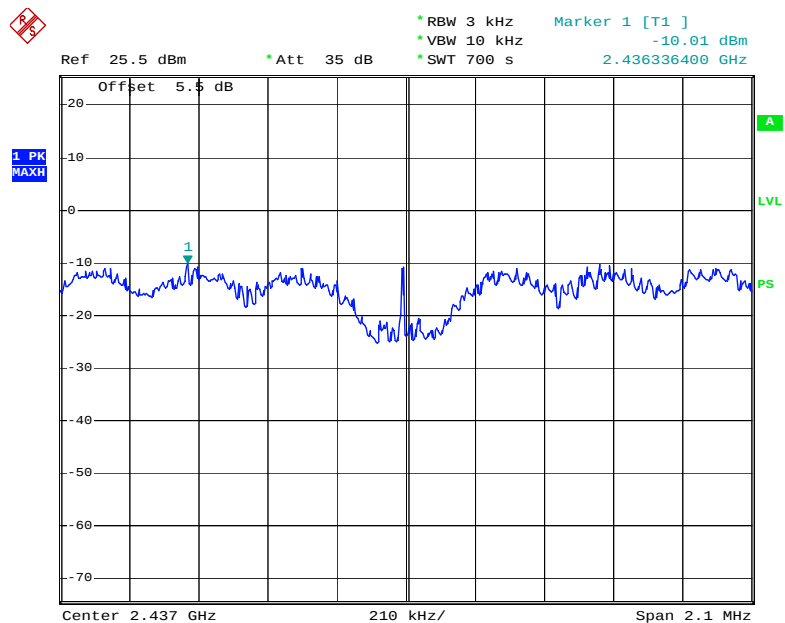
Date: 28.AUG.2009 11:29:43

Power Spectral Density, 802.11n20 High Channel (Chain 1)

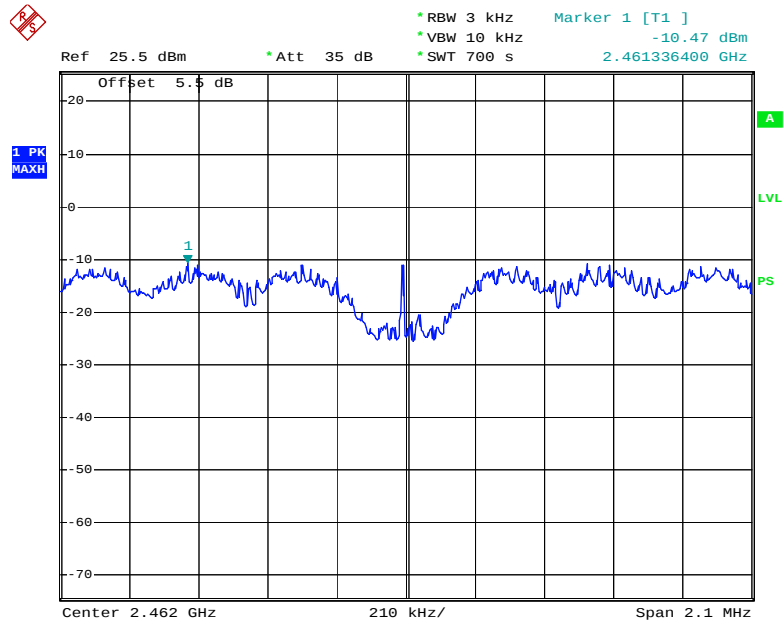
Date: 28.AUG.2009 11:04:12

Power Spectral Density, 802.11n20 Low Channel - Combiner

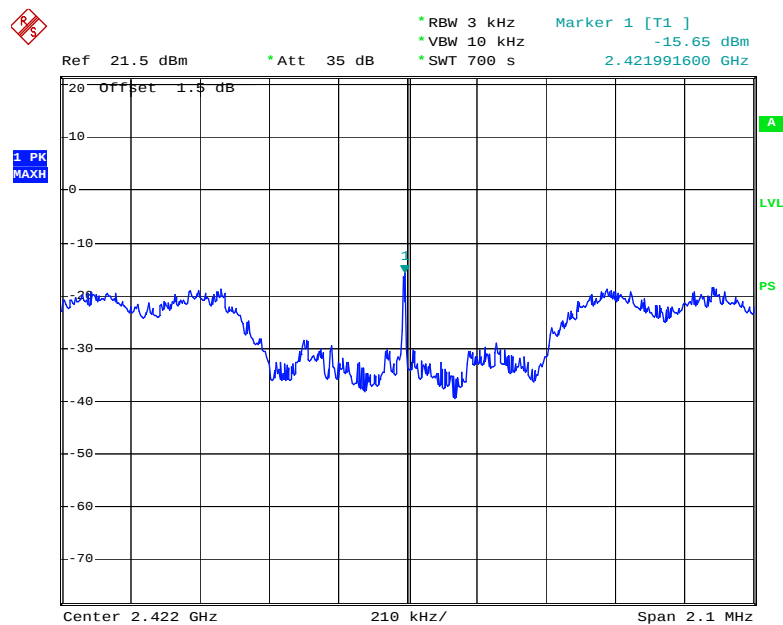
Date: 31.AUG.2009 13:42:17

Power Spectral Density, 802.11n20 Middle Channel - Combiner

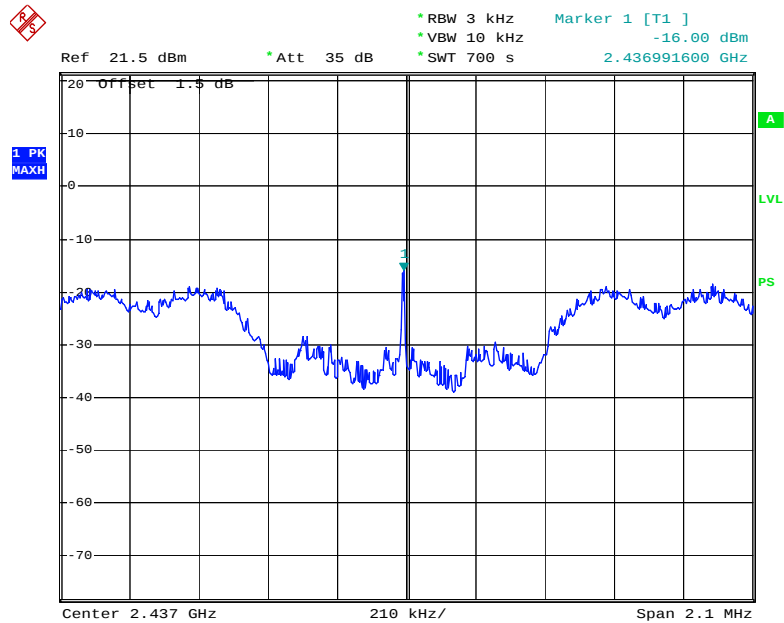
Date: 31.AUG.2009 13:16:47

Power Spectral Density, 802.11n20 High Channel - Combiner

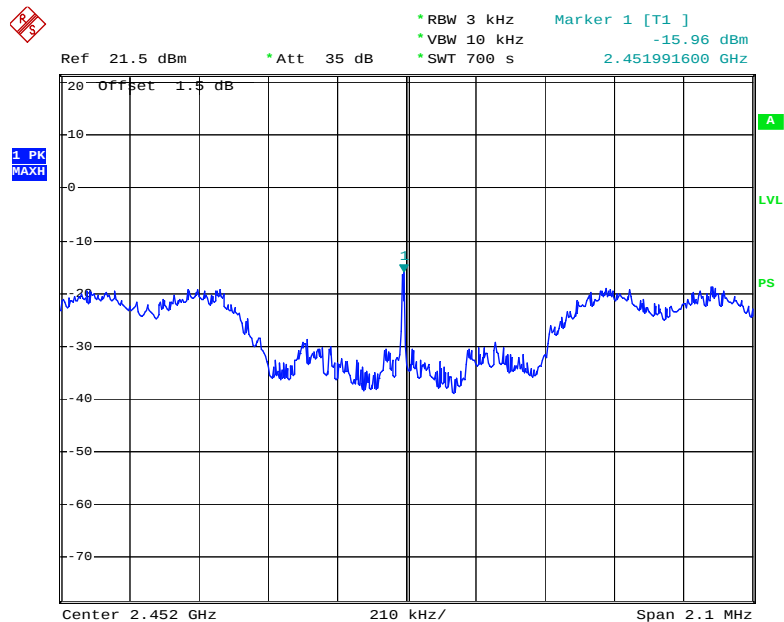
Date: 31.AUG.2009 11:58:47

Power Spectral Density, 802.11n40 Low Channel (Chain 0)

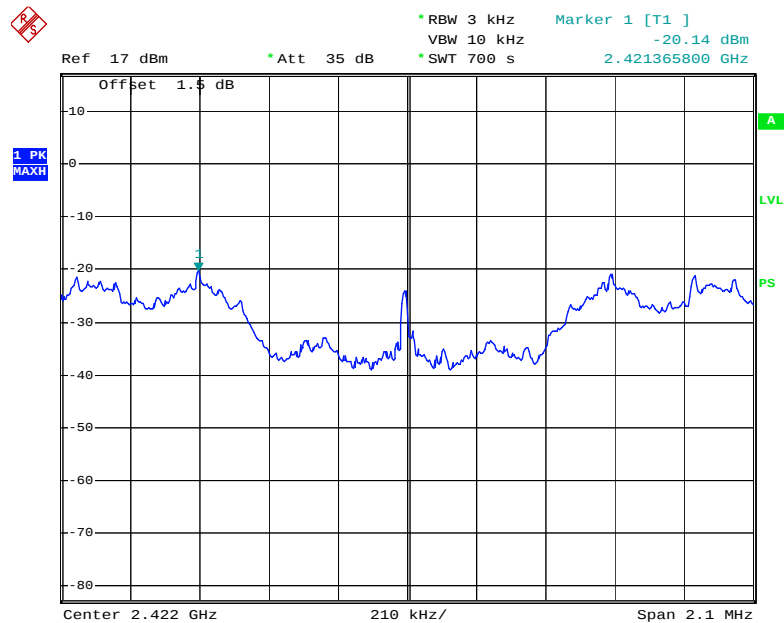
Date: 31.AUG.2009 09:51:08

Power Spectral Density, 802.11n40 Middle Channel (Chain 0)

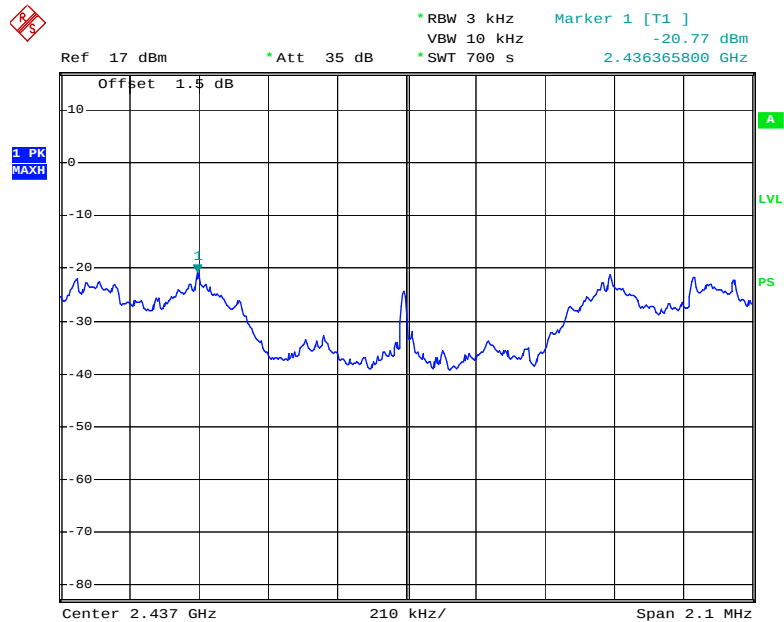
Date: 31.AUG.2009 10:15:51

Power Spectral Density, 802.11n40 High Channel (Chain 0)

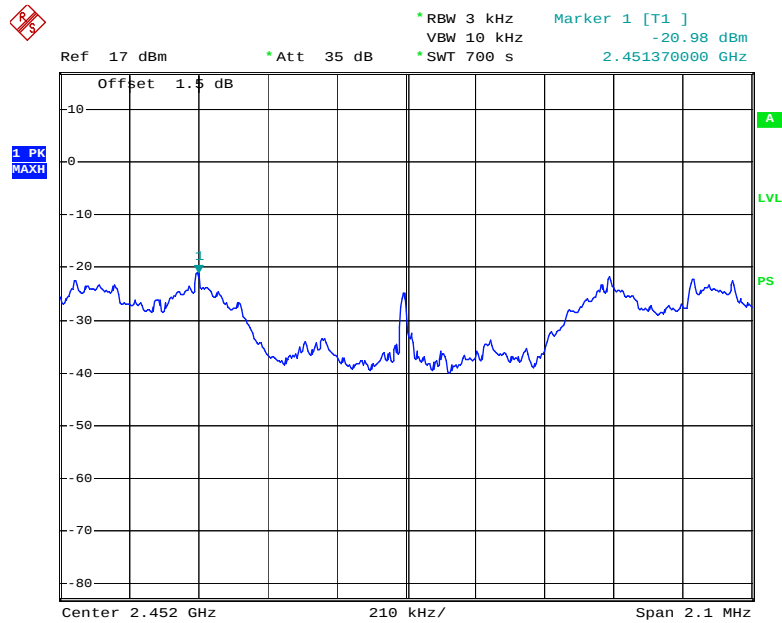
Date: 31.AUG.2009 09:25:25

Power Spectral Density, 802.11n40 Low Channel (Chain 1)

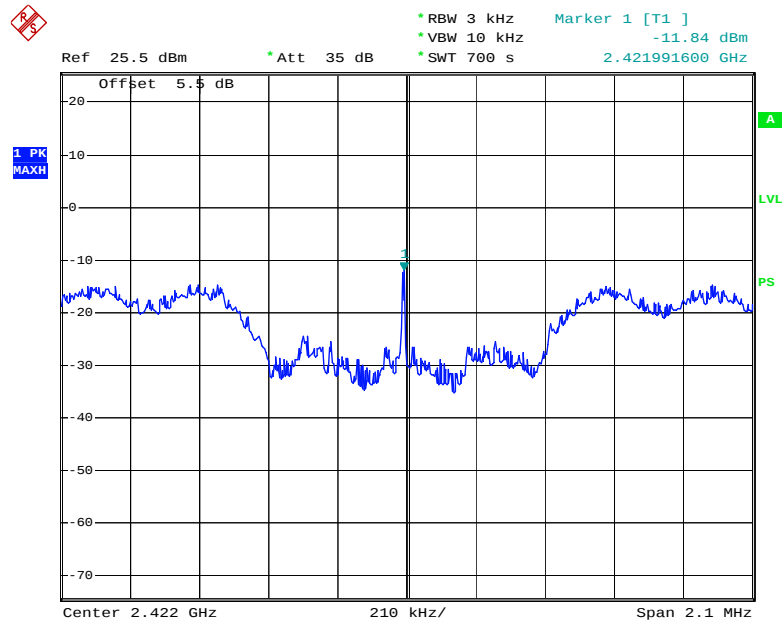
Date: 28.AUG.2009 15:10:32

Power Spectral Density, 802.11n40 Middle Channel (Chain 1)

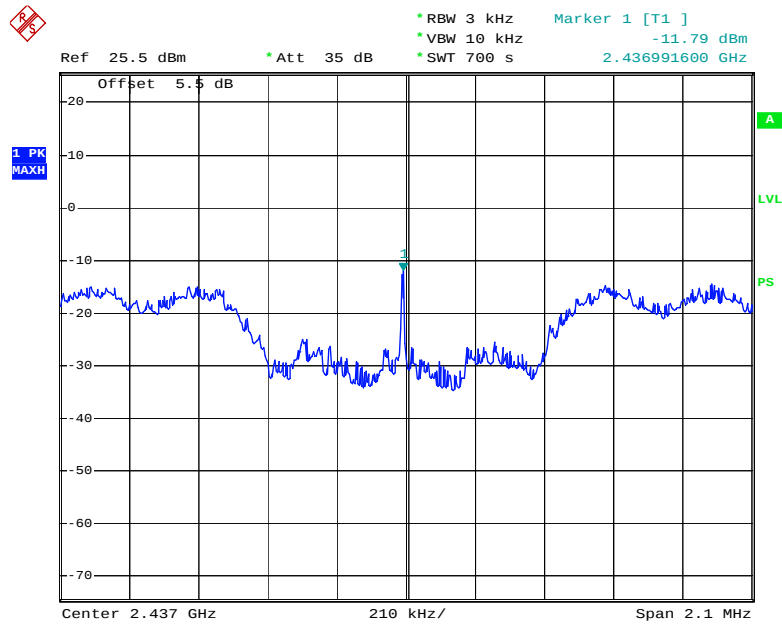
Date: 28.AUG.2009 15:34:51

Power Spectral Density, 802.11n40 High Channel (Chain 1)

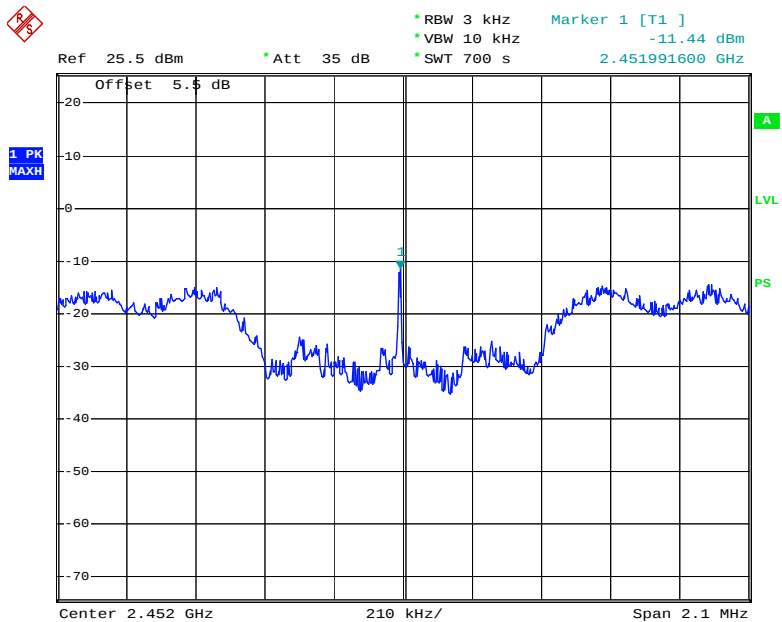
Date: 28.AUG.2009 16:00:04

Power Spectral Densit, 802.11n40 Low Channel - Combiner

Date: 31.AUG.2009 11:08:36

Power Spectral Density, 802.11n40 Middle Channel - Combiner

Date: 31.AUG.2009 10:43:55

Power Spectral Density, 802.11n40 High Channel - Combiner

Date: 31.AUG.2009 11:33:12

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