

FCC PART 15.247

TEST REPORT

For

SHUOYING INDUSTRIAL (SHENZHEN) CO., LTD.

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FCC ID: XJN-PA1042X

Report Type: Original Report	Product Type: Mobile Internet Devices
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *SHUOYING INDUSTRIAL(SHENZHEN)CO.,LTD.*'s product, model number: *PA1042 (FCC ID: XJN-PA1042X)* (the "EUT") in this report was a *Mobile Internet Devices*, which was measured approximately: 26.1cm (L) x 17.1 cm (W) x 0.7 cm (H), rated input voltage: DC 3.7 V from lithium battery or DC 5V from adapter.

Adapter information: Meic
Model: PS14K0502000U5
Input: AC 100-240V, 50/60Hz, 0.35A
Output: DC 5V, 2000mA

** All measurement and test data in this report was gathered from production sample serial number: 130801001 (Assigned by BACL.Dongguan). The EUT was received on 2013-08-07.*

Objective

This report is prepared on behalf of *SHUOYING INDUSTRIAL(SHENZHEN)CO.,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 the compliance of the EUT with FCC Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15B JBP submissions with FCC ID: *XJN-PA1042X*
FCC Part15C DSS submissions with FCC ID: *XJN-PA1042X for Bluetooth BDR, EDR mode.*
FCC Part15C DTS submissions with FCC ID: *XJN-PA1042X for Bluetooth LE mode.*

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. (Dongguan). 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. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) 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 February 02, 2012. 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.: 273710. 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. (Dongguan) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 500069-0).



The current scope of accreditations can be found at <http://ts.nist.gov/standards/scopes/5000690.htm>

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in testing mode, which was provided by manufacturer. For 2.4G band, 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	/	/

For 802.11b, 802.11g, and 802.11n20 modes were tested with Channel 1, 6 and 11.
For 802.11n40 mode were tested with Channel 3, 6 and 9.

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

EUT Exercise Software

“Cmd.exe” was used in the test, which the commands were provided by the manufacturer.

Equipment Modifications

No equipment modification was used.

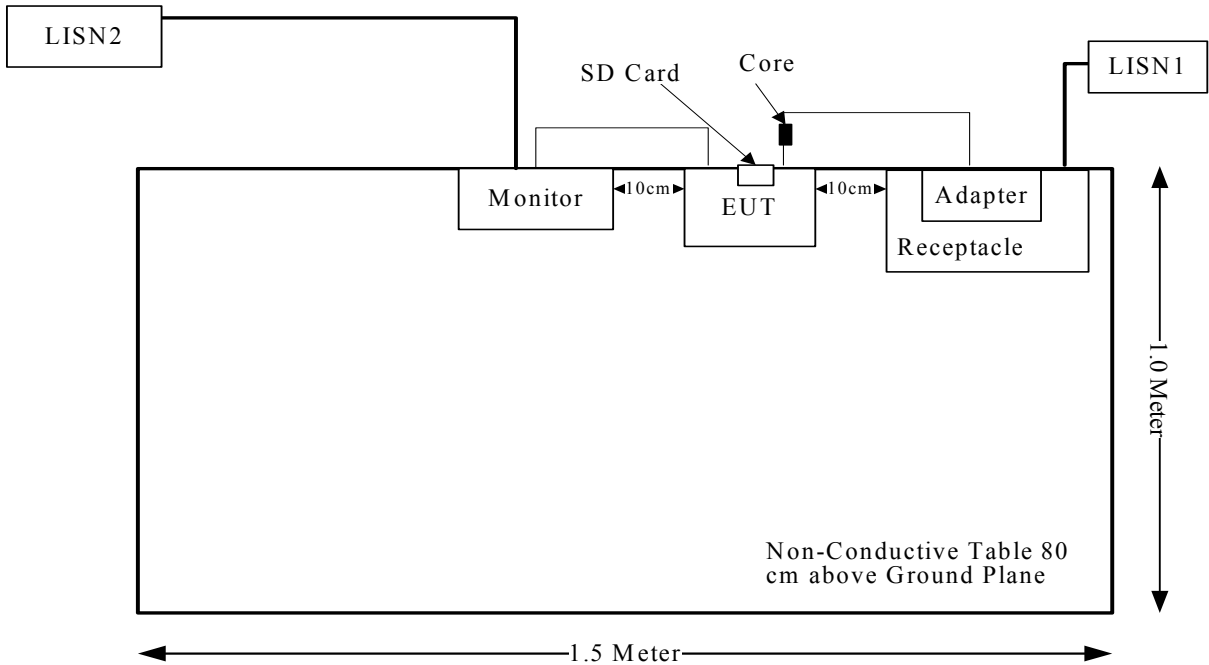
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	LCD Monitor	U3011t	CN-OPH5NY-74445-16T-290L
Kinston	Micro SD Card	4G	N/A

External I/O Cable

Cable Description	Length (m)	From	To
Shielded Detachable HDMI Cable	1.5	HDMI Port of Monitor	EUT
Shielded Detachable USB Cable	0.7	Adapter	EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
FCC §15.247 (i) & §1.1310 & §2.1093	RF Exposure	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.247(d)	Spurious Emissions at Antenna Port	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

FCC §15.247 (i) & §1.1310 & §2.1093- RF EXPOSURE

Applicable Standard

According to §15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB 447498 D01 Mobile Portable RF Exposure V05 Appendix A, SAR can be exempted if the output power is less than the SAR exclusion threshold:

For $f=2450$ MHz, the output power is less 10mW at distance of 5mm.

Measurement Result

Peak conducted output power= 9.33 dBm

Antenna gain =2.0 dBi

SAR exclusion threshold 10 mW (10 dBm) > 9.33 dBm

So the SAR evaluation is not necessary.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

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

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

Antenna Connector Construction

The EUT has an internal antenna, which was permanently attached to the EUT, and the maximum gain is 2.0 dBi, please refer to the internal photos.

Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cisp} of Table 1, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cisp} of Table 1, then:

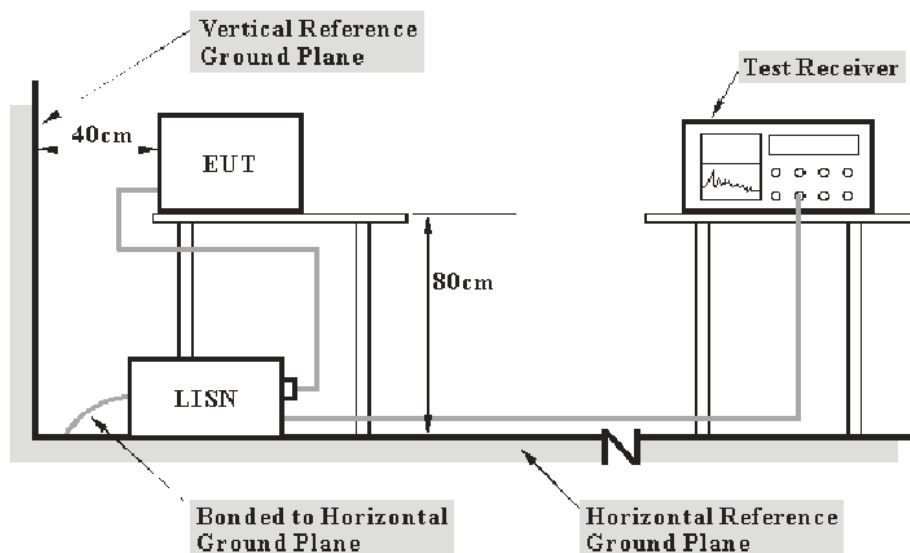
- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit.

Based on CISPR 16-4-2-2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Dongguan) is 3.46 dB (150 kHz to 30 MHz).

Table 1 – Values of U_{cisp}

Measurement	U_{cisp}
Conducted disturbance at mains port using AMN (150 kHz to 30 MHz)	3.4 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:

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

Test Procedure

During the conducted emission test, the notebook was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

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

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

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

$$C_f = A_C + VDF$$

Herein,

V_C (cord. Reading): corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF : voltage division factor of AMN

C_f : Correction Factor

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

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI TEST RECIEVER	ESCS 30	830245/006	2013-1-10	2014-1-9
R&S	L.I.S.N	ESH3-Z5	843331/015	2012-9-17	2013-9-16
R&S	L.I.S.N	ESH3-Z5	100113	2012-11-29	2013-11-28
BACL	Test Software	BACL-EMC	V1.0-2010	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

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:

12.52 dB at 0.160 MHz in the **Line** conducted mode

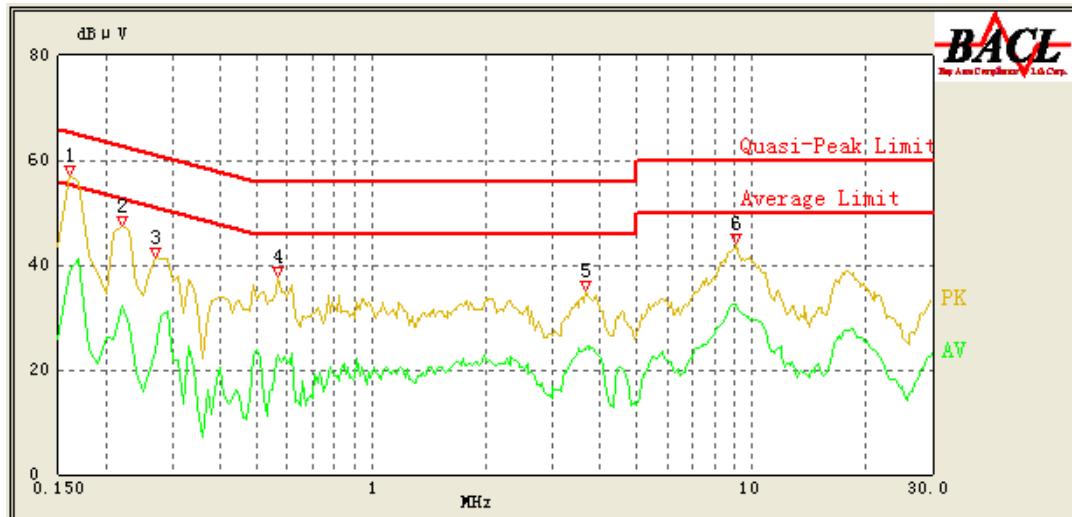
Test Data**Environmental Conditions**

Temperature:	27.4° C
Relative Humidity:	65 %
ATM Pressure:	99.6 kPa

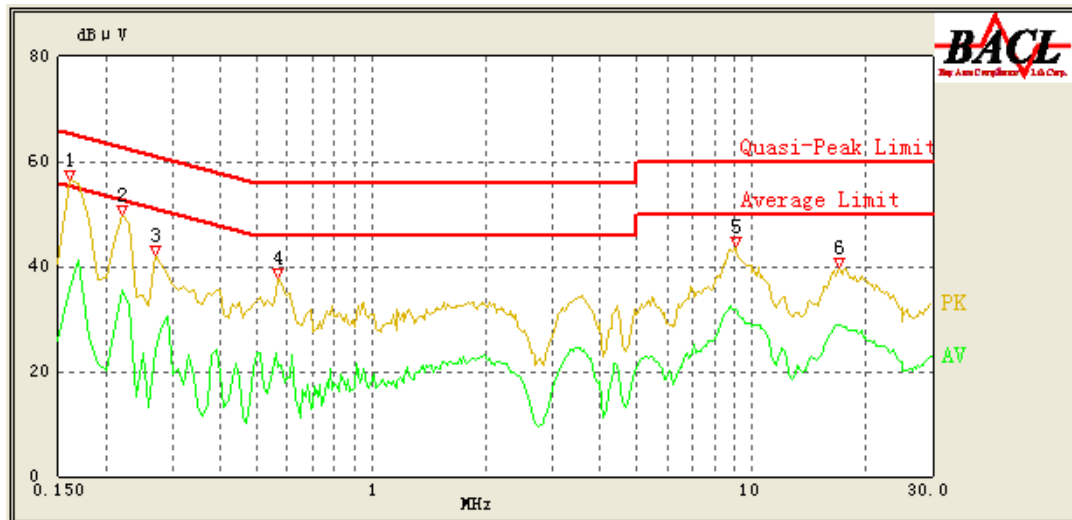
The testing was performed by Ares Liu on 2013-08-19.

Test Mode: Transmitting

120 V, 60 Hz, Line:



Frequency (MHz)	Cord. Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/AV/QP)
0.160	52.94	0.46	65.46	12.52	QP
0.160	38.87	0.46	55.46	16.59	AV
0.220	46.15	0.41	62.82	16.67	QP
0.220	32.29	0.41	52.82	20.53	AV
0.270	39.18	0.37	61.12	21.94	QP
0.270	23.36	0.37	51.12	27.76	AV
0.570	33.10	0.31	56.00	22.90	QP
0.570	22.77	0.31	46.00	23.23	AV
3.660	29.29	0.42	56.00	26.71	QP
3.660	24.29	0.42	46.00	21.71	AV
9.110	37.82	0.81	60.00	22.18	QP
9.110	32.48	0.81	50.00	17.52	AV

120 V, 60 Hz, Neutral:

Frequency (MHz)	Cord. Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/AV/QP)
0.160	52.36	0.26	65.46	13.10	QP
0.160	35.91	0.26	55.46	19.55	AV
0.220	46.24	0.25	62.82	16.58	QP
0.220	35.57	0.25	52.82	17.25	AV
0.270	38.66	0.24	61.12	22.46	QP
0.270	23.94	0.24	51.12	27.18	AV
0.570	32.46	0.21	56.00	23.54	QP
0.570	20.87	0.21	46.00	25.13	AV
9.100	37.46	0.72	60.00	22.54	QP
9.010	31.79	0.71	50.00	18.21	AV
17.040	34.24	1.25	60.00	25.76	QP
17.070	28.81	1.25	50.00	21.19	AV

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

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cisp} of Table 2, then:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cisp} of Table 2, then:

- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit.

Based on CISPR 16-4-2-2011, measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Dongguan) is:

30M~200MHz: 5.0 dB

200M~1GHz: 6.2 dB

1G~6GHz: 4.45 dB

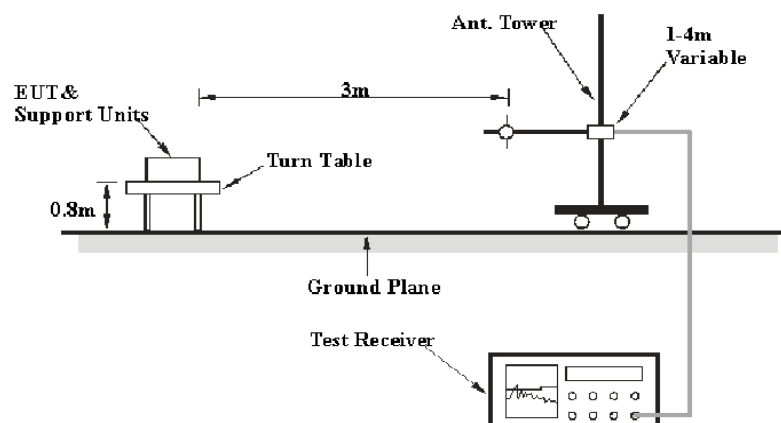
6G~18GHz: 5.23 dB

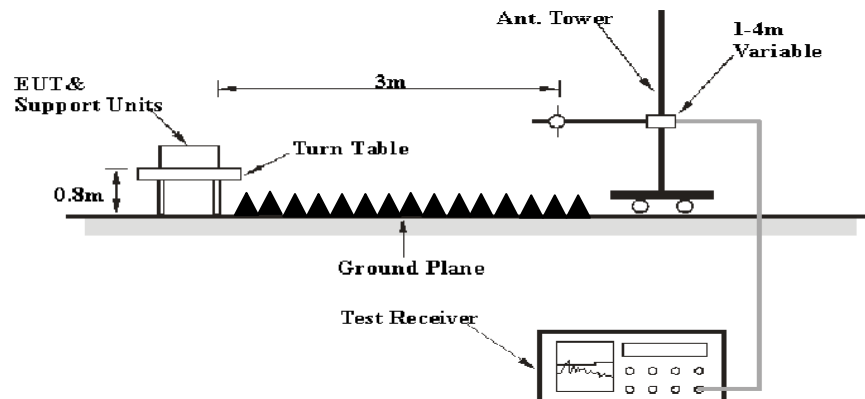
Table 2 – Values of U_{cisp}

Measurement	U_{cisp}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

EUT Setup

Below 1GHz:



Above 1GHz:

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

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	120 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

Test Procedure

During the radiated emission test, the notebook was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

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

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

Corrected Amplitude & Margin Calculation

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

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

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

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI TEST RECEIVER	ESCI	100224	2013-5-6	2014-5-5
Sunol Sciences	Antenna	JB3	A060611-1	2012-9-6	2015-9-5
HP	HP AMPLIFIER	8447E	2434A02181	N/A	N/A
R&S	Spectrum analyzer	FSEM 30	849016/001	2012-9-4	2013-9-3
ETS LINDGREN	horn antenna	3115	000 527 35	2012-9-6	2015-9-5
Mini-Circuit	Amplifier	ZVA-213-S+	54201245	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

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

8.92 dB at 2483.5 MHz in the Horizontal polarization for 802.11n20 Mode

Test Data

Environmental Conditions

Temperature:	27.6° C
Relative Humidity:	58 %
ATM Pressure:	99.1kPa

The testing was performed by Ares Liu on 2013-08-17.

Mode: Transmitting
802.11b Mode

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel: 2412 MHz									
2412	59.32	PK	H	25.67	3.93	0.00	88.92	N/A	N/A
2412	54.68	AV	H	25.67	3.93	0.00	84.28	N/A	N/A
2412	57.26	PK	V	25.67	3.93	0.00	86.86	N/A	N/A
2412	53.21	AV	V	25.67	3.93	0.00	82.81	N/A	N/A
2390	29.32	PK	H	25.61	3.84	0.00	58.77	74.00	15.23
2390	15.34	AV	H	25.61	3.84	0.00	44.79	54.00	9.21
4824	33.14	PK	V	30.64	4.73	27.26	41.25	74.00	32.75
4824	18.26	AV	V	30.64	4.73	27.26	26.37	54.00	27.63
7236	32.54	PK	V	34.17	6.56	26.36	46.91	74.00	27.09
7236	17.85	AV	V	34.17	6.56	26.36	32.22	54.00	21.78
9648	31.68	PK	V	36.06	8.70	26.06	50.38	74.00	23.62
9648	17.62	AV	V	36.06	8.70	26.06	36.32	54.00	17.68
1326.52	34.62	PK	V	23.15	2.75	27.18	33.34	74.00	40.66
1326.52	17.85	AV	V	23.15	2.75	27.18	16.57	54.00	37.43
650.12	29.1	QP	H	20.20	3.09	22.29	30.10	46.00	15.90
Middle Channel: 2437 MHz									
2437	62.85	PK	H	25.74	3.98	0.00	92.57	N/A	N/A
2437	57.42	AV	H	25.74	3.98	0.00	87.14	N/A	N/A
2437	61.58	PK	V	25.74	3.98	0.00	91.30	N/A	N/A
2437	57.32	AV	V	25.74	3.98	0.00	87.04	N/A	N/A
4874	33.24	PK	H	30.77	4.76	27.26	41.51	74.00	32.49
4874	19.32	AV	H	30.77	4.76	27.26	27.59	54.00	26.41
7311	32.52	PK	H	34.35	6.70	26.51	47.06	74.00	26.94
7311	18.86	AV	H	34.35	6.70	26.51	33.40	54.00	20.60
9748	32.25	PK	H	36.30	8.60	25.68	51.47	74.00	22.53
9748	18.12	AV	H	36.30	8.60	25.68	37.34	54.00	16.66
1426.35	35.62	PK	H	23.41	2.84	27.10	34.77	74.00	39.23
1426.35	18.69	AV	H	23.41	2.84	27.10	17.84	54.00	36.16
1678.69	34.26	PK	H	23.96	3.18	26.94	34.46	74.00	39.54
1678.69	18.23	AV	H	23.96	3.18	26.94	18.43	54.00	35.57
650.23	28.7	QP	H	20.19	3.09	22.29	29.69	46.00	16.31
High Channel: 2462 MHz									
2462	64.52	PK	H	25.80	3.93	0.00	94.25	N/A	N/A
2462	59.12	AV	H	25.80	3.93	0.00	88.85	N/A	N/A
2462	63.21	PK	V	25.80	3.93	0.00	92.94	N/A	N/A
2462	58.23	AV	V	25.80	3.93	0.00	87.96	N/A	N/A
2483.5	28.63	PK	H	25.86	3.80	0.00	58.29	74.00	15.71
2483.5	14.35	AV	H	25.86	3.80	0.00	44.01	54.00	9.99
4924	32.22	PK	H	30.90	4.70	27.27	40.55	74.00	33.45
4924	17.68	AV	H	30.90	4.70	27.27	26.01	54.00	27.99
7386	32.15	PK	H	34.53	6.84	26.66	46.86	74.00	27.14
7386	17.65	AV	H	34.53	6.84	26.66	32.36	54.00	21.64
9848	31.25	PK	H	36.54	8.49	25.49	50.79	74.00	23.21
9848	17.33	AV	H	36.54	8.49	25.49	36.87	54.00	17.13
1365.25	33.45	PK	H	23.25	2.89	27.16	32.43	74.00	41.57
1365.25	18.32	AV	H	23.25	2.89	27.16	17.30	54.00	36.70
650.24	28.7	QP	H	20.19	3.09	22.29	29.69	46.00	16.31

*Within measurement uncertainty!

802.11g Mode

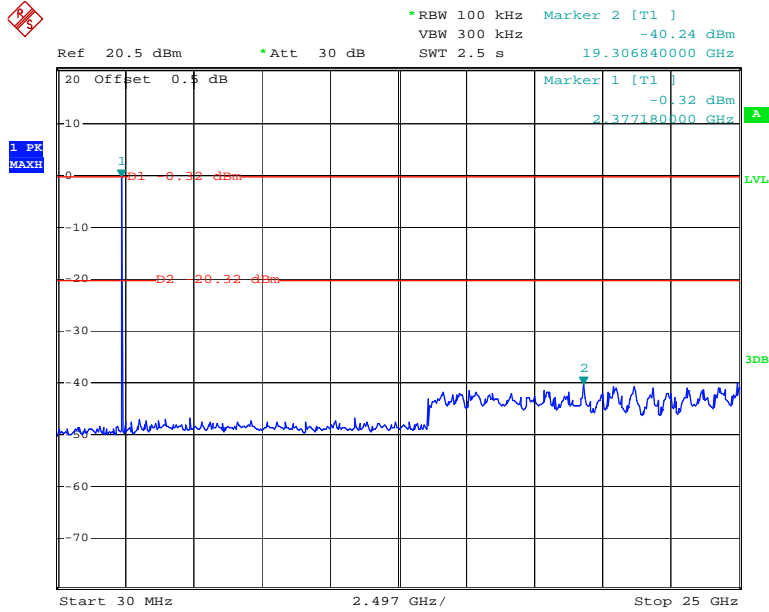
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel: 2412 MHz									
2412	58.87	PK	H	25.67	3.93	0.00	88.47	N/A	N/A
2412	47.62	AV	H	25.67	3.93	0.00	77.22	N/A	N/A
2412	57.42	PK	V	25.67	3.93	0.00	87.02	N/A	N/A
2412	45.21	AV	V	25.67	3.93	0.00	74.81	N/A	N/A
2390	29.36	PK	H	25.61	3.84	0.00	58.81	74.00	15.19
2390	15.24	AV	H	25.61	3.84	0.00	44.69	54.00	9.31
4824	32.68	PK	H	30.64	4.73	27.26	40.79	74.00	33.21
4824	19.36	AV	H	30.64	4.73	27.26	27.47	54.00	26.53
7236	32.52	PK	H	34.17	6.56	26.36	46.89	74.00	27.11
7236	18.41	AV	H	34.17	6.56	26.36	32.78	54.00	21.22
9648	31.25	PK	V	36.06	8.70	26.06	49.95	74.00	24.05
9648	18.15	AV	V	36.06	8.70	26.06	36.85	54.00	17.15
1426.35	35.21	PK	V	23.41	2.84	27.10	34.36	74.00	39.64
1426.35	18.87	AV	V	23.41	2.84	27.10	18.02	54.00	35.98
650.25	29.4	QP	H	20.19	3.09	22.29	30.39	46.00	15.61
Middle Channel: 2437 MHz									
2437	61.53	PK	H	25.74	3.98	0.00	91.25	N/A	N/A
2437	49.21	AV	H	25.74	3.98	0.00	78.93	N/A	N/A
2437	58.68	PK	V	25.74	3.98	0.00	88.40	N/A	N/A
2437	45.41	AV	V	25.74	3.98	0.00	75.13	N/A	N/A
4874	33.25	PK	H	30.77	4.76	27.26	41.52	74.00	32.48
4874	19.45	AV	H	30.77	4.76	27.26	27.72	54.00	26.28
7311	32.25	PK	H	34.35	6.70	26.51	46.79	74.00	27.21
7311	18.47	AV	H	34.35	6.70	26.51	33.01	54.00	20.99
9748	31.62	PK	V	36.30	8.60	25.68	50.84	74.00	23.16
9748	17.89	AV	V	36.30	8.60	25.68	37.11	54.00	16.89
1526.69	34.62	PK	V	23.65	3.04	26.98	34.33	74.00	39.67
1526.69	18.74	AV	V	23.65	3.04	26.98	18.45	54.00	35.55
1759.25	35.96	PK	V	24.12	3.37	26.99	36.46	74.00	37.54
1759.25	19.03	AV	V	24.12	3.37	26.99	19.53	54.00	34.47
650.11	29.4	QP	H	20.20	3.09	22.29	30.40	46.00	15.60
High Channel: 2462 MHz									
2462	63.74	PK	H	25.80	3.93	0.00	93.47	N/A	N/A
2462	51.42	AV	H	25.80	3.93	0.00	81.15	N/A	N/A
2462	62.58	PK	V	25.80	3.93	0.00	92.31	N/A	N/A
2462	50.62	AV	V	25.80	3.93	0.00	80.35	N/A	N/A
2483.5	29.42	PK	H	25.86	3.80	0.00	59.08	74.00	14.92
2483.5	15.38	AV	H	25.86	3.80	0.00	45.04	54.00	8.96
4924	33.41	PK	H	30.90	4.70	27.27	41.74	74.00	32.26
4924	19.24	AV	H	30.90	4.70	27.27	27.57	54.00	26.43
7386	32.74	PK	H	34.53	6.84	26.66	47.45	74.00	26.55
7386	18.62	AV	H	34.53	6.84	26.66	33.33	54.00	20.67
9848	32.14	PK	V	36.54	8.49	25.49	51.68	74.00	22.32
9848	18.23	AV	V	36.54	8.49	25.49	37.77	54.00	16.23
136.52	34.28	PK	V	13.58	1.40	21.42	27.84	74.00	46.16
136.52	18.69	AV	V	13.58	1.40	21.42	12.25	54.00	41.75
650.05	29.4	QP	H	20.20	3.09	22.29	30.40	46.00	15.60

802.11 n20 Mode

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
Low Channel: 2412 MHz									
2412	59.68	PK	H	25.67	3.93	0.00	89.28	N/A	N/A
2412	47.32	AV	H	25.67	3.93	0.00	76.92	N/A	N/A
2412	57.96	PK	V	25.67	3.93	0.00	87.56	N/A	N/A
2412	45.28	AV	V	25.67	3.93	0.00	74.88	N/A	N/A
2390	28.63	PK	H	25.61	3.84	0.00	58.08	74.00	15.92
2390	15.32	AV	H	25.61	3.84	0.00	44.77	54.00	9.23
4824	33.68	PK	H	30.64	4.73	27.26	41.79	74.00	32.21
4824	19.14	AV	H	30.64	4.73	27.26	27.25	54.00	26.75
7236	32.25	PK	H	34.17	6.56	26.36	46.62	74.00	27.38
7236	18.13	AV	H	34.17	6.56	26.36	32.50	54.00	21.50
9648	31.45	PK	V	36.06	8.70	26.06	50.15	74.00	23.85
9648	18.06	AV	V	36.06	8.70	26.06	36.76	54.00	17.24
1325.62	35.62	PK	V	23.15	2.74	27.18	34.33	74.00	39.67
1325.62	18.69	AV	V	23.15	2.74	27.18	17.40	54.00	36.60
650.11	28.8	QP	H	20.20	3.09	22.29	29.80	46.00	16.20
Middle Channel: 2437 MHz									
2437	61.52	PK	H	25.74	3.98	0.00	91.24	N/A	N/A
2437	50.48	AV	H	25.74	3.98	0.00	80.20	N/A	N/A
2437	58.67	PK	V	25.74	3.98	0.00	88.39	N/A	N/A
2437	46.24	AV	V	25.74	3.98	0.00	75.96	N/A	N/A
4874	33.25	PK	H	30.77	4.76	27.26	41.52	74.00	32.48
4874	19.56	AV	H	30.77	4.76	27.26	27.83	54.00	26.17
7311	32.75	PK	H	34.35	6.70	26.51	47.29	74.00	26.71
7311	18.76	AV	H	34.35	6.70	26.51	33.30	54.00	20.70
9748	32.54	PK	V	36.30	8.60	25.68	51.76	74.00	22.24
9748	18.26	AV	V	36.30	8.60	25.68	37.48	54.00	16.52
1352.68	34.26	PK	V	23.22	2.92	27.16	33.24	74.00	40.76
1352.68	18.26	AV	V	23.22	2.92	27.16	17.24	54.00	36.76
1857.69	35.96	PK	V	24.32	3.61	27.05	36.84	74.00	37.16
1857.69	19.34	AV	V	24.32	3.61	27.05	20.22	54.00	33.78
650.14	29.4	QP	H	20.20	3.09	22.29	30.40	46.00	15.60
High Channel: 2462 MHz									
2462	62.89	PK	H	25.80	3.93	0.00	92.62	N/A	N/A
2462	51.63	AV	H	25.80	3.93	0.00	81.36	N/A	N/A
2462	59.74	PK	V	25.80	3.93	0.00	89.47	N/A	N/A
2462	47.34	AV	V	25.80	3.93	0.00	77.07	N/A	N/A
2483.5	28.63	PK	H	25.86	3.80	0.00	58.29	74.00	15.71
2483.5	15.42	AV	H	25.86	3.80	0.00	45.08	54.00	8.92
4924	33.58	PK	H	30.90	4.70	27.27	41.91	74.00	32.09
4924	19.05	AV	H	30.90	4.70	27.27	27.38	54.00	26.62
7386	32.63	PK	H	34.53	6.84	26.66	47.34	74.00	26.66
7386	18.42	AV	H	34.53	6.84	26.66	33.13	54.00	20.87
9848	33.51	PK	V	36.54	8.49	25.49	53.05	74.00	20.95
9848	18.15	AV	V	36.54	8.49	25.49	37.69	54.00	16.31
1425.63	34.96	PK	V	23.41	2.84	27.11	34.10	74.00	39.90
1425.63	18.32	AV	V	23.41	2.84	27.11	17.46	54.00	36.54
650.05	28.7	QP	H	20.20	3.09	22.29	29.70	46.00	16.30

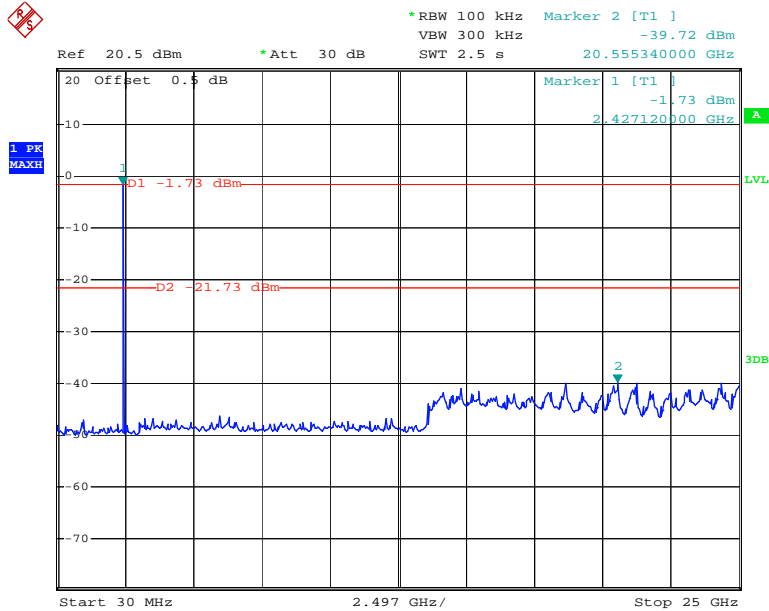
Conducted Spurious Emissions at Antenna Port

802.11b Low Channel



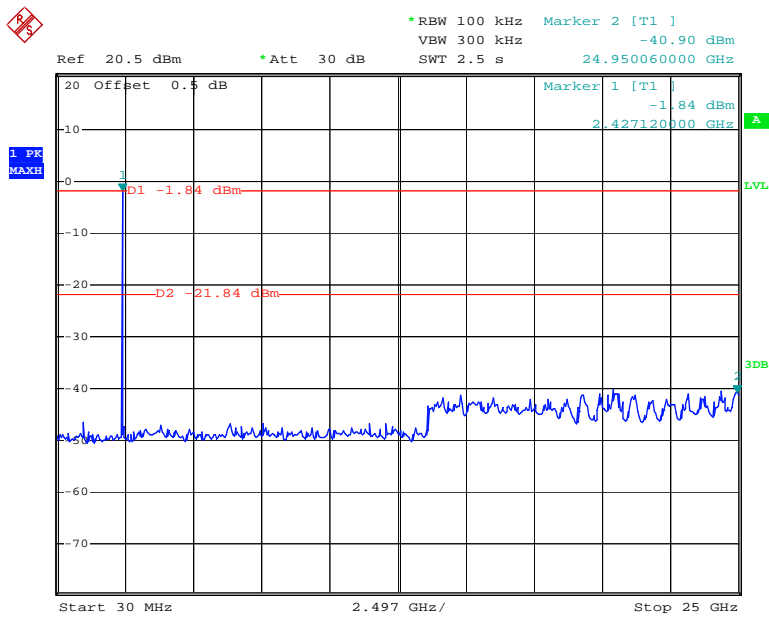
Date: 17.AUG.2013 09:40:41

802.11b Middle Channel



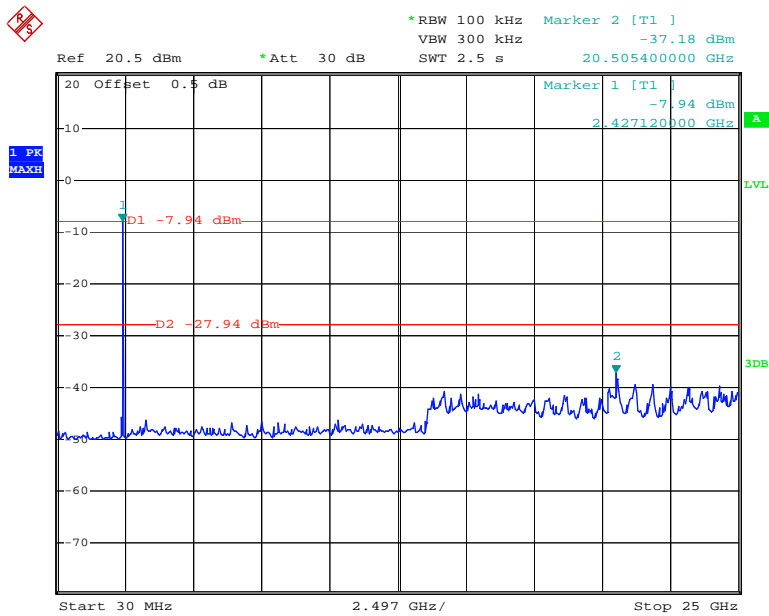
Date: 17.AUG.2013 09:42:33

802.11b High Channel



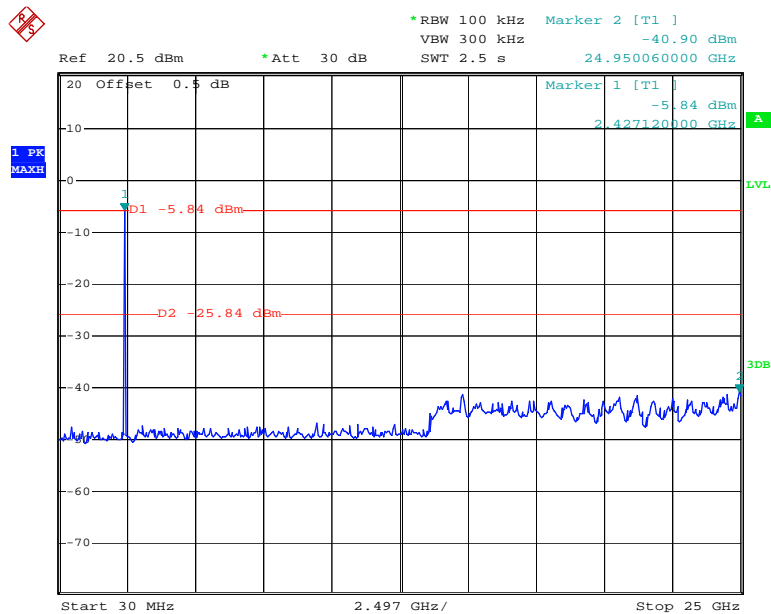
Date: 17.AUG.2013 09:43:38

802.11g Low Channel



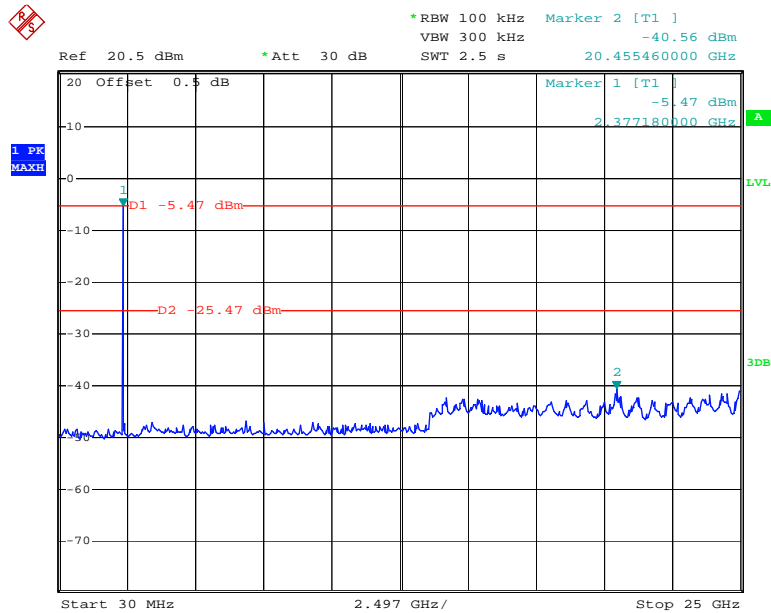
Date: 17.AUG.2013 09:23:20

802.11g Middle Channel



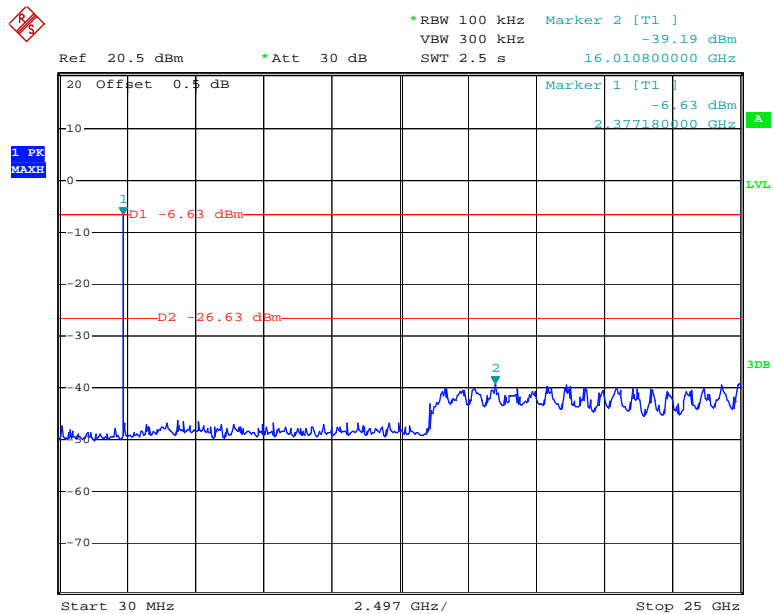
Date: 17.AUG.2013 09:25:17

802.11g High Channel



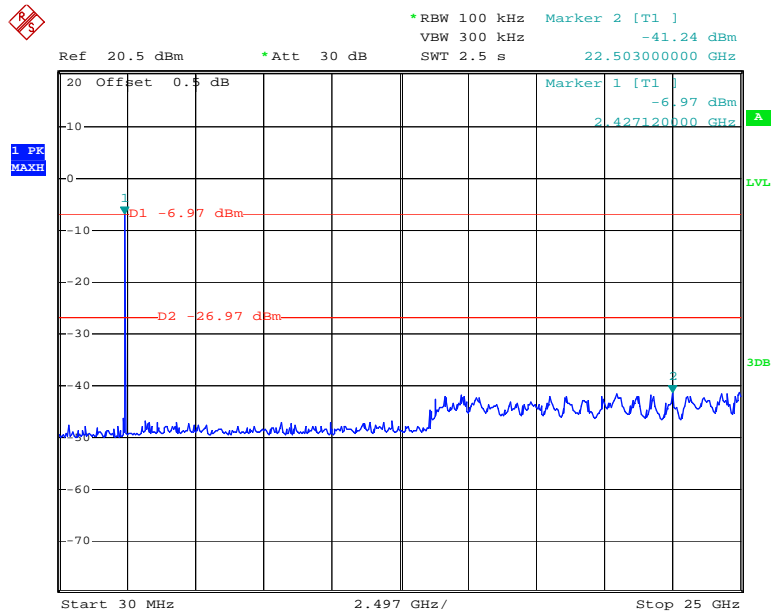
Date: 17.AUG.2013 09:28:52

802.11n20 Low Channel



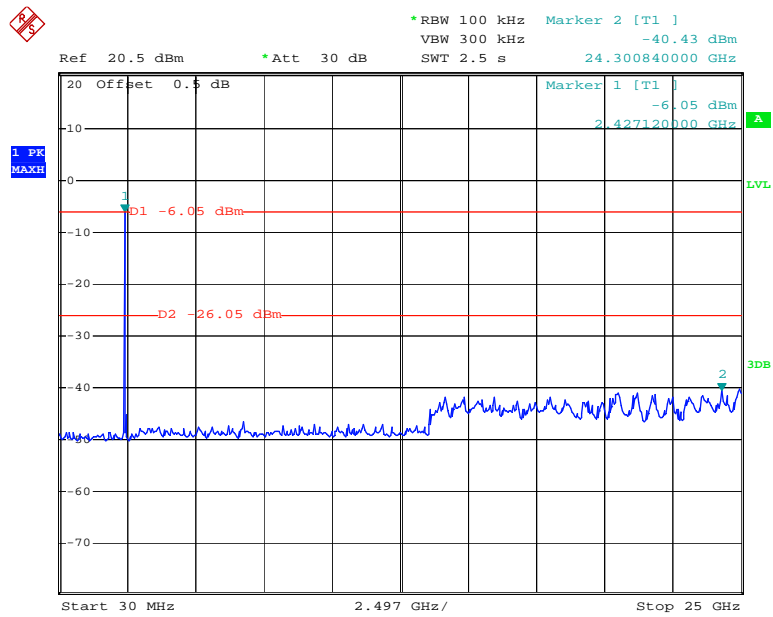
Date: 17.AUG.2013 09:33:23

802.11n20 Middle Channel



Date: 17.AUG.2013 09:36:15

802.11n20 High Channel



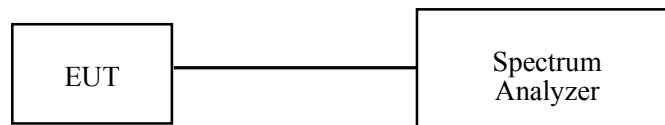
Date: 17.AUG.2013 09:37:45

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

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

Test Procedure

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

**Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum analyzer	FSP 38	100478	2013-6-16	2014-6-15

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	27.6° C
Relative Humidity:	58 %
ATM Pressure:	99.1kPa

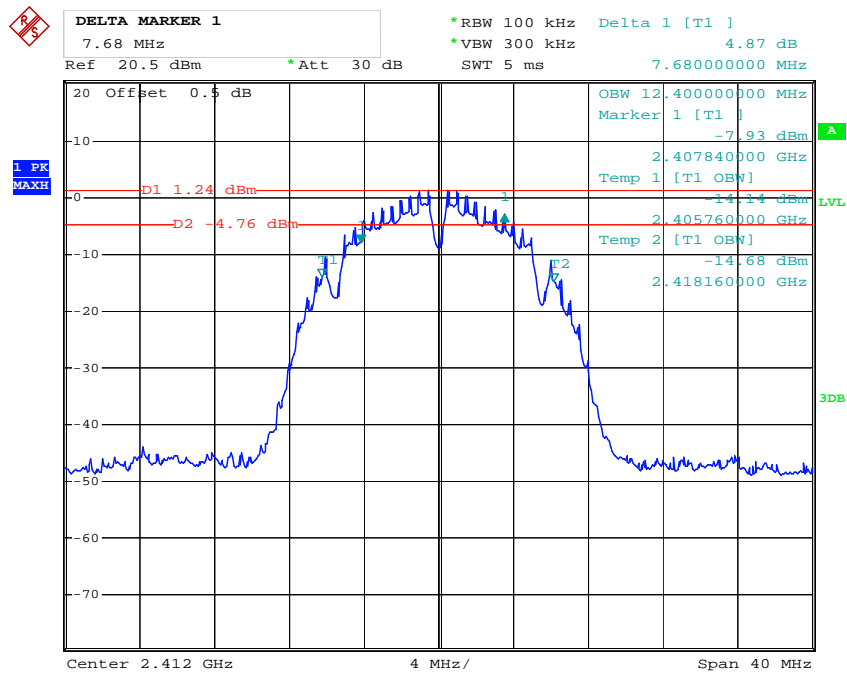
The testing was performed by Ares Liu on 2013-08-16.

Test Result: Pass.

Please refer to the following tables and plots.

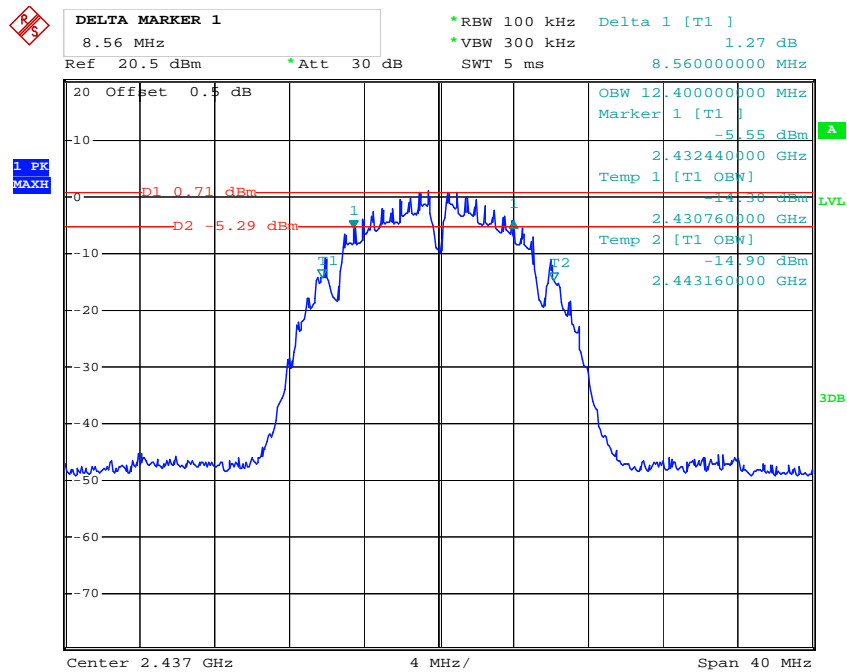
Channel	Frequency	6 dB Bandwidth	Limit
	(MHz)	(MHz)	(kHz)
802.11b mode			
Low	2412	7.68	> 500
Middle	2437	8.56	> 500
High	2462	8.16	> 500
802.11g mode			
Low	2412	15.52	> 500
Middle	2437	15.36	> 500
High	2462	15.20	> 500
802.11n20 mode			
Low	2412	15.28	> 500
Middle	2437	15.20	> 500
High	2462	15.20	> 500

802.11b Low Channel



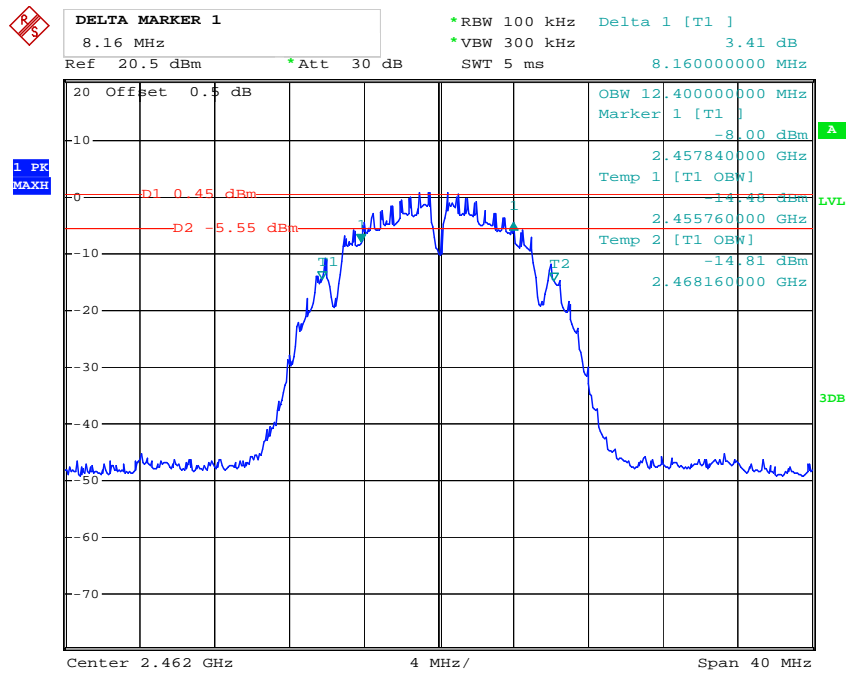
Date: 16.AUG.2013 15:13:21

802.11b Middle Channel



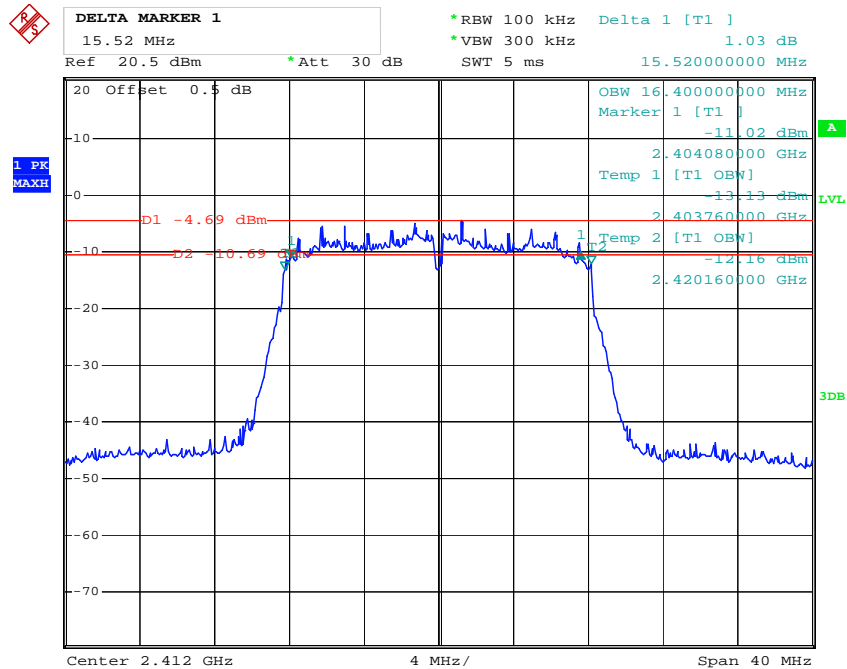
Date: 16.AUG.2013 15:28:33

802.11b High Channel



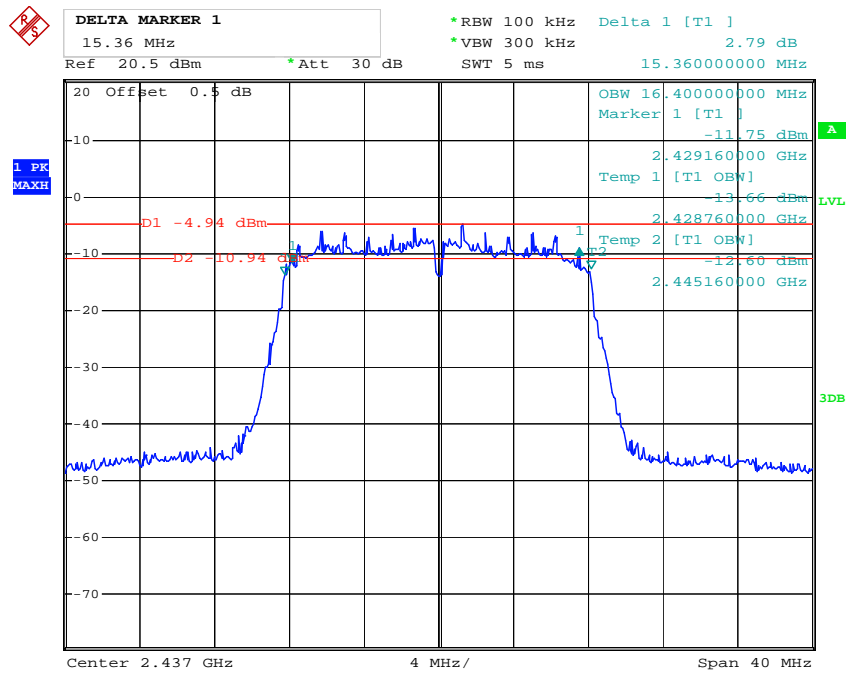
Date: 16.AUG.2013 15:38:46

802.11g Low Channel



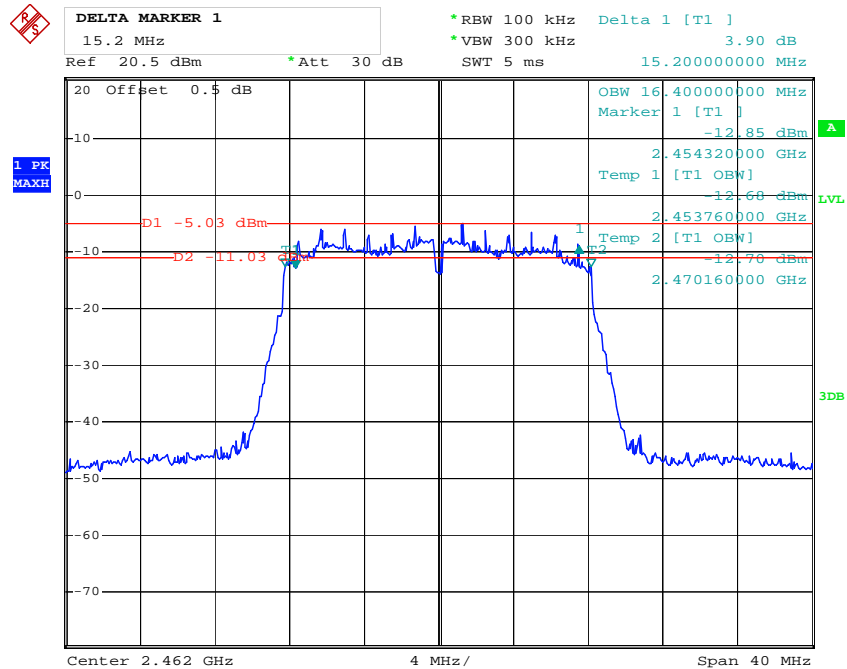
Date: 16.AUG.2013 15:52:00

802.11g Middle Channel



Date: 16.AUG.2013 16:07:21

802.11g High Channel



Date: 16.AUG.2013 16:17:13

DELTA MARKER 1
15.28 MHz
Ref 20.5 dBm *Att 30 dB *RBW 100 kHz Delta 1 [T1] *VBW 300 kHz 1.50 dB 15.280000000 MHz

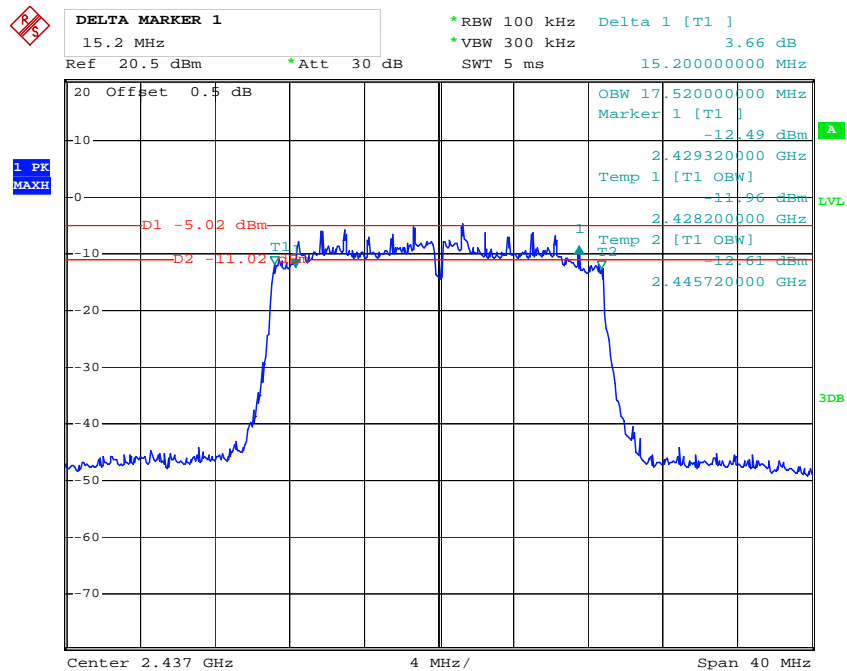
20 Offset 0.5 dB
Marker 1 [T1] -11.41 dBm
Temp 1 [T1 OBW] -11.56 dBm
2.404320000 GHz
Temp 2 [T1 OBW] -12.82 dBm
2.420720000 GHz

D1 -4.73 dBm
D2 -10.75 dBm

1 PK
MAXH

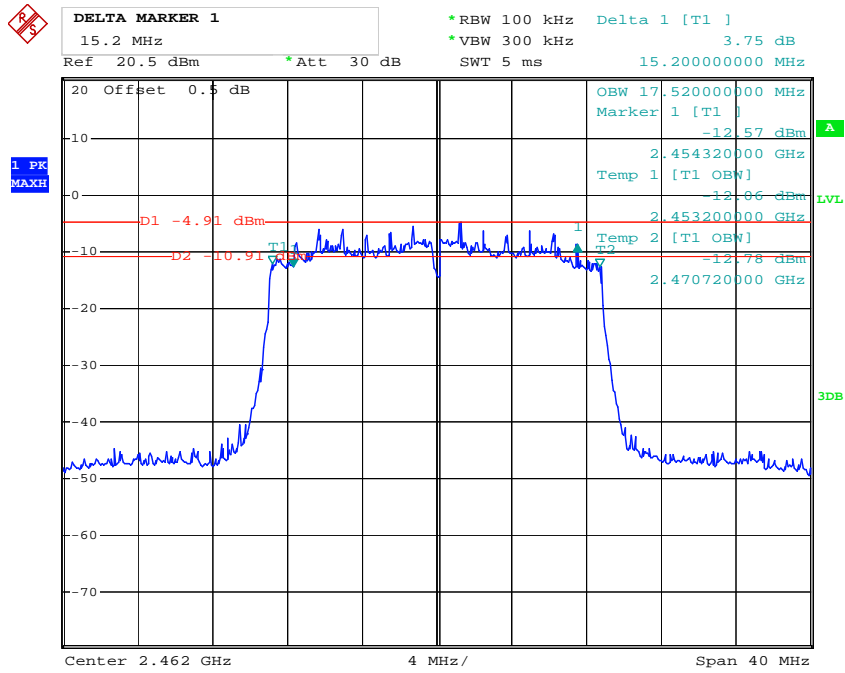
Center 2.412 GHz 4 MHz/ Span 40 MHz

802.11n20 Middle Channel



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802.11n20 High Channel



Date: 16.AUG.2013 17:10:52

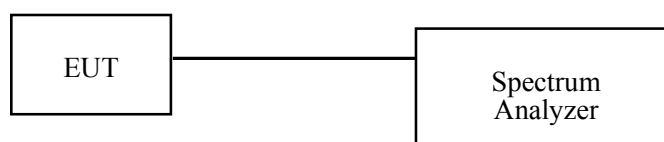
FCC §15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

Applicable Standard

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

Test Procedure

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



4. According to KDB 558074 D01 DTS Meas Guidance v02, Section 8.2.1 Option 1:
 - 4.1 Set the analyzer span to a minimum of 1.5 times the EBW.
 - 4.2 Set the RBW = 1 MHz.
 - 4.3 Set the VBW = 3 MHz.
 - 4.4 Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$
 - 4.5 Sweep time = auto couple.
 - 4.6 Detector = power averaging (RMS) or sample detector when RMS not available.
 - 4.7 Employ trace averaging in power averaging (RMS) mode over a minimum of 100 traces.
 - 4.8 Use the spectrum analyzer's band power measurement function with band limits set equal to the EBW band edges.

Note: EBW means 26dB bandwidth.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum analyzer	FSP 38	100478	2013-6-16	2014-6-15

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Data**Environmental Conditions**

Temperature:	27.6° C
Relative Humidity:	58 %
ATM Pressure:	99.1kPa

The testing was performed by Ares Liu on 2013-08-16.

Test Mode: Transmitting

Channel	Frequency	Conducted Output Power	Limit	Result
	(MHz)	(dBm)	(dBm)	
802.11b mode				
Low	2412 MHz	9.32	30	PASS
Middle	2437 MHz	9.29	30	PASS
High	2462 MHz	9.33	30	PASS
802.11g mode				
Low	2412 MHz	7.82	30	PASS
Middle	2437 MHz	7.47	30	PASS
High	2462 MHz	7.39	30	PASS
802.11n20 mode				
Low	2412 MHz	7.65	30	PASS
Middle	2437 MHz	7.30	30	PASS
High	2462 MHz	7.26	30	PASS

Please refer to the following plots

DELTA MARKER 1
15.2 MHz

*RBW 100 kHz Delta 1 [T1]
*VBW 300 kHz 4.33 dB

Ref 20.5 dBm *Att 30 dB SWT 5 ms 15.20000000 MHz

20 Offset 0.5 dB

1 PK
MAXH

D1 1.24 dBm

D2 -24.76 dBm

OBW 12.40000000 MHz
Marker 1 [T1]
-26.87 dBm
Temp 1 [T1 OBW]
-14.14 dBm
2.404320000 GHz
Temp 2 [T1 OBW]
-14.68 dBm
2.405760000 GHz
2.418160000 GHz

LVL
3DB

Center 2.412 GHz 4 MHz/ Span 40 MHz

Date: 16.AUG.2013 15:13:51

[illegible]

Date: 16.AUG.2013 15:14:24

DELTA MARKER 1
15.2 MHz
Ref 20.5 dBm *Att 30 dB
*RBW 100 kHz *VBW 300 kHz
SWT 5 ms Delta 1 [T1]
15.20000000 MHz

20 Offset 0.5 dB
Marker 1 [T1]
-26.10 dBm
Temp 1 [T1 OBW]
2.429320000 GHz
-14.21 dBm
Temp 2 [T1 OBW]
2.430680000 GHz
-14.84 dBm
2.443160000 GHz

1 PK
MAXH

D1 0.71 dBm
D2 -25.29 dBm

Center 2.437 GHz
4 MHz/
Span 40 MHz

Date: 16.AUG.2013 15:30:08

MARKER 1

2.4373648 GHz

Offset 0.5 dB

1 RBW 1 MHz

1 VBW 3 MHz

SWT 2.5 ms

Marker 1 [T1]

1.95 dBm

2.437364800 GHz

1 RBW MAXH

1

3dB

Center 2.437 GHz

2.28 MHz/

Span 22.8 MHz

Tx Channel

Bandwidth

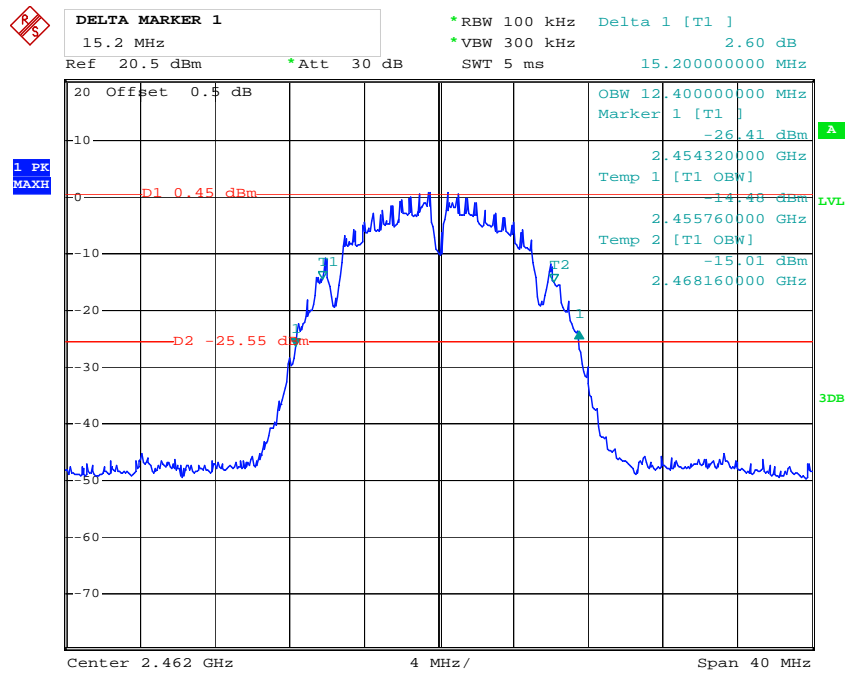
15.2 MHz

Power

9.29 dBm

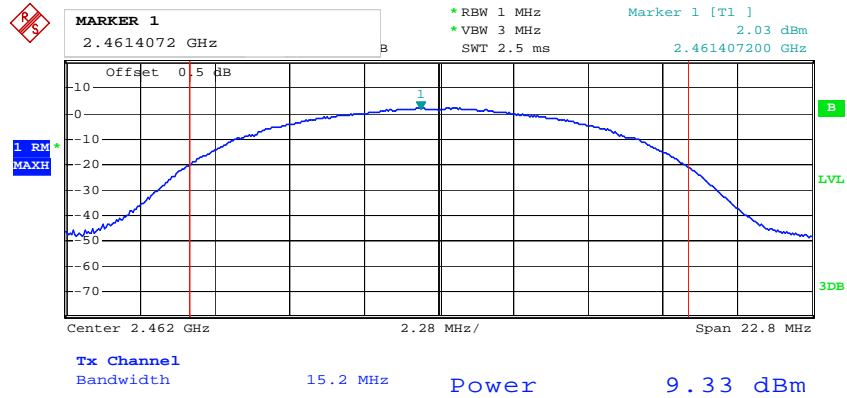
Date: 16.AUG.2013 15:32:38

802.11b 26dB, High Channel



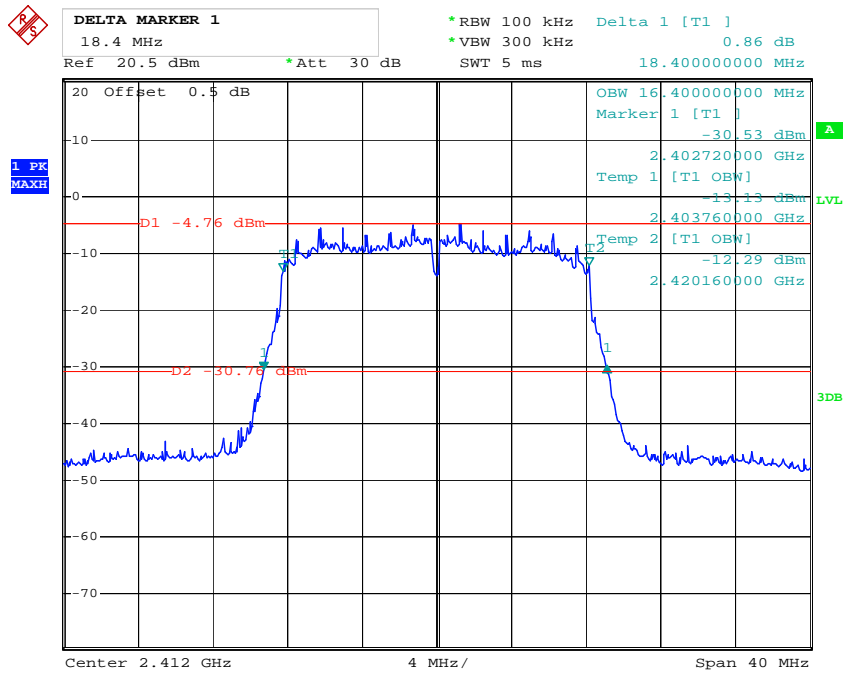
Date: 16.AUG.2013 15:38:12

802.11b RF Output Power, High Channel



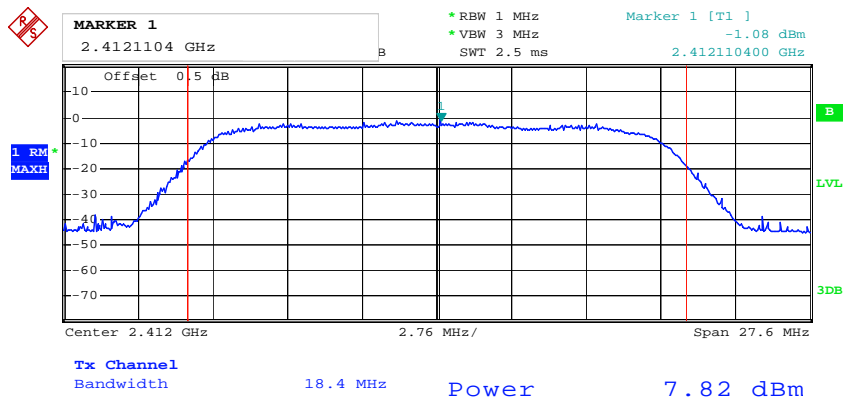
Date: 16.AUG.2013 15:40:35

802.11g 26dB, Low Channel



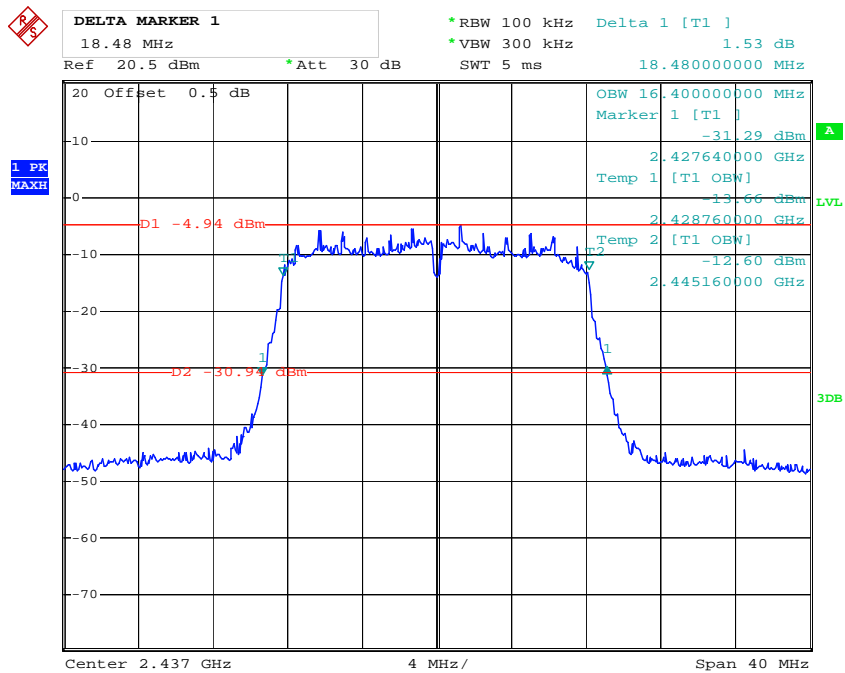
Date: 16.AUG.2013 15:50:35

802.11g RF Output Power, Low Channel



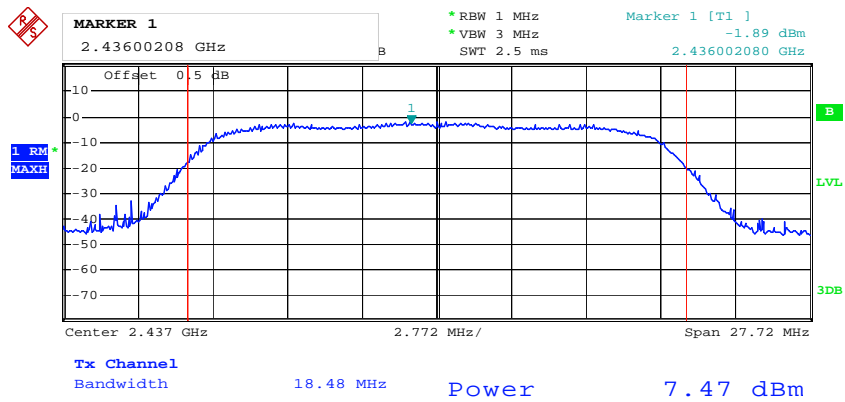
Date: 16.AUG.2013 15:55:44

802.11g 26dB, Middle Channel



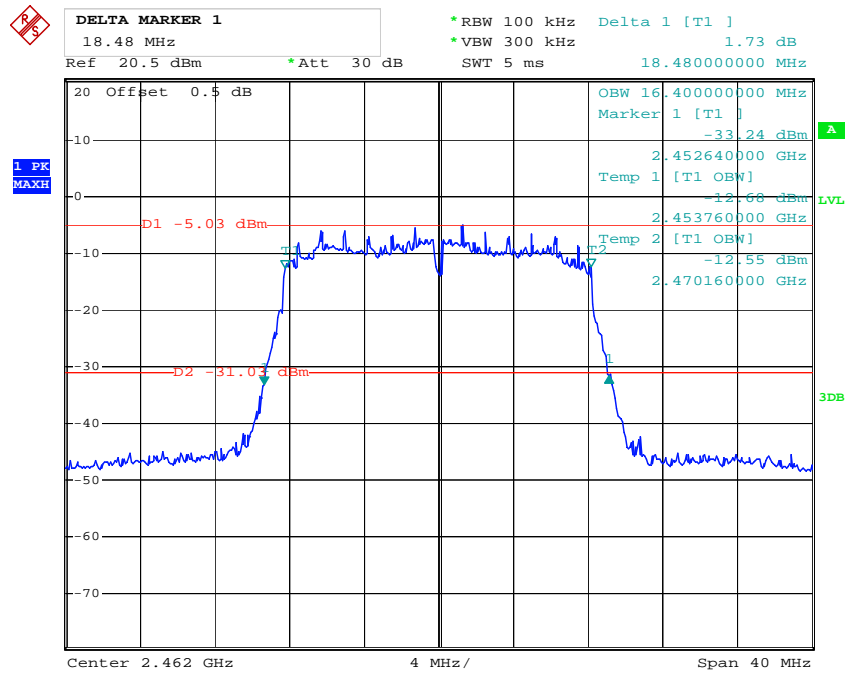
Date: 16.AUG.2013 16:07:43

802.11g RF Output Power, Middle Channel



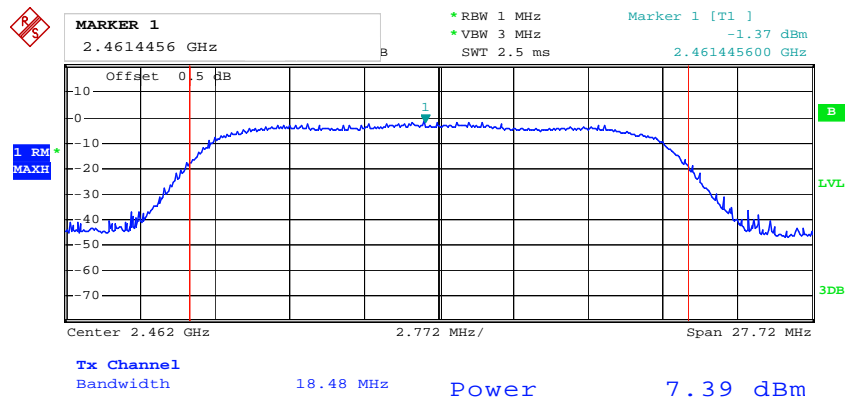
Date: 16.AUG.2013 16:09:57

802.11g RF 26dB, High Channel



Date: 16.AUG.2013 16:17:40

802.11g RF Output Power, High Channel



Date: 16.AUG.2013 16:24:56

DELTA MARKER 1
18.88 MHz

*RBW 100 kHz Delta 1 [T1]
*VBW 300 kHz 2.34 dB
SWT 5 ms 18.880000000 MHz

Ref 20.5 dBm *Att 30 dB

20 Offset 0.5 dB

OBW 17.520000000 MHz
Marker 1 [T1]
-31.99 dBm
Temp 1 [T1 OBW]
-11.56 dBm
2.403200000 GHz

D1 -4.73 dBm

T1

Temp 2 [T1 OBW]
-12.82 dBm
2.420720000 GHz

D2 -30.7 dBm

1 PK
MAXH

Center 2.412 GHz 4 MHz/
Span 40 MHz

Date: 16.AUG.2013 16:57:13

MARKER 1

2.41721088 GHz

Offset 0.5 dB

Center 2.412 GHz

2.832 MHz/

Span 28.32 MHz

1 RBW 1 MHz

1 VBW 3 MHz

SWT 2.5 ms

Marker 1 [T1]

-1.80 dBm

2.417210880 GHz

1 RBW

MAXH

3dB

B

LVL

Tx Channel

Bandwidth

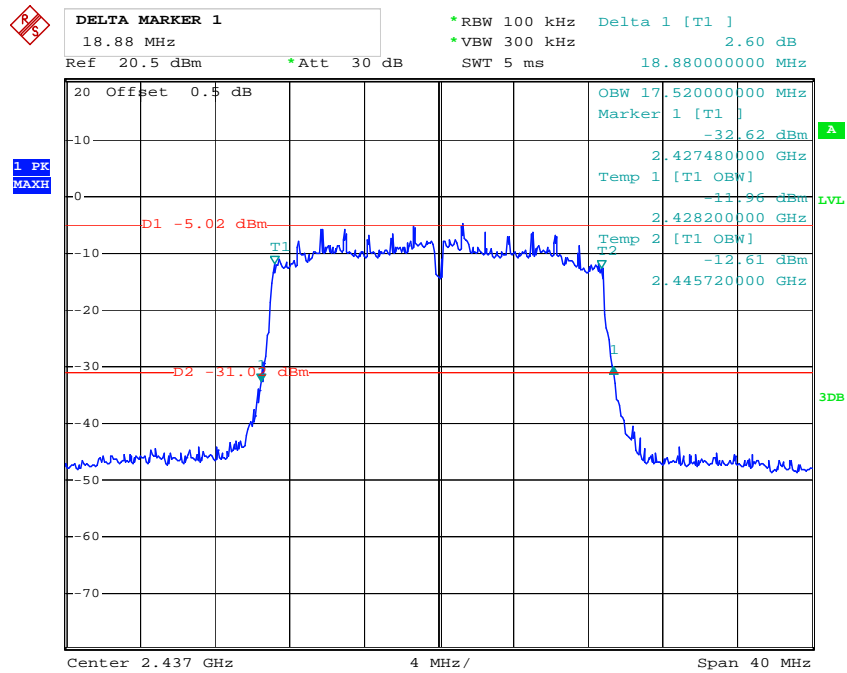
18.88 MHz

Power

7.65 dBm

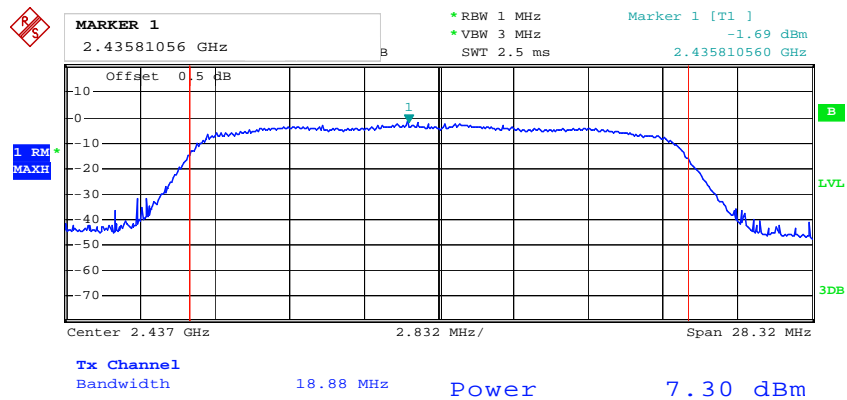
Date: 16.AUG.2013 16:59:02

802.11n20 26dB, Middle Channel



Date: 16.AUG.2013 17:04:49

802.11n20 RF Output Power, Middle Channel



Date: 16.AUG.2013 17:06:11

DELTA MARKER 1
18.88 MHz
Ref 20.5 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz Delta 1 [T1] 2.98 dB
SWT 5 ms 18.880000000 MHz

20 Offset 0.5 dB
Marker 1 [T1] 17.520000000 MHz -32.92 dBm
Temp 1 [T1 OBW] 2.452480000 GHz -11.90 dBm
Temp 2 [T1 OBW] 2.453200000 GHz -12.78 dBm
Temp 2 [T1 OBW] 2.470720000 GHz

D1 -4.91 dBm
D2 -30.9 dBm

1 PK MAXH

Center 2.462 GHz 4 MHz/ Span 40 MHz

802.11n20 RF Output Power, High Channel



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

Applicable Standard

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

Test Procedure

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum analyzer	FSP 38	100478	2013-6-16	2014-6-15

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	27.6° C
Relative Humidity:	58 %
ATM Pressure:	99.1kPa

The testing was performed by Ares Liu on 2013-08-16.

Test Result: Compliance

Please refer to following table and plots.

MARKER 4
2.3964 GHz
* RBW 100 kHz
* VBW 300 kHz
Ref 20.5 dBm
* Att 30 dB
SWT 15 ms
Marker 4 [T1]
0.95 dBm
2.411088000 GHz
-48.95 dBm
2.396400000 GHz
-45.96 dBm
2.400000000 GHz

20 Offset 0.5 dB
1 PK
MAXH
D1 0.95 dBm
D2 -19.05 dBm
F1
F2
Start 2.31 GHz
10.8 MHz/
Stop 2.418 GHz

Date: 16.AUG.2013 15:22:26

MARKER 4
2.486456 GHz

Ref 20.5 dBm *Att 30 dB SWT 10 ms

*RBW 100 kHz Marker 4 [T1]
*VBW 300 kHz -47.45 dBm

2.486456000 GHz

20 Offset 0.5 dB

1 PK
MAXH

0.82 dBm

D2 -18 dBm

Marker 1 [T1]
0.82 dBm
2.461400000 GHz

Marker 2 [T1]
-48.44 dBm
2.483566666 GHz

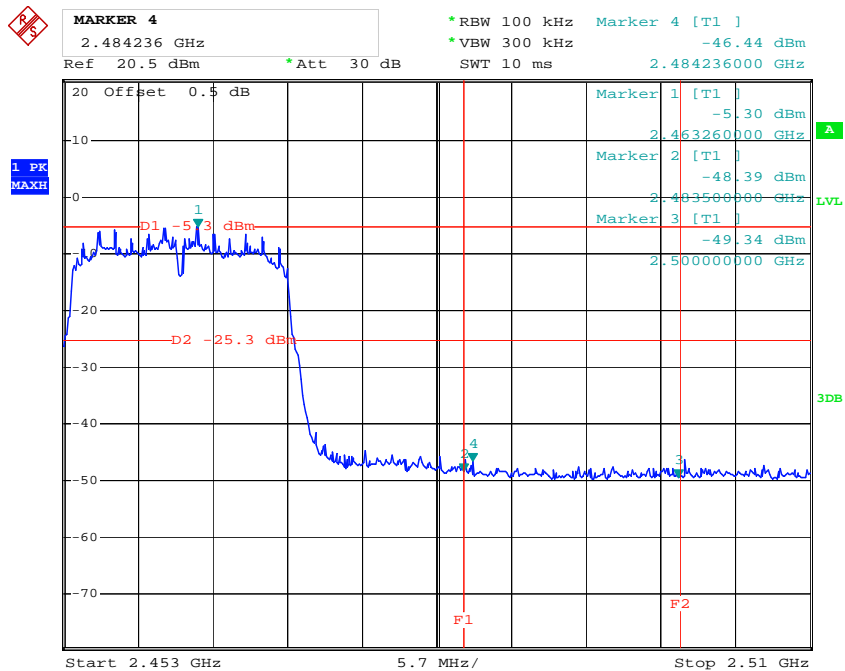
Marker 3 [T1]
-48.23 dBm
2.500000000 GHz

Start 2.456 GHz 5.4 MHz/ Stop 2.51 GHz

Date: 16.AUG.2013 15:44:31

MARKER 4
 2.39848 GHz
 *RBW 100 kHz
 *VBW 300 kHz
 -43.97 dBm
 Ref 20.5 dBm
 *Att 30 dB
 SWT 15 ms
 2.398480000 GHz
 20 Offset 0.5 dB
 Marker 1 [T1]
 -4.67 dBm
 Marker 2 [T1]
 -47.50 dBm
 Marker 3 [T1]
 -47.50 dBm
 D1 -4.72 dBm
 D2 -24.72 dBm
 1 PK
 MAXH
 LVL
 3DB
 Start 2.31 GHz
 11.2 MHz/
 Stop 2.422 GHz

802.11g: Band Edge, Right Side

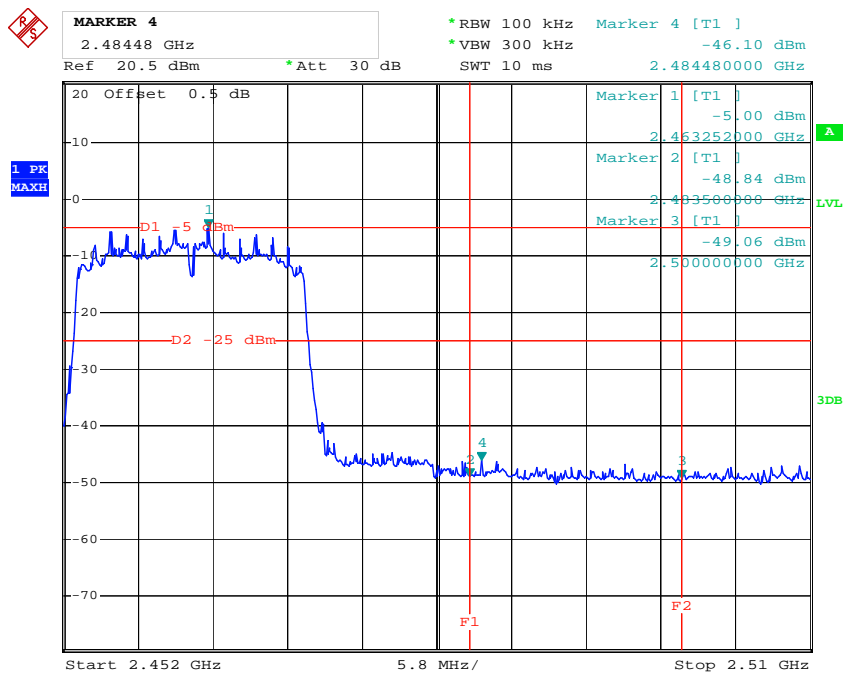


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MARKER 4
 2.395568 GHz
 *RBW 100 kHz
 *VBW 300 kHz
 -44.00 dBm
 Ref 20.5 dBm
 *Att 30 dB
 SWT 15 ms
 2.395568000 GHz

20 Offset 0.5 dB
 1 PK
 MAXH
 D1 -4.6 dBm
 D2 -24.6 dBm
 Marker 1 [T1]
 -4.60 dBm
 Marker 2 [T1]
 -46.72 dBm
 Marker 3 [T1]
 -46.72 dBm
 LVL
 3dB
 Start 2.31 GHz
 11.2 MHz/
 Stop 2.422 GHz

802.11n20 Band Edge, Right Side



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FCC §15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

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

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. According to KDB 558074 D01 DTS Meas Guidance v02, set the RBW = 3 kHz, VBW = 30 kHz, Set the span to 1.5 times the DTS channel bandwidth.
4. Use the peak marker function to determine the maximum power level in any 3 kHz band segment within the fundamental EBW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum analyzer	FSP 38	100478	2013-6-16	2014-6-15

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	27.6° C
Relative Humidity:	58 %
ATM Pressure:	99.1kPa

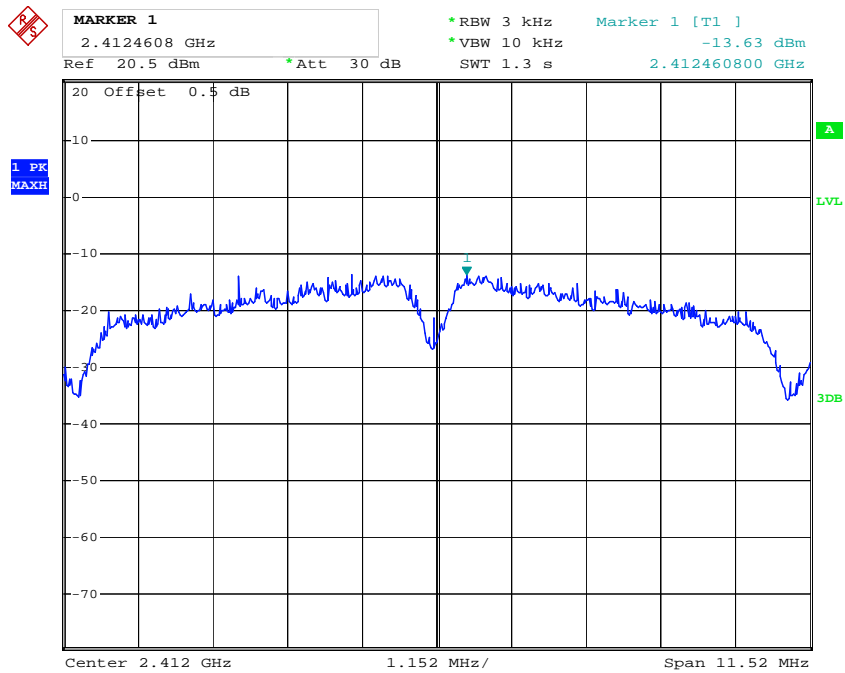
The testing was performed by Ares Liu on 2013-08-16.

*Test Mode: Transmitting***Test Result:** Pass

Channel	PSD	Limit	Result
	(dBm/3kHz)	(dBm/3kHz)	
802.11b mode			
Low	-13.63	8	PASS
Middle	-13.21	8	PASS
High	-13.02	8	PASS
802.11g mode			
Low	-18.47	8	PASS
Middle	-18.75	8	PASS
High	-18.67	8	PASS
802.11n20 mode			
Low	-18.79	8	PASS
Middle	-19.07	8	PASS
High	-18.93	8	PASS

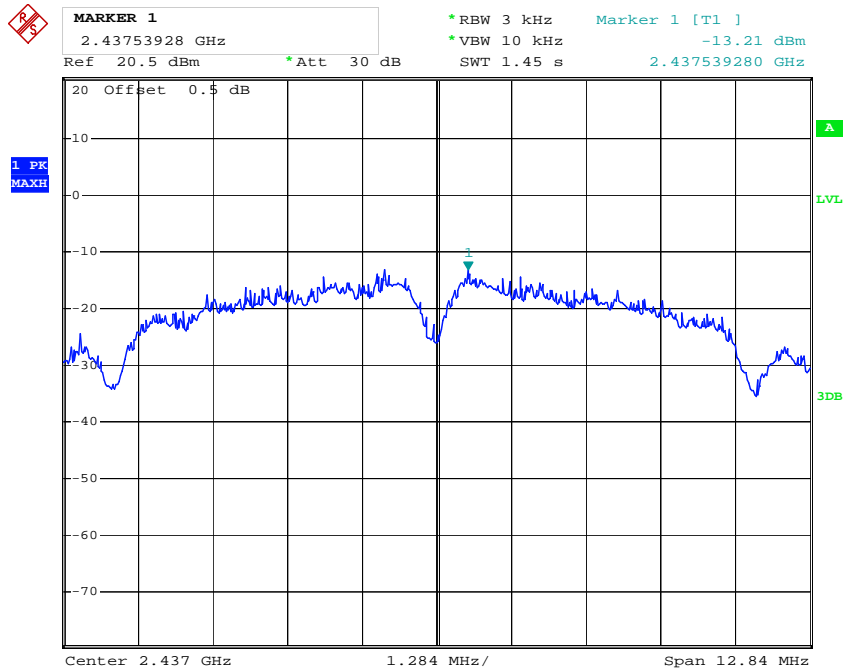
Please refer to the following plots

Power Spectral Density, 802.11b Low Channel



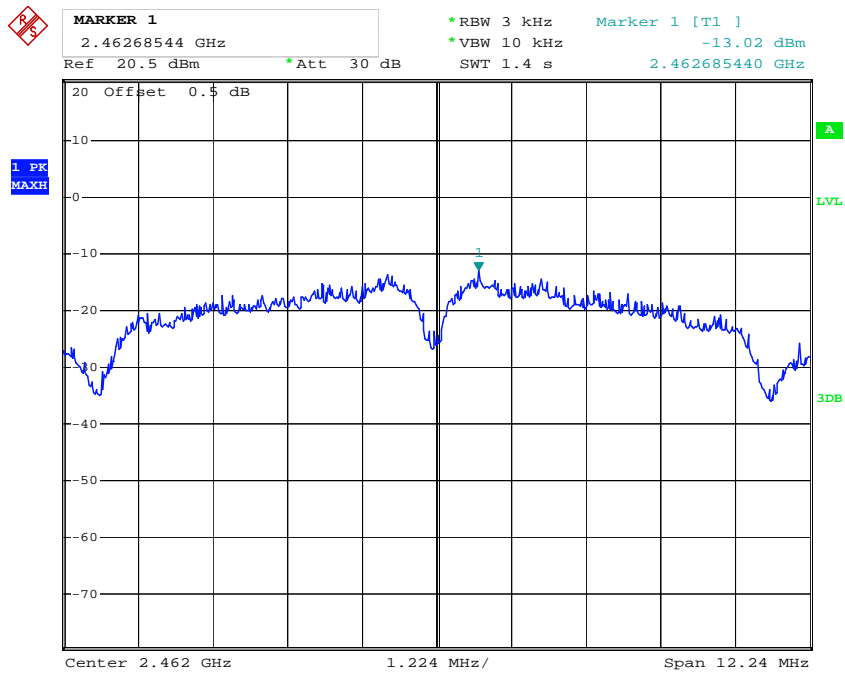
Date: 16.AUG.2013 15:18:43

Power Spectral Density, 802.11b Middle Channel



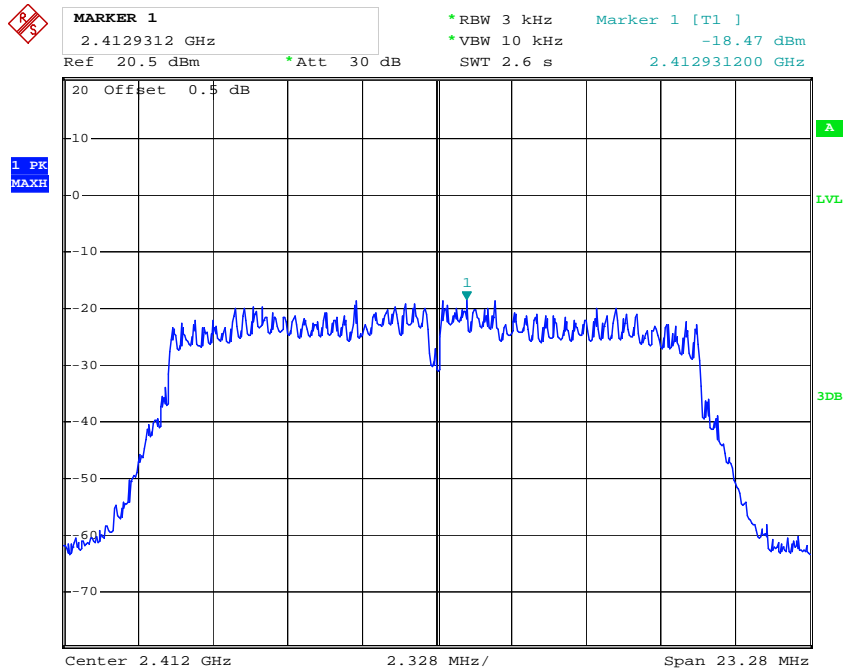
Date: 16.AUG.2013 15:35:10

Power Spectral Density, 802.11b High Channel



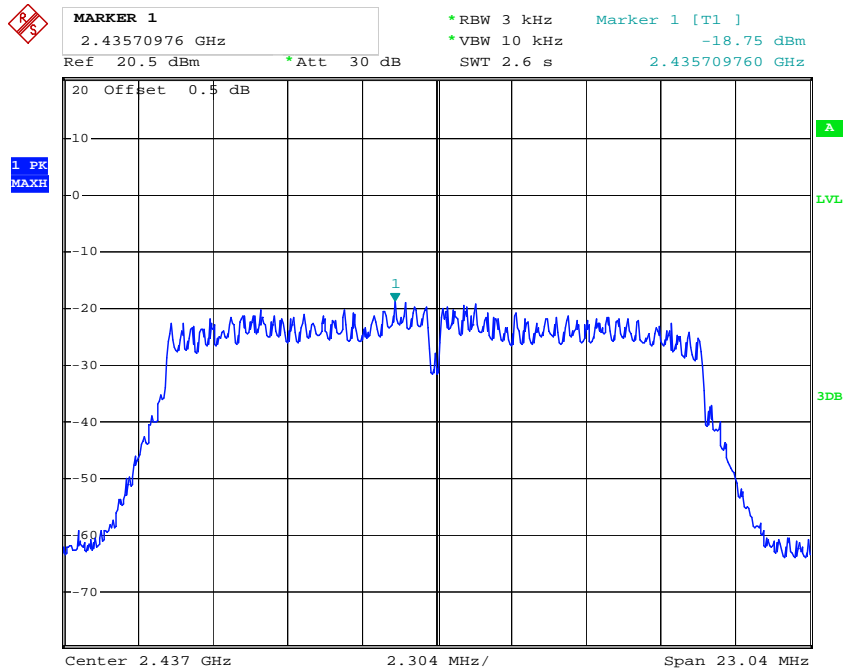
Date: 16.AUG.2013 15:42:14

Power Spectral Density, 802.11g Low Channel



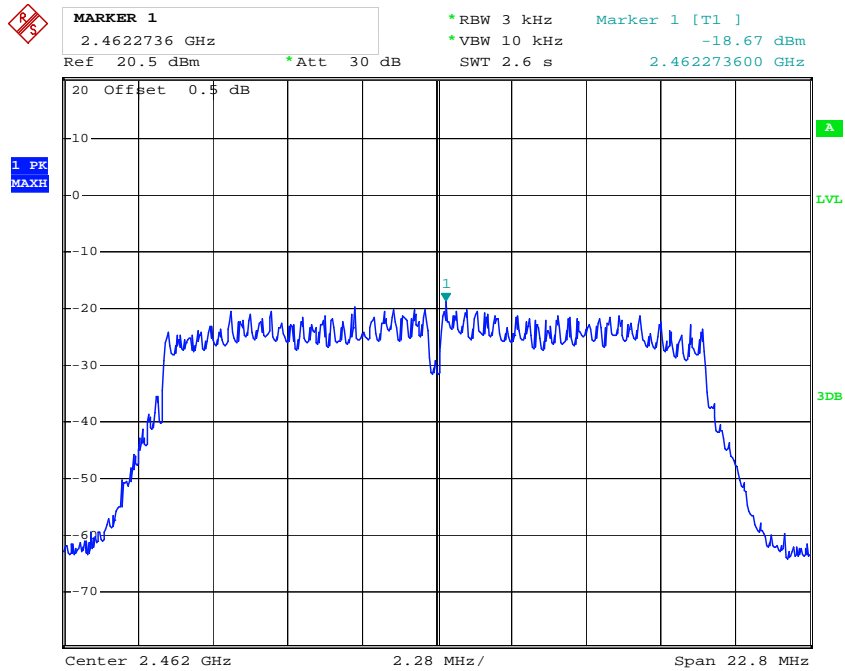
Date: 16.AUG.2013 15:57:28

Power Spectral Density, 802.11g Middle Channel



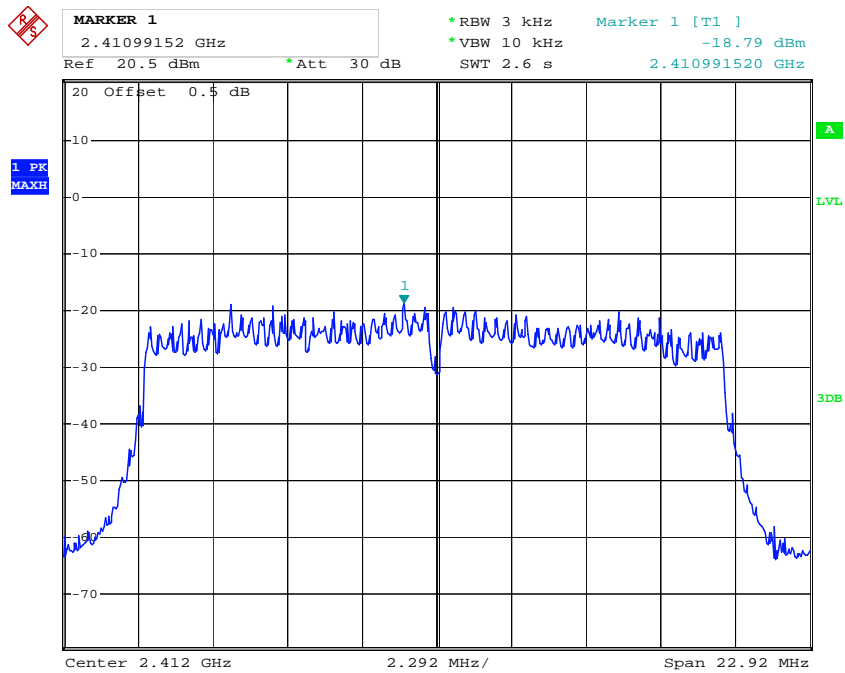
Date: 16.AUG.2013 16:11:21

Power Spectral Density, 802.11g High Channel



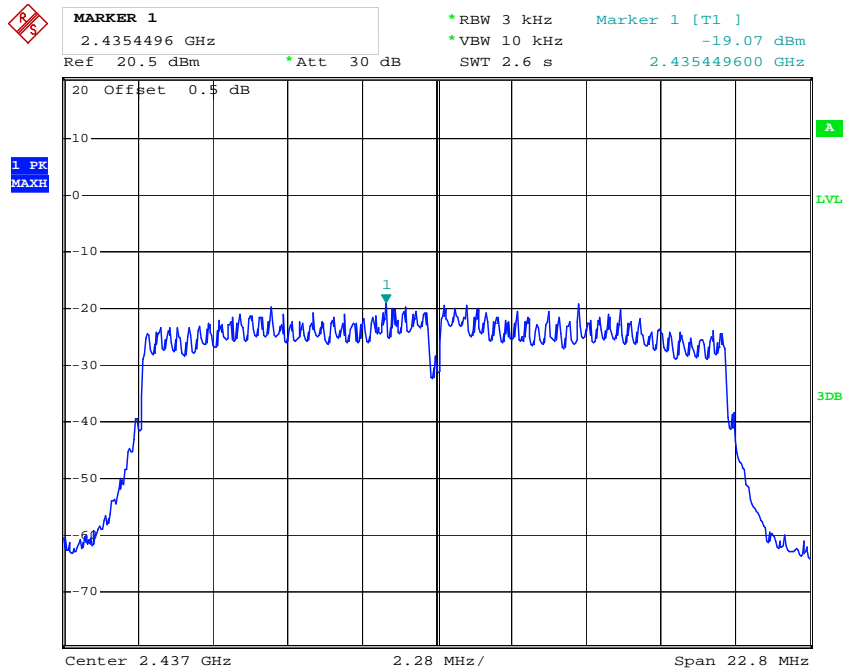
Date: 16.AUG.2013 16:26:51

Power Spectral Density, 802.11n20 Low Channel



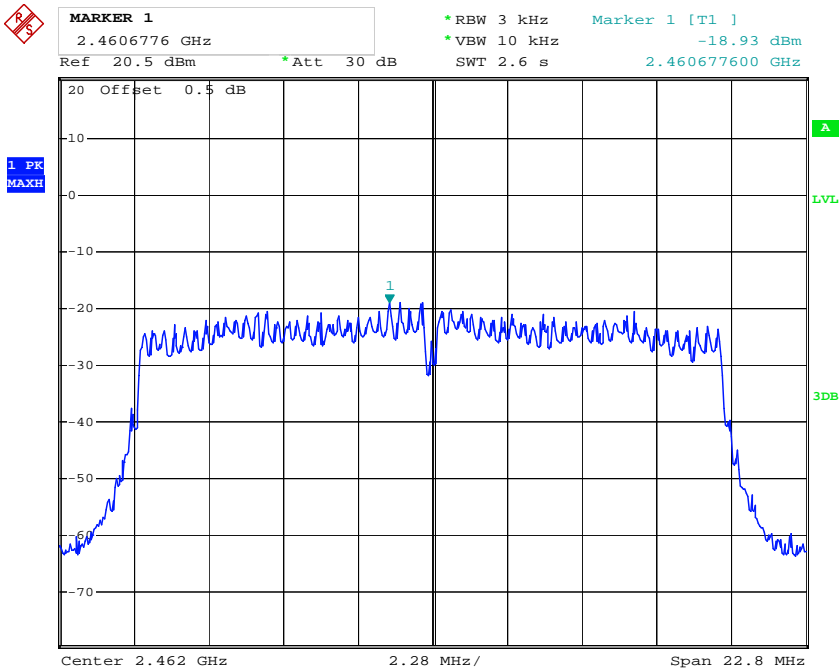
Date: 16.AUG.2013 17:00:11

Power Spectral Density, 802.11n20 Middle Channel



Date: 16.AUG.2013 17:07:19

Power Spectral Density, 802.11n20 High Channel



Date: 16.AUG.2013 17:14:02

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