



FCC PART 15.247 TEST REPORT

For

Chengdu Xuguang Tech Co., LTD

Two Section of Park Road, Longquanyi, Chengdu, Sichuan, China

FCC ID: S5FSDWFCU-33HR

Report Type: Original Report	Product Name: WIFI MODULE
Test Engineer: <u>Kevin Tao</u> <i>Kevin Tao</i>	
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Reviewed By: <u>Technical Leader</u> <i>Harry Wu</i>	
Test Laboratory: Bay Area Compliance Laboratories Corp. (Chengdu) 5040, HuiLongWan Plaza, No. 1, ShaWan Road, JinNiu District, ChengDu, China Tel: 028-65523123, Fax: 028-65525125 www.baclcorp.com	

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Chengdu Xuguang Tech Co., LTD*'s product, model number: *SDWFCU-33HR* (FCC ID: *S5FSDWFCU-33HR*) (the "EUT") in this report was an WIFI MODULE, which was measured approximately: 4.5cm (L) x 2.5cm (W), rated input voltage: DC 5 V.

**All measurement and test data in this report were gathered from final production sample, serial number: 141205001/01 (assigned by BACL, Chengdu). It may have deviation from any other sample. The EUT supplied by the applicant was received on 2014-12-04, and EUT complied with test requirement.*

Objective

This report is prepared on behalf of *Chengdu Xuguang Tech Co., LTD* 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)

No.

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. (Chengdu). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

The uncertainty of any RF tests which use conducted method measurement is ± 3.17 dB, the uncertainty of any radiation on emissions measurement is:

30M~200MHz: ± 4.7 dB;
200M~1GHz: ± 6.0 dB;
1G-6GHz: ± 5.13 dB;
6G~25GHz: ± 5.47 dB;

And the uncertainty will not be taken into consideration for all test data recorded in the report.

Test Facility

The test site used by BACL to collect test data is located in the 5040, HuiLongWan Plaza, No. 1, ShaWan Road, JinNiu District, ChengDu, China

Test site at BACL 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 July 31, 2009. 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.: 560332. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for test in testing mode, which was provided by manufacturer. 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 802.11n HT20 modes were tested with Channel 1, 6 and 11.
For 802.11n HT40 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, PSD across all data rates bandwidths and modulations.

EUT Exercise Software

The software “ART2-GUI2.3” was used for testing, which was provided by manufacturer.

Test Mode	Test Software Version	ART2-GUI2.3		
802.11b	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	CCK 1M	CCK 1M	CCK 1M
	Power Level Setting Antenna	15	15	16
802.11g	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	OFDM 6M	OFDM 6M	OFDM 6M
	Power Level Setting Antenna	7	7	8
802.11n HT20	Test Frequency	2412MHz	2437MHz	2462MHz
	Data Rate	MCS0	MCS0	MCS0
	Power Level Setting Antenna	6	6	7
802.11n HT40	Test Frequency	2422MHz	2437MHz	2452MHz
	Data Rate	MCS0	MCS0	MCS0
	Power Level Setting Antenna	5	5	6

Equipment Modifications

No modification was made to the EUT by BACL.

Support Equipment List and Details

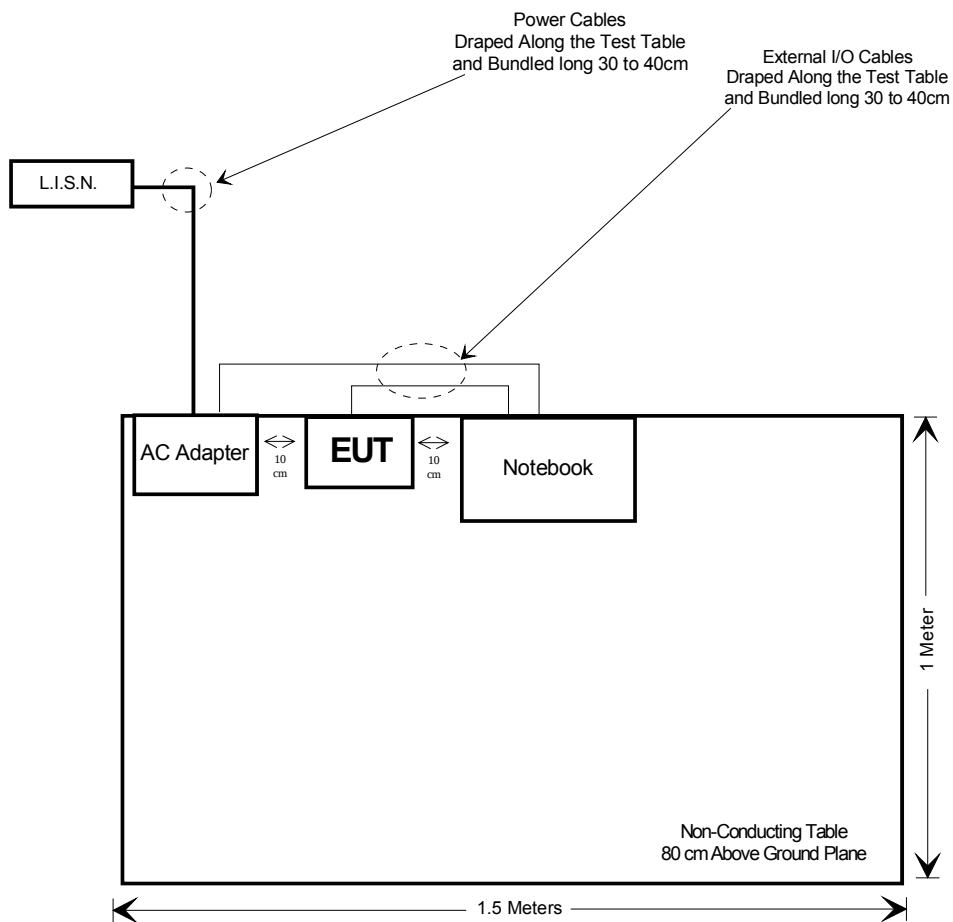
Manufacturer	Description	Model	Serial Number
ThinkPad	Notebook	7459	SKS2012000903

External I/O Cable

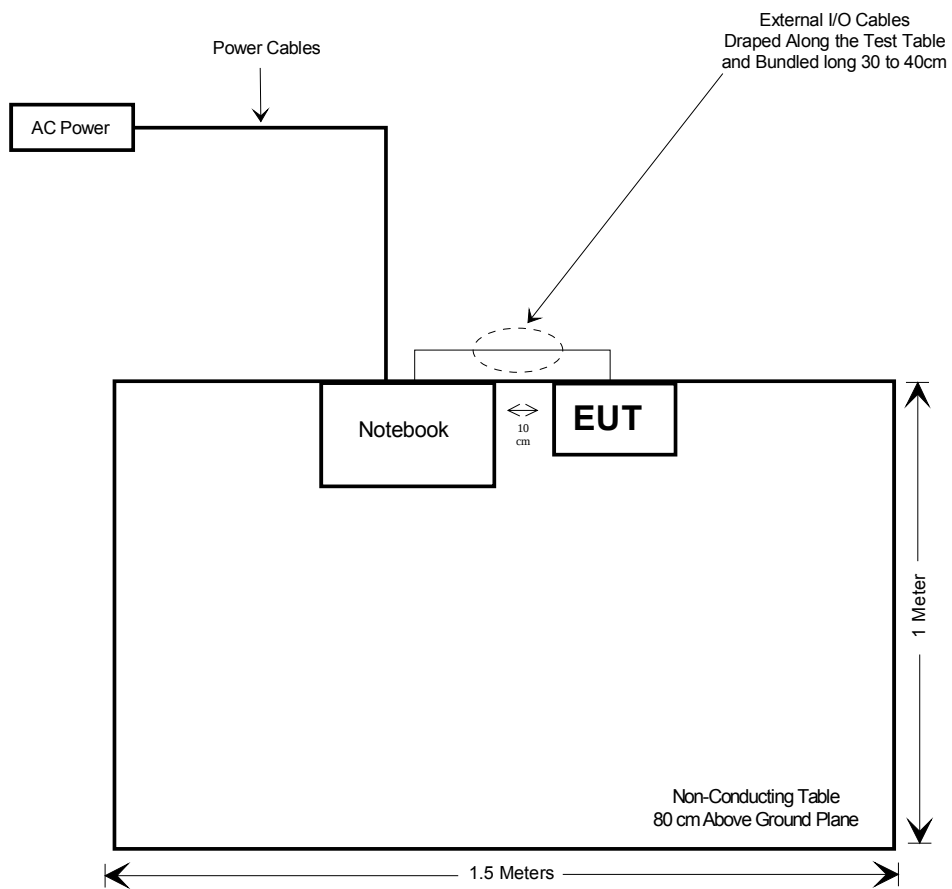
Cable Description	Length (m)	From	To
Shielding USB cable	1.5m	Notebook	EUT

Block Diagram of Test Setup

For Conducted Emissions:



For Spurious Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247(i), §2.1091 & §1.1307(b)(1)	Maximum Permissible exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.247(d)	Conducted 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), §2.1091 & §1.1307(b)(1)- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

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

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) 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;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

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);

Mode	Frequency (MHz)	Antenna Gain		Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11b	2412	1.5	1.41	17.12	51.52	20	0.014	1.0
802.11g	2412	1.5	1.41	14.60	28.84	20	0.008	1.0
802.11n HT20	2412	1.5	1.41	13.56	22.70	20	0.006	1.0
802.11n HT40	2422	1.5	1.41	11.68	14.72	20	0.004	1.0

Result: The device meet FCC MPE at 20 cm distance.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC §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 two PCB antenna, Antenna 1 is both transmitting and receiving, and Antenna 2 is only receiving, which were attached to the EUT, and complied with 15.203, the maximum gain is 1.5 dBi in 2400-2483.5 MHz band, please refer to the EUT external 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:

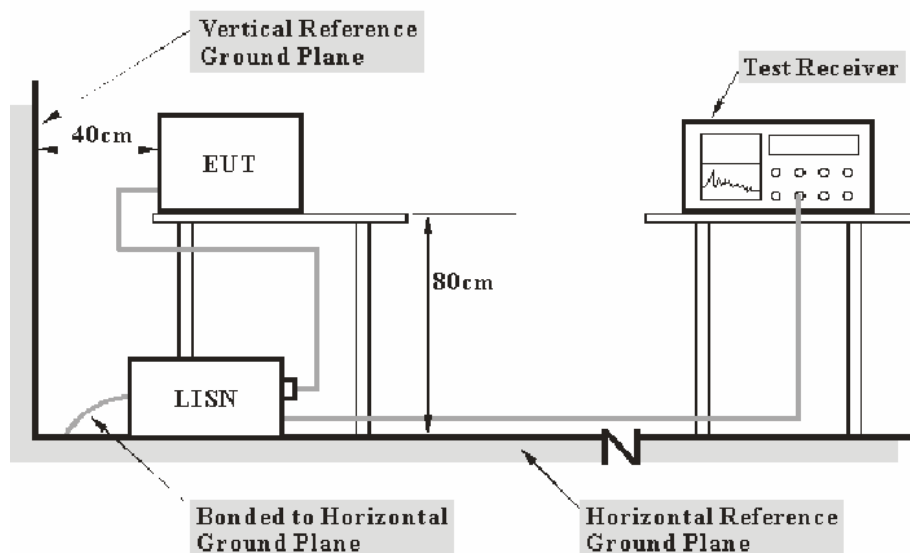
–compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit;
 –non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cisp})$, exceeds the disturbance limit.

Based on CISPR 16-4-2: 2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Chengdu) is 3.17 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 was according to ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The power cables and 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.

DC 5V was used by the EUT.

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:

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

Test Procedure

During the conducted emission test, the adapter 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:

$$V_C = V_R + A_C + VDF$$

Herein,

V_C : corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF : voltage division factor of AMN or ISN

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

Description	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	10028	2014-05-24	2015-05-23
L.I.S.N.	Rohde & Schwarz	ENV216	3560.6550.06	2014-07-31	2015-07-31
L.I.S.N.	Rohde & Schwarz	ENV216	3560.6550.12	2014-02-18	2015-02-17

* **Statement of Traceability:** BACL (Chengdu) attested that all calibrations have been performed, 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:

2.6 dB at **0.187577 MHz** in the **Neutral** conducted mode

Test Data

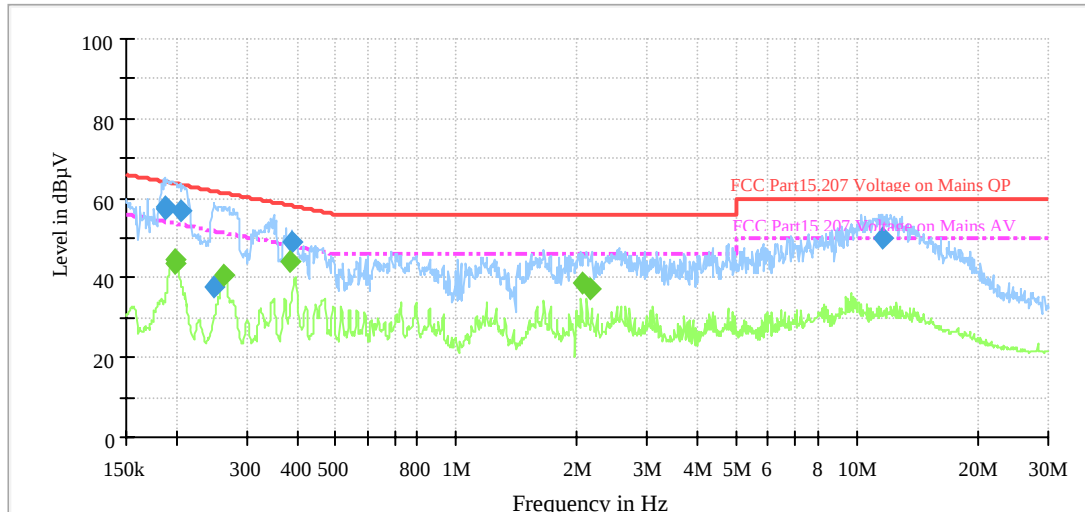
Environmental Conditions

Temperature:	16 °C
Relative Humidity:	54 %
ATM Pressure:	100.2 kPa

The testing was performed by Kevin Tao on 2014-12-23.

Test Mode: Transmitting

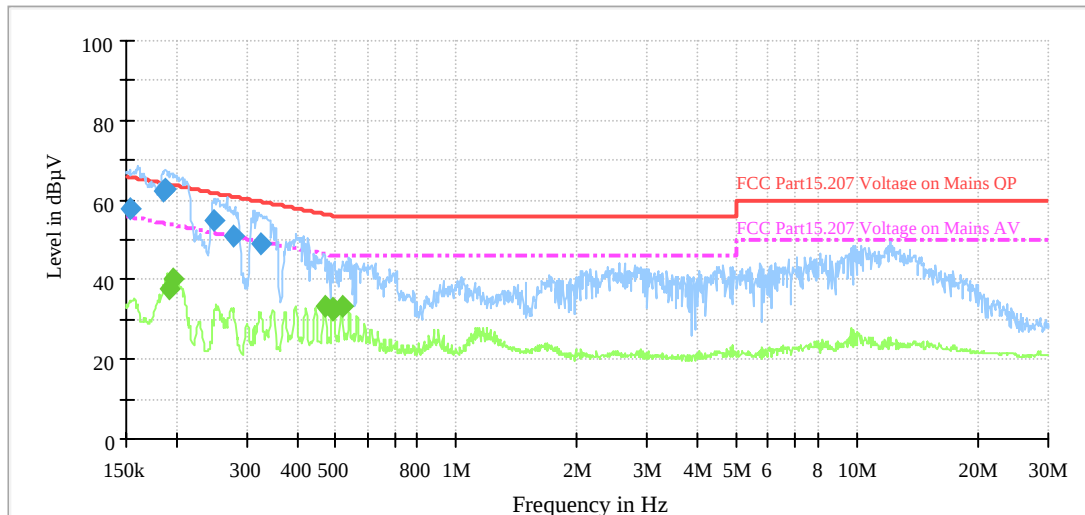
AC 120V/60 Hz, Line



Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.186830	57.4	9.000	Off	L1	19.1	6.8	64.2
0.187544	57.7	9.000	Off	L1	19.1	6.4	64.1
0.204678	56.9	9.000	Off	L1	19.2	6.6	63.4
0.248526	37.6	9.000	Off	L1	19.5	24.2	61.8
0.388654	49.1	9.000	Off	L1	20.0	9.0	58.1
11.545383	49.9	9.000	Off	L1	20.5	10.1	60.0

Frequency (MHz)	Average (dBuV)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.197442	43.8	9.000	Off	L1	19.2	9.9	53.7
0.197853	44.4	9.000	Off	L1	19.2	9.3	53.7
0.263638	40.6	9.000	Off	L1	19.6	10.8	51.3
0.385980	44.3	9.000	Off	L1	20.0	3.9	48.1
2.061426	38.9	9.000	Off	L1	20.3	7.1	46.0
2.155485	37.3	9.000	Off	L1	20.3	8.7	46.0

AC 120V/60 Hz, Neutral



Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Filter	Neutral	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154224	57.8	9.000	Off	N	18.8	7.9	65.8
0.186085	61.1	9.000	Off	N	19.0	*3.1	64.2
0.187577	61.5	9.000	Off	N	19.0	*2.6	64.1
0.248921	55.0	9.000	Off	N	19.5	6.8	61.8
0.277462	51.0	9.000	Off	N	19.7	9.9	60.9
0.326481	49.2	9.000	Off	N	19.9	10.3	59.5

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Filter	Neutral	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.191358	37.8	9.000	Off	N	19.1	16.2	54.0
0.197300	40.2	9.000	Off	N	19.1	13.5	53.7
0.469208	33.2	9.000	Off	N	20.1	13.4	46.5
0.492909	32.8	9.000	Off	N	20.0	13.4	46.1
0.493253	32.4	9.000	Off	N	20.0	13.7	46.1
0.517506	33.1	9.000	Off	N	20.1	12.9	46.0

* Within Measurement Uncertainty.

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_{cispr} 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_{cispr} of Table 2, then:

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

30M~200MHz: ±4.7 dB;

200M~1GHz: ±6.0 dB;

1G-6GHz: ±5.13dB;

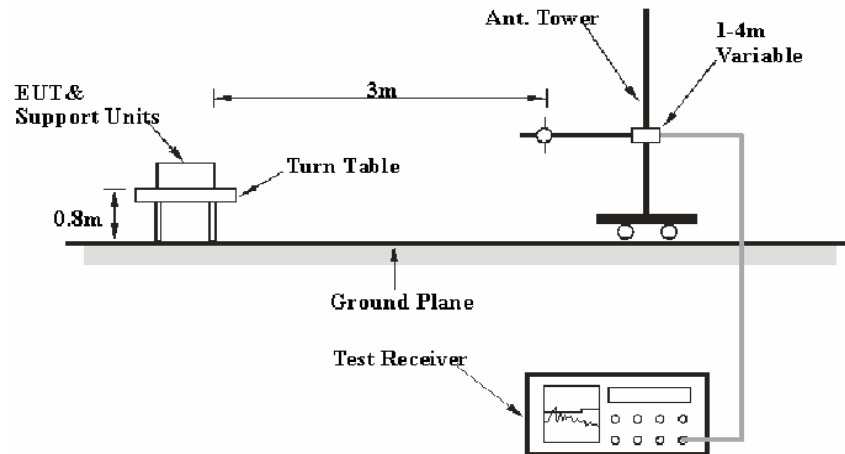
6G~25GHz: ±5.47 dB;

Table 2 – Values of U_{cispr}

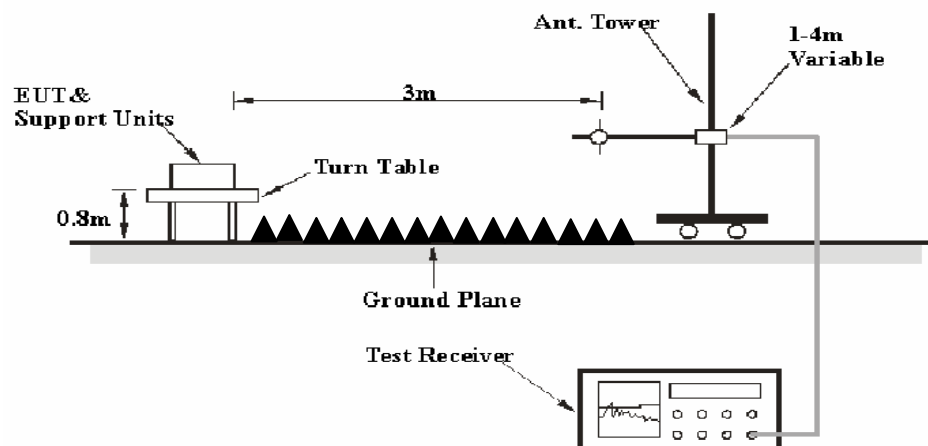
Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

EUT Setup

Below 1 GHz:



Above 1 GHz:



The radiated emission tests were performed in the 3 meters Semi-Anechoic Chamber, using the setup in 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.

DC 5V was used by the EUT.

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
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	/	Ave.

Test Procedure

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

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

Corrected Amplitude & Margin Calculation

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

Corrected Amplitude = Receiver Reading + Cable loss + Antenna Factor – 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 Number	Serial Number	Calibration Date	Calibration Due Date
Amplifier	Agilent	8447D	2944A10442	2014-06-23	2015-06-22
EMI Test Receiver	Rohde & Schwarz	ESCI	100028	2014-06-23	2015-06-22
Broadband Antenna	Sunol Sciences	JB3	A101808	2013-04-10	2015-04-09
Spectrum Analyzer	Rohde & Schwarz	FSL18	100180	2014-06-23	2015-06-22
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2014-10-17	2015-10-16
Horn Antenna	EM TEST	3115	003-6076	2013-04-09	2015-04-08
Amplifier	HP	8449B	3008A00277	2014-06-23	2015-06-22
Semi-Anechoic Chamber	EMCT	966	N/A	2013-03-13	2016-03-12

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, 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:

7.48 dB at 9648 MHz in the Vertical polarization

Test Data

Environmental Conditions

Temperature:	15 °C
Relative Humidity:	68 %
ATM Pressure:	100.3 kPa

The testing was performed by Kevin Tao on 2014-12-08.

Temperature:	17 °C
Relative Humidity:	58 % & 42 %
ATM Pressure:	102.1 kPa & 100.3 kPa

The testing was performed by Kevin Tao on 2014-12-10 & 2014-12-23.

Test Mode: Transmitting

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)
802.11b mode, Low Channel: 2412 MHz									
2412	71.13	PK	H	23.14	5.75	0.00	100.02	N/A	N/A
2412	65.84	AV	H	23.14	5.75	0.00	94.73	N/A	N/A
2412	69.17	PK	V	23.14	5.75	0.00	98.06	N/A	N/A
2412	61.35	AV	V	23.14	5.75	0.00	90.24	N/A	N/A
2390	27.18	PK	V	23.08	5.68	0.00	55.94	74.00	18.06
2390	14.44	AV	V	23.08	5.68	0.00	43.20	54.00	10.80
4824	38.81	PK	V	30.76	7.86	26.81	50.62	74.00	23.38
4824	32.05	AV	V	30.76	7.86	26.81	43.86	54.00	10.14
7236	31.36	PK	V	34.35	10.52	26.62	49.61	74.00	24.39
7236	17.77	AV	V	34.35	10.52	26.62	36.02	54.00	17.98
9648	32.37	PK	V	37.08	12.95	26.35	56.05	74.00	17.95
9648	22.84	AV	V	37.08	12.95	26.35	46.52	54.00	7.48
2657	36.01	PK	V	26.31	6.05	26.81	41.56	74.00	32.44
2657	21.82	AV	V	26.31	6.05	26.81	27.37	54.00	26.63
135.02	43.8	QP	V	14.86	0.76	28.02	31.40	43.50	12.10
802.11b mode, Middle Channel: 2437 MHz									
2437	72.19	PK	H	25.74	5.79	0.00	103.72	N/A	N/A
2437	67.16	AV	H	25.74	5.79	0.00	98.69	N/A	N/A
2437	67.57	PK	V	25.74	5.79	0.00	99.10	N/A	N/A
2437	62.63	AV	V	25.74	5.79	0.00	94.16	N/A	N/A
4874	37.30	PK	V	30.77	7.90	26.78	49.19	74.00	24.81
4874	25.87	AV	V	30.77	7.90	26.78	37.76	54.00	16.24
7311	31.47	PK	V	34.35	10.57	26.56	49.83	74.00	24.17
7311	17.72	AV	V	34.35	10.57	26.56	36.08	54.00	17.92
9748	31.22	PK	V	36.30	12.98	26.32	54.18	74.00	19.82
9748	21.17	AV	V	36.30	12.98	26.32	44.13	54.00	9.87
2657	36.50	PK	V	26.31	6.05	26.81	42.05	74.00	31.95
2657	21.66	AV	V	26.31	6.05	26.81	27.21	54.00	26.79
3012	29.14	PK	V	27.24	6.05	26.81	35.62	74.00	38.38
3012	13.25	AV	V	27.24	6.05	26.81	19.73	54.00	34.27
135.02	44.9	QP	V	14.86	0.76	28.02	32.50	43.50	11.00
802.11b mode, High Channel: 2462 MHz									
2462	68.93	PK	H	25.80	3.93	0.00	98.66	N/A	N/A
2462	63.13	AV	H	25.80	3.93	0.00	92.86	N/A	N/A
2462	68.54	PK	V	25.80	3.93	0.00	98.27	N/A	N/A
2462	62.11	AV	V	25.80	3.93	0.00	91.84	N/A	N/A
2483.4	28.34	PK	V	25.86	3.80	0.00	58.00	74.00	16.00
2483.4	14.39	AV	V	25.86	3.80	0.00	44.05	54.00	9.95
4924	39.81	PK	V	30.90	4.70	26.71	48.70	74.00	25.30
4924	36.1	AV	V	30.90	4.70	26.71	44.99	54.00	9.01
7386	31.37	PK	V	34.53	6.84	26.53	46.21	74.00	27.79
7386	17.39	AV	V	34.53	6.84	26.53	32.23	54.00	21.77
9848	32.18	PK	V	36.54	8.49	26.30	50.91	74.00	23.09
9848	23.35	AV	V	36.54	8.49	26.30	42.08	54.00	11.92
2657	31.59	PK	V	26.31	6.05	26.81	37.14	74.00	36.86
2657	15.25	AV	V	26.31	6.05	26.81	20.80	54.00	33.20
135.02	45.3	QP	V	14.86	0.76	28.02	32.90	43.50	10.60

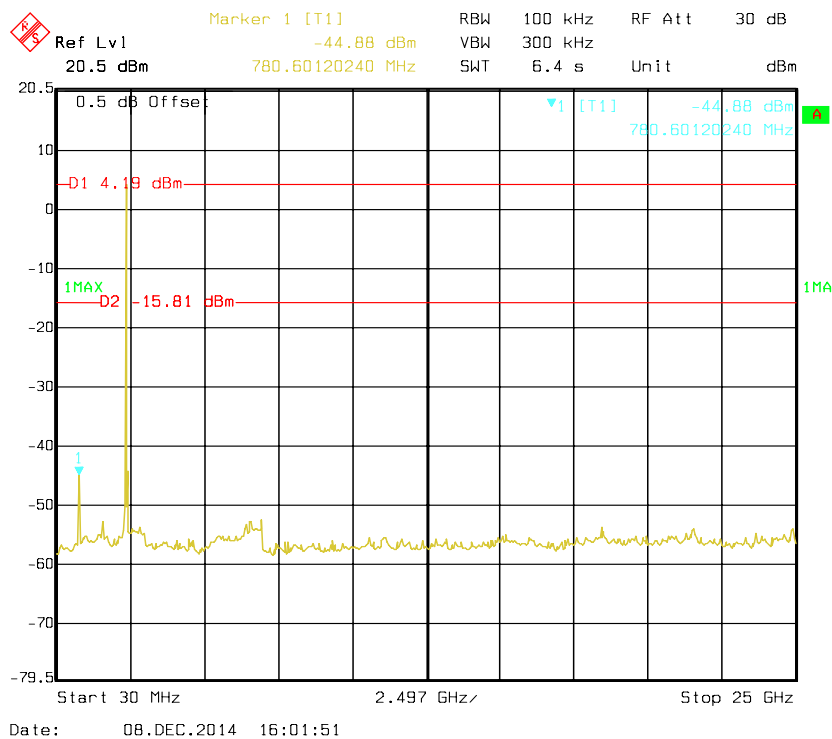
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
802.11g mode, Low Channel: 2412 MHz									
2412	64.95	PK	H	23.14	5.75	0.00	93.84	N/A	N/A
2412	52.83	AV	H	23.14	5.75	0.00	81.72	N/A	N/A
2412	64.92	PK	V	23.14	5.75	0.00	93.81	N/A	N/A
2412	50.79	AV	V	23.14	5.75	0.00	79.68	N/A	N/A
2390	27.73	PK	V	23.08	5.68	0.00	56.49	74.00	17.51
2390	14.25	AV	V	23.08	5.68	0.00	43.01	54.00	10.99
4824	33.38	PK	V	30.76	7.86	26.81	45.19	74.00	28.81
4824	19.23	AV	V	30.76	7.86	26.81	31.04	54.00	22.96
7236	30.27	PK	V	34.35	10.52	26.62	48.52	74.00	25.48
7236	17.32	AV	V	34.35	10.52	26.62	35.57	54.00	18.43
9648	29.86	PK	V	37.08	12.95	26.35	53.54	74.00	20.46
9648	16.89	AV	V	37.08	12.95	26.35	40.57	54.00	13.43
2657	38.68	PK	V	26.31	6.05	26.81	44.23	74.00	29.77
2657	21.58	AV	V	26.31	6.05	26.81	27.13	54.00	26.87
135.02	46.4	QP	V	14.86	0.76	28.00	34.02	43.50	9.48
802.11g mode, Middle Channel: 2437 MHz									
2437	66.2	PK	H	25.74	5.79	0.00	97.73	N/A	N/A
2437	53.05	AV	H	25.74	5.79	0.00	84.58	N/A	N/A
2437	64.6	PK	V	25.74	5.79	0.00	96.13	N/A	N/A
2437	52.77	AV	V	25.74	5.79	0.00	84.30	N/A	N/A
4874	32.94	PK	V	30.77	7.90	26.78	44.83	74.00	29.17
4874	19.62	AV	V	30.77	7.90	26.78	31.51	54.00	22.49
7311	30.75	PK	V	34.35	10.57	26.56	49.11	74.00	24.89
7311	16.43	AV	V	34.35	10.57	26.56	34.79	54.00	19.21
9748	31.42	PK	V	36.30	12.98	26.32	54.38	74.00	19.62
9748	16.46	AV	V	36.30	12.98	26.32	39.42	54.00	14.58
2657	40.60	PK	V	26.31	6.05	26.81	46.15	74.00	27.85
2657	26.35	AV	V	26.31	6.05	26.81	31.90	54.00	22.10
3012	28.25	PK	V	27.24	6.05	26.81	34.73	74.00	39.27
3012	13.2	AV	V	27.24	6.05	26.81	19.68	54.00	34.32
135.02	44.7	QP	V	14.86	0.76	28.02	32.30	43.50	11.20
802.11g mode, High Channel: 2462 MHz									
2462	67.06	PK	H	25.80	3.93	0.00	96.79	N/A	N/A
2462	54.25	AV	H	25.80	3.93	0.00	83.98	N/A	N/A
2462	61.19	PK	V	25.80	3.93	0.00	90.92	N/A	N/A
2462	46.23	AV	V	25.80	3.93	0.00	75.96	N/A	N/A
2483.4	29.03	PK	V	25.86	3.80	0.00	58.69	74.00	15.31
2483.4	14.27	AV	V	25.86	3.80	0.00	43.93	54.00	10.07
4924	33.70	PK	V	30.90	4.70	26.71	42.59	74.00	31.41
4924	19.52	AV	V	30.90	4.70	26.71	28.41	54.00	25.59
7386	30.90	PK	V	34.53	6.84	26.53	45.74	74.00	28.26
7386	16.38	AV	V	34.53	6.84	26.53	31.22	54.00	22.78
9848	31.28	PK	V	36.54	8.49	26.30	50.01	74.00	23.99
9848	16.66	AV	V	36.54	8.49	26.30	35.39	54.00	18.61
2657	29.95	PK	V	26.31	6.05	26.81	35.50	74.00	38.50
2657	14.26	AV	V	26.31	6.05	26.81	19.81	54.00	34.19
135.02	44.2	QP	V	14.86	0.76	28.02	31.80	43.50	11.70

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)
802.11n HT20 mode, Low Channel: 2412 MHz									
2412	65.93	PK	H	23.14	5.75	0.00	94.82	N/A	N/A
2412	53.95	AV	H	23.14	5.75	0.00	82.84	N/A	N/A
2412	65.07	PK	V	23.14	5.75	0.00	93.96	N/A	N/A
2412	52.73	AV	V	23.14	5.75	0.00	81.62	N/A	N/A
2390	28.65	PK	V	23.08	5.68	0.00	57.41	74.00	16.59
2390	14.18	AV	V	23.08	5.68	0.00	42.94	54.00	11.06
4824	32.56	PK	V	30.76	7.86	26.81	44.37	74.00	29.63
4824	18.35	AV	V	30.76	7.86	26.81	30.16	54.00	23.84
7236	31.68	PK	V	34.35	10.52	26.62	49.93	74.00	24.07
7236	18.65	AV	V	34.35	10.52	26.62	36.90	54.00	17.10
9648	30.56	PK	V	37.08	12.95	26.35	54.24	74.00	19.76
9648	16.85	AV	V	37.08	12.95	26.35	40.53	54.00	13.47
2657	35.85	PK	V	26.31	6.05	26.81	41.40	74.00	32.60
2657	20.38	AV	V	26.31	6.05	26.81	25.93	54.00	28.07
135.02	45.3	QP	V	14.86	0.76	28.02	32.90	43.50	10.60
802.11n HT20mode, Middle Channel: 2437 MHz									
2437	65.79	PK	H	25.74	5.79	0.00	97.32	N/A	N/A
2437	53.44	AV	H	25.74	5.79	0.00	84.97	N/A	N/A
2437	63.05	PK	V	25.74	5.79	0.00	94.58	N/A	N/A
2437	49.44	AV	V	25.74	5.79	0.00	80.97	N/A	N/A
4874	35.38	PK	V	30.77	7.90	26.78	47.27	74.00	26.73
4874	17.25	AV	V	30.77	7.90	26.78	29.14	54.00	24.86
7311	31.31	PK	V	34.35	10.57	26.56	49.67	74.00	24.33
7311	16.54	AV	V	34.35	10.57	26.56	34.90	54.00	19.10
9748	30.68	PK	V	36.30	12.98	26.32	53.64	74.00	20.36
9748	16.47	AV	V	36.30	12.98	26.32	39.43	54.00	14.57
2657	34.25	PK	V	26.31	6.05	26.81	39.80	74.00	34.20
2657	20.20	AV	V	26.31	6.05	26.81	25.75	54.00	28.25
3012	29.87	PK	V	27.24	6.05	26.81	36.35	74.00	37.65
3012	14.14	AV	V	27.24	6.05	26.81	20.62	54.00	33.38
135.02	43.9	QP	V	14.86	0.76	28.02	31.50	43.50	12.00
802.11n HT20 mode, High Channel: 2462 MHz									
2462	65.17	PK	H	25.80	3.93	0.00	94.90	N/A	N/A
2462	52.85	AV	H	25.80	3.93	0.00	82.58	N/A	N/A
2462	62.87	PK	V	25.80	3.93	0.00	92.60	N/A	N/A
2462	50.12	AV	V	25.80	3.93	0.00	79.85	N/A	N/A
2483.4	29.02	PK	V	25.86	3.80	0.00	58.68	74.00	15.32
2483.4	14.28	AV	V	25.86	3.80	0.00	43.94	54.00	10.06
4924	33.37	PK	V	30.90	4.70	26.71	42.26	74.00	31.74
4924	18.63	AV	V	30.90	4.70	26.71	27.52	54.00	26.48
7386	30.93	PK	V	34.53	6.84	26.53	45.77	74.00	28.23
7386	17.35	AV	V	34.53	6.84	26.53	32.19	54.00	21.81
9848	30.45	PK	V	36.54	8.49	26.30	49.18	74.00	24.82
9848	16.68	AV	V	36.54	8.49	26.30	35.41	54.00	18.59
2657	30.57	PK	V	26.31	6.05	26.81	36.12	74.00	37.88
2657	16.21	AV	V	26.31	6.05	26.81	21.76	54.00	32.24
135.02	44.7	QP	V	14.86	0.76	28.02	32.30	43.50	11.20

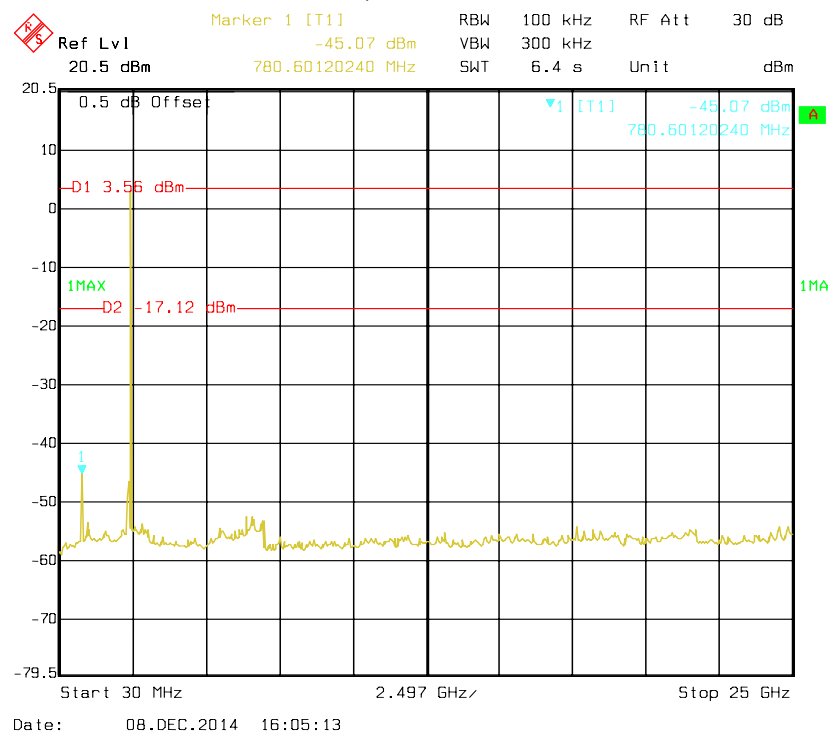
Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	FCC 15.247	
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)
802.11n HT40 mode, Low Channel: 2422 MHz									
2422	61.62	PK	H	23.14	5.75	0.00	90.51	N/A	N/A
2422	46.17	AV	H	23.14	5.75	0.00	75.06	N/A	N/A
2422	59.99	PK	V	23.14	5.75	0.00	88.88	N/A	N/A
2422	46.36	AV	V	23.14	5.75	0.00	75.25	N/A	N/A
2390	29.25	PK	V	23.08	5.68	0.00	58.01	74.00	15.99
2390	14.47	AV	V	23.08	5.68	0.00	43.23	54.00	10.77
4844	31.23	PK	V	30.76	7.86	26.81	43.04	74.00	30.96
4844	18.25	AV	V	30.76	7.86	26.81	30.06	54.00	23.94
7266	30.15	PK	V	34.35	10.52	26.62	48.40	74.00	25.60
7266	17.45	AV	V	34.35	10.52	26.62	35.70	54.00	18.30
9688	29.36	PK	V	37.08	12.95	26.35	53.04	74.00	20.96
9688	17.26	AV	V	37.08	12.95	26.35	40.94	54.00	13.06
2657	31.23	PK	V	26.31	6.05	26.81	36.78	74.00	37.22
2657	18.47	AV	V	26.31	6.05	26.81	24.02	54.00	29.98
135.02	46.1	QP	V	14.86	0.76	28.02	33.70	43.50	9.80
802.11n HT40 mode, Middle Channel: 2437 MHz									
2437	62.32	PK	H	25.74	5.79	0.00	93.85	N/A	N/A
2437	47.99	AV	H	25.74	5.79	0.00	79.52	N/A	N/A
2437	57.05	PK	V	25.74	5.79	0.00	88.58	N/A	N/A
2437	44.24	AV	V	25.74	5.79	0.00	75.77	N/A	N/A
4874	35.25	PK	V	30.77	7.90	26.78	47.14	74.00	26.86
4874	18.05	AV	V	30.77	7.90	26.78	29.94	54.00	24.06
7311	33.52	PK	V	34.35	10.57	26.56	51.88	74.00	22.12
7311	17.15	AV	V	34.35	10.57	26.56	35.51	54.00	18.49
9748	29.25	PK	V	36.30	12.98	26.32	52.21	74.00	21.79
9748	17.05	AV	V	36.30	12.98	26.32	40.01	54.00	13.99
2657	35.02	PK	V	26.31	6.05	26.81	40.57	74.00	33.43
2657	19.68	AV	V	26.31	6.05	26.81	25.23	54.00	28.77
3012	28.74	PK	V	27.24	6.05	26.81	35.22	74.00	38.78
3012	12.25	AV	V	27.24	6.05	26.81	18.73	54.00	35.27
135.02	45.1	QP	V	14.86	0.76	28.02	32.70	43.50	10.80
802.11n HT40 mode, High Channel: 2452 MHz									
2452	61.27	PK	H	25.78	4.00	0.00	91.04	N/A	N/A
2452	47.43	AV	H	25.78	4.00	0.00	77.20	N/A	N/A
2452	60.12	PK	V	25.78	4.00	0.00	89.89	N/A	N/A
2452	44.78	AV	V	25.78	4.00	0.00	74.55	N/A	N/A
2483.4	28.78	PK	V	25.86	3.80	0.00	58.44	74.00	15.56
2483.4	14.42	AV	V	25.86	3.80	0.00	44.08	54.00	9.92
4904	31.12	PK	V	30.85	4.72	26.71	39.98	74.00	34.02
4904	21.03	AV	V	30.85	4.72	26.71	29.89	54.00	24.11
7356	30.25	PK	V	34.45	6.79	26.53	44.96	74.00	29.04
7356	18.35	AV	V	34.45	6.79	26.53	33.06	54.00	20.94
9808	29.55	PK	V	36.44	8.53	26.30	48.22	74.00	25.78
9808	18.36	AV	V	36.44	8.53	26.30	37.03	54.00	16.97
2657	30.58	PK	V	26.31	6.05	26.81	36.13	74.00	37.87
2657	18.25	AV	V	26.31	6.05	26.81	23.80	54.00	30.20
135.02	45.3	QP	V	14.86	0.76	28.02	32.90	43.50	10.60

Conducted Spurious Emissions at Antenna Port

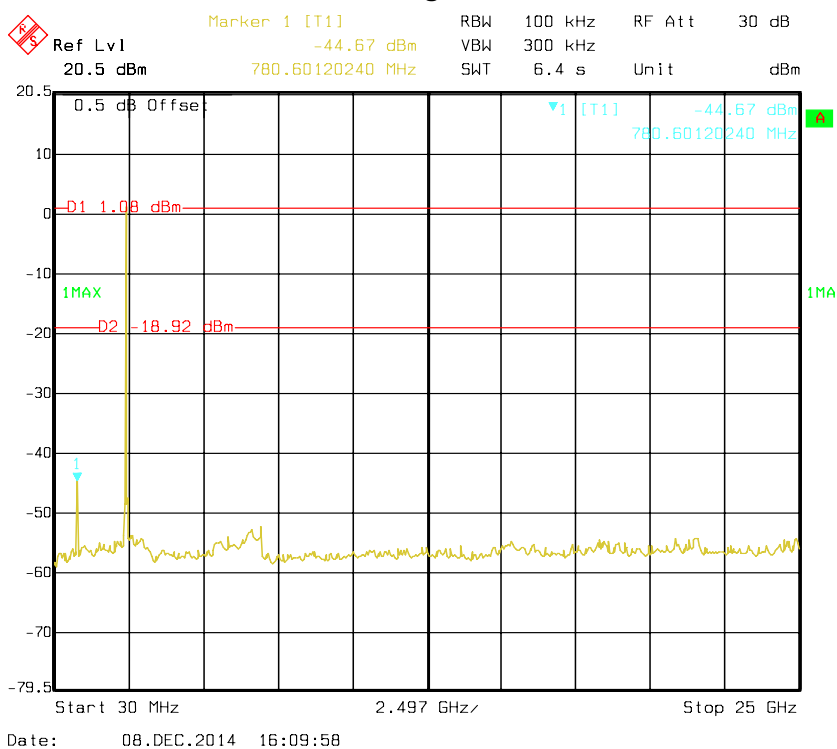
802.11b, Low Channel



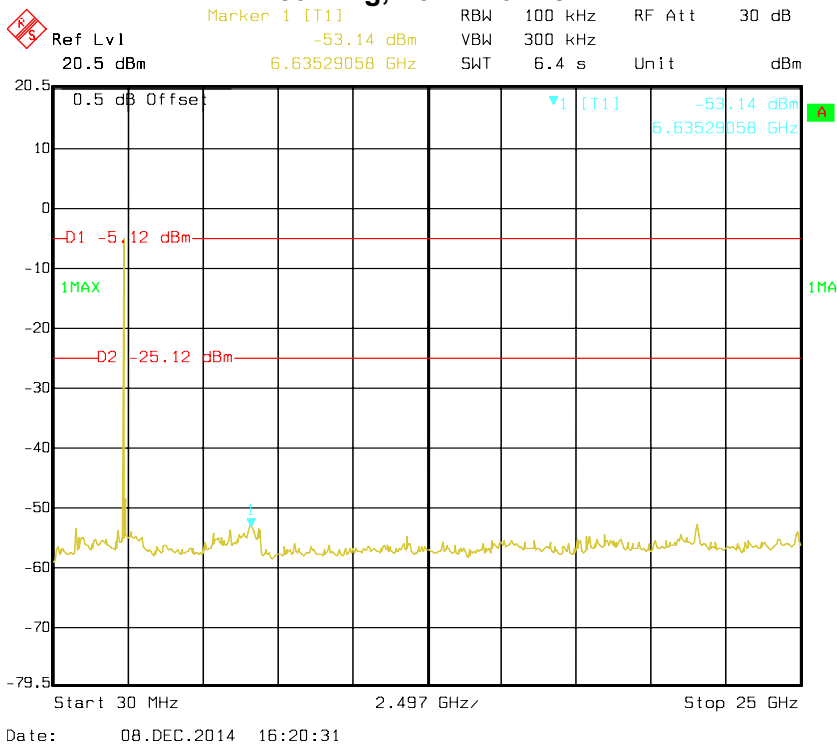
802.11b, Middle Channel



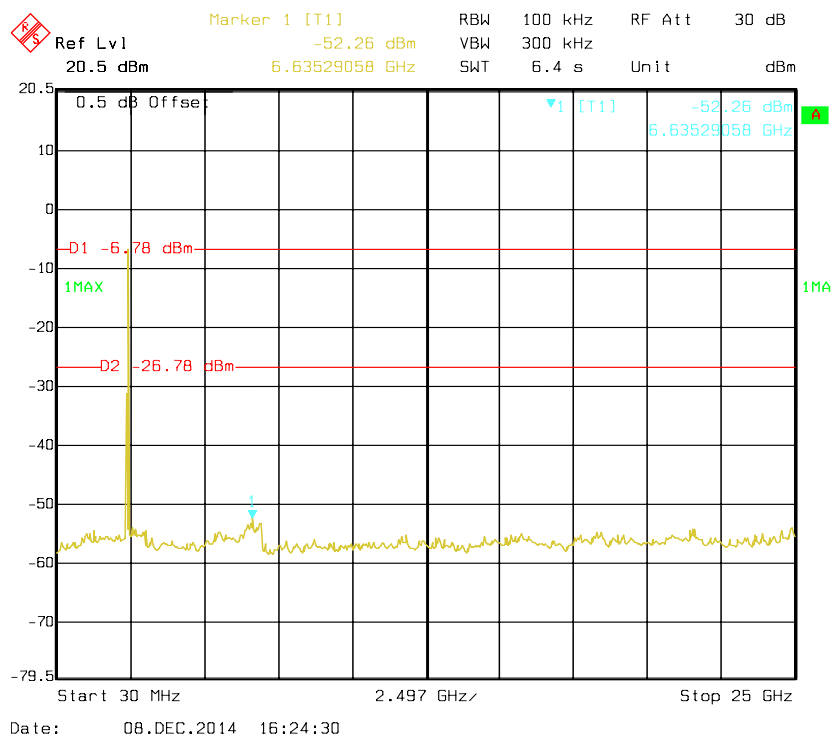
802.11b, High Channel



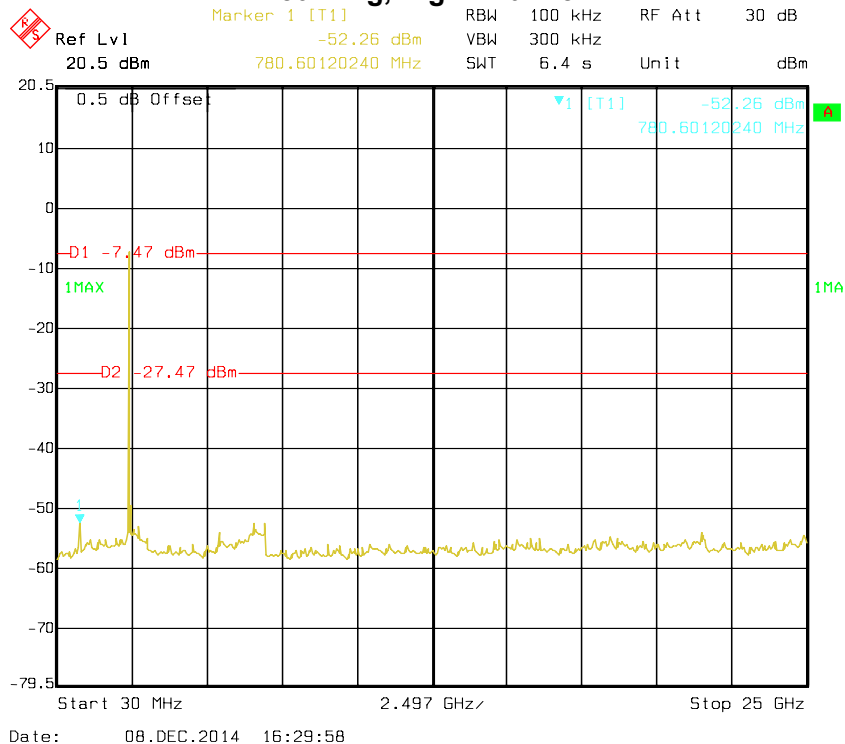
802.11g, Low Channel



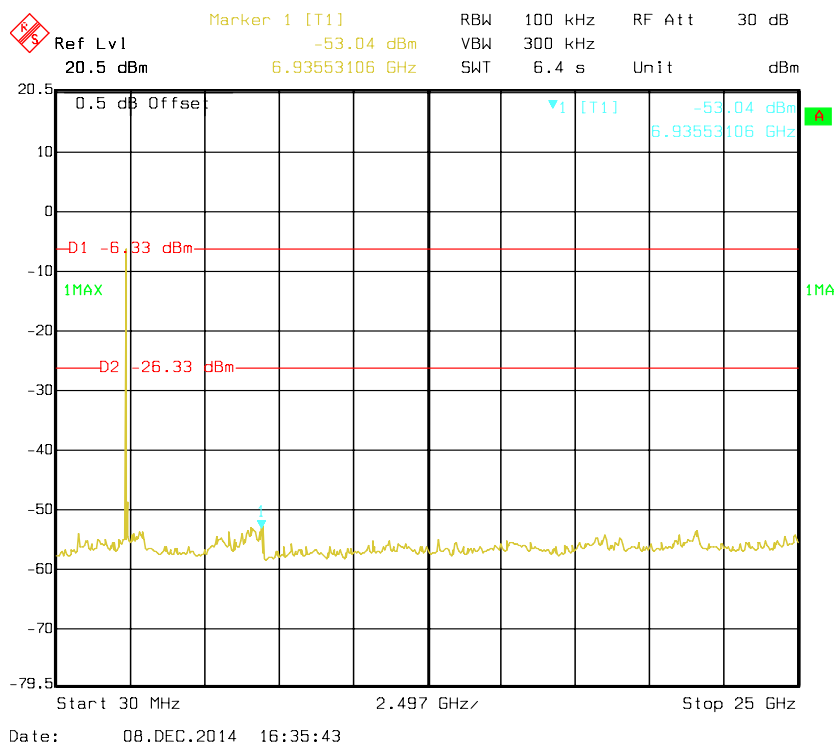
802.11g, Middle Channel



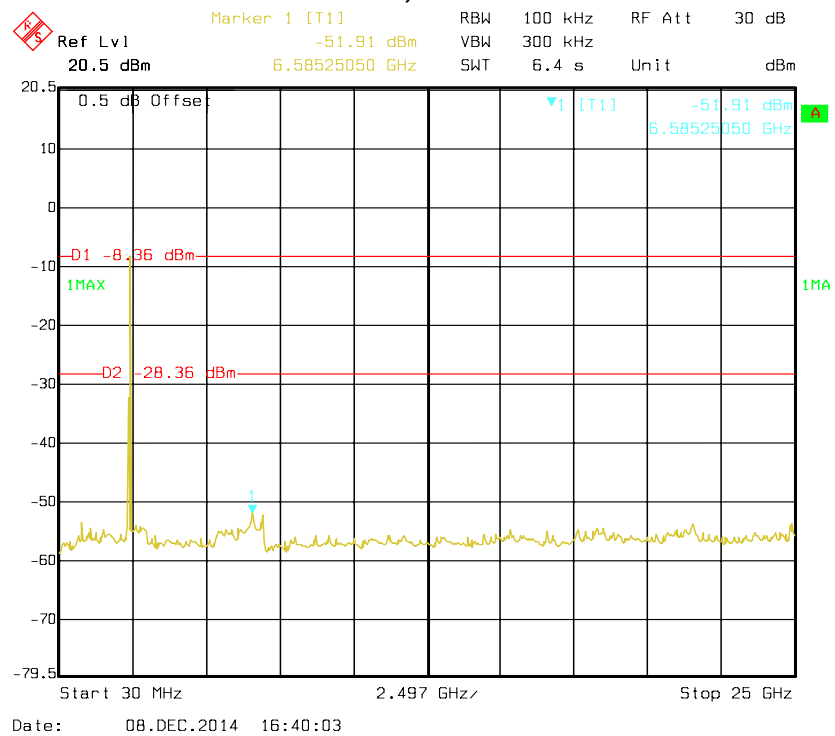
802.11g, High Channel



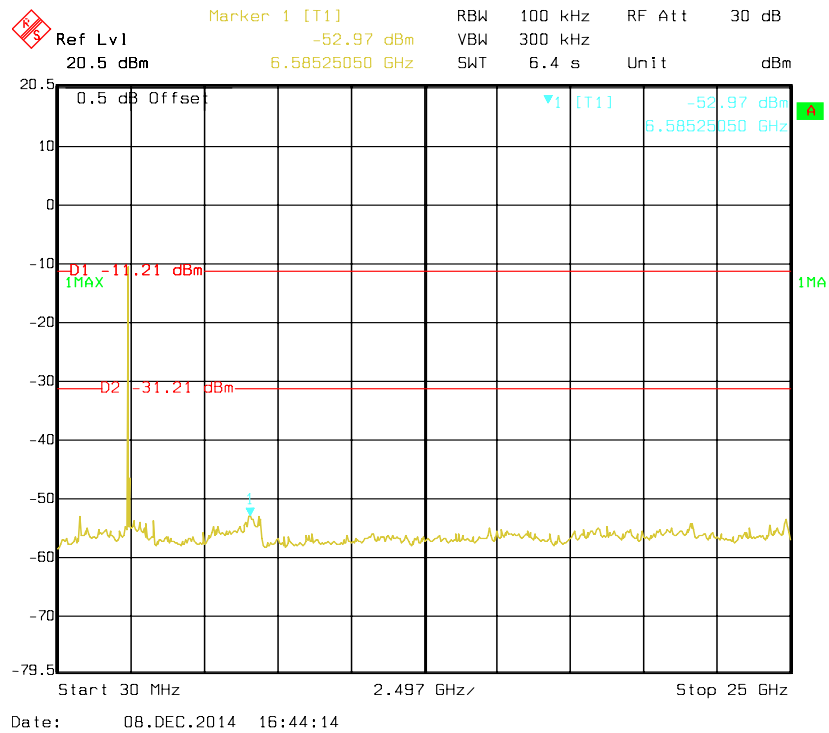
802.11n HT20, Low Channel



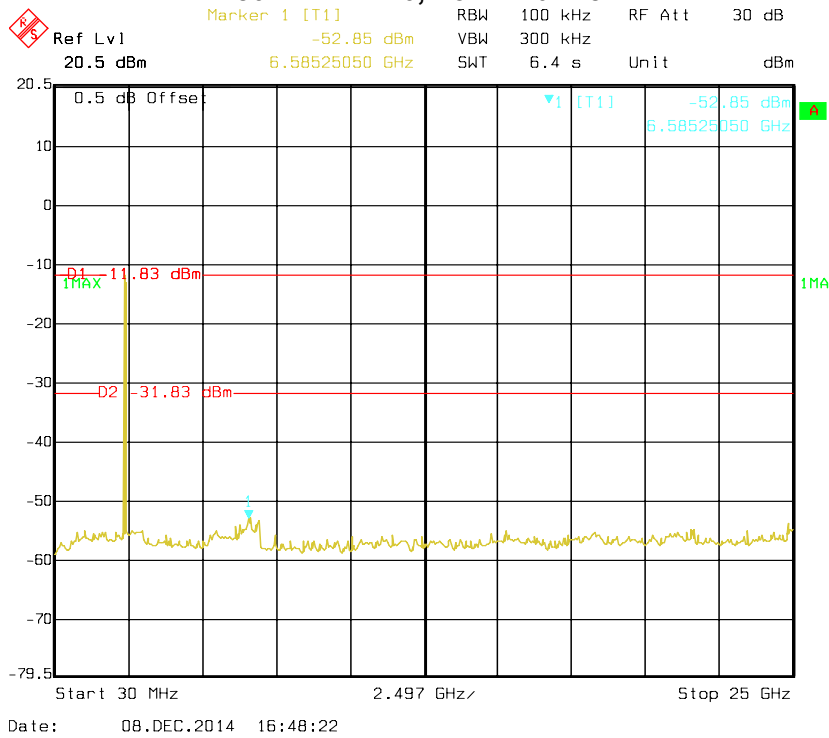
802.11n HT20, Middle Channel



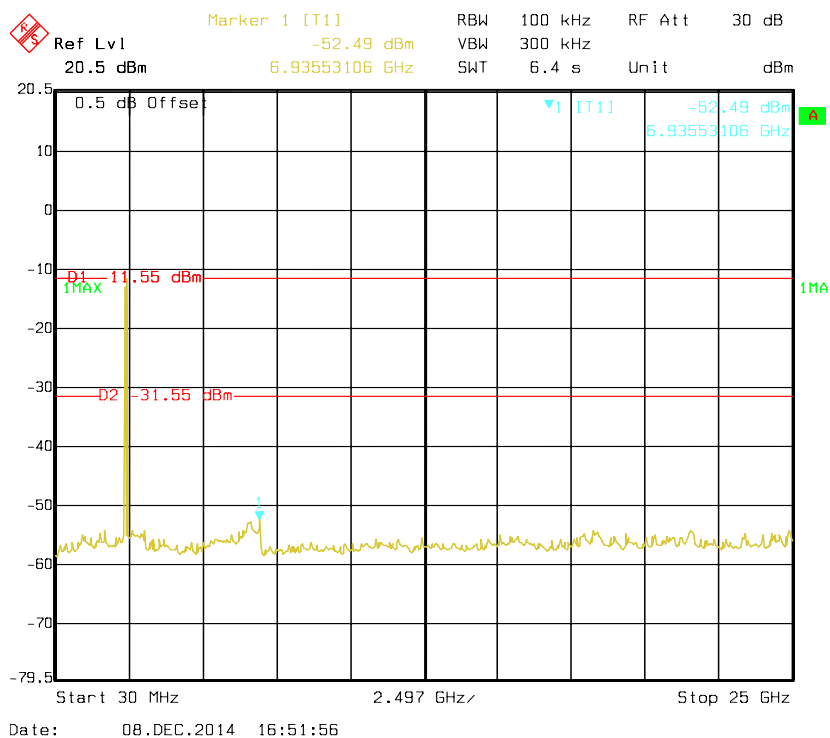
802.11n HT20, High Channel



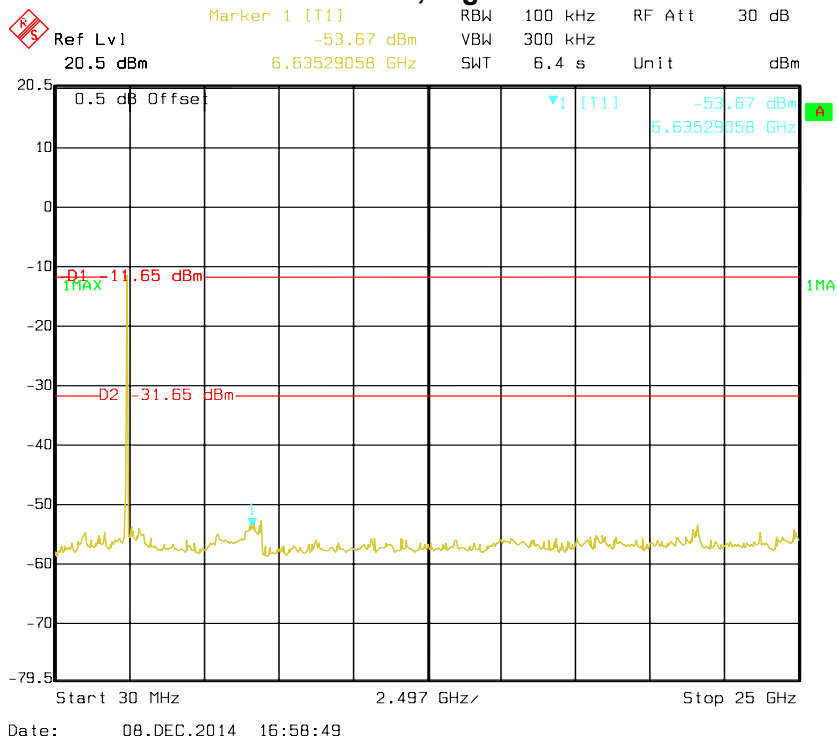
802.11n HT40, Low Channel



802.11n HT40, Middle Channel



802.11n HT40, High Channel



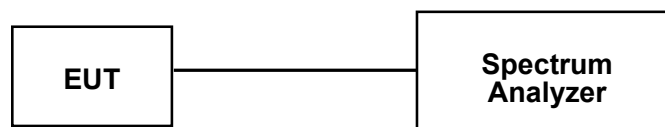
FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH

Applicable Standard

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

Test Procedure

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



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2014-10-17	2015-10-16

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	15 °C
Relative Humidity:	68 %
ATM Pressure:	100.3 kPa

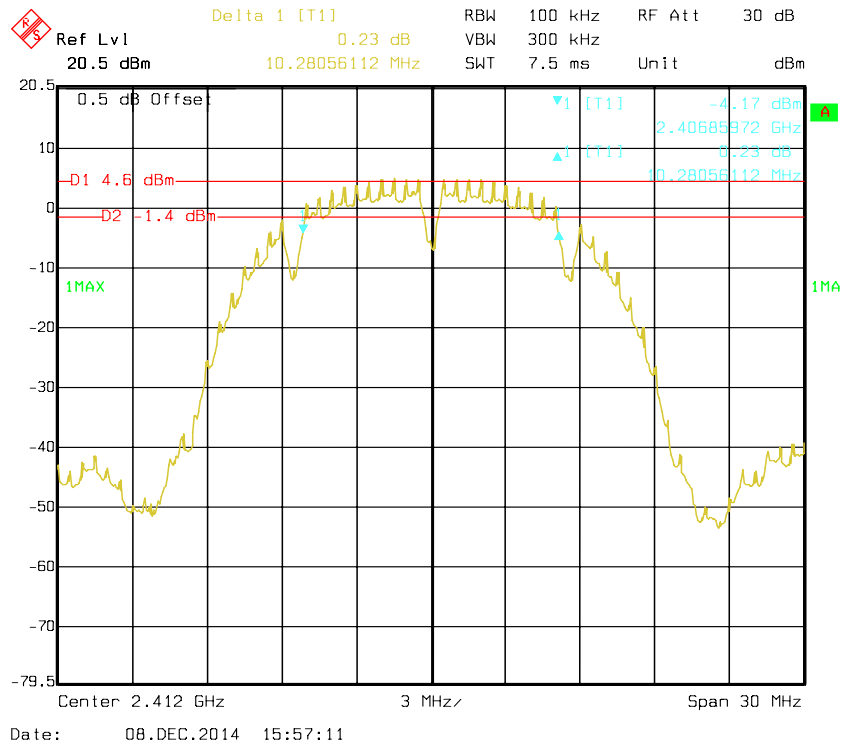
The testing was performed by Kevin Tao on 2014-12-08.

Test Mode: Transmitting

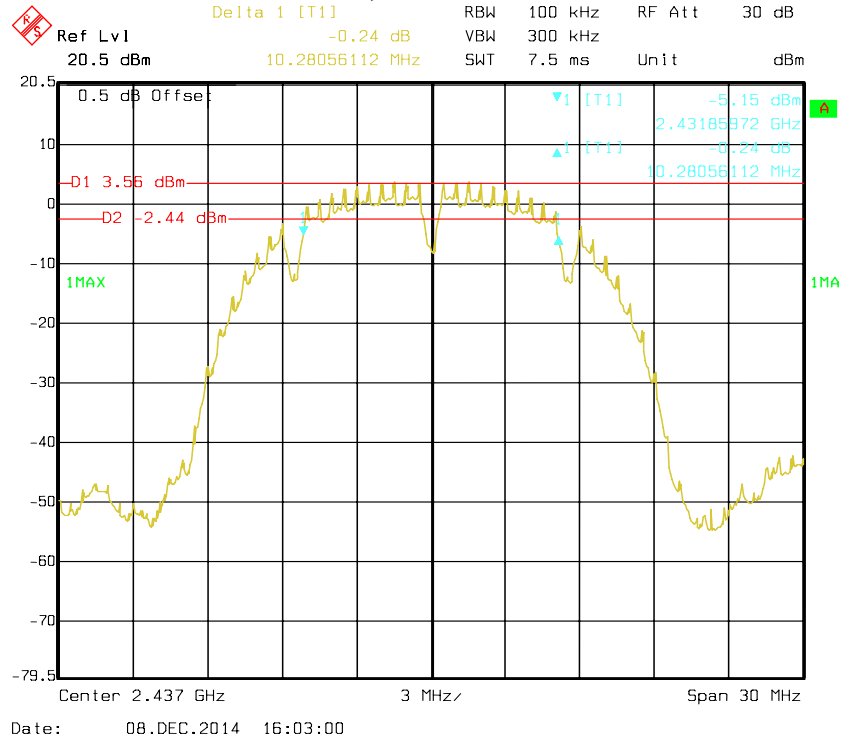
Mode	Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	FCC Limit (kHz)
2.4G band 802.11b	Low	2412	10.28	> 500
	Middle	2437	10.28	> 500
	High	2462	10.28	> 500
2.4G band 802.11g	Low	2412	16.59	> 500
	Middle	2437	16.59	> 500
	High	2462	16.59	> 500
2.4G band 802.11n HT20	Low	2412	17.79	> 500
	Middle	2437	17.79	> 500
	High	2462	17.79	> 500
2.4G band 802.11n HT40	Low	2422	36.55	> 500
	Middle	2437	36.55	> 500
	High	2452	36.55	> 500

Please refer to the following plots:

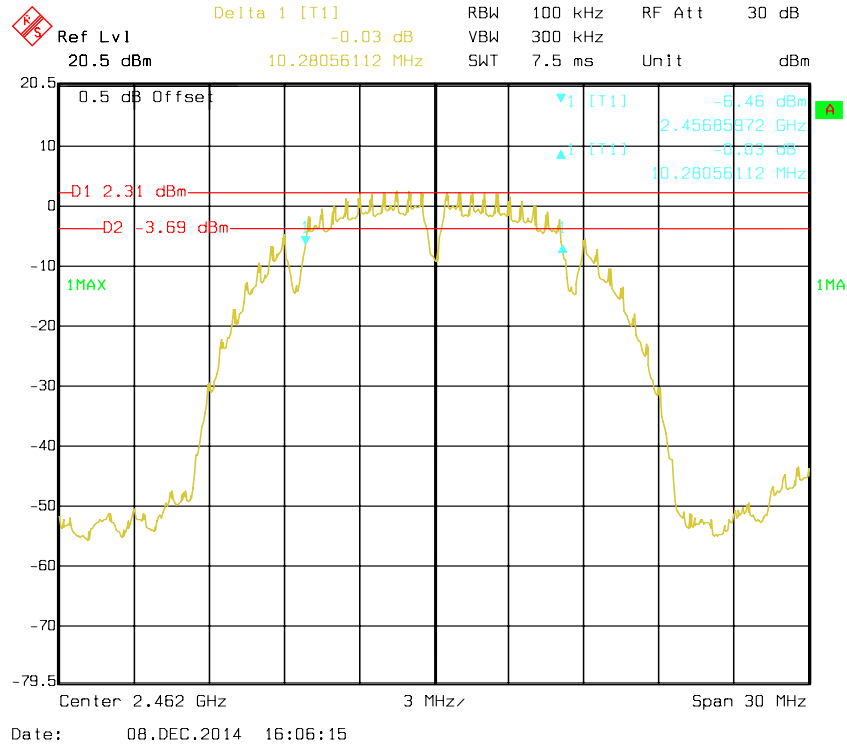
802.11b, Low Channel



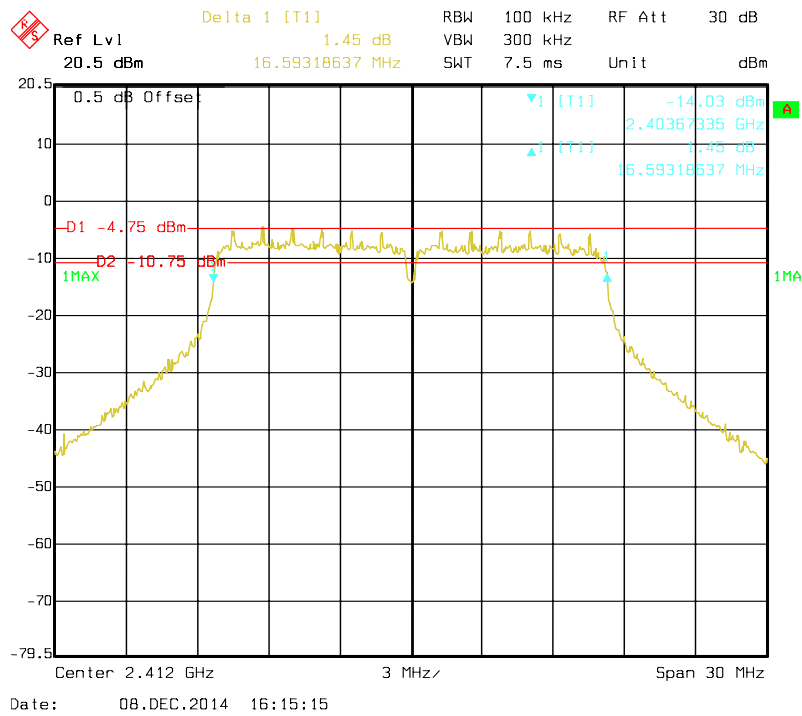
802.11b, Middle Channel



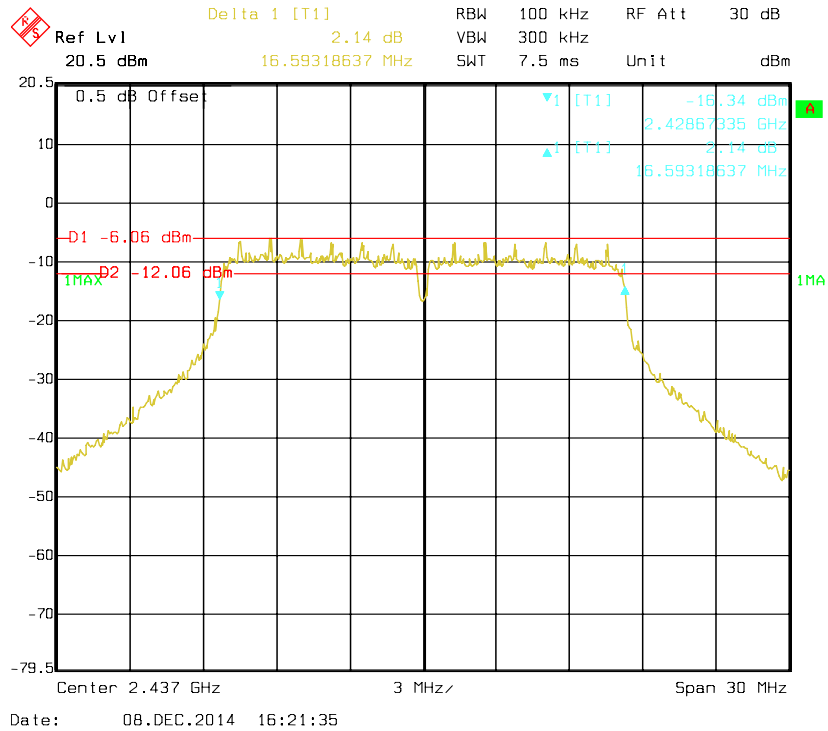
802.11b, High Channel



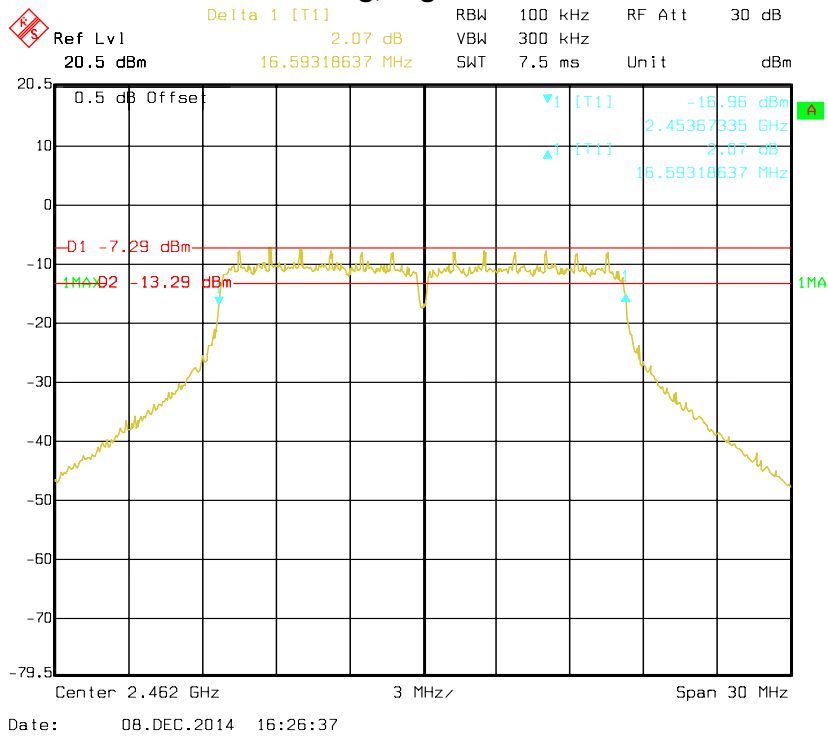
802.11g, Low Channel



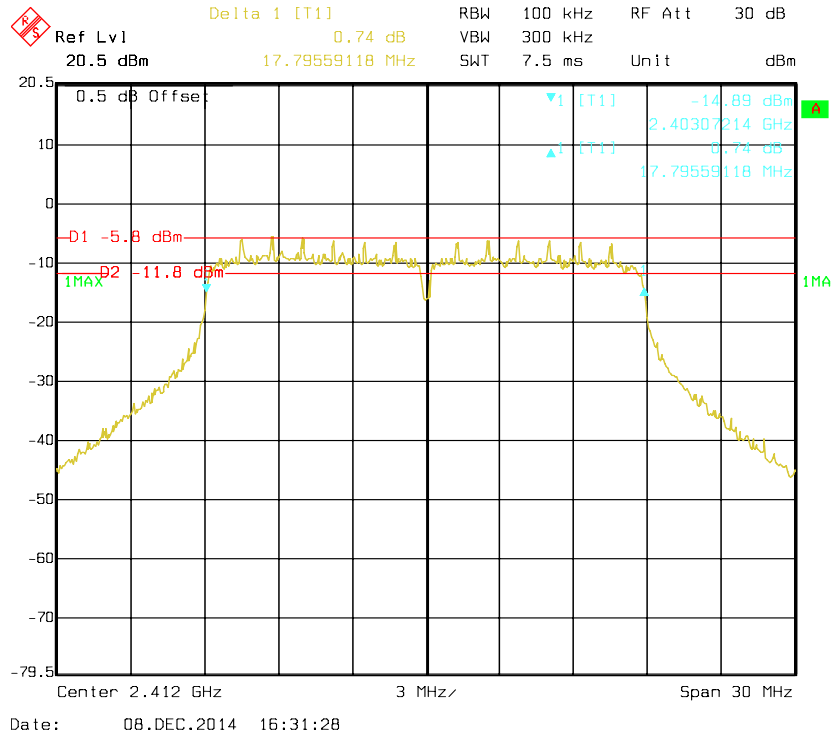
802.11g, Middle Channel



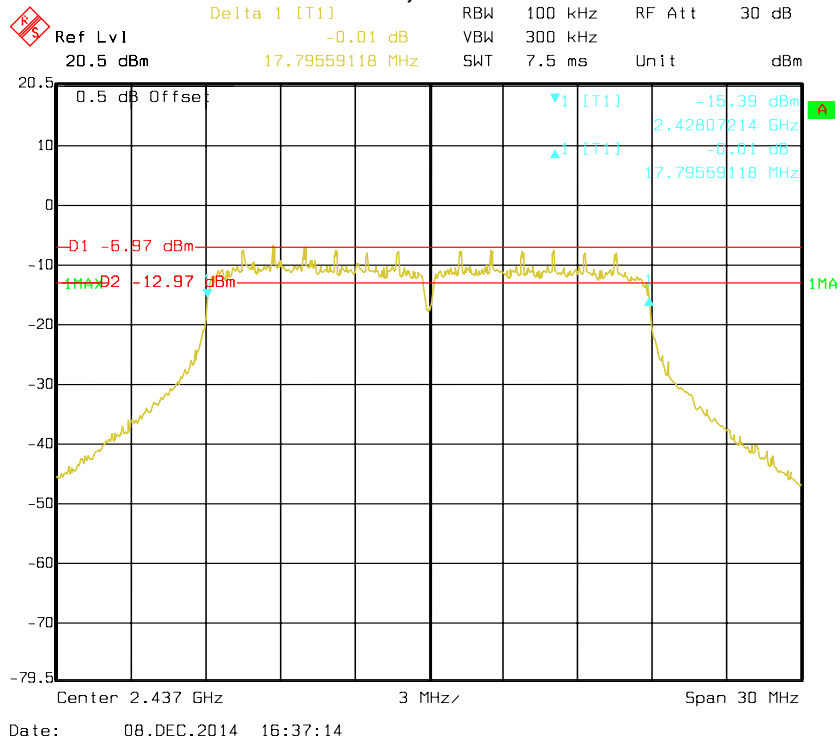
802.11g, High Channel



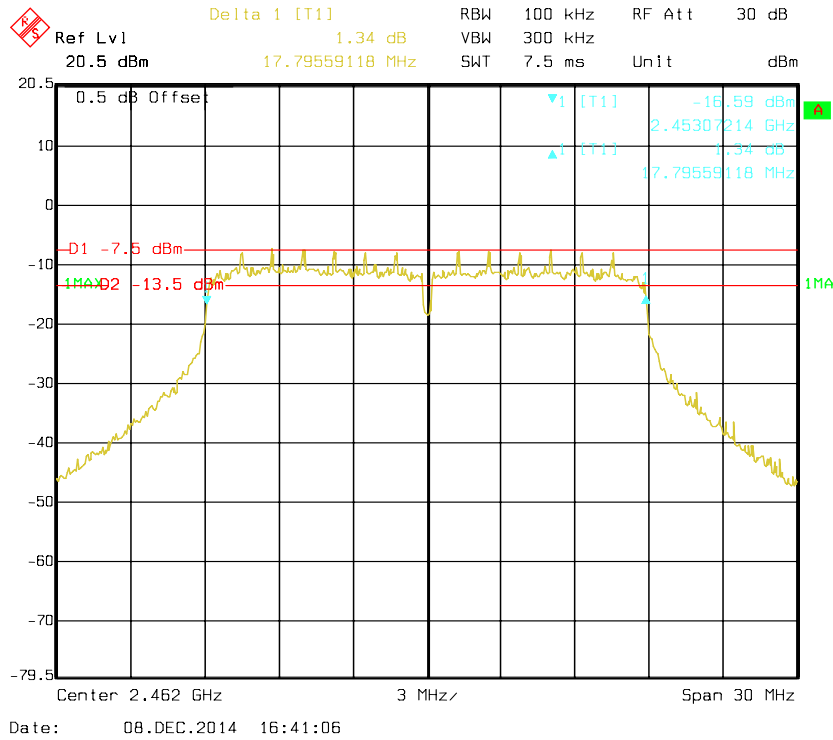
802.11n HT20, Low Channel



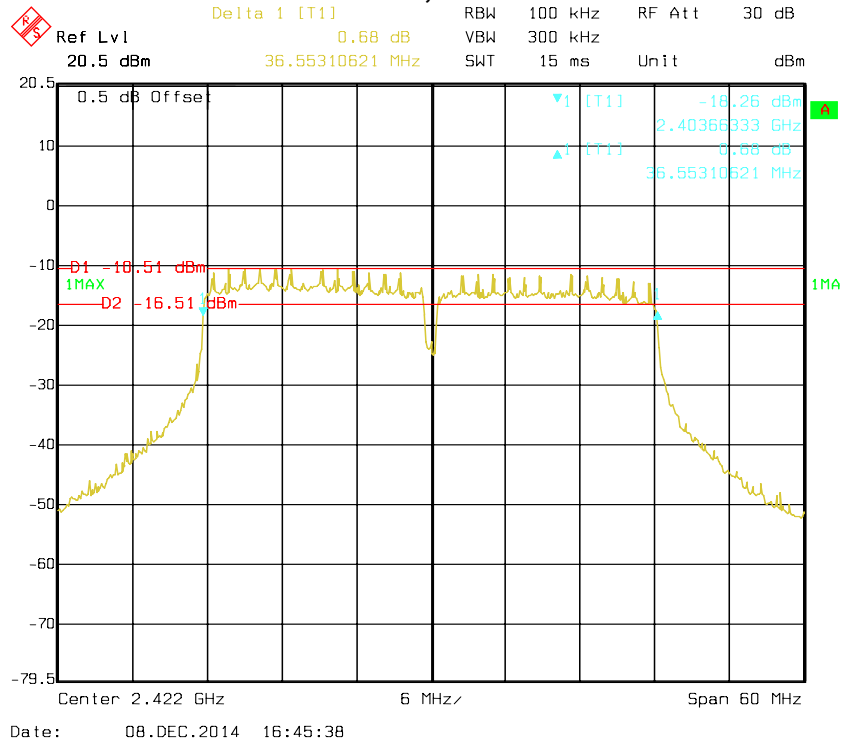
802.11n HT20, Middle Channel



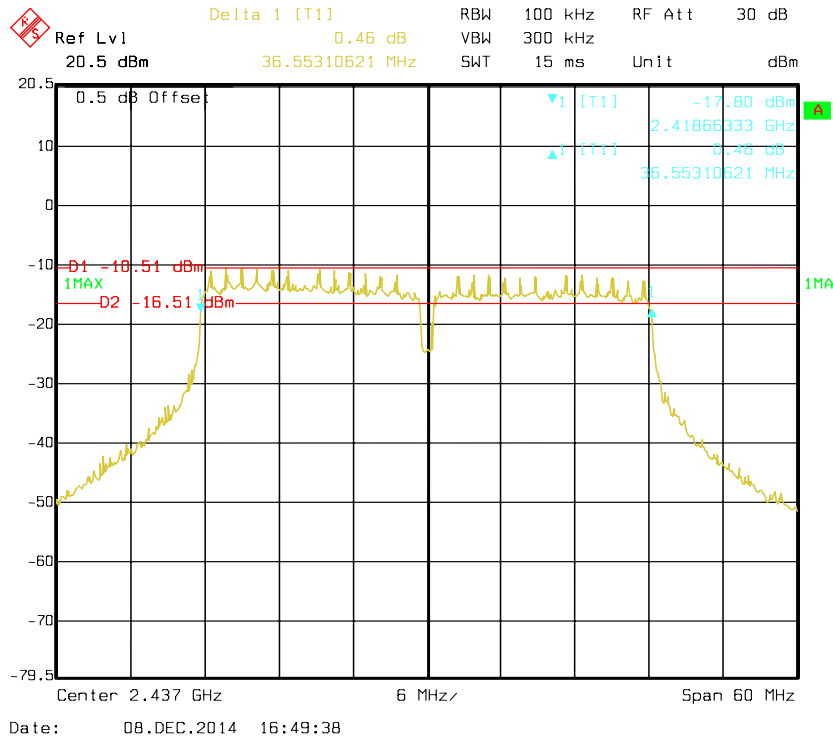
802.11n HT20, High Channel



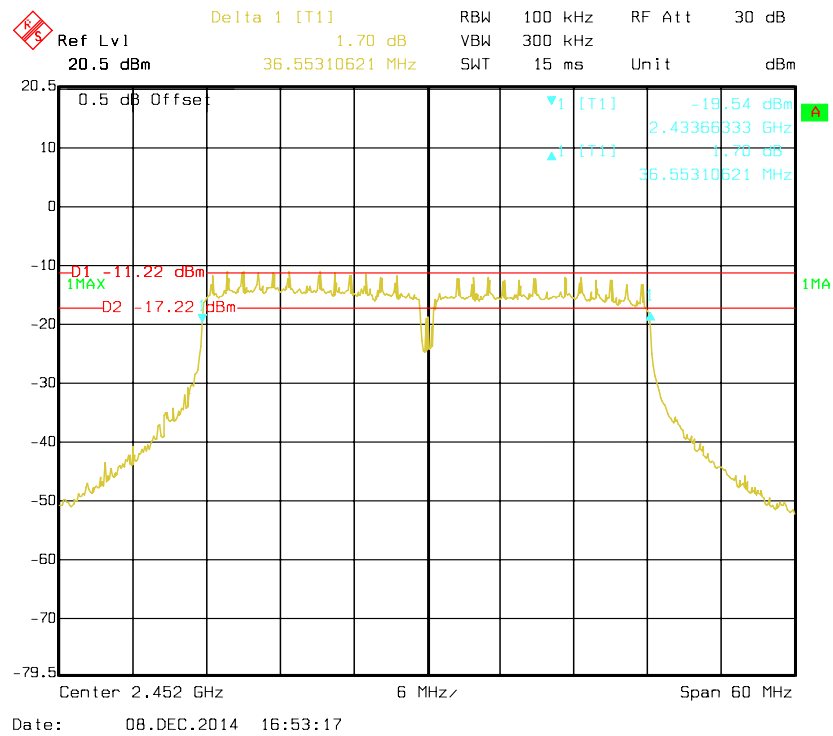
802.11n HT40, Low Channel



802.11n HT40, Middle Channel



802.11n HT40, High Channel



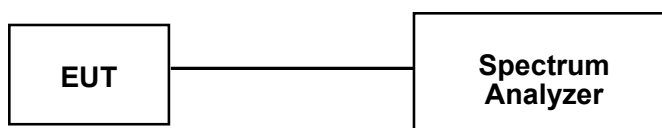
FCC §15.247(b) (3) - MAXIMUM PEAK OUTPUT POWER

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 a spectrum analyzer.
3. Add a correction factor to the display.



Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2014-10-17	2015-10-16

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	15 °C
Relative Humidity:	68 %
ATM Pressure:	100.3 kPa

The testing was performed by Kevin Tao on 2014-12-08.

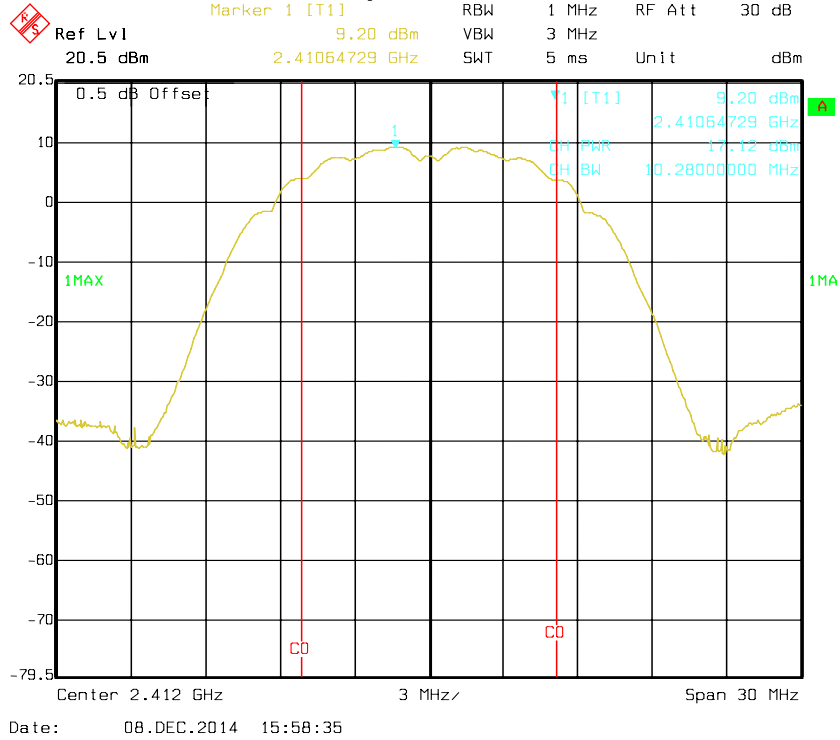
Test Mode: Transmitting

Mode	Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Result
2.4G band 802.11b	Low	2412	17.12	30	Pass
	Middle	2437	15.74	30	Pass
	High	2462	15.30	30	Pass
2.4G band 802.11g	Low	2412	14.60	30	Pass
	Middle	2437	13.24	30	Pass
	High	2462	13.03	30	Pass
2.4G band 802.11n HT20	Low	2412	13.56	30	Pass
	Middle	2437	12.15	30	Pass
	High	2462	12.16	30	Pass
2.4G band 802.11n HT40	Low	2422	11.68	30	Pass
	Middle	2437	11.39	30	Pass
	High	2452	11.15	30	Pass

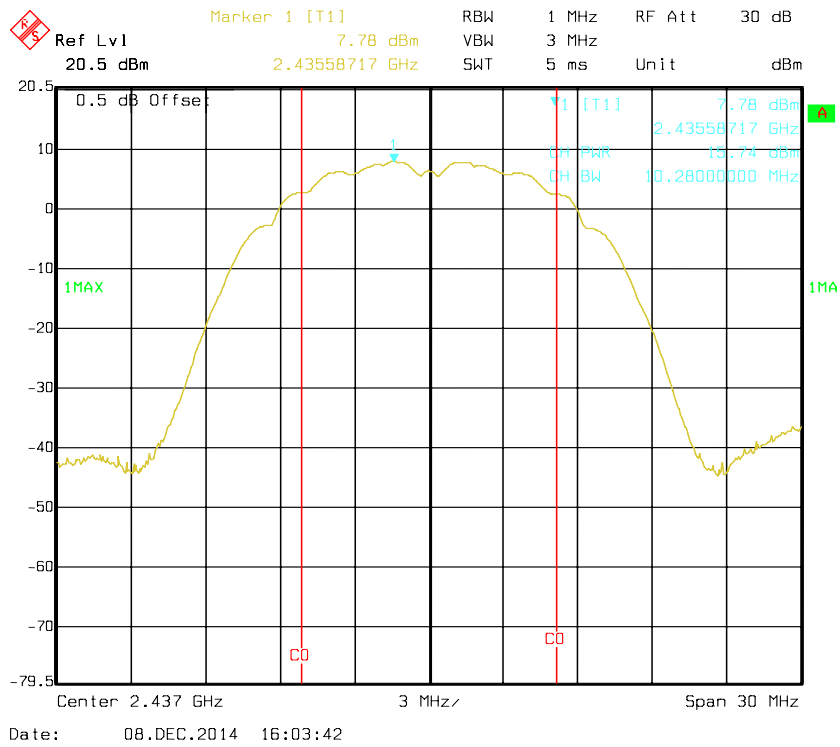
Note: Duty cycle is more than 98%.

Please refer to the following plots

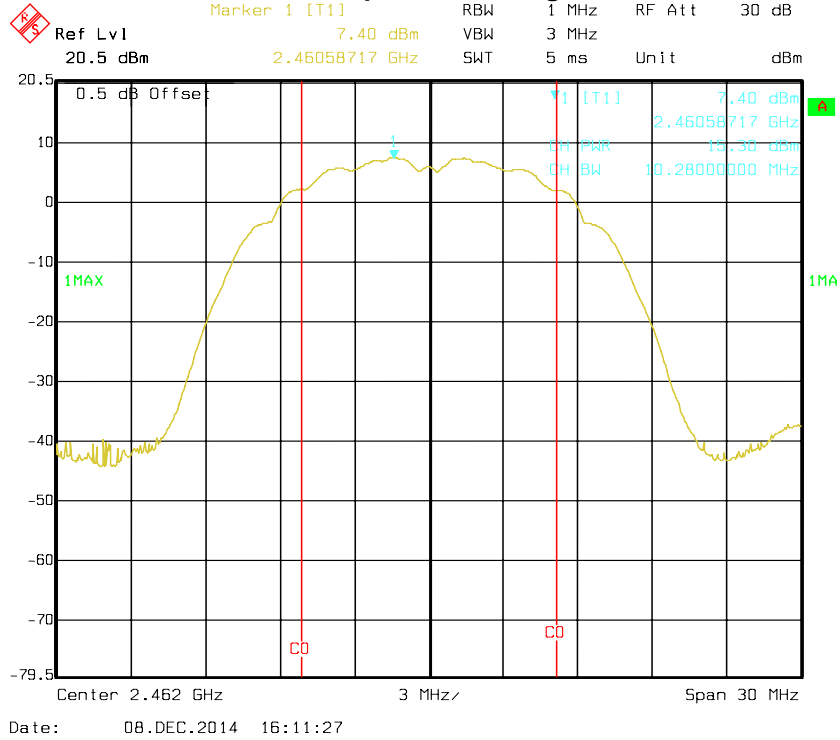
802.11b RF Output Power, Low Channel



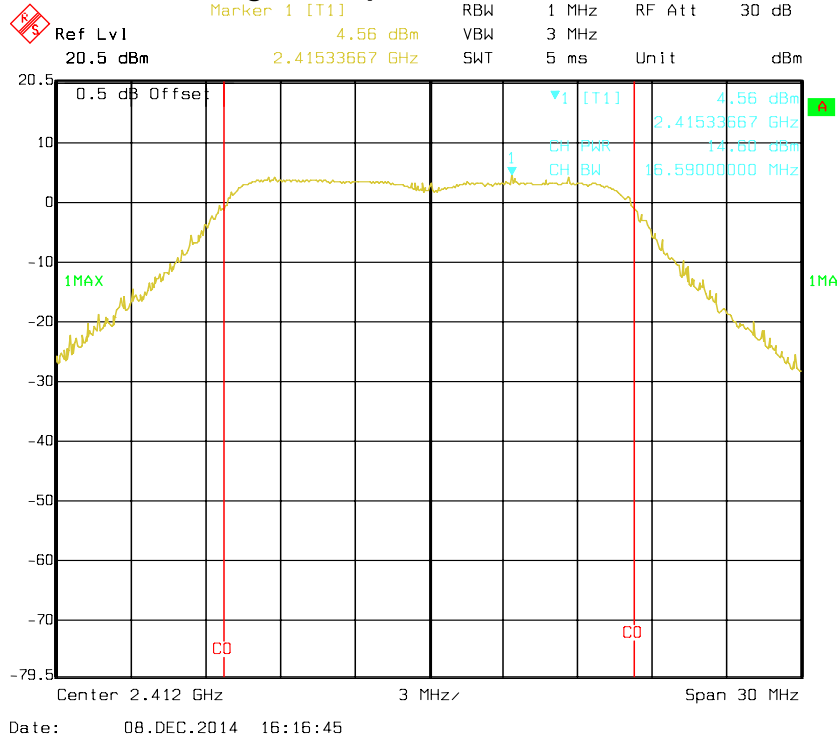
802.11b RF Output Power, Middle Channel



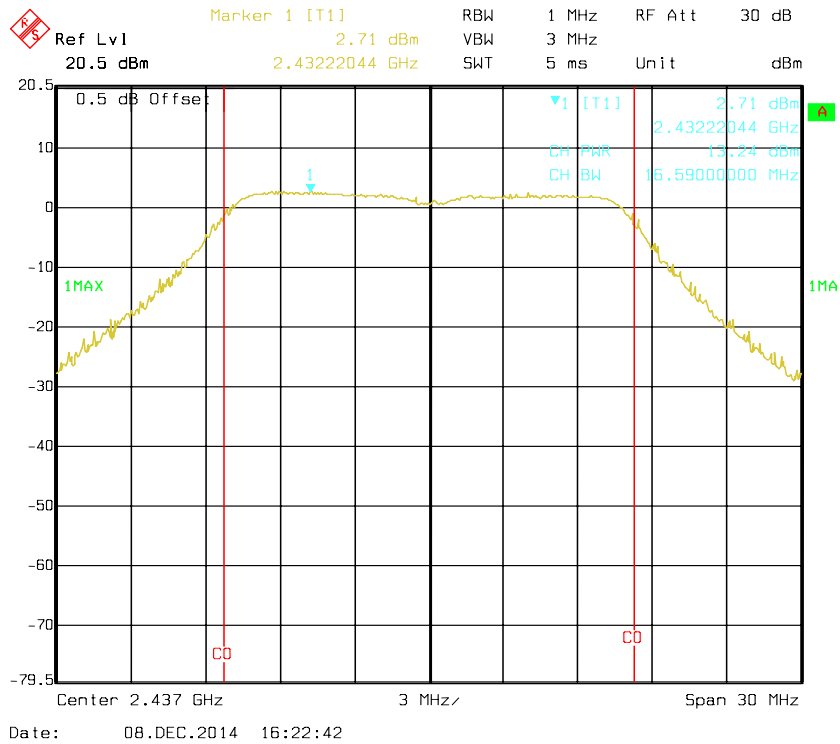
802.11b RF Output Power, High Channel



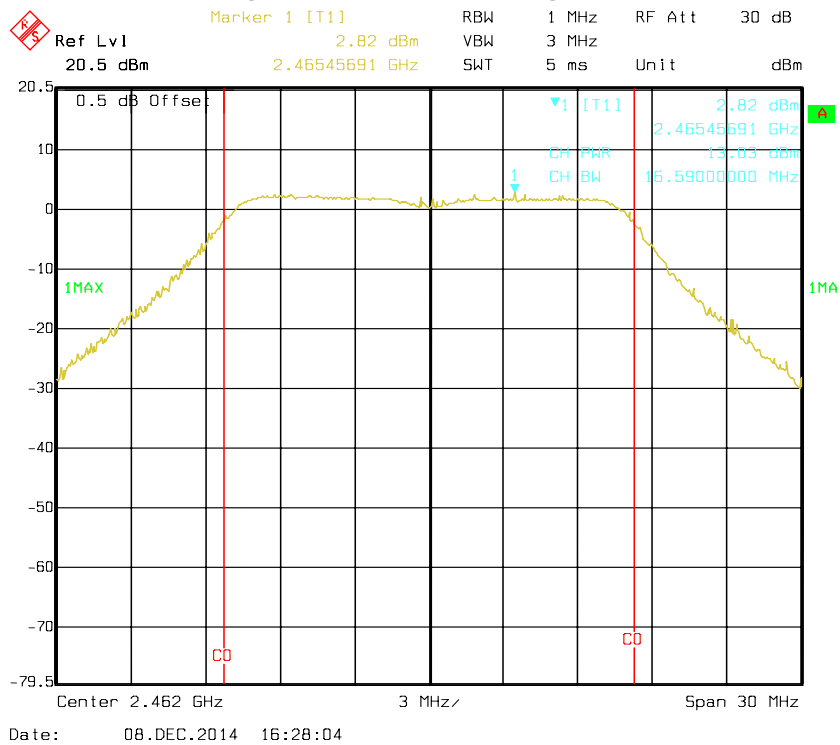
802.11g RF Output Power, Low Channel



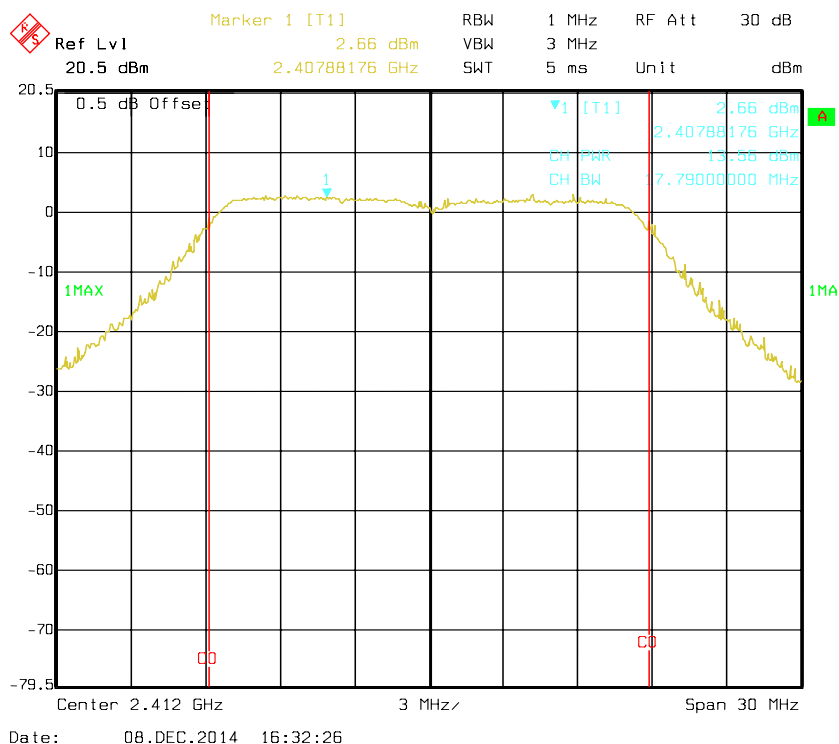
802.11g RF Output Power, Middle Channel



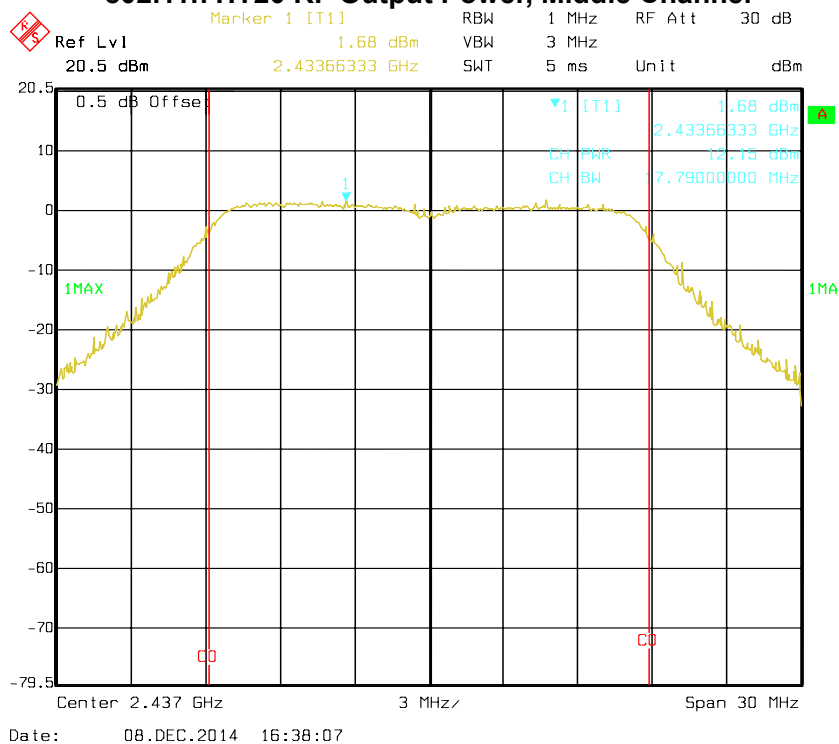
802.11g RF Output Power, High Channel



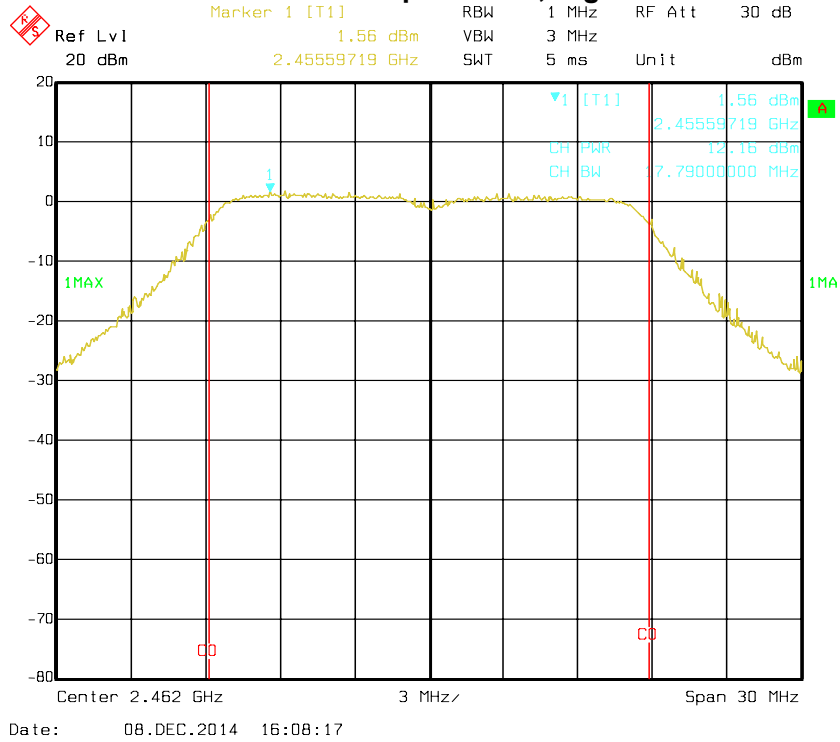
802.11n HT20 RF Output Power, Low Channel



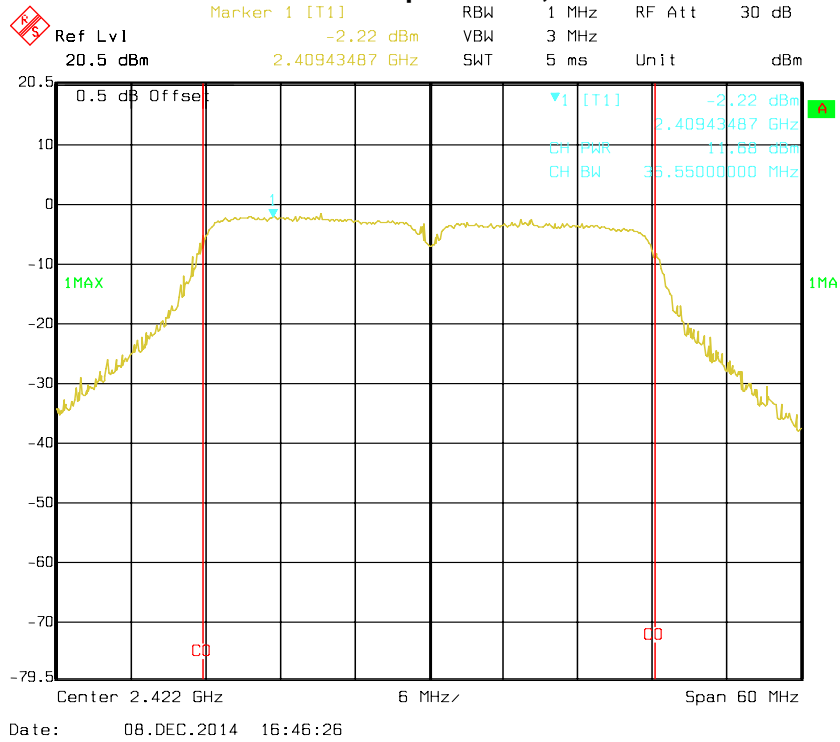
802.11n HT20 RF Output Power, Middle Channel



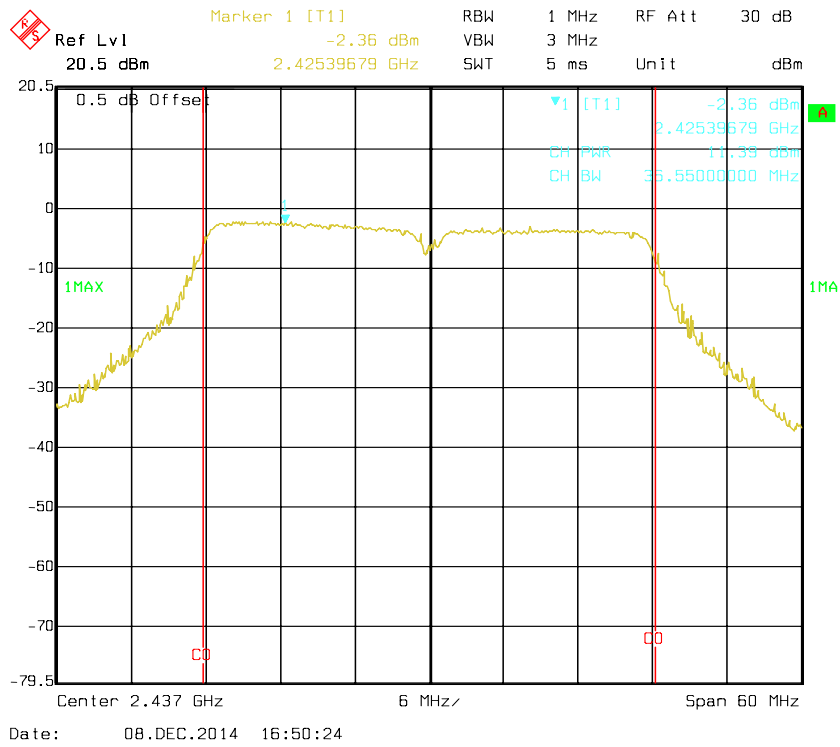
802.11n HT20 RF Output Power, High Channel



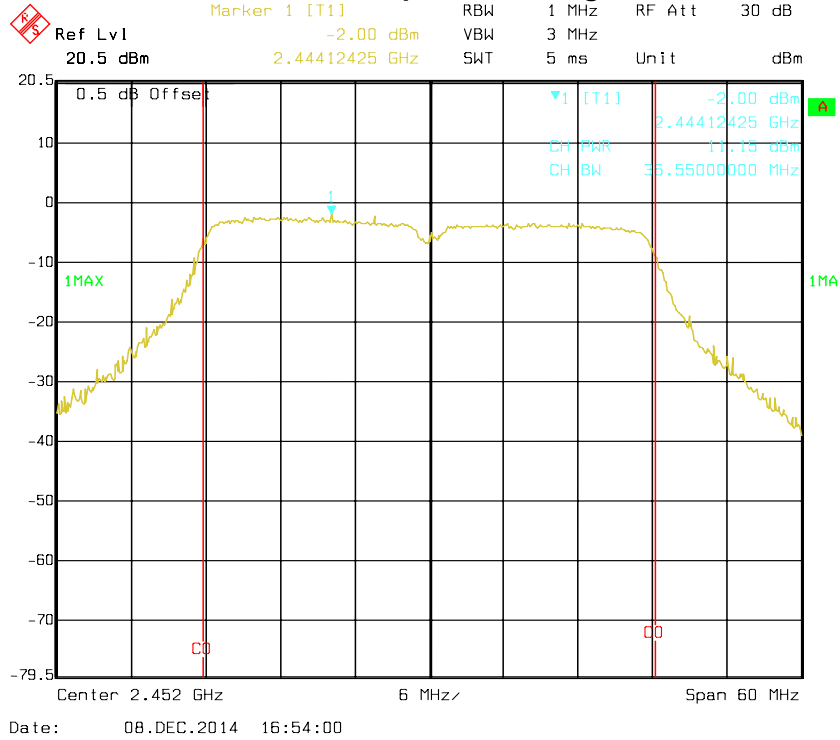
802.11n HT40 RF Output Power, Low Channel



802.11n HT40 RF Output Power, Middle Channel



802.11n HT40 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
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2014-10-17	2015-10-16

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI)

Test Data

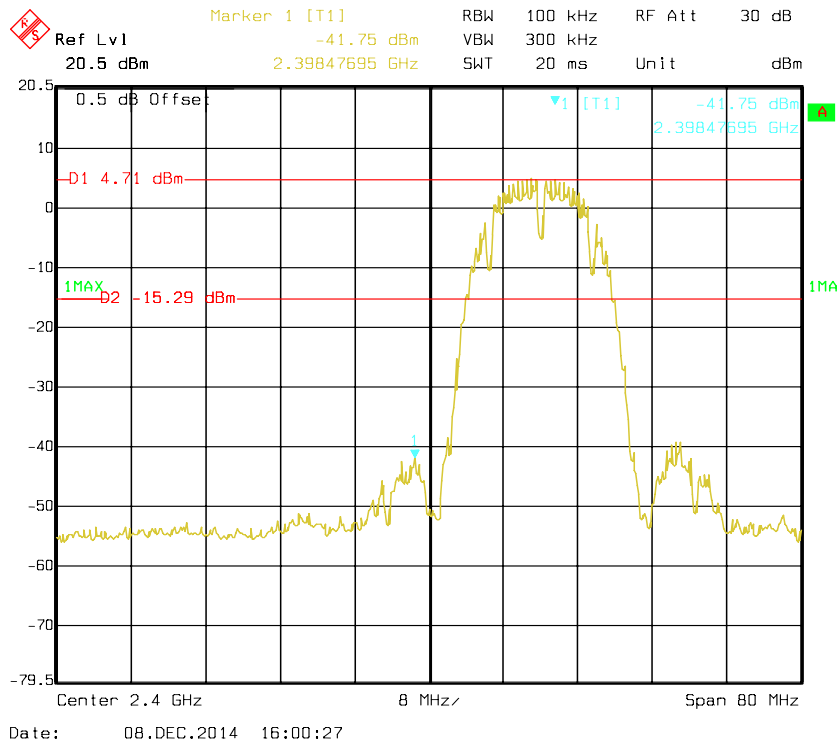
Temperature:	15 °C
Relative Humidity:	68 %
ATM Pressure:	100.3 kPa

The testing was performed by Kevin Tao on 2014-12-08.

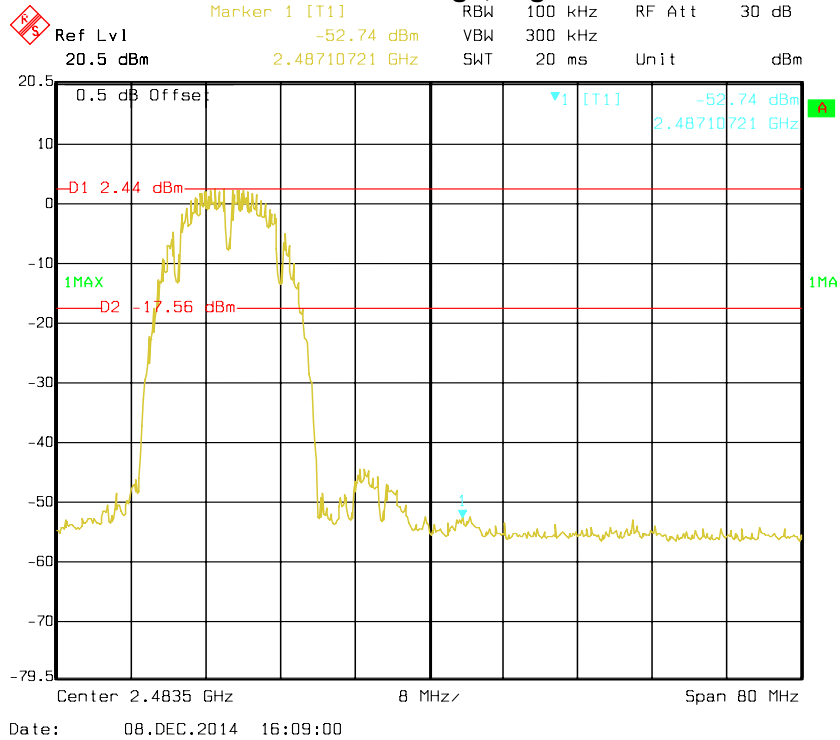
Test Mode: Transmitting

Test Result: Compliance, Please refer to following table and plots.

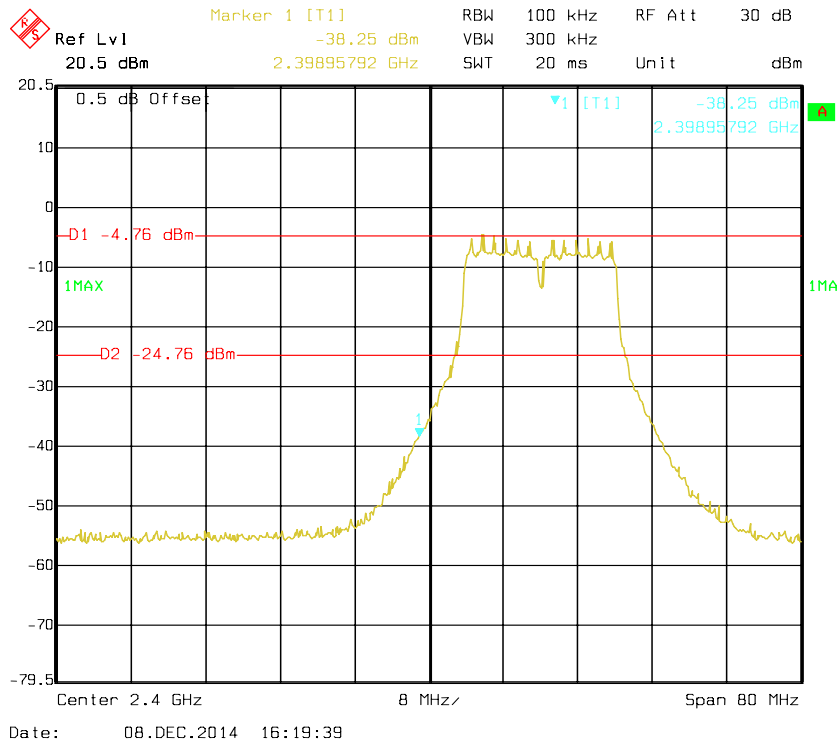
802.11b: Band Edge, Left Side



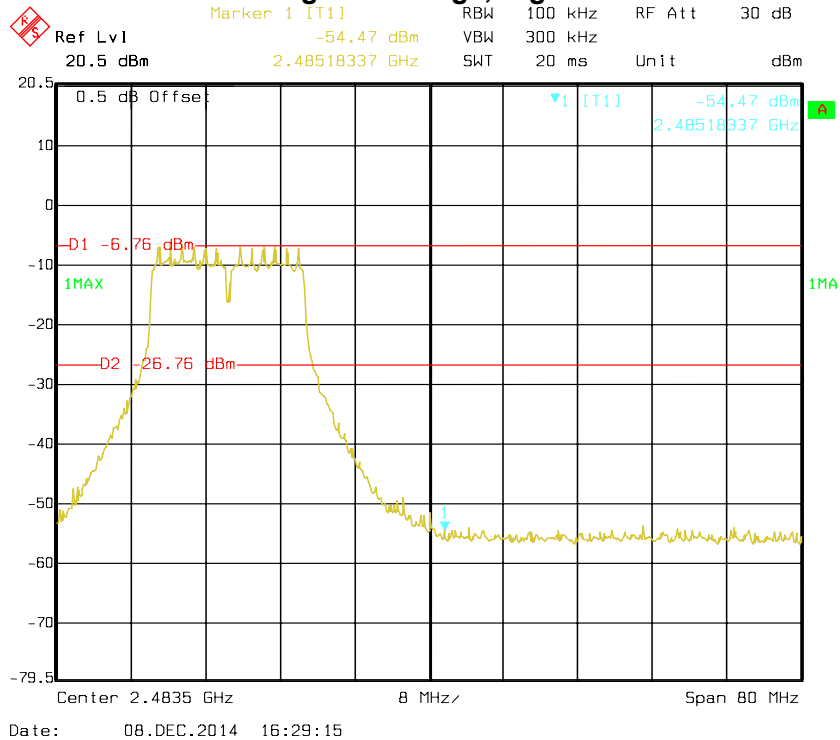
802.11b: Band Edge, Right Side



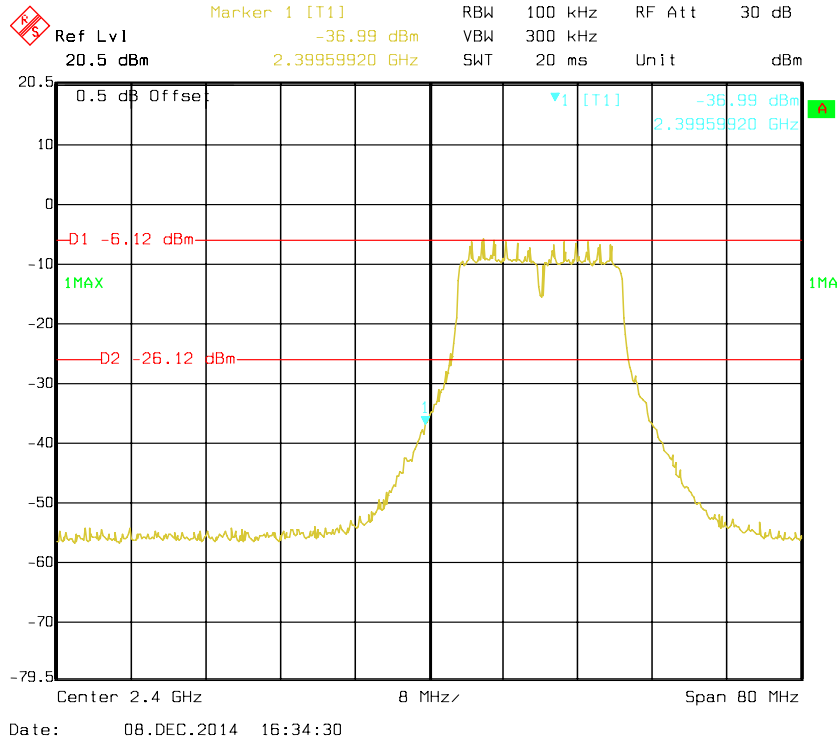
802.11g: Band Edge, Left Side



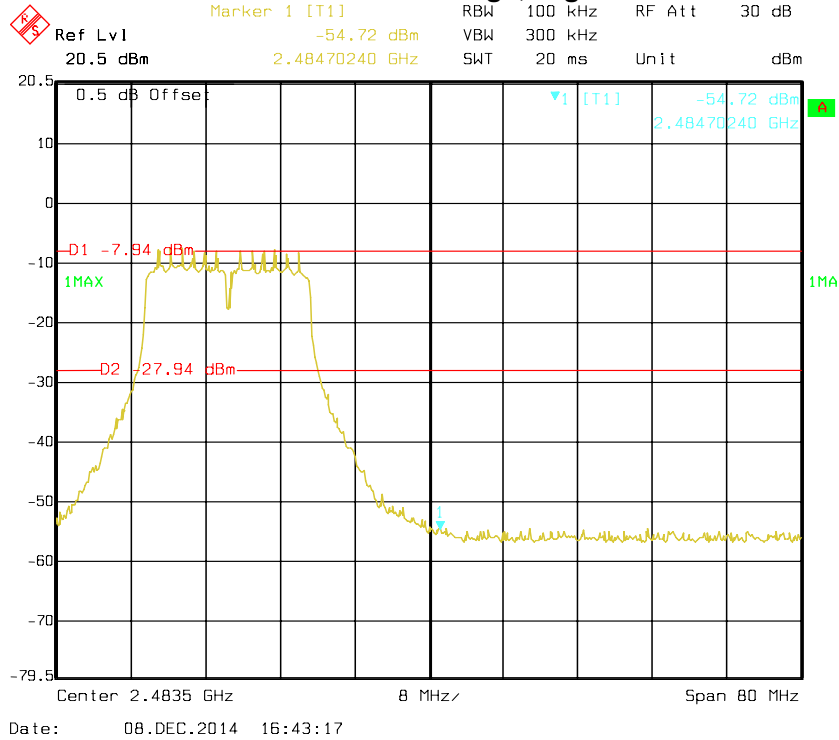
802.11g: Band Edge, Right Side



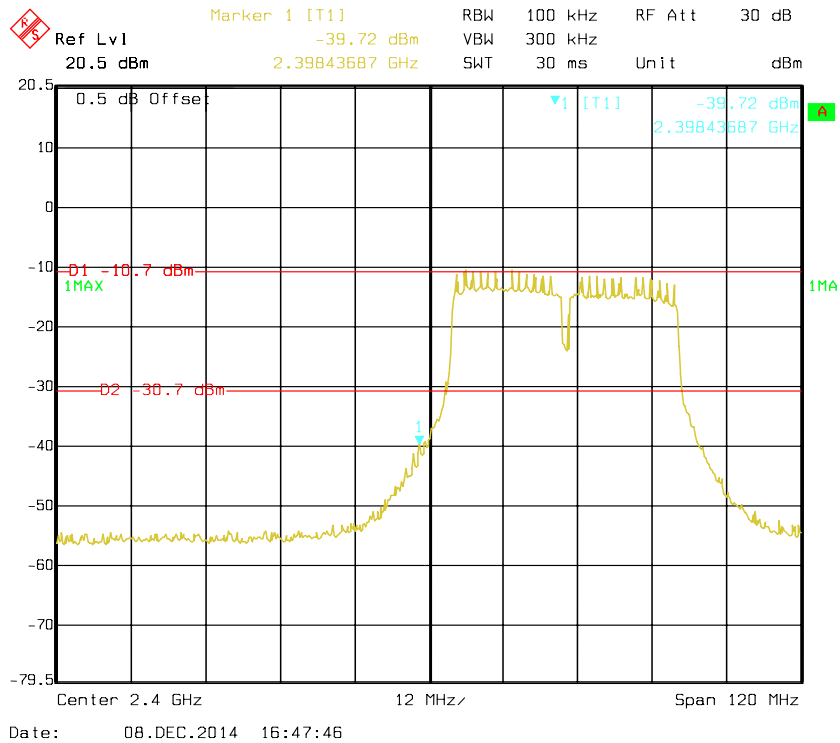
802.11n HT20 Band Edge, Left Side



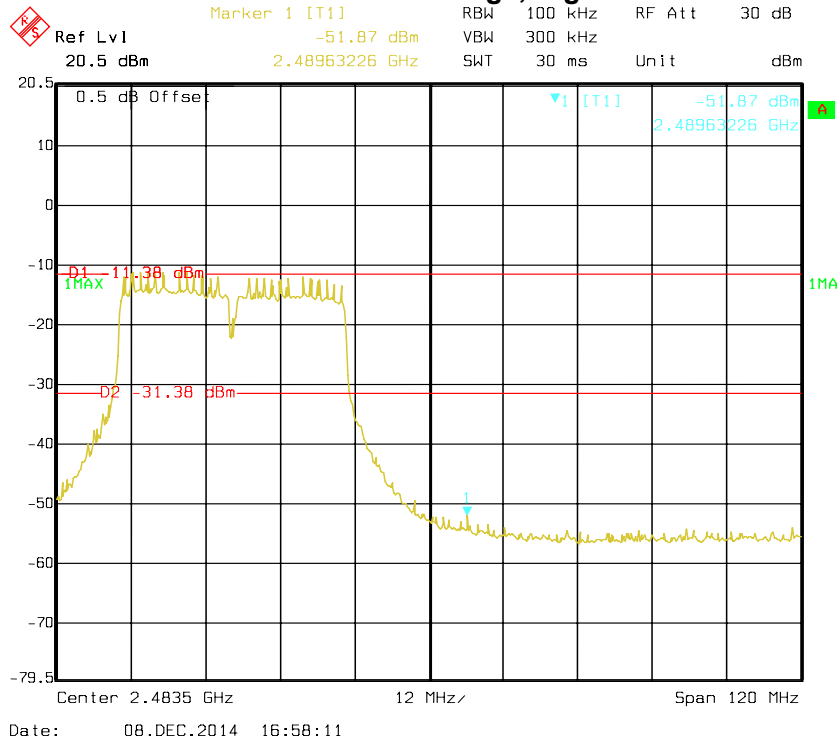
802.11n HT20 Band Edge, Right Side



802.11n HT40 Band Edge, Left Side



802.11n HT40 Band Edge, Right Side



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 v03v02, set the RBW = 3 kHz, VBW = 10 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
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2014-10-17	2015-10-16

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	15 °C
Relative Humidity:	68 %
ATM Pressure:	100.3 kPa

The testing was performed by Kevin Tao on 2014-12-08.

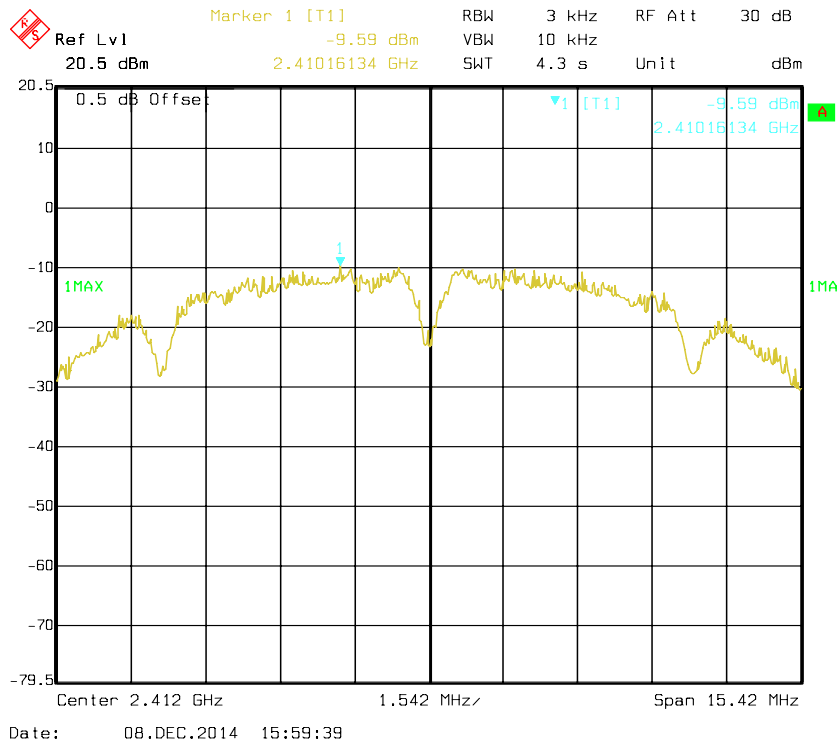
Test Mode: Transmitting

Mode	Channel	Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Result
2.4G band 802.11b	Low	2412	-9.59	8	Pass
	Middle	2437	-11.38	8	Pass
	High	2462	-10.97	8	Pass
2.4G band 802.11 g	Low	2412	-19.34	8	Pass
	Middle	2437	-21.46	8	Pass
	High	2462	-21.08	8	Pass
2.4G band 802.11nHT20	Low	2412	-20.13	8	Pass
	Middle	2437	-21.56	8	Pass
	High	2462	-21.66	8	Pass
2.4G band 802.11n HT40	Low	2422	-25.37	8	Pass
	Middle	2437	-26.05	8	Pass
	High	2452	-25.03	8	Pass

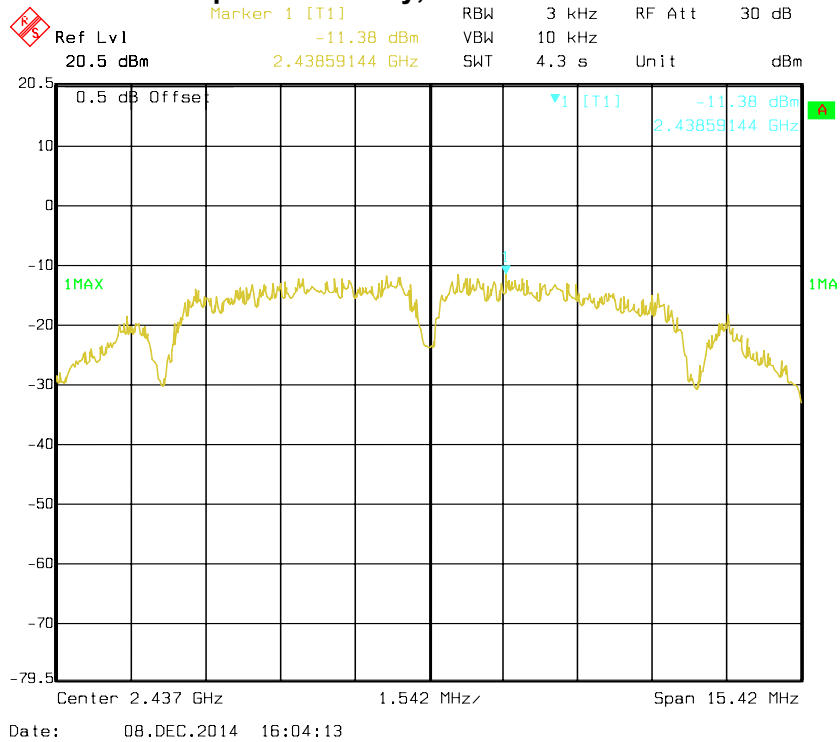
Note: Duty cycle is more than 98%.

Please refer to the following plots.

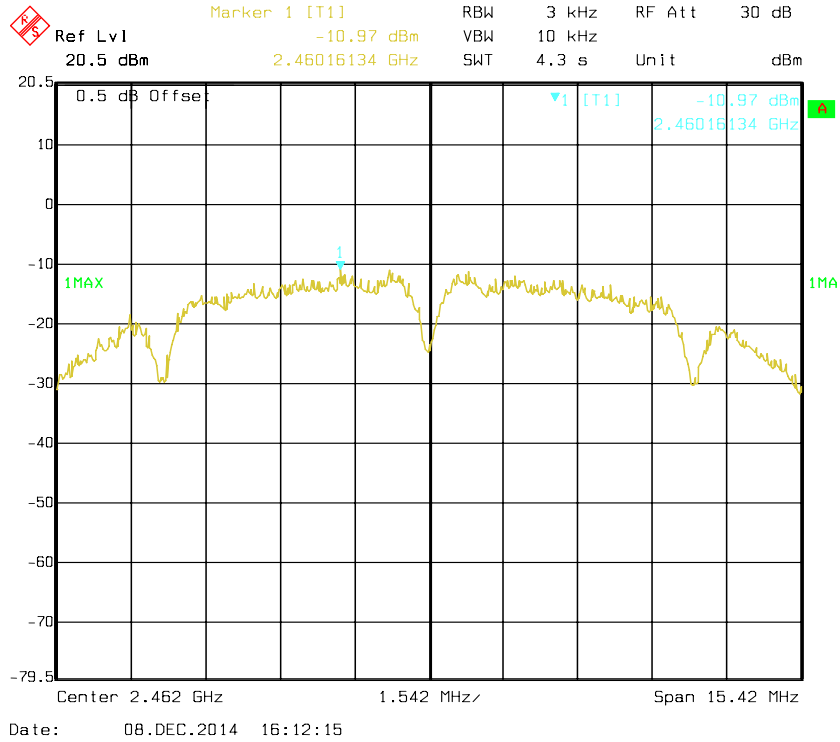
Power Spectral Density, 802.11b Low Channel



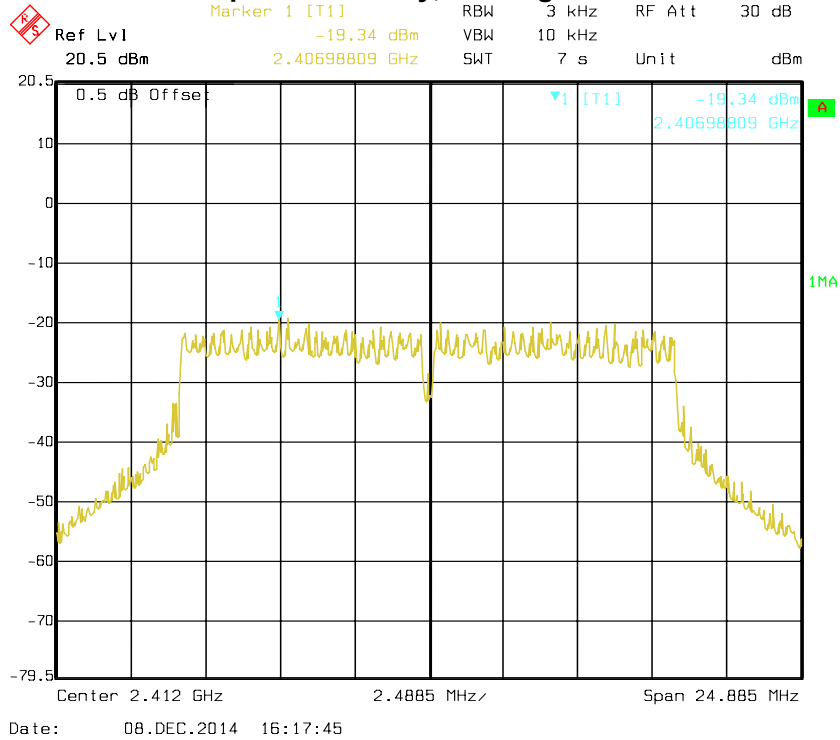
Power Spectral Density, 802.11b Middle Channel



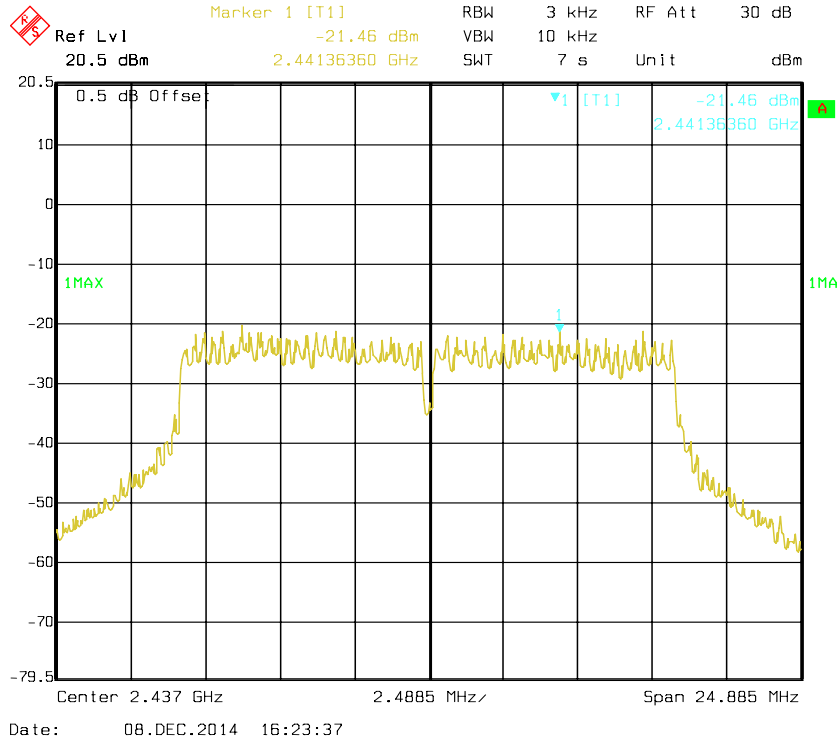
Power Spectral Density, 802.11b High Channel



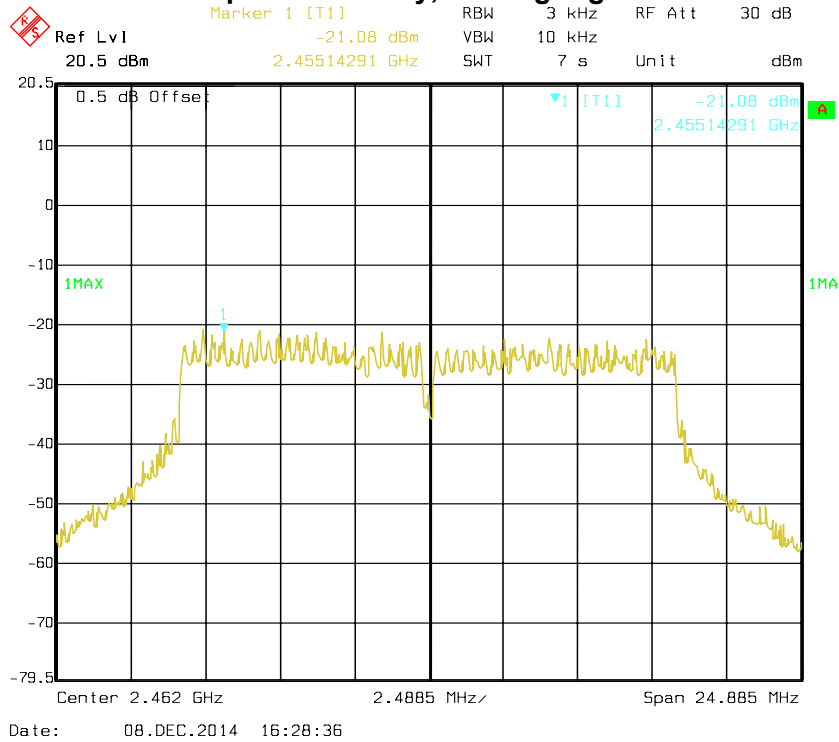
Power Spectral Density, 802.11g Low Channel



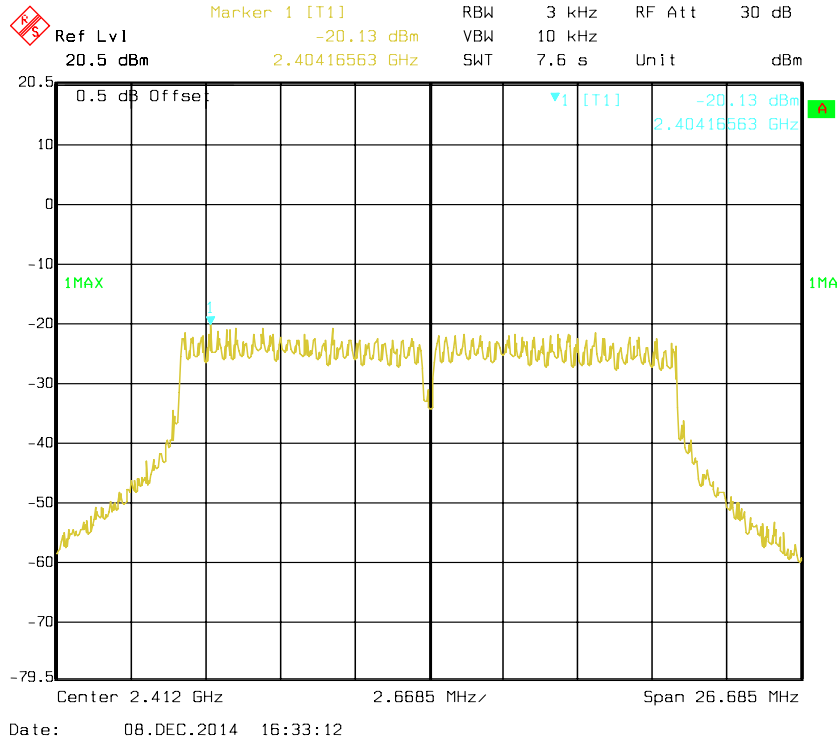
Power Spectral Density, 802.11g Middle Channel



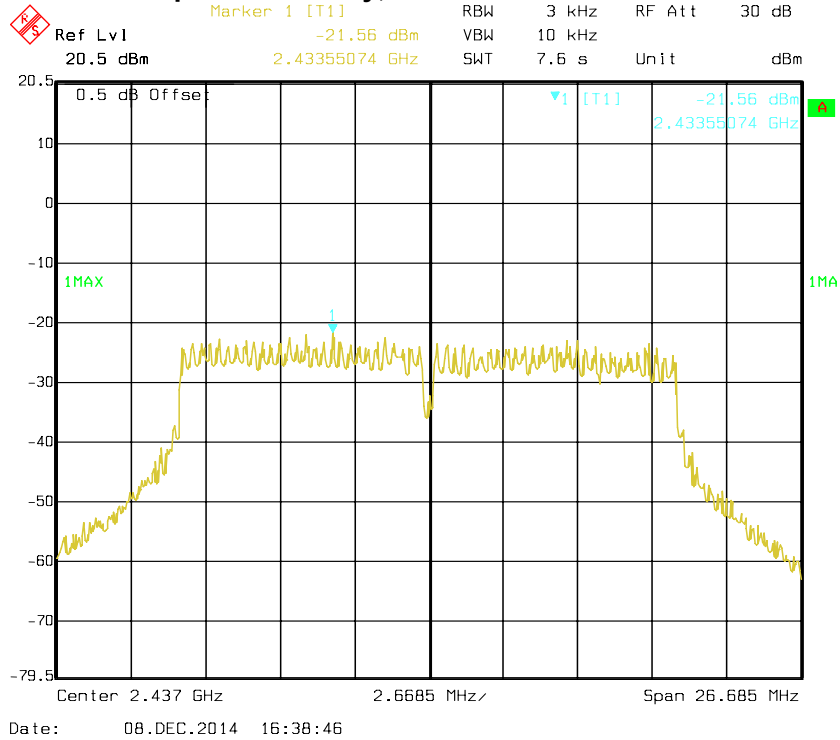
Power Spectral Density, 802.11g High Channel



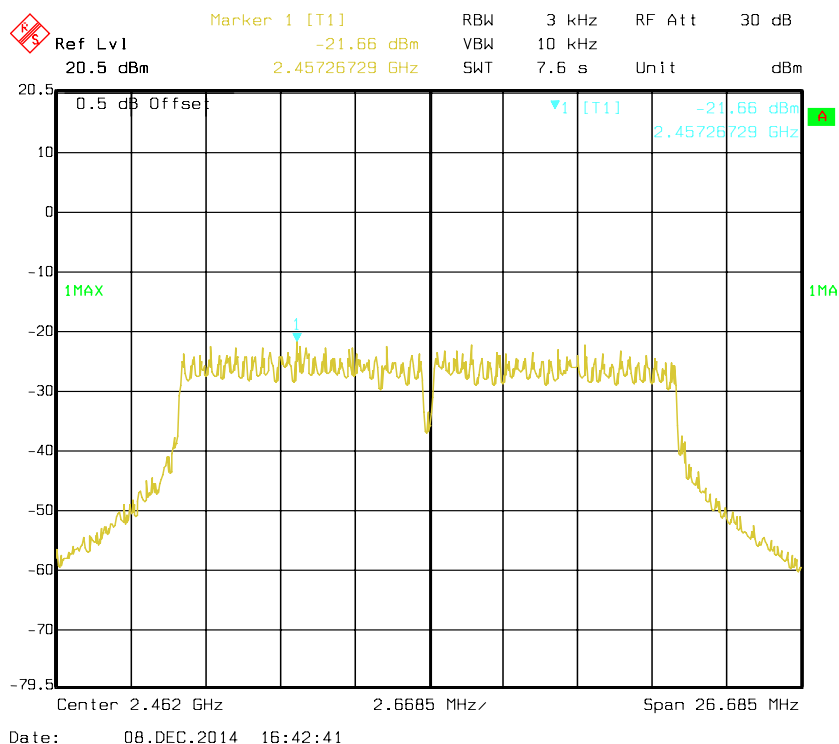
Power Spectral Density, 802.11n HT20 Low Channel



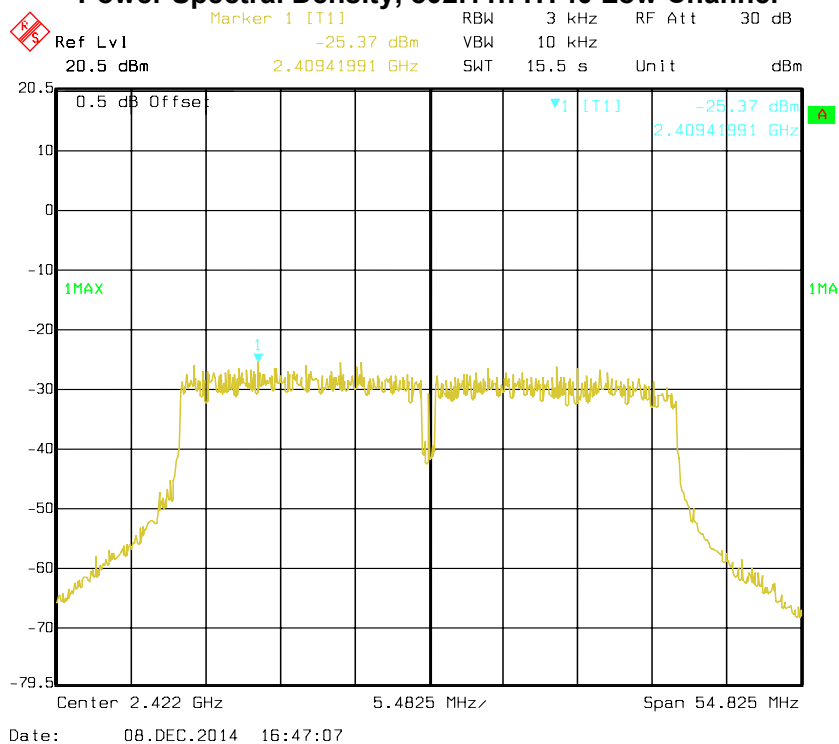
Power Spectral Density, 802.11n HT20 Middle Channel



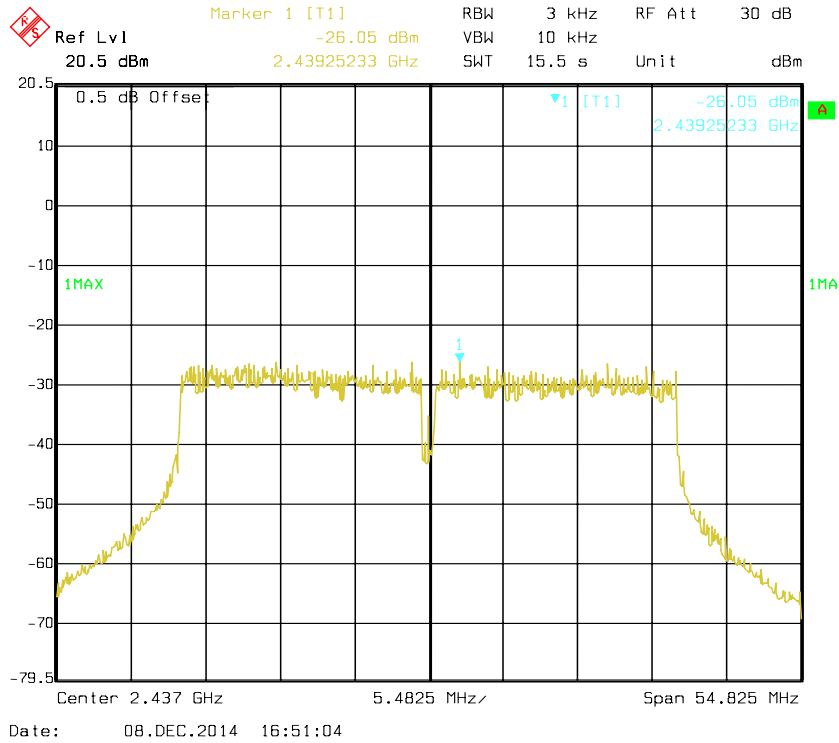
Power Spectral Density, 802.11n HT20 High Channel



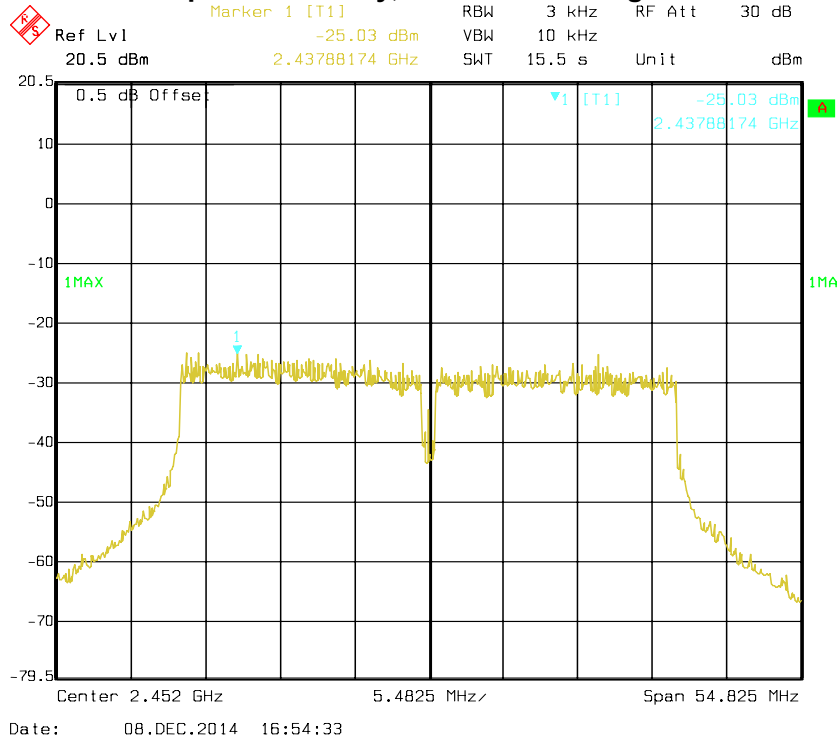
Power Spectral Density, 802.11n HT40 Low Channel



Power Spectral Density, 802.11n HT40 Middle Channel



Power Spectral Density, 802.11n HT40 High Channel



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