



**FCC PART 15C/IC RSS-210
TEST REPORT
No. 2013WLN0774**

for

Sony Mobile Communications AB

Wi-Fi Display Adapter

Type: RW-0100

With

FCC ID: PY7-RW0100

IC: 4170B- RW0100

Hardware Version: AP

Software Version: 0.1.1.1

Issued Date: 2013-11-30



IC O.A.T.S listed: No.6629B-1

Note:The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of TMC Beijing.

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Documents revision history

Revision	Update	Date
2013WLN0752-FCC 2.4G	/	2013-09-30
2013WLN0752-FCC 2.4G-rev2	Add KDB 662911 D01(page 12)	2013-11-20
2013WLN0752-FCC 2.4G-rev3	Add 802.11n mode output power(page 17)	2013-11-21
2013WLN0752-FCC 2.4G-rev4	Add the conduct transmitter spurious emission worsted case(page32)	2013-11-27
2013WLN0752-FCC 2.4G-rev5	Add all revision history	2013-11-30

1. TEST LATORATORY

1.1. Testing Location

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Postal Code: 100191
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Fax: +86-10-62304633-2504

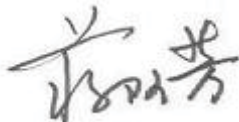
1.2. Project data

Testing Start Date: 2013-09-09
Testing End Date: 2013-09-30

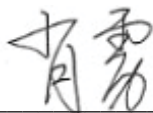
1.3. Signature



Xu Zhongfei
(Prepared this test report)



Jiang Afang
(Reviewed this test report)



Xiao Li
Deputy Director of the laboratory
(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

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3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	Wi-Fi Display Adapter
Type	RW-0100
FCC ID	PY7-RW0100
IC	4170B- RW0100
WLAN Frequency Range	ISM Band: 2400MHz~2483.5MHz
Type of modulation	OFDM
Number of Channels	11
MAX Radiated Power	23.22dBm(OFDM)
MAX Conducted Power	20.98dBm(OFDM)
Extreme Temperature	-20/+55°C
Voltage	USB cable power

Note: Photographs of EUT are shown in ANNEX C of this test report. Components list, please refer to documents of the manufacturer; it is also included in the original test record of Telecommunication Metrology Center of MIIT of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID*	S/N	HW Version	SW Version
EUT1	13341D1DCE0251A	AP	0.1.1.1
EUT2	13341D1DCE02B22	AP	0.1.1.1

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Type	SN
AE1	AC/DC Adapter	AC-0400-EU	8512W19 100304
AE2	USB Cable	AI-0700	124412D41165448

*AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment Under Test (EUT) is a model of Wi-Fi Display Adapter with integrated antenna. It has a USB port and a HDMI port.

It support WLAN (802.11 a/b/g/n) and NFC functions. For 2.4GHz 802.11n, it also supports MIMO. It includes normal options: AC/DC adapter, USB cable and HDMI cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

	FCC CFR 47, Part 15, Subpart C:	
	15.205 Restricted bands of operation;	
FCC Part15	15.209 Radiated emission limits, general requirements;	Oct,
	15.247 Operation within the bands 902–928MHz,	2012
	2400–2483.5 MHz, and 5725–5850 MHz.	
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009
KDB558074	Measurement of Digital Transmission Systems Operating under Section 15.247	2012
KDB 662911 D01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band	Sept, 2012
RSS-GEN	Spectrum Management and Telecommunications - Radio Standards Specification General Requirements and Information for the Certification of Radiocommunication Equipment	Issue 3
RSS-210	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment	Issue 8

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (b)	A8	P
Peak Power Spectral Density	15.247 (e)	A8	P
Occupied 6dB Bandwidth	15.247 (a)	A8	P
99% Occupied Bandwidth	/	RSS-Gen 4.6.1	P
Band Edges Compliance	15.247 (d)	A8	P
Transmitter Spurious Emission - Conducted	15.247 (d)	A8	P
Transmitter Spurious Emission - Radiated	15.247, 15.209	A8	P
Transmitter Spurious Emission - Radiated<30MHz	15.247, 15.209	A8	P
AC Powerline Conducted Emission	15.107, 15.207	7.2	P

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by TMC
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

TMC has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26°C
Voltage	USB cable power
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2014-07-08
2	Test Receiver	ESS	847151/015	Rohde & Schwarz	2013-10-30
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2014-08-12
4	Shielding Room	S81	/	ETS-Lindgren	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Test Receiver	ESI40	831564/002	Rohde & Schwarz	2014-08-11
2	BiLog Antenna	3142B	9908-1403	EMCO	2014-03-15
3	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2013-12-25
4	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2014-06-30
5	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

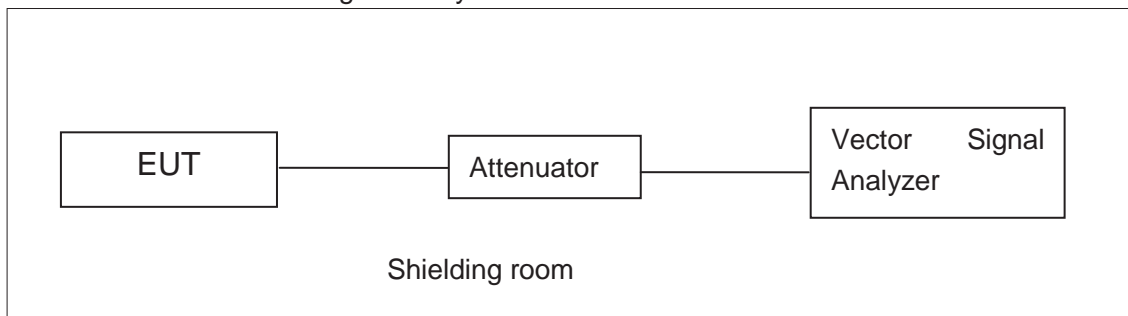
Connect the EUT to the test system as follow shows.

Set the EUT to the required work mode.

Set the EUT to the required channel.

Set the Vector Signal Analyzer and start measurement.

Record the values. Vector Signal Analyzer

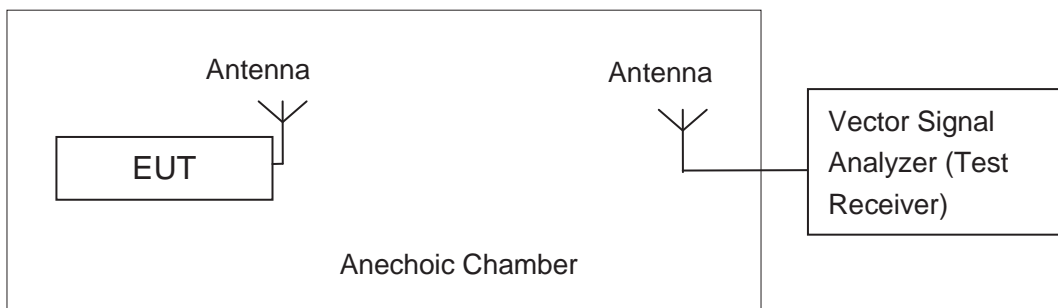


A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;



The measurement is made according to ANSI C63.4 and KDB558074

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

A.2. Maximum Peak Output Power

Measurement Limit and Method:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

The measurement is made according to ANSI C63.4 and KDB558074, and option 1 is used for peak power measurement.

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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A.2.1. Antenna Gain

The antenna gain of the complete system is calculated by the difference of radiated power and the conducted power of the EUT.

Antenna 1:

Test	Channel		
Tnom,Vnom	1	6	11
Conducted Power(dBm)	9.49	9.63	9.44
Radiated Power(dBm)	9.33	10.81	10.76
Gain(dBi)	-0.16	1.18	1.32

Antenna 2:

Test	Channel		
Tnom,Vnom	1	6	11
Conducted Power(dBm)	11.68	11.35	11.59
Radiated Power(dBm)	13.88	13.77	14.59
Gain(dBi)	2.20	2.42	3.00

Antenna Gain = Radiated value (with radiated sample) - Conducted values (with conducted samples)

A.2.2. Maximum Peak Output Power-conducted

Measurement Results:

802.11b mode

Mode	Data Rate (Mbps)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	1	13.76	/	/
	2	14.09	/	/
	5.5	15.40	/	/
	11	16.93	16.86	16.75

The data rate 11Mbps is selected as worse condition, and the following cases are performed with this condition.

802.11g mode

Mode	Data Rate (Mbps)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11g	6	18.56	/	/
	9	18.44	/	/
	12	18.24	/	/
	18	18.19	/	/
	24	18.45	/	/
	36	18.64	/	/
	48	18.77	18.53	18.49
	54	18.44	/	/

The data rate 48Mbps is selected as worse condition, and the following cases are performed with this condition.

802.11n mode

Mode	Data Rate (Index)	Test Result (dBm)		
		2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11n (20MHz)	MCS0	18.72	/	/
	MCS1	18.36	/	/
	MCS2	18.36	/	/
	MCS3	19.00	/	/
	MCS4	18.57	/	/
	MCS5	18.89	/	/
	MCS6	18.67	/	/
	MCS7	18.56	/	/
802.11n- MIMO (20MHz)	MCS8	20.24	/	/
	MCS9	20.33	/	/
	MCS10	20.45	/	/
	MCS11	20.83	20.98	20.80
	MCS12	20.45	/	/
	MCS13	20.51	/	/
	MCS14	20.43	/	/
	MCS15	19.50	/	/

The data rate MCS11 is selected as worse condition, and the following cases are performed with this condition.

Conclusion: PASS

A.2.3. Maximum Peak Output Power- Conducted

Measurement Results:

802.11b/g mode

Mode	Test Result (dBm)		
	2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	16.93	16.86	16.75
802.11g	18.77	18.53	18.49

802.11n mode

Mode	Test Result (dBm)								
	2412MHz (Ch1)			2437MHz (Ch6)			2462 MHz (Ch11)		
	Ant1	Ant2	Sum	Ant1	Ant2	Sum	Ant1	Ant2	Sum
HT20	16.55	18.80	20.83	16.98	18.78	20.98	16.71	18.65	20.80

For MIMO mode, the total power is calculated with all antennas ($P_{Total} = P_{ant1} + P_{ant2}$).

Conclusion: PASS

A.2.4. Maximum Peak Output Power- Radiated

Mode	Test Result (dBm)		
	2412MHz (Ch1)	2437MHz (Ch6)	2462 MHz (Ch11)
802.11b	19.13	19.28	19.75
802.11g	20.97	20.95	21.49
802.11n	22.29	22.95	23.22

Radiated value = Conducted values (with conducted samples) + Antenna Gain.

Conclusion: PASS

A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(e)	< 8 dBm/3 kHz

The measurement is made according to ANSI C63.4 and KDB558074, and option 1 is used for peak power spectral density measurement.

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Note: Configuration information to be tested as follows:

Modulation type and data rate:

802.11b	802.11g	802.11n
11Mbps(CCK)	48Mbps(OFDM)	HT20-MCS11(OFDM)

Measurement Results:

Mode	Channel	Power Spectral Density (dBm/3 kHz)	Conclusion
802.11b	1	-13.55	P
	6	-12.46	P
	11	-13.34	P
802.11g	1	-15.33	P
	6	-15.72	P
	11	-14.26	P
802.11n- Antenna 1	1	-14.65	P
	6	-14.31	P
	11	-14.48	P
802.11n- Antenna 2	1	-12.80	P
	6	-13.05	P
	11	-12.35	P

For MIMO measurement, $10 \log(N_{ANT})$ dB is added, where N_{ANT} is the number of outputs. Here, the is $N_{ANT} = 2$, so the $10 \log(N_{ANT})$ is equal to 3.01 dB.

Conclusion: PASS

A.4. Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

The measurement is made according to ANSI C63.4 and KDB558074. The option 1 of KDB document is used for occupied 6dB bandwidth measurement.

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Note: Configuration information to be tested as follows:

Modulation type and data rate:

802.11b	802.11g	802.11n
11Mbps(CCK)	48Mbps(OFDM)	HT20-MCS11(OFDM)

Measurement Result:

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
		Fig.	Value	
802.11b	1	Fig.1	9850	P
	6	Fig.2	9350	P
	11	Fig.3	9399	P
802.11g	1	Fig.4	16000	P
	6	Fig.5	15100	P
	11	Fig.6	15100	P
802.11n	1	Fig.7	16300	P
	6	Fig.8	14949	P
	11	Fig.9	15050	P

Conclusion: PASS

Test graphs as below:

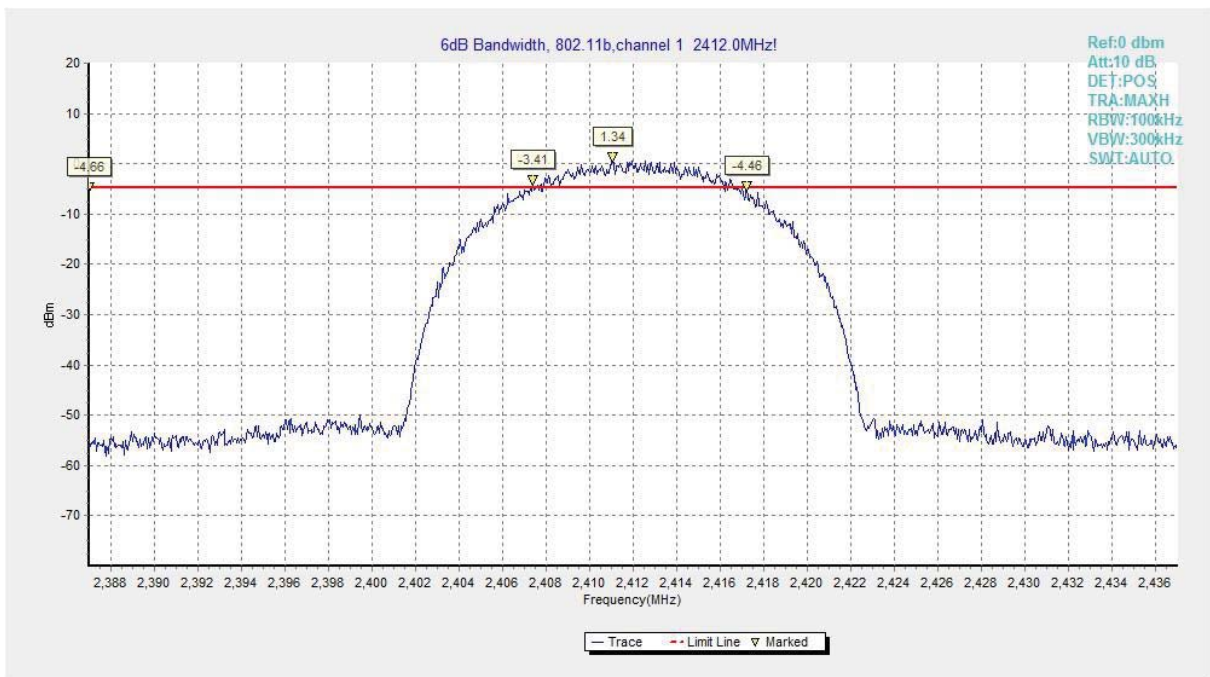


Fig. 1 Occupied 6dB Bandwidth (802.11b, Ch 1)

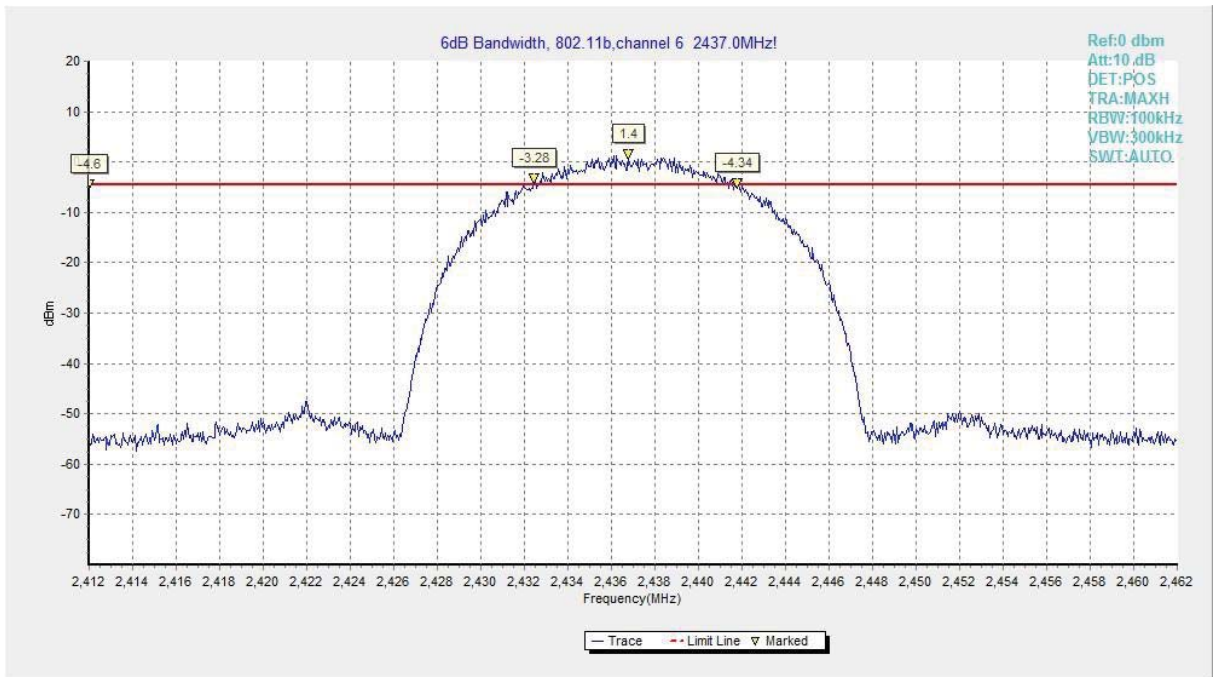


Fig. 2 Occupied 6dB Bandwidth (802.11b, Ch 6)

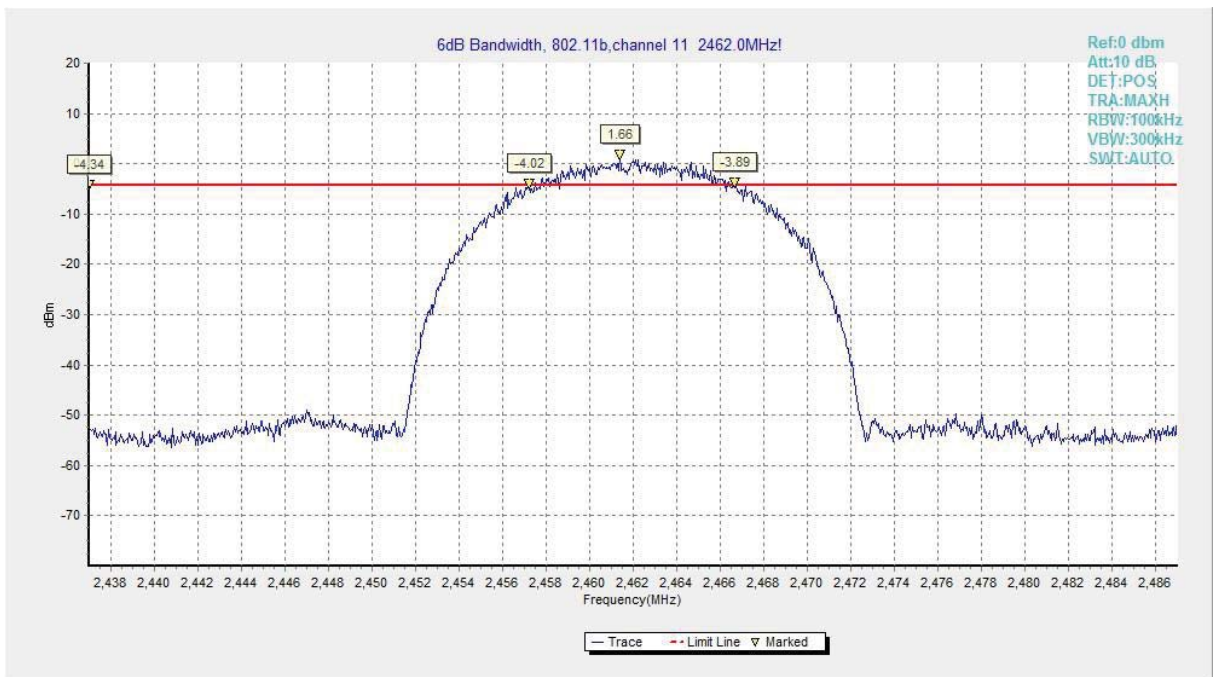


Fig. 3 Occupied 6dB Bandwidth (802.11b, Ch 11)

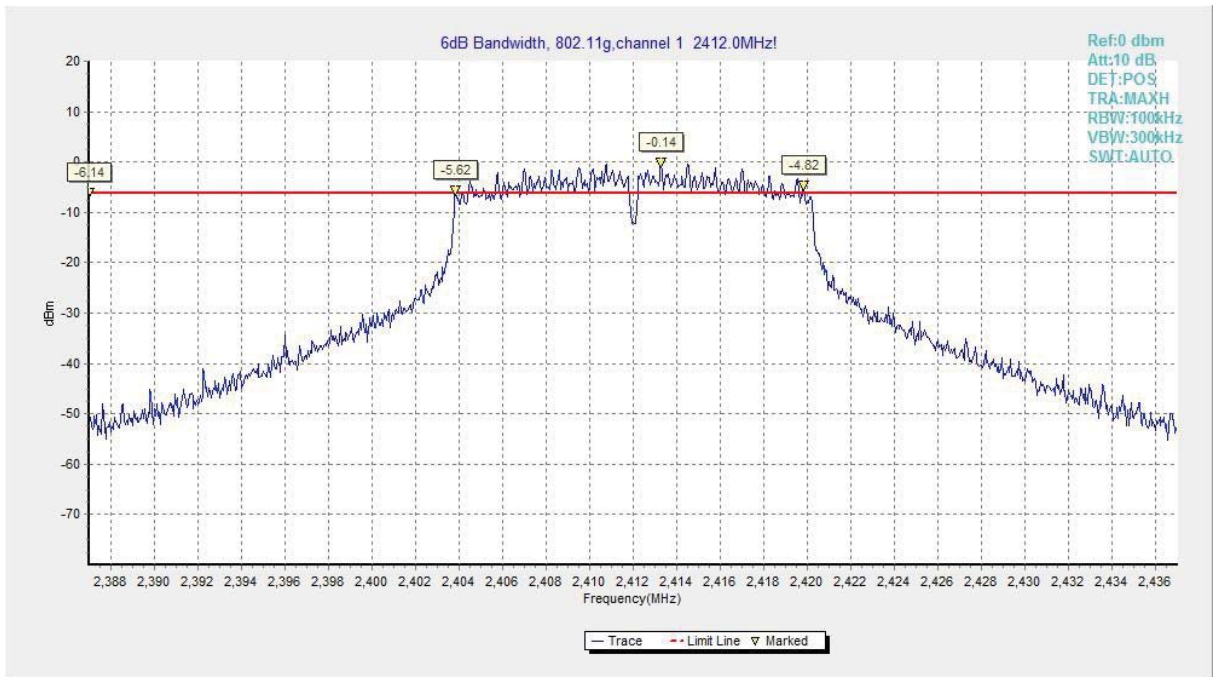


Fig. 4 Occupied 6dB Bandwidth (802.11g, Ch 1)

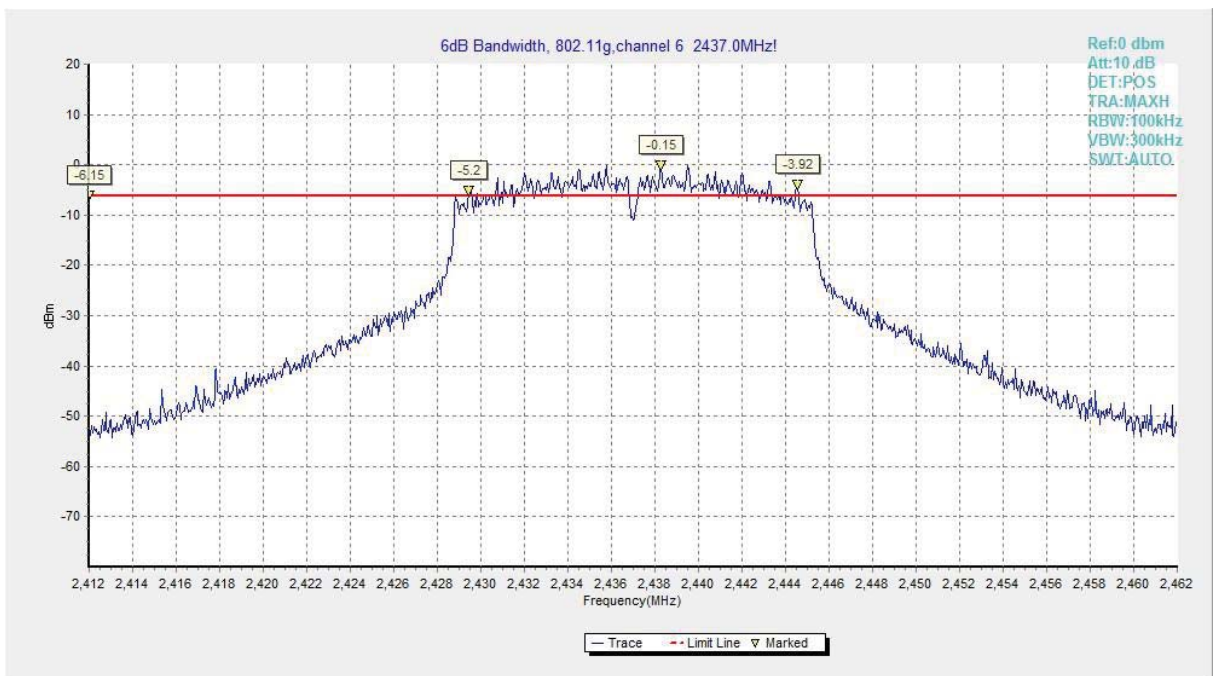


Fig. 5 Occupied 6dB Bandwidth (802.11g, Ch 6)

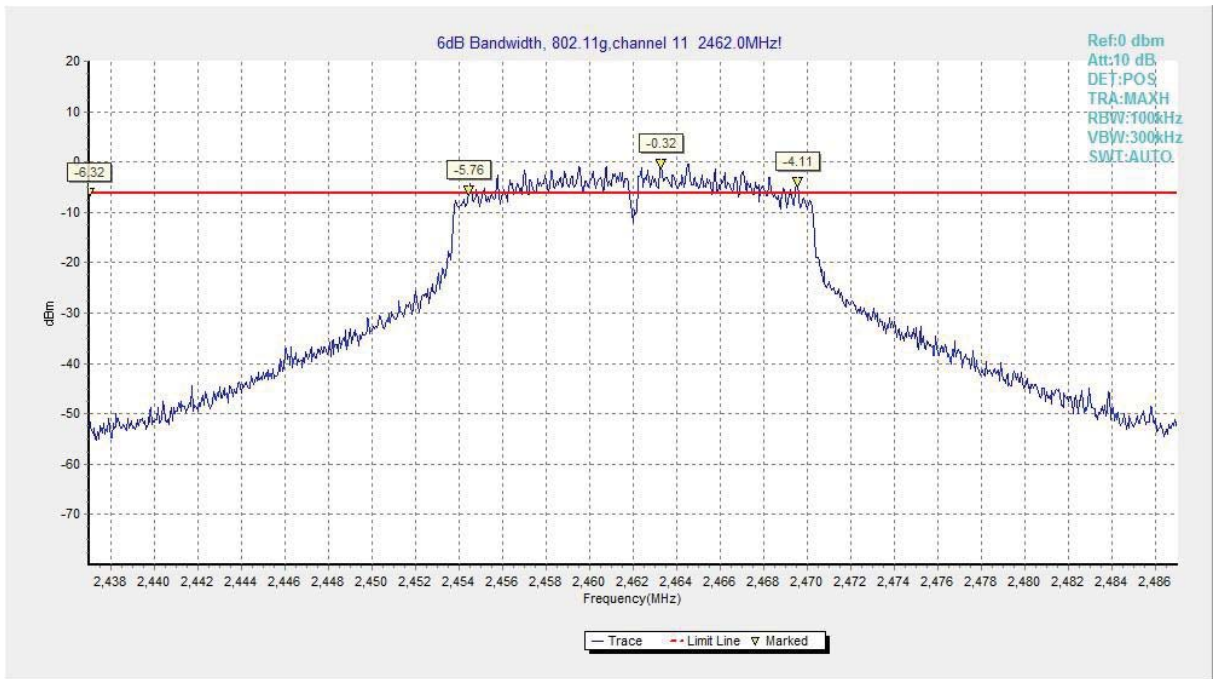


Fig. 6 Occupied 6dB Bandwidth (802.11g, Ch 11)

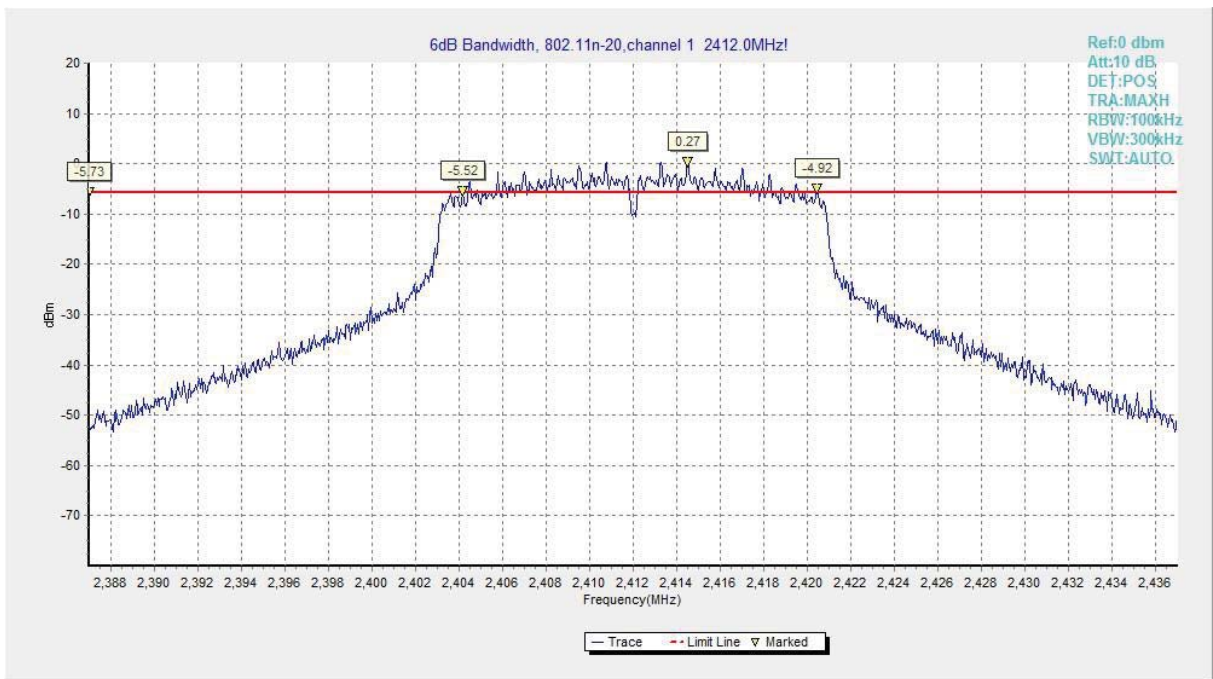


Fig. 7 Occupied 6dB Bandwidth (802.11n-HT20, Ch 1)

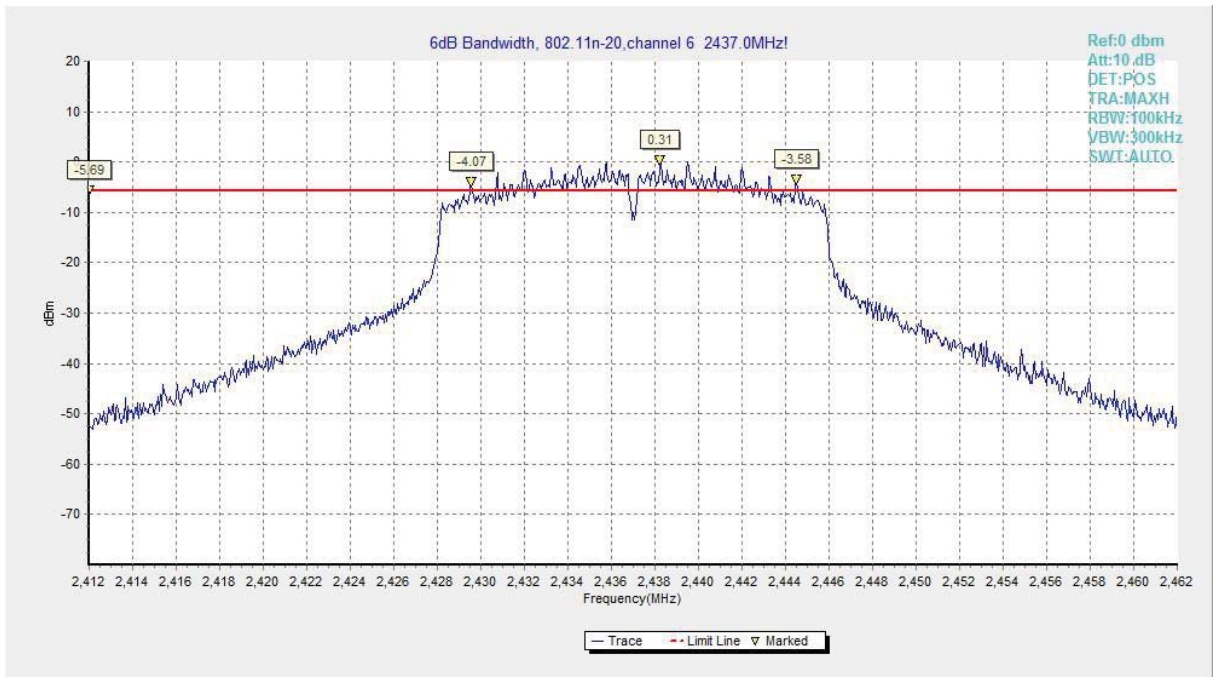


Fig. 8 Occupied 6dB Bandwidth (802.11n-HT20, Ch 6)

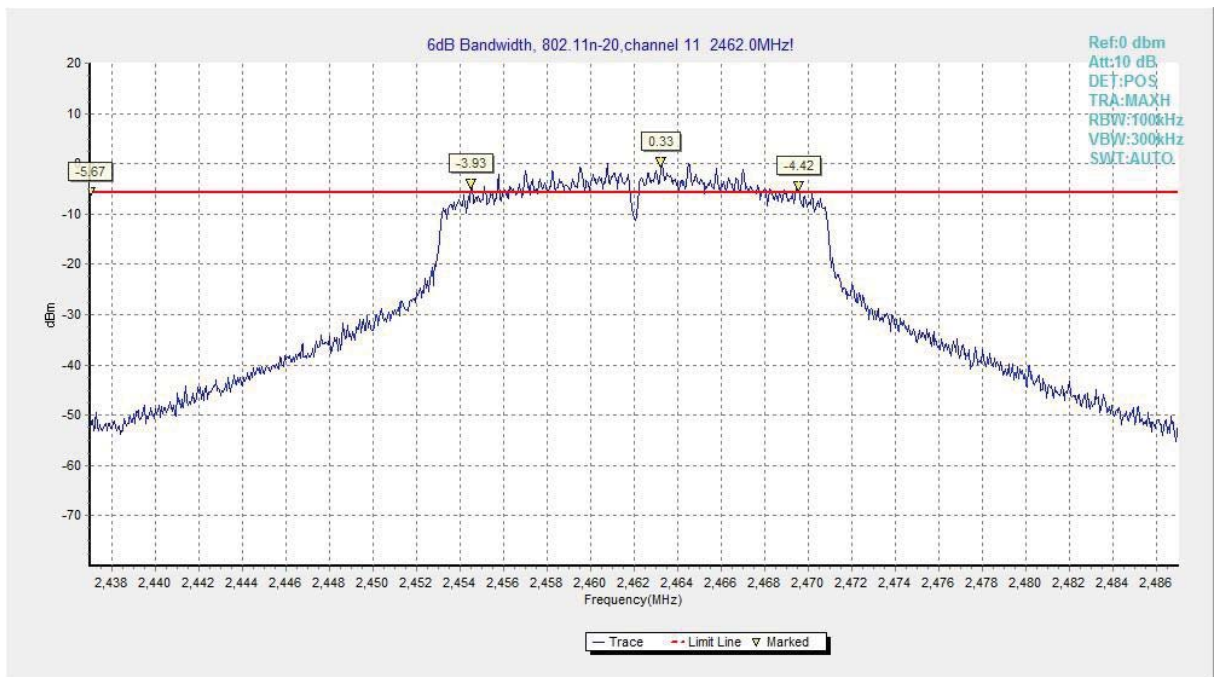


Fig. 9 Occupied 6dB Bandwidth (802.11n-HT20, Ch 11)

A.5. Band Edges Compliance

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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Note: Configuration information to be tested as follows:

Modulation type and data rate:

802.11b	802.11g	802.11n
11Mbps(CCK)	48Mbps(OFDM)	HT20-MCS11(OFDM)

Measurement Result:

Mode	Channel	Test Results		Conclusion
		Fig.	Value	
802.11b	1	Fig.10	37.26	P
	11	Fig.11	41.86	P
802.11g	1	Fig.12	11.48	P
	11	Fig.13	32.87	P
802.11n	1	Fig.14	10.77	P
	11	Fig.15	28.49	P

Conclusion: PASS

Test graphs as below:

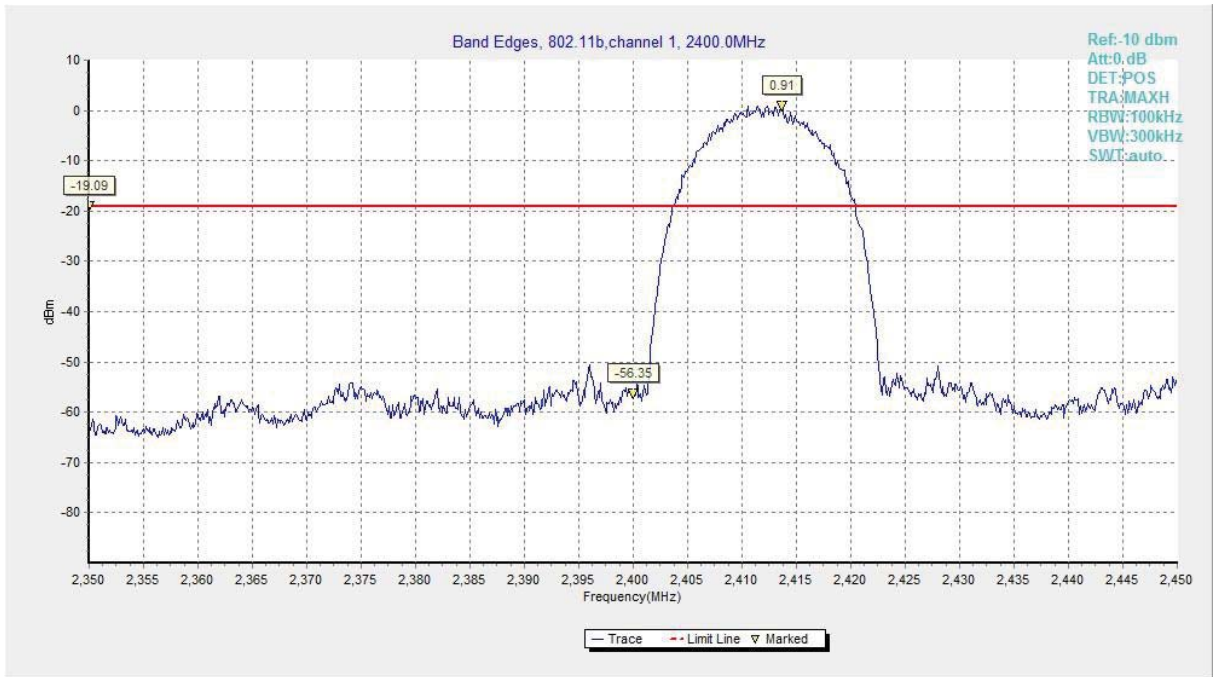


Fig. 10 Band Edges (802.11b, Ch 1)

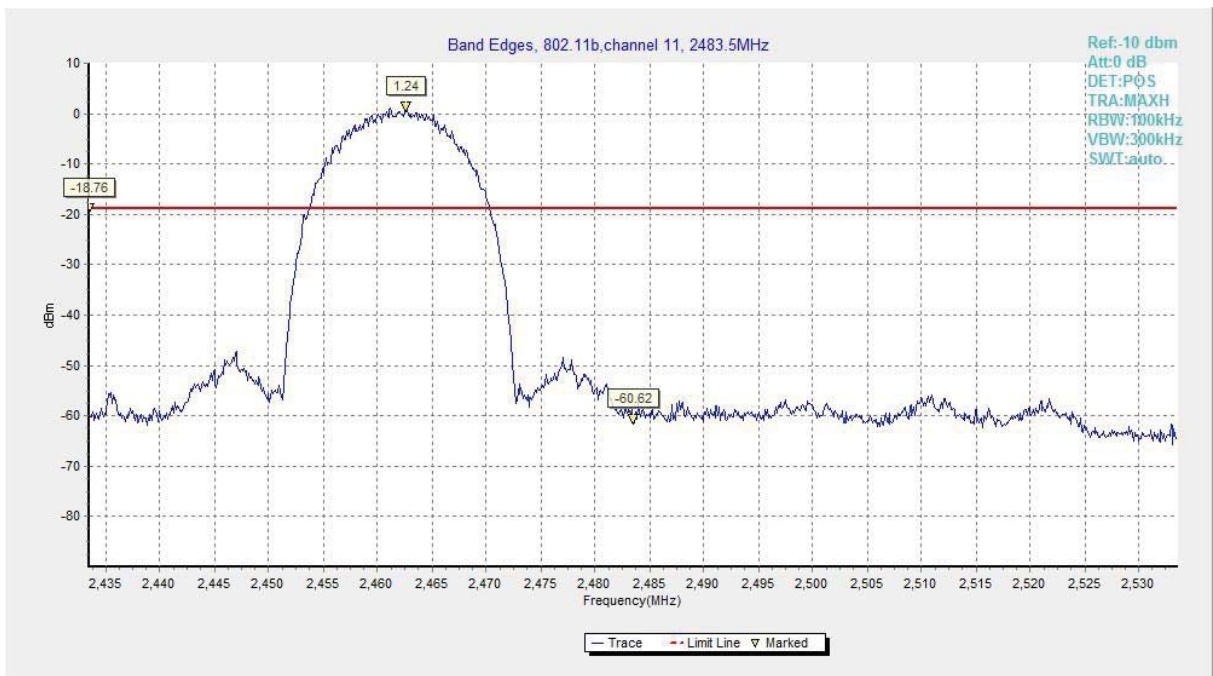


Fig. 11 Band Edges (802.11b, Ch 11)

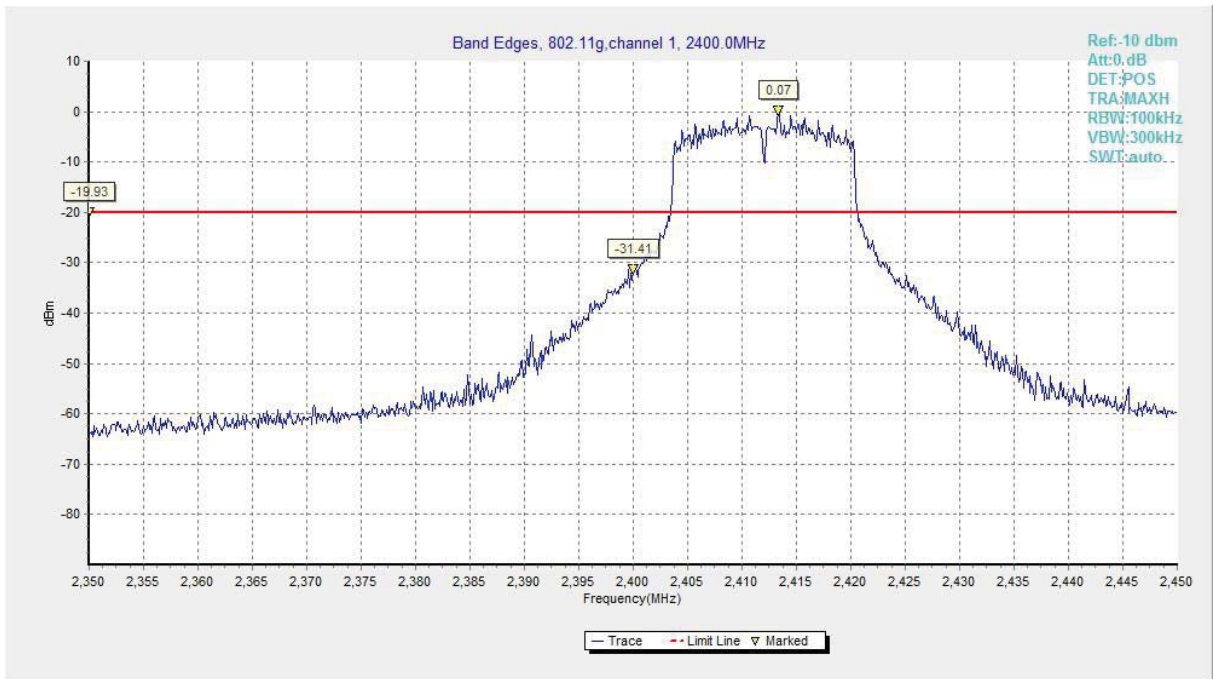


Fig. 12 Band Edges (802.11g, Ch 1)

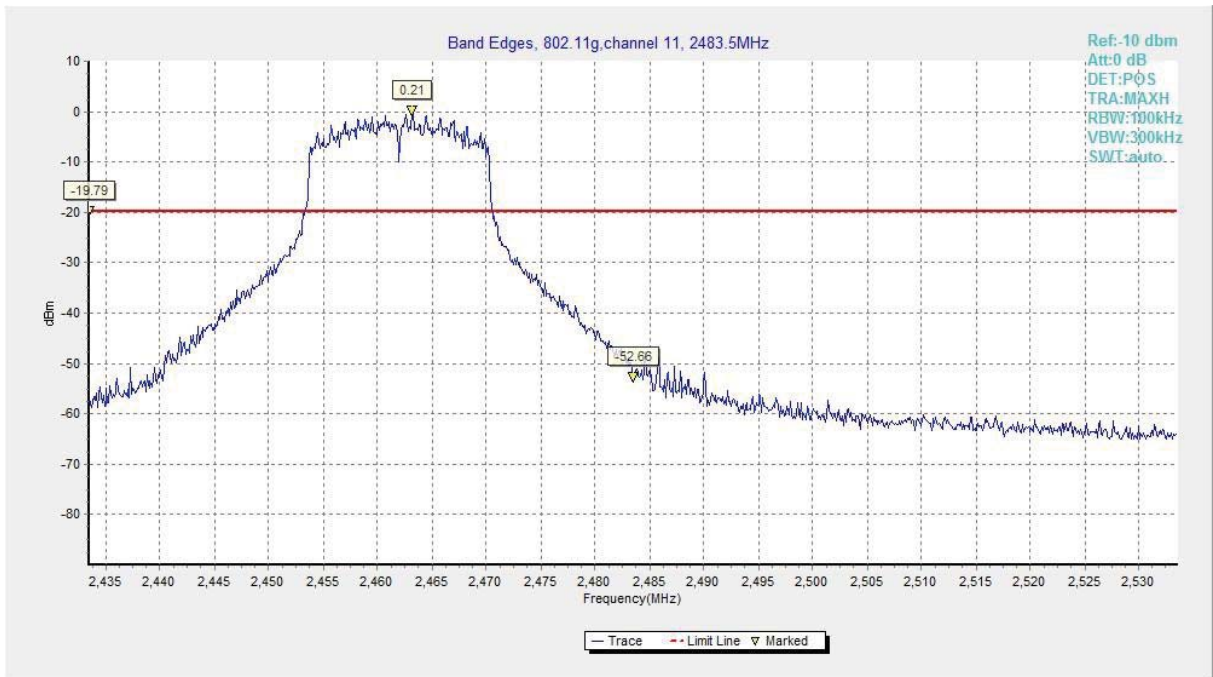


Fig. 13 Band Edges (802.11g, Ch 11)

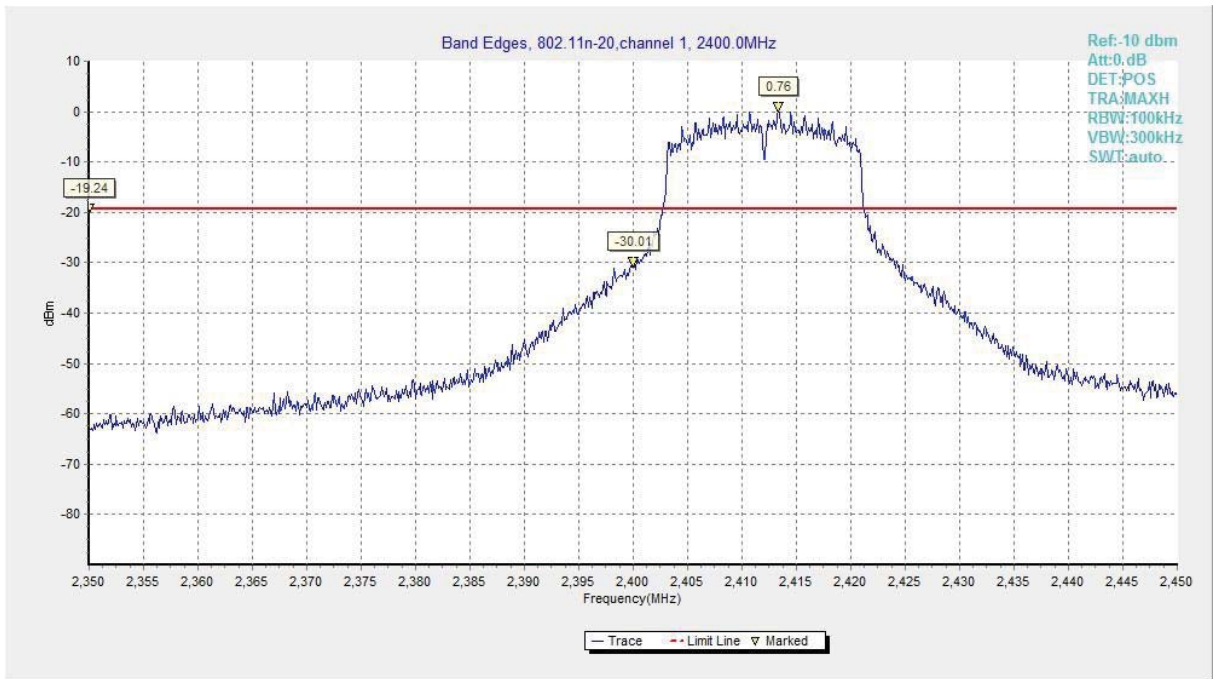


Fig. 14 Band Edges (802.11n-HT20, Ch 1)



Fig. 15 Band Edges (802.11n-HT20, Ch 11)

A.6 99% Occupied Channel Bandwidth

Reference : RSS-Gen 4.6.1

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Note: Configuration information to be tested as follows:

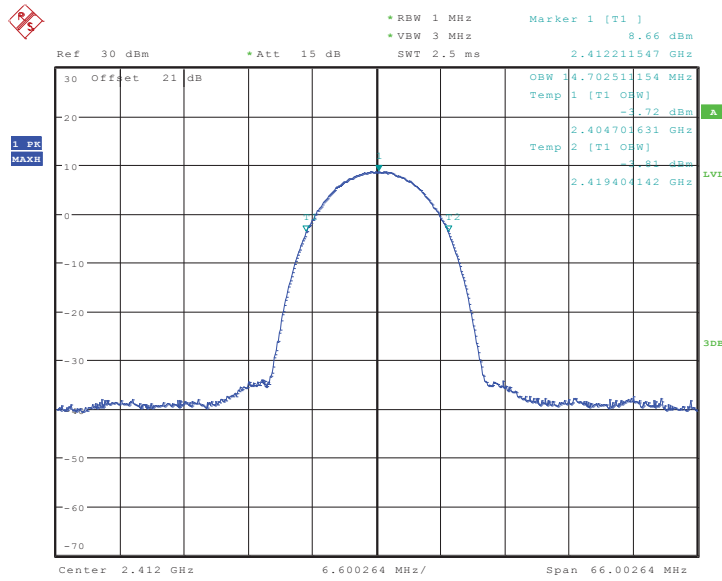
Modulation type and data rate:

802.11b	802.11g	802.11n
11Mbps(CCK)	48Mbps(OFDM)	HT20-MCS11(OFDM)

Measurement Result:

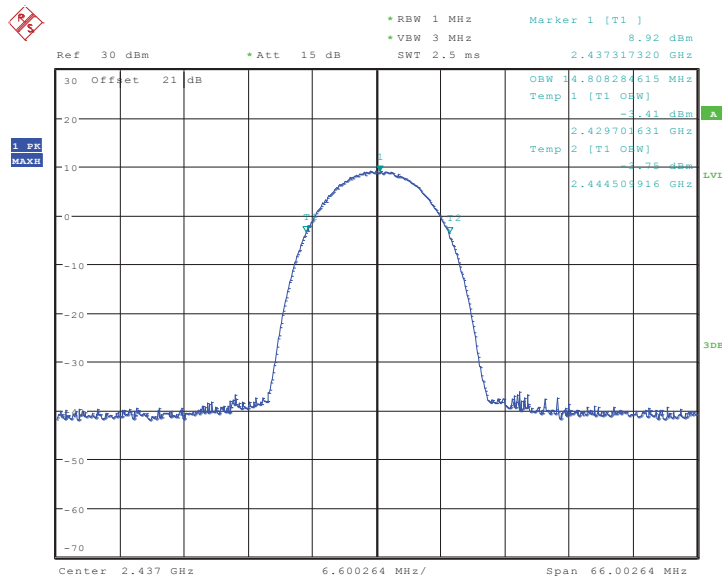
Mode	Channel	Occupied Bandwidth (kHz)		conclusion
802.11b	1	Fig.16	14703	P
	6	Fig.17	14808	P
	11	Fig.18	14703	P
802.11g	1	Fig.19	18722	P
	6	Fig.20	18510	P
	11	Fig.21	18510	P
802.11n	1	Fig.22	19780	P
	6	Fig.23	19568	P
	11	Fig.24	19462	P

Conclusion: PASS



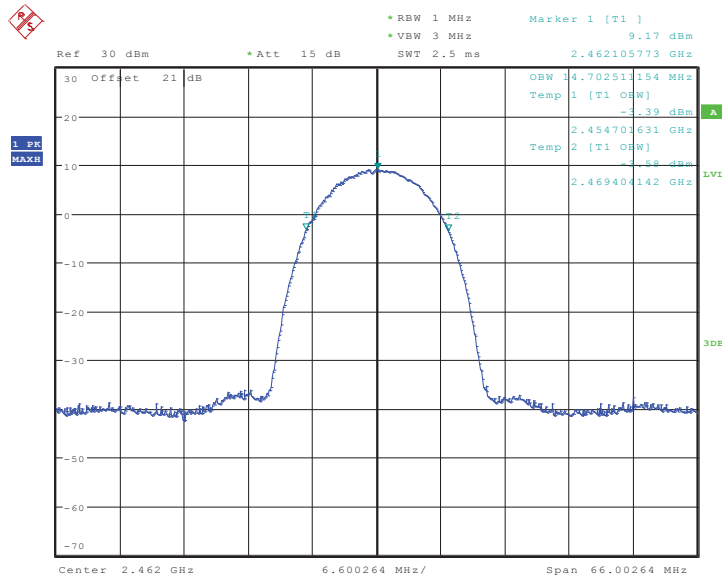
Date: 30.SEP.2013 17:24:26

Fig. 16 99% Occupied Bandwidth: (802.11b, Ch 1)



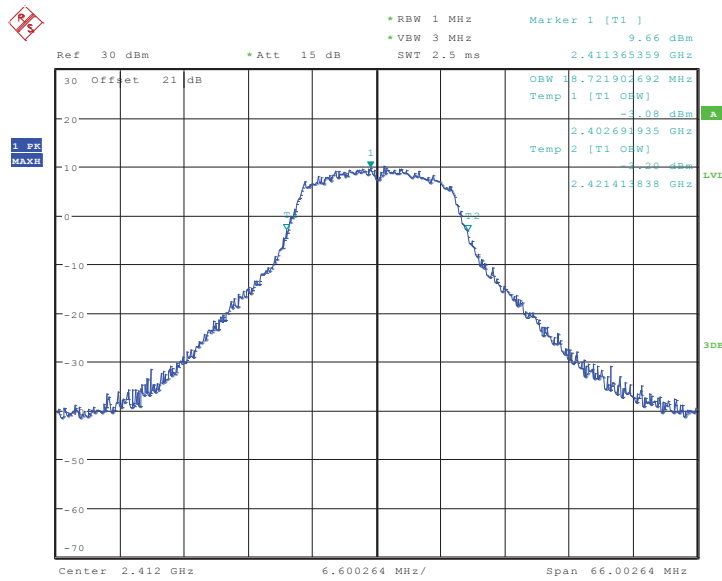
Date: 30.SEP.2013 17:25:02

Fig. 17 99% Occupied Bandwidth: (802.11b, Ch 6)



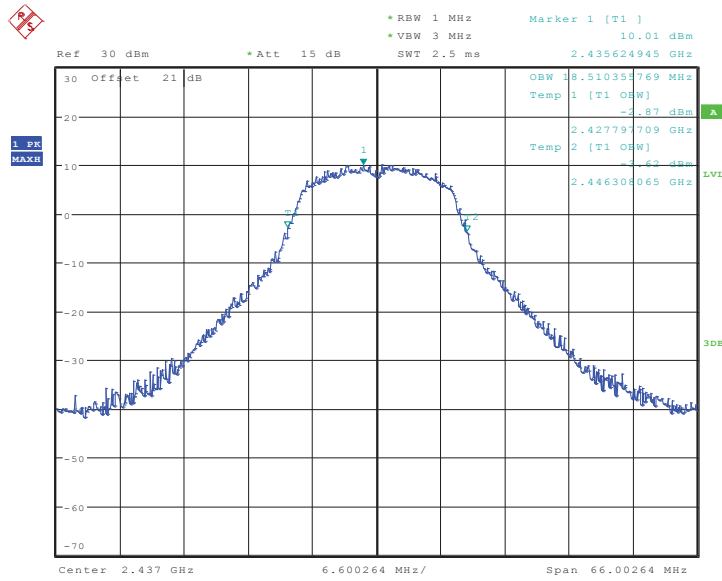
Date: 30.SEP.2013 17:25:33

Fig. 18 99% Occupied Bandwidth: (802.11b, Ch 11)



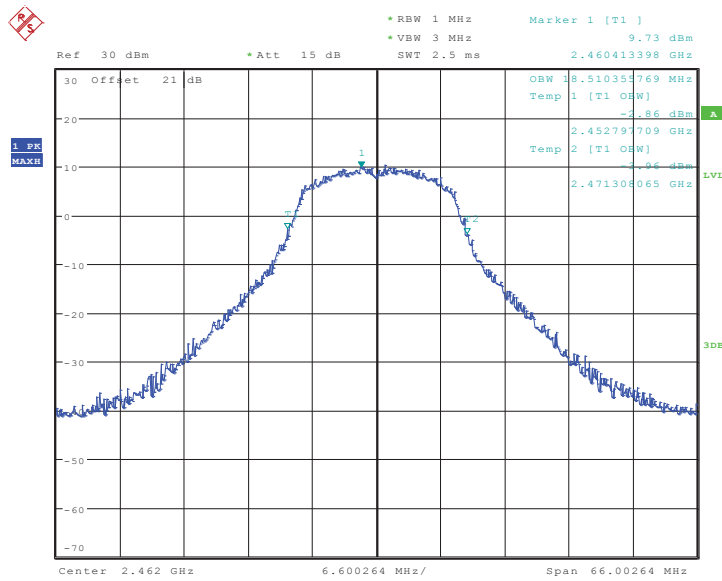
Date: 30.SEP.2013 17:26:16

Fig. 19 99% Occupied Bandwidth: (802.11g, Ch 1)



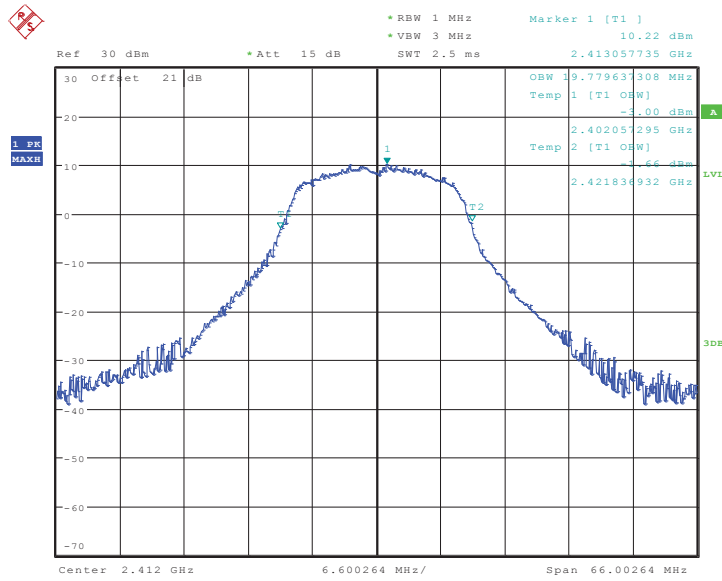
Date: 30.SEP.2013 17:26:57

Fig. 20 99% Occupied Bandwidth: (802.11g, Ch 6)



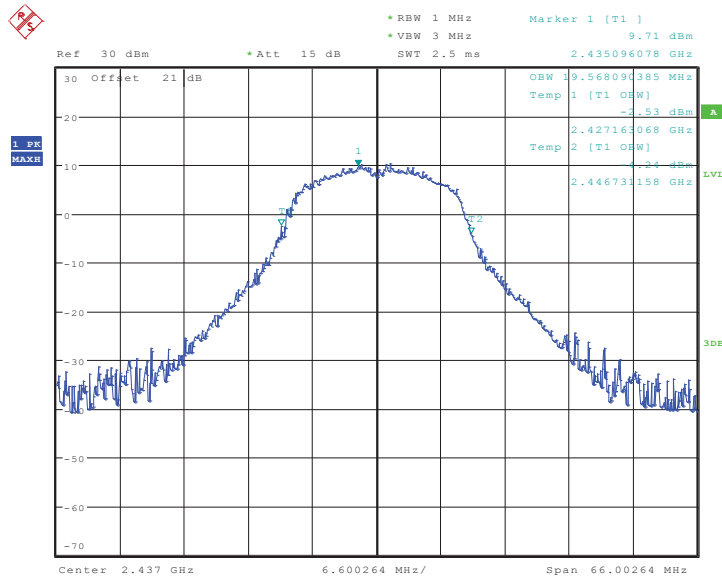
Date: 30.SEP.2013 17:27:32

Fig. 21 99% Occupied Bandwidth: (802.11g, Ch 11)



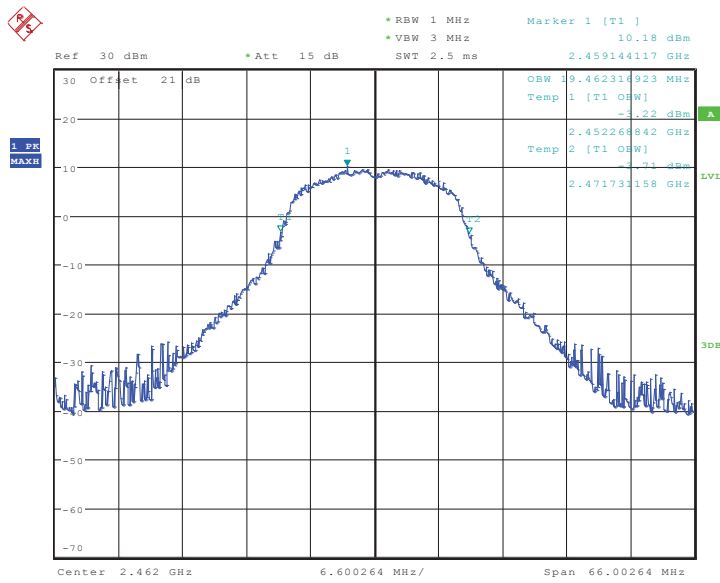
Date: 30.SEP.2013 17:29:44

Fig. 22 99% Occupied Bandwidth: (802.11n-HT20, Ch 1)



Date: 30.SEP.2013 17:30:44

Fig. 23 99% Occupied Bandwidth: (802.11n-HT20, Ch 6)



Date: 30.SEP.2013 17:31:28

Fig. 24 99% Occupied Bandwidth: (802.11n-HT20, Ch 11)

A.7. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

The measurement is made according to ANSI C63.4 and KDB558074.

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)).

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Measurement Uncertainty:

Frequency Range	Uncertainty
30MHz ≤ f ≤ 2GHz	0.63 dB
2GHz ≤ f ≤ 3.6GHz	0.82 dB
3.6GHz ≤ f ≤ 8GHz	1.55 dB
8GHz ≤ f ≤ 20GHz	1.86 dB
20GHz ≤ f ≤ 22GHz	1.90 dB
22GHz ≤ f ≤ 26GHz	2.20 dB

Note: Configuration information to be tested as follows:

Modulation type and data rate:

802.11b	802.11g	802.11n
11Mbps(CCK)	48Mbps(OFDM)	HT20-MCS11(OFDM)

A.7.1 Transmitter Spurious Emission - Conducted

Measurement Results:

802.11b mode

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.25	P
		30 MHz ~ 1 GHz	Fig.26	P
		1 GHz ~ 2.5 GHz	Fig.27	P
		2.5 GHz ~ 7.5 GHz	Fig.28	P
		7.5 GHz ~ 10 GHz	Fig.29	P
		10 GHz ~ 15 GHz	Fig.30	P
		15 GHz ~ 20 GHz	Fig.31	P
		20 GHz ~ 26 GHz	Fig.32	P
	6	2.437 GHz	Fig.33	P
		30 MHz ~ 1 GHz	Fig.34	P
		1 GHz ~ 2.5 GHz	Fig.35	P
		2.5 GHz ~ 7.5 GHz	Fig.36	P
		7.5 GHz ~ 10 GHz	Fig.37	P
		10 GHz ~ 15 GHz	Fig.38	P
		15 GHz ~ 20 GHz	Fig.39	P
		20 GHz ~ 26 GHz	Fig.40	P
	11	2.462 GHz	Fig.41	P
		30 MHz ~ 1 GHz	Fig.42	P
		1 GHz ~ 2.5 GHz	Fig.43	P
		2.5 GHz ~ 7.5 GHz	Fig.44	P
		7.5 GHz ~ 10 GHz	Fig.45	P
		10 GHz ~ 15 GHz	Fig.46	P
		15 GHz ~ 20 GHz	Fig.47	P
		20 GHz ~ 26 GHz	Fig.48	P

802.11g mode

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.412 GHz	Fig.49	P
		30 MHz ~ 1 GHz	Fig.50	P
		1 GHz ~ 2.5 GHz	Fig.51	P
		2.5 GHz ~ 7.5 GHz	Fig.52	P
		7.5 GHz ~ 10 GHz	Fig.53	P
		10 GHz ~ 15 GHz	Fig.54	P
		15 GHz ~ 20 GHz	Fig.55	P
		20 GHz ~ 26 GHz	Fig.56	P
	6	2.437 GHz	Fig.57	P
		30 MHz ~ 1 GHz	Fig.58	P
		1 GHz ~ 2.5 GHz	Fig.59	P
		2.5 GHz ~ 7.5 GHz	Fig.60	P
		7.5 GHz ~ 10 GHz	Fig.61	P
		10 GHz ~ 15 GHz	Fig.62	P
		15 GHz ~ 20 GHz	Fig.63	P
		20 GHz ~ 26 GHz	Fig.64	P
	11	2.462 GHz	Fig.65	P
		30 MHz ~ 1 GHz	Fig.66	P
		1 GHz ~ 2.5 GHz	Fig.67	P
		2.5 GHz ~ 7.5 GHz	Fig.68	P
		7.5 GHz ~ 10 GHz	Fig.69	P
		10 GHz ~ 15 GHz	Fig.70	P
		15 GHz ~ 20 GHz	Fig.71	P
		20 GHz ~ 26 GHz	Fig.72	P

802.11n-HT20 mode

Antenna 1:

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n- Antenna 1 (20MHz)	1	2.412 GHz	Fig.73	P
		30 MHz ~ 1 GHz	Fig.74	P
		1 GHz ~ 2.5 GHz	Fig.75	P
		2.5 GHz ~ 7.5 GHz	Fig.76	P
		7.5 GHz ~ 10 GHz	Fig.77	P
		10 GHz ~ 15 GHz	Fig.78	P
		15 GHz ~ 20 GHz	Fig.79	P
		20 GHz ~ 26 GHz	Fig.80	P
	6	2.437 GHz	Fig.81	P
		30 MHz ~ 1 GHz	Fig.82	P
		1 GHz ~ 2.5 GHz	Fig.83	P
		2.5 GHz ~ 7.5 GHz	Fig.84	P
		7.5 GHz ~ 10 GHz	Fig.85	P
		10 GHz ~ 15 GHz	Fig.86	P
		15 GHz ~ 20 GHz	Fig.87	P
		20 GHz ~ 26 GHz	Fig.88	P
	11	2.462 GHz	Fig.89	P
		30 MHz ~ 1 GHz	Fig.90	P
		1 GHz ~ 2.5 GHz	Fig.91	P
		2.5 GHz ~ 7.5 GHz	Fig.92	P
		7.5 GHz ~ 10 GHz	Fig.93	P
		10 GHz ~ 15 GHz	Fig.94	P
		15 GHz ~ 20 GHz	Fig.95	P
		20 GHz ~ 26 GHz	Fig.96	P

Antenna 2:

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11n- Antenna 2 (20MHz)	1	2.412 GHz	Fig.97	P
		30 MHz ~ 1 GHz	Fig.98	P
		1 GHz ~ 2.5 GHz	Fig.99	P
		2.5 GHz ~ 7.5 GHz	Fig.100	P
		7.5 GHz ~ 10 GHz	Fig.101	P
		10 GHz ~ 15 GHz	Fig.102	P
		15 GHz ~ 20 GHz	Fig.103	P
		20 GHz ~ 26 GHz	Fig.104	P
	6	2.437 GHz	Fig.105	P
		30 MHz ~ 1 GHz	Fig.106	P
		1 GHz ~ 2.5 GHz	Fig.107	P
		2.5 GHz ~ 7.5 GHz	Fig.108	P
		7.5 GHz ~ 10 GHz	Fig.109	P
		10 GHz ~ 15 GHz	Fig.110	P
		15 GHz ~ 20 GHz	Fig.111	P
		20 GHz ~ 26 GHz	Fig.112	P
	11	2.462 GHz	Fig.113	P
		30 MHz ~ 1 GHz	Fig.114	P
		1 GHz ~ 2.5 GHz	Fig.115	P
		2.5 GHz ~ 7.5 GHz	Fig.116	P
		7.5 GHz ~ 10 GHz	Fig.117	P
		10 GHz ~ 15 GHz	Fig.118	P
		15 GHz ~ 20 GHz	Fig.119	P
		20 GHz ~ 26 GHz	Fig.120	P

Out of band spurious emission results:

802.11b

Channel	Amplitude of emission(dBm)
1	-37.74
6	-36.95
11	-35.78

802.11g

Channel	Amplitude of emission(dBm)
1	-38.12
6	-36.62
11	-36.12

802.11n

Channel	Amplitude of emission(dBm)		
	Ant1	Ant2	Sum
1	-51.82	-38.97	-38.75
6	-52.11	-37.66	-37.51
11	-51.91	-37.34	-37.19

Conclusion: PASS

Test graphs as below:

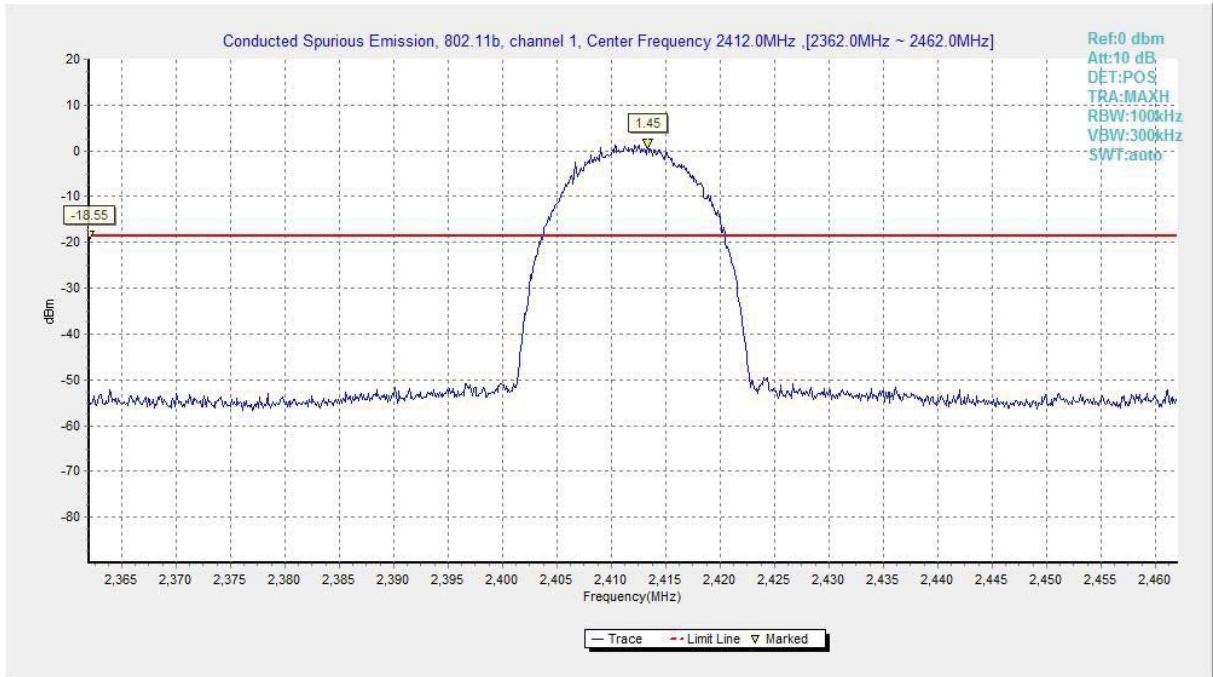


Fig. 25 Conducted Spurious Emission (802.11b, Ch1, Center Frequency)

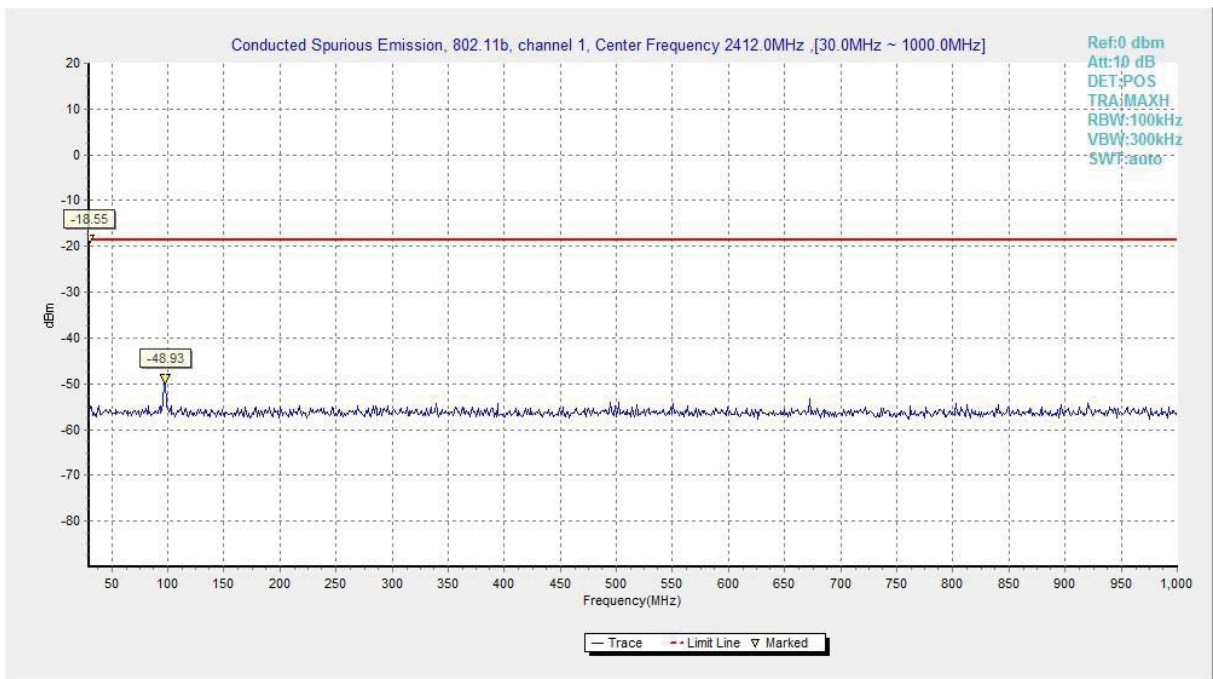


Fig. 26 Conducted Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

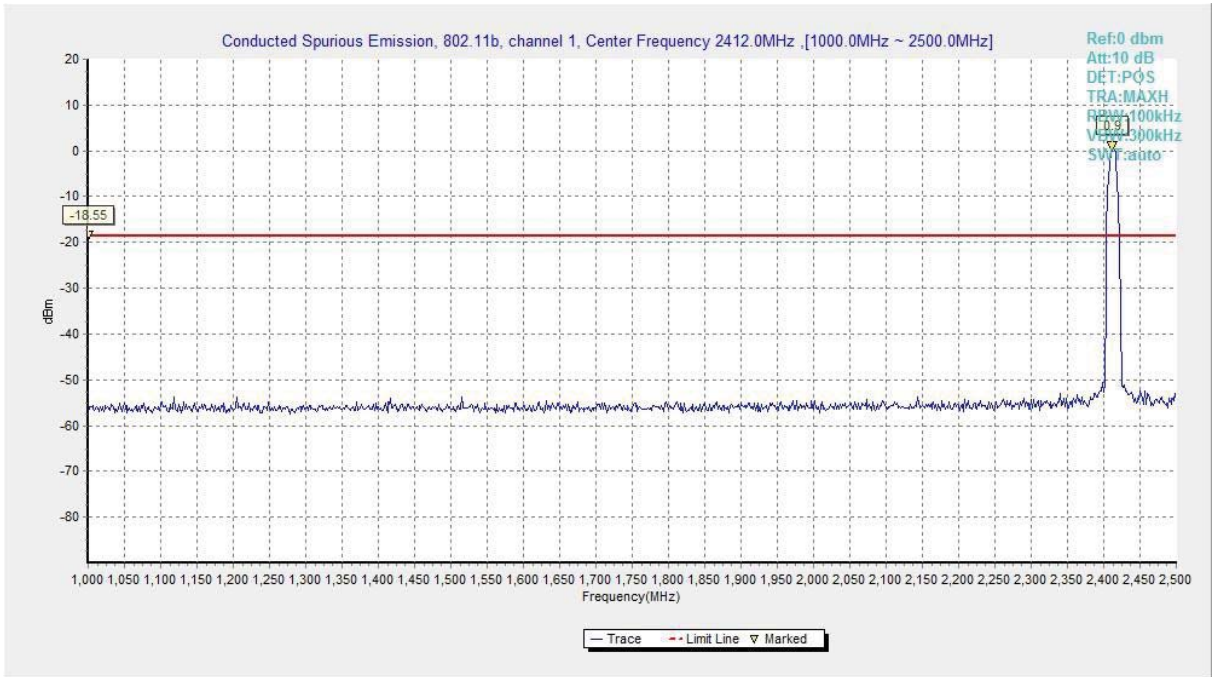


Fig. 27 Conducted Spurious Emission (802.11b, Ch1, 1 GHz-2.5 GHz)

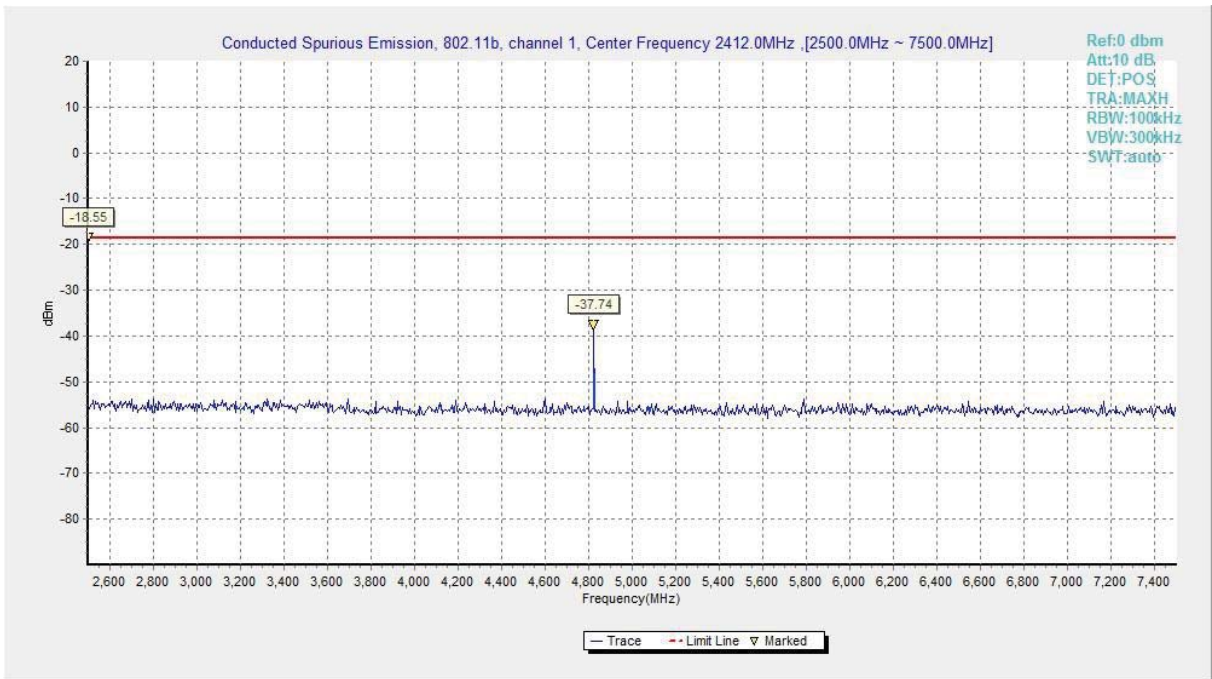


Fig. 28 Conducted Spurious Emission (802.11b, Ch1, 2.5 GHz-7.5 GHz)

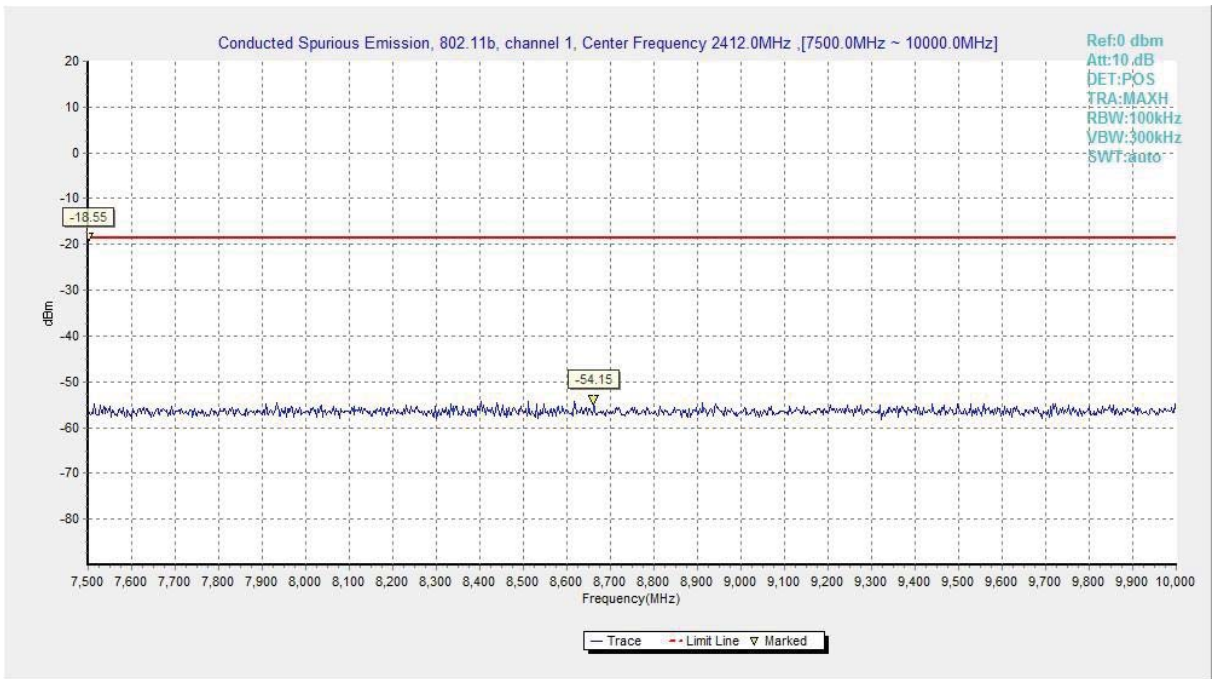


Fig. 29 Conducted Spurious Emission (802.11b, Ch1, 7.5 GHz-10 GHz)

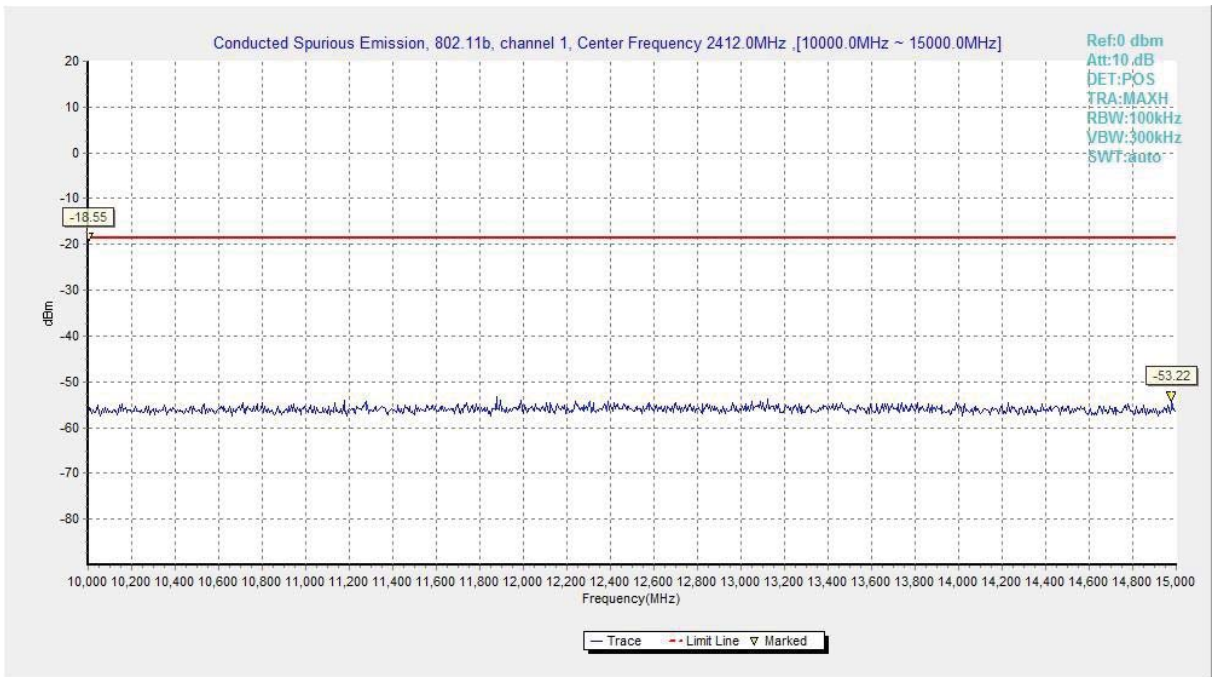


Fig. 30 Conducted Spurious Emission (802.11b, Ch1, 10 GHz-15 GHz)

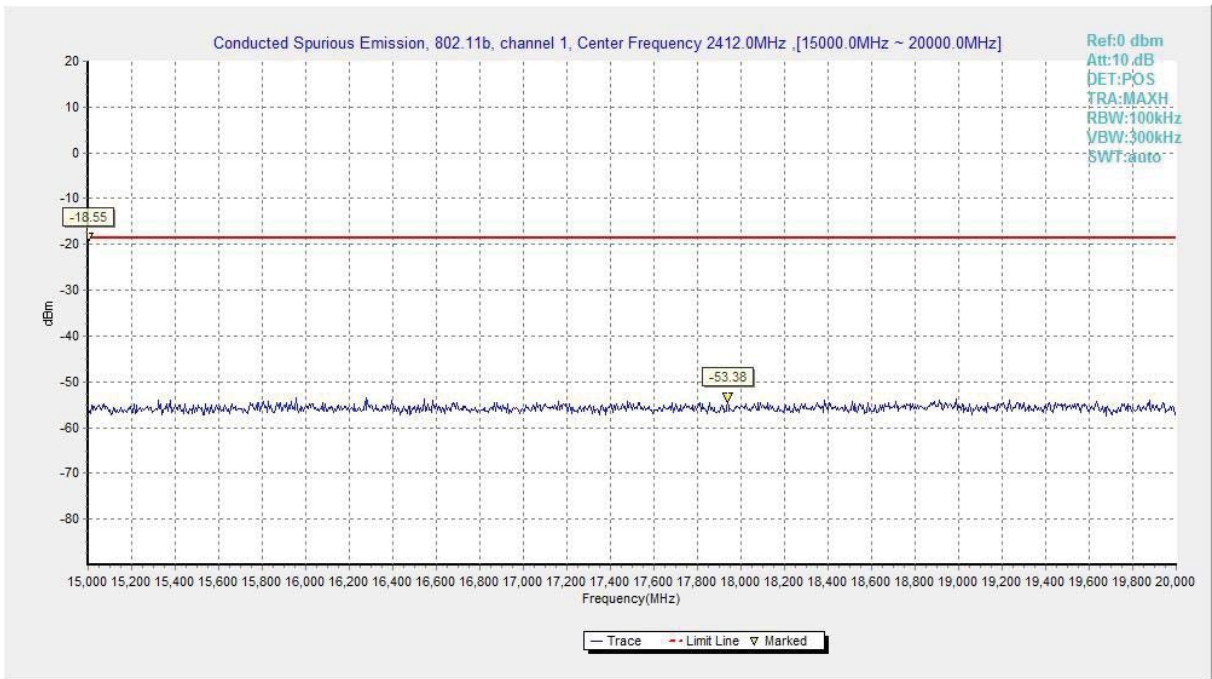


Fig. 31 Conducted Spurious Emission (802.11b, Ch1, 15 GHz-20 GHz)

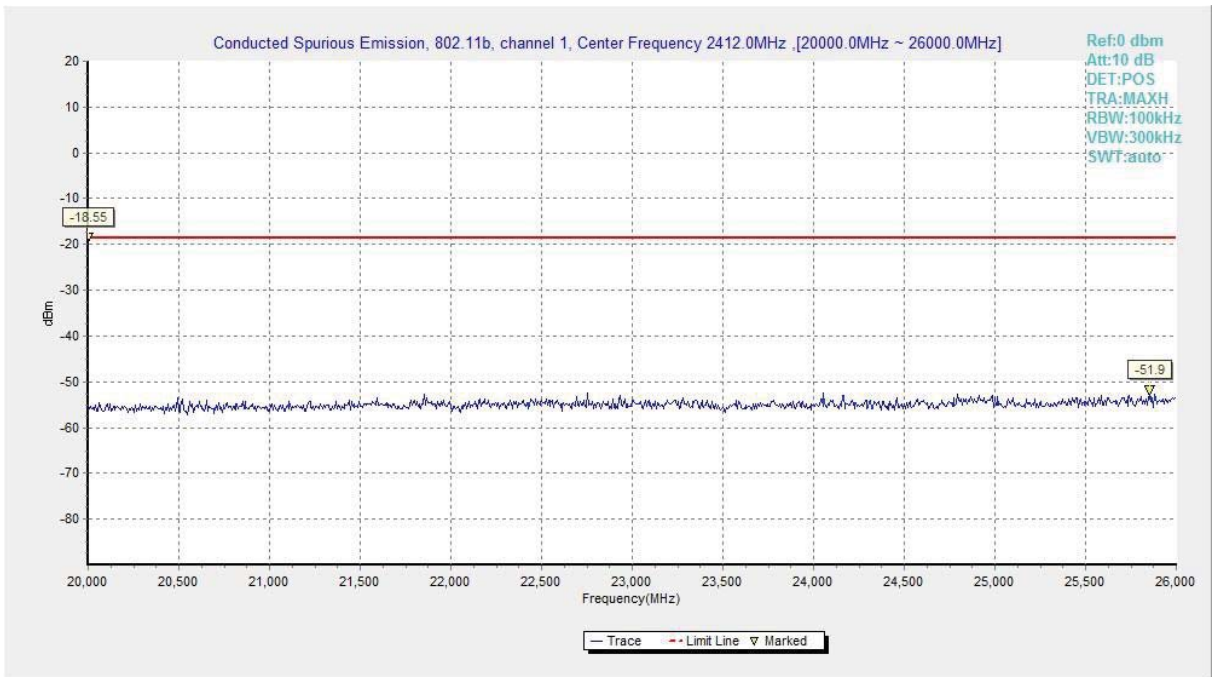


Fig. 32 Conducted Spurious Emission (802.11b, Ch1, 20 GHz-26 GHz)

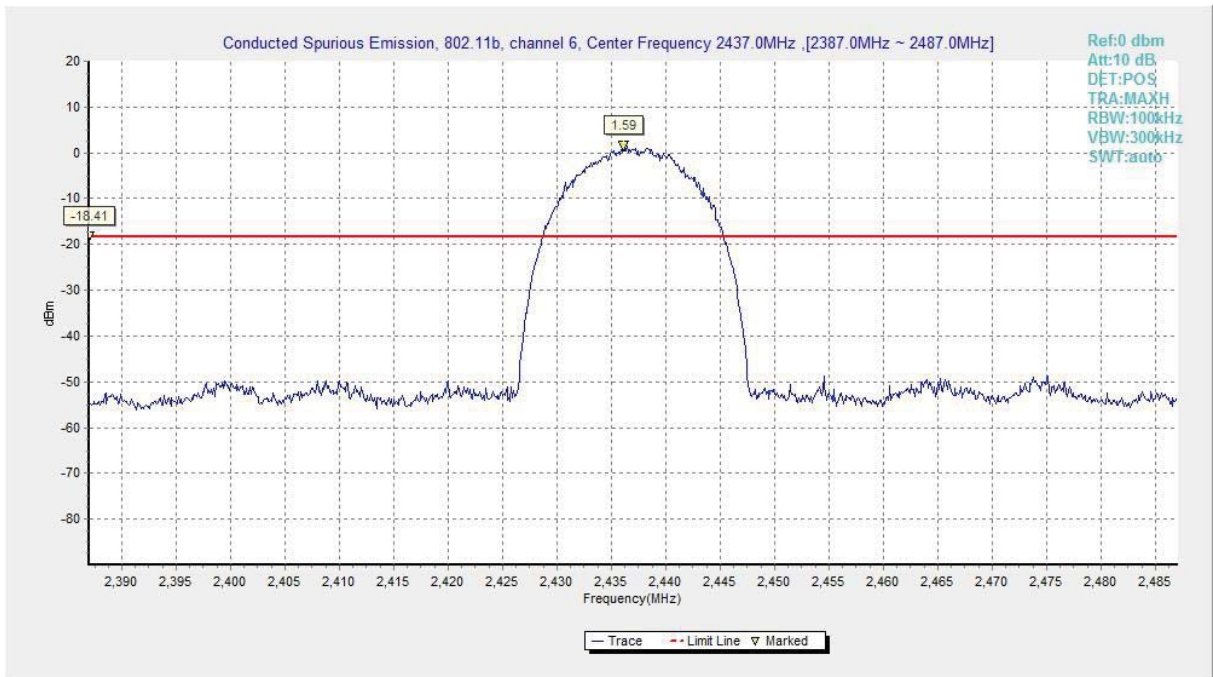


Fig. 33 Conducted Spurious Emission (802.11b, Ch6, Center Frequency)

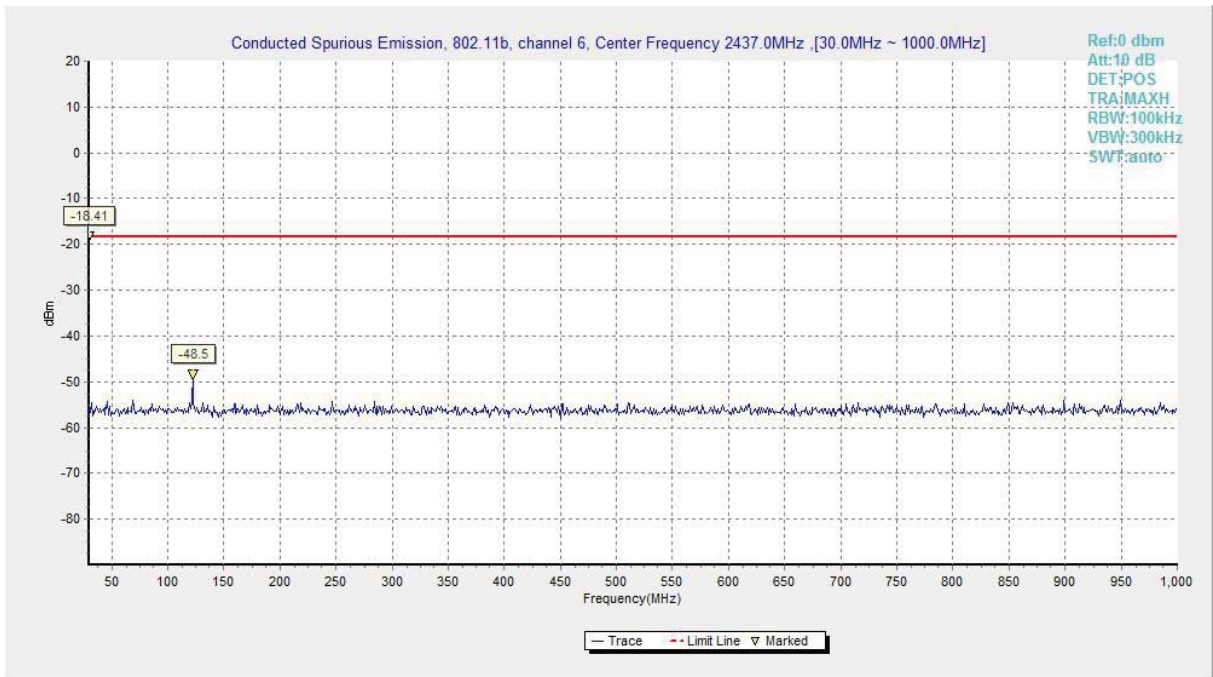


Fig. 34 Conducted Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

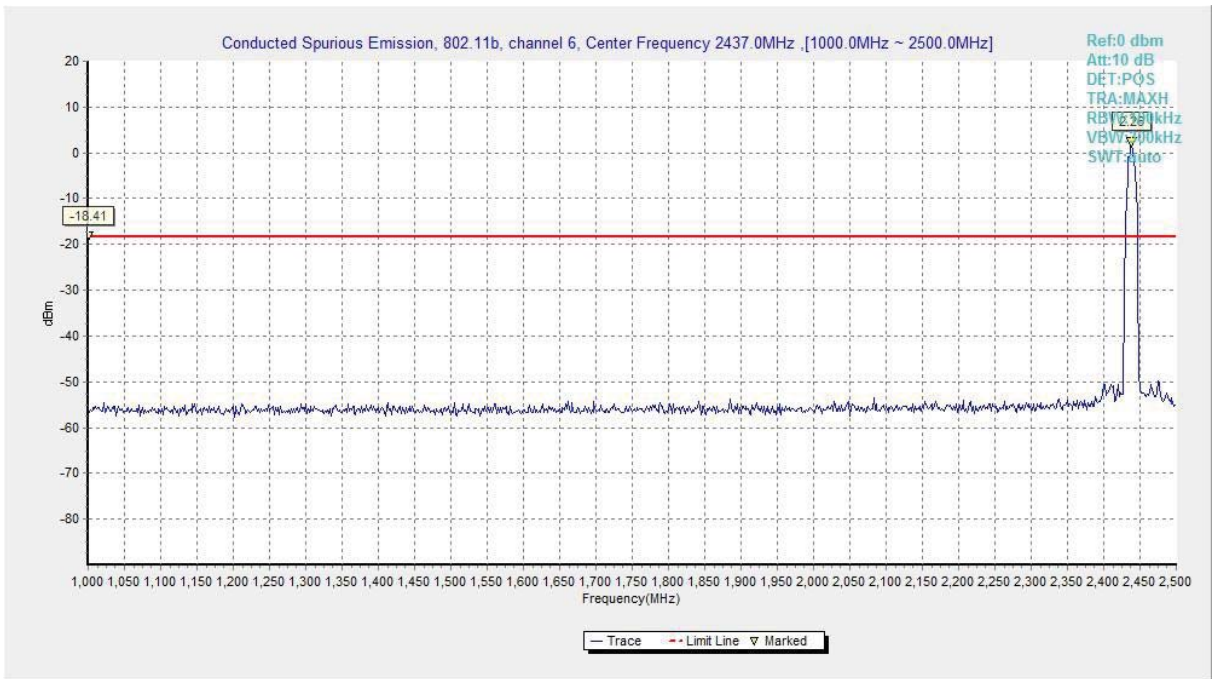


Fig. 35 Conducted Spurious Emission (802.11b, Ch6, 1 GHz-2.5 GHz)

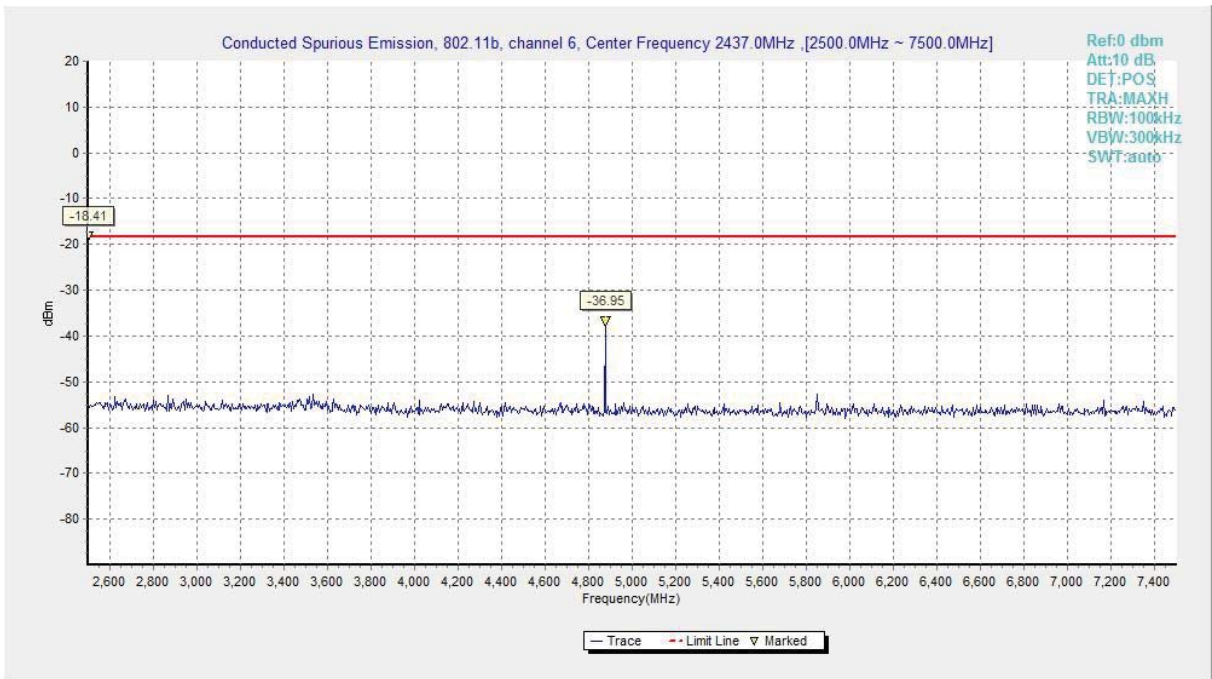


Fig. 36 Conducted Spurious Emission (802.11b, Ch6, 2.5 GHz-7.5 GHz)

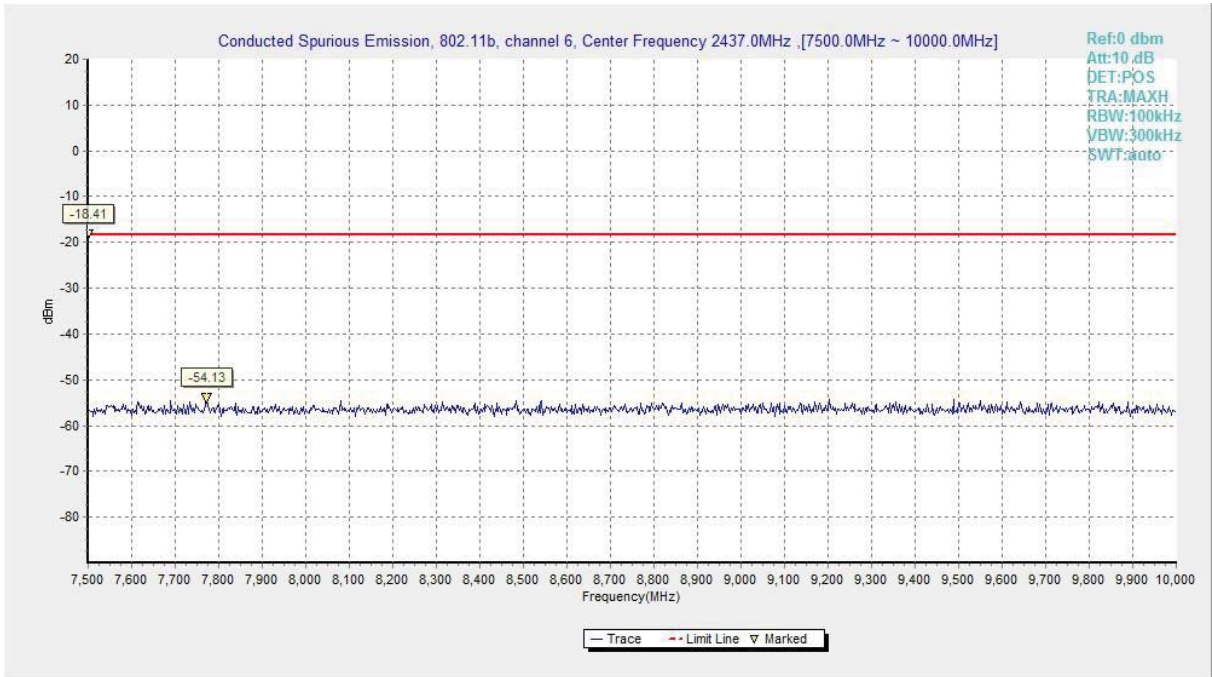


Fig. 37 Conducted Spurious Emission (802.11b, Ch6, 7.5 GHz-10 GHz)

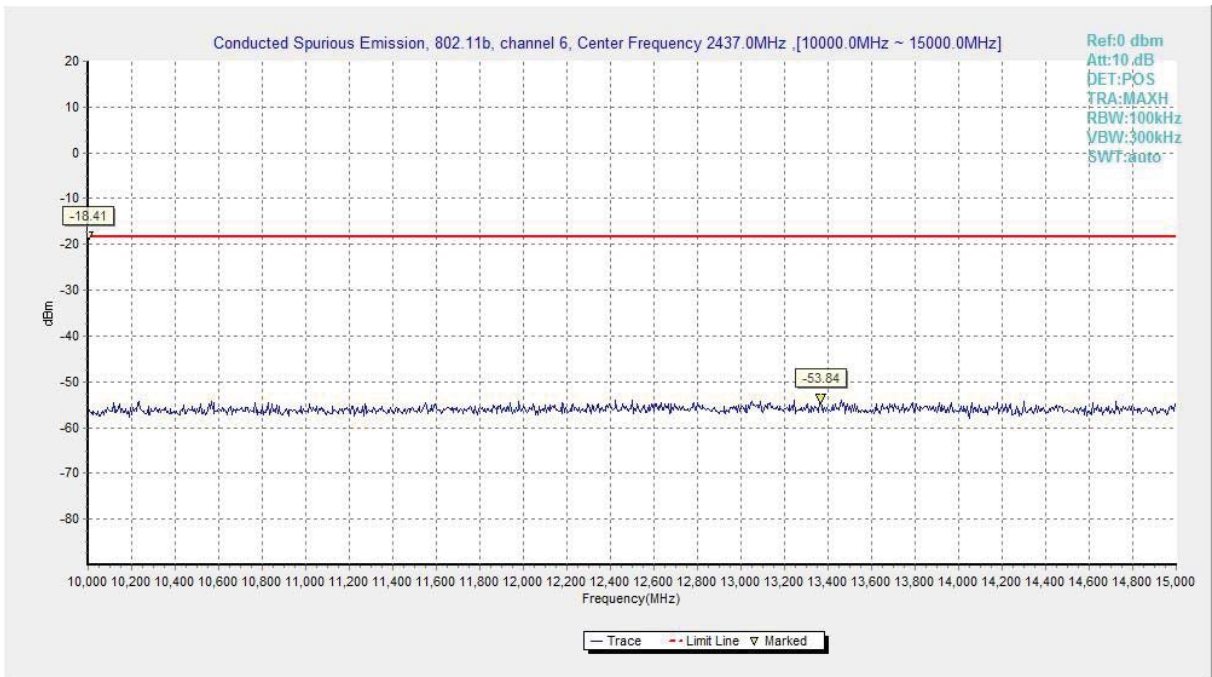


Fig. 38 Conducted Spurious Emission (802.11b, Ch6, 10 GHz-15 GHz)

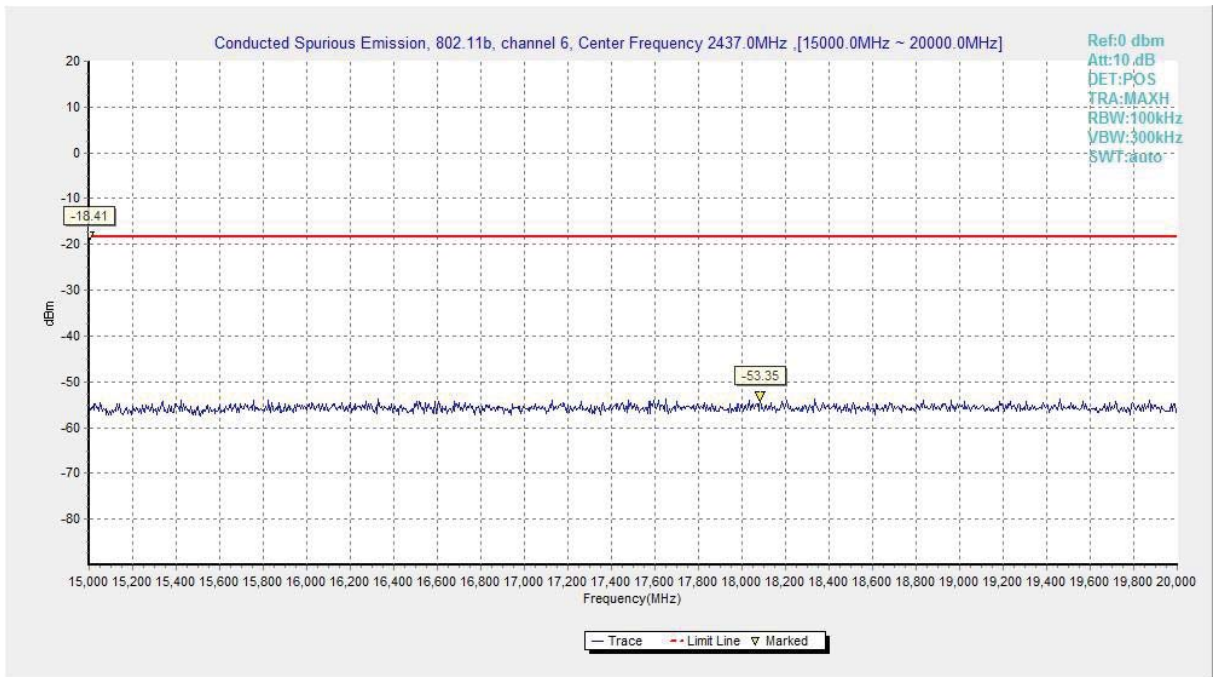


Fig. 39 Conducted Spurious Emission (802.11b, Ch6, 15 GHz-20 GHz)

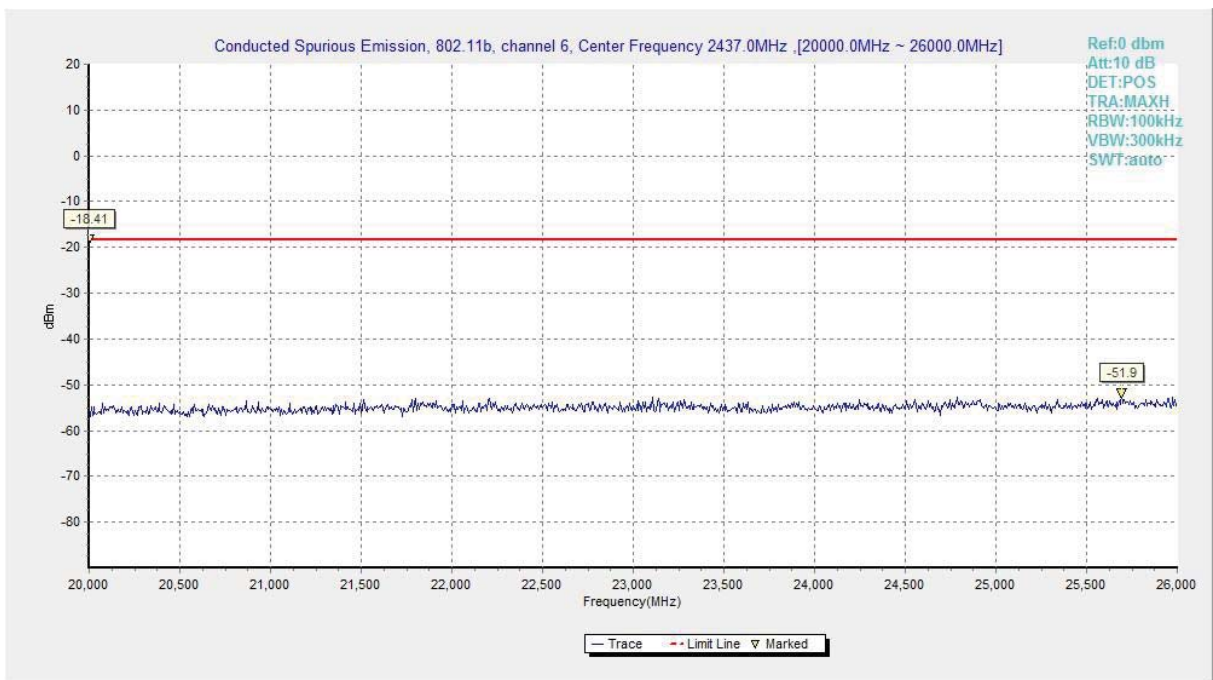


Fig. 40 Conducted Spurious Emission (802.11b, Ch6, 20 GHz-26 GHz)

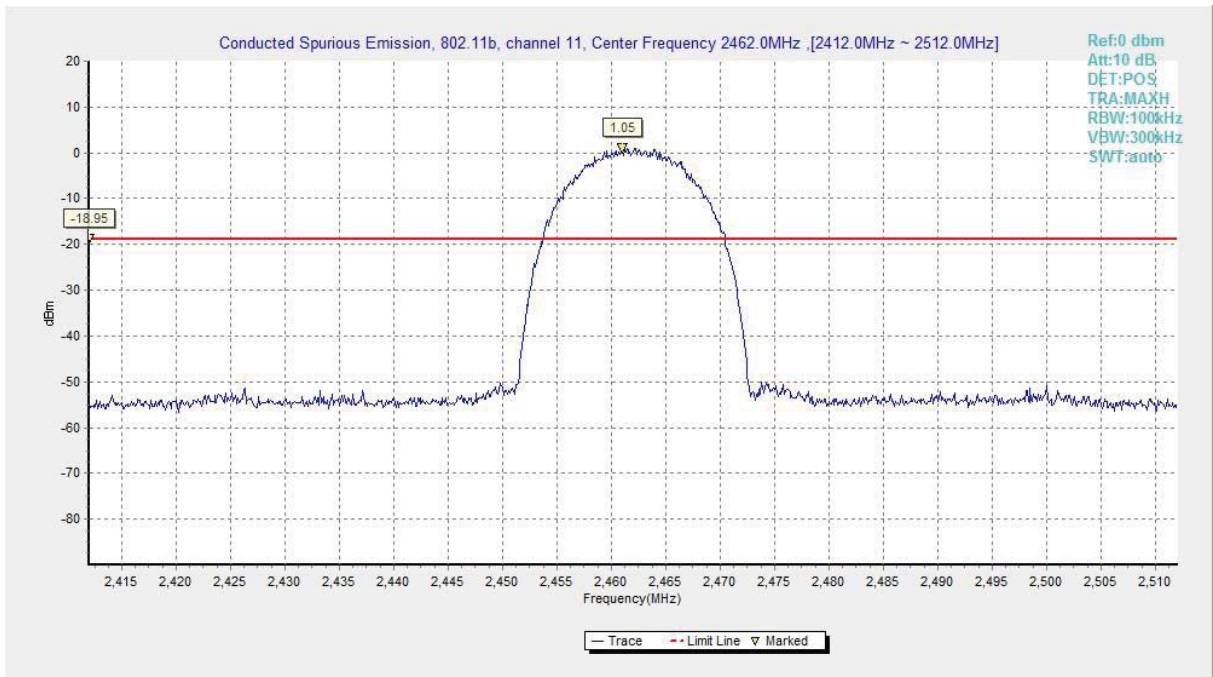


Fig. 41 Conducted Spurious Emission (802.11b, Ch11, Center Frequency)

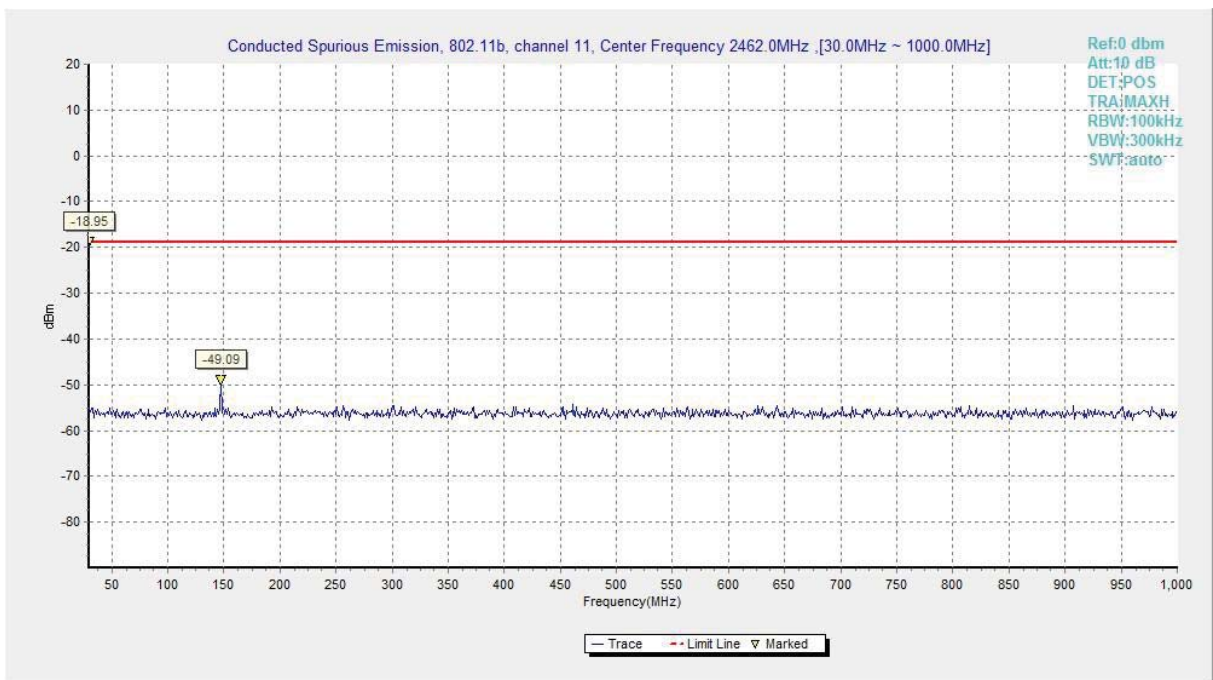


Fig. 42 Conducted Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

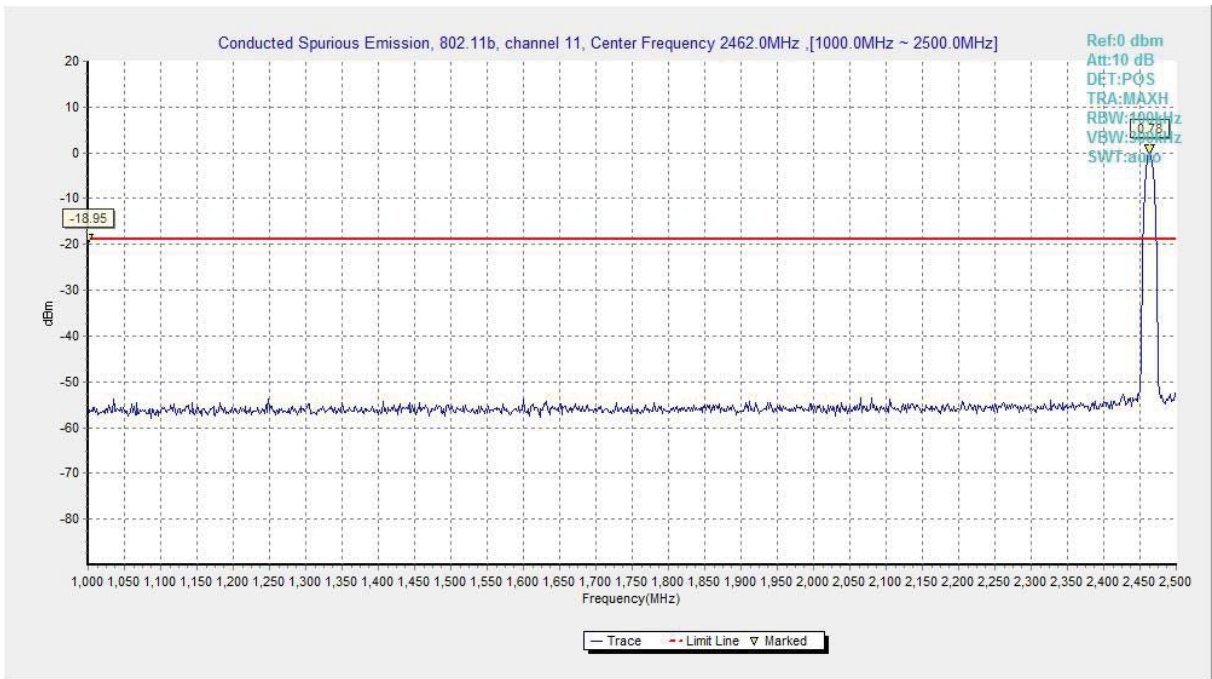


Fig. 43 Conducted Spurious Emission (802.11b, Ch11, 1 GHz-2.5 GHz)

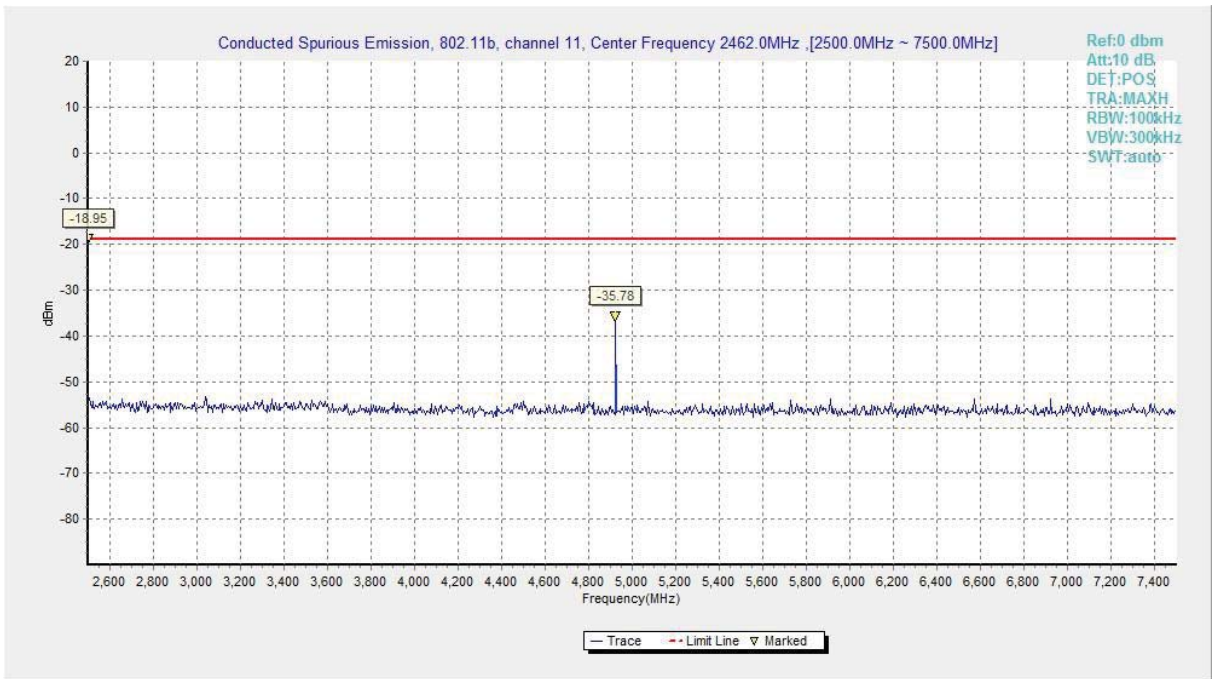


Fig. 44 Conducted Spurious Emission (802.11b, Ch11, 2.5 GHz-7.5 GHz)

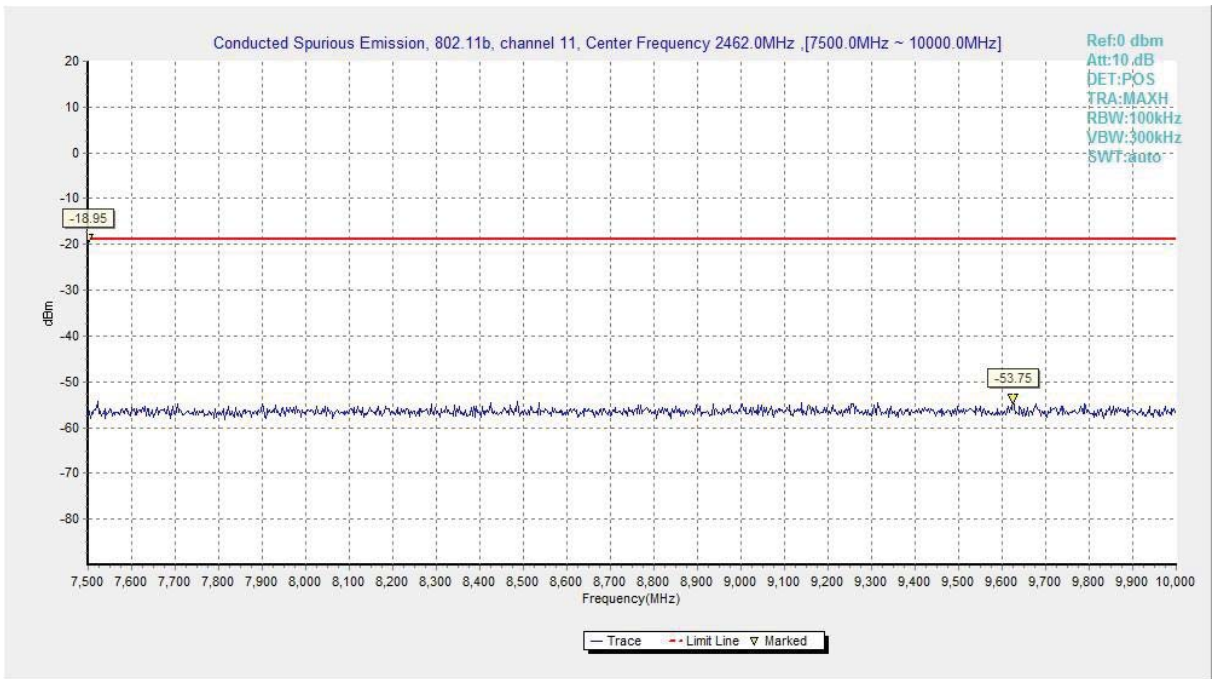


Fig. 45 Conducted Spurious Emission (802.11b, Ch11, 7.5 GHz-10 GHz)

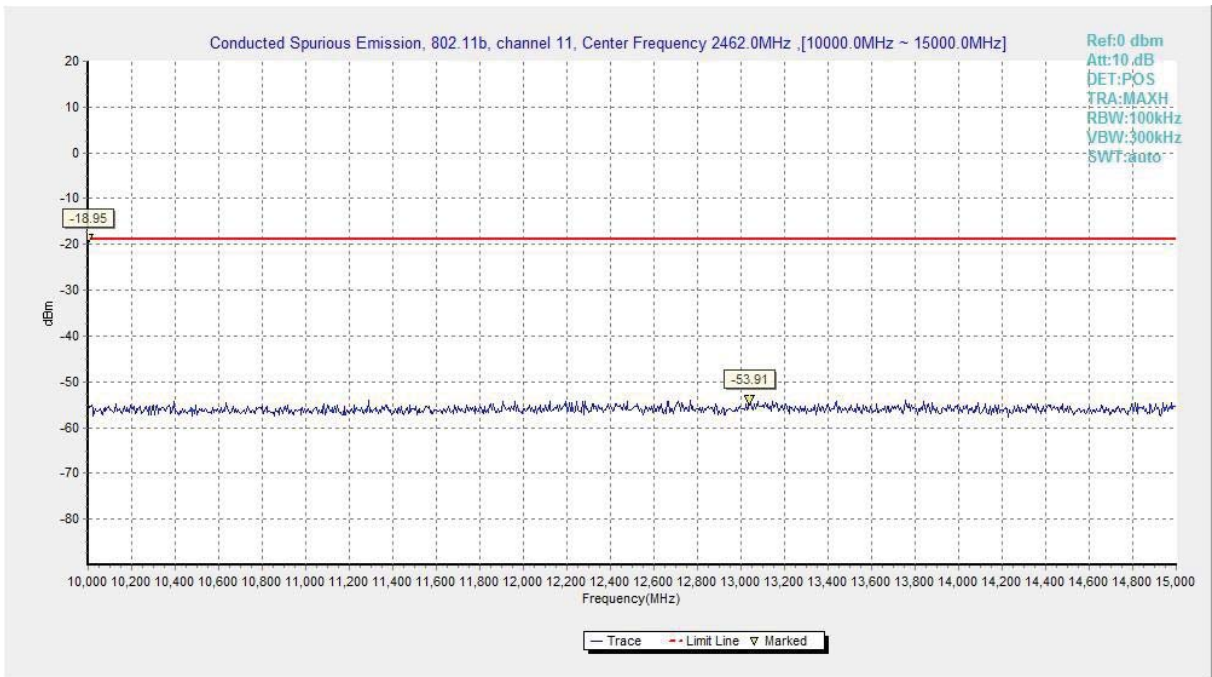


Fig. 46 Conducted Spurious Emission (802.11b, Ch11, 10 GHz-15 GHz)

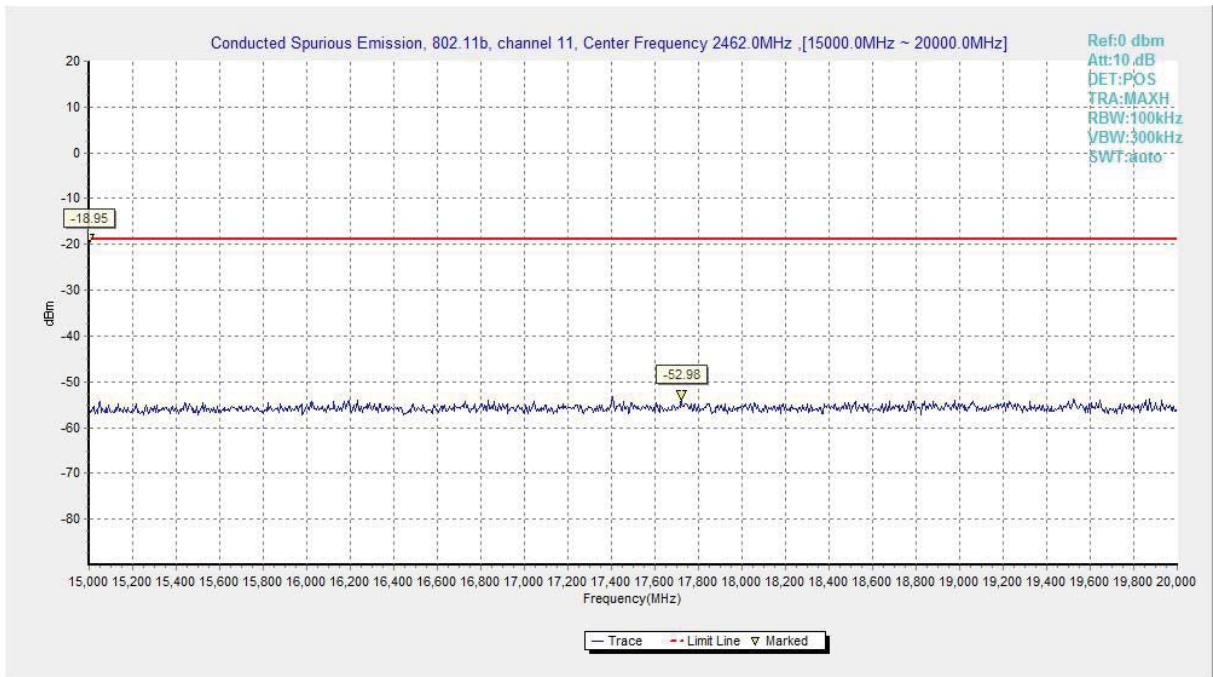


Fig. 47 Conducted Spurious Emission (802.11b, Ch11, 15 GHz-20 GHz)

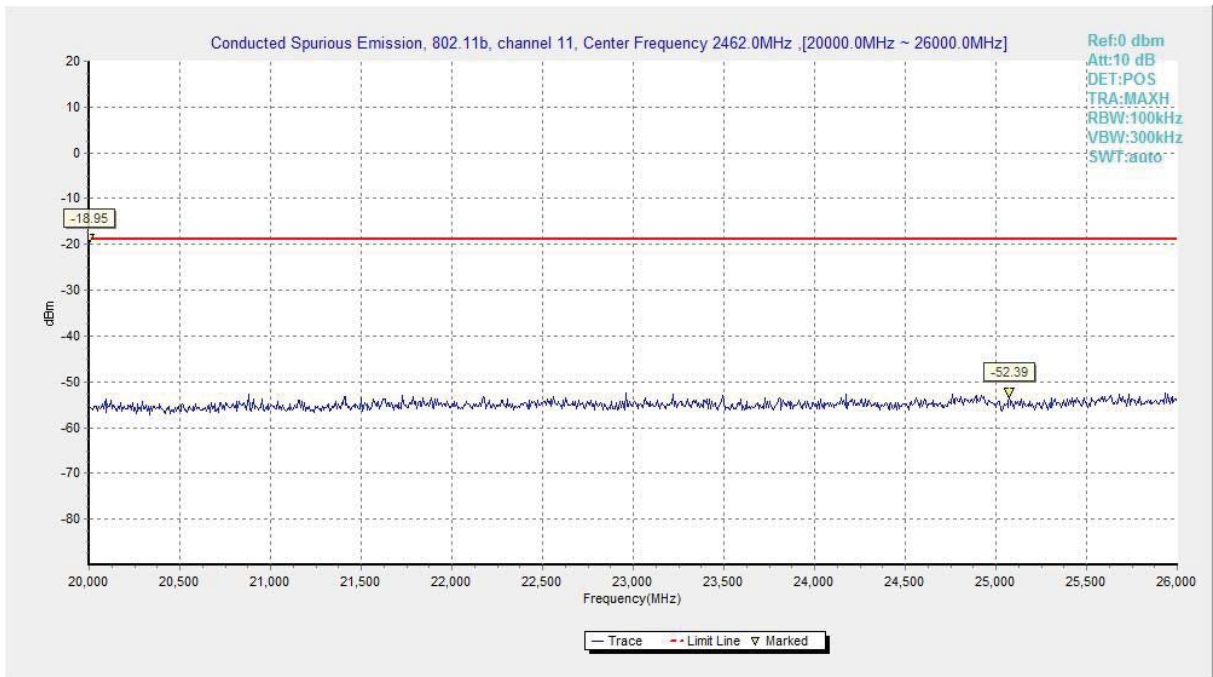


Fig. 48 Conducted Spurious Emission (802.11b, Ch11, 20 GHz-26 GHz)

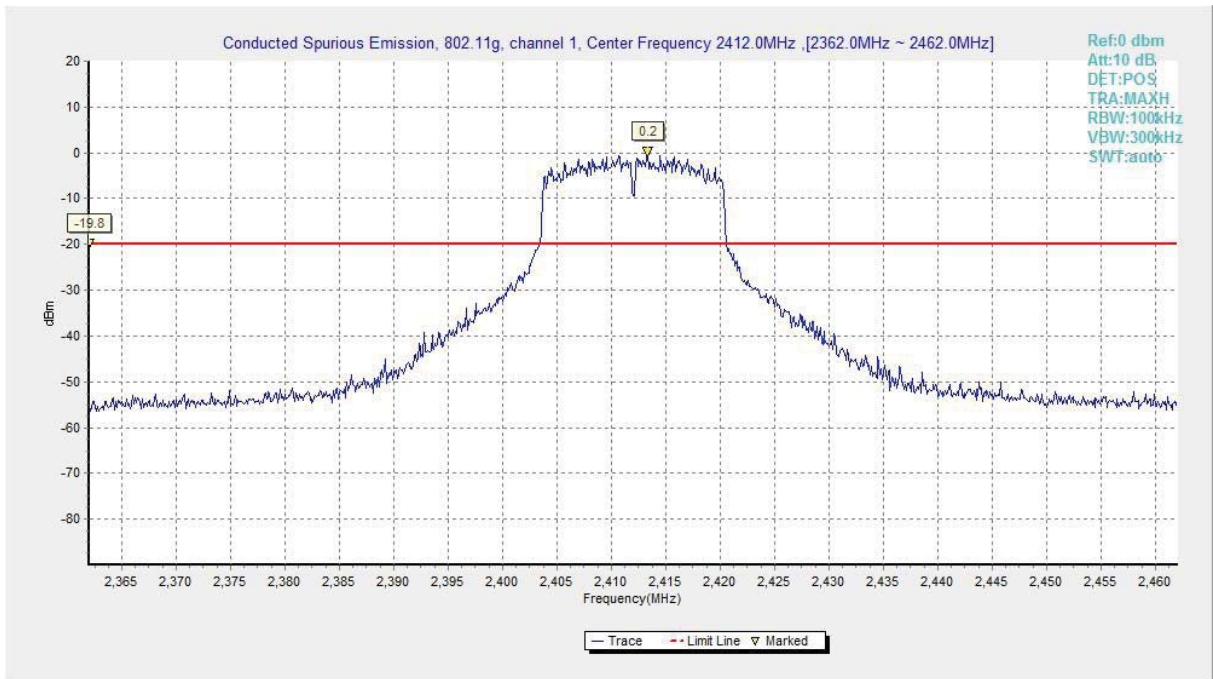


Fig. 49 Conducted Spurious Emission (802.11g, Ch1, Center Frequency)

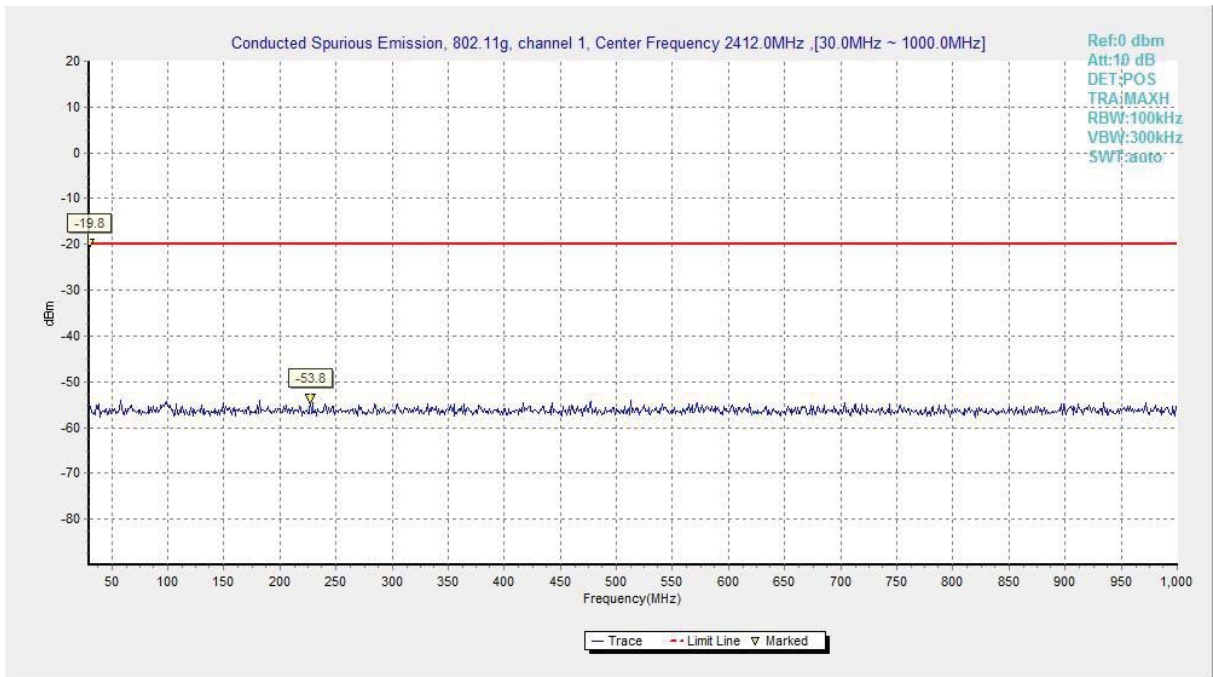


Fig. 50 Conducted Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

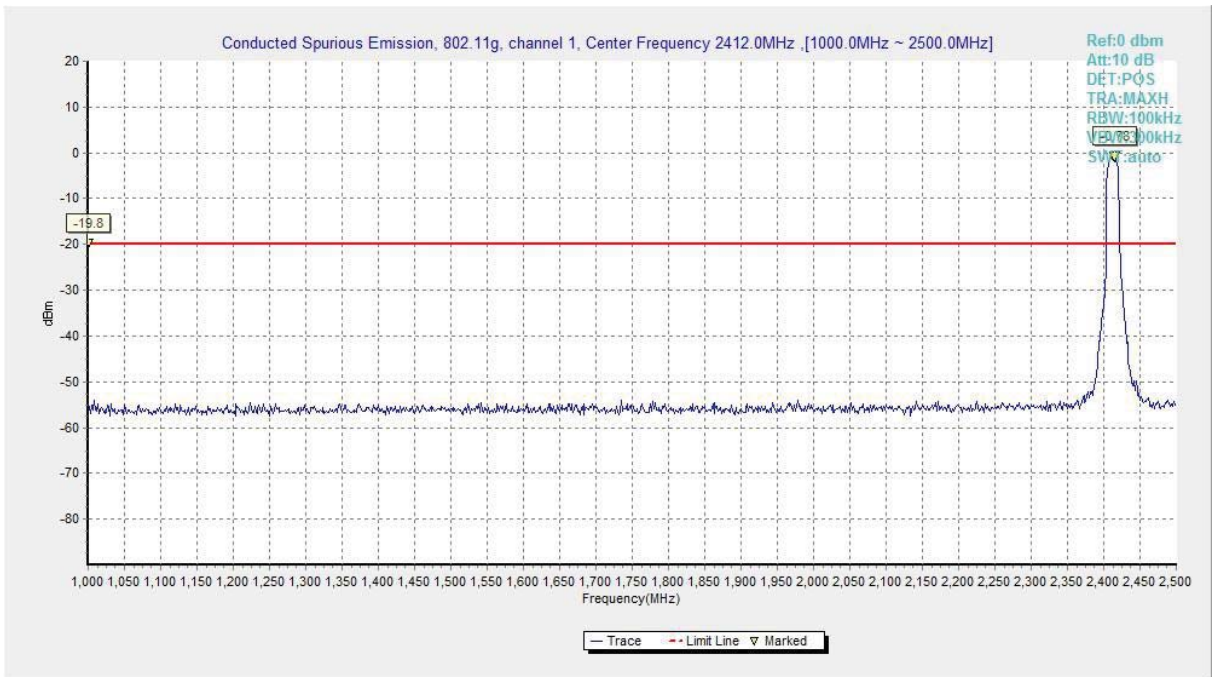


Fig. 51 Conducted Spurious Emission (802.11g, Ch1, 1 GHz-2.5 GHz)

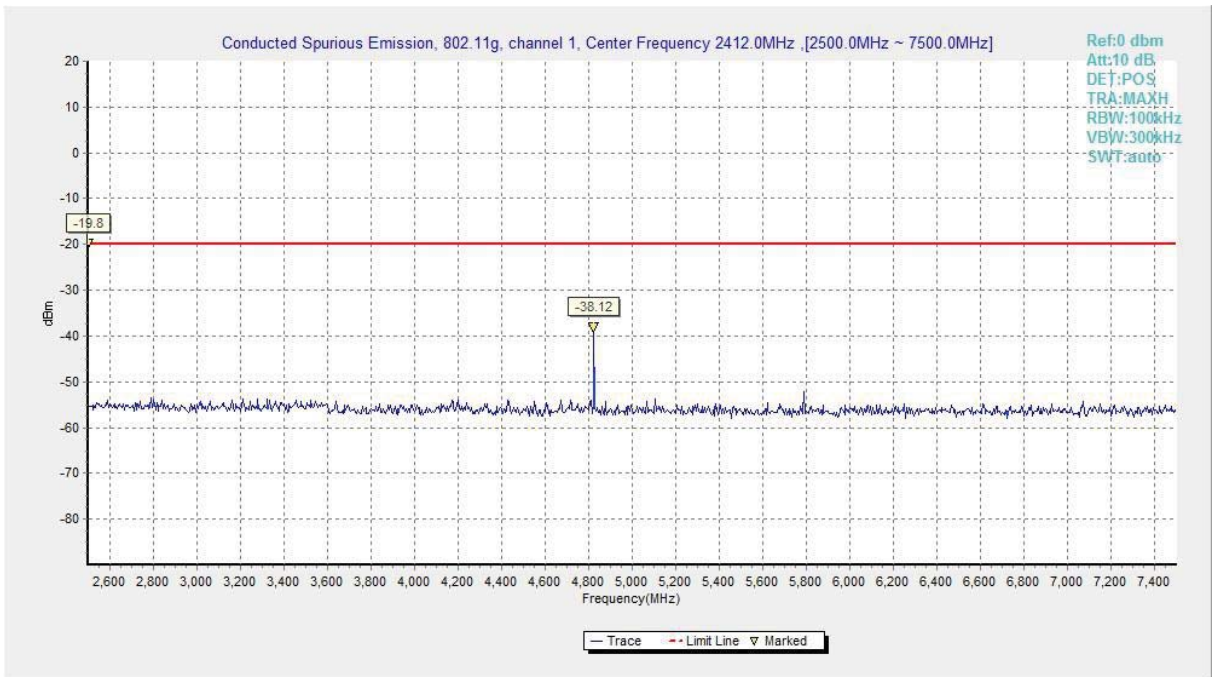


Fig. 52 Conducted Spurious Emission (802.11g, Ch1, 2.5 GHz-7.5 GHz)

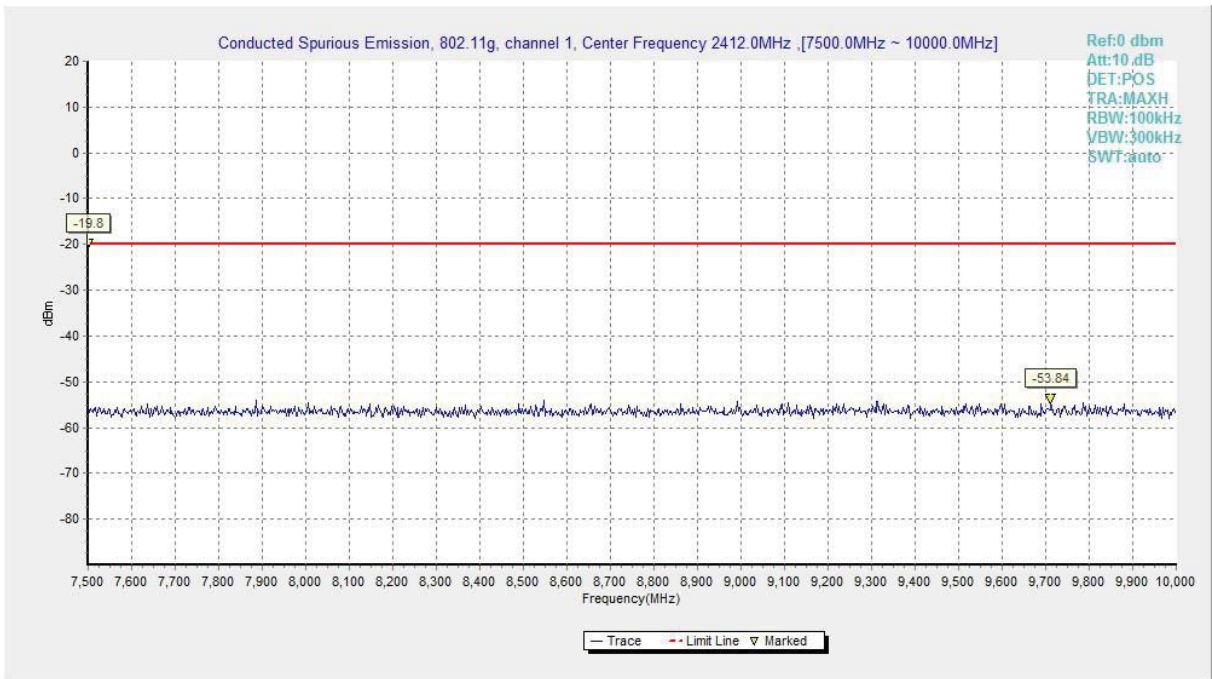


Fig. 53 Conducted Spurious Emission (802.11g, Ch1, 7.5 GHz-10 GHz)

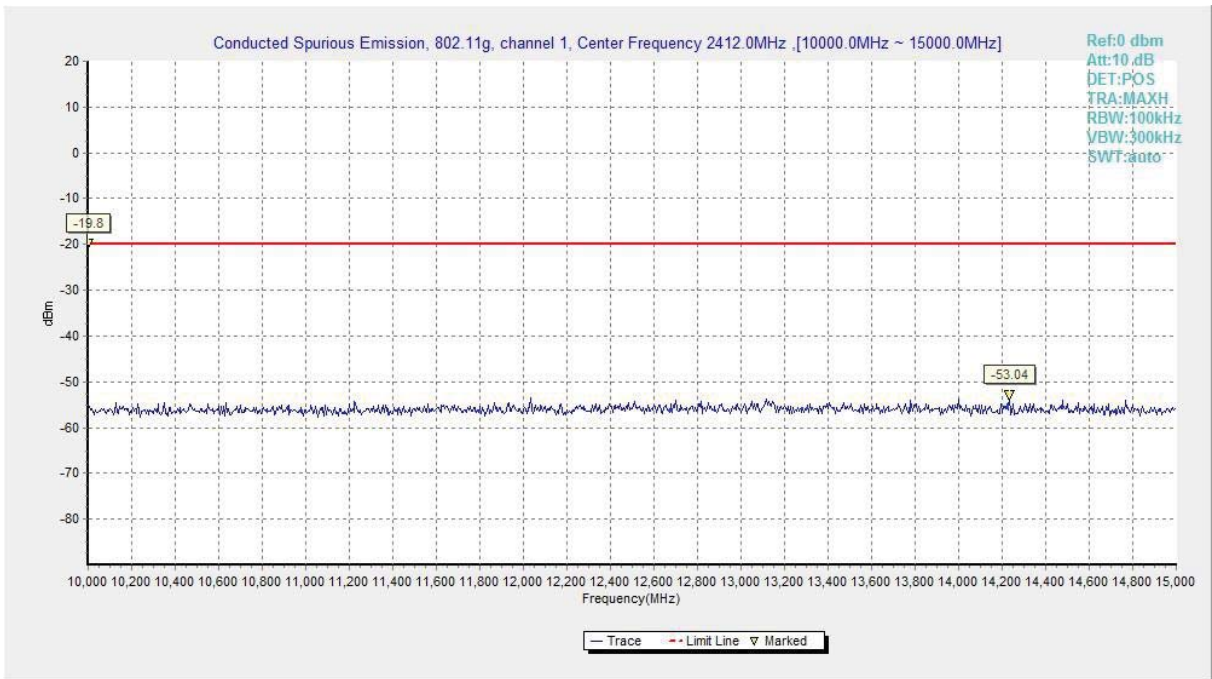


Fig. 54 Conducted Spurious Emission (802.11g, Ch1, 10 GHz-15 GHz)

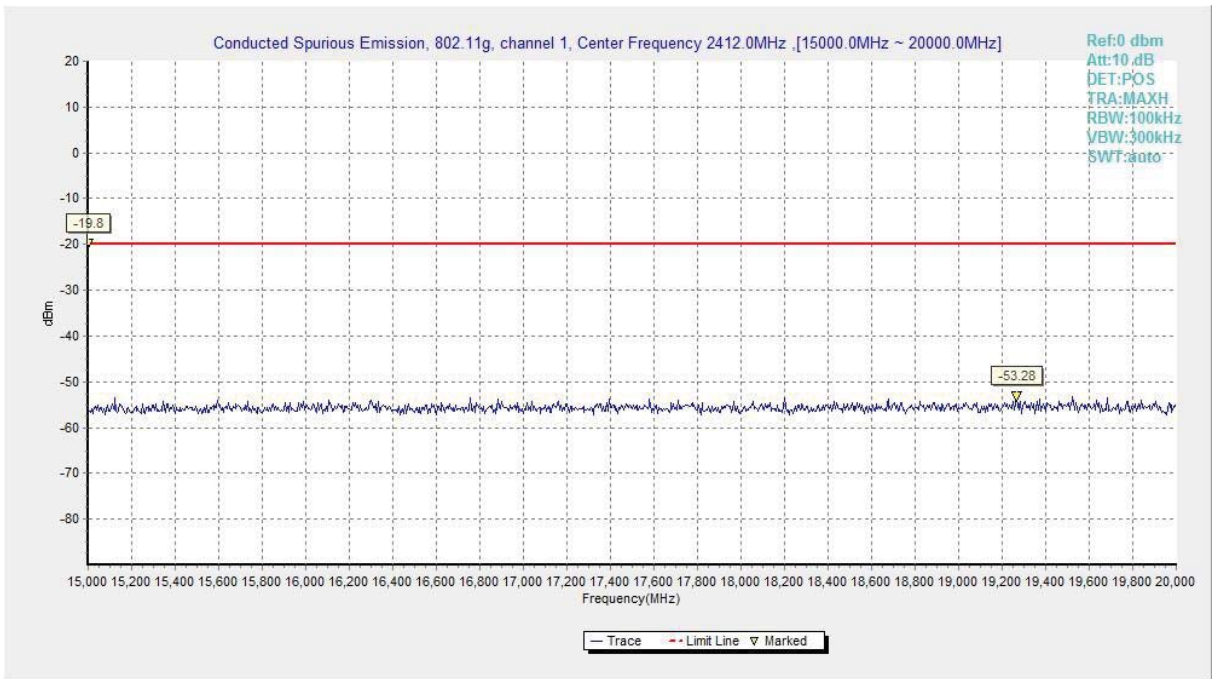


Fig. 55 Conducted Spurious Emission (802.11g, Ch1, 15 GHz-20 GHz)

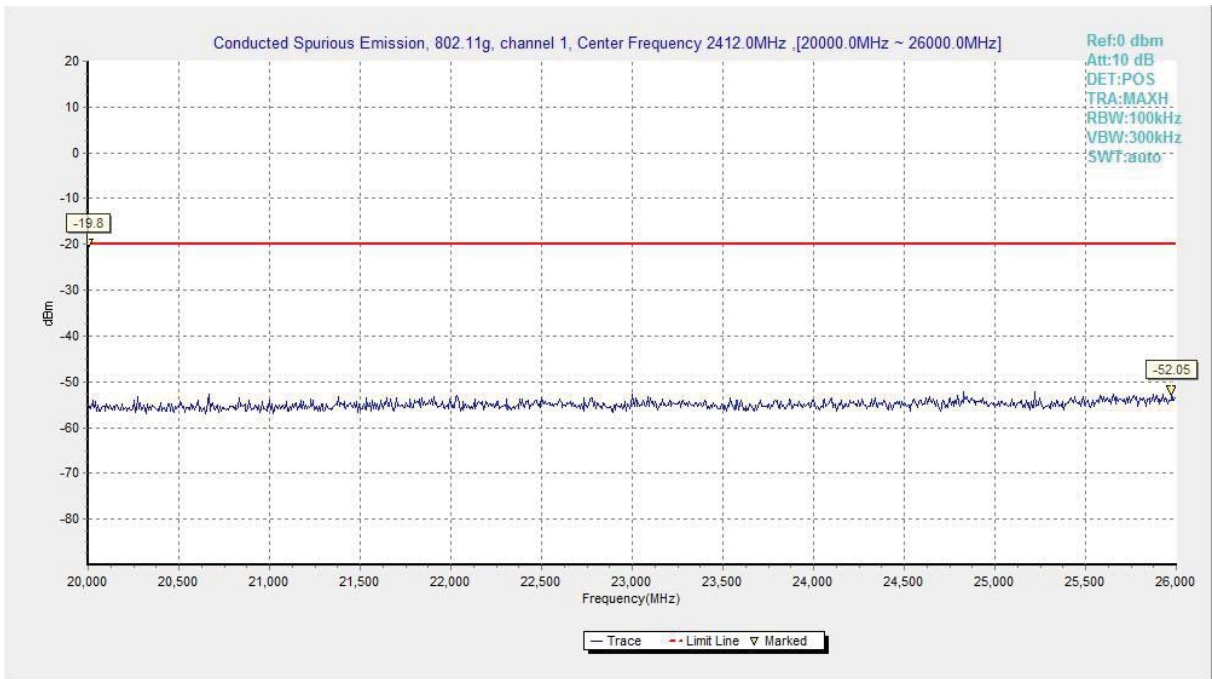


Fig. 56 Conducted Spurious Emission (802.11g, Ch1, 20 GHz-26 GHz)

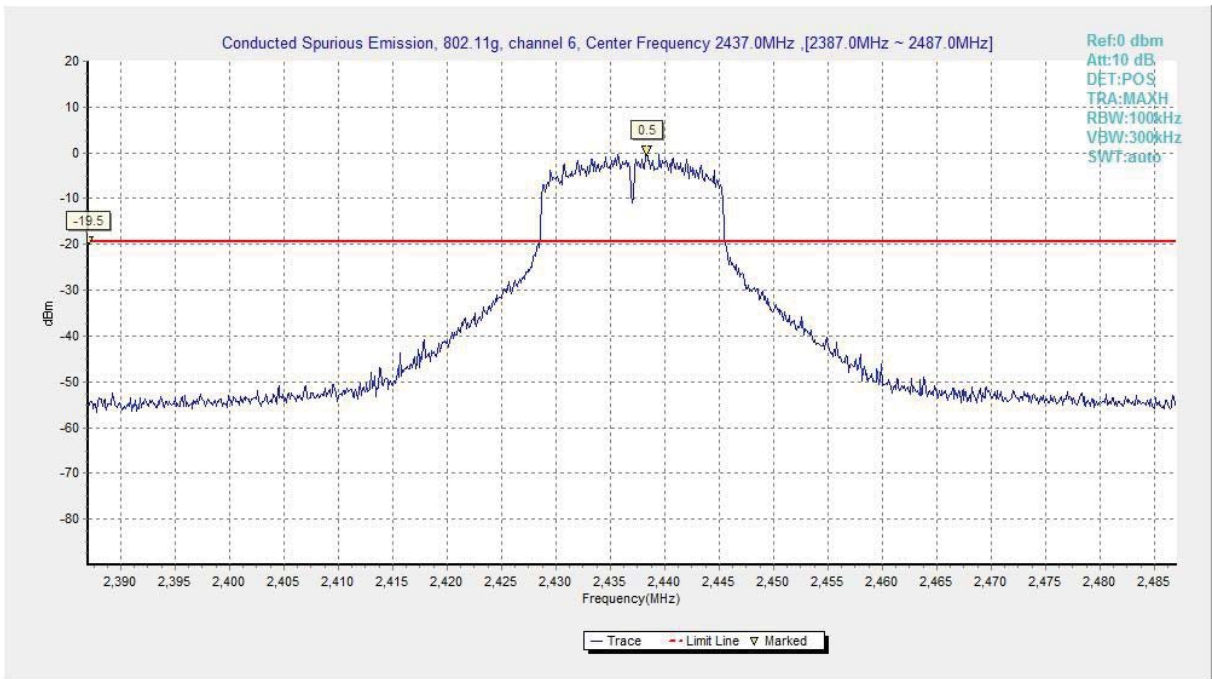


Fig. 57 Conducted Spurious Emission (802.11g, Ch6, Center Frequency)

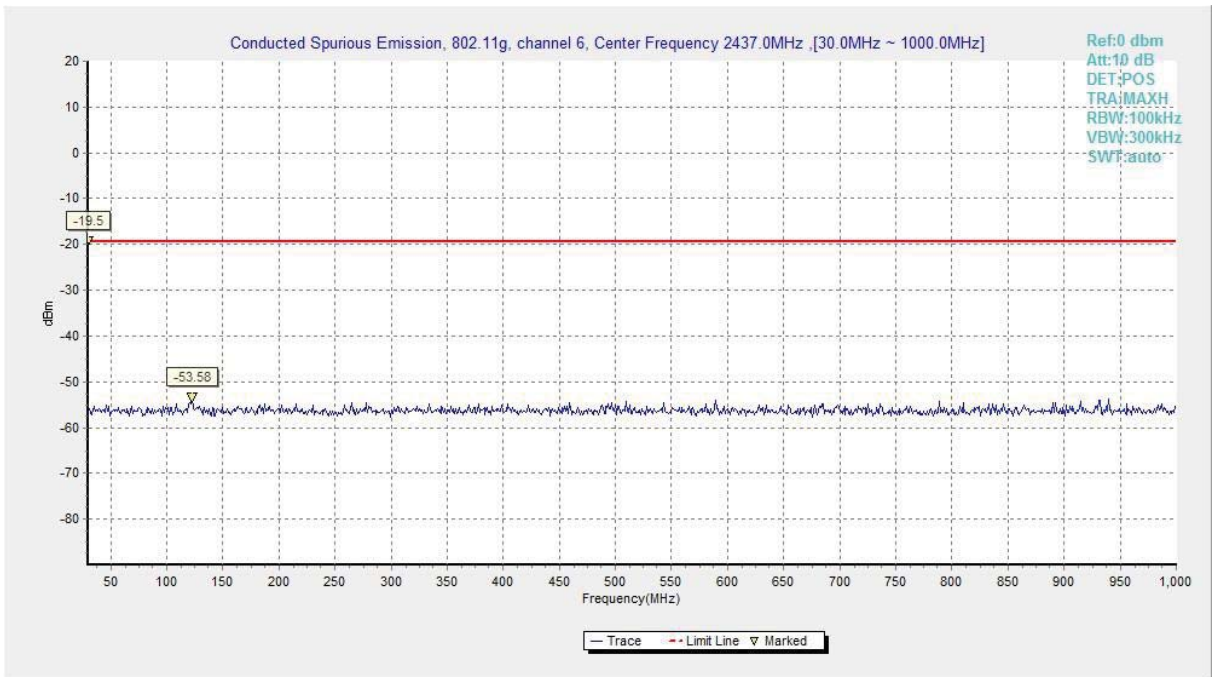


Fig. 58 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

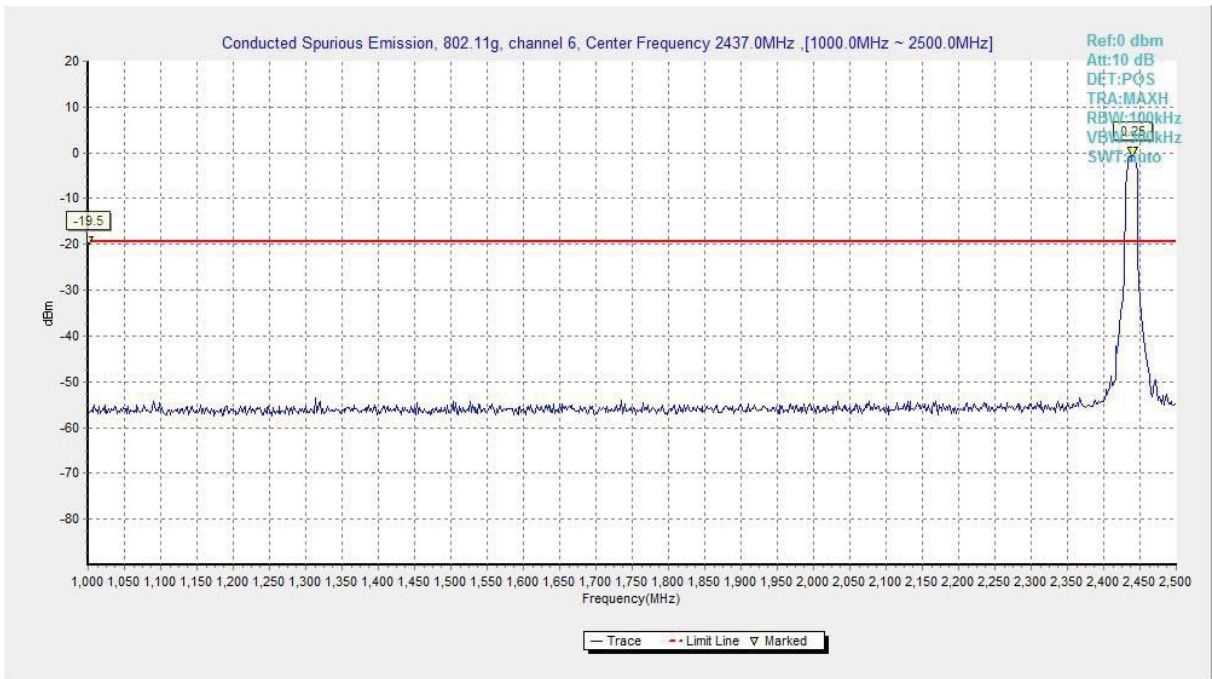


Fig. 59 Conducted Spurious Emission (802.11g, Ch6, 1 GHz-2.5 GHz)

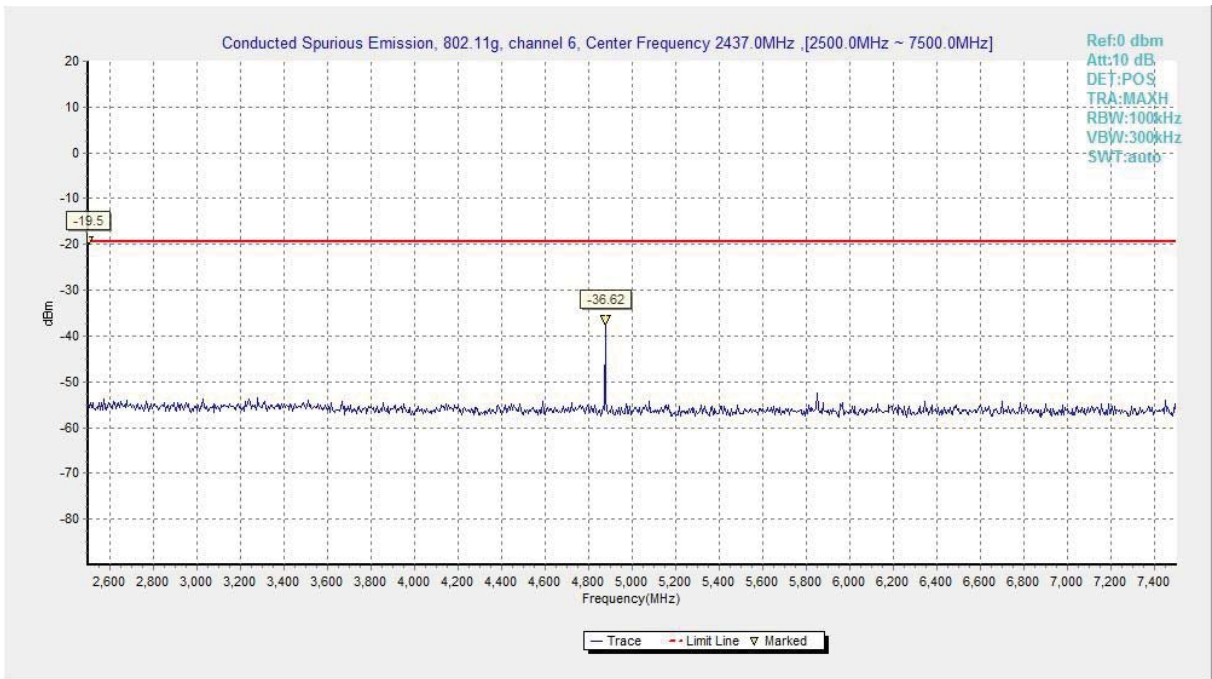


Fig. 60 Conducted Spurious Emission (802.11g, Ch6, 2.5 GHz-7.5 GHz)

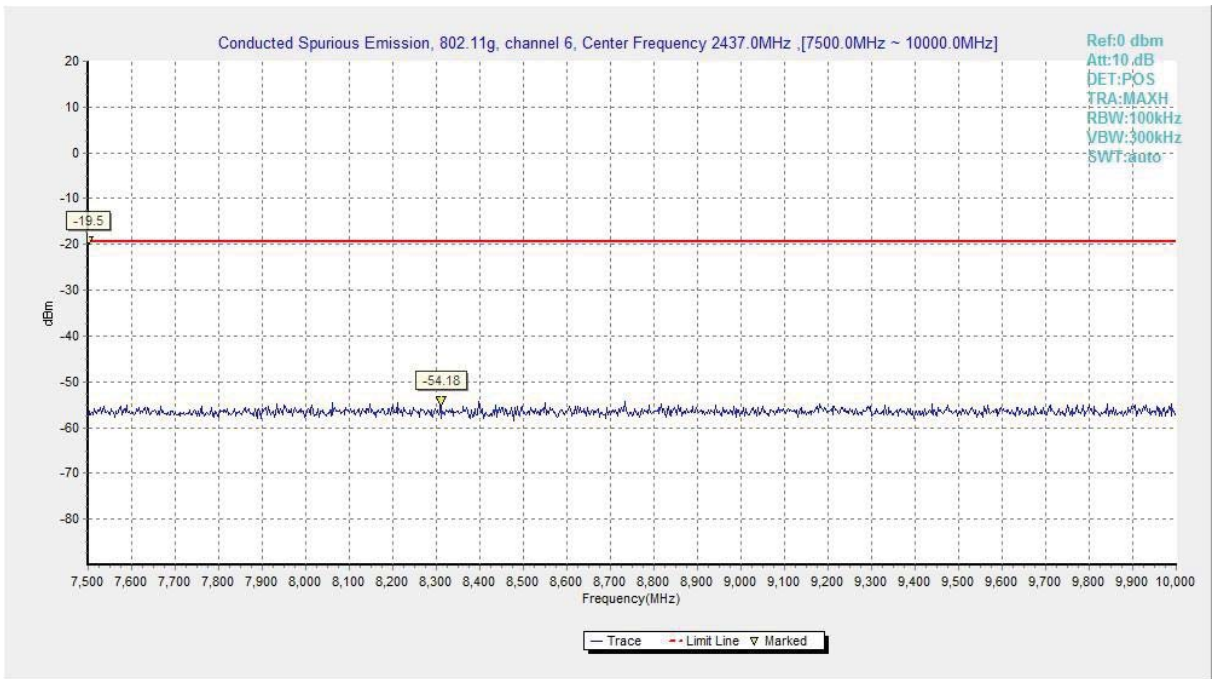


Fig. 61 Conducted Spurious Emission (802.11g, Ch6, 7.5 GHz-10 GHz)

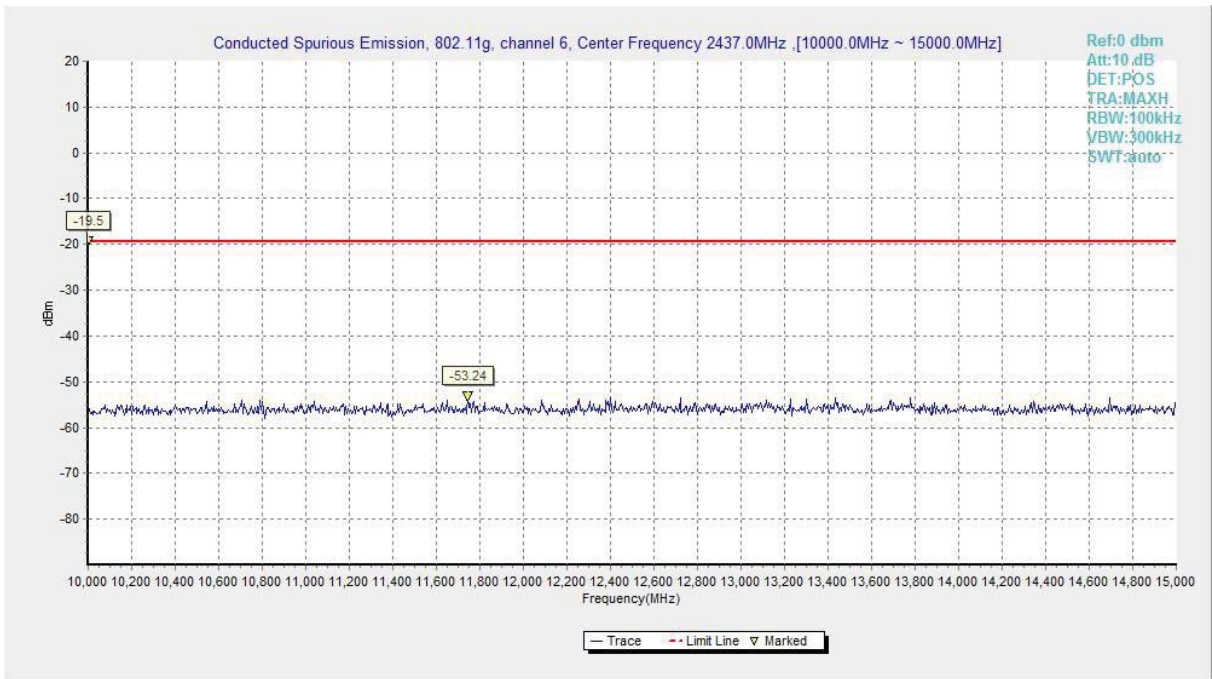


Fig. 62 Conducted Spurious Emission (802.11g, Ch6, 10 GHz-15 GHz)

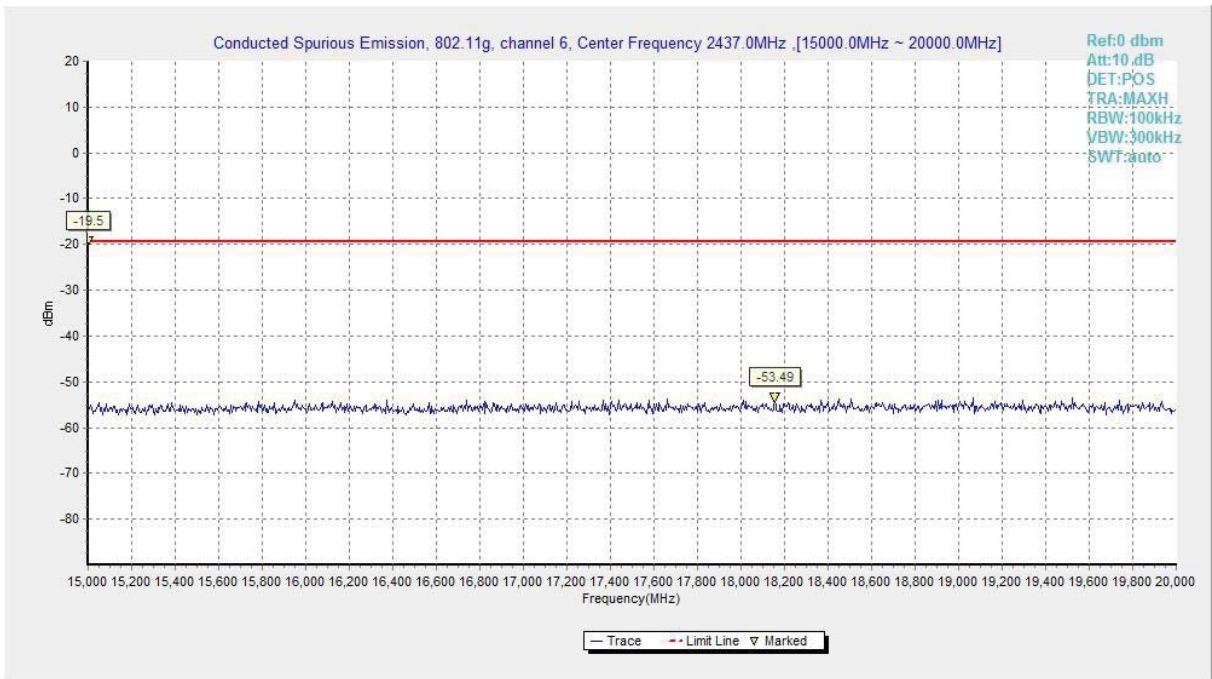


Fig. 63 Conducted Spurious Emission (802.11g, Ch6, 15 GHz-20 GHz)

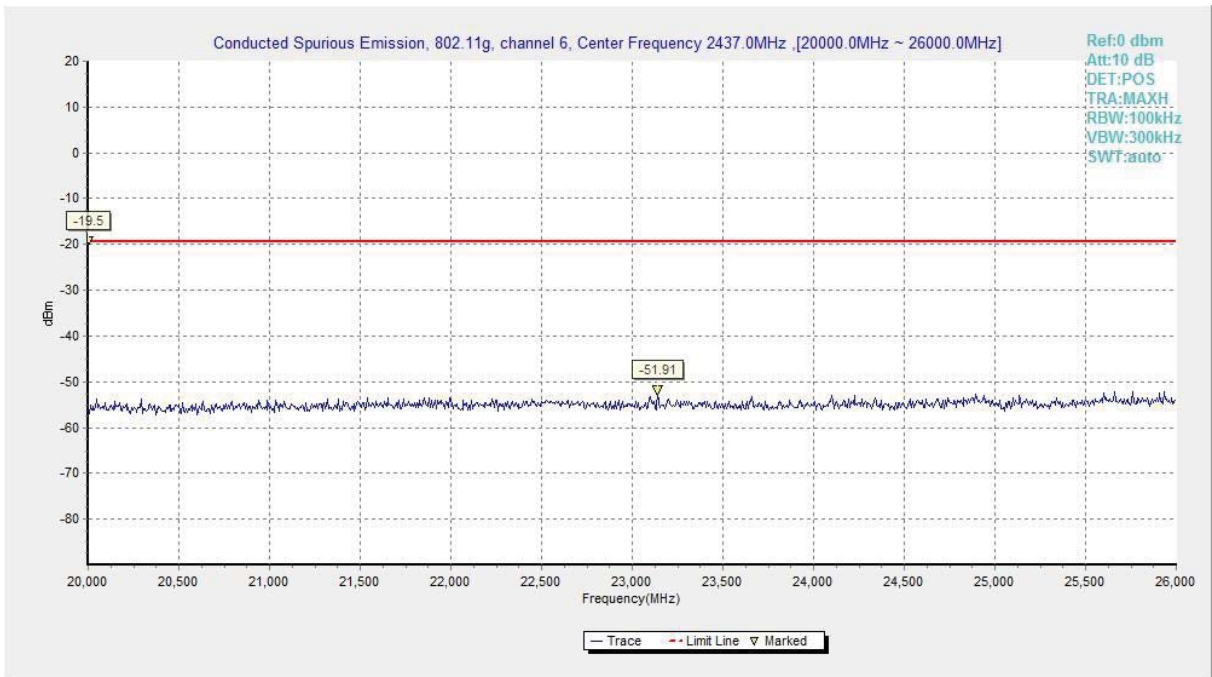


Fig. 64 Conducted Spurious Emission (802.11g, Ch6, 20 GHz-26 GHz)

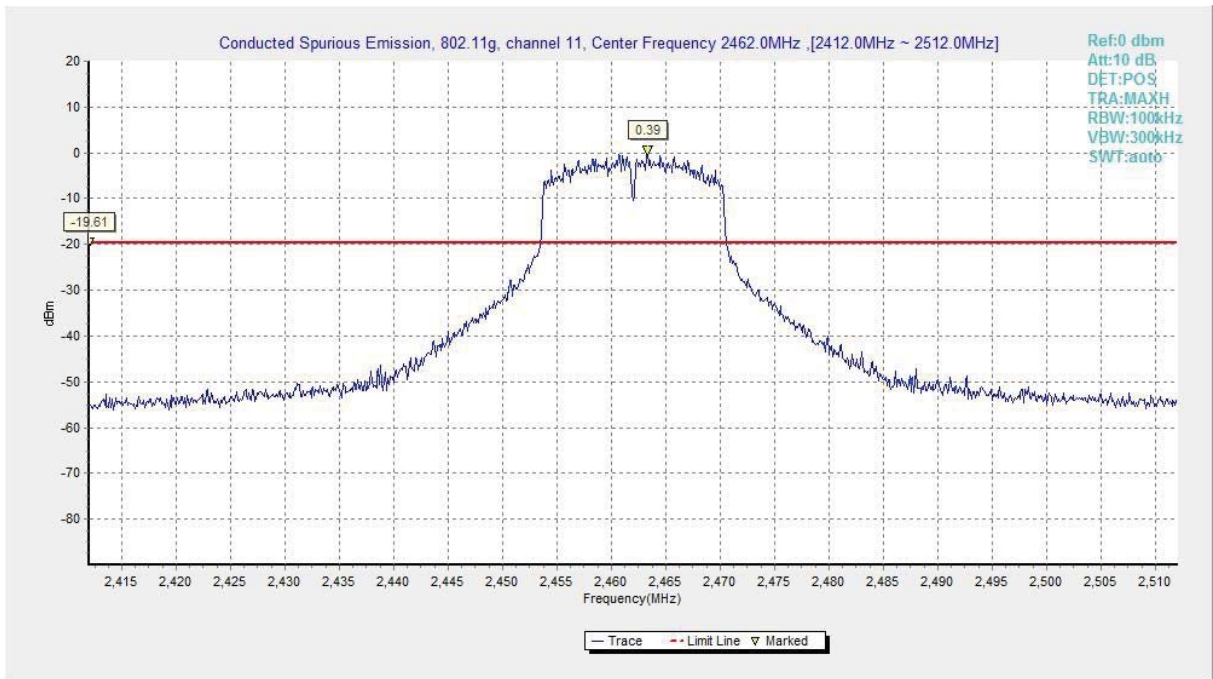


Fig. 65 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)

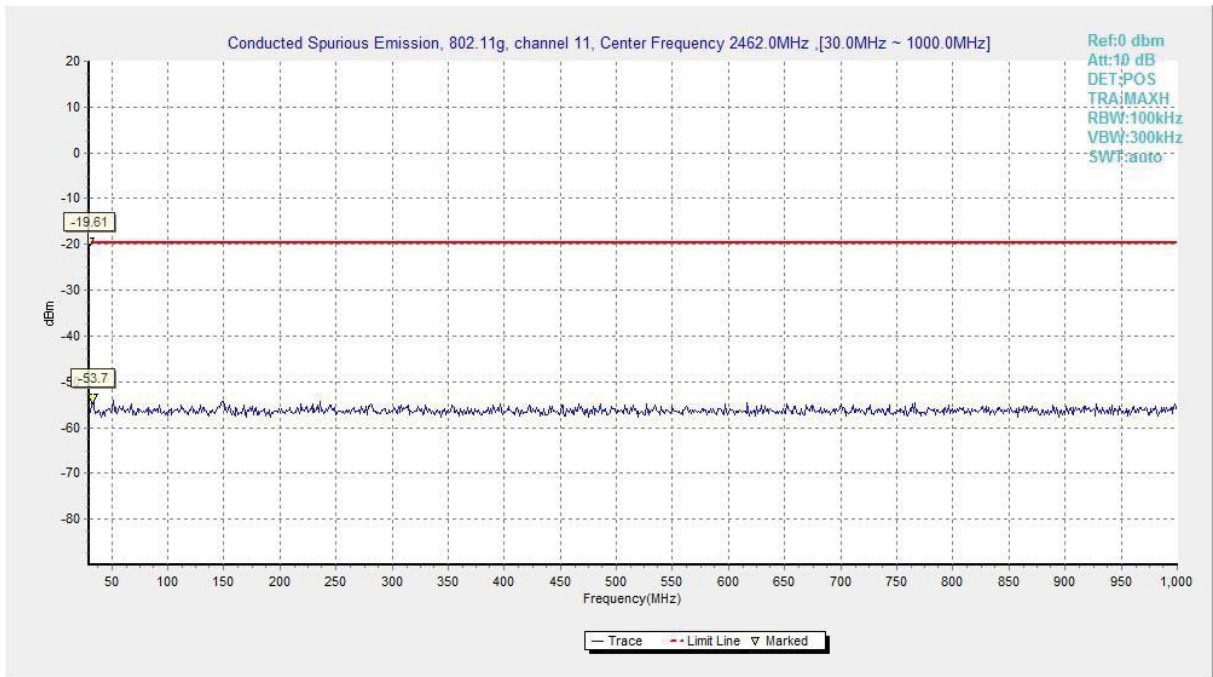


Fig. 66 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

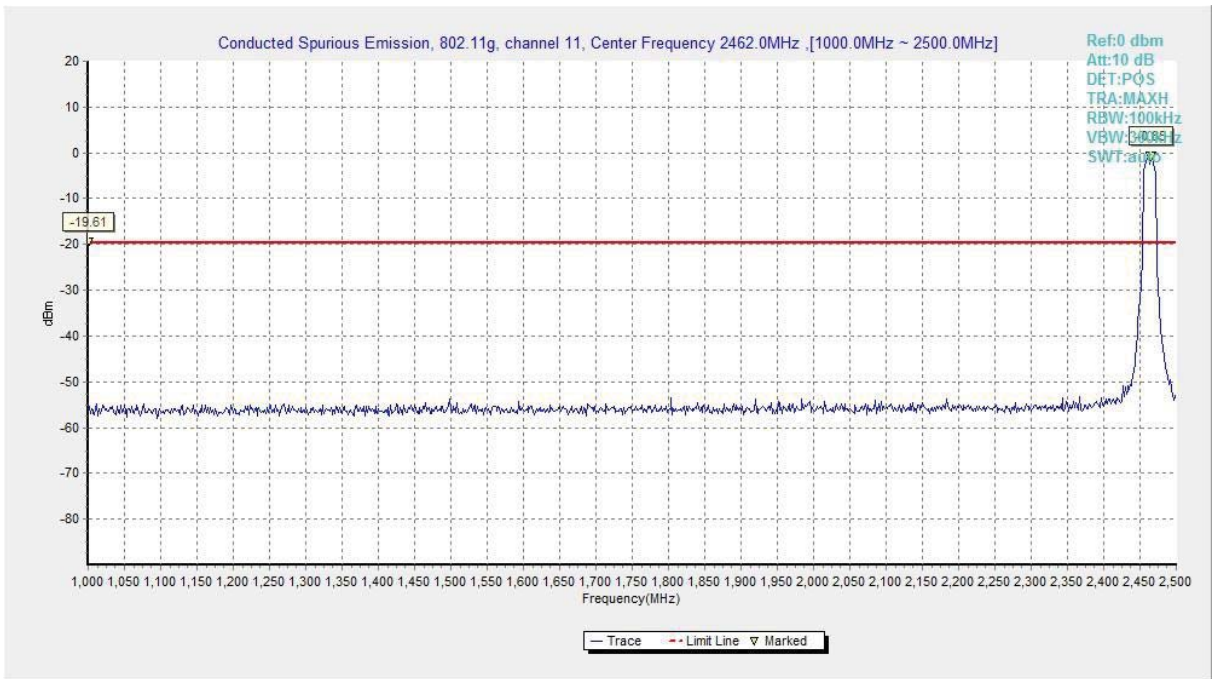


Fig. 67 Conducted Spurious Emission (802.11g, Ch11, 1 GHz-2.5 GHz)

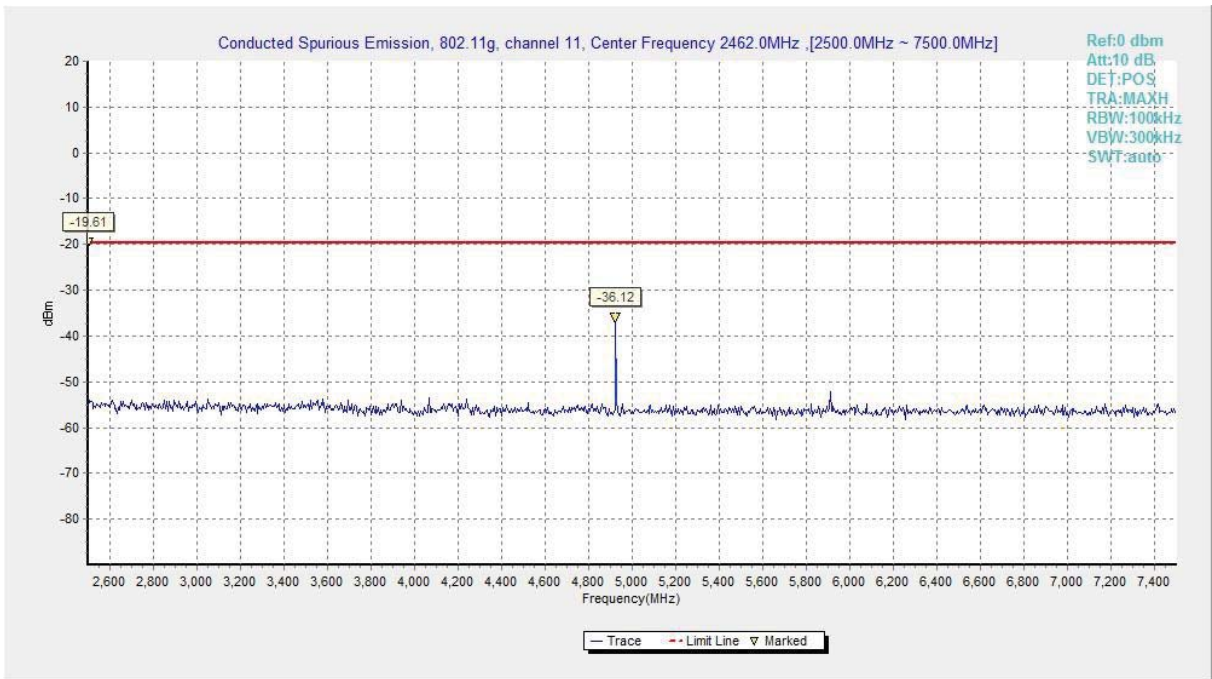


Fig. 68 Conducted Spurious Emission (802.11g, Ch11, 2.5 GHz-7.5 GHz)

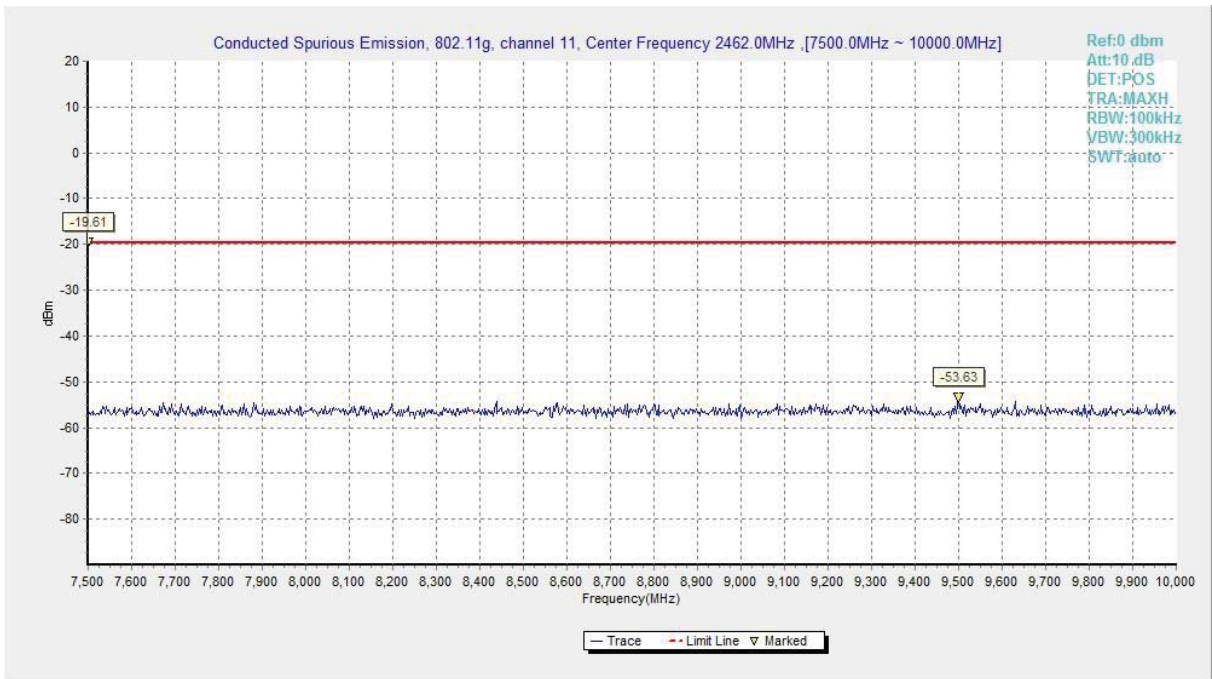


Fig. 69 Conducted Spurious Emission (802.11g, Ch11, 7.5 GHz-10 GHz)

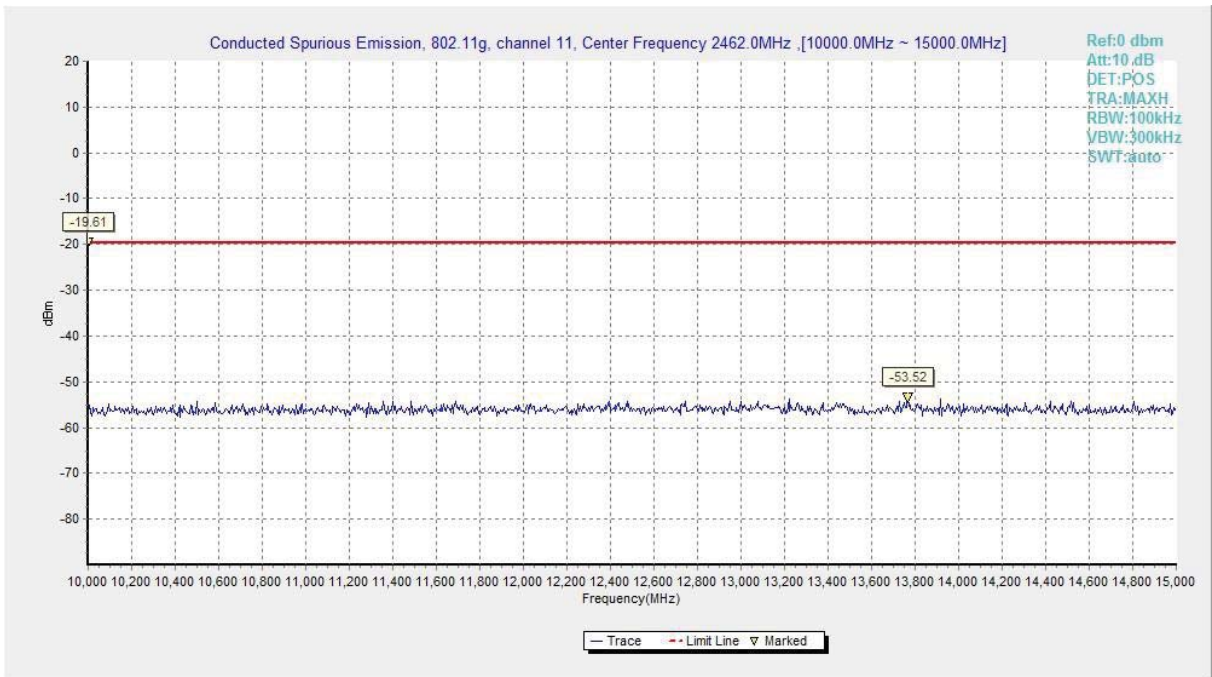


Fig. 70 Conducted Spurious Emission (802.11g, Ch11, 10 GHz-15 GHz)

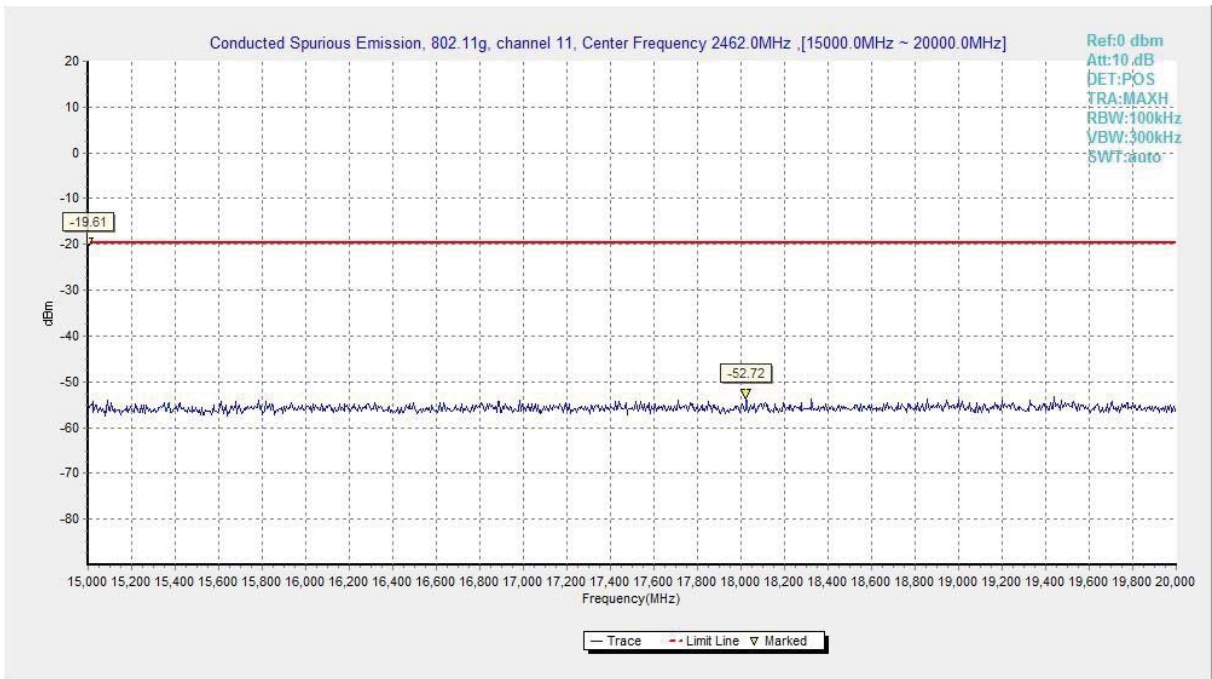


Fig. 71 Conducted Spurious Emission (802.11g, Ch11, 15 GHz-20 GHz)

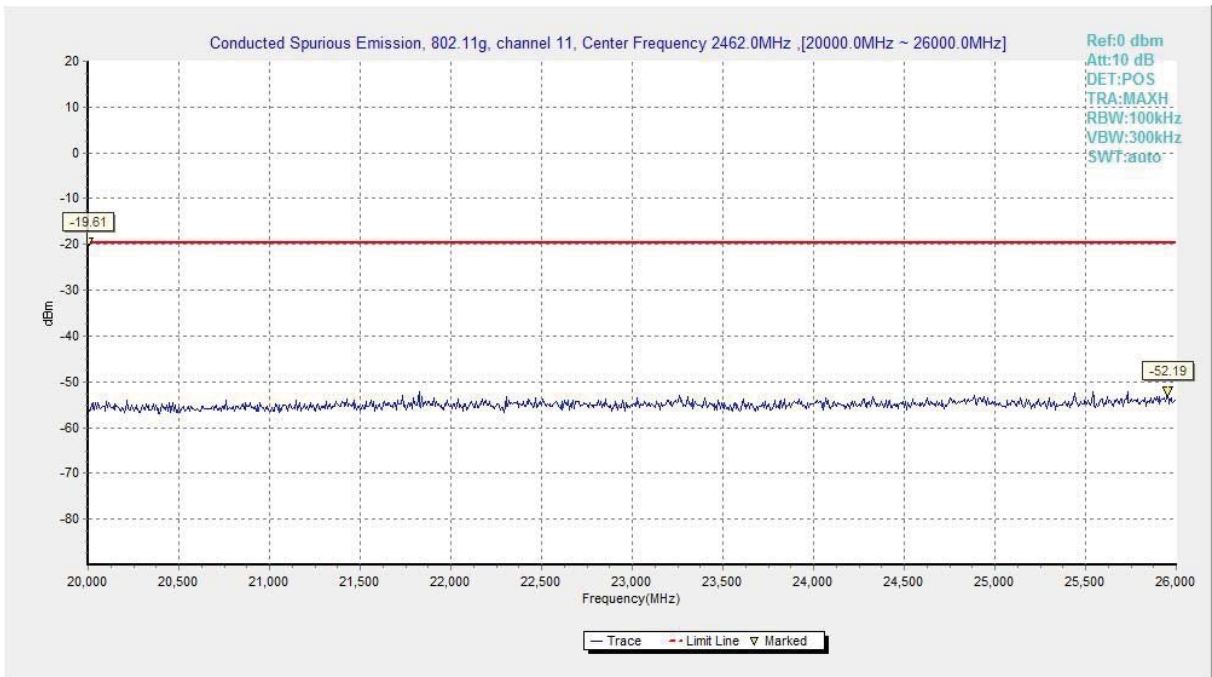


Fig. 72 Conducted Spurious Emission (802.11g, Ch11, 20 GHz-26 GHz)

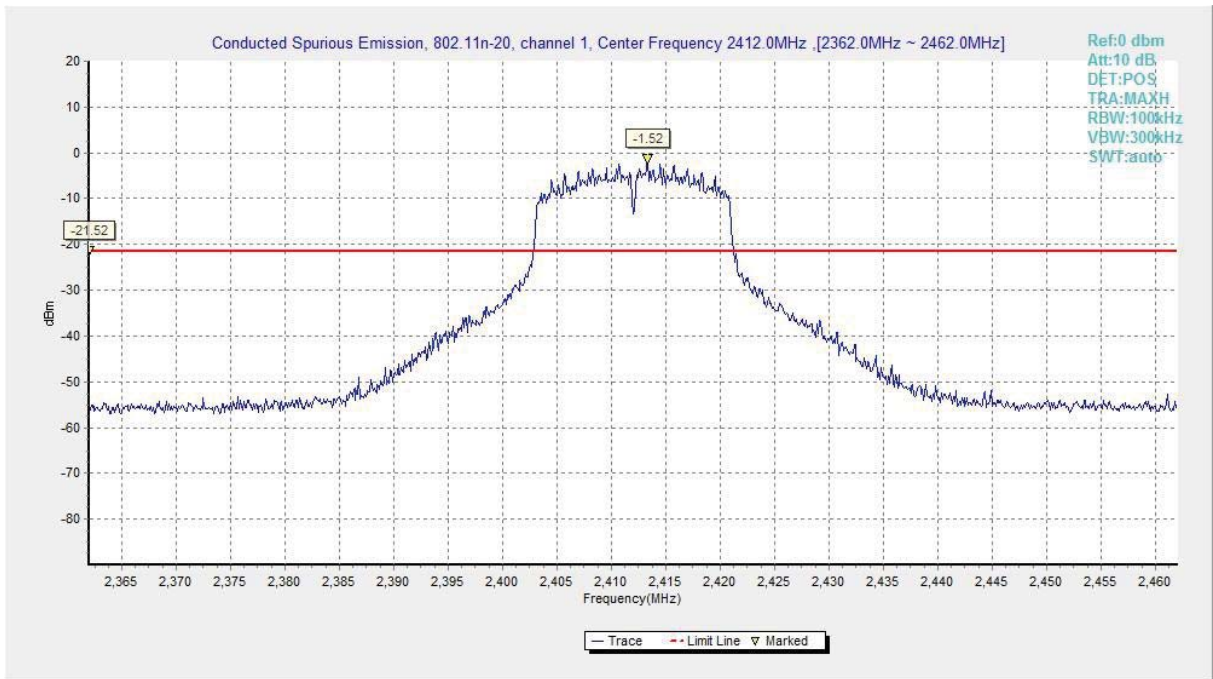


Fig. 73 Conducted Spurious Emission (802.11n-HT20, Antenna 1, Ch1, Center Frequency)

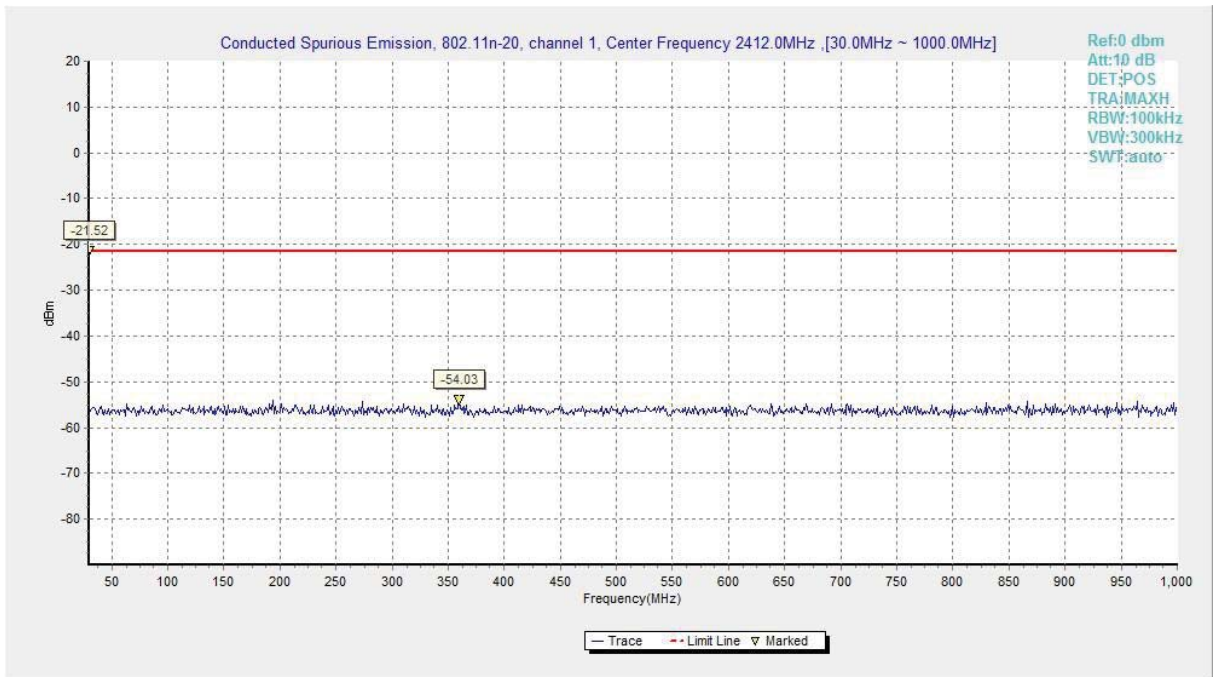


Fig. 74 Conducted Spurious Emission (802.11n-HT20, Antenna 1, Ch1, 30 MHz-1 GHz)

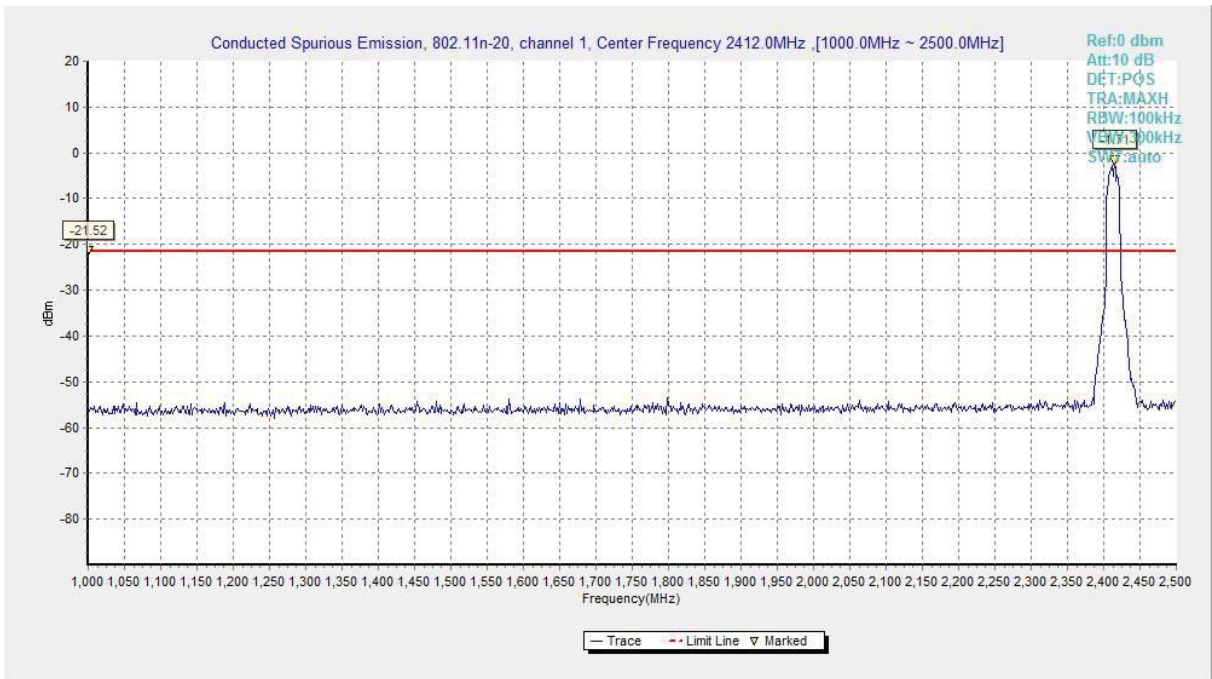


Fig. 75 Conducted Spurious Emission (802.11n-HT20, Antenna 1, Ch1, 1 GHz-2.5 GHz)

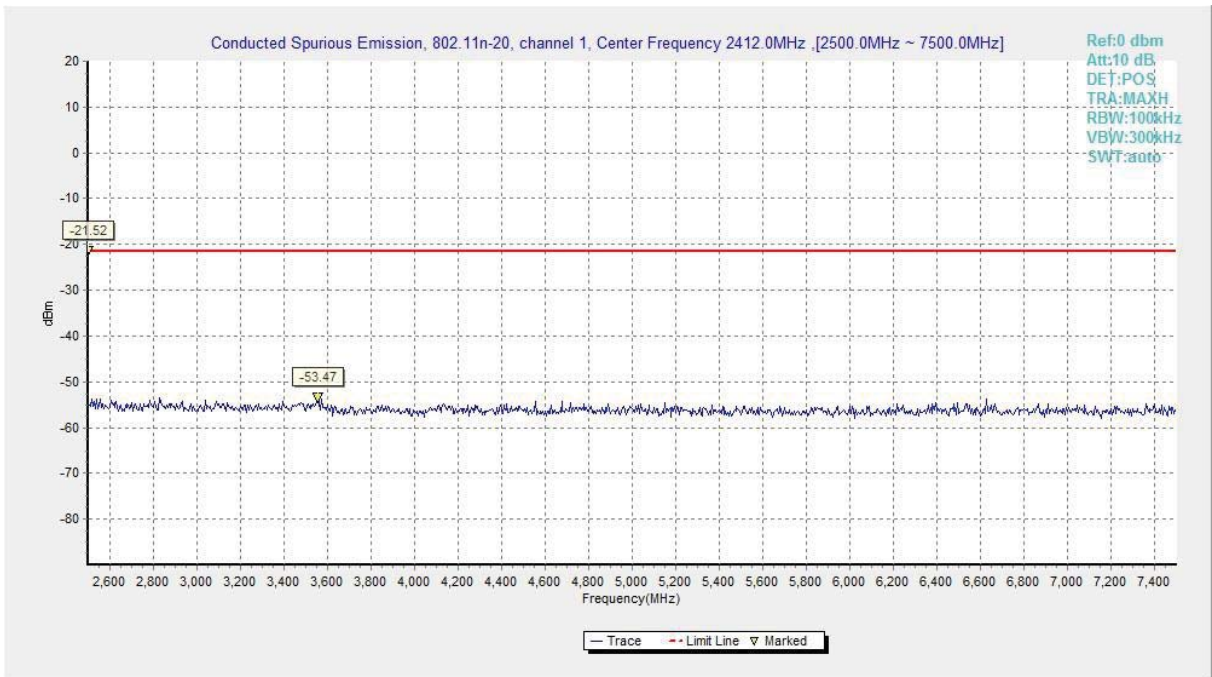


Fig. 76 Conducted Spurious Emission (802.11n-HT20, Antenna 1, Ch1, 2.5 GHz-7.5 GHz)