

FCC Test Report

Product Name : Wireless N ADSL2+ Modem Router

Model No. : RG-A100L

FCC ID. : 2AA5WRGA100L

Applicant : NEC AccessTechnica, Ltd.

Address : 800 Shimomata, Kakegawa, Shizuoka 436-8501 Japan

Date of Receipt : 2013/09/11

Issued Date : 2013/11/13

Report No. : 139322R-RFUSP42V01

Report Version : V1.0



The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Test Report Certification

Issued Date : 2013/11/13

Report No. : 139322R-RFUSP42V01



Product Name : Wireless N ADSL2+ Modem Router
 Applicant : NEC AccessTechnica, Ltd.
 Address : 800 Shimomata, Kakegawa, Shizuoka 436-8501 Japan
 Model No. : RG-A100L
 FCC ID. : 2AA5WRGA100L
 EUT Test Voltage : AC 100-240V, 50/60Hz
 Trade Name : NEC
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2012
 ANSI C63.4: 2009
 Test Result : Complied

The test results relate only to the samples tested.

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Documented By :

(Demi Chang / Engineering Adm. Specialist)

Reviewed By :

(JuBo Shen / Engineer)

Approved By :

(Roy Wang / Director)

Laboratory Information

We, **Quietek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	:	TAF, Accreditation Number: 1313
		NCC, Certificate No : NCC-RCB-07
USA	:	FCC, Registration Number: 365520
Canada	:	IC, Submission No: 150981

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site:<http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :
<http://www.quietek.com/>

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

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TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

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1. General Information

1.1. EUT Description

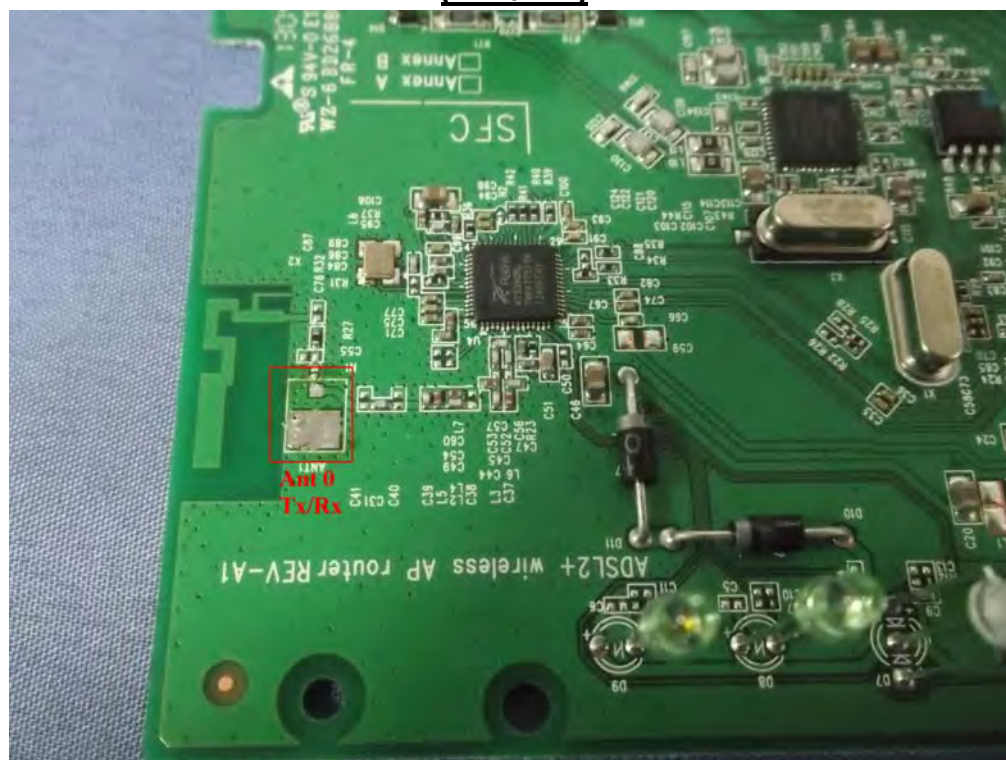
Product Name	Wireless N ADSL2+ Modem Router
Product Type	WLAN (1TX, 1RX)
Trade Name	NEC
Model No.	RG-A100L
Frequency Range/Channel Number -IEEE 802.11b/g & IEEE 802.11n (20MHz)	2412~2462MHz / 11Channels
Frequency Range/Channel Number - IEEE 802.11n (40MHz)	2422~2452MHz / 7Channels
Type of Modulation (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Type of Modulation (IEEE 802.11g/n)	Orthogonal Frequency Division Multiplexing (OFDM)
Data Speed (IEEE 802.11b)	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data Speed (IEEE 802.11g)	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
Data Speed (IEEE 802.11n)	Support a subset of the combination of GI, MCS 0~MCS 7 and bandwidth defined in 802.11n
Antenna Gain	2.0dBi
Antenna Type	Dipole

Component	
Micro Filter	MAGCOM, AFN747
LAN Cable (8P8C)	Non-Shielded, 1.0m
LAN Cable (8P4C)	Non-Shielded, 1.0m
LAN Cable (8P8C)	Non-Shielded, 3.0m
Telephone	Non-Shielded, 1.5m
Telephone	Non-Shielded, 0.2m
Power Adapter	AMIGO, AMS47-1200500FU I/P: 100-240V~ 50/60Hz 0.2A/18VA O/P: 12V  0.5A Cable Out: Non-Shielded, 1.2m

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX		RX	
Mode/ Channel Bandwidth	20MHz	40MHz	20MHz	40MHz
IEEE802.11b	✓		✓	
IEEE802.11g	✓		✓	
IEEE802.11n	✓	✓	✓	✓

(1TX /1RX)



IEEE 802.11n

MCS Index	Modulation	R	N _{BPSCS}	N _{CBPS}		N _{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 1 – MCS parameters for TX Antenna number = 1

Symbol	Explanation
R	Code rate
N _{BPSCS}	Number of coded bits per single carrier
N _{CBPS}	Number of coded bits per symbol
N _{DBPS}	Number of data bits per symbol
GI	guard interval

IEEE 802.11b/g & IEEE 802.11n (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

IEEE 802.11n (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz		

Note:

1. This device is a Wireless N ADSL2+ Modem Router including 2.4GHz b/g/n (1x1) transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. Regards to the frequency band operation; the lowest 、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 139322R-RFUSP37V02 under Declaration of Conformity.

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit
----	------------------

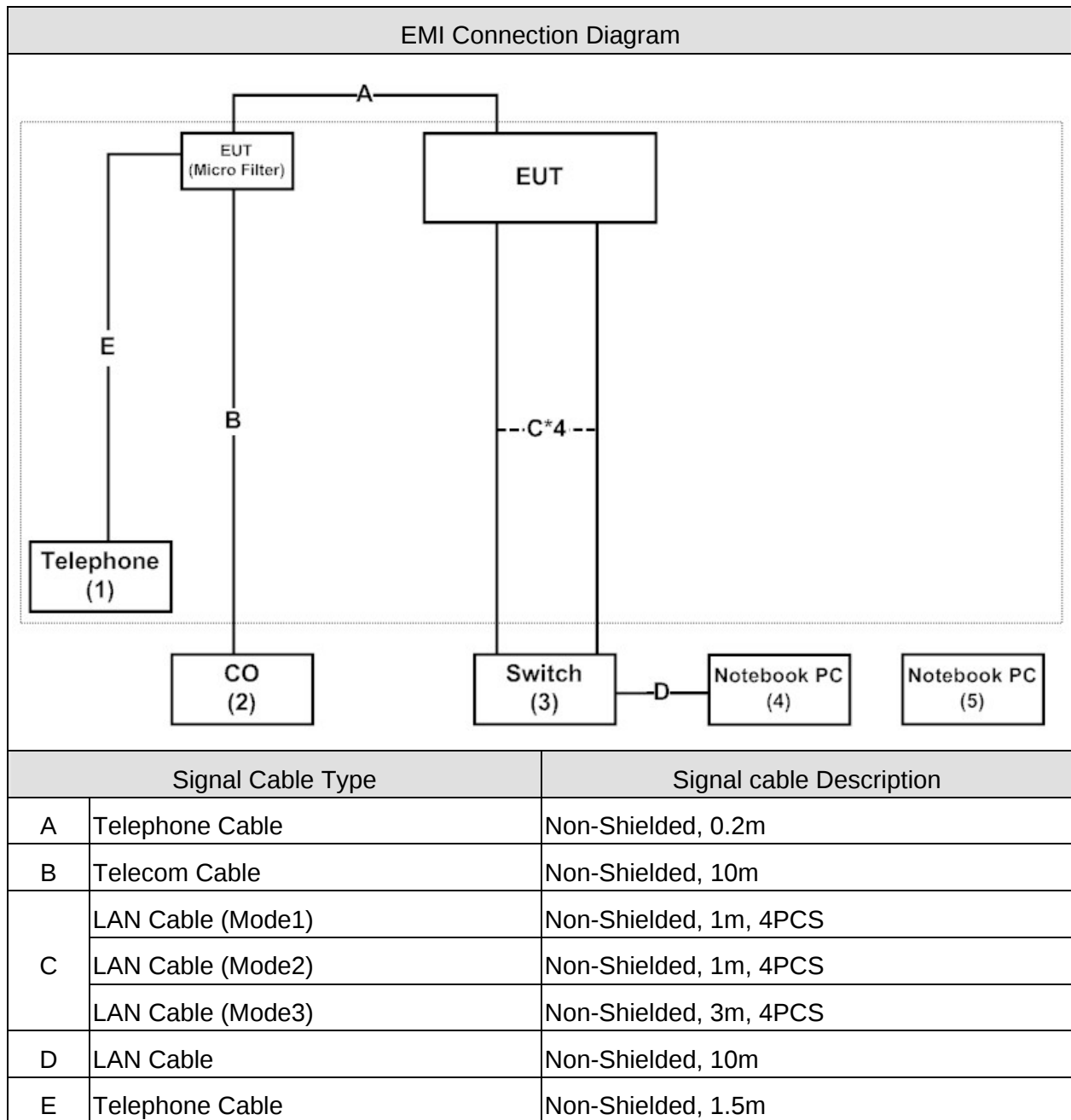
Test Items	Mode	Modulation	Channel	Antenna	Result
Conducted Emission	1	11n(40MHz)	6	0	Complies
Peak Power Output	1	b/g	1/ 6/ 11	0	Complies
	1	11n(20MHz)	1/ 6/ 11	0	Complies
	1	11n(40MHz)	3/ 6/ 9	0	Complies
Radiated Emission	1	b/g	1/ 6/ 11	0	Complies
	1	11n(20MHz)	1/ 6/ 11	0	Complies
	1	11n(40MHz)	3/ 6/ 9	0	Complies
RF antenna conducted test	1	b/g	1/ 11	0	Complies
	1	11n(20MHz)	1/ 11	0	Complies
	1	11n(40MHz)	3/ 9	0	Complies
Radiated Emission Band Edge	1	b/g	1/ 11	0	Complies
	1	11n(20MHz)	1/ 11	0	Complies
	1	11n(40MHz)	3/ 9	0	Complies
Occupied Bandwidth	1	b/g	1/ 6/ 11	0	Complies
	1	11n(20MHz)	1/ 6/ 11	0	Complies
	1	11n(40MHz)	3/ 6/ 9	0	Complies
Power Density	1	b/g	1/ 6/ 11	0	Complies
	1	11n(20MHz)	1/ 6/ 11	0	Complies
	1	11n(40MHz)	3/ 6/ 9	0	Complies

1.4. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Telephone	TENDEL	K-302	50721005000521	DoC	--
2	CO	D-Link	DAS-3224	N/A	DoC	--
3	Switch	D-Link	DGS1216T	F360298000042	DoC	Non-Shielded, 1.8m
4	Notebook PC	ASUS	A43S	C3N0BC1738251 13	DoC	Non-Shielded, 1.8m, one ferrite core bonded
5	Notebook PC	ASUS	A43S	C3N0BC3309061 3C	DoC	Non-Shielded, 1.8m, one ferrite core bonded

1.5. Configuration of tested System



1.6. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the test program "RT3352" on the notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Make the EUT to start the continuous transmitting.
5	Verify that the EUT works properly.

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

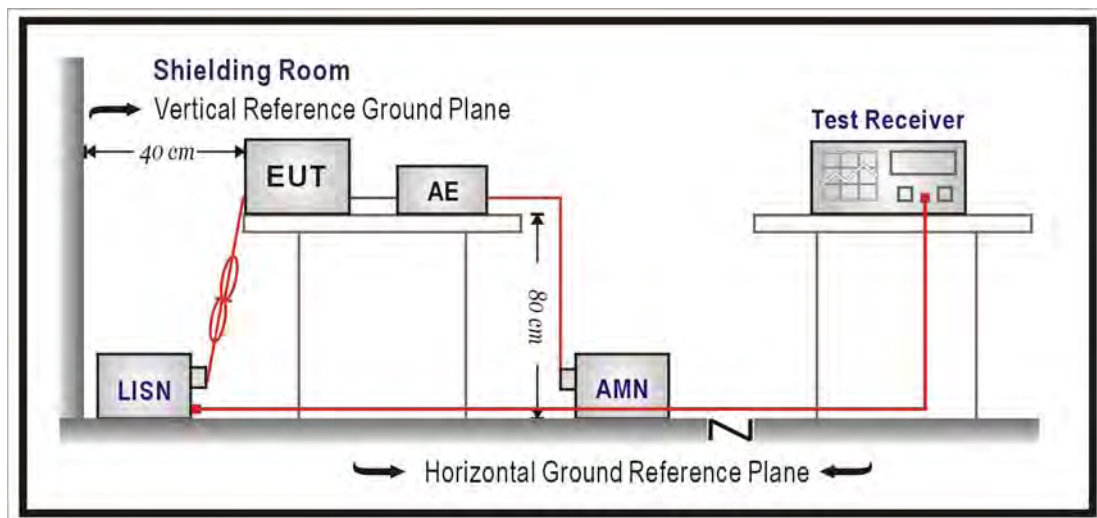
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2014/08/01
LISN	R&S	ESH3-Z5	836679/022	2014/01/20
Test Receiver	R&S	ESCS 30	825442/017	2014/01/01

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

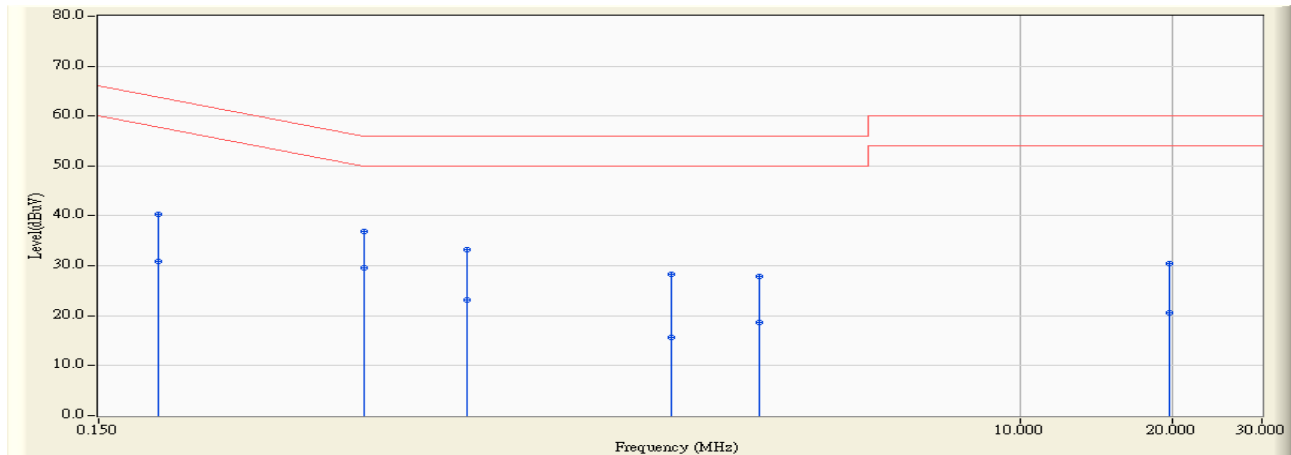
According to FCC Part 15 Subpart C Paragraph 15.207: 2012

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	Time : 2013/10/30 - 11:21
Limit : CISPR_B_00M_QP	Margin : 6
Probe : SR3_LISN(16A)-3_0813 - Line1	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2437MHz

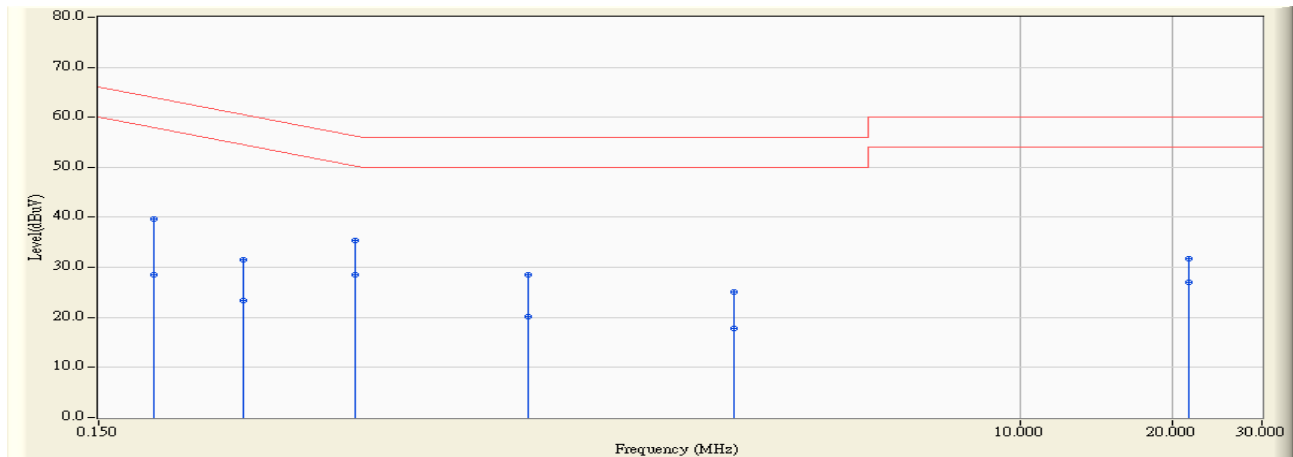


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.197	9.655	30.660	40.315	-23.426	63.741	QUASIPeAK
2		0.197	9.655	21.210	30.865	-22.876	53.741	AVERAGE
3		0.502	9.824	27.100	36.924	-19.076	56.000	QUASIPeAK
4	*	0.502	9.824	19.830	29.654	-16.346	46.000	AVERAGE
5		0.802	9.900	23.240	33.140	-22.860	56.000	QUASIPeAK
6		0.802	9.900	13.310	23.210	-22.790	46.000	AVERAGE
7		2.037	9.960	18.440	28.400	-27.600	56.000	QUASIPeAK
8		2.037	9.960	5.640	15.600	-30.400	46.000	AVERAGE
9		3.048	10.023	17.920	27.943	-28.057	56.000	QUASIPeAK
10		3.048	10.023	8.570	18.593	-27.407	46.000	AVERAGE
11		19.630	10.130	20.430	30.560	-29.440	60.000	QUASIPeAK
12		19.630	10.130	10.420	20.550	-29.450	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR3	Time : 2013/10/30 - 11:23
Limit : CISPR_B_00M_QP	Margin : 6
Probe : SR3_LISN(16A)-3_0813 - Line2	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2437MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.193	9.653	30.070	39.723	-24.185	63.908	QUASIPeAK
2		0.193	9.653	18.920	28.573	-25.335	53.908	AVERAGE
3		0.291	9.704	21.900	31.604	-28.902	60.507	QUASIPeAK
4		0.291	9.704	13.650	23.354	-27.152	50.507	AVERAGE
5		0.482	9.808	25.550	35.358	-20.946	56.304	QUASIPeAK
6	*	0.482	9.808	18.800	28.608	-17.696	46.304	AVERAGE
7		1.064	9.930	18.670	28.600	-27.400	56.000	QUASIPeAK
8		1.064	9.930	10.260	20.190	-25.810	46.000	AVERAGE
9		2.716	9.970	15.130	25.100	-30.900	56.000	QUASIPeAK
10		2.716	9.970	7.920	17.890	-28.110	46.000	AVERAGE
11		21.490	10.322	21.470	31.792	-28.208	60.000	QUASIPeAK
12		21.490	10.322	16.770	27.092	-22.908	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. Peak Power Output

3.1. Test Equipment

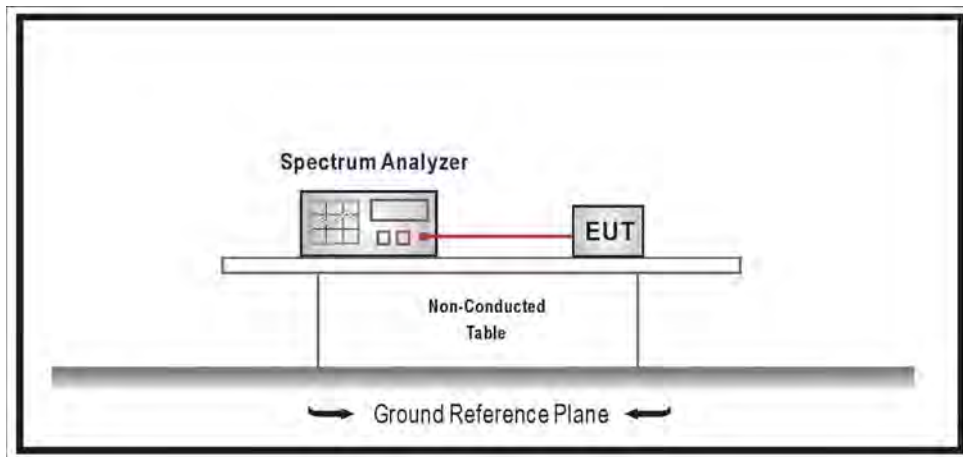
The following test equipments are used during the test:

Peak Power / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was tested according to DTS test procedure of KDB558074 v03r01, Section 5.2.1.2 Measurement Procedure PK2 for compliance to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

3.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.7. Test Result

Product	Wireless N ADSL2+ Modem Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/10/16	Test Site	SR7

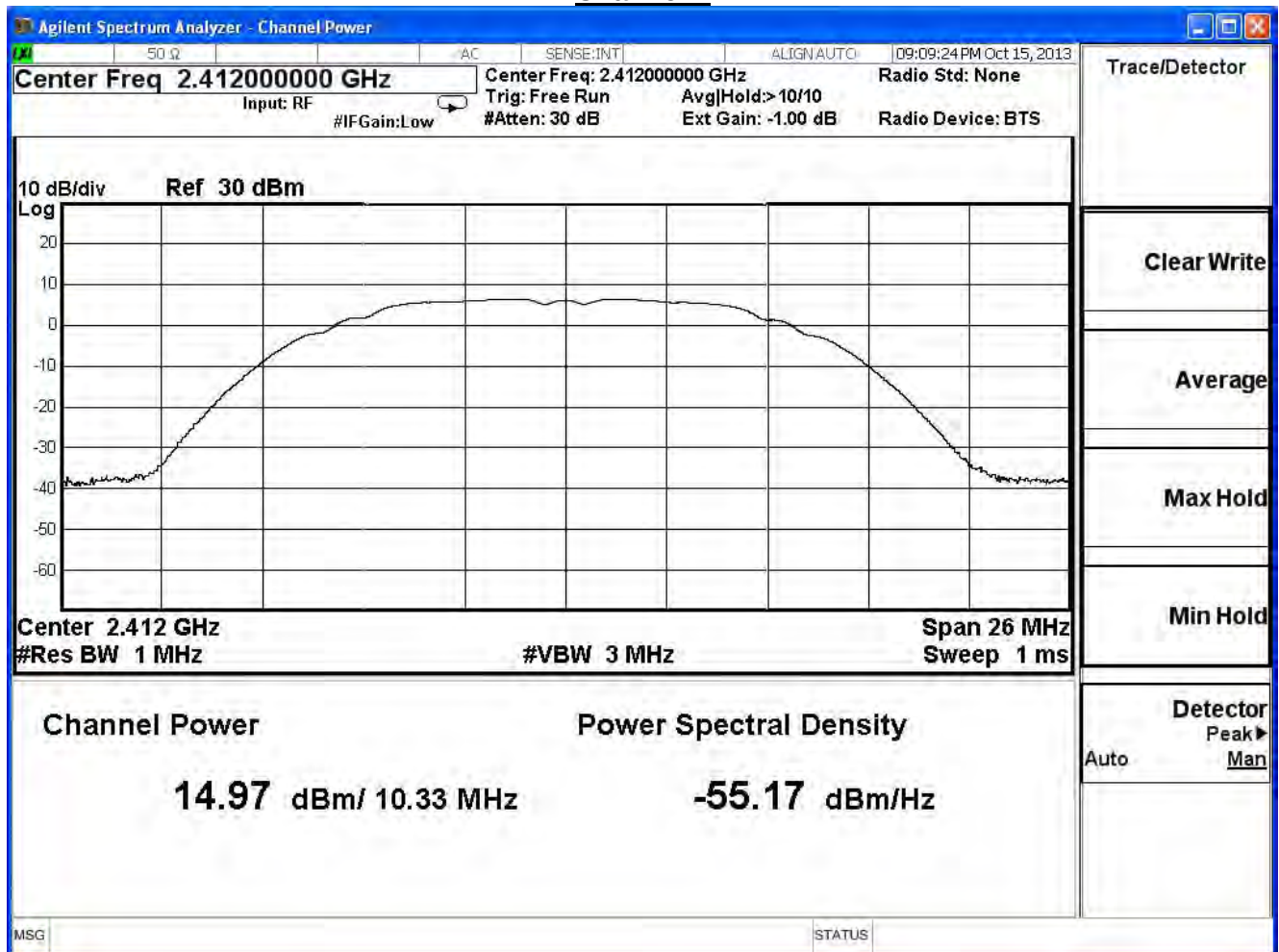
IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	14.97	1Watt= 30 dBm	Pass
6	2437	13.58	1Watt= 30 dBm	Pass
11	2462	12.72	1Watt= 30 dBm	Pass

The worst emission of data rate is 1Mbps.

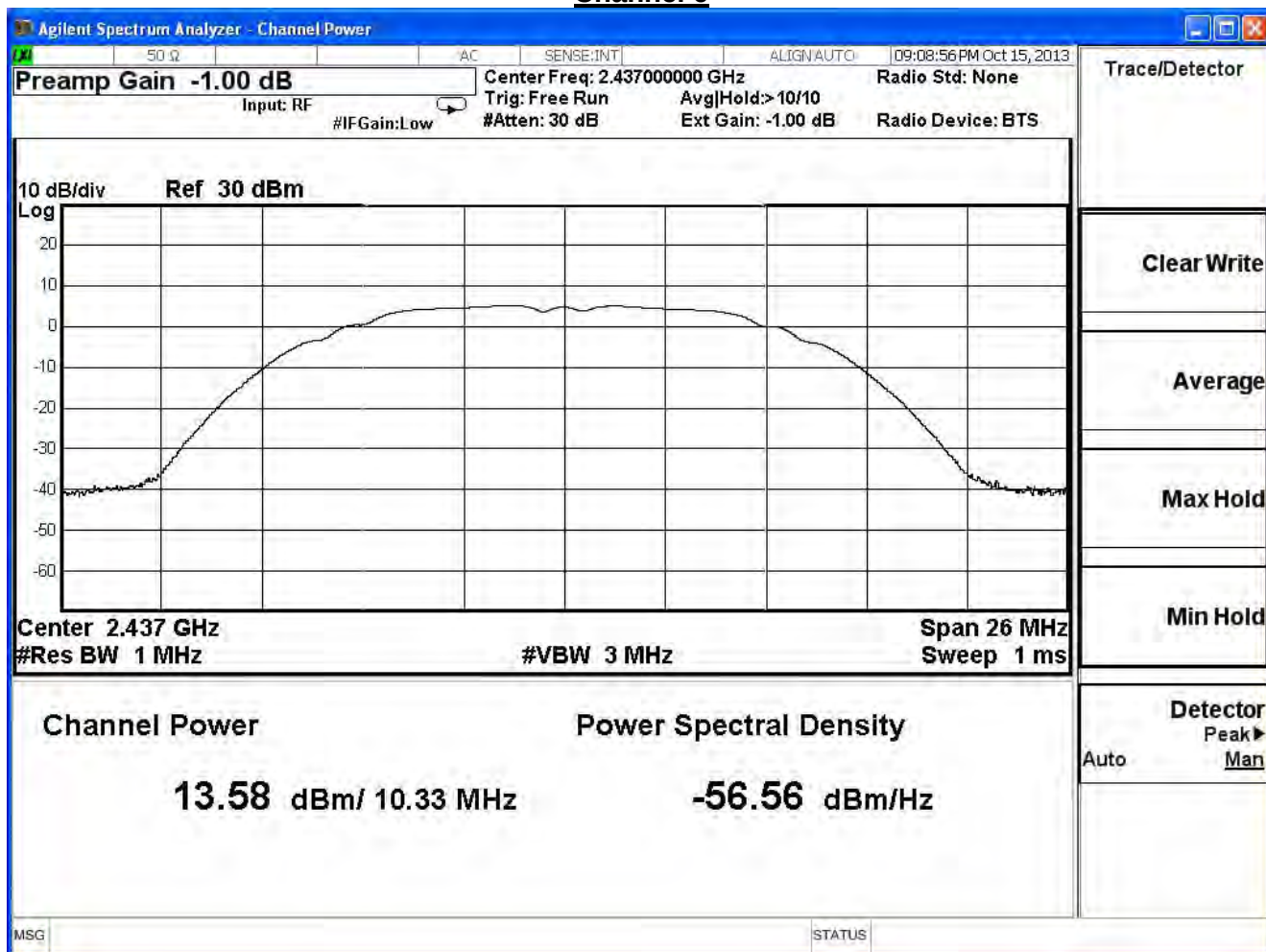
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	14.97	--	--	--	30 dBm
6	2437	13.58	13.38	13.14	12.92	30 dBm
11	2462	12.72	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

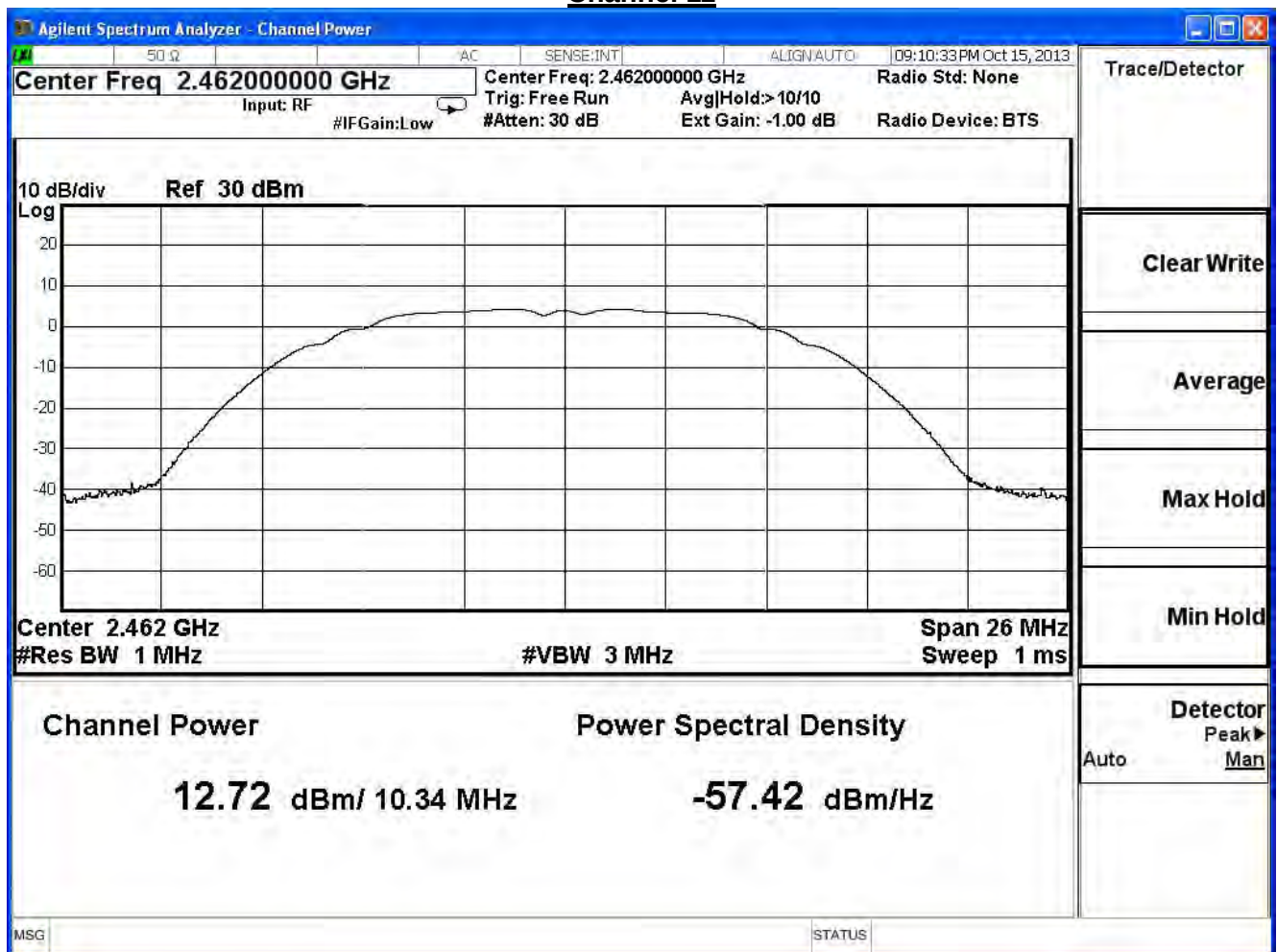
Channel 1



Channel 6



Channel 11



Product	Wireless N ADSL2+ Modem Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/10/16	Test Site	SR7

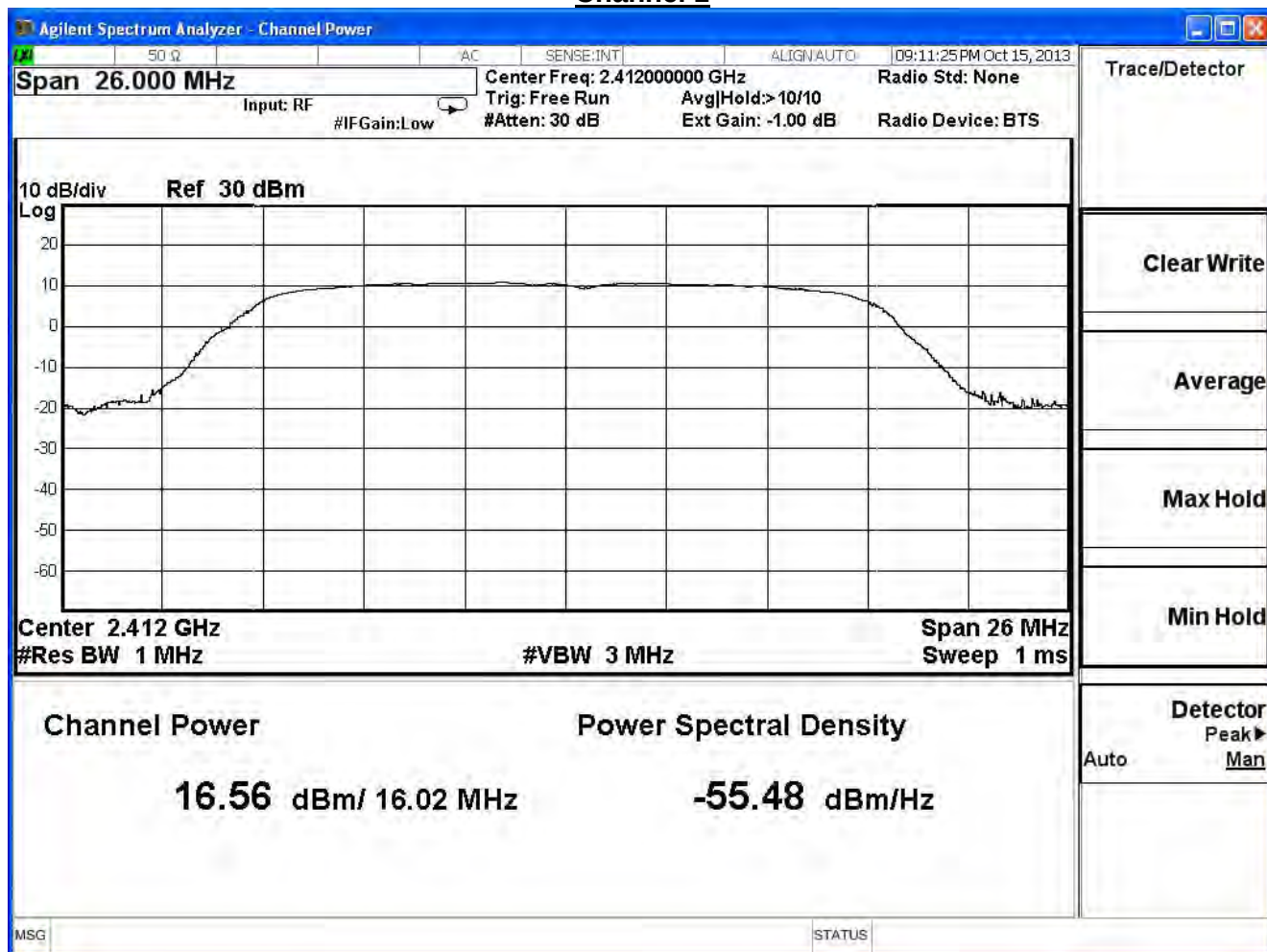
IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	16.56	1Watt= 30 dBm	Pass
6	2437	15.32	1Watt= 30 dBm	Pass
11	2462	14.51	1Watt= 30 dBm	Pass

The worst emission of data rate is 6Mbps.

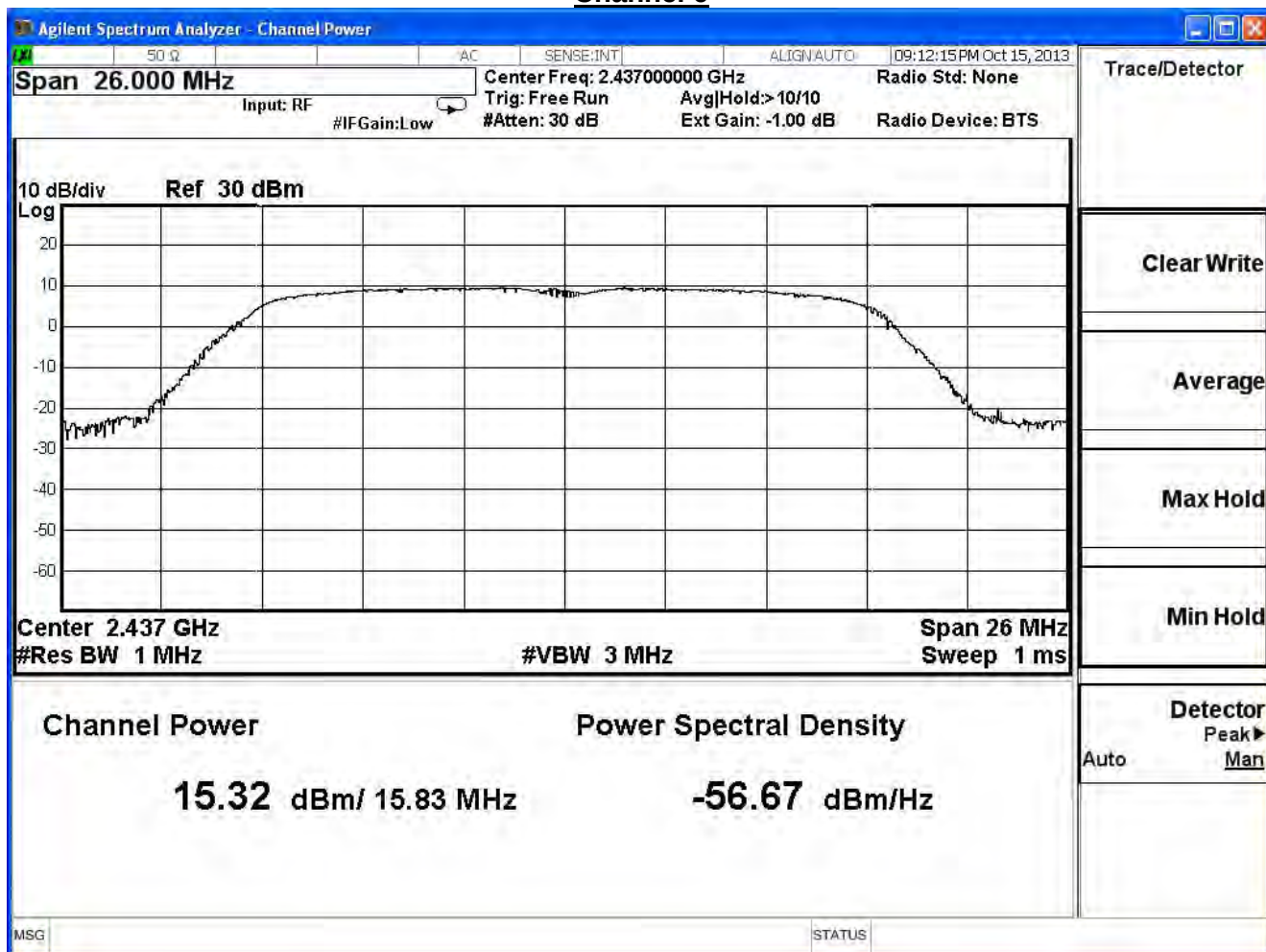
Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
1	2412	16.56	--	--	--	--	--	--	1 Watt=30dBm
6	2437	15.32	15.12	14.90	14.64	14.40	14.29	14.05	1 Watt=30dBm
11	2462	14.51	--	--	--	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

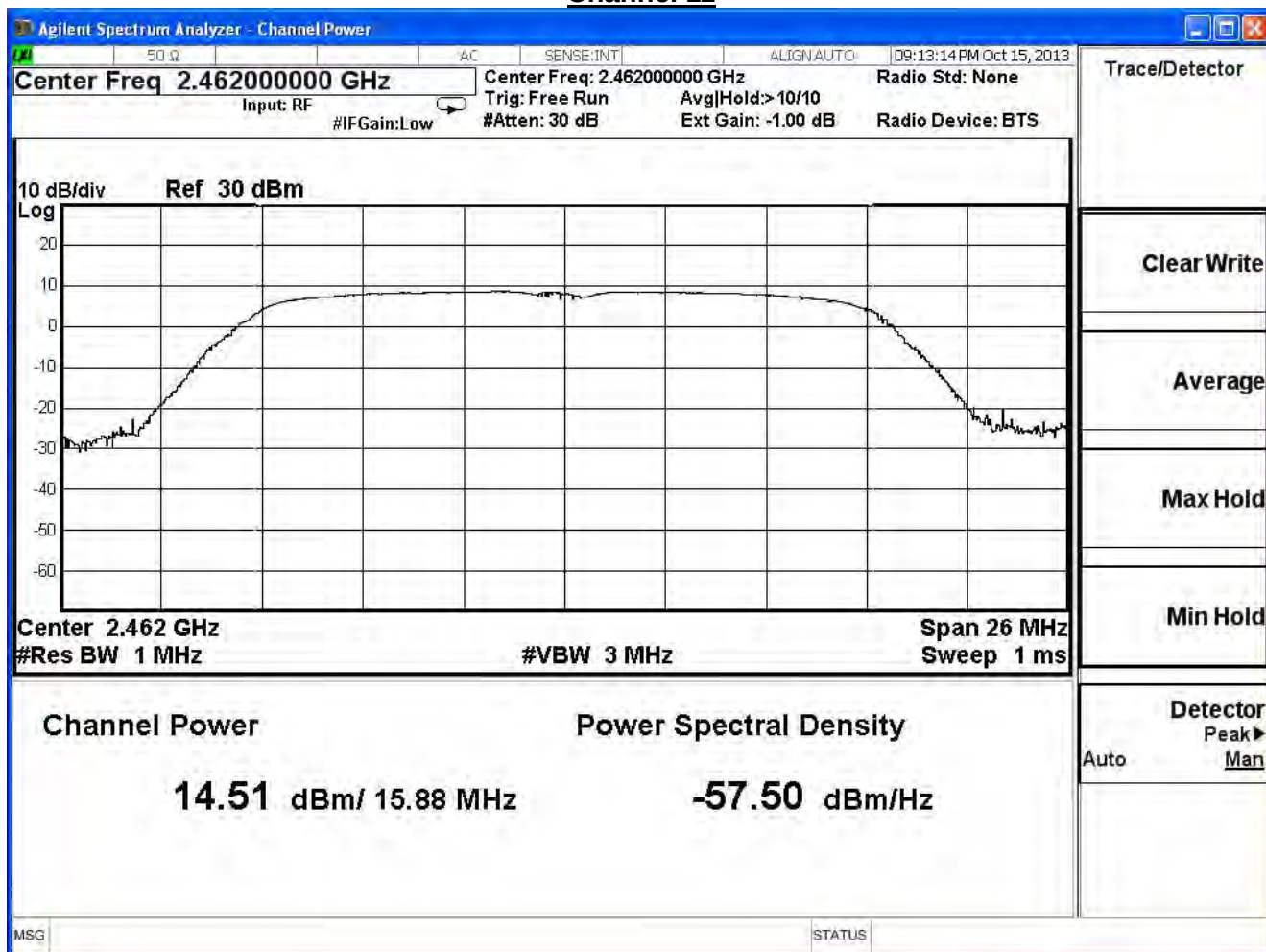
Channel 1



Channel 6



Channel 11



Product	Wireless N ADSL2+ Modem Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/10/16	Test Site	SR7

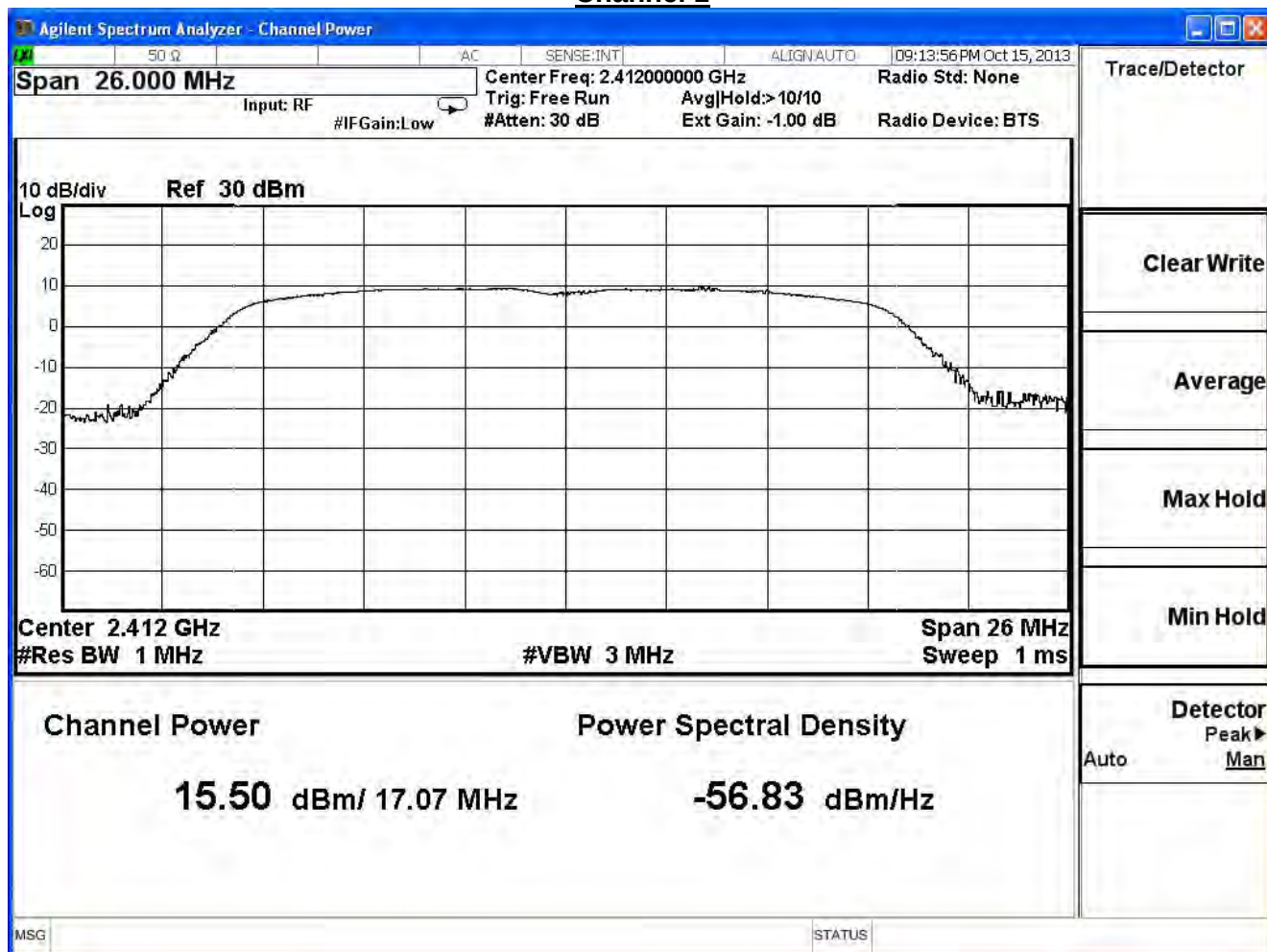
IEEE 802.11n 20MHz

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	15.50	1Watt= 30 dBm	Pass
6	2437	14.29	1Watt= 30 dBm	Pass
11	2462	13.38	1Watt= 30 dBm	Pass

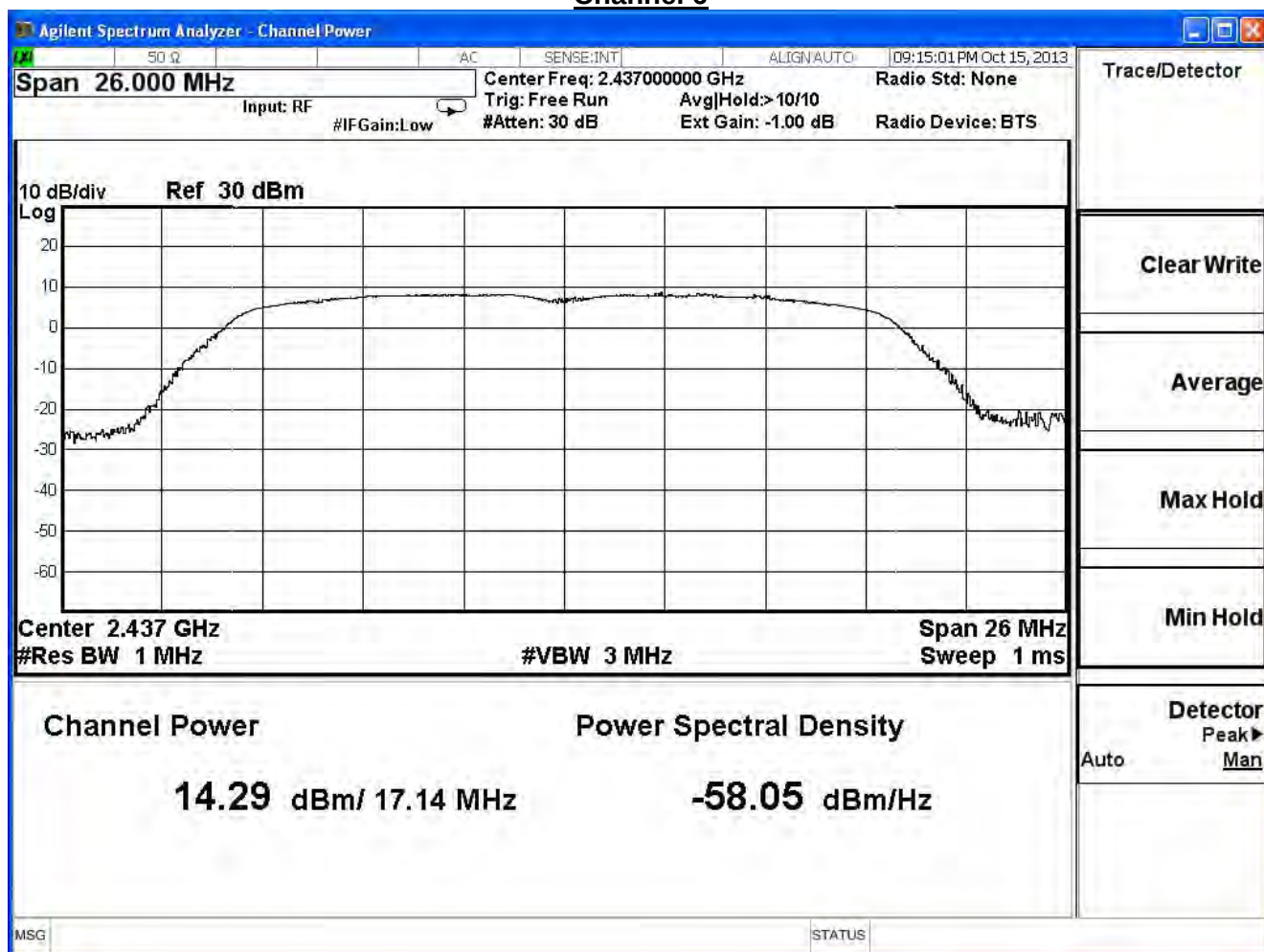
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	15.50	--	--	--	--	--	--	--	30dBm
6	2437	14.29	14.05	13.85	13.74	13.61	13.37	13.13	12.91	30dBm
11	2462	13.38	--	--	--	--	--	--	--	30dBm

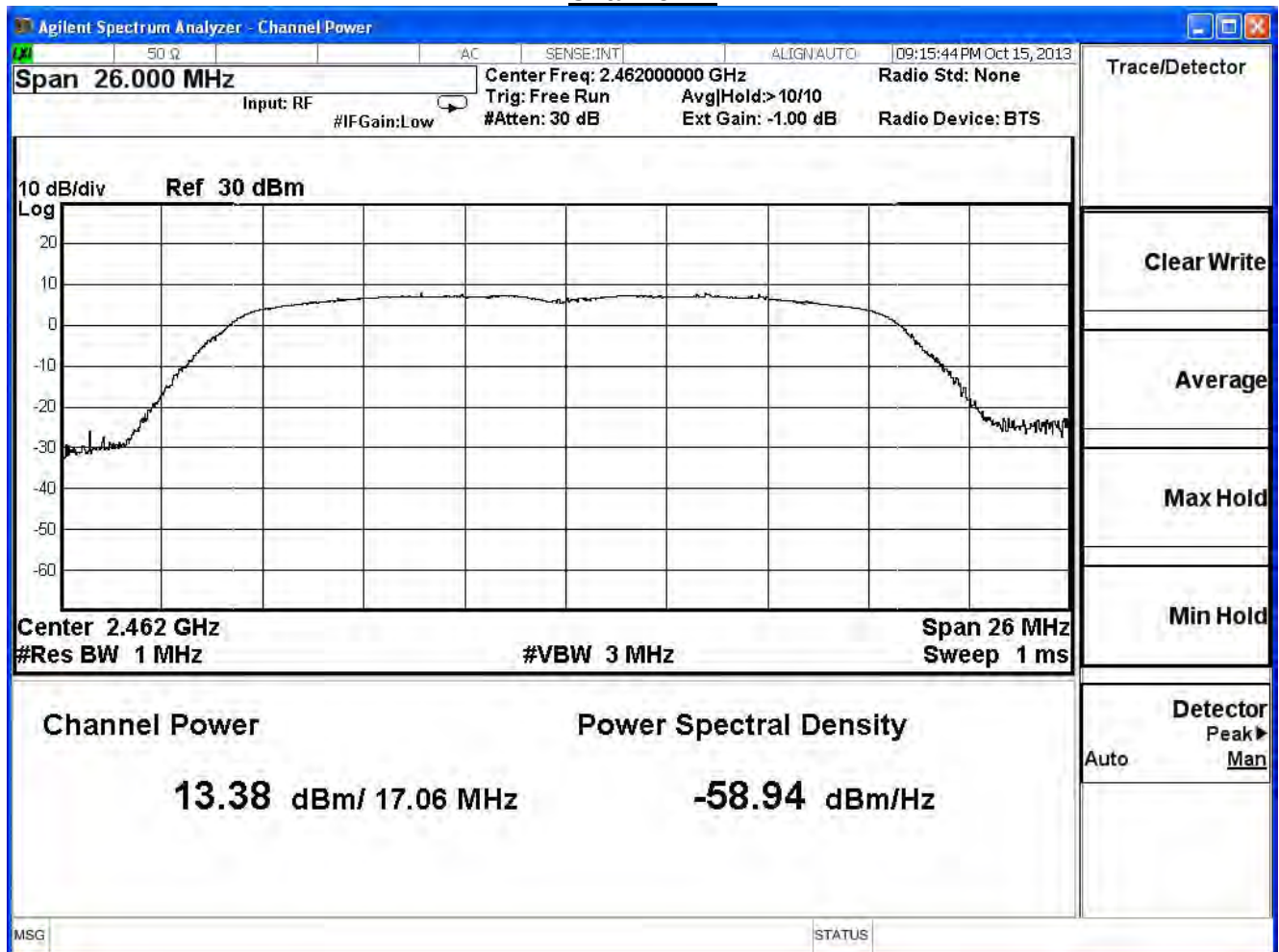
Channel 1



Channel 6



Channel 11



Product	Wireless N ADSL2+ Modem Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2013/10/16	Test Site	SR7

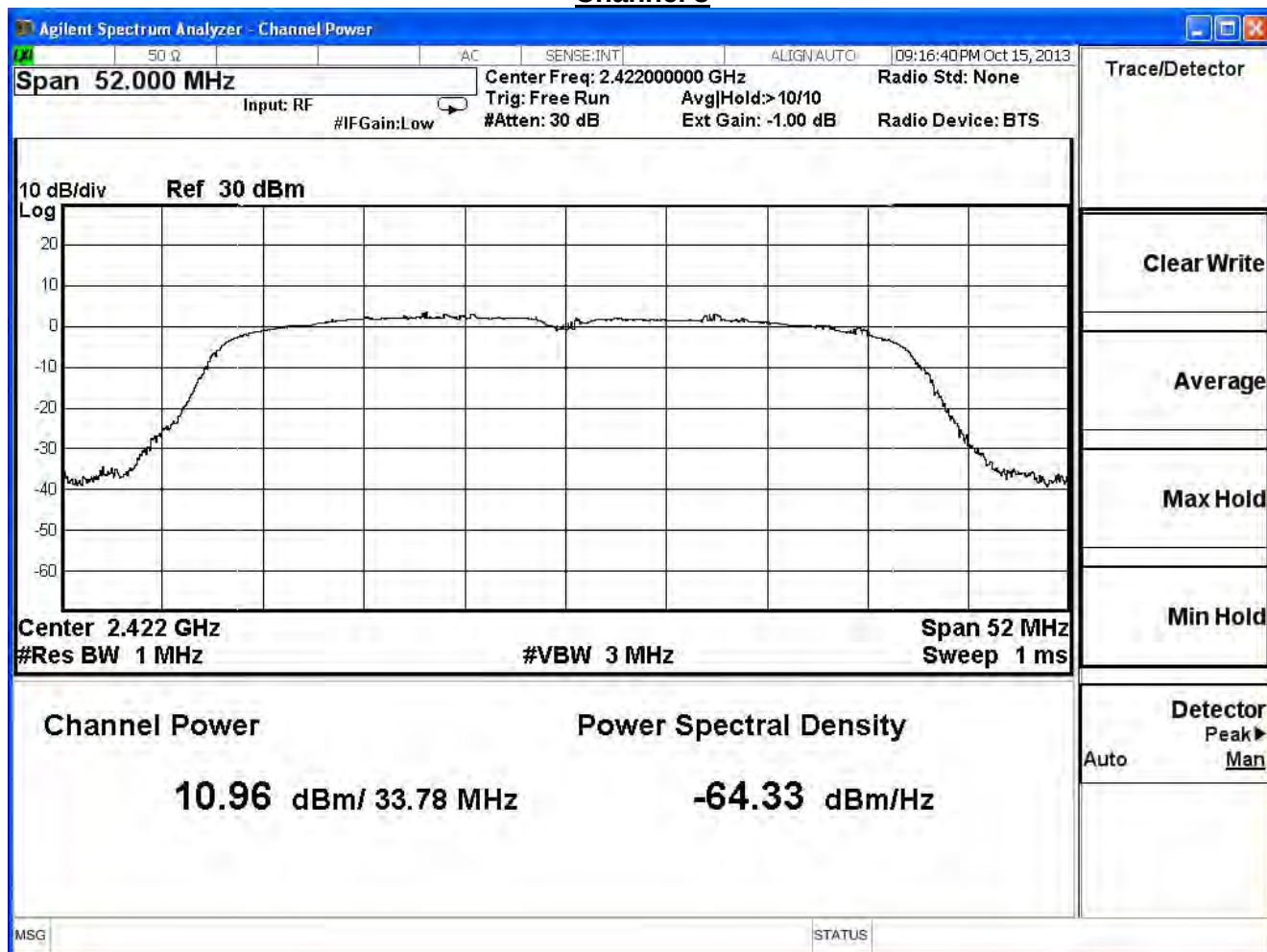
IEEE 802.11n 40MHz

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	10.96	1Watt= 30 dBm	Pass
6	2437	10.20	1Watt= 30 dBm	Pass
9	2452	9.59	1Watt= 30 dBm	Pass

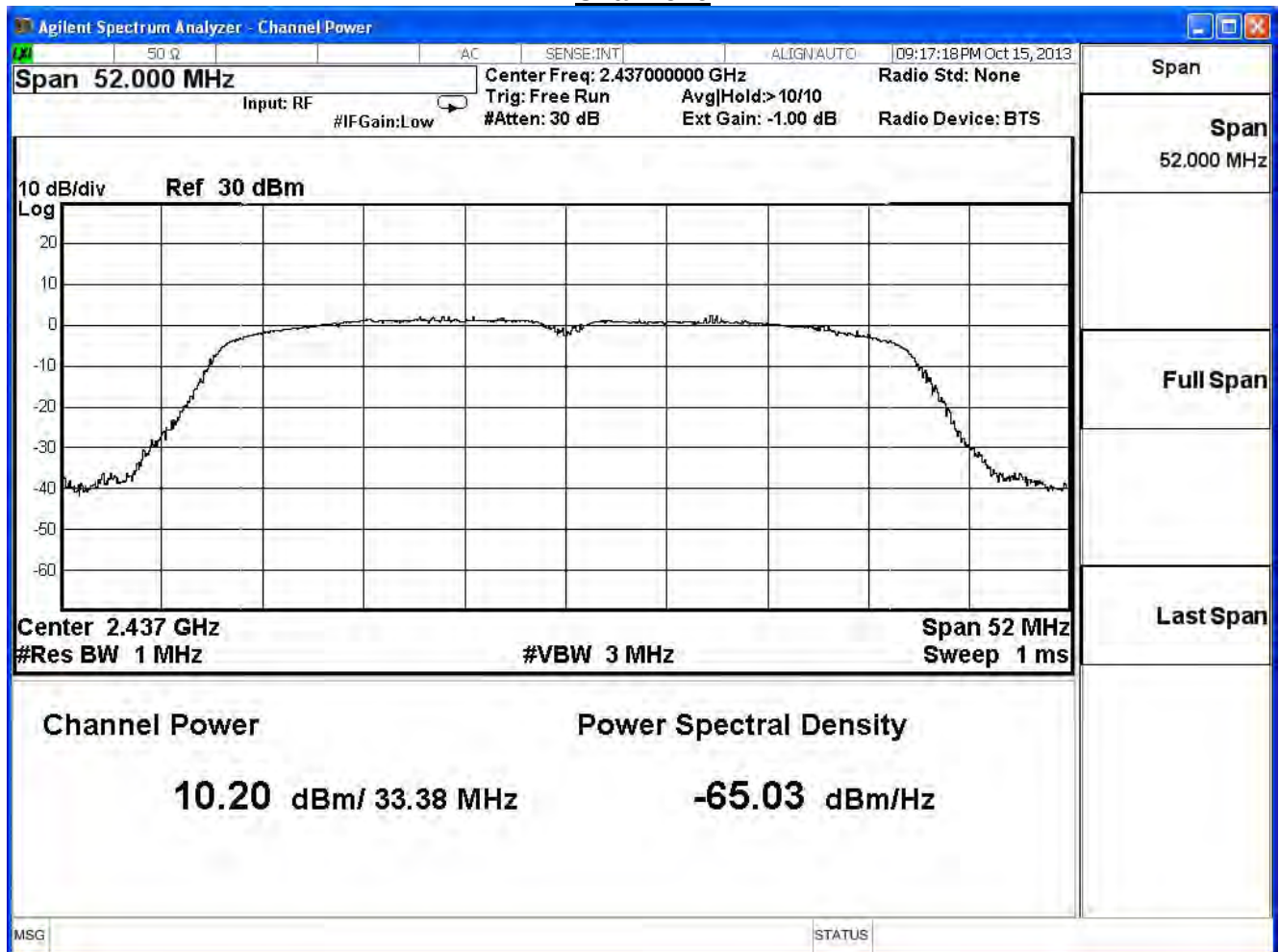
The worst emission of data rate is 40.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
3	2422	10.96	--	--	--	--	--	--	--	30dBm
6	2437	10.20	10.10	9.88	9.68	9.58	9.34	9.21	9.09	30dBm
9	2452	9.59	--	--	--	--	--	--	--	30dBm

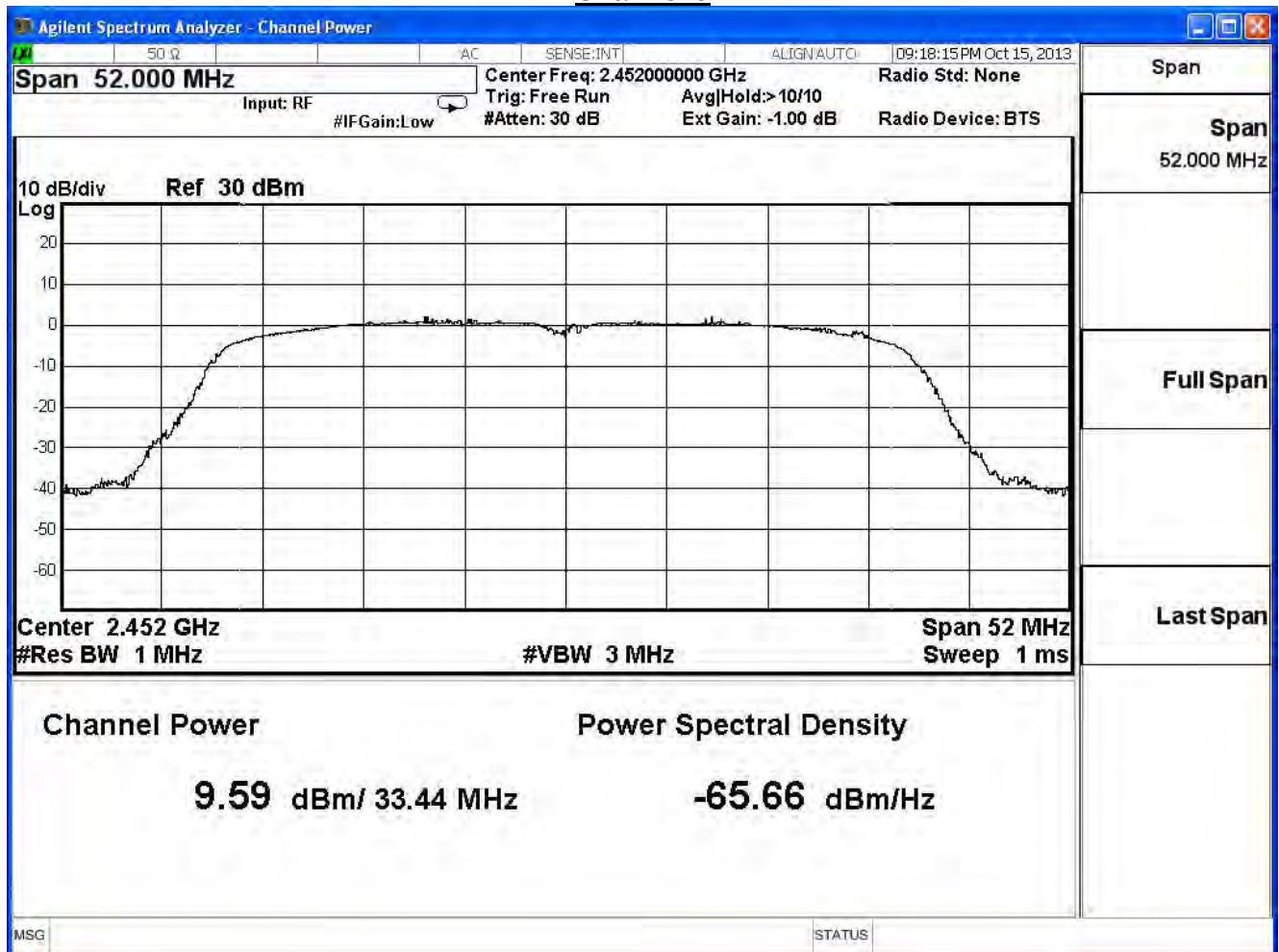
Channel 3



Channel 6



Channel 9



4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

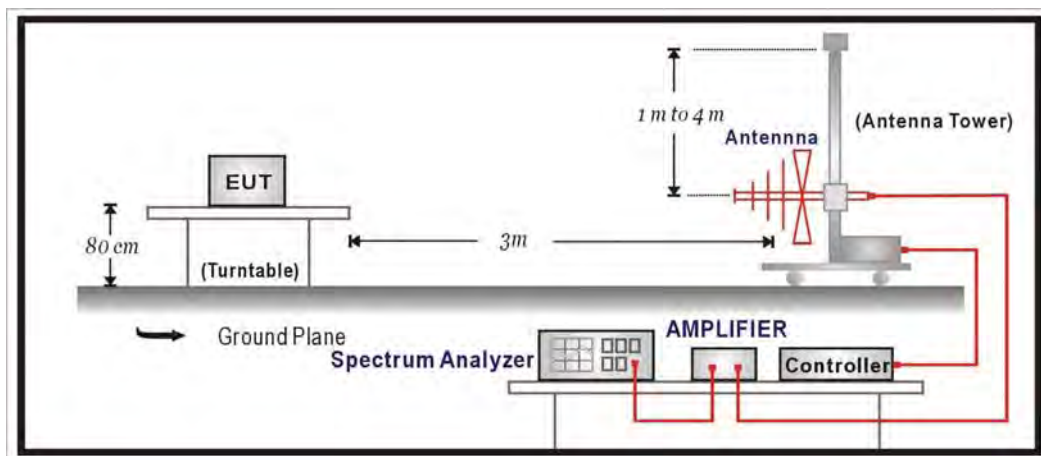
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2014/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Pre-Amplifier	MITEQ	AMF-4D	888003	2014/06/09
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2014/02/19
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

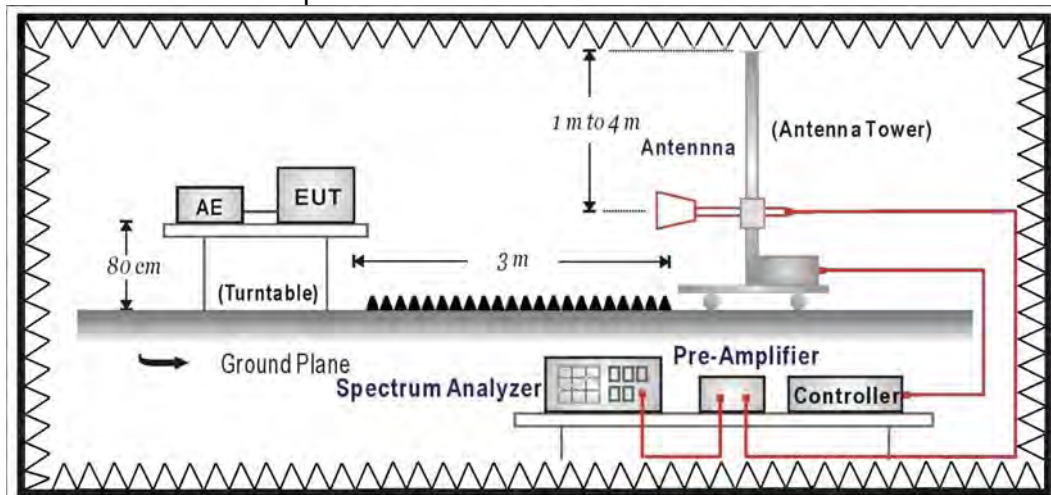
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	dBuV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements. The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

4.6. Uncertainty

The measurement uncertainty

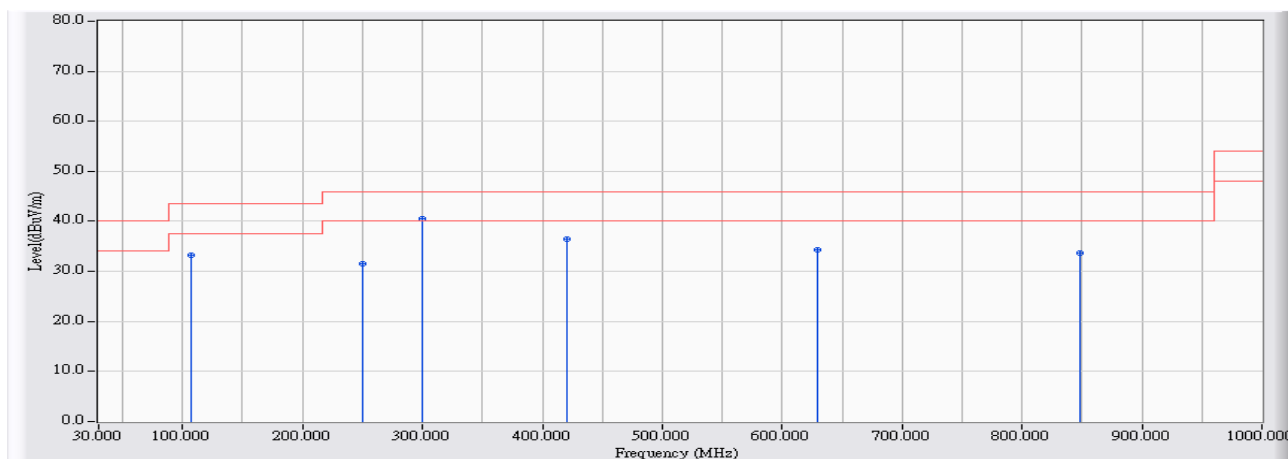
30MHz~1GHz as $\pm 3.43\text{dB}$

1GHz~26.5Ghz as $\pm 3.65\text{dB}$

4.7. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2013/10/21 - 20:56
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11b_2437MHz

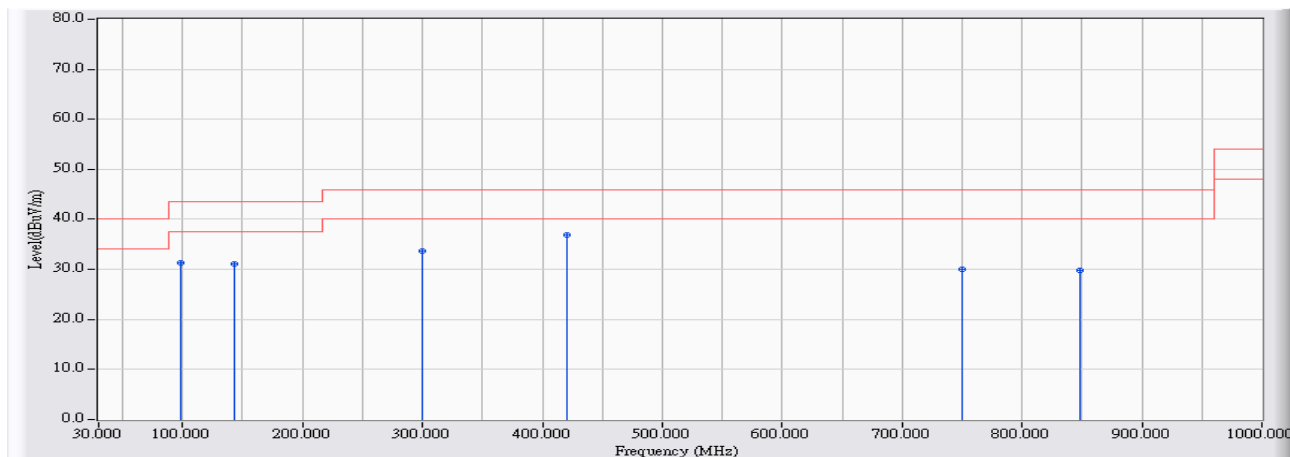


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	106.630	-22.833	56.068	33.234	-10.266	43.500	QUASIPeAK
2	250.190	-21.013	52.563	31.550	-14.450	46.000	QUASIPeAK
3	* 299.660	-20.054	60.625	40.570	-5.430	46.000	QUASIPeAK
4	419.940	-17.161	53.659	36.498	-9.502	46.000	QUASIPeAK
5	629.460	-15.366	49.625	34.258	-11.742	46.000	QUASIPeAK
6	847.710	-13.463	47.097	33.634	-12.366	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:57
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11b_ 2437MHz

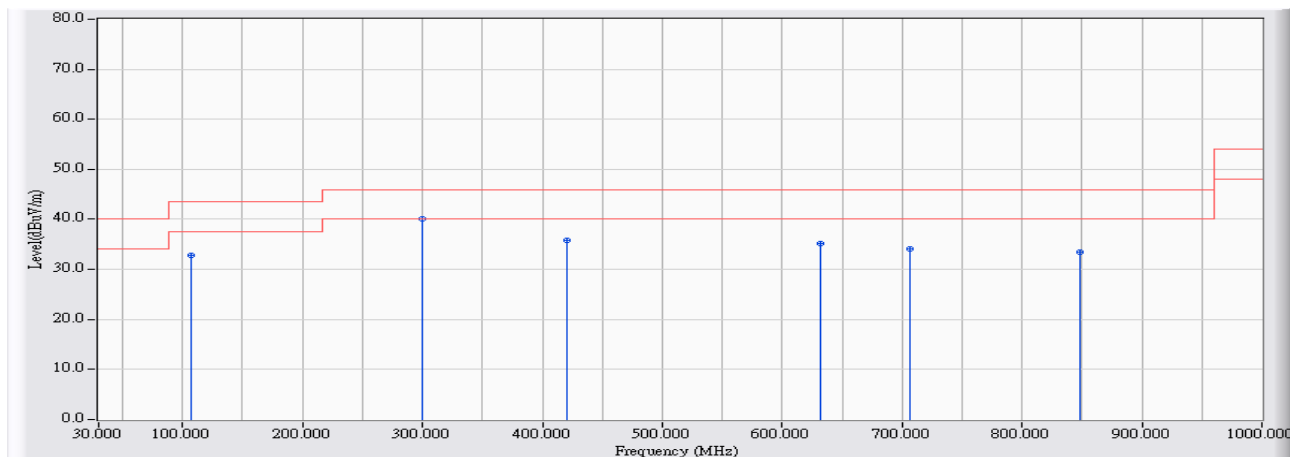


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		98.870	-23.421	54.701	31.279	-12.221	43.500	QUASIPeAK
2		143.490	-23.042	54.155	31.113	-12.387	43.500	QUASIPeAK
3		299.660	-20.054	53.827	33.772	-12.228	46.000	QUASIPeAK
4	*	419.940	-17.161	53.960	36.799	-9.201	46.000	QUASIPeAK
5		749.740	-14.300	44.388	30.088	-15.912	46.000	QUASIPeAK
6		847.710	-13.463	43.348	29.885	-16.115	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:57
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11g_2437MHz

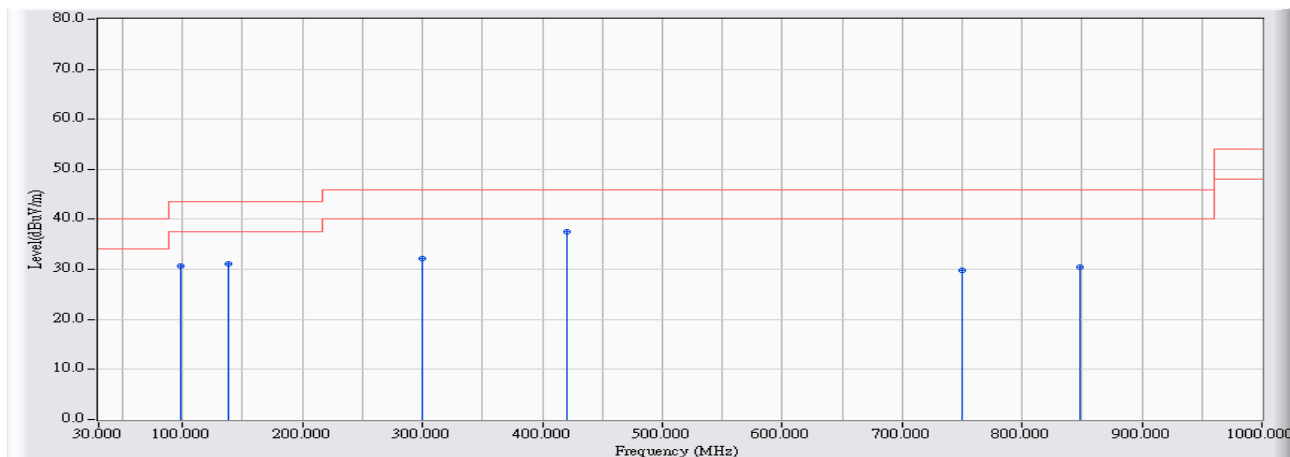


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		106.630	-22.833	55.745	32.911	-10.589	43.500	QUASIPeAK
2	*	299.660	-20.054	60.219	40.164	-5.836	46.000	QUASIPeAK
3		419.940	-17.161	53.017	35.856	-10.144	46.000	QUASIPeAK
4		632.370	-15.352	50.440	35.088	-10.912	46.000	QUASIPeAK
5		706.090	-14.921	48.926	34.005	-11.995	46.000	QUASIPeAK
6		847.710	-13.463	46.845	33.382	-12.618	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:57
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11g_2437MHz

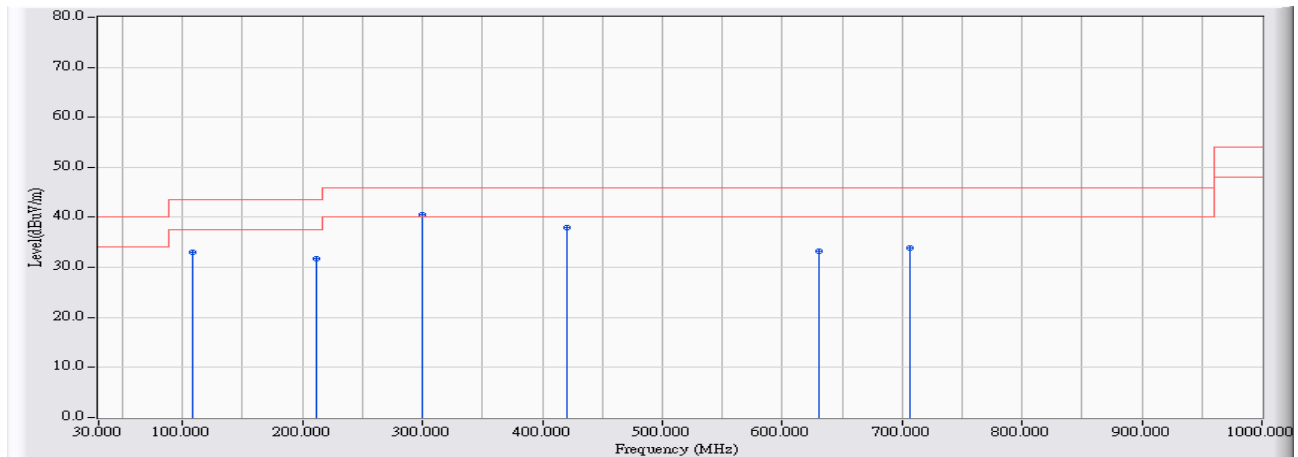


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		98.870	-23.421	54.145	30.723	-12.777	43.500	QUASIPeAK
2		138.640	-22.821	53.936	31.115	-12.385	43.500	QUASIPeAK
3		299.660	-20.054	52.161	32.106	-13.894	46.000	QUASIPeAK
4	*	419.940	-17.161	54.716	37.555	-8.445	46.000	QUASIPeAK
5		749.740	-14.300	44.213	29.913	-16.087	46.000	QUASIPeAK
6		847.710	-13.463	43.841	30.378	-15.622	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:58
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2437MHz

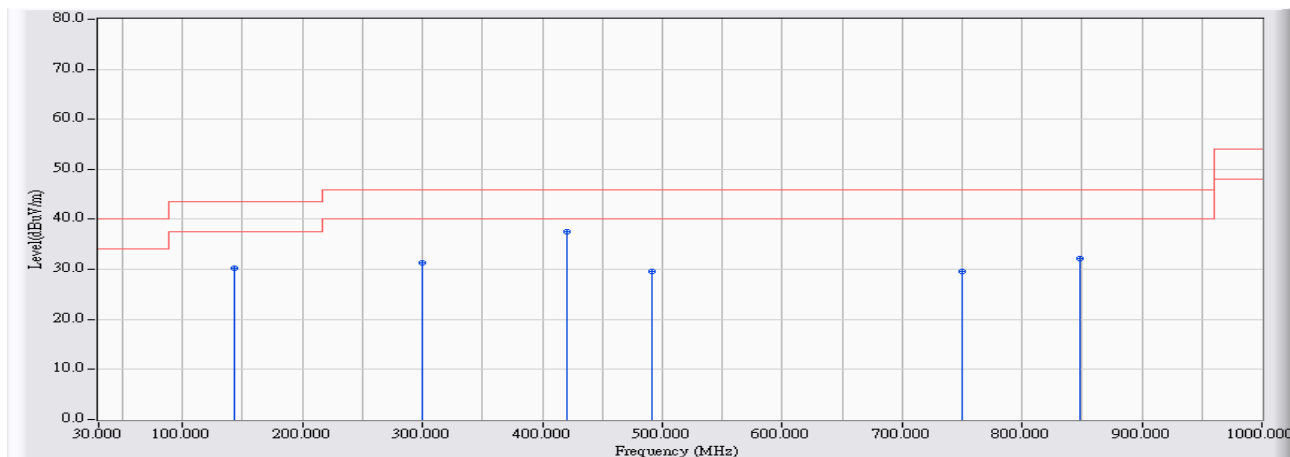


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	108.570	-22.739	55.791	33.052	-10.448	43.500	QUASIPeAK
2	211.390	-23.965	55.812	31.847	-11.653	43.500	QUASIPeAK
3	* 299.660	-20.054	60.581	40.526	-5.474	46.000	QUASIPeAK
4	419.940	-17.161	55.099	37.938	-8.062	46.000	QUASIPeAK
5	630.430	-15.362	48.577	33.215	-12.785	46.000	QUASIPeAK
6	707.060	-14.907	48.848	33.941	-12.059	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:58
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2437MHz

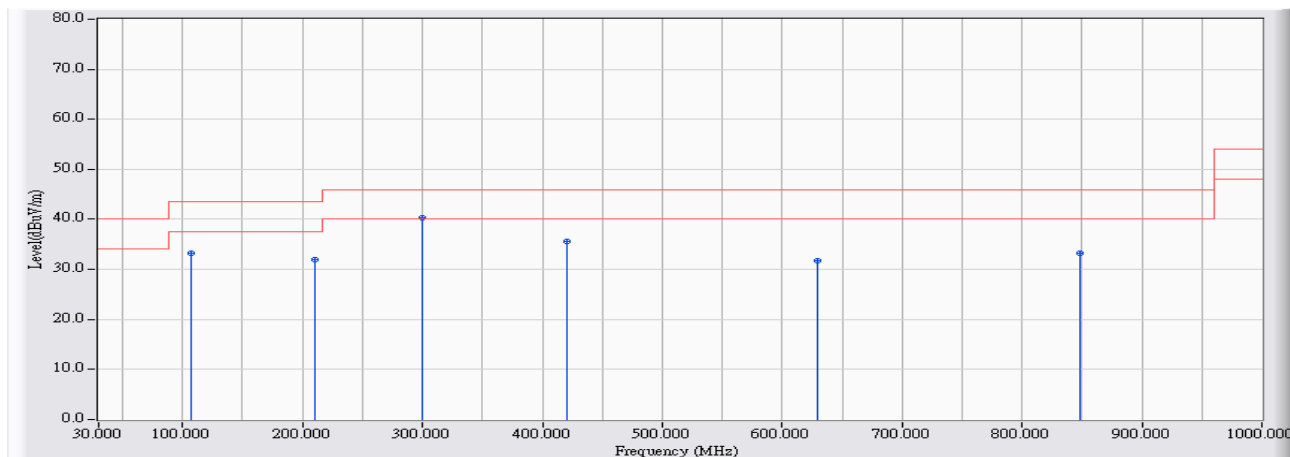


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		143.490	-23.042	53.358	30.316	-13.184	43.500	QUASIPeAK
2		299.660	-20.054	51.329	31.274	-14.726	46.000	QUASIPeAK
3	*	419.940	-17.161	54.722	37.561	-8.439	46.000	QUASIPeAK
4		490.750	-15.796	45.386	29.590	-16.410	46.000	QUASIPeAK
5		749.740	-14.300	43.905	29.605	-16.395	46.000	QUASIPeAK
6		847.710	-13.463	45.664	32.201	-13.799	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:58
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2437MHz

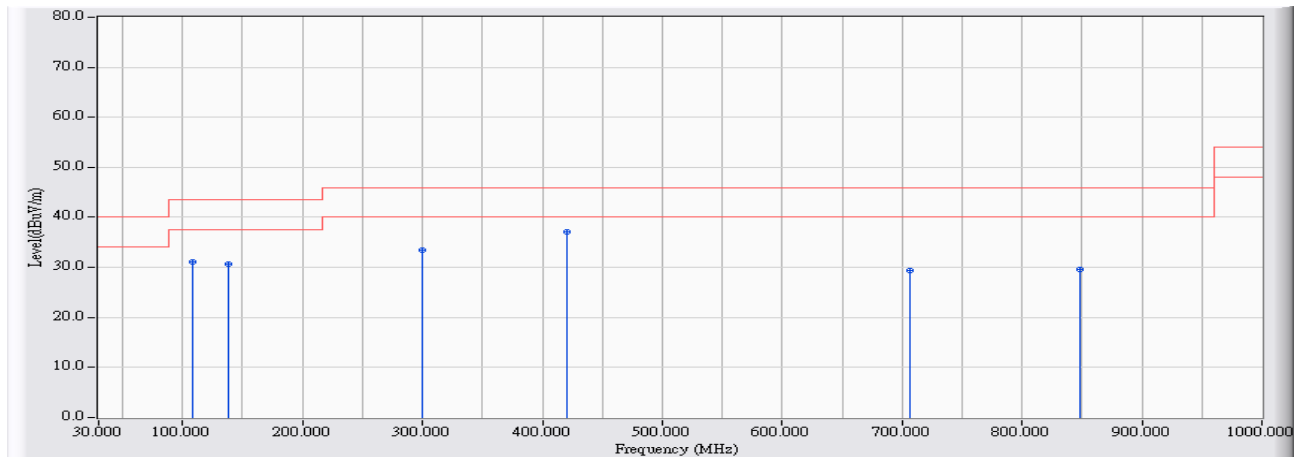


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	106.630	-22.833	56.094	33.260	-10.240	43.500	QUASIPeAK
2	210.420	-24.039	55.909	31.870	-11.630	43.500	QUASIPeAK
3	* 299.660	-20.054	60.382	40.327	-5.673	46.000	QUASIPeAK
4	419.940	-17.161	52.709	35.548	-10.452	46.000	QUASIPeAK
5	629.460	-15.366	47.192	31.825	-14.175	46.000	QUASIPeAK
6	847.710	-13.463	46.787	33.324	-12.676	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2013/10/21 - 20:59
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2 + Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2437MHz



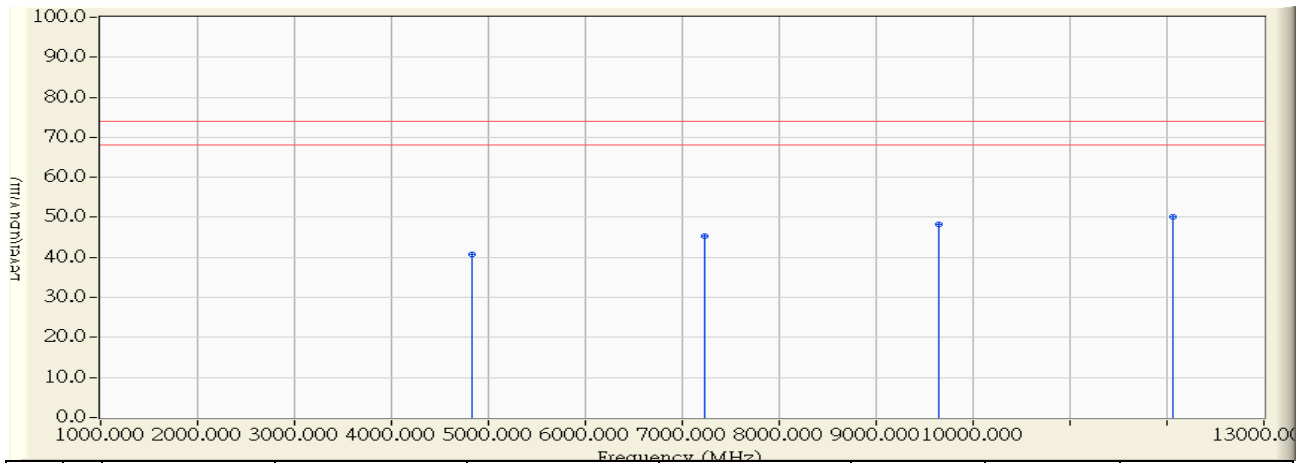
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		108.570	-22.739	53.823	31.084	-12.416	43.500	QUASIPeAK
2		138.640	-22.821	53.435	30.614	-12.886	43.500	QUASIPeAK
3		299.660	-20.054	53.459	33.404	-12.596	46.000	QUASIPeAK
4	*	419.940	-17.161	54.171	37.010	-8.990	46.000	QUASIPeAK
5		707.060	-14.907	44.187	29.280	-16.720	46.000	QUASIPeAK
6		847.710	-13.463	43.081	29.618	-16.382	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Above 1GHz Spurious

Site : CB1	Time : 2013/10/29 - 20:31
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11b_2412MHz

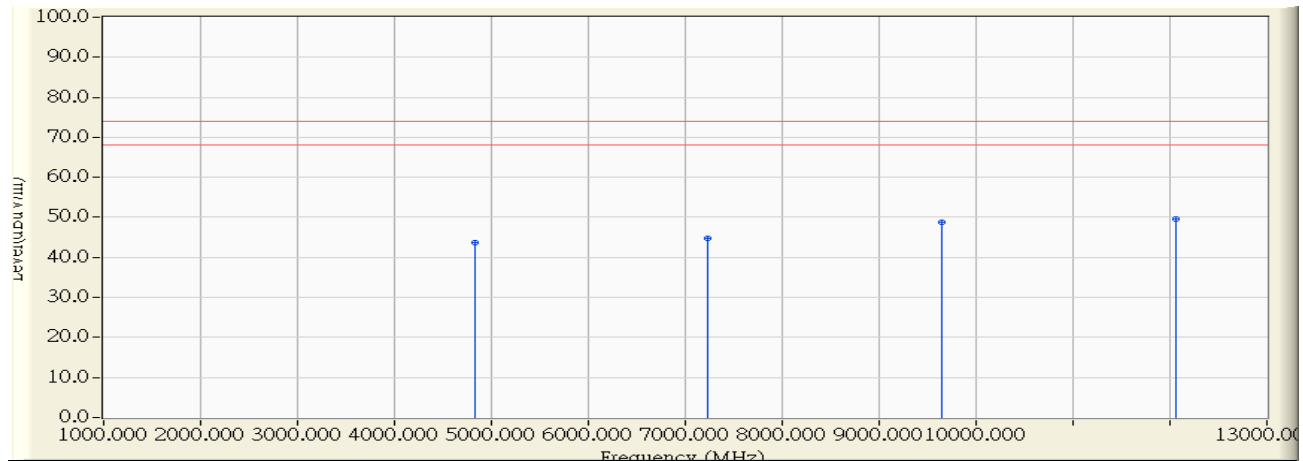


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4824.025	-0.617	41.410	40.794	-33.206	74.000	PEAK
2		7234.717	5.442	39.770	45.212	-28.788	74.000	PEAK
3		9646.000	9.212	38.920	48.133	-25.867	74.000	PEAK
4	*	12062.292	11.115	39.030	50.144	-23.856	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11b_ 2412MHz

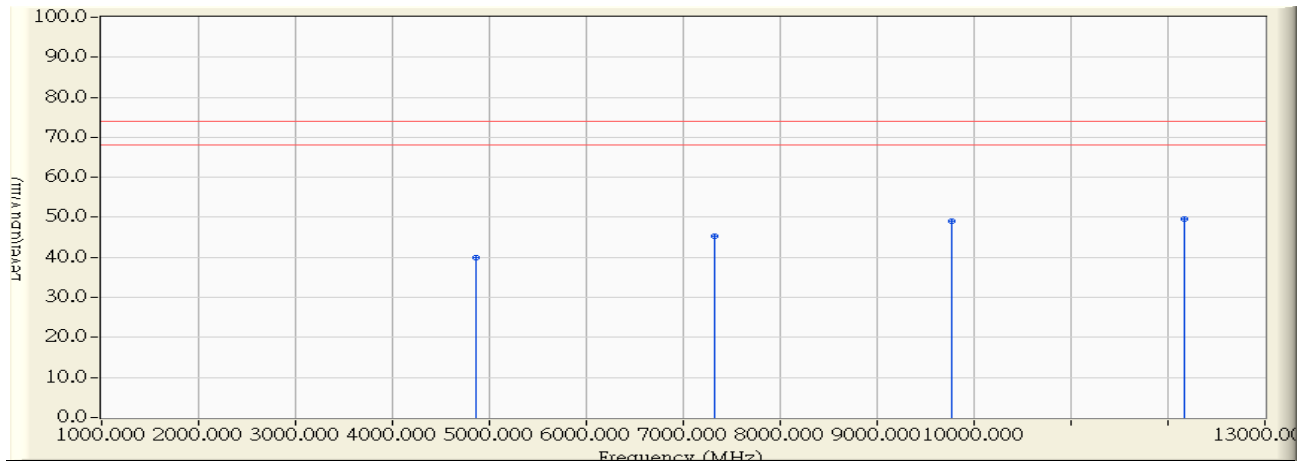


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4823.775	-0.617	44.360	43.743	-30.257	74.000	PEAK
2	7234.942	5.443	39.210	44.653	-29.347	74.000	PEAK
3	9646.842	9.218	39.530	48.748	-25.252	74.000	PEAK
4	* 12058.308	11.116	38.470	49.586	-24.414	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:40
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11b_ 2437MHz

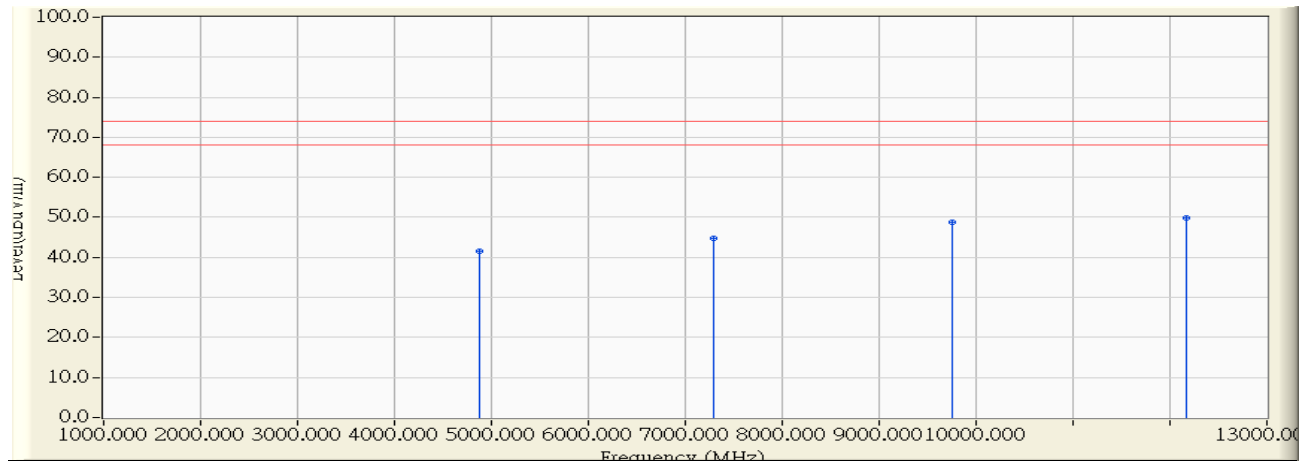


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4858.000	-0.534	40.400	39.866	-34.134	74.000	PEAK
2	7322.000	5.632	39.670	45.301	-28.699	74.000	PEAK
3	9772.670	10.033	39.040	49.073	-24.927	74.000	PEAK
4	* 12170.080	11.065	38.570	49.635	-24.365	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:43
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2437MHz

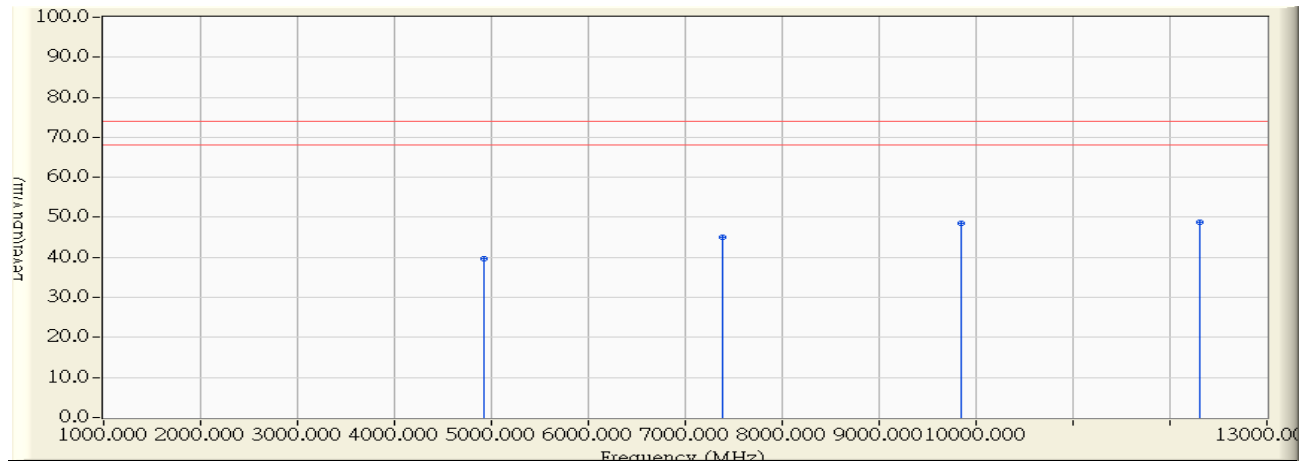


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4873.920	-0.495	42.030	41.535	-32.465	74.000	PEAK
2	7289.500	5.561	39.210	44.771	-29.229	74.000	PEAK
3	9752.580	9.902	39.020	48.923	-25.077	74.000	PEAK
4	* 12174.580	11.064	38.710	49.773	-24.227	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:44
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11b_2462MHz

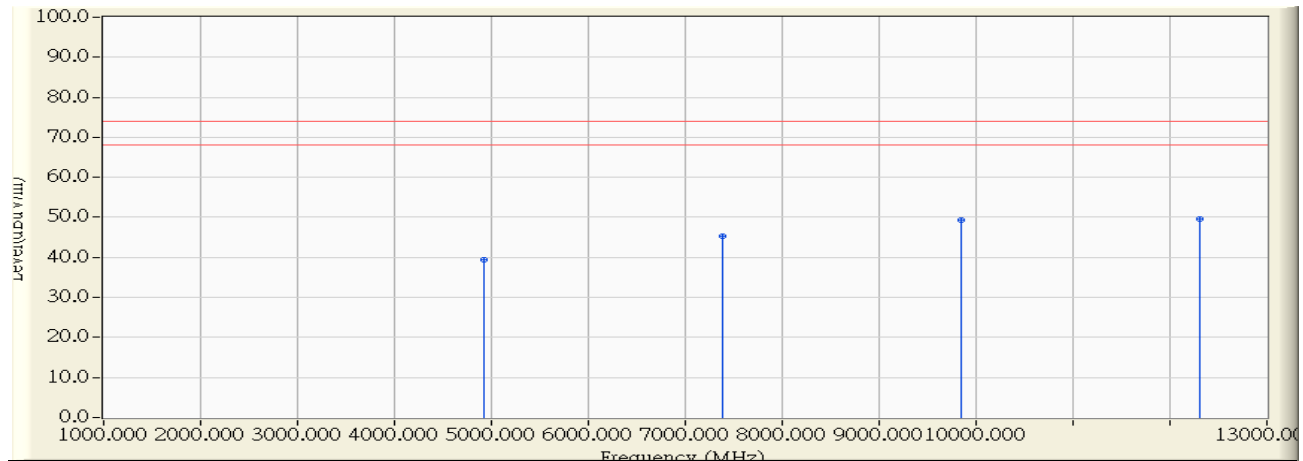


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4922.617	-0.375	40.180	39.804	-34.196	74.000	PEAK
2	7388.950	5.776	39.220	44.996	-29.004	74.000	PEAK
3	9845.833	10.506	37.950	48.457	-25.543	74.000	PEAK
4	* 12306.583	11.003	37.790	48.793	-25.207	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:52
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11b_2462MHz

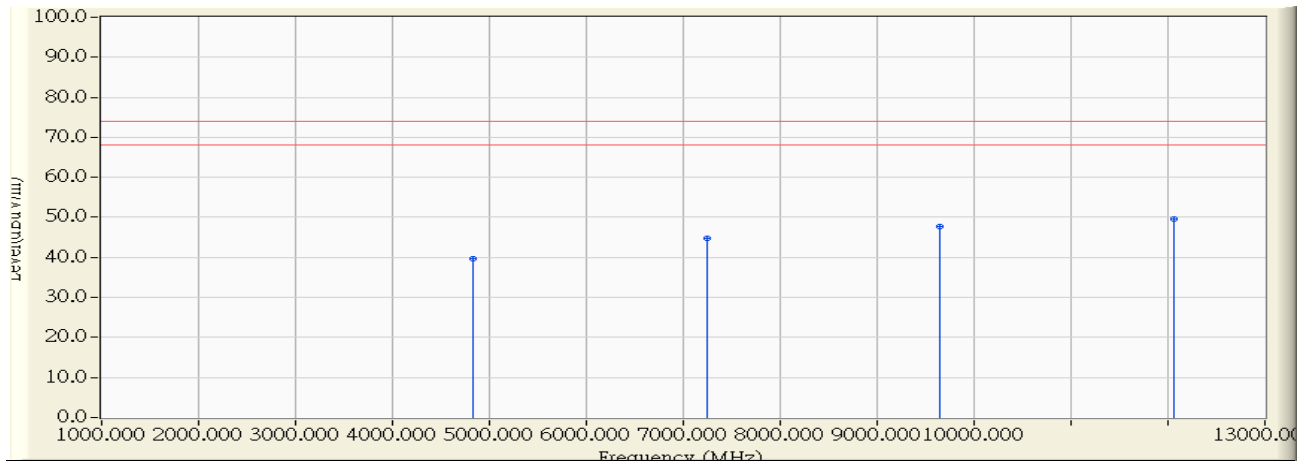


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4925.617	-0.369	39.720	39.351	-34.649	74.000	PEAK
2		7387.617	5.773	39.500	45.273	-28.727	74.000	PEAK
3		9846.733	10.512	38.810	49.323	-24.677	74.000	PEAK
4	*	12312.783	11.000	38.660	49.660	-24.340	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 20:55
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2412MHz

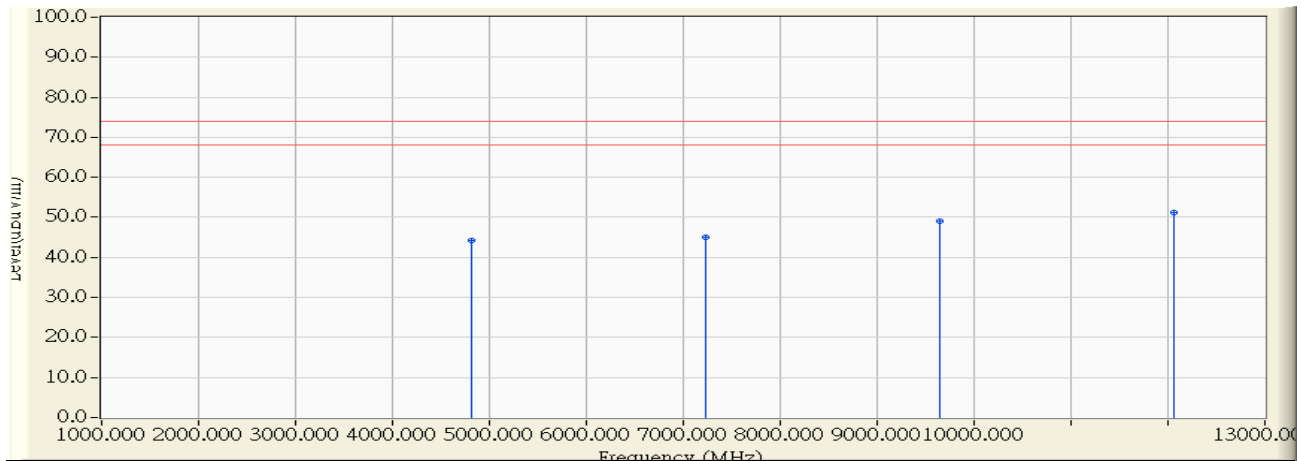


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4824.200	-0.615	40.360	39.744	-34.256	74.000	PEAK
2	7238.483	5.450	39.360	44.811	-29.189	74.000	PEAK
3	9645.467	9.209	38.560	47.769	-26.231	74.000	PEAK
4	* 12056.750	11.117	38.430	49.547	-24.453	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:00
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2412MHz

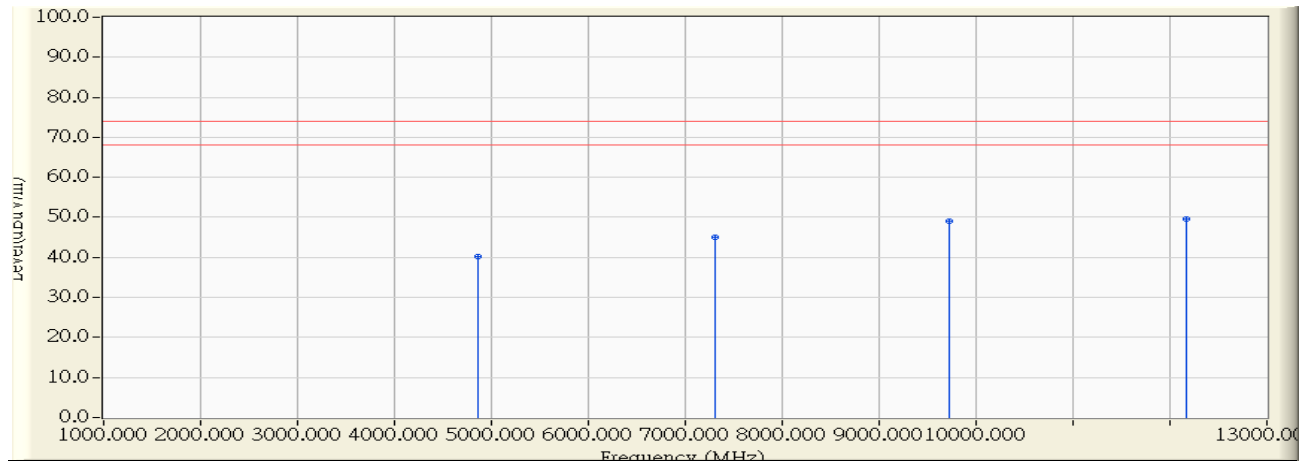


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4822.000	-0.621	44.960	44.339	-29.661	74.000	PEAK
2		7235.333	5.444	39.550	44.994	-29.006	74.000	PEAK
3		9648.550	9.229	39.940	49.169	-24.831	74.000	PEAK
4	*	12060.900	11.116	40.200	51.315	-22.685	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:03
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2437MHz

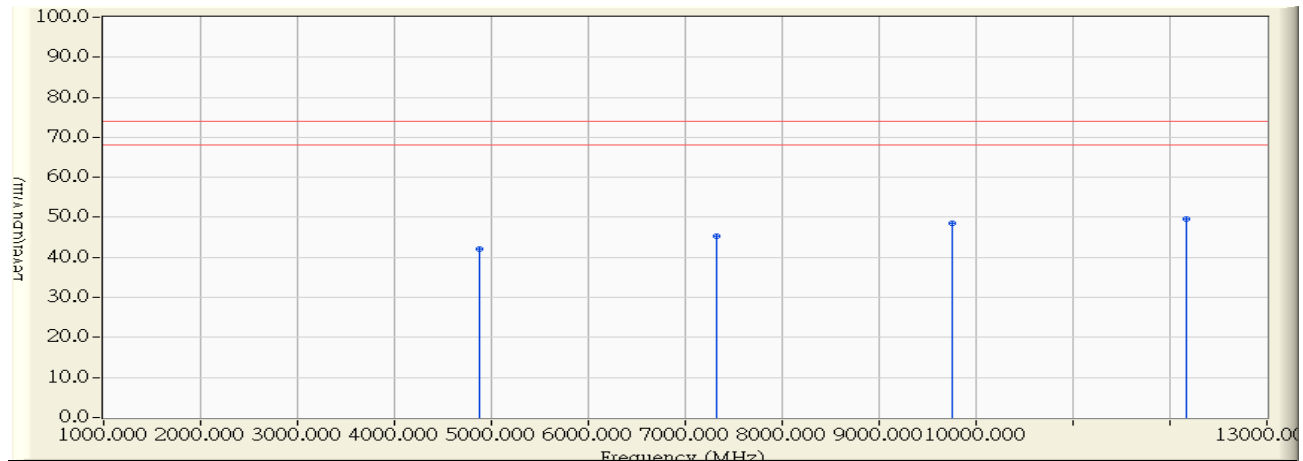


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4867.420	-0.511	40.750	40.239	-33.761	74.000	PEAK
2	7307.580	5.599	39.420	45.020	-28.980	74.000	PEAK
3	9725.670	9.728	39.200	48.929	-25.071	74.000	PEAK
4	* 12166.670	11.067	38.520	49.587	-24.413	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:04
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2437MHz

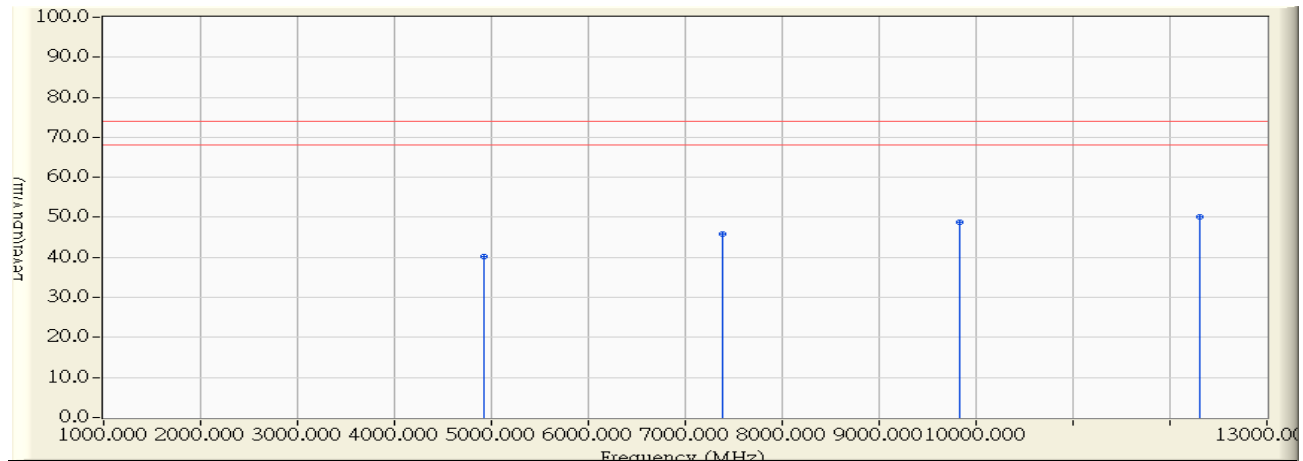


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4877.830	-0.485	42.570	42.085	-31.915	74.000	PEAK
2	7316.750	5.620	39.580	45.200	-28.800	74.000	PEAK
3	9750.580	9.889	38.620	48.510	-25.490	74.000	PEAK
4	* 12166.670	11.067	38.520	49.587	-24.413	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2462MHz

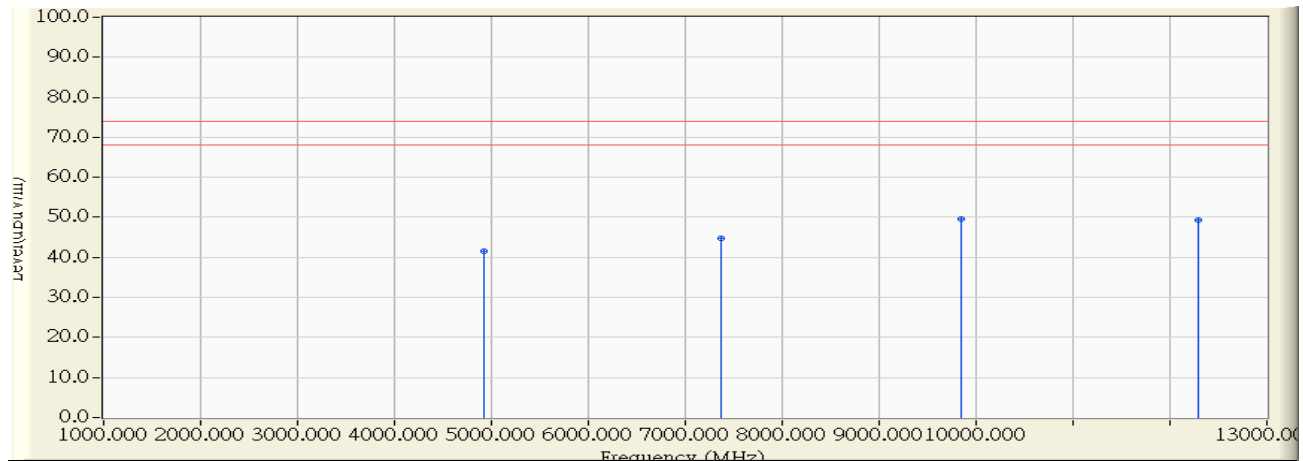


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4920.080	-0.382	40.650	40.268	-33.732	74.000	PEAK
2	7380.830	5.759	40.200	45.959	-28.041	74.000	PEAK
3	9837.920	10.456	38.470	48.925	-25.075	74.000	PEAK
4	* 12313.830	11.000	39.050	50.050	-23.950	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:17
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11g_2462MHz

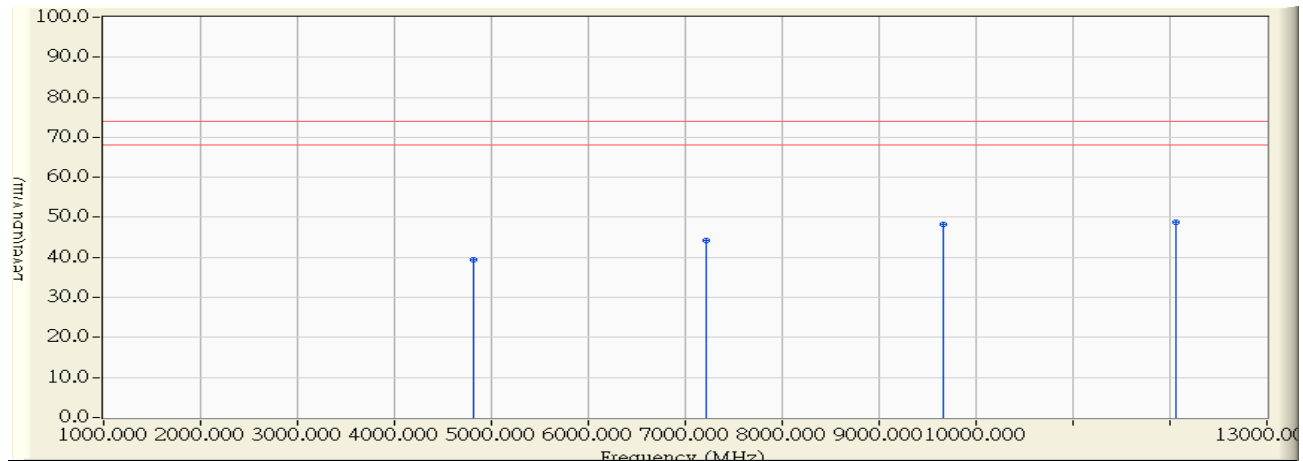


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4921.830	-0.379	41.800	41.422	-32.578	74.000	PEAK
2	7370.750	5.737	39.150	44.887	-29.113	74.000	PEAK
3	* 9841.750	10.480	39.180	49.660	-24.340	74.000	PEAK
4	12292.000	11.010	38.380	49.389	-24.611	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:42
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2412MHz

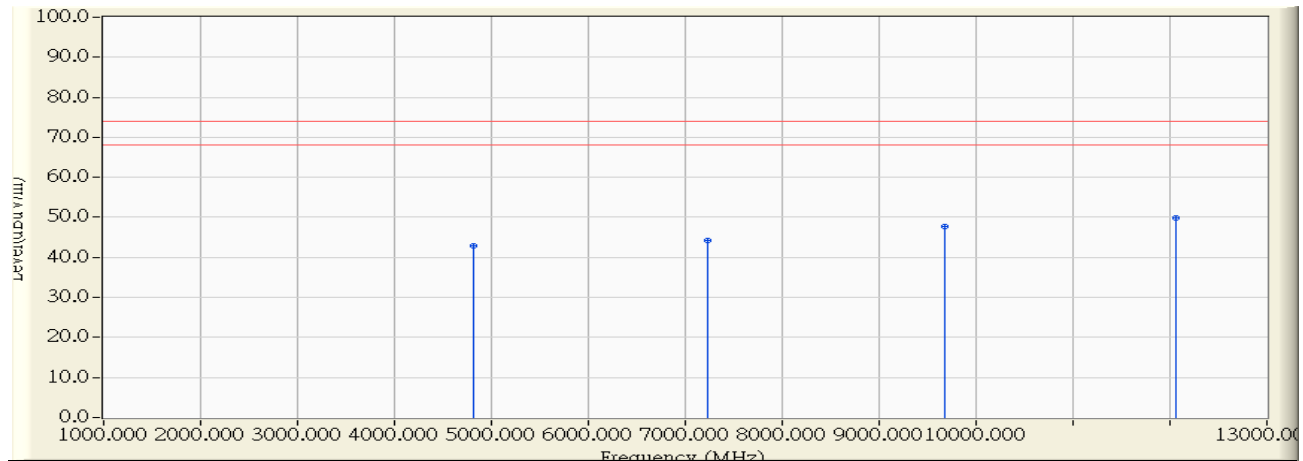


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4808.670	-0.653	40.150	39.496	-34.504	74.000	PEAK
2	7214.080	5.397	38.920	44.318	-29.682	74.000	PEAK
3	9668.170	9.356	38.820	48.176	-25.824	74.000	PEAK
4	* 12066.420	11.112	37.720	48.832	-25.168	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:44
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2412MHz

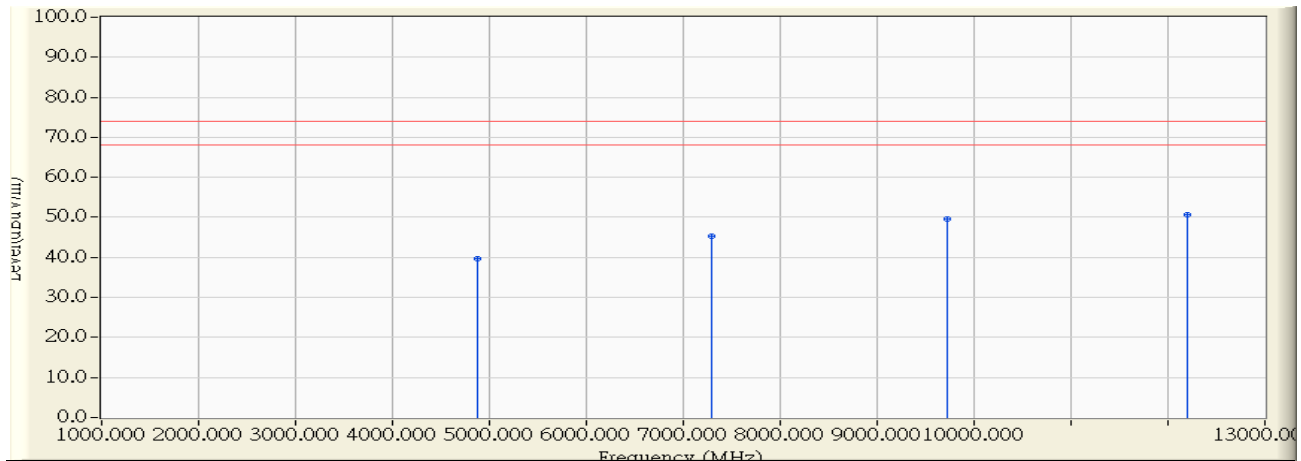


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4819.080	-0.629	43.570	42.941	-31.059	74.000	PEAK
2	7230.500	5.433	38.770	44.203	-29.797	74.000	PEAK
3	9670.830	9.373	38.370	47.744	-26.256	74.000	PEAK
4	* 12066.330	11.112	38.740	49.853	-24.147	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:52
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2437MHz

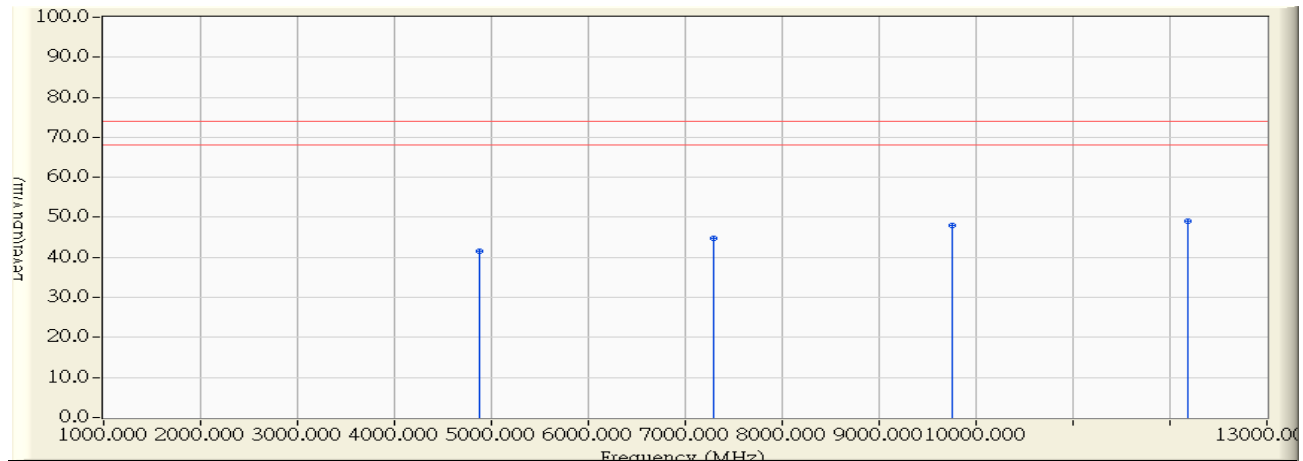


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4869.670	-0.505	40.110	39.605	-34.395	74.000	PEAK
2	7297.250	5.578	39.670	45.248	-28.752	74.000	PEAK
3	9729.500	9.754	39.780	49.533	-24.467	74.000	PEAK
4	* 12195.500	11.053	39.570	50.624	-23.376	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 21:59
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2437MHz

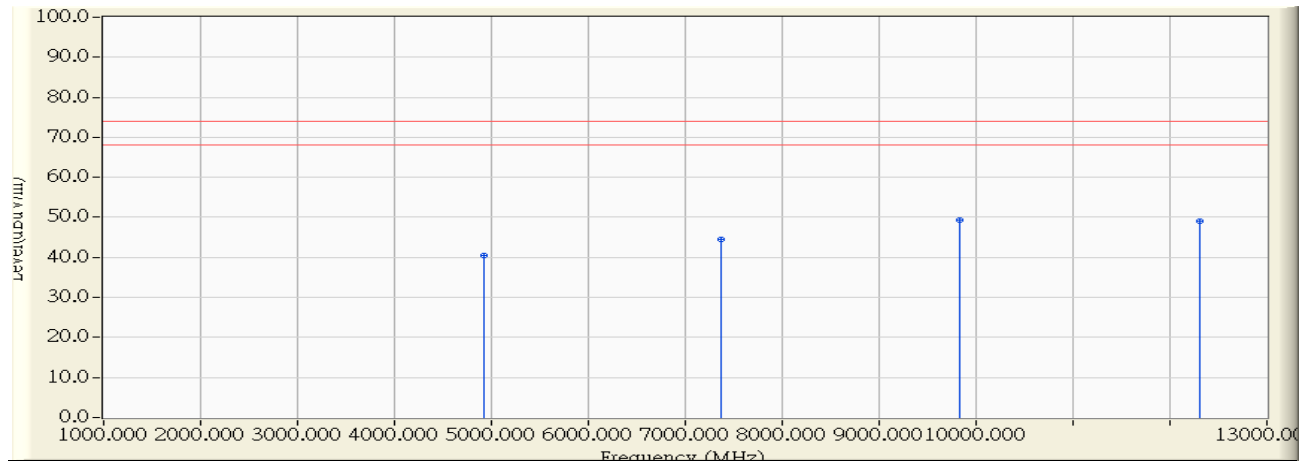


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.720	-0.493	41.940	41.447	-32.553	74.000	PEAK
2	7292.330	5.568	39.310	44.877	-29.123	74.000	PEAK
3	9747.330	9.869	38.070	47.939	-26.061	74.000	PEAK
4	* 12190.500	11.055	37.920	48.976	-25.024	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:02
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2462MHz

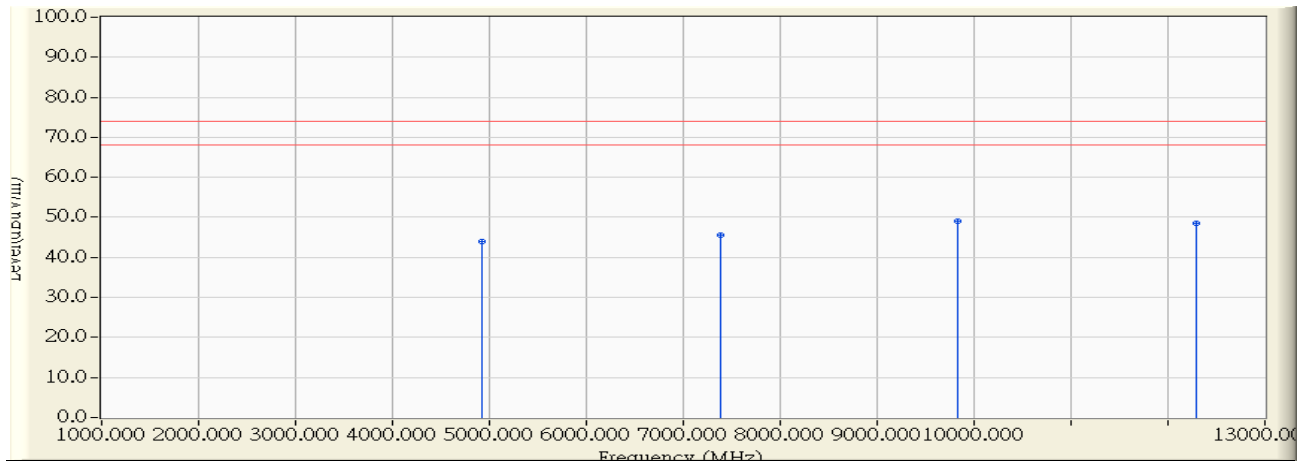


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4927.080	-0.365	40.730	40.365	-33.635	74.000	PEAK
2	7375.330	5.747	38.860	44.607	-29.393	74.000	PEAK
3	* 9830.920	10.410	38.800	49.210	-24.790	74.000	PEAK
4	12314.580	11.000	37.930	48.929	-25.071	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 20MHz_2462MHz

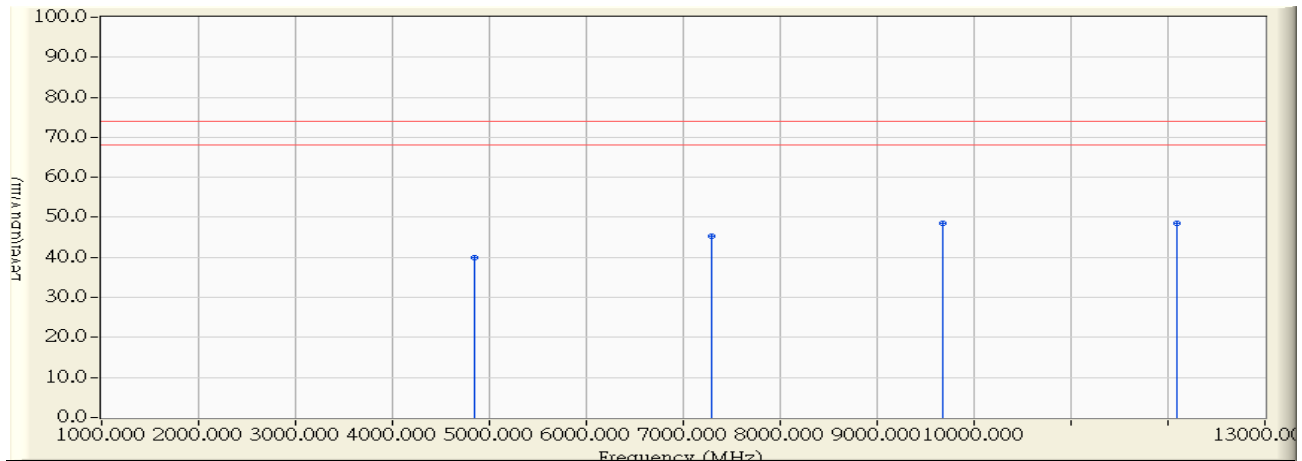


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4925.330	-0.369	44.470	44.101	-29.899	74.000	PEAK
2	7386.420	5.771	39.750	45.521	-28.479	74.000	PEAK
3	* 9833.080	10.423	38.750	49.174	-24.826	74.000	PEAK
4	12294.670	11.008	37.560	48.568	-25.432	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:09
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2422MHz

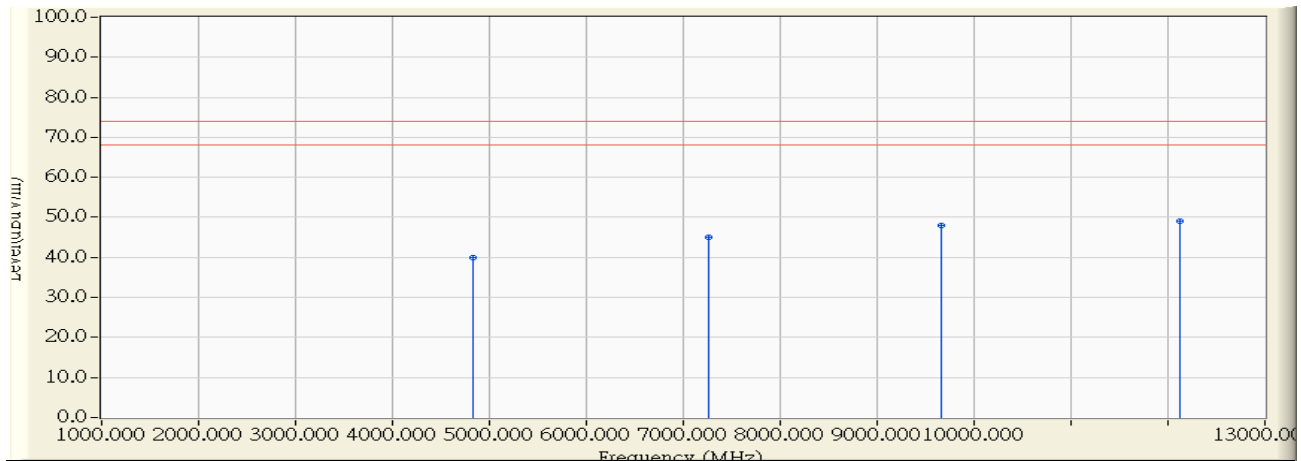


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4843.170	-0.569	40.540	39.970	-34.030	74.000	PEAK
2	7286.170	5.554	39.750	45.304	-28.696	74.000	PEAK
3	9670.170	9.369	39.050	48.419	-25.581	74.000	PEAK
4	* 12096.670	11.099	37.460	48.559	-25.441	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:10
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2422MHz

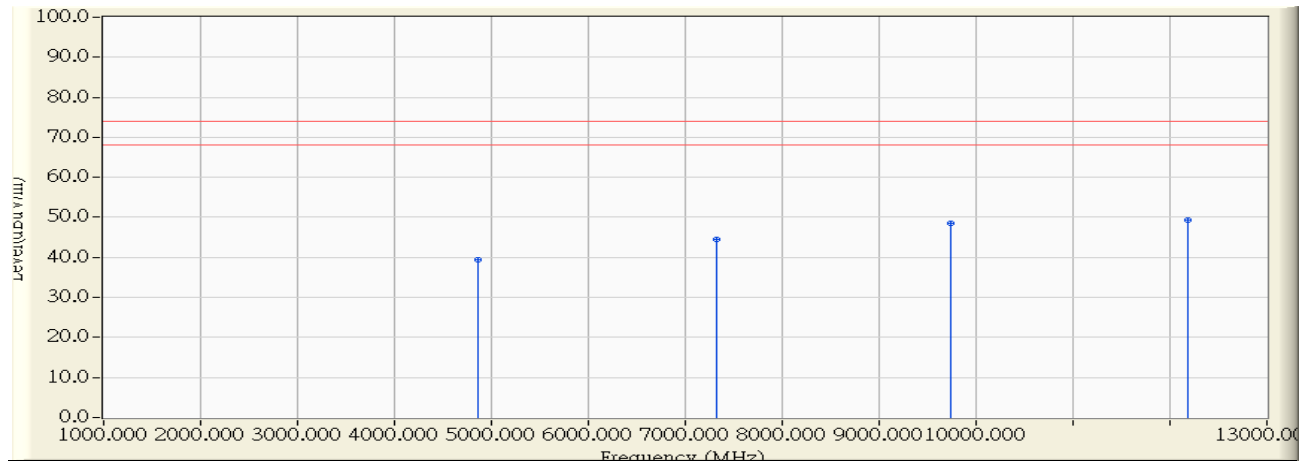


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4825.670	-0.613	40.490	39.878	-34.122	74.000	PEAK
2	7265.670	5.509	39.500	45.009	-28.991	74.000	PEAK
3	9668.830	9.361	38.750	48.111	-25.889	74.000	PEAK
4	* 12118.420	11.089	37.840	48.929	-25.071	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:12
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2437MHz

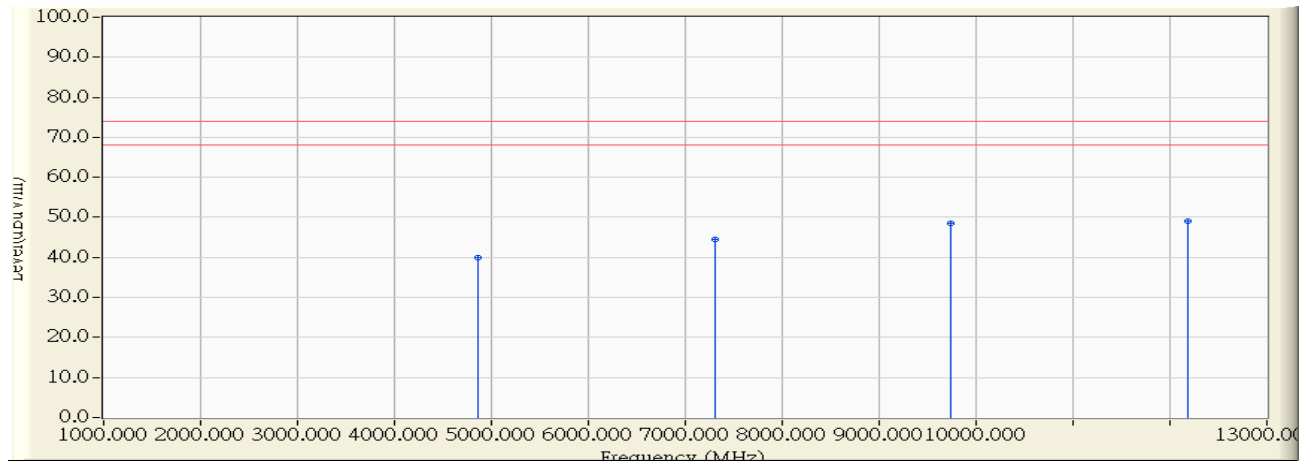


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4859.330	-0.530	39.950	39.420	-34.580	74.000	PEAK
2		7322.670	5.632	38.950	44.583	-29.417	74.000	PEAK
3		9739.500	9.818	38.810	48.628	-25.372	74.000	PEAK
4	*	12185.750	11.058	38.270	49.328	-24.672	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:14
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2437MHz

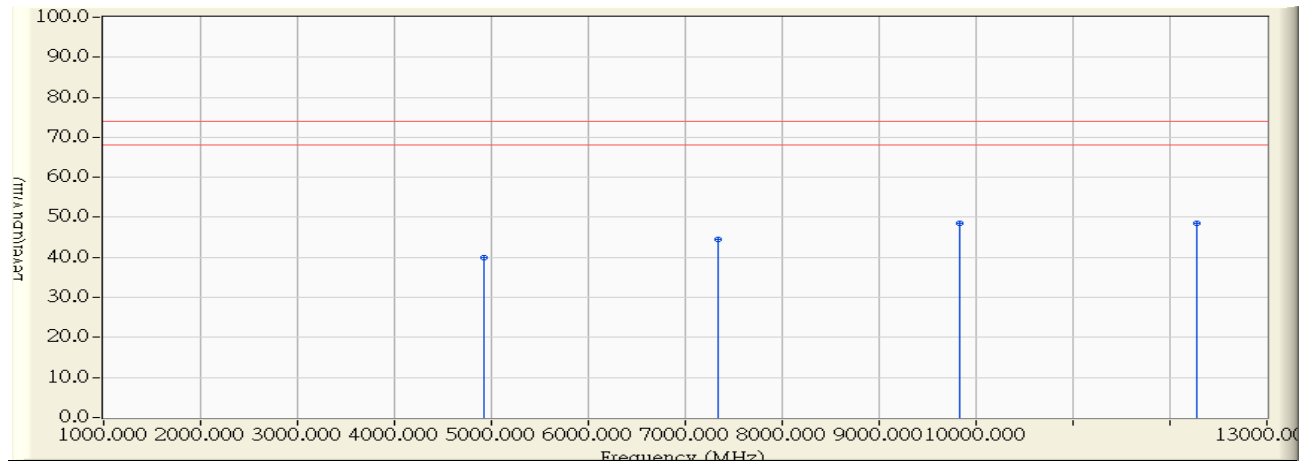


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4864.500	-0.518	40.380	39.862	-34.138	74.000	PEAK
2		7313.170	5.611	38.830	44.442	-29.558	74.000	PEAK
3		9736.500	9.799	38.720	48.519	-25.481	74.000	PEAK
4	*	12182.500	11.060	38.010	49.070	-24.930	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:17
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2452MHz

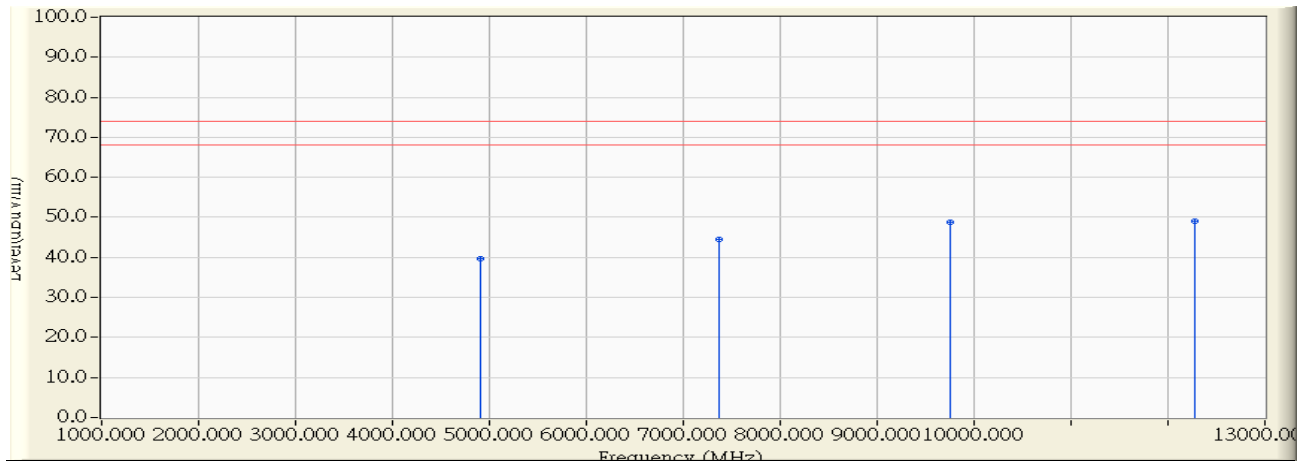


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4928.420	-0.362	40.370	40.008	-33.992	74.000	PEAK
2	7335.580	5.661	38.750	44.411	-29.589	74.000	PEAK
3	9824.080	10.366	38.220	48.586	-25.414	74.000	PEAK
4	* 12276.250	11.016	37.620	48.637	-25.363	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/10/29 - 22:19
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit _802.11n 40MHz_2452MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4902.500	-0.425	40.140	39.715	-34.285	74.000	PEAK
2	7365.080	5.724	38.670	44.395	-29.605	74.000	PEAK
3	9749.500	9.883	38.970	48.853	-25.147	74.000	PEAK
4	* 12276.000	11.017	37.930	48.947	-25.053	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the test:

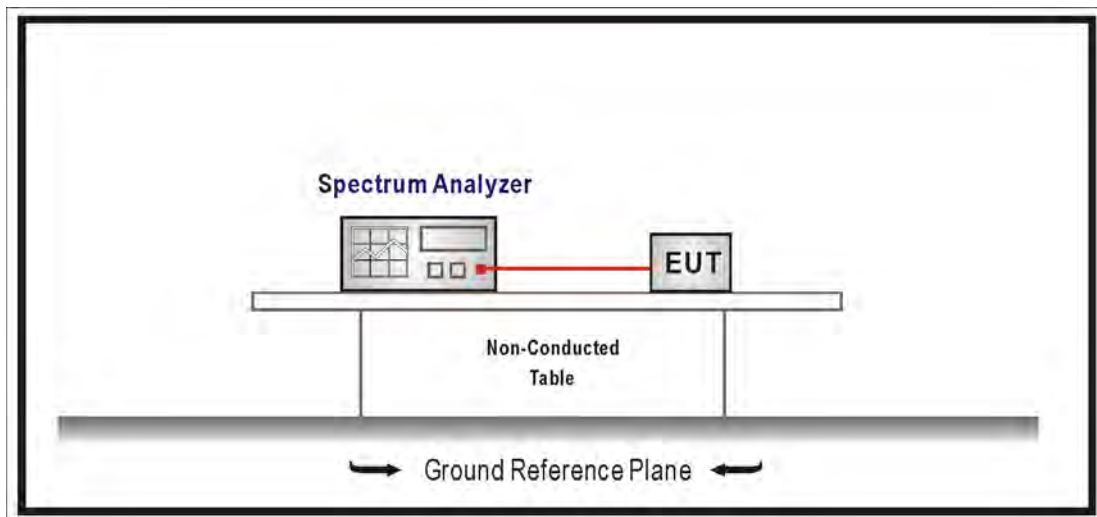
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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 an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

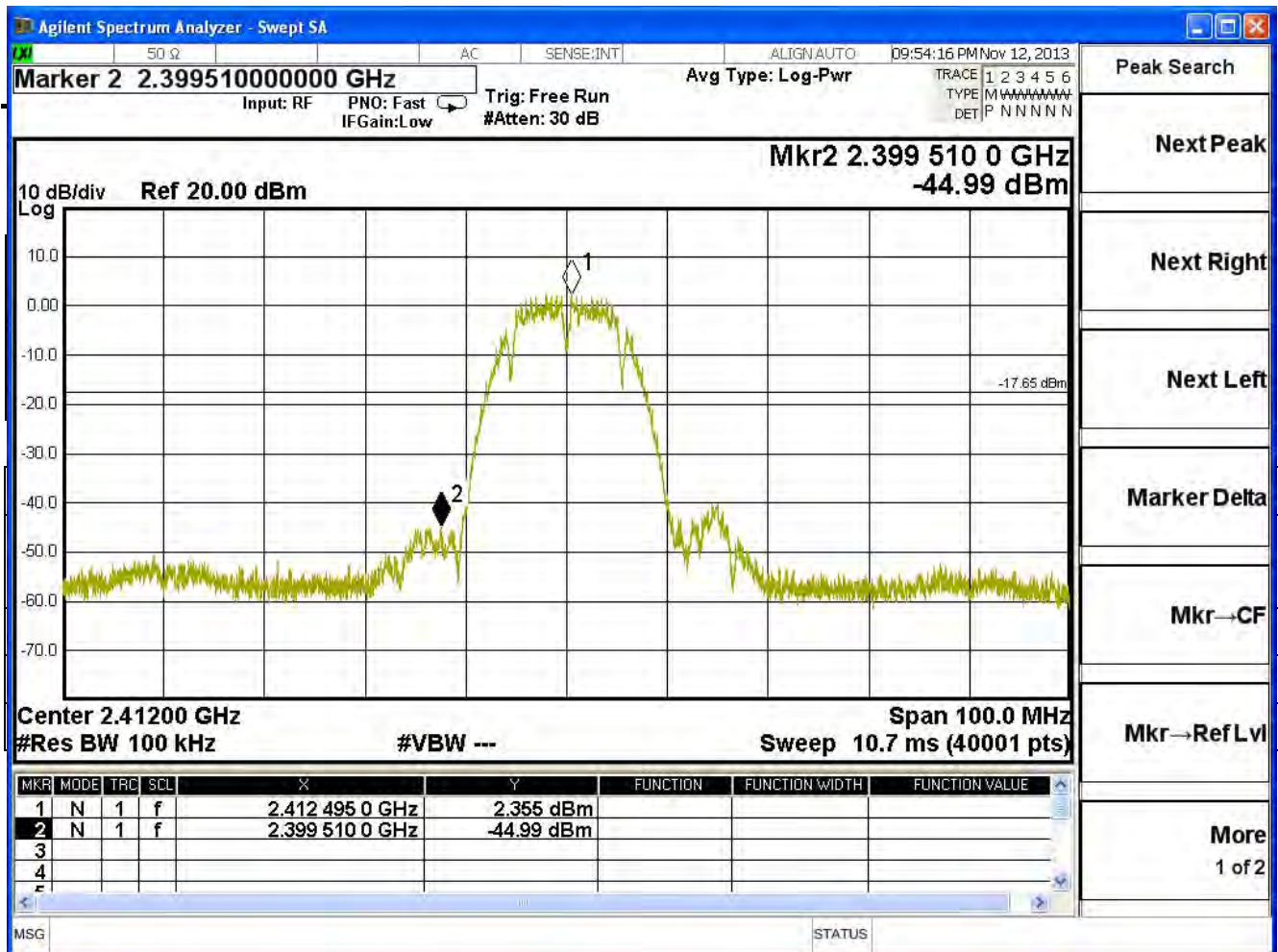
The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Test Specification

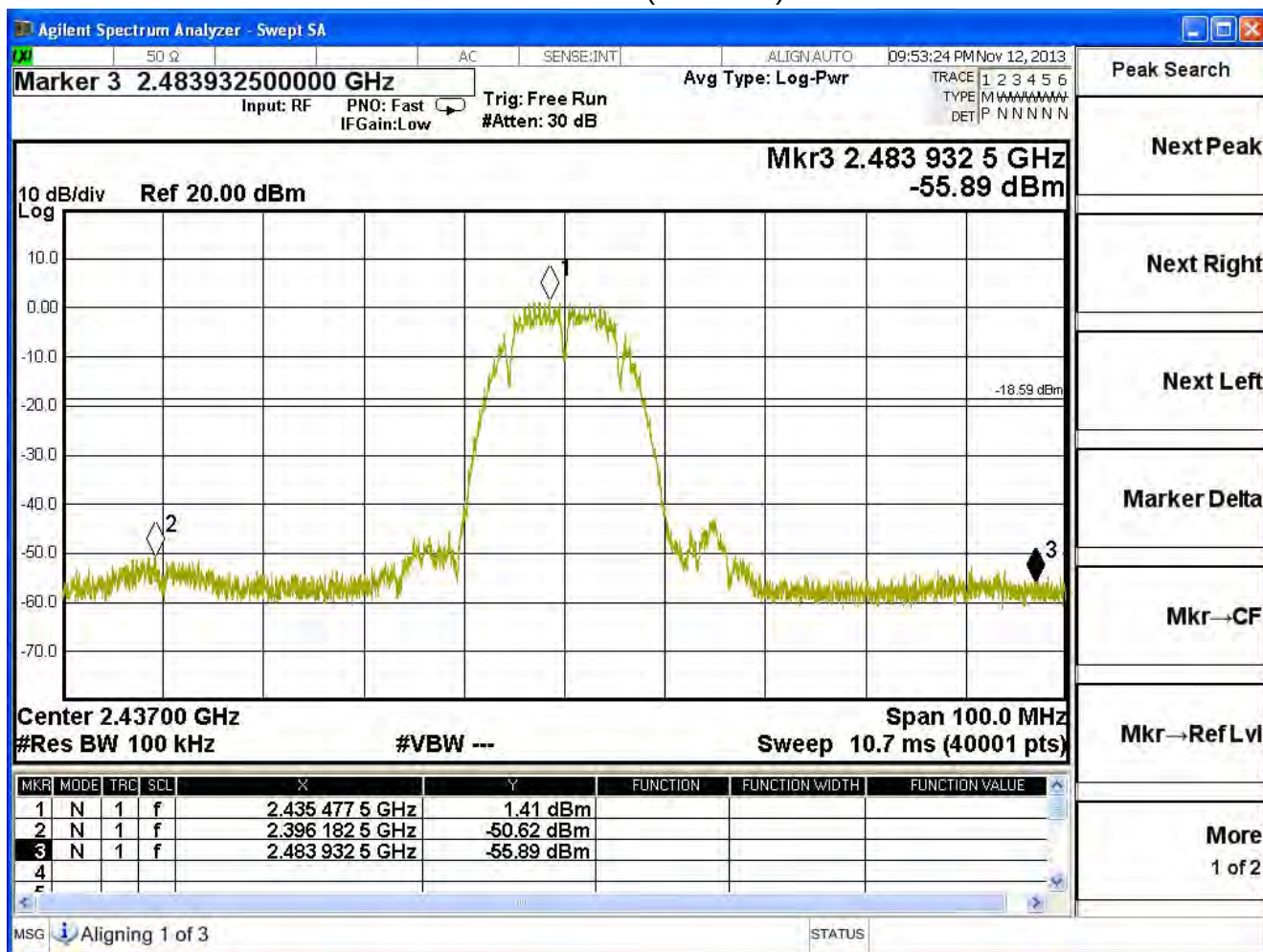
According to FCC Part 15 Subpart C Paragraph 15.247: 2012

5.6. Uncertainty

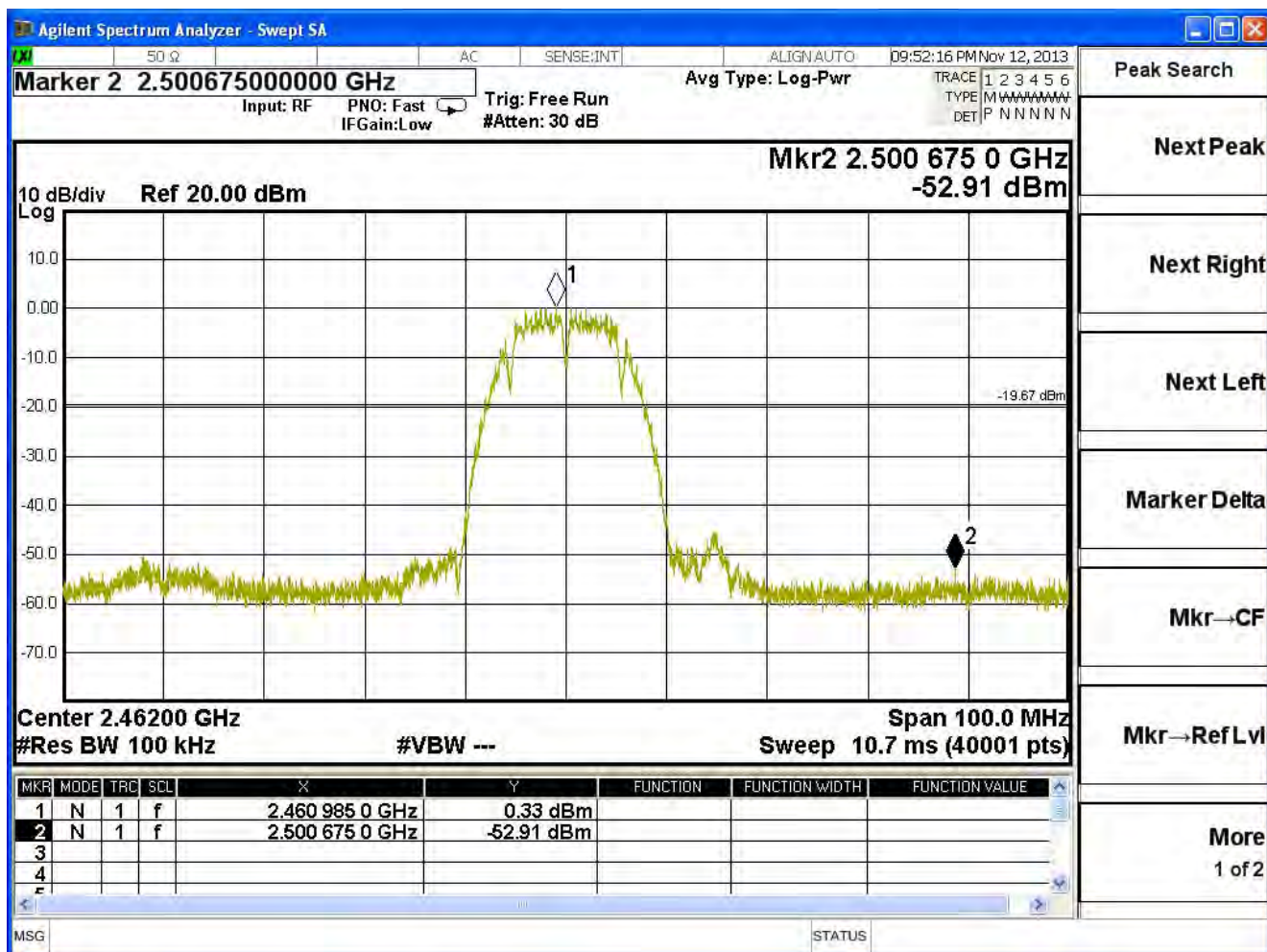
Conducted is defined as $\pm 1.27\text{dB}$



Channel 06 (2437MHz)



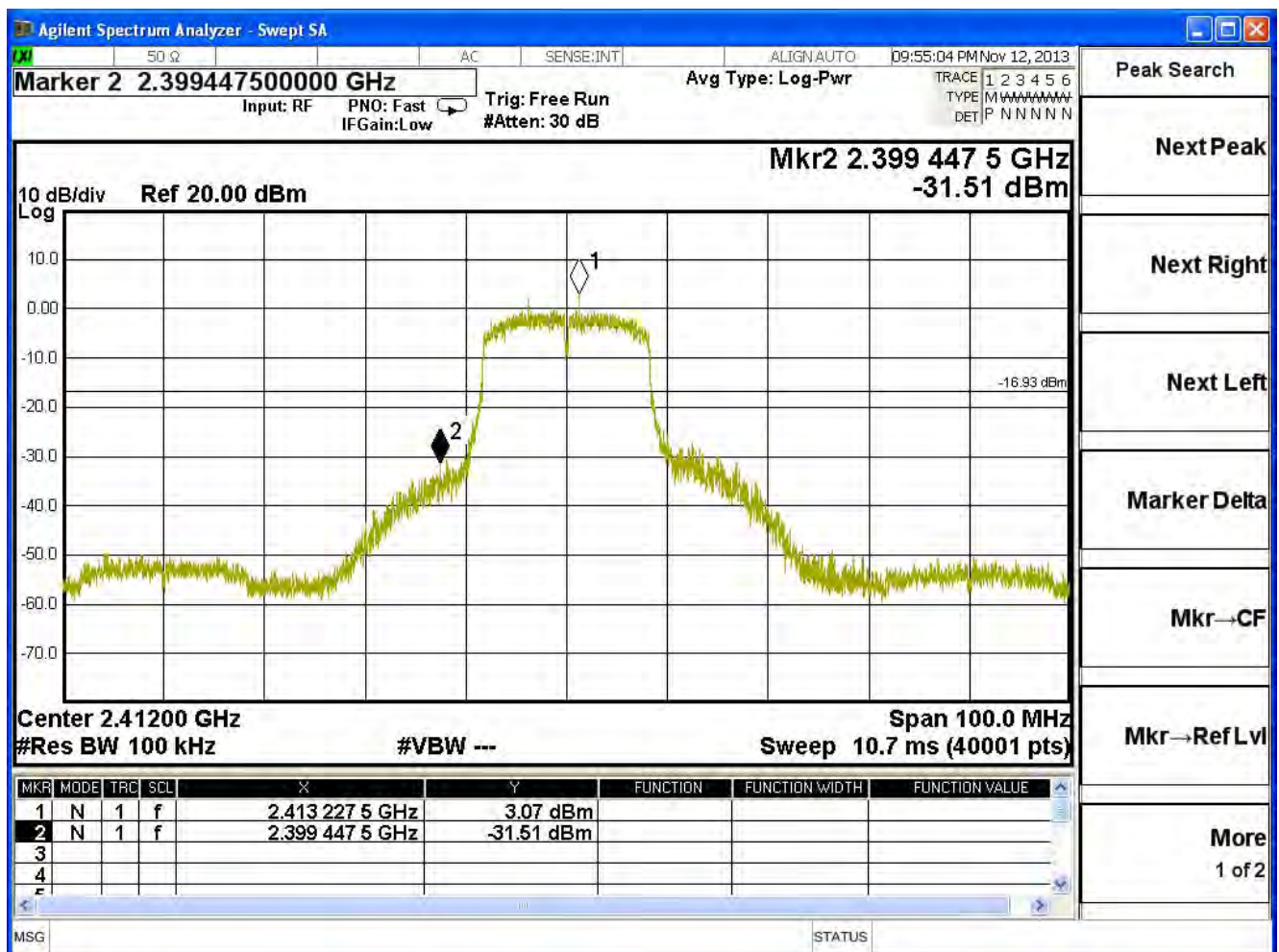
Channel 11 (2462MHz)



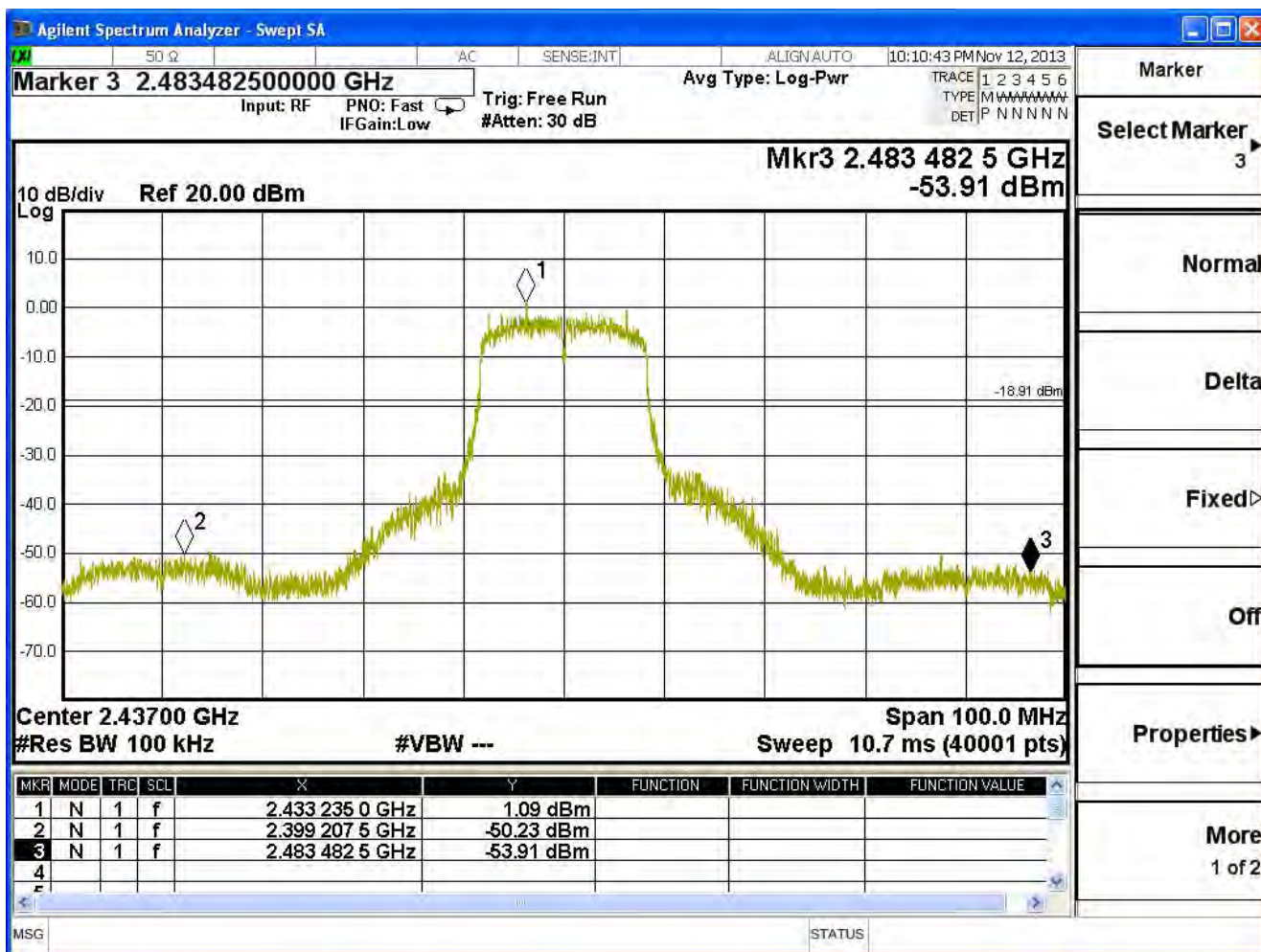
Product	Wireless N ADSL2+ Modem Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE 802.11g, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	34.58	≥ 20	Pass
6	2437	51.32	≥ 20	Pass
11	2462	51.03	≥ 20	Pass

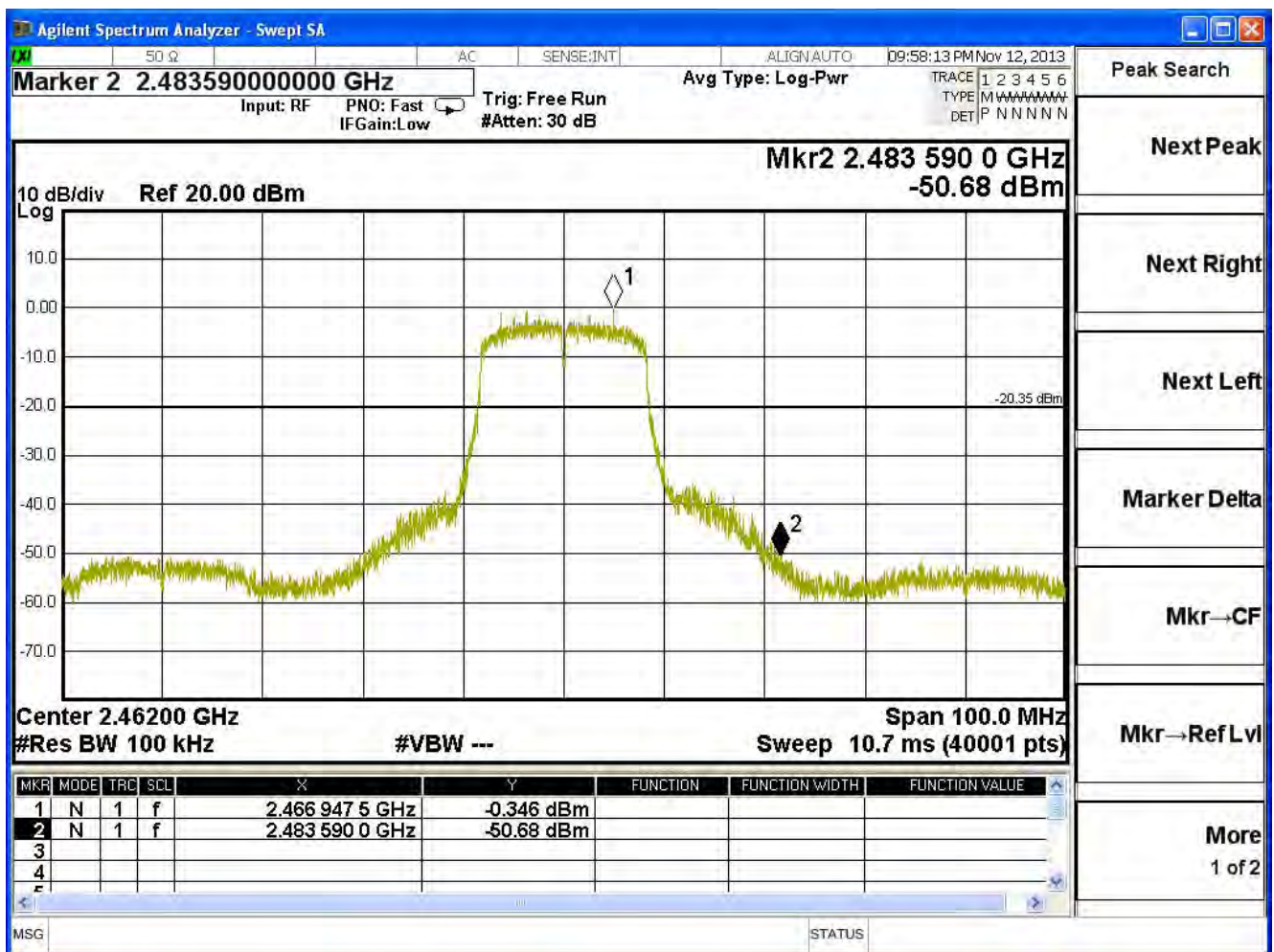
Channel 01 (2412MHz)



Channel 06 (2437MHz)



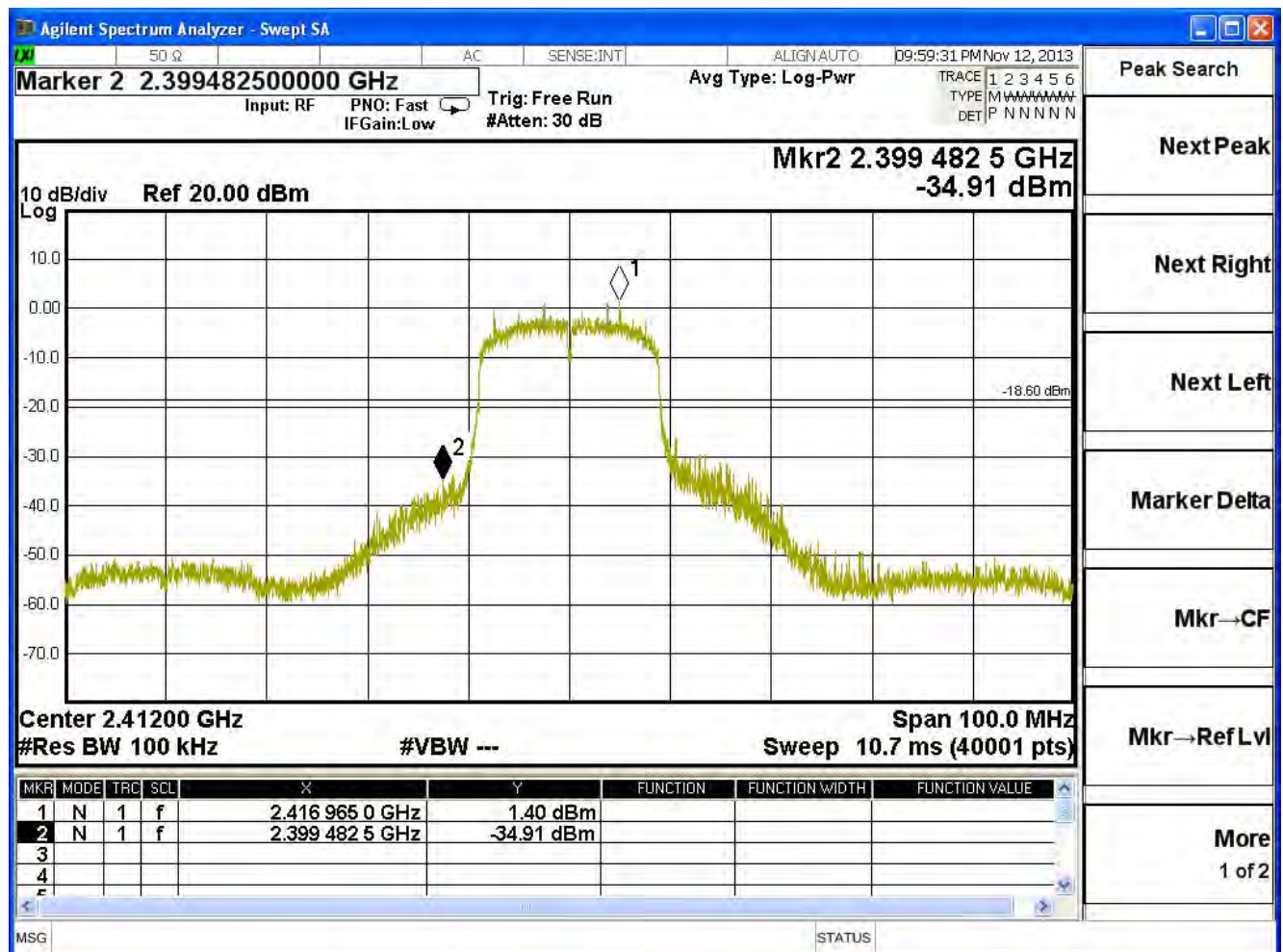
Channel 11 (2462MHz)



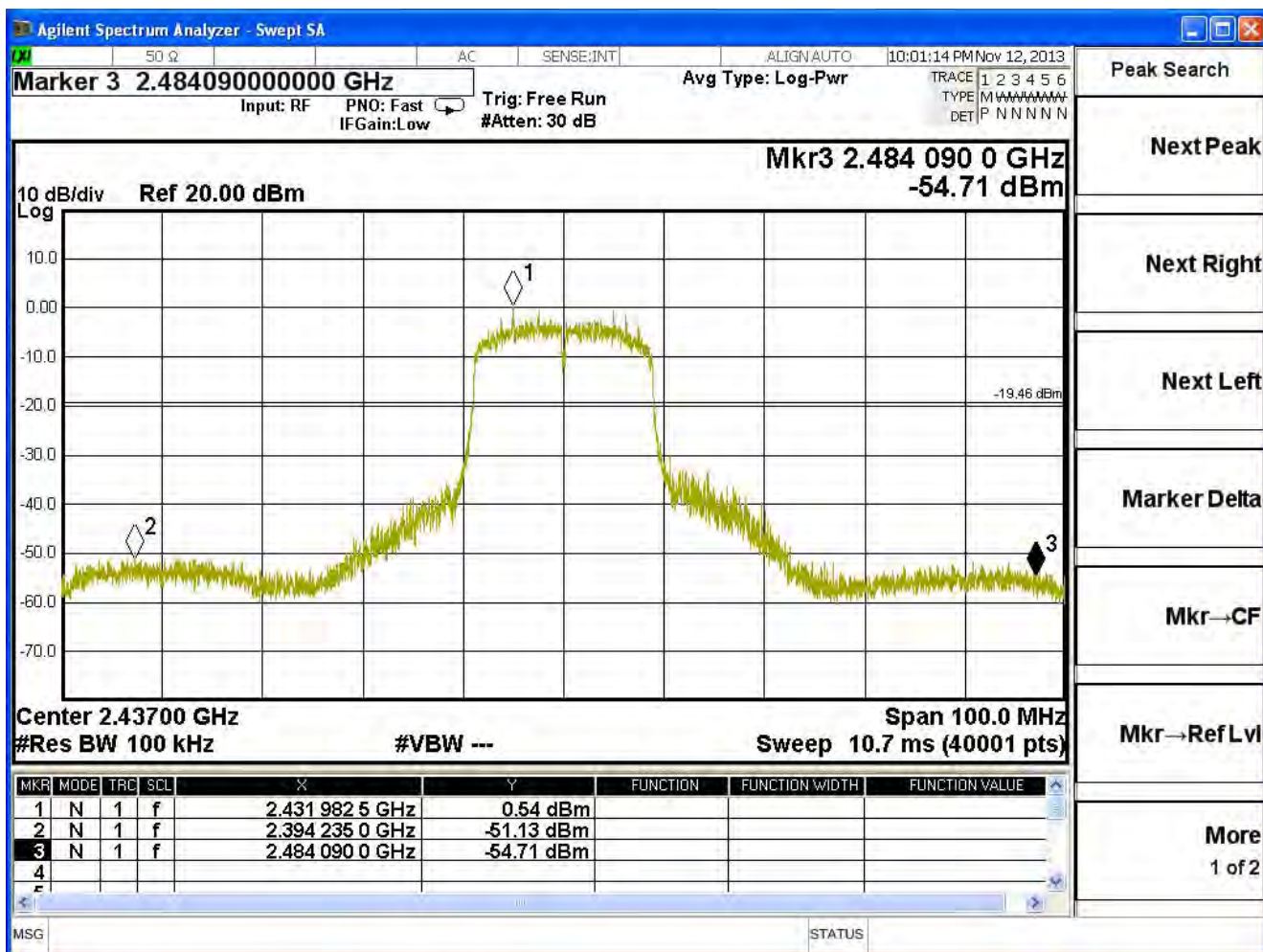
Product	Wireless N ADSL2+ Modem Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE 802.11n (20MHz), Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	36.31	≥ 20	Pass
6	2437	51.47	≥ 20	Pass
11	2462	52.18	≥ 20	Pass

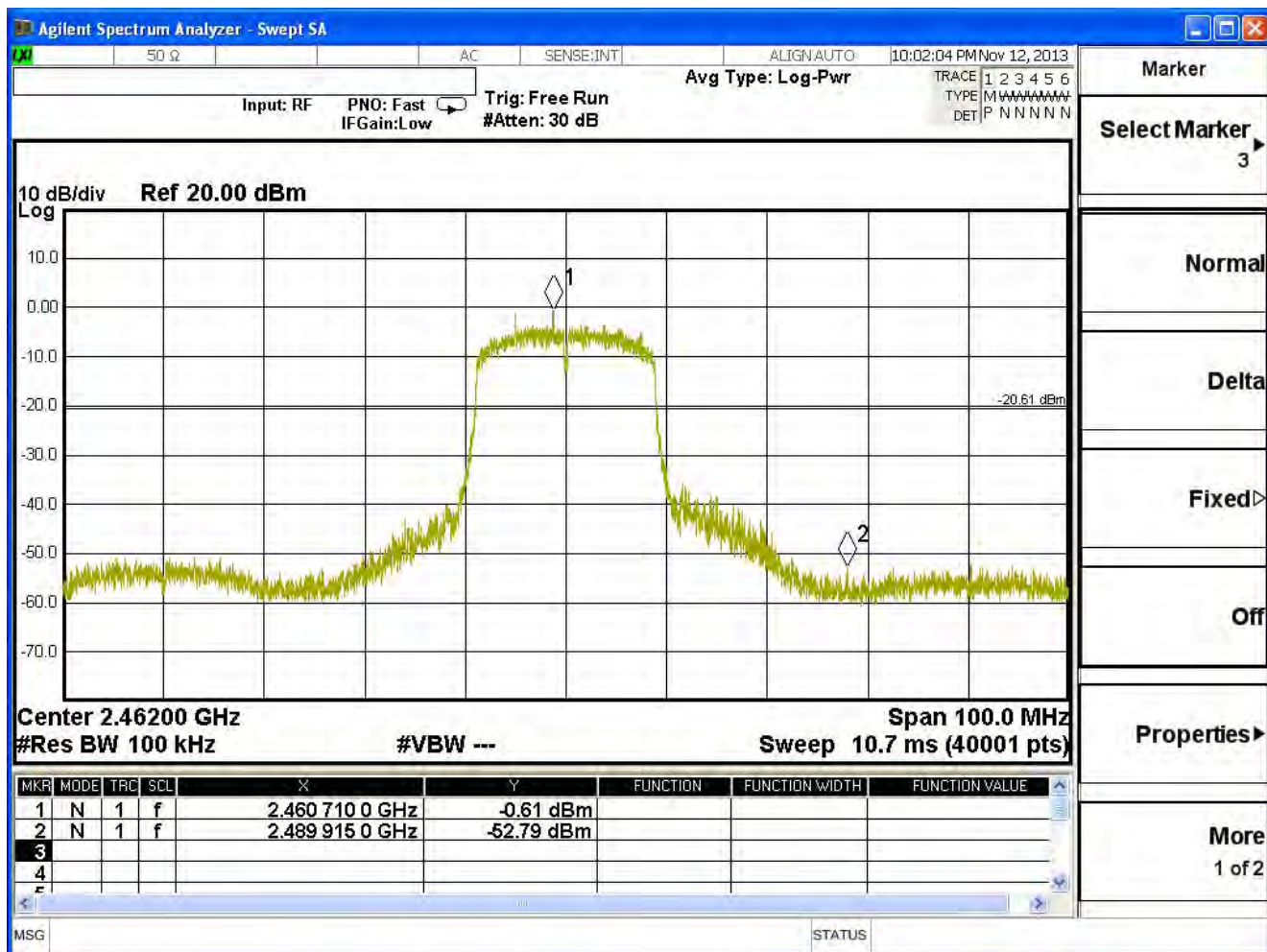
Channel 1 (2412MHz)



Channel 6 (2437MHz)



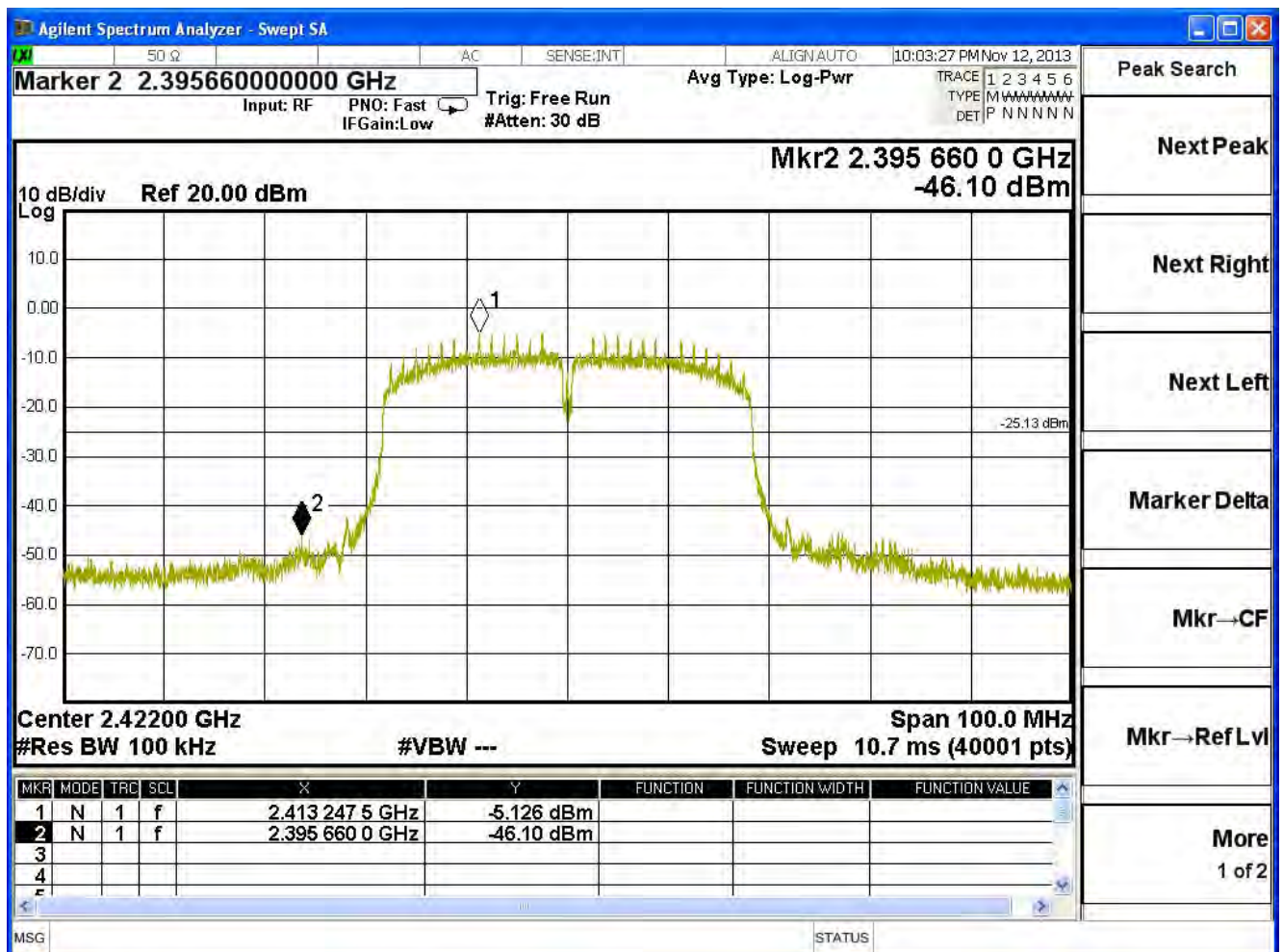
Channel 11 (2462MHz)



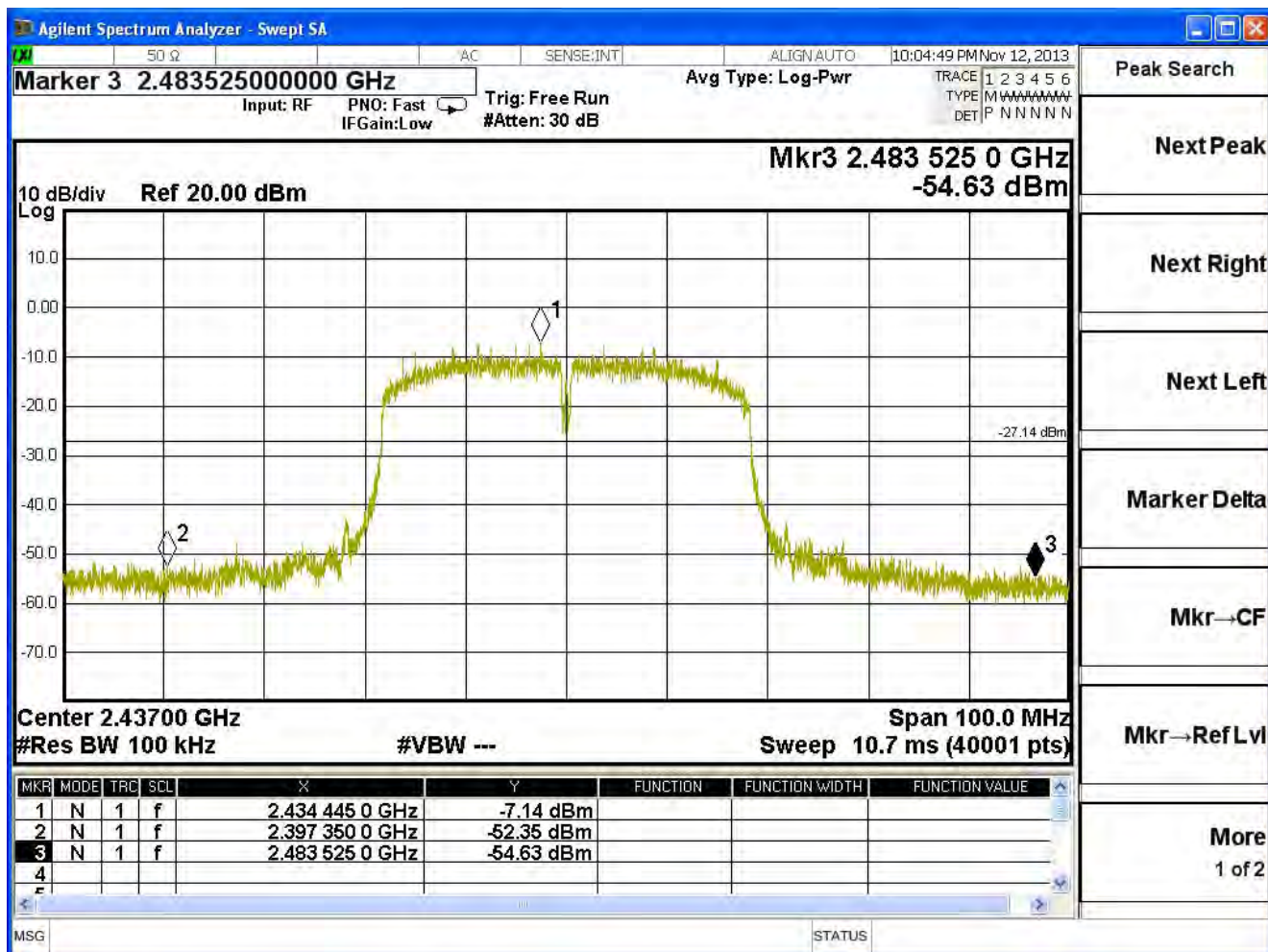
Product	Wireless N ADSL2+ Modem Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE 802.11n (40MHz), Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	40.97	≥ 20	Pass
6	2437	45.21	≥ 20	Pass
9	2452	43.14	≥ 20	Pass

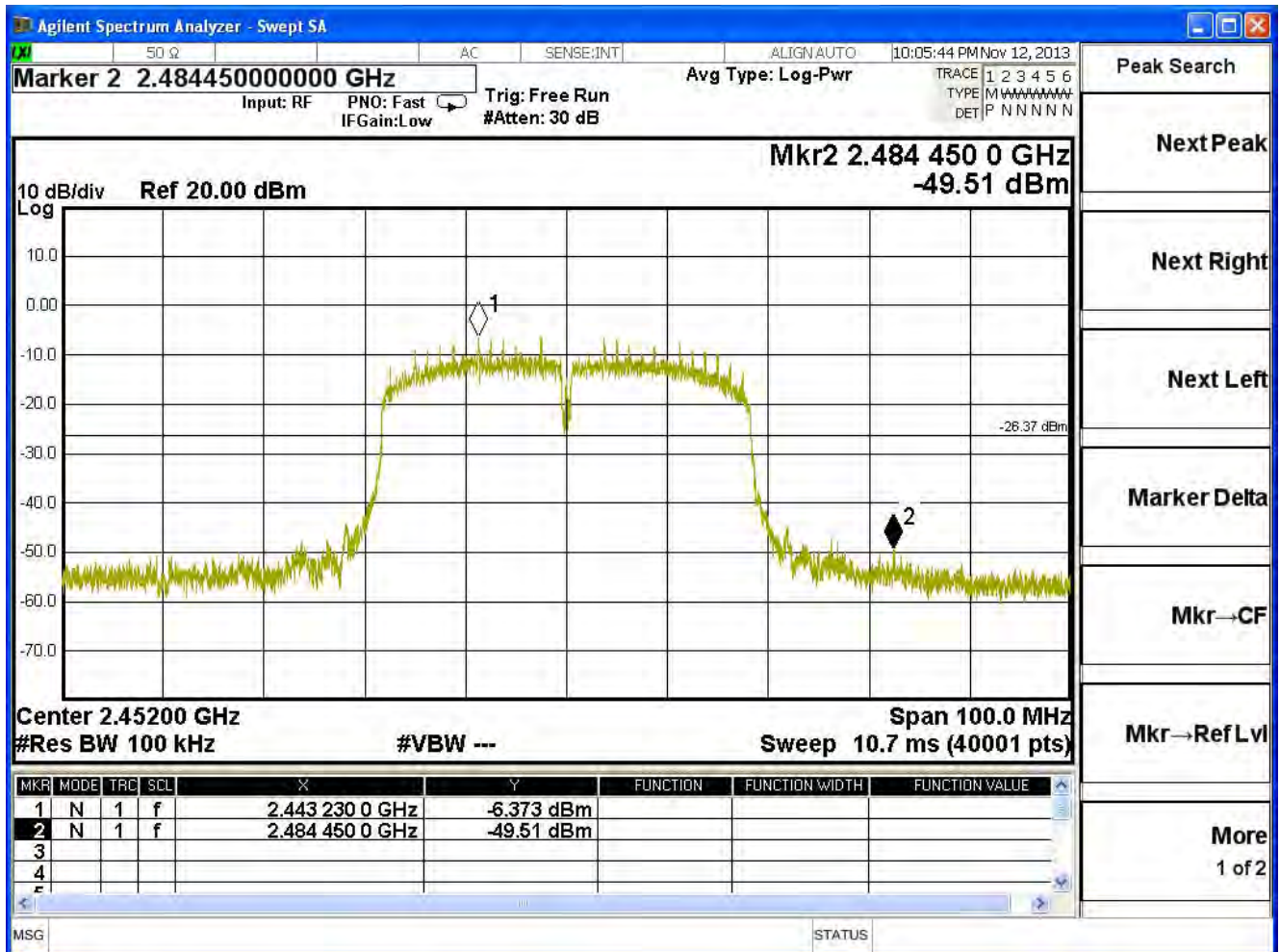
Channel 3 (2422MHz)



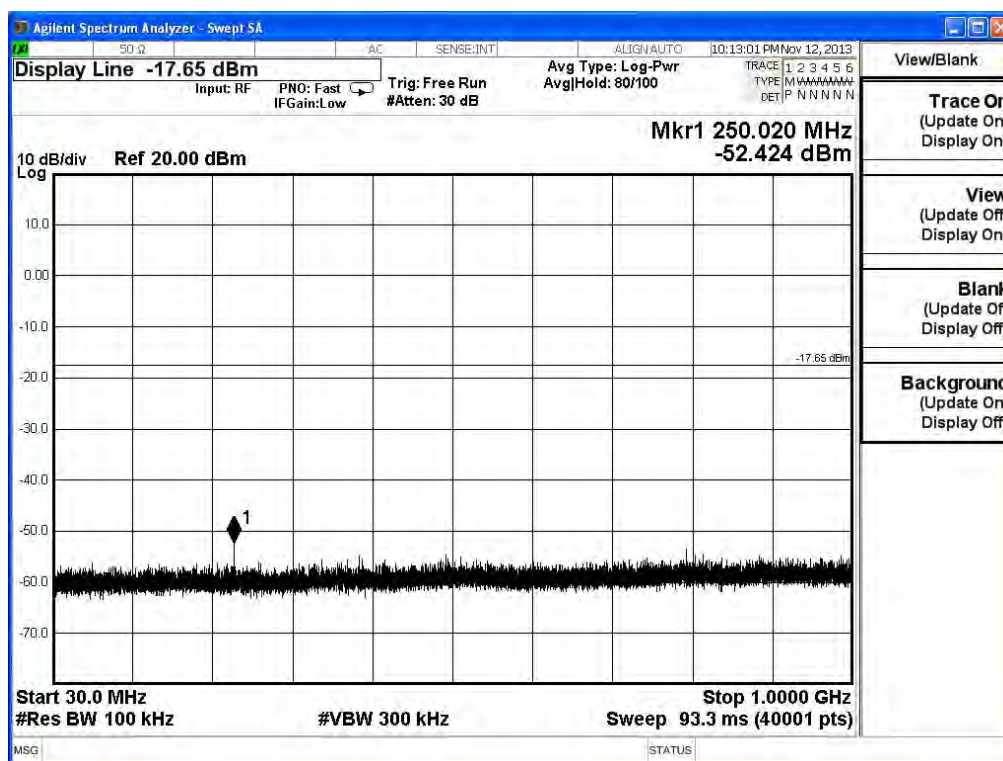
Channel 6 (2437MHz)



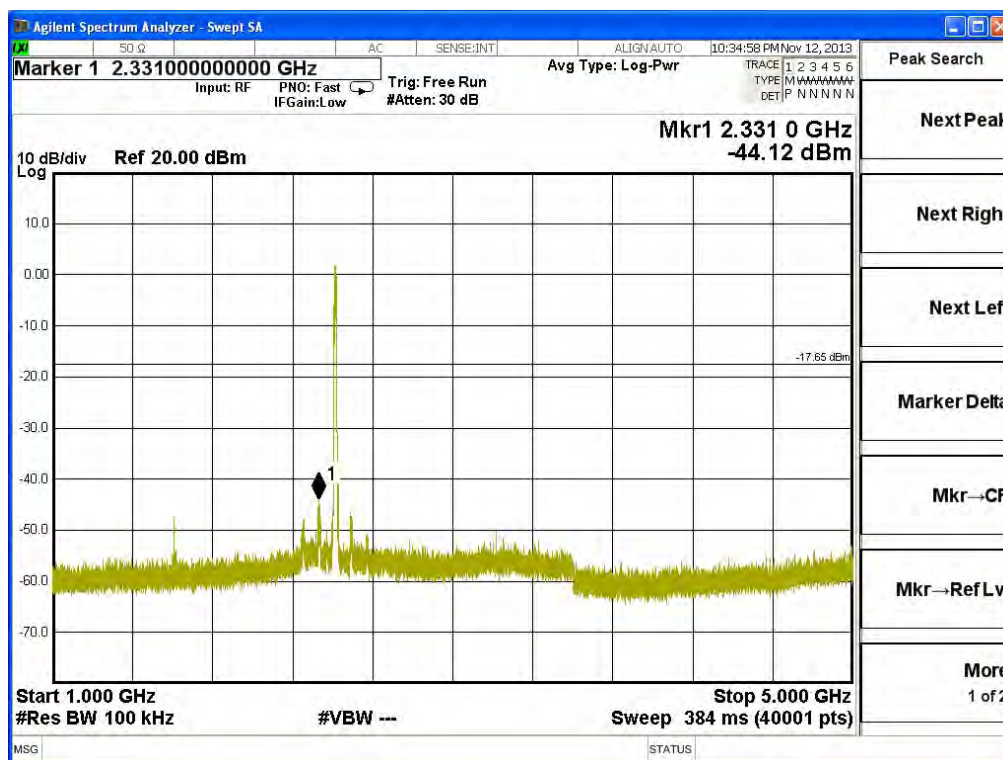
Channel 9 (2452MHz)



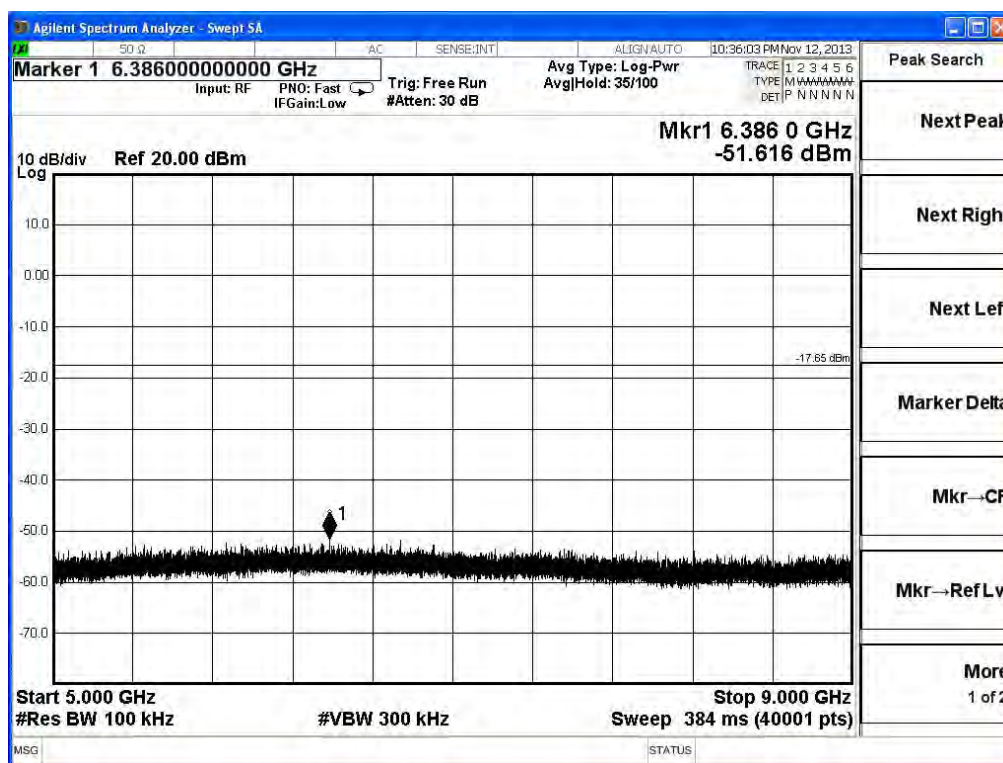
2412MHz (30MHz-1GHz)-802.11b



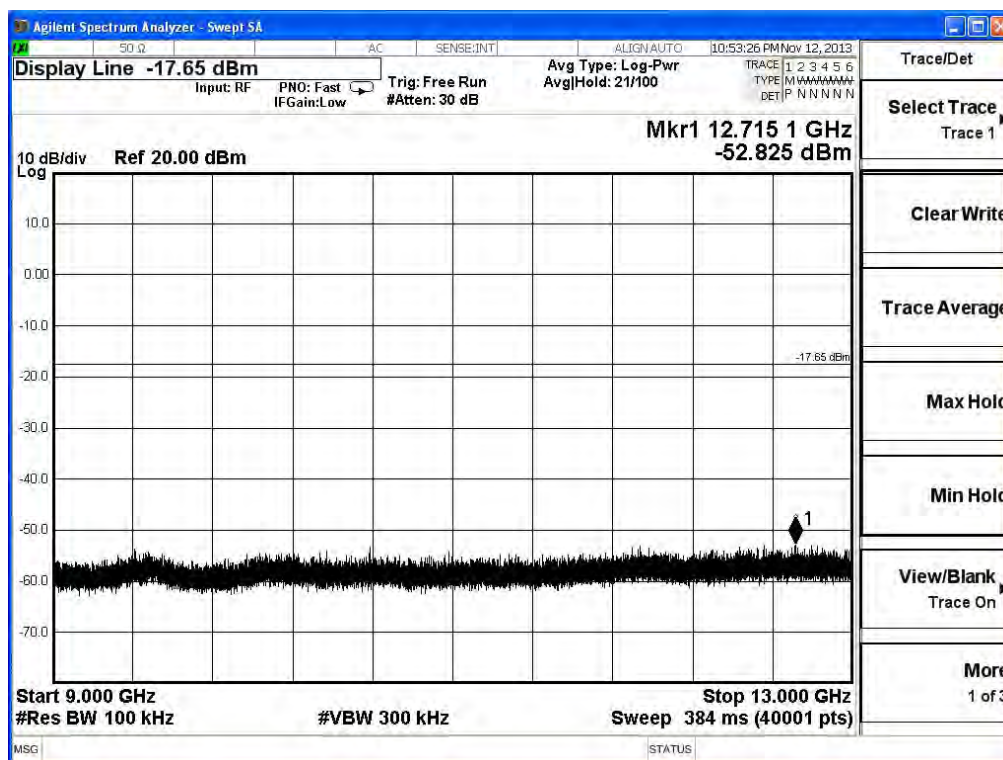
2412MHz (1GHz-5GHz) -802.11b



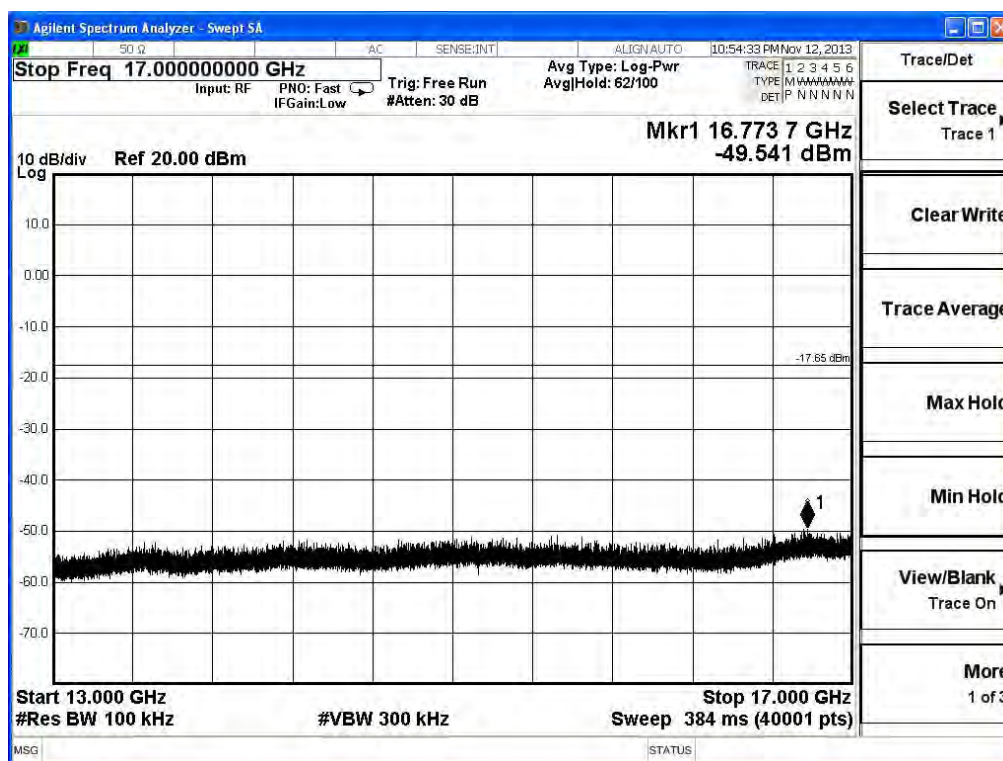
2412MHz (5GHz-9GHz)-802.11b



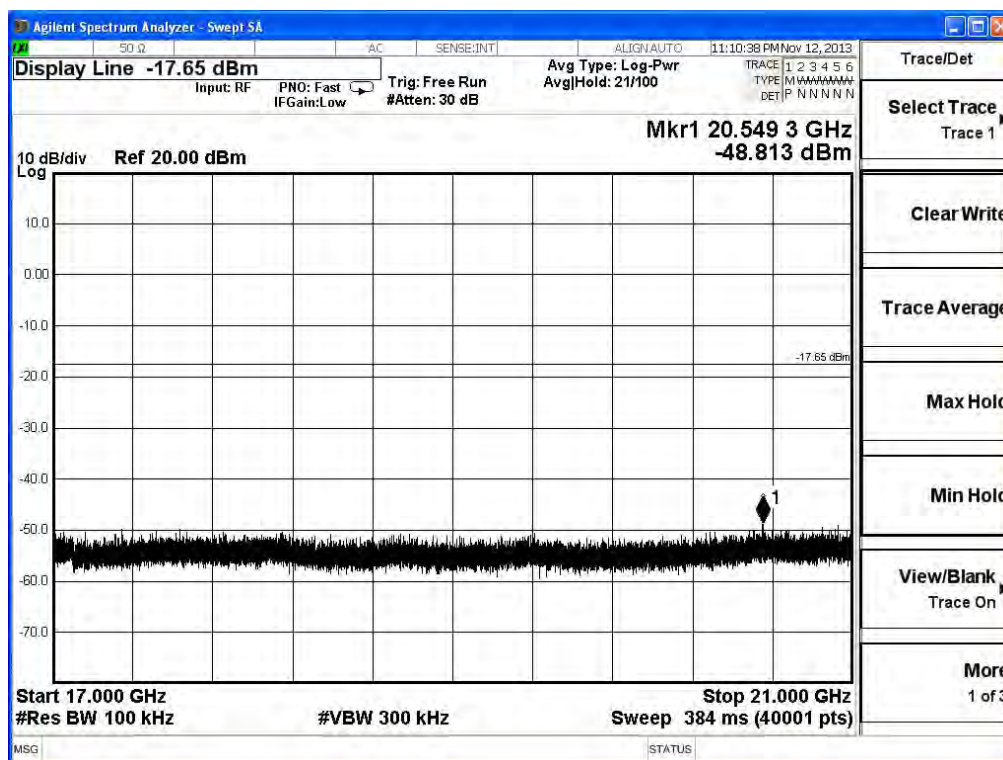
2412MHz (9GHz-13GHz) -802.11b



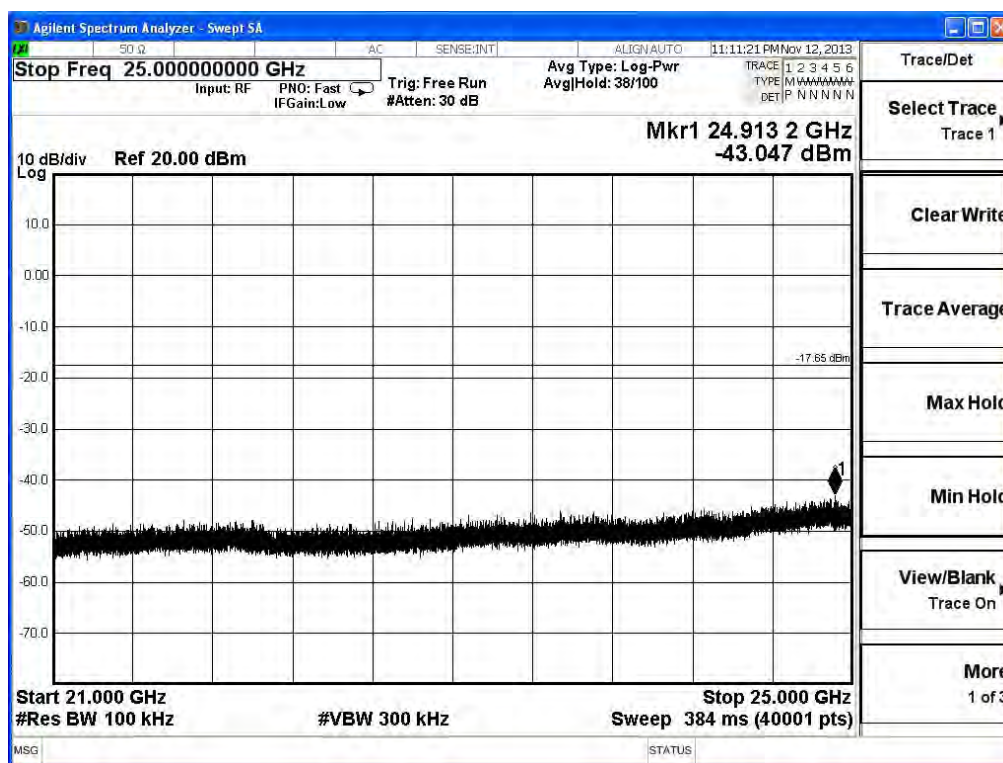
2412MHz (13GHz-17GHz)-802.11b



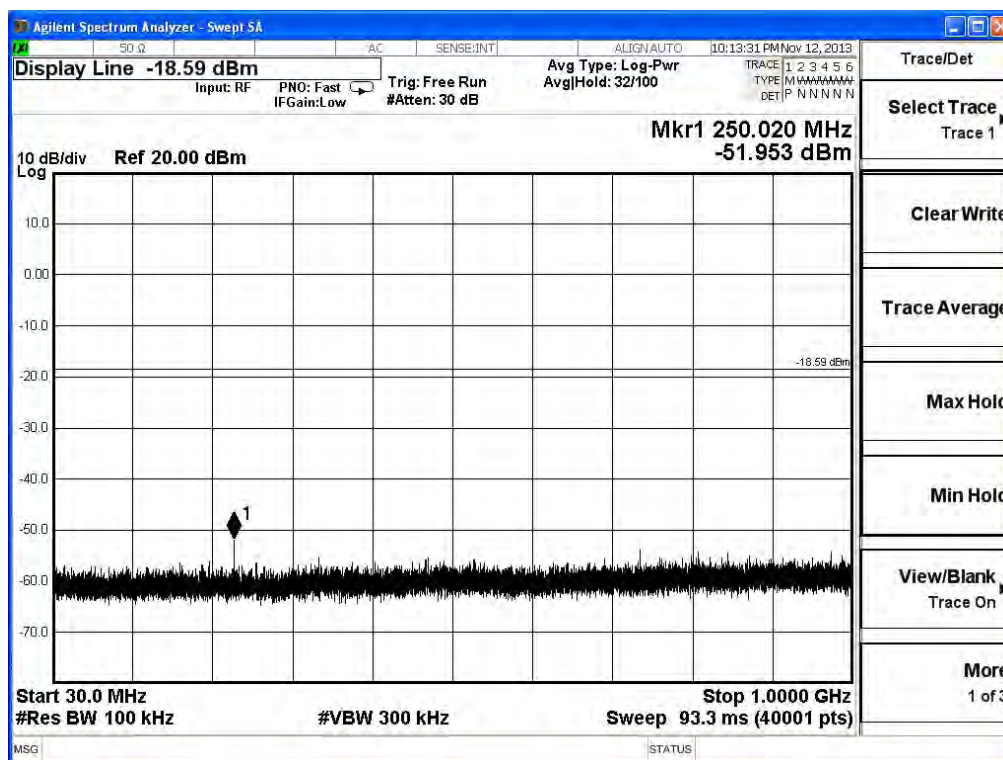
2412MHz (17GHz-21GHz) -802.11b



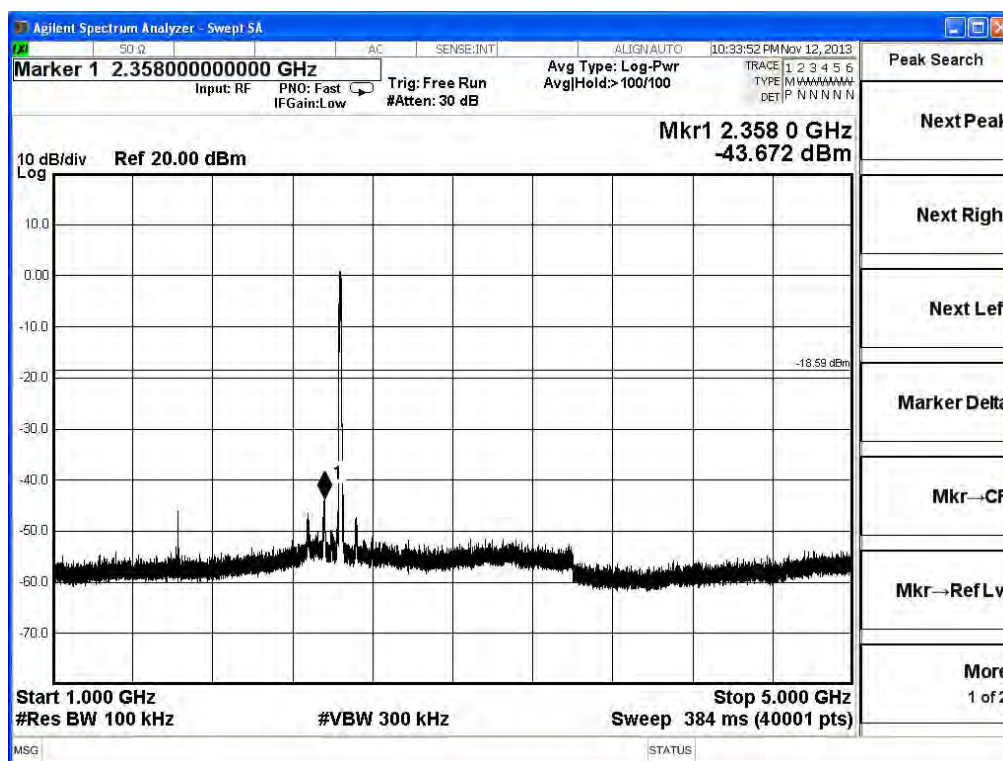
2412MHz (21GHz-25GHz)-802.11b



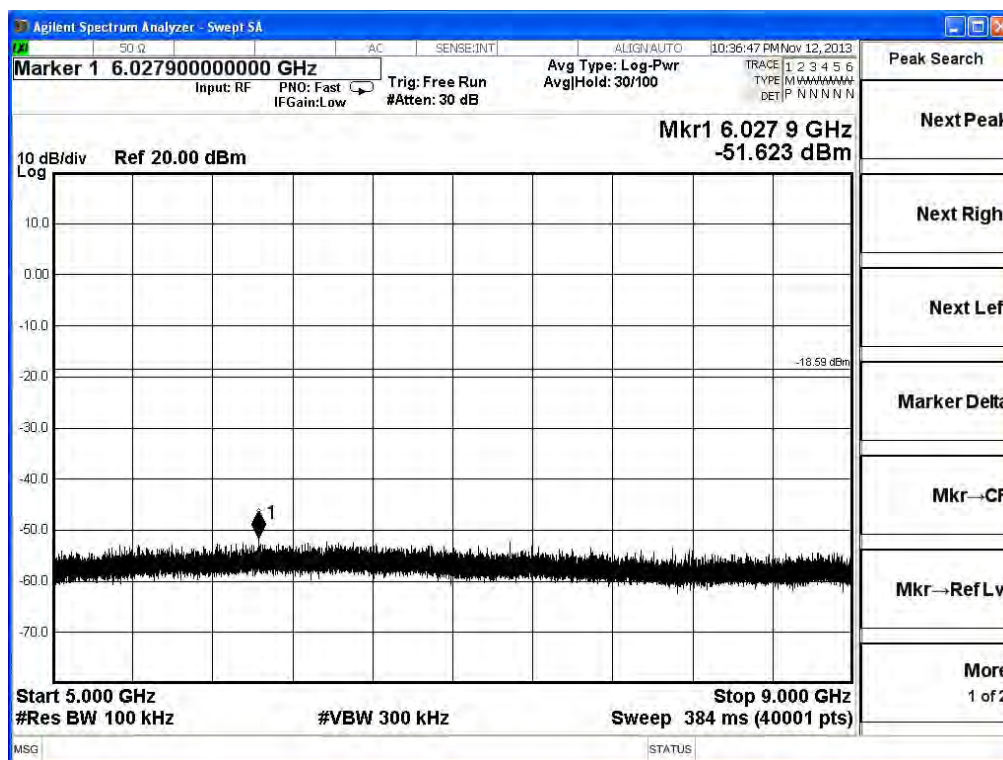
2437MHz (30MHz-1GHz) -802.11b



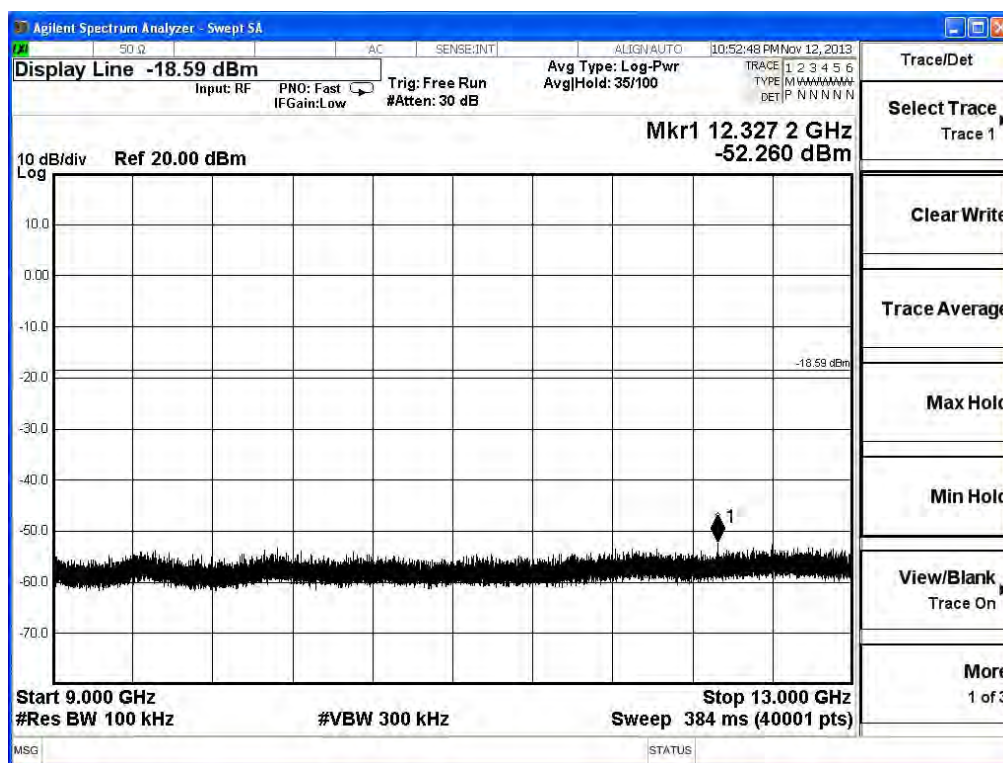
2437MHz (1GHz-5GHz)-802.11b



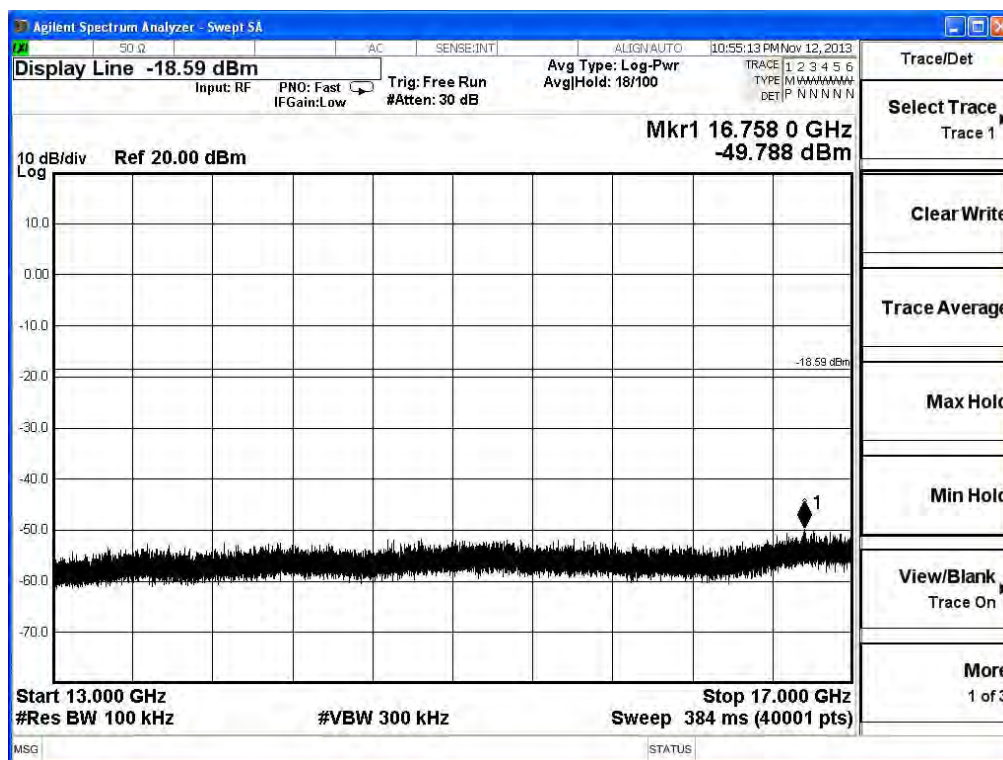
2437MHz (5GHz-9GHz) -802.11b



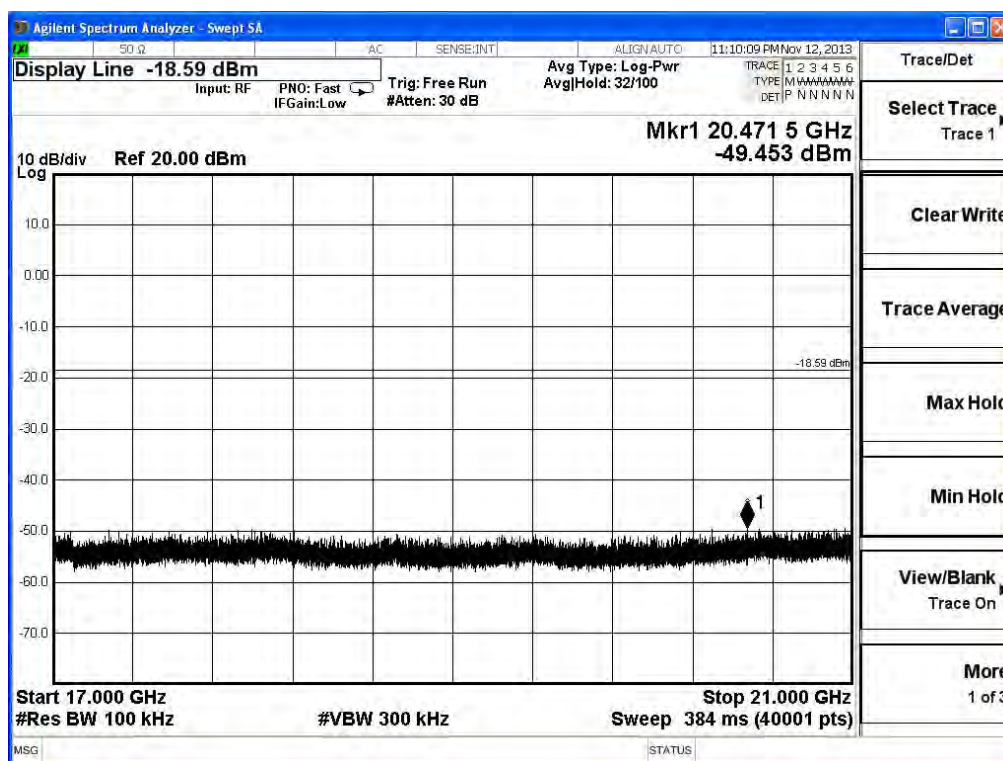
2437MHz (9GHz-13GHz)-802.11b



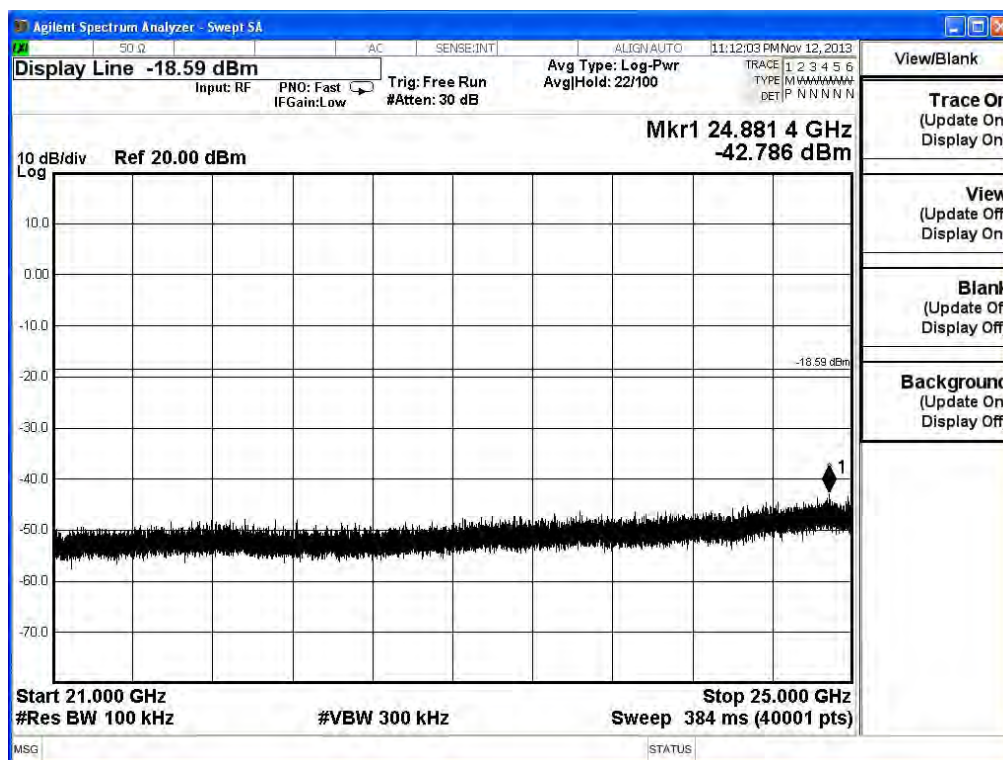
2437MHz (13GHz-17GHz) -802.11b



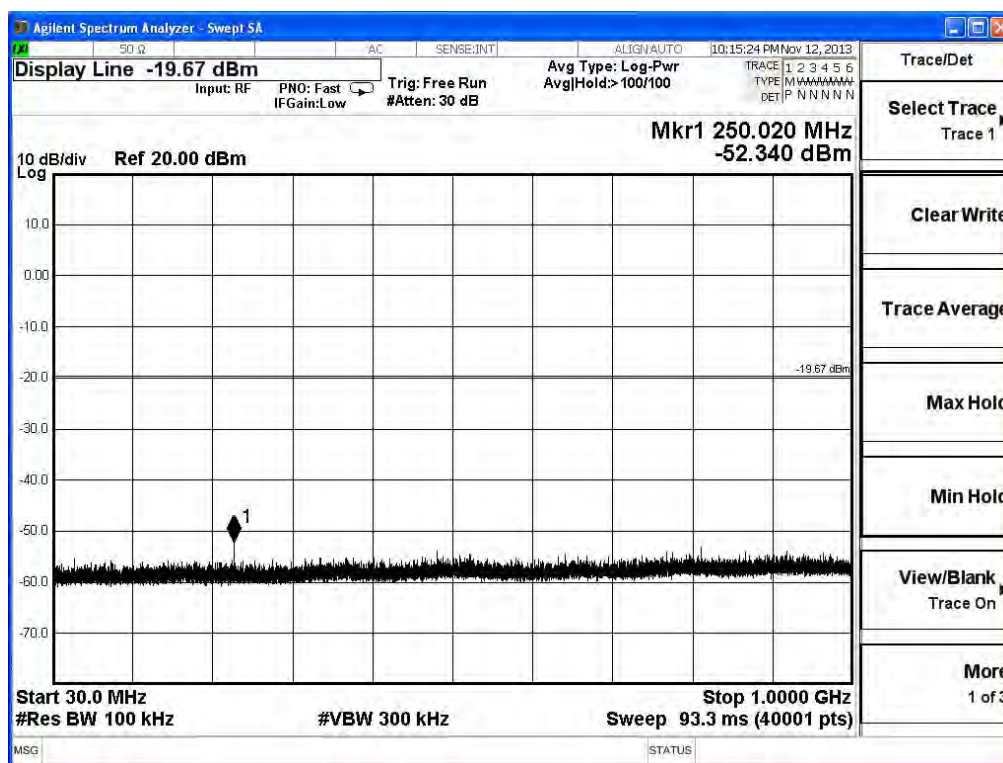
2437MHz (17GHz-21GHz)-802.11b



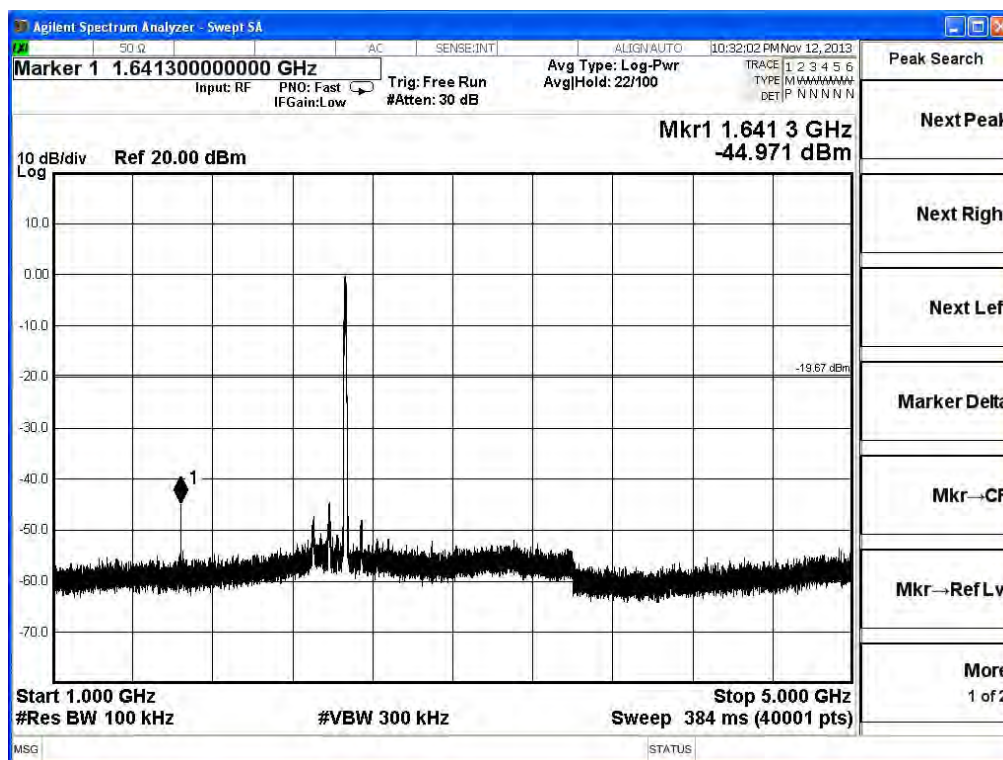
2437MHz (21GHz-25GHz) -802.11b



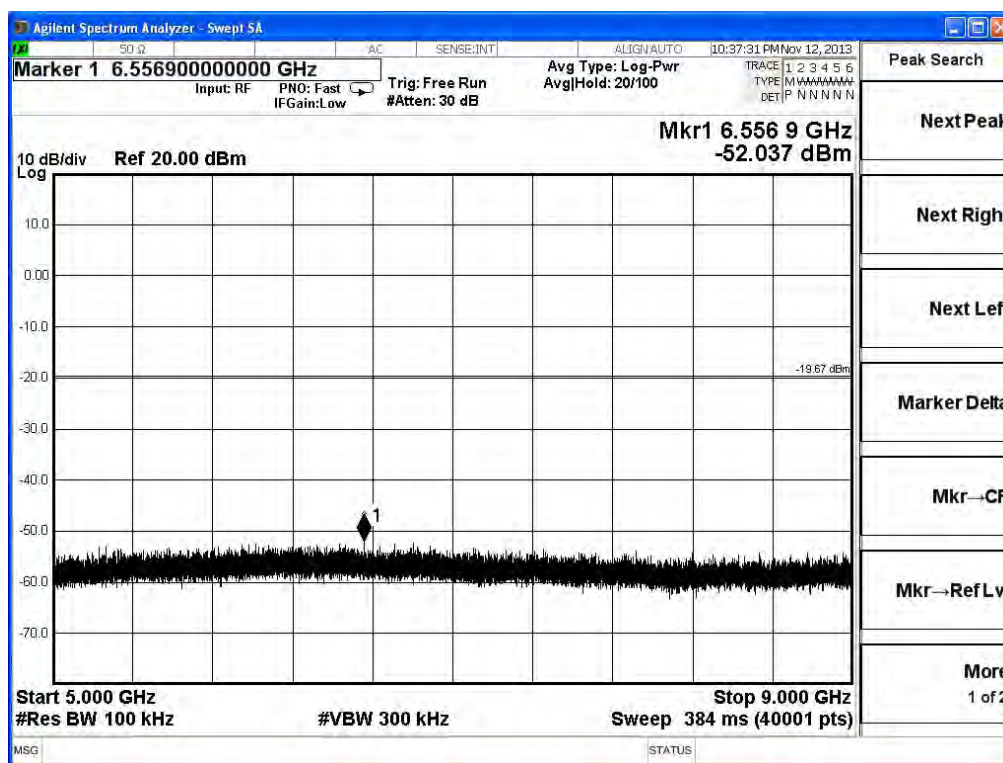
2462MHz (30MHz-1GHz)-802.11b



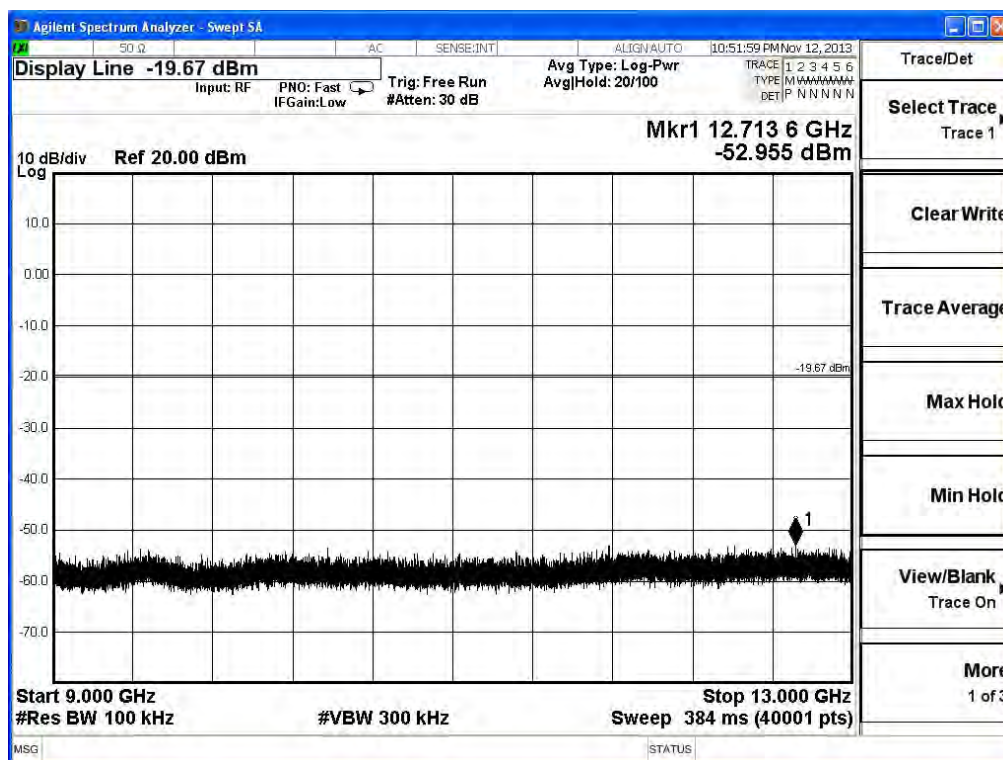
2462MHz (1GHz-5GHz) -802.11b



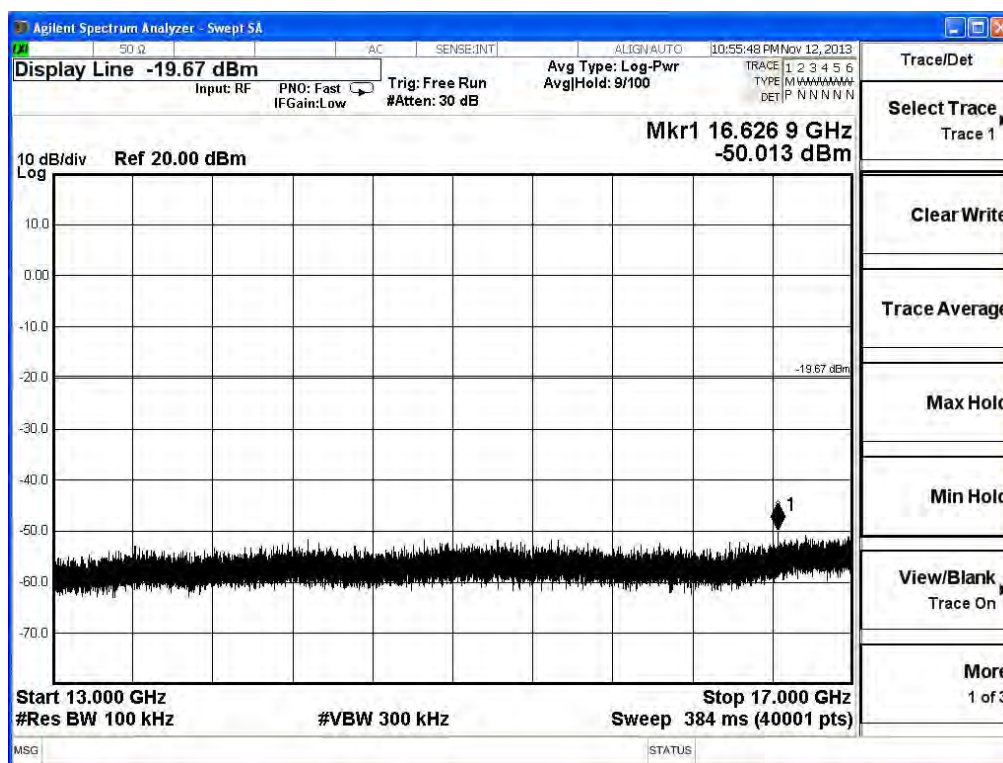
2462MHz (5GHz-9GHz)-802.11b



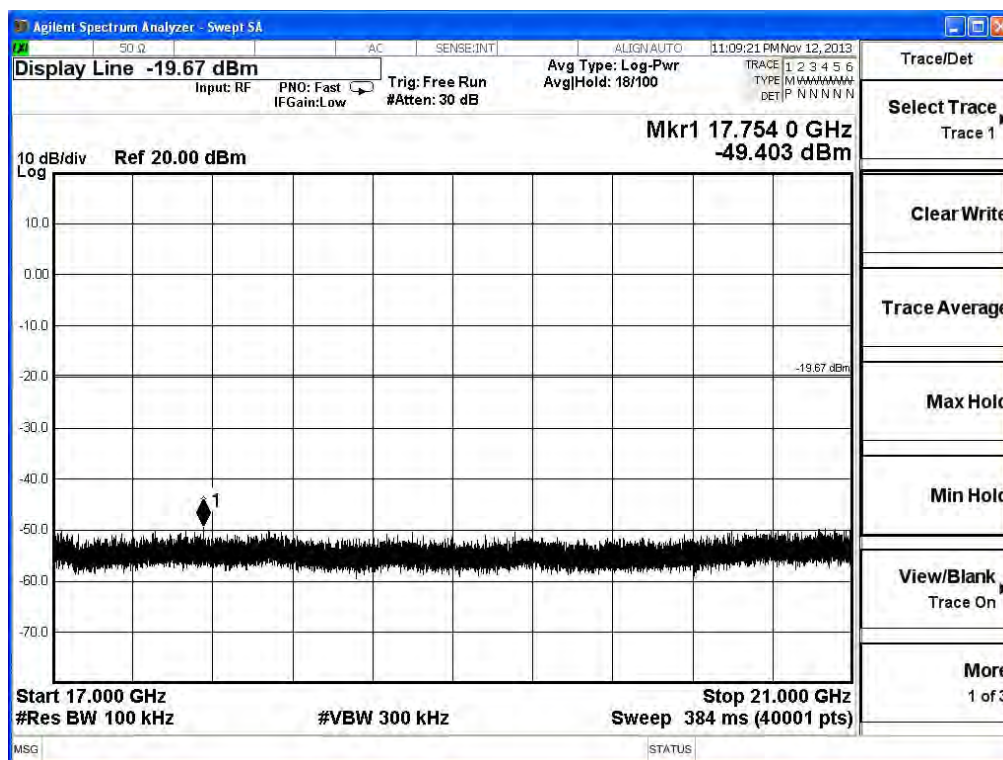
2462MHz (9GHz-13GHz) -802.11b



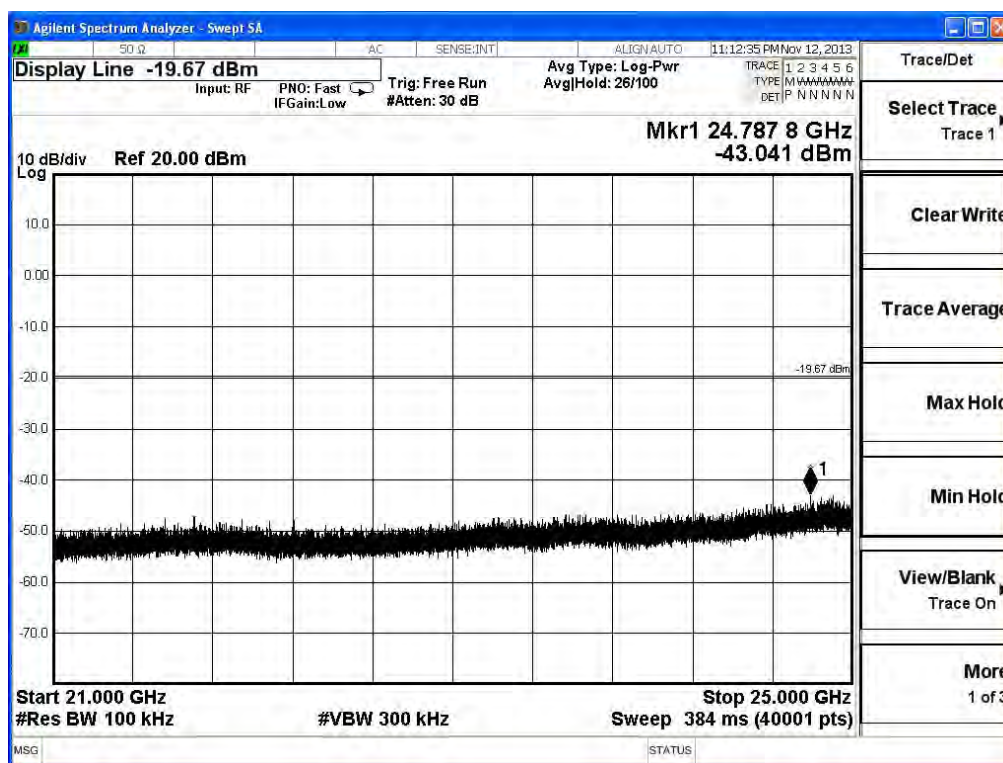
2462MHz (13GHz-17GHz)-802.11b



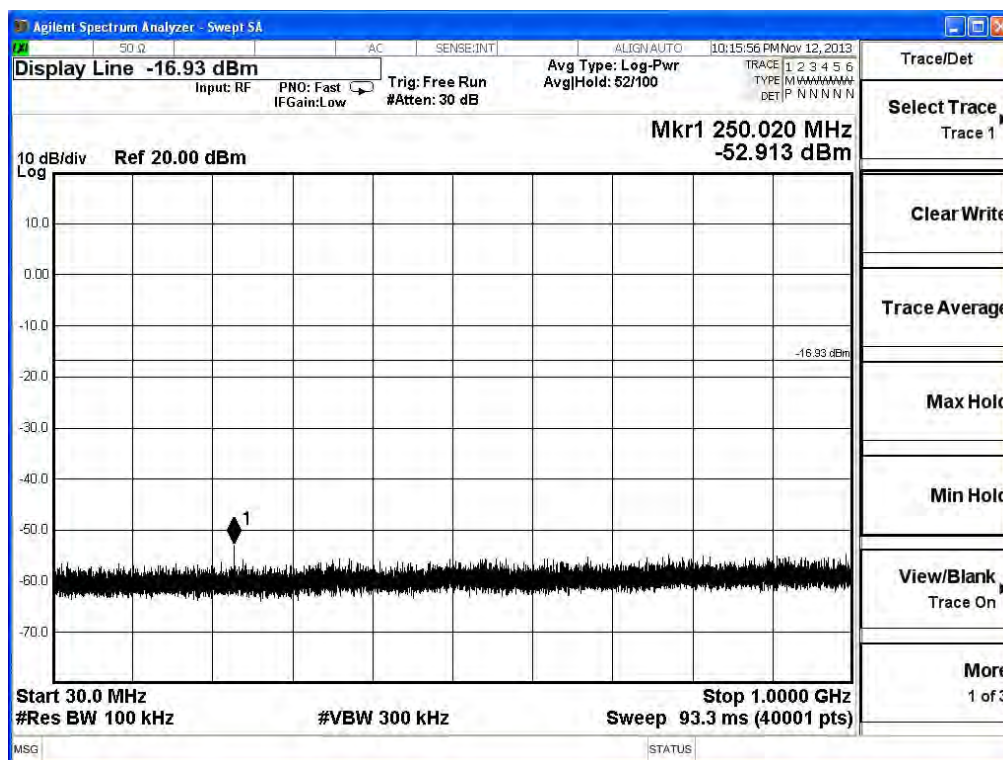
2462MHz (17GHz-21GHz) -802.11b



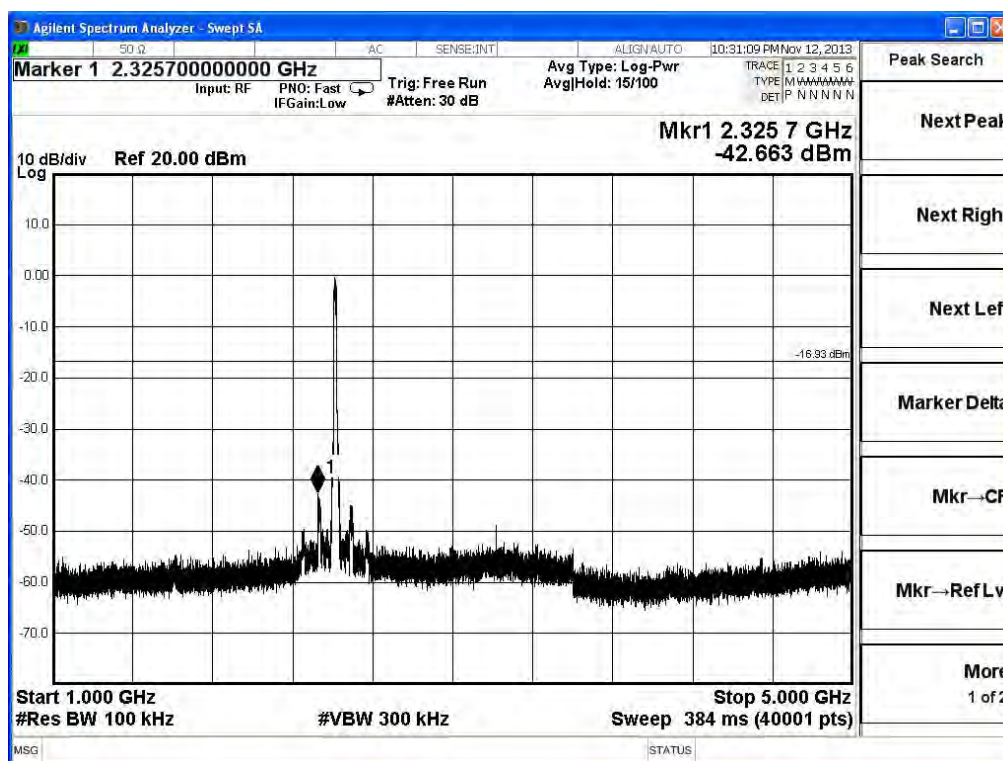
2462MHz (21GHz-25GHz)-802.11b



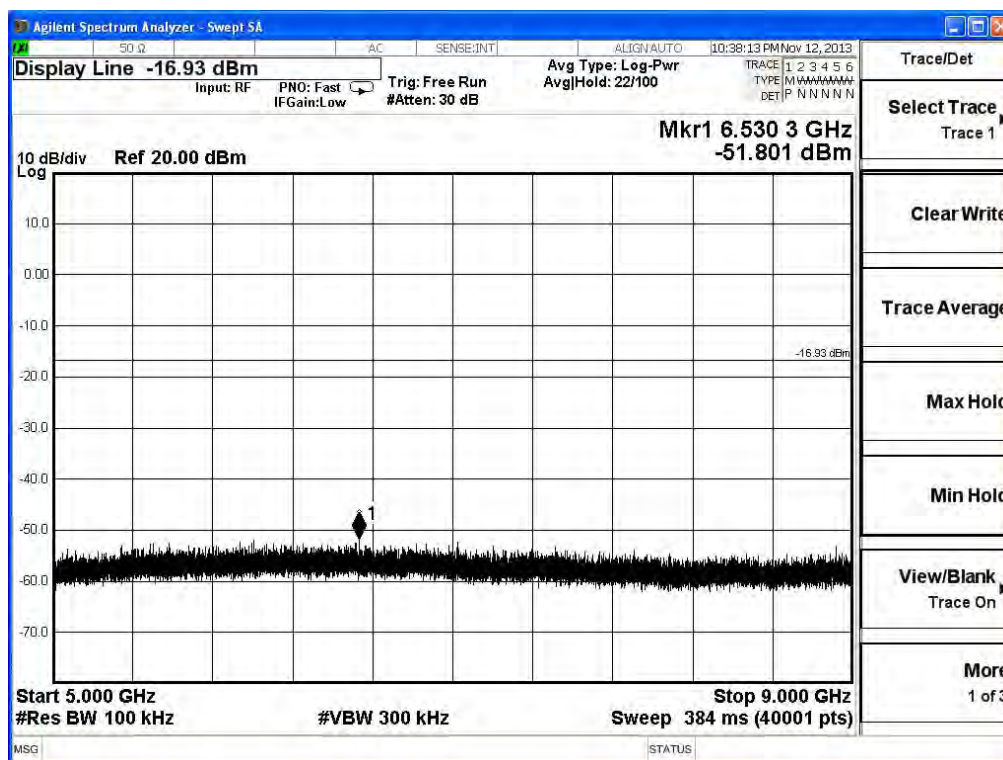
2412MHz (30MHz-1GHz) -802.11g



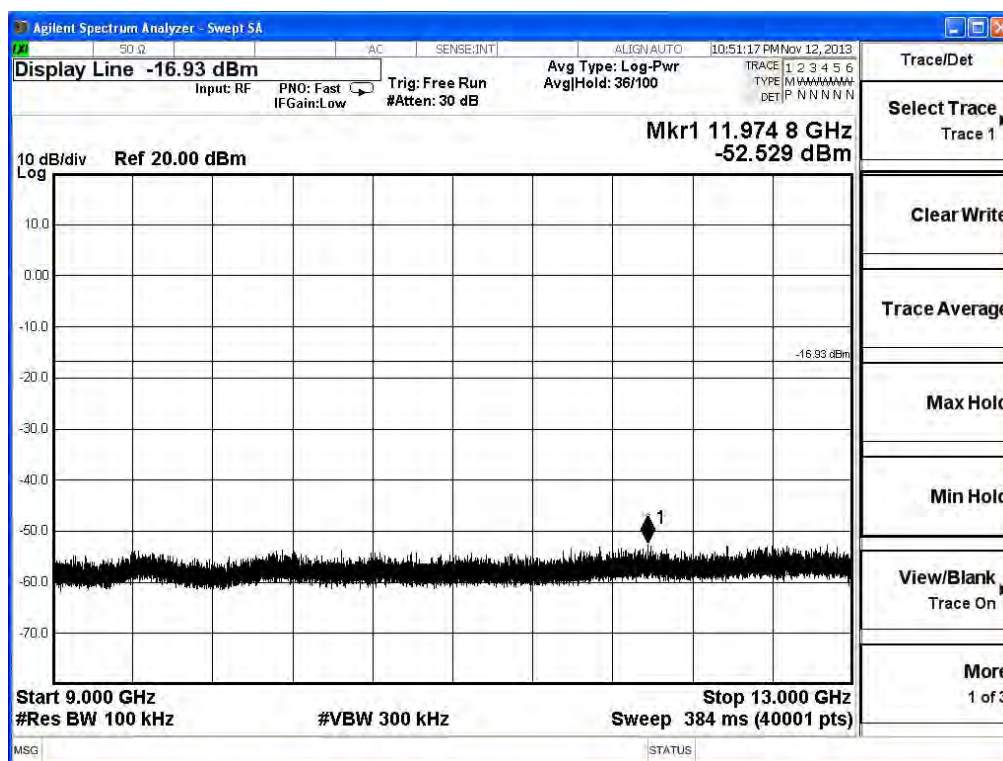
2412MHz (1GHz-5GHz)-802.11g



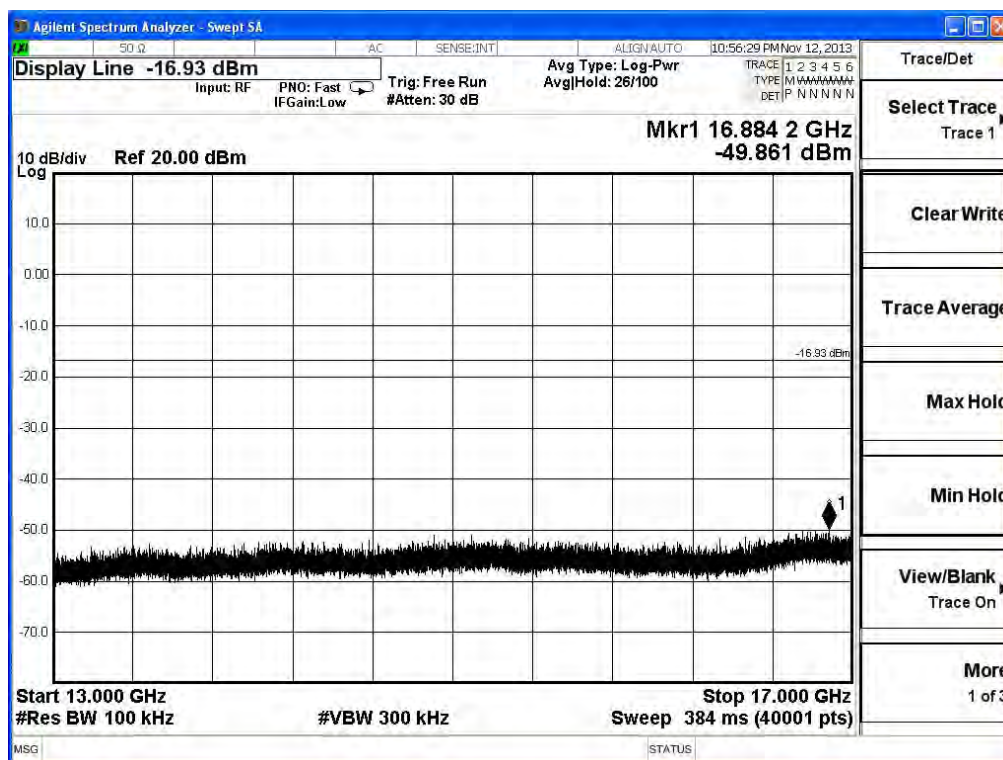
2412MHz (5GHz-9GHz) -802.11g



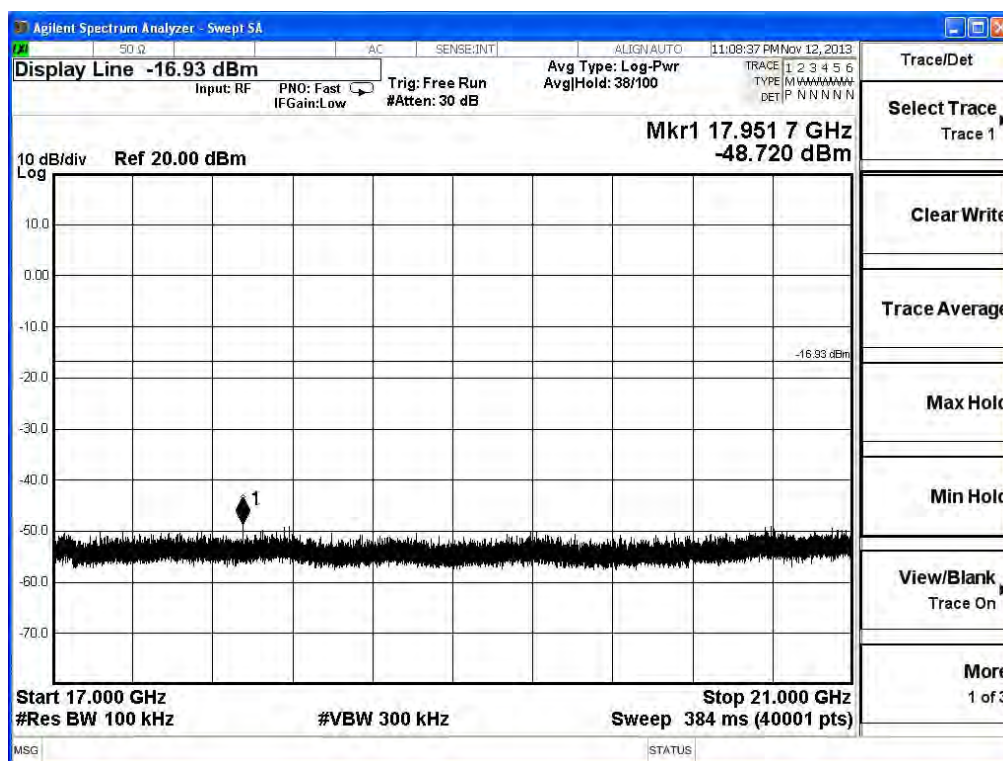
2412MHz (9GHz-13GHz)-802.11g



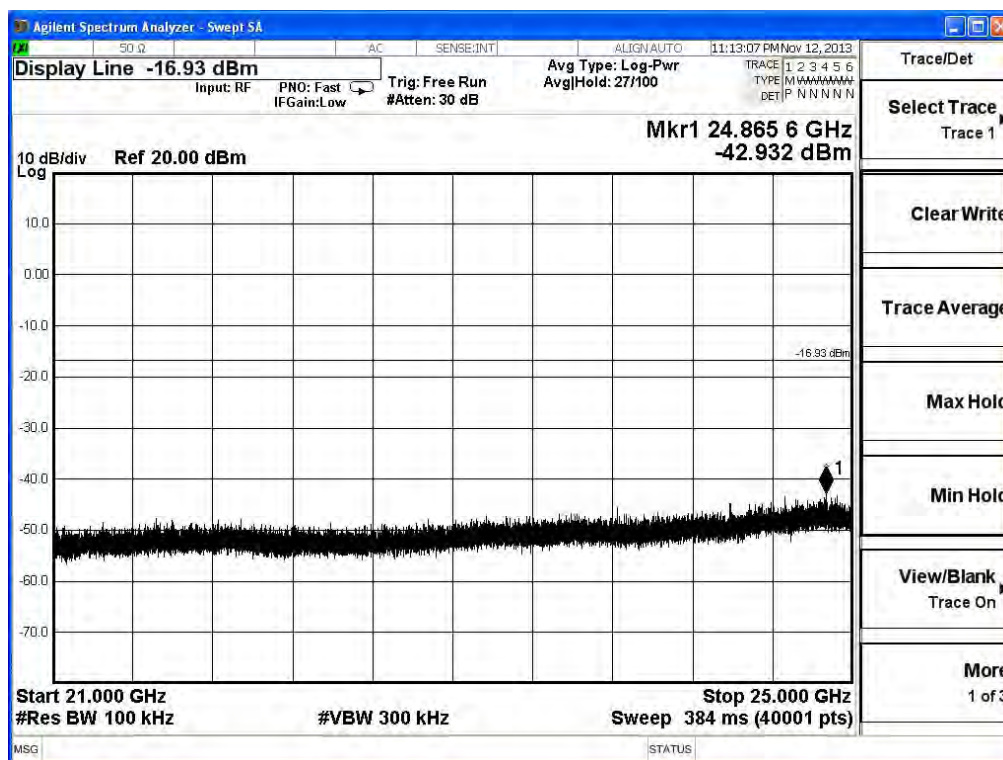
2412MHz (13GHz-17GHz) -802.11g



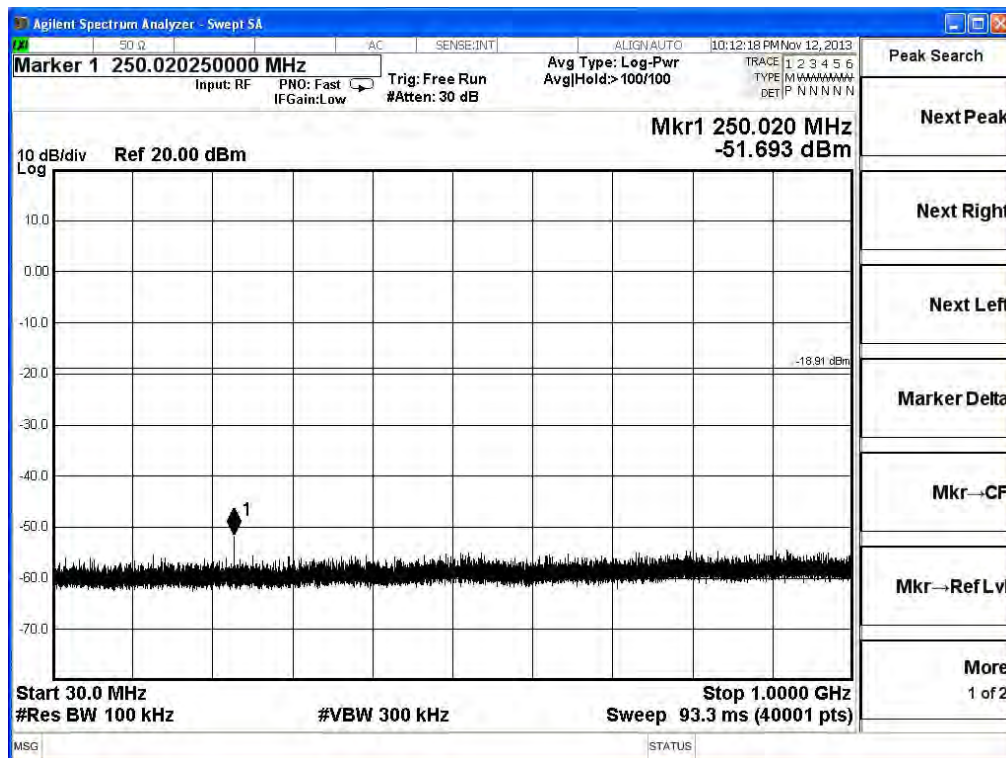
2412MHz (17GHz-21GHz)-802.11g



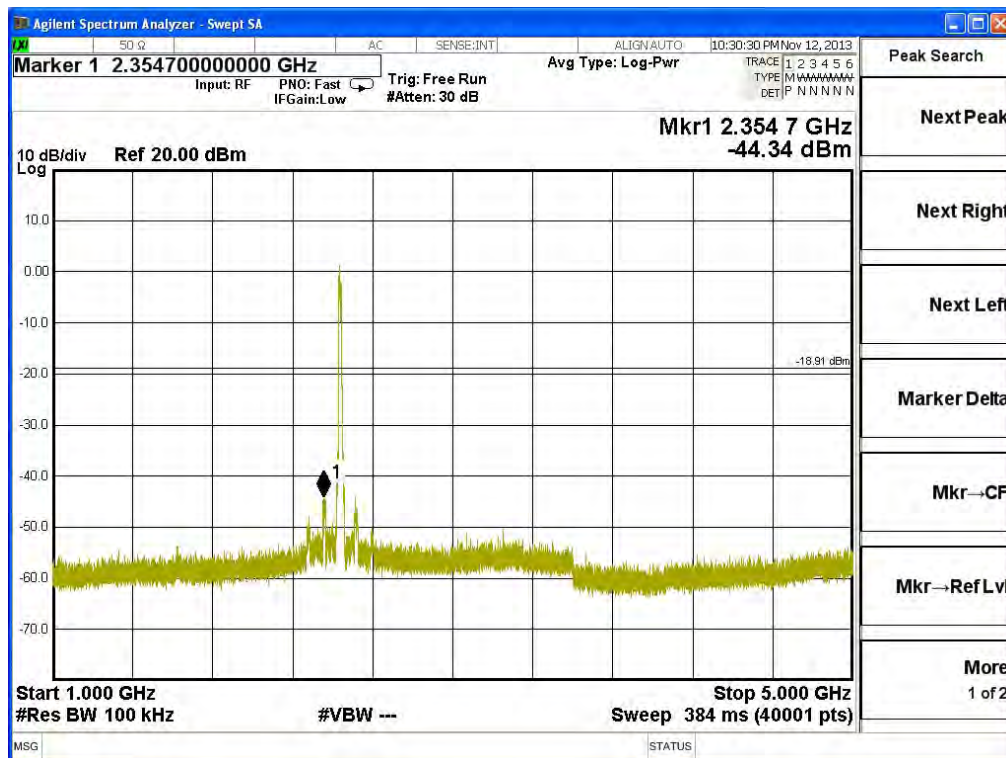
2412MHz (21GHz-25GHz) -802.11g



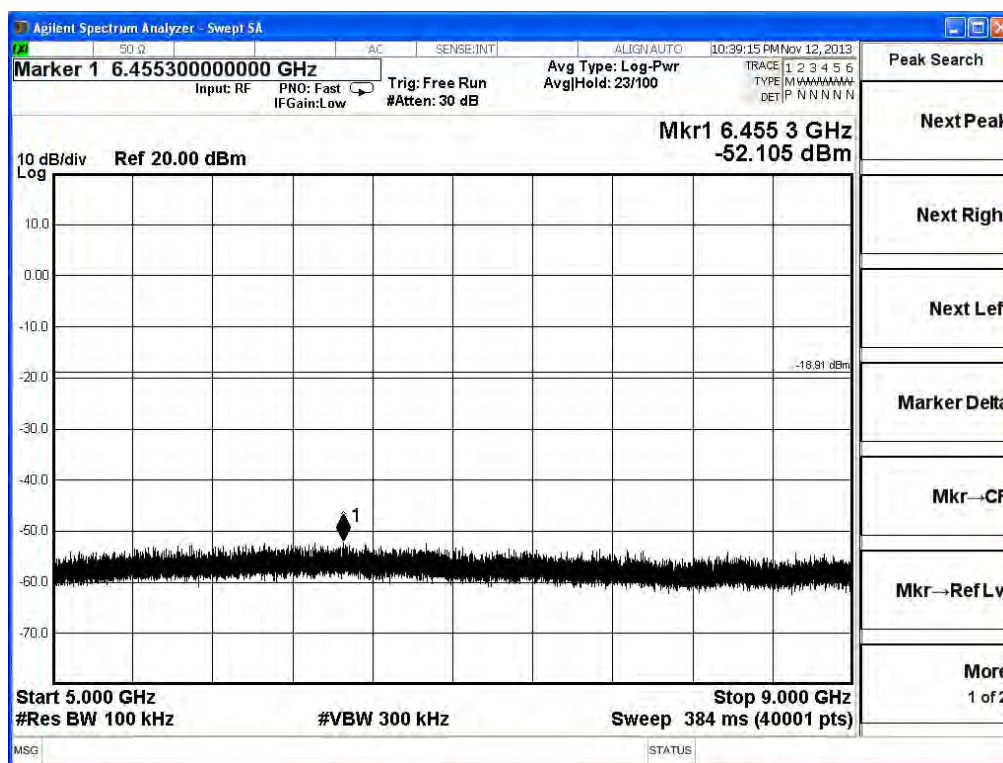
2437MHz (30MHz-1GHz)-802.11g



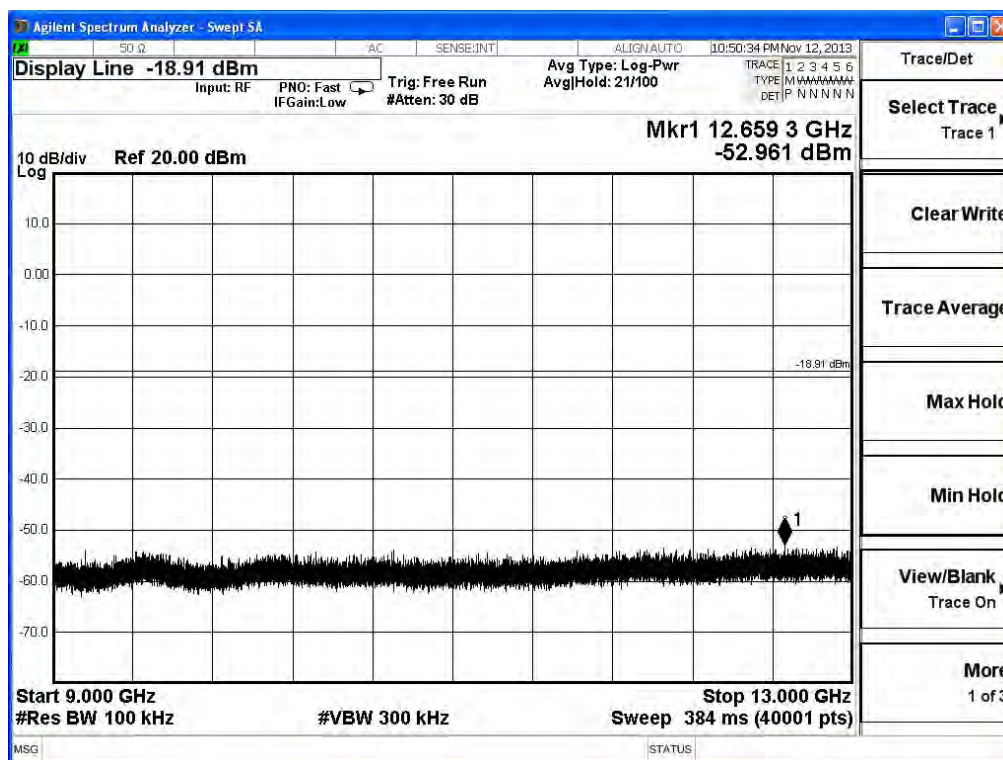
2437MHz (1GHz-5GHz) -802.11g



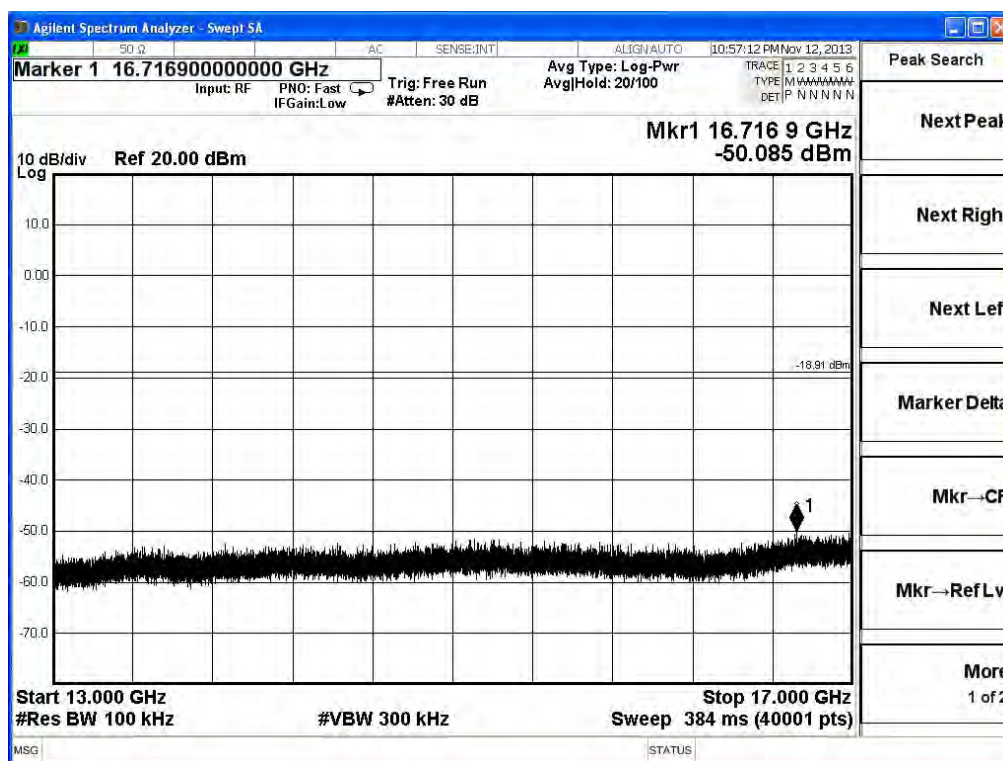
2437MHz (5GHz-9GHz)-802.11g



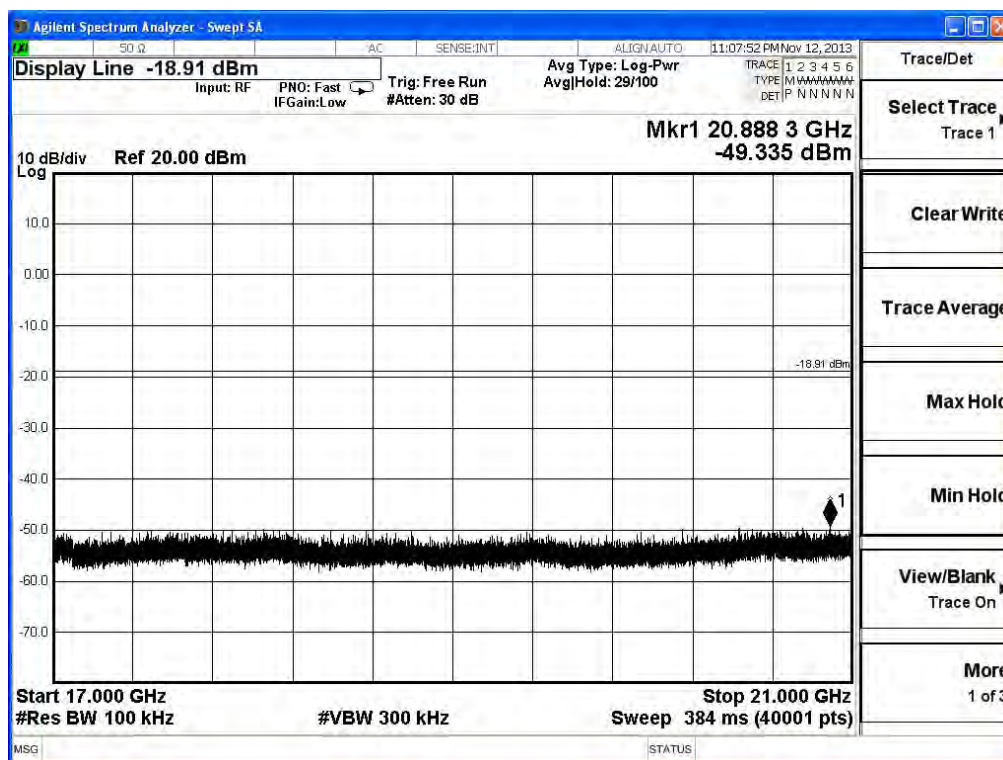
2437MHz (9GHz-13GHz) -802.11g



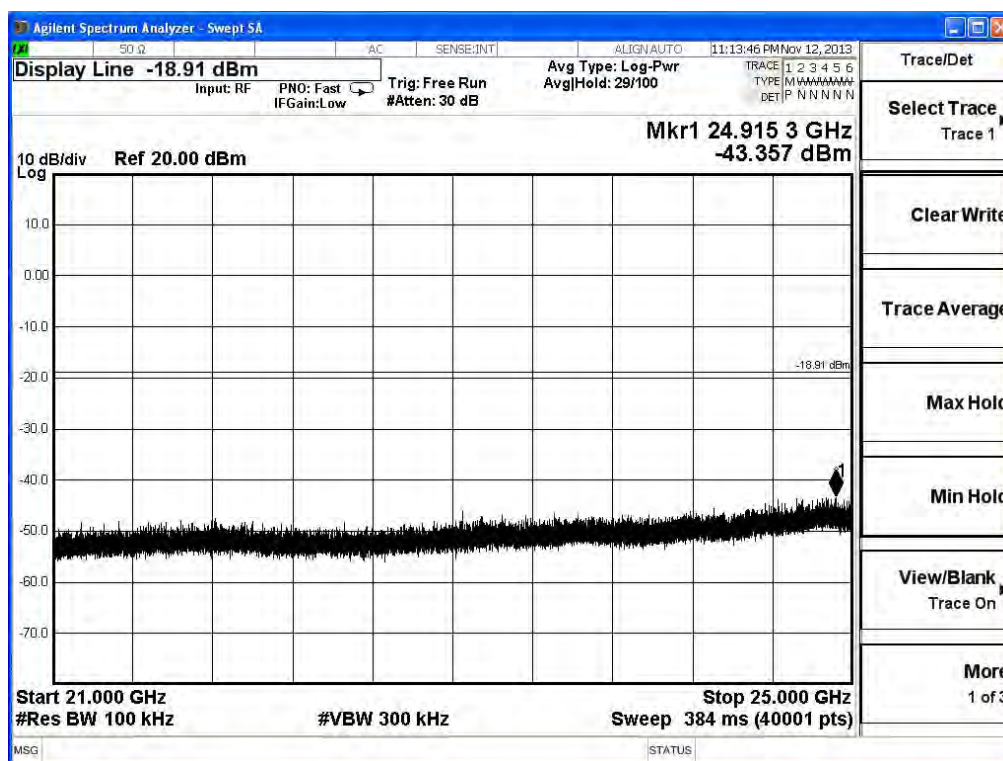
2437MHz (13GHz-17GHz)-802.11g



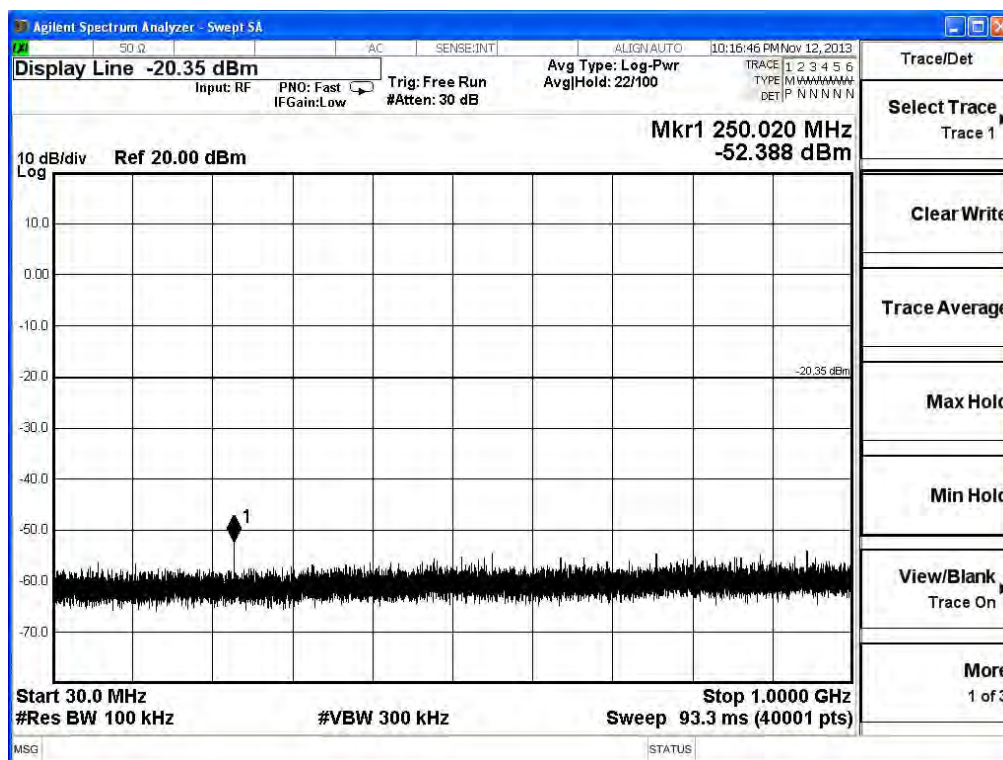
2437MHz (17GHz-21GHz) -802.11g



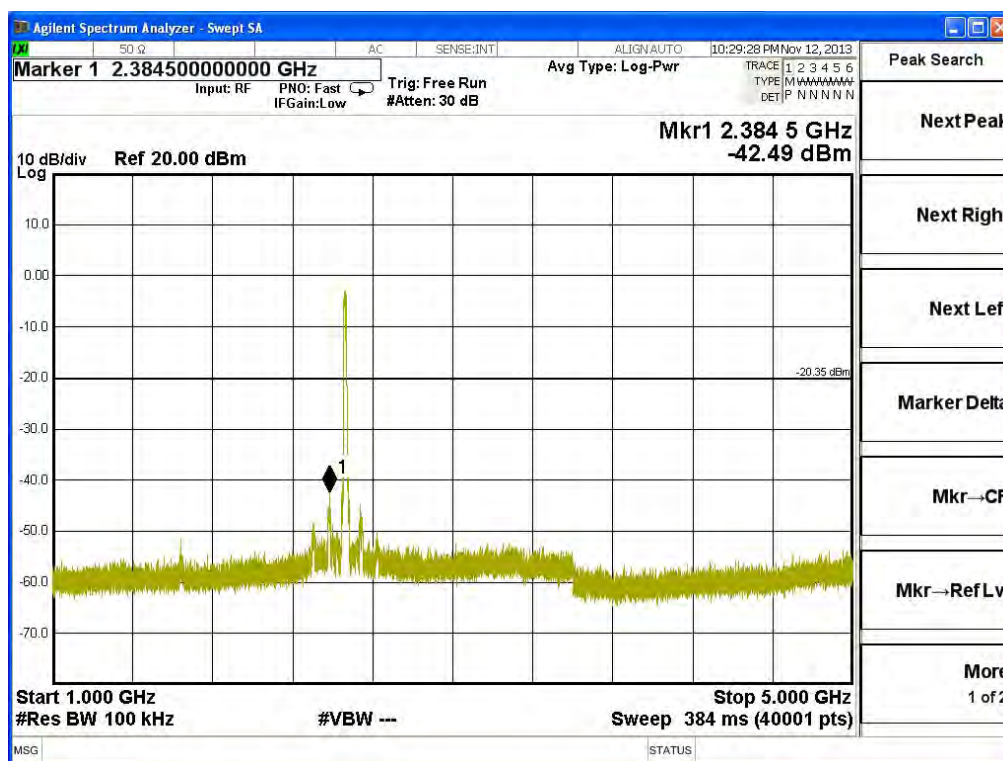
2437MHz (21GHz-25GHz)-802.11g



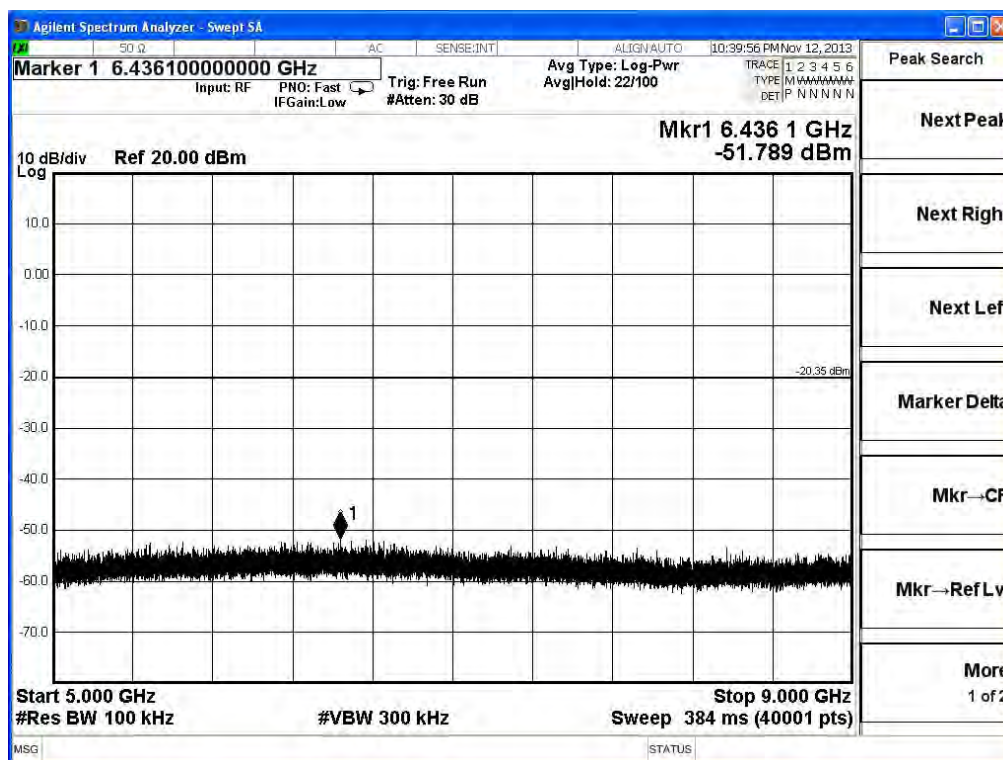
2462MHz (30MHz-1GHz) -802.11g



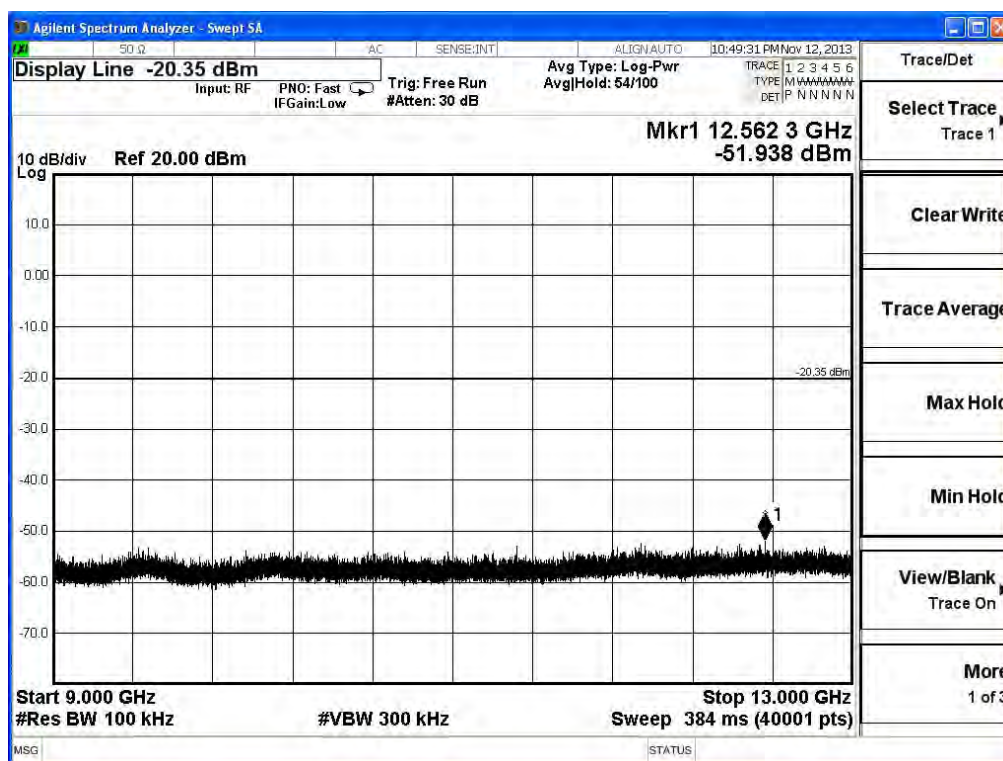
2462MHz (1GHz-5GHz)-802.11g



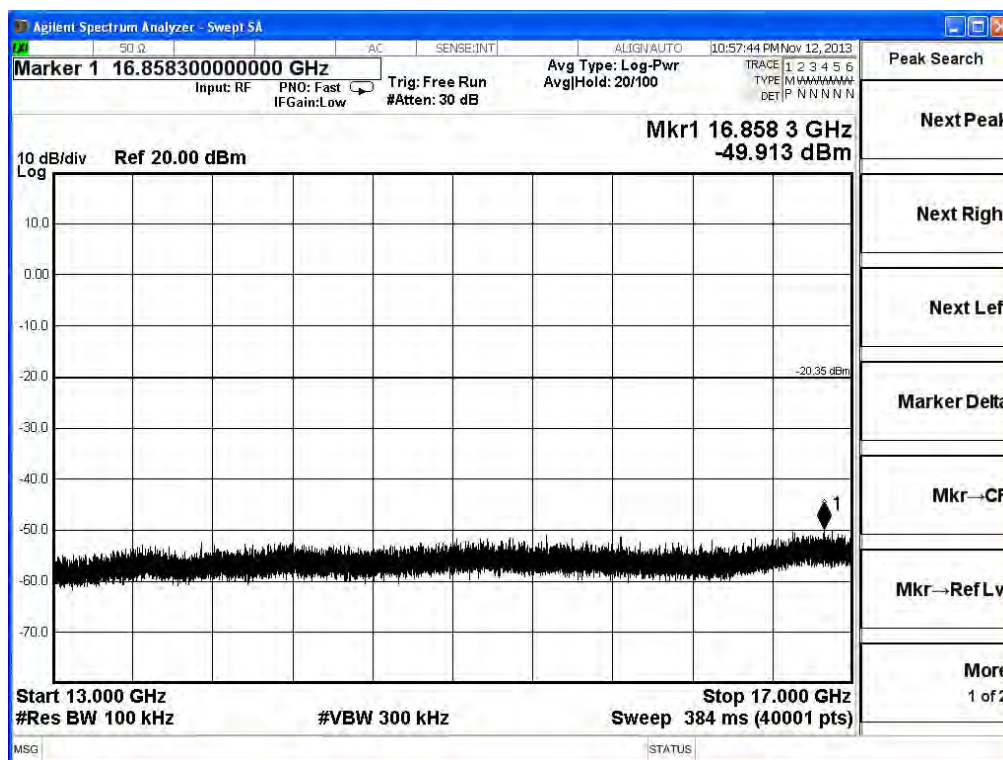
2462MHz (5GHz-9GHz) -802.11g



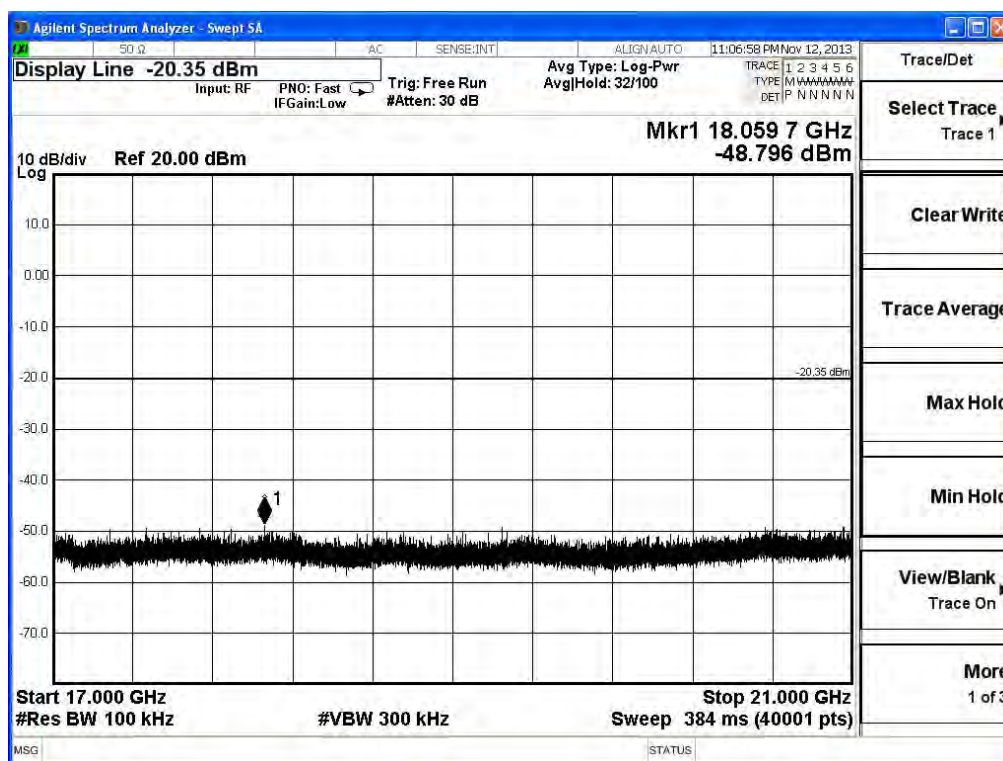
2462MHz (9GHz-13GHz)-802.11g



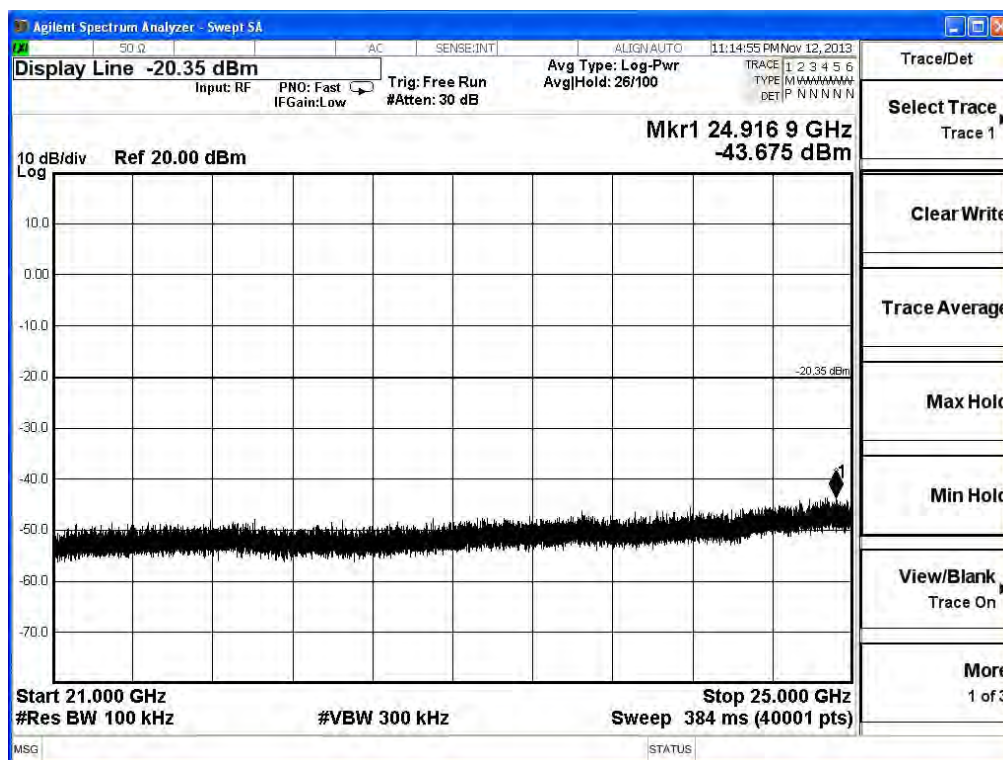
2462MHz (13GHz-17GHz) -802.11g



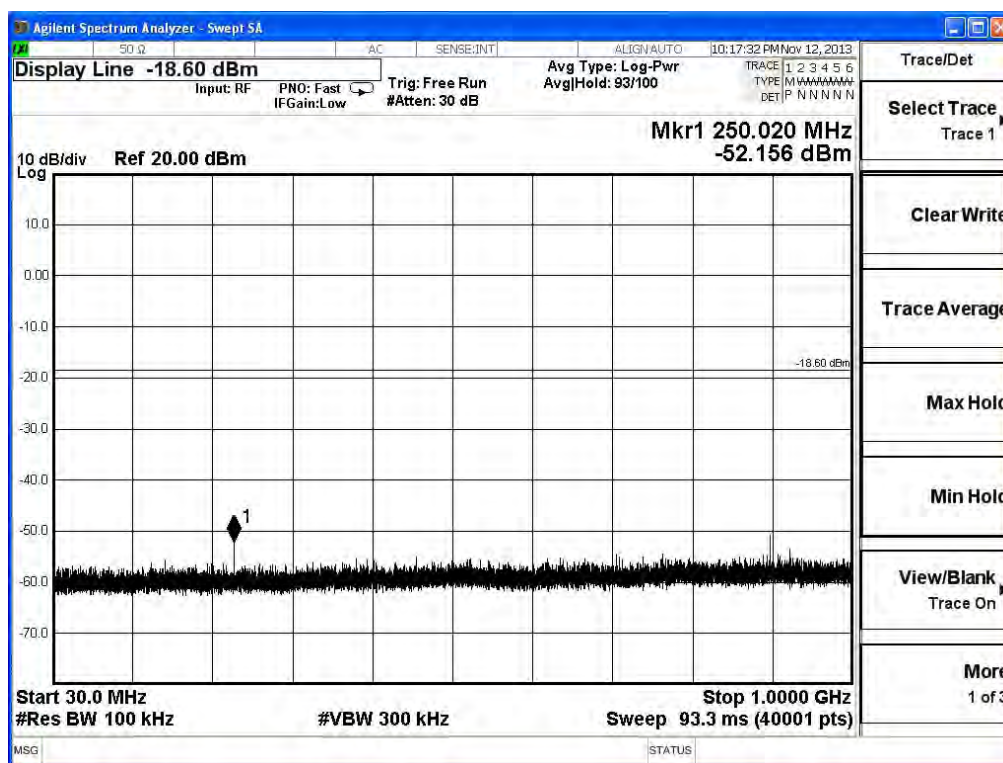
2462MHz (17GHz-21GHz)-802.11g



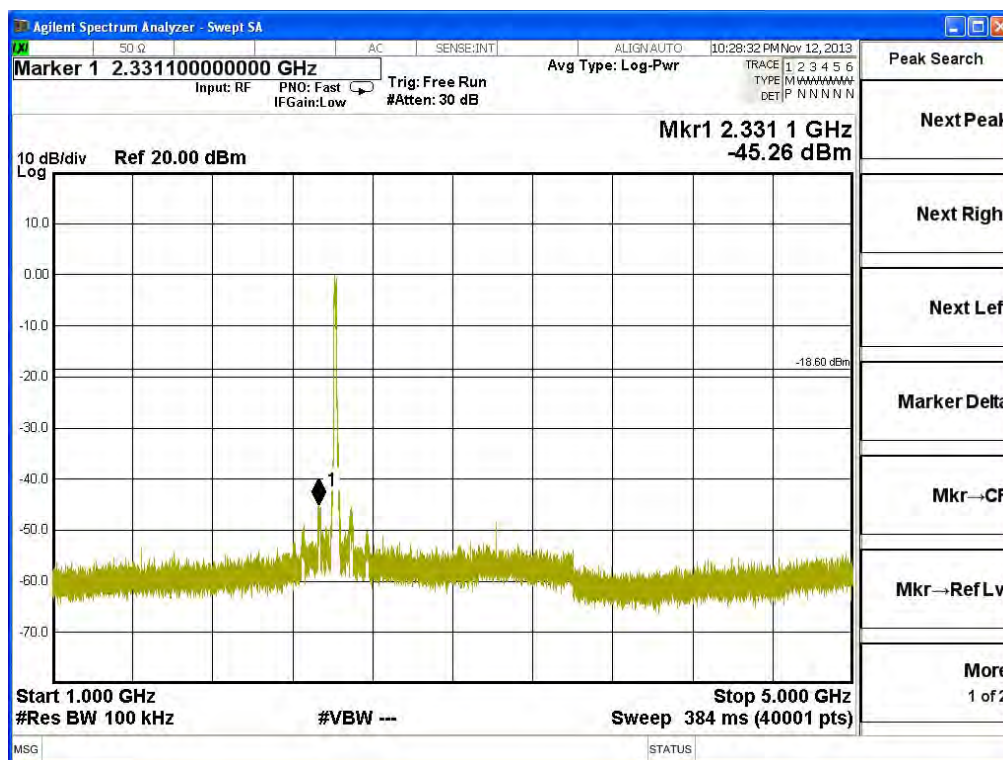
2462MHz (21GHz-25GHz) -802.11g



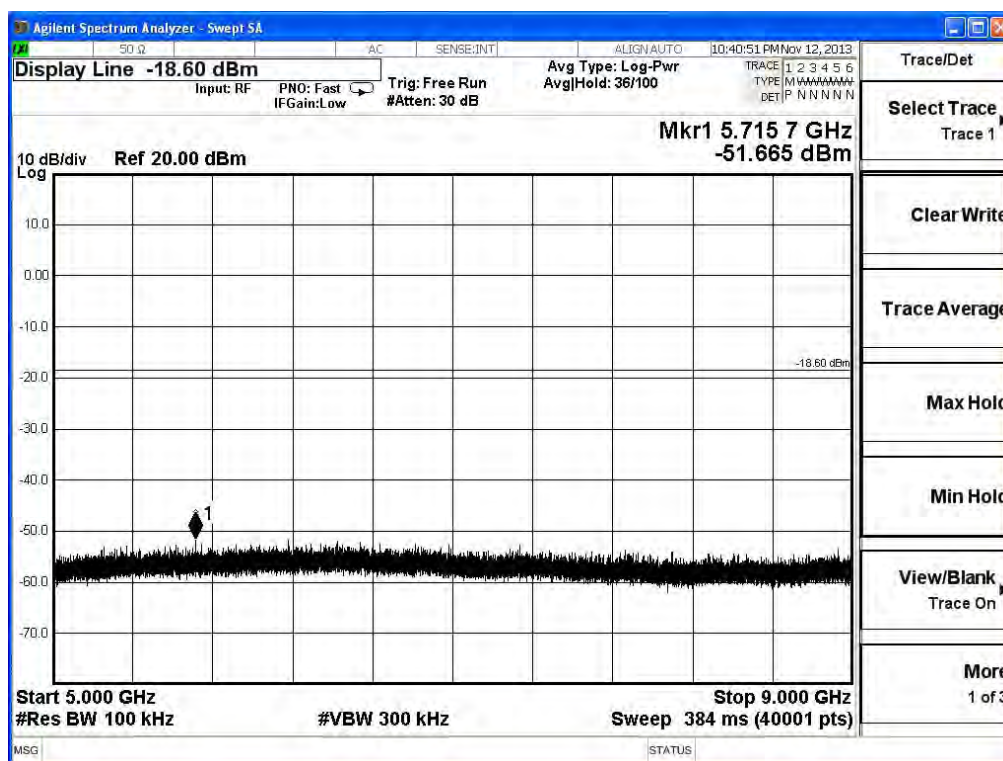
2412MHz (30MHz-1GHz)-802.11n(20MHz) (Ant 0)



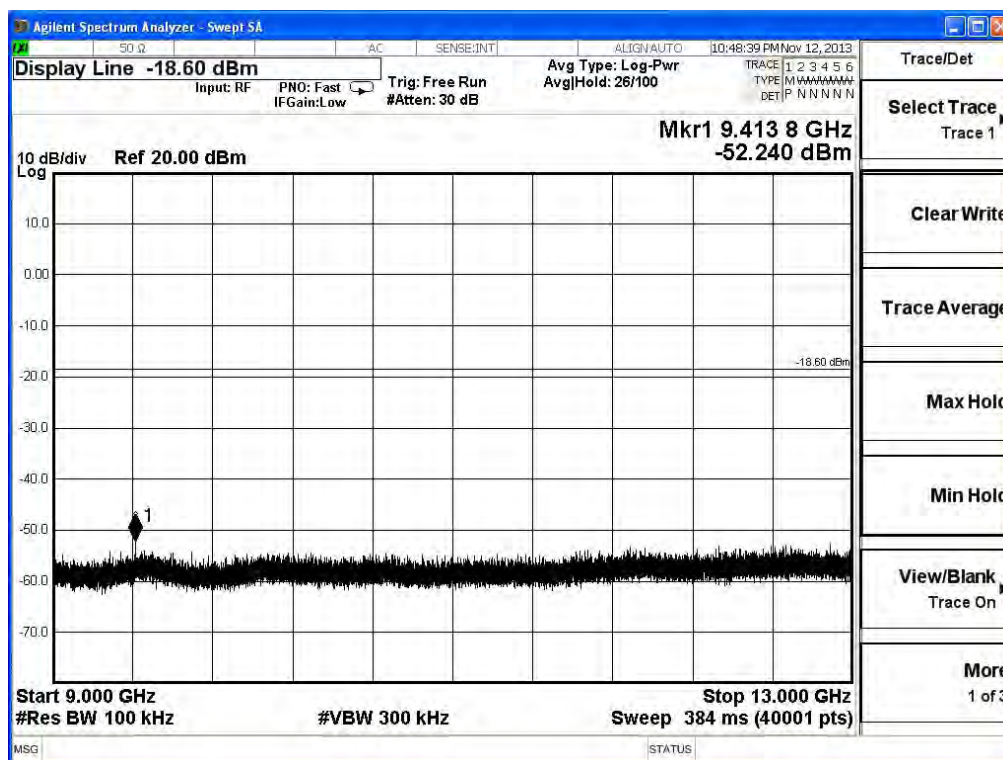
2412MHz (1GHz-5GHz) -802.11n(20MHz) (Ant 0)



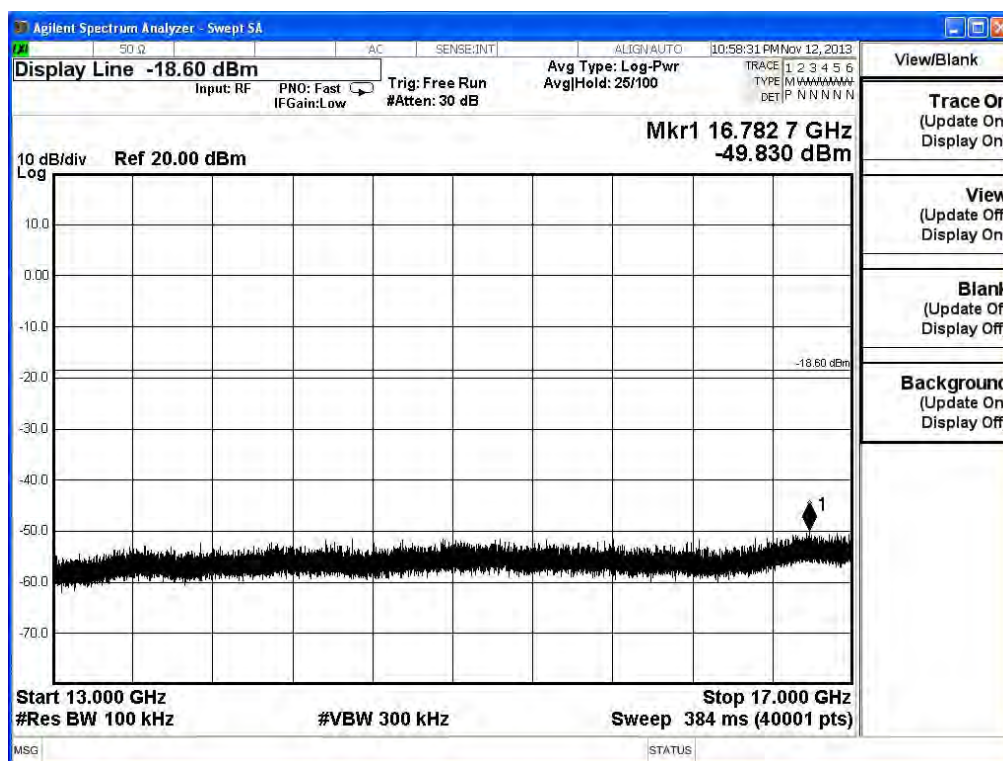
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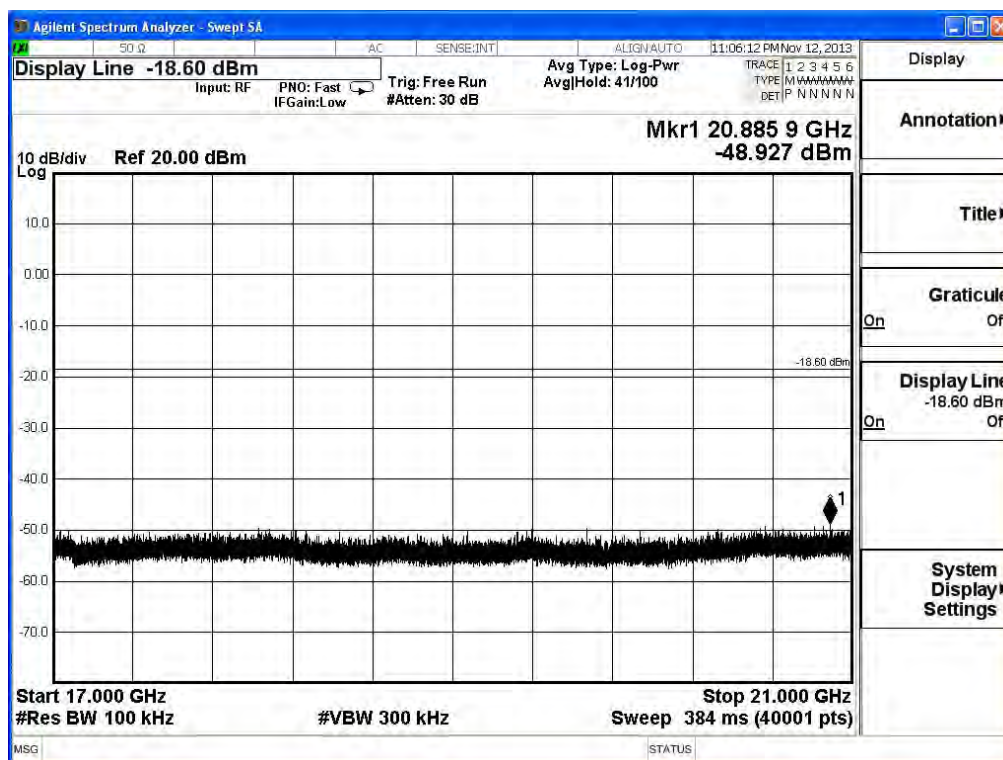
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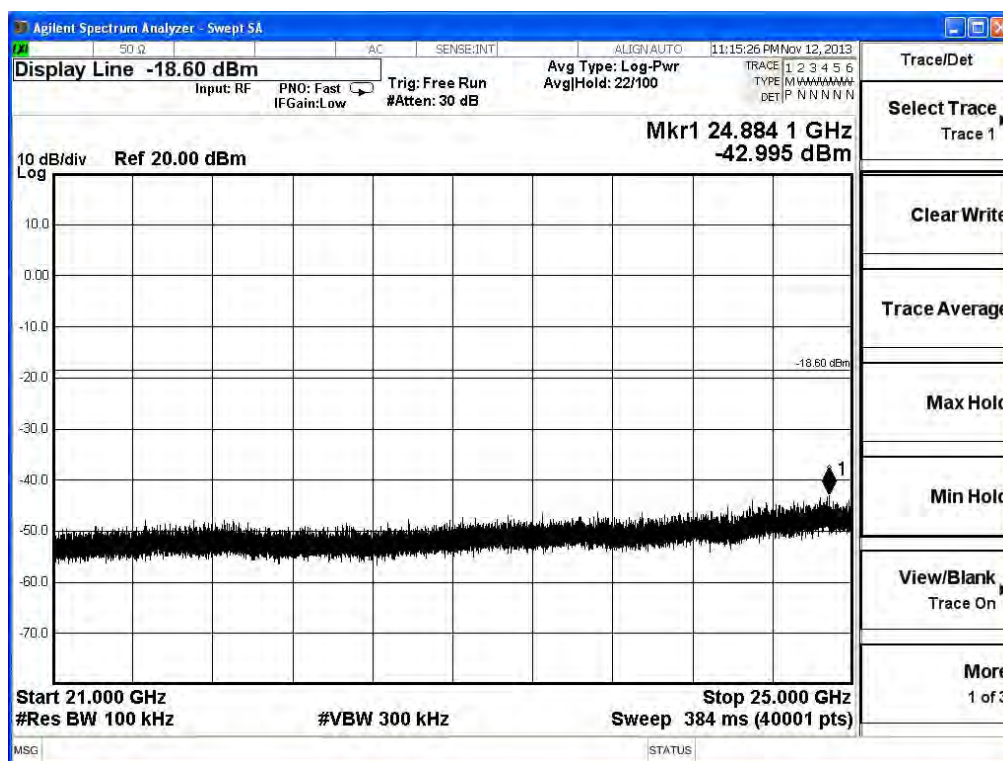
2412MHz (13GHz-17GHz)-802.11n(20MHz) (Ant 0)



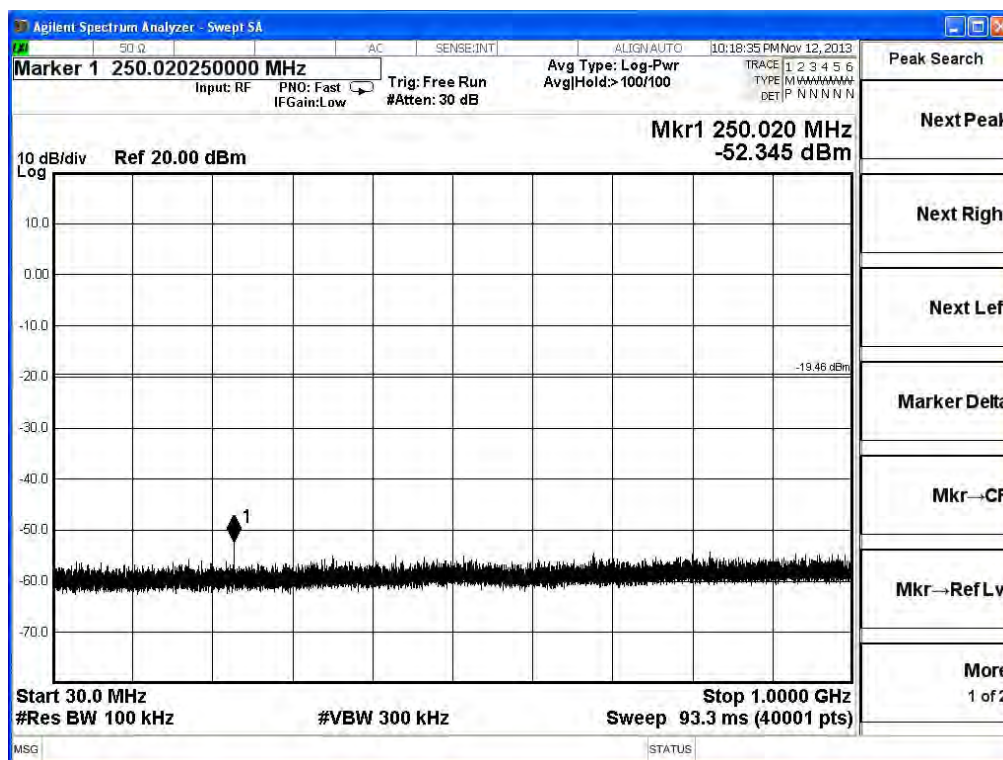
2412MHz (17GHz-21GHz) -802.11n(20MHz) (Ant 0)



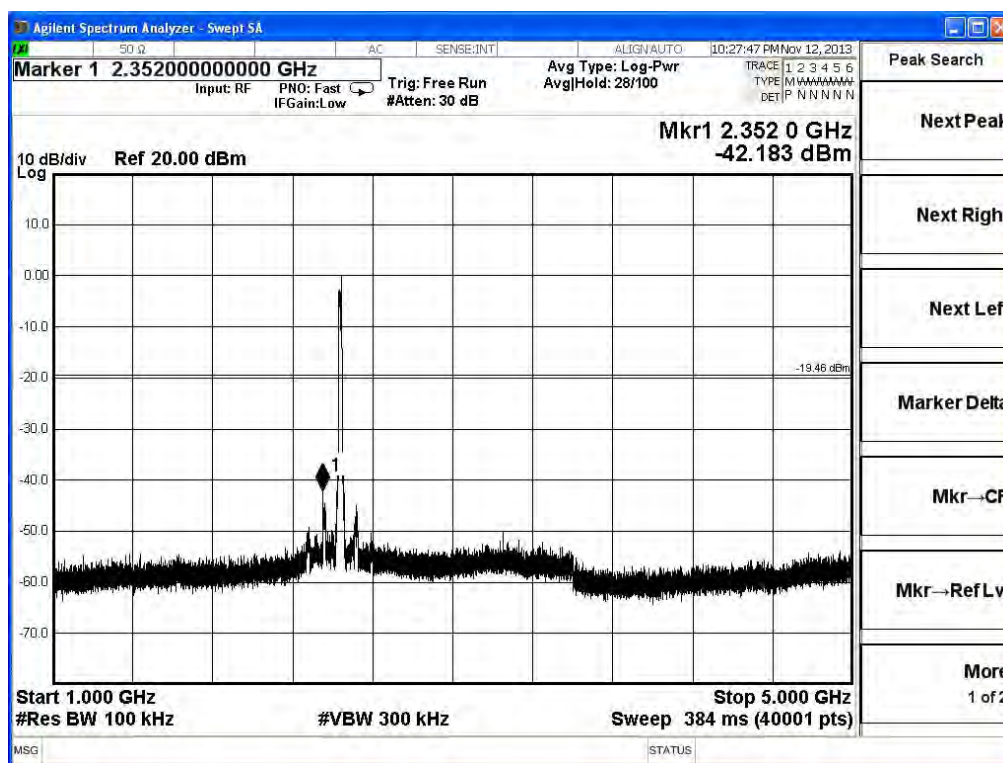
2412MHz (21GHz-25GHz)-802.11n(20MHz) (Ant 0)



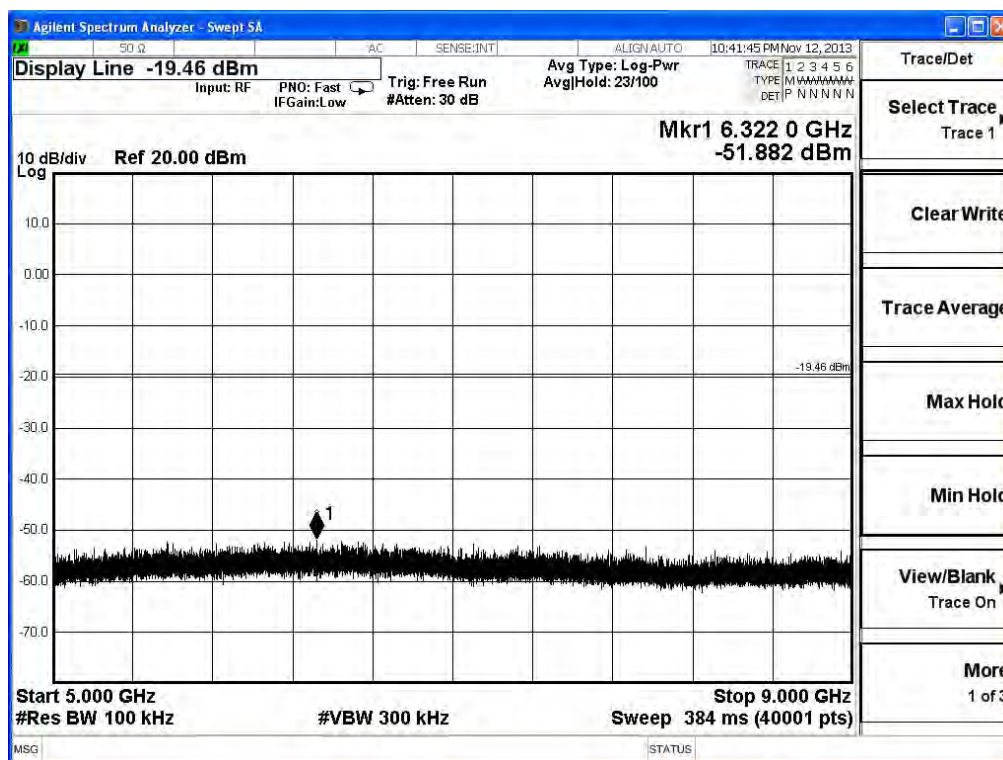
2437MHz (30MHz-1GHz) -802.11n(20MHz) (Ant 0)



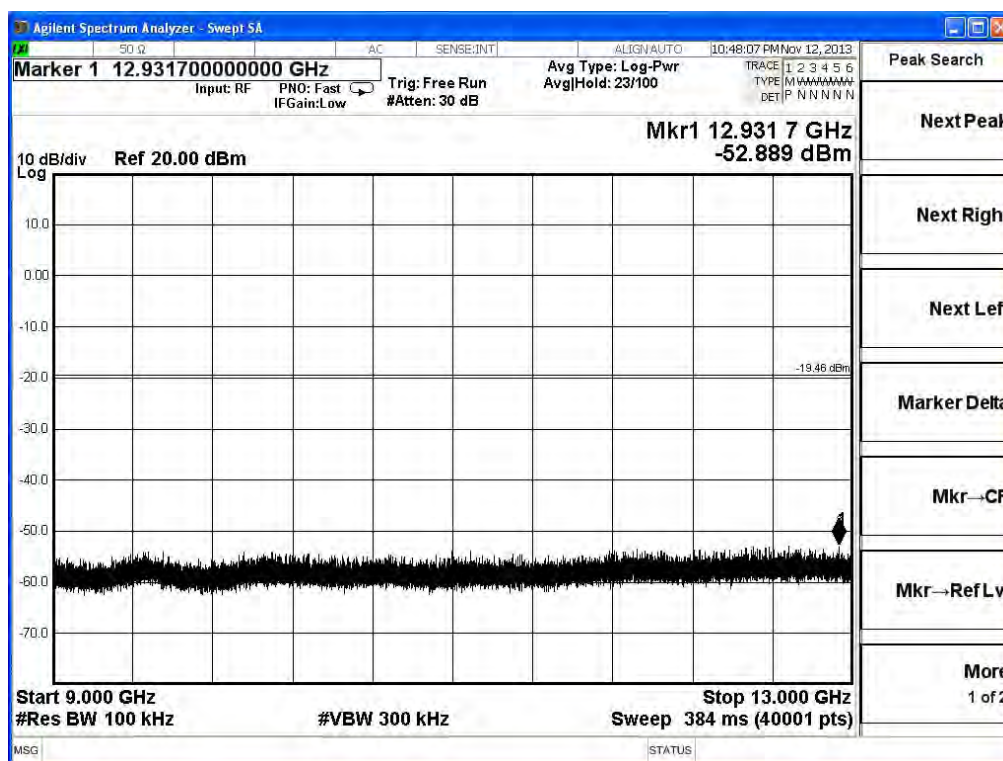
2437MHz (1GHz-5GHz) -802.11n(20MHz) (Ant 0)



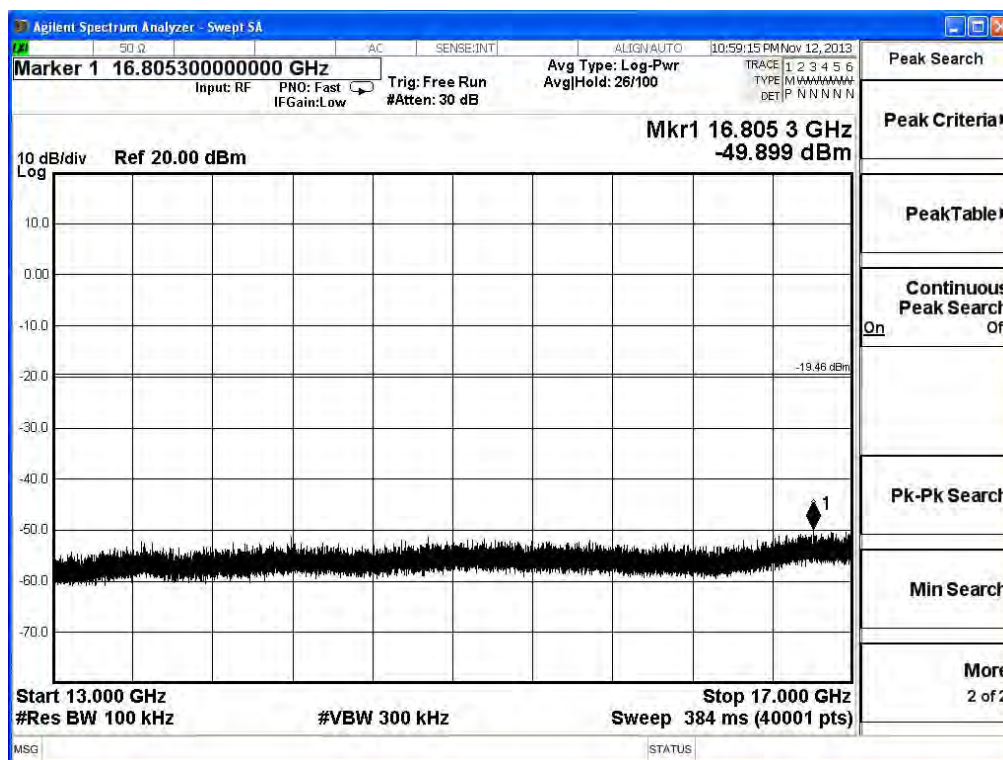
2437MHz (5GHz-9GHz) -802.11n(20MHz) (Ant 0)



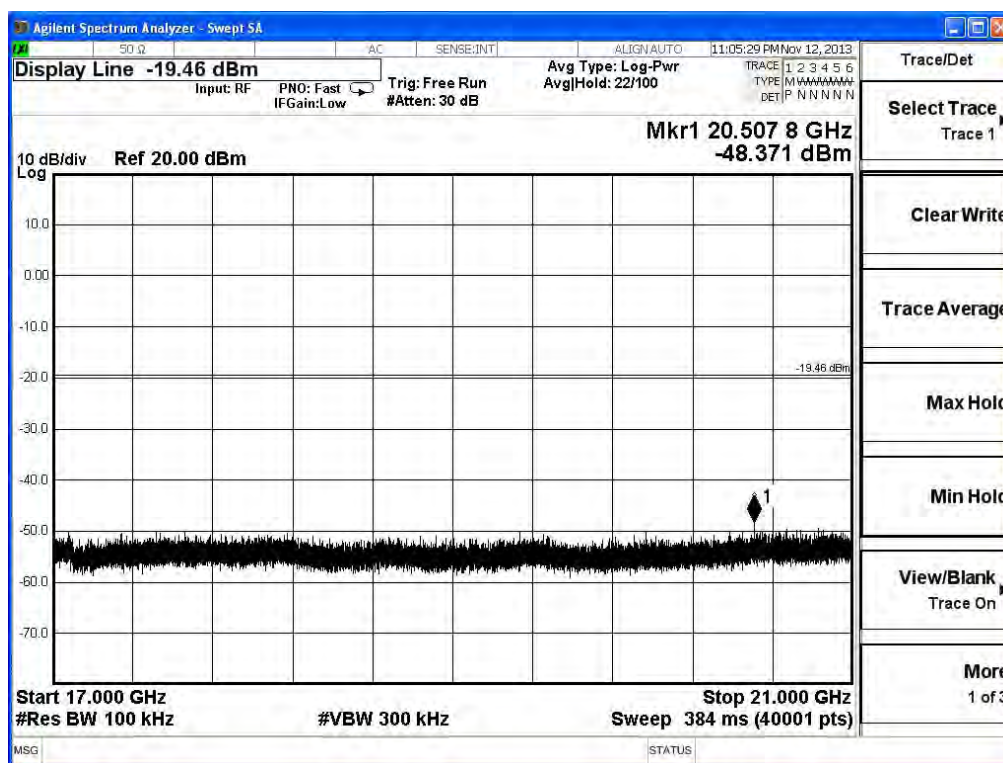
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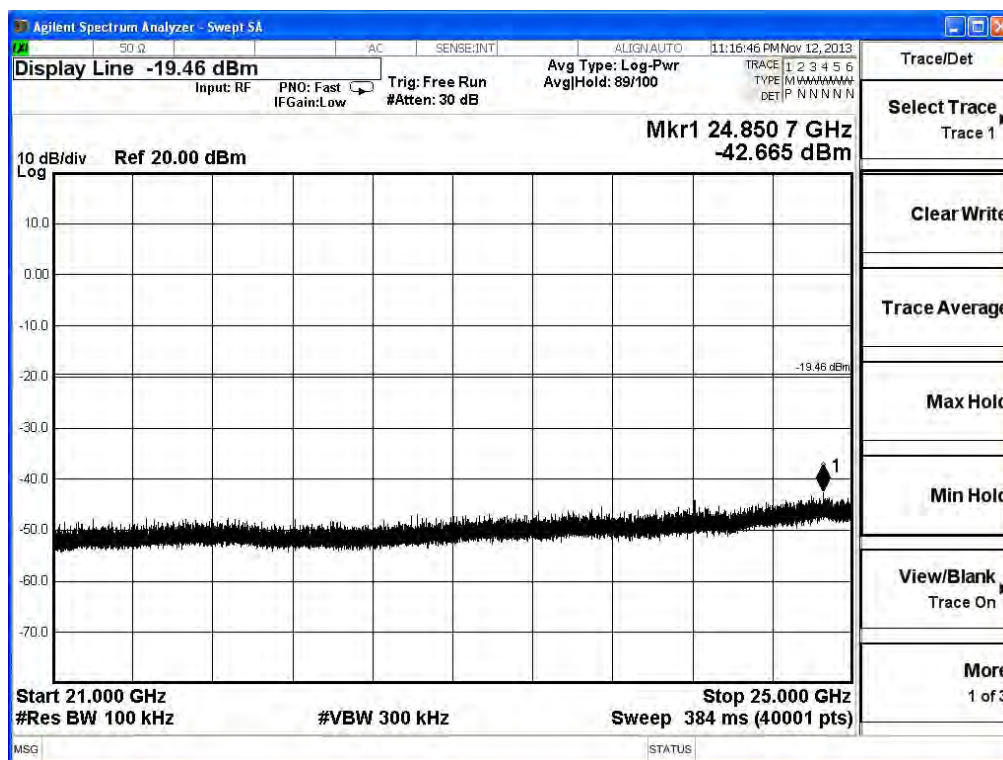
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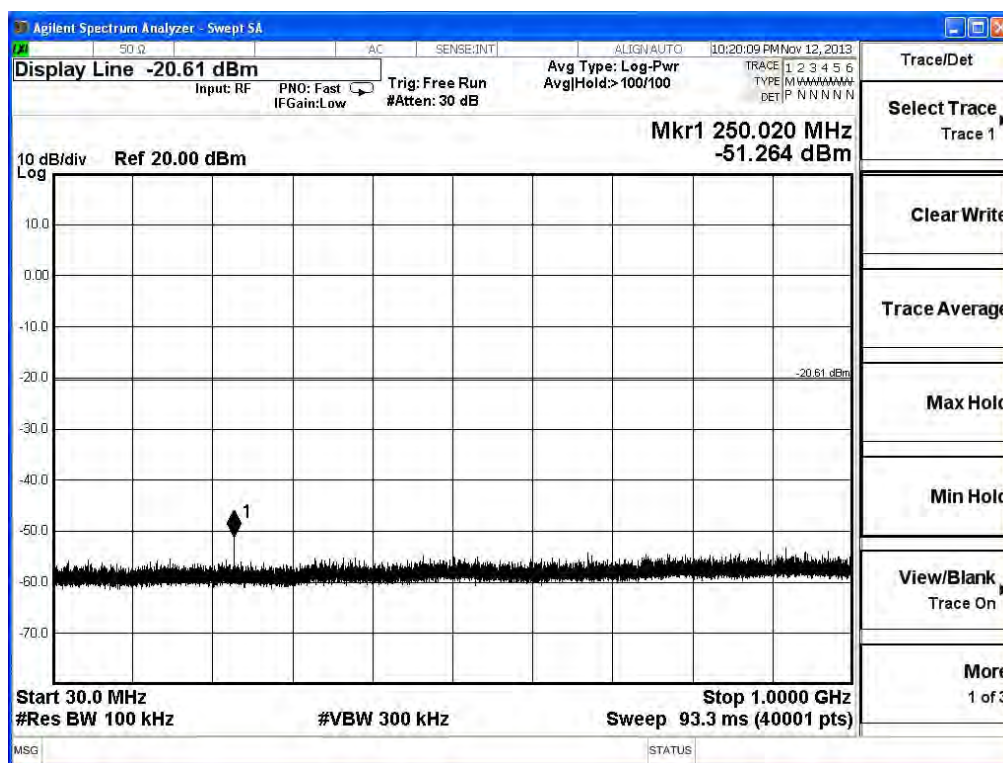
2437MHz (17GHz-21GHz) -802.11n(20MHz) (Ant 0)



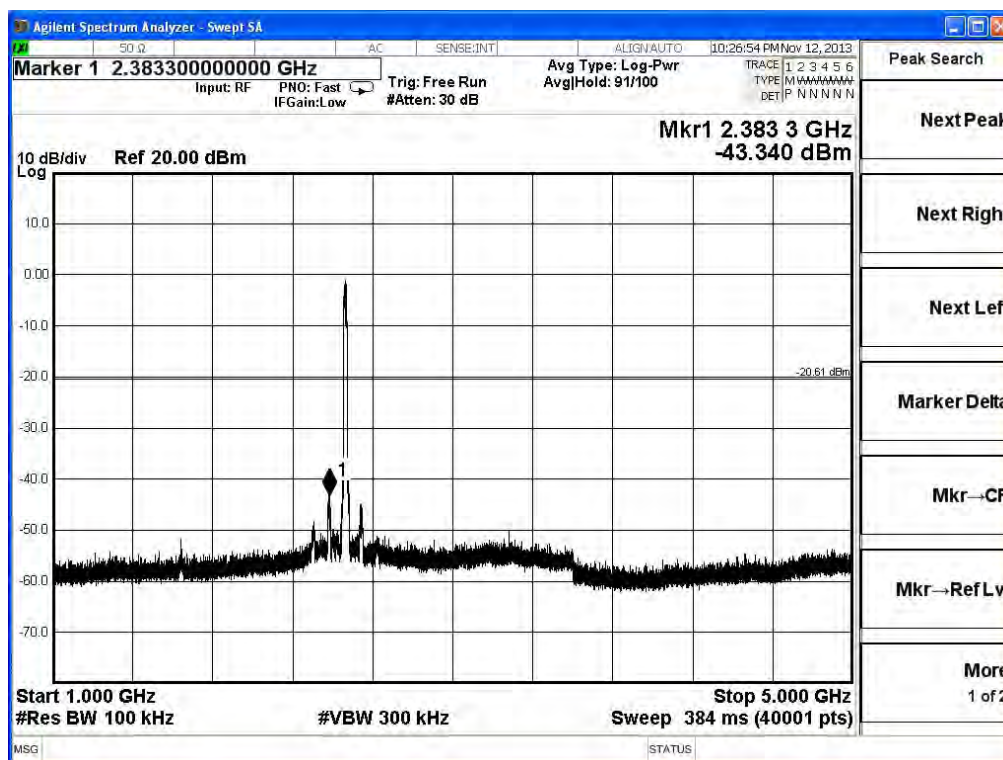
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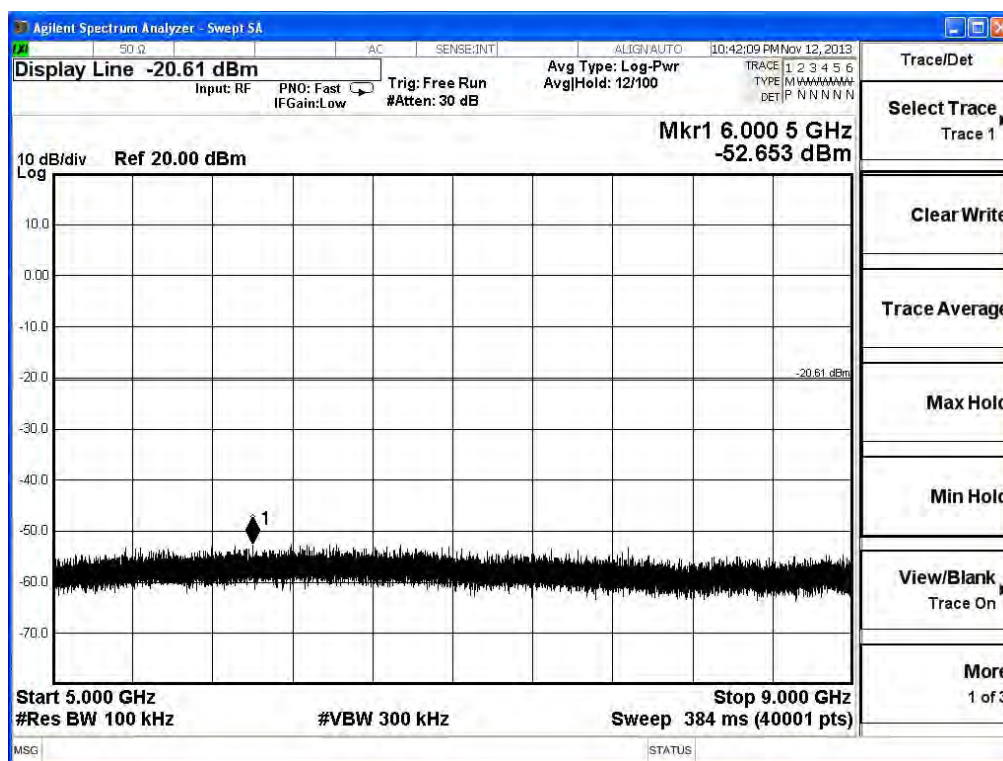
2462MHz (30MHz-1GHz)-802.11n(20MHz) (Ant 0)



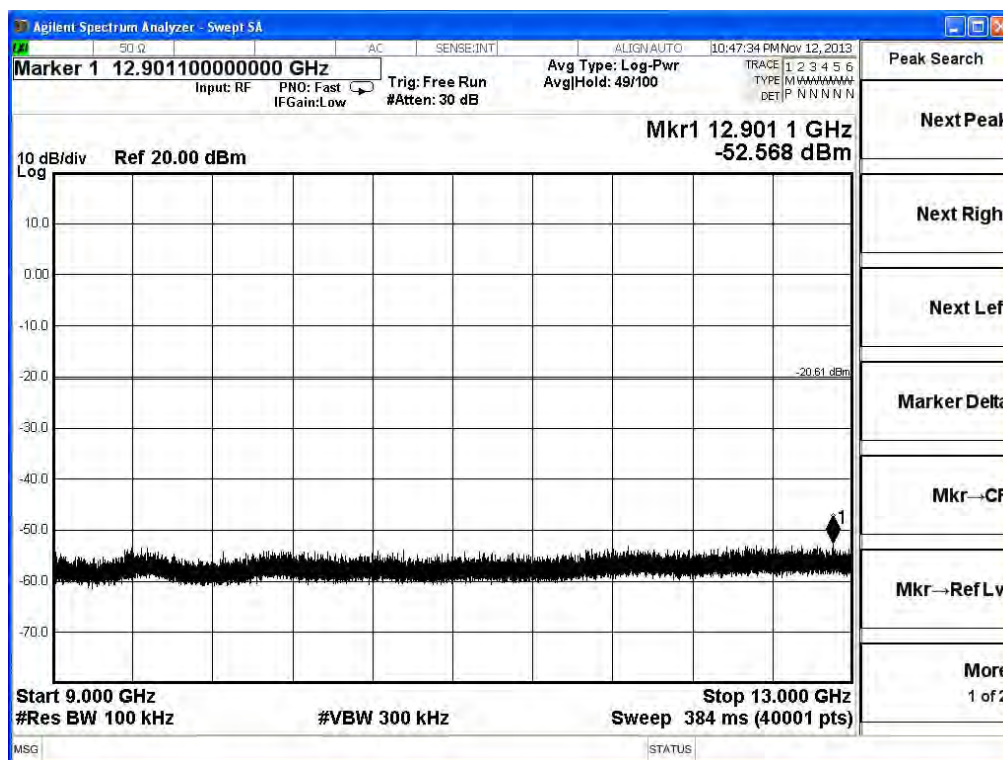
2462MHz (1GHz-5GHz) -802.11n(20MHz) (Ant 0)



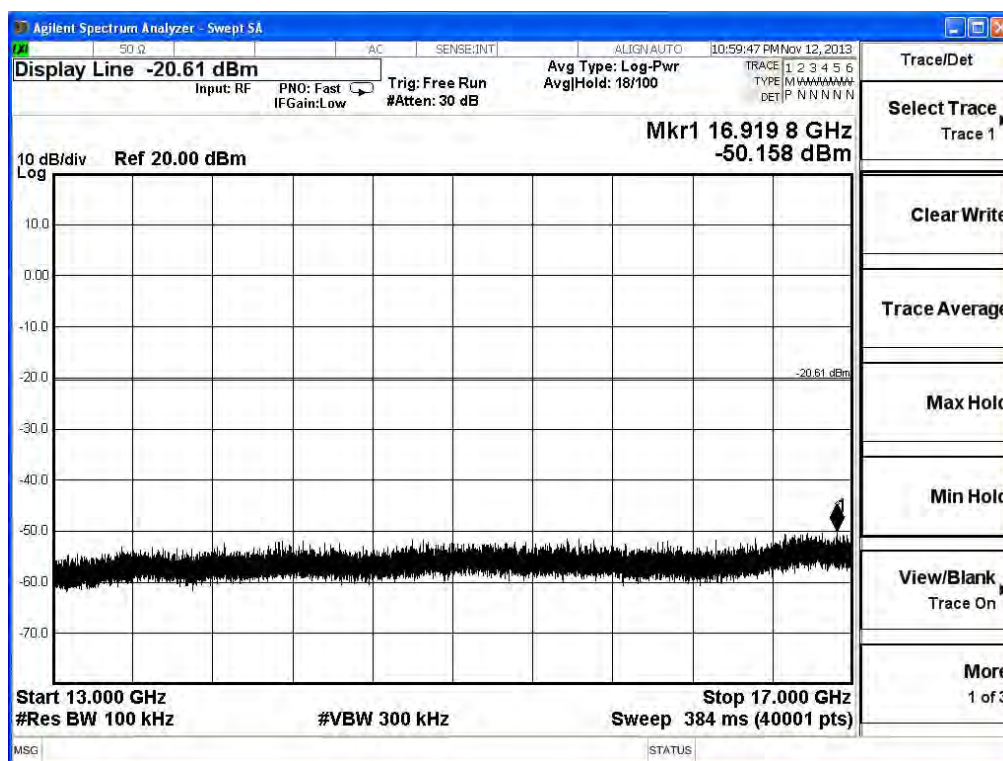
2462MHz (5GHz-9GHz)-802.11n(20MHz) (Ant 0)



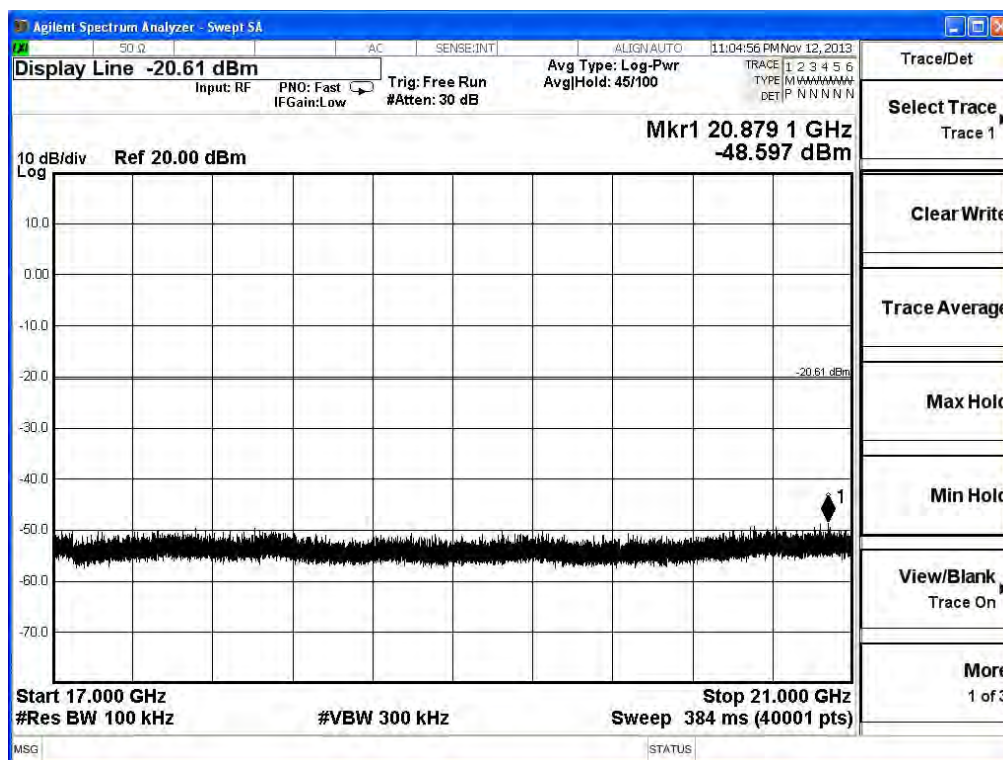
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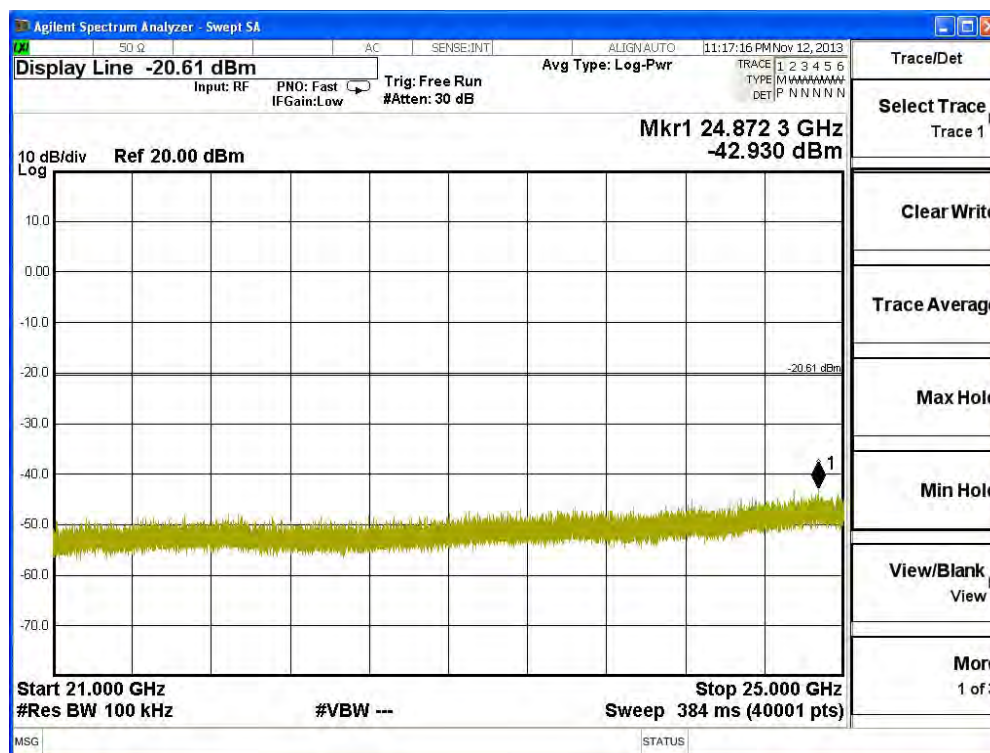
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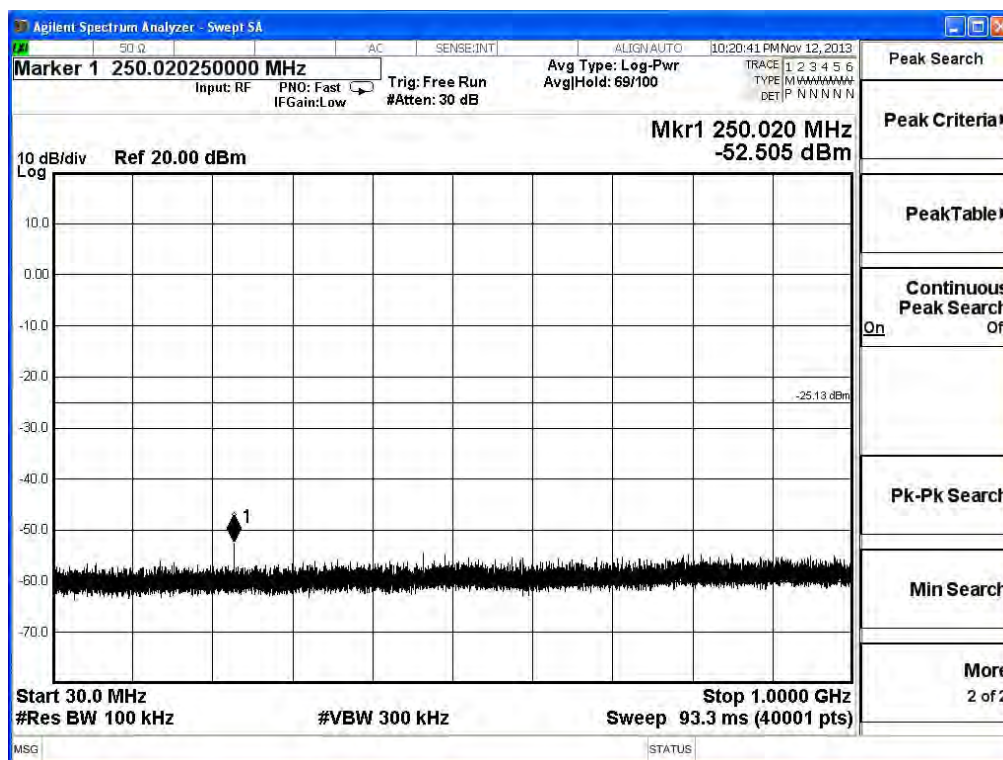
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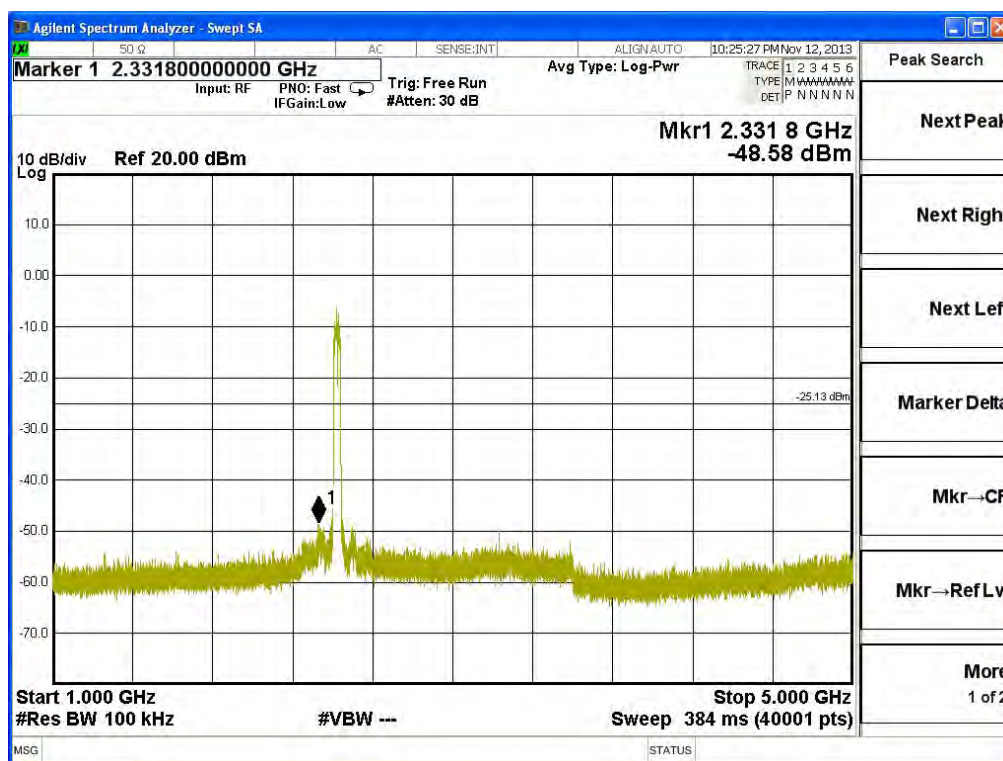
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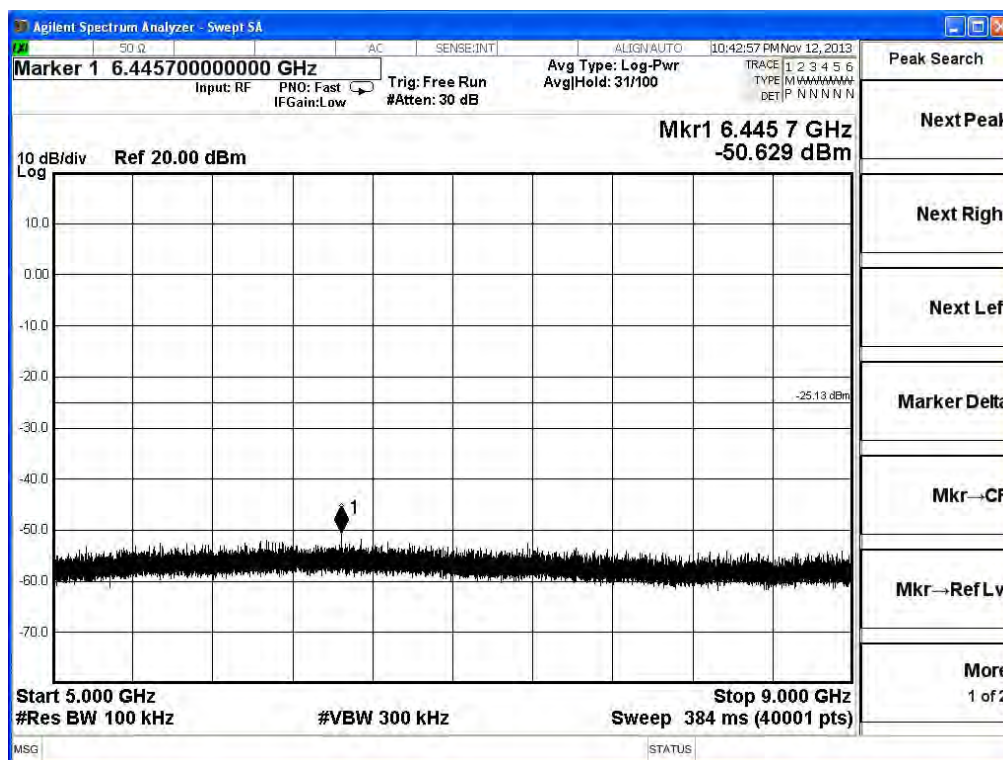
2422MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 0)



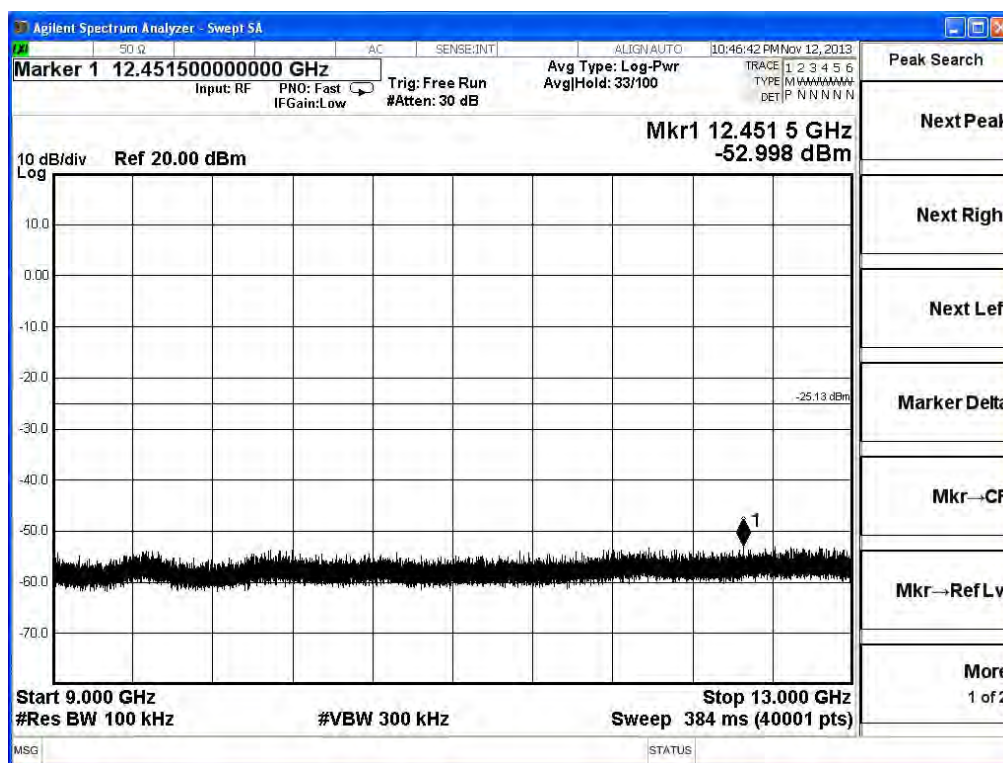
2422MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 0)



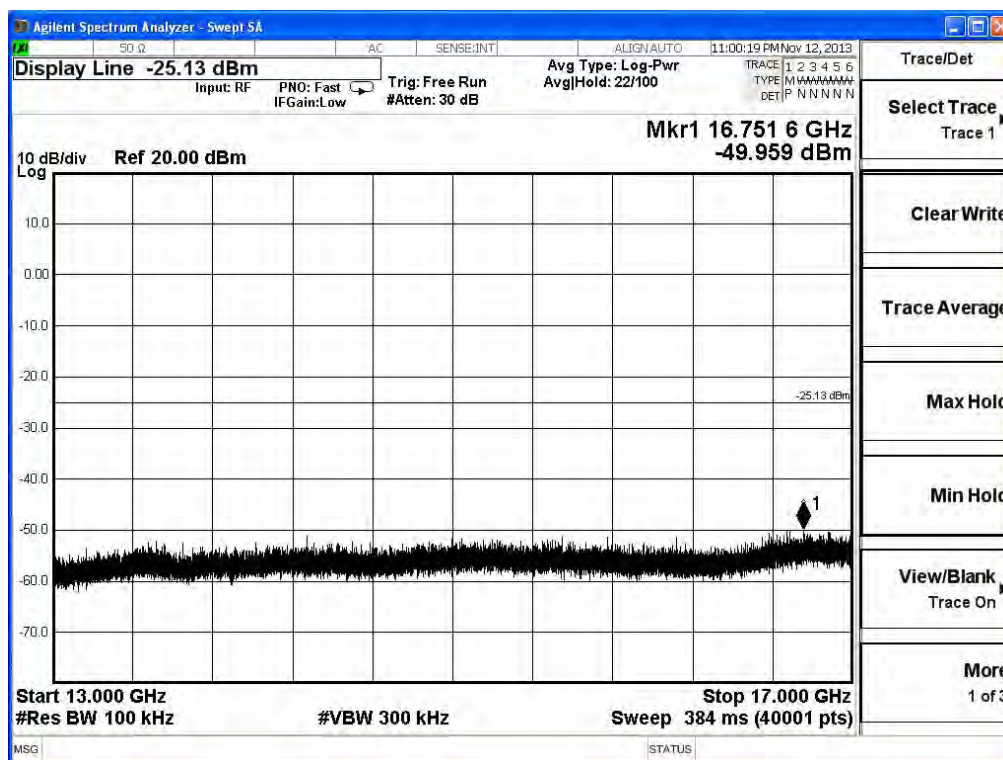
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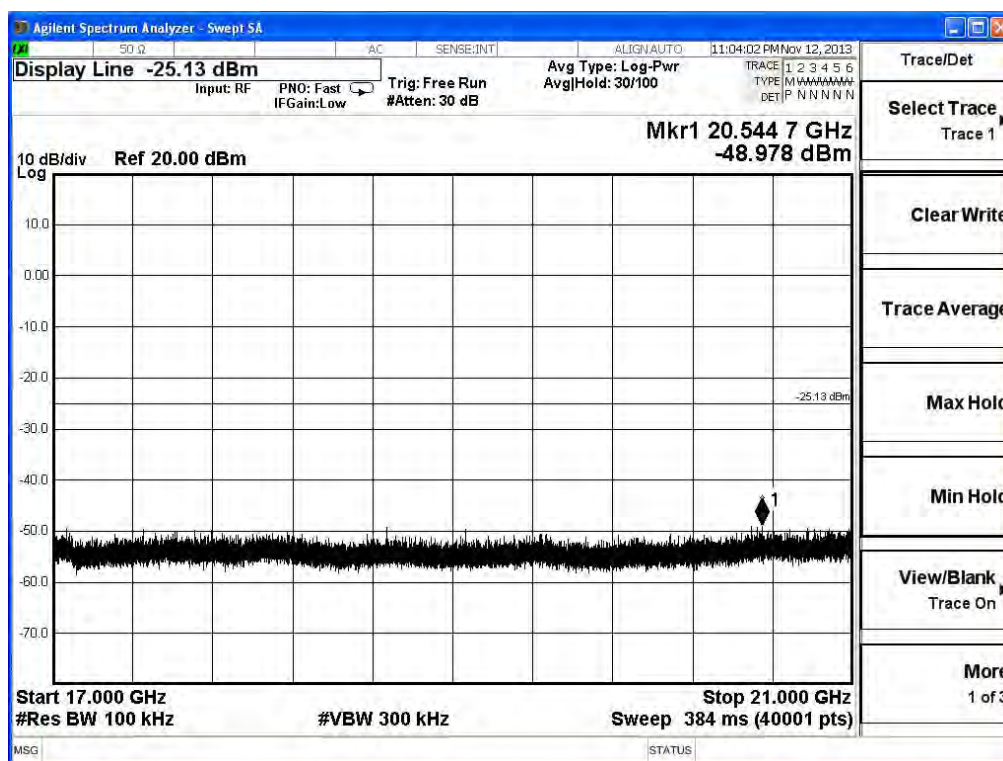
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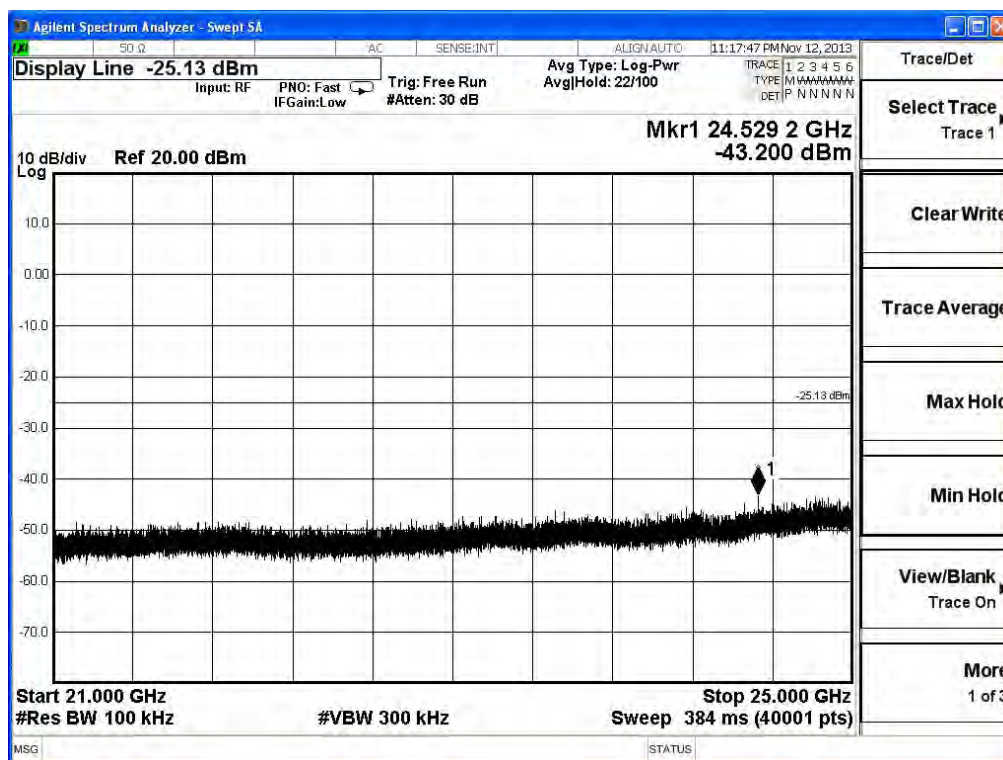
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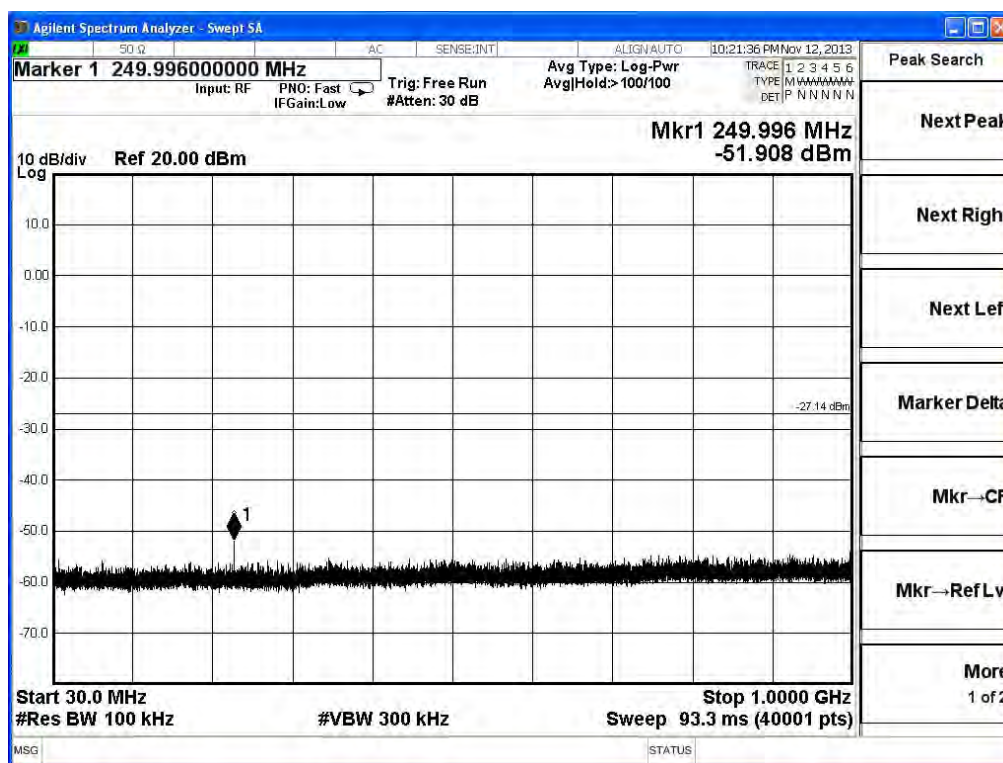
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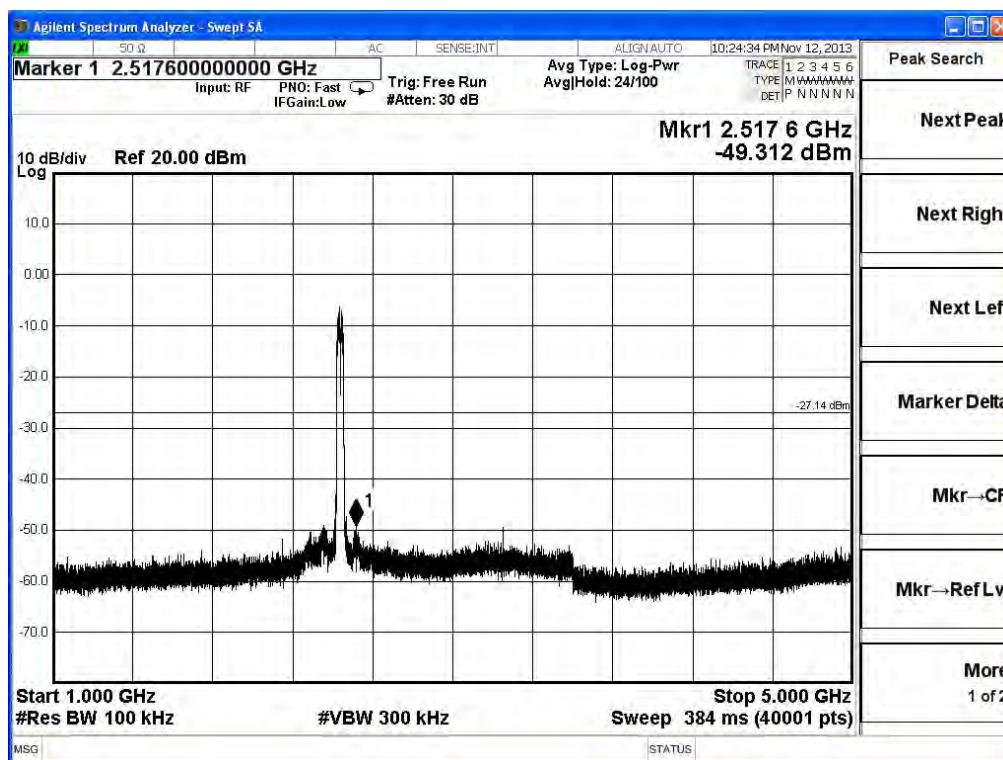
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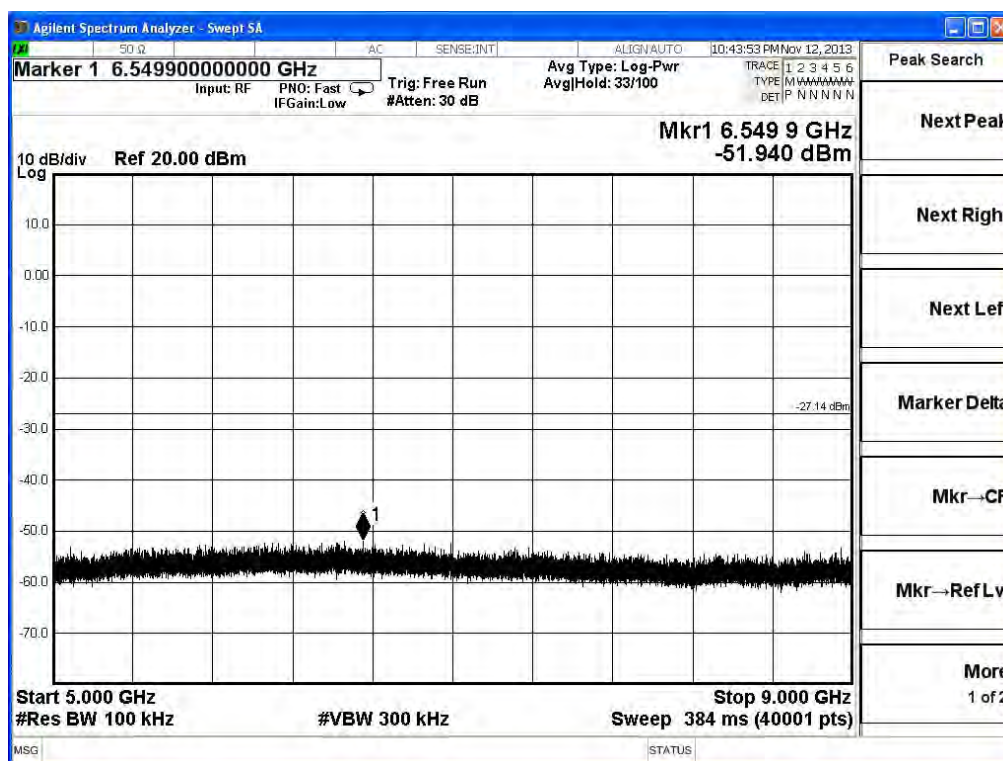
2437MHz (30MHz-1GHz) -802.11n(40MHz) (Ant 0)



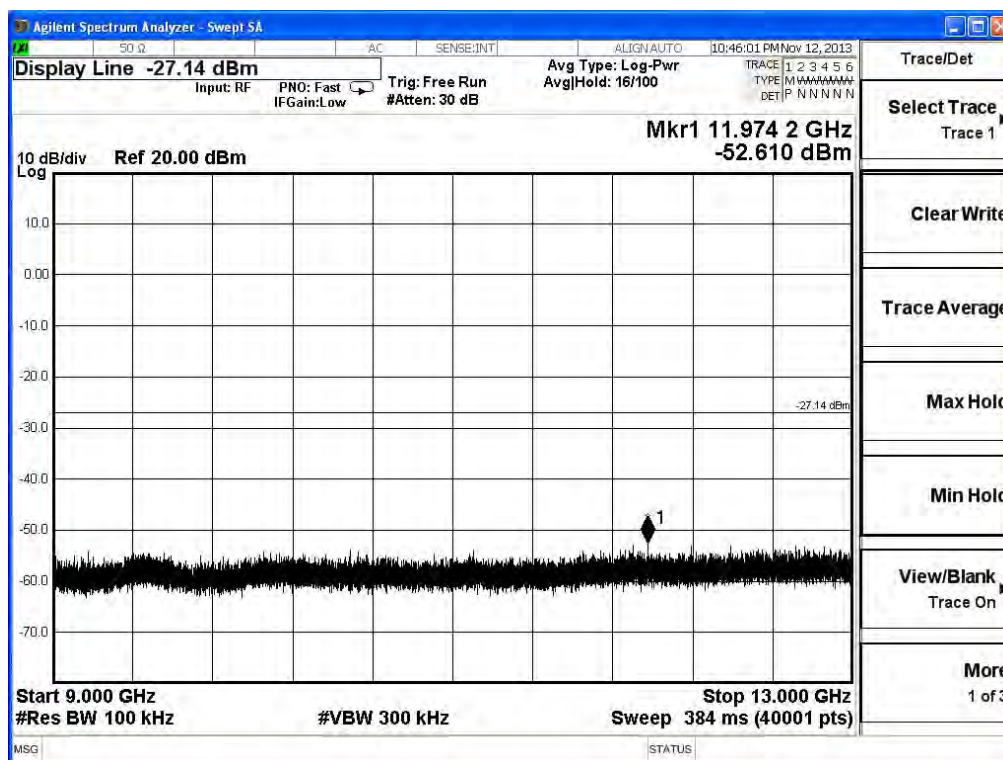
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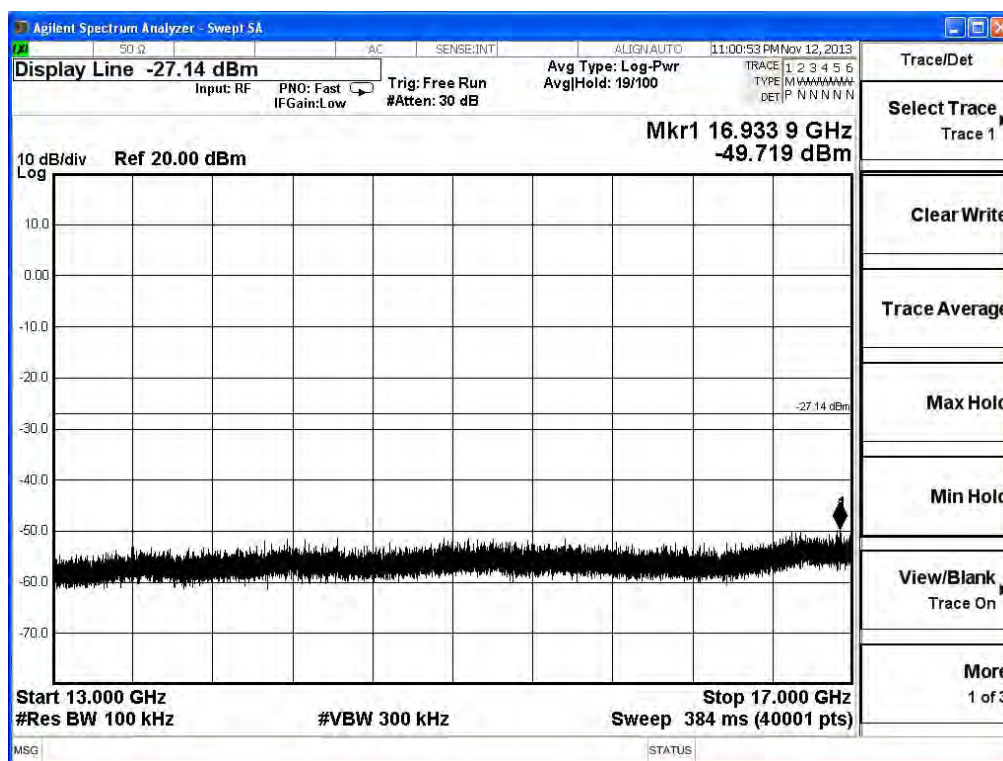
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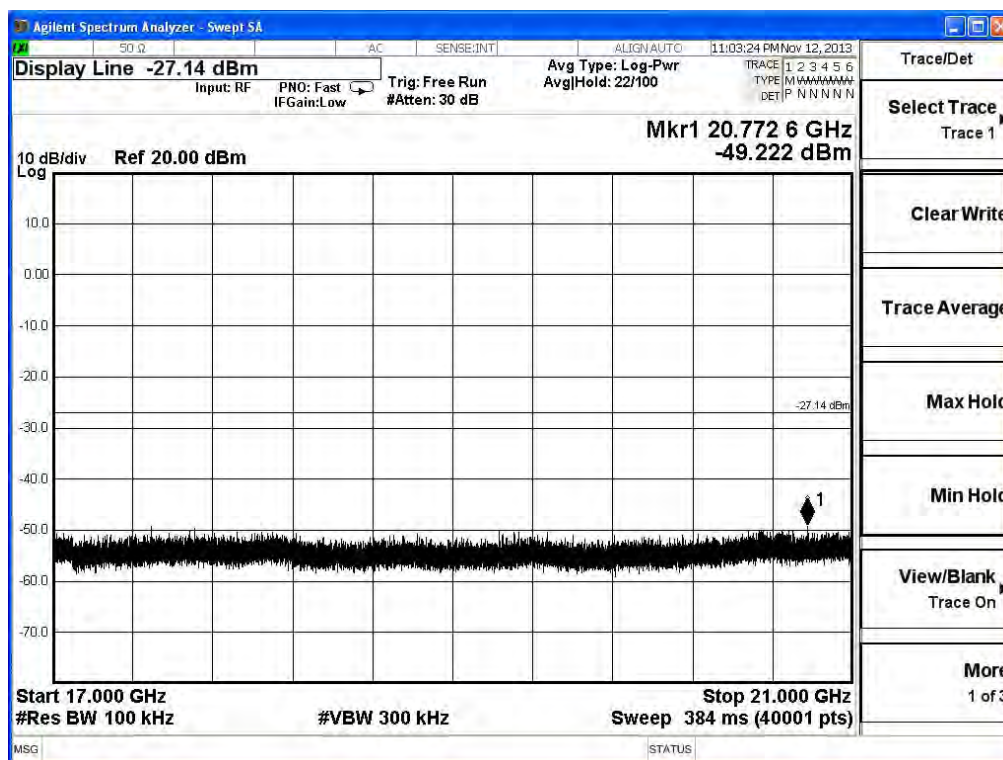
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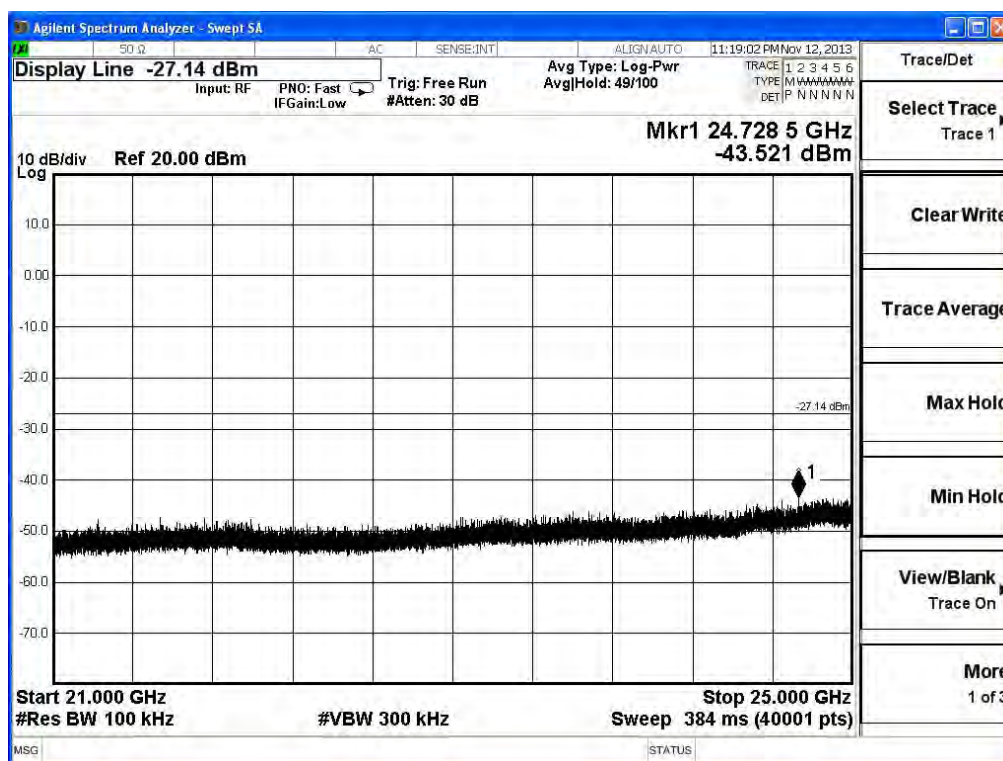
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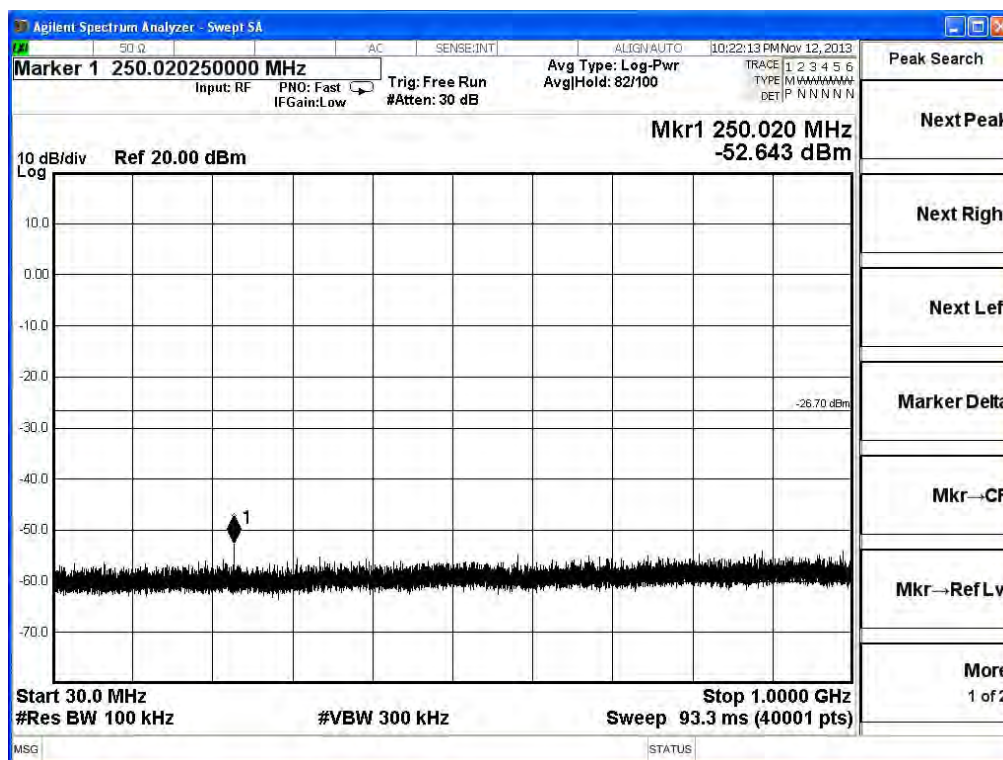
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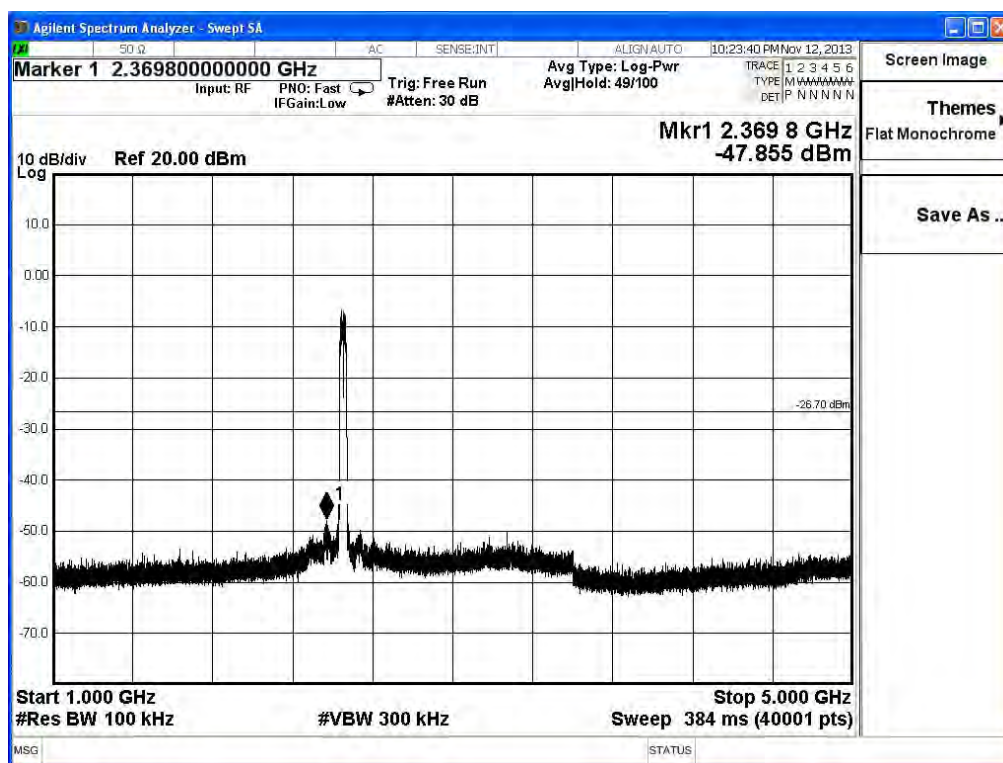
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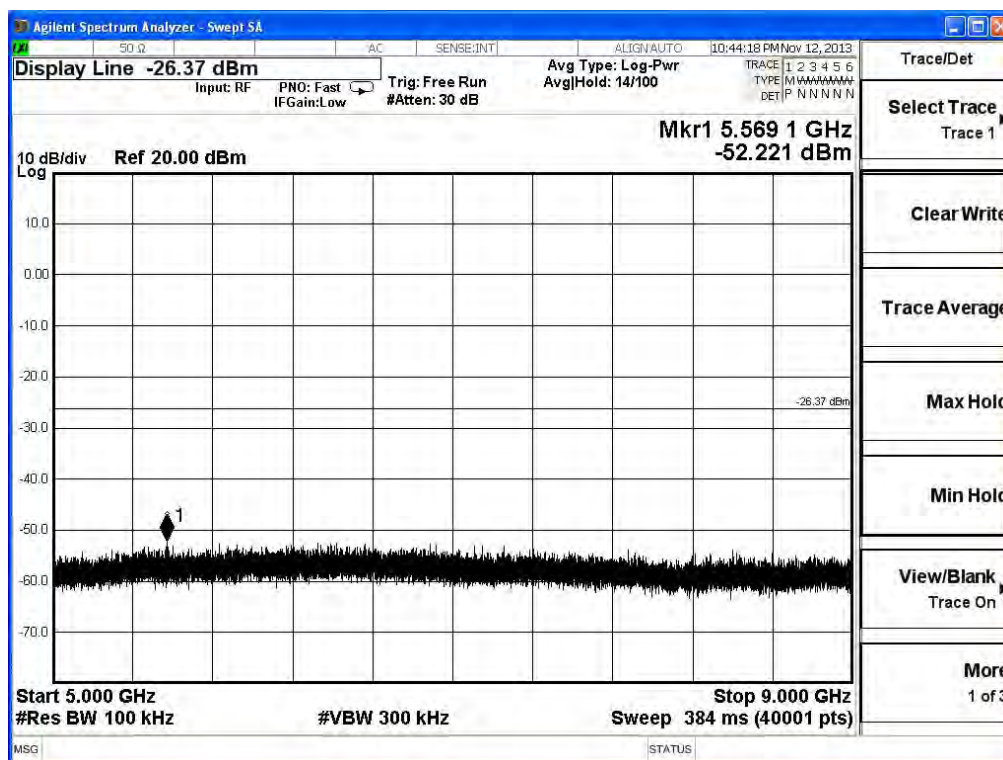
2452MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 0)



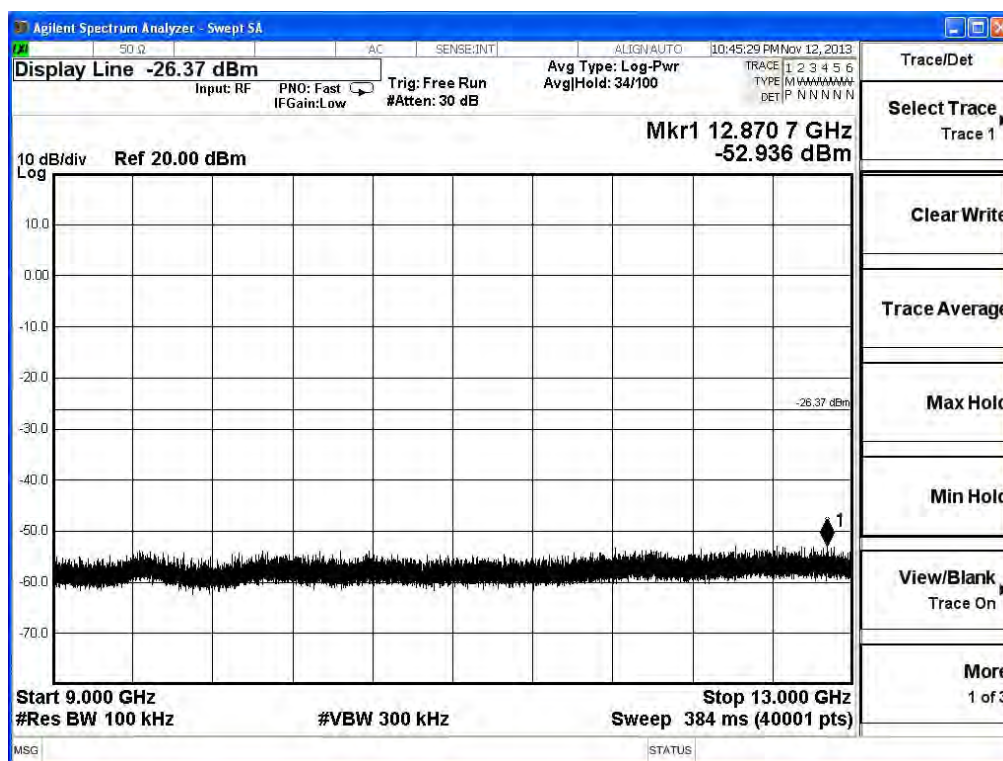
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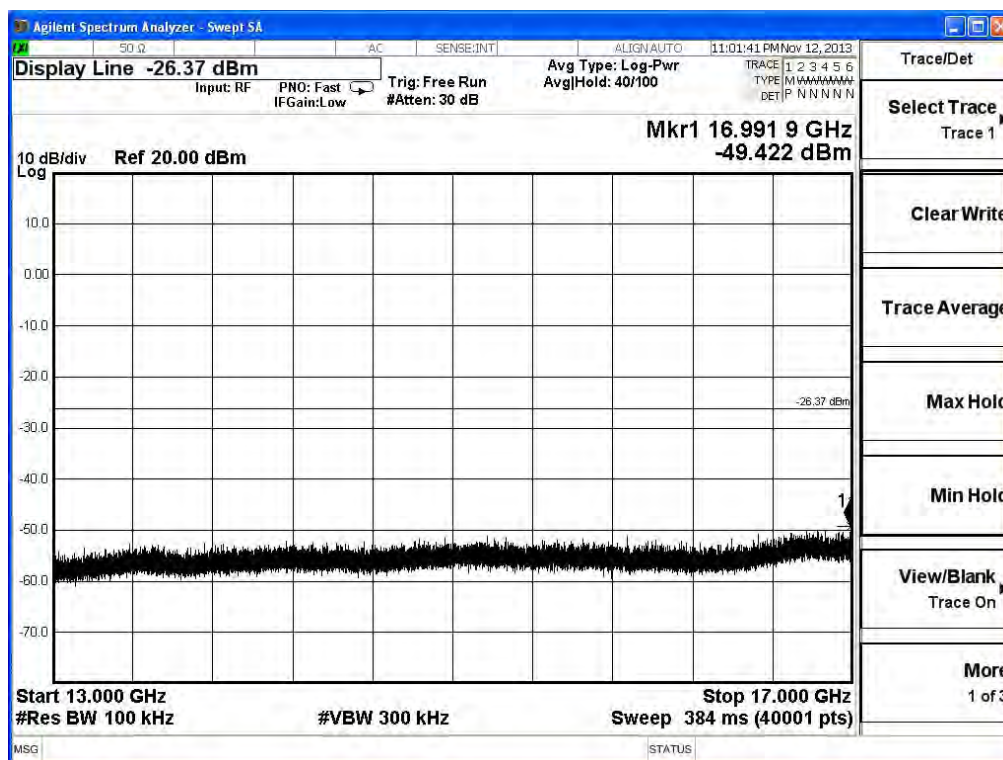
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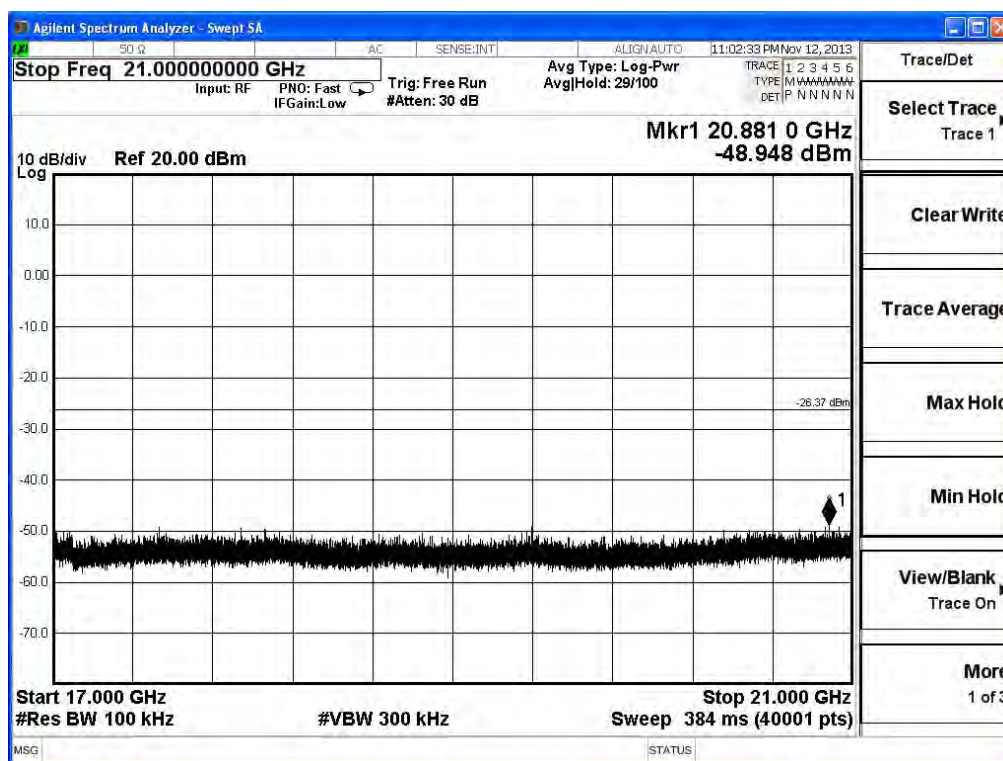
2452MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 0)



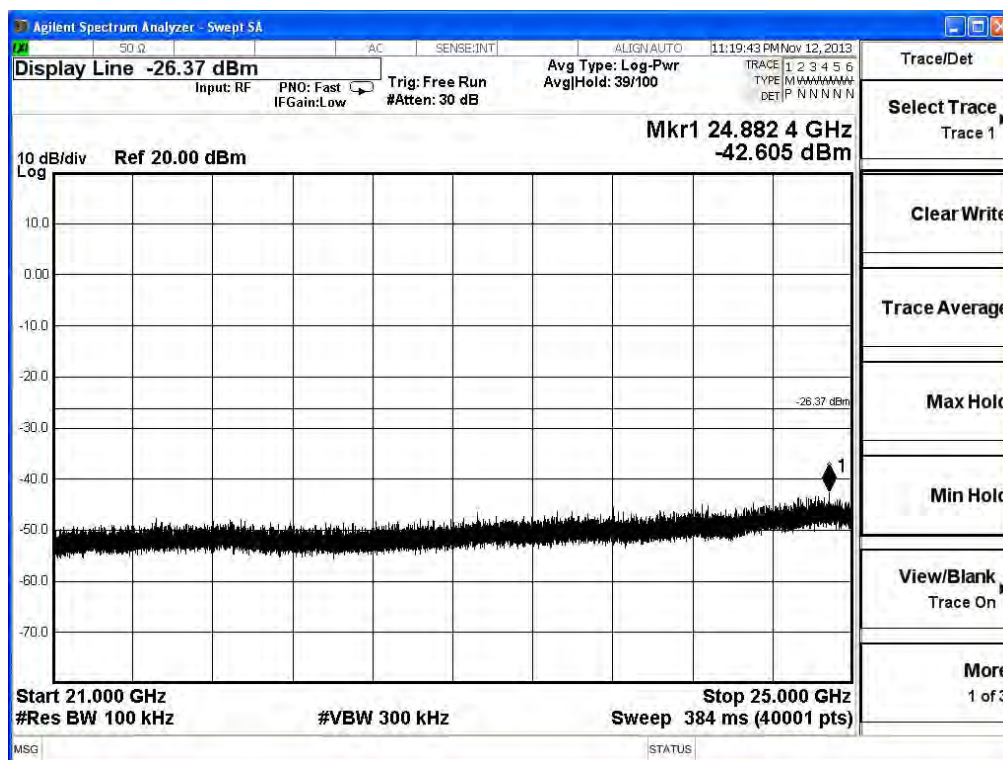
2452MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 0)



2452MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 0)



2452MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 0)



6. Radiated Emission Band Edge

6.1. Test Equipment

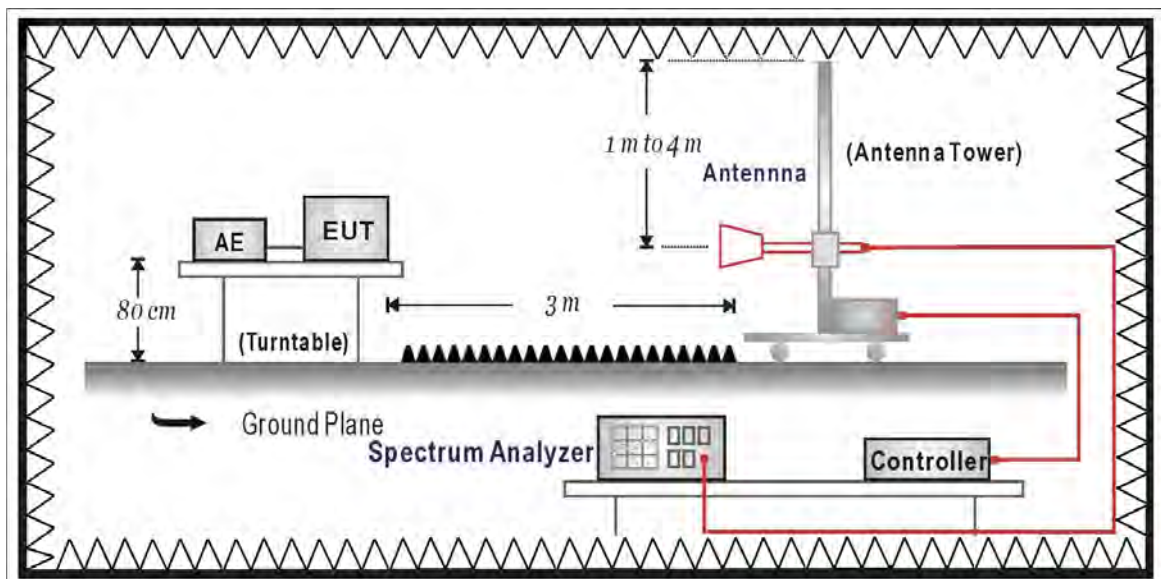
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements. The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

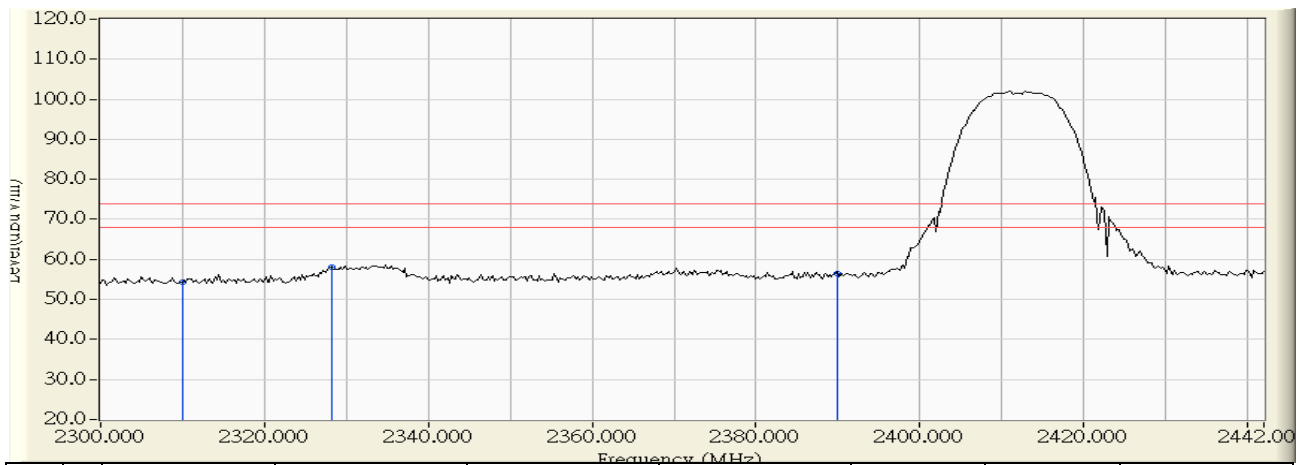
6.6. Uncertainty

The measurement uncertainty
 ± 3.9 dB above 1GHz

6.7. Test Result

Radiated is defined as

Site : CB1	Time : 2013/10/14 - 14:32
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2412MHz

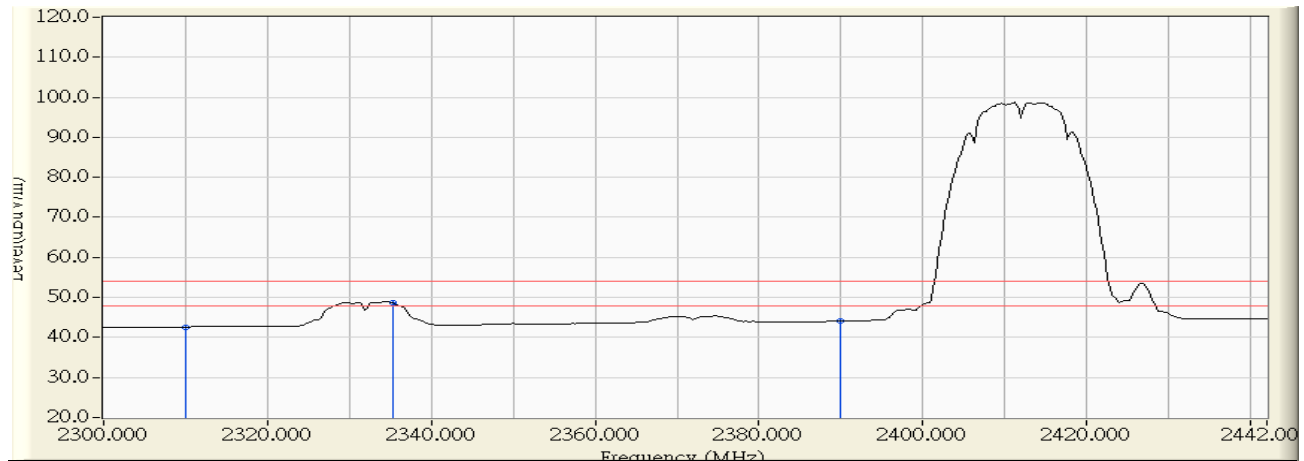


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.173	54.232	-19.768	74.000	PEAK
2	*	2328.163	30.247	27.924	58.171	-15.829	74.000	PEAK
3		2390.000	30.888	25.678	56.566	-17.434	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:33
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2412MHz

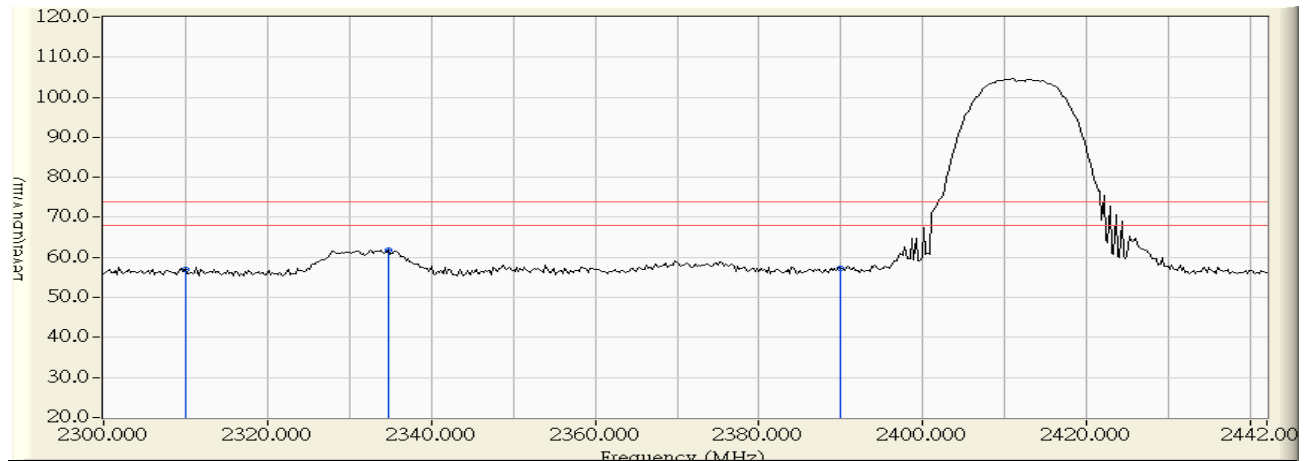


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.578	42.637	-11.363	54.000	AVERAGE
2	*	2335.263	30.320	18.276	48.597	-5.403	54.000	AVERAGE
3		2390.000	30.888	13.216	44.104	-9.896	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:23
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2412MHz

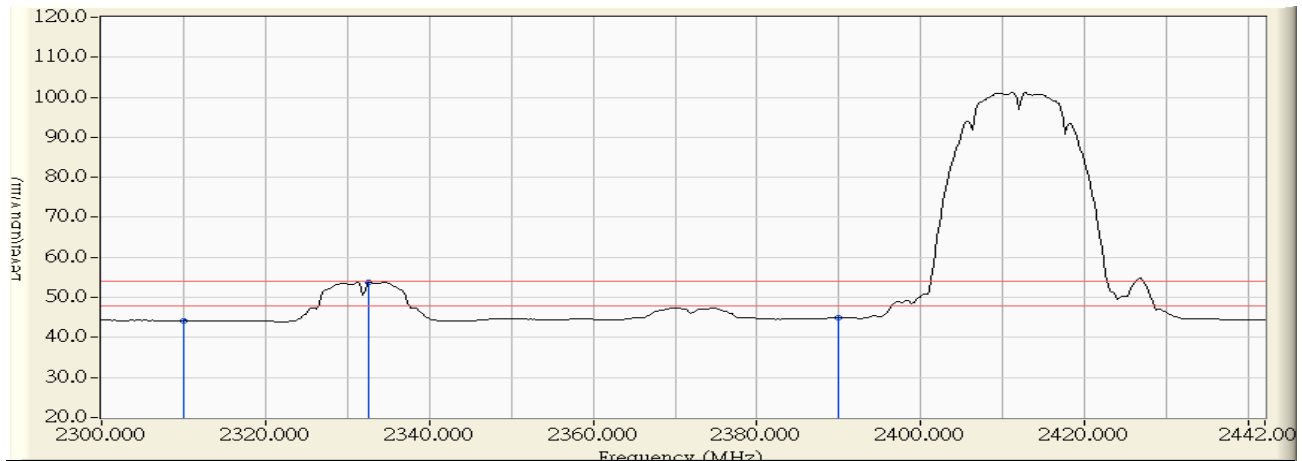


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	26.899	56.958	-17.042	74.000	PEAK
2	*	2334.790	30.316	31.625	61.941	-12.059	74.000	PEAK
3		2390.000	30.888	26.382	57.270	-16.730	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:23
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2412MHz

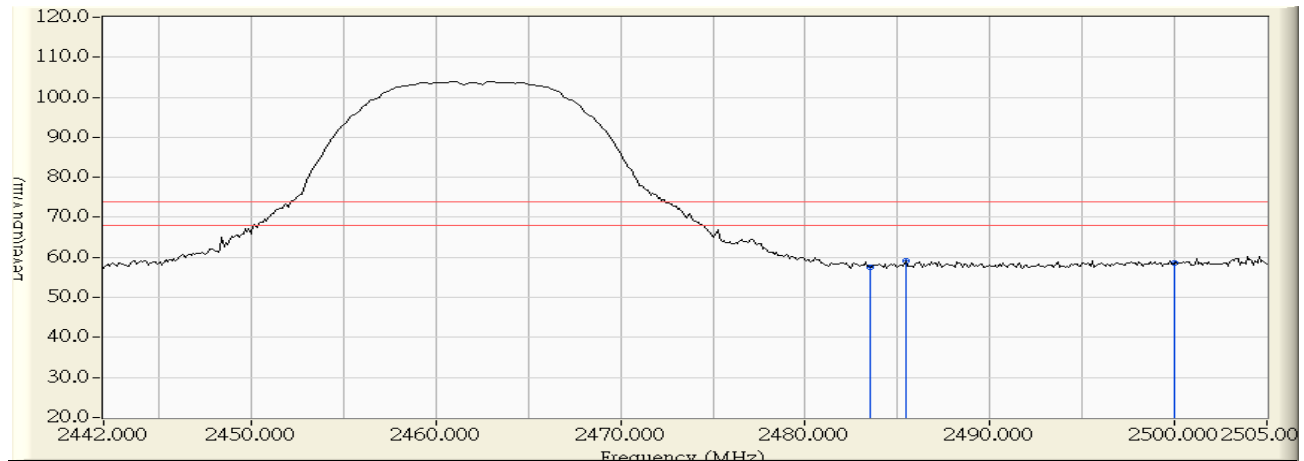


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	14.172	44.231	-9.769	54.000	AVERAGE
2	*	2332.660	30.293	23.423	53.717	-0.283	54.000	AVERAGE
3		2390.000	30.888	13.973	44.861	-9.139	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:52
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2462MHz

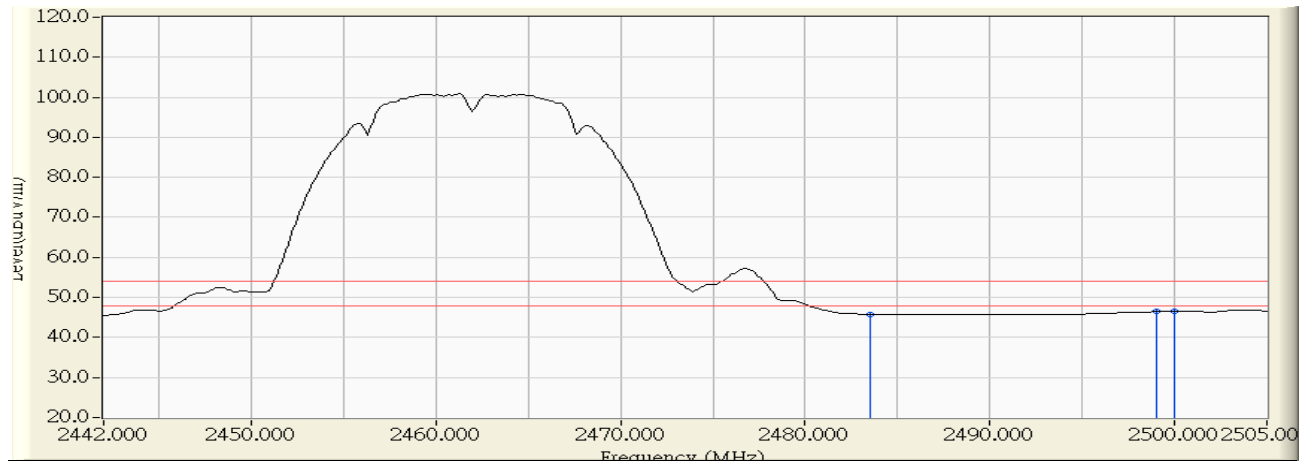


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	25.756	57.614	-16.386	74.000	PEAK
2	*	2485.470	31.878	27.201	59.079	-14.921	74.000	PEAK
3		2500.000	31.988	26.613	58.602	-15.398	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:53
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2462MHz

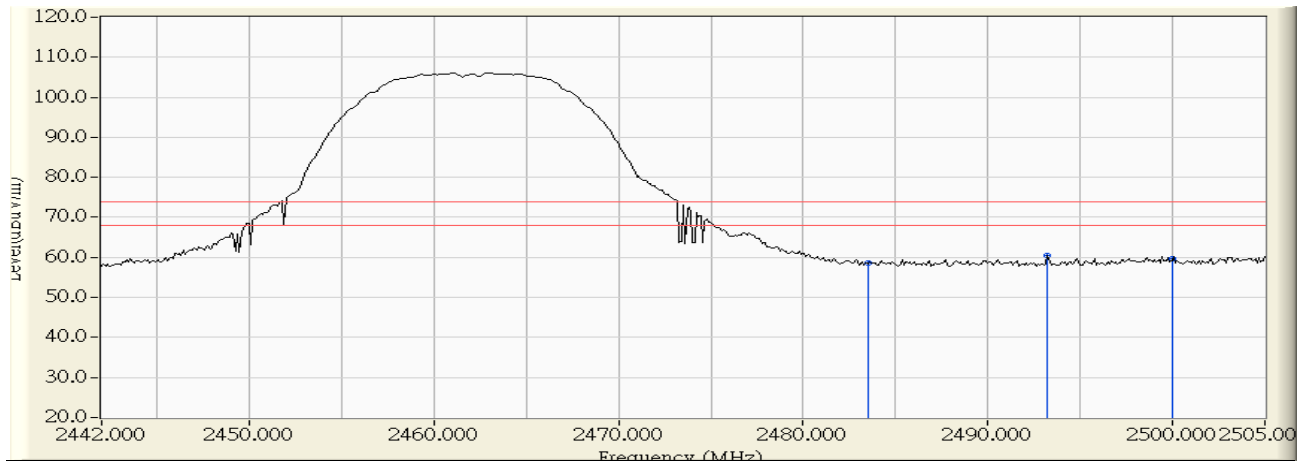


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	13.943	45.801	-8.199	54.000	AVERAGE
2	2499.015	31.988	14.492	46.480	-7.520	54.000	AVERAGE
3	* 2500.000	31.988	14.652	46.641	-7.359	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:48
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2462MHz

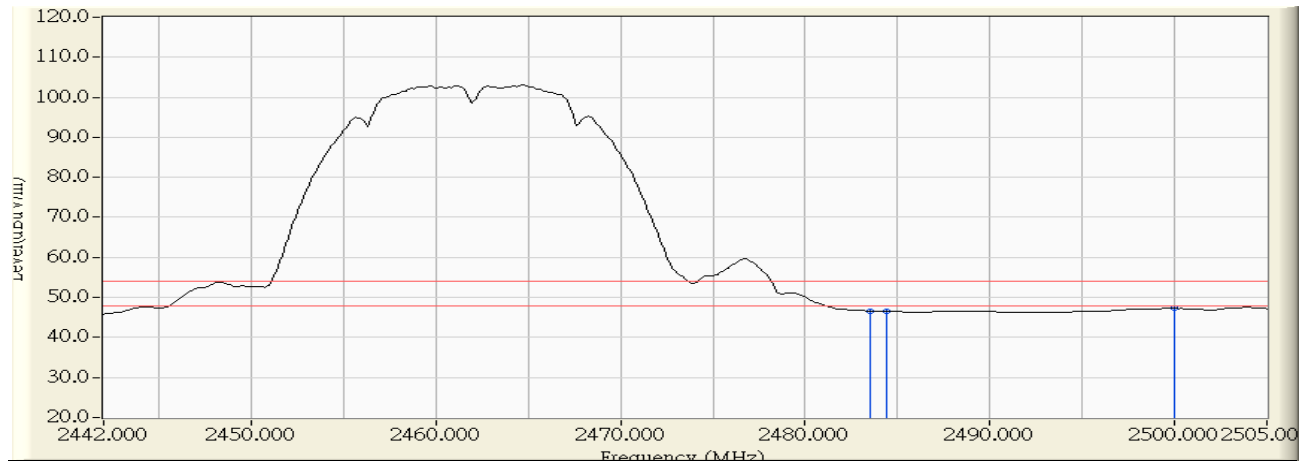


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	26.692	58.550	-15.450	74.000	PEAK
2	*	2493.240	31.959	28.442	60.401	-13.599	74.000	PEAK
3		2500.000	31.988	27.561	59.550	-14.450	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 14:46
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11b_2462MHz

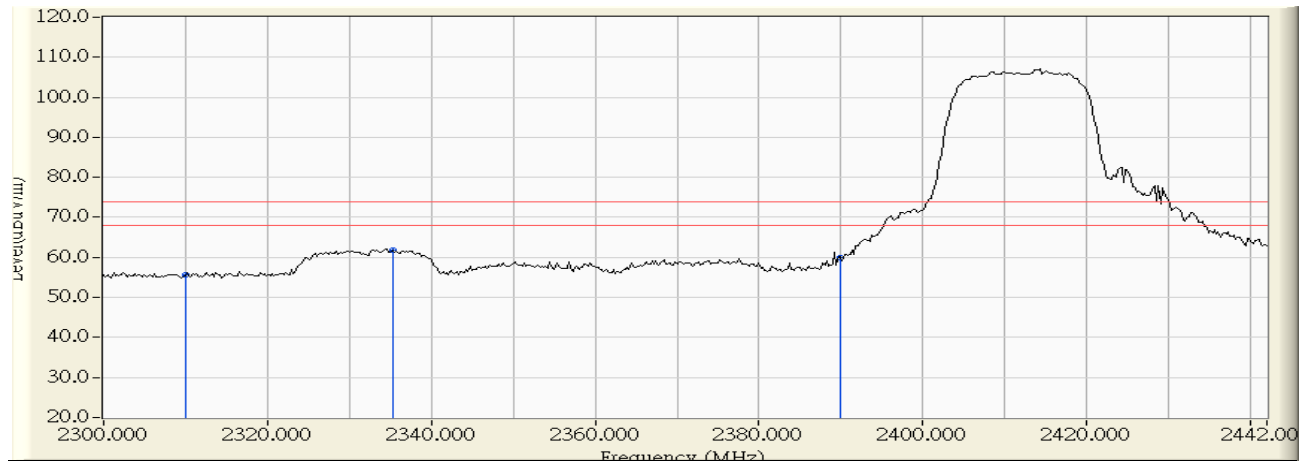


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	14.790	46.648	-7.352	54.000	AVERAGE
2	2484.420	31.868	14.731	46.599	-7.401	54.000	AVERAGE
3	* 2500.000	31.988	15.240	47.229	-6.771	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 15:50
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2412MHz

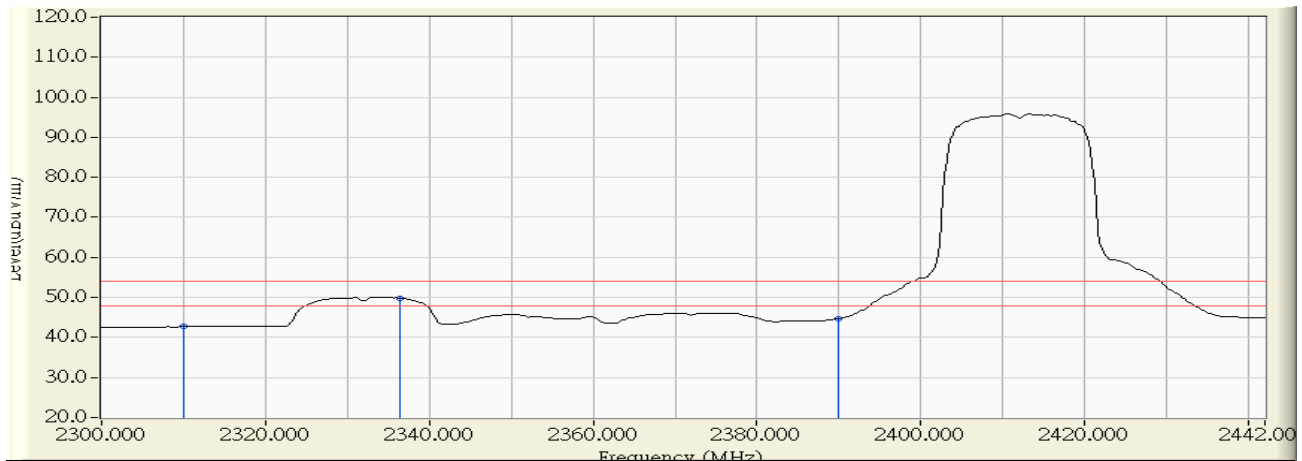


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.474	55.533	-18.467	74.000	PEAK
2	*	2335.263	30.320	31.603	61.924	-12.076	74.000	PEAK
3		2390.000	30.888	29.027	59.915	-14.085	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 15:51
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2412MHz

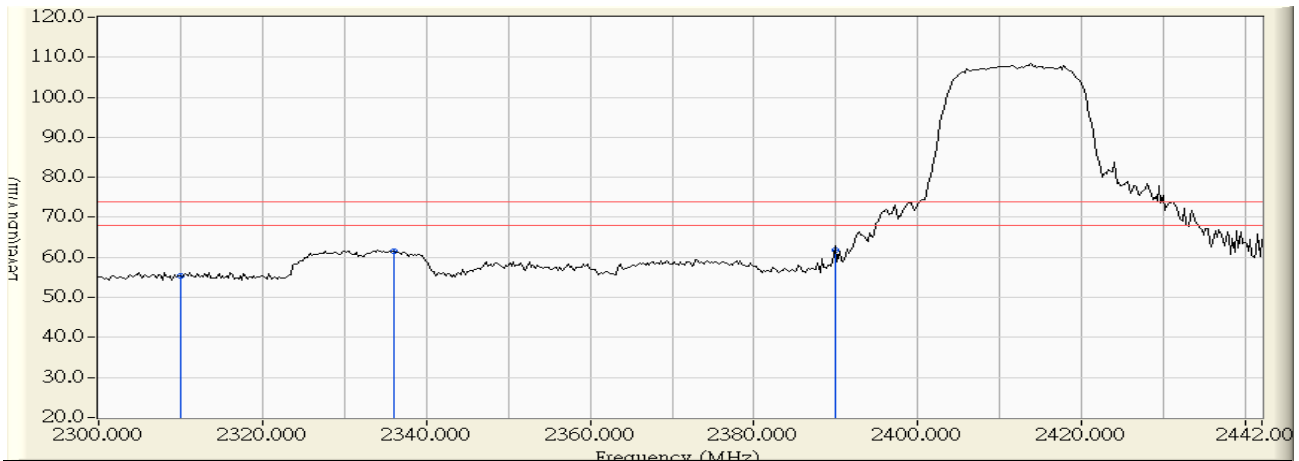


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.616	42.675	-11.325	54.000	AVERAGE
2	*	2336.447	30.333	19.516	49.849	-4.151	54.000	AVERAGE
3		2390.000	30.888	13.834	44.722	-9.278	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 15:10
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2412MHz

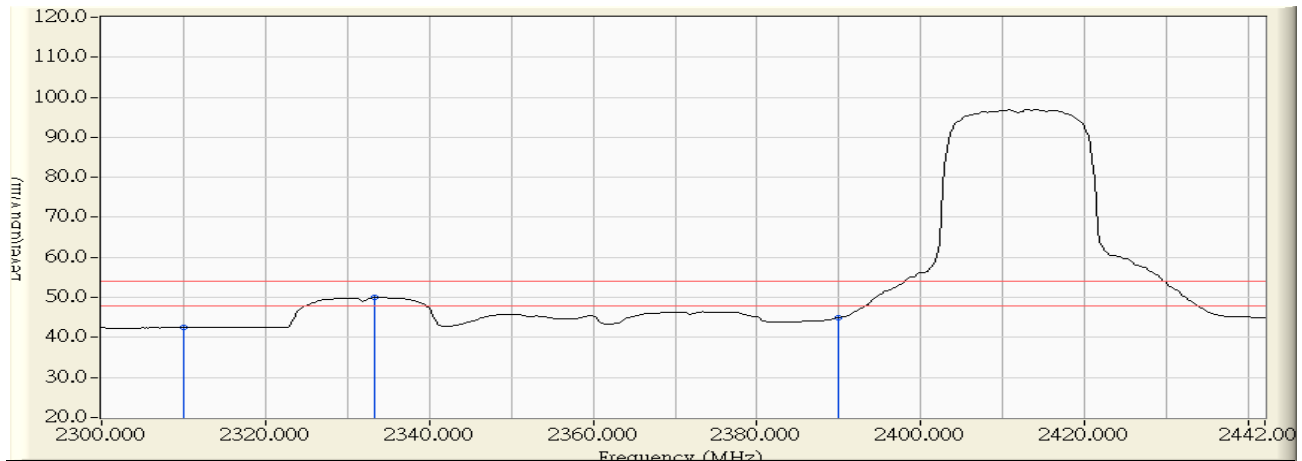


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	25.366	55.425	-18.575	74.000	PEAK
2	2335.973	30.328	31.265	61.593	-12.407	74.000	PEAK
3	* 2390.000	30.888	30.826	61.714	-12.286	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 15:07
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2412MHz

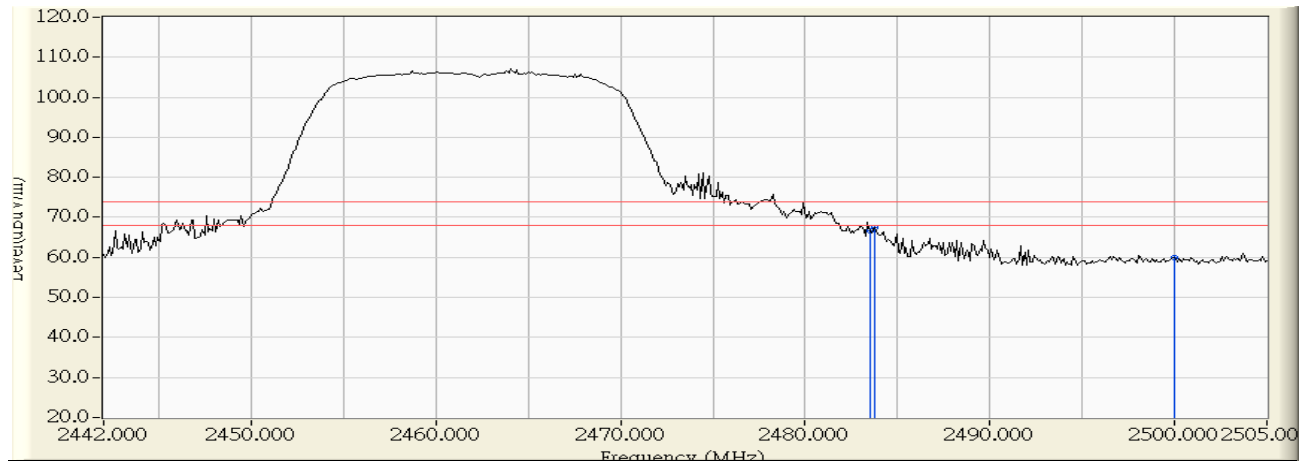


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.365	42.424	-11.576	54.000	AVERAGE
2	*	2333.370	30.301	19.670	49.971	-4.029	54.000	AVERAGE
3		2390.000	30.888	14.024	44.912	-9.088	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:41
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2462MHz

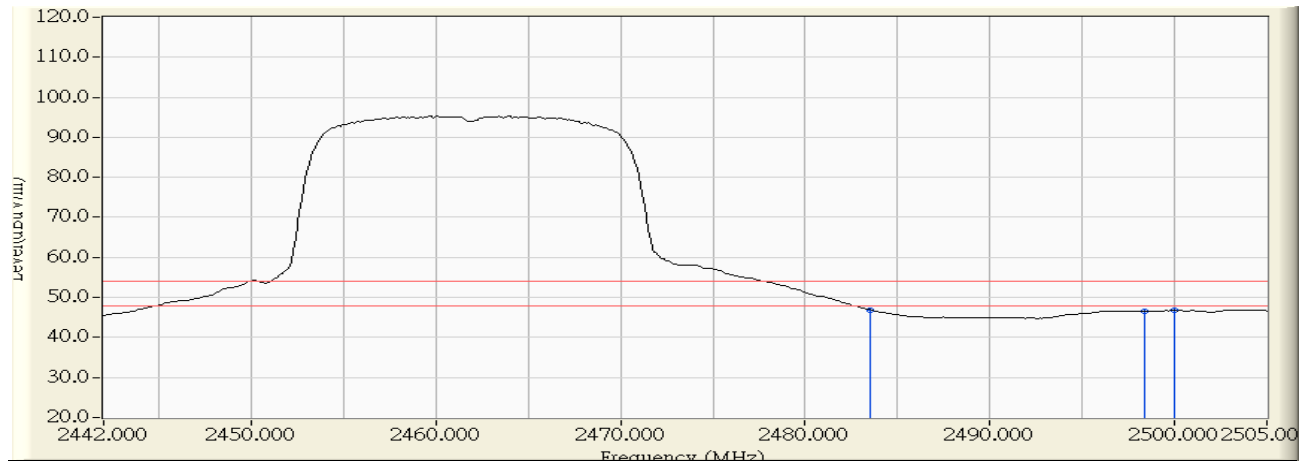


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	34.705	66.563	-7.437	74.000	PEAK
2	* 2483.790	31.861	35.716	67.577	-6.423	74.000	PEAK
3	2500.000	31.988	27.856	59.845	-14.155	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:42
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2462MHz

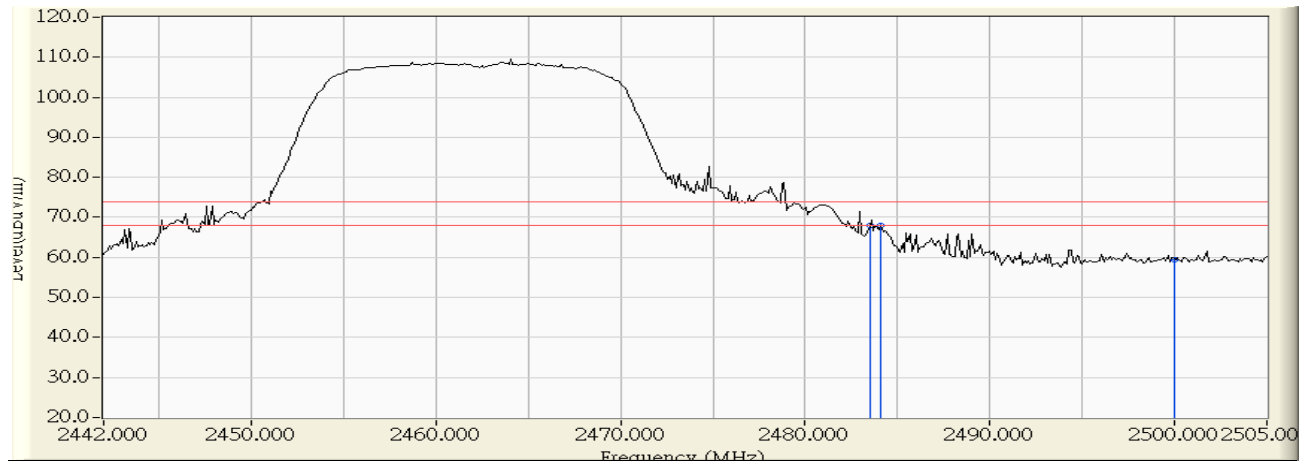


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	15.052	46.910	-7.090	54.000	AVERAGE
2		2498.385	31.988	14.485	46.473	-7.527	54.000	AVERAGE
3		2500.000	31.988	14.729	46.718	-7.282	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:25
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2462MHz

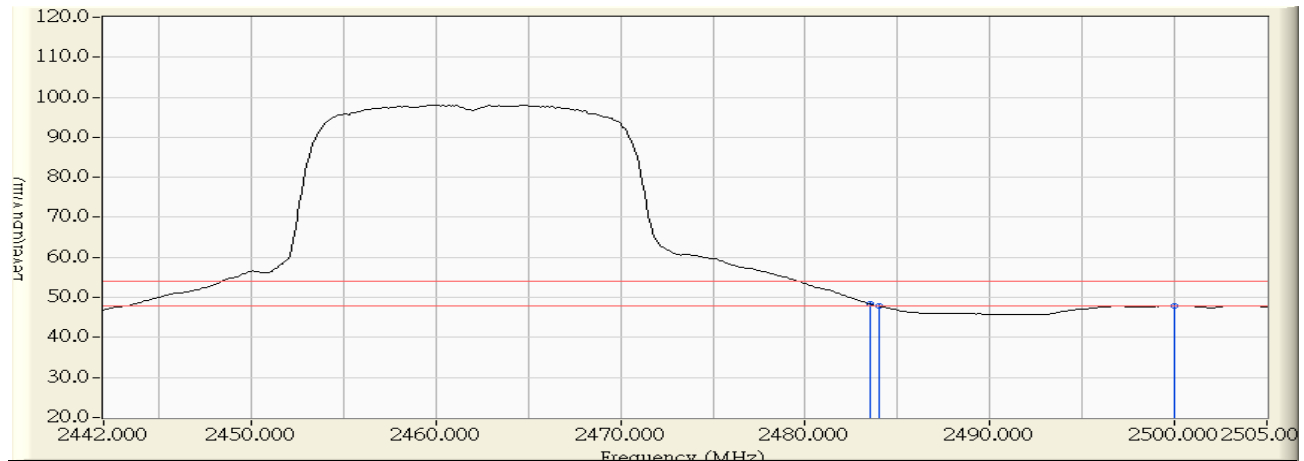


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	36.142	68.000	-6.000	74.000	PEAK
2		2484.105	31.864	36.030	67.894	-6.106	74.000	PEAK
3		2500.000	31.988	27.514	59.503	-14.497	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:24
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11g_2462MHz

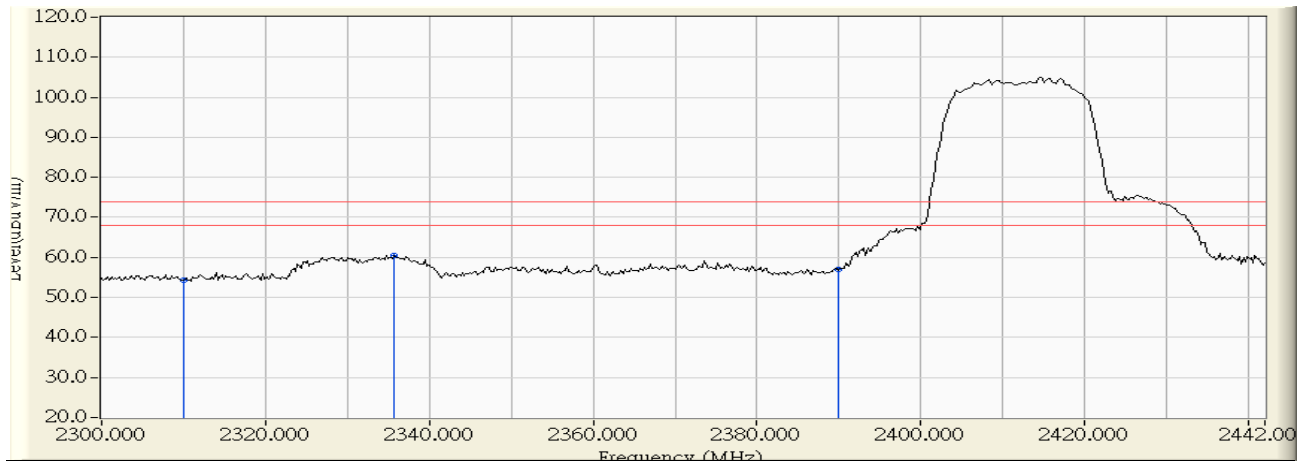


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	16.486	48.344	-5.656	54.000	AVERAGE
2		2484.000	31.863	15.895	47.758	-6.242	54.000	AVERAGE
3		2500.000	31.988	15.900	47.889	-6.111	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:00
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2412MHz

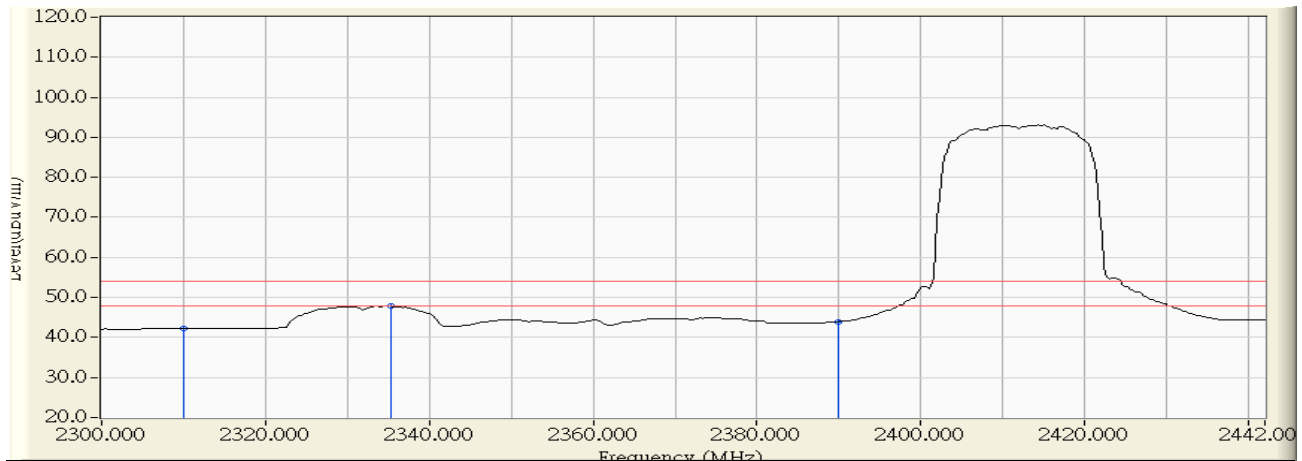


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.290	54.349	-19.651	74.000	PEAK
2	*	2335.737	30.326	30.188	60.514	-13.486	74.000	PEAK
3		2390.000	30.888	26.075	56.963	-17.037	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:02
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2412MHz

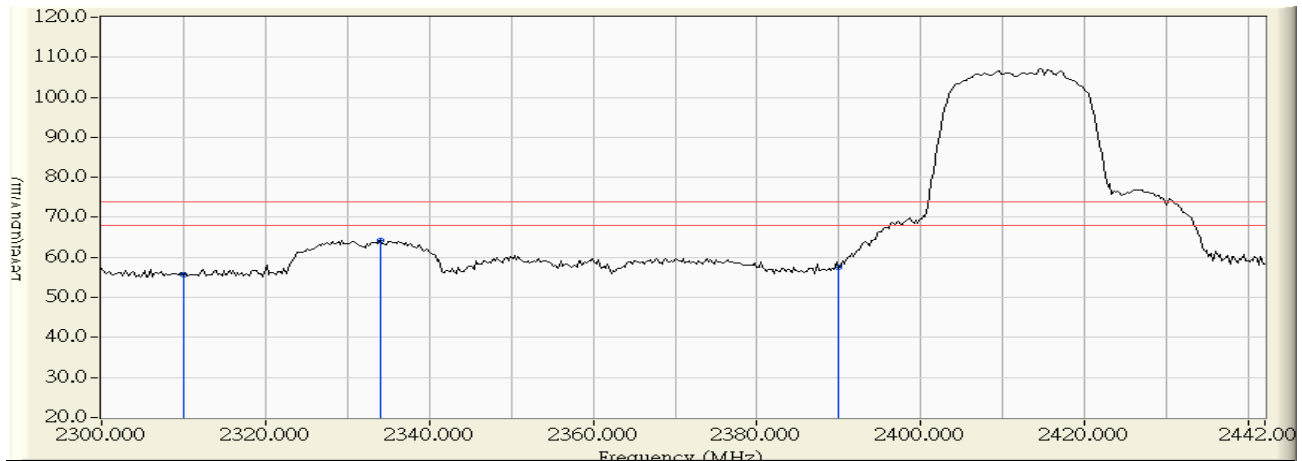


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.142	42.201	-11.799	54.000	AVERAGE
2	*	2335.263	30.320	17.455	47.776	-6.224	54.000	AVERAGE
3		2390.000	30.888	13.104	43.992	-10.008	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:55
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2412MHz

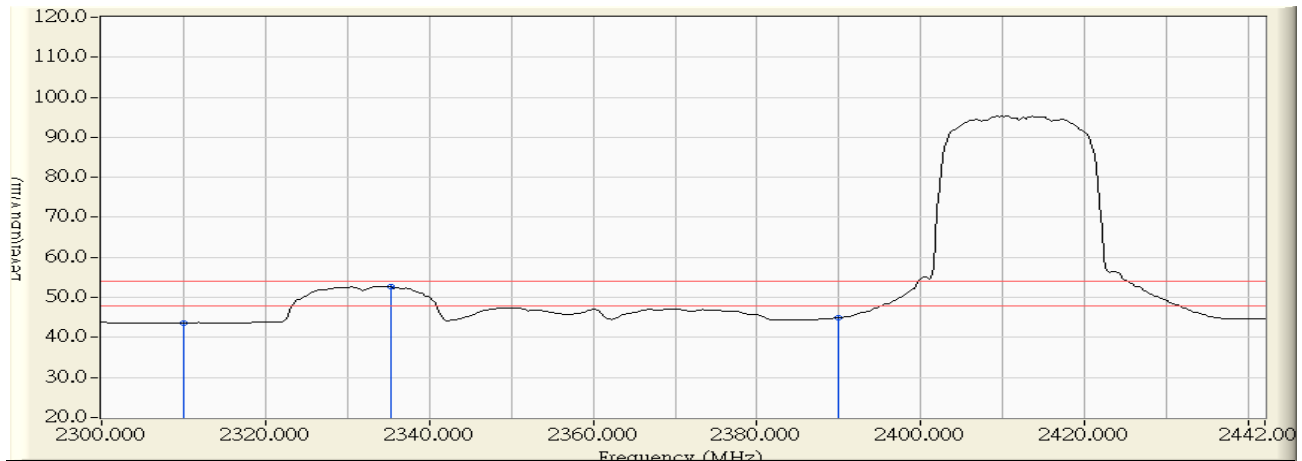


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.550	55.609	-18.391	74.000	PEAK
2	*	2334.080	30.309	33.879	64.187	-9.813	74.000	PEAK
3		2390.000	30.888	26.559	57.447	-16.553	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 16:54
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2412MHz

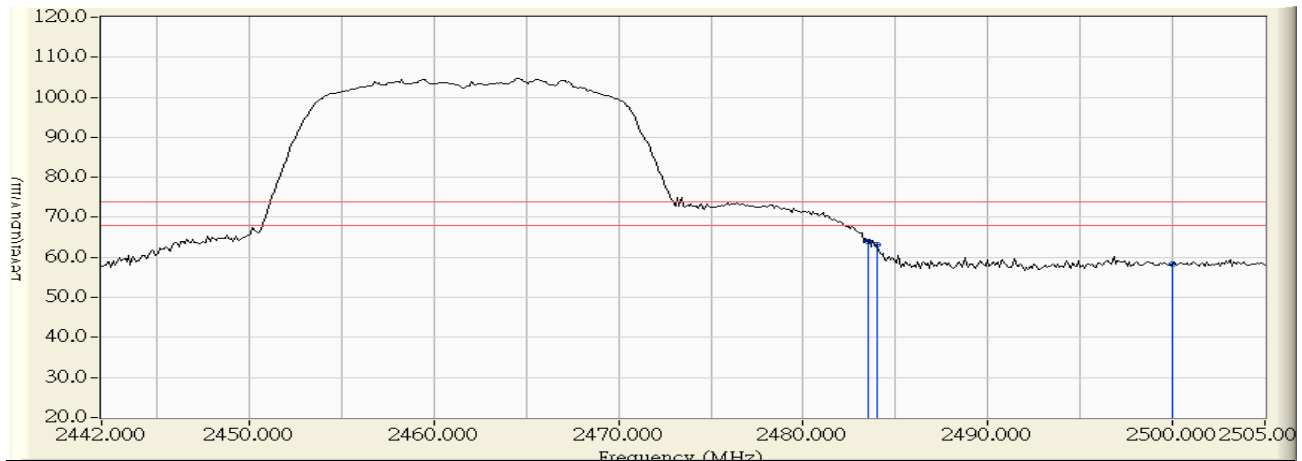


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	13.599	43.658	-10.342	54.000	AVERAGE
2	*	2335.263	30.320	22.412	52.733	-1.267	54.000	AVERAGE
3		2390.000	30.888	14.076	44.964	-9.036	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:12
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2462MHz

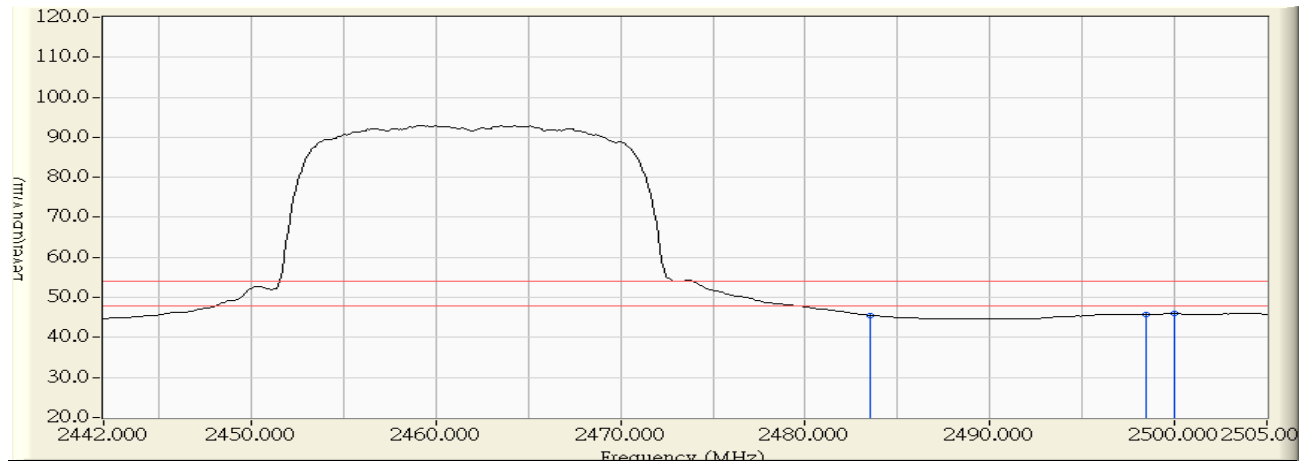


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	31.990	63.848	-10.152	74.000	PEAK
2		2484.000	31.863	31.308	63.171	-10.829	74.000	PEAK
3		2500.000	31.988	26.332	58.321	-15.679	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:13
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2462MHz

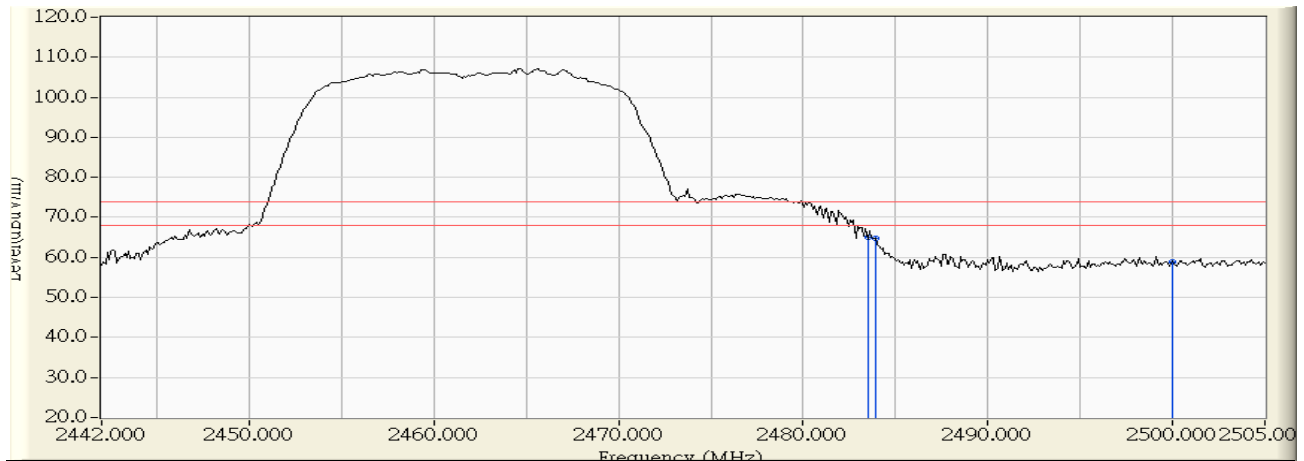


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	13.687	45.545	-8.455	54.000	AVERAGE
2	2498.490	31.988	13.803	45.791	-8.209	54.000	AVERAGE
3	* 2500.000	31.988	13.904	45.893	-8.107	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:10
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2462MHz

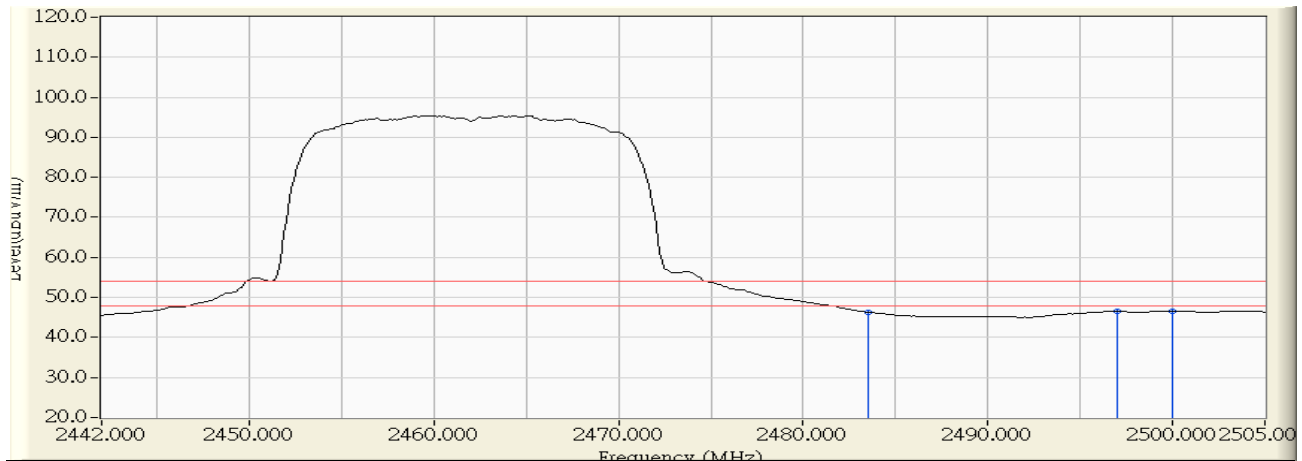


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	33.245	65.103	-8.897	74.000	PEAK
2		2483.895	31.862	32.966	64.828	-9.172	74.000	PEAK
3		2500.000	31.988	26.844	58.833	-15.167	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:09
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 20MHz_2462MHz

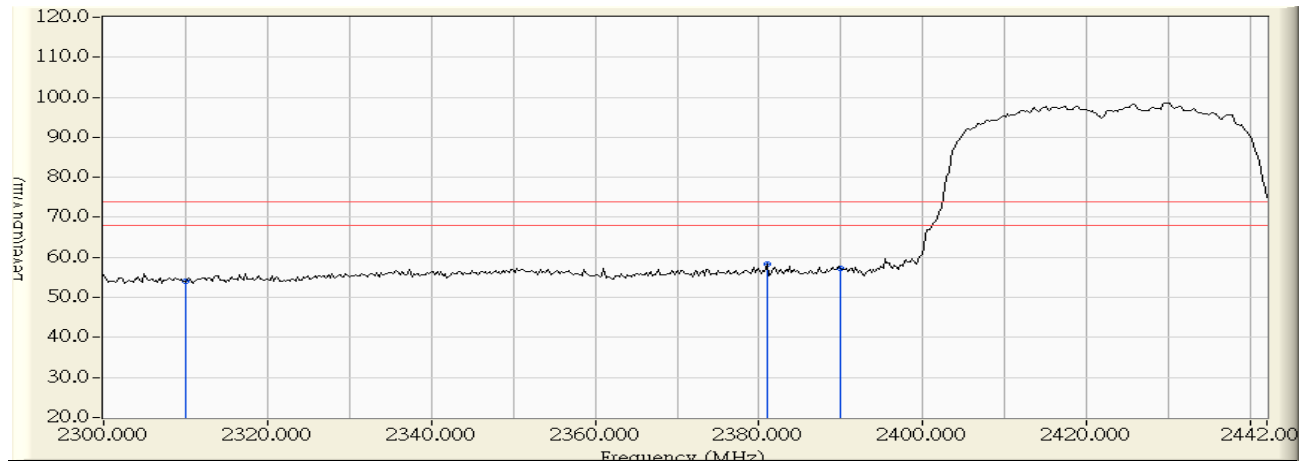


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	14.459	46.317	-7.683	54.000	AVERAGE
2	2497.020	31.988	14.481	46.469	-7.531	54.000	AVERAGE
3	* 2500.000	31.988	14.581	46.570	-7.430	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:23
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2422MHz

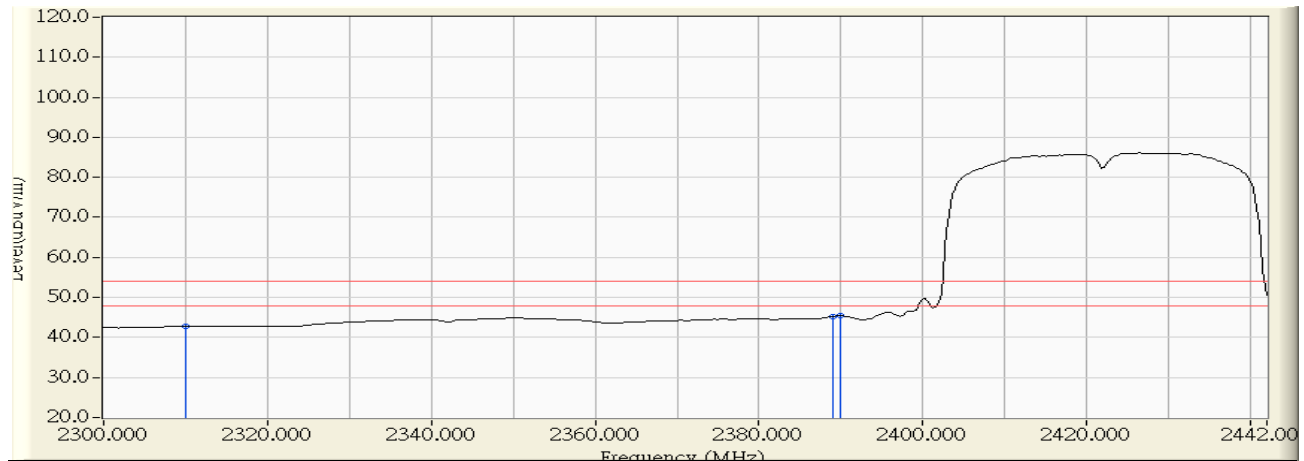


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	23.933	53.992	-20.008	74.000	PEAK
2	*	2380.940	30.795	27.664	58.458	-15.542	74.000	PEAK
3		2390.000	30.888	26.348	57.236	-16.764	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:25
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2422MHz

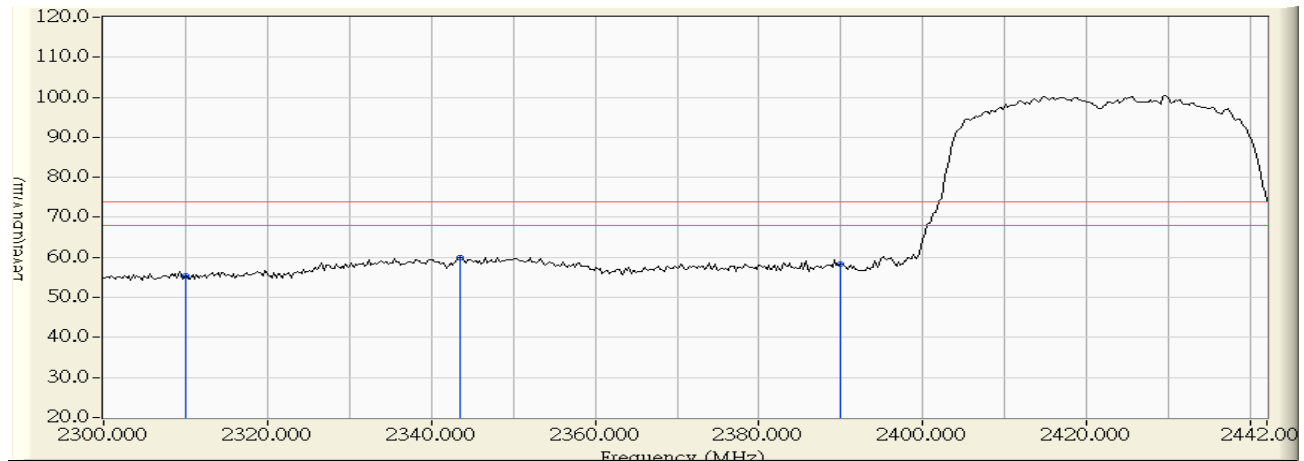


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	12.674	42.733	-11.267	54.000	AVERAGE
2	2388.987	30.878	14.346	45.224	-8.776	54.000	AVERAGE
3	* 2390.000	30.888	14.503	45.391	-8.609	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:19
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2422MHz

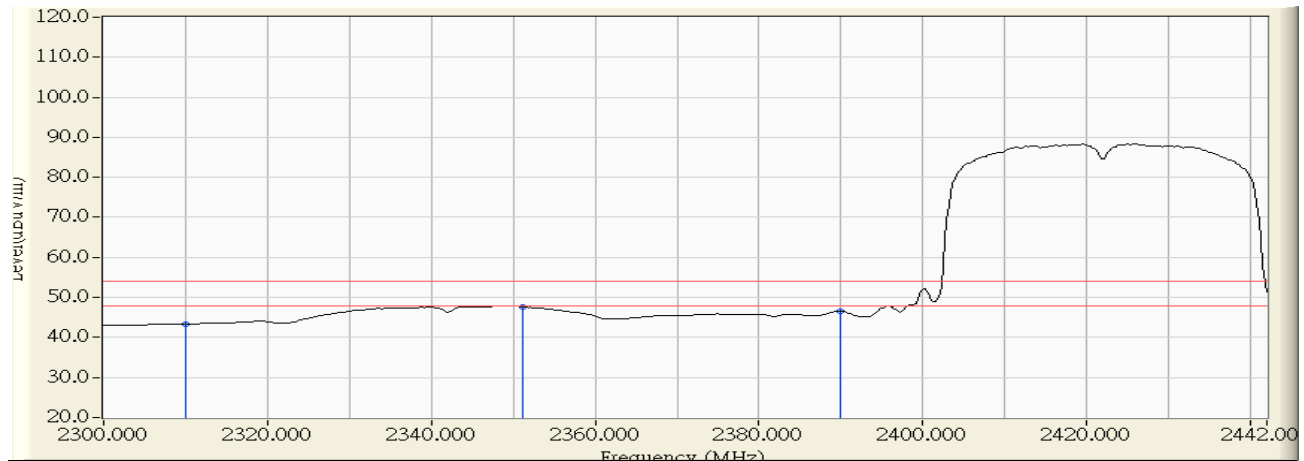


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.267	55.326	-18.674	74.000	PEAK
2	*	2343.547	30.407	29.424	59.831	-14.169	74.000	PEAK
3		2390.000	30.888	27.365	58.253	-15.747	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:18
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2422MHz

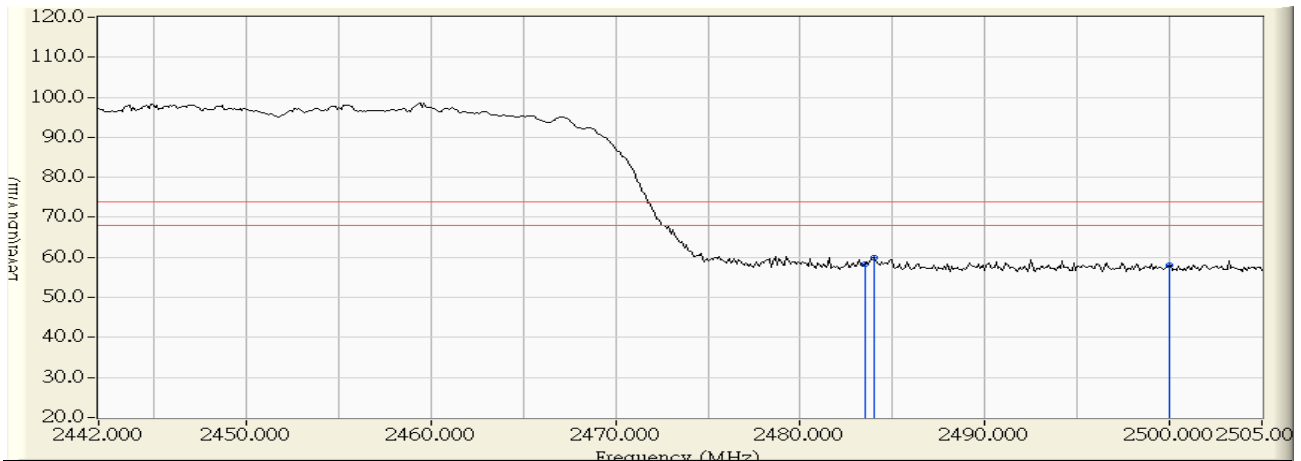


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	13.263	43.322	-10.678	54.000	AVERAGE
2	*	2351.120	30.485	17.233	47.718	-6.282	54.000	AVERAGE
3		2390.000	30.888	15.647	46.535	-7.465	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:39
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2452MHz

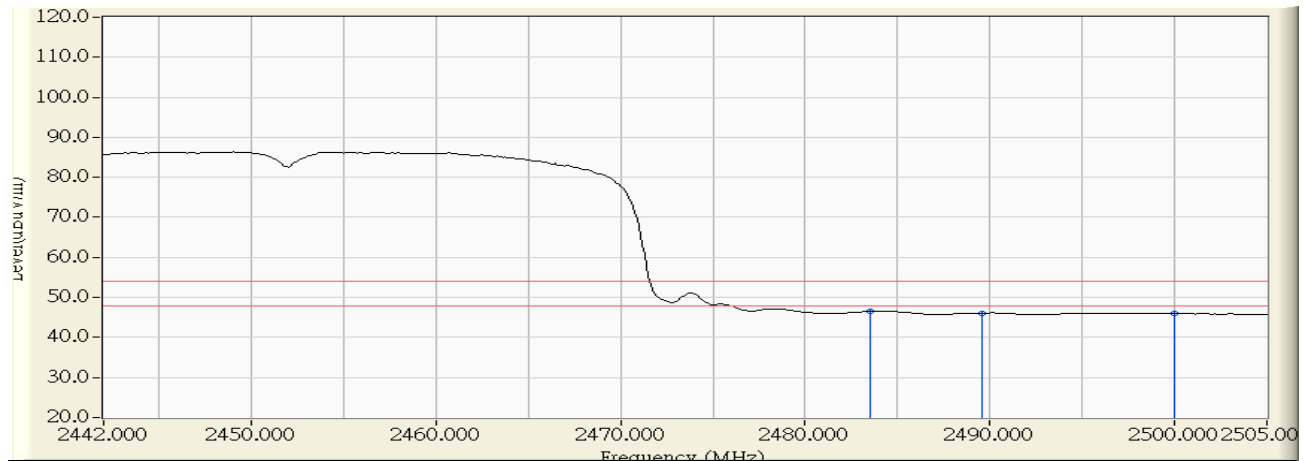


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	26.534	58.392	-15.608	74.000	PEAK
2	*	2484.000	31.863	27.955	59.818	-14.182	74.000	PEAK
3		2500.000	31.988	25.950	57.939	-16.061	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:40
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2452MHz

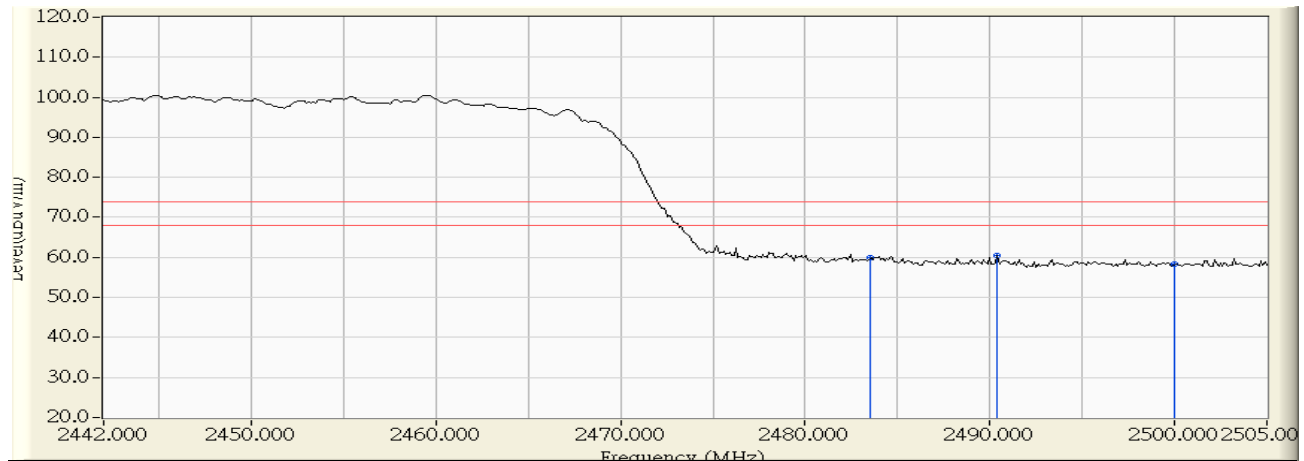


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	14.685	46.543	-7.457	54.000	AVERAGE
2		2489.565	31.921	14.207	46.128	-7.872	54.000	AVERAGE
3		2500.000	31.988	13.947	45.936	-8.064	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:36
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2452MHz

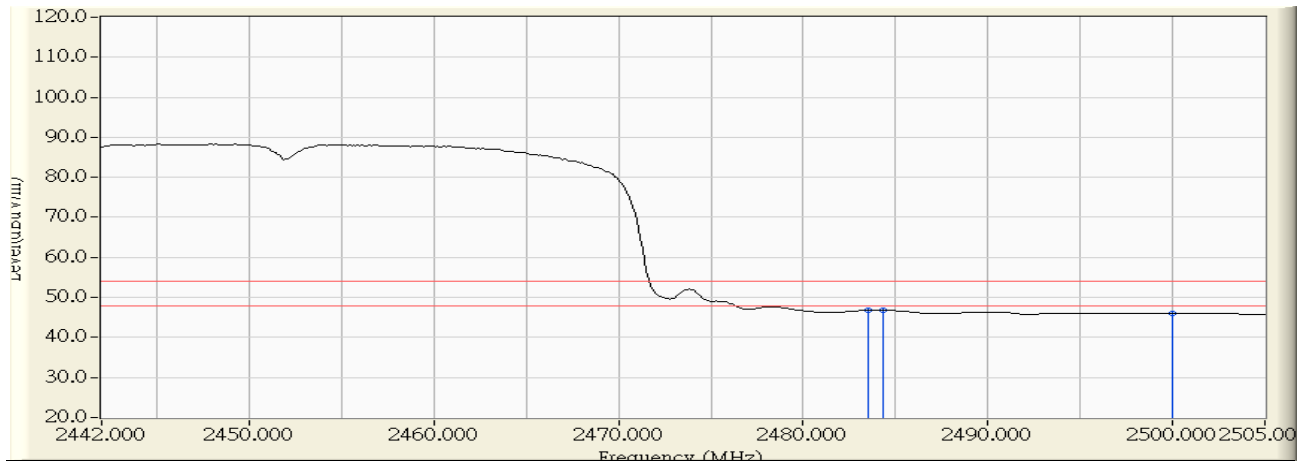


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	27.960	59.818	-14.182	74.000	PEAK
2	*	2490.405	31.930	28.474	60.404	-13.596	74.000	PEAK
3		2500.000	31.988	26.242	58.231	-15.769	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2013/10/14 - 17:34
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N ADSL2+ Modem Router	Note : Mode 1: Transmit_802.11n 40MHz_2452MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.858	14.982	46.840	-7.160	54.000	AVERAGE
2	*	2484.315	31.867	15.009	46.875	-7.125	54.000	AVERAGE
3		2500.000	31.988	13.997	45.986	-8.014	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Occupied Bandwidth

7.1. Test Equipment

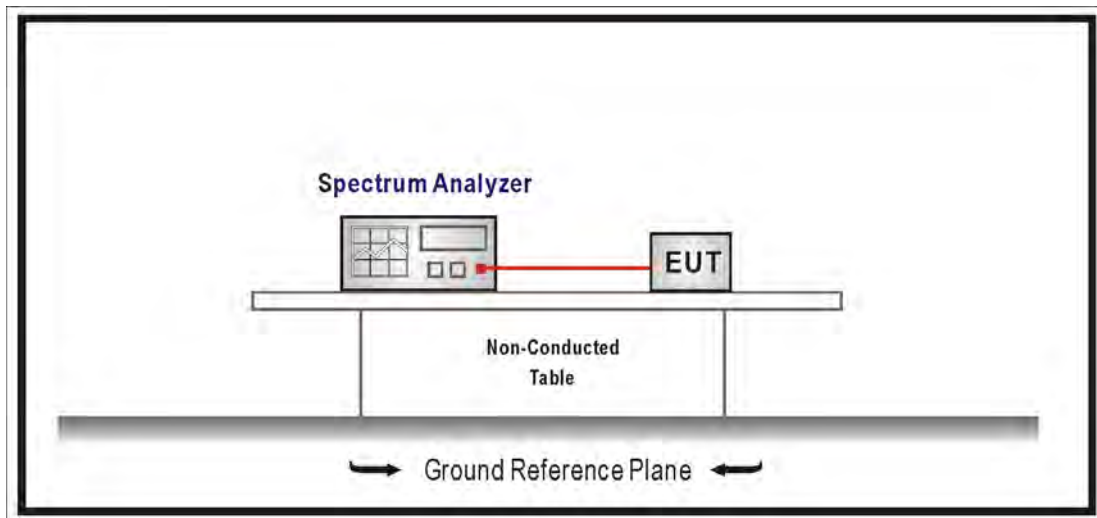
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100KHz, VBW $\geq$ 3xRBW , Sweep time=Auto, Set detector=Peak detector.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

7.6. Uncertainty

The measurement uncertainty is defined as $\pm 150\text{Hz}$

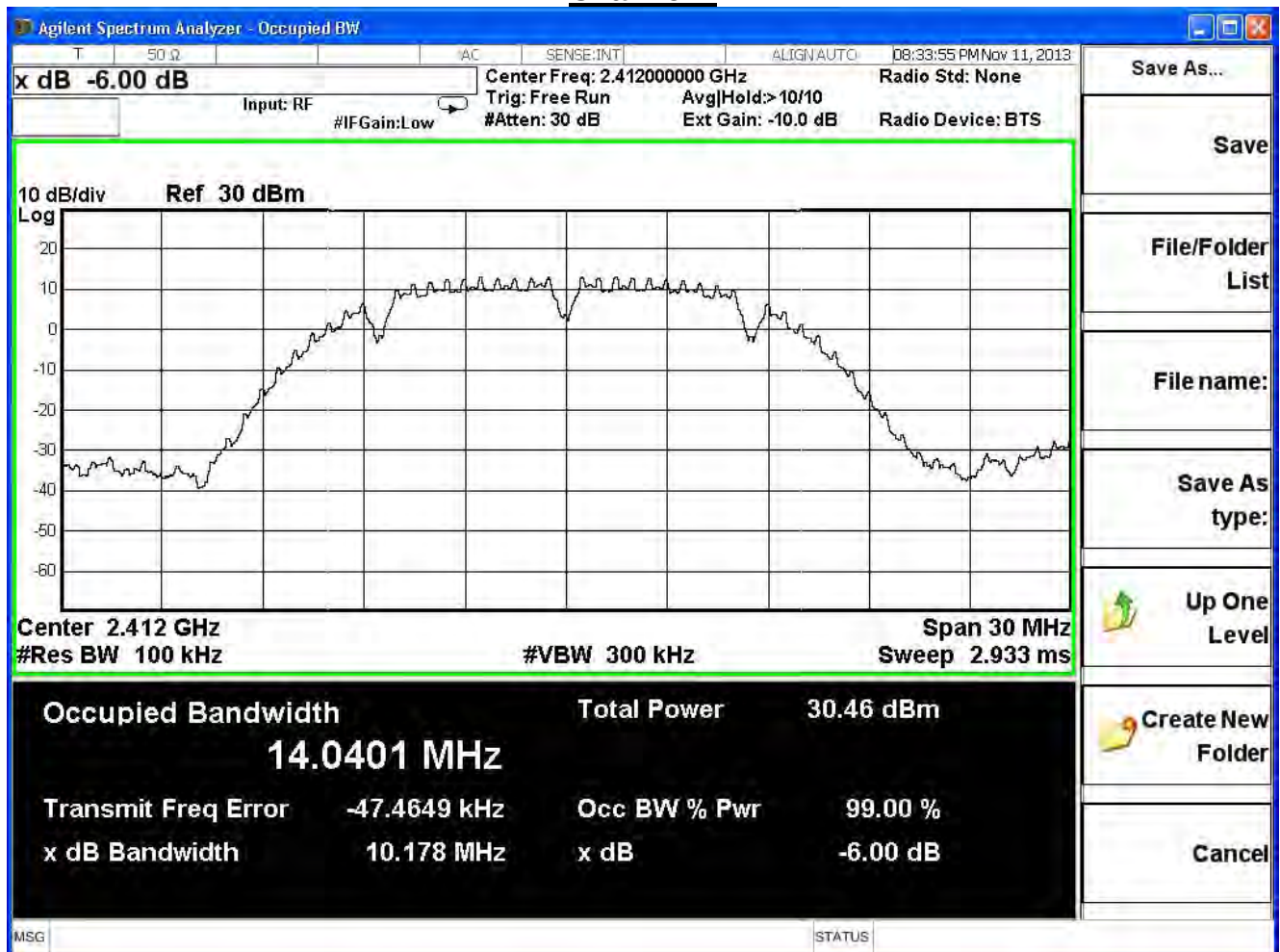
7.7. Test Result

Product	Wireless N ADSL2+ Modem Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

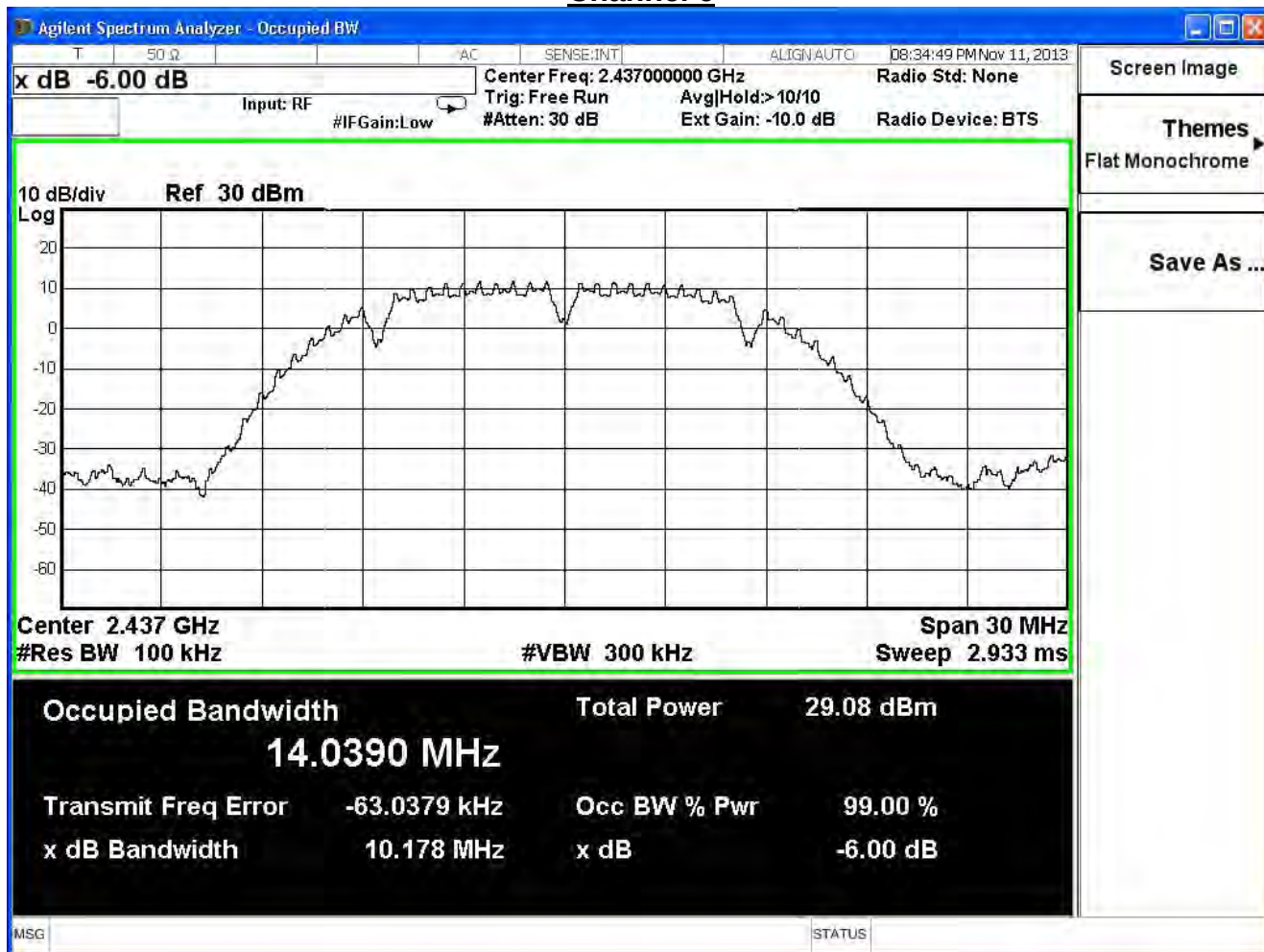
802.11 b

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	10.178	≥ 0.5	Pass
6	2437	10.178	≥ 0.5	Pass
11	2462	10.174	≥ 0.5	Pass

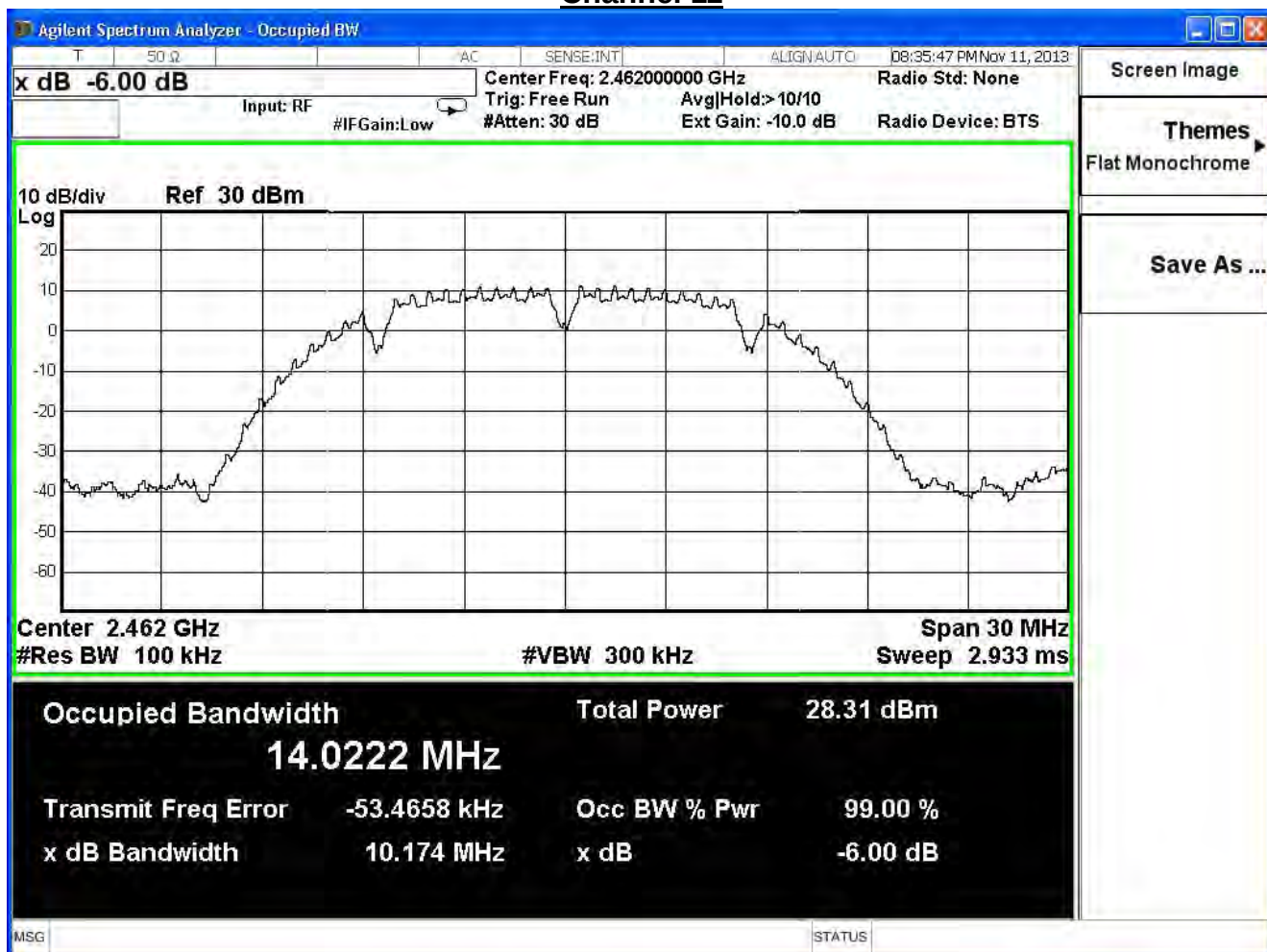
Channel 1



Channel 6



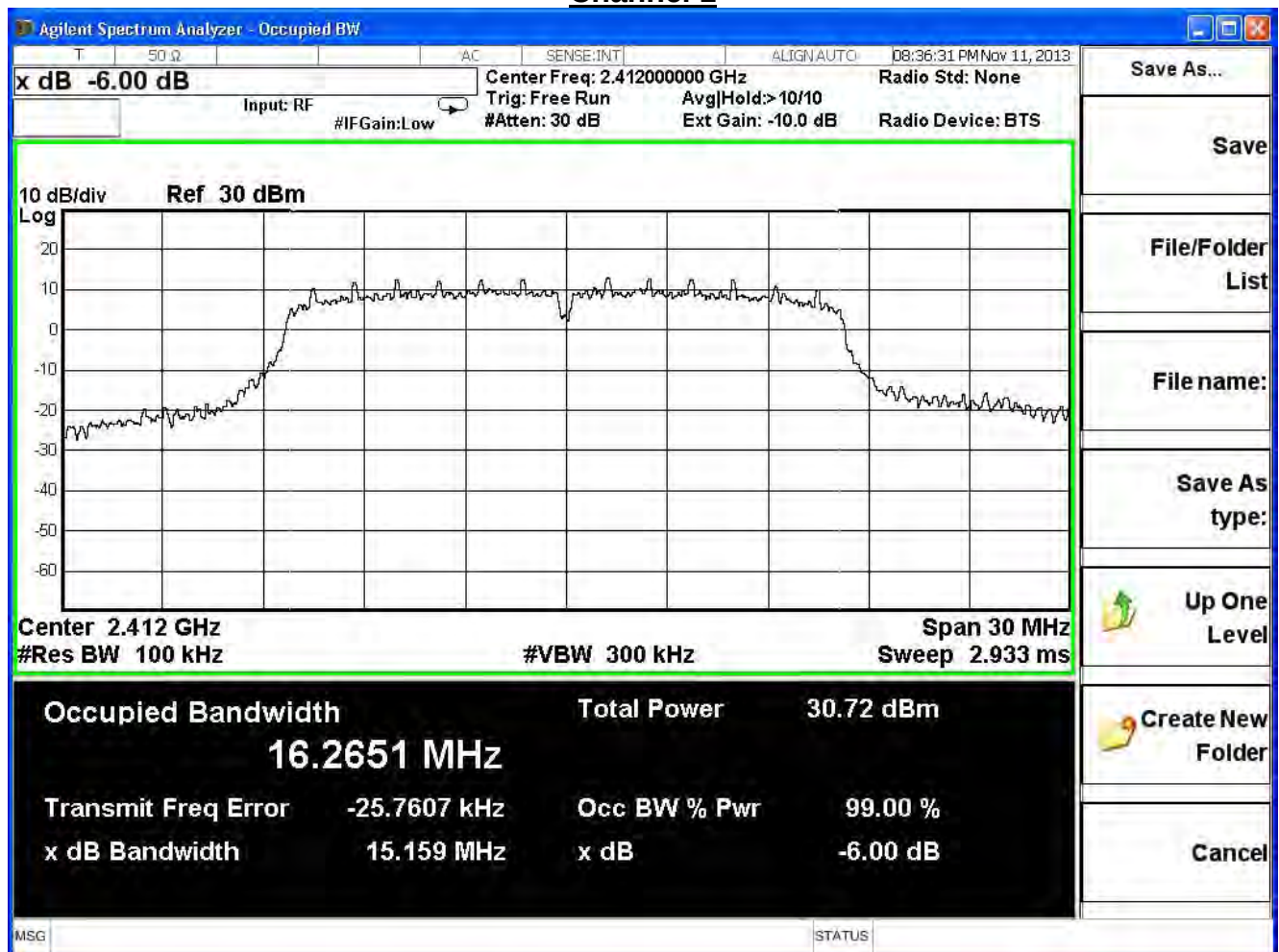
Channel 11



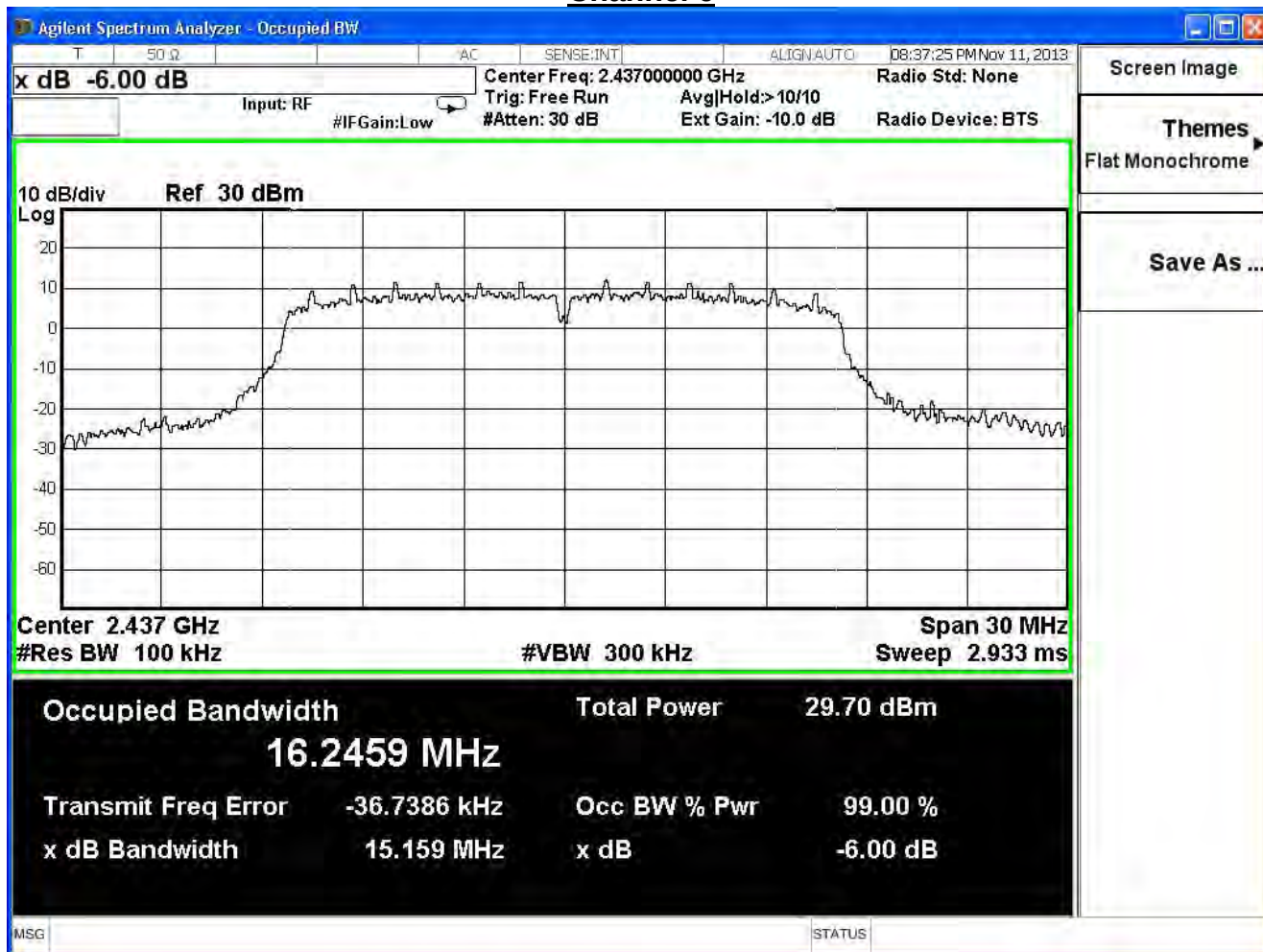
Product	Wireless N ADSL2+ Modem Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	15.159	≥ 0.5	Pass
6	2437	15.159	≥ 0.5	Pass
11	2462	15.158	≥ 0.5	Pass

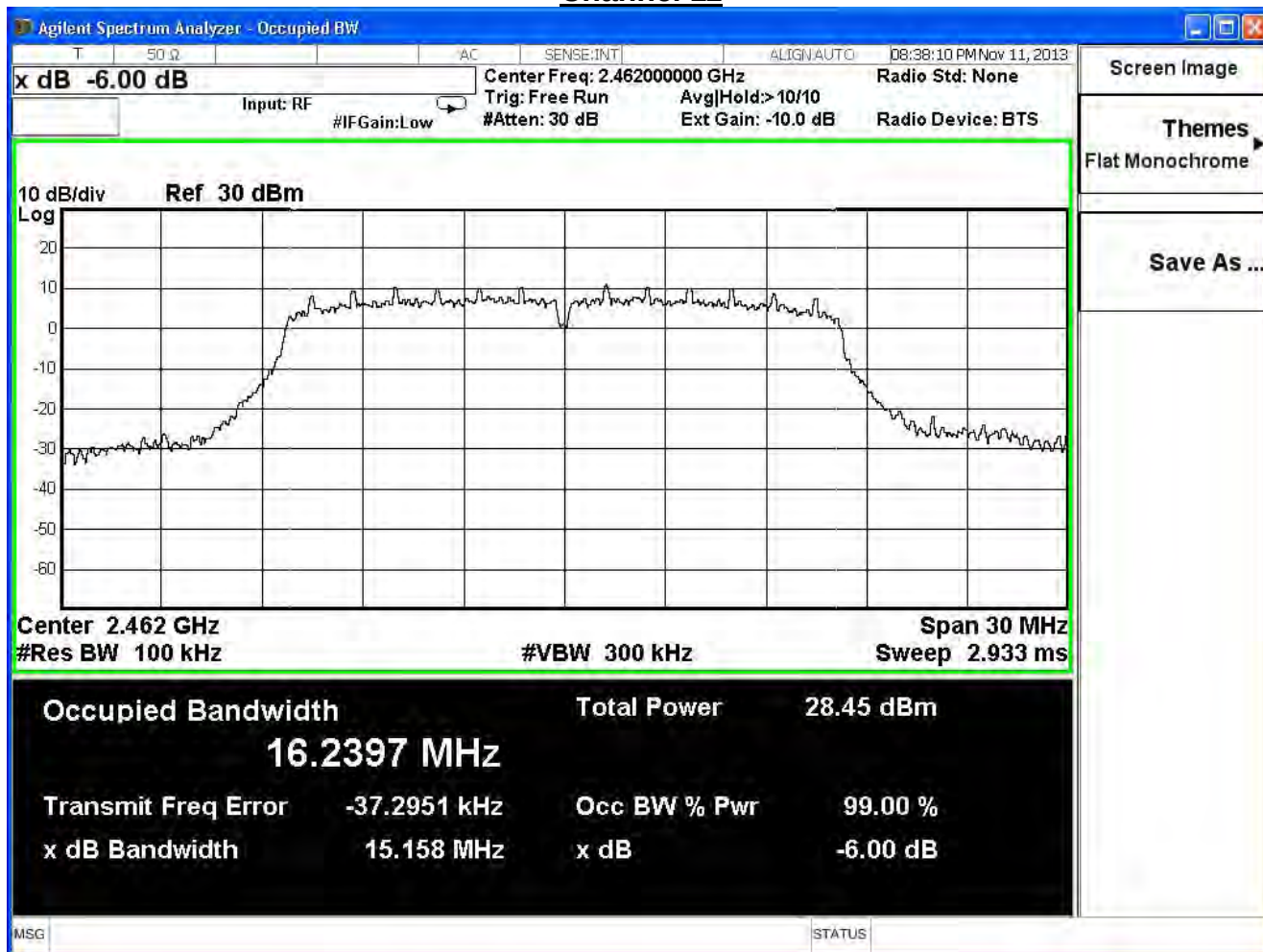
Channel 1



Channel 6



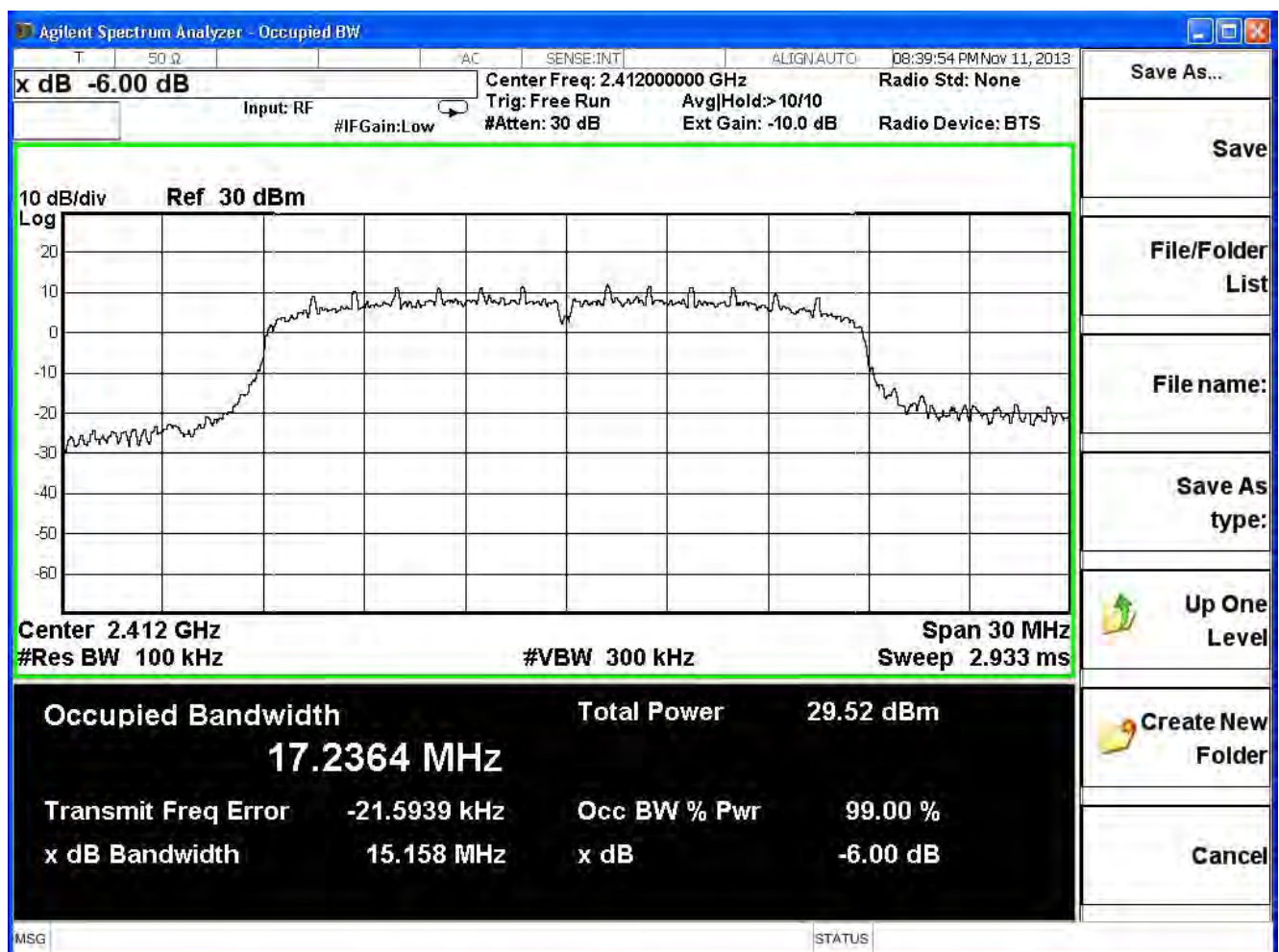
Channel 11



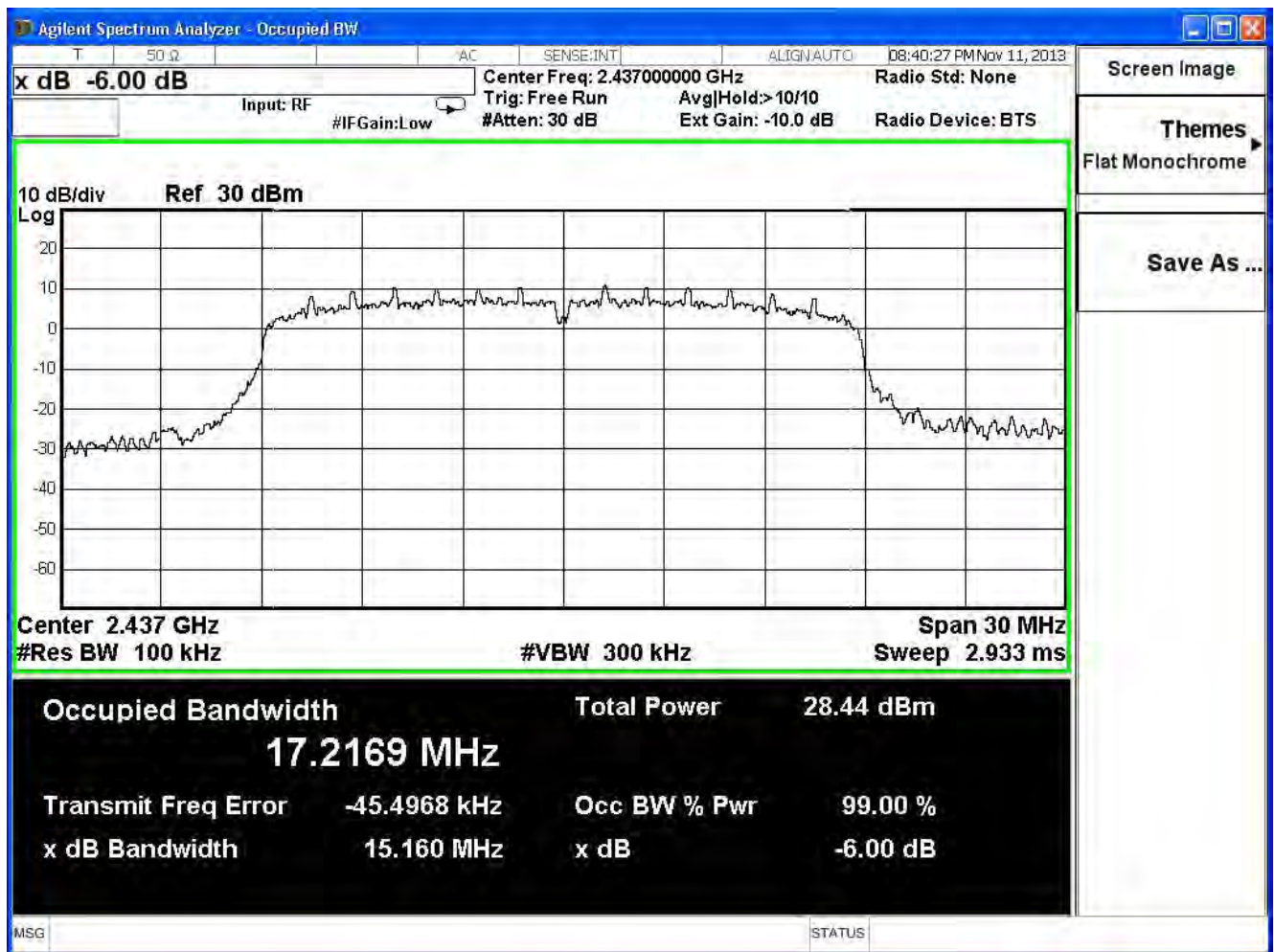
Product	Wireless N ADSL2+ Modem Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE 802.11n (20MHz)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	15.158	≥ 0.5	Pass
6	2437	15.160	≥ 0.5	Pass
11	2462	15.328	≥ 0.5	Pass

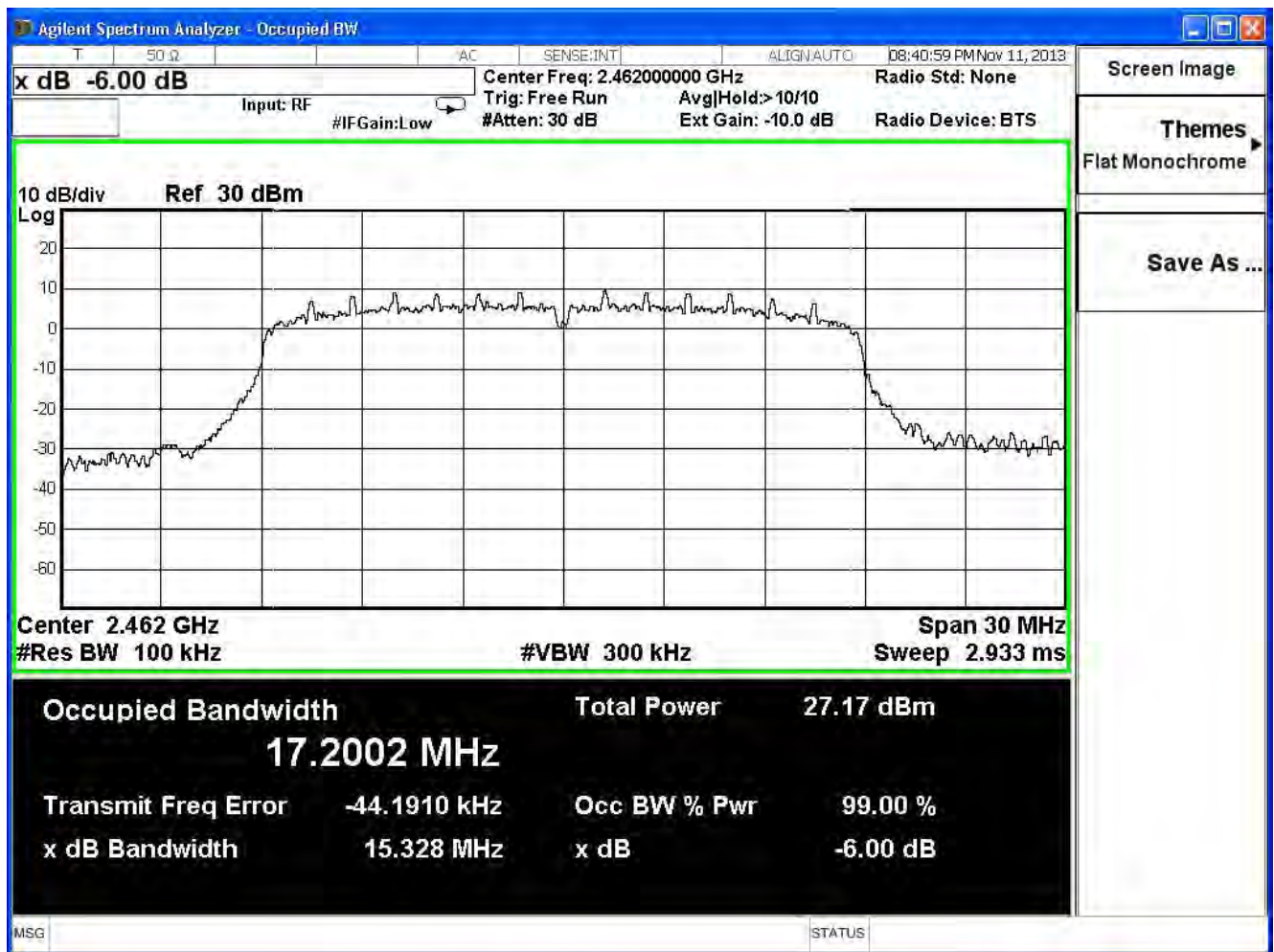
Channel 1



Channel 6



Channel 11

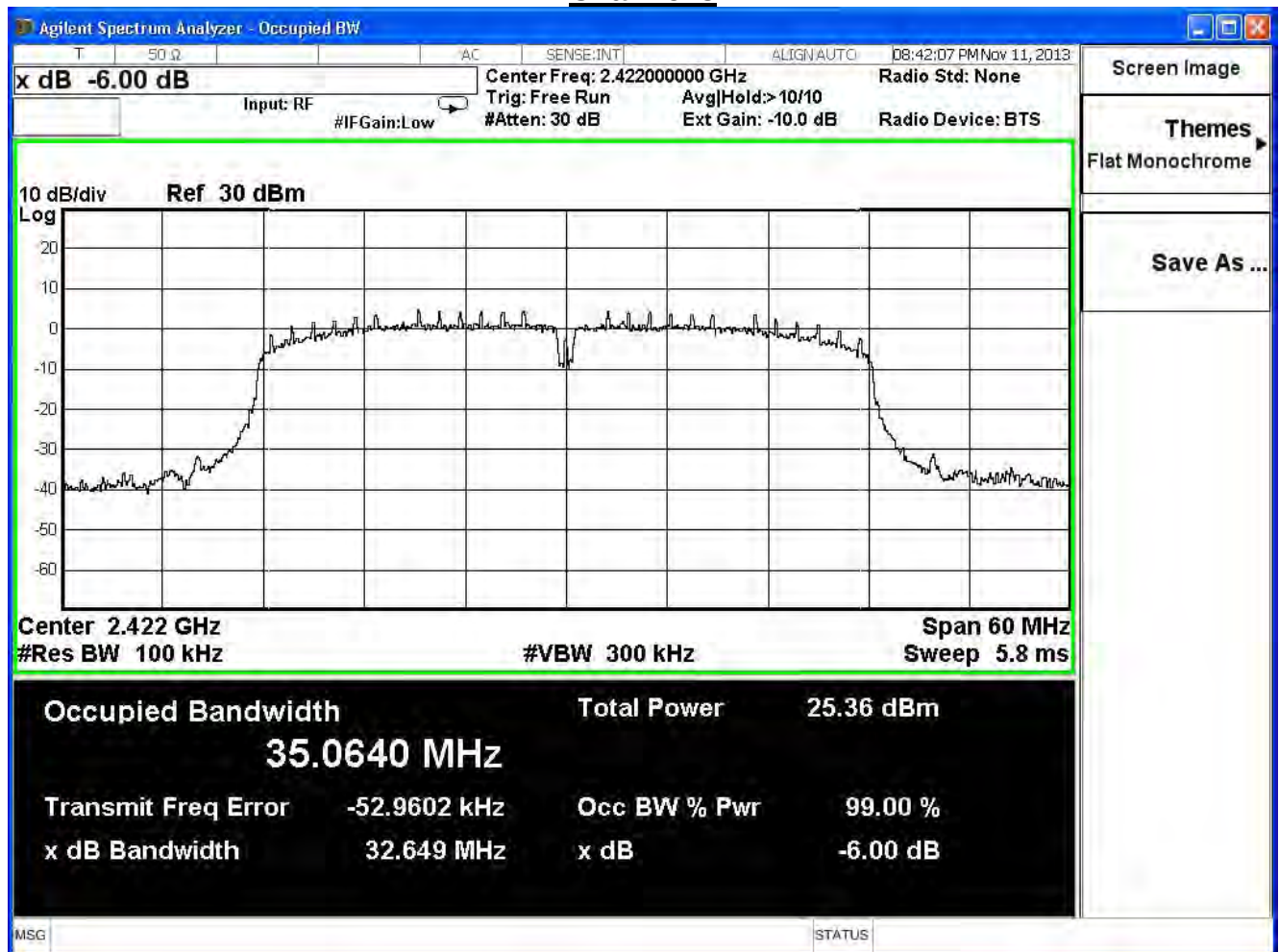


Product	Wireless N ADSL2+ Modem Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

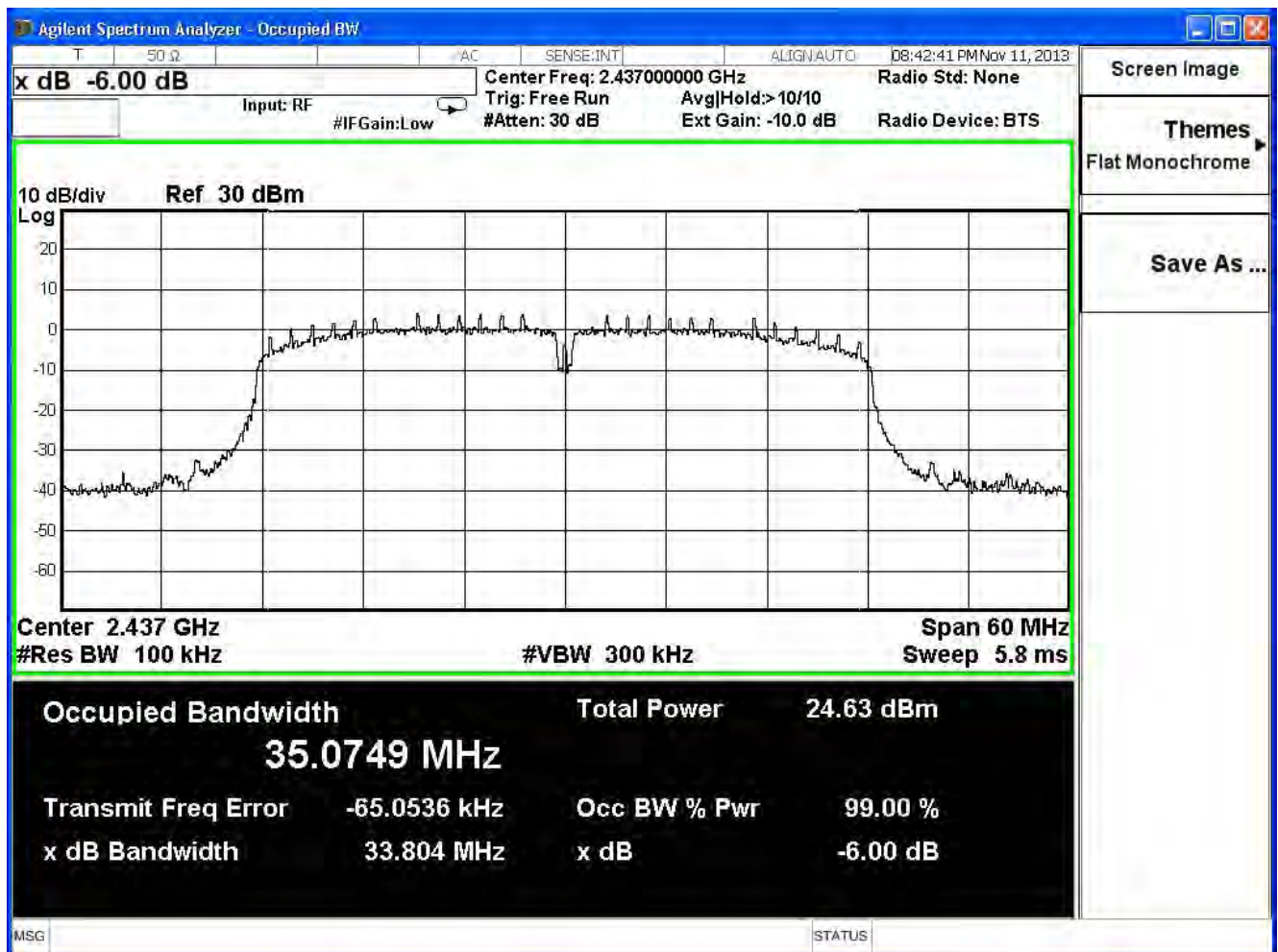
IEEE 802.11n (40MHz)

Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
3	2422	32.649	≥ 0.5	Pass
6	2437	33.804	≥ 0.5	Pass
9	2452	33.815	≥ 0.5	Pass

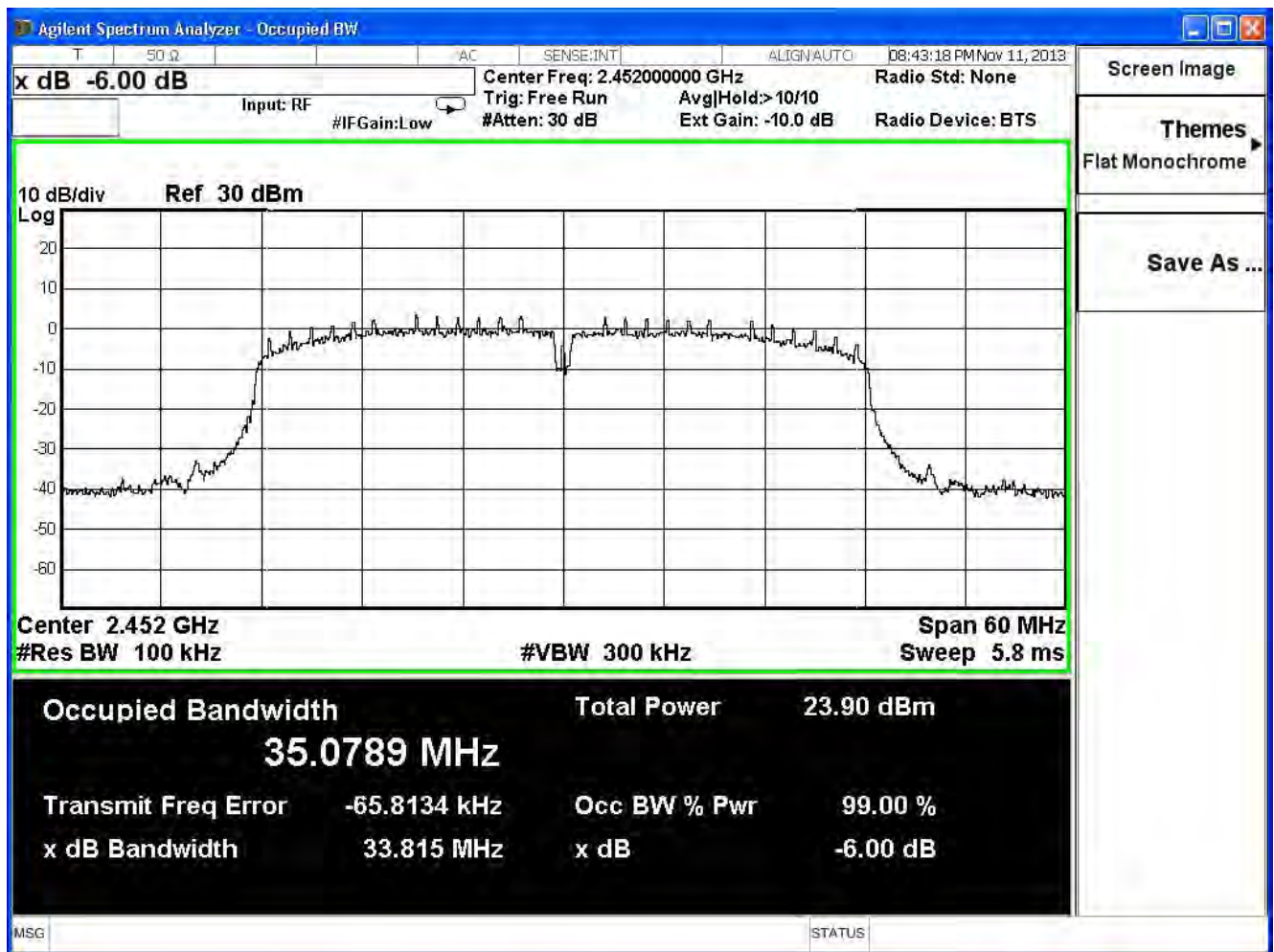
Channel 3



Channel 6



Channel 9



8. Power Density

8.1. Test Equipment

The following test equipment is used during the test:

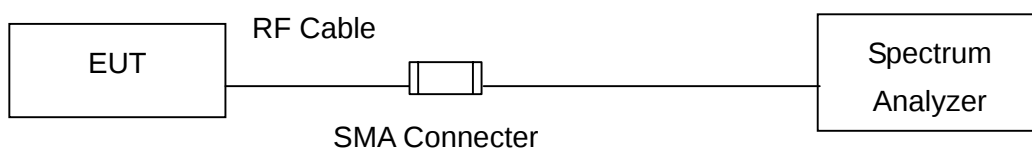
Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup

IEEE 802.11 b / g / n (20M / 40M) MODE



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.

Set RBW to : $3\text{KHz} \leq \text{RBW} \leq 100\text{KHz}$, Set VBW $\geq 3 \times \text{RBW}$, Sweep time=Auto, Set detector=RMS detector

8.5. Test Specification

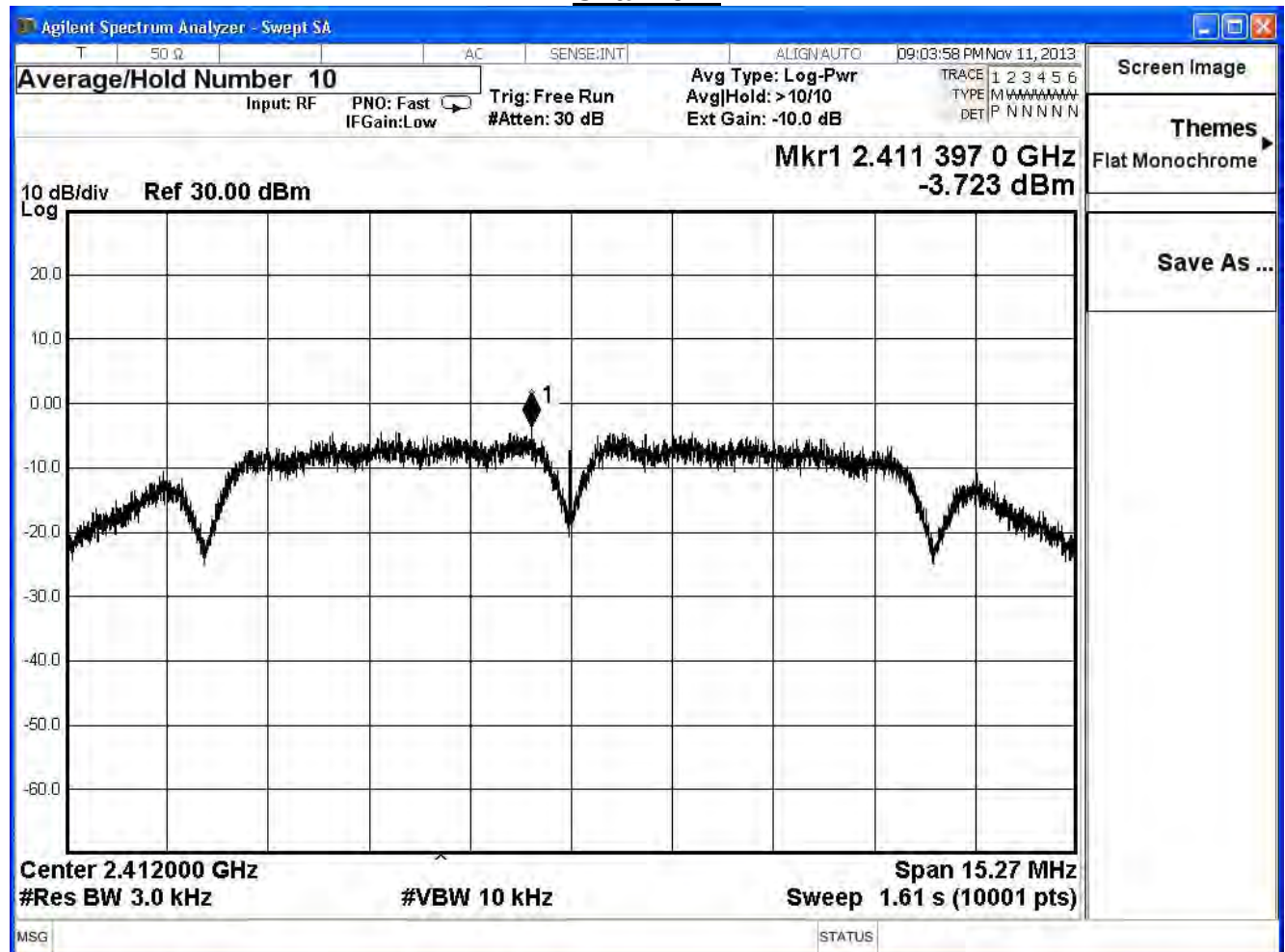
According to FCC Part 15 Subpart C Paragraph 15.247: 2012

8.6. Uncertainty

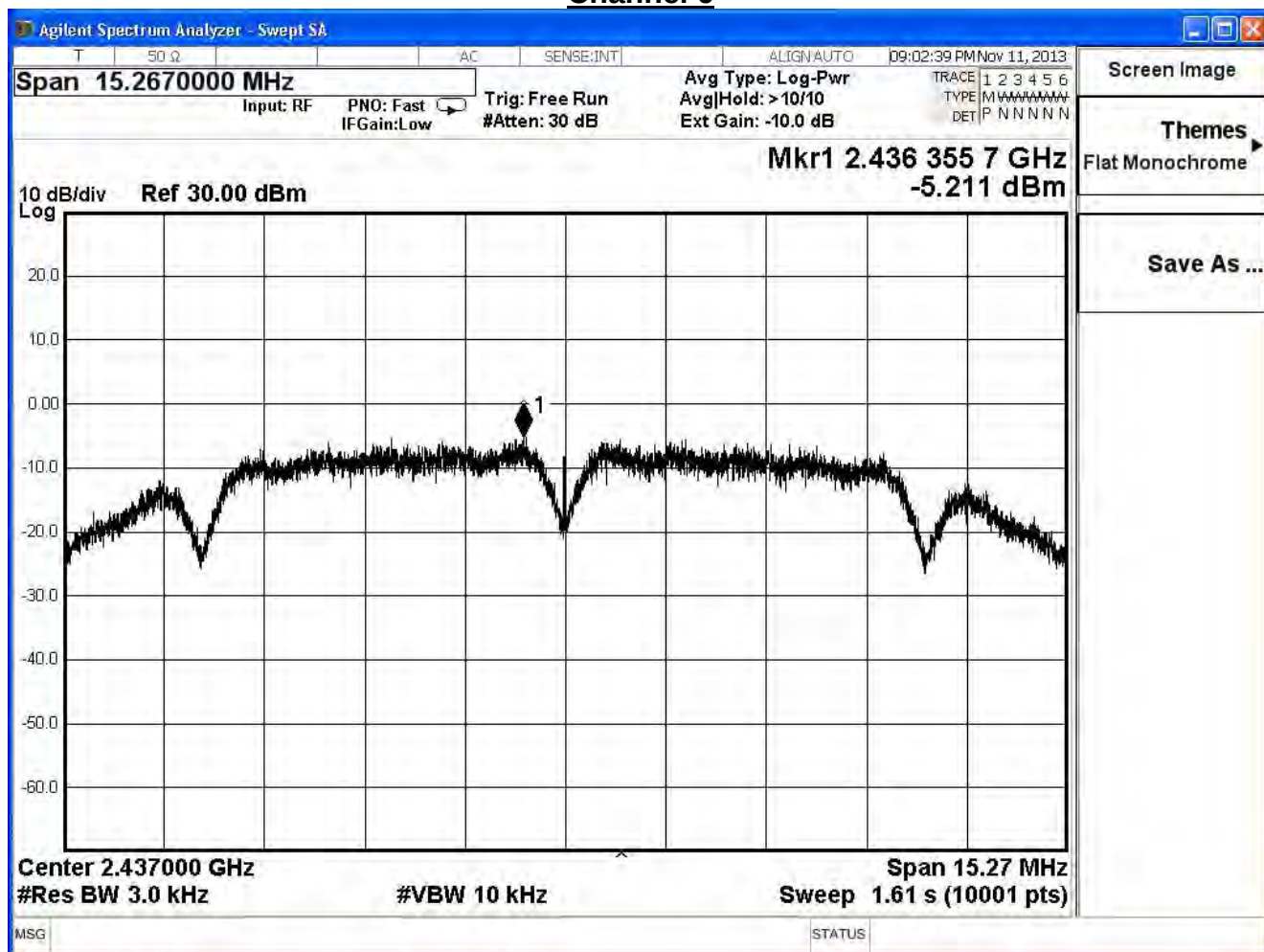
The measurement uncertainty is defined as $\pm 1.27\text{dB}$.

Product	Wireless N ADSL2+ Modem Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

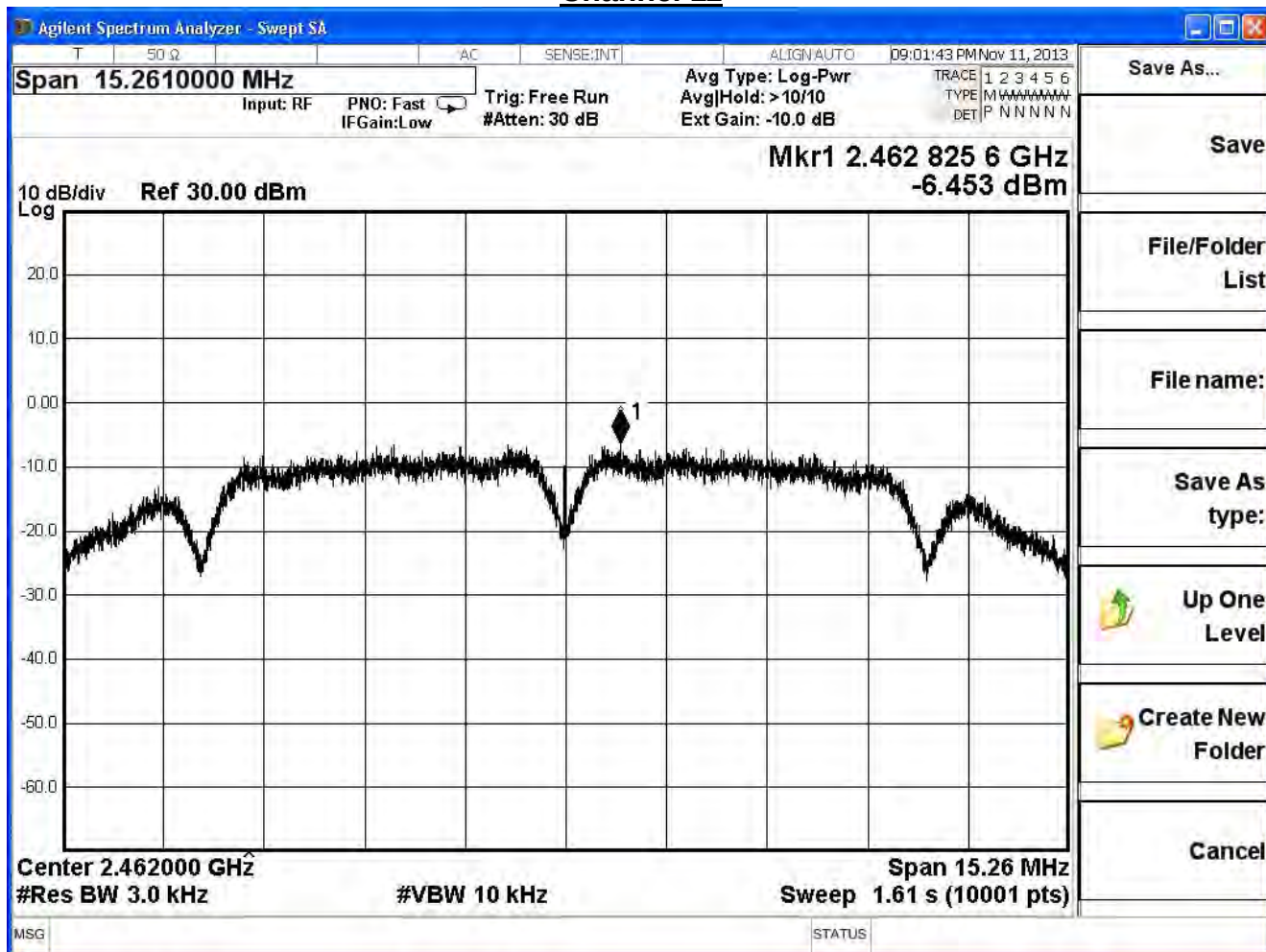
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-3.723	≤ 8	Pass
6	2437	-5.211	≤ 8	Pass
11	2462	-6.453	≤ 8	Pass



Channel 6



Channel 11



IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-1.129	≤ 8	Pass
6	2437	-3.732	≤ 8	Pass
11	2462	-5.405	≤ 8	Pass

Agilent Spectrum Analyzer - Swept SA

Channel 1

50 Ω AC SENSE:INT ALIGN AUTO 09:00:26 PM Nov 11, 2013

Sweep Time 2.40 s

Input: RF PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB

Avg Type: Log-Pwr Avg|Hold: > 10/10 Ext Gain: -10.0 dB

TRACE 1 2 3 4 5 6 TYPE M M M M M M M M DET P N N N N N N

Mkr1 2.410 719 8 GHz -1.129 dBm

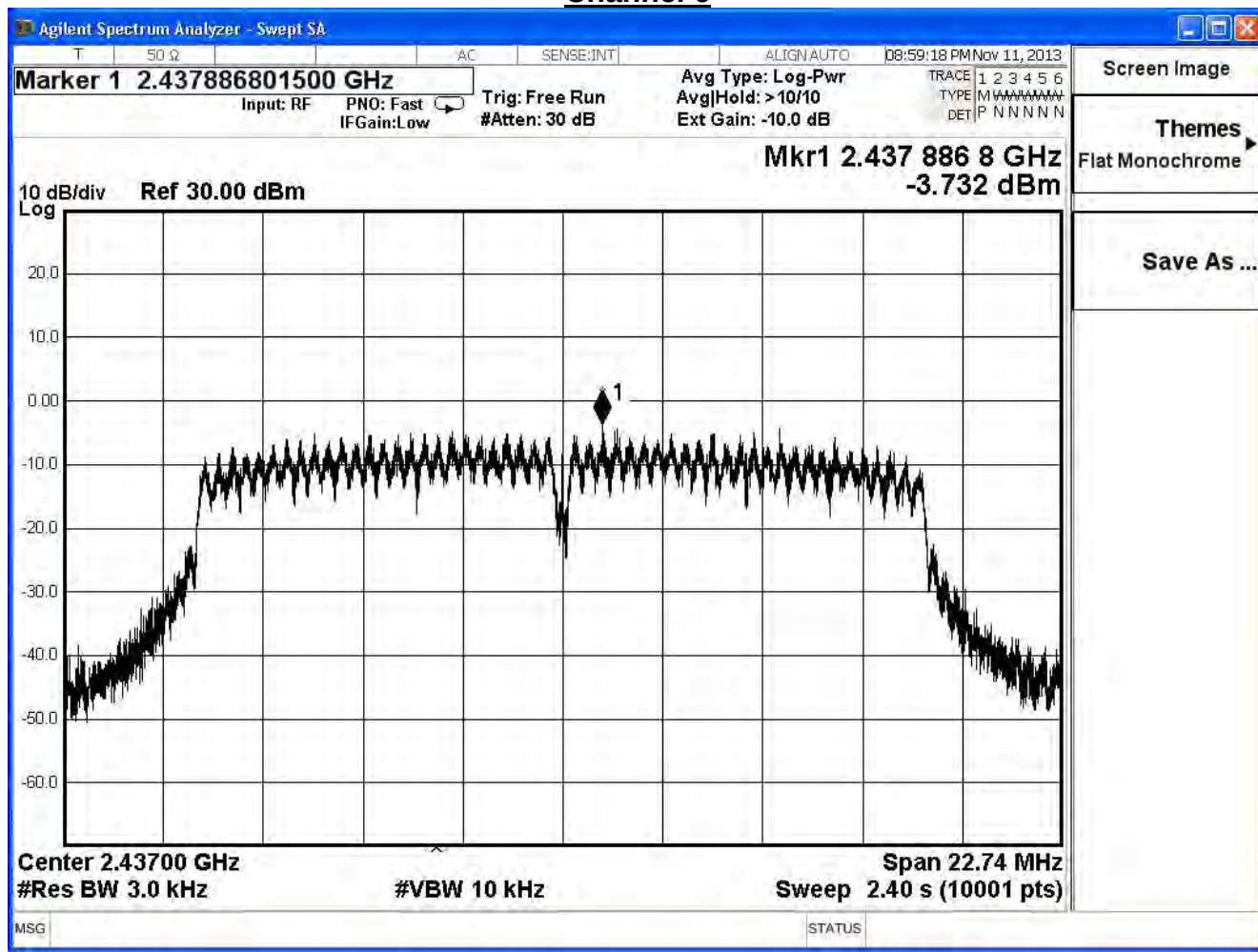
10 dB/div Ref 30.00 dBm

Log

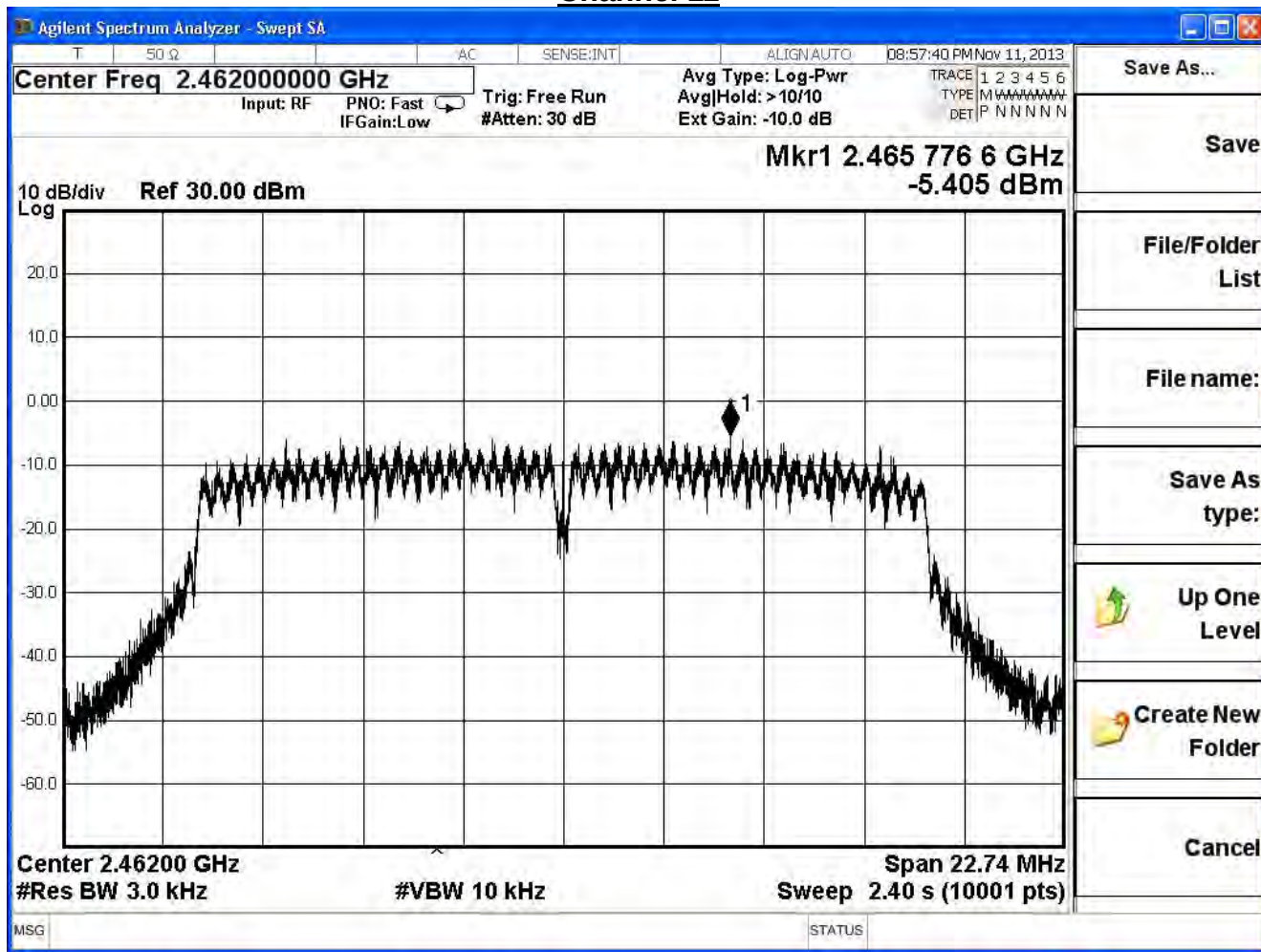
Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 22.74 MHz Sweep 2.40 s (10001 pts)

MSG STATUS

Channel 6



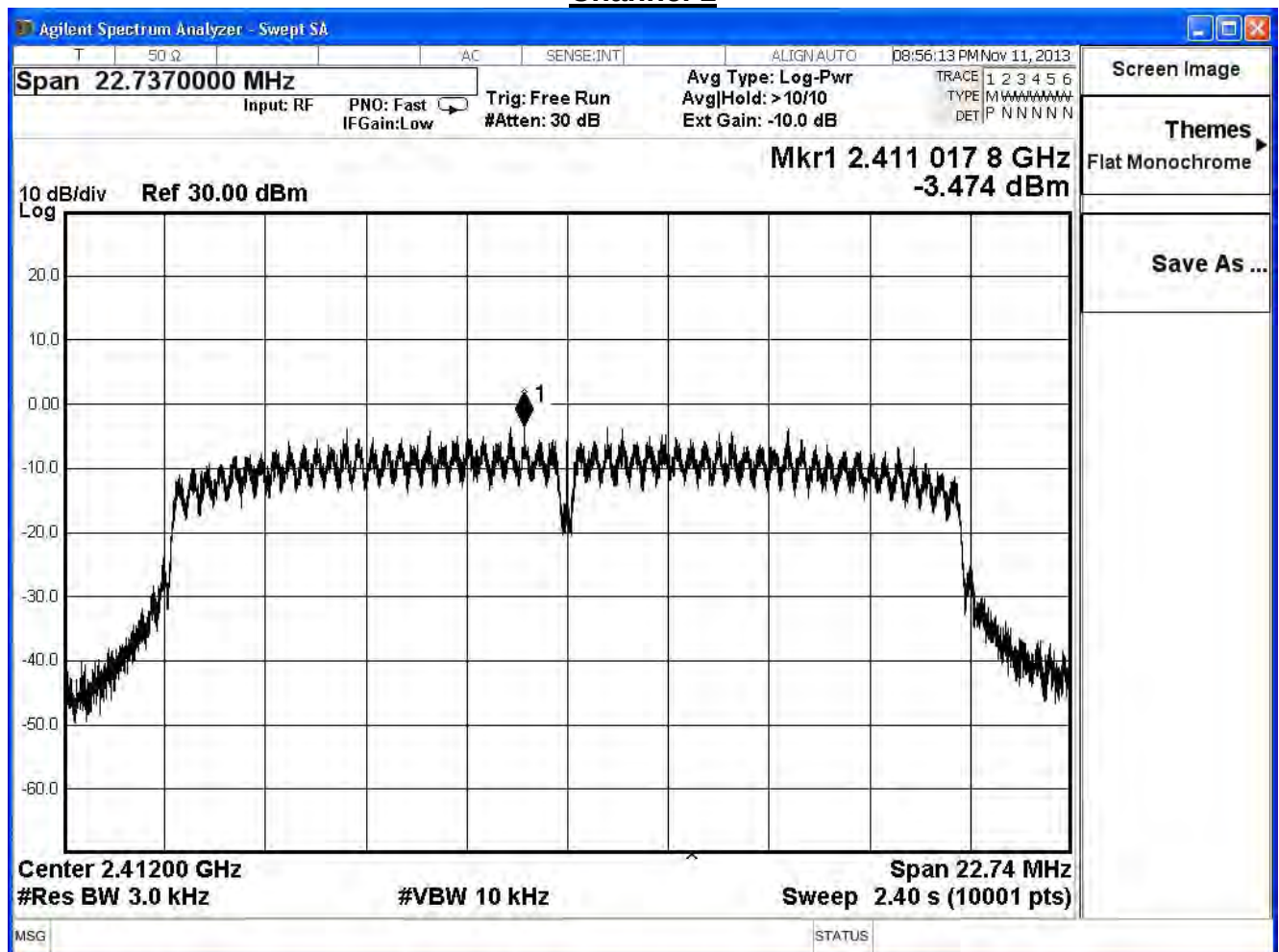
Channel 11



Product	Wireless N ADSL2+ Modem Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE802.11n_20MHz				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-3.474	≤ 8	Pass
6	2437	-4.208	≤ 8	Pass
11	2462	-6.949	≤ 8	Pass

Channel 1



Agilent Spectrum Analyzer - Swept SA

T 50 Ω AC SENSE:INT ALIGN AUTO 08:54:42 PM Nov 11, 2013

Span 22.7400000 MHz

Input: RF PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr Avg|Hold: > 10/10 Ext Gain: -10.0 dB

TRACE 1 2 3 4 5 6 TYPE M M M M M M M M DET P N N N N N N

Mkr1 2.439 428 6 GHz -4.208 dBm

10 dB/div Ref 30.00 dBm

Log

The plot shows a spectrum with a central peak labeled '1' at approximately 2.439 GHz. The y-axis is labeled 'Log' and ranges from -60.0 to 20.0 dBm. The x-axis is labeled 'Center 2.43700 GHz' and 'Span 22.74 MHz'. The plot is noisy, with a baseline around -10 dBm and a peak around -4 dBm.

Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 2.40 s (10001 pts)

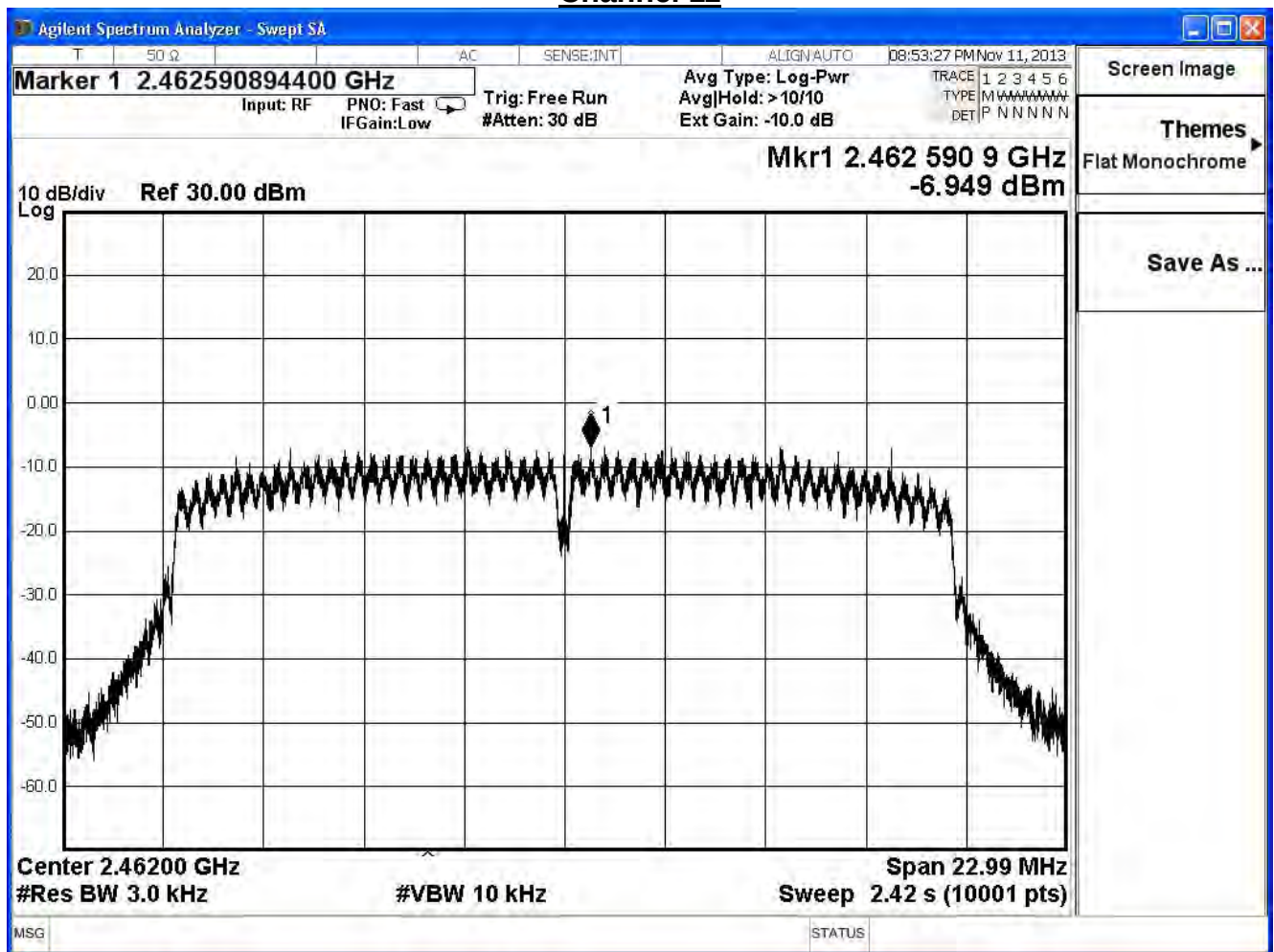
MSG STATUS

Screen Image

Themes Flat Monochrome

Save As ...

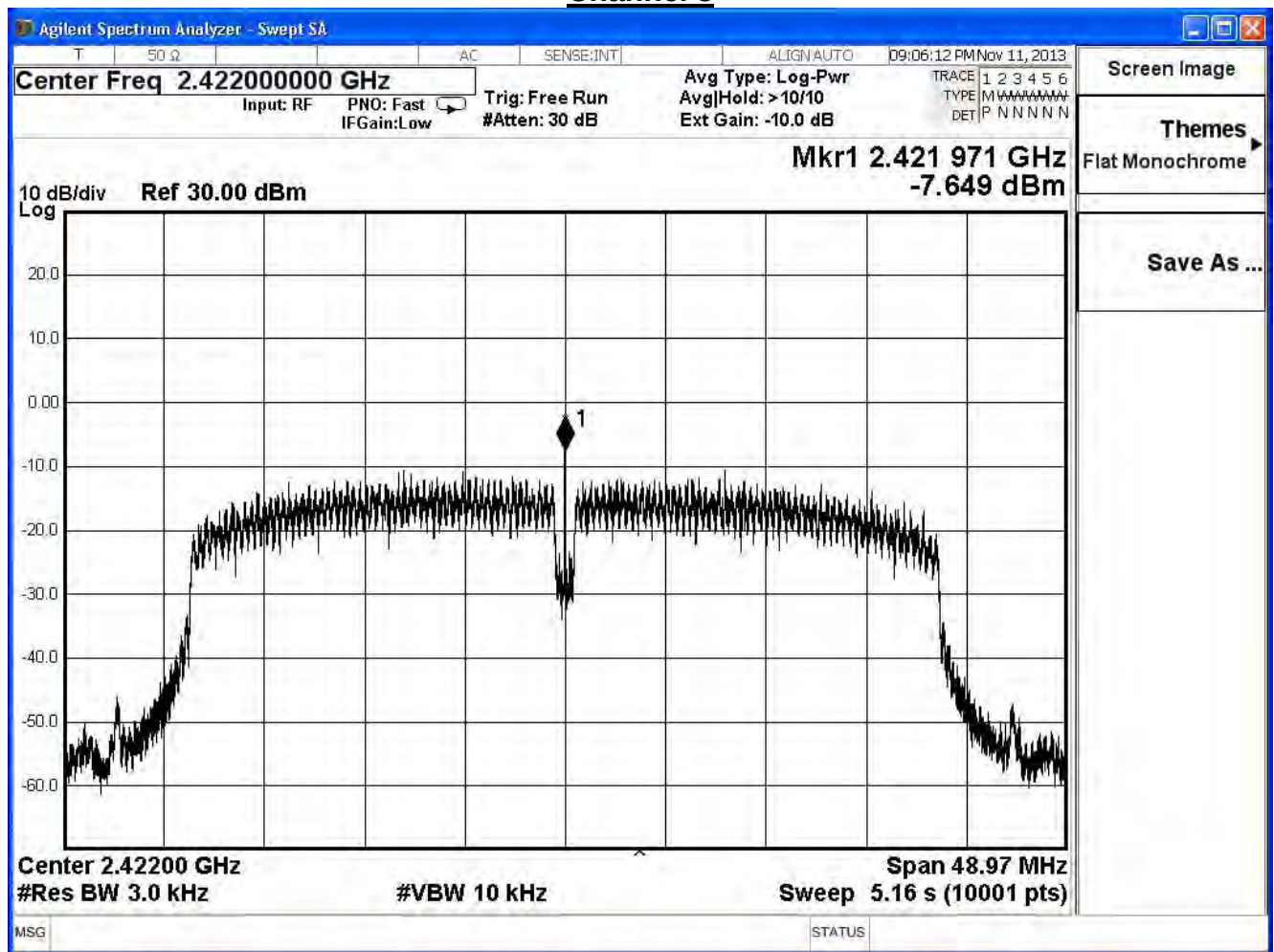
Channel 11



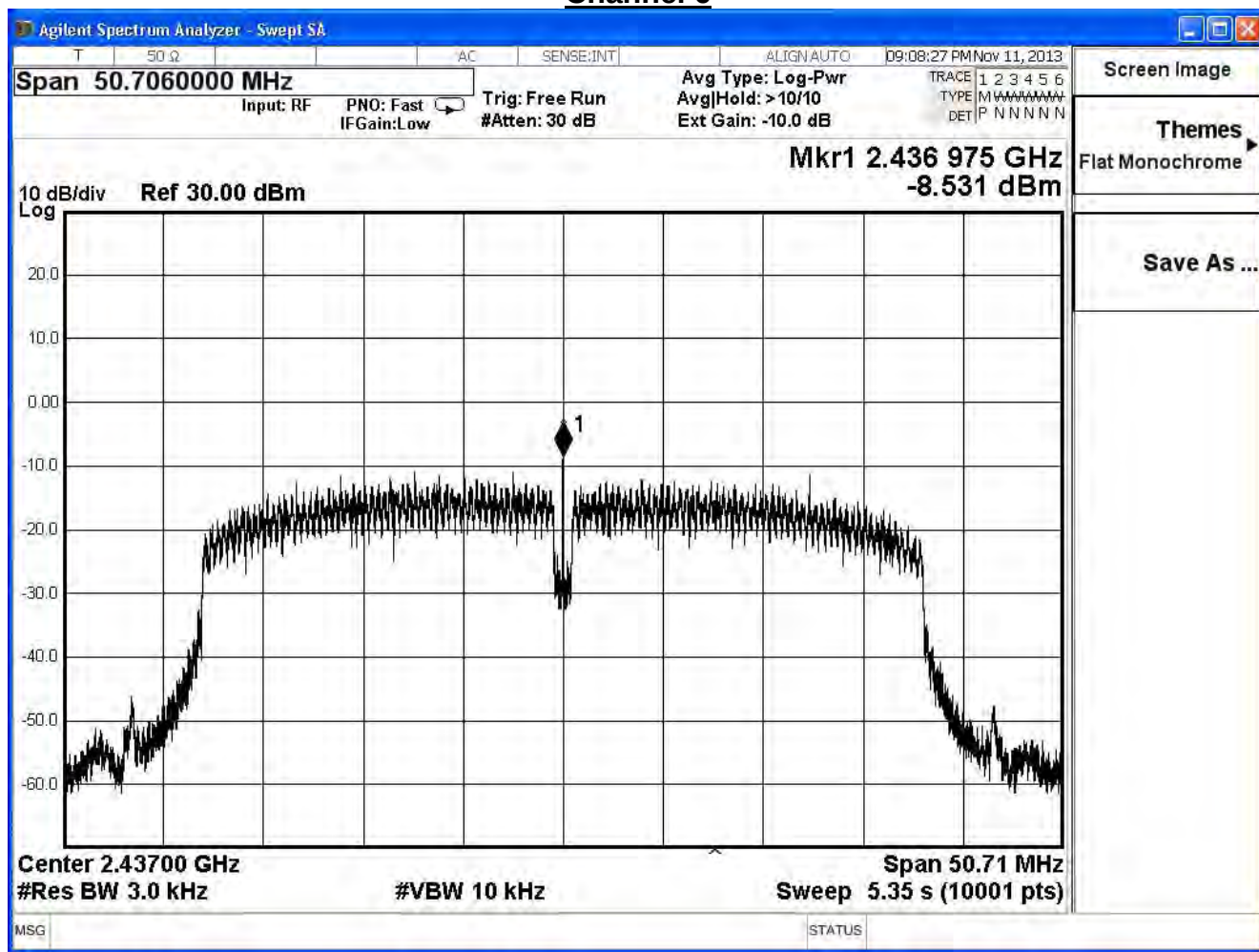
Product	Wireless N ADSL2+ Modem Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/12	Test Site	SR7

IEEE802.11n_40MHz				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-7.649	≤ 8	Pass
6	2437	-8.531	≤ 8	Pass
9	2452	-9.242	≤ 8	Pass

Channel 3



Channel 6



Channel 9

