



Test Report

Product Name : All-in-One Wireless-N pocket router
Model No. : WL-330NUL
FCC ID. : MSQ-WL330NUL

Applicant : ASUSTeK COMPUTER INC.

Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : 2012/11/27

Issued Date : 2013/03/06

Report No. : 12C018R-RFUSP42V01

Report Version : V1.0



The test results relate only to the samples tested.

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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/>

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1. General Information

1.1. EUT Description

Product Name	All-in-One Wireless-N pocket router
Product Type	WLAN (1TX, 1RX)
Trade Name	ASUS
Model No.	WL-330NUL
Frequency Range -IEEE 802.11b/g & IEEE 802.11n (20MHz)	2412~2462MHz
Frequency Range-IEEE 802.11n (40MHz)	2422~2452MHz
Channel Number (IEEE 802.11b/g & IEEE 802.11n (20MHz))	11
Channel Number-IEEE 802.11n (40MHz)	9
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	2.23dBi
Channel Control	Auto and Manual
Antenna Type	Internal Antenna PIFA Type

Component	
USB Cable	Shielded, 0.06m
Power Adapter	Ktec, KSAS0060500100VUU I/P : 100-240V~50/60Hz, 0.18A O/P : 5V= 1A

ANT-TX / Rx & Bandwidth

ANT-TX / RX	SINGLE-TX		ONE-TX		RX	
	20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
IEEE802.11b	✓				✓	
IEEE802.11g	✓					
IEEE802.11n			✓	✓	✓	✓

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 (Note1)	
								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_{BPSC}	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) - 2.4GHz

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) - 2.4GHz

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 All-in-One Wireless-N pocket 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 12C018R-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 (Adapter)
	Mode 2: Transmit (Power by Notebook)

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

1.4. Tested System Details

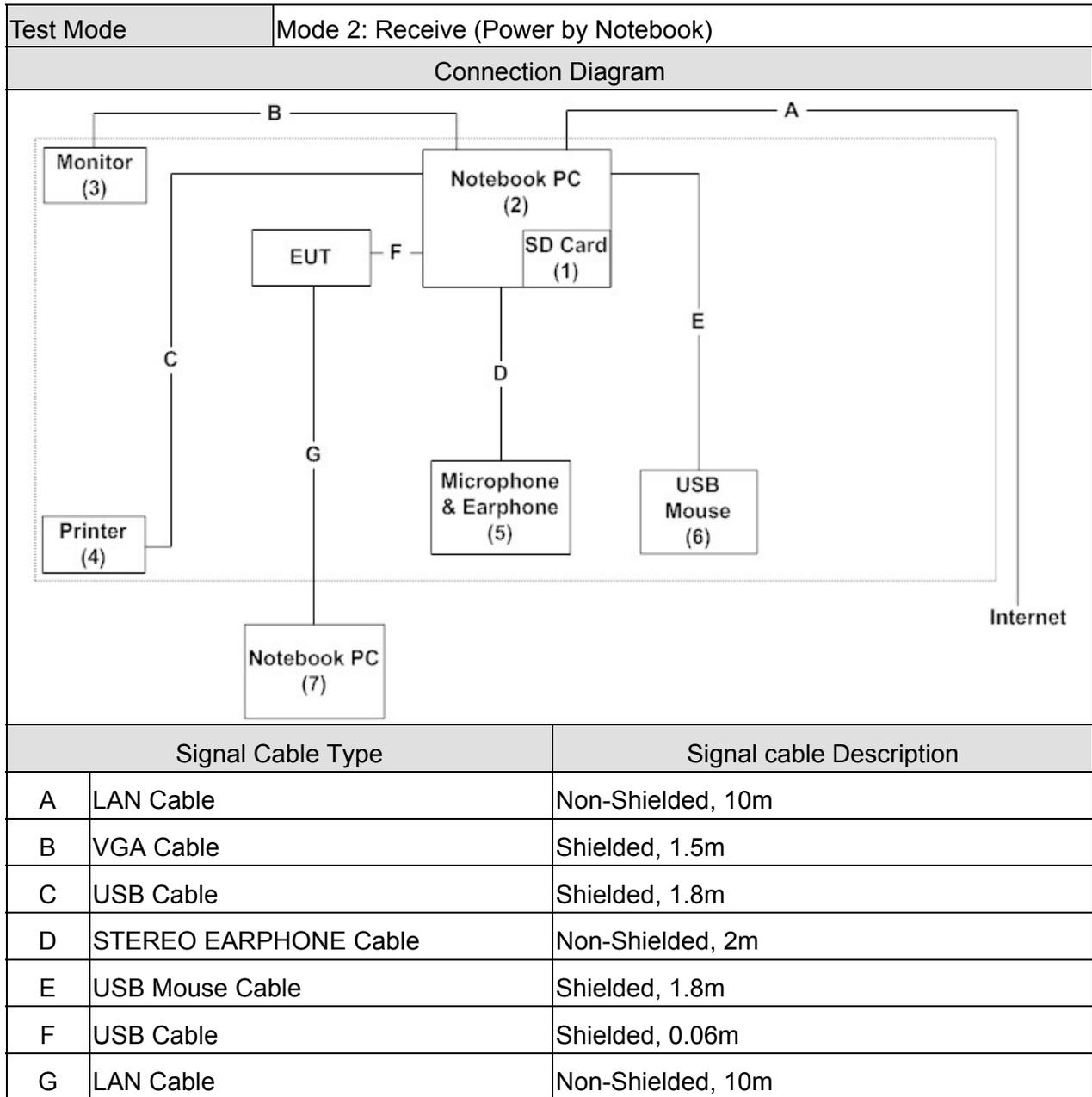
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode		Mode 1: Receive (Adapter)				
Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m

Test Mode		Mode 2: Receive (Power by Notebook)				
Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	SD Card	Transcend	TS512MSD80	160073-4666	DoC	--
2	Notebook PC	HP	110-3010TU	CNC0343H3R	DoC	Non-Shielded, 1m
3	Monitor	DELL	U2410f	082WXD-7287 2-16R-0V7L	DoC	Non-Shielded, 1.8m
4	Printer	HP	C2642A	MY75L1D2XN	DoC	Non-Shielded, 0.7m
5	STEREO EARPHONE	Song Qi	QP-005	N/A	DoC	--
6	USB Mouse	Logitech	M-UV83	LZE35006044	DoC	--
7	Notebook PC	HP	110-3010TU	CNC0343H1W	DoC	Non-Shielded, 1m

1.5. Configuration of tested System

Test Mode		Mode 1: Receive (Adapter)	
Connection Diagram			
<p>The diagram shows a rectangular box labeled 'EUT' at the top right. A horizontal line extends from the left side of the 'EUT' box to the left edge of the diagram area. From this point, a vertical line goes down to a point labeled 'A'. From 'A', a vertical line goes down to a box labeled 'Notebook PC (1)' located at the bottom left of the diagram area.</p>			
Signal Cable Type		Signal cable Description	
A	LAN Cable	Non-Shielded, 3.0m	



1.6. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the test program “MPTest ver.1.3.8.0” on the notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start TX” 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 (DSSS)	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 (DSSS)	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 (DSSS)	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 (DSSS)	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 (DSSS)	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 (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

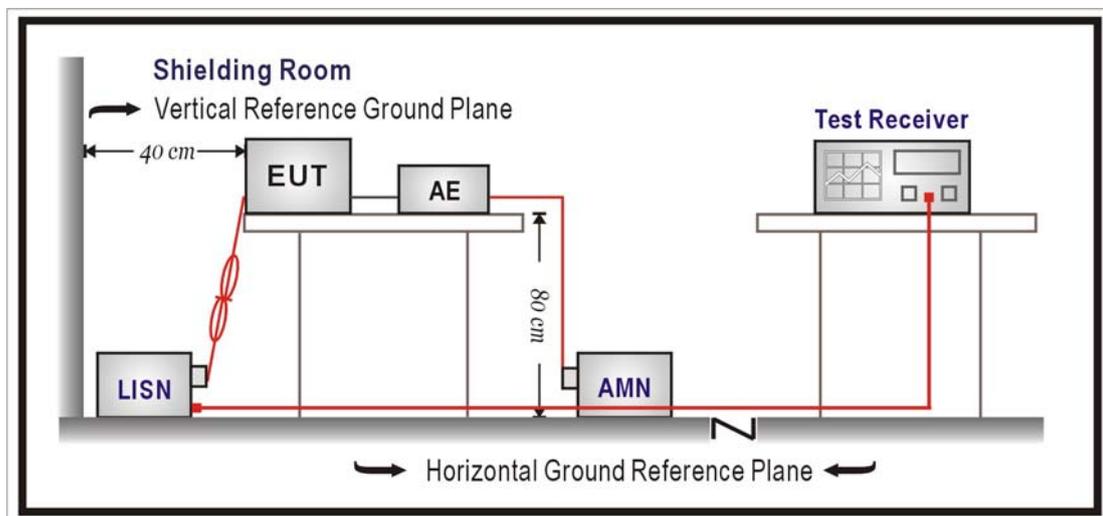
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2013/08/12
LISN	R&S	ESH3-Z5	836679/022	2013/02/06
Test Receiver	R&S	ESCS 30	825442/017	2013/01/01

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 Jan. 2012 KDB558074 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

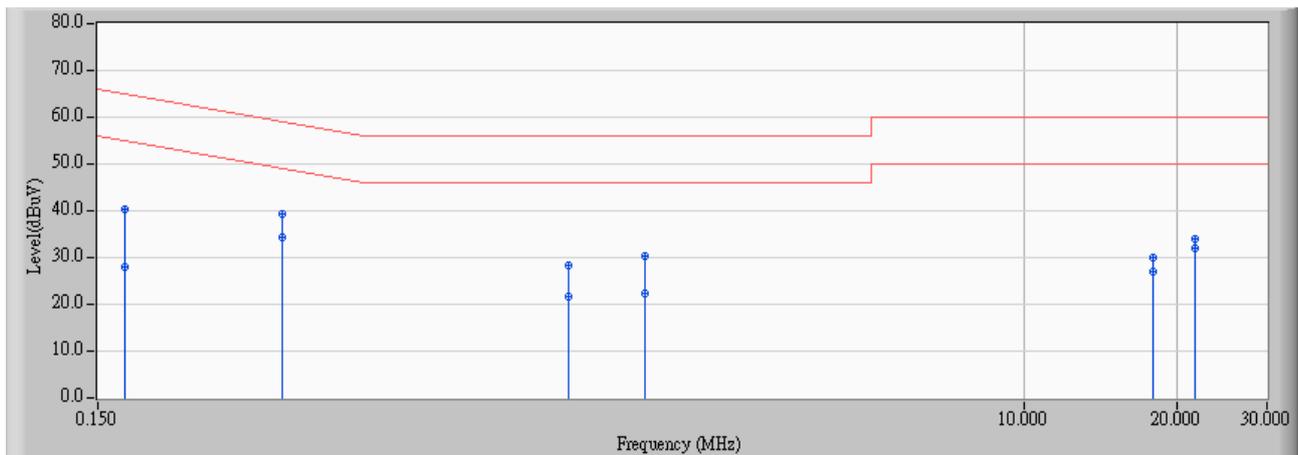
According to FCC Part 15 Subpart C Paragraph 15.207: 2011

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	Time : 2012/11/26 - 20:57
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

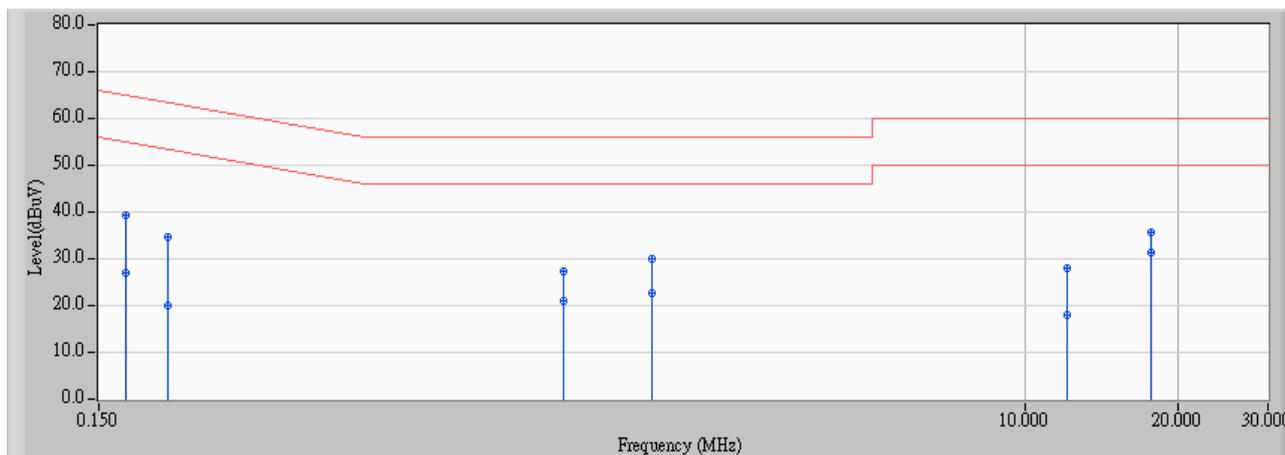


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.170	9.761	30.530	40.290	-24.693	64.983	QUASPEAK
2	0.170	9.761	18.120	27.880	-27.103	54.983	AVERAGE
3	0.345	9.741	29.740	39.481	-19.593	59.074	QUASPEAK
4	*	9.741	24.450	34.191	-14.883	49.074	AVERAGE
5	1.263	9.945	18.350	28.295	-27.705	56.000	QUASPEAK
6	1.263	9.945	11.600	21.545	-24.455	46.000	AVERAGE
7	1.795	9.956	20.460	30.416	-25.584	56.000	QUASPEAK
8	1.795	9.956	12.220	22.176	-23.824	46.000	AVERAGE
9	17.939	10.130	19.880	30.010	-29.990	60.000	QUASPEAK
10	17.939	10.130	16.870	27.000	-23.000	50.000	AVERAGE
11	21.662	10.133	23.880	34.013	-25.987	60.000	QUASPEAK
12	21.662	10.133	21.850	31.983	-18.017	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 : 2012/11/26 - 20:59
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

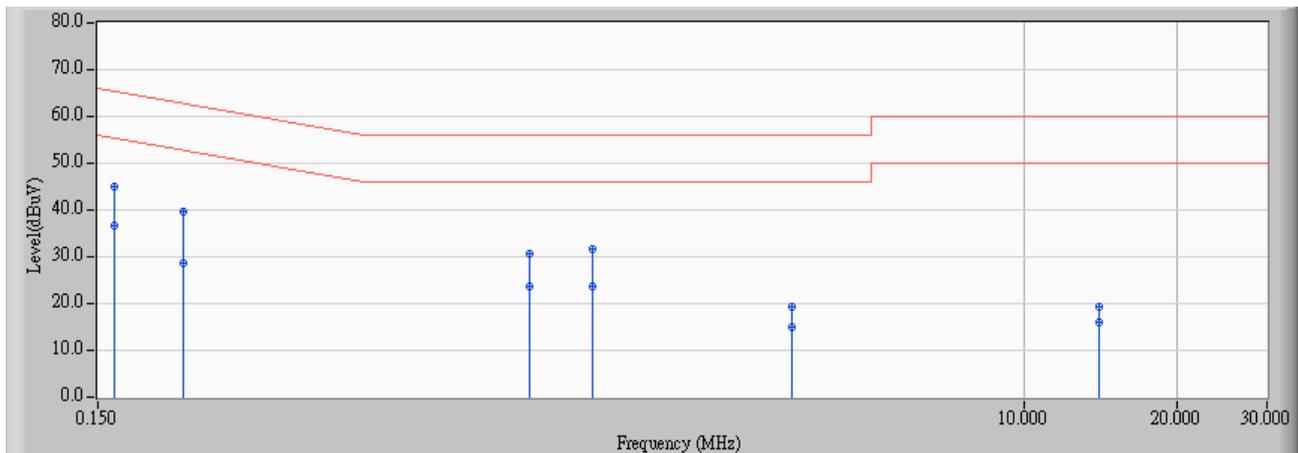


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.170	9.644	29.730	39.374	-25.610	64.983	QUASPEAK
2	0.170	9.644	17.500	27.144	-27.840	54.983	AVERAGE
3	0.205	9.661	24.910	34.571	-28.847	63.418	QUASPEAK
4	0.205	9.661	10.180	19.841	-33.577	53.418	AVERAGE
5	1.236	9.932	17.520	27.452	-28.548	56.000	QUASPEAK
6	1.236	9.932	10.960	20.892	-25.108	46.000	AVERAGE
7	1.837	9.938	20.000	29.938	-26.062	56.000	QUASPEAK
8	1.837	9.938	12.840	22.778	-23.222	46.000	AVERAGE
9	12.080	10.175	17.740	27.915	-32.085	60.000	QUASPEAK
10	12.080	10.175	7.780	17.955	-32.045	50.000	AVERAGE
11	17.693	10.264	25.470	35.734	-24.266	60.000	QUASPEAK
12	* 17.693	10.264	21.100	31.364	-18.636	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 : 2012/11/26 - 21:07
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(40M)

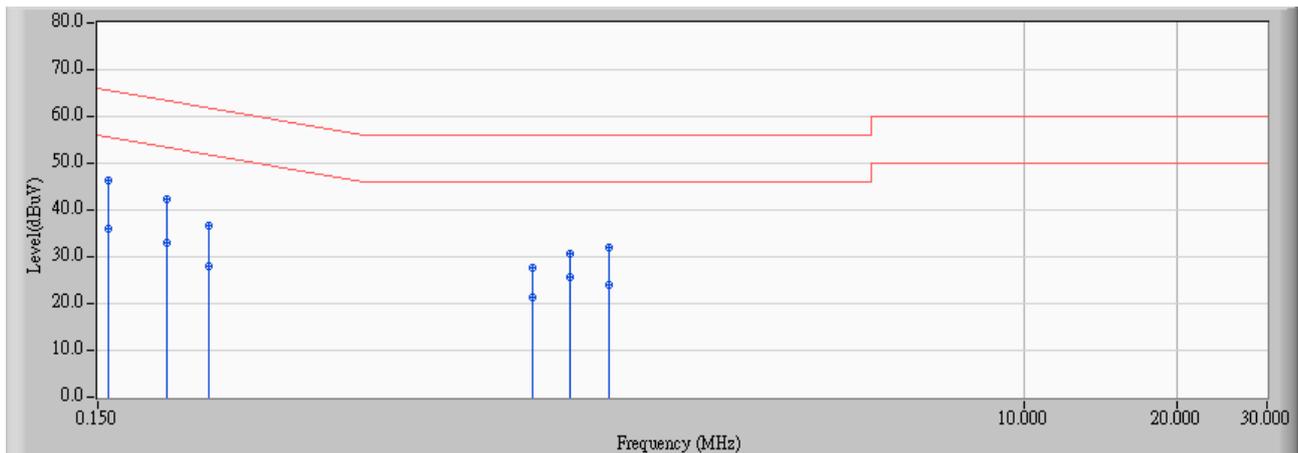


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.162	9.785	35.380	45.165	-20.210	65.375	QUASPEAK
2	*	9.785	26.890	36.675	-18.700	55.375	AVERAGE
3	0.220	9.670	30.040	39.710	-23.098	62.807	QUASPEAK
4	0.220	9.670	19.090	28.760	-24.048	52.807	AVERAGE
5	1.064	9.941	20.590	30.531	-25.469	56.000	QUASPEAK
6	1.064	9.941	13.830	23.771	-22.229	46.000	AVERAGE
7	1.412	9.948	21.580	31.528	-24.472	56.000	QUASPEAK
8	1.412	9.948	13.620	23.568	-22.432	46.000	AVERAGE
9	3.478	10.046	9.380	19.426	-36.574	56.000	QUASPEAK
10	3.478	10.046	4.860	14.906	-31.094	46.000	AVERAGE
11	13.986	10.126	9.130	19.256	-40.744	60.000	QUASPEAK
12	13.986	10.126	5.920	16.046	-33.954	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 : 2012/11/26 - 21:09
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(40M)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.158	9.639	36.750	46.389	-19.189	65.578	QUASPEAK
2		0.158	9.639	26.440	36.079	-19.499	55.578	AVERAGE
3		0.205	9.661	32.750	42.411	-21.007	63.418	QUASPEAK
4		0.205	9.661	23.210	32.871	-20.547	53.418	AVERAGE
5		0.248	9.683	26.930	36.613	-25.222	61.835	QUASPEAK
6		0.248	9.683	18.440	28.123	-23.712	51.835	AVERAGE
7		1.076	9.931	17.640	27.571	-28.429	56.000	QUASPEAK
8		1.076	9.931	11.340	21.271	-24.729	46.000	AVERAGE
9		1.271	9.933	20.800	30.733	-25.267	56.000	QUASPEAK
10		1.271	9.933	15.590	25.523	-20.477	46.000	AVERAGE
11		1.517	9.935	22.180	32.115	-23.885	56.000	QUASPEAK
12		1.517	9.935	14.220	24.155	-21.845	46.000	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

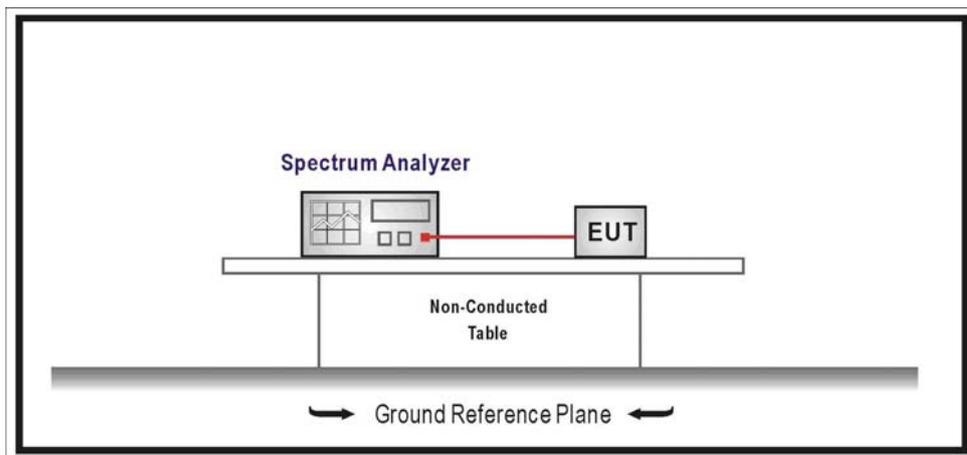
The following test equipments are used during the test:

Peak Power / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

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 Jan. 2012 KDB558074, 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: 2011

3.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.7. Test Result

Product	All-in-One Wireless-N pocket router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2013/01/30	Test Site	SR7

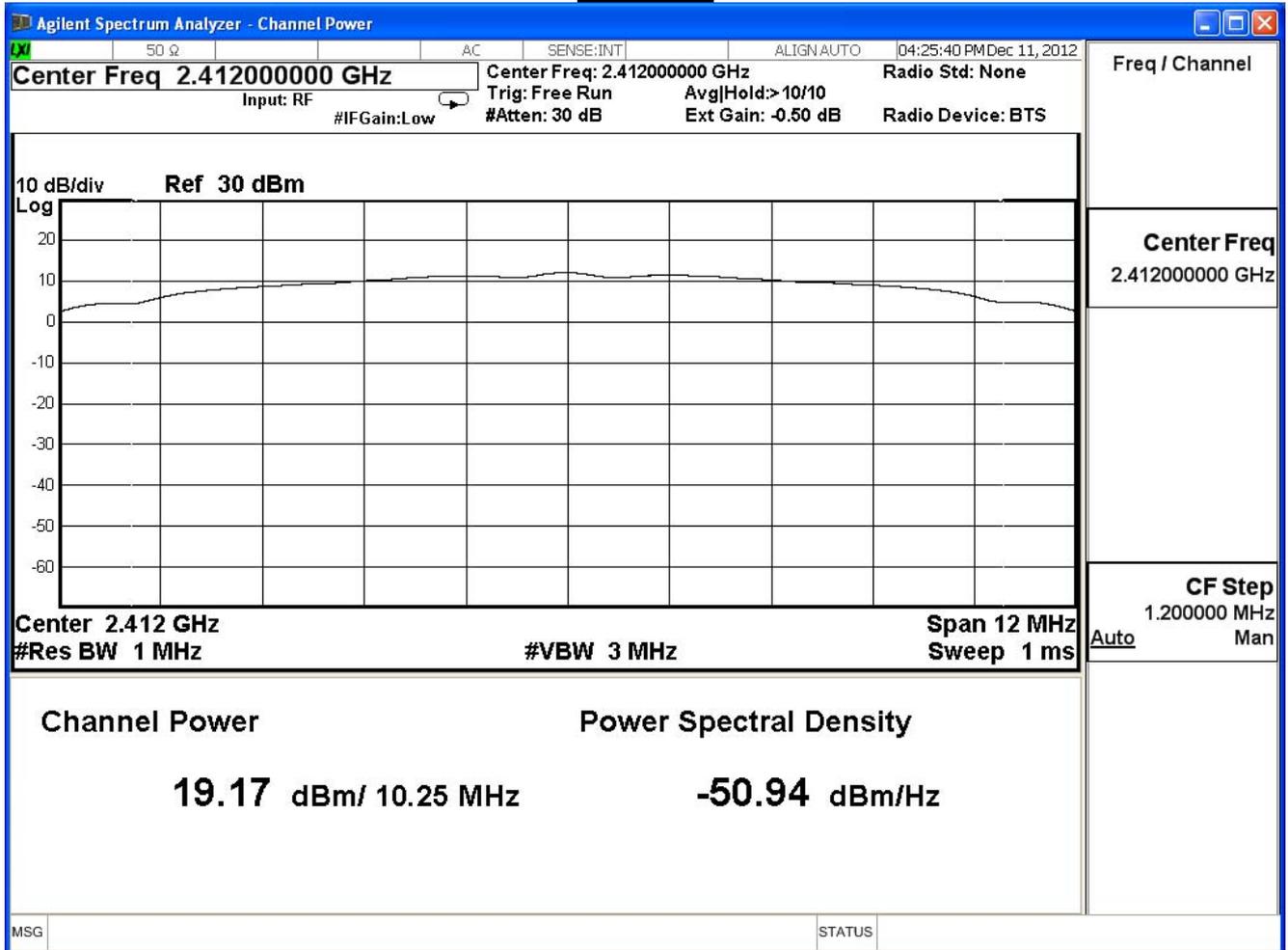
IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.17	≤ 30	Pass
6	2437	19.71	≤ 30	Pass
11	2462	19.29	≤ 30	Pass

The worst emission of data rate is 1Mbps.

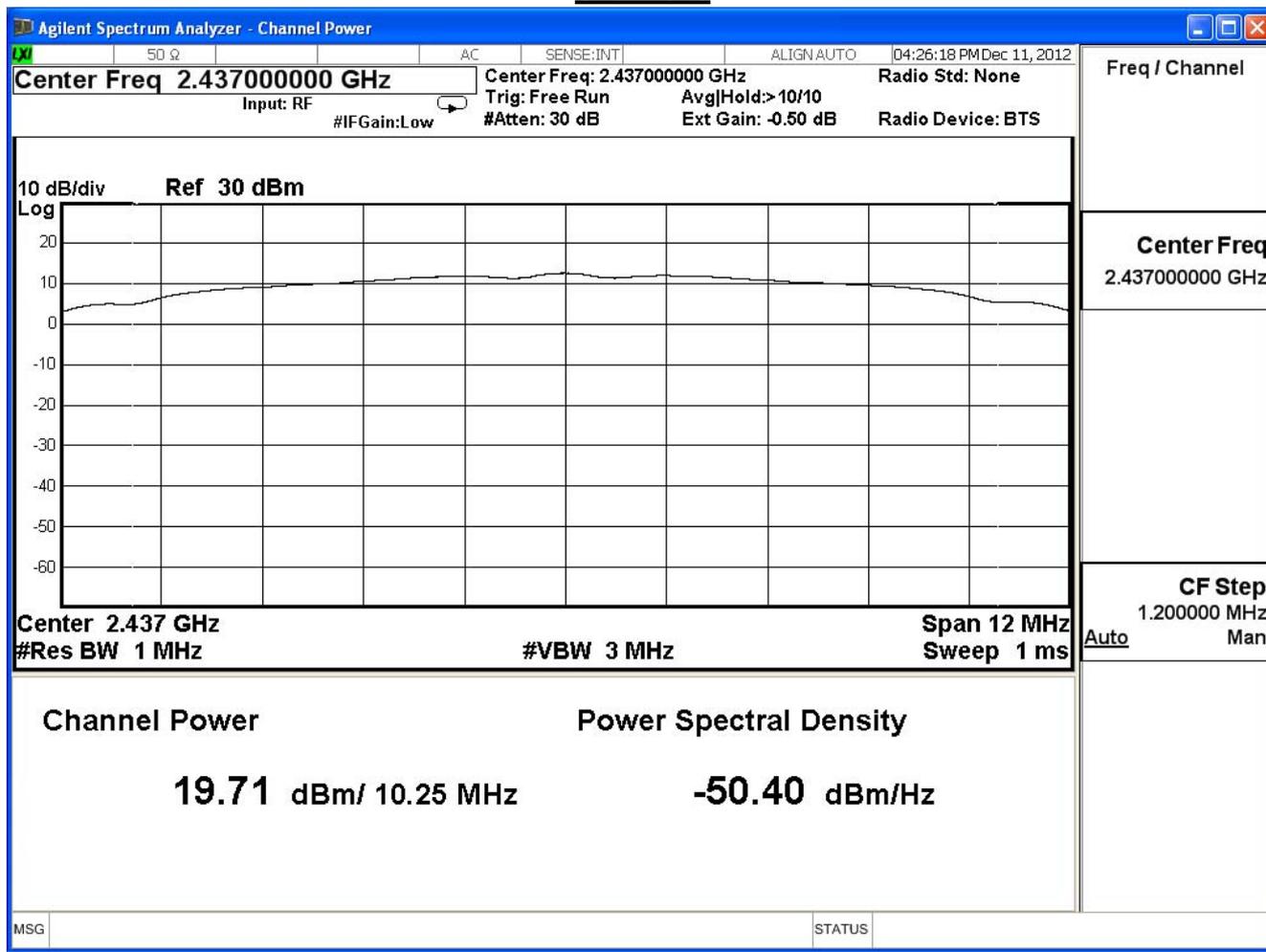
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	19.17	--	--	-	1 Watt=30dBm
6	2437	19.71	19.70	19.67	19.62	1 Watt=30dBm
11	2462	19.29	--	--	-	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

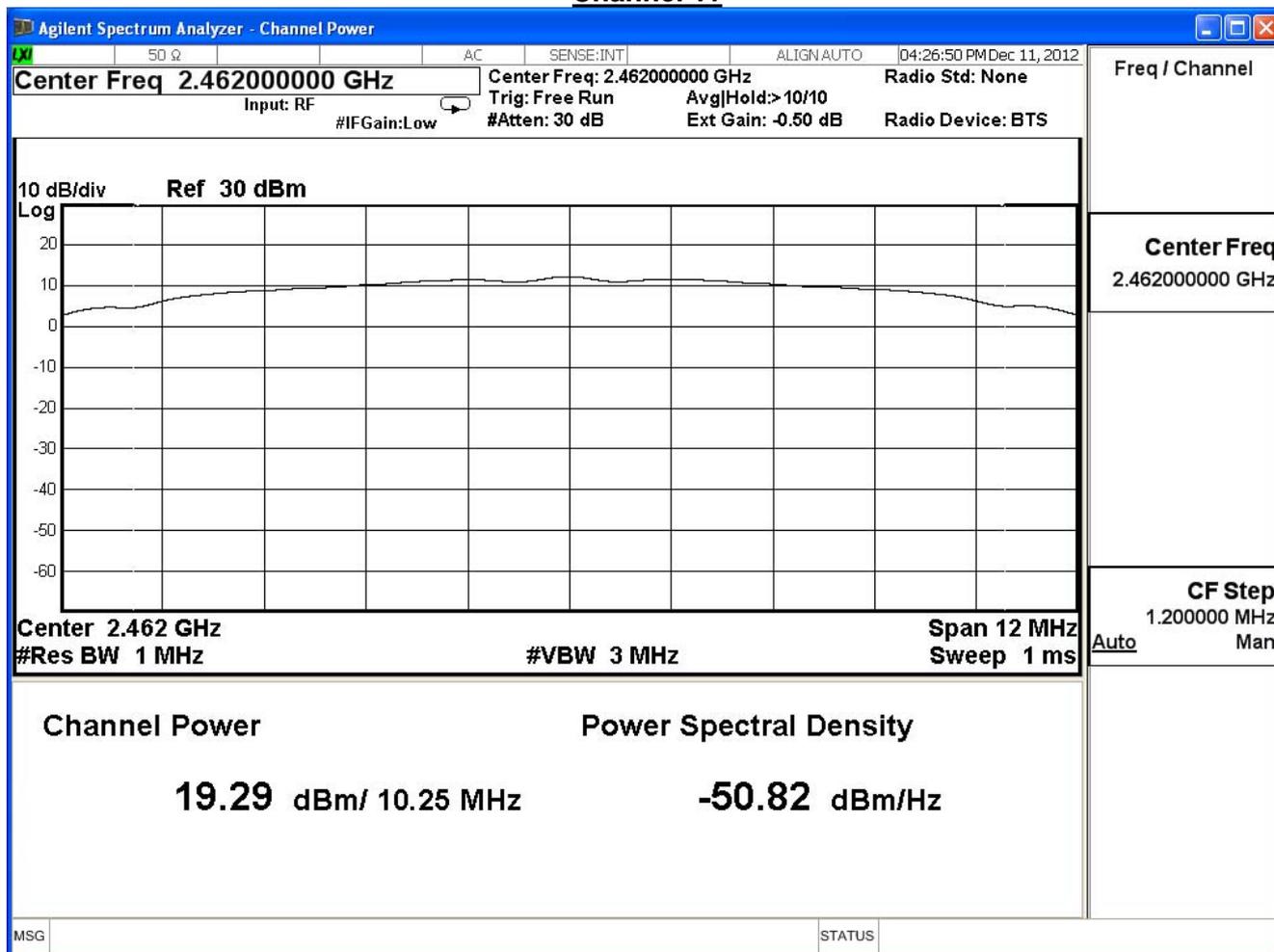
Channel 1



Channel 6



Channel 11



Product	All-in-One Wireless-N pocket router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2013/01/30	Test Site	SR7

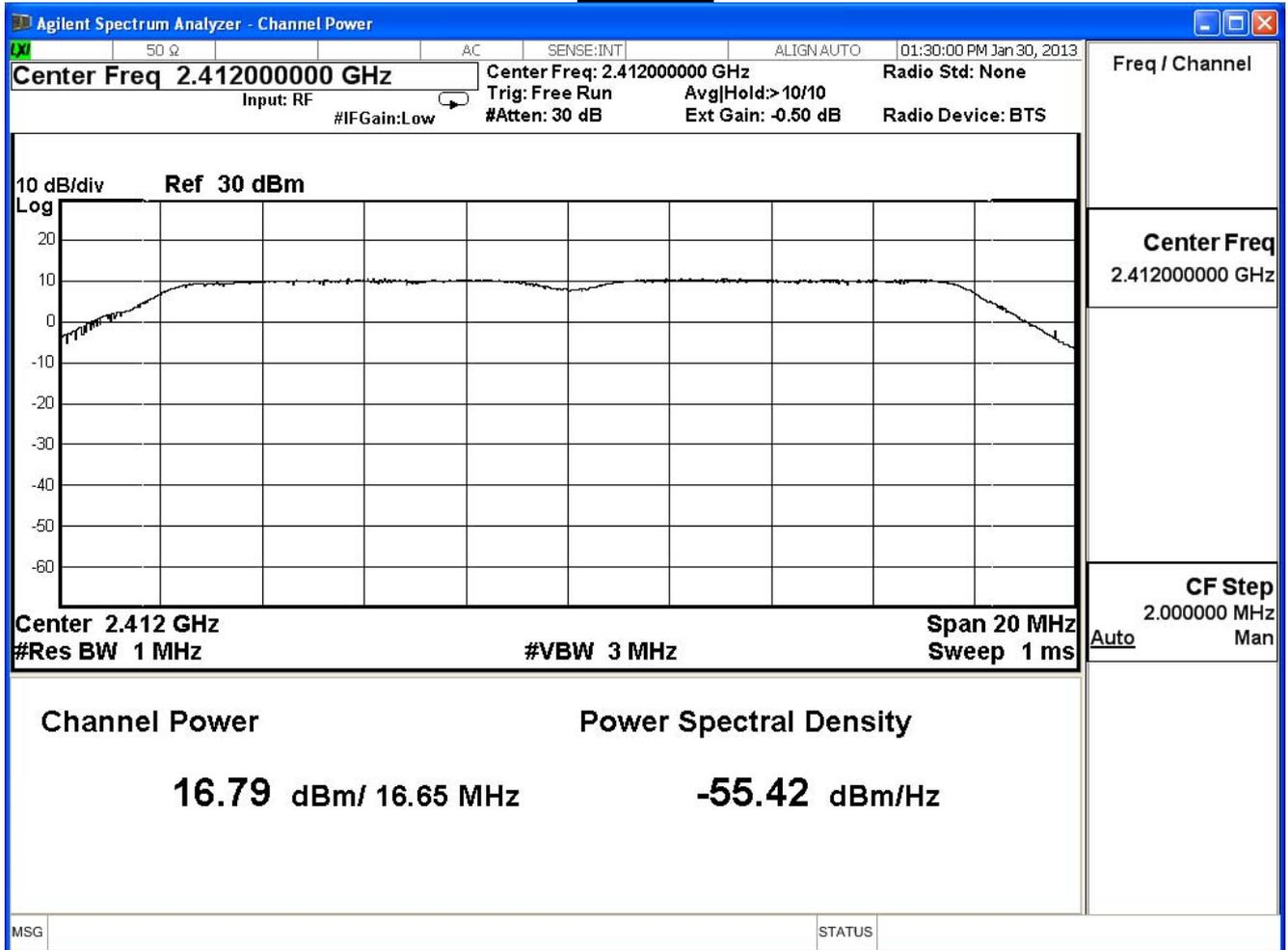
IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	16.79	≤ 30	Pass
6	2437	19.32	≤ 30	Pass
11	2462	17.68	≤ 30	Pass

The worst emission of data rate is 6Mbps.

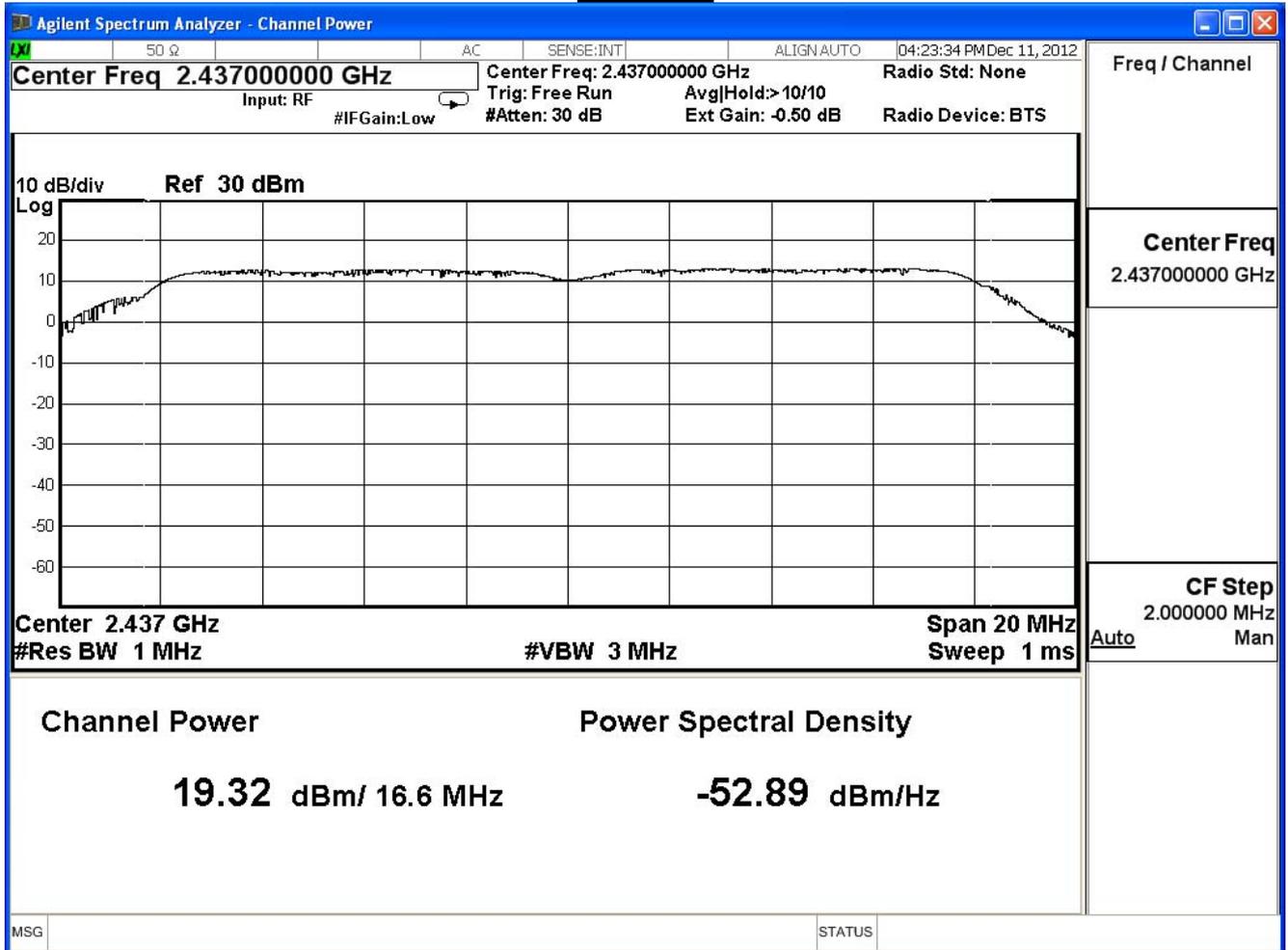
Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	16.79	--	--	-	--	--	-	1 Watt=30dBm
6	2437	19.32	19.31	19.27	19.25	19.21	19.18	19.11	1 Watt=30dBm
11	2462	17.68	--	--	-	--	--	-	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

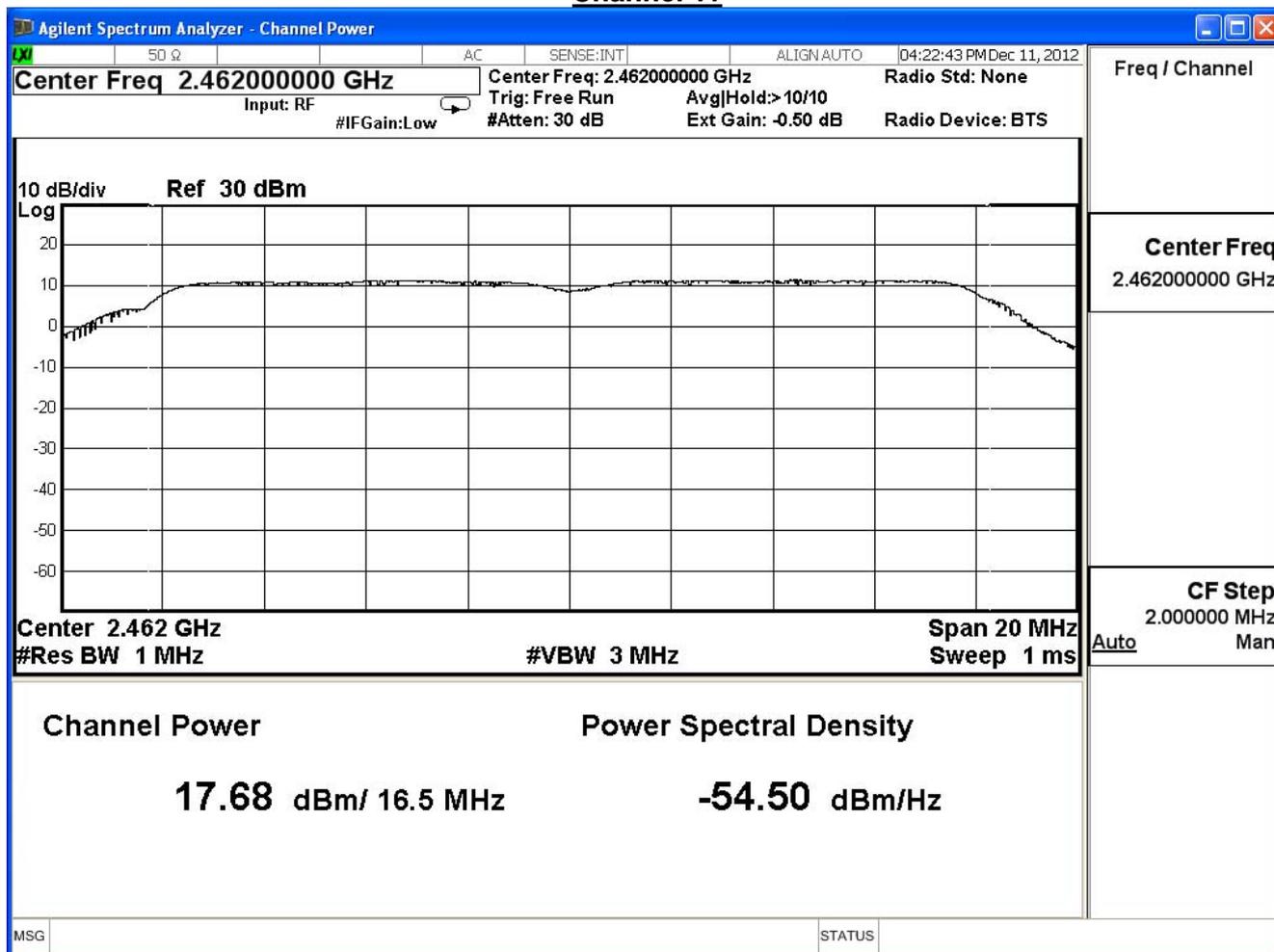
Channel 1



Channel 6



Channel 11



Product	All-in-One Wireless-N pocket router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2013/01/30	Test Site	SR7

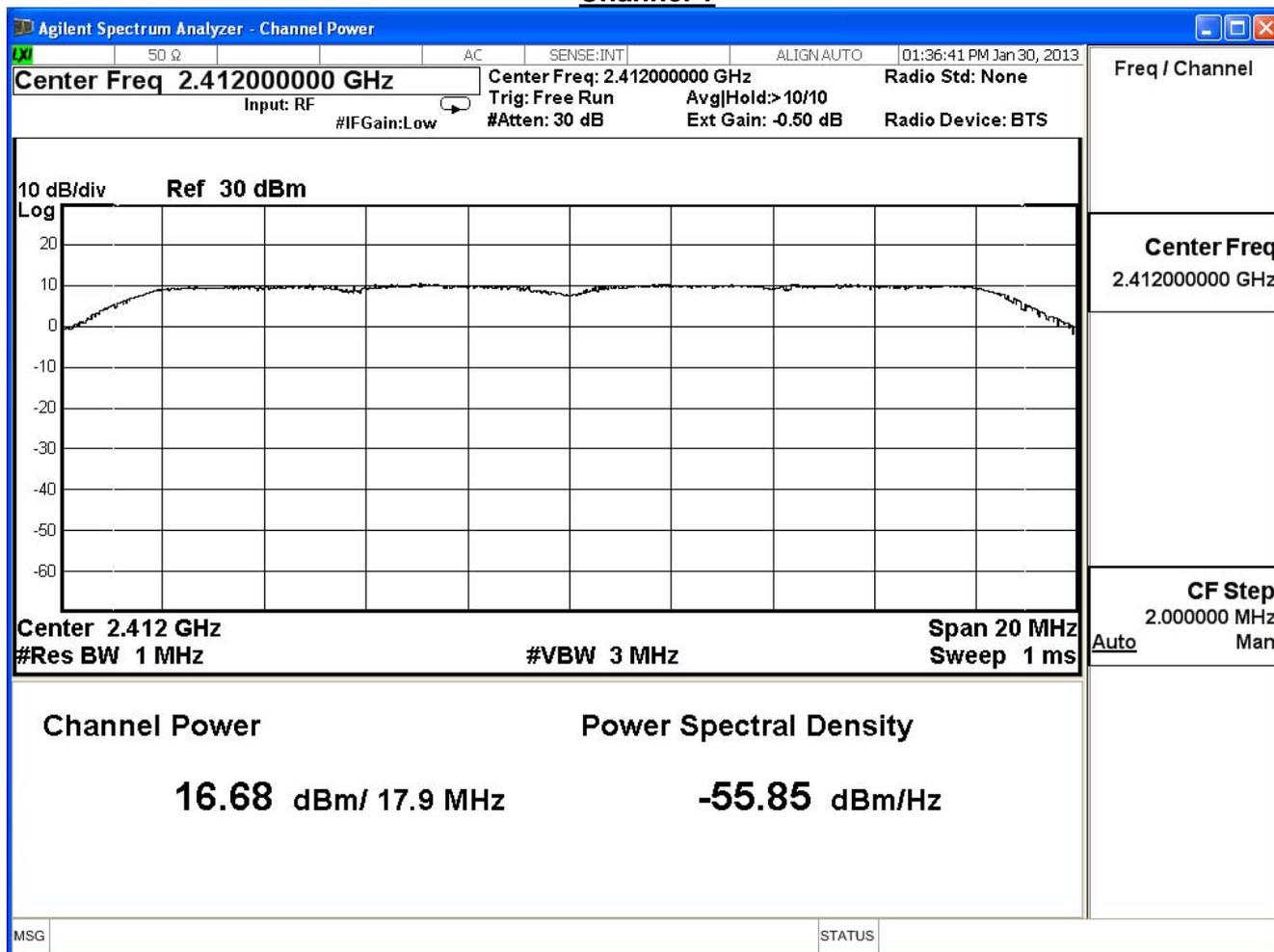
IEEE 802.11n 20MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	16.68	≤ 30	Pass
6	2437	18.76	≤ 30	Pass
11	2462	18.47	≤ 30	Pass

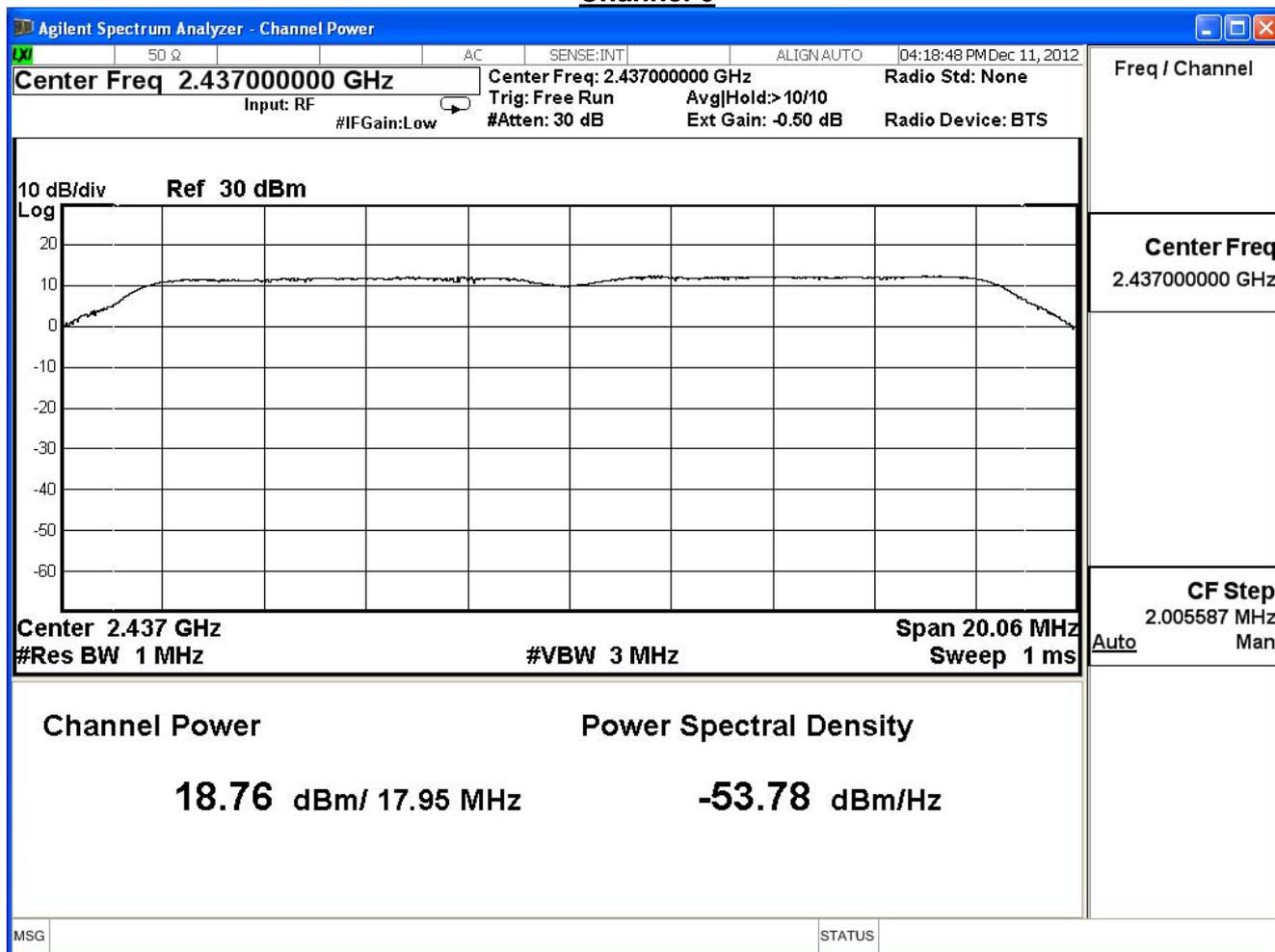
The worst emission of data rate is 13 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.50	13.00	19.50	26.00	39.00	52.00	58.50	65.00	
1	2412	16.68	--	--	-	--	--	-	--	30dBm
6	2437	18.76	18.72	18.70	18.67	18.62	18.61	18.58	18.52	30dBm
11	2462	18.47	--	--	-	--	--	-	--	30dBm

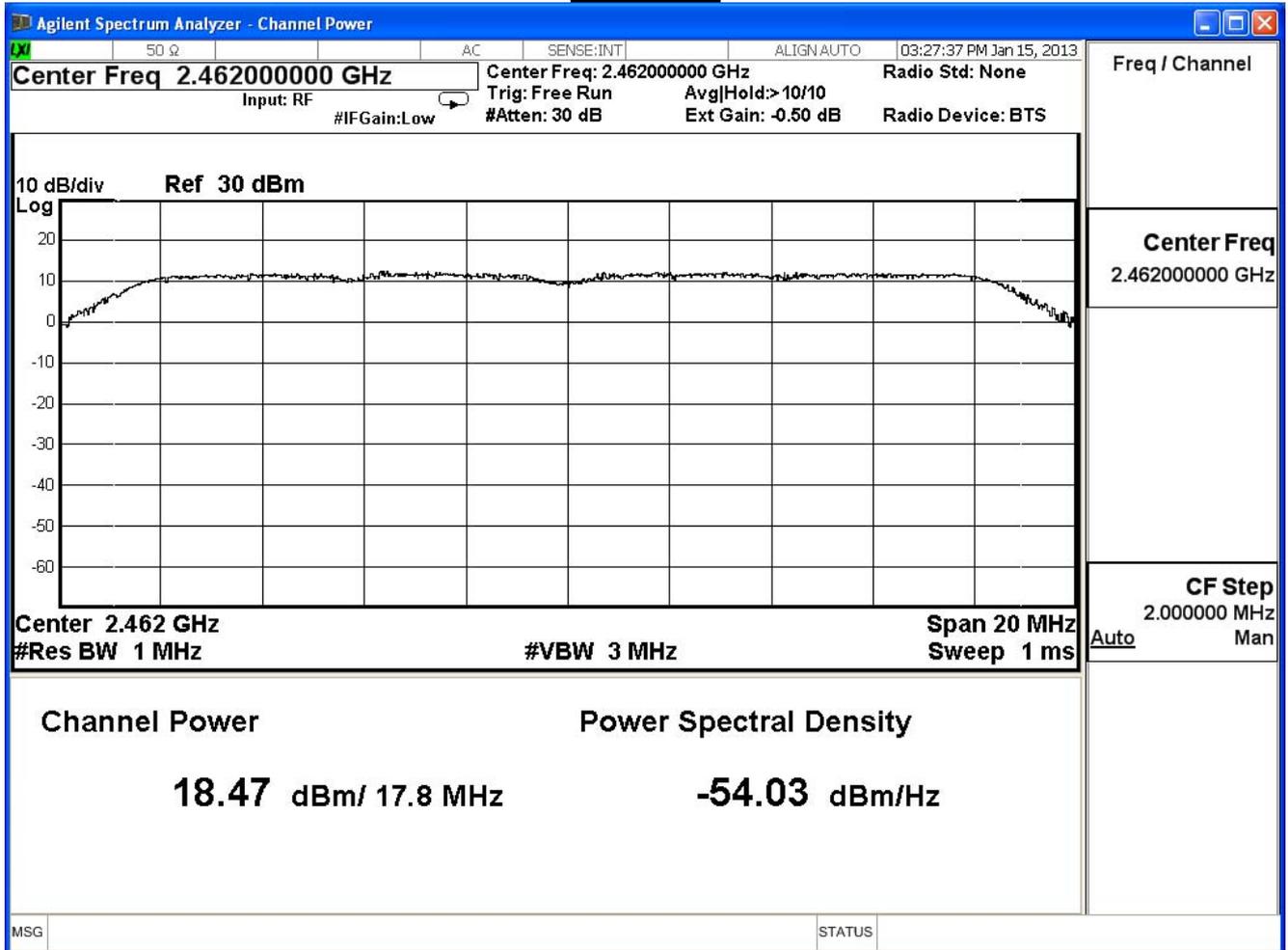
Channel 1



Channel 6



Channel 11



Product	All-in-One Wireless-N pocket router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2013/03/05	Test Site	SR7

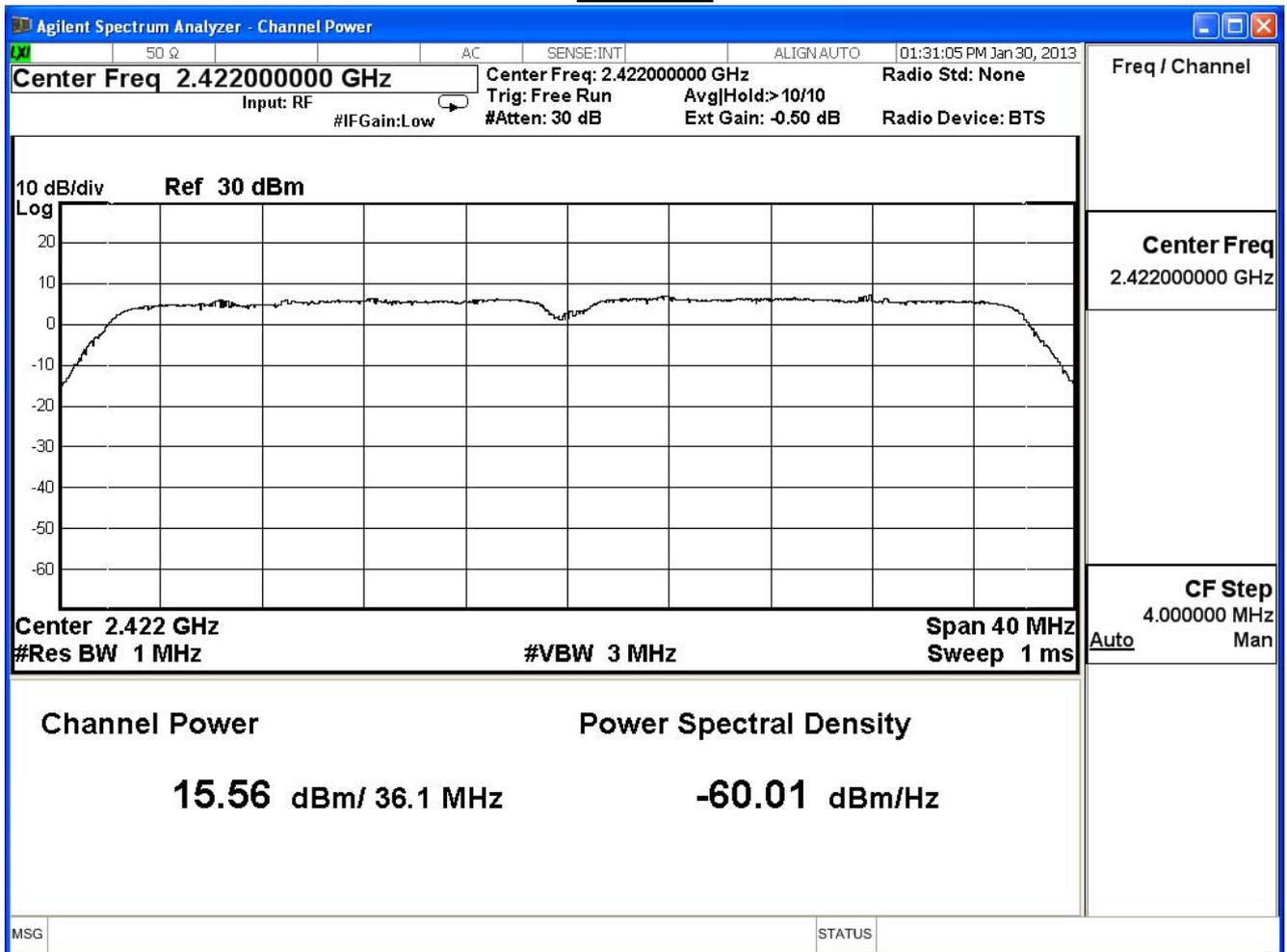
IEEE802.11n 40MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	15.56	≤ 30	Pass
6	2437	17.55	≤ 30	Pass
9	2452	16.25	≤ 30	Pass

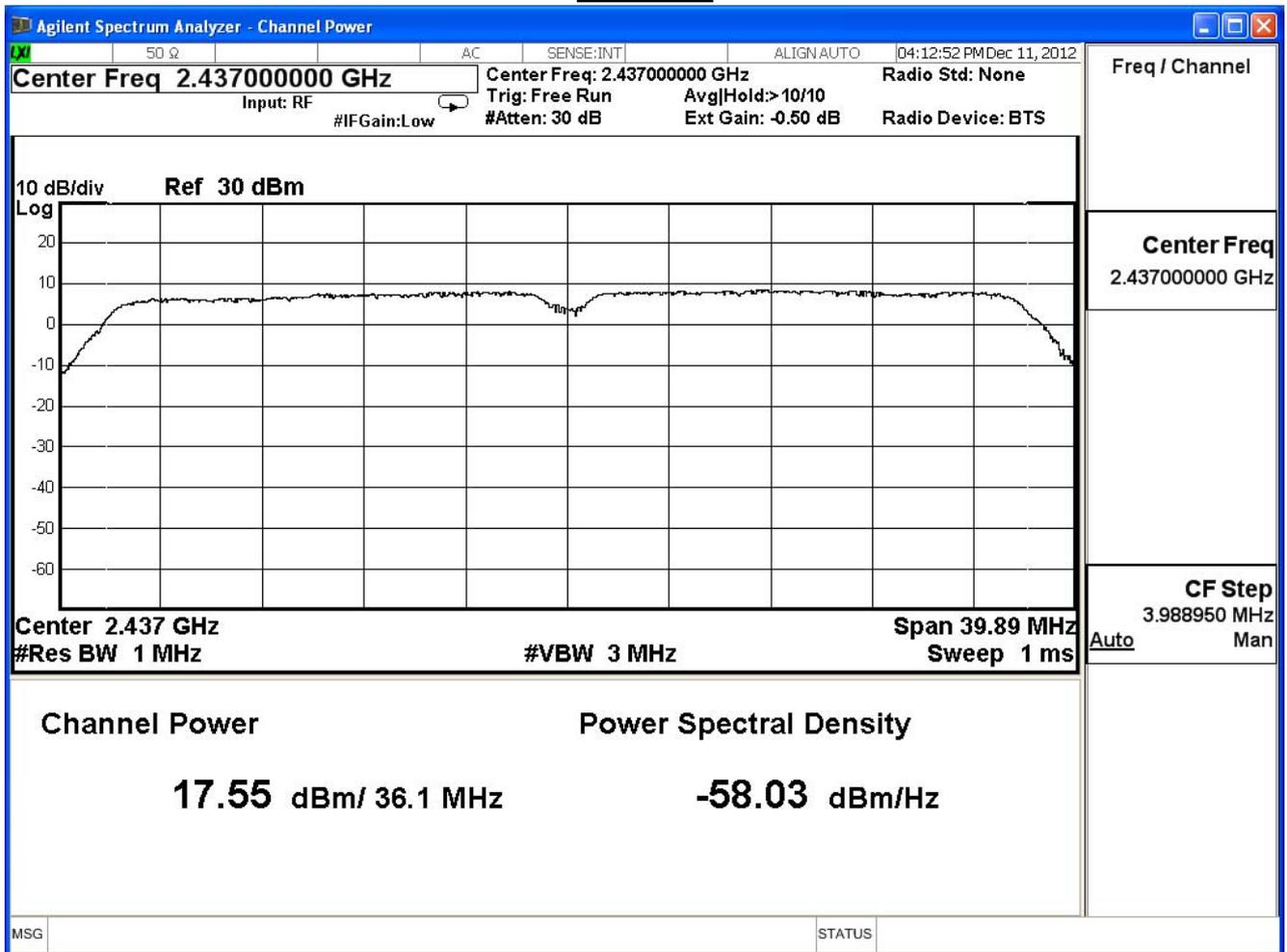
The worst emission of data rate is 27Mbps

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.50	27.00	40.50	54.00	81.00	108.00	121.50	135.00	
3	2422	15.56	--	--	-	--	--	-	--	30dBm
6	2437	17.55	17.51	17.48	17.44	17.42	17.41	17.38	17.34	30dBm
9	2452	16.25	--	--	-	--	--	-	--	30dBm

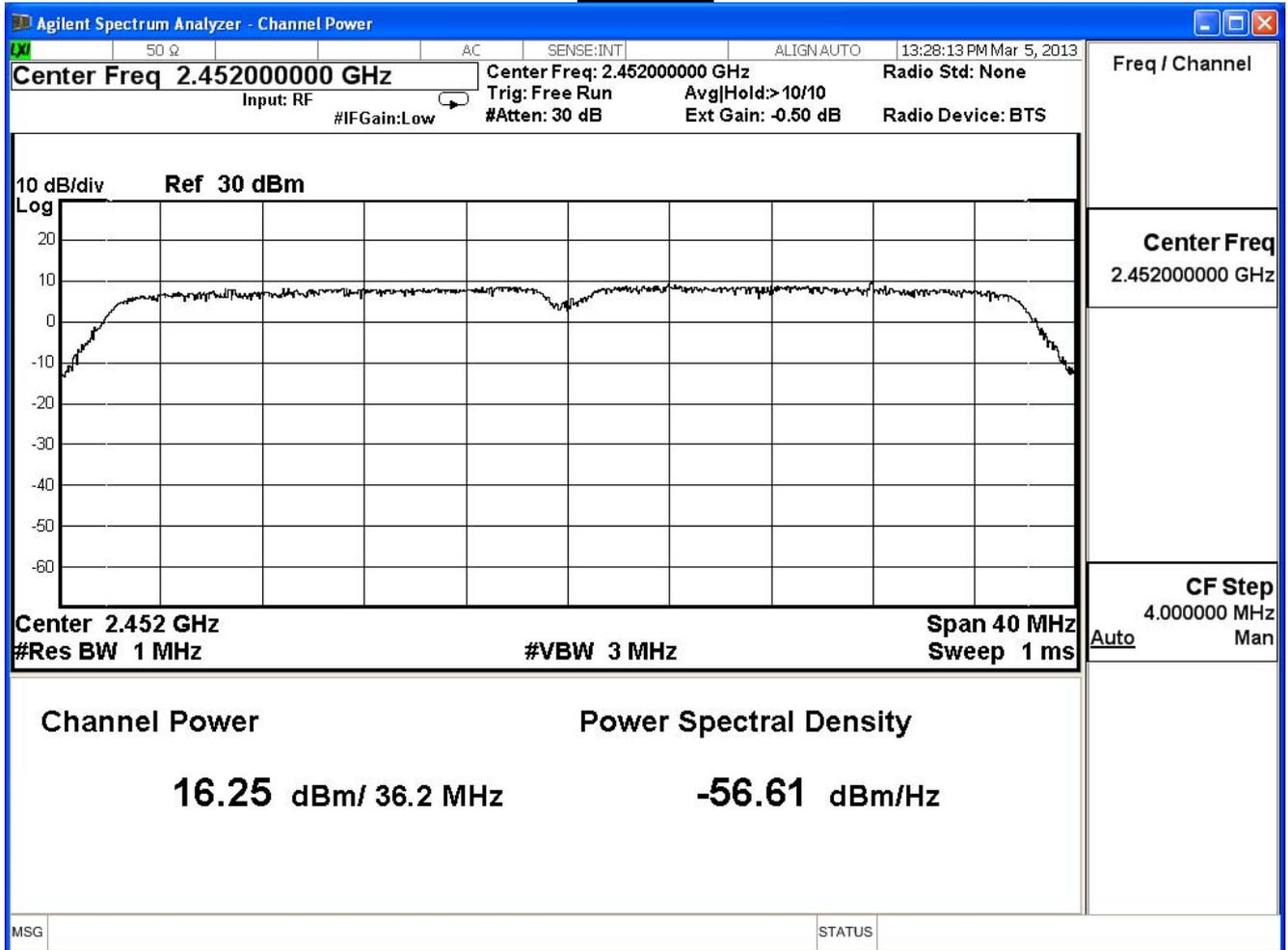
Channel 3



Channel 6



Channel 9



4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

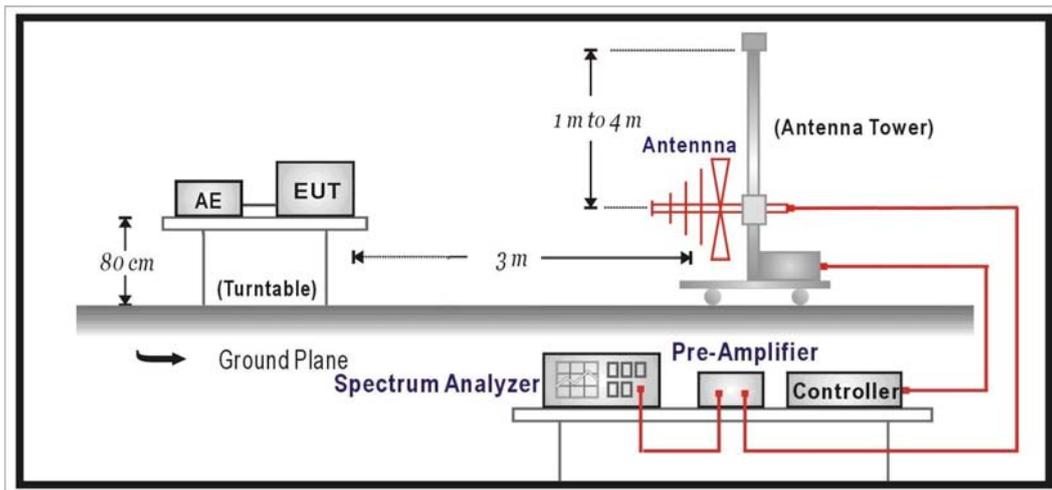
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2013/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2013/02/02
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2013/12/02
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2013/03/01
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

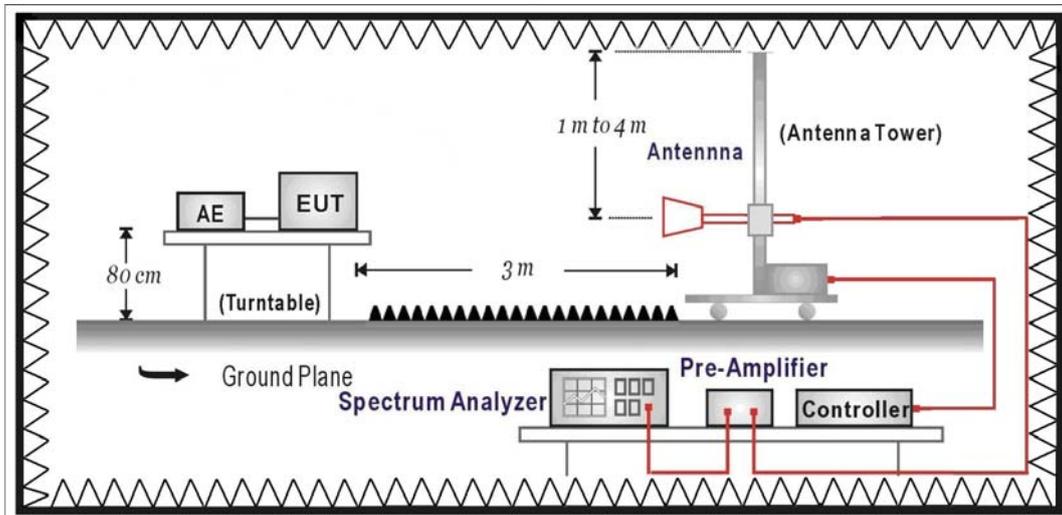
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

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 Jan. 2012 KDB558074 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: 2011

4.6. Uncertainty

The measurement uncertainty

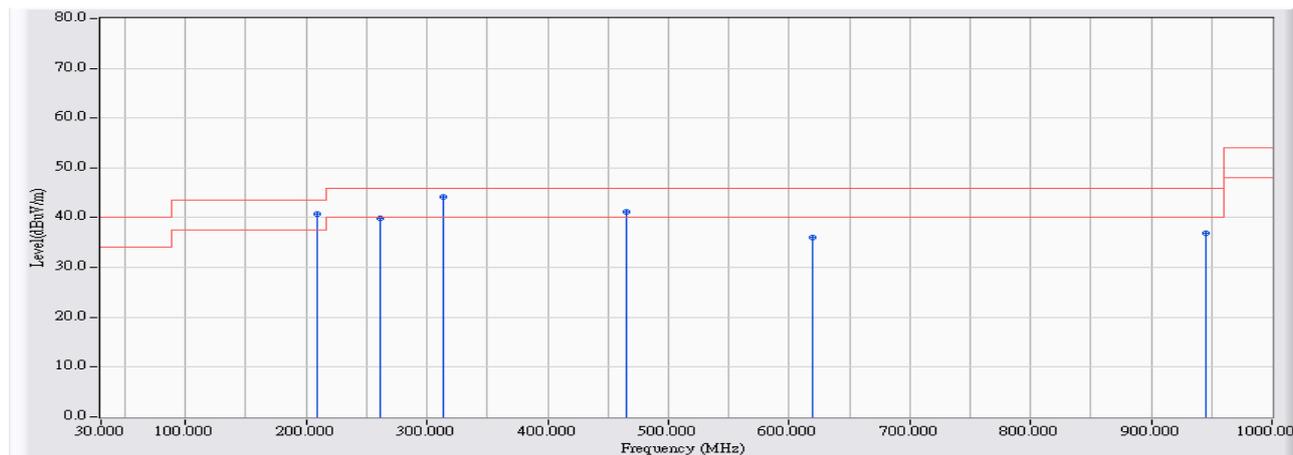
30MHz~1GHz as ±3.43dB

1GHz~26.5Ghz as ±3.65dB

4.7. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2013/02/07 - 17:50
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11b

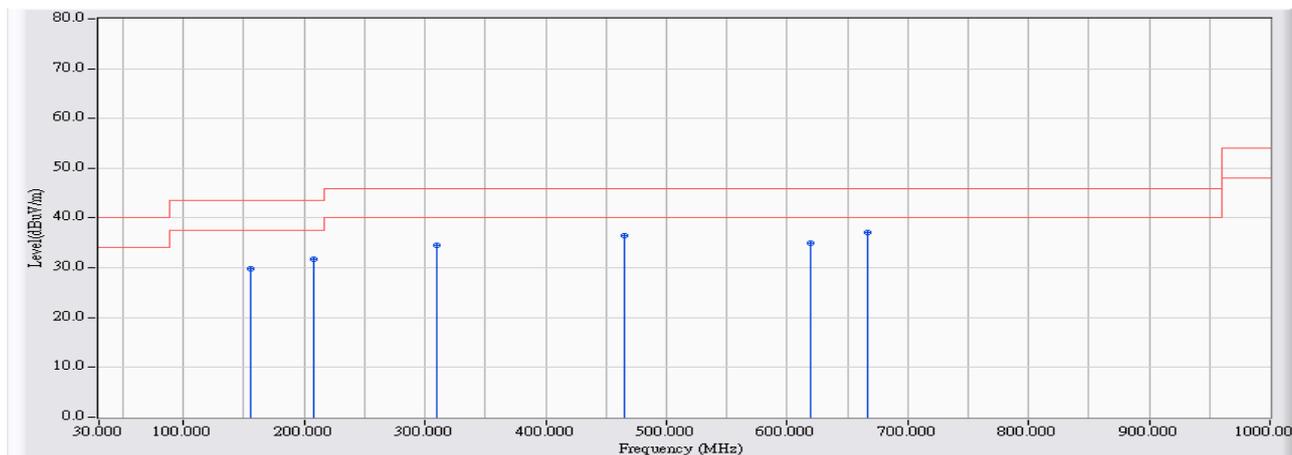


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	209.450	-13.960	54.746	40.786	-2.714	43.500	QUASPEAK
2	261.183	-10.699	50.563	39.864	-6.136	46.000	QUASPEAK
3	* 312.917	-9.609	53.608	43.999	-2.001	46.000	QUASPEAK
4	464.883	-5.934	47.093	41.159	-4.841	46.000	QUASPEAK
5	620.083	-4.751	40.880	36.129	-9.871	46.000	QUASPEAK
6	945.033	-1.938	38.760	36.822	-9.178	46.000	QUASPEAK

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 : 2012/11/28 - 09:50
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11b

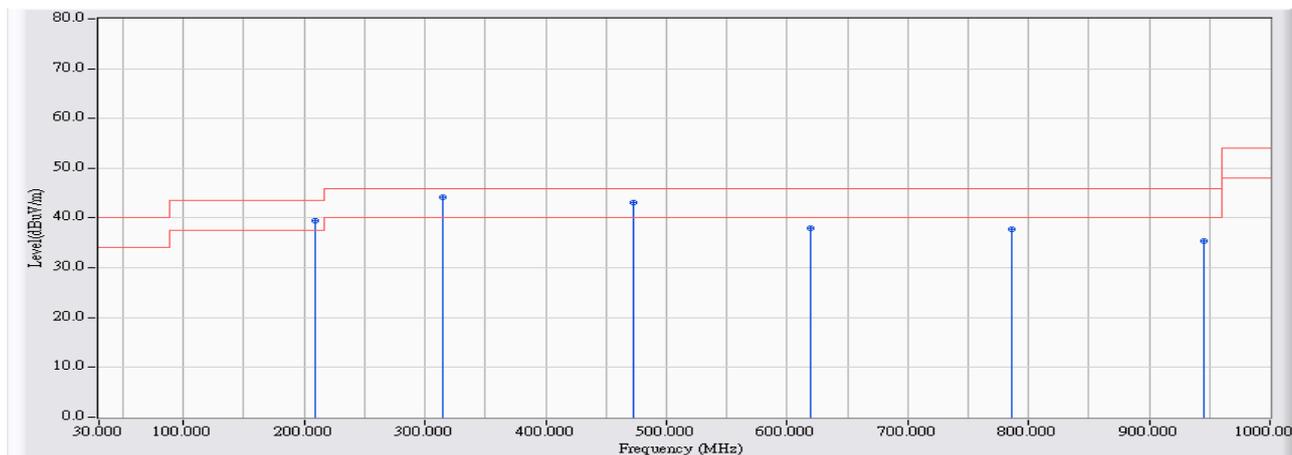


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	156.100	-13.387	43.275	29.888	-13.612	43.500	QUASPEAK
2	207.833	-14.081	45.721	31.640	-11.860	43.500	QUASPEAK
3	309.683	-9.689	44.281	34.592	-11.408	46.000	QUASPEAK
4	464.883	-5.934	42.425	36.491	-9.509	46.000	QUASPEAK
5	620.083	-4.751	39.668	34.917	-11.083	46.000	QUASPEAK
6	* 666.967	-4.442	41.516	37.074	-8.926	46.000	QUASPEAK

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 : 2013/02/07 - 17:45
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11g

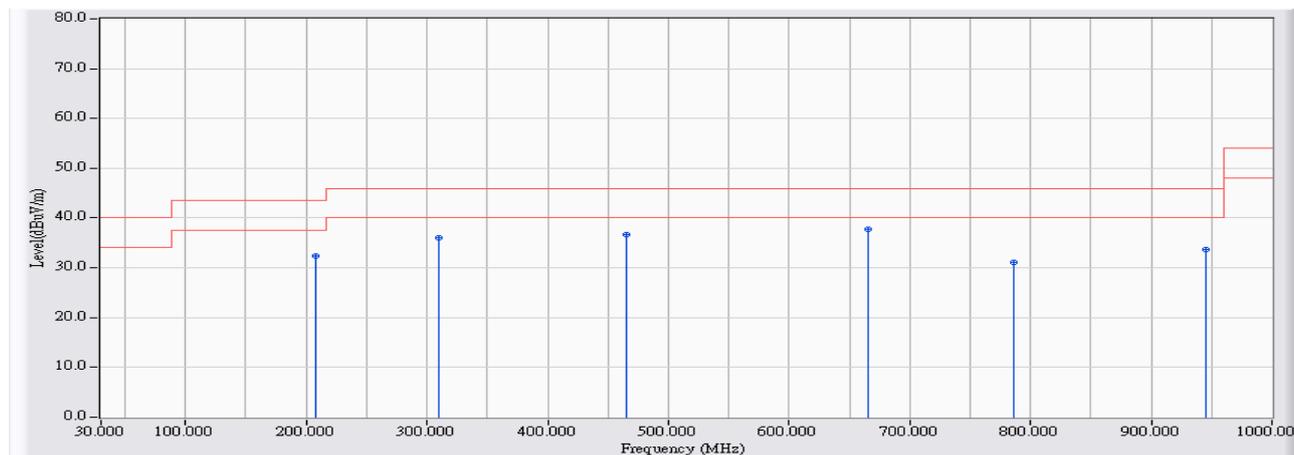


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	209.450	-13.960	53.362	39.402	-4.098	43.500	QUASIPeAK
2	* 314.533	-9.569	53.567	43.998	-2.002	46.000	QUASIPeAK
3	472.967	-5.739	48.888	43.148	-2.852	46.000	QUASIPeAK
4	620.083	-4.751	42.647	37.896	-8.104	46.000	QUASIPeAK
5	786.600	-3.146	40.834	37.688	-8.312	46.000	QUASIPeAK
6	945.033	-1.938	37.230	35.292	-10.708	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 : 2012/11/28 - 09:50
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11g

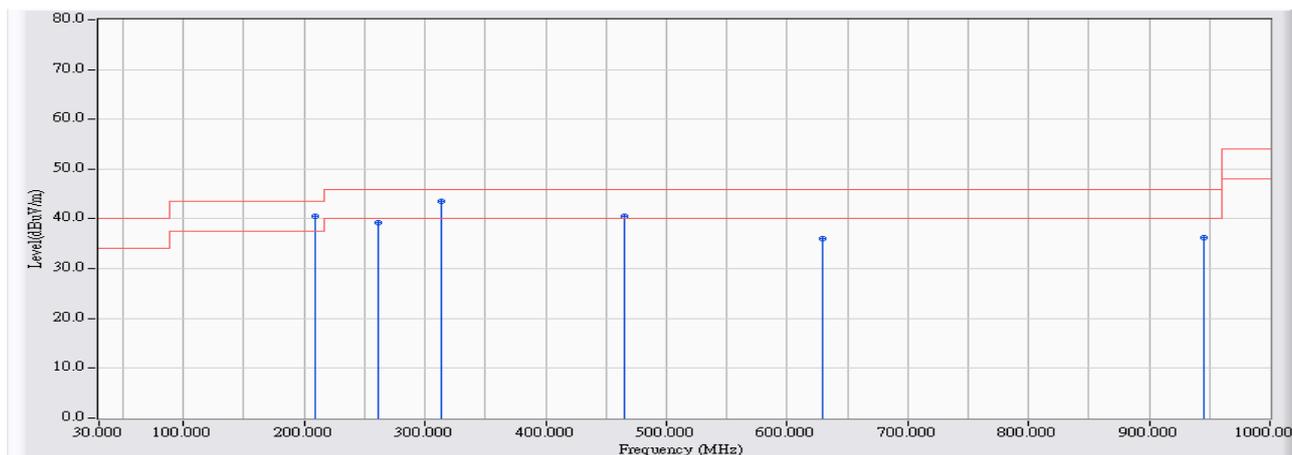


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	46.376	32.295	-11.205	43.500	QUASIPeAK
2	309.683	-9.689	45.732	36.043	-9.957	46.000	QUASIPeAK
3	464.883	-5.934	42.563	36.629	-9.371	46.000	QUASIPeAK
4	* 665.350	-4.454	42.248	37.795	-8.205	46.000	QUASIPeAK
5	786.600	-3.146	34.154	31.008	-14.992	46.000	QUASIPeAK
6	945.033	-1.938	35.663	33.725	-12.275	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 : 2012/11/28 - 09:51
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(20M)

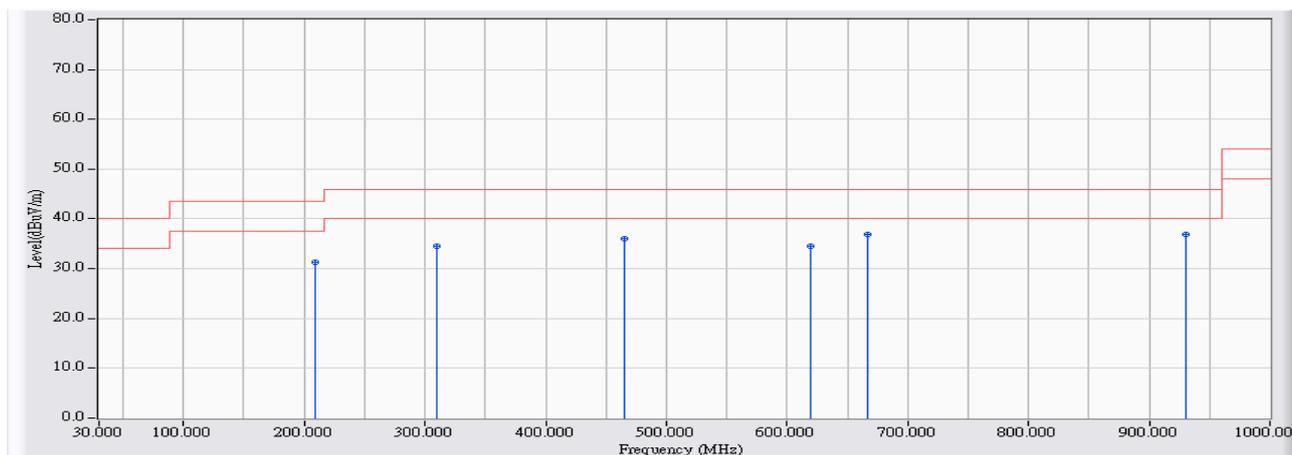


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	209.450	-13.960	54.573	40.613	-2.887	43.500	QUASPEAK
2	261.183	-10.699	49.935	39.236	-6.764	46.000	QUASPEAK
3	* 312.917	-9.609	53.234	43.625	-2.375	46.000	QUASPEAK
4	464.883	-5.934	46.363	40.429	-5.571	46.000	QUASPEAK
5	629.783	-4.687	40.680	35.993	-10.007	46.000	QUASPEAK
6	945.033	-1.938	38.257	36.319	-9.681	46.000	QUASPEAK

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 : 2012/11/28 - 09:51
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(20M)

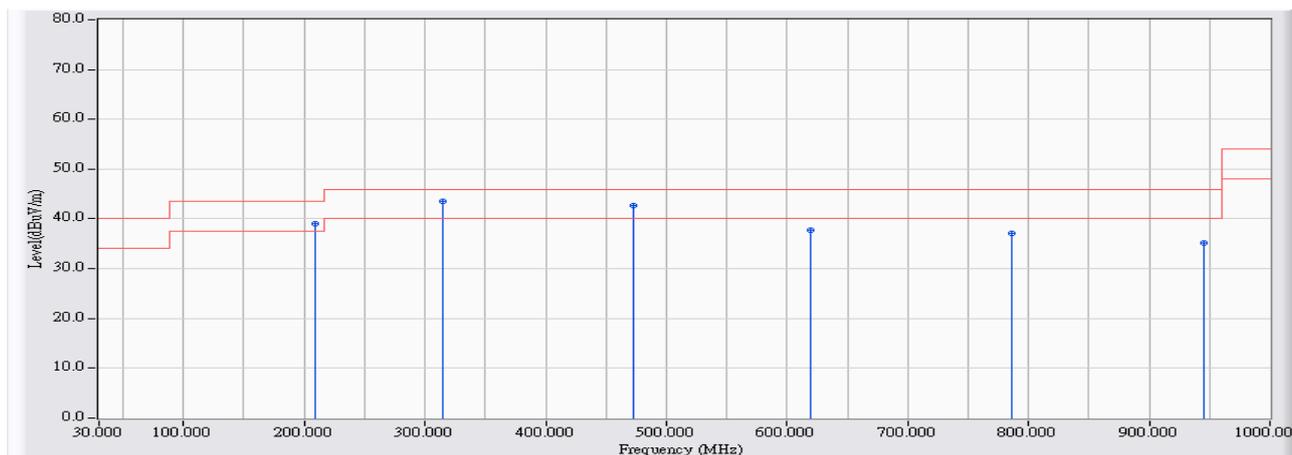


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	209.450	-13.960	45.361	31.401	-12.099	43.500	QUASPEAK
2	309.683	-9.689	44.208	34.519	-11.481	46.000	QUASPEAK
3	464.883	-5.934	41.860	35.926	-10.074	46.000	QUASPEAK
4	620.083	-4.751	39.328	34.577	-11.423	46.000	QUASPEAK
5	* 666.967	-4.442	41.388	36.946	-9.054	46.000	QUASPEAK
6	930.483	-2.107	38.896	36.789	-9.211	46.000	QUASPEAK

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 : 2012/11/28 - 09:51
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

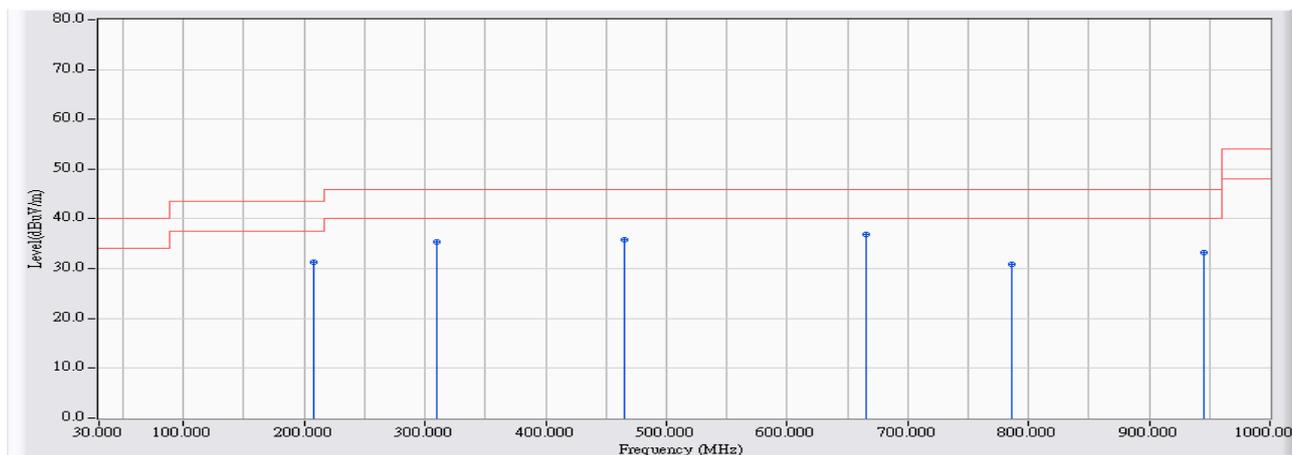


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	209.450	-13.960	53.096	39.136	-4.364	43.500	QUASPEAK
2	* 314.533	-9.569	53.068	43.499	-2.501	46.000	QUASPEAK
3	472.967	-5.739	48.386	42.646	-3.354	46.000	QUASPEAK
4	620.083	-4.751	42.415	37.664	-8.336	46.000	QUASPEAK
5	786.600	-3.146	40.317	37.171	-8.829	46.000	QUASPEAK
6	945.033	-1.938	37.075	35.137	-10.863	46.000	QUASPEAK

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 : 2012/11/28 - 09:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

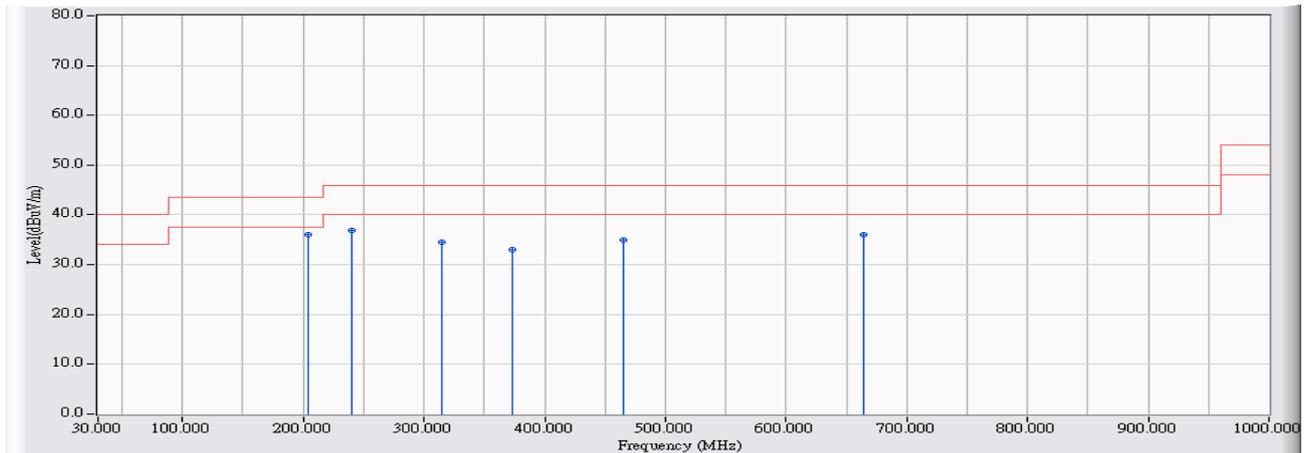


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	45.453	31.372	-12.128	43.500	QUASPEAK
2	309.683	-9.689	45.091	35.402	-10.598	46.000	QUASPEAK
3	464.883	-5.934	41.808	35.874	-10.126	46.000	QUASPEAK
4	* 665.350	-4.454	41.351	36.898	-9.102	46.000	QUASPEAK
5	786.600	-3.146	34.014	30.868	-15.132	46.000	QUASPEAK
6	945.033	-1.938	35.107	33.169	-12.831	46.000	QUASPEAK

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 : 2012/11/28 - 09:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11b

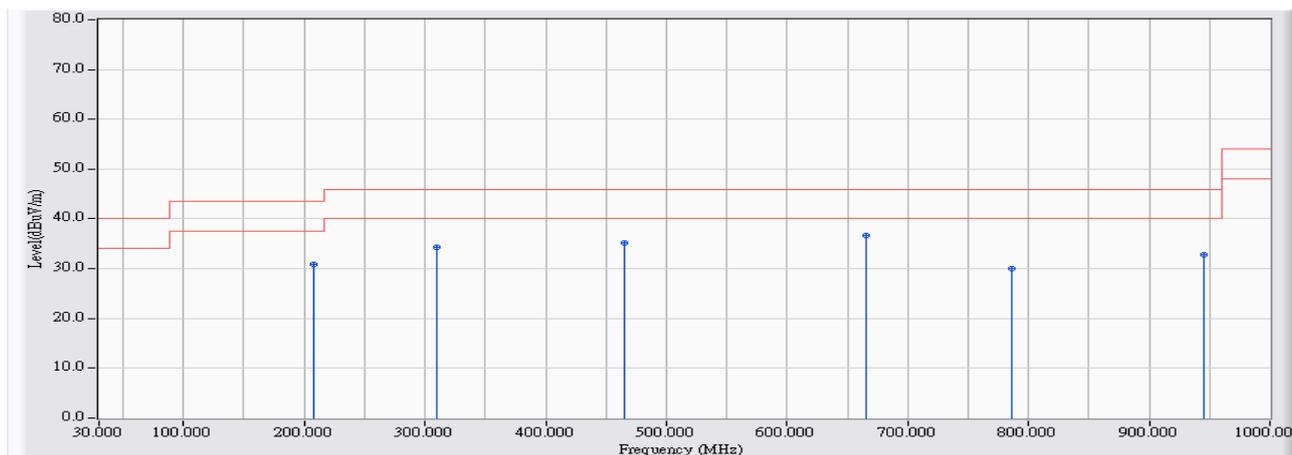


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	204.600	-14.323	50.328	36.005	-7.495	43.500	QUASPEAK
2		240.167	-11.659	48.537	36.878	-9.122	46.000	QUASPEAK
3		314.533	-9.569	44.113	34.544	-11.456	46.000	QUASPEAK
4		372.733	-8.107	41.178	33.071	-12.929	46.000	QUASPEAK
5		464.883	-5.934	40.999	35.065	-10.935	46.000	QUASPEAK
6		663.733	-4.464	40.465	36.001	-9.999	46.000	QUASPEAK

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 : 2012/11/28 - 09:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11b

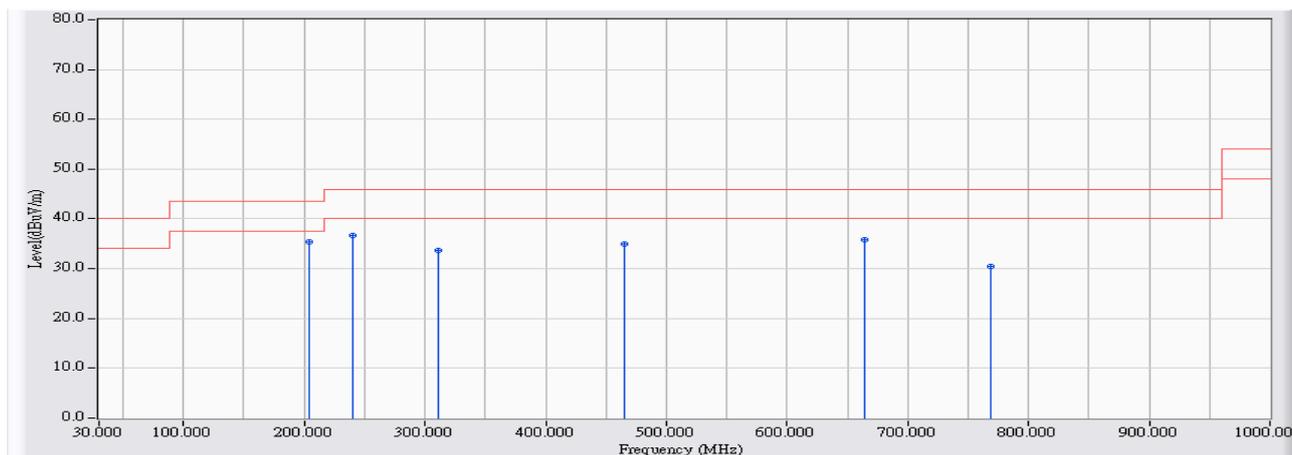


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	44.969	30.888	-12.612	43.500	QUASPEAK
2	309.683	-9.689	44.106	34.417	-11.583	46.000	QUASPEAK
3	464.883	-5.934	41.177	35.243	-10.757	46.000	QUASPEAK
4	* 665.350	-4.454	41.145	36.692	-9.308	46.000	QUASPEAK
5	786.600	-3.146	33.157	30.011	-15.989	46.000	QUASPEAK
6	945.033	-1.938	34.775	32.837	-13.163	46.000	QUASPEAK

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 : 2012/11/28 - 09:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11g

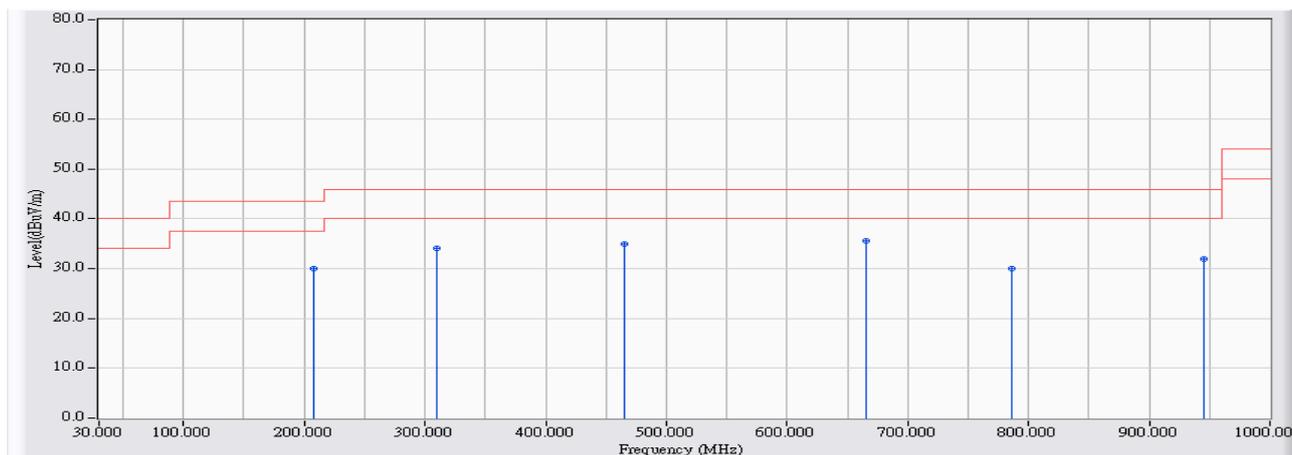


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	204.600	-14.323	49.654	35.331	-8.169	43.500	QUASPEAK
2		240.167	-11.659	48.358	36.699	-9.301	46.000	QUASPEAK
3		311.300	-9.648	43.410	33.761	-12.239	46.000	QUASPEAK
4		464.883	-5.934	40.926	34.992	-11.008	46.000	QUASPEAK
5		663.733	-4.464	40.322	35.858	-10.142	46.000	QUASPEAK
6		768.817	-3.361	33.800	30.438	-15.562	46.000	QUASPEAK

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 : 2012/11/28 - 09:53
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11g

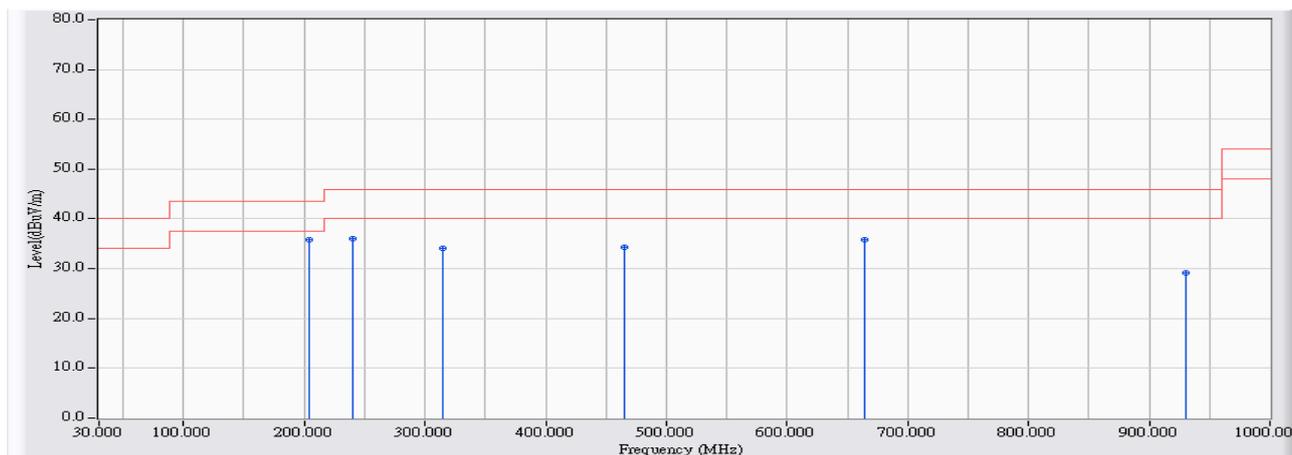


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	44.172	30.091	-13.409	43.500	QUASPEAK
2	309.683	-9.689	43.793	34.104	-11.896	46.000	QUASPEAK
3	464.883	-5.934	40.795	34.861	-11.139	46.000	QUASPEAK
4	* 665.350	-4.454	40.155	35.702	-10.298	46.000	QUASPEAK
5	786.600	-3.146	33.121	29.975	-16.025	46.000	QUASPEAK
6	945.033	-1.938	33.798	31.860	-14.140	46.000	QUASPEAK

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 : 2012/11/28 - 09:53
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(20M)

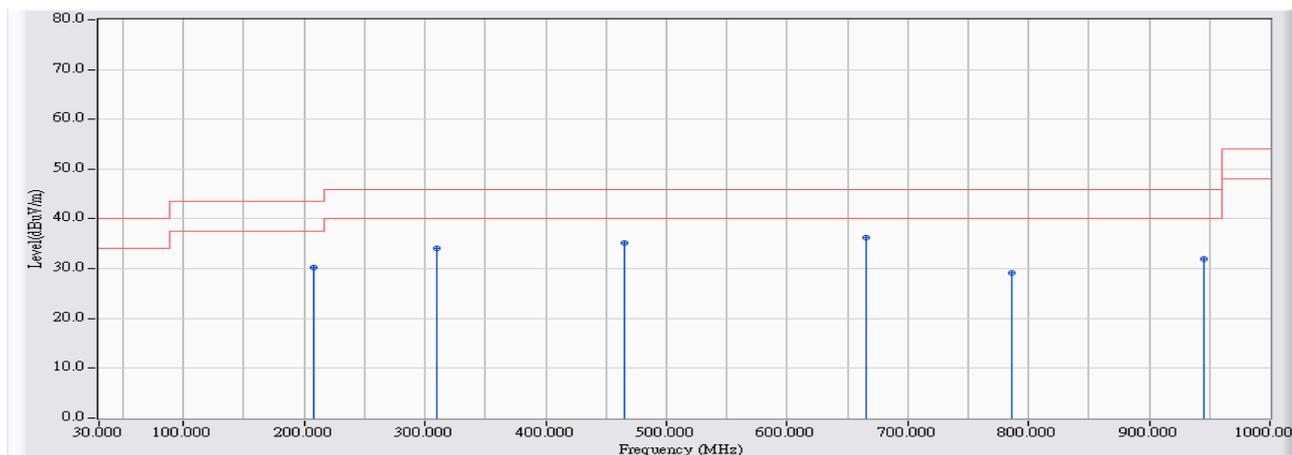


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	204.600	-14.323	50.038	35.715	-7.785	43.500	QUASPEAK
2		240.167	-11.659	47.698	36.039	-9.961	46.000	QUASPEAK
3		314.533	-9.569	43.692	34.123	-11.877	46.000	QUASPEAK
4		464.883	-5.934	40.152	34.218	-11.782	46.000	QUASPEAK
5		663.733	-4.464	40.365	35.901	-10.099	46.000	QUASPEAK
6		930.483	-2.107	31.328	29.221	-16.779	46.000	QUASPEAK

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 : 2012/11/28 - 09:53
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(20M)

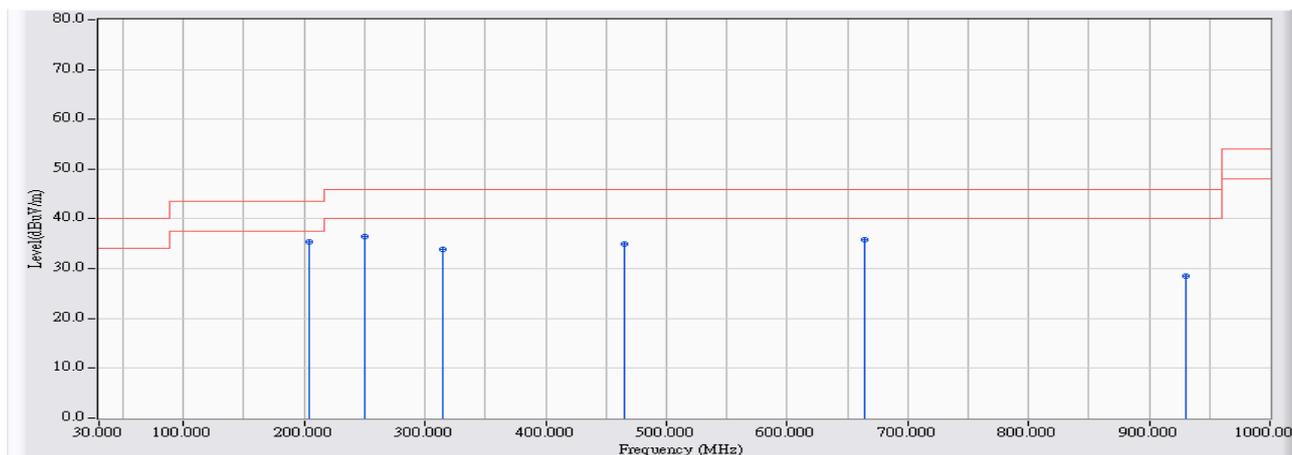


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	44.229	30.148	-13.352	43.500	QUASPEAK
2	309.683	-9.689	43.789	34.100	-11.900	46.000	QUASPEAK
3	464.883	-5.934	41.125	35.191	-10.809	46.000	QUASPEAK
4	* 665.350	-4.454	40.659	36.206	-9.794	46.000	QUASPEAK
5	786.600	-3.146	32.407	29.261	-16.739	46.000	QUASPEAK
6	945.033	-1.938	33.789	31.851	-14.149	46.000	QUASPEAK

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 : 2012/11/28 - 09:53
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(40M)

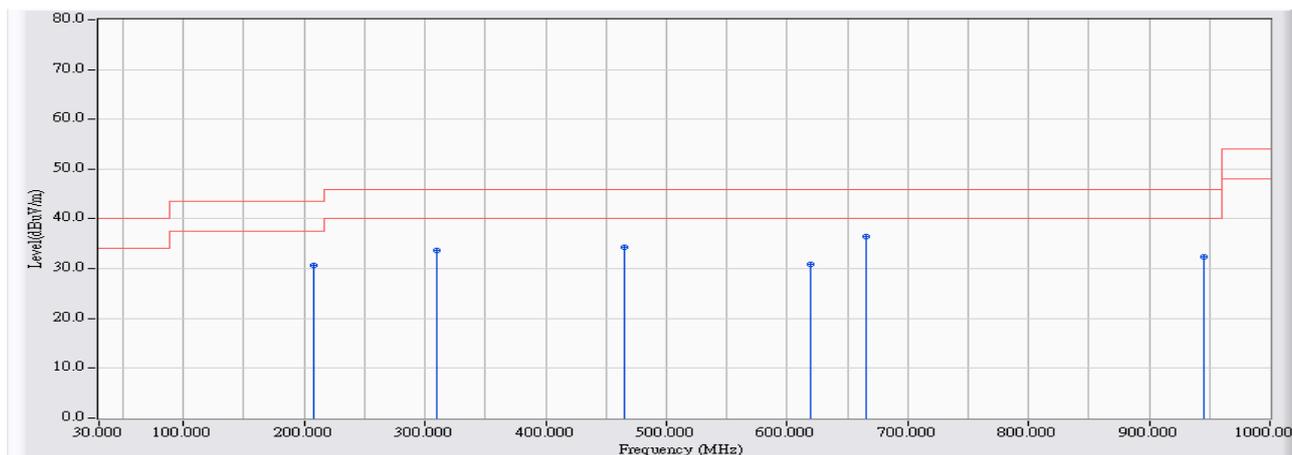


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	204.600	-14.323	49.699	35.376	-8.124	43.500	QUASPEAK
2		249.867	-10.938	47.381	36.443	-9.557	46.000	QUASPEAK
3		314.533	-9.569	43.470	33.901	-12.099	46.000	QUASPEAK
4		464.883	-5.934	40.948	35.014	-10.986	46.000	QUASPEAK
5		663.733	-4.464	40.334	35.870	-10.130	46.000	QUASPEAK
6		930.483	-2.107	30.604	28.497	-17.503	46.000	QUASPEAK

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 : 2012/11/28 - 09:54
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 2: Transmit (Power by Notebook) -2437MHz_802.11n(40M)



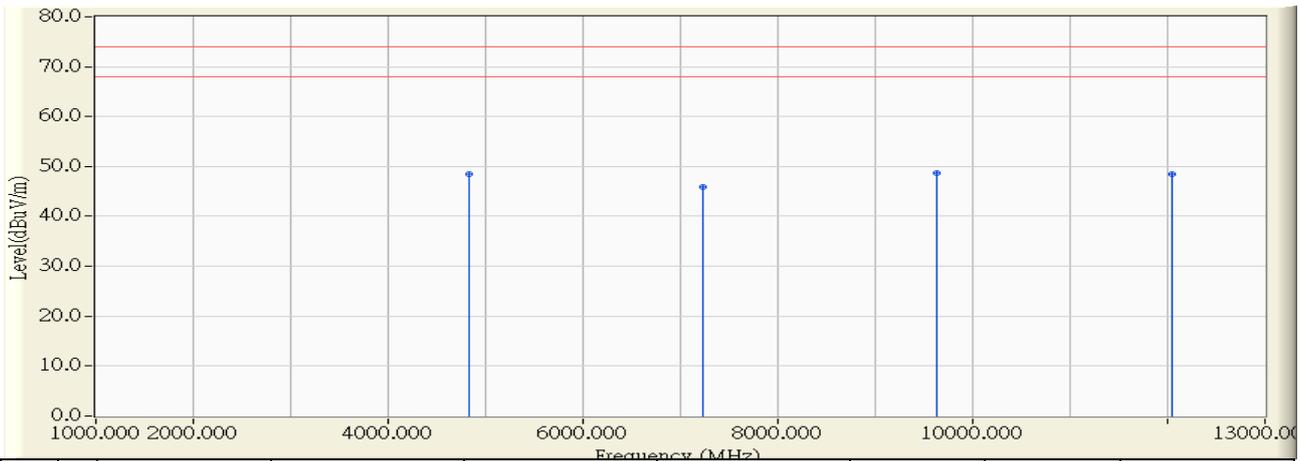
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	207.833	-14.081	44.774	30.693	-12.807	43.500	QUASPEAK
2	309.683	-9.689	43.296	33.607	-12.393	46.000	QUASPEAK
3	464.883	-5.934	40.196	34.262	-11.738	46.000	QUASPEAK
4	620.083	-4.751	35.705	30.954	-15.046	46.000	QUASPEAK
5	* 665.350	-4.454	40.996	36.543	-9.457	46.000	QUASPEAK
6	945.033	-1.938	34.428	32.490	-13.510	46.000	QUASPEAK

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 : 2013/01/30 - 10:28
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2412MHz_802.11b

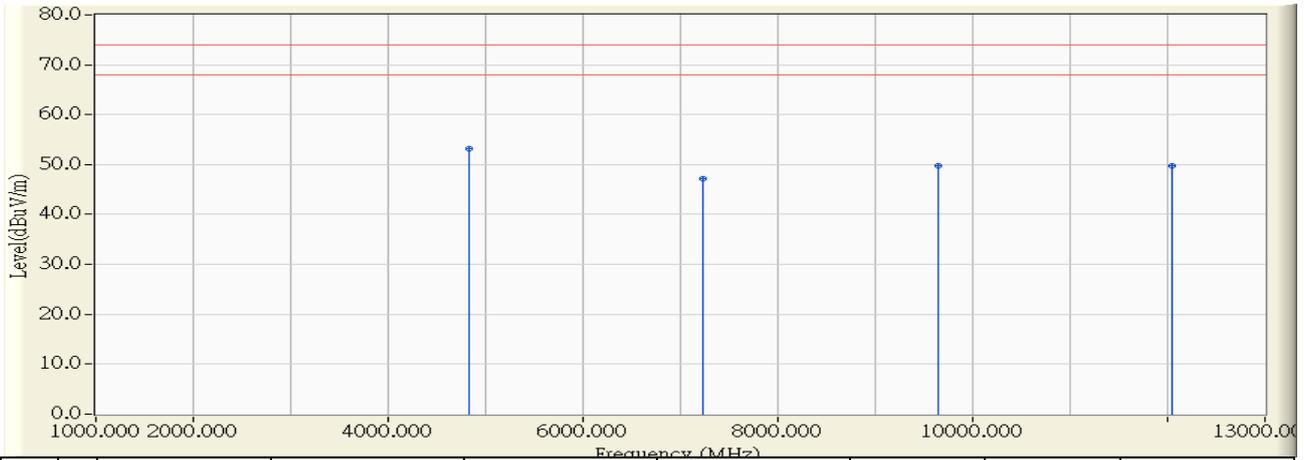


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4824.000	-0.803	49.200	48.397	-25.603	74.000	PEAK
2	7235.480	5.495	40.450	45.945	-28.055	74.000	PEAK
3	* 9638.000	9.158	39.560	48.718	-25.282	74.000	PEAK
4	12050.360	11.528	36.960	48.489	-25.511	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 : 2013/01/30 - 10:30
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2412MHz_802.11b

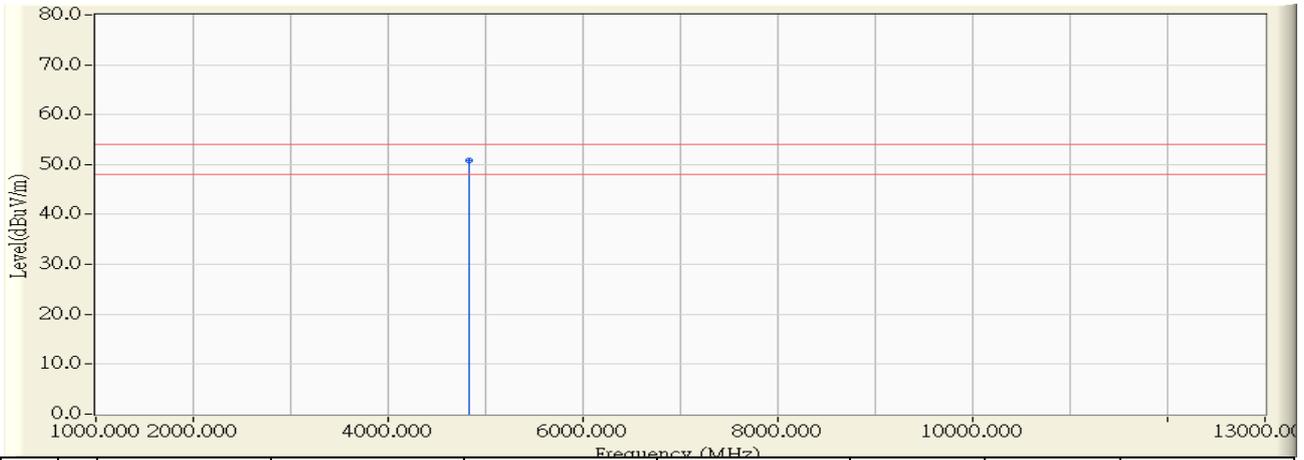


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4824.000	-0.803	53.920	53.117	-20.883	74.000	PEAK
2		7237.560	5.500	41.640	47.140	-26.860	74.000	PEAK
3		9653.720	9.271	40.520	49.792	-24.208	74.000	PEAK
4		12051.200	11.528	38.190	49.718	-24.282	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 : 2013/01/30 - 10:30
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2412MHz_802.11b

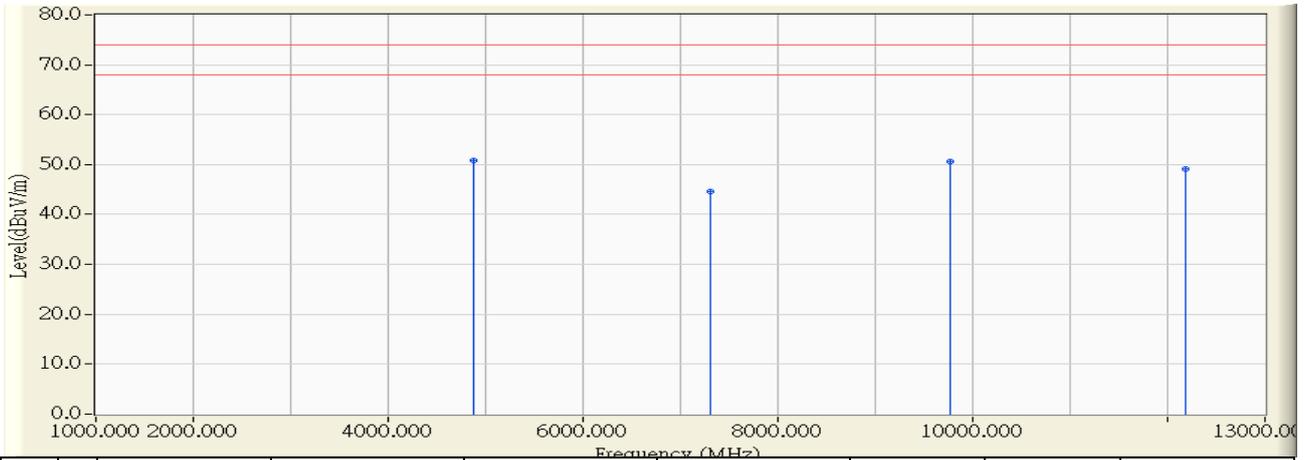


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4824.040	-0.803	51.730	50.927	-3.073	54.000	AVERAGE

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. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2012/11/27 - 17:46
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11b

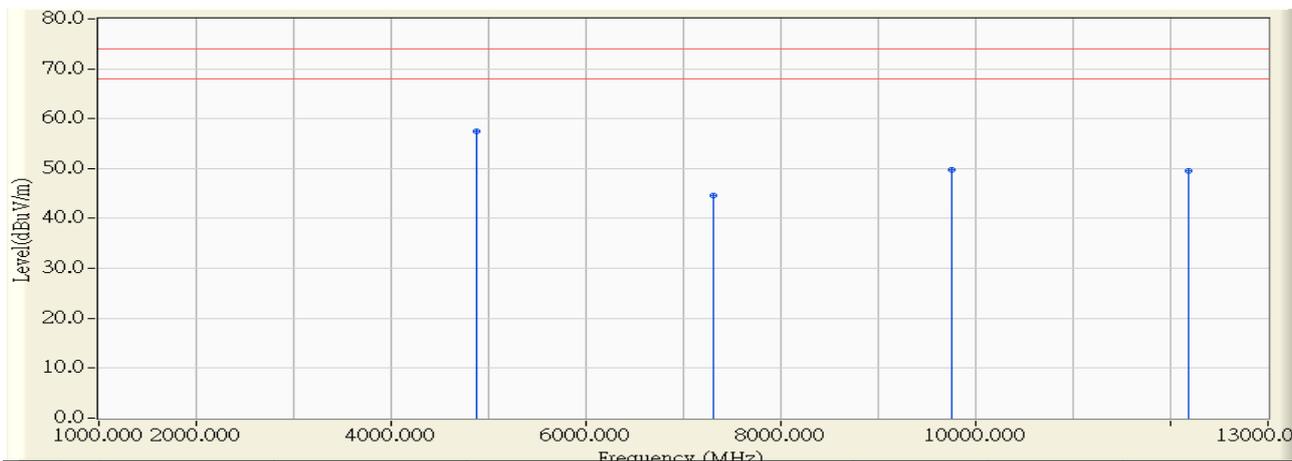


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.000	-0.672	51.520	50.848	-23.152	74.000	PEAK
2		7308.700	5.671	38.890	44.562	-29.438	74.000	PEAK
3		9765.200	10.080	40.460	50.540	-23.460	74.000	PEAK
4		12191.400	11.479	37.590	49.069	-24.931	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 : 2012/11/27 - 17:40
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11b

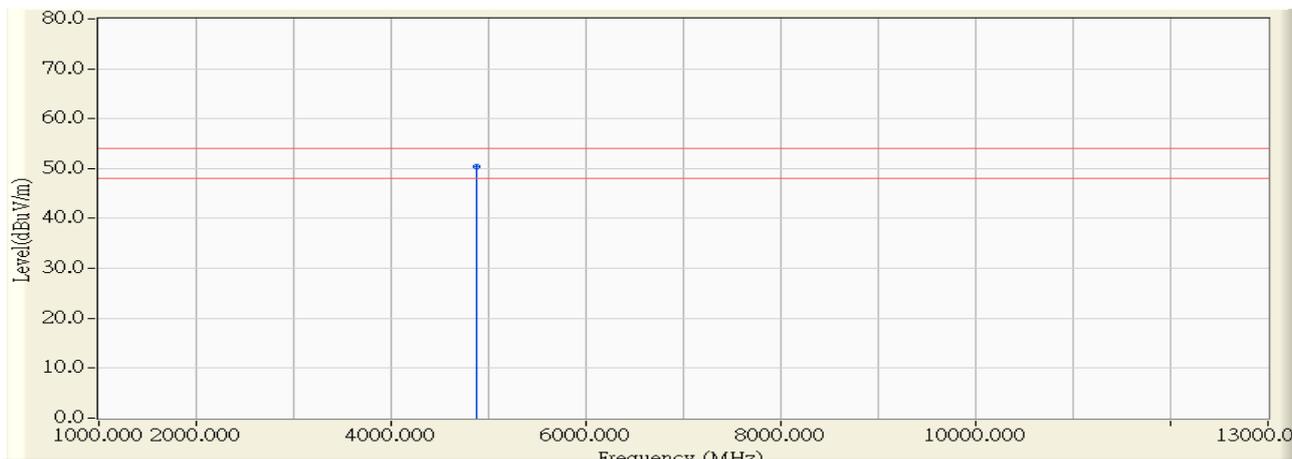


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.400	-0.671	58.230	57.559	-16.441	74.000	PEAK
2		7308.100	5.670	38.850	44.520	-29.480	74.000	PEAK
3		9755.400	10.009	39.830	49.839	-24.161	74.000	PEAK
4		12180.900	11.483	38.000	49.483	-24.517	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 : 2012/11/27 - 17:42
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11b

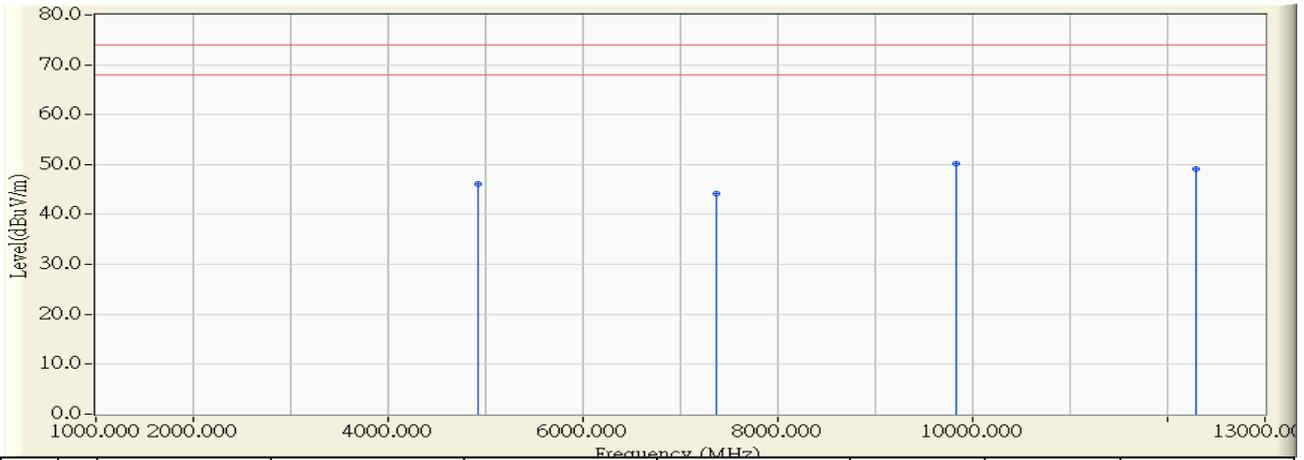


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4873.900	-0.672	50.990	50.318	-3.682	54.000	AVERAGE

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. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2012/11/27 - 17:52
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2462MHz_802.11b

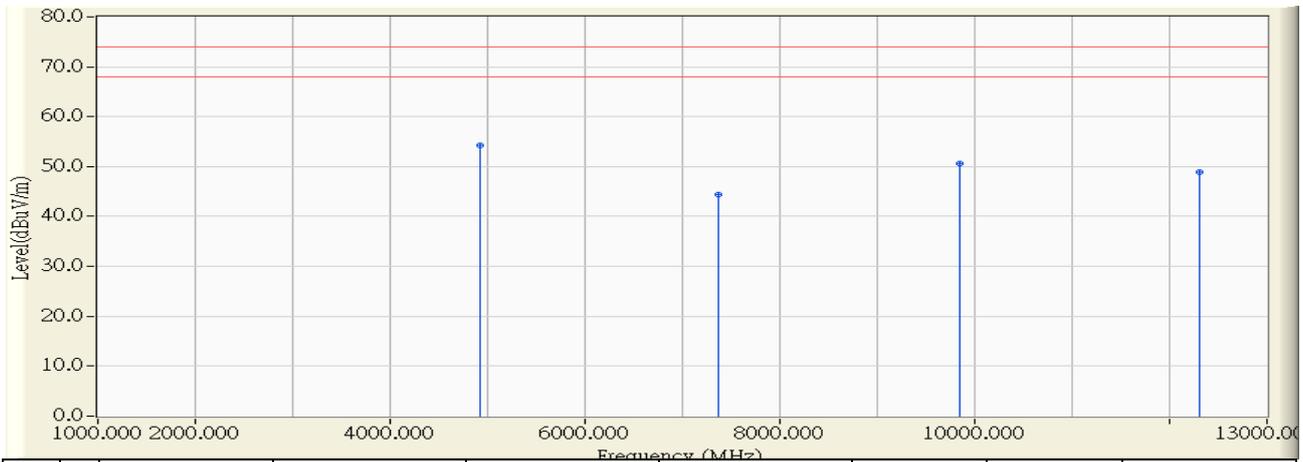


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4923.800	-0.541	46.550	46.009	-27.991	74.000	PEAK
2	7365.200	5.808	38.400	44.208	-29.792	74.000	PEAK
3	* 9828.700	10.540	39.560	50.100	-23.900	74.000	PEAK
4	12288.700	11.445	37.690	49.135	-24.865	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 : 2012/11/27 - 17:50
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2462MHz_802.11b

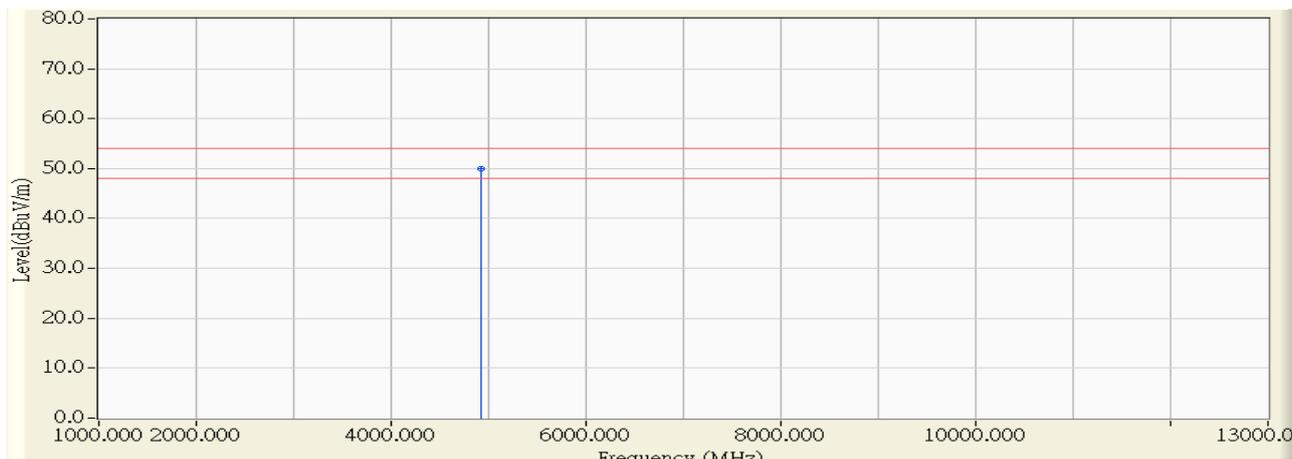


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4923.700	-0.541	54.770	54.229	-19.771	74.000	PEAK
2		7369.600	5.818	38.580	44.399	-29.601	74.000	PEAK
3		9840.600	10.627	40.010	50.637	-23.363	74.000	PEAK
4		12310.690	11.437	37.570	49.007	-24.993	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 : 2012/11/27 - 17:49
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2462MHz_802.11b

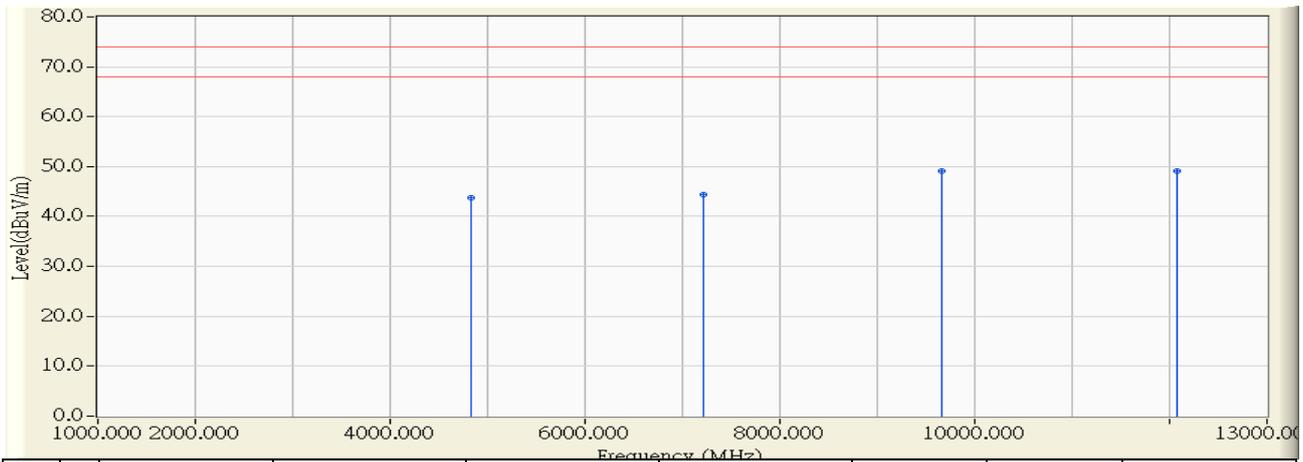


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4924.000	-0.541	50.580	50.039	-3.961	54.000	AVERAGE

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. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2012/11/27 - 17:57
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2412MHz_802.11g

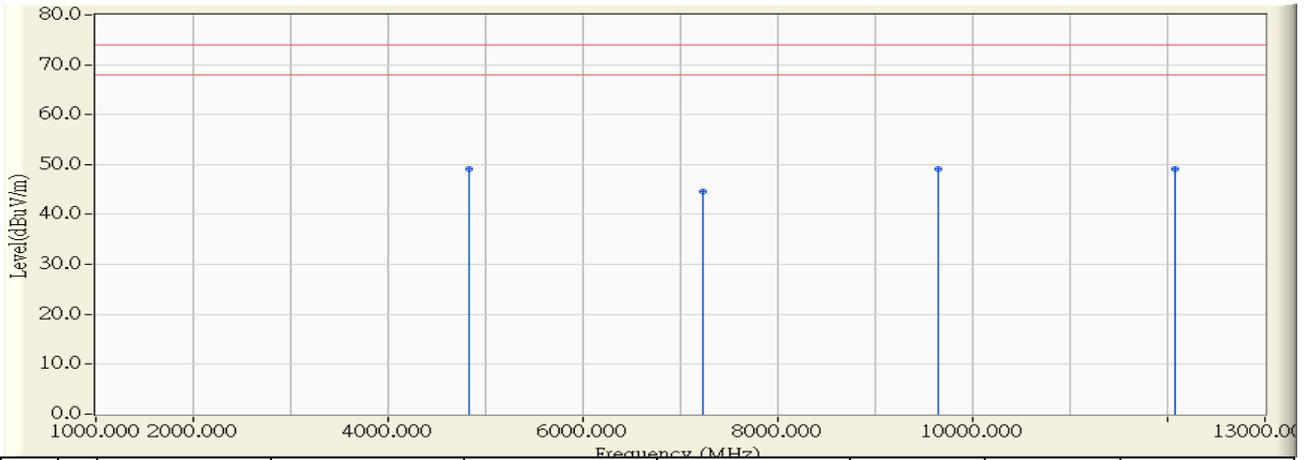


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4823.900	-0.803	44.460	43.657	-30.343	74.000	PEAK
2	7218.000	5.453	38.940	44.393	-29.607	74.000	PEAK
3	* 9665.400	9.356	39.860	49.217	-24.783	74.000	PEAK
4	12079.300	11.518	37.530	49.048	-24.952	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 : 2012/11/27 - 17:59
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2412MHz_802.11g

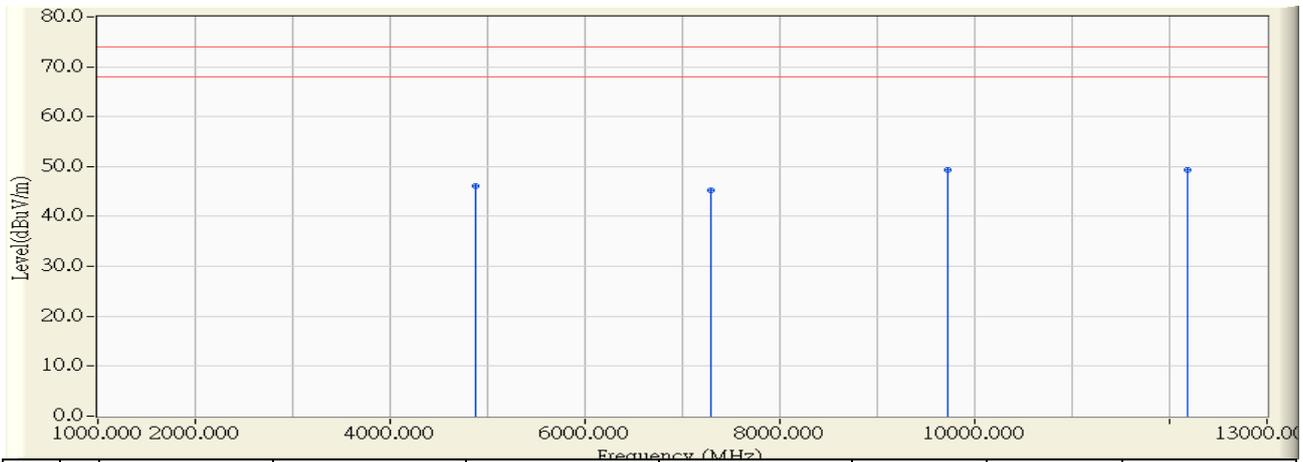


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4825.000	-0.801	49.970	49.170	-24.830	74.000	PEAK
2		7233.900	5.491	39.220	44.711	-29.289	74.000	PEAK
3		9653.500	9.270	39.870	49.141	-24.859	74.000	PEAK
4		12075.300	11.520	37.580	49.100	-24.900	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 : 2012/11/27 - 18:01
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11g

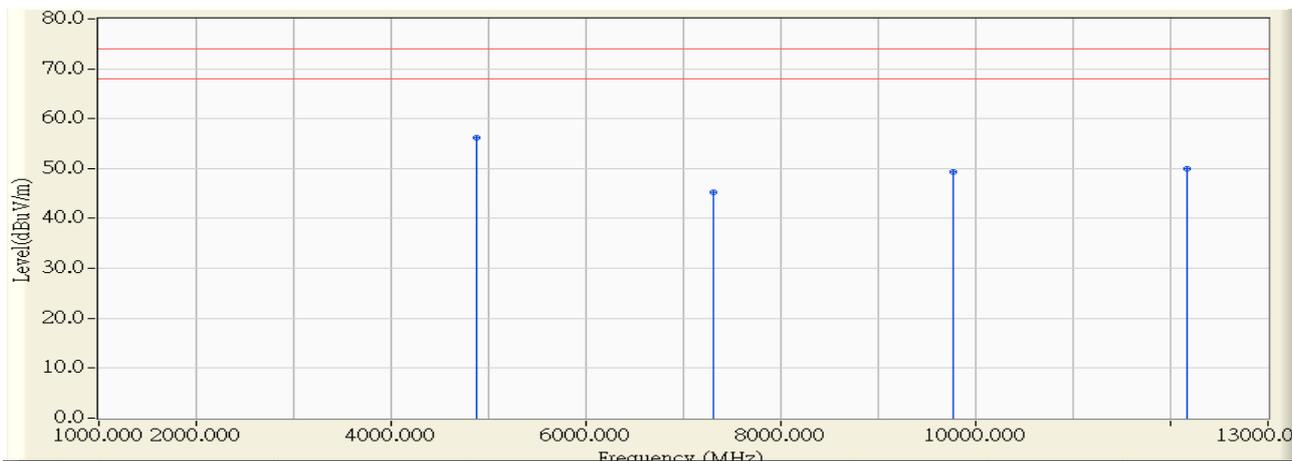


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4871.400	-0.679	46.850	46.171	-27.829	74.000	PEAK
2	7293.500	5.635	39.520	45.155	-28.845	74.000	PEAK
3	9727.100	9.805	39.440	49.244	-24.756	74.000	PEAK
4	* 12180.000	11.483	37.860	49.343	-24.657	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 : 2012/11/27 - 18:02
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11g

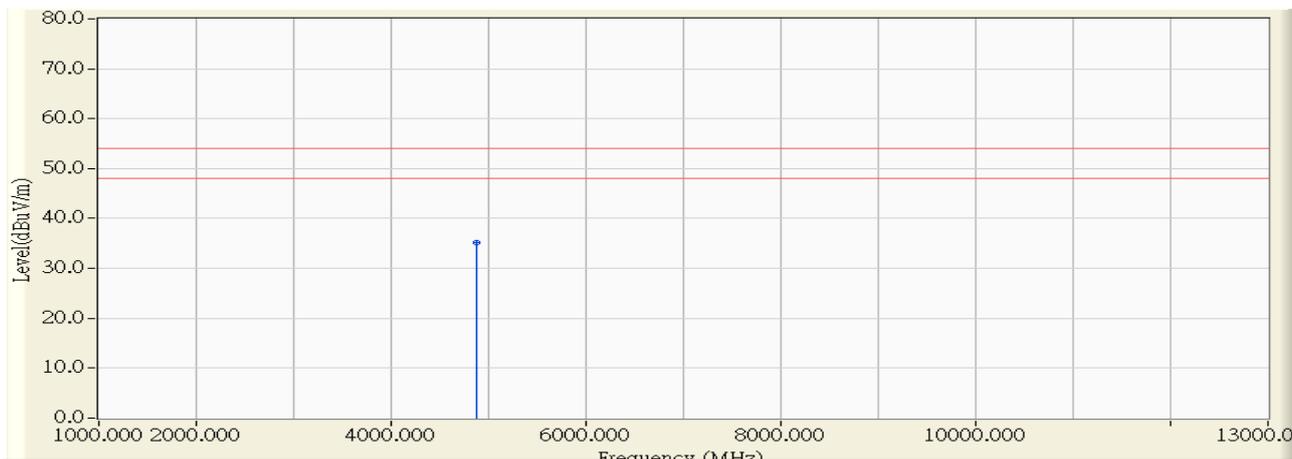


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4877.900	-0.662	56.840	56.178	-17.822	74.000	PEAK
2		7309.200	5.673	39.480	45.153	-28.847	74.000	PEAK
3		9769.700	10.113	39.260	49.373	-24.627	74.000	PEAK
4		12174.900	11.485	38.460	49.945	-24.055	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 : 2012/11/27 - 18:03
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2437MHz_802.11g

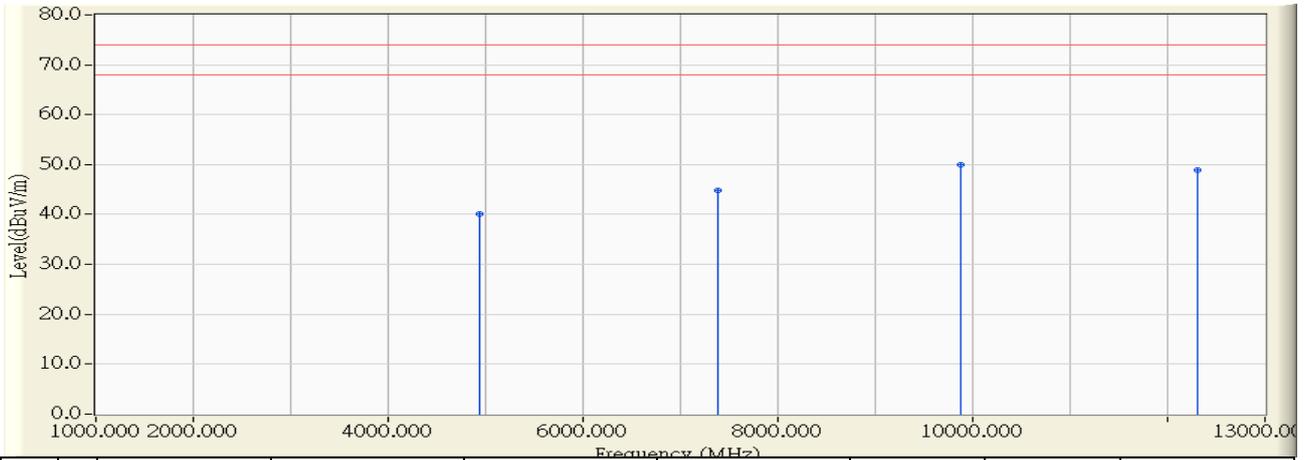


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4873.500	-0.673	35.840	35.167	-18.833	54.000	AVERAGE

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. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2012/11/27 - 18:06
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2462MHz_802.11g

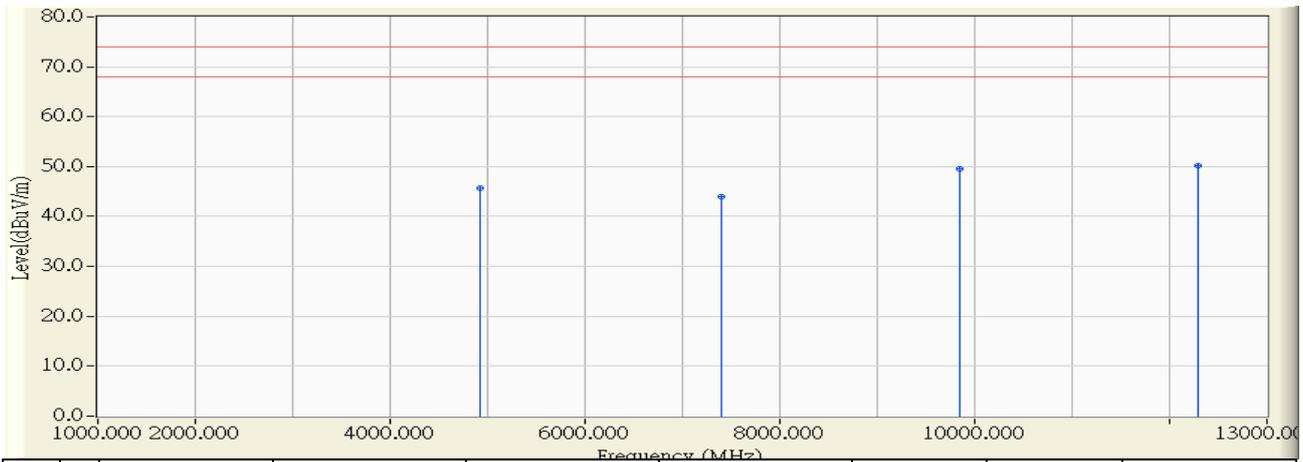


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4935.600	-0.510	40.630	40.120	-33.880	74.000	PEAK
2	7384.300	5.854	39.070	44.924	-29.076	74.000	PEAK
3	* 9870.700	10.844	39.150	49.995	-24.005	74.000	PEAK
4	12301.500	11.440	37.430	48.870	-25.130	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 : 2012/11/27 - 18:10
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter)-2462MHz_802.11g

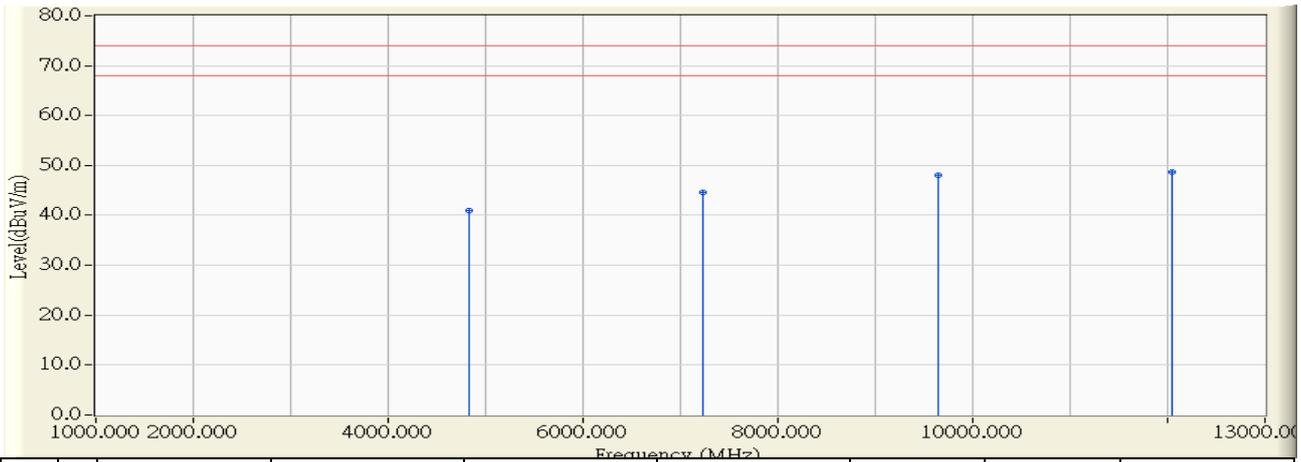


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4923.600	-0.542	46.170	45.628	-28.372	74.000	PEAK
2	7392.800	5.875	37.990	43.865	-30.135	74.000	PEAK
3	9841.100	10.630	38.940	49.570	-24.430	74.000	PEAK
4	* 12297.600	11.441	38.850	50.291	-23.709	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 : 2012/11/27 - 18:43
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2412MHz_802.11n(20M)

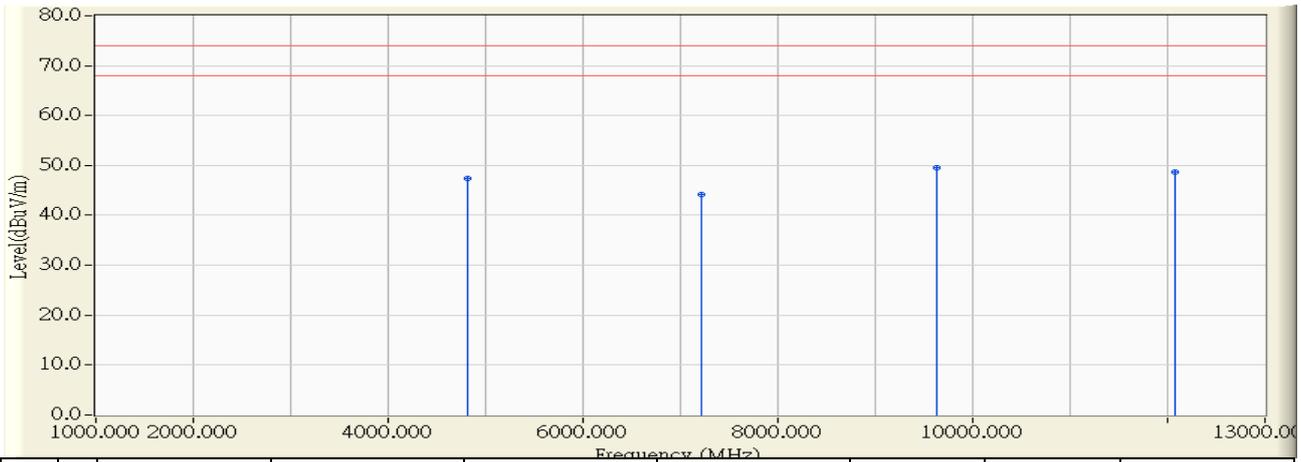


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4824.300	-0.802	41.770	40.968	-33.032	74.000	PEAK
2	7230.600	5.483	39.040	44.523	-29.477	74.000	PEAK
3	9643.900	9.201	38.810	48.011	-25.989	74.000	PEAK
4	* 12040.700	11.532	37.250	48.782	-25.218	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 : 2012/11/27 - 18:44
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2412MHz_802.11n(20M)

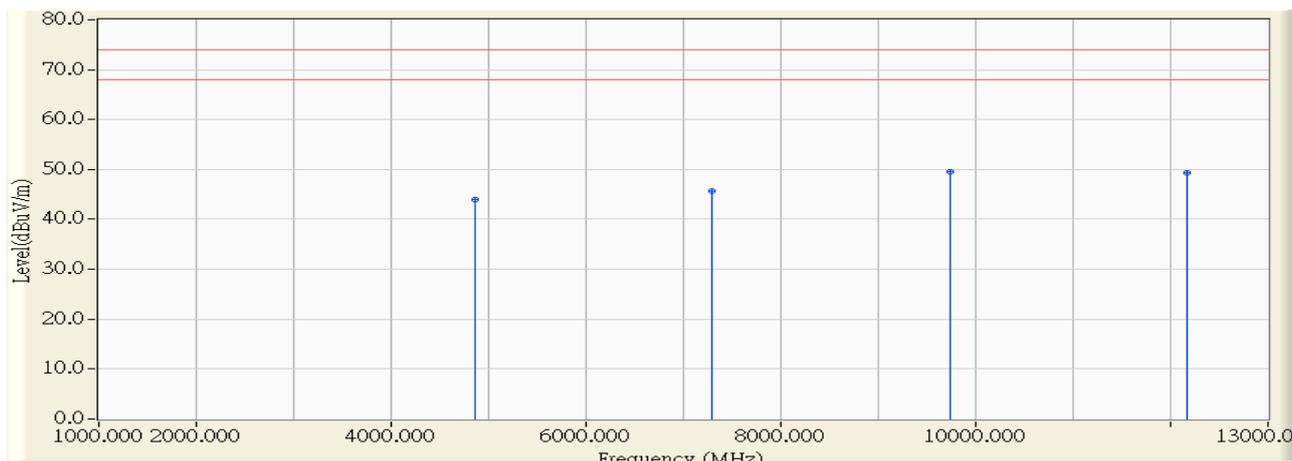


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4819.400	-0.815	48.240	47.425	-26.575	74.000	PEAK
2	7217.500	5.451	38.830	44.282	-29.718	74.000	PEAK
3	* 9630.500	9.104	40.370	49.474	-24.526	74.000	PEAK
4	12078.100	11.519	37.180	48.699	-25.301	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 : 2012/11/27 - 18:47
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(20M)

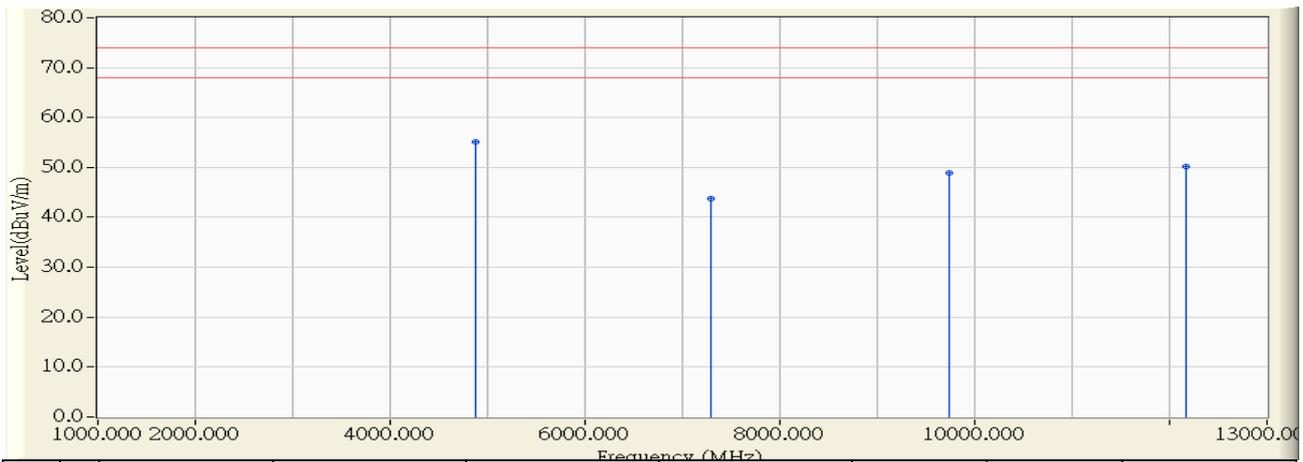


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4867.000	-0.690	44.700	44.010	-29.990	74.000	PEAK
2	7293.600	5.635	40.130	45.765	-28.235	74.000	PEAK
3	* 9732.700	9.844	39.630	49.475	-24.525	74.000	PEAK
4	12165.800	11.488	37.810	49.298	-24.702	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 : 2012/11/27 - 18:49
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(20M)

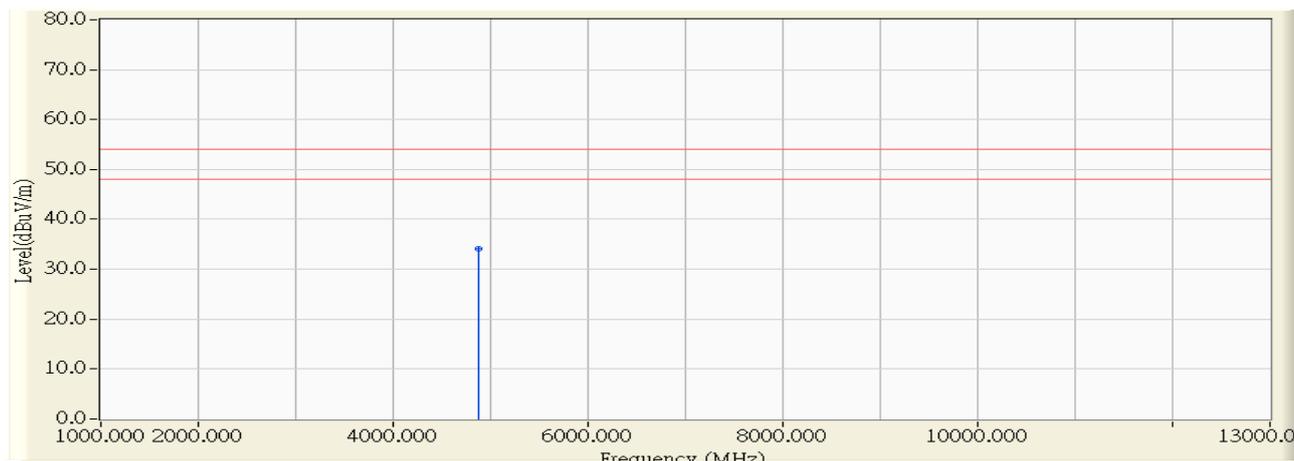


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4875.400	-0.668	55.890	55.222	-18.778	74.000	PEAK
2		7296.000	5.641	38.100	43.741	-30.259	74.000	PEAK
3		9738.800	9.889	38.920	48.809	-25.191	74.000	PEAK
4		12163.500	11.489	38.780	50.269	-23.731	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 : 2012/11/27 - 18:50
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(20M)

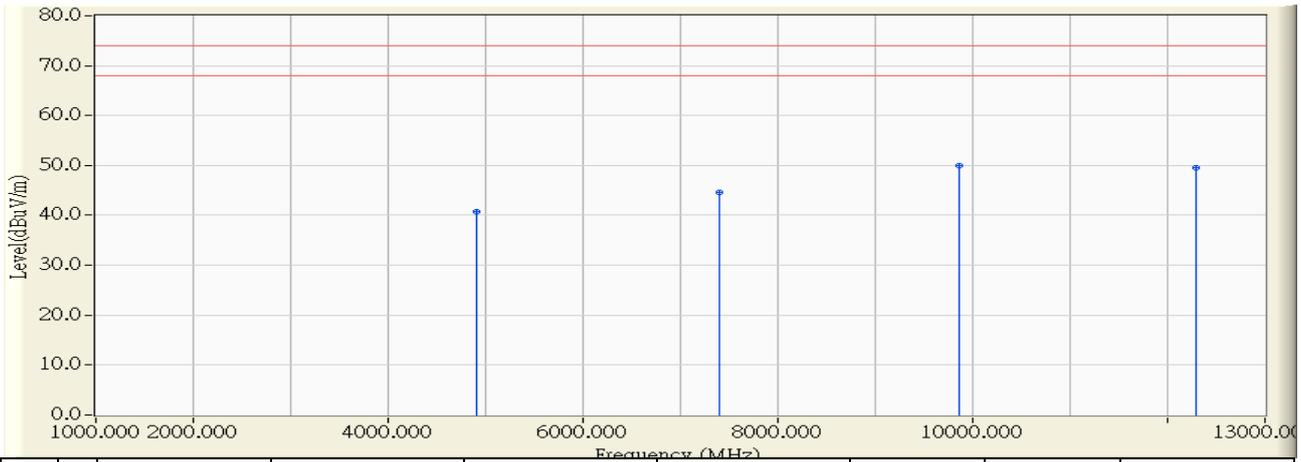


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	4874.100	-0.672	34.780	34.108	-19.892	54.000	AVERAGE

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. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	Time : 2012/11/27 - 19:01
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2462MHz_802.11n(20M)

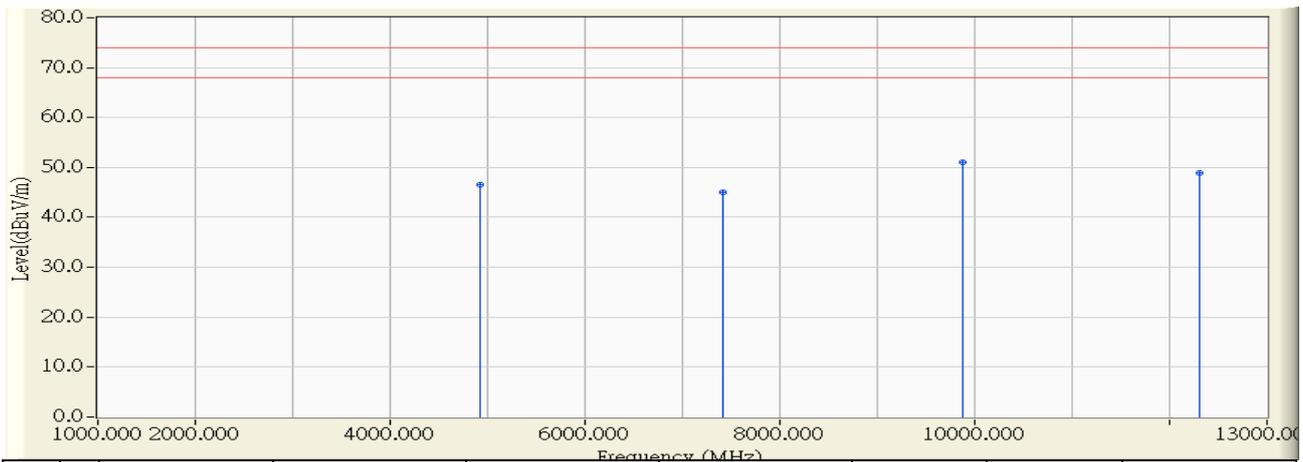


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4914.700	-0.565	41.230	40.665	-33.335	74.000	PEAK
2	7396.800	5.885	38.810	44.694	-29.306	74.000	PEAK
3	* 9864.500	10.800	39.200	50.000	-24.000	74.000	PEAK
4	12294.600	11.443	38.120	49.562	-24.438	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 : 2012/11/27 - 19:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2462MHz_802.11n(20M)

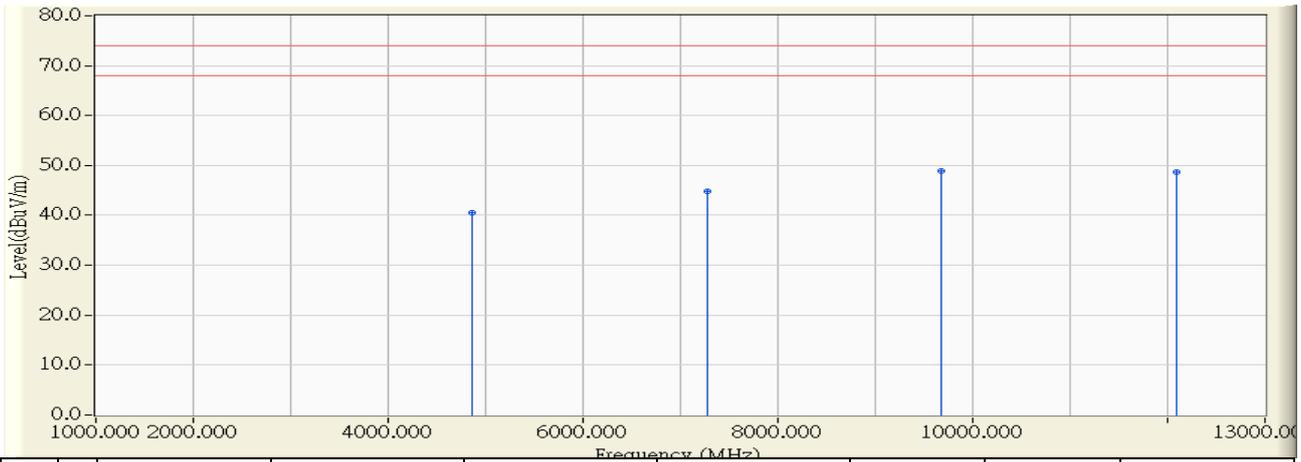


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4924.000	-0.541	47.110	46.569	-27.431	74.000	PEAK
2	7410.100	5.916	39.080	44.996	-29.004	74.000	PEAK
3	* 9871.900	10.853	40.240	51.093	-22.907	74.000	PEAK
4	12304.300	11.439	37.410	48.849	-25.151	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 : 2012/11/27 - 19:08
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2422MHz_802.11n(40M)

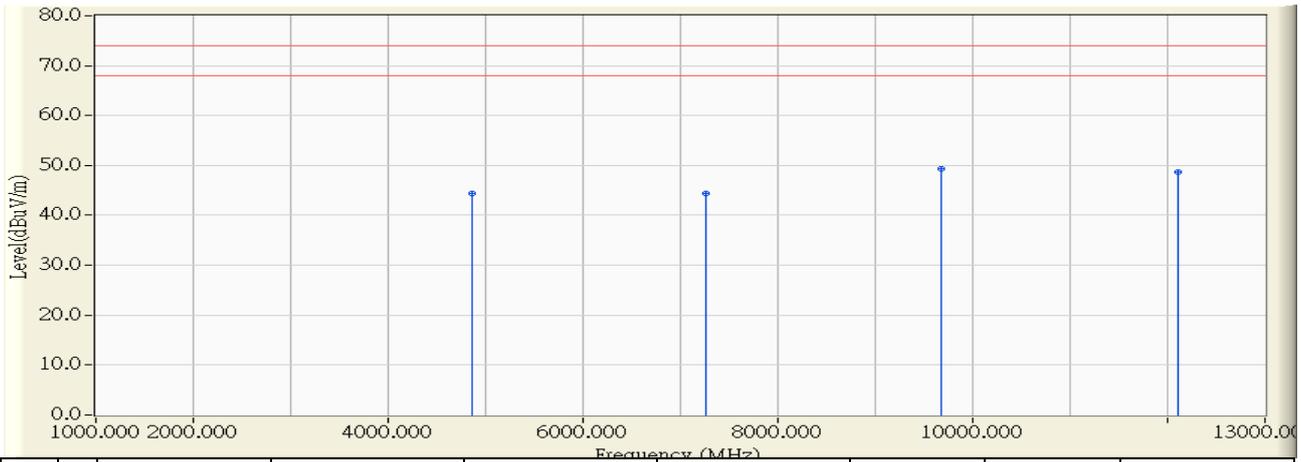


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4854.100	-0.724	41.200	40.476	-33.524	74.000	PEAK
2	7280.100	5.603	39.270	44.873	-29.127	74.000	PEAK
3	* 9672.900	9.411	39.560	48.971	-25.029	74.000	PEAK
4	12099.200	11.511	37.220	48.731	-25.269	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 : 2012/11/27 - 19:13
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2422MHz_802.11n(40M)

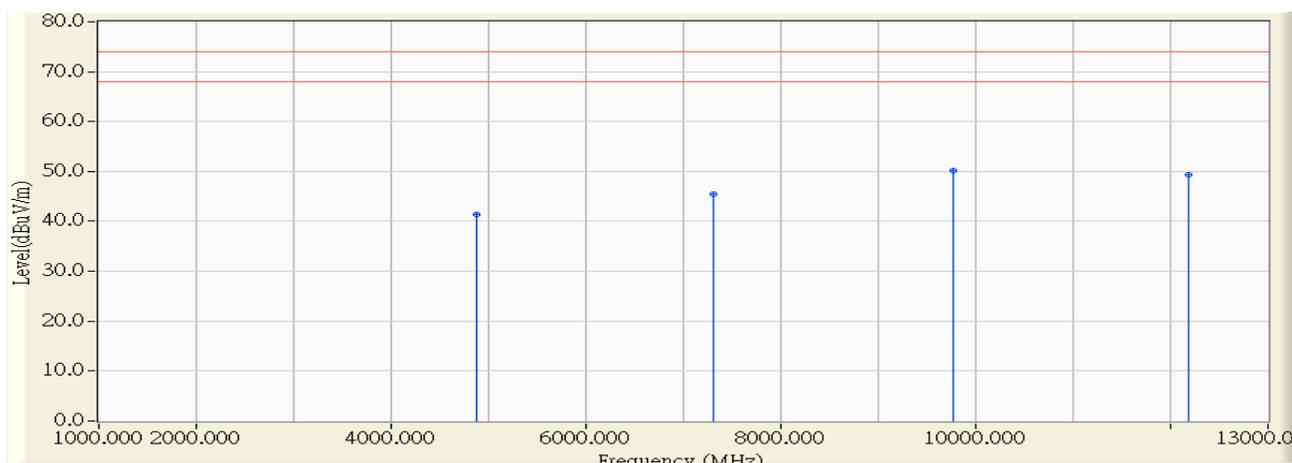


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4860.700	-0.707	45.060	44.353	-29.647	74.000	PEAK
2	7260.500	5.556	38.890	44.446	-29.554	74.000	PEAK
3	* 9677.400	9.443	39.830	49.274	-24.726	74.000	PEAK
4	12106.600	11.509	37.260	48.769	-25.231	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 : 2012/11/27 - 19:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

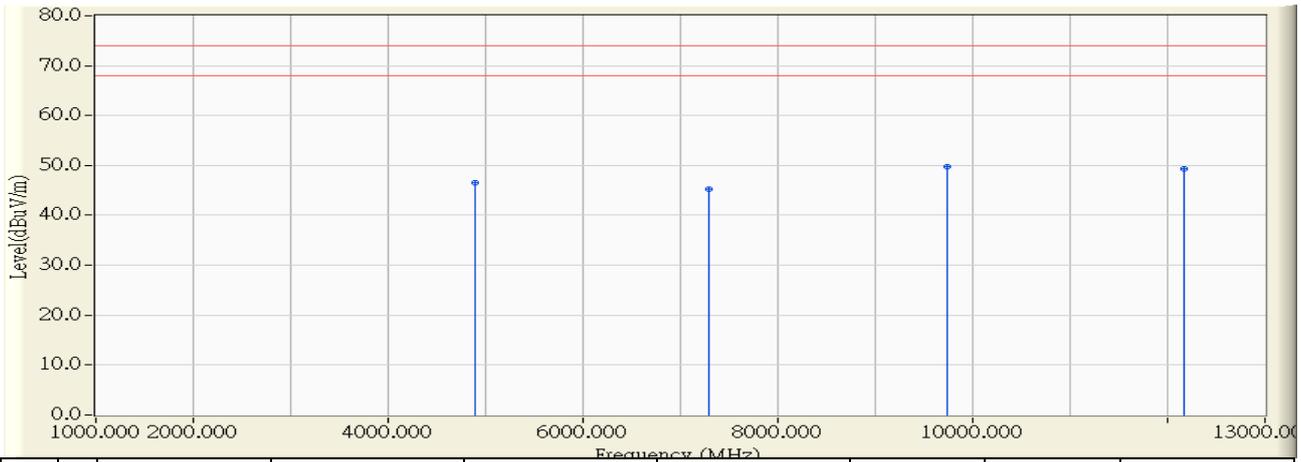


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.000	-0.672	42.150	41.478	-32.522	74.000	PEAK
2	7310.000	5.675	39.710	45.385	-28.615	74.000	PEAK
3	* 9763.900	10.071	40.080	50.151	-23.849	74.000	PEAK
4	12183.900	11.482	37.880	49.362	-24.638	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 : 2012/11/27 - 19:17
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2437MHz_802.11n(40M)

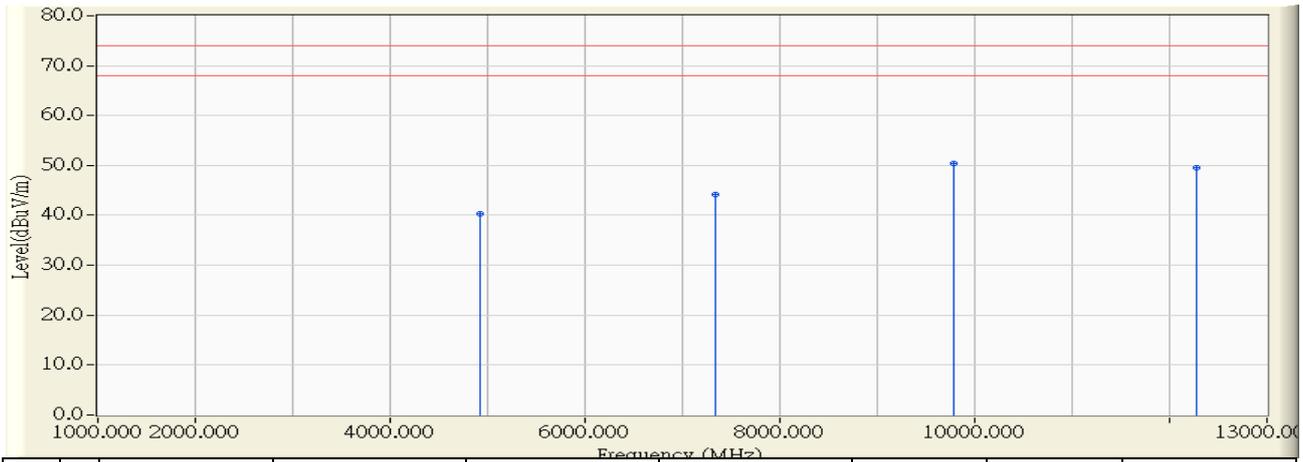


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4889.700	-0.631	47.110	46.479	-27.521	74.000	PEAK
2	7293.500	5.635	39.700	45.335	-28.665	74.000	PEAK
3	* 9733.300	9.849	39.890	49.739	-24.261	74.000	PEAK
4	12175.800	11.485	37.820	49.304	-24.696	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 : 2012/11/27 - 19:31
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2452MHz_802.11n(40M)

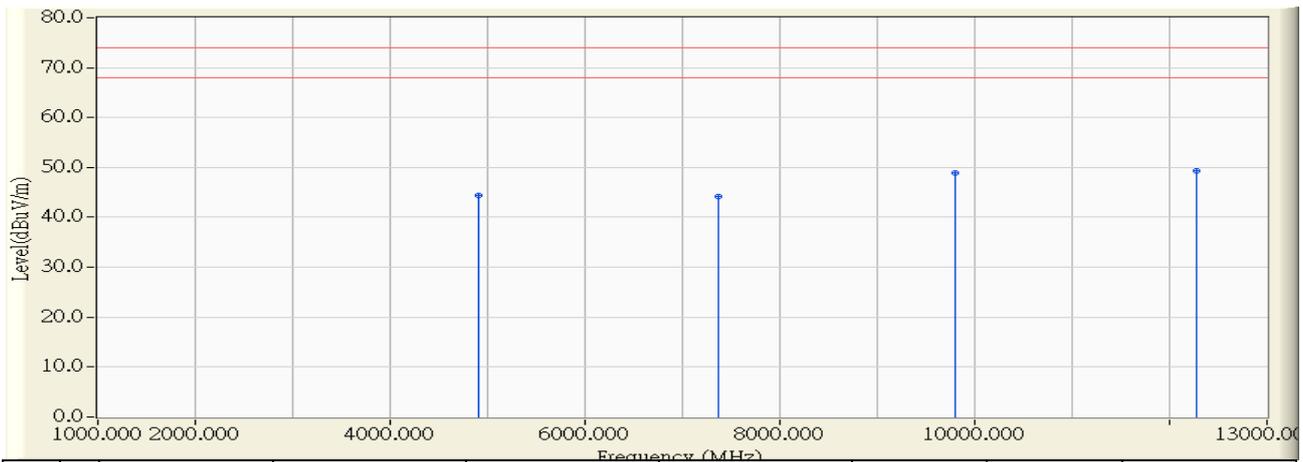


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4920.800	-0.550	40.840	40.291	-33.709	74.000	PEAK
2	7340.800	5.750	38.510	44.259	-29.741	74.000	PEAK
3	* 9790.600	10.264	40.220	50.484	-23.516	74.000	PEAK
4	12269.800	11.451	38.190	49.641	-24.359	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 : 2012/11/27 - 19:32
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : USB
EUT : All-in-One Wireless-N pocket router	Note : Mode 1: Transmit (Adapter) -2452MHz_802.11n(40M)



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4904.000	-0.593	45.080	44.487	-29.513	74.000	PEAK
2	7370.900	5.822	38.330	44.152	-29.848	74.000	PEAK
3	9794.200	10.290	38.700	48.990	-25.010	74.000	PEAK
4	* 12272.700	11.450	37.950	49.400	-24.600	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:

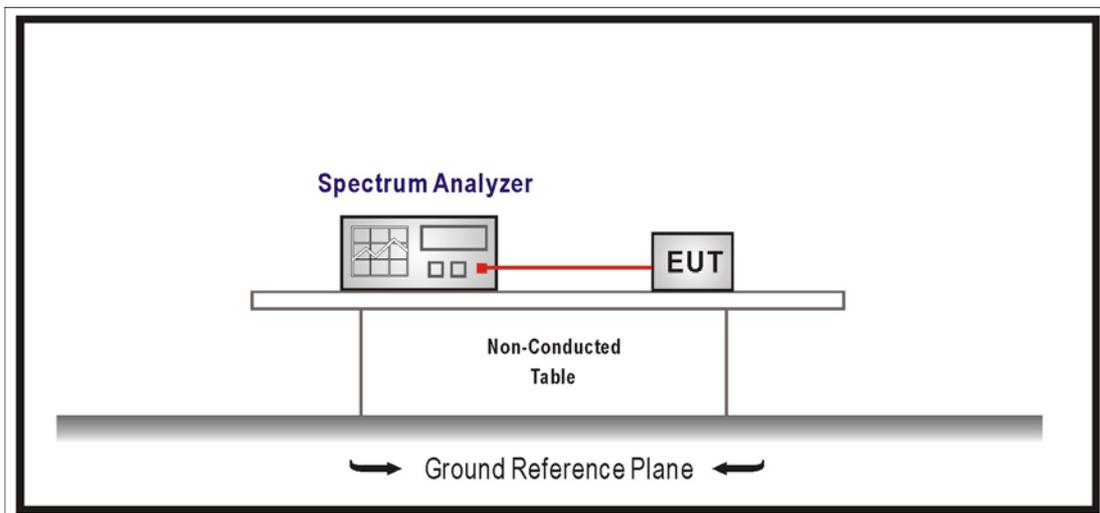
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP	100561	2013/02/19

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 Jan. 2012 KDB558074 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: 2011

5.6. Uncertainty

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

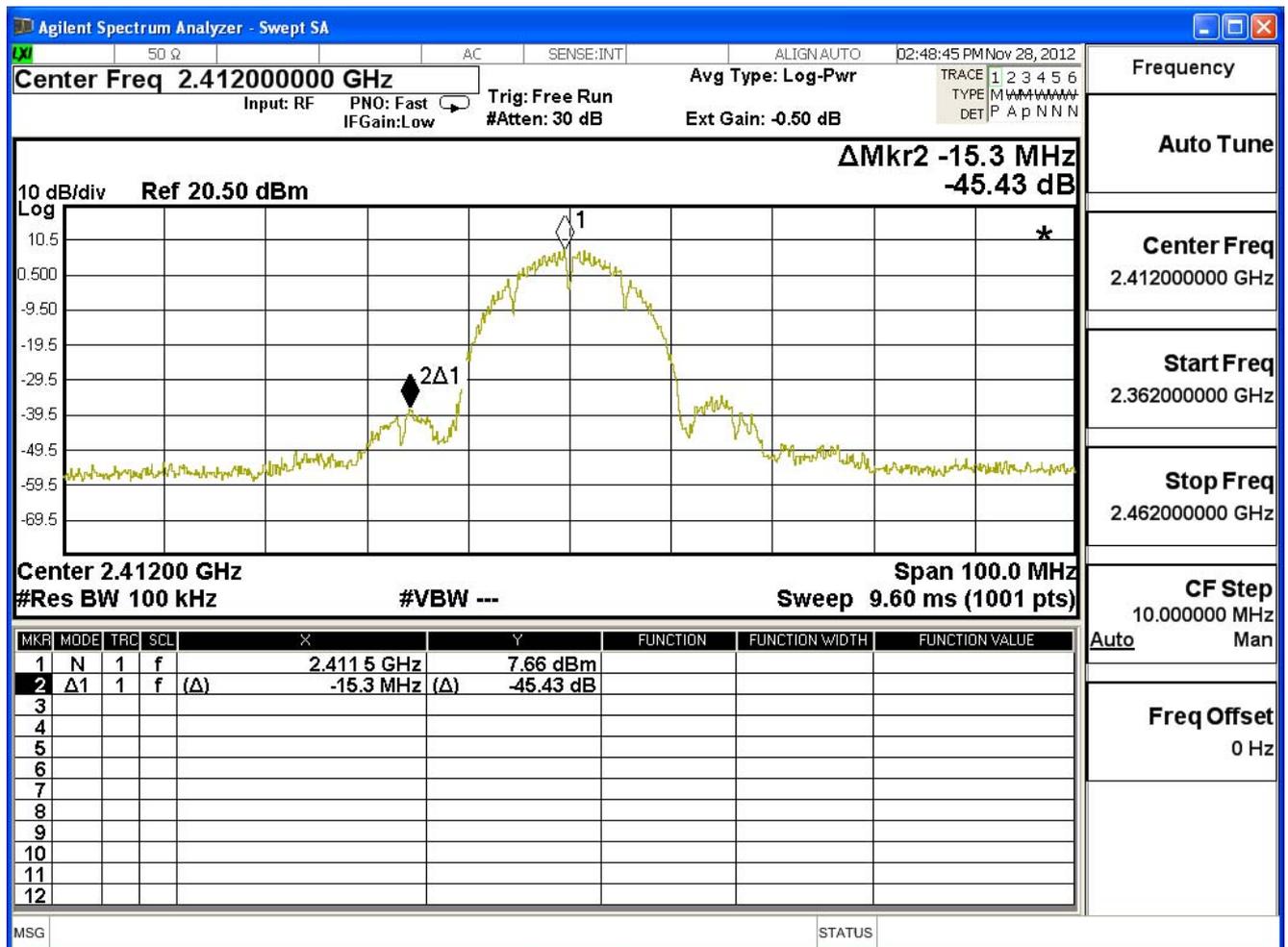
5.7. Test Result

Product	All-in-One Wireless-N pocket router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2012/11/28	Test Site	SR7

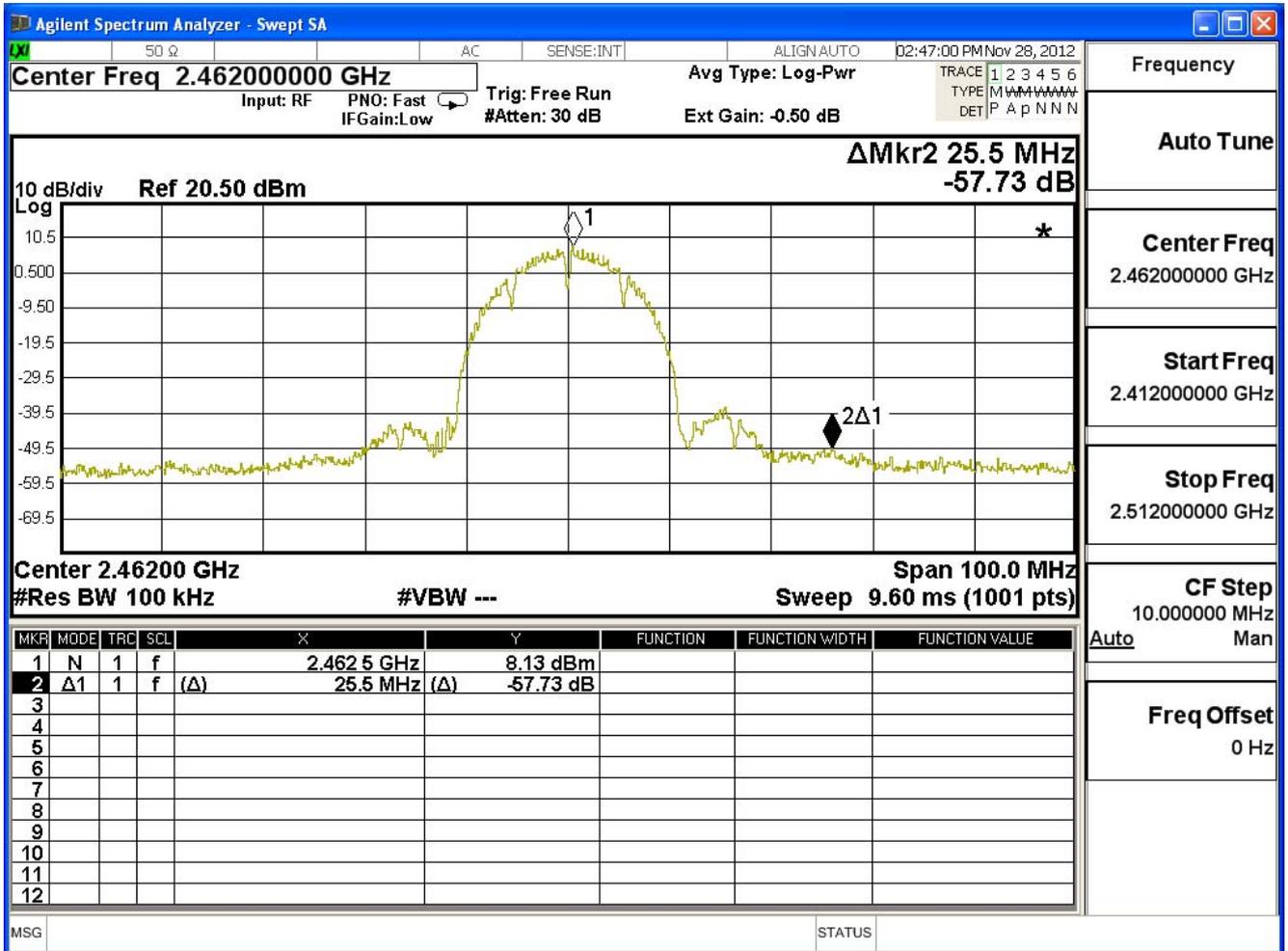
IEEE 802.11b, Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	45.43	≥ 20	Pass
11	2462	57.73	≥ 20	Pass

Channel 01 (2412MHz)



Channel 11 (2462MHz)



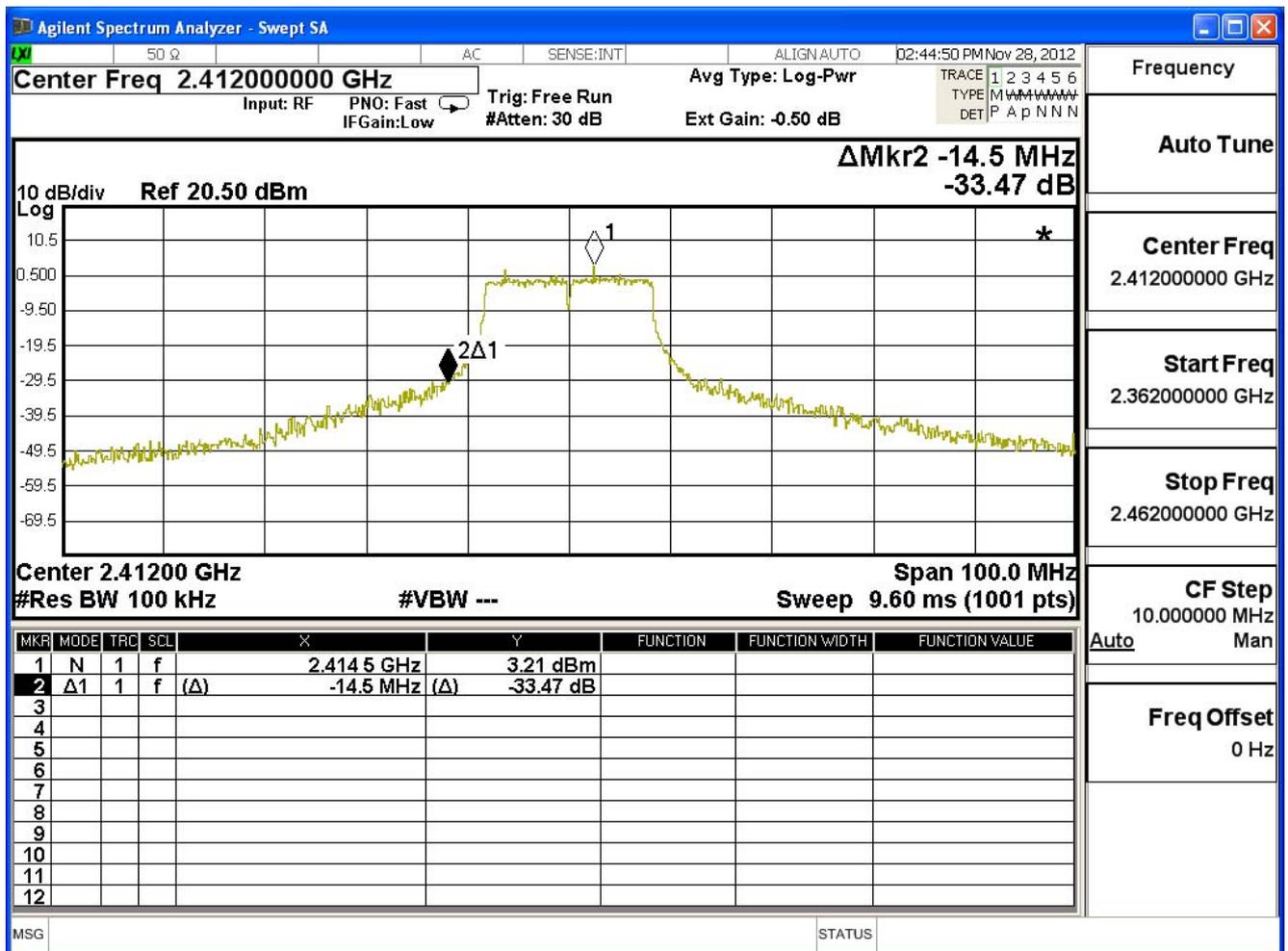
Frequency
Auto Tune
Center Freq 2.462000000 GHz
Start Freq 2.412000000 GHz
Stop Freq 2.512000000 GHz
CF Step 10.000000 MHz
Auto Man
Freq Offset 0 Hz

Product	All-in-One Wireless-N pocket router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2012/11/28	Test Site	SR7

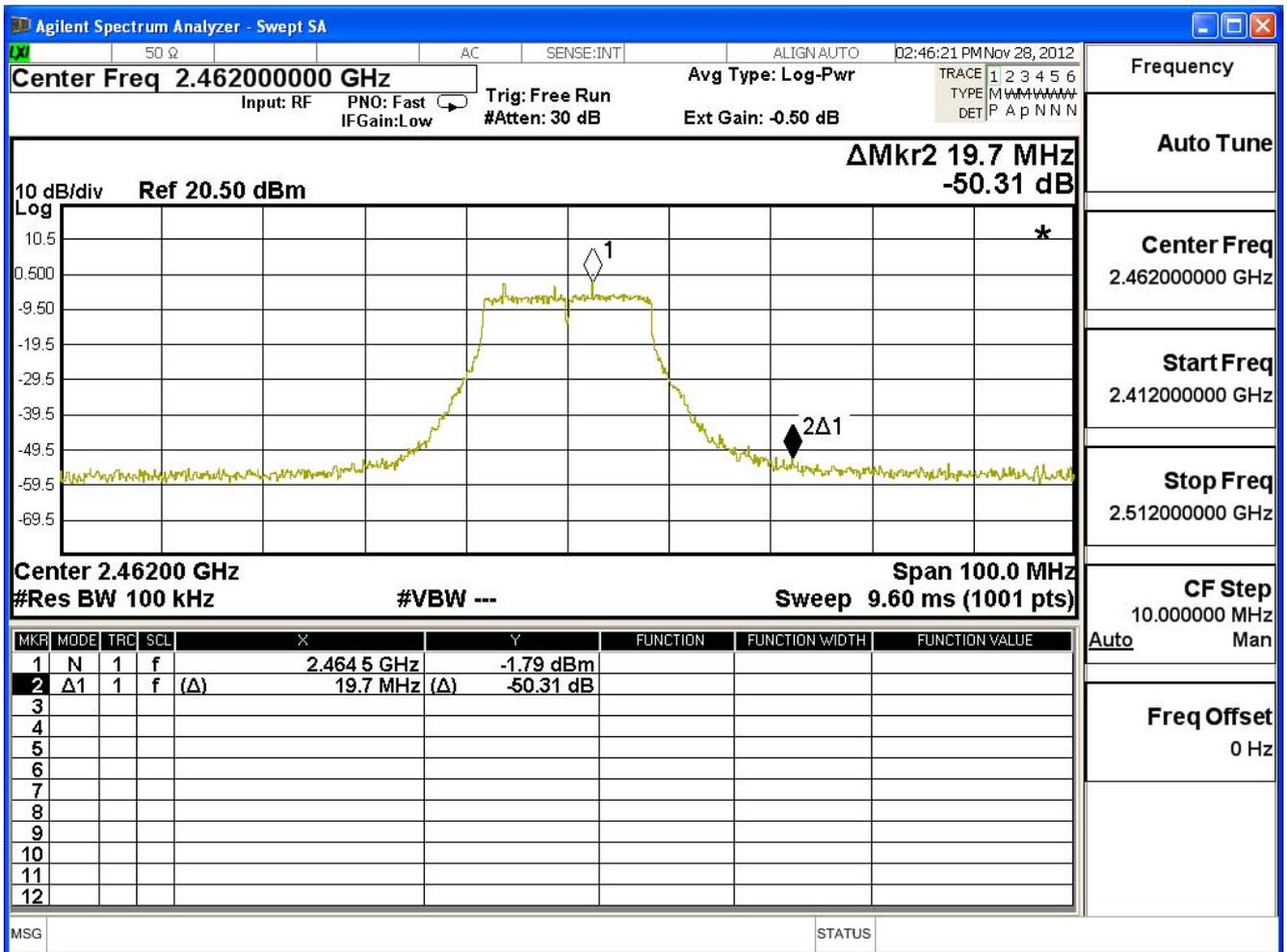
IEEE 802.11g, Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	33.47	≥20	Pass
11	2462	50.31	≥20	Pass

Channel 01 (2412MHz)



Channel 11 (2462MHz)



Product	All-in-One Wireless-N pocket router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2012/11/28	Test Site	SR7

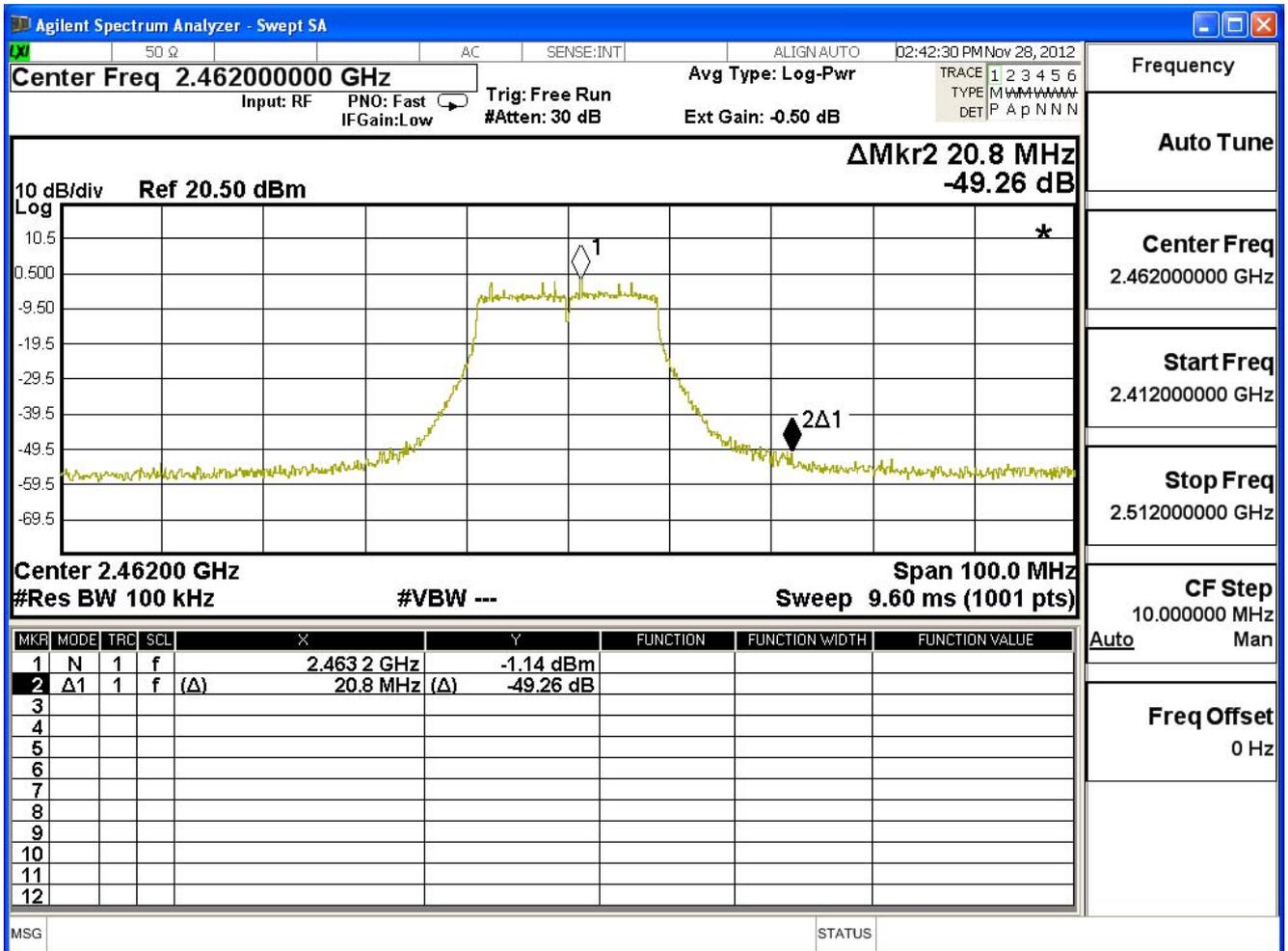
IEEE 802.11n (20MHz), (ANT 0) Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	34.81	≥20	Pass
11	2462	49.26	≥20	Pass

Channel 1 (2412MHz)



Channel 11 (2462MHz)



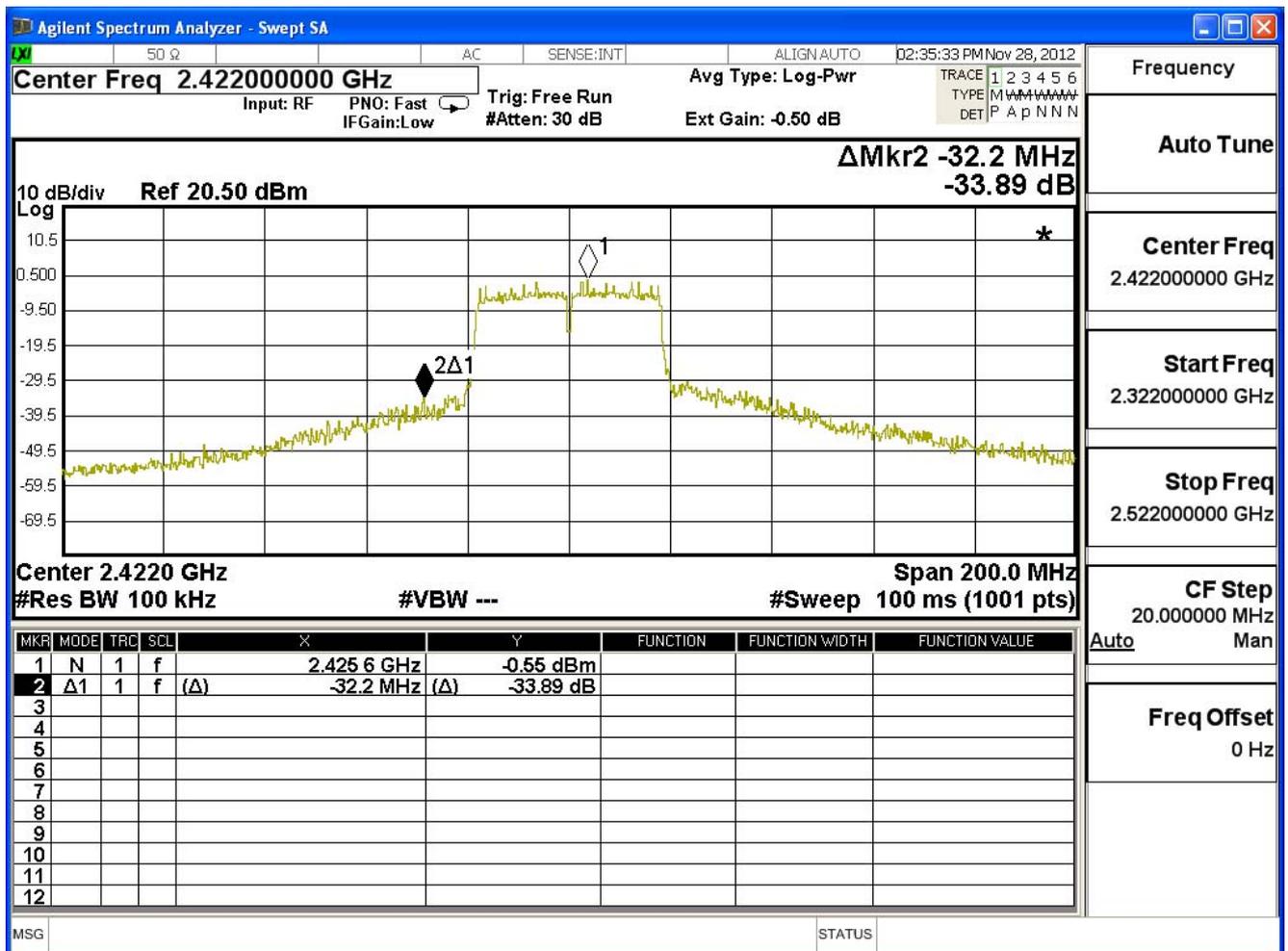
Frequency
Auto Tune
Center Freq 2.462000000 GHz
Start Freq 2.412000000 GHz
Stop Freq 2.512000000 GHz
CF Step 10.000000 MHz
Auto Man
Freq Offset 0 Hz

Product	All-in-One Wireless-N pocket router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Adapter)		
Date of Test	2012/11/28	Test Site	SR7

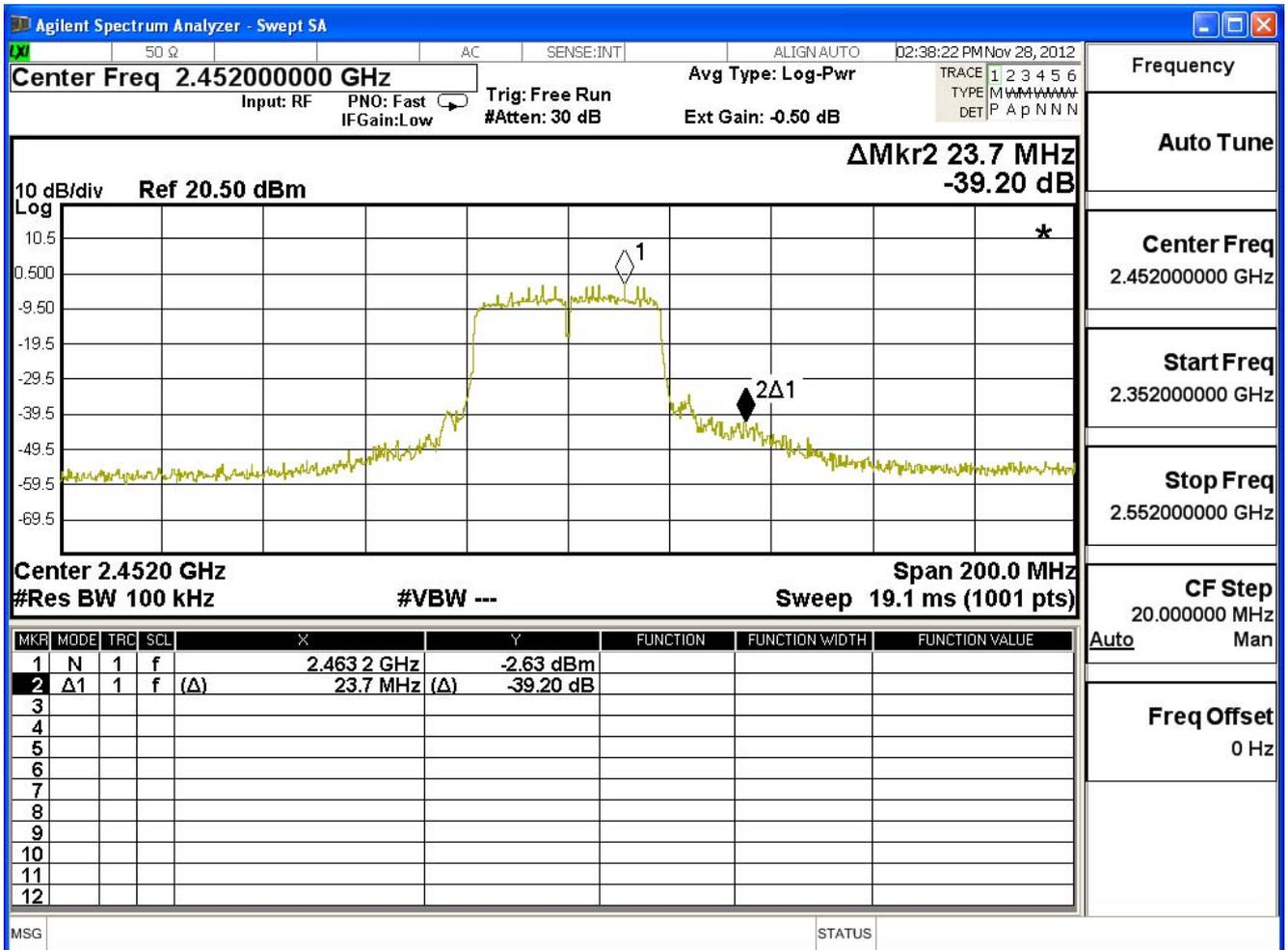
IEEE 802.11n (40MHz), (ANT 0) Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	33.89	≥20	Pass
9	2452	39.20	≥20	Pass

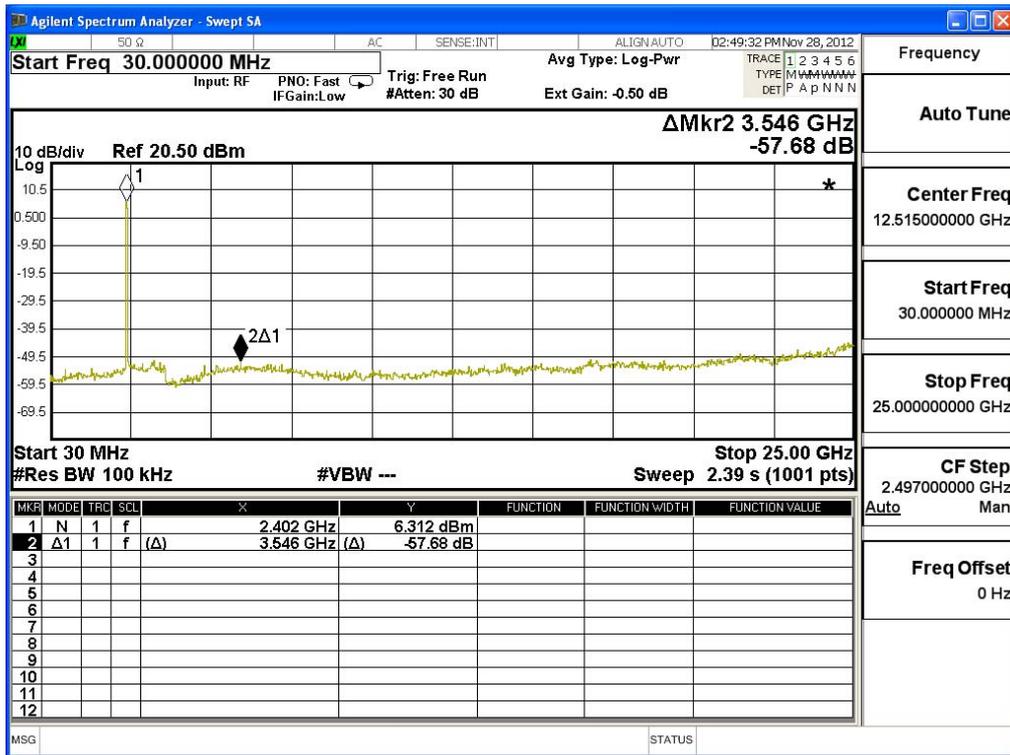
Channel 3 (2422MHz)



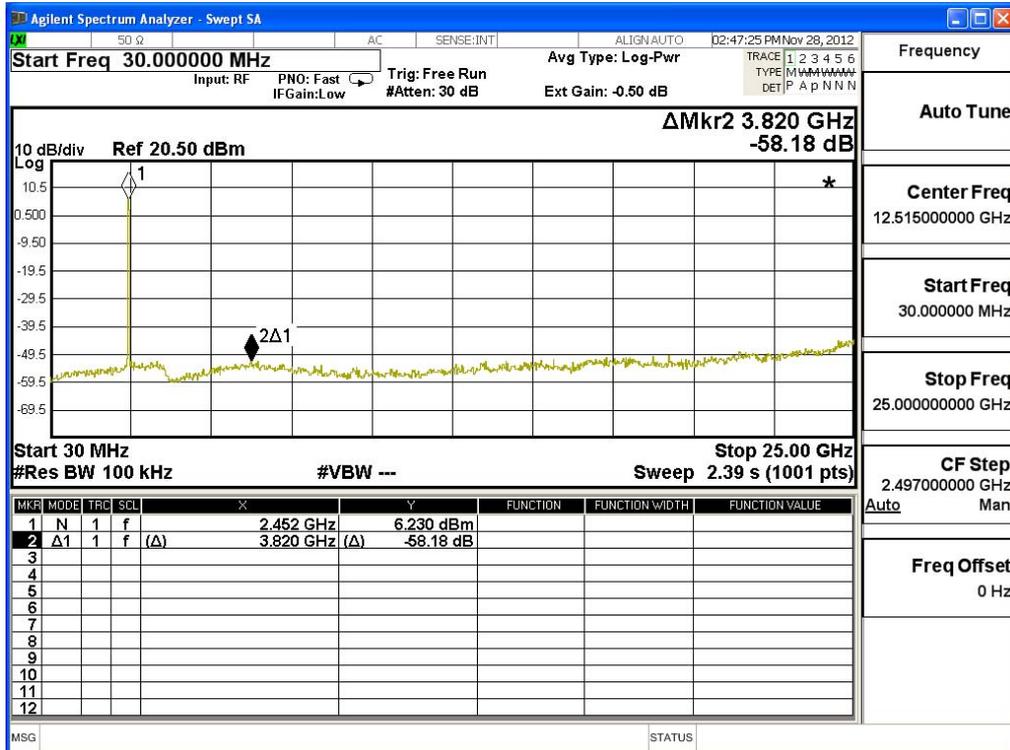
Channel 9 (2452MHz)



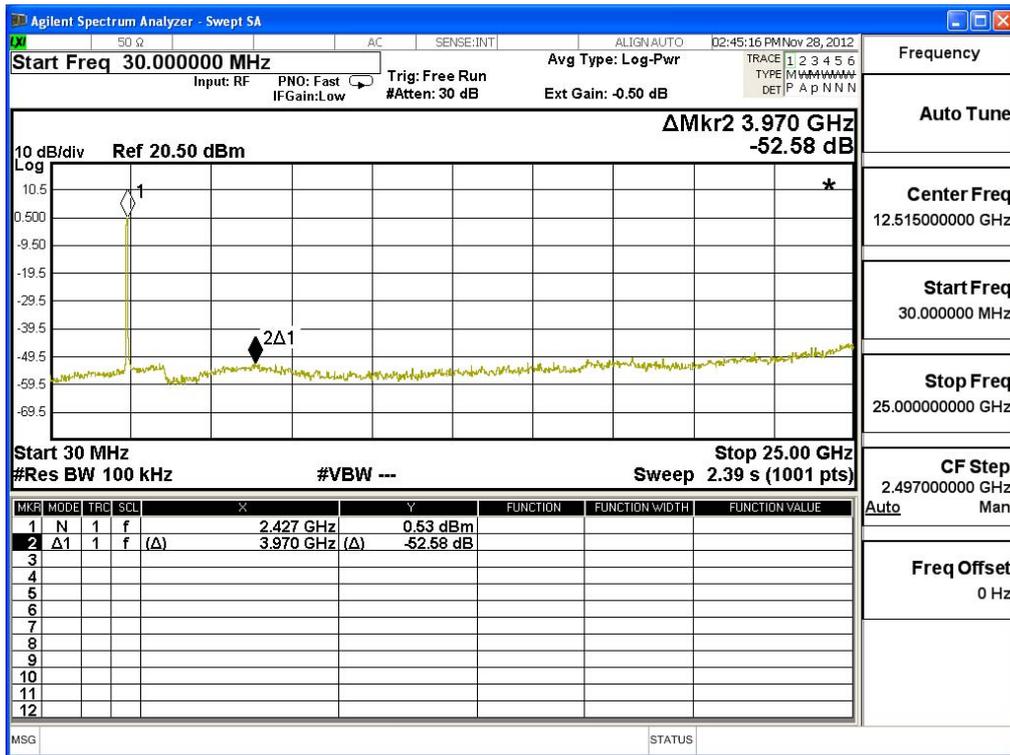
2412MHz (30MHz-25GHz)-802.11b



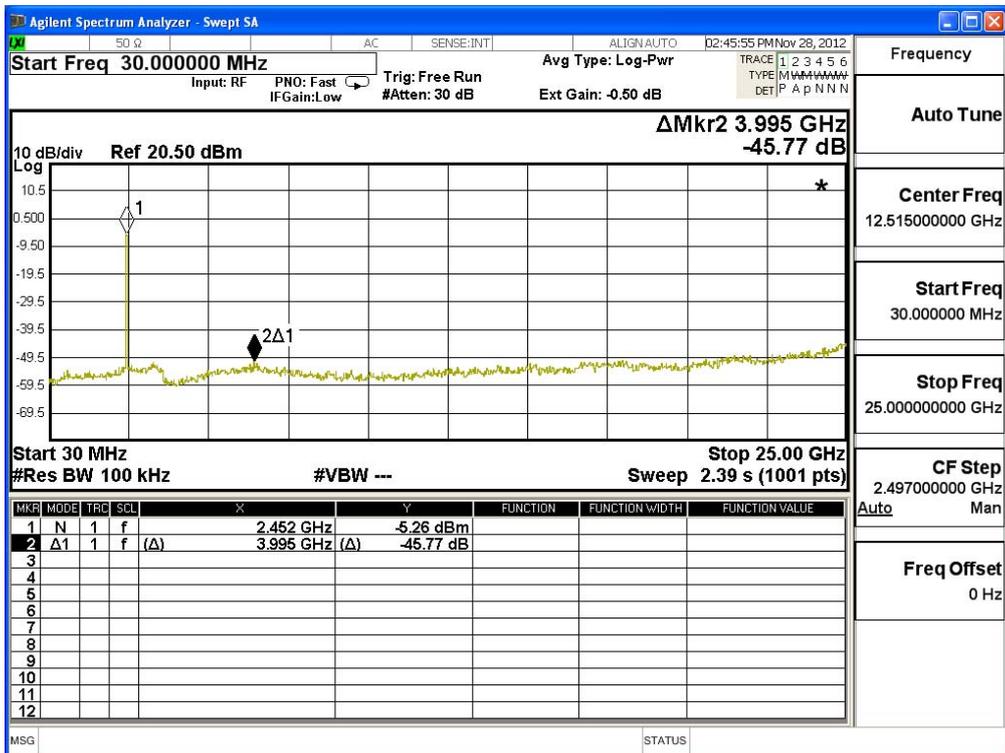
2462MHz (30MHz-25GHz) -802.11b



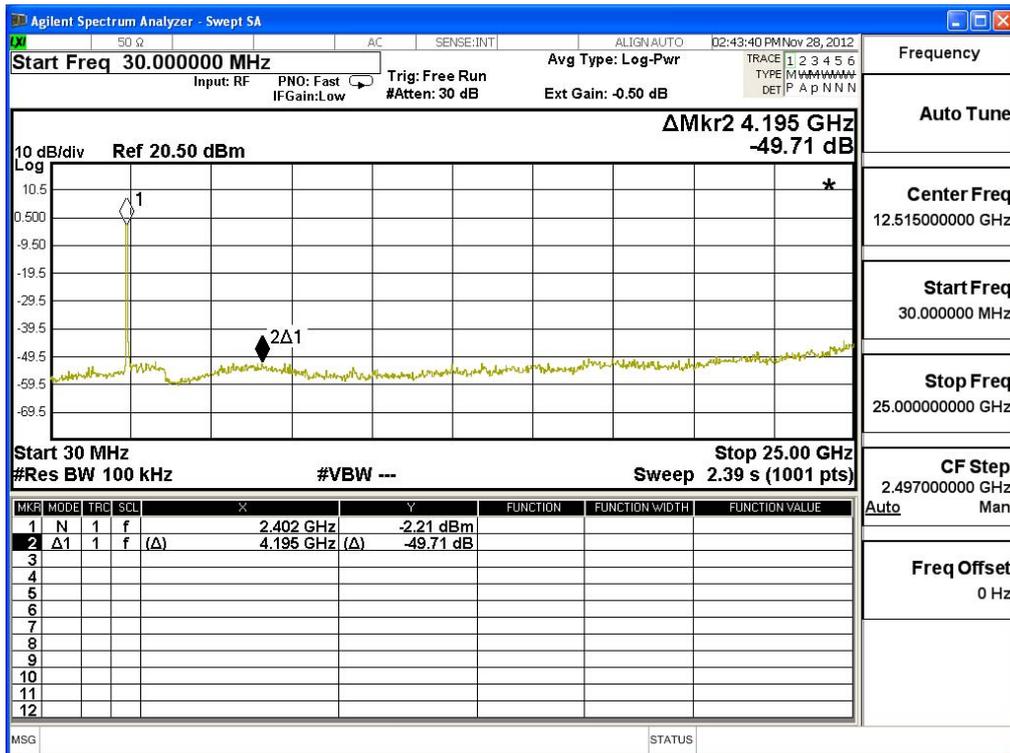
2412MHz (30MHz-25GHz)-802.11g



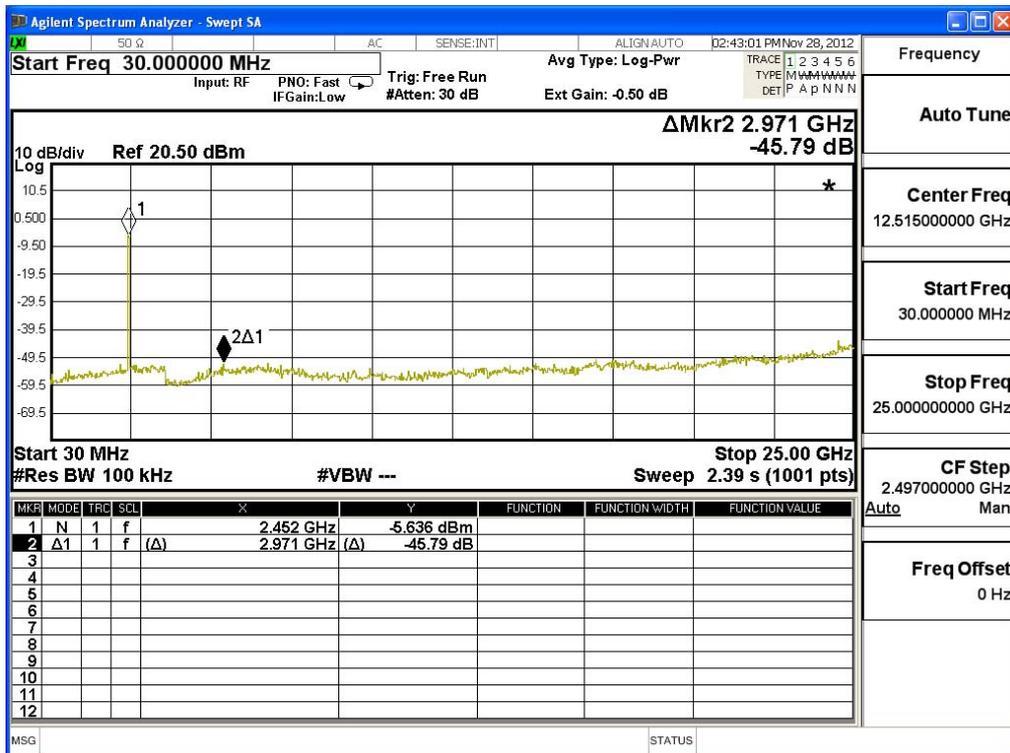
2462MHz (30MHz-25GHz) -802.11g



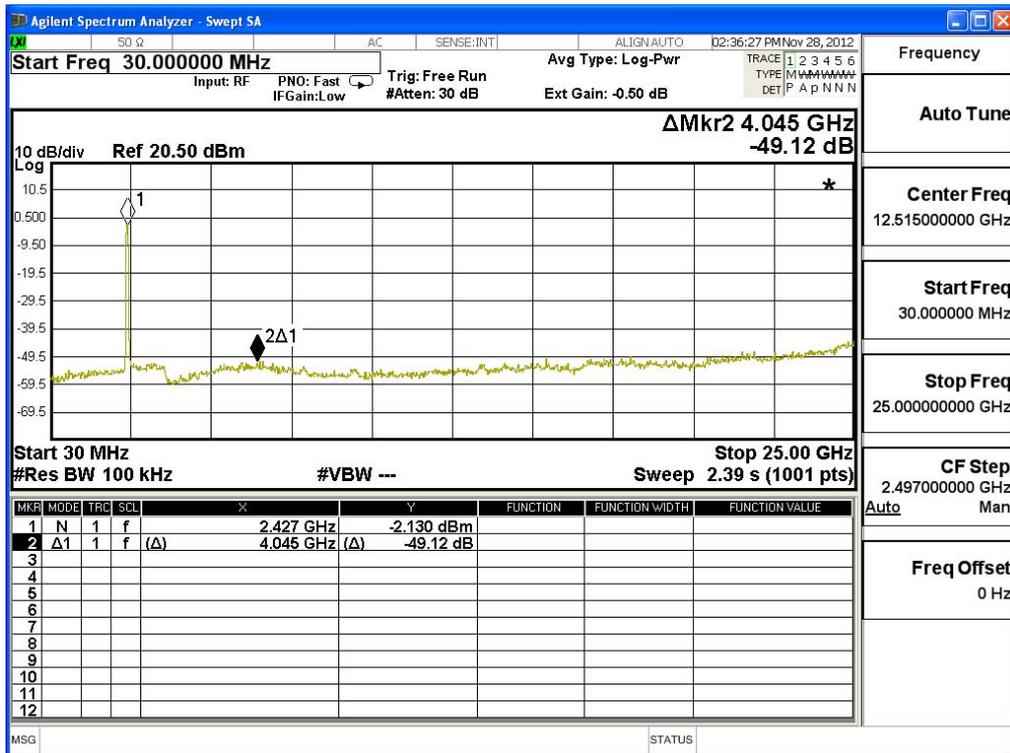
2412MHz (30MHz-25GHz)-802.11n(20MHz)-ANT 0



2462MHz (30MHz-25GHz) -802.11n(20MHz)-ANT 0



2422MHz (30MHz-25GHz)-802.11n(40MHz)-ANT 0



2452MHz (30MHz-25GHz) -802.11n(40MHz)-ANT 0

