

# FCC Test Report

Product Name : Portable Wireless N Router  
Model No. : WL-330N  
FCC ID. : MSQ-WL330N3G

Applicant : ASUSTeK COMPUTER INC.  
Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : 2014/01/22  
Issued Date : 2014/01/27  
Report No. : 1410435R-RFUSP26V00  
Report Version : V1.0



The test results relate only to the samples tested.  
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# Test Report Certification

Issued Date : 2014/01/27

Report No. : 1410435R-RFUSP26V00



Product Name : Portable Wireless N Router

Applicant : ASUSTeK COMPUTER INC.

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

Manufacturer : Askey Technology (Jiangsu) LTD.

Model No. : WL-330N

FCC ID. : MSQ-WL330N3G

EUT Voltage : AC 100-240V / 47-63Hz


Trade Name : ASUS


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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 ( 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:

<b>Taiwan R.O.C.</b>	<b>:</b>	<b>TAF, Accreditation Number: 1313</b>
<b>USA</b>	<b>:</b>	<b>FCC, Registration Number: 365520</b>
<b>Canada</b>	<b>:</b>	<b>IC, Submission No: 150981</b>

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	Portable Wireless N Router
Product Type	WLAN (1TX, 1RX)
Trade Name	ASUS
Model No.	WL-330N
Frequency Range/Channel Number -IEEE 802.11b/g & IEEE 802.11n (20MHz)	2412~2462MHz / 11 Channels
Frequency Range/Channel Number -IEEE 802.11n (40MHz)	2422~2452MHz / 7 Channels
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	2.6dBi
Antenna Type	Metal antenna on board

Component	
USB Cable (Black)	Shielded, 1.0m
LAN Cable (Black)	Non-Shielded, 1.0m
Power Adapter	ASUS, EXA1102UA I/P: 100~240V, 47-63Hz, 0.5A O/P: 5Vdc $\equiv$ 1A

## ANT-TX / RX & Bandwidth

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

## IEEE802.11n Spec.

MCS Index	Modulation	R	N <sub>BPSCS</sub>	N <sub>CBPS</sub>		N <sub>DBPS</sub>		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 <sub>BPSCS</sub>	Number of coded bits per single carrier
N <sub>CBPS</sub>	Number of coded bits per symbol
N <sub>DBPS</sub>	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 Portable Wireless N Router including 2.4GHz b/g and 11n (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 1410435R-RFUSP01V00 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 (Power by Adapter) Mode 2: Transmit (Power by PC)
----	---

Test Items	Mode	Modulation	Channel	Result
Conducted Emission	1/2	11n(40MHz)	6	Complies
Peak Power Output	1	b/g	1 /6/ 11	Complies
	1	11n(20MHz)	1 /6/ 11	Complies
	1	11n(40MHz)	3 /6/ 9	Complies
Radiated Emission	1/2	b/g	1 /6/ 11	Complies
	1/2	11n(20MHz)	1 /6/ 11	Complies
	1/2	11n(40MHz)	3 /6/ 9	Complies
RF antenna conducted test	1	b/g	1 /11	Complies
	1	11n(20MHz)	1 /11	Complies
	1	11n(40MHz)	3 /9	Complies
Radiated Emission Band Edge	1	b/g	1 /11	Complies
	1	11n(20MHz)	1 /11	Complies
	1	11n(40MHz)	3 /9	Complies
Occupied Bandwidth	1	b/g	1 /6/ 11	Complies
	1	11n(20MHz)	1 /6/ 11	Complies
	1	11n(40MHz)	3 /6/ 9	Complies
Power Density	1	b/g	1 /6/ 11	Complies
	1	11n(20MHz)	1 /6/ 11	Complies
	1	11n(40MHz)	3 /6/ 9	Complies

#### 1.4. Tested System Details

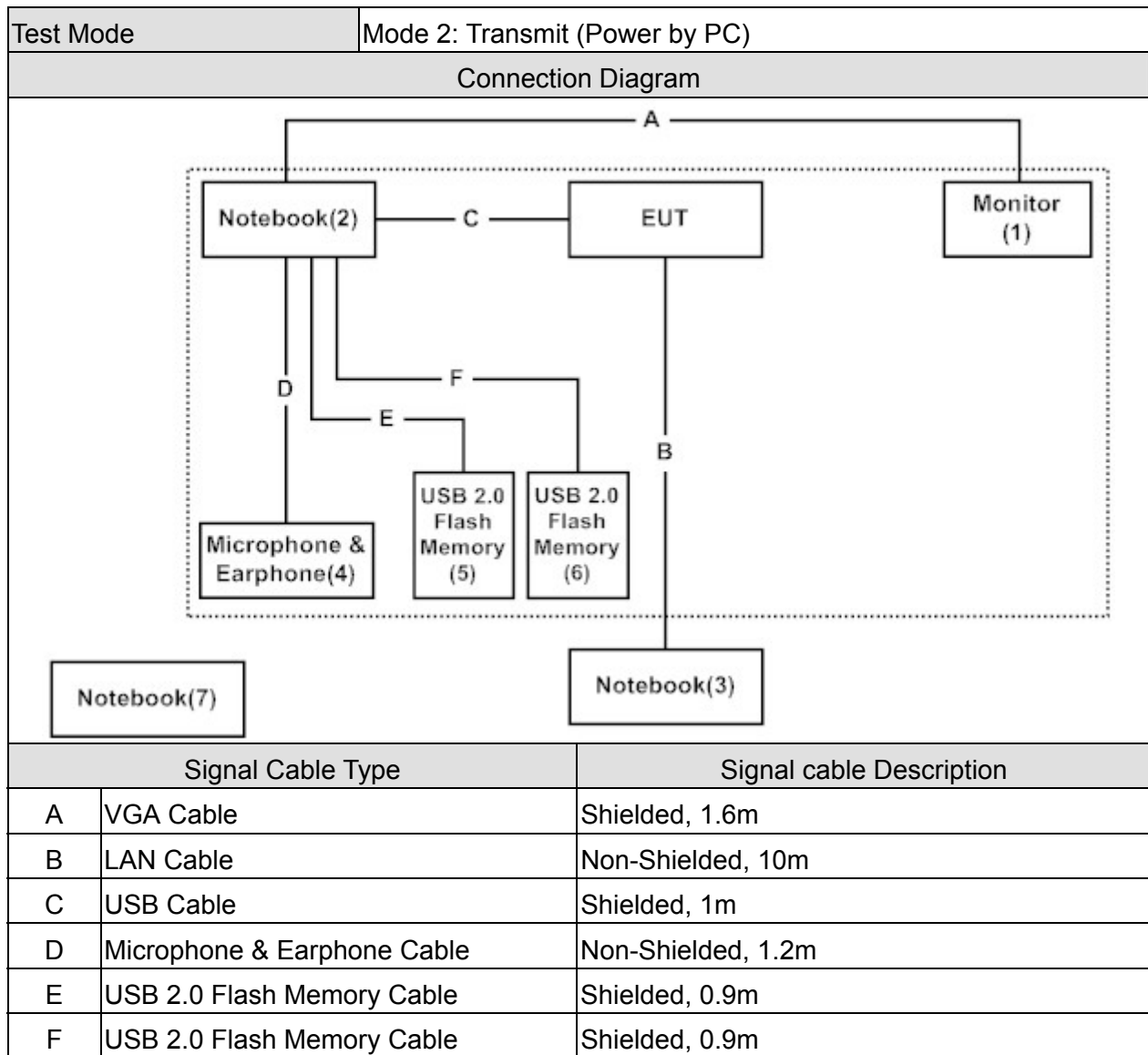
The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode			Mode 1: Transmit (Power by Adapter)			
Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord	
1	Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m
2	Notebook PC	DELL	Precision M65	28G9NIS	DoC	Non-Shielded, 1.8m

Test Mode			Mode 2: Transmit (Power by PC)			
Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord	
1	Monitor	CHI MEI	A170E1-09	3UC120954T A0029	DoC	Non-Shielded, 1.8m
2	Notebook PC	MS2296	LUSCV02139115 0332C2000	N/A	DoC	N/A
3	Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m
4	Microphone & Earphone	TOKTO	SX-MI	N/A	DoC	--
5	USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
6	USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
7	Notebook PC	DELL	Precision M65	28G9NIS	DoC	Non-Shielded, 1.8m

1.5. Configuration of tested System

Test Mode		Mode 1: Transmit (Power by Adapter)	
Connection Diagram			
<pre> graph TD     subgraph DottedBox [ ]         EUT[EUT]     end     EUT --- A[A] --- NB1[Notebook(1)]     NB2[Notebook(2)]     </pre>			
Signal Cable Type		Signal cable Description	
A	LAN Cable	Non-Shielded, 10m	



**1.6. EUT Exercise Software**

1	Setup the EUT and simulators as shown on 1.5.
2	Turn on the power of all equipment.
3	Boot the Notebook PC from Hard Disk.
4	Data will communicate by connecting to LAN port of Notebook PC.
5	The computer's monitor will show the transmitting and receiving characteristics when the communication is success.
6	Repeat the above procedure (4) to (5).

## 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	25
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	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	51
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	48
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	51
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	51
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

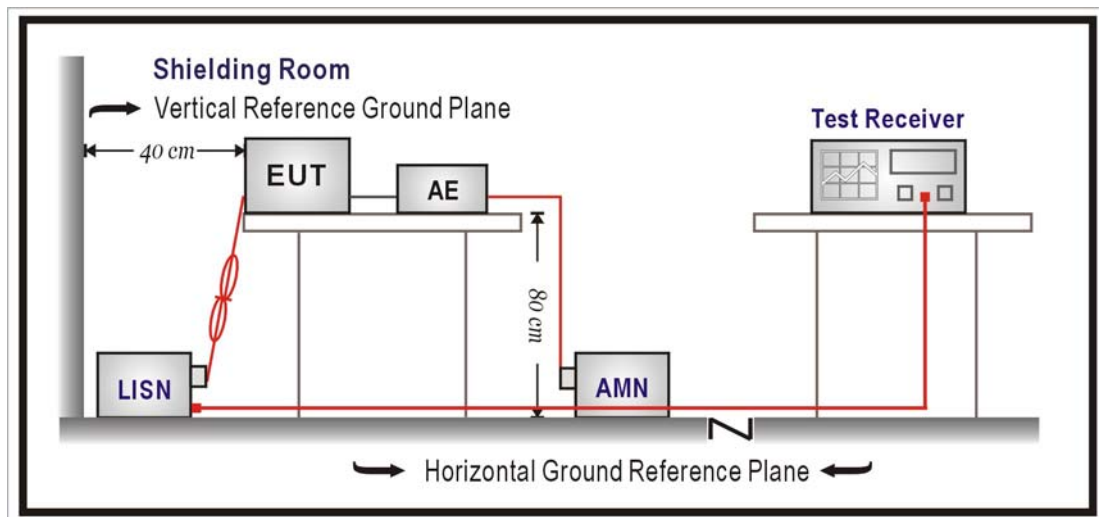
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal.
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**

<b>FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)</b>		
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 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**

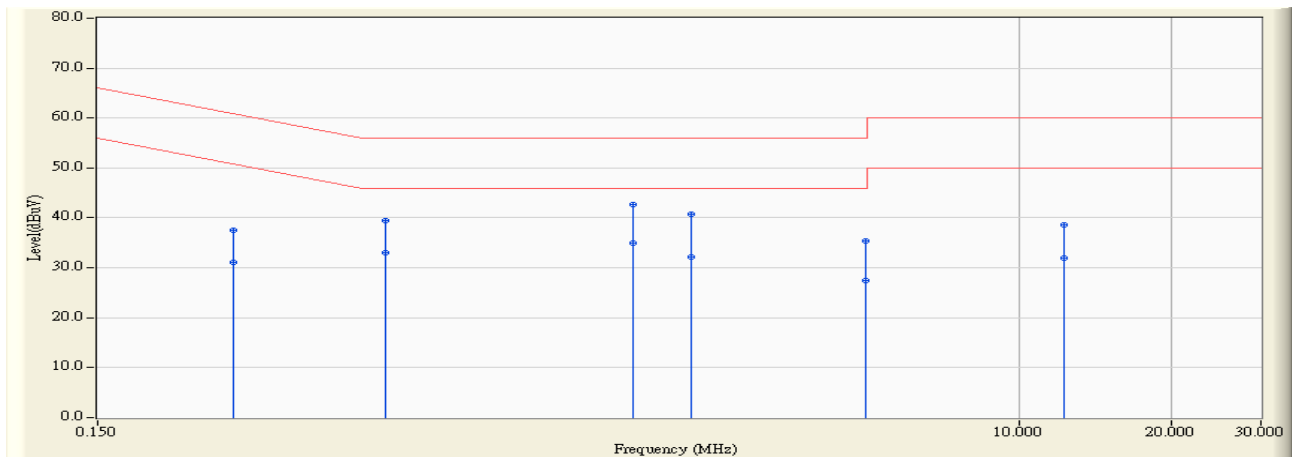
According to FCC Part 15 Subpart C Paragraph 15.207: 2012

**2.6. Uncertainty**

The measurement uncertainty is defined as  $\pm 2.26$  dB.

## 2.7. Test Result

Site : SR3	Time : 2013/12/02 - 15:27
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-3_0813 - Line1	Power : AC 100-240V
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz



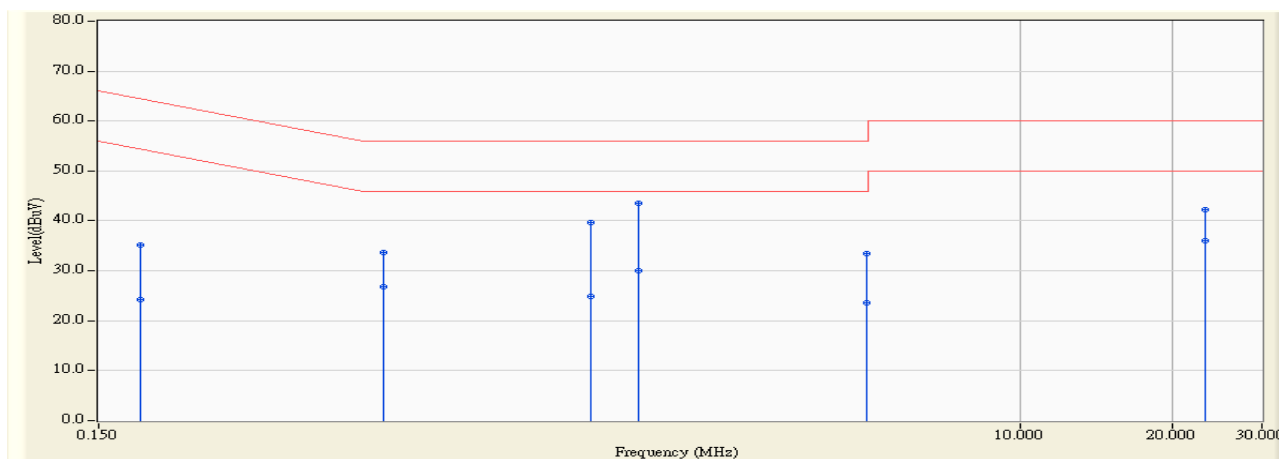
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.279	9.700	27.840	37.540	-23.308	60.848	QUASPEAK
2	0.279	9.700	21.330	31.030	-19.818	50.848	AVERAGE
3	0.556	9.842	29.710	39.552	-16.448	56.000	QUASPEAK
4	0.556	9.842	23.260	33.102	-12.898	46.000	AVERAGE
5	1.724	9.950	32.780	42.730	-13.270	56.000	QUASPEAK
6	* 1.724	9.950	24.960	34.910	-11.090	46.000	AVERAGE
7	2.244	9.980	30.780	40.760	-15.240	56.000	QUASPEAK
8	2.244	9.980	22.230	32.210	-13.790	46.000	AVERAGE
9	4.970	10.110	25.280	35.390	-20.610	56.000	QUASPEAK
10	4.970	10.110	17.390	27.500	-18.500	46.000	AVERAGE
11	12.197	10.120	28.430	38.550	-21.450	60.000	QUASPEAK
12	12.197	10.120	21.870	31.990	-18.010	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 : 2013/12/02 - 15:21
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-3_0813 - Line2	Power : AC 100-240V
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz

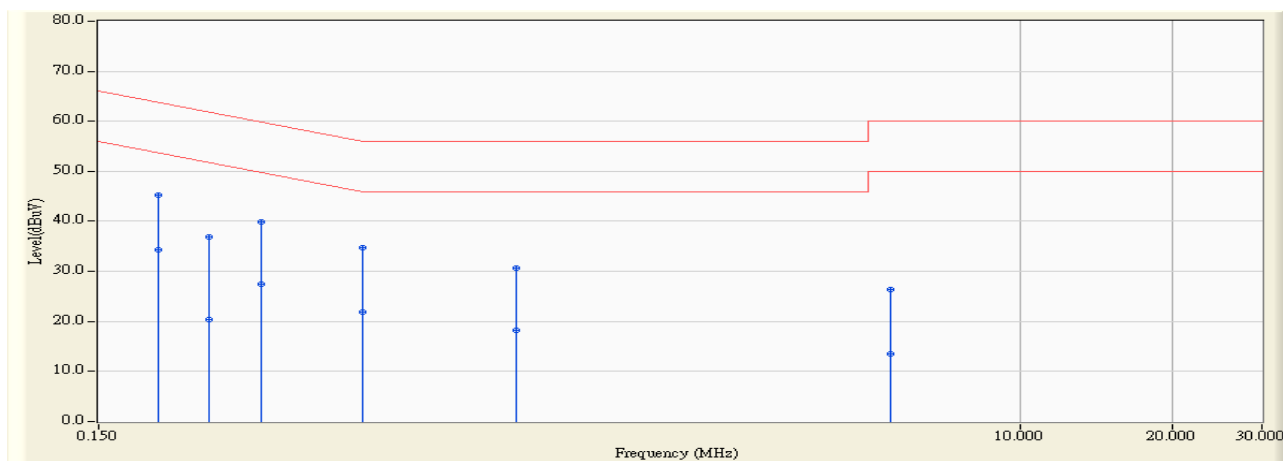


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.181	9.647	25.470	35.117	-29.311	64.428	QUASPEAK
2	0.181	9.647	14.600	24.247	-30.181	54.428	AVERAGE
3	0.548	9.830	23.800	33.630	-22.370	56.000	QUASPEAK
4	0.548	9.830	17.070	26.900	-19.100	46.000	AVERAGE
5	1.412	9.930	29.660	39.590	-16.410	56.000	QUASPEAK
6	1.412	9.930	14.940	24.870	-21.130	46.000	AVERAGE
7	* 1.755	9.940	33.550	43.490	-12.510	56.000	QUASPEAK
8	1.755	9.940	20.150	30.090	-15.910	46.000	AVERAGE
9	4.974	10.070	23.470	33.540	-22.460	56.000	QUASPEAK
10	4.974	10.070	13.460	23.530	-22.470	46.000	AVERAGE
11	23.127	10.340	31.960	42.300	-17.700	60.000	QUASPEAK
12	23.127	10.340	25.770	36.110	-13.890	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 : 2013/12/10 - 14:48
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-3_0813 - Line1	Power : AC 100-240V
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz

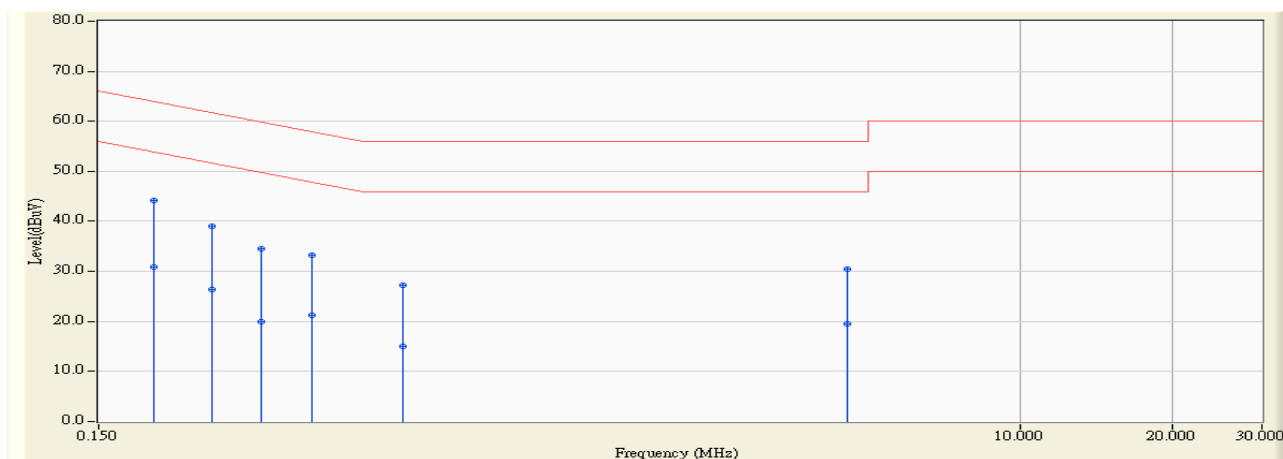


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.197	9.655	35.700	45.355	-18.386	63.741	QUASPEAK
2		0.197	9.655	24.700	34.355	-19.386	53.741	AVERAGE
3		0.248	9.689	27.280	36.969	-24.866	61.835	QUASPEAK
4		0.248	9.689	10.620	20.309	-31.526	51.835	AVERAGE
5		0.314	9.723	30.250	39.973	-19.889	59.862	QUASPEAK
6		0.314	9.723	17.640	27.363	-22.499	49.862	AVERAGE
7		0.498	9.823	25.020	34.843	-21.196	56.039	QUASPEAK
8		0.498	9.823	12.130	21.953	-24.086	46.039	AVERAGE
9		1.005	9.940	20.750	30.690	-25.310	56.000	QUASPEAK
10		1.005	9.940	8.220	18.160	-27.840	46.000	AVERAGE
11		5.533	10.110	16.200	26.310	-33.690	60.000	QUASPEAK
12		5.533	10.110	3.380	13.490	-36.510	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 : 2013/12/02 - 15:21
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-3_0813 - Line2	Power : AC 100-240V
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _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	34.490	44.143	-19.765	63.908	QUASPEAK
2		0.193	9.653	21.190	30.843	-23.065	53.908	AVERAGE
3		0.252	9.691	29.390	39.081	-22.624	61.705	QUASPEAK
4		0.252	9.691	16.670	26.361	-25.344	51.705	AVERAGE
5		0.314	9.713	24.750	34.463	-25.399	59.862	QUASPEAK
6		0.314	9.713	10.280	19.993	-29.869	49.862	AVERAGE
7		0.396	9.759	23.420	33.179	-24.756	57.935	QUASPEAK
8		0.396	9.759	11.370	21.129	-26.806	47.935	AVERAGE
9		0.599	9.840	17.350	27.190	-28.810	56.000	QUASPEAK
10		0.599	9.840	5.280	15.120	-30.880	46.000	AVERAGE
11		4.552	10.055	20.490	30.545	-25.455	56.000	QUASPEAK
12		4.552	10.055	9.400	19.455	-26.545	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:

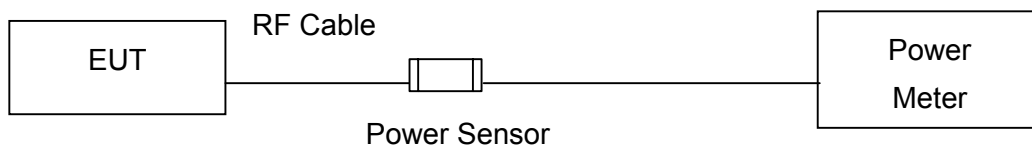
Peak Power Output / SR7

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**

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



**3.3. Test procedures**

The EUT was tested according to DTS test procedure of KDB558074 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  $\pm 1.27$  dB.

**3.7. Test Result**

Product	Portable Wireless N Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2014/01/27	Test Site	SR7

IEEE 802.11b			
Channel No.	Frequency (MHz)	Measure Level (Peak,dBm)	Limit (dBm)
1	2412	23.41	≤ 30
6	2437	22.31	≤ 30
11	2462	21.53	≤ 30

Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	23.41	--	--	--	1Watt= 30 dBm
6	2437	22.31	22.21	21.97	21.86	1Watt= 30 dBm
11	2462	21.53	--	--	--	1Watt= 30 dBm

Note: Measure Level =Reading value + cable loss

Product	Portable Wireless N Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2014/01/27	Test Site	SR7

IEEE 802.11g			
Channel No.	Frequency (MHz)	Measurement (Peak,dBm)	Limit (dBm)
1	2412	26.21	≤ 30
6	2437	25.92	≤ 30
11	2462	24.80	≤ 30

Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	26.21	--	--	--	--	--	--	1Watt= 30 dBm
6	2437	25.92	25.82	25.71	25.45	25.33	25.11	24.87	1Watt= 30 dBm
11	2462	24.80	--	--	--	--	--	--	1Watt= 30 dBm

Note: Measure Level =Reading value + cable loss

Product	Portable Wireless N Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2014/01/27	Test Site	SR7

IEEE 802.11n 20MHz

Channel No.	Frequency (MHz)	Measure Level (Peak,dBm)	Limit (dBm)
1	2412	24.76	≤ 30
6	2437	25.90	≤ 30
11	2462	24.01	≤ 30

The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
1	2412	24.76	--	--	--	--	--	--	--	30dBm
6	2437	25.90	25.78	25.58	25.36	25.23	25.11	24.87	24.65	30dBm
11	2462	24.01	--	--	--	--	--	--	--	30dBm

Product	Portable Wireless N Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2014/01/27	Test Site	SR7

IEEE802.11n 40MHz

Channel No.	Frequency (MHz)	Measurement (Peak,dBm)	Limit (dBm)
3	2422	25.70	≤ 30
6	2437	26.04	≤ 30
9	2452	23.26	≤ 30

The worst emission of data rate is 13.5Mbps

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	1089	121.5	135	
3	2422	25.70	--	--	--	--	--	--	--	30dBm
6	2437	26.04	25.84	25.74	25.61	25.41	25.29	25.05	24.81	30dBm
9	2452	23.26	--	--	--	--	--	--	--	30dBm



4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

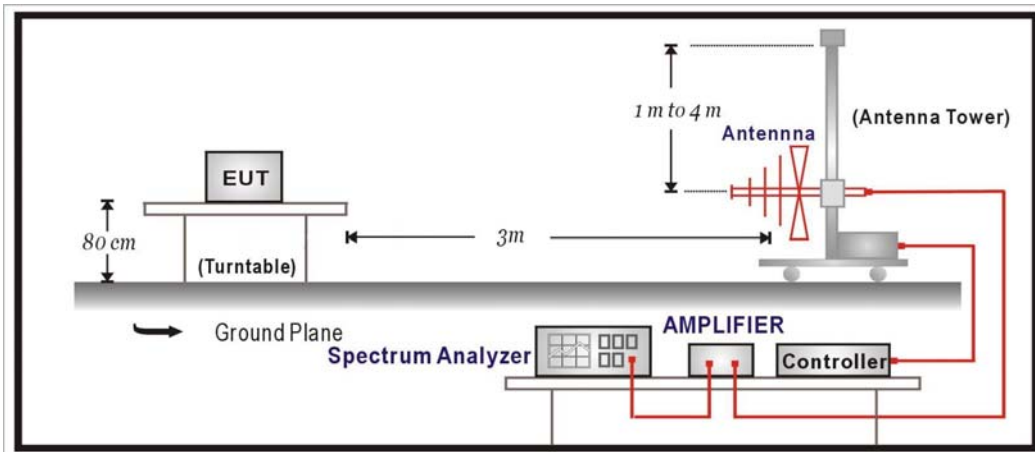
Radiated Emission / CB1

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

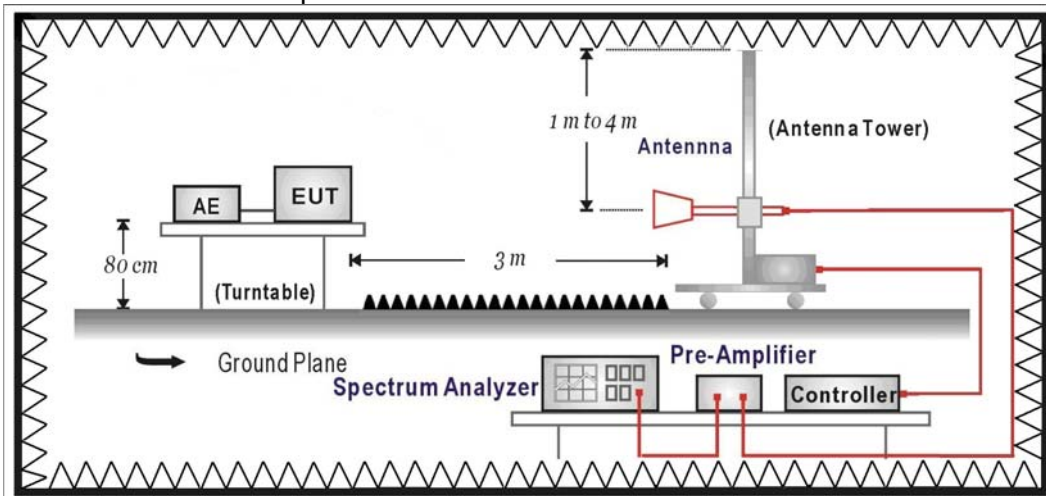
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

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.

<b>FCC Part 15 Subpart C Paragraph 15.209 Limits</b>		
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 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

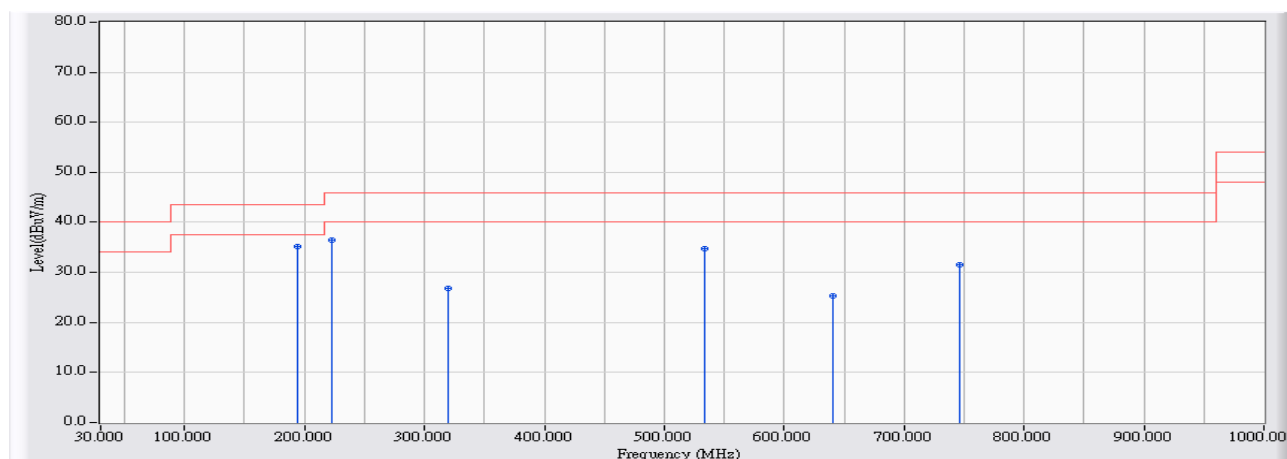
30MHz~1GHz as ±3.43dB

1GHz~26.5Ghz as ±3.65dB

## 4.7. Test Result

### 30MHz-1GHz Spurious

Site : CB1	Time : 2013/12/06 - 17:18
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter)- _802.11B_2437MHz

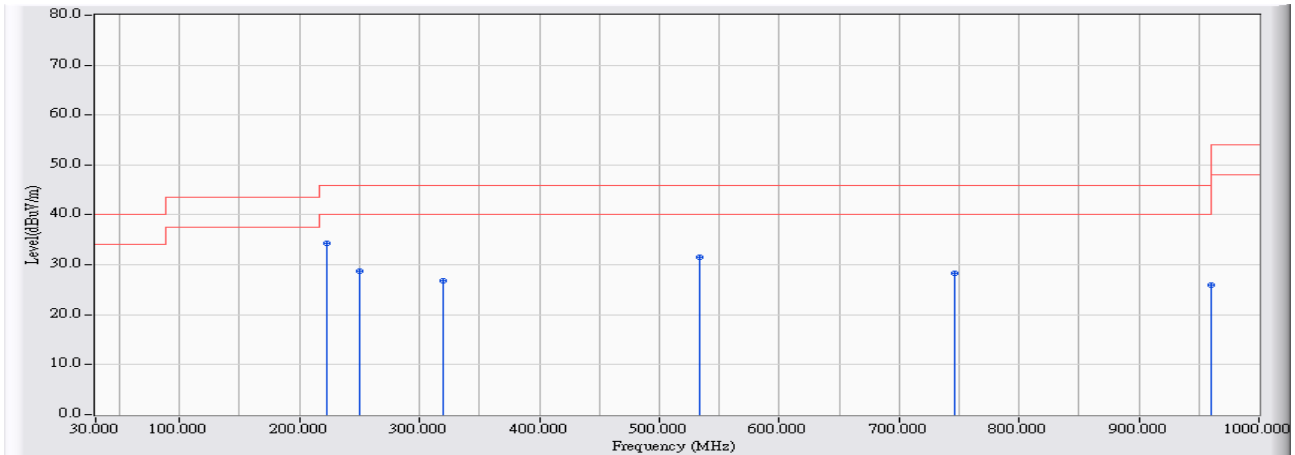


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	193.930	-24.805	60.065	35.259	-8.241	43.500	QUASIPeAK
2		223.030	-23.076	59.613	36.537	-9.463	46.000	QUASIPeAK
3		320.030	-19.546	46.441	26.894	-19.106	46.000	QUASIPeAK
4		533.430	-15.584	50.272	34.688	-11.312	46.000	QUASIPeAK
5		640.130	-15.312	40.726	25.414	-20.586	46.000	QUASIPeAK
6		746.830	-14.342	45.875	31.533	-14.467	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 : 2013/12/06 - 17:25
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2437MHz

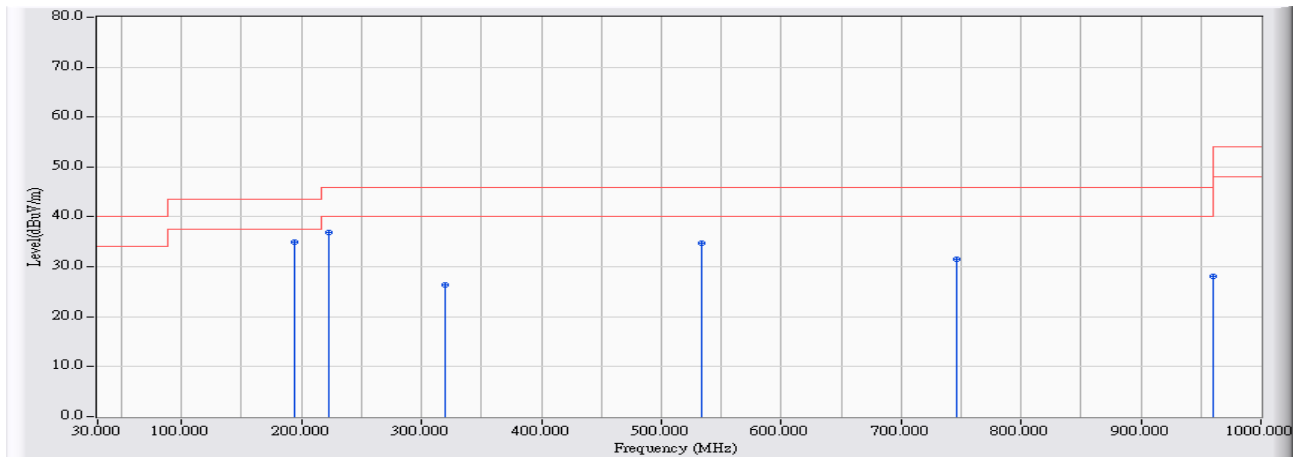


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	223.030	-23.076	57.294	34.218	-11.782	46.000	QUASPEAK
2		250.190	-21.013	49.672	28.659	-17.341	46.000	QUASPEAK
3		320.030	-19.546	46.400	26.853	-19.147	46.000	QUASPEAK
4		533.430	-15.584	47.083	31.499	-14.501	46.000	QUASPEAK
5		746.830	-14.342	42.738	28.396	-17.604	46.000	QUASPEAK
6		960.230	-12.896	38.845	25.949	-28.051	54.000	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 : 2013/12/06 - 17:31
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2437MHz

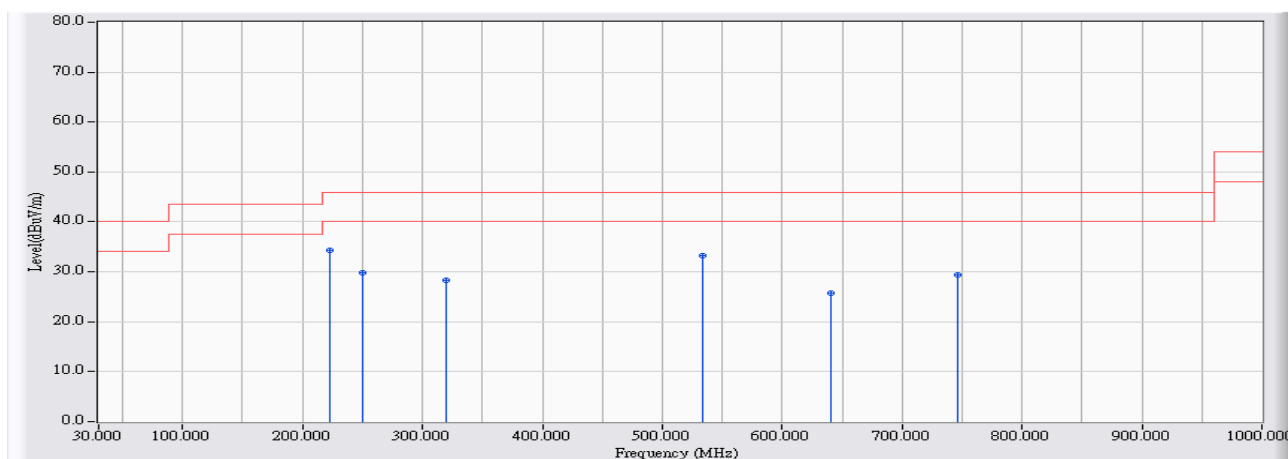


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	193.930	-24.805	59.840	35.034	-8.466	43.500	QUASPEAK
2		223.030	-23.076	59.986	36.910	-9.090	46.000	QUASPEAK
3		320.030	-19.546	45.980	26.433	-19.567	46.000	QUASPEAK
4		533.430	-15.584	50.346	34.762	-11.238	46.000	QUASPEAK
5		746.830	-14.342	45.967	31.625	-14.375	46.000	QUASPEAK
6		960.230	-12.896	40.982	28.086	-25.914	54.000	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 : 2013/12/06 - 17:33
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2437MHz

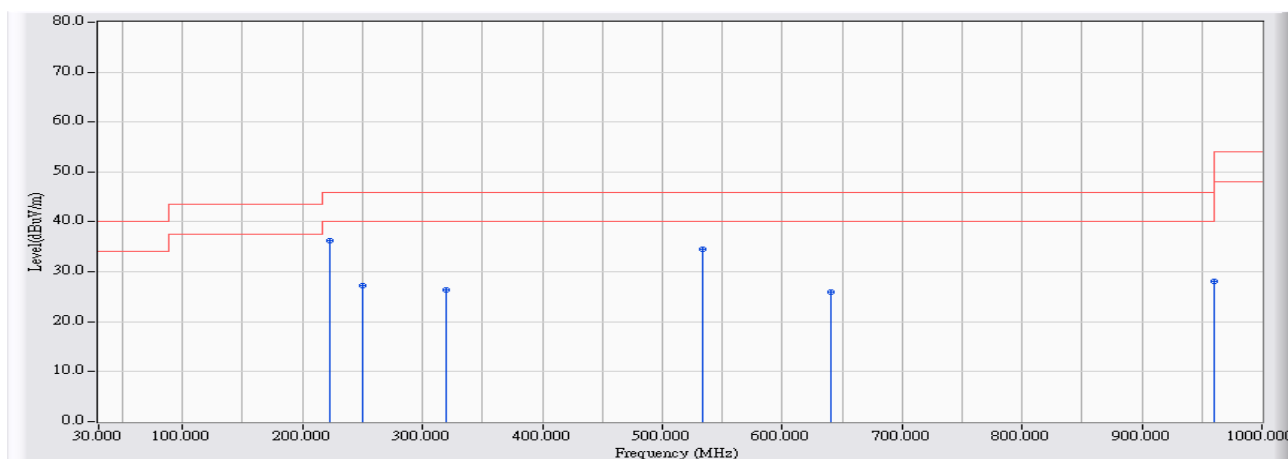


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	223.030	-23.076	57.409	34.333	-11.667	46.000	QUASPEAK
2		250.190	-21.013	50.798	29.785	-16.215	46.000	QUASPEAK
3		320.030	-19.546	47.882	28.335	-17.665	46.000	QUASPEAK
4		533.430	-15.584	48.779	33.195	-12.805	46.000	QUASPEAK
5		640.130	-15.312	41.139	25.827	-20.173	46.000	QUASPEAK
6		746.830	-14.342	43.631	29.289	-16.711	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 : 2013/12/06 - 17:37
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2437MHz

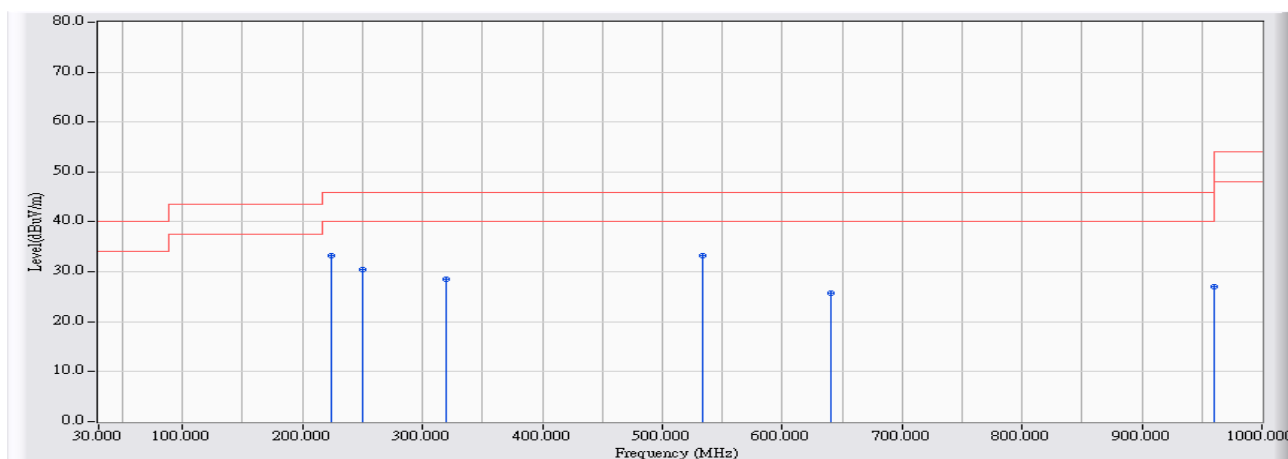


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	223.030	-23.076	59.373	36.297	-9.703	46.000	QUASPEAK
2		250.190	-21.013	48.257	27.244	-18.756	46.000	QUASPEAK
3		320.030	-19.546	45.855	26.308	-19.692	46.000	QUASPEAK
4		533.430	-15.584	50.165	34.581	-11.419	46.000	QUASPEAK
5		640.130	-15.312	41.207	25.895	-20.105	46.000	QUASPEAK
6		960.230	-12.896	40.943	28.047	-25.953	54.000	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 : 2013/12/06 - 17:42
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2437MHz



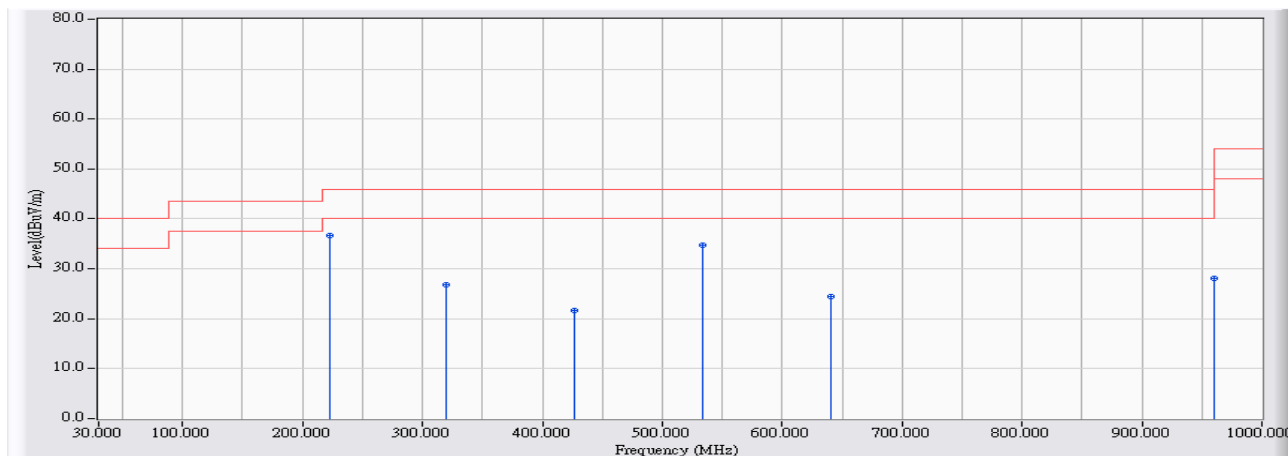
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	224.000	-23.002	56.265	33.263	-12.737	46.000	QUASPEAK
2	250.190	-21.013	51.398	30.385	-15.615	46.000	QUASPEAK
3	320.030	-19.546	48.048	28.501	-17.499	46.000	QUASPEAK
4	* 533.430	-15.584	48.908	33.324	-12.676	46.000	QUASPEAK
5	640.130	-15.312	40.962	25.650	-20.350	46.000	QUASPEAK
6	960.230	-12.896	39.884	26.988	-27.012	54.000	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 : 2013/12/06 - 17:44
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz

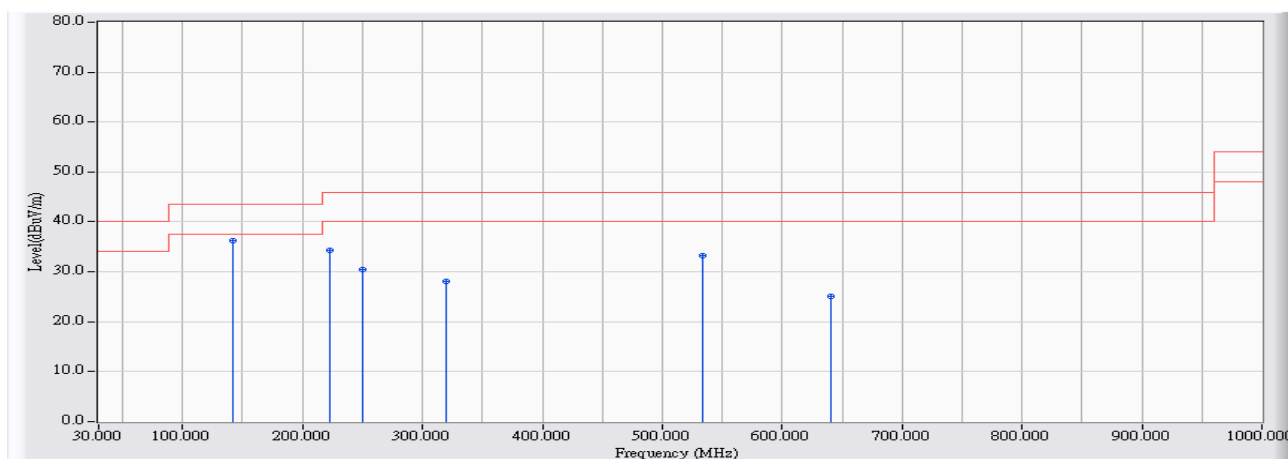


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	223.030	-23.076	59.717	36.641	-9.359	46.000	QUASPEAK
2		320.030	-19.546	46.328	26.781	-19.219	46.000	QUASPEAK
3		426.730	-17.031	38.641	21.611	-24.389	46.000	QUASPEAK
4		533.430	-15.584	50.279	34.695	-11.305	46.000	QUASPEAK
5		640.130	-15.312	39.832	24.520	-21.480	46.000	QUASPEAK
6		960.230	-12.896	40.939	28.043	-25.957	54.000	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 : 2013/12/06 - 17:47
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz

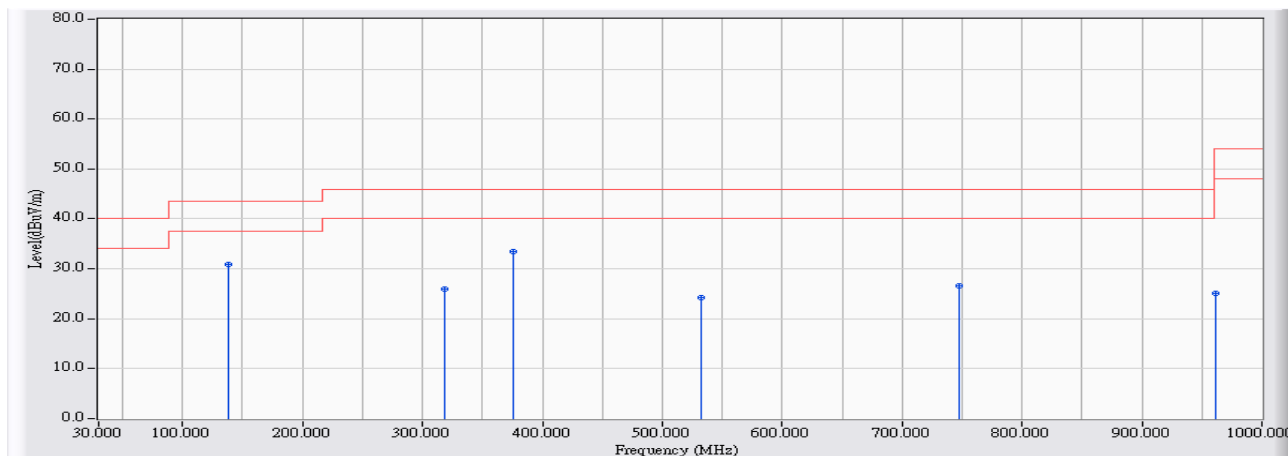


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	141.550	-22.945	59.291	36.346	-7.154	43.500	QUASPEAK
2		223.030	-23.076	57.354	34.278	-11.722	46.000	QUASPEAK
3		250.190	-21.013	51.387	30.374	-15.626	46.000	QUASPEAK
4		320.030	-19.546	47.629	28.082	-17.918	46.000	QUASPEAK
5		533.430	-15.584	48.896	33.312	-12.688	46.000	QUASPEAK
6		640.130	-15.312	40.392	25.080	-20.920	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 : 2013/12/11 - 19:34
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11b_2437MHz

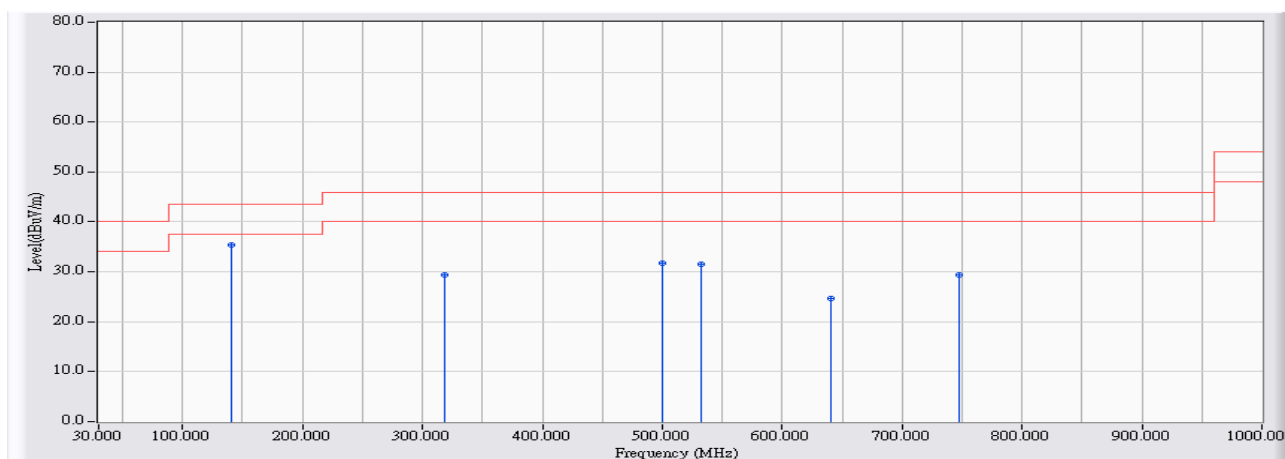


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	138.640	-22.821	53.721	30.900	-12.600	43.500	QUASPEAK
2		319.060	-19.571	45.586	26.015	-19.985	46.000	QUASPEAK
3		375.320	-18.163	51.532	33.369	-12.631	46.000	QUASPEAK
4		532.460	-15.585	39.803	24.218	-21.782	46.000	QUASPEAK
5		747.800	-14.328	41.027	26.699	-19.301	46.000	QUASPEAK
6		961.200	-12.889	38.000	25.111	-28.889	54.000	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 : CB3	Time : 2013/12/11 - 19:46
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11b_2437MHz

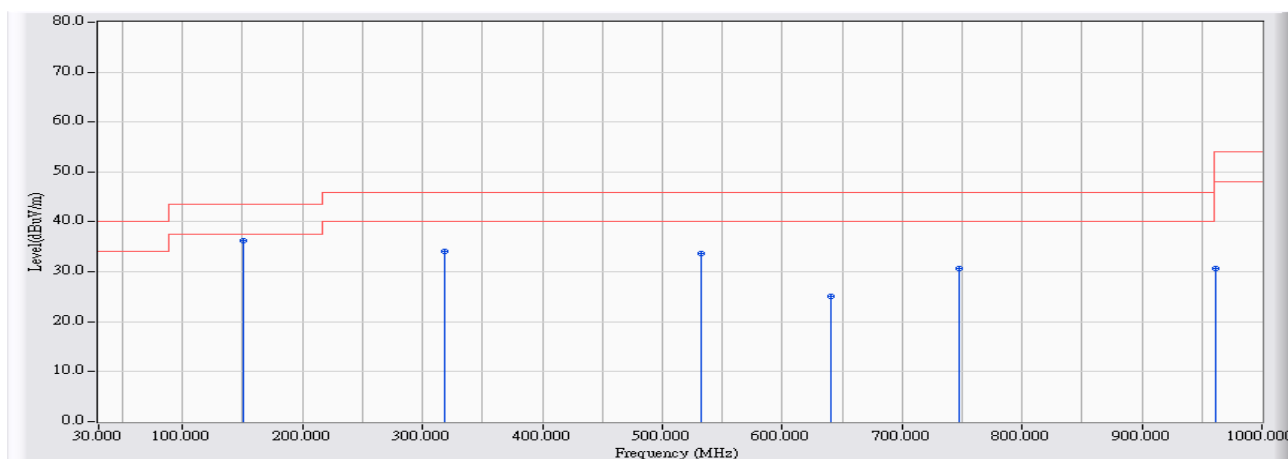


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	140.580	-22.897	58.229	35.332	-8.168	43.500	QUASPEAK
2		319.060	-19.571	48.867	29.296	-16.704	46.000	QUASPEAK
3		499.480	-15.628	47.440	31.812	-14.188	46.000	QUASPEAK
4		532.460	-15.585	47.058	31.473	-14.527	46.000	QUASPEAK
5		641.100	-15.307	40.062	24.755	-21.245	46.000	QUASPEAK
6		747.800	-14.328	43.792	29.464	-16.536	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 : 2013/12/11 - 19:52
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11g_2437MHz

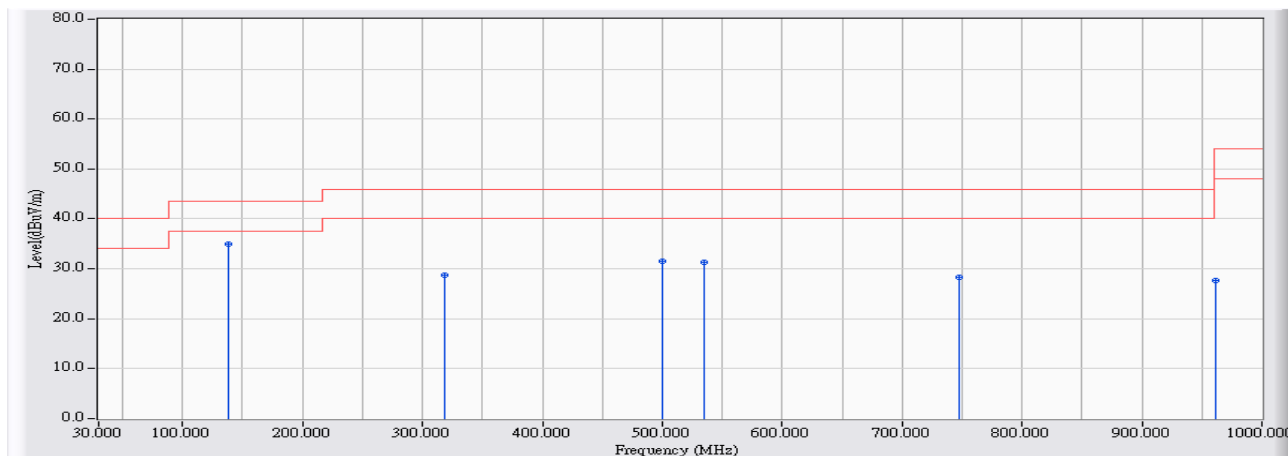


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	150.280	-23.379	59.729	36.349	-7.151	43.500	QUASPEAK
2		319.060	-19.571	53.769	34.198	-11.802	46.000	QUASPEAK
3		532.460	-15.585	49.192	33.607	-12.393	46.000	QUASPEAK
4		641.100	-15.307	40.386	25.079	-20.921	46.000	QUASPEAK
5		747.800	-14.328	45.027	30.699	-15.301	46.000	QUASPEAK
6		961.200	-12.889	43.484	30.595	-23.405	54.000	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 : 2013/12/11 - 19:58
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11g_2437MHz

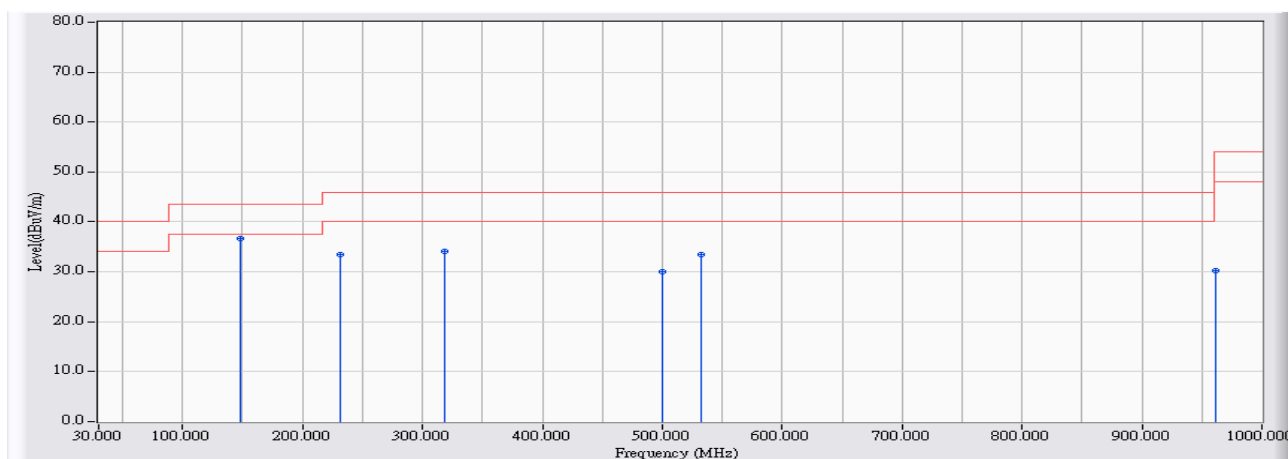


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	138.640	-22.821	57.806	34.985	-8.515	43.500	QUASPEAK
2		319.060	-19.571	48.338	28.767	-17.233	46.000	QUASPEAK
3		499.480	-15.628	47.074	31.446	-14.554	46.000	QUASPEAK
4		534.400	-15.583	47.002	31.419	-14.581	46.000	QUASPEAK
5		747.800	-14.328	42.570	28.242	-17.758	46.000	QUASPEAK
6		961.200	-12.889	40.532	27.643	-26.357	54.000	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 : CB3	Time : 2013/12/11 - 20:00
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11n(20MHz)_2437MHz

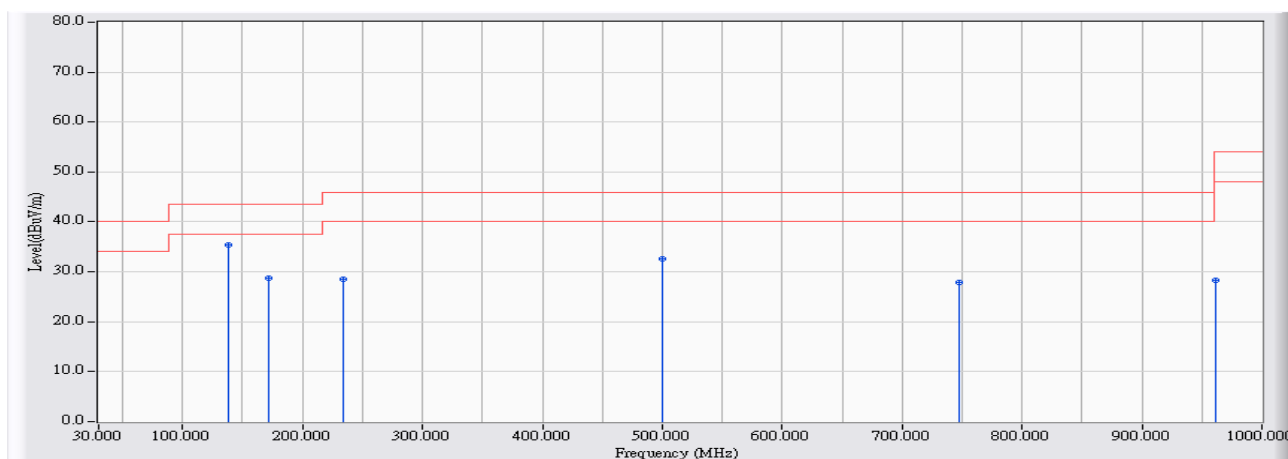


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	148.340	-23.284	59.956	36.673	-6.827	43.500	QUASPEAK
2		231.760	-22.409	55.899	33.490	-12.510	46.000	QUASPEAK
3		319.060	-19.571	53.685	34.114	-11.886	46.000	QUASPEAK
4		499.480	-15.628	45.567	29.939	-16.061	46.000	QUASPEAK
5		532.460	-15.585	48.937	33.352	-12.648	46.000	QUASPEAK
6		961.200	-12.889	43.146	30.257	-23.743	54.000	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 : CB3	Time : 2013/12/11 - 20:04
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11n(20MHz)_2437MHz



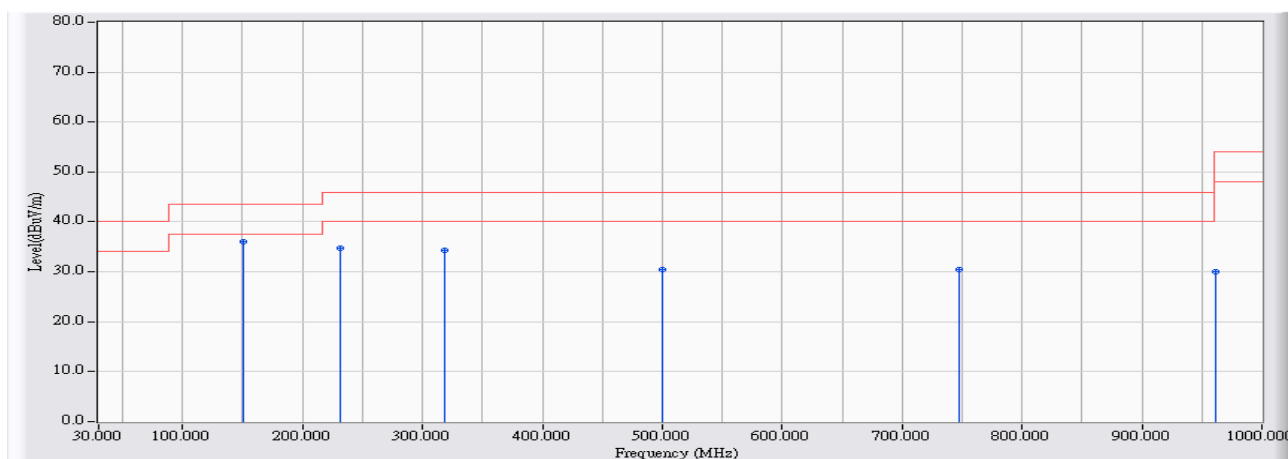
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	138.640	-22.821	58.181	35.360	-8.140	43.500	QUASPEAK
2		171.620	-24.373	53.117	28.744	-14.756	43.500	QUASPEAK
3		233.700	-22.262	50.733	28.472	-17.528	46.000	QUASPEAK
4		499.480	-15.628	48.130	32.502	-13.498	46.000	QUASPEAK
5		747.800	-14.328	42.117	27.789	-18.211	46.000	QUASPEAK
6		961.200	-12.889	41.183	28.294	-25.706	54.000	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 : 2013/12/11 - 20:07
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11n(40MHz)_2437MHz

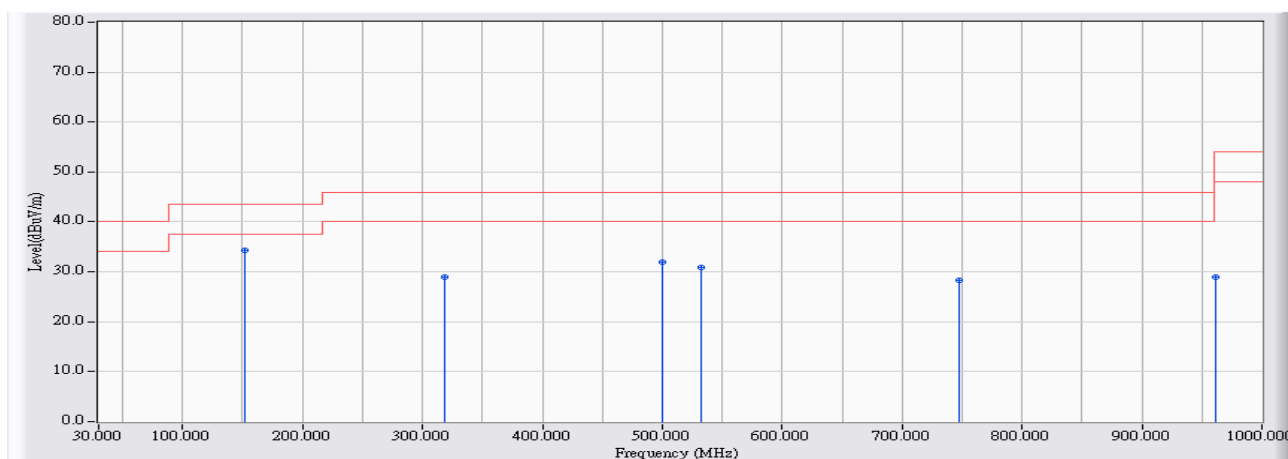


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	150.280	-23.379	59.371	35.991	-7.509	43.500	QUASPEAK
2		231.760	-22.409	57.158	34.749	-11.251	46.000	QUASPEAK
3		319.060	-19.571	53.976	34.405	-11.595	46.000	QUASPEAK
4		499.480	-15.628	46.020	30.392	-15.608	46.000	QUASPEAK
5		747.800	-14.328	44.795	30.467	-15.533	46.000	QUASPEAK
6		961.200	-12.889	42.950	30.061	-23.939	54.000	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 : 2013/12/11 - 20:11
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120C/60Hz
EUT : Portable Wireless N Router	Note : Mode 2: Transmit (Power by PC) _802.11n(40MHz)_2437MHz



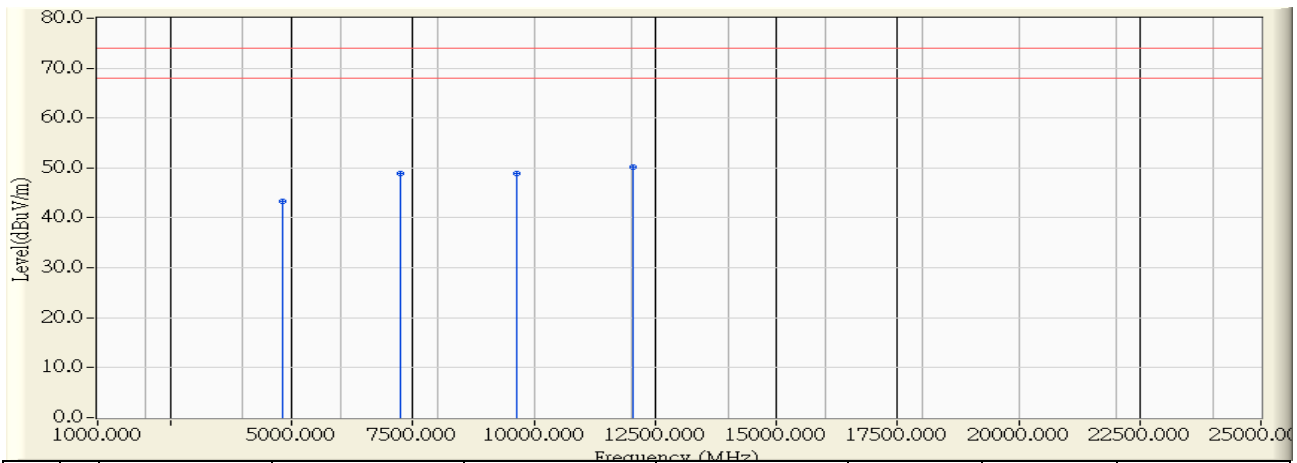
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	152.220	-23.476	57.717	34.241	-9.259	43.500	QUASPEAK
2		319.060	-19.571	48.515	28.944	-17.056	46.000	QUASPEAK
3		499.480	-15.628	47.518	31.890	-14.110	46.000	QUASPEAK
4		532.460	-15.585	46.421	30.836	-15.164	46.000	QUASPEAK
5		747.800	-14.328	42.615	28.287	-17.713	46.000	QUASPEAK
6		961.200	-12.889	41.758	28.869	-25.131	54.000	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 : 2013/12/07 - 15:54
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2412MHz

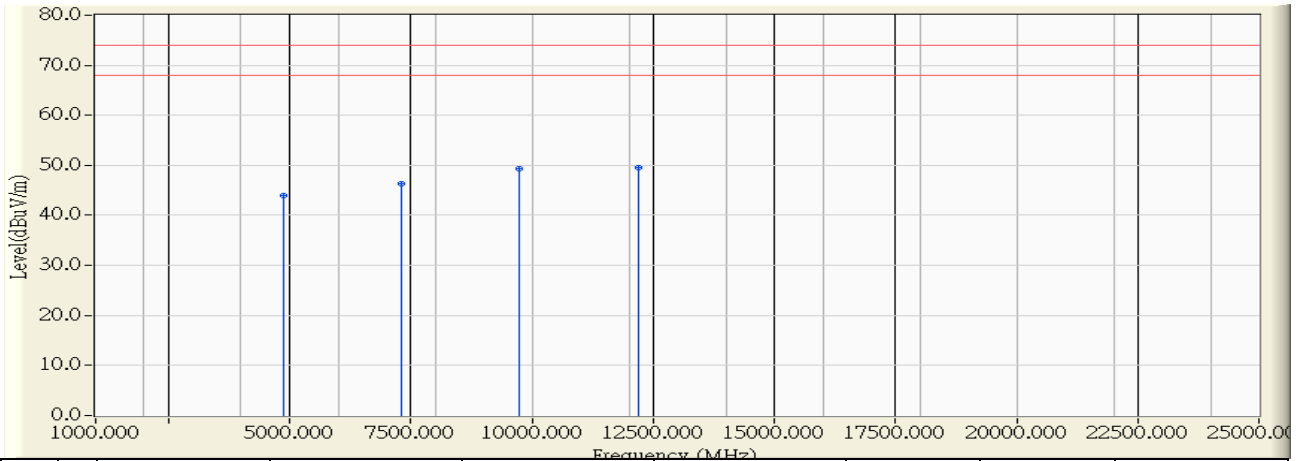


	Frequency (MHz)	Correct (dB)	Factor	Reading (dBuV)	Level (dBuV/m)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4824.030	-0.617		44.030	43.414	43.414	-30.586	74.000	PEAK
2	7232.880	5.438		43.500	48.938	48.938	-25.062	74.000	PEAK
3	9654.120	9.266		39.710	48.975	48.975	-25.025	74.000	PEAK
4	* 12056.180	11.117		38.970	50.087	50.087	-23.913	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 16:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2412MHz

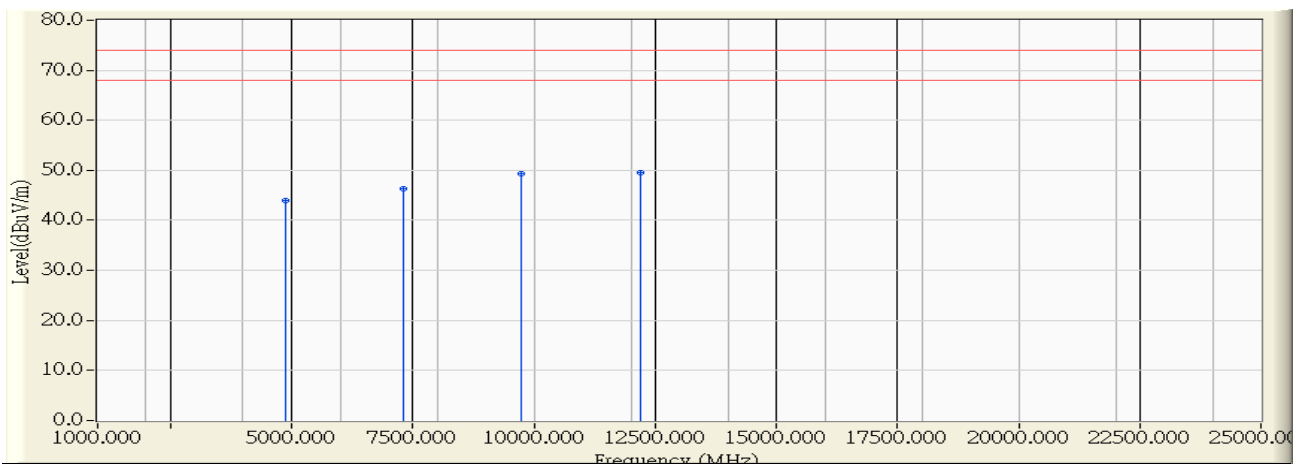


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.260	-0.493	44.530	44.036	-29.964	74.000	PEAK
2	7312.560	5.610	40.730	46.341	-27.659	74.000	PEAK
3	9738.140	9.809	39.480	49.289	-24.711	74.000	PEAK
4	* 12187.200	11.058	38.420	49.477	-24.523	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 16:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2437MHz

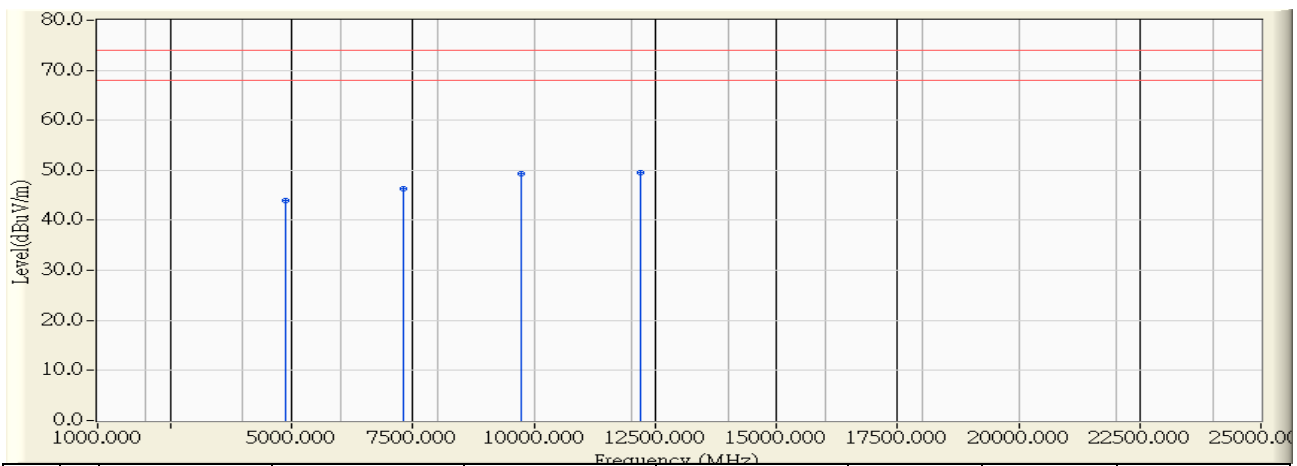


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.260	-0.493	44.530	44.036	-29.964	74.000	PEAK
2	7312.560	5.610	40.730	46.341	-27.659	74.000	PEAK
3	9738.140	9.809	39.480	49.289	-24.711	74.000	PEAK
4	* 12187.200	11.058	38.420	49.477	-24.523	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 16:39
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2437MHz

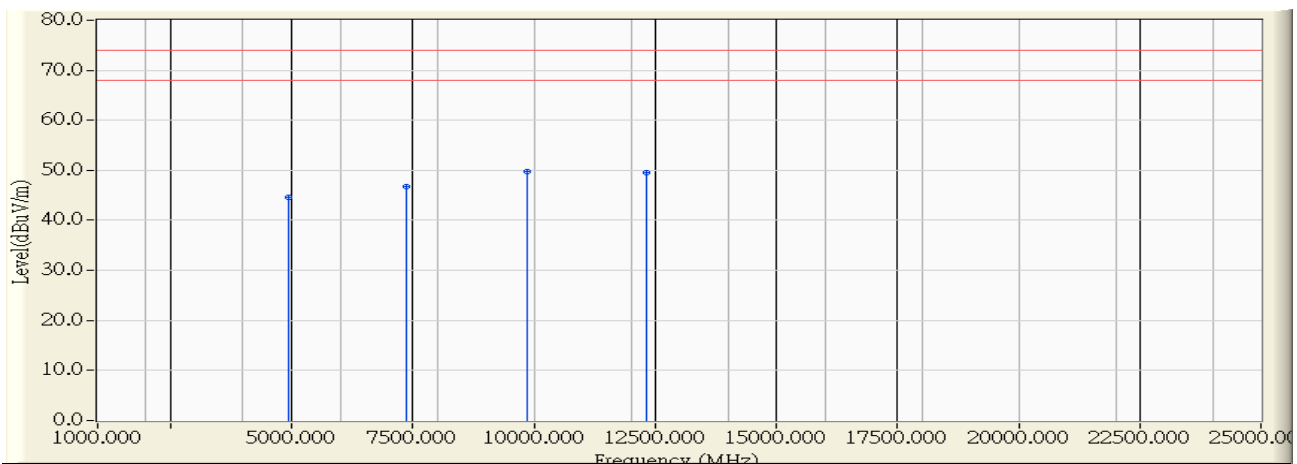


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.260	-0.493	44.530	44.036	-29.964	74.000	PEAK
2	7312.560	5.610	40.730	46.341	-27.659	74.000	PEAK
3	9738.140	9.809	39.480	49.289	-24.711	74.000	PEAK
4	* 12187.200	11.058	38.420	49.477	-24.523	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 17:32
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2462MHz

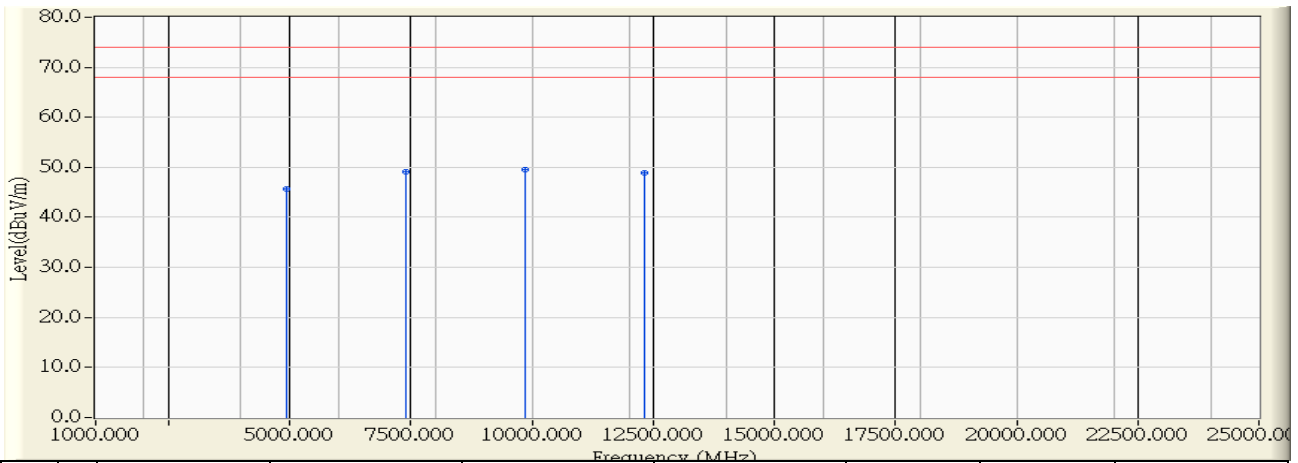


	Frequency (MHz)	Correct Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4923.960	-0.373	45.000	44.627	44.627	-29.373	74.000	PEAK
2	7384.480	5.766	40.890	46.656	46.656	-27.344	74.000	PEAK
3	* 9857.560	10.582	39.280	49.863	49.863	-24.137	74.000	PEAK
4	12316.640	10.998	38.550	49.548	49.548	-24.452	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 17:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11b_2462MHz



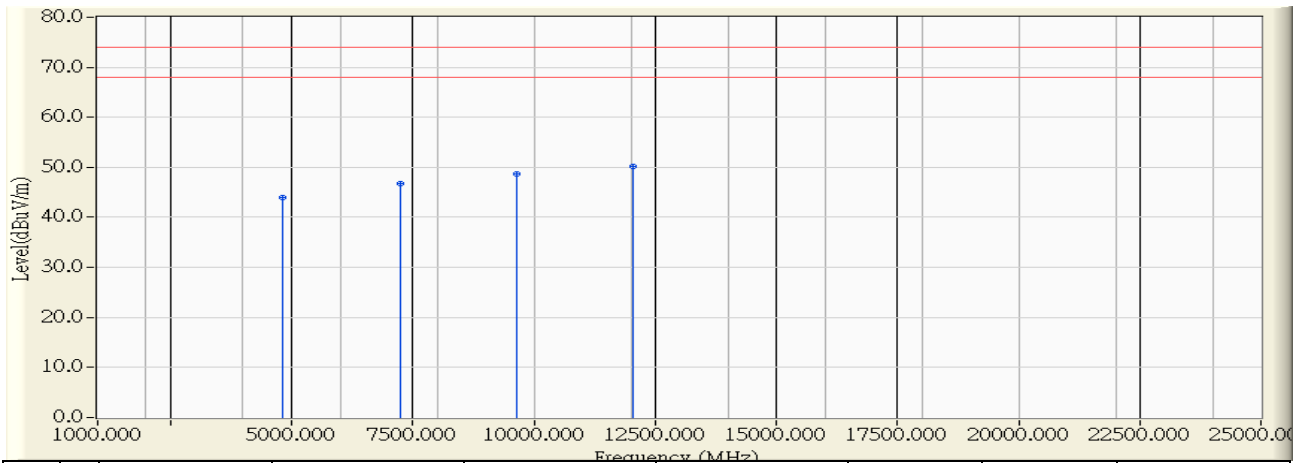
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4924.020	-0.373	46.080	45.707	-28.293	74.000	PEAK
2	7387.160	5.772	43.360	49.132	-24.868	74.000	PEAK
3	* 9848.100	10.522	39.030	49.551	-24.449	74.000	PEAK
4	12308.720	11.002	37.980	48.982	-25.018	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 13GHz were not included is because their levels are too low.



Site : CB1	Time : 2013/12/07 - 17:46
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2412MHz

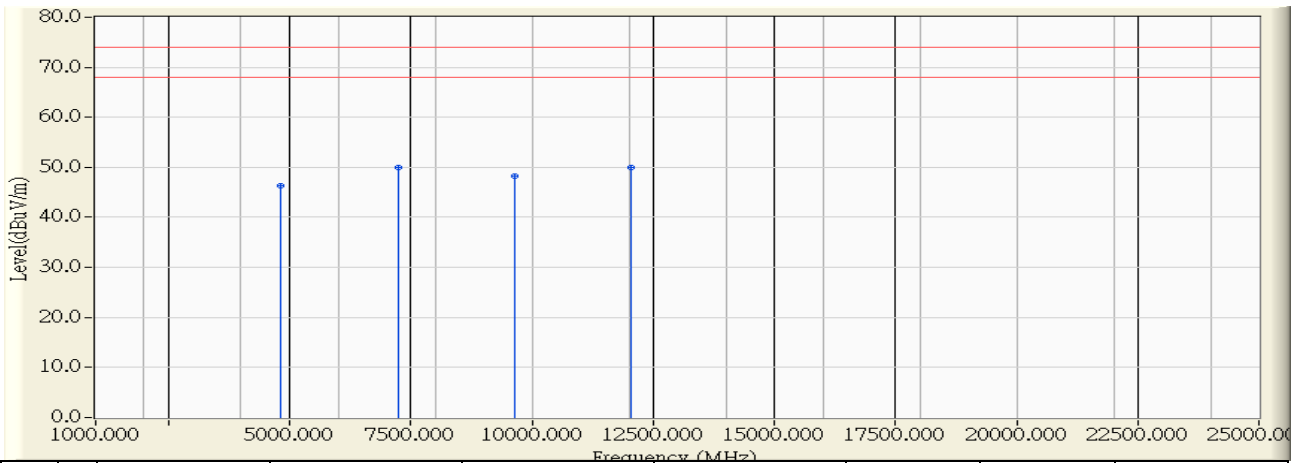


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4825.620	-0.613	44.640	44.027	-29.973	74.000	PEAK
2	7245.540	5.466	41.190	46.656	-27.344	74.000	PEAK
3	9653.700	9.262	39.470	48.733	-25.267	74.000	PEAK
4	* 12059.640	11.116	39.090	50.206	-23.794	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/07 - 18:08
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2412MHz

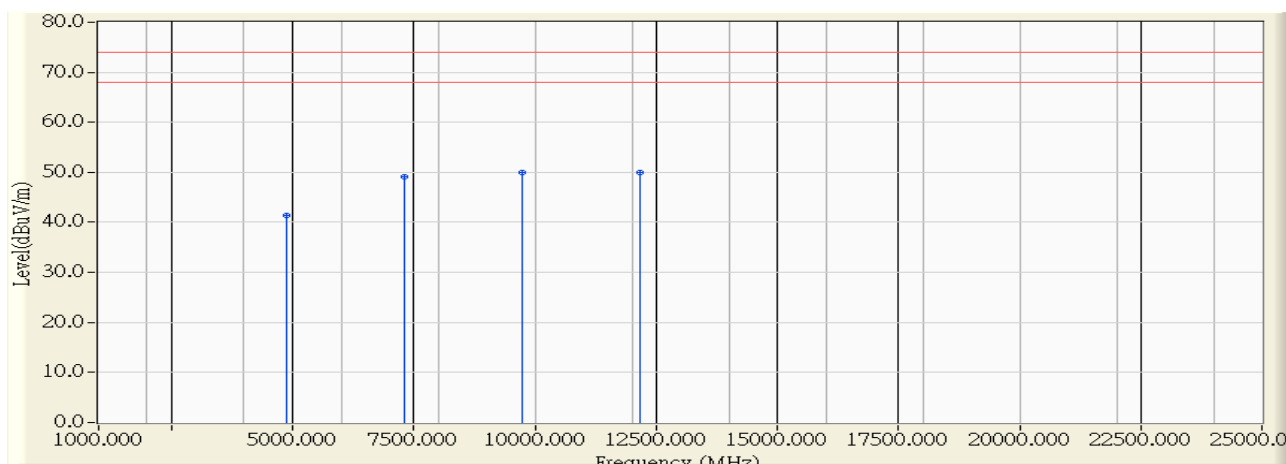


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Level (dBuV/m)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4820.460	-0.625	46.970	46.345	46.345	-27.655	74.000	PEAK
2	* 7239.920	5.454	44.560	50.014	50.014	-23.986	74.000	PEAK
3	9657.860	9.289	39.060	48.350	48.350	-25.650	74.000	PEAK
4	12050.360	11.119	38.770	49.890	49.890	-24.110	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 14:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2437MHz

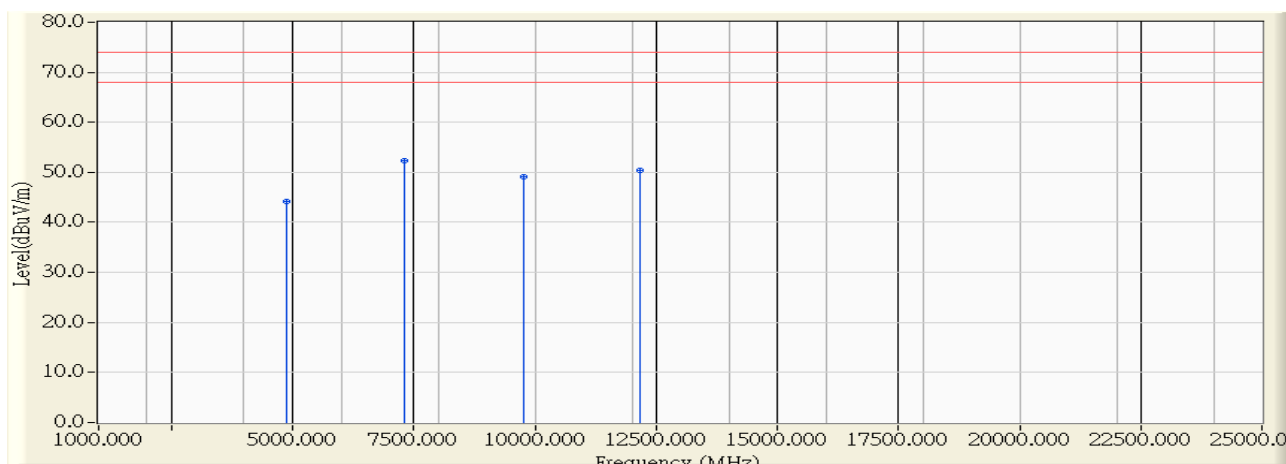


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4870.300	-0.503	41.990	41.486	-32.514	74.000	PEAK
2	7314.630	5.615	43.590	49.205	-24.795	74.000	PEAK
3	* 9744.300	9.850	40.120	49.969	-24.031	74.000	PEAK
4	12179.800	11.061	38.900	49.961	-24.039	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 14:23
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2437MHz

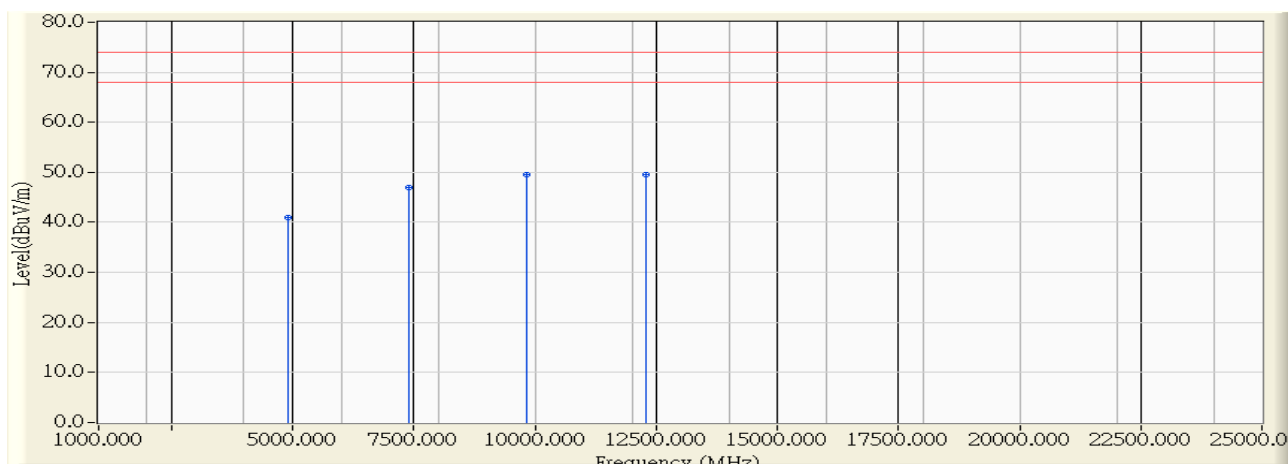


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4872.370	-0.499	44.730	44.231	-29.769	74.000	PEAK
2	* 7314.770	5.616	46.720	52.336	-21.664	74.000	PEAK
3	9754.130	9.914	39.130	49.043	-24.957	74.000	PEAK
4	12184.330	11.058	39.320	50.379	-23.621	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 14:46
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2462MHz

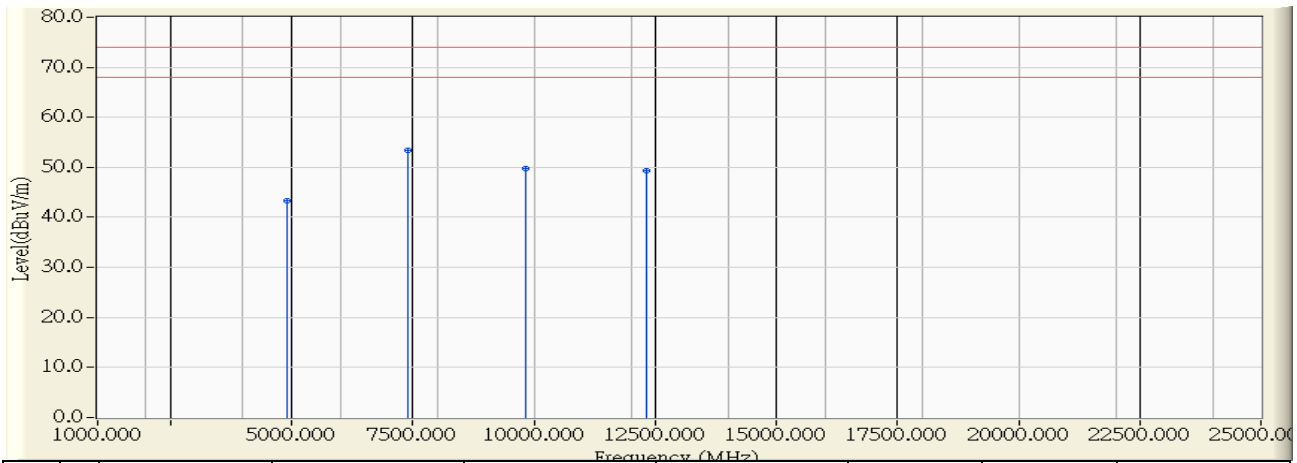


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4922.270	-0.377	41.320	40.943	-33.057	74.000	PEAK
2	7391.530	5.782	41.090	46.872	-27.128	74.000	PEAK
3	9845.470	10.504	39.000	49.504	-24.496	74.000	PEAK
4	* 12305.000	11.004	38.600	49.604	-24.396	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 15:09
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11g_2462MHz

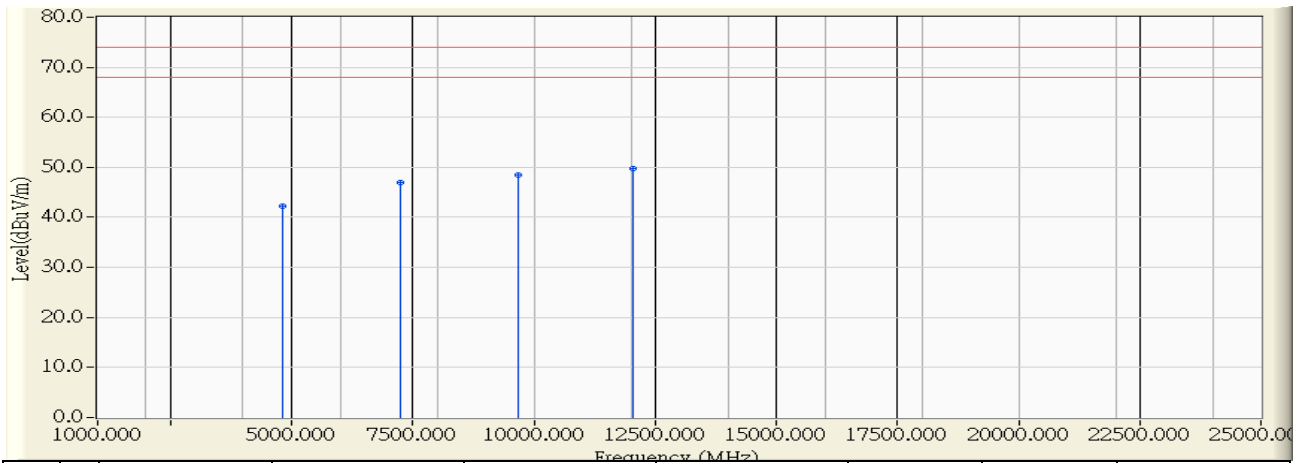


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4922.200	-0.377	43.630	43.253	-30.747	74.000	PEAK
2	* 7389.730	5.777	47.730	53.508	-20.492	74.000	PEAK
3	9840.600	10.473	39.320	49.793	-24.207	74.000	PEAK
4	12325.270	10.994	38.350	49.344	-24.656	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 17:04
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2412MHz

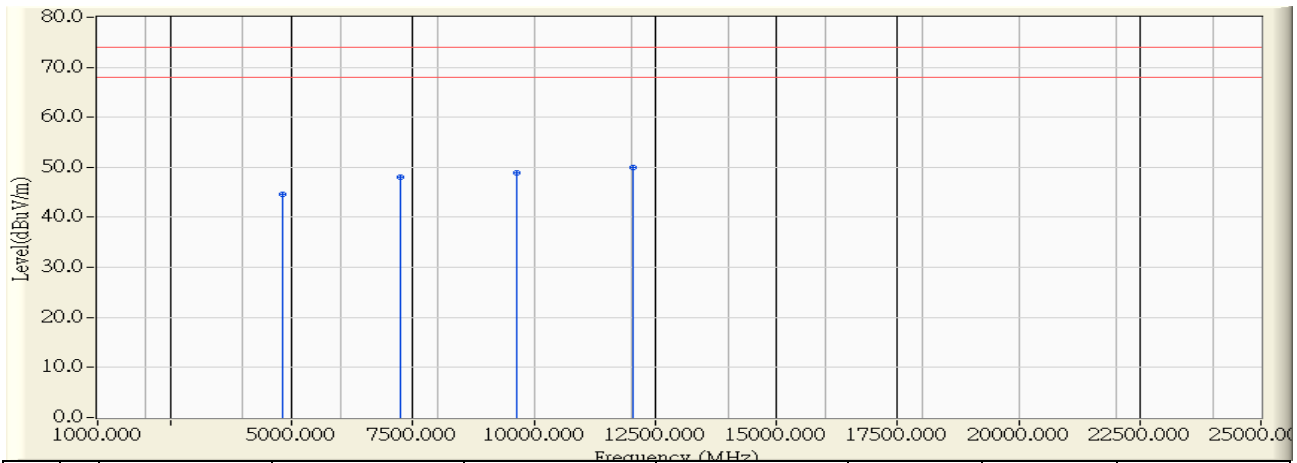


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4820.400	-0.625	42.980	42.355	-11.645	54.000	PEAK
2	7245.530	5.466	41.450	46.916	-7.084	54.000	PEAK
3	9665.400	9.338	39.240	48.578	-5.422	54.000	PEAK
4	* 12054.170	11.118	38.630	49.748	-4.252	54.000	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 17:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2412MHz



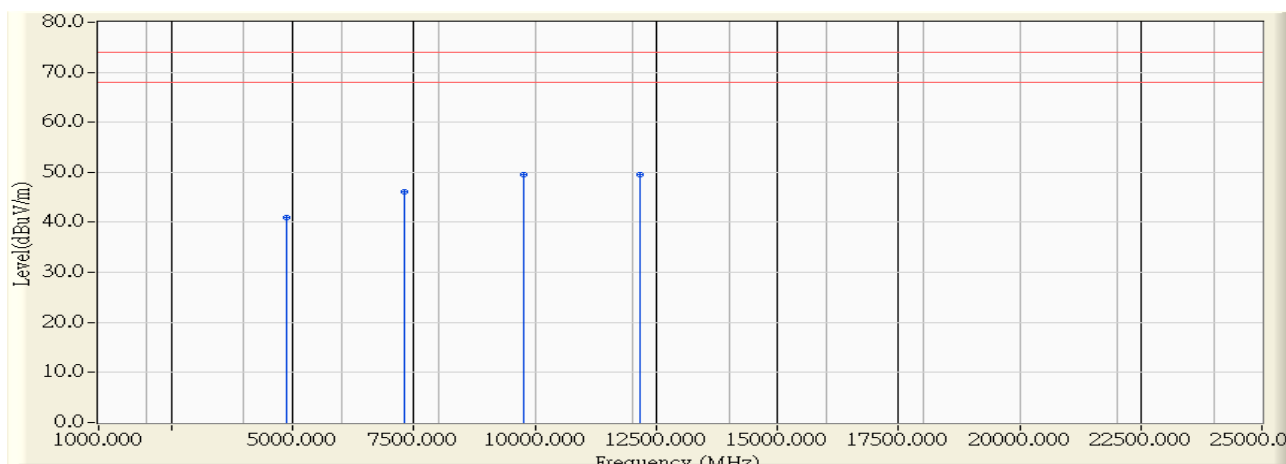
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4825.730	-0.613	45.250	44.638	-29.362	74.000	PEAK
2	7232.030	5.437	42.570	48.007	-25.993	74.000	PEAK
3	9655.970	9.277	39.620	48.897	-25.103	74.000	PEAK
4	* 12050.100	11.120	38.870	49.990	-24.010	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 13GHz were not included is because their levels are too low.



Site : CB1	Time : 2013/12/08 - 18:42
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2437MHz

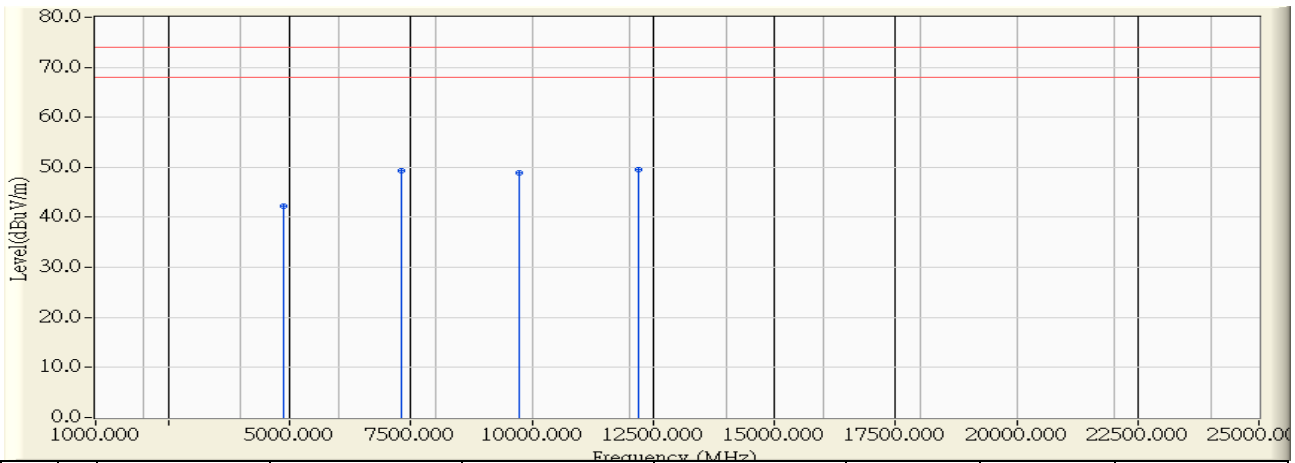


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4871.930	-0.500	41.490	40.990	-33.010	74.000	PEAK
2	7319.070	5.625	40.540	46.165	-27.835	74.000	PEAK
3	* 9756.600	9.930	39.690	49.619	-24.381	74.000	PEAK
4	12180.500	11.060	38.460	49.520	-24.480	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 18:44
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2437MHz

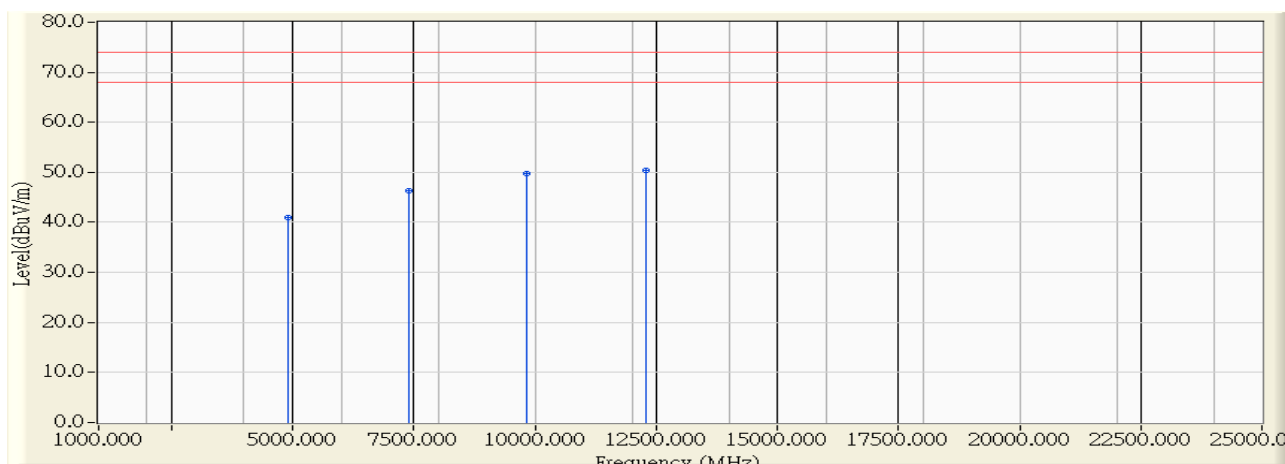


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4872.300	-0.499	42.720	42.221	-31.779	74.000	PEAK
2	7306.060	5.597	43.790	49.387	-24.613	74.000	PEAK
3	9748.020	9.873	39.120	48.993	-25.007	74.000	PEAK
4	* 12189.400	11.057	38.590	49.646	-24.354	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 18:47
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2462MHz

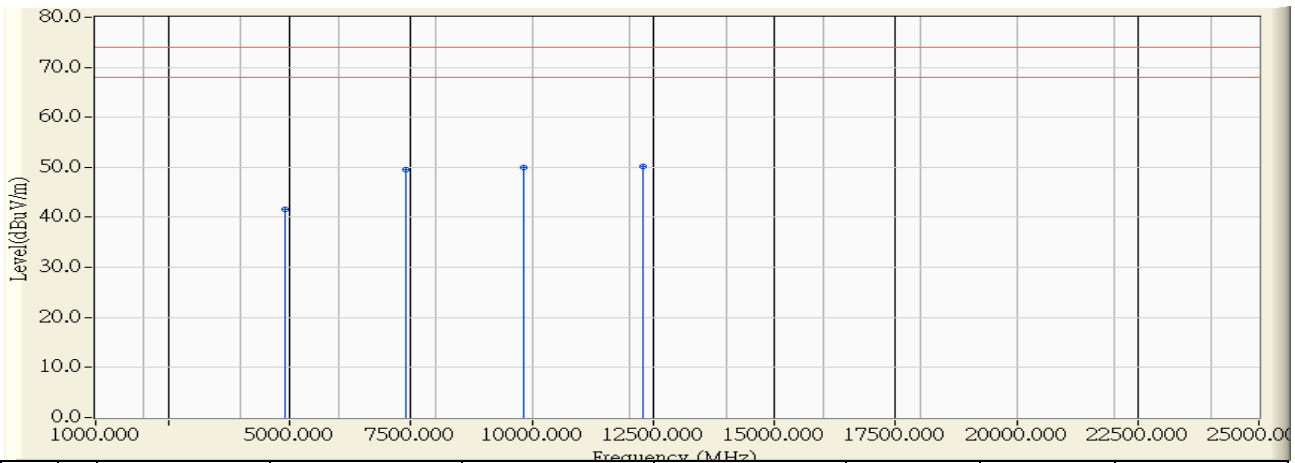


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4920.800	-0.381	41.310	40.930	-33.070	74.000	PEAK
2	7395.470	5.790	40.540	46.330	-27.670	74.000	PEAK
3	9844.200	10.496	39.360	49.856	-24.144	74.000	PEAK
4	* 12295.470	11.007	39.420	50.428	-23.572	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 18:49
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(20MHz)_2462MHz

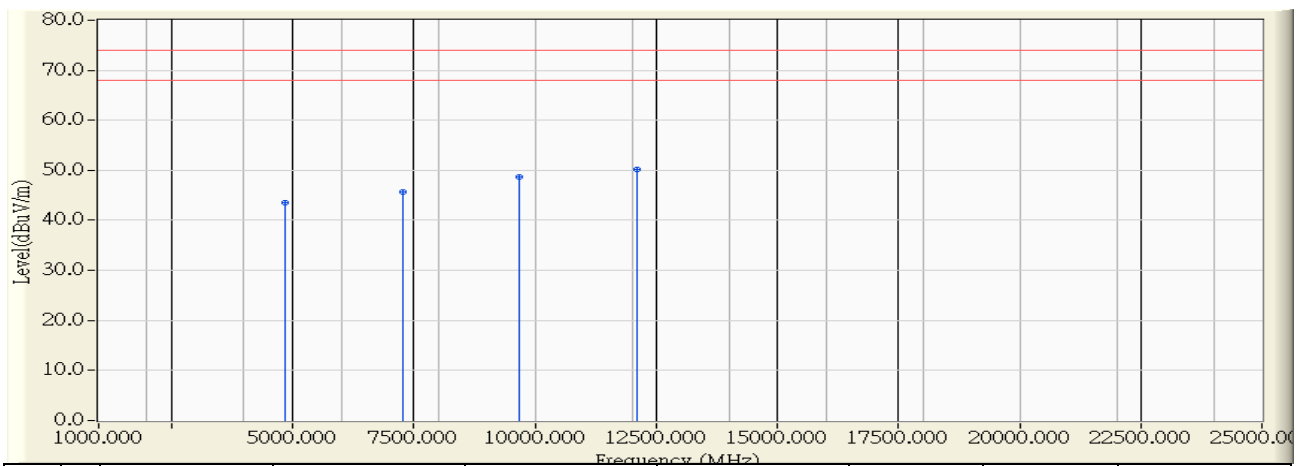


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4922.530	-0.375	41.970	41.594	-32.406	74.000	PEAK
2	7390.600	5.780	43.800	49.580	-24.420	74.000	PEAK
3	9838.530	10.459	39.460	49.919	-24.081	74.000	PEAK
4	* 12295.330	11.008	39.080	50.088	-23.912	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 19:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2422MHz

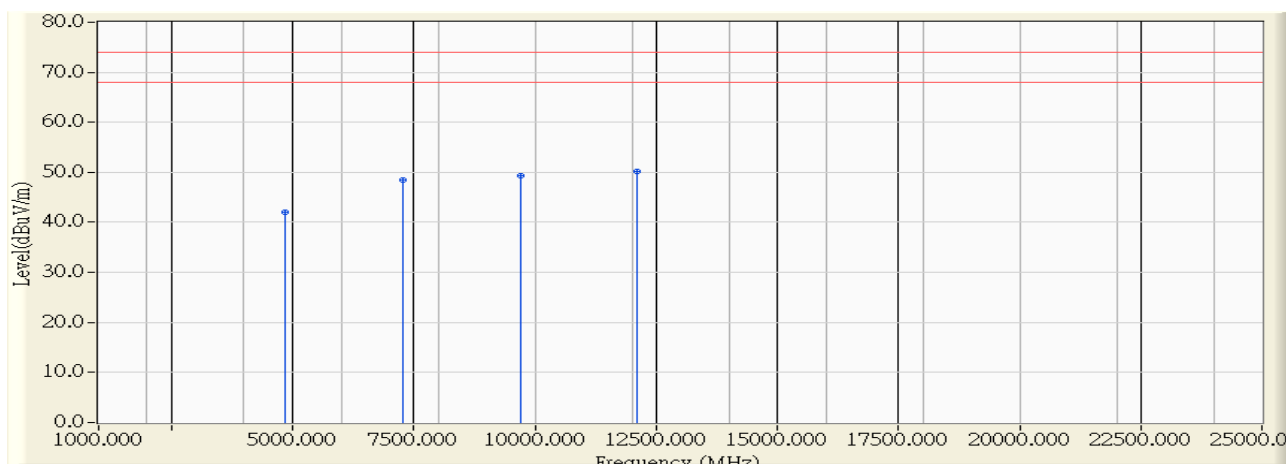


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Level (dBuV/m)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4844.820	-0.565	44.140	43.574	-30.426	74.000	PEAK	
2	7265.580	5.509	40.280	45.789	-28.211	74.000	PEAK	
3	9687.800	9.484	39.160	48.643	-25.357	74.000	PEAK	
4	* 12109.940	11.093	39.140	50.233	-23.767	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 19:37
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2422MHz

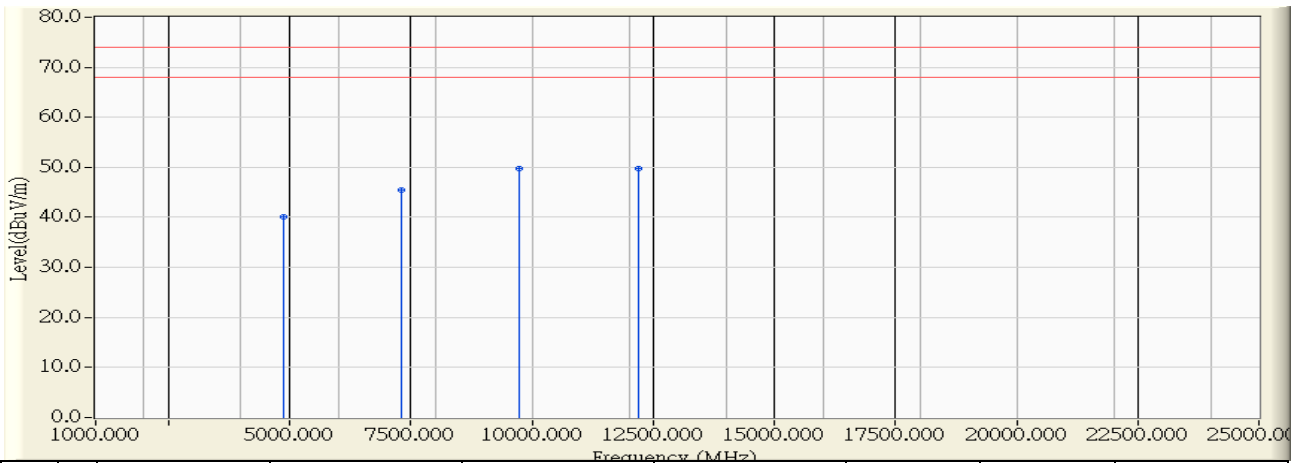


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4845.000	-0.565	42.590	42.025	-31.975	74.000	PEAK
2	7274.660	5.529	42.990	48.519	-25.481	74.000	PEAK
3	9693.260	9.519	39.740	49.259	-24.741	74.000	PEAK
4	* 12109.940	11.093	39.140	50.233	-23.767	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 19:54
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz

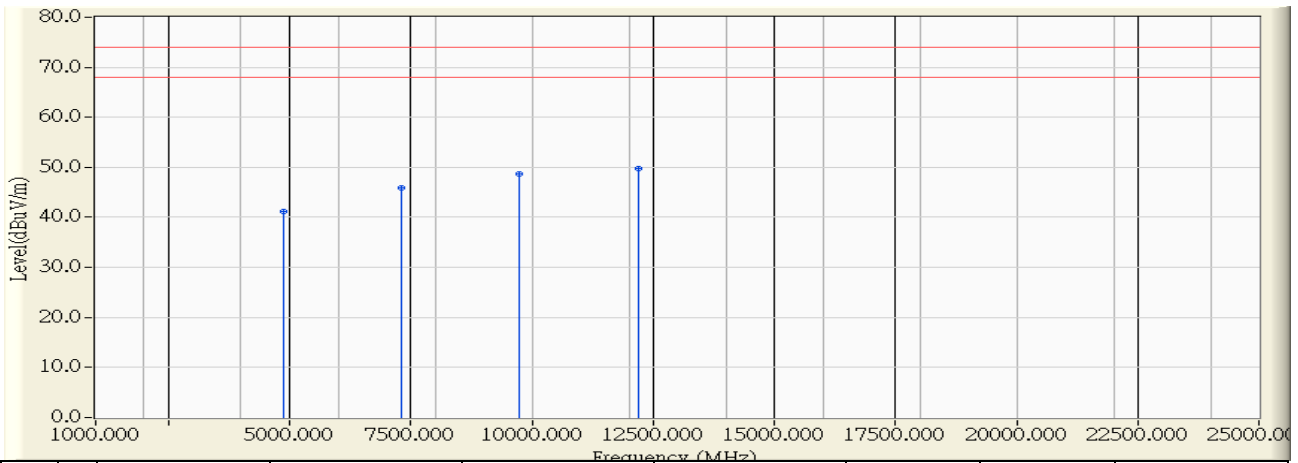


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Level (dBuV/m)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.000	-0.495	40.690	40.195	40.195	-33.805	74.000	PEAK
2	7311.000	5.608	39.870	45.477	45.477	-28.523	74.000	PEAK
3	* 9747.990	9.873	39.870	49.743	49.743	-24.257	74.000	PEAK
4	12185.000	11.058	38.670	49.728	49.728	-24.272	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 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 : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2437MHz



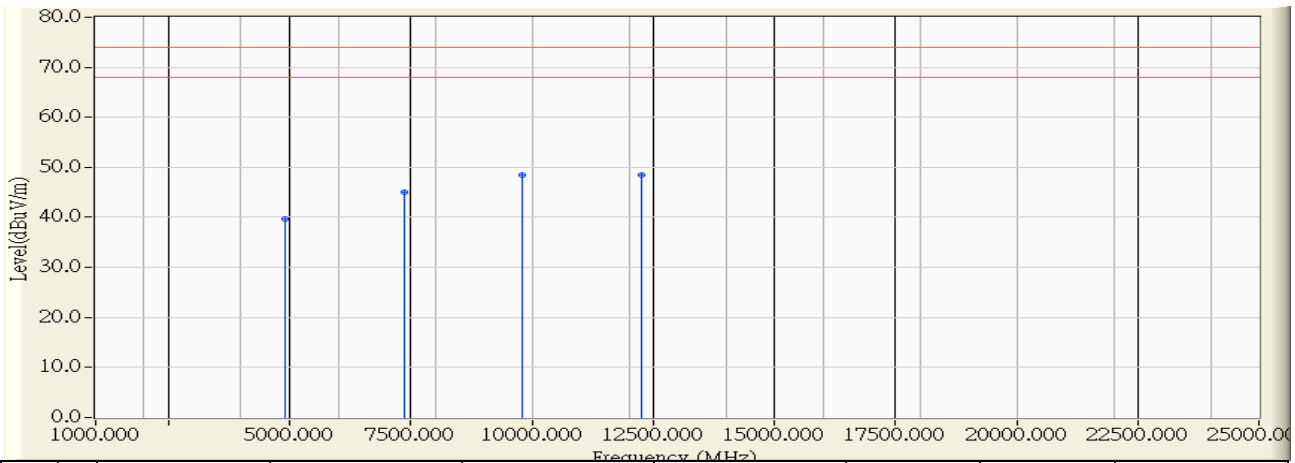
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4874.000	-0.495	41.780	41.285	-32.715	74.000	PEAK
2	7310.990	5.608	40.220	45.827	-28.173	74.000	PEAK
3	9748.000	9.873	38.890	48.763	-25.237	74.000	PEAK
4	* 12185.000	11.058	38.670	49.728	-24.272	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 13GHz were not included is because their levels are too low.



Site : CB1	Time : 2013/12/08 - 20:36
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2422MHz

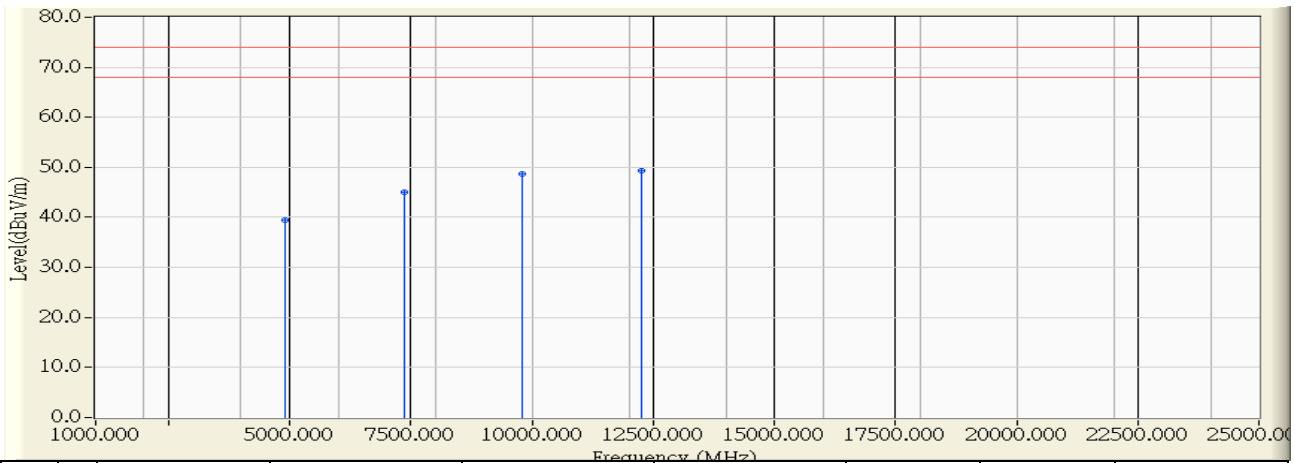


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4904.000	-0.421	40.100	39.679	-34.321	74.000	PEAK
2	7356.000	5.705	39.420	45.125	-28.875	74.000	PEAK
3	* 9814.180	10.302	38.270	48.572	-25.428	74.000	PEAK
4	12256.080	11.026	37.410	48.436	-25.564	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 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2013/12/08 - 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 : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) _802.11n(40MHz)_2422MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4903.940	-0.421	39.800	39.378	-34.622	74.000	PEAK
2	7361.220	5.716	39.360	45.076	-28.924	74.000	PEAK
3	9814.940	10.307	38.380	48.687	-25.313	74.000	PEAK
4	* 12267.120	11.021	38.280	49.301	-24.699	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 13GHz 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:

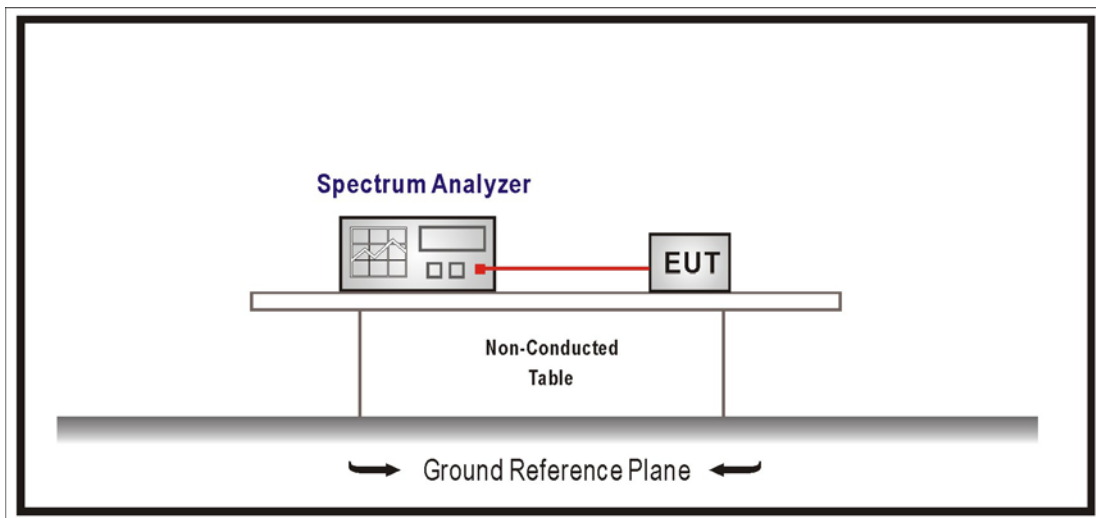
RF antenna conducted test / SR7

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 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  $\pm 1.27\text{dB}$

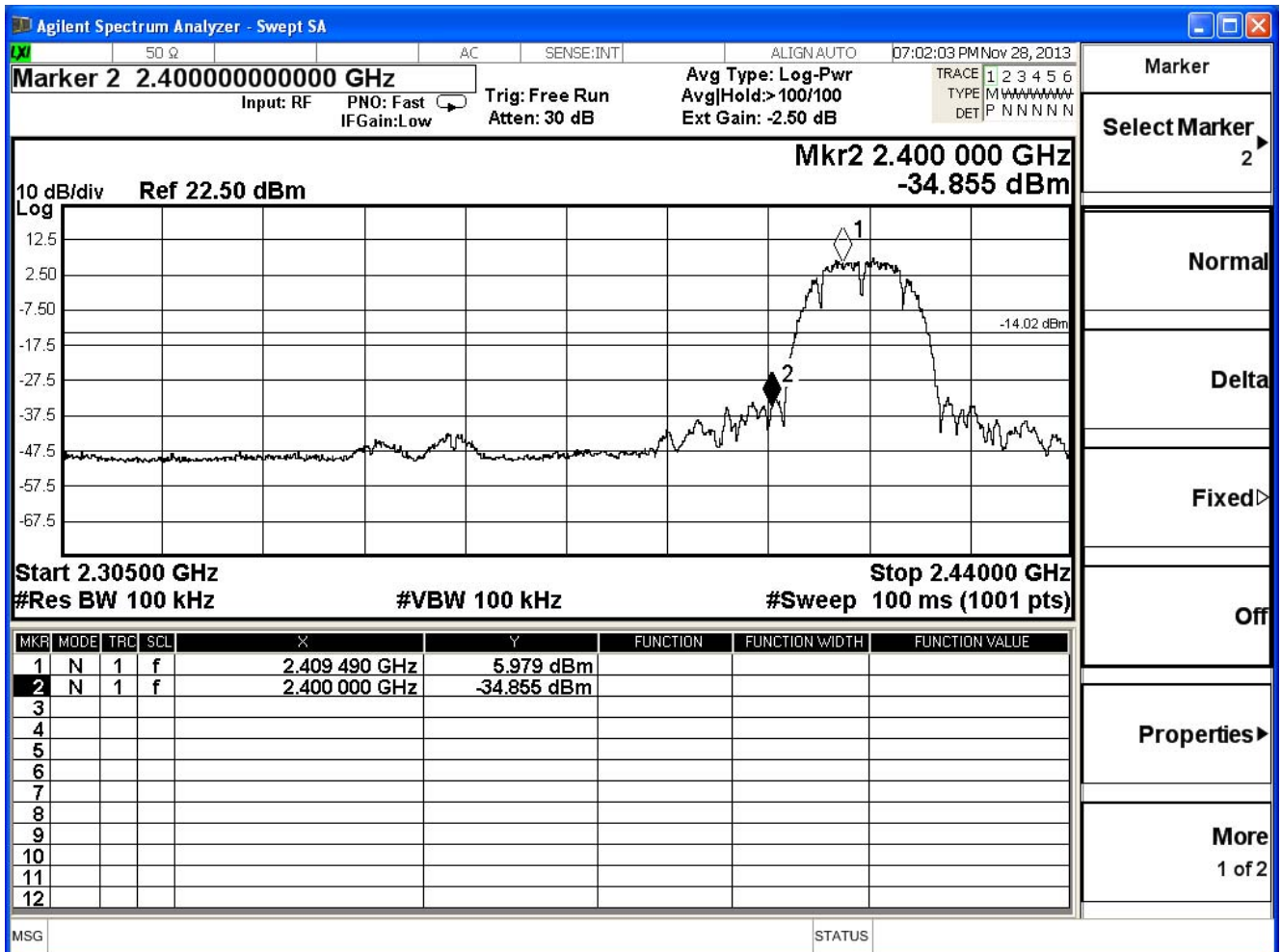
5.7. Test Result

Product	Portable Wireless N Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

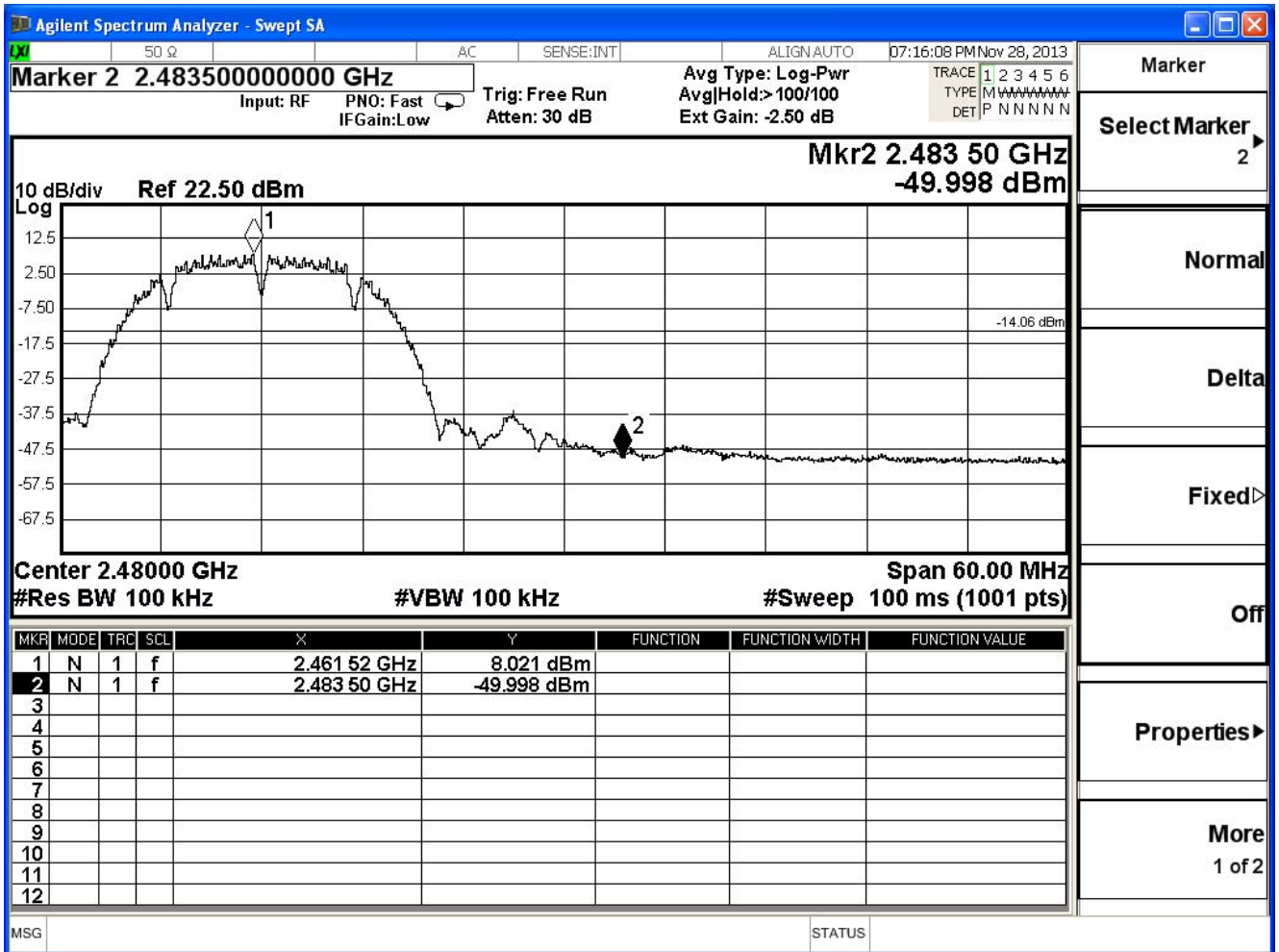
IEEE 802.11b, Antenna Gain: 2.6dBi Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	40.934	$\geq 20$	Pass
11	2462	58.019	$\geq 20$	Pass

Channel 01 (2412MHz)



Channel 11 (2462MHz)

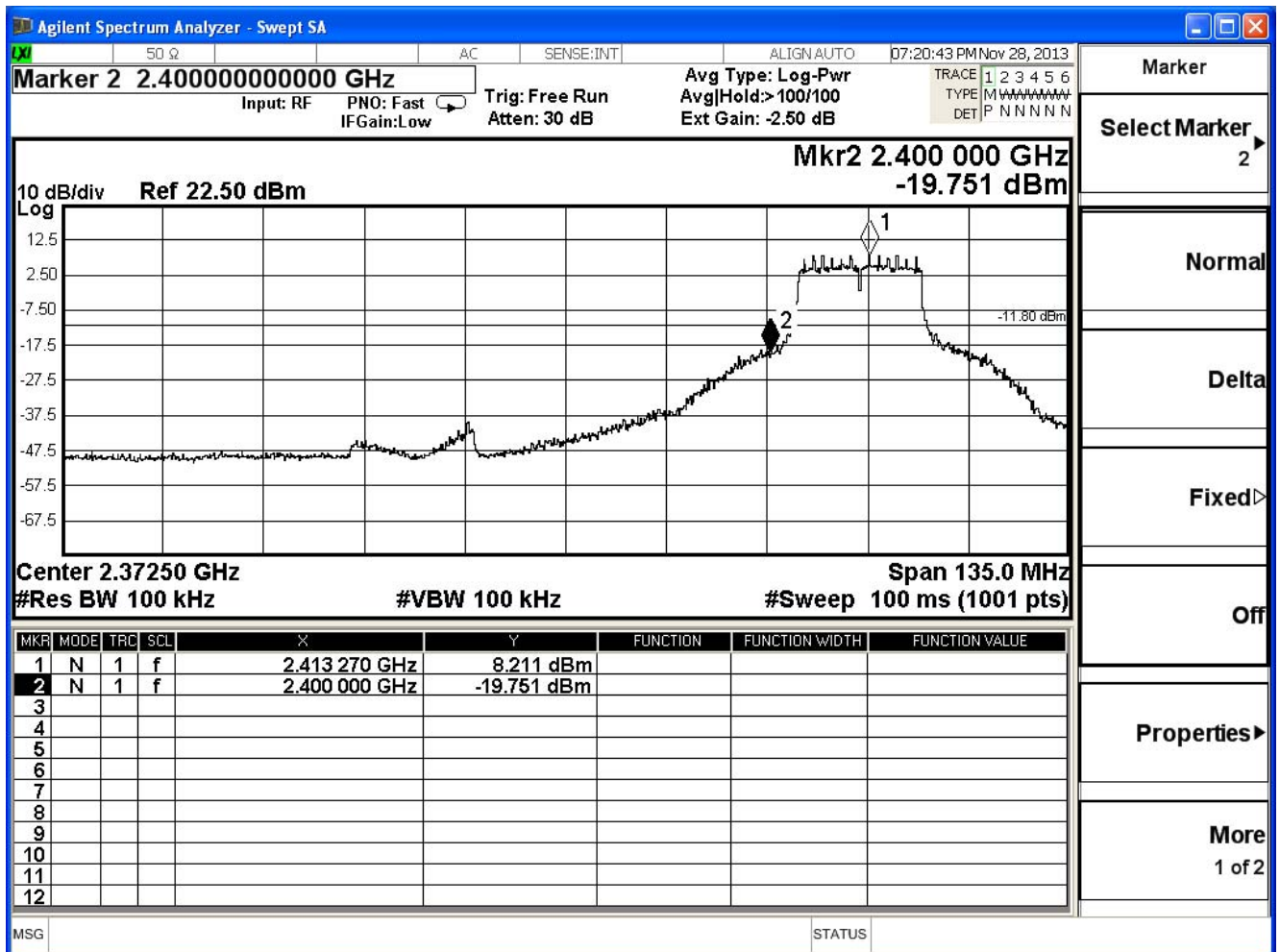


Product	Portable Wireless N Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

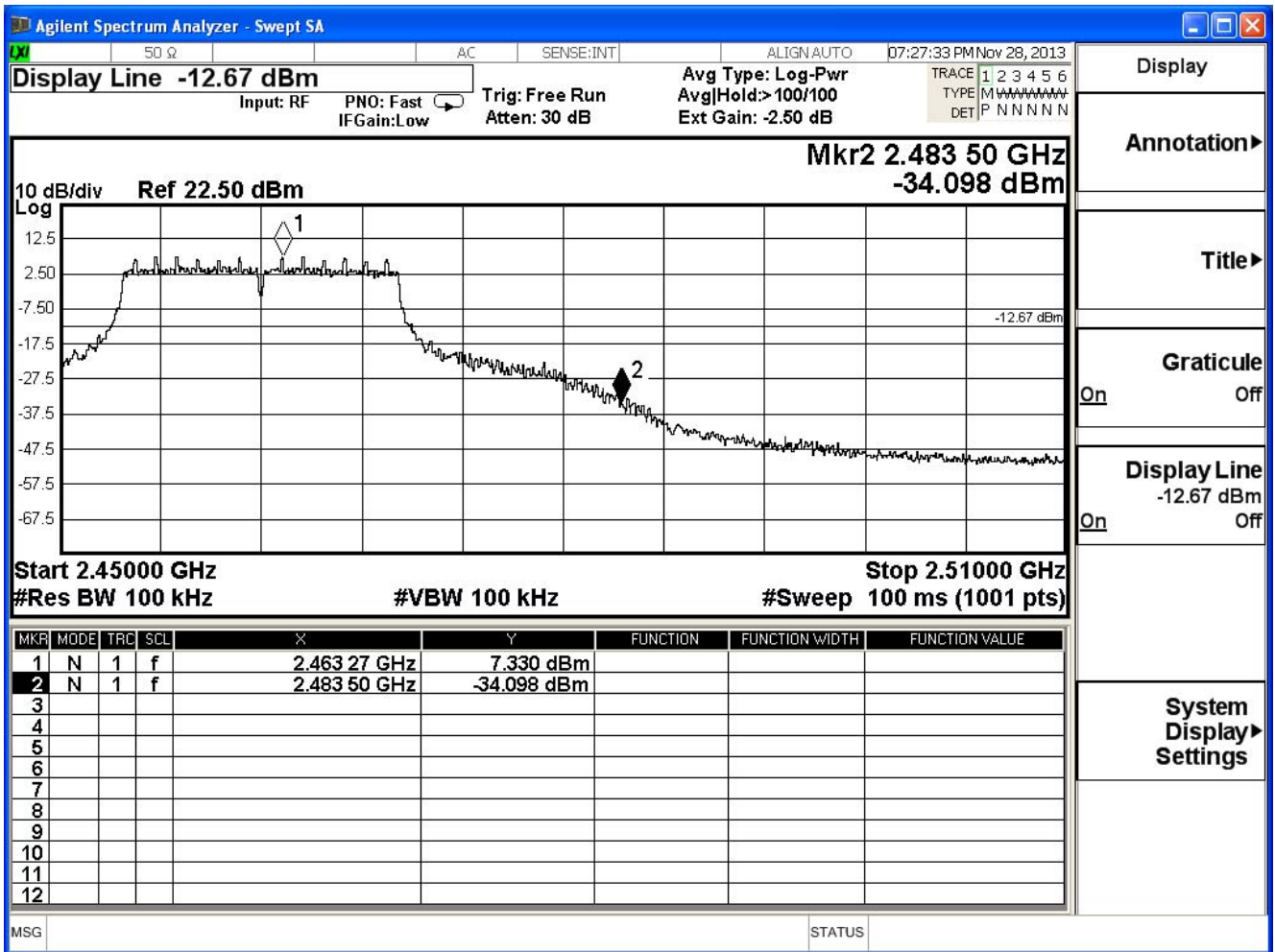
IEEE 802.11g, Antenna Gain: 2.6dBi Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	27.962	≥ 20	Pass
11	2462	41.428	≥ 20	Pass

### Channel 01 (2412MHz)



## Channel 11 (2462MHz)



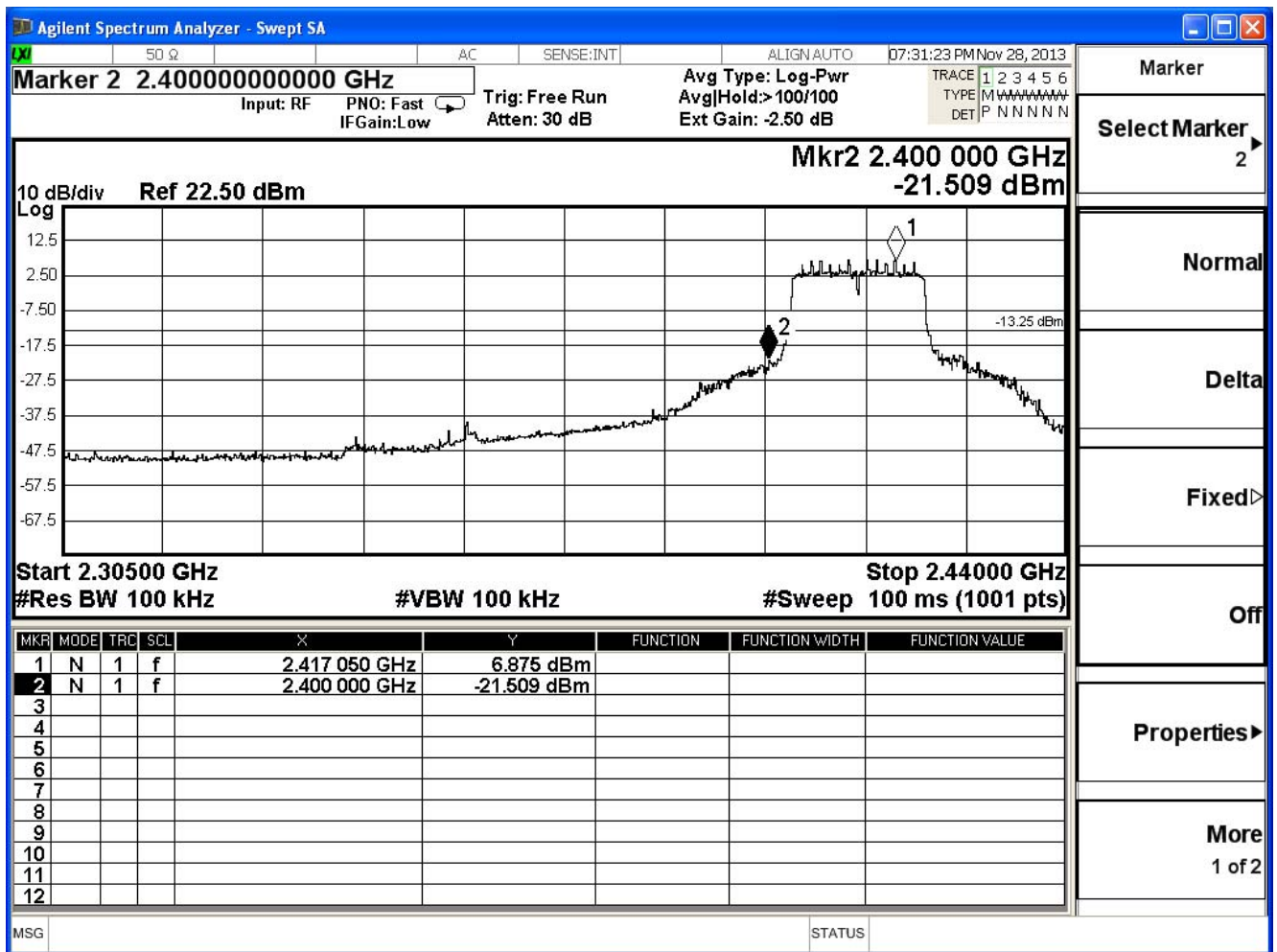


Product	Portable Wireless N Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

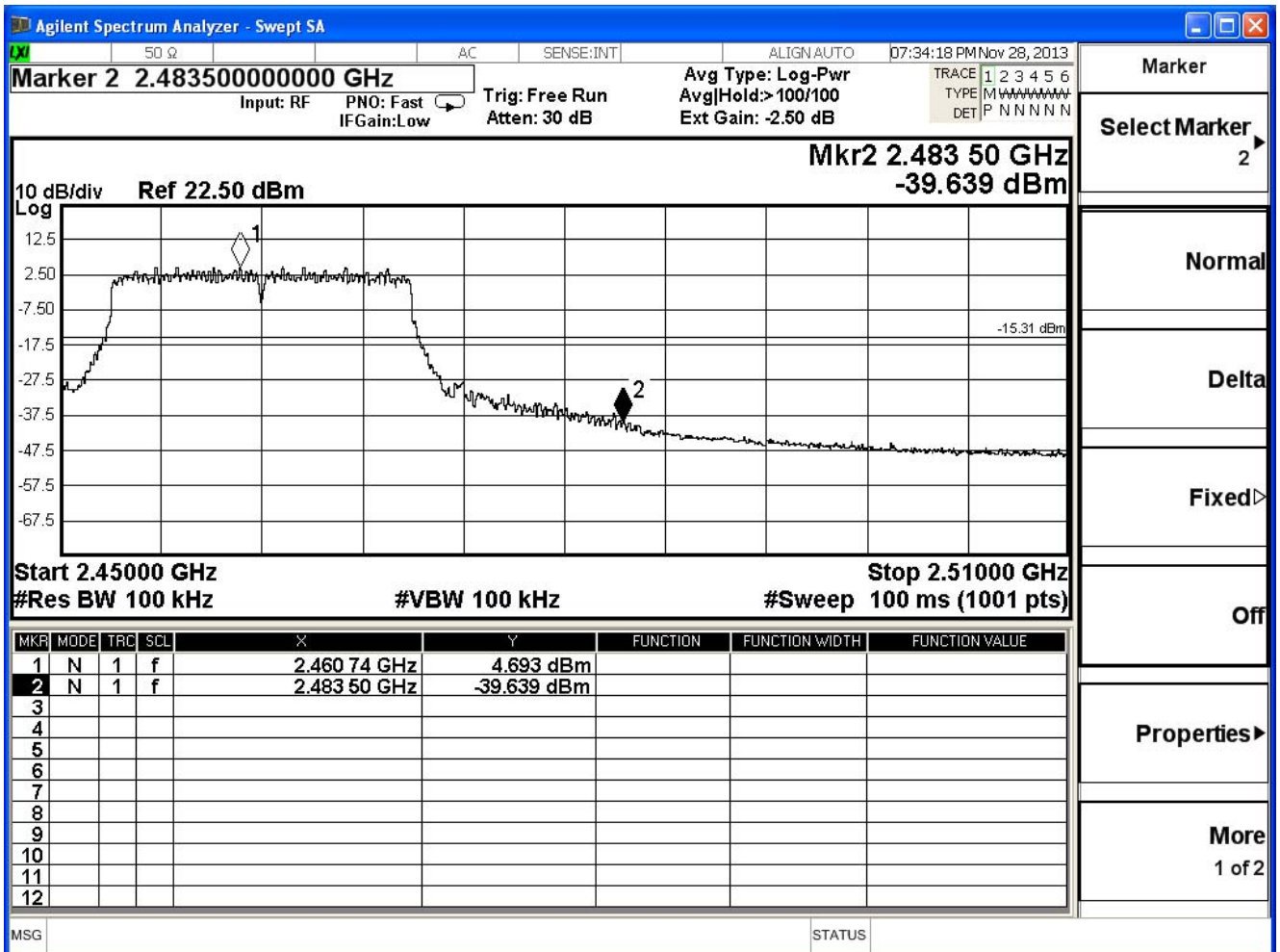
IEEE 802.11n (20MHz), Antenna Gain: 2.6dBi Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	28.384	≥20	Pass
11	2462	44.332	≥20	Pass

### Channel 1 (2412MHz)



Channel 11 (2462MHz)

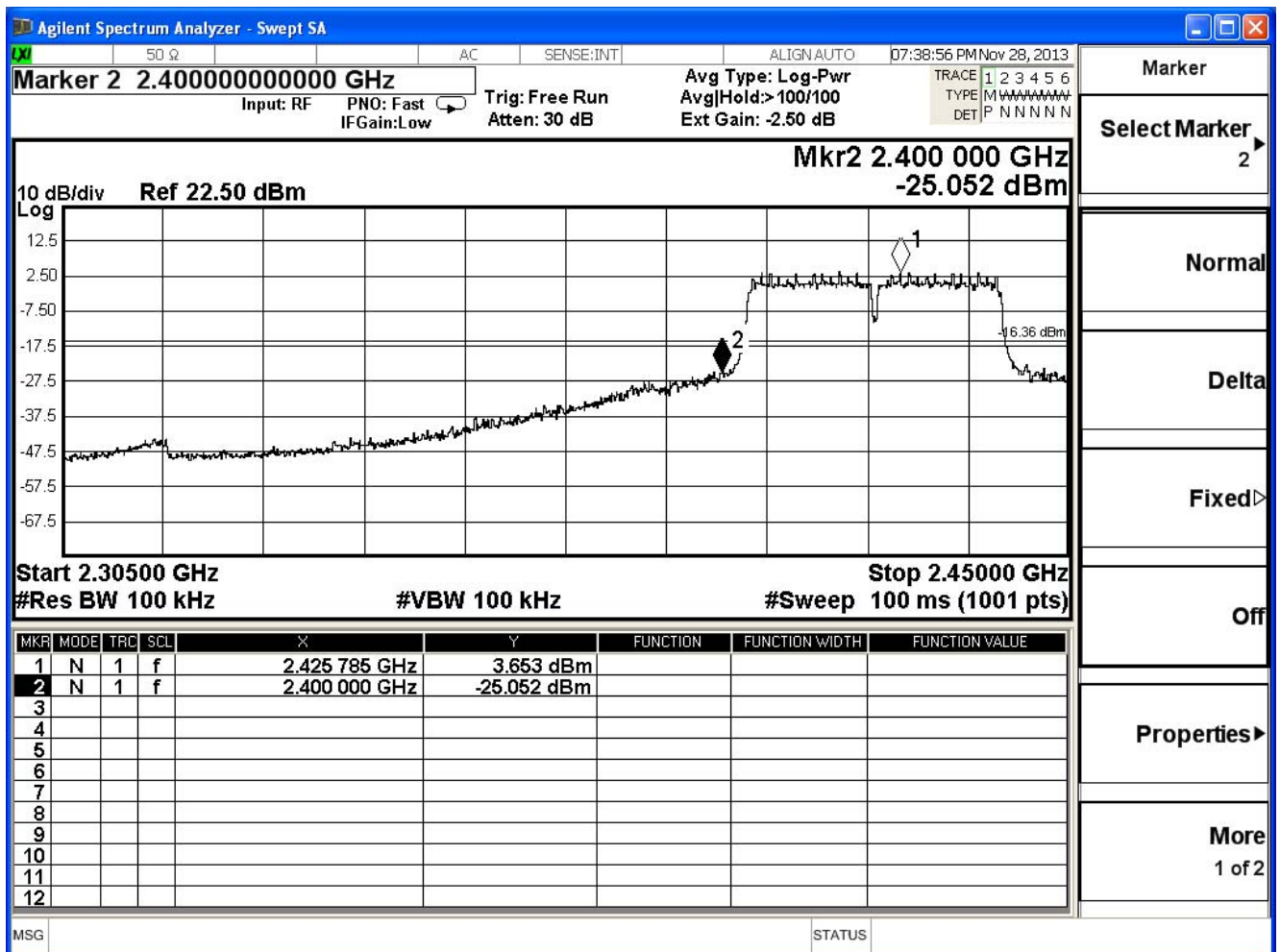


Product	Portable Wireless N Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

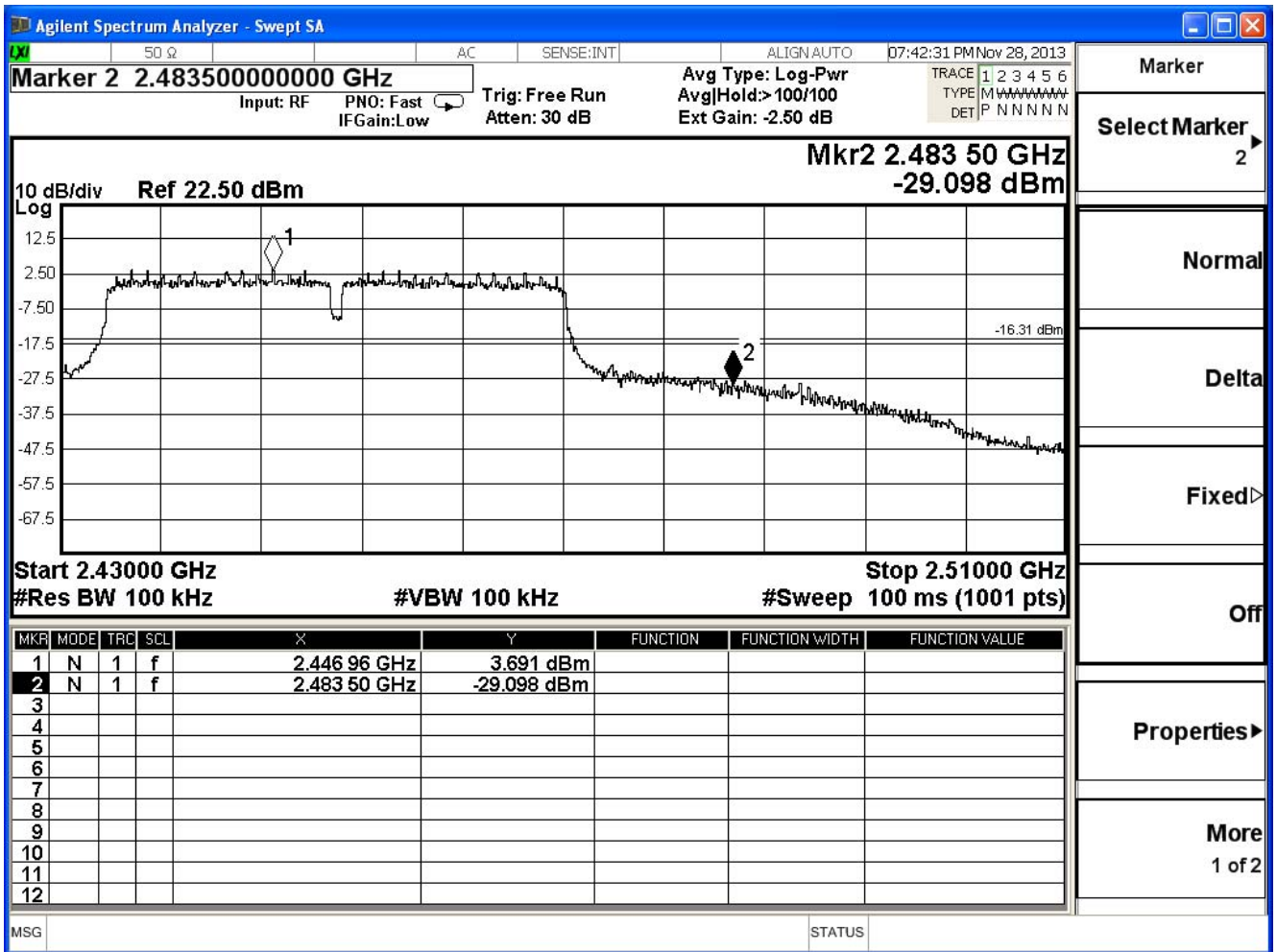
IEEE 802.11n (40MHz), Antenna Gain: 2.6dBi Duty Cycle: 1

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
3	2422	28.705	≥20	Pass
9	2452	32.789	≥20	Pass

### Channel 3 (2422MHz)

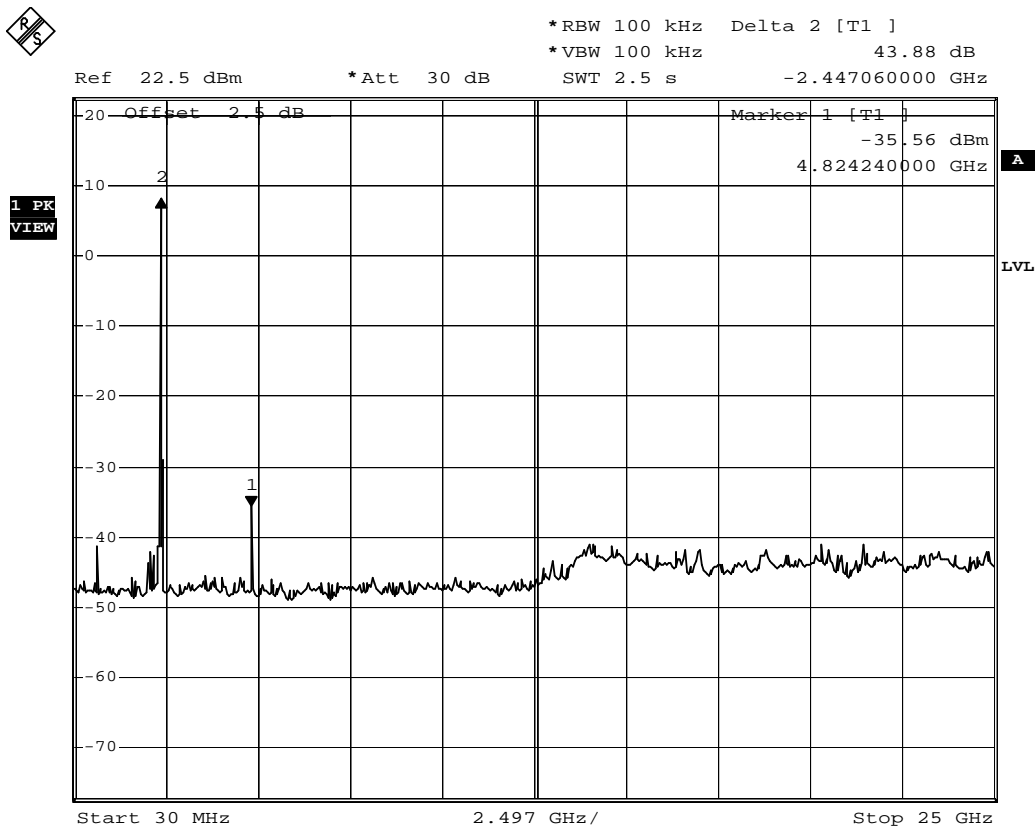


Channel 9 (2452MHz)



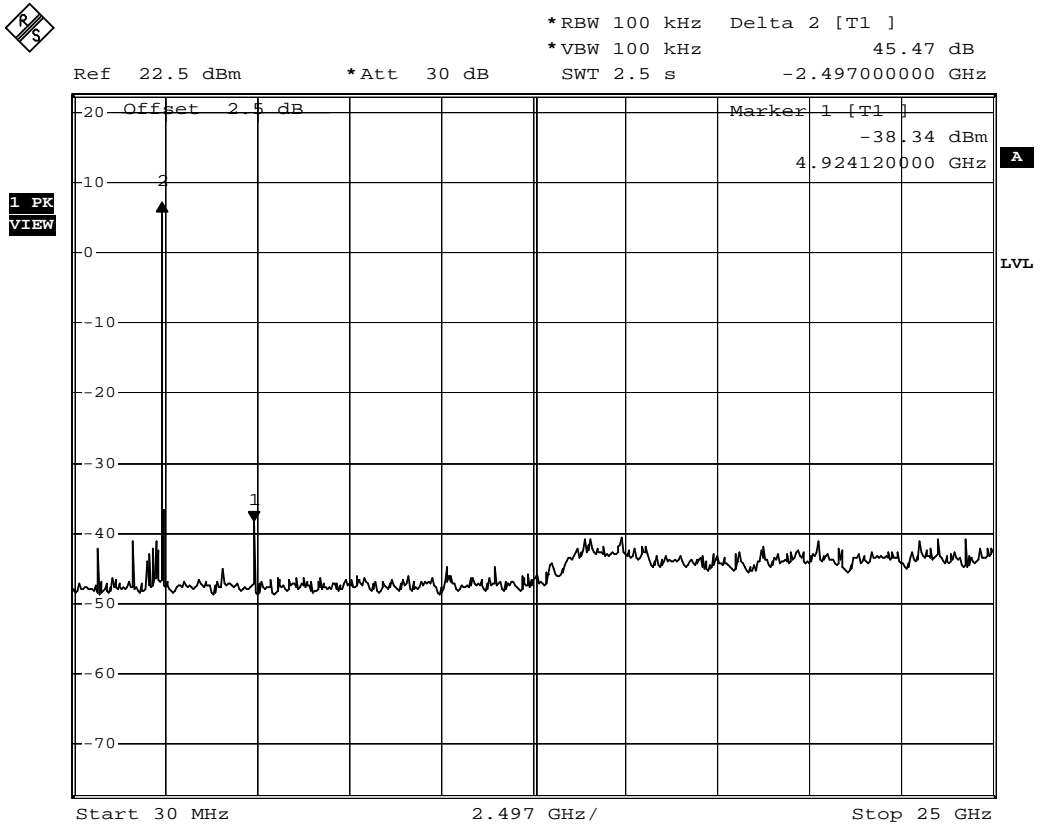
Product	Portable Wireless N Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/07/09	Test Site	SR7

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



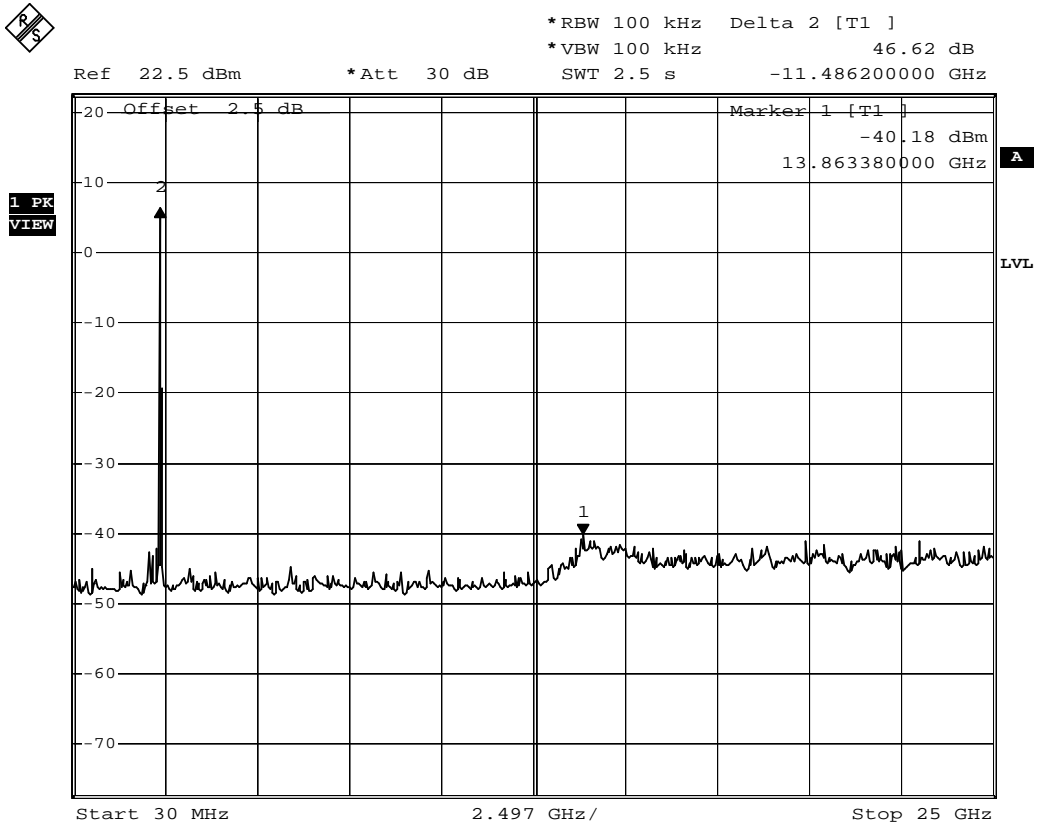
Date: 9.JUL.2010 15:46:16

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



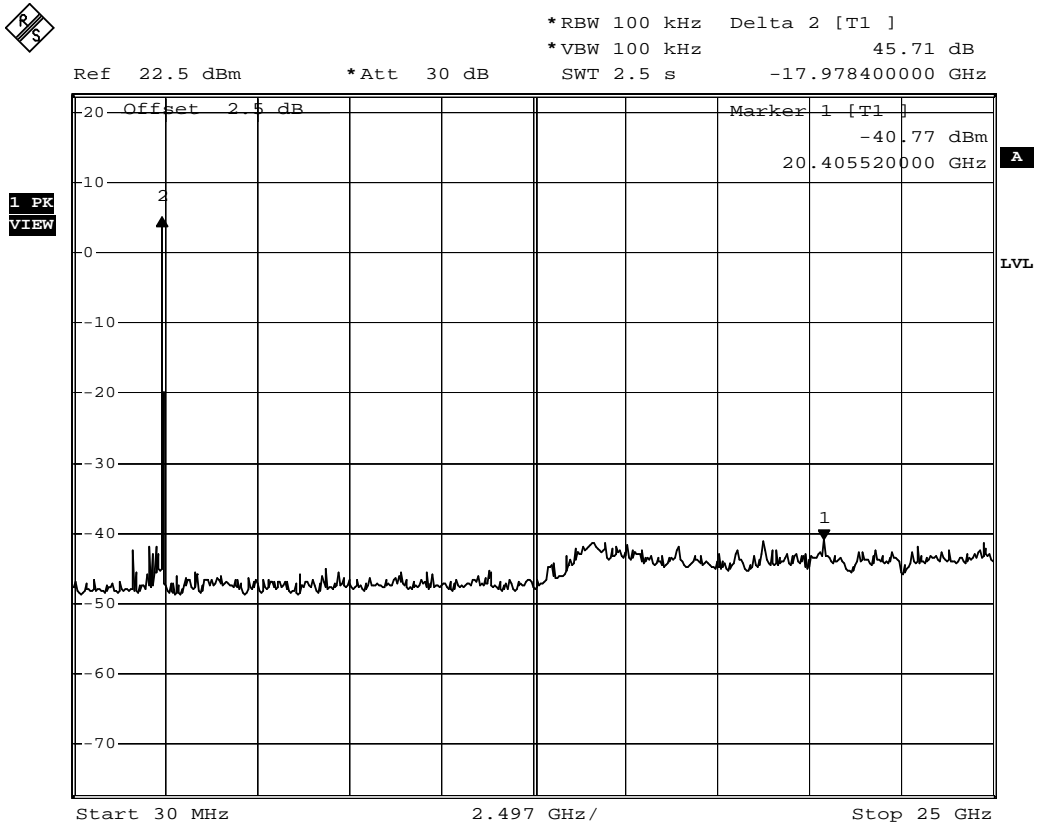
Date: 9.JUL.2010 15:48:07

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



Date: 9.JUL.2010 15:57:22

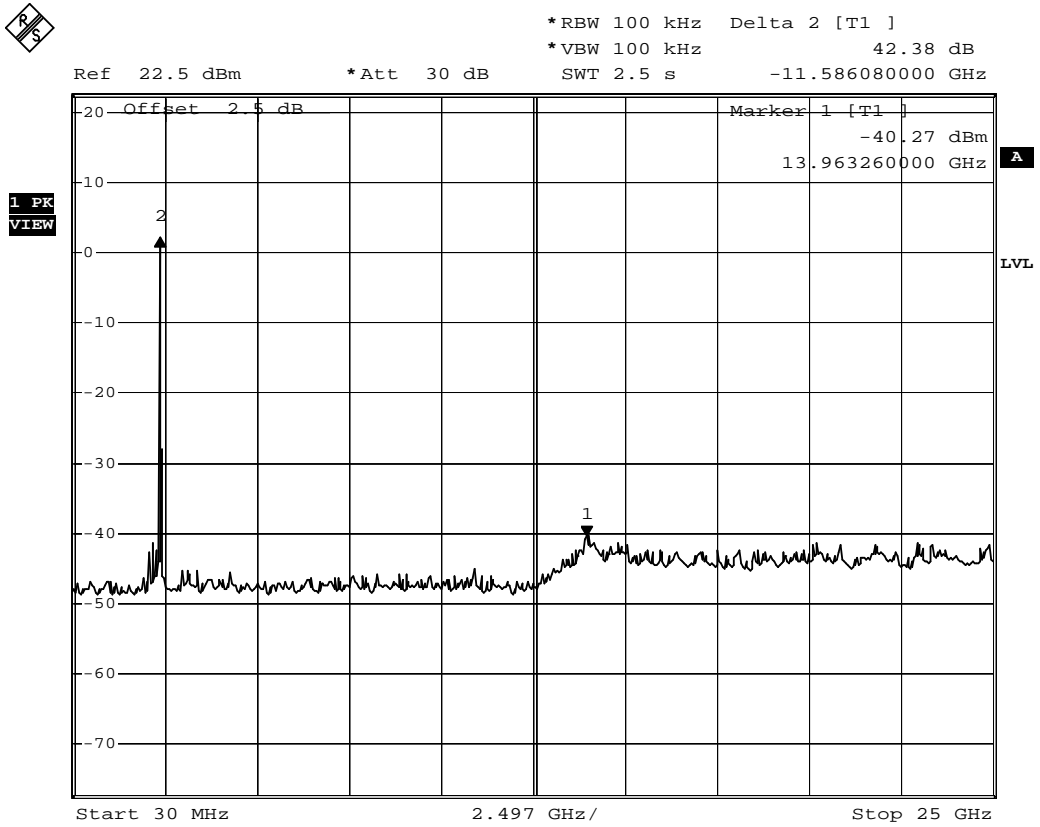
2462MHz (30MHz-25GHz)- 802.11g



Date: 9.JUL.2010 15:59:44



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



Date: 9.JUL.2010 16:04:48

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

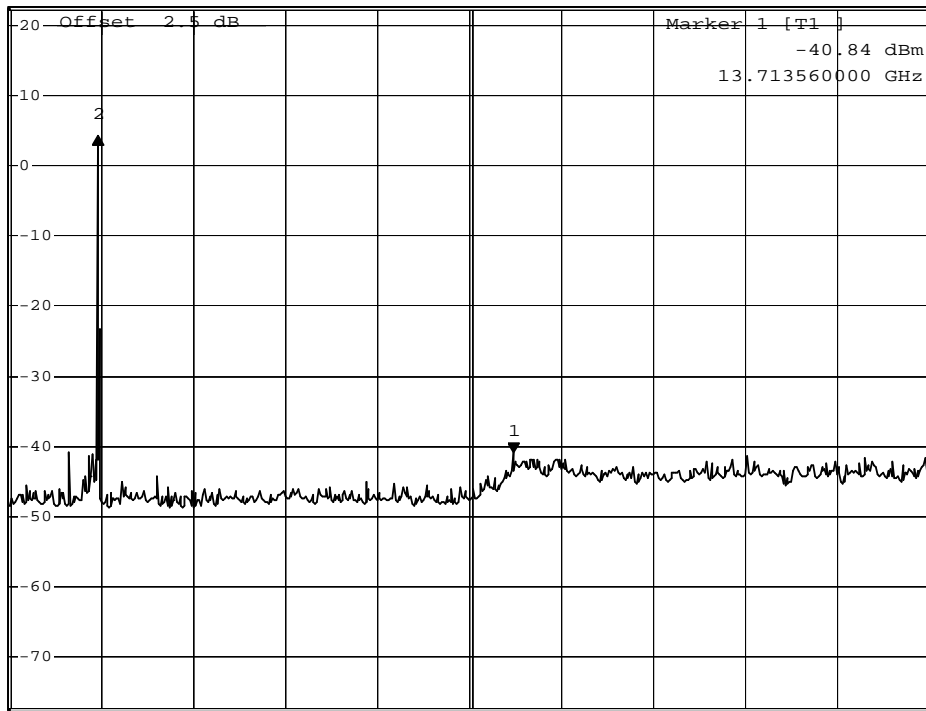


\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz 45.16 dB  
 SWT 2.5 s -11.286440000 GHz

Ref 22.5 dBm

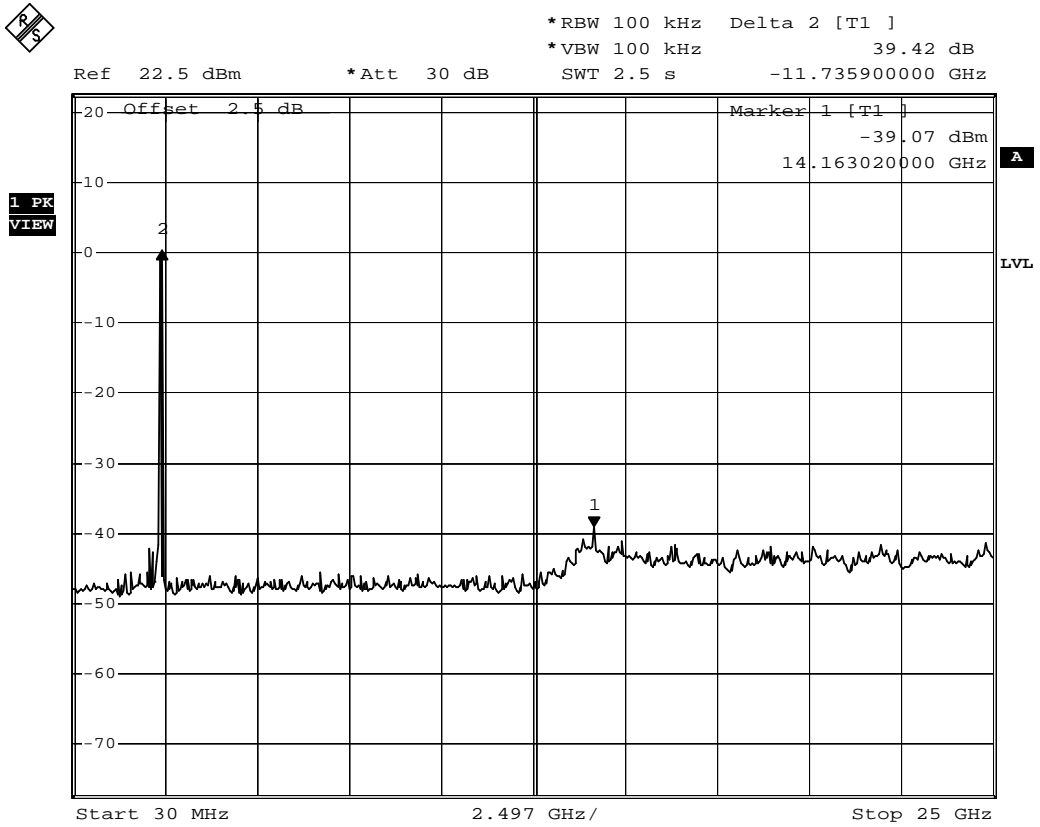
\*Att 30 dB

1 PK  
VIEW



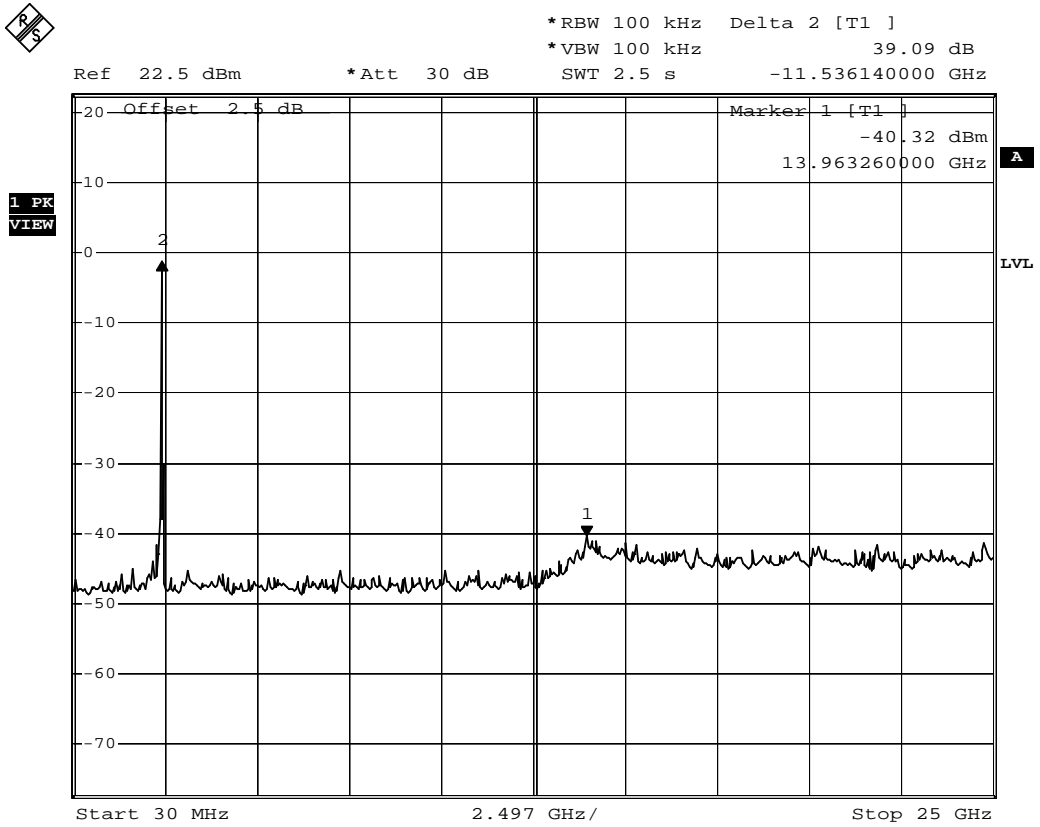
Date: 9.JUL.2010 16:05:58

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



Date: 9.JUL.2010 16:08:05

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



Date: 9.JUL.2010 16:09:21

**6. Radiated Emission Band Edge**

**6.1. Test Equipment**

The following test equipments are used during the test:

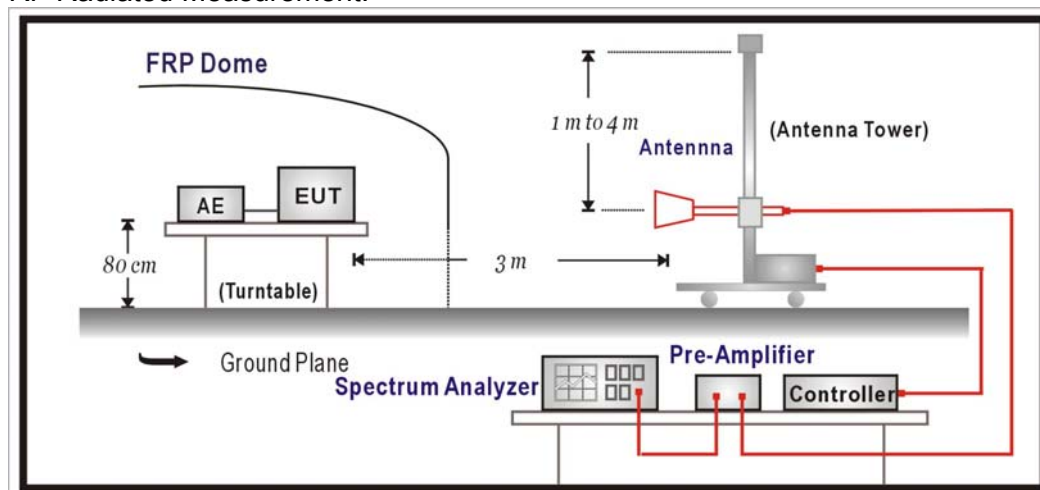
Radiated Emission Band Edge / CB1

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**

RF Radiated Measurement:



**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 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 : 2013/12/16 - 10:18
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 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	25.711	55.770	-18.230	74.000	PEAK
2	* 2386.120	30.848	29.995	60.843	-13.157	74.000	PEAK
3	2390.000	30.888	27.237	58.125	-15.875	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 : 2013/12/16 - 10:23
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2412MHz



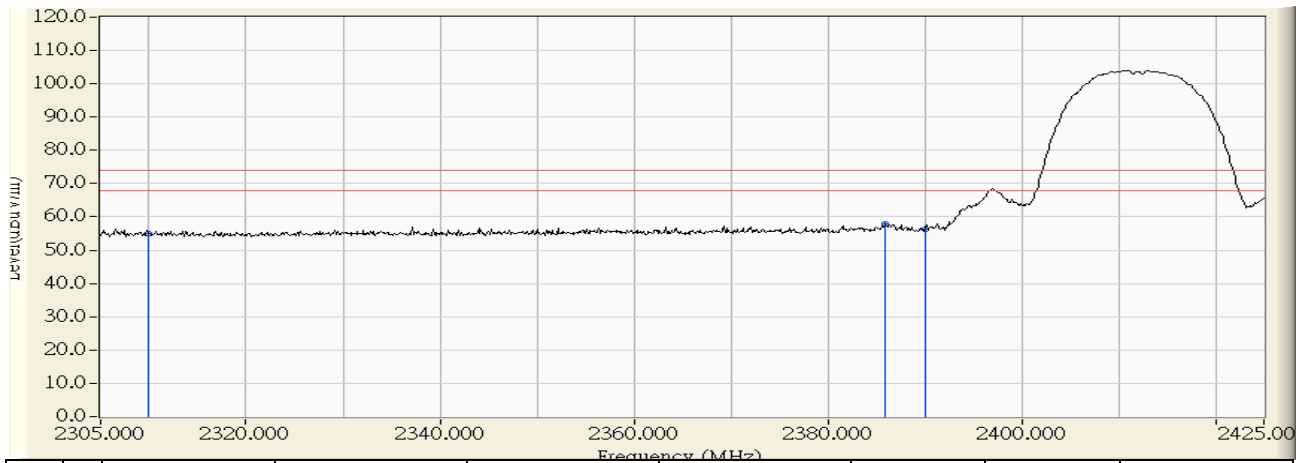
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	12.012	42.071	-11.929	54.000	AVERAGE
2	* 2386.480	30.852	17.500	48.352	-5.648	54.000	AVERAGE
3	2390.000	30.888	15.693	46.581	-7.419	54.000	AVERAGE

**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 : 2013/12/16 - 10:27
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 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	24.941	55.000	-19.000	74.000	PEAK
2	* 2385.880	30.845	26.977	57.823	-16.177	74.000	PEAK
3	2390.000	30.888	25.272	56.160	-17.840	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 : 2013/12/16 - 10:28
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2412MH

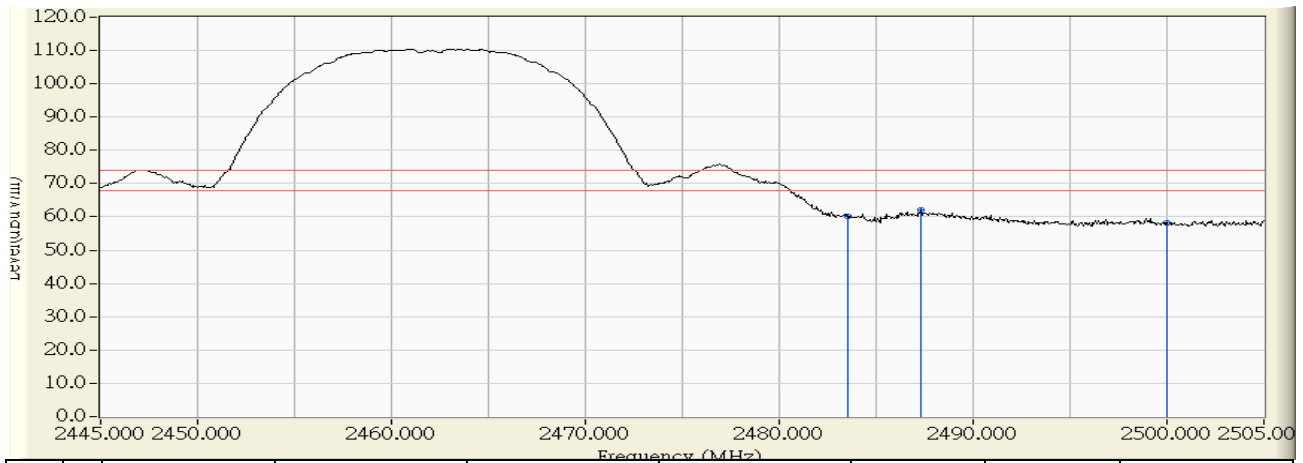


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	12.152	42.211	-11.789	54.000	AVERAGE
2	* 2386.000	30.847	14.524	45.371	-8.629	54.000	AVERAGE
3	2390.000	30.888	13.514	44.402	-9.598	54.000	AVERAGE

**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 : 2013/12/16 - 11:11
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2462MHz

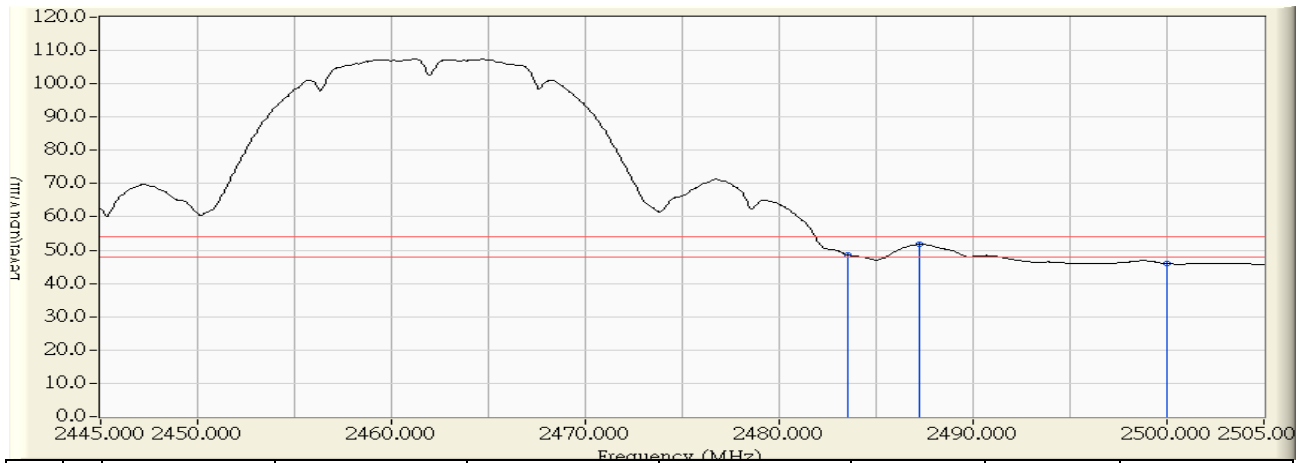


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	28.259	60.117	-13.883	74.000	PEAK
2	* 2487.300	31.897	30.071	61.968	-12.032	74.000	PEAK
3	2500.000	31.988	26.227	58.216	-15.784	74.000	PEAK

**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 : 2013/12/16 - 11:12
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2462MHz

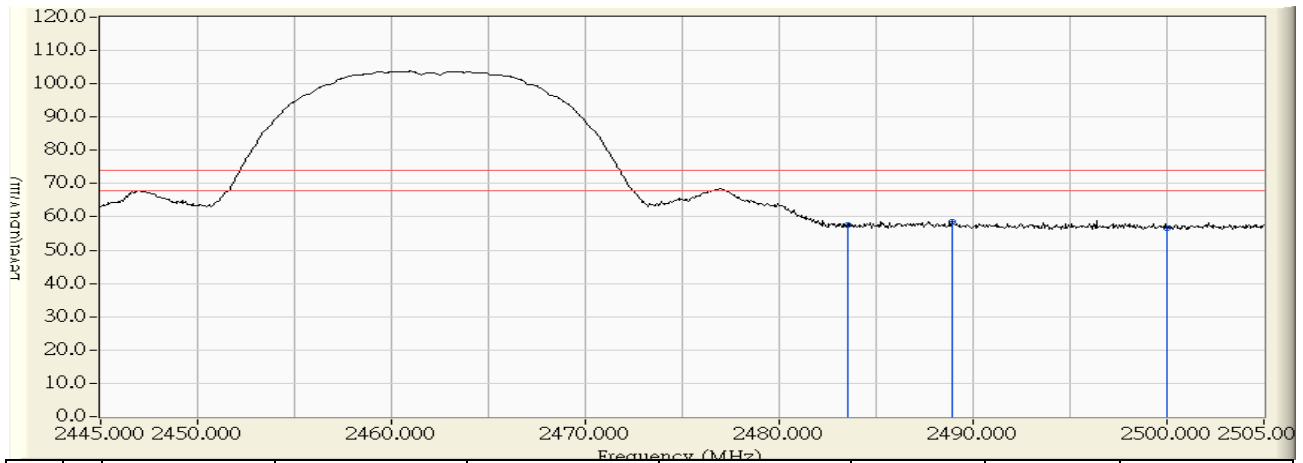


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	16.770	48.628	-5.372	54.000	AVERAGE
2	* 2487.240	31.897	19.815	51.712	-2.288	54.000	AVERAGE
3	2500.000	31.988	13.964	45.953	-8.047	54.000	AVERAGE

**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 : 2013/12/16 - 11:15
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2462MHz

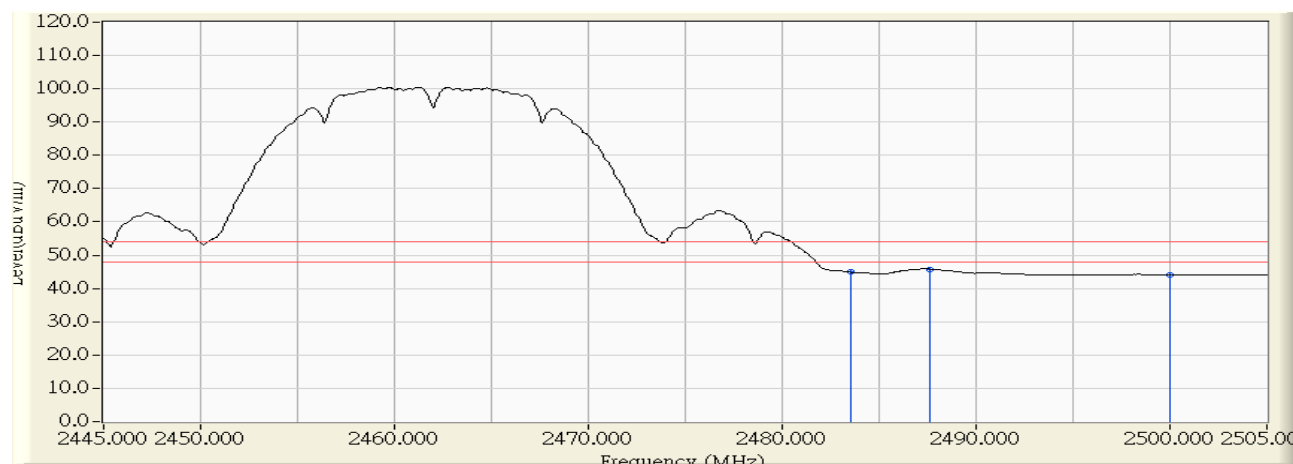


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	25.608	57.466	-16.534	74.000	PEAK
2	* 2488.920	31.914	26.521	58.435	-15.565	74.000	PEAK
3	2500.000	31.988	24.629	56.618	-17.382	74.000	PEAK

**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 : 2013/12/16 - 11:16
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11b_2462MHz

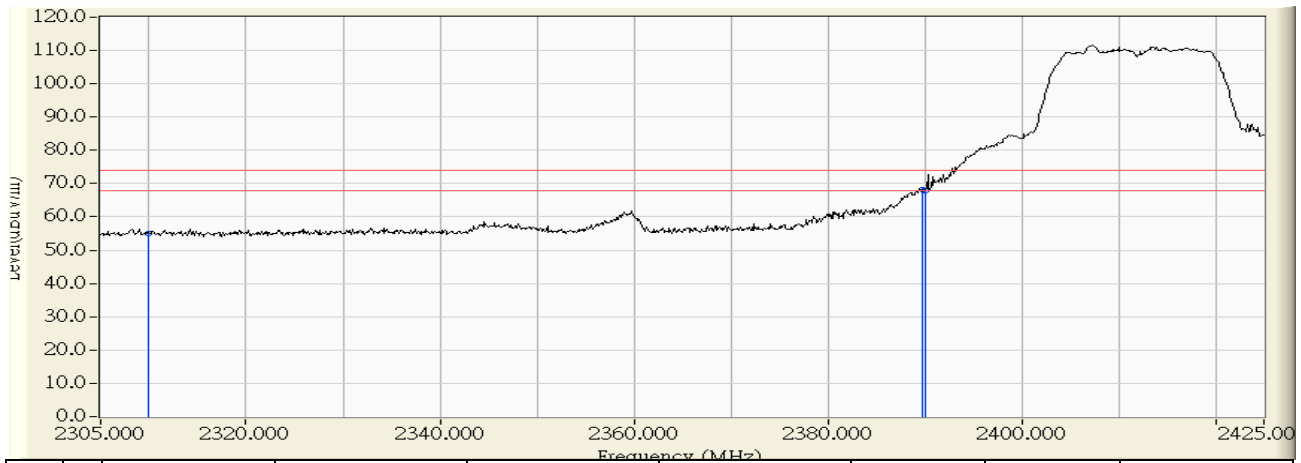


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	13.027	44.885	-9.115	54.000	AVERAGE
2	* 2487.600	31.901	13.926	45.826	-8.174	54.000	AVERAGE
3	2500.000	31.988	12.108	44.097	-9.903	54.000	AVERAGE

**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 : 2013/12/16 - 10:32
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2412MHz

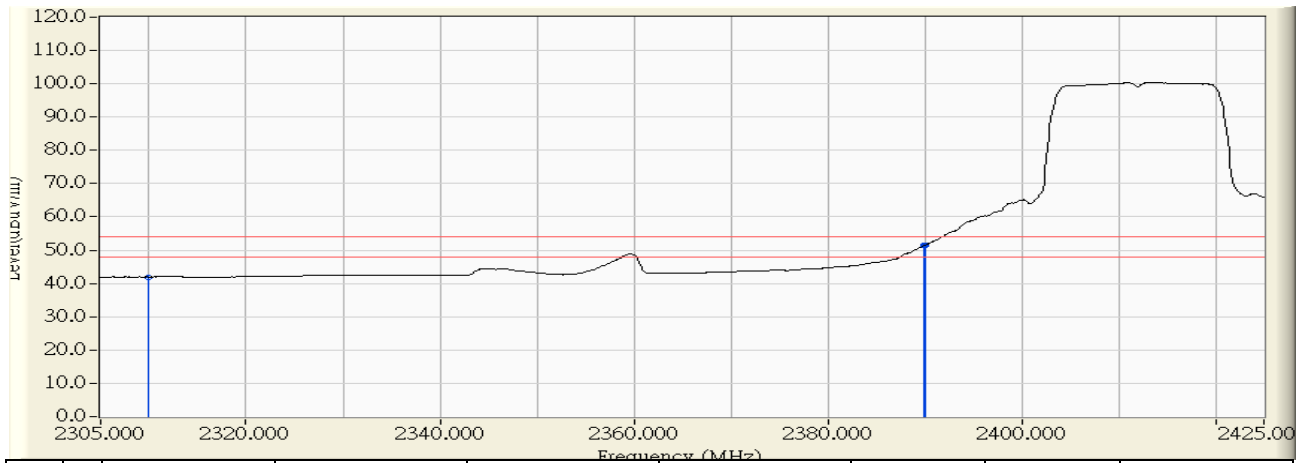


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	24.984	55.043	-18.957	74.000	PEAK
2	* 2389.720	30.885	37.376	68.261	-5.739	74.000	PEAK
3	2390.000	30.888	37.069	67.957	-6.043	74.000	PEAK

**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 : 2013/12/16 - 10:33
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2412MHz



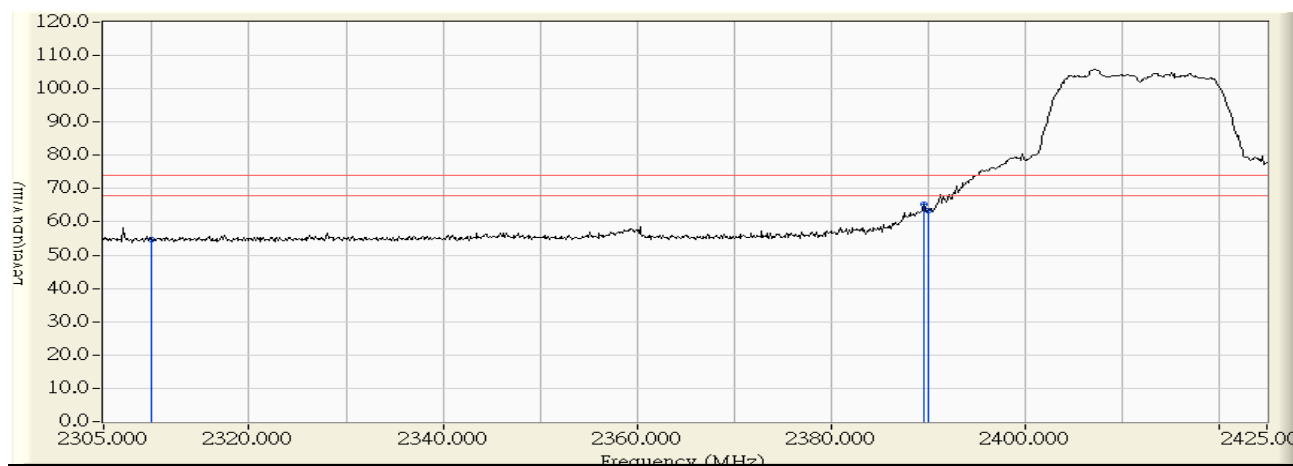
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	11.890	41.949	-12.051	54.000	AVERAGE
2	2389.960	30.888	20.459	51.347	-2.653	54.000	AVERAGE
3	* 2390.000	30.888	20.514	51.402	-2.598	54.000	AVERAGE

**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 : 2013/12/16 - 10:36
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2412MHz

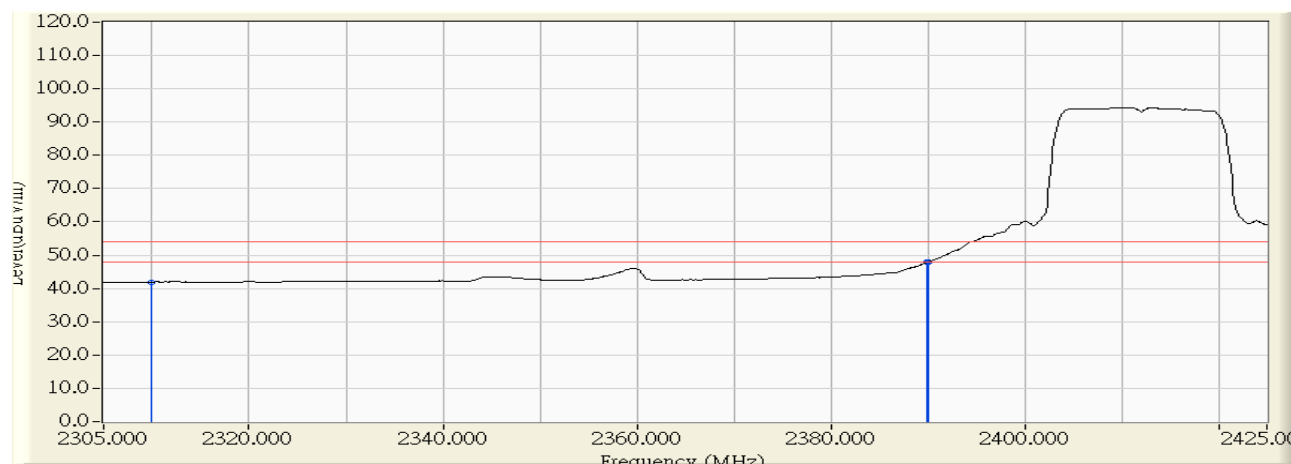


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	24.534	54.593	-19.407	74.000	PEAK
2	* 2389.600	30.884	34.327	65.211	-8.789	74.000	PEAK
3	2390.000	30.888	32.424	63.312	-10.688	74.000	PEAK

**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 : 2013/12/16 - 10:37
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2412MHz

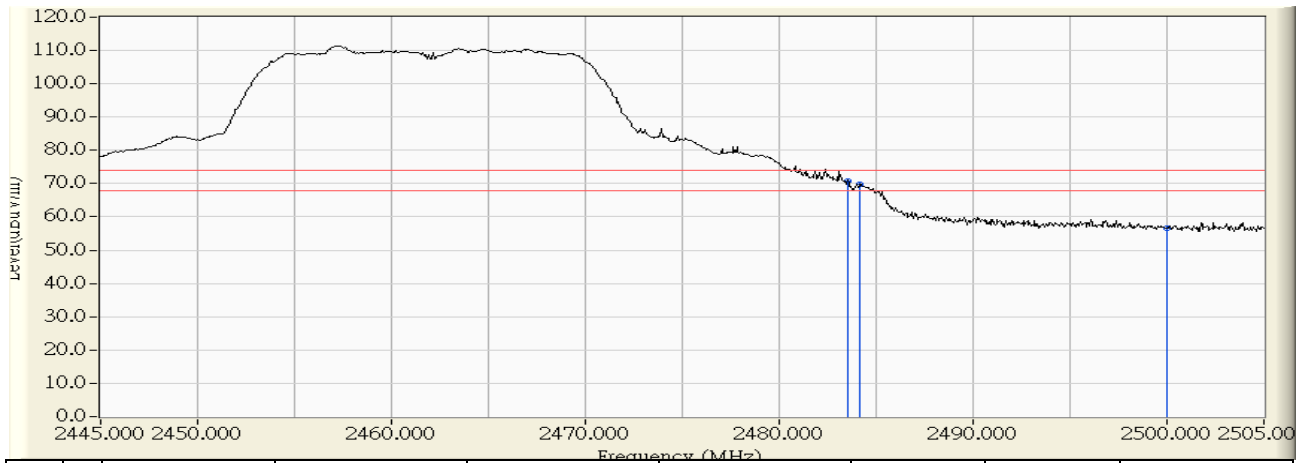


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	11.901	41.960	-12.040	54.000	AVERAGE
2	2389.960	30.888	16.927	47.815	-6.185	54.000	AVERAGE
3	* 2390.000	30.888	16.986	47.874	-6.126	54.000	AVERAGE

**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 : 2014/01/24 - 19:02
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2462MHz

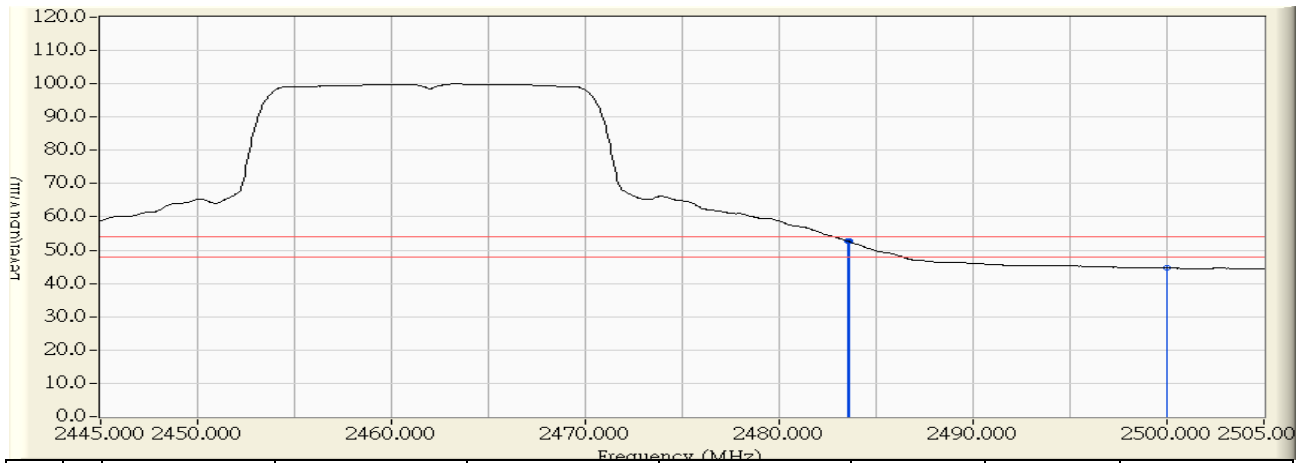


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	30.830	39.910	70.740	-3.260	74.000	PEAK
2		2484.120	30.831	38.938	69.769	-4.231	74.000	PEAK
3		2500.000	30.852	25.635	56.487	-17.513	74.000	PEAK

**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 : 2014/01/24 - 19:03
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2462MHz

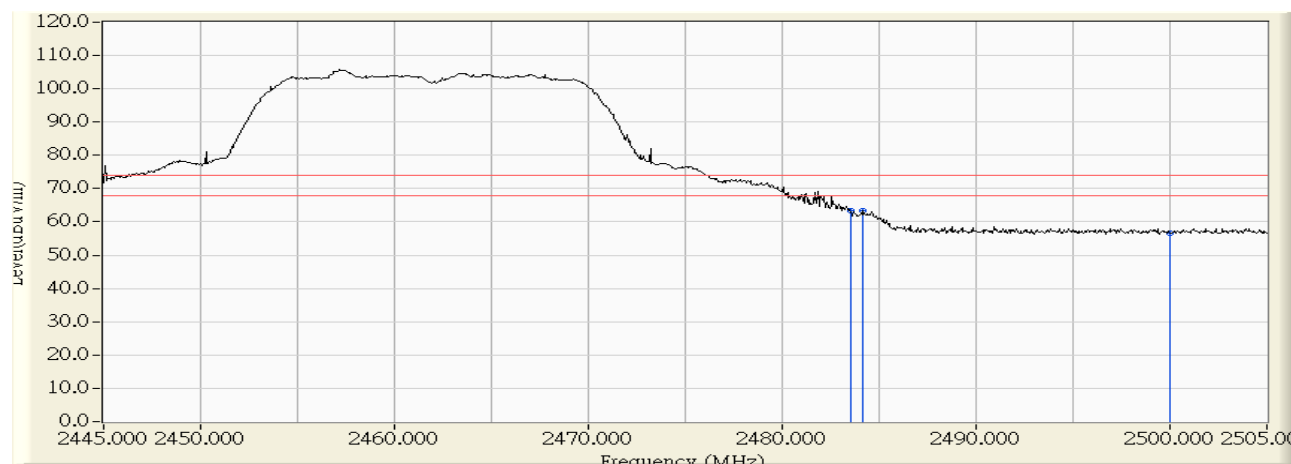


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	30.830	21.911	52.741	-1.259	54.000	AVERAGE
2		2483.580	30.830	21.830	52.660	-1.340	54.000	AVERAGE
3		2500.000	30.852	13.833	44.685	-9.315	54.000	AVERAGE

**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 : 2013/12/16 - 11:33
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2462MHz

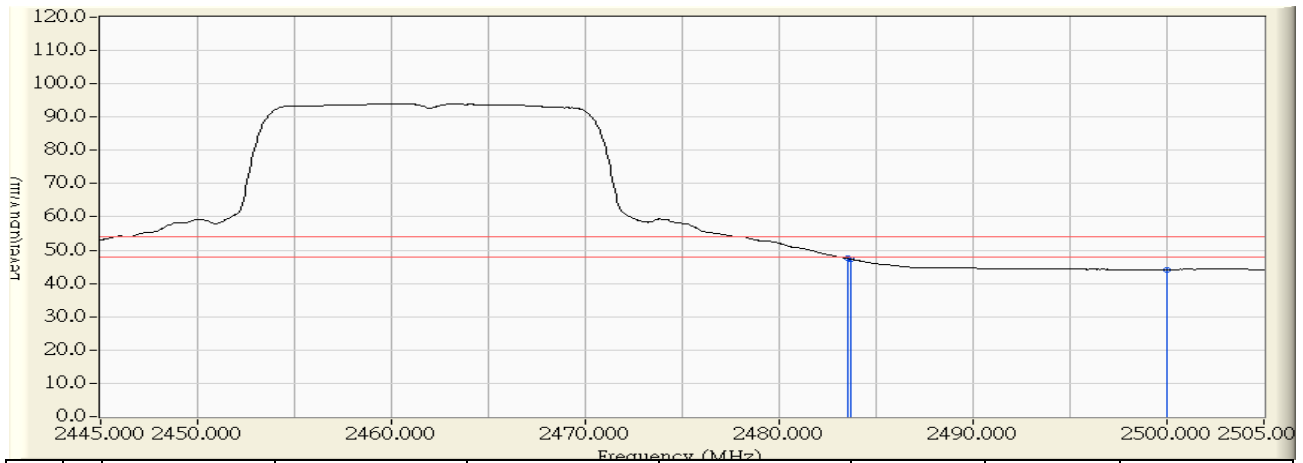


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	31.858	31.376	63.234	-10.766	74.000	PEAK
2	* 2484.120	31.864	31.450	63.314	-10.686	74.000	PEAK
3	2500.000	31.988	24.731	56.720	-17.280	74.000	PEAK

**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 : 2013/12/16 - 11:34
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11g_2462MHz

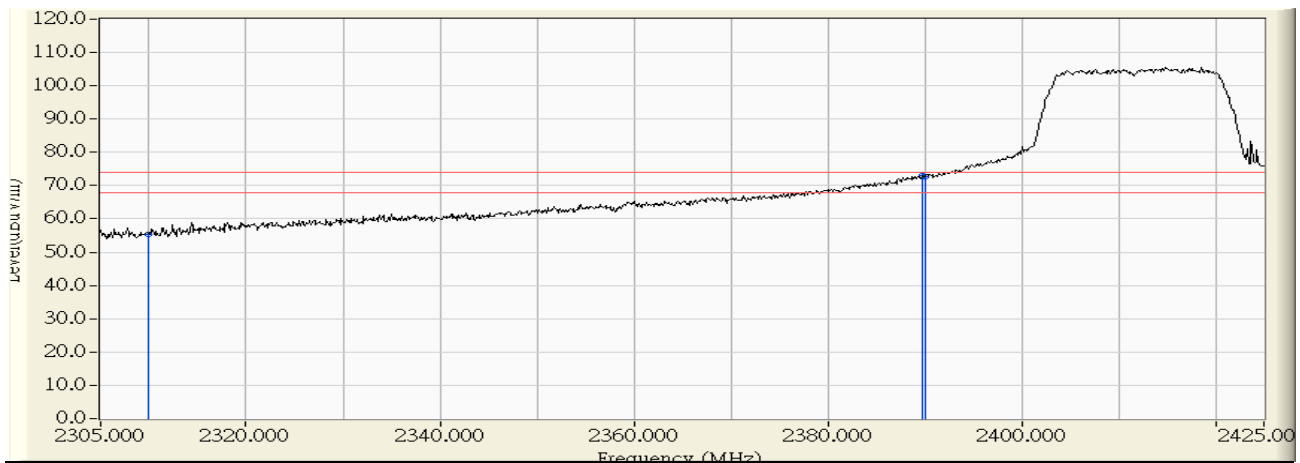


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	15.676	47.534	-6.466	54.000	AVERAGE
2		2483.700	31.860	15.469	47.329	-6.671	54.000	AVERAGE
3		2500.000	31.988	12.186	44.175	-9.825	54.000	AVERAGE

**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 : 2014/01/24 - 19:11
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2412MHz

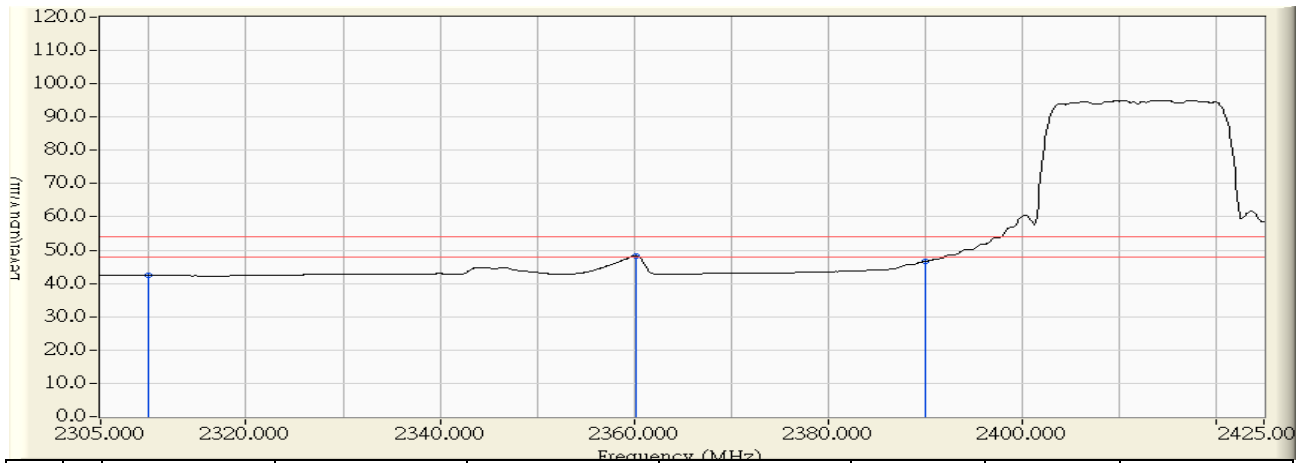


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.261	25.116	55.377	-18.623	74.000	PEAK
2	* 2389.720	30.625	42.336	72.961	-1.039	74.000	PEAK
3	2390.000	30.626	42.165	72.791	-1.209	74.000	PEAK

**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 : 2014/01/24 - 19:12
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2412MHz



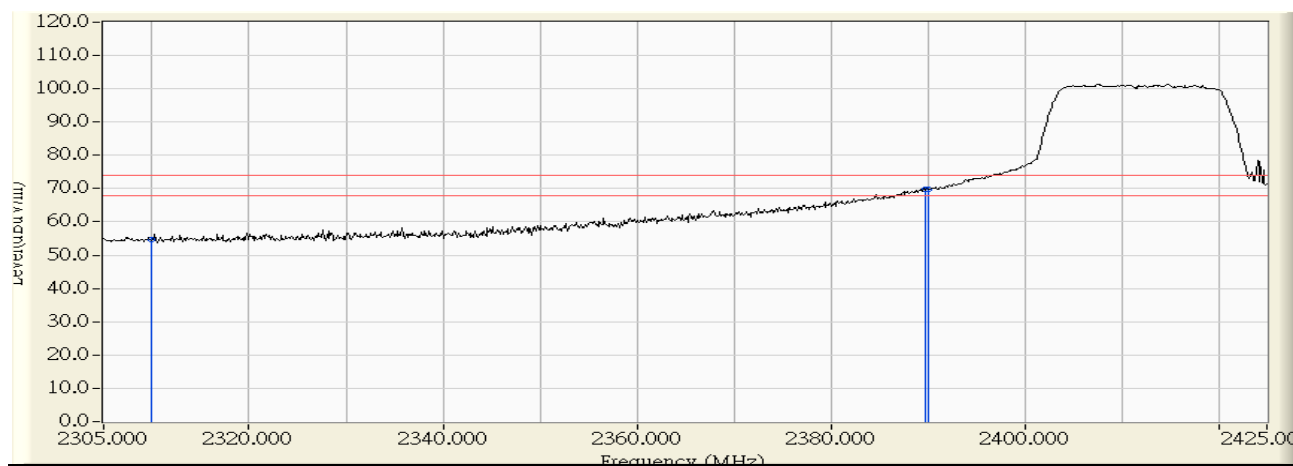
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.261	12.168	42.429	-11.571	54.000	AVERAGE
2	* 2360.200	30.490	17.851	48.341	-5.659	54.000	AVERAGE
3	2390.000	30.626	15.960	46.586	-7.414	54.000	AVERAGE

**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 : 2013/12/16 - 10:47
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2412MHz

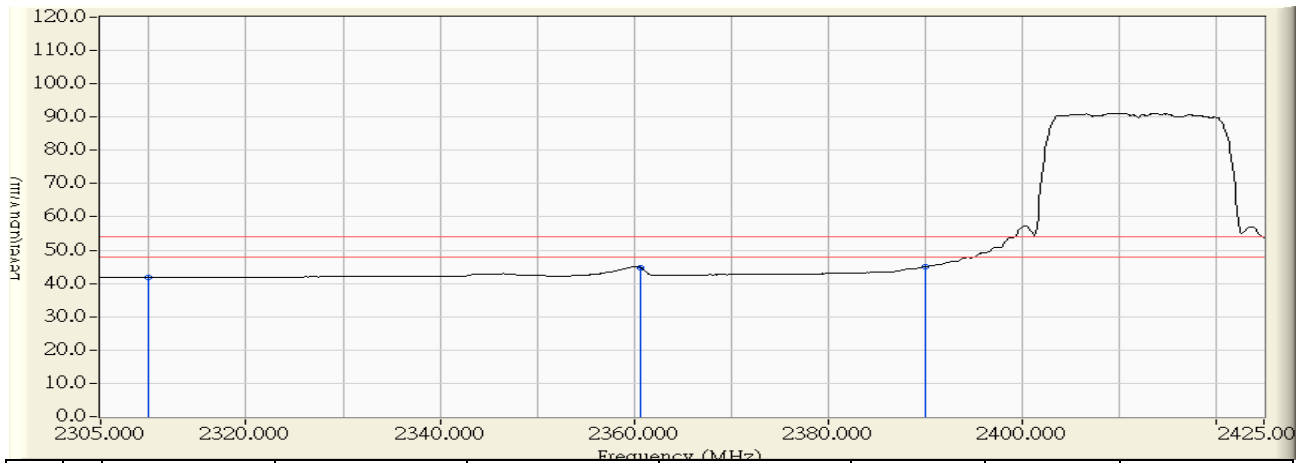


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	24.596	54.655	-19.345	74.000	PEAK
2	2389.840	30.887	39.064	69.951	-4.049	74.000	PEAK
3	* 2390.000	30.888	39.074	69.962	-4.038	74.000	PEAK

**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 : 2013/12/16 - 10:48
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2412MHz

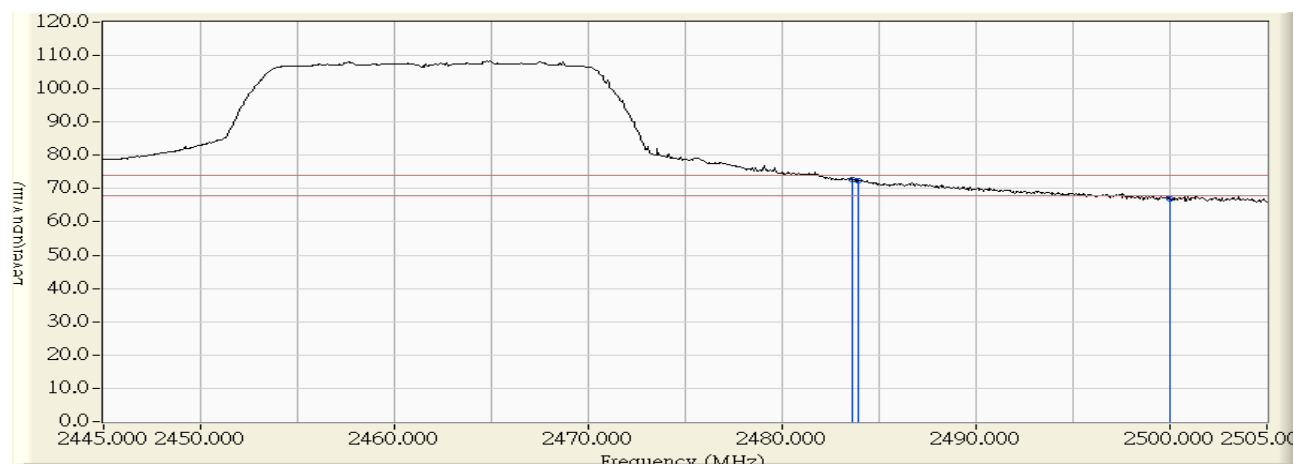


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	11.750	41.809	-12.191	54.000	AVERAGE
2	2360.680	30.584	14.251	44.835	-9.165	54.000	AVERAGE
3	* 2390.000	30.888	14.102	44.990	-9.010	54.000	AVERAGE

**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 : 2014/01/24 - 19:18
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2462MHz

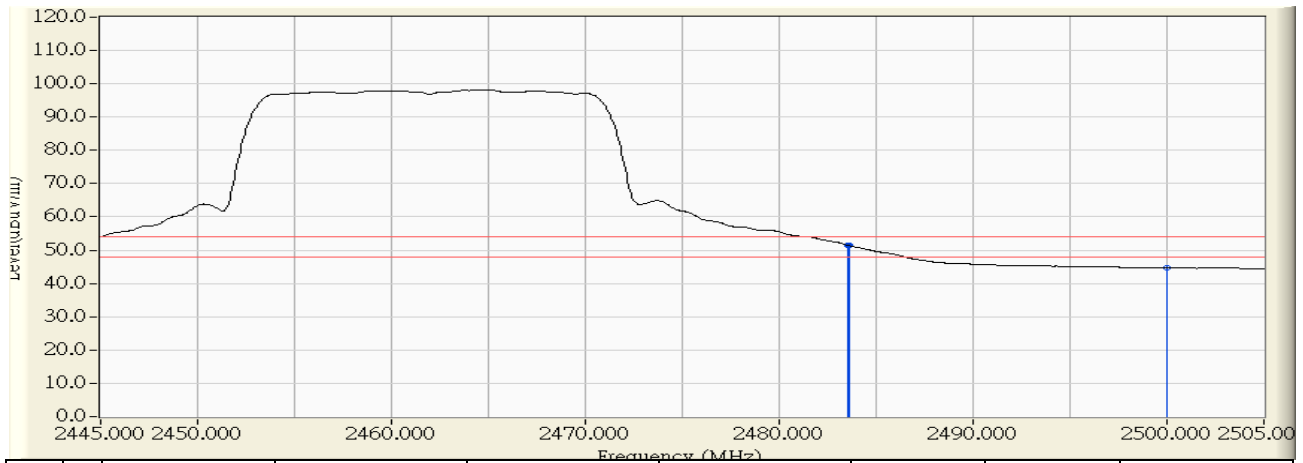


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.580	30.830	41.872	72.702	-1.298	74.000	PEAK
2		2483.940	30.830	41.660	72.491	-1.509	74.000	PEAK
3		2500.000	30.852	36.115	66.967	-7.033	74.000	PEAK

**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 : 2014/01/24 - 19:19
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2462MHz

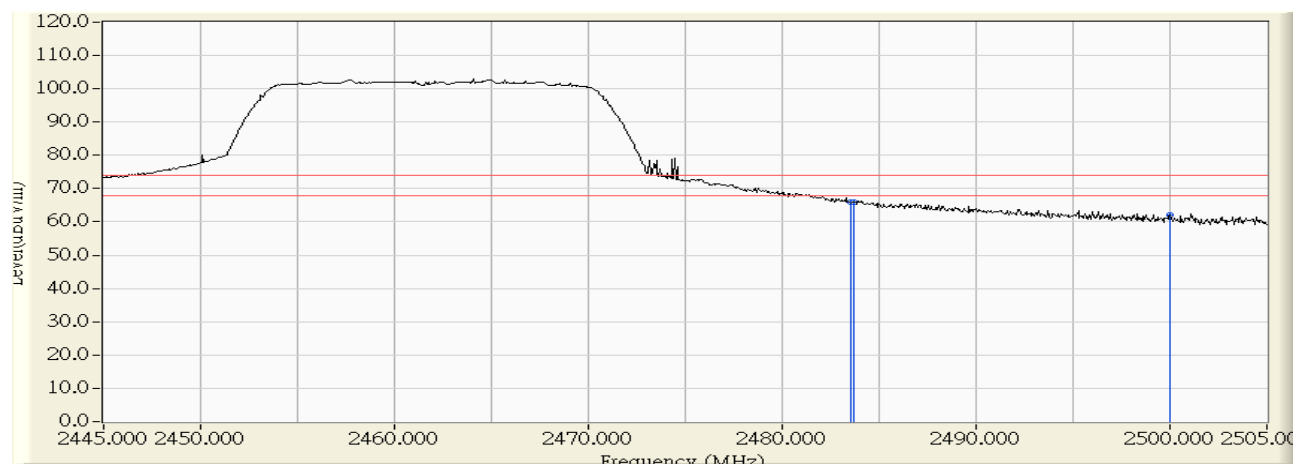


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	30.830	20.709	51.539	-2.461	54.000	AVERAGE
2		2483.580	30.830	20.609	51.439	-2.561	54.000	AVERAGE
3		2500.000	30.852	13.839	44.691	-9.309	54.000	AVERAGE

**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 : 2013/12/16 - 11:47
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2462MHz

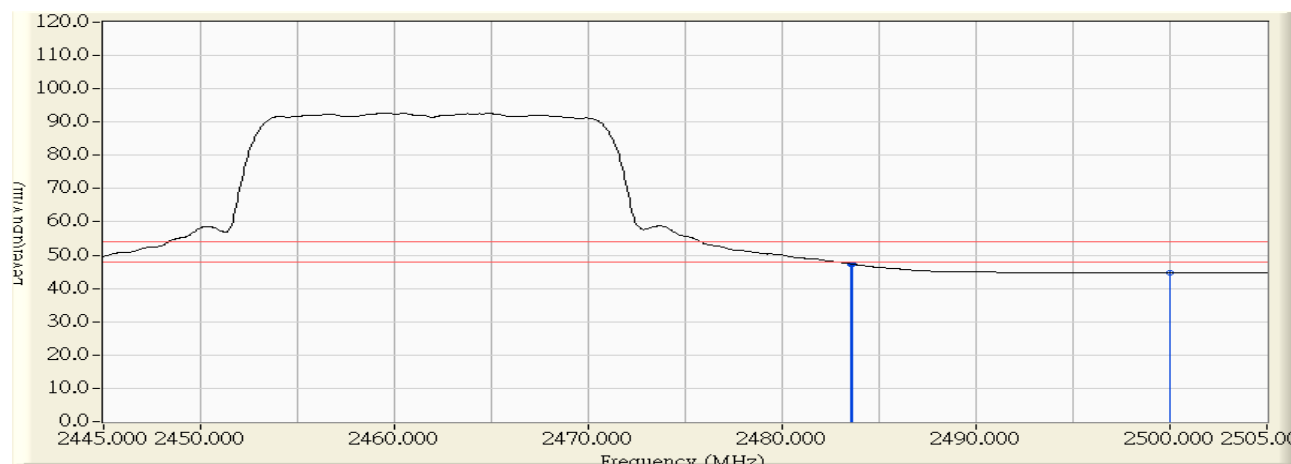


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	34.024	65.882	-8.118	74.000	PEAK
2		2483.700	31.860	33.985	65.845	-8.155	74.000	PEAK
3		2500.000	31.988	29.979	61.968	-12.032	74.000	PEAK

**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 : 2013/12/16 - 11:47
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(20MHz)_2462MHz

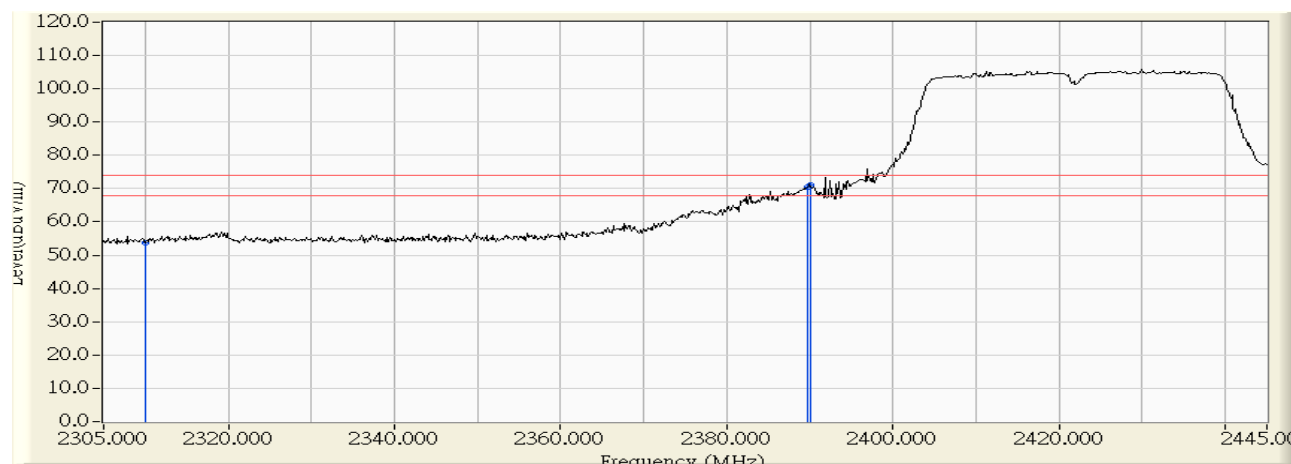


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	15.577	47.435	-6.565	54.000	AVERAGE
2		2483.580	31.859	15.484	47.343	-6.657	54.000	AVERAGE
3		2500.000	31.988	12.647	44.636	-9.364	54.000	AVERAGE

**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 : 2013/12/16 - 11:00
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2422MHz

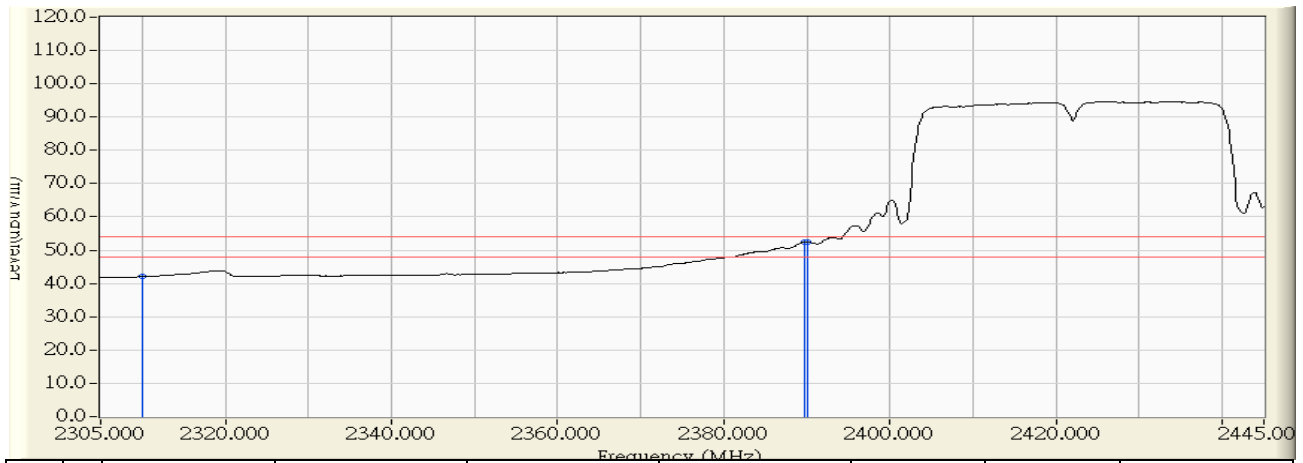


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	23.689	53.748	-20.252	74.000	PEAK
2	2389.700	30.885	39.412	70.297	-3.703	74.000	PEAK
3	* 2390.000	30.888	40.328	71.216	-2.784	74.000	PEAK

**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 : 2013/12/16 - 10:59
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2422MHz



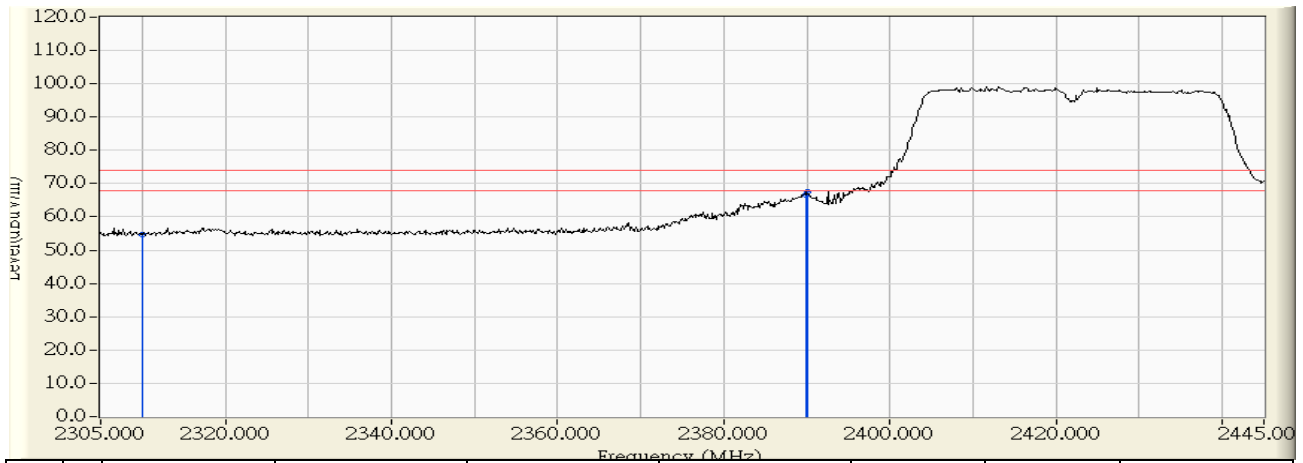
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	12.001	42.060	-11.940	54.000	AVERAGE
2	* 2389.700	30.885	21.640	52.525	-1.475	54.000	AVERAGE
3	2390.000	30.888	21.602	52.490	-1.510	54.000	AVERAGE

**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 : 2013/12/16 - 11:04
Limit : FCC_SpartC_15.209_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2422MHz

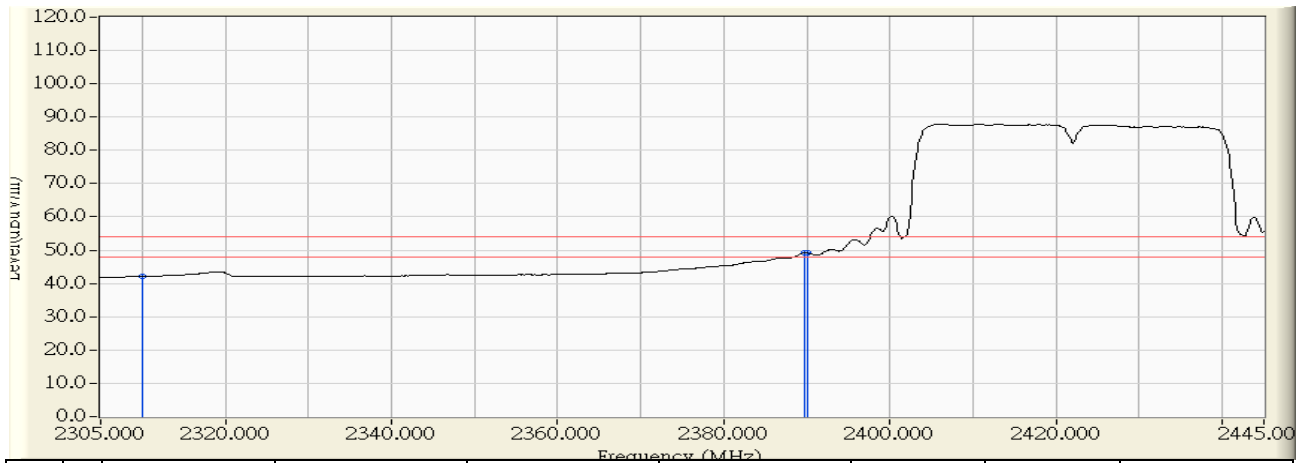


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	24.624	54.683	-19.317	74.000	PEAK
2	2389.840	30.887	35.743	66.630	-7.370	74.000	PEAK
3	* 2390.000	30.888	36.561	67.449	-6.551	74.000	PEAK

**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 : 2013/12/16 - 11:05
Limit : FCC_SpartC_15.209_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2422MHz

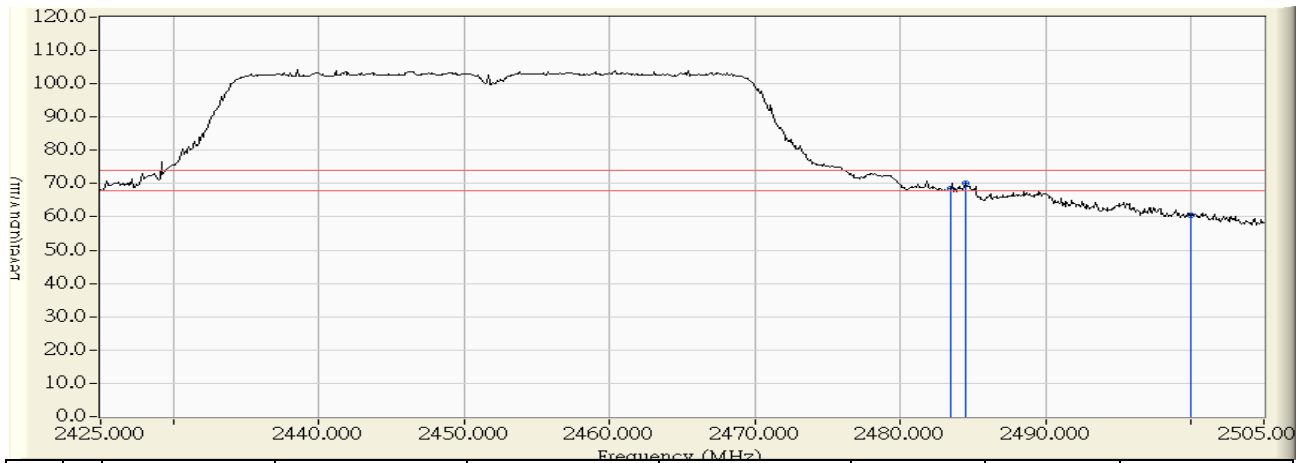


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	30.059	12.041	42.100	-11.900	54.000	AVERAGE
2	* 2389.700	30.885	18.253	49.138	-4.862	54.000	AVERAGE
3	2390.000	30.888	18.247	49.135	-4.865	54.000	AVERAGE

**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 : 2014/01/24 - 19:25
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2452MHz

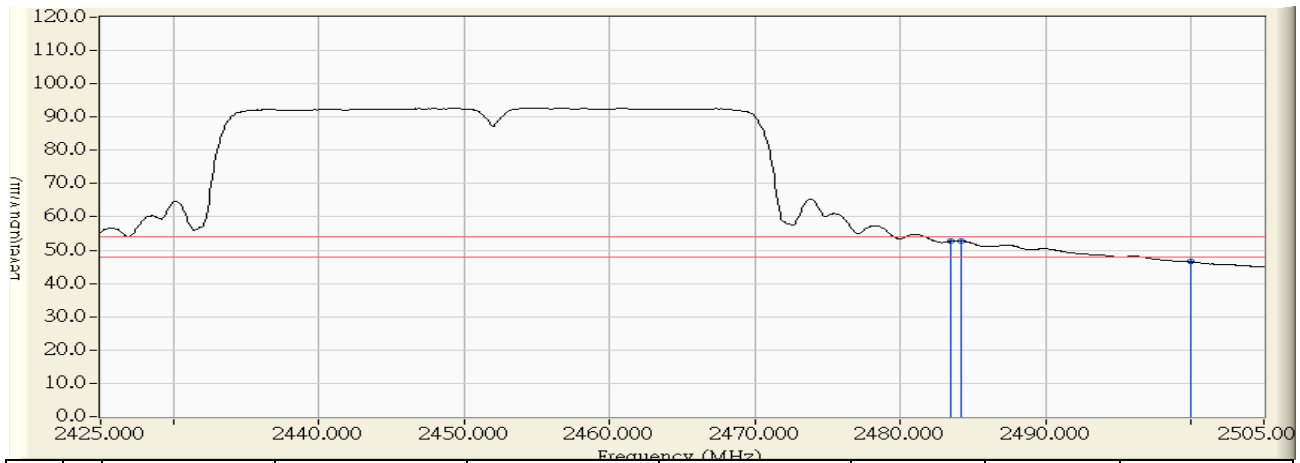


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	30.830	37.740	68.570	-5.430	74.000	PEAK
2	* 2484.440	30.832	39.428	70.259	-3.741	74.000	PEAK
3	2500.000	30.852	29.605	60.457	-13.543	74.000	PEAK

**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 : 2014/01/24 - 19:26
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2452MHz

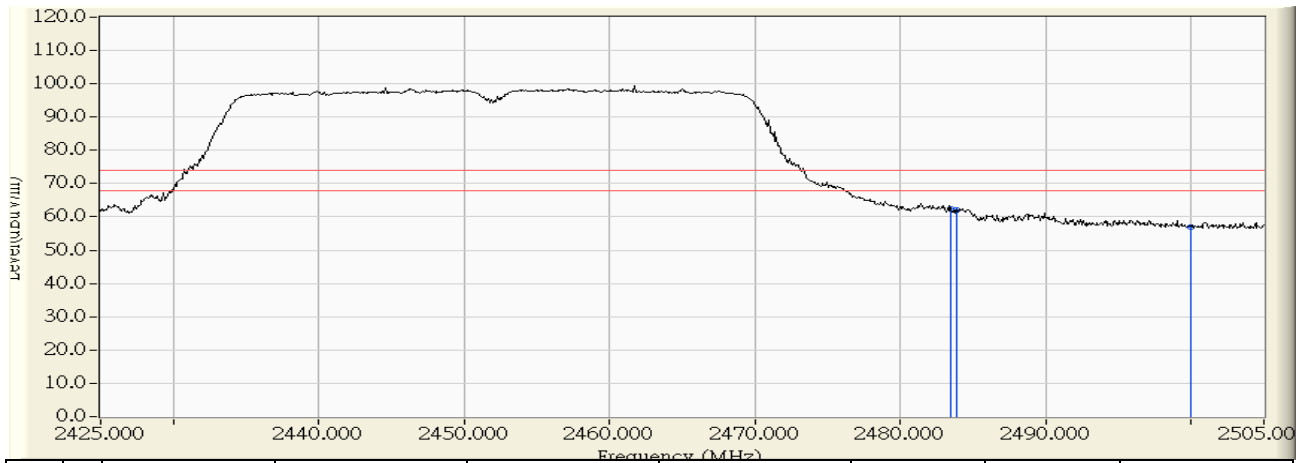


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2483.500	30.830	21.866	52.696	-1.304	54.000	AVERAGE
2	* 2484.200	30.832	21.985	52.816	-1.184	54.000	AVERAGE
3	2500.000	30.852	15.636	46.488	-7.512	54.000	AVERAGE

**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 : 2013/12/16 - 13:04
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 802.11n(40MHz)_2452MHz

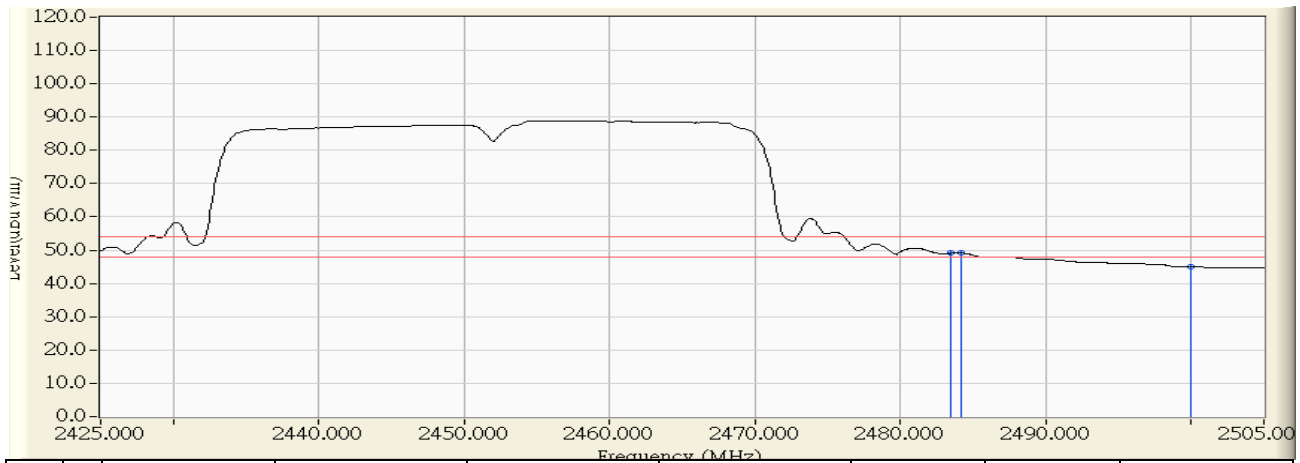


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.858	30.475	62.333	-11.667	74.000	PEAK
2		2483.880	31.862	30.186	62.048	-11.952	74.000	PEAK
3		2500.000	31.988	25.046	57.035	-16.965	74.000	PEAK

**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 : 2013/12/16 - 13:05
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Portable Wireless N Router Sample	Note : Mode 1: Transmit (Power by Adapter) 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	17.205	49.063	-4.937	54.000	AVERAGE
2	* 2484.200	31.866	17.299	49.164	-4.836	54.000	AVERAGE
3	2500.000	31.988	13.009	44.998	-9.002	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**

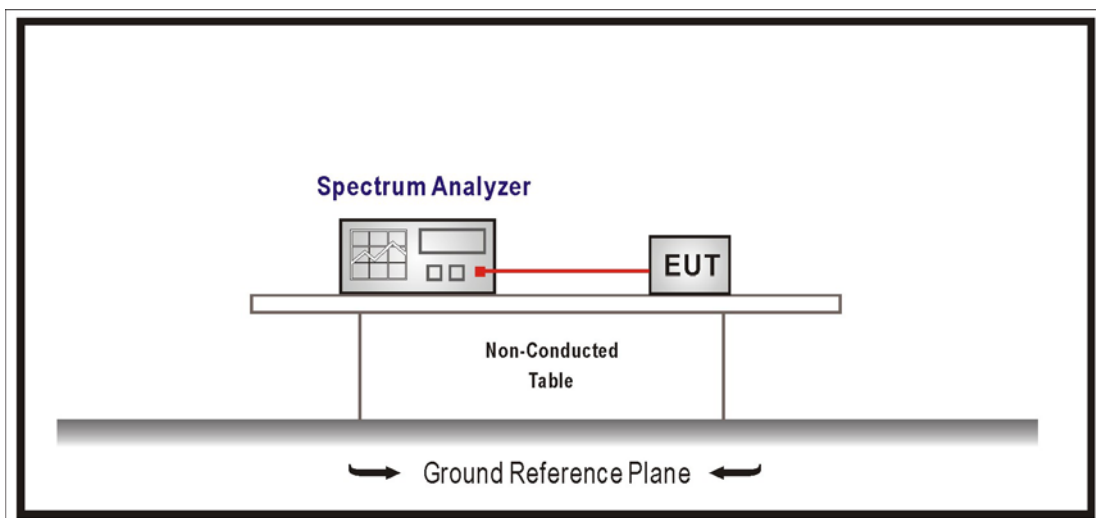
The following test equipments are used during the test:

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 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

**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  $\pm 150\text{Hz}$

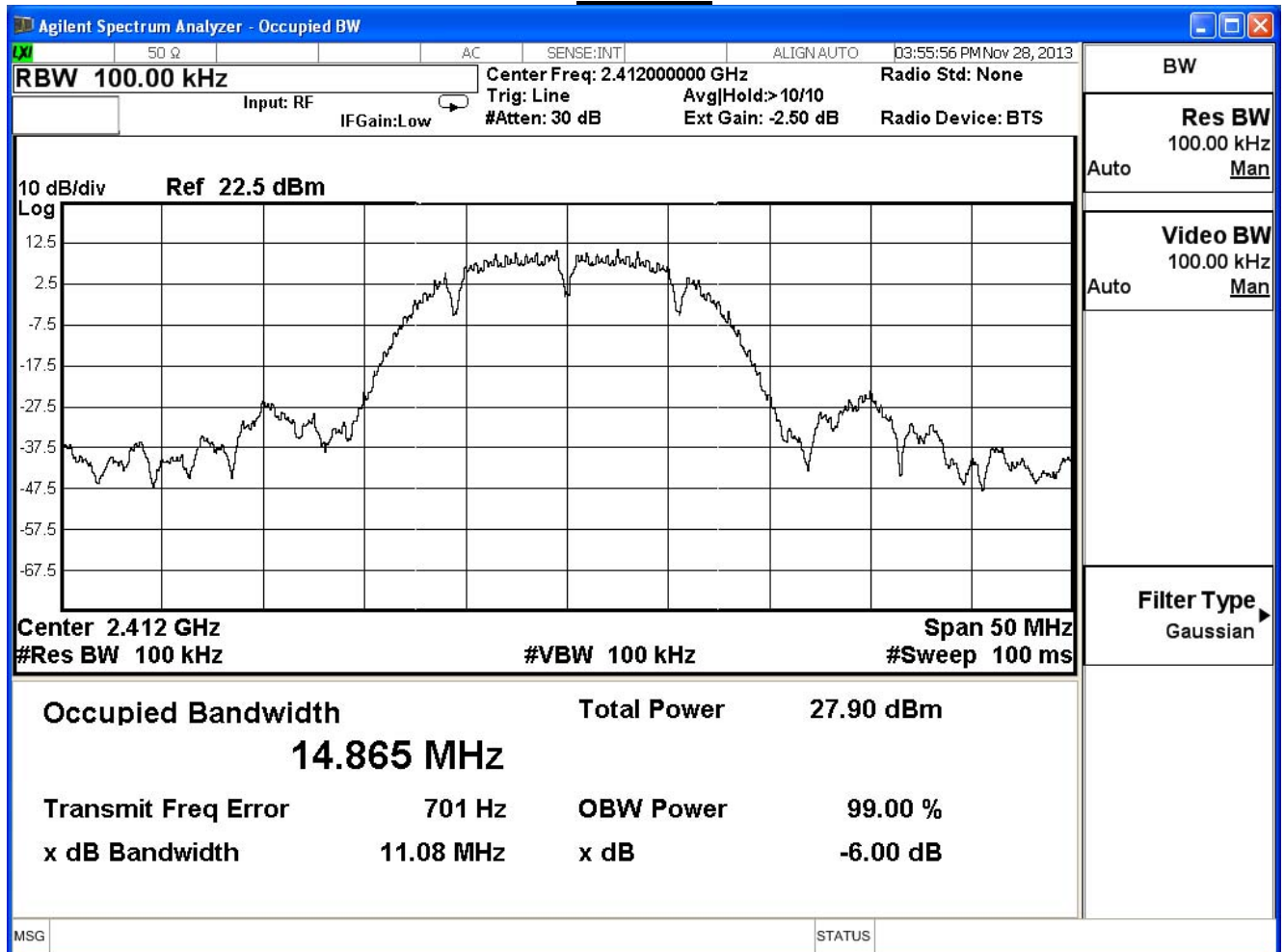
## 7.7. Test Result

Product	Portable Wireless N Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2010/11/28	Test Site	SR7

802.11 b

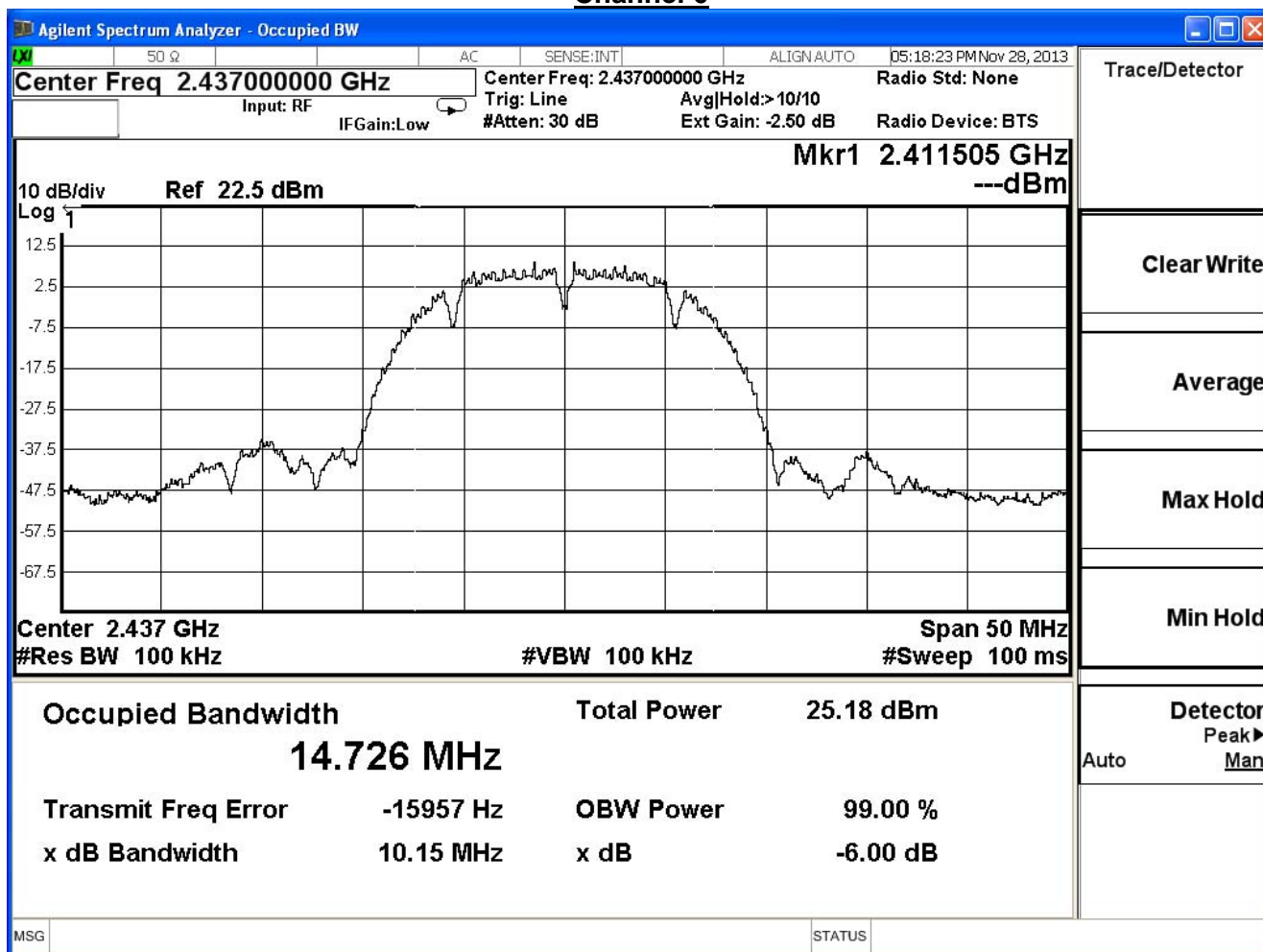
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412	11.08	$\geq 0.5$	Pass
6	2437	10.15	$\geq 0.5$	Pass
11	2462	10.17	$\geq 0.5$	Pass

### Channel 1

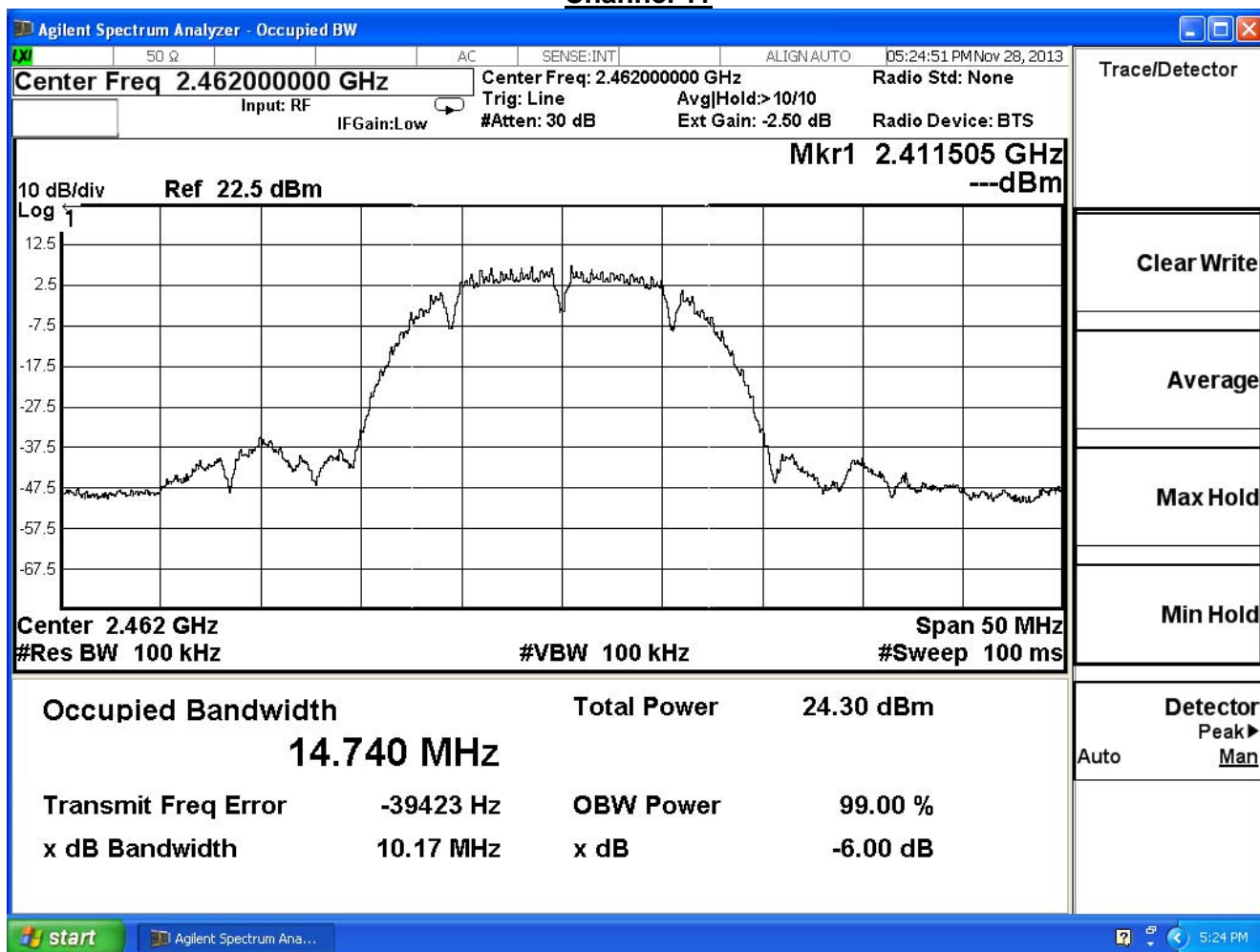




## Channel 6



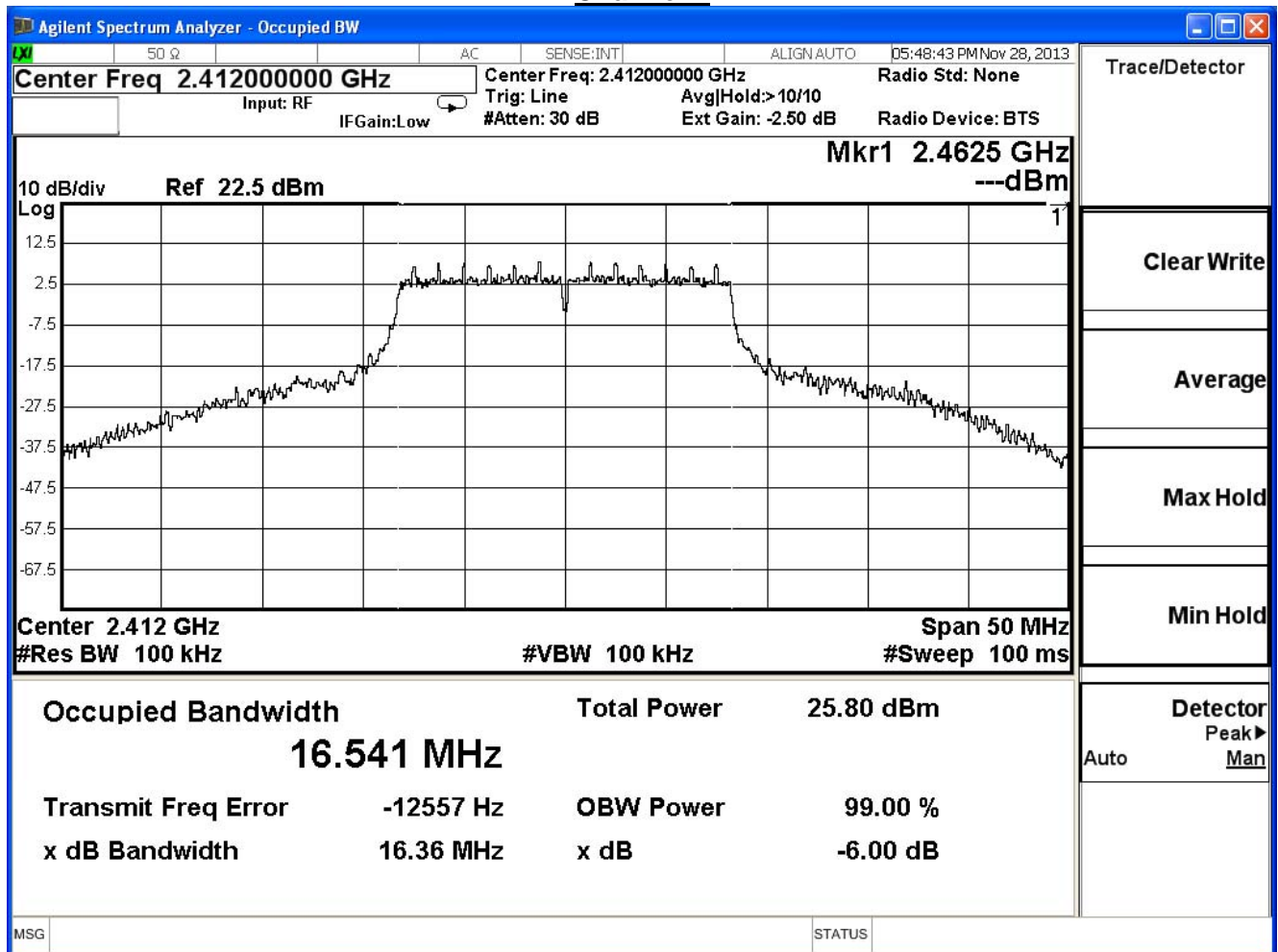
## Channel 11



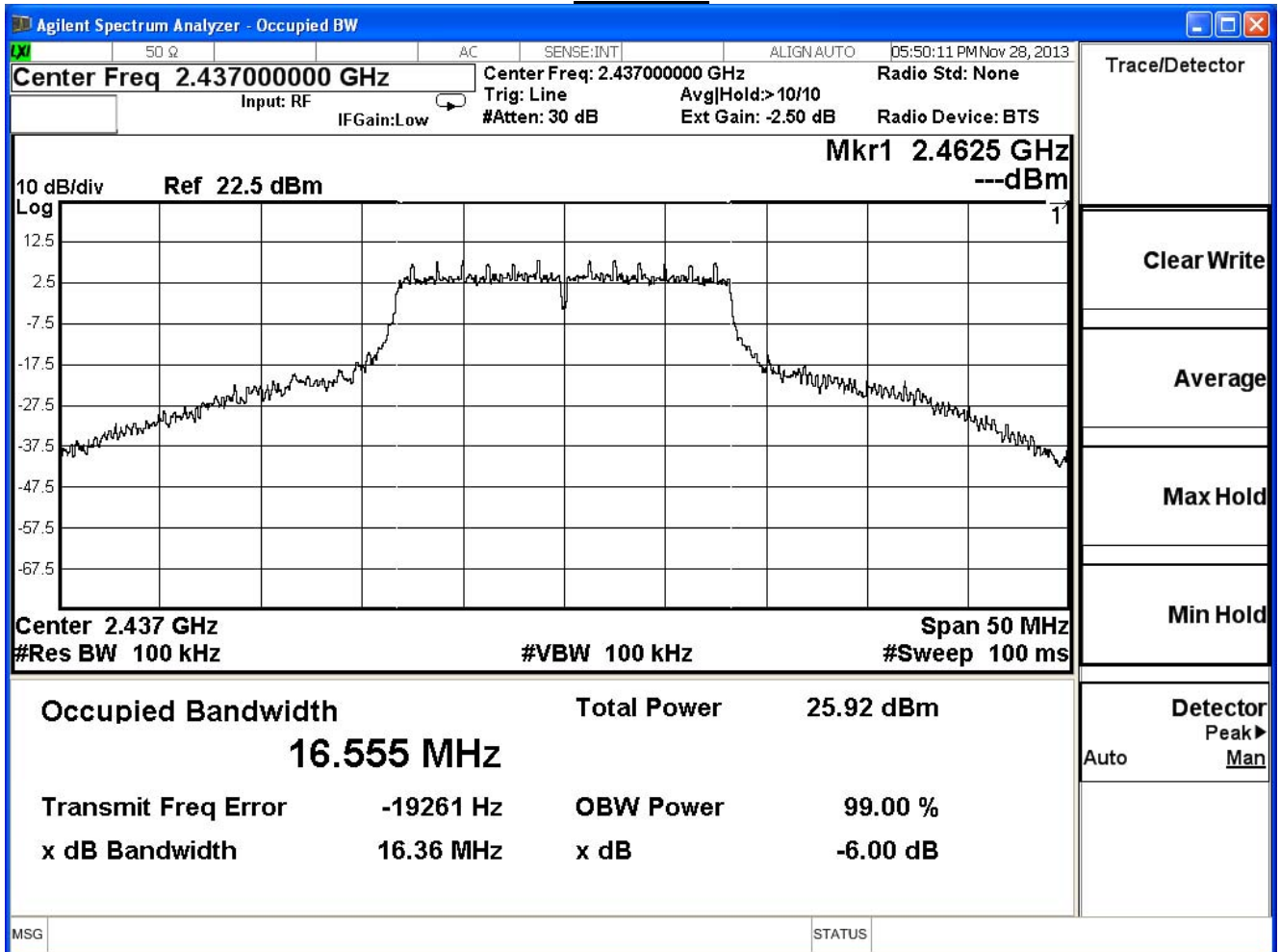
Product	Portable Wireless N Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412	16.36	$\geq 0.5$	Pass
6	2437	16.36	$\geq 0.5$	Pass
11	2462	16.36	$\geq 0.5$	Pass

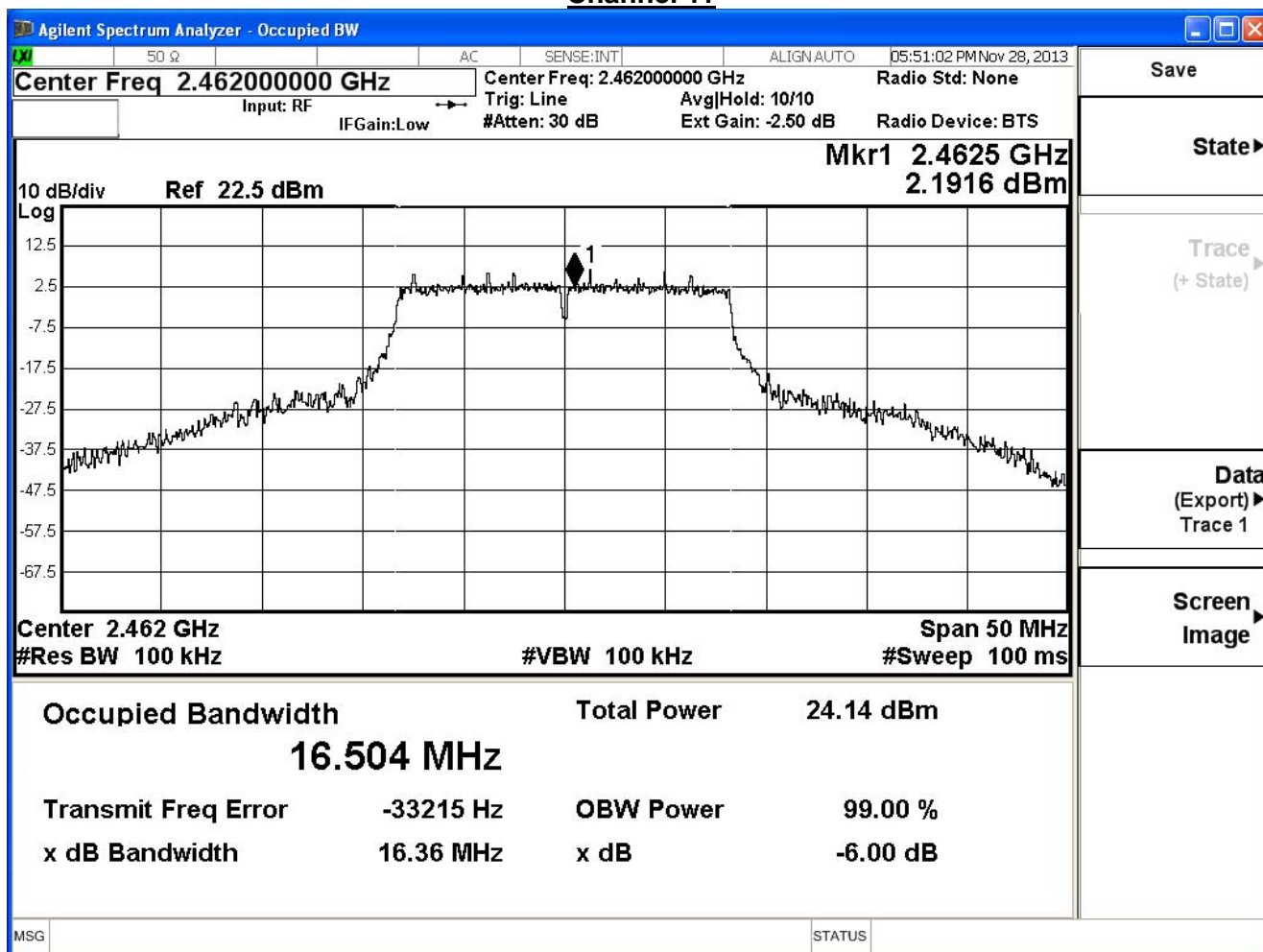
### Channel 1



## Channel 6



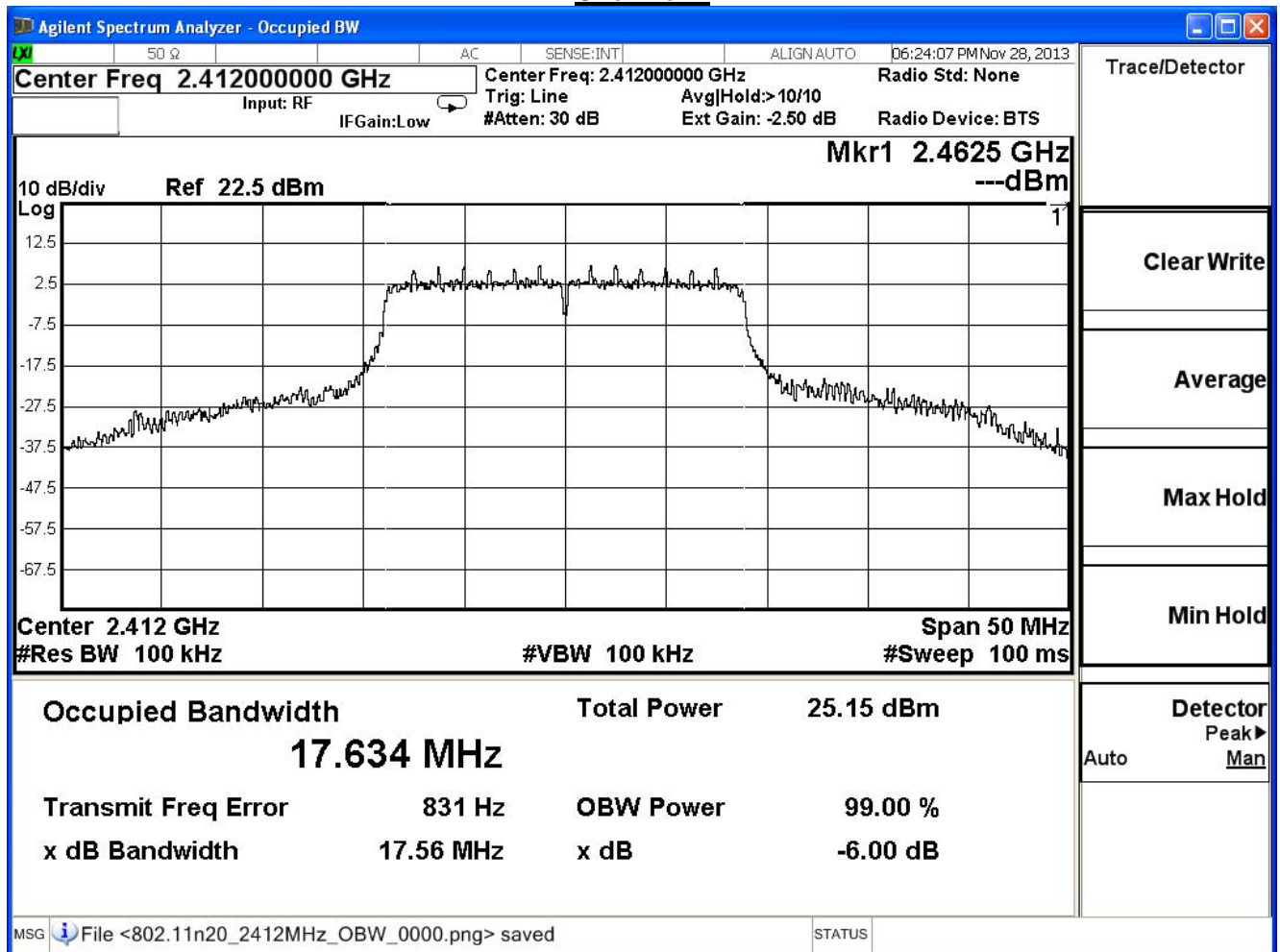
## Channel 11



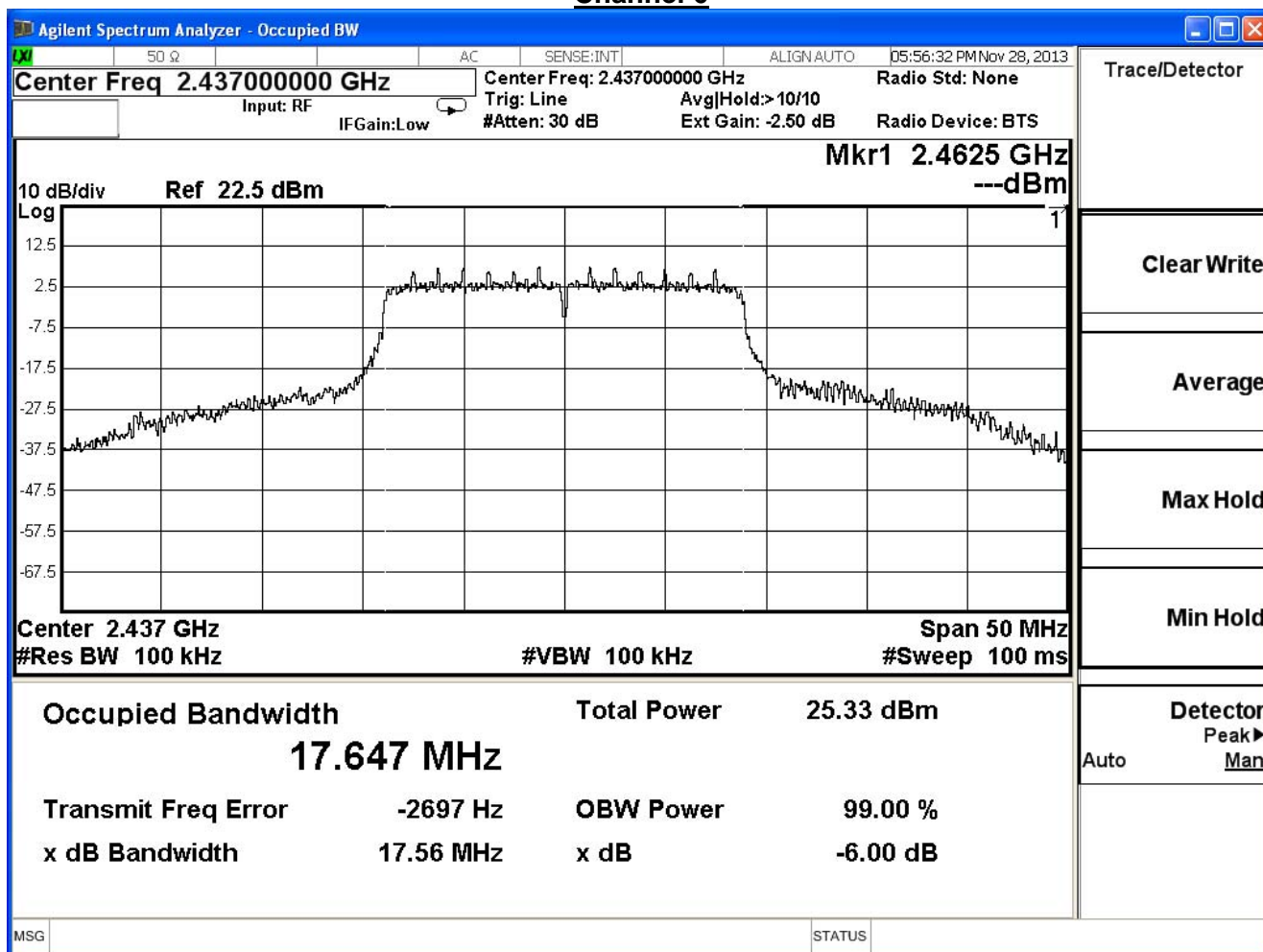
Product	Portable Wireless N Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

IEEE 802.11n (20MHz)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412	17.56	$\geq 0.5$	Pass
6	2437	17.56	$\geq 0.5$	Pass
11	2462	17.57	$\geq 0.5$	Pass

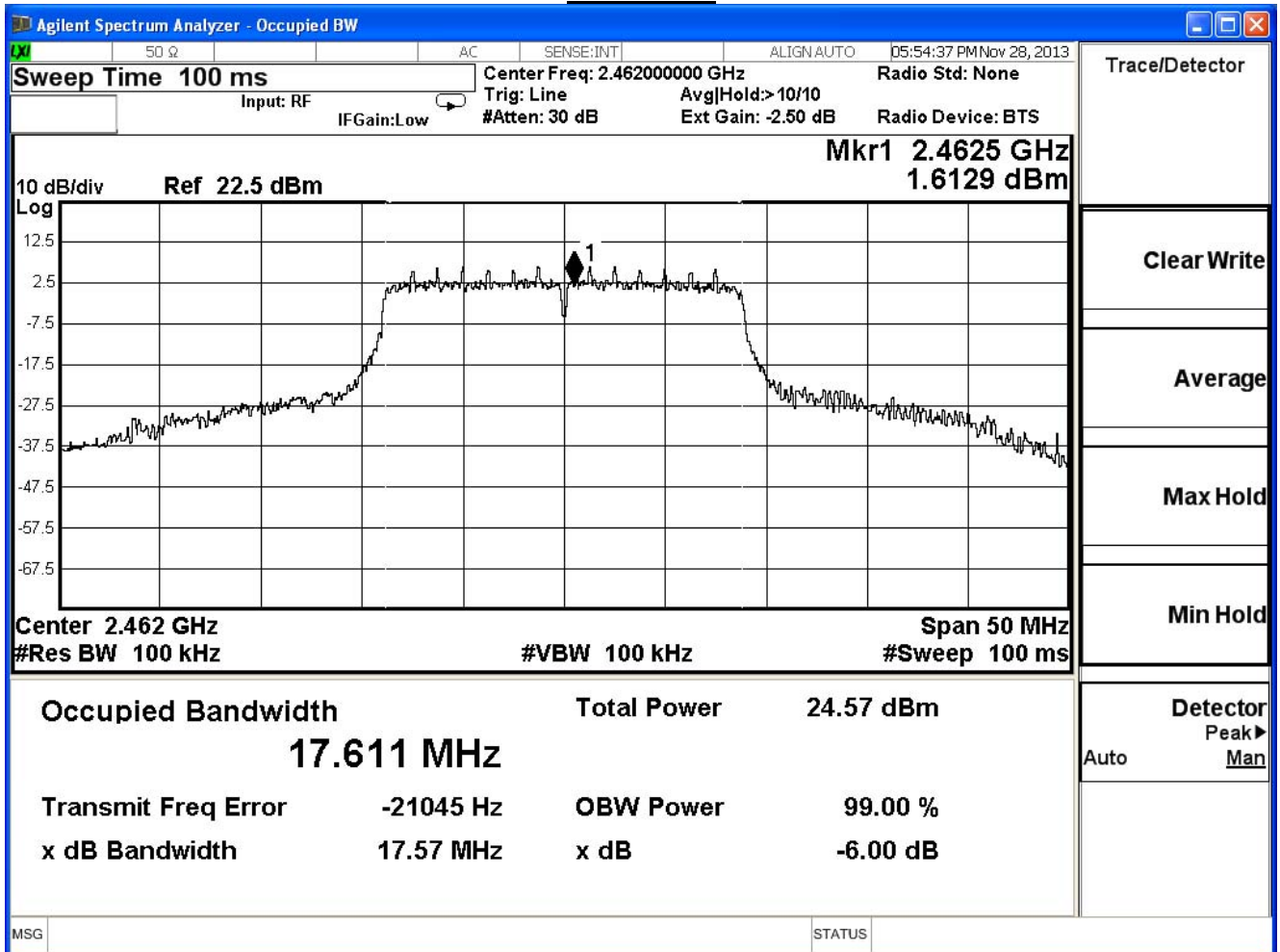
### Channel 1



## Channel 6



## Channel 11

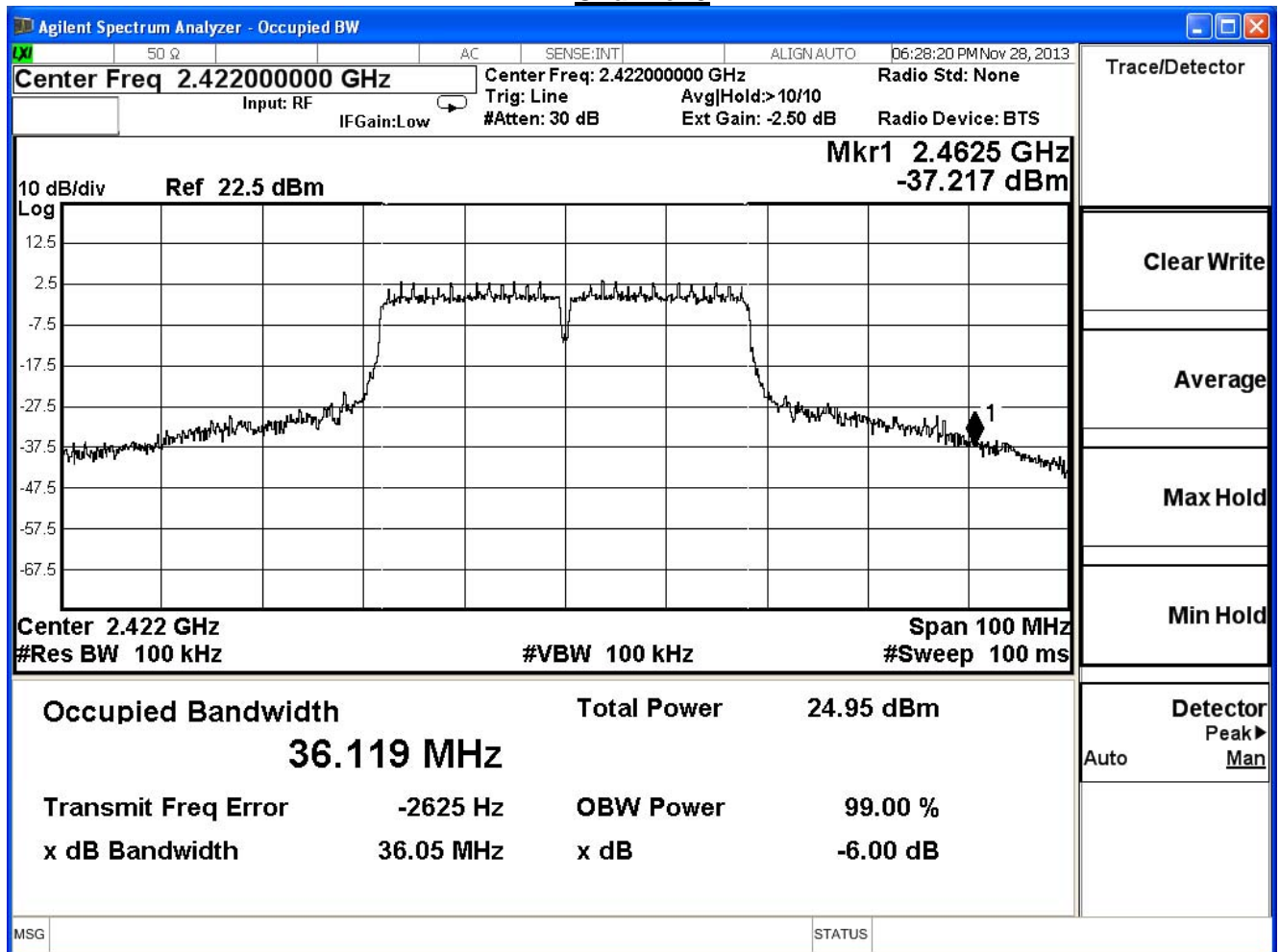




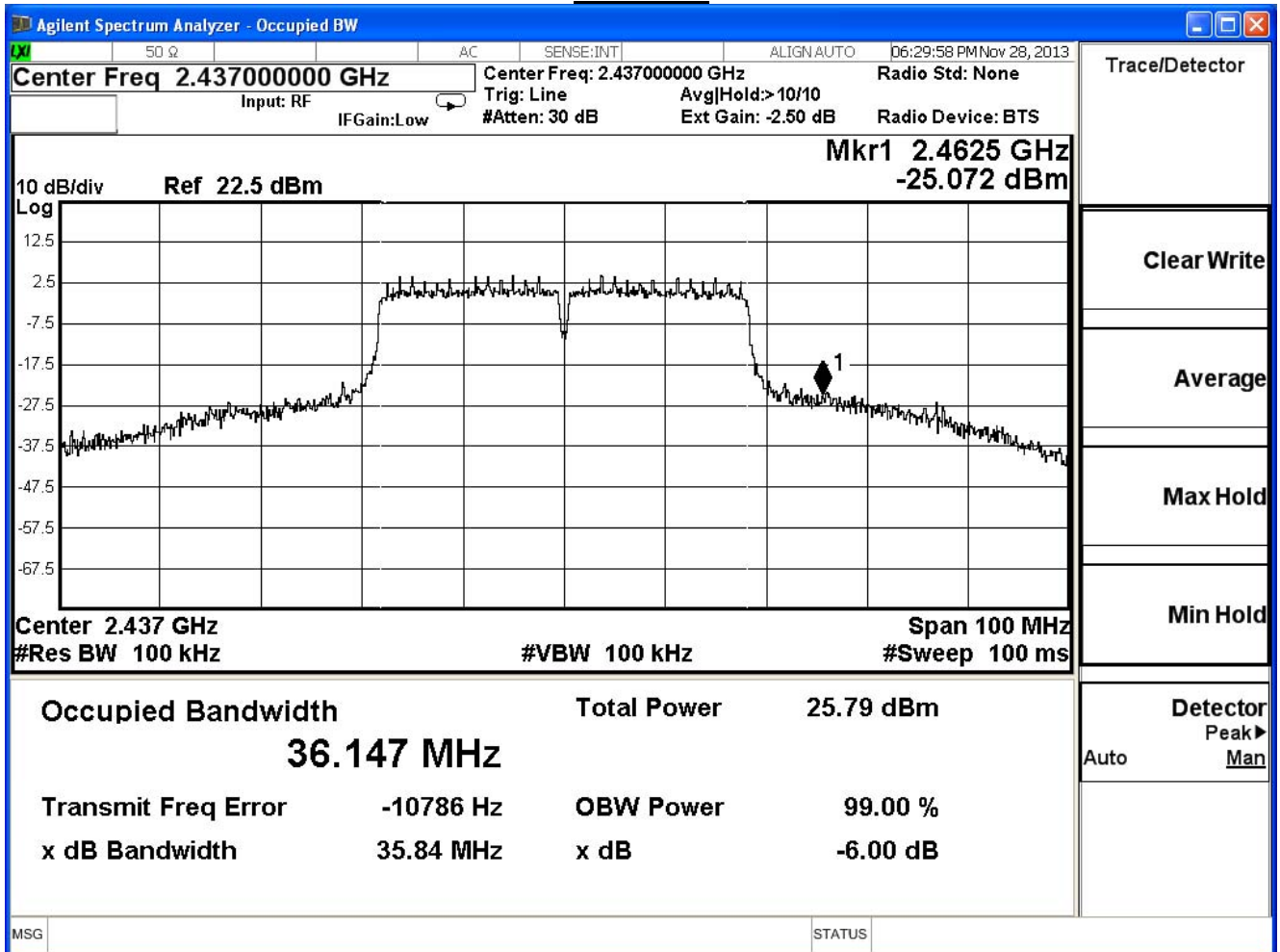
Product	Portable Wireless N Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/28	Test Site	SR7

IEEE 802.11n (40MHz)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
3	2422	36.05	$\geq 0.5$	Pass
6	2437	35.84	$\geq 0.5$	Pass
9	2452	35.95	$\geq 0.5$	Pass

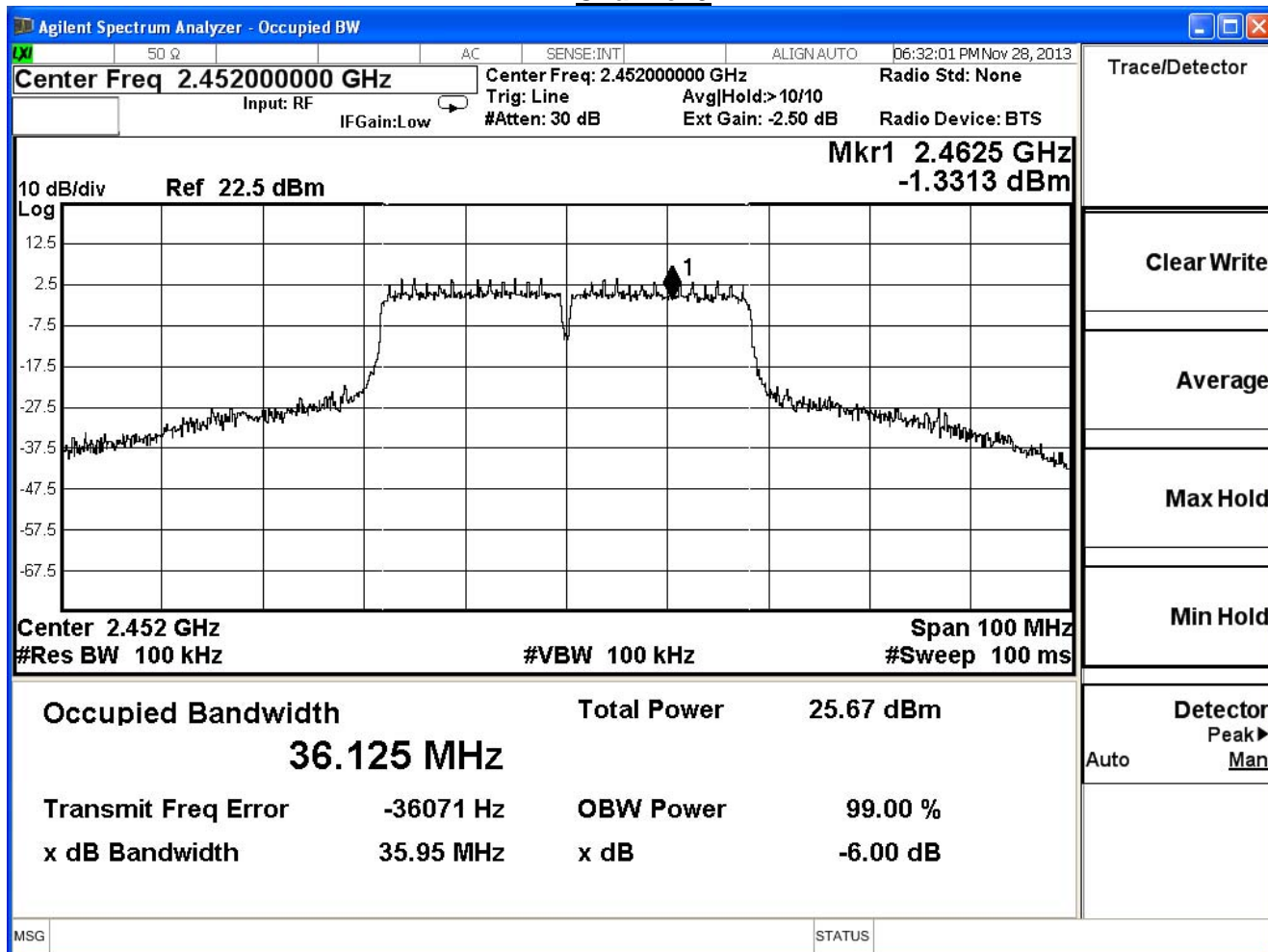
### Channel 3



## Channel 6



## Channel 9



**8. Power Density**

**8.1. Test Equipment**

The following test equipment are used during the test:

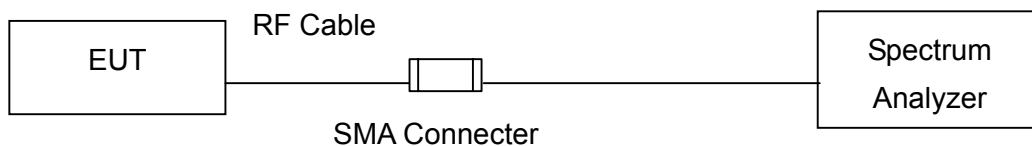
Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	R&S	FSP40	100005	2014/03/13

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 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, Set VBW  $\geq$  9 kHz, Sweep time=Auto, Set detector=Peak detector

**8.5. Test Specification**

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

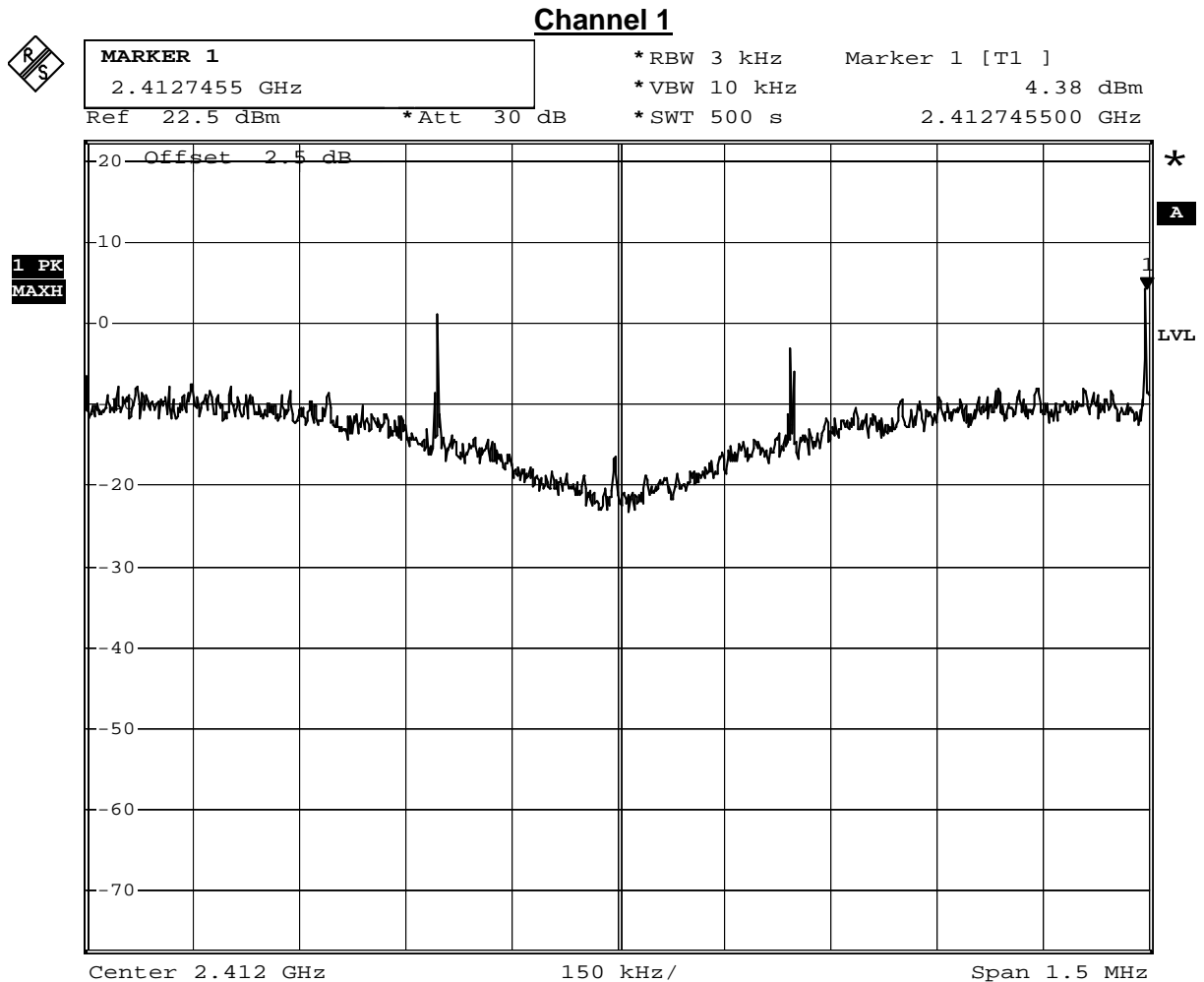
**8.6. Uncertainty**

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

## 8.7. Test Result

Product	Portable Wireless N Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	4.38	≤ 8	Pass
6	2437	4.38	≤ 8	Pass
11	2462	6.16	≤ 8	Pass

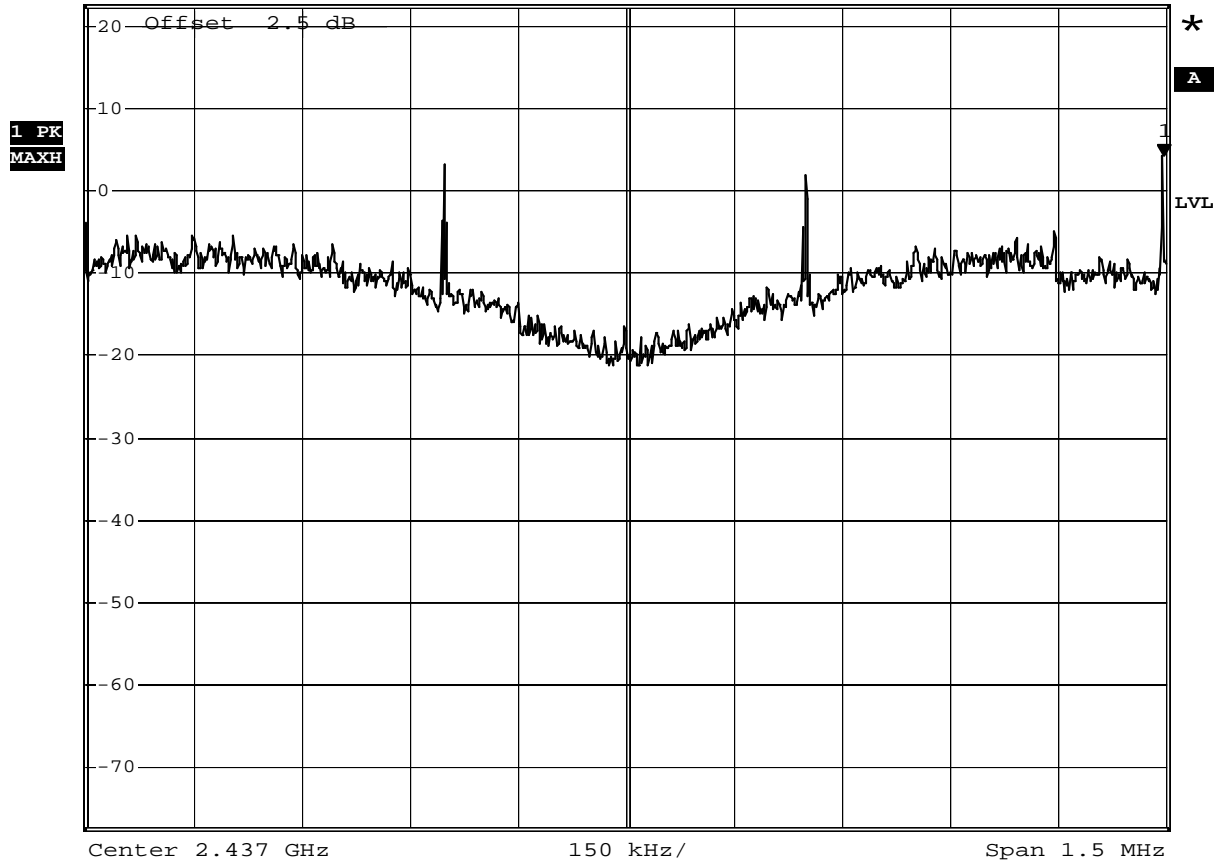


Date: 3.DEC.2013 19:01:46

Channel 6



<b>MARKER 1</b>		*RBW 3 kHz	Marker 1 [T1 ]
2.4377455 GHz		*VBW 10 kHz	4.38 dBm
Ref 22.5 dBm	*Att 30 dB	*SWT 500 s	2.437745500 GHz



Date: 3.DEC.2013 19:13:41

Channel 11

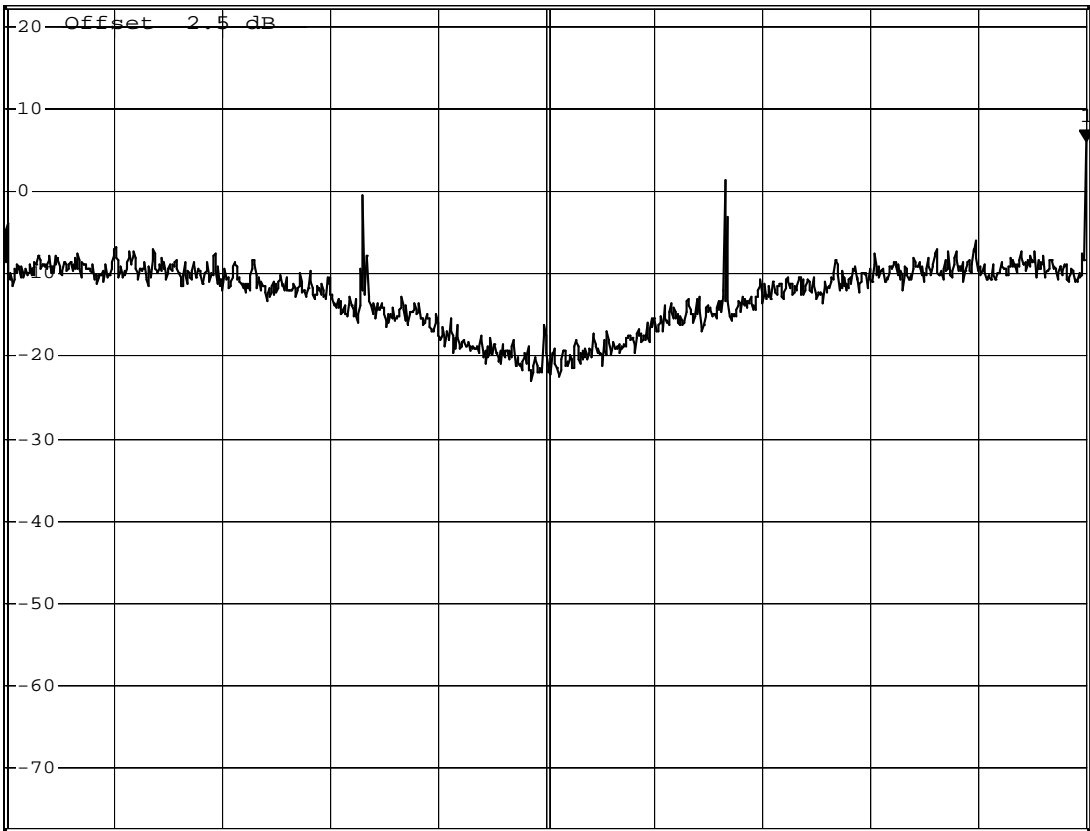


MARKER 1  
2.46275 GHz

Ref 22.5 dBm \*Att 30 dB

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      6.16 dBm  
\*SWT 500 s      2.462750000 GHz

1 PK  
MAXH

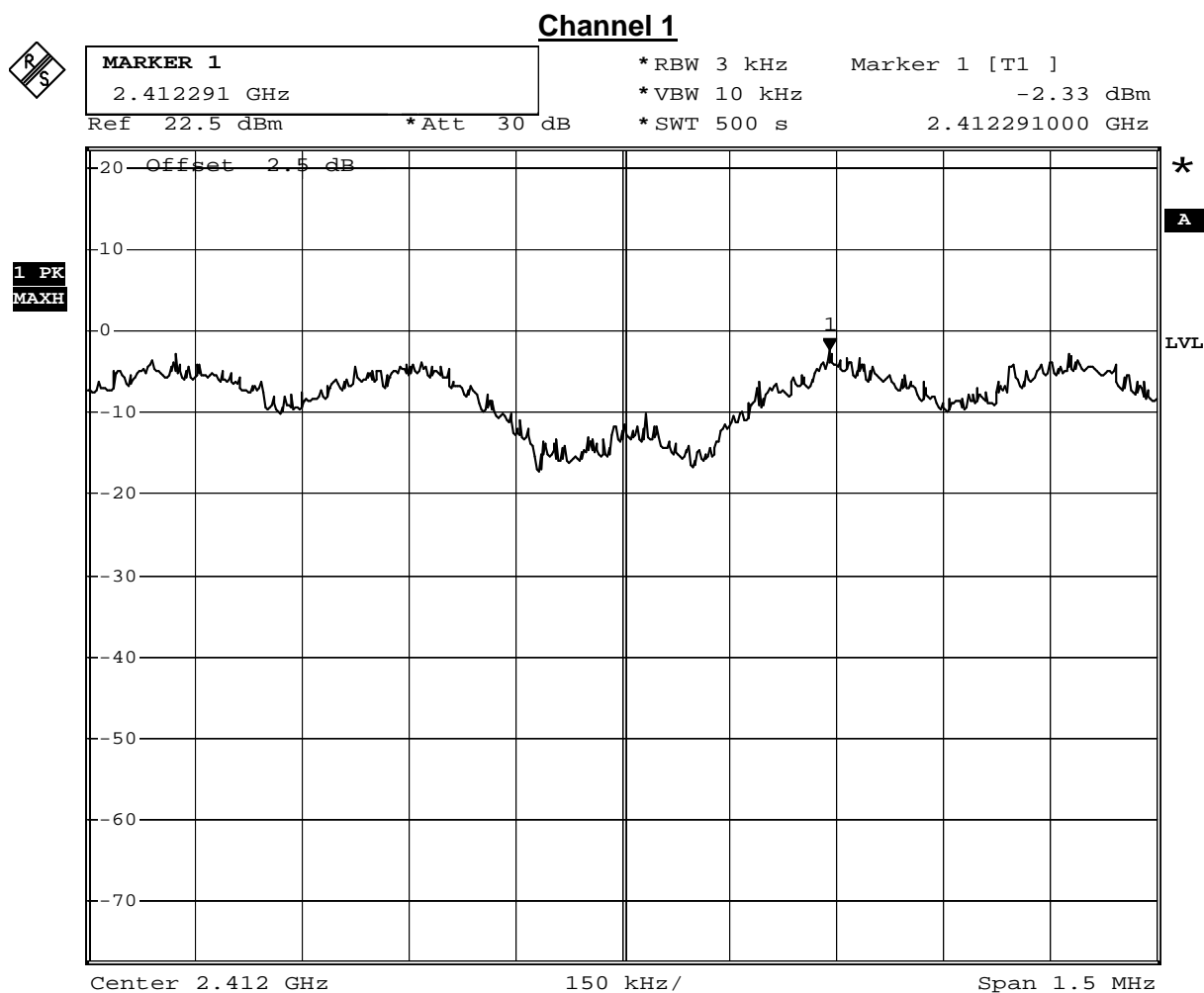


Center 2.462 GHz      150 kHz/      Span 1.5 MHz

Date: 3.DEC.2013 19:23:39

Product	Portable Wireless N Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-2.33	≤ 8	Pass
6	2437	-2.25	≤ 8	Pass
11	2462	-2.57	≤ 8	Pass



Date: 29.NOV.2013 15:07:15

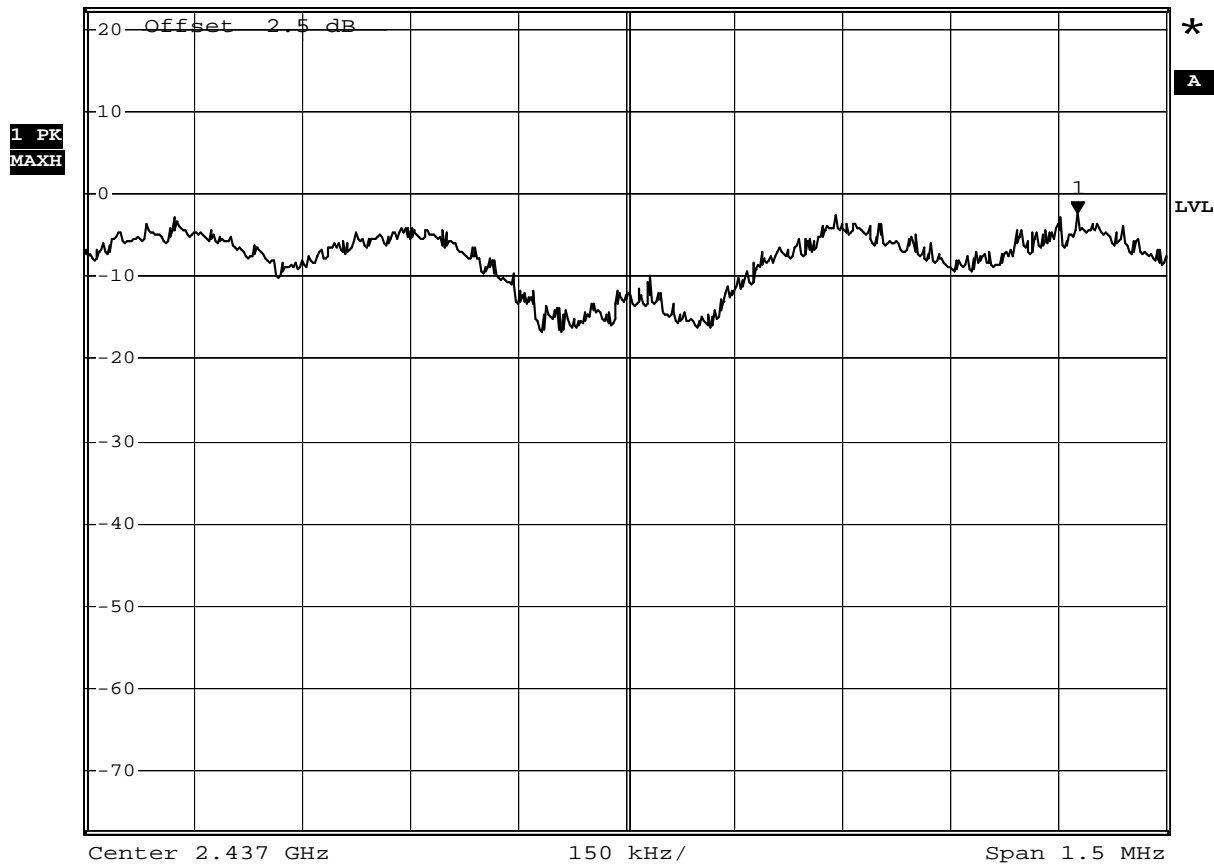


## Channel 6



**MARKER 1**  
2.437627 GHz  
Ref 22.5 dBm \*Att 30 dB

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      -2.25 dBm  
\*SWT 500 s      2.437627000 GHz



Date: 29.NOV.2013 14:56:16

Channel 11

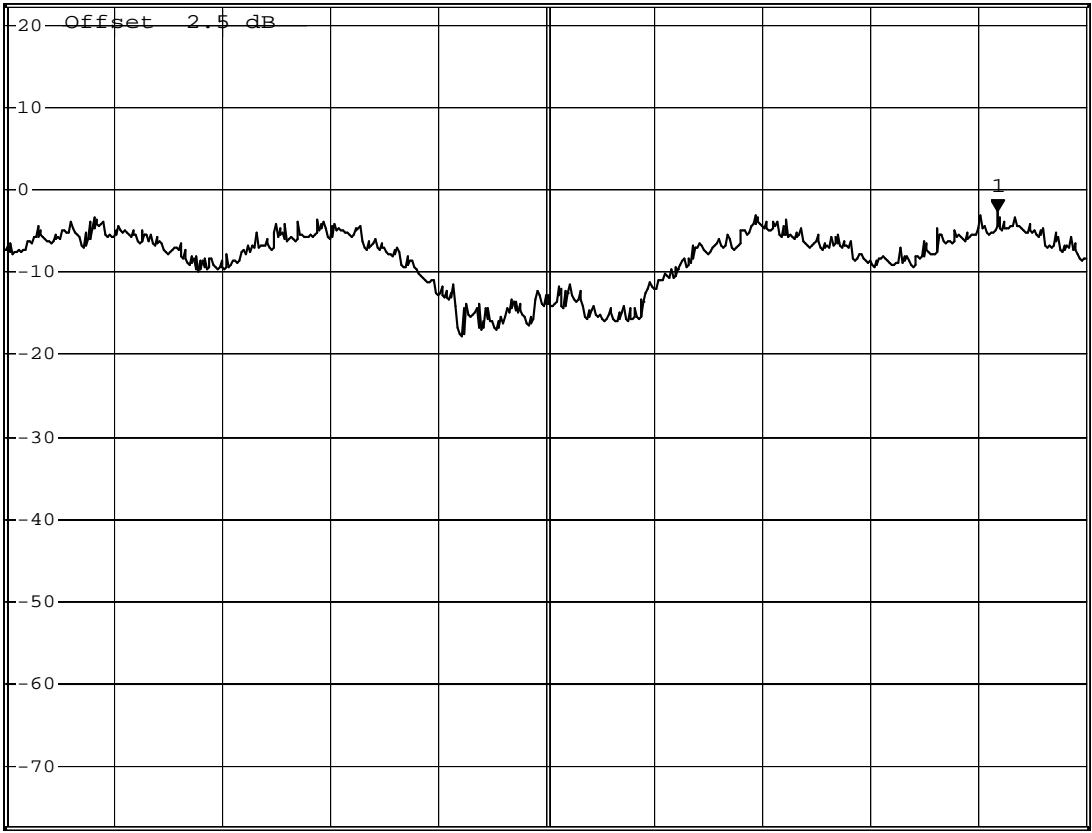


**MARKER 1**  
2.462627 GHz

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      -2.57 dBm  
\*SWT 500 s      2.462627000 GHz

Ref 22.5 dBm      \*Att 30 dB

1 PK  
MAXH



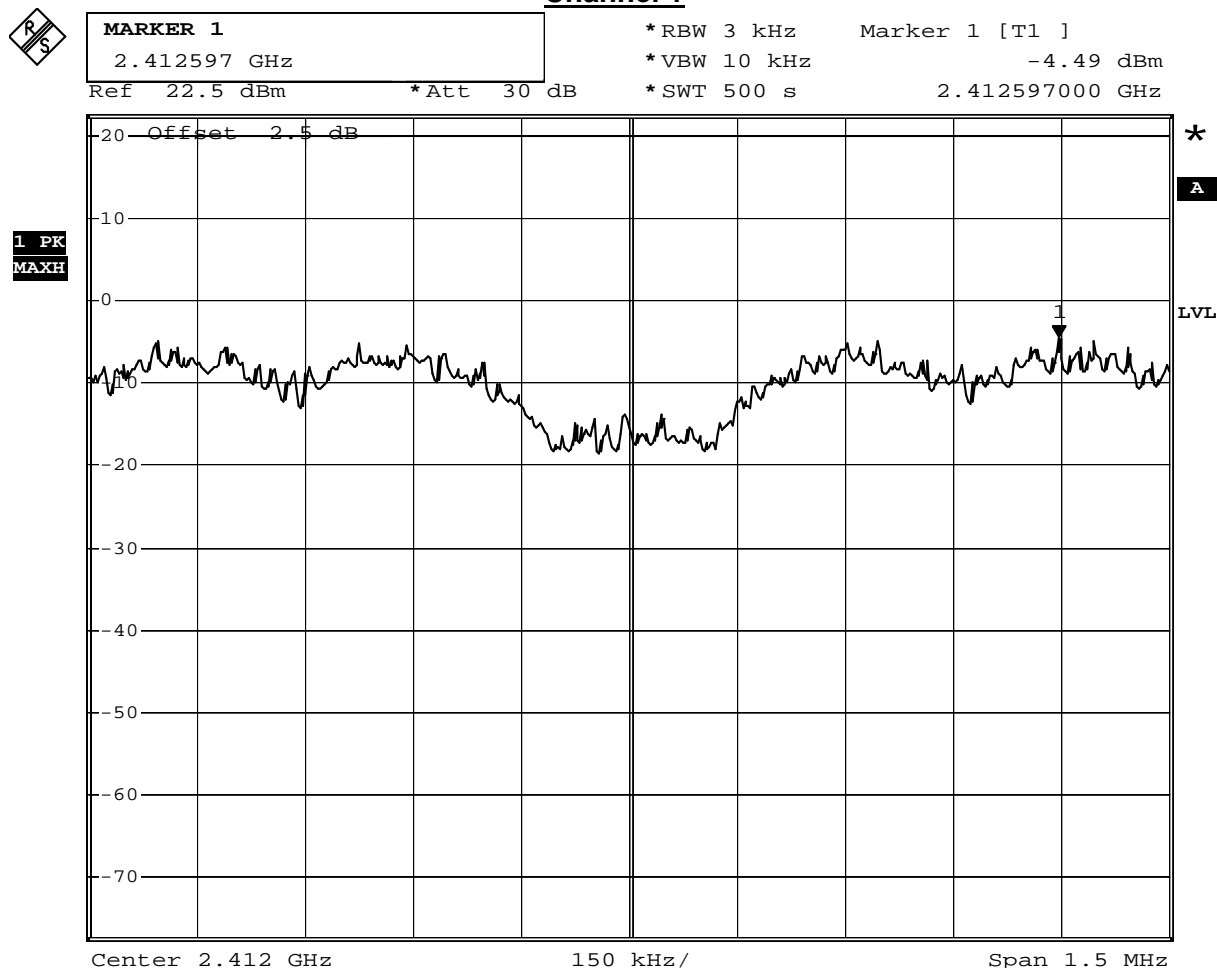
Center 2.462 GHz      150 kHz/      Span 1.5 MHz

Date: 29.NOV.2013 15:35:27

Product	Portable Wireless N Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/29	Test Site	SR7

IEEE802.11n (20MHz)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-4.49	≤ 8	Pass
6	2437	-5.41	≤ 8	Pass
11	2462	-9.00	≤ 8	Pass

### Channel 1



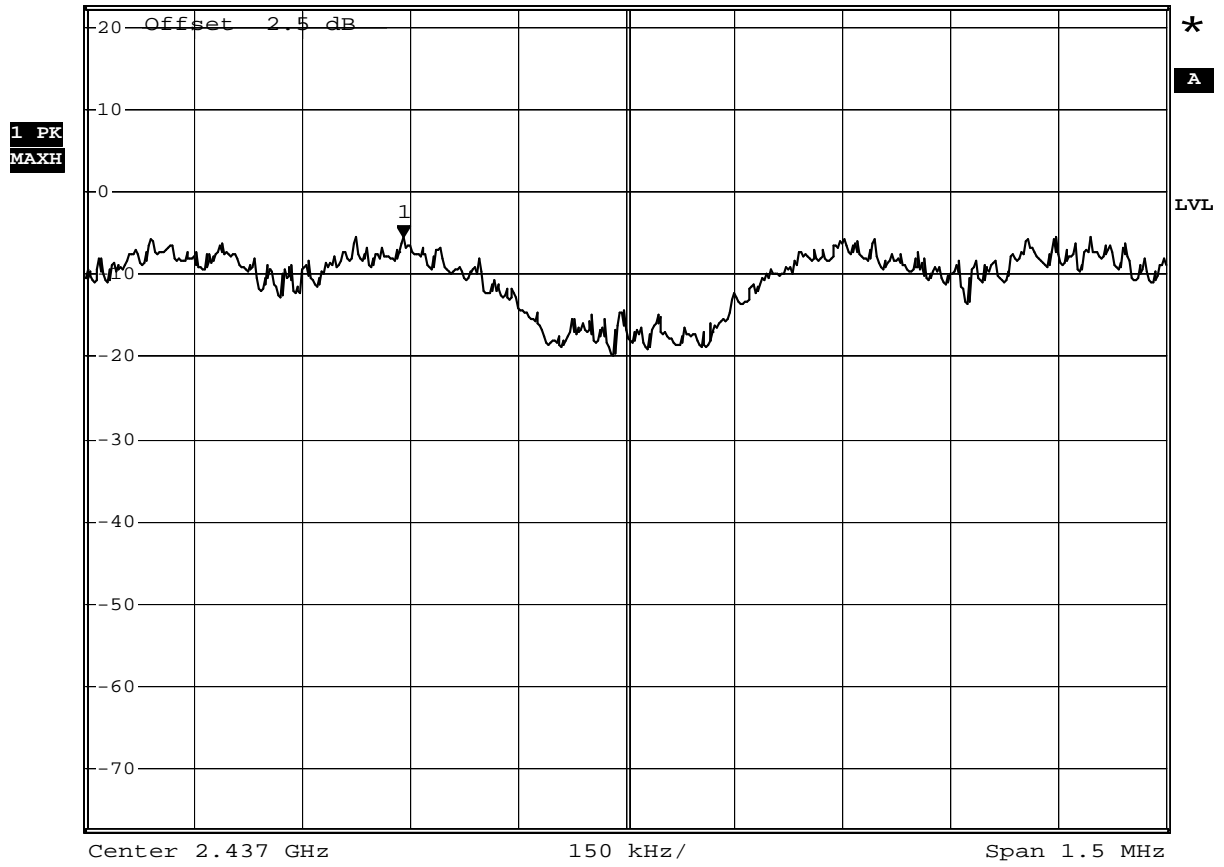
Date: 29.NOV.2013 15:46:26

Channel 6



MARKER 1  
2.436691 GHz  
Ref 22.5 dBm \*Att 30 dB

\*RBW 3 kHz Marker 1 [T1 ]  
\*VBW 10 kHz -5.41 dBm  
\*SWT 500 s 2.436691000 GHz



Date: 29.NOV.2013 15:56:44

## Channel 11

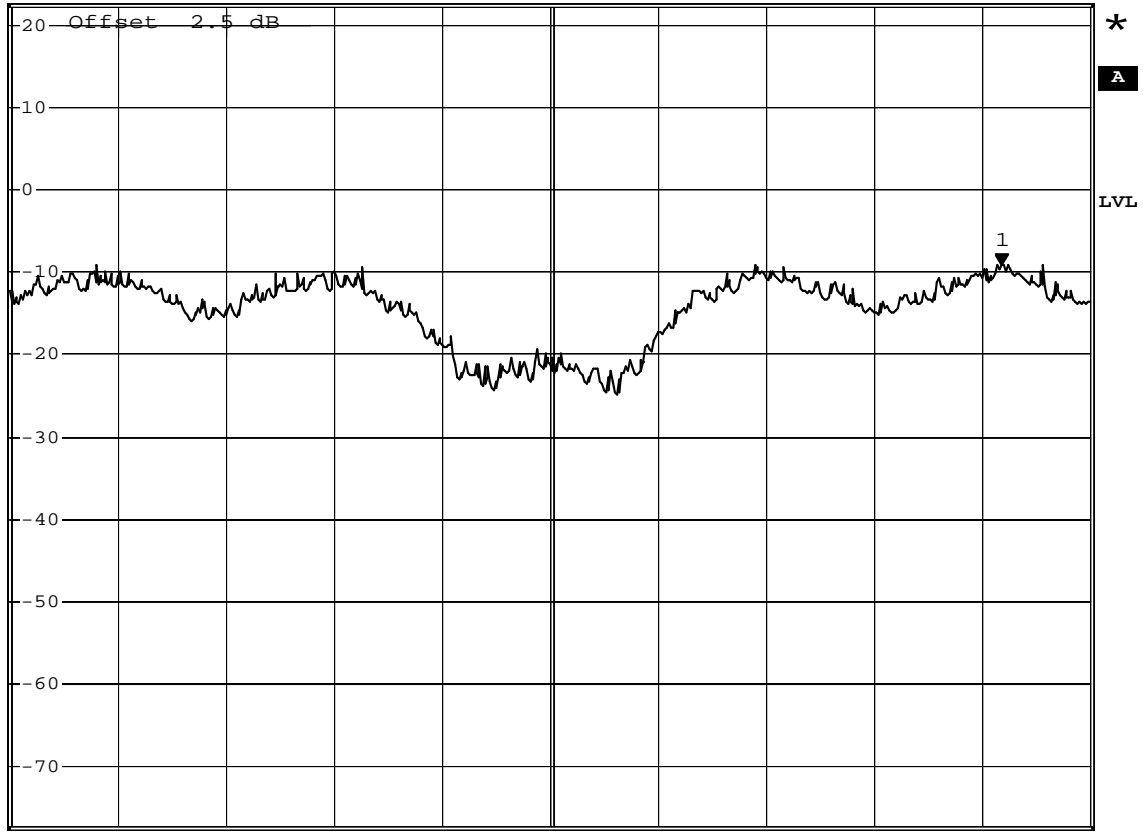


**MARKER 1**  
2.462627 GHz

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      -9.00 dBm  
\*SWT 500 s      2.462627000 GHz

Ref 22.5 dBm      \*Att 30 dB

1 PK  
MAXH

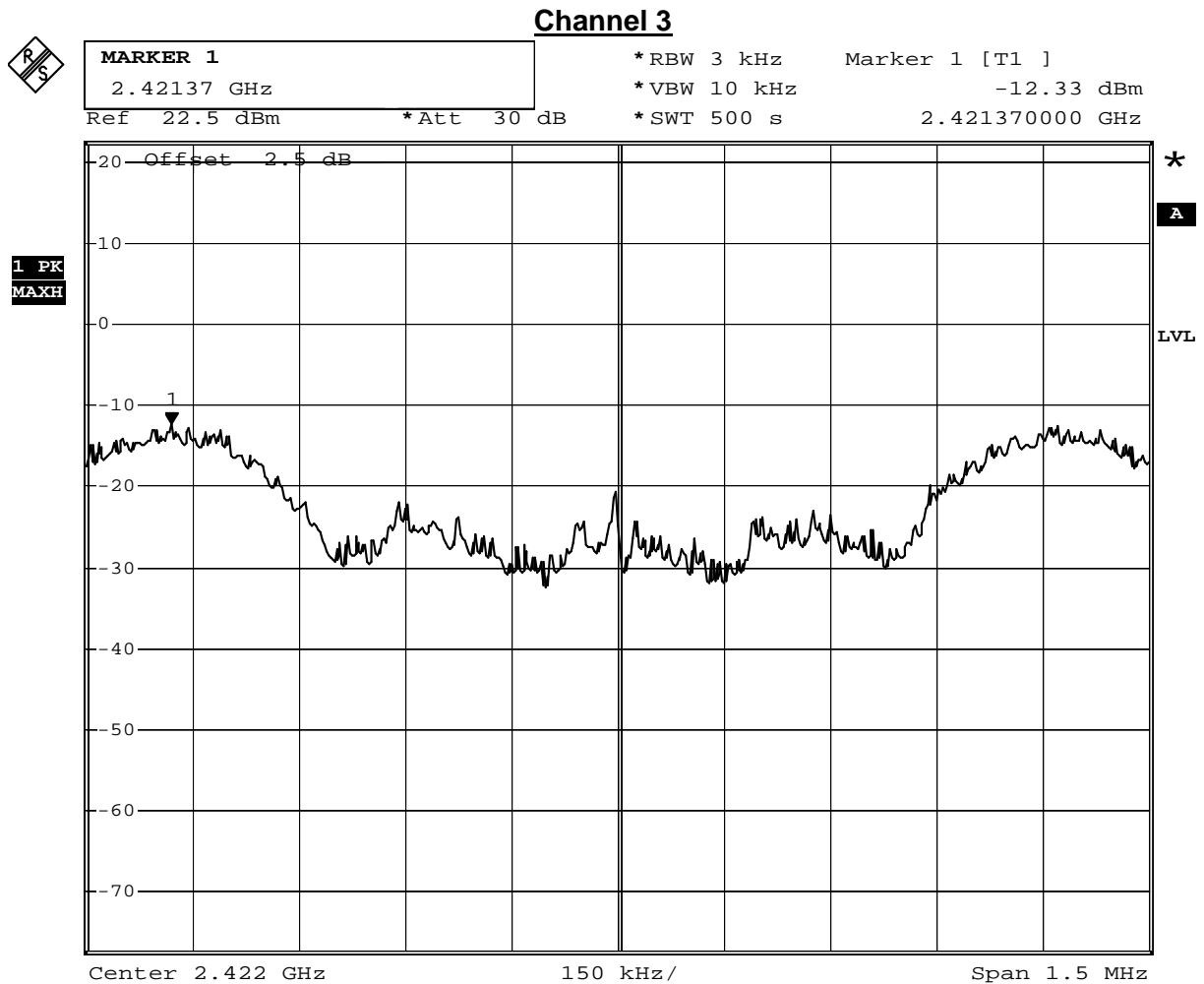


Center 2.462 GHz      150 kHz/      Span 1.5 MHz

Date: 29.NOV.2013 16:17:24

Product	Portable Wireless N Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (Power by Adapter)		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n (40MHz)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-12.33	≤ 8	Pass
6	2437	-12.11	≤ 8	Pass
9	2452	-14.16	≤ 8	Pass



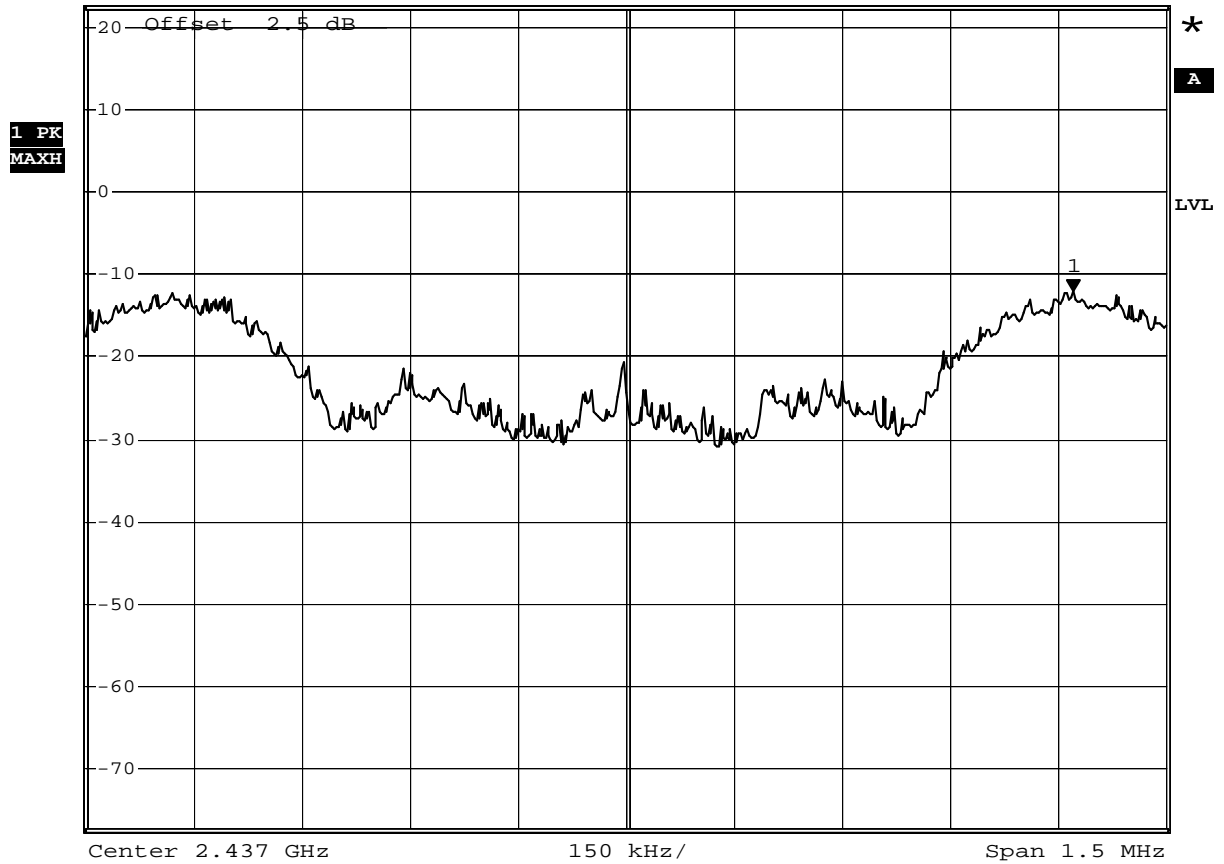
Date: 29.NOV.2013 16:54:24

## Channel 6



**MARKER 1**  
2.437621 GHz  
Ref 22.5 dBm \*Att 30 dB

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      -12.11 dBm  
\*SWT 500 s      2.437621000 GHz



Date: 29.NOV.2013 17:08:09

## Channel 9

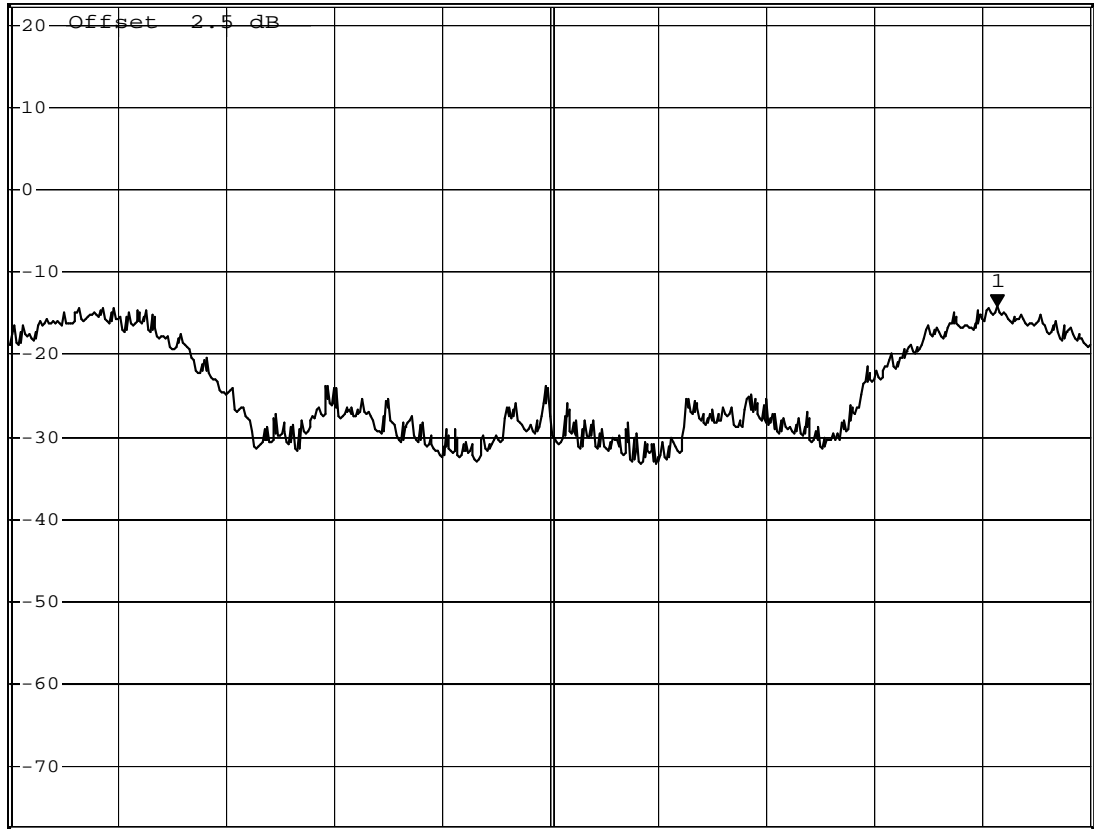


**MARKER 1**  
2.452621 GHz

\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 10 kHz      -14.16 dBm  
\*SWT 500 s      2.452621000 GHz

Ref 22.5 dBm      \*Att 30 dB

1 PK  
MAXH



Center 2.452 GHz      150 kHz/      Span 1.5 MHz

Date: 29.NOV.2013 17:27:56