



## Test Report

Product Name : Wireless ADSL VOIP Router  
Model No. : DVA-G3672B, DVA-G3673B  
FCC ID. : KA2DVA-G3672B

Applicant : D-Link Corporation  
Address : No.289, Sinhu 3rd Rd., Neihu Distrct, Taipei  
City 114, Taiwan, R.O.C.

Date of Receipt : 2008/05/06  
Issued Date : 2008/06/02  
Report No. : 085117R-RFUSP05V01  
Version : V1.0

The test results relate only to the samples tested.

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

# Test Report Certification

Issued Date : 2008/06/02

Report No. : 085117R-RFUSP05V01



Product Name : Wireless ADSL VOIP Router  
 Applicant : D-Link Corporation  
 Address : No.289, Sinhu 3rd Rd., Neihu Distrct, Taipei City 114,  
 Taiwan, R.O.C.  
 Manufacturer : Alpha Networks Inc.  
 Model No. : DVA-G3672B, DVA-G3673B  
 FCC ID. : KA2DVA-G3672B  
 Rated Voltage : AC 120 V / 60 Hz  
 EUT Voltage : AC 120 V / 60 Hz  
 Trade Name : D-Link  
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247  
 Test Result : Complied

The test results relate only to the samples tested.

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

Documented By : Carol Tsai  
 ( Carol Tsai / Senior Engineering Adm. Specialist )

Reviewed By : Lucia Lu  
 ( Lucia Lu / Assistant Engineer )

Approved By : Roy Wang  
 ( Roy Wang / Manager )

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## 1. General Information

### 1.1. EUT Description

Product Name	Wireless ADSL VOIP Router
Trade Name	D-Link
Model No.	DVA-G3672B, DVA-G3673B
Frequency Range	2412~2462MHz
Channel Number	11
Type of Modulation (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Type of Modulation (IEEE 802.11g)	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
Antenna Gain	1.8dBi
Channel Control	Manual
Antenna Type	Monopole

Component	
LAN Cable	Non-Shielded, 1.5m
RJ11 Cable	Non-Shielded, 1.8m
Power Adapter	UNIFIVE, UTL324-1220 I/P: AC 100-240V 50/60Hz 0.6A O/P: DC 12V 2A Cable Out: Non-Shielded, 1.8m

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		

Note:

1. This device is a Wireless ADSL VOIP Router, which including 2.4GHz BT/WLAN and 1575.42MHz receiving function, and 2.4GHz BT/WLAN transmitting function.
2. The different of the each model is shown as below:

Model Number	Annex
DVA-G3672B	Annex A / Annex B
DVA-G3673B	Annex B

The variation of model number is for different strategy of marketing

3. These test results on a sample of the device are for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247.
4. 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.
5. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 085117R-RFUSP01V02under Declaration of Conformity.

**1.3. Test Mode**

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
EMI	Mode 1: Transmit
Final Test Mode	
TX	Mode 1: Transmit

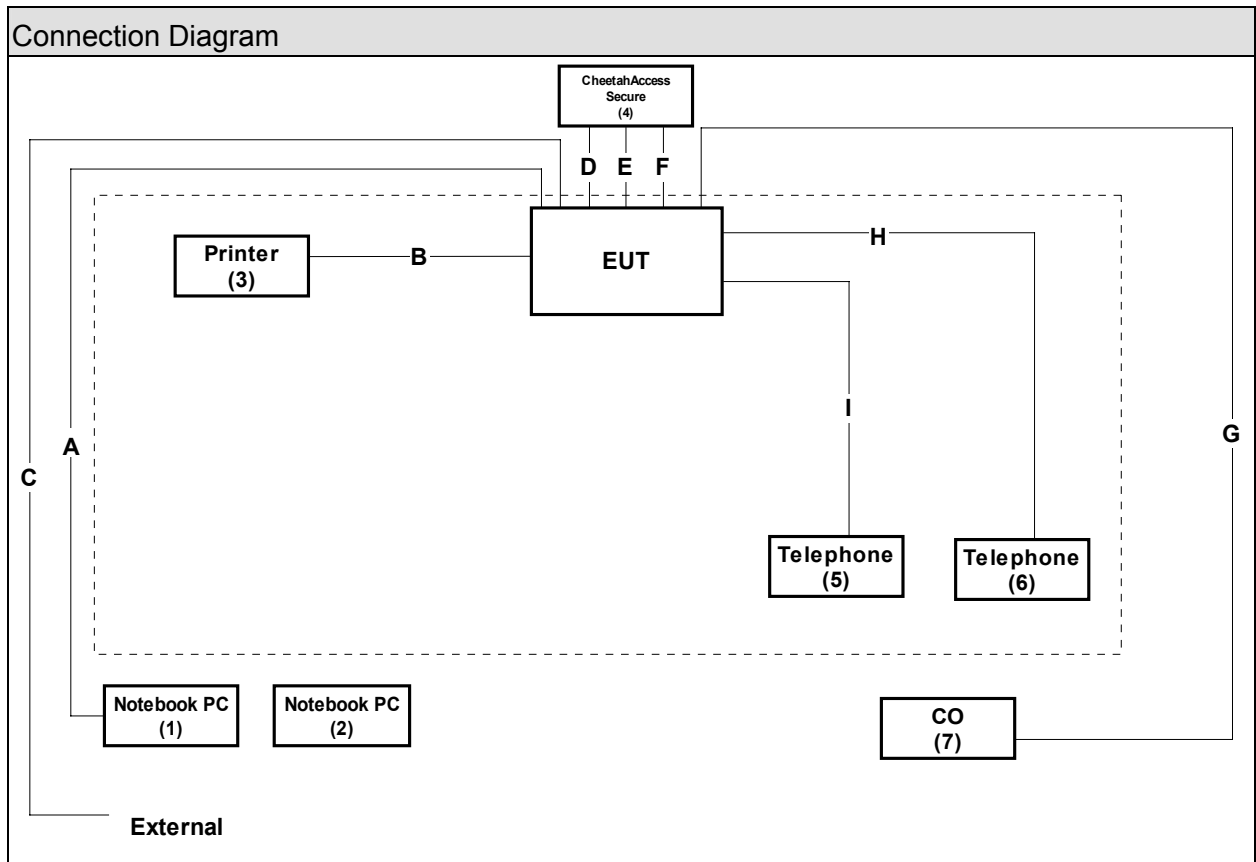
Emission	Mode 1
Conducted Emission	Yes
Peak Power Output	Yes
Radiated Emission	Yes
Band Edge	Yes
Occupied Bandwidth	Yes
Power Density	Yes

#### 1.4. Tested System Details

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

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1 Notebook PC	DELL	LATITUDE D400	GK43D1S	DoC	Non-Shielded, 1.7m, one ferrite core bonded
2 Notebook PC	DELL	LATITUDE D400	HK43D1S	DoC	Non-Shielded, 1.7m, one ferrite core bonded
3 Printer	HP	C2642A	MY75L1D2XN	DoC	Non-Shielded, 0.7m
4 CheetahAccess Secure	Accton	AC-IG1104	N/A	DoC	Non-Shielded, 1.8m
5 Telephone	TENDEL	K-302	41230008000118	DoC	--
6 Telephone	TENDEL	K-302	50721005000611	DoC	--
7 CO	D-Link	DAS-3224	N/A	DoC	--

1.5. Configuration of Tested System



Signal Cable Type	Signal cable Description
A	LAN Cable Non-Shielded, 10m
B	Printer Cable Shielded, 1.2m
C	Telephone Cable Non-Shielded, 10m
D	LAN Cable Non-Shielded, 3m
E	LAN Cable Non-Shielded, 3m
F	LAN Cable Non-Shielded, 3m
G	Telephone Cable Non-Shielded, 10m
H	Telephone Cable Non-Shielded, 1.5m
I	Telephone Cable Non-Shielded, 1.5m



**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 be communicated between computer and EUT.
5	All the peripheral will be retrieved during the test.
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	24
Humidity (%RH)		25 - 75	51
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	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (DSSS)	15 - 35	26
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (DSSS)	15 - 35	27
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	27
Humidity (%RH)		25 - 75	51
Barometric pressure (mbar)		860 - 1060	950-1000

### Site Description:

January 24, 2005 File on  
Federal Communications Commission  
Laboratory Division  
7435 Oakland Mills Road  
Columbia, MD 21046  
Registration Number: 365520



Accredited by TAF  
Accreditation Number: 1313  
Effective through: December 27, 2010



Accredited by NVLAP  
NVLAP Lab Code: 200347-0  
Effective through: September 30, 2008



Site Name: Quietek Corporation

Site Address: No.75-1, Wang-Yeh Valley, Yung-Hsing,  
Chiung-Lin, Hsin-Chu County,  
Taiwan, R.O.C.  
TEL : 886-3-592-8858 / FAX : 886-3-592-8859  
E-Mail : [service@quietek.com](mailto:service@quietek.com)

**2. Conducted Emission**

**2.1. Test Equipment**

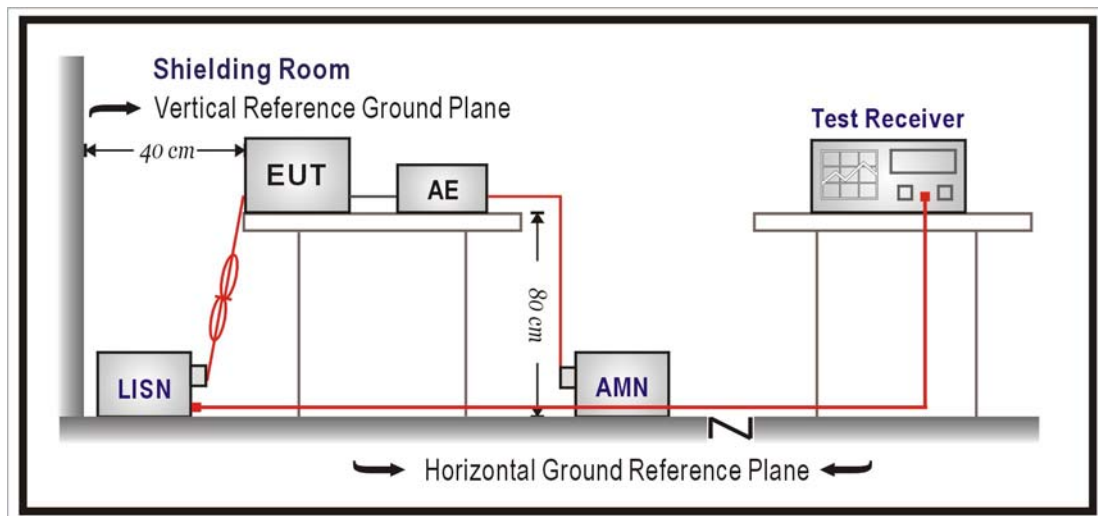
The following test equipments are used during the test:

Conducted Emission / SR2

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
4-Wire ISN	R & S	ENY 41	837032/001	2008/04/15
Artificial Mains Network	R & S	ENV4200	848411/010	2008/03/13
Double 2-Wire ISN	R & S	ENY 22	835354/008	2008/04/15
LISN	R & S	ESH3-Z5	825562/002	2008/03/31
Pulse Limiter	R & S	ZSH3Z2	357.8810.54	2007/07/19
Test Receiver	R & S	ESCS 30	100122	2008/02/21

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**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**

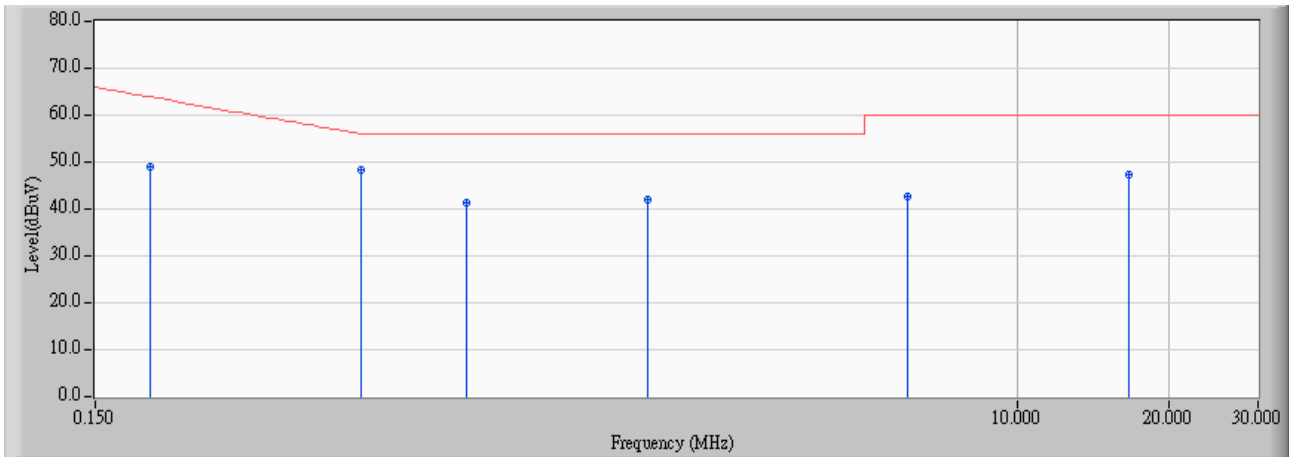
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane 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 9kHz.

**2.5. Uncertainty**

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

2.6. Test Result

Site : ShieldingRoom 2	Time : 2008/05/19 - 12:03
Limit : CISPR_B_00M_QP	Margin : 0
Probe : QTK-LISN-SR2 - Line1	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B

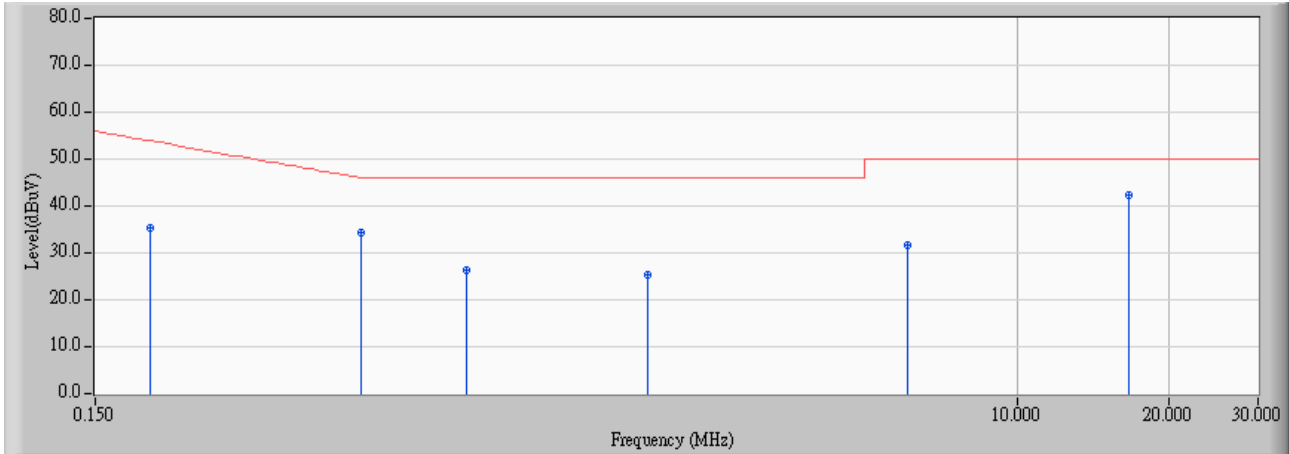


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.193	0.040	48.980	49.020	-14.889	63.909	QUASIPeAK
2	* 0.502	0.060	48.230	48.290	-7.710	56.000	QUASIPeAK
3	0.814	0.070	41.410	41.480	-14.520	56.000	QUASIPeAK
4	1.865	0.110	41.860	41.970	-14.030	56.000	QUASIPeAK
5	6.064	0.330	42.260	42.590	-17.410	60.000	QUASIPeAK
6	16.627	1.060	46.430	47.490	-12.510	60.000	QUASIPeAK

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 : ShieldingRoom 2	Time : 2008/05/19 - 12:03
Limit : CISPR_B_00M_AV	Margin : 0
Probe : QTK-LISN-SR2 - Line1	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B

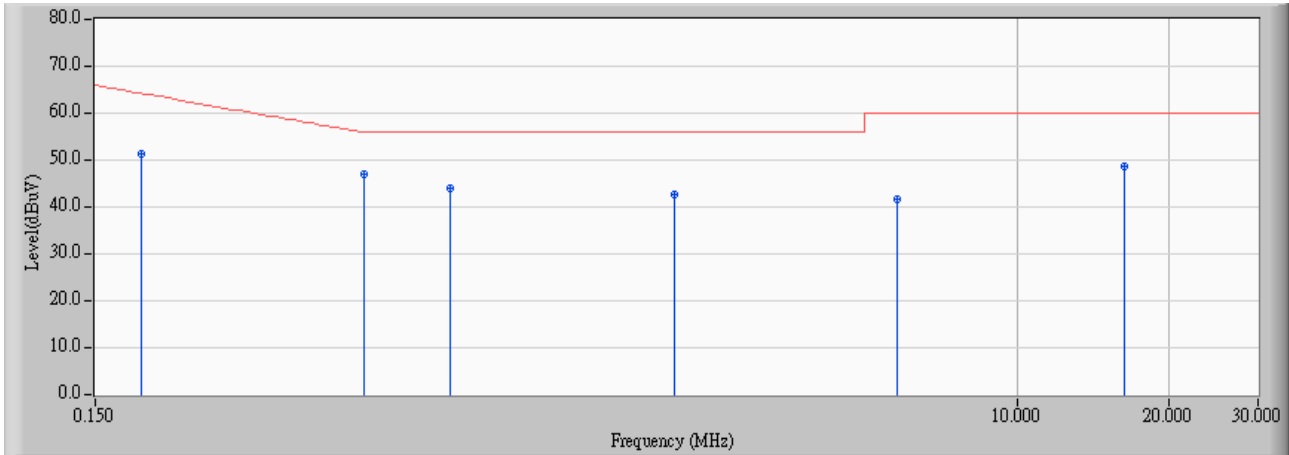


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.193	0.040	35.320	35.360	-18.549	53.909	AVERAGE
2		0.502	0.060	34.170	34.230	-11.770	46.000	AVERAGE
3		0.814	0.070	26.170	26.240	-19.760	46.000	AVERAGE
4		1.865	0.110	25.280	25.390	-20.610	46.000	AVERAGE
5		6.064	0.330	31.200	31.530	-18.470	50.000	AVERAGE
6	*	16.627	1.060	41.230	42.290	-7.710	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 : ShieldingRoom 2	Time : 2008/05/19 - 13:05
Limit : CISPR_B_00M_QP	Margin : 0
Probe : QTK-LISN-SR2 - Line2	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B

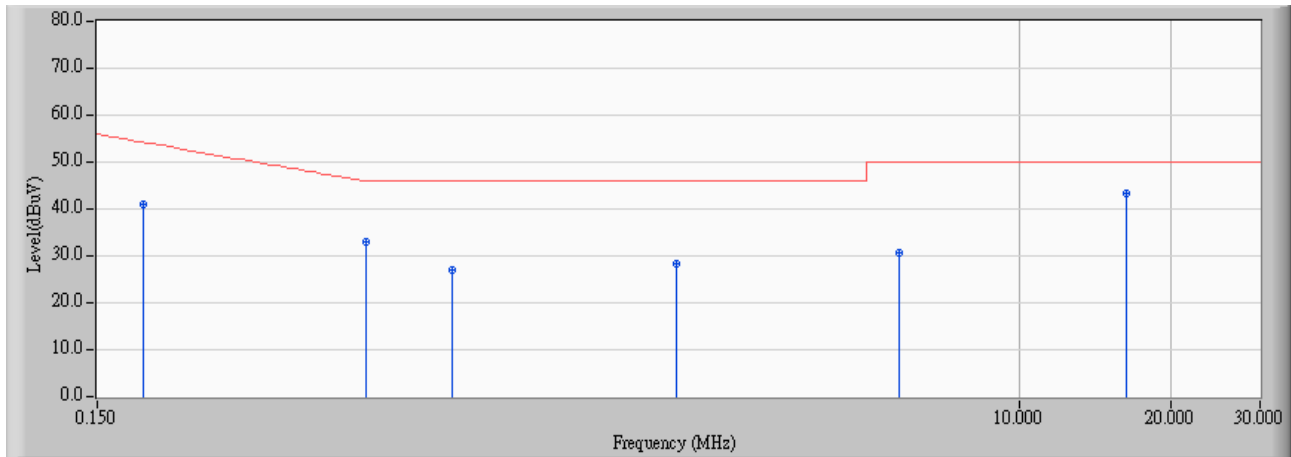


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	0.030	51.260	51.290	-12.971	64.261	QUASPEAK
2	*	0.509	0.050	46.990	47.040	-8.960	56.000	QUASPEAK
3		0.755	0.060	43.940	44.000	-12.000	56.000	QUASPEAK
4		2.095	0.090	42.510	42.600	-13.400	56.000	QUASPEAK
5		5.783	0.260	41.530	41.790	-18.210	60.000	QUASPEAK
6		16.365	0.800	47.890	48.690	-11.310	60.000	QUASPEAK

**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 : ShieldingRoom 2	Time : 2008/05/19 - 13:05
Limit : CISPR_B_00M_AV	Margin : 0
Probe : QTK-LISN-SR2 - Line2	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B



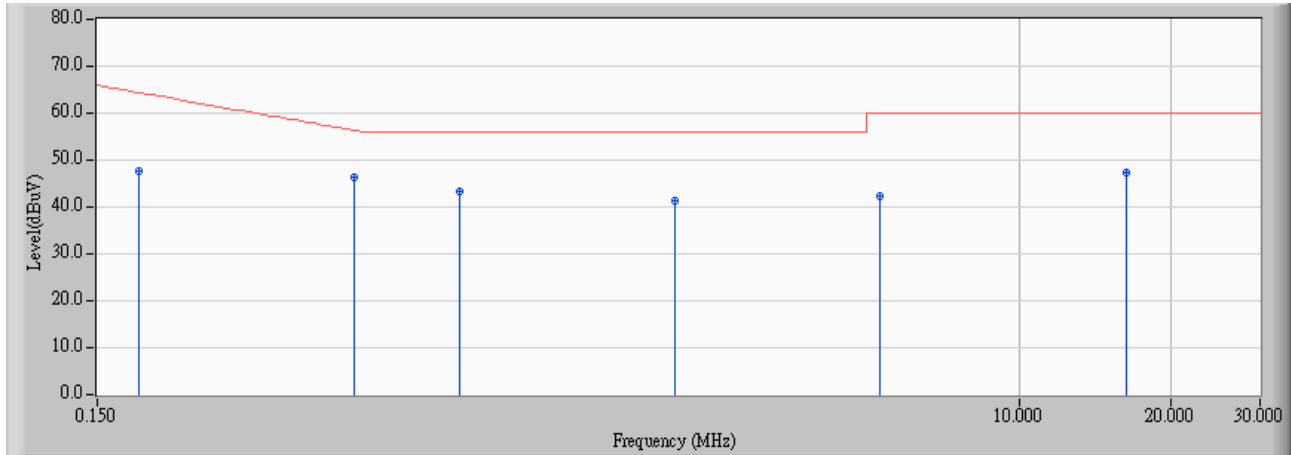
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	0.030	40.880	40.910	-13.351	54.261	AVERAGE
2		0.509	0.050	32.790	32.840	-13.160	46.000	AVERAGE
3		0.755	0.060	26.980	27.040	-18.960	46.000	AVERAGE
4		2.095	0.090	28.130	28.220	-17.780	46.000	AVERAGE
5		5.783	0.260	30.270	30.530	-19.470	50.000	AVERAGE
6	*	16.365	0.800	42.600	43.400	-6.600	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 : ShieldingRoom 2	Time : 2008/05/19 - 13:10
Limit : CISPR_B_00M_QP	Margin : 0
Probe : QTK-LISN-SR2 - Line1	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G

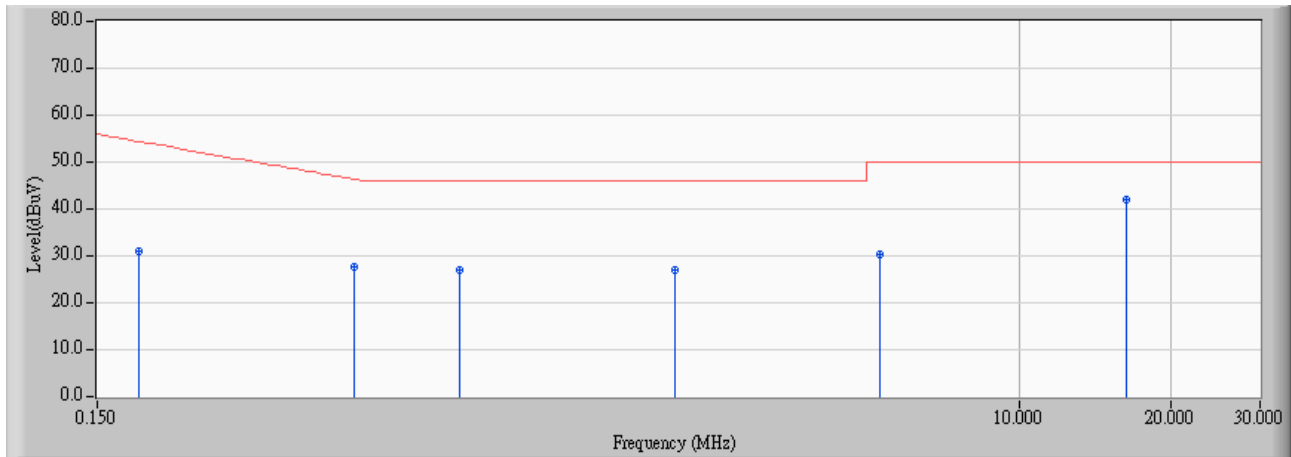


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.181	0.040	47.760	47.800	-16.641	64.441	QUASPEAK
2	*	0.482	0.060	46.390	46.450	-9.855	56.305	QUASPEAK
3		0.783	0.070	43.300	43.370	-12.630	56.000	QUASPEAK
4		2.091	0.110	41.330	41.440	-14.560	56.000	QUASPEAK
5		5.295	0.280	42.000	42.280	-17.720	60.000	QUASPEAK
6		16.302	1.040	46.380	47.420	-12.580	60.000	QUASPEAK

**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 : ShieldingRoom 2	Time : 2008/05/19 - 13:10
Limit : CISPR_B_00M_AV	Margin : 0
Probe : QTK-LISN-SR2 - Line1	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G

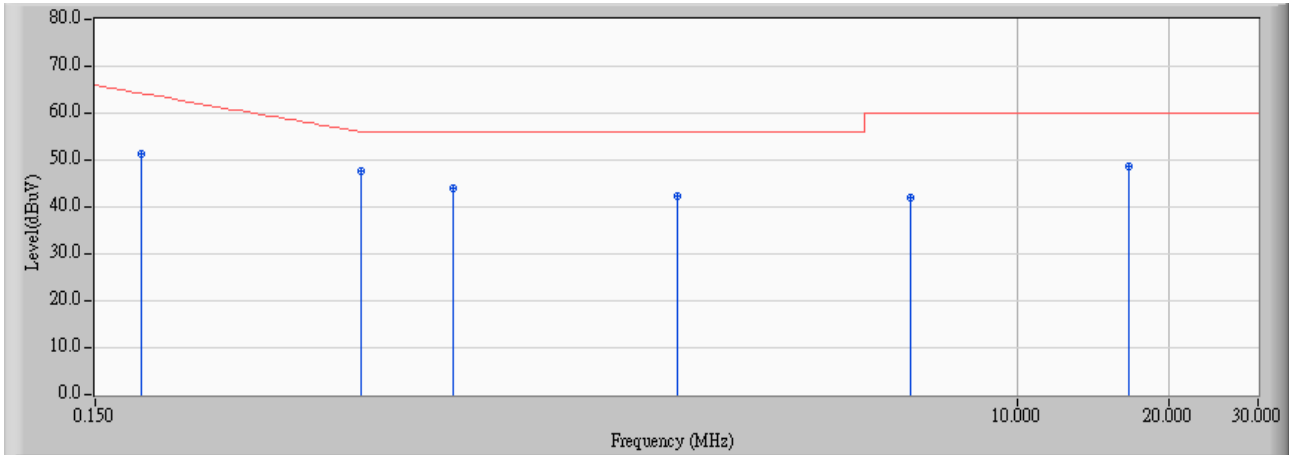


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.181	0.040	30.940	30.980	-23.461	54.441	AVERAGE
2		0.482	0.060	27.770	27.830	-18.475	46.305	AVERAGE
3		0.783	0.070	27.030	27.100	-18.900	46.000	AVERAGE
4		2.091	0.110	27.030	27.140	-18.860	46.000	AVERAGE
5		5.295	0.280	30.020	30.300	-19.700	50.000	AVERAGE
6	*	16.302	1.040	41.040	42.080	-7.920	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 : ShieldingRoom 2	Time : 2008/05/19 - 13:13
Limit : CISPR_B_00M_QP	Margin : 0
Probe : QTK-LISN-SR2 - Line2	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G

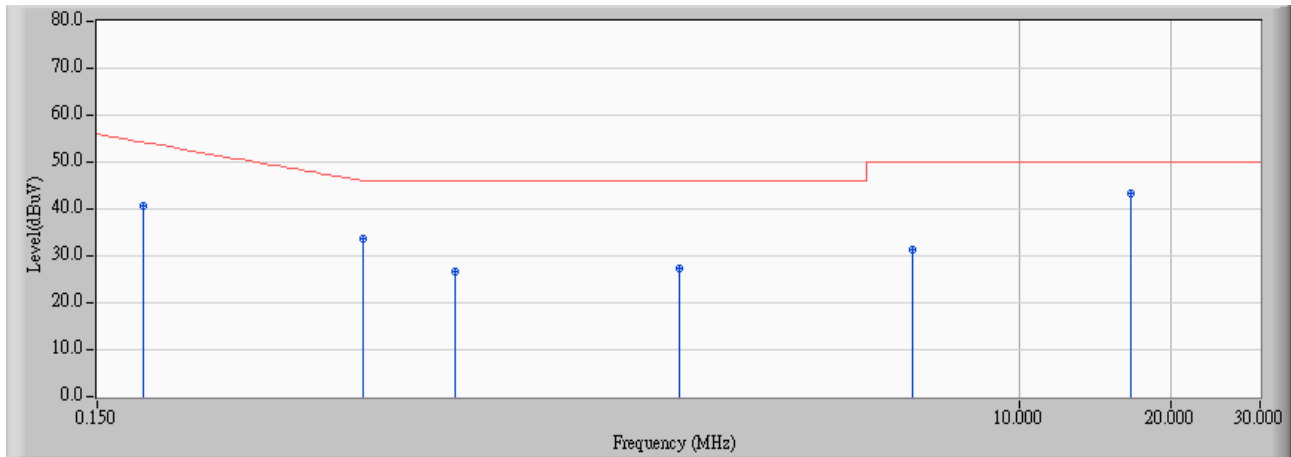


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	0.030	51.160	51.190	-13.071	64.261	QUASPEAK
2	*	0.502	0.050	47.640	47.690	-8.310	56.000	QUASPEAK
3		0.767	0.060	43.960	44.020	-11.980	56.000	QUASPEAK
4		2.123	0.090	42.330	42.420	-13.580	56.000	QUASPEAK
5		6.162	0.280	41.750	42.030	-17.970	60.000	QUASPEAK
6		16.646	0.810	47.710	48.520	-11.480	60.000	QUASPEAK

**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 : ShieldingRoom 2	Time : 2008/05/19 - 13:13
Limit : CISPR_B_00M_AV	Margin : 0
Probe : QTK-LISN-SR2 - Line2	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	0.030	40.710	40.740	-13.521	54.261	AVERAGE
2		0.502	0.050	33.580	33.630	-12.370	46.000	AVERAGE
3		0.767	0.060	26.720	26.780	-19.220	46.000	AVERAGE
4		2.123	0.090	27.330	27.420	-18.580	46.000	AVERAGE
5		6.162	0.280	31.150	31.430	-18.570	50.000	AVERAGE
6	*	16.646	0.810	42.550	43.360	-6.640	50.000	AVERAGE

**Note:**

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

**3. Peak Power Output**

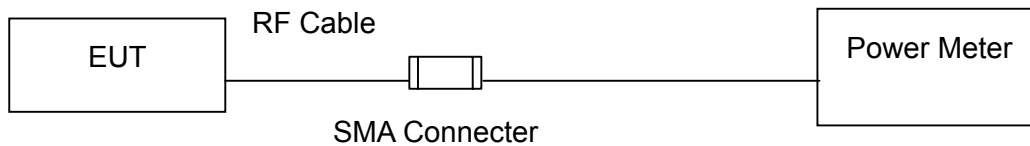
**3.1. Test Equipment**

The following test equipments are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Power Meter	Anritsz	ML2495/ 6K00003357	May, 2008
2	Power Sensor	Anritsz	MA2491 /034457	May, 2008
3	No.1 OATS			Sep., 2007

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**3.2. Test Setup**



**3.3. Test procedures**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

**3.4. Limits**

The maximum peak power shall be less 1 Watt.

**3.5. Uncertainty**

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

**3.6. Test Result**

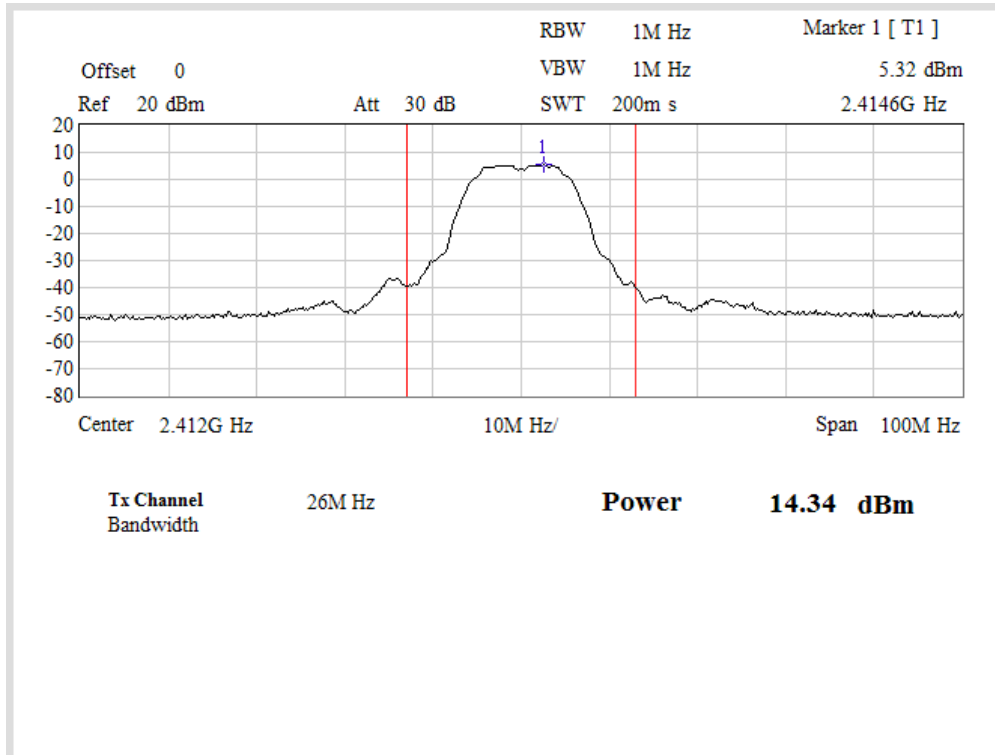
Product	Wireless ADSL VOIP Router		
Test Item	Peak Power Output		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	14.34	1Watt= 30 dBm	Pass
6	2437	14.56	1Watt= 30 dBm	Pass
11	2462	14.71	1Watt= 30 dBm	Pass

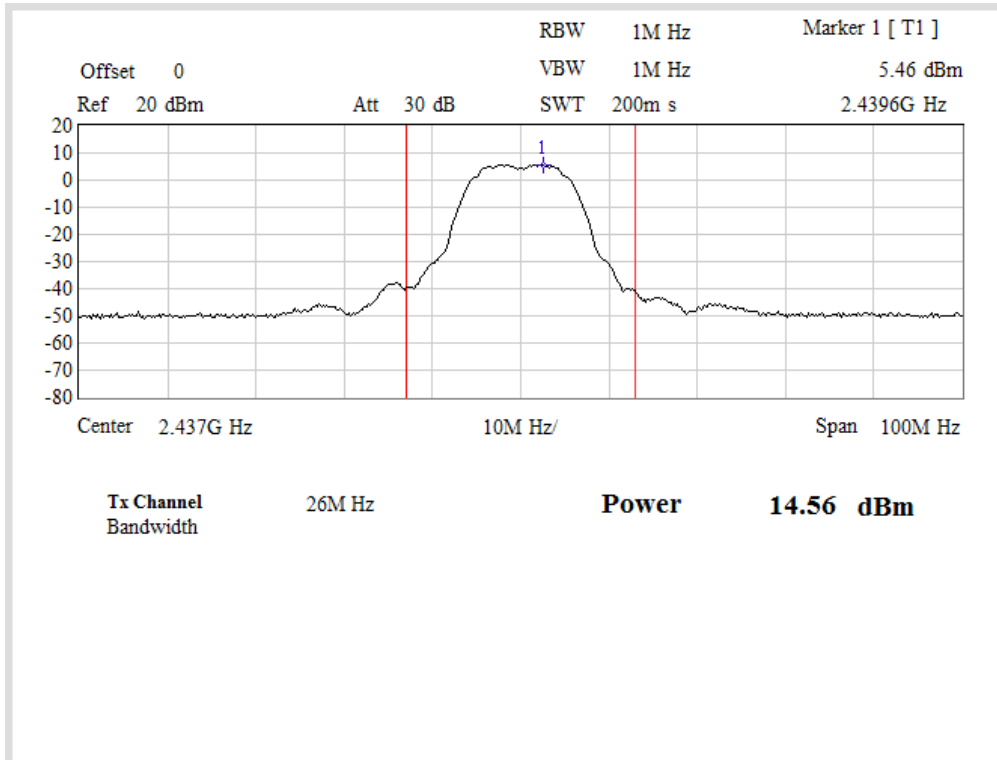
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1 Mbps	2Mbps	5.5Mbps	11Mbps	
1	2412.00	14.34	--	--	--	1Watt= 30 dBm
6	2437.00	14.56	14.43	14.26	14.23	1Watt= 30 dBm
11	2462.00	14.71	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

**Channel 1**

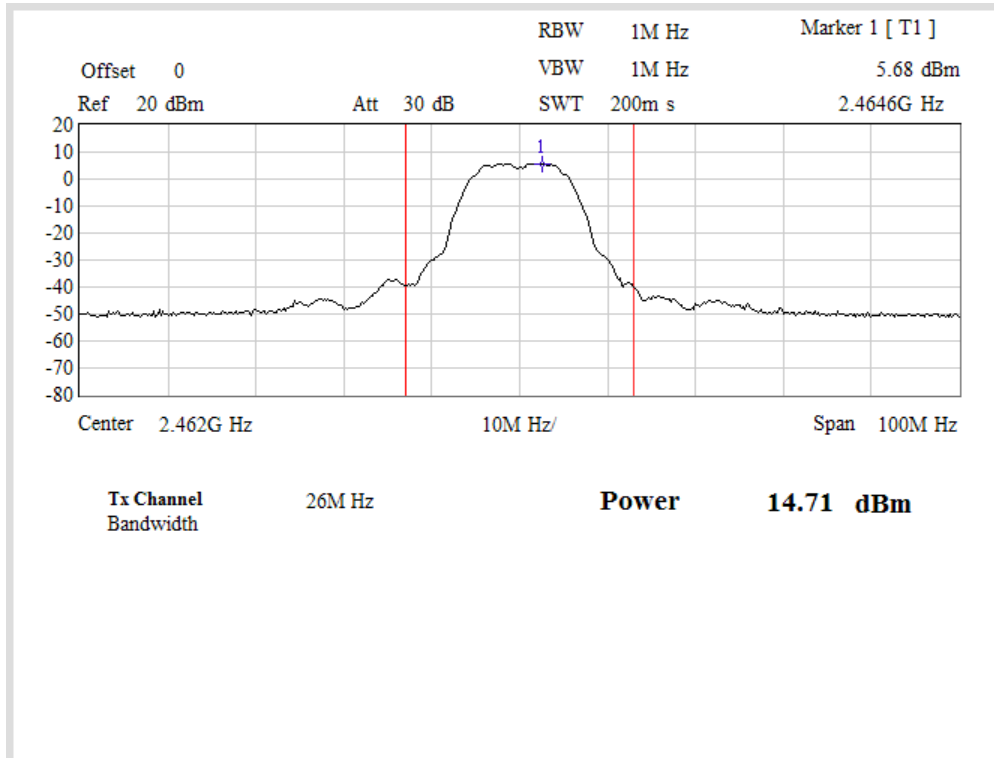


**Channel 6**





**Channel 11**



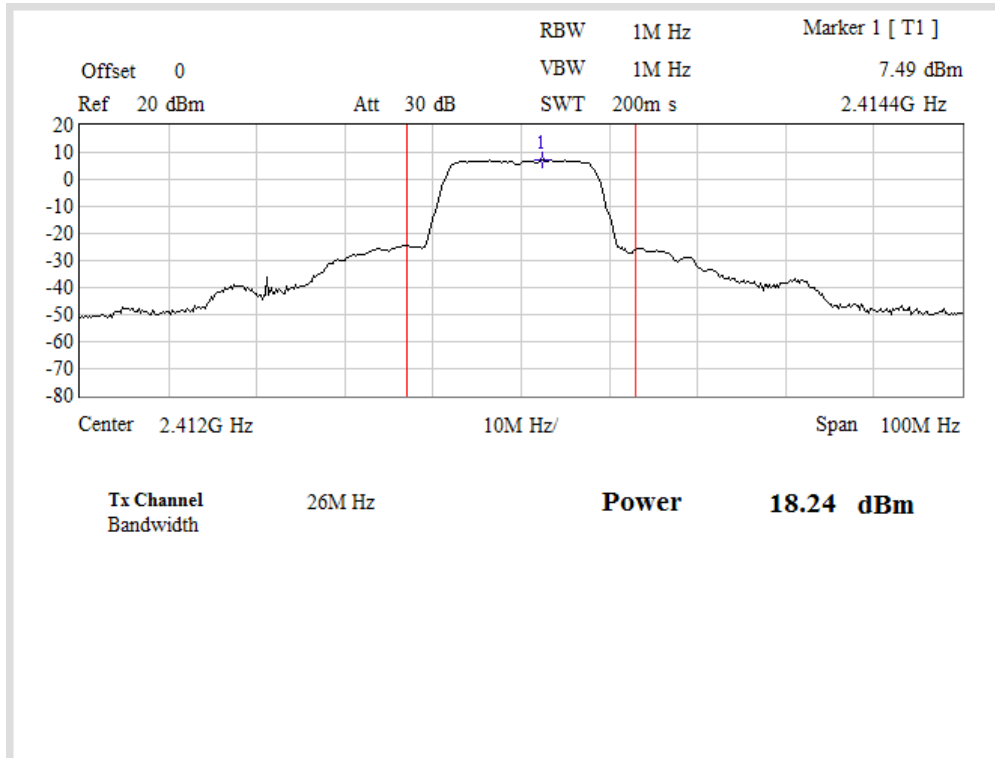
Product	Wireless ADSL VOIP Router		
Test Item	Peak Power Output		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	18.24	1Watt= 30 dBm	Pass
6	2437	18.34	1Watt= 30 dBm	Pass
11	2462	17.94	1Watt= 30 dBm	Pass

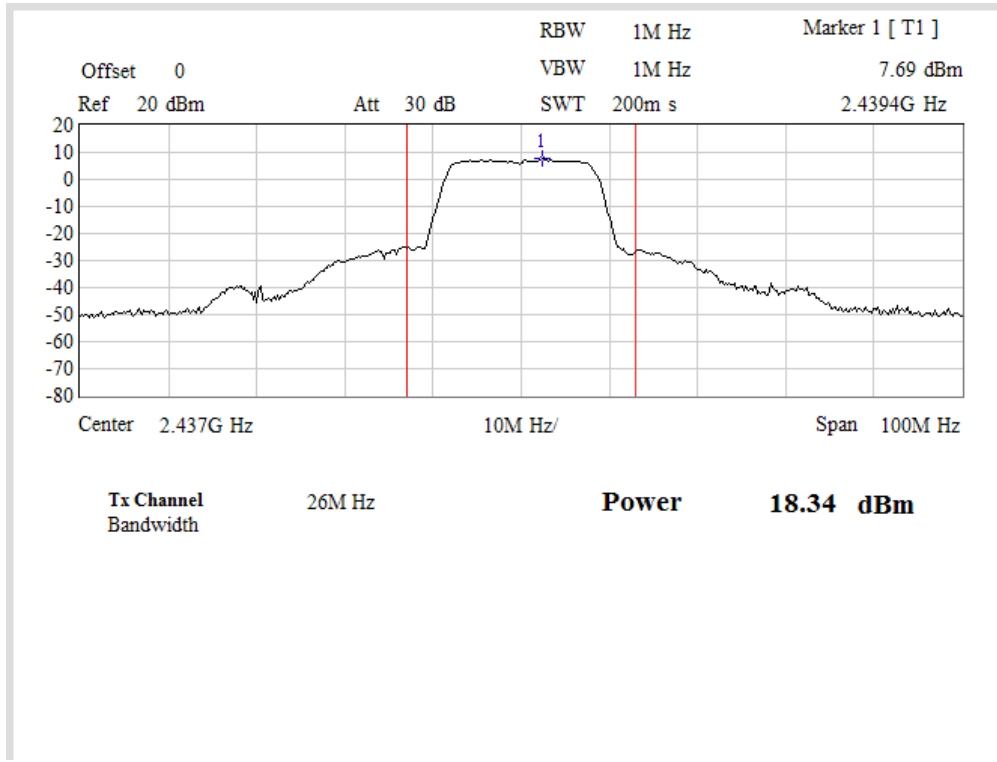
Peak Power Output Value(dBm)										
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps	
1	2412.00	18.24	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	18.34	18.05	17.90	17.78	17.70	17.87	18.07	18.22	1Watt= 30 dBm
11	2462.00	17.94	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

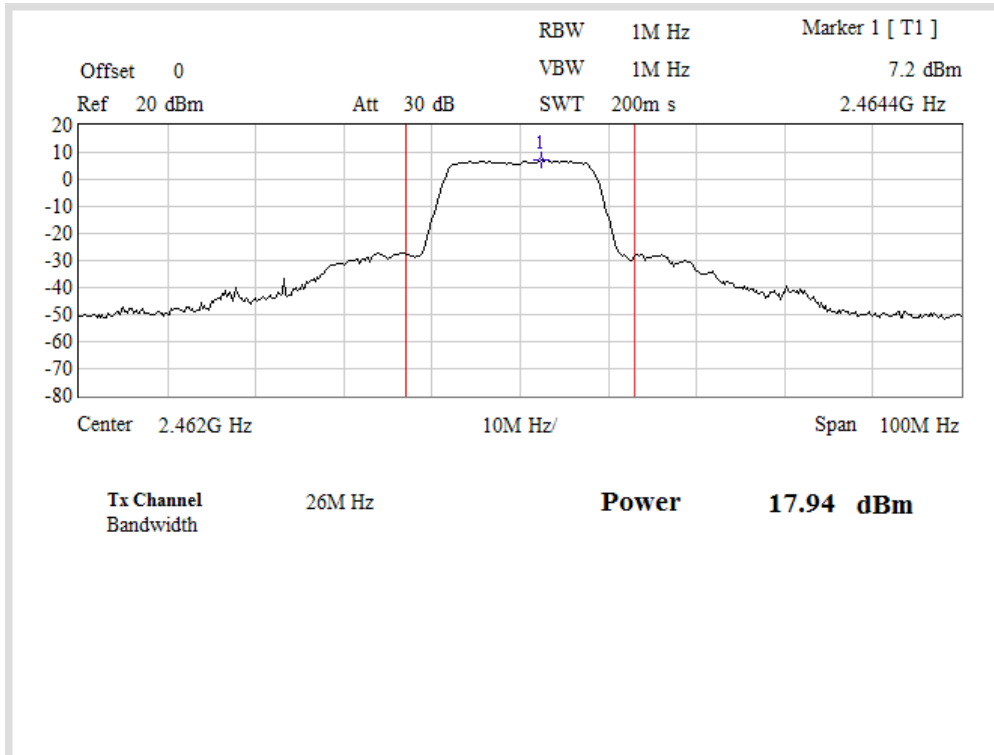
**Channel 1**



**Channel 6**



**Channel 11**



4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

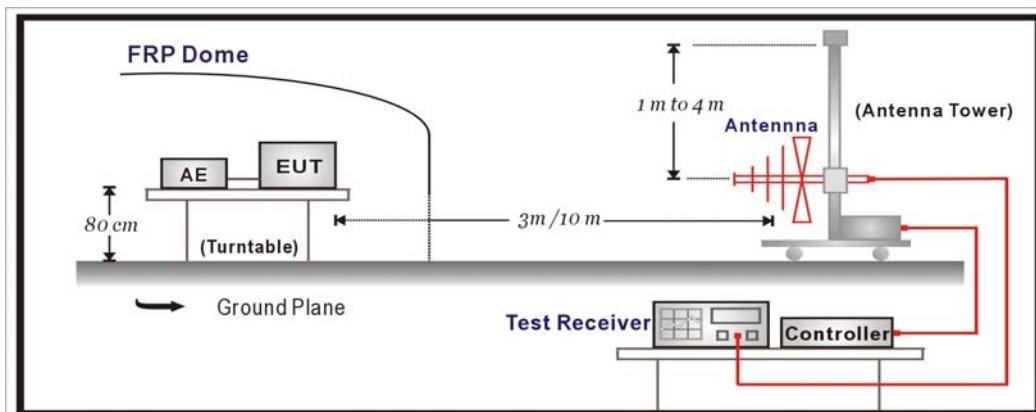
Item		Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Test Receiver	R & S	825442 / 017	Feb., 2008
2	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2007
3	X	Pre-Amplifier	HP	8449B / FSP40	Nov., 2007
4	X	Bilog Antenna	Schaffner	CBL6112B / 2895	Sep., 2007
5	X	Spectrum Analyzer	Advantest	R3162 / 120300649	Nov., 2008
6	X	Pre-Amplifier	QuieTek	AP-025C / N/A	N/A
7	X	Horn Antenna	Electro Metrics	EM-6961 / 103325	Mar., 2008
8		No.1 OATS			Sep., 2007

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

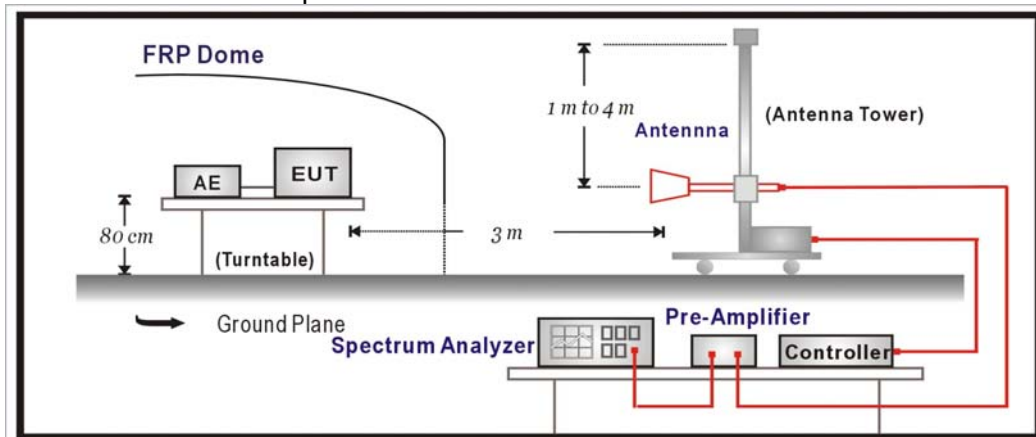
2. Last Cal showing "N/A" means it is used to Pre-test, not for final test.

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, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement. The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz. The frequency range from 30MHz to 10th harmonics is checked.

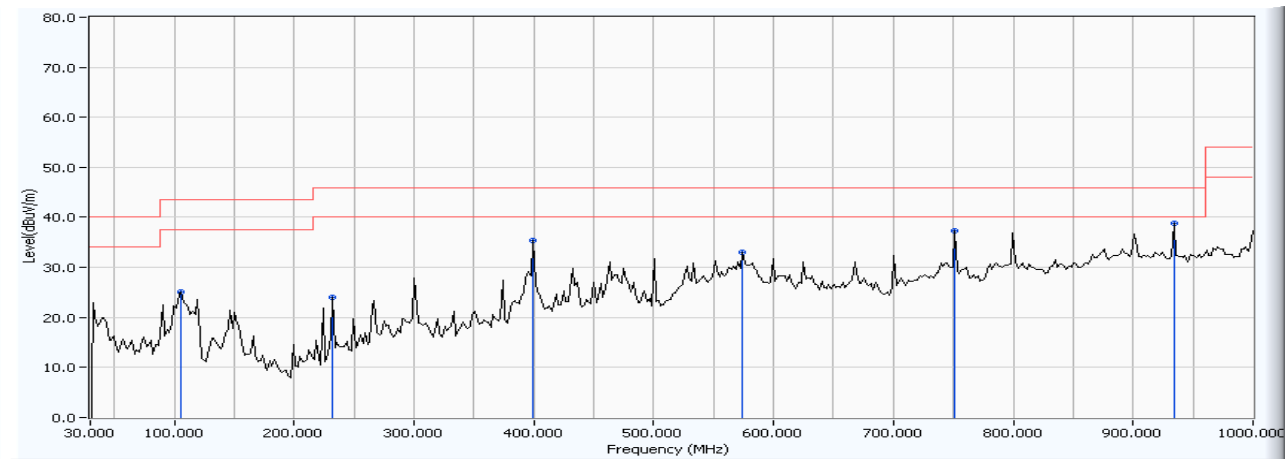
**4.5. Uncertainty**

The measurement uncertainty  
 30MHz~1GHz as ±3.19dB  
 1GHz~26.5Ghz as ±3.9dB

4.6. Test Result

30MHz-1GHz Spurious

Site : Site 1	Time : 2008/05/19 - 10:34
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	105.812	-6.398	31.556	25.158	-18.342	43.500	PEAK
2	232.164	-8.140	32.235	24.095	-21.905	46.000	PEAK
3	399.339	5.189	30.177	35.366	-10.634	46.000	PEAK
4	574.289	9.710	23.409	33.119	-12.881	46.000	PEAK
5	751.182	9.176	28.227	37.403	-8.597	46.000	PEAK
6	* 933.908	10.692	28.152	38.843	-7.157	46.000	PEAK

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 : Site 1	Time : 2008/05/19 - 10:38
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-B

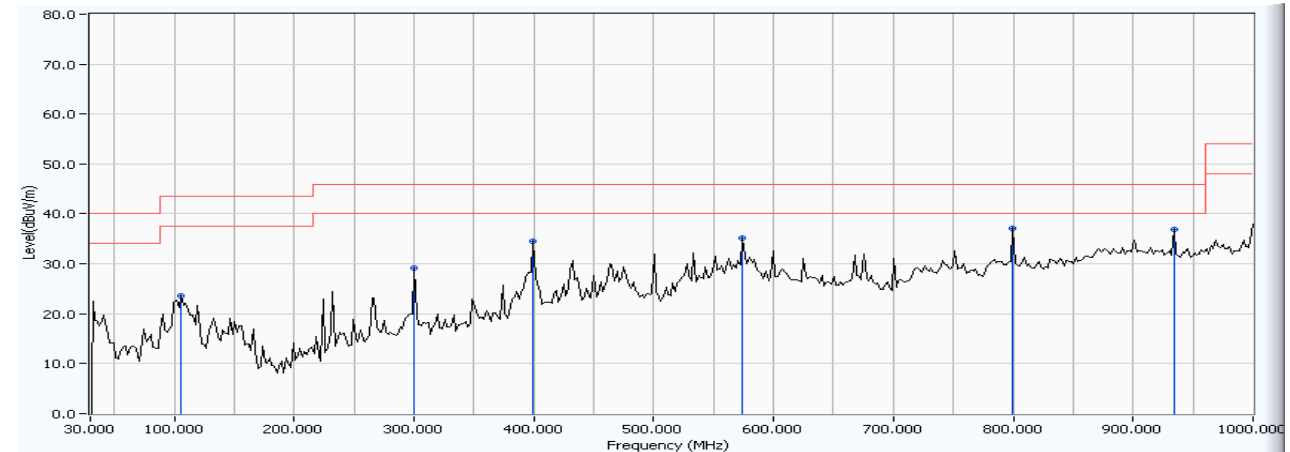


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.261	-1.148	36.101	34.953	-8.547	43.500	PEAK
2		399.339	3.575	25.335	28.910	-17.090	46.000	PEAK
3		500.421	0.957	28.433	29.390	-16.610	46.000	PEAK
4		599.559	6.201	23.494	29.695	-16.305	46.000	PEAK
5		799.780	10.822	22.797	33.619	-12.381	46.000	PEAK
6	*	939.740	15.863	22.651	38.513	-7.487	46.000	PEAK

**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 : Site 1	Time : 2008/05/19 - 15:32
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G

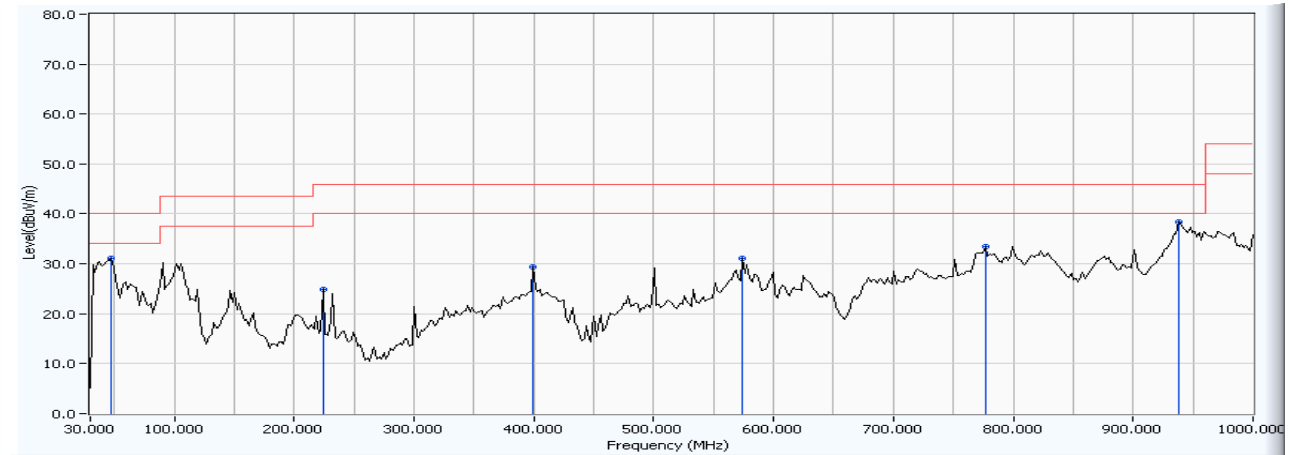


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	105.812	-6.398	30.037	23.639	-19.861	43.500	PEAK
2	300.200	-0.016	29.114	29.097	-16.903	46.000	PEAK
3	399.339	5.189	29.256	34.445	-11.555	46.000	PEAK
4	574.289	9.710	25.567	35.277	-10.723	46.000	PEAK
5	* 799.780	9.412	27.780	37.192	-8.808	46.000	PEAK
6	933.908	10.692	26.161	36.852	-9.148	46.000	PEAK

**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 : Site 1	Time : 2008/05/19 - 15:35
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB3_FCC_30-1G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-G



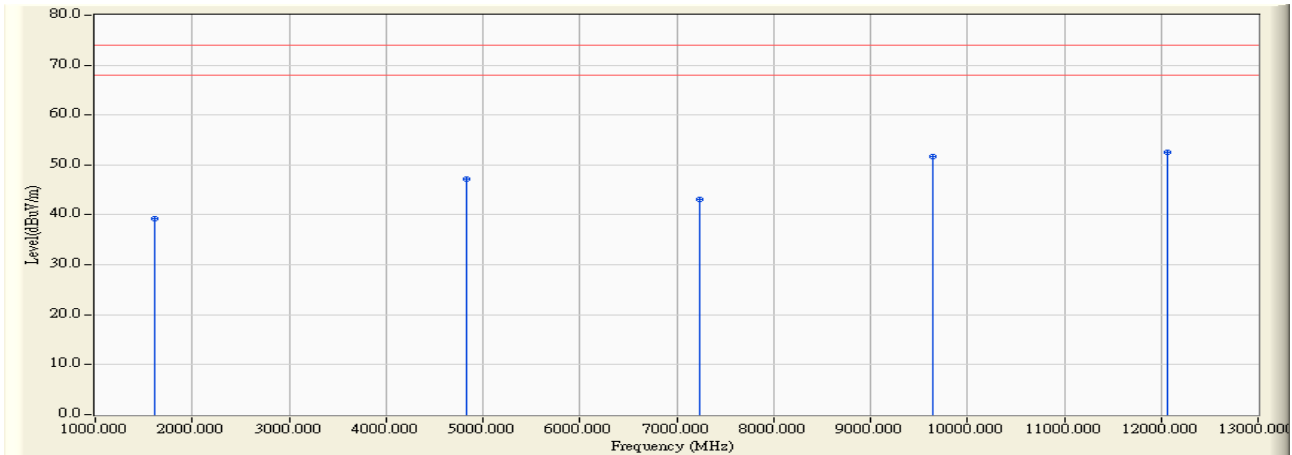
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		47.495	-0.620	31.656	31.036	-8.964	40.000	PEAK
2		224.389	-4.266	29.122	24.856	-21.144	46.000	PEAK
3		399.339	3.575	25.713	29.288	-16.712	46.000	PEAK
4		574.289	7.134	24.049	31.183	-14.817	46.000	PEAK
5		776.453	11.415	21.937	33.352	-12.648	46.000	PEAK
6	*	937.796	15.849	22.530	38.379	-7.621	46.000	PEAK

**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.

Harmonic & Spurious:

Site : Site 1	Time : 2008/05/15 - 18:32
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH1-B

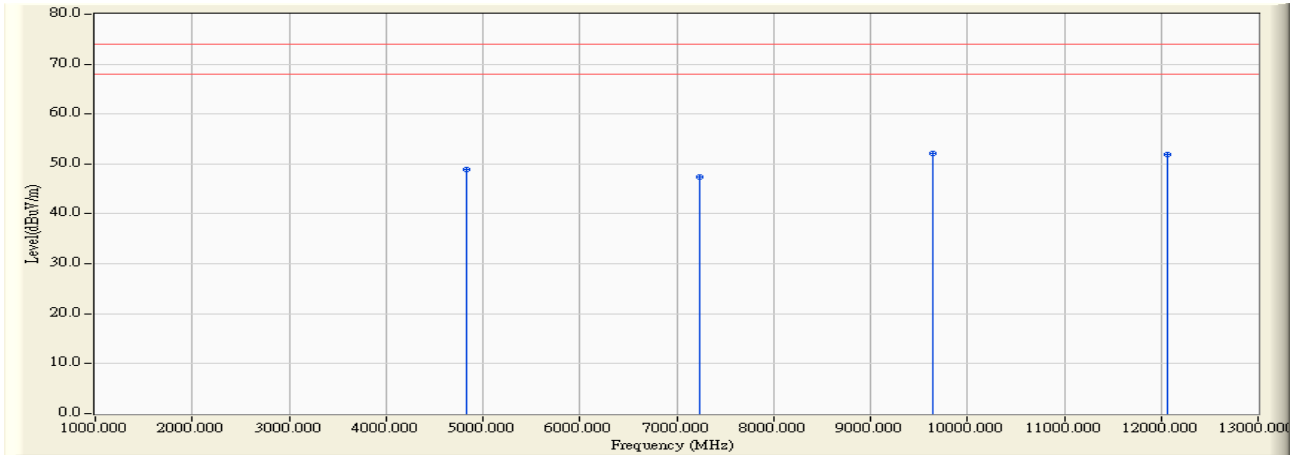


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1607.980	-7.446	46.700	39.254	-34.746	74.000	54.000	PEAK
2	4823.840	2.093	45.060	47.153	-26.847	74.000	54.000	PEAK
3	7235.980	6.208	36.950	43.158	-30.842	74.000	54.000	PEAK
4	9647.720	14.541	37.140	51.681	-22.319	74.000	54.000	PEAK
5	* 12059.900	17.622	34.880	52.502	-21.498	74.000	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.

Site : Site 1	Time : 2008/05/16 - 10:03
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH1-B

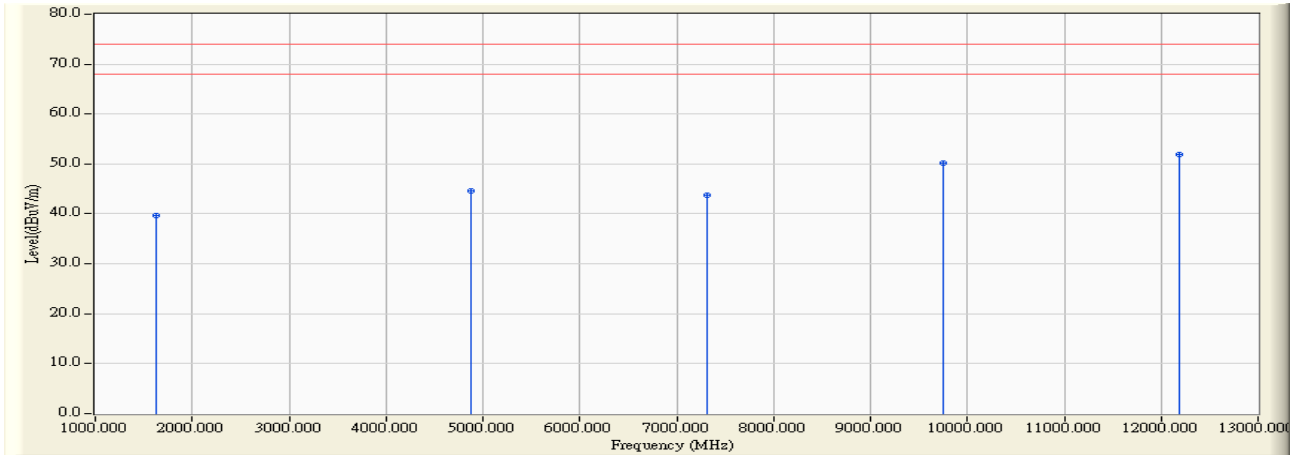


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	4823.920	2.093	46.870	48.963	-25.037	74.000	54.000	PEAK
2	7235.920	6.681	40.690	47.371	-26.629	74.000	54.000	PEAK
3	* 9647.880	13.243	38.870	52.113	-21.887	74.000	54.000	PEAK
4	12059.940	17.504	34.360	51.864	-22.136	74.000	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.

Site : Site 1	Time : 2008/05/16 - 10:38
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH6-B

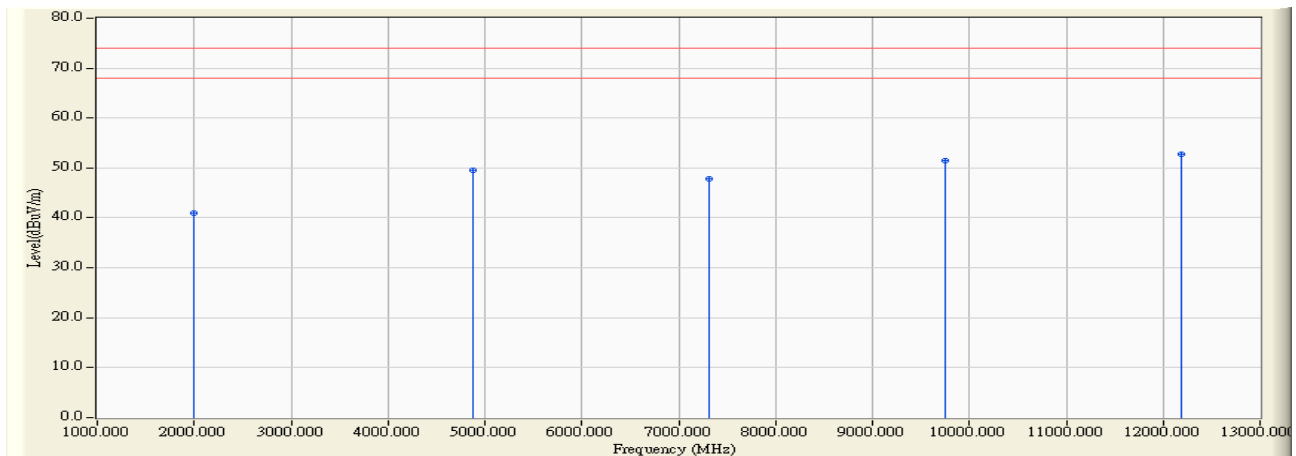


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1624.600	-7.363	47.100	39.738	-34.262	74.000	54.000	PEAK
2	4873.800	2.386	42.310	44.696	-29.304	74.000	54.000	PEAK
3	7311.000	6.086	37.670	43.756	-30.244	74.000	54.000	PEAK
4	9748.000	14.957	35.330	50.286	-23.714	74.000	54.000	PEAK
5	* 12185.000	17.820	34.090	51.911	-22.089	74.000	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.

Site : Site 1	Time : 2008/05/16 - 10:53
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH6-B

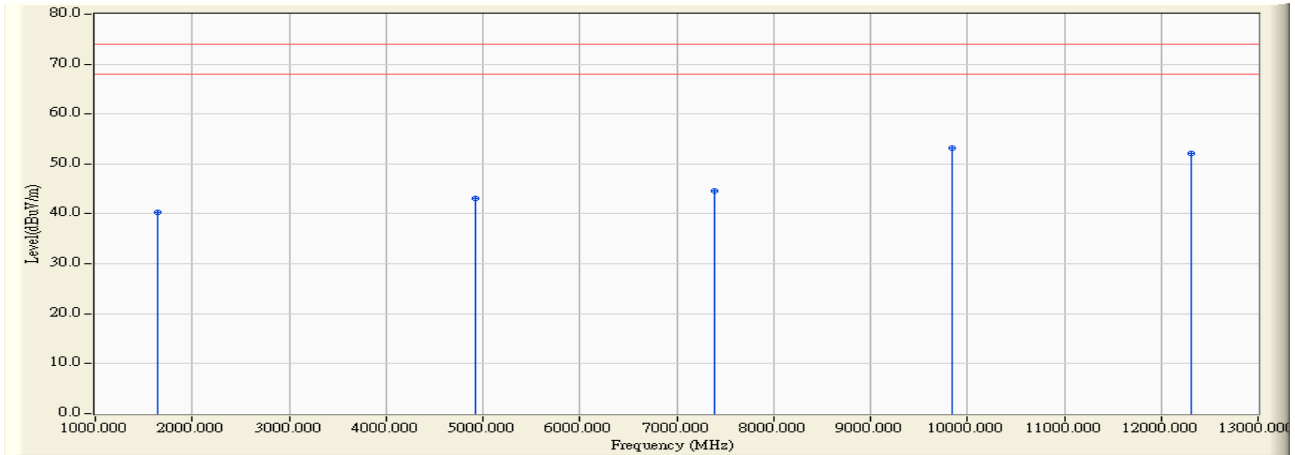


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1999.900	-4.814	45.710	40.897	-33.103	74.000	54.000	PEAK
2	4873.960	2.388	47.090	49.477	-24.523	74.000	54.000	PEAK
3	7311.020	6.706	41.040	47.745	-26.255	74.000	54.000	PEAK
4	9748.050	13.459	38.090	51.549	-22.451	74.000	54.000	PEAK
5	* 12185.110	17.453	35.230	52.683	-21.317	74.000	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.

Site : Site 1	Time : 2008/05/16 - 11:51
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH11-B



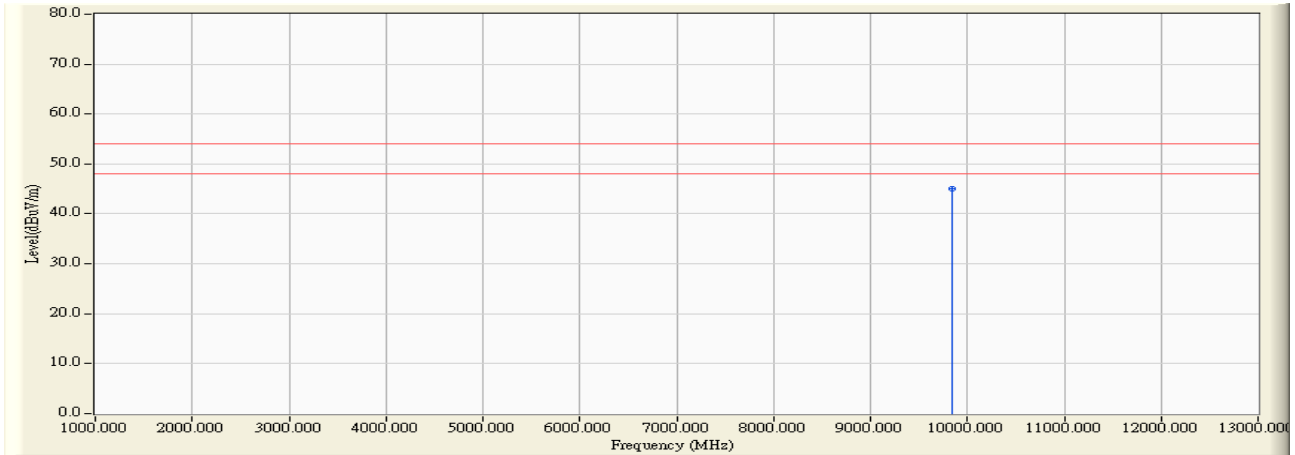
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1641.400	-7.210	47.520	40.309	-33.691	74.000	54.000	PEAK
2	4923.800	2.620	40.510	43.130	-30.870	74.000	54.000	PEAK
3	7385.500	5.947	38.670	44.617	-29.383	74.000	54.000	PEAK
4	* 9847.800	15.422	37.850	53.272	-20.728	74.000	54.000	PEAK
5	12310.400	18.536	33.600	52.137	-21.863	74.000	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.



Site : Site 1	Time : 2008/05/16 - 11:57
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH11-B

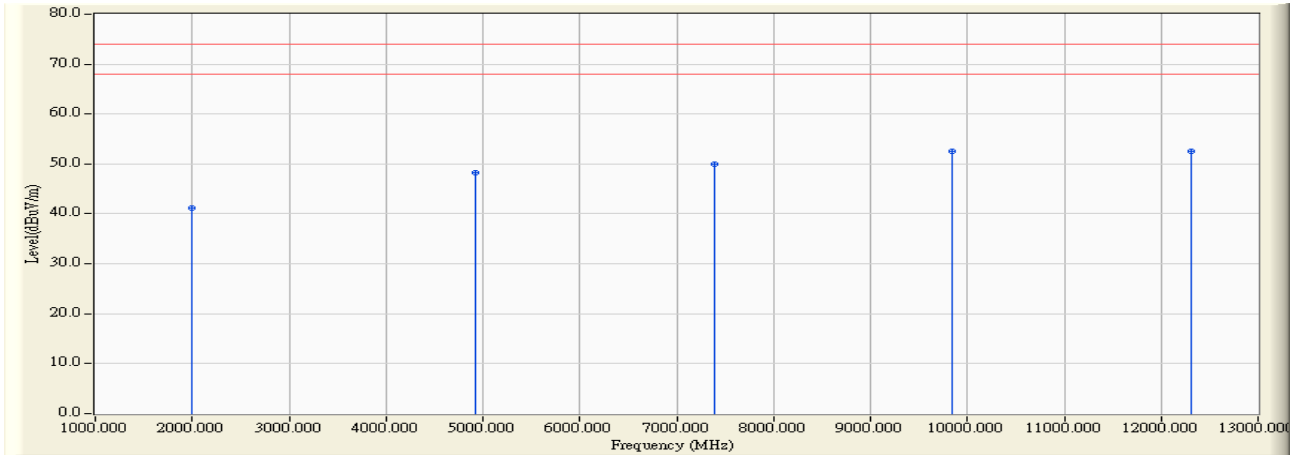


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	9847.960	15.423	29.710	45.133	-8.867	74.000	54.000	AVERAGE

**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 : Site 1	Time : 2008/05/16 - 13:15
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH11-B

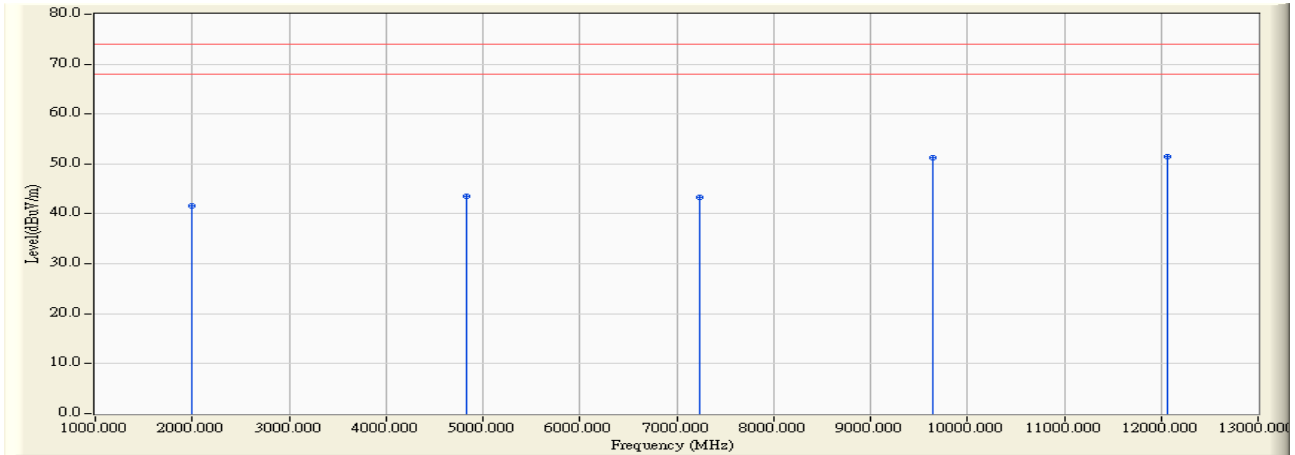


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1999.700	-4.814	45.970	41.156	-32.844	74.000	54.000	PEAK
2	4923.900	2.621	45.690	48.311	-25.689	74.000	54.000	PEAK
3	7385.700	6.716	43.210	49.925	-24.075	74.000	54.000	PEAK
4	9847.800	13.728	38.740	52.468	-21.532	74.000	54.000	PEAK
5	* 12309.700	17.917	34.670	52.586	-21.414	74.000	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.

Site : Site 1	Time : 2008/05/16 - 10:12
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH1-G

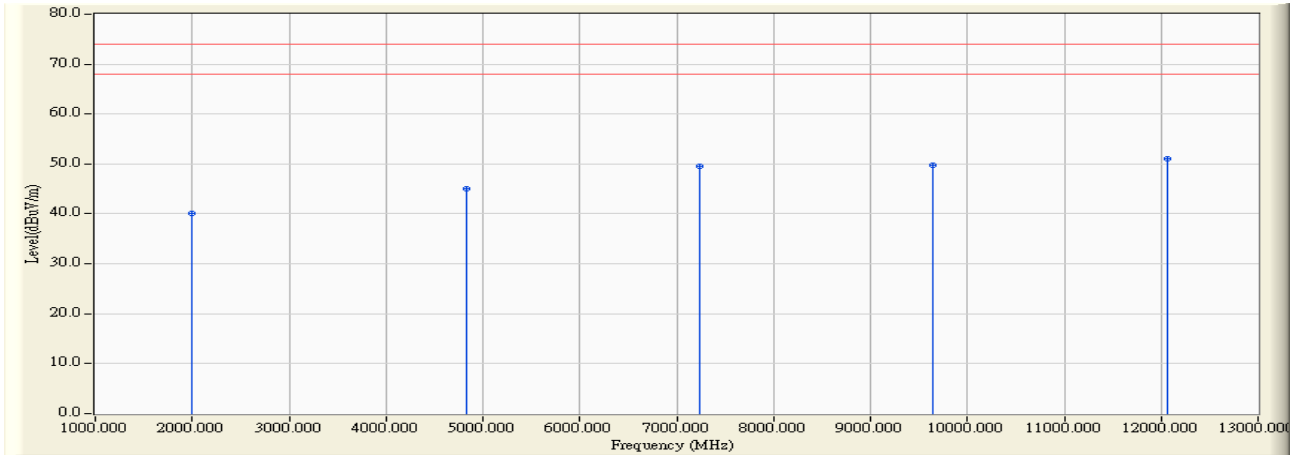


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2000.000	-4.813	46.480	41.667	-32.333	74.000	54.000	PEAK
2	4823.960	2.093	41.540	43.634	-30.366	74.000	54.000	PEAK
3	7235.930	6.208	37.050	43.258	-30.742	74.000	54.000	PEAK
4	9647.920	14.541	36.730	51.271	-22.729	74.000	54.000	PEAK
5	* 12059.940	17.622	33.760	51.382	-22.618	74.000	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.

Site : Site 1	Time : 2008/05/16 - 10:24
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH1-G

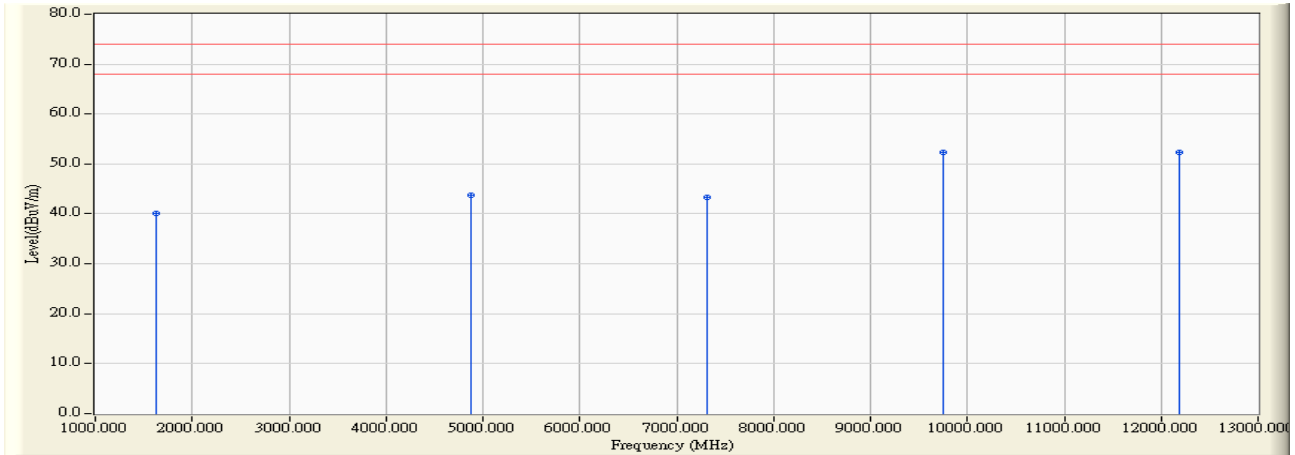


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2000.020	-4.813	44.850	40.037	-33.963	74.000	54.000	PEAK
2	4823.890	2.093	42.920	45.013	-28.987	74.000	54.000	PEAK
3	7235.960	6.681	42.900	49.581	-24.419	74.000	54.000	PEAK
4	9647.930	13.243	36.510	49.753	-24.247	74.000	54.000	PEAK
5	* 12059.900	17.505	33.640	51.145	-22.855	74.000	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.

Site : Site 1	Time : 2008/05/16 - 11:22
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH6-G

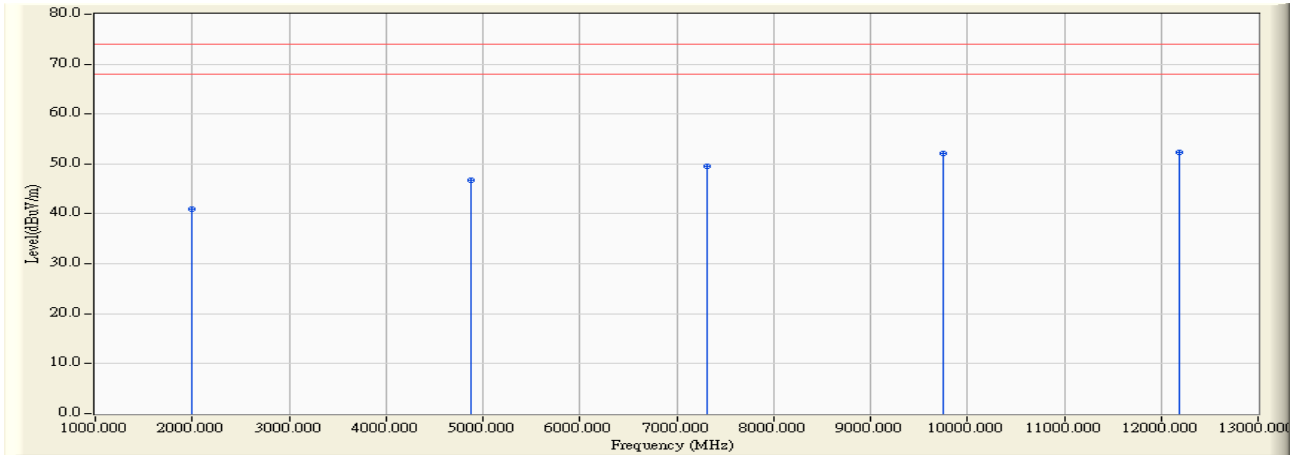


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1624.620	-7.363	47.560	40.198	-33.802	74.000	54.000	PEAK
2	4874.000	2.388	41.410	43.797	-30.203	74.000	54.000	PEAK
3	7310.700	6.086	37.150	43.236	-30.764	74.000	54.000	PEAK
4	9748.100	14.957	37.310	52.267	-21.733	74.000	54.000	PEAK
5	* 12184.800	17.820	34.550	52.370	-21.630	74.000	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.

Site : Site 1	Time : 2008/05/16 - 11:37
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH6-G

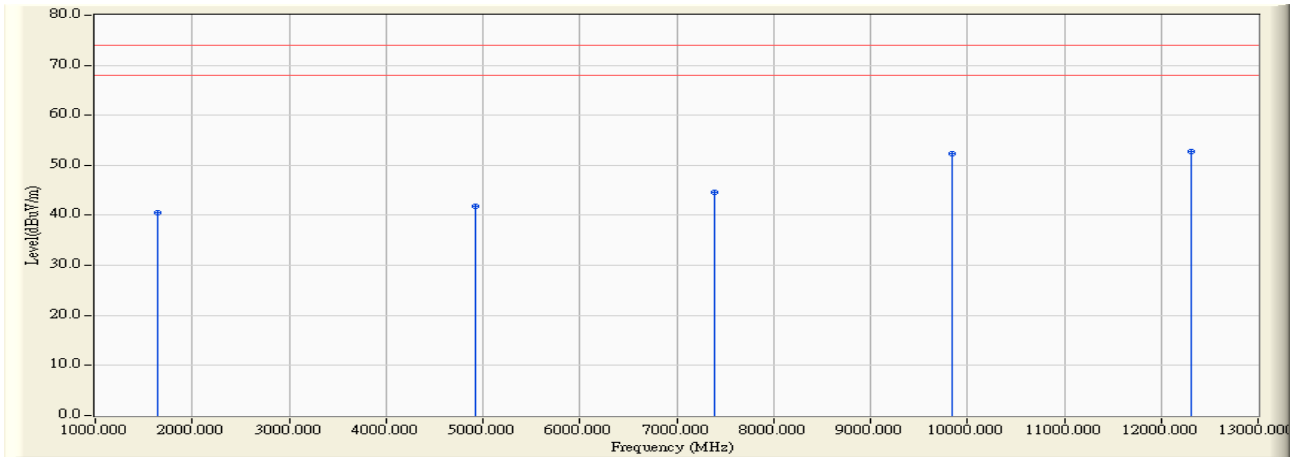


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2000.000	-4.813	45.790	40.977	-33.023	74.000	54.000	PEAK
2	4874.200	2.389	44.470	46.859	-27.141	74.000	54.000	PEAK
3	7310.700	6.705	42.820	49.525	-24.475	74.000	54.000	PEAK
4	9748.500	13.461	38.590	52.050	-21.950	74.000	54.000	PEAK
5	* 12184.700	17.450	34.780	52.231	-21.769	74.000	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.

Site : Site 1	Time : 2008/05/16 - 13:24
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH11-G

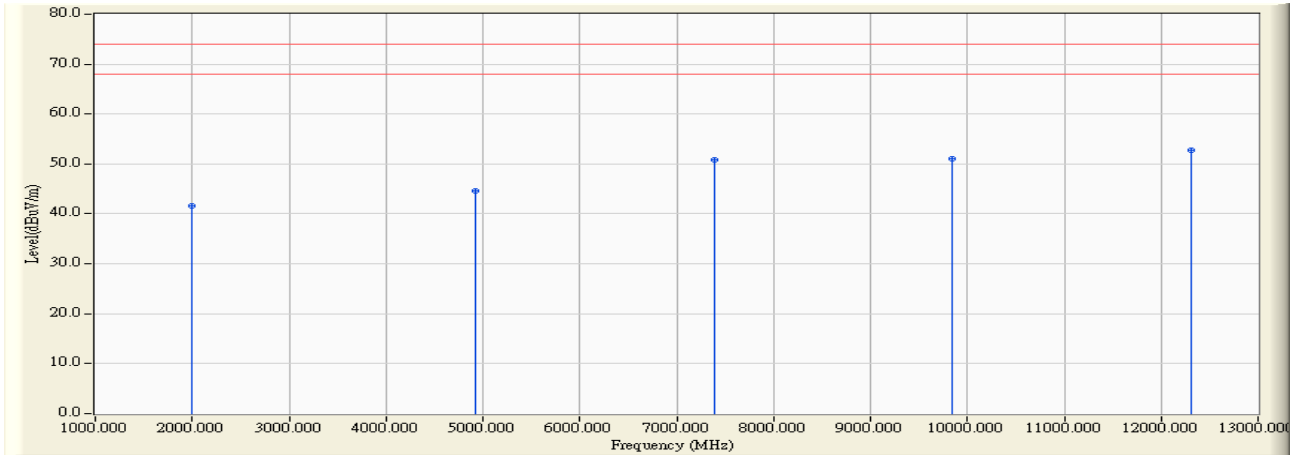


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	1641.560	-7.209	47.670	40.460	-33.540	74.000	54.000	PEAK
2	4923.980	2.621	39.130	41.751	-32.249	74.000	54.000	PEAK
3	7385.400	5.947	38.620	44.567	-29.433	74.000	54.000	PEAK
4	9847.500	-15.041	67.412	52.371	-21.629	74.000	54.000	PEAK
5	* 12309.800	-12.693	65.349	52.655	-21.345	74.000	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.

Site : Site 1	Time : 2008/05/16 - 13:29
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB4_FCC_1-18G(2008-0509) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : TX-CH11-G



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2000.200	-4.813	46.350	41.538	-32.462	74.000	54.000	PEAK
2	4924.000	2.621	41.970	44.591	-29.409	74.000	54.000	PEAK
3	7385.600	6.715	44.190	50.905	-23.095	74.000	54.000	PEAK
4	9847.800	13.728	37.360	51.088	-22.912	74.000	54.000	PEAK
5	* 12309.900	17.917	34.750	52.666	-21.334	74.000	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.



**5. RF antenna conducted test**

**5.1. Test Equipment**

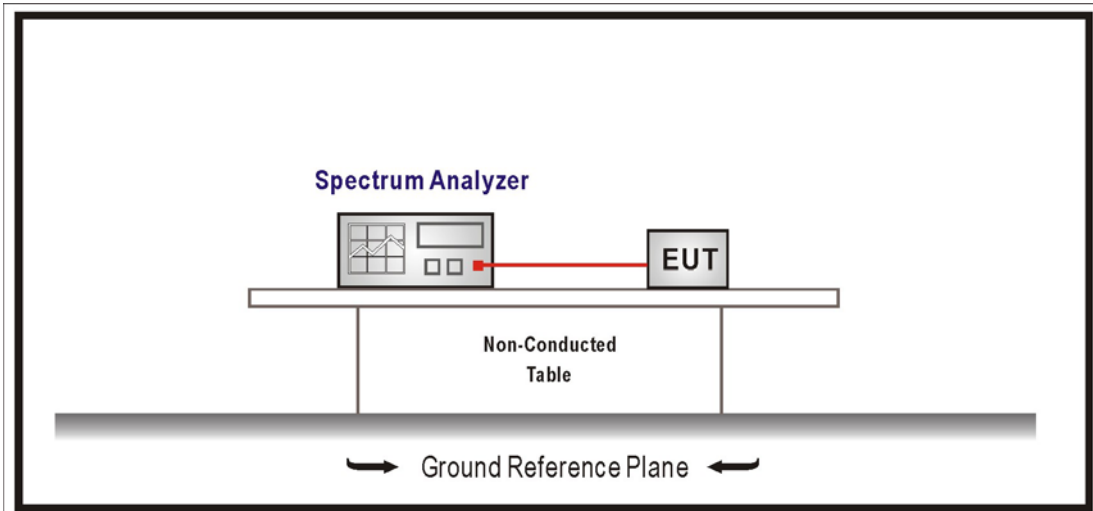
The following test equipments are used during the test:

RF Conducted Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2008
2	No.1 OATS			Sep., 2007

- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
  2. Test instruments are marked with "X" are used to measure the final test results.

**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 tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

### 5.5. Uncertainty

The measurement uncertainty

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

Radiated is defined as  $\pm 3.9\text{dB}$

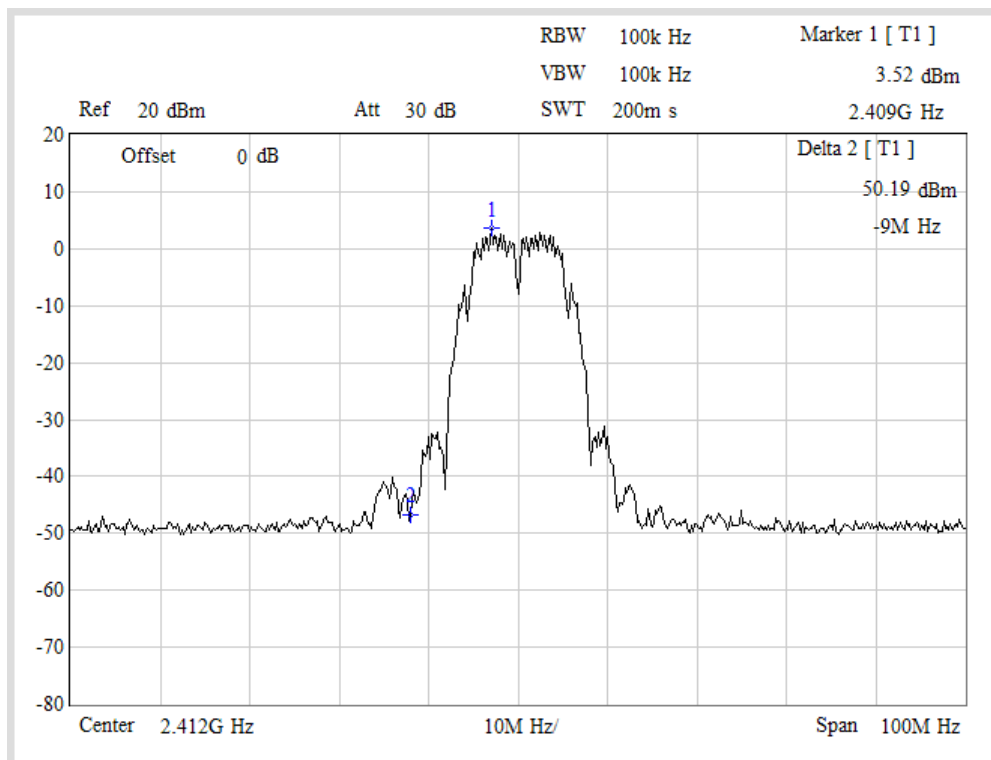
5.6. Test Result

Product	Wireless ADSL VOIP Router		
Test Item	RF antenna conducted test		
Test Mode	Transmit		
Date of Test	2008/05/16	Test Site	No.1 OATS

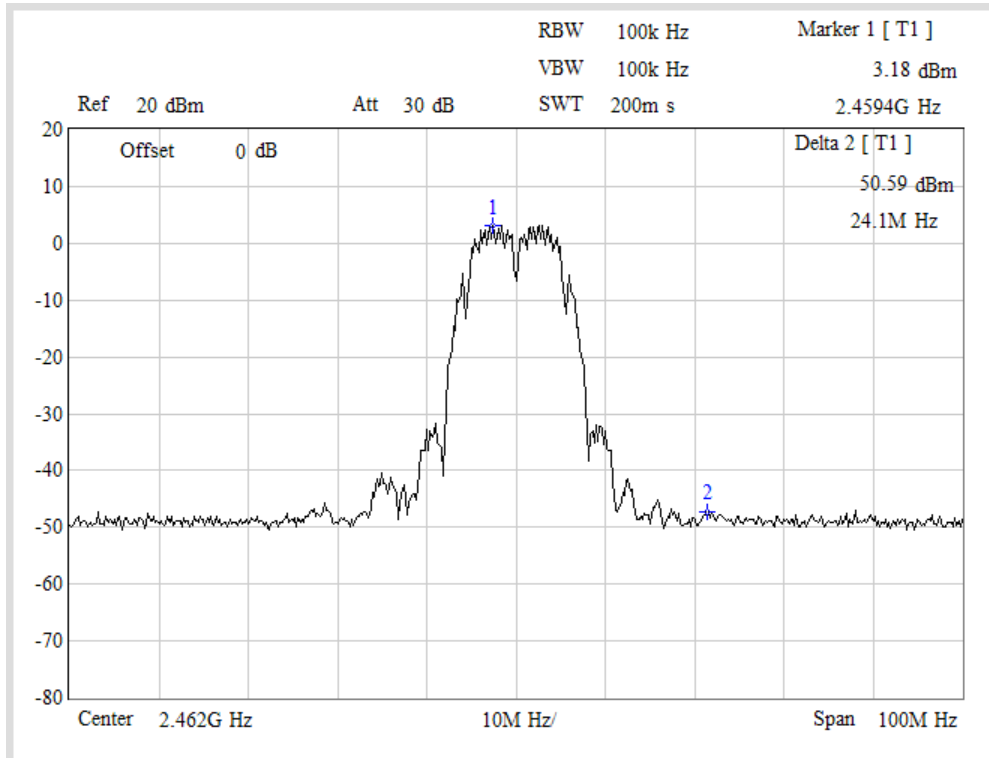
IEEE 802.11b, Antenna Gain: 1.8dBi, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	50.19	> 30	Pass
11	2462	50.59	> 30	Pass

802.11b

Channel 01 (2412MHz)



Channel 11 (2462MHz)

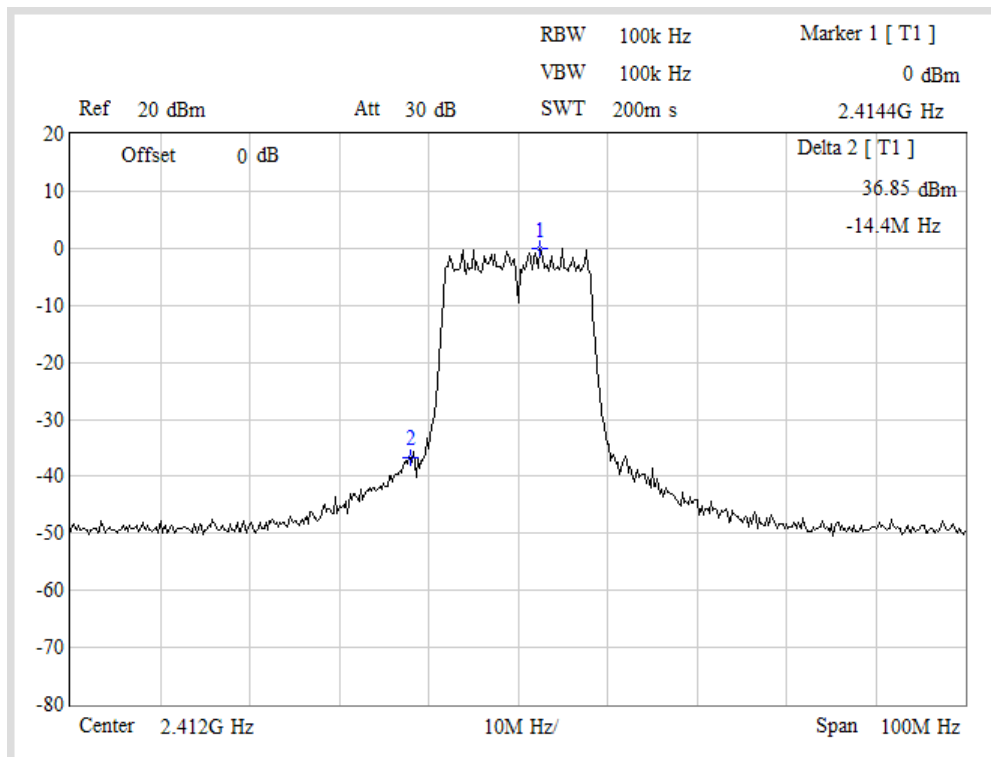


Product	Wireless ADSL VOIP Router		
Test Item	RF antenna conducted test		
Test Mode	Transmit		
Date of Test	2008/05/16	Test Site	No.1 OATS

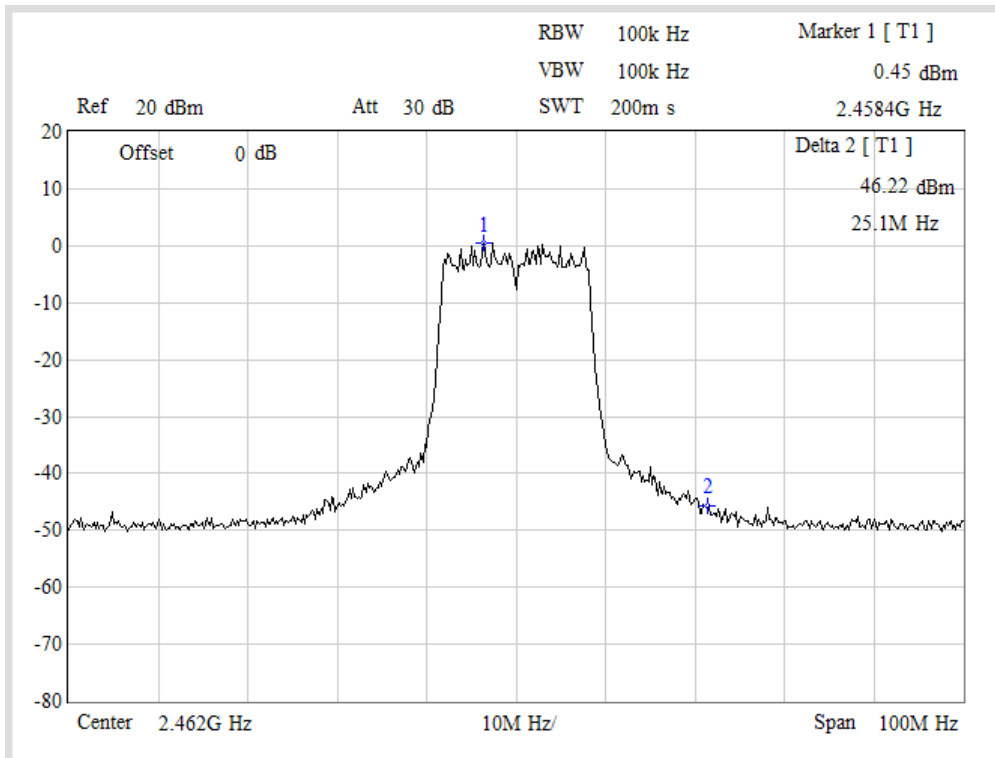
IEEE 802.11b, Antenna Gain: 1.8dBi, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	36.85	> 30	Pass
11	2462	46.22	> 30	Pass

802.11g

Channel 01 (2412MHz)



Channel 11 (2462MHz)



**6. Radiated Emission Band Edge**

**6.1. Test Equipment**

The following test equipments are used during the test:

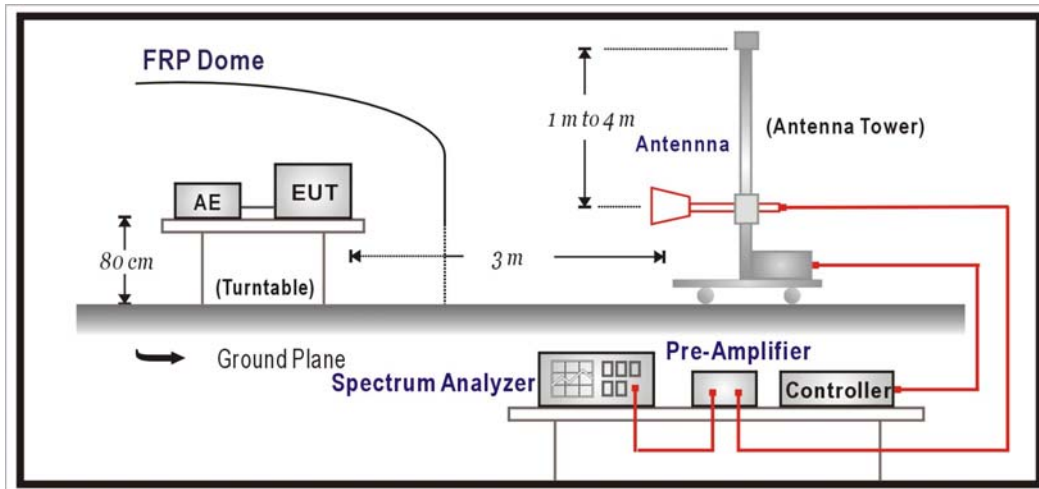
RF Radiated Measurement:					
Item		Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2007
2	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2008
3		Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2007
4		BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2007
5		Bilog Antenna	Chase	CBL6112B / 2895	Sep., 2007
6	X	Horn Antenna	Electro Metrics	EM-6961 / 103325	Mar., 2007
7		No.1 OATS			Sep., 2007

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

2. Test instruments are marked with "X" are used to measure the final test results.

**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, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

**6.5. Uncertainty**

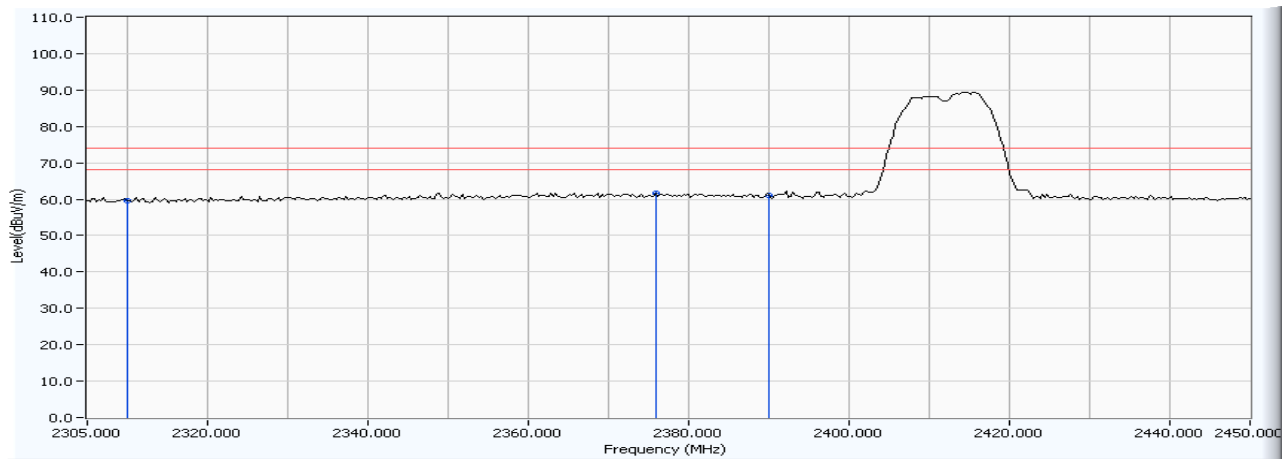
The measurement uncertainty  
 $\pm 3.9$  dB above 1GHz



6.6. Test Result

Radiated is defined as

Site : Site 1	Time : 2008/05/19 - 17:30
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-B

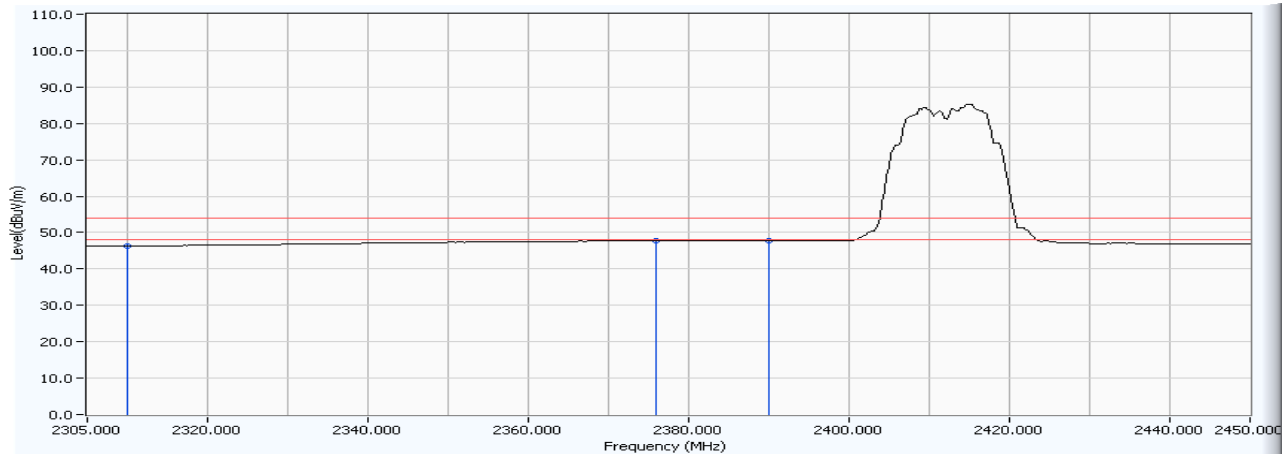


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	30.412	29.116	59.527	-14.473	74.000	54.00	PEAK
2	* 2375.902	30.518	31.219	61.737	-12.263	74.000	54.00	PEAK
3	2390.000	30.543	30.574	61.117	-12.883	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:31
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-B

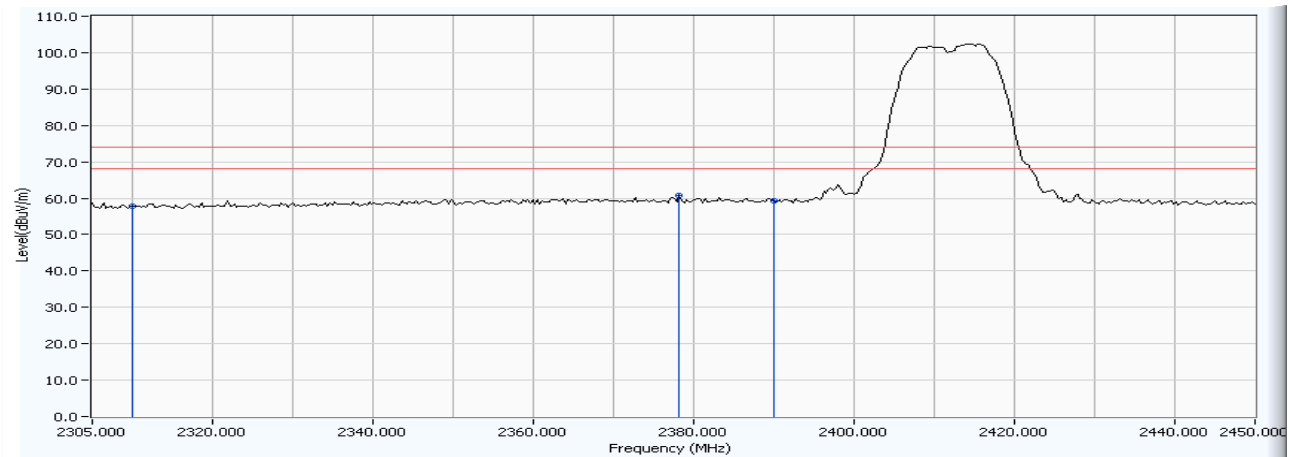


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	30.412	15.949	46.360	-7.640	74.000	54.00	AVERAGE
2	* 2375.902	30.518	17.165	47.683	-6.317	74.000	54.00	AVERAGE
3	2390.000	30.543	17.188	47.731	-6.269	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:40
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-B

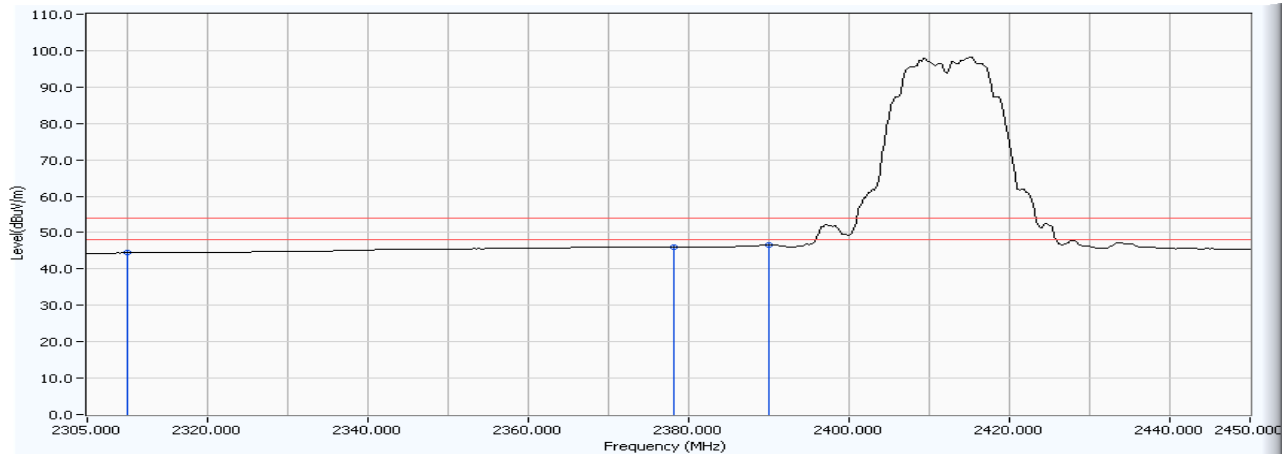


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	28.433	29.435	57.868	-16.132	74.000	54.00	PEAK
2	* 2378.227	28.675	31.957	60.632	-13.368	74.000	54.00	PEAK
3	2390.000	28.724	30.445	59.169	-14.831	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:41
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-B

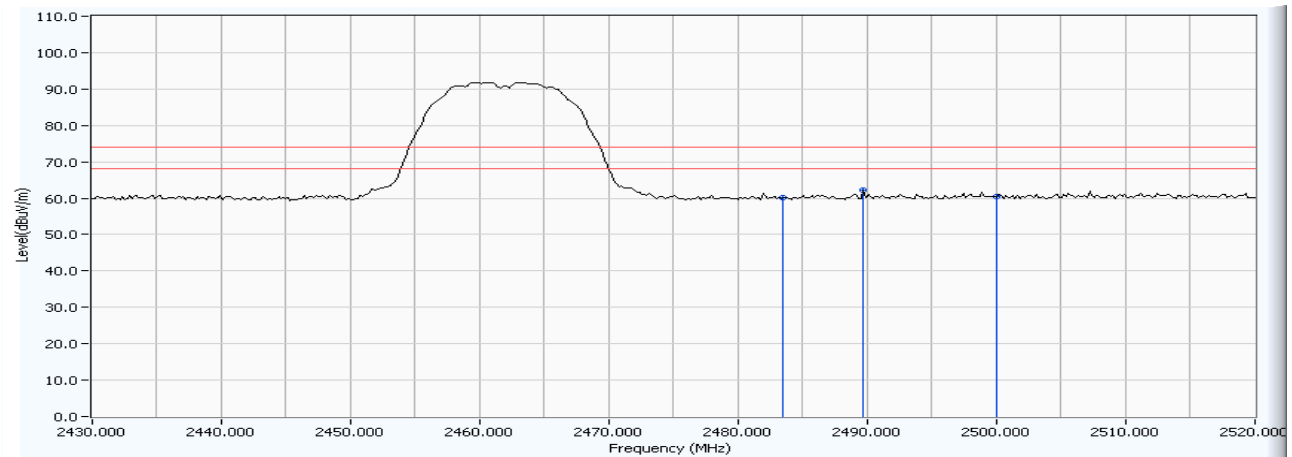


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	28.433	15.977	44.410	-9.590	74.000	54.00	AVERAGE
2	* 2378.227	28.675	17.344	46.019	-7.981	74.000	54.00	AVERAGE
3	2390.000	28.724	17.840	46.564	-7.436	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:15
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-B

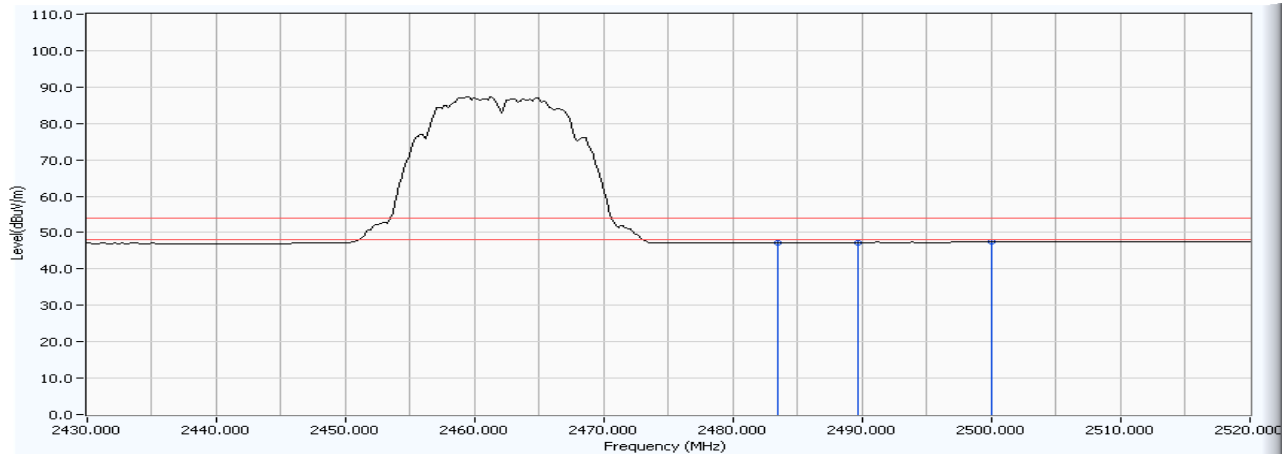


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	30.696	29.425	60.120	-13.880	74.000	54.00	PEAK
2	* 2489.699	30.702	31.381	62.084	-11.916	74.000	54.00	PEAK
3	2500.000	30.722	29.645	60.367	-13.633	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:16
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-B

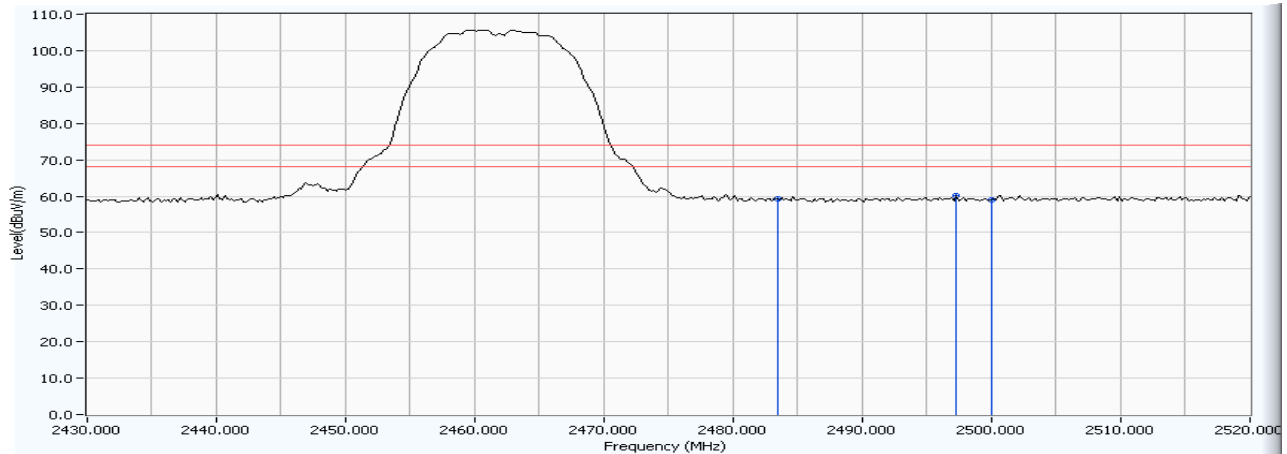


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	30.696	16.482	47.177	-6.823	74.000	54.00	AVERAGE
2	* 2489.699	30.702	16.569	47.272	-6.728	74.000	54.00	AVERAGE
3	2500.000	30.722	16.709	47.431	-6.569	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:27
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-B

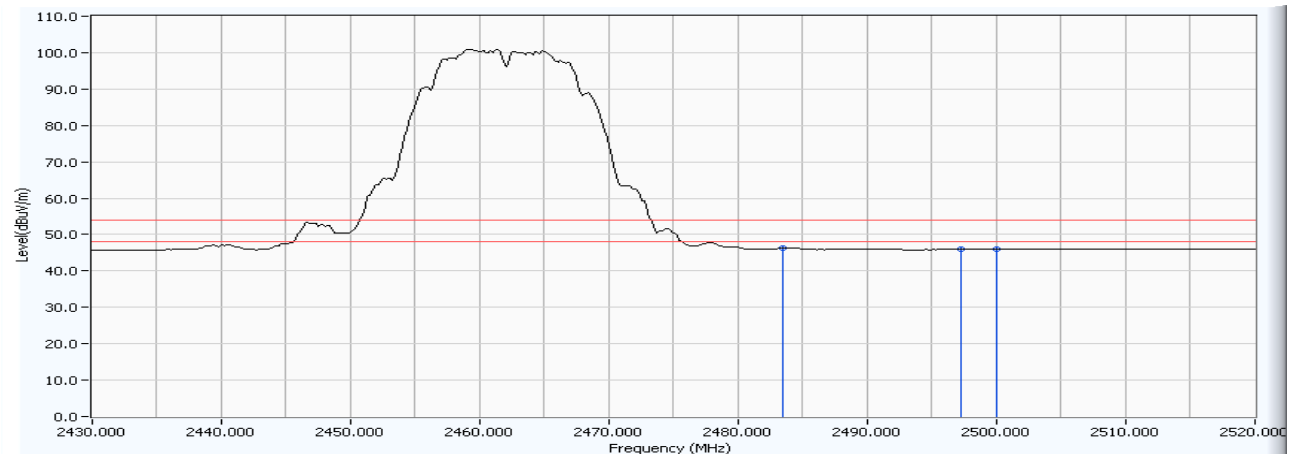


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	29.064	30.094	59.157	-14.843	74.000	54.00	PEAK
2	* 2497.275	29.104	31.169	60.274	-13.726	74.000	54.00	PEAK
3	2500.000	29.114	29.788	58.902	-15.098	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:28
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-B



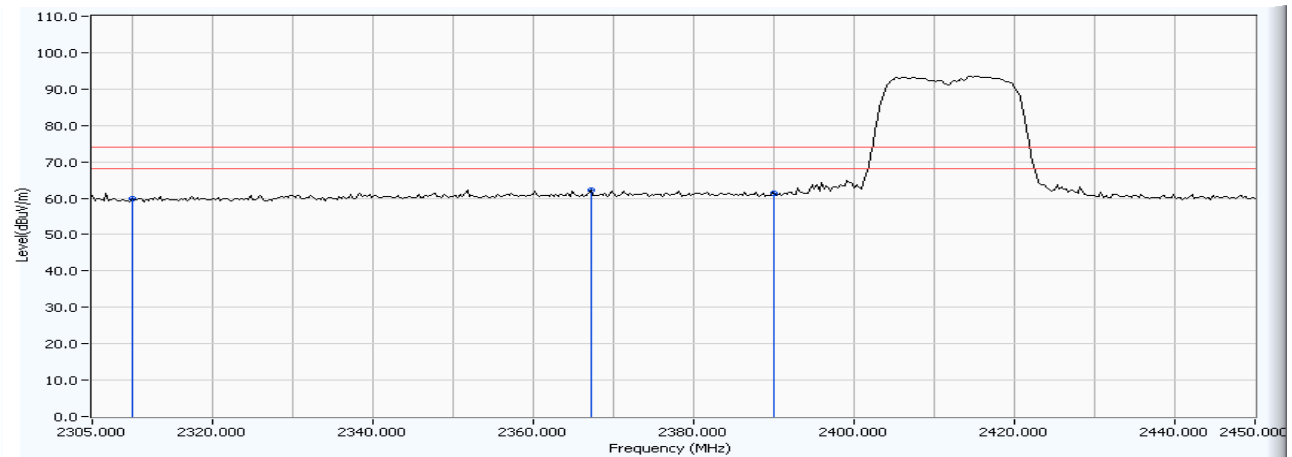
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	29.064	17.301	46.364	-7.636	74.000	54.00	AVERAGE
2	* 2497.275	29.104	16.807	45.912	-8.088	74.000	54.00	AVERAGE
3	2500.000	29.114	16.855	45.969	-8.031	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:54
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-G

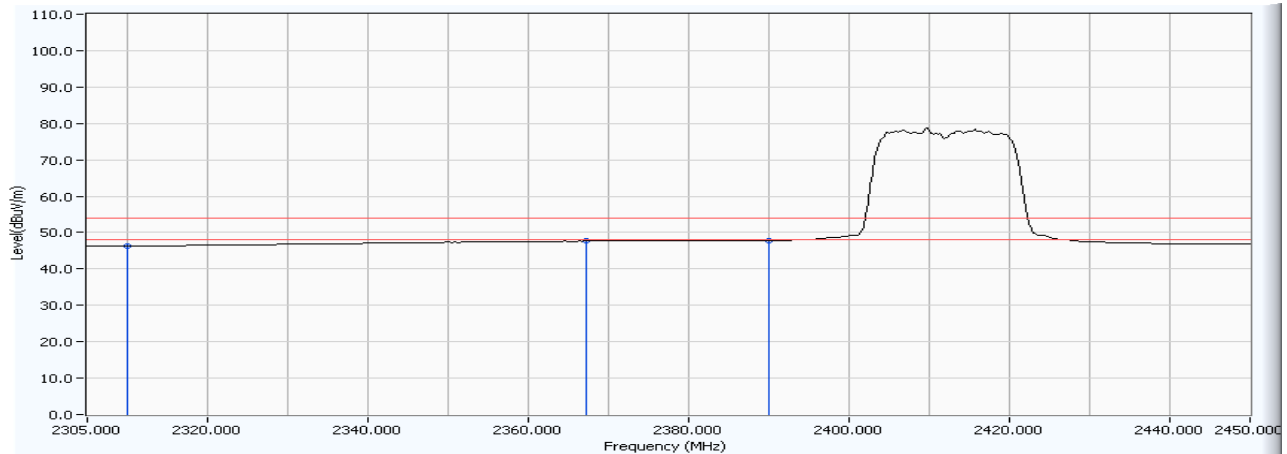


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	30.412	29.342	59.753	-14.247	74.000	54.00	PEAK
2	* 2367.184	30.502	31.733	62.236	-11.764	74.000	54.00	PEAK
3	2390.000	30.543	30.821	61.364	-12.636	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:55
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-G

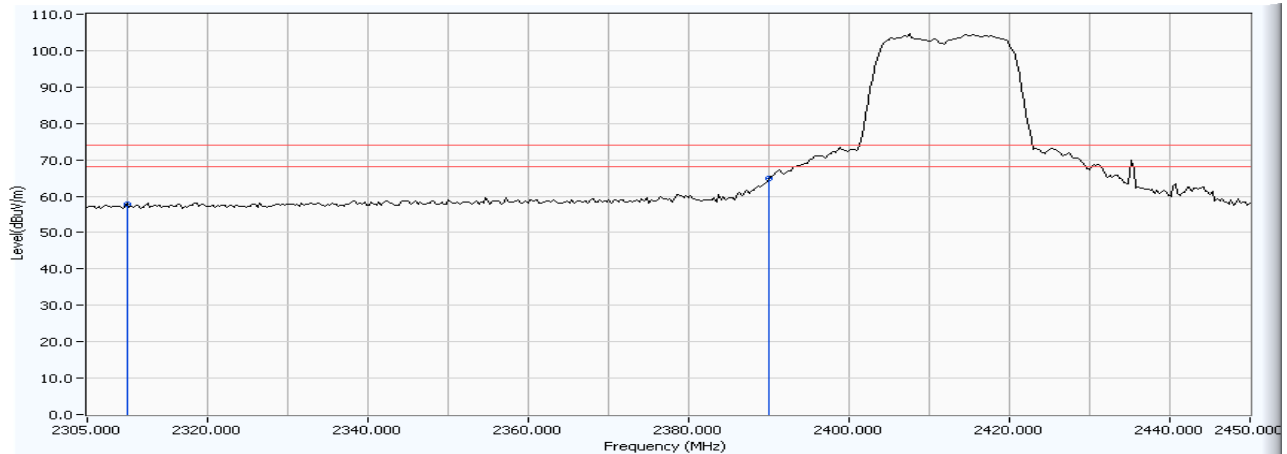


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	30.412	15.945	46.356	-7.644	74.000	54.00	AVERAGE
2	* 2367.184	30.502	17.139	47.642	-6.358	74.000	54.00	AVERAGE
3	2390.000	30.543	17.255	47.798	-6.202	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 17:45
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-G

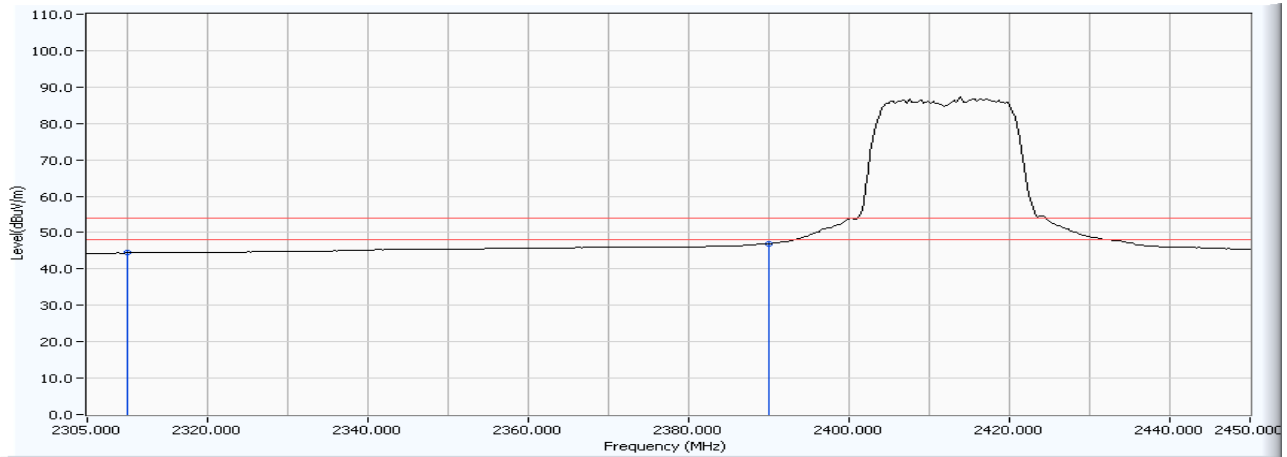


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2310.000	28.433	29.393	57.826	-16.174	74.000	54.00	PEAK
2	* 2390.000	28.724	36.101	64.825	-9.175	74.000	54.00	PEAK

**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 : Site 1	Time : 2008/05/19 - 17:48
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH1-G

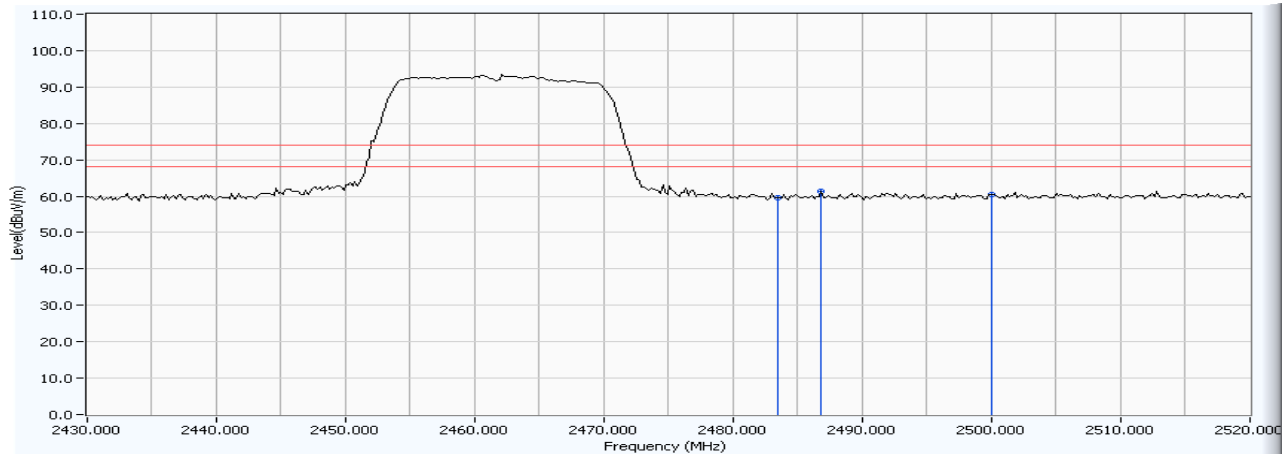


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	28.433	15.960	44.393	-9.607	74.000	54.00	AVERAGE
2	*	2390.000	28.724	18.227	46.951	-7.049	74.000	54.00	AVERAGE

**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 : Site 1	Time : 2008/05/19 - 18:18
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-G

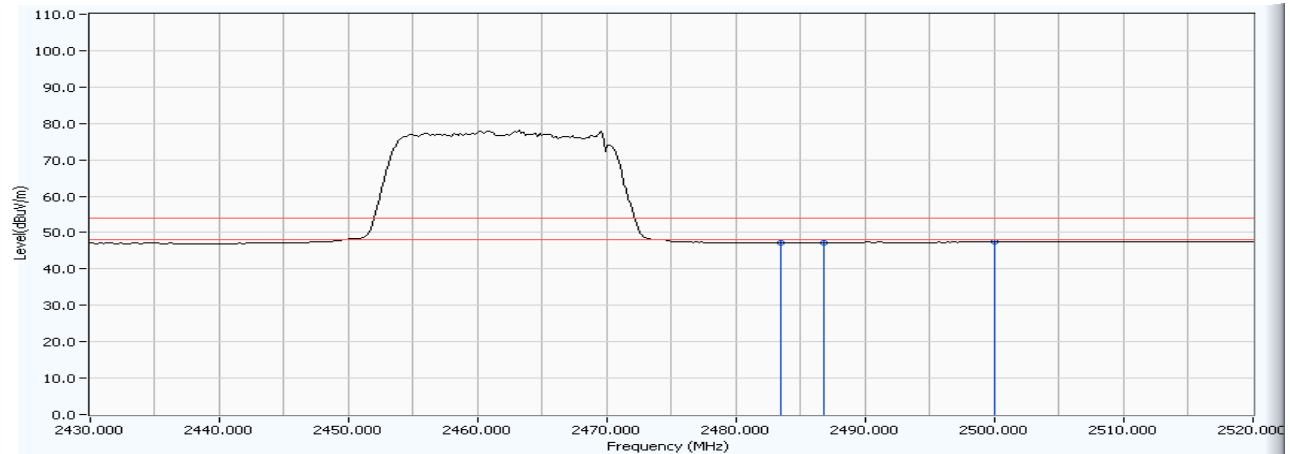


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	30.696	28.836	59.531	-14.469	74.000	54.00	PEAK
2	* 2486.814	30.700	30.674	61.373	-12.627	74.000	54.00	PEAK
3	2500.000	30.722	29.841	60.563	-13.437	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:18
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-G

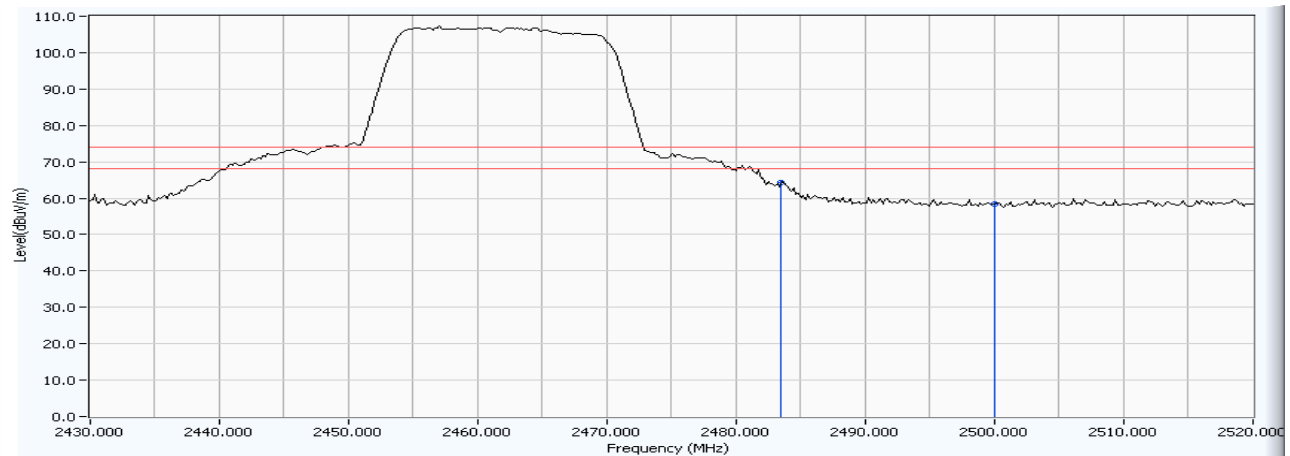


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	2483.500	30.696	16.511	47.206	-6.794	74.000	54.00	AVERAGE
2	* 2486.814	30.700	16.517	47.216	-6.784	74.000	54.00	AVERAGE
3	2500.000	30.722	16.665	47.387	-6.613	74.000	54.00	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 : Site 1	Time : 2008/05/19 - 18:29
Limit : FCC_15.209(961011)_03M_PK	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-G

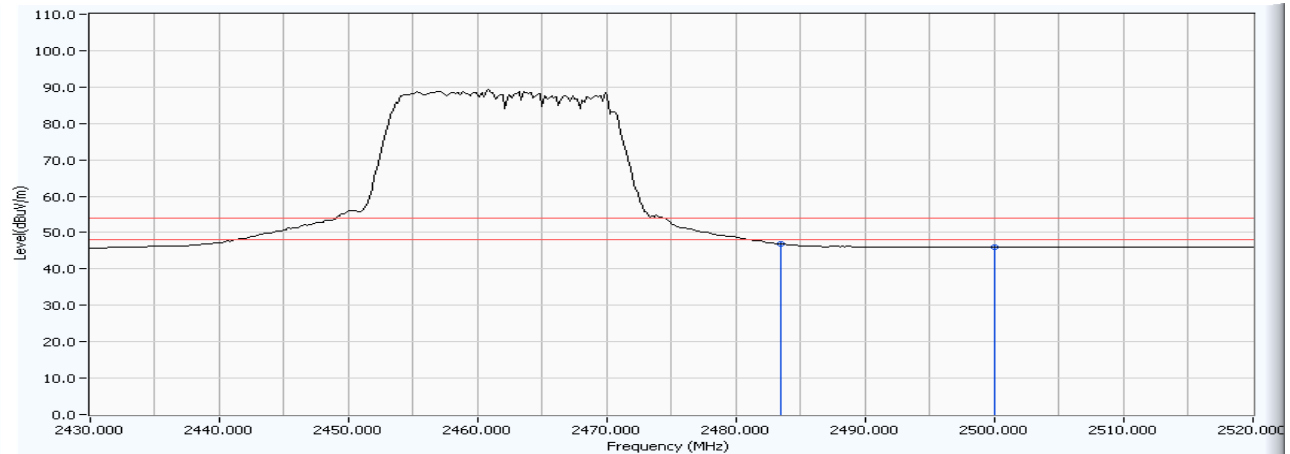


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2483.500	29.064	35.083	64.146	-9.854	74.000	54.00	PEAK
2		2500.000	29.114	29.411	58.525	-15.475	74.000	54.00	PEAK

**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 : Site 1	Time : 2008/05/19 - 18:30
Limit : FCC_15.209(961011)_03M_AV	Margin : 6
Probe : CB3_FCC_1-18G(2007) - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless ADSL VOIP Router	Note : CH11-G



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1	*	2483.500	29.064	17.776	46.839	-7.161	74.000	54.00	AVERAGE
2		2500.000	29.114	16.845	45.959	-8.041	74.000	54.00	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**

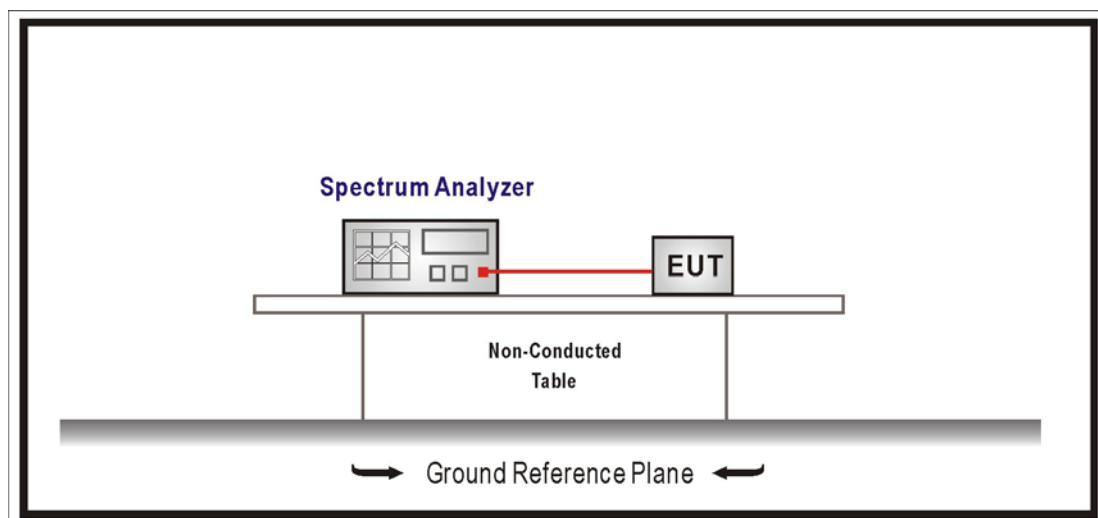
**7.1. Test Equipment**

The following test equipments are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2008
2	No.1 OATS			Sep., 2007

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**7.2. Test Setup**



**7.3. Test Procedures**

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Oct 2002 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. Uncertainty**

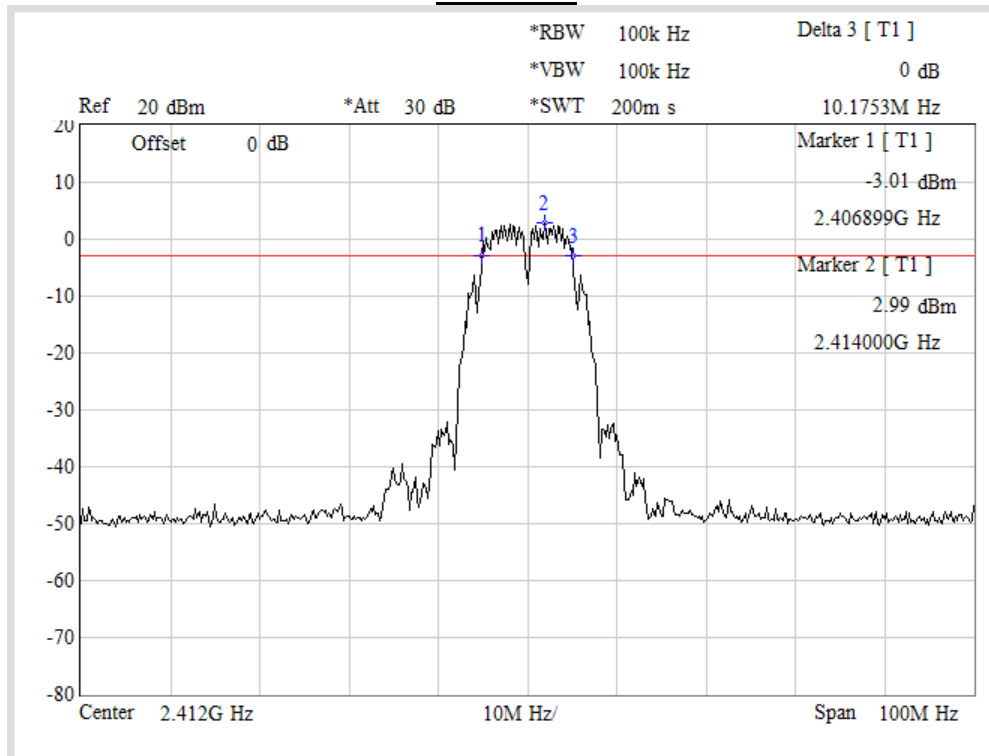
The measurement uncertainty is defined as  $\pm 150\text{Hz}$

7.6. Test Result

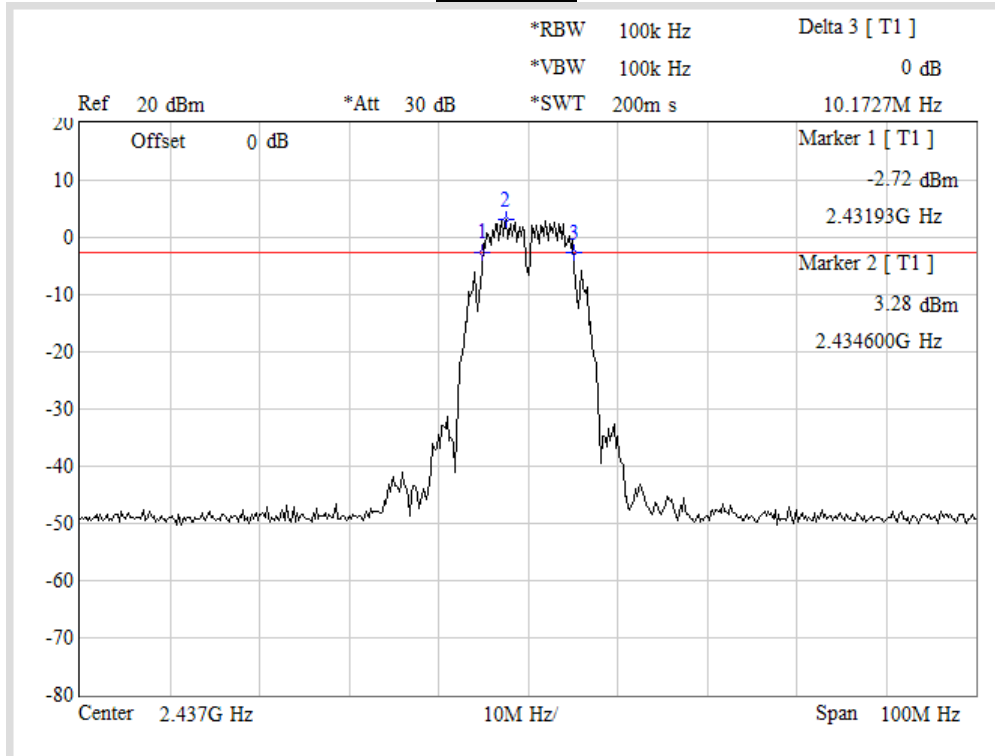
Product	Wireless ADSL VOIP Router		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

802.11 b				
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	10175.3	--	Pass
6	2437.00	10172.7	--	Pass
11	2462.00	10221.9	--	Pass

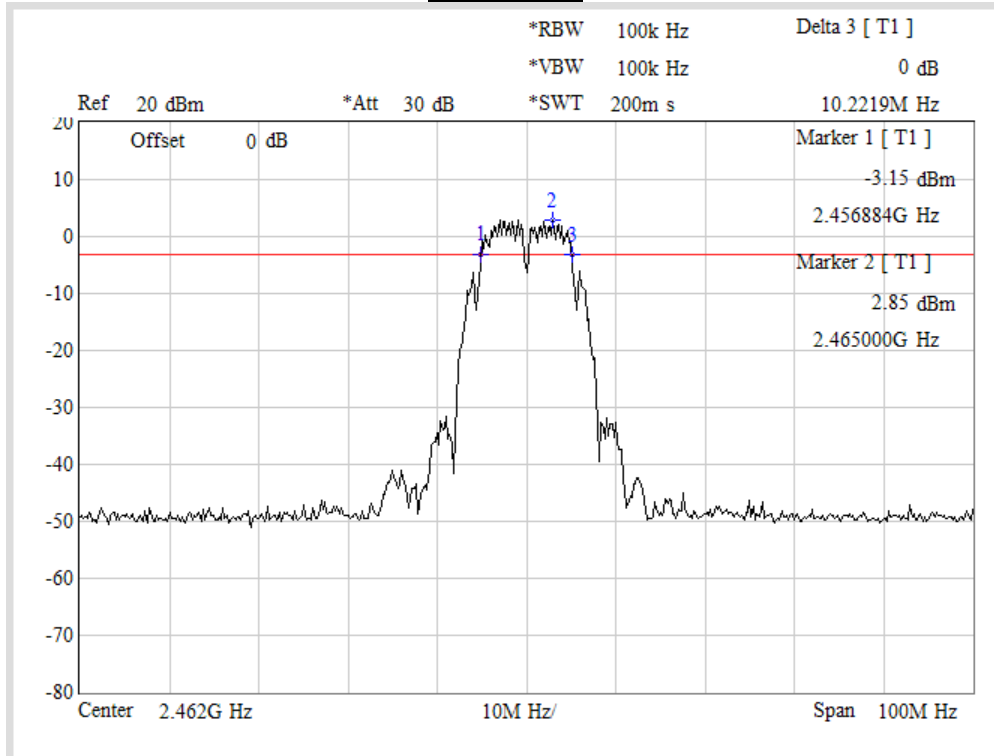
Channel 1



**Channel 6**



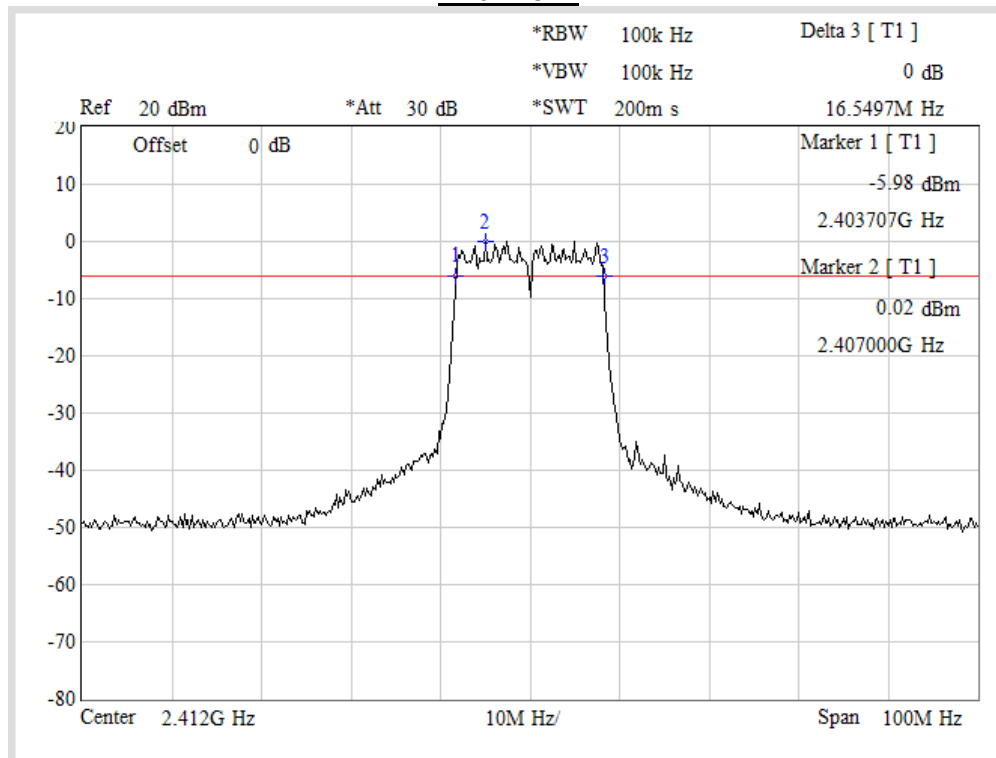
**Channel 11**



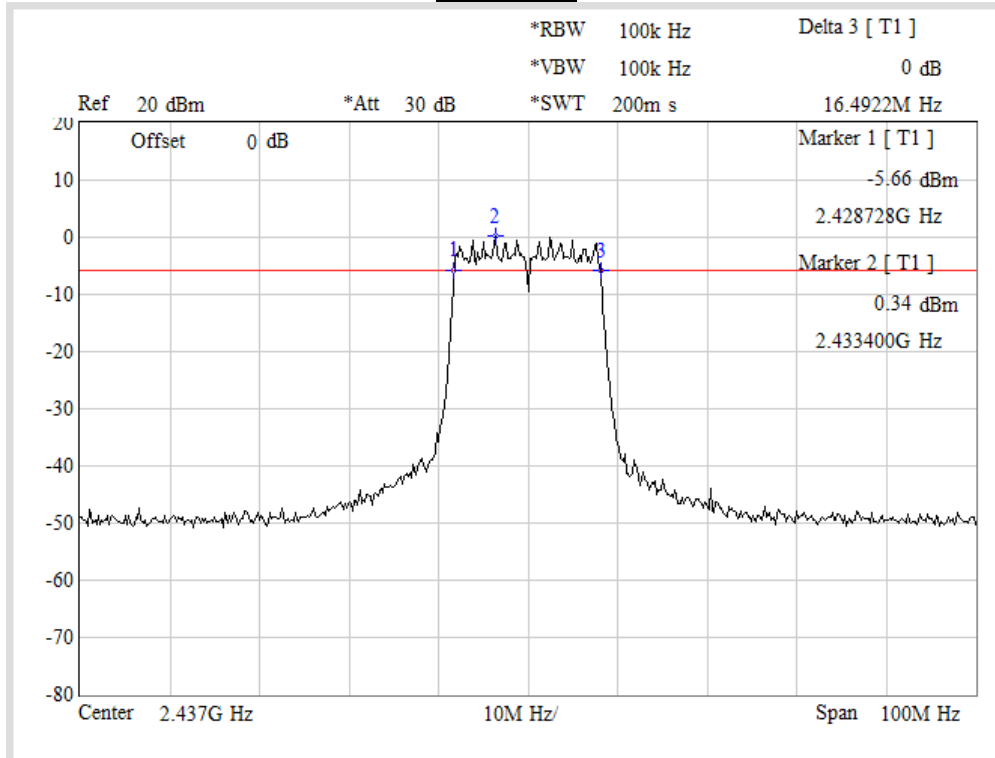
Product	Wireless ADSL VOIP Router		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	16549.7	--	Pass
6	2437.00	16492.2	--	Pass
11	2462.00	16517.6	--	Pass

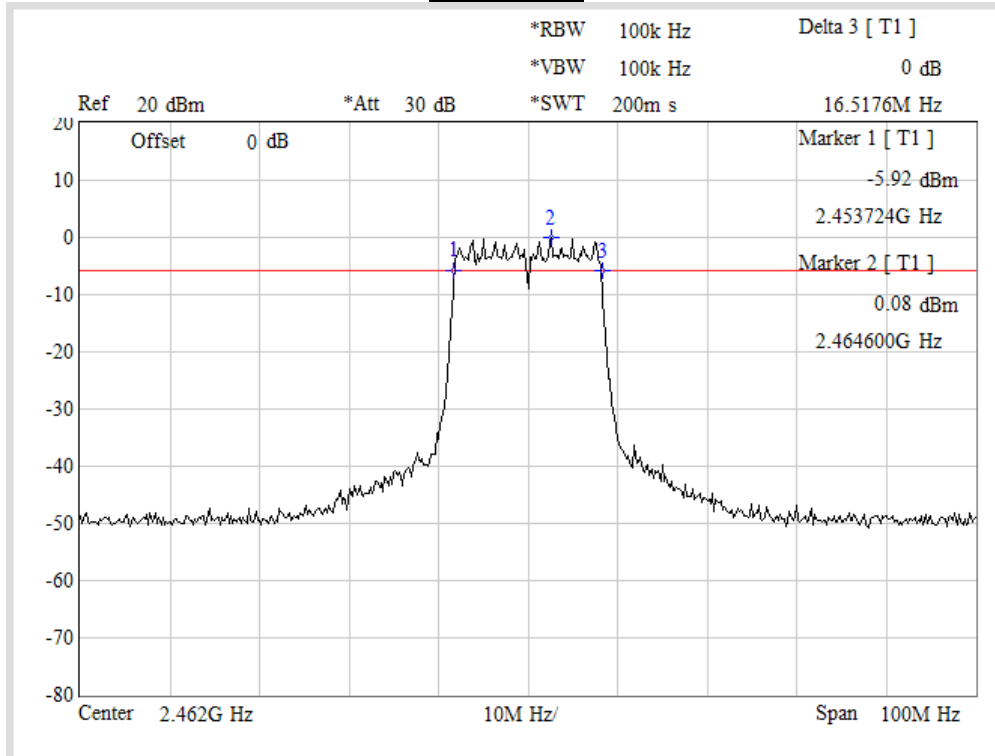
### Channel 1



**Channel 6**



**Channel 11**



**8. Power Density**

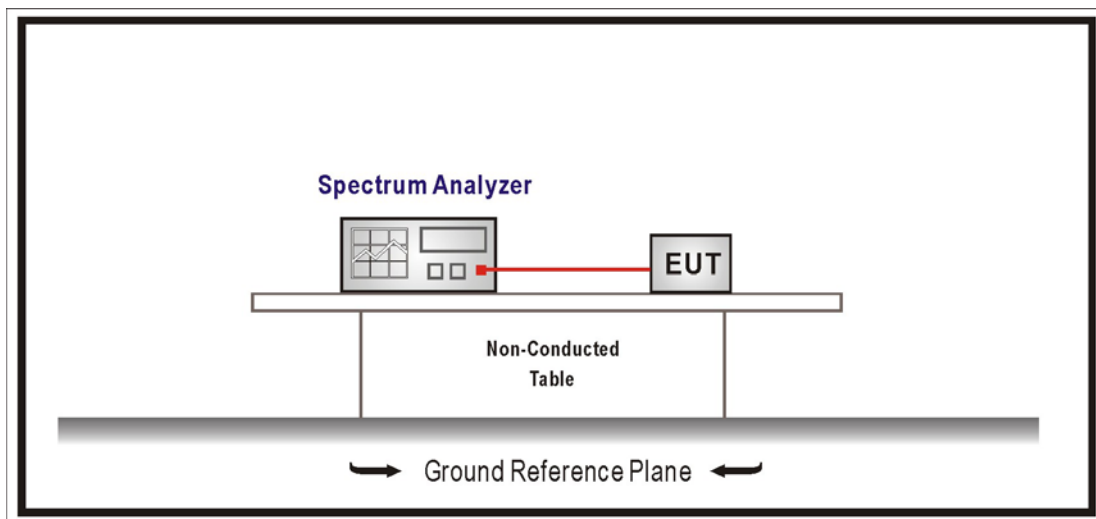
**8.1. Test Equipment**

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Mar., 2008
2	No.1 OATS			Sep., 2007

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**8.2. Test Setup**



**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, 2003; tested according to DTS test procedure of Oct 2002 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. Uncertainty**

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

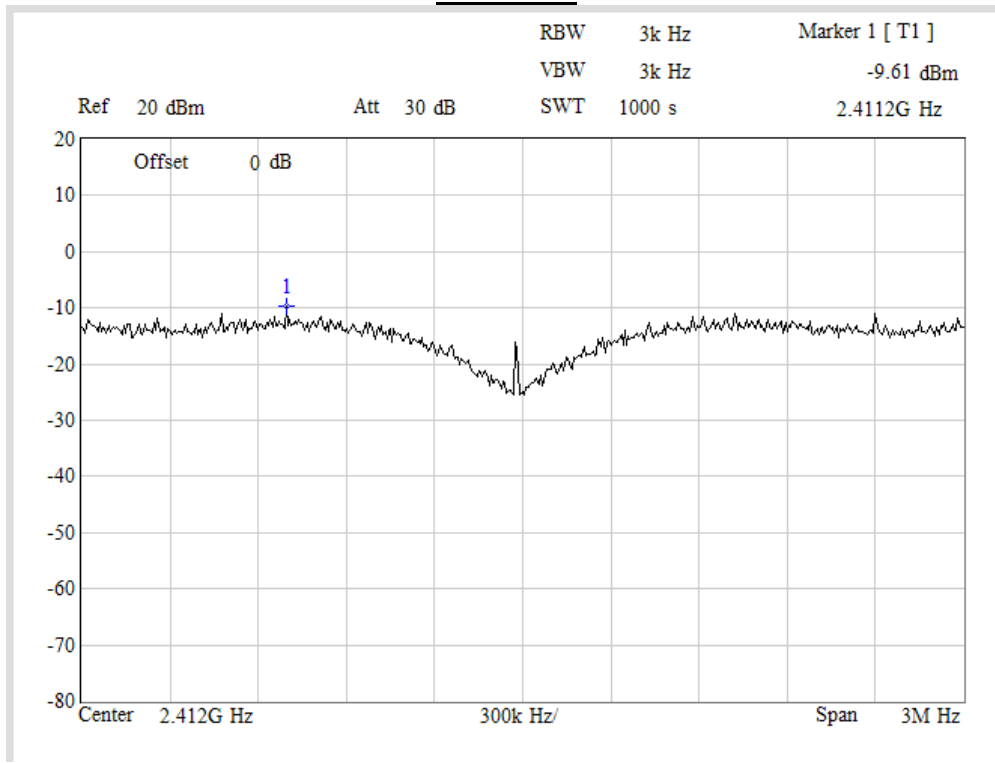


8.6. Test Result

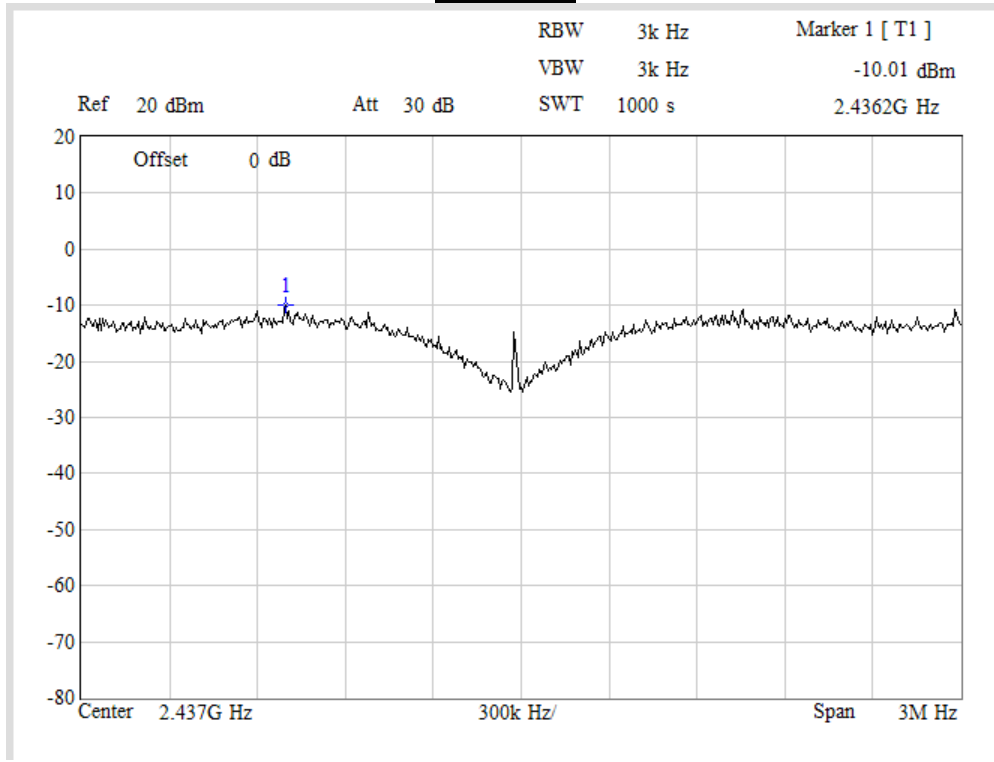
Product	Wireless ADSL VOIP Router		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-9.61	<8	Pass
6	2437	-10.01	<8	Pass
11	2462	-9.29	<8	Pass

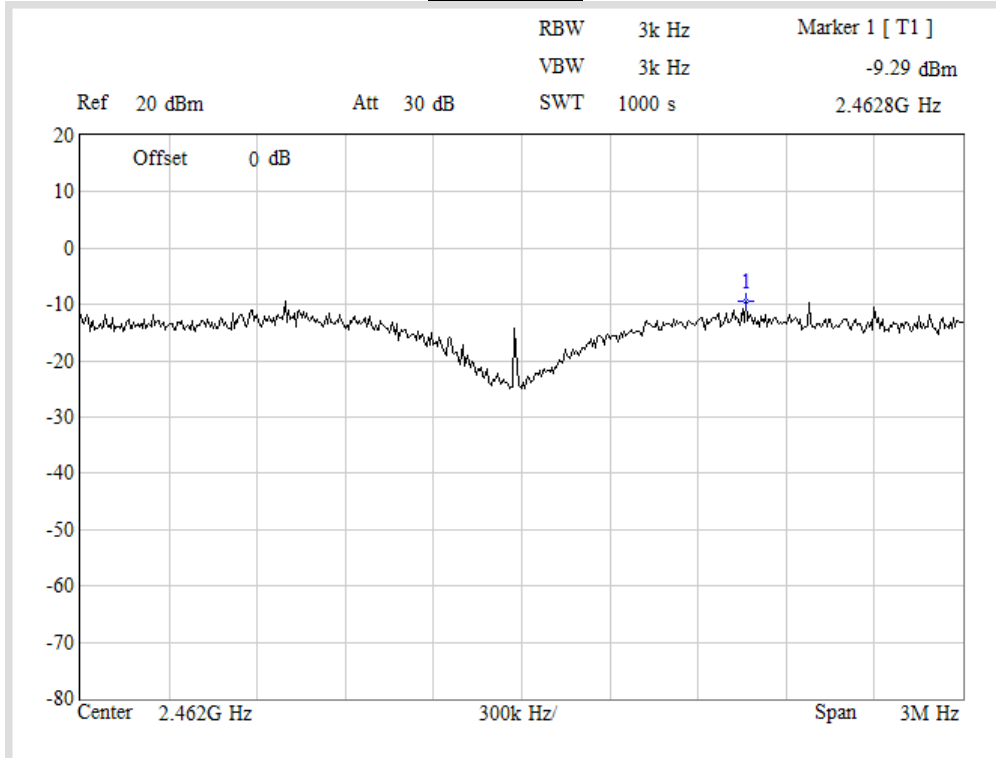
Channel 1



**Channel 6**



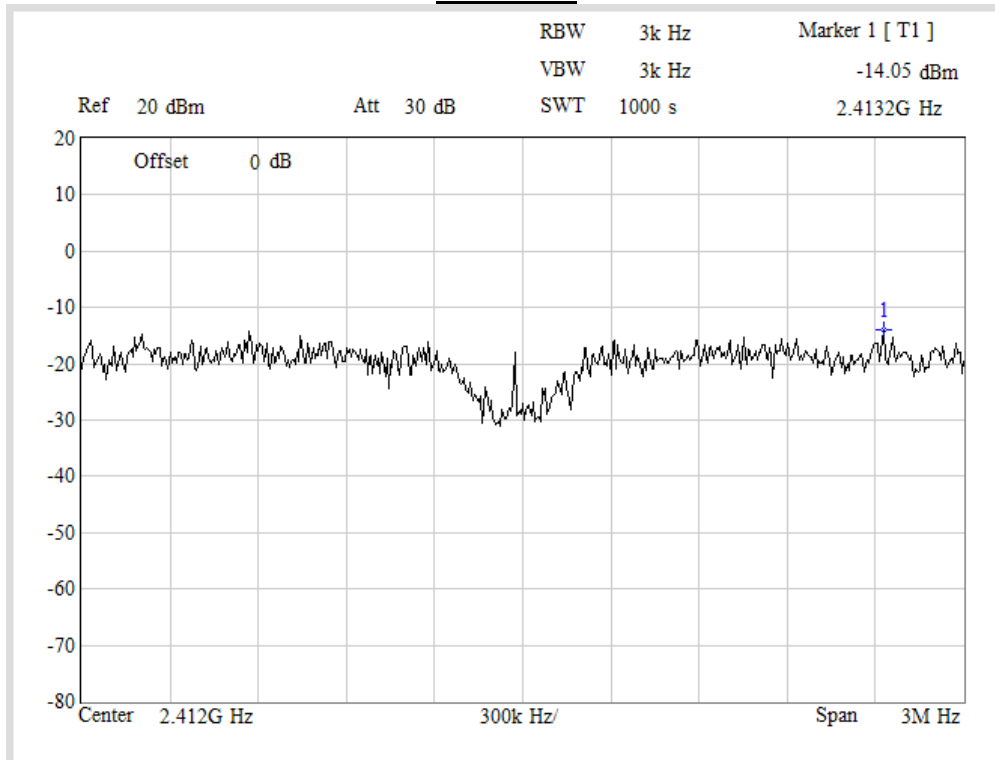
**Channel 11**



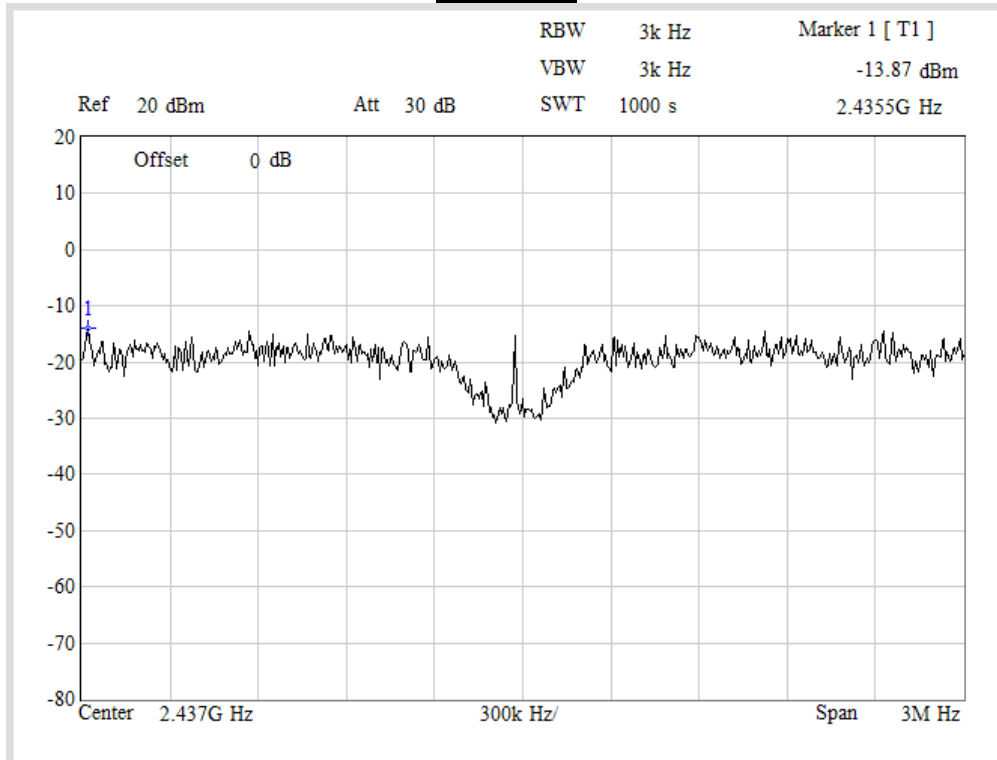
Product	Wireless ADSL VOIP Router		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2008/05/18	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.05	<8	Pass
6	2437	-13.87	<8	Pass
11	2462	-14.41	<8	Pass

### Channel 1



**Channel 6**



**Channel 11**

