Test Report

Product Name ： Wireless VPN Router

Model No. ： DI-824VUP

FCC ID. ： KA2DI824VUPB1

Applicant ： D-Link Corporation

Address ： No. 289, Sinhu 3rd Rd., Neihu District,
Taipei City 114, Taiwan, R.O.C.

Date of Receipt ： 2006/09/05

Issued Date ： 2006/09/21

Report No. ： 069H011-RF-US-P05V01

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 : 2006/09/21
Report No. : 069H011-RF-US-P05V01

QuieTek

Product Name	:	Wireless VPN Router
Applicant	:	D-Link Corporation
Address	:	No. 289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.
Manufacturer	:	Advance Multimedia Internet Technology
Model No.	:	DI-824VUP
FCC ID.	:	KA2DI824VUPB1
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)

Tested By : Sheena Huang

(Sheena Huang)

Approved By : Roy Wang

(Roy Wang)

TABLE OF CONTENTS

Description		Page
1.	**General Information**	**5**
1.1.	EUT Description	5
1.2.	Operational Description	6
1.3.	Test Mode	7
1.4.	Tested System Details	8
1.5.	Configuration of tested System	9
1.6.	EUT Exercise Software	10
1.7.	Test Facility	11
2.	**Conducted Emission**	**12**
2.1.	Test Equipment	12
2.2.	Test Setup	12
2.3.	Limits	13
2.4.	Test Procedure	13
2.5.	Test Specification	13
2.6.	Test Result	14
2.7.	Test Photo	22
3.	**Peak Power Output**	**23**
3.1.	Test Equipment	23
3.2.	Test Setup	23
3.3.	Limits	23
3.4.	Test Specification	23
3.5.	Test Result	24
4.	**Radiated Emission**	**26**
4.1.	Test Equipment	26
4.2.	Test Setup	26
4.3.	Limits	27
4.4.	Test Procedure	27
4.5.	Test Specification	27
4.6.	Test Result	28
4.7.	Test Photo	54
5.	**Band Edge**	**56**
5.1.	Test Equipment	56
5.2.	Test Setup	57
5.3.	Limits	57
5.4.	Test Procedure	58
5.5.	Test Specification	58
5.6.	Test Result	59
6.	**Occupied Bandwidth**	**67**
6.1.	Test Equipment	67
6.2.	Test Setup	67
6.3.	Limits	67
6.4.	Test Specification	67
6.5.	Test Result	68
7.	**Power Density**	**70**

7.1. Test Equipment 70
7.2. Test Setup 70
7.3. Limits 70
7.4. Test Specification 70
7.5. Test Result 71
Attachement 73
EUT Photograph 73

1. General Information

1.1. EUT Description

Product Name	Wireless VPN Router
Trade Name	D-Link
Model No.	DI-824VUP
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	Auto
Antenna Type	Dipole

Component	
Power Adapter	D-Link, JTA0302B I/P: 100~240V / 50~60 Hz O/P: 5V / 2.5A Cable In: Non-Shielded, 1.7m

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 VPN Router included a 2.4GHz receiving function, and 2.4GHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regards to the frequency band operation; the highest rate that was included 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 function receiving was measured and made a test report that the report number is 069H011-RF-US-P01V02 under 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

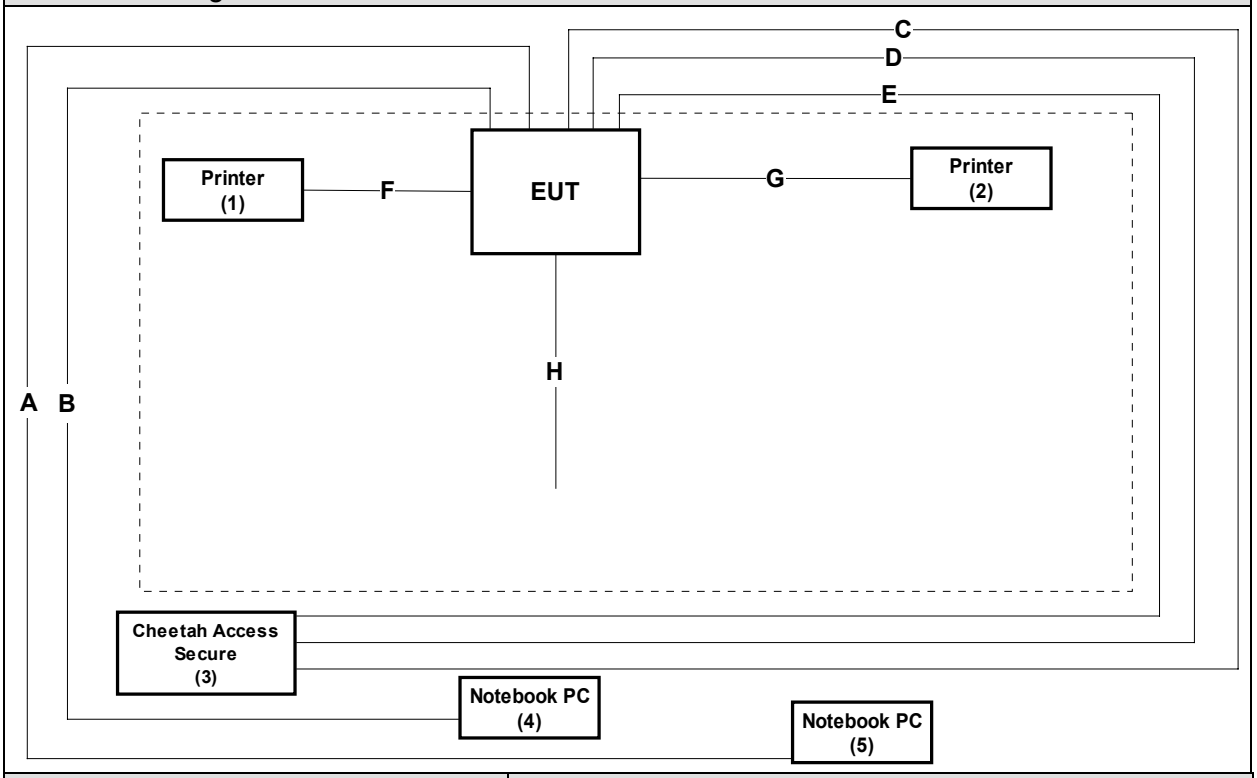
1.4. Tested System Details

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	Printer	HP	16410A	SG935131NN	DoC	Non-Shielded, 1.8m, one ferrite core bonded
2	Printer	HP	C2642A	MY75L1D2XN	DoC	Non-Shielded, 0.7m
3	Cheetah Access Secure	Accton	AC-IG1104	N/A	DoC	Non-Shielded, 1.8m
4	Notebook PC	DELL	LATITUDE D400	N/A	DoC	Non-Shielded, 1.7m, one ferrite core bonded
5	Notebook PC	DELL	LATITUDE D400	N/A	DoC	Non-Shielded, 1.7m, one ferrite core bonded

1.5. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 10m
B	LAN Cable	Non-Shielded, 10m
C	LAN Cable	Non-Shielded, 10m
D	LAN Cable	Non-Shielded, 10m
E	LAN Cable	Non-Shielded, 10m
F	USB Cable	Shielded, 1.7m
G	Printer Cable	Shielded, 1.2m
H	RS232 Cable	Shielded, 1.4m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4
2	Turn on the power of all equipment.
3	Notebook PC reads data from disk.
4	Data will be receiving through EUT.
5	The receive status will be shown on the monitor.
6	Repeat the above procedure (2) to (4)

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 Band Edge (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (DSSS)	15 - 35	25
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 Power Density (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	50
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 CNLA
Accreditation Number: 1313
Effective through: September 27, 2007

1313
ILAC MRA

Accredited by NVLAP
NVLAP Lab Code: 200347-0
Effective through: September 30, 2006

NVLAP Lab Code : 200347-0

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

2. Conducted Emission

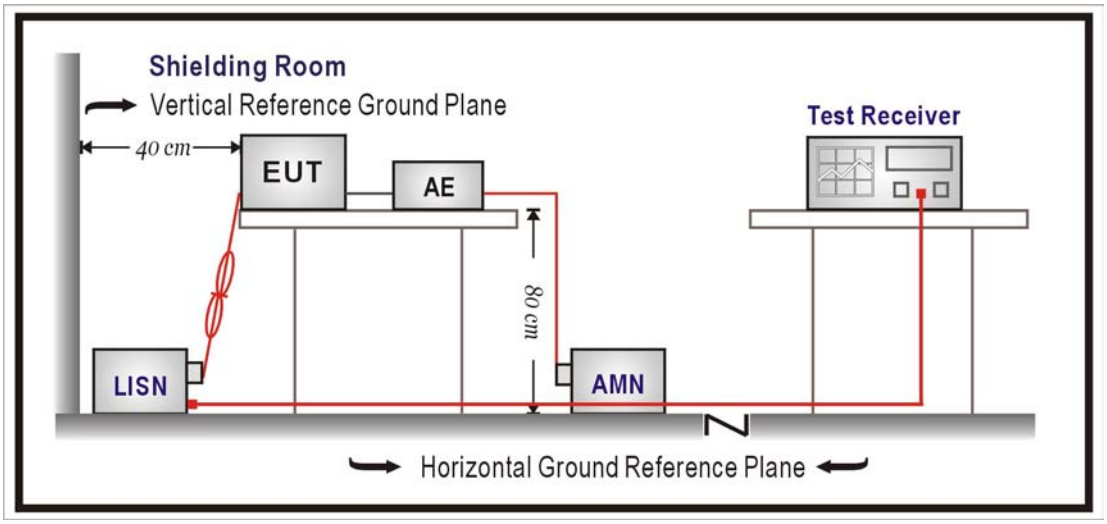
2.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/018	Sep., 2006	
2	Artificial Mains Network	R & S	ENV4200/848411/10	Feb., 2006	Peripheral
3	LISN	R & S	ESH3-Z5/825562/002	Feb., 2006	EUT
4	Pulse Limiter	R & S	ESH3-Z2/357.8810.52	Feb., 2006	
5	No.2 Shielded Room			N/A	

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

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

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

2.4. Test Procedure

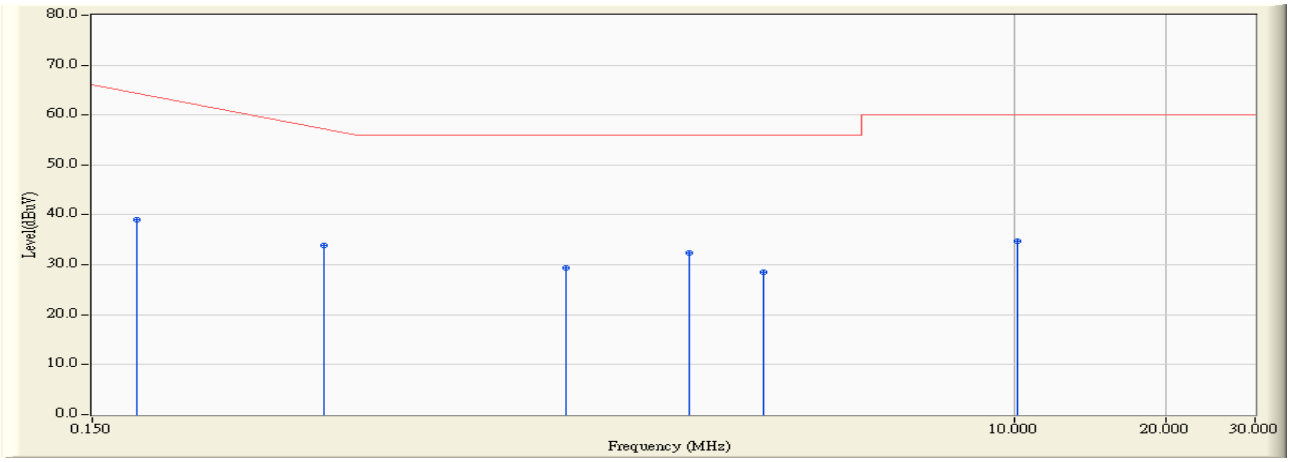
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Test Specification

According to FCC CFR Title 47 Part 15 Subpart C Section 15.207:2005

2.6. Test Result

Site : QuieTek Shielding Room 2	**Time : 2006/09/09 - 16:38**
Limit : CISPR_B_00M_QP	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line1**
Power : AC 120V/60Hz	**Note : TX-B**

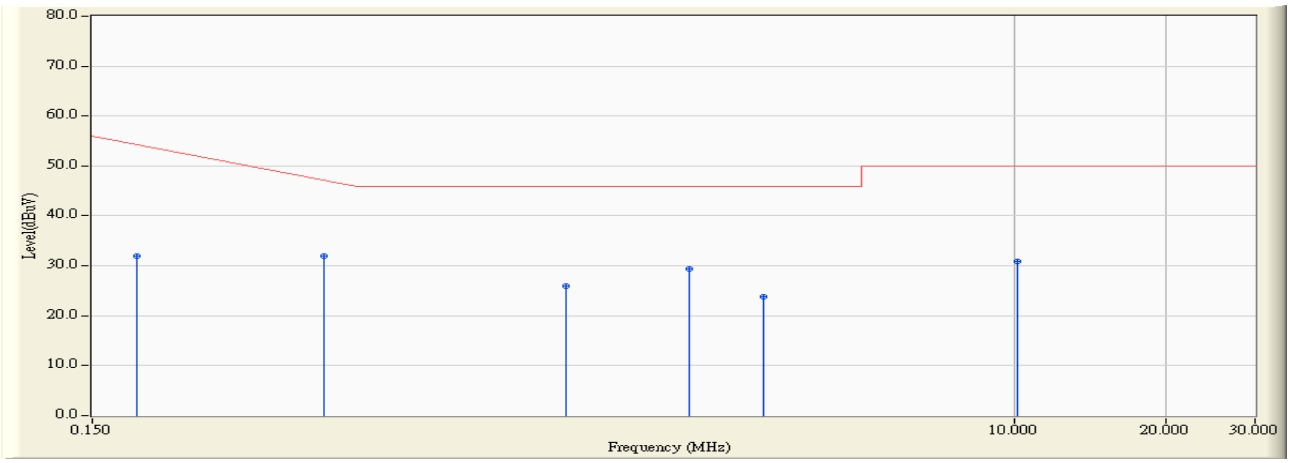


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.184	0.200	38.810	39.010	-26.019	65.029	QUASIPEAK
2		0.431	0.200	33.630	33.830	-24.141	57.971	QUASIPEAK
3		1.295	0.210	29.120	29.330	-26.670	56.000	QUASIPEAK
4	*	2.284	0.240	32.090	32.330	-23.670	56.000	QUASIPEAK
5		3.205	0.300	28.300	28.600	-27.400	56.000	QUASIPEAK
6		10.188	0.740	34.090	34.830	-25.170	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 16:38**
Limit : CISPR_B_00M_AV	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line1**
Power : AC 120V/60Hz	**Note : TX-B**

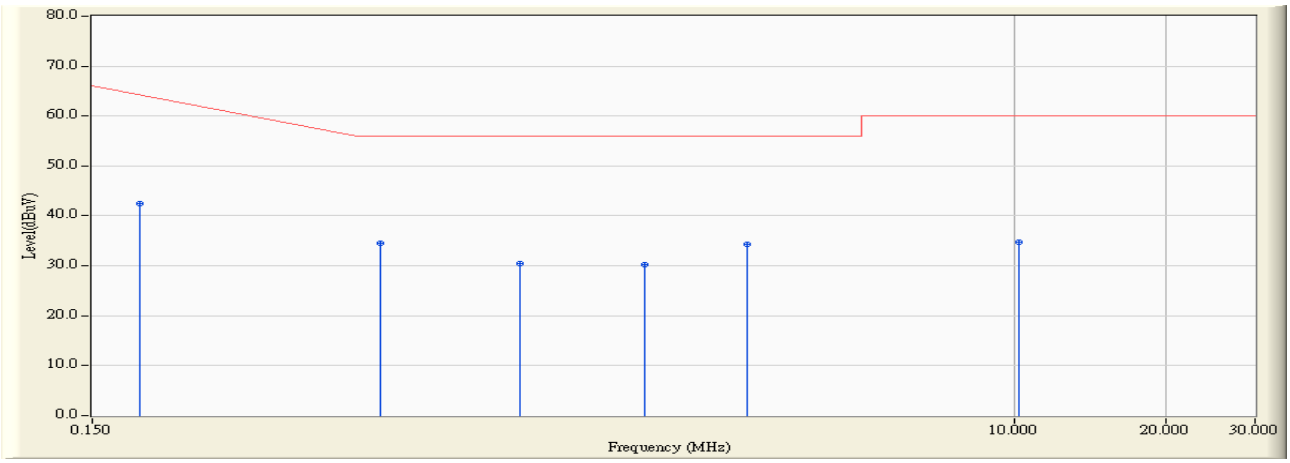


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.184	0.200	31.680	31.880	-23.149	55.029	AVERAGE
2	*	0.431	0.200	31.830	32.030	-15.941	47.971	AVERAGE
3		1.295	0.210	25.740	25.950	-20.050	46.000	AVERAGE
4		2.284	0.240	29.160	29.400	-16.600	46.000	AVERAGE
5		3.205	0.300	23.550	23.850	-22.150	46.000	AVERAGE
6		10.188	0.740	30.190	30.930	-19.070	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 16:44**
Limit : CISPR_B_00M_QP	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 – Line2**
Power : AC 120V/60Hz	**Note : TX-B**

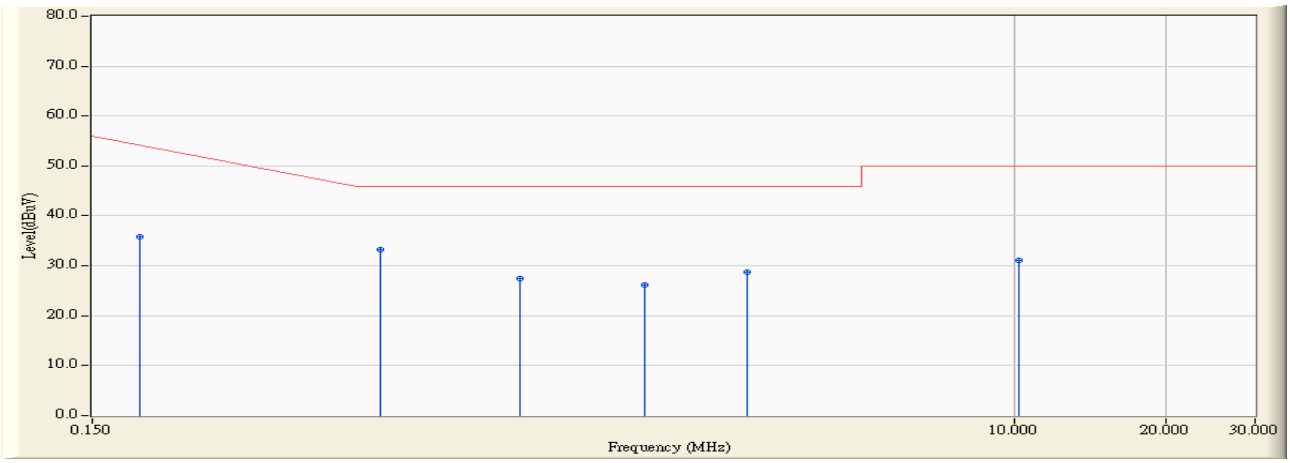


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.186	0.200	42.220	42.420	-22.551	64.971	QUASIPEAK
2	*	0.556	0.210	34.400	34.610	-21.390	56.000	QUASIPEAK
3		1.052	0.210	30.340	30.550	-25.450	56.000	QUASIPEAK
4		1.857	0.220	29.920	30.140	-25.860	56.000	QUASIPEAK
5		2.970	0.290	34.020	34.310	-21.690	56.000	QUASIPEAK
6		10.220	0.740	34.110	34.850	-25.150	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 16:44**
Limit : CISPR_B_00M_AV	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 – Line2**
Power : AC 120V/60Hz	**Note : TX-B**

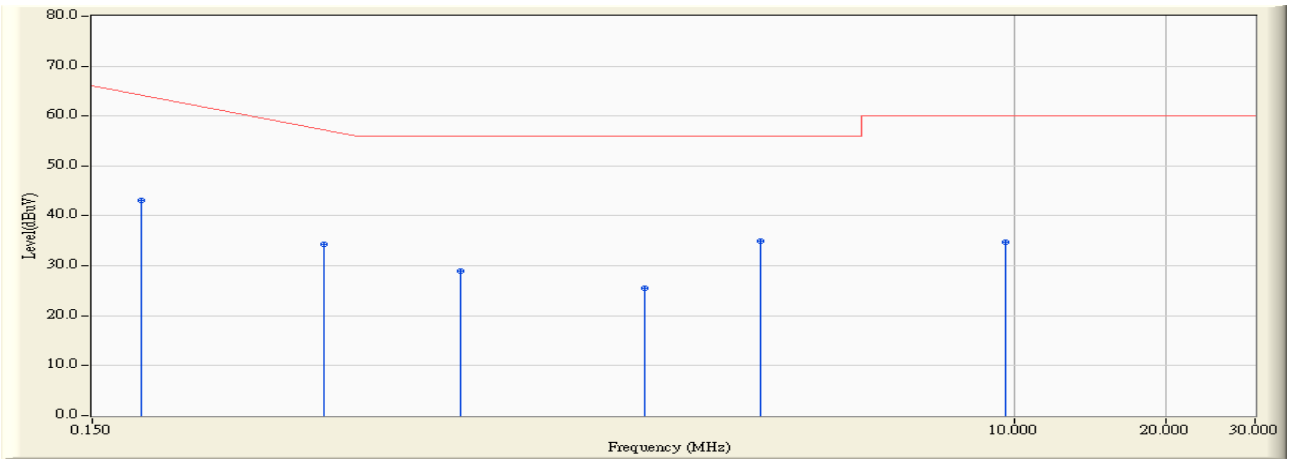


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.186	0.200	35.720	35.920	-19.051	54.971	AVERAGE
2	*	0.556	0.210	33.040	33.250	-12.750	46.000	AVERAGE
3		1.052	0.210	27.200	27.410	-18.590	46.000	AVERAGE
4		1.857	0.220	25.950	26.170	-19.830	46.000	AVERAGE
5		2.970	0.290	28.390	28.680	-17.320	46.000	AVERAGE
6		10.220	0.740	30.280	31.020	-18.980	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 17:05**
Limit : CISPR_B_00M_QP	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line1**
Power : AC 120V/60Hz	**Note : TX-G**

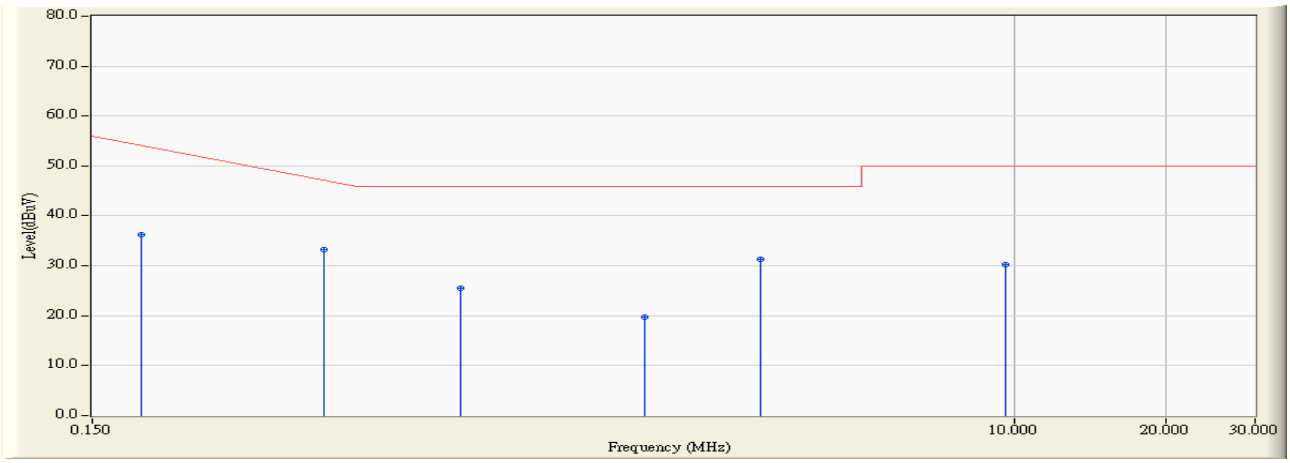


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.187	0.200	42.910	43.110	-21.833	64.943	QUASIPEAK
2		0.431	0.200	34.150	34.350	-23.621	57.971	QUASIPEAK
3		0.802	0.210	28.690	28.900	-27.100	56.000	QUASIPEAK
4		1.853	0.220	25.360	25.580	-30.420	56.000	QUASIPEAK
5	*	3.158	0.300	34.630	34.930	-21.070	56.000	QUASIPEAK
6		9.610	0.710	33.960	34.670	-25.330	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 17:05**
Limit : CISPR_B_00M_AV	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line1**
Power : AC 120V/60Hz	**Note : TX-G**

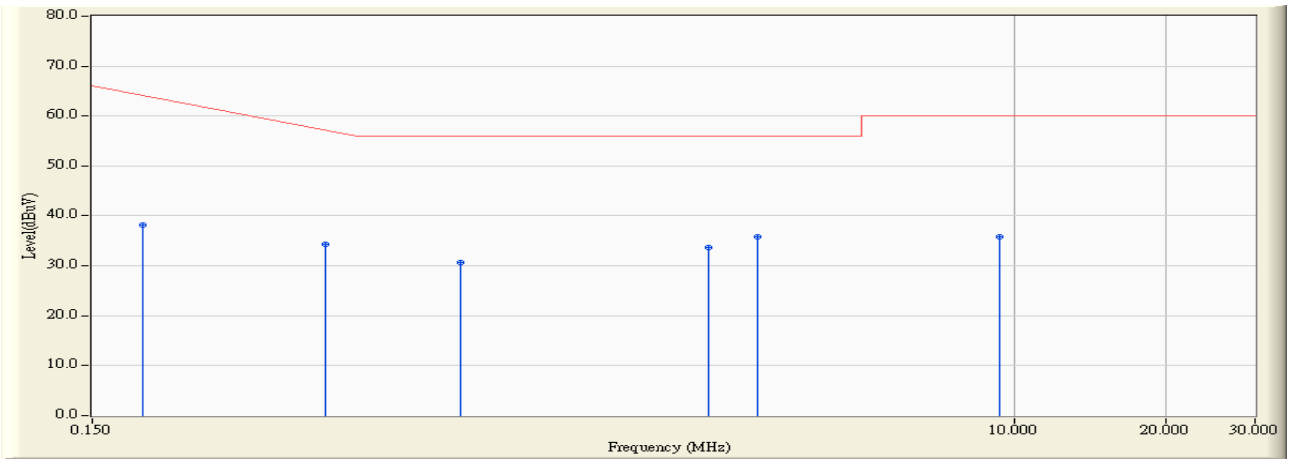


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.187	0.200	36.150	36.350	-18.593	54.943	AVERAGE
2		0.431	0.200	33.030	33.230	-14.741	47.971	AVERAGE
3		0.802	0.210	25.400	25.610	-20.390	46.000	AVERAGE
4		1.853	0.220	19.580	19.800	-26.200	46.000	AVERAGE
5	*	3.158	0.300	31.120	31.420	-14.580	46.000	AVERAGE
6		9.610	0.710	29.440	30.150	-19.850	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 17:13**
Limit : CISPR_B_00M_QP	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line2**
Power : AC 120V/60Hz	**Note : TX-G**

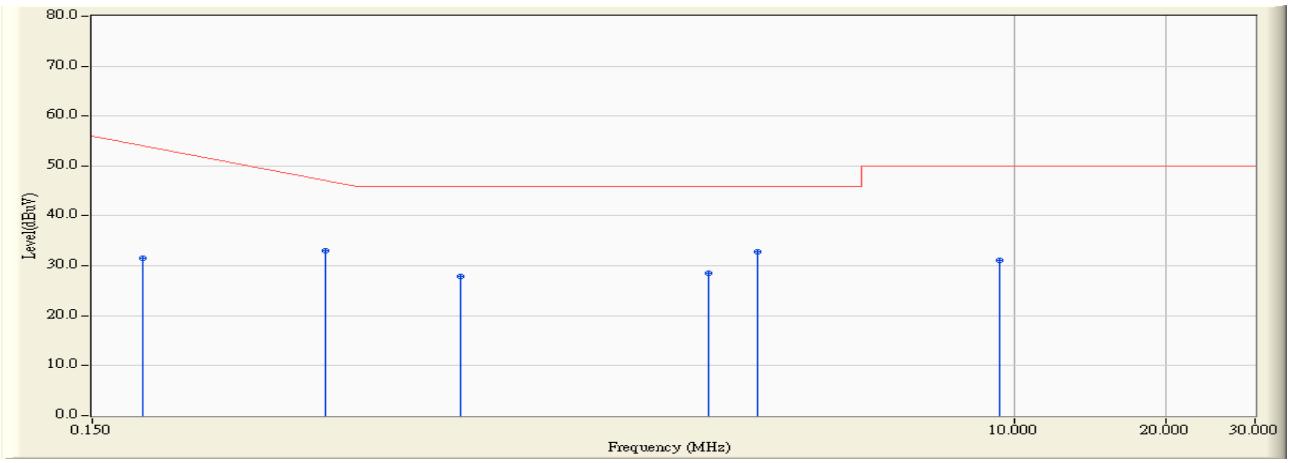


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.189	0.200	38.010	38.210	-26.676	64.886	QUASIPEAK
2		0.435	0.200	34.170	34.370	-23.487	57.857	QUASIPEAK
3		0.806	0.210	30.390	30.600	-25.400	56.000	QUASIPEAK
4		2.486	0.230	33.450	33.680	-22.320	56.000	QUASIPEAK
5	*	3.107	0.240	35.550	35.790	-20.210	56.000	QUASIPEAK
6		9.392	0.500	35.390	35.890	-24.110	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 : QuieTek Shielding Room 2	**Time : 2006/09/09 - 17:13**
Limit : CISPR_B_00M_AV	**Margin : 0**
EUT : Wireless VPN Router	**Probe : QTK-LISN-SR2 - Line2**
Power : AC 120V/60Hz	**Note : TX-G**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.189	0.200	31.340	31.540	-23.346	54.886	AVERAGE
2		0.435	0.200	32.790	32.990	-14.867	47.857	AVERAGE
3		0.806	0.210	27.690	27.900	-18.100	46.000	AVERAGE
4		2.486	0.230	28.290	28.520	-17.480	46.000	AVERAGE
5	*	3.107	0.240	32.520	32.760	-13.240	46.000	AVERAGE
6		9.392	0.500	30.670	31.170	-18.830	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

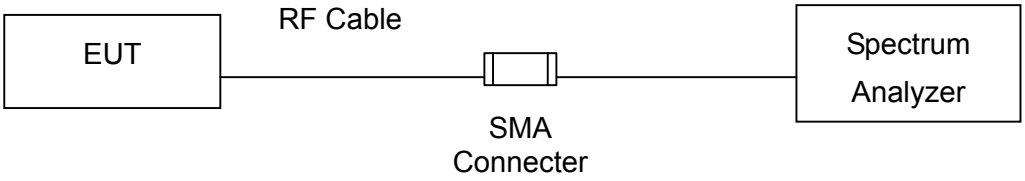
3.1. Test Equipment

The following test equipment are used during the test:

Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R&S	FSP/ 100005	Oct., 2005
2	No.1 OATS			Sep., 2006

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

3.2. Test Setup



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Specification

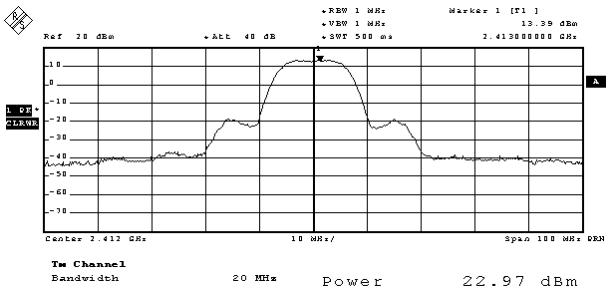
According to FCC CFR Title 47 Part 15 Subpart C Section 15.247:2005

3.5. Test Result

Product	Wireless VPN Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/07	Test Site	No.1 OATS

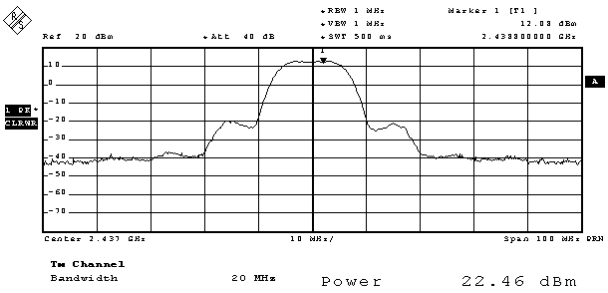
IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	22.97	1Watt= 30 dBm	Pass
6	2437	22.46	1Watt= 30 dBm	Pass
11	2462	21.71	1Watt= 30 dBm	Pass

Channel 1



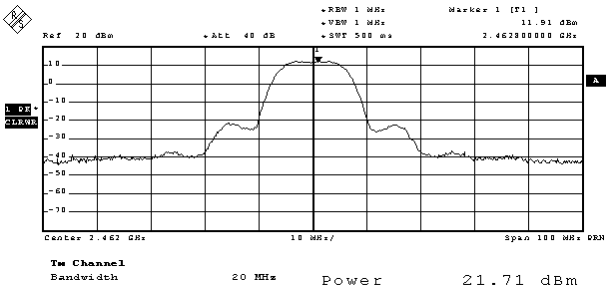
Date: 14.SEP.2006 00:23:25

Channel 6



Date: 14.SEP.2006 00:18:47

Channel 11

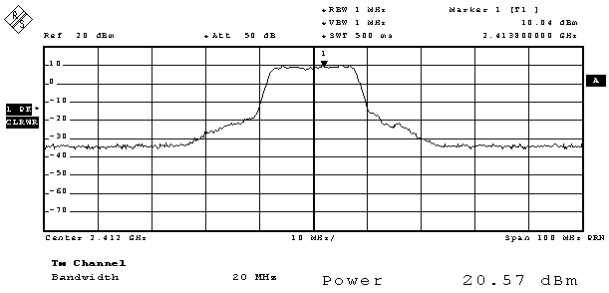


Date: 14.SEP.2006 00:25:39

Product	Wireless VPN Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/07	Test Site	No.1 OATS

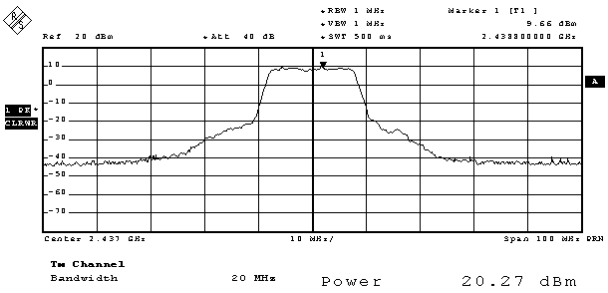
IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	20.57	1Watt= 30 dBm	Pass
6	2437	20.27	1Watt= 30 dBm	Pass
11	2462	19.94	1Watt= 30 dBm	Pass

Channel 1



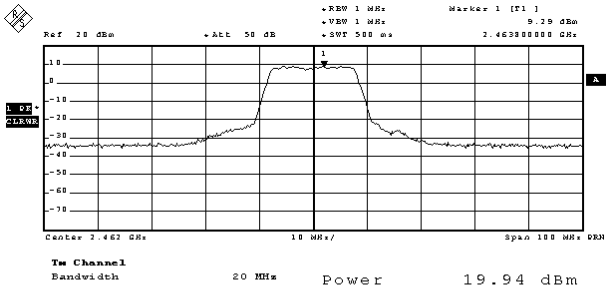
Date: 14.SEP.2006 15:22:42

Channel 6



Date: 14.SEP.2006 00:15:25

Channel 11



Date: 14.SEP.2006 15:15:06

4. Radiated Emission

4.1. Test Equipment

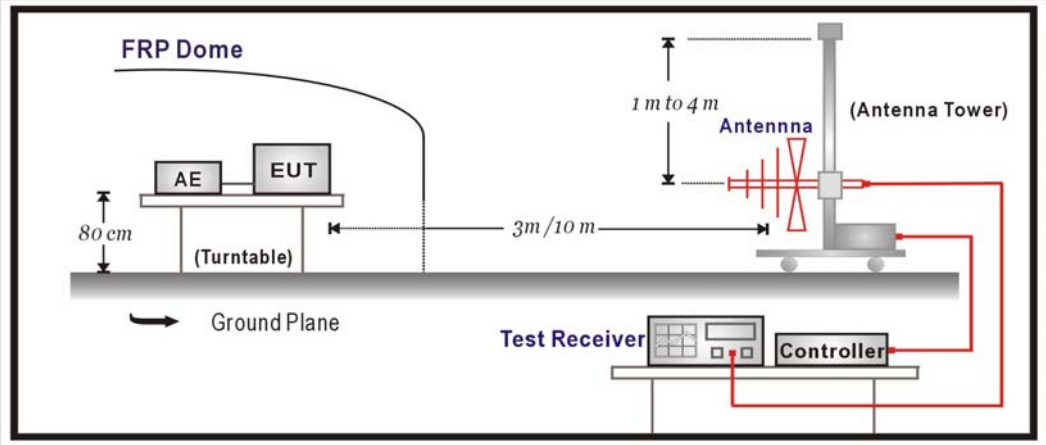
The following test equipment are used during the test:

Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Test Receiver	R & S	ESCS 30 / 825442/017	Jan., 2006
2	X	Spectrum Analyzer	Advantest	R3261C / 81720266	N/A
3	X	Pre-Amplifier	HP	8447D / 2944A09276	N/A
4	X	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
5	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2006
6	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2006
7	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Jul., 2006
8	No.1 OATS				Sep., 2006

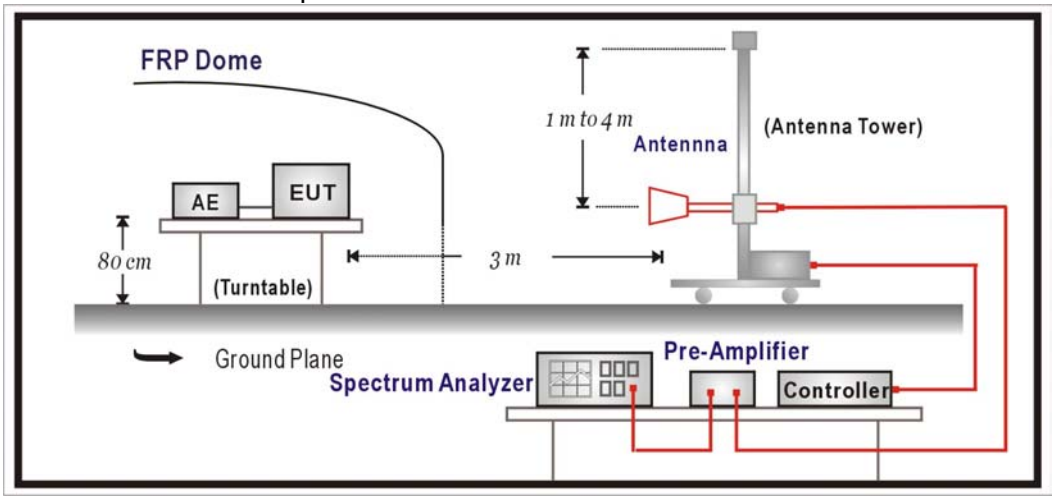
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. Mark “X” test instruments are used to measure the final test results.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

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

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

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

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 C63.4:2003 on radiated measurement.

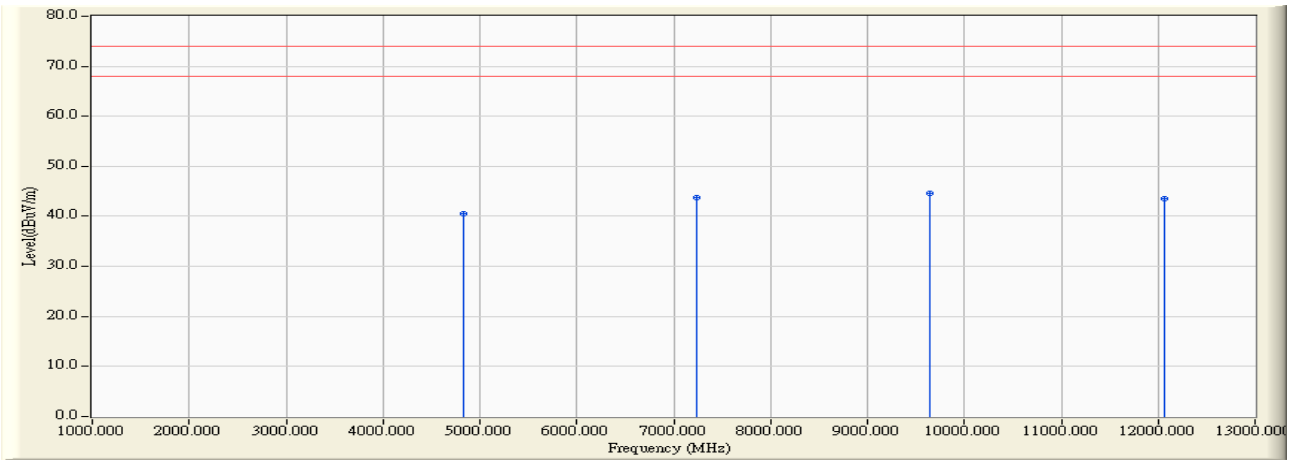
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average 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 CFR Title 47 Part 15 Subpart C Section 15.209:2005

4.6. Test Result

Site : QuieTek SH-Site1	Time : 2006/09/08 - 18:51
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : Wireless VPN Router	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V /60Hz	Note : TX CH1-B

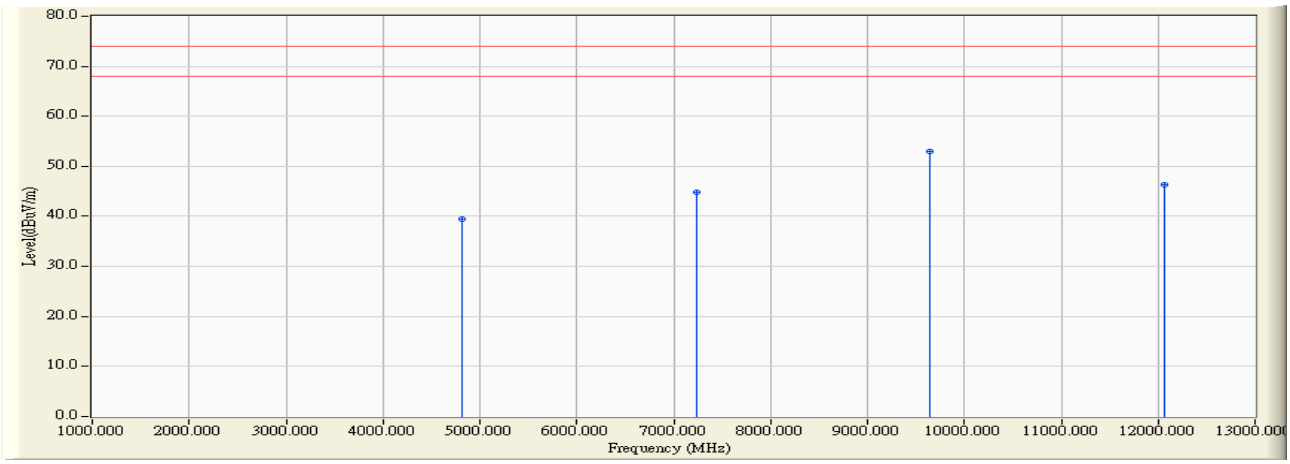


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4829.730	1.486	39.130	40.616	-33.384	74.000	PEAK	0.000	0.000
2		7237.500	6.864	36.810	43.674	-30.326	74.000	PEAK	0.000	0.000
3	*	9648.300	9.950	34.720	44.670	-29.330	74.000	PEAK	0.000	0.000
4		12060.900	10.283	33.210	43.493	-30.507	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 18:52**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH1-B**

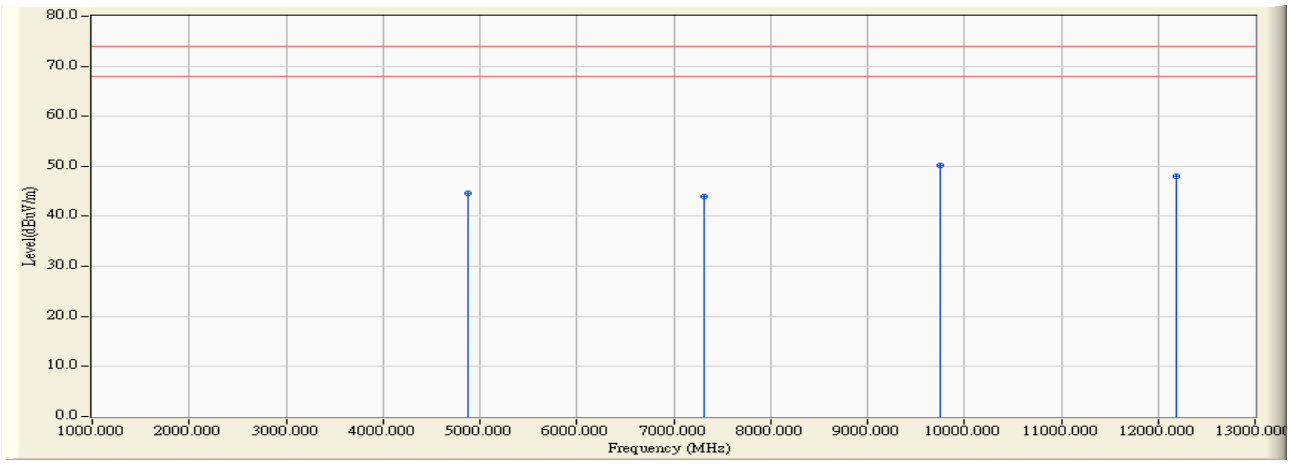


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4818.800	-0.319	39.860	39.541	-34.459	74.000	PEAK	0.000	0.000
2		7236.900	6.860	38.070	44.930	-29.070	74.000	PEAK	0.000	0.000
3	*	9648.300	11.950	40.950	52.900	-21.100	74.000	PEAK	0.000	0.000
4		12060.900	12.385	33.980	46.365	-27.635	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 18:53**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - HORIZONTAL**
Power : AC 120V /60Hz	**Note : TX CH6-B**

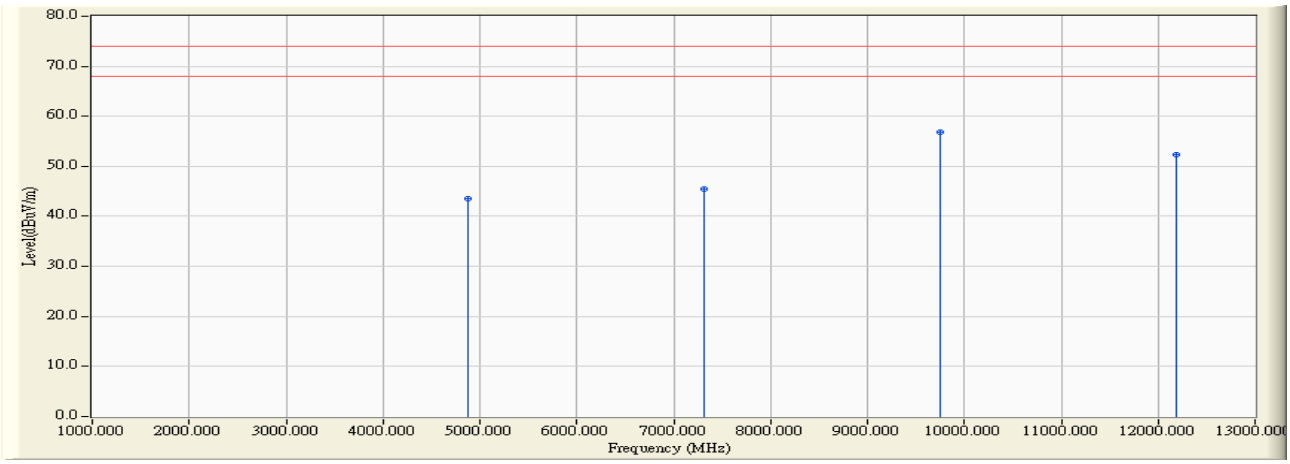


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4873.900	1.665	43.030	44.695	-29.305	74.000	PEAK	0.000	0.000
2		7311.500	7.339	36.550	43.889	-30.111	74.000	PEAK	0.000	0.000
3	*	9747.600	9.728	40.480	50.207	-23.793	74.000	PEAK	0.000	0.000
4		12182.500	14.059	33.900	47.958	-26.042	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 18:54**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH6-B**

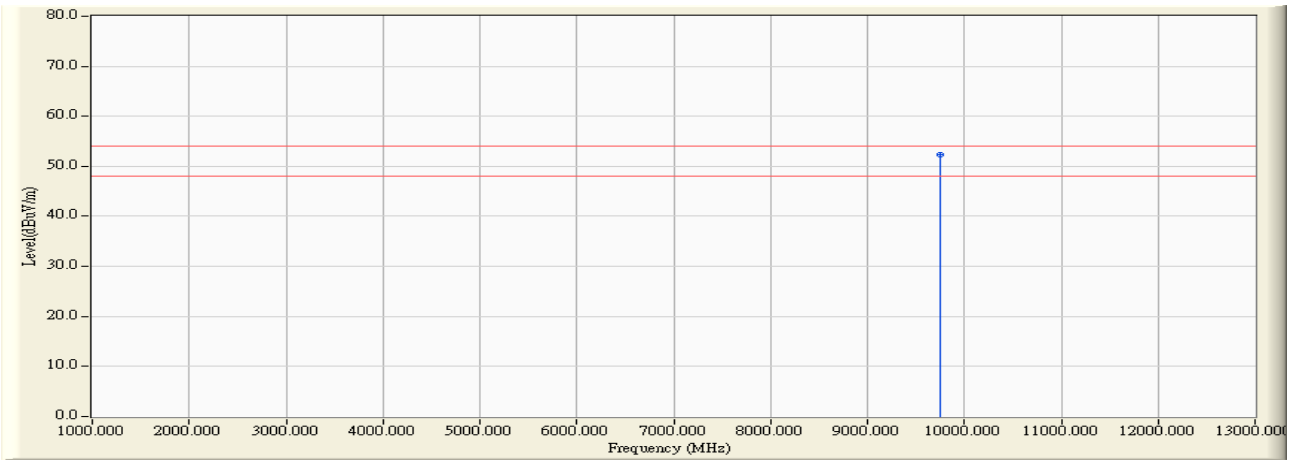


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4874.000	0.012	43.580	43.592	-30.408	74.000	PEAK	0.000	0.000
2		7307.450	7.309	38.200	45.509	-28.491	74.000	PEAK	0.000	0.000
3	*	9747.920	11.727	45.160	56.887	-17.113	74.000	PEAK	0.000	0.000
4		12182.200	14.350	38.070	52.420	-21.580	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 19:05**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH6-B**

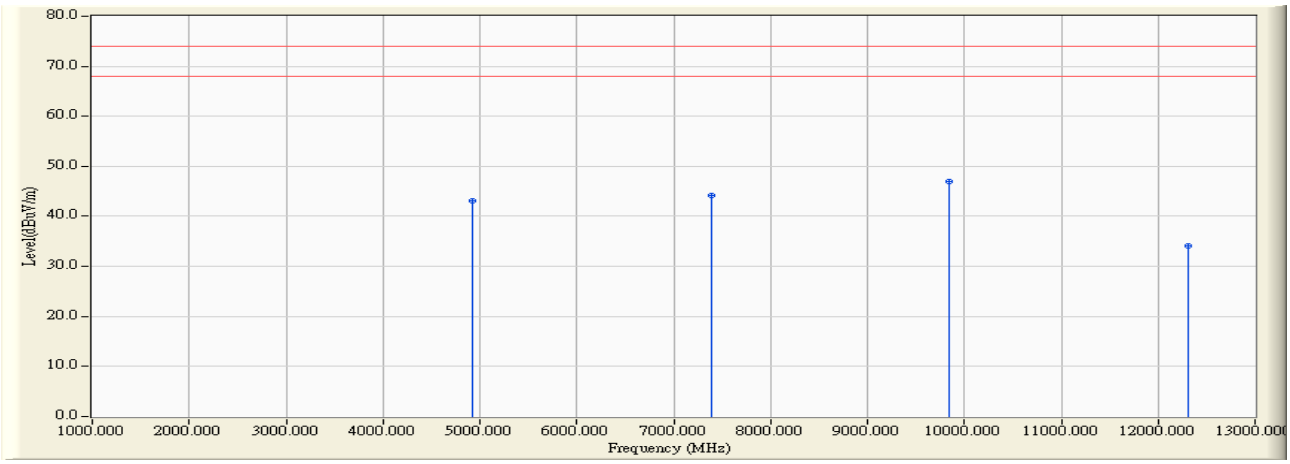


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	9747.970	11.727	40.610	52.336	-1.664	54.000	AVERAGE	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 19:28**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - HORIZONTAL**
Power : AC 120V /60Hz	**Note : TX CH11-B**

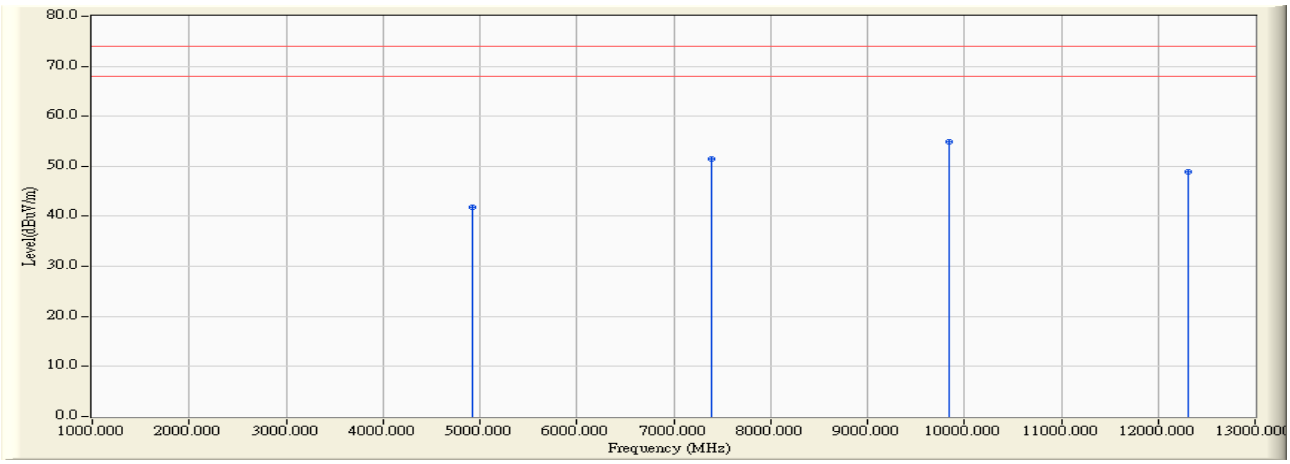


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4923.600	1.858	41.340	43.198	-30.802	74.000	PEAK	0.000	0.000
2		7386.900	7.823	36.370	44.193	-29.807	74.000	PEAK	0.000	0.000
3	*	9847.600	9.809	37.160	46.969	-27.031	74.000	PEAK	0.000	0.000
4		12310.300	0.737	33.280	34.017	-39.983	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 19:31**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH11-B**

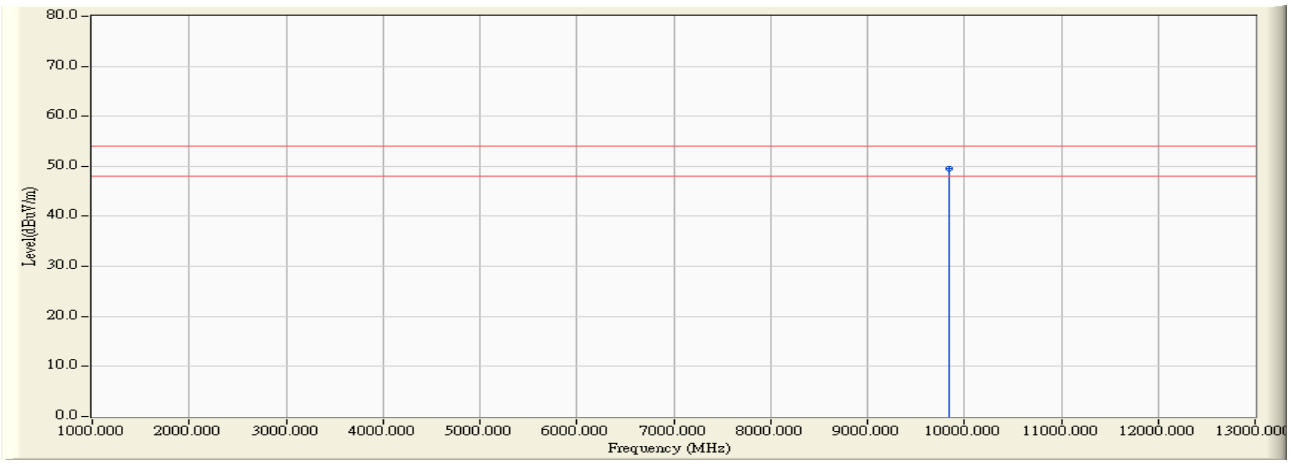


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4923.800	0.312	41.410	41.722	-32.278	74.000	PEAK	0.000	0.000
2		7385.600	7.815	43.710	51.525	-22.475	74.000	PEAK	0.000	0.000
3	*	9848.100	11.330	43.610	54.940	-19.060	74.000	PEAK	0.000	0.000
4		12314.900	12.180	36.650	48.830	-25.170	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 19:36**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH11-B**

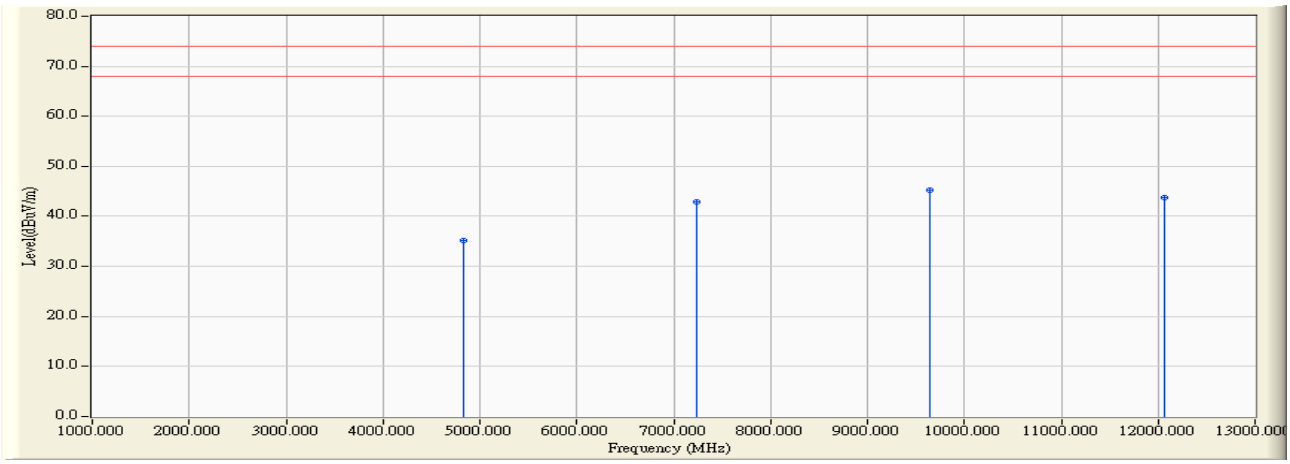


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	9847.900	11.331	38.170	49.501	-4.499	54.000	AVERAGE	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 20:23**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - HORIZONTAL**
Power : AC 120V /60Hz	**Note : TX CH1-G**

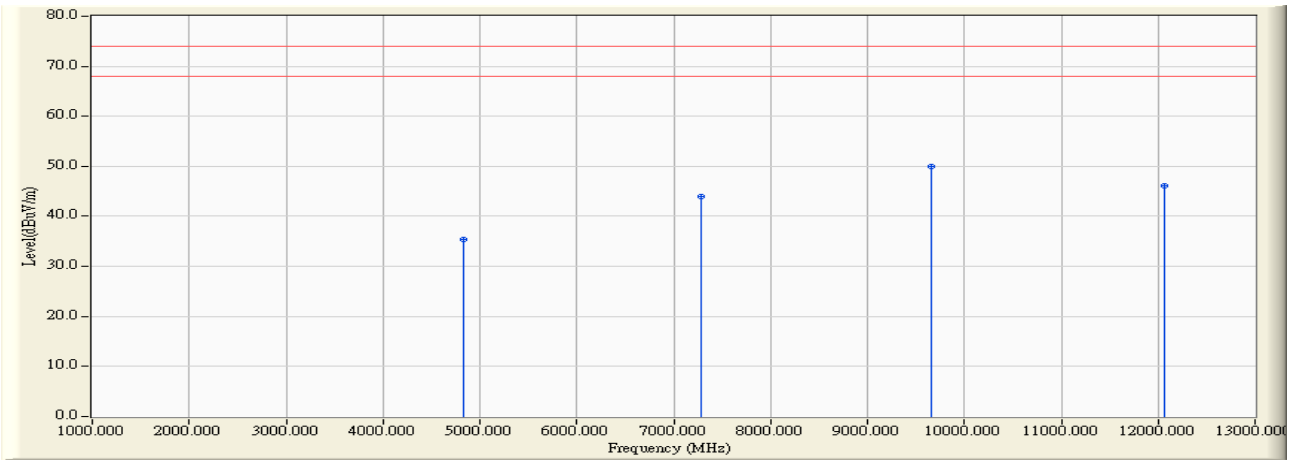


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4824.600	1.465	33.740	35.205	-38.795	74.000	PEAK	0.000	0.000
2		7236.200	6.856	36.010	42.866	-31.134	74.000	PEAK	0.000	0.000
3	*	9648.010	9.951	35.340	45.291	-28.709	74.000	PEAK	0.000	0.000
4		12060.600	10.257	33.410	43.667	-30.333	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 20:24**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH1-G**

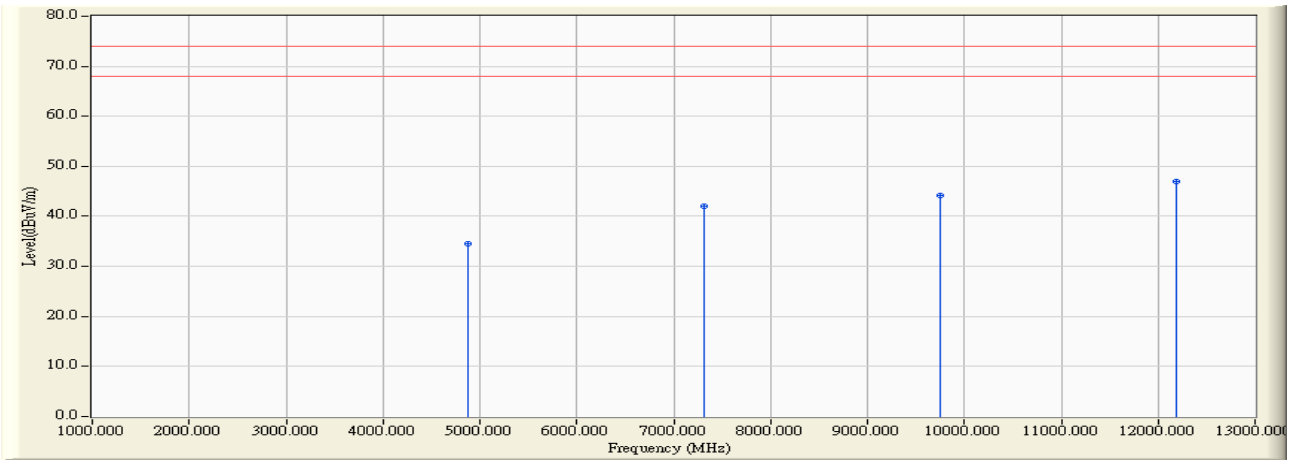


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4833.410	-0.234	35.730	35.496	-38.504	74.000	PEAK	0.000	0.000
2		7276.200	7.115	36.860	43.975	-30.025	74.000	PEAK	0.000	0.000
3	*	9653.410	11.939	38.130	50.069	-23.931	74.000	PEAK	0.000	0.000
4		12061.400	12.393	33.700	46.092	-27.908	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 20:50**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - HORIZONTAL**
Power : AC 120V /60Hz	**Note : TX CH6-G**

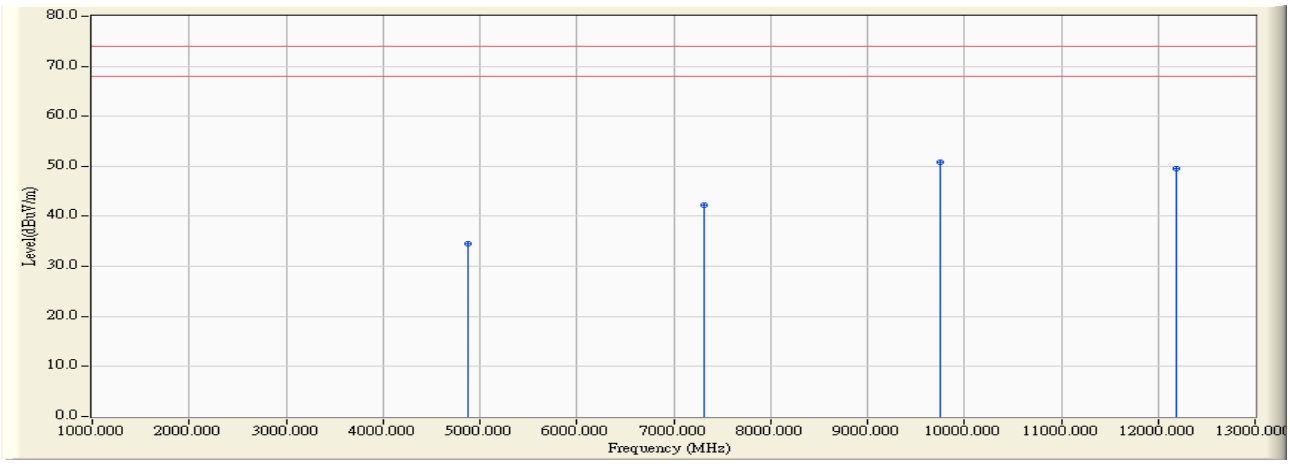


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4874.250	1.666	32.890	34.556	-39.444	74.000	PEAK	0.000	0.000
2		7311.150	7.337	34.770	42.106	-31.894	74.000	PEAK	0.000	0.000
3		9748.250	9.726	34.560	44.286	-29.714	74.000	PEAK	0.000	0.000
4	*	12185.150	14.068	33.000	47.068	-26.932	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 21:03**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH6-G**

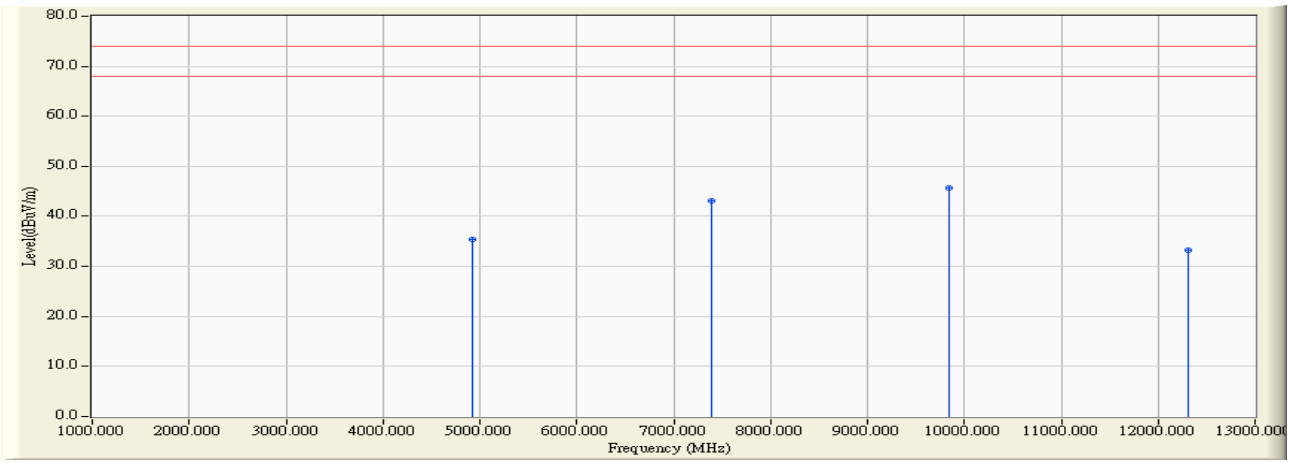


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4874.350	0.014	34.580	34.594	-39.406	74.000	PEAK	0.000	0.000
2		7311.250	7.337	34.810	42.147	-31.853	74.000	PEAK	0.000	0.000
3	*	9747.940	11.727	39.170	50.897	-23.103	74.000	PEAK	0.000	0.000
4		12185.750	14.407	35.200	49.607	-24.393	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 21:18**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - HORIZONTAL**
Power : AC 120V /60Hz	**Note : TX CH11-G**

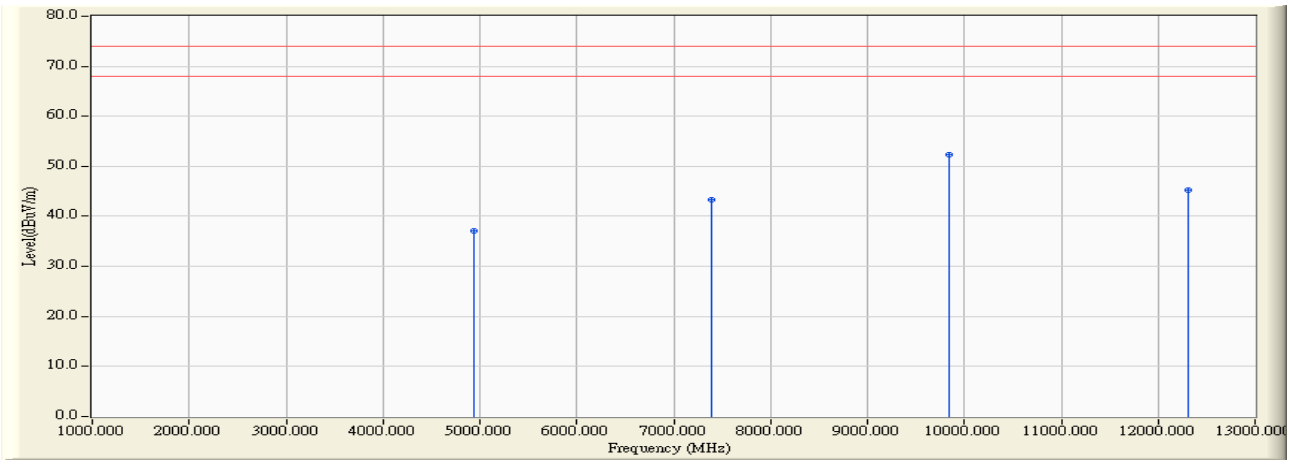


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4924.250	1.861	33.580	35.441	-38.559	74.000	PEAK	0.000	0.000
2		7385.840	7.816	35.240	43.056	-30.944	74.000	PEAK	0.000	0.000
3	*	9846.840	9.806	35.830	45.636	-28.364	74.000	PEAK	0.000	0.000
4		12310.200	0.720	32.500	33.220	-40.780	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/08 - 21:34**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_1G-18G(2005-3) - VERTICAL**
Power : AC 120V /60Hz	**Note : TX CH11-G**

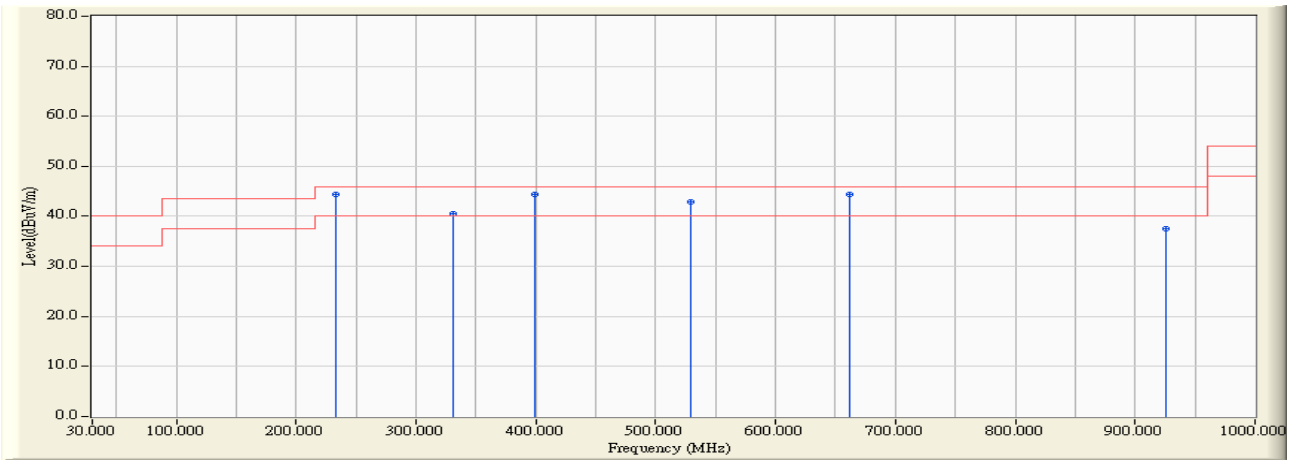


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4933.760	0.370	36.670	37.040	-36.960	74.000	PEAK	0.000	0.000
2		7387.750	7.829	35.530	43.358	-30.642	74.000	PEAK	0.000	0.000
3	*	9848.450	11.328	41.100	52.428	-21.572	74.000	PEAK	0.000	0.000
4		12310.250	12.278	32.880	45.158	-28.842	74.000	PEAK	0.000	0.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : QuieTek SH-Site1	**Time : 2006/09/14 - 12:00**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH1-B**

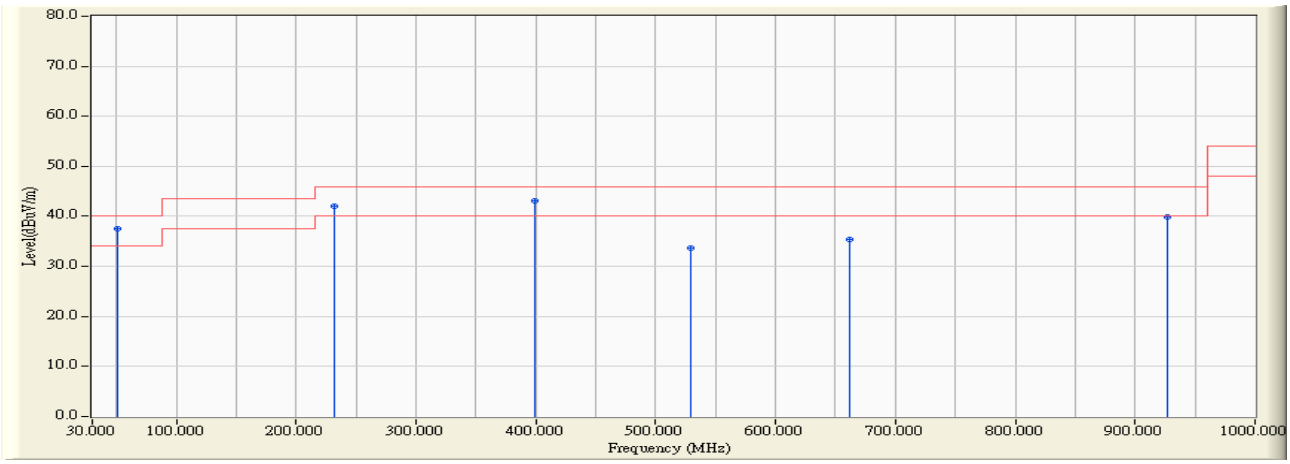


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		233.700	-11.003	55.400	44.397	-1.603	46.000	QUASIPEAK	0.000	0.000
2		330.700	-6.985	47.600	40.615	-5.385	46.000	QUASIPEAK	0.000	0.000
3		398.600	1.207	43.100	44.307	-1.693	46.000	QUASIPEAK	0.000	0.000
4		528.857	1.231	41.600	42.831	-3.169	46.000	QUASIPEAK	0.000	0.000
5	*	661.886	0.957	43.500	44.457	-1.543	46.000	QUASIPEAK	0.000	0.000
6		925.171	4.076	33.400	37.477	-8.523	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 12:00**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH1-B**

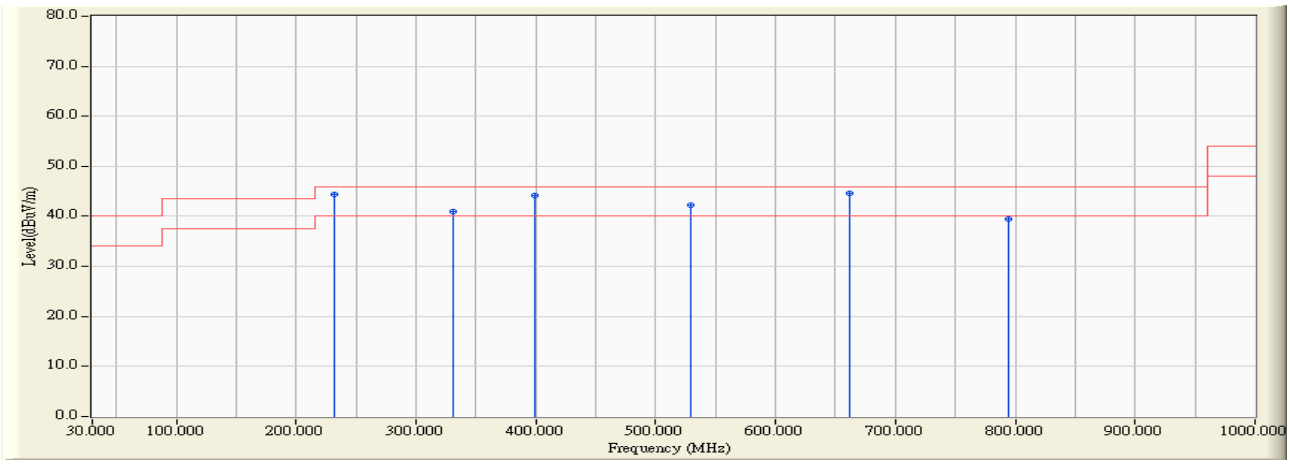


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	50.786	-5.661	43.300	37.639	-2.361	40.000	QUASIPEAK	0.000	0.000
2		232.314	-7.849	49.799	41.950	-4.050	46.000	QUASIPEAK	0.000	0.000
3		398.600	-0.503	43.600	43.097	-2.903	46.000	QUASIPEAK	0.000	0.000
4		528.857	-3.220	36.800	33.580	-12.420	46.000	QUASIPEAK	0.000	0.000
5		661.886	-5.010	40.400	35.390	-10.610	46.000	QUASIPEAK	0.000	0.000
6		926.557	4.791	35.200	39.991	-6.009	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 13:53**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH6-B**

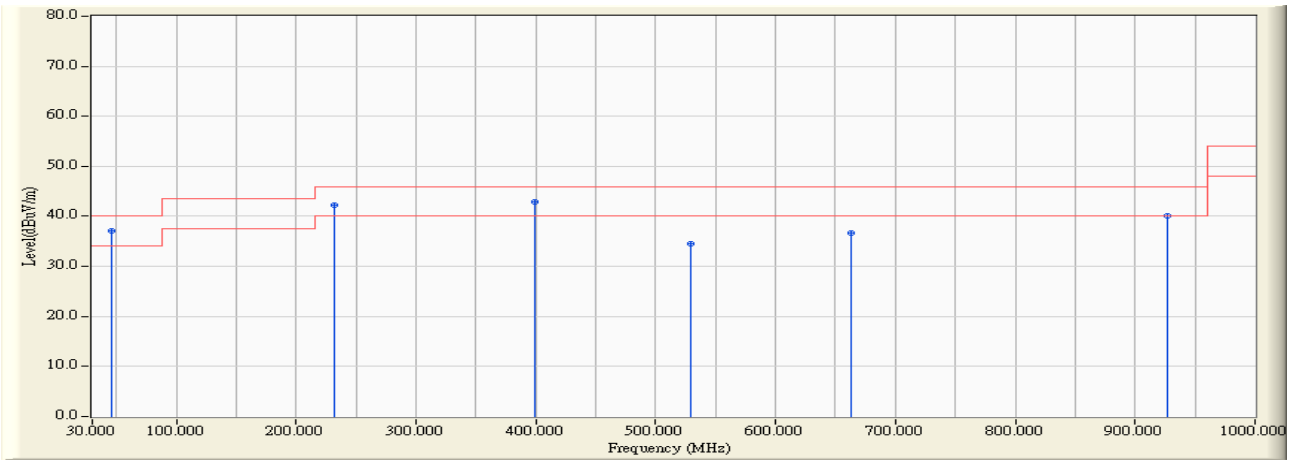


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		232.314	-10.988	55.400	44.412	-1.588	46.000	QUASIPEAK	0.000	0.000
2		330.700	-6.985	48.000	41.015	-4.985	46.000	QUASIPEAK	0.000	0.000
3		398.600	1.207	42.900	44.107	-1.893	46.000	QUASIPEAK	0.000	0.000
4		528.857	1.231	41.000	42.231	-3.769	46.000	QUASIPEAK	0.000	0.000
5	*	661.886	0.957	43.700	44.657	-1.343	46.000	QUASIPEAK	0.000	0.000
6		794.914	3.594	35.800	39.394	-6.606	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 13:54**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH6-B**

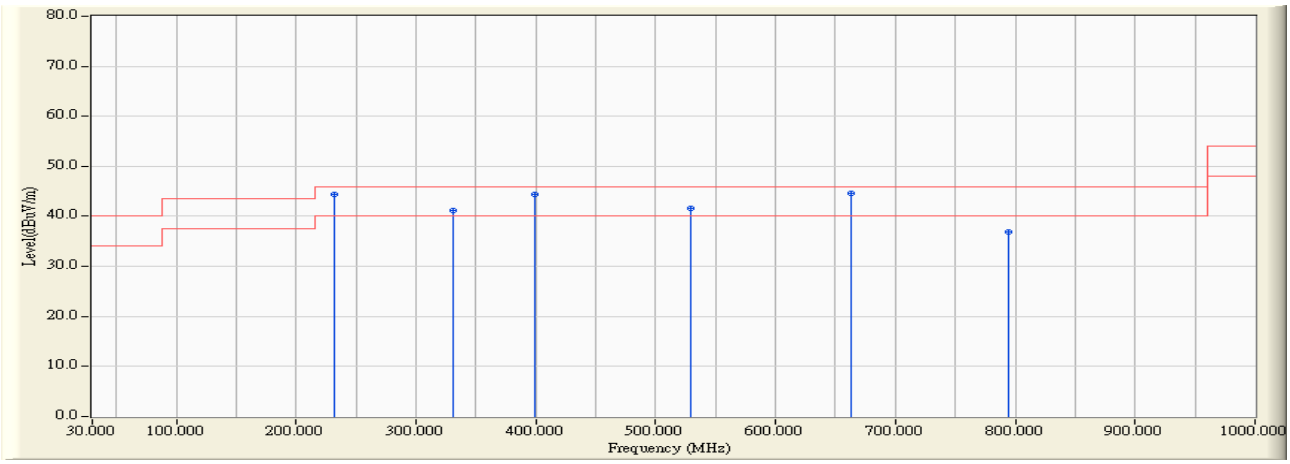


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	46.629	-0.849	37.901	37.052	-2.948	40.000	QUASIPEAK	0.000	0.000
2		232.314	-7.849	50.199	42.350	-3.650	46.000	QUASIPEAK	0.000	0.000
3		398.600	-0.503	43.400	42.897	-3.103	46.000	QUASIPEAK	0.000	0.000
4		528.857	-3.220	37.800	34.580	-11.420	46.000	QUASIPEAK	0.000	0.000
5		663.271	-3.946	40.601	36.654	-9.346	46.000	QUASIPEAK	0.000	0.000
6		926.557	4.791	35.400	40.191	-5.809	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 13:54**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH11-B**

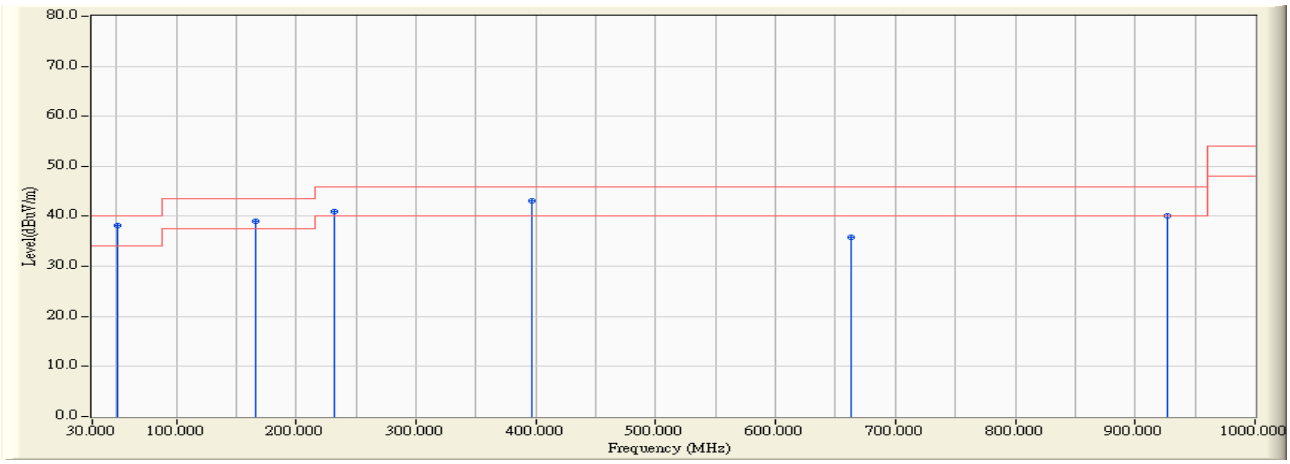


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		232.314	-10.988	55.400	44.412	-1.588	46.000	QUASIPEAK	0.000	0.000
2		330.700	-6.985	48.200	41.215	-4.785	46.000	QUASIPEAK	0.000	0.000
3		398.600	1.207	43.100	44.307	-1.693	46.000	QUASIPEAK	0.000	0.000
4		528.857	1.231	40.400	41.631	-4.369	46.000	QUASIPEAK	0.000	0.000
5	*	663.271	1.287	43.300	44.587	-1.413	46.000	QUASIPEAK	0.000	0.000
6		794.914	3.594	33.400	36.994	-9.006	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 13:55**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH11-B**

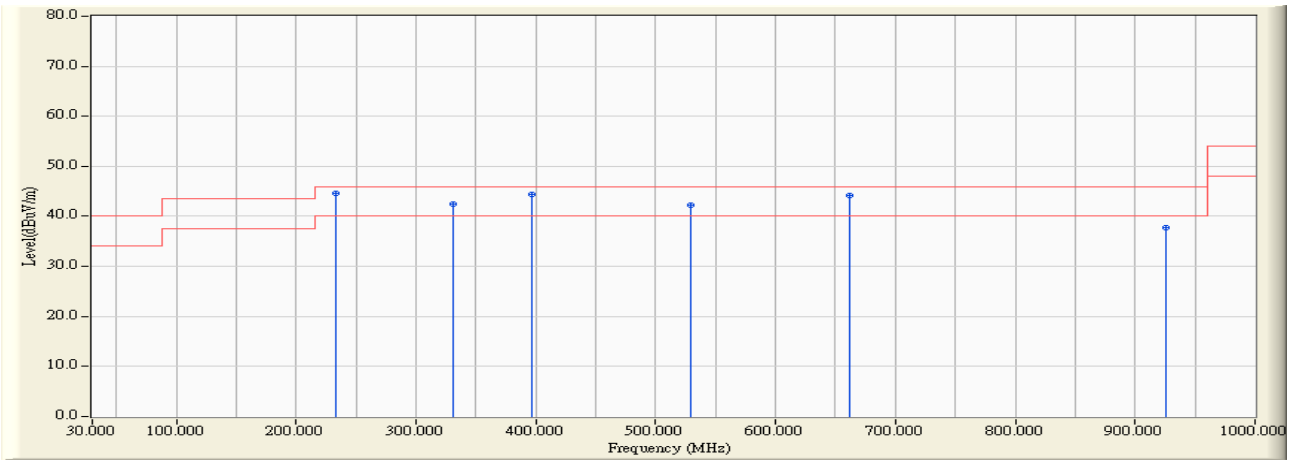


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	50.786	-5.661	43.800	38.139	-1.861	40.000	QUASIPEAK	0.000	0.000
2		165.800	-5.661	44.600	38.939	-4.561	43.500	QUASIPEAK	0.000	0.000
3		232.314	-7.849	48.799	40.950	-5.050	46.000	QUASIPEAK	0.000	0.000
4		397.214	-0.519	43.600	43.081	-2.919	46.000	QUASIPEAK	0.000	0.000
5		663.271	-3.946	39.801	35.854	-10.146	46.000	QUASIPEAK	0.000	0.000
6		926.557	4.791	35.400	40.191	-5.809	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 13:56**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH1-G**

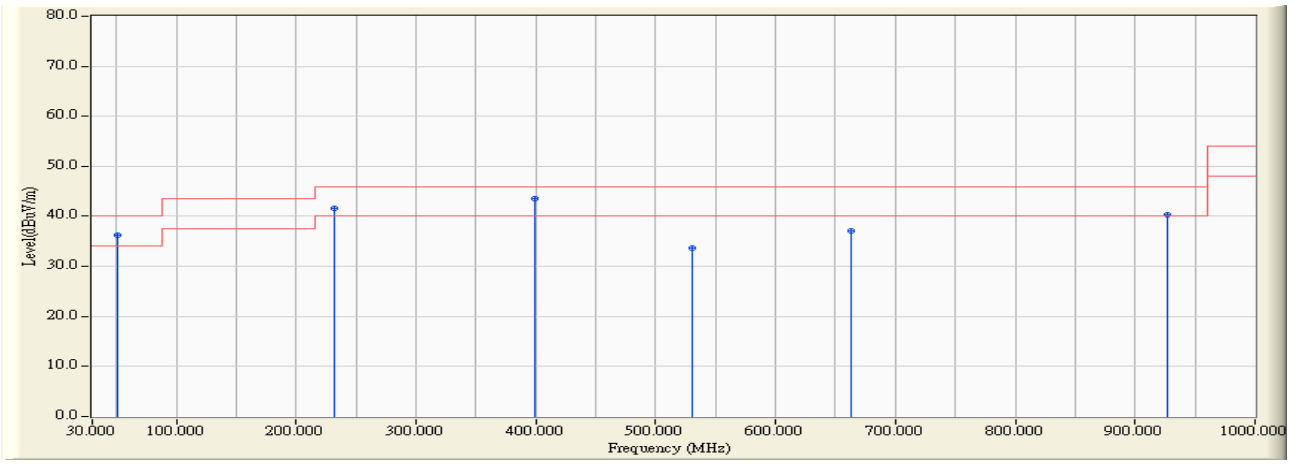


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1	*	233.700	-11.003	55.600	44.597	-1.403	46.000	QUASIPEAK	0.000	0.000
2		330.700	-6.985	49.400	42.415	-3.585	46.000	QUASIPEAK	0.000	0.000
3		397.214	1.138	43.300	44.438	-1.562	46.000	QUASIPEAK	0.000	0.000
4		528.857	1.231	41.000	42.231	-3.769	46.000	QUASIPEAK	0.000	0.000
5		661.886	0.957	43.300	44.257	-1.743	46.000	QUASIPEAK	0.000	0.000
6		925.171	4.076	33.600	37.677	-8.323	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/14 - 14:06**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH1-G**

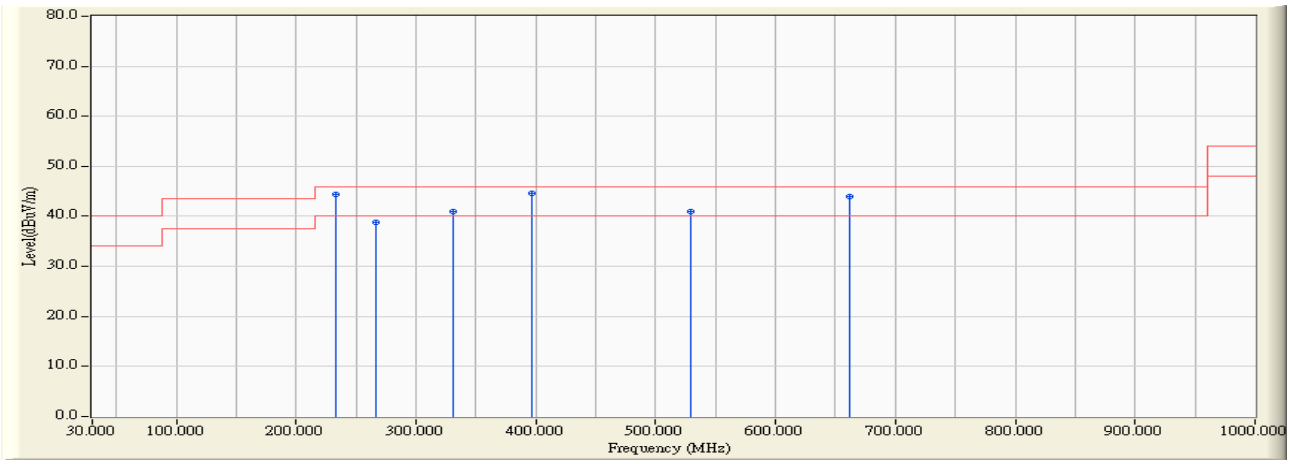


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		50.786	-5.661	42.000	36.339	-3.661	40.000	QUASIPEAK	0.000	0.000
2		232.314	-7.849	49.399	41.550	-4.450	46.000	QUASIPEAK	0.000	0.000
3	*	398.600	-0.503	44.000	43.497	-2.503	46.000	QUASIPEAK	0.000	0.000
4		530.243	-3.319	37.000	33.681	-12.319	46.000	QUASIPEAK	0.000	0.000
5		663.271	-3.946	41.001	37.054	-8.946	46.000	QUASIPEAK	0.000	0.000
6		926.557	4.791	35.600	40.391	-5.609	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/15 - 11:29**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH6-G**

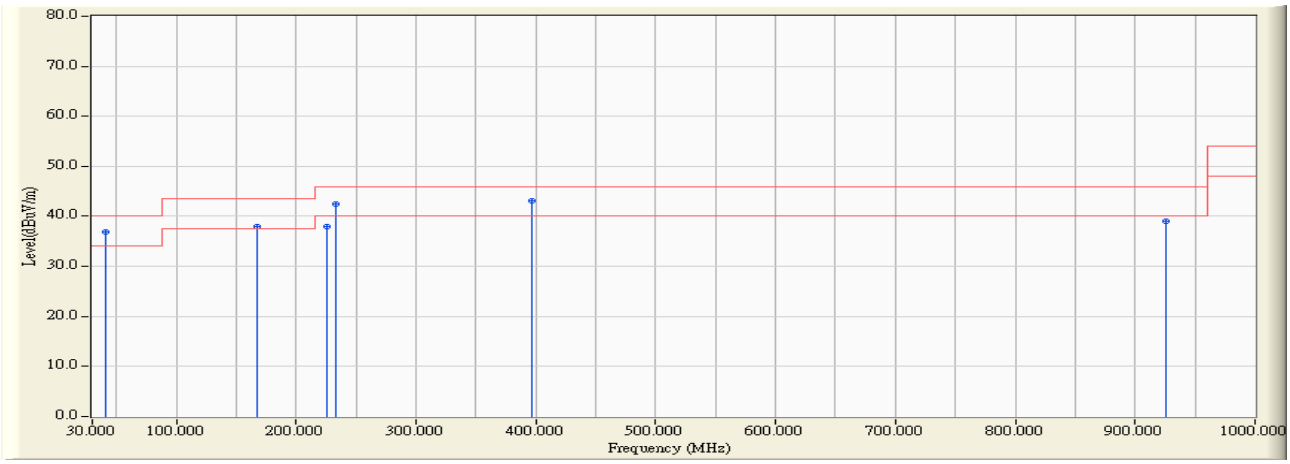


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		233.700	-11.003	55.500	44.497	-1.503	46.000	QUASIPEAK	0.000	0.000
2		266.957	-7.071	45.800	38.730	-7.270	46.000	QUASIPEAK	0.000	0.000
3		330.700	-6.985	48.000	41.015	-4.985	46.000	QUASIPEAK	0.000	0.000
4	*	397.214	1.138	43.500	44.638	-1.362	46.000	QUASIPEAK	0.000	0.000
5		528.857	1.231	39.800	41.031	-4.969	46.000	QUASIPEAK	0.000	0.000
6		661.886	0.957	43.100	44.057	-1.943	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/15 - 11:32**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH6-G**

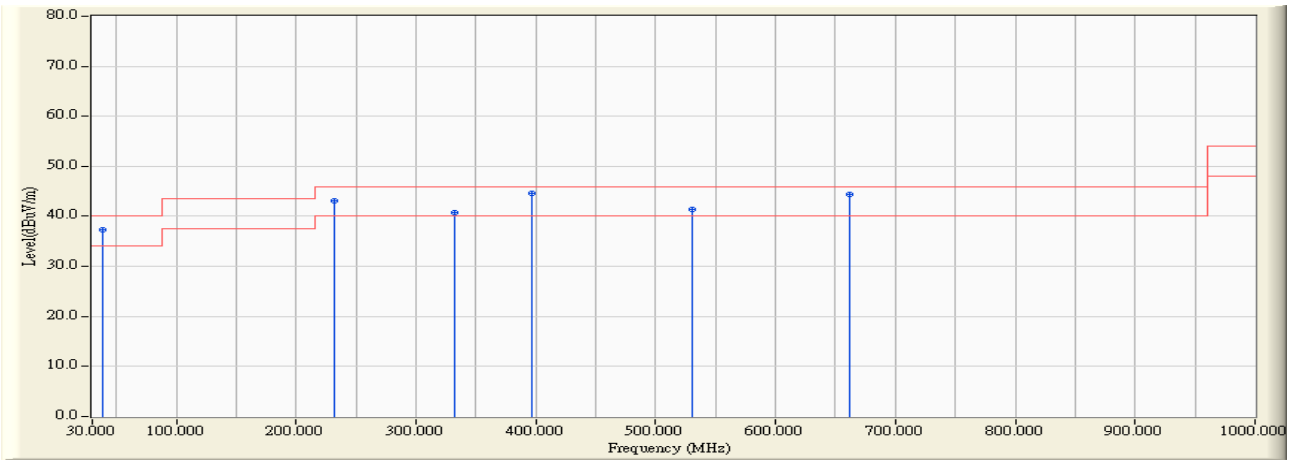


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		41.086	-2.955	39.799	36.844	-3.156	40.000	QUASIPEAK	0.000	0.000
2		167.186	-5.975	44.000	38.026	-5.474	43.500	QUASIPEAK	0.000	0.000
3		225.386	-7.183	45.200	38.017	-7.983	46.000	QUASIPEAK	0.000	0.000
4		233.700	-8.103	50.600	42.497	-3.503	46.000	QUASIPEAK	0.000	0.000
5	*	397.214	-0.519	43.600	43.081	-2.919	46.000	QUASIPEAK	0.000	0.000
6		925.171	4.095	35.000	39.095	-6.905	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/15 - 11:34**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - HORIZONTAL**
Power : 120V /60Hz	**Note : TX CH11-G**

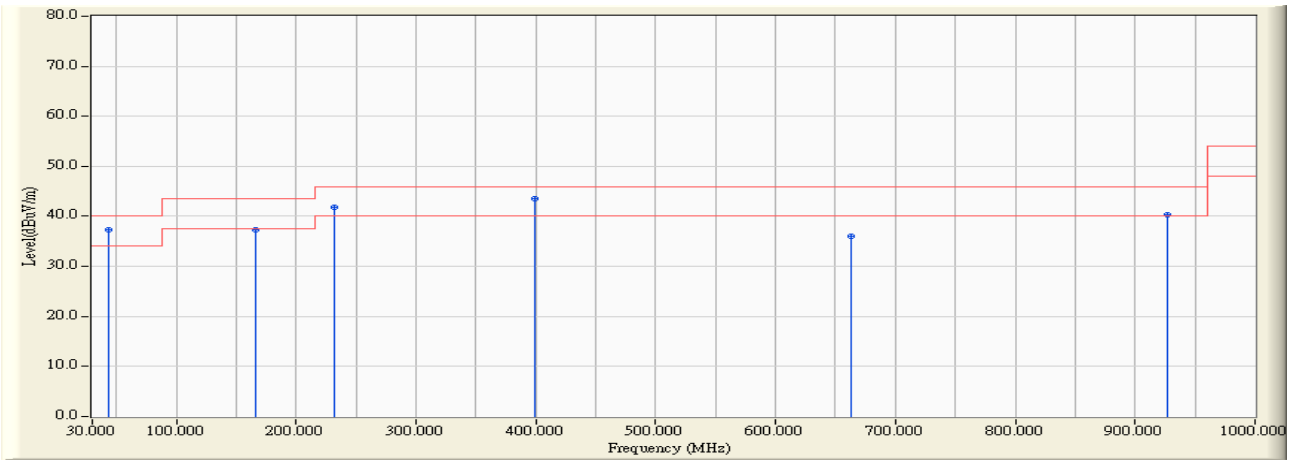


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		38.314	-4.836	42.100	37.264	-2.736	40.000	QUASIPEAK	0.000	0.000
2		232.314	-10.988	54.000	43.012	-2.988	46.000	QUASIPEAK	0.000	0.000
3		332.086	-7.434	48.200	40.766	-5.234	46.000	QUASIPEAK	0.000	0.000
4	*	397.214	1.138	43.500	44.638	-1.362	46.000	QUASIPEAK	0.000	0.000
5		530.243	1.082	40.400	41.483	-4.517	46.000	QUASIPEAK	0.000	0.000
6		661.886	0.957	43.400	44.357	-1.643	46.000	QUASIPEAK	0.000	0.000

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 : QuieTek SH-Site1	**Time : 2006/09/15 - 11:40**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
EUT : Wireless VPN Router	**Probe : RF_30-1G(06.5.12)0.8M - VERTICAL**
Power : 120V /60Hz	**Note : TX CH11-G**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		43.857	-1.533	38.800	37.267	-2.733	40.000	QUASIPEAK	0.000	0.000
2		165.800	-5.661	43.000	37.339	-6.161	43.500	QUASIPEAK	0.000	0.000
3		232.314	-7.849	49.599	41.750	-4.250	46.000	QUASIPEAK	0.000	0.000
4	*	398.600	-0.503	44.000	43.497	-2.503	46.000	QUASIPEAK	0.000	0.000
5		663.271	-3.946	40.001	36.054	-9.946	46.000	QUASIPEAK	0.000	0.000
6		926.557	4.791	35.600	40.391	-5.609	46.000	QUASIPEAK	0.000	0.000

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.

5. Band Edge

5.1. Test Equipment

The following test equipment 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., 2006
2	No.1 OATS			Sep., 2006

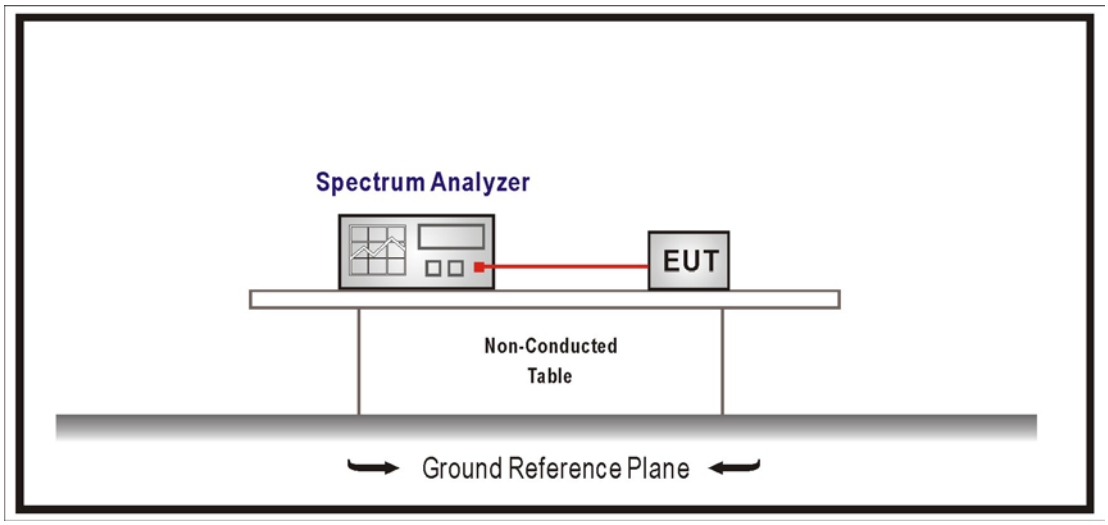
RF Radiated Measurement:					
Item		Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2006
2	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2006
3		Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2006
4		BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2006
5		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
6	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Sep., 2006
7	No.1 OATS				Sep., 2006

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

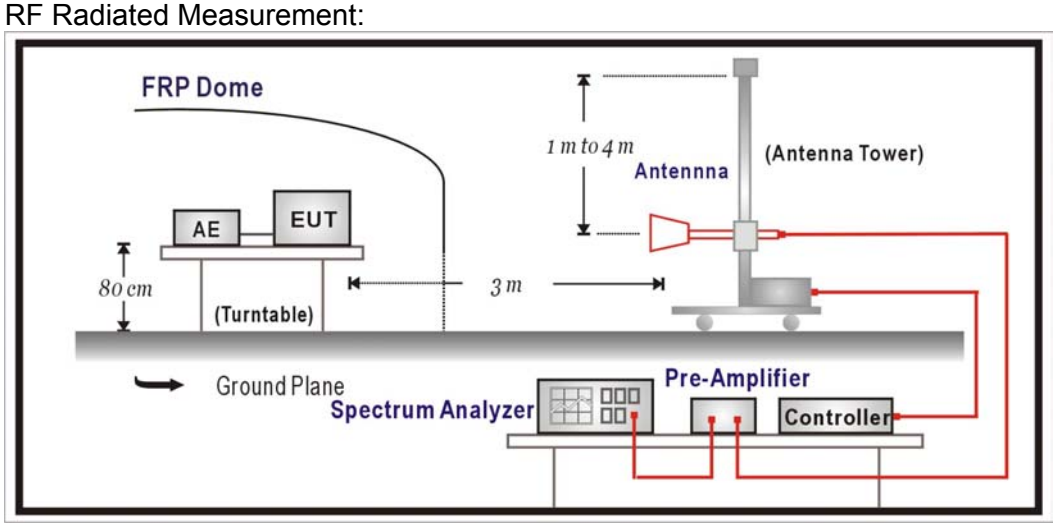
2. Mark “X” test instruments are used to measure the final test results.

5.2. Test Setup

RF Conducted Measurement:



RF Radiated 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 either an RF conducted or a 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 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 C63.4:2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2005

5.6. Test Result

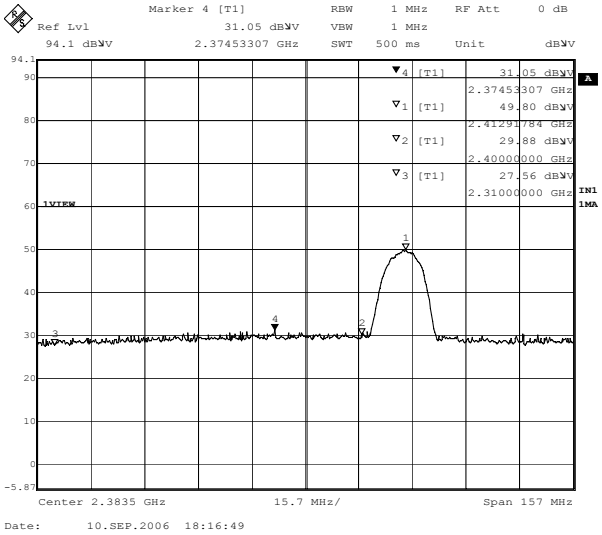
Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

RF Radiated Measurement: (Peak Detector)

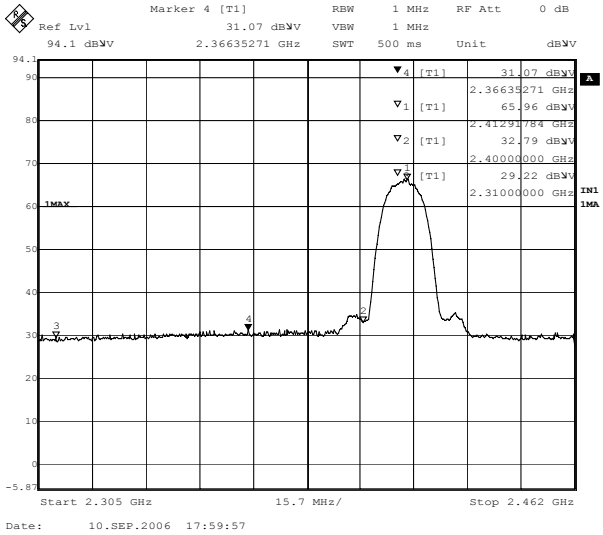
IEEE 802.11b

Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
1(Horizontal)	2374.530	31.050	24.423	3.915	0.00	59.387	74	Pass
1(Vertical)	2366.350	31.070	22.799	3.910	0.00	57.779	74	Pass

Horizontal



Vertical



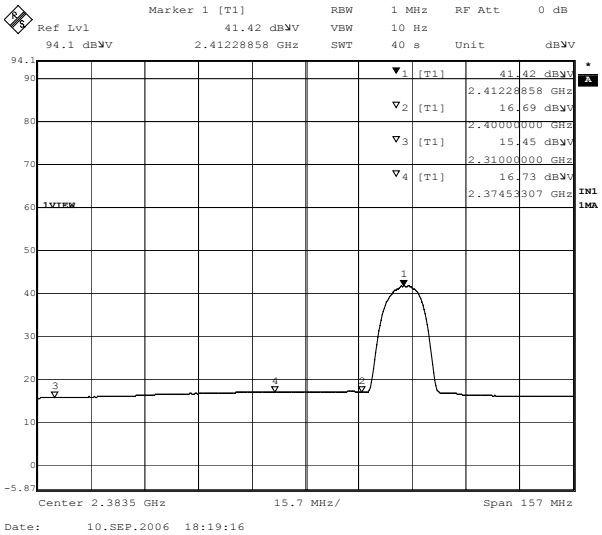
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

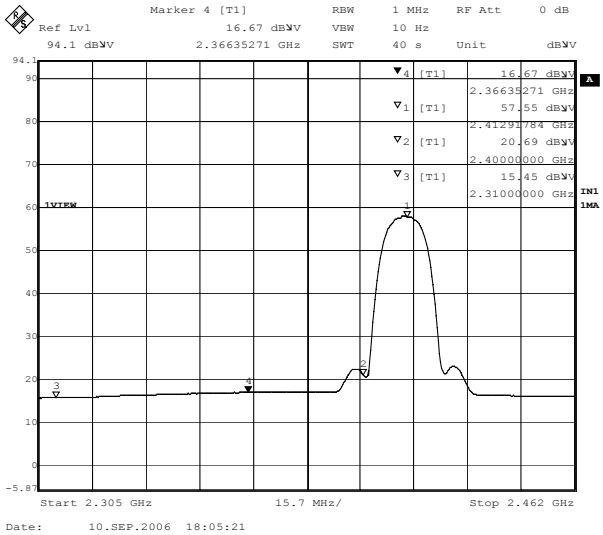
RF Radiated Measurement: (Average Detector)

IEEE 802.11b								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
1(Horizontal)	2374.530	16.730	24.423	3.915	0.00	45.067	54	Pass
1(Vertical)	2366.350	16.670	22.799	3.910	0.00	43.379	54	Pass

Horizontal



Vertical



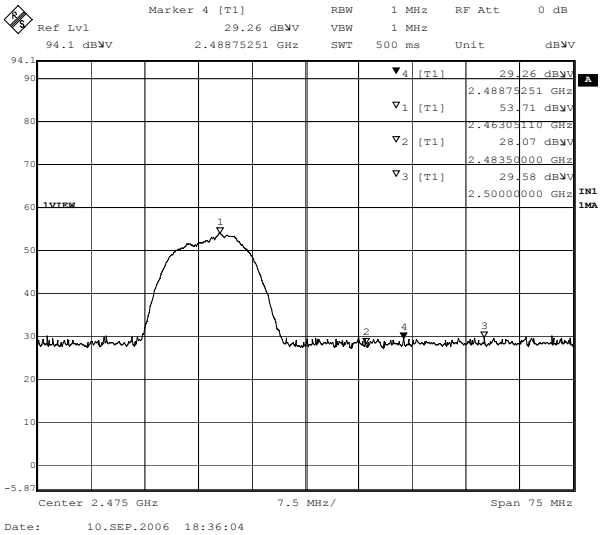
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

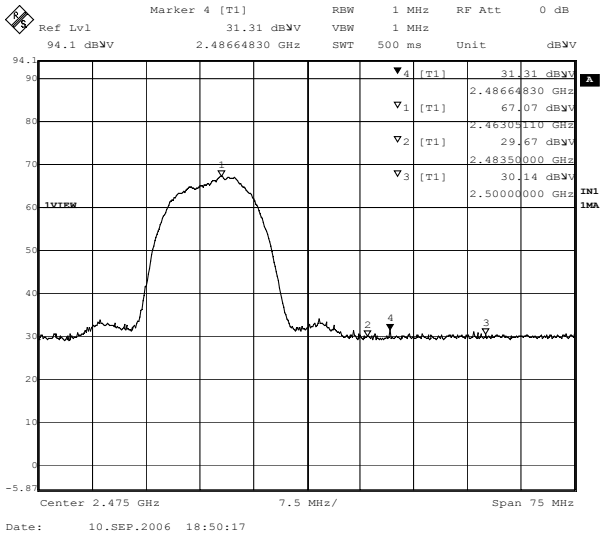
RF Radiated Measurement: (Peak Detector)

IEEE 802.11b								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
11(Horizontal)	2488.750	29.260	24.733	3.997	0.00	57.989	74	Pass
11(Vertical)	2486.640	31.310	23.128	3.994	0.00	58.432	74	Pass

Horizontal



Vertical



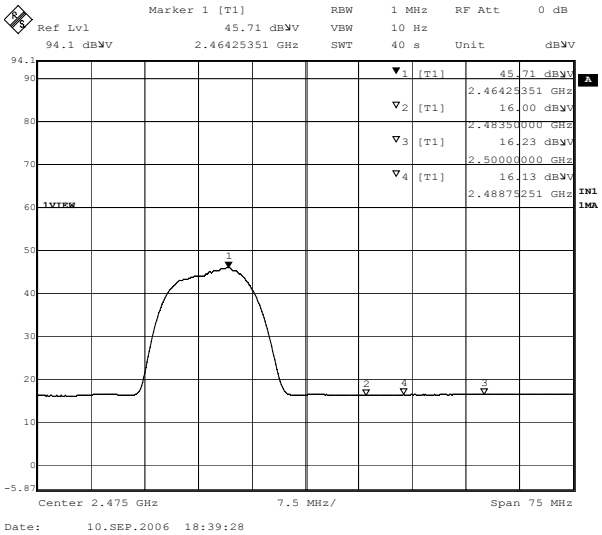
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

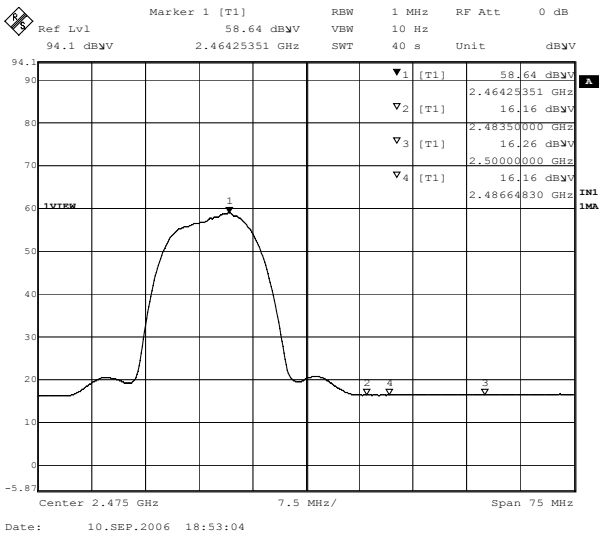
RF Radiated Measurement: (Average Detector)

IEEE 802.11b								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
11(Horizontal)	2488.750	16.130	24.733	3.997	0.00	44.859	54	Pass
11(Vertical)	2486.640	16.160	23.128	3.994	0.00	43.282	54	Pass

Horizontal



Vertical



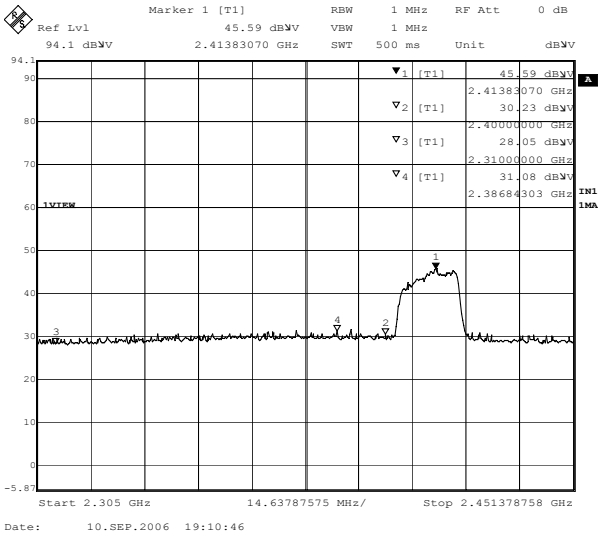
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

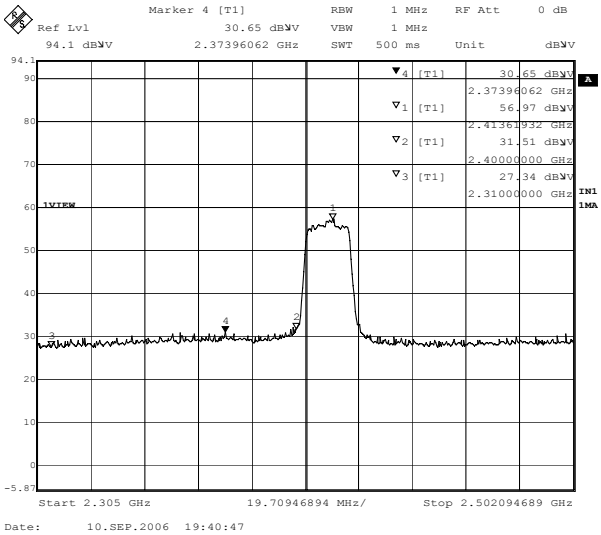
RF Radiated Measurement: (Peak Detector)

IEEE 802.11g								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
1(Horizontal)	2386.840	31.080	24.465	3.920	0.00	59.465	74	Pass
1(Vertical)	2373.960	30.650	22.821	3.914	0.00	57.385	74	Pass

Horizontal



Vertical



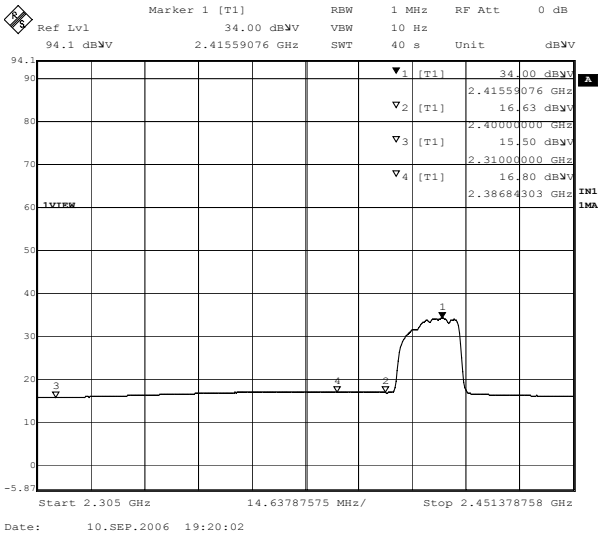
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	22006/09/10	Test Site	No.1 OATS

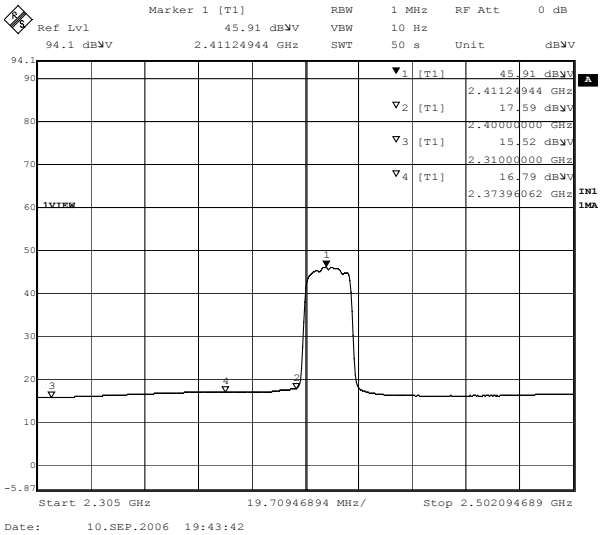
RF Radiated Measurement: (Average Detector)

IEEE 802.11g								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
1(Horizontal)	2386.840	16.800	24.465	3.920	0.00	45.185	54	Pass
1(Vertical)	2373.960	16.790	22.821	3.914	0.00	43.525	54	Pass

Horizontal



Vertical



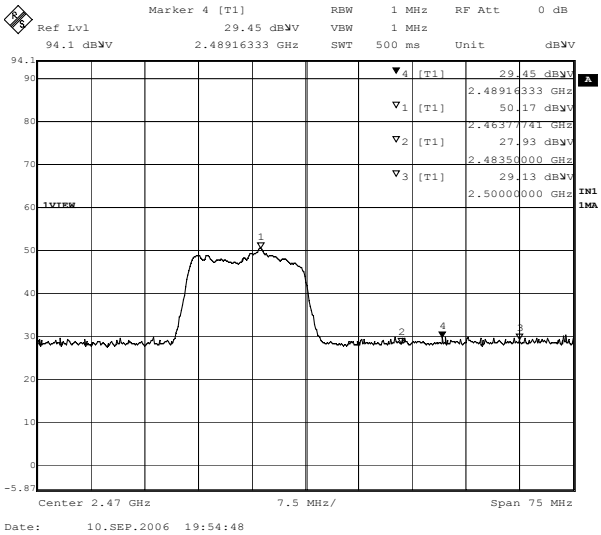
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

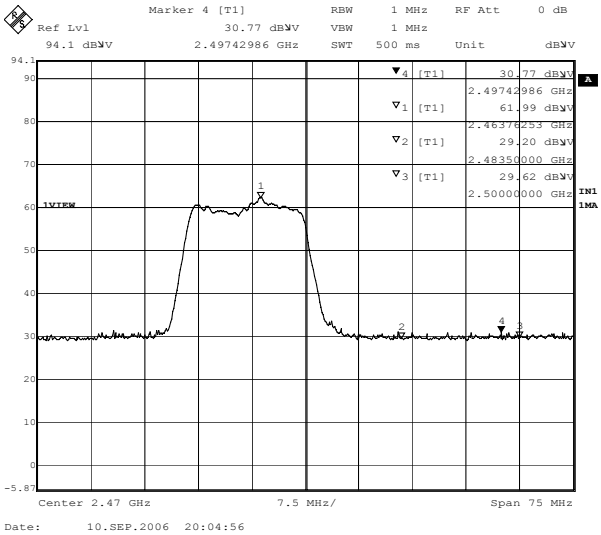
RF Radiated Measurement: (Peak Detector)

IEEE 802.11g								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
11(Horizontal)	2489.160	29.450	24.734	3.997	0.00	58.181	74	Pass
11(Vertical)	2497.420	30.770	23.153	4.003	0.00	57.926	74	Pass

Horizontal



Vertical



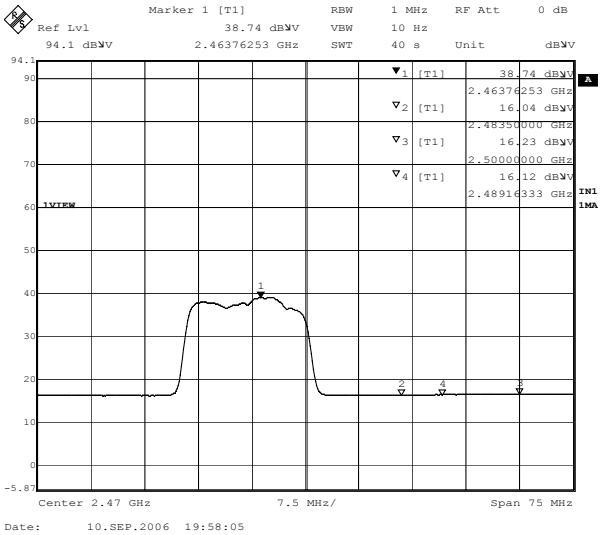
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	Wireless VPN Router		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/10	Test Site	No.1 OATS

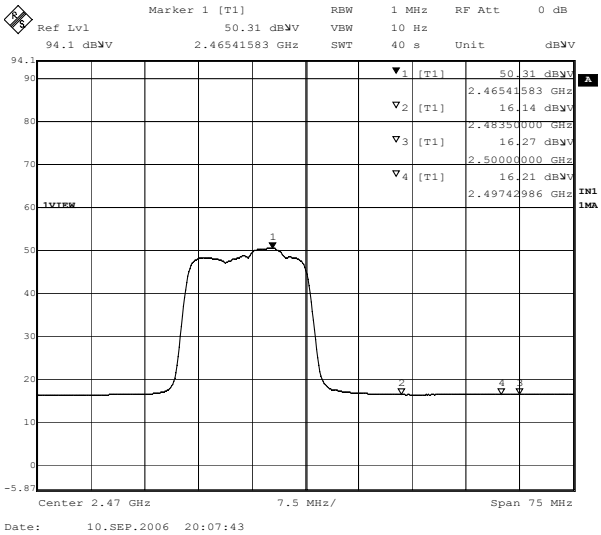
RF Radiated Measurement: (Average Detector)

IEEE 802.11g								
Channel No.	Frequency (MHz)	Reading Level (dBuV)	Probe Factor (dB/m)	Cable Loss (dB)	PreAMP (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Result
11(Horizontal)	2489.160	16.120	24.734	3.997	0.00	44.851	54	Pass
11(Vertical)	2497.420	16.210	23.153	4.003	0.00	43.366	54	Pass

Horizontal



Vertical



Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

6. Occupied Bandwidth

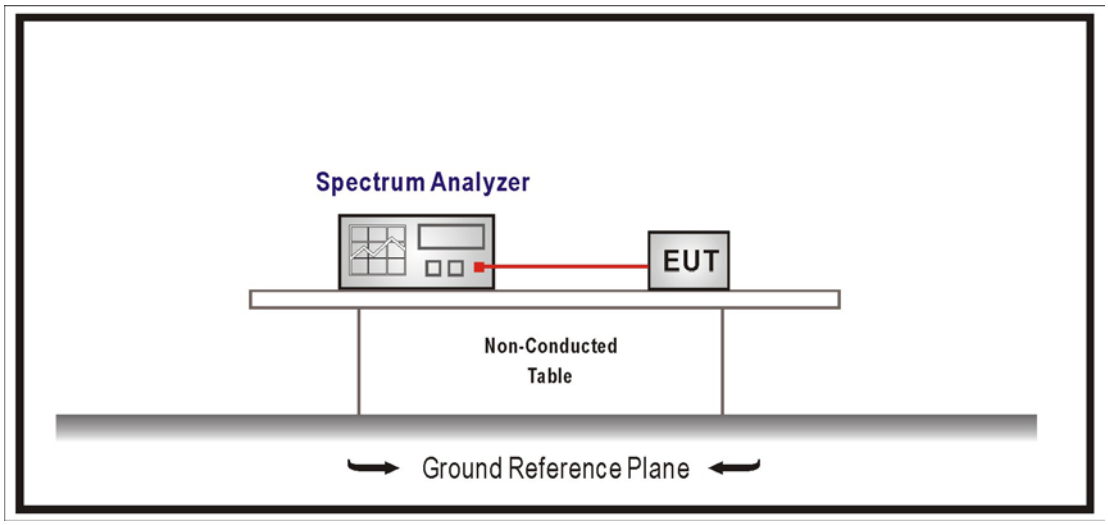
6.1. Test Equipment

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., 2006
2	No.1 OATS			Sep., 2006

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

6.2. Test Setup



6.3. Limits

The minimum 6dB bandwidth shall be at least 500kHz.

6.4. Test Specification

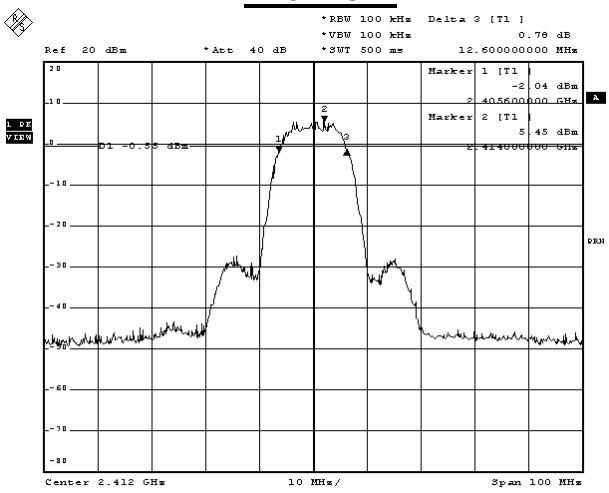
According to FCC Part 15 Subpart C Paragraph 15.247: 2005

6.5. Test Result

Product	Wireless VPN Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/14	Test Site	No.1 OATS

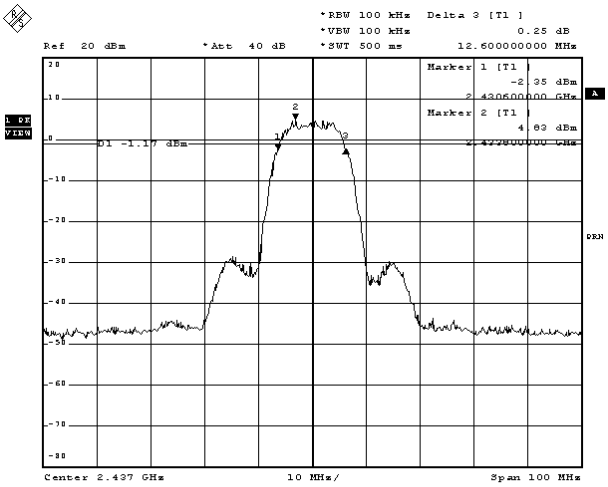
IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Value (kHz)	Limit (kHz)	Result
1	2412	12600	>500	Pass
6	2437	12600	> 500	Pass
11	2462	12600	> 500	Pass

Channel 1



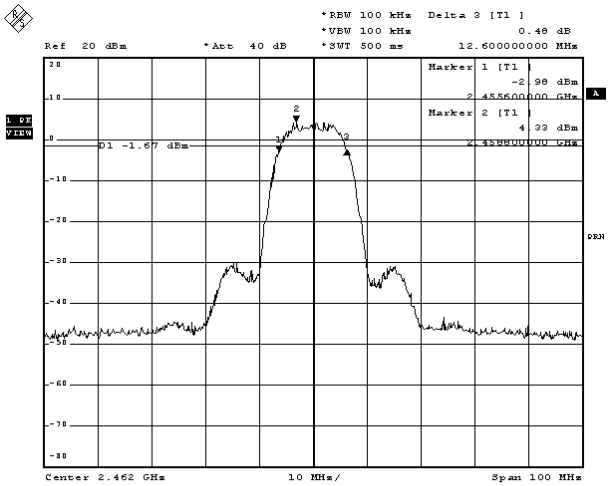
Date: 14.SEP.2006 03:39:19

Channel 6



Date: 14.SEP.2006 03:57:37

Channel 11

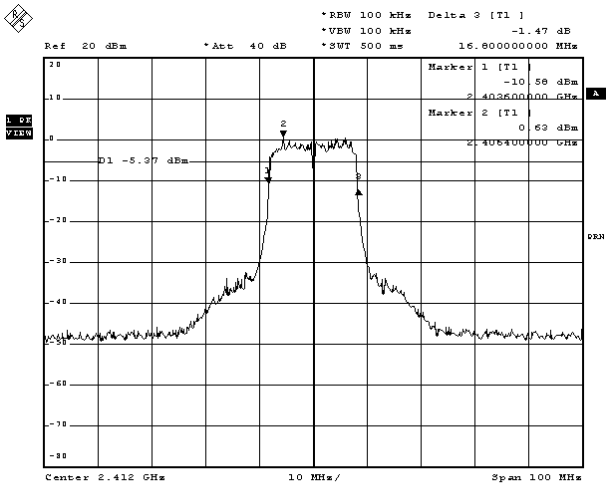


Date: 14.SEP.2006 04:00:15

Product	Wireless VPN Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/14	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Value (kHz)	Limit (kHz)	Result
1	2412	16800	> 500	Pass
6	2437	16800	> 500	Pass
11	2462	16800	> 500	Pass

Channel 1



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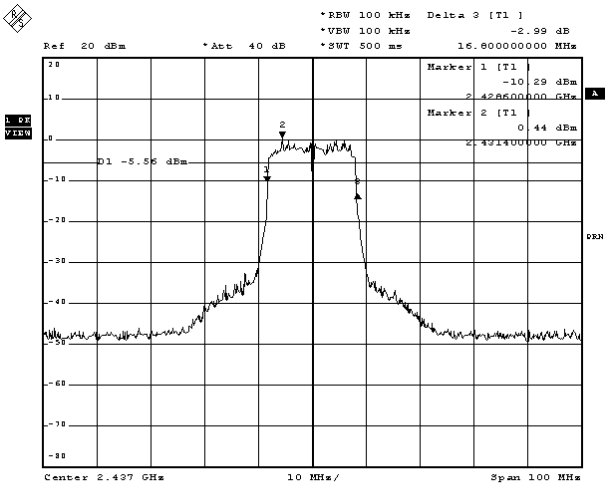
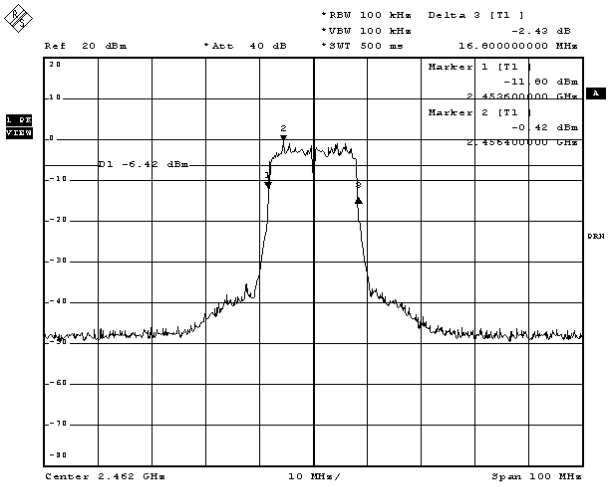
Channel 6



Date: 14.SEP.2006 03:41:43

Channel 11



Date: 14.SEP.2006 03:31:50

7. Power Density

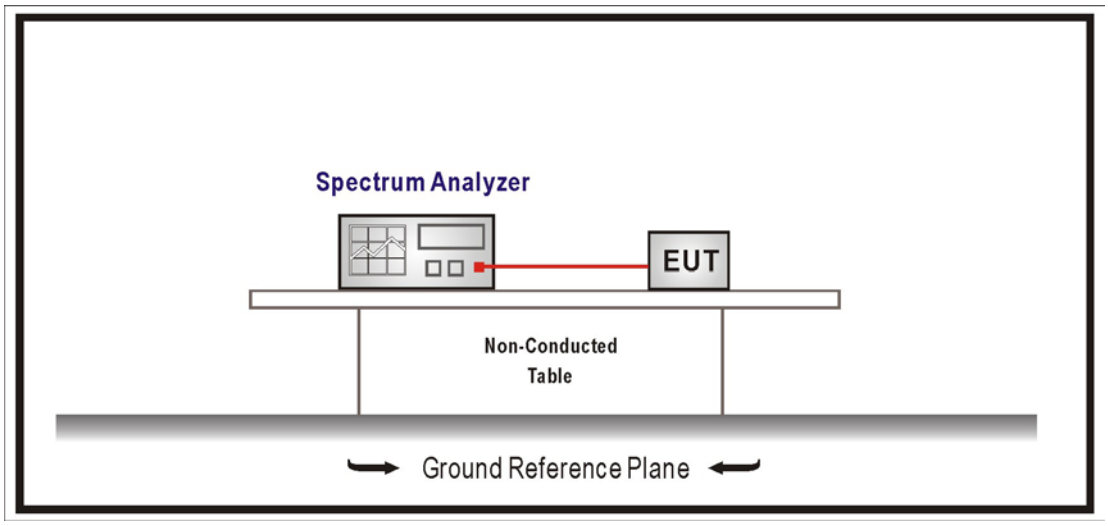
7.1. Test Equipment

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., 2006
2	No.1 OATS			Sep., 2006

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

7.2. Test Setup



7.3. 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.

7.4. Test Specification

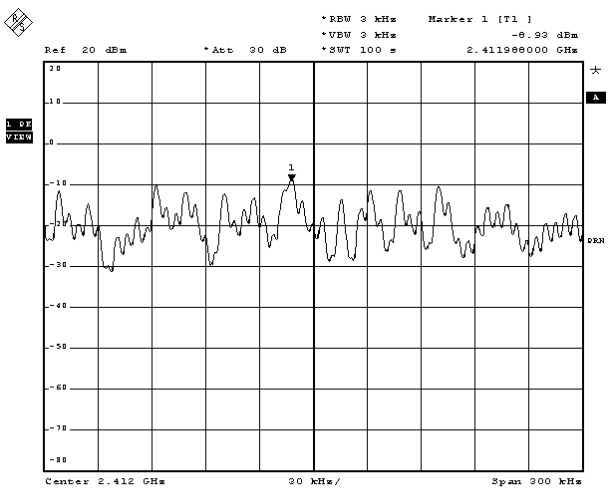
According to FCC Part 15 Subpart C Paragraph 15.247: 2005

7.5. Test Result

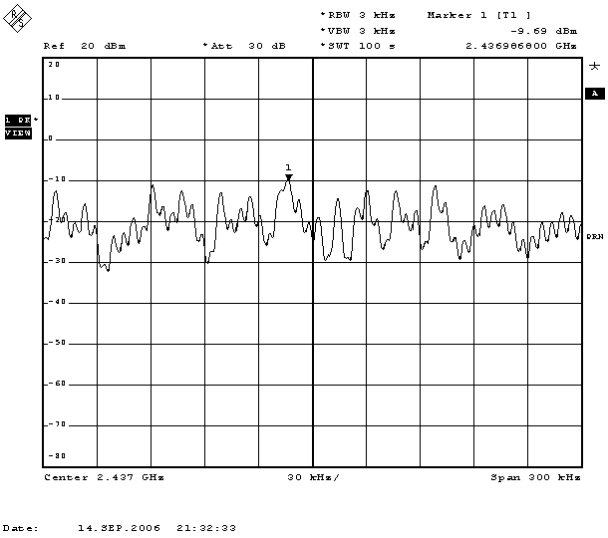
Product	Wireless VPN Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/14	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-8.93	<8	Pass
6	2437	-9.69	<8	Pass
11	2462	-10.82	<8	Pass

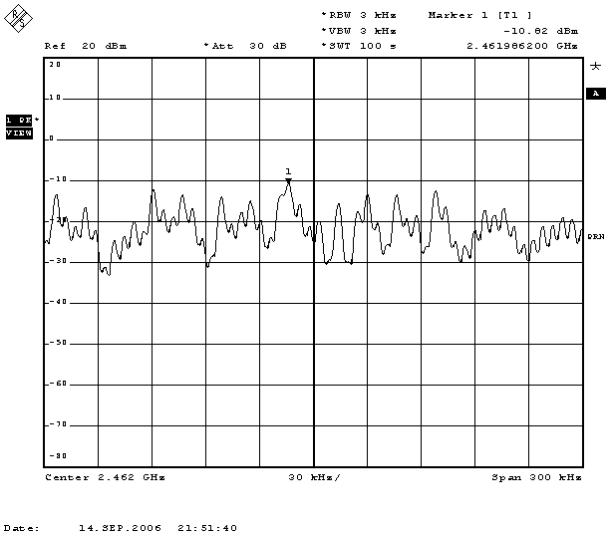
Channel 1



Channel 6



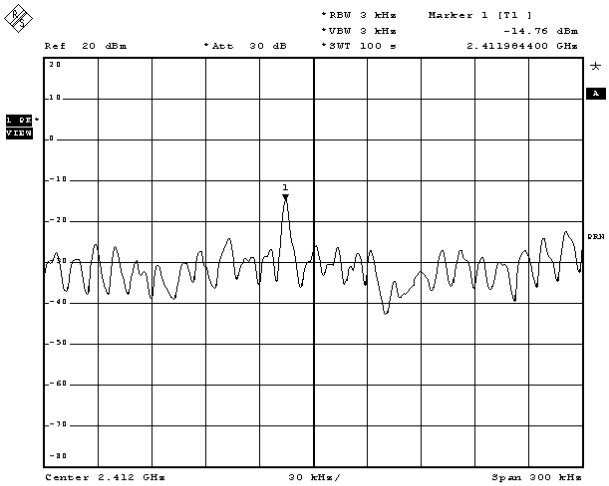
Channel 11



Product	Wireless VPN Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/14	Test Site	No.1 OATS

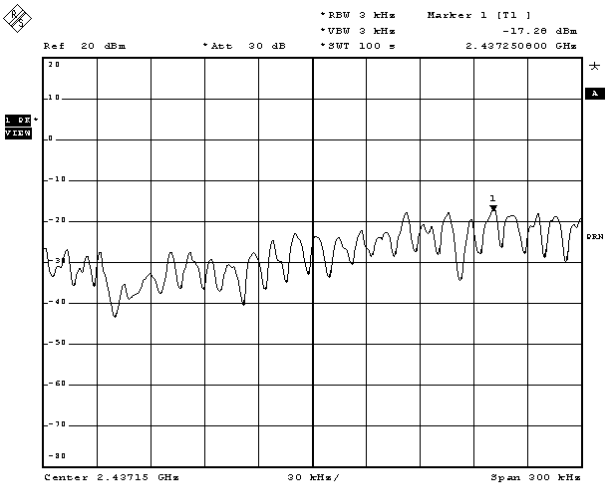
IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.76	<8	Pass
6	2437	-17.28	<8	Pass
11	2462	-16.45	<8	Pass

Channel 1



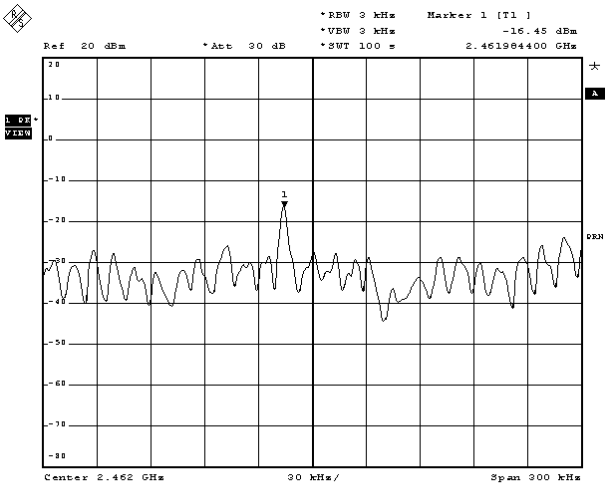
Date: 14.SEP.2006 22:24:56

Channel 6



Date: 14.SEP.2006 22:21:06

Channel 11



Date: 14.SEP.2006 21:58:17