Test Report

Product Name ： 802.11g Wireless ADSL2+ 4-port Gateway

Model No. ： P-660HW-D1 v2, P-660HW-D1 v2, P-660HW-D1 v2, 401619

FCC ID. ： I88P660HWD1V2

Applicant ： ZyXEL Communications Corporation

Address ： No. 6, Innovation Rd II, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C.

Date of Receipt ： 2006/09/12

Issued Date ： 2006/10/05

Report No. ： 069H035-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 : 2006/10/05
Report No. : 069H035-RF-US-P05V01

QuieTek

Product Name	:	802.11g Wireless ADSL2+ 4-port Gateway
Applicant	:	ZyXEL Communications Corporation
Address	:	No. 6, Innovation Rd II, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C.
Manufacturer	:	ZyXEL Communications (Wuxi) Corp
Model No.	:	P-660HW-D1 v2, P-660HW-D1 v2, P-660HW-D1 v2, 401619
FCC ID.	:	I88P660HWD1V2
Rated Voltage	:	AC 120 V / 60 Hz
EUT Voltage	:	AC 120 V / 60 Hz
Trade Name	:	ZyXEL
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 : Sandy Chuang
(Sandy Chuang)

Reviewed By : Eric Lee
(Eric Lee)

Approved By : Roy Wang
(Roy Wang)

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1. General Information

1.1. EUT Description

Product Name	802.11g Wireless ADSL2+ 4-port Gateway
Trade Name	ZyXEL
Model No.	P-660HW-D1 v2, P-660HW-D1 v2, P-660HW-D1 v2, 401619
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	Auto
Channel Control	Dipole
Antenna Type	3 dBi

Component	
Power Adapter	OEM, AA-121A I/P: 120Vac, 60Hz O/P: 12Vdc, 1A 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 802.11g Wireless ADSL2+ 4-port Gateway included a 2.4GHz receiving function, and 2.4GHz transmitting function.
2. The variation of model number is for different strategy of marketing and Firmware.
3. 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.
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 function receiving was measured and made a test report that the report number is 069H035-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	
EMI	Mode 1: Transmit

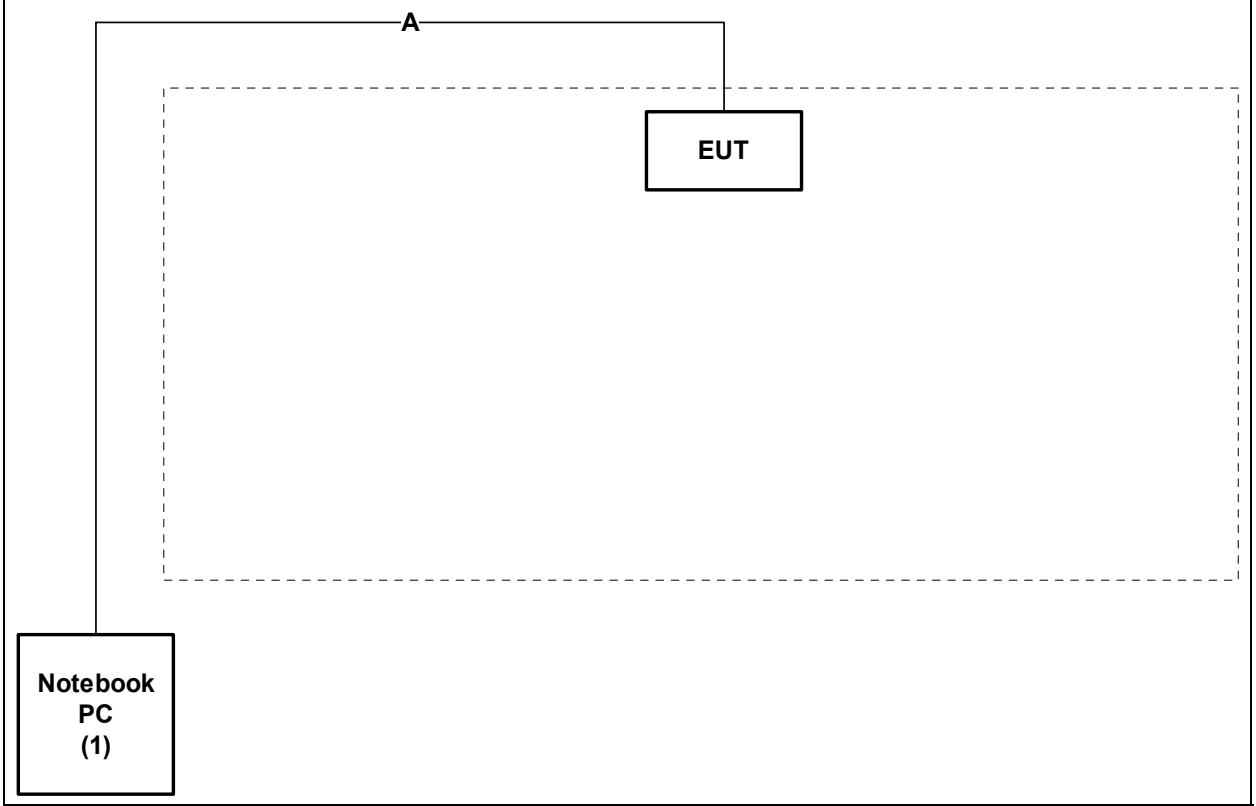
1.4. Tested System Details

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	Notebook PC	DELL	LATITUDE D400	N/A	DoC	Non-shielded, 1.7m, a ferrite core bonded

1.5. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, 10m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4
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 15.247 Band Edge (FHSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Channel Of Number (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Channel Separation (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Dwell Time (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (FHSS)	15 - 35	25
Humidity (%RH)		25 - 75	53
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. Peak Power Output

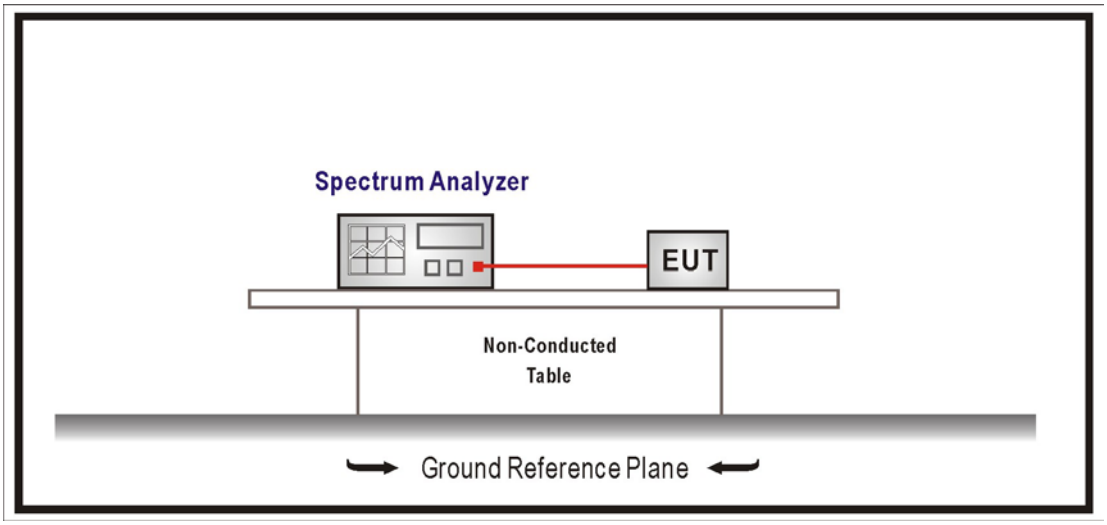
2.1. Test Equipment

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

2.2. Test Setup



2.3. Limits

For frequency hopping systems operating in the 902-928 MHz band: 1 Watt for systems employing at least 50 hopping channels; and, 0.25 Watts for systems employing less than 50 hopping channels.

For frequency hopping systems in the 2400-2483.5 MHz band employing at least 75 hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1Watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 Watt.

2.4. Test Specification

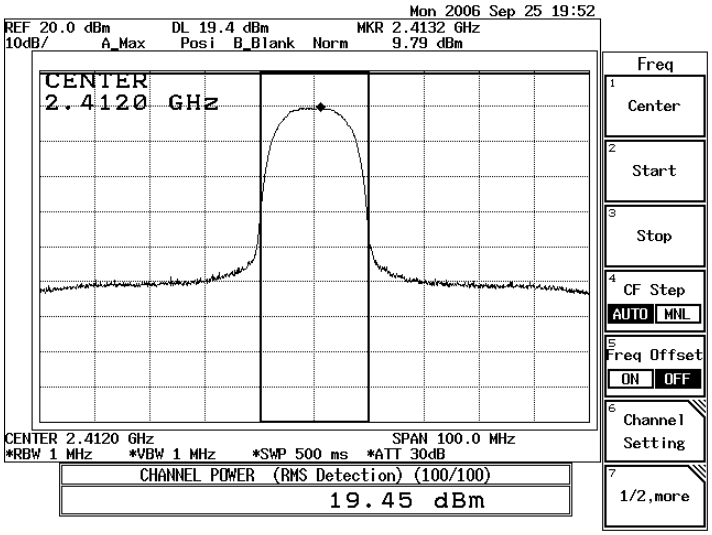
According to FCC Part 15 Subpart C Paragraph 15.247: 2004

2.5. Test Result

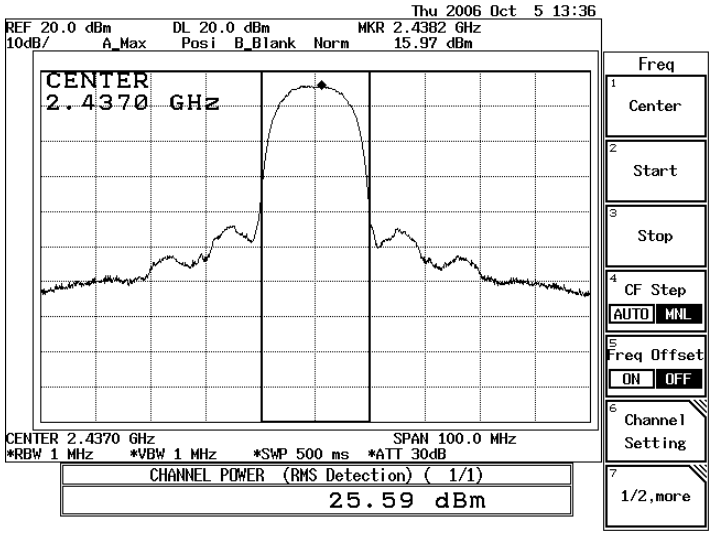
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.45	1Watt = 30 dBm	Pass
6	2437	25.59	1Watt= 30 dBm	Pass
11	2462	19.24	1Watt= 30 dBm	Pass

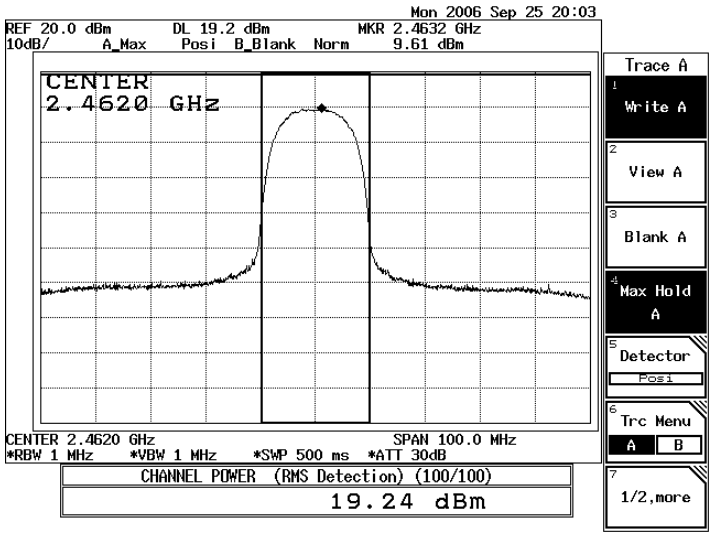
Channel 1



Channel 6



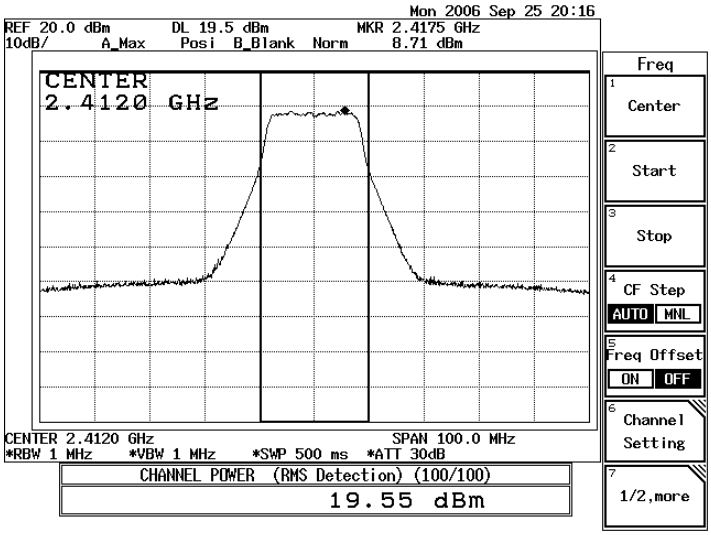
Channel 11



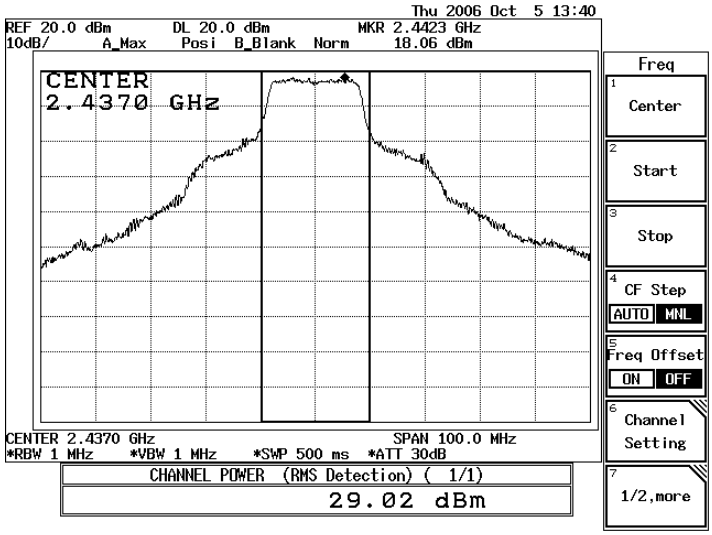
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.55	1Watt = 30 dBm	Pass
6	2437	29.02	1Watt= 30 dBm	Pass
11	2462	19.42	1Watt= 30 dBm	Pass

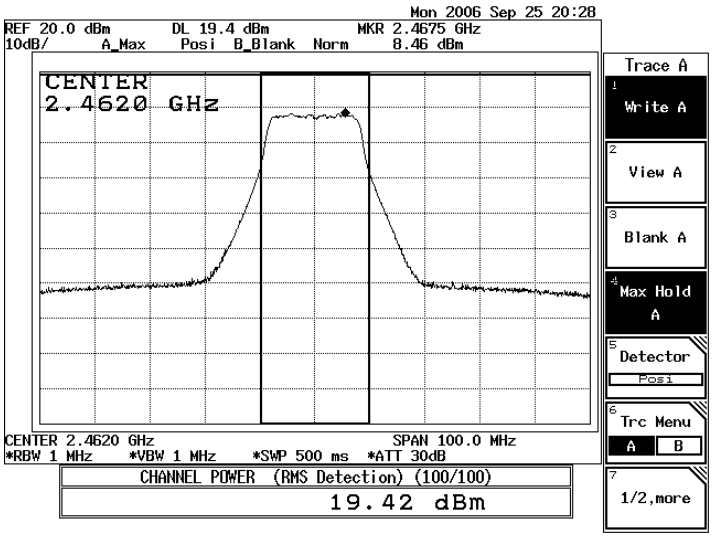
Channel 1



Channel 6



Channel 11



3. Conducted Emission

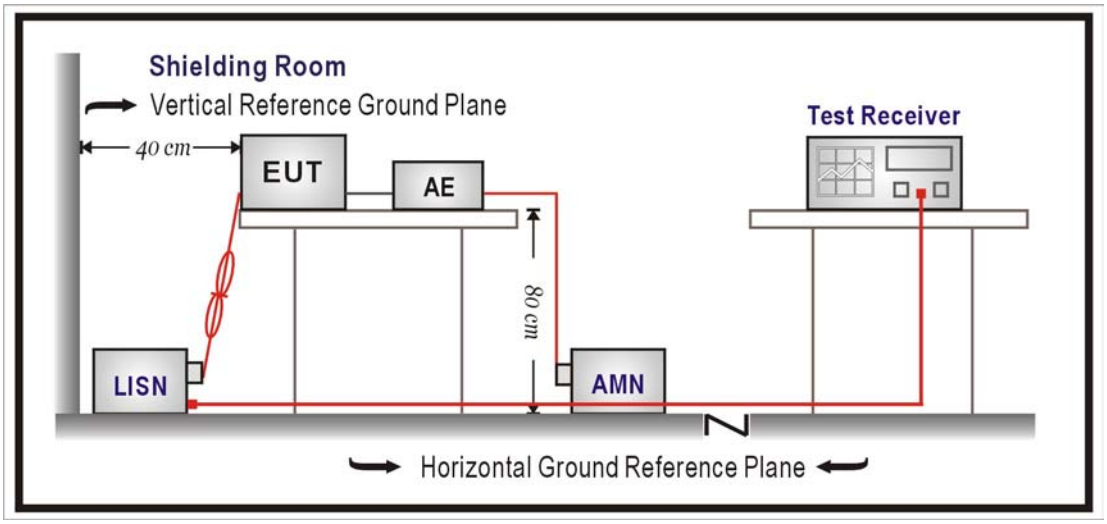
3.1. Test Equipment

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	Peripherals
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.

3.2. Test Setup



3.3. 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.

3.4. Test Procedure

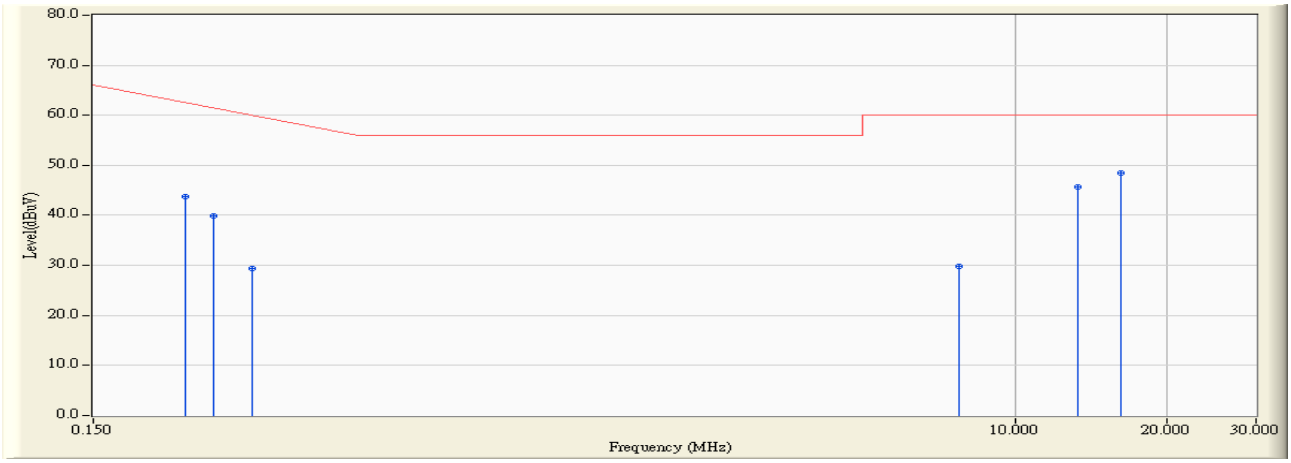
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling 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.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.207: 2005

3.6. Test Result

Site : QuieTek Shielding Room2	Time : 2006/09/26 - 15:19
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

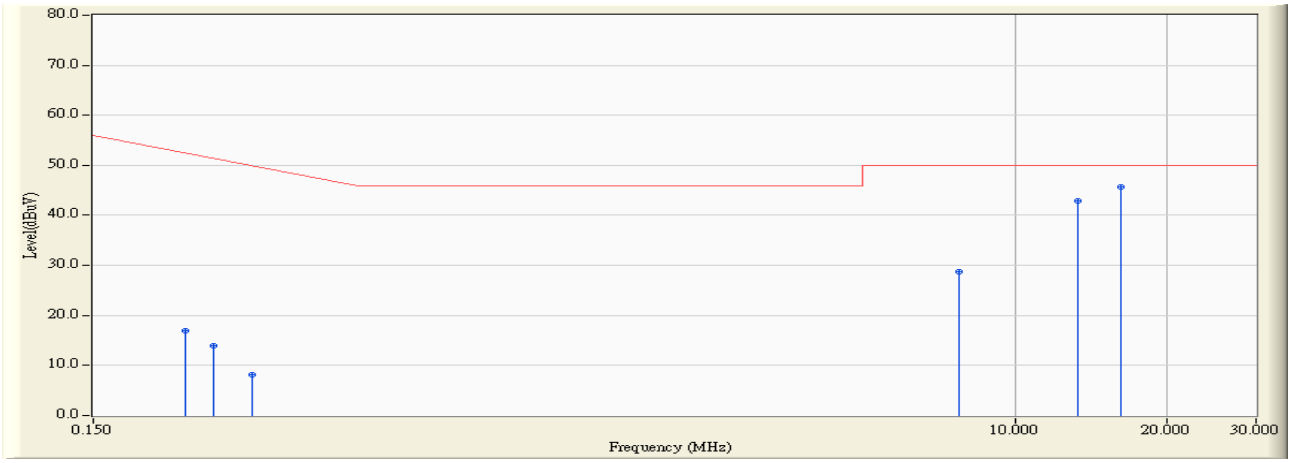


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.228	0.260	43.470	43.730	-20.041	63.771	QUASIPEAK
2		0.259	0.264	39.690	39.954	-22.932	62.886	QUASIPEAK
3		0.310	0.280	29.050	29.331	-32.098	61.429	QUASIPEAK
4		7.736	1.300	28.490	29.790	-30.210	60.000	QUASIPEAK
5		13.357	1.622	44.030	45.652	-14.348	60.000	QUASIPEAK
6	*	16.228	1.770	46.680	48.450	-11.550	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 Room2	Time : 2006/09/26 - 15:19
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

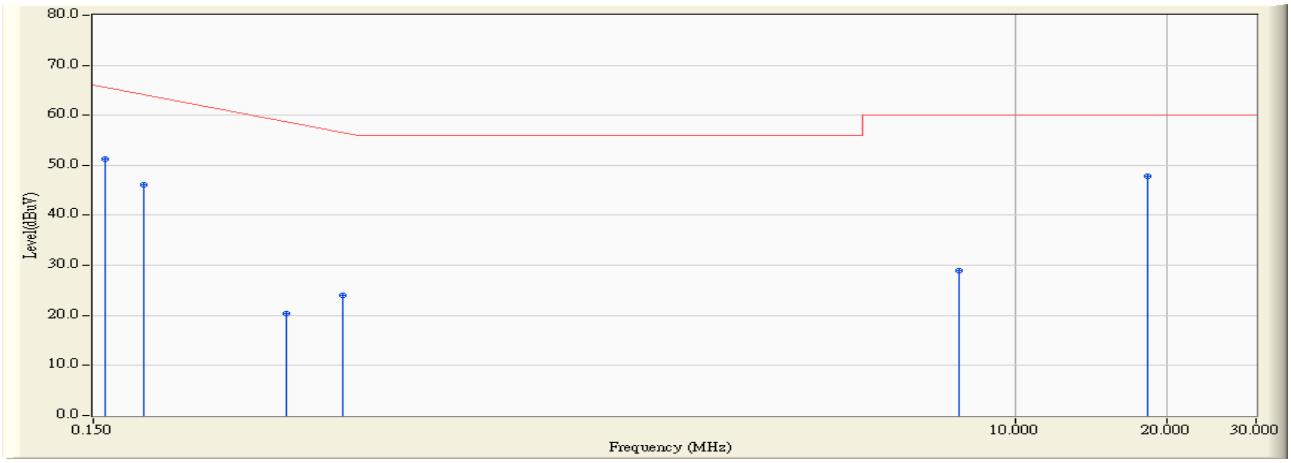


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.228	0.260	16.690	16.950	-36.821	53.771	AVERAGE
2		0.259	0.264	13.600	13.864	-39.022	52.886	AVERAGE
3		0.310	0.280	7.910	8.191	-43.238	51.429	AVERAGE
4		7.736	1.300	27.350	28.650	-21.350	50.000	AVERAGE
5		13.357	1.622	41.250	42.872	-7.128	50.000	AVERAGE
6	*	16.228	1.770	43.940	45.710	-4.290	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 Room2	Time : 2006/09/26 - 15:25
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

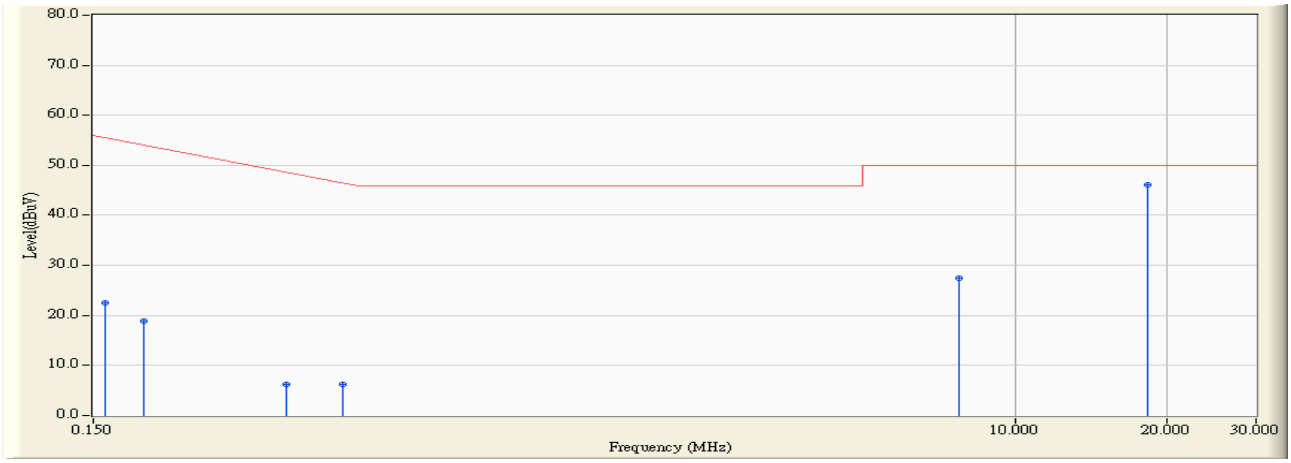


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	0.140	51.200	51.340	-14.431	65.771	QUASIPEAK
2		0.189	0.150	45.860	46.010	-18.876	64.886	QUASIPEAK
3		0.361	0.190	20.230	20.420	-39.551	59.971	QUASIPEAK
4		0.466	0.203	23.880	24.083	-32.888	56.971	QUASIPEAK
5		7.736	0.620	28.330	28.950	-31.050	60.000	QUASIPEAK
6	*	18.246	0.890	46.910	47.800	-12.200	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 Room2	Time : 2006/09/26 - 15:25
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

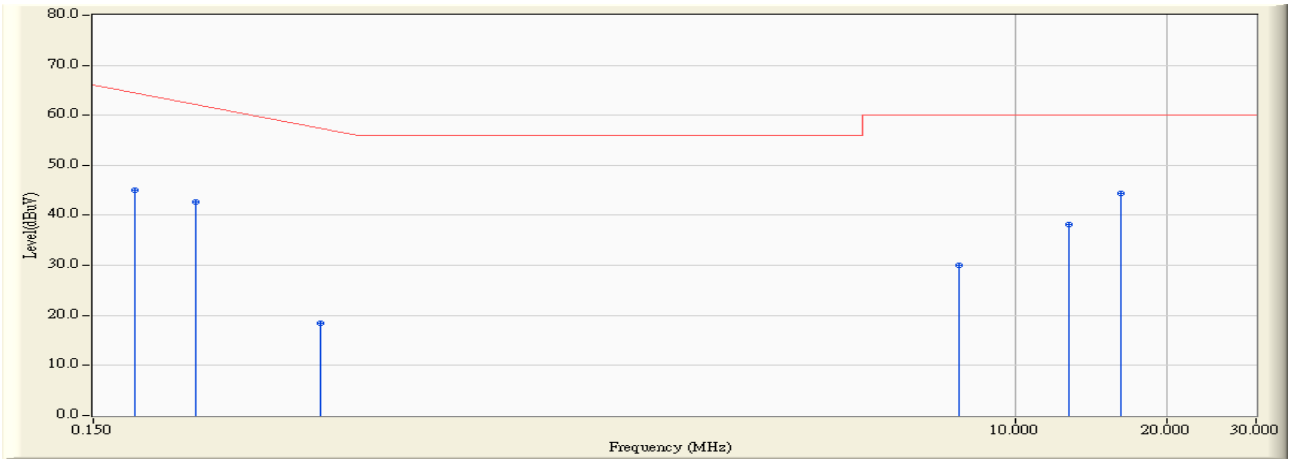


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	0.140	22.420	22.560	-33.211	55.771	AVERAGE
2		0.189	0.150	18.650	18.800	-36.086	54.886	AVERAGE
3		0.361	0.190	5.990	6.180	-43.791	49.971	AVERAGE
4		0.466	0.203	6.080	6.283	-40.688	46.971	AVERAGE
5		7.736	0.620	26.790	27.410	-22.590	50.000	AVERAGE
6	*	18.246	0.890	45.320	46.210	-3.790	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 Room2	Time : 2006/09/26 - 15:41
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

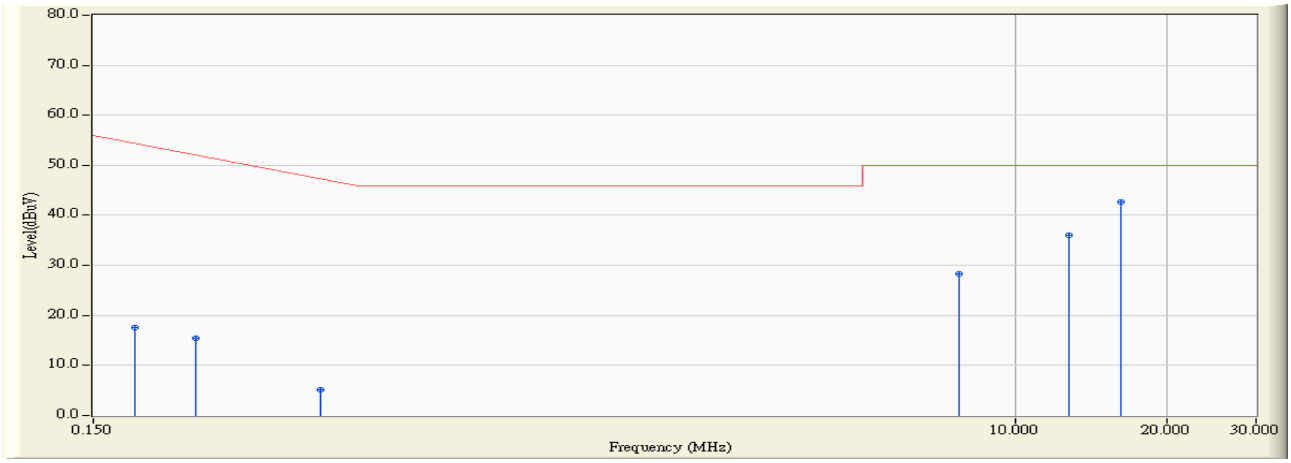


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.181	0.247	44.700	44.947	-20.167	65.114	QUASIPEAK
2		0.240	0.260	42.430	42.690	-20.739	63.429	QUASIPEAK
3		0.423	0.555	17.840	18.395	-39.805	58.200	QUASIPEAK
4		7.740	1.300	28.790	30.090	-29.910	60.000	QUASIPEAK
5		12.810	1.347	36.800	38.147	-21.853	60.000	QUASIPEAK
6	*	16.228	1.770	42.530	44.300	-15.700	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 Room2	Time : 2006/09/26 - 15:41
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line1
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

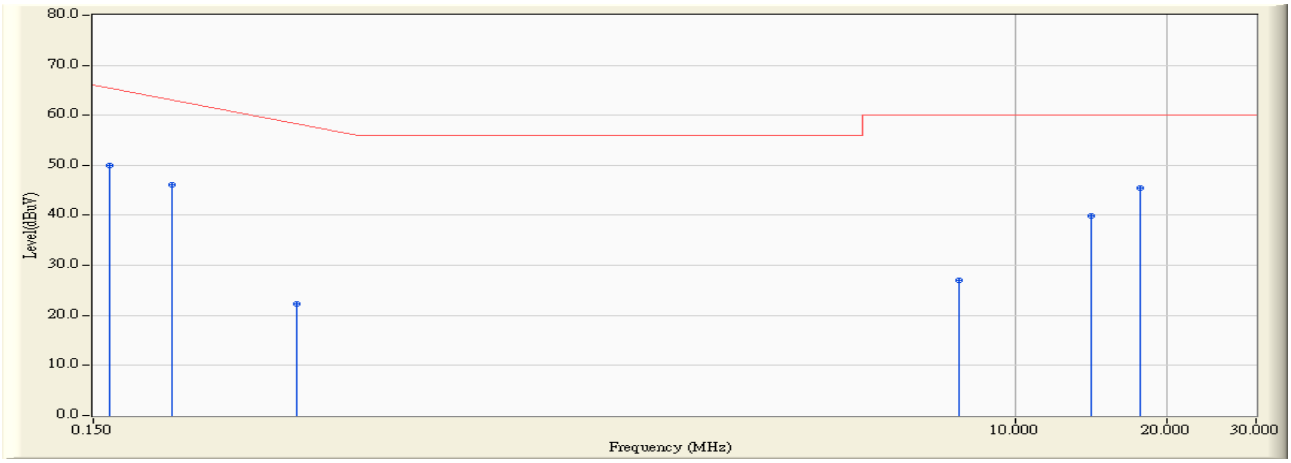


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.181	0.247	17.440	17.687	-37.427	55.114	AVERAGE
2		0.240	0.260	15.190	15.450	-37.979	53.429	AVERAGE
3		0.423	0.555	4.620	5.175	-43.025	48.200	AVERAGE
4		7.740	1.300	27.100	28.400	-21.600	50.000	AVERAGE
5		12.810	1.347	34.790	36.137	-13.863	50.000	AVERAGE
6	*	16.228	1.770	40.940	42.710	-7.290	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 Room2	Time : 2006/09/26 - 15:46
Limit : CISPR_B_00M_QP	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

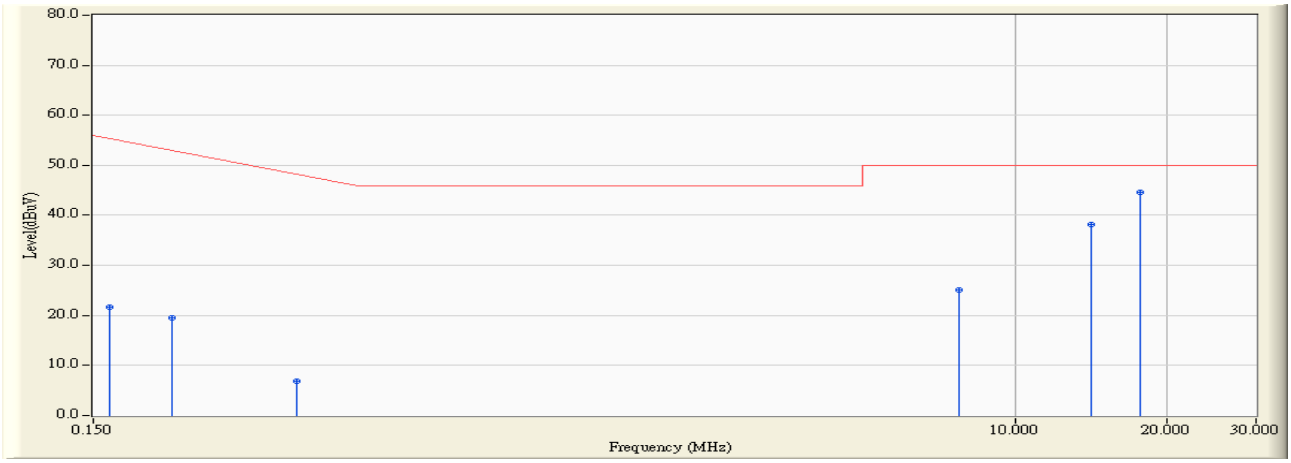


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	0.141	49.880	50.021	-15.636	65.657	QUASIPEAK
2		0.214	0.158	46.040	46.198	-17.973	64.171	QUASIPEAK
3		0.380	0.194	22.170	22.364	-37.065	59.429	QUASIPEAK
4		7.744	0.620	26.370	26.990	-33.010	60.000	QUASIPEAK
5		14.150	0.840	38.950	39.790	-20.210	60.000	QUASIPEAK
6	*	17.693	0.890	44.560	45.450	-14.550	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 Room2	Time : 2006/09/26 - 15:46
Limit : CISPR_B_00M_AV	Margin : 0
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : SR3_LISN(16A) - Line2
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.162	0.141	21.600	21.741	-33.916	55.657	AVERAGE
2		0.214	0.158	19.390	19.548	-34.623	54.171	AVERAGE
3		0.380	0.194	6.670	6.864	-42.565	49.429	AVERAGE
4		7.744	0.620	24.430	25.050	-24.950	50.000	AVERAGE
5		14.150	0.840	37.430	38.270	-11.730	50.000	AVERAGE
6	*	17.693	0.890	43.660	44.550	-5.450	50.000	AVERAGE

Note:

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

3.7. Test Photo

Test Mode ： Mode 1: Transmit
Description： Front View of Conducted Emission Test Setup

Test Mode ： Mode 1: Transmit
Description： Back View of Conducted Emission Test Setup

4. Radiated Emission

4.1. Test Equipment

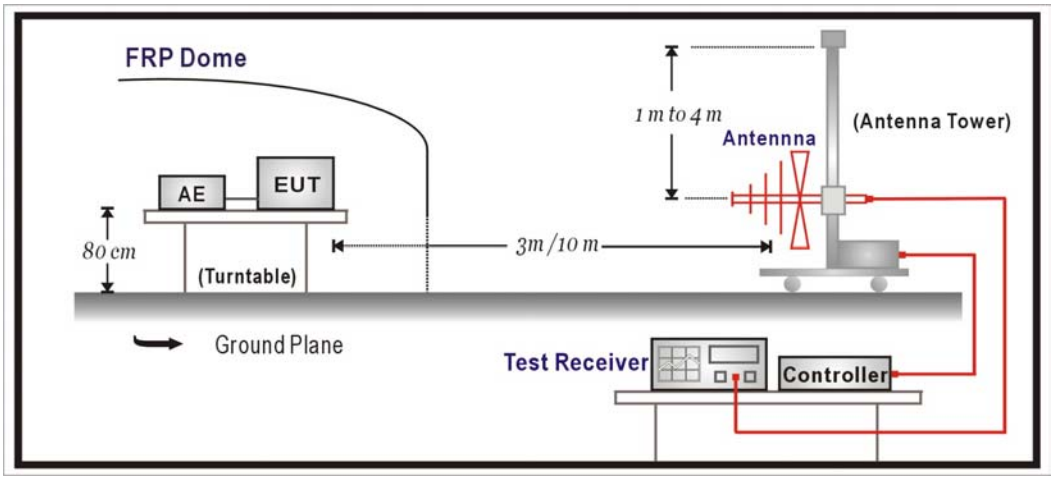
The following test equipment are used during the test:

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

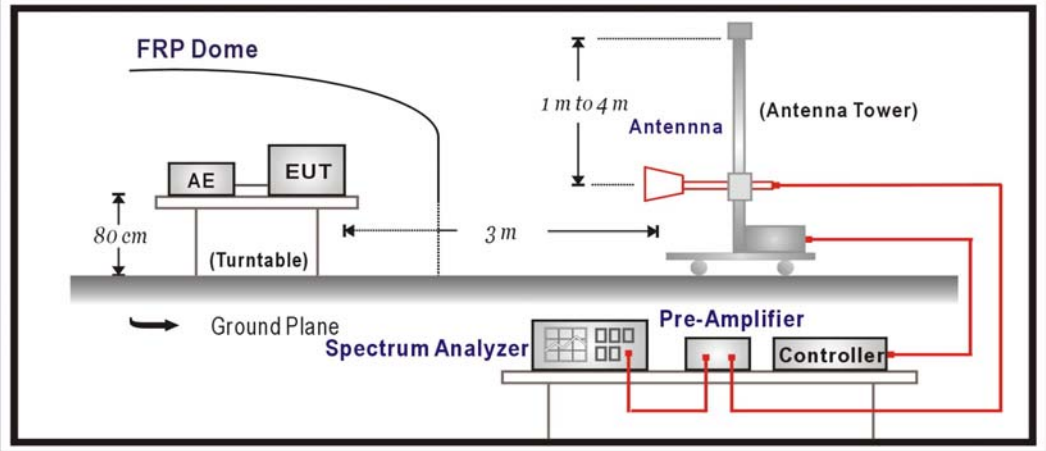
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.
2. Mark “X” test instruments are used to measure the final test results.

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

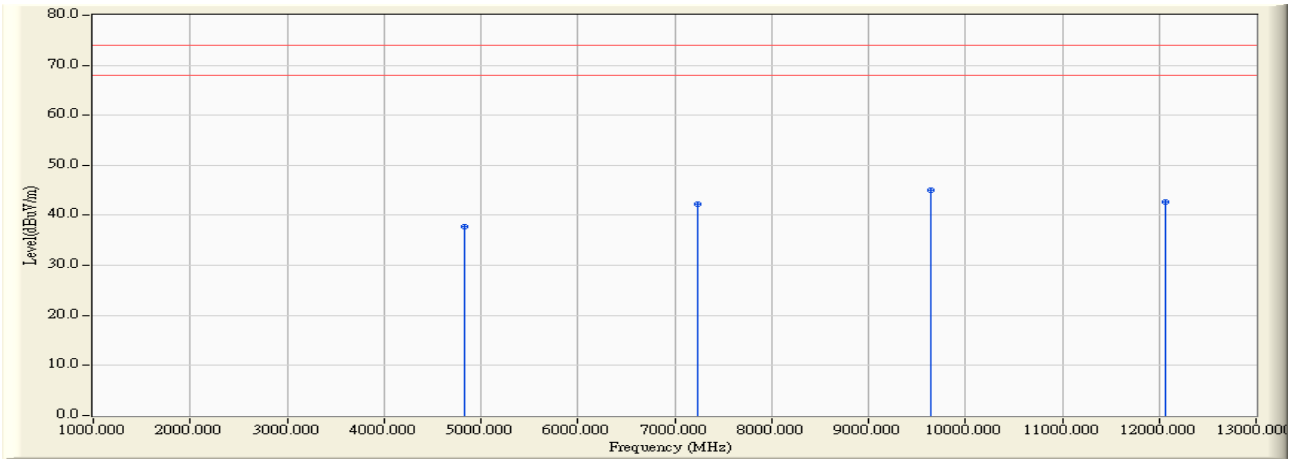
According to FCC Part 15 Subpart C Paragraph 15.247: 2004

4.6. Test Result

Harmonic & Spurious:

Site : Site 1	Time : 2006/09/19 - 17:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 1



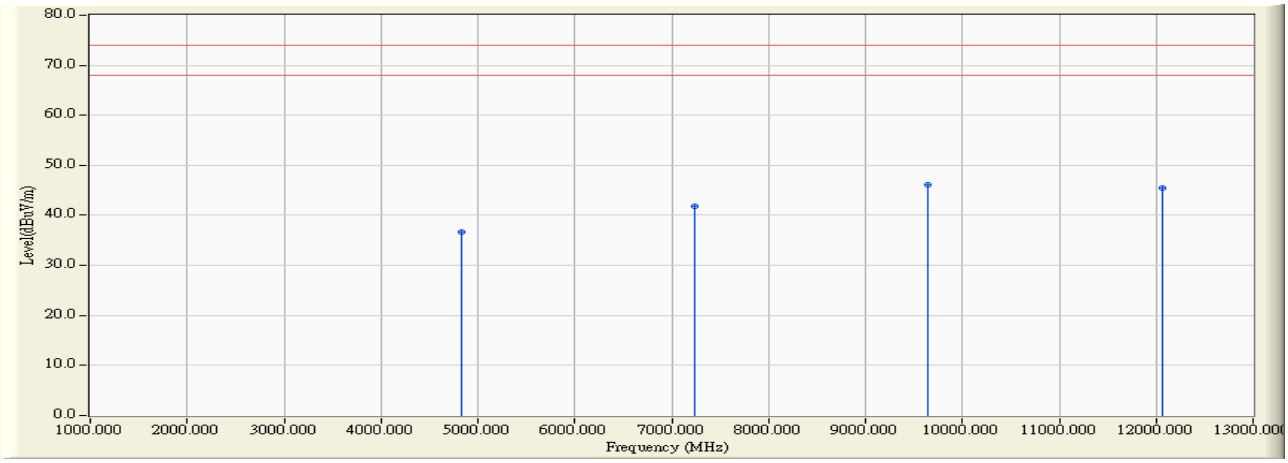
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4824.100	1.463	36.280	37.743	-36.257	74.000	PEAK	0.000	0.000
2		7235.700	6.853	35.400	42.253	-31.747	74.000	PEAK	0.000	0.000
3	*	9647.900	9.951	35.020	44.971	-29.029	74.000	PEAK	0.000	0.000
4		12059.900	10.195	32.540	42.735	-31.265	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:06
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 1



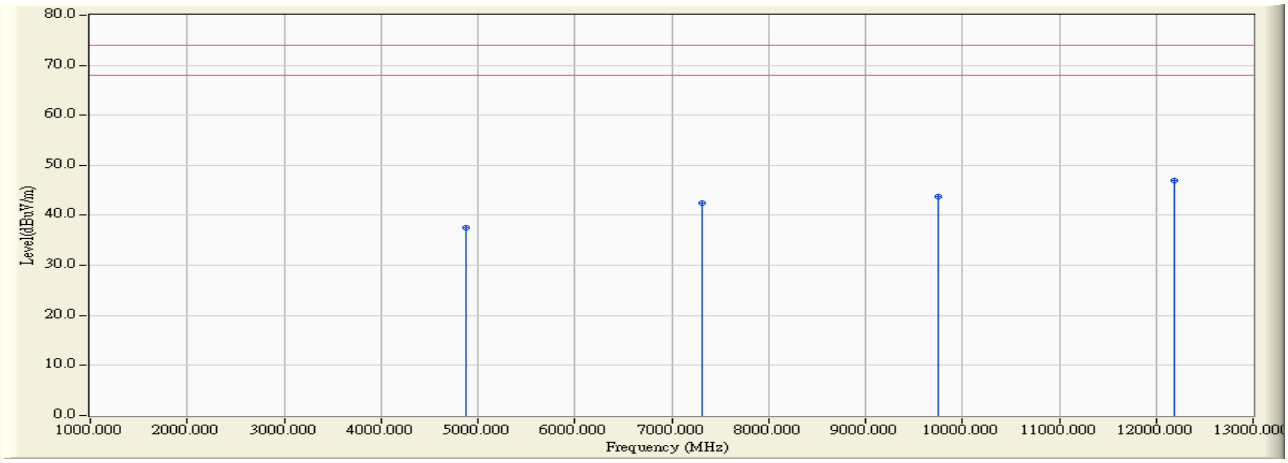
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4824.100	-0.288	36.950	36.661	-37.339	74.000	PEAK	0.000	0.000
2		7235.900	6.855	34.910	41.764	-32.236	74.000	PEAK	0.000	0.000
3	*	9648.300	11.950	34.200	46.150	-27.850	74.000	PEAK	0.000	0.000
4		12059.900	12.369	33.000	45.369	-28.631	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:06
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 6



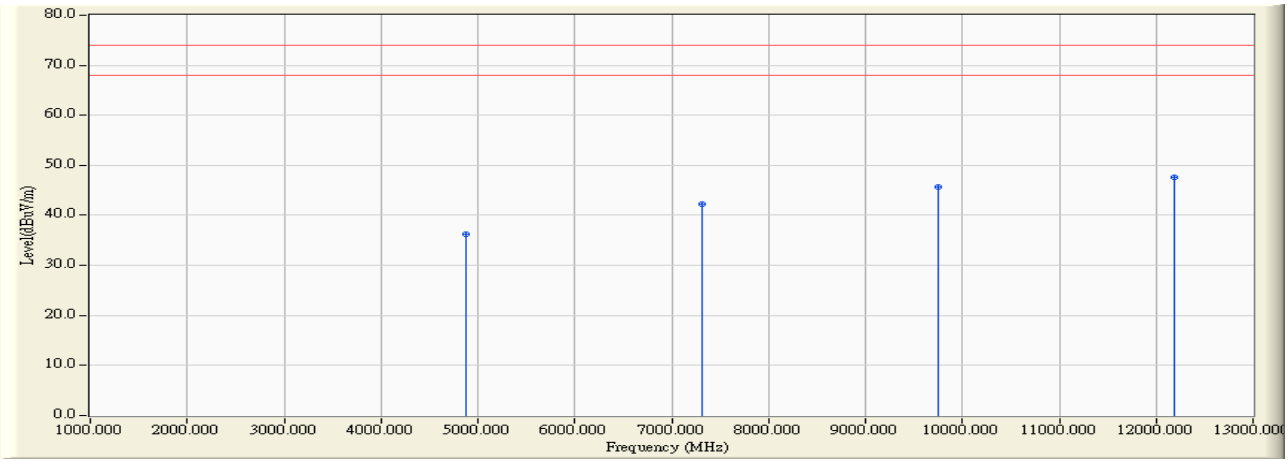
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4873.500	1.664	35.910	37.573	-36.427	74.000	PEAK	0.000	0.000
2		7311.100	7.336	35.050	42.386	-31.614	74.000	PEAK	0.000	0.000
3		9747.700	9.727	34.040	43.767	-30.233	74.000	PEAK	0.000	0.000
4	*	12184.500	14.065	32.930	46.995	-27.005	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:07
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	N Note : Mode 1: Transmit (802.11b)

Channel 6



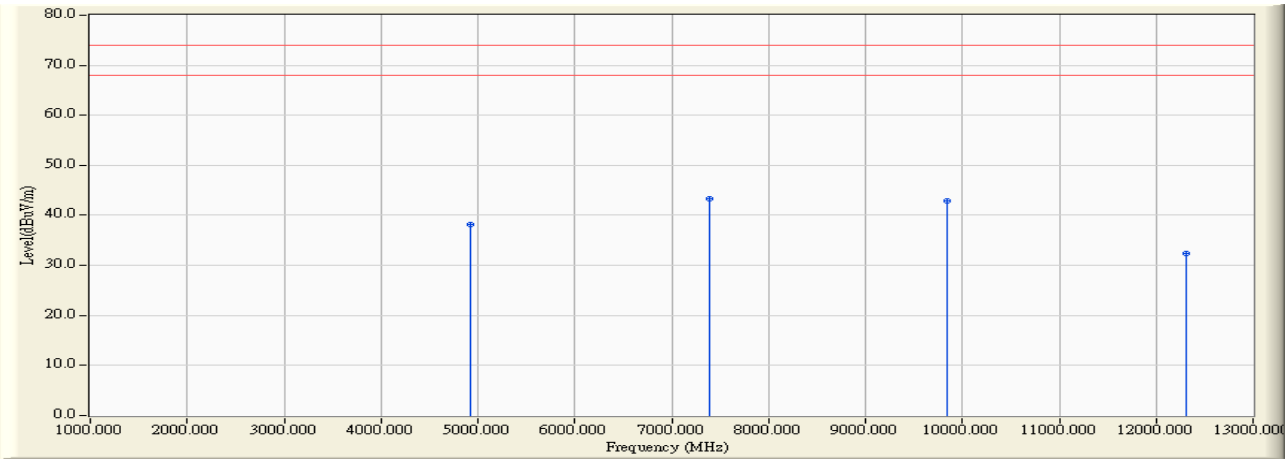
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4873.700	0.010	36.190	36.200	-37.800	74.000	PEAK	0.000	0.000
2		7310.900	7.334	34.930	42.264	-31.736	74.000	PEAK	0.000	0.000
3		9747.500	11.728	33.880	45.607	-28.393	74.000	PEAK	0.000	0.000
4	*	12184.100	14.381	33.140	47.520	-26.480	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:07
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 11



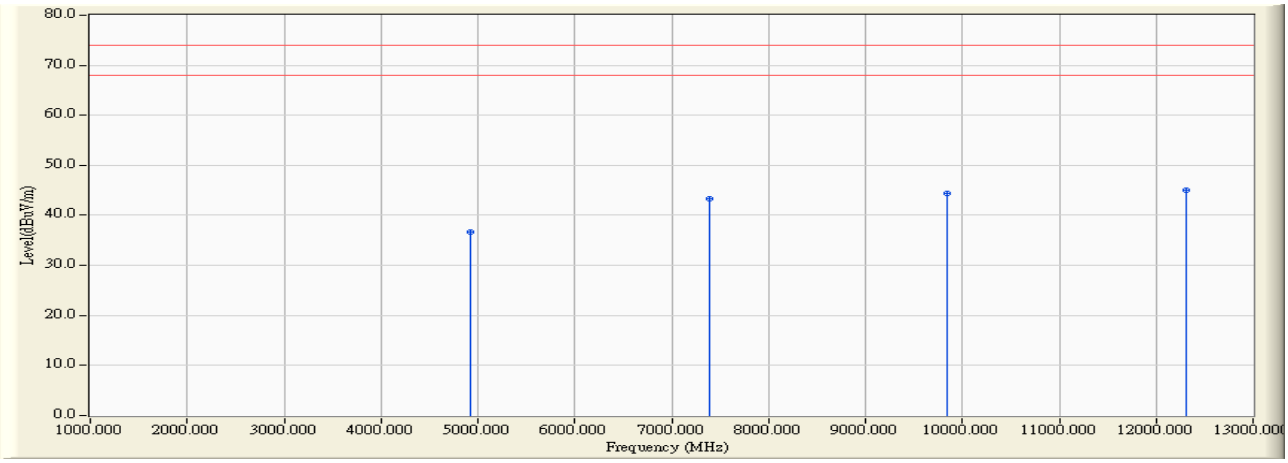
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4924.300	1.861	36.290	38.151	-35.849	74.000	PEAK	0.000	0.000
2	*	7385.500	7.815	35.420	43.234	-30.766	74.000	PEAK	0.000	0.000
3		9847.100	9.807	33.000	42.807	-31.193	74.000	PEAK	0.000	0.000
4		12309.700	0.636	31.790	32.426	-41.574	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:08
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 11



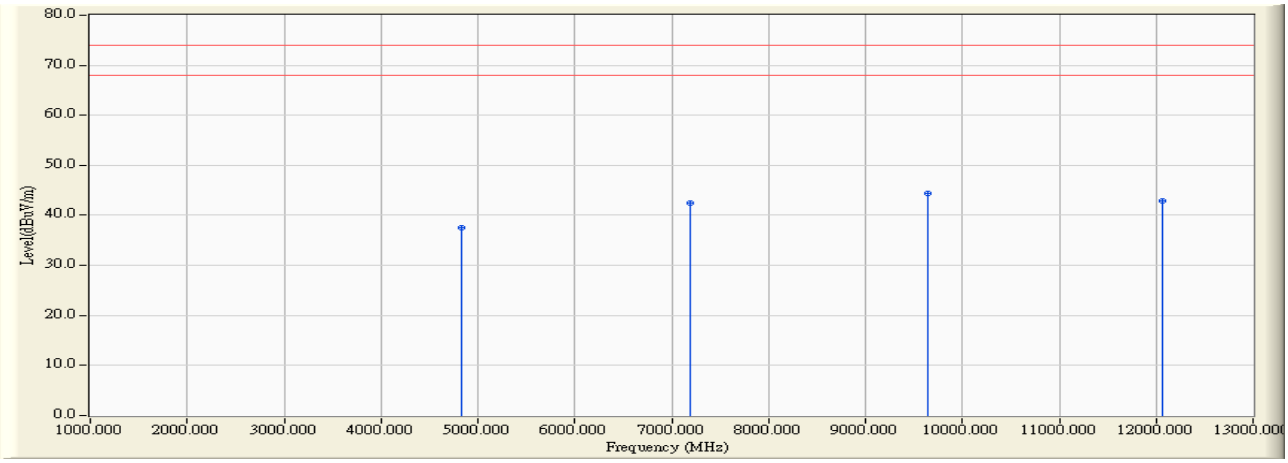
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4923.500	0.310	36.300	36.610	-37.390	74.000	PEAK	0.000	0.000
2		7385.500	7.815	35.430	43.244	-30.756	74.000	PEAK	0.000	0.000
3		9847.490	11.334	33.090	44.424	-29.576	74.000	PEAK	0.000	0.000
4	*	12308.900	12.307	32.720	45.027	-28.973	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:10
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 1



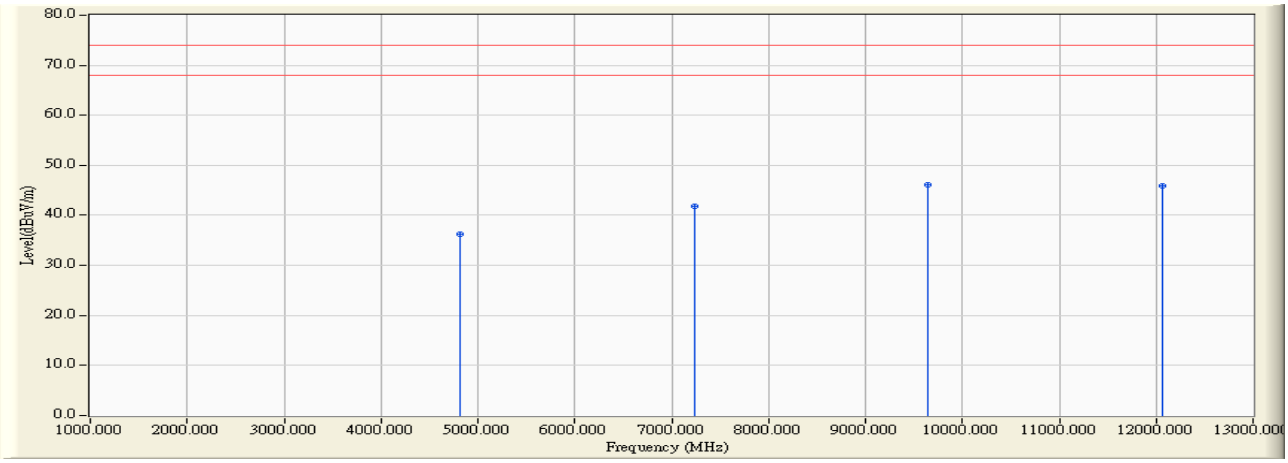
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4824.100	1.463	36.070	37.533	-36.467	74.000	PEAK	0.000	0.000
2		7186.000	6.479	36.010	42.489	-31.511	74.000	PEAK	0.000	0.000
3	*	9647.500	9.952	34.500	44.452	-29.548	74.000	PEAK	0.000	0.000
4		12059.700	10.178	32.620	42.797	-31.203	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:10
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 1



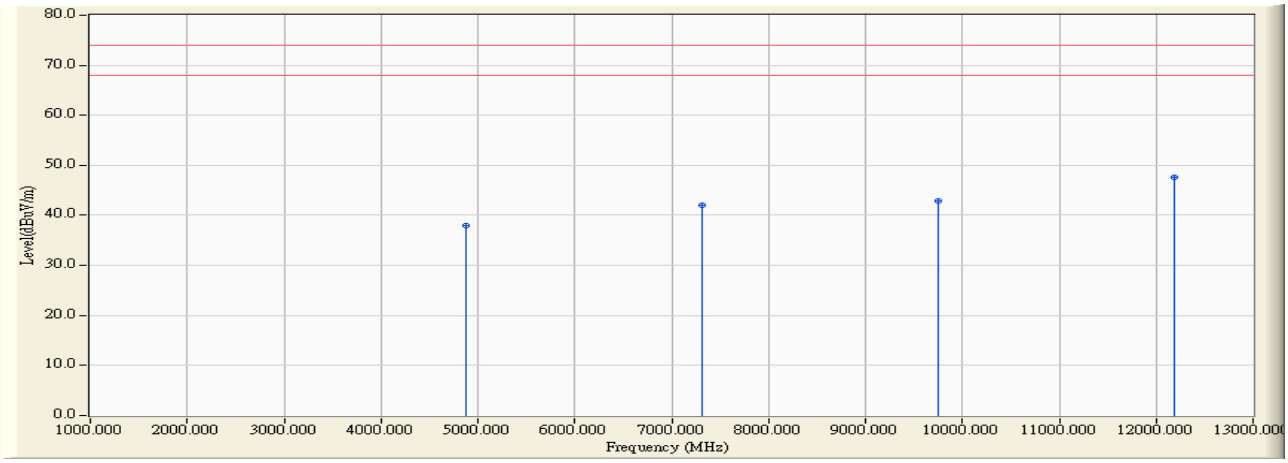
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4823.500	-0.292	36.500	36.208	-37.792	74.000	PEAK	0.000	0.000
2		7235.700	6.853	34.950	41.803	-32.197	74.000	PEAK	0.000	0.000
3	*	9647.700	11.952	34.170	46.122	-27.878	74.000	PEAK	0.000	0.000
4		12059.600	12.364	33.630	45.994	-28.006	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:11
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 6



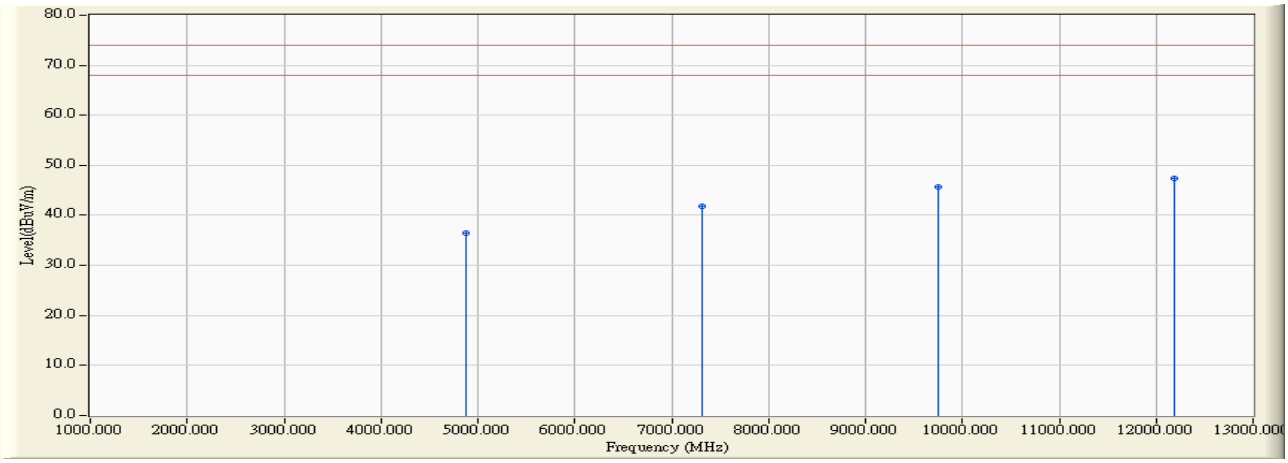
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4874.300	1.667	36.340	38.007	-35.993	74.000	PEAK	0.000	0.000
2		7311.100	7.336	34.690	42.026	-31.974	74.000	PEAK	0.000	0.000
3		9748.100	9.726	33.210	42.936	-31.064	74.000	PEAK	0.000	0.000
4	*	12185.100	14.068	33.580	47.648	-26.352	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:12
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 6



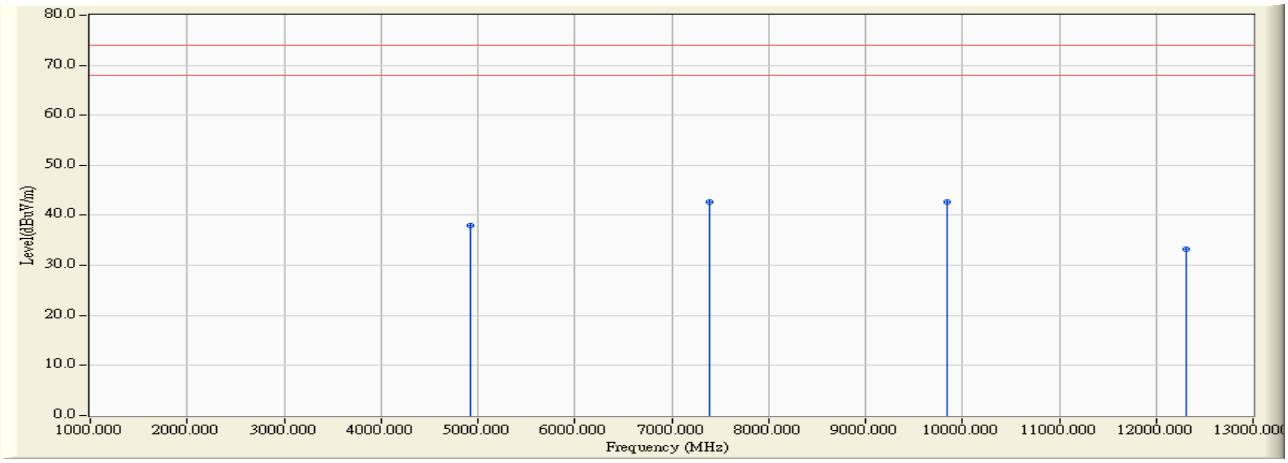
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4874.100	0.012	36.390	36.402	-37.598	74.000	PEAK	0.000	0.000
2		7311.100	7.336	34.550	41.886	-32.114	74.000	PEAK	0.000	0.000
3		9748.100	11.726	34.050	45.776	-28.224	74.000	PEAK	0.000	0.000
4	*	12185.100	14.397	32.930	47.326	-26.674	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:12
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 11



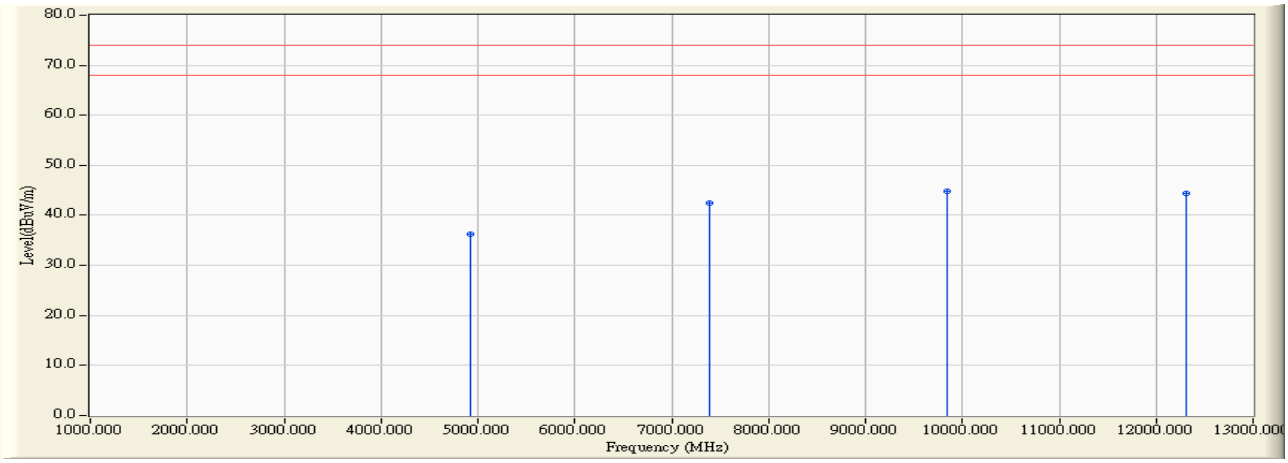
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		4923.600	1.858	36.110	37.968	-36.032	74.000	PEAK	0.000	0.000
2	*	7386.100	7.818	34.930	42.748	-31.252	74.000	PEAK	0.000	0.000
3		9848.100	9.811	32.870	42.681	-31.319	74.000	PEAK	0.000	0.000
4		12310.100	0.703	32.550	33.253	-40.747	74.000	PEAK	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
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 : Site 1	Time : 2006/09/19 - 17:13
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
EUT : 802.11G Wireless ADSL 2+4port Gateway	Probe : RF_1G-18G(2005-3) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 11



		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		4924.100	0.313	36.000	36.313	-37.687	74.000	PEAK	0.000	0.000
2		7386.100	7.818	34.680	42.498	-31.502	74.000	PEAK	0.000	0.000
3	*	9847.300	11.334	33.390	44.725	-29.275	74.000	PEAK	0.000	0.000
4		12310.100	12.281	32.160	44.441	-29.559	74.000	PEAK	0.000	0.000

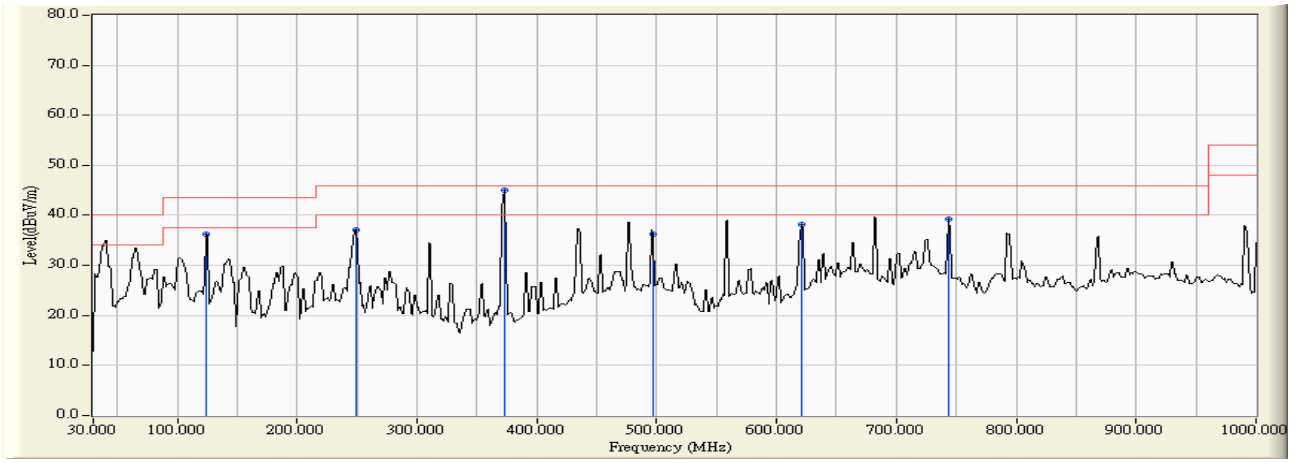
Note:

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

30MHz-1GHz Spurious:

Site : Site 1	Time : 2006/09/19 - 09:47
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : 802.11g Wireless ADSL 2+4 port Gateway	Probe : RF_30-1G(2005) - HORIZONTAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 6



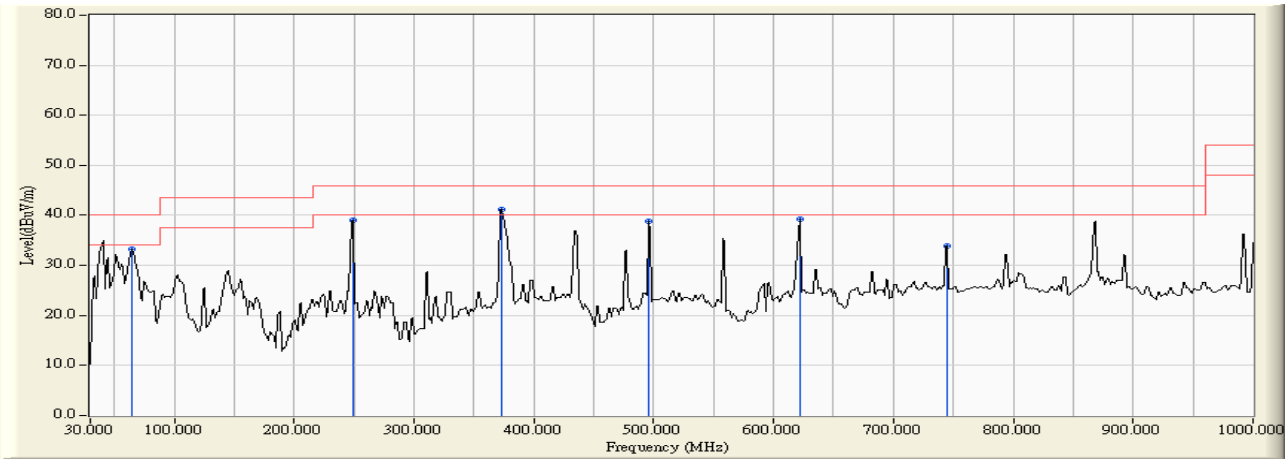
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		124.229	-5.578	41.800	36.222	-7.278	43.500	PEAK	0.000	0.000
2		248.943	-5.856	42.900	37.045	-8.955	46.000	PEAK	0.000	0.000
3	*	373.657	-5.501	50.600	45.099	-0.901	46.000	PEAK	0.000	0.000
4		496.986	2.073	34.100	36.173	-9.827	46.000	PEAK	0.000	0.000
5		620.314	1.340	36.900	38.241	-7.759	46.000	PEAK	0.000	0.000
6		743.643	4.409	34.900	39.310	-6.690	46.000	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

Site : Site 1	Time : 2006/09/19 - 09:51
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : 802.11g Wireless ADSL 2+4 port Gateway	Probe : RF_30-1G(2005) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11b)

Channel 6



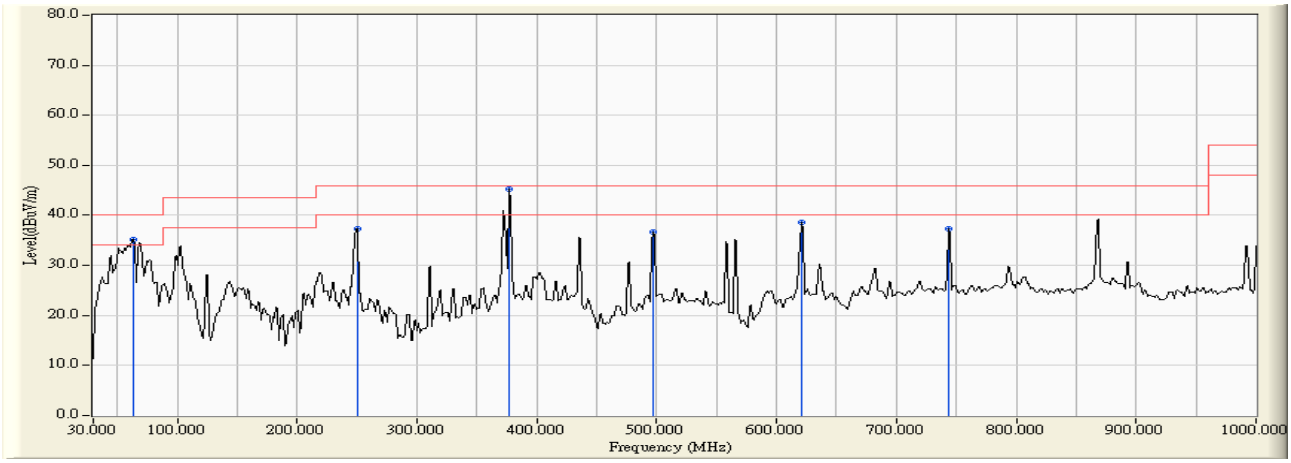
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		64.643	-6.048	39.200	33.151	-6.849	40.000	PEAK	0.000	0.000
2		248.943	-4.077	43.200	39.123	-6.877	46.000	PEAK	0.000	0.000
3	*	373.657	-0.922	42.100	41.178	-4.822	46.000	PEAK	0.000	0.000
4		495.600	-0.730	39.500	38.770	-7.230	46.000	PEAK	0.000	0.000
5		621.700	1.653	37.500	39.153	-6.847	46.000	PEAK	0.000	0.000
6		745.029	1.889	32.000	33.888	-12.112	46.000	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

Site : Site 1	Time : 2006/09/22 - 18:36
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : 802.11g Wireless ADSL 2+4 port Gateway	Probe : RF_30-1G(2005) - VERTICAL
Power : AC 120V/60Hz	Note : Mode 1: Transmit (802.11g)

Channel 6



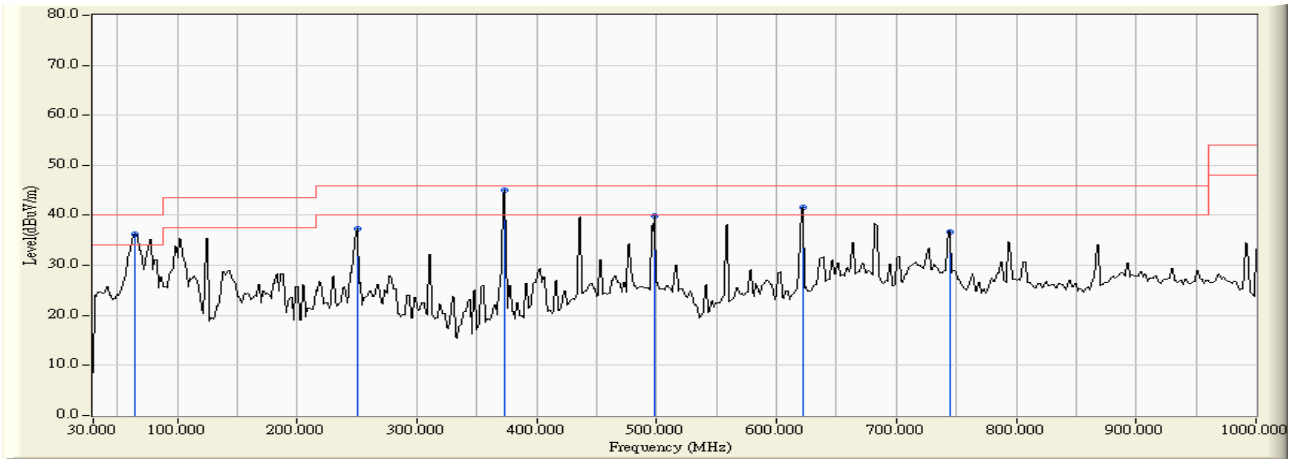
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type	Ant Pos (cm)	Table Pos (deg)
1		63.257	-5.625	40.800	35.176	-4.824	40.000	PEAK	0.000	0.000
2		250.329	-4.054	41.400	37.346	-8.654	46.000	PEAK	0.000	0.000
3	*	376.429	-0.747	45.900	45.153	-0.847	46.000	PEAK	0.000	0.000
4		496.986	-0.582	37.200	36.617	-9.383	46.000	PEAK	0.000	0.000
5		620.314	1.452	37.100	38.552	-7.448	46.000	PEAK	0.000	0.000
6		743.643	1.855	35.500	37.356	-8.644	46.000	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

Site : Site 1	Time : 2006/09/22 - 18:40
Limit : FCC_CLASS_B_03M_QP	Margin : 6
EUT : 802.11g Wireless ADSL 2+4 port Gateway	Probe : RF_30-1G(2005) - HORIZONTAL
Power : AC 120V/60Hz	Note : Note : Mode 1: Transmit (802.11g)

Channel 6



		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		64.643	-1.368	37.600	36.231	-3.769	40.000	PEAK	0.000	0.000
2		250.329	-5.690	43.000	37.310	-8.690	46.000	PEAK	0.000	0.000
3	*	373.657	-5.501	50.600	45.099	-0.901	46.000	PEAK	0.000	0.000
4		498.371	2.097	37.800	39.897	-6.103	46.000	PEAK	0.000	0.000
5		621.700	1.523	40.000	41.523	-4.477	46.000	PEAK	0.000	0.000
6		745.029	4.260	32.500	36.760	-9.240	46.000	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

5. Band Edge

5.1. Test Equipment

The following test equipment are used during the test:

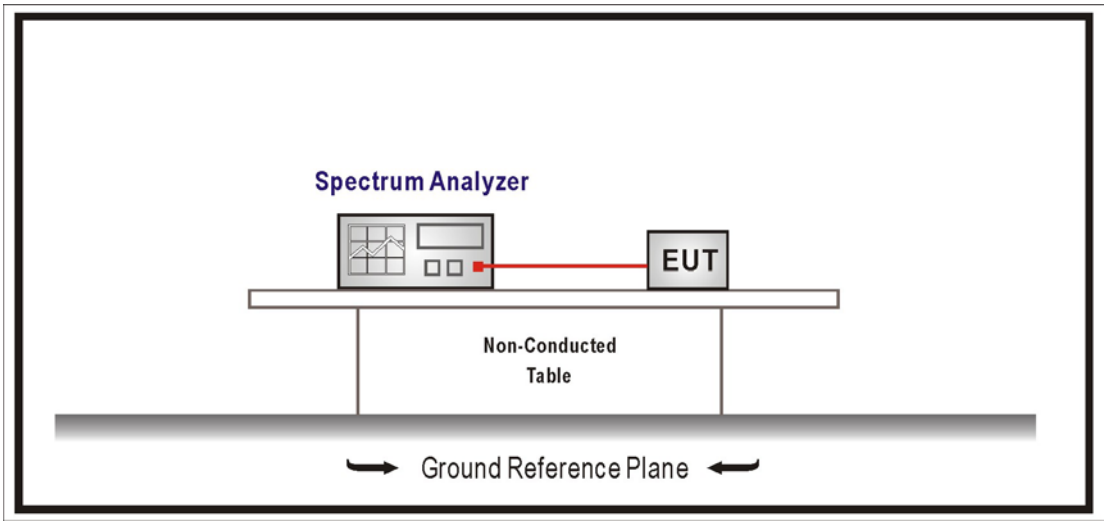
RF Conducted Measurement:					
Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer		R & S	FSP / 100561	Mar., 2006
2	No.1 OATS				Sep., 2006
RF Radiated Measurement:					
Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	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.

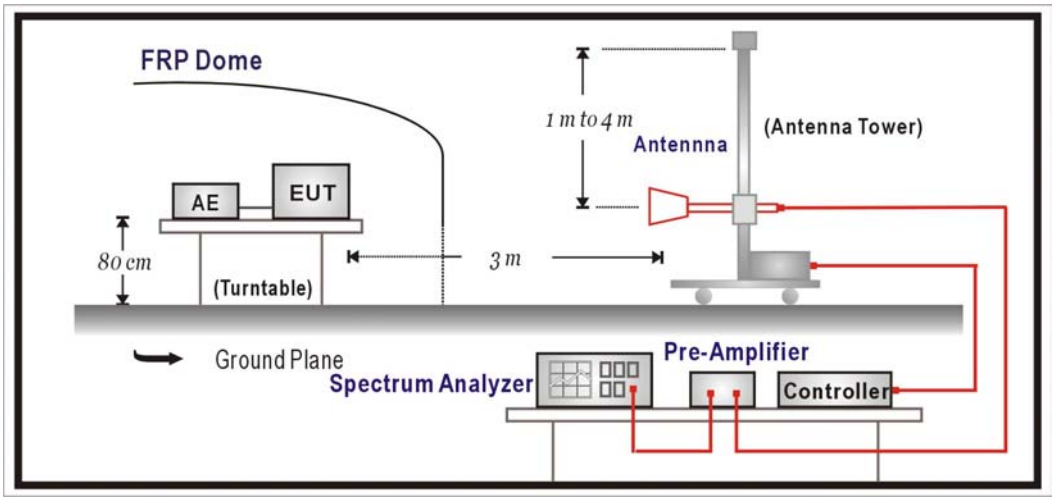
2. Mark “X” test instruments are used to measure the final test results.

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: 2004

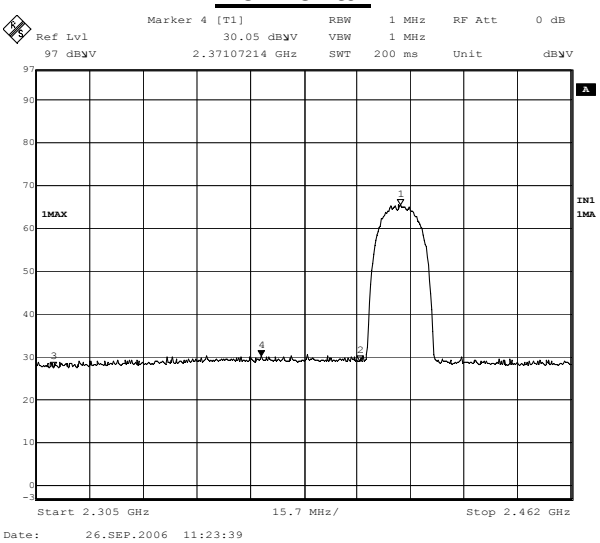
5.6. Test Result

Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

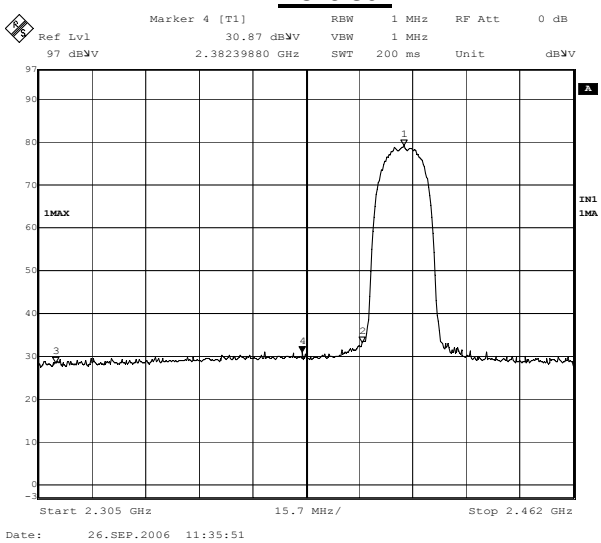
RF Radiated Measurement: (Peak Detector)

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)	2371.072	30.050	24.413	3.913	0.00	58.375	74	Pass
1(Vertical)	2382.400	30.870	22.849	3.919	0.00	57.638	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.

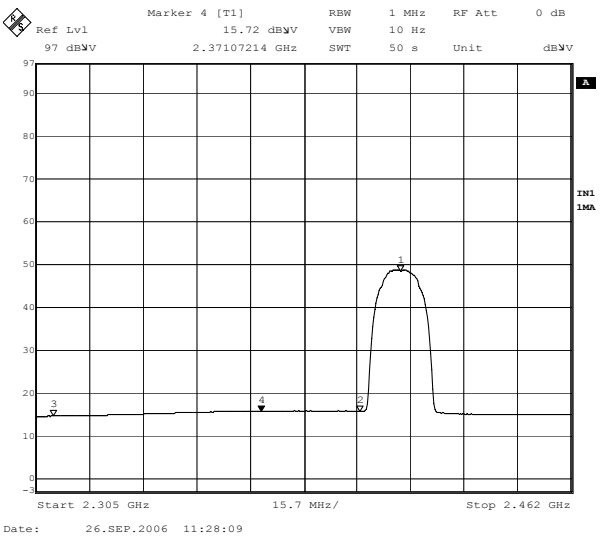
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

RF Radiated Measurement: (Average Detector)

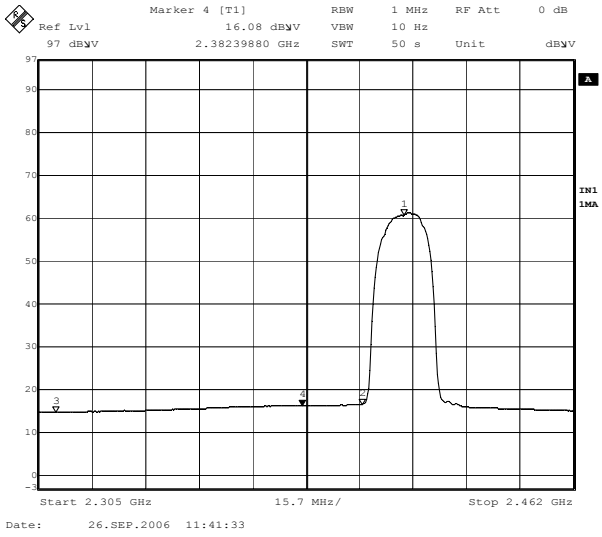
IEEE 802.11b

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)	2371.070	15.720	24.413	3.913	0.00	44.045	54	Pass
1(Vertical)	2382.400	16.080	22.849	3.919	0.00	42.848	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.

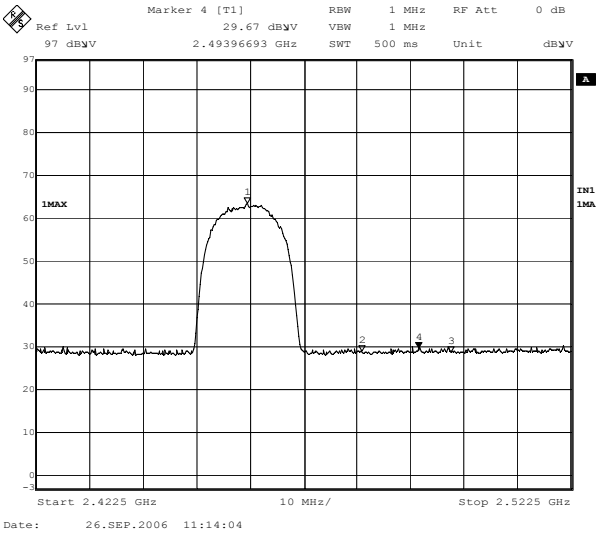
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

RF Radiated Measurement: (Peak Detector)

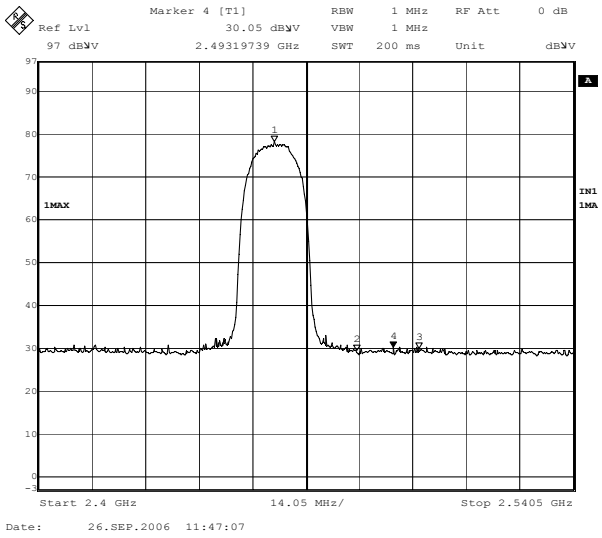
IEEE 802.11b

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)	2493.970	29.670	24.745	4.001	0.00	58.416	74	Pass
11(Vertical)	2493.200	30.050	23.143	4.001	0.00	57.194	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.

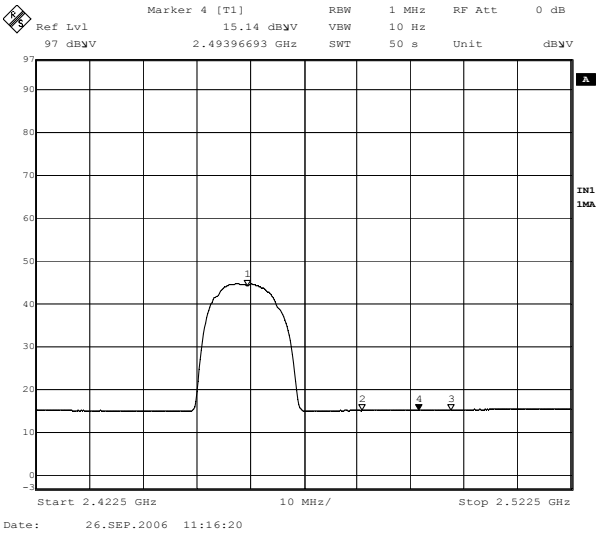
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

RF Radiated Measurement: (Average Detector)

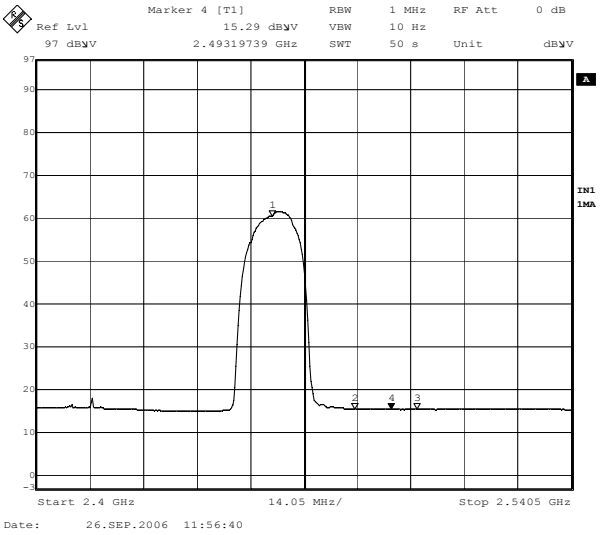
IEEE 802.11b

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)	2493.970	15.140	24.745	4.001	0.00	43.886	54	Pass
11(Vertical)	2493.200	15.290	23.143	4.001	0.00	42.434	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.

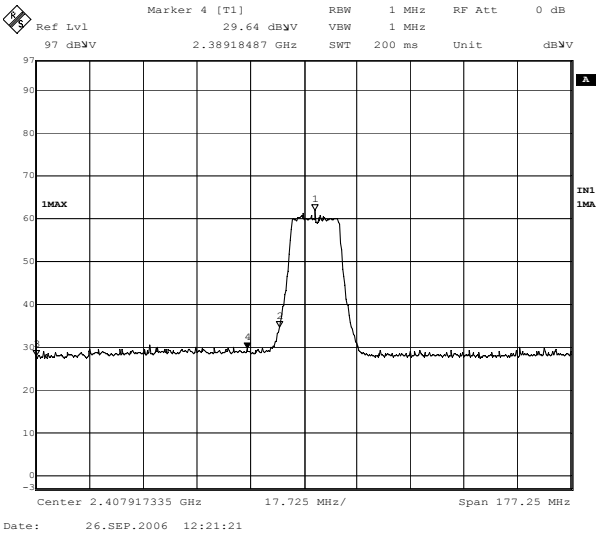
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

RF Radiated Measurement: (Peak Detector)

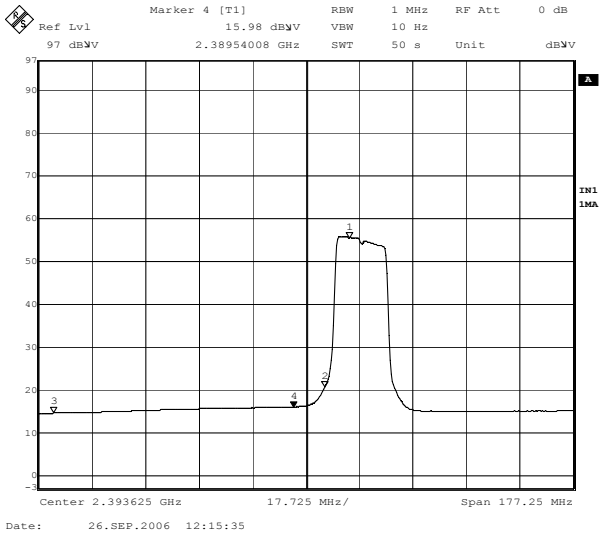
IEEE 802.11g

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)	2389.180	29.640	24.473	3.920	0.00	58.033	74	Pass
1(Vertical)	2389.540	28.500	22.874	3.920	0.00	55.294	74	Pass

Horizontal



Vertical



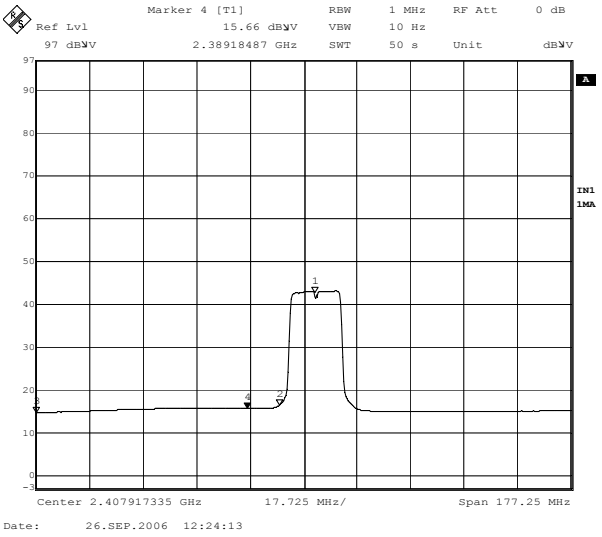
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

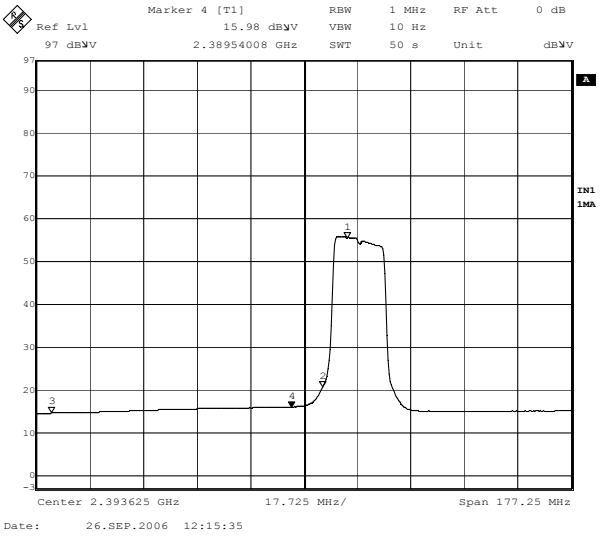
RF Radiated Measurement: (Average Detector)

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)	2389.180	15.660	24.473	3.920	0.00	44.053	54	Pass
1(Vertical)	2389.540	15.980	22.874	3.920	0.00	42.774	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.

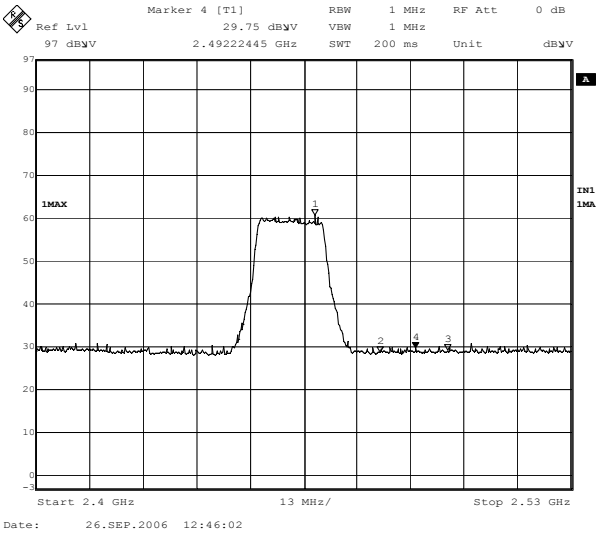
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

RF Radiated Measurement: (Peak Detector)

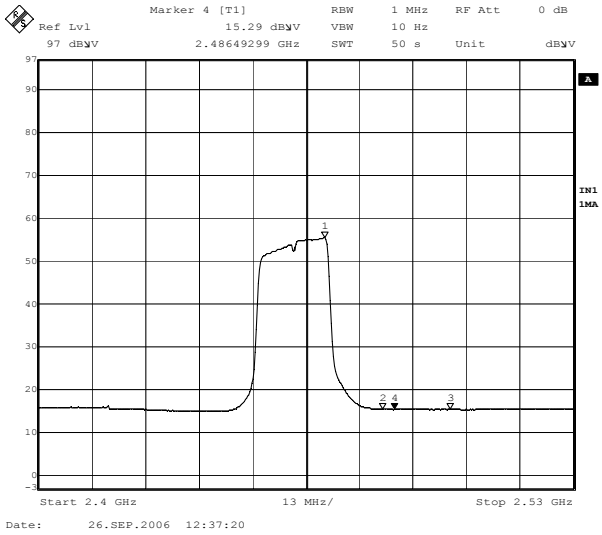
IEEE 802.11g

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)	2492.220	29.750	24.741	4.000	0.00	58.491	74	Pass
11(Vertical)	2486.490	30.460	23.128	3.994	0.00	57.582	74	Pass

Horizontal



Vertical



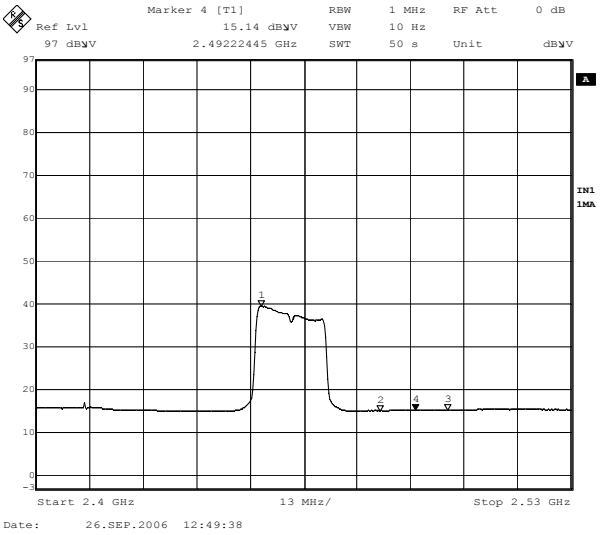
Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Band Edge		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

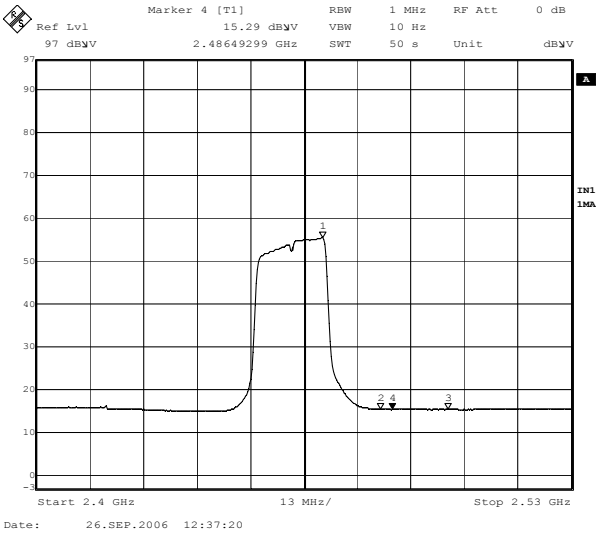
RF Radiated Measurement: (Average Detector)

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)	2492.220	15.140	24.	4.000	0.00	43.881	54	Pass
11(Vertical)	2486.490	15.290	23.128	3.994	0.00	42.412	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

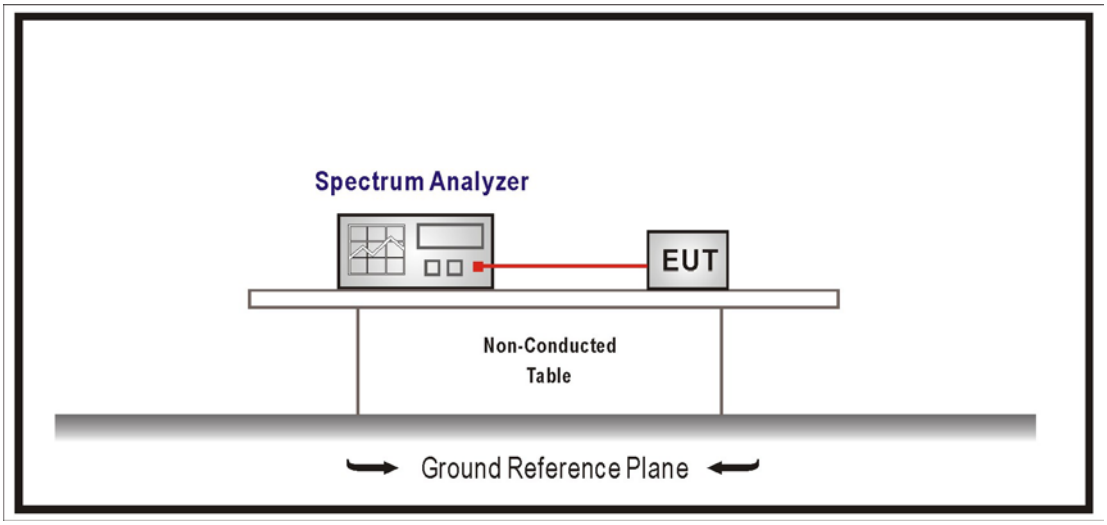
6.1. Test Equipment

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

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

For frequency hopping systems operating in the 5725-5850 MHz bands. The maximum 20 dB bandwidth of the hopping channel is 1 MHz.

For frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

6.4. Test Specification

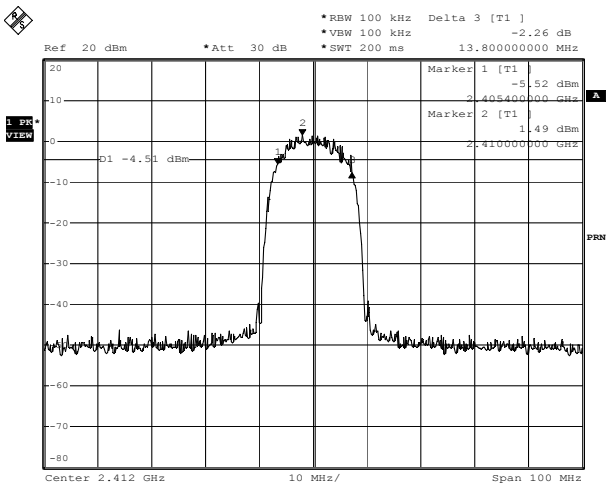
According to FCC Part 15 Subpart C Paragraph 15.247: 2004

6.5. Test Result

Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

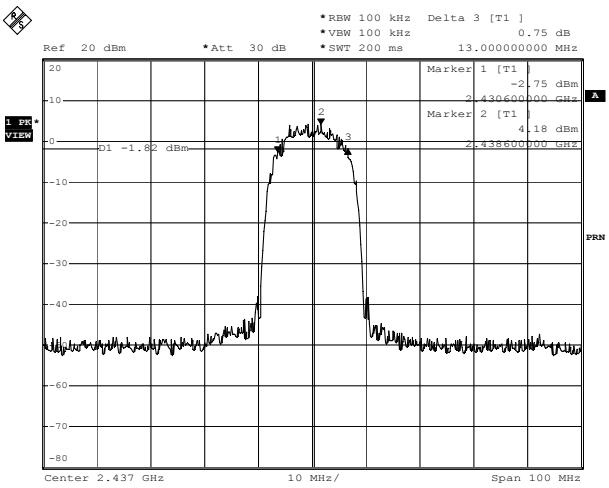
IEEE 802.22 b				
Channel No.	Frequency (MHz)	Measure Level (KHz)	Limit (MHz)	Result
1	2412.00	13800	＞500	Pass
6	2437.00	13000	＞500	Pass
11	2462.00	13000	＞500	Pass

Channel 1



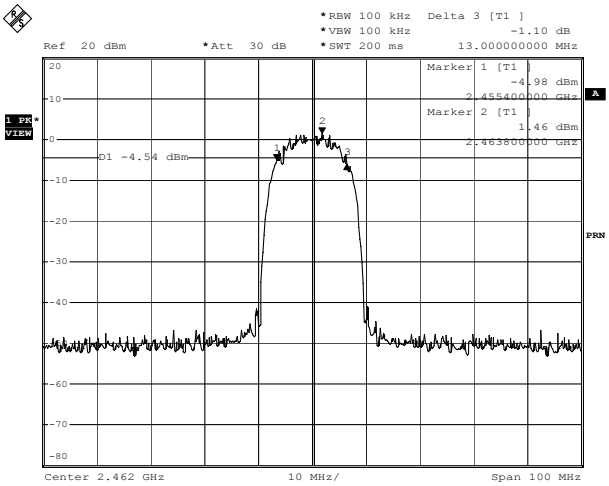
Date: 26.SEP.2006 02:13:55

Channel 6



Date: 26.SEP.2006 02:21:48

Channel 11

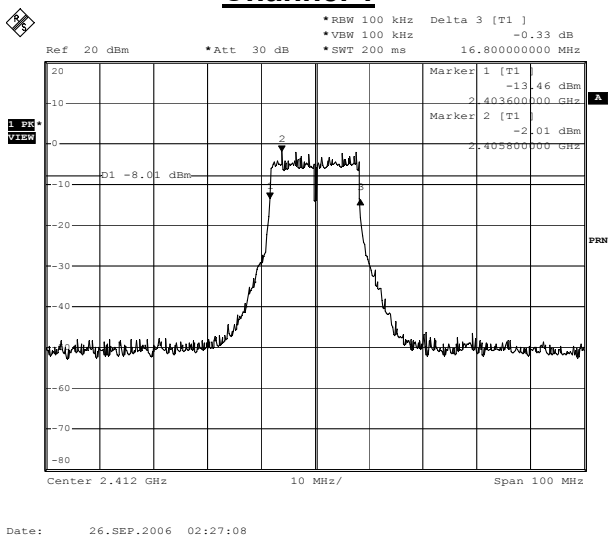


Date: 26.SEP.2006 02:17:31

Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

IEEE 802.22 g				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412.00	16800	＞500	Pass
6	2437.00	16800	＞500	Pass
11	2462.00	16800	＞500	Pass

Channel 1



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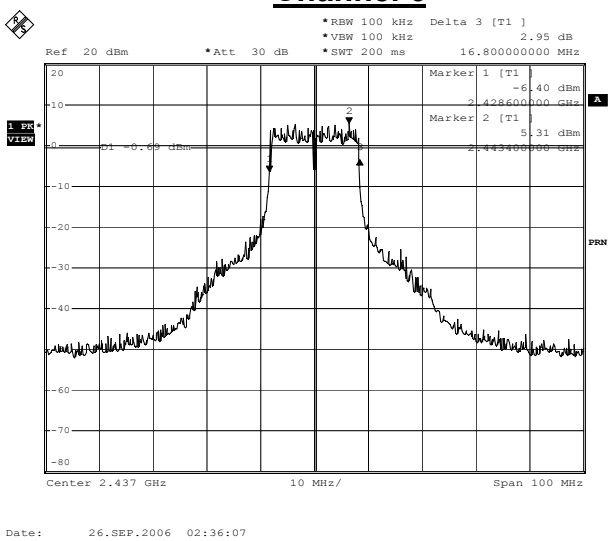
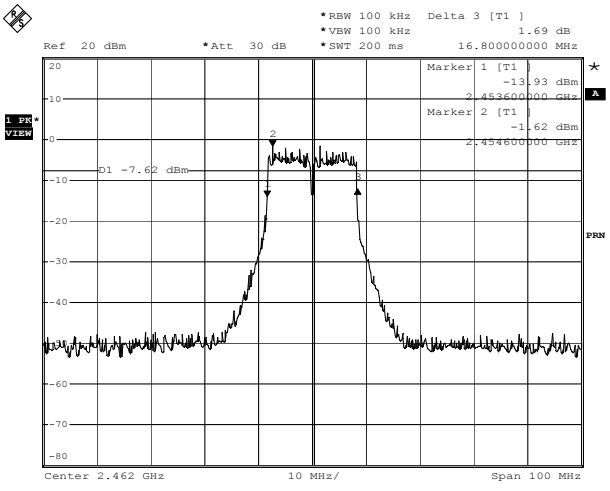
Channel 6



Date: 26.SEP.2006 02:36:07

Channel 11



Date: 26.SEP.2006 02:31:45

7. Dwell Time

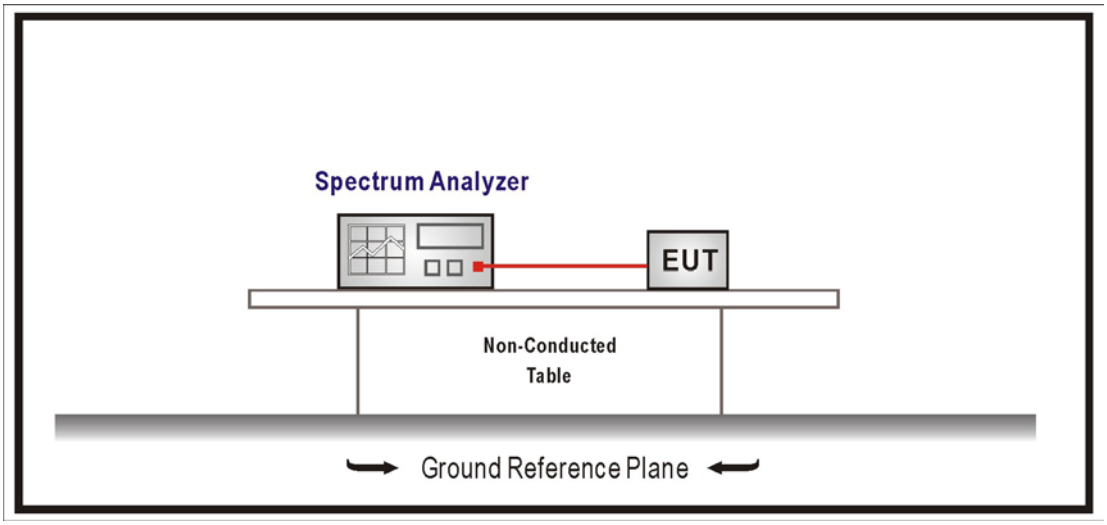
7.1. Test Equipment

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

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.
For frequency hopping systems operating in the 2400-2483.5 MHz bands. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.
For frequency hopping systems operating in the 5725-5850 MHz bands. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

7.4. Test Specification

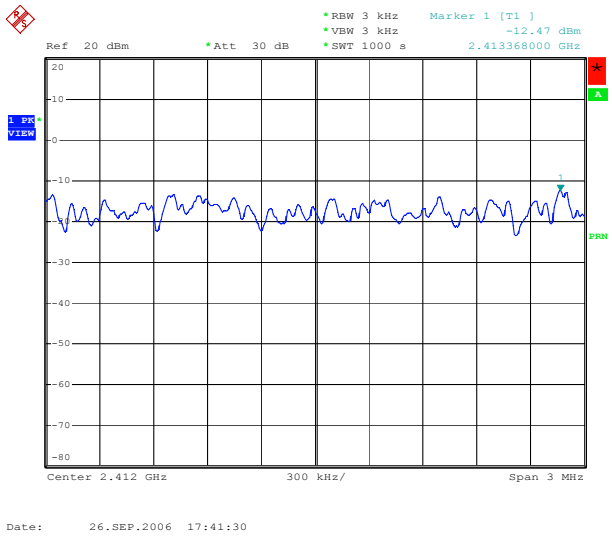
According to FCC Part 15 Subpart C Paragraph 15.247: 2004

7.5. Test Result

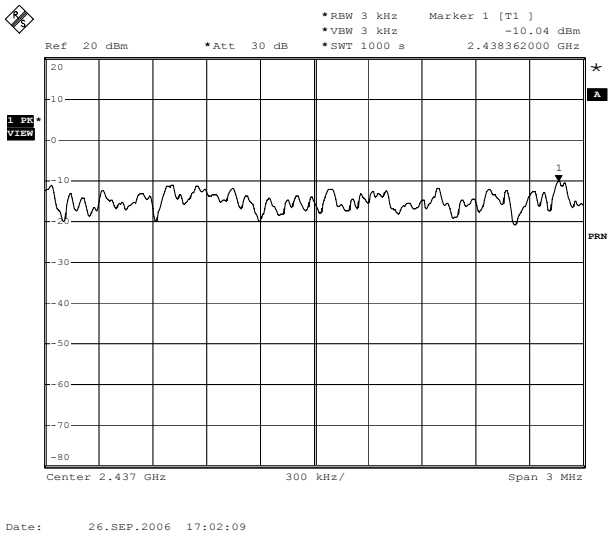
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-12.47	<8	Pass
6	2437	-10.04	<8	Pass
11	2462	-12.43	<8	Pass

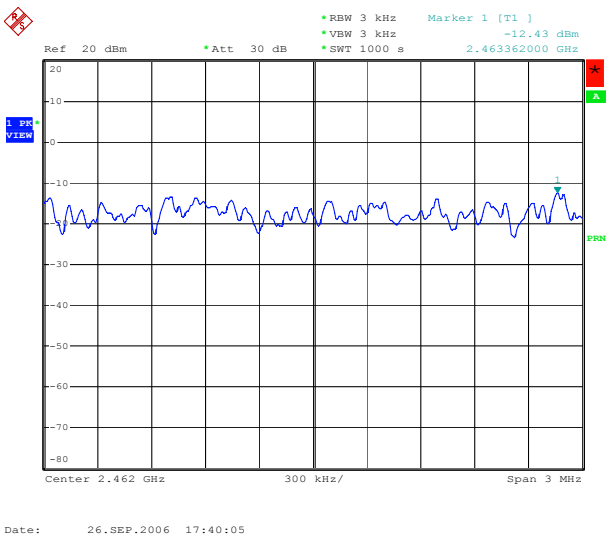
Channel 1



Channel 6



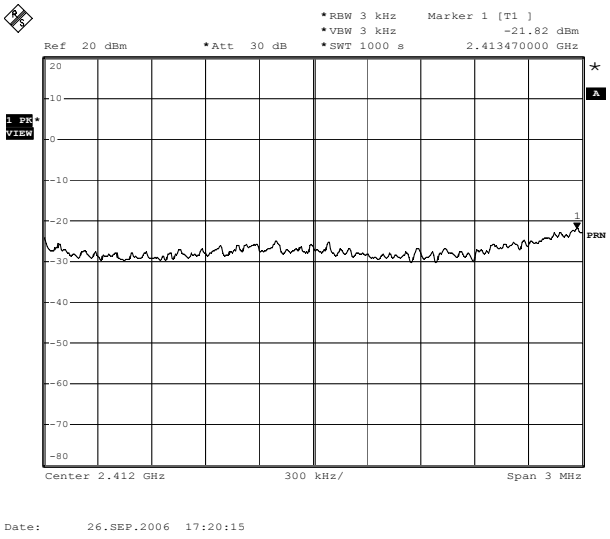
Channel 11



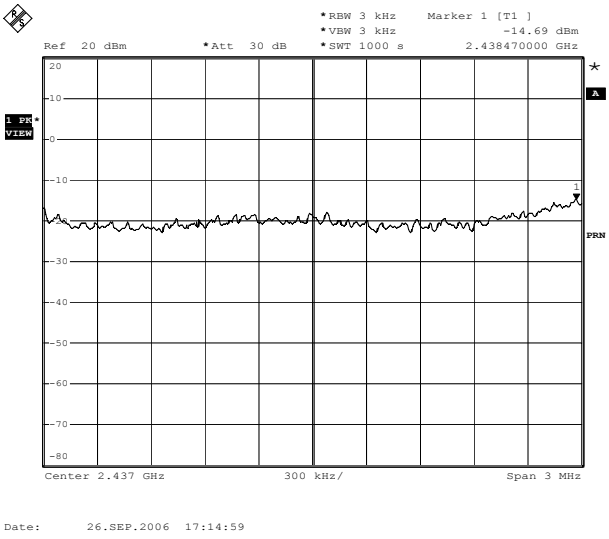
Product	802.11g Wireless ADSL2+ 4-port Gateway		
Test Item	Dwell Time		
Test Mode	Mode 1: Transmit		
Date of Test	2006/09/26	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-21.82	<8	Pass
6	2437	-14.69	<8	Pass
11	2462	-22.00	<8	Pass

Channel 1



Channel 6



Channel 11