Test Report

Product Name ： Wireless ADSL Router
Model No. ： DSL-2650U, DSL-2650B, DSL-2650BU
FCC ID. ： KA2DSL-2650B

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

Date of Receipt ： 2008/06/27
Issued Date ： 2008/07/14
Report No. ： 087038R-RFUSP05V01
Version ： V1.0

Test Report Certification

Issued Date : 2008/07/14
Report No. : 087038R-RFUSP05V01

QuieTek

Product Name	:	Wireless ADSL Router
Applicant	:	D-Link Corporation
Address	:	No.289, Sinhu 3rd Rd., Neihu District, Taipei City 114, Taiwan, R.O.C.
Manufacturer	:	Alpha Networks Inc.
Model No.	:	DSL-2650U, DSL-2650B, DSL-2650BU
FCC ID.	:	KA2DSL-2650B
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 : Demi Chang
(Demi Chang / Engineering Adm. Specialist)

Reviewed By : Lucia Lu
(Lucia Lu Engineer)

Approved By : Roy Wang
(Roy Wang / Manager)

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1. General Information

1.1. EUT Description

Product Name	Wireless ADSL Router
Trade Name	D-Link
Model No.	DSL-2650U, DSL-2650B, DSL-2650BU
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	2dBi
Channel Control	Manual
Antenna Type	Monopole

Component	
LAN Cable	Non-Shielded, 1.5m
RJ11 Cable	Non-Shielded, 2m
Power Adapter	FAIRWAY, WRG15F-120AB I/P: 100-240V~1.0A max. 50-60Hz O/P: +12V, 1.25A Cable Out: Non-Shielded, 1.8m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

Note:

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

M/N	Area
DSL-2650U	Russia
DSL-2650B	Not Russia
DSL-2650BU	Not Russia

3. These test results on a sample of the device are for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247.
4. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
5. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 087038R-RFUSP01V02 under Declaration of Conformity.

1.2. Operational Description

The EUT is a Wireless ADSL Router for 2.4GHz wireless signal. Operating Frequency Range is from 2412 MHz to 2462 MHz. The device adapts Digitally Modulation Spread Spectrum modulation. Operation in 2.4GHz Direst Sequence Spread Spectrum (DSSS) radio transmission for IEEE 802.11b and Orthogonal Frequency Division Multiplexing (OFDM) for IEEE 802.11g.

This device provided four kinds of transmitting speed 1 Mbps, 2 Mbps, 5.5 Mbps and 11Mbps for IEEE 802.11b and eight kinds of transmitting speed 6 Mbps, 9 Mbps, 12 Mbps,18 Mbps, 24 Mbps, 36 Mbps, 48 Mbps and 54Mbps for IEEE 802.11g. The device of RF carrier is DQPSK, DBPSK and CCK. The maximum wireless signal rate of 802.11b is 1 Mbps and 802.11g is 6 Mbps in the 2.4GHz frequency. The EUT also offers four Ethernet ports to support multiple computers.

The device delivers Internet sharing, local area network connectivity and security in a single device. The EUT has a 10/100 WAN port for connection to Cable or XDSL modem. The four-port 10/100 Ethernet switch along with the built-in 802.11b/g wireless access point provides network connectivity to multiple machines in the Local Area Network (LAN).

1.3. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Pre-Test Mode	
Mode 1: Transmit	
Final Test Mode	
Emission	Mode 1: Transmit

Emission	
Performed Item	
Conducted Emission	Yes
Peak Power Output	Yes
Radiated Emission	Yes
RF antenna conducted test	Yes
Radiated Emission Band Edge	Yes
Occupied Bandwidth	Yes
Power Density	Yes

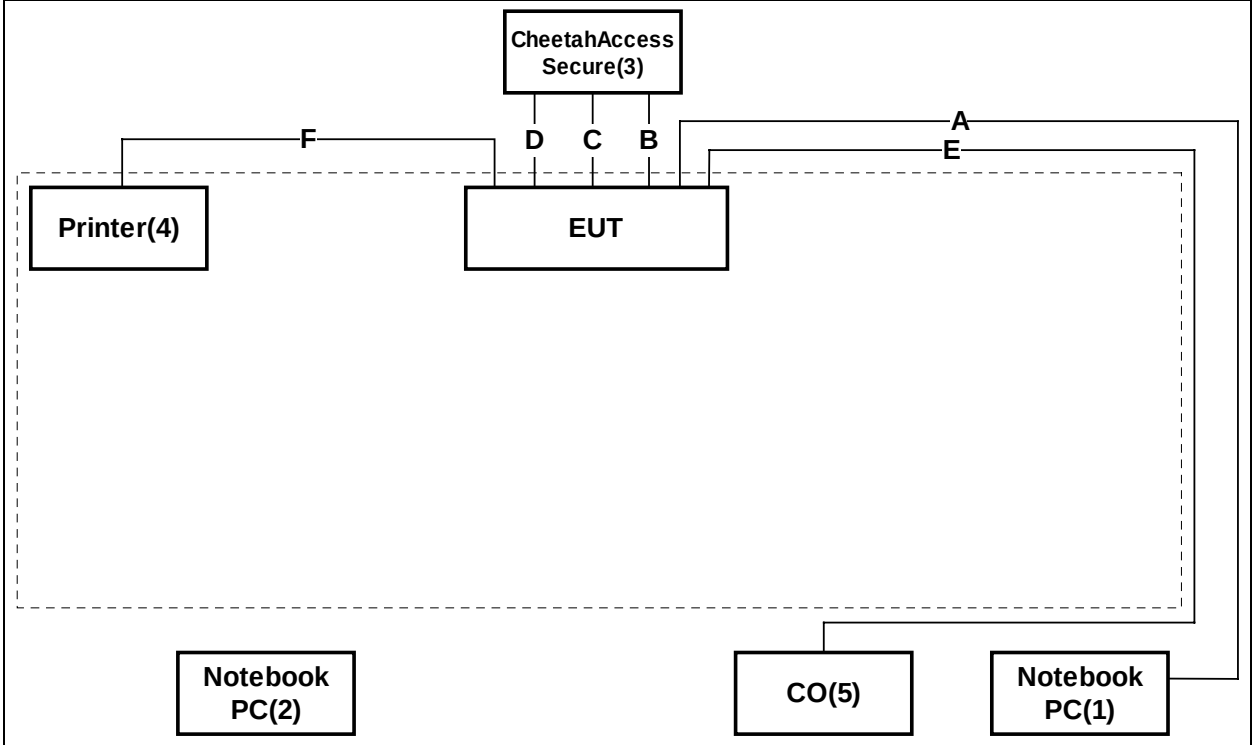
1.4. Tested System Details

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

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

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, 2.0m
C	LAN Cable	Non-Shielded, 2.0m
D	LAN Cable	Non-Shielded, 2.0m
E	Telephone Cable	Non-Shielded, 10m
F	Printer Cable	Shielded, 1.2m

1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.5.
2	Turn on the power of all equipment.
3	Boot the PC from Hard Disk.
4	Data will communicate between personal computer and partner notebook PC through EUT that is within PC.
5	Telecom signal also communicate between personal computer and notebook PC through EUT that is within PC at same time.
6	The personal computer’s and notebook PC’s monitor will show the transmitting and receiving characteristics when the communication is success.
7	Repeat at the above procedure (4) to (5).

1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output (DSSS)	15 - 35	23.5
Humidity (%RH)		25 - 75	53
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (DSSS)	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (DSSS)	15 - 35	26
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (DSSS)	15 - 35	26
Humidity (%RH)		25 - 75	52.8
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density (DSSS)	15 - 35	26
Humidity (%RH)		25 - 75	52.8
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description:

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

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

Testing Laboratory 1313

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

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

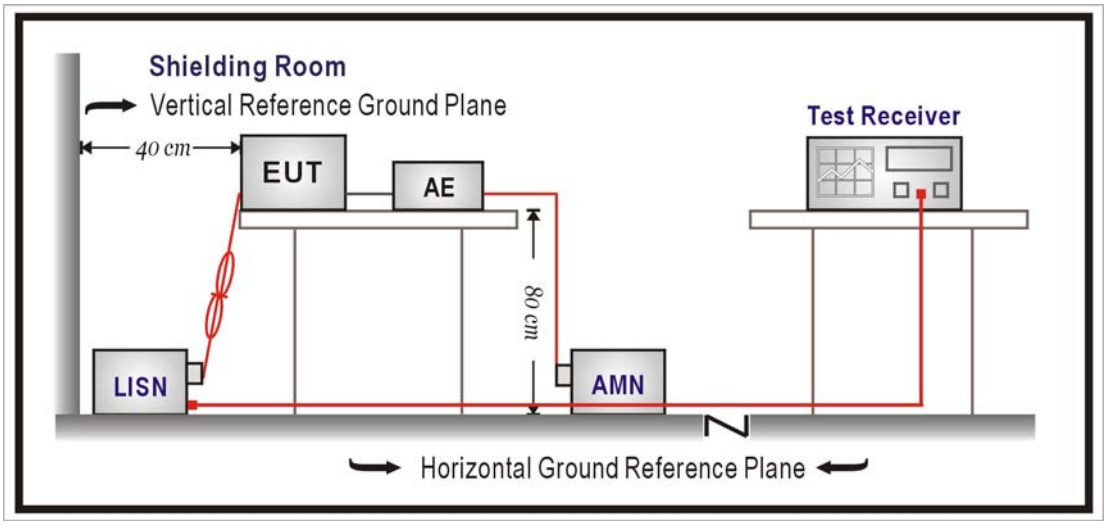
The following test equipments are used during the test:

Conducted Emission / SR2

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

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

2.2. Test Setup



2.3. Limits

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

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

2.4. Test Procedure

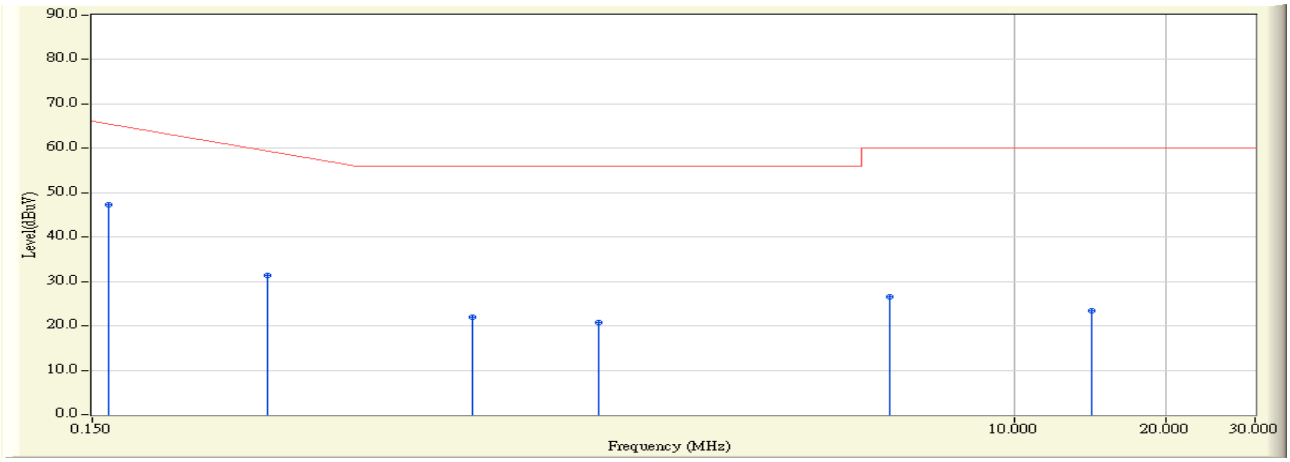
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)
Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.6. Test Result

Site : ShieldingRoom2	**Time : 2008/07/04 - 13:29**
Limit : CISPR_B_00M_QP	**Margin : 0**
Probe : SR3_LISN(16A) - Line1	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

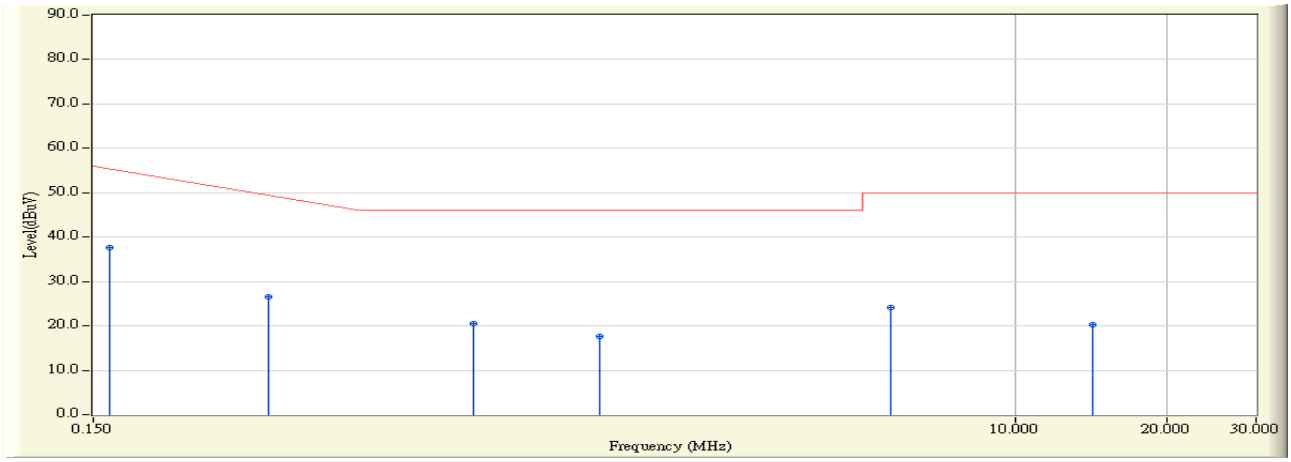


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	47.229	47.199	-18.458	65.657	QUASIPEAK
2		0.334	-0.002	31.251	31.249	-29.494	60.743	QUASIPEAK
3		0.850	0.050	21.942	21.992	-34.008	56.000	QUASIPEAK
4		1.506	0.090	20.742	20.832	-35.168	56.000	QUASIPEAK
5		5.694	0.285	26.143	26.428	-33.572	60.000	QUASIPEAK
6		14.238	0.660	22.852	23.512	-36.488	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:29**
Limit : CISPR_B_00M_AV	**Margin : 0**
Probe : SR3_LISN(16A) - Line1	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

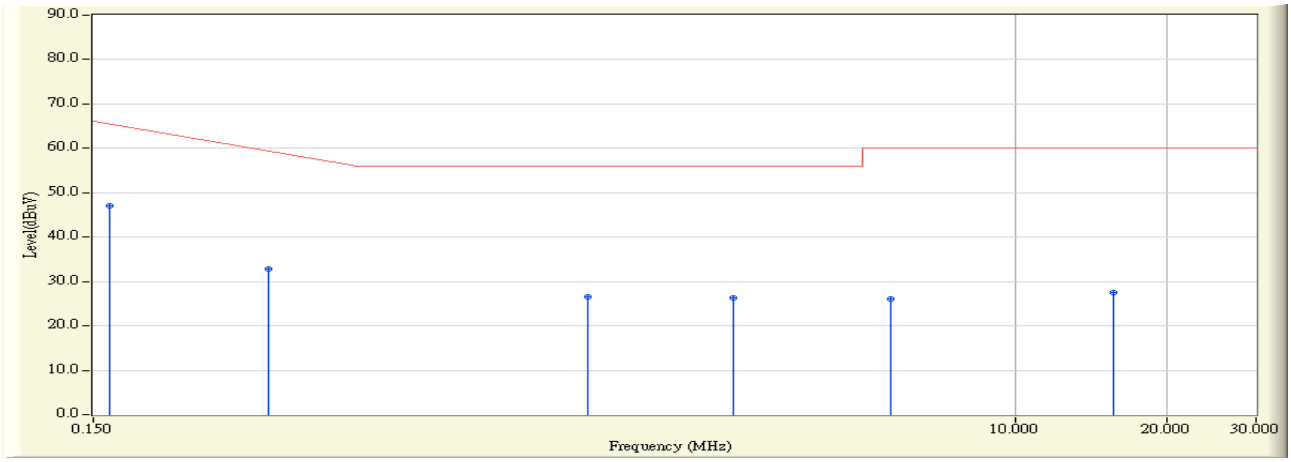


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	37.638	37.608	-18.049	55.657	AVERAGE
2		0.334	-0.002	26.601	26.599	-24.144	50.743	AVERAGE
3		0.850	0.050	20.462	20.512	-25.488	46.000	AVERAGE
4		1.506	0.090	17.528	17.618	-28.382	46.000	AVERAGE
5		5.694	0.285	23.882	24.167	-25.833	50.000	AVERAGE
6		14.238	0.660	19.563	20.223	-29.777	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:31**
Limit : CISPR_B_00M_QP	**Margin : 0**
Probe : SR3_LISN(16A) - Line2	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

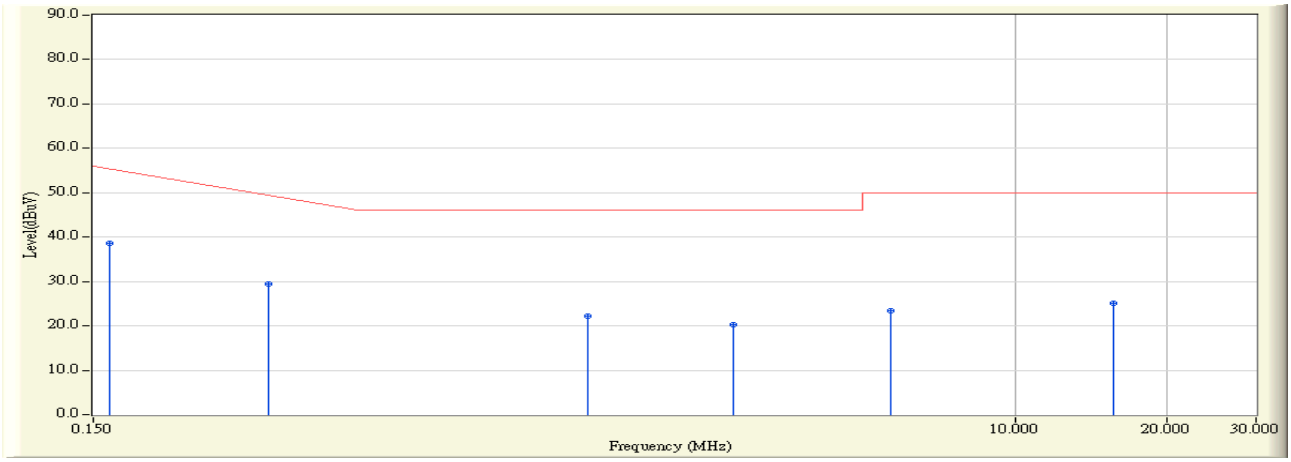


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	47.179	47.149	-18.508	65.657	QUASIPEAK
2		0.334	0.008	32.853	32.861	-27.882	60.743	QUASIPEAK
3		1.426	0.113	26.311	26.425	-29.575	56.000	QUASIPEAK
4		2.770	0.200	26.088	26.288	-29.712	56.000	QUASIPEAK
5		5.694	0.325	25.665	25.990	-34.010	60.000	QUASIPEAK
6		15.654	0.830	26.705	27.535	-32.465	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:31**
Limit : CISPR_B_00M_AV	**Margin : 0**
Probe : SR3_LISN(16A) - Line2	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

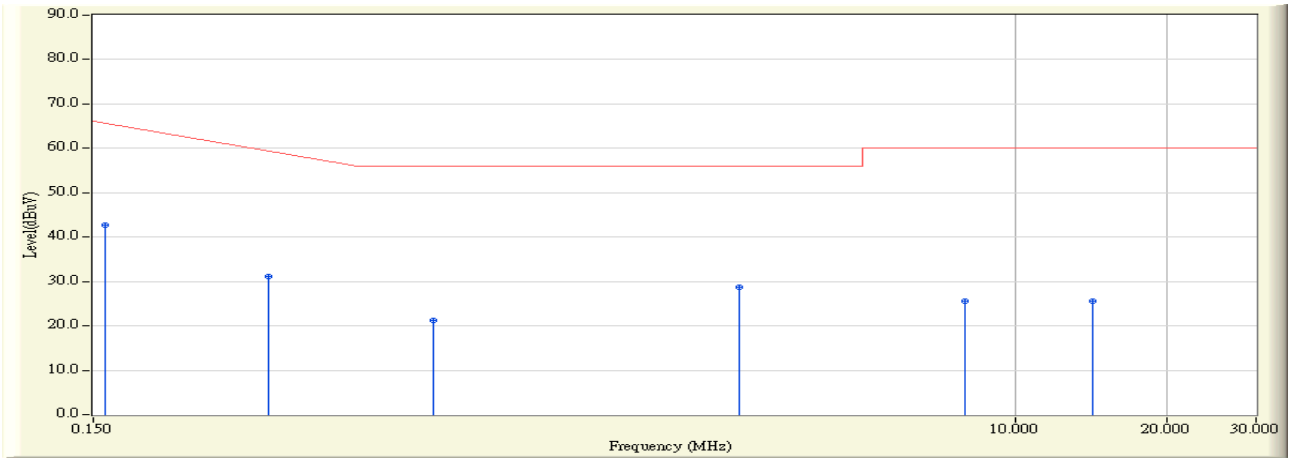


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	38.564	38.534	-17.123	55.657	AVERAGE
2		0.334	0.008	29.471	29.479	-21.264	50.743	AVERAGE
3		1.426	0.113	21.971	22.084	-23.916	46.000	AVERAGE
4		2.770	0.200	20.127	20.327	-25.673	46.000	AVERAGE
5		5.694	0.325	23.038	23.364	-26.636	50.000	AVERAGE
6		15.654	0.830	24.312	25.142	-24.858	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:35**
Limit : CISPR_B_00M_QP	**Margin : 0**
Probe : SR3_LISN(16A) - Line1	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**

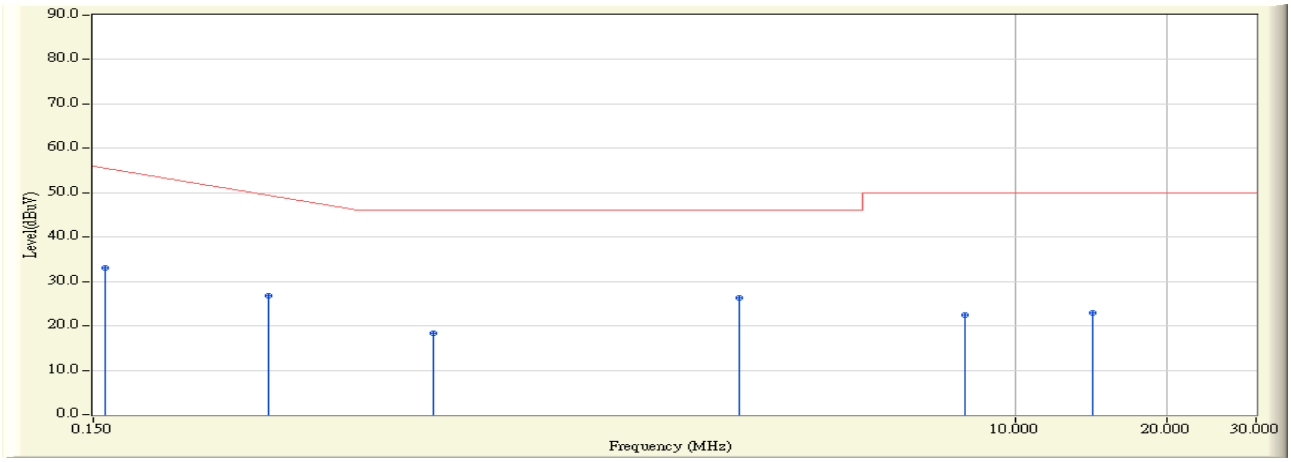


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.158	-0.031	42.824	42.793	-22.978	65.771	QUASIPEAK
2		0.334	-0.002	31.135	31.133	-29.610	60.743	QUASIPEAK
3		0.706	0.040	21.181	21.221	-34.779	56.000	QUASIPEAK
4		2.846	0.160	28.565	28.725	-27.275	56.000	QUASIPEAK
5		7.966	0.400	25.167	25.567	-34.433	60.000	QUASIPEAK
6		14.230	0.660	24.945	25.605	-34.395	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:35**
Limit : CISPR_B_00M_AV	**Margin : 0**
Probe : SR3_LISN(16A) - Line1	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**

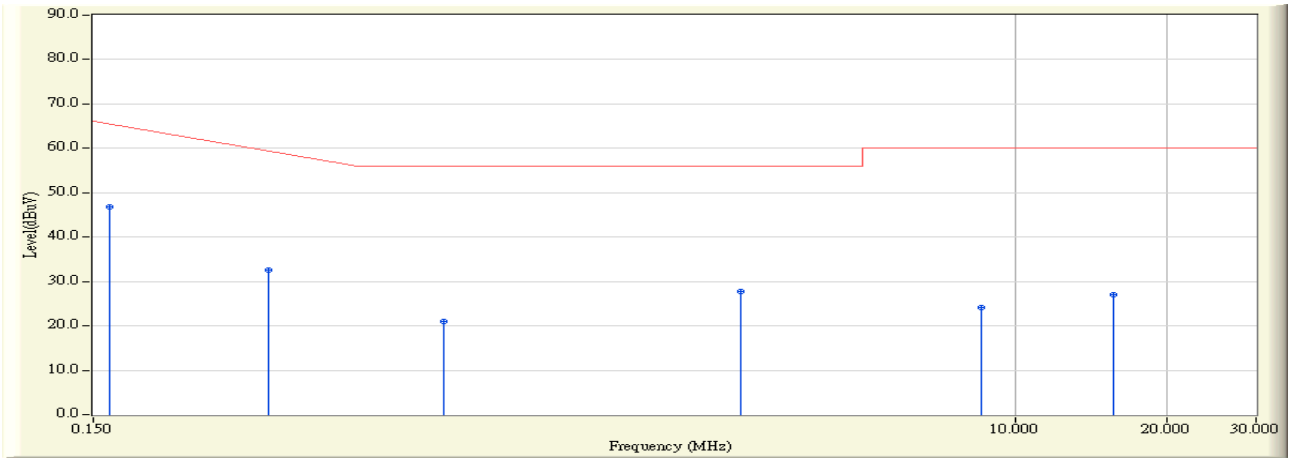


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	-0.031	32.994	32.963	-22.808	55.771	AVERAGE
2		0.334	-0.002	26.665	26.663	-24.080	50.743	AVERAGE
3		0.706	0.040	18.360	18.400	-27.600	46.000	AVERAGE
4	*	2.846	0.160	26.029	26.189	-19.811	46.000	AVERAGE
5		7.966	0.400	22.123	22.523	-27.477	50.000	AVERAGE
6		14.230	0.660	22.203	22.863	-27.137	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:37**
Limit : CISPR_B_00M_QP	**Margin : 0**
Probe : SR3_LISN(16A) - Line2	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**

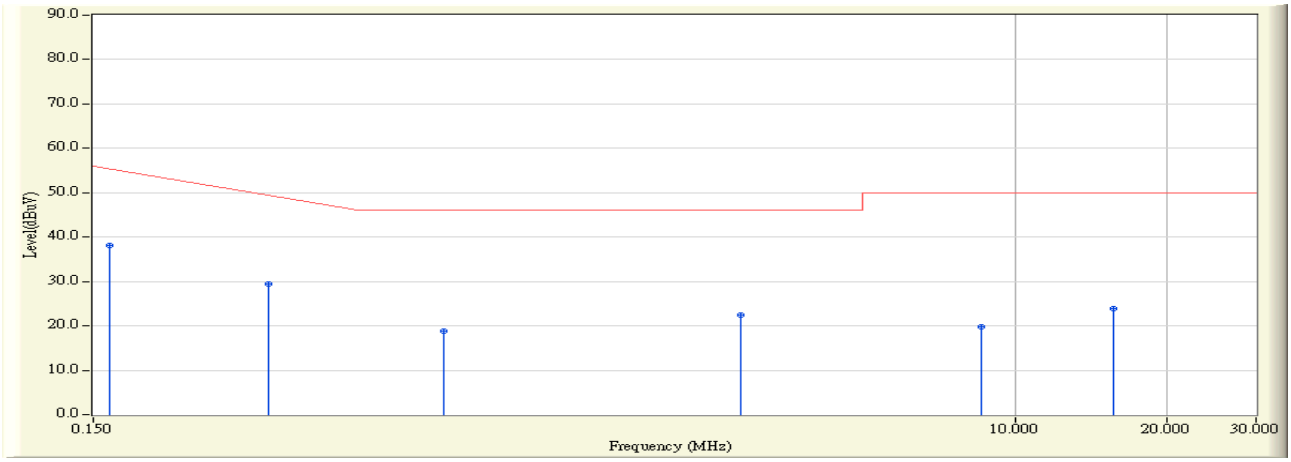


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	46.728	46.698	-18.959	65.657	QUASIPEAK
2		0.334	0.008	32.670	32.678	-28.065	60.743	QUASIPEAK
3		0.742	0.065	20.870	20.934	-35.066	56.000	QUASIPEAK
4		2.862	0.200	27.585	27.785	-28.215	56.000	QUASIPEAK
5		8.570	0.460	23.734	24.194	-35.806	60.000	QUASIPEAK
6		15.650	0.830	26.179	27.009	-32.991	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 : ShieldingRoom2	**Time : 2008/07/04 - 13:37**
Limit : CISPR_B_00M_AV	**Margin : 0**
Probe : SR3_LISN(16A) - Line2	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	-0.030	38.168	38.138	-17.519	55.657	AVERAGE
2		0.334	0.008	29.428	29.436	-21.307	50.743	AVERAGE
3		0.742	0.065	18.841	18.906	-27.094	46.000	AVERAGE
4		2.862	0.200	22.167	22.367	-23.633	46.000	AVERAGE
5		8.570	0.460	19.250	19.710	-30.290	50.000	AVERAGE
6		15.650	0.830	23.038	23.868	-26.132	50.000	AVERAGE

Note:

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

3. Peak Power Output

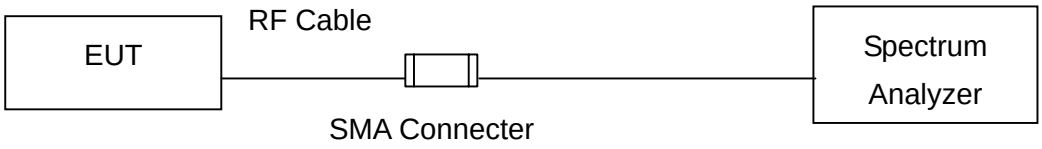
3.1. Test Equipment

The following test equipments are used during the test:

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

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

3.2. Test Setup



3.3. Test procedures

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

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.6. Test Result

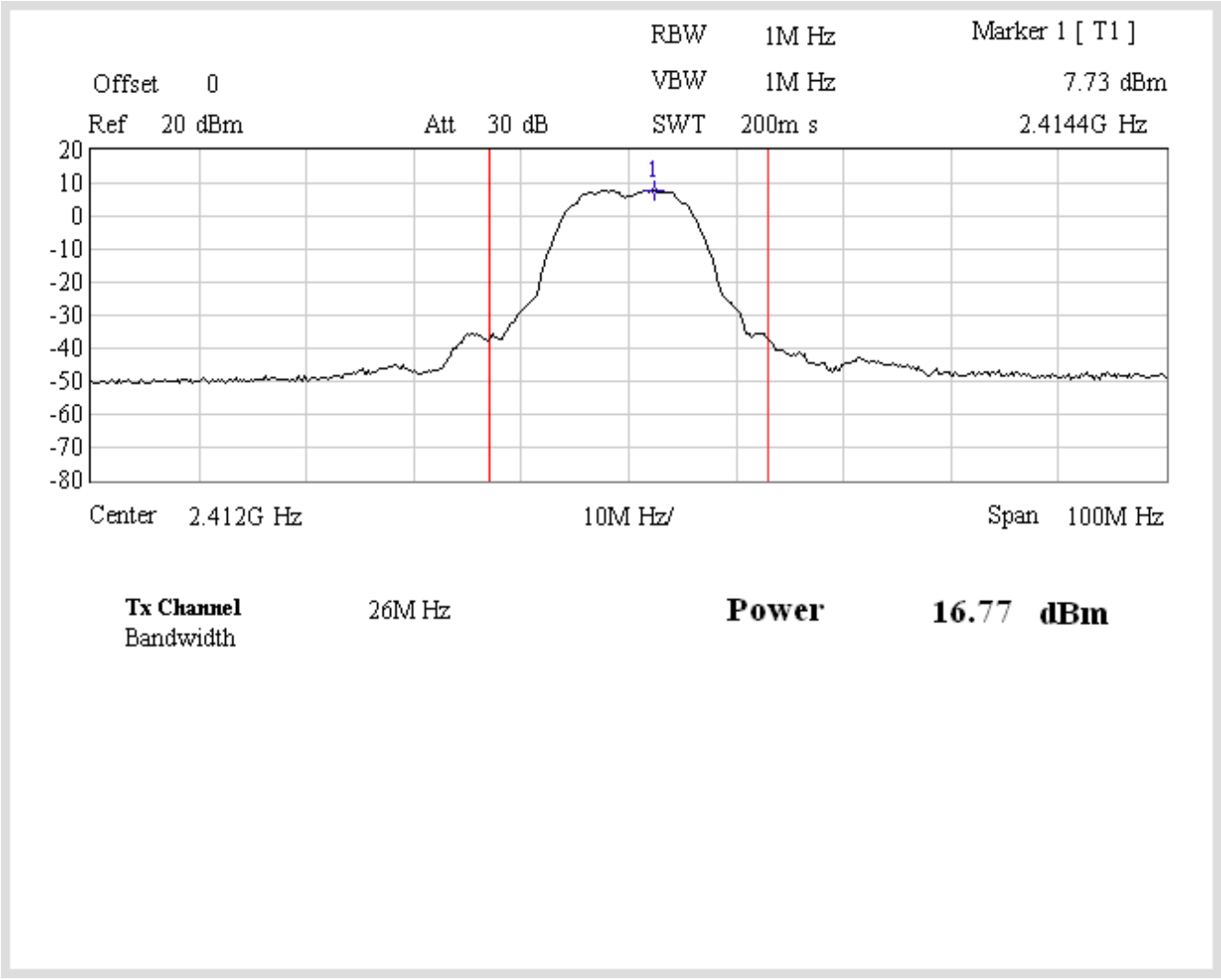
Product	Wireless ADSL Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	16.77	1Watt= 30 dBm	Pass
6	2437.00	16.83	1Watt= 30 dBm	Pass
11	2462.00	16.52	1Watt= 30 dBm	Pass

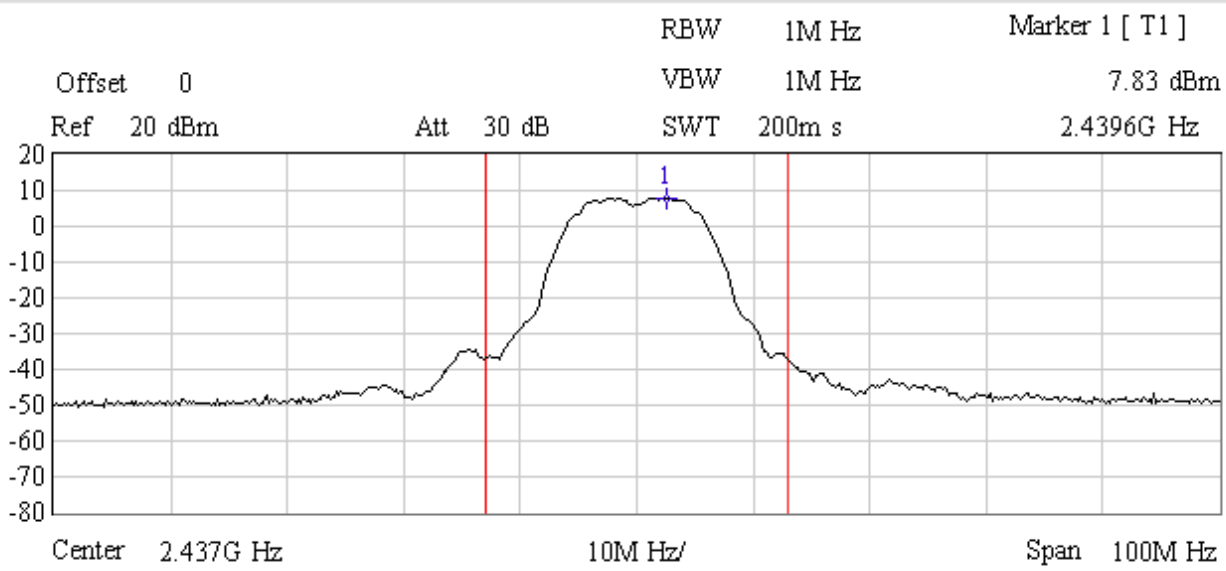
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1 Mbps	2Mbps	5.5Mbps	11Mbps	
1	2412.00	16.77	--	--	--	1Watt= 30 dBm
6	2437.00	16.83	16.74	16.72	16.80	1Watt= 30 dBm
11	2462.00	16.52	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss

Channel 1

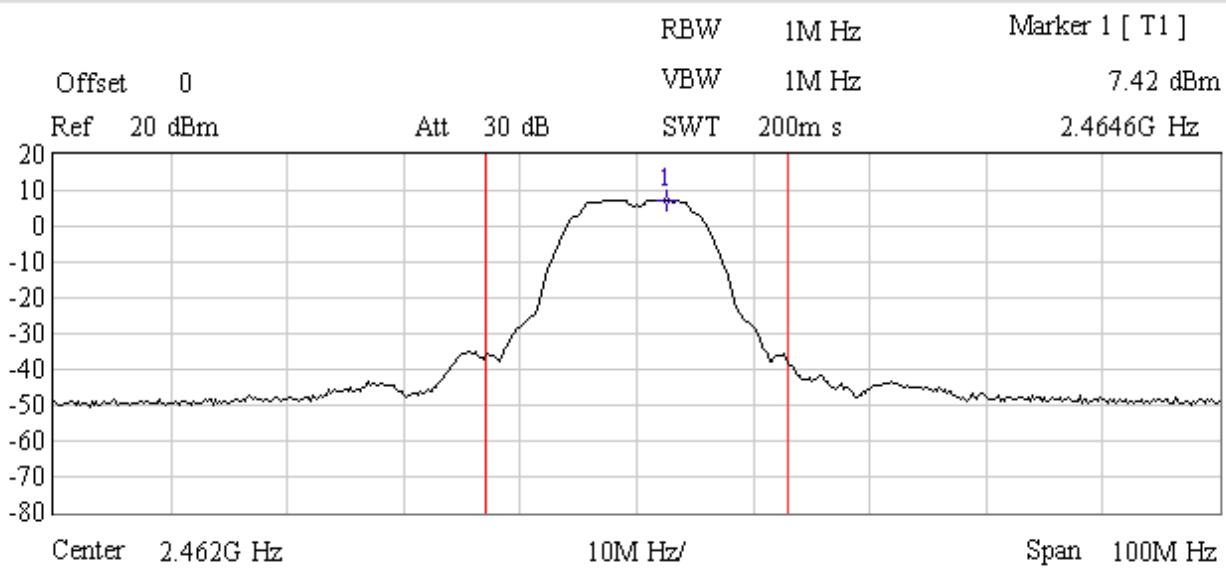

RBW 1M Hz
Marker 1 [T1]
Offset 0
VBW 1M Hz
7.73 dBm
Ref 20 dBm
Att 30 dB
SWT 200m s
2.4144G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.412G Hz
10M Hz/
Span 100M Hz
Tx Channel
Bandwidth
26M Hz
Power
16.77 dBm

Channel 6



Tx Channel	26M Hz	**Power**	**16.83 dBm**
Bandwidth			

Channel 11



Tx Channel	26M Hz	**Power**	**16.52 dBm**
Bandwidth			

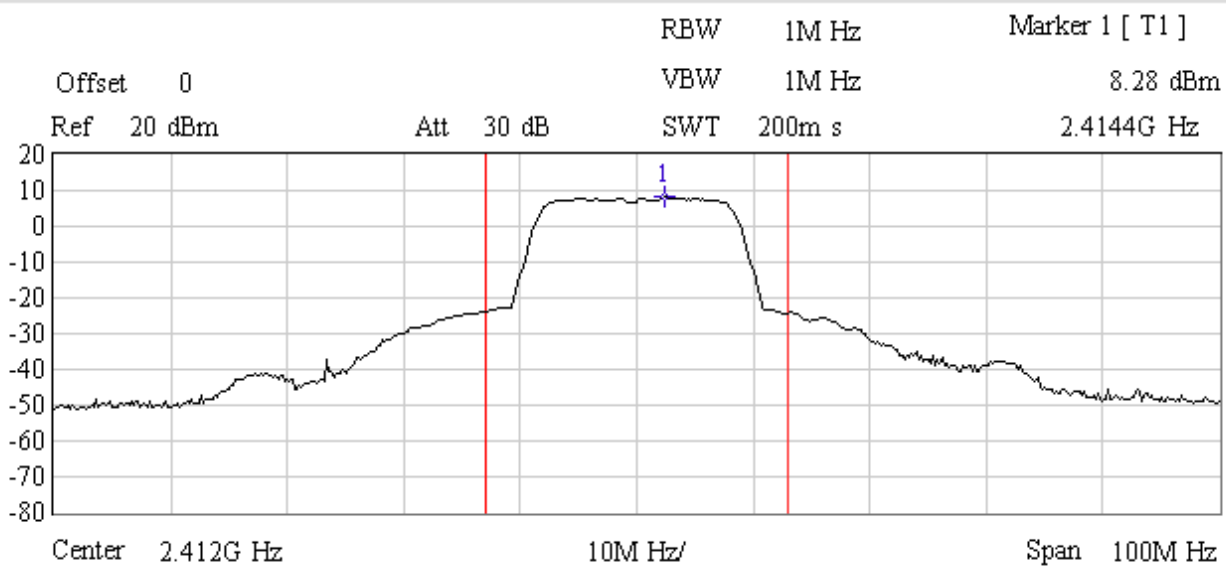
Product	Wireless ADSL Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	19.09	1Watt= 30 dBm	Pass
6	2437.00	19.18	1Watt= 30 dBm	Pass
11	2462.00	18.91	1Watt= 30 dBm	Pass

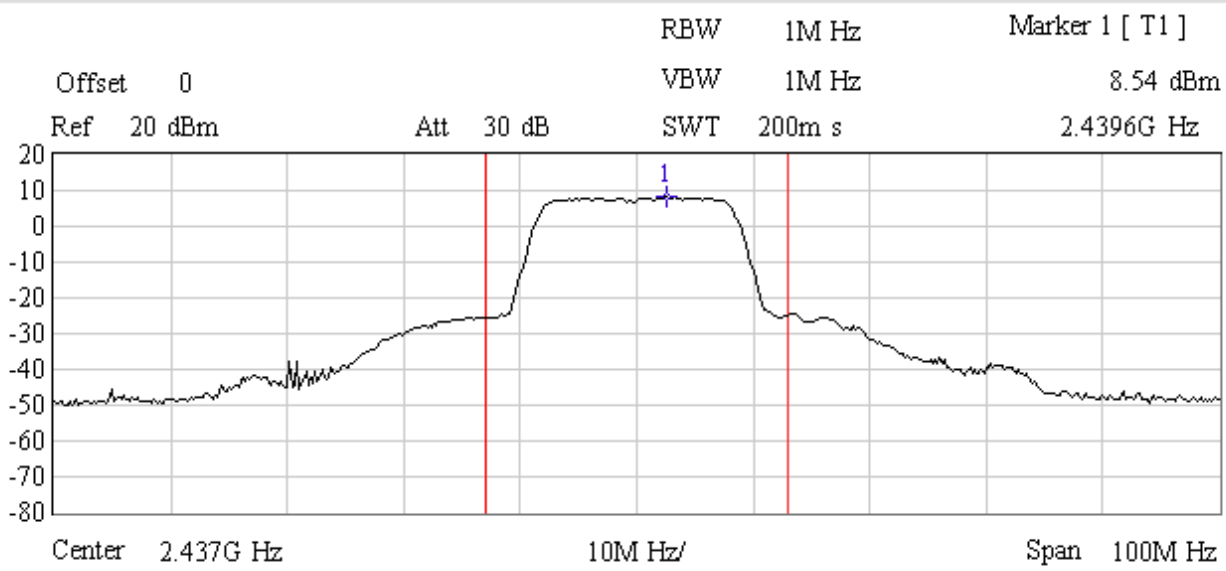
Peak Power Output Value(dBm)										
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps	
1	2412.00	19.09	--	--	--	--	--	--	--	1Watt= 30 dBm
6	2437.00	19.18	18.05	17.87	17.89	18.07	18.18	18.01	18.21	1Watt= 30 dBm
11	2462.00	18.91	--	--	--	--	--	--	--	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss

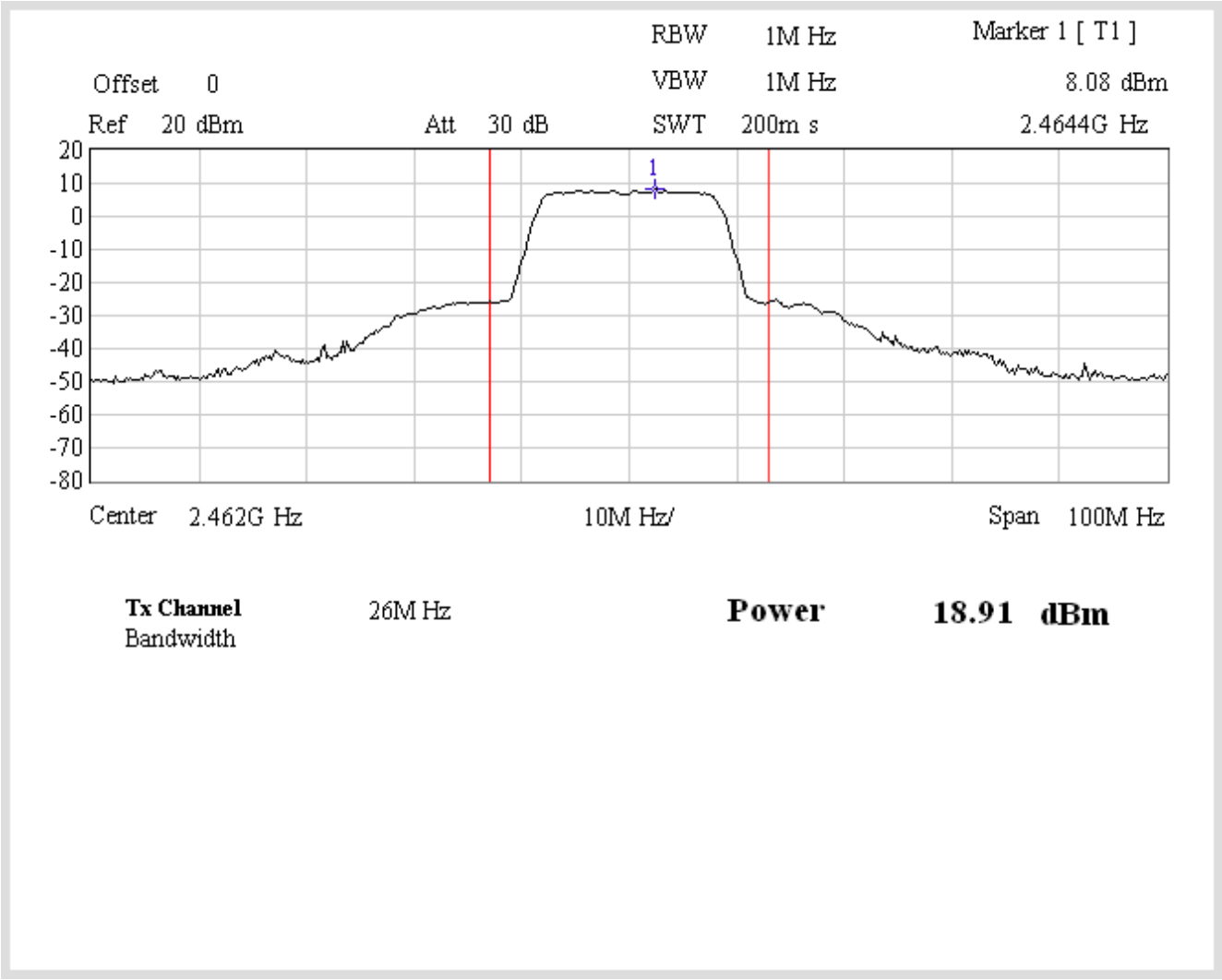
Channel 1


RBW 1M Hz
Marker 1 [T1]
Offset 0
VBW 1M Hz
8.28 dBm
Ref 20 dBm
Att 30 dB
SWT 200m s
2.4144G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.412G Hz
10M Hz/
Span 100M Hz
Tx Channel
Bandwidth
26M Hz
Power
19.09 dBm

Channel 6


RBW 1M Hz
Marker 1 [T1]
Offset 0
VBW 1M Hz
8.54 dBm
Ref 20 dBm
Att 30 dB
SWT 200m s
2.4396G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.437G Hz
10M Hz/
Span 100M Hz
Tx Channel
Bandwidth
26M Hz
Power
19.18 dBm

Channel 11


RBW 1M Hz
Marker 1 [T1]
Offset 0
VBW 1M Hz
8.08 dBm
Ref 20 dBm
Att 30 dB
SWT 200m s
2.4644G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.462G Hz
10M Hz/
Span 100M Hz
Tx Channel
Bandwidth
26M Hz
Power
18.91 dBm

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

Radiated Emission / Site2

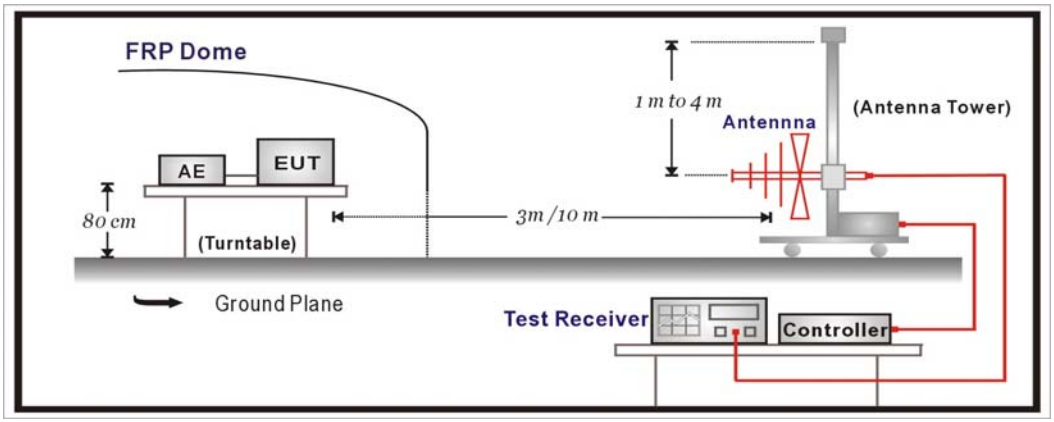
Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Bilog Antenna	Schaffner Chase	CBL6112B	2708	2007/09/03
Horn Antenna	Electro Metrics	EM-6961	103325	2008/03/15
Pre-Amplifier	HP	8449B	3008A01123	2007/11/15
Pre-Amplifier	QuieTek	AP-025C	002	N/A
Spectrum Analyzer	R & S	FSP40	100005	2007/08/25
Spectrum Analyzer	Advantest	R3162	121200166	2008/02/19
Test Receiver	R & S	ESCS 30	836858/023	2008/04/01

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

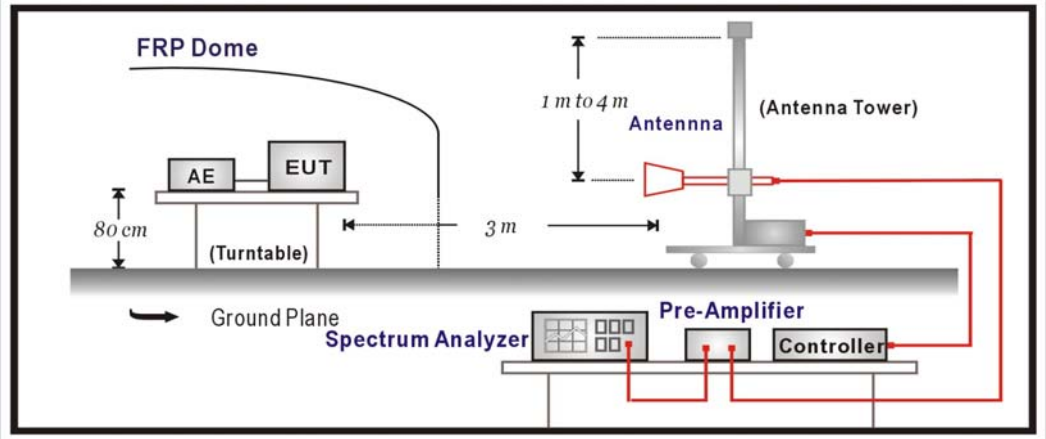
2. Last Cal showing “N/A” means it is used to Pre-test, not for final test.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

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

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

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.
The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.
The frequency range from 30MHz to 10th harminics is checked.

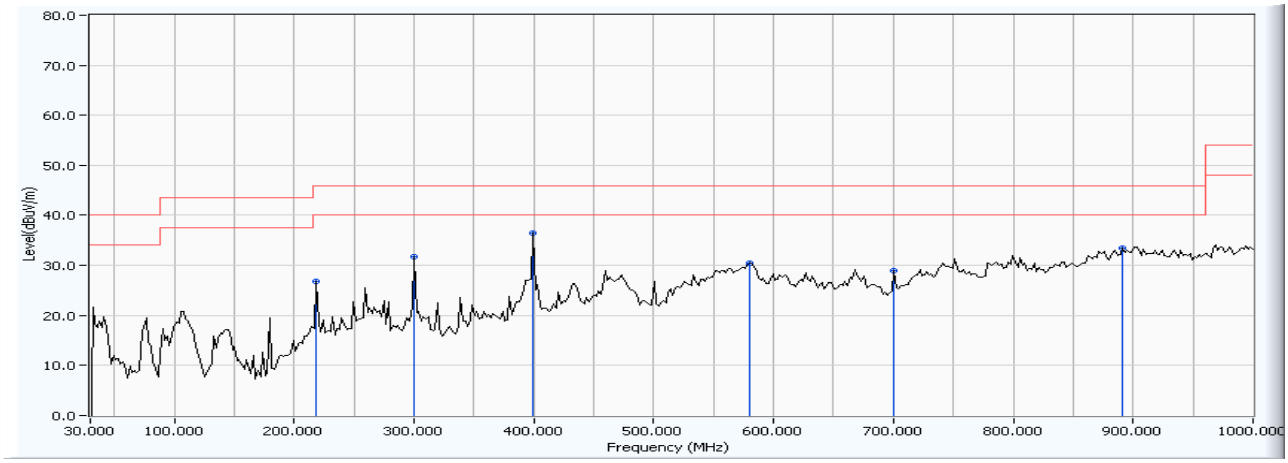
4.5. Uncertainty

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

4.6. Test Result

30MHz-1GHz Spurious

Site : Site 2	**Time : 2008/06/30 - 13:46**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB3_FCC_30-1G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

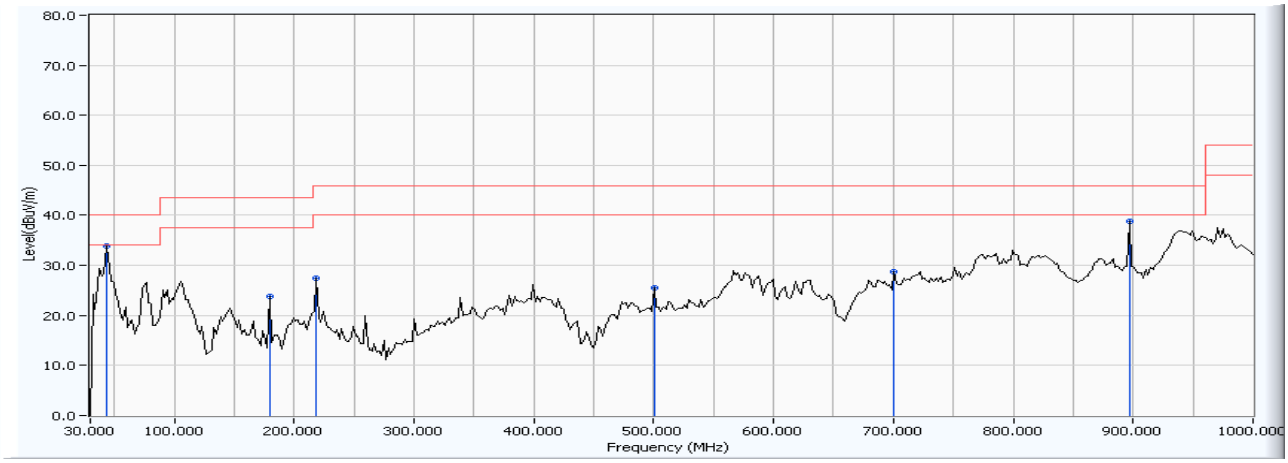


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		218.557	17.850	8.932	26.782	-19.218	46.000	QUASIPEAK
2		300.200	27.589	4.219	31.808	-14.192	46.000	QUASIPEAK
3	*	399.339	29.438	6.939	36.377	-9.623	46.000	QUASIPEAK
4		580.120	36.569	-6.175	30.394	-15.606	46.000	QUASIPEAK
5		700.641	31.424	-2.493	28.931	-17.069	46.000	QUASIPEAK
6		891.142	33.654	-0.153	33.501	-12.499	46.000	QUASIPEAK

Note:

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

Site : Site 2	**Time : 2008/06/30 - 13:50**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB3_FCC_30-1G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-B**

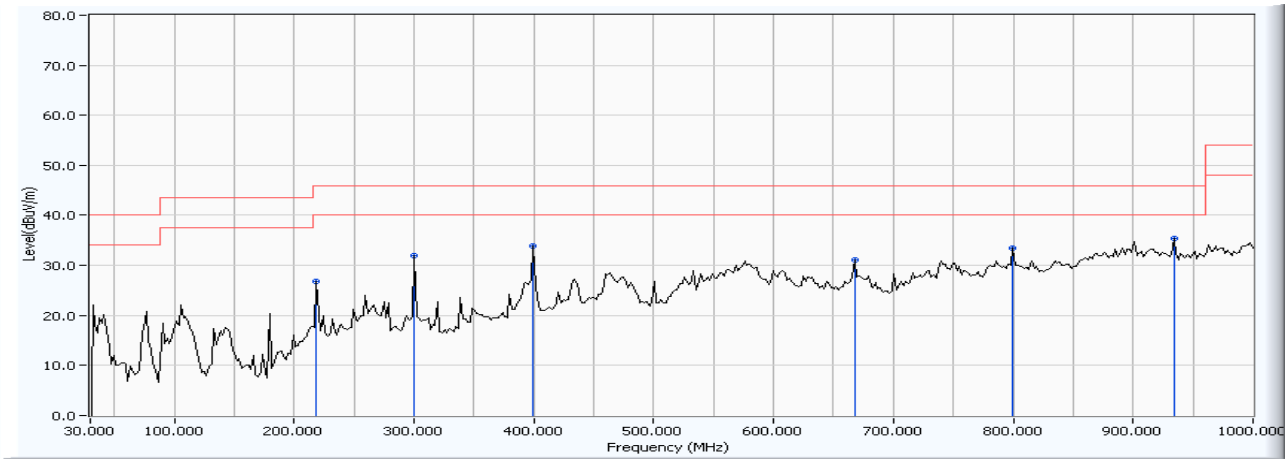


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	43.607	22.546	11.392	33.938	-6.062	40.000	QUASIPEAK
2		179.679	25.516	-1.706	23.810	-19.690	43.500	QUASIPEAK
3		218.557	22.666	4.776	27.442	-18.558	46.000	QUASIPEAK
4		500.421	26.657	-1.144	25.513	-20.487	46.000	QUASIPEAK
5		700.641	29.794	-1.077	28.717	-17.283	46.000	QUASIPEAK
6		896.974	34.978	3.860	38.838	-7.162	46.000	QUASIPEAK

Note:

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

Site : Site 2	**Time : 2008/06/30 - 13:56**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB3_FCC_30-1G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**

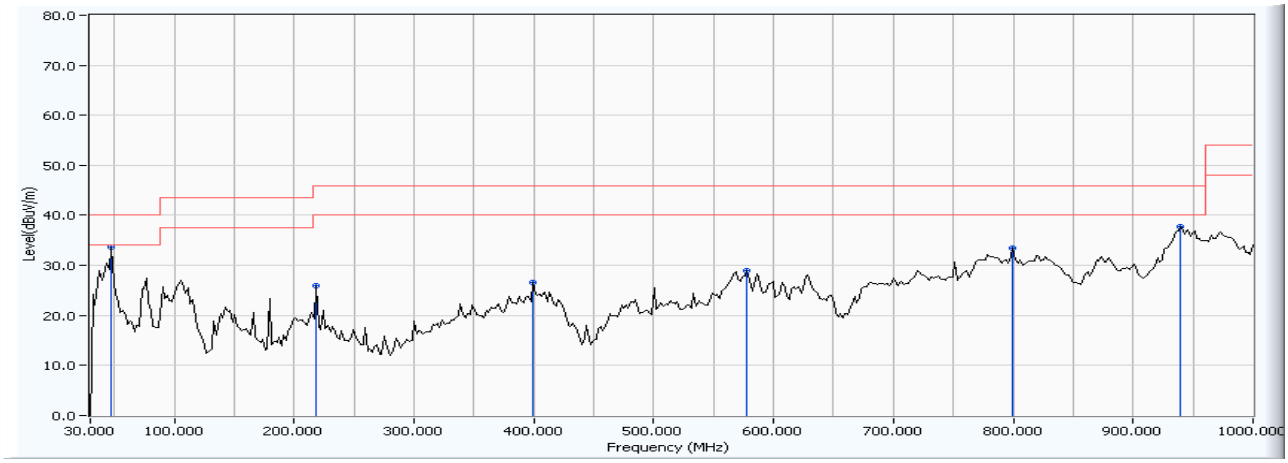


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		218.557	17.850	8.923	26.773	-19.227	46.000	QUASIPEAK
2		300.200	27.589	4.410	31.999	-14.001	46.000	QUASIPEAK
3		399.339	29.438	4.356	33.794	-12.206	46.000	QUASIPEAK
4		667.595	29.493	1.655	31.148	-14.852	46.000	QUASIPEAK
5		799.780	30.940	2.487	33.427	-12.573	46.000	QUASIPEAK
6	*	933.908	33.168	2.136	35.304	-10.696	46.000	QUASIPEAK

Note:

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

Site : Site 2	**Time : 2008/06/30 - 13:59**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB3_FCC_30-1G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-G**



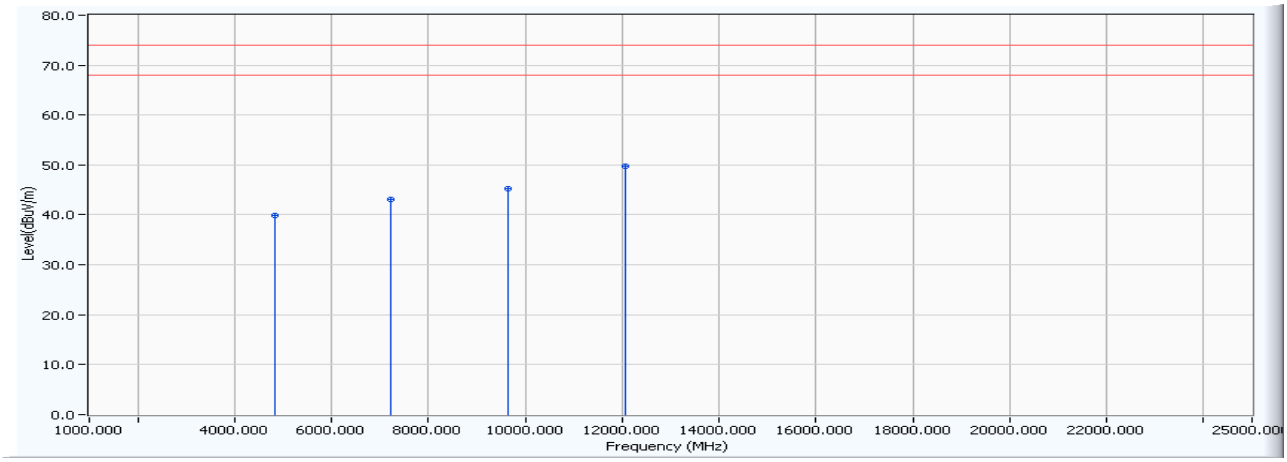
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	47.495	26.106	7.460	33.566	-6.434	40.000	QUASIPEAK
2		218.557	22.666	3.356	26.022	-19.978	46.000	QUASIPEAK
3		399.339	29.285	-2.771	26.514	-19.486	46.000	QUASIPEAK
4		578.176	34.913	-5.972	28.941	-17.059	46.000	QUASIPEAK
5		799.780	29.817	3.741	33.558	-12.442	46.000	QUASIPEAK
6		939.740	34.075	3.759	37.834	-8.166	46.000	QUASIPEAK

Note:

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

Harmonic & Spurious:

Site : Site 2	**Time : 2008/06/30 - 14:52**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

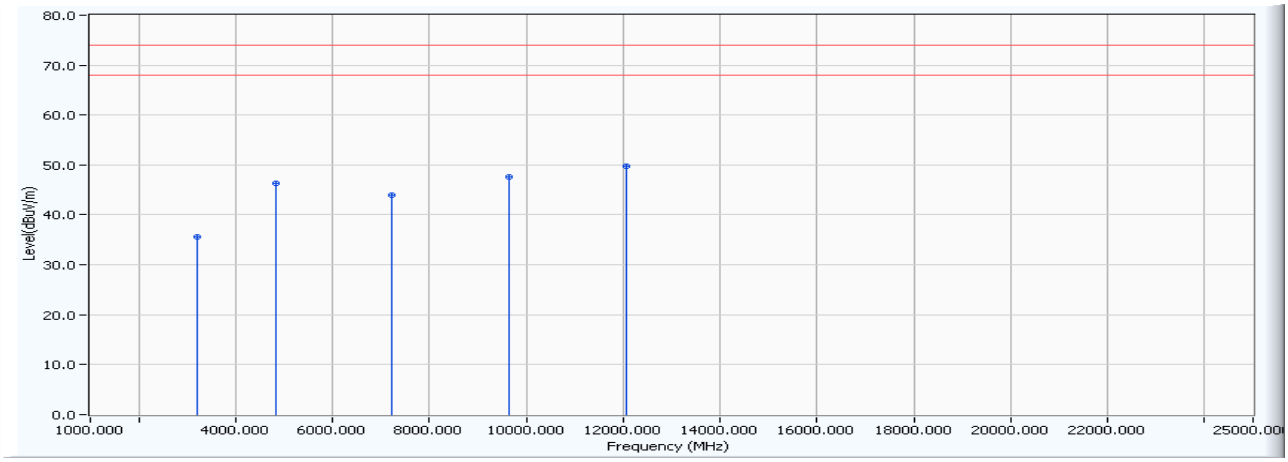


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.020	3.734	36.150	39.883	-34.117	74.000	54.000	PEAK
2		7235.970	8.726	34.330	43.056	-30.944	74.000	54.000	PEAK
3		9647.710	12.707	32.580	45.287	-28.713	74.000	54.000	PEAK
4	*	12059.950	17.631	32.230	49.861	-24.139	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 15:03**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

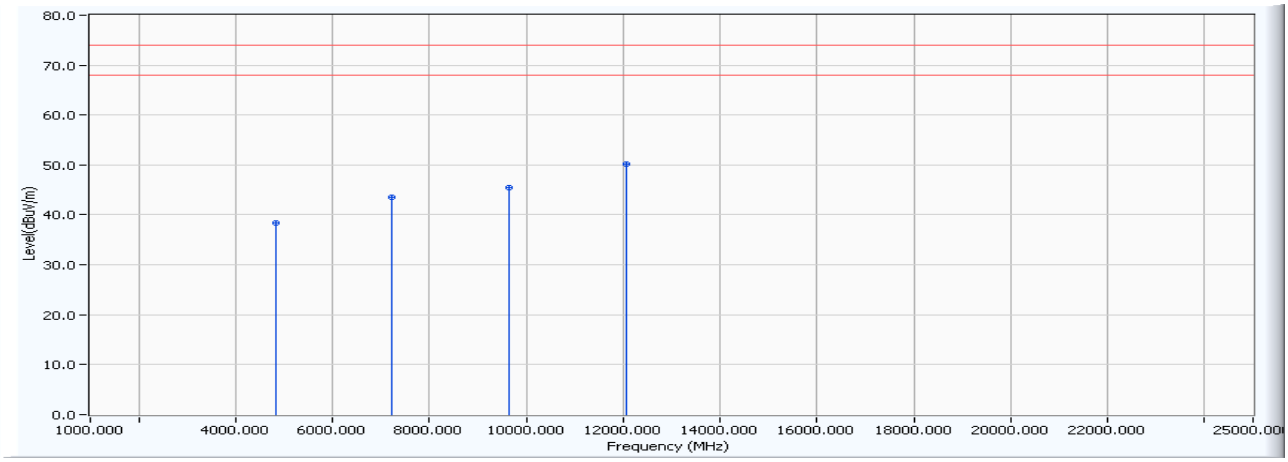


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3215.810	-0.463	35.990	35.527	-38.473	74.000	54.000	PEAK
2		4823.980	1.981	44.310	46.291	-27.709	74.000	54.000	PEAK
3		7235.990	8.726	35.140	43.866	-30.134	74.000	54.000	PEAK
4		9647.830	14.707	32.910	47.617	-26.383	74.000	54.000	PEAK
5	*	12059.960	17.223	32.470	49.693	-24.307	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 16:04**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

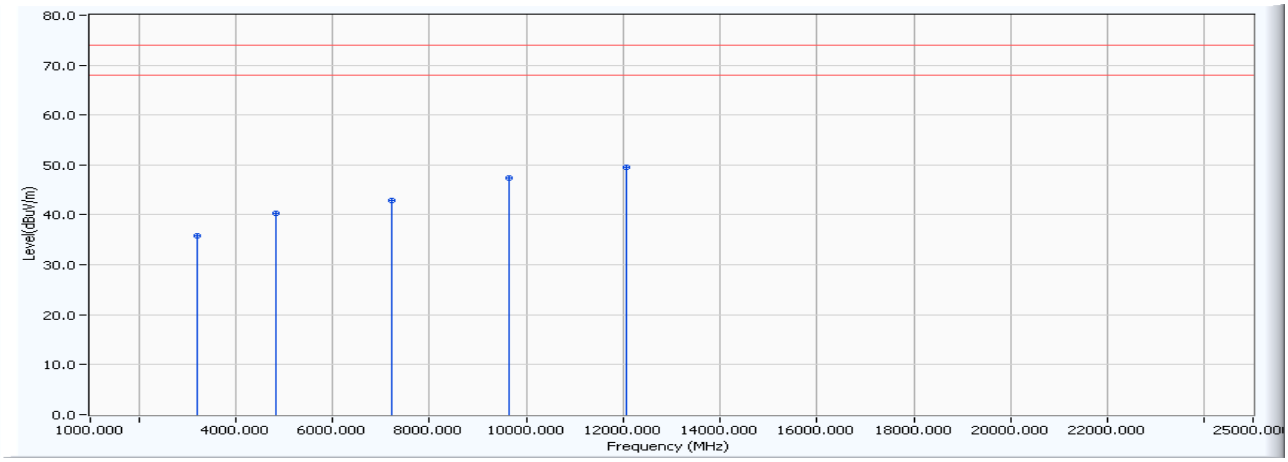


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4824.360	3.735	34.740	38.475	-35.525	74.000	54.000	PEAK
2		7235.150	8.726	34.860	43.585	-30.415	74.000	54.000	PEAK
3		9648.120	12.706	32.770	45.477	-28.523	74.000	54.000	PEAK
4	*	12059.390	17.629	32.540	50.169	-23.831	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 16:19**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

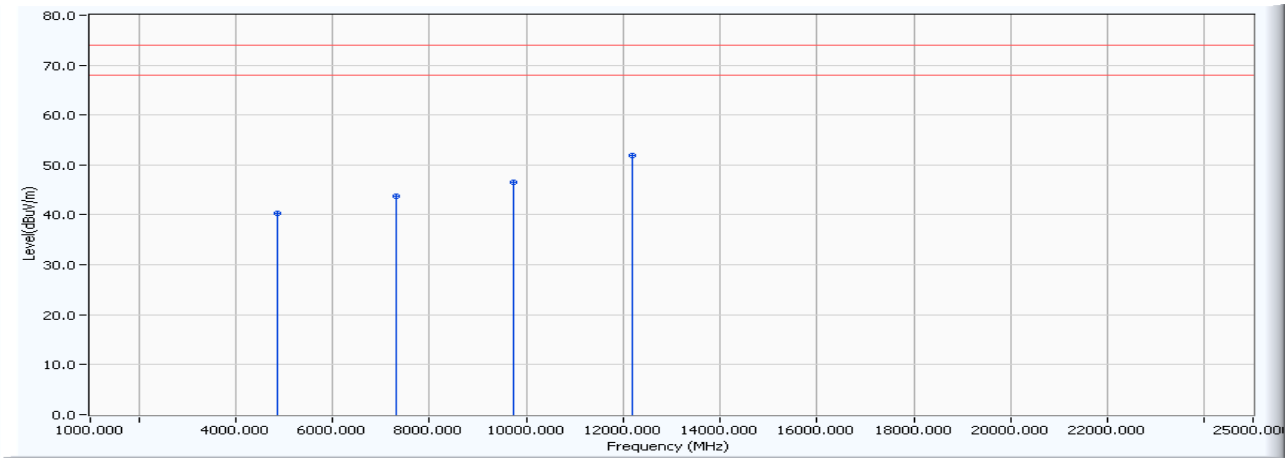


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3215.880	-0.463	36.380	35.917	-38.083	74.000	54.000	PEAK
2		4824.250	1.983	38.400	40.383	-33.617	74.000	54.000	PEAK
3		7235.100	8.726	34.160	42.885	-31.115	74.000	54.000	PEAK
4		9648.170	14.706	32.770	47.477	-26.523	74.000	54.000	PEAK
5	*	12059.240	17.215	32.230	49.444	-24.556	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 15:17**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH6-B**

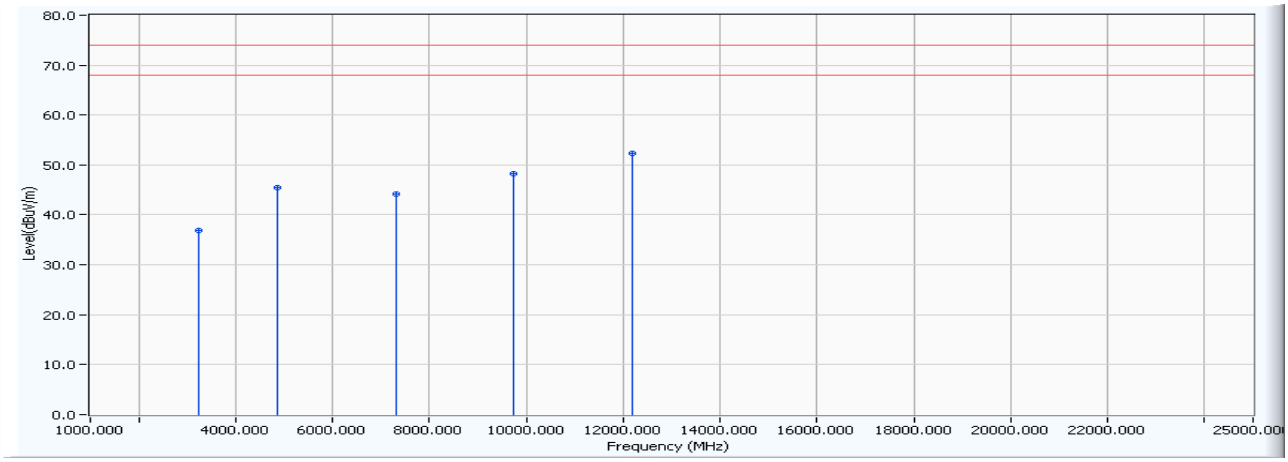


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4873.930	4.087	36.260	40.347	-33.653	74.000	54.000	PEAK
2		7311.140	8.844	34.830	43.675	-30.325	74.000	54.000	PEAK
3		9748.100	13.134	33.400	46.533	-27.467	74.000	54.000	PEAK
4	*	12185.920	19.249	32.570	51.819	-22.181	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 15:27**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH6-B**

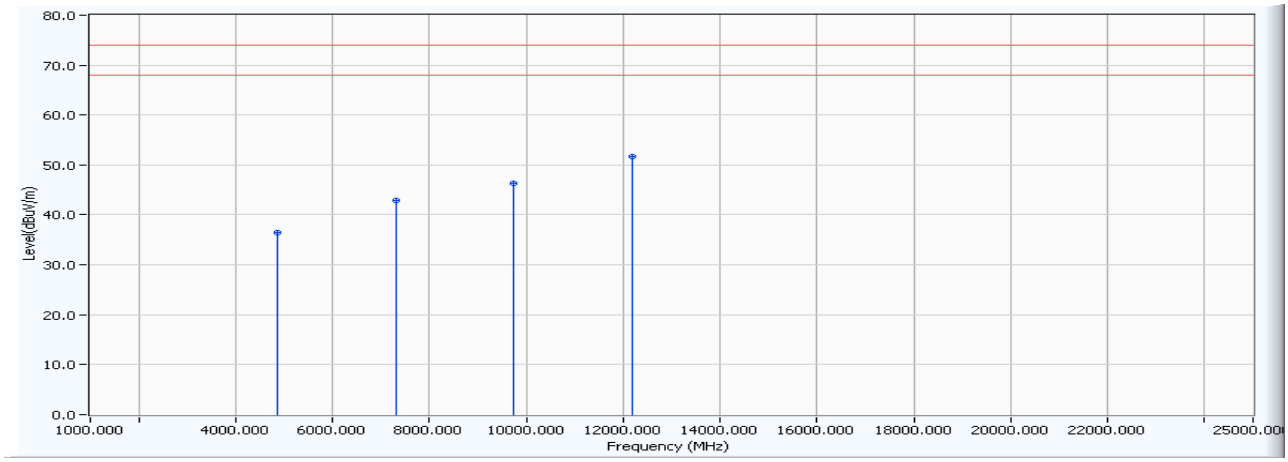


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3249.180	-0.368	37.250	36.882	-37.118	74.000	54.000	PEAK
2		4873.990	2.433	43.110	45.543	-28.457	74.000	54.000	PEAK
3		7311.120	8.844	35.390	44.235	-29.765	74.000	54.000	PEAK
4		9748.050	15.134	33.080	48.213	-25.787	74.000	54.000	PEAK
5	*	12185.950	19.409	33.000	52.409	-21.591	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 16:38**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH6-G**

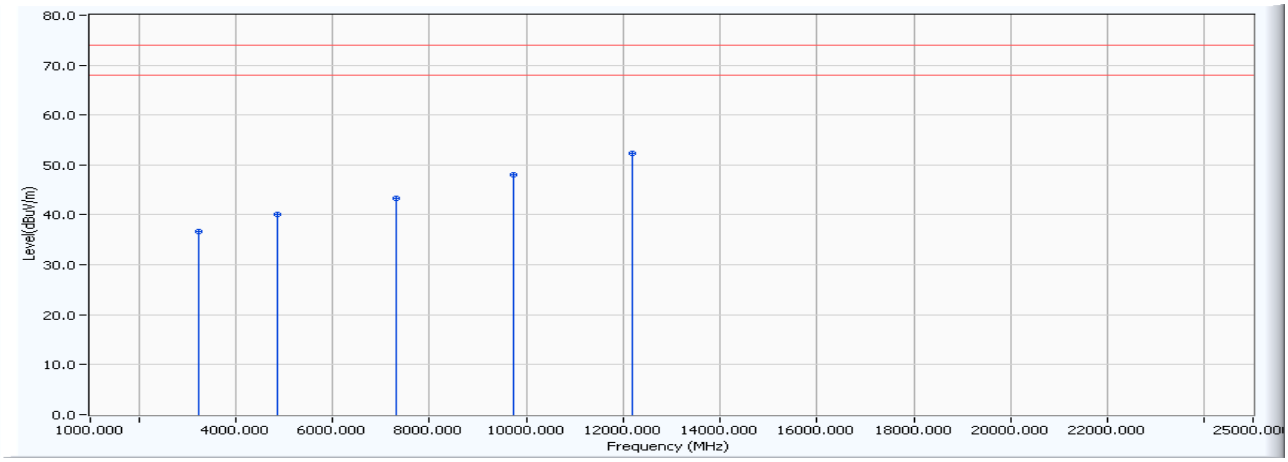


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4876.520	4.104	32.420	36.524	-37.476	74.000	54.000	PEAK
2		7312.080	8.846	34.110	42.956	-31.044	74.000	54.000	PEAK
3		9749.560	13.140	33.240	46.381	-27.619	74.000	54.000	PEAK
4	*	12185.360	19.243	32.500	51.743	-22.257	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 16:39**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH6-G**

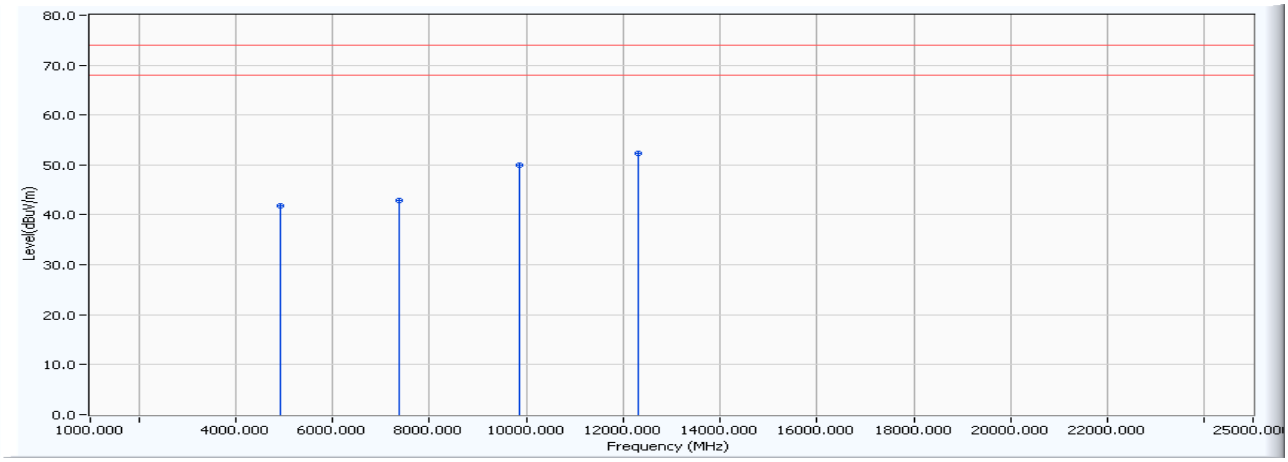


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3249.270	-0.368	36.940	36.572	-37.428	74.000	54.000	PEAK
2		4876.460	2.455	37.650	40.104	-33.896	74.000	54.000	PEAK
3		7312.000	8.846	34.440	43.286	-30.714	74.000	54.000	PEAK
4		9749.430	15.140	32.910	48.051	-25.949	74.000	54.000	PEAK
5	*	12185.280	19.395	32.920	52.316	-21.684	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 15:52**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

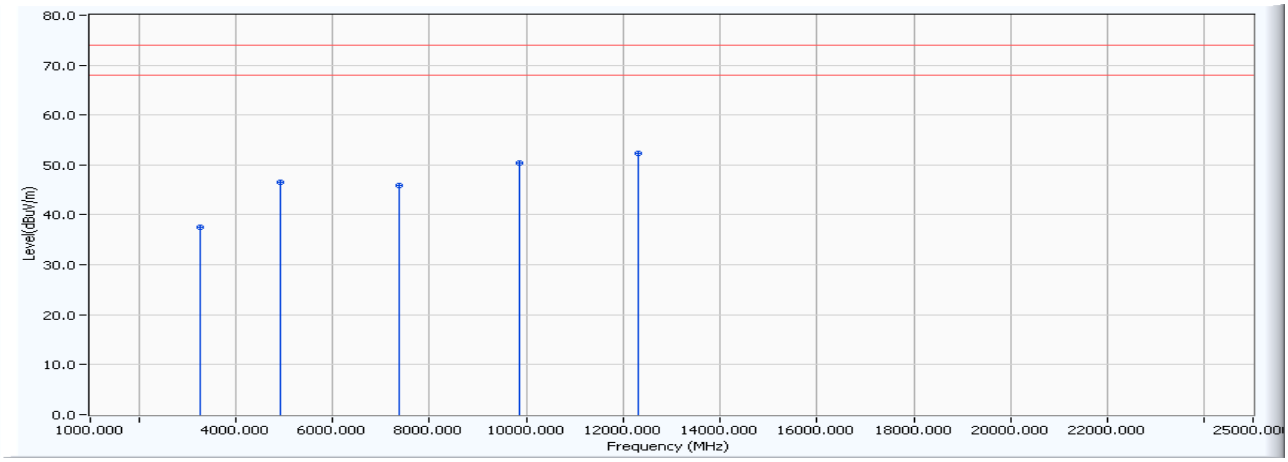


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4923.950	4.381	37.360	41.741	-32.259	74.000	54.000	PEAK
2		7386.340	8.944	33.980	42.923	-31.077	74.000	54.000	PEAK
3		9847.900	13.835	36.050	49.884	-24.116	74.000	54.000	PEAK
4	*	12310.030	17.902	34.439	52.341	-21.659	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 15:54**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

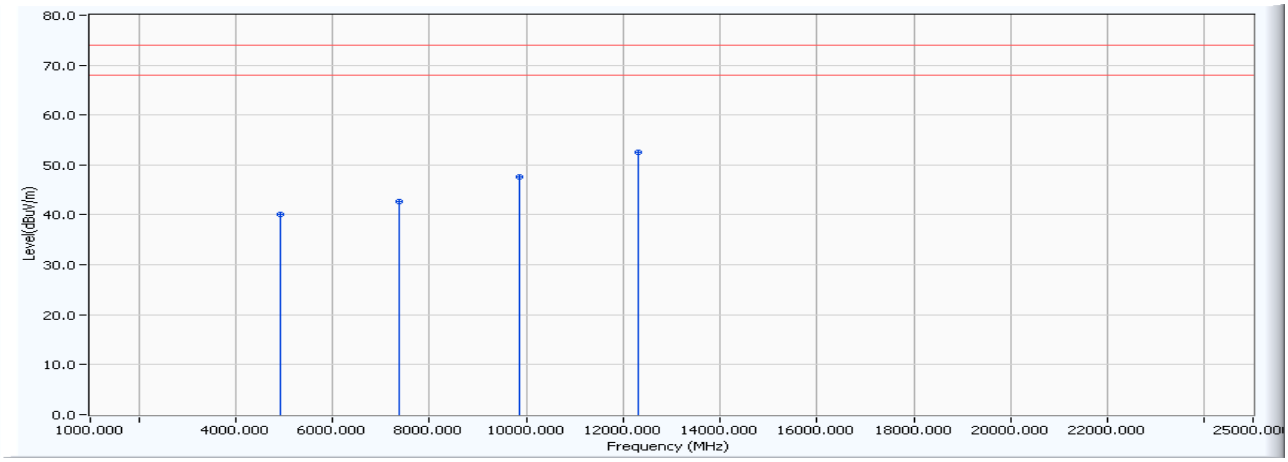


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3282.640	-0.267	37.810	37.544	-36.456	74.000	54.000	PEAK
2		4924.010	2.834	43.800	46.634	-27.366	74.000	54.000	PEAK
3		7386.220	8.944	37.030	45.973	-28.027	74.000	54.000	PEAK
4		9847.960	15.356	34.940	50.295	-23.705	74.000	54.000	PEAK
5	*	12310.000	17.903	34.390	52.293	-21.707	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 17:12**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - HORIZONTAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**

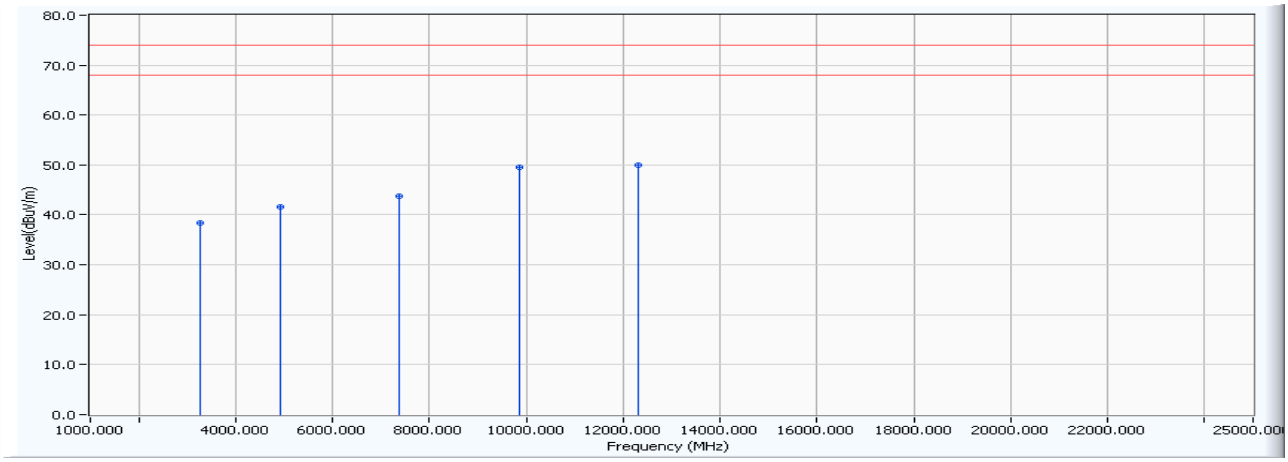


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		4925.320	4.385	35.650	40.035	-33.965	74.000	54.000	PEAK
2		7387.120	8.944	33.730	42.674	-31.326	74.000	54.000	PEAK
3		9849.370	13.849	33.690	47.538	-26.462	74.000	54.000	PEAK
4	*	12310.120	20.602	31.850	52.452	-21.548	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 2	**Time : 2008/06/30 - 17:18**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB3_FCC_1-18G(2007) - VERTICAL	**Power : AC 120V/50Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		3282.670	-0.267	38.680	38.414	-35.586	74.000	54.000	PEAK
2		4925.280	2.841	38.830	41.671	-32.329	74.000	54.000	PEAK
3		7387.020	8.944	34.770	43.714	-30.286	74.000	54.000	PEAK
4		9849.320	15.354	34.150	49.505	-24.495	74.000	54.000	PEAK
5	*	12310.150	17.900	32.090	49.990	-24.010	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the test:

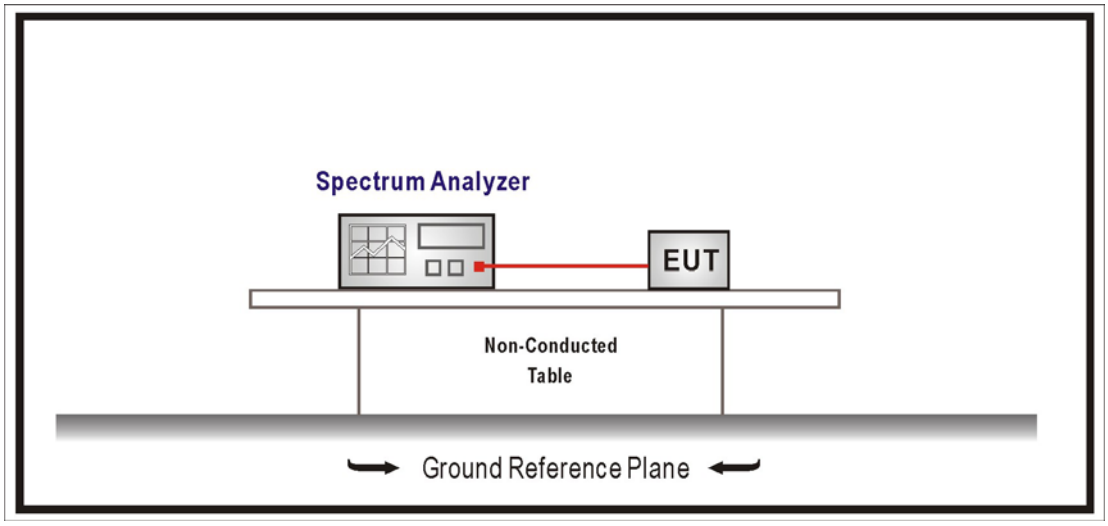
RF Conducted Measurement:				
Item	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.
1	Spectrum Analyzer	R & S	FSP / 100561	Jan., 2008
2	No.1 OATS			Sep., 2007

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

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

5.2. Test Setup

RF Antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Uncertainty

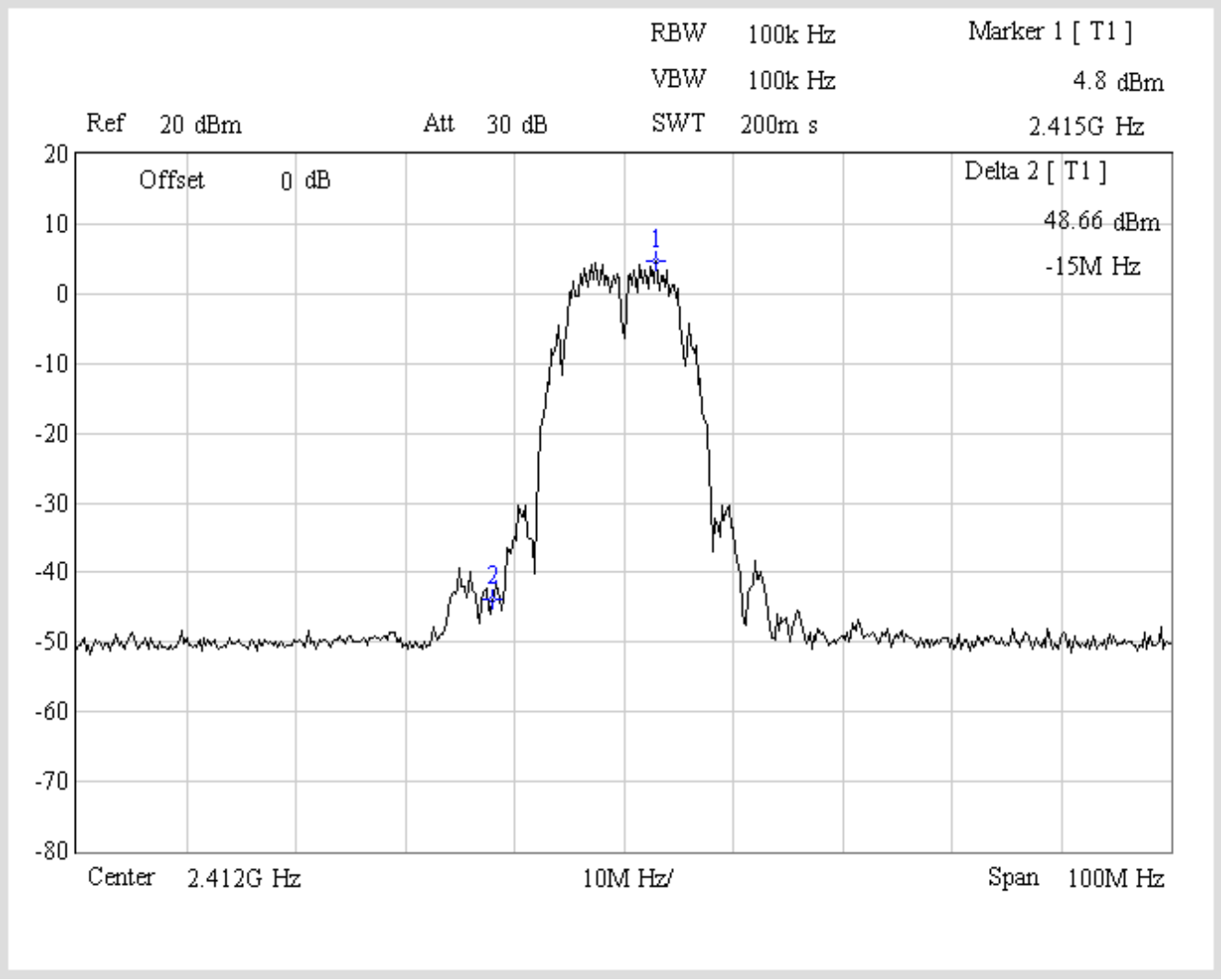
The measurement uncertainty
Conducted is defined as ± 1.27dB
Radiated is defined as ± 3.9dB

5.6. Test Result

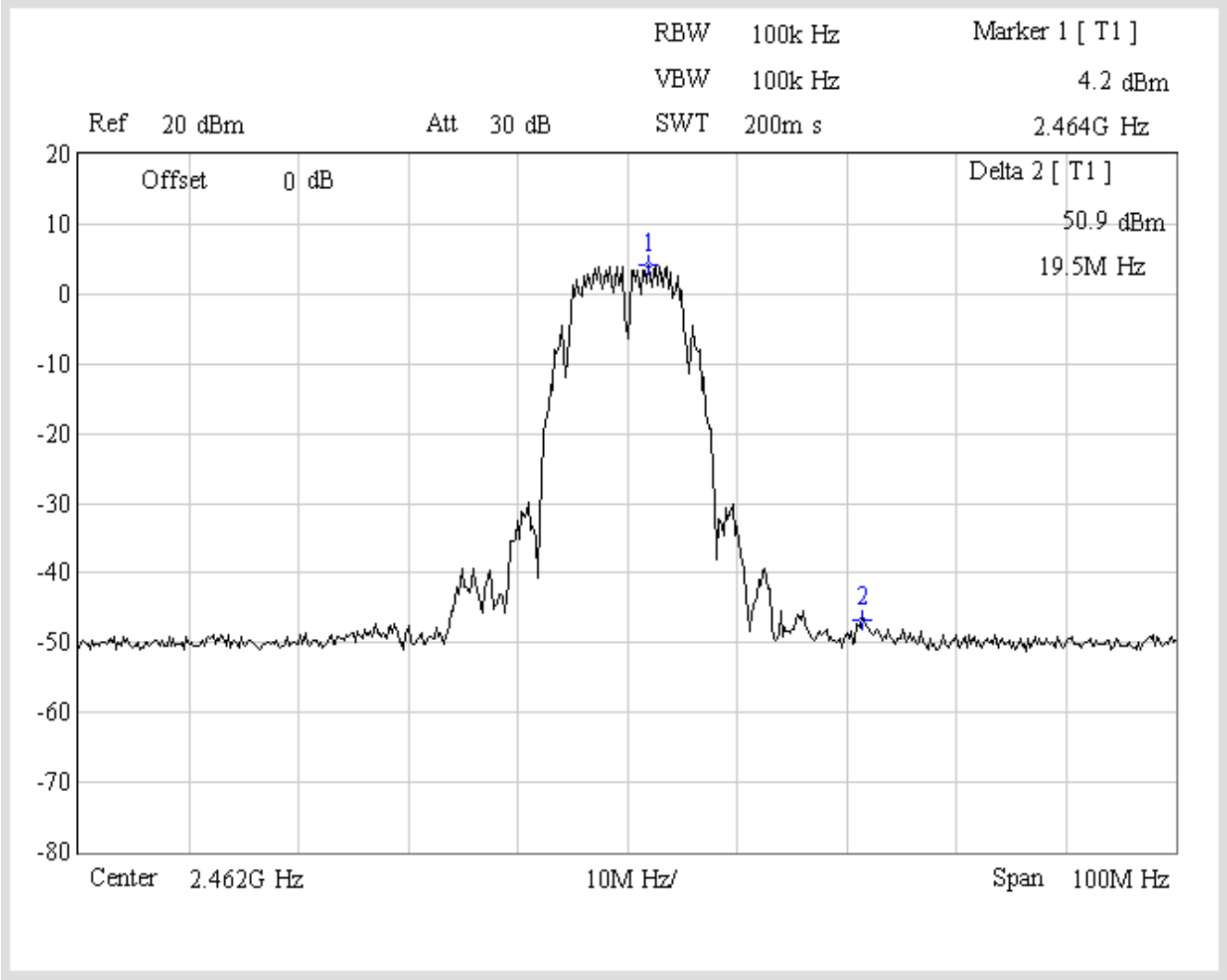
Product	Wireless ADSL Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11b, Antenna Gain: 2dBi, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	48.66	> 30	Pass
11	2462	50.90	> 30	Pass

Channel 01 (2412MHz)



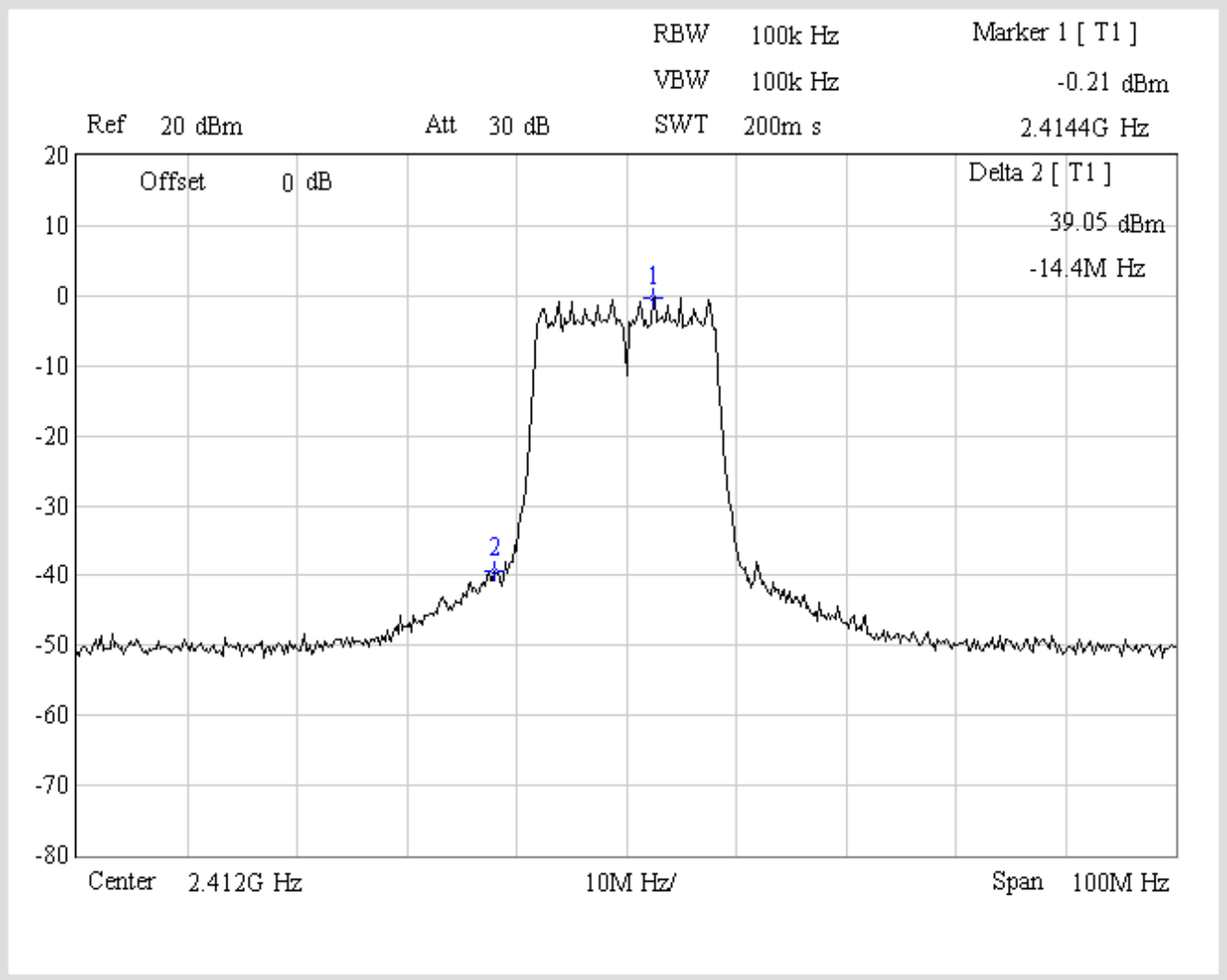
Channel 11 (2462MHz)



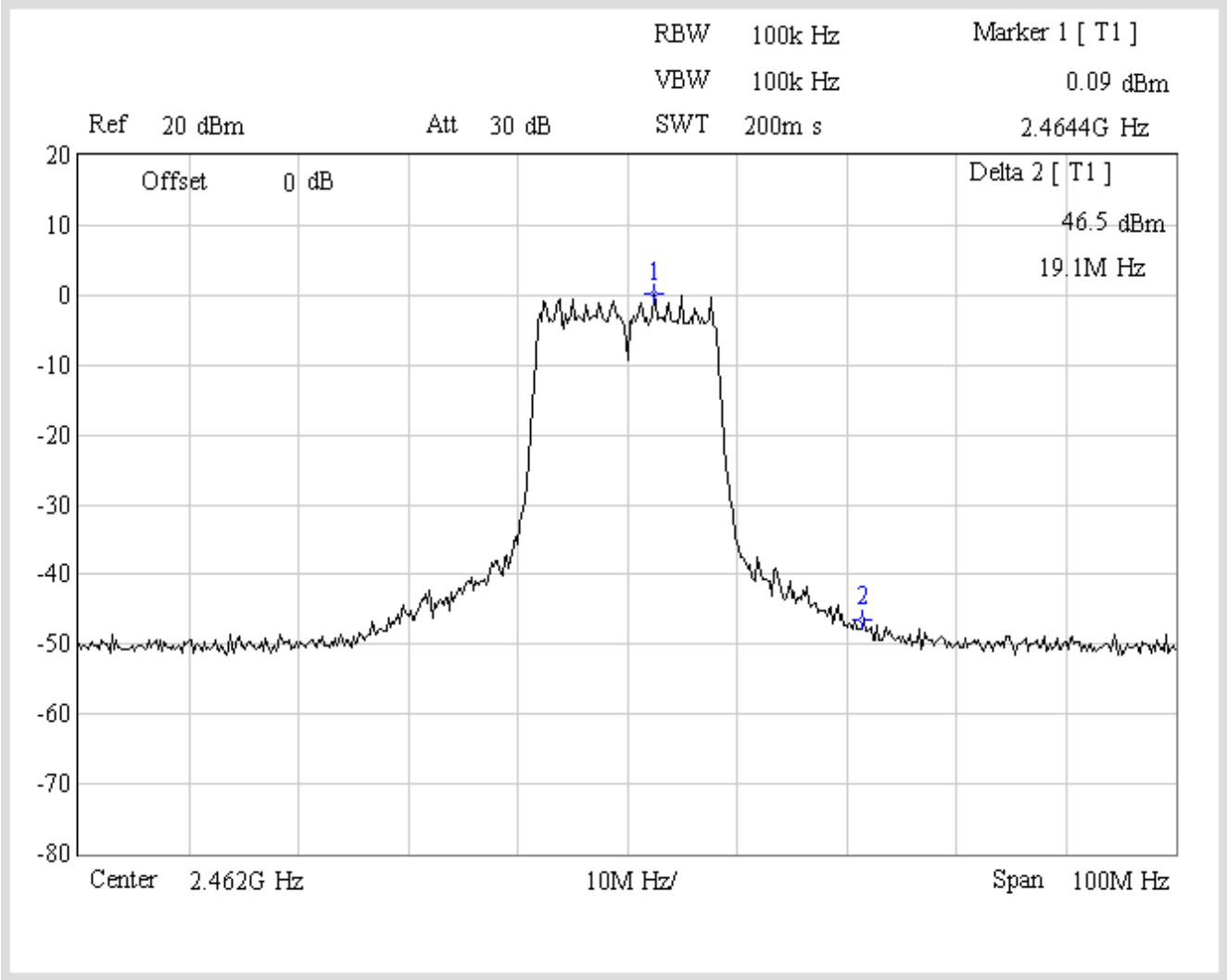
Product	Wireless ADSL Router		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11g, Antenna Gain: 2dBi, Duty Cycle: 1				
Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	39.05	> 30	Pass
11	2462	46.50	> 30	Pass

Channel 01 (2412MHz)



Channel 11 (2462MHz)



6. Band Edge

6.1. Test Equipment

The following test equipments are used during the test:

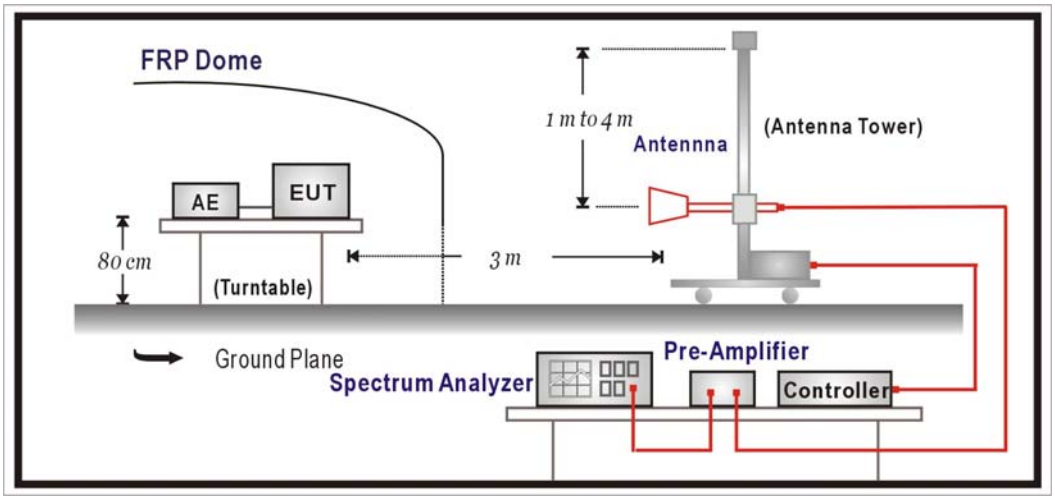
RF Radiated Measurement:					
Item	Equipment		Manufacturer	Model No. / Serial No.	Last Cal.
1	X	Spectrum Analyzer	R & S	FSP40 / 100005	Aug., 2007
2	X	Pre-Amplifier	HP	8449B / 3008A01123	Feb., 2008
3		Loop Antenna	R & S	HFH2-Z2 / 833799/004	Sep., 2007
4		BiconiLog Antenna	Schwarzbeck	VULB 9166 / 1061	Sep., 2007
5		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2007
6	X	Horn Antenna	Schwarzbeck	BBHA 9120D / BBHA9120D312	Sep., 2007
7	No.1 OATS				Sep., 2007

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

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

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

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

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

6.5. Uncertainty

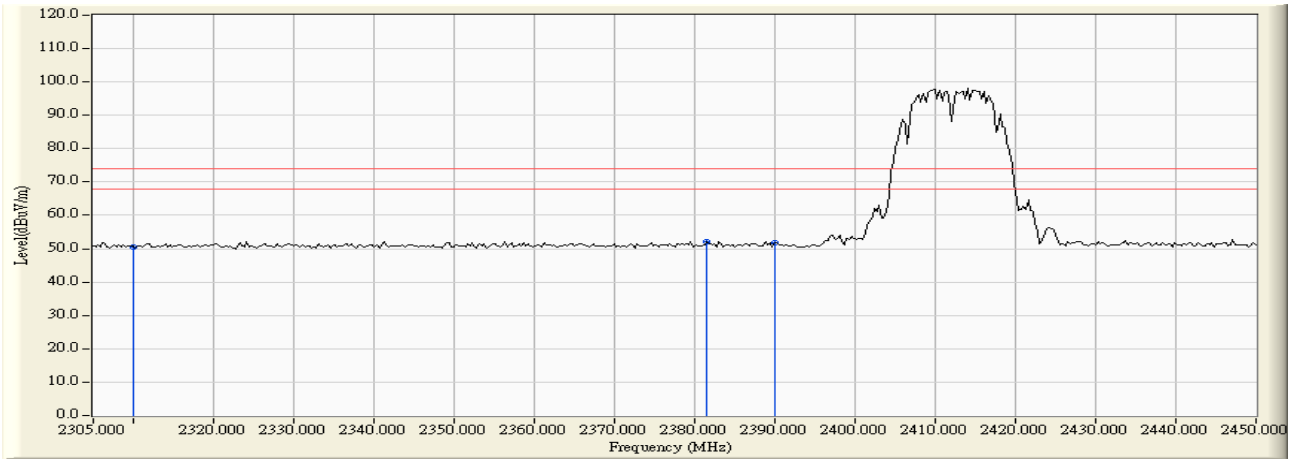
The measurement uncertainty

± 3.9 dB above 1GHz

6.6. Test Result

Radiated is defined as

Site : Site 1	**Time : 2008/07/02 - 17:25**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

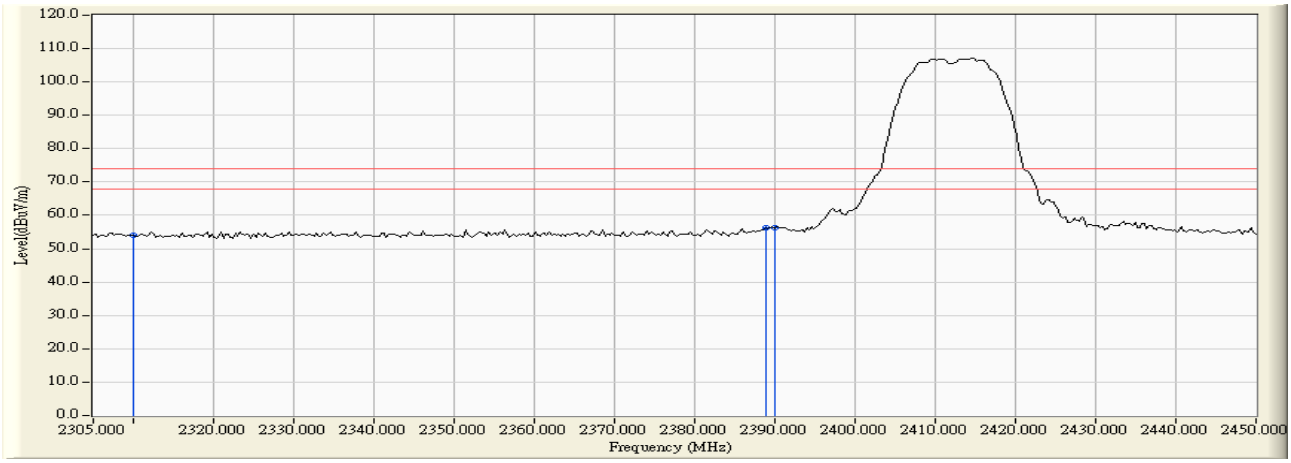


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	19.778	50.600	-23.400	74.000	54.000	PEAK
2	*	2381.560	31.059	21.136	52.195	-21.805	74.000	54.000	PEAK
3		2390.000	31.087	20.611	51.698	-22.302	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:50**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

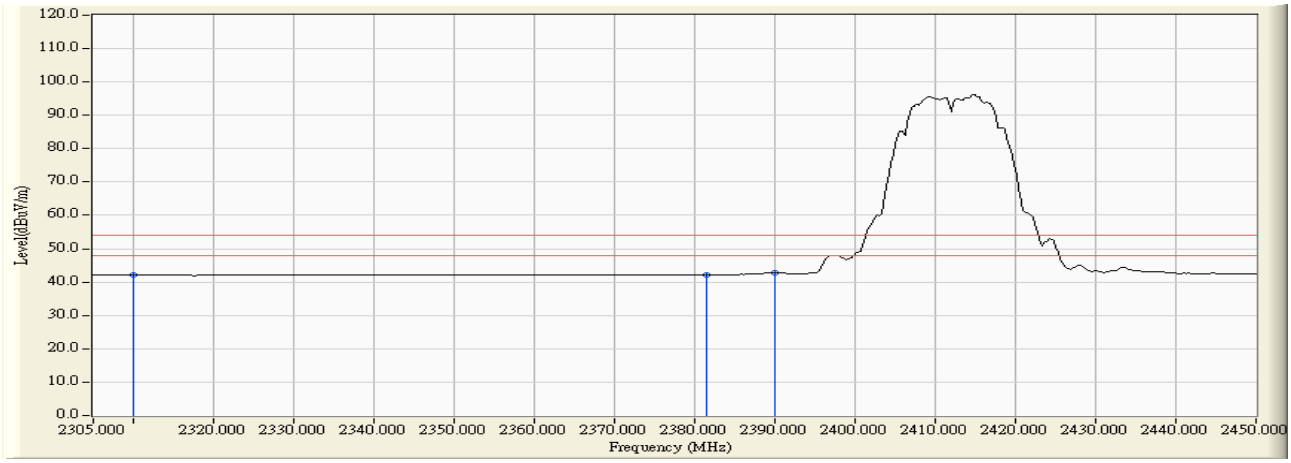


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	23.251	54.073	-19.927	74.000	54.000	PEAK
2	*	2388.810	31.083	25.328	56.411	-17.589	74.000	54.000	PEAK
3		2390.000	31.087	25.089	56.176	-17.824	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:27**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

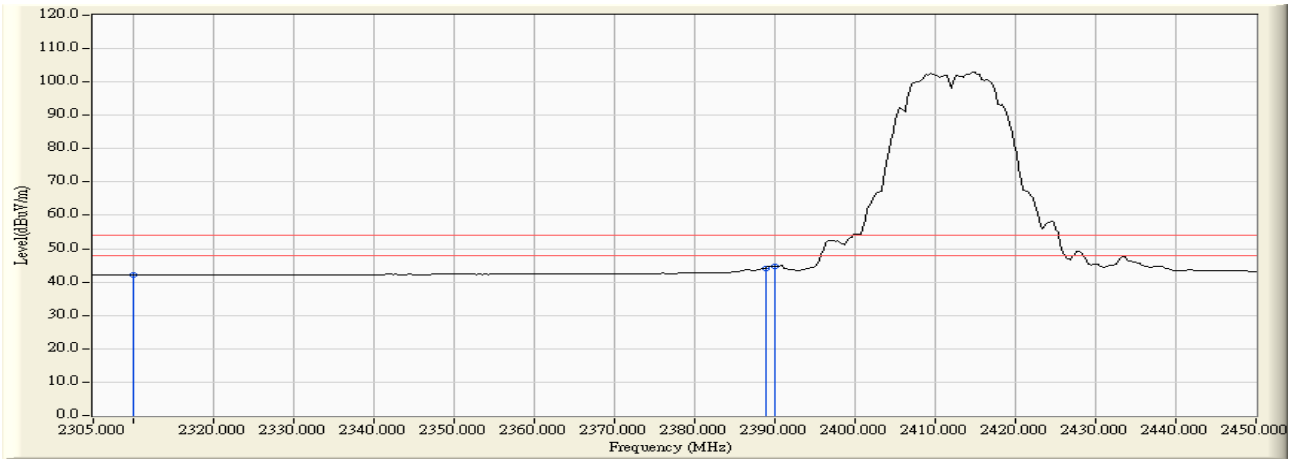


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	11.218	42.040	-11.960	74.000	54.000	AVERAGE
2	*	2381.560	31.059	11.118	42.177	-11.823	74.000	54.000	AVERAGE
3		2390.000	31.087	11.626	42.713	-11.287	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:51**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-B**

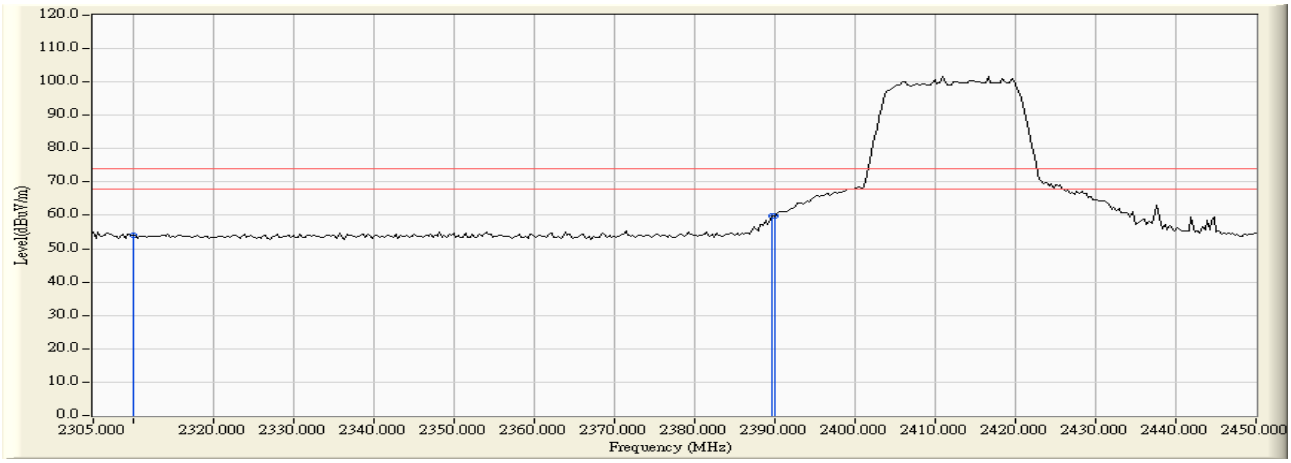


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	11.293	42.115	-11.885	74.000	54.000	AVERAGE
2	*	2388.810	31.083	13.126	44.209	-9.791	74.000	54.000	AVERAGE
3		2390.000	31.087	13.581	44.668	-9.332	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:36**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

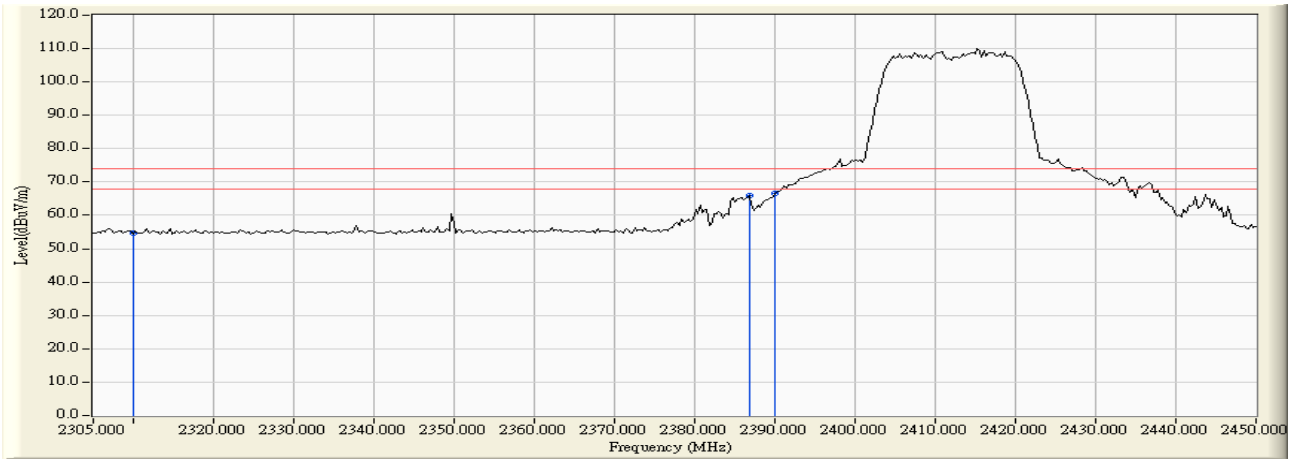


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	23.105	53.927	-20.073	74.000	54.000	PEAK
2	*	2389.680	31.085	28.862	59.948	-14.052	74.000	54.000	PEAK
3		2390.000	31.087	28.664	59.751	-14.249	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:46**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

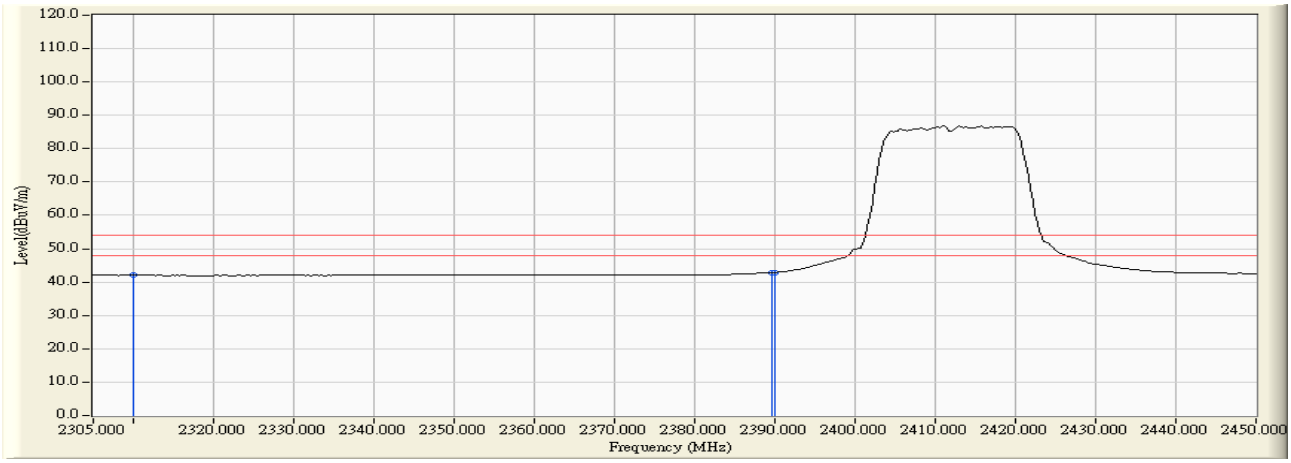


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	23.899	54.721	-19.279	74.000	54.000	PEAK
2	*	2386.780	31.077	34.801	65.877	-8.123	74.000	54.000	PEAK
3		2390.000	31.087	35.381	66.468	-7.532	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:37**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

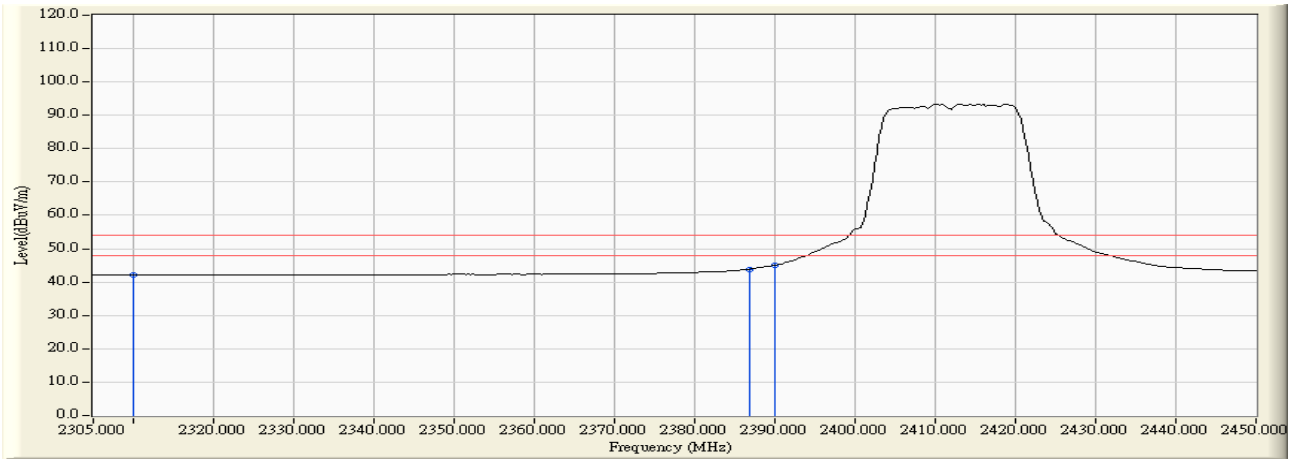


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	11.181	42.003	-11.997	74.000	54.000	AVERAGE
2	*	2389.680	31.085	11.756	42.842	-11.158	74.000	54.000	AVERAGE
3		2390.000	31.087	11.798	42.885	-11.115	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 17:47**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH1-G**

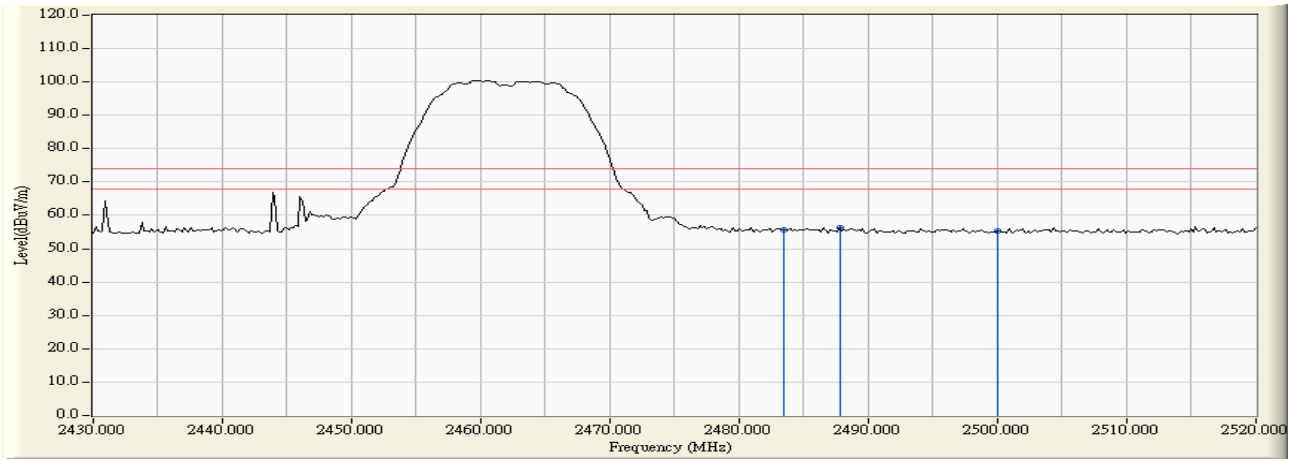


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2310.000	30.823	11.281	42.103	-11.897	74.000	54.000	AVERAGE
2	*	2386.780	31.077	12.822	43.898	-10.102	74.000	54.000	AVERAGE
3		2390.000	31.087	14.003	45.090	-8.910	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 18:01**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

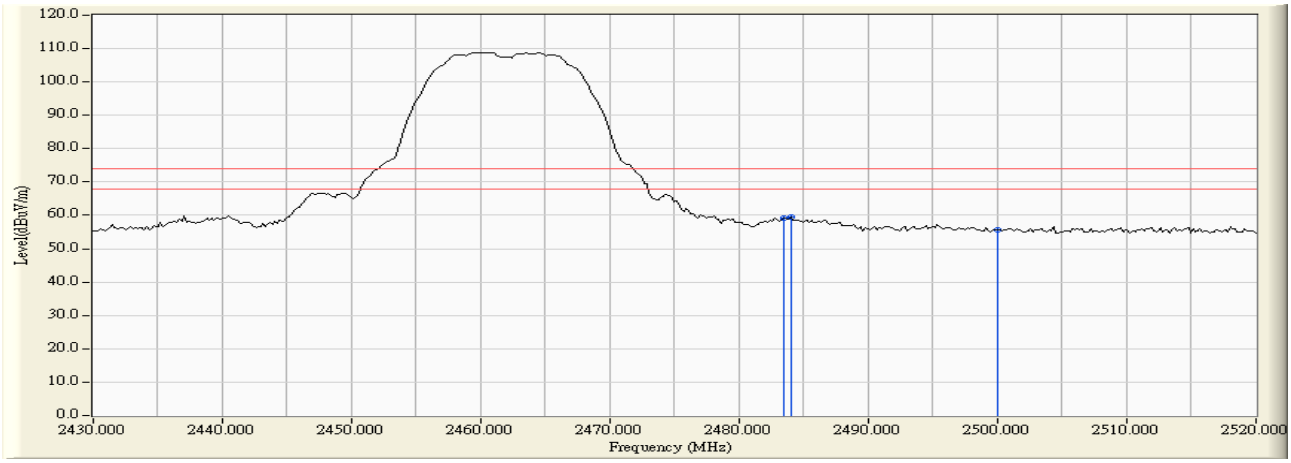


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	24.299	55.705	-18.295	74.000	54.000	PEAK
2	*	2487.780	31.420	24.740	56.160	-17.840	74.000	54.000	PEAK
3		2500.000	31.456	23.838	55.294	-18.706	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 19:09**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

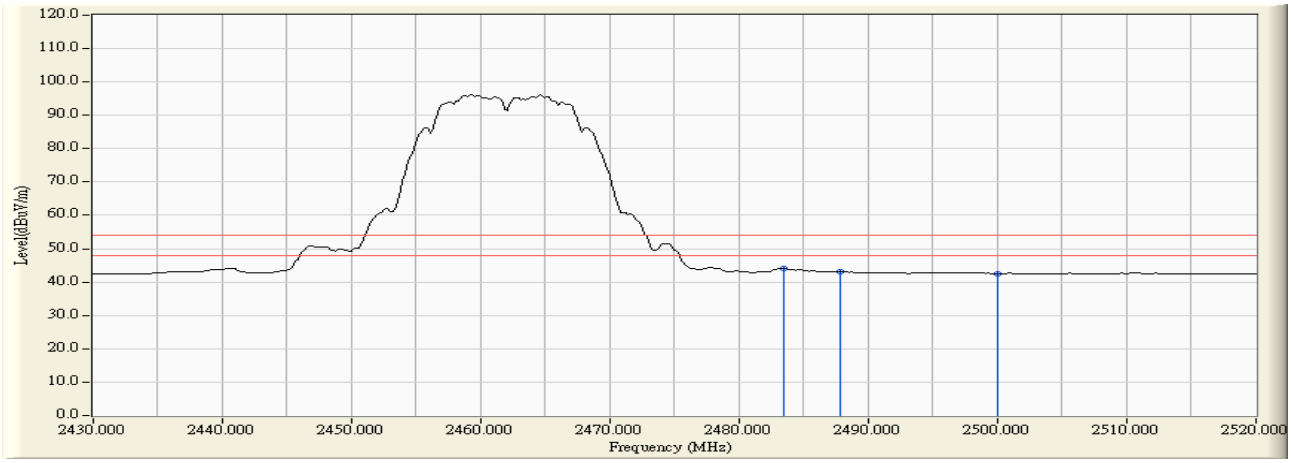


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	27.847	59.253	-14.747	74.000	54.000	PEAK
2	*	2484.000	31.408	28.136	59.544	-14.456	74.000	54.000	PEAK
3		2500.000	31.456	24.219	55.675	-18.325	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 18:04**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

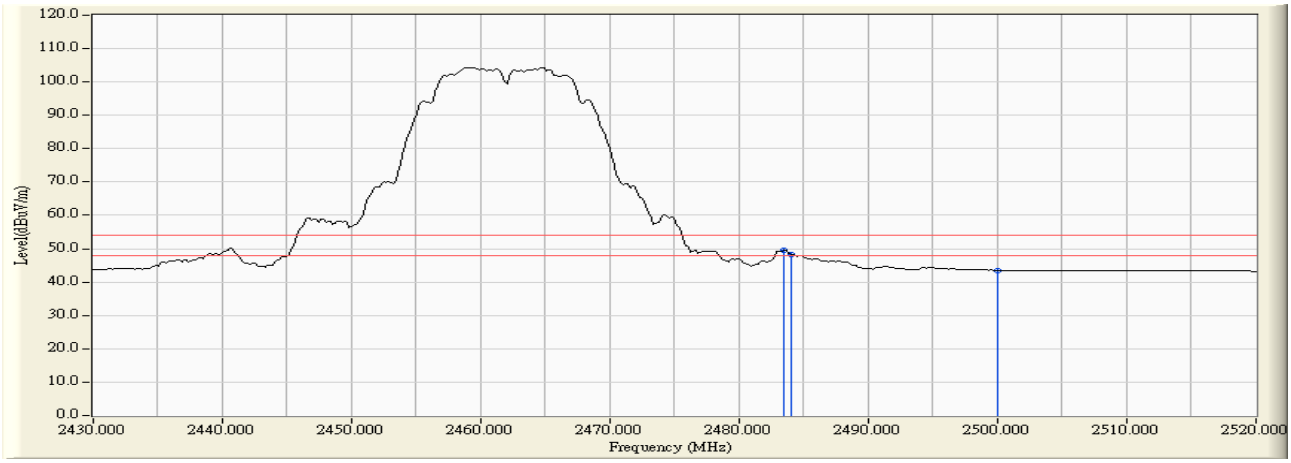


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	12.707	44.113	-9.887	74.000	54.000	AVERAGE
2	*	2487.780	31.420	11.646	43.066	-10.934	74.000	54.000	AVERAGE
3		2500.000	31.456	11.167	42.623	-11.377	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 19:10**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-B**

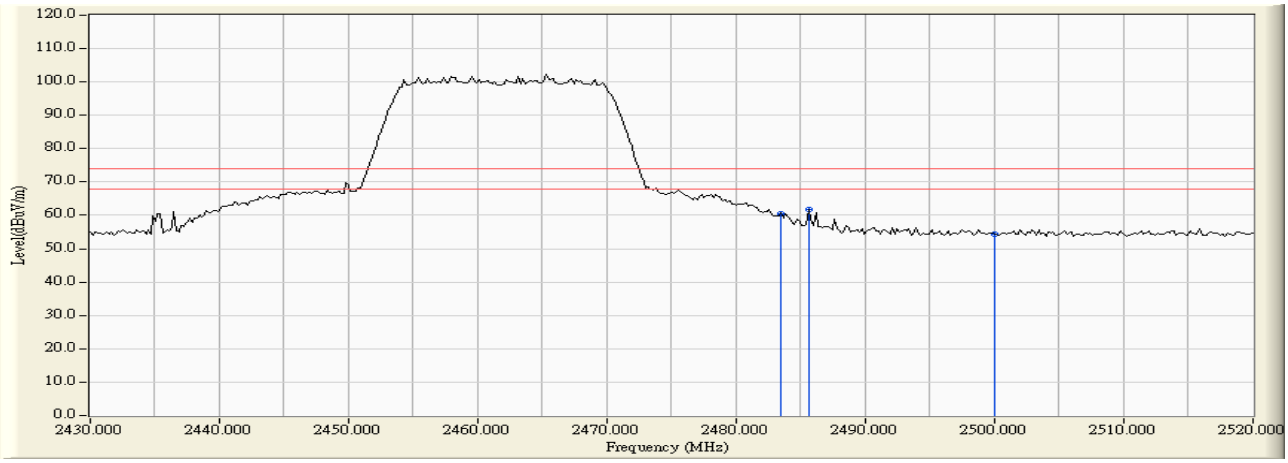


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	18.120	49.526	-4.474	74.000	54.000	AVERAGE
2	*	2484.000	31.408	16.805	48.213	-5.787	74.000	54.000	AVERAGE
3		2500.000	31.456	12.132	43.588	-10.412	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 18:57**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**

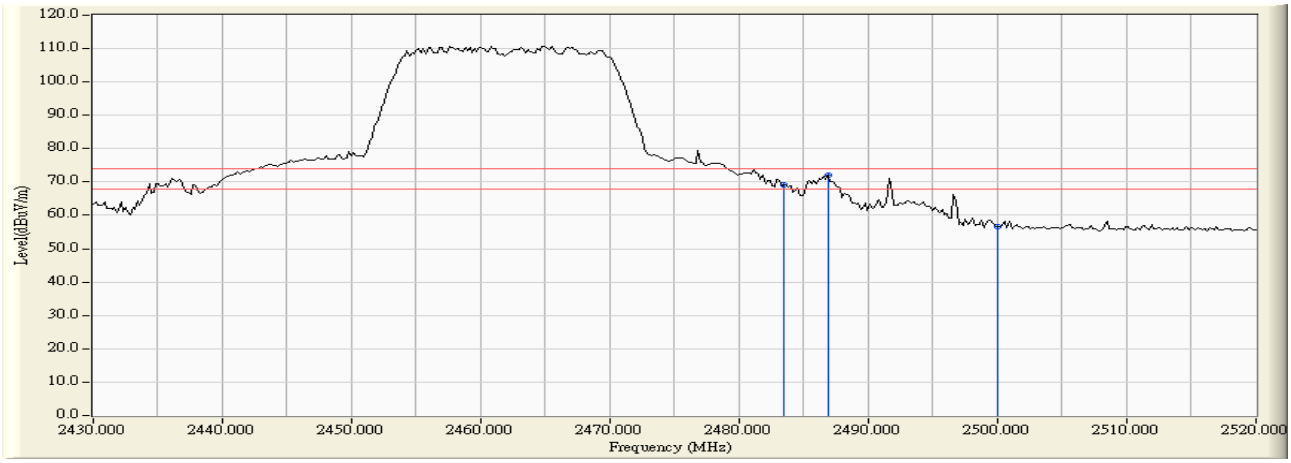


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	29.181	60.587	-13.413	74.000	54.000	PEAK
2	*	2485.620	31.413	30.235	61.648	-12.352	74.000	54.000	PEAK
3		2500.000	31.456	22.843	54.299	-19.701	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 19:05**
Limit : FCC_15.209(961011)_03M_PK	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**

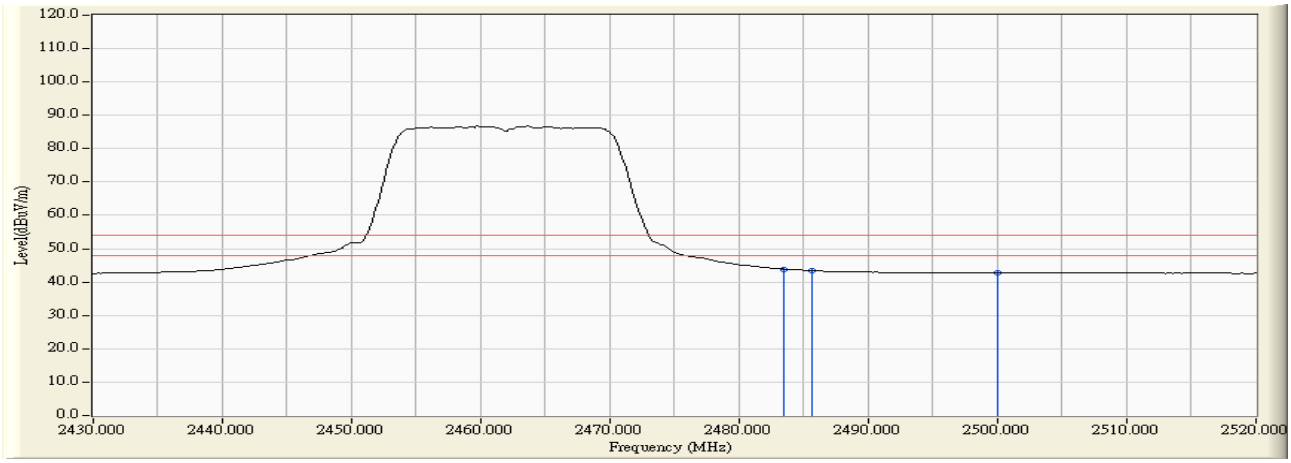


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	37.697	69.103	-4.897	74.000	54.000	PEAK
2	*	2486.880	31.418	40.544	71.961	-2.039	74.000	54.000	PEAK
3		2500.000	31.456	25.022	56.478	-17.522	74.000	54.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 18:58**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**

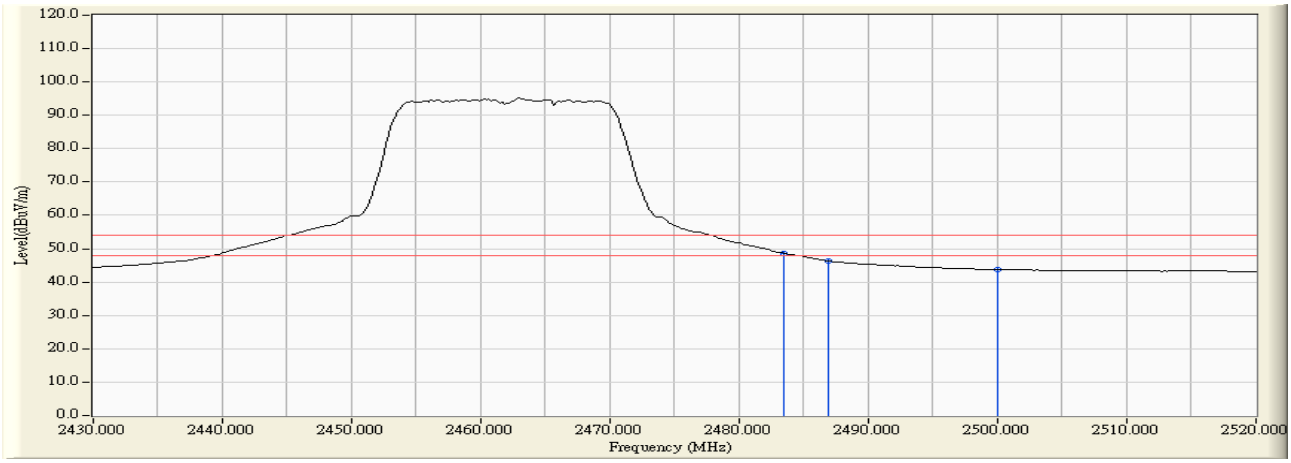


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	12.465	43.871	-10.129	74.000	54.000	AVERAGE
2	*	2485.620	31.413	12.025	43.438	-10.562	74.000	54.000	AVERAGE
3		2500.000	31.456	11.254	42.710	-11.290	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : Site 1	**Time : 2008/07/02 - 19:06**
Limit : FCC_15.209(961011)_03M_AV	**Margin : 6**
Probe : CB4_FCC_1-18G(2008-05) - VERTICAL	**Power : AC 120V/60Hz**
EUT : Wireless ADSL Router	**Note : Mode 1: Transmit-CH11-G**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Detector Type
1		2483.500	31.407	17.221	48.627	-5.373	74.000	54.000	AVERAGE
2	*	2486.880	31.418	14.926	46.343	-7.657	74.000	54.000	AVERAGE
3		2500.000	31.456	12.363	43.819	-10.181	74.000	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Occupied Bandwidth

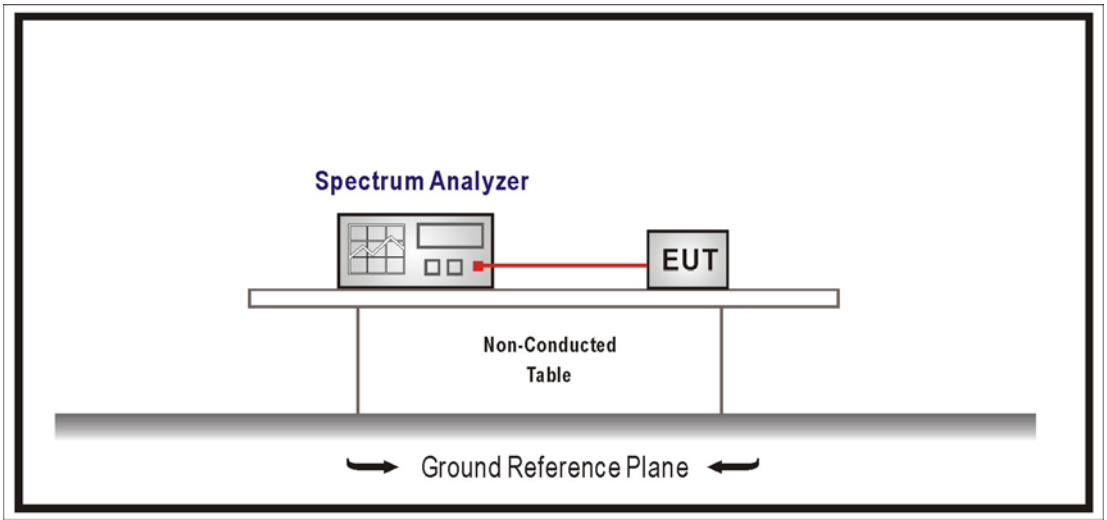
7.1. Test Equipment

The following test equipments are used during the test:

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

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

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Uncertainty

The measurement uncertainty is defined as ±150Hz

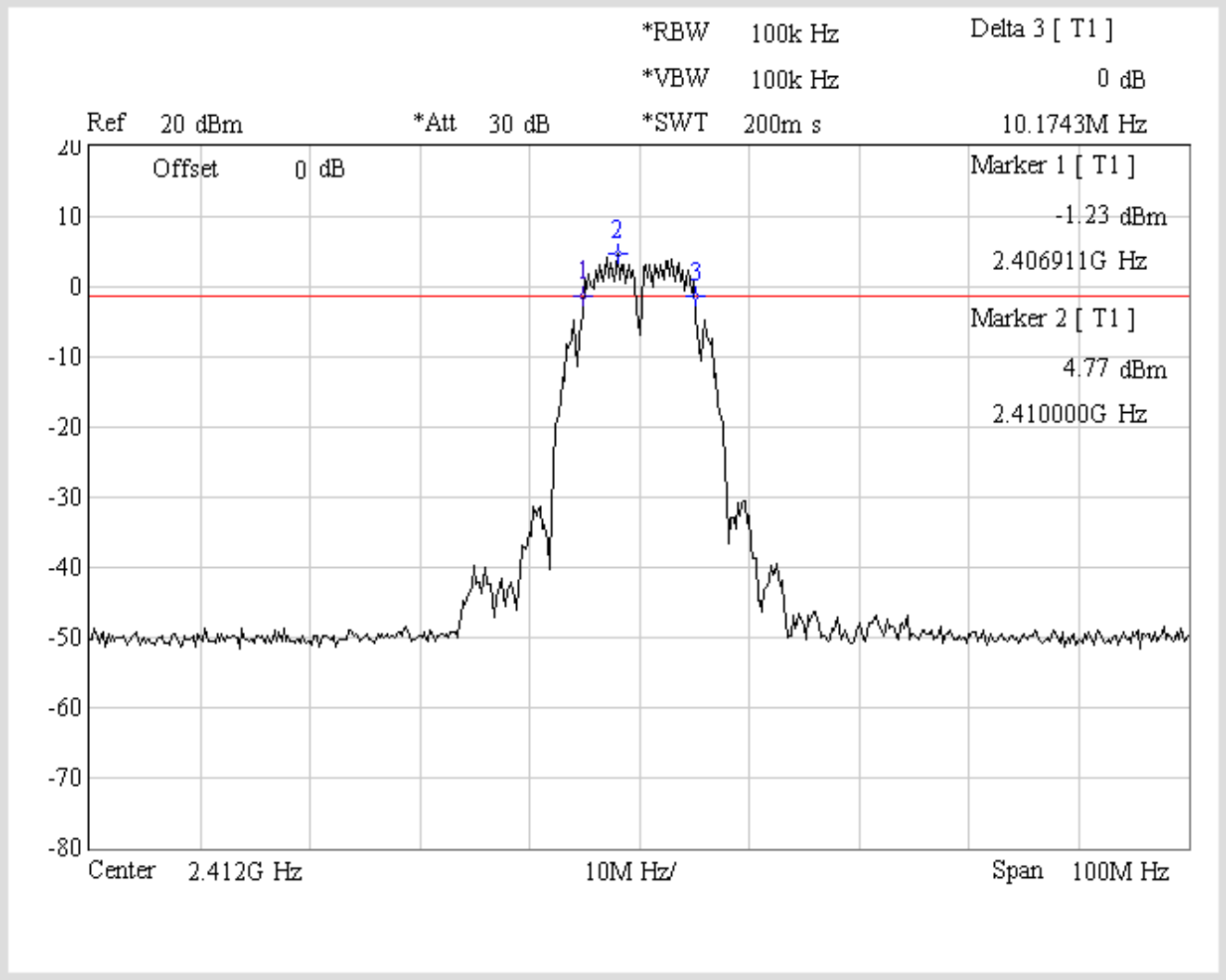
7.6. Test Result

Product	Wireless ADSL Router		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

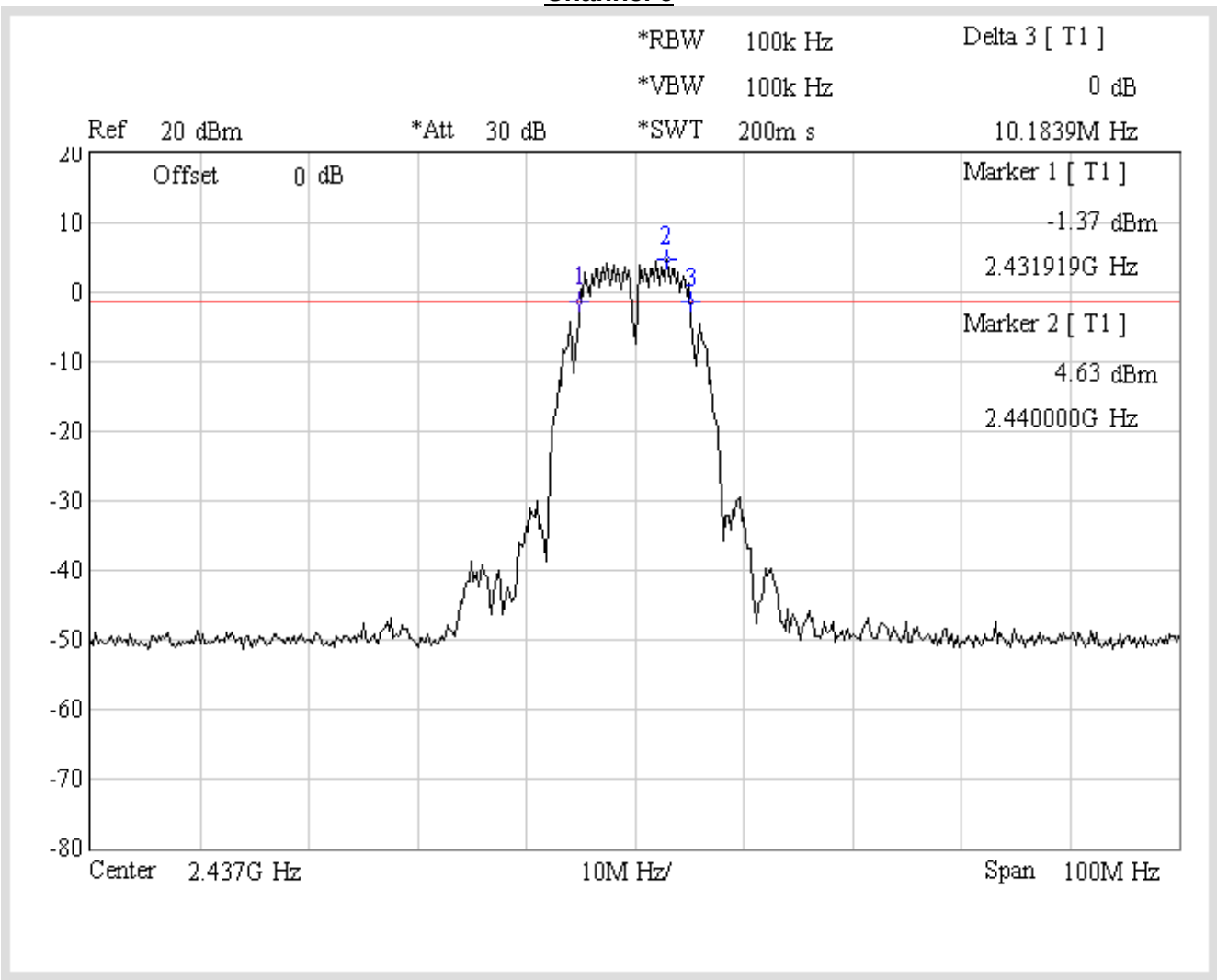
802.11 b

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	10174.3	≧500	Pass
6	2437.00	10183.9	≧500	Pass
11	2462.00	10208.2	≧500	Pass

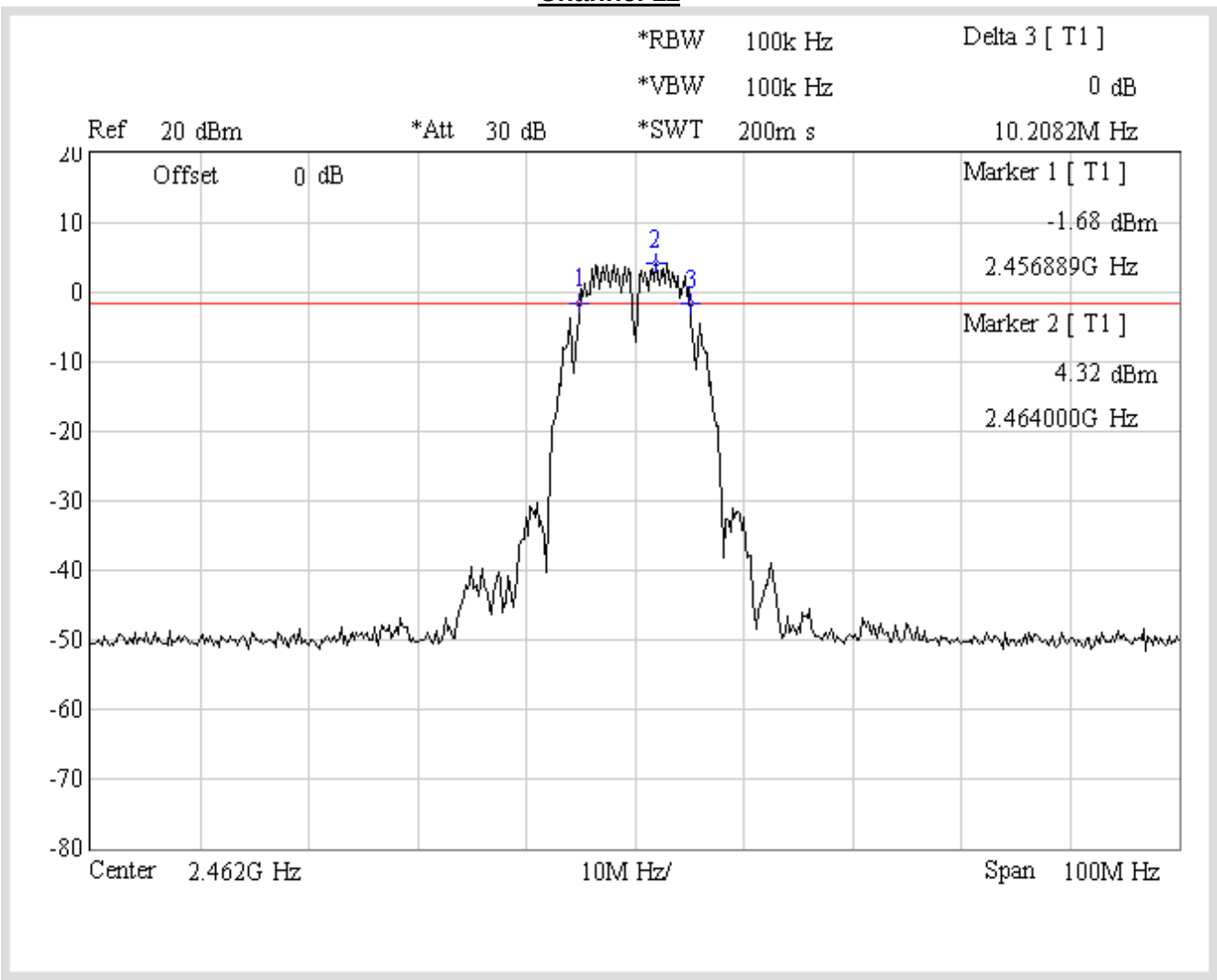
Channel 1



Channel 6


*RBW 100k Hz
*VBW 100k Hz
Delta 3 [T1]
0 dB
Ref 20 dBm
*Att 30 dB
*SWT 200m s
10.1839M Hz
Offset 0 dB
Marker 1 [T1]
-1.37 dBm
2.431919G Hz
Marker 2 [T1]
4.63 dBm
2.440000G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437G Hz
10M Hz/
Span 100M Hz

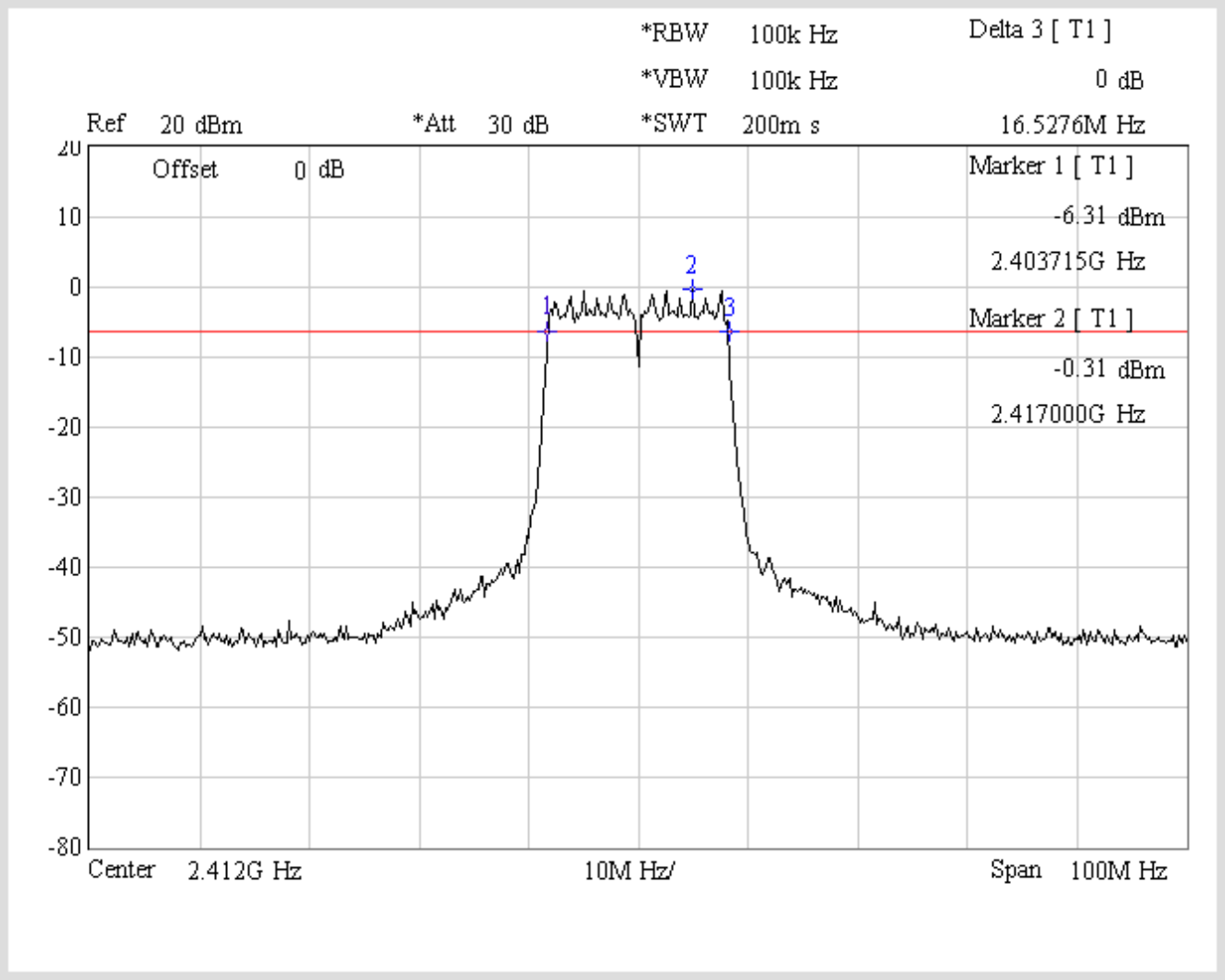
Channel 11


*RBW 100k Hz
*VBW 100k Hz
Delta 3 [T1]
0 dB
Ref 20 dBm
*Att 30 dB
*SWT 200m s
10.2082M Hz
Offset 0 dB
Marker 1 [T1]
-1.68 dBm
2.456889G Hz
Marker 2 [T1]
4.32 dBm
2.464000G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462G Hz
10M Hz/
Span 100M Hz

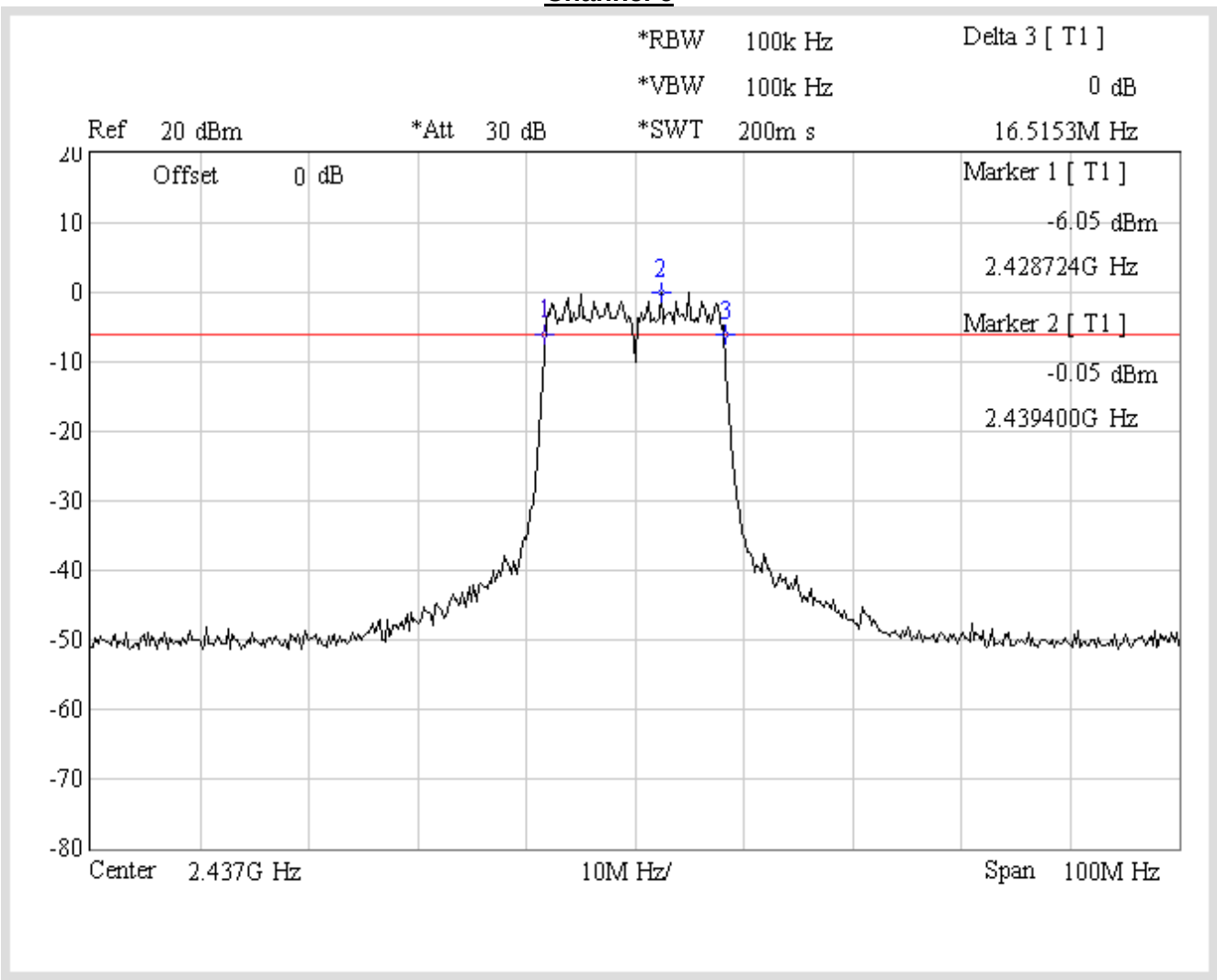
Product	Wireless ADSL Router		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1	2412.00	16527.6	≧500	Pass
6	2437.00	16515.3	≧500	Pass
11	2462.00	16531.3	≧500	Pass

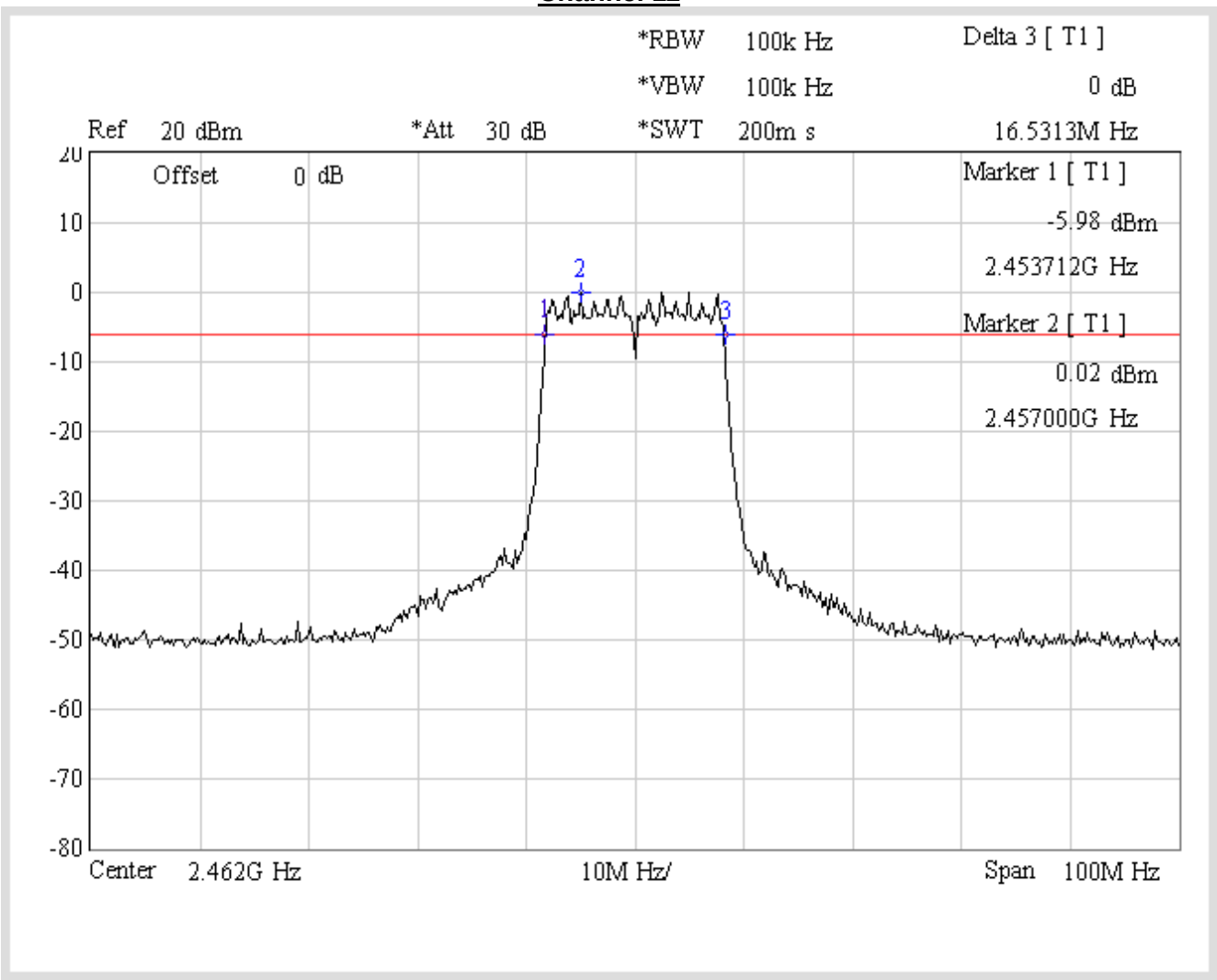
Channel 1



Channel 6


*RBW 100k Hz
*VBW 100k Hz
Delta 3 [T1]
0 dB
Ref 20 dBm
*Att 30 dB
*SWT 200m s
16.5153M Hz
Offset 0 dB
Marker 1 [T1]
-6.05 dBm
2.428724G Hz
Marker 2 [T1]
-0.05 dBm
2.439400G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.437G Hz
10M Hz/
Span 100M Hz

Channel 11


*RBW 100k Hz
*VBW 100k Hz
Delta 3 [T1]
0 dB
Ref 20 dBm
*Att 30 dB
*SWT 200m s
16.5313M Hz
Offset 0 dB
Marker 1 [T1]
-5.98 dBm
2.453712G Hz
Marker 2 [T1]
0.02 dBm
2.457000G Hz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.462G Hz
10M Hz/
Span 100M Hz

8. Power Density

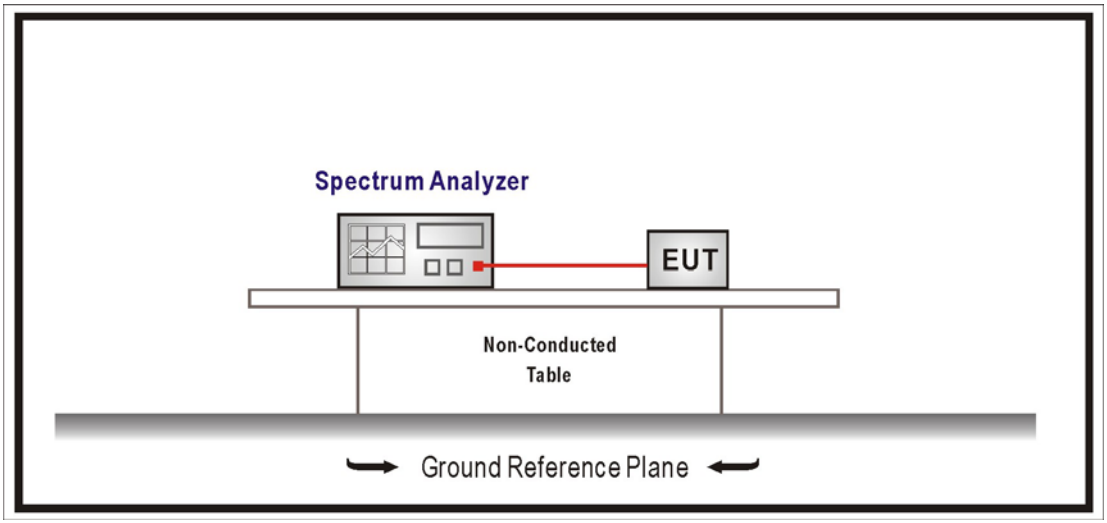
8.1. Test Equipment

The following test equipment are used during the test:

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

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

8.2. Test Setup



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 3 kHz, Set VBW≧ 9 kHz, Sweep time=Auto, Set detector=Peak detector

8.5. Uncertainty

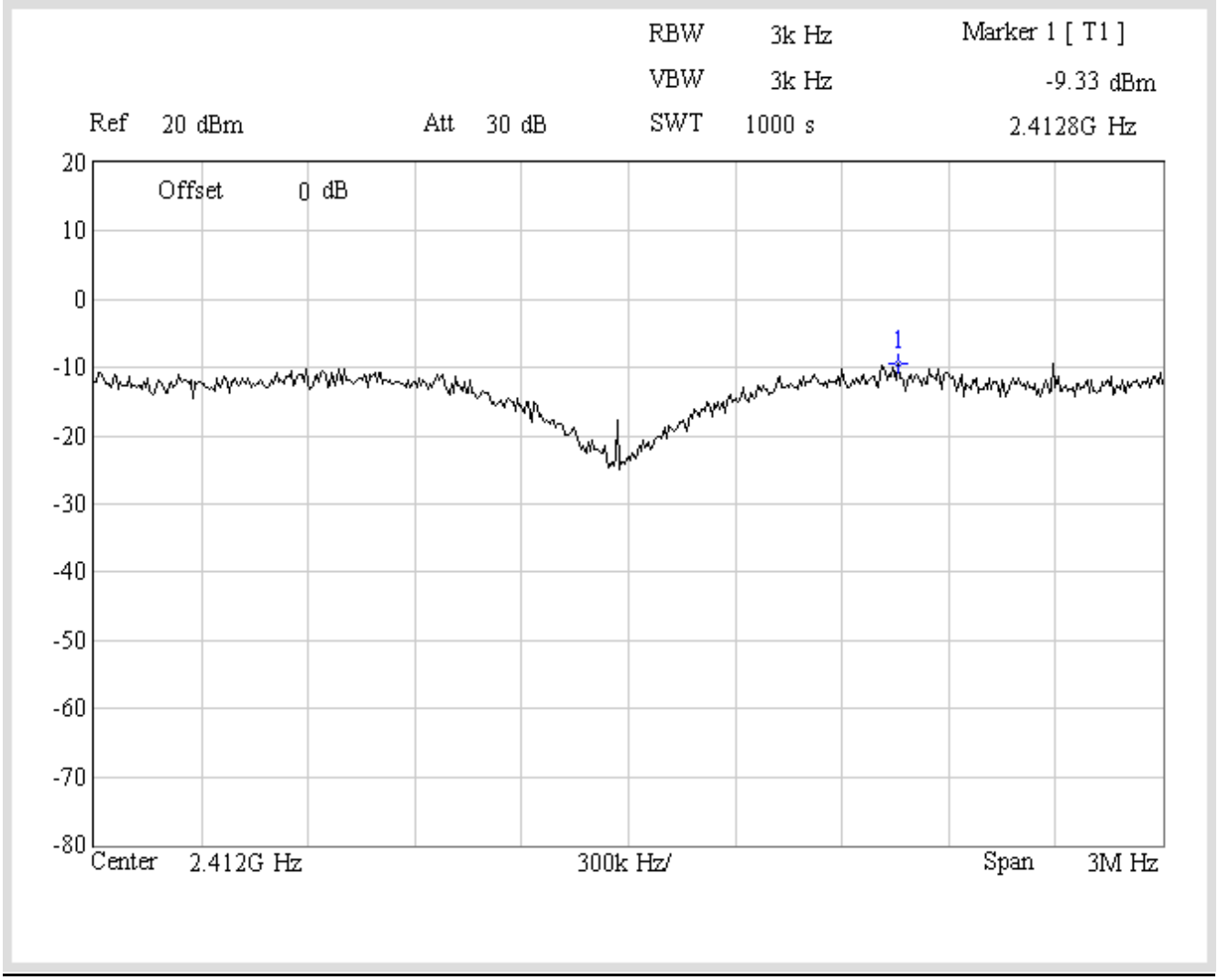
The measurement uncertainty is defined as ±1.27dB.

8.6. Test Result

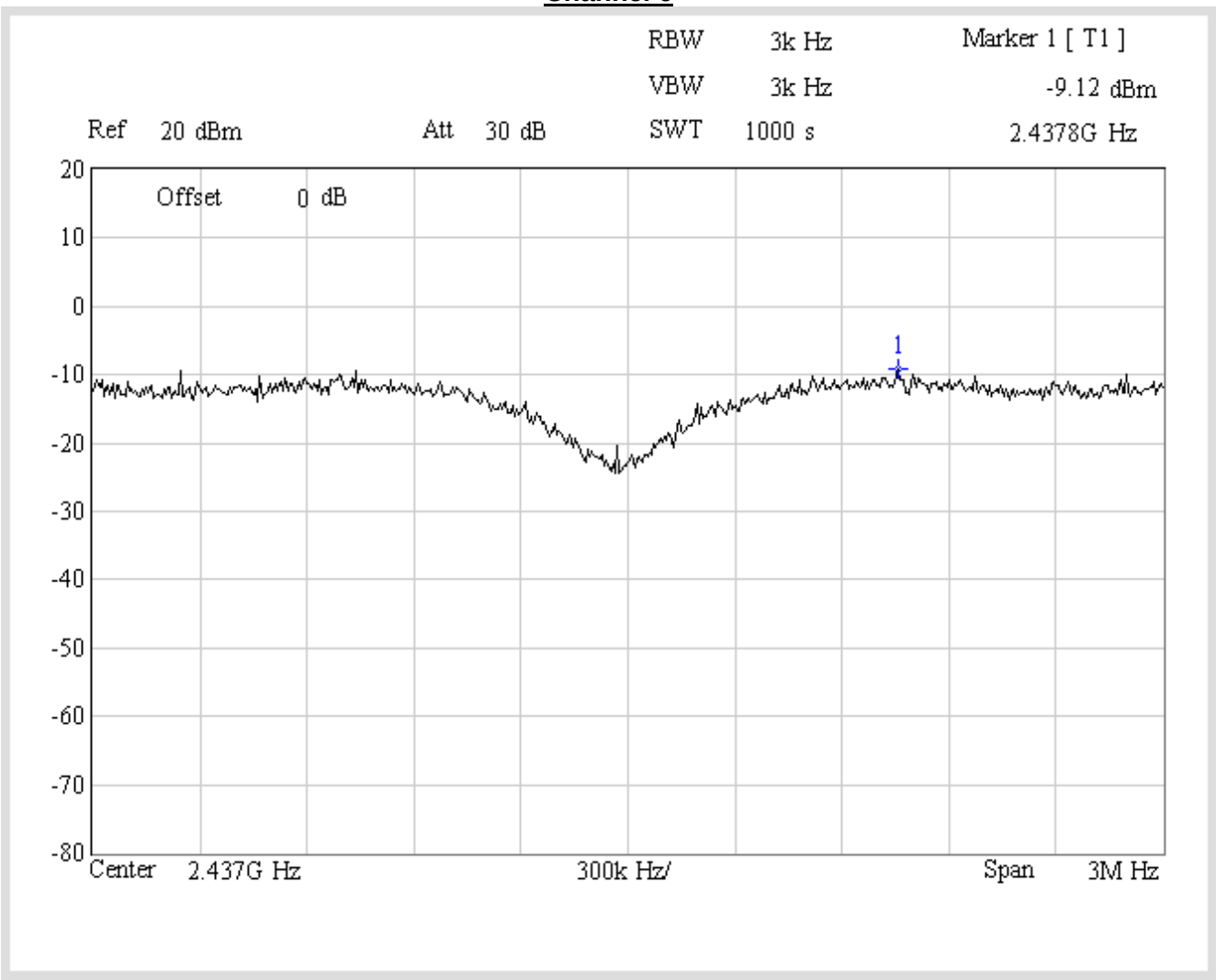
Product	Wireless ADSL Router		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-9.33	<8	Pass
6	2437.00	-9.12	<8	Pass
11	2462.00	-8.94	<8	Pass

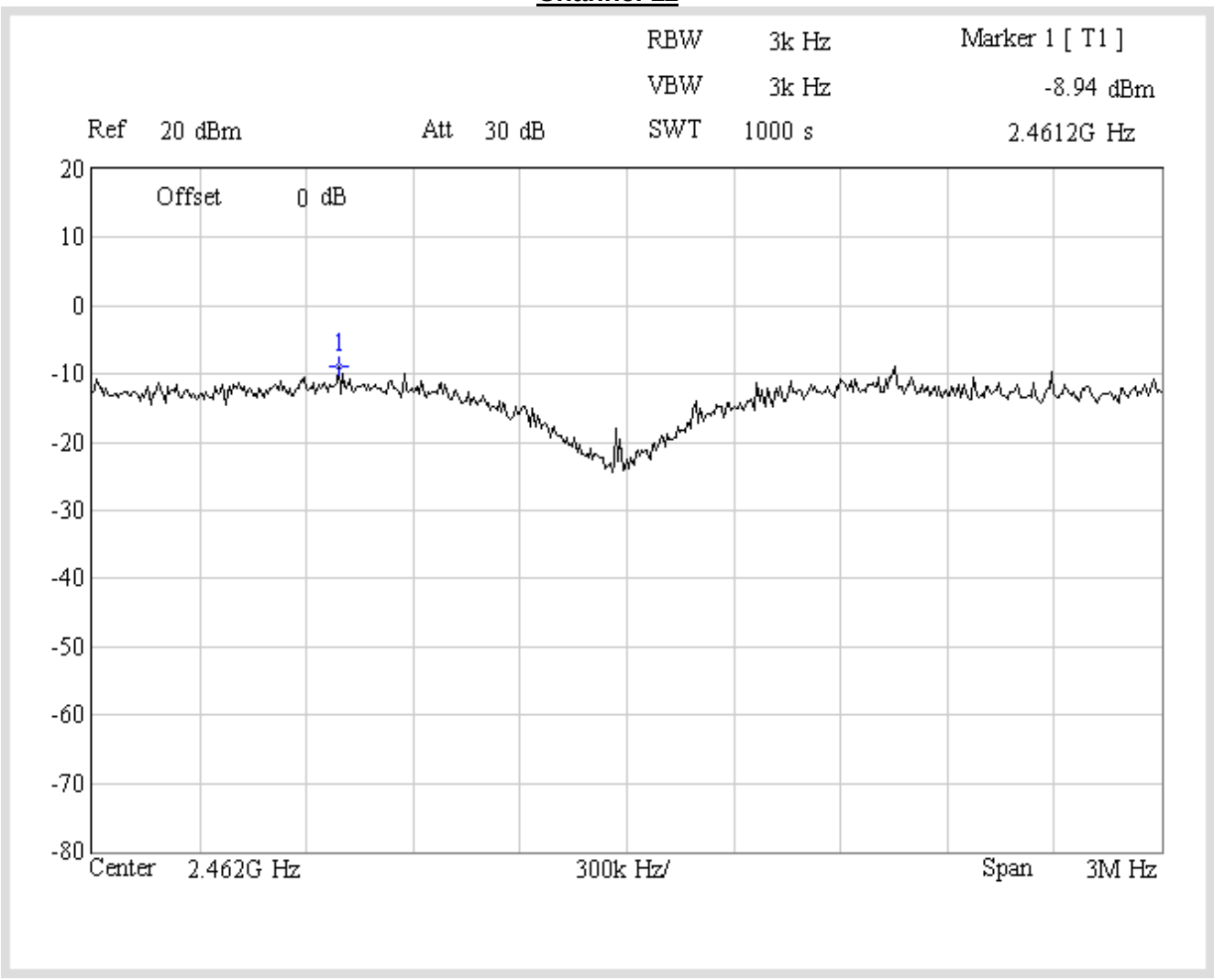
Channel 1



Channel 6


RBW 3k Hz
VBW 3k Hz
SWT 1000 s
Marker 1 [T1]
-9.12 dBm
2.4378G Hz
Ref 20 dBm
Att 30 dB
Offset 0 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.437G Hz
300k Hz/
Span 3M Hz

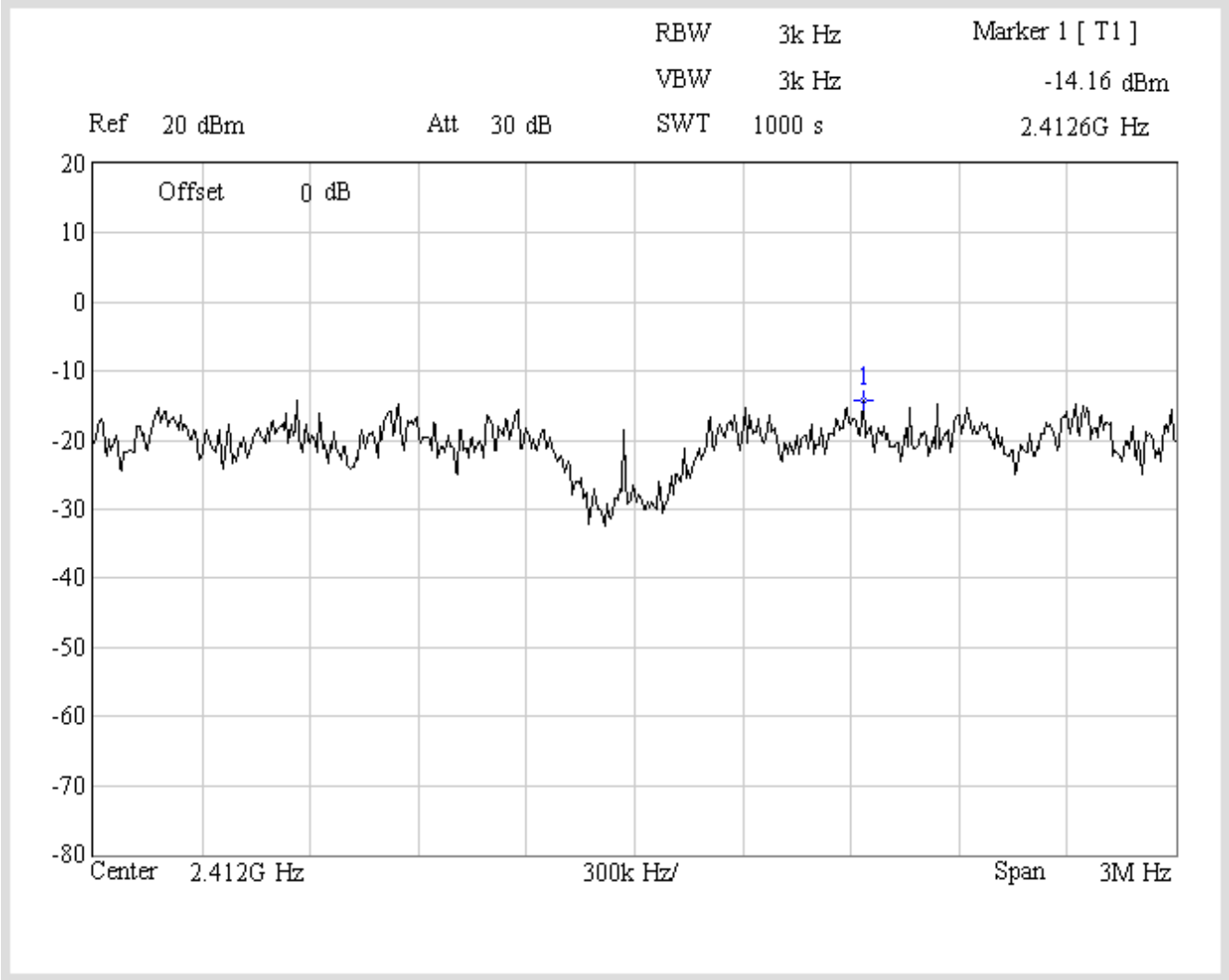
Channel 11


RBW 3k Hz
VBW 3k Hz
SWT 1000 s
Marker 1 [T1]
-8.94 dBm
2.4612G Hz
Ref 20 dBm
Att 30 dB
Offset 0 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.462G Hz
300k Hz/
Span 3M Hz

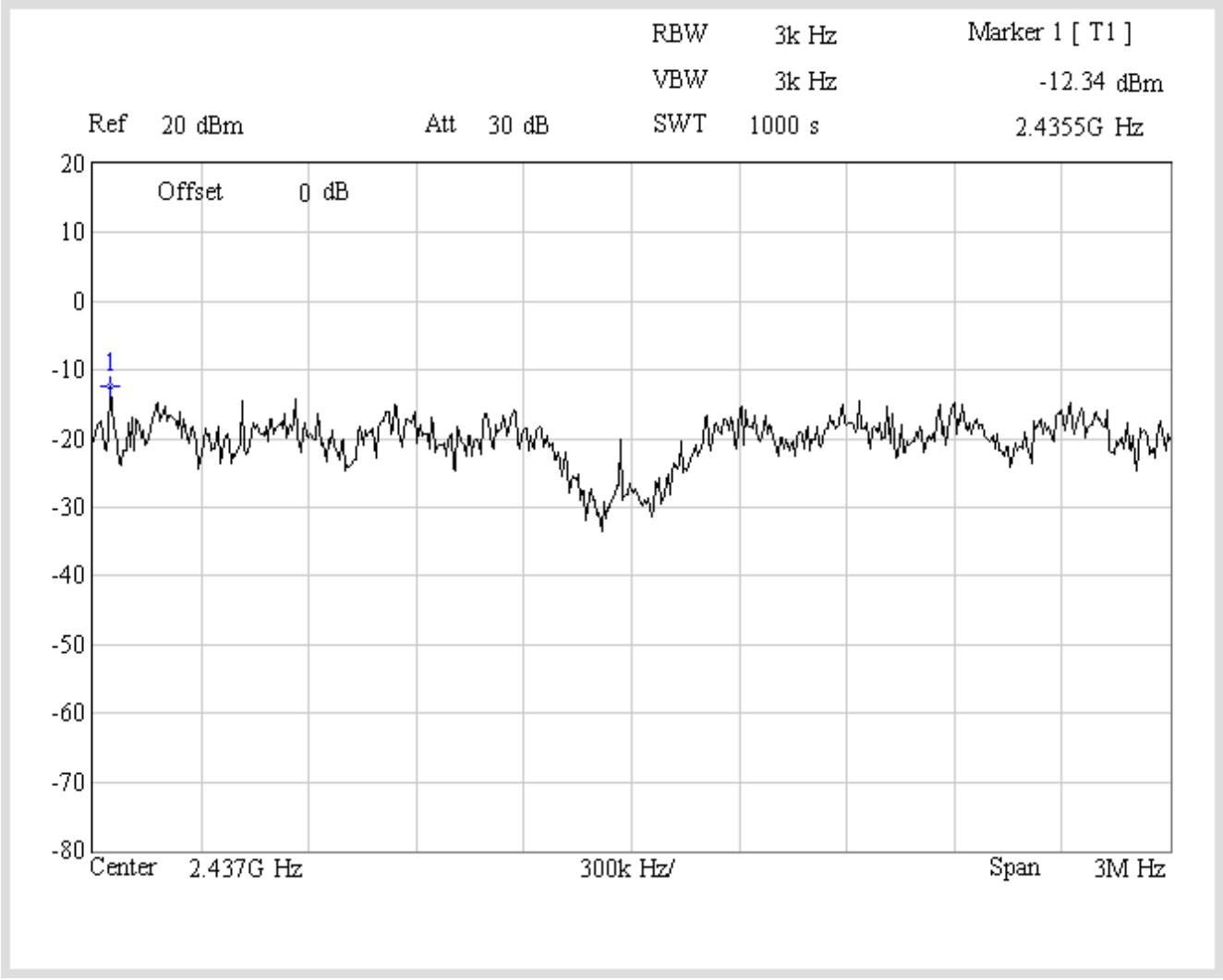
Product	Wireless ADSL Router		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2008/07/02	Test Site	No.1 OATS

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412.00	-14.16	<8	Pass
6	2437.00	-12.34	<8	Pass
11	2462.00	-14.42	<8	Pass

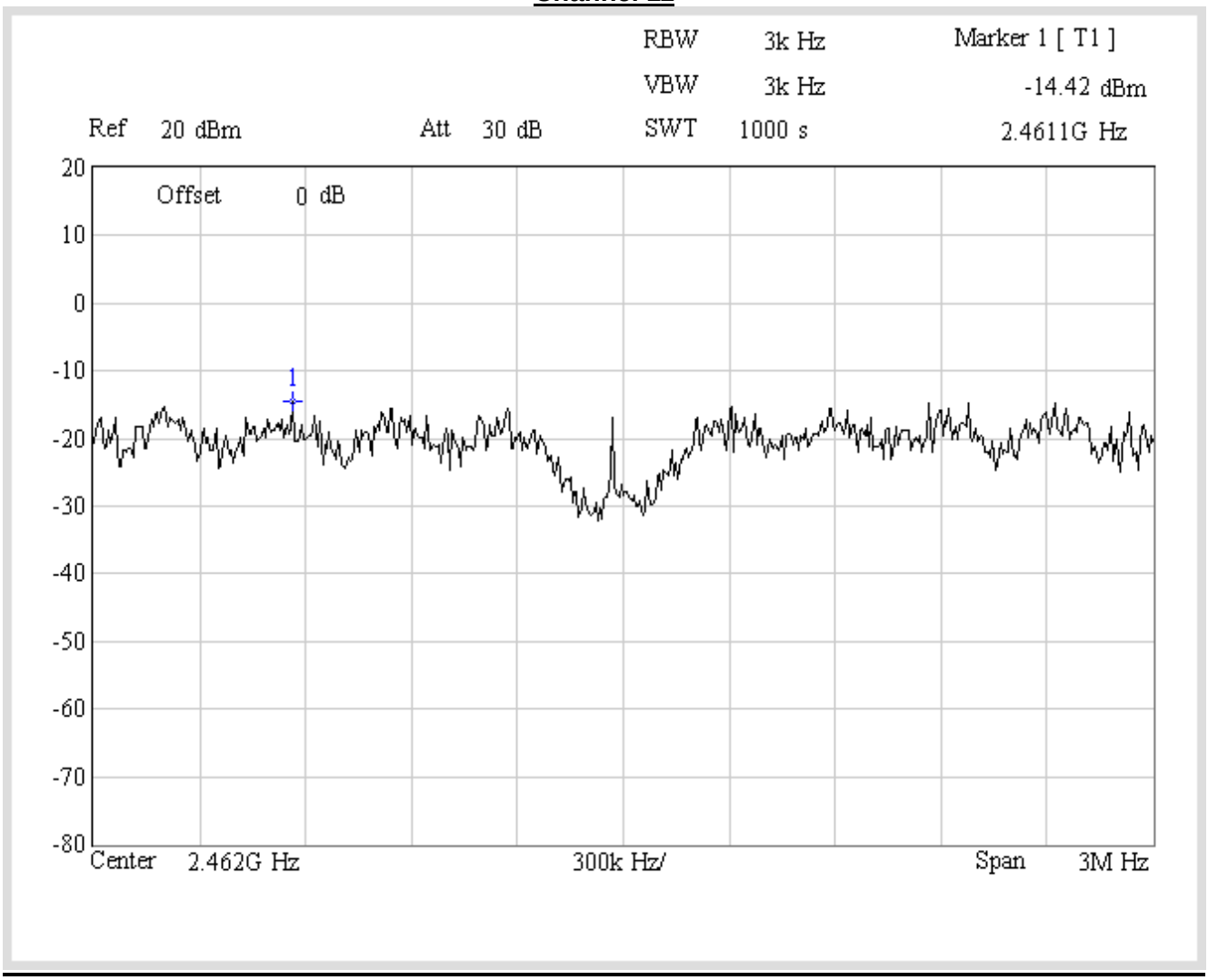
Channel 1



Channel 6


RBW 3k Hz
VBW 3k Hz
SWT 1000 s
Marker 1 [T1]
-12.34 dBm
2.4355G Hz
Ref 20 dBm
Att 30 dB
Offset 0 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.437G Hz
300k Hz/
Span 3M Hz

Channel 11


RBW 3k Hz
VBW 3k Hz
SWT 1000 s
Marker 1 [T1]
-14.42 dBm
2.4611G Hz
Ref 20 dBm
Att 30 dB
Offset 0 dB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
1
Center 2.462G Hz
300k Hz/
Span 3M Hz