



## Test Report

Product Name : Wireless LAN PC Card  
Model No. : DW-655, DWL-655, WL-655, WEN-2011  
FCC ID.: KA22001060015-1

Applicant : D-Link Corporation  
Address : No. 8, Li-Hsin VII Road, Science-Based  
Industrial Park, Hsin-Chu, Taiwan, R.O.C.

Date of Receipt : August 16, 2001

Date of Test : August 28, 2001

Report No. : 018H042FI

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.

This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

# Test Report Certification

Test Date : August 28, 2001

Report No. : 018H042FI



Accredited by NIST (NVLAP)  
NVLAP Lab Code: 200347-0

Product Name : Wireless LAN PC Card  
 Applicant : D-Link Corporation  
 Address : No. 8, Li-Hsin VII Road, Science-Based Industrial  
 Park, Hsin-Chu, Taiwan, R.O.C.  
 Manufacturer : D-Link Corporation  
 Model No. : DW-655, DWL-655, WL-655, WEN-2011  
 FCC ID. : KA22001060015-1  
 Rated Voltage : Power by PC  
 Trade Name : D-Link  
 Measurement Standard : FCC Part 15 Subpart C Paragraph 15.247  
 Measurement Procedure : ANSI C63.4:1992  
 Test Result : Complied

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## TABLE OF CONTENTS

Description	Page
<b>1. GENERAL INFORMATION.....</b>	<b>5</b>
1.1. EUT Description.....	5
1.2. EUT Description.....	5
1.3. Configuration of tested System .....	7
1.4. EUT Exercise Software .....	8
1.5. Test Facility .....	8
<b>2. Conducted Emission.....</b>	<b>9</b>
2.1. Test Equipment List.....	9
2.2. Test Setup .....	9
2.3. Limits .....	9
2.4. Test Procedure .....	10
2.5. Test Result of Conducted Emission.....	11
<b>3. Peak Power Output .....</b>	<b>13</b>
3.1. Test Equipment.....	13
3.2. Test Setup .....	13
3.3. Test Condition .....	13
3.4. Minimum Standard.....	13
3.5. Test Result of Peak Power Output.....	14
<b>4. RF Exposure Evaluation.....</b>	<b>15</b>
4.1. Friis Formula .....	15
4.2. EUT Operation condition .....	15
4.3. Test Result of RF Exposure Evaluation.....	16
<b>5. Radiated Emission.....</b>	<b>17</b>
5.1. Test Equipment.....	17
5.2. Test Setup .....	17
5.3. Test Condition .....	18
5.4. Limits .....	18
5.5. Test Procedure .....	19
5.6. Test Result of Radiated Emission.....	20
5.7. Test Result of Band Edge .....	32
<b>6. Occupied Bandwidth.....</b>	<b>36</b>
6.1. Test Equipment.....	36
6.2. Test Setup .....	36
6.3. Test Condition .....	36
6.4. Standard Requirement .....	36
6.5. Test Result of Occupied Bandwidth .....	37
<b>7. Transmitter Power Density.....</b>	<b>40</b>
7.1. Test Equipment.....	40
7.2. Test Setup .....	40
7.3. Test Condition .....	40
7.4. Standard Requirement .....	40
7.5. Test Result of Transmitter Power Density.....	41

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<b>8.</b>	<b>Processing Gain .....</b>	<b>44</b>
8.1.	Test Condition .....	44
8.2.	Minimum Standard.....	44
8.3.	Method of Measurement .....	44
8.4.	Calculation of Processing Gain: .....	44
8.5.	Test Result of Processing Gain.....	45
<b>9.</b>	<b>EMI Reduction Method During Compliance Testing .....</b>	<b>46</b>
<b>10.</b>	<b>Attachment.....</b>	<b>47</b>

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name : Wireless LAN PC Card  
 Trade Name : D-Link  
 FCC ID. : KA22001060015-1  
 Model No. : DW-655, DWL-655, WL-655, WEN-2011  
 Frequency Range : 2400MHz to 2483.5MHz  
 Channel Number : 11  
 Frequency of Each Channel : Channel 01: 2412MHz Channel 07: 2442MHz  
 Channel : Channel 02: 2417 MHz Channel 08: 2447MHz  
 (Working Frequency) Channel 03: 2422 MHz Channel 09: 2452MHz  
 Channel 04: 2427MHz Channel 10: 2457MHz  
 Channel 05: 2432MHz Channel 11: 2462MHz  
 Channel 06: 2437MHz

Type of Modulation : Direct Sequence Spread Spectrum  
 Selection of  
 Operating Frequency : Software

Note:

1. This device is a 2.4GHz Wireless LAN PC Card with USB interface included a 2.4GHz receiving function, a 2.4GHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
3. Regards to the of the different construction EUT. The model name were shown in the table following:

Model No	Company
DW-655	D-Link Corporation
DWL-655	D-Link Corporation
WL-655	D-Link Corporation
WEN-2011	W-LINK System Inc.

4. This device is a composite device in accordance with Part 15 regulations. The function receiving was measured and made a test report that the report number is 018H004F under Verification.

### 1.2. Operational Description

EUT is an PCMCIA TYPE II interface 2.4GHz wireless LAN with 11 channels. This device provided four kind of transmitting speed 1,2,5.5 and 11Mbps . The device of RF carrier is DQPSK, DB PSK and CCK.

The device adapts direct sequence spread spectrum modulation. The dual monopole antenna printed on PCB provides diversity function to improve the receiving function. Data can be transmitted by the radio signal connect to the Internet or Local network.

### Tested System Details

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

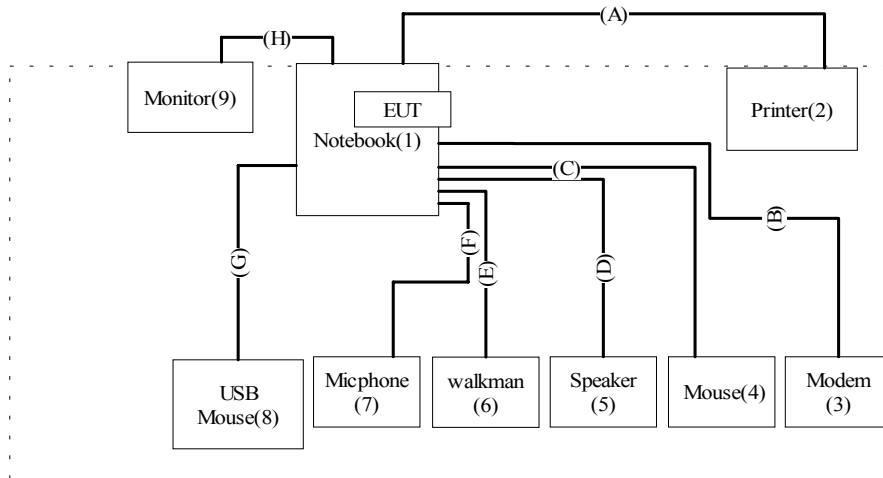
Product	Manufacturer	Model No.	Serial No.	FCC ID
(1) Notebook	IBM	Think Pad 570	27L8835	DoC
(2) Printer	HP	C2642A	MY75J1D1D0	B94C2642X
(3) Modem	ACEEX	2814	960018054	IFAXDM2814
(4) Mouse	Logitech	M-S34	6ZC84204346	DZL211029
(5) Speaker	JS	J-009	97-C-019799-T	DoC
(6) Walkman	TOBISHI	TB-21984	N/A	DoC
(7) Microphone	AIWA	CD-8000	N/A	DoC
(8) USB Mouse	Logitech	M-UE55	LTC93813273	DoC
(9) Monitor	HITACHI	CM752ET-311	T8F005799	DoC

Note:

1. The power cord of The device. (9) is Shielded power cord.
2. The power cord of The device. (1) 、 (2) are Non-shielded power cord.

Signal Cable Type	Signal Cable Description
A. Printer Cable	Shielded, 1.5m
B. Modem Cable	Shielded, 1.5m
C. PS2 Mouse Cable	Non-shielded, 1.2m
D. Speaker Cable	Non-shielded, 0.8m
E. Walkman Cable	S Non-shielded, 0.8m, a ferrite core bonded.
F. Microphone Cable	Non-shielded, 1.5m
G. USB Mouse Cable	Non-shielded, 0.8m
H. VGA Cable	Shielded, 1.8m, a ferrite core bonded

### 1.3. Configuration of tested System



**1.4. EUT Exercise Software**

- 1.4.1 Setup the EUT and simulators as shown on 1.3.
- 1.4.2 Turn on the power of all equipment.
- 1.4.3 Notebook PC reads data from disk.
- 1.4.4 Data will be transmitted through EUT.
- 1.4.5 The transmission status will be shown on the monitor.
- 1.4.6 Repeat the above procedure 1.4.4 to 1.4.5

**1.5. Test Facility**

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

Site Description: November 3, 1998 File on  
 Federal Communications Commission  
 FCC Engineering Laboratory  
 7435 Oakland Mills Road  
 Columbia, MD 21046  
 Reference 31040/SIT1300F2  
 September 30, 1998 Accreditation on NVLAP  
 NVLAP Lab Code: 200347-0



Site Name: Quietek Corporation

Site Address: N0.75-1, Wang-Yeh Valley, Yung-Hsing,  
 Chiung-Lin, Hsin-Chu County,  
 Taiwa, R.O.C.



## 2. Conducted Emission

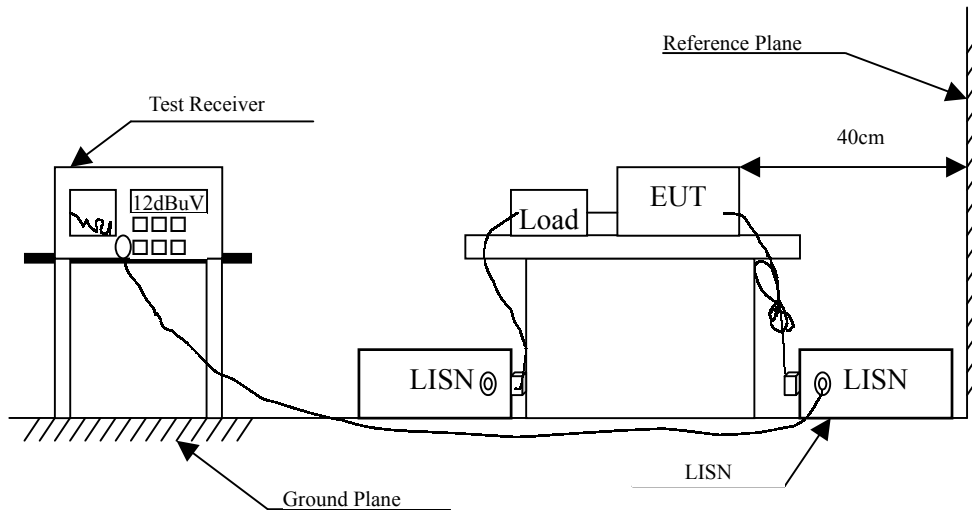
### 2.1. Test Equipment List

The following test equipment are used during the conducted emission test:

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2001	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2001	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2001	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	N/A	
5	N0.2 Shielded Room			N/A	

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

### 2.2. Test Setup



### 2.3. Limits

FCC Part 15 Paragraph 15.207 (dBuV)		
Frequency MHz	Limits	
	uV	dBuV
0.45 - 30	250	48.0

## 2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4:1992 on conducted measurement.

Conducted emissions were investigated over the frequency range from 0.45MHz to 30MHz using a receiver bandwidth of 9kHz.

## 2.5. Test Result of Conducted Emission

Product : Wireless LAN PC Card  
 Test Item : Conducted Emission Test  
 Test Mode : Normal Operation (1Mbps)

Frequency MHz	Cable Loss dB	LISN Factor dB	Reading Level dBuV	Measurement Level dBuV	Limits dBuV
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### Line 1

#### Quasi-Peak:

0.529	0.07	0.10	28.97	29.14	48
1.985	0.14	0.13	26.20	26.47	48
* 4.299	0.19	0.16	31.69	32.04	48
8.012	0.25	0.19	30.63	31.07	48
14.563	0.32	0.34	28.97	29.63	48
16.224	0.33	0.38	27.67	28.38	48

### Line 2

#### Quasi-Peak:

0.528	0.07	0.10	27.14	27.31	48
3.634	0.18	0.16	25.73	26.07	48
* 4.028	0.19	0.16	32.55	32.90	48
9.856	0.28	0.20	27.12	27.60	48
19.830	0.35	0.45	26.55	27.35	48
24.416	0.38	0.52	26.44	27.34	48

Remarks :

1. “ \* ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : Conducted Emission Test  
 Test Mode : Normal Operation (11Mbps)

Frequency	Cable Loss	LISN Factor	Reading Level	Measurement Level	Limits
MHz	dB	dB	dBuV	dBuV	dBuV

**Line 1**
**Quasi-Peak:**

0.462	0.06	0.10	29.03	29.19	48
2.048	0.14	0.13	27.20	27.48	48
3.899	0.18	0.16	31.34	31.68	48
* 4.227	0.19	0.16	34.53	34.88	48
9.716	0.27	0.20	28.84	29.31	48
14.401	0.32	0.33	26.81	27.46	48

**Line 2**
**Quasi-Peak:**

2.575	0.16	0.14	23.13	23.43	48
3.895	0.18	0.16	29.25	29.59	48
* 4.356	0.19	0.16	32.23	32.59	48
7.262	0.24	0.19	27.59	28.02	48
16.562	0.33	0.38	29.65	30.37	48
19.996	0.35	0.45	28.78	29.59	48

## Remarks :

1. “ \* ” means that this data is the worst emission level.
2. The average measurement was not performed when the peak measured data under the limit of average detection.

### 3. Peak Power Output

#### 3.1. Test Equipment

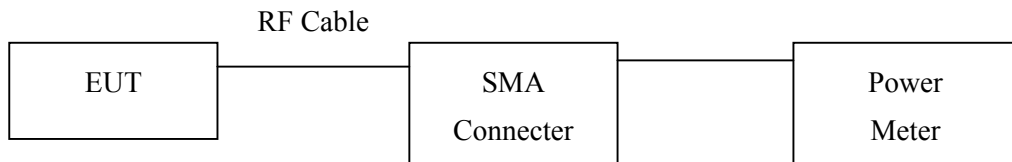
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Power Meter	HP	EPM-441A	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.  
 2. Mark "X" test instruments are used to measure the final test results.

#### 3.2. Test Setup

##### Conduction Power Measurement



#### 3.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

#### 3.4. Minimum Standard

The maximum peak power shall be less 1 Watt.

### 3.5. Test Result of Peak Power Output

Product : Wireless LAN PC Card  
 Test Item : Peak Power Output Data  
 Test Site : No.1 OATS  
 Test Mode : Normal Operation

#### Data Speed: 1Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	11.4 dBm	1 Watt= 30 dBm	Pass
6	2437	9.94 dBm	1 Watt= 30 dBm	Pass
11	2462	9.72 dBm	1 Watt= 30 dBm	Pass

#### Data Speed: 11Mbps

Channel No.	Frequency(MHz)	Measurement	Required Limit	Result
1	2412	13.77 dBm	1 Watt= 30 dBm	Pass
6	2437	12.71dBm	1 Watt= 30 dBm	Pass
11	2462	12.63 dBm	1 Watt= 30 dBm	Pass

#### 4. RF Exposure Evaluation

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)  
 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

##### 4.1. Friis Formula

$$\text{Friis transmission formula: } P_d = (P_{out} * G) / (4 * \pi * r^2)$$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$\pi$  = 3.1416

$R$  = distance between observation point and center of the radiator in cm

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance  $r$  where the MPE limit is reached.

##### 4.2. EUT Operation condition

A software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

### 4.3. Test Result of RF Exposure Evaluation

Product : Wireless LAN PC Card  
 Test Item : RF Exposure Evaluation Data  
 Test Site : No.1 OATS  
 Test Mode : Normal Operation

#### 4.3.1 Antenna Gain

Antenna Gain: The maximum Gain measured in fully anechoic chamber is 1.6dBi or 1.45in linear scale.

#### 4.3.2 Output Power Into Antenna & RF Exposure Evaluation Distance

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum Allowable Distance ® From Skin(cm)
1 (1Mbps)	2412	11.4	0.94
1 (11Mbps)	2412	13.77	1.23
6 (1Mbps)	2437	9.94	0.79
6 (11Mbps)	2437	12.71	1.09
11 (1Mbps)	2462	9.72	0.77
11 (11Mbps)	2462	12.62	1.08

The distance r (4<sup>th</sup> column) calculated from the Friis transmission formula is far shorter than 20 cm separation requirement. So, RF exposure limit warning or SAR test are not required.



**5. Radiated Emission**

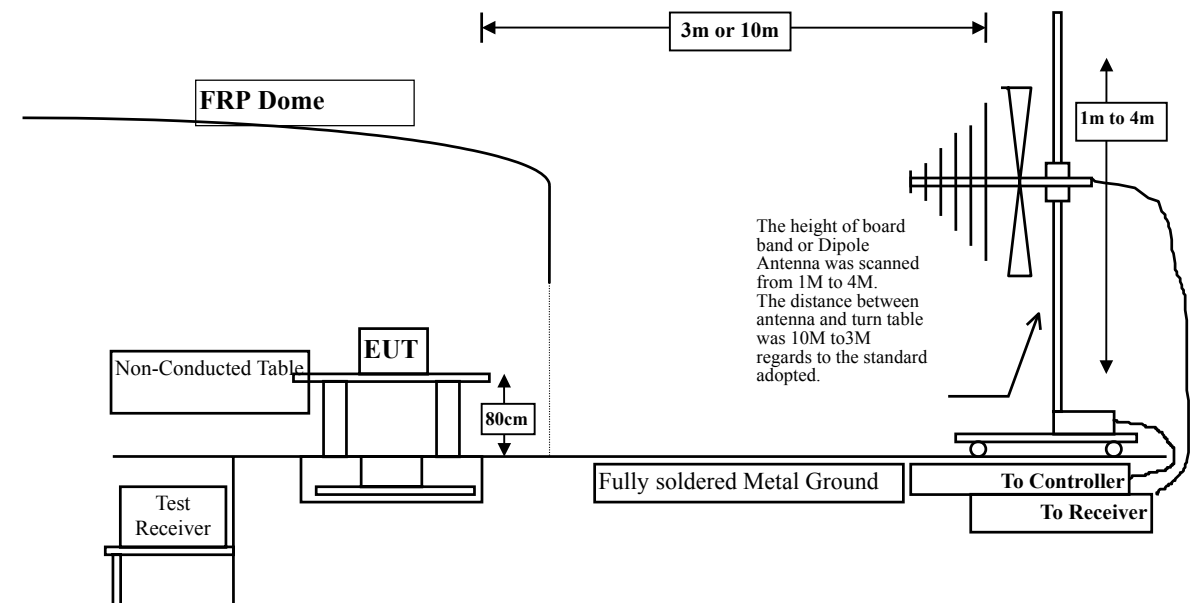
**5.1. Test Equipment**

The following test equipment are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	X Test Receiver	R & S	ESCS 30 / 825442/14	May, 2001
	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2001
	Pre-Amplifier	HP	8447D/3307A01812	May, 2001
	X Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2000
Site # 1	X Horn Antenna	EM	EM6917 / 103325	May, 2001
	X Test Receiver	R & S	ESCS 30 / 825442/17	May, 2001
Site # 2	Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2001
	Pre-Amplifier	HP	8447D/3307A01814	May, 2001
	X Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2000
	X Horn Antenna	EM	EM6917 / 103325	May, 2001

- 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**



Spurious Emissions  
(Band Edge Antenna Radiated)

### 5.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

### 5.4. Limits

#### ► General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

Frequency MHz	50dB below of the fundamental (dBuV/m @3m)	15.209 Limits (dBuV/m @3m)	General Radiated Limits (dBuV/m @3m)
30-88	40	40	40
88-216	43.5	43.5	43.5
216-960	44	46	46
Above 960	44	54	54

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

## 5.5. 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 C63.4:1992 on radiated measurement.

The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30 )is 120 kHz, above 1GHz are 1 MHz.

The frequency range from **30MHz to 10th harmonics** is checked.

## 5.6. Test Result of Radiated Emission

Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 1(1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

### Peak Detector (Horizontal)

4823.899	6.27	33.50	34.77	48.98	53.98	20.02	74.00
7236.050	8.32	36.24	34.90	42.91	<52.57	21.43	74.00
9648.050	10.18	37.43	35.10	44.01	<56.52	17.48	74.00

### Average Detector (Horizontal)

9648.250	10.18	37.43	35.10	31.20	<43.71	10.29	54.00
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### Peak Detector (Vertical)

4824.100	6.27	33.50	34.77	49.70	54.70	19.30	74.00
7235.799	8.32	36.24	34.90	43.43	<53.09	20.91	74.00
9648.100	10.18	37.43	35.10	43.85	<56.36	17.64	74.00

### Average Detector (Vertical)

4824.000	6.27	33.50	34.77	45.43	50.43	3.57	54.00
9648.100	10.18	37.43	35.10	31.18	<43.69	10.31	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 6(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor	dB	Level	dBuV/m	dB	dBuV/m
	dB	dB/m		dBuV			

#### Peak Detector (Horizontal)

4874.150	6.32	33.56	34.75	47.36	52.49	21.51	74.00
7312.152	8.38	36.31	34.90	44.36	<54.14	19.86	74.00
9748.350	10.24	37.45	35.10	43.20	<55.79	18.21	74.00

#### Average Detector (Horizontal)

7312.152	8.38	36.31	34.90	30.67	<40.45	13.55	54.00
9748.350	10.24	37.45	35.10	31.27	<43.86	10.14	54.00

#### Peak Detector (Vertical)

4873.949	6.32	33.56	34.75	47.26	52.39	21.61	74.00
7311.050	8.38	36.31	34.90	43.22	<53.00	21.00	74.00
9748.150	10.24	37.45	35.10	43.90	<56.49	17.51	74.00

#### Average Detector (Vertical)

9748.150	10.24	37.45	35.10	31.11	<43.70	10.30	54.00
----------	-------	-------	-------	-------	--------	-------	-------

#### Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 11(1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Peak Detector (Horizontal)**

4924.150	6.37	33.62	34.73	48.92	54.18	19.82	74.00
7386.050	8.45	36.39	34.90	43.62	<53.56	20.44	74.00
9848.651	10.33	37.47	35.10	43.98	<56.68	17.32	74.00

**Average Detector (Horizontal)**

4924.050	6.37	33.62	34.73	43.98	49.24	4.76	54.00
9848.651	10.33	37.47	35.10	30.95	<43.65	10.35	54.00

**Peak Detector (Vertical)**

4924.050	6.37	33.62	34.73	50.52	55.78	18.22	74.00
7385.849	8.45	36.39	34.90	45.02	<54.96	19.04	74.00
9848.951	10.33	37.47	35.10	43.79	<56.49	17.51	74.00

**Average Detector (Vertical)**

4923.949	6.37	33.62	34.73	46.71	51.97	2.03	54.00
7385.849	8.45	36.39	34.90	31.05	<40.99	13.01	54.00
9848.951	10.33	37.47	35.10	31.00	<43.70	10.30	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 1(11Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Peak Detector (Horizontal)**

4824.100	6.27	33.50	34.77	46.85	51.85	22.15	74.00
7236.400	8.32	36.24	34.90	42.94	<52.60	21.40	74.00
9648.300	10.18	37.43	35.10	43.72	<56.23	17.77	74.00

**Average Detector (Horizontal)**

9648.300	10.18	37.43	35.10	31.10	<43.61	10.39	54.00
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**Peak Detector (Vertical)**

4823.899	6.27	33.50	34.77	47.43	52.43	21.57	74.00
7235.899	8.32	36.24	34.90	43.08	<52.74	21.26	74.00
9648.501	10.18	37.43	35.10	43.93	<56.44	17.56	74.00

**Average Detector (Vertical)**

9648.501	10.18	37.43	35.10	31.16	<43.67	10.33	54.00
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Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor	dB	Level	dBuV/m	dB	dBuV/m
	dB	dB/m		dBuV			

#### Peak Detector (Horizontal)

4873.949	6.32	33.56	34.75	49.68	54.81	19.19	74.00
7311.450	8.38	36.31	34.90	44.33	<54.11	19.89	74.00
9748.150	10.24	37.45	35.10	45.32	<57.91	16.09	74.00

#### Average Detector (Horizontal)

4875.953	6.32	33.56	34.75	36.00	41.13	12.87	54.00
7311.450	8.38	36.31	34.90	30.75	<40.53	13.47	54.00
9748.150	10.24	37.45	35.10	31.46	<44.05	9.95	54.00

#### Peak Detector (Vertical)

4873.849	6.32	33.56	34.75	47.11	52.24	21.76	74.00
7310.949	8.38	36.31	34.90	43.36	<53.14	20.86	74.00
9748.651	10.24	37.45	35.10	45.69	<58.28	15.72	74.00

#### Average Detector (Vertical)

9748.651	10.24	37.45	35.10	31.38	<43.97	10.03	54.00
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Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.



Product : Wireless LAN PC Card  
 Test Item : Harmonic Radiated Emission Data  
 Test Mode : Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor		Level			
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Peak Detector (Horizontal)**

4924.084	6.37	33.62	34.73	51.81	57.07	16.93	74.00
7386.885	8.45	36.39	34.90	44.80	<54.74	19.26	74.00
9848.885	10.33	37.47	35.10	43.38	<56.08	17.92	74.00

**Average Detector (Horizontal)**

4925.987	6.37	33.62	34.73	39.79	45.05	8.95	54.00
7386.885	8.45	36.39	34.90	31.11	<41.05	12.95	54.00
9848.885	10.33	37.47	35.10	30.97	<43.67	10.33	54.00

**Peak Detector (Vertical)**

4924.184	6.37	33.62	34.73	48.79	54.05	19.95	74.00
7386.885	8.45	36.39	34.90	43.62	<53.56	20.44	74.00
9848.885	10.33	37.47	35.10	44.13	<56.83	17.17	74.00

**Average Detector (Vertical)**

4925.987	6.37	33.62	34.73	34.61	39.87	14.13	54.00
9848.885	10.33	37.47	35.10	31.10	<43.80	10.20	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Mode : Channel 1(1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal:**

233.700	2.05	10.59	26.93	56.40	42.11	3.89	46.00
263.770	2.21	12.41	26.94	52.00	39.68	6.32	46.00
529.550	3.58	15.08	26.59	41.60	33.67	12.33	46.00
529.550	3.58	15.08	26.59	41.60	33.67	12.33	46.00
594.540	3.91	15.91	26.49	49.60	42.94	3.06	46.00
594.540	3.91	15.91	26.49	49.60	42.94	3.06	46.00
660.500	4.25	16.05	26.38	41.20	35.12	10.88	46.00
726.460	4.59	17.11	26.28	42.60	38.02	7.98	46.00

**Vertical:**

83.350	1.28	9.43	26.87	51.00	34.84	5.16	40.00
263.770	2.21	12.41	26.94	47.40	35.08	10.92	46.00
464.560	3.24	14.39	26.69	45.60	36.54	9.46	46.00
529.550	3.58	15.08	26.59	44.00	36.07	9.93	46.00
529.550	3.58	15.08	26.59	44.00	36.07	9.93	46.00
594.540	3.91	15.91	26.49	47.20	40.54	5.46	46.00
727.430	4.59	17.11	26.28	42.20	37.63	8.37	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Mode : Channel 6(1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal:**

262.800	2.20	12.59	26.94	53.00	40.85	5.15	46.00
524.700	3.55	14.72	26.60	41.40	33.07	12.93	46.00
593.570	3.90	15.91	26.49	50.40	43.73	2.27	46.00
660.500	4.25	16.05	26.38	40.00	33.92	12.08	46.00
727.430	4.59	17.11	26.28	42.60	38.03	7.97	46.00
856.440	5.26	17.78	26.08	36.20	33.17	12.83	46.00

**Vertical:**

83.350	1.28	9.43	26.87	50.80	34.64	5.36	40.00
263.770	2.21	12.41	26.94	48.20	35.88	10.12	46.00
461.650	3.23	14.37	26.70	44.00	34.90	11.10	46.00
525.670	3.56	14.73	26.59	43.60	35.29	10.71	46.00
593.570	3.90	15.91	26.49	47.60	40.93	5.07	46.00
726.460	4.59	17.11	26.28	41.40	36.82	9.18	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Mode : Channel 11(1Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal:**

241.460	2.09	11.44	26.93	53.00	39.60	6.40	46.00
263.770	2.21	12.41	26.94	50.00	37.68	8.32	46.00
298.690	2.39	12.50	26.95	44.00	31.94	14.06	46.00
463.590	3.24	14.39	26.69	44.20	35.14	10.86	46.00
593.570	3.90	15.91	26.49	47.20	40.53	5.47	46.00
726.460	4.59	17.11	26.28	40.20	35.62	10.38	46.00

**Vertical:**

84.320	1.28	9.43	26.87	53.80	37.64	2.36	40.00
232.730	2.05	10.45	26.93	55.40	40.97	5.03	46.00
276.380	2.27	12.04	26.94	51.00	38.37	7.63	46.00
464.560	3.24	14.39	26.69	45.60	36.54	9.46	46.00
526.640	3.56	14.93	26.59	43.60	35.50	10.50	46.00
593.570	3.90	15.91	26.49	44.40	37.73	8.27	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Site : Chamber  
 Test Mode : Channel 1(11Mbps)

Freq.	Cable Loss	Probe Factor	PreAMP	Reading Level	Measurement	Margin	Limit
MHz	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal:**

231.760	2.04	10.31	26.92	54.80	40.22	5.78	46.00
264.740	2.21	12.33	26.94	50.00	37.60	8.40	46.00
297.720	2.38	12.50	26.95	48.40	36.34	9.66	46.00
463.590	3.24	14.39	26.69	45.40	36.34	9.66	46.00
593.570	3.90	15.91	26.49	48.80	42.13	3.87	46.00

**Vertical:**

83.350	1.28	9.43	26.87	50.80	34.64	5.36	40.00
133.790	1.54	11.82	26.89	49.60	36.06	7.44	43.50
277.350	2.28	12.24	26.94	48.80	36.38	9.62	46.00
462.620	3.23	14.37	26.69	45.60	36.50	9.50	46.00
593.570	3.90	15.91	26.49	46.60	39.93	6.07	46.00
727.430	4.59	17.11	26.28	40.80	36.23	9.77	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Site : Chamber  
 Test Mode : Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor	dB	Level	dBuV/m	dB	dBuV/m
	dB	dB/m	dB	dBuV	dBuV/m	dB	dBuV/m

**Horizontal:**

239.520	2.08	11.20	26.93	53.80	40.16	5.84	46.00
462.620	3.23	14.37	26.69	46.00	36.90	9.10	46.00
595.510	3.91	15.93	26.49	49.40	42.76	3.24	46.00
662.440	4.26	15.95	26.38	40.80	34.63	11.37	46.00
728.400	4.60	16.92	26.28	40.00	35.24	10.76	46.00
767.200	4.80	17.37	26.22	37.40	33.35	12.65	46.00

**Vertical:**

83.350	1.28	9.43	26.87	53.00	36.84	3.16	40.00
233.700	2.05	10.59	26.93	52.00	37.71	8.29	46.00
463.590	3.24	14.39	26.69	44.80	35.74	10.26	46.00
527.610	3.57	14.96	26.59	42.60	34.53	11.47	46.00
594.540	3.91	15.91	26.49	45.20	38.54	7.46	46.00
660.500	4.25	16.05	26.38	40.00	33.92	12.08	46.00

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

Product : Wireless LAN PC Card  
 Test Item : General Radiated Emission Data  
 Test Site : Chamber  
 Test Mode : Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Measurement	Margin	Limit
MHz	Loss	Factor	dB	Level	dBuV/m	dB	dBuV/m
	dB	dB/m		dBuV			

**Horizontal:**

239.520	2.08	11.20	26.93	50.40	36.76	9.24	46.00
263.770	2.21	12.41	26.94	48.80	36.48	9.52	46.00
298.690	2.39	12.50	26.95	44.40	32.34	13.66	46.00
464.560	3.24	14.39	26.69	42.00	32.94	13.06	46.00
593.570	3.90	15.91	26.49	45.60	38.93	7.07	46.00
727.430	4.59	17.11	26.28	39.40	34.83	11.17	46.00

**Vertical:**

83.350	1.28	9.43	26.87	54.60	38.44	1.56	40.00
231.760	2.04	10.31	26.92	51.40	36.82	9.18	46.00
277.350	2.28	12.24	26.94	50.40	37.98	8.02	46.00
299.660	2.39	12.53	26.95	47.40	35.37	10.63	46.00
464.560	3.24	14.39	26.69	45.60	36.54	9.46	46.00
594.540	3.91	15.91	26.49	43.80	37.14	8.86	46.00

**Note:**

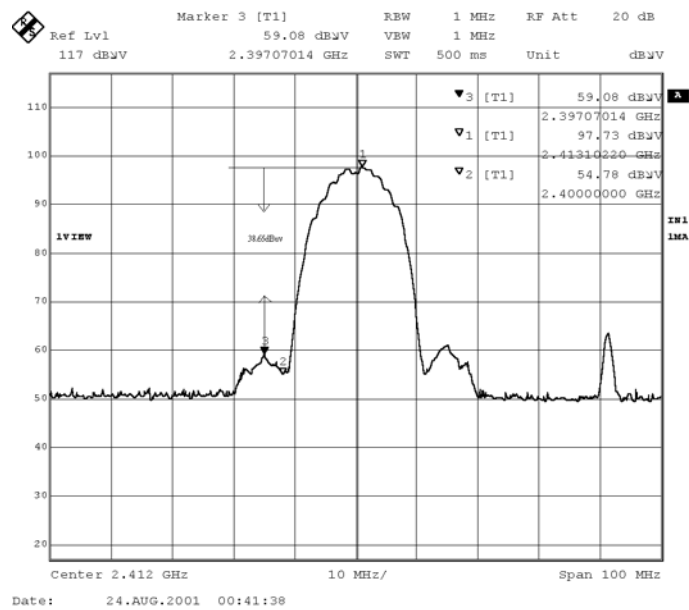
1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ \* ”, means this data is the worst emission level-Amplifier.
3. Measurement = Reading Level + Probe Factor + Cable loss-Amplifier

### 5.7. Test Result of Band Edge

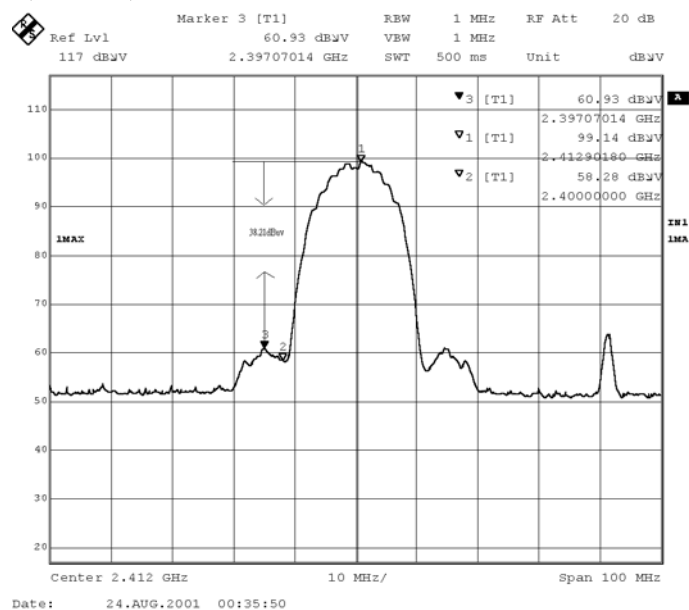
Product : Wireless LAN PC Card  
 Test Item : Band Edge Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 1

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (1Mbps)	<2400	>20	Pass

**Figure Channel 1: 1Mbps (Horizontal)**



**Figure Channel 1: 1Mbps (Vertical)**





Product : Wireless LAN PC Card  
 Test Item : Band Edge Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 1

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (11Mbps)	<2400	>20	Pass

Figure Channel 1:11Mbps (Horizontal)

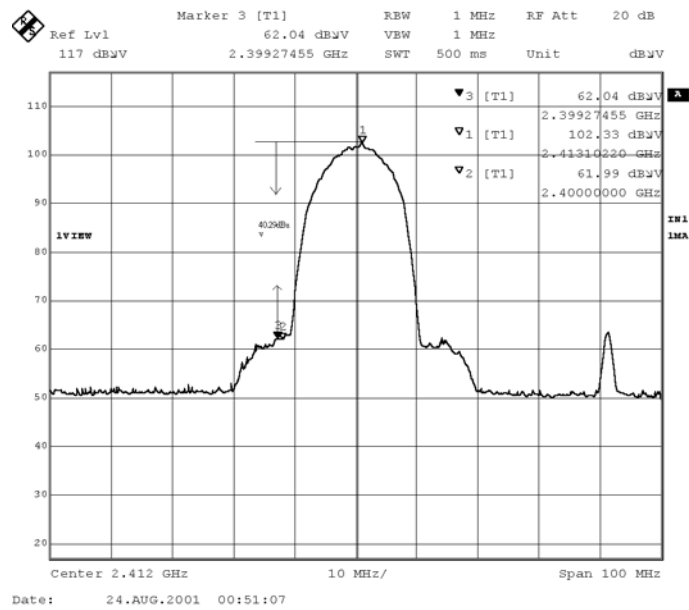
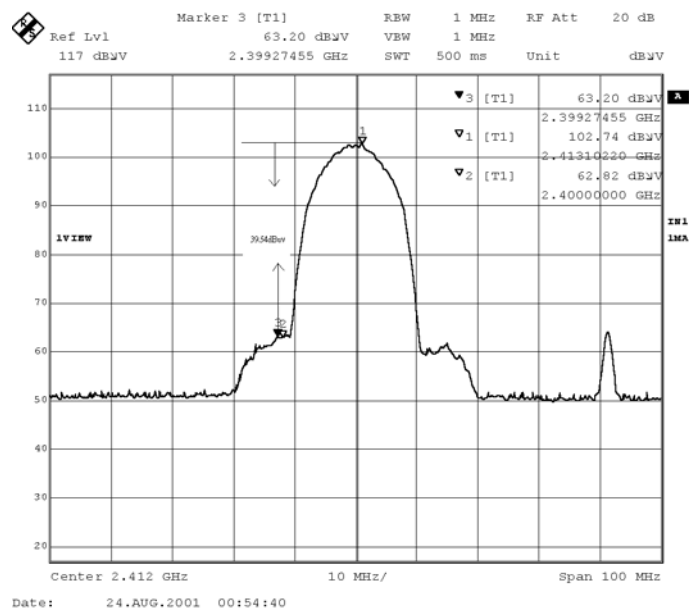


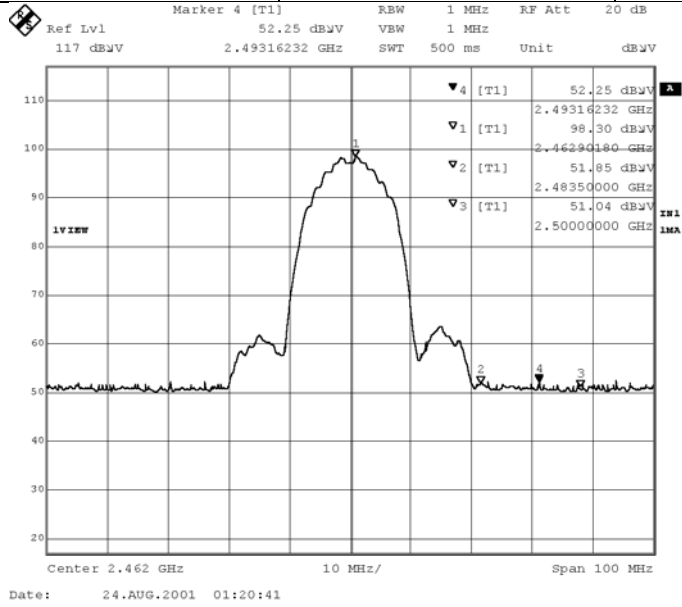
Figure Channel 1:11Mbps (Vertical)



Product : Wireless LAN PC Card  
 Test Item : Band Edge Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 11

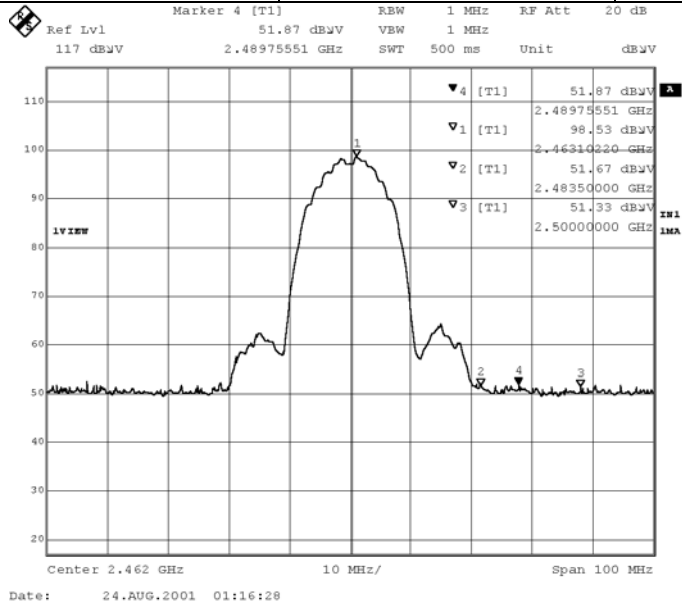
**Band Edge-1 Mbps (Horizontal)**

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2493.16	52.22	50.73	Pass



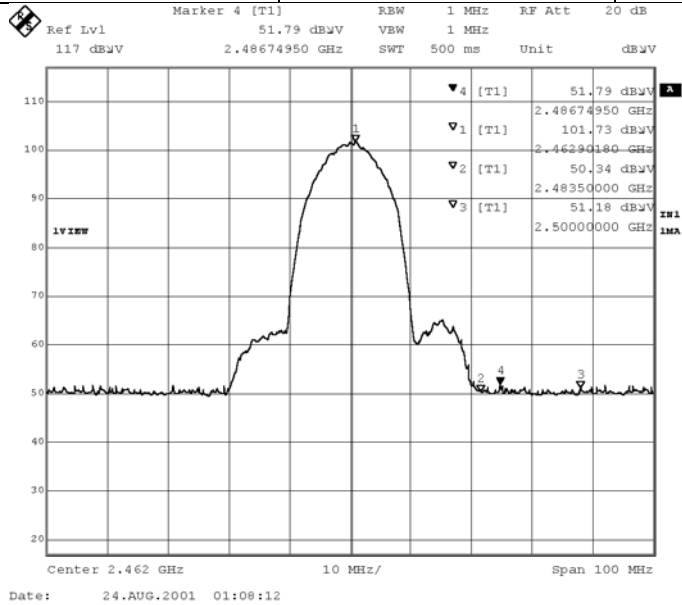
**Band Edge-1 Mbps (Vertical)**

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2489.755	51.87	50.38	Pass



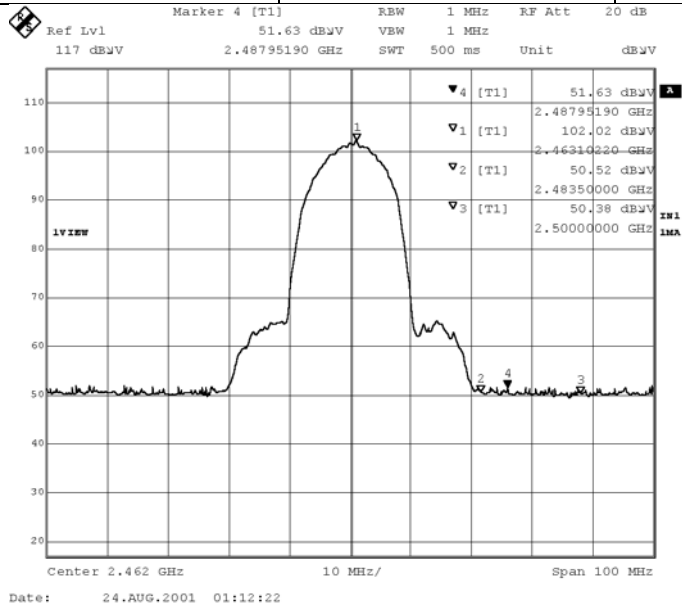
**Band Edge-11 Mbps (Horizontal)**

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2486.749	51.79	50.24	Pass



**Band Edge-11 Mbps (Vertical)**

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2487.951	51.63	50.14	Pass



**6. Occupied Bandwidth**

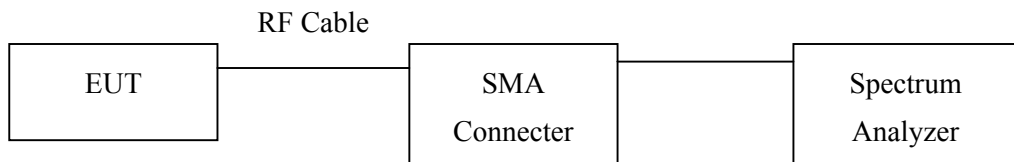
**6.1. Test Equipment**

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.  
 2. Mark “X” test instruments are used to measure the final test results.

**6.2. Test Setup**



**6.3. Test Condition**

Standard Temperature and Humidity, Standard Test Voltage

**6.4. Standard Requirement**

The minimum bandwidth shall be at least 500kHz.

### 6.5. Test Result of Occupied Bandwidth

Product : Wireless LAN PC Card  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 1

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2411	10900	>500	Pass
1 (11Mbps)	2411	11200	>500	Pass

Figure Channel 1: 1Mbps

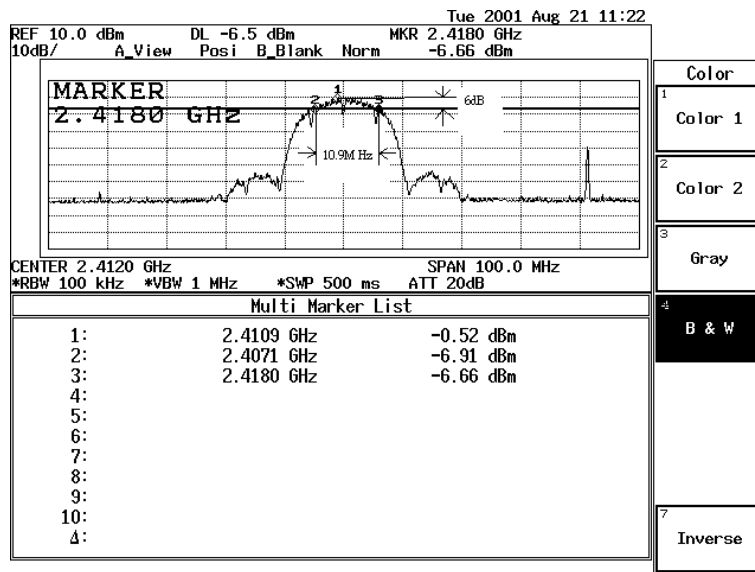
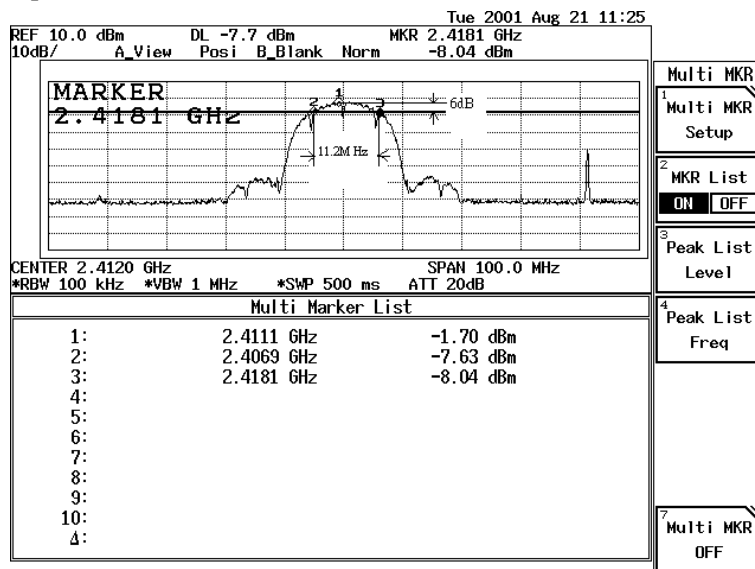


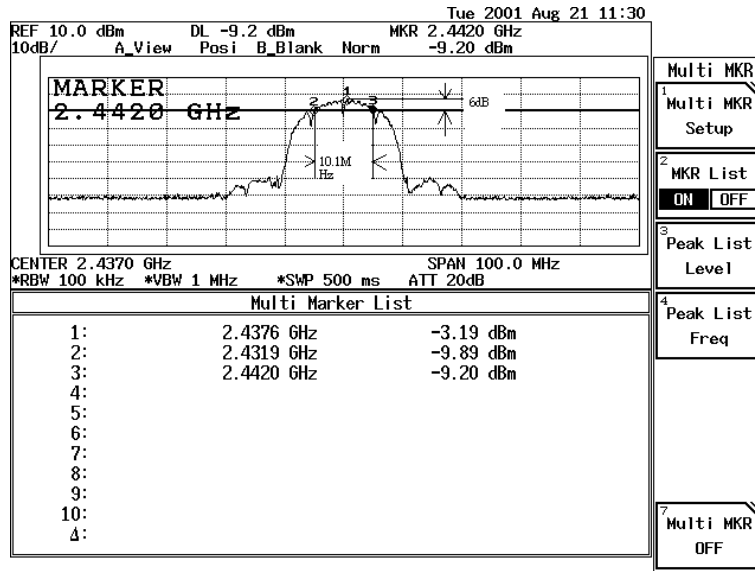
Figure Channel 1: 11Mbps



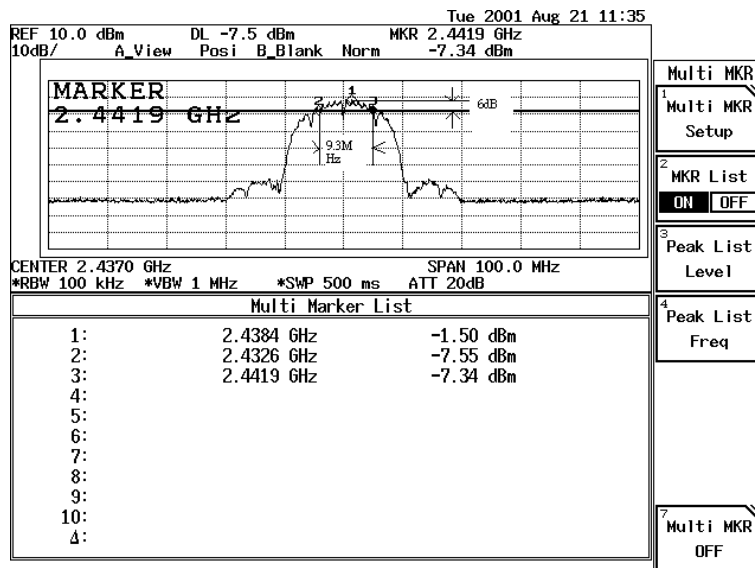
Product : Wireless LAN PC Card  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 6

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (1Mbps)	2438	10100	>500	Pass
6 (11Mbps)	2438	9300	>500	Pass

**Figure Channel 6: 1Mbps**



**Figure Channel 6: 11Mbps**



Product : Wireless LAN PC Card  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.1 OATS  
 Test Mode : Channel 11

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (1Mbps)	2463	11500	>500	Pass
11 (11Mbps)	2463	11300	>500	Pass

Figure Channel 11: 1Mbps

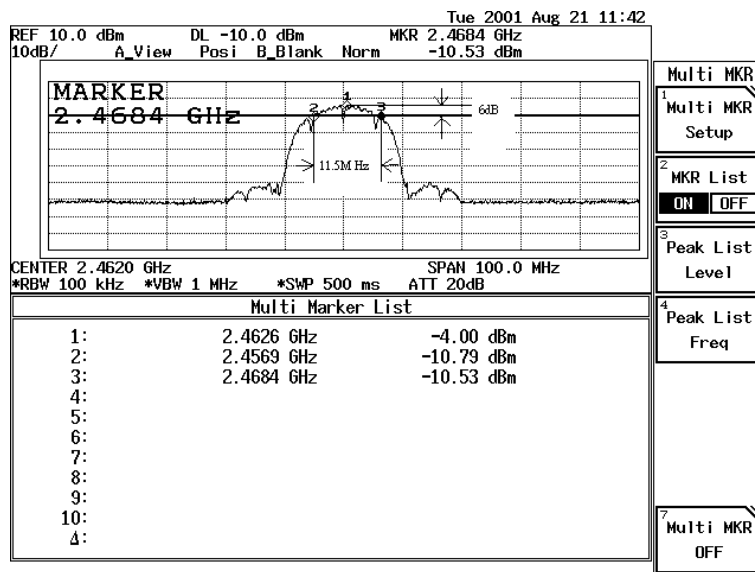
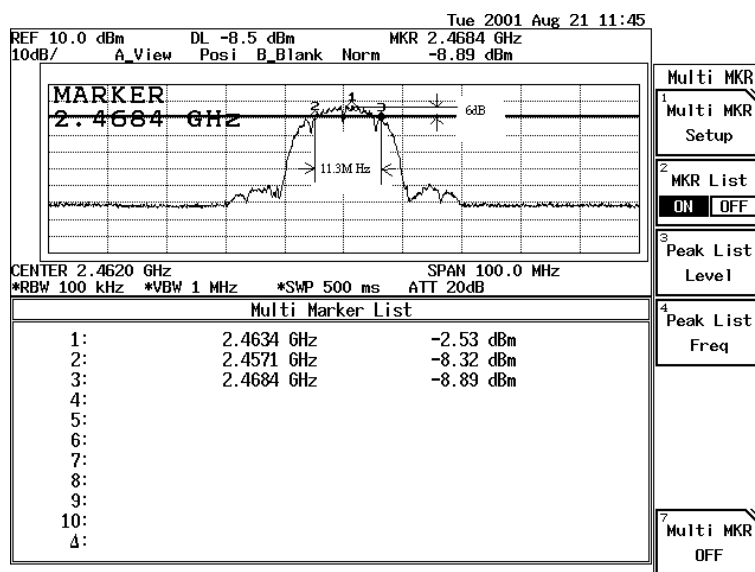


Figure Channel 11: 11Mbps



**7. Transmitter Power Density**

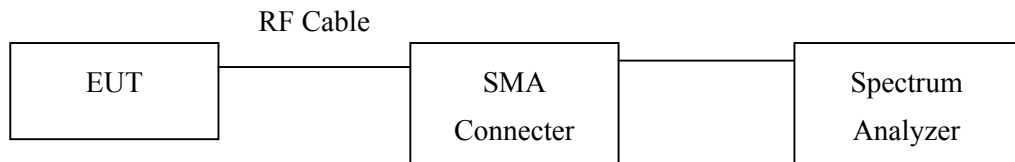
**7.1. Test Equipment**

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Advantest	R3272 / 72421194	May, 2001
X	Attenuator	HP		May, 2001
X	Horn Antenna	EM	EM6917 / 103325	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.  
 2. Mark "X" test instruments are used to measure the final test results.

**7.2. Test Setup**



**7.3. Test Condition**

Standard Temperature and Humidity, Standard Test Voltage

**7.4. Standard Requirement**

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

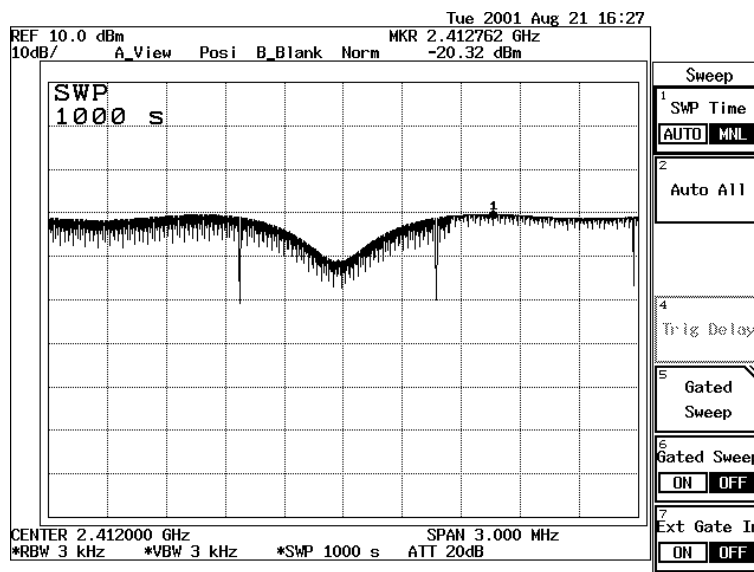


### 7.5. Test Result of Transmitter Power Density

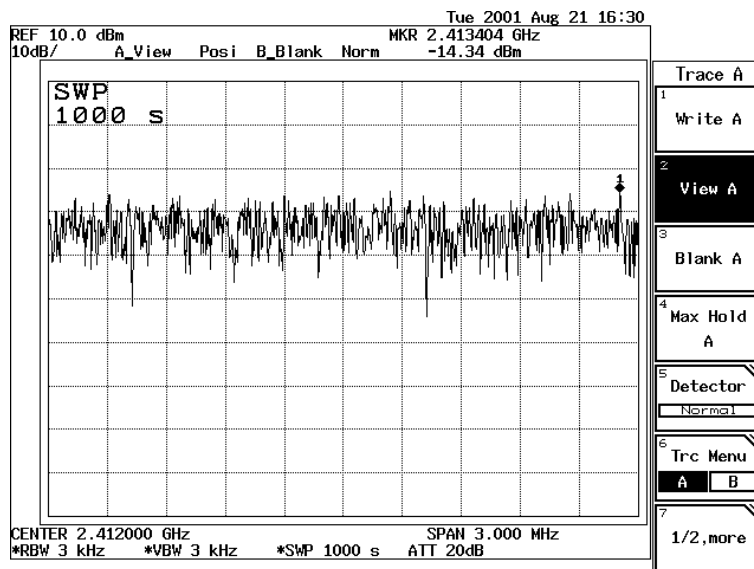
Product : Wireless LAN PC Card  
 Test Item : Transmitter Power Density Data  
 Test Site : No.1 OATS  
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (1Mbps)	2412.762	-20.32dBm	< 8dBm	Pass
1 (11Mbps)	2413.404	-14.34dBm	< 8dBm	Pass

1Mbps



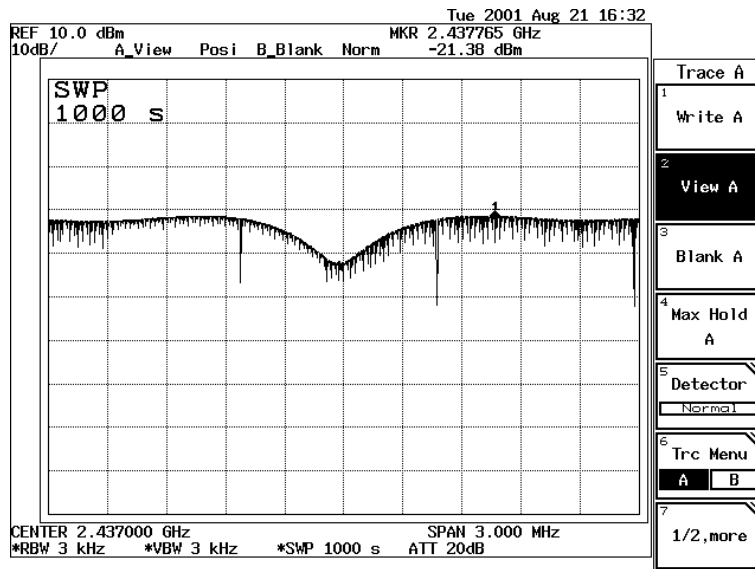
11Mbps



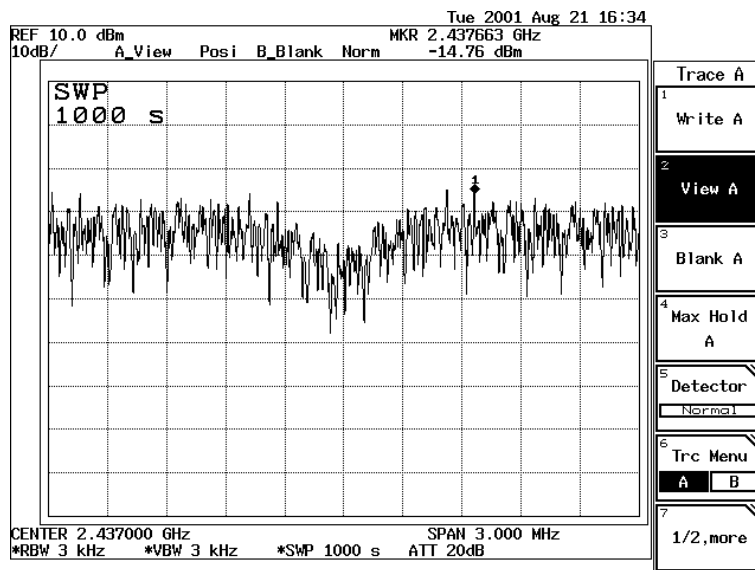
Product : Wireless LAN PC Card  
 Test Item : Transmitter Power Density Data  
 Test Site : No.1 OATS  
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (1Mbps)	2437.765	-21.38dBm	< 8dBm	Pass
6 (11Mbps)	2437.663	-14.76dBm	< 8dBm	Pass

1Mbps



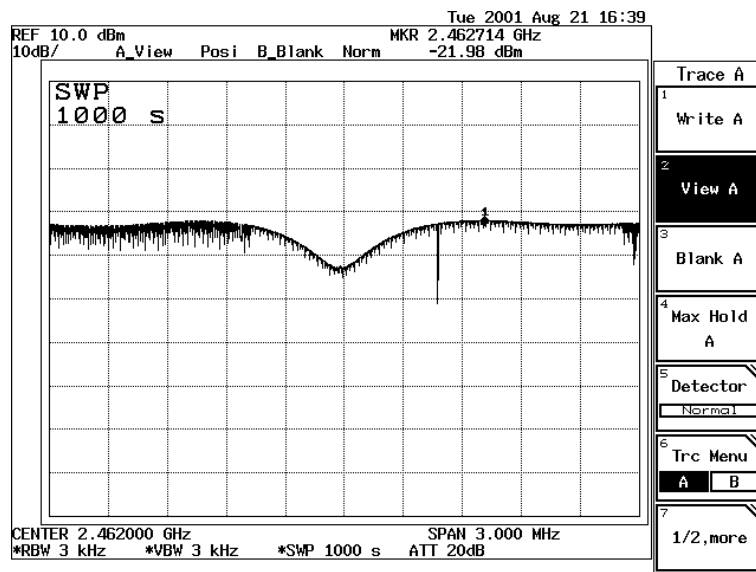
11Mbps



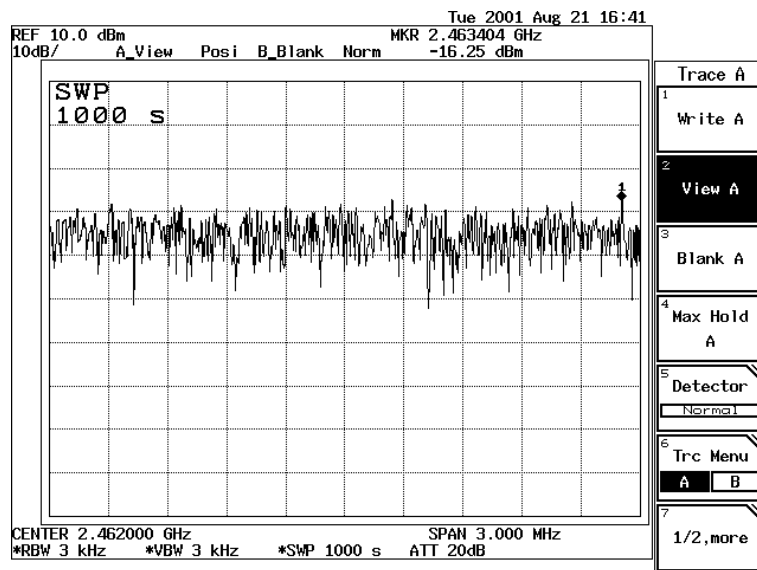
Product : Wireless LAN PC Card  
 Test Item : Transmitter Power Density Data  
 Test Site : No.1 OATS  
 Test Mode : Normal Operation

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (1Mbps)	2462.714	-21.98dBm	< 8dBm	Pass
11 (11Mbps)	2463.404	-16.25dBm	< 8dBm	Pass

1Mbps



11Mbps



## 8. Processing Gain

### 8.1. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

### 8.2. Minimum Standard

The processing gain shall be at least 10 dB.

### 8.3. Method of Measurement

The processing gain of this spread spectrum was measured the CW jamming method. The Section 9.1 illustrates the measurement setup. The output power of the spread spectrum transmitter is fixed and the output power of jammer is adjustable. The frequency of jammer was stepped through the pass band of nominal channel in 50kHz steps. In each frequency step of the jammer, the output power of jammer is adjusted to cause the Bit Error Rate (BER) to be  $1.0 \times 10^{-6}$ . The power levels are recorded to calculate the J/S as shown in Table 1.

### 8.4. Calculation of Processing Gain:

The processing gain was determined by measuring the jamming margin of the EUT and using the following formula:

$$G_p = (S/N)_o + M_j + L_{sys}$$

Where  $(S/N)_o$  is the required signal to noise ratio at the receiver output

$M_j$  is the jammer to signal ratio (J/S)

$L_{sys}$  is the system loss

The  $(S/N)_o$  is calculated from:

$$P_e = 1/2 \exp(-1/2(S/N)_o) \quad ; \quad P_e = \text{probability of error (BER)}$$

For the  $P_e(\text{BER}) = 1.0 \times 10^{-6}$ , the required  $(S/N)_o$  is 14.2dB

From Measurement, the minimum J/S( $M_j$ ) is -3.4dB

We assume the system loss is 1dB.

Therefore the processing gain is calculated below:

$$G_p = (S/N)_o + M_j + L_{sys} = 14.2 + (-3.4) + 1 = 11.8 \text{ (dB)}$$

## 8.5. Test Result of Processing Gain

Product : Wireless LAN PC Card  
Test Item : Processing Gain Data  
Test Site : No.1 OATS  
Test Mode : Normal Operation

## Testing for compliance with FCC rules 15-247e

### Scope

This report presents the test procedure, test configuration and test data associated with a FCC Part 15.247 (e) Jamming Margin test for the indirect measurement of processing gain.

### Applicable Reference Documents.

1. "Operation within the bands 902-928 MHz, 2400-2483.5, and 5725-5850 MHz" *Title 47 Part 15 section 247 (e) Code of Federal Regulations*. (47 CFR 15.247).
2. "Report and Order: Amendment of Parts 2 and 15 of the Commission's Rules Regarding Spread Spectrum Transmitters. Appendix C: 'Guidance on Measurements for Direct Sequence Spread Spectrum Systems'" *FCC 97-114. ET Docket No. 96-8, RM-8435, RM-8608, RM-8609*.
3. "HFA3861A Direct Sequence Spread Spectrum Baseband Processor" *Harris Corporation Semiconductor Sector Preliminary Data Sheet*, Melbourne FL, July 1999.
4. "M-ary Orthogonal Keying BER Curve",

### Test Background and Procedure.

According to FCC regulations [1], a direct sequence spread spectrum system must have a processing gain,  $G_p$ , of at least 10 dB. Compliance to this requirement can be shown by demonstrating a relative bit-error-ratio (BER) performance improvement (and corresponding signal to noise ratio per symbol improvement of at least 10 dB) between the case where spread spectrum processes (coding, modulation) are engaged relative to the processes being bypassed. In some practical systems, the spread spectrum processing cannot simply be bypassed. In these cases, the processing gain can be indirectly measured by a jamming margin test [2]. In accordance with the new NPRM 99-231, if the vendor has a system with less than 10 chips per symbol, the CW jamming results must be supported by a theoretical explanation of the system processing gain.

## Theoretical calculations

The processing gain is related to the jamming margin as follows [2]:

$$G_p = \left( \frac{S}{N} \right)_{output} + \left( \frac{J}{S} \right) + L_{system}$$

Where  $BER_{REFERENCE}$  is the reference bit error ratio with its corresponding, theoretical output signal to noise ratio per symbol,  $(S/N)_{output}$ ,  $(J/S)$  is the jamming margin (jamming signal power relative to desired signal power), and  $L_{system}$  are the system implementation losses.

The maximum allowed total system implementation loss is 2 dB.

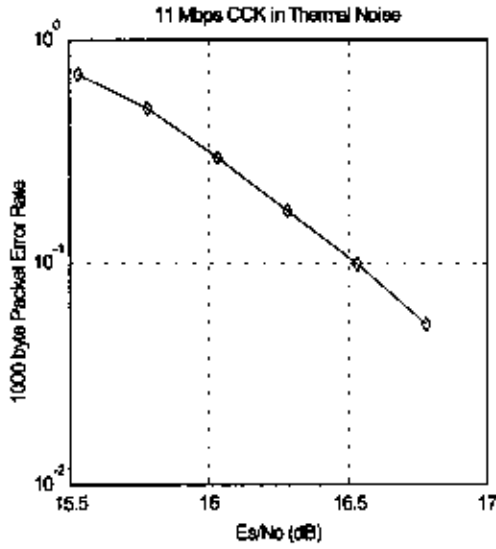
The HFA3861A direct sequence spread spectrum baseband processor uses CCK modulation which is a form of M-ary Orthogonal Keying. The BER performance curve is given by [5]:

“ The probability of error for generalized M-ary Orthogonal signaling using coherent demodulation is given by:

$$P_e = 1 - P_{cl} = 1 - \frac{1}{\sqrt{2\pi}} \int_{-\frac{S_{th}}{N_b}}^{\bar{\gamma}} \left[ 2(1 - Q\left\{ z + \sqrt{2 \frac{E_b}{\eta}} \right\}) \right]^{\frac{M}{2}-1} \exp\left\{ -\frac{z^2}{2} \right\} dz$$

This integral cannot be solved in closed form, and numerical integration must be used. There are error rate extensions for differential decoding and descrambling that are also to be accounted for. This is done in a MATHCAD environment and is displayed in graphical format below.

1.1 1000 byte PER vs. Es/No



The reference PER is specified as 8%. The corresponding Es/No (signal to noise ratio per symbol) is 16.4 dB. The Es/No required to achieve the desired BER with maximum system implementation losses is 18.4 dB. The minimum processing gain is again, 10 dB, therefore:

$$G_p = \left( \frac{E_s}{N_o} \right)_{output} + \left( \frac{J}{S} \right) + L_{system} = 16.4dB + 2.0dB + \left( \frac{J}{S} \right) \geq 10dB$$

$$G_p = 18.4dB + \left( \frac{J}{S} \right) \geq 10dB$$

The minimum jammer to signal ratio is as follows:

$$\left( \frac{J}{S} \right) \geq -8.4dB$$

For the case of the HFA3861A, the bit rates are 1, 2, 5.5, and 11 Mbps. The corresponding symbol rates are 1, 1, 1.375, and 1.375 MSps. The chip rate is always 11 MCps, so the ratio of chip rate to symbol rate is 11:1 for the 1 and 2 Mbps rates and 8:1 for the 5.5 and 11 Mbps rates. Since the symbol rate to bit rate is less than 10 for the higher rates, we supply the theoretical processing gain calculation for these cases where spread spectrum processing gain with embedded coding gain is utilized. This is reasonable in that they



## D-Link WLAN PC Card radio Jamming Margin Test

cannot be separated in the demodulation process. If a separable FEC coding scheme were used, we would not be comfortable making this assertion.

As can be seen from the curve of figure 1, the  $E_s/N_0$  is 16.4 dB at the PER of 8%. This PER can be related to a BER of  $1e-5$  on 1000 byte packets. With 8 bits per symbol, the  $E_b/N_0$  is then 7.4 dB or 9 dB less than the  $E_s/N_0$ . It is well known that the  $E_b/N_0$  of BPSK is 9.6 dB for  $1e-5$  BER, so therefore the coding gain of CCK over BPSK is 2.2 dB. We add this to the processing gain of 9 dB to get 11.2 dB overall processing gain for the CW jammer test.

Taking the calculations above, if the  $\left(\frac{J}{S}\right) \geq -8.4dB$  then the equipment passes the CW jamming test.

### Test Configuration: CW Jamming Margin (15.247) (e)

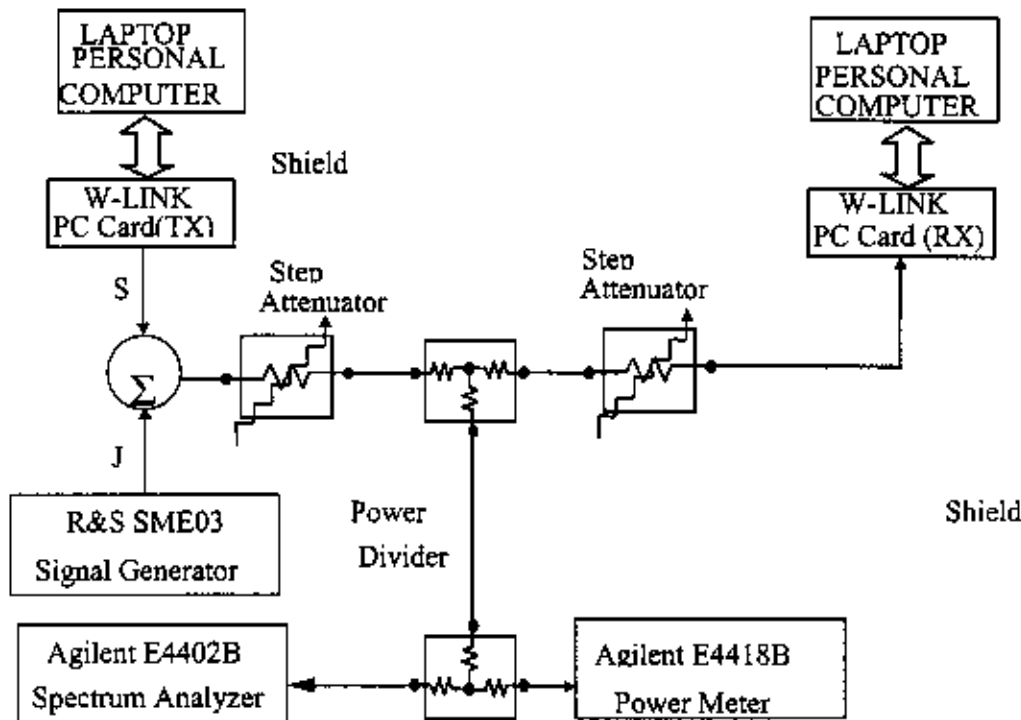
#### Test Instruments

Manufacturer & Description	Model Number
Agilent Spectrum Analyzer, 9KHz to 3GHz	E4402B
Agilent Power Meter	E4418B
Agilent Power Sensor, -70 to 20dBm	E4412A
Agilent Step Attenuator, 10dB steps, DC to 4GHz	8496A
Agilent Step Attenuator, 1dB steps, DC to 4GHz	8494A
Anaren Power Divider, 2 Way, 2 to 4GHz	40266
ROHDE & SCHWARZ Signal Generator, 5KHz to 3GHz	SME03
Compaq Laptop Computer, Pentium III 700, Windows ME	Presario 1700
Dell Laptop Computer, Pentium III 700, Windows 98	PP01L

### Test Environment

25°C, 70%RH.

### Test Block Diagram



### Test Procedure

Setup the simplex link shown. Perform all independent instrumentation calibrations prior to this procedure. Set operating power levels using fixed and variable attenuators in system to meet the following objectives:

- Signal Power at receiver approximately -60 dBm (above thermal sensitivity such that thermal noise does not cause bit errors).
- Signal Power at power meter (using high sensitivity probe) between -20 and -40 dBm for optimal linearity.
- Use spectrum analyzer to monitor test.

## **D-Link WLAN PC Card radio Jamming Margin Test**

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- Ensure that CW Jammer generator RF output is disabled and measure the power at the power meter port using the power meter. This is the relative signal power,  $S_r$ .
- Disable Transmitter, and set CW Jammer generator RF output frequency equal to the carrier frequency and enable generator output. Set reference CW Jammer power level at power meter port 8.4 dB below  $S_r$  (minimum J/S, or 10 dB processing gain reference level). Note the power level setting on the generator, this is the reference CW Jammer power setting,  $J_r$ .
- Disable CW Jammer, re-establish link. PER test should be operating essentially error-free.
- Adjust the CW Jammer level to that which causes 8% PER and verify that the S/J is less than 8.4 dB.
- Repeat step 7 for uniform steps in frequency increments of 50 kHz across the receiver passband with the CW Jammer. In this case the receiver passband is  $\pm 8.5$  MHz.

The number of points where the S/J fails to achieve 8.4 dB (is higher than 8.4 dB) is determined and if this is above 20% of the total, the test is failed otherwise it is passed.

The numerical data associated with the following radio channels is tabulated and presented for:

11Mbps:

Channel 1: 2412MHz  
Channel 7: 2442MHz  
Channel 11: 2462MHz

2Mbps:

Channel 7: 2442MHz

**D-Link WLAN PC Card radio Jamming Margin Test****Test Result**

<b>11Mbps Channel 1 (2412MHz) Processing Gain</b>							
<b><math>G_p = (S/N)_o + L_{sys} + (J_r/S_r)</math></b>							
<b>Frequency (MHz)</b>	<b>(S/N)<sub>o</sub> (dB)</b>	<b>S<sub>r</sub> (dBm)</b>	<b>J<sub>r</sub> (dBm)</b>	<b>J<sub>r</sub>/S<sub>r</sub> (dB)</b>	<b>L<sub>sys</sub> (dB)</b>	<b>FER (%)</b>	<b>G<sub>p</sub> (dB)</b>
2403.50	16.4	-62	-60.4	1.6	2	5.9	20.0
2403.55	16.4	-62	-61.0	1.0	2	7.0	19.4
2403.60	16.4	-62	-61.2	0.8	2	7.8	19.2
2403.65	16.4	-62	-61.6	0.4	2	5.1	18.8
2403.70	16.4	-62	-61.6	0.4	2	8.0	18.8
2403.75	16.4	-62	-61.6	0.4	2	5.5	18.8
2403.80	16.4	-62	-61.6	0.4	2	5.7	18.8
2403.85	16.4	-62	-61.6	0.4	2	6.2	18.8
2403.90	16.4	-62	-61.4	0.6	2	6.3	19.0
2403.95	16.4	-62	-61.3	0.7	2	4.9	19.1
2404.00	16.4	-62	-61.0	1.0	2	6.8	19.4
2404.05	16.4	-62	-60.6	1.4	2	7.4	19.8
2404.10	16.4	-62	-60.9	1.1	2	7.0	19.5
2404.15	16.4	-62	-61.0	1.0	2	6.2	19.4
2404.20	16.4	-62	-60.9	1.1	2	6.8	19.5
2404.25	16.4	-62	-61.1	0.9	2	7.1	19.3
2404.30	16.4	-62	-61.2	0.8	2	8.0	19.2
2404.35	16.4	-62	-61.1	0.9	2	6.2	19.3
2404.40	16.4	-62	-61.3	0.7	2	5.2	19.1
2404.45	16.4	-62	-61.4	0.6	2	7.5	19.0
2404.50	16.4	-62	-61.5	0.5	2	6.7	18.9
2404.55	16.4	-62	-61.8	0.2	2	5.1	18.6
2404.60	16.4	-62	-62.1	-0.1	2	7.2	18.3
2404.65	16.4	-62	-62.3	-0.3	2	5.0	18.1
2404.70	16.4	-62	-62.3	-0.3	2	7.5	18.1
2404.75	16.4	-62	-62.5	-0.5	2	5.0	17.9
2404.80	16.4	-62	-62.4	-0.4	2	7.9	18.0
2404.85	16.4	-62	-62.5	-0.5	2	5.3	17.9
2404.90	16.4	-62	-62.5	-0.5	2	5.2	17.9
2404.95	16.4	-62	-62.3	-0.3	2	7.5	18.1
2405.00	16.4	-62	-62.0	0.0	2	5.9	18.4

**D-Link WLAN PC Card radio Jamming Margin Test**

2405.05	16.4	-62	-62.0	0.0	2	6.7	18.4
2405.10	16.4	-62	-61.9	0.1	2	6.7	18.5
2405.15	16.4	-62	-61.9	0.1	2	7.7	18.5
2405.20	16.4	-62	-62.0	0.0	2	6.6	18.4
2405.25	16.4	-62	-62.3	-0.3	2	6.8	18.1
2405.30	16.4	-62	-62.3	-0.3	2	6.9	18.1
2405.35	16.4	-62	-62.2	-0.2	2	8.0	18.2
2405.40	16.4	-62	-62.4	-0.4	2	4.8	18.0
2405.45	16.4	-62	-62.5	-0.5	2	5.7	17.9
2405.50	16.4	-62	-62.7	-0.7	2	6.6	17.7
2405.55	16.4	-62	-63.2	-1.2	2	7.4	17.2
2405.60	16.4	-62	-63.2	-1.2	2	4.8	17.2
2405.65	16.4	-62	-63.5	-1.5	2	5.1	16.9
2405.70	16.4	-62	-63.5	-1.5	2	7.7	16.9
2405.75	16.4	-62	-63.7	-1.7	2	5.0	16.7
2405.80	16.4	-62	-63.7	-1.7	2	6.7	16.7
2405.85	16.4	-62	-63.9	-1.9	2	7.9	16.5
2405.90	16.4	-62	-63.9	-1.9	2	7.5	16.5
2405.95	16.4	-62	-63.8	-1.8	2	5.7	16.6
2406.00	16.4	-62	-63.8	-1.8	2	6.9	16.6
2406.05	16.4	-62	-63.9	-1.9	2	8.0	16.5
2406.10	16.4	-62	-63.8	-1.8	2	7.8	16.6
2406.15	16.4	-62	-63.8	-1.8	2	4.9	16.6
2406.20	16.4	-62	-64.0	-2.0	2	4.7	16.4
2406.25	16.4	-62	-64.1	-2.1	2	7.9	16.3
2406.30	16.4	-62	-64.6	-2.6	2	5.1	15.8
2406.35	16.4	-62	-64.5	-2.5	2	7.1	15.9
2406.40	16.4	-62	-64.9	-2.9	2	4.8	15.5
2406.45	16.4	-62	-64.8	-2.8	2	7.7	15.6
2406.50	16.4	-62	-65.0	-3.0	2	6.6	15.4
2406.55	16.4	-62	-65.2	-3.2	2	5.1	15.2
2406.60	16.4	-62	-65.2	-3.2	2	4.6	15.2
2406.65	16.4	-62	-65.2	-3.2	2	6.0	15.2
2406.70	16.4	-62	-65.3	-3.3	2	5.3	15.1
2406.75	16.4	-62	-65.4	-3.4	2	6.3	15.0
2406.80	16.4	-62	-65.4	-3.4	2	6.4	15.0
2406.85	16.4	-62	-65.4	-3.4	2	5.1	15.0

**D-Link WLAN PC Card radio Jamming Margin Test**

2406.90	16.4	-62	-65.5	-3.5	2	6.2	14.9
2406.95	16.4	-62	-65.6	-3.6	2	4.5	14.8
2407.00	16.4	-62	-65.8	-3.8	2	6.2	14.6
2407.05	16.4	-62	-65.9	-3.9	2	5.6	14.5
2407.10	16.4	-62	-66.2	-4.2	2	5.0	14.2
2407.15	16.4	-62	-66.3	-4.3	2	5.2	14.1
2407.20	16.4	-62	-66.2	-4.2	2	7.4	14.2
2407.25	16.4	-62	-66.4	-4.4	2	5.5	14.0
2407.30	16.4	-62	-66.4	-4.4	2	5.4	14.0
2407.35	16.4	-62	-66.4	-4.4	2	8.0	14.0
2407.40	16.4	-62	-66.5	-4.5	2	4.9	13.9
2407.45	16.4	-62	-66.6	-4.6	2	6.3	13.8
2407.50	16.4	-62	-66.7	-4.7	2	5.9	13.7
2407.55	16.4	-62	-66.9	-4.9	2	5.6	13.5
2407.60	16.4	-62	-66.8	-4.8	2	7.7	13.6
2407.65	16.4	-62	-67.0	-5.0	2	4.6	13.4
2407.70	16.4	-62	-67.1	-5.1	2	6.6	13.3
2407.75	16.4	-62	-67.2	-5.2	2	6.8	13.2
2407.80	16.4	-62	-67.3	-5.3	2	4.7	13.1
2407.85	16.4	-62	-67.4	-5.4	2	7.9	13.0
2407.90	16.4	-62	-67.4	-5.4	2	6.7	13.0
2407.95	16.4	-62	-67.3	-5.3	2	7.3	13.1
2408.00	16.4	-62	-67.4	-5.4	2	4.5	13.0
2408.05	16.4	-62	-67.4	-5.4	2	6.2	13.0
2408.10	16.4	-62	-67.3	-5.3	2	5.9	13.1
2408.15	16.4	-62	-67.4	-5.4	2	5.2	13.0
2408.20	16.4	-62	-67.4	-5.4	2	6.1	13.0
2408.25	16.4	-62	-67.6	-5.6	2	7.9	12.8
2408.30	16.4	-62	-67.9	-5.9	2	7.6	12.5
2408.35	16.4	-62	-67.8	-5.8	2	7.1	12.6
2408.40	16.4	-62	-68.0	-6.0	2	5.7	12.4
2408.45	16.4	-62	-68.0	-6.0	2	7.0	12.4
2408.50	16.4	-62	-68.1	-6.1	2	5.1	12.3
2408.55	16.4	-62	-68.3	-6.3	2	5.3	12.1
2408.60	16.4	-62	-68.2	-6.2	2	7.7	12.2
2408.65	16.4	-62	-68.1	-6.1	2	7.6	12.3
2408.70	16.4	-62	-68.3	-6.3	2	5.4	12.1

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**D-Link WLAN PC Card radio Jamming Margin Test**

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2408.75	16.4	-62	-68.2	-6.2	2	6.6	12.2
2408.80	16.4	-62	-68.3	-6.3	2	6.6	12.1
2408.85	16.4	-62	-68.3	-6.3	2	7.7	12.1
2408.90	16.4	-62	-68.4	-6.4	2	4.9	12.0
2408.95	16.4	-62	-68.6	-6.6	2	7.5	11.8
2409.00	16.4	-62	-68.7	-6.7	2	5.5	11.7
2409.05	16.4	-62	-68.9	-6.9	2	7.6	11.5
2409.10	16.4	-62	-69.1	-7.1	2	7.5	11.3
2409.15	16.4	-62	-69.1	-7.1	2	6.5	11.3
2409.20	16.4	-62	-69.1	-7.1	2	6.3	11.3
2409.25	16.4	-62	-69.3	-7.3	2	7.6	11.1
2409.30	16.4	-62	-69.3	-7.3	2	7.9	11.1
2409.35	16.4	-62	-69.3	-7.3	2	6.4	11.1
2409.40	16.4	-62	-69.2	-7.2	2	5.8	11.2
2409.45	16.4	-62	-69.2	-7.2	2	5.6	11.2
2409.50	16.4	-62	-69.3	-7.3	2	5.2	11.1
2409.55	16.4	-62	-69.1	-7.1	2	5.0	11.3
2409.60	16.4	-62	-69.2	-7.2	2	5.0	11.2
2409.65	16.4	-62	-69.1	-7.1	2	6.4	11.3
2409.70	16.4	-62	-69.2	-7.2	2	5.3	11.2
2409.75	16.4	-62	-69.2	-7.2	2	6.9	11.2
2409.80	16.4	-62	-69.5	-7.5	2	8.0	10.9
2409.85	16.4	-62	-69.4	-7.4	2	5.2	11.0
2409.90	16.4	-62	-69.4	-7.4	2	5.8	11.0
2409.95	16.4	-62	-69.5	-7.5	2	7.1	10.9
2410.00	16.4	-62	-69.5	-7.5	2	4.7	10.9
2410.05	16.4	-62	-69.6	-7.6	2	7.6	10.8
2410.10	16.4	-62	-69.5	-7.5	2	5.7	10.9
2410.15	16.4	-62	-69.5	-7.5	2	5.7	10.9
2410.20	16.4	-62	-69.2	-7.2	2	5.7	11.2
2410.25	16.4	-62	-69.1	-7.1	2	6.3	11.3
2410.30	16.4	-62	-69.3	-7.3	2	6.6	11.1
2410.35	16.4	-62	-69.0	-7.0	2	7.5	11.4
2410.40	16.4	-62	-69.2	-7.2	2	6.5	11.2
2410.45	16.4	-62	-69.2	-7.2	2	7.7	11.2
2410.50	16.4	-62	-69.1	-7.1	2	4.5	11.3
2410.55	16.4	-62	-69.2	-7.2	2	5.6	11.2

**D-Link WLAN PC Card radio Jamming Margin Test**

2410.60	16.4	-62	-69.2	-7.2	2	4.9	11.2
2410.65	16.4	-62	-69.3	-7.3	2	4.8	11.1
2410.70	16.4	-62	-69.2	-7.2	2	7.1	11.2
2410.75	16.4	-62	-69.2	-7.2	2	4.8	11.2
2410.80	16.4	-62	-69.1	-7.1	2	5.7	11.3
2410.85	16.4	-62	-69.0	-7.0	2	4.8	11.4
2410.90	16.4	-62	-68.9	-6.9	2	5.9	11.5
2410.95	16.4	-62	-68.9	-6.9	2	6.3	11.5
2411.00	16.4	-62	-68.9	-6.9	2	6.3	11.5
2411.05	16.4	-62	-69.1	-7.1	2	6.4	11.3
2411.10	16.4	-62	-68.9	-6.9	2	7.0	11.5
2411.15	16.4	-62	-68.9	-6.9	2	6.0	11.5
2411.20	16.4	-62	-68.9	-6.9	2	4.9	11.5
2411.25	16.4	-62	-69.0	-7.0	2	4.6	11.4
2411.30	16.4	-62	-69.0	-7.0	2	6.9	11.4
2411.35	16.4	-62	-69.1	-7.1	2	7.2	11.3
2411.40	16.4	-62	-69.1	-7.1	2	4.8	11.3
2411.45	16.4	-62	-69.1	-7.1	2	5.2	11.3
2411.50	16.4	-62	-69.0	-7.0	2	5.8	11.4
2411.55	16.4	-62	-69.1	-7.1	2	5.9	11.3
2411.60	16.4	-62	-68.9	-6.9	2	5.8	11.5
2411.65	16.4	-62	-68.9	-6.9	2	5.7	11.5
2411.70	16.4	-62	-69.0	-7.0	2	5.5	11.4
2411.75	16.4	-62	-69.1	-7.1	2	5.0	11.3
2411.80	16.4	-62	-69.3	-7.3	2	6.5	11.1
2411.85	16.4	-62	-69.4	-7.4	2	5.4	11.0
2411.90	16.4	-62	-69.5	-7.5	2	4.8	10.9
2411.95	16.4	-62	-69.7	-7.7	2	6.8	10.7
2412.00	16.4	-62	-69.7	-7.7	2	4.7	10.7
2412.05	16.4	-62	-69.7	-7.7	2	6.3	10.7
2412.10	16.4	-62	-69.5	-7.5	2	5.4	10.9
2412.15	16.4	-62	-69.1	-7.1	2	5.3	11.3
2412.20	16.4	-62	-68.9	-6.9	2	5.4	11.5
2412.25	16.4	-62	-68.9	-6.9	2	4.8	11.5
2412.30	16.4	-62	-68.8	-6.8	2	4.6	11.6
2412.35	16.4	-62	-68.7	-6.7	2	7.3	11.7
2412.40	16.4	-62	-68.7	-6.7	2	6.8	11.7



**D-Link WLAN PC Card radio Jamming Margin Test**

2412.45	16.4	-62	-68.8	-6.8	2	5.2	11.6
2412.50	16.4	-62	-68.9	-6.9	2	5.1	11.5
2412.55	16.4	-62	-68.8	-6.8	2	6.5	11.6
2412.60	16.4	-62	-68.9	-6.9	2	6.3	11.5
2412.65	16.4	-62	-68.8	-6.8	2	6.4	11.6
2412.70	16.4	-62	-68.7	-6.7	2	7.2	11.7
2412.75	16.4	-62	-68.9	-6.9	2	5.2	11.5
2412.80	16.4	-62	-68.8	-6.8	2	6.1	11.6
2412.85	16.4	-62	-68.6	-6.6	2	4.6	11.8
2412.90	16.4	-62	-68.7	-6.7	2	7.6	11.7
2412.95	16.4	-62	-68.6	-6.6	2	7.3	11.8
2413.00	16.4	-62	-68.7	-6.7	2	7.7	11.7
2413.05	16.4	-62	-68.7	-6.7	2	4.9	11.7
2413.10	16.4	-62	-68.6	-6.6	2	7.9	11.8
2413.15	16.4	-62	-68.8	-6.8	2	6.5	11.6
2413.20	16.4	-62	-68.9	-6.9	2	4.6	11.5
2413.25	16.4	-62	-68.8	-6.8	2	5.5	11.6
2413.30	16.4	-62	-69.0	-7.0	2	5.7	11.4
2413.35	16.4	-62	-69.0	-7.0	2	5.4	11.4
2413.40	16.4	-62	-68.9	-6.9	2	7.0	11.5
2413.45	16.4	-62	-69.0	-7.0	2	5.9	11.4
2413.50	16.4	-62	-69.0	-7.0	2	6.5	11.4
2413.55	16.4	-62	-69.0	-7.0	2	6.0	11.4
2413.60	16.4	-62	-68.8	-6.8	2	4.6	11.6
2413.65	16.4	-62	-68.8	-6.8	2	6.7	11.6
2413.70	16.4	-62	-68.9	-6.9	2	6.6	11.5
2413.75	16.4	-62	-68.7	-6.7	2	6.1	11.7
2413.80	16.4	-62	-68.8	-6.8	2	7.1	11.6
2413.85	16.4	-62	-69.0	-7.0	2	6.2	11.4
2413.90	16.4	-62	-69.1	-7.1	2	7.5	11.3
2413.95	16.4	-62	-69.2	-7.2	2	7.1	11.2
2414.00	16.4	-62	-69.3	-7.3	2	6.5	11.1
2414.05	16.4	-62	-69.4	-7.4	2	6.7	11.0
2414.10	16.4	-62	-69.3	-7.3	2	6.2	11.1
2414.15	16.4	-62	-69.2	-7.2	2	6.9	11.2
2414.20	16.4	-62	-69.3	-7.3	2	7.9	11.1
2414.25	16.4	-62	-69.1	-7.1	2	5.3	11.3

**D-Link WLAN PC Card radio Jamming Margin Test**

2414.30	16.4	-62	-68.9	-6.9	2	5.6	11.5
2414.35	16.4	-62	-68.9	-6.9	2	7.6	11.5
2414.40	16.4	-62	-69.0	-7.0	2	4.8	11.4
2414.45	16.4	-62	-69.0	-7.0	2	4.5	11.4
2414.50	16.4	-62	-69.1	-7.1	2	6.8	11.3
2414.55	16.4	-62	-69.3	-7.3	2	6.2	11.1
2414.60	16.4	-62	-69.1	-7.1	2	4.7	11.3
2414.65	16.4	-62	-69.3	-7.3	2	6.3	11.1
2414.70	16.4	-62	-69.1	-7.1	2	6.8	11.3
2414.75	16.4	-62	-69.1	-7.1	2	6.7	11.3
2414.80	16.4	-62	-69.1	-7.1	2	5.8	11.3
2414.85	16.4	-62	-68.8	-6.8	2	7.5	11.6
2414.90	16.4	-62	-69.0	-7.0	2	6.2	11.4
2414.95	16.4	-62	-68.7	-6.7	2	7.6	11.7
2415.00	16.4	-62	-68.6	-6.6	2	5.6	11.8
2415.05	16.4	-62	-68.5	-6.5	2	5.2	11.9
2415.10	16.4	-62	-68.3	-6.3	2	5.2	12.1
2415.15	16.4	-62	-68.4	-6.4	2	7.1	12.0
2415.20	16.4	-62	-68.4	-6.4	2	5.1	12.0
2415.25	16.4	-62	-68.5	-6.5	2	4.7	11.9
2415.30	16.4	-62	-68.5	-6.5	2	7.9	11.9
2415.35	16.4	-62	-68.4	-6.4	2	5.8	12.0
2415.40	16.4	-62	-68.5	-6.5	2	5.3	11.9
2415.45	16.4	-62	-68.4	-6.4	2	6.8	12.0
2415.50	16.4	-62	-68.4	-6.4	2	6.3	12.0
2415.55	16.4	-62	-68.1	-6.1	2	7.1	12.3
2415.60	16.4	-62	-68.1	-6.1	2	5.2	12.3
2415.65	16.4	-62	-67.9	-5.9	2	5.8	12.5
2415.70	16.4	-62	-67.8	-5.8	2	7.9	12.6
2415.75	16.4	-62	-67.8	-5.8	2	6.2	12.6
2415.80	16.4	-62	-67.7	-5.7	2	4.6	12.7
2415.85	16.4	-62	-67.7	-5.7	2	6.6	12.7
2415.90	16.4	-62	-67.8	-5.8	2	7.2	12.6
2415.95	16.4	-62	-67.6	-5.6	2	4.6	12.8
2416.00	16.4	-62	-67.8	-5.8	2	7.5	12.6
2416.05	16.4	-62	-67.7	-5.7	2	6.0	12.7
2416.10	16.4	-62	-67.6	-5.6	2	6.1	12.8

**D-Link WLAN PC Card radio Jamming Margin Test**

2416.15	16.4	-62	-67.7	-5.7	2	6.7	12.7
2416.20	16.4	-62	-67.4	-5.4	2	7.6	13.0
2416.25	16.4	-62	-67.4	-5.4	2	5.5	13.0
2416.30	16.4	-62	-67.4	-5.4	2	7.5	13.0
2416.35	16.4	-62	-67.1	-5.1	2	7.4	13.3
2416.40	16.4	-62	-66.9	-4.9	2	5.1	13.5
2416.45	16.4	-62	-66.9	-4.9	2	5.1	13.5
2416.50	16.4	-62	-66.8	-4.8	2	5.8	13.6
2416.55	16.4	-62	-66.8	-4.8	2	5.7	13.6
2416.60	16.4	-62	-66.9	-4.9	2	4.6	13.5
2416.65	16.4	-62	-66.9	-4.9	2	6.2	13.5
2416.70	16.4	-62	-66.8	-4.8	2	5.1	13.6
2416.75	16.4	-62	-66.7	-4.7	2	4.8	13.7
2416.80	16.4	-62	-66.6	-4.6	2	4.5	13.8
2416.85	16.4	-62	-66.6	-4.6	2	5.4	13.8
2416.90	16.4	-62	-66.6	-4.6	2	7.6	13.8
2416.95	16.4	-62	-66.4	-4.4	2	6.8	14.0
2417.00	16.4	-62	-66.4	-4.4	2	6.4	14.0
2417.05	16.4	-62	-66.2	-4.2	2	6.5	14.2
2417.10	16.4	-62	-65.9	-3.9	2	6.7	14.5
2417.15	16.4	-62	-65.8	-3.8	2	4.6	14.6
2417.20	16.4	-62	-65.6	-3.6	2	7.4	14.8
2417.25	16.4	-62	-65.6	-3.6	2	5.0	14.8
2417.30	16.4	-62	-65.6	-3.6	2	6.1	14.8
2417.35	16.4	-62	-65.5	-3.5	2	5.3	14.9
2417.40	16.4	-62	-65.4	-3.4	2	7.7	15.0
2417.45	16.4	-62	-65.3	-3.3	2	6.6	15.1
2417.50	16.4	-62	-65.1	-3.1	2	5.1	15.3
2417.55	16.4	-62	-65.1	-3.1	2	5.8	15.3
2417.60	16.4	-62	-64.9	-2.9	2	5.2	15.5
2417.65	16.4	-62	-64.5	-2.5	2	4.6	15.9
2417.70	16.4	-62	-64.3	-2.3	2	6.2	16.1
2417.75	16.4	-62	-64.0	-2.0	2	6.1	16.4
2417.80	16.4	-62	-63.9	-1.9	2	6.4	16.5
2417.85	16.4	-62	-63.7	-1.7	2	6.8	16.7
2417.90	16.4	-62	-63.7	-1.7	2	4.6	16.7
2417.95	16.4	-62	-63.7	-1.7	2	4.7	16.7

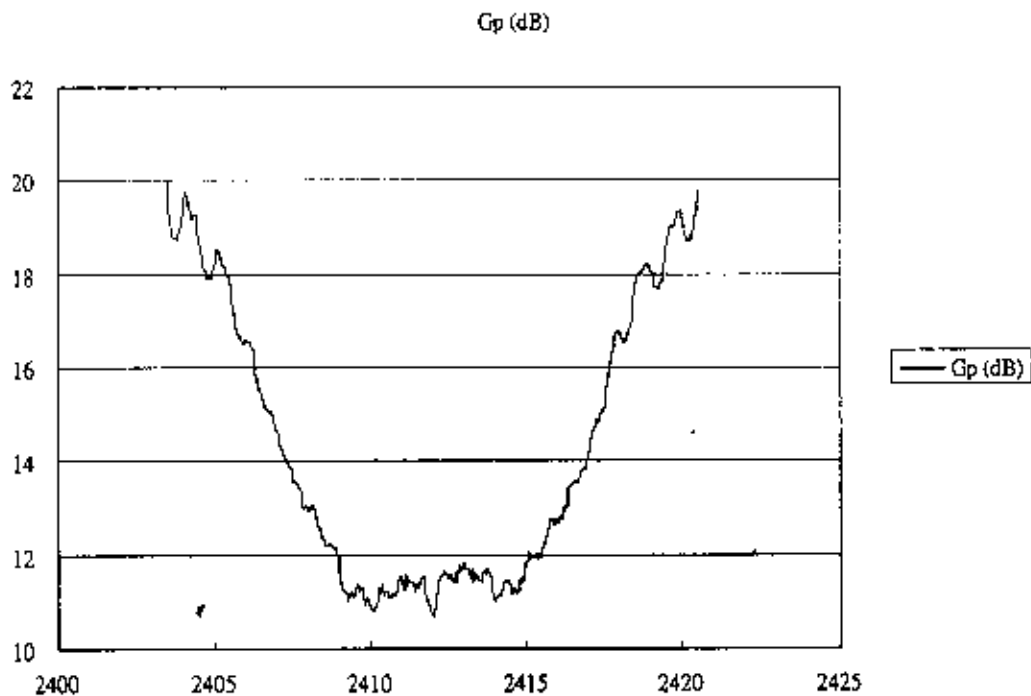
**D-Link WLAN PC Card radio Jamming Margin Test**


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2418.00	16.4	-62	-63.7	-1.7	2	4.9	16.7
2418.05	16.4	-62	-63.8	-1.8	2	6.4	16.6
2418.10	16.4	-62	-63.8	-1.8	2	6.8	16.6
2418.15	16.4	-62	-63.9	-1.9	2	6.8	16.5
2418.20	16.4	-62	-63.9	-1.9	2	4.8	16.5
2418.25	16.4	-62	-63.6	-1.6	2	7.5	16.8
2418.30	16.4	-62	-63.6	-1.6	2	7.0	16.8
2418.35	16.4	-62	-63.5	-1.5	2	5.4	16.9
2418.40	16.4	-62	-63.4	-1.4	2	6.0	17.0
2418.45	16.4	-62	-63.1	-1.1	2	7.3	17.3
2418.50	16.4	-62	-62.6	-0.6	2	5.7	17.8
2418.55	16.4	-62	-62.5	-0.5	2	5.3	17.9
2418.60	16.4	-62	-62.3	-0.3	2	7.8	18.1
2418.65	16.4	-62	-62.3	-0.3	2	5.5	18.1
2418.70	16.4	-62	-62.3	-0.3	2	6.3	18.1
2418.75	16.4	-62	-62.3	-0.3	2	7.0	18.1
2418.80	16.4	-62	-62.3	-0.3	2	7.5	18.1
2418.85	16.4	-62	-62.1	-0.1	2	6.5	18.3
2418.90	16.4	-62	-62.2	-0.2	2	7.4	18.2
2418.95	16.4	-62	-62.2	-0.2	2	6.3	18.2
2419.00	16.4	-62	-62.3	-0.3	2	5.8	18.1
2419.05	16.4	-62	-62.4	-0.4	2	6.9	18.0
2419.10	16.4	-62	-62.6	-0.6	2	7.8	17.8
2419.15	16.4	-62	-62.7	-0.7	2	6.9	17.7
2419.20	16.4	-62	-62.6	-0.6	2	6.6	17.8
2419.25	16.4	-62	-62.7	-0.7	2	6.9	17.7
2419.30	16.4	-62	-62.6	-0.6	2	7.2	17.8
2419.35	16.4	-62	-62.6	-0.6	2	7.8	17.8
2419.40	16.4	-62	-62.4	-0.4	2	6.6	18.0
2419.45	16.4	-62	-62.0	0.0	2	6.1	18.4
2419.50	16.4	-62	-61.7	0.3	2	5.3	18.7
2419.55	16.4	-62	-61.6	0.4	2	6.7	18.8
2419.60	16.4	-62	-61.3	0.7	2	5.3	19.1
2419.65	16.4	-62	-61.5	0.5	2	6.5	18.9
2419.70	16.4	-62	-61.3	0.7	2	6.4	19.1
2419.75	16.4	-62	-61.3	0.7	2	7.0	19.1
2419.80	16.4	-62	-61.2	0.8	2	5.2	19.2

**D-Link WLAN PC Card radio Jamming Margin Test**

2419.85	16.4	-62	-61.1	0.9	2	7.2	19.3
2419.90	16.4	-62	-61.0	1.0	2	5.2	19.4
2419.95	16.4	-62	-61.0	1.0	2	5.2	19.4
2420.00	16.4	-62	-61.2	0.8	2	7.7	19.2
2420.05	16.4	-62	-61.3	0.7	2	5.9	19.1
2420.10	16.4	-62	-61.6	0.4	2	7.2	18.8
2420.15	16.4	-62	-61.6	0.4	2	6.2	18.8
2420.20	16.4	-62	-61.6	0.4	2	6.0	18.8
2420.25	16.4	-62	-61.6	0.4	2	7.1	18.8
2420.30	16.4	-62	-61.7	0.3	2	6.8	18.7
2420.35	16.4	-62	-61.4	0.6	2	5.4	19.0
2420.40	16.4	-62	-61.1	0.9	2	5.0	19.3
2420.45	16.4	-62	-61.0	1.0	2	7.0	19.4
2420.50	16.4	-62	-60.7	1.3	2	5.6	19.7
<b>Processing Gain(dB)@20th Percentile=11.3</b>							



D-Link WLAN PC Card radio Jamming Margin Test

11Mbps Channel 7 (2442MHz) Processing Gain							
Gp=(S/N)o+Lsys+(Jr/Sr)							
Frequency (MHz)	(S/N)o (dB)	Sr (dBm)	Jr (dBm)	Jr/Sr (dB)	Lsys (dB)	FER (%)	Gp (dB)
2433.50	16.4	-62	-60.6	1.4	2	6.9	19.8
2433.55	16.4	-62	-61.0	1.0	2	7.9	19.4
2433.60	16.4	-62	-61.2	0.8	2	4.6	19.2
2433.65	16.4	-62	-61.5	0.5	2	6.3	18.9
2433.70	16.4	-62	-61.5	0.5	2	5.4	18.9
2433.75	16.4	-62	-61.7	0.3	2	5.8	18.7
2433.80	16.4	-62	-61.7	0.3	2	4.7	18.7
2433.85	16.4	-62	-61.7	0.3	2	5.0	18.7
2433.90	16.4	-62	-61.4	0.6	2	4.7	19.0
2433.95	16.4	-62	-61.5	0.5	2	6.2	18.9
2434.00	16.4	-62	-61.0	1.0	2	7.6	19.4
2434.05	16.4	-62	-60.7	1.3	2	6.6	19.7
2434.10	16.4	-62	-60.9	1.1	2	5.0	19.5
2434.15	16.4	-62	-60.9	1.1	2	7.2	19.5
2434.20	16.4	-62	-60.8	1.2	2	6.2	19.6
2434.25	16.4	-62	-61.0	1.0	2	6.7	19.4
2434.30	16.4	-62	-61.3	0.7	2	5.2	19.1
2434.35	16.4	-62	-61.3	0.7	2	5.2	19.1
2434.40	16.4	-62	-61.4	0.6	2	6.7	19.0
2434.45	16.4	-62	-61.4	0.6	2	7.6	19.0
2434.50	16.4	-62	-61.5	0.5	2	6.5	18.9
2434.55	16.4	-62	-62.0	0.0	2	4.6	18.4
2434.60	16.4	-62	-62.0	0.0	2	5.4	18.4
2434.65	16.4	-62	-62.4	-0.4	2	7.0	18.0
2434.70	16.4	-62	-62.3	-0.3	2	4.7	18.1
2434.75	16.4	-62	-62.5	-0.5	2	4.8	17.9
2434.80	16.4	-62	-62.4	-0.4	2	4.8	18.0
2434.85	16.4	-62	-62.6	-0.6	2	6.4	17.8
2434.90	16.4	-62	-62.4	-0.4	2	4.7	18.0
2434.95	16.4	-62	-62.3	-0.3	2	4.9	18.1
2435.00	16.4	-62	-62.1	-0.1	2	6.4	18.3
2435.05	16.4	-62	-62.0	0.0	2	7.5	18.4
2435.10	16.4	-62	-62.0	0.0	2	8.0	18.4

**D-Link WLAN PC Card radio Jamming Margin Test**

2435.15	16.4	-62	-61.9	0.1	2	7.4	18.5
2435.20	16.4	-62	-62.0	0.0	2	8.0	18.4
2435.25	16.4	-62	-62.2	-0.2	2	7.4	18.2
2435.30	16.4	-62	-62.2	-0.2	2	5.9	18.2
2435.35	16.4	-62	-62.2	-0.2	2	6.2	18.2
2435.40	16.4	-62	-62.3	-0.3	2	8.0	18.1
2435.45	16.4	-62	-62.4	-0.4	2	7.7	18.0
2435.50	16.4	-62	-62.7	-0.7	2	5.4	17.7
2435.55	16.4	-62	-63.2	-1.2	2	4.5	17.2
2435.60	16.4	-62	-63.4	-1.4	2	5.2	17.0
2435.65	16.4	-62	-63.5	-1.5	2	6.4	16.9
2435.70	16.4	-62	-63.6	-1.6	2	5.5	16.8
2435.75	16.4	-62	-63.8	-1.8	2	7.3	16.6
2435.80	16.4	-62	-63.8	-1.8	2	7.3	16.6
2435.85	16.4	-62	-63.8	-1.8	2	5.7	16.6
2435.90	16.4	-62	-63.9	-1.9	2	5.3	16.5
2435.95	16.4	-62	-63.8	-1.8	2	7.2	16.6
2436.00	16.4	-62	-63.8	-1.8	2	4.8	16.6
2436.05	16.4	-62	-63.8	-1.8	2	5.1	16.6
2436.10	16.4	-62	-63.8	-1.8	2	4.7	16.6
2436.15	16.4	-62	-64.0	-2.0	2	6.4	16.4
2436.20	16.4	-62	-64.1	-2.1	2	5.8	16.3
2436.25	16.4	-62	-64.2	-2.2	2	4.7	16.2
2436.30	16.4	-62	-64.4	-2.4	2	6.6	16.0
2436.35	16.4	-62	-64.6	-2.6	2	6.9	15.8
2436.40	16.4	-62	-64.9	-2.9	2	5.0	15.5
2436.45	16.4	-62	-64.9	-2.9	2	6.3	15.5
2436.50	16.4	-62	-65.0	-3.0	2	7.7	15.4
2436.55	16.4	-62	-65.1	-3.1	2	6.4	15.3
2436.60	16.4	-62	-65.2	-3.2	2	5.4	15.2
2436.65	16.4	-62	-65.3	-3.3	2	6.2	15.1
2436.70	16.4	-62	-65.3	-3.3	2	7.6	15.1
2436.75	16.4	-62	-65.4	-3.4	2	6.8	15.0
2436.80	16.4	-62	-65.4	-3.4	2	6.3	15.0
2436.85	16.4	-62	-65.4	-3.4	2	7.1	15.0
2436.90	16.4	-62	-65.5	-3.5	2	7.6	14.9
2436.95	16.4	-62	-65.7	-3.7	2	7.3	14.7

**D-Link WLAN PC Card radio Jamming Margin Test**

2437.00	16.4	-62	-65.9	-3.9	2	6.6	14.5
2437.05	16.4	-62	-66.1	-4.1	2	6.1	14.3
2437.10	16.4	-62	-66.0	-4.0	2	5.6	14.4
2437.15	16.4	-62	-66.2	-4.2	2	8.0	14.2
2437.20	16.4	-62	-66.2	-4.2	2	7.0	14.2
2437.25	16.4	-62	-66.4	-4.4	2	7.9	14.0
2437.30	16.4	-62	-66.5	-4.5	2	7.6	13.9
2437.35	16.4	-62	-66.5	-4.5	2	7.3	13.9
2437.40	16.4	-62	-66.5	-4.5	2	7.0	13.9
2437.45	16.4	-62	-66.5	-4.5	2	5.8	13.9
2437.50	16.4	-62	-66.7	-4.7	2	5.8	13.7
2437.55	16.4	-62	-66.8	-4.8	2	5.4	13.6
2437.60	16.4	-62	-67.0	-5.0	2	4.7	13.4
2437.65	16.4	-62	-67.0	-5.0	2	7.8	13.4
2437.70	16.4	-62	-67.1	-5.1	2	7.6	13.3
2437.75	16.4	-62	-67.2	-5.2	2	7.1	13.2
2437.80	16.4	-62	-67.3	-5.3	2	4.6	13.1
2437.85	16.4	-62	-67.3	-5.3	2	5.0	13.1
2437.90	16.4	-62	-67.3	-5.3	2	6.8	13.1
2437.95	16.4	-62	-67.3	-5.3	2	7.0	13.1
2438.00	16.4	-62	-67.4	-5.4	2	7.4	13.0
2438.05	16.4	-62	-67.4	-5.4	2	5.1	13.0
2438.10	16.4	-62	-67.5	-5.5	2	5.5	12.9
2438.15	16.4	-62	-67.3	-5.3	2	5.9	13.1
2438.20	16.4	-62	-67.4	-5.4	2	7.7	13.0
2438.25	16.4	-62	-67.5	-5.5	2	7.7	12.9
2438.30	16.4	-62	-67.9	-5.9	2	8.0	12.5
2438.35	16.4	-62	-67.8	-5.8	2	4.7	12.6
2438.40	16.4	-62	-68.0	-6.0	2	7.0	12.4
2438.45	16.4	-62	-68.2	-6.2	2	7.2	12.2
2438.50	16.4	-62	-68.1	-6.1	2	6.9	12.3
2438.55	16.4	-62	-68.1	-6.1	2	8.0	12.3
2438.60	16.4	-62	-68.3	-6.3	2	5.1	12.1
2438.65	16.4	-62	-68.2	-6.2	2	7.3	12.2
2438.70	16.4	-62	-68.3	-6.3	2	7.9	12.1
2438.75	16.4	-62	-68.3	-6.3	2	4.7	12.1
2438.80	16.4	-62	-68.4	-6.4	2	6.7	12.0



**D-Link WLAN PC Card radio Jamming Margin Test**

2438.85	16.4	-62	-68.4	-6.4	2	5.4	12.0
2438.90	16.4	-62	-68.6	-6.6	2	7.2	11.8
2438.95	16.4	-62	-68.5	-6.5	2	4.9	11.9
2439.00	16.4	-62	-68.7	-6.7	2	7.1	11.7
2439.05	16.4	-62	-68.9	-6.9	2	5.0	11.5
2439.10	16.4	-62	-69.1	-7.1	2	6.9	11.3
2439.15	16.4	-62	-69.1	-7.1	2	7.7	11.3
2439.20	16.4	-62	-69.3	-7.3	2	7.0	11.1
2439.25	16.4	-62	-69.4	-7.4	2	8.0	11.0
2439.30	16.4	-62	-69.2	-7.2	2	7.4	11.2
2439.35	16.4	-62	-69.3	-7.3	2	4.9	11.1
2439.40	16.4	-62	-69.2	-7.2	2	4.9	11.2
2439.45	16.4	-62	-69.2	-7.2	2	7.3	11.2
2439.50	16.4	-62	-69.2	-7.2	2	5.7	11.2
2439.55	16.4	-62	-69.1	-7.1	2	6.0	11.3
2439.60	16.4	-62	-69.1	-7.1	2	6.6	11.3
2439.65	16.4	-62	-69.0	-7.0	2	5.6	11.4
2439.70	16.4	-62	-69.1	-7.1	2	6.2	11.3
2439.75	16.4	-62	-69.2	-7.2	2	4.7	11.2
2439.80	16.4	-62	-69.5	-7.5	2	7.5	10.9
2439.85	16.4	-62	-69.3	-7.3	2	6.6	11.1
2439.90	16.4	-62	-69.4	-7.4	2	5.0	11.0
2439.95	16.4	-62	-69.4	-7.4	2	4.8	11.0
2440.00	16.4	-62	-69.5	-7.5	2	7.1	10.9
2440.05	16.4	-62	-69.5	-7.5	2	6.0	10.9
2440.10	16.4	-62	-69.5	-7.5	2	6.1	10.9
2440.15	16.4	-62	-69.4	-7.4	2	5.9	11.0
2440.20	16.4	-62	-69.4	-7.4	2	7.2	11.0
2440.25	16.4	-62	-69.3	-7.3	2	6.1	11.1
2440.30	16.4	-62	-69.1	-7.1	2	7.2	11.3
2440.35	16.4	-62	-69.1	-7.1	2	8.0	11.3
2440.40	16.4	-62	-69.3	-7.3	2	5.1	11.1
2440.45	16.4	-62	-69.2	-7.2	2	5.6	11.2
2440.50	16.4	-62	-69.2	-7.2	2	5.8	11.2
2440.55	16.4	-62	-69.2	-7.2	2	7.0	11.2
2440.60	16.4	-62	-69.4	-7.4	2	7.7	11.0
2440.65	16.4	-62	-69.3	-7.3	2	5.8	11.1

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**D-Link WLAN PC Card radio Jamming Margin Test**

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2440.70	16.4	-62	-69.1	-7.1	2	7.4	11.3
2440.75	16.4	-62	-69.3	-7.3	2	7.5	11.1
2440.80	16.4	-62	-69.0	-7.0	2	5.9	11.4
2440.85	16.4	-62	-69.1	-7.1	2	6.6	11.3
2440.90	16.4	-62	-69.0	-7.0	2	6.2	11.4
2440.95	16.4	-62	-68.8	-6.8	2	7.9	11.6
2441.00	16.4	-62	-69.0	-7.0	2	7.5	11.4
2441.05	16.4	-62	-69.1	-7.1	2	5.8	11.3
2441.10	16.4	-62	-68.9	-6.9	2	4.7	11.5
2441.15	16.4	-62	-69.0	-7.0	2	7.3	11.4
2441.20	16.4	-62	-68.9	-6.9	2	5.8	11.5
2441.25	16.4	-62	-68.9	-6.9	2	4.7	11.5
2441.30	16.4	-62	-69.0	-7.0	2	6.0	11.4
2441.35	16.4	-62	-69.2	-7.2	2	7.6	11.2
2441.40	16.4	-62	-69.1	-7.1	2	5.2	11.3
2441.45	16.4	-62	-69.0	-7.0	2	7.9	11.4
2441.50	16.4	-62	-69.0	-7.0	2	5.3	11.4
2441.55	16.4	-62	-69.2	-7.2	2	7.4	11.2
2441.60	16.4	-62	-68.9	-6.9	2	6.7	11.5
2441.65	16.4	-62	-68.9	-6.9	2	7.4	11.5
2441.70	16.4	-62	-69.1	-7.1	2	5.9	11.3
2441.75	16.4	-62	-69.0	-7.0	2	6.3	11.4
2441.80	16.4	-62	-69.2	-7.2	2	5.6	11.2
2441.85	16.4	-62	-69.4	-7.4	2	4.5	11.0
2441.90	16.4	-62	-69.4	-7.4	2	5.4	11.0
2441.95	16.4	-62	-69.8	-7.8	2	6.4	10.6
2442.00	16.4	-62	-69.6	-7.6	2	7.5	10.8
2442.05	16.4	-62	-69.5	-7.5	2	6.9	10.9
2442.10	16.4	-62	-69.3	-7.3	2	4.7	11.1
2442.15	16.4	-62	-69.0	-7.0	2	7.2	11.4
2442.20	16.4	-62	-68.9	-6.9	2	7.0	11.5
2442.25	16.4	-62	-69.0	-7.0	2	7.8	11.4
2442.30	16.4	-62	-68.8	-6.8	2	5.6	11.6
2442.35	16.4	-62	-68.9	-6.9	2	4.9	11.5
2442.40	16.4	-62	-68.7	-6.7	2	7.8	11.7
2442.45	16.4	-62	-68.8	-6.8	2	6.5	11.6
2442.50	16.4	-62	-68.9	-6.9	2	4.9	11.5

**D-Link WLAN PC Card radio Jamming Margin Test**

2442.55	16.4	-62	-68.8	-6.8	2	7.7	11.6
2442.60	16.4	-62	-68.8	-6.8	2	6.3	11.6
2442.65	16.4	-62	-68.9	-6.9	2	6.6	11.5
2442.70	16.4	-62	-68.8	-6.8	2	6.9	11.6
2442.75	16.4	-62	-68.9	-6.9	2	4.9	11.5
2442.80	16.4	-62	-68.6	-6.6	2	4.6	11.8
2442.85	16.4	-62	-68.8	-6.8	2	7.8	11.6
2442.90	16.4	-62	-68.6	-6.6	2	6.1	11.8
2442.95	16.4	-62	-68.6	-6.6	2	5.0	11.8
2443.00	16.4	-62	-68.7	-6.7	2	6.1	11.7
2443.05	16.4	-62	-68.6	-6.6	2	6.1	11.8
2443.10	16.4	-62	-68.7	-6.7	2	6.3	11.7
2443.15	16.4	-62	-68.7	-6.7	2	5.2	11.7
2443.20	16.4	-62	-68.9	-6.9	2	6.8	11.5
2443.25	16.4	-62	-68.8	-6.8	2	6.5	11.6
2443.30	16.4	-62	-68.9	-6.9	2	7.3	11.5
2443.35	16.4	-62	-68.9	-6.9	2	7.9	11.5
2443.40	16.4	-62	-68.8	-6.8	2	5.7	11.6
2443.45	16.4	-62	-69.0	-7.0	2	4.9	11.4
2443.50	16.4	-62	-68.8	-6.8	2	7.3	11.6
2443.55	16.4	-62	-68.8	-6.8	2	5.5	11.6
2443.60	16.4	-62	-68.8	-6.8	2	7.0	11.6
2443.65	16.4	-62	-68.9	-6.9	2	7.9	11.5
2443.70	16.4	-62	-68.8	-6.8	2	5.6	11.6
2443.75	16.4	-62	-68.9	-6.9	2	6.2	11.5
2443.80	16.4	-62	-68.9	-6.9	2	5.0	11.5
2443.85	16.4	-62	-69.0	-7.0	2	4.8	11.4
2443.90	16.4	-62	-69.0	-7.0	2	5.0	11.4
2443.95	16.4	-62	-69.1	-7.1	2	6.0	11.3
2444.00	16.4	-62	-69.3	-7.3	2	6.2	11.1
2444.05	16.4	-62	-69.3	-7.3	2	7.3	11.1
2444.10	16.4	-62	-69.3	-7.3	2	7.5	11.1
2444.15	16.4	-62	-69.3	-7.3	2	6.8	11.1
2444.20	16.4	-62	-69.3	-7.3	2	7.6	11.1
2444.25	16.4	-62	-69.2	-7.2	2	5.9	11.2
2444.30	16.4	-62	-68.9	-6.9	2	7.4	11.5
2444.35	16.4	-62	-68.9	-6.9	2	6.0	11.5

**D-Link WLAN PC Card radio Jamming Margin Test**

2444.40	16.4	-62	-68.9	-6.9	2	7.2	11.5
2444.45	16.4	-62	-68.9	-6.9	2	6.4	11.5
2444.50	16.4	-62	-69.1	-7.1	2	5.5	11.3
2444.55	16.4	-62	-69.2	-7.2	2	6.6	11.2
2444.60	16.4	-62	-69.3	-7.3	2	5.7	11.1
2444.65	16.4	-62	-69.1	-7.1	2	5.6	11.3
2444.70	16.4	-62	-69.1	-7.1	2	7.3	11.3
2444.75	16.4	-62	-69.1	-7.1	2	6.8	11.3
2444.80	16.4	-62	-69.0	-7.0	2	6.7	11.4
2444.85	16.4	-62	-69.0	-7.0	2	6.8	11.4
2444.90	16.4	-62	-68.9	-6.9	2	6.2	11.5
2444.95	16.4	-62	-68.7	-6.7	2	7.2	11.7
2445.00	16.4	-62	-68.6	-6.6	2	7.0	11.8
2445.05	16.4	-62	-68.5	-6.5	2	4.8	11.9
2445.10	16.4	-62	-68.5	-6.5	2	7.6	11.9
2445.15	16.4	-62	-68.5	-6.5	2	6.8	11.9
2445.20	16.4	-62	-68.3	-6.3	2	5.3	12.1
2445.25	16.4	-62	-68.4	-6.4	2	7.9	12.0
2445.30	16.4	-62	-68.5	-6.5	2	7.5	11.9
2445.35	16.4	-62	-68.4	-6.4	2	7.0	12.0
2445.40	16.4	-62	-68.5	-6.5	2	7.4	11.9
2445.45	16.4	-62	-68.4	-6.4	2	7.7	12.0
2445.50	16.4	-62	-68.3	-6.3	2	6.2	12.1
2445.55	16.4	-62	-68.3	-6.3	2	7.8	12.1
2445.60	16.4	-62	-68.2	-6.2	2	6.7	12.2
2445.65	16.4	-62	-68.0	-6.0	2	5.1	12.4
2445.70	16.4	-62	-67.8	-5.8	2	5.1	12.6
2445.75	16.4	-62	-67.8	-5.8	2	4.8	12.6
2445.80	16.4	-62	-67.7	-5.7	2	4.8	12.7
2445.85	16.4	-62	-67.7	-5.7	2	6.9	12.7
2445.90	16.4	-62	-67.6	-5.6	2	6.1	12.8
2445.95	16.4	-62	-67.6	-5.6	2	7.0	12.8
2446.00	16.4	-62	-67.7	-5.7	2	4.5	12.7
2446.05	16.4	-62	-67.6	-5.6	2	7.5	12.8
2446.10	16.4	-62	-67.7	-5.7	2	6.0	12.7
2446.15	16.4	-62	-67.5	-5.5	2	6.0	12.9
2446.20	16.4	-62	-67.4	-5.4	2	5.4	13.0

**D-Link WLAN PC Card radio Jamming Margin Test**

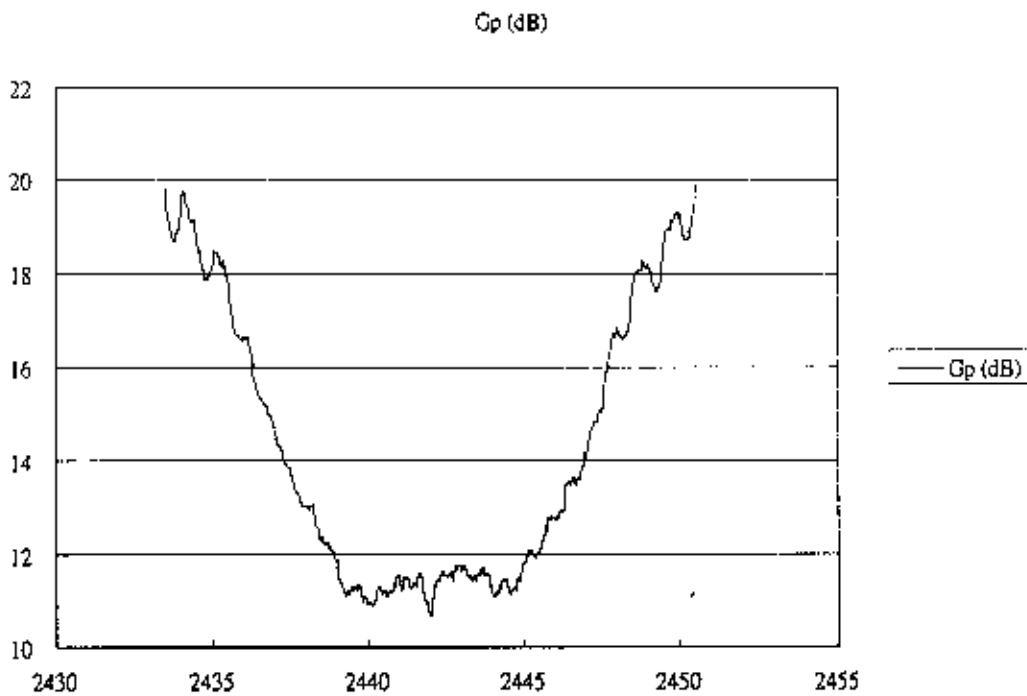
2446.25	16.4	-62	-67.4	-5.4	2	7.8	13.0
2446.30	16.4	-62	-67.3	-5.3	2	4.6	13.1
2446.35	16.4	-62	-67.1	-5.1	2	7.8	13.3
2446.40	16.4	-62	-66.8	-4.8	2	7.8	13.6
2446.45	16.4	-62	-66.8	-4.8	2	6.5	13.6
2446.50	16.4	-62	-67.0	-5.0	2	4.8	13.4
2446.55	16.4	-62	-66.8	-4.8	2	4.6	13.6
2446.60	16.4	-62	-66.7	-4.7	2	5.5	13.7
2446.65	16.4	-62	-66.9	-4.9	2	6.3	13.5
2446.70	16.4	-62	-66.8	-4.8	2	5.4	13.6
2446.75	16.4	-62	-66.7	-4.7	2	5.9	13.7
2446.80	16.4	-62	-66.8	-4.8	2	7.0	13.6
2446.85	16.4	-62	-66.6	-4.6	2	6.3	13.8
2446.90	16.4	-62	-66.5	-4.5	2	4.5	13.9
2446.95	16.4	-62	-66.2	-4.2	2	6.2	14.2
2447.00	16.4	-62	-66.4	-4.4	2	6.1	14.0
2447.05	16.4	-62	-66.1	-4.1	2	8.0	14.3
2447.10	16.4	-62	-66.0	-4.0	2	6.5	14.4
2447.15	16.4	-62	-65.8	-3.8	2	5.6	14.6
2447.20	16.4	-62	-65.5	-3.5	2	5.8	14.9
2447.25	16.4	-62	-65.5	-3.5	2	7.4	14.9
2447.30	16.4	-62	-65.5	-3.5	2	5.6	14.9
2447.35	16.4	-62	-65.5	-3.5	2	6.1	14.9
2447.40	16.4	-62	-65.4	-3.4	2	5.2	15.0
2447.45	16.4	-62	-65.3	-3.3	2	7.8	15.1
2447.50	16.4	-62	-65.2	-3.2	2	8.0	15.2
2447.55	16.4	-62	-65.1	-3.1	2	5.1	15.3
2447.60	16.4	-62	-64.8	-2.8	2	7.7	15.6
2447.65	16.4	-62	-64.5	-2.5	2	7.4	15.9
2447.70	16.4	-62	-64.5	-2.5	2	6.8	15.9
2447.75	16.4	-62	-64.0	-2.0	2	7.6	16.4
2447.80	16.4	-62	-63.9	-1.9	2	6.1	16.5
2447.85	16.4	-62	-63.7	-1.7	2	5.9	16.7
2447.90	16.4	-62	-63.7	-1.7	2	5.1	16.7
2447.95	16.4	-62	-63.8	-1.8	2	7.0	16.6
2448.00	16.4	-62	-63.6	-1.6	2	6.0	16.8
2448.05	16.4	-62	-63.7	-1.7	2	7.5	16.7

**D-Link WLAN PC Card radio Jamming Margin Test**

2448.10	16.4	-62	-63.7	-1.7	2	7.5	16.7
2448.15	16.4	-62	-63.8	-1.8	2	5.8	16.6
2448.20	16.4	-62	-63.7	-1.7	2	5.4	16.7
2448.25	16.4	-62	-63.8	-1.8	2	4.9	16.6
2448.30	16.4	-62	-63.6	-1.6	2	4.8	16.8
2448.35	16.4	-62	-63.6	-1.6	2	6.2	16.8
2448.40	16.4	-62	-63.2	-1.2	2	5.8	17.2
2448.45	16.4	-62	-63.1	-1.1	2	7.3	17.3
2448.50	16.4	-62	-62.8	-0.8	2	6.9	17.6
2448.55	16.4	-62	-62.5	-0.5	2	6.9	17.9
2448.60	16.4	-62	-62.3	-0.3	2	5.0	18.1
2448.65	16.4	-62	-62.3	-0.3	2	7.7	18.1
2448.70	16.4	-62	-62.3	-0.3	2	5.5	18.1
2448.75	16.4	-62	-62.4	-0.4	2	6.7	18.0
2448.80	16.4	-62	-62.2	-0.2	2	5.1	18.2
2448.85	16.4	-62	-62.1	-0.1	2	4.9	18.3
2448.90	16.4	-62	-62.2	-0.2	2	6.4	18.2
2448.95	16.4	-62	-62.2	-0.2	2	6.3	18.2
2449.00	16.4	-62	-62.3	-0.3	2	6.3	18.1
2449.05	16.4	-62	-62.6	-0.6	2	6.4	17.8
2449.10	16.4	-62	-62.6	-0.6	2	5.4	17.8
2449.15	16.4	-62	-62.7	-0.7	2	5.9	17.7
2449.20	16.4	-62	-62.8	-0.8	2	4.6	17.6
2449.25	16.4	-62	-62.8	-0.8	2	6.1	17.6
2449.30	16.4	-62	-62.7	-0.7	2	5.2	17.7
2449.35	16.4	-62	-62.4	-0.4	2	5.0	18.0
2449.40	16.4	-62	-62.4	-0.4	2	7.3	18.0
2449.45	16.4	-62	-62.2	-0.2	2	6.2	18.2
2449.50	16.4	-62	-61.7	0.3	2	6.7	18.7
2449.55	16.4	-62	-61.4	0.6	2	7.7	19.0
2449.60	16.4	-62	-61.5	0.5	2	5.2	18.9
2449.65	16.4	-62	-61.5	0.5	2	7.6	18.9
2449.70	16.4	-62	-61.3	0.7	2	6.6	19.1
2449.75	16.4	-62	-61.3	0.7	2	4.7	19.1
2449.80	16.4	-62	-61.2	0.8	2	6.8	19.2
2449.85	16.4	-62	-61.2	0.8	2	7.8	19.2
2449.90	16.4	-62	-61.2	0.8	2	6.7	19.2

**D-Link WLAN PC Card radio Jamming Margin Test**

2449.95	16.4	-62	-61.1	0.9	2	6.2	19.3
2450.00	16.4	-62	-61.2	0.8	2	4.7	19.2
2450.05	16.4	-62	-61.5	0.5	2	4.7	18.9
2450.10	16.4	-62	-61.5	0.5	2	5.4	18.9
2450.15	16.4	-62	-61.6	0.4	2	5.0	18.8
2450.20	16.4	-62	-61.7	0.3	2	6.1	18.7
2450.25	16.4	-62	-61.6	0.4	2	7.6	18.8
2450.30	16.4	-62	-61.6	0.4	2	7.4	18.8
2450.35	16.4	-62	-61.3	0.7	2	6.2	19.1
2450.40	16.4	-62	-61.2	0.8	2	5.5	19.2
2450.45	16.4	-62	-61.0	1.0	2	7.9	19.4
2450.50	16.4	-62	-60.5	1.5	2	7.0	19.9
<b>Processing Gain(dB)@20th Percentile=11.2</b>							



**D-Link WLAN PC Card radio Jamming Margin Test**

<b>11Mbps Channel 11 (2462MHz) Processing Gain</b>							
<b><math>G_p = (S/N)_o + L_{sys} + (J_r/S_r)</math></b>							
<b>Frequency</b>	<b>(S/N)<sub>o</sub></b>	<b>S<sub>r</sub></b>	<b>J<sub>r</sub></b>	<b>J<sub>r</sub>/S<sub>r</sub></b>	<b>L<sub>sys</sub></b>	<b>FER</b>	<b>G<sub>p</sub></b>
<b>(MHz)</b>	<b>(dB)</b>	<b>(dBm)</b>	<b>(dBm)</b>	<b>(dB)</b>	<b>(dB)</b>	<b>(%)</b>	<b>(dB)</b>
2453.50	16.4	-62	-61.3	0.7	2	5.2	19.1
2453.55	16.4	-62	-61.9	0.1	2	5.5	18.5
2453.60	16.4	-62	-62.0	0.0	2	5.8	18.4
2453.65	16.4	-62	-62.3	-0.3	2	7.6	18.1
2453.70	16.4	-62	-62.5	-0.5	2	6.9	17.9
2453.75	16.4	-62	-62.4	-0.4	2	4.8	18.0
2453.80	16.4	-62	-62.5	-0.5	2	4.9	17.9
2453.85	16.4	-62	-62.3	-0.3	2	4.7	18.1
2453.90	16.4	-62	-62.3	-0.3	2	6.4	18.1
2453.95	16.4	-62	-62.1	-0.1	2	5.6	18.3
2454.00	16.4	-62	-61.7	0.3	2	6.3	18.7
2454.05	16.4	-62	-61.7	0.3	2	6.6	18.7
2454.10	16.4	-62	-61.8	0.2	2	6.9	18.6
2454.15	16.4	-62	-61.9	0.1	2	5.9	18.5
2454.20	16.4	-62	-61.8	0.2	2	6.2	18.6
2454.25	16.4	-62	-62.0	0.0	2	5.7	18.4
2454.30	16.4	-62	-61.9	0.1	2	6.6	18.5
2454.35	16.4	-62	-62.0	0.0	2	6.0	18.4
2454.40	16.4	-62	-62.1	-0.1	2	4.8	18.3
2454.45	16.4	-62	-62.2	-0.2	2	7.8	18.2
2454.50	16.4	-62	-62.3	-0.3	2	5.5	18.1
2454.55	16.4	-62	-62.6	-0.6	2	4.6	17.8
2454.60	16.4	-62	-63.0	-1.0	2	6.1	17.4
2454.65	16.4	-62	-63.3	-1.3	2	7.2	17.1
2454.70	16.4	-62	-63.2	-1.2	2	5.4	17.2
2454.75	16.4	-62	-63.3	-1.3	2	6.1	17.1
2454.80	16.4	-62	-63.2	-1.2	2	7.4	17.2
2454.85	16.4	-62	-63.2	-1.2	2	5.5	17.2
2454.90	16.4	-62	-63.1	-1.1	2	5.4	17.3
2454.95	16.4	-62	-63.0	-1.0	2	7.3	17.4
2455.00	16.4	-62	-62.7	-0.7	2	6.3	17.7
2455.05	16.4	-62	-62.7	-0.7	2	5.5	17.7
2455.10	16.4	-62	-62.8	-0.8	2	8.0	17.6



**D-Link WLAN PC Card radio Jamming Margin Test**

2455.15	16.4	-62	-62.9	-0.9	2	7.6	17.5
2455.20	16.4	-62	-62.8	-0.8	2	5.2	17.6
2455.25	16.4	-62	-62.8	-0.8	2	6.5	17.6
2455.30	16.4	-62	-63.1	-1.1	2	4.7	17.3
2455.35	16.4	-62	-62.9	-0.9	2	4.8	17.5
2455.40	16.4	-62	-63.0	-1.0	2	4.5	17.4
2455.45	16.4	-62	-63.1	-1.1	2	4.6	17.3
2455.50	16.4	-62	-63.3	-1.3	2	5.2	17.1
2455.55	16.4	-62	-63.7	-1.7	2	7.3	16.7
2455.60	16.4	-62	-63.9	-1.9	2	7.6	16.5
2455.65	16.4	-62	-64.2	-2.2	2	6.4	16.2
2455.70	16.4	-62	-64.3	-2.3	2	7.2	16.1
2455.75	16.4	-62	-64.4	-2.4	2	7.4	16.0
2455.80	16.4	-62	-64.6	-2.6	2	4.6	15.8
2455.85	16.4	-62	-64.6	-2.6	2	5.3	15.8
2455.90	16.4	-62	-64.7	-2.7	2	7.0	15.7
2455.95	16.4	-62	-64.5	-2.5	2	5.4	15.9
2456.00	16.4	-62	-64.5	-2.5	2	7.7	15.9
2456.05	16.4	-62	-64.4	-2.4	2	5.8	16.0
2456.10	16.4	-62	-64.5	-2.5	2	5.9	15.9
2456.15	16.4	-62	-64.5	-2.5	2	4.6	15.9
2456.20	16.4	-62	-64.7	-2.7	2	6.9	15.7
2456.25	16.4	-62	-64.8	-2.8	2	6.2	15.6
2456.30	16.4	-62	-65.1	-3.1	2	6.0	15.3
2456.35	16.4	-62	-65.3	-3.3	2	4.6	15.1
2456.40	16.4	-62	-65.4	-3.4	2	8.0	15.0
2456.45	16.4	-62	-65.5	-3.5	2	6.2	14.9
2456.50	16.4	-62	-65.5	-3.5	2	7.7	14.9
2456.55	16.4	-62	-65.9	-3.9	2	6.0	14.5
2456.60	16.4	-62	-65.7	-3.7	2	5.0	14.7
2456.65	16.4	-62	-65.9	-3.9	2	6.6	14.5
2456.70	16.4	-62	-65.9	-3.9	2	6.8	14.5
2456.75	16.4	-62	-65.8	-3.8	2	7.3	14.6
2456.80	16.4	-62	-65.9	-3.9	2	5.8	14.5
2456.85	16.4	-62	-66.0	-4.0	2	6.7	14.4
2456.90	16.4	-62	-66.1	-4.1	2	7.9	14.3
2456.95	16.4	-62	-66.2	-4.2	2	8.0	14.2

**D-Link WLAN PC Card radio Jamming Margin Test**

2457.00	16.4	-62	-66.3	-4.3	2	4.5	14.1
2457.05	16.4	-62	-66.5	-4.5	2	6.6	13.9
2457.10	16.4	-62	-66.6	-4.6	2	5.4	13.8
2457.15	16.4	-62	-66.6	-4.6	2	6.2	13.8
2457.20	16.4	-62	-66.9	-4.9	2	7.6	13.5
2457.25	16.4	-62	-67.0	-5.0	2	5.0	13.4
2457.30	16.4	-62	-67.0	-5.0	2	7.7	13.4
2457.35	16.4	-62	-67.0	-5.0	2	7.0	13.4
2457.40	16.4	-62	-67.0	-5.0	2	4.6	13.4
2457.45	16.4	-62	-66.9	-4.9	2	7.4	13.5
2457.50	16.4	-62	-67.0	-5.0	2	6.5	13.4
2457.55	16.4	-62	-67.3	-5.3	2	4.6	13.1
2457.60	16.4	-62	-67.4	-5.4	2	7.7	13.0
2457.65	16.4	-62	-67.4	-5.4	2	7.8	13.0
2457.70	16.4	-62	-67.6	-5.6	2	7.3	12.8
2457.75	16.4	-62	-67.6	-5.6	2	6.0	12.8
2457.80	16.4	-62	-67.8	-5.8	2	5.1	12.6
2457.85	16.4	-62	-67.9	-5.9	2	4.6	12.5
2457.90	16.4	-62	-67.8	-5.8	2	5.6	12.6
2457.95	16.4	-62	-67.8	-5.8	2	6.4	12.6
2458.00	16.4	-62	-67.8	-5.8	2	7.9	12.6
2458.05	16.4	-62	-67.9	-5.9	2	7.0	12.5
2458.10	16.4	-62	-67.8	-5.8	2	6.9	12.6
2458.15	16.4	-62	-67.9	-5.9	2	5.4	12.5
2458.20	16.4	-62	-67.9	-5.9	2	5.9	12.5
2458.25	16.4	-62	-68.0	-6.0	2	7.3	12.4
2458.30	16.4	-62	-68.2	-6.2	2	7.1	12.2
2458.35	16.4	-62	-68.1	-6.1	2	6.5	12.3
2458.40	16.4	-62	-68.3	-6.3	2	5.9	12.1
2458.45	16.4	-62	-68.4	-6.4	2	6.0	12.0
2458.50	16.4	-62	-68.6	-6.6	2	4.6	11.8
2458.55	16.4	-62	-68.4	-6.4	2	6.0	12.0
2458.60	16.4	-62	-68.6	-6.6	2	7.1	11.8
2458.65	16.4	-62	-68.6	-6.6	2	7.3	11.8
2458.70	16.4	-62	-68.5	-6.5	2	4.9	11.9
2458.75	16.4	-62	-68.5	-6.5	2	6.0	11.9
2458.80	16.4	-62	-68.3	-6.3	2	7.2	12.1

**D-Link WLAN PC Card radio Jamming Margin Test**

2458.85	16.4	-62	-68.6	-6.6	2	6.8	11.8
2458.90	16.4	-62	-68.6	-6.6	2	4.6	11.8
2458.95	16.4	-62	-68.6	-6.6	2	7.6	11.8
2459.00	16.4	-62	-68.7	-6.7	2	5.1	11.7
2459.05	16.4	-62	-68.9	-6.9	2	5.8	11.5
2459.10	16.4	-62	-69.1	-7.1	2	6.6	11.3
2459.15	16.4	-62	-69.1	-7.1	2	5.7	11.3
2459.20	16.4	-62	-69.3	-7.3	2	4.7	11.1
2459.25	16.4	-62	-69.2	-7.2	2	4.5	11.2
2459.30	16.4	-62	-69.2	-7.2	2	7.7	11.2
2459.35	16.4	-62	-69.3	-7.3	2	7.1	11.1
2459.40	16.4	-62	-69.3	-7.3	2	4.6	11.1
2459.45	16.4	-62	-69.2	-7.2	2	7.3	11.2
2459.50	16.4	-62	-69.3	-7.3	2	5.3	11.1
2459.55	16.4	-62	-69.1	-7.1	2	5.4	11.3
2459.60	16.4	-62	-69.1	-7.1	2	7.7	11.3
2459.65	16.4	-62	-69.1	-7.1	2	5.9	11.3
2459.70	16.4	-62	-69.3	-7.3	2	5.7	11.1
2459.75	16.4	-62	-69.3	-7.3	2	6.8	11.1
2459.80	16.4	-62	-69.4	-7.4	2	5.8	11.0
2459.85	16.4	-62	-69.5	-7.5	2	5.0	10.9
2459.90	16.4	-62	-69.5	-7.5	2	5.8	10.9
2459.95	16.4	-62	-69.5	-7.5	2	6.5	10.9
2460.00	16.4	-62	-69.6	-7.6	2	7.2	10.8
2460.05	16.4	-62	-69.6	-7.6	2	5.4	10.8
2460.10	16.4	-62	-69.5	-7.5	2	7.4	10.9
2460.15	16.4	-62	-69.5	-7.5	2	7.8	10.9
2460.20	16.4	-62	-69.3	-7.3	2	7.3	11.1
2460.25	16.4	-62	-69.3	-7.3	2	7.2	11.1
2460.30	16.4	-62	-69.3	-7.3	2	7.1	11.1
2460.35	16.4	-62	-69.3	-7.3	2	6.3	11.1
2460.40	16.4	-62	-69.3	-7.3	2	7.5	11.1
2460.45	16.4	-62	-69.4	-7.4	2	7.3	11.0
2460.50	16.4	-62	-69.4	-7.4	2	7.1	11.0
2460.55	16.4	-62	-69.6	-7.6	2	7.0	10.8
2460.60	16.4	-62	-69.4	-7.4	2	7.1	11.0
2460.65	16.4	-62	-69.4	-7.4	2	5.6	11.0

D-Link WLAN PC Card radio Jamming Margin Test

2460.70	16.4	-62	-69.4	-7.4	2	6.7	11.0
2460.75	16.4	-62	-69.3	-7.3	2	6.1	11.1
2460.80	16.4	-62	-69.3	-7.3	2	6.0	11.1
2460.85	16.4	-62	-69.0	-7.0	2	5.6	11.4
2460.90	16.4	-62	-69.0	-7.0	2	4.9	11.4
2460.95	16.4	-62	-68.9	-6.9	2	6.2	11.5
2461.00	16.4	-62	-69.0	-7.0	2	7.0	11.4
2461.05	16.4	-62	-68.9	-6.9	2	6.8	11.5
2461.10	16.4	-62	-69.0	-7.0	2	5.8	11.4
2461.15	16.4	-62	-68.8	-6.8	2	6.1	11.6
2461.20	16.4	-62	-68.7	-6.7	2	6.8	11.7
2461.25	16.4	-62	-68.8	-6.8	2	6.1	11.6
2461.30	16.4	-62	-68.8	-6.8	2	7.2	11.6
2461.35	16.4	-62	-68.8	-6.8	2	6.4	11.6
2461.40	16.4	-62	-68.8	-6.8	2	6.1	11.6
2461.45	16.4	-62	-68.8	-6.8	2	5.3	11.6
2461.50	16.4	-62	-68.7	-6.7	2	5.1	11.7
2461.55	16.4	-62	-68.7	-6.7	2	7.5	11.7
2461.60	16.4	-62	-68.6	-6.6	2	7.0	11.8
2461.65	16.4	-62	-68.6	-6.6	2	6.6	11.8
2461.70	16.4	-62	-68.5	-6.5	2	6.4	11.9
2461.75	16.4	-62	-68.7	-6.7	2	7.3	11.7
2461.80	16.4	-62	-68.7	-6.7	2	7.4	11.7
2461.85	16.4	-62	-68.8	-6.8	2	6.9	11.6
2461.90	16.4	-62	-69.0	-7.0	2	7.7	11.4
2461.95	16.4	-62	-68.8	-6.8	2	4.7	11.6
2462.00	16.4	-62	-69.1	-7.1	2	6.4	11.3
2462.05	16.4	-62	-69.0	-7.0	2	6.6	11.4
2462.10	16.4	-62	-68.8	-6.8	2	7.7	11.6
2462.15	16.4	-62	-68.6	-6.6	2	5.9	11.8
2462.20	16.4	-62	-68.6	-6.6	2	6.0	11.8
2462.25	16.4	-62	-68.6	-6.6	2	6.1	11.8
2462.30	16.4	-62	-68.5	-6.5	2	5.5	11.9
2462.35	16.4	-62	-68.5	-6.5	2	7.7	11.9
2462.40	16.4	-62	-68.6	-6.6	2	7.2	11.8
2462.45	16.4	-62	-68.6	-6.6	2	7.5	11.8
2462.50	16.4	-62	-68.7	-6.7	2	6.9	11.7

**D-Link WLAN PC Card radio Jamming Margin Test**

2462.55	16.4	-62	-68.5	-6.5	2	7.0	11.9
2462.60	16.4	-62	-68.6	-6.6	2	6.2	11.8
2462.65	16.4	-62	-68.6	-6.6	2	6.8	11.8
2462.70	16.4	-62	-68.8	-6.8	2	4.8	11.6
2462.75	16.4	-62	-68.6	-6.6	2	7.7	11.8
2462.80	16.4	-62	-68.6	-6.6	2	7.0	11.8
2462.85	16.4	-62	-68.7	-6.7	2	4.7	11.7
2462.90	16.4	-62	-68.7	-6.7	2	7.3	11.7
2462.95	16.4	-62	-68.7	-6.7	2	5.0	11.7
2463.00	16.4	-62	-68.7	-6.7	2	6.1	11.7
2463.05	16.4	-62	-68.9	-6.9	2	7.2	11.5
2463.10	16.4	-62	-68.9	-6.9	2	7.6	11.5
2463.15	16.4	-62	-69.0	-7.0	2	5.9	11.4
2463.20	16.4	-62	-68.9	-6.9	2	6.0	11.5
2463.25	16.4	-62	-69.0	-7.0	2	7.6	11.4
2463.30	16.4	-62	-69.0	-7.0	2	7.1	11.4
2463.35	16.4	-62	-69.3	-7.3	2	6.0	11.1
2463.40	16.4	-62	-69.0	-7.0	2	6.2	11.4
2463.45	16.4	-62	-69.0	-7.0	2	7.6	11.4
2463.50	16.4	-62	-69.1	-7.1	2	4.9	11.3
2463.55	16.4	-62	-68.9	-6.9	2	5.8	11.5
2463.60	16.4	-62	-68.9	-6.9	2	5.8	11.5
2463.65	16.4	-62	-69.0	-7.0	2	6.2	11.4
2463.70	16.4	-62	-68.9	-6.9	2	5.1	11.5
2463.75	16.4	-62	-68.7	-6.7	2	7.5	11.7
2463.80	16.4	-62	-68.9	-6.9	2	7.1	11.5
2463.85	16.4	-62	-68.9	-6.9	2	7.6	11.5
2463.90	16.4	-62	-68.9	-6.9	2	5.8	11.5
2463.95	16.4	-62	-69.2	-7.2	2	7.6	11.2
2464.00	16.4	-62	-69.1	-7.1	2	4.8	11.3
2464.05	16.4	-62	-69.1	-7.1	2	5.7	11.3
2464.10	16.4	-62	-69.1	-7.1	2	6.4	11.3
2464.15	16.4	-62	-69.1	-7.1	2	7.6	11.3
2464.20	16.4	-62	-68.9	-6.9	2	5.0	11.5
2464.25	16.4	-62	-68.9	-6.9	2	6.7	11.5
2464.30	16.4	-62	-68.8	-6.8	2	4.9	11.6
2464.35	16.4	-62	-68.6	-6.6	2	5.6	11.8

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**D-Link WLAN PC Card radio Jamming Margin Test**

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2464.40	16.4	-62	-68.8	-6.8	2	6.8	11.6
2464.45	16.4	-62	-68.7	-6.7	2	6.3	11.7
2464.50	16.4	-62	-68.7	-6.7	2	6.2	11.7
2464.55	16.4	-62	-68.7	-6.7	2	7.2	11.7
2464.60	16.4	-62	-68.9	-6.9	2	7.0	11.5
2464.65	16.4	-62	-68.9	-6.9	2	4.9	11.5
2464.70	16.4	-62	-68.7	-6.7	2	5.4	11.7
2464.75	16.4	-62	-68.9	-6.9	2	5.2	11.5
2464.80	16.4	-62	-68.6	-6.6	2	7.0	11.8
2464.85	16.4	-62	-68.5	-6.5	2	6.4	11.9
2464.90	16.4	-62	-68.6	-6.6	2	5.0	11.8
2464.95	16.4	-62	-68.4	-6.4	2	5.0	12.0
2465.00	16.4	-62	-68.4	-6.4	2	7.9	12.0
2465.05	16.4	-62	-68.1	-6.1	2	5.4	12.3
2465.10	16.4	-62	-68.1	-6.1	2	4.9	12.3
2465.15	16.4	-62	-68.2	-6.2	2	7.8	12.2
2465.20	16.4	-62	-68.2	-6.2	2	7.7	12.2
2465.25	16.4	-62	-68.2	-6.2	2	7.5	12.2
2465.30	16.4	-62	-68.2	-6.2	2	7.7	12.2
2465.35	16.4	-62	-68.2	-6.2	2	8.0	12.2
2465.40	16.4	-62	-68.3	-6.3	2	7.2	12.1
2465.45	16.4	-62	-68.1	-6.1	2	5.3	12.3
2465.50	16.4	-62	-68.2	-6.2	2	7.4	12.2
2465.55	16.4	-62	-68.0	-6.0	2	5.2	12.4
2465.60	16.4	-62	-68.0	-6.0	2	6.1	12.4
2465.65	16.4	-62	-67.8	-5.8	2	5.6	12.6
2465.70	16.4	-62	-67.8	-5.8	2	5.5	12.6
2465.75	16.4	-62	-67.6	-5.6	2	5.5	12.8
2465.80	16.4	-62	-67.7	-5.7	2	5.3	12.7
2465.85	16.4	-62	-67.6	-5.6	2	6.7	12.8
2465.90	16.4	-62	-67.5	-5.5	2	5.7	12.9
2465.95	16.4	-62	-67.5	-5.5	2	5.9	12.9
2466.00	16.4	-62	-67.5	-5.5	2	7.6	12.9
2466.05	16.4	-62	-67.5	-5.5	2	4.7	12.9
2466.10	16.4	-62	-67.4	-5.4	2	7.9	13.0
2466.15	16.4	-62	-67.3	-5.3	2	5.3	13.1
2466.20	16.4	-62	-67.2	-5.2	2	6.6	13.2

D-Link WLAN PC Card radio Jamming Margin Test

2466.25	16.4	-62	-67.2	-5.2	2	7.2	13.2
2466.30	16.4	-62	-67.0	-5.0	2	5.5	13.4
2466.35	16.4	-62	-66.9	-4.9	2	6.6	13.5
2466.40	16.4	-62	-66.6	-4.6	2	5.6	13.8
2466.45	16.4	-62	-66.7	-4.7	2	6.4	13.7
2466.50	16.4	-62	-66.5	-4.5	2	7.0	13.9
2466.55	16.4	-62	-66.5	-4.5	2	5.6	13.9
2466.60	16.4	-62	-66.6	-4.6	2	7.0	13.8
2466.65	16.4	-62	-66.6	-4.6	2	4.6	13.8
2466.70	16.4	-62	-66.5	-4.5	2	5.4	13.9
2466.75	16.4	-62	-66.4	-4.4	2	7.4	14.0
2466.80	16.4	-62	-66.3	-4.3	2	6.3	14.1
2466.85	16.4	-62	-66.4	-4.4	2	8.0	14.0
2466.90	16.4	-62	-66.2	-4.2	2	7.7	14.2
2466.95	16.4	-62	-65.9	-3.9	2	7.1	14.5
2467.00	16.4	-62	-65.8	-3.8	2	5.3	14.6
2467.05	16.4	-62	-65.8	-3.8	2	4.6	14.6
2467.10	16.4	-62	-65.7	-3.7	2	5.8	14.7
2467.15	16.4	-62	-65.4	-3.4	2	5.4	15.0
2467.20	16.4	-62	-65.2	-3.2	2	6.7	15.2
2467.25	16.4	-62	-65.1	-3.1	2	7.5	15.3
2467.30	16.4	-62	-65.3	-3.3	2	5.3	15.1
2467.35	16.4	-62	-65.2	-3.2	2	4.8	15.2
2467.40	16.4	-62	-65.0	-3.0	2	5.8	15.4
2467.45	16.4	-62	-64.9	-2.9	2	5.3	15.5
2467.50	16.4	-62	-64.7	-2.7	2	7.9	15.7
2467.55	16.4	-62	-64.8	-2.8	2	6.9	15.6
2467.60	16.4	-62	-64.5	-2.5	2	5.9	15.9
2467.65	16.4	-62	-64.3	-2.3	2	7.3	16.1
2467.70	16.4	-62	-64.1	-2.1	2	7.0	16.3
2467.75	16.4	-62	-63.7	-1.7	2	5.4	16.7
2467.80	16.4	-62	-63.5	-1.5	2	5.0	16.9
2467.85	16.4	-62	-63.4	-1.4	2	6.4	17.0
2467.90	16.4	-62	-63.3	-1.3	2	5.9	17.1
2467.95	16.4	-62	-63.4	-1.4	2	6.1	17.0
2468.00	16.4	-62	-63.1	-1.1	2	7.7	17.3
2468.05	16.4	-62	-63.3	-1.3	2	5.3	17.1

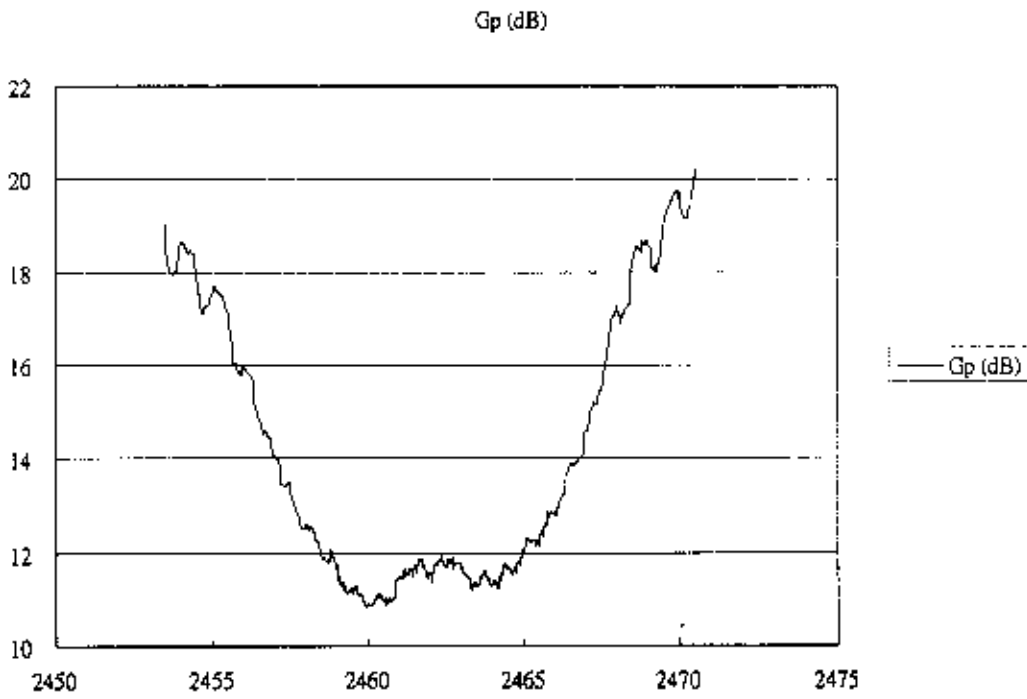
**D-Link WLAN PC Card radio Jamming Margin Test**

2468.10	16.4	-62	-63.5	-1.5	2	4.6	16.9
2468.15	16.4	-62	-63.4	-1.4	2	5.1	17.0
2468.20	16.4	-62	-63.3	-1.3	2	7.3	17.1
2468.25	16.4	-62	-63.2	-1.2	2	7.6	17.2
2468.30	16.4	-62	-63.2	-1.2	2	6.2	17.2
2468.35	16.4	-62	-63.1	-1.1	2	7.0	17.3
2468.40	16.4	-62	-62.9	-0.9	2	7.0	17.5
2468.45	16.4	-62	-62.5	-0.5	2	6.4	17.9
2468.50	16.4	-62	-62.3	-0.3	2	5.1	18.1
2468.55	16.4	-62	-62.0	0.0	2	4.6	18.4
2468.60	16.4	-62	-61.9	0.1	2	5.9	18.5
2468.65	16.4	-62	-61.9	0.1	2	6.9	18.5
2468.70	16.4	-62	-62.0	0.0	2	6.9	18.4
2468.75	16.4	-62	-61.9	0.1	2	4.7	18.5
2468.80	16.4	-62	-61.8	0.2	2	6.3	18.6
2468.85	16.4	-62	-61.8	0.2	2	5.4	18.6
2468.90	16.4	-62	-61.8	0.2	2	4.6	18.6
2468.95	16.4	-62	-61.7	0.3	2	5.6	18.7
2469.00	16.4	-62	-61.9	0.1	2	5.4	18.5
2469.05	16.4	-62	-62.0	0.0	2	7.2	18.4
2469.10	16.4	-62	-62.2	-0.2	2	6.9	18.2
2469.15	16.4	-62	-62.4	-0.4	2	4.9	18.0
2469.20	16.4	-62	-62.3	-0.3	2	7.5	18.1
2469.25	16.4	-62	-62.3	-0.3	2	6.0	18.1
2469.30	16.4	-62	-62.3	-0.3	2	7.5	18.1
2469.35	16.4	-62	-62.1	-0.1	2	6.3	18.3
2469.40	16.4	-62	-61.8	0.2	2	7.0	18.6
2469.45	16.4	-62	-61.6	0.4	2	6.6	18.8
2469.50	16.4	-62	-61.3	0.7	2	5.5	19.1
2469.55	16.4	-62	-61.1	0.9	2	5.4	19.3
2469.60	16.4	-62	-61.1	0.9	2	5.9	19.3
2469.65	16.4	-62	-61.0	1.0	2	5.8	19.4
2469.70	16.4	-62	-60.9	1.1	2	7.4	19.5
2469.75	16.4	-62	-60.8	1.2	2	7.1	19.6
2469.80	16.4	-62	-60.8	1.2	2	5.4	19.6
2469.85	16.4	-62	-60.7	1.3	2	6.8	19.7
2469.90	16.4	-62	-60.7	1.3	2	6.8	19.7



**D-Link WLAN PC Card radio Jamming Margin Test**

2469.95	16.4	-62	-60.7	1.3	2	6.5	19.7
2470.00	16.4	-62	-60.8	1.2	2	7.2	19.6
2470.05	16.4	-62	-60.9	1.1	2	5.7	19.5
2470.10	16.4	-62	-61.1	0.9	2	6.4	19.3
2470.15	16.4	-62	-61.2	0.8	2	6.7	19.2
2470.20	16.4	-62	-61.2	0.8	2	6.4	19.2
2470.25	16.4	-62	-61.2	0.8	2	7.6	19.2
2470.30	16.4	-62	-61.1	0.9	2	4.8	19.3
2470.35	16.4	-62	-61.0	1.0	2	6.1	19.4
2470.40	16.4	-62	-60.7	1.3	2	5.8	19.7
2470.45	16.4	-62	-60.5	1.5	2	5.6	19.9
2470.50	16.4	-62	-60.2	1.8	2	7.2	20.2
<b>Processing Gain(dB)@20th Percentile=11.6</b>							



D-Link WLAN PC Card radio Jamming Margin Test

2Mbps Channel 7 (2442MHz) Processing Gain							
Gp=(S/N)o+Lsys+(Jr/Sr)							
Frequency (MHz)	(S/N)o (dB)	Sr (dBm)	Jr (dBm)	Jr/Sr (dB)	Lsys (dB)	FER (%)	Gp (dB)
2433.50	13.3	-62	-61.3	0.7	2	7.2	16.0
2433.55	13.3	-62	-61.6	0.4	2	4.7	15.7
2433.60	13.3	-62	-61.8	0.2	2	6.1	15.5
2433.65	13.3	-62	-62.1	-0.1	2	7.0	15.2
2433.70	13.3	-62	-62.3	-0.3	2	5.8	15.0
2433.75	13.3	-62	-62.3	-0.3	2	4.8	15.0
2433.80	13.3	-62	-62.2	-0.2	2	7.6	15.1
2433.85	13.3	-62	-62.1	-0.1	2	6.5	15.2
2433.90	13.3	-62	-62.1	-0.1	2	7.0	15.2
2433.95	13.3	-62	-61.7	0.3	2	4.9	15.6
2434.00	13.3	-62	-61.6	0.4	2	6.9	15.7
2434.05	13.3	-62	-61.7	0.3	2	6.6	15.6
2434.10	13.3	-62	-61.6	0.4	2	5.2	15.7
2434.15	13.3	-62	-61.7	0.3	2	6.3	15.6
2434.20	13.3	-62	-61.6	0.4	2	6.2	15.7
2434.25	13.3	-62	-61.7	0.3	2	6.7	15.6
2434.30	13.3	-62	-61.9	0.1	2	6.2	15.4
2434.35	13.3	-62	-61.9	0.1	2	6.9	15.4
2434.40	13.3	-62	-61.8	0.2	2	6.0	15.5
2434.45	13.3	-62	-62.0	0.0	2	5.6	15.3
2434.50	13.3	-62	-62.4	-0.4	2	5.4	14.9
2434.55	13.3	-62	-62.5	-0.5	2	7.0	14.8
2434.60	13.3	-62	-62.8	-0.8	2	6.9	14.5
2434.65	13.3	-62	-63.0	-1.0	2	5.7	14.3
2434.70	13.3	-62	-63.0	-1.0	2	5.9	14.3
2434.75	13.3	-62	-63.1	-1.1	2	6.1	14.2
2434.80	13.3	-62	-63.2	-1.2	2	7.4	14.1
2434.85	13.3	-62	-63.1	-1.1	2	7.8	14.2
2434.90	13.3	-62	-63.2	-1.2	2	6.2	14.1
2434.95	13.3	-62	-62.9	-0.9	2	4.7	14.4
2435.00	13.3	-62	-62.8	-0.8	2	5.6	14.5
2435.05	13.3	-62	-62.6	-0.6	2	4.9	14.7
2435.10	13.3	-62	-62.7	-0.7	2	4.8	14.6

D-Link WLAN PC Card radio Jamming Margin Test

2435.15	13.3	-62	-62.7	-0.7	2	5.3	14.6
2435.20	13.3	-62	-62.9	-0.9	2	6.7	14.4
2435.25	13.3	-62	-62.8	-0.8	2	4.5	14.5
2435.30	13.3	-62	-62.9	-0.9	2	6.6	14.4
2435.35	13.3	-62	-62.8	-0.8	2	6.2	14.5
2435.40	13.3	-62	-62.9	-0.9	2	7.6	14.4
2435.45	13.3	-62	-63.1	-1.1	2	5.1	14.2
2435.50	13.3	-62	-63.4	-1.4	2	7.5	13.9
2435.55	13.3	-62	-63.7	-1.7	2	5.4	13.6
2435.60	13.3	-62	-64.0	-2.0	2	7.9	13.3
2435.65	13.3	-62	-64.2	-2.2	2	6.0	13.1
2435.70	13.3	-62	-64.3	-2.3	2	5.8	13.0
2435.75	13.3	-62	-64.3	-2.3	2	7.8	13.0
2435.80	13.3	-62	-64.5	-2.5	2	5.1	12.8
2435.85	13.3	-62	-64.5	-2.5	2	7.6	12.8
2435.90	13.3	-62	-64.3	-2.3	2	5.8	13.0
2435.95	13.3	-62	-64.2	-2.2	2	4.5	13.1
2436.00	13.3	-62	-63.8	-1.8	2	5.2	13.5
2436.05	13.3	-62	-63.7	-1.7	2	6.8	13.6
2436.10	13.3	-62	-63.6	-1.6	2	5.7	13.7
2436.15	13.3	-62	-62.7	-0.7	2	7.8	14.6
2436.20	13.3	-62	-62.7	-0.7	2	7.3	14.6
2436.25	13.3	-62	-61.2	0.8	2	6.7	16.1
2436.30	13.3	-62	-61.3	0.7	2	5.1	16.0
2436.35	13.3	-62	-59.8	2.2	2	5.0	17.5
2436.40	13.3	-62	-60.3	1.7	2	7.9	17.0
2436.45	13.3	-62	-60.4	1.6	2	7.8	16.9
2436.50	13.3	-62	-59.7	2.3	2	6.3	17.6
2436.55	13.3	-62	-60.4	1.6	2	6.5	16.9
2436.60	13.3	-62	-60.3	1.7	2	5.9	17.0
2436.65	13.3	-62	-59.8	2.2	2	7.2	17.5
2436.70	13.3	-62	-61.4	0.6	2	5.3	15.9
2436.75	13.3	-62	-61.9	0.1	2	7.1	15.4
2436.80	13.3	-62	-62.6	-0.6	2	5.7	14.7
2436.85	13.3	-62	-63.2	-1.2	2	5.9	14.1
2436.90	13.3	-62	-63.8	-1.8	2	7.4	13.5
2436.95	13.3	-62	-64.1	-2.1	2	5.1	13.2

**D-Link WLAN PC Card radio Jamming Margin Test**

2437.00	13.3	-62	-64.0	-2.0	2	4.9	13.3
2437.05	13.3	-62	-64.6	-2.6	2	7.0	12.7
2437.10	13.3	-62	-64.7	-2.7	2	4.6	12.6
2437.15	13.3	-62	-64.6	-2.6	2	5.6	12.7
2437.20	13.3	-62	-64.7	-2.7	2	6.4	12.6
2437.25	13.3	-62	-64.9	-2.9	2	4.6	12.4
2437.30	13.3	-62	-64.8	-2.8	2	4.7	12.5
2437.35	13.3	-62	-64.9	-2.9	2	7.5	12.4
2437.40	13.3	-62	-64.7	-2.7	2	7.6	12.6
2437.45	13.3	-62	-64.6	-2.6	2	5.0	12.7
2437.50	13.3	-62	-64.3	-2.3	2	6.0	13.0
2437.55	13.3	-62	-64.3	-2.3	2	5.9	13.0
2437.60	13.3	-62	-64.4	-2.4	2	5.5	12.9
2437.65	13.3	-62	-64.3	-2.3	2	5.8	13.0
2437.70	13.3	-62	-64.3	-2.3	2	4.9	13.0
2437.75	13.3	-62	-64.3	-2.3	2	6.8	13.0
2437.80	13.3	-62	-64.3	-2.3	2	5.8	13.0
2437.85	13.3	-62	-64.3	-2.3	2	6.5	13.0
2437.90	13.3	-62	-64.4	-2.4	2	5.6	12.9
2437.95	13.3	-62	-64.4	-2.4	2	6.7	12.9
2438.00	13.3	-62	-64.4	-2.4	2	5.8	12.9
2438.05	13.3	-62	-64.5	-2.5	2	5.2	12.8
2438.10	13.3	-62	-64.9	-2.9	2	6.1	12.4
2438.15	13.3	-62	-64.9	-2.9	2	4.6	12.4
2438.20	13.3	-62	-64.9	-2.9	2	5.2	12.4
2438.25	13.3	-62	-64.8	-2.8	2	6.3	12.5
2438.30	13.3	-62	-65.0	-3.0	2	6.0	12.3
2438.35	13.3	-62	-65.1	-3.1	2	6.9	12.2
2438.40	13.3	-62	-65.0	-3.0	2	7.7	12.3
2438.45	13.3	-62	-64.9	-2.9	2	4.6	12.4
2438.50	13.3	-62	-65.0	-3.0	2	7.1	12.3
2438.55	13.3	-62	-64.7	-2.7	2	7.1	12.6
2438.60	13.3	-62	-64.6	-2.6	2	7.2	12.7
2438.65	13.3	-62	-64.6	-2.6	2	5.2	12.7
2438.70	13.3	-62	-64.6	-2.6	2	6.9	12.7
2438.75	13.3	-62	-64.5	-2.5	2	6.2	12.8
2438.80	13.3	-62	-64.6	-2.6	2	7.5	12.7

**D-Link WLAN PC Card radio Jamming Margin Test**

2438.85	13.3	-62	-64.7	-2.7	2	5.0	12.6
2438.90	13.3	-62	-65.0	-3.0	2	5.4	12.3
2438.95	13.3	-62	-64.9	-2.9	2	4.5	12.4
2439.00	13.3	-62	-64.7	-2.7	2	6.5	12.6
2439.05	13.3	-62	-64.9	-2.9	2	4.9	12.4
2439.10	13.3	-62	-65.0	-3.0	2	6.4	12.3
2439.15	13.3	-62	-65.0	-3.0	2	5.5	12.3
2439.20	13.3	-62	-65.3	-3.3	2	5.4	12.0
2439.25	13.3	-62	-65.1	-3.1	2	5.0	12.2
2439.30	13.3	-62	-65.0	-3.0	2	6.1	12.3
2439.35	13.3	-62	-65.2	-3.2	2	7.5	12.1
2439.40	13.3	-62	-65.4	-3.4	2	5.2	11.9
2439.45	13.3	-62	-65.0	-3.0	2	6.4	12.3
2439.50	13.3	-62	-65.5	-3.5	2	6.0	11.8
2439.55	13.3	-62	-65.0	-3.0	2	7.3	12.3
2439.60	13.3	-62	-64.6	-2.6	2	6.2	12.7
2439.65	13.3	-62	-64.6	-2.6	2	6.4	12.7
2439.70	13.3	-62	-64.7	-2.7	2	7.5	12.6
2439.75	13.3	-62	-64.7	-2.7	2	7.7	12.6
2439.80	13.3	-62	-64.5	-2.5	2	6.1	12.8
2439.85	13.3	-62	-65.2	-3.2	2	7.6	12.1
2439.90	13.3	-62	-65.5	-3.5	2	5.2	11.8
2439.95	13.3	-62	-64.9	-2.9	2	5.6	12.4
2440.00	13.3	-62	-65.0	-3.0	2	6.6	12.3
2440.05	13.3	-62	-65.1	-3.1	2	5.4	12.2
2440.10	13.3	-62	-65.2	-3.2	2	7.8	12.1
2440.15	13.3	-62	-65.2	-3.2	2	6.3	12.1
2440.20	13.3	-62	-65.5	-3.5	2	6.2	11.8
2440.25	13.3	-62	-65.4	-3.4	2	6.8	11.9
2440.30	13.3	-62	-65.2	-3.2	2	5.9	12.1
2440.35	13.3	-62	-65.6	-3.6	2	5.5	11.7
2440.40	13.3	-62	-66.0	-4.0	2	6.4	11.3
2440.45	13.3	-62	-65.5	-3.5	2	6.1	11.8
2440.50	13.3	-62	-66.1	-4.1	2	6.6	11.2
2440.55	13.3	-62	-65.2	-3.2	2	5.3	12.1
2440.60	13.3	-62	-64.9	-2.9	2	6.1	12.4
2440.65	13.3	-62	-64.7	-2.7	2	7.6	12.6

**D-Link WLAN PC Card radio Jamming Margin Test**

2440.70	13.3	-62	-64.7	-2.7	2	6.3	12.6
2440.75	13.3	-62	-64.9	-2.9	2	7.8	12.4
2440.80	13.3	-62	-64.7	-2.7	2	5.5	12.6
2440.85	13.3	-62	-65.6	-3.6	2	5.4	11.7
2440.90	13.3	-62	-65.9	-3.9	2	6.0	11.4
2440.95	13.3	-62	-65.1	-3.1	2	7.3	12.2
2441.00	13.3	-62	-65.2	-3.2	2	5.9	12.1
2441.05	13.3	-62	-65.1	-3.1	2	7.4	12.2
2441.10	13.3	-62	-65.1	-3.1	2	6.7	12.2
2441.15	13.3	-62	-65.2	-3.2	2	4.6	12.1
2441.20	13.3	-62	-65.6	-3.6	2	6.5	11.7
2441.25	13.3	-62	-65.5	-3.5	2	6.3	11.8
2441.30	13.3	-62	-65.5	-3.5	2	5.7	11.8
2441.35	13.3	-62	-66.0	-4.0	2	7.3	11.3
2441.40	13.3	-62	-66.5	-4.5	2	4.8	10.8
2441.45	13.3	-62	-66.0	-4.0	2	6.6	11.3
2441.50	13.3	-62	-66.4	-4.4	2	5.0	10.9
2441.55	13.3	-62	-65.1	-3.1	2	7.2	12.2
2441.60	13.3	-62	-64.4	-2.4	2	7.8	12.9
2441.65	13.3	-62	-64.0	-2.0	2	7.1	13.3
2441.70	13.3	-62	-63.5	-1.5	2	4.6	13.8
2441.75	13.3	-62	-62.5	-0.5	2	7.8	14.8
2441.80	13.3	-62	-62.0	0.0	2	4.5	15.3
2441.85	13.3	-62	-61.4	0.6	2	4.7	15.9
2441.90	13.3	-62	-61.6	0.4	2	7.4	15.7
2441.95	13.3	-62	-61.4	0.6	2	7.5	15.9
2442.00	13.3	-62	-61.1	0.9	2	6.3	16.2
2442.05	13.3	-62	-61.3	0.7	2	4.8	16.0
2442.10	13.3	-62	-61.2	0.8	2	5.3	16.1
2442.15	13.3	-62	-61.6	0.4	2	5.8	15.7
2442.20	13.3	-62	-62.2	-0.2	2	6.5	15.1
2442.25	13.3	-62	-62.7	-0.7	2	5.1	14.6
2442.30	13.3	-62	-63.7	-1.7	2	6.2	13.6
2442.35	13.3	-62	-64.1	-2.1	2	5.9	13.2
2442.40	13.3	-62	-64.9	-2.9	2	7.6	12.4
2442.45	13.3	-62	-64.9	-2.9	2	7.4	12.4
2442.50	13.3	-62	-66.0	-4.0	2	6.1	11.3

**D-Link WLAN PC Card radio Jamming Margin Test**

2442.55	13.3	-62	-65.5	-3.5	2	5.8	11.8
2442.60	13.3	-62	-65.5	-3.5	2	5.2	11.8
2442.65	13.3	-62	-65.6	-3.6	2	6.9	11.7
2442.70	13.3	-62	-65.6	-3.6	2	4.6	11.7
2442.75	13.3	-62	-65.9	-3.9	2	6.0	11.4
2442.80	13.3	-62	-65.5	-3.5	2	7.9	11.8
2442.85	13.3	-62	-66.6	-4.6	2	7.6	10.7
2442.90	13.3	-62	-66.4	-4.4	2	6.1	10.9
2442.95	13.3	-62	-65.4	-3.4	2	7.9	11.9
2443.00	13.3	-62	-65.1	-3.1	2	5.3	12.2
2443.05	13.3	-62	-65.0	-3.0	2	6.1	12.3
2443.10	13.3	-62	-64.8	-2.8	2	6.7	12.5
2443.15	13.3	-62	-64.7	-2.7	2	5.8	12.6
2443.20	13.3	-62	-64.8	-2.8	2	4.7	12.5
2443.25	13.3	-62	-64.8	-2.8	2	6.6	12.5
2443.30	13.3	-62	-64.8	-2.8	2	6.0	12.5
2443.35	13.3	-62	-65.0	-3.0	2	7.1	12.3
2443.40	13.3	-62	-65.7	-3.7	2	6.0	11.6
2443.45	13.3	-62	-65.1	-3.1	2	5.4	12.2
2443.50	13.3	-62	-65.8	-3.8	2	4.9	11.5
2443.55	13.3	-62	-65.3	-3.3	2	6.4	12.0
2443.60	13.3	-62	-65.3	-3.3	2	6.5	12.0
2443.65	13.3	-62	-65.4	-3.4	2	5.4	11.9
2443.70	13.3	-62	-65.3	-3.3	2	5.1	12.0
2443.75	13.3	-62	-65.5	-3.5	2	5.4	11.8
2443.80	13.3	-62	-65.3	-3.3	2	4.6	12.0
2443.85	13.3	-62	-66.0	-4.0	2	7.4	11.3
2443.90	13.3	-62	-66.0	-4.0	2	4.8	11.3
2443.95	13.3	-62	-65.2	-3.2	2	8.0	12.1
2444.00	13.3	-62	-64.8	-2.8	2	4.6	12.5
2444.05	13.3	-62	-64.8	-2.8	2	7.0	12.5
2444.10	13.3	-62	-64.7	-2.7	2	7.3	12.6
2444.15	13.3	-62	-64.7	-2.7	2	7.3	12.6
2444.20	13.3	-62	-64.9	-2.9	2	7.6	12.4
2444.25	13.3	-62	-64.8	-2.8	2	6.3	12.5
2444.30	13.3	-62	-64.8	-2.8	2	5.8	12.5
2444.35	13.3	-62	-65.1	-3.1	2	4.7	12.2

**D-Link WLAN PC Card radio Jamming Margin Test**

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2444.40	13.3	-62	-65.2	-3.2	2	7.5	12.1
2444.45	13.3	-62	-65.1	-3.1	2	4.5	12.2
2444.50	13.3	-62	-65.6	-3.6	2	4.6	11.7
2444.55	13.3	-62	-65.1	-3.1	2	7.2	12.2
2444.60	13.3	-62	-65.2	-3.2	2	5.2	12.1
2444.65	13.3	-62	-65.4	-3.4	2	5.4	11.9
2444.70	13.3	-62	-65.4	-3.4	2	7.6	11.9
2444.75	13.3	-62	-65.5	-3.5	2	5.2	11.8
2444.80	13.3	-62	-65.3	-3.3	2	4.6	12.0
2444.85	13.3	-62	-65.5	-3.5	2	7.0	11.8
2444.90	13.3	-62	-65.7	-3.7	2	5.3	11.6
2444.95	13.3	-62	-65.3	-3.3	2	4.9	12.0
2445.00	13.3	-62	-64.8	-2.8	2	4.6	12.5
2445.05	13.3	-62	-65.0	-3.0	2	7.1	12.3
2445.10	13.3	-62	-65.0	-3.0	2	5.6	12.3
2445.15	13.3	-62	-64.8	-2.8	2	7.8	12.5
2445.20	13.3	-62	-64.9	-2.9	2	4.9	12.4
2445.25	13.3	-62	-64.9	-2.9	2	6.6	12.4
2445.30	13.3	-62	-64.9	-2.9	2	4.8	12.4
2445.35	13.3	-62	-64.7	-2.7	2	7.1	12.6
2445.40	13.3	-62	-64.9	-2.9	2	6.5	12.4
2445.45	13.3	-62	-65.0	-3.0	2	7.1	12.3
2445.50	13.3	-62	-65.2	-3.2	2	4.7	12.1
2445.55	13.3	-62	-65.1	-3.1	2	5.9	12.2
2445.60	13.3	-62	-65.1	-3.1	2	6.2	12.2
2445.65	13.3	-62	-65.1	-3.1	2	6.2	12.2
2445.70	13.3	-62	-65.1	-3.1	2	4.9	12.2
2445.75	13.3	-62	-65.1	-3.1	2	7.4	12.2
2445.80	13.3	-62	-64.9	-2.9	2	7.7	12.4
2445.85	13.3	-62	-65.0	-3.0	2	5.8	12.3
2445.90	13.3	-62	-64.9	-2.9	2	5.4	12.4
2445.95	13.3	-62	-64.7	-2.7	2	5.7	12.6
2446.00	13.3	-62	-64.5	-2.5	2	5.4	12.8
2446.05	13.3	-62	-64.4	-2.4	2	7.0	12.9
2446.10	13.3	-62	-64.5	-2.5	2	7.6	12.8
2446.15	13.3	-62	-64.2	-2.2	2	6.4	13.1
2446.20	13.3	-62	-64.4	-2.4	2	5.4	12.9



**D-Link WLAN PC Card radio Jamming Margin Test**

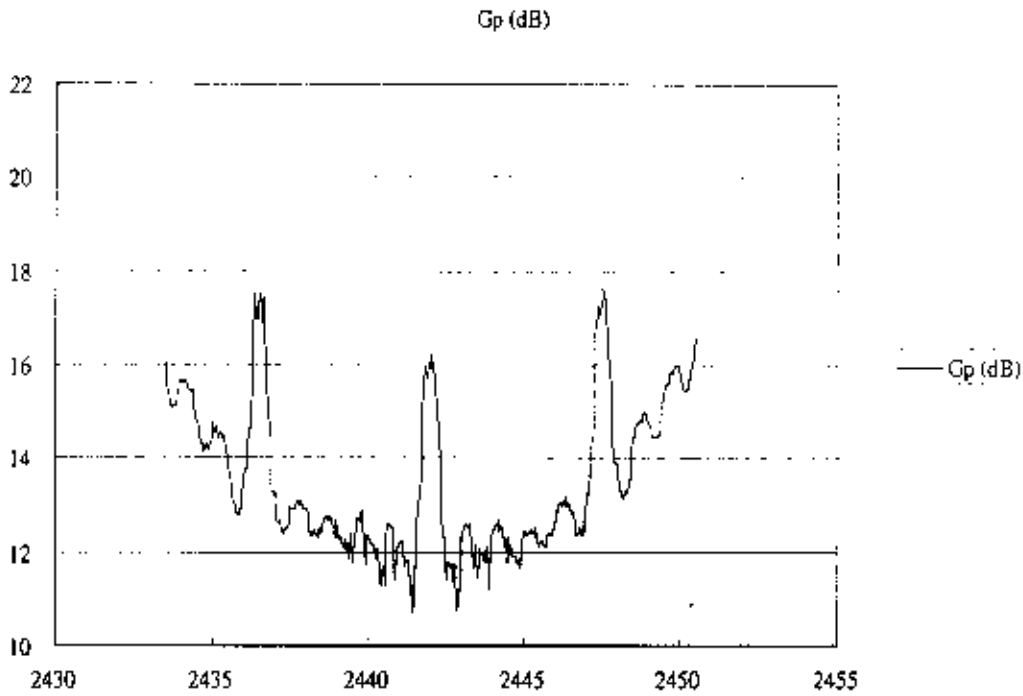
2446.25	13.3	-62	-64.2	-2.2	2	6.8	13.1
2446.30	13.3	-62	-64.4	-2.4	2	5.2	12.9
2446.35	13.3	-62	-64.2	-2.2	2	5.6	13.1
2446.40	13.3	-62	-64.3	-2.3	2	6.8	13.0
2446.45	13.3	-62	-64.2	-2.2	2	8.0	13.1
2446.50	13.3	-62	-64.4	-2.4	2	5.8	12.9
2446.55	13.3	-62	-64.5	-2.5	2	5.0	12.8
2446.60	13.3	-62	-64.8	-2.8	2	5.9	12.5
2446.65	13.3	-62	-64.8	-2.8	2	7.6	12.5
2446.70	13.3	-62	-64.9	-2.9	2	6.8	12.4
2446.75	13.3	-62	-64.8	-2.8	2	7.1	12.5
2446.80	13.3	-62	-64.8	-2.8	2	7.7	12.5
2446.85	13.3	-62	-64.9	-2.9	2	6.4	12.4
2446.90	13.3	-62	-64.8	-2.8	2	5.6	12.5
2446.95	13.3	-62	-64.7	-2.7	2	6.1	12.6
2447.00	13.3	-62	-64.3	-2.3	2	6.2	13.0
2447.05	13.3	-62	-64.1	-2.1	2	7.0	13.2
2447.10	13.3	-62	-63.7	-1.7	2	7.1	13.6
2447.15	13.3	-62	-62.9	-0.9	2	5.3	14.4
2447.20	13.3	-62	-62.6	-0.6	2	5.8	14.7
2447.25	13.3	-62	-61.3	0.7	2	6.9	16.0
2447.30	13.3	-62	-61.3	0.7	2	7.3	16.0
2447.35	13.3	-62	-59.8	2.2	2	7.9	17.5
2447.40	13.3	-62	-60.2	1.8	2	7.3	17.1
2447.45	13.3	-62	-60.1	1.9	2	4.7	17.2
2447.50	13.3	-62	-59.8	2.2	2	4.8	17.5
2447.55	13.3	-62	-59.5	2.5	2	6.5	17.8
2447.60	13.3	-62	-59.9	2.1	2	5.9	17.4
2447.65	13.3	-62	-59.9	2.1	2	7.8	17.4
2447.70	13.3	-62	-60.8	1.2	2	7.6	16.5
2447.75	13.3	-62	-61.4	0.6	2	6.7	15.9
2447.80	13.3	-62	-62.1	-0.1	2	7.6	15.2
2447.85	13.3	-62	-62.5	-0.5	2	5.8	14.8
2447.90	13.3	-62	-63.3	-1.3	2	5.0	14.0
2447.95	13.3	-62	-63.4	-1.4	2	6.2	13.9
2448.00	13.3	-62	-63.5	-1.5	2	7.8	13.8
2448.05	13.3	-62	-64.0	-2.0	2	5.2	13.3

**D-Link WLAN PC Card radio Jamming Margin Test**

2448.10	13.3	-62	-64.0	-2.0	2	4.8	13.3
2448.15	13.3	-62	-64.1	-2.1	2	6.1	13.2
2448.20	13.3	-62	-64.2	-2.2	2	5.9	13.1
2448.25	13.3	-62	-64.0	-2.0	2	5.4	13.3
2448.30	13.3	-62	-64.1	-2.1	2	4.6	13.2
2448.35	13.3	-62	-63.8	-1.8	2	4.7	13.5
2448.40	13.3	-62	-63.6	-1.6	2	5.1	13.7
2448.45	13.3	-62	-63.2	-1.2	2	7.2	14.1
2448.50	13.3	-62	-62.9	-0.9	2	7.0	14.4
2448.55	13.3	-62	-62.9	-0.9	2	5.7	14.4
2448.60	13.3	-62	-62.6	-0.6	2	4.9	14.7
2448.65	13.3	-62	-62.6	-0.6	2	7.6	14.7
2448.70	13.3	-62	-62.6	-0.6	2	4.6	14.7
2448.75	13.3	-62	-62.6	-0.6	2	6.2	14.7
2448.80	13.3	-62	-62.5	-0.5	2	7.5	14.8
2448.85	13.3	-62	-62.4	-0.4	2	6.7	14.9
2448.90	13.3	-62	-62.3	-0.3	2	7.8	15.0
2448.95	13.3	-62	-62.4	-0.4	2	6.3	14.9
2449.00	13.3	-62	-62.5	-0.5	2	6.7	14.8
2449.05	13.3	-62	-62.6	-0.6	2	5.9	14.7
2449.10	13.3	-62	-62.8	-0.8	2	7.9	14.5
2449.15	13.3	-62	-62.8	-0.8	2	5.7	14.5
2449.20	13.3	-62	-62.9	-0.9	2	6.2	14.4
2449.25	13.3	-62	-62.9	-0.9	2	5.1	14.4
2449.30	13.3	-62	-62.9	-0.9	2	5.8	14.4
2449.35	13.3	-62	-62.7	-0.7	2	5.0	14.6
2449.40	13.3	-62	-62.5	-0.5	2	6.9	14.8
2449.45	13.3	-62	-62.1	-0.1	2	5.7	15.2
2449.50	13.3	-62	-61.9	0.1	2	6.9	15.4
2449.55	13.3	-62	-61.7	0.3	2	6.7	15.6
2449.60	13.3	-62	-61.6	0.4	2	7.3	15.7
2449.65	13.3	-62	-61.5	0.5	2	5.4	15.8
2449.70	13.3	-62	-61.5	0.5	2	7.2	15.8
2449.75	13.3	-62	-61.4	0.6	2	6.1	15.9
2449.80	13.3	-62	-61.4	0.6	2	7.8	15.9
2449.85	13.3	-62	-61.3	0.7	2	6.0	16.0
2449.90	13.3	-62	-61.4	0.6	2	5.9	15.9

**D-Link WLAN PC Card radio Jamming Margin Test**

2449.95	13.3	-62	-61.3	0.7	2	7.0	16.0
2450.00	13.3	-62	-61.5	0.5	2	7.3	15.8
2450.05	13.3	-62	-61.5	0.5	2	6.6	15.8
2450.10	13.3	-62	-61.7	0.3	2	7.0	15.6
2450.15	13.3	-62	-61.8	0.2	2	6.5	15.5
2450.20	13.3	-62	-61.8	0.2	2	5.9	15.5
2450.25	13.3	-62	-61.7	0.3	2	7.7	15.6
2450.30	13.3	-62	-61.7	0.3	2	6.5	15.6
2450.35	13.3	-62	-61.5	0.5	2	5.8	15.8
2450.40	13.3	-62	-61.2	0.8	2	7.0	16.1
2450.45	13.3	-62	-61.1	0.9	2	5.6	16.2
2450.50	13.3	-62	-60.8	1.2	2	4.8	16.5
<b>Processing Gain(dB)@20th Percentile=12.2</b>							



## 9. EMI Reduction Method During Compliance Testing

No modification was made during testing.

**10. Attachment**

Attachment 1: EUT Test Photographs                      Number of Pages :    3

Attachment 2: EUT Detailed Photographs                Number of Pages :    5

## Attachment 1 : EUT Test Photographs

## Attachment 2 : EUT Detailed Photographs