

Certificate of Test

December 2004

PRIME ELECTRONICS & SATELLITICS INC.

Product Type : Wireless LAN PCI adapter
Model Number : WI233g
Test Report Number : GTK-0411087
Date of Test : November 25, 2004- December 01, 2004

This Product was tested to the following standards at the laboratory of Global EMC Standard Tech. Corp., and found Compliance.

Standards:

FCC Part 15 Subpart C Paragraph 15.247
ANSI C63.4: 2001

<http://www.gestek.com.tw>



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Date: December 06, 2004



1082
ILAC MRA





**Test Report
Application for
Certification
On Behalf Of**

PRIME ELECTRONICS & SATELLITICS INC.

**EUT:
Wireless LAN PCI adapter**

**Model Number:
WI233g**

**FCC ID:
PQP- WI233G**

**Prepared for:
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1. CERTIFICATION

Applicant : PRIME ELECTRONICS & SATELLITICS INC.

EUT Description : Wireless LAN PCI adapter
 Model Number : WI233g
 Serial Number : N/A
 Brand Name : PESI
 FCC ID : PQP- WI233G
 Tested Power Supply : 120V/60Hz
 Manufacturer : PRIME ELECTRONICS & SATELLITICS INC.

MEASUREMENT PROCEDURES USED:

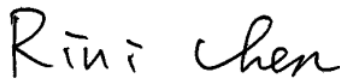
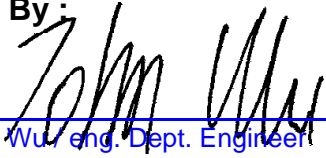
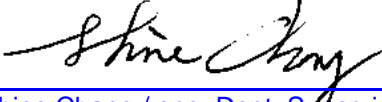

- CFR 47, Part 15** Radio Frequency Device Subpart C Paragraph 15.247 Intentional Radiators :2003
- ANSI C63.4** Methods of Measurements of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the range of 9kHz To 40GHz. 2001

THE MEASUREMENT SHOWN IN THE ATTACHMENT WAS MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE MAXIMUM ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE ABOVE LIMITS APPLICABLE.



Sample Received Date : **November 25, 2004**
 Final Test Date : **December 01, 2004**

In order to ensure the quality and accuracy of this document, the contents have been thoroughly reviewed by the following qualified personnel from GestTek Lab.

<p>Documented By :  _____ Rini Chen / adm. Dept. Supervisor</p>	<p>Test By :  _____ John Wu / eng. Dept. Engineer</p>
<p>Technical Reviewed By :  _____ Shine Chang / eng. Dept. Supervisor</p>	<p>Approved By :  _____ Tony Lin / General Manager</p>

This test data shown below is traceable to National or international standard such as NIST/USA, etc. The laboratory's NVLAP accreditation in no way constitutes or implies product certification, approval, or endorsement by NVLAP or the United States government.

2. GENERAL INFORMATION

2.1 PRODUCTION DESCRIPTION

Product Name : Wireless LAN PCI adapter
Model Number : WI233g
Serial Number : N/A
FCC ID : PQP- WI233G
Modulation Type : DSSS, DBPSK, DQPSK, OFDM, CCK
Antenna Gain : Antenna 1: 2.5dBi
 : Antenna 2: 2dBi
 : Antenna 3: 5.0dBi
Antenna Type : Dipole
Type of Antenna joint : Reverse SMA
Frequencg Range : 2412-2462MHz
Channel Number : 11 Channel
Data Rate : 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54Mbps
Channel Control : Control by Software
Working Voltage : DC 3.3V

Frequency of Each Channel:

(1) WLAN :

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447		

Note:

1. This device is Wireless LAN PCI adapter and certification with three type antennas.
2. This EUT has three type antenna and non-simultaneously connect in PCB. The final test is chose 5dBi and 2.5dBi antenna. The other instruction, please look at user manual
3. The test is included WLAN transmit function. Test of channel is included the lowest, middle and highest frequency in highest data rate and to perform the test, then record in this report.
4. 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.
5. The device is accordance with Part 15 regulations. The function receiving was under Declaration of Conformity and record of measurment in test report that the report number is 0411087 FCC DOC.
6. The antenna joint of EUT is reverse SMA and comply with FCC 15.203.

2.2 OPERATIONAL DESCRIPTION

The EUT is Mini PCI interface and powered by PC System. This EUT has three type antenna and non-simultaneously connect in PCB. The final test is chose 5dBi antenna and 2.5dBi antenna. The other instruction, please look at user manual.

This is a digital transmission system (DTS) and have five type of modulation DSSS, DBPSK, DQPSK, OFDM, CCK. The data rate are 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54Mbps

The equipment enables high-speed access without wires to network assets. This adapter uses the IEEE 802.11g protocol to enable wireless communications between the host computer and other computers.

2.3 TEST MODES & EUT COMPONENTS DESCRIPTION

The EUT will certification with three antenna. The final test is chose 5dBi antenna and 2.5dBi antenna for final test.

Antenna List

Antenna Type	Antenna Gain	Manufacturer	Model Number
1/4 Swivel Dipole Antenna	5dBi	FULL RISE ELECTRONIC., LTD.	AN-G1-XDC
1/4 Swivel Dipole Antenna	2dBi	WANSHIH ELECTRONICS., LTD.	WSS002
Swivel Access Point Antenna	2.5dBi	ARISTOTLE ENTERPRISES	RFA-02-TC0A2-RG174-600

Test Modes

EUT: Wireless LAN PCI adapter, M/N: WI233g, The EUT Tested with PC System		
Test Mode	Mode 1	Mode 2
	802.11b: 11Mbps	802.11g: 54Mbps
ANT	5dBi	5dBi
Test Mode	Mode 3	Mode 4
	802.11b: 11Mbps	802.11g: 54Mbps
ANT	2.5dBi	2.5dBi

2.4 CONFIGURATION OF THE TESTED SYSTEM

The FCC IDs/Types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards, which have grants) are:


Device	No.	Configuration
LCD Monitor	M01-035	Manufacturer : Tatung Model Number : L5CTT Serial Number : N/A BSMI ID : R31001 Data Cable : Non-Shielded, Detachable, 1.8m, 3pin Power Supply : Input: 100-240Vac, 1.2A, Output: 12Vdc, 3.33A Adapter Manufacturer : Liteon Adapter Model Number : PA-1400-02 Adapter BSMI ID : D33115
Modem	M03-028	Manufacturer : ACEEX Model Number : 1414V Serial Number : 0046183 BSMI ID : N/A FCC ID : IFAXDM1414 Data Cable : T Type:RS232, Shielded, Detachable, 1.2m Power Cord : Non-Shielded, Detachable, 1.5m Line : Type:RJ11(4P2C), Detachable, 1.8m Phone : Type:RJ11(4P2C), Detachable, 1.8m
Modem	M03-013	Manufacturer : ACEEX Model Number : 1414 Serial Number : 960018044 BSMI ID : N/A FCC ID : IFAXDM1414 Data Cable : Type:RS232, Shielded, Detachable, 1.2m Power Cord : Non-Shielded, Detachable, 1.5m Line : Type:RJ11(4P2C), Detachable, 1.8m Phone : Type:RJ11(4P2C), Detachable, 1.8m
Headset & Earphone	E01-056	Manufacturer : TOKYO Model Number : SX-M1 Serial Number : N/A Data Cable : Non-Shielded, Undetachable, 1.8 m Power Cord : N/A Purchase Date : 2/22/1999
Cassette Recorder	R02-028	Manufacturer : PANASONIC Model Number : RQ-L11LT Serial Number : N/A BSMI ID : R31017 FCC ID : N/A Power Cord : N/A (Battery 1.5V*2)

Device	No.	Configuration
PS2 Keyboard	K01-088	Manufacturer : IBM Model Number : SK-8811 Serial Number : 01979618 BSMI ID : 3902B330 FCC ID : N/A Data Cable : Shielded, Undetachable, 1.8 m
USB Mouse	M02-304	Manufacturer : Logitech Model Number : M-U48A BSMI ID : 4882A177 FCC ID : JNZ211360 Data Cable : Shielded, Undetachable, 1.5m
External USB 2.0 Hard Disk	U02-021	Manufacturer : TERASYS Model Number : F12-UF Serial Number : A0100215-34P0011 BSMI ID : 4912A002 Data Cable : Shielded, detachable, 1.5m AC Power Adaptor : YHI, M/N:YS-1015-U12A BSMI ID:4872A185 Input:AC IN:100V 50/60Hz 35VA Output: DC +12V ,1.25A
External USB 2.0 Hard Disk	U02-029	Manufacturer : TERASYS Model Number : F12-UF Serial Number : A0100215-39H001 BSMI ID : 4912A002 Data Cable : Shielded, detachable, 1.5m AC Power Adaptor : YHI M/N:YS-1015-U12A BSMI ID:4872A185 Input:AC IN:100V 50/60Hz 35VA Output: DC +12V ,1.25A
External USB 2.0 Hard Disk	U02-039	Manufacturer : TERASYS Model Number : F12-UF Serial Number : A0100215-34P0030 BSMI ID : 4912A002 Data Cable : Shielded, detachable, 1.5m AC Power Adaptor : YHI M/N:YS-1015-U12A BSMI ID:4872A185 Input:AC IN:100V 50/60Hz 35VA Output: DC +12V ,1.25A
External USB 2.0 Hard Disk	U02-051	Manufacturer : TERASYS Model Number : F12-UF Serial Number : A0100215-34P0030 BSMI ID : 4912A002 Data Cable : Shielded, detachable, 1.5m AC Power Adaptor : YHI M/N:YS-1015-U12A BSMI ID:4872A185 Input:AC IN:100V 50/60Hz 35VA Output: DC +12V ,1.25A

Device	No.	Configuration
Printer	P01-020	Manufacturer : Hewlett Packard Model Number : 2225C Serial Number : 2645S40295 BSMI ID : 3892A957 FCC ID : BS46XU2225C Data Cable : Shielded, Detachable, 1.2m, Parallel Cable Power Cord : Non-Shielded, Detachable, 1.8m
PC System	IBM PC 3	Model Number : T6342-05 BSMI ID : 3902B580 Serial Number : BN22052 C.P.U : Intel Celeron 1.1GHz/100MHz SDRAM : PC133 128M F.D.D : ALPS M/N:06P5149 H.D.D. : Manufacturer : MAXTOR 20.4G M/N: 2B020H1, S/N: B1GWA6RE BSMI ID:3902A989 CD-ROM : N/A Mother Board : IBM M/N: PF_810ET2 S.P.S : HIPRO, M/N: HP-M1554F3 155W S/N:11S00N7692ZJ1G9X3BP1EJ 100-127V 4A , 200-240V 2A 47-63Hz BSMI ID:3892A335

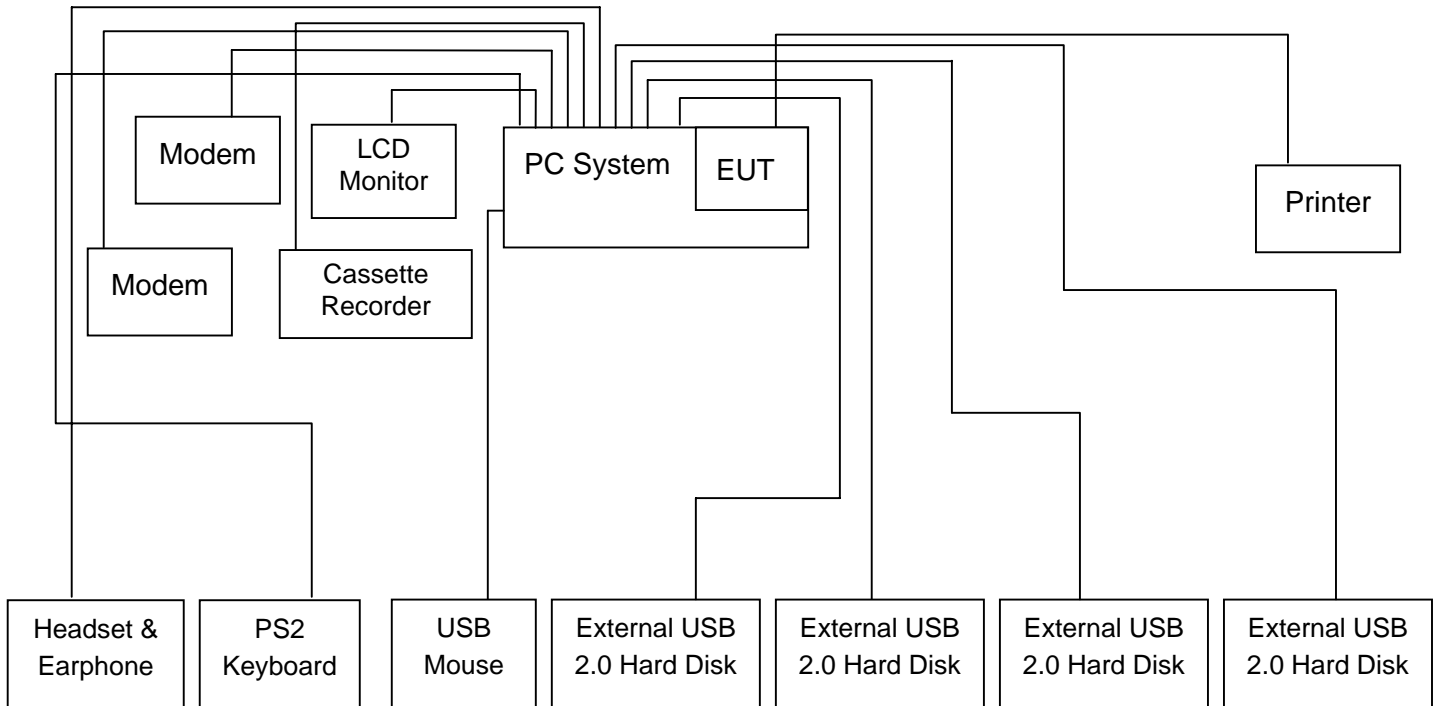
2.5 TEST FACILITY

Ambient conditions in the laboratory:

ITEMS	REIQORED(IEC 68-1)	ACTUAL
TEMPERATURE (°C)	15-35	24-27
HUMIDITY (%RH)	25-75	50-65
BAROMETRIC PRESSURE (mbar)	860-1060	950-1000
FCC SITE DESCRIPTION	Aug. 10, 1995 /Aug. 25, 1998 File on FCC Engineering Laboratory Federal Communication Commission 7435 Oakland Mills Road Columbia, MD 21046 Reference 31040/SIT1300F2	
NVLAP LAB. CODE	200085-0 United States Department of commerce National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program Accreditation on NVLAP effective through Sep. 30, 2005 For CISPR 22, FCC Method and AS/NZS 3548 Measurement.	
Chinese National Laboratory Accreditation Certificate R.O.C. 	Recognized by the Council of Chinese National Laboratory Accreditation and confirmed to meet the requirements of ISO/IEC 17025 also has been registered for fifteen items, and meet the requirements of the Article 4 of Measures Governing the Recognition both Approval of Designated Laboratory for Commodities Inspection and has been registered for four items within the field of Electrical Testing. Registration No.: 1082 Registration on CNLA effective through April 30, 2006.	

2.6 TEST SETUP

2.6.1 BLOCK DIAGRAM OF CONNECTIONS BETWEEN EUT AND SIMULATORS



Note: The setup was done in accordance to ANSI C63.4

2.7 EUT OPERATING CONDITIONS

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to a typical use. The exercise sequence is listed as below:

1. Setup the EUT and simulators as shown on 2.6.
2. Turn on the power of all equipments.
3. The EUT ping with the wireless LAN card.
4. Repeat the above steps.

3. CONDUCTION EMISSION DATA

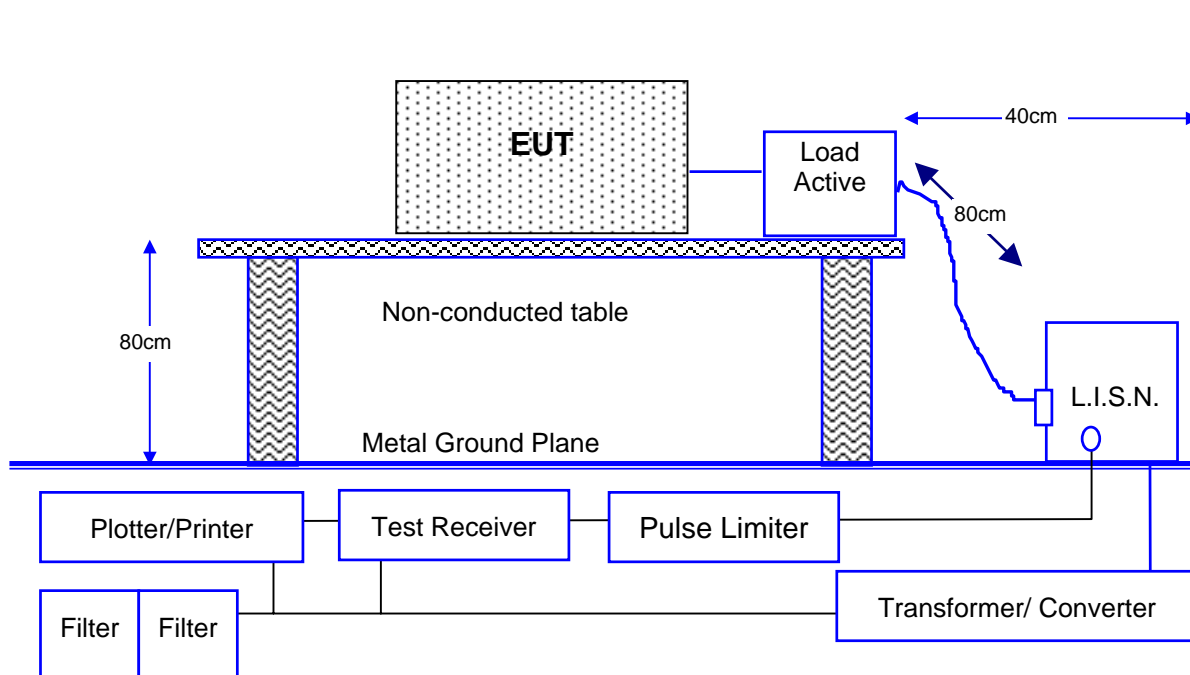
3.1 TEST EQUIPMENTS

The following test equipment are used during the conducted power line tests:

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	Rohde & Schwarz	ESCS30	825022/003	06/26/04
2	L.I.S.N.	R & S	ESH3-Z5	840567/002	11/10/04
3	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	08/06/04
4	RF CABLE	GesTek	N/A	GTK-E-A154-01	12/03/03
5	50 Ohm Terminator	GesTek	N/A	GTK-E-A130-01	10/10/04
6	Shielded Room	GesTek	N/A	B5	N/A

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

3.2 BLOCK DIAGRAM OF TEST SETUP



Note: This is a representative setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all other setup conditions remain the same.

3.3 CONDUCTED EMISSION LIMIT

FCC Limit (15.207)

Frequency MHz	Conducted Limits dB(μ V)	
	QUASI-PEAK	AVERAGE
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5.0	56	46
5.0 to 30	60	50

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

3.4 OPERATING CONDITION OF EUT

Same as section 2.8.

3.5 EUT CONFIGURATION ON MEASUREMENT

The equipment, which is listed 3.1, is installed on Conducted Power Line Test to meet the Commission requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 3.2, was placed on a non-conductive table whose total height equal to 80cm. Powered from one L.I.S.N. which signal output to receiver, and the other peripherals was powered from another L.I.S.N. which signal output was terminated by 50 Ω .

3.6 CONDUCTED EMISSION DATA

The measurement range of conducted emission from [0.15 MHz to 30 MHz](#) was investigated. All readings are quasi-peak and average values with a resolution Bandwidth of 9 KHz. The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range for all the test modes. Then the worst modes were reported the following data pages.

3.7 CONDUCTED EMISSIONS MEASUREMENT RESULTS

Date of Test	November 29, 2004	Temperature	23
EUT	Wireless LAN PCI adapter	Humidity	65 %
Test Mode	TX Mode	Display Pattern	H Pattern

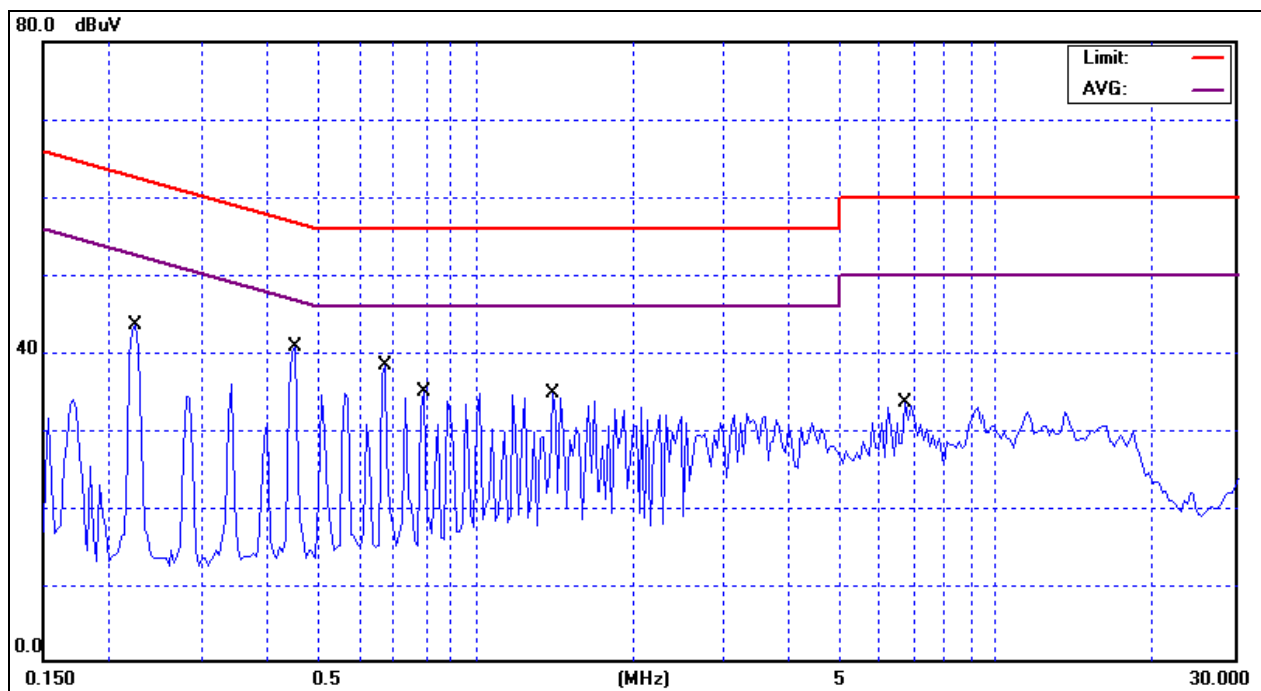
Line

No.	Frequency MHz	Reading Level dB μ V	Factor dB	Measurement dB μ V	Limit dB μ V	Over Limit dB	Detector
1	0.2248	43.2	-0.08	43.12	62.64	-19.52	QP
2	0.2248	41.9	-0.08	41.82	52.64	-10.82	AVG
3	0.4479	40	-0.02	39.98	56.91	-16.93	QP
4	0.4479	38.8	-0.02	38.78	46.91	-8.13	AVG
5	0.6722	37.9	0	37.9	56	-18.1	QP
6	0.6722	37.2	0	37.2	46	-8.8	AVG
7	0.7972	34.6	0	34.6	56	-21.4	QP
8	0.7972	33.7	0	33.7	46	-12.3	AVG
9	1.4234	34.1	0.01	34.11	56	-21.89	QP
10	1.4234	33.4	0.01	33.41	46	-12.59	AVG
11	6.719	31.1	0.13	31.23	60	-28.77	QP
12	6.719	25.5	0.13	25.63	50	-24.37	AVG

Remarks :

- 1 All readings are Quasi-peak and Average values.
- 2 " " means that this data is the worse case emission level.
- 3 Final measurement = (Receiver reading) + (Factor if available).

Line



Date of Test	November 29, 2004	Temperature	25
EUT	Wireless LAN PCI adapter	Humidity	63 %
Test Mode	TX Mode	Display Pattern	H Pattern

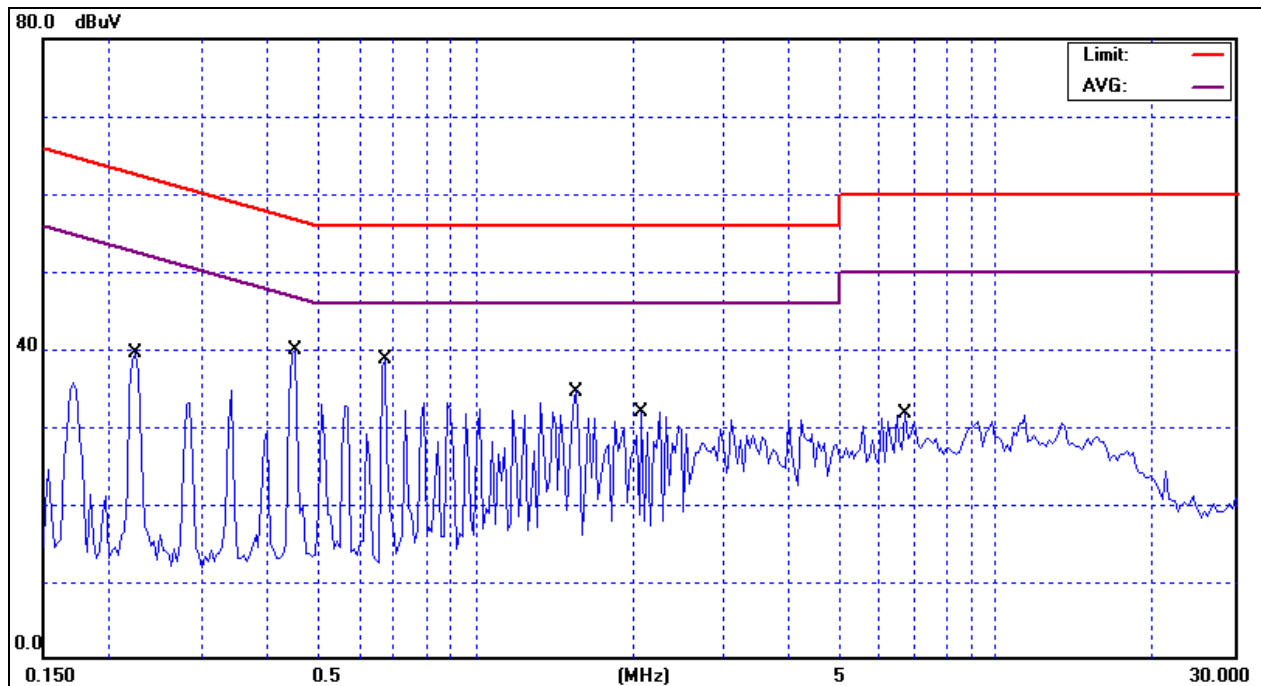
Neutral

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV	Limit dBμV	Over Limit dB	Detector
1	0.2242	38.9	-0.08	38.82	62.66	-23.84	QP
2	0.2242	38.2	-0.08	38.12	52.66	-14.54	AVG
3	0.448	39.7	-0.02	39.68	56.91	-17.23	QP
4	0.448	39.4	-0.02	39.38	46.91	-7.53	AVG
5	0.671	37.9	0	37.9	56	-18.1	QP
6	0.671	37.5	0	37.5	46	-8.5	AVG
7	1.568	33.8	0.01	33.81	56	-22.19	QP
8	1.568	33.2	0.01	33.21	46	-12.79	AVG
9	2.1083	30.6	0.02	30.62	56	-25.38	QP
10	2.1083	29.8	0.02	29.82	46	-16.18	AVG
11	6.7241	31	0.13	31.13	60	-28.87	QP
12	6.7241	25.9	0.13	26.03	50	-23.97	AVG

Remarks :

- 1 All readings are Quasi-peak and Average values.
- 2 " " means that this data is the worse case emission level.
- 3 Final measurement = (Receiver reading) + (Factor if available).

Neutral



4. RADIATION EMISSION DATA

4.1 TEST EQUIPMENT

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

Radiated test was performed on: Site #1 Site #2 Site #3 Site #4

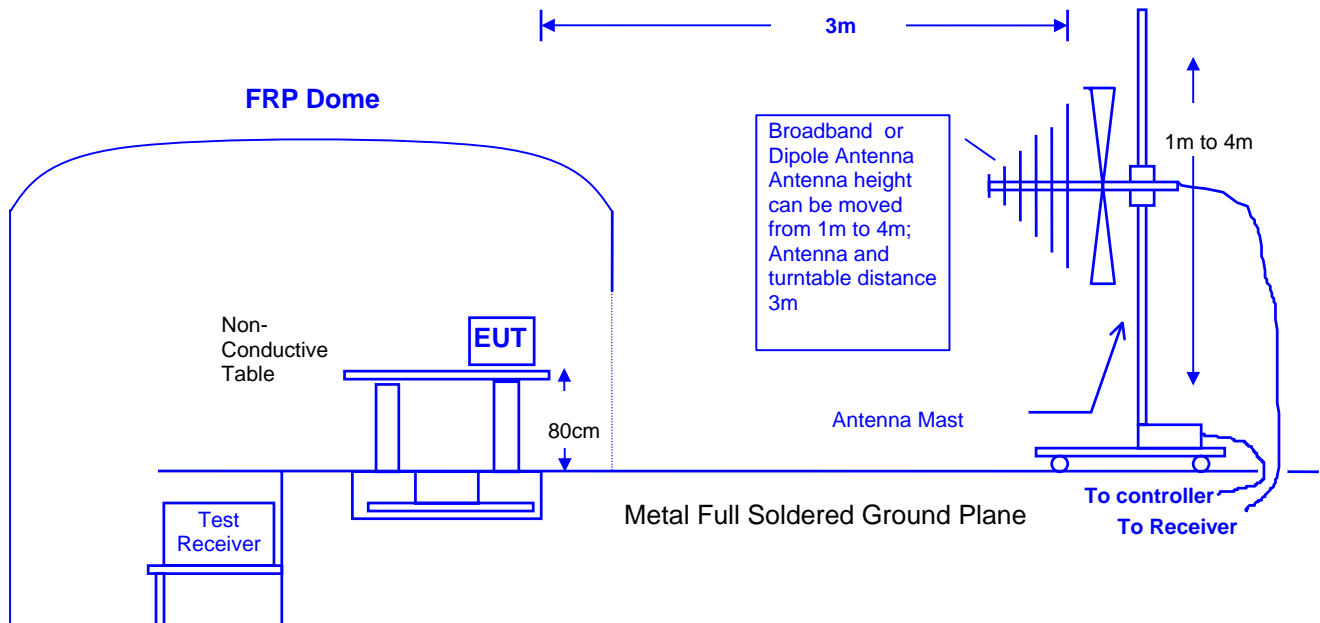
Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	R & S	ESCS30	825022/003	06/26/04
2	Spectrum Analyzer	R & S	FSP40	100061	03/16/04
3	Spectrum Analyzer	HP	E4407B	39240339	07/28/04
4	Power Meter	Rohde & Schwarz	NRVS	100666	04/29/04
5	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/29/04
6	Pre-Amplifier	HP	8447D	2944A08273	10/09/04
7	BILOG ANTENNA	SCHAFFNER	CBL6112B	2620	12/01/03
8	Horn Antenna	Electro-Metrics	EM-6961	103318	02/19/04
9	Horn Antenna	Schwarzbeck	BBHA 9120	D243	12/18/03
10	RF Cable	GesTek	N/A	GTK-E-A151-01	02/09/04
11	Open Site	GesTek	N/A	B1	11/23/04
12	Test Program Software	GesTek	N/A	GTK-E-S001-01	N/A

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

4.2 OPEN TEST SITE SETUP DIAGRAM

Note: This is a representative setup diagram for Table-top EUT.

For Floor-standing EUT, the table will be removed with all others setup condition remain the same.



4.3 RADIATED EMISSION LIMIT

☒ FCC Class C Limit at 3m

Frequency	Distance	Field Strength	
		$\mu\text{V}/\text{M}$	$\text{dB}\mu\text{V}/\text{M}$
MHz	Meter		
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0

Note : The frequencies above 1000MHz, as measured using instrumentation with a peak detector function was corresponding to 20dB above the maximum permitted average limit.

4.4 EUT CONFIGURATION

The equipment, which is listed on 4.1 was, installed on radiated emission test to meet the commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 4.2, was placed on a non-conductive table whose total height equaled 80 cm. This table can be rotated 360 degree. The measurement antenna was mounted to a non-conductive mast capable of moving the antenna vertically. Antenna height was varied from 1 meter to 4 meters and the system under test was rotated from 0 degree through 360 degrees relative to the antenna position and polarization (Horizontal and Vertical). Also the I/O cable position was investigated to find the maximum emission condition.

4.5 OPERATING CONDITION OF EUT

Same as section 2.8.

4.6 RADIATED EMISSION DATA

The measurement range of radiated emissions from **30 MHz to 10 Harminics** was investigated. All readings below 1GHz are quasi-peak values with a resolution bandwidth of 120 KHz. Above 1GHz are peak and avg. values with a resolution bandwidth of 1MHz. The initial step in collecting radiated emission data is a spectrum analyzer peak scans of the measurement range for all the test modes and then use test receiver for final measurement. Then the worst modes were reported the following data pages..

4.7 RADIATED EMISSIONS MEASUREMENT RESULTS

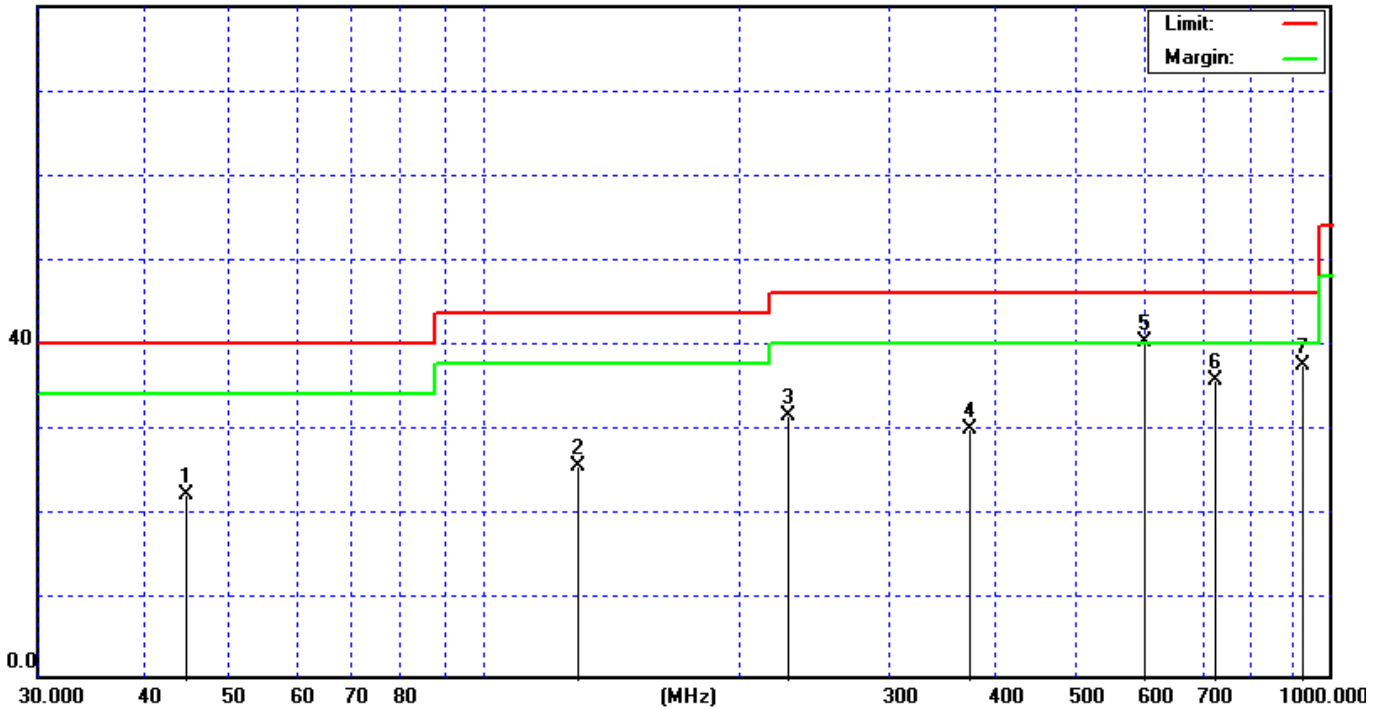
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 1	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.55	36.64	-14.68	21.96	40	-18.04	QP
2	128.8365	37.28	-11.97	25.31	43.5	-18.19	QP
3	229.044	42.97	-11.58	31.39	46	-14.61	QP
4	372.1985	35.96	-6.25	29.71	46	-16.29	QP
5	600.0415	41.12	-1.1	40.02	46	-5.98	QP
6	729.089	35.04	0.52	35.56	46	-10.44	QP
7	916.1755	32.4	4.93	37.33	46	-8.67	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



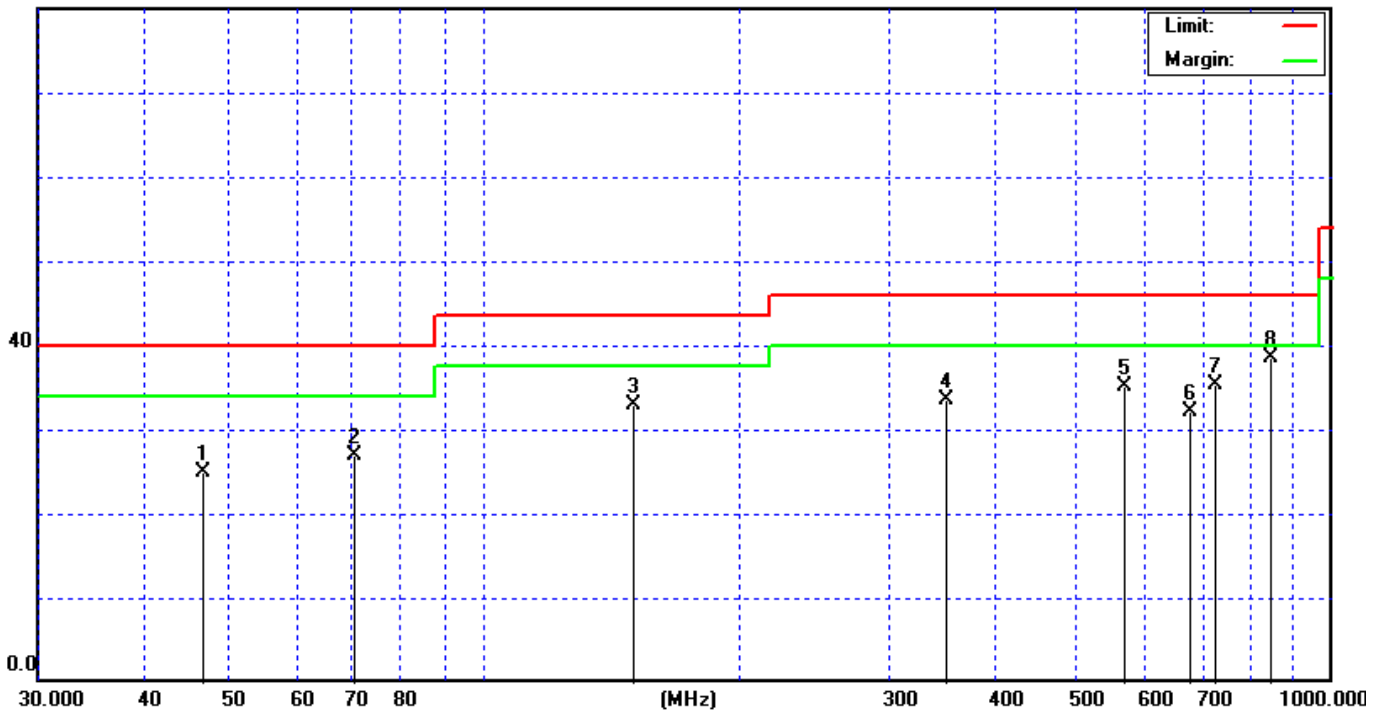
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 1	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	46.8	40.76	-15.83	24.93	40	-15.07	QP
2	70.695	45.32	-18.51	26.81	40	-13.19	QP
3	150.01	45.72	-12.9	32.82	43.5	-10.68	QP
4	350.025	40.32	-6.75	33.57	46	-12.43	QP
5	567.0695	37.14	-2.06	35.08	46	-10.92	QP
6	675.046	32.5	-0.33	32.17	46	-13.83	QP
7	729.0905	34.79	0.52	35.31	46	-10.69	QP
8	844.6005	35.07	3.41	38.48	46	-7.52	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



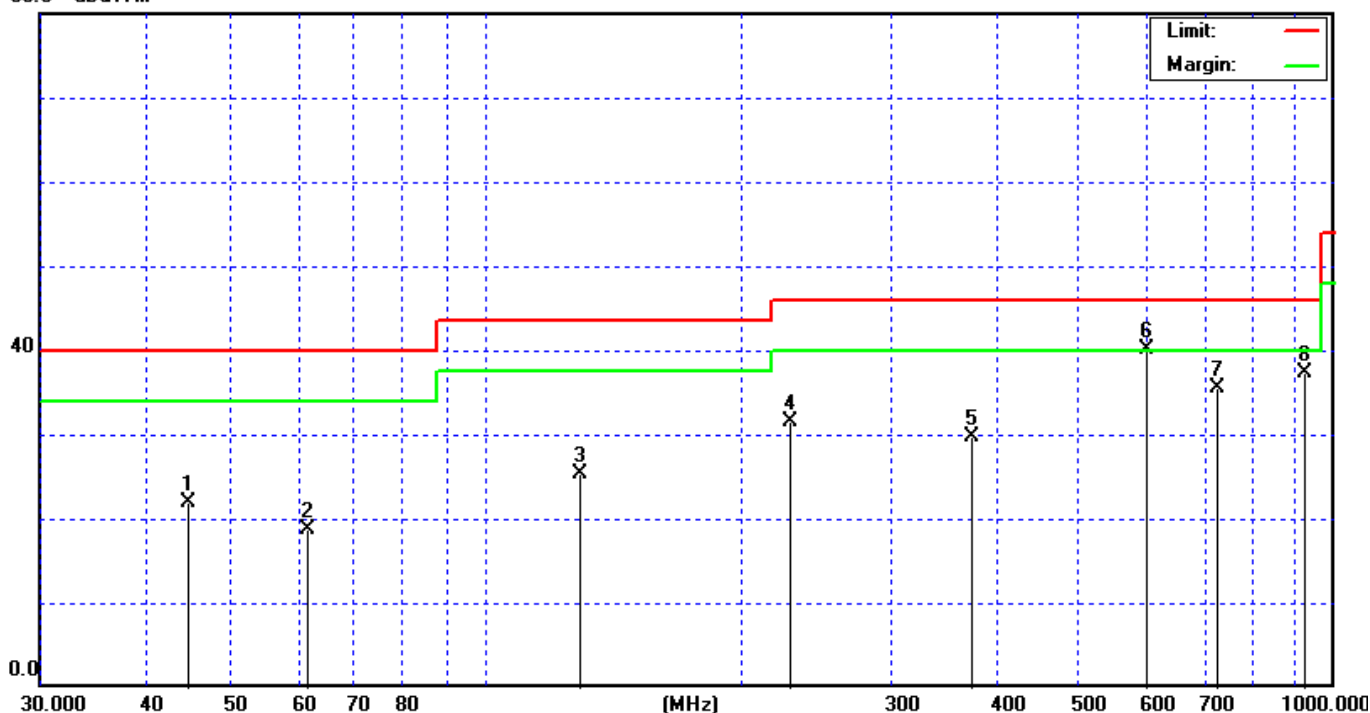
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 6	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.556	36.66	-14.68	21.98	40	-18.02	QP
2	62.013	37.36	-18.74	18.62	40	-21.38	QP
3	128.831	37.3	-11.97	25.33	43.5	-18.17	QP
4	229.046	43	-11.58	31.42	46	-14.58	QP
5	372.201	36.01	-6.25	29.76	46	-16.24	QP
6	600.0421	41.14	-1.1	40.04	46	-5.96	QP
7	729.091	35.04	0.52	35.56	46	-10.44	QP
8	916.179	32.42	4.93	37.35	46	-8.65	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



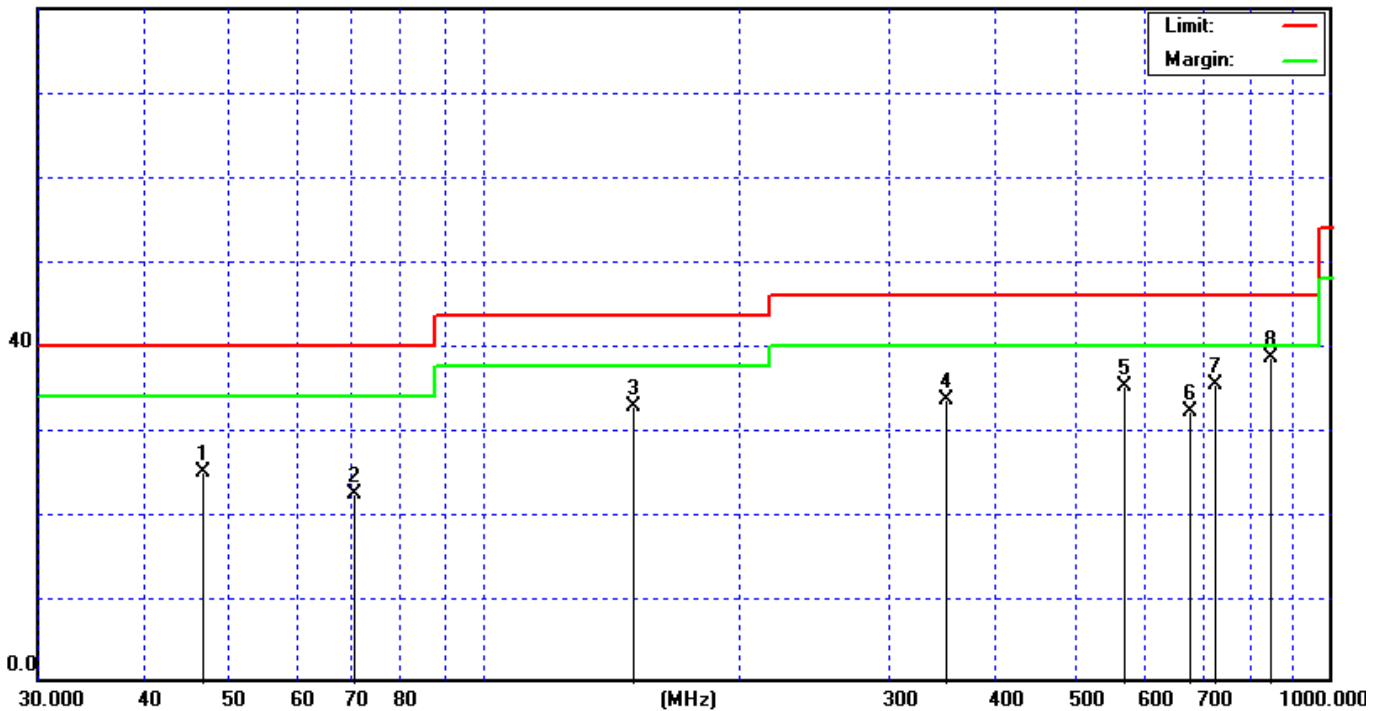
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 6	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	46.806	40.74	-15.83	24.91	40	-15.09	QP
2	70.7	40.74	-18.5	22.24	40	-17.76	QP
3	150.013	45.7	-12.9	32.8	43.5	-10.7	QP
4	350.0253	40.3	-6.75	33.55	46	-12.45	QP
5	567.07	37.15	-2.06	35.09	46	-10.91	QP
6	675.048	32.52	-0.33	32.19	46	-13.81	QP
7	729.09	34.81	0.52	35.33	46	-10.67	QP
8	844.6	35.04	3.41	38.45	46	-7.55	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



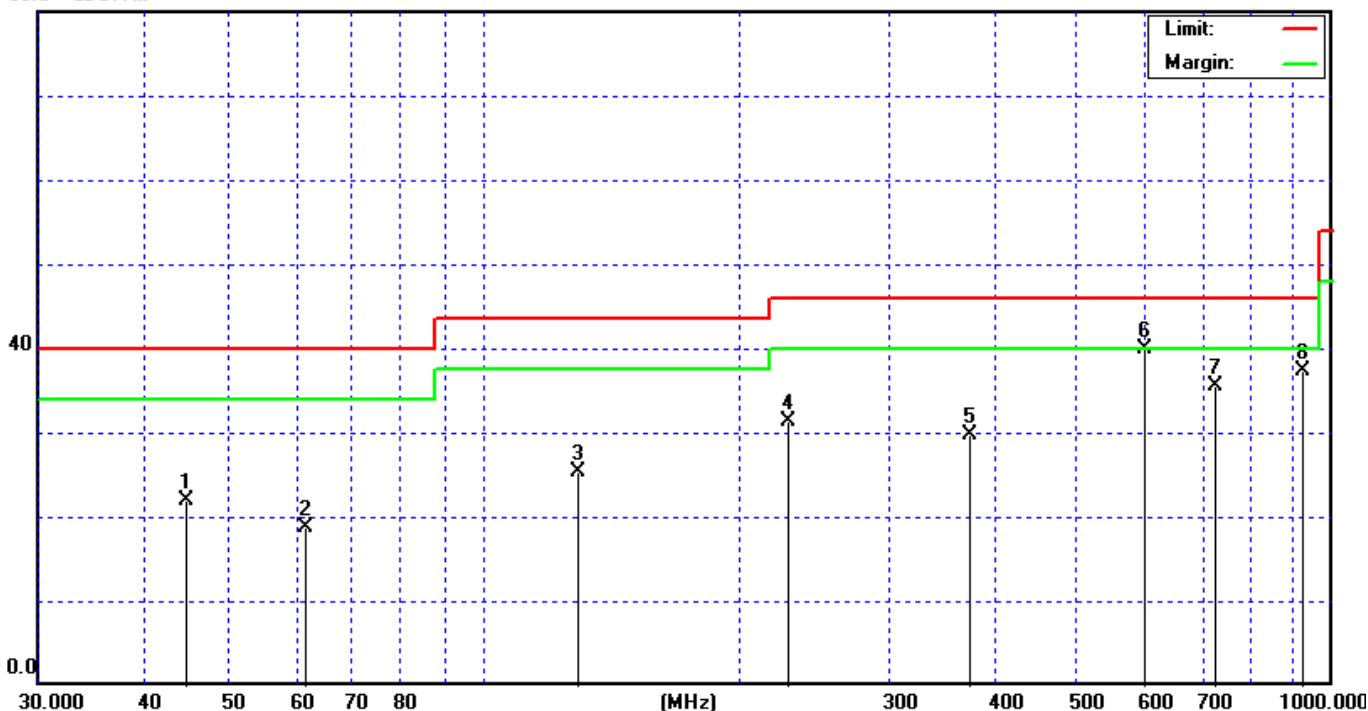
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 11	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.55	36.64	-14.68	21.96	40	-18.04	QP
2	62.015	37.35	-18.74	18.61	40	-21.39	QP
3	128.83	37.33	-11.97	25.36	43.5	-18.14	QP
4	229.045	42.97	-11.58	31.39	46	-14.61	QP
5	372.2	36	-6.25	29.75	46	-16.25	QP
6	600.04	41.1	-1.1	40	46	-6	QP
7	729.09	35.02	0.52	35.54	46	-10.46	QP
8	916.18	32.4	4.93	37.33	46	-8.67	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



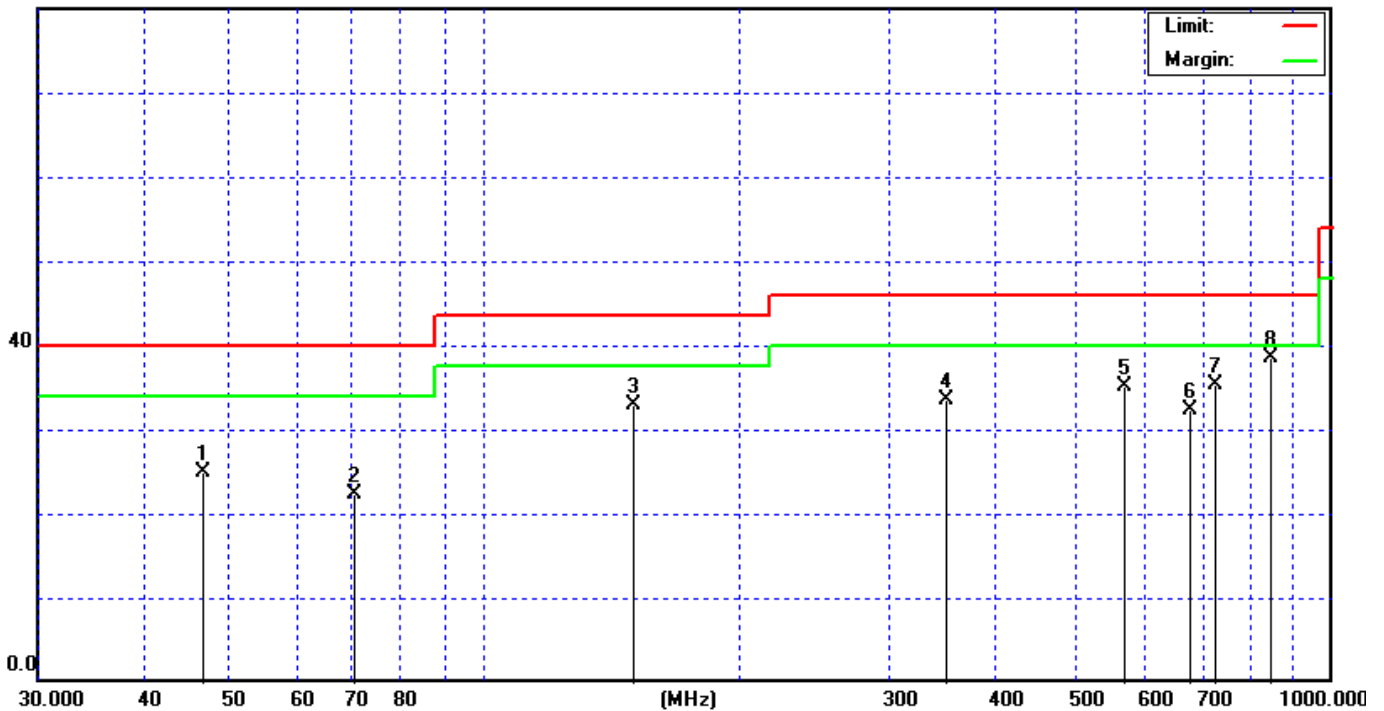
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 2 (802.11g) Channel 11	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	46.804	40.76	-15.83	24.93	40	-15.07	QP
2	70.701	40.72	-18.5	22.22	40	-17.78	QP
3	150.015	45.72	-12.9	32.82	43.5	-10.68	QP
4	350.024	40.32	-6.75	33.57	46	-12.43	QP
5	567.072	37.17	-2.06	35.11	46	-10.89	QP
6	675.05	32.54	-0.33	32.21	46	-13.79	QP
7	729.091	34.8	0.52	35.32	46	-10.68	QP
8	844.602	35.02	3.41	38.43	46	-7.57	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



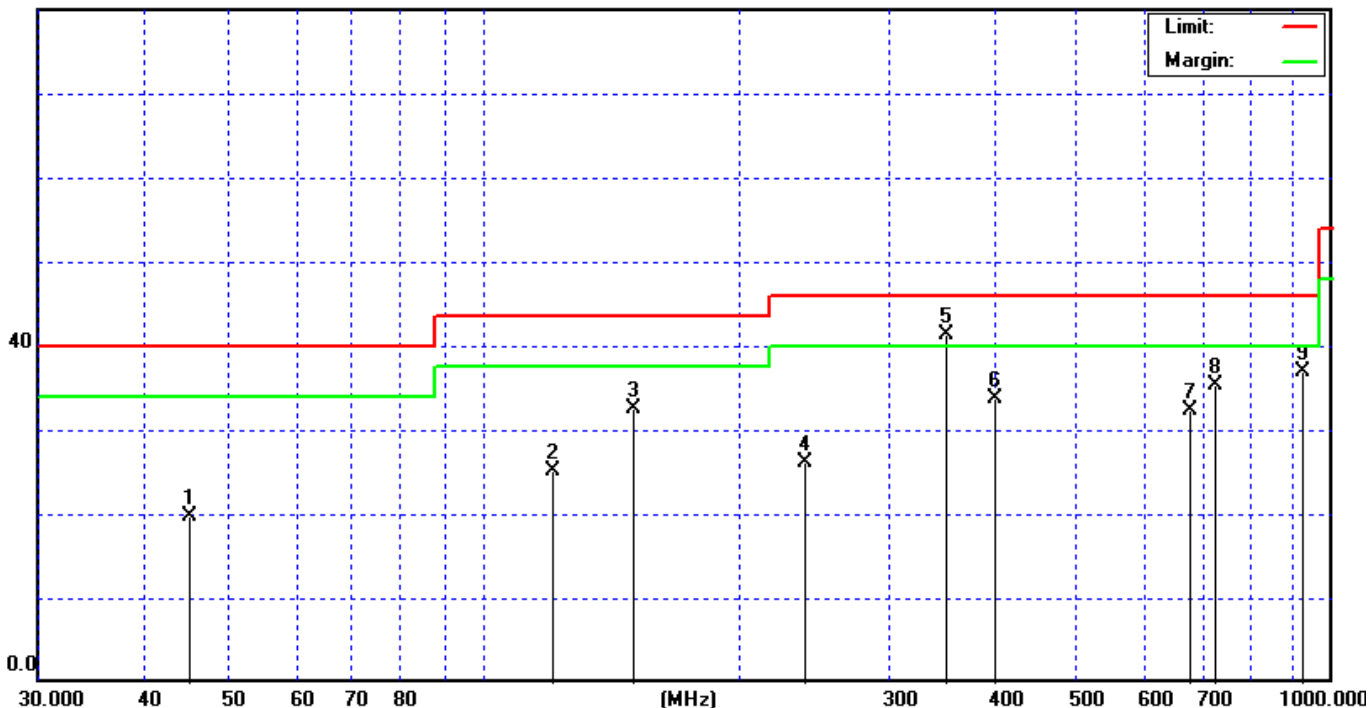
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 1	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	45.22	34.73	-15.1	19.63	40	-20.37	QP
2	120.0045	36.78	-11.72	25.06	43.5	-18.44	QP
3	150.0095	45.48	-12.9	32.58	43.5	-10.92	QP
4	237.516	37.46	-11.26	26.2	46	-19.8	QP
5	350.0255	48.15	-6.75	41.4	46	-4.6	QP
6	400.027	39.18	-5.46	33.72	46	-12.28	QP
7	675.048	32.63	-0.33	32.3	46	-13.7	QP
8	729.09	34.81	0.52	35.33	46	-10.67	QP
9	916.1765	32	4.93	36.93	46	-9.07	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " " means this data is worst-case Measurement level.

80.0 dBuV/m



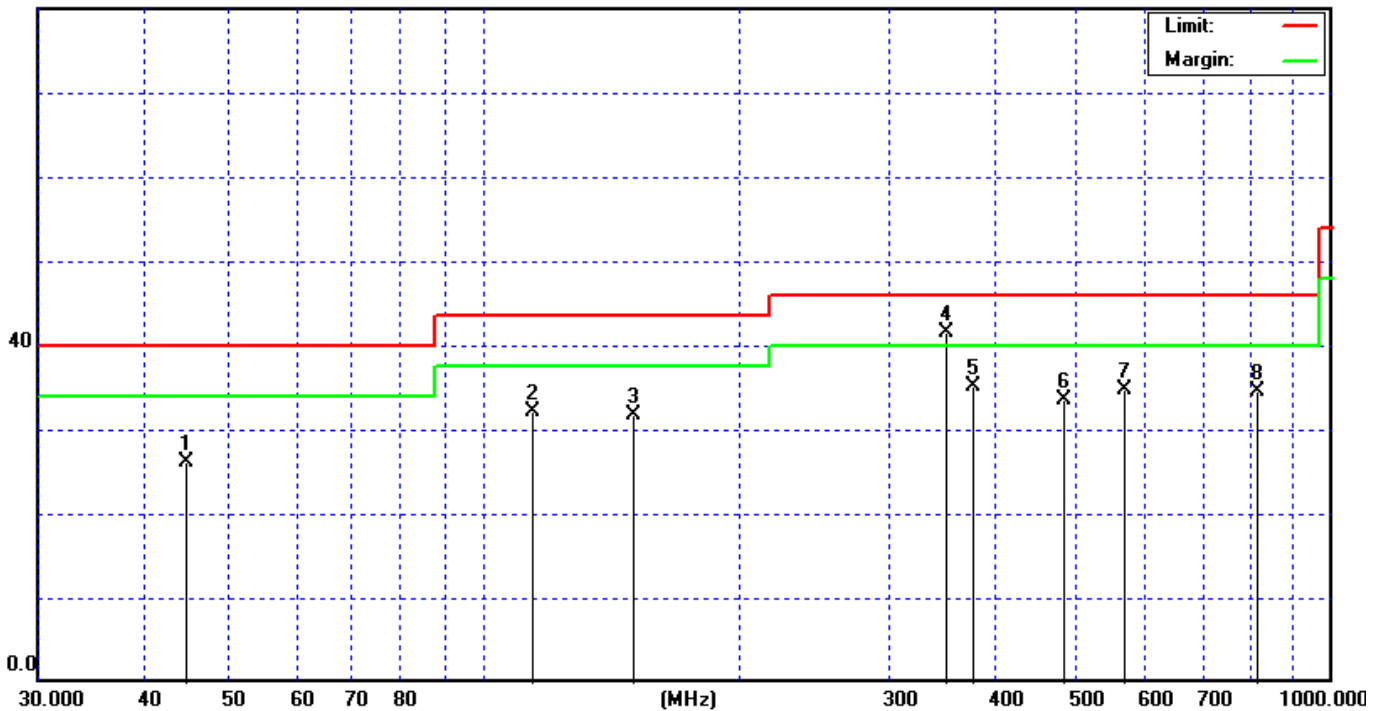
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 1	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.55	40.86	-14.68	26.18	40	-13.82	QP
2	114.1485	44.49	-12.48	32.01	43.5	-11.49	QP
3	150.0115	44.69	-12.9	31.79	43.5	-11.71	QP
4	350.0255	48.19	-6.75	41.44	46	-4.56	QP
5	375.0265	41.48	-6.34	35.14	46	-10.86	QP
6	480.035	37.51	-4.09	33.42	46	-12.58	QP
7	567.0685	36.81	-2.06	34.75	46	-11.25	QP
8	815.969	31.73	2.77	34.5	46	-11.5	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " " means this data is worst-case Measurement level.

80.0 dBuV/m



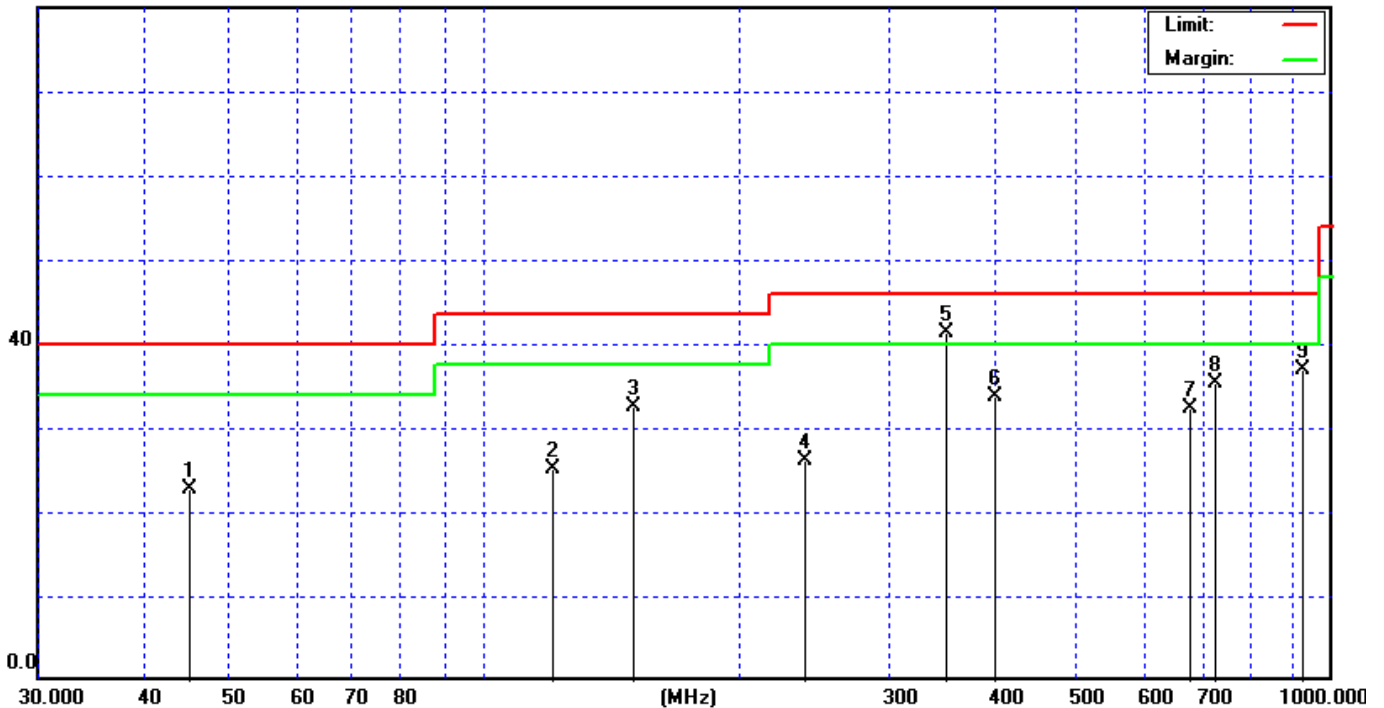
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 6	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	45.222	37.75	-15.1	22.65	40	-17.35	QP
2	120.005	36.8	-11.72	25.08	43.5	-18.42	QP
3	150.01	45.5	-12.9	32.6	43.5	-10.9	QP
4	237.514	37.44	-11.26	26.18	46	-19.82	QP
5	350.024	48.13	-6.75	41.38	46	-4.62	QP
6	400.026	39.2	-5.46	33.74	46	-12.26	QP
7	675.05	32.61	-0.33	32.28	46	-13.72	QP
8	729.093	34.8	0.52	35.32	46	-10.68	QP
9	916.175	32.03	4.93	36.96	46	-9.04	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " " means this data is worst-case Measurement level.

80.0 dBuV/m



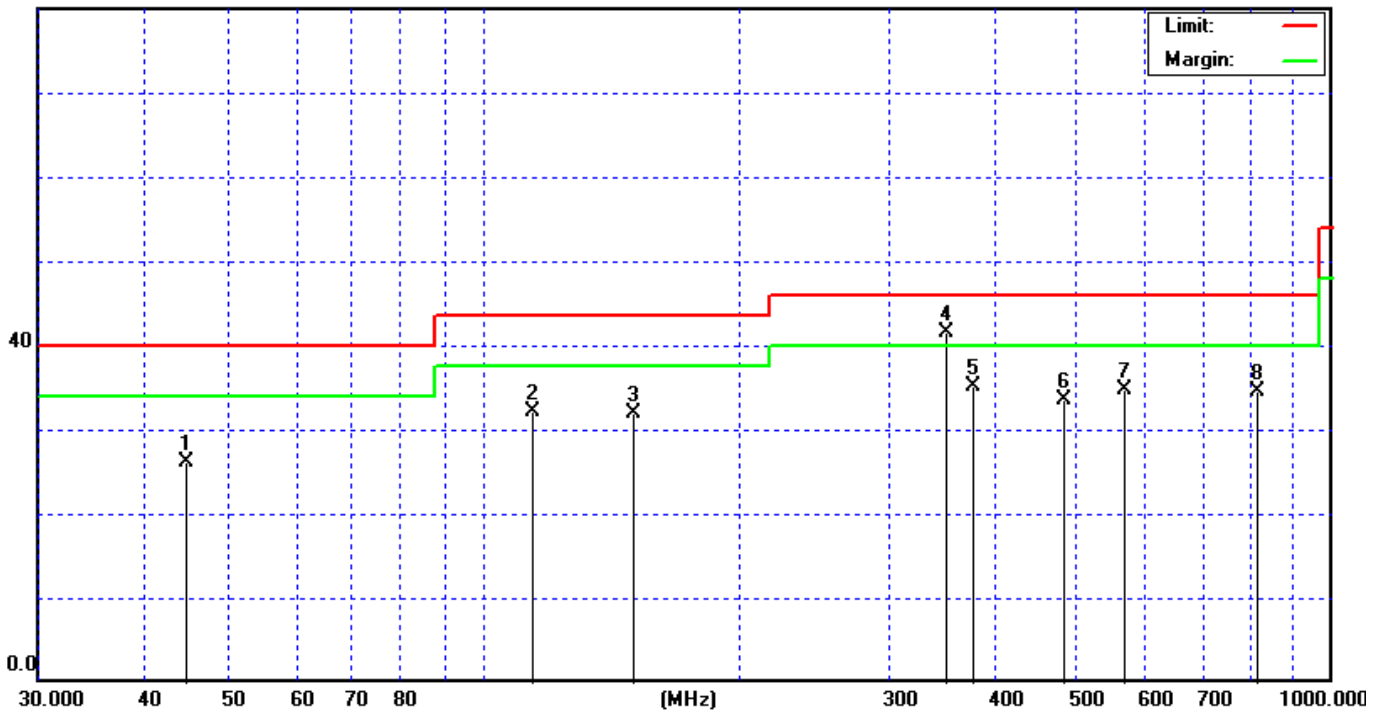
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 6	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.552	40.85	-14.68	26.17	40	-13.83	QP
2	114.15	44.5	-12.48	32.02	43.5	-11.48	QP
3	150.013	44.71	-12.9	31.81	43.5	-11.69	QP
4	350.028	48.22	-6.75	41.47	46	-4.53	QP
5	375.027	41.5	-6.34	35.16	46	-10.84	QP
6	480.033	37.5	-4.09	33.41	46	-12.59	QP
7	567.07	36.8	-2.06	34.74	46	-11.26	QP
8	815.972	31.71	2.77	34.48	46	-11.52	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



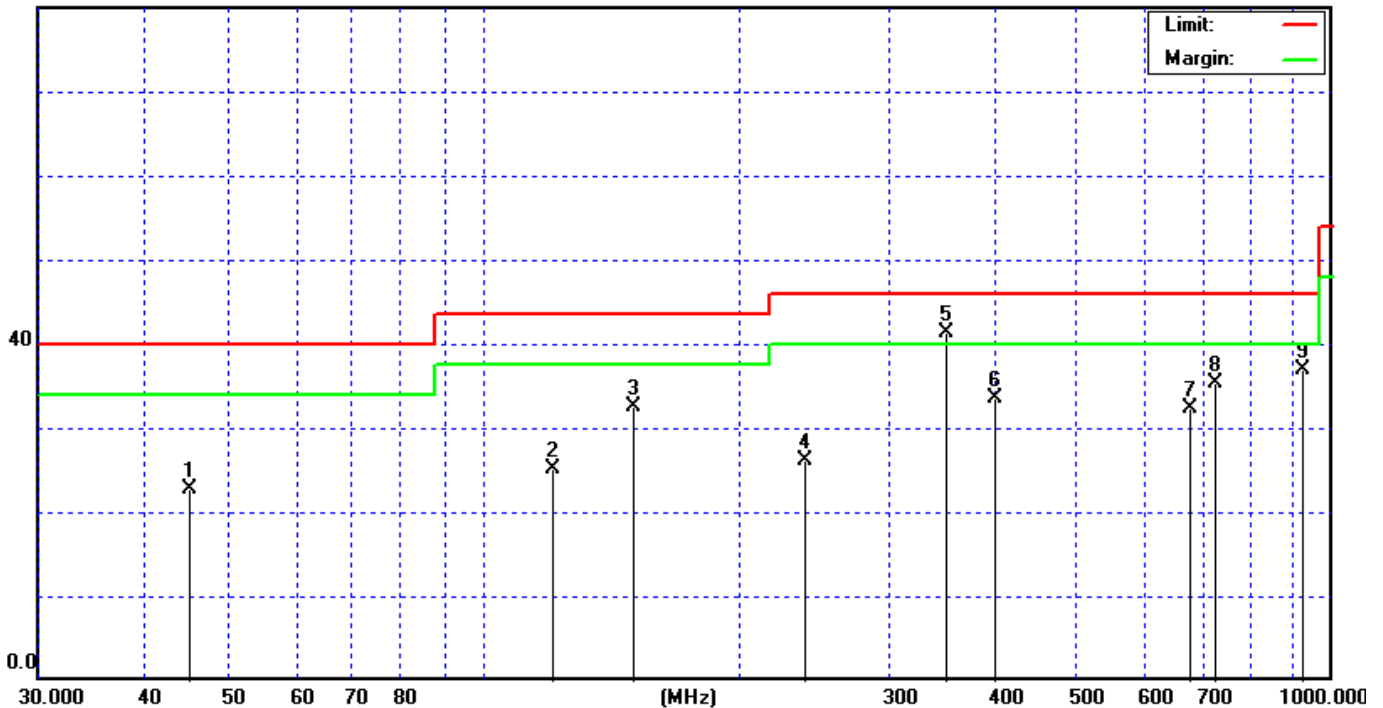
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 11	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	45.22	37.76	-15.1	22.66	40	-17.34	QP
2	120	36.81	-11.72	25.09	43.5	-18.41	QP
3	150.011	45.49	-12.9	32.59	43.5	-10.91	QP
4	237.513	37.42	-11.26	26.16	46	-19.84	QP
5	350.022	48.11	-6.75	41.36	46	-4.64	QP
6	400.025	39	-5.46	33.54	46	-12.46	QP
7	675.053	32.6	-0.33	32.27	46	-13.73	QP
8	729.094	34.81	0.52	35.33	46	-10.67	QP
9	916.176	32.01	4.93	36.94	46	-9.06	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " " means this data is worst-case Measurement level.

80.0 dBuV/m



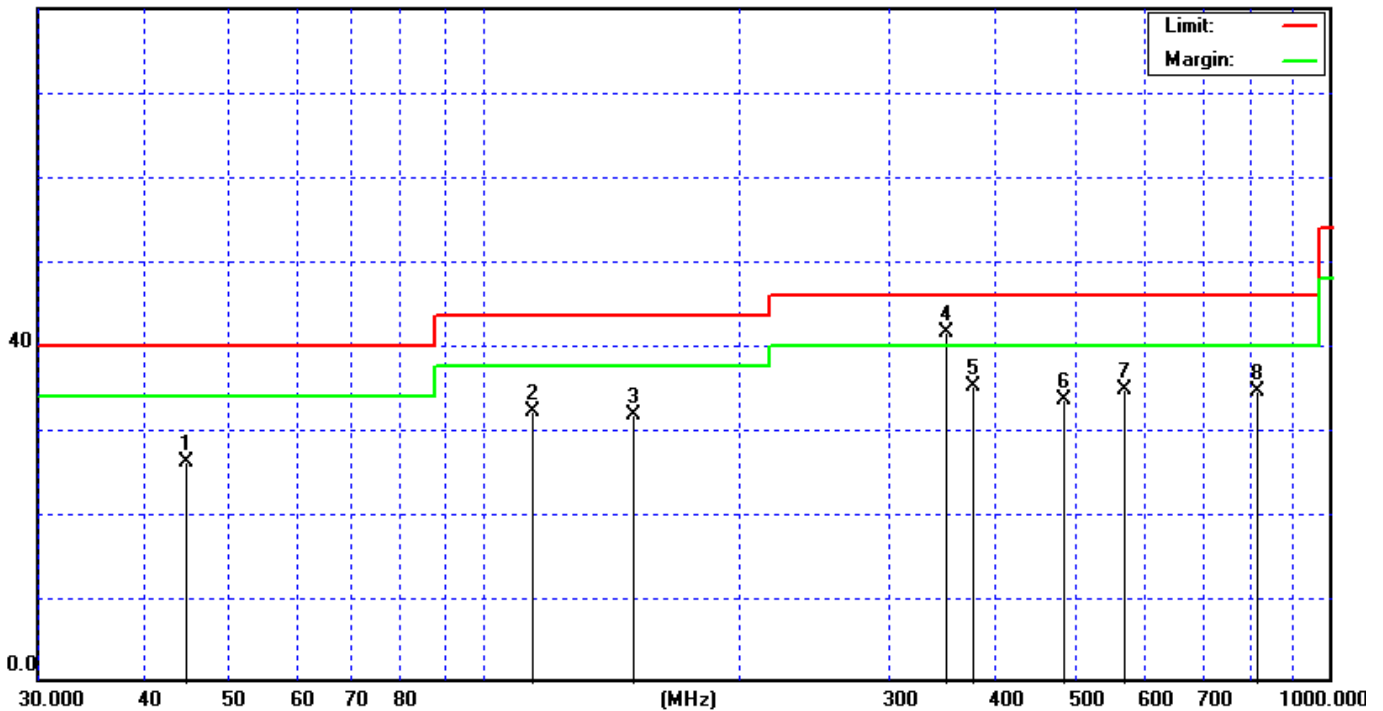
Date of Test	November 30, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	58 %RH
Working Cond.	Mode 4 (802.11g) Channel 11	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	44.55	40.84	-14.68	26.16	40	-13.84	QP
2	114.152	44.49	-12.48	32.01	43.5	-11.49	QP
3	150.011	44.7	-12.9	31.8	43.5	-11.7	QP
4	350.027	48.2	-6.75	41.45	46	-4.55	QP
5	375.026	41.48	-6.34	35.14	46	-10.86	QP
6	480.031	37.52	-4.09	33.43	46	-12.57	QP
7	567.072	36.82	-2.06	34.76	46	-11.24	QP
8	815.97	31.7	2.77	34.47	46	-11.53	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The " X " means this data is worst-case Measurement level.

80.0 dBuV/m



Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 1	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.36	-1.33	< 43.03	74.00	-30.97
2	7236.00	44.85	7.96	< 52.54	74.00	-21.46

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	Novemer 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 1	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4818.50	48.19	-1.86	46.33	74.00	-27.67
2	7236.00	45.75	7.36	< 53.11	74.00	-20.89
3	9648.00	45.46	13.67	< 59.13	74.00	-14.87

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9648.00	33.75	13.67	< 47.42	54.00	-6.58

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 6	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4874.00	47.19	-1.26	< 45.93	74.00	-28.07
2	7311.00	44.71	7.89	< 52.60	74.00	-21.40

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 6	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4873.75	50.08	-1.69	48.39	74.00	-25.61
2	7311.00	44.29	7.79	< 52.08	74.00	-21.92
3	9748.00	44.83	13.51	< 58.34	74.00	-15.66

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9748.00	33.19	13.51	< 46.70	54.00	-7.30

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 11	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	48.02	-1.20	46.82	74.00	-27.18
2	7386.00	45.06	8.08	< 53.14	74.00	-20.86
3	9848.00	45.08	12.80	< 57.88	74.00	-16.12

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9848.00	33.28	12.80	< 46.08	54.00	-7.92

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 1 (802.11b) Channel 11	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	51.28	-1.53	49.75	74.00	-24.25
2	7386.00	45.44	8.23	< 53.67	74.00	-20.33
3	9848.00	44.71	13.54	< 58.25	74.00	-15.75

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9848.00	33.48	13.54	47.02	54.00	-6.98

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30Hz, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 2 (802.11g) Channel 1	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.75	-1.33	< 43.42	74.00	-30.58
2	7236.00	44.43	7.69	< 52.12	74.00	-21.88

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 2 (802.11g) Channel 1	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.20	-1.84	< 42.36	74.00	-31.64
2	7236.00	43.86	7.36	< 51.22	74.00	-22.78

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 2 (802.11g) Channel 6	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4874.00	44.41	-1.26	43.15	74.00	-30.85
2	7311.00	45.58	7.89	53.47	74.00	-20.53

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 2 (802.11g) Channel 6	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB (μ V)]	Correction Factor [dB/m]	Emission Level [dB (μ V/m)]	Limit [dB (μ V/m)]	Margin [dB]
1	4874.00	45.14	-1.69	< 43.45	74.00	-30.55
2	7311.00	44.70	7.79	< 52.49	74.00	-21.51

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51.9 %RH
Working Cond.	Mode 2 (802.11g) Channel 11	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	44.46	-1.20	< 43.26	74.00	-30.74
2	7386.00	44.04	8.08	< 52.12	74.00	-21.88

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 2 (802.11g) Channel 11	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	45.21	-1.53	< 43.68	74.00	-30.32
2	7386.00	44.03	8.23	< 52.26	74.00	-21.74

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 1	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.71	-1.33	< 43.38	74.00	-30.62
2	7236.00	43.96	7.69	< 51.65	74.00	-22.35

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	Novemer 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 1	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4823.75	47.22	-1.85	45.37	74.00	-28.62
2	7236.00	43.54	7.36	< 50.90	74.00	-23.10
3	9648.00	45.12	13.67	< 58.79	74.00	-15.21

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9648.00	33.61	13.67	< 47.28	54.00	-6.72

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30Hz, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 6	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4874.25	47.73	-1.26	46.47	74.00	-27.53
2	7311.00	44.35	7.89	< 52.24	74.00	-21.76
3	9748.00	44.56	12.73	< 57.29	74.00	-16.71

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9748.00	33.28	12.73	< 46.01	54.00	-7.99

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 6	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4882.25	47.72	-1.67	46.05	74.00	-27.95
2	7311.00	44.27	7.79	< 52.06	74.00	-21.94
3	9748.00	45.00	13.51	< 58.51	74.00	-15.49

Average

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	9748.00	33.24	13.51	< 46.78	54.00	-7.22

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 11	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	44.54	-1.20	< 43.34	74.00	-30.66
2	7386.00	43.97	8.08	< 52.05	74.00	-21.95

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 3 (802.11b) Channel 11	Data Rate	11Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	45.55	-1.53	< 44.02	74.00	-29.98
2	7386.00	43.63	8.23	< 51.86	74.00	-22.14

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 4 (802.11g) Channel 1	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.64	-1.33	< 43.31	74.00	-30.69
2	7236.00	43.87	7.69	< 51.56	74.00	-22.44

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 4 (802.11g) Channel 1	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4824.00	44.53	-1.84	42.69	74.00	-31.31
2	7236.00	45.22	7.36	52.58	74.00	-21.42

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 4 (802.11g) Channel 6	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4874.00	45.12	-1.26	43.86	74.00	-30.14
2	7311.00	44.55	7.89	52.44	74.00	-21.56

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 4 (802.11g) Channel 6	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB (μ V)]	Correction Factor [dB/m]	Emission Level [dB (μ V/m)]	Limit [dB (μ V/m)]	Margin [dB]
1	4874.00	45.56	-1.69	< 43.87	74.00	-30.13
2	7311.00	44.46	7.79	< 52.25	74.00	-21.75

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51.9 %RH
Working Cond.	Mode 4 (802.11g) Channel 11	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	44.10	-1.20	< 42.90	74.00	-31.10
2	7386.00	44.89	8.08	< 52.97	74.00	-21.03

Remark

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Margin Value=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

Date of Test	November 25, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	51 %RH
Working Cond.	Mode 4 (802.11g) Channel 11	Data Rate	54Mbps
Antenna distance	3m at Vertical	Frequency Range	Above 1GHz

Peak

No.	Frequency [MHz]	Reading Level [dB(μV)]	Correction Factor [dB/m]	Emission Level [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
1	4924.00	44.31	-1.53	< 42.78	74.00	-31.22
2	7386.00	44.01	8.23	< 52.27	74.00	-21.73

Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
- Margin Value=Emission level-Limit value.
- The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

5. PEAK POWER OUTPUT

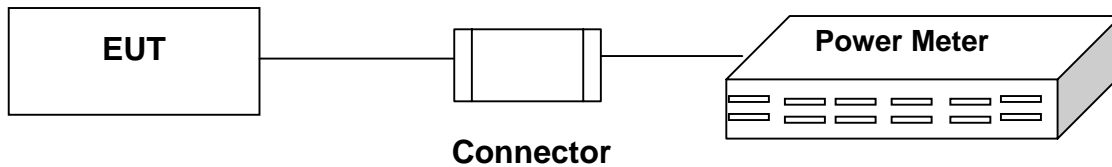
5.1 TEST EQUIPMENT

The following test equipments are used during the Conduct tests:

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	03/16/04
	Spectrum Analyzer	HP	E4407B	39240339	07/28/04
2	Power Meter	Rohde & Schwarz	NRVS	100666	04/29/04
3	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/29/04

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

5.2 BLOCK DIAGRAM OF TEST SETUP



5.3 PEAK POWER OUTPUT LIMIT

The maximum peak power shall be less 1 Watt.

5.4 TEST RESULT

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Test Mode	802.11b	Data Rate	11Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	18.10	1W(30dBm)	Pass
6	2437	18.83	1W(30dBm)	Pass
11	2462	18.92	1W(30dBm)	Pass

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Test Mode	802.11g	Data Rate	54Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	18.44	1W(30dBm)	Pass
6	2437	18.73	1W(30dBm)	Pass
11	2462	18.87	1W(30dBm)	Pass

6. BAND EDGE

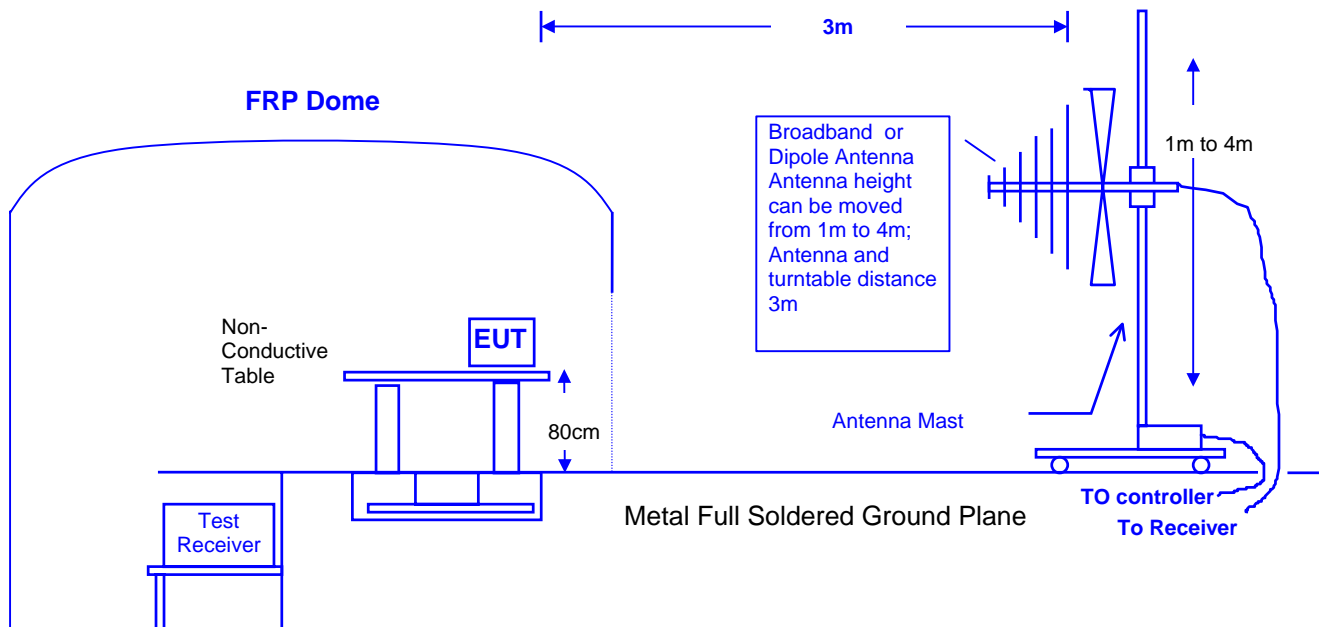
6.1 TEST EQUIPMENT

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	Rohde & Schwarz	ESVS30	829007/014	12/13/03
2	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	03/16/04
3	Spectrum Analyzer	HP	E4407B	39240339	07/28/04
4	Power Meter	Rohde & Schwarz	NRVS	100666	04/29/04
5	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/29/04
6	Pre-Amplifier	HP	8449B	3008A01263	03/10/04
7	BILOG ANTENNA	SCHAFFNER	CBL6112B	2620	12/01/03
8	Horn Antenna	Electro-Metrics	EM-6961	103318	02/19/04
9	Horn Antenna	Schwarzbeck	BBHA 9120	D243	12/18/03
10	RF Cable	GesTek	N/A	GTK-E-A151-01	02/09/04
11	Open Site	GesTek	N/A	B1	11/24/04
12	Test Program Software	GesTek	N/A	GTK-E-S001-01	N/A

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

6.2 BLOCK DIAGRAM OF TEST SETUP

⊙ RF Radiated Measurement: ⊙



6.3 BAND EDGE LIMIT

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

6.4 EUT CONFIGURATION

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 C63.4:2000 on radiated measurement.

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

6.5 OPERATING CONDITION OF EUT

Same as section 2.8.

6.6 TEST RESULT

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Test Band	Lower

Radiation Emission of Fundamental Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.00	64.67	35.67	100.34

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2414.37	57.86	35.68	93.54

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 62 and page 63 are Peak and Average. The plot for peak is appear (52.25)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (55.63)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (100.34) dBuV/m - (52.25) dB = (48.09) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (93.54) dBuV/m – (55.63) dB = (37.91) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Vertical	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.00	77.89	30.47	108.36

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2414.25	70.90	30.47	101.37

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 62 and page 63 are Peak and Average. The plot for peak is appear (52.25)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (55.63)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (108.36) dBuV/m - (52.25) dB = (56.11) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (101.37) dBuV/m – (55.63) dB = (45.74) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 3 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.12	68.13	35.68	103.81

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2414.25	62.08	35.68	97.76

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 62 and page 63 are Peak and Average. The plot for peak is appear (52.25)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (55.63)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (103.81) dBuV/m - (52.25) dB = (51.56) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (97.76) dBuV/m – (55.63) dB = (42.13) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 3 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Vertical	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.12	71.93	30.47	102.40

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2414.25	64.68	30.47	95.15

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 62 and page 63 are Peak and Average. The plot for peak is appear (52.25)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (55.63)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (102.40) dBuV/m - (52.25) dB = (50.15) dBuV/m which is under 74dBuV/m.

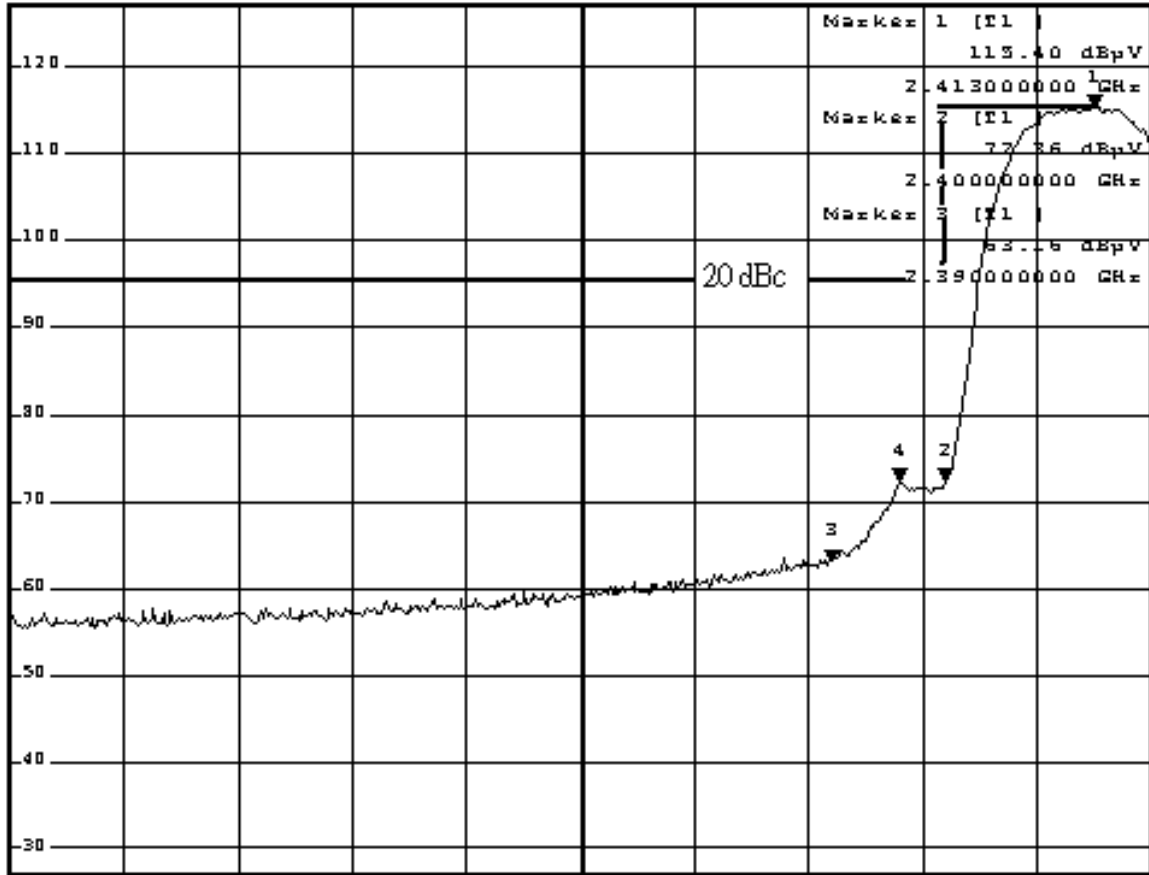
Average field strength of (2390) MHz is (95.15) dBuV/m – (55.63) dB = (39.52) dBuV/m which is under 54dBuV/m



/ RBW 1 MHz Marker 4 [F1]
 / VBW 1 MHz 72.24 dBpV
 / SWT 300 ms 2.396000000 GHz

Ref 127 dBpV / Att 30 dB

1 PK
 VIEW



Start 2.318 GHz 10 MHz/ Stop 2.418 GHz

Date: 1.DEC.2004 08:23:03

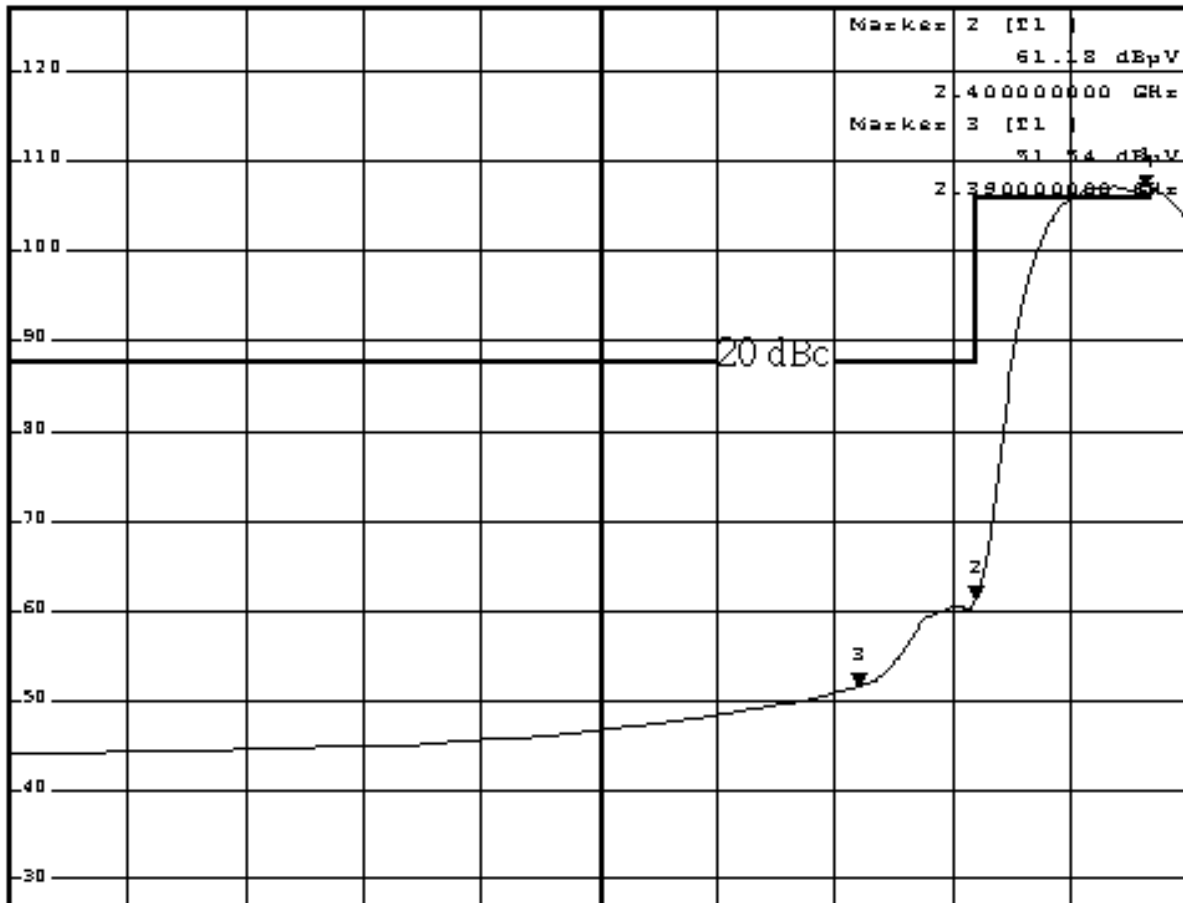


RES
/ RES 1 MHz Marker 1 [F1]
/ VEW 10 Hz 107.17 dBμV
/ SWI 2S a 2.4144000000 GHz

Ref 127 dBμV

/ Att 30 dB

1 PK
VIEW



Start 2.318 GHz 10 MHz/ Stop 2.418 GHz

Date: 1.DEC.2004 08:26:27

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.75	61.81	35.67	97.48

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.50	51.65	35.68	87.33

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 68 and page 69 are Peak and Average. The plot for peak is appear (48.34)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (50.95)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (97.48) dBuV/m - (48.34) dB = (49.14) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (87.33) dBuV/m – (50.95) dB = (36.38) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Vertical	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.75	76.14	30.47	106.61

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.62	65.96	30.47	96.43

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 68 and page 69 are Peak and Average. The plot for peak is appear (48.34)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (50.95)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (106.61) dBuV/m - (48.34) dB = (58.27) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (96.43) dBuV/m – (50.95) dB = (45.48) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 4 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.00	65.39	35.68	101.07

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.50	55.24	35.68	90.92

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 68 and page 69 are Peak and Average. The plot for peak is appear (48.34)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (50.95)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (101.07) dBuV/m - (48.34) dB = (52.73) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (90.92) dBuV/m – (50.95) dB = (39.97) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 4 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Vertical	Test Band	Lower

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.00	67.96	30.47	98.43

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.50	57.92	30.47	88.39

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 68 and page 69 are Peak and Average. The plot for peak is appear (48.34)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (50.95)dB delta between carry power and maximum emission in restrict band (2390)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2390)MHz is (98.43) dBuV/m - (48.34) dB = (50.09) dBuV/m which is under 74dBuV/m.

Average field strength of (2390) MHz is (88.39) dBuV/m – (50.95) dB = (37.44) dBuV/m which is under 54dBuV/m

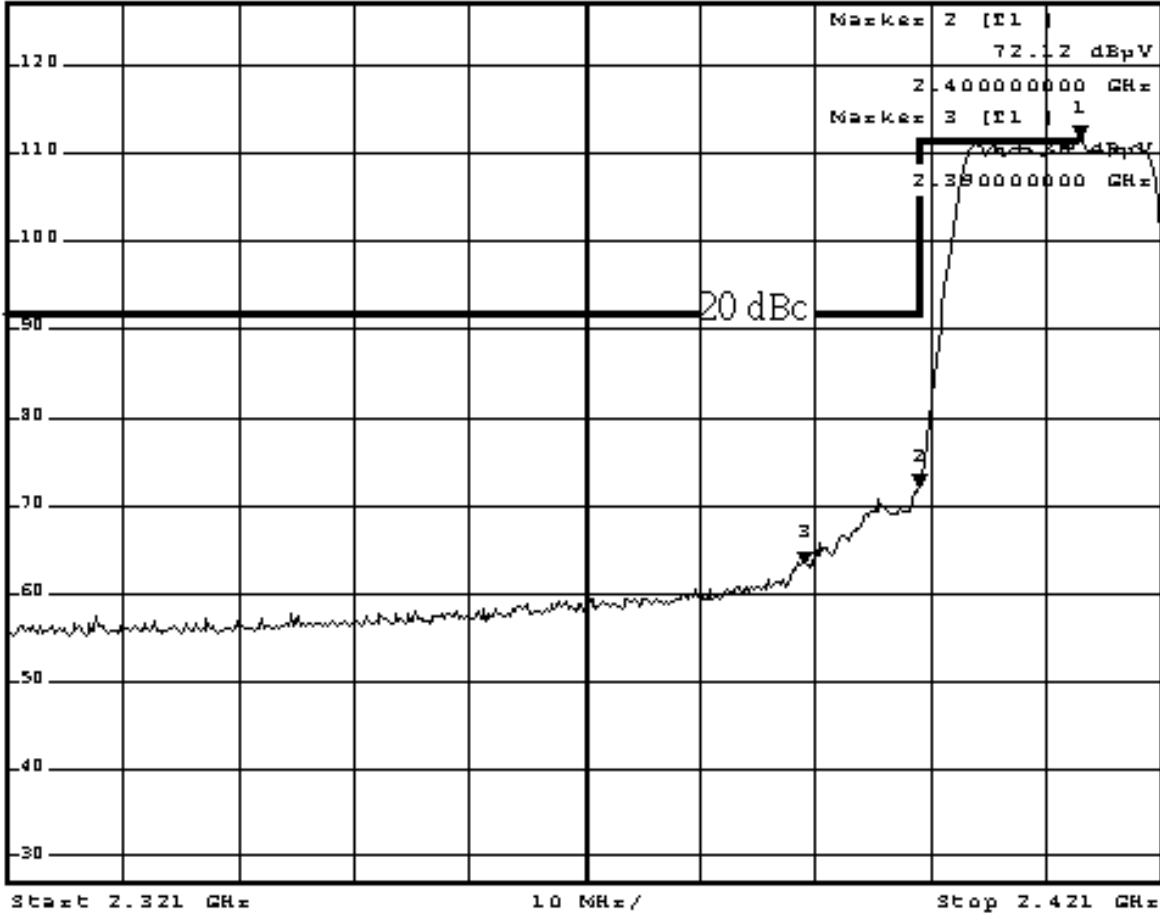


/ RES 1 MHz Marker 1 [F1]
 / VEW 1 MHz 111.70 dBμV
 / SWI 300 ms 2.414000000 GHz

Ref 127 dBμV

/ Att 30 dB

1 PK VIEW



Date: 1.DEC.2004 08:37:25



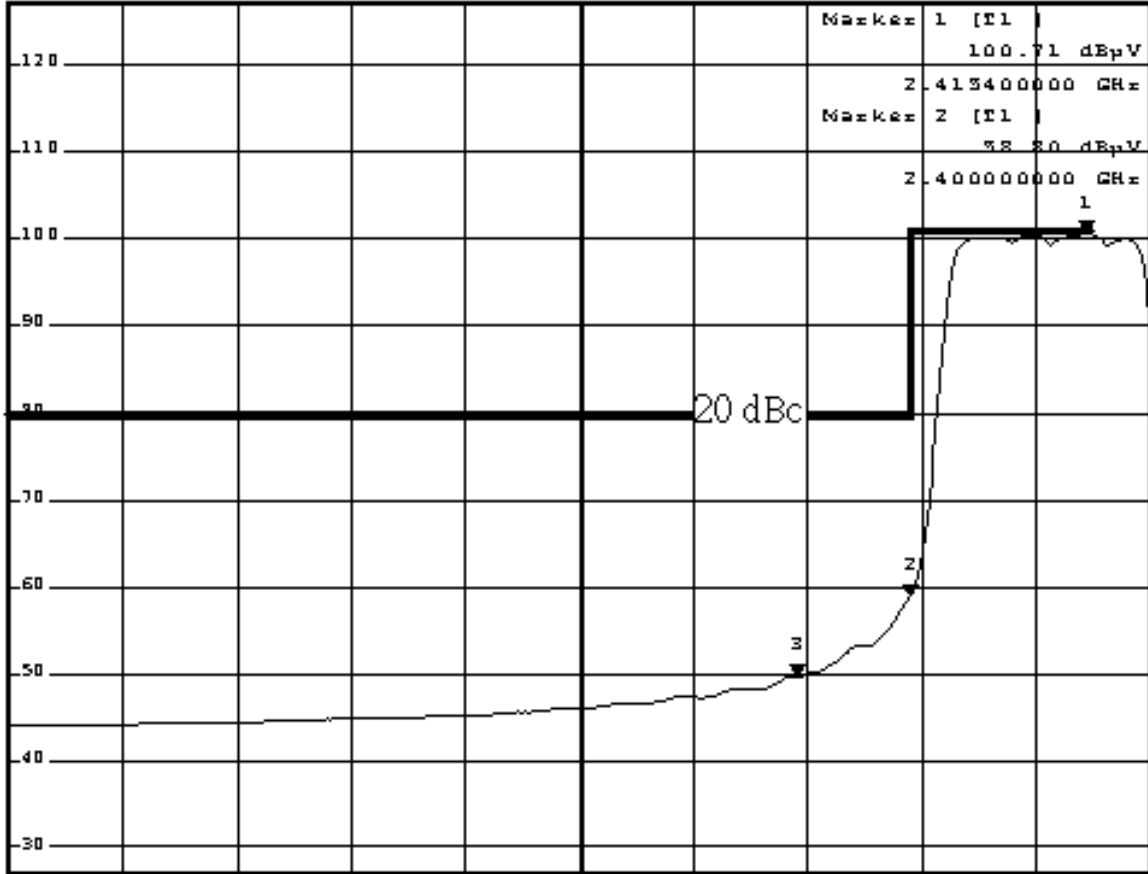
REW 1 MHz Marker 3 [T1] 49.76 dBV
VEW 10 Hz 2.390000000 GHz
SWI 25 a

Ref 127 dBV

Att 30 dB

2.390000000 GHz

1 PK
VIEW



Date: 1.DEC.2004 08:40:05

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.12	65.81	35.95	101.76

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2464.12	58.82	35.95	94.77

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 74 and page 75 are Peak and Average. The plot for peak is appear (48.57)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (51.9)dB delta between carry power and maximum emission in restrict band (2483.5)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2483.8)MHz is (101.76) dBuV/m - (48.57) dB = (53.19) dBuV/m which is under 74dBuV/m.

Average field strength of (2483.5) MHz is (94.77) dBuV/m – (51.9) dB = (42.87) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Vertical	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2460.00	80.19	30.43	110.62

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2459.62	73.02	30.3	103.45

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 74 and page 75 are Peak and Average. The plot for peak is appear (48.57)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (51.9)dB delta between carry power and maximum emission in restrict band (2483.5)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2483.8)MHz is (110.62) dBuV/m - (48.57) dB = (62.05) dBuV/m which is under 74dBuV/m.

Average field strength of (2483.5) MHz is (103.45) dBuV/m – (51.9) dB = (51.55) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 3 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Horizontal	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.00	69.00	35.95	104.95

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2459.50	62.58	35.93	98.51

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 74 and page 75 are Peak and Average. The plot for peak is appear (48.57)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (51.9)dB delta between carry power and maximum emission in restrict band (2483.5)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2483.8)MHz is (104.95) dBuV/m - (48.57) dB = (56.38) dBuV/m which is under 74dBuV/m.

Average field strength of (2483.5) MHz is (98.51) dBuV/m – (51.9) dB = (46.61) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 3 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at Vertical	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2460.00	71.97	30.43	102.40

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2459.62	64.80	30.43	95.23

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

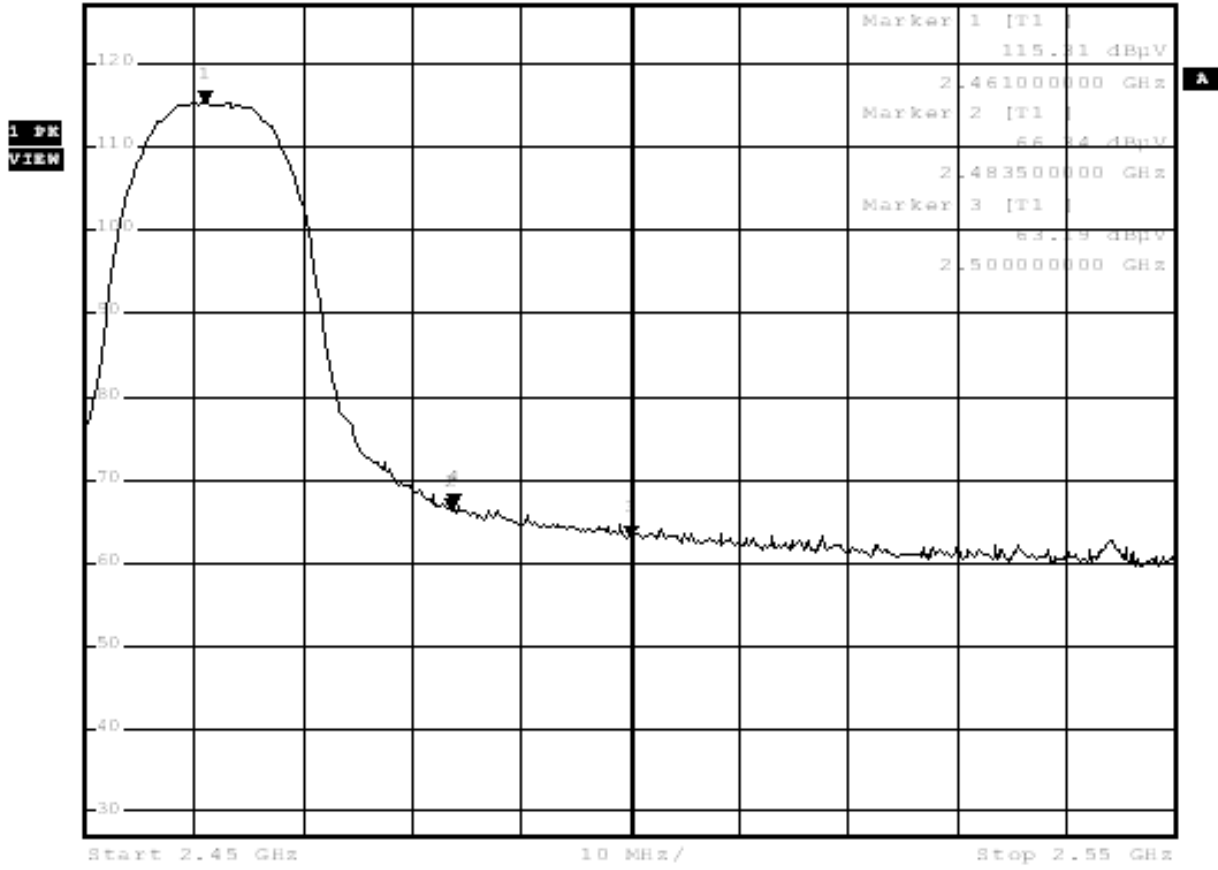
The band edge emission plot on page 74 and page 75 are Peak and Average. The plot for peak is appear (48.57)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (51.9)dB delta between carry power and maximum emission in restrict band (2483.5)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2483.8)MHz is (102.40) dBuV/m - (48.57) dB = (53.83) dBuV/m which is under 74dBuV/m.

Average field strength of (2483.5) MHz is (95.23) dBuV/m – (51.9) dB = (43.33) dBuV/m which is under 54dBuV/m



*RBW 1 MHz Marker 4 [T1]
 *VBW 1 MHz 66.74 dBpV
 Ref 127 dBpV *Att 30 dB *SWT 500 ms 2.483800000 GHz



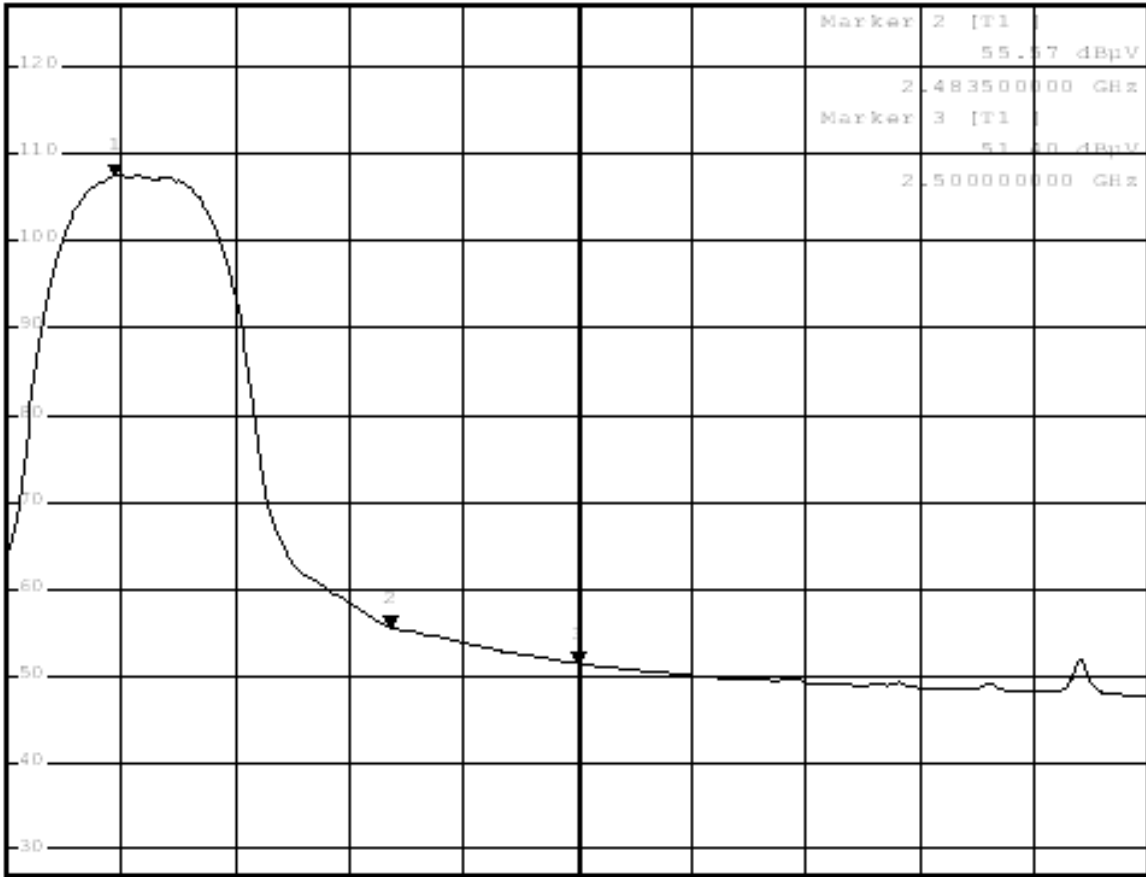
Date: 1.DEC.2004 08:29:49



* RBW 1 MHz Marker 1 [T1]
* VBW 10 Hz 107.47 dBpV
* Att 30 dB * SWT 25 s 2.459400000 GHz

Ref 127 dBpV

1 PK
VIEW



Center 2.5 GHz

10 MHz/

Span 100 MHz

Date: 1.DEC.2004 08:33:38

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2462.87	61.60	35.95	97.55

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2465.37	52.63	35.96	88.59

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 80 and page 81 are Peak and Average. The plot for peak is appear (47.18)dB delta between carry power and maximum emission in restrict band 2484.8 MHz. The plot for average is appear (48.03)dB delta between carry power and maximum emission in restrict band (2484.6)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2484.8)MHz is (97.55) dBuV/m - (47.18) dB = (50.37) dBuV/m which is under 74dBuV/m.

Average field strength of (2484.6) MHz is (88.59) dBuV/m – (48.03) dB = (40.56) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Vertical	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2456.00	77.09	30.44	107.53

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2460.87	67.46	30.43	97.89

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 80 and page 81 are Peak and Average. The plot for peak is appear (47.18)dB delta between carry power and maximum emission in restrict band 2484.8 MHz. The plot for average is appear (48.03)dB delta between carry power and maximum emission in restrict band (2484.6)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2484.8)MHz is (107.53) dBuV/m - (47.18) dB = (60.35) dBuV/m which is under 74dBuV/m.

Average field strength of (2484.6) MHz is (97.89) dBuV/m – (48.03) dB = (49.86) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 4 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Horizontal	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2465.12	65.91	35.96	101.87

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2455.87	56.48	35.91	92.39

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10Hz
4. Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

The band edge emission plot on page 80 and page 81 are Peak and Average. The plot for peak is appear (47.18)dB delta between carry power and maximum emission in restrict band 2484.8 MHz. The plot for average is appear (48.03)dB delta between carry power and maximum emission in restrict band (2484.6)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2484.8)MHz is (101.87) dBuV/m - (47.18) dB = (54.69) dBuV/m which is under 74dBuV/m.

Average field strength of (2484.6) MHz is (92.39) dBuV/m – (48.03) dB = (44.36) dBuV/m which is under 54dBuV/m

Date of Test	December 01, 2004	Temperature	24 deg/C
EUT	Wireless LAN PCI adapter	Humidity	63 %RH
Working Cond.	Mode 4 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at Vertical	Test Band	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2465.12	69.31	30.43	99.74

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2455.87	58.21	30.44	88.65

Remark:

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
- Emission Level= Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

TEST Result

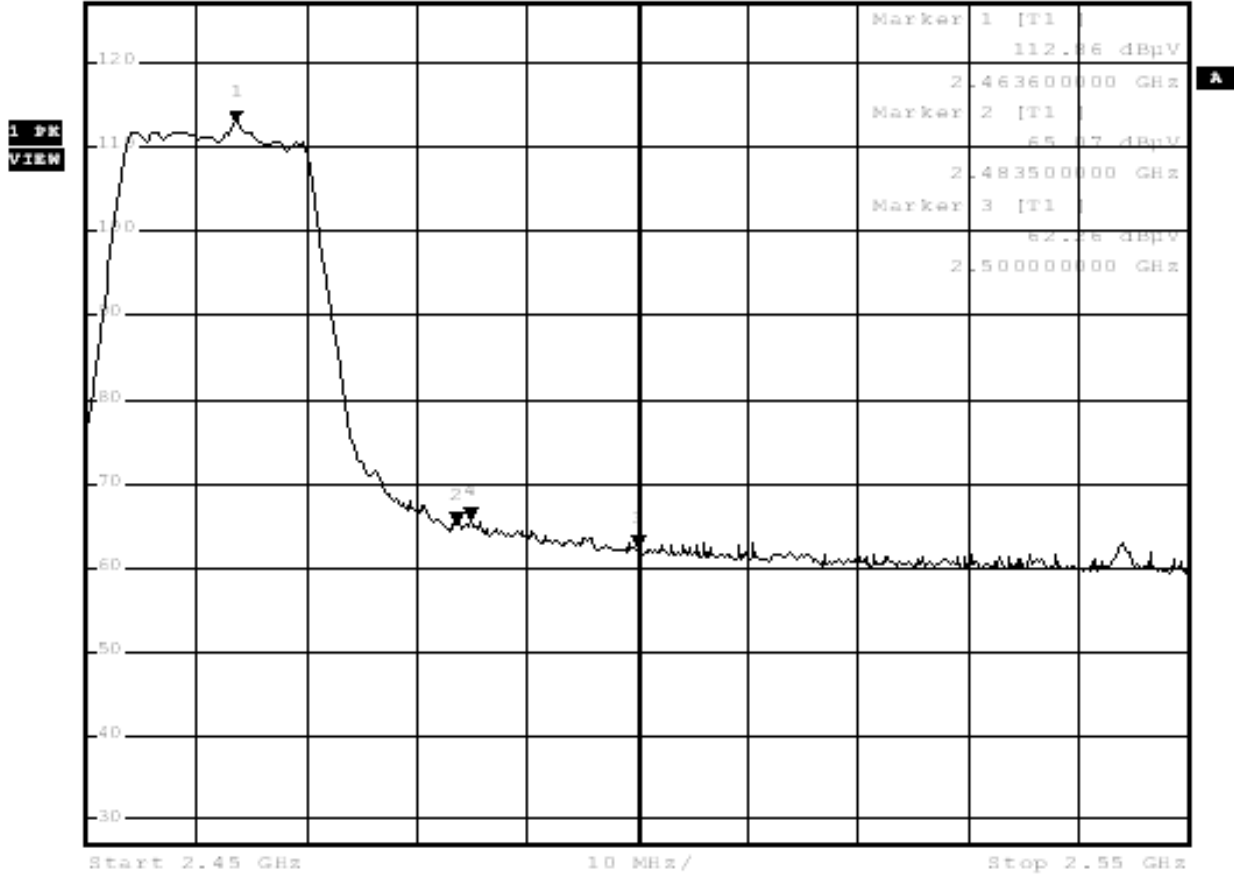
The band edge emission plot on page 80 and page 81 are Peak and Average. The plot for peak is appear (47.18)dB delta between carry power and maximum emission in restrict band 2484.8 MHz. The plot for average is appear (48.03)dB delta between carry power and maximum emission in restrict band (2484.6)MHz. The above tables are list of fundamental emission test result.

Therefore, peak field strength of (2484.8)MHz is (99.74) dBuV/m - (47.18) dB = (52.56) dBuV/m which is under 74dBuV/m.

Average field strength of (2484.6) MHz is (88.65) dBuV/m – (48.03) dB = (40.62) dBuV/m which is under 54dBuV/m



Ref 127 dBpV *Att 30 dB *RBW 1 MHz Marker 4 [T1] 2.484800000 GHz
*VBW 1 MHz 65.68 dBpV
*SWT 500 ms



Date: 1.DEC.2004 08:42:52

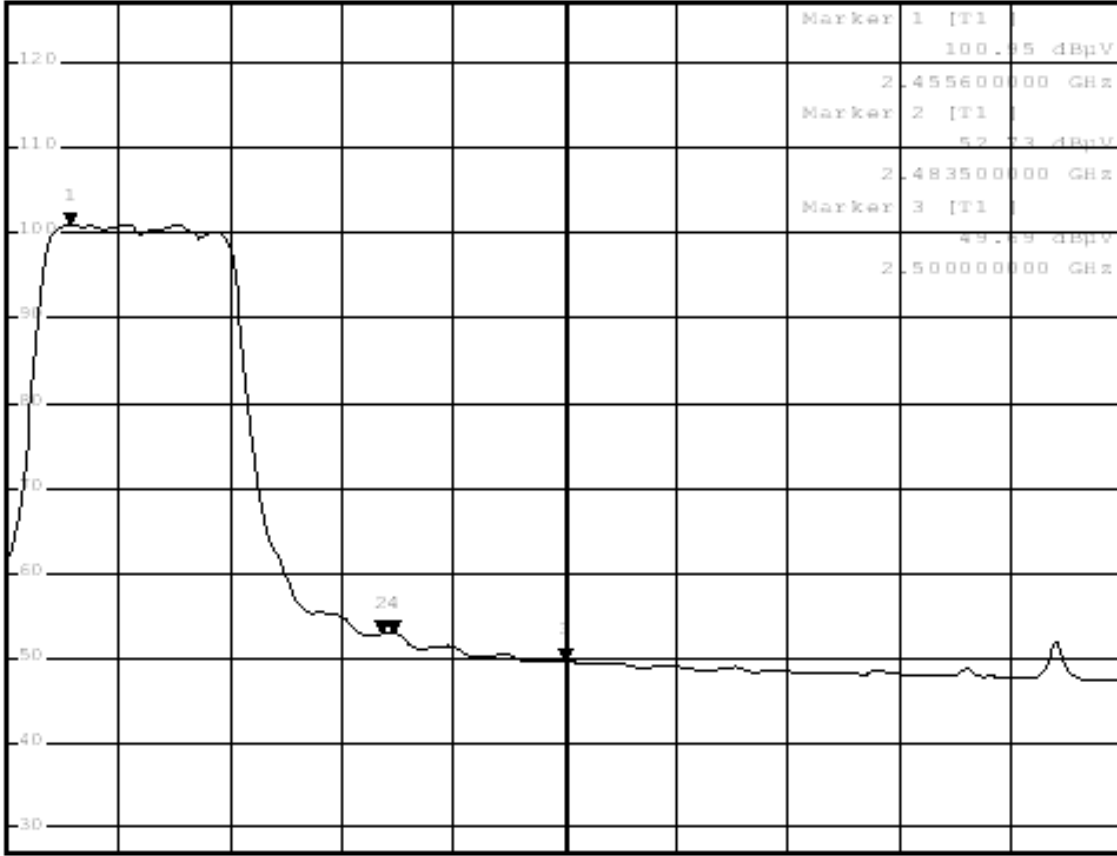


*RBW 1 MHz Marker 4 [T1]
*VBW 10 Hz 52.92 dBpV
*SWT 25 a 2.484600000 GHz

Ref 127 dBpV

*Att 30 dB

1 PK
VIEW



Center 2.5 GHz

10 MHz/

Span 100 MHz

Date: 1.DEC.2004 08:46:16

7. OCCUPIED BANDWIDTH

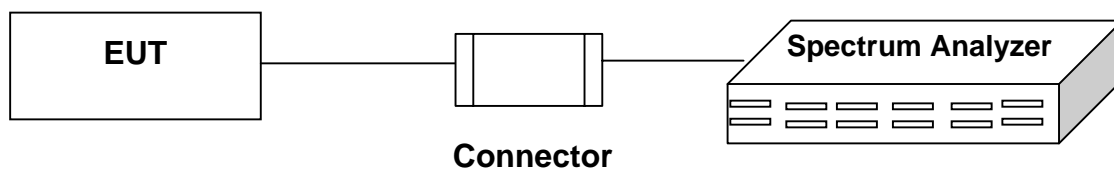
7.1 TEST EQUIPMENT

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

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	03/16/04
2	Spectrum Analyzer	HP	E4407B	39240339	07/28/04

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

7.2 BLOCK DIAGRAM OF TEST SETUP



7.3 LIMIT

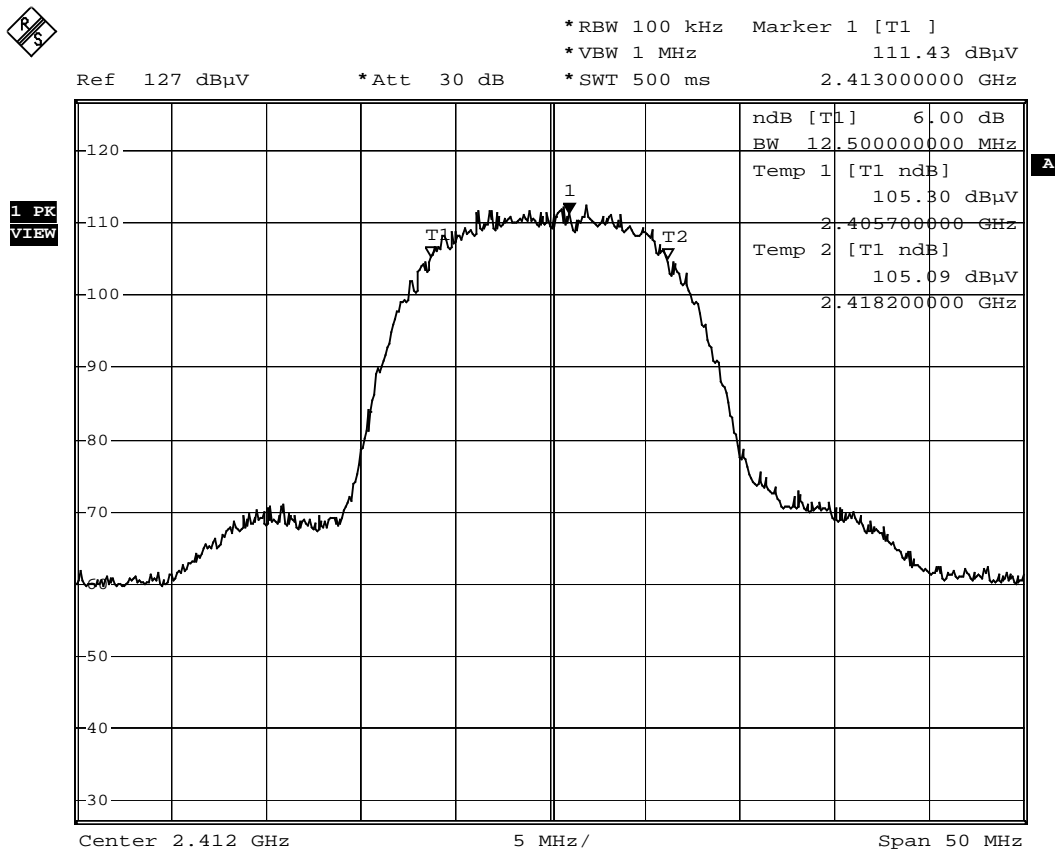
WLAN: The minimum 6dB bandwidth shall be at least 500KHz.

7.4 TEST RESULT

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Working Cond.	802.11b	Data Rate	11Mbps

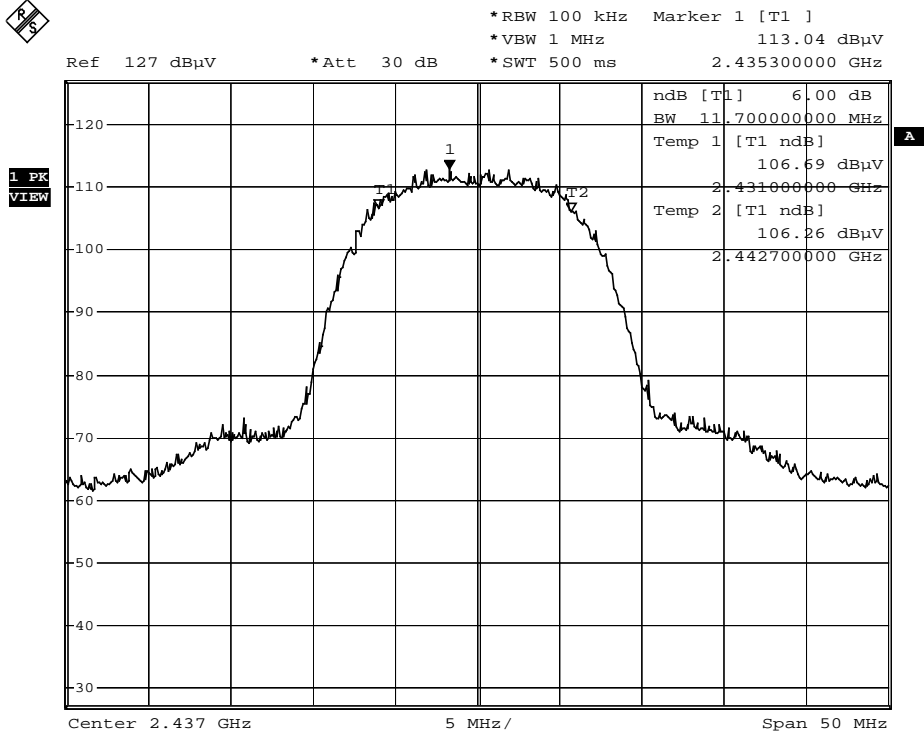
Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	12.5	>500	Pass
6	2437	11.7	>500	Pass
11	2462	12.0	>500	Pass

Figure Channel 1:



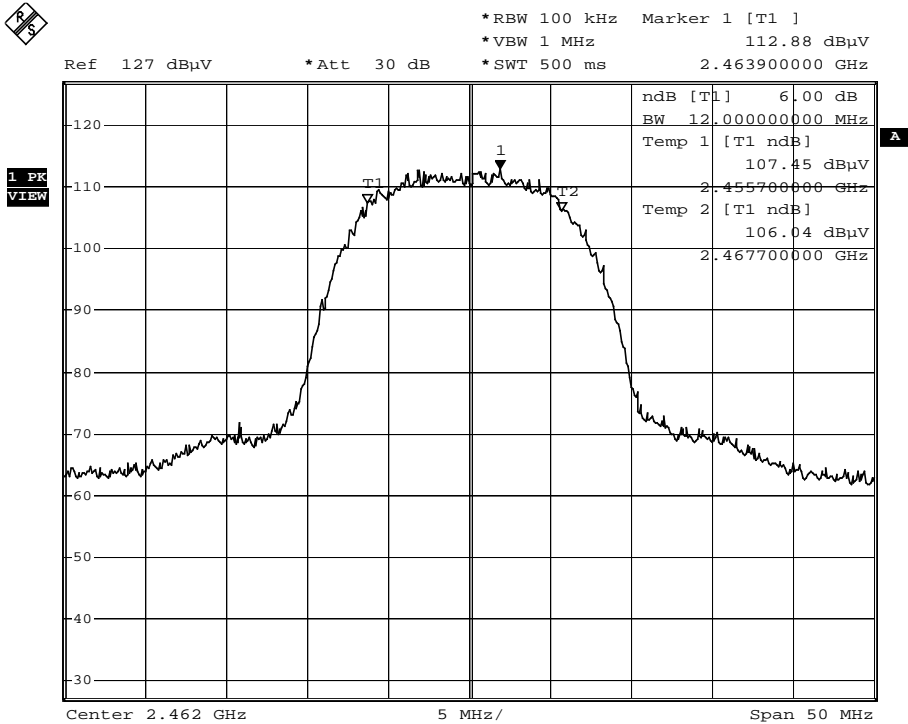
Date: 29.NOV.2004 12:09:22

Figure Channel 6:



Date: 29.NOV.2004 12:11:05

Figure Channel 11:

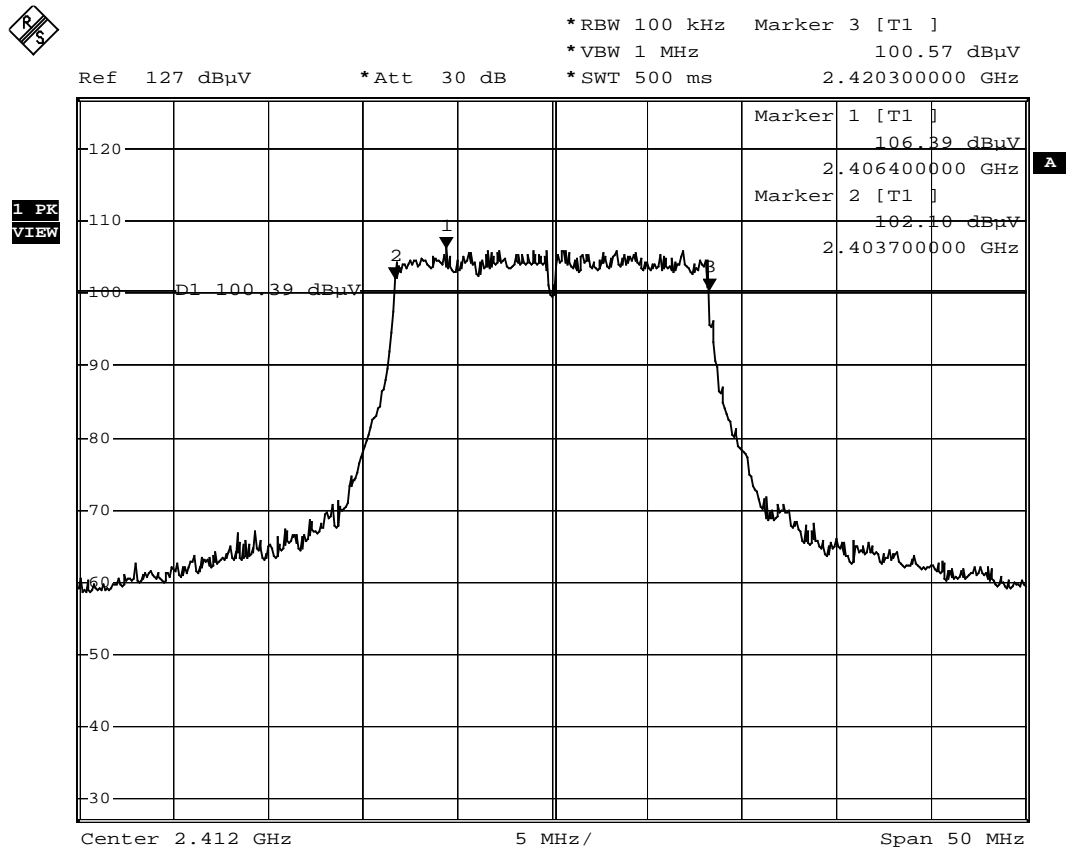


Date: 29.NOV.2004 12:12:23

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Working Cond.	802.11g	Data Rate	54ps

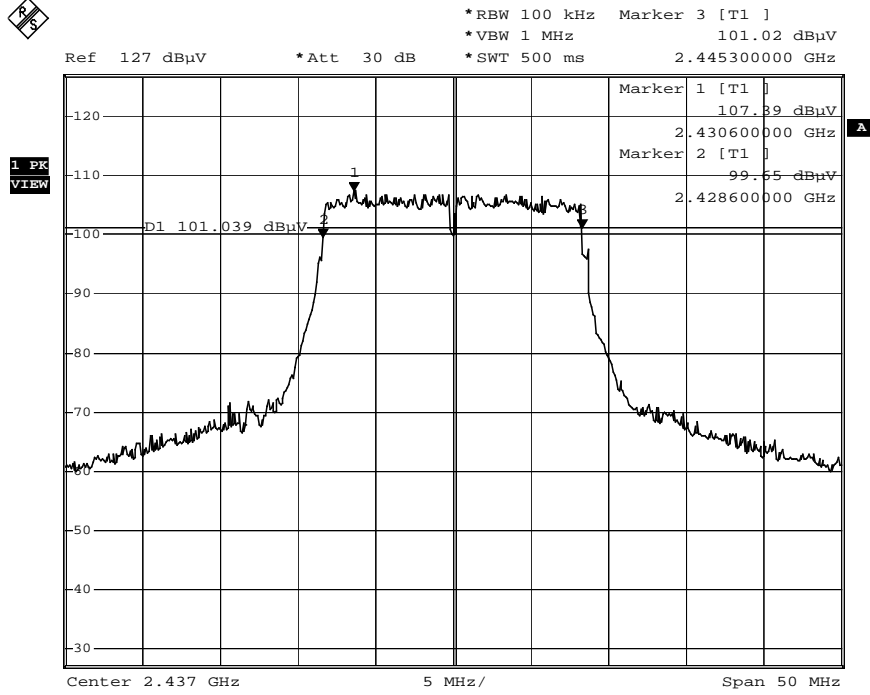
Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	16.6	>500	Pass
6	2437	16.7	>500	Pass
11	2462	16.7	>500	Pass

Figure Channel 1:



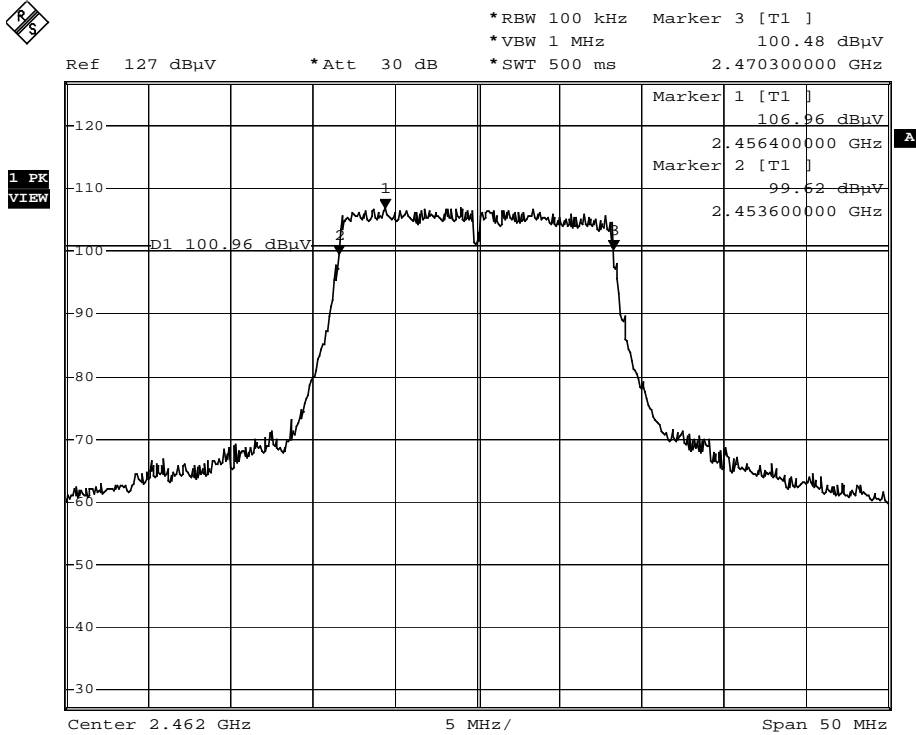
Date: 29.NOV.2004 12:15:59

Figure Channel 6:



Date: 29.NOV.2004 12:18:38

Figure Channel 11:



Date: 29.NOV.2004 12:21:04

8. POWER DENSITY

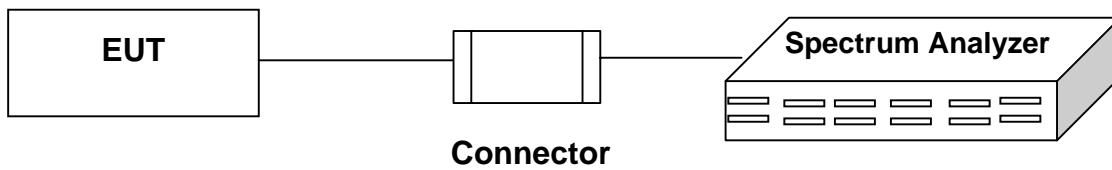
8.1 TEST EQUIPMENT

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

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	03/16/04
2	Spectrum Analyzer	HP	E4407B	39240339	07/28/04

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

8.2 BLOCK DIAGRAM OF TEST SETUP



8.3 LIMIT

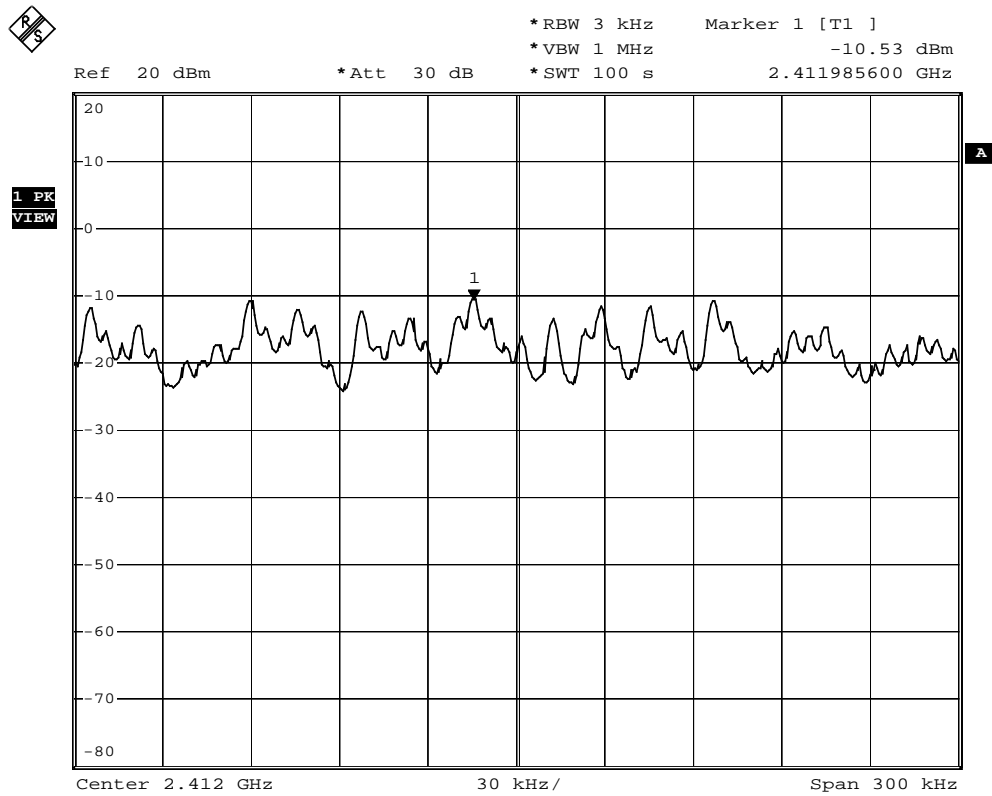
The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3KHz bandwidth.

8.4 TEST RESULT

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Working Cond.	802.11b	Data Rate	11Mbps

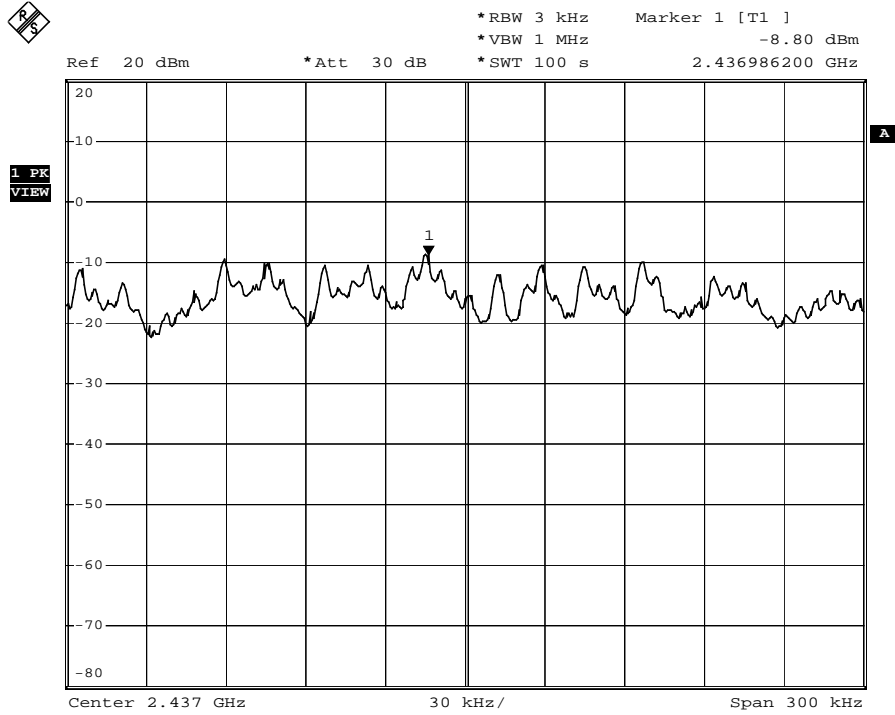
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2412	-10.53	8dBm	Pass
6	2437	-8.80	8dBm	Pass
11	2462	-9.52	8dBm	Pass

Figure Channel 1:



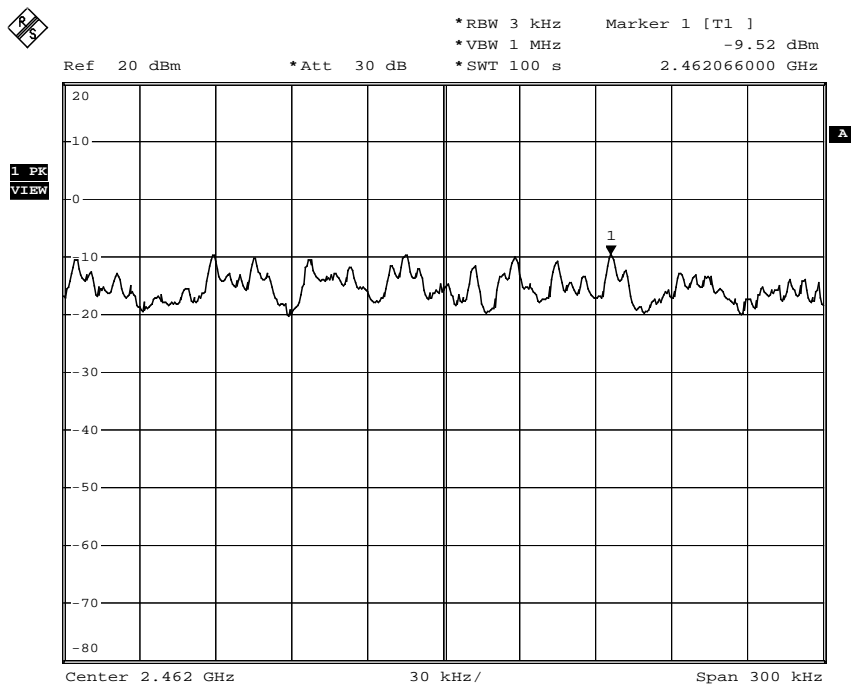
Date: 29.NOV.2004 12:31:43

Figure Channel 6:



Date: 29.NOV.2004 12:43:08

Figure Channel 11:

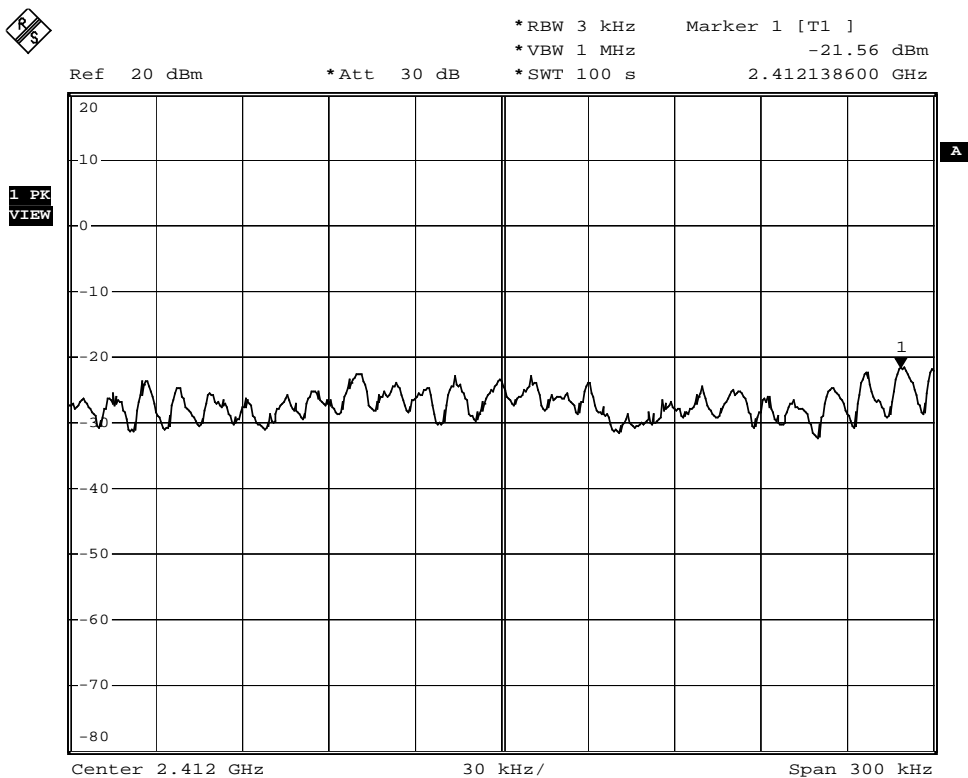


Date: 29.NOV.2004 12:50:30

Date of Test	November 29, 2004	Temperature	23.9 deg/C
EUT	Wireless LAN PCI adapter	Humidity	55 %RH
Working Cond.	802.11g	Data Rate	54Mbps

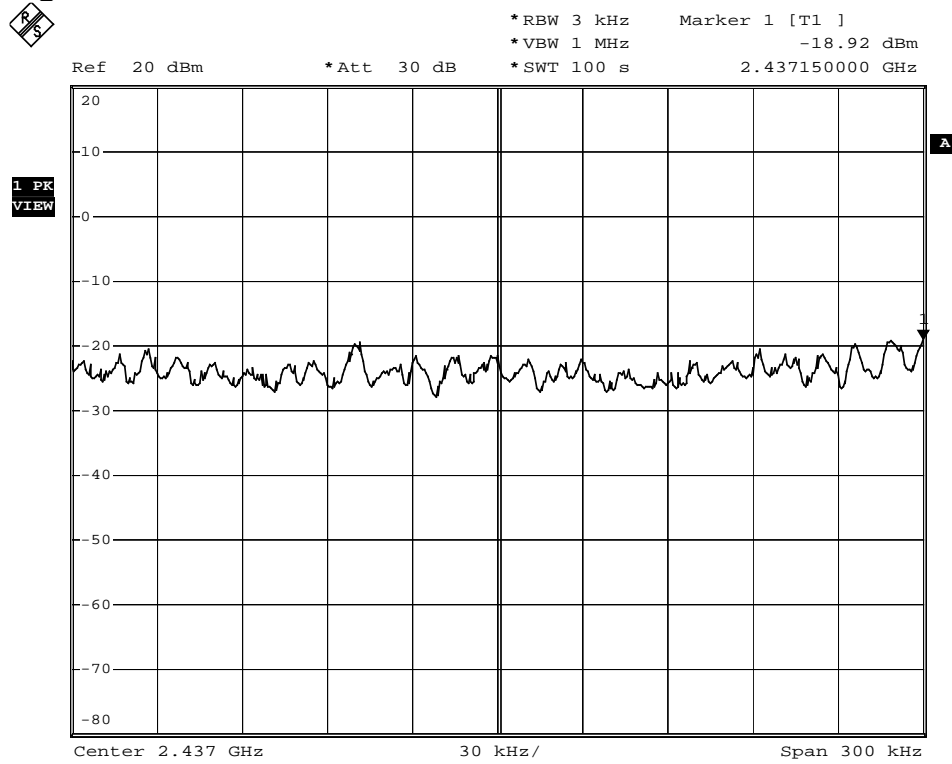
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2412	-21.56	8dBm	Pass
6	2437	-18.92	8dBm	Pass
11	2462	-19.03	8dBm	Pass

Figure Channel 1:



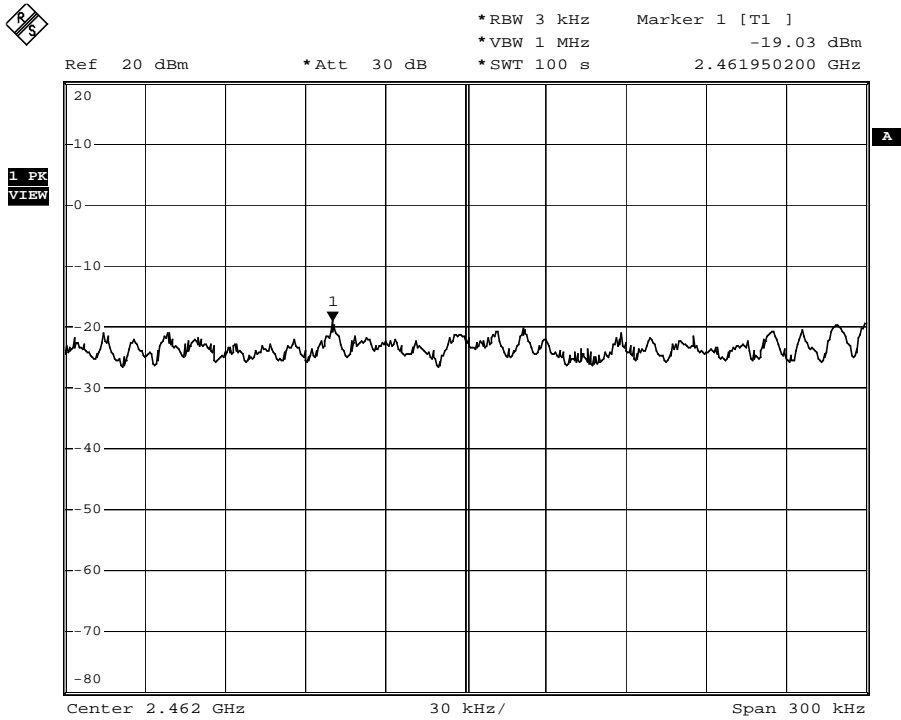
Date: 29.NOV.2004 12:56:54

Figure Channel 6:



Date: 29.NOV.2004 13:11:18

Figure Channel 11:



Date: 29.NOV.2004 13:17:25

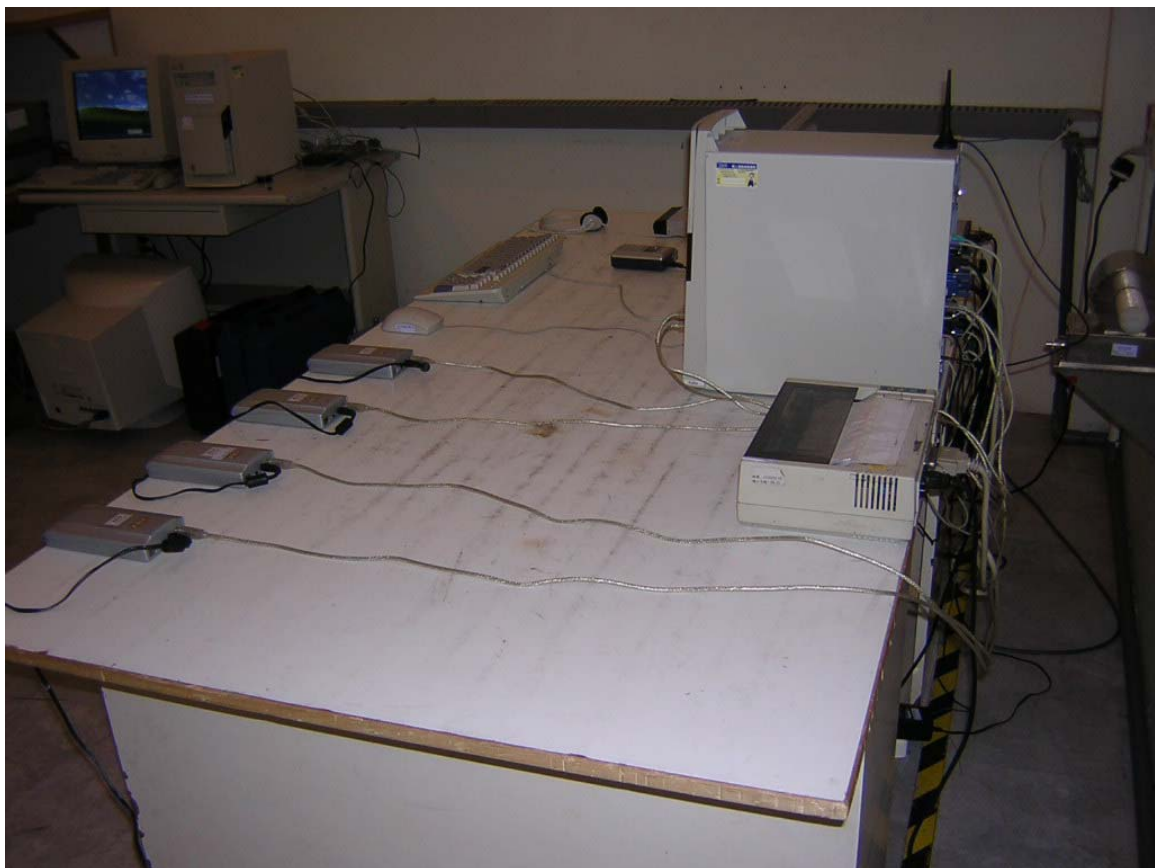
9. PHOTOGRAPHS FOR TEST

9.1 TEST PHOTOGRAPHS FOR CONDUCTION

ANT 5dBi



ANT 2.5dBi



9.2 TEST PHOTOGRAPHS FOR RADIATION

ANT 5dBi-30-1000MHz



ANT 2.5dBi-30-1000MHz



ANT 5dBi-Above 1GHz

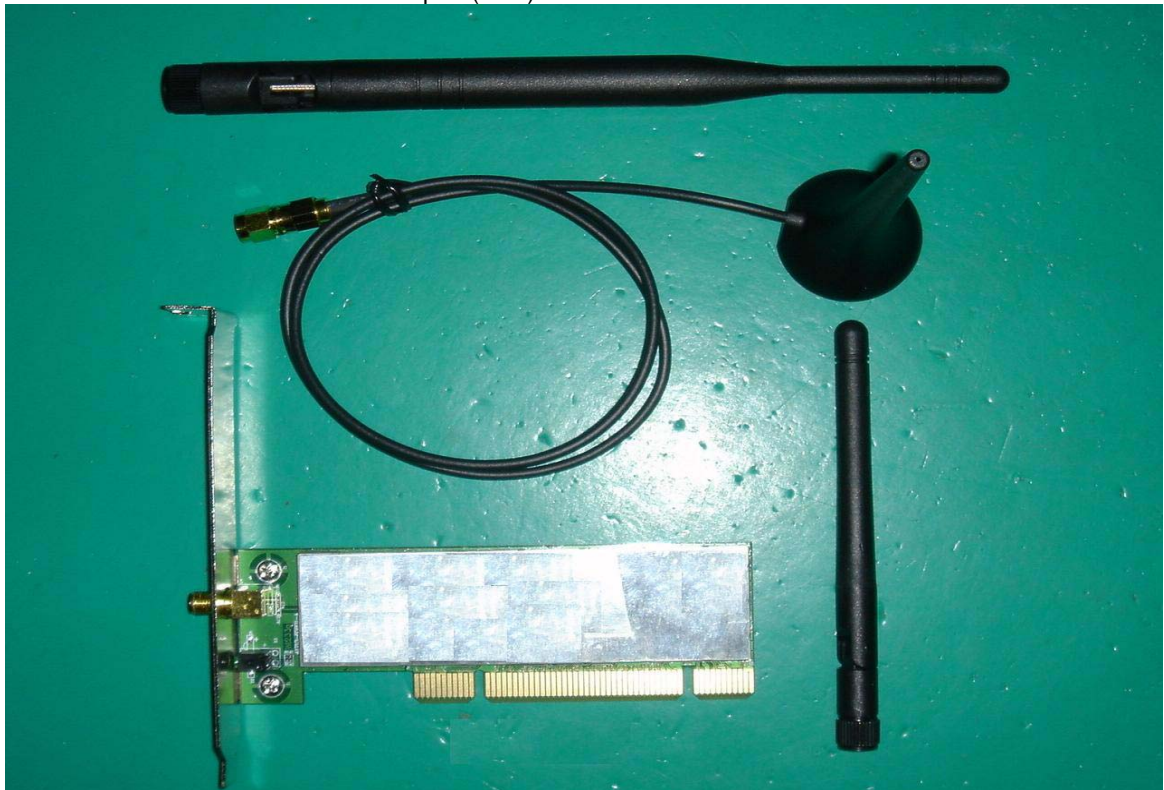


ANT 2.5dBi-Above 1GHz



10. PHOTOGRAPHS FOR PRODUCT

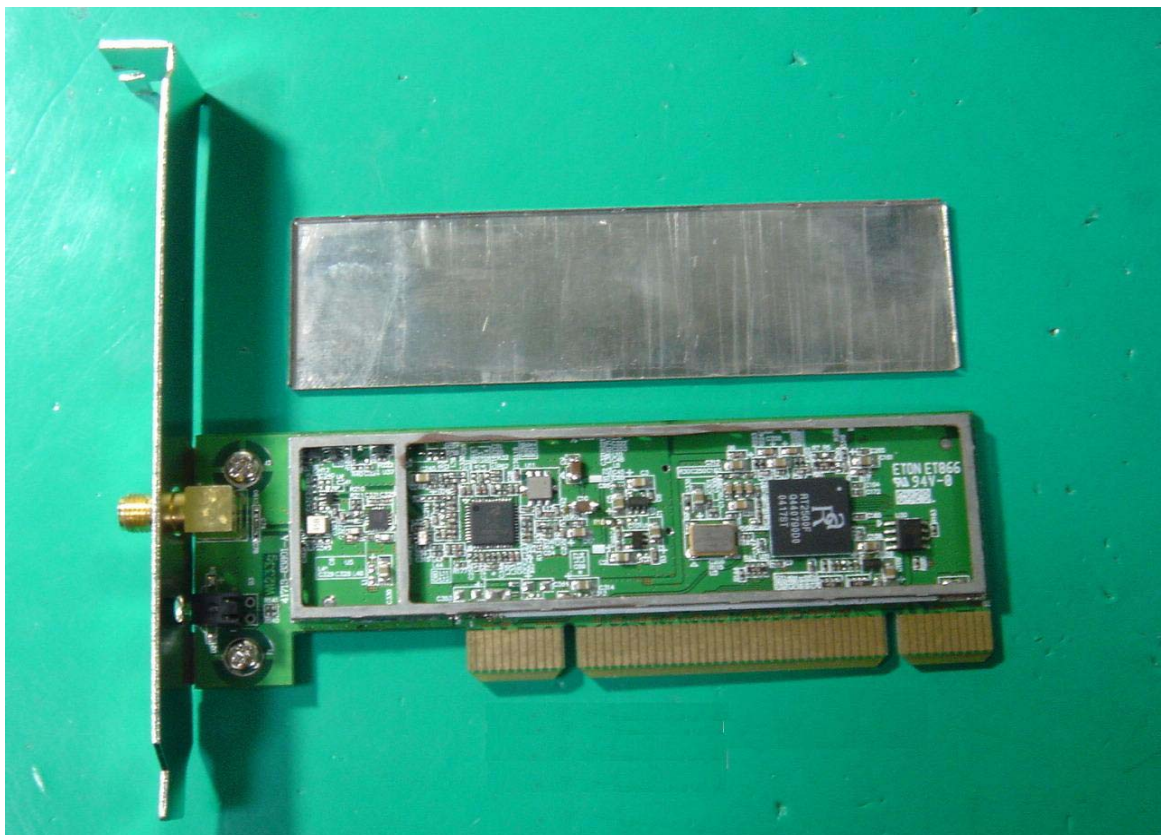
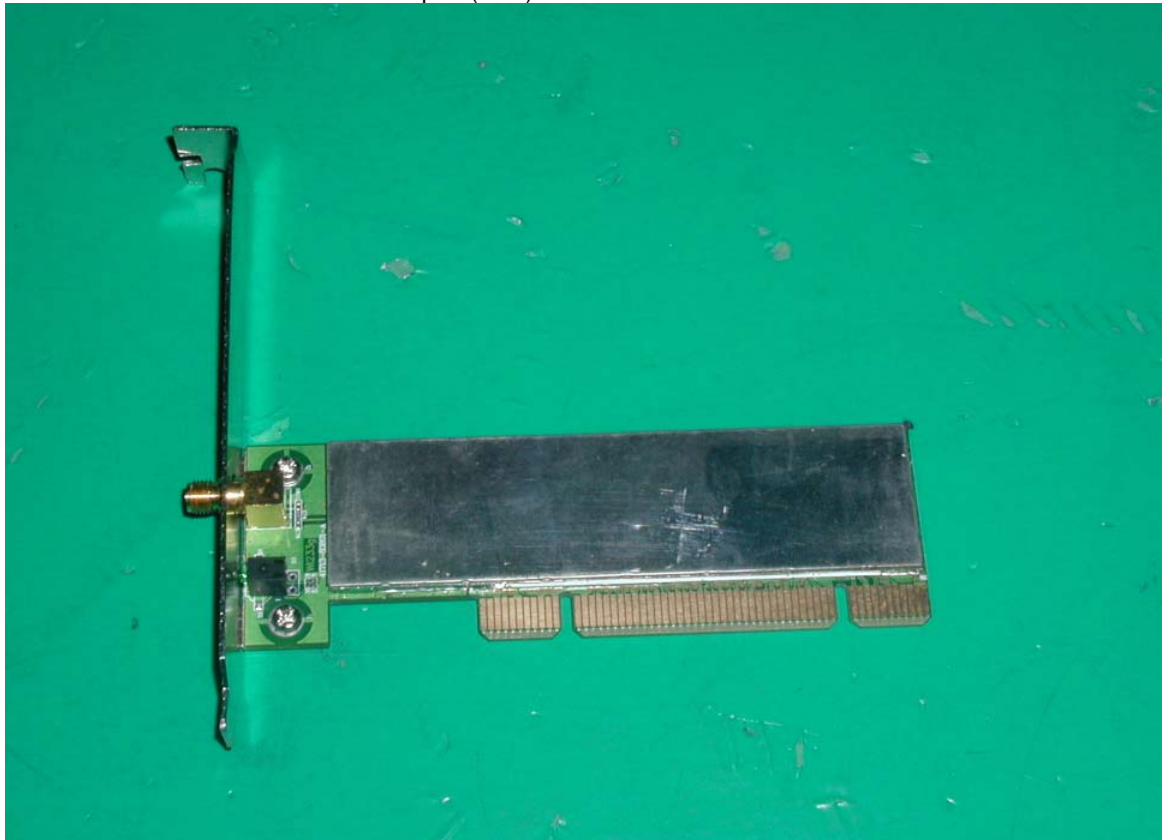
1. Front View Of Wireless LAN PCI adapter (EUT)
2. Front View Of Wireless LAN PCI adapter (EUT)



3. LABEL HERE

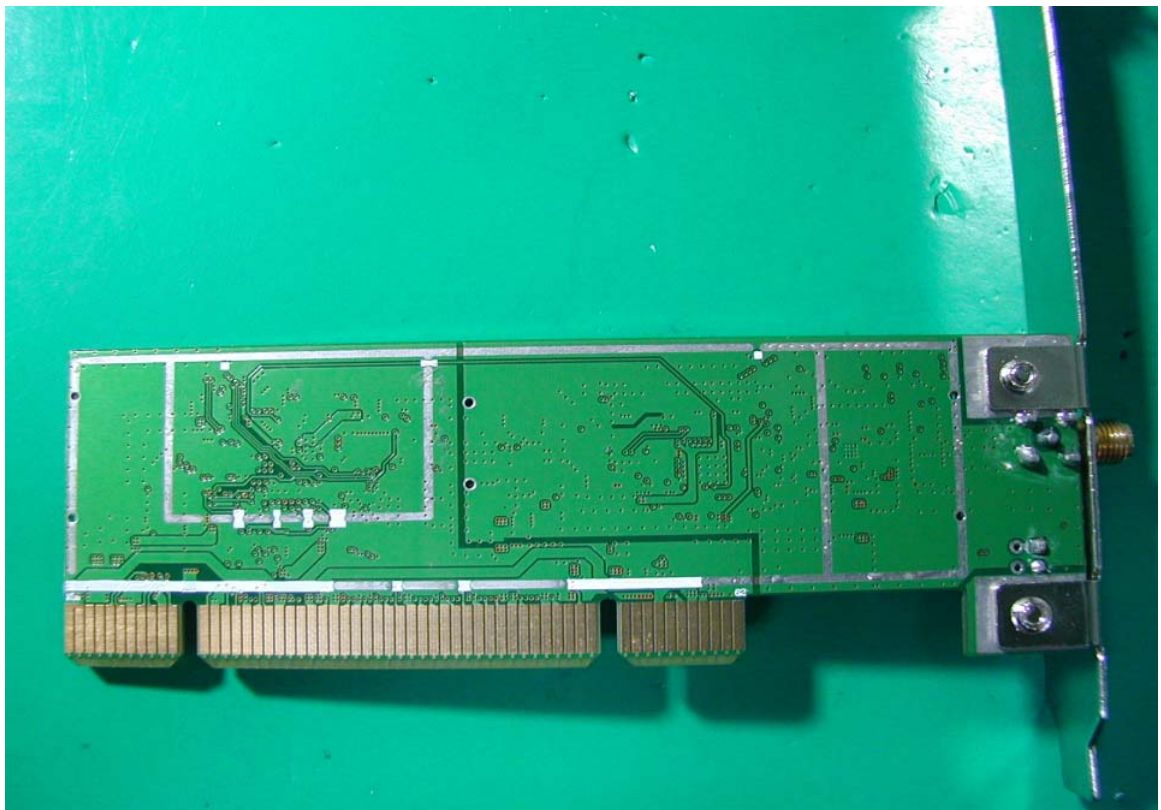
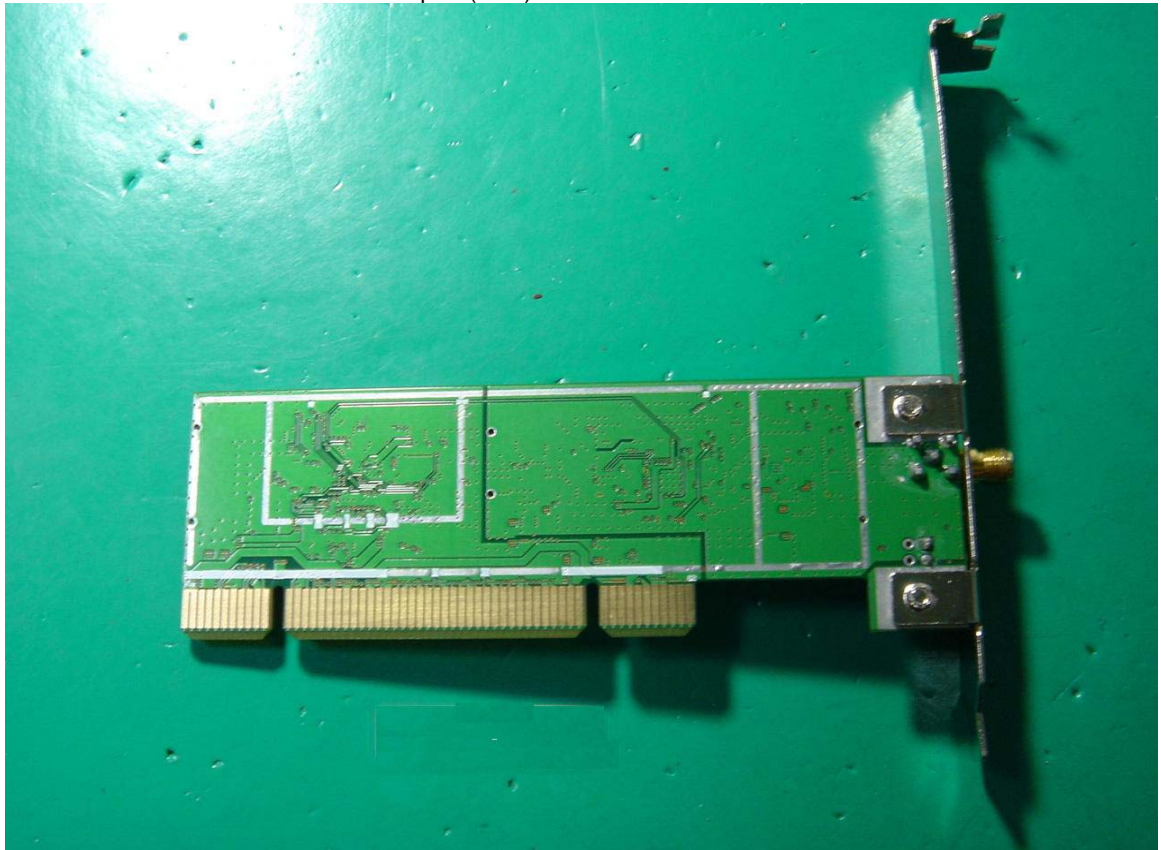


- 4. Front side of Wireless LAN PCI adapter (EUT)
- 5. Inner View Of Wireless LAN PCI adapter (EUT)

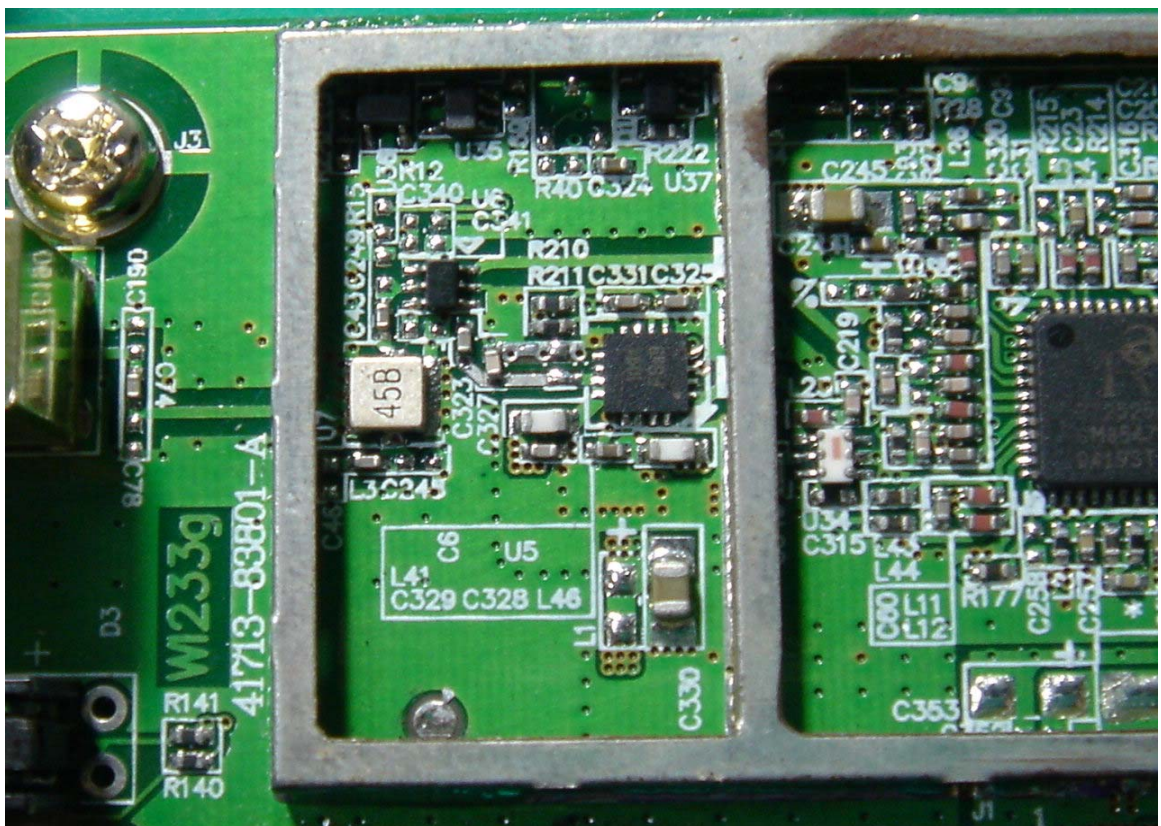


6. Rear side of Wireless LAN PCI adapter (EUT)

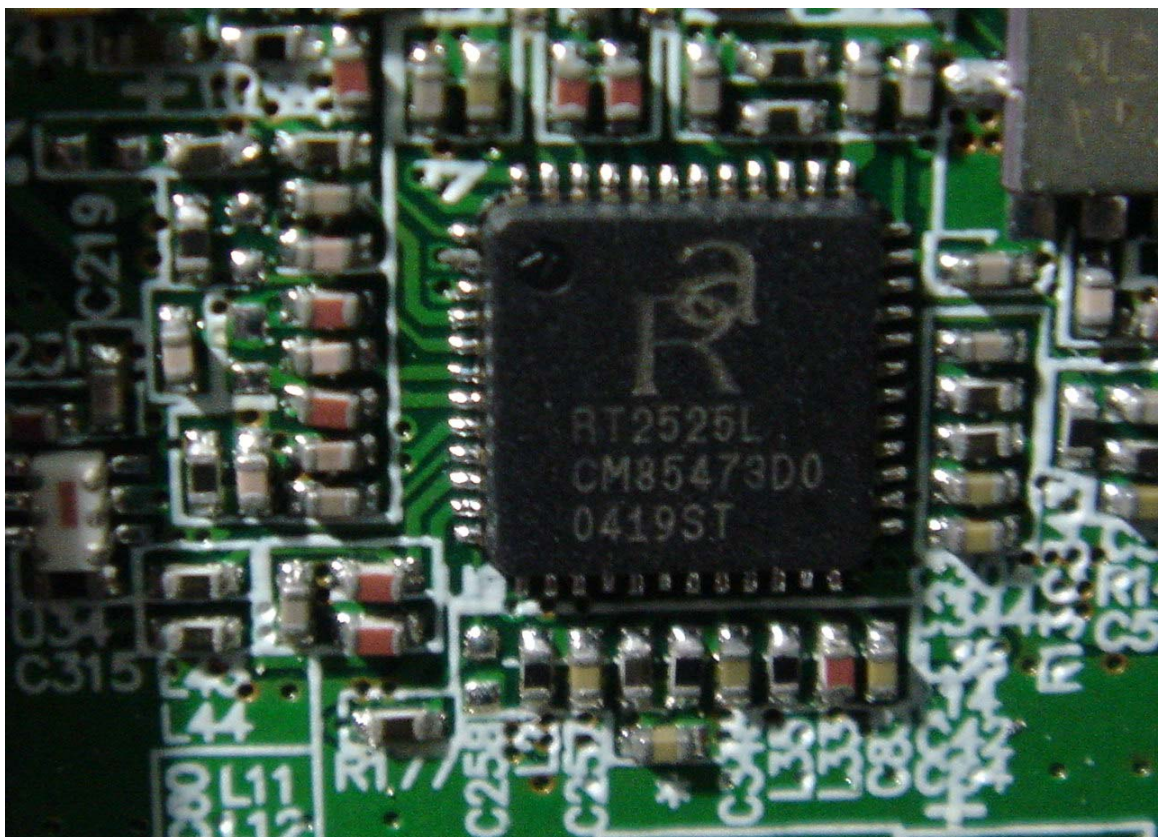
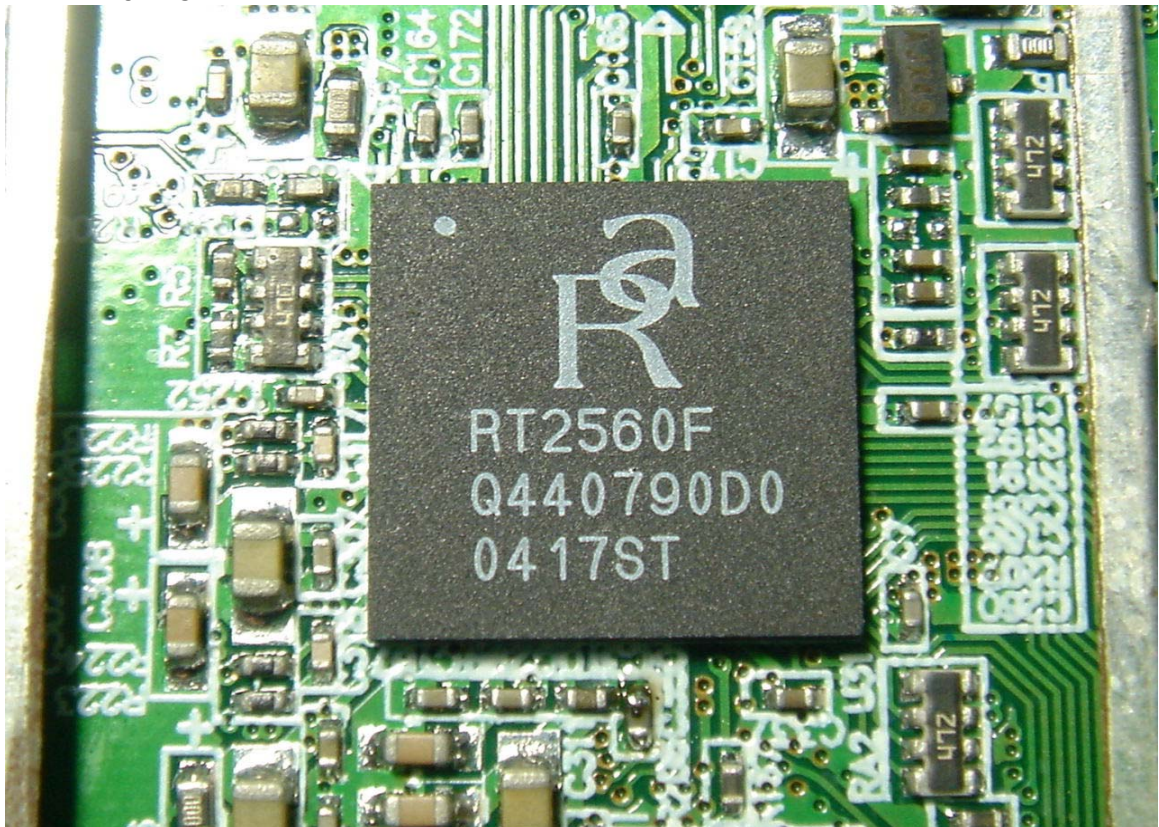
7. Back View Of Wireless LAN PCI adapter (EUT)



- 8. MAIN CHIPSET-1
- 9. MAIN CHIPSET-2

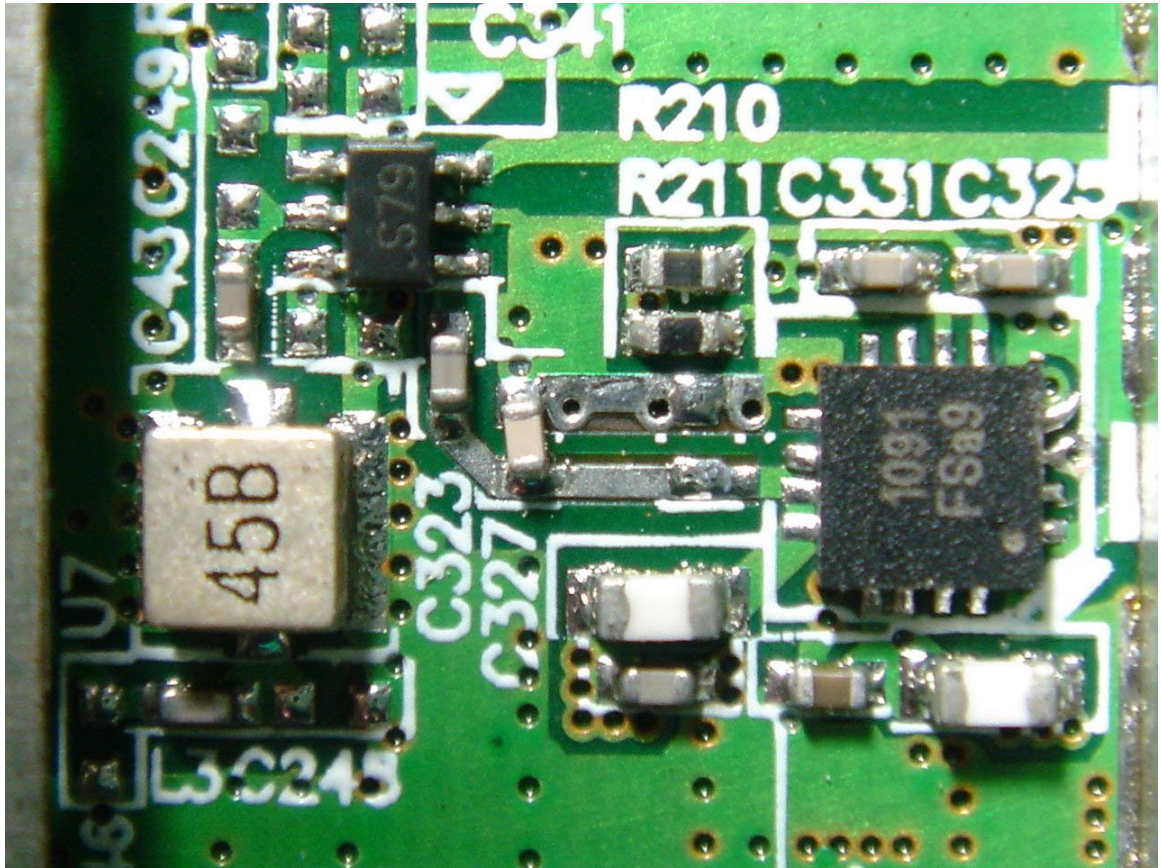


- 10. MAIN CHIPSET-3
- 11. MAIN CHIPSET-4



12. MAIN CHIPSET-5

13. Conntector



11. EMI REDUCTION METHOD DURING COMPLIANCE TESTING

No modification was made during testing.

Appendix A

Circuit (Block) Diagram

(Shall be added by Applicant)

Appendix B

User Manual

(Shall be added by Applicant)