

# Certificate of Test

November 2004

## Actiontec Electronics (Taiwan), Inc.

Product Type : 802.11g WLAN USB Adapter  
Model Number : 802UIG-1  
Test Report Number : GTK-0410003  
Date of Test : November 01, 2004- November 03, 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>



Sharon Chang, President

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Date: November 05, 2004



1082  
ILAC MRA





**Test Report  
Application for  
Declaration of Conformity  
On Behalf Of**

**Actiontec Electronics (Taiwan), Inc.**

**EUT:**

**802.11g WLAN USB Adapter**

**Model Number:**

**802UIG-1**

**FCC ID:**

**QP7802UIG1**

**Prepared for:**

**Actiontec Electronics (Taiwan), Inc.**

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**Report By :Global EMC Standard Tech. Corp.**

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# 1. CERTIFICATION

**Applicant : Actiontec Electronics (Taiwan), Inc.**  
 EUT Description : 802.11g WLAN USB Adapter  
 Model Number : 802UIG-1  
 Serial Number : N/A  
 Brand Name : Actiontec  
 FCC ID : QP7802UIG1  
 Tested Power Supply : 120V/60Hz  
 Manufacturer : PRIME ELECTRONICS & SATELLITICS INC.

**MEASUREMENT PROCEDURES USED:**

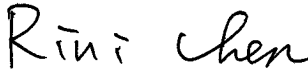
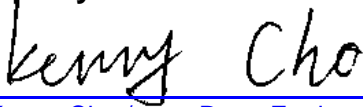
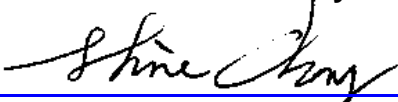
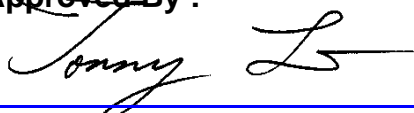
- CFR 47, Part 15** Radio Frequency Device Subpart C Paragraph 15.247 Intentional Radiators :2003
- ANSI C63.4** Methods of Measurements of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the range of 9kHz To 40GHz. 2001

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 01, 2004**  
 Final Test Date : **November 03, 2004**

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

<p><b>Documented By :</b>                    _____                  Rini Chen / adm. Dept. Supervisor</p>	<p><b>Test By :</b>                    _____                  Kenny Cho / eng. Dept. Engineer</p>
<p><b>Technical Reviewed By :</b>                    _____                  Shine Chang / eng. Dept. Supervisor</p>	<p><b>Approved By :</b>                    _____                  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** : 802.11g WLAN USB Adapter  
**Model Number** : 802UIG-1  
**Serial Number** : N/A  
**FCC ID** : QP7802UIG1  
**Modulation Type** : DBPSK, DQPSK, OFDM, CCK  
**Antenna Gain** : 1dBi  
**Antenna Type** : Soldered on PCB  
**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 5V  
**USB Cable** : 1.0m, Shielded, with core x 1

#### 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 a 2.4GHz 802.11g WLAN USB Adapter included 802.11b and 802.11g 2.4GH transceiver function.
2. Test of channel was included the lowest, middle and highest frequency in highest data rate and to perform the test, then record on this report.
3. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.
4. The device is a transceiver equipment to accordance with Part 15 regulations. The function receiving was under Declaration of Conformity and record of measurement in test report that the report number is 0410003 FCC DOC.

**2.2 OPERATIONAL DESCRIPTION**

The Transmitter of EUT is a 802.11g WLAN USB Adapter and powered by host equipment. This device have one antenna is Soldered on PCB. The other instruction, please look at user manual. This is Digital transmission System(DTS) and have four type of modulation DBPSK, DQPSK, OFDM, CCK. The data rate are 1,2,5.5,11,6,9,12,18,24,36,48.54 Mbps. The equipment enables high-speed access without wires to network assets. This adapter uses the IEEE 802.11b & 802.11g protocol to enable wireless communications between the host computer and other computers, in the same way that the computer would use an Ethernet adapter.

**2.3 TEST MODES & EUT COMPONENTS DESCRIPTION**

<b>EUT: 802.11g WLAN USB Adapter, M/N: 802UIG-1</b>		
<b>The EUT tested with Notebook PC.</b>		
<b>Test Mode</b>	<b>Mode 1</b>	<b>Mode 2</b>
	802.11b	802.11g
<b>USB Cable</b>	1.0m, Shielded, with core x 1	

## 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
<b>Modem</b>	<b>M03-012</b>	Manufacturer : ACEEX Model Number : 1414 Serial Number : 960018042 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
<b>D-Sub Monitor</b>	<b>M01-032</b>	Manufacturer : ADI Model Number : MICRO SCAN G1000 Serial Number : N/A BSMI ID : 3892A351 FCC ID : N/A Data Cable : Shielded, detachable, 1.5m, VGA Cable Power Cord : 3Pin, Shielded, Detachable, 1.5m
<b>Headset &amp; Earphone</b>	<b>E01-085</b>	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
<b>USB Mouse</b>	<b>M02-285</b>	Manufacturer : Logitech Model Number : M-U48A BSMI ID : 4882A177 FCC ID : JNZ211360 Data Cable : Shielded, Undetachable, 1.5m
<b>Digital Video Camera Recorder (Digital 8)</b>	<b>V01-003</b>	Manufacturer : SONY CORPORATION Model Number : DCR-TRV230 Serial Number : 380331 BSMI ID : N/A AC Power Adaptor : M/N:AC-L10A, S/N:36880927 Input:AC IN:100-240V 50/60Hz 23W Output:DC 8.4V/1.5A Battery Pack(Li-ion) : M/N:NP-FM30 Input :DC 7.2V/5.0Wh
<b>Printer</b>	<b>P01-016</b>	Manufacturer : Hewlett Packard Model Number : 2225C Serial Number : 2548S40426 BSMI ID : 3892A957 FCC ID : BS46XU2225C Data Cable : Shielded, Detachable, 1.2m, Parallel Cable Power Cord : Non-Shielded, Detachable, 1.8m

Device	No.	Configuration
NOTEBOOK	DELL NB 2	Model Number : Latitude D600 PPO5L BSMI ID : R33002 Serial Number : 11444680576 C.P.U : Intel Pentium M 1.4G HZ DDR : PC2100 256MB F.D.D : N/A H.D.D. : Manufacturer : HITACHI 20.G M/N: IC25N020ATMR04-0, S/N:MRG157K1GJP9JH BSMI ID:D33082 CD-ROM : Manufacturer :DELL M/N:6T980-A01 BATTERY : Manufacturer:DELL Li-ion MODULE M/N:6Y270 RATING:14.8V 220mAh AC ADAPTOR : Manufacturer :DELL M/N: PA-1650-05D S/N:CN-05U092-71615-41K-58C3 INPUT:AC 100-240 V~1.5A 50-60HZ Shielded, Undetachable, 2.5m



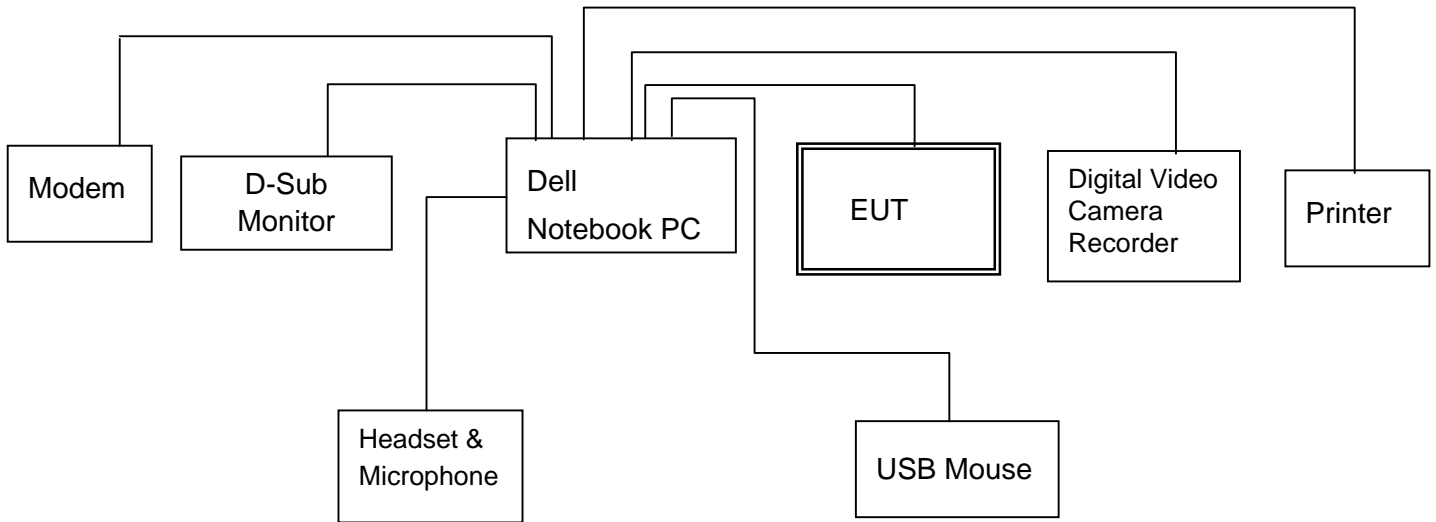
## 2.5 TEST FACILITY

Ambient conditions in the laboratory:

ITEMS	REIQIORED(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



## 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

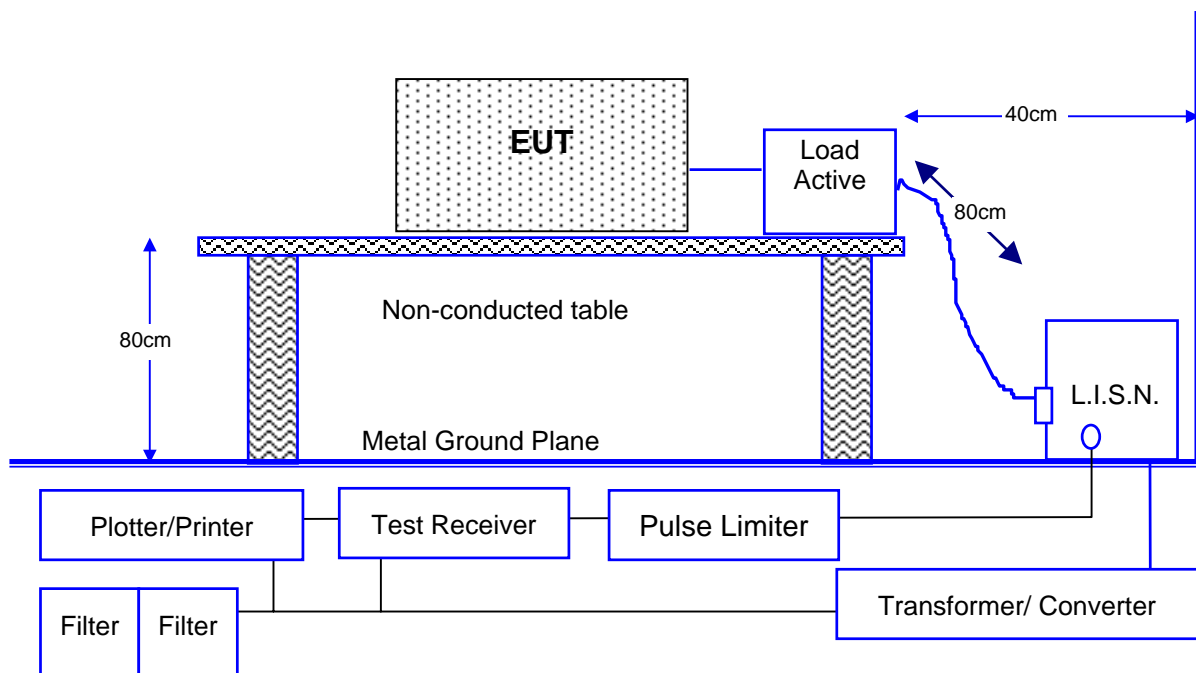
#### 3.1 TEST EQUIPMENTS

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

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	R & S	ESCS30	825022/003	06/26/04
2	L.I.S.N.	KYORISTU	KNW-407	8-1345-10	11/20/03
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	10/09/04
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( $\mu$ 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 2.7.

### 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 $\Omega$ .

### 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 02, 2004	Temperature	25
EUT	802.11g WLAN USB Adapter	Humidity	63 %
Test Mode	TX Mode	Display Pattern	H Pattern

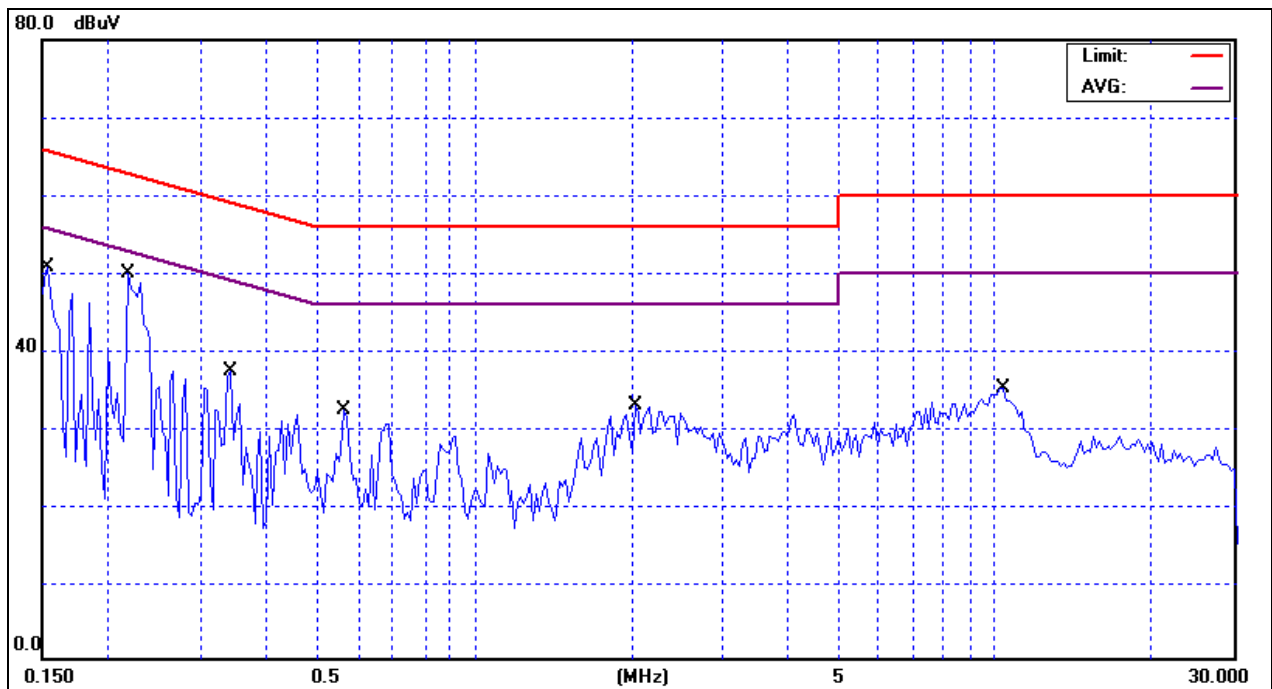
Line

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV	Limit dBμV	Over Limit dB	Detector
1	0.1531	34.47	10.29	44.76	65.83	-21.07	QP
2	0.1531	1.94	10.29	12.23	55.83	-43.6	AVG
3	0.2192	37.03	10.19	47.22	62.85	-15.63	QP
4	0.2192	12.47	10.19	22.66	52.85	-30.19	AVG
5	0.3392	24.98	10.13	35.11	59.22	-24.11	QP
6	0.3392	22	10.13	32.13	49.22	-17.09	AVG
7	0.5632	17.56	10.1	27.66	56	-28.34	QP
8	0.5632	4.07	10.1	14.17	46	-31.83	AVG
9	2.0333	18.07	10.1	28.17	56	-27.83	QP
10	2.0333	11.84	10.1	21.94	46	-24.06	AVG
11	10.3907	19.56	10.33	29.89	60	-30.11	QP
12	10.3907	13.97	10.33	24.3	50	-25.7	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 02, 2004	Temperature	25
EUT	802.11g WLAN USB Adapter	Humidity	63 %
Test Mode	TX Mode	Display Pattern	H Pattern

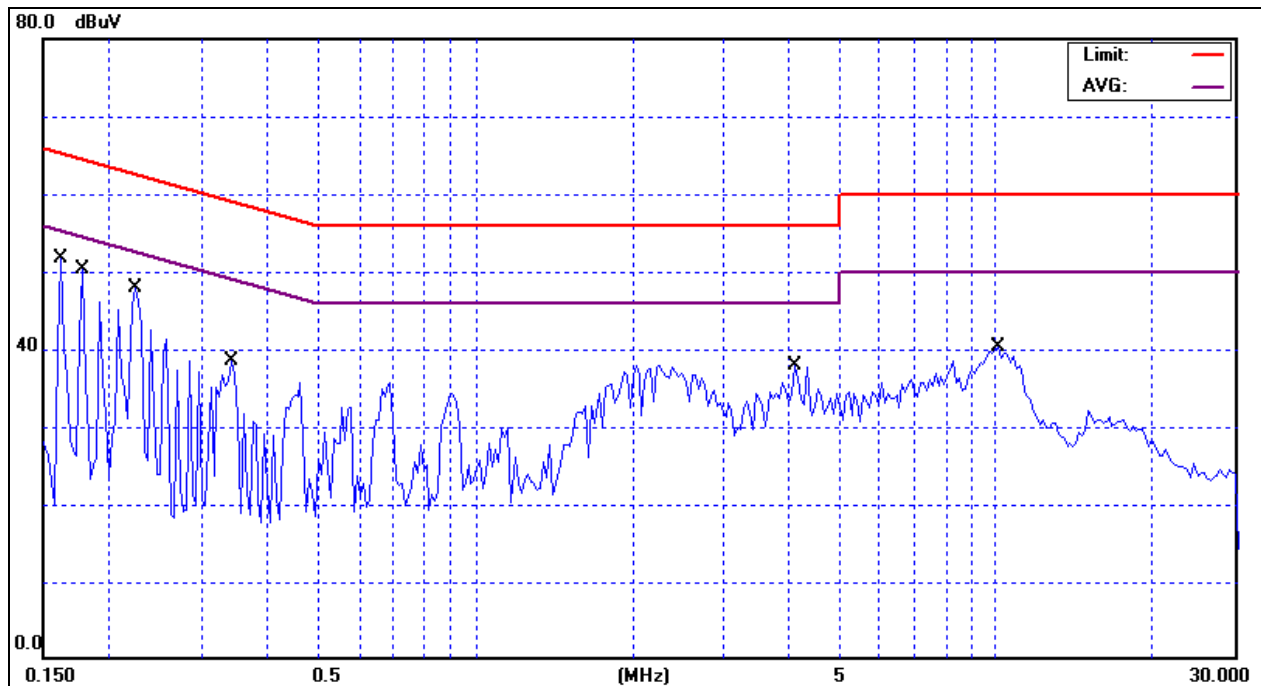
Neutral

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV	Limit dBμV	Over Limit dB	Detector
1	0.161	34.76	10.28	45.04	65.41	-20.37	QP
2	0.161	0.51	10.28	10.79	55.41	-44.62	AVG
3	0.1768	32.08	10.25	42.33	64.63	-22.3	QP
4	0.1768	8.09	10.25	18.34	54.63	-36.29	AVG
5	0.2238	35.39	10.19	45.58	62.68	-17.1	QP
6	0.2238	27.98	10.19	38.17	52.68	-14.51	AVG
7	0.3417	26.62	10.13	36.75	59.16	-22.41	QP
8	0.3417	22.32	10.13	32.45	49.16	-16.71	AVG
9	4.1178	20.94	10.1	31.04	56	-24.96	QP
10	4.1178	11.45	10.1	21.55	46	-24.45	AVG
11	10.1643	24.73	10.31	35.04	60	-24.96	QP
12	10.1643	18.35	10.31	28.66	50	-21.34	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

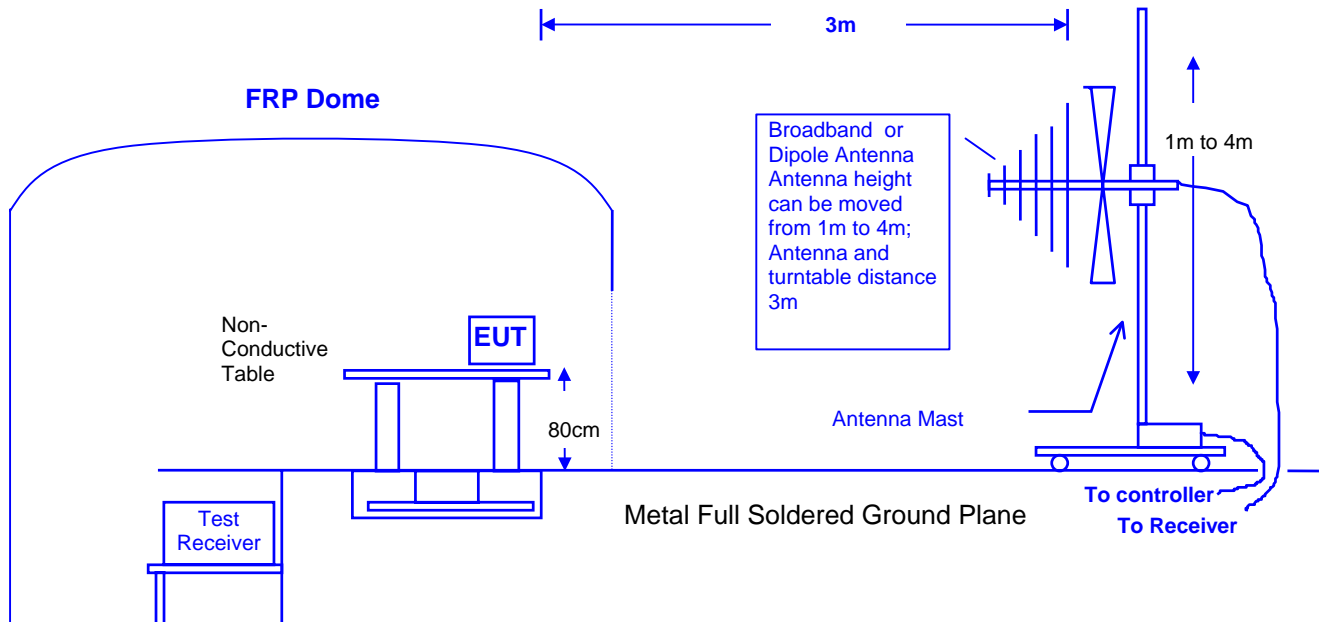
Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	R & S	ESCS30	825022/003	06/26/04
2	Spectrum Analyzer	R & S	FSP40	100061	03/16/04
3	Spectrum Analyzer	HP	E4407B	39240339	07/28/04
4	Power Meter	Rohde & Schwarz	NRVS	100666	04/29/04
5	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/29/04
6	Pre-Amplifier	HP	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	11/25/03
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 comprehensive 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	
		$\mu\text{V}/\text{M}$	$\text{dB}\mu\text{V}/\text{M}$
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 2.7.

### 4.6 RADIATED EMISSION DATA

The measurement range of radiated emissions from **30 MHz to 10 Harmonics** 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

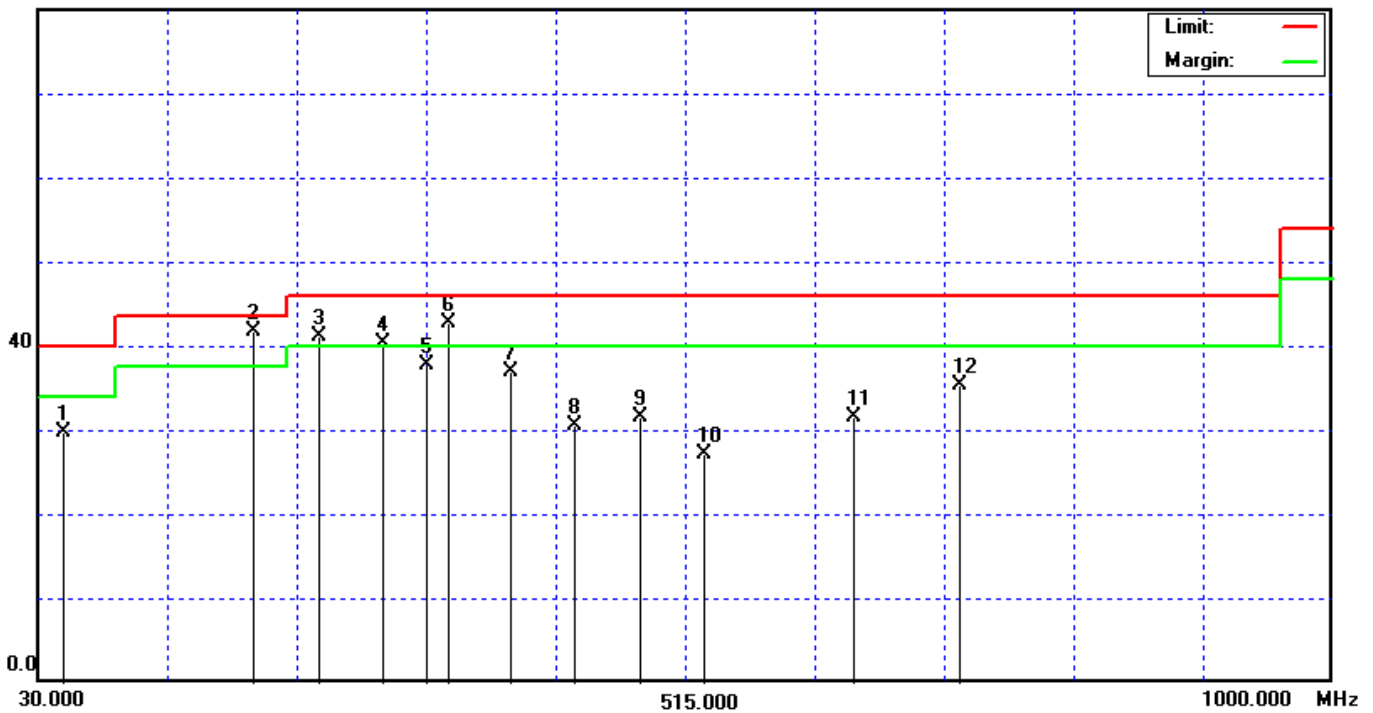
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 1 )	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	48	42.75	-13.11	29.64	40	-10.36	QP
2	191.9998	54.35	-12.65	41.7	43.5	-1.8	QP
3	240	51.32	-10.28	41.04	46	-4.96	QP
4	288	48.48	-8.1	40.38	46	-5.62	QP
5	319.9993	44.84	-7.04	37.8	46	-8.2	QP
6	335.9988	49.55	-6.81	42.74	46	-3.26	QP
7	384	42.37	-5.54	36.83	46	-9.17	QP
8	431.9995	35.04	-4.58	30.46	46	-15.54	QP
9	479.9978	35.33	-3.8	31.53	46	-14.47	QP
10	527.9975	29.97	-2.84	27.13	46	-18.87	QP
11	639.9978	32.63	-1.17	31.46	46	-14.54	QP
12	719.9968	34.87	0.42	35.29	46	-10.71	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



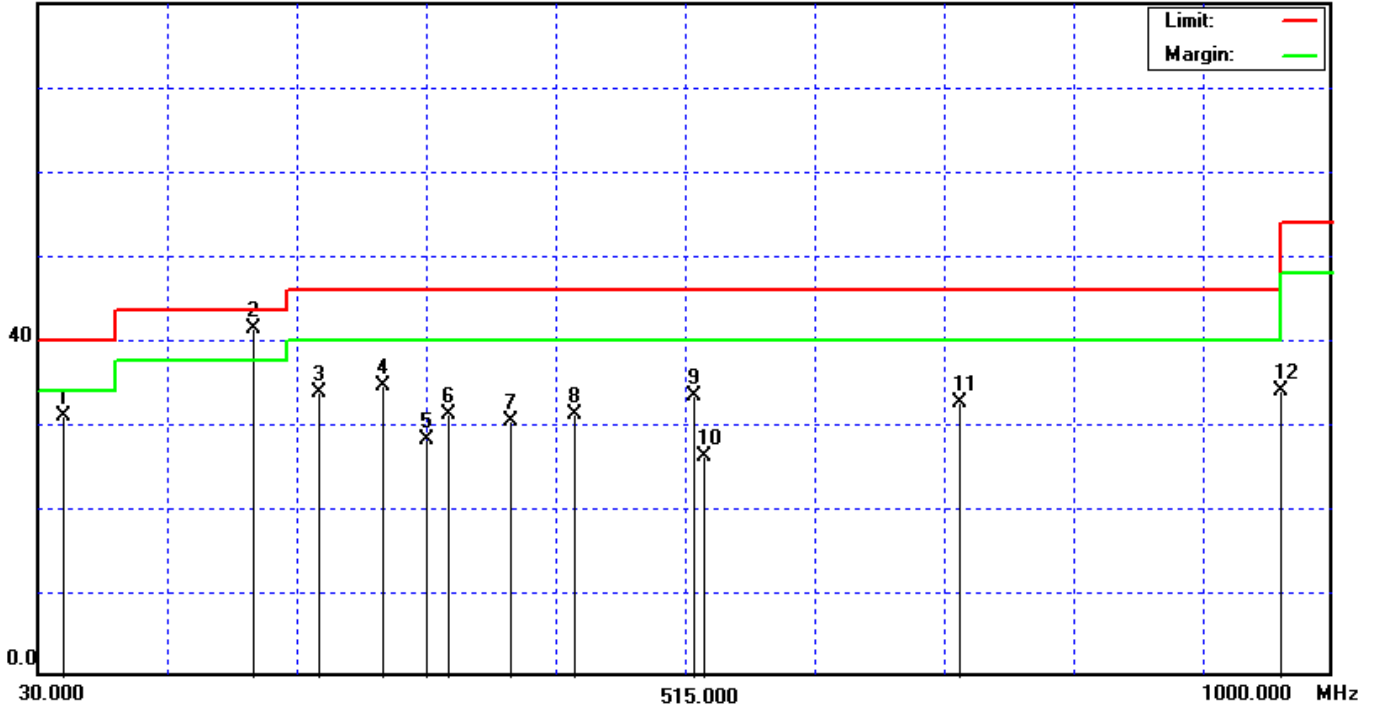
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 1 )	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	47.997	44.1	-13.11	30.99	40	-9.01	QP
2	192.0003	53.97	-12.65	41.32	43.5	-2.18	QP
3	239.9988	43.91	-10.28	33.63	46	-12.37	QP
4	287.9985	42.69	-8.1	34.59	46	-11.41	QP
5	319.998	35.16	-7.04	28.12	46	-17.88	QP
6	336	37.93	-6.81	31.12	46	-14.88	QP
7	384	35.78	-5.54	30.24	46	-15.76	QP
8	431.9985	35.59	-4.58	31.01	46	-14.99	QP
9	521.088	36.21	-2.96	33.25	46	-12.75	QP
10	527.997	28.88	-2.84	26.04	46	-19.96	QP
11	719.9965	32.17	0.42	32.59	46	-13.41	QP
12	959.9965	28.99	4.92	33.91	46	-12.09	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



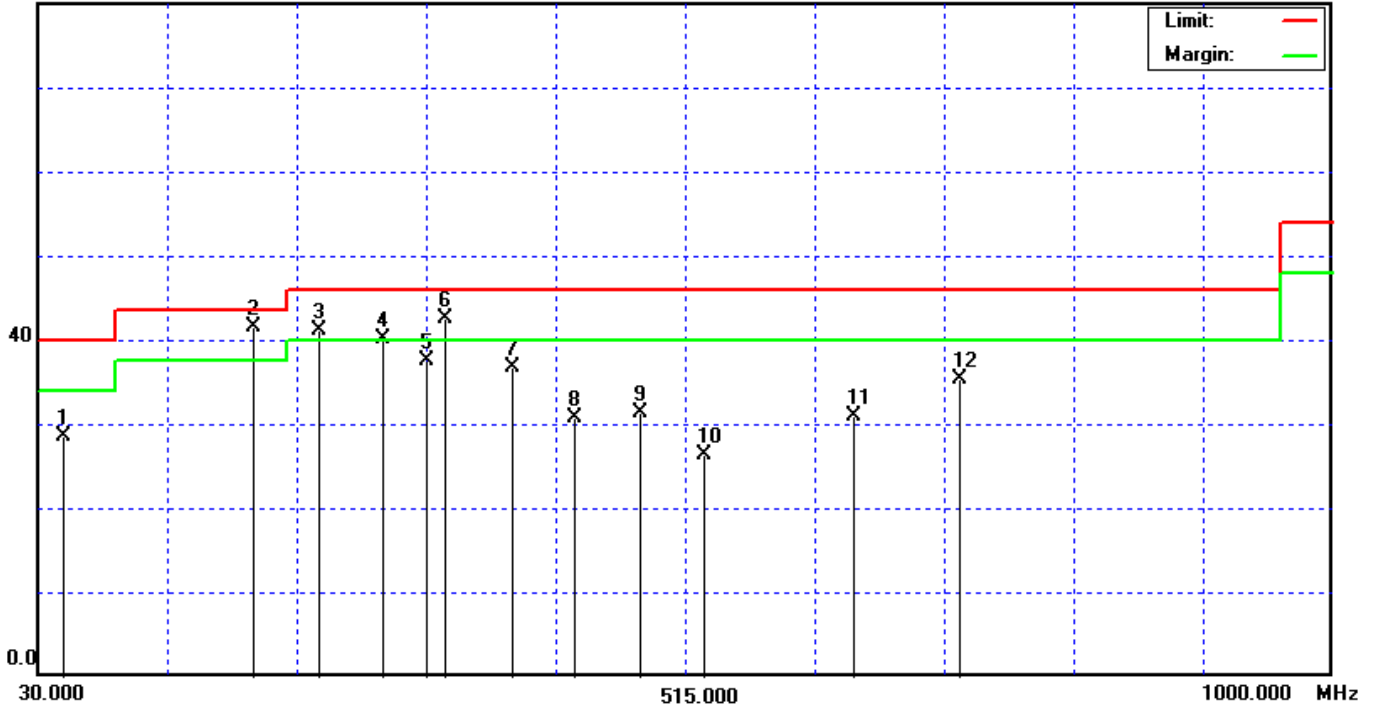
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 6 )	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	48.012	41.59	-13.11	28.48	40	-11.52	QP
2	191.987	54.16	-12.65	41.51	43.5	-1.99	QP
3	240.26	51.29	-10.27	41.02	46	-4.98	QP
4	288.036	48.18	-8.1	40.08	46	-5.92	QP
5	319.784	44.48	-7.05	37.43	46	-8.57	QP
6	335.183	49.27	-6.83	42.44	46	-3.56	QP
7	384.156	42.16	-5.54	36.62	46	-9.38	QP
8	431.591	35.26	-4.59	30.67	46	-15.33	QP
9	479.59	35.19	-3.81	31.38	46	-14.62	QP
10	527.196	29.14	-2.85	26.29	46	-19.71	QP
11	639.189	32.18	-1.18	31	46	-15	QP
12	719.198	34.89	0.39	35.28	46	-10.72	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



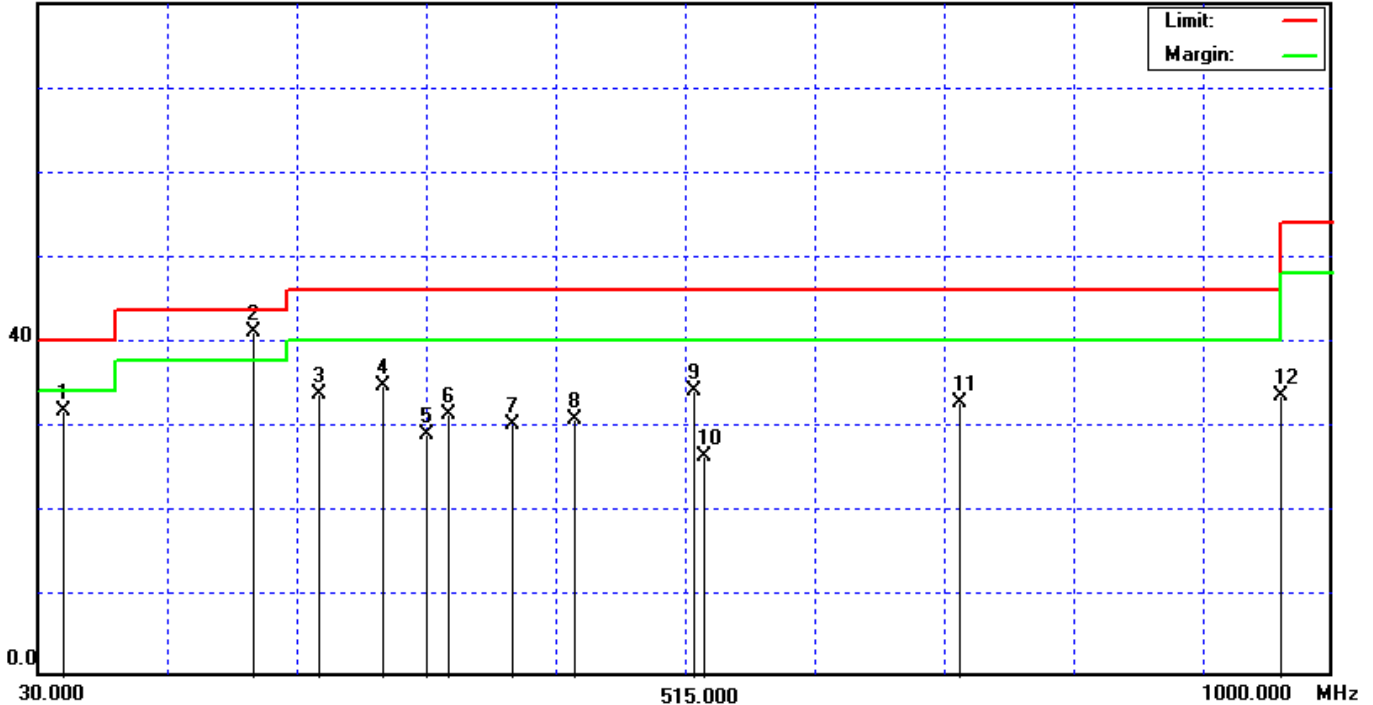
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 6 )	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	47.89	44.54	-13.07	31.47	40	-8.53	QP
2	192.054	53.54	-12.65	40.89	43.5	-2.61	QP
3	239.879	43.87	-10.29	33.58	46	-12.42	QP
4	287.489	42.56	-8.12	34.44	46	-11.56	QP
5	319.879	35.79	-7.04	28.75	46	-17.25	QP
6	336.7	37.98	-6.78	31.2	46	-14.8	QP
7	384.15	35.54	-5.54	30	46	-16	QP
8	431.987	35.15	-4.58	30.57	46	-15.43	QP
9	521.09	36.84	-2.96	33.88	46	-12.12	QP
10	527.901	28.91	-2.84	26.07	46	-19.93	QP
11	719.8	32.16	0.41	32.57	46	-13.43	QP
12	959.894	28.46	4.91	33.37	46	-12.63	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



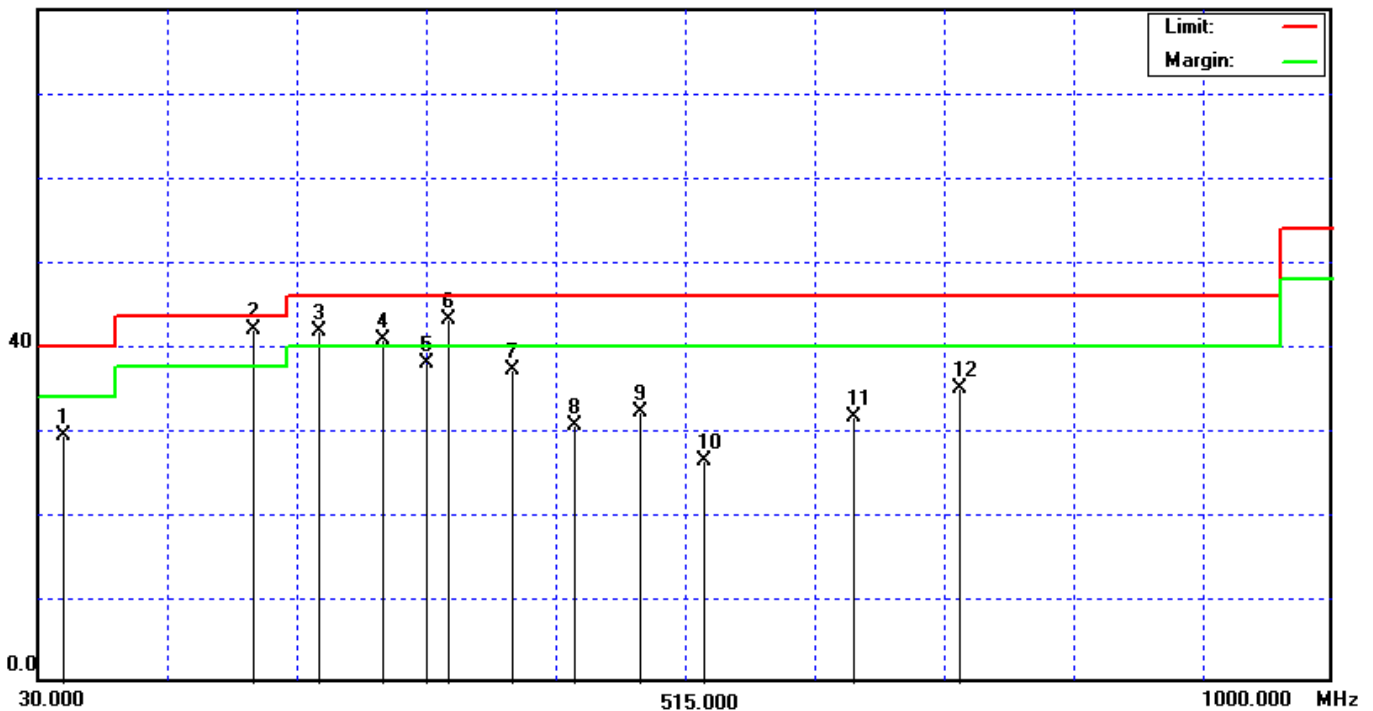
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 11 )	Display Pattern	H Pattern
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	48.69	42.56	-13.35	29.21	40	-10.79	QP
2	191.905	54.51	-12.66	41.85	43.5	-1.65	QP
3	240.49	51.9	-10.26	41.64	46	-4.36	QP
4	288.08	48.9	-8.1	40.8	46	-5.2	QP
5	319.87	44.96	-7.04	37.92	46	-8.08	QP
6	335.978	49.95	-6.81	43.14	46	-2.86	QP
7	384.79	42.64	-5.52	37.12	46	-8.88	QP
8	431.79	35.16	-4.59	30.57	46	-15.43	QP
9	479.79	35.92	-3.8	32.12	46	-13.88	QP
10	527.169	29.16	-2.85	26.31	46	-19.69	QP
11	639.414	32.61	-1.18	31.43	46	-14.57	QP
12	719.49	34.49	0.4	34.89	46	-11.11	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



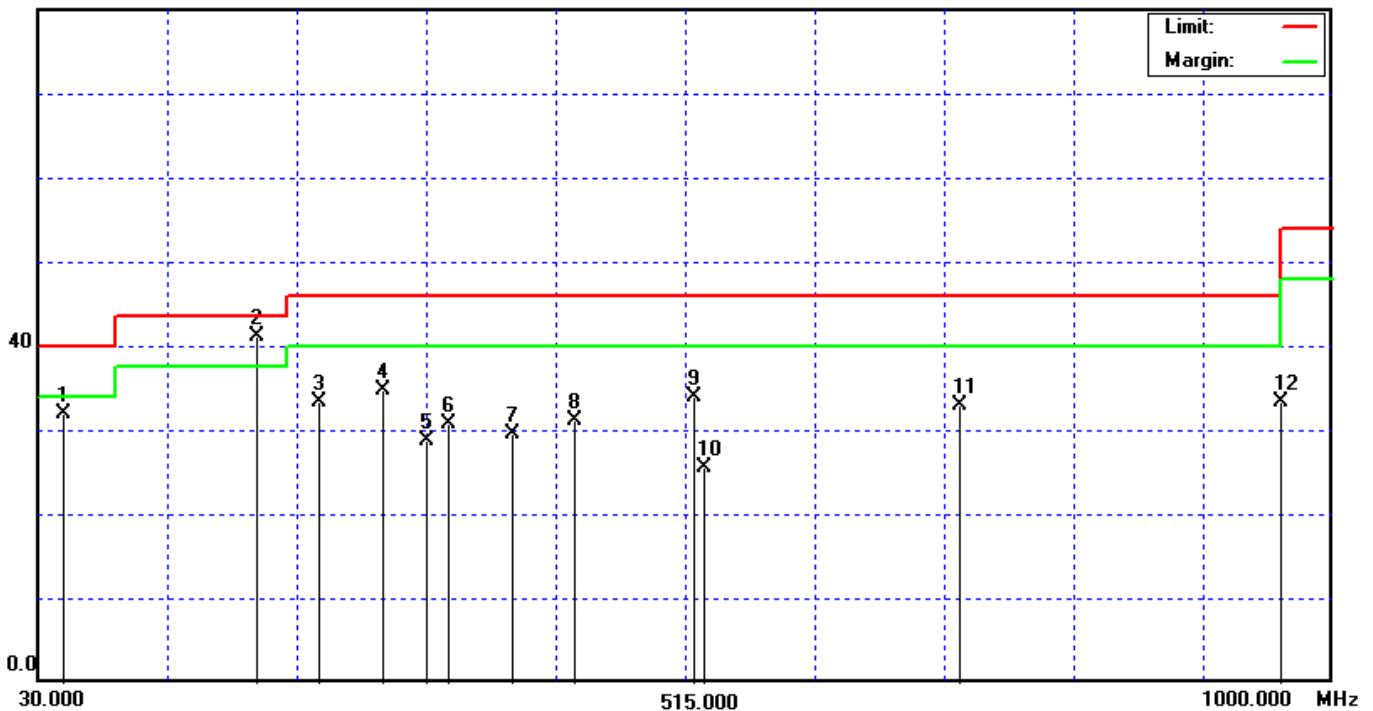
Date of Test	November 04, 2004	Temperature	26 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	63 %RH
Working Cond.	WLAN (Channel 11 )	Display Pattern	H Pattern
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	47.49	44.87	-12.93	31.94	40	-8.06	QP
2	192.846	53.8	-12.63	41.17	43.5	-2.33	QP
3	239.951	43.49	-10.28	33.21	46	-12.79	QP
4	287.46	42.87	-8.12	34.75	46	-11.25	QP
5	319.9	35.79	-7.04	28.75	46	-17.25	QP
6	336.9	37.46	-6.78	30.68	46	-15.32	QP
7	384.21	35.04	-5.53	29.51	46	-16.49	QP
8	431.16	35.79	-4.6	31.19	46	-14.81	QP
9	521.64	36.87	-2.95	33.92	46	-12.08	QP
10	527.6	28.36	-2.84	25.52	46	-20.48	QP
11	719.63	32.46	0.41	32.87	46	-13.13	QP
12	959.64	28.46	4.91	33.37	46	-12.63	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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4824.00	51.91	-1.33	50.58	74.00	-23.42
2	7236.00	42.93	7.69	50.62	74.00	-23.38
3	9648.00	47.08	12.85	59.93	74.00	-14.07
4	12059.75	37.64	15.60	< 53.24	74.00	-20.76
5	14472.25	30.74	22.48	< 53.22	74.00	-20.78

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9648.00	38.44	12.85	51.29	54.00	-2.71

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4824.00	59.03	-1.84	57.19	74.00	-16.81
2	7236.50	44.21	7.36	51.57	74.00	-22.43
3	9647.75	48.21	13.67	61.88	74.00	-12.12
4	12060.25	38.91	14.78	< 53.69	74.00	-20.31
5	14472.25	30.39	22.55	< 52.94	74.00	-21.06

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4824.00	48.68	-1.84	46.84	54.00	-7.16
2	9648.00	39.11	13.67	52.78	54.00	-1.22

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4873.75	53.52	-1.26	52.26	74.00	-21.74
2	7311.00	42.55	7.89	50.44	74.00	-23.56
3	9748.00	47.09	12.73	59.82	74.00	-14.18
4	12185.00	37.92	15.17	< 53.09	74.00	-20.91
5	14622.25	31.67	21.24	< 52.91	74.00	-21.09

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9748.00	38.87	12.73	51.60	54.00	-2.40

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4874.00	57.52	-1.69	55.83	74.00	-18.17
2	7311.25	44.39	7.79	52.18	74.00	-21.82
3	9748.00	48.15	13.51	61.66	74.00	-12.34
4	12185.25	38.21	14.87	< 53.08	74.00	-20.92
5	14621.75	30.44	20.69	< 51.13	74.00	-22.87

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4874.25	48.21	-1.69	46.52	54.00	-7.48
2	9748.00	39.08	13.51	52.59	54.00	-1.41

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4924.25	53.15	-1.20	51.95	74.00	-22.05
2	7385.50	43.29	8.08	51.37	74.00	-22.63
3	9848.25	47.59	12.80	60.39	74.00	-13.61
4	12309.25	37.90	14.85	< 52.75	74.00	-21.25
5	14771.75	30.78	19.77	< 50.55	74.00	-23.45

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9848.00	39.56	12.80	52.36	54.00	-1.64

## 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  $\pm 0.01$  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.

<b>Date of Test</b>	November 01, 2004	<b>Temperature</b>	24 deg/C
<b>EUT</b>	802.11g WLAN USB Adapter	<b>Humidity</b>	58 %RH
<b>Working Cond.</b>	Mode 1 (802.11b) Channel 11	<b>Data Rate</b>	11Mbps
<b>Antenna distance</b>	3m at <b>Vertical</b>	<b>Frequency Range</b>	Above 1GHz

## Peak

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4923.75	56.50	-1.54	54.97	74.00	-19.03
2	7386.00	44.83	8.23	53.06	74.00	-20.94
3	9848.00	49.09	13.54	62.63	74.00	-11.37
4	12310.50	38.38	15.07	< 53.45	74.00	-20.55
5	14772.50	32.91	18.48	< 51.39	74.00	-22.61

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4924.00	47.09	-1.53	45.56	54.00	-8.44
2	9848.00	38.83	13.54	52.37	54.00	-1.63

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4824.25	48.50	-1.33	47.17	74.00	-26.83
2	7236.50	41.28	7.70	< 48.98	74.00	-25.02
3	9648.00	46.47	12.85	< 59.32	74.00	-14.68

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9648.00	37.84	12.85	50.69	54.00	-3.31

## 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  $\pm 0.01$  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.

<b>Date of Test</b>	November 01, 2004	<b>Temperature</b>	24 deg/C
<b>EUT</b>	802.11g WLAN USB Adapter	<b>Humidity</b>	58 %RH
<b>Working Cond.</b>	Mode 2 (802.11g) Channel 1	<b>Data Rate</b>	54Mbps
<b>Antenna distance</b>	3m at Vertical	<b>Frequency Range</b>	Above 1GHz

## Peak

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4824.75	48.41	-1.84	46.57	74.00	-27.43
2	7236.50	43.27	7.36	50.63	74.00	-23.37
3	9647.75	47.78	13.67	61.45	74.00	-12.55
4	12060.25	38.79	14.78	< 53.57	74.00	-20.43
5	14471.50	31.27	22.55	< 53.82	74.00	-20.18

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9648.00	39.13	13.67	52.80	54.00	-1.20

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4874.25	49.49	-1.26	48.23	74.00	-25.77
2	7311.00	42.60	7.89	< 50.49	74.00	-23.51
3	9748.25	46.83	12.73	< 59.56	74.00	-14.44

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9748.00	38.00	12.73	50.73	54.00	-3.27

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4874.00	48.57	-1.69	46.88	74.00	-27.12
2	7310.75	42.58	-7.78	50.36	74.00	-23.64
3	9748.50	47.49	13.51	61.00	74.00	-13.00
4	12184.75	38.98	14.87	< 53.85	74.00	-20.15
5	14622.25	31.10	20.68	< 51.78	74.00	-22.22

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9748.00	39.25	13.51	52.76	54.00	-1.24

## 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  $\pm 0.01$  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 01, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	58 %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 $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4924.00	48.41	-1.20	47.21	74.00	-26.79
2	7386.25	42.36	8.08	< 50.44	74.00	-23.56
3	9848.00	47.08	12.80	< 59.88	74.00	-14.12

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9848.00	39.66	12.80	52.46	54.00	-1.54

## Remark

- All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
- Spectrum Analyzer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
- Spectrum Analyzer Setting(AVG Detector): RBW=1MHz, VBW=30HZ, Span=20MHz.
- Emission Level= Reading + Correction Factor (Could have  $\pm 0.01$  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.

<b>Date of Test</b>	November 01, 2004	<b>Temperature</b>	24 deg/C
<b>EUT</b>	802.11g WLAN USB Adapter	<b>Humidity</b>	58 %RH
<b>Working Cond.</b>	Mode 2 (802.11g) Channel 11	<b>Data Rate</b>	54Mbps
<b>Antenna distance</b>	3m at <b>Vertical</b>	<b>Frequency Range</b>	Above 1GHz

## Peak

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	4924.25	48.71	-1.53	47.18	74.00	-26.82
2	7386.25	42.90	8.23	51.13	74.00	-22.87
3	9848.00	48.48	13.54	62.02	74.00	-11.98
4	12310.00	38.19	15.07	< 53.26	74.00	-20.74
5	14771.75	32.53	18.50	< 51.03	74.00	-22.97

## Average

No.	Frequency [MHz]	Reading Level [dB $\mu$ V]	Correction Factor [dB/m]	Emission Level [dB $\mu$ V/m]	Limit [dB $\mu$ V/m]	Margin [dB]
1	9848.00	39.19	13.54	52.73	54.00	-1.27

## 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  $\pm 0.01$  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

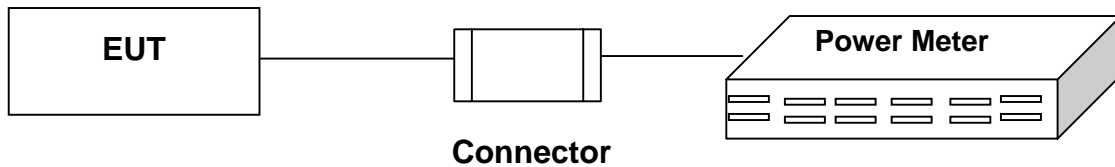
### 5.1 TEST EQUIPMENT

The following test equipments are used during the Conduct tests:

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Spectrum Analyzer	Advantest	R3272	82420232	02/11/04
	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

<b>Date of Test</b>	November 03, 2004	<b>Temperature</b>	25 deg/C
<b>EUT</b>	802.11g WLAN USB Adapter	<b>Humidity</b>	54 %RH
<b>Test Mode</b>	Mode 1 (802.11b)	<b>Data Rate</b>	11Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	17.92	1W(30dBm)	Pass
6	2437	17.61	1W(30dBm)	Pass
11	2462	17.30	1W(30dBm)	Pass

<b>Date of Test</b>	November 03, 2004	<b>Temperature</b>	24 deg/C
<b>EUT</b>	802.11g WLAN USB Adapter	<b>Humidity</b>	54 %RH
<b>Test Mode</b>	Mode 2 (802.11g)	<b>Data Rate</b>	54Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	16.58	1W(30dBm)	Pass
6	2437	16.38	1W(30dBm)	Pass
11	2462	16.81	1W(30dBm)	Pass

## 6. BAND EDGE

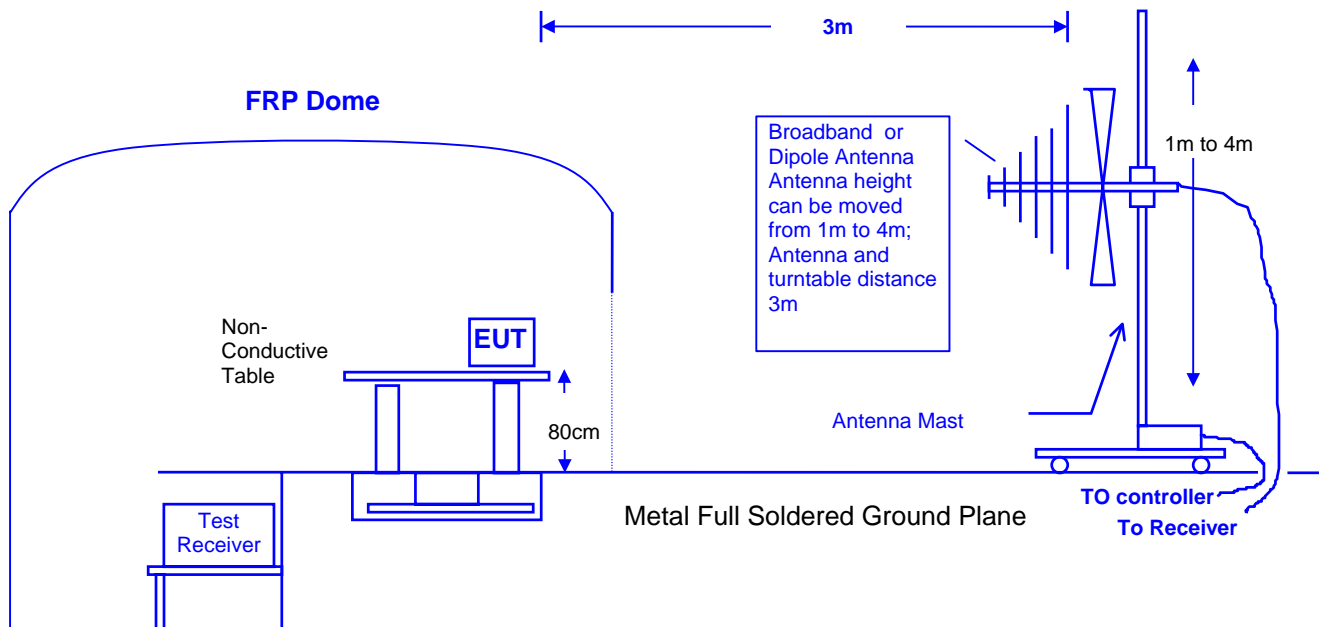
### 6.1 TEST EQUIPMENT

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	03/09/04
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	11/25/03
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 2.7.

## 6.6 TEST RESULT

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	65 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at <b>Horizontal</b>	Test Band	<b>Lower</b>

### Radiation Emission of Fundamental Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.02	73.31	35.67	108.98

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2412.77	65.26	35.67	100.93

#### 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  $\pm 0.01$  tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

### TEST Result

The band edge emission plot on next page are Peak and Average. The plot for peak is appear (53.46)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (57.74)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 108.98 dBuV/m – 53.46 dB = 55.52 dBuV/m which is under 74dBuV/m.

Average field strength of 2390 MHz is 100.93 dBuV/m – 57.74 dB = 43.19 dBuV/m which is under 54dBuV/m

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at <b>Vertical</b>	Test Band	<b>Lower</b>

## Radiation Emission of Fundamental Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.28	78.85	30.47	109.32

## Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2412.77	71.17	30.47	101.64

### 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 next page are Peak and Average. The plot for peak is appear (53.46)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (57.74)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 109.32 dBuV/m – 53.46 dB = 55.86 dBuV/m which is under 74dBuV/m.

Average field strength of 2390 MHz is 101.64 dBuV/m – 57.74 dB = 43.9 dBuV/m which is under 54dBuV/m



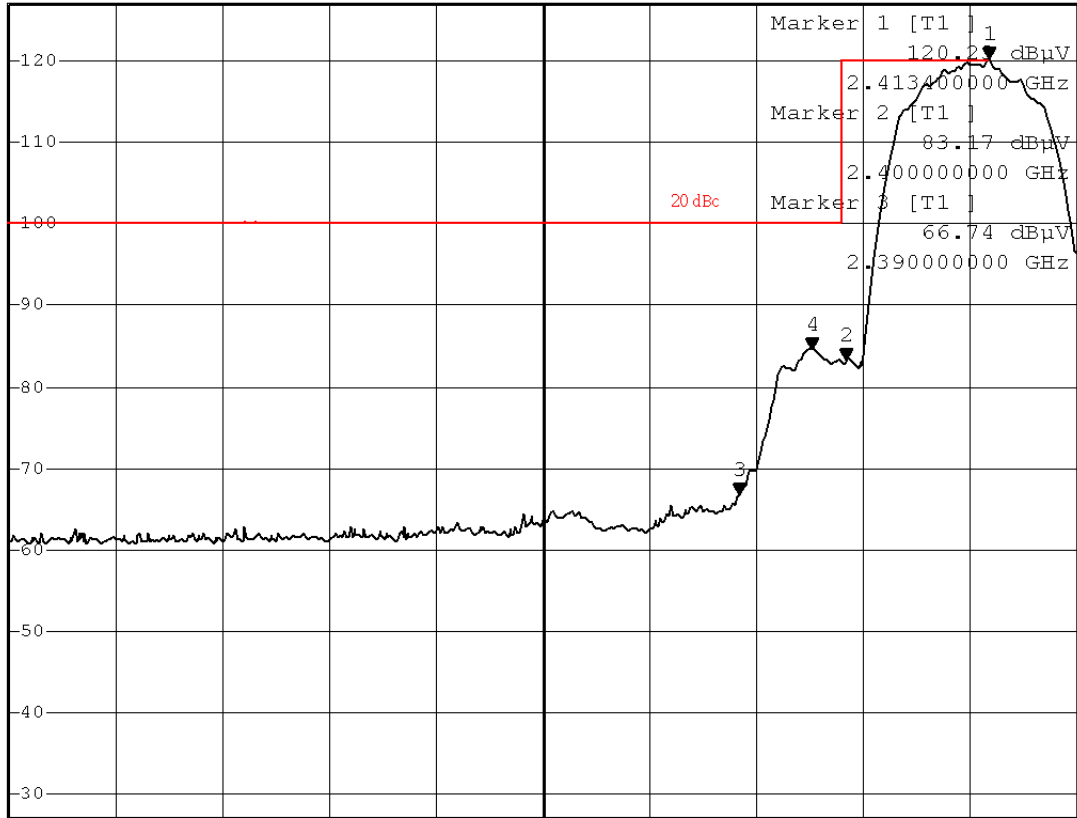


\*RBW 1 MHz Marker 4 [T1 ]  
\*VBW 1 MHz 84.58 dBμV  
\*SWT 500 ms 2.396800000 GHz

Ref 127 dBμV

\*Att 30 dB

1 PK  
VIEW



Center 2.3716 GHz

10 MHz/

Span 100 MHz

Date: 3.NOV.2004 15:23:57

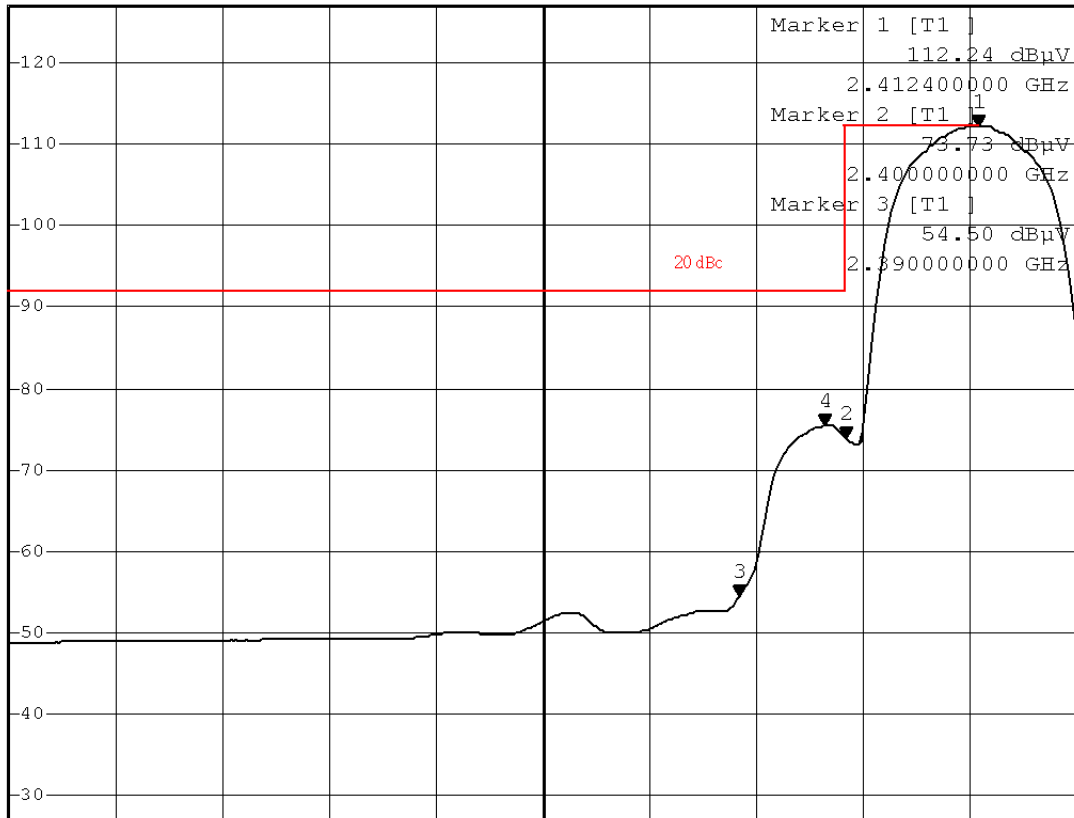


\*RBW 1 MHz Marker 4 [T1 ] 75.33 dBuV  
\*VBW 10 Hz  
SWT 25 s 2.398000000 GHz

Ref 127 dBuV

\*Att 30 dB

1 PK VIEW



Center 2.3716 GHz

10 MHz/

Span 100 MHz

Date: 3.NOV.2004 15:25:52

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at <b>Horizontal</b>	Test Band	<b>Higher</b>

## Radiation Emission of Fundamental Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.5	74.65	35.95	110.6

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2462.26	66.84	35.94	102.78

#### 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  $\pm 0.01$  tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

## TEST Result

The band edge emission plot on next page are Peak and Average. The plot for peak is appear (54.4)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (58.9)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 2483.5 MHz is 110.6 dBuV/m – 54.4 dB = 56.2 dBuV/m which is under 74dBuV/m.

Average field strength of 2483.5 MHz is 102.78 dBuV/m – 58.9 dB = 43.88 dBuV/m which is under 54dBuV/m

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps
Antenna distance	3m at <b>Vertical</b>	Test Band	<b>Higher</b>

## Radiation Emission of Fundamental

### Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.28	79.54	30.43	109.97

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2462.26	71.72	30.43	102.15

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 next page are Peak and Average. The plot for peak is appear (54.4)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (58.9)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 2483.5 MHz is 109.97 dBuV/m – 54.4 dB = 55.57 dBuV/m which is under 74dBuV/m.

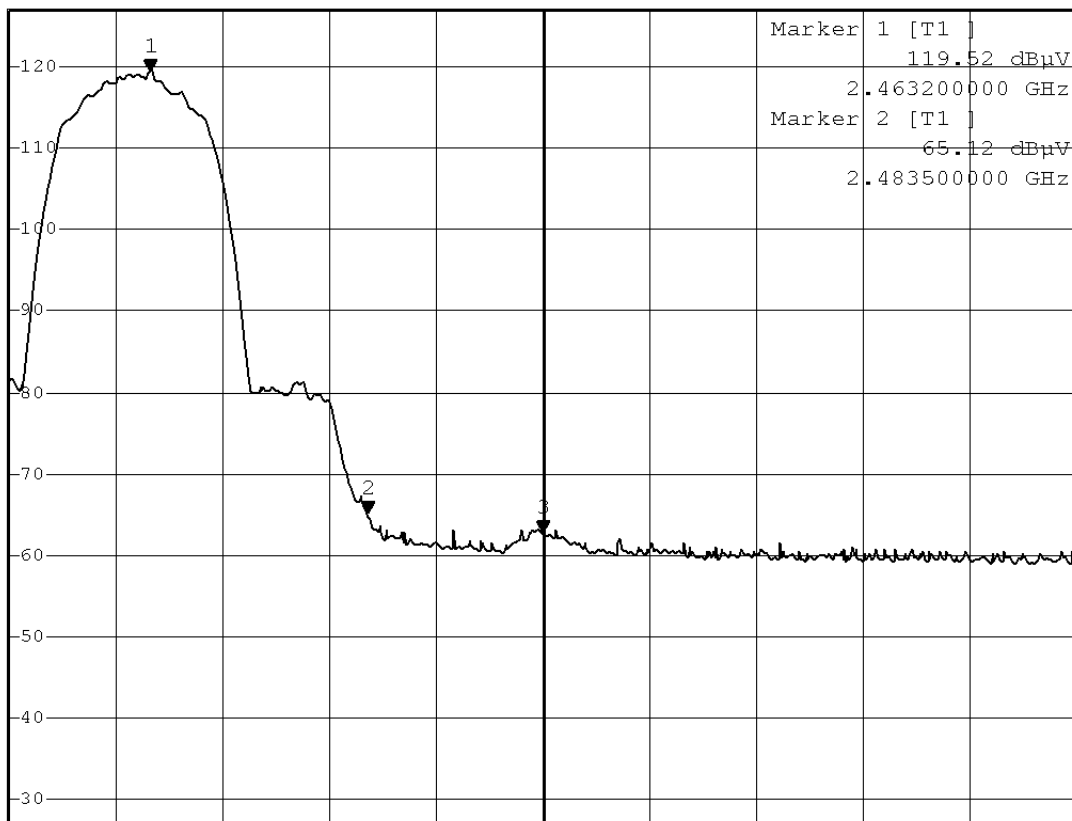
Average field strength of 2483.5 MHz is 102.15 dBuV/m – 58.9 dB = 43.25 dBuV/m which is under 54dBuV/m



\*RBW 1 MHz      Marker 3 [T1 ]  
\*VBW 1 MHz      62.72 dBuV  
\*Att 30 dB      \*SWT 500 ms      2.500000000 GHz

Ref 127 dBuV

1 PK  
VIEW



B

Center 2.5 GHz

10 MHz/

Span 100 MHz

Date: 3.NOV.2004 15:28:41

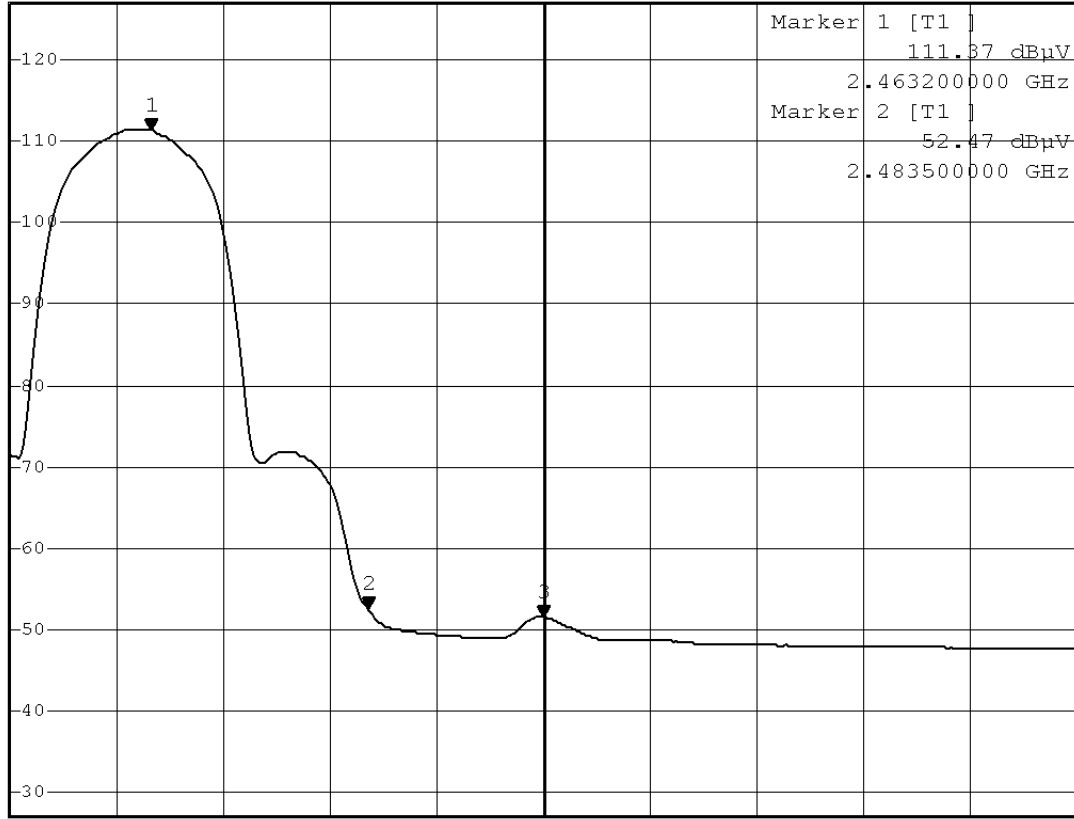


\*RBW 1 MHz Marker 3 [T1 ]  
\*VBW 10 Hz 51.48 dBuV  
SWT 25 s 2.500000000 GHz

Ref 127 dBuV

\*Att 30 dB

1 PK  
VIEW



Center 2.5 GHz

10 MHz/

Span 100 MHz

Date: 3.NOV.2004 15:30:04

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at <b>Horizontal</b>	Test Band	<b>Lower</b>

## Radiation Emission of Fundamental

### Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.79	67.81	35.67	103.48

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2414.55	57.07	35.68	92.75

#### Remark:

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

## TEST Result

The band edge emission plot on next page are Peak and Average. The plot for peak is appear (44.31)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (51.4)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 103.48 dBuV/m – 44.31 dB = 59.17 dBuV/m which is under 74dBuV/m.

Average field strength of 2390 MHz is 92.75 dBuV/m – 51.4 dB = 41.35 dBuV/m which is under 54dBuV/m

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at <b>Vertical</b>	Test Band	<b>Lower</b>

## Radiation Emission of Fundamental

### Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2413.79	73.33	30.47	103.8

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2415.06	62.92	30.47	93.39

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 next page are Peak and Average. The plot for peak is appear (44.31)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (51.4)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 103.8 dBuV/m – 44.31 dB = 59.49dBuV/m which is under 74dBuV/m.

Average field strength of 2390 MHz is 93.39 dBuV/m – 51.4 dB = 41.99 dBuV/m which is under 54dBuV/m





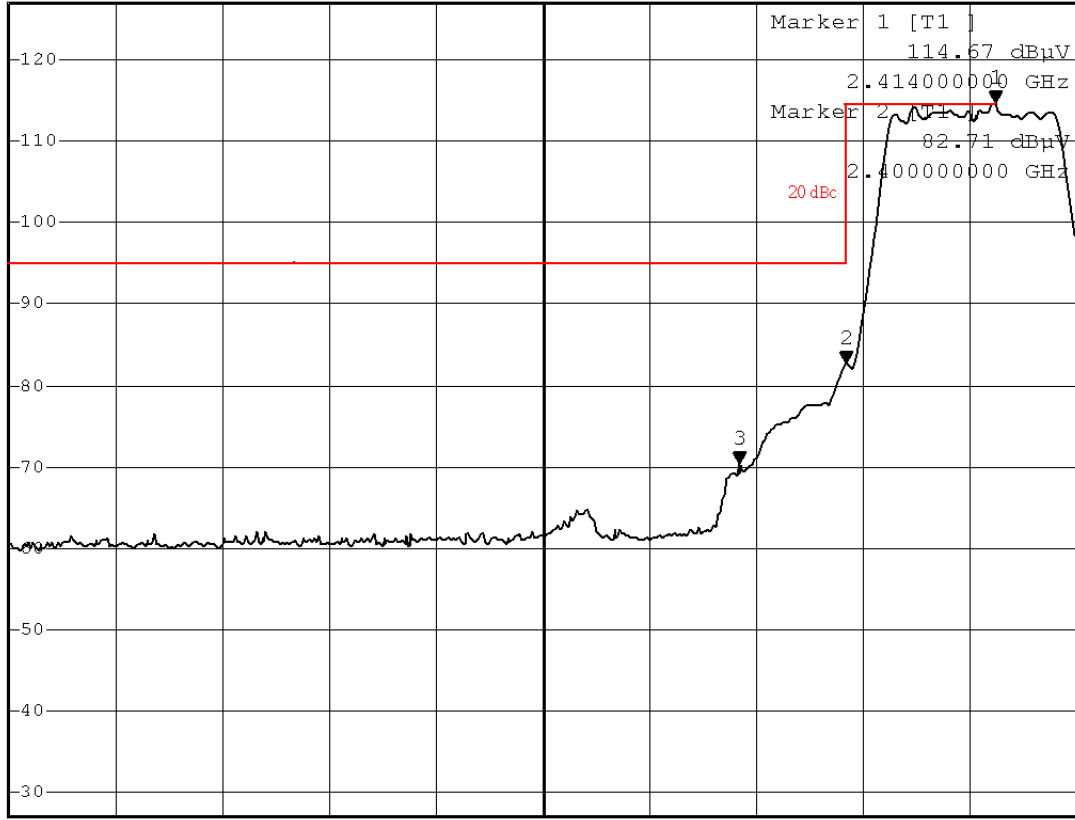
\*RBW 1 MHz Marker 3 [T1 ]  
\*VBW 1 MHz 70.36 dBμV  
\*SWT 500 ms 2.390000000 GHz

Ref 127 dBμV

\*Att 30 dB

2.390000000 GHz

1 PK  
VIEW



Center 2.3716 GHz

10 MHz/

Span 100 MHz

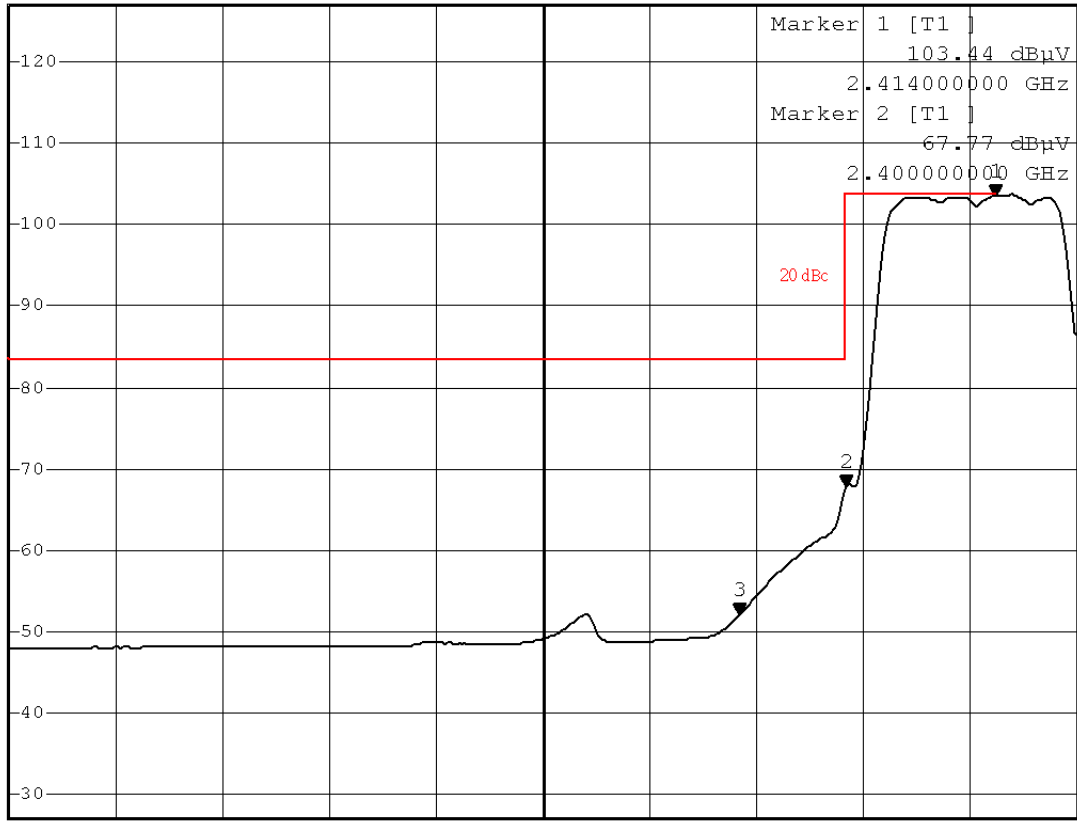
Date: 3.NOV.2004 15:20:09



\*RBW 1 MHz      Marker 3 [T1 ]  
\*VBW 10 Hz      52.04 dBμV  
SWT 25 s      2.390000000 GHz

Ref 127 dBμV      \*Att 30 dB

1 PK  
VIEW



Center 2.3716 GHz      10 MHz/      Span 100 MHz

Date: 3.NOV.2004 15:21:17

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at <b>Horizontal</b>	Test Band	<b>Higher</b>

## Radiation Emission of Fundamental

### Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.79	70.08	35.95	106.03

### Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.79	59.83	35.95	95.78

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.
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 next page are Peak and Average. The plot for peak is appear (46.22)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (51.49)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 2483.5 MHz is 106.03 dBuV/m – 46.22 dB = 59.81 dBuV/m which is under 74dBuV/m.

Average field strength of 2483.5 MHz is 95.78 dBuV/m – 51.49 dB = 44.29 dBuV/m which is under 54dBuV/m

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps
Antenna distance	3m at <b>Vertical</b>	Test Band	<b>Higher</b>

## Radiation Emission of Fundamental Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.79	74.98	30.43	105.41

## Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2464.55	64.52	30.43	94.95

### 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  $\pm 0.01$  tolerance due to computer automatically round off calculation).
- Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor

## TEST Result

The band edge emission plot on next page are Peak and Average. The plot for peak is appear (46.22)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (51.49)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 2483.5 MHz is 105.41dBuV/m – 46.22 dB = 59.19 dBuV/m which is under 74dBuV/m.

Average field strength of 2483.5 MHz is 94.95 dBuV/m – 51.49 dB = 43.46 dBuV/m which is under 54dBuV/m

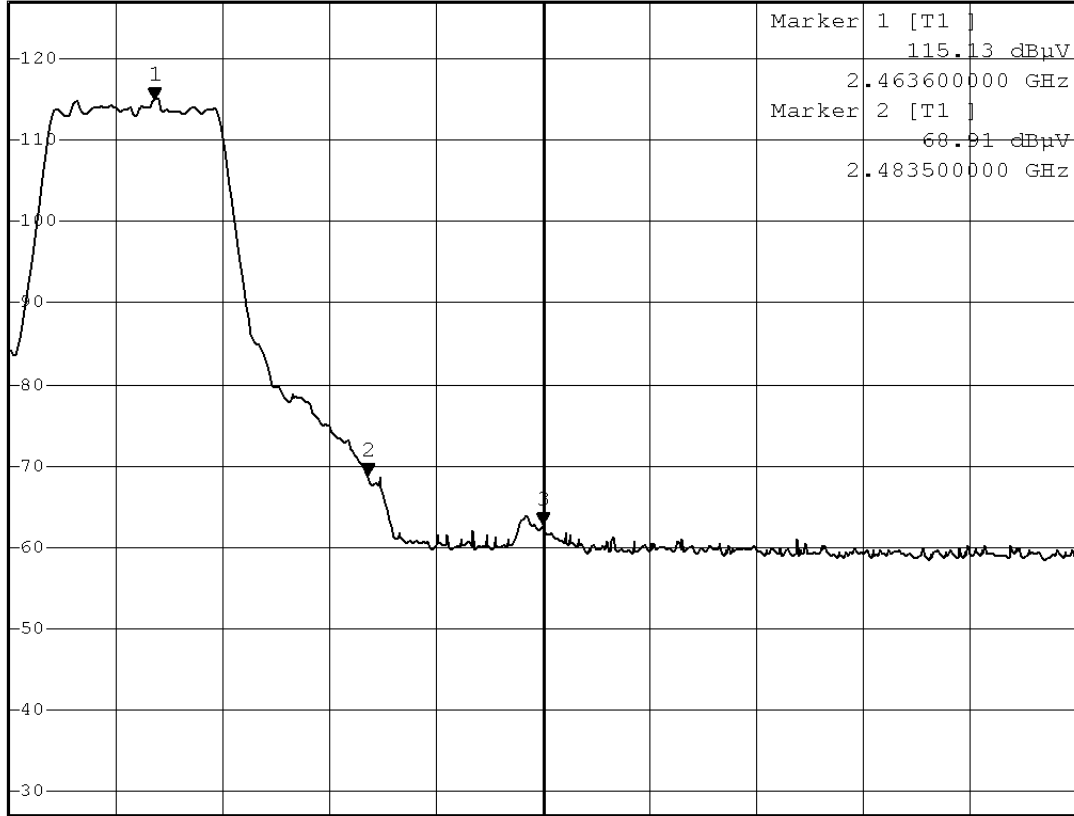


\*RBW 1 MHz Marker 3 [T1 ]  
\*VBW 1 MHz 62.80 dBuV  
\*SWT 500 ms 2.500000000 GHz

Ref 127 dBuV

\*Att 30 dB

1 PK  
VIEW



Start 2.45 GHz

10 MHz/

Stop 2.55 GHz

Date: 3.NOV.2004 15:08:55

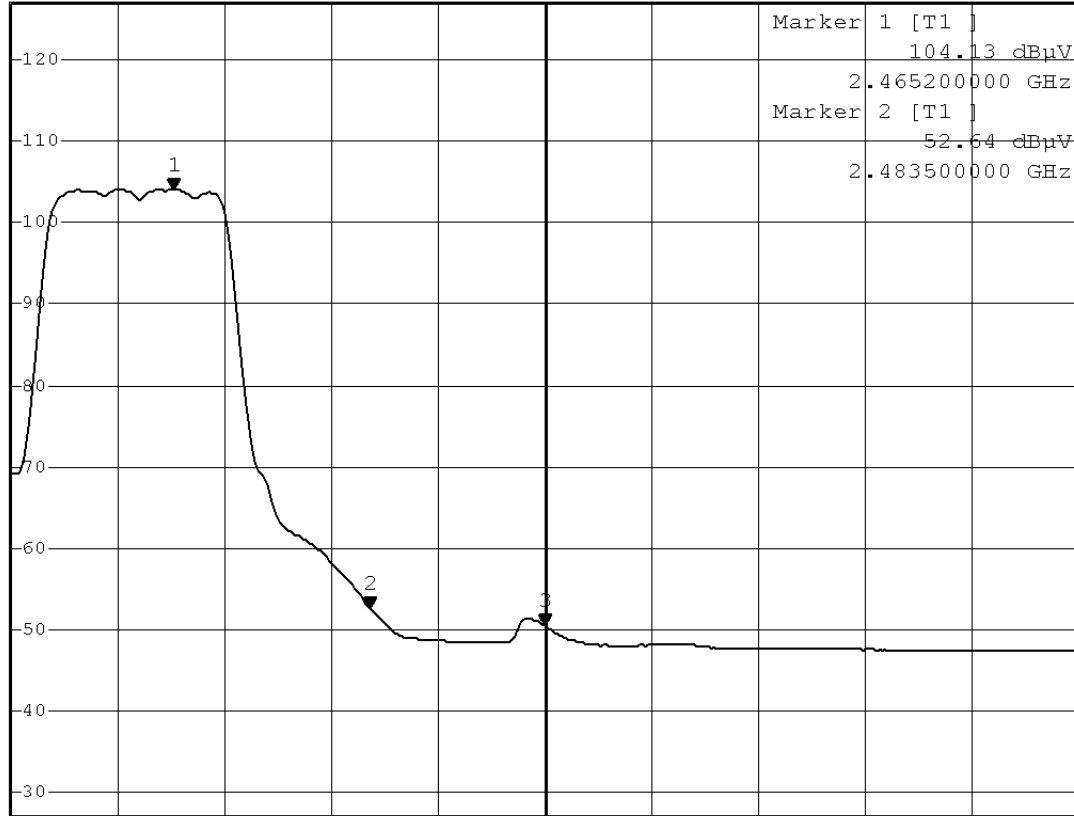


\*RBW 1 MHz      Marker 3 [T1 ]  
\*VBW 10 Hz      50.38 dBμV  
SWT 25 s      2.500000000 GHz

Ref 127 dBμV

\*Att 30 dB

1 PK  
VIEW



Start 2.45 GHz

10 MHz/

Stop 2.55 GHz

Date: 3.NOV.2004 15:07:44

## 7. OCCUPIED BANDWIDTH

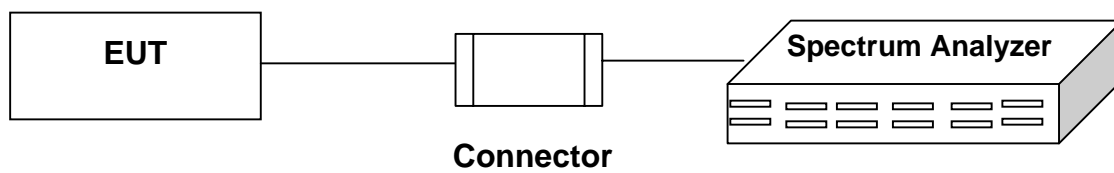
### 7.1 TEST EQUIPMENT

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

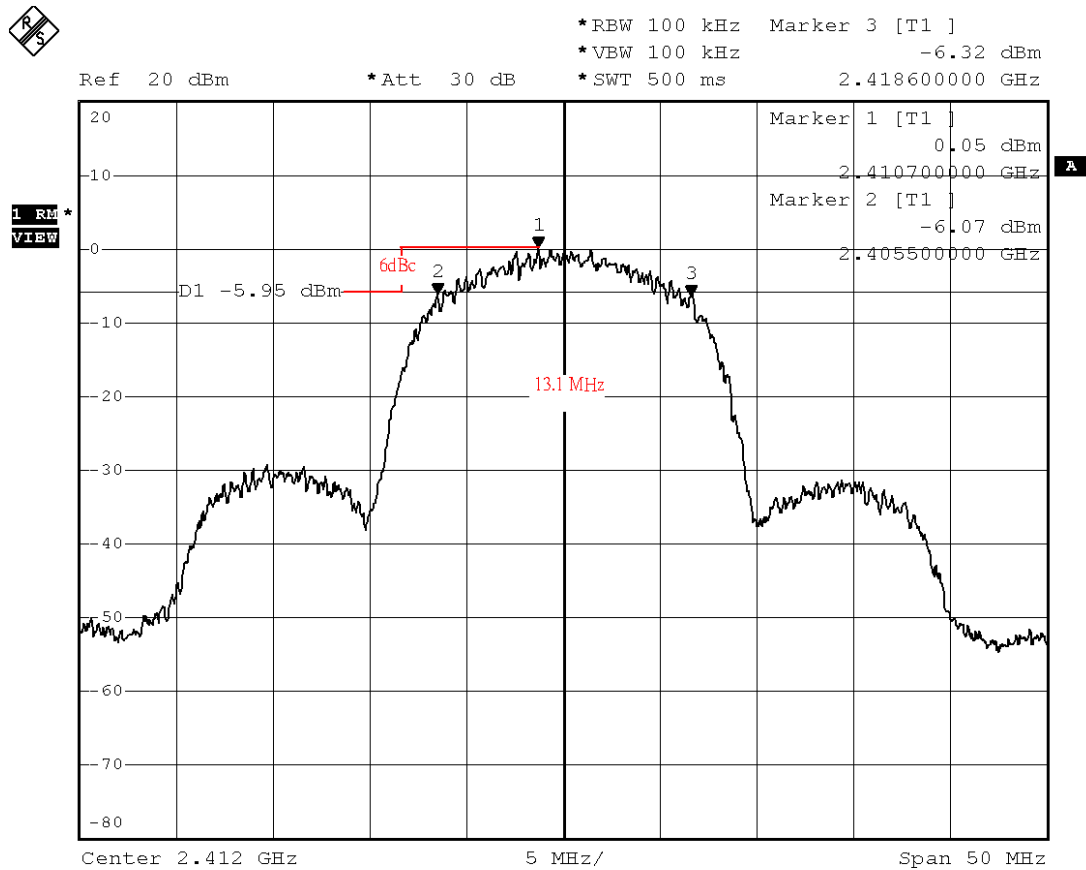
WLAN: The minimum 6dB bandwidth shall be at least 500KHz.

### 7.4 TEST RESULT

Date of Test	November 02, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps

Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	13.1	>500	Pass
6	2437	13.2	>500	Pass
11	2462	13.2	>500	Pass

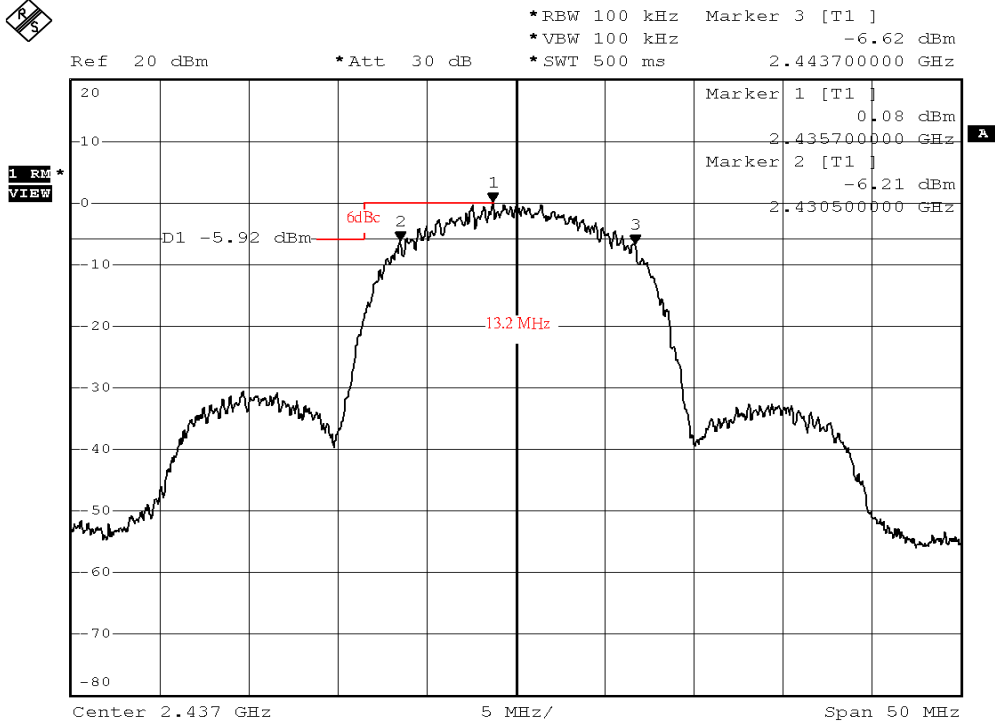
Figure Channel 1:



Date: 2.NOV.2004 15:37:11

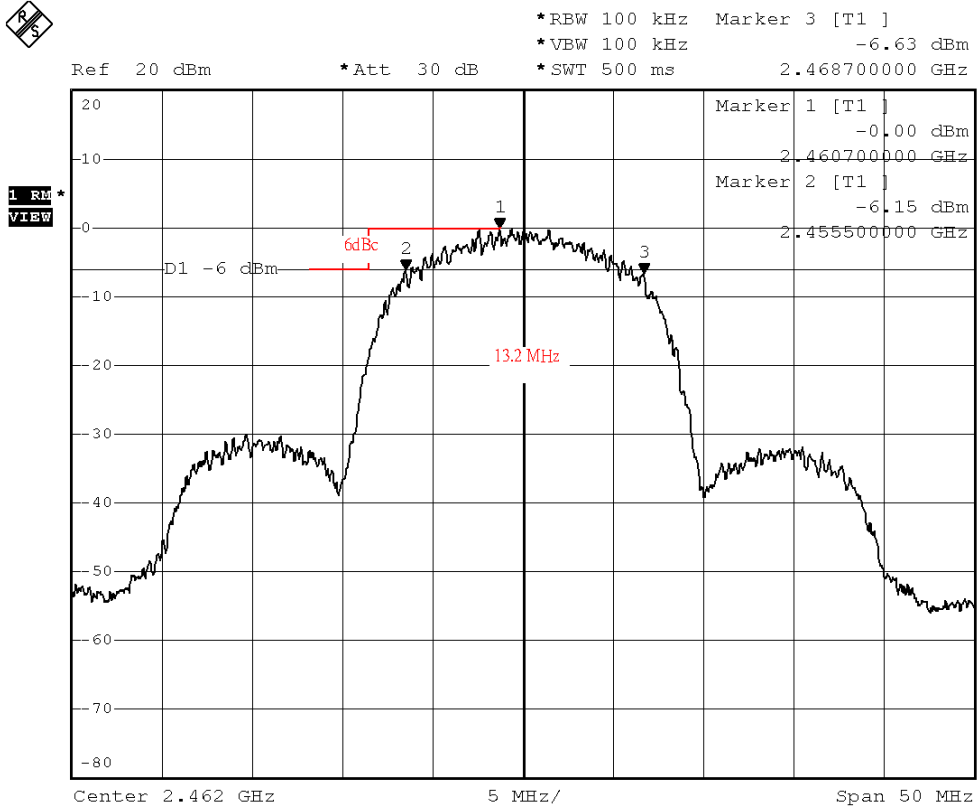


Figure Channel 6:



Date: 2.NOV.2004 15:39:01

Figure Channel 11:

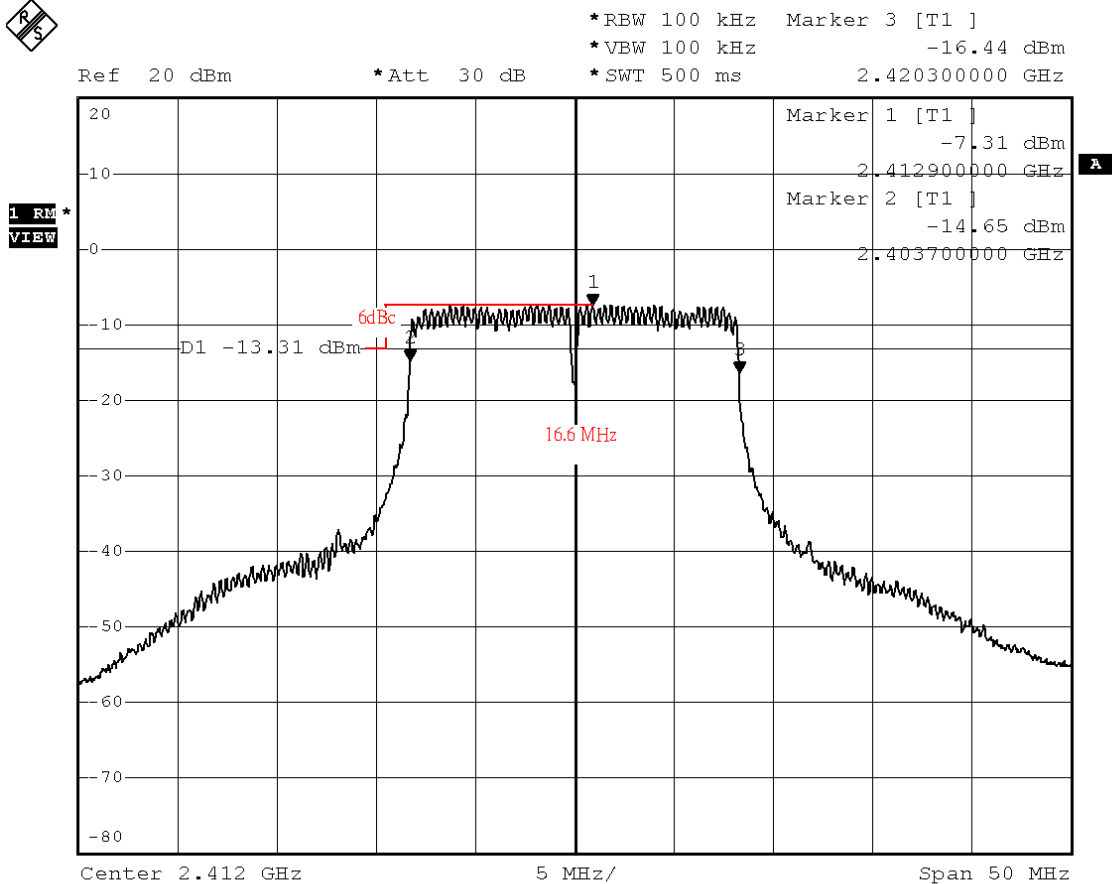


Date: 2.NOV.2004 15:40:18

Date of Test	November 02, 2004	Temperature	24 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps

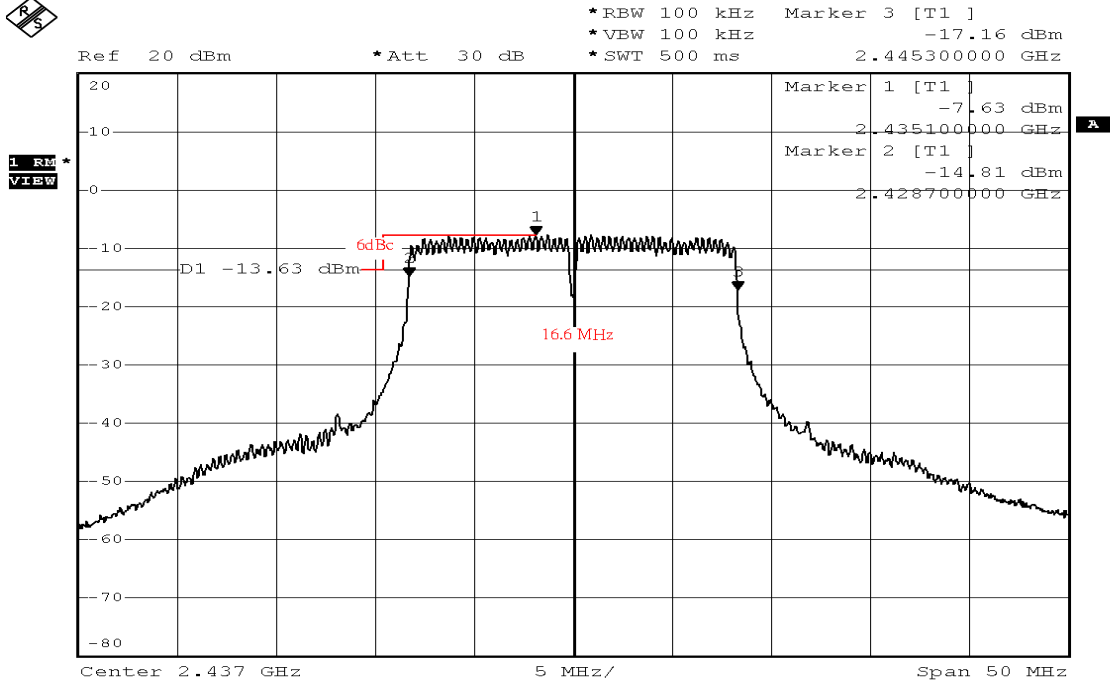
Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	16.6	>500	Pass
6	2437	16.6	>500	Pass
11	2462	16.6	>500	Pass

Figure Channel 1:



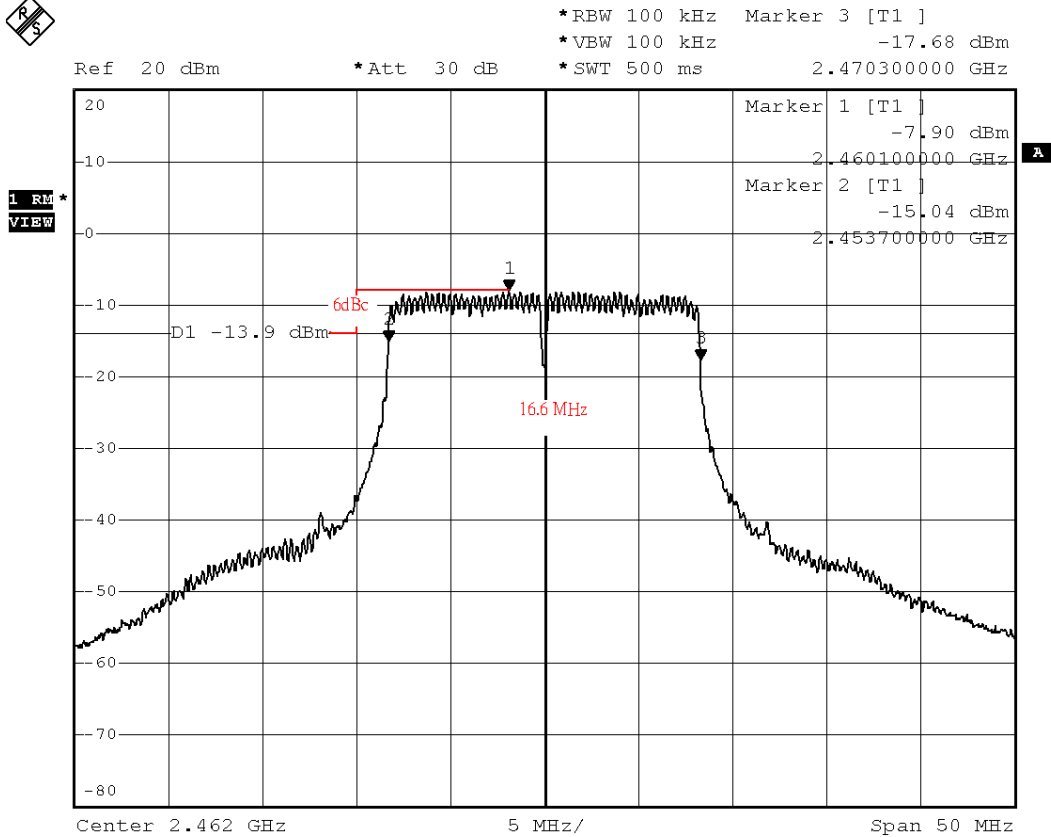
Date: 2.NOV.2004 15:30:16

Figure Channel 6:



Date: 2.NOV.2004 15:31:43

Figure Channel 11:



Date: 2.NOV.2004 15:33:58

## 8. POWER DENSITY

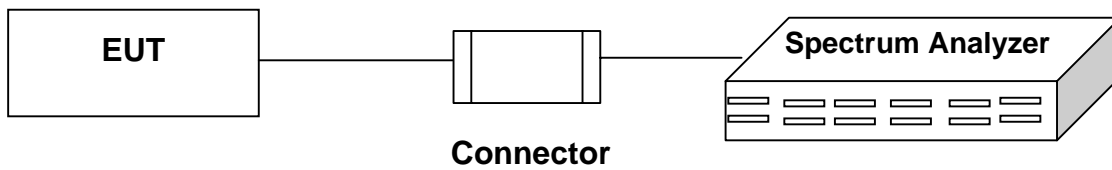
### 8.1 TEST EQUIPMENT

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

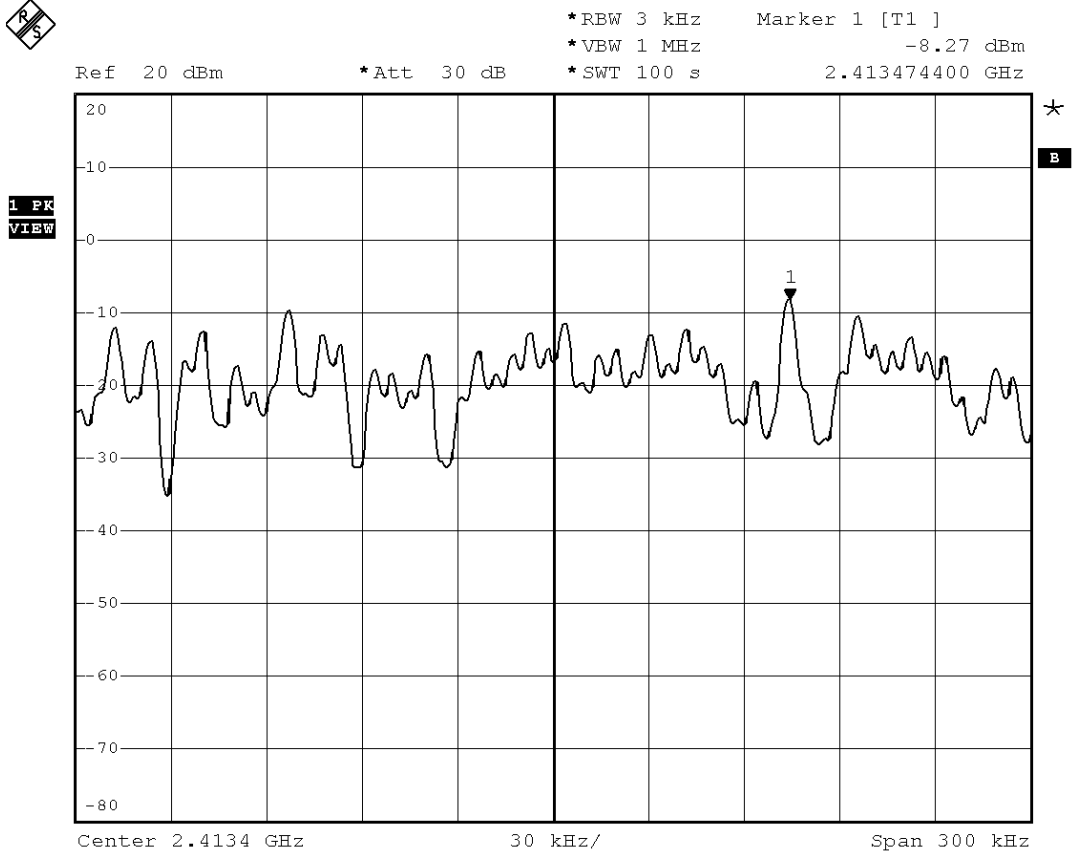
The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3KHz bandwidth.

### 8.4 TEST RESULT

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 1 (802.11b)	Data Rate	11Mbps

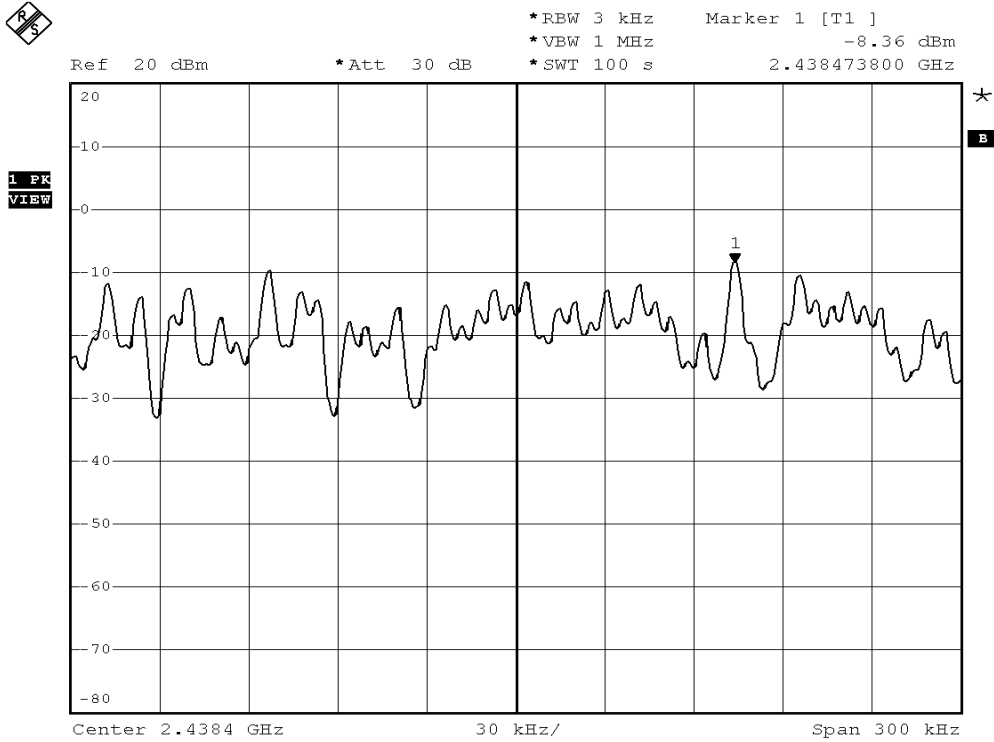
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2413.4744	-8.27	<8dBm	Pass
6	2438.4738	-8.36	<8dBm	Pass
11	2463.4738	-8.37	<8dBm	Pass

Figure Channel 1:



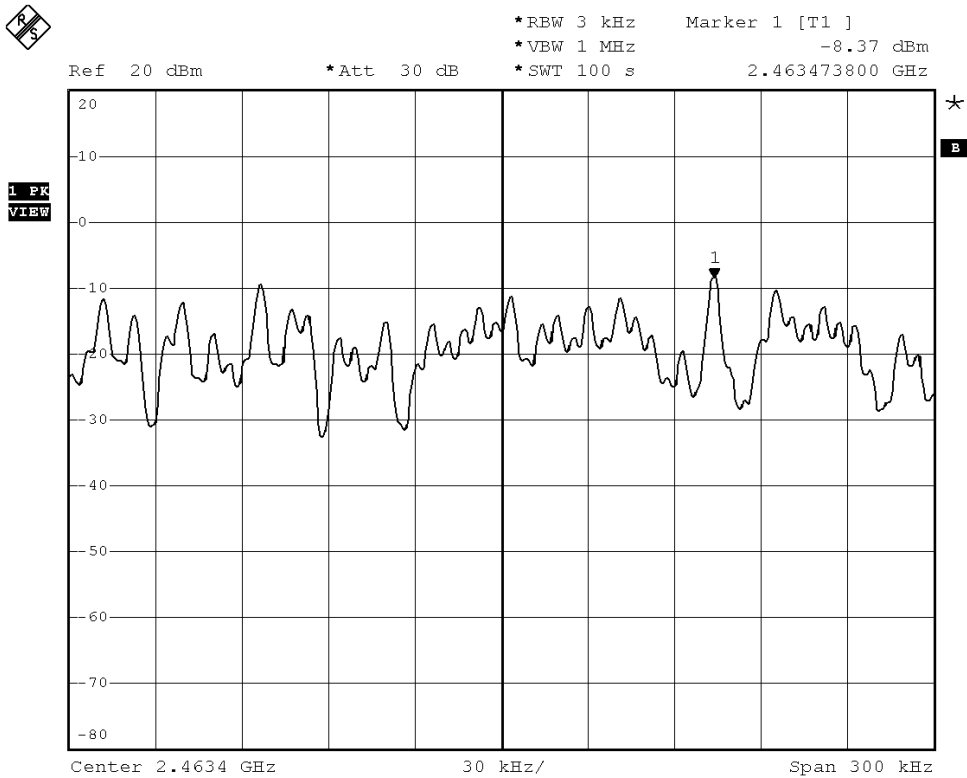
Date: 3.NOV.2004 16:26:43

Figure Channel 6:



Date: 3.NOV.2004 16:25:17

Figure Channel 11:

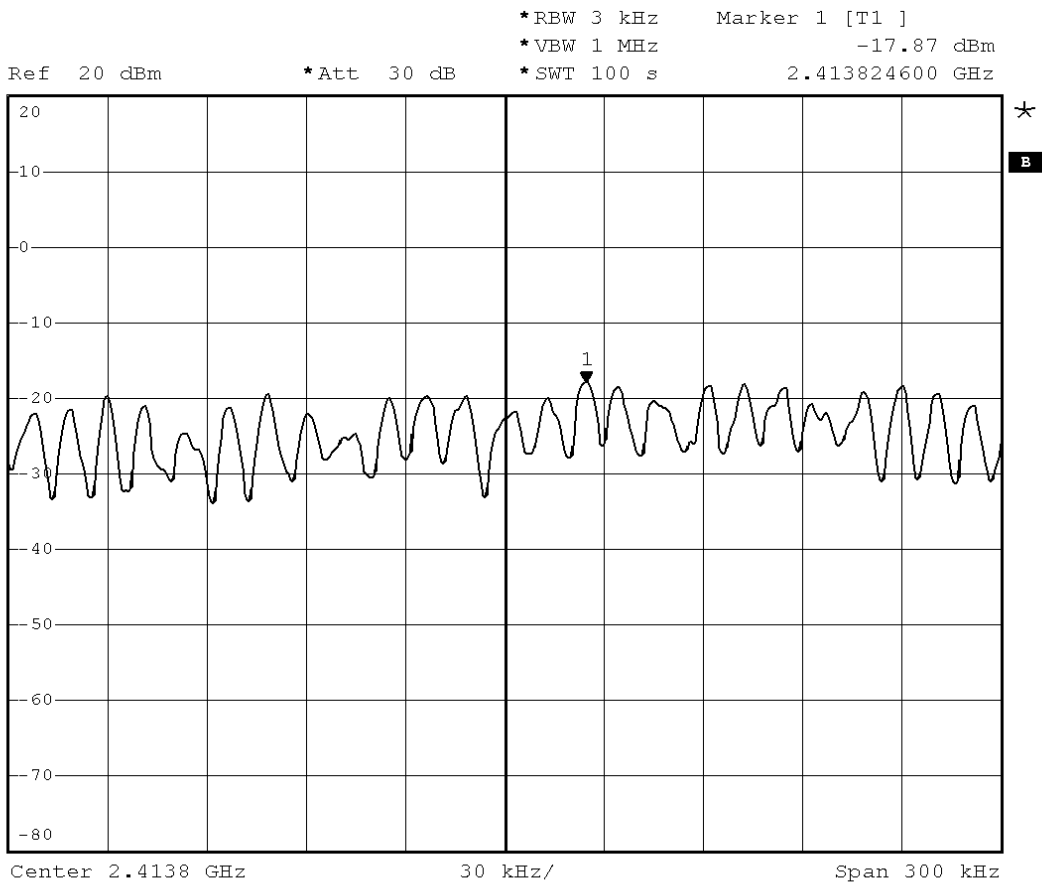


Date: 3.NOV.2004 16:28:19

Date of Test	November 03, 2004	Temperature	25 deg/C
EUT	802.11g WLAN USB Adapter	Humidity	54 %RH
Working Cond.	Mode 2 (802.11g)	Data Rate	54Mbps

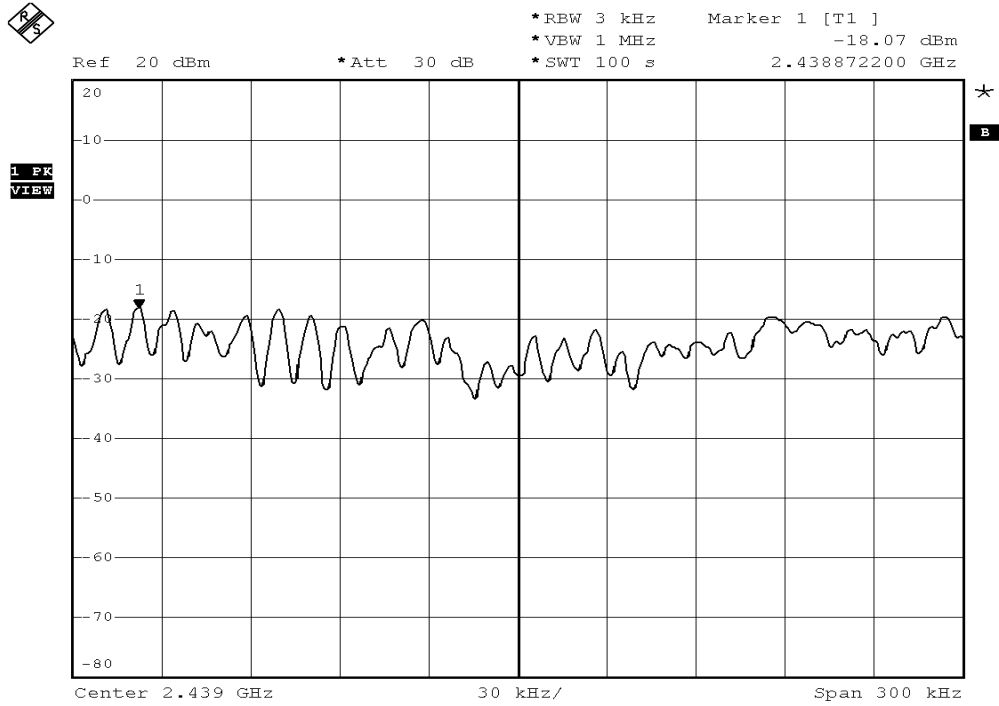
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2413.8246	-17.87	<8dBm	Pass
6	2438.8722	-18.07	<8dBm	Pass
11	2463.8722	-17.06	<8dBm	Pass

Figure Channel 1:



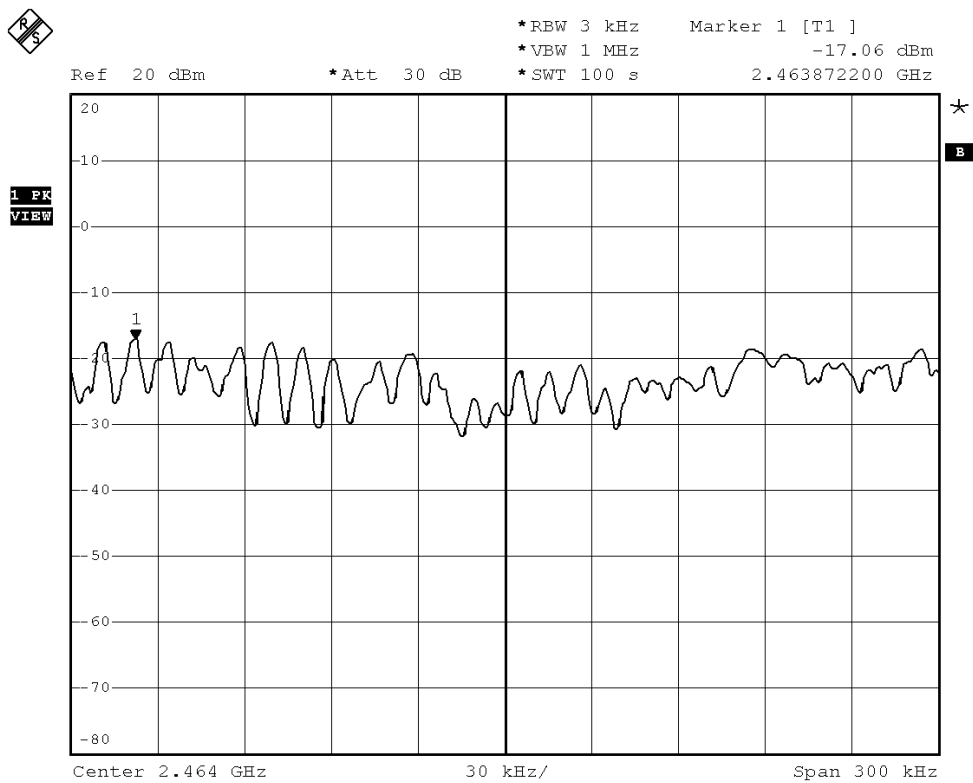
Date: 3.NOV.2004 16:30:07

Figure Channel 6:



Date: 3.NOV.2004 16:31:46

Figure Channel 11:



Date: 3.NOV.2004 16:33:30



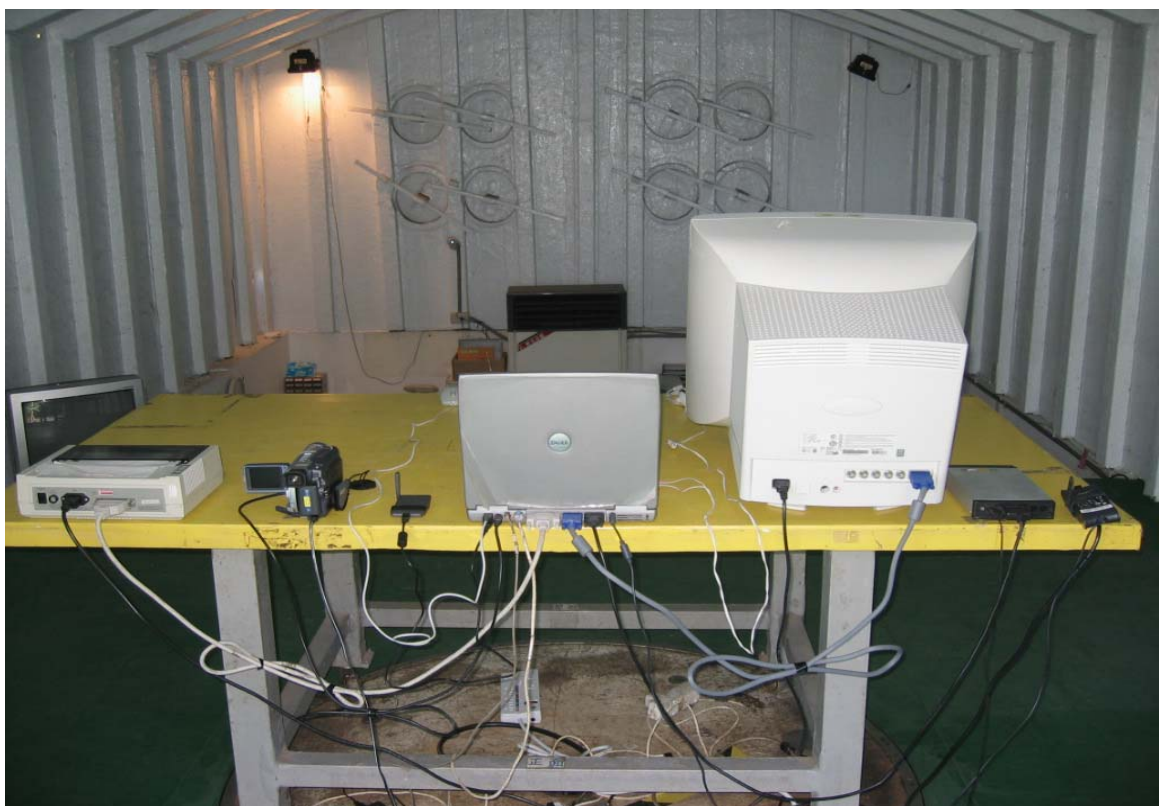
## 9. PHOTOGRAPHS FOR TEST

### 9.1 TEST PHOTOGRAPHS FOR CONDUCTION



## 9.2 TEST PHOTOGRAPHS FOR RADIATION

### 30-1000MHz



**Above 1GHz**



## 10. PHOTOGRAPHS FOR PRODUCT

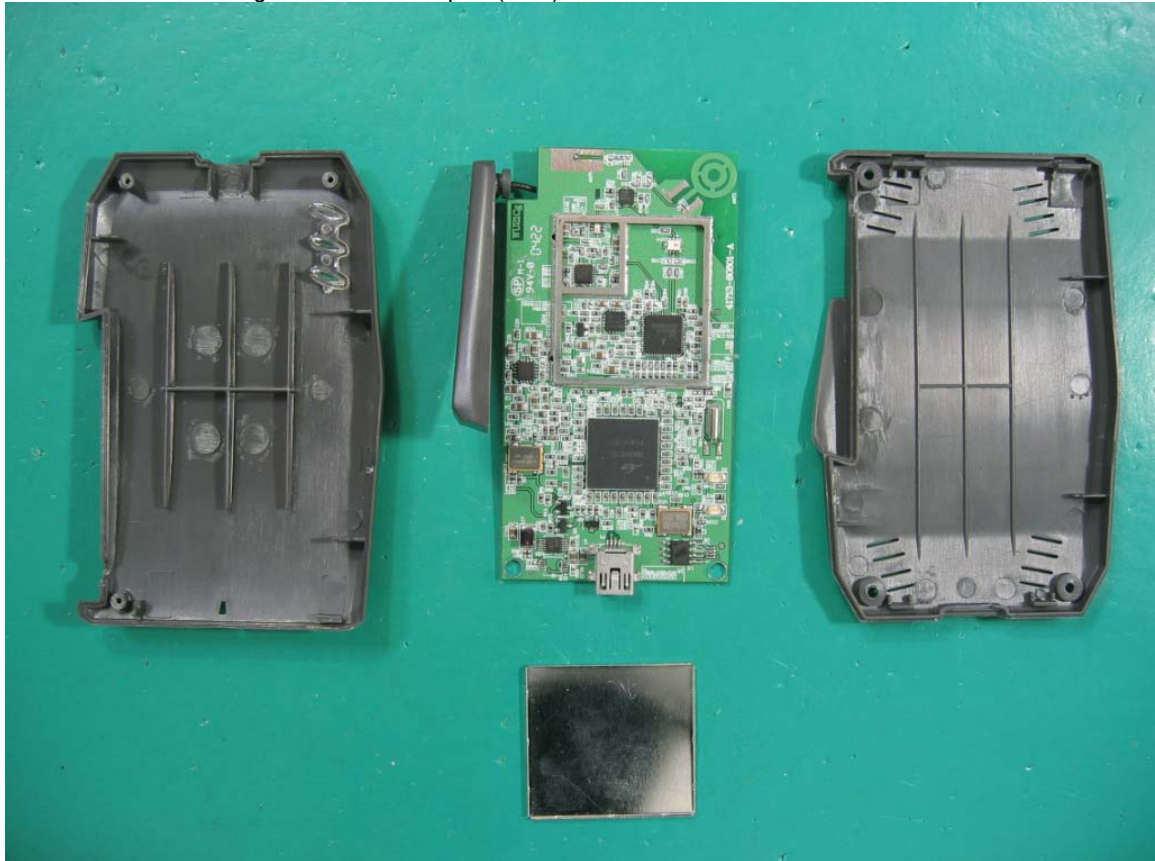
1. Front View Of 802.11g WLAN USB Adapter (EUT)
2. Back View Of 802.11g WLAN USB Adapter (EUT)



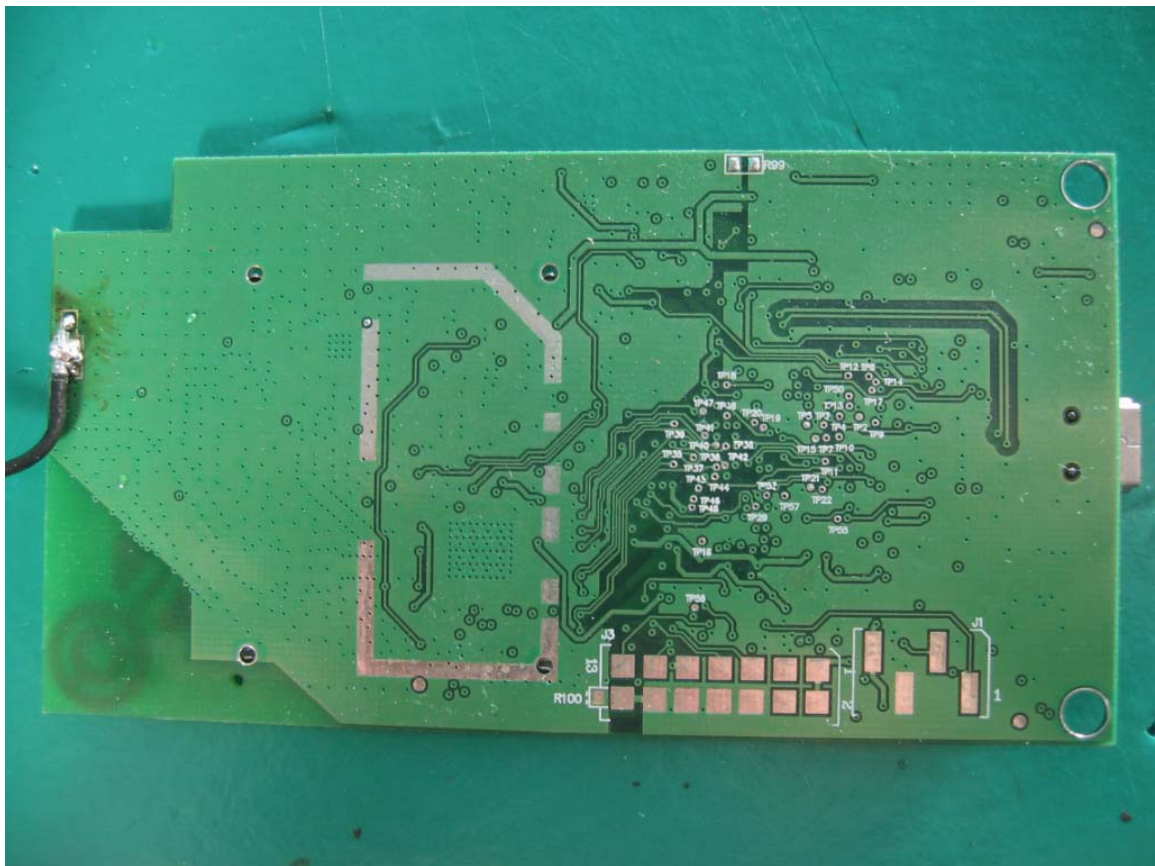
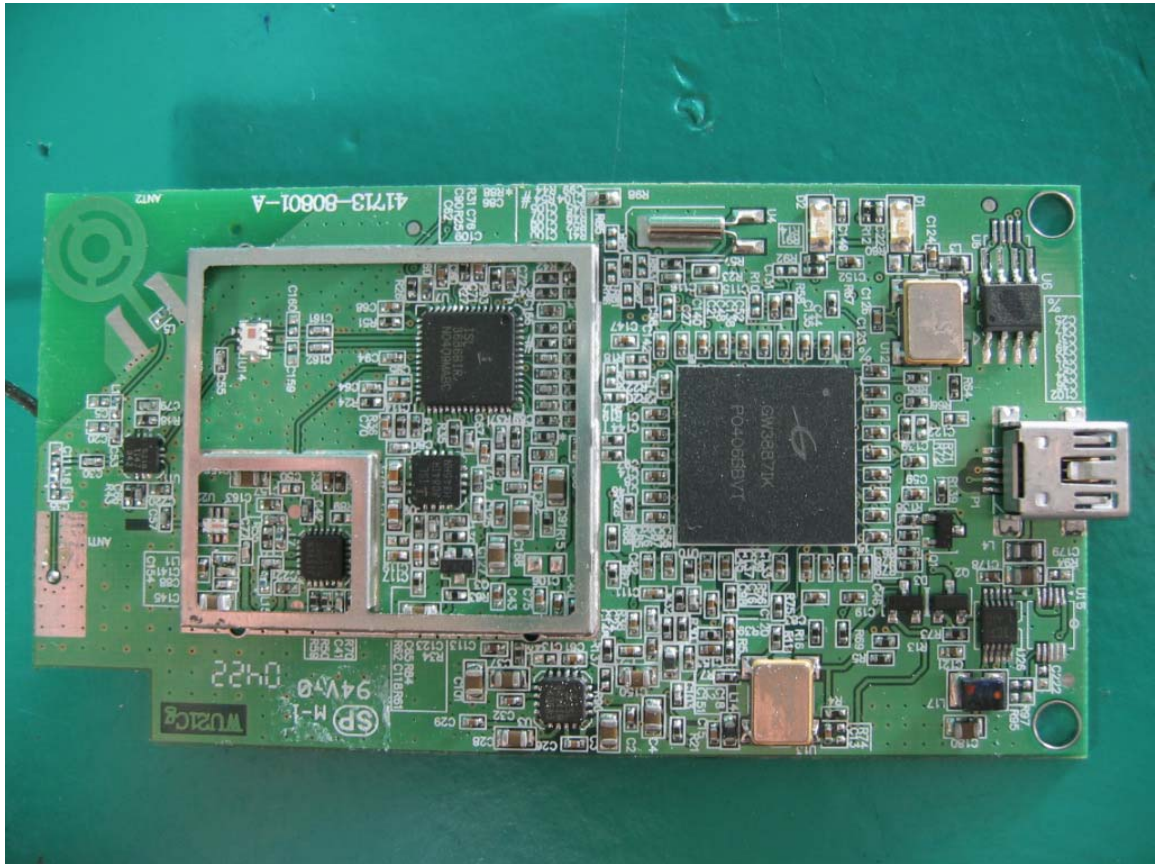
3. LABEL HERE



4. Inner View Of 802.11g WLAN USB Adapter (EUT)



- 5. Main Board
- 6. Main Board



## 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)